Full wwPDB X-ray Structure Validation Report ⓘ

Mar 20, 2026 – 03:49 AM UTC

PDB ID	:	4V95 / pdb_00004v95
Title	:	Crystal structure of YAEJ bound to the 70S ribosome
Authors	:	Gagnon, M.G.; Seetharaman, S.V.; Bulkley, D.P.; Steitz, T.A.
Deposited on	:	2012-01-27
Resolution	:	3.20 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:

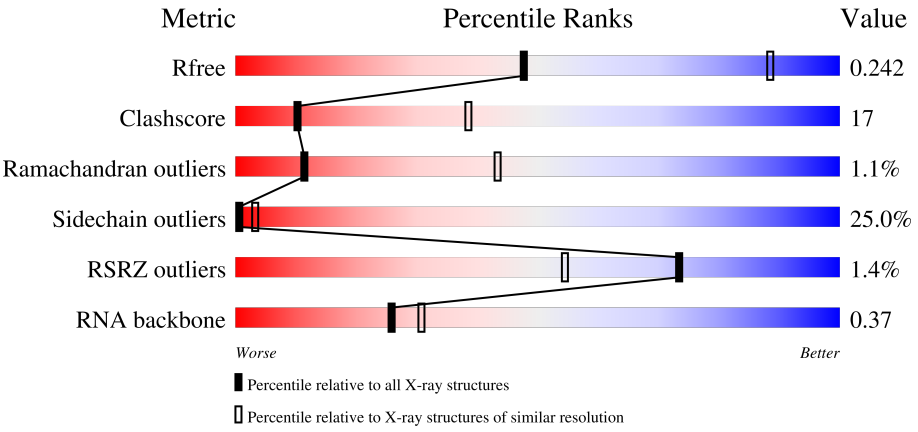
MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.20 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	1466 (3.20-3.20)
Clashscore	190562	1573 (3.20-3.20)
Ramachandran outliers	187476	1548 (3.20-3.20)
Sidechain outliers	187428	1547 (3.20-3.20)
RSRZ outliers	180081	1466 (3.20-3.20)
RNA backbone	3983	1222 (3.50-2.90)

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

Mol	Chain	Length	Quality of chain
1	AA	1522	33% 47% 17%
1	CA	1522	35% 45% 16%
2	AB	256	3% 34% 38% 16% 9%
2	CB	256	3% 29% 47% 14% 8%

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Mol	Chain	Length	Quality of chain
3	AC	239	3% 47% 29% 8% 15%
3	CC	239	6% 50% 29% 7% 14%
4	AD	209	6% 43% 47% 8%
4	CD	209	3% 47% 34% 17%
5	AE	162	37% 37% 15% 9%
5	CE	162	36% 43% 11% 8%
6	AF	101	47% 41% 11%
6	CF	101	54% 35% 10%
7	AG	156	53% 34% 12%
7	CG	156	7% 51% 35% 12%
8	AH	138	48% 43% 8%
8	CH	138	48% 41% 11%
9	AI	128	6% 47% 42% 9%
9	CI	128	10% 47% 41% 9%
10	AJ	105	4% 44% 39% 7% 9%
10	CJ	105	10% 48% 30% 10% 9%
11	AK	129	46% 30% 12% 11%
11	CK	129	3% 43% 35% 10% 12%
12	AL	132	42% 37% 13% 8%
12	CL	132	50% 32% 11% 8%
13	AM	126	4% 39% 35% 16% 9%
13	CM	126	6% 41% 31% 14% 11%
14	AN	61	7% 41% 43% 13%
14	CN	61	11% 33% 49% 11%
15	AO	89	44% 46% 9%

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Mol	Chain	Length	Quality of chain
15	CO	89	44% 46% 8%
16	AP	88	2% 28% 40% 19% 5% 8%
16	CP	88	35% 38% 18% 7%
17	AQ	105	3% 35% 43% 14% 6%
17	CQ	105	% 41% 35% 17% 6%
18	AR	88	38% 31% 8% 23%
18	CR	88	38% 34% 6% 23%
19	AS	93	5% 55% 23% 10% 13%
19	CS	93	6% 39% 37% 5% 19%
20	AT	106	3% 33% 47% 8% 9%
20	CT	106	5% 42% 42% 12%
21	AU	27	7% 52% 30% 7% 7%
21	CU	27	22% 48% 33% 15%
22	AY	140	11% 28% 46% 18% 6%
23	AV	77	% 49% 36% 14%
23	CV	77	35% 44% 21%
24	AX	16	12% 19% 6% 62%
24	CX	16	31% 6% 62%
25	BA	2915	46% 37% 12% 6%
25	DA	2915	41% 40% 12% 7%
26	BB	122	% 54% 34% 10%
26	DB	122	% 30% 53% 15%
27	BD	276	49% 36% 13%
27	DD	276	45% 39% 14%
28	BE	206	51% 28% 17%

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Mol	Chain	Length	Quality of chain
28	DE	206	43% 40% 14%
29	BF	210	42% 40% 13%
29	DF	210	40% 44% 11%
30	BG	182	52% 34% 13%
30	DG	182	3% 35% 50% 12%
31	BH	180	47% 37% 11%
31	DH	180	47% 38% 9%
32	BI	148	34% 51% 12%
32	DI	148	37% 45% 16%
33	BN	140	46% 37% 15%
33	DN	140	44% 39% 15%
34	BO	122	50% 36% 11%
34	DO	122	44% 41% 15%
35	BP	150	47% 37% 13%
35	DP	150	41% 47% 9%
36	BQ	141	46% 42% 11%
36	DQ	141	43% 47% 10%
37	BR	118	54% 31% 14%
37	DR	118	41% 43% 16%
38	BS	112	47% 36% 13%
38	DS	112	38% 40% 20%
39	BT	146	46% 38% 6% 10%
39	DT	146	48% 29% 11% 11%
40	BU	118	59% 30% 8%
40	DU	118	51% 38% 8%

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Mol	Chain	Length	Quality of chain
41	BV	101	56% 32% 10%
41	DV	101	40% 43% 17%
42	BW	113	47% 41% 12%
42	DW	113	2% 46% 37% 14%
43	BX	96	50% 33% 15%
43	DX	96	% 67% 24% 8%
44	BY	110	57% 28% 11%
44	DY	110	3% 42% 43% 9%
45	BZ	206	39% 38% 9% 10%
45	DZ	206	2% 36% 40% 14% 8%
46	B0	85	42% 35% 11% 11%
46	D0	85	2% 40% 38% 12% 9%
47	B1	98	47% 40% 11%
47	D1	98	% 49% 35% 13%
48	B2	72	% 32% 47% 17%
48	D2	72	43% 40% 11%
49	B3	60	50% 37% 12%
49	D3	60	2% 33% 47% 15%
50	B4	71	25% 27% 11% 35%
50	D4	71	34% 14% 13% 35%
51	B5	60	50% 32% 12% 5%
51	D5	60	45% 40% 13%
52	B6	54	43% 35% 20%
52	D6	54	50% 39% 7%
53	B7	49	4% 49% 35% 14%

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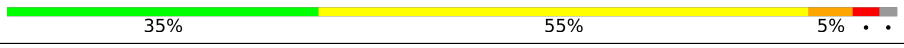
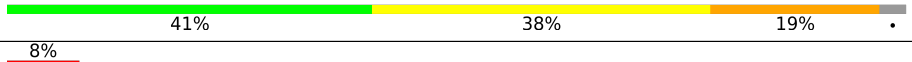
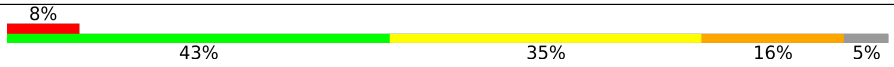
Mol	Chain	Length	Quality of chain
53	D7	49	
54	B8	65	
54	D8	65	
55	B9	37	
55	D9	37	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	AA	1803	-	-	-	X
56	MG	AA	1805	-	-	-	X
56	MG	AA	1819	-	-	-	X
56	MG	CA	1635	-	-	-	X
56	MG	CA	1669	-	-	-	X
56	MG	CA	1708	-	-	-	X
56	MG	DA	3052	-	-	-	X
56	MG	DA	3065	-	-	-	X
56	MG	DA	3199	-	-	-	X

2 Entry composition (i)

There are 58 unique types of molecules in this entry. The entry contains 284877 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 16S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1466	Total	C	N	O	P	0	0	0
			31513	14026	5840	10181	1466			
1	CA	1461	Total	C	N	O	P	0	0	0
			31406	13979	5822	10145	1460			

- Molecule 2 is a protein called 30S Ribosomal Protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	233	Total	C	N	O	S	0	0	0
			1809	1157	322	325	5			
2	CB	235	Total	C	N	O	S	0	0	1
			1817	1160	325	327	5			

- Molecule 3 is a protein called 30S Ribosomal Protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	204	Total	C	N	O	S	0	0	0
			1434	896	277	260	1			
3	CC	206	Total	C	N	O	S	0	0	0
			1453	908	280	264	1			

- Molecule 4 is a protein called 30S Ribosomal Protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	0
			1520	960	283	272	5			
4	CD	208	Total	C	N	O	S	0	0	0
			1537	968	287	276	6			

- Molecule 5 is a protein called 30S Ribosomal Protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	148	Total	C	N	O	S	0	0	0
			1105	699	204	198	4			
5	CE	149	Total	C	N	O	S	0	0	0
			1115	706	206	199	4			

- Molecule 6 is a protein called 30S Ribosomal Protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0	0
			781	495	137	146	3			
6	CF	100	Total	C	N	O	S	0	0	0
			784	496	137	148	3			

- Molecule 7 is a protein called 30S Ribosomal Protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	154	Total	C	N	O	S	0	0	0
			1152	716	222	208	6			
7	CG	154	Total	C	N	O	S	0	0	0
			1149	715	222	206	6			

- Molecule 8 is a protein called 30S Ribosomal Protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	138	Total	C	N	O	S	0	0	0
			1045	665	188	190	2			
8	CH	138	Total	C	N	O	S	0	0	0
			1049	667	188	192	2			

- Molecule 9 is a protein called 30S Ribosomal Protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	AI	125	Total	C	N	O	0	0	0
			863	542	164	157			
9	CI	125	Total	C	N	O	0	0	0
			849	531	161	157			

- Molecule 10 is a protein called 30S Ribosomal Protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	AJ	96	Total	C	N	O	0	0	0
			659	408	131	120			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	CJ	96	Total 657	C 407	N 129	O 121	0	0	0

- Molecule 11 is a protein called 30S Ribosomal Protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	115	Total 843	C 524	N 160	O 156	S 3	0	0	0
11	CK	114	Total 828	C 516	N 155	O 154	S 3	0	0	0

- Molecule 12 is a protein called 30S Ribosomal Protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	122	Total 909	C 570	N 179	O 159	S 1	0	0	0
12	CL	122	Total 905	C 567	N 178	O 159	S 1	0	0	0

- Molecule 13 is a protein called 30S Ribosomal Protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	115	Total 814	C 503	N 166	O 144	S 1	0	0	0
13	CM	112	Total 784	C 486	N 159	O 138	S 1	0	0	0

- Molecule 14 is a protein called 30S Ribosomal Protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	59	Total 473	C 300	N 98	O 71	S 4	0	0	0
14	CN	59	Total 469	C 297	N 97	O 71	S 4	0	0	0

- Molecule 15 is a protein called 30S Ribosomal Protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total 724	C 453	N 143	O 126	S 2	0	0	0
15	CO	88	Total 724	C 453	N 143	O 126	S 2	0	0	0

- Molecule 16 is a protein called 30S Ribosomal Protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	81	Total	C	N	O	S	0	0	0
			646	413	122	110	1			
16	CP	82	Total	C	N	O	S	0	0	0
			661	421	126	113	1			

- Molecule 17 is a protein called 30S Ribosomal Protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
17	CQ	99	Total	C	N	O	S	0	0	0
			819	525	150	142	2			

- Molecule 18 is a protein called 30S Ribosomal Protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	68	Total	C	N	O	0	0	0
			514	329	98	87			
18	CR	68	Total	C	N	O	0	0	0
			514	329	98	87			

- Molecule 19 is a protein called 30S Ribosomal Protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	81	Total	C	N	O	S	0	0	0
			560	351	108	99	2			
19	CS	75	Total	C	N	O	S	0	0	0
			529	332	102	93	2			

- Molecule 20 is a protein called 30S Ribosomal Protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	96	Total	C	N	O	S	0	0	0
			714	438	154	120	2			
20	CT	104	Total	C	N	O	S	0	0	0
			773	476	162	133	2			

- Molecule 21 is a protein called 30S Ribosomal Protein THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	25	Total 217	C 134	N 52	O 31	0	0	0
21	CU	23	Total 180	C 112	N 41	O 27	0	0	0

- Molecule 22 is a protein called YAEJ.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AY	132	Total 1031	C 638	N 204	O 187	S 2	0	0	0

- Molecule 23 is a RNA chain called P-site fMet-tRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AV	77	Total 1644	C 732	N 297	O 538	P 77	0	0	0
23	CV	77	Total 1644	C 732	N 297	O 538	P 77	0	0	0

- Molecule 24 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	6	Total 131	C 59	N 27	O 39	P 6	0	0	0
24	CX	6	Total 131	C 59	N 27	O 39	P 6	0	0	0

- Molecule 25 is a RNA chain called 23S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BA	2752	Total 59281	C 26384	N 11101	O 19045	P 2751	0	0	0
25	DA	2722	Total 58627	C 26093	N 10971	O 18843	P 2720	0	0	0

- Molecule 26 is a RNA chain called 5S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BB	120	Total 2573	C 1146	N 476	O 832	P 119	0	0	0
26	DB	120	Total 2573	C 1146	N 476	O 832	P 119	0	0	0

- Molecule 27 is a protein called 50S Ribosomal Protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BD	275	Total	C	N	O	S	0	0	0
			2131	1346	422	360	3			
27	DD	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

- Molecule 28 is a protein called 50S Ribosomal Protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BE	204	Total	C	N	O	S	0	0	0
			1555	982	297	270	6			
28	DE	204	Total	C	N	O	S	0	0	0
			1555	982	297	270	6			

- Molecule 29 is a protein called 50S Ribosomal Protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BF	203	Total	C	N	O	S	0	0	1
			1576	1005	297	272	2			
29	DF	203	Total	C	N	O	S	0	0	1
			1578	1007	297	272	2			

- Molecule 30 is a protein called 50S Ribosomal Protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BG	181	Total	C	N	O	S	0	0	0
			1368	879	242	244	3			
30	DG	180	Total	C	N	O	S	0	0	0
			1361	874	241	243	3			

- Molecule 31 is a protein called 50S Ribosomal Protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BH	174	Total	C	N	O	S	0	0	0
			1317	837	243	236	1			
31	DH	174	Total	C	N	O	S	0	0	0
			1317	837	243	236	1			

- Molecule 32 is a protein called 50S Ribosomal Protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BI	147	Total	C	N	O	S	0	0	0
			1066	687	184	194	1			
32	DI	146	Total	C	N	O	S	0	0	0
			1057	682	182	192	1			

- Molecule 33 is a protein called 50S Ribosomal Protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BN	140	Total	C	N	O	S	0	0	0
			1112	717	207	184	4			
33	DN	140	Total	C	N	O	S	0	0	0
			1112	717	207	184	4			

- Molecule 34 is a protein called 50S Ribosomal Protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BO	122	Total	C	N	O	S	0	0	0
			923	583	168	168	4			
34	DO	122	Total	C	N	O	S	0	0	0
			923	583	168	168	4			

- Molecule 35 is a protein called 50S Ribosomal Protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BP	149	Total	C	N	O	S	0	0	0
			1131	703	229	196	3			
35	DP	149	Total	C	N	O	S	0	0	0
			1131	703	229	196	3			

- Molecule 36 is a protein called 50S Ribosomal Protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
36	DQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 37 is a protein called 50S Ribosomal Protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	DR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 38 is a protein called 50S Ribosomal Protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
38	BS	110	Total	C	N	O	0	0	0
			865	544	172	149			
38	DS	110	Total	C	N	O	0	0	0
			873	550	174	149			

- Molecule 39 is a protein called 50S Ribosomal Protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BT	132	Total	C	N	O	S	0	0	0
			1072	672	215	184	1			
39	DT	130	Total	C	N	O	S	0	0	0
			1058	663	212	182	1			

- Molecule 40 is a protein called 50S Ribosomal Protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
40	DU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 41 is a protein called 50S Ribosomal Protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BV	100	Total	C	N	O	S	0	0	0
			766	493	139	133	1			
41	DV	100	Total	C	N	O	S	0	0	0
			770	496	140	133	1			

- Molecule 42 is a protein called 50S Ribosomal Protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BW	112	Total	C	N	O	S	0	0	0
			890	560	175	153	2			
42	DW	111	Total	C	N	O	S	0	0	0
			877	552	171	152	2			

- Molecule 43 is a protein called 50S Ribosomal Protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BX	95	Total	C	N	O	S	0	0	0
			742	483	134	124	1			
43	DX	95	Total	C	N	O	S	0	0	0
			732	477	130	124	1			

- Molecule 44 is a protein called 50S Ribosomal Protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BY	107	Total	C	N	O	S	0	0	0
			785	503	145	131	6			
44	DY	107	Total	C	N	O	S	0	0	0
			781	502	145	128	6			

- Molecule 45 is a protein called 50S Ribosomal Protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BZ	186	Total	C	N	O	S	0	0	0
			1454	929	256	267	2			
45	DZ	189	Total	C	N	O	S	0	0	0
			1451	925	253	270	3			

- Molecule 46 is a protein called 50S Ribosomal Protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	B0	76	Total	C	N	O	S	0	0	0
			594	368	125	100	1			
46	D0	77	Total	C	N	O	S	0	0	0
			607	376	126	104	1			

- Molecule 47 is a protein called 50S Ribosomal Protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	B1	97	Total	C	N	O	S	0	0	0
			745	469	144	131	1			
47	D1	97	Total	C	N	O	S	0	0	0
			745	469	144	131	1			

- Molecule 48 is a protein called 50S Ribosomal Protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B2	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
48	D2	71	Total	C	N	O	S	0	0	0
			584	361	118	103	2			

- Molecule 49 is a protein called 50S Ribosomal Protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	B3	59	Total	C	N	O	0	0	0
			458	293	87	78			
49	D3	58	Total	C	N	O	0	0	0
			453	290	86	77			

- Molecule 50 is a protein called 50S Ribosomal Protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B4	46	Total	C	N	O	S	0	0	0
			349	223	57	64	5			
50	D4	46	Total	C	N	O	S	0	0	0
			349	223	57	64	5			

- Molecule 51 is a protein called 50S Ribosomal Protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B5	59	Total	C	N	O	S	0	0	0
			455	286	90	74	5			
51	D5	59	Total	C	N	O	S	0	0	0
			451	283	89	74	5			

- Molecule 52 is a protein called 50S Ribosomal Protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B6	53	Total	C	N	O	S	0	0	0
			449	278	90	77	4			
52	D6	53	Total	C	N	O	S	0	0	0
			437	272	84	77	4			

- Molecule 53 is a protein called 50S Ribosomal Protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
53	D7	48	Total C N O S 402 248 97 55 2	0	0	0

- Molecule 54 is a protein called 50S Ribosomal Protein L35.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
54	B8	64	Total C N O S 509 326 99 82 2	0	0	0
54	D8	64	Total C N O S 509 326 99 82 2	0	0	0

- Molecule 55 is a protein called 50S Ribosomal Protein L36.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
55	B9	36	Total C N O S 297 182 66 46 3	0	0	0
55	D9	35	Total C N O S 292 180 65 44 3	0	0	0

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

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AA	348	Total Mg 348 348	0	0
56	AD	2	Total Mg 2 2	0	0
56	AE	1	Total Mg 1 1	0	0
56	AF	1	Total Mg 1 1	0	0
56	AI	2	Total Mg 2 2	0	0
56	AK	1	Total Mg 1 1	0	0
56	AT	1	Total Mg 1 1	0	0
56	AY	1	Total Mg 1 1	0	0
56	AV	18	Total Mg 18 18	0	0
56	BA	896	Total Mg 896 896	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	BB	30	Total Mg 30 30	0	0
56	BD	5	Total Mg 5 5	0	0
56	BE	5	Total Mg 5 5	0	0
56	BF	7	Total Mg 7 7	0	0
56	BG	2	Total Mg 2 2	0	0
56	BO	2	Total Mg 2 2	0	0
56	BP	2	Total Mg 2 2	0	0
56	BQ	4	Total Mg 4 4	0	0
56	BR	2	Total Mg 2 2	0	0
56	BT	1	Total Mg 1 1	0	0
56	BU	1	Total Mg 1 1	0	0
56	BV	2	Total Mg 2 2	0	0
56	BX	1	Total Mg 1 1	0	0
56	BY	2	Total Mg 2 2	0	0
56	BZ	2	Total Mg 2 2	0	0
56	B0	5	Total Mg 5 5	0	0
56	B1	3	Total Mg 3 3	0	0
56	B2	2	Total Mg 2 2	0	0
56	B3	2	Total Mg 2 2	0	0
56	B5	3	Total Mg 3 3	0	0
56	B6	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	B7	1	Total Mg 1 1	0	0
56	B8	2	Total Mg 2 2	0	0
56	B9	1	Total Mg 1 1	0	0
56	CA	219	Total Mg 219 219	0	0
56	CD	1	Total Mg 1 1	0	0
56	CT	1	Total Mg 1 1	0	0
56	CV	10	Total Mg 10 10	0	0
56	CX	1	Total Mg 1 1	0	0
56	DA	696	Total Mg 696 696	0	0
56	DB	16	Total Mg 16 16	0	0
56	DD	4	Total Mg 4 4	0	0
56	DE	4	Total Mg 4 4	0	0
56	DF	3	Total Mg 3 3	0	0
56	DO	3	Total Mg 3 3	0	0
56	DQ	2	Total Mg 2 2	0	0
56	DR	1	Total Mg 1 1	0	0
56	DT	3	Total Mg 3 3	0	0
56	DU	1	Total Mg 1 1	0	0
56	DV	1	Total Mg 1 1	0	0
56	DX	1	Total Mg 1 1	0	0
56	D0	4	Total Mg 4 4	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	D1	1	Total Mg 1 1	0	0
56	D5	1	Total Mg 1 1	0	0
56	D6	2	Total Mg 2 2	0	0
56	D7	1	Total Mg 1 1	0	0
56	D8	1	Total Mg 1 1	0	0

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

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	AD	1	Total Zn 1 1	0	0
57	AN	1	Total Zn 1 1	0	0
57	BY	1	Total Zn 1 1	0	0
57	B4	1	Total Zn 1 1	0	0
57	B5	1	Total Zn 1 1	0	0
57	B6	1	Total Zn 1 1	0	0
57	B9	1	Total Zn 1 1	0	0
57	CD	1	Total Zn 1 1	0	0
57	CN	1	Total Zn 1 1	0	0
57	DY	1	Total Zn 1 1	0	0
57	D4	1	Total Zn 1 1	0	0
57	D5	1	Total Zn 1 1	0	0
57	D6	1	Total Zn 1 1	0	0
57	D9	1	Total Zn 1 1	0	0

- Molecule 58 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	AA	372	Total O 372 372	0	0
58	AD	2	Total O 2 2	0	0
58	AE	3	Total O 3 3	0	0
58	AI	1	Total O 1 1	0	0
58	AK	2	Total O 2 2	0	0
58	AL	2	Total O 2 2	0	0
58	AN	1	Total O 1 1	0	0
58	AT	5	Total O 5 5	0	0
58	AY	2	Total O 2 2	0	0
58	AV	16	Total O 16 16	0	0
58	AX	1	Total O 1 1	0	0
58	BA	1491	Total O 1491 1491	0	0
58	BB	46	Total O 46 46	0	0
58	BD	10	Total O 10 10	0	0
58	BE	5	Total O 5 5	0	0
58	BF	5	Total O 5 5	0	0
58	BG	5	Total O 5 5	0	0
58	BH	1	Total O 1 1	0	0
58	BN	3	Total O 3 3	0	0
58	BO	3	Total O 3 3	0	0
58	BP	9	Total O 9 9	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	BQ	4	Total O 4 4	0	0
58	BR	7	Total O 7 7	0	0
58	BT	1	Total O 1 1	0	0
58	BU	7	Total O 7 7	0	0
58	BV	1	Total O 1 1	0	0
58	BW	2	Total O 2 2	0	0
58	BX	2	Total O 2 2	0	0
58	BY	1	Total O 1 1	0	0
58	B0	4	Total O 4 4	0	0
58	B1	1	Total O 1 1	0	0
58	B3	1	Total O 1 1	0	0
58	B6	4	Total O 4 4	0	0
58	B7	2	Total O 2 2	0	0
58	B8	4	Total O 4 4	0	0
58	B9	1	Total O 1 1	0	0
58	CA	330	Total O 330 330	0	0
58	CB	1	Total O 1 1	0	0
58	CC	1	Total O 1 1	0	0
58	CD	3	Total O 3 3	0	0
58	CE	1	Total O 1 1	0	0
58	CK	2	Total O 2 2	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	CL	3	Total O 3 3	0	0
58	CN	2	Total O 2 2	0	0
58	CO	2	Total O 2 2	0	0
58	CQ	2	Total O 2 2	0	0
58	CT	2	Total O 2 2	0	0
58	CV	13	Total O 13 13	0	0
58	CX	1	Total O 1 1	0	0
58	DA	1028	Total O 1028 1028	0	0
58	DB	40	Total O 40 40	0	0
58	DD	8	Total O 8 8	0	0
58	DE	11	Total O 11 11	0	0
58	DF	4	Total O 4 4	0	0
58	DG	1	Total O 1 1	0	0
58	DN	3	Total O 3 3	0	0
58	DO	5	Total O 5 5	0	0
58	DP	4	Total O 4 4	0	0
58	DR	5	Total O 5 5	0	0
58	DT	3	Total O 3 3	0	0
58	DV	1	Total O 1 1	0	0
58	DW	1	Total O 1 1	0	0
58	DY	2	Total O 2 2	0	0

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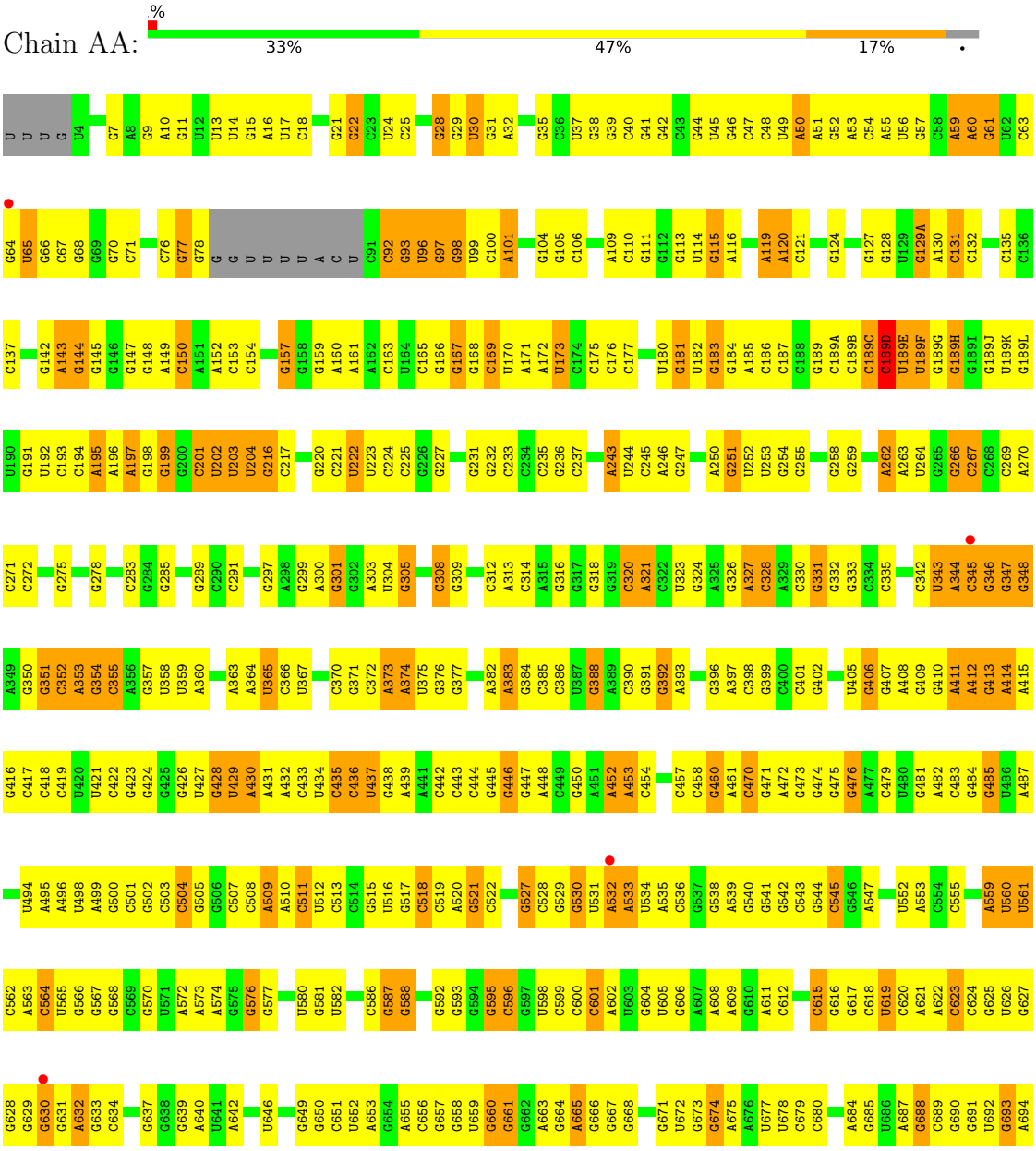
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	D1	3	Total O 3 3	0	0
58	D3	1	Total O 1 1	0	0
58	D6	2	Total O 2 2	0	0
58	D7	2	Total O 2 2	0	0
58	D8	4	Total O 4 4	0	0

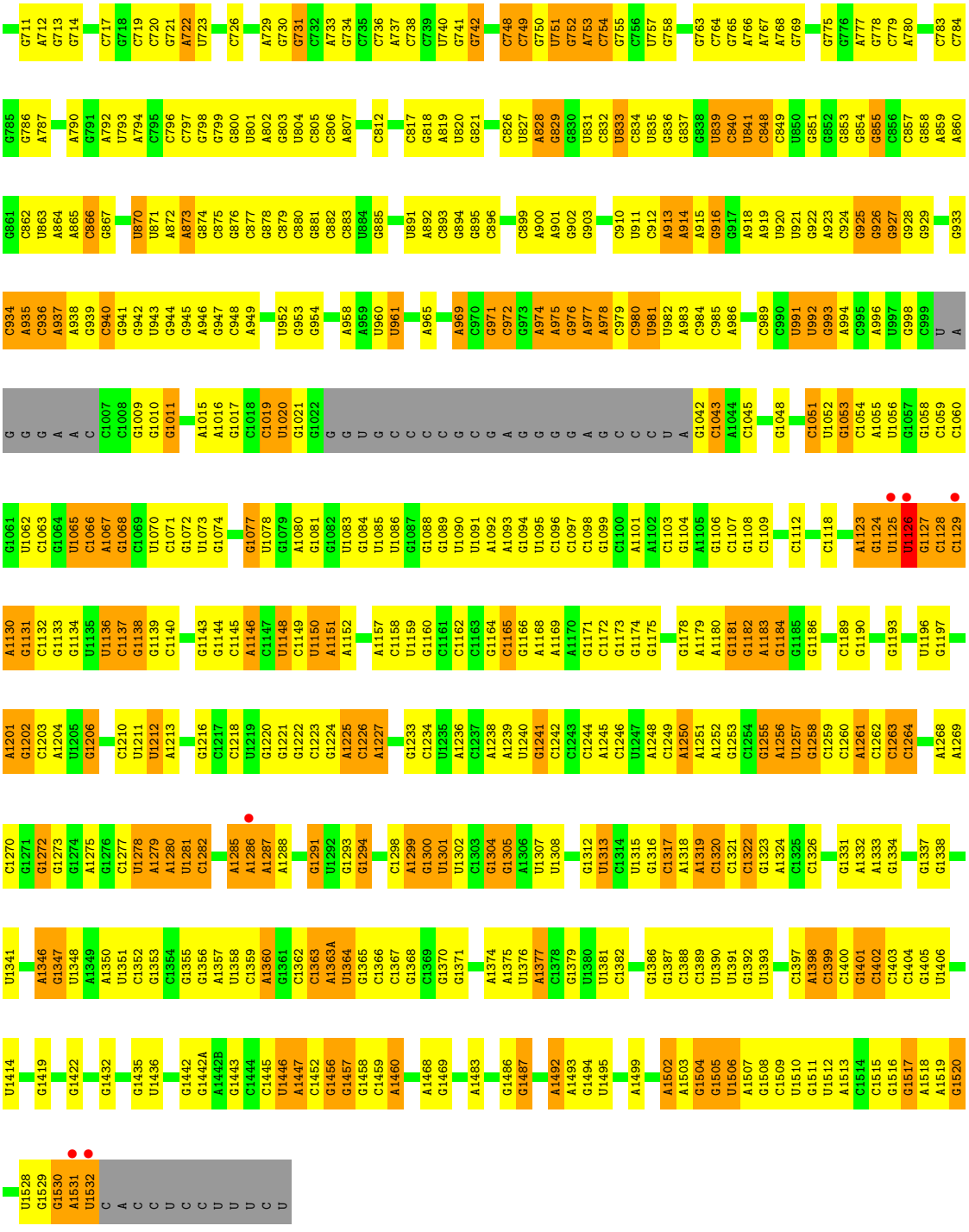
3 Residue-property plots (i)

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

• Molecule 1: 16S Ribosomal RNA

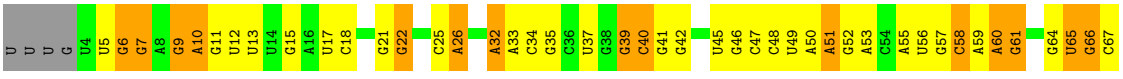
Chain AA:

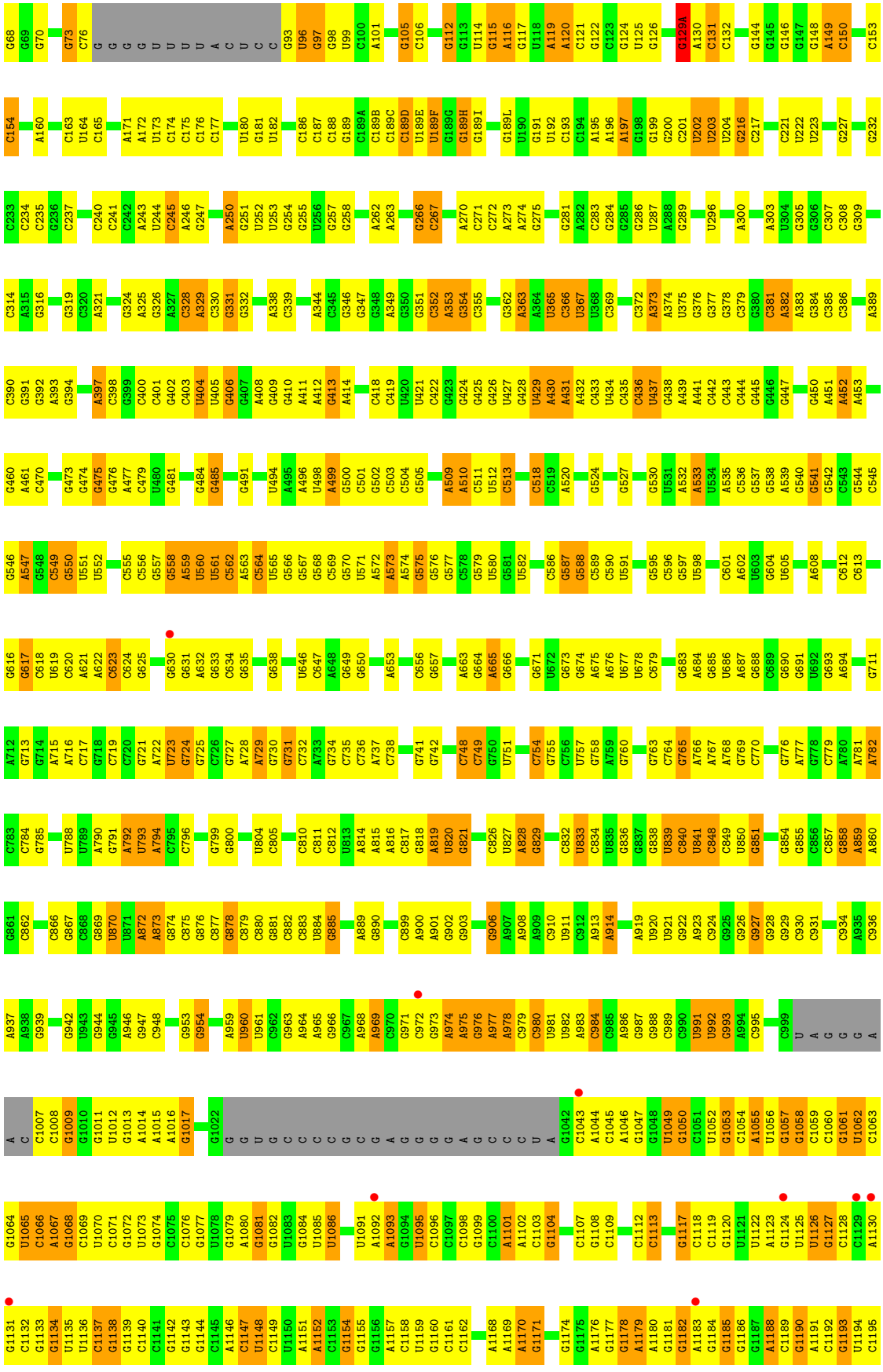


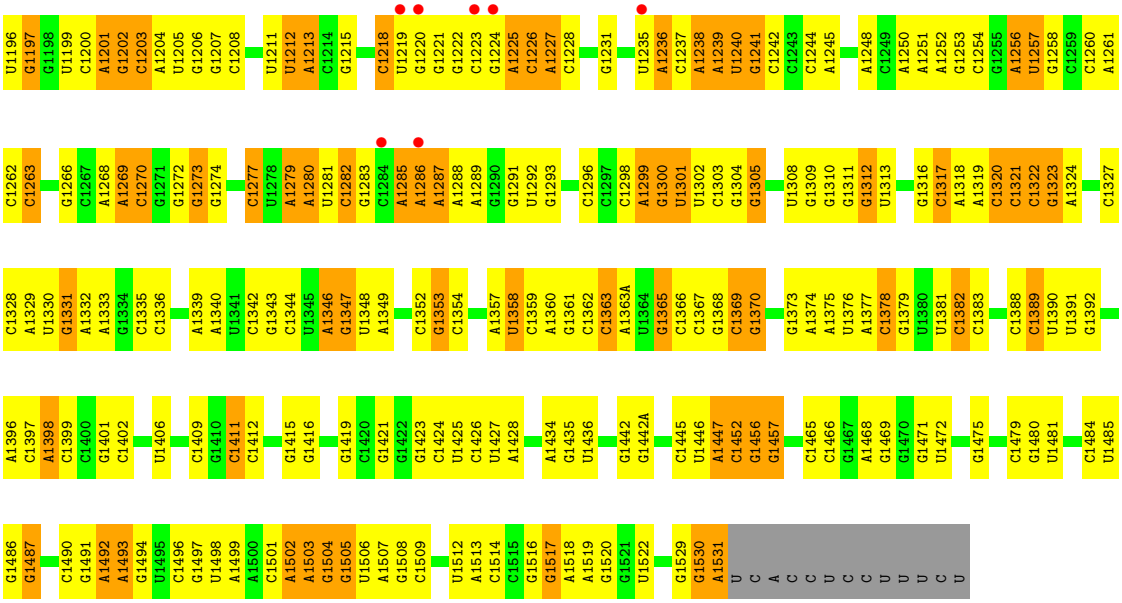


• Molecule 1: 16S Ribosomal RNA

Chain CA:

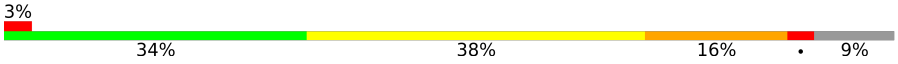


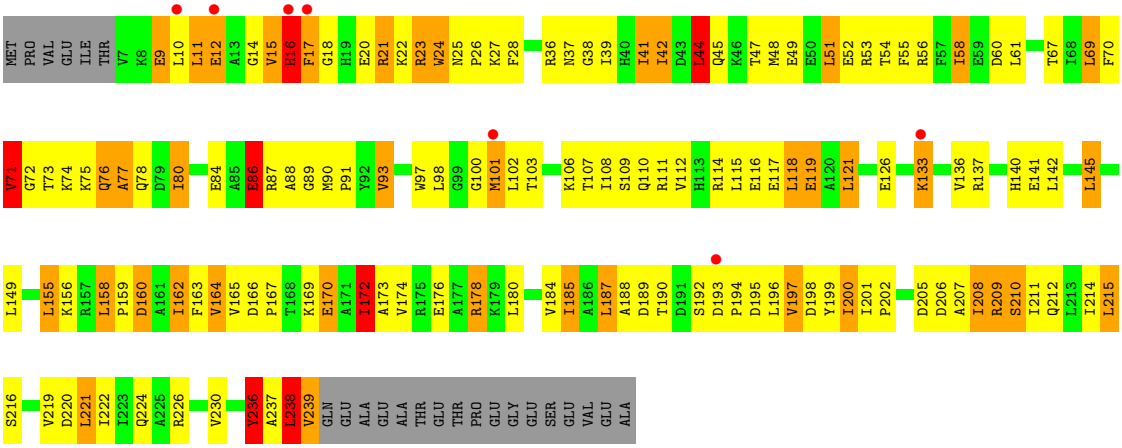




• Molecule 2: 30S Ribosomal Protein S2

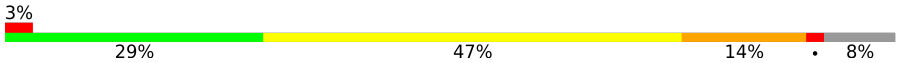
Chain AB:

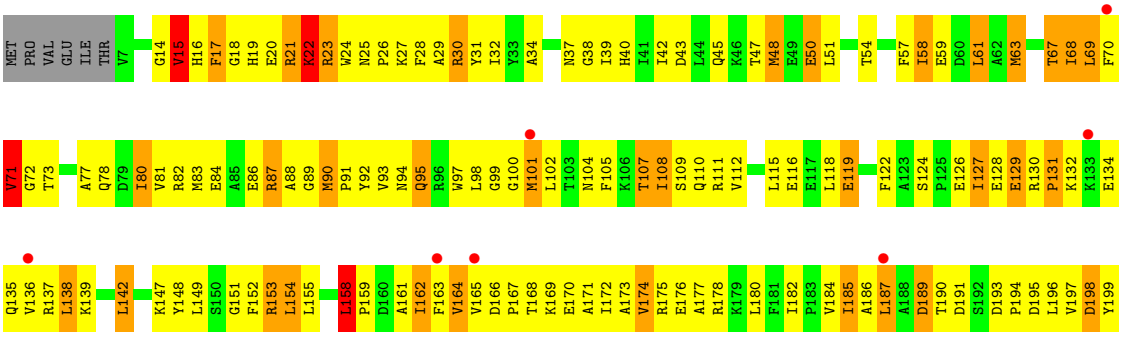


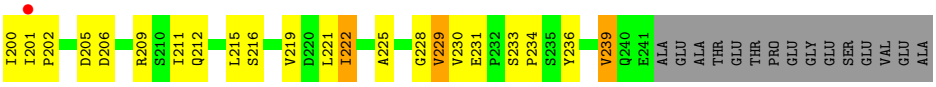


• Molecule 2: 30S Ribosomal Protein S2

Chain CB:

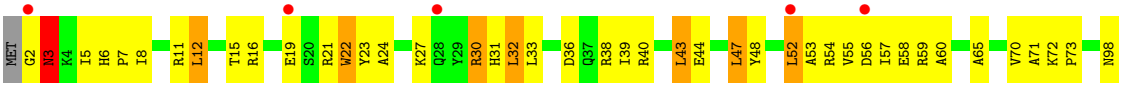


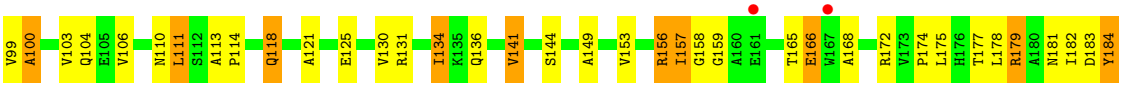


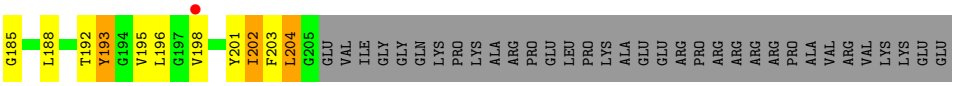


• Molecule 3: 30S Ribosomal Protein S3

Chain AC:

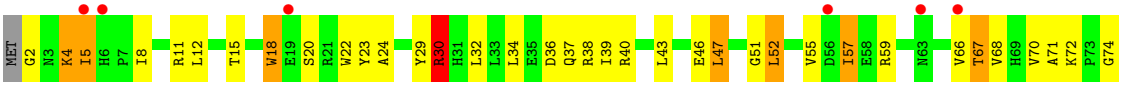


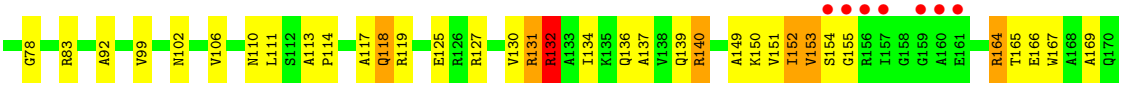


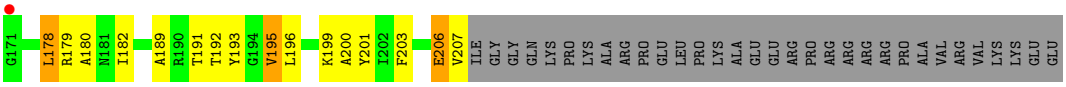


• Molecule 3: 30S Ribosomal Protein S3

Chain CC:

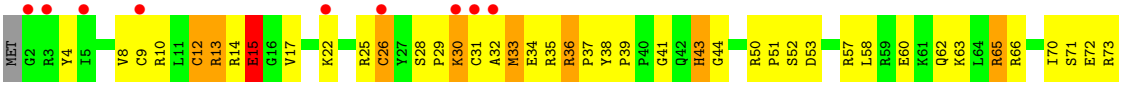


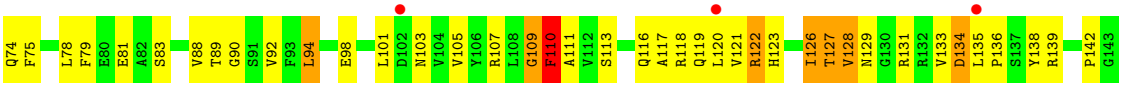




• Molecule 4: 30S Ribosomal Protein S4

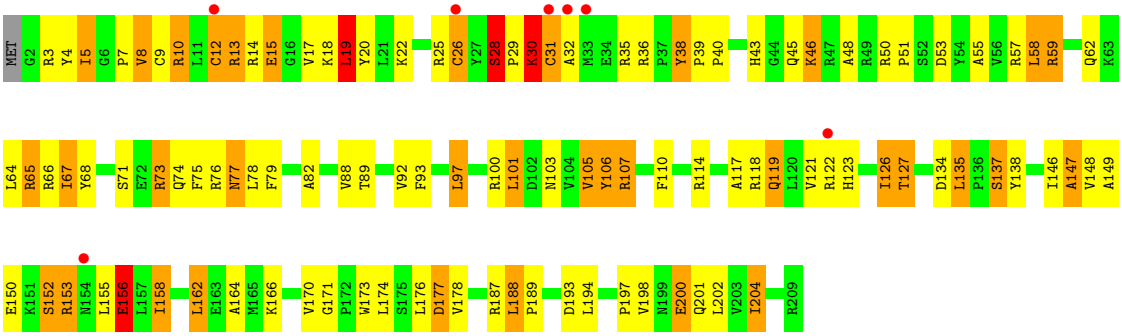
Chain AD:





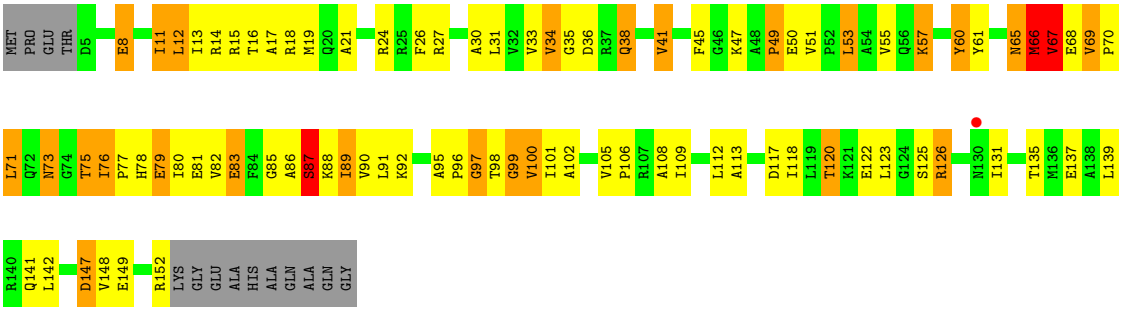
• Molecule 4: 30S Ribosomal Protein S4

Chain CD:



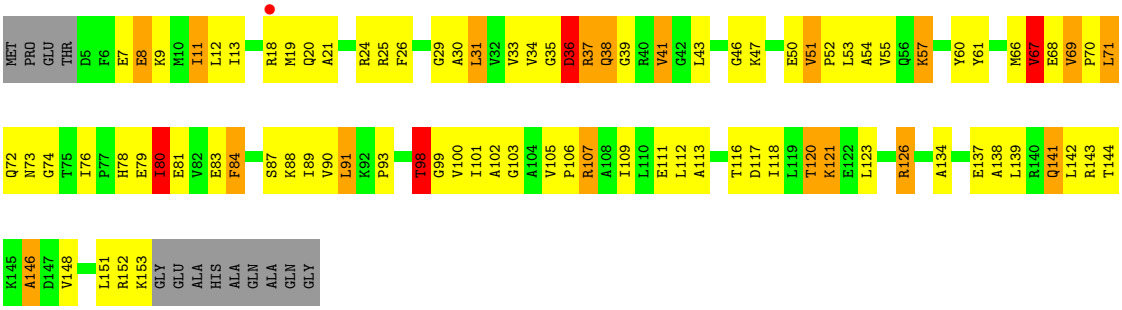
• Molecule 5: 30S Ribosomal Protein S5

Chain AE:



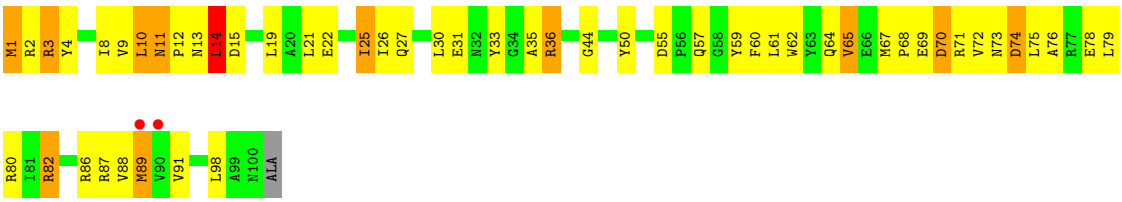
• Molecule 5: 30S Ribosomal Protein S5

Chain CE:



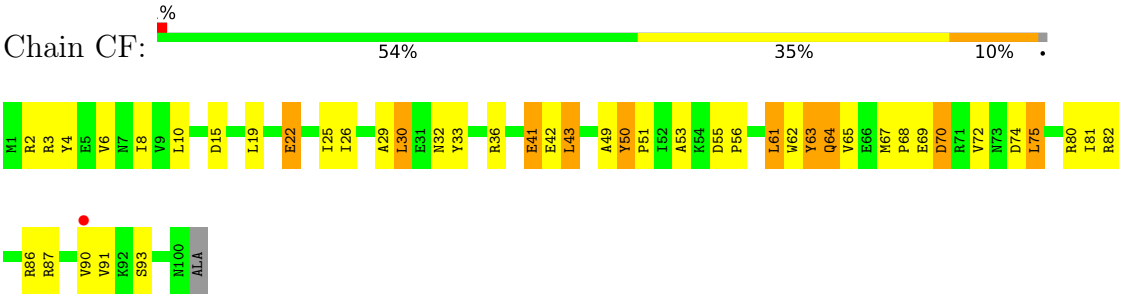
• Molecule 6: 30S Ribosomal Protein S6

Chain AF:



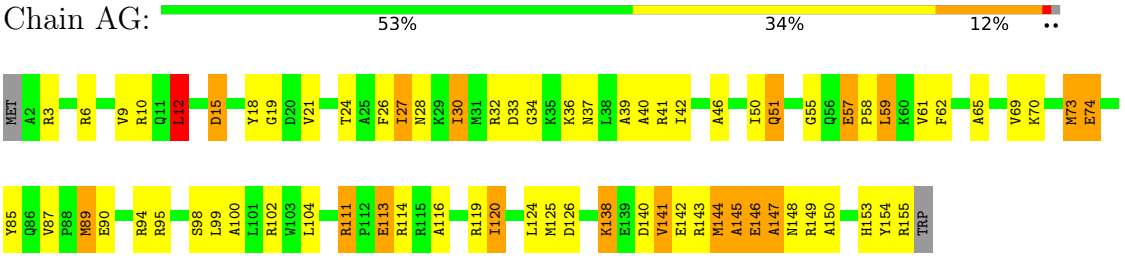
• Molecule 6: 30S Ribosomal Protein S6

Chain CF:



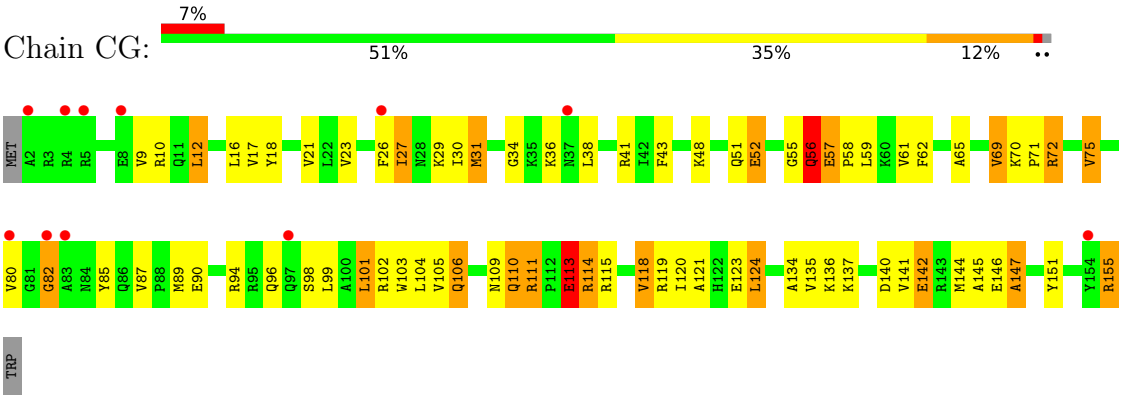
• Molecule 7: 30S Ribosomal Protein S7

Chain AG:



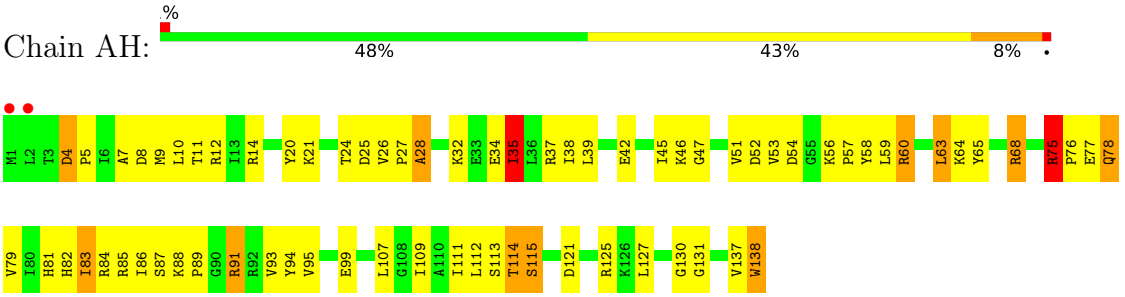
• Molecule 7: 30S Ribosomal Protein S7

Chain CG:



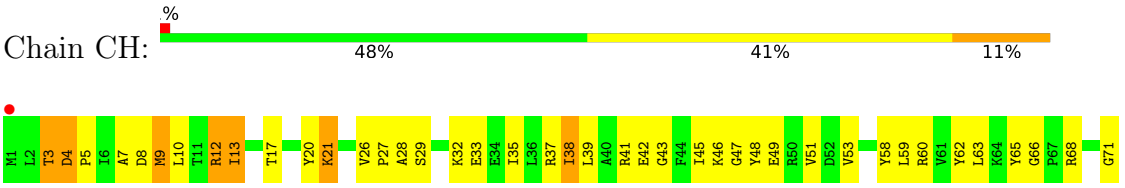
• Molecule 8: 30S Ribosomal Protein S8

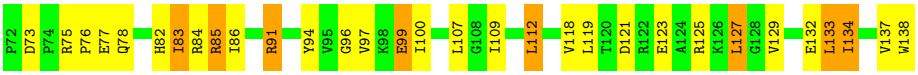
Chain AH:



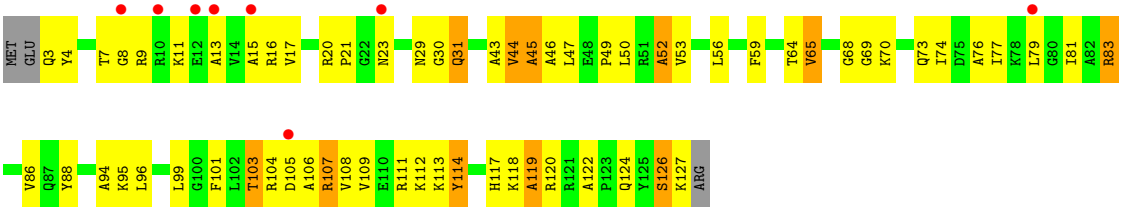
• Molecule 8: 30S Ribosomal Protein S8

Chain CH:

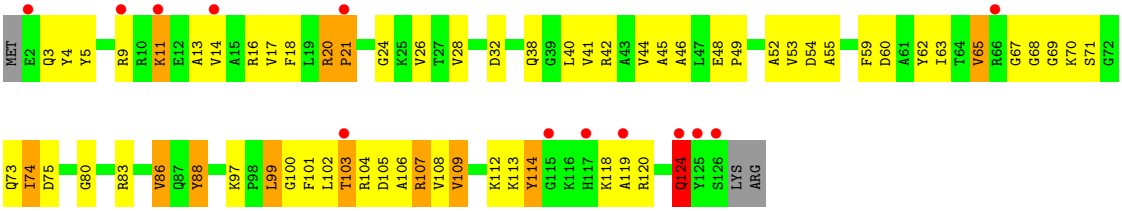




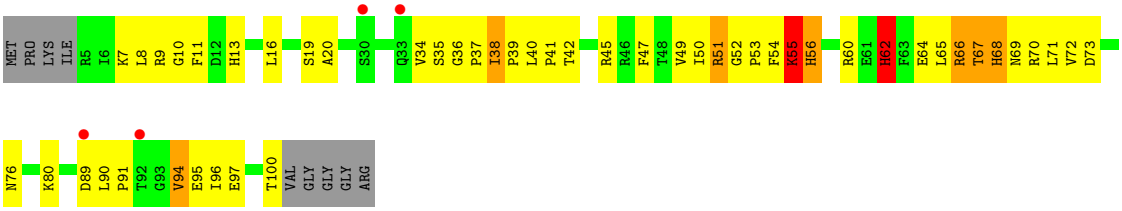
• Molecule 9: 30S Ribosomal Protein S9



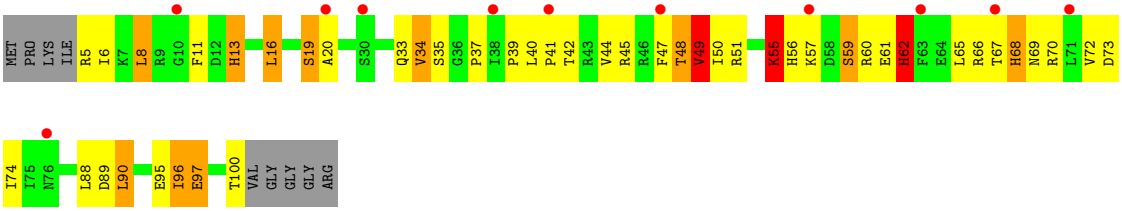
• Molecule 9: 30S Ribosomal Protein S9



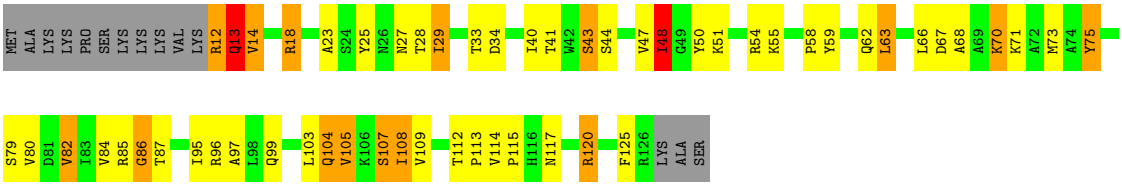
• Molecule 10: 30S Ribosomal Protein S10

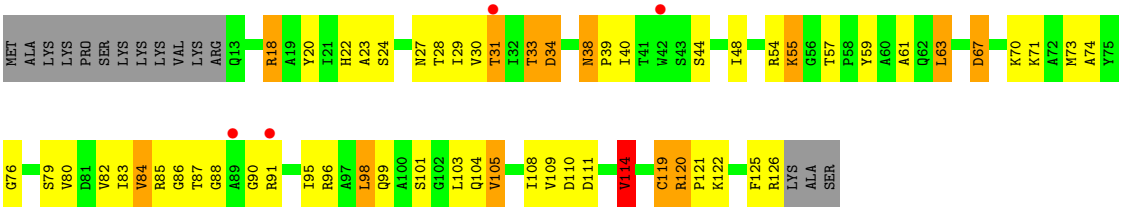


• Molecule 10: 30S Ribosomal Protein S10



• Molecule 11: 30S Ribosomal Protein S11



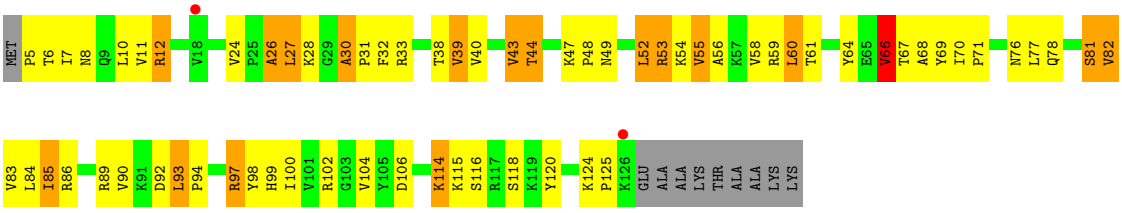


• Molecule 11: 30S Ribosomal Protein S11

Chain CK:

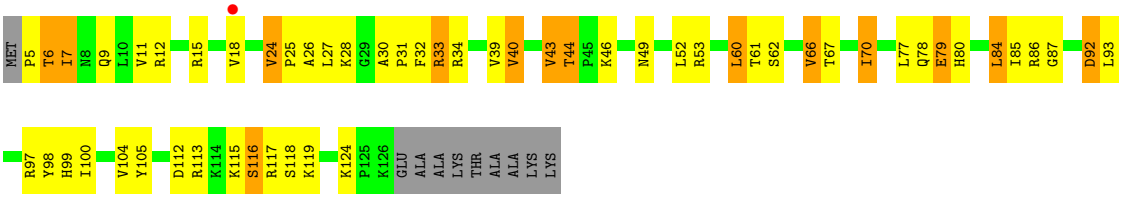
• Molecule 12: 30S Ribosomal Protein S12

Chain AL:



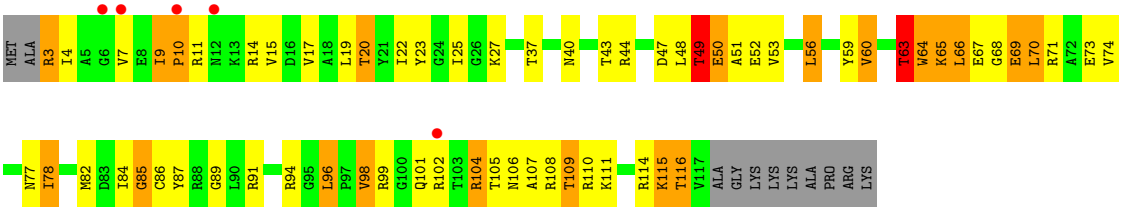
• Molecule 12: 30S Ribosomal Protein S12

Chain CL:



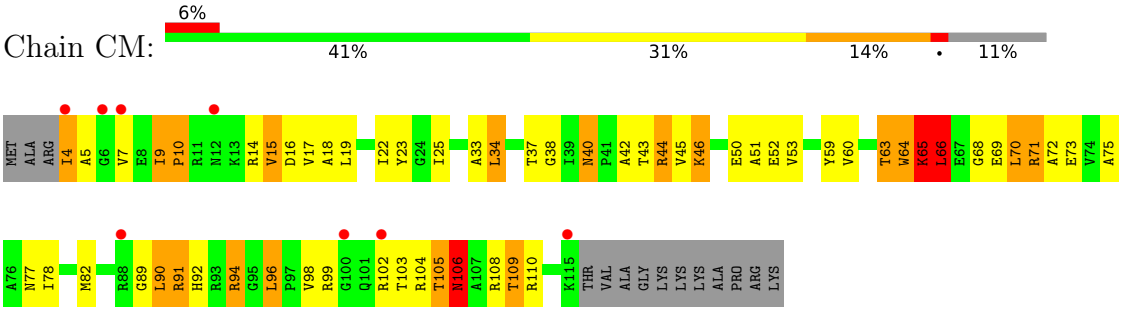
• Molecule 13: 30S Ribosomal Protein S13

Chain AM:



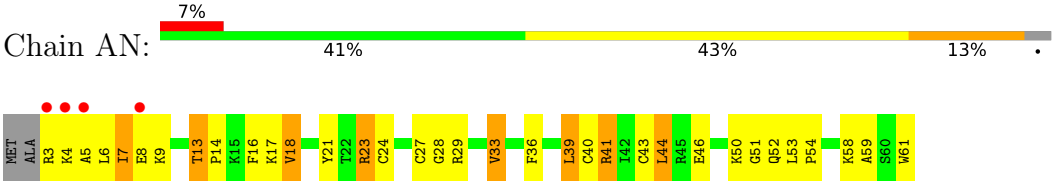
• Molecule 13: 30S Ribosomal Protein S13

Chain CM:



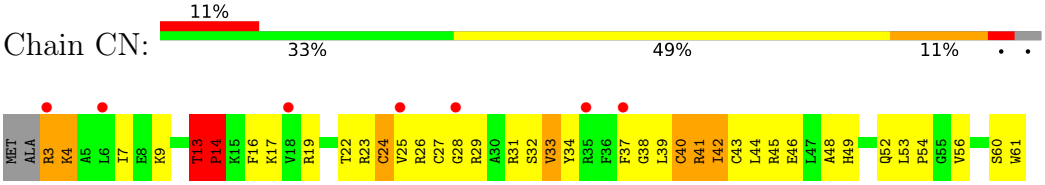
• Molecule 14: 30S Ribosomal Protein S14

Chain AN:



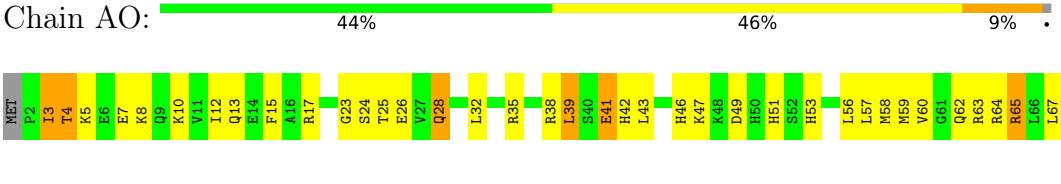
• Molecule 14: 30S Ribosomal Protein S14

Chain CN:



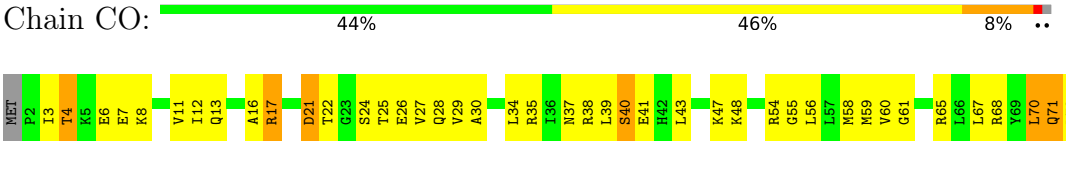
• Molecule 15: 30S Ribosomal Protein S15

Chain AO:



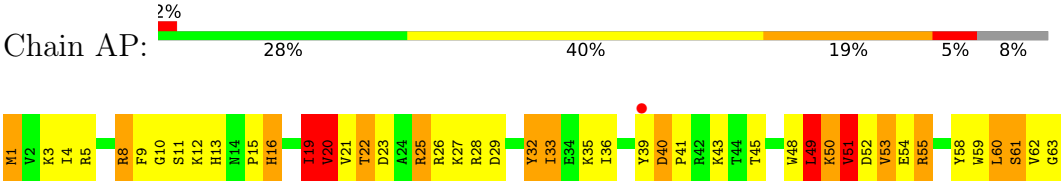
• Molecule 15: 30S Ribosomal Protein S15

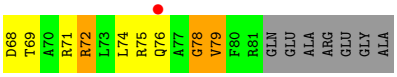
Chain CO:



• Molecule 16: 30S Ribosomal Protein S16

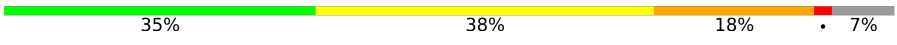
Chain AP:

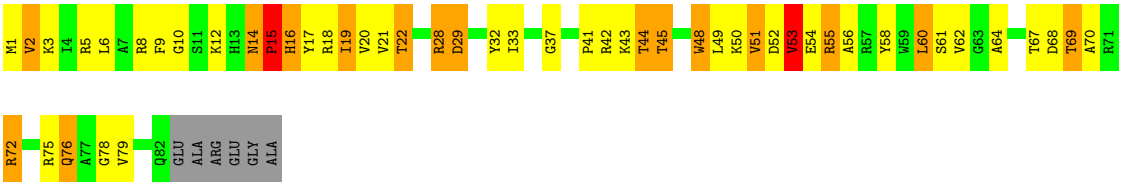




• Molecule 16: 30S Ribosomal Protein S16

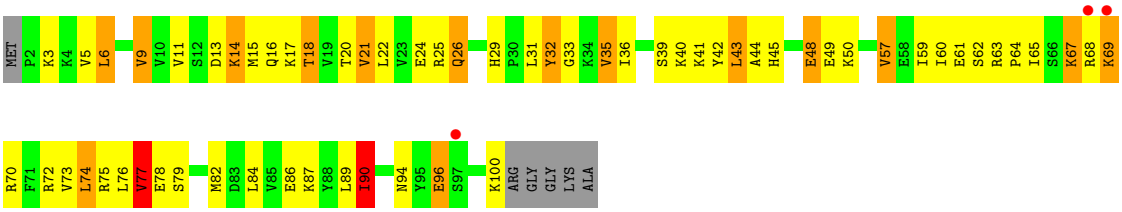
Chain CP:





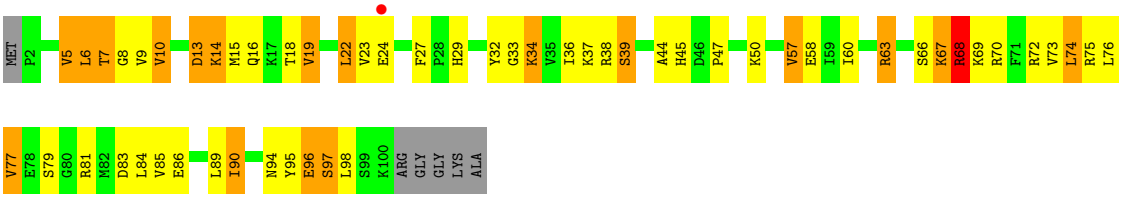
• Molecule 17: 30S Ribosomal Protein S17

Chain AQ:



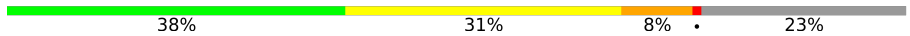
• Molecule 17: 30S Ribosomal Protein S17

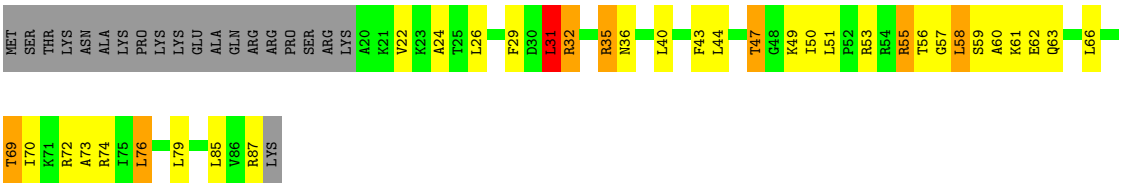
Chain CQ:



• Molecule 18: 30S Ribosomal Protein S18

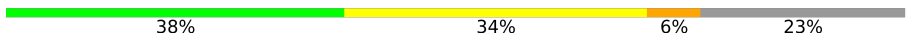
Chain AR:

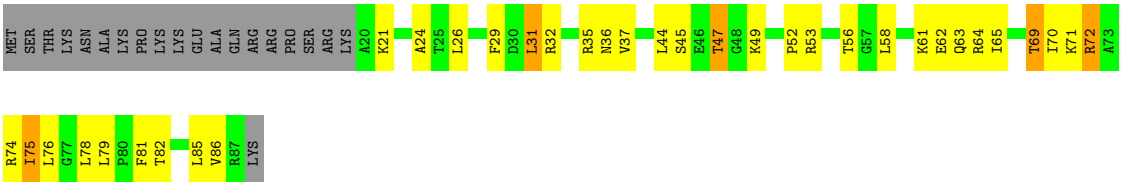




• Molecule 18: 30S Ribosomal Protein S18

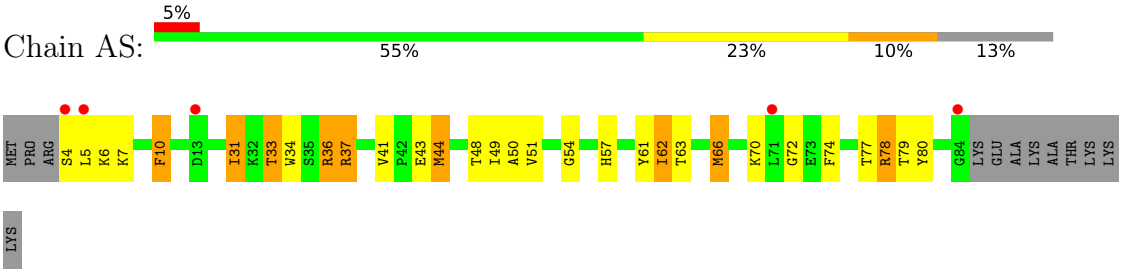
Chain CR:





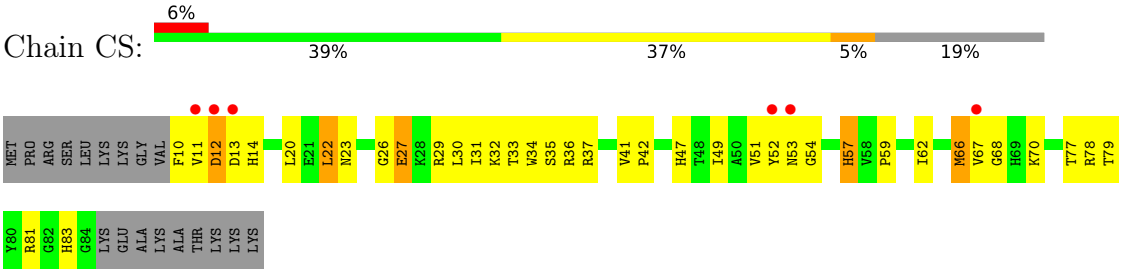
• Molecule 19: 30S Ribosomal Protein S19

Chain AS:



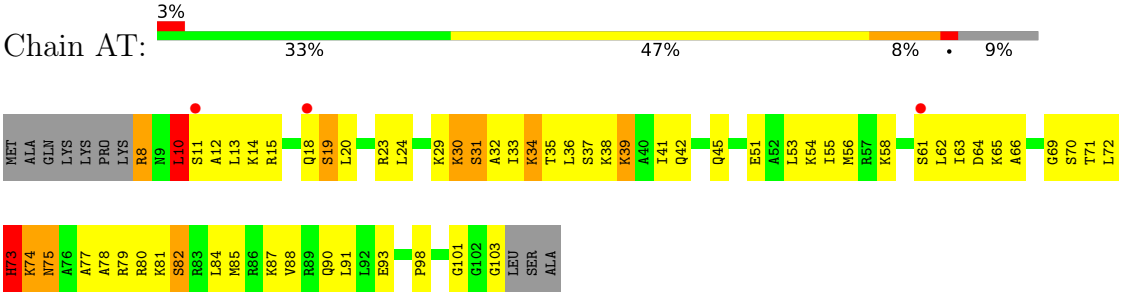
• Molecule 19: 30S Ribosomal Protein S19

Chain CS:



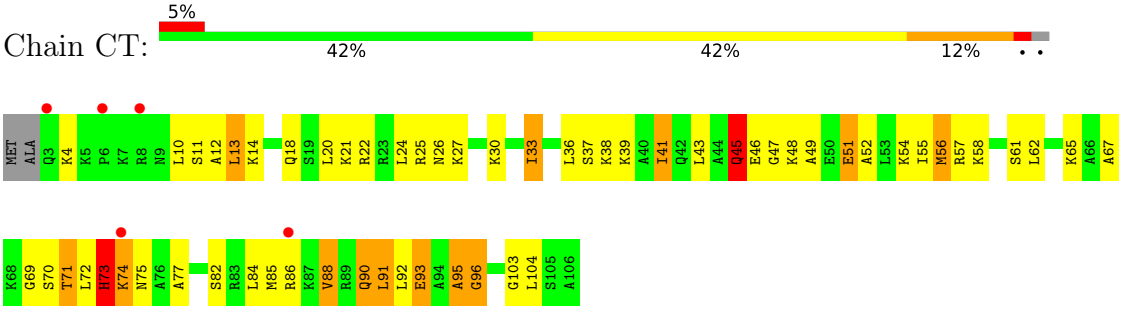
• Molecule 20: 30S Ribosomal Protein S20

Chain AT:



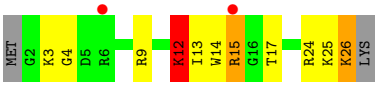
• Molecule 20: 30S Ribosomal Protein S20

Chain CT:

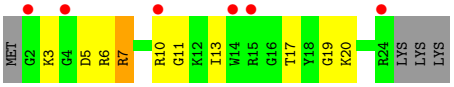


• Molecule 21: 30S Ribosomal Protein THX

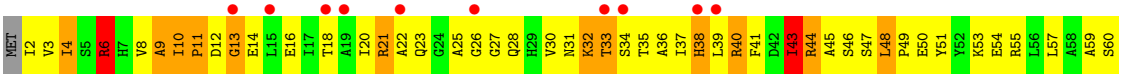
Chain AU:

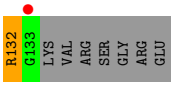


• Molecule 21: 30S Ribosomal Protein THX

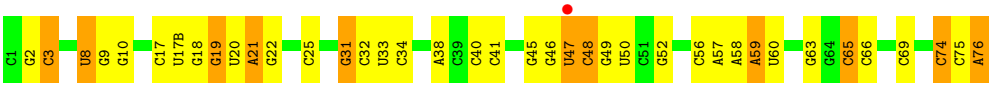


• Molecule 22: YAEJ

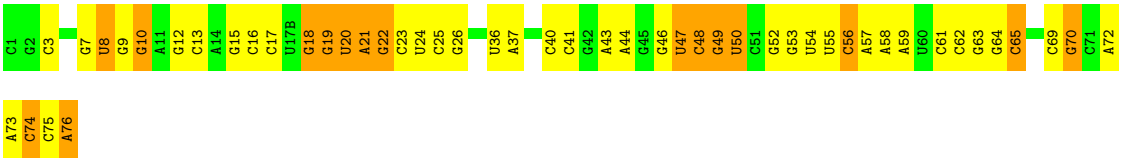




• Molecule 23: P-site fMet-tRNA



• Molecule 23: P-site fMet-tRNA

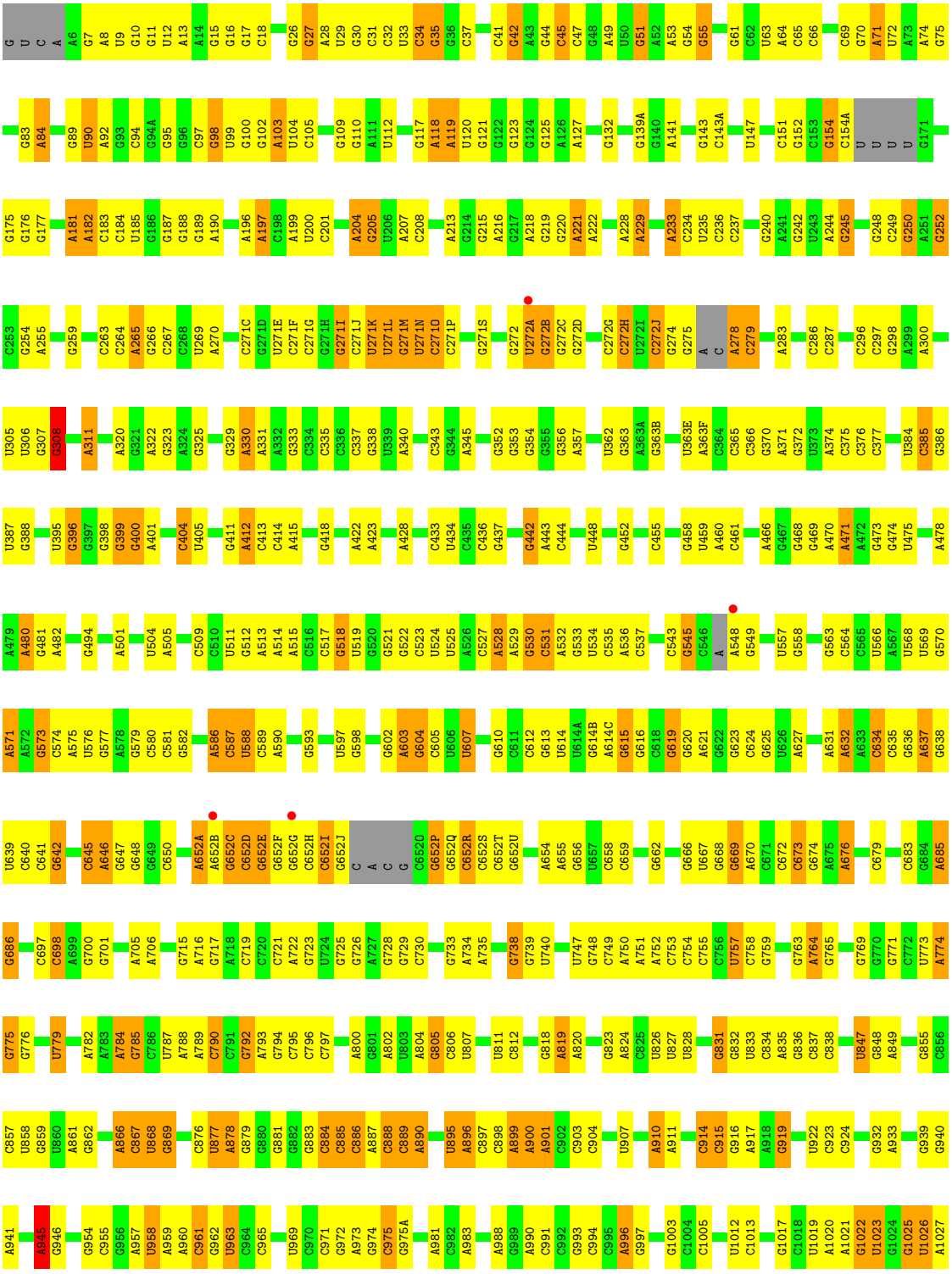


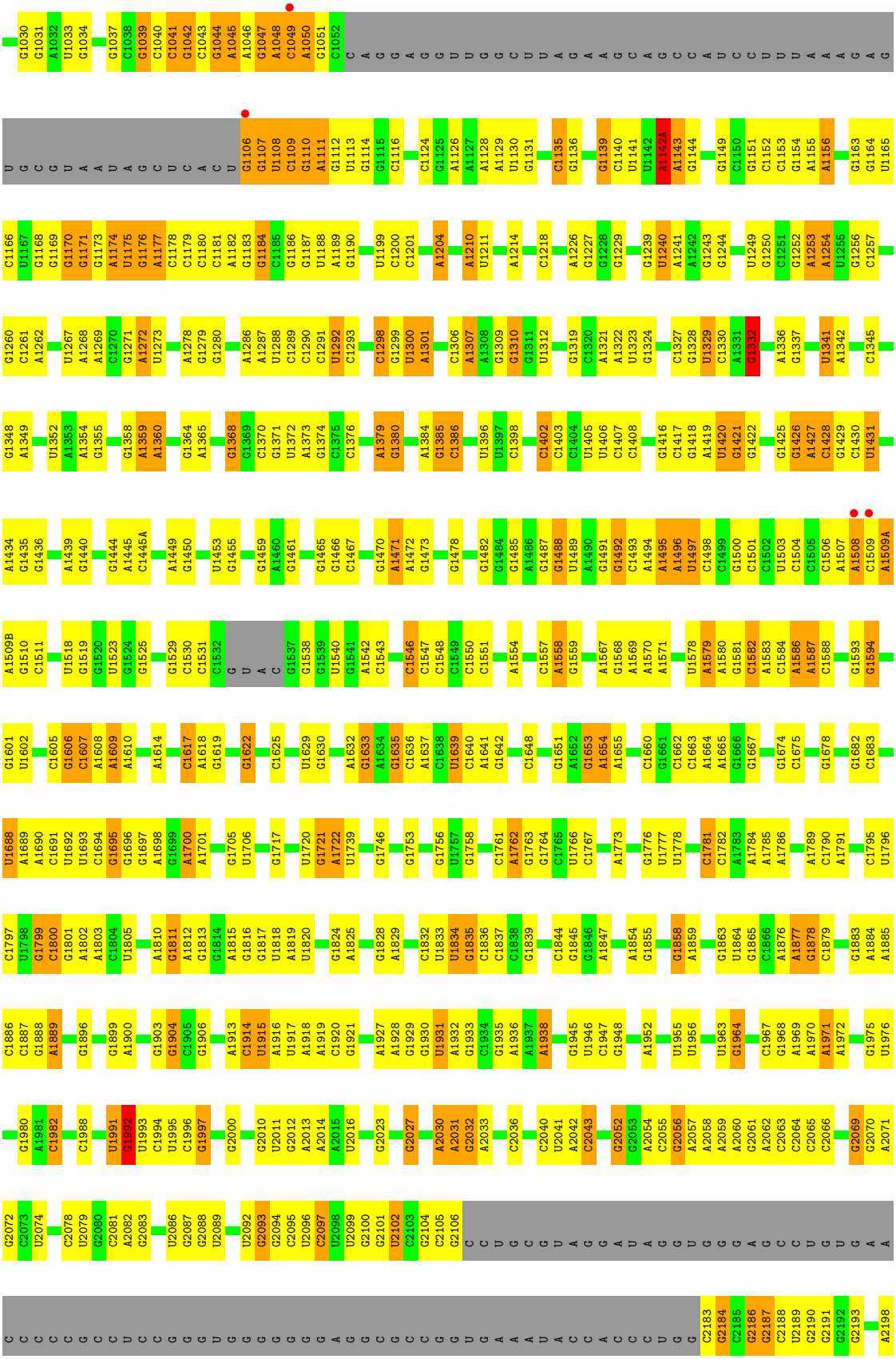
• Molecule 24: mRNA

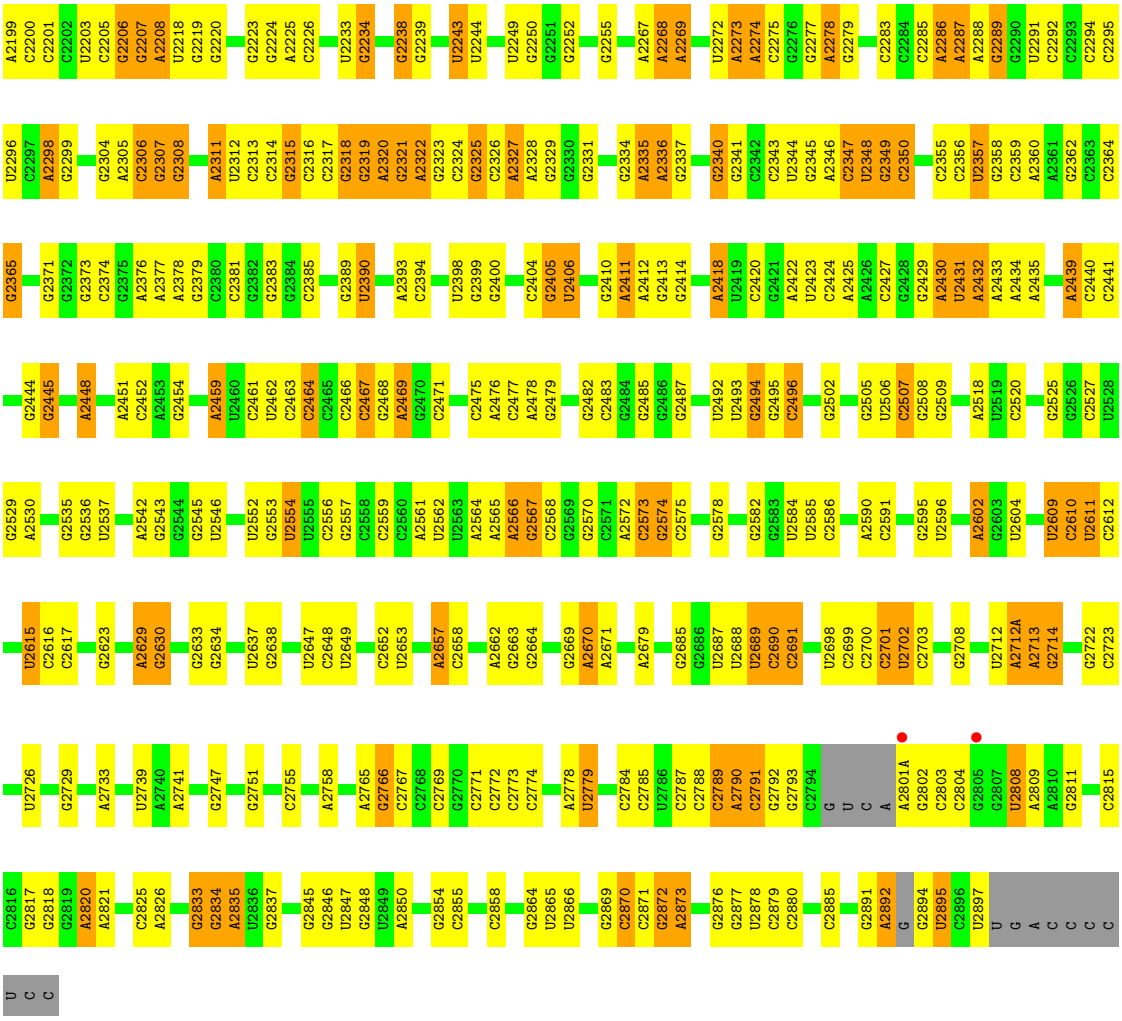
• Molecule 24: mRNA

• Molecule 25: 23S Ribosomal RNA

Chain BA:

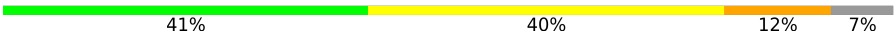


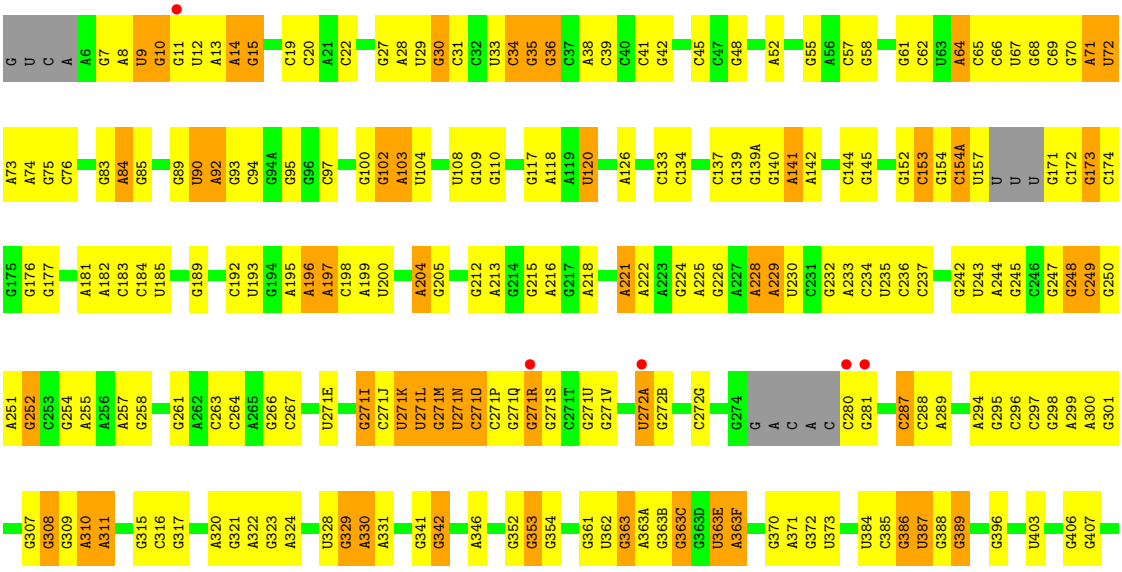


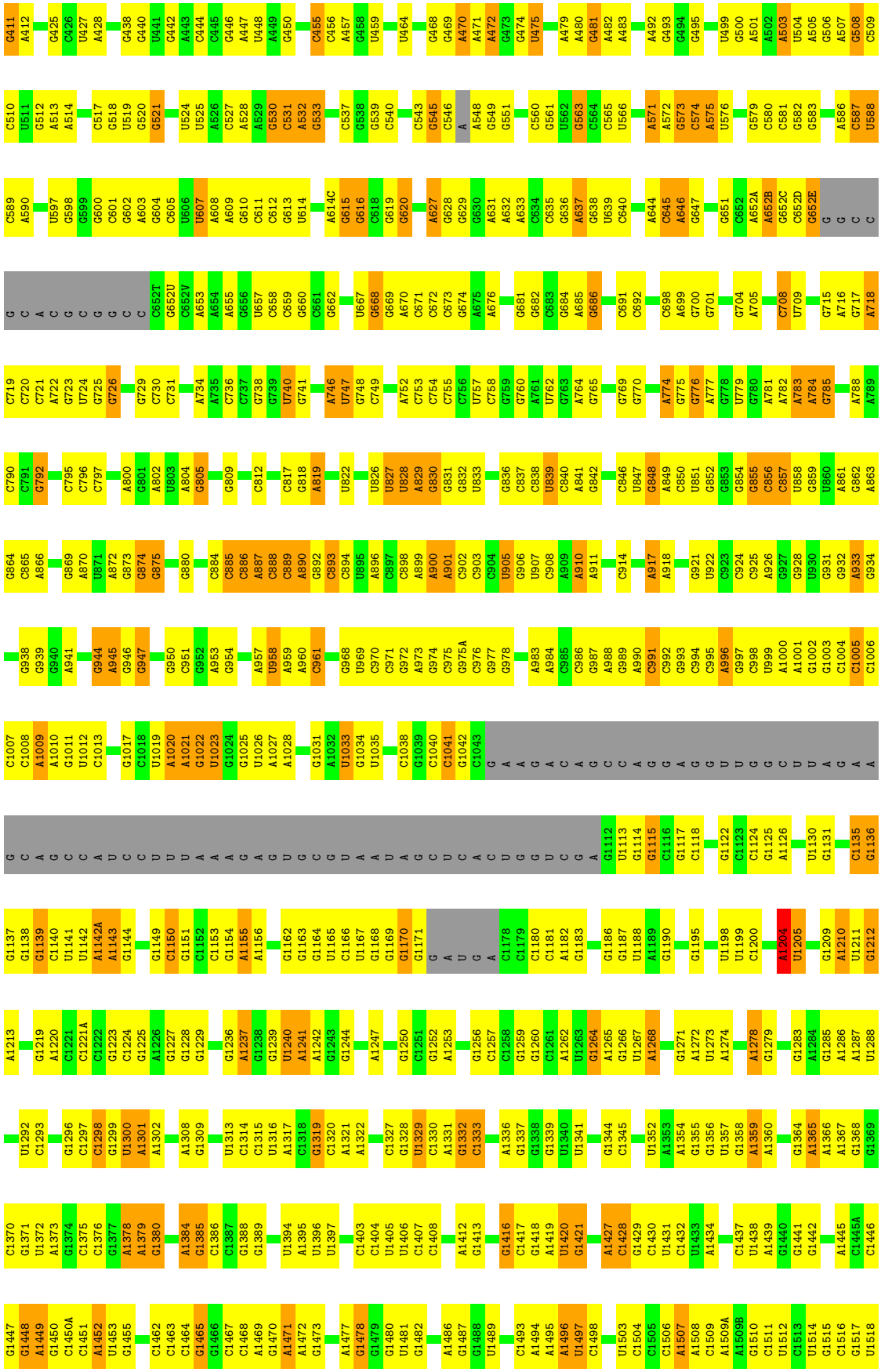


• Molecule 25: 23S Ribosomal RNA

Chain DA:



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C510 U511 G512 A513 A514 C517 G518 U519 G520 G521 U524 U525 A526 C527 A528 A529 G530 C531 A532 G533 C537 G538 G539 C540 C543 G545 C546 A A548 G549 G551 C560 G561 U562 G563 C564 C565 U566 A571 A572 G573 C574 A575 U576 G579 C580 C581 G582 G583 A586 C587 U588
C589 A590 U597 G598 G599 G600 C601 G602 A603 G604 C605 U606 U607 A608 A609 G610 C611 C612 G613 U614 A614C G615 G616 C618 G619 G620 A627 G628 G629 G630 A631 A632 A633 C634 C635 G636 A637 G638 U639 C640 A644 C645 A646 G647 G651 C652 A652A A652B G652C C652D G652E G G C C
G C C A C G C G C C C652T G652U C652V A653 A654 A655 G656 U657 C658 C659 G660 C661 G662 U667 G668 G669 A670 C671 C672 C673 G674 A675 A676 G681 G682 C683 G684 A685 G686 C691 C692 C698 A699 G700 G701 G704 A705 C708 U709 G715 A716 G717 A718
C719 C720 C721 A722 G723 U724 G725 G726 G729 C730 C731 A734 A735 C736 C737 G738 G739 U740 G741 A746 U747 G748 C749 A752 C753 C754 C755 C756 U757 C758 G759 G760 A761 U762 G763 A764 G765 G769 G770 A774 G775 G776 A777 G778 U779 G780 A781 A782 A783 A784 G785 A788 A789
C790 C791 G792 C795 C796 C797 A800 G801 A802 U803 A804 G805 G809 C812 C817 G818 A819 U822 U826 U827 U828 A829 G830 G831 G832 U833 G836 C837 C838 U839 C840 A841 G842 C846 U847 G848 A849 C850 U851 G852 G853 G854 G855 C856 C857 U858 G859 U860 A861 G862 A863
G864 C865 A866 G869 A870 U871 A872 G873 G874 G875 G880 C884 C885 C886 A887 C888 C889 A890 G892 C893 C894 U895 A896 C897 C898 A899 A900 A901 C902 C903 C904 U905 G906 U907 C908 A909 A910 A911 C914 A917 A918 G921 U922 C923 C924 C925 A926 G927 G928 U930 G931 G932 A933 G934
G938 G939 G940 A941 G944 A945 G946 G947 G950 C951 G952 A953 G954 A957 U958 A959 A960 C961 G968 U969 C970 C971 G972 A973 G974 C975 G975A C976 G977 G978 A983 A984 C985 C986 G987 A988 G989 A990 C991 C992 G993 C994 C995 A996 G997 C998 U999 A1000 A1001 G1002 G1003 C1004 C1005 C1006
C1007 C1008 A1009 A1010 G1011 U1012 C1013 G1017 C1018 U1019 A1020 A1021 G1022 U1023 G1024 G1025 U1026 A1027 A1028 G1031 A1032 U1033 G1034 U1035 C1038 G1039 C1040 C1041 G1042 C1043 G A A G A C A G U U C A C U G G C C A G U U C A A G C G U U C A A G C G U U C A A G C G U U C A A G C G U U C A A G C G U U C A A G C G U U C A A
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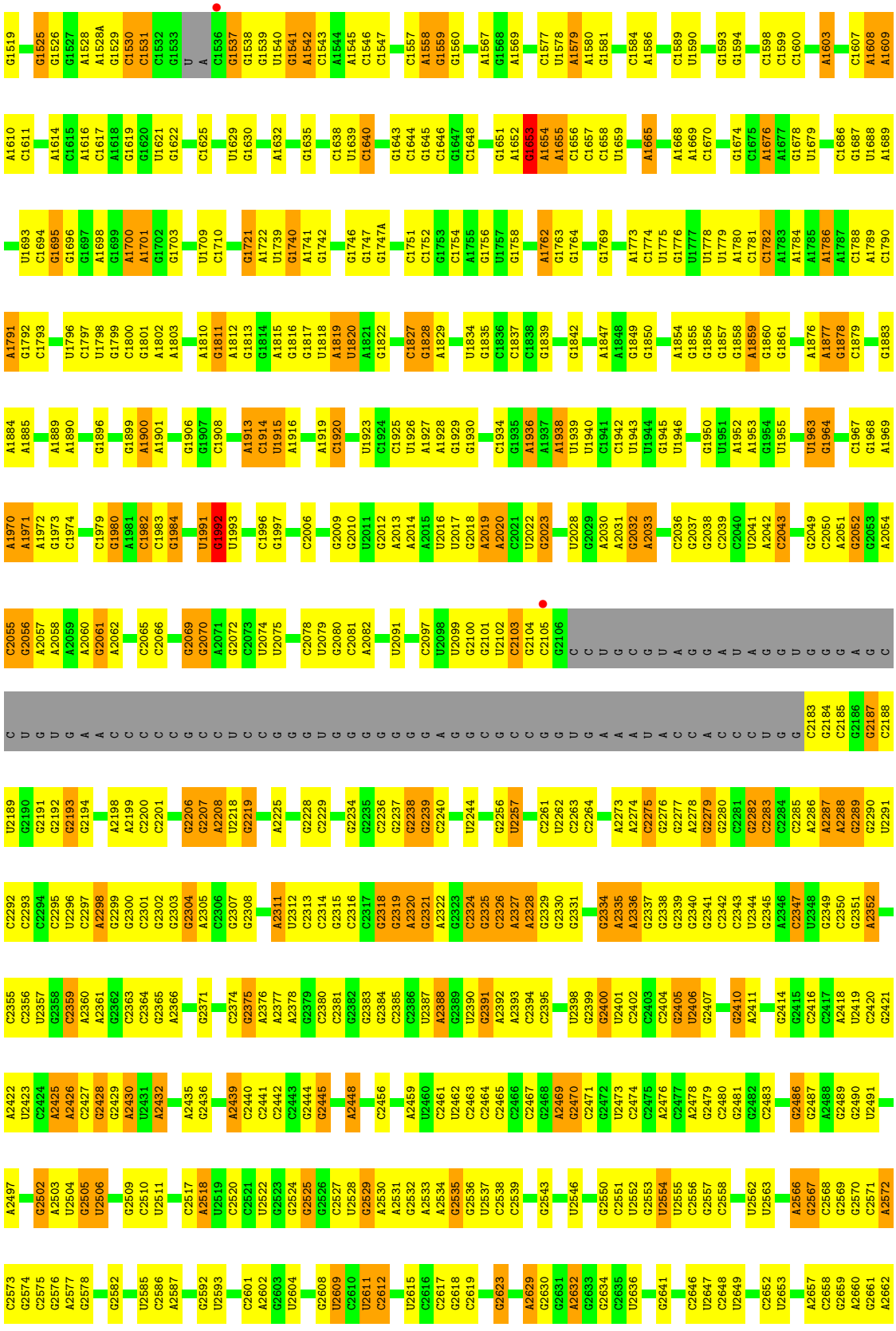
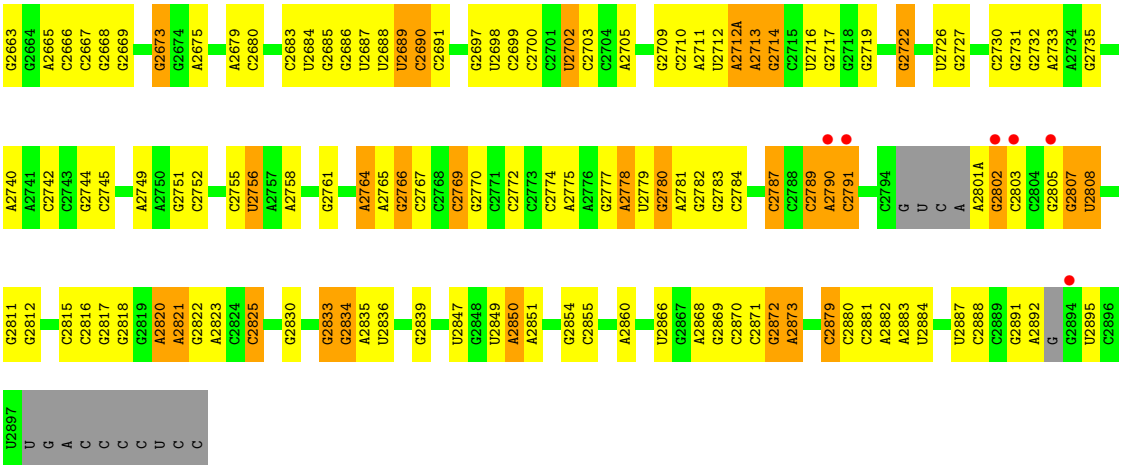
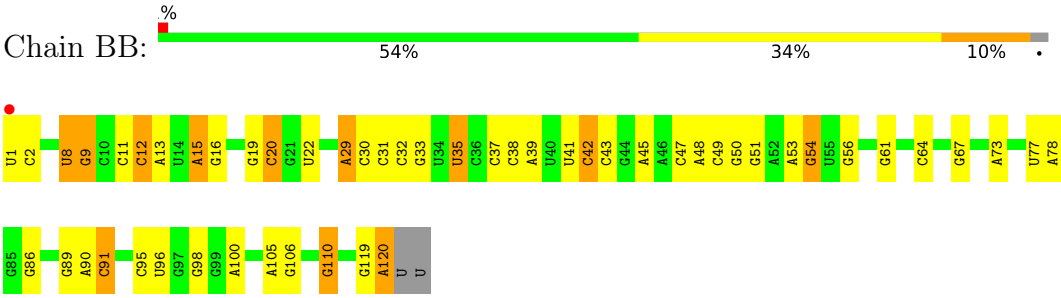




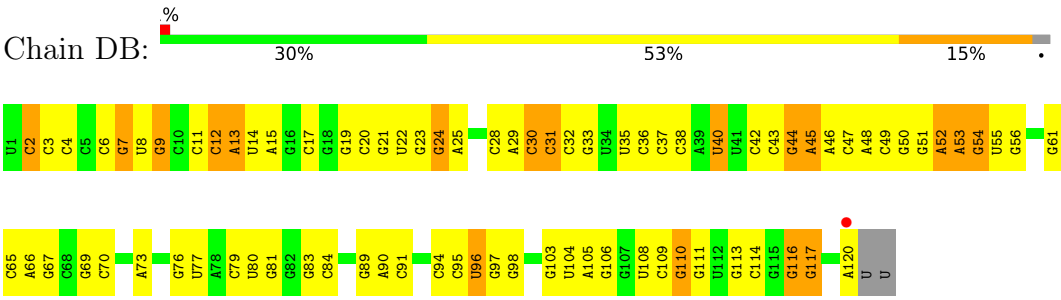
• Molecule 26: 5S Ribosomal RNA

Chain BB:



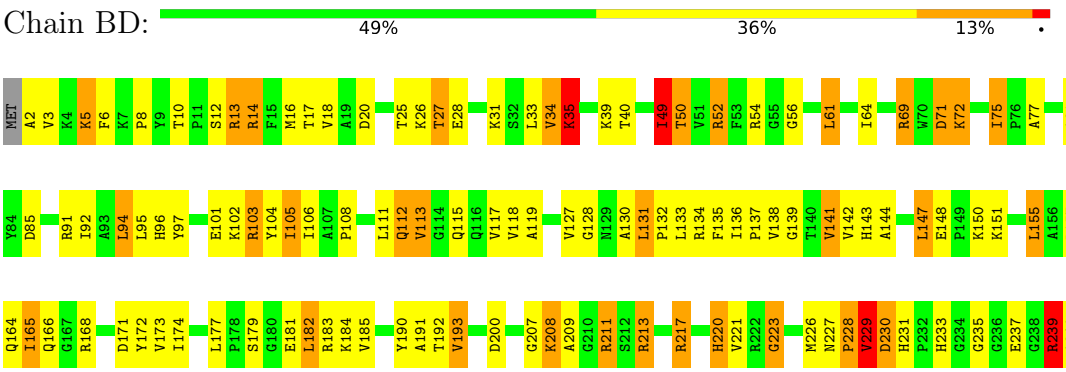
• Molecule 26: 5S Ribosomal RNA

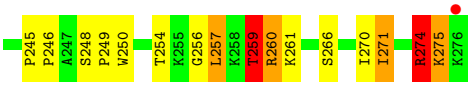
Chain DB:



• Molecule 27: 50S Ribosomal Protein L2

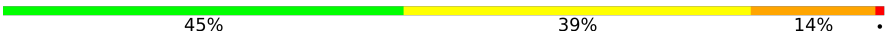
Chain BD:

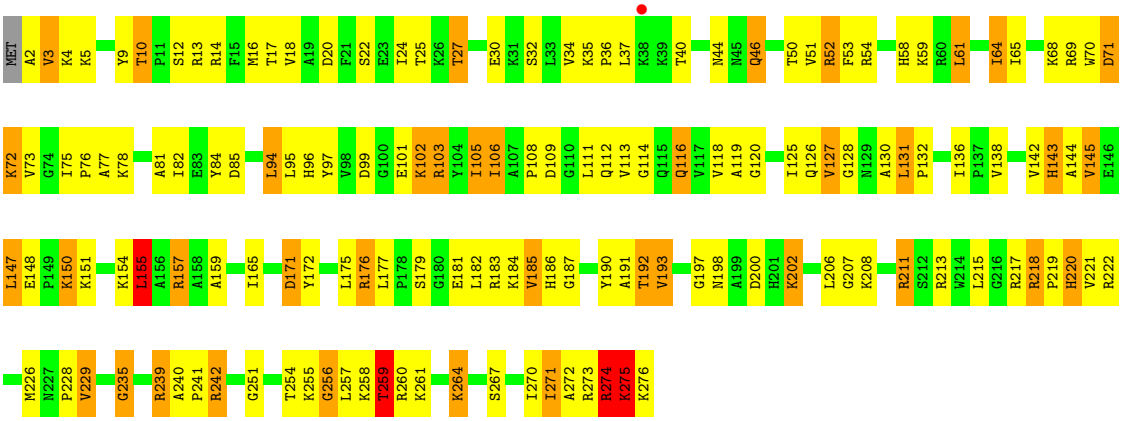




• Molecule 27: 50S Ribosomal Protein L2

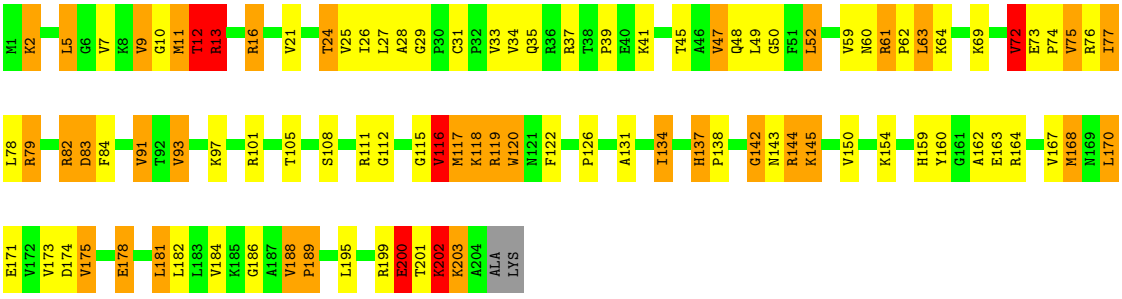
Chain DD:





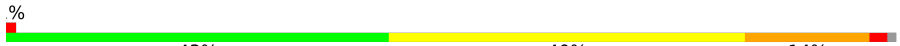
• Molecule 28: 50S Ribosomal Protein L3

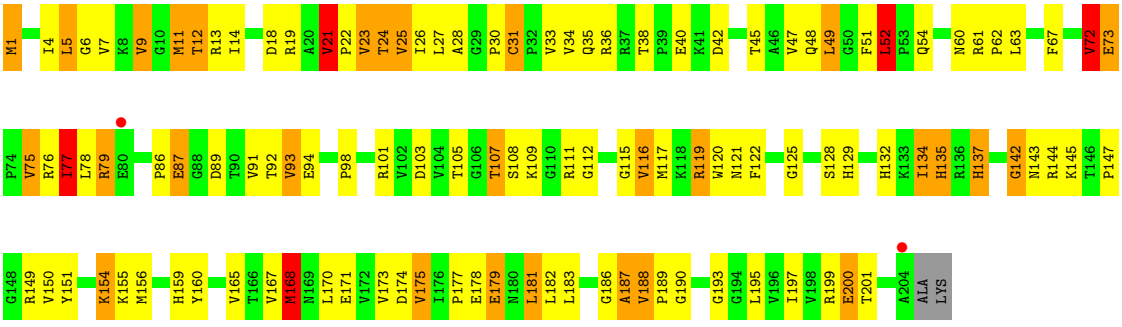
Chain BE:



• Molecule 28: 50S Ribosomal Protein L3

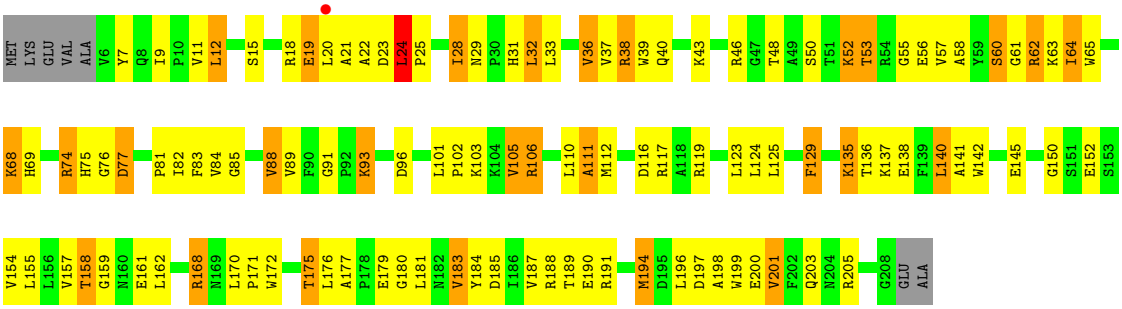
Chain DE:





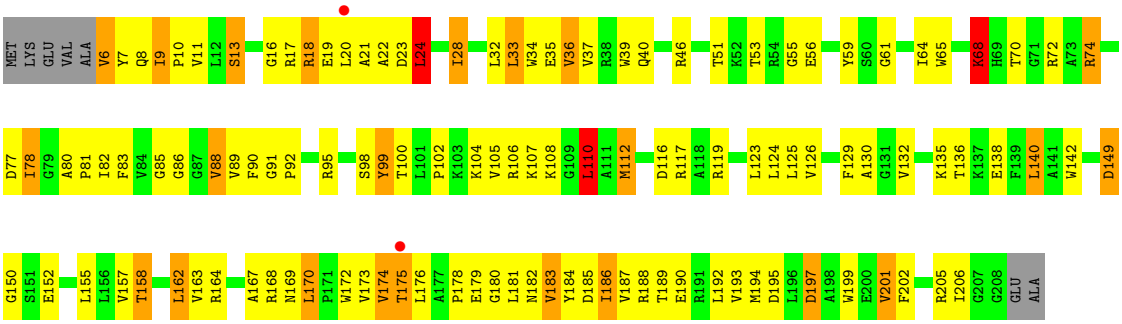
• Molecule 29: 50S Ribosomal Protein L4

Chain BF:



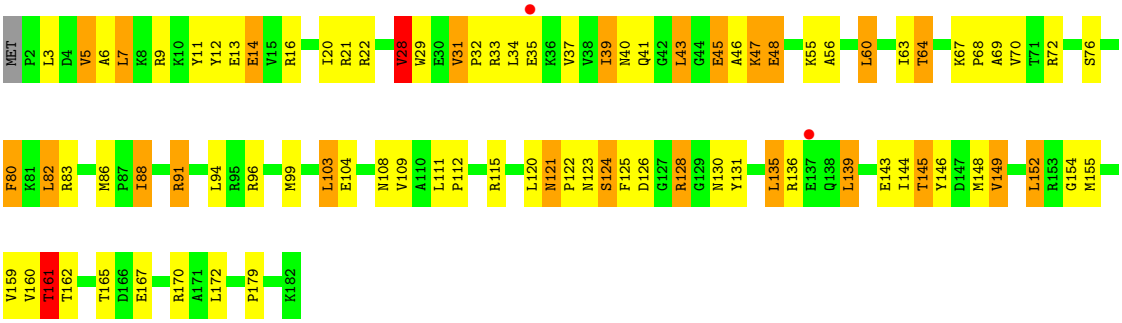
• Molecule 29: 50S Ribosomal Protein L4

Chain DF:



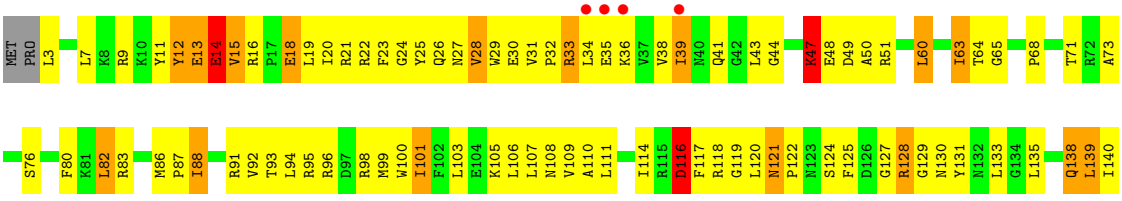
• Molecule 30: 50S Ribosomal Protein L5

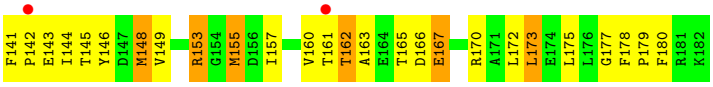
Chain BG:



• Molecule 30: 50S Ribosomal Protein L5

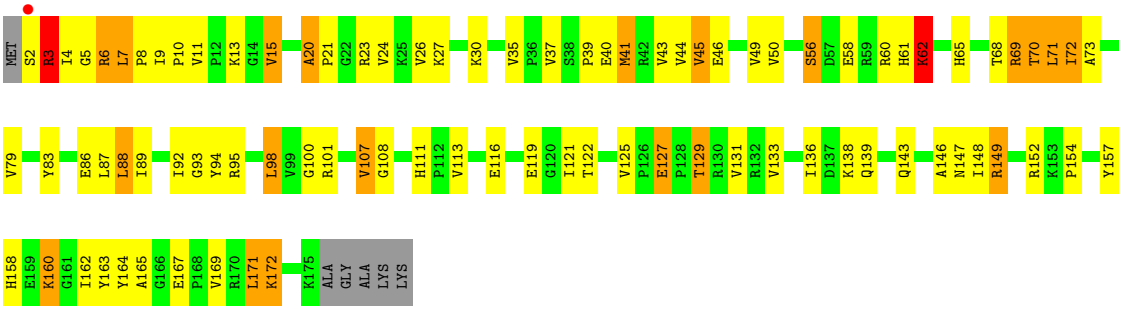
Chain DG:





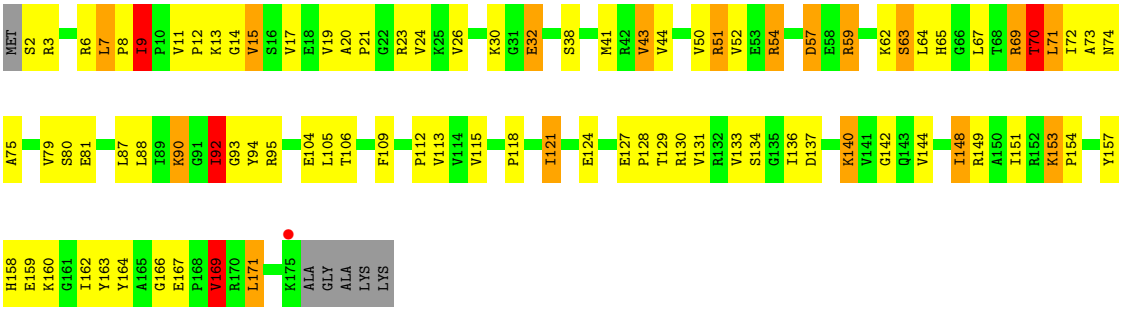
• Molecule 31: 50S Ribosomal Protein L6

Chain BH:



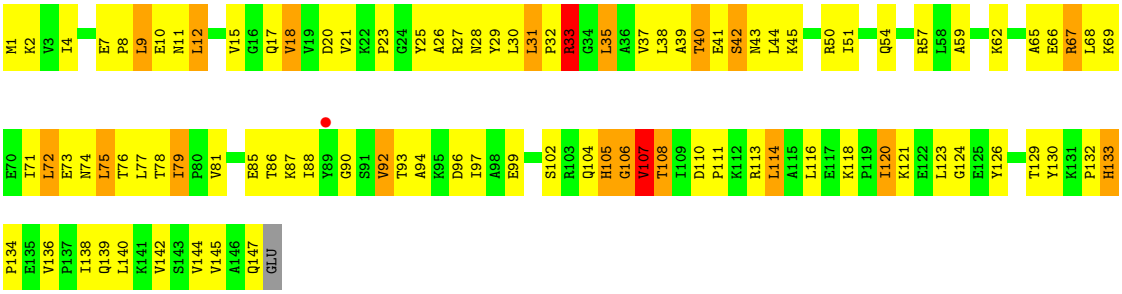
• Molecule 31: 50S Ribosomal Protein L6

Chain DH:



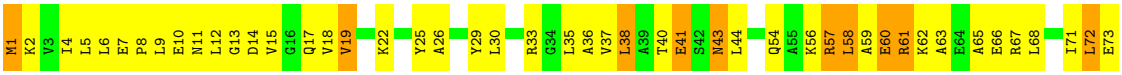
• Molecule 32: 50S Ribosomal Protein L9

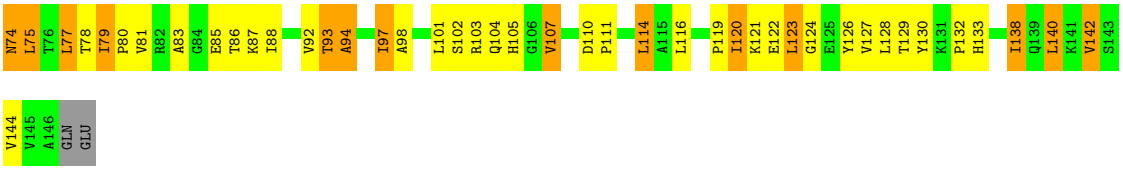
Chain BI:



• Molecule 32: 50S Ribosomal Protein L9

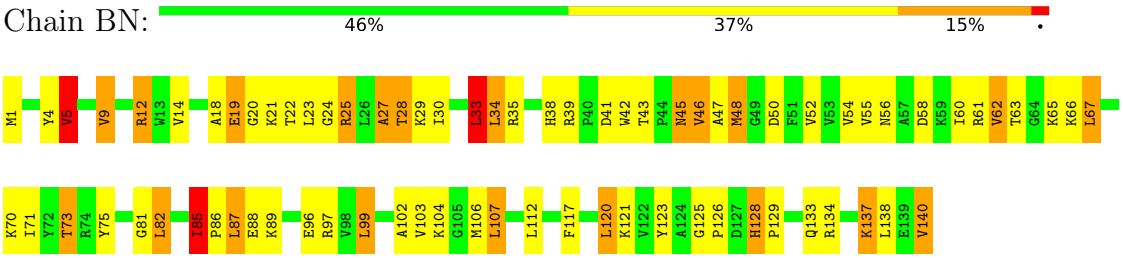
Chain DI:





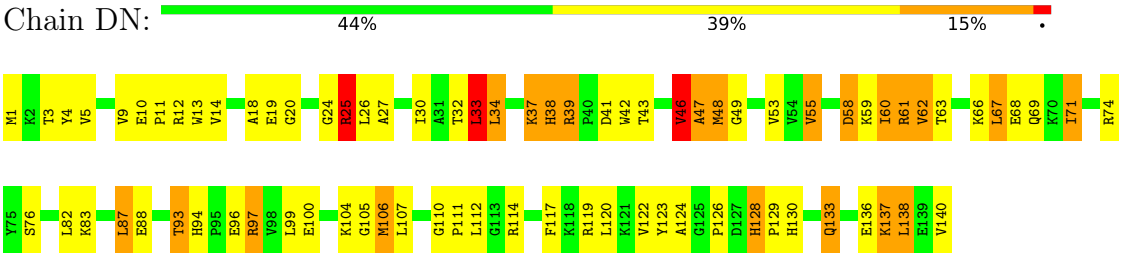
• Molecule 33: 50S Ribosomal Protein L13

Chain BN:



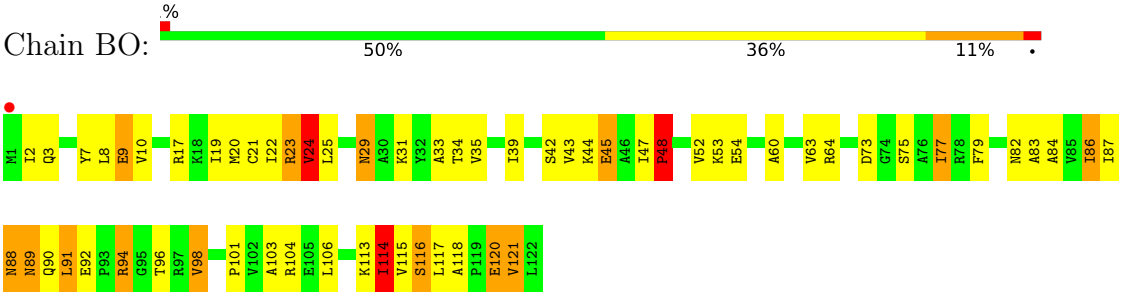
• Molecule 33: 50S Ribosomal Protein L13

Chain DN:



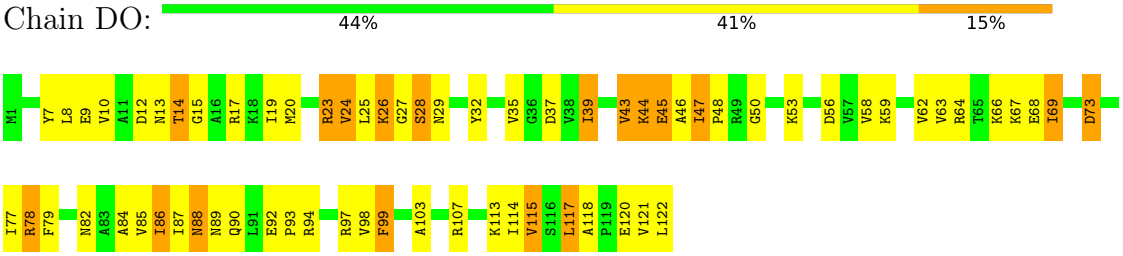
• Molecule 34: 50S Ribosomal Protein L14

Chain BO:



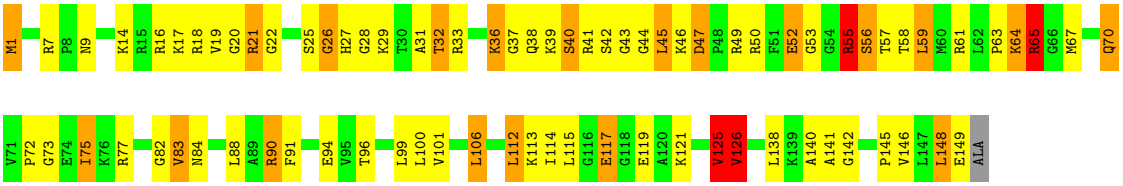
• Molecule 34: 50S Ribosomal Protein L14

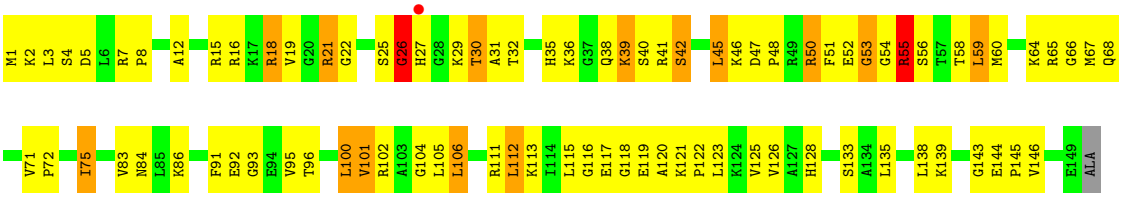
Chain DO:



• Molecule 35: 50S Ribosomal Protein L15

Chain BP:



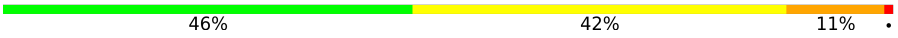


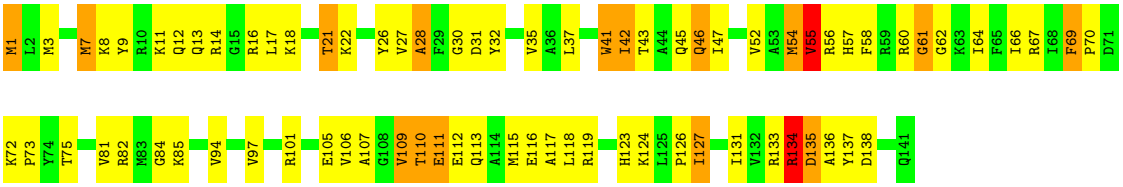
• Molecule 35: 50S Ribosomal Protein L15

Chain DP:

• Molecule 36: 50S Ribosomal Protein L16

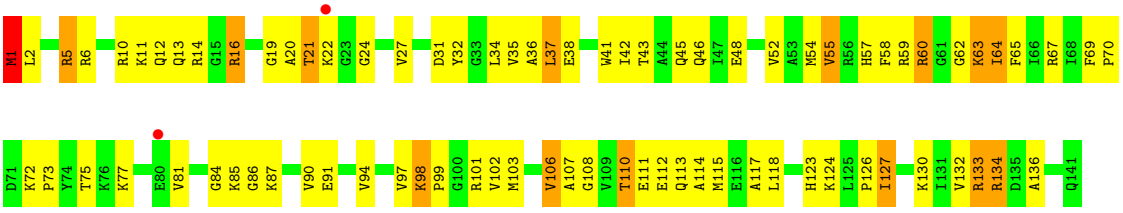
Chain BQ:





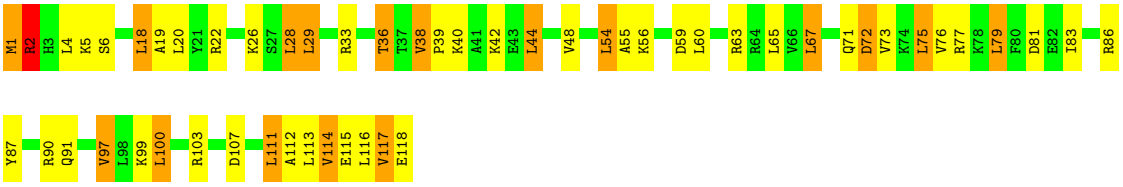
• Molecule 36: 50S Ribosomal Protein L16

Chain DQ:



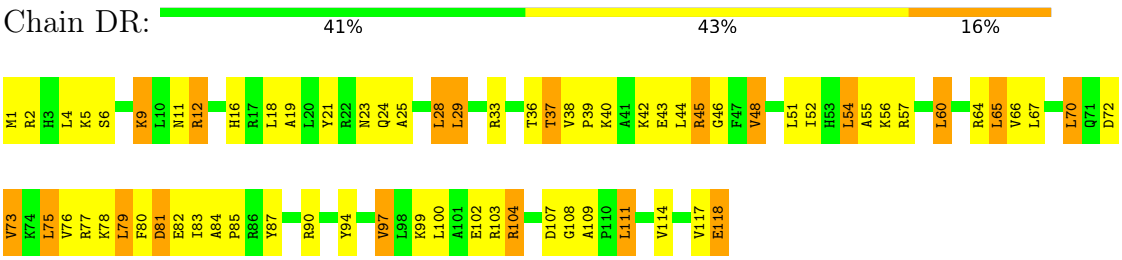
• Molecule 37: 50S Ribosomal Protein L17

Chain BR:



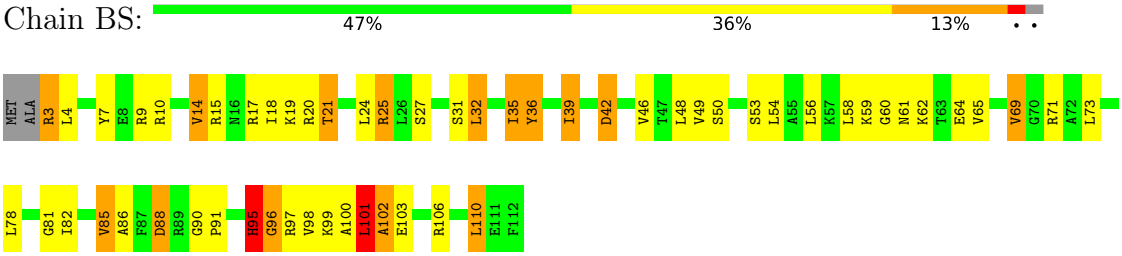
• Molecule 37: 50S Ribosomal Protein L17

Chain DR:



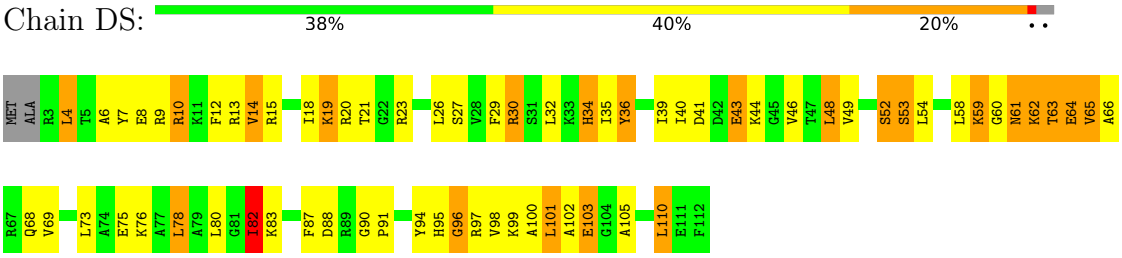
• Molecule 38: 50S Ribosomal Protein L18

Chain BS:



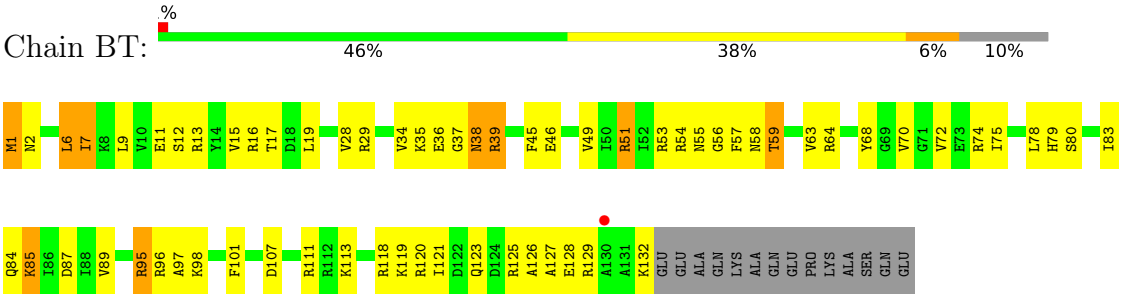
• Molecule 38: 50S Ribosomal Protein L18

Chain DS:



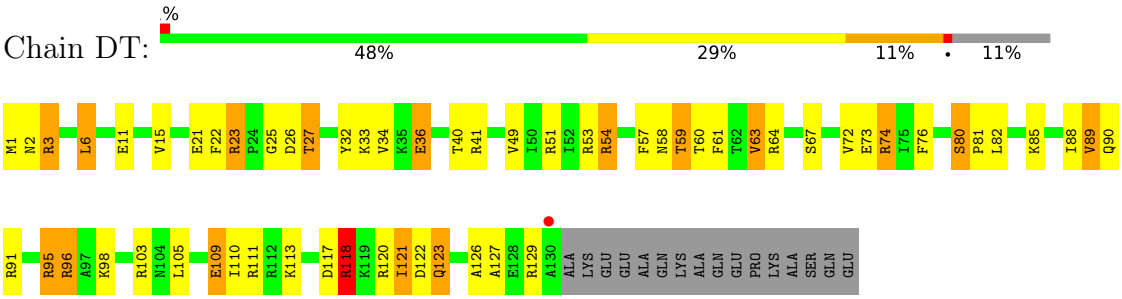
• Molecule 39: 50S Ribosomal Protein L19

Chain BT:



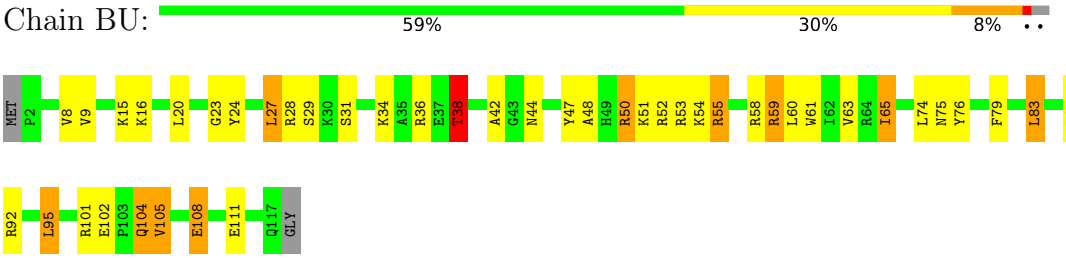
• Molecule 39: 50S Ribosomal Protein L19

Chain DT:



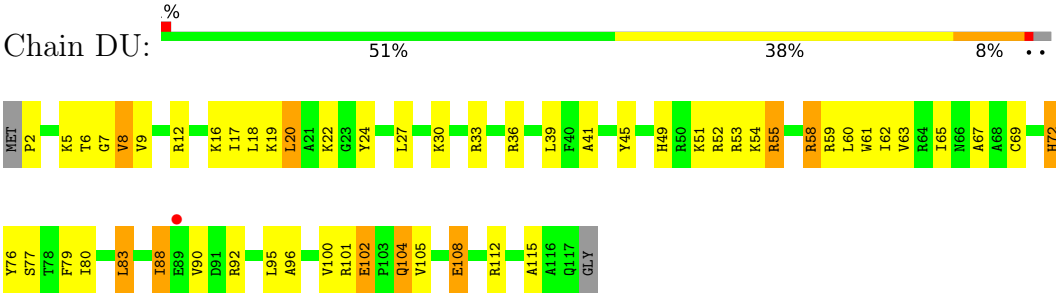
• Molecule 40: 50S Ribosomal Protein L20

Chain BU:



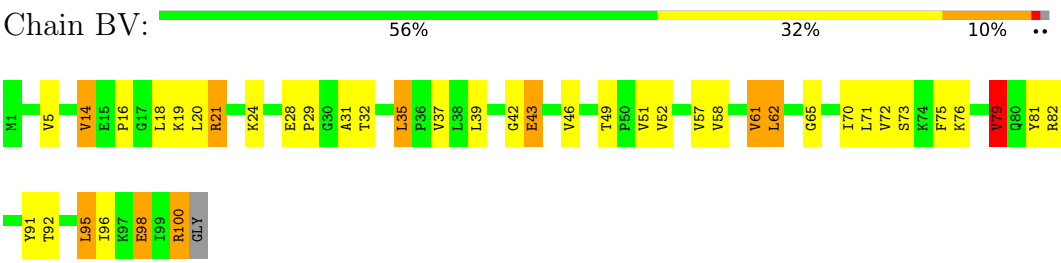
• Molecule 40: 50S Ribosomal Protein L20

Chain DU:



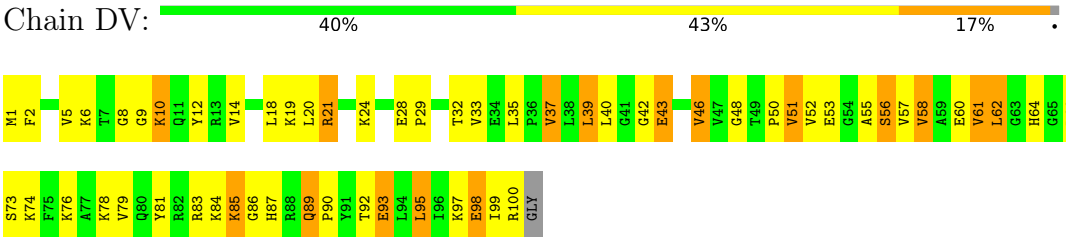
• Molecule 41: 50S Ribosomal Protein L21

Chain BV:



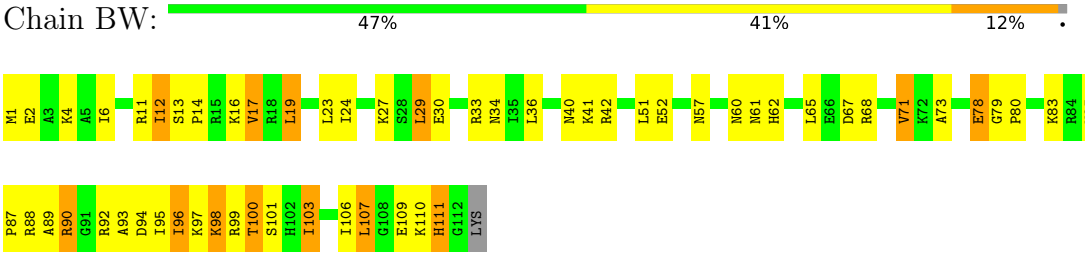
• Molecule 41: 50S Ribosomal Protein L21

Chain DV:



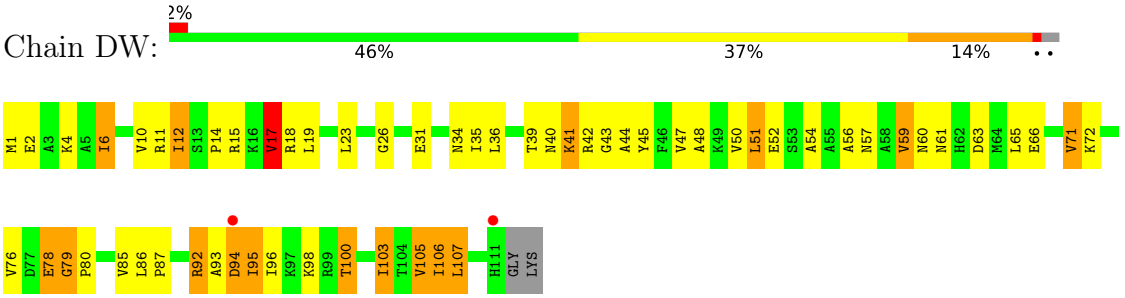
• Molecule 42: 50S Ribosomal Protein L22

Chain BW:



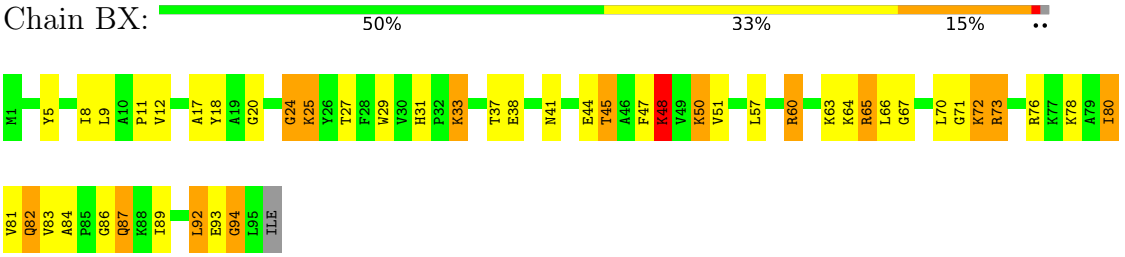
• Molecule 42: 50S Ribosomal Protein L22

Chain DW:



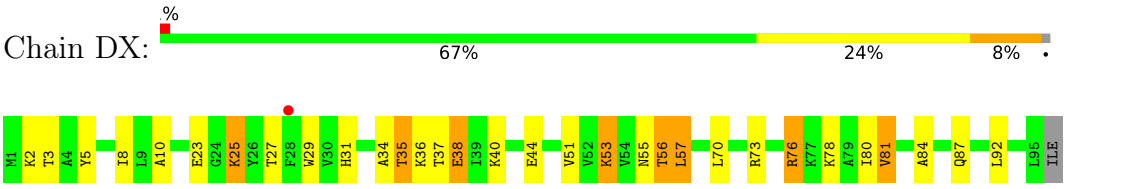
• Molecule 43: 50S Ribosomal Protein L23

Chain BX:



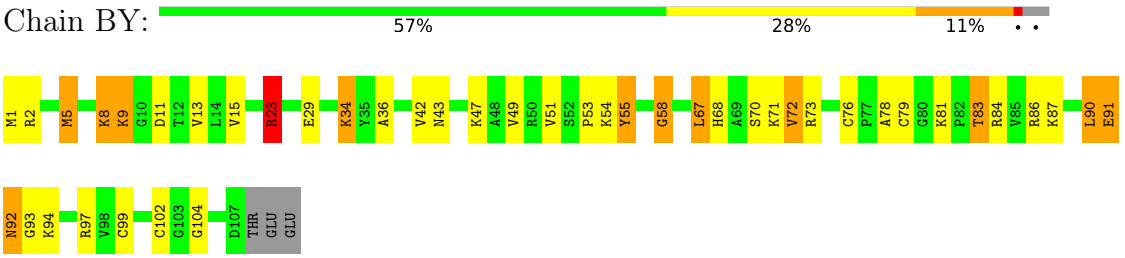
• Molecule 43: 50S Ribosomal Protein L23

Chain DX:



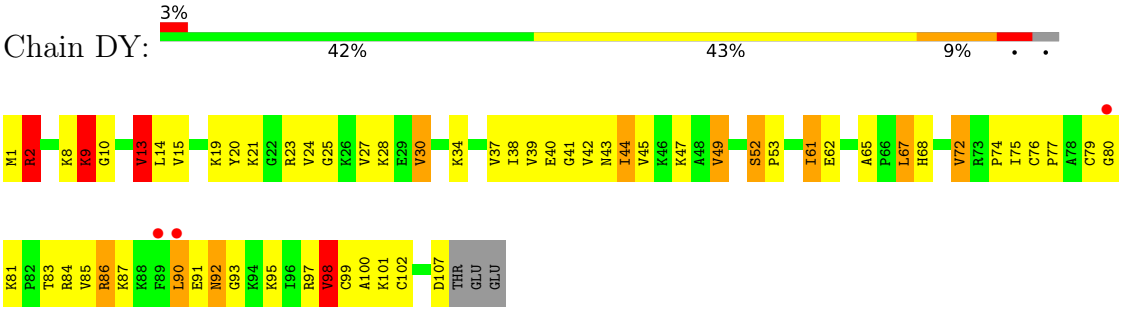
• Molecule 44: 50S Ribosomal Protein L24

Chain BY:



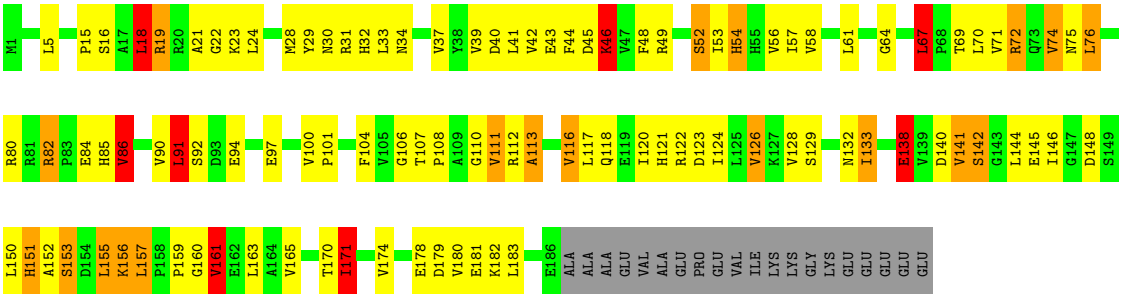
• Molecule 44: 50S Ribosomal Protein L24

Chain DY:



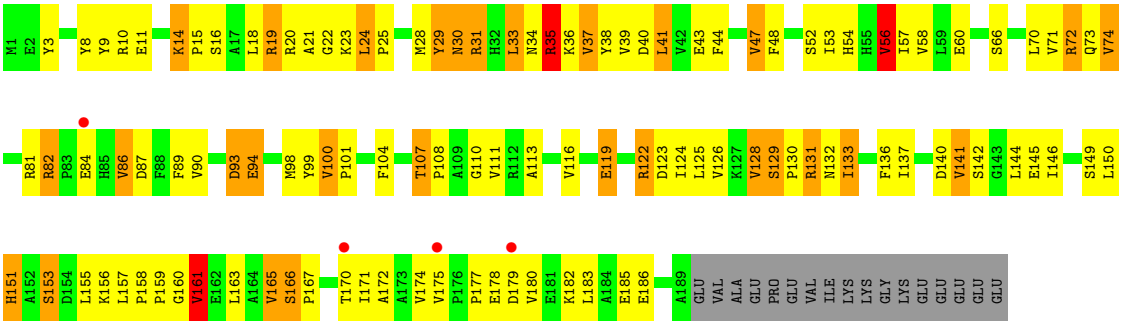
• Molecule 45: 50S Ribosomal Protein L25

Chain BZ:



• Molecule 45: 50S Ribosomal Protein L25

Chain DZ:

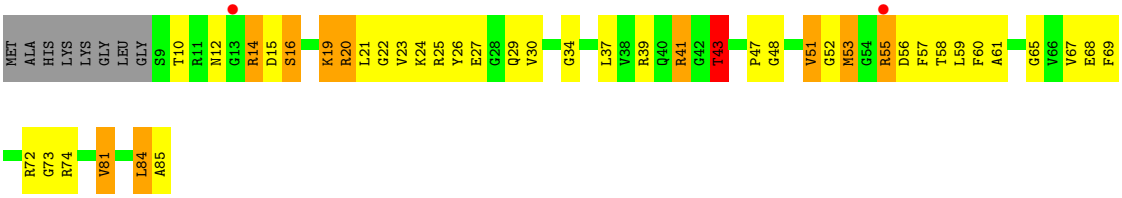


• Molecule 46: 50S Ribosomal Protein L27

Chain B0:

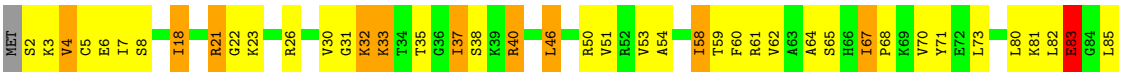
• Molecule 46: 50S Ribosomal Protein L27

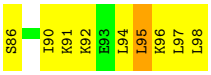
Chain D0:



• Molecule 47: 50S Ribosomal Protein L28

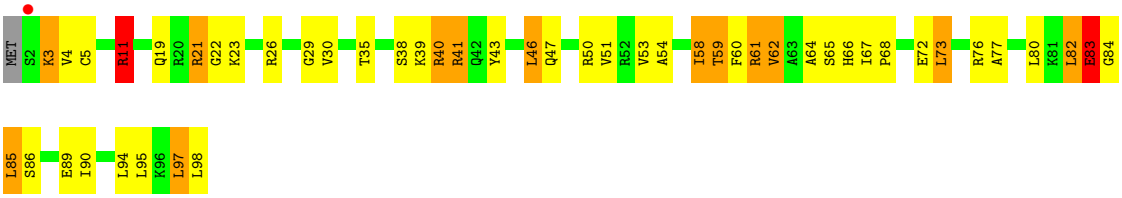
Chain B1:





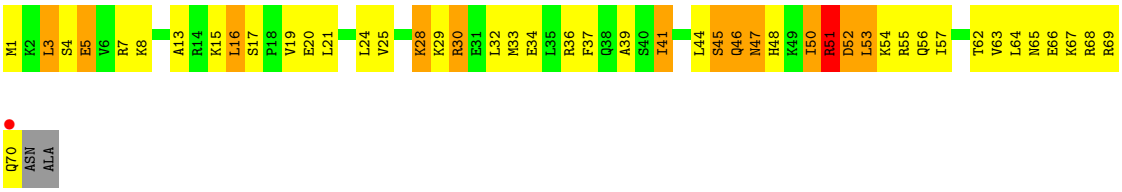
• Molecule 47: 50S Ribosomal Protein L28

Chain D1:



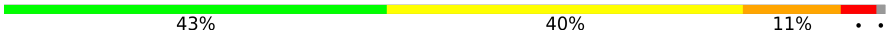
• Molecule 48: 50S Ribosomal Protein L29

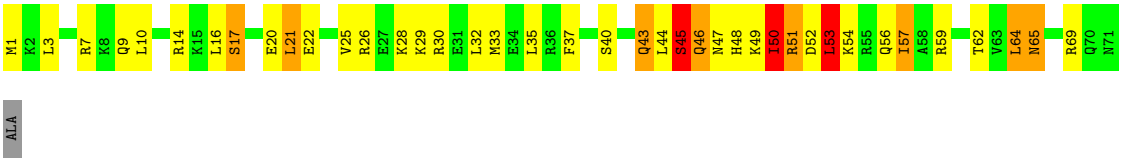
Chain B2:



• Molecule 48: 50S Ribosomal Protein L29

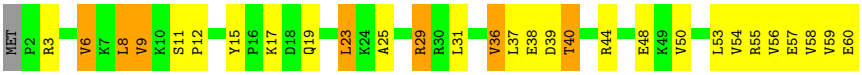
Chain D2:





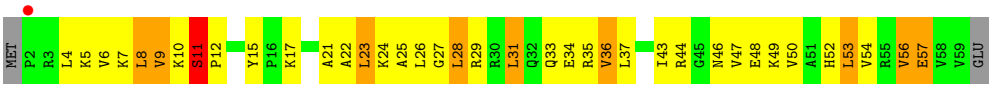
• Molecule 49: 50S Ribosomal Protein L30

Chain B3:



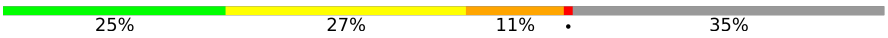
• Molecule 49: 50S Ribosomal Protein L30

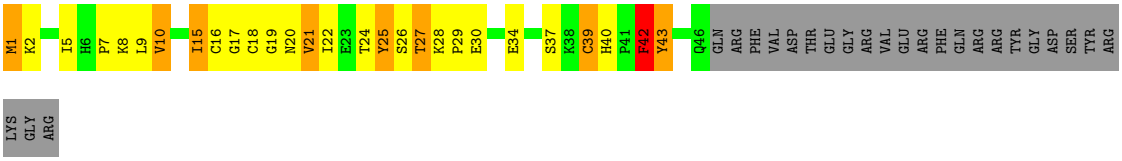
Chain D3:



• Molecule 50: 50S Ribosomal Protein L31

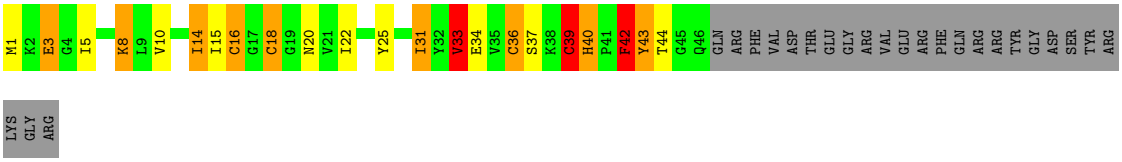
Chain B4:





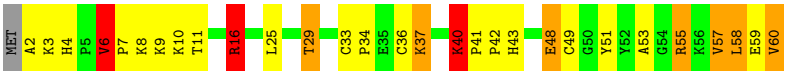
• Molecule 50: 50S Ribosomal Protein L31

Chain D4:



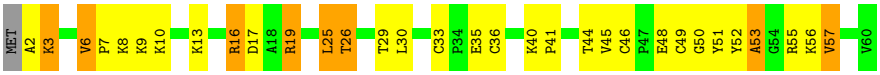
• Molecule 51: 50S Ribosomal Protein L32

Chain B5:



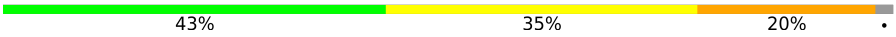
• Molecule 51: 50S Ribosomal Protein L32

Chain D5:



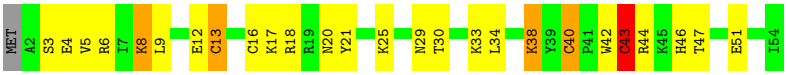
• Molecule 52: 50S Ribosomal Protein L33

Chain B6:



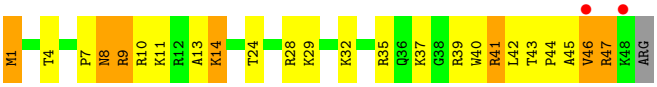
• Molecule 52: 50S Ribosomal Protein L33

Chain D6:



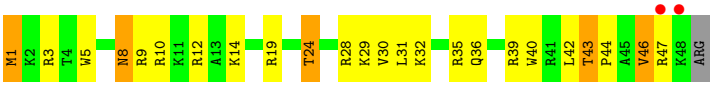
• Molecule 53: 50S Ribosomal Protein L34

Chain B7:



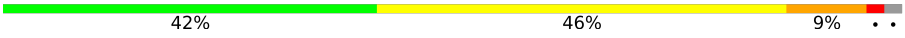
• Molecule 53: 50S Ribosomal Protein L34

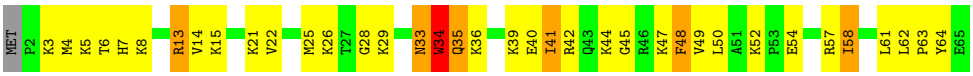
Chain D7:



• Molecule 54: 50S Ribosomal Protein L35

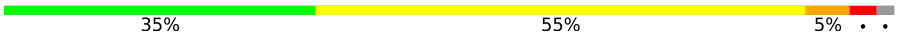
Chain B8:

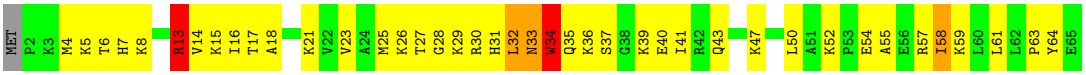




• Molecule 54: 50S Ribosomal Protein L35

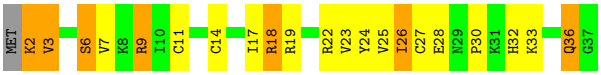
Chain D8:





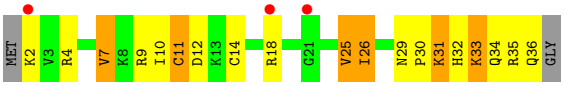
• Molecule 55: 50S Ribosomal Protein L36

Chain B9:



• Molecule 55: 50S Ribosomal Protein L36

Chain D9:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	209.96Å 448.86Å 624.20Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	34.91 – 3.20 34.91 – 3.20	Depositor EDS
% Data completeness (in resolution range)	99.8 (34.91-3.20) 99.7 (34.91-3.20)	Depositor EDS
R_{merge}	0.28	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.32 (at 3.18Å)	Xtriage
Refinement program	PHENIX 1.7.3_928	Depositor
R, R_{free}	0.188 , 0.245 0.186 , 0.242	Depositor DCC
R_{free} test set	48002 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å^2)	73.8	Xtriage
Anisotropy	0.161	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 69.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	284877	wwPDB-VP
Average B, all atoms (Å^2)	80.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.56% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

[2] Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, MG

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	AA	0.54	0/35273	0.59	10/55046 (0.0%)
1	CA	0.50	3/35152 (0.0%)	0.55	8/54858 (0.0%)
2	AB	0.81	0/1844	1.29	18/2498 (0.7%)
2	CB	0.73	1/1852 (0.1%)	1.21	15/2510 (0.6%)
3	AC	0.76	0/1458	1.24	13/1981 (0.7%)
3	CC	0.72	0/1477	1.16	9/2006 (0.4%)
4	AD	0.81	0/1550	1.36	15/2106 (0.7%)
4	CD	0.86	3/1567 (0.2%)	1.39	23/2125 (1.1%)
5	AE	0.84	1/1121 (0.1%)	1.36	15/1517 (1.0%)
5	CE	0.83	0/1131	1.35	16/1529 (1.0%)
6	AF	0.81	0/794	1.26	6/1082 (0.6%)
6	CF	0.75	0/797	1.12	4/1085 (0.4%)
7	AG	0.71	0/1169	1.16	8/1580 (0.5%)
7	CG	0.67	0/1166	1.21	13/1576 (0.8%)
8	AH	0.78	0/1065	1.31	10/1445 (0.7%)
8	CH	0.73	0/1069	1.19	7/1450 (0.5%)
9	AI	0.85	2/879 (0.2%)	1.38	8/1195 (0.7%)
9	CI	0.76	0/864	1.26	8/1177 (0.7%)
10	AJ	0.85	1/672 (0.1%)	1.28	7/919 (0.8%)
10	CJ	0.83	0/670	1.35	7/917 (0.8%)
11	AK	0.92	2/858 (0.2%)	1.30	7/1163 (0.6%)
11	CK	0.74	0/843	1.25	7/1144 (0.6%)
12	AL	0.91	0/925	1.32	8/1251 (0.6%)
12	CL	0.81	0/921	1.38	14/1247 (1.1%)
13	AM	0.88	1/824 (0.1%)	1.46	10/1120 (0.9%)
13	CM	0.77	0/794	1.32	12/1081 (1.1%)
14	AN	0.76	0/482	1.19	3/642 (0.5%)
14	CN	0.69	0/478	1.22	3/638 (0.5%)
15	AO	0.82	0/735	1.19	0/981
15	CO	0.75	0/735	1.15	4/981 (0.4%)
16	AP	0.79	0/662	1.48	13/898 (1.4%)
16	CP	0.82	0/677	1.30	5/917 (0.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	AQ	0.83	0/836	1.26	7/1117 (0.6%)
17	CQ	0.76	0/832	1.20	6/1113 (0.5%)
18	AR	0.85	0/519	1.27	4/699 (0.6%)
18	CR	0.75	0/519	1.08	1/699 (0.1%)
19	AS	0.75	0/574	1.32	4/781 (0.5%)
19	CS	0.66	0/543	1.21	5/740 (0.7%)
20	AT	0.76	0/716	1.25	5/947 (0.5%)
20	CT	0.83	0/776	1.26	6/1026 (0.6%)
21	AU	0.81	0/221	1.21	1/288 (0.3%)
21	CU	0.74	0/184	1.35	3/244 (1.2%)
22	AY	0.96	2/1043 (0.2%)	1.45	16/1399 (1.1%)
23	AV	0.57	0/1836	0.57	0/2859
23	CV	0.44	0/1836	0.50	0/2859
24	AX	0.47	0/147	0.47	0/227
24	CX	0.49	0/147	0.51	0/227
25	BA	0.81	4/66391 (0.0%)	0.68	12/103628 (0.0%)
25	DA	0.59	0/65653	0.58	3/102473 (0.0%)
26	BB	0.70	0/2878	0.65	0/4490
26	DB	0.50	0/2878	0.54	0/4490
27	BD	1.20	6/2181 (0.3%)	1.58	37/2940 (1.3%)
27	DD	0.97	0/2186	1.37	20/2944 (0.7%)
28	BE	1.22	5/1588 (0.3%)	1.55	24/2145 (1.1%)
28	DE	0.89	0/1588	1.41	21/2145 (1.0%)
29	BF	1.16	4/1609 (0.2%)	1.38	21/2177 (1.0%)
29	DF	0.81	0/1611	1.33	15/2180 (0.7%)
30	BG	0.87	0/1393	1.39	22/1892 (1.2%)
30	DG	0.67	0/1385	1.32	16/1881 (0.9%)
31	BH	1.10	4/1343 (0.3%)	1.50	16/1820 (0.9%)
31	DH	0.68	0/1343	1.25	18/1820 (1.0%)
32	BI	0.86	1/1081 (0.1%)	1.34	10/1477 (0.7%)
32	DI	0.78	0/1072	1.23	10/1465 (0.7%)
33	BN	1.22	2/1139 (0.2%)	1.63	17/1538 (1.1%)
33	DN	0.82	0/1139	1.39	14/1538 (0.9%)
34	BO	1.17	2/933 (0.2%)	1.44	9/1257 (0.7%)
34	DO	0.96	0/933	1.34	9/1257 (0.7%)
35	BP	1.08	0/1148	1.48	19/1529 (1.2%)
35	DP	0.79	0/1148	1.32	15/1529 (1.0%)
36	BQ	1.18	1/1143 (0.1%)	1.43	15/1527 (1.0%)
36	DQ	0.81	0/1143	1.21	7/1527 (0.5%)
37	BR	1.26	2/982 (0.2%)	1.40	7/1312 (0.5%)
37	DR	0.87	0/982	1.23	6/1312 (0.5%)
38	BS	0.99	0/875	1.37	8/1168 (0.7%)
38	DS	0.66	0/883	1.23	7/1176 (0.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
39	BT	1.12	1/1086 (0.1%)	1.42	10/1455 (0.7%)
39	DT	0.82	0/1072	1.20	6/1437 (0.4%)
40	BU	1.31	3/977 (0.3%)	1.36	8/1301 (0.6%)
40	DU	0.86	0/977	1.26	6/1301 (0.5%)
41	BV	1.22	3/777 (0.4%)	1.56	9/1044 (0.9%)
41	DV	0.76	0/781	1.18	3/1048 (0.3%)
42	BW	1.29	2/901 (0.2%)	1.50	10/1209 (0.8%)
42	DW	1.00	0/887	1.31	9/1192 (0.8%)
43	BX	1.21	0/756	1.48	10/1016 (1.0%)
43	DX	0.90	0/746	1.27	6/1005 (0.6%)
44	BY	1.05	1/798 (0.1%)	1.46	11/1073 (1.0%)
44	DY	0.76	0/794	1.30	11/1067 (1.0%)
45	BZ	1.02	3/1486 (0.2%)	1.48	27/2022 (1.3%)
45	DZ	0.72	1/1483 (0.1%)	1.25	15/2023 (0.7%)
46	B0	1.15	0/602	1.45	7/804 (0.9%)
46	D0	0.80	0/615	1.21	4/820 (0.5%)
47	B1	1.25	3/752 (0.4%)	1.43	5/1003 (0.5%)
47	D1	0.89	0/752	1.27	5/1003 (0.5%)
48	B2	1.07	0/590	1.37	7/781 (0.9%)
48	D2	0.77	0/586	1.21	3/779 (0.4%)
49	B3	1.26	1/463 (0.2%)	1.49	10/623 (1.6%)
49	D3	0.69	0/458	1.23	4/616 (0.6%)
50	B4	0.77	0/358	1.59	6/487 (1.2%)
50	D4	0.77	0/358	1.25	5/487 (1.0%)
51	B5	1.24	0/469	1.60	13/634 (2.1%)
51	D5	0.84	0/465	1.32	5/630 (0.8%)
52	B6	1.15	1/456 (0.2%)	1.57	5/609 (0.8%)
52	D6	0.89	0/444	1.29	6/595 (1.0%)
53	B7	1.32	2/426 (0.5%)	1.47	0/561
53	D7	1.06	1/410 (0.2%)	1.24	5/543 (0.9%)
54	B8	1.27	1/516 (0.2%)	1.64	12/679 (1.8%)
54	D8	0.95	1/516 (0.2%)	1.45	9/679 (1.3%)
55	B9	1.24	1/300 (0.3%)	1.55	3/395 (0.8%)
55	D9	0.84	0/295	1.24	2/390 (0.5%)
All	All	0.74	72/303213 (0.0%)	0.87	999/453838 (0.2%)

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
1	AA	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	CA	0	1
2	AB	0	4
2	CB	0	2
3	AC	0	2
4	AD	0	4
4	CD	0	5
5	AE	0	2
5	CE	0	1
7	AG	0	1
7	CG	0	1
9	AI	0	3
10	AJ	0	2
10	CJ	0	2
11	AK	0	1
12	AL	0	1
13	AM	0	3
13	CM	0	2
14	CN	0	1
16	CP	0	1
18	AR	0	1
20	AT	0	2
20	CT	0	2
21	CU	0	1
22	AY	0	1
27	BD	0	2
28	BE	0	2
28	DE	0	1
29	BF	0	2
29	DF	0	1
30	DG	0	3
31	DH	0	1
32	BI	0	3
34	BO	0	1
34	DO	0	1
35	BP	0	1
35	DP	0	1
36	BQ	0	2
36	DQ	0	1
38	BS	0	1
38	DS	0	1
39	BT	0	1
39	DT	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
43	BX	0	1
45	BZ	0	1
47	B1	0	1
47	D1	0	1
48	D2	0	1
50	B4	0	1
50	D4	0	1
51	B5	0	1
52	D6	0	1
All	All	0	82

All (72) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BR	38	VAL	CA-CB	-14.64	1.46	1.54
45	BZ	92	SER	CA-C	10.02	1.57	1.52
47	B1	67	ILE	CA-CB	-9.90	1.49	1.54
13	AM	116	THR	CA-C	8.12	1.62	1.53
28	BE	203	LYS	CA-C	8.02	1.61	1.53
40	BU	9	VAL	CA-CB	-7.30	1.45	1.54
34	BO	24	VAL	CA-CB	7.20	1.62	1.53
27	BD	165	ILE	CA-CB	-6.86	1.45	1.54
31	BH	45	VAL	CA-CB	-6.72	1.45	1.53
22	AY	4	ILE	CA-CB	6.60	1.63	1.54
41	BV	79	VAL	CA-C	6.50	1.60	1.52
28	BE	116	VAL	CA-CB	-6.45	1.45	1.54
9	AI	126	SER	CA-C	6.34	1.61	1.53
2	CB	15	VAL	CA-CB	6.22	1.62	1.54
40	BU	48	ALA	CA-CB	-6.11	1.43	1.53
44	BY	67	LEU	CA-C	-5.96	1.45	1.52
29	BF	154	VAL	CA-CB	-5.84	1.46	1.54
1	CA	129(A)	G	N1-C2	-5.84	1.26	1.37
49	B3	36	VAL	CA-CB	-5.83	1.47	1.54
4	CD	31	CYS	N-CA	5.77	1.52	1.46
37	BR	117	VAL	CA-CB	-5.75	1.47	1.54
31	BH	73	ALA	CA-CB	-5.66	1.44	1.53
29	BF	84	VAL	CA-CB	-5.65	1.46	1.54
11	AK	13	GLN	CA-C	5.64	1.60	1.52
33	BN	27	ALA	CA-CB	-5.61	1.44	1.53
11	AK	13	GLN	N-CA	5.60	1.53	1.46
28	BE	47	VAL	CA-CB	-5.60	1.47	1.54
27	BD	28	GLU	CG-CD	5.59	1.66	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	BF	48	THR	CA-CB	-5.57	1.44	1.53
47	B1	18	ILE	CA-CB	-5.55	1.47	1.54
53	B7	13	ALA	CA-CB	-5.54	1.44	1.53
45	BZ	171	ILE	CA-CB	5.51	1.61	1.54
1	CA	189(D)	C	C2-N3	-5.45	1.24	1.35
25	BA	945	A	C5-C6	-5.45	1.30	1.41
1	CA	189(D)	C	N3-C4	-5.45	1.23	1.33
31	BH	133	VAL	CA-CB	-5.43	1.48	1.54
29	BF	111	ALA	CA-CB	-5.43	1.44	1.53
45	DZ	107	THR	CA-CB	5.43	1.60	1.53
53	B7	46	VAL	CA-CB	5.42	1.61	1.54
31	BH	133	VAL	CA-C	-5.41	1.46	1.52
47	B1	37	ILE	CA-CB	-5.41	1.46	1.55
25	BA	1142(A)	A	N9-C4	-5.38	1.27	1.37
27	BD	50	THR	CA-CB	-5.38	1.45	1.53
28	BE	134	ILE	CA-CB	-5.35	1.47	1.54
4	CD	31	CYS	CA-CB	5.35	1.60	1.53
45	BZ	100	VAL	CA-C	-5.34	1.48	1.52
54	B8	41	ILE	CA-CB	-5.33	1.48	1.54
27	BD	28	GLU	CB-CG	5.28	1.68	1.52
39	BT	75	ILE	CA-CB	-5.27	1.48	1.54
54	D8	58	ILE	CA-CB	5.27	1.60	1.54
40	BU	105	VAL	CA-CB	-5.26	1.47	1.54
27	BD	144	ALA	CA-CB	-5.23	1.45	1.53
41	BV	58	VAL	CA-CB	-5.22	1.48	1.54
9	AI	119	ALA	CA-CB	-5.22	1.48	1.54
25	BA	528	A	N9-C4	-5.19	1.27	1.37
52	B6	43	CYS	CA-C	5.17	1.59	1.52
53	D7	30	VAL	CA-CB	-5.17	1.48	1.54
34	BO	63	VAL	CA-CB	-5.15	1.48	1.54
55	B9	7	VAL	CA-CB	-5.13	1.48	1.54
27	BD	191	ALA	CA-CB	-5.13	1.46	1.53
22	AY	9	ALA	CA-C	5.12	1.58	1.53
4	CD	30	LYS	CA-C	5.12	1.58	1.52
36	BQ	42	ILE	CA-CB	-5.12	1.48	1.54
10	AJ	90	LEU	CA-C	5.10	1.58	1.52
42	BW	12	ILE	CA-CB	-5.10	1.50	1.55
32	BI	39	ALA	CA-CB	-5.07	1.46	1.53
28	BE	202	LYS	CA-C	5.05	1.59	1.52
33	BN	9	VAL	CA-CB	5.04	1.60	1.54
41	BV	79	VAL	CA-CB	-5.03	1.49	1.54
5	AE	67	VAL	CA-C	5.02	1.58	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	BW	93	ALA	CA-CB	-5.02	1.45	1.53
25	BA	2689	U	C3'-O3'	5.01	1.50	1.43

All (999) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	189(D)	C	N3-C4-N4	-23.96	46.10	118.00
33	BN	46	VAL	N-CA-C	17.05	125.09	111.62
27	BD	239	ARG	N-CA-C	-13.99	86.88	108.42
31	BH	127	GLU	CA-C-N	-13.41	103.07	119.84
31	BH	127	GLU	C-N-CA	-13.41	103.07	119.84
45	BZ	94	GLU	CA-C-N	-13.30	106.48	120.85
45	BZ	94	GLU	C-N-CA	-13.30	106.48	120.85
54	B8	34	TRP	N-CA-C	-12.57	92.78	110.50
48	D2	45	SER	N-CA-C	-12.53	93.63	110.55
33	BN	128	HIS	CA-C-N	12.08	134.94	119.84
33	BN	128	HIS	C-N-CA	12.08	134.94	119.84
31	BH	92	ILE	N-CA-C	11.80	121.51	110.42
31	BH	7	LEU	CA-C-N	11.51	132.24	119.92
31	BH	7	LEU	C-N-CA	11.51	132.24	119.92
52	B6	40	CYS	CA-C-N	11.36	131.03	119.56
52	B6	40	CYS	C-N-CA	11.36	131.03	119.56
5	AE	67	VAL	N-CA-C	11.30	123.27	108.35
16	CP	14	ASN	CA-C-N	11.25	133.91	119.84
16	CP	14	ASN	C-N-CA	11.25	133.91	119.84
28	DE	125	GLY	CA-C-N	11.14	130.90	119.76
28	DE	125	GLY	C-N-CA	11.14	130.90	119.76
49	B3	11	SER	CA-C-N	11.08	131.39	119.87
49	B3	11	SER	C-N-CA	11.08	131.39	119.87
4	AD	31	CYS	N-CA-C	-10.77	100.10	113.02
19	AS	6	LYS	N-CA-C	10.74	122.74	111.14
28	DE	73	GLU	CA-C-N	10.73	130.84	119.89
28	DE	73	GLU	C-N-CA	10.73	130.84	119.89
43	BX	94	GLY	N-CA-C	10.72	125.91	112.83
44	BY	92	ASN	N-CA-C	10.68	125.86	113.15
16	AP	51	VAL	N-CA-C	-10.57	94.81	107.70
13	AM	11	ARG	N-CA-C	10.47	123.83	110.33
50	B4	28	LYS	CA-C-N	10.41	130.18	119.56
50	B4	28	LYS	C-N-CA	10.41	130.18	119.56
1	CA	189(D)	C	N3-C4-N4	-10.41	86.78	118.00
30	BG	88	ILE	N-CA-C	10.39	122.87	112.90
33	DN	46	VAL	N-CA-C	10.36	119.80	111.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	AM	9	ILE	CA-C-N	10.30	129.91	119.82
13	AM	9	ILE	C-N-CA	10.30	129.91	119.82
36	BQ	126	PRO	CA-C-O	-10.00	113.68	121.38
1	AA	189(D)	C	C5-C4-N4	9.83	149.69	120.20
12	CL	44	THR	CA-C-N	9.73	129.85	120.31
12	CL	44	THR	C-N-CA	9.73	129.85	120.31
5	AE	69	VAL	CA-C-N	9.71	131.98	119.84
5	AE	69	VAL	C-N-CA	9.71	131.98	119.84
38	DS	103	GLU	N-CA-C	-9.68	100.73	111.28
44	DY	92	ASN	N-CA-C	9.67	121.82	111.28
29	DF	91	GLY	CA-C-N	9.62	129.71	119.90
29	DF	91	GLY	C-N-CA	9.62	129.71	119.90
30	DG	141	PHE	CA-C-N	9.39	129.04	119.56
30	DG	141	PHE	C-N-CA	9.39	129.04	119.56
38	BS	96	GLY	N-CA-C	-9.35	91.02	113.18
14	CN	16	PHE	N-CA-C	9.31	123.10	109.69
41	BV	35	LEU	CA-C-N	9.23	129.31	119.90
41	BV	35	LEU	C-N-CA	9.23	129.31	119.90
32	BI	31	LEU	CA-C-N	-9.16	108.38	119.84
32	BI	31	LEU	C-N-CA	-9.16	108.38	119.84
50	B4	24	THR	N-CA-C	-9.16	96.33	108.34
28	BE	188	VAL	CA-C-N	9.13	129.20	119.89
28	BE	188	VAL	C-N-CA	9.13	129.20	119.89
8	AH	4	ASP	CA-C-N	9.12	128.72	119.24
8	AH	4	ASP	C-N-CA	9.12	128.72	119.24
35	DP	7	ARG	CA-C-N	9.11	129.14	119.76
35	DP	7	ARG	C-N-CA	9.11	129.14	119.76
22	AY	26	GLY	N-CA-C	9.09	130.93	116.01
33	BN	33	LEU	N-CA-C	-9.04	101.37	111.14
45	BZ	151	HIS	N-CA-C	9.03	124.03	112.92
1	CA	189(D)	C	N1-C2-O2	8.96	145.78	118.90
4	CD	156	GLU	N-CA-C	8.96	120.73	110.97
33	DN	128	HIS	CA-C-N	8.92	130.99	119.84
33	DN	128	HIS	C-N-CA	8.92	130.99	119.84
13	AM	116	THR	N-CA-C	8.91	121.96	109.31
19	CS	26	GLY	N-CA-C	8.88	126.84	114.85
45	BZ	153	SER	N-CA-C	-8.85	100.80	111.69
1	CA	129(A)	G	N1-C2-N2	-8.84	89.67	116.20
9	CI	46	ALA	N-CA-C	-8.79	102.56	113.28
55	B9	3	VAL	N-CA-C	8.78	120.53	107.80
50	B4	42	PHE	CA-C-N	8.74	137.44	121.70
50	B4	42	PHE	C-N-CA	8.74	137.44	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	BN	23	LEU	CA-C-N	-8.69	109.77	122.46
33	BN	23	LEU	C-N-CA	-8.69	109.77	122.46
2	AB	158	LEU	CA-C-N	8.65	128.72	119.89
2	AB	158	LEU	C-N-CA	8.65	128.72	119.89
54	B8	13	ARG	N-CA-C	8.65	124.04	112.88
1	CA	129(A)	G	N3-C2-N2	8.65	145.85	119.90
13	CM	9	ILE	CA-C-N	8.65	130.66	119.84
13	CM	9	ILE	C-N-CA	8.65	130.66	119.84
33	DN	10	GLU	CA-C-N	8.61	130.60	119.84
33	DN	10	GLU	C-N-CA	8.61	130.60	119.84
13	CM	15	VAL	N-CA-C	8.58	120.40	110.62
18	AR	31	LEU	N-CA-C	-8.57	97.80	110.48
28	BE	143	ASN	CA-C-N	-8.56	110.42	121.98
28	BE	143	ASN	C-N-CA	-8.56	110.42	121.98
46	D0	22	GLY	N-CA-C	8.55	121.32	110.38
28	BE	134	ILE	N-CA-C	8.54	120.29	112.17
27	BD	229	VAL	CB-CA-C	-8.47	99.68	112.05
6	AF	11	ASN	CA-C-N	8.46	128.08	118.85
6	AF	11	ASN	C-N-CA	8.46	128.08	118.85
10	CJ	62	HIS	N-CA-C	8.44	122.61	109.52
18	AR	22	VAL	N-CA-C	8.42	122.72	111.44
16	AP	50	LYS	N-CA-C	-8.38	96.07	107.88
34	DO	50	GLY	N-CA-C	-8.36	101.28	112.81
40	DU	8	VAL	N-CA-C	8.35	119.13	110.62
29	DF	80	ALA	CA-C-N	8.34	128.07	119.56
29	DF	80	ALA	C-N-CA	8.34	128.07	119.56
35	DP	116	GLY	N-CA-C	8.34	123.44	112.77
36	BQ	61	GLY	N-CA-C	8.34	122.80	112.79
34	BO	29	ASN	N-CA-C	8.32	123.16	112.92
11	AK	13	GLN	N-CA-C	8.30	128.48	110.80
12	AL	49	ASN	N-CA-C	8.26	121.44	110.53
12	CL	28	LYS	N-CA-C	-8.26	97.65	109.96
31	BH	20	ALA	CA-C-N	-8.23	111.26	119.90
31	BH	20	ALA	C-N-CA	-8.23	111.26	119.90
54	D8	34	TRP	N-CA-C	-8.19	99.21	110.35
1	CA	189(D)	C	C5-C4-N4	8.14	144.61	120.20
17	CQ	67	LYS	N-CA-C	-8.09	98.04	110.10
5	CE	67	VAL	N-CA-C	8.06	120.38	108.45
13	AM	63	THR	N-CA-C	8.05	121.22	111.40
30	DG	47	LYS	N-CA-C	-8.04	101.80	111.69
2	AB	169	LYS	N-CA-C	-8.04	93.69	110.80
2	CB	168	THR	N-CA-C	-8.04	97.78	109.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	DN	4	TYR	N-CA-C	8.00	120.77	111.02
4	AD	28	SER	CA-C-N	-7.97	111.15	121.91
4	AD	28	SER	C-N-CA	-7.97	111.15	121.91
25	BA	1992	G	C2'-C3'-O3'	7.96	121.44	109.50
45	BZ	67	LEU	CA-C-N	7.96	129.12	120.13
45	BZ	67	LEU	C-N-CA	7.96	129.12	120.13
50	D4	42	PHE	CA-C-N	7.92	135.96	121.70
50	D4	42	PHE	C-N-CA	7.92	135.96	121.70
1	AA	129(A)	G	C5-C6-O6	7.90	152.29	128.60
35	BP	40	SER	N-CA-C	-7.90	103.44	113.23
4	CD	28	SER	CA-C-N	-7.85	110.02	119.84
4	CD	28	SER	C-N-CA	-7.85	110.02	119.84
31	BH	13	LYS	N-CA-C	-7.84	98.87	110.48
54	D8	33	ASN	N-CA-C	7.84	123.02	113.38
33	DN	39	ARG	CA-C-N	7.80	127.46	119.82
33	DN	39	ARG	C-N-CA	7.80	127.46	119.82
42	BW	98	LYS	N-CA-C	-7.79	95.87	108.41
17	AQ	32	TYR	N-CA-C	7.79	122.50	112.92
14	CN	24	CYS	N-CA-C	7.77	120.67	108.79
4	CD	31	CYS	N-CA-CB	7.76	123.34	110.92
5	AE	86	ALA	CA-C-N	7.75	131.71	120.71
5	AE	86	ALA	C-N-CA	7.75	131.71	120.71
4	CD	38	TYR	CA-C-N	7.73	128.34	120.38
4	CD	38	TYR	C-N-CA	7.73	128.34	120.38
54	B8	52	LYS	CA-C-N	-7.72	110.94	118.97
54	B8	52	LYS	C-N-CA	-7.72	110.94	118.97
51	B5	33	CYS	CA-C-N	7.68	127.73	119.28
51	B5	33	CYS	C-N-CA	7.68	127.73	119.28
29	BF	89	VAL	CA-C-N	-7.68	110.37	122.65
29	BF	89	VAL	C-N-CA	-7.68	110.37	122.65
30	DG	121	ASN	CA-C-N	7.67	127.39	119.64
30	DG	121	ASN	C-N-CA	7.67	127.39	119.64
1	AA	129(A)	G	N1-C6-O6	-7.66	96.93	119.90
2	CB	124	SER	CA-C-N	7.63	129.38	119.84
2	CB	124	SER	C-N-CA	7.63	129.38	119.84
54	D8	52	LYS	CA-C-N	-7.63	111.03	118.97
54	D8	52	LYS	C-N-CA	-7.63	111.03	118.97
48	B2	45	SER	N-CA-C	-7.62	98.04	109.86
12	AL	27	LEU	N-CA-C	-7.61	97.93	109.96
33	BN	107	LEU	CA-C-N	-7.60	112.50	120.03
33	BN	107	LEU	C-N-CA	-7.60	112.50	120.03
31	DH	54	ARG	CA-C-N	7.55	127.19	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	DH	54	ARG	C-N-CA	7.55	127.19	119.56
51	B5	55	ARG	N-CA-C	-7.55	97.23	108.79
5	CE	26	PHE	N-CA-C	7.54	121.40	109.65
28	DE	31	CYS	CA-C-N	7.53	128.13	119.99
28	DE	31	CYS	C-N-CA	7.53	128.13	119.99
4	CD	31	CYS	CB-CA-C	7.53	123.15	111.02
35	BP	22	GLY	CA-C-N	7.53	127.40	119.05
35	BP	22	GLY	C-N-CA	7.53	127.40	119.05
30	DG	82	LEU	N-CA-C	7.53	119.52	110.19
1	AA	129(A)	G	N1-C2-N2	-7.52	93.64	116.20
45	DZ	14	LYS	CA-C-N	7.51	127.22	119.56
45	DZ	14	LYS	C-N-CA	7.51	127.22	119.56
40	BU	50	ARG	N-CA-C	-7.50	103.05	111.07
38	BS	95	HIS	N-CA-C	7.47	126.70	110.80
42	BW	17	VAL	CB-CA-C	-7.46	101.93	112.22
28	BE	145	LYS	N-CA-C	-7.45	103.99	113.23
10	AJ	62	HIS	N-CA-C	7.45	121.17	107.99
3	CC	119	ARG	CA-C-N	-7.45	114.40	122.59
3	CC	119	ARG	C-N-CA	-7.45	114.40	122.59
44	BY	76	CYS	CA-C-N	7.44	127.80	119.32
44	BY	76	CYS	C-N-CA	7.44	127.80	119.32
52	D6	40	CYS	CA-C-N	7.43	127.60	119.87
52	D6	40	CYS	C-N-CA	7.43	127.60	119.87
2	AB	11	LEU	N-CA-C	-7.42	104.12	113.02
30	BG	48	GLU	N-CA-C	-7.40	100.31	111.34
42	DW	12	ILE	N-CA-C	-7.40	97.24	107.75
36	DQ	64	ILE	CB-CA-C	-7.40	100.16	110.96
51	B5	4	HIS	CA-C-N	7.38	127.43	119.90
51	B5	4	HIS	C-N-CA	7.38	127.43	119.90
8	CH	12	ARG	N-CA-C	-7.38	103.32	111.36
28	BE	137	HIS	CA-C-N	7.37	127.00	119.56
28	BE	137	HIS	C-N-CA	7.37	127.00	119.56
22	AY	6	ARG	N-CA-C	7.37	121.91	112.34
34	BO	25	LEU	CB-CA-C	-7.34	99.35	111.68
20	CT	74	LYS	CB-CA-C	-7.34	108.12	116.63
35	BP	20	GLY	CA-C-N	-7.34	111.34	123.37
35	BP	20	GLY	C-N-CA	-7.34	111.34	123.37
44	BY	9	LYS	N-CA-C	-7.34	100.16	110.50
22	AY	103	LYS	N-CA-C	7.32	119.52	107.73
2	CB	25	ASN	CA-C-N	7.32	128.99	119.84
2	CB	25	ASN	C-N-CA	7.32	128.99	119.84
5	AE	105	VAL	CA-C-N	-7.32	112.17	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AE	105	VAL	C-N-CA	-7.32	112.17	119.56
27	BD	274	ARG	CA-C-N	7.31	134.86	121.70
27	BD	274	ARG	C-N-CA	7.31	134.86	121.70
1	CA	129(A)	G	C5-C6-O6	7.31	150.53	128.60
35	BP	47	ASP	CA-C-N	7.31	127.47	119.87
35	BP	47	ASP	C-N-CA	7.31	127.47	119.87
31	DH	167	GLU	CA-C-N	7.30	127.26	120.03
31	DH	167	GLU	C-N-CA	7.30	127.26	120.03
1	AA	189(D)	C	C2-N3-C4	7.28	141.74	119.90
52	B6	30	THR	CA-C-N	7.26	126.77	118.85
52	B6	30	THR	C-N-CA	7.26	126.77	118.85
31	DH	9	ILE	N-CA-C	7.25	115.36	107.60
27	DD	229	VAL	CB-CA-C	-7.24	102.37	112.14
40	DU	9	VAL	CB-CA-C	-7.22	102.64	111.88
29	BF	9	ILE	CA-C-N	7.21	127.21	119.78
29	BF	9	ILE	C-N-CA	7.21	127.21	119.78
30	DG	48	GLU	N-CA-C	-7.19	98.31	108.23
48	B2	8	LYS	N-CA-C	-7.16	103.41	111.07
16	AP	40	ASP	CB-CA-C	7.14	117.61	110.33
4	AD	31	CYS	N-CA-CB	7.12	120.80	110.47
45	BZ	92	SER	N-CA-C	7.11	119.40	108.30
35	BP	44	GLY	N-CA-C	-7.08	100.33	110.46
45	DZ	151	HIS	N-CA-C	7.07	122.91	113.72
45	DZ	153	SER	N-CA-C	-7.07	103.66	111.36
9	CI	3	GLN	N-CA-C	7.04	120.06	110.55
5	AE	87	SER	N-CA-C	7.03	120.43	110.23
50	B4	19	GLY	N-CA-C	-7.03	106.27	115.47
41	BV	79	VAL	CB-CA-C	7.01	118.64	110.93
54	D8	13	ARG	N-CA-C	7.00	122.68	113.30
35	DP	26	GLY	N-CA-C	6.98	121.96	111.42
27	BD	131	LEU	CA-C-N	-6.98	113.51	120.98
27	BD	131	LEU	C-N-CA	-6.98	113.51	120.98
27	BD	237	GLU	N-CA-C	-6.98	95.94	110.80
36	BQ	55	VAL	N-CA-C	-6.97	103.51	110.62
45	DZ	56	VAL	N-CA-C	6.95	117.63	110.05
30	DG	116	ASP	N-CA-C	6.94	120.63	112.72
36	BQ	136	ALA	N-CA-C	-6.92	104.72	113.72
35	DP	55	ARG	N-CA-C	-6.91	98.94	109.85
21	CU	13	ILE	CB-CA-C	-6.91	103.04	111.88
5	CE	69	VAL	CA-C-N	6.90	128.47	119.84
5	CE	69	VAL	C-N-CA	6.90	128.47	119.84
3	AC	60	ALA	N-CA-C	-6.90	99.30	108.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	CL	27	LEU	N-CA-C	-6.89	100.02	109.95
33	DN	69	GLN	N-CA-C	6.89	120.16	111.69
48	B2	51	ARG	N-CA-C	-6.88	96.15	110.80
51	D5	53	ALA	N-CA-C	6.86	119.60	111.02
10	CJ	49	VAL	N-CA-C	6.85	118.17	108.17
4	CD	31	CYS	N-CA-C	-6.85	104.23	112.59
13	AM	85	GLY	N-CA-C	-6.84	102.96	112.13
27	DD	40	THR	N-CA-C	6.84	121.79	113.38
8	AH	56	LYS	CA-C-N	6.82	128.37	119.84
8	AH	56	LYS	C-N-CA	6.82	128.37	119.84
12	AL	28	LYS	N-CA-C	-6.81	99.58	109.59
13	CM	106	ASN	CB-CA-C	-6.80	108.74	116.63
9	CI	103	THR	N-CA-C	6.80	121.83	109.32
28	DE	142	GLY	N-CA-C	6.80	122.62	111.27
31	DH	70	THR	N-CA-C	-6.79	101.77	110.19
44	DY	9	LYS	N-CA-C	-6.78	100.45	110.48
22	AY	38	HIS	N-CA-C	6.78	119.88	108.02
27	BD	35	LYS	CA-C-N	-6.78	112.96	120.14
27	BD	35	LYS	C-N-CA	-6.78	112.96	120.14
37	BR	73	VAL	N-CA-C	6.77	116.92	110.42
28	DE	134	ILE	N-CA-C	6.77	119.40	112.90
29	BF	53	THR	N-CA-C	-6.76	101.61	110.53
31	BH	162	ILE	CB-CA-C	-6.76	101.79	111.19
40	BU	75	ASN	N-CA-C	6.74	120.35	110.17
45	BZ	64	GLY	N-CA-C	-6.74	106.67	114.69
42	BW	110	LYS	N-CA-C	6.74	120.18	112.57
27	BD	27	THR	N-CA-C	6.73	121.65	113.17
27	BD	245	PRO	CA-C-N	6.73	126.69	119.76
27	BD	245	PRO	C-N-CA	6.73	126.69	119.76
30	BG	121	ASN	CA-C-N	6.70	126.40	119.56
30	BG	121	ASN	C-N-CA	6.70	126.40	119.56
4	CD	30	LYS	N-CA-C	6.70	119.14	107.49
20	CT	45	GLN	N-CA-C	6.69	120.06	112.97
27	DD	143	HIS	N-CA-C	6.69	117.11	108.34
10	AJ	52	GLY	CA-C-N	6.69	126.32	119.56
10	AJ	52	GLY	C-N-CA	6.69	126.32	119.56
44	DY	21	LYS	N-CA-C	-6.68	100.27	110.30
29	BF	91	GLY	CA-C-N	6.68	126.72	119.90
29	BF	91	GLY	C-N-CA	6.68	126.72	119.90
11	AK	14	VAL	N-CA-C	6.68	117.50	107.75
37	BR	117	VAL	CB-CA-C	-6.68	102.42	111.63
20	AT	73	HIS	N-CA-C	6.67	119.32	109.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BD	259	THR	N-CA-C	6.67	121.26	112.72
27	DD	271	ILE	CB-CA-C	-6.67	100.36	111.29
34	DO	92	GLU	N-CA-C	-6.67	101.09	110.29
33	DN	33	LEU	N-CA-C	-6.65	104.03	111.28
45	BZ	122	ARG	N-CA-C	-6.65	105.17	113.28
11	AK	95	ILE	CB-CA-C	-6.63	103.33	112.02
48	B2	5	GLU	N-CA-C	-6.63	104.12	111.82
31	DH	59	ARG	N-CA-C	6.63	119.11	111.02
35	DP	12	ALA	N-CA-C	-6.63	105.19	113.28
11	CK	88	GLY	N-CA-C	6.62	119.61	112.33
22	AY	68	GLY	N-CA-C	6.62	128.87	113.18
34	DO	118	ALA	CA-C-N	6.62	128.11	119.84
34	DO	118	ALA	C-N-CA	6.62	128.11	119.84
35	BP	55	ARG	N-CA-C	-6.61	101.00	110.59
4	CD	171	GLY	CA-C-N	6.61	128.10	119.84
4	CD	171	GLY	C-N-CA	6.61	128.10	119.84
11	AK	86	GLY	N-CA-C	6.61	121.03	112.18
29	DF	9	ILE	CA-C-N	6.61	127.00	119.93
29	DF	9	ILE	C-N-CA	6.61	127.00	119.93
12	CL	124	LYS	CA-C-N	6.60	126.78	120.31
12	CL	124	LYS	C-N-CA	6.60	126.78	120.31
7	AG	111	ARG	CA-C-N	6.58	126.21	119.56
7	AG	111	ARG	C-N-CA	6.58	126.21	119.56
2	CB	229	VAL	N-CA-C	6.58	117.57	108.89
28	BE	142	GLY	N-CA-C	6.56	122.29	111.59
54	D8	58	ILE	CB-CA-C	-6.56	103.44	112.04
51	B5	3	LYS	N-CA-C	6.56	120.19	112.72
28	BE	200	GLU	N-CA-C	-6.55	101.44	110.35
5	CE	7	GLU	N-CA-C	6.54	119.74	111.69
19	CS	47	HIS	CB-CA-C	-6.54	107.25	115.89
49	D3	9	VAL	N-CA-C	6.54	119.17	112.90
5	AE	99	GLY	N-CA-C	-6.53	105.38	112.04
28	DE	21	VAL	CA-C-N	6.53	126.76	119.90
28	DE	21	VAL	C-N-CA	6.53	126.76	119.90
28	BE	144	ARG	N-CA-C	6.53	118.50	108.12
19	AS	36	ARG	N-CA-C	-6.53	104.00	112.23
31	BH	172	LYS	CA-C-N	6.53	126.55	119.89
31	BH	172	LYS	C-N-CA	6.53	126.55	119.89
17	AQ	96	GLU	N-CA-C	-6.52	101.92	110.53
13	AM	10	PRO	N-CA-C	6.52	122.39	113.98
36	DQ	98	LYS	CA-C-N	-6.52	113.27	119.85
36	DQ	98	LYS	C-N-CA	-6.52	113.27	119.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	DD	220	HIS	CA-C-N	-6.51	114.65	123.12
27	DD	220	HIS	C-N-CA	-6.51	114.65	123.12
31	DH	169	VAL	N-CA-C	6.51	118.41	112.29
30	BG	46	ALA	N-CA-C	-6.51	105.41	113.15
40	BU	65	ILE	CB-CA-C	-6.51	103.52	112.04
43	BX	24	GLY	N-CA-C	6.50	123.37	115.31
27	DD	34	VAL	N-CA-C	6.50	117.24	107.75
43	DX	76	ARG	N-CA-C	6.49	118.01	108.86
49	D3	11	SER	CA-C-N	6.49	126.11	119.56
49	D3	11	SER	C-N-CA	6.49	126.11	119.56
30	BG	45	GLU	N-CA-C	-6.48	104.30	111.36
37	BR	97	VAL	CB-CA-C	-6.48	100.87	110.33
13	AM	96	LEU	N-CA-C	6.47	117.57	110.13
40	BU	38	THR	N-CA-C	-6.46	104.08	112.23
16	AP	40	ASP	CA-C-N	-6.46	111.76	119.84
16	AP	40	ASP	C-N-CA	-6.46	111.76	119.84
54	B8	33	ASN	N-CA-C	6.46	121.32	113.38
44	DY	52	SER	CA-C-N	-6.46	113.13	119.78
44	DY	52	SER	C-N-CA	-6.46	113.13	119.78
45	DZ	82	ARG	CA-C-N	-6.46	113.88	120.85
45	DZ	82	ARG	C-N-CA	-6.46	113.88	120.85
7	CG	114	ARG	N-CA-C	6.45	121.30	113.17
16	CP	48	TRP	N-CA-C	-6.45	104.99	112.92
37	DR	12	ARG	N-CA-C	-6.45	98.87	108.99
43	BX	25	LYS	N-CA-C	6.45	119.24	108.73
7	CG	82	GLY	N-CA-C	6.45	122.49	114.37
39	DT	25	GLY	N-CA-C	-6.45	107.02	114.69
6	CF	50	TYR	CA-C-N	-6.44	114.00	120.31
6	CF	50	TYR	C-N-CA	-6.44	114.00	120.31
28	BE	137	HIS	N-CA-C	6.44	119.64	110.24
27	BD	223	GLY	N-CA-C	-6.44	104.85	112.64
7	CG	56	GLN	CB-CA-C	-6.43	107.40	115.89
15	CO	21	ASP	N-CA-C	6.43	124.49	110.80
32	DI	133	HIS	CA-C-N	6.42	126.44	119.89
32	DI	133	HIS	C-N-CA	6.42	126.44	119.89
42	BW	62	HIS	N-CA-C	6.41	121.25	113.17
2	AB	200	ILE	N-CA-C	6.41	117.94	108.45
36	BQ	69	PHE	CA-C-N	6.41	127.85	119.84
36	BQ	69	PHE	C-N-CA	6.41	127.85	119.84
40	BU	102	GLU	CA-C-N	6.40	125.97	119.19
40	BU	102	GLU	C-N-CA	6.40	125.97	119.19
33	DN	110	GLY	CA-C-N	6.40	125.89	119.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	DN	110	GLY	C-N-CA	6.40	125.89	119.24
17	CQ	57	VAL	N-CA-C	6.39	116.62	108.82
21	CU	7	ARG	N-CA-C	-6.39	104.64	112.88
8	AH	131	GLY	N-CA-C	6.38	119.58	111.09
55	B9	23	VAL	CB-CA-C	-6.38	103.00	110.91
43	DX	35	THR	N-CA-C	6.38	119.93	110.48
42	BW	111	HIS	N-CA-C	6.38	119.28	110.35
30	DG	65	GLY	N-CA-C	-6.38	105.82	115.00
5	CE	72	GLN	N-CA-C	6.38	119.77	112.57
44	DY	98	VAL	N-CA-C	6.37	116.59	108.82
28	BE	83	ASP	N-CA-C	-6.36	102.69	111.28
9	AI	122	ALA	CA-C-N	-6.36	114.22	120.52
9	AI	122	ALA	C-N-CA	-6.36	114.22	120.52
27	DD	259	THR	N-CA-C	6.36	121.99	113.72
27	BD	274	ARG	N-CA-C	-6.36	101.57	110.35
28	DE	77	ILE	N-CA-C	6.36	117.45	108.17
22	AY	13	GLY	N-CA-C	6.35	125.31	115.72
38	DS	53	SER	N-CA-C	-6.34	104.06	110.97
39	DT	118	ARG	N-CA-C	-6.34	104.45	111.36
3	AC	72	LYS	CA-C-N	6.33	126.02	119.56
3	AC	72	LYS	C-N-CA	6.33	126.02	119.56
45	DZ	149	SER	N-CA-C	6.33	119.58	108.75
31	BH	30	LYS	N-CA-C	6.33	120.71	112.92
30	BG	121	ASN	N-CA-C	6.33	118.78	109.42
1	AA	129(A)	G	N3-C2-N2	6.32	138.85	119.90
25	BA	1332	G	C4-N9-C1'	6.32	145.45	126.50
40	DU	102	GLU	CA-C-N	6.31	126.22	119.28
40	DU	102	GLU	C-N-CA	6.31	126.22	119.28
3	CC	30	ARG	N-CA-C	-6.31	103.70	111.40
7	CG	147	ALA	N-CA-C	-6.30	104.29	112.23
15	CO	47	LYS	N-CA-C	-6.30	105.34	113.16
36	DQ	134	ARG	N-CA-C	6.29	118.14	111.28
35	BP	43	GLY	N-CA-C	6.28	121.13	113.79
31	DH	171	LEU	N-CA-C	6.28	116.56	108.34
46	D0	43	THR	N-CA-C	6.27	120.64	112.92
31	DH	38	SER	CA-C-N	6.27	125.96	119.56
31	DH	38	SER	C-N-CA	6.27	125.96	119.56
1	CA	129(A)	G	N1-C6-O6	-6.26	101.10	119.90
48	D2	50	ILE	CB-CA-C	-6.25	102.66	111.28
11	AK	48	ILE	N-CA-C	-6.25	103.15	110.21
45	BZ	74	VAL	CB-CA-C	-6.24	102.43	110.98
30	BG	55	LYS	N-CA-C	-6.24	104.94	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	DF	24	LEU	CA-C-N	6.24	126.26	119.90
29	DF	24	LEU	C-N-CA	6.24	126.26	119.90
7	AG	87	VAL	N-CA-C	6.23	114.83	107.73
34	BO	9	GLU	N-CA-C	-6.23	100.36	110.20
2	AB	117	GLU	N-CA-C	-6.23	97.53	110.80
34	DO	26	LYS	N-CA-C	-6.23	96.77	107.61
54	D8	8	LYS	N-CA-C	6.22	118.87	111.71
9	AI	44	VAL	N-CA-C	6.22	118.08	112.17
9	AI	126	SER	N-CA-C	6.22	116.49	108.34
12	CL	24	VAL	CA-C-N	6.22	127.61	119.84
12	CL	24	VAL	C-N-CA	6.22	127.61	119.84
38	BS	81	GLY	N-CA-C	6.21	122.20	114.37
46	B0	22	GLY	N-CA-C	6.21	119.66	111.70
4	CD	13	ARG	N-CA-C	6.21	120.67	111.04
27	BD	113	VAL	CB-CA-C	-6.21	101.46	111.59
3	AC	27	LYS	N-CA-C	6.20	117.71	111.07
34	BO	89	ASN	N-CA-C	6.20	119.69	111.75
42	DW	85	VAL	N-CA-C	6.20	116.55	107.37
16	AP	67	THR	N-CA-C	-6.20	102.50	110.19
45	BZ	157	LEU	CA-C-N	6.19	126.76	120.38
45	BZ	157	LEU	C-N-CA	6.19	126.76	120.38
27	BD	49	ILE	CB-CA-C	-6.18	103.85	111.08
9	AI	52	ALA	N-CA-C	6.17	118.80	111.33
10	CJ	34	VAL	N-CA-C	6.17	122.18	109.34
27	BD	171	ASP	N-CA-C	-6.17	105.72	113.18
29	DF	68	LYS	N-CA-C	6.16	119.59	109.85
2	AB	172	ILE	CB-CA-C	-6.16	104.00	111.88
5	CE	84	PHE	N-CA-C	-6.16	106.03	112.93
35	BP	65	ARG	N-CA-C	6.15	119.52	109.06
4	CD	188	LEU	CA-C-N	6.13	126.48	119.93
4	CD	188	LEU	C-N-CA	6.13	126.48	119.93
9	CI	20	ARG	CA-C-N	6.12	127.50	119.84
9	CI	20	ARG	C-N-CA	6.12	127.50	119.84
47	D1	82	LEU	N-CA-C	-6.12	100.33	109.94
3	AC	100	ALA	N-CA-C	6.12	123.83	110.80
2	AB	24	TRP	N-CA-C	6.11	123.82	110.80
34	DO	27	GLY	N-CA-C	6.11	125.28	112.45
1	AA	189(D)	C	N1-C2-O2	6.09	137.17	118.90
47	D1	22	GLY	N-CA-C	6.09	118.25	112.04
12	CL	18	VAL	N-CA-C	6.08	116.72	110.82
27	DD	274	ARG	CA-C-N	6.08	132.65	121.70
27	DD	274	ARG	C-N-CA	6.08	132.65	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	DS	82	ILE	CA-C-N	6.08	132.65	121.70
38	DS	82	ILE	C-N-CA	6.08	132.65	121.70
2	AB	86	GLU	N-CA-C	-6.08	105.72	113.01
13	CM	71	ARG	N-CA-C	-6.07	104.22	111.69
46	B0	23	VAL	CB-CA-C	-6.07	102.29	111.33
32	DI	120	ILE	CB-CA-C	-6.06	103.98	111.08
29	DF	9	ILE	N-CA-C	6.06	117.29	107.71
42	BW	85	VAL	N-CA-C	6.06	117.51	108.54
44	BY	23	ARG	N-CA-C	-6.06	101.96	110.50
13	CM	65	LYS	CA-C-N	6.06	132.61	121.70
13	CM	65	LYS	C-N-CA	6.06	132.61	121.70
10	AJ	76	ASN	CA-C-N	6.05	127.41	119.84
10	AJ	76	ASN	C-N-CA	6.05	127.41	119.84
29	BF	77	ASP	N-CA-C	-6.05	98.41	108.75
45	BZ	100	VAL	CA-C-N	6.05	126.39	119.92
45	BZ	100	VAL	C-N-CA	6.05	126.39	119.92
29	BF	23	ASP	N-CA-C	-6.03	103.86	110.91
8	AH	75	ARG	CA-C-N	6.02	126.04	119.90
8	AH	75	ARG	C-N-CA	6.02	126.04	119.90
30	BG	96	ARG	N-CA-C	6.02	117.46	108.31
10	CJ	97	GLU	N-CA-C	6.00	119.32	108.69
30	BG	28	VAL	CB-CA-C	-6.00	104.18	112.04
29	BF	58	ALA	N-CA-C	6.00	120.22	113.02
33	DN	25	ARG	N-CA-C	-5.99	104.87	111.82
27	BD	231	HIS	CA-C-N	5.99	126.14	119.32
27	BD	231	HIS	C-N-CA	5.99	126.14	119.32
32	BI	25	TYR	N-CA-C	-5.98	104.68	111.14
42	BW	4	LYS	N-CA-C	5.98	119.30	109.85
43	BX	86	GLY	N-CA-C	5.98	122.20	115.08
41	DV	37	VAL	N-CA-C	5.98	116.73	108.12
33	BN	25	ARG	N-CA-C	-5.98	104.70	112.23
46	B0	10	THR	N-CA-C	5.97	118.14	108.41
4	CD	58	LEU	N-CA-C	-5.97	104.46	110.97
16	AP	54	GLU	N-CA-C	-5.97	104.71	112.23
39	BT	121	ILE	CB-CA-C	-5.96	103.99	112.22
12	CL	49	ASN	N-CA-C	5.96	117.58	110.19
42	DW	17	VAL	CB-CA-C	-5.96	104.25	112.24
22	AY	59	ALA	N-CA-C	-5.96	99.34	108.76
25	BA	945	A	C6-C5-N7	-5.96	114.41	132.30
5	CE	80	ILE	N-CA-C	5.96	117.27	108.45
27	BD	256	GLY	N-CA-C	5.96	123.26	115.40
38	DS	65	VAL	N-CA-C	-5.95	104.70	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	BF	168	ARG	N-CA-C	5.95	118.55	111.71
52	B6	15	GLU	N-CA-C	5.95	117.63	111.03
33	BN	134	ARG	CA-C-N	5.93	126.28	119.93
33	BN	134	ARG	C-N-CA	5.93	126.28	119.93
54	B8	21	LYS	CA-C-N	-5.93	115.84	123.19
54	B8	21	LYS	C-N-CA	-5.93	115.84	123.19
1	CA	189(D)	C	N3-C2-O2	-5.92	104.13	121.90
41	BV	71	LEU	CA-C-N	-5.91	115.19	122.93
41	BV	71	LEU	C-N-CA	-5.91	115.19	122.93
4	AD	43	HIS	N-CA-C	5.91	120.54	112.68
33	DN	71	ILE	N-CA-C	5.89	116.36	107.75
32	BI	94	ALA	N-CA-C	-5.89	104.78	111.14
38	DS	34	HIS	N-CA-C	5.89	118.17	109.69
43	DX	25	LYS	N-CA-C	5.89	118.26	109.25
27	BD	163	ALA	N-CA-C	-5.88	100.20	109.50
37	BR	38	VAL	CB-CA-C	-5.88	108.11	113.70
43	BX	93	GLU	CA-C-N	5.88	126.62	120.03
43	BX	93	GLU	C-N-CA	5.88	126.62	120.03
51	B5	16	ARG	N-CA-C	-5.88	104.79	111.14
3	CC	132	ARG	N-CA-C	-5.88	106.10	113.28
42	DW	79	GLY	CA-C-N	5.88	126.18	119.83
42	DW	79	GLY	C-N-CA	5.88	126.18	119.83
35	DP	22	GLY	CA-C-N	5.88	125.25	118.85
35	DP	22	GLY	C-N-CA	5.88	125.25	118.85
42	DW	6	ILE	N-CA-C	5.87	116.33	108.11
27	BD	75	ILE	CA-C-N	5.87	125.84	120.21
27	BD	75	ILE	C-N-CA	5.87	125.84	120.21
28	DE	168	MET	N-CA-C	5.86	119.10	109.72
25	DA	1653	G	C2'-C3'-O3'	5.86	118.29	109.50
27	DD	256	GLY	N-CA-C	5.86	123.15	115.47
29	DF	110	LEU	N-CA-C	-5.86	104.80	111.07
27	BD	56	GLY	N-CA-C	5.86	122.03	113.48
45	BZ	138	GLU	N-CA-C	5.86	118.46	110.55
11	CK	125	PHE	N-CA-C	5.84	120.10	112.92
25	DA	1992	G	C2'-C3'-O3'	5.84	118.25	109.50
32	BI	67	ARG	N-CA-C	-5.83	104.61	110.97
51	D5	50	GLY	N-CA-C	-5.83	107.13	115.64
27	DD	85	ASP	CA-C-N	5.82	125.50	119.56
27	DD	85	ASP	C-N-CA	5.82	125.50	119.56
27	BD	275	LYS	N-CA-C	-5.82	94.72	111.00
8	CH	4	ASP	CA-C-N	5.82	125.95	119.32
8	CH	4	ASP	C-N-CA	5.82	125.95	119.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	BF	9	ILE	N-CA-C	5.81	114.35	107.73
3	AC	98	ASN	N-CA-C	5.80	118.38	110.55
37	BR	114	VAL	CB-CA-C	-5.80	102.04	110.63
35	BP	126	VAL	CB-CA-C	-5.80	103.94	110.96
10	CJ	88	LEU	N-CA-C	5.80	117.88	108.08
47	D1	11	ARG	CA-C-N	5.79	125.80	119.89
47	D1	11	ARG	C-N-CA	5.79	125.80	119.89
4	AD	25	ARG	N-CA-C	5.79	117.27	111.07
28	DE	87	GLU	N-CA-C	-5.79	104.89	111.14
42	BW	111	HIS	CB-CA-C	-5.78	100.48	109.61
28	BE	47	VAL	CB-CA-C	-5.78	102.08	110.63
34	BO	3	GLN	N-CA-C	-5.77	102.93	108.13
35	DP	45	LEU	N-CA-C	5.77	127.17	111.00
34	BO	118	ALA	CA-C-N	5.77	125.14	118.85
34	BO	118	ALA	C-N-CA	5.77	125.14	118.85
44	DY	13	VAL	N-CA-C	5.76	115.95	108.35
22	AY	68	GLY	CA-C-N	5.75	132.06	121.70
22	AY	68	GLY	C-N-CA	5.75	132.06	121.70
32	DI	94	ALA	N-CA-C	-5.75	105.01	111.28
36	BQ	127	ILE	CB-CA-C	-5.75	101.86	111.29
27	BD	91	ARG	CA-C-N	-5.74	113.02	122.67
27	BD	91	ARG	C-N-CA	-5.74	113.02	122.67
8	CH	71	GLY	CA-C-N	-5.74	114.34	120.03
8	CH	71	GLY	C-N-CA	-5.74	114.34	120.03
31	DH	9	ILE	CA-C-N	5.74	127.02	119.84
31	DH	9	ILE	C-N-CA	5.74	127.02	119.84
13	CM	90	LEU	N-CA-C	-5.74	102.91	110.43
22	AY	32	LYS	N-CA-C	5.74	123.03	110.80
34	BO	114	ILE	CB-CA-C	-5.74	104.52	112.04
3	CC	51	GLY	N-CA-C	5.74	116.95	111.67
55	D9	11	CYS	N-CA-C	5.73	119.02	109.96
11	AK	82	VAL	N-CA-C	5.72	116.82	108.58
3	AC	3	ASN	N-CA-C	5.72	121.15	113.72
54	D8	31	HIS	N-CA-C	-5.72	98.62	110.80
13	CM	46	LYS	N-CA-C	-5.71	105.42	112.90
21	CU	17	THR	N-CA-C	5.71	115.82	108.34
16	CP	45	THR	CA-C-N	5.71	126.97	119.84
16	CP	45	THR	C-N-CA	5.71	126.97	119.84
5	CE	66	MET	N-CA-C	5.70	118.06	109.23
17	AQ	67	LYS	N-CA-C	-5.70	102.60	110.35
39	BT	125	ARG	CA-C-N	-5.70	114.38	122.41
39	BT	125	ARG	C-N-CA	-5.70	114.38	122.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	CB	228	GLY	N-CA-C	5.70	119.18	111.72
28	BE	97	LYS	CA-C-N	-5.69	114.10	119.85
28	BE	97	LYS	C-N-CA	-5.69	114.10	119.85
45	BZ	117	LEU	CA-C-N	-5.69	114.85	122.42
45	BZ	117	LEU	C-N-CA	-5.69	114.85	122.42
43	DX	10	ALA	CA-C-N	-5.69	114.73	120.31
43	DX	10	ALA	C-N-CA	-5.69	114.73	120.31
20	CT	73	HIS	N-CA-C	5.68	115.52	108.19
33	BN	62	VAL	N-CA-C	5.68	115.84	108.35
31	DH	19	VAL	N-CA-C	5.67	115.77	107.37
47	D1	85	LEU	N-CA-C	5.67	117.61	110.24
44	DY	91	GLU	N-CA-C	-5.67	106.13	113.16
11	CK	120	ARG	CA-C-N	5.67	125.65	120.21
11	CK	120	ARG	C-N-CA	5.67	125.65	120.21
42	DW	98	LYS	N-CA-C	-5.66	100.59	109.25
25	BA	308	G	C4-N9-C1'	5.66	143.48	126.50
49	B3	40	THR	CA-C-N	-5.66	112.68	118.85
49	B3	40	THR	C-N-CA	-5.66	112.68	118.85
27	DD	184	LYS	N-CA-C	-5.66	101.48	109.96
10	CJ	96	ILE	N-CA-C	5.65	116.32	108.23
31	DH	115	VAL	CB-CA-C	-5.65	103.34	111.19
22	AY	111	THR	N-CA-C	5.64	120.29	112.45
12	CL	77	LEU	N-CA-C	5.64	118.53	110.24
3	AC	22	TRP	N-CA-C	5.64	118.13	110.35
20	AT	10	LEU	N-CA-C	5.64	122.81	110.80
4	AD	178	VAL	CB-CA-C	-5.64	102.05	111.29
35	DP	36	LYS	CB-CA-C	-5.64	108.45	115.89
4	AD	131	ARG	N-CA-C	5.63	118.24	110.35
28	DE	193	GLY	N-CA-C	-5.63	107.41	115.64
12	AL	30	ALA	CA-C-N	5.63	125.30	119.05
12	AL	30	ALA	C-N-CA	5.63	125.30	119.05
29	BF	105	VAL	N-CA-C	-5.63	105.62	110.74
10	AJ	89	ASP	N-CA-C	5.62	117.90	108.96
35	DP	36	LYS	N-CA-C	5.62	118.47	109.02
2	AB	17	PHE	N-CA-C	5.62	117.29	109.31
40	BU	9	VAL	N-CA-C	5.62	115.81	110.53
12	CL	43	VAL	N-CA-C	5.62	116.37	108.17
2	AB	67	THR	N-CA-C	5.62	118.65	110.17
18	AR	57	GLY	N-CA-C	-5.62	107.89	115.36
47	B1	33	LYS	N-CA-C	-5.61	101.44	110.14
11	CK	114	VAL	N-CA-C	5.61	114.28	107.61
31	DH	166	GLY	N-CA-C	-5.61	107.50	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	DE	31	CYS	N-CA-C	5.61	117.67	109.71
1	AA	189(D)	C	N3-C4-C5	-5.60	105.09	121.90
4	CD	204	ILE	CB-CA-C	-5.60	104.70	112.04
42	DW	10	VAL	CB-CA-C	-5.60	102.75	111.26
37	DR	109	ALA	CA-C-N	-5.60	114.16	119.76
37	DR	109	ALA	C-N-CA	-5.60	114.16	119.76
30	DG	12	TYR	N-CA-C	5.60	117.38	111.28
39	BT	80	SER	CA-C-N	-5.60	112.84	119.84
39	BT	80	SER	C-N-CA	-5.60	112.84	119.84
28	BE	116	VAL	N-CA-C	5.59	120.23	112.35
43	BX	82	GLN	CA-C-N	-5.59	113.64	122.64
43	BX	82	GLN	C-N-CA	-5.59	113.64	122.64
28	BE	13	ARG	N-CA-C	-5.59	101.48	110.14
28	BE	120	TRP	N-CA-C	5.59	119.79	112.92
29	BF	138	GLU	N-CA-C	-5.59	105.27	111.36
30	BG	161	THR	CB-CA-C	-5.58	99.15	109.37
32	BI	33	ARG	N-CA-C	-5.58	105.67	112.88
35	BP	70	GLN	N-CA-C	5.58	115.92	108.38
55	B9	3	VAL	CB-CA-C	-5.58	102.81	110.96
5	CE	18	ARG	N-CA-C	-5.58	100.99	108.86
30	BG	145	THR	N-CA-C	5.58	117.69	108.48
4	AD	38	TYR	CA-C-N	5.58	126.12	120.38
4	AD	38	TYR	C-N-CA	5.58	126.12	120.38
35	BP	22	GLY	N-CA-C	5.57	123.71	112.34
4	CD	188	LEU	N-CA-C	5.57	117.59	109.84
44	DY	53	PRO	N-CA-C	-5.57	102.35	111.21
17	AQ	77	VAL	N-CA-C	5.57	117.53	112.29
10	CJ	88	LEU	CB-CA-C	-5.57	110.17	116.63
39	BT	79	HIS	N-CA-C	5.57	119.77	112.92
8	CH	39	LEU	N-CA-C	-5.57	105.36	111.82
45	DZ	166	SER	CA-C-N	5.57	125.18	119.56
45	DZ	166	SER	C-N-CA	5.57	125.18	119.56
30	DG	119	GLY	N-CA-C	-5.56	106.37	112.04
17	CQ	44	ALA	N-CA-C	5.56	117.46	108.34
4	AD	4	TYR	N-CA-C	5.56	117.78	111.11
5	CE	35	GLY	N-CA-C	5.56	118.86	110.75
27	DD	155	LEU	N-CA-C	5.55	118.28	110.23
40	DU	74	LEU	N-CA-C	5.55	116.40	108.74
16	AP	5	ARG	N-CA-C	5.55	115.88	108.38
16	AP	20	VAL	N-CA-C	5.55	115.68	108.35
30	BG	128	ARG	N-CA-C	-5.55	106.09	112.92
16	AP	78	GLY	N-CA-C	-5.55	100.04	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
47	B1	31	GLY	N-CA-C	-5.55	103.02	110.56
29	DF	86	GLY	N-CA-C	5.55	121.02	111.98
13	CM	5	ALA	N-CA-C	5.54	116.20	108.00
50	D4	40	HIS	CA-C-N	5.54	126.76	119.84
50	D4	40	HIS	C-N-CA	5.54	126.76	119.84
27	BD	207	GLY	N-CA-C	5.53	122.47	114.67
2	CB	129	GLU	N-CA-C	-5.53	106.53	113.28
42	DW	95	ILE	N-CA-C	5.53	116.54	107.24
16	AP	19	ILE	N-CA-C	-5.53	102.39	109.30
11	CK	34	ASP	CA-C-N	-5.53	112.91	119.05
11	CK	34	ASP	C-N-CA	-5.53	112.91	119.05
5	AE	8	GLU	N-CA-C	5.53	122.57	110.80
25	BA	308	G	C8-N9-C1'	-5.53	110.42	127.00
7	CG	87	VAL	N-CA-C	5.52	113.34	107.76
9	CI	124	GLN	N-CA-C	5.52	118.33	110.10
22	AY	43	ILE	CB-CA-C	5.52	117.54	111.08
35	BP	125	VAL	N-CA-C	5.52	115.54	107.37
37	DR	82	GLU	N-CA-C	5.51	118.47	111.69
33	BN	46	VAL	CB-CA-C	5.51	115.96	111.05
38	BS	101	LEU	N-CA-C	-5.51	99.06	110.80
44	BY	49	VAL	N-CA-C	5.51	116.06	108.12
39	DT	103	ARG	N-CA-C	-5.51	105.19	111.14
4	AD	196	LEU	CA-C-N	-5.51	116.09	121.65
4	AD	196	LEU	C-N-CA	-5.51	116.09	121.65
39	DT	63	VAL	CB-CA-C	-5.51	103.83	110.99
5	CE	103	GLY	N-CA-C	-5.51	104.19	112.89
5	AE	113	ALA	N-CA-C	-5.50	105.82	112.54
40	BU	101	ARG	N-CA-C	5.50	117.28	111.28
51	B5	6	VAL	CA-C-N	-5.50	114.05	119.99
51	B5	6	VAL	C-N-CA	-5.50	114.05	119.99
16	AP	63	GLY	N-CA-C	5.50	122.40	115.42
32	DI	60	GLU	N-CA-C	-5.50	106.53	113.18
13	CM	14	ARG	N-CA-C	5.49	117.99	110.24
45	DZ	35	ARG	N-CA-C	5.49	117.34	108.34
29	BF	177	ALA	CA-C-N	-5.49	114.02	119.56
29	BF	177	ALA	C-N-CA	-5.49	114.02	119.56
5	AE	73	ASN	N-CA-C	5.49	122.06	113.72
36	BQ	28	ALA	N-CA-C	5.48	122.48	110.80
2	CB	119	GLU	N-CA-C	-5.48	105.33	112.23
31	DH	57	ASP	N-CA-C	5.48	119.66	112.92
45	BZ	113	ALA	N-CA-C	-5.48	106.64	113.38
43	BX	80	ILE	CB-CA-C	-5.47	103.87	110.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	BF	93	LYS	N-CA-C	-5.47	100.63	109.82
33	BN	71	ILE	N-CA-C	5.47	115.73	107.80
48	D2	53	LEU	N-CA-C	-5.47	105.40	111.36
54	B8	48	PHE	N-CA-C	5.47	116.76	108.07
32	BI	114	LEU	N-CA-C	5.46	118.17	109.81
7	CG	136	LYS	N-CA-C	-5.46	104.72	111.33
4	CD	188	LEU	CA-CB-CG	5.46	135.42	116.30
20	CT	70	SER	N-CA-C	-5.46	106.47	113.02
19	AS	10	PHE	N-CA-C	5.46	117.30	108.41
25	BA	945	A	N1-C6-N6	5.45	134.95	118.60
25	BA	1332	G	C8-N9-C1'	-5.45	110.65	127.00
2	CB	158	LEU	CA-C-N	5.45	125.45	119.90
2	CB	158	LEU	C-N-CA	5.45	125.45	119.90
30	DG	51	ARG	N-CA-C	-5.45	104.78	111.75
30	BG	40	ASN	N-CA-C	5.44	117.71	108.02
17	CQ	68	ARG	N-CA-CB	-5.44	107.97	114.17
31	BH	45	VAL	CB-CA-C	-5.43	104.47	111.53
49	B3	36	VAL	N-CA-C	5.43	115.68	107.80
2	AB	44	LEU	N-CA-C	-5.43	105.01	111.69
8	CH	28	ALA	N-CA-C	5.43	118.09	109.24
25	BA	1332	G	C6-C5-N7	-5.43	114.11	130.40
36	BQ	138	ASP	N-CA-C	-5.43	105.39	112.23
36	BQ	41	TRP	CA-C-N	-5.43	116.46	123.19
36	BQ	41	TRP	C-N-CA	-5.43	116.46	123.19
45	BZ	86	VAL	N-CA-C	5.43	115.71	108.11
5	CE	113	ALA	N-CA-C	-5.42	106.34	113.17
2	CB	34	ALA	N-CA-C	5.42	115.39	108.24
45	DZ	171	ILE	N-CA-C	5.41	119.87	113.22
32	DI	67	ARG	N-CA-C	-5.41	106.66	113.20
22	AY	75	GLN	CA-C-N	-5.40	114.47	123.33
22	AY	75	GLN	C-N-CA	-5.40	114.47	123.33
51	D5	26	THR	CA-C-N	5.39	125.93	120.38
51	D5	26	THR	C-N-CA	5.39	125.93	120.38
41	BV	79	VAL	N-CA-CB	-5.39	105.35	112.36
3	AC	157	ILE	N-CA-C	5.39	120.55	109.34
35	BP	45	LEU	CA-CB-CG	-5.39	97.44	116.30
5	AE	66	MET	N-CA-C	5.39	115.40	108.34
7	CG	17	VAL	N-CA-C	5.38	115.48	110.42
3	CC	195	VAL	N-CA-C	5.38	116.33	108.58
7	CG	70	LYS	CA-C-N	5.38	125.80	119.99
7	CG	70	LYS	C-N-CA	5.38	125.80	119.99
48	B2	15	LYS	N-CA-C	5.38	119.56	112.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	2286	A	C4-N9-C1'	5.38	142.43	126.30
39	BT	95	ARG	CA-CB-CG	-5.37	103.36	114.10
31	BH	62	LYS	N-CA-C	-5.37	106.23	112.89
32	BI	118	LYS	CA-C-N	5.37	125.37	119.89
32	BI	118	LYS	C-N-CA	5.37	125.37	119.89
45	BZ	91	LEU	CA-C-N	-5.37	114.55	121.79
45	BZ	91	LEU	C-N-CA	-5.37	114.55	121.79
7	AG	42	ILE	N-CA-C	5.36	115.57	110.53
2	AB	16	HIS	N-CA-C	5.36	122.36	113.89
8	AH	46	LYS	N-CA-C	-5.35	105.13	110.97
2	AB	12	GLU	N-CA-C	-5.35	106.78	113.15
28	DE	135	HIS	N-CA-C	5.35	117.80	111.33
19	CS	27	GLU	N-CA-C	5.35	122.19	110.80
20	CT	95	ALA	N-CA-C	5.35	122.19	110.80
20	AT	66	ALA	N-CA-C	-5.35	105.14	110.97
7	CG	110	GLN	CA-C-N	5.34	128.80	120.68
7	CG	110	GLN	C-N-CA	5.34	128.80	120.68
25	BA	945	A	C8-N9-C1'	-5.34	111.69	127.70
11	AK	109	VAL	CB-CA-C	-5.33	102.28	110.50
14	AN	13	THR	CA-C-N	5.33	126.50	119.84
14	AN	13	THR	C-N-CA	5.33	126.50	119.84
20	AT	11	SER	N-CA-C	5.33	120.96	113.02
3	AC	204	LEU	N-CA-C	5.33	117.90	111.40
54	D8	28	GLY	N-CA-C	5.33	122.46	114.95
22	AY	101	GLU	N-CA-C	5.32	117.49	108.02
29	BF	88	VAL	CB-CA-C	-5.32	105.73	111.59
6	CF	43	LEU	N-CA-C	-5.32	106.56	113.16
53	D7	43	THR	CA-C-N	5.31	125.25	119.78
53	D7	43	THR	C-N-CA	5.31	125.25	119.78
14	AN	39	LEU	N-CA-C	5.31	118.11	109.24
39	BT	127	ALA	N-CA-C	-5.31	97.19	107.44
48	B2	48	HIS	N-CA-C	-5.31	106.64	113.01
25	BA	676	A	C1'-O4'-C4'	-5.31	104.59	109.90
36	DQ	27	VAL	N-CA-C	5.31	117.72	111.09
45	DZ	122	ARG	N-CA-C	-5.31	105.41	111.14
27	DD	22	SER	N-CA-C	-5.31	105.14	111.03
44	DY	53	PRO	CA-C-O	-5.30	115.41	121.56
27	BD	217	ARG	N-CA-C	5.30	117.15	108.52
45	DZ	14	LYS	N-CA-C	5.30	116.08	109.57
36	BQ	72	LYS	CA-C-N	5.29	125.05	119.76
36	BQ	72	LYS	C-N-CA	5.29	125.05	119.76
6	AF	79	LEU	N-CA-C	-5.29	105.16	111.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	BG	80	PHE	CB-CA-C	-5.29	104.94	114.52
30	BG	145	THR	CB-CA-C	-5.29	104.94	114.52
47	B1	96	LYS	N-CA-C	-5.29	105.56	112.23
38	DS	96	GLY	N-CA-C	-5.28	100.67	113.18
46	D0	15	ASP	N-CA-C	-5.28	99.55	110.80
5	CE	36	ASP	CB-CA-C	-5.28	102.77	110.95
12	AL	66	VAL	N-CA-C	5.28	117.66	108.95
27	BD	230	ASP	N-CA-C	5.28	118.88	112.23
35	BP	26	GLY	CA-C-N	5.28	131.20	121.70
35	BP	26	GLY	C-N-CA	5.28	131.20	121.70
45	BZ	46	LYS	N-CA-C	-5.28	104.78	111.11
49	D3	33	GLN	N-CA-C	-5.28	99.84	108.76
2	AB	238	LEU	N-CA-C	5.28	122.04	110.80
52	D6	12	GLU	N-CA-C	5.28	117.01	108.41
28	BE	26	ILE	CB-CA-C	-5.27	102.83	110.63
29	BF	24	LEU	CA-C-N	5.27	125.57	119.93
29	BF	24	LEU	C-N-CA	5.27	125.57	119.93
51	B5	40	LYS	CA-C-N	5.27	125.81	120.38
51	B5	40	LYS	C-N-CA	5.27	125.81	120.38
44	BY	76	CYS	N-CA-C	5.27	117.26	109.62
45	BZ	54	HIS	N-CA-C	5.27	118.17	111.69
34	DO	86	ILE	CB-CA-C	-5.27	103.86	111.34
28	BE	11	MET	N-CA-C	5.27	117.87	109.81
13	AM	40	ASN	CA-C-N	5.27	126.42	119.84
13	AM	40	ASN	C-N-CA	5.27	126.42	119.84
33	BN	5	VAL	N-CA-C	5.27	120.26	108.88
49	B3	19	GLN	N-CA-C	-5.27	105.59	112.23
30	BG	123	ASN	N-CA-C	5.26	119.39	112.92
44	BY	53	PRO	CA-C-O	-5.26	115.41	121.36
43	DX	53	LYS	N-CA-C	5.26	117.75	108.75
28	DE	188	VAL	CA-C-N	5.26	126.00	120.11
28	DE	188	VAL	C-N-CA	5.26	126.00	120.11
3	AC	156	ARG	CA-C-N	5.26	131.44	121.97
3	AC	156	ARG	C-N-CA	5.26	131.44	121.97
17	AQ	9	VAL	CB-CA-C	-5.26	103.37	111.31
41	BV	98	GLU	N-CA-C	5.26	116.28	108.86
18	CR	29	PHE	N-CA-C	5.26	115.48	108.38
36	DQ	91	GLU	N-CA-C	5.25	119.79	113.17
28	BE	12	THR	CB-CA-C	-5.25	101.09	111.91
45	DZ	37	VAL	N-CA-C	5.25	115.23	108.82
38	BS	39	ILE	CB-CA-C	-5.25	104.94	111.08
13	CM	34	LEU	N-CA-C	-5.25	104.99	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1126	U	C2-N1-C1'	5.25	133.45	117.70
32	DI	79	ILE	CA-C-N	5.25	126.40	119.84
32	DI	79	ILE	C-N-CA	5.25	126.40	119.84
53	D7	47	ARG	N-CA-C	5.25	117.49	110.35
9	AI	106	ALA	N-CA-C	-5.24	106.73	113.02
45	BZ	52	SER	CB-CA-C	-5.24	109.00	116.34
49	B3	38	GLU	CA-C-N	-5.24	115.56	122.85
49	B3	38	GLU	C-N-CA	-5.24	115.56	122.85
3	CC	206	GLU	N-CA-C	5.24	121.96	110.80
27	DD	235	GLY	N-CA-C	5.24	121.34	112.22
41	BV	37	VAL	N-CA-C	5.24	115.40	107.80
47	B1	90	ILE	CB-CA-C	-5.24	105.07	112.14
20	CT	27	LYS	N-CA-C	-5.24	104.83	111.11
41	BV	14	VAL	N-CA-C	5.24	115.44	108.11
27	DD	254	THR	CA-C-N	-5.23	115.43	123.07
27	DD	254	THR	C-N-CA	-5.23	115.43	123.07
9	AI	81	ILE	N-CA-C	-5.23	106.20	113.00
38	BS	86	ALA	CA-C-N	-5.23	115.47	122.42
38	BS	86	ALA	C-N-CA	-5.23	115.47	122.42
30	DG	141	PHE	N-CA-C	5.23	116.42	109.93
7	AG	145	ALA	N-CA-C	-5.22	99.67	110.80
2	AB	160	ASP	N-CA-C	-5.22	106.59	113.17
4	AD	193	ASP	N-CA-C	-5.22	106.01	112.38
19	AS	78	ARG	N-CA-C	5.22	116.92	108.41
37	BR	2	ARG	N-CA-CB	-5.22	101.86	110.53
2	AB	236	TYR	CB-CA-C	-5.22	109.03	116.34
28	BE	189	PRO	CB-CA-C	-5.21	104.71	111.39
15	CO	88	ARG	N-CA-C	5.21	121.90	110.80
21	AU	12	LYS	N-CA-C	-5.21	105.66	112.23
54	B8	28	GLY	N-CA-C	5.21	122.50	115.00
29	BF	36	VAL	CB-CA-C	-5.21	105.20	112.02
35	BP	146	VAL	CB-CA-C	-5.21	103.95	111.34
37	BR	2	ARG	CA-CB-CG	5.21	124.51	114.10
19	CS	30	LEU	N-CA-C	5.21	117.24	109.59
30	BG	63	ILE	N-CA-C	5.21	115.64	110.23
30	DG	43	LEU	CB-CA-C	-5.21	110.59	116.63
41	DV	89	GLN	CA-C-N	5.21	125.45	119.83
41	DV	89	GLN	C-N-CA	5.21	125.45	119.83
44	BY	58	GLY	N-CA-C	5.20	120.81	111.34
2	CB	95	GLN	N-CA-C	5.20	116.69	109.31
6	AF	14	LEU	N-CA-C	5.20	116.04	108.14
29	DF	174	VAL	CA-C-N	5.20	128.59	120.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	DF	174	VAL	C-N-CA	5.20	128.59	120.75
8	AH	35	ILE	N-CA-C	-5.19	106.01	110.74
20	AT	37	SER	N-CA-C	-5.18	104.70	111.02
29	DF	189	THR	N-CA-C	5.18	116.62	110.19
55	D9	26	ILE	N-CA-C	5.18	117.50	108.95
7	AG	70	LYS	CA-C-N	5.18	125.34	119.90
7	AG	70	LYS	C-N-CA	5.18	125.34	119.90
46	B0	38	VAL	N-CA-C	5.18	115.18	108.35
32	DI	122	GLU	N-CA-C	5.17	116.85	108.26
28	BE	72	VAL	N-CA-C	5.17	125.48	111.00
38	BS	48	LEU	N-CA-C	5.17	119.49	112.04
37	DR	73	VAL	CB-CA-C	-5.17	105.08	111.70
49	B3	25	ALA	N-CA-C	-5.17	105.77	111.71
40	DU	101	ARG	N-CA-C	5.17	116.99	111.36
6	CF	74	ASP	N-CA-C	-5.17	106.93	113.18
17	CQ	96	GLU	N-CA-C	-5.17	102.96	110.24
4	CD	8	VAL	N-CA-C	5.16	120.08	109.34
32	BI	50	ARG	N-CA-C	-5.16	106.98	113.28
6	AF	60	PHE	N-CA-C	5.16	117.65	109.24
7	CG	56	GLN	N-CA-C	5.16	117.69	109.02
9	AI	50	LEU	N-CA-C	-5.16	107.01	113.15
12	AL	44	THR	CA-C-N	5.16	125.36	120.31
12	AL	44	THR	C-N-CA	5.16	125.36	120.31
53	D7	46	VAL	N-CA-C	5.16	120.06	109.34
10	AJ	90	LEU	N-CA-C	5.15	119.51	112.55
34	DO	43	VAL	CB-CA-C	-5.15	104.71	111.25
9	CI	106	ALA	N-CA-C	-5.15	106.26	112.54
44	BY	92	ASN	CA-C-N	5.15	130.96	121.70
44	BY	92	ASN	C-N-CA	5.15	130.96	121.70
8	AH	28	ALA	N-CA-C	5.14	117.95	109.72
46	B0	19	LYS	N-CA-C	5.13	119.64	113.17
25	DA	1204	A	C3'-C2'-C1'	-5.13	96.37	101.50
30	DG	14	GLU	N-CA-C	-5.13	99.87	110.80
3	AC	21	ARG	N-CA-C	5.13	119.63	113.17
30	BG	130	ASN	N-CA-C	-5.13	101.62	109.41
45	BZ	18	LEU	N-CA-C	-5.13	104.77	111.02
27	DD	27	THR	N-CA-C	5.12	117.65	111.40
37	DR	70	LEU	N-CA-C	5.12	117.60	111.71
27	BD	220	HIS	CA-C-N	-5.12	116.29	123.10
27	BD	220	HIS	C-N-CA	-5.12	116.29	123.10
52	D6	47	THR	CA-C-N	-5.12	115.97	122.37
52	D6	47	THR	C-N-CA	-5.12	115.97	122.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AE	35	GLY	N-CA-C	5.12	120.60	110.83
17	AQ	90	ILE	CB-CA-C	-5.12	105.42	111.81
16	AP	16	HIS	N-CA-C	-5.11	100.01	108.75
2	CB	162	ILE	N-CA-C	5.11	115.40	107.78
36	DQ	136	ALA	N-CA-C	5.11	118.99	112.34
47	B1	37	ILE	CB-CA-C	-5.11	102.95	110.82
48	B2	47	ASN	N-CA-C	-5.11	107.02	113.20
28	DE	187	ALA	N-CA-C	5.11	117.74	109.06
18	AR	29	PHE	N-CA-C	5.11	117.17	109.41
27	BD	240	ALA	N-CA-C	5.11	121.09	109.81
31	BH	3	ARG	N-CA-C	5.11	116.63	107.80
43	BX	48	LYS	N-CA-C	-5.11	104.64	111.02
5	CE	111	GLU	N-CA-C	-5.11	105.80	111.36
28	DE	19	ARG	N-CA-C	-5.11	101.08	109.40
2	AB	9	GLU	N-CA-C	5.10	116.60	108.79
2	CB	189	ASP	N-CA-C	5.10	115.27	108.23
12	CL	30	ALA	CA-C-N	5.10	124.54	119.24
12	CL	30	ALA	C-N-CA	5.10	124.54	119.24
44	DY	80	GLY	N-CA-C	-5.10	108.58	115.21
7	AG	12	LEU	N-CA-C	5.10	117.75	109.24
27	BD	34	VAL	N-CA-C	5.10	115.25	108.11
31	DH	75	ALA	N-CA-C	-5.09	105.64	111.14
3	CC	23	TYR	N-CA-C	5.09	117.71	109.06
6	AF	3	ARG	N-CA-C	-5.08	101.42	109.96
30	BG	56	ALA	N-CA-C	-5.08	107.05	113.20
36	BQ	17	LEU	CB-CA-C	-5.08	103.07	111.51
34	DO	14	THR	CB-CA-C	-5.08	100.31	110.42
42	BW	96	ILE	CA-C-N	-5.08	116.24	122.84
42	BW	96	ILE	C-N-CA	-5.08	116.24	122.84
49	B3	9	VAL	N-CA-C	5.08	119.46	113.22
4	CD	19	LEU	N-CA-C	-5.08	100.97	109.24
25	BA	945	A	C4-N9-C1'	5.07	141.52	126.30
4	AD	31	CYS	O-C-N	5.07	128.93	122.39
30	BG	124	SER	N-CA-C	5.07	119.10	113.02
5	CE	69	VAL	N-CA-C	5.07	119.83	108.88
15	CO	6	GLU	N-CA-C	5.07	119.61	113.38
4	CD	48	ALA	N-CA-C	5.07	117.75	109.59
31	BH	23	ARG	N-CA-C	-5.07	100.09	108.75
34	BO	87	ILE	CB-CA-C	-5.07	103.32	110.82
51	B5	48	GLU	N-CA-C	5.06	117.92	111.69
46	D0	30	VAL	CB-CA-C	-5.06	103.71	111.71
4	CD	148	VAL	N-CA-C	-5.06	101.10	108.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	CI	65	VAL	N-CA-C	5.06	115.56	108.17
17	CQ	10	VAL	CB-CA-C	-5.06	103.80	111.69
5	AE	34	VAL	N-CA-C	5.06	115.56	108.17
50	D4	39	CYS	N-CA-C	5.06	119.54	113.17
45	BZ	107	THR	CA-C-N	5.05	125.04	119.89
45	BZ	107	THR	C-N-CA	5.05	125.04	119.89
3	CC	182	ILE	N-CA-C	5.05	115.55	108.17
7	CG	105	VAL	CB-CA-C	-5.05	105.25	112.22
14	CN	13	THR	N-CA-C	5.04	120.95	109.81
28	DE	137	HIS	N-CA-C	5.04	117.96	110.39
30	DG	118	ARG	N-CA-C	-5.04	106.72	112.92
39	DT	80	SER	CA-C-N	5.04	124.83	119.28
39	DT	80	SER	C-N-CA	5.04	124.83	119.28
35	DP	42	SER	N-CA-C	-5.04	102.82	110.28
27	BD	248	SER	N-CA-C	-5.04	102.84	110.50
32	DI	114	LEU	N-CA-C	5.04	117.03	110.43
54	B8	8	LYS	N-CA-C	5.03	116.85	111.36
35	DP	35	HIS	N-CA-C	5.03	116.90	107.99
39	BT	72	VAL	CA-C-N	-5.03	114.92	122.81
39	BT	72	VAL	C-N-CA	-5.03	114.92	122.81
22	AY	79	SER	N-CA-C	5.02	116.94	108.96
46	B0	11	ARG	N-CA-C	-5.02	107.10	113.18
53	D7	31	LEU	N-CA-C	-5.02	105.70	111.07
17	AQ	69	LYS	CB-CA-C	-5.02	102.88	111.31
19	CS	29	ARG	N-CA-C	5.02	121.49	110.80
33	BN	85	ILE	CA-C-N	5.01	125.41	119.99
33	BN	85	ILE	C-N-CA	5.01	125.41	119.99
35	DP	18	ARG	CA-C-N	-5.01	116.81	122.48
35	DP	18	ARG	C-N-CA	-5.01	116.81	122.48
36	BQ	134	ARG	N-CA-C	5.01	119.03	113.01
4	CD	12	CYS	CA-CB-SG	5.01	125.93	114.40
30	BG	108	ASN	N-CA-C	5.01	118.54	112.23
51	D5	3	LYS	N-CA-C	5.01	118.54	112.93
27	BD	228	PRO	CA-C-O	-5.01	111.97	119.34
46	B0	30	VAL	N-CA-C	5.01	115.95	108.54
52	D6	13	CYS	N-CA-C	-5.01	102.50	109.96
51	B5	60	VAL	CB-CA-C	-5.00	101.90	111.40
54	B8	62	LEU	CA-C-N	5.00	124.49	119.19
54	B8	62	LEU	C-N-CA	5.00	124.49	119.19

There are no chirality outliers.

All (82) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	189(D)	C	Sidechain
2	AB	14	GLY	Peptide
2	AB	23	ARG	Peptide
2	AB	71	VAL	Peptide
2	AB	76	GLN	Peptide
3	AC	110	ASN	Peptide
3	AC	166	GLU	Peptide
4	AD	109	GLY	Peptide
4	AD	177	ASP	Peptide
4	AD	29	PRO	Peptide
4	AD	30	LYS	Peptide
5	AE	85	GLY	Peptide
5	AE	97	GLY	Peptide
7	AG	57	GLU	Peptide
9	AI	45	ALA	Peptide
9	AI	53	VAL	Peptide
9	AI	56	LEU	Peptide
10	AJ	55	LYS	Peptide
10	AJ	80	LYS	Peptide
11	AK	48	ILE	Peptide
12	AL	89	ARG	Peptide
13	AM	10	PRO	Peptide
13	AM	65	LYS	Peptide
13	AM	68	GLY	Peptide
18	AR	31	LEU	Peptide
20	AT	101	GLY	Peptide
20	AT	98	PRO	Peptide
22	AY	11	PRO	Peptide
47	B1	83	GLU	Peptide
50	B4	42	PHE	Peptide
51	B5	53	ALA	Peptide
27	BD	141	VAL	Peptide
27	BD	239	ARG	Peptide
28	BE	203	LYS	Peptide
28	BE	72	VAL	Peptide
29	BF	129	PHE	Peptide
29	BF	85	GLY	Peptide
32	BI	10	GLU	Peptide
32	BI	106	GLY	Peptide
32	BI	107	VAL	Peptide
34	BO	48	PRO	Peptide
35	BP	25	SER	Peptide
36	BQ	1	MET	Peptide

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Mol	Chain	Res	Type	Group
36	BQ	60	ARG	Peptide
38	BS	82	ILE	Peptide
39	BT	126	ALA	Peptide
43	BX	24	GLY	Peptide
45	BZ	159	PRO	Peptide
1	CA	129(A)	G	Sidechain
2	CB	22	LYS	Peptide
2	CB	71	VAL	Peptide
4	CD	147	ALA	Peptide
4	CD	28	SER	Peptide
4	CD	29	PRO	Peptide
4	CD	3	ARG	Peptide
4	CD	30	LYS	Peptide
5	CE	36	ASP	Peptide
7	CG	113	GLU	Peptide
10	CJ	55	LYS	Peptide
10	CJ	90	LEU	Peptide
13	CM	44	ARG	Peptide
13	CM	65	LYS	Peptide
14	CN	14	PRO	Peptide
16	CP	15	PRO	Peptide
20	CT	11	SER	Peptide
20	CT	45	GLN	Peptide
21	CU	6	ARG	Peptide
47	D1	83	GLU	Peptide
48	D2	43	GLN	Peptide
50	D4	42	PHE	Peptide
52	D6	43	CYS	Peptide
28	DE	72	VAL	Peptide
29	DF	85	GLY	Peptide
30	DG	13	GLU	Peptide
30	DG	49	ASP	Peptide
30	DG	50	ALA	Peptide
31	DH	92	ILE	Peptide
34	DO	48	PRO	Peptide
35	DP	26	GLY	Peptide
36	DQ	1	MET	Peptide
38	DS	82	ILE	Peptide
39	DT	126	ALA	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	31513	0	15906	885	0
1	CA	31406	0	15852	832	0
2	AB	1809	0	1781	107	0
2	CB	1817	0	1785	132	0
3	AC	1434	0	1299	61	0
3	CC	1453	0	1320	65	0
4	AD	1520	0	1407	85	0
4	CD	1537	0	1430	83	1
5	AE	1105	0	1130	52	0
5	CE	1115	0	1145	55	0
6	AF	781	0	741	36	1
6	CF	784	0	739	32	0
7	AG	1152	0	1098	59	0
7	CG	1149	0	1096	53	0
8	AH	1045	0	1033	56	0
8	CH	1049	0	1037	55	0
9	AI	863	0	760	57	0
9	CI	849	0	735	57	0
10	AJ	659	0	552	39	0
10	CJ	657	0	547	40	0
11	AK	843	0	841	35	0
11	CK	828	0	822	34	0
12	AL	909	0	927	51	0
12	CL	905	0	916	30	0
13	AM	814	0	765	49	0
13	CM	784	0	730	52	0
14	AN	473	0	491	40	0
14	CN	469	0	482	37	0
15	AO	724	0	749	38	0
15	CO	724	0	749	30	0
16	AP	646	0	636	44	0
16	CP	661	0	653	49	0
17	AQ	823	0	891	54	0
17	CQ	819	0	880	40	0
18	AR	514	0	530	31	0
18	CR	514	0	530	23	0
19	AS	560	0	466	25	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	CS	529	0	443	22	0
20	AT	714	0	775	42	0
20	CT	773	0	836	36	0
21	AU	217	0	234	7	0
21	CU	180	0	173	4	0
22	AY	1031	0	1087	87	0
23	AV	1644	0	836	24	0
23	CV	1644	0	836	38	0
24	AX	131	0	66	4	0
24	CX	131	0	66	2	0
25	BA	59281	0	29884	1060	0
25	DA	58627	0	29570	1211	0
26	BB	2573	0	1306	47	0
26	DB	2573	0	1306	82	0
27	BD	2131	0	2207	99	0
27	DD	2136	0	2218	107	0
28	BE	1555	0	1607	68	0
28	DE	1555	0	1607	78	0
29	BF	1576	0	1616	75	0
29	DF	1578	0	1623	97	0
30	BG	1368	0	1324	53	0
30	DG	1361	0	1316	78	0
31	BH	1317	0	1376	53	0
31	DH	1317	0	1376	61	0
32	BI	1066	0	1095	51	0
32	DI	1057	0	1087	60	0
33	BN	1112	0	1180	50	0
33	DN	1112	0	1180	65	0
34	BO	923	0	981	37	0
34	DO	923	0	981	40	0
35	BP	1131	0	1201	63	0
35	DP	1131	0	1201	69	0
36	BQ	1122	0	1179	48	0
36	DQ	1122	0	1179	70	0
37	BR	968	0	1033	46	0
37	DR	968	0	1033	58	0
38	BS	865	0	905	53	0
38	DS	873	0	927	67	0
39	BT	1072	0	1116	35	0
39	DT	1058	0	1098	38	0
40	BU	959	0	1019	36	0
40	DU	959	0	1019	52	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
41	BV	766	0	827	27	0
41	DV	770	0	838	41	0
42	BW	890	0	951	33	0
42	DW	877	0	932	33	0
43	BX	742	0	799	39	0
43	DX	732	0	777	18	0
44	BY	785	0	828	27	0
44	DY	781	0	829	43	0
45	BZ	1454	0	1452	68	0
45	DZ	1451	0	1421	74	0
46	B0	594	0	604	33	0
46	D0	607	0	622	42	0
47	B1	745	0	804	35	0
47	D1	745	0	804	36	0
48	B2	588	0	643	29	0
48	D2	584	0	623	28	0
49	B3	458	0	503	15	0
49	D3	453	0	501	28	0
50	B4	349	0	336	23	0
50	D4	349	0	336	19	0
51	B5	455	0	472	21	0
51	D5	451	0	461	25	0
52	B6	449	0	462	26	0
52	D6	437	0	440	18	0
53	B7	418	0	467	22	0
53	D7	402	0	434	11	0
54	B8	509	0	565	25	0
54	D8	509	0	565	26	0
55	B9	297	0	316	16	0
55	D9	292	0	313	14	0
56	AA	348	0	0	0	0
56	AD	2	0	0	0	0
56	AE	1	0	0	0	0
56	AF	1	0	0	0	0
56	AI	2	0	0	0	0
56	AK	1	0	0	0	0
56	AT	1	0	0	0	0
56	AV	18	0	0	0	0
56	AY	1	0	0	0	0
56	B0	5	0	0	0	0
56	B1	3	0	0	0	0
56	B2	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	B3	2	0	0	0	0
56	B5	3	0	0	0	0
56	B6	1	0	0	0	0
56	B7	1	0	0	0	0
56	B8	2	0	0	0	0
56	B9	1	0	0	0	0
56	BA	896	0	0	0	0
56	BB	30	0	0	0	0
56	BD	5	0	0	0	0
56	BE	5	0	0	0	0
56	BF	7	0	0	0	0
56	BG	2	0	0	0	0
56	BO	2	0	0	0	0
56	BP	2	0	0	0	0
56	BQ	4	0	0	0	0
56	BR	2	0	0	0	0
56	BT	1	0	0	0	0
56	BU	1	0	0	0	0
56	BV	2	0	0	0	0
56	BX	1	0	0	0	0
56	BY	2	0	0	0	0
56	BZ	2	0	0	0	0
56	CA	219	0	0	0	0
56	CD	1	0	0	0	0
56	CT	1	0	0	0	0
56	CV	10	0	0	0	0
56	CX	1	0	0	0	0
56	D0	4	0	0	0	0
56	D1	1	0	0	0	0
56	D5	1	0	0	0	0
56	D6	2	0	0	0	0
56	D7	1	0	0	0	0
56	D8	1	0	0	0	0
56	DA	696	0	0	0	0
56	DB	16	0	0	0	0
56	DD	4	0	0	0	0
56	DE	4	0	0	0	0
56	DF	3	0	0	0	0
56	DO	3	0	0	0	0
56	DQ	2	0	0	0	0
56	DR	1	0	0	0	0
56	DT	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	DU	1	0	0	0	0
56	DV	1	0	0	0	0
56	DX	1	0	0	0	0
57	AD	1	0	0	0	0
57	AN	1	0	0	0	0
57	B4	1	0	0	0	0
57	B5	1	0	0	0	0
57	B6	1	0	0	0	0
57	B9	1	0	0	0	0
57	BY	1	0	0	0	0
57	CD	1	0	0	0	0
57	CN	1	0	0	0	0
57	D4	1	0	0	0	0
57	D5	1	0	0	0	0
57	D6	1	0	0	0	0
57	D9	1	0	0	0	0
57	DY	1	0	0	0	0
58	AA	372	0	0	22	0
58	AD	2	0	0	0	0
58	AE	3	0	0	0	0
58	AI	1	0	0	1	0
58	AK	2	0	0	0	0
58	AL	2	0	0	0	0
58	AN	1	0	0	0	0
58	AT	5	0	0	1	0
58	AV	16	0	0	1	0
58	AX	1	0	0	0	0
58	AY	2	0	0	1	0
58	B0	4	0	0	0	0
58	B1	1	0	0	0	0
58	B3	1	0	0	0	0
58	B6	4	0	0	0	0
58	B7	2	0	0	0	0
58	B8	4	0	0	1	0
58	B9	1	0	0	0	0
58	BA	1491	0	0	71	0
58	BB	46	0	0	1	0
58	BD	10	0	0	0	0
58	BE	5	0	0	0	0
58	BF	5	0	0	0	0
58	BG	5	0	0	1	0
58	BH	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	BN	3	0	0	0	0
58	BO	3	0	0	0	0
58	BP	9	0	0	2	0
58	BQ	4	0	0	0	0
58	BR	7	0	0	0	0
58	BT	1	0	0	0	0
58	BU	7	0	0	1	0
58	BV	1	0	0	0	0
58	BW	2	0	0	0	0
58	BX	2	0	0	0	0
58	BY	1	0	0	0	0
58	CA	330	0	0	17	0
58	CB	1	0	0	1	0
58	CC	1	0	0	0	0
58	CD	3	0	0	0	0
58	CE	1	0	0	0	0
58	CK	2	0	0	0	0
58	CL	3	0	0	1	0
58	CN	2	0	0	0	0
58	CO	2	0	0	0	0
58	CQ	2	0	0	1	0
58	CT	2	0	0	0	0
58	CV	13	0	0	0	0
58	CX	1	0	0	0	0
58	D1	3	0	0	1	0
58	D3	1	0	0	0	0
58	D6	2	0	0	0	0
58	D7	2	0	0	0	0
58	D8	4	0	0	1	0
58	DA	1028	0	0	63	0
58	DB	40	0	0	2	0
58	DD	8	0	0	0	0
58	DE	11	0	0	1	0
58	DF	4	0	0	0	0
58	DG	1	0	0	0	0
58	DN	3	0	0	0	0
58	DO	5	0	0	1	0
58	DP	4	0	0	0	0
58	DR	5	0	0	1	0
58	DT	3	0	0	0	0
58	DV	1	0	0	0	0
58	DW	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	DY	2	0	0	0	0
All	All	284877	0	186478	7790	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 17.

All (7790) 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)
55:D9:11:CYS:SG	55:D9:32:HIS:HE1	1.40	1.43
25:DA:885:C:N4	25:DA:890:A:N6	1.81	1.27
25:BA:885:C:N4	25:BA:890:A:N6	1.88	1.22
1:CA:1358:U:H3	1:CA:1363(A):A:N6	1.35	1.22
1:AA:1358:U:H3	1:AA:1363(A):A:N6	1.41	1.16
26:BB:119:G:H2'	26:BB:120:A:H5'	1.20	1.11
26:BB:119:G:C2'	26:BB:120:A:H5'	1.81	1.10
25:DA:1798:U:H5'	27:DD:259:THR:HG22	1.36	1.03
25:DA:31:C:OP1	58:DA:3861:HOH:O	1.75	1.03
18:AR:55:ARG:HH11	18:AR:55:ARG:HG3	1.24	1.02
1:CA:1162:C:N4	1:CA:1174:G:H1	1.58	1.01
25:BA:1654:A:OP1	37:BR:1:MET:N	1.93	1.00
1:CA:1358:U:O4	1:CA:1363(A):A:N1	1.94	0.99
25:DA:571:A:H5'	25:DA:2030:A:H62	1.27	0.99
25:BA:1376:C:OP2	58:BA:5003:HOH:O	1.79	0.99
25:BA:139(A):G:N2	43:BX:44:GLU:OE1	1.97	0.98
1:AA:1358:U:O4	1:AA:1363(A):A:N1	1.97	0.97
1:AA:832:C:HO2'	1:AA:833:U:H6	1.09	0.97
25:BA:571:A:H5'	25:BA:2030:A:H62	1.26	0.97
25:BA:676:A:H8	25:BA:2069:G:H21	1.13	0.97
4:AD:22:LYS:HB2	4:AD:26:CYS:HB2	1.48	0.96
33:BN:56:ASN:H	33:BN:125:GLY:HA3	1.29	0.96
25:DA:631:A:OP1	35:DP:65:ARG:NH1	1.98	0.95
25:BA:885:C:H42	25:BA:890:A:N6	1.52	0.95
25:DA:885:C:H42	25:DA:890:A:N6	1.56	0.95
1:CA:1502:A:H2	1:CA:1505:G:H1	1.16	0.94
22:AY:68:GLY:HA2	22:AY:69:VAL:HB	1.50	0.94
4:AD:110:PHE:HD1	4:AD:110:PHE:H	1.05	0.94
25:DA:1689:A:H62	25:DA:1698:A:H2	1.14	0.94
1:CA:377:G:H1	1:CA:386:C:H42	1.12	0.94
32:BI:77:LEU:HB3	32:BI:142:VAL:HG12	1.50	0.93
47:D1:50:ARG:HG2	47:D1:59:THR:HB	1.51	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1403:C:H5”	25:BA:1471:A:H1’	1.51	0.92
25:BA:586:A:OP2	58:BA:5378:HOH:O	1.88	0.92
27:BD:69:ARG:NH2	27:BD:128:GLY:O	2.02	0.92
1:CA:1352:C:OP1	21:CU:3:LYS:NZ	2.03	0.91
1:AA:56:U:H2’	1:AA:57:G:H8	1.36	0.91
40:BU:28:ARG:NH1	40:BU:38:THR:OG1	2.04	0.90
25:DA:271(I):G:H1	25:DA:271(O):C:H42	1.13	0.90
11:AK:79:SER:HA	11:AK:104:GLN:HB2	1.50	0.90
1:CA:1277:C:HO2’	1:CA:1279:A:H8	0.96	0.90
25:BA:141:A:H8	25:BA:1408:C:HO2’	0.91	0.90
1:AA:929:G:H1	1:AA:1388:C:H42	1.16	0.90
25:DA:885:C:N4	25:DA:890:A:H61	1.68	0.90
36:BQ:21:THR:HG21	36:BQ:101:ARG:HB2	1.53	0.90
52:D6:16:CYS:HB3	52:D6:43:CYS:SG	2.12	0.89
25:BA:2507:C:OP1	58:BA:3915:HOH:O	1.88	0.89
1:AA:934:C:OP1	58:AA:2023:HOH:O	1.90	0.89
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.51	0.89
25:DA:1038:C:H42	25:DA:1117:G:H1	1.14	0.89
47:B1:3:LYS:HB2	47:B1:61:ARG:HH12	1.37	0.89
25:DA:2407:G:OP1	58:DA:4097:HOH:O	1.90	0.89
46:B0:11:ARG:O	46:B0:14:ARG:NH2	2.06	0.88
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.55	0.88
54:B8:6:THR:HG22	54:B8:63:PRO:HD2	1.52	0.88
2:AB:24:TRP:CD1	2:AB:24:TRP:H	1.91	0.88
36:DQ:16:ARG:HG2	36:DQ:16:ARG:HH11	1.38	0.88
1:AA:1255:G:O2’	1:AA:1258:G:O2’	1.92	0.88
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.56	0.88
42:DW:19:LEU:HB3	51:D5:25:LEU:HD12	1.53	0.87
55:B9:11:CYS:HB3	55:B9:32:HIS:HE1	1.38	0.87
1:AA:1019:C:O2’	1:AA:1020:U:OP1	1.92	0.86
43:BX:27:THR:HG22	43:BX:80:ILE:HG12	1.55	0.86
46:B0:38:VAL:HG23	46:B0:59:LEU:HB2	1.55	0.86
1:CA:1158:C:N3	1:CA:1181:G:N2	2.24	0.86
50:D4:16:CYS:SG	50:D4:36:CYS:HB3	2.16	0.86
1:AA:1158:C:H5	1:AA:1181:G:H1	1.21	0.86
27:DD:206:LEU:HD22	27:DD:211:ARG:HG2	1.56	0.86
32:DI:71:ILE:HG23	32:DI:72:LEU:HD23	1.58	0.86
1:CA:1321:C:H5’	1:CA:1322:C:H5”	1.58	0.85
1:AA:1346:A:H5”	9:AI:120:ARG:HH12	1.39	0.85
1:AA:664:G:H22	1:AA:741:G:H1	1.22	0.85
1:CA:953:G:H5’	1:CA:965:A:H61	1.39	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:100:VAL:HG22	5:AE:118:ILE:HG22	1.57	0.85
25:BA:910:A:H62	36:BQ:12:GLN:HA	1.39	0.85
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.09	0.85
18:CR:53:ARG:HG3	18:CR:63:GLN:HE21	1.42	0.85
25:DA:1365:A:O2'	47:D1:11:ARG:NH2	2.08	0.85
1:AA:166:G:H2'	1:AA:167:G:H8	1.41	0.85
25:BA:2106:G:H1	25:BA:2183:C:H42	1.20	0.85
25:DA:249:C:OP1	58:DA:4012:HOH:O	1.94	0.85
25:DA:2206:G:H5'	25:DA:2207:G:N7	1.92	0.85
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.59	0.85
25:DA:635:C:O2'	25:DA:639:U:OP1	1.95	0.84
38:DS:102:ALA:HA	38:DS:105:ALA:H	1.42	0.84
25:DA:2777:G:H5"	25:DA:2778:A:H5'	1.59	0.84
25:BA:1832:C:OP2	58:BA:3908:HOH:O	1.95	0.84
25:BA:2319:G:H1'	25:BA:2320:A:H5"	1.58	0.84
38:DS:34:HIS:HD1	38:DS:53:SER:HG	1.25	0.84
49:B3:8:LEU:HD13	49:B3:31:LEU:HD23	1.59	0.84
5:CE:31:LEU:HD22	5:CE:43:LEU:HD11	1.59	0.84
7:AG:146:GLU:O	7:AG:149:ARG:N	2.11	0.84
1:AA:1321:C:H3'	1:AA:1322:C:H5"	1.59	0.83
22:AY:36:ALA:HA	22:AY:80:GLN:HB2	1.61	0.83
45:BZ:160:GLY:HA2	45:BZ:161:VAL:HG12	1.57	0.83
1:CA:1162:C:H42	1:CA:1174:G:H1	0.84	0.83
9:CI:28:VAL:HG22	9:CI:63:ILE:HB	1.61	0.83
25:DA:2206:G:H3'	25:DA:2207:G:C8	2.13	0.83
2:AB:116:GLU:HA	2:AB:119:GLU:HB2	1.59	0.83
3:CC:24:ALA:HB3	3:CC:29:TYR:HB2	1.59	0.83
25:DA:2287:A:H62	25:DA:2344:U:H3	1.27	0.83
35:DP:39:LYS:HB2	35:DP:45:LEU:HD12	1.60	0.83
33:DN:24:GLY:HA2	33:DN:27:ALA:HB3	1.61	0.83
8:AH:91:ARG:HD3	17:AQ:33:GLY:HA3	1.60	0.83
1:CA:673:G:H2'	1:CA:674:G:C8	2.13	0.83
25:DA:864:G:N7	36:DQ:22:LYS:NZ	2.26	0.83
10:AJ:35:SER:HB3	10:AJ:73:ASP:HB2	1.58	0.83
25:BA:958:U:H5"	36:BQ:14:ARG:HD3	1.61	0.83
25:DA:1210:A:H5'	25:DA:1210:A:H8	1.43	0.83
25:DA:1740:G:H2'	25:DA:1741:A:H8	1.43	0.83
22:AY:32:LYS:HA	25:BA:2573:C:N4	1.94	0.83
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.58	0.82
25:BA:2287:A:H2	25:BA:2346:A:H62	1.28	0.82
1:CA:976:G:N2	1:CA:1363:C:OP2	2.12	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:161:THR:HG22	30:DG:163:ALA:H	1.43	0.82
7:AG:51:GLN:HG3	7:AG:58:PRO:HD3	1.60	0.82
12:AL:53:ARG:HG2	12:AL:69:TYR:HE1	1.42	0.82
25:BA:2562:U:H1'	34:BO:23:ARG:HH11	1.42	0.82
7:CG:23:VAL:HG13	7:CG:43:PHE:HE2	1.42	0.82
25:DA:1530:C:O2'	25:DA:1531:C:O5'	1.97	0.82
2:AB:69:LEU:HD13	2:AB:91:PRO:HB2	1.62	0.82
5:CE:36:ASP:HB3	5:CE:38:GLN:H	1.45	0.82
25:BA:885:C:N4	25:BA:890:A:H61	1.78	0.81
1:AA:1128:C:H5"	9:AI:16:ARG:HH12	1.45	0.81
5:CE:36:ASP:CB	5:CE:38:GLN:H	1.92	0.81
16:CP:43:LYS:HA	16:CP:48:TRP:HB3	1.60	0.81
27:DD:221:VAL:HG23	27:DD:226:MET:HE2	1.61	0.81
39:DT:54:ARG:HA	39:DT:59:THR:HB	1.62	0.81
16:AP:39:TYR:CZ	16:AP:41:PRO:HB3	2.14	0.81
1:AA:96:U:H1'	1:AA:97:G:H5'	1.63	0.81
38:BS:96:GLY:HA2	38:BS:100:ALA:H	1.44	0.81
25:DA:154(A):C:H42	25:DA:171:G:H1	1.28	0.81
25:DA:1889:A:H2'	25:DA:1890:A:C8	2.15	0.81
8:CH:10:LEU:HD22	8:CH:83:ILE:HD11	1.63	0.81
25:DA:1265:A:OP2	58:DA:3919:HOH:O	1.97	0.81
2:CB:63:MET:HE3	2:CB:225:ALA:HB1	1.63	0.81
25:DA:1412:A:H2'	25:DA:1413:G:H8	1.46	0.81
25:BA:83:G:N2	25:BA:103:A:OP2	2.10	0.81
32:DI:38:LEU:HB3	32:DI:40:THR:HG23	1.62	0.81
47:B1:21:ARG:HD3	47:B1:35:THR:HG21	1.62	0.80
25:DA:826:U:H4'	35:DP:55:ARG:HB2	1.63	0.80
25:BA:1039:G:O6	25:BA:1116:C:N4	2.14	0.80
31:BH:164:TYR:N	31:BH:167:GLU:OE1	2.14	0.80
30:DG:36:LYS:HD3	30:DG:95:ARG:HH12	1.45	0.80
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.63	0.80
11:AK:86:GLY:N	11:AK:112:THR:OG1	2.14	0.80
14:AN:21:TYR:HE2	14:AN:23:ARG:HE	1.27	0.80
42:BW:86:LEU:HD12	42:BW:87:PRO:HD2	1.64	0.80
10:CJ:44:VAL:HG22	10:CJ:66:ARG:HG2	1.63	0.80
16:AP:52:ASP:HB3	16:AP:55:ARG:HB2	1.63	0.80
2:CB:68:ILE:HG22	2:CB:90:MET:HG2	1.63	0.80
17:AQ:43:LEU:HB3	17:AQ:69:LYS:HE2	1.61	0.80
25:DA:11:G:H2'	25:DA:12:U:H5'	1.64	0.80
25:BA:517:C:OP1	51:B5:16:ARG:NH2	2.15	0.80
25:DA:2206:G:H3'	25:DA:2207:G:H8	1.45	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2276:G:H5'	36:DQ:86:GLY:HA2	1.62	0.80
35:DP:138:LEU:HD23	35:DP:145:PRO:HG3	1.62	0.80
25:BA:2285:C:OP2	52:B6:6:ARG:NH1	2.15	0.80
34:DO:20:MET:HB2	34:DO:44:LYS:HG2	1.64	0.80
25:BA:2317:C:H2'	25:BA:2318:G:H5'	1.64	0.80
42:BW:12:ILE:HD13	42:BW:17:VAL:HG22	1.64	0.80
50:B4:18:CYS:HB2	50:B4:20:ASN:HB2	1.64	0.80
25:DA:851:U:H5'	49:D3:49:LYS:HD2	1.64	0.80
1:AA:862:C:O2	1:AA:867:G:N2	2.14	0.79
1:AA:1392:G:H21	1:AA:1502:A:H8	1.29	0.79
20:AT:10:LEU:HD23	20:AT:12:ALA:H	1.45	0.79
8:CH:12:ARG:NH2	8:CH:27:PRO:HD3	1.97	0.79
25:DA:2308:G:O6	25:DA:2311:A:N6	2.14	0.79
32:DI:72:LEU:C	32:DI:74:ASN:H	1.90	0.79
1:AA:737:A:H2'	1:AA:738:C:H6	1.46	0.79
1:AA:974:A:OP2	14:AN:29:ARG:NH2	2.13	0.79
25:DA:1762:A:N1	58:DA:3968:HOH:O	2.14	0.79
41:DV:76:LYS:HB2	41:DV:81:TYR:HB3	1.63	0.79
1:AA:64:G:H4'	1:AA:65:U:H3'	1.63	0.79
25:DA:299:A:H5"	44:DY:86:ARG:HH21	1.45	0.79
38:DS:34:HIS:ND1	38:DS:53:SER:OG	2.10	0.79
1:AA:453:A:H62	1:AA:479:C:H42	1.27	0.79
20:CT:47:GLY:HA2	20:CT:48:LYS:HB2	1.63	0.79
1:AA:1502:A:H2	1:AA:1505:G:H1	1.27	0.79
9:AI:21:PRO:HA	9:AI:59:PHE:HA	1.64	0.79
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.64	0.79
27:DD:274:ARG:HG2	27:DD:275:LYS:HB3	1.62	0.79
33:BN:20:GLY:HA2	33:BN:61:ARG:HD3	1.64	0.79
25:DA:819:A:OP2	25:DA:1187:G:N2	2.15	0.79
25:BA:1041:C:H42	25:BA:1114:G:H1	1.29	0.78
1:CA:562:C:H1'	12:CL:15:ARG:HB3	1.65	0.78
13:AM:85:GLY:HA3	13:AM:86:CYS:HB3	1.65	0.78
19:AS:41:VAL:N	19:AS:44:MET:SD	2.53	0.78
25:BA:847:U:O4	25:BA:933:A:N6	2.17	0.78
25:BA:1689:A:H62	25:BA:1698:A:H2	1.30	0.78
1:AA:1281:U:H5'	1:AA:1282:C:OP2	1.82	0.78
25:BA:615:G:OP1	29:BF:40:GLN:NE2	2.17	0.78
4:CD:189:PRO:HB3	4:CD:194:LEU:HD21	1.64	0.78
25:DA:1365:A:OP1	47:D1:41:ARG:NH1	2.17	0.78
30:DG:63:ILE:HG22	30:DG:64:THR:HG23	1.64	0.78
1:AA:35:G:O2'	12:AL:118:SER:O	2.01	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:126:PRO:HG2	28:BE:131:ALA:HB2	1.64	0.78
5:CE:51:VAL:HG23	5:CE:52:PRO:HD3	1.64	0.78
10:CJ:35:SER:HB3	10:CJ:73:ASP:HB2	1.65	0.78
9:AI:13:ALA:HB2	9:AI:68:GLY:HA3	1.66	0.78
6:CF:8:ILE:HD13	6:CF:26:ILE:HD13	1.64	0.78
25:DA:910:A:H62	36:DQ:12:GLN:HA	1.49	0.78
42:BW:73:ALA:HB3	42:BW:106:ILE:HB	1.63	0.78
25:DA:781:A:OP1	27:DD:218:ARG:NH2	2.17	0.78
1:CA:1147:C:O2	9:CI:16:ARG:NH1	2.17	0.78
16:CP:72:ARG:HH11	16:CP:72:ARG:HG3	1.45	0.78
1:AA:954:G:H21	1:AA:1227:A:H62	1.32	0.78
2:AB:163:PHE:HD2	2:AB:185:ILE:HG13	1.48	0.78
47:B1:3:LYS:HB2	47:B1:61:ARG:NH1	1.98	0.78
25:BA:1435:G:H1	25:BA:1557:C:H42	1.29	0.77
13:CM:64:TRP:HE3	13:CM:64:TRP:H	1.29	0.77
25:DA:784:A:OP2	58:DA:3805:HOH:O	2.03	0.77
25:BA:652(H):C:H42	25:BA:652(Q):G:H1	1.32	0.77
10:CJ:50:ILE:HB	14:CN:41:ARG:HD2	1.66	0.77
25:DA:1250:G:N7	35:DP:18:ARG:NH2	2.32	0.77
25:BA:151:C:H42	25:BA:175:G:H1	1.30	0.77
25:BA:2287:A:N6	25:BA:2344:U:H3	1.82	0.77
38:DS:14:VAL:O	38:DS:18:ILE:HG12	1.85	0.77
15:AO:62:GLN:HA	15:AO:65:ARG:HH11	1.50	0.77
28:BE:105:THR:OG1	28:BE:199:ARG:NH2	2.18	0.77
42:BW:14:PRO:HG2	42:BW:78:GLU:HG2	1.65	0.77
25:DA:317:G:N7	58:DA:4605:HOH:O	2.16	0.77
25:DA:639:U:H2'	25:DA:640:C:C6	2.19	0.77
1:AA:1239:A:H62	1:AA:1299:A:H62	1.30	0.77
16:AP:28:ARG:NH1	16:AP:29:ASP:OD2	2.18	0.77
25:BA:2615:U:OP1	58:BA:4761:HOH:O	2.01	0.77
18:CR:56:THR:HB	18:CR:58:LEU:HD13	1.67	0.77
13:AM:23:TYR:HB3	13:AM:67:GLU:HG2	1.64	0.77
25:BA:1971:A:C4	27:BD:241:PRO:HD3	2.19	0.77
25:DA:271(I):G:H1	25:DA:271(O):C:N4	1.81	0.77
26:DB:13:A:N1	26:DB:69:G:O2'	2.16	0.77
31:DH:3:ARG:HD3	31:DH:54:ARG:HH12	1.49	0.77
1:AA:1315:U:O2'	1:AA:1360:A:N3	2.17	0.77
1:CA:1358:U:N3	1:CA:1363(A):A:N6	2.10	0.77
25:DA:1558:A:H4'	25:DA:1559:G:O5'	1.85	0.77
25:DA:2839:G:H5'	37:DR:46:GLY:HA2	1.65	0.77
25:BA:751:A:H5'	42:BW:90:ARG:HA	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:48:G:O6	58:DA:4628:HOH:O	2.03	0.76
25:DA:2100:G:H1	25:DA:2189:U:H3	1.33	0.76
25:DA:2683:C:OP1	39:DT:53:ARG:NH2	2.17	0.76
25:BA:1332:G:C8	25:BA:1332:G:H5'	2.20	0.76
44:BY:79:CYS:SG	44:BY:102:CYS:HB3	2.24	0.76
2:CB:161:ALA:HB1	2:CB:185:ILE:HD11	1.67	0.76
8:CH:21:LYS:O	8:CH:65:TYR:OH	2.00	0.76
25:DA:1453:U:OP1	37:DR:77:ARG:NH1	2.19	0.76
25:BA:1047:G:H2'	25:BA:1110:G:H22	1.49	0.76
50:B4:18:CYS:SG	50:B4:39:CYS:HB3	2.24	0.76
25:DA:2577:A:OP2	51:D5:3:LYS:NZ	2.16	0.76
25:DA:309:G:N3	25:DA:329:G:O2'	2.18	0.76
4:AD:157:LEU:O	4:AD:161:ASN:ND2	2.17	0.76
38:BS:42:ASP:N	38:BS:42:ASP:OD1	2.19	0.76
1:CA:404:U:H2'	1:CA:405:U:H6	1.50	0.76
1:CA:1347:G:C8	9:CI:107:ARG:HB3	2.20	0.76
25:DA:2293:C:O2	25:DA:2339:G:N2	2.17	0.76
55:D9:25:VAL:HB	55:D9:34:GLN:HB2	1.67	0.76
1:AA:1422:G:H5'	34:BO:48:PRO:HB3	1.68	0.76
35:BP:56:SER:HB2	35:BP:61:ARG:HD2	1.68	0.76
1:CA:586:C:H2'	1:CA:587:G:H5'	1.68	0.76
42:DW:50:VAL:HG12	42:DW:105:VAL:HG22	1.68	0.76
40:BU:92:ARG:HA	40:BU:95:LEU:HB2	1.68	0.76
25:DA:2296:U:OP2	38:DS:9:ARG:NH2	2.18	0.76
1:AA:1131:G:H1	1:AA:1143:G:H21	1.34	0.76
1:AA:1279:A:O2'	1:AA:1281:U:OP2	2.03	0.76
25:BA:2317:C:C2'	25:BA:2318:G:H5'	2.15	0.76
1:CA:826:C:O2	1:CA:874:G:N2	2.18	0.76
25:DA:2006:C:OP2	58:DA:3840:HOH:O	2.02	0.76
34:DO:35:VAL:HG11	34:DO:103:ALA:HB3	1.67	0.76
23:CV:3:C:H42	23:CV:70:G:H1	1.34	0.75
1:AA:1144:G:N2	1:AA:1146:A:H62	1.85	0.75
27:BD:183:ARG:HG3	27:BD:270:ILE:HD13	1.68	0.75
25:DA:2287:A:N6	25:DA:2344:U:H3	1.82	0.75
55:D9:29:ASN:HD22	55:D9:32:HIS:CD2	2.03	0.75
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.67	0.75
25:DA:676:A:H8	25:DA:2069:G:H21	1.33	0.75
25:DA:1645:G:H5"	25:DA:1646:C:H5'	1.69	0.75
1:AA:382:A:H2'	1:AA:383:A:H8	1.51	0.75
25:BA:1434:A:H61	25:BA:1558:A:N6	1.84	0.75
25:DA:958:U:OP2	36:DQ:14:ARG:NH1	2.17	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DV:40:LEU:HB2	41:DV:46:VAL:HG13	1.66	0.75
45:DZ:52:SER:OG	45:DZ:53:ILE:N	2.15	0.75
25:BA:9:U:H3	25:BA:2629:A:H2	1.33	0.75
25:BA:252:G:OP2	35:BP:50:ARG:NH1	2.20	0.75
25:BA:2685:G:O6	58:BA:4699:HOH:O	2.03	0.75
20:CT:49:ALA:HA	20:CT:52:ALA:HB3	1.69	0.75
45:DZ:110:GLY:HA3	45:DZ:174:VAL:HG11	1.68	0.75
25:BA:529:A:N6	25:BA:2041:U:O2	2.19	0.75
1:CA:559:A:H4'	1:CA:560:U:H5"	1.67	0.75
3:CC:179:ARG:HD2	3:CC:206:GLU:HB3	1.69	0.75
25:DA:1557:C:OP2	25:DA:1558:A:O2'	2.03	0.75
1:AA:737:A:H2'	1:AA:738:C:C6	2.22	0.75
3:AC:19:GLU:O	3:AC:40:ARG:NH2	2.19	0.75
25:BA:330:A:H2	25:BA:1210:A:H2'	1.52	0.75
25:BA:2445:G:OP1	29:BF:74:ARG:NH2	2.20	0.75
35:BP:32:THR:O	58:BP:307:HOH:O	2.04	0.75
32:DI:83:ALA:HB1	32:DI:87:LYS:O	1.87	0.75
25:DA:1567:A:H5'	27:DD:58:HIS:CD2	2.21	0.75
1:AA:269:C:H2'	1:AA:270:A:C8	2.22	0.75
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.69	0.75
2:AB:44:LEU:HD22	2:AB:44:LEU:H	1.51	0.74
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.69	0.74
1:AA:1305:G:N2	1:AA:1331:G:H1'	2.02	0.74
25:BA:1300:U:H4'	25:BA:1301:A:H5"	1.69	0.74
25:BA:2106:G:H1	25:BA:2183:C:N4	1.85	0.74
25:BA:2327:A:H2'	25:BA:2328:A:C8	2.21	0.74
1:AA:269:C:H2'	1:AA:270:A:H8	1.52	0.74
25:BA:2573:C:O2	58:BA:3912:HOH:O	2.06	0.74
1:CA:1162:C:N3	1:CA:1174:G:N2	2.32	0.74
26:DB:52:A:HO2'	26:DB:53:A:H2	1.34	0.74
28:BE:61:ARG:HH11	28:BE:61:ARG:HB2	1.52	0.74
31:BH:41:MET:HE2	31:BH:65:HIS:HA	1.70	0.74
8:AH:28:ALA:HB2	8:AH:59:LEU:HG	1.68	0.74
10:AJ:9:ARG:HB2	10:AJ:95:GLU:HB3	1.67	0.74
25:BA:1210:A:H5'	25:BA:1210:A:H8	1.53	0.74
25:DA:1740:G:H2'	25:DA:1741:A:C8	2.22	0.74
1:AA:56:U:H2'	1:AA:57:G:C8	2.23	0.74
36:BQ:62:GLY:HA2	45:BZ:116:VAL:HG21	1.70	0.74
25:DA:300:A:P	44:DY:86:ARG:HH22	2.09	0.74
26:DB:48:A:H4'	38:DS:95:HIS:HD2	1.51	0.74
1:CA:564:C:O2'	8:CH:91:ARG:NH2	2.19	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:120:U:OP2	58:DA:4239:HOH:O	2.04	0.74
47:D1:21:ARG:HD3	47:D1:35:THR:HG21	1.69	0.74
1:AA:434:U:H2'	1:AA:435:C:C6	2.22	0.74
1:AA:567:G:N3	58:AA:2260:HOH:O	2.20	0.74
2:CB:21:ARG:HB3	2:CB:39:ILE:HA	1.70	0.74
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.50	0.74
25:DA:1316:U:H2'	25:DA:1317:A:H8	1.53	0.74
1:CA:130:A:H5'	17:CQ:63:ARG:HE	1.52	0.74
25:DA:500:G:N1	25:DA:503:A:OP2	2.20	0.74
1:AA:342:C:H2'	1:AA:343:U:H5'	1.70	0.74
1:AA:836:G:OP1	18:AR:61:LYS:NZ	2.19	0.74
9:CI:107:ARG:HH11	9:CI:107:ARG:HG2	1.53	0.74
16:AP:43:LYS:HG2	16:AP:48:TRP:CE2	2.23	0.73
32:BI:92:VAL:HG13	32:BI:120:ILE:HB	1.68	0.73
25:DA:134:C:H42	25:DA:145:G:H1	1.36	0.73
31:DH:106:THR:HG22	31:DH:112:PRO:HB3	1.69	0.73
1:AA:316:G:OP2	1:AA:351:G:O2'	2.05	0.73
2:AB:163:PHE:CD2	2:AB:185:ILE:HG13	2.23	0.73
10:CJ:39:PRO:HA	10:CJ:70:ARG:HD3	1.70	0.73
27:DD:182:LEU:HB3	27:DD:271:ILE:HD12	1.70	0.73
1:AA:1346:A:H5"	9:AI:120:ARG:NH1	2.02	0.73
25:BA:2817:G:OP1	37:BR:42:LYS:NZ	2.21	0.73
27:DD:177:LEU:HD12	27:DD:181:GLU:HB3	1.69	0.73
29:DF:185:ASP:HA	29:DF:188:ARG:HD3	1.69	0.73
6:AF:27:GLN:HA	6:AF:30:LEU:HD12	1.69	0.73
19:AS:31:ILE:HG12	19:AS:49:ILE:HG12	1.70	0.73
46:B0:55:ARG:HH11	46:B0:55:ARG:HB2	1.52	0.73
25:BA:2712:U:O2'	25:BA:2712(A):A:OP2	2.04	0.73
25:DA:468:G:N7	53:D7:39:ARG:NH2	2.34	0.73
25:DA:2712:U:O2'	25:DA:2712(A):A:OP2	2.06	0.73
35:DP:111:ARG:HG2	35:DP:128:HIS:CG	2.23	0.73
25:BA:1204:A:H2	25:BA:1241:A:H62	1.36	0.73
38:BS:95:HIS:C	38:BS:99:LYS:HB3	2.14	0.73
25:DA:7:G:H2'	25:DA:8:A:C8	2.23	0.73
25:DA:1639:U:H2'	25:DA:1640:C:H5"	1.71	0.73
1:AA:149:A:OP2	58:AA:2198:HOH:O	2.06	0.73
25:BA:271(M):G:O2'	25:BA:271(N):U:O5'	2.07	0.73
29:BF:53:THR:HG22	29:BF:55:GLY:H	1.53	0.73
34:BO:2:ILE:HB	34:BO:33:ALA:HB3	1.70	0.73
1:CA:1152:A:H5'	10:CJ:13:HIS:CD2	2.24	0.73
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1412:A:H2'	25:DA:1413:G:C8	2.24	0.73
25:DA:2567:G:H2'	25:DA:2568:C:C6	2.23	0.73
25:DA:2884:U:H1'	51:D5:53:ALA:HB2	1.70	0.73
31:DH:8:PRO:HB3	31:DH:51:ARG:HG3	1.71	0.73
22:AY:47:SER:OG	22:AY:48:LEU:N	2.15	0.73
25:BA:271(E):U:H3	25:BA:271(S):G:H1	1.35	0.73
25:BA:686:G:OP1	53:B7:11:LYS:NZ	2.18	0.73
1:CA:316:G:OP2	1:CA:351:G:O2'	2.05	0.73
25:DA:587:C:OP2	35:DP:21:ARG:NH2	2.21	0.73
30:DG:47:LYS:HB3	30:DG:82:LEU:HD13	1.71	0.73
32:DI:72:LEU:HA	32:DI:75:LEU:HD12	1.69	0.73
8:AH:21:LYS:O	8:AH:65:TYR:OH	2.04	0.73
25:BA:1177:A:O2'	25:BA:1178:C:O4'	2.06	0.73
41:BV:29:PRO:HA	41:BV:61:VAL:HG22	1.70	0.73
1:AA:1197:G:OP1	58:AA:2360:HOH:O	2.06	0.72
25:BA:784:A:H5'	25:BA:785:G:OP1	1.88	0.72
33:BN:67:LEU:HA	33:BN:87:LEU:HD12	1.71	0.72
17:CQ:57:VAL:HG12	17:CQ:76:LEU:HA	1.70	0.72
37:DR:51:LEU:HD22	37:DR:66:VAL:HG13	1.69	0.72
9:CI:9:ARG:HG2	9:CI:14:VAL:HG12	1.69	0.72
25:DA:1403:C:H5"	25:DA:1471:A:H1'	1.71	0.72
4:AD:134:ASP:OD2	4:AD:134:ASP:N	2.21	0.72
11:AK:120:ARG:HG2	11:AK:120:ARG:HH11	1.54	0.72
25:BA:587:C:OP2	35:BP:21:ARG:NH2	2.21	0.72
25:DA:2781:A:H5"	25:DA:2782:G:H5'	1.70	0.72
28:DE:128:SER:OG	28:DE:129:HIS:N	2.20	0.72
36:DQ:36:ALA:HB1	36:DQ:127:ILE:HD11	1.71	0.72
33:BN:24:GLY:HA2	33:BN:27:ALA:CB	2.20	0.72
47:D1:23:LYS:HB3	47:D1:29:GLY:HA3	1.70	0.72
1:AA:450:G:OP1	16:AP:43:LYS:NZ	2.23	0.72
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG12	1.72	0.72
22:AY:68:GLY:HA2	22:AY:69:VAL:CB	2.18	0.72
33:DN:58:ASP:OD1	33:DN:58:ASP:N	2.14	0.72
25:BA:1037:G:N7	58:BA:4044:HOH:O	2.21	0.72
2:CB:95:GLN:HG3	2:CB:148:TYR:HA	1.72	0.72
25:DA:885:C:C4	25:DA:890:A:N6	2.54	0.72
44:DY:49:VAL:HG22	44:DY:61:ILE:HG22	1.70	0.72
25:BA:2357:U:OP1	46:B0:20:ARG:NH1	2.22	0.72
25:BA:2789:C:HO2'	25:BA:2790:A:HO2'	1.28	0.72
32:BI:79:ILE:HD12	32:BI:144:VAL:HB	1.72	0.72
45:BZ:110:GLY:HA3	45:BZ:174:VAL:HG11	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1059:C:N4	58:CA:2121:HOH:O	2.09	0.72
25:DA:139(A):G:N2	43:DX:44:GLU:OE1	2.22	0.72
25:DA:863:A:H3'	36:DQ:22:LYS:HE2	1.71	0.72
2:CB:71:VAL:HB	2:CB:164:VAL:HG13	1.72	0.72
25:DA:33:U:O4	25:DA:446:G:O2'	2.08	0.72
25:BA:2306:C:O2	58:BA:5334:HOH:O	2.08	0.72
25:DA:620:G:H5"	25:DA:620:G:N3	2.05	0.72
1:AA:933:G:O6	7:AG:3:ARG:NH2	2.22	0.71
1:AA:1414:U:H3	1:AA:1486:G:H1	1.33	0.71
1:AA:1457:G:OP1	20:AT:39:LYS:NZ	2.23	0.71
6:AF:14:LEU:HD22	6:AF:15:ASP:H	1.53	0.71
29:BF:20:LEU:HD22	29:BF:21:ALA:HB3	1.72	0.71
29:BF:185:ASP:HA	29:BF:188:ARG:HD3	1.72	0.71
25:DA:1009:A:OP1	33:DN:37:LYS:NZ	2.20	0.71
49:D3:23:LEU:HD12	49:D3:28:LEU:HB2	1.72	0.71
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.25	0.71
2:AB:71:VAL:HB	2:AB:164:VAL:HG13	1.73	0.71
1:CA:572:A:OP2	58:CA:1963:HOH:O	2.07	0.71
25:DA:479:A:N3	25:DA:481:G:H5"	2.05	0.71
25:DA:2378:A:H4'	38:DS:23:ARG:NH1	2.05	0.71
25:DA:2632:A:HO2'	25:DA:2811:G:HO2'	1.36	0.71
27:DD:127:VAL:HA	27:DD:193:VAL:HG23	1.71	0.71
1:AA:1060:C:C5	3:AC:2:GLY:HA2	2.25	0.71
2:AB:162:ILE:O	2:AB:185:ILE:HG12	1.89	0.71
10:AJ:11:PHE:HE2	10:AJ:67:THR:HG22	1.54	0.71
25:BA:2785:C:O3'	28:BE:69:LYS:NZ	2.23	0.71
26:BB:86:G:H1	26:BB:91:C:H42	1.37	0.71
1:CA:677:U:H3	1:CA:713:G:H22	1.36	0.71
25:BA:2464:C:H1'	58:BA:5236:HOH:O	1.89	0.71
1:CA:1308:U:H5"	13:CM:98:VAL:HG22	1.71	0.71
3:CC:110:ASN:HB2	3:CC:111:LEU:HD12	1.73	0.71
16:CP:28:ARG:NH1	16:CP:29:ASP:OD1	2.23	0.71
39:BT:51:ARG:HB2	39:BT:98:LYS:HD2	1.72	0.71
25:DA:994:C:OP2	40:DU:54:LYS:NZ	2.21	0.71
7:AG:111:ARG:NH1	7:AG:113:GLU:OE1	2.24	0.71
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.54	0.71
17:AQ:44:ALA:N	17:AQ:69:LYS:HZ3	1.89	0.71
6:CF:6:VAL:HG22	6:CF:90:VAL:HG22	1.72	0.71
25:DA:2307:G:H4'	25:DA:2308:G:H5'	1.71	0.71
3:AC:36:ASP:HA	3:AC:39:ILE:HB	1.73	0.71
20:AT:30:LYS:HA	20:AT:33:ILE:HD12	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:548:A:N6	41:DV:19:LYS:H	1.89	0.71
35:DP:39:LYS:HD2	35:DP:45:LEU:HD12	1.72	0.71
36:DQ:34:LEU:HB2	36:DQ:118:LEU:HD22	1.72	0.71
3:AC:12:LEU:HD11	14:AN:51:GLY:HA2	1.71	0.71
1:CA:568:G:N7	12:CL:5:PRO:HD3	2.06	0.71
25:DA:991:C:H5'	25:DA:991:C:H6	1.56	0.71
1:CA:129(A):G:O6	1:CA:189(D):C:C2	2.44	0.71
2:CB:97:TRP:CH2	2:CB:173:ALA:HA	2.26	0.71
9:CI:103:THR:OG1	9:CI:104:ARG:N	2.22	0.71
1:CA:1239:A:H2'	1:CA:1298:C:H42	1.55	0.71
23:CV:40:C:H2'	23:CV:41:C:H6	1.56	0.71
25:DA:1266:G:O5'	42:DW:15:ARG:NH2	2.23	0.71
2:AB:98:LEU:HB2	2:AB:101:MET:HE3	1.73	0.70
25:BA:1174:A:H4'	25:BA:1175:U:OP1	1.89	0.70
25:BA:1332:G:N2	25:BA:1609:A:H2'	2.06	0.70
27:BD:131:LEU:HB2	27:BD:136:ILE:HD11	1.73	0.70
38:DS:96:GLY:HA2	38:DS:97:ARG:C	2.16	0.70
47:D1:54:ALA:HB1	47:D1:83:GLU:HG3	1.73	0.70
1:AA:929:G:H1	1:AA:1388:C:N4	1.87	0.70
25:BA:1149:G:N7	58:BA:5231:HOH:O	2.24	0.70
46:B0:53:MET:HE3	46:B0:57:PHE:CD1	2.27	0.70
2:CB:155:LEU:HD11	2:CB:159:PRO:HD3	1.71	0.70
1:AA:186:C:H2'	1:AA:187:C:C6	2.26	0.70
1:AA:382:A:H2'	1:AA:383:A:C8	2.26	0.70
1:AA:1108:G:O6	58:AA:2345:HOH:O	2.09	0.70
1:AA:1255:G:OP1	10:AJ:45:ARG:NH2	2.24	0.70
32:BI:129:THR:HG22	32:BI:139:GLN:HE22	1.55	0.70
38:BS:96:GLY:H	38:BS:99:LYS:H	1.39	0.70
1:CA:503:C:OP2	12:CL:116:SER:HB3	1.91	0.70
1:CA:826:C:H4'	8:CH:12:ARG:HD2	1.72	0.70
25:DA:384:U:H2'	25:DA:385:C:H6	1.54	0.70
33:DN:34:LEU:O	33:DN:49:GLY:HA3	1.91	0.70
1:AA:652:U:O4	1:AA:752:G:O2'	2.09	0.70
18:AR:55:ARG:HG3	18:AR:55:ARG:NH1	2.01	0.70
25:BA:1398:C:O3'	43:BX:25:LYS:NZ	2.24	0.70
16:CP:29:ASP:OD2	16:CP:29:ASP:N	2.22	0.70
25:DA:849:A:N1	49:D3:25:ALA:HB2	2.05	0.70
25:DA:1721:G:H8	25:DA:1741:A:H62	1.38	0.70
34:DO:23:ARG:HG3	34:DO:24:VAL:N	2.07	0.70
1:CA:400:C:H5"	4:CD:73:ARG:HH12	1.57	0.70
1:CA:404:U:H2'	1:CA:405:U:C6	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1149:G:H2'	25:DA:1150:C:C6	2.27	0.70
25:DA:1803:A:O2'	27:DD:259:THR:HG21	1.91	0.70
35:DP:120:ALA:HB1	35:DP:138:LEU:HD12	1.71	0.70
1:AA:674:G:H2'	1:AA:675:A:H8	1.56	0.70
25:BA:1045:A:OP1	25:BA:1045:A:H4'	1.89	0.70
36:BQ:110:THR:HG23	36:BQ:113:GLN:HG3	1.74	0.70
40:BU:76:TYR:OH	40:BU:92:ARG:NH1	2.24	0.70
52:B6:13:CYS:SG	52:B6:47:THR:HG21	2.31	0.70
1:CA:97:G:HO2'	1:CA:98:G:H8	1.40	0.70
3:CC:127:ARG:NH2	3:CC:192:THR:OG1	2.24	0.70
25:DA:572:A:OP2	41:DV:78:LYS:NZ	2.24	0.70
25:DA:1332:G:N2	25:DA:1609:A:O2'	2.23	0.70
1:AA:54:C:O2	1:AA:357:G:N2	2.22	0.70
1:AA:865:A:H2'	1:AA:866:C:C6	2.27	0.70
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.91	0.70
9:AI:117:HIS:O	9:AI:119:ALA:N	2.24	0.70
45:BZ:82:ARG:NH2	45:BZ:82:ARG:HB3	2.06	0.70
1:CA:1244:C:H42	1:CA:1293:G:H1	1.39	0.70
25:DA:2528:U:H5'	55:D9:31:LYS:HD3	1.74	0.70
25:BA:729:G:OP2	27:BD:13:ARG:NH1	2.24	0.70
36:BQ:21:THR:HG21	36:BQ:101:ARG:HD2	1.73	0.70
1:CA:736:C:H2'	1:CA:737:A:C8	2.26	0.70
25:DA:71:A:H5"	25:DA:73:A:C8	2.27	0.70
25:DA:298:G:N7	58:DA:3734:HOH:O	2.24	0.70
1:AA:1305:G:H22	1:AA:1331:G:H1'	1.55	0.70
1:AA:342:C:C4	1:AA:343:U:H5	2.10	0.69
25:BA:1170:G:H5"	25:BA:1170:G:H8	1.55	0.69
38:BS:101:LEU:HD23	38:BS:102:ALA:H	1.57	0.69
1:CA:518:C:H2'	1:CA:530:G:C8	2.26	0.69
1:AA:625:G:H2'	1:AA:626:U:H6	1.57	0.69
18:AR:56:THR:HB	18:AR:58:LEU:HD22	1.74	0.69
30:BG:41:GLN:HB3	30:BG:43:LEU:HD22	1.73	0.69
1:CA:1012:U:H3	1:CA:1017:G:H1	1.37	0.69
25:DA:19:C:H2'	25:DA:20:C:H6	1.57	0.69
25:DA:1920:C:OP2	58:DA:3707:HOH:O	2.09	0.69
36:DQ:43:THR:HG22	36:DQ:94:VAL:HG12	1.74	0.69
45:DZ:156:LYS:HD2	45:DZ:158:PRO:HG3	1.73	0.69
52:B6:40:CYS:SG	52:B6:42:TRP:HB2	2.32	0.69
19:CS:22:LEU:HD22	19:CS:27:GLU:HA	1.75	0.69
25:DA:2055:C:N3	58:DA:3908:HOH:O	2.24	0.69
25:BA:2467:C:H4'	36:BQ:123:HIS:ND1	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:954:G:H21	1:CA:1227:A:N6	1.89	0.69
25:DA:272(G):C:H42	25:DA:363(C):G:H1	1.40	0.69
25:DA:1021:A:H62	25:DA:1141:U:H3	1.39	0.69
1:AA:345:C:OP2	39:BT:39:ARG:NH2	2.25	0.69
13:AM:60:VAL:HG12	13:AM:64:TRP:HZ3	1.55	0.69
25:BA:220:G:O2'	25:BA:233:A:N3	2.25	0.69
25:BA:885:C:C4	25:BA:890:A:N6	2.61	0.69
25:BA:2595:G:N7	58:BA:4706:HOH:O	2.25	0.69
1:CA:736:C:H2'	1:CA:737:A:H8	1.58	0.69
6:CF:70:ASP:N	6:CF:70:ASP:OD1	2.26	0.69
25:DA:287:C:H42	25:DA:354:G:H1	1.39	0.69
46:D0:53:MET:HE3	46:D0:57:PHE:HD1	1.56	0.69
1:AA:928:G:H1	1:AA:1389:C:H42	1.39	0.69
9:AI:114:TYR:HE1	10:AJ:60:ARG:H	1.41	0.69
34:BO:19:ILE:HG22	34:BO:43:VAL:HA	1.74	0.69
1:CA:243:A:H4'	1:CA:244:U:H5"	1.74	0.69
1:CA:920:U:H2'	1:CA:921:U:C6	2.27	0.69
31:DH:80:SER:OG	31:DH:81:GLU:N	2.21	0.69
1:AA:97:G:HO2'	1:AA:98:G:H8	1.40	0.69
1:AA:1189:C:OP1	10:AJ:51:ARG:NH2	2.14	0.69
25:DA:2282:G:O2'	25:DA:2283:C:OP2	2.11	0.69
1:AA:593:G:O6	58:AA:2267:HOH:O	2.09	0.69
25:BA:528:A:N1	25:BA:2042:A:H2'	2.08	0.69
25:BA:674:G:O2'	29:BF:74:ARG:HD3	1.92	0.69
47:B1:60:PHE:HE1	47:B1:95:LEU:HD11	1.58	0.69
4:CD:204:ILE:HG21	5:CE:98:THR:O	1.91	0.69
7:CG:18:TYR:CE2	7:CG:59:LEU:HB2	2.27	0.69
25:DA:1776:G:OP2	58:DA:3845:HOH:O	2.10	0.69
29:DF:185:ASP:OD1	29:DF:188:ARG:NH1	2.25	0.69
46:D0:27:GLU:HB2	46:D0:69:PHE:HD1	1.57	0.69
1:AA:114:U:OP1	58:AA:2185:HOH:O	2.10	0.69
1:AA:911:U:OP2	12:AL:97:ARG:NH1	2.25	0.69
25:BA:832:G:H21	35:BP:53:GLY:HA3	1.58	0.69
1:CA:1292:U:H5'	9:CI:38:GLN:HG2	1.75	0.69
2:CB:27:LYS:HB2	2:CB:194:PRO:HD2	1.75	0.69
28:DE:135:HIS:CD2	28:DE:135:HIS:H	2.09	0.69
18:AR:44:LEU:HD21	18:AR:70:ILE:HG21	1.74	0.69
29:BF:63:LYS:NZ	29:BF:75:HIS:O	2.26	0.69
50:B4:16:CYS:SG	50:B4:18:CYS:N	2.66	0.69
25:DA:71:A:H3'	25:DA:71:A:OP2	1.92	0.69
25:DA:574:C:OP2	58:DA:3934:HOH:O	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:96:ARG:O	30:DG:99:MET:HB3	1.93	0.69
30:DG:108:ASN:HA	50:D4:37:SER:HB3	1.74	0.69
34:DO:73:ASP:OD1	39:DT:32:TYR:OH	2.10	0.69
7:AG:26:PHE:HE2	7:AG:30:ILE:HD11	1.58	0.68
25:BA:1434:A:H61	25:BA:1558:A:H62	1.40	0.68
30:BG:120:LEU:HD23	30:BG:179:PRO:HG2	1.73	0.68
1:CA:582:U:OP1	15:CO:68:ARG:NH2	2.27	0.68
1:CA:1457:G:OP1	20:CT:39:LYS:NZ	2.26	0.68
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.73	0.68
7:CG:151:TYR:OH	11:CK:54:ARG:NH1	2.27	0.68
27:DD:51:VAL:HG12	27:DD:54:ARG:HD3	1.75	0.68
28:DE:143:ASN:HB2	28:DE:147:PRO:HD2	1.75	0.68
22:AY:28:GLN:O	22:AY:32:LYS:N	2.24	0.68
36:BQ:135:ASP:HB3	36:BQ:137:TYR:H	1.57	0.68
1:CA:9:G:H2'	1:CA:10:A:C8	2.28	0.68
3:CC:18:TRP:HE3	3:CC:18:TRP:H	1.39	0.68
25:DA:152:G:H1	25:DA:174:C:H42	1.40	0.68
13:AM:3:ARG:HB2	13:AM:9:ILE:HA	1.74	0.68
25:BA:2010:G:N7	58:BA:4544:HOH:O	2.27	0.68
25:BA:2610:C:H4'	25:BA:2611:U:OP2	1.93	0.68
35:BP:91:PHE:O	35:BP:121:LYS:NZ	2.26	0.68
44:BY:68:HIS:HB3	44:BY:71:LYS:HG3	1.73	0.68
1:CA:924:C:O2'	1:CA:1502:A:N6	2.27	0.68
2:AB:24:TRP:H	2:AB:24:TRP:HD1	1.37	0.68
34:BO:35:VAL:HG11	34:BO:103:ALA:HB3	1.74	0.68
1:CA:728:A:H2'	1:CA:729:A:C8	2.28	0.68
25:DA:637:A:H8	35:DP:117:GLU:HG3	1.58	0.68
25:DA:2556:C:H2'	25:DA:2557:G:O4'	1.92	0.68
25:BA:1178:C:H2'	25:BA:1179:C:H6	1.59	0.68
1:CA:748:C:H4'	1:CA:749:C:O5'	1.92	0.68
25:DA:495:G:H21	42:DW:61:ASN:HD21	1.41	0.68
25:DA:989:G:OP2	49:D3:11:SER:OG	2.12	0.68
25:DA:1980:G:O2'	25:DA:1982:C:OP2	2.08	0.68
34:DO:87:ILE:HG22	34:DO:93:PRO:HA	1.75	0.68
2:AB:75:LYS:HA	2:AB:78:GLN:HB2	1.75	0.68
25:BA:1298:C:H5"	25:BA:1299:G:OP2	1.94	0.68
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	1.76	0.68
25:BA:1800:C:OP1	27:BD:266:SER:OG	2.08	0.68
45:BZ:111:VAL:C	45:BZ:113:ALA:H	2.02	0.68
52:D6:3:SER:H	52:D6:6:ARG:HB3	1.57	0.68
25:BA:271(K):U:H4'	25:BA:271(L):U:OP2	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:86:G:H1	26:BB:91:C:N4	1.92	0.68
29:BF:63:LYS:HA	29:BF:76:GLY:O	1.93	0.68
6:CF:62:TRP:C	6:CF:63:TYR:HD2	2.02	0.68
25:DA:9:U:H3	25:DA:2629:A:H2	1.41	0.68
25:DA:1721:G:H2'	25:DA:1740:G:O6	1.94	0.68
25:DA:2570:G:N7	58:DA:4187:HOH:O	2.26	0.68
25:DA:2641:G:H5"	33:DN:76:SER:HB3	1.75	0.68
26:DB:90:A:C5	26:DB:91:C:H1'	2.28	0.68
1:AA:531:U:O2	58:AA:2241:HOH:O	2.10	0.68
25:BA:422:A:OP2	58:BA:5044:HOH:O	2.11	0.68
25:BA:2389:G:H5"	25:BA:2390:U:H5'	1.76	0.68
47:B1:18:ILE:HG12	47:B1:37:ILE:HG12	1.76	0.68
53:B7:47:ARG:HH11	53:B7:47:ARG:HB2	1.59	0.68
1:CA:460:G:C6	1:CA:470:C:H5"	2.27	0.68
25:DA:1140:C:O3'	33:DN:25:ARG:NH1	2.27	0.68
28:DE:1:MET:HE1	28:DE:199:ARG:HD2	1.76	0.68
31:DH:20:ALA:HB3	31:DH:23:ARG:HB2	1.76	0.68
28:BE:24:THR:HG22	28:BE:186:GLY:O	1.94	0.68
25:DA:928:G:O6	58:DA:4234:HOH:O	2.09	0.68
25:DA:995:C:O2	33:DN:3:THR:OG1	2.11	0.68
25:DA:1693:U:O2'	27:DD:14:ARG:NH2	2.26	0.68
25:DA:1970:A:OP1	58:DA:4218:HOH:O	2.12	0.68
25:DA:2816:C:O3'	37:DR:99:LYS:NZ	2.25	0.68
34:DO:24:VAL:HA	34:DO:39:ILE:HG22	1.74	0.68
44:DY:61:ILE:HG13	44:DY:62:GLU:N	2.09	0.68
43:BX:57:LEU:HD11	43:BX:78:LYS:HG2	1.76	0.67
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	1.76	0.67
12:CL:70:ILE:HG23	12:CL:100:ILE:HD12	1.75	0.67
1:CA:148:G:H2'	1:CA:149:A:H8	1.58	0.67
25:DA:248:G:OP1	58:DA:4630:HOH:O	2.11	0.67
25:DA:848:G:H2'	25:DA:849:A:C8	2.29	0.67
25:DA:2789:C:O3'	25:DA:2790:A:H4'	1.93	0.67
29:DF:157:VAL:HB	29:DF:194:MET:HG2	1.76	0.67
37:DR:21:TYR:CZ	37:DR:43:GLU:HG2	2.29	0.67
25:BA:1466:G:O2'	25:BA:1546:C:O2'	1.98	0.67
26:BB:119:G:C2'	26:BB:120:A:C5'	2.68	0.67
47:B1:40:ARG:HD3	47:B1:40:ARG:C	2.19	0.67
1:CA:1158:C:H42	1:CA:1181:G:H1	1.43	0.67
25:DA:1983:C:H2'	25:DA:1984:G:H5"	1.76	0.67
31:DH:9:ILE:HB	31:DH:50:VAL:HB	1.76	0.67
2:AB:163:PHE:HA	2:AB:185:ILE:O	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:36:ASP:OD2	5:AE:38:GLN:N	2.28	0.67
25:BA:759:G:N7	58:BA:4939:HOH:O	2.28	0.67
25:BA:1278:A:OP1	37:BR:36:THR:HG23	1.94	0.67
48:B2:1:MET:N	48:B2:52:ASP:OD1	2.19	0.67
25:DA:2820:A:OP2	37:DR:2:ARG:NH2	2.27	0.67
1:AA:754:C:OP1	15:AO:72:ARG:NH1	2.27	0.67
3:AC:73:PRO:HB3	3:AC:103:VAL:HG11	1.77	0.67
25:BA:2036:C:OP1	58:BA:4649:HOH:O	2.12	0.67
45:BZ:39:VAL:HG21	45:BZ:44:PHE:HB2	1.75	0.67
7:CG:120:ILE:O	7:CG:124:LEU:HB2	1.95	0.67
9:CI:13:ALA:HB2	9:CI:68:GLY:HA3	1.76	0.67
25:DA:531:C:OP1	25:DA:561:G:N1	2.28	0.67
25:DA:827:U:OP1	58:DA:4430:HOH:O	2.10	0.67
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.77	0.67
13:AM:37:THR:HG23	13:AM:59:TYR:HD2	1.59	0.67
22:AY:61:HIS:HB3	22:AY:64:ILE:HG22	1.77	0.67
25:BA:1140:C:O3'	33:BN:25:ARG:NH1	2.27	0.67
1:CA:1261:A:H61	1:CA:1274:G:H1'	1.58	0.67
27:DD:69:ARG:NH2	27:DD:128:GLY:O	2.28	0.67
36:DQ:57:HIS:CD2	36:DQ:117:ALA:HB2	2.29	0.67
1:AA:1358:U:N3	1:AA:1363(A):A:N6	2.16	0.67
1:CA:509:A:C8	1:CA:509:A:H3'	2.29	0.67
1:CA:1270:C:HO2'	1:CA:1313:U:HO2'	1.34	0.67
25:DA:2577:A:H5"	25:DA:2578:G:H5'	1.77	0.67
7:AG:62:PHE:HA	7:AG:124:LEU:HD22	1.76	0.67
25:BA:308:G:N7	58:BA:4856:HOH:O	2.27	0.67
25:BA:2059:A:OP2	58:BA:4715:HOH:O	2.12	0.67
1:AA:438:G:H4'	4:AD:123:HIS:HD2	1.60	0.67
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.30	0.67
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.77	0.67
20:AT:75:ASN:OD1	20:AT:75:ASN:N	2.28	0.67
1:CA:353:A:H5'	1:CA:353:A:H8	1.60	0.67
25:DA:323:G:HO2'	25:DA:1205:U:H3	1.43	0.67
49:D3:10:LYS:HB3	49:D3:53:LEU:HA	1.75	0.67
25:BA:1310:G:OP2	53:B7:9:ARG:NH1	2.27	0.67
25:BA:1778:U:H2'	25:BA:1784:A:N6	2.09	0.67
25:BA:2292:C:OP1	38:BS:17:ARG:NH2	2.26	0.67
25:BA:2405:G:H4'	25:BA:2406:U:OP2	1.93	0.67
37:BR:44:LEU:HD22	37:BR:48:VAL:HG23	1.76	0.67
4:CD:162:LEU:HD22	4:CD:178:VAL:HG13	1.75	0.67
25:DA:1337:G:OP2	43:DX:73:ARG:NH2	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1405:U:H2'	25:DA:1406:U:C6	2.29	0.67
33:DN:104:LYS:HA	33:DN:107:LEU:HD12	1.77	0.67
38:DS:18:ILE:O	38:DS:21:THR:HG22	1.94	0.67
1:AA:975:A:H4'	1:AA:976:G:H5"	1.75	0.66
25:BA:769:G:N7	58:BA:4423:HOH:O	2.29	0.66
25:BA:1368:G:OP1	53:B7:28:ARG:NH2	2.28	0.66
1:CA:9:G:H2'	1:CA:10:A:H8	1.59	0.66
1:CA:1143:G:H2'	1:CA:1144:G:H8	1.60	0.66
5:CE:91:LEU:HD12	5:CE:120:THR:HB	1.77	0.66
6:CF:69:GLU:O	6:CF:72:VAL:HG12	1.96	0.66
25:DA:660:G:H5'	29:DF:99:TYR:CD2	2.30	0.66
25:DA:1721:G:N1	25:DA:1739:U:OP2	2.28	0.66
1:AA:201:C:H42	1:AA:216:G:H1	1.42	0.66
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.77	0.66
1:CA:509:A:H3'	1:CA:509:A:H8	1.61	0.66
1:CA:980:C:H5'	1:CA:981:U:OP2	1.96	0.66
2:CB:178:ARG:HH12	8:CH:68:ARG:NH2	1.93	0.66
25:DA:15:G:OP2	58:DA:4287:HOH:O	2.12	0.66
25:DA:2019:A:O3'	40:DU:27:LEU:HD12	1.95	0.66
27:DD:5:LYS:HA	27:DD:17:THR:HG22	1.76	0.66
36:DQ:35:VAL:HG22	36:DQ:36:ALA:H	1.60	0.66
38:DS:96:GLY:HA2	38:DS:100:ALA:H	1.60	0.66
1:AA:1226:C:O2'	13:AM:111:LYS:NZ	2.27	0.66
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.30	0.66
3:CC:18:TRP:CD1	14:CN:54:PRO:HA	2.31	0.66
25:DA:548:A:H61	41:DV:19:LYS:H	1.43	0.66
31:DH:113:VAL:HG21	31:DH:151:ILE:HG21	1.77	0.66
36:DQ:37:LEU:HD21	36:DQ:130:LYS:HB2	1.77	0.66
1:AA:473:G:H2'	1:AA:474:G:H8	1.61	0.66
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.78	0.66
35:BP:39:LYS:HB2	35:BP:45:LEU:HG	1.77	0.66
45:BZ:69:THR:HG22	45:BZ:90:VAL:HA	1.76	0.66
5:CE:71:LEU:HD13	5:CE:74:GLY:HA2	1.75	0.66
22:AY:32:LYS:HG3	25:BA:2507:C:H5'	1.77	0.66
25:BA:1021:A:H62	25:BA:1141:U:H3	1.43	0.66
25:BA:2464:C:O2	58:BA:5236:HOH:O	2.07	0.66
25:DA:301:G:OP2	44:DY:84:ARG:NH2	2.22	0.66
20:AT:63:ILE:HD13	20:AT:80:ARG:HB3	1.76	0.66
25:BA:2850:A:OP2	25:BA:2866:U:H5	1.77	0.66
4:CD:14:ARG:HA	4:CD:39:PRO:HG3	1.77	0.66
46:D0:65:GLY:HA3	46:D0:81:VAL:HG12	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:10:LEU:HD23	6:AF:61:LEU:HD13	1.78	0.66
25:BA:2638:G:P	28:BE:82:ARG:HH22	2.18	0.66
1:CA:1074:G:O2'	1:CA:1101:A:N1	2.25	0.66
1:CA:1347:G:H8	9:CI:107:ARG:HB3	1.60	0.66
44:DY:23:ARG:HG2	44:DY:42:VAL:HG22	1.77	0.66
1:AA:431:A:H2'	1:AA:432:A:O4'	1.95	0.66
1:AA:1136:U:H5"	1:AA:1137:C:N3	2.11	0.66
13:AM:20:THR:HA	13:AM:25:ILE:HG22	1.78	0.66
33:BN:73:THR:HG23	33:BN:82:LEU:HD11	1.78	0.66
25:DA:363:G:H2'	25:DA:363(A):A:H8	1.59	0.66
25:DA:602:G:O2'	25:DA:655:A:N6	2.29	0.66
25:DA:1316:U:H2'	25:DA:1317:A:C8	2.30	0.66
32:DI:54:GLN:HG2	32:DI:57:ARG:HH21	1.61	0.66
9:AI:105:ASP:HB2	9:AI:107:ARG:NE	2.11	0.66
22:AY:106:ARG:NH1	25:BA:1914:C:OP2	2.29	0.66
25:BA:2364:C:H4'	46:B0:56:ASP:OD2	1.96	0.66
1:CA:975:A:H4'	1:CA:976:G:H5"	1.77	0.66
16:CP:56:ALA:O	16:CP:60:LEU:HB2	1.95	0.66
29:DF:162:LEU:H	29:DF:162:LEU:HD22	1.60	0.66
1:AA:910:C:OP1	12:AL:97:ARG:NH2	2.29	0.66
1:AA:1316:G:H4'	14:AN:18:VAL:HG13	1.78	0.66
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.78	0.66
25:BA:187:G:N7	58:BA:4449:HOH:O	2.28	0.66
25:BA:2833:G:H3'	25:BA:2834:G:C5'	2.25	0.66
26:BB:77:U:OP1	45:BZ:19:ARG:NH2	2.29	0.66
3:CC:47:LEU:HB3	3:CC:52:LEU:HD12	1.77	0.66
5:CE:102:ALA:O	5:CE:107:ARG:NH1	2.29	0.66
20:CT:90:GLN:HA	20:CT:93:GLU:HB2	1.78	0.66
25:DA:1204:A:H2	25:DA:1241:A:H62	1.44	0.66
25:DA:1599:C:H2'	25:DA:1600:C:H6	1.60	0.66
31:DH:8:PRO:O	31:DH:69:ARG:NH1	2.29	0.66
40:DU:72:HIS:HD1	40:DU:72:HIS:H	1.42	0.66
1:AA:625:G:H2'	1:AA:626:U:C6	2.31	0.65
15:AO:15:PHE:CE2	15:AO:84:LYS:HD2	2.30	0.65
22:AY:35:THR:O	22:AY:37:ILE:HG12	1.95	0.65
25:BA:1430:C:H2'	25:BA:1431:U:C6	2.32	0.65
1:CA:1128:C:O2'	1:CA:1130:A:N7	2.28	0.65
6:CF:61:LEU:HB3	6:CF:63:TYR:HE2	1.61	0.65
25:DA:2313:C:H2'	25:DA:2314:C:H6	1.61	0.65
3:AC:182:ILE:HG12	3:AC:203:PHE:HD1	1.61	0.65
7:AG:46:ALA:O	7:AG:50:ILE:N	2.28	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:45:ILE:HD12	8:AH:47:GLY:HA2	1.78	0.65
12:AL:53:ARG:HG2	12:AL:69:TYR:CE1	2.29	0.65
2:CB:47:THR:O	2:CB:51:LEU:N	2.28	0.65
17:CQ:24:GLU:HA	17:CQ:39:SER:HB3	1.77	0.65
25:BA:32:C:O2'	25:BA:33:U:H5'	1.96	0.65
25:BA:960:A:H5"	25:BA:961:C:OP2	1.97	0.65
1:CA:619:U:N3	4:CD:134:ASP:OD2	2.30	0.65
11:CK:73:MET:HE3	11:CK:103:LEU:HG	1.78	0.65
11:CK:87:THR:HA	11:CK:91:ARG:HH21	1.59	0.65
25:DA:783:A:OP2	58:DA:3805:HOH:O	2.12	0.65
40:DU:92:ARG:HA	40:DU:95:LEU:HB2	1.77	0.65
1:AA:600:C:H2'	1:AA:601:C:C6	2.31	0.65
9:AI:29:ASN:ND2	9:AI:65:VAL:O	2.27	0.65
25:BA:177:G:OP1	58:BA:4985:HOH:O	2.14	0.65
25:BA:2206:G:H3'	25:BA:2207:G:C8	2.32	0.65
1:CA:971:G:OP2	1:CA:1231:G:N2	2.20	0.65
25:DA:1614:A:OP1	58:DA:4124:HOH:O	2.13	0.65
25:DA:2316:C:H4'	30:DG:128:ARG:HD2	1.79	0.65
31:DH:90:LYS:NZ	31:DH:159:GLU:OE1	2.29	0.65
22:AY:61:HIS:ND1	22:AY:62:HIS:O	2.30	0.65
32:BI:107:VAL:HG12	32:BI:108:THR:H	1.62	0.65
35:BP:52:GLU:OE1	35:BP:55:ARG:NH1	2.28	0.65
38:BS:101:LEU:O	38:BS:103:GLU:N	2.29	0.65
1:CA:60:A:H4'	1:CA:61:G:O5'	1.96	0.65
1:CA:222:U:H2'	1:CA:223:U:C6	2.32	0.65
1:CA:376:G:H4'	16:CP:5:ARG:NH1	2.12	0.65
25:DA:1762:A:H2'	58:DA:4689:HOH:O	1.97	0.65
26:DB:40:U:O4	50:D4:1:MET:N	2.22	0.65
50:D4:33:VAL:HG12	50:D4:34:GLU:H	1.61	0.65
10:AJ:11:PHE:CE2	10:AJ:67:THR:HG22	2.31	0.65
25:BA:2319:G:N2	38:BS:3:ARG:HA	2.12	0.65
38:BS:58:LEU:HB2	38:BS:59:LYS:HB2	1.78	0.65
1:CA:766:A:OP2	58:CA:2037:HOH:O	2.13	0.65
1:CA:1490:C:H2'	1:CA:1491:G:O4'	1.97	0.65
25:DA:607:U:OP1	29:DF:102:PRO:HA	1.95	0.65
25:DA:987:G:OP2	58:DA:4261:HOH:O	2.14	0.65
25:DA:997:G:OP2	40:DU:58:ARG:NH1	2.30	0.65
25:DA:2574:G:OP1	58:DA:3865:HOH:O	2.13	0.65
28:DE:116:VAL:HG13	28:DE:122:PHE:HB2	1.77	0.65
30:DG:39:ILE:HG23	30:DG:157:ILE:HG12	1.78	0.65
32:DI:29:TYR:O	32:DI:33:ARG:HG3	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D1:26:ARG:N	58:D1:202:HOH:O	2.29	0.65
48:D2:65:ASN:OD1	48:D2:69:ARG:NH1	2.30	0.65
1:AA:757:U:H2'	1:AA:758:G:O4'	1.97	0.65
25:BA:1859:A:N6	25:BA:1883:G:O2'	2.30	0.65
26:BB:11:C:H3'	26:BB:12:C:H6	1.60	0.65
3:CC:134:ILE:HD11	3:CC:153:VAL:HG21	1.79	0.65
25:DA:1315:C:OP2	58:DA:3824:HOH:O	2.13	0.65
25:DA:2659:G:N7	58:DA:4723:HOH:O	2.28	0.65
25:DA:2689:U:OP2	25:DA:2719:G:N2	2.30	0.65
38:DS:59:LYS:H	38:DS:60:GLY:HA3	1.62	0.65
41:DV:6:LYS:HE3	41:DV:9:GLY:HA2	1.78	0.65
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.32	0.65
27:BD:83:GLU:OE2	27:BD:104:TYR:OH	2.10	0.65
29:BF:29:ASN:HB3	29:BF:112:MET:HE1	1.78	0.65
30:BG:64:THR:HB	30:BG:94:LEU:HD11	1.78	0.65
49:B3:6:VAL:HG12	49:B3:54:VAL:HG11	1.79	0.65
2:CB:86:GLU:O	2:CB:89:GLY:N	2.30	0.65
2:CB:178:ARG:HH12	8:CH:68:ARG:HH22	1.45	0.65
29:DF:34:TRP:CZ2	35:DP:8:PRO:HG3	2.32	0.65
31:DH:9:ILE:N	31:DH:50:VAL:O	2.30	0.65
22:AY:16:GLU:HB2	22:AY:41:PHE:HB2	1.78	0.65
25:BA:1022:G:H22	25:BA:1142(A):A:H2	1.45	0.65
34:BO:8:LEU:HB2	34:BO:19:ILE:HG13	1.79	0.65
1:CA:1320:C:H5'	19:CS:70:LYS:HD3	1.78	0.65
1:CA:1492:A:H4'	1:CA:1493:A:OP1	1.95	0.65
25:DA:1430:C:H2'	25:DA:1431:U:C6	2.32	0.65
31:DH:159:GLU:HG3	31:DH:169:VAL:HG21	1.79	0.65
2:AB:155:LEU:HD11	2:AB:159:PRO:HD3	1.79	0.65
15:AO:25:THR:HG21	15:AO:70:LEU:HB2	1.79	0.65
25:BA:545:G:OP1	25:BA:545:G:H4'	1.94	0.65
25:BA:1342:A:OP2	58:BA:4554:HOH:O	2.15	0.65
25:BA:1518:U:H2'	25:BA:1519:G:O4'	1.97	0.65
29:BF:185:ASP:OD1	29:BF:188:ARG:NH1	2.28	0.65
31:BH:149:ARG:HH11	31:BH:149:ARG:HG3	1.60	0.65
2:CB:134:GLU:HA	2:CB:137:ARG:HE	1.61	0.65
14:CN:24:CYS:SG	14:CN:25:VAL:N	2.70	0.65
1:AA:171:A:H2'	1:AA:172:A:C8	2.32	0.64
1:AA:857:C:H2'	1:AA:858:G:O4'	1.97	0.64
5:AE:83:GLU:HB3	5:AE:88:LYS:HB2	1.79	0.64
25:BA:1980:G:O2'	25:BA:1982:C:OP2	2.12	0.64
15:CO:56:LEU:O	15:CO:60:VAL:HG23	1.96	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:994:C:OP1	40:DU:53:ARG:NH2	2.30	0.64
25:BA:639:U:H2'	25:BA:640:C:C6	2.32	0.64
2:CB:163:PHE:HA	2:CB:185:ILE:O	1.96	0.64
25:DA:1252:G:N3	40:DU:33:ARG:HD2	2.12	0.64
25:DA:1503:U:H2'	25:DA:1504:C:H6	1.62	0.64
27:DD:176:ARG:HG3	27:DD:176:ARG:O	1.96	0.64
32:DI:110:ASP:N	32:DI:130:TYR:OH	2.22	0.64
25:BA:139(A):G:N7	58:BA:4063:HOH:O	2.30	0.64
25:BA:728:G:H4'	27:BD:13:ARG:HD3	1.79	0.64
48:B2:51:ARG:O	48:B2:54:LYS:N	2.30	0.64
8:CH:85:ARG:HH21	8:CH:134:ILE:HG23	1.62	0.64
25:DA:1031:G:H21	55:D9:36:GLN:HE22	1.44	0.64
27:DD:242:ARG:N	27:DD:242:ARG:HD3	2.12	0.64
1:AA:542:G:P	4:AD:10:ARG:HH22	2.20	0.64
14:AN:23:ARG:HD2	14:AN:28:GLY:O	1.98	0.64
25:BA:1188:U:H4'	41:BV:79:VAL:HG22	1.79	0.64
25:BA:2657:A:H5"	25:BA:2658:C:OP2	1.98	0.64
1:CA:552:U:O3'	12:CL:87:GLY:HA3	1.98	0.64
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.32	0.64
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.33	0.64
25:DA:1529:G:O6	25:DA:1530:C:N4	2.31	0.64
41:DV:29:PRO:HA	41:DV:61:VAL:HG22	1.79	0.64
4:AD:109:GLY:O	4:AD:111:ALA:N	2.31	0.64
19:AS:63:THR:HG23	19:AS:66:MET:HE3	1.77	0.64
1:CA:45:U:H2'	1:CA:46:G:C8	2.33	0.64
1:CA:1197:G:OP2	58:CA:2063:HOH:O	2.15	0.64
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.62	0.64
15:CO:25:THR:HG21	15:CO:70:LEU:HB2	1.79	0.64
15:CO:82:ILE:HD12	15:CO:88:ARG:HH22	1.62	0.64
25:DA:102:G:OP1	48:D2:7:ARG:NH2	2.31	0.64
25:DA:1614:A:OP1	58:DA:4125:HOH:O	2.15	0.64
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.79	0.64
25:BA:1187:G:H5"	41:BV:81:TYR:CE2	2.33	0.64
50:B4:18:CYS:CB	50:B4:20:ASN:HB2	2.26	0.64
1:CA:758:G:N7	58:CA:1981:HOH:O	2.30	0.64
1:CA:1423:G:H2'	1:CA:1424:C:C6	2.33	0.64
7:CG:111:ARG:NH1	7:CG:113:GLU:OE2	2.30	0.64
23:CV:19:G:N2	23:CV:56:C:O2	2.29	0.64
25:DA:288:C:H2'	25:DA:289:A:H8	1.63	0.64
25:DA:2712(A):A:H5"	25:DA:2713:A:OP2	1.98	0.64
26:DB:55:U:O3'	30:DG:27:ASN:ND2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1227:A:OP2	13:AM:111:LYS:HE3	1.97	0.64
7:AG:73:MET:HA	7:AG:90:GLU:HA	1.80	0.64
9:AI:44:VAL:N	9:AI:45:ALA:HA	2.12	0.64
12:AL:90:VAL:HB	12:AL:93:LEU:HB2	1.78	0.64
22:AY:34:SER:OG	22:AY:36:ALA:HB3	1.98	0.64
25:BA:271(I):G:O6	58:BA:5049:HOH:O	2.12	0.64
28:BE:28:ALA:HB3	28:BE:93:VAL:HG12	1.78	0.64
1:CA:501:C:H2'	1:CA:502:G:H8	1.63	0.64
1:CA:1117:G:H5'	1:CA:1118:C:OP2	1.96	0.64
3:CC:164:ARG:NH1	3:CC:166:GLU:OE1	2.31	0.64
25:DA:601:C:O2'	29:DF:104:LYS:NZ	2.30	0.64
25:DA:1503:U:H2'	25:DA:1504:C:C6	2.32	0.64
26:DB:103:G:N7	58:DB:320:HOH:O	2.30	0.64
34:DO:19:ILE:HG22	34:DO:43:VAL:HA	1.80	0.64
1:AA:461:A:O2'	1:AA:471:G:N7	2.26	0.64
1:AA:538:G:H5"	12:AL:114:LYS:HB2	1.77	0.64
1:AA:721:G:H4'	1:AA:722:A:O4'	1.97	0.64
1:AA:920:U:H2'	1:AA:921:U:C6	2.33	0.64
25:BA:185:U:H4'	25:BA:218:A:H4'	1.79	0.64
1:CA:129(A):G:N2	1:CA:189(H):G:N7	2.45	0.64
1:CA:473:G:H2'	1:CA:474:G:H8	1.63	0.64
2:CB:163:PHE:CD2	2:CB:185:ILE:HB	2.32	0.64
4:CD:22:LYS:HG3	4:CD:31:CYS:SG	2.38	0.64
10:CJ:37:PRO:HA	10:CJ:72:VAL:HG12	1.80	0.64
17:CQ:57:VAL:HA	17:CQ:77:VAL:HG23	1.80	0.64
25:DA:1876:A:H2'	25:DA:1877:A:C8	2.33	0.64
44:DY:13:VAL:HG12	44:DY:74:PRO:HA	1.78	0.64
48:D2:50:ILE:O	48:D2:51:ARG:HB3	1.97	0.64
1:AA:376:G:H2'	1:AA:377:G:H8	1.62	0.64
1:AA:992:U:H4'	1:AA:993:G:O5'	1.97	0.64
1:AA:1530:G:O2'	1:AA:1531:A:OP1	2.16	0.64
38:BS:31:SER:O	38:BS:97:ARG:NH2	2.27	0.64
46:B0:27:GLU:HG3	46:B0:68:GLU:HA	1.79	0.64
1:CA:646:U:H2'	1:CA:647:C:C6	2.33	0.64
2:CB:78:GLN:O	2:CB:94:ASN:ND2	2.31	0.64
25:DA:1378:A:OP1	53:D7:10:ARG:NH2	2.31	0.64
25:DA:1654:A:H1'	25:DA:2823:A:H5'	1.80	0.64
35:DP:121:LYS:HG2	35:DP:122:PRO:HD2	1.79	0.64
39:DT:81:PRO:HG2	39:DT:82:LEU:HD12	1.80	0.64
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.32	0.64
3:AC:22:TRP:CD1	3:AC:59:ARG:HD2	2.33	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:566:U:H5"	35:BP:29:LYS:HE3	1.79	0.64
47:B1:54:ALA:HB1	47:B1:83:GLU:HG3	1.80	0.64
1:CA:1126:U:O2'	1:CA:1127:G:O5'	2.10	0.64
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.33	0.64
26:DB:52:A:O2'	26:DB:53:A:H2	1.81	0.64
32:DI:72:LEU:HD21	32:DI:107:VAL:HG11	1.80	0.64
28:BE:111:ARG:HG3	28:BE:160:TYR:CD1	2.33	0.63
35:BP:96:THR:HA	35:BP:126:VAL:HG23	1.78	0.63
43:BX:31:HIS:CD2	43:BX:33:LYS:H	2.16	0.63
12:CL:113:ARG:NH2	58:CL:203:HOH:O	2.31	0.63
25:DA:804:A:H5"	25:DA:805:G:OP1	1.98	0.63
25:DA:993:G:C4	25:DA:994:C:H5	2.16	0.63
25:DA:2101:G:C2	25:DA:2102:U:H1'	2.32	0.63
30:DG:33:ARG:NE	30:DG:162:THR:HG21	2.13	0.63
1:AA:187:C:O2	58:AA:2208:HOH:O	2.13	0.63
1:AA:266:G:O2'	1:AA:267:C:OP2	2.12	0.63
22:AY:33:THR:OG1	25:BA:2452:C:OP1	2.04	0.63
25:BA:71:A:C2	43:BX:31:HIS:HE1	2.16	0.63
25:BA:1047:G:H2'	25:BA:1110:G:N2	2.12	0.63
25:BA:1226:A:OP1	41:BV:84:LYS:NZ	2.22	0.63
32:BI:79:ILE:HB	32:BI:144:VAL:HG23	1.80	0.63
25:DA:1210:A:H5"	25:DA:1212:G:H5'	1.79	0.63
30:DG:76:SER:HA	30:DG:83:ARG:HA	1.78	0.63
35:DP:100:LEU:HD22	35:DP:105:LEU:HB2	1.80	0.63
17:AQ:43:LEU:C	17:AQ:69:LYS:HZ3	2.06	0.63
25:BA:697:C:H2'	25:BA:698:C:C6	2.33	0.63
25:BA:1364:G:P	47:B1:3:LYS:HG3	2.39	0.63
25:BA:2298:A:H62	25:BA:2318:G:H8	1.44	0.63
55:B9:11:CYS:HB3	55:B9:32:HIS:CE1	2.27	0.63
1:CA:6:G:O2'	1:CA:7:G:H5"	1.97	0.63
1:CA:1358:U:H5"	14:CN:34:TYR:HA	1.79	0.63
13:CM:94:ARG:HB3	13:CM:96:LEU:HG	1.79	0.63
26:DB:43:C:O2	30:DG:95:ARG:NH2	2.31	0.63
47:D1:77:ALA:HB2	47:D1:94:LEU:HD21	1.80	0.63
1:AA:1149:C:H2'	1:AA:1150:U:H6	1.63	0.63
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.33	0.63
1:AA:1363(A):A:H1'	1:AA:1365:G:N7	2.13	0.63
5:AE:15:ARG:HH22	22:AY:129:LYS:HG3	1.63	0.63
25:BA:1359:A:H2'	25:BA:1360:A:H5'	1.80	0.63
25:BA:1364:G:C8	47:B1:3:LYS:HD2	2.32	0.63
33:BN:24:GLY:HA2	33:BN:27:ALA:HB2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.34	0.63
8:CH:97:VAL:O	8:CH:100:ILE:HG13	1.99	0.63
25:DA:2572:A:OP1	25:DA:2574:G:O2'	2.17	0.63
29:DF:110:LEU:HD22	29:DF:202:PHE:HE1	1.64	0.63
1:AA:1221:G:OP1	1:AA:1320:C:N4	2.31	0.63
3:AC:52:LEU:H	3:AC:70:VAL:HG23	1.62	0.63
4:AD:36:ARG:HG2	4:AD:36:ARG:HH11	1.62	0.63
29:BF:32:LEU:HB3	29:BF:112:MET:HE1	1.79	0.63
32:BI:72:LEU:HD12	32:BI:138:ILE:HG21	1.80	0.63
1:CA:586:C:C2'	1:CA:587:G:H5'	2.29	0.63
1:CA:993:G:N7	1:CA:1213:A:N6	2.47	0.63
1:CA:1497:G:H8	58:CA:2223:HOH:O	1.81	0.63
13:CM:16:ASP:HB3	13:CM:34:LEU:HD11	1.79	0.63
25:DA:1495:A:H2'	25:DA:1496:A:C8	2.32	0.63
25:DA:1529:G:C6	25:DA:1530:C:N4	2.67	0.63
34:DO:68:GLU:OE2	34:DO:78:ARG:NH1	2.32	0.63
52:D6:16:CYS:CB	52:D6:43:CYS:SG	2.78	0.63
1:AA:147:G:H2'	1:AA:148:G:H8	1.64	0.63
1:AA:448:A:OP2	1:AA:485:G:N1	2.23	0.63
25:BA:271(F):C:H2'	25:BA:271(G):C:H6	1.64	0.63
30:BG:45:GLU:C	30:BG:47:LYS:H	2.04	0.63
43:BX:57:LEU:HD11	43:BX:78:LYS:HE2	1.80	0.63
1:CA:728:A:N7	15:CO:54:ARG:HD2	2.13	0.63
13:CM:44:ARG:O	13:CM:46:LYS:N	2.26	0.63
25:DA:2080:G:H5'	47:D1:19:GLN:HG3	1.78	0.63
27:DD:132:PRO:HD3	27:DD:190:TYR:CZ	2.34	0.63
28:DE:120:TRP:CE3	28:DE:155:LYS:HD3	2.34	0.63
29:DF:164:ARG:HD2	29:DF:175:THR:HG23	1.81	0.63
1:AA:677:U:H3	1:AA:713:G:H22	1.46	0.63
10:AJ:38:ILE:HG12	10:AJ:71:LEU:O	1.98	0.63
26:BB:11:C:H3'	26:BB:12:C:C6	2.34	0.63
29:BF:52:LYS:HG2	29:BF:56:GLU:HB2	1.81	0.63
34:BO:34:THR:OG1	34:BO:35:VAL:N	2.31	0.63
37:BR:28:LEU:HD12	37:BR:48:VAL:HG21	1.79	0.63
43:BX:60:ARG:HB3	43:BX:60:ARG:HH11	1.62	0.63
35:DP:59:LEU:HD12	35:DP:60:MET:HE2	1.81	0.63
1:AA:352:C:O2'	1:AA:354:G:OP1	2.17	0.63
2:AB:21:ARG:HB3	2:AB:39:ILE:HG12	1.79	0.63
12:AL:43:VAL:HG13	12:AL:55:VAL:HG21	1.81	0.63
25:BA:2833:G:H3'	25:BA:2834:G:H5'	1.80	0.63
1:CA:870:U:H5'	1:CA:870:U:H6	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:953:G:H5'	1:CA:965:A:N6	2.13	0.63
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.33	0.63
1:CA:1292:U:OP2	7:CG:41:ARG:NH2	2.32	0.63
3:CC:67:THR:HB	3:CC:102:ASN:HB3	1.81	0.63
25:DA:674:G:O2'	29:DF:74:ARG:HD3	1.99	0.63
25:DA:1313:U:H2'	25:DA:1610:A:C2	2.34	0.63
25:DA:2356:C:O3'	46:D0:20:ARG:HD3	1.99	0.63
27:DD:71:ASP:OD1	27:DD:103:ARG:NH2	2.31	0.63
33:DN:62:VAL:HG21	33:DN:87:LEU:HD11	1.81	0.63
3:AC:70:VAL:HG22	3:AC:71:ALA:H	1.64	0.63
25:BA:1824:G:OP1	27:BD:52:ARG:NH1	2.31	0.63
27:BD:132:PRO:HD2	27:BD:135:PHE:HD1	1.64	0.63
40:BU:47:TYR:HA	40:BU:50:ARG:NH2	2.14	0.63
48:B2:44:LEU:HG	48:B2:45:SER:O	1.99	0.63
16:CP:58:TYR:O	16:CP:61:SER:OG	2.12	0.63
25:DA:1448:G:H4'	25:DA:1542:A:OP1	1.99	0.63
29:DF:197:ASP:OD2	29:DF:197:ASP:N	2.32	0.63
45:DZ:54:HIS:ND1	45:DZ:101:PRO:HG3	2.14	0.63
1:AA:165:C:H2'	1:AA:166:G:C8	2.34	0.62
1:AA:401:C:OP2	4:AD:73:ARG:HD2	1.98	0.62
1:AA:881:G:P	12:AL:12:ARG:HH22	2.22	0.62
25:BA:1044:G:H5'	25:BA:1045:A:OP2	1.99	0.62
11:CK:29:ILE:HG23	11:CK:44:SER:HB3	1.81	0.62
13:CM:90:LEU:O	13:CM:91:ARG:HG2	1.99	0.62
25:DA:2183:C:H2'	25:DA:2184:G:C8	2.33	0.62
31:DH:95:ARG:HB2	31:DH:128:PRO:HB3	1.81	0.62
45:DZ:98:MET:HE2	45:DZ:100:VAL:HG23	1.81	0.62
1:AA:457:C:H2'	1:AA:458:C:C6	2.34	0.62
1:AA:688:G:H2'	1:AA:689:C:H6	1.64	0.62
25:BA:1364:G:OP1	47:B1:2:SER:HA	1.99	0.62
25:BA:2304:G:H22	25:BA:2312:U:H3	1.47	0.62
25:BA:2316:C:H2'	25:BA:2317:C:H6	1.65	0.62
39:BT:84:GLN:HG2	39:BT:85:LYS:HG3	1.79	0.62
1:CA:559:A:H4'	1:CA:560:U:C5'	2.29	0.62
5:CE:126:ARG:HH11	5:CE:126:ARG:CG	2.12	0.62
16:CP:43:LYS:O	16:CP:45:THR:N	2.31	0.62
20:CT:18:GLN:O	20:CT:22:ARG:HG3	1.99	0.62
25:DA:89:G:H3'	25:DA:90:U:H5"	1.81	0.62
45:DZ:145:GLU:HG3	45:DZ:146:ILE:H	1.64	0.62
54:D8:58:ILE:HA	54:D8:61:LEU:HD12	1.82	0.62
1:AA:539:A:H2'	1:AA:540:G:C8	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:540:G:H2'	1:AA:541:G:O4'	1.98	0.62
7:AG:36:LYS:HA	7:AG:39:ALA:HB3	1.80	0.62
25:BA:1156:A:C8	40:BU:51:LYS:HG2	2.33	0.62
25:BA:1178:C:H2'	25:BA:1179:C:C6	2.34	0.62
30:BG:111:LEU:HD13	30:BG:120:LEU:HD21	1.80	0.62
25:DA:1019:U:H3	25:DA:1142(A):A:H62	1.47	0.62
25:DA:1472:A:H2'	25:DA:1473:G:O4'	1.99	0.62
1:AA:160:A:H2'	1:AA:161:A:O4'	2.00	0.62
1:AA:507:C:OP2	1:AA:508:C:O2'	2.13	0.62
15:AO:39:LEU:HD22	15:AO:43:LEU:HG	1.82	0.62
31:BH:3:ARG:NE	31:BH:3:ARG:HA	2.13	0.62
1:CA:129(A):G:O6	1:CA:189(D):C:N3	2.31	0.62
25:DA:1899:G:N3	25:DA:1899:G:H2'	2.14	0.62
25:DA:2324:C:H5"	25:DA:2325:G:H5'	1.80	0.62
32:DI:92:VAL:HG22	32:DI:120:ILE:HB	1.81	0.62
13:AM:59:TYR:HE1	13:AM:63:THR:HG1	1.46	0.62
15:AO:3:ILE:HG23	15:AO:38:ARG:HD3	1.79	0.62
25:BA:1249:U:OP1	58:BA:5376:HOH:O	2.16	0.62
15:CO:55:GLY:HA2	15:CO:58:MET:HE3	1.82	0.62
26:DB:31:C:O2'	26:DB:53:A:N6	2.31	0.62
32:DI:75:LEU:HD23	32:DI:105:HIS:NE2	2.14	0.62
38:DS:88:ASP:OD1	38:DS:90:GLY:N	2.32	0.62
45:DZ:94:GLU:O	45:DZ:130:PRO:HD3	1.99	0.62
1:AA:166:G:O2'	1:AA:167:G:H5'	1.99	0.62
1:AA:182:U:C2	1:AA:183:G:H1'	2.35	0.62
1:AA:438:G:O2'	1:AA:494:U:O4	2.17	0.62
1:AA:1019:C:H2'	1:AA:1020:U:O4'	1.99	0.62
1:AA:1090:U:H2'	1:AA:1091:U:H6	1.64	0.62
13:AM:48:LEU:O	13:AM:52:GLU:HB2	2.00	0.62
25:BA:1799:G:O6	27:BD:179:SER:HB3	2.00	0.62
25:BA:1878:G:H2'	25:BA:1879:C:C6	2.35	0.62
39:BT:56:GLY:O	39:BT:59:THR:HG23	1.99	0.62
42:BW:79:GLY:HA3	42:BW:100:THR:HG22	1.80	0.62
1:CA:811:C:O2'	1:CA:901:A:N1	2.32	0.62
2:CB:163:PHE:HD2	2:CB:185:ILE:HB	1.64	0.62
25:DA:1857:G:H8	25:DA:1857:G:O5'	1.83	0.62
25:DA:2533:A:OP1	25:DA:2665:A:O2'	2.16	0.62
25:DA:2847:U:OP1	39:DT:98:LYS:NZ	2.33	0.62
32:DI:77:LEU:HG	32:DI:101:LEU:HD23	1.80	0.62
39:DT:26:ASP:O	39:DT:49:VAL:HG12	2.00	0.62
39:DT:27:THR:HB	39:DT:89:VAL:HG22	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1171:G:H2'	1:AA:1172:C:C6	2.35	0.62
25:BA:907:U:H4'	36:BQ:101:ARG:HH22	1.63	0.62
25:BA:1227:G:OP2	40:BU:16:LYS:NZ	2.32	0.62
48:B2:16:LEU:HD12	48:B2:16:LEU:H	1.62	0.62
1:CA:520:A:N1	1:CA:536:C:H1'	2.15	0.62
1:CA:1369:C:OP1	14:CN:61:TRP:NE1	2.29	0.62
7:CG:89:MET:HG3	7:CG:155:ARG:HG3	1.80	0.62
25:DA:2218:U:H4'	25:DA:2219:G:OP2	1.98	0.62
1:AA:1326:C:OP1	21:AU:12:LYS:NZ	2.28	0.62
25:BA:271(I):G:H1	25:BA:271(O):C:H42	1.48	0.62
25:BA:2336:A:H61	46:B0:43:THR:HG22	1.64	0.62
45:BZ:15:PRO:O	45:BZ:19:ARG:HB2	1.99	0.62
2:CB:185:ILE:HG23	2:CB:199:TYR:HB2	1.82	0.62
4:CD:59:ARG:O	4:CD:62:GLN:N	2.33	0.62
11:CK:82:VAL:HB	11:CK:108:ILE:HG12	1.82	0.62
29:DF:9:ILE:HG21	29:DF:125:LEU:HD13	1.80	0.62
1:AA:611:A:H61	1:AA:629:G:H1	1.46	0.62
25:BA:1292:U:H2'	25:BA:1293:C:C6	2.34	0.62
30:BG:125:PHE:N	58:BG:303:HOH:O	2.31	0.62
10:CJ:40:LEU:HB3	10:CJ:41:PRO:HD2	1.81	0.62
25:DA:342:G:N7	58:DA:4246:HOH:O	2.31	0.62
25:DA:833:U:O2	35:DP:55:ARG:NH2	2.32	0.62
25:DA:954:G:H5"	36:DQ:13:GLN:HB3	1.82	0.62
29:DF:135:LYS:HB2	29:DF:138:GLU:HG3	1.82	0.62
37:DR:52:ILE:HD12	37:DR:94:TYR:HB2	1.81	0.62
1:AA:129(A):G:N2	1:AA:189(H):G:N7	2.48	0.62
1:AA:586:C:C2'	1:AA:587:G:H5'	2.30	0.62
25:BA:413:C:H2'	25:BA:414:C:C6	2.35	0.62
25:BA:471:A:O3'	58:BA:4963:HOH:O	2.16	0.62
25:BA:1690:A:H5"	25:BA:1691:C:OP2	2.00	0.62
25:BA:2331:G:O2'	46:B0:43:THR:HG22	2.00	0.62
35:BP:90:ARG:HG2	35:BP:91:PHE:CD2	2.35	0.62
13:CM:73:GLU:O	13:CM:77:ASN:HB2	1.99	0.62
25:DA:271(U):G:H2'	25:DA:271(V):G:H8	1.65	0.62
25:DA:1530:C:N4	25:DA:1539:G:H1	1.97	0.62
25:DA:2277:G:H3'	46:D0:12:ASN:HD21	1.65	0.62
28:DE:14:ILE:HD11	28:DE:173:VAL:HG11	1.82	0.62
1:AA:77:G:O6	1:AA:92:C:N3	2.34	0.61
1:AA:100:C:H2'	1:AA:101:A:C8	2.35	0.61
1:AA:1128:C:O2'	1:AA:1130:A:N7	2.32	0.61
1:AA:1225:A:H2'	1:AA:1225:A:N3	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1272:G:H8	1:AA:1272:G:H5"	1.65	0.61
2:CB:100:GLY:HA2	2:CB:104:ASN:H	1.64	0.61
25:DA:2448:A:OP2	58:DA:4708:HOH:O	2.16	0.61
45:DZ:126:VAL:HG13	45:DZ:163:LEU:HA	1.81	0.61
5:AE:76:ILE:HD13	5:AE:118:ILE:HD12	1.82	0.61
25:BA:593:G:H4'	54:B8:4:MET:HE2	1.82	0.61
33:BN:55:VAL:HG22	33:BN:126:PRO:HA	1.82	0.61
39:BT:11:GLU:OE1	39:BT:57:PHE:HB3	2.00	0.61
1:CA:17:U:H2'	1:CA:18:C:C6	2.36	0.61
1:CA:573:A:N3	1:CA:883:C:O2'	2.33	0.61
25:DA:1789:A:H5'	27:DD:221:VAL:HG12	1.82	0.61
25:DA:2439:A:C8	25:DA:2439:A:H5"	2.35	0.61
27:DD:58:HIS:ND1	27:DD:59:LYS:N	2.48	0.61
41:DV:5:VAL:HG11	41:DV:57:VAL:HG21	1.82	0.61
2:AB:18:GLY:HA2	2:AB:42:ILE:HG13	1.82	0.61
22:AY:25:ALA:O	22:AY:30:VAL:HG21	1.99	0.61
25:BA:652(F):G:O6	25:BA:652(S):C:N3	2.33	0.61
44:BY:51:VAL:HG22	44:BY:58:GLY:HA3	1.81	0.61
1:CA:1348:U:H2'	1:CA:1349:A:H8	1.66	0.61
4:CD:19:LEU:HD22	4:CD:19:LEU:H	1.66	0.61
25:DA:994:C:O2'	25:DA:996:A:OP1	2.09	0.61
25:DA:2364:C:H4'	46:D0:56:ASP:OD2	2.00	0.61
1:AA:262:A:H2'	1:AA:263:A:C8	2.36	0.61
1:AA:384:G:H2'	1:AA:385:C:H6	1.64	0.61
1:AA:414:A:H2'	1:AA:415:A:C8	2.34	0.61
22:AY:66:SER:C	22:AY:68:GLY:H	2.08	0.61
25:BA:1019:U:H3	25:BA:1142(A):A:H62	1.48	0.61
25:BA:1858:G:O2'	25:BA:1884:A:N6	2.33	0.61
45:BZ:82:ARG:HB3	45:BZ:82:ARG:HH21	1.65	0.61
11:CK:20:TYR:HB2	11:CK:31:THR:HG22	1.83	0.61
17:CQ:13:ASP:HB2	58:CQ:202:HOH:O	2.00	0.61
17:CQ:96:GLU:O	17:CQ:97:SER:HB3	2.00	0.61
25:DA:708:C:H42	25:DA:723:G:H1	1.47	0.61
35:DP:38:GLN:O	35:DP:39:LYS:HB3	2.00	0.61
1:AA:736:C:H2'	1:AA:737:A:C8	2.35	0.61
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.15	0.61
5:AE:33:VAL:HG21	5:AE:109:ILE:HA	1.81	0.61
25:BA:54:G:O2'	53:B7:35:ARG:HD3	2.00	0.61
25:BA:184:C:H2'	25:BA:185:U:H6	1.64	0.61
25:BA:603:A:H4'	25:BA:604:G:H5'	1.83	0.61
25:BA:2286:A:OP1	52:B6:29:ASN:ND2	2.29	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:192:U:H2'	1:CA:193:C:H6	1.65	0.61
1:CA:1049:U:H4'	1:CA:1050:G:C5'	2.31	0.61
3:CC:131:ARG:H	3:CC:134:ILE:HD12	1.64	0.61
14:CN:37:PHE:HB3	14:CN:39:LEU:HD12	1.81	0.61
16:CP:15:PRO:O	16:CP:16:HIS:ND1	2.33	0.61
25:DA:826:U:C4'	35:DP:55:ARG:HB2	2.30	0.61
25:DA:1449:A:O2'	25:DA:1529:G:N2	2.28	0.61
26:DB:20:C:H42	26:DB:63:G:H1	1.48	0.61
31:DH:54:ARG:NE	31:DH:57:ASP:OD1	2.34	0.61
1:AA:14:U:H5	58:AA:2112:HOH:O	1.83	0.61
2:AB:21:ARG:HD3	2:AB:21:ARG:N	2.14	0.61
16:AP:19:ILE:HG22	16:AP:36:ILE:HG13	1.82	0.61
17:AQ:86:GLU:HG3	17:AQ:90:ILE:HD11	1.81	0.61
25:BA:652(H):C:N4	25:BA:652(Q):G:H1	1.98	0.61
38:BS:10:ARG:O	38:BS:14:VAL:HG13	2.00	0.61
51:B5:36:CYS:O	51:B5:37:LYS:HD3	2.00	0.61
54:B8:34:TRP:CE2	54:B8:35:GLN:HB3	2.36	0.61
2:CB:102:LEU:HD23	2:CB:182:ILE:HD12	1.82	0.61
1:AA:438:G:H4'	4:AD:123:HIS:CD2	2.35	0.61
22:AY:34:SER:CB	25:BA:2602:A:H61	2.14	0.61
31:BH:3:ARG:HB3	31:BH:6:ARG:HG2	1.82	0.61
31:BH:83:TYR:CE1	31:BH:138:LYS:HD2	2.36	0.61
1:CA:1445:C:O2'	1:CA:1447:A:N6	2.34	0.61
28:DE:47:VAL:HG21	28:DE:86:PRO:HD2	1.83	0.61
1:AA:153:C:N4	1:AA:169:C:H42	1.99	0.61
1:AA:278:G:OP2	17:AQ:41:LYS:HE2	2.01	0.61
1:AA:285:G:N7	58:AA:2056:HOH:O	2.31	0.61
1:AA:1144:G:H21	1:AA:1146:A:H62	1.49	0.61
3:AC:111:LEU:HD11	3:AC:144:SER:O	1.99	0.61
13:AM:69:GLU:OE1	13:AM:70:LEU:N	2.32	0.61
20:AT:73:HIS:HB3	20:AT:74:LYS:HE3	1.83	0.61
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.33	0.61
1:CA:590:C:O2	1:CA:649:G:N2	2.21	0.61
1:CA:1107:C:C4	1:CA:1108:G:C8	2.88	0.61
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.82	0.61
1:AA:384:G:H2'	1:AA:385:C:C6	2.36	0.61
1:AA:865:A:H2'	1:AA:866:C:H6	1.65	0.61
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.01	0.61
1:AA:1242:C:H4'	1:AA:1304:G:OP1	2.01	0.61
7:AG:111:ARG:NH2	7:AG:126:ASP:OD1	2.33	0.61
25:BA:607:U:OP1	29:BF:102:PRO:HA	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:646:A:H2'	25:BA:647:G:O4'	2.00	0.61
38:BS:25:ARG:NH1	38:BS:42:ASP:OD2	2.33	0.61
1:CA:765:G:H5"	1:CA:766:A:OP1	2.01	0.61
1:CA:954:G:H21	1:CA:1227:A:H62	1.49	0.61
25:DA:1190:G:H5"	35:DP:32:THR:HA	1.83	0.61
39:DT:36:GLU:OE1	39:DT:41:ARG:NE	2.33	0.61
45:DZ:157:LEU:HD21	45:DZ:163:LEU:HB2	1.83	0.61
50:D4:18:CYS:HB3	50:D4:39:CYS:HB3	1.83	0.61
25:BA:1047:G:H21	25:BA:1111:A:N6	1.98	0.61
25:BA:1188:U:C2'	25:BA:1189:A:H5'	2.31	0.61
25:BA:1678:G:N3	25:BA:1678:G:H5"	2.15	0.61
26:BB:48:A:H4'	38:BS:95:HIS:HD2	1.64	0.61
37:BR:33:ARG:NH1	37:BR:115:GLU:OE2	2.26	0.61
38:BS:15:ARG:O	38:BS:19:LYS:HG3	2.01	0.61
1:CA:64:G:H4'	1:CA:65:U:H3'	1.83	0.61
1:CA:922:G:H2'	1:CA:923:A:C8	2.36	0.61
11:CK:18:ARG:HB2	11:CK:33:THR:HG23	1.81	0.61
25:DA:83:G:N2	25:DA:103:A:OP2	2.32	0.61
25:DA:89:G:H3'	25:DA:90:U:C5'	2.31	0.61
25:DA:1028:A:N6	25:DA:1125:G:H2'	2.15	0.61
25:DA:1292:U:H2'	25:DA:1293:C:C6	2.36	0.61
28:DE:12:THR:HG22	28:DE:13:ARG:H	1.66	0.61
45:DZ:30:ASN:HB3	45:DZ:90:VAL:HB	1.83	0.61
1:AA:1352:C:OP1	21:AU:3:LYS:NZ	2.24	0.60
9:AI:126:SER:HA	9:AI:127:LYS:HB2	1.82	0.60
11:AK:43:SER:OG	11:AK:67:ASP:OD1	2.19	0.60
25:BA:535:C:O3'	40:BU:53:ARG:NH1	2.34	0.60
27:BD:108:PRO:HB3	27:BD:143:HIS:CE1	2.36	0.60
31:BH:164:TYR:HB2	31:BH:167:GLU:HB2	1.82	0.60
33:BN:56:ASN:H	33:BN:125:GLY:CA	2.07	0.60
38:BS:88:ASP:OD1	38:BS:90:GLY:N	2.34	0.60
27:DD:159:ALA:HB1	27:DD:198:ASN:O	2.01	0.60
54:D8:6:THR:HG22	54:D8:63:PRO:HD2	1.83	0.60
1:AA:166:G:H2'	1:AA:167:G:C8	2.32	0.60
1:AA:221:C:H2'	1:AA:222:U:H6	1.66	0.60
1:AA:612:C:O2	1:AA:629:G:N2	2.34	0.60
5:AE:75:THR:OG1	5:AE:76:ILE:N	2.31	0.60
9:AI:94:ALA:C	9:AI:96:LEU:H	2.09	0.60
12:AL:70:ILE:HD13	12:AL:77:LEU:HD12	1.83	0.60
28:BE:116:VAL:HG13	28:BE:122:PHE:CD2	2.36	0.60
32:BI:111:PRO:C	32:BI:113:ARG:H	2.08	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BY:23:ARG:HB2	44:BY:23:ARG:HH11	1.65	0.60
1:CA:501:C:H2'	1:CA:502:G:C8	2.36	0.60
1:CA:939:G:H1	1:CA:1344:C:H42	1.49	0.60
1:CA:1170:A:C2	1:CA:1171:G:H1'	2.36	0.60
1:CA:1281:U:H3'	1:CA:1281:U:H6	1.65	0.60
4:CD:43:HIS:HA	4:CD:46:LYS:HD2	1.83	0.60
25:DA:141:A:C8	25:DA:1408:C:O2'	2.52	0.60
25:DA:212:G:H2'	25:DA:213:A:O4'	2.00	0.60
25:DA:2313:C:H2'	25:DA:2314:C:C6	2.35	0.60
42:DW:36:LEU:HD13	42:DW:48:ALA:HA	1.83	0.60
1:AA:129(A):G:N1	1:AA:189(D):C:O2	2.34	0.60
1:AA:958:A:N3	1:AA:985:C:O2'	2.34	0.60
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.00	0.60
20:AT:56:MET:HE2	20:AT:88:VAL:HG21	1.82	0.60
25:BA:1040:C:H2'	25:BA:1041:C:O4'	2.01	0.60
25:BA:2343:C:HO2'	25:BA:2373:G:HO2'	1.43	0.60
1:CA:437:U:H5"	4:CD:155:LEU:HD11	1.81	0.60
25:DA:1331:A:O2'	25:DA:1332:G:H8	1.85	0.60
25:DA:1790:C:H5"	25:DA:1791:A:OP1	2.01	0.60
25:DA:2478:A:H5'	55:D9:31:LYS:HD2	1.83	0.60
31:DH:20:ALA:HB1	31:DH:21:PRO:HD2	1.83	0.60
50:D4:14:ILE:HG22	50:D4:33:VAL:HG22	1.82	0.60
2:AB:111:ARG:HG2	2:AB:111:ARG:HH11	1.65	0.60
4:AD:17:VAL:HG11	4:AD:197:PRO:HG3	1.82	0.60
25:BA:729:G:C6	27:BD:208:LYS:HB2	2.37	0.60
25:BA:1797:C:H4'	27:BD:257:LEU:O	2.01	0.60
32:BI:107:VAL:HG12	32:BI:108:THR:N	2.17	0.60
43:BX:57:LEU:CD1	43:BX:78:LYS:HG2	2.32	0.60
1:CA:1170:A:N6	1:CA:1171:G:N3	2.50	0.60
2:CB:80:ILE:HD13	2:CB:212:GLN:HG2	1.83	0.60
41:DV:50:PRO:HG2	41:DV:51:VAL:HG12	1.83	0.60
54:D8:4:MET:HE3	54:D8:63:PRO:HG3	1.83	0.60
1:AA:323:U:H5'	20:AT:23:ARG:HB2	1.82	0.60
1:AA:517:G:H5'	1:AA:519:C:C2	2.37	0.60
16:AP:68:ASP:OD1	16:AP:71:ARG:NH1	2.33	0.60
20:AT:39:LYS:O	20:AT:42:GLN:HB3	2.01	0.60
40:BU:76:TYR:HH	40:BU:92:ARG:HH11	1.47	0.60
1:CA:450:G:H4'	16:CP:41:PRO:HB2	1.82	0.60
2:CB:19:HIS:NE2	2:CB:206:ASP:HB2	2.15	0.60
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.37	0.60
25:DA:581:C:H2'	25:DA:582:G:H8	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1358:G:O2'	25:DA:1359:A:H5"	2.00	0.60
1:AA:147:G:H2'	1:AA:148:G:C8	2.37	0.60
25:BA:31:C:OP1	58:BA:5383:HOH:O	2.17	0.60
29:BF:116:ASP:OD2	35:BP:1:MET:HB2	2.02	0.60
31:BH:107:VAL:HG21	31:BH:152:ARG:HB2	1.84	0.60
1:CA:869:G:N7	58:CA:1967:HOH:O	2.32	0.60
1:CA:1227:A:H3'	1:CA:1227:A:C8	2.37	0.60
25:DA:370:G:OP1	25:DA:403:U:N3	2.31	0.60
25:DA:1169:G:H1	25:DA:1180:C:H42	1.49	0.60
25:DA:1221(A):C:H42	25:DA:1228:G:H1	1.49	0.60
25:DA:1427:A:H4'	25:DA:1428:C:O5'	2.01	0.60
25:DA:1818:U:H2'	27:DD:157:ARG:HG3	1.83	0.60
34:DO:88:ASN:H	34:DO:88:ASN:HD22	1.48	0.60
1:AA:429:U:H1'	1:AA:430:A:H5"	1.84	0.60
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.36	0.60
22:AY:50:GLU:HA	22:AY:53:LYS:HB2	1.81	0.60
25:BA:1021:A:H3'	25:BA:1021:A:C8	2.36	0.60
25:BA:1262:A:N3	51:B5:10:LYS:HE3	2.16	0.60
25:BA:2313:C:H4'	30:BG:91:ARG:HG3	1.84	0.60
25:BA:2467:C:OP1	55:B9:6:SER:OG	2.10	0.60
30:BG:145:THR:OG1	30:BG:146:TYR:N	2.26	0.60
1:CA:1201:A:H4'	1:CA:1202:G:O5'	2.02	0.60
20:CT:38:LYS:HG3	20:CT:41:ILE:HD11	1.83	0.60
50:D4:36:CYS:SG	50:D4:37:SER:N	2.74	0.60
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.35	0.60
4:AD:129:ASN:OD1	4:AD:145:GLU:N	2.25	0.60
10:AJ:50:ILE:H	14:AN:41:ARG:HE	1.48	0.60
25:BA:747:U:O2	25:BA:2014:A:H1'	2.02	0.60
25:BA:2638:G:OP2	28:BE:82:ARG:NH2	2.34	0.60
43:BX:12:VAL:HG12	43:BX:17:ALA:HB2	1.83	0.60
1:CA:1344:C:H4'	9:CI:120:ARG:HB3	1.84	0.60
4:CD:79:PHE:O	4:CD:82:ALA:HB3	2.02	0.60
5:CE:36:ASP:HB2	5:CE:38:GLN:H	1.67	0.60
23:CV:40:C:H2'	23:CV:41:C:C6	2.36	0.60
25:DA:976:C:H5'	25:DA:1156:A:N6	2.16	0.60
25:DA:2563:U:H4'	34:DO:28:SER:HA	1.83	0.60
25:DA:2705:A:OP2	58:DA:4356:HOH:O	2.15	0.60
45:DZ:53:ILE:HG22	45:DZ:71:VAL:HB	1.82	0.60
10:AJ:49:VAL:HG23	14:AN:41:ARG:HG2	1.83	0.60
22:AY:32:LYS:HA	25:BA:2573:C:H41	1.66	0.60
25:BA:795:C:H2'	25:BA:796:C:C6	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2527:C:H5”	55:B9:30:PRO:HB2	1.84	0.60
33:BN:52:VAL:HG12	33:BN:120:LEU:HD23	1.83	0.60
46:B0:53:MET:HE3	46:B0:57:PHE:HD1	1.66	0.60
1:CA:1205:U:H4’	3:CC:195:VAL:HG21	1.83	0.60
10:CJ:11:PHE:CE2	10:CJ:67:THR:HG22	2.36	0.60
25:DA:154(A):C:N4	25:DA:171:G:H1	1.98	0.60
25:DA:1247:A:OP1	29:DF:95:ARG:NH2	2.35	0.60
29:DF:11:VAL:HG22	29:DF:125:LEU:HB2	1.83	0.60
1:AA:254:G:H4’	17:AQ:18:THR:HG21	1.83	0.60
17:AQ:48:GLU:O	17:AQ:50:LYS:N	2.35	0.60
22:AY:21:ARG:HG3	22:AY:35:THR:H	1.66	0.60
25:BA:579:G:H2’	25:BA:580:C:C6	2.37	0.60
25:BA:1109:C:H5	25:BA:1110:G:C6	2.20	0.60
25:BA:1531:C:H42	25:BA:1538:G:H1	1.50	0.60
37:BR:103:ARG:HG2	37:BR:103:ARG:HH11	1.66	0.60
40:BU:79:PHE:CZ	40:BU:83:LEU:HD21	2.37	0.60
16:CP:76:GLN:O	16:CP:76:GLN:NE2	2.31	0.60
31:DH:149:ARG:HD2	31:DH:164:TYR:CE1	2.37	0.60
41:DV:60:GLU:HB2	41:DV:97:LYS:HE2	1.82	0.60
41:DV:98:GLU:OE1	41:DV:100:ARG:NH1	2.35	0.60
6:AF:27:GLN:O	6:AF:31:GLU:HG3	2.02	0.59
25:BA:51:G:O2’	25:BA:119:A:N1	2.33	0.59
25:BA:697:C:H2’	25:BA:698:C:H6	1.67	0.59
25:BA:1106:G:H8	25:BA:1106:G:O5’	1.84	0.59
1:CA:715:A:H2’	1:CA:716:A:C8	2.37	0.59
7:CG:18:TYR:HD2	7:CG:59:LEU:HD22	1.65	0.59
7:CG:111:ARG:HB2	7:CG:113:GLU:OE1	2.02	0.59
25:DA:875:G:O6	25:DA:902:C:N4	2.25	0.59
1:AA:1182:G:H4’	1:AA:1183:A:C5’	2.32	0.59
1:AA:1255:G:HO2’	1:AA:1258:G:HO2’	1.35	0.59
13:AM:65:LYS:HD2	13:AM:69:GLU:HG3	1.84	0.59
15:AO:71:GLN:HG2	15:AO:78:TYR:CG	2.37	0.59
25:BA:1952:A:OP1	34:BO:44:LYS:NZ	2.30	0.59
38:BS:53:SER:OG	38:BS:54:LEU:N	2.35	0.59
9:CI:17:VAL:HG12	9:CI:63:ILE:HG12	1.84	0.59
25:DA:608:A:H2’	25:DA:609:A:C8	2.37	0.59
29:DF:53:THR:HG22	29:DF:56:GLU:OE2	2.02	0.59
36:DQ:97:VAL:HG11	36:DQ:103:MET:HE3	1.84	0.59
40:DU:72:HIS:HD1	40:DU:72:HIS:N	2.01	0.59
1:AA:343:U:H1’	1:AA:344:A:OP1	2.02	0.59
1:AA:414:A:H2’	1:AA:415:A:H8	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:652(Q):G:H2'	25:BA:652(R):C:H5'	1.82	0.59
38:BS:99:LYS:O	38:BS:103:GLU:HG3	2.02	0.59
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.12	0.59
18:CR:44:LEU:HD21	18:CR:70:ILE:HG21	1.85	0.59
25:DA:90:U:O2'	25:DA:92:A:C8	2.56	0.59
25:DA:918:A:H5"	26:DB:98:G:O2'	2.03	0.59
25:DA:1607:C:H4'	25:DA:1608:A:O5'	2.02	0.59
27:DD:108:PRO:HB3	27:DD:143:HIS:CE1	2.38	0.59
30:DG:106:LEU:HA	30:DG:110:ALA:HB3	1.83	0.59
30:DG:109:VAL:HG11	30:DG:142:PRO:HB3	1.85	0.59
53:D7:12:ARG:NH2	53:D7:44:PRO:HB3	2.17	0.59
1:AA:447:G:H2'	1:AA:485:G:N2	2.18	0.59
1:AA:1223:C:H5"	1:AA:1224:G:H5"	1.85	0.59
2:AB:15:VAL:HG23	2:AB:209:ARG:HD3	1.83	0.59
13:AM:49:THR:O	13:AM:51:ALA:N	2.35	0.59
15:AO:39:LEU:O	15:AO:42:HIS:N	2.35	0.59
25:BA:919:G:N2	25:BA:2269:A:OP2	2.36	0.59
25:BA:2206:G:H5'	25:BA:2207:G:N7	2.17	0.59
48:B2:63:VAL:O	48:B2:66:GLU:HB2	2.02	0.59
25:DA:1283:G:H22	25:DA:1286:A:H5'	1.66	0.59
25:DA:1803:A:H4'	27:DD:259:THR:HG23	1.83	0.59
25:DA:2647:U:H2'	25:DA:2648:C:H6	1.68	0.59
28:DE:38:THR:O	28:DE:42:ASP:N	2.30	0.59
30:DG:38:VAL:HG22	30:DG:93:THR:HG23	1.85	0.59
32:DI:110:ASP:H	32:DI:130:TYR:HH	1.46	0.59
37:DR:79:LEU:HA	37:DR:83:ILE:HD12	1.85	0.59
38:DS:36:TYR:HA	38:DS:52:SER:HB3	1.85	0.59
50:D4:16:CYS:HB2	50:D4:20:ASN:O	2.02	0.59
4:AD:9:CYS:SG	4:AD:12:CYS:SG	3.01	0.59
15:AO:3:ILE:H	15:AO:3:ILE:HD13	1.67	0.59
25:BA:1803:A:H4'	27:BD:259:THR:CG2	2.33	0.59
1:CA:986:A:H1'	19:CS:54:GLY:O	2.02	0.59
1:CA:1492:A:H3'	25:DA:1913:A:H61	1.68	0.59
5:CE:8:GLU:HB3	5:CE:34:VAL:HG23	1.84	0.59
11:CK:85:ARG:HE	11:CK:111:ASP:HB3	1.68	0.59
25:DA:1329:U:H5"	25:DA:1330:C:H5	1.66	0.59
25:DA:1379:A:H4'	25:DA:1380:G:OP2	2.02	0.59
25:DA:1593:G:H2'	25:DA:1594:G:C8	2.37	0.59
25:DA:2014:A:H4'	42:DW:92:ARG:NH2	2.17	0.59
37:DR:24:GLN:OE1	37:DR:36:THR:HG21	2.03	0.59
37:DR:72:ASP:OD1	37:DR:75:LEU:HB2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BV:65:GLY:HA3	41:BV:91:TYR:CZ	2.37	0.59
44:BY:11:ASP:N	44:BY:11:ASP:OD1	2.31	0.59
25:DA:528:A:C2	25:DA:2043:C:H4'	2.38	0.59
25:DA:1227:G:OP2	40:DU:16:LYS:NZ	2.36	0.59
25:DA:1237:A:OP1	58:DA:4032:HOH:O	2.16	0.59
26:DB:12:C:H2'	46:D0:73:GLY:HA3	1.83	0.59
26:DB:44:G:OP1	30:DG:98:ARG:NH2	2.35	0.59
33:DN:37:LYS:HG3	33:DN:42:TRP:CE2	2.37	0.59
33:DN:42:TRP:CD1	33:DN:48:MET:HE1	2.38	0.59
41:DV:58:VAL:HB	41:DV:97:LYS:HB2	1.85	0.59
44:DY:2:ARG:O	44:DY:2:ARG:HG3	2.00	0.59
45:DZ:111:VAL:C	45:DZ:113:ALA:H	2.10	0.59
1:AA:828:A:H2'	1:AA:829:G:O4'	2.03	0.59
3:AC:5:ILE:HG23	3:AC:6:HIS:H	1.66	0.59
8:AH:20:TYR:CE2	8:AH:75:ARG:HG2	2.38	0.59
12:AL:83:VAL:HG11	12:AL:100:ILE:HG12	1.83	0.59
13:AM:15:VAL:O	13:AM:19:LEU:HD23	2.02	0.59
25:BA:2287:A:H62	25:BA:2344:U:H3	1.50	0.59
25:BA:2766:G:H5"	25:BA:2767:C:OP2	2.01	0.59
45:BZ:44:PHE:CE2	45:BZ:86:VAL:HG11	2.37	0.59
20:CT:69:GLY:O	20:CT:73:HIS:CD2	2.55	0.59
25:DA:311:A:C6	25:DA:328:U:C4	2.90	0.59
35:DP:91:PHE:O	35:DP:121:LYS:NZ	2.35	0.59
36:DQ:31:ASP:O	36:DQ:134:ARG:HG2	2.03	0.59
42:DW:79:GLY:HA3	42:DW:100:THR:HG22	1.84	0.59
1:AA:92:C:O2'	1:AA:93:G:H5'	2.02	0.59
18:AR:36:ASN:O	18:AR:40:LEU:HG	2.03	0.59
25:BA:1017:G:N7	58:BA:4184:HOH:O	2.31	0.59
25:BA:1453:U:O2'	25:BA:1455:G:N7	2.33	0.59
25:BA:1799:G:O2'	25:BA:1800:C:OP2	2.18	0.59
45:BZ:150:LEU:O	45:BZ:171:ILE:HG13	2.03	0.59
1:CA:40:C:H42	1:CA:402:G:H1	1.50	0.59
1:CA:1320:C:H2'	1:CA:1321:C:O4'	2.03	0.59
4:CD:26:CYS:HA	4:CD:31:CYS:HB3	1.85	0.59
25:DA:644:A:H4'	25:DA:645:C:C5	2.37	0.59
25:DA:800:A:H8	25:DA:800:A:OP1	1.86	0.59
25:DA:1210:A:H5'	25:DA:1210:A:C8	2.32	0.59
25:DA:1920:C:OP1	58:DA:3708:HOH:O	2.17	0.59
33:DN:123:TYR:HH	33:DN:130:HIS:CE1	2.19	0.59
45:DZ:157:LEU:HD23	45:DZ:161:VAL:HG13	1.83	0.59
55:D9:10:ILE:HD12	55:D9:32:HIS:HA	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:20:VAL:HG21	16:AP:32:TYR:CD1	2.38	0.59
25:BA:534:U:H5'	40:BU:42:ALA:HB1	1.85	0.59
25:BA:2344:U:O2'	52:B6:36:LEU:HD22	2.03	0.59
27:BD:147:LEU:CD1	27:BD:155:LEU:HD11	2.32	0.59
1:CA:384:G:H2'	1:CA:385:C:C6	2.38	0.59
25:DA:1856:G:H2'	25:DA:1857:G:H5'	1.85	0.59
25:DA:2390:U:O2'	25:DA:2391:G:H5'	2.02	0.59
28:DE:52:LEU:HB2	28:DE:76:ARG:HG2	1.84	0.59
35:DP:39:LYS:HB2	35:DP:45:LEU:CD1	2.31	0.59
40:DU:58:ARG:HA	40:DU:61:TRP:CE3	2.37	0.59
1:AA:299:G:H2'	1:AA:300:A:C8	2.37	0.59
1:AA:586:C:H2'	1:AA:587:G:H5'	1.85	0.59
11:AK:41:THR:HG21	11:AK:71:LYS:HB3	1.85	0.59
22:AY:30:VAL:HG22	25:BA:2602:A:C6	2.38	0.59
27:BD:132:PRO:HG3	27:BD:190:TYR:CE1	2.38	0.59
28:BE:78:LEU:O	28:BE:79:ARG:HG2	2.03	0.59
29:BF:184:TYR:CE2	29:BF:188:ARG:HD2	2.38	0.59
1:CA:129(A):G:N2	1:CA:189(H):G:C5	2.71	0.59
4:CD:105:VAL:HG21	4:CD:126:ILE:HD12	1.85	0.59
7:CG:82:GLY:HA2	24:CX:1:A:C8	2.37	0.59
12:CL:6:THR:HG23	12:CL:9:GLN:HB2	1.84	0.59
25:DA:288:C:H2'	25:DA:289:A:C8	2.37	0.59
25:DA:1354:A:H2'	25:DA:1355:G:O4'	2.02	0.59
25:DA:1545:A:H2'	25:DA:1546:C:O4'	2.02	0.59
25:DA:1593:G:H2'	25:DA:1594:G:H8	1.67	0.59
25:DA:2009:G:H1'	37:DR:107:ASP:O	2.03	0.59
26:DB:17:C:N4	26:DB:109:C:N3	2.51	0.59
26:DB:113:G:H2'	26:DB:114:C:C6	2.38	0.59
37:DR:19:ALA:O	37:DR:23:ASN:ND2	2.29	0.59
37:DR:81:ASP:O	37:DR:85:PRO:HG3	2.02	0.59
20:AT:64:ASP:OD2	20:AT:81:LYS:NZ	2.34	0.58
22:AY:38:HIS:NE2	22:AY:80:GLN:HG3	2.18	0.58
27:BD:131:LEU:HB2	27:BD:136:ILE:CD1	2.33	0.58
31:BH:94:TYR:CE2	31:BH:160:LYS:HG2	2.38	0.58
35:BP:38:GLN:HA	35:BP:41:ARG:HG2	1.85	0.58
35:BP:88:LEU:HD11	35:BP:114:ILE:HD12	1.85	0.58
1:CA:857:C:H2'	1:CA:858:G:O4'	2.03	0.58
1:CA:1060:C:O2'	1:CA:1061:G:H5'	2.03	0.58
1:CA:1151:A:O2'	1:CA:1152:A:O5'	2.21	0.58
1:CA:1492:A:H2'	25:DA:1913:A:N1	2.17	0.58
2:CB:165:VAL:HG23	2:CB:166:ASP:H	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:22:LYS:HB2	4:CD:26:CYS:SG	2.43	0.58
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	1.85	0.58
11:CK:22:HIS:O	11:CK:28:THR:HA	2.03	0.58
25:DA:784:A:H5'	25:DA:785:G:OP1	2.02	0.58
25:DA:2689:U:P	25:DA:2719:G:H22	2.24	0.58
30:DG:106:LEU:O	30:DG:111:LEU:N	2.26	0.58
32:DI:75:LEU:HD23	32:DI:105:HIS:CD2	2.38	0.58
1:AA:176:C:OP1	20:AT:29:LYS:NZ	2.35	0.58
14:AN:24:CYS:HB3	14:AN:27:CYS:O	2.03	0.58
20:AT:87:LYS:O	20:AT:91:LEU:HG	2.03	0.58
46:B0:40:GLN:OE1	46:B0:44:ARG:N	2.33	0.58
47:B1:21:ARG:HG2	47:B1:21:ARG:HH11	1.67	0.58
2:CB:178:ARG:HH22	8:CH:68:ARG:HH12	1.51	0.58
25:DA:1857:G:H2'	25:DA:1858:G:O4'	2.04	0.58
32:DI:5:LEU:HD11	32:DI:19:VAL:HG22	1.84	0.58
37:DR:29:LEU:HB3	37:DR:75:LEU:HD11	1.84	0.58
45:DZ:48:PHE:HE2	45:DZ:71:VAL:HG11	1.68	0.58
1:AA:148:G:C2	1:AA:149:A:N7	2.71	0.58
1:AA:691:G:H2'	1:AA:692:U:C6	2.38	0.58
4:AD:30:LYS:C	4:AD:32:ALA:H	2.03	0.58
17:AQ:76:LEU:HD11	17:AQ:78:GLU:O	2.03	0.58
25:BA:286:C:H2'	25:BA:287:C:C6	2.39	0.58
25:BA:568:U:OP1	35:BP:36:LYS:HE3	2.03	0.58
25:BA:763:G:O2'	25:BA:764:A:H3'	2.03	0.58
28:BE:60:ASN:OD1	28:BE:63:LEU:HB2	2.04	0.58
32:BI:130:TYR:HB3	32:BI:138:ILE:HB	1.85	0.58
1:CA:1095:U:OP1	1:CA:1108:G:N2	2.29	0.58
25:DA:185:U:H4'	25:DA:218:A:H4'	1.84	0.58
25:DA:1266:G:O2'	25:DA:2012:G:O6	2.18	0.58
27:DD:144:ALA:HB3	27:DD:192:THR:HG23	1.84	0.58
28:DE:33:VAL:HG11	28:DE:36:ARG:HH21	1.68	0.58
28:DE:143:ASN:HD22	28:DE:147:PRO:CD	2.15	0.58
47:D1:5:CYS:SG	47:D1:62:VAL:HG23	2.43	0.58
1:AA:664:G:N2	1:AA:741:G:H1	1.98	0.58
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.38	0.58
1:AA:1397:C:OP2	5:AE:24:ARG:NH2	2.36	0.58
3:AC:6:HIS:CD2	3:AC:7:PRO:HD2	2.39	0.58
3:AC:114:PRO:O	3:AC:118:GLN:NE2	2.24	0.58
25:BA:676:A:H2	25:BA:802:A:H61	1.51	0.58
25:BA:2573:C:H5"	25:BA:2574:G:H5"	1.85	0.58
1:CA:980:C:OP1	58:CA:2053:HOH:O	2.17	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:989:C:H1'	1:CA:1016:A:H2	1.68	0.58
2:CB:127:ILE:HG12	2:CB:128:GLU:H	1.67	0.58
4:CD:71:SER:O	4:CD:75:PHE:N	2.27	0.58
4:CD:155:LEU:HD23	4:CD:156:GLU:N	2.18	0.58
6:CF:81:ILE:HD11	27:DD:125:ILE:HB	1.85	0.58
25:DA:34:C:O2'	25:DA:35:G:OP1	2.18	0.58
25:DA:2275:C:H6	25:DA:2275:C:H5'	1.68	0.58
27:DD:24:ILE:HD13	27:DD:84:TYR:HB2	1.85	0.58
36:DQ:21:THR:HG21	36:DQ:101:ARG:HB2	1.85	0.58
1:AA:129(A):G:O6	1:AA:189(D):C:C2	2.57	0.58
1:AA:342:C:C4	1:AA:343:U:C5	2.90	0.58
2:AB:21:ARG:HH12	2:AB:23:ARG:HB2	1.69	0.58
25:BA:848:G:C4	25:BA:933:A:H8	2.22	0.58
25:BA:885:C:N4	25:BA:890:A:C6	2.43	0.58
25:BA:1329:U:H5"	25:BA:1330:C:H5	1.68	0.58
25:BA:1435:G:H1	25:BA:1557:C:N4	1.98	0.58
25:BA:2591:C:P	27:BD:239:ARG:HG2	2.44	0.58
27:BD:101:GLU:HG2	27:BD:103:ARG:HD3	1.85	0.58
33:BN:14:VAL:HG11	33:BN:138:LEU:HD12	1.84	0.58
44:BY:23:ARG:HG2	44:BY:42:VAL:HG22	1.84	0.58
45:BZ:144:LEU:HD23	45:BZ:174:VAL:HG23	1.85	0.58
1:CA:1272:G:H5"	1:CA:1272:G:H8	1.69	0.58
4:CD:38:TYR:OH	4:CD:45:GLN:NE2	2.34	0.58
18:CR:74:ARG:HE	18:CR:81:PHE:HA	1.69	0.58
30:DG:23:PHE:HB2	30:DG:25:TYR:CZ	2.38	0.58
31:DH:11:VAL:HG13	31:DH:15:VAL:HG13	1.86	0.58
35:DP:38:GLN:HA	35:DP:41:ARG:HG2	1.86	0.58
42:DW:26:GLY:H	42:DW:71:VAL:HG12	1.67	0.58
45:DZ:9:TYR:HE2	45:DZ:35:ARG:HG3	1.68	0.58
2:AB:238:LEU:HA	2:AB:239:VAL:C	2.29	0.58
5:AE:87:SER:HB3	5:AE:125:SER:O	2.04	0.58
7:AG:150:ALA:HB2	11:AK:50:TYR:HE1	1.67	0.58
20:AT:90:GLN:HA	20:AT:93:GLU:HB2	1.84	0.58
25:BA:443:A:H1'	25:BA:1201:C:O4'	2.03	0.58
25:BA:1434:A:H2'	25:BA:1435:G:C8	2.38	0.58
1:CA:401:C:O2'	1:CA:621:A:N3	2.33	0.58
1:CA:828:A:H2'	1:CA:829:G:O4'	2.02	0.58
4:CD:28:SER:OG	4:CD:30:LYS:N	2.31	0.58
4:CD:127:THR:HG23	4:CD:147:ALA:HB3	1.84	0.58
13:CM:16:ASP:OD2	13:CM:16:ASP:N	2.33	0.58
25:DA:2286:A:OP1	52:D6:29:ASN:ND2	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2611:U:H2'	51:D5:2:ALA:O	2.02	0.58
1:AA:899:C:H2'	1:AA:900:A:C8	2.39	0.58
7:AG:37:ASN:O	7:AG:41:ARG:HG2	2.04	0.58
8:AH:83:ILE:HB	8:AH:137:VAL:HG12	1.86	0.58
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.68	0.58
25:BA:1692:U:H2'	25:BA:1694:C:C5	2.38	0.58
25:BA:1825:A:OP1	27:BD:249:PRO:HD3	2.02	0.58
25:BA:2454:G:H1'	58:BA:4680:HOH:O	2.03	0.58
25:BA:2492:U:H2'	25:BA:2493:U:H6	1.69	0.58
27:BD:96:HIS:CD2	27:BD:102:LYS:HD3	2.39	0.58
2:CB:28:PHE:CZ	2:CB:189:ASP:HA	2.38	0.58
25:DA:2033:A:P	58:DA:4591:HOH:O	2.61	0.58
25:DA:2722:G:H5'	37:DR:4:LEU:HD12	1.86	0.58
38:DS:66:ALA:HA	38:DS:69:VAL:HG12	1.85	0.58
40:DU:27:LEU:HA	40:DU:30:LYS:HB2	1.86	0.58
1:AA:444:C:H2'	1:AA:445:G:H8	1.68	0.58
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.38	0.58
11:AK:85:ARG:HD3	11:AK:113:PRO:HD3	1.85	0.58
14:AN:4:LYS:HA	14:AN:7:ILE:HG22	1.86	0.58
25:BA:95:G:O2'	48:B2:46:GLN:HA	2.03	0.58
27:BD:10:THR:OG1	27:BD:13:ARG:HB2	2.04	0.58
32:BI:29:TYR:O	32:BI:32:PRO:HD2	2.04	0.58
33:BN:54:VAL:HG12	33:BN:55:VAL:H	1.68	0.58
43:BX:41:ASN:O	43:BX:45:THR:HG23	2.04	0.58
46:B0:38:VAL:HG21	46:B0:59:LEU:HD12	1.86	0.58
1:CA:671:G:N2	1:CA:735:C:O2	2.36	0.58
1:CA:828:A:H5"	1:CA:859:A:C2	2.39	0.58
3:CC:70:VAL:HG12	3:CC:71:ALA:H	1.69	0.58
13:CM:105:THR:OG1	13:CM:106:ASN:OD1	2.19	0.58
25:DA:66:C:H2'	25:DA:67:U:H6	1.69	0.58
25:DA:72:U:OP1	58:DA:4084:HOH:O	2.16	0.58
25:DA:492:A:H2'	25:DA:493:G:O4'	2.02	0.58
1:AA:114:U:H2'	1:AA:115:G:C8	2.39	0.58
1:AA:345:C:H4'	1:AA:346:G:C4	2.39	0.58
1:AA:741:G:H2'	1:AA:742:G:O4'	2.04	0.58
2:AB:47:THR:O	2:AB:51:LEU:N	2.30	0.58
2:AB:53:ARG:HA	2:AB:56:ARG:HG2	1.85	0.58
9:AI:103:THR:OG1	9:AI:104:ARG:N	2.28	0.58
25:BA:400:G:N7	58:BA:4208:HOH:O	2.32	0.58
25:BA:1784:A:H4'	25:BA:1785:A:O5'	2.03	0.58
34:BO:88:ASN:O	34:BO:91:LEU:N	2.31	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BR:33:ARG:HB2	37:BR:115:GLU:HB3	1.85	0.58
1:CA:460:G:N1	1:CA:470:C:H5"	2.19	0.58
5:CE:11:ILE:HG21	5:CE:105:VAL:HA	1.84	0.58
19:CS:31:ILE:HD11	19:CS:49:ILE:HG12	1.85	0.58
25:DA:848:G:N9	25:DA:933:A:H8	2.02	0.58
25:DA:2872:G:O2'	25:DA:2873:A:H5'	2.03	0.58
29:DF:32:LEU:HD11	29:DF:105:VAL:HG13	1.85	0.58
6:AF:69:GLU:O	6:AF:72:VAL:HG12	2.03	0.58
22:AY:37:ILE:HG23	22:AY:75:GLN:HA	1.85	0.58
25:BA:1418:G:OP1	25:BA:1588:C:O2'	2.21	0.58
25:BA:1466:G:HO2'	25:BA:1546:C:HO2'	1.24	0.58
25:BA:2207:G:O2'	25:BA:2208:A:OP1	2.20	0.58
25:BA:2637:U:H5"	28:BE:82:ARG:HH21	1.69	0.58
25:BA:2755:C:C4	55:B9:19:ARG:NH1	2.72	0.58
30:BG:76:SER:HA	30:BG:83:ARG:HA	1.86	0.58
45:BZ:30:ASN:ND2	45:BZ:90:VAL:HB	2.19	0.58
1:CA:598:U:H4'	8:CH:94:TYR:CG	2.39	0.58
1:CA:728:A:H2'	1:CA:729:A:H8	1.69	0.58
17:CQ:95:TYR:O	17:CQ:98:LEU:N	2.36	0.58
25:DA:637:A:H5"	35:DP:117:GLU:HG2	1.86	0.58
27:DD:274:ARG:CG	27:DD:275:LYS:HB3	2.31	0.58
32:DI:104:GLN:O	32:DI:105:HIS:ND1	2.35	0.58
33:DN:30:ILE:HG22	33:DN:34:LEU:HD22	1.84	0.58
34:DO:63:VAL:HG22	34:DO:84:ALA:HA	1.86	0.58
1:AA:864:A:H2'	1:AA:865:A:C8	2.39	0.57
1:AA:881:G:OP2	12:AL:12:ARG:NH2	2.36	0.57
17:AQ:22:LEU:HD11	17:AQ:39:SER:HB3	1.86	0.57
25:BA:1048:A:OP2	25:BA:1109:C:N4	2.37	0.57
28:BE:174:ASP:OD2	28:BE:175:VAL:N	2.36	0.57
30:BG:146:TYR:O	30:BG:149:VAL:HG13	2.04	0.57
43:BX:65:ARG:HD3	43:BX:67:GLY:O	2.04	0.57
1:CA:32:A:C2	1:CA:33:A:C4	2.92	0.57
1:CA:116:A:OP2	58:CA:1977:HOH:O	2.17	0.57
17:CQ:58:GLU:OE1	17:CQ:75:ARG:NH2	2.37	0.57
25:DA:581:C:H2'	25:DA:582:G:C8	2.39	0.57
25:DA:1224:C:O2'	41:DV:86:GLY:N	2.34	0.57
25:DA:1336:A:H2'	25:DA:1337:G:H8	1.69	0.57
25:DA:2425:A:H4'	25:DA:2426:A:H5"	1.86	0.57
30:DG:14:GLU:O	30:DG:18:GLU:HB3	2.03	0.57
1:AA:711:G:H2'	1:AA:712:A:H8	1.69	0.57
2:AB:167:PRO:HG3	2:AB:188:ALA:HB2	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:26:PHE:CE2	7:AG:30:ILE:HD11	2.38	0.57
10:AJ:8:LEU:HA	10:AJ:95:GLU:O	2.04	0.57
16:AP:43:LYS:HA	16:AP:48:TRP:CD1	2.39	0.57
25:BA:580:C:H2'	25:BA:581:C:C6	2.39	0.57
25:BA:1153:C:OP1	40:BU:92:ARG:NH1	2.36	0.57
39:BT:55:ASN:H	39:BT:59:THR:HG22	1.69	0.57
40:BU:34:LYS:O	40:BU:38:THR:HB	2.04	0.57
25:DA:1914:C:O2'	25:DA:1915:U:OP1	2.21	0.57
26:DB:53:A:H2'	26:DB:54:G:O4'	2.04	0.57
28:DE:23:VAL:HG21	28:DE:183:LEU:HG	1.86	0.57
31:DH:88:LEU:HB2	31:DH:163:TYR:HB2	1.85	0.57
36:DQ:62:GLY:O	45:DZ:178:GLU:HG2	2.03	0.57
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.20	0.57
22:AY:21:ARG:HA	22:AY:35:THR:H	1.69	0.57
22:AY:32:LYS:NZ	25:BA:2573:C:OP2	2.32	0.57
25:BA:1250:G:N7	35:BP:18:ARG:NH2	2.51	0.57
25:BA:1495:A:H2'	25:BA:1496:A:C8	2.39	0.57
25:BA:1586:A:H8	25:BA:1586:A:O5'	1.87	0.57
29:BF:7:TYR:HB2	29:BF:22:ALA:HB3	1.86	0.57
1:CA:67:C:H2'	1:CA:68:G:C8	2.39	0.57
1:CA:1119:C:H2'	1:CA:1120:G:C8	2.38	0.57
1:CA:1360:A:H8	1:CA:1360:A:OP1	1.87	0.57
25:DA:857:C:H2'	25:DA:858:U:C6	2.39	0.57
25:DA:1040:C:H2'	25:DA:1041:C:O4'	2.04	0.57
25:DA:1149:G:H2'	25:DA:1150:C:H6	1.66	0.57
25:DA:1359:A:N6	25:DA:1372:U:H3	2.02	0.57
25:DA:2331:G:O3'	46:D0:43:THR:HG22	2.03	0.57
26:DB:113:G:H2'	26:DB:114:C:H6	1.69	0.57
29:DF:182:ASN:HD21	29:DF:185:ASP:CG	2.12	0.57
33:DN:104:LYS:HB2	33:DN:117:PHE:CE1	2.38	0.57
39:DT:53:ARG:NH1	39:DT:60:THR:HG23	2.19	0.57
1:AA:41:G:H2'	1:AA:42:G:C8	2.40	0.57
1:AA:667:G:H4'	15:AO:51:HIS:CE1	2.39	0.57
4:AD:90:GLY:O	4:AD:94:LEU:HD12	2.04	0.57
12:AL:71:PRO:O	12:AL:102:ARG:HD2	2.04	0.57
25:BA:151:C:N4	25:BA:175:G:H1	2.00	0.57
25:BA:1143:A:OP1	33:BN:25:ARG:NH2	2.38	0.57
25:BA:1427:A:H4'	25:BA:1428:C:O5'	2.04	0.57
31:BH:11:VAL:HG13	31:BH:15:VAL:HG22	1.84	0.57
1:CA:365:U:H5"	1:CA:366:C:OP1	2.04	0.57
1:CA:833:U:H2'	1:CA:834:C:C6	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:983:A:H3'	1:CA:983:A:N3	2.19	0.57
42:DW:76:VAL:HG22	42:DW:103:ILE:HG23	1.86	0.57
44:DY:90:LEU:HB3	44:DY:92:ASN:H	1.69	0.57
1:AA:67:C:H2'	1:AA:68:G:C8	2.40	0.57
1:AA:1347:G:O2'	1:AA:1348:U:OP2	2.22	0.57
3:AC:113:ALA:HA	3:AC:202:ILE:HD11	1.86	0.57
7:AG:95:ARG:HE	7:AG:99:LEU:HD11	1.69	0.57
48:B2:16:LEU:O	48:B2:67:LYS:NZ	2.36	0.57
1:CA:560:U:H4'	1:CA:561:U:O5'	2.04	0.57
1:CA:656:C:O2'	15:CO:28:GLN:NE2	2.30	0.57
1:CA:1060:C:C5	3:CC:2:GLY:HA3	2.40	0.57
7:CG:26:PHE:O	7:CG:30:ILE:HG13	2.04	0.57
12:CL:33:ARG:HD3	12:CL:62:SER:HB3	1.86	0.57
25:DA:993:G:C5	25:DA:994:C:H5	2.22	0.57
25:DA:1396:U:OP2	58:DA:4673:HOH:O	2.17	0.57
30:DG:105:LYS:NZ	50:D4:25:TYR:O	2.37	0.57
45:DZ:128:VAL:HG22	45:DZ:129:SER:H	1.69	0.57
1:AA:563:A:N6	58:AA:2260:HOH:O	2.37	0.57
1:AA:1226:C:N4	13:AM:104:ARG:HD3	2.19	0.57
2:AB:115:LEU:HD13	2:AB:145:LEU:HB3	1.86	0.57
7:AG:6:ARG:HG3	7:AG:6:ARG:O	2.04	0.57
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.05	0.57
25:BA:370:G:H4'	25:BA:371:A:OP2	2.04	0.57
25:BA:1109:C:H5'	25:BA:1110:G:OP2	2.04	0.57
31:BH:125:VAL:HG22	31:BH:131:VAL:HG22	1.85	0.57
50:B4:10:VAL:HG21	50:B4:29:PRO:HG3	1.87	0.57
8:CH:26:VAL:O	8:CH:59:LEU:N	2.37	0.57
25:DA:10:G:O2'	25:DA:2801(A):A:N7	2.38	0.57
25:DA:926:A:N7	58:DA:4231:HOH:O	2.32	0.57
25:DA:1359:A:C2	25:DA:1372:U:O4	2.58	0.57
25:DA:1589:C:H2'	25:DA:1590:U:H6	1.69	0.57
25:DA:1973:G:H2'	25:DA:1974:C:C6	2.39	0.57
25:DA:2014:A:H5'	42:DW:94:ASP:OD2	2.04	0.57
25:DA:2592:G:H2'	25:DA:2593:U:O4'	2.03	0.57
26:DB:15:A:OP2	26:DB:69:G:N2	2.38	0.57
27:DD:72:LYS:HE3	27:DD:75:ILE:HD12	1.87	0.57
29:DF:130:ALA:CB	29:DF:142:TRP:HD1	2.18	0.57
39:DT:118:ARG:NH2	39:DT:121:ILE:HG21	2.19	0.57
54:D8:15:LYS:HB2	58:D8:301:HOH:O	2.04	0.57
1:AA:711:G:H2'	1:AA:712:A:C8	2.39	0.57
1:AA:1456:G:O2'	20:AT:39:LYS:NZ	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.85	0.57
13:AM:60:VAL:HG12	13:AM:64:TRP:CZ3	2.39	0.57
18:AR:53:ARG:HH21	18:AR:60:ALA:N	2.03	0.57
19:AS:43:GLU:N	19:AS:43:GLU:OE1	2.37	0.57
25:BA:779:U:OP1	27:BD:49:ILE:HG13	2.05	0.57
25:BA:993:G:OP1	40:BU:50:ARG:NH2	2.38	0.57
25:BA:1045:A:H1'	25:BA:1047:G:C2	2.40	0.57
25:BA:1420:U:HO2'	25:BA:1421:G:P	2.26	0.57
25:BA:1570:A:H2'	25:BA:1571:A:C8	2.38	0.57
42:BW:33:ARG:NE	42:BW:52:GLU:OE1	2.37	0.57
1:CA:947:G:O3'	13:CM:109:THR:OG1	2.23	0.57
2:CB:162:ILE:O	2:CB:185:ILE:HG12	2.05	0.57
8:CH:86:ILE:HG21	8:CH:133:LEU:HD13	1.85	0.57
9:CI:17:VAL:HG21	9:CI:80:GLY:C	2.29	0.57
25:DA:247:G:H4'	25:DA:386:G:C5	2.40	0.57
25:DA:520:G:H2'	25:DA:521:G:C8	2.40	0.57
25:DA:657:U:H2'	25:DA:658:C:C6	2.40	0.57
25:DA:2074:U:H2'	25:DA:2075:U:C6	2.38	0.57
1:AA:17:U:H2'	1:AA:18:C:C6	2.39	0.57
1:AA:224:C:H2'	1:AA:225:C:H6	1.69	0.57
1:AA:1182:G:H4'	1:AA:1183:A:H5"	1.85	0.57
25:BA:2079:U:OP1	47:B1:21:ARG:NH2	2.37	0.57
32:BI:68:LEU:HA	32:BI:71:ILE:HG22	1.86	0.57
43:BX:57:LEU:HD12	43:BX:57:LEU:O	2.05	0.57
1:CA:800:G:O6	58:CA:2116:HOH:O	2.15	0.57
13:CM:91:ARG:HB3	13:CM:96:LEU:HB2	1.87	0.57
25:DA:1019:U:H3	25:DA:1142(A):A:N6	2.02	0.57
25:DA:1187:G:H5"	41:DV:81:TYR:CE2	2.38	0.57
25:DA:1225:G:H4'	41:DV:84:LYS:HG2	1.87	0.57
36:DQ:16:ARG:HG2	36:DQ:16:ARG:NH1	2.13	0.57
1:AA:109:A:H2'	1:AA:326:G:N2	2.19	0.57
1:AA:939:G:H5"	7:AG:102:ARG:CZ	2.34	0.57
3:AC:11:ARG:NH2	3:AC:177:THR:O	2.38	0.57
25:BA:2846:G:OP2	39:BT:54:ARG:HB2	2.05	0.57
25:DA:619:G:H5"	25:DA:620:G:OP2	2.04	0.57
25:DA:2849:U:OP2	39:DT:95:ARG:NH1	2.37	0.57
39:DT:1:MET:HE2	39:DT:3:ARG:HG3	1.87	0.57
44:DY:19:LYS:HE3	44:DY:20:TYR:HE1	1.70	0.57
1:AA:828:A:H4'	1:AA:828:A:OP1	2.05	0.57
1:AA:943:U:H2'	1:AA:944:G:H5'	1.86	0.57
1:AA:996:A:O5'	1:AA:996:A:H8	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:16:ARG:HB2	9:AI:64:THR:HG22	1.87	0.57
25:BA:721:C:H2'	25:BA:722:A:H8	1.69	0.57
44:BY:83:THR:OG1	44:BY:84:ARG:N	2.38	0.57
1:CA:1367:C:H5'	10:CJ:60:ARG:NH1	2.20	0.57
10:CJ:49:VAL:HG22	14:CN:41:ARG:HG3	1.87	0.57
14:CN:32:SER:HB3	14:CN:41:ARG:HB3	1.87	0.57
25:DA:1336:A:H2'	25:DA:1337:G:C8	2.39	0.57
25:DA:2394:C:OP2	54:D8:30:ARG:NH1	2.38	0.57
36:DQ:126:PRO:HG2	36:DQ:127:ILE:HG23	1.87	0.57
44:DY:14:LEU:HG	44:DY:15:VAL:N	2.20	0.57
1:AA:630:G:H2'	1:AA:631:G:O4'	2.06	0.56
2:AB:86:GLU:C	2:AB:89:GLY:H	2.13	0.56
20:AT:45:GLN:HA	20:AT:91:LEU:HB3	1.86	0.56
22:AY:21:ARG:CG	22:AY:35:THR:H	2.17	0.56
25:BA:323:G:C8	29:BF:171:PRO:HG3	2.39	0.56
25:BA:1139:G:O2'	25:BA:1143:A:N1	2.30	0.56
25:BA:2791:C:H3'	25:BA:2791:C:OP2	2.04	0.56
38:BS:96:GLY:HA2	38:BS:97:ARG:C	2.29	0.56
1:CA:97:G:O2'	1:CA:98:G:H8	1.87	0.56
1:CA:174:C:H2'	1:CA:175:C:C6	2.40	0.56
1:CA:820:U:H4'	1:CA:821:G:OP2	2.05	0.56
4:CD:100:ARG:HH12	4:CD:137:SER:HB3	1.69	0.56
25:DA:62:C:H42	25:DA:93:G:H1	1.53	0.56
32:DI:93:THR:HG23	32:DI:119:PRO:HG3	1.87	0.56
38:DS:59:LYS:HB3	38:DS:60:GLY:HA2	1.87	0.56
44:DY:99:CYS:CB	44:DY:102:CYS:SG	2.92	0.56
1:AA:192:U:H2'	1:AA:193:C:H6	1.69	0.56
1:AA:872:A:C4	1:AA:874:G:N7	2.72	0.56
1:AA:971:G:N2	1:AA:1363(A):A:OP2	2.26	0.56
1:AA:1346:A:N1	1:AA:1374:A:H5"	2.19	0.56
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.39	0.56
4:AD:110:PHE:CD1	4:AD:110:PHE:N	2.62	0.56
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.40	0.56
9:AI:107:ARG:HD3	9:AI:107:ARG:H	1.70	0.56
25:BA:141:A:H8	25:BA:1408:C:O2'	1.73	0.56
48:B2:65:ASN:OD1	48:B2:69:ARG:HD3	2.05	0.56
1:CA:953:G:C2	1:CA:954:G:H1'	2.39	0.56
25:DA:652(A):A:H4'	25:DA:652(B):A:OP2	2.05	0.56
25:DA:857:C:H2'	25:DA:858:U:H6	1.69	0.56
25:DA:2364:C:H2'	25:DA:2365:G:O4'	2.04	0.56
1:AA:618:C:H5"	1:AA:619:U:H5"	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:624:C:O3'	16:AP:10:GLY:HA2	2.05	0.56
1:AA:673:G:H2'	1:AA:674:G:C8	2.40	0.56
1:AA:674:G:H2'	1:AA:675:A:C8	2.37	0.56
1:AA:730:G:H5"	1:AA:731:G:OP2	2.05	0.56
1:AA:1285:A:O5'	1:AA:1285:A:H8	1.88	0.56
1:AA:1350:A:C5	1:AA:1351:U:C4	2.93	0.56
1:AA:1432:G:N7	58:AA:2083:HOH:O	2.33	0.56
5:AE:41:VAL:HG23	5:AE:67:VAL:HG12	1.87	0.56
8:AH:58:TYR:O	8:AH:59:LEU:HD23	2.05	0.56
8:AH:81:HIS:N	8:AH:138:TRP:O	2.35	0.56
22:AY:66:SER:HB3	25:BA:2559:C:OP1	2.06	0.56
23:AV:47:U:H3'	23:AV:48:C:H5'	1.87	0.56
25:BA:197:A:OP1	58:BA:4873:HOH:O	2.18	0.56
25:BA:721:C:H2'	25:BA:722:A:C8	2.40	0.56
25:BA:796:C:H2'	25:BA:797:C:C6	2.41	0.56
27:BD:8:PRO:HB3	27:BD:14:ARG:HB2	1.86	0.56
29:BF:184:TYR:O	29:BF:188:ARG:HG3	2.05	0.56
31:BH:98:LEU:HD12	31:BH:100:GLY:O	2.05	0.56
39:BT:16:ARG:NH2	39:BT:83:ILE:O	2.38	0.56
47:B1:58:ILE:HD11	47:B1:60:PHE:CZ	2.41	0.56
1:CA:70:G:H1	1:CA:99:U:H3	1.50	0.56
1:CA:1186:G:N2	14:CN:61:TRP:OXT	2.37	0.56
1:CA:1220:G:H5'	19:CS:34:TRP:O	2.05	0.56
1:CA:1226:C:H42	13:CM:104:ARG:HD2	1.70	0.56
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.39	0.56
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.05	0.56
1:CA:1270:C:O2'	1:CA:1313:U:O2'	2.11	0.56
1:CA:1292:U:H2'	1:CA:1293:G:H8	1.68	0.56
1:CA:1376:U:P	7:CG:94:ARG:HH22	2.27	0.56
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.40	0.56
10:CJ:68:HIS:N	10:CJ:68:HIS:ND1	2.53	0.56
25:DA:978:G:O6	58:DA:4264:HOH:O	2.18	0.56
25:DA:1359:A:N1	25:DA:1372:U:C4	2.72	0.56
25:DA:1429:G:H2'	25:DA:1430:C:C6	2.41	0.56
25:DA:2300:G:H2'	25:DA:2301:C:H6	1.70	0.56
27:DD:71:ASP:CG	27:DD:103:ARG:HH22	2.14	0.56
37:DR:2:ARG:NH1	37:DR:5:LYS:O	2.37	0.56
43:DX:57:LEU:HD13	43:DX:78:LYS:HG2	1.87	0.56
1:AA:10:A:H2'	1:AA:11:G:H8	1.69	0.56
1:AA:105:G:H2'	1:AA:106:C:C6	2.40	0.56
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:105:VAL:HG12	4:AD:117:ALA:HB1	1.86	0.56
5:AE:122:GLU:HG2	5:AE:131:ILE:HD12	1.88	0.56
25:BA:2469:A:C2	25:BA:2482:G:C8	2.94	0.56
50:B4:42:PHE:H	50:B4:43:TYR:HB2	1.70	0.56
1:CA:10:A:H2'	1:CA:11:G:H8	1.70	0.56
1:CA:126:G:OP1	1:CA:605:U:O2'	2.23	0.56
1:CA:1251:A:O2'	1:CA:1369:C:O2'	2.19	0.56
2:CB:69:LEU:HB3	2:CB:162:ILE:HG22	1.87	0.56
16:CP:43:LYS:C	16:CP:45:THR:H	2.13	0.56
25:DA:71:A:H5"	25:DA:73:A:N7	2.21	0.56
25:DA:796:C:H2'	25:DA:797:C:C6	2.40	0.56
25:DA:971:C:H2'	25:DA:972:G:H5'	1.88	0.56
25:DA:1403:C:H5"	25:DA:1471:A:C1'	2.34	0.56
25:DA:2659:G:P	31:DH:158:HIS:HE2	2.28	0.56
28:DE:4:ILE:HG12	28:DE:5:LEU:H	1.70	0.56
28:DE:135:HIS:H	28:DE:135:HIS:HD2	1.53	0.56
31:DH:70:THR:HA	31:DH:73:ALA:HB3	1.86	0.56
1:AA:1313:U:O4	19:AS:4:SER:HA	2.05	0.56
7:AG:51:GLN:HG2	7:AG:55:GLY:HA3	1.88	0.56
20:AT:73:HIS:C	20:AT:74:LYS:HG2	2.31	0.56
25:BA:1359:A:N6	25:BA:1372:U:H3	2.02	0.56
25:BA:1359:A:N1	25:BA:1372:U:C4	2.73	0.56
25:BA:1688:U:O2	25:BA:1700:A:H5'	2.05	0.56
25:BA:2099:U:H3	25:BA:2190:G:H1	1.52	0.56
25:BA:2787:C:H4'	28:BE:61:ARG:HG2	1.87	0.56
37:BR:38:VAL:HG22	37:BR:112:ALA:HB2	1.87	0.56
2:CB:134:GLU:O	2:CB:138:LEU:HD11	2.05	0.56
4:CD:4:TYR:C	4:CD:4:TYR:CD2	2.83	0.56
7:CG:58:PRO:HA	7:CG:61:VAL:HG12	1.87	0.56
25:DA:1019:U:HO2'	25:DA:1021:A:H2	1.52	0.56
25:DA:1486:A:O2'	25:DA:1487:G:H5'	2.05	0.56
1:AA:656:C:O2'	15:AO:28:GLN:NE2	2.39	0.56
1:AA:1203:C:H2'	1:AA:1204:A:O4'	2.05	0.56
1:AA:1285:A:H4'	1:AA:1286:A:O5'	2.06	0.56
20:AT:51:GLU:HG2	20:AT:54:LYS:HD3	1.88	0.56
22:AY:124:GLN:O	22:AY:128:VAL:HB	2.05	0.56
25:BA:330:A:C2	25:BA:1210:A:H2'	2.39	0.56
25:BA:2203:U:O2'	25:BA:2205:C:H5'	2.06	0.56
35:BP:50:ARG:HG3	35:BP:50:ARG:HH21	1.70	0.56
36:BQ:84:GLY:O	36:BQ:85:LYS:HB2	2.04	0.56
7:CG:102:ARG:O	7:CG:106:GLN:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:20:ARG:O	9:CI:60:ASP:HB2	2.05	0.56
9:CI:114:TYR:H	9:CI:114:TYR:HD2	1.52	0.56
25:DA:1762:A:H8	58:DA:4689:HOH:O	1.87	0.56
40:DU:102:GLU:HG3	41:DV:2:PHE:CE1	2.41	0.56
1:AA:236:G:H5"	17:AQ:42:TYR:OH	2.05	0.56
1:AA:373:A:HO2'	1:AA:481:G:N2	2.03	0.56
1:AA:921:U:O2	5:AE:19:MET:HB2	2.06	0.56
2:AB:114:ARG:HH11	2:AB:118:LEU:HD21	1.69	0.56
2:AB:141:GLU:O	2:AB:145:LEU:HB2	2.06	0.56
3:AC:32:LEU:HD13	3:AC:59:ARG:NH1	2.21	0.56
17:AQ:13:ASP:OD1	17:AQ:13:ASP:N	2.37	0.56
25:BA:511:U:C5	25:BA:512:G:C5	2.94	0.56
25:BA:1796:U:H2'	25:BA:1797:C:C6	2.41	0.56
25:BA:2389:G:H5"	25:BA:2390:U:C5'	2.36	0.56
27:BD:108:PRO:HG2	27:BD:111:LEU:HB2	1.87	0.56
28:BE:11:MET:HG2	28:BE:24:THR:HB	1.87	0.56
29:BF:194:MET:HE3	29:BF:199:TRP:HA	1.87	0.56
1:CA:202:U:H3'	1:CA:203:U:H6	1.70	0.56
1:CA:826:C:H2'	1:CA:827:U:H6	1.70	0.56
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.21	0.56
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.05	0.56
11:CK:80:VAL:H	11:CK:104:GLN:HB2	1.71	0.56
25:DA:229:A:H5"	25:DA:230:U:H5'	1.88	0.56
25:DA:1971:A:C4	27:DD:241:PRO:HD3	2.41	0.56
25:DA:2296:U:OP2	38:DS:6:ALA:HB2	2.05	0.56
25:DA:2387:U:OP1	46:D0:55:ARG:NH2	2.38	0.56
45:DZ:104:PHE:HB3	45:DZ:141:VAL:HG21	1.87	0.56
45:DZ:180:VAL:O	45:DZ:183:LEU:HB2	2.05	0.56
1:AA:452:A:O2'	1:AA:453:A:OP2	2.18	0.56
1:AA:1239:A:H62	1:AA:1299:A:N6	2.02	0.56
2:AB:55:PHE:HA	2:AB:58:ILE:HB	1.88	0.56
5:AE:98:THR:HG22	5:AE:99:GLY:O	2.06	0.56
22:AY:30:VAL:HG22	25:BA:2602:A:C5	2.40	0.56
25:BA:700:G:H2'	25:BA:701:G:O4'	2.06	0.56
25:BA:1358:G:N1	25:BA:1372:U:OP2	2.32	0.56
27:BD:148:GLU:HB3	27:BD:151:LYS:HD2	1.88	0.56
29:BF:62:ARG:HG3	29:BF:63:LYS:N	2.20	0.56
1:CA:189(C):C:H2'	1:CA:189(D):C:O4'	2.05	0.56
1:CA:1095:U:H5"	1:CA:1109:C:O2	2.05	0.56
1:CA:1317:C:N4	14:CN:19:ARG:HH21	2.04	0.56
1:CA:1323:G:H2'	1:CA:1324:A:H8	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:100:GLY:CA	2:CB:104:ASN:H	2.18	0.56
8:CH:41:ARG:O	8:CH:41:ARG:HG2	2.05	0.56
13:CM:15:VAL:O	13:CM:19:LEU:HD23	2.05	0.56
25:DA:229:A:H3'	25:DA:229:A:C8	2.41	0.56
25:DA:528:A:C2	25:DA:2042:A:H2'	2.41	0.56
25:DA:2061:G:H5"	25:DA:2503:A:C2	2.41	0.56
25:DA:2395:C:O2'	47:D1:30:VAL:O	2.24	0.56
25:DA:2641:G:P	33:DN:74:ARG:HH21	2.29	0.56
46:D0:27:GLU:HG3	46:D0:68:GLU:HA	1.88	0.56
1:AA:600:C:H2'	1:AA:601:C:H6	1.71	0.56
1:AA:1181:G:O2'	1:AA:1182:G:C5	2.59	0.56
7:AG:12:LEU:H	7:AG:12:LEU:HD12	1.71	0.56
17:AQ:29:HIS:HB2	17:AQ:36:ILE:HD13	1.87	0.56
25:BA:1025:G:C4	25:BA:1135:C:H1'	2.41	0.56
25:BA:2492:U:H2'	25:BA:2493:U:C6	2.41	0.56
42:BW:88:ARG:NH1	42:BW:94:ASP:OD1	2.39	0.56
44:BY:91:GLU:C	44:BY:93:GLY:HA2	2.31	0.56
49:B3:39:ASP:OD2	49:B3:44:ARG:NH1	2.39	0.56
1:CA:1014:A:H1'	19:CS:34:TRP:HB2	1.88	0.56
1:CA:1067:A:H8	1:CA:1067:A:O5'	1.88	0.56
1:CA:1310:G:H1	1:CA:1327:C:H42	1.54	0.56
11:CK:99:GLN:HE21	11:CK:105:VAL:HG21	1.70	0.56
13:CM:33:ALA:HA	13:CM:59:TYR:CE1	2.41	0.56
25:DA:1496:A:N3	25:DA:1577:C:O2'	2.30	0.56
29:DF:129:PHE:O	29:DF:132:VAL:HG22	2.06	0.56
34:DO:77:ILE:HG13	39:DT:74:ARG:HG2	1.87	0.56
1:AA:70:G:H1	1:AA:99:U:H3	1.54	0.56
1:AA:412:A:C6	4:AD:35:ARG:HG2	2.41	0.56
1:AA:419:C:H5"	1:AA:513:C:H1'	1.88	0.56
1:AA:474:G:H2'	1:AA:475:G:C8	2.41	0.56
1:AA:518:C:O2	22:AY:117:ARG:NH1	2.38	0.56
1:AA:528:C:OP1	22:AY:124:GLN:NE2	2.38	0.56
7:AG:90:GLU:N	7:AG:90:GLU:OE2	2.39	0.56
8:AH:27:PRO:HA	8:AH:58:TYR:HA	1.88	0.56
14:AN:24:CYS:SG	14:AN:40:CYS:N	2.77	0.56
18:AR:31:LEU:O	18:AR:32:ARG:HB2	2.06	0.56
25:BA:1239:G:H2'	25:BA:1240:U:O4'	2.06	0.56
37:BR:55:ALA:HB2	37:BR:79:LEU:HD13	1.87	0.56
1:CA:1530:G:O2'	1:CA:1531:A:OP1	2.17	0.56
9:CI:118:LYS:O	9:CI:120:ARG:N	2.35	0.56
25:DA:2050:C:H1'	28:DE:156:MET:HE2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2277:G:H3'	46:D0:12:ASN:ND2	2.21	0.56
25:DA:2320:A:H2'	25:DA:2320:A:N3	2.19	0.56
25:DA:2404:C:H2'	25:DA:2405:G:H5'	1.88	0.56
25:DA:2463:C:C2'	25:DA:2464:C:H5'	2.35	0.56
26:DB:22:U:H3	26:DB:61:G:H1	1.53	0.56
38:DS:58:LEU:HD12	38:DS:59:LYS:HB2	1.87	0.56
42:DW:50:VAL:HG12	42:DW:105:VAL:CG2	2.36	0.56
1:AA:476:G:OP2	1:AA:476:G:H8	1.89	0.55
39:BT:55:ASN:N	39:BT:59:THR:HG22	2.21	0.55
1:CA:1353:G:H2'	1:CA:1354:C:C6	2.41	0.55
4:CD:19:LEU:HB3	4:CD:67:ILE:HG12	1.87	0.55
1:AA:839:U:O2	1:AA:839:U:H2'	2.05	0.55
9:AI:4:TYR:CZ	9:AI:88:TYR:HD1	2.25	0.55
11:AK:48:ILE:HD12	11:AK:63:LEU:HB3	1.88	0.55
25:BA:10:G:O2'	25:BA:2801(A):A:N7	2.37	0.55
50:B4:26:SER:OG	50:B4:27:THR:N	2.37	0.55
54:B8:61:LEU:O	54:B8:63:PRO:HD3	2.06	0.55
2:CB:97:TRP:HH2	2:CB:176:GLU:HB2	1.72	0.55
5:CE:8:GLU:HA	5:CE:34:VAL:HA	1.88	0.55
7:CG:69:VAL:HG22	7:CG:135:VAL:HG22	1.89	0.55
25:DA:1167:U:O2	25:DA:1183:G:N2	2.39	0.55
25:DA:1209:G:H21	25:DA:1210:A:H62	1.54	0.55
25:DA:1859:A:N6	25:DA:1883:G:O2'	2.37	0.55
25:DA:1939:U:OP1	25:DA:2604:U:O2'	2.24	0.55
32:DI:1:MET:HE3	32:DI:38:LEU:HD11	1.87	0.55
50:D4:3:GLU:CD	50:D4:3:GLU:H	2.12	0.55
1:AA:49:U:O4	1:AA:365:U:H5	1.89	0.55
1:AA:460:G:N1	1:AA:470:C:H5"	2.21	0.55
1:AA:679:C:H2'	1:AA:680:C:C6	2.40	0.55
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.06	0.55
22:AY:32:LYS:HG2	25:BA:2573:C:C5	2.41	0.55
25:BA:184:C:H2'	25:BA:185:U:C6	2.42	0.55
25:BA:754:C:H2'	25:BA:755:C:H6	1.71	0.55
25:BA:847:U:C4	25:BA:933:A:N6	2.73	0.55
25:BA:2371:G:H1'	52:B6:39:TYR:HE1	1.71	0.55
31:BH:9:ILE:HD11	31:BH:69:ARG:HD2	1.88	0.55
31:BH:94:TYR:CD1	31:BH:107:VAL:HA	2.42	0.55
4:CD:30:LYS:CB	4:CD:35:ARG:HD2	2.37	0.55
5:CE:36:ASP:HB3	5:CE:38:GLN:N	2.20	0.55
7:CG:111:ARG:HE	7:CG:123:GLU:HB2	1.71	0.55
14:CN:24:CYS:CB	14:CN:28:GLY:HA2	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2870:C:H5”	37:DR:65:LEU:HD21	1.88	0.55
29:DF:108:LYS:HG2	29:DF:112:MET:HE2	1.89	0.55
30:DG:138:GLN:HA	30:DG:155:MET:HE1	1.87	0.55
32:DI:68:LEU:HA	32:DI:71:ILE:HG22	1.87	0.55
49:D3:27:GLY:HA3	49:D3:35:ARG:NH1	2.21	0.55
1:AA:45:U:H2’	1:AA:46:G:C8	2.42	0.55
1:AA:426:G:OP1	4:AD:36:ARG:NH1	2.40	0.55
2:AB:24:TRP:CD1	2:AB:24:TRP:N	2.69	0.55
8:AH:39:LEU:HB3	8:AH:45:ILE:HG12	1.87	0.55
10:AJ:8:LEU:HD12	10:AJ:20:ALA:HB2	1.86	0.55
13:AM:15:VAL:HG23	13:AM:43:THR:O	2.06	0.55
25:BA:2615:U:H2’	25:BA:2616:C:H6	1.71	0.55
47:B1:5:CYS:HG	47:B1:8:SER:HG	1.53	0.55
1:CA:804:U:H5”	1:CA:805:C:OP2	2.06	0.55
1:CA:1188:A:H2’	1:CA:1189:C:O4’	2.06	0.55
5:CE:83:GLU:HG2	5:CE:88:LYS:HD2	1.87	0.55
13:CM:10:PRO:HG2	13:CM:18:ALA:HB1	1.88	0.55
14:CN:29:ARG:HG2	14:CN:40:CYS:HB3	1.87	0.55
23:CV:10:G:N2	23:CV:26:G:H1’	2.21	0.55
25:DA:1366:A:OP1	47:D1:3:LYS:NZ	2.38	0.55
25:DA:2329:G:N2	46:D0:41:ARG:HG3	2.21	0.55
25:DA:2772:C:H5’	28:DE:168:MET:HE1	1.87	0.55
1:AA:503:C:OP2	12:AL:116:SER:HB3	2.07	0.55
1:AA:877:C:H5”	8:AH:88:LYS:HD3	1.87	0.55
3:AC:30:ARG:HG2	14:AN:36:PHE:O	2.07	0.55
17:AQ:57:VAL:HG21	17:AQ:73:VAL:HG13	1.88	0.55
22:AY:8:VAL:HG11	22:AY:49:PRO:HD3	1.88	0.55
25:BA:511:U:H5”	25:BA:512:G:OP2	2.06	0.55
25:BA:1034:G:H5’	55:B9:18:ARG:HD2	1.88	0.55
25:BA:1359:A:H61	25:BA:1372:U:H3	1.53	0.55
25:BA:1444:G:H2’	25:BA:1445(A):C:C5	2.41	0.55
25:BA:2847:U:OP1	39:BT:98:LYS:NZ	2.37	0.55
27:BD:72:LYS:HB3	27:BD:75:ILE:HD12	1.87	0.55
27:BD:223:GLY:HA2	27:BD:226:MET:HE3	1.88	0.55
1:CA:1014:A:C2	1:CA:1219:U:H1’	2.42	0.55
1:CA:1205:U:H4’	3:CC:195:VAL:CG2	2.36	0.55
1:CA:1321:C:H6	1:CA:1321:C:H5”	1.71	0.55
9:CI:99:LEU:HB3	9:CI:101:PHE:CE1	2.42	0.55
11:CK:38:ASN:OD1	11:CK:38:ASN:N	2.40	0.55
25:DA:242:G:H5”	54:D8:64:TYR:CE2	2.42	0.55
25:DA:448:U:C4	25:DA:583:G:H1’	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2463:C:H2'	25:DA:2464:C:H5'	1.88	0.55
32:DI:72:LEU:C	32:DI:74:ASN:N	2.61	0.55
1:AA:308:C:H2'	1:AA:309:G:H8	1.71	0.55
1:AA:991:U:H4'	1:AA:992:U:O5'	2.06	0.55
1:AA:1123:A:O2'	10:AJ:37:PRO:O	2.23	0.55
11:AK:107:SER:OG	11:AK:108:ILE:N	2.38	0.55
25:BA:652(H):C:H2'	25:BA:652(I):C:H5'	1.89	0.55
28:BE:10:GLY:C	39:BT:7:ILE:HD11	2.32	0.55
41:BV:29:PRO:HA	41:BV:61:VAL:CG2	2.36	0.55
1:CA:1236:A:H4'	1:CA:1304:G:H4'	1.89	0.55
4:CD:149:ALA:HB3	4:CD:152:SER:HB2	1.89	0.55
5:CE:24:ARG:O	5:CE:25:ARG:HG3	2.07	0.55
10:CJ:55:LYS:H	10:CJ:56:HIS:HD2	1.54	0.55
25:DA:639:U:H2'	25:DA:640:C:H6	1.70	0.55
29:DF:36:VAL:O	29:DF:40:GLN:HG3	2.07	0.55
32:DI:56:LYS:O	32:DI:60:GLU:N	2.36	0.55
1:AA:1059:C:O2	10:AJ:53:PRO:HG3	2.06	0.55
4:AD:121:VAL:HA	4:AD:126:ILE:HG13	1.89	0.55
10:AJ:8:LEU:N	10:AJ:70:ARG:O	2.23	0.55
10:AJ:45:ARG:HG2	10:AJ:47:PHE:CZ	2.41	0.55
13:AM:74:VAL:HG13	13:AM:78:ILE:HD11	1.88	0.55
13:AM:87:TYR:O	13:AM:91:ARG:HG2	2.07	0.55
25:BA:792:G:H5"	25:BA:793:A:H5'	1.87	0.55
25:BA:1918:A:O2'	25:BA:1920:C:N4	2.40	0.55
35:BP:50:ARG:HD3	54:B8:7:HIS:CD2	2.42	0.55
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.41	0.55
2:CB:47:THR:HA	2:CB:202:PRO:HG2	1.88	0.55
4:CD:10:ARG:HB3	4:CD:40:PRO:HG3	1.88	0.55
25:DA:2371:G:O2'	52:D6:46:HIS:ND1	2.33	0.55
26:DB:30:C:H2'	26:DB:31:C:H5'	1.89	0.55
29:DF:32:LEU:O	29:DF:36:VAL:HG23	2.07	0.55
1:AA:236:G:H2'	1:AA:237:C:C6	2.41	0.55
1:AA:363:A:OP1	12:AL:33:ARG:HG3	2.06	0.55
1:AA:452:A:OP1	16:AP:43:LYS:NZ	2.25	0.55
1:AA:818:G:HO2'	1:AA:820:U:H6	1.51	0.55
1:AA:972:C:H2'	10:AJ:55:LYS:HB2	1.88	0.55
1:AA:974:A:H8	1:AA:974:A:OP1	1.88	0.55
3:AC:44:GLU:O	3:AC:48:TYR:HB2	2.06	0.55
13:AM:69:GLU:C	13:AM:71:ARG:H	2.15	0.55
17:AQ:29:HIS:CD2	17:AQ:32:TYR:HB2	2.41	0.55
23:AV:49:G:H1	23:AV:65:C:H42	1.53	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:685:A:O2'	25:BA:773:U:O4	2.16	0.55
25:BA:733:G:N7	58:BA:5175:HOH:O	2.33	0.55
30:BG:60:LEU:O	30:BG:64:THR:HG23	2.07	0.55
34:BO:7:TYR:CE1	34:BO:20:MET:HB2	2.41	0.55
1:CA:1227:A:H3'	1:CA:1227:A:H8	1.71	0.55
5:CE:80:ILE:HD13	5:CE:138:ALA:HB1	1.89	0.55
25:DA:579:G:H2'	25:DA:580:C:C6	2.41	0.55
25:DA:1259:G:H2'	25:DA:1260:G:C8	2.40	0.55
25:DA:2239:G:H5'	27:DD:251:GLY:HA3	1.87	0.55
25:DA:2755:C:O3'	25:DA:2756:U:H6	1.90	0.55
31:DH:44:VAL:HB	31:DH:51:ARG:H	1.71	0.55
40:DU:19:LYS:O	40:DU:22:LYS:HG3	2.07	0.55
54:D8:32:LEU:O	54:D8:36:LYS:HE3	2.06	0.55
1:AA:41:G:H2'	1:AA:42:G:H8	1.72	0.55
1:AA:70:G:H2'	1:AA:71:C:C6	2.41	0.55
1:AA:519:C:H2'	1:AA:520:A:C8	2.42	0.55
15:AO:76:GLU:HA	15:AO:76:GLU:OE2	2.06	0.55
22:AY:22:ALA:HA	22:AY:37:ILE:HG13	1.89	0.55
25:BA:1174:A:H1'	25:BA:1175:U:H5"	1.89	0.55
33:BN:96:GLU:CD	33:BN:96:GLU:H	2.15	0.55
37:BR:33:ARG:NH2	51:B5:57:VAL:O	2.36	0.55
42:BW:19:LEU:HB3	51:B5:25:LEU:HD11	1.89	0.55
48:B2:13:ALA:HA	48:B2:16:LEU:CD1	2.37	0.55
1:CA:438:G:O2'	1:CA:494:U:O4	2.23	0.55
1:CA:974:A:H8	1:CA:974:A:OP1	1.90	0.55
4:CD:53:ASP:O	4:CD:57:ARG:NH1	2.40	0.55
25:DA:2028:U:H5	58:DA:4592:HOH:O	1.89	0.55
26:DB:4:C:H42	26:DB:117:G:H1	1.55	0.55
28:DE:178:GLU:OE2	28:DE:178:GLU:N	2.23	0.55
31:DH:144:VAL:O	31:DH:148:ILE:HG12	2.07	0.55
32:DI:102:SER:OG	32:DI:103:ARG:N	2.39	0.55
33:DN:67:LEU:HD13	33:DN:87:LEU:HD13	1.88	0.55
37:DR:78:LYS:HE2	37:DR:83:ILE:HD11	1.89	0.55
42:DW:40:ASN:C	42:DW:41:LYS:HG2	2.31	0.55
54:D8:37:SER:OG	54:D8:40:GLU:HG3	2.07	0.55
1:AA:130:A:O2'	1:AA:131:C:O5'	2.22	0.55
1:AA:865:A:C2	1:AA:918:A:H4'	2.42	0.55
7:AG:27:ILE:HD11	7:AG:40:ALA:HA	1.88	0.55
9:AI:49:PRO:HG3	9:AI:101:PHE:HD2	1.72	0.55
12:AL:32:PHE:CE1	12:AL:86:ARG:HG3	2.42	0.55
25:BA:1639:U:O2'	25:BA:1640:C:H5'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2296:U:OP2	38:BS:9:ARG:NH2	2.40	0.55
29:BF:32:LEU:HD11	29:BF:105:VAL:HG13	1.88	0.55
32:BI:120:ILE:HG21	32:BI:126:TYR:CE1	2.42	0.55
41:BV:19:LYS:HG2	41:BV:95:LEU:HD23	1.89	0.55
1:CA:11:G:C5	1:CA:12:U:C5	2.95	0.55
1:CA:216:G:H2'	1:CA:217:C:C6	2.41	0.55
1:CA:815:A:N7	1:CA:1509:C:O2'	2.39	0.55
1:CA:826:C:H5'	8:CH:12:ARG:HH11	1.72	0.55
14:CN:27:CYS:SG	14:CN:43:CYS:SG	3.05	0.55
18:CR:45:SER:OG	18:CR:47:THR:HG22	2.07	0.55
25:DA:442:G:H4'	29:DF:46:ARG:HG3	1.89	0.55
25:DA:2037:G:H2'	25:DA:2038:G:C8	2.42	0.55
25:DA:2658:C:H5"	31:DH:158:HIS:CD2	2.42	0.55
27:DD:95:LEU:HD11	27:DD:105:ILE:HG12	1.88	0.55
34:DO:120:GLU:HG2	34:DO:122:LEU:HG	1.89	0.55
45:DZ:126:VAL:HG11	45:DZ:161:VAL:HG22	1.88	0.55
49:D3:8:LEU:HD13	49:D3:31:LEU:HD23	1.87	0.55
1:AA:665:A:H1'	1:AA:733:A:O4'	2.07	0.54
1:AA:1493:A:OP2	12:AL:47:LYS:NZ	2.36	0.54
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.07	0.54
4:AD:36:ARG:HG2	4:AD:36:ARG:NH1	2.23	0.54
17:AQ:18:THR:HG23	17:AQ:69:LYS:HZ1	1.73	0.54
25:BA:207:A:H2'	25:BA:208:C:O4'	2.07	0.54
25:BA:1324:G:C4	25:BA:1328:G:O6	2.59	0.54
33:BN:24:GLY:HA2	33:BN:27:ALA:HB3	1.90	0.54
25:DA:1034:G:H5'	55:D9:18:ARG:HD2	1.88	0.54
43:DX:3:THR:OG1	43:DX:5:TYR:N	2.37	0.54
45:DZ:3:TYR:HB2	45:DZ:56:VAL:O	2.06	0.54
45:DZ:100:VAL:HG13	45:DZ:136:PHE:HA	1.89	0.54
1:AA:97:G:O2'	1:AA:98:G:H8	1.90	0.54
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.73	0.54
2:AB:52:GLU:OE1	2:AB:56:ARG:NH1	2.40	0.54
8:AH:20:TYR:HA	8:AH:65:TYR:CZ	2.42	0.54
16:AP:21:VAL:HG11	16:AP:59:TRP:NE1	2.22	0.54
25:BA:229:A:H8	25:BA:229:A:OP1	1.90	0.54
25:BA:910:A:C5	36:BQ:13:GLN:HG3	2.43	0.54
25:BA:1021:A:H2'	25:BA:1023:U:H5'	1.88	0.54
25:BA:2591:C:OP1	27:BD:239:ARG:HG2	2.07	0.54
25:BA:2751:G:H4'	31:BH:4:ILE:HD11	1.89	0.54
29:BF:175:THR:O	29:BF:176:LEU:HB2	2.07	0.54
29:BF:179:GLU:OE2	29:BF:179:GLU:N	2.32	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:736:C:OP1	18:CR:72:ARG:NH1	2.41	0.54
2:CB:149:LEU:HD23	2:CB:152:PHE:HB3	1.87	0.54
2:CB:166:ASP:HB3	2:CB:169:LYS:HB3	1.90	0.54
5:CE:148:VAL:HG21	8:CH:107:LEU:HD12	1.89	0.54
25:DA:829:A:H5"	25:DA:831:G:N7	2.22	0.54
25:DA:1688:U:O2	25:DA:1700:A:H5'	2.07	0.54
25:DA:2661:G:H2'	25:DA:2662:A:C8	2.43	0.54
28:DE:4:ILE:HD13	28:DE:28:ALA:HB1	1.89	0.54
28:DE:11:MET:HE1	28:DE:187:ALA:HB2	1.88	0.54
36:DQ:1:MET:O	36:DQ:1:MET:HG2	2.07	0.54
38:DS:53:SER:OG	38:DS:54:LEU:N	2.39	0.54
41:DV:56:SER:H	41:DV:100:ARG:HB2	1.71	0.54
41:DV:72:VAL:HG13	41:DV:85:LYS:HB3	1.89	0.54
49:D3:22:ALA:HB2	49:D3:49:LYS:HD3	1.90	0.54
51:D5:35:GLU:HG3	51:D5:51:TYR:CD2	2.41	0.54
1:AA:303:A:O2'	1:AA:555:C:O2'	2.24	0.54
4:AD:189:PRO:HB2	4:AD:194:LEU:HD11	1.90	0.54
25:BA:242:G:O4'	54:B8:3:LYS:HE3	2.07	0.54
25:BA:2096:U:H3	25:BA:2193:G:H1	1.55	0.54
34:BO:115:VAL:HG13	34:BO:121:VAL:HG21	1.89	0.54
44:BY:36:ALA:HB1	44:BY:67:LEU:O	2.07	0.54
1:CA:1189:C:OP1	10:CJ:51:ARG:NH2	2.40	0.54
1:CA:1220:G:H2'	1:CA:1221:G:O4'	2.08	0.54
9:CI:40:LEU:HD11	9:CI:70:LYS:HB3	1.88	0.54
17:CQ:13:ASP:O	17:CQ:15:MET:N	2.40	0.54
20:CT:36:LEU:HD12	20:CT:55:ILE:HG23	1.90	0.54
25:DA:2405:G:H4'	25:DA:2406:U:OP2	2.08	0.54
1:AA:509:A:C8	1:AA:509:A:H3'	2.43	0.54
2:AB:155:LEU:HD21	2:AB:159:PRO:HG3	1.88	0.54
5:AE:69:VAL:N	5:AE:70:PRO:HD3	2.21	0.54
7:AG:73:MET:HG3	7:AG:89:MET:O	2.08	0.54
11:AK:108:ILE:HG22	18:AR:87:ARG:HD2	1.89	0.54
13:AM:74:VAL:O	13:AM:78:ILE:HG12	2.07	0.54
15:AO:74:ASP:CG	15:AO:77:ARG:HD3	2.33	0.54
25:BA:534:U:H2'	25:BA:535:C:C6	2.43	0.54
25:BA:577:G:O2'	25:BA:1254:A:OP1	2.22	0.54
38:BS:96:GLY:N	38:BS:99:LYS:HB3	2.21	0.54
44:BY:8:LYS:O	44:BY:11:ASP:OD1	2.25	0.54
46:B0:24:LYS:O	46:B0:25:ARG:HD3	2.07	0.54
54:B8:54:GLU:O	54:B8:58:ILE:HD13	2.07	0.54
8:CH:49:GLU:OE2	8:CH:62:TYR:OH	2.24	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:97:VAL:HA	8:CH:100:ILE:HD11	1.89	0.54
13:CM:69:GLU:C	13:CM:71:ARG:H	2.16	0.54
25:DA:7:G:H2'	25:DA:8:A:H8	1.70	0.54
25:DA:22:C:H42	25:DA:518:G:H1	1.55	0.54
27:DD:172:TYR:CD1	27:DD:186:HIS:HA	2.42	0.54
34:DO:15:GLY:HA2	34:DO:47:ILE:HD11	1.90	0.54
1:AA:222:U:H2'	1:AA:223:U:C6	2.43	0.54
1:AA:255:G:H1'	17:AQ:16:GLN:OE1	2.08	0.54
1:AA:757:U:O2'	1:AA:879:C:O2	2.25	0.54
1:AA:1307:U:OP1	13:AM:101:GLN:NE2	2.40	0.54
14:AN:50:LYS:HE3	14:AN:52:GLN:NE2	2.22	0.54
25:BA:779:U:H5"	27:BD:49:ILE:HD11	1.90	0.54
27:BD:136:ILE:HG22	27:BD:137:PRO:HD2	1.90	0.54
35:BP:140:ALA:O	35:BP:142:GLY:N	2.40	0.54
41:BV:49:THR:O	41:BV:49:THR:HG22	2.07	0.54
43:BX:60:ARG:HH21	53:B7:47:ARG:HH21	1.53	0.54
1:CA:443:C:H2'	1:CA:444:C:H6	1.73	0.54
1:CA:1170:A:N1	1:CA:1171:G:H1'	2.23	0.54
13:CM:15:VAL:HG13	13:CM:44:ARG:HA	1.90	0.54
14:CN:48:ALA:HB2	14:CN:53:LEU:HD12	1.90	0.54
25:DA:455:C:N3	25:DA:472:A:H2'	2.21	0.54
25:DA:795:C:H2'	25:DA:796:C:H6	1.73	0.54
26:DB:55:U:C1'	30:DG:29:TRP:HE1	2.21	0.54
35:DP:52:GLU:O	35:DP:54:GLY:N	2.41	0.54
44:DY:13:VAL:HB	44:DY:72:VAL:HG22	1.88	0.54
1:AA:191:G:H1'	58:AT:304:HOH:O	2.07	0.54
1:AA:1316:G:H22	1:AA:1319:A:H5"	1.71	0.54
1:AA:1504:G:H3'	1:AA:1504:G:P	2.48	0.54
13:AM:49:THR:O	13:AM:49:THR:OG1	2.24	0.54
14:AN:6:LEU:HD21	14:AN:23:ARG:HH22	1.71	0.54
25:BA:645:C:O2	25:BA:645:C:H2'	2.07	0.54
25:BA:1996:C:OP1	34:BO:31:LYS:HE3	2.08	0.54
25:BA:2371:G:H1'	52:B6:39:TYR:CE1	2.42	0.54
41:BV:42:GLY:O	41:BV:43:GLU:HG2	2.07	0.54
1:CA:59:A:H3'	1:CA:331:G:H22	1.72	0.54
1:CA:376:G:H4'	16:CP:5:ARG:HH11	1.73	0.54
1:CA:978:A:O2'	1:CA:1322:C:N3	2.35	0.54
3:CC:29:TYR:H	3:CC:32:LEU:HG	1.72	0.54
25:DA:126:A:OP2	53:D7:19:ARG:HB2	2.07	0.54
25:DA:1359:A:H61	25:DA:1372:U:H3	1.56	0.54
45:DZ:24:LEU:HB2	45:DZ:41:LEU:HD22	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:D8:17:THR:HG1	54:D8:21:LYS:H	1.53	0.54
6:AF:8:ILE:HG22	6:AF:10:LEU:HD22	1.88	0.54
22:AY:62:HIS:N	25:BA:1946:U:OP1	2.40	0.54
25:BA:1327:C:P	58:BA:4574:HOH:O	2.65	0.54
25:BA:1968:G:OP1	58:BA:4142:HOH:O	2.18	0.54
25:BA:2186:G:H3'	25:BA:2187:G:H5"	1.88	0.54
43:BX:44:GLU:HG3	43:BX:51:VAL:HG23	1.90	0.54
1:CA:443:C:H2'	1:CA:444:C:C6	2.42	0.54
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.07	0.54
2:CB:50:GLU:O	2:CB:54:THR:OG1	2.24	0.54
6:CF:33:TYR:CG	6:CF:75:LEU:HD23	2.43	0.54
23:CV:15:G:H2'	23:CV:59:A:N1	2.22	0.54
25:DA:857:C:H4'	46:D0:23:VAL:HG21	1.90	0.54
25:DA:2689:U:H5	58:DA:3720:HOH:O	1.90	0.54
27:DD:127:VAL:HA	27:DD:193:VAL:CG2	2.38	0.54
30:DG:24:GLY:O	30:DG:26:GLN:NE2	2.36	0.54
33:DN:61:ARG:HH11	33:DN:61:ARG:HB2	1.73	0.54
1:AA:321:A:N7	1:AA:328:C:O2'	2.41	0.54
1:AA:929:G:N2	1:AA:1388:C:N3	2.46	0.54
1:AA:1053:G:H4'	1:AA:1054:C:H5'	1.89	0.54
1:AA:1457:G:H2'	1:AA:1458:G:C8	2.42	0.54
1:AA:1502:A:H2	1:AA:1505:G:N1	2.04	0.54
2:AB:23:ARG:HG3	2:AB:23:ARG:O	2.08	0.54
11:AK:23:ALA:HB2	11:AK:28:THR:HG23	1.90	0.54
14:AN:23:ARG:HG3	14:AN:24:CYS:H	1.72	0.54
22:AY:63:LEU:HD22	22:AY:72:ILE:HG23	1.90	0.54
25:BA:2208:A:H1'	25:BA:2219:G:C4	2.43	0.54
25:BA:2611:U:H2'	51:B5:2:ALA:O	2.08	0.54
25:BA:2698:U:H2'	25:BA:2699:C:C6	2.42	0.54
30:BG:3:LEU:HD13	50:B4:25:TYR:CZ	2.43	0.54
38:BS:39:ILE:HD12	38:BS:85:VAL:HG21	1.90	0.54
51:B5:49:CYS:SG	51:B5:51:TYR:HB2	2.48	0.54
1:CA:438:G:H4'	4:CD:123:HIS:CD2	2.43	0.54
1:CA:878:G:H1'	8:CH:3:THR:HG21	1.90	0.54
25:DA:576:U:H5	58:DA:3932:HOH:O	1.91	0.54
25:DA:1638:C:O2	25:DA:2698:U:O2'	2.26	0.54
25:DA:2329:G:H21	46:D0:41:ARG:HG3	1.73	0.54
28:DE:112:GLY:O	28:DE:159:HIS:HA	2.08	0.54
29:DF:130:ALA:HB2	29:DF:142:TRP:HD1	1.72	0.54
30:DG:124:SER:HB2	30:DG:131:TYR:CE1	2.43	0.54
32:DI:114:LEU:HD21	32:DI:128:LEU:HD13	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D4:14:ILE:HG23	50:D4:31:ILE:HD12	1.90	0.54
2:AB:12:GLU:O	2:AB:16:HIS:HB2	2.08	0.54
16:AP:55:ARG:O	16:AP:58:TYR:N	2.41	0.54
17:AQ:26:GLN:HG2	17:AQ:35:VAL:HG13	1.90	0.54
18:AR:66:LEU:O	18:AR:70:ILE:HG13	2.07	0.54
20:AT:15:ARG:O	20:AT:19:SER:OG	2.26	0.54
26:BB:37:C:C5	26:BB:38:C:C5	2.96	0.54
26:BB:48:A:H2'	26:BB:49:C:C6	2.43	0.54
28:BE:2:LYS:HA	28:BE:84:PHE:CE2	2.43	0.54
46:B0:63:VAL:HG23	46:B0:64:ASP:N	2.23	0.54
48:B2:53:LEU:O	48:B2:56:GLN:HB2	2.08	0.54
54:B8:22:VAL:HG12	54:B8:50:LEU:HD12	1.89	0.54
1:CA:988:G:H2'	1:CA:989:C:O4'	2.07	0.54
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.43	0.54
1:CA:1062:U:H2'	1:CA:1063:C:C5	2.43	0.54
1:CA:1261:A:N6	1:CA:1274:G:H1'	2.22	0.54
1:CA:1268:A:H2'	1:CA:1269:A:C8	2.43	0.54
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.88	0.54
4:CD:173:TRP:HZ3	4:CD:193:ASP:HB3	1.73	0.54
25:DA:531:C:OP2	58:DA:4423:HOH:O	2.18	0.54
25:DA:631:A:H1'	35:DP:66:GLY:HA2	1.89	0.54
25:DA:1786:A:H1'	25:DA:1938:A:N6	2.21	0.54
25:DA:1970:A:OP1	58:DA:4216:HOH:O	2.17	0.54
25:DA:2406:U:OP1	25:DA:2411:A:N6	2.41	0.54
25:DA:2444:G:OP2	29:DF:68:LYS:HE2	2.07	0.54
26:DB:24:G:H5'	26:DB:25:A:N7	2.23	0.54
29:DF:117:ARG:HD2	29:DF:190:GLU:O	2.08	0.54
32:DI:29:TYR:HD2	32:DI:30:LEU:HD23	1.72	0.54
1:AA:251:G:N7	58:AA:2225:HOH:O	2.34	0.54
1:AA:986:A:H1'	19:AS:54:GLY:O	2.07	0.54
1:AA:1293:G:HO2'	1:AA:1294:G:H8	1.54	0.54
5:AE:78:HIS:CD2	5:AE:142:LEU:HD23	2.42	0.54
8:AH:9:MET:HE1	8:AH:35:ILE:HD12	1.89	0.54
15:AO:82:ILE:HB	15:AO:87:ILE:HG22	1.90	0.54
25:BA:836:G:H2'	25:BA:837:C:C6	2.43	0.54
25:BA:1593:G:H2'	25:BA:1594:G:C8	2.43	0.54
26:BB:30:C:OP2	38:BS:32:LEU:HD11	2.08	0.54
31:BH:8:PRO:O	31:BH:69:ARG:NH1	2.40	0.54
38:BS:7:TYR:CE1	38:BS:91:PRO:HG3	2.43	0.54
45:BZ:40:ASP:HB3	45:BZ:43:GLU:HB2	1.90	0.54
1:CA:604:G:H2'	1:CA:605:U:O4'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.90	0.54
1:CA:1103:C:H2'	1:CA:1104:G:O4'	2.08	0.54
1:CA:1300:G:HO2'	1:CA:1301:U:P	2.29	0.54
3:CC:117:ALA:HB2	3:CC:200:ALA:HB2	1.89	0.54
13:CM:22:ILE:HB	13:CM:25:ILE:HD13	1.90	0.54
17:CQ:86:GLU:HG3	17:CQ:90:ILE:HG13	1.89	0.54
25:DA:852:G:N2	25:DA:926:A:H1'	2.23	0.54
25:DA:1022:G:H22	25:DA:1142(A):A:H2	1.56	0.54
31:DH:118:PRO:HD2	31:DH:121:ILE:HG13	1.90	0.54
42:DW:40:ASN:O	42:DW:41:LYS:HG2	2.08	0.54
48:D2:32:LEU:HB2	48:D2:53:LEU:HD13	1.90	0.54
1:AA:872:A:H4'	1:AA:873:A:OP1	2.07	0.53
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.08	0.53
3:AC:131:ARG:HH21	3:AC:166:GLU:HB3	1.72	0.53
11:AK:99:GLN:HG2	11:AK:105:VAL:HG21	1.91	0.53
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.08	0.53
25:BA:642:G:H21	25:BA:646:A:H2	1.55	0.53
25:BA:826:U:H4'	35:BP:55:ARG:HB2	1.90	0.53
25:BA:1165:U:H2'	25:BA:1166:C:C6	2.43	0.53
25:BA:2439:A:H5'	25:BA:2439:A:C8	2.42	0.53
26:BB:95:C:H2'	26:BB:96:U:C6	2.43	0.53
29:BF:102:PRO:O	29:BF:105:VAL:N	2.34	0.53
40:BU:59:ARG:O	40:BU:63:VAL:HG23	2.08	0.53
50:B4:40:HIS:O	50:B4:42:PHE:N	2.40	0.53
1:CA:1065:U:H4'	1:CA:1066:C:O5'	2.08	0.53
6:CF:67:MET:HG3	6:CF:68:PRO:HD2	1.90	0.53
25:DA:886:C:OP1	25:DA:886:C:H4'	2.08	0.53
25:DA:2833:G:O2'	25:DA:2834:G:OP1	2.23	0.53
26:DB:50:G:OP1	38:DS:63:THR:OG1	2.20	0.53
30:DG:44:GLY:HA2	30:DG:88:ILE:HG22	1.89	0.53
1:AA:826:C:H4'	8:AH:12:ARG:HD3	1.89	0.53
1:AA:1171:G:H2'	1:AA:1172:C:H6	1.73	0.53
1:AA:1456:G:O2'	1:AA:1457:G:OP1	2.24	0.53
2:AB:118:LEU:HD12	2:AB:142:LEU:HB2	1.89	0.53
3:AC:11:ARG:HB3	3:AC:15:THR:HB	1.90	0.53
5:AE:95:ALA:HB1	5:AE:96:PRO:HD2	1.90	0.53
6:AF:2:ARG:CZ	6:AF:69:GLU:HG2	2.38	0.53
22:AY:38:HIS:CE1	22:AY:84:ARG:HB2	2.42	0.53
25:BA:2016:U:H1'	51:B5:6:VAL:HG13	1.89	0.53
39:BT:54:ARG:HA	39:BT:59:THR:HG22	1.90	0.53
11:CK:59:TYR:CE2	11:CK:63:LEU:HD12	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:34:LEU:HD11	15:CO:38:ARG:HH11	1.72	0.53
15:CO:70:LEU:HD12	15:CO:70:LEU:O	2.08	0.53
20:CT:61:SER:OG	20:CT:65:LYS:HE3	2.08	0.53
25:DA:1470:G:H5"	25:DA:1471:A:OP1	2.09	0.53
1:AA:922:G:C6	1:AA:923:A:C6	2.96	0.53
2:AB:101:MET:HB2	2:AB:102:LEU:HD12	1.90	0.53
5:AE:57:LYS:HD3	5:AE:61:TYR:HE2	1.72	0.53
11:AK:79:SER:HA	11:AK:104:GLN:CB	2.32	0.53
20:AT:14:LYS:HG2	20:AT:18:GLN:HE21	1.74	0.53
25:BA:2223:G:H2'	25:BA:2224:G:H5'	1.91	0.53
25:BA:2530:A:N7	31:BH:172:LYS:NZ	2.54	0.53
25:BA:2565:A:H5"	25:BA:2566:A:OP2	2.09	0.53
25:BA:2850:A:OP2	25:BA:2866:U:C5	2.59	0.53
1:CA:171:A:H2'	1:CA:172:A:C8	2.42	0.53
1:CA:1157:A:O4'	1:CA:1181:G:N2	2.42	0.53
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.43	0.53
1:CA:1358:U:H3	1:CA:1363(A):A:H61	0.61	0.53
2:CB:92:TYR:CD2	2:CB:151:GLY:HA3	2.43	0.53
13:CM:50:GLU:HA	13:CM:53:VAL:HB	1.89	0.53
23:CV:18:G:O2'	23:CV:19:G:O5'	2.26	0.53
25:DA:300:A:N6	58:DA:3884:HOH:O	2.41	0.53
25:DA:363:G:H2'	25:DA:363(A):A:C8	2.41	0.53
25:DA:1651:G:OP1	37:DR:40:LYS:HE3	2.08	0.53
27:DD:68:LYS:C	27:DD:70:TRP:H	2.15	0.53
28:DE:72:VAL:HA	28:DE:73:GLU:HB3	1.90	0.53
36:DQ:20:ALA:HA	36:DQ:99:PRO:HD2	1.90	0.53
1:AA:646:U:O4	58:AA:2267:HOH:O	2.18	0.53
4:AD:170:VAL:HG22	4:AD:171:GLY:H	1.73	0.53
12:AL:31:PRO:HB2	12:AL:32:PHE:CD2	2.43	0.53
20:AT:12:ALA:O	20:AT:15:ARG:HB2	2.07	0.53
22:AY:116:GLU:O	22:AY:119:LEU:HB3	2.08	0.53
25:BA:1168:G:H1	25:BA:1181:C:H42	1.56	0.53
34:BO:7:TYR:CZ	34:BO:44:LYS:HG3	2.43	0.53
40:BU:28:ARG:HH11	40:BU:38:THR:HG1	1.55	0.53
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.43	0.53
1:CA:1517:G:H1'	25:DA:1919:A:O3'	2.09	0.53
9:CI:53:VAL:O	9:CI:55:ALA:N	2.42	0.53
13:CM:63:THR:HB	13:CM:64:TRP:CE3	2.43	0.53
23:CV:47:U:H3'	23:CV:48:C:H5'	1.90	0.53
25:DA:2300:G:H2'	25:DA:2301:C:C6	2.43	0.53
37:DR:33:ARG:NH2	51:D5:57:VAL:O	2.34	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DR:104:ARG:HG3	37:DR:107:ASP:OD2	2.09	0.53
38:DS:27:SER:HA	38:DS:88:ASP:HB3	1.90	0.53
45:DZ:74:VAL:HG22	45:DZ:86:VAL:HG13	1.88	0.53
1:AA:418:C:H1'	1:AA:540:G:O2'	2.08	0.53
1:AA:432:A:H3'	1:AA:433:C:C6	2.43	0.53
1:AA:544:G:H2'	1:AA:545:C:C6	2.44	0.53
1:AA:954:G:H21	1:AA:1227:A:N6	2.05	0.53
1:AA:977:A:H2'	1:AA:978:A:H5"	1.91	0.53
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.77	0.53
4:AD:173:TRP:HB2	4:AD:187:ARG:O	2.09	0.53
42:BW:68:ARG:HB3	42:BW:109:GLU:HG2	1.90	0.53
1:CA:187:C:H2'	1:CA:188:C:C6	2.43	0.53
1:CA:675:A:O2'	11:CK:114:VAL:O	2.26	0.53
1:CA:859:A:H2'	1:CA:860:A:O4'	2.09	0.53
1:CA:1169:A:H2'	1:CA:1170:A:H8	1.74	0.53
1:CA:1207:G:H2'	1:CA:1208:C:C6	2.43	0.53
1:CA:1239:A:C2'	1:CA:1298:C:H42	2.21	0.53
25:DA:907:U:O2'	36:DQ:101:ARG:NH2	2.42	0.53
25:DA:2680:C:H5'	28:DE:189:PRO:HA	1.90	0.53
25:DA:2881:C:H2'	25:DA:2882:A:O4'	2.08	0.53
1:AA:730:G:C5	1:AA:731:G:H1'	2.44	0.53
1:AA:939:G:H5"	7:AG:102:ARG:NH2	2.24	0.53
2:AB:74:LYS:C	2:AB:76:GLN:H	2.16	0.53
4:AD:79:PHE:CE1	4:AD:204:ILE:HD13	2.43	0.53
8:AH:121:ASP:HB2	8:AH:125:ARG:NH2	2.24	0.53
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.09	0.53
36:BQ:109:VAL:HG13	36:BQ:113:GLN:HB2	1.90	0.53
1:CA:436:C:O2'	1:CA:437:U:H6	1.91	0.53
1:CA:623:C:O5'	1:CA:623:C:H6	1.92	0.53
1:CA:881:G:P	12:CL:12:ARG:HH22	2.31	0.53
1:CA:1235:U:O2'	1:CA:1305:G:O5'	2.27	0.53
3:CC:43:LEU:HB3	3:CC:47:LEU:HD12	1.90	0.53
20:CT:73:HIS:HB3	20:CT:74:LYS:HG2	1.90	0.53
25:DA:2359:C:H2'	25:DA:2360:A:O4'	2.09	0.53
30:DG:44:GLY:CA	30:DG:88:ILE:HG22	2.38	0.53
32:DI:77:LEU:HD11	32:DI:101:LEU:HB2	1.91	0.53
45:DZ:128:VAL:HG23	45:DZ:161:VAL:H	1.73	0.53
1:AA:160:A:C2	1:AA:343:U:H4'	2.43	0.53
2:AB:109:SER:HA	2:AB:112:VAL:HG23	1.91	0.53
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	1.91	0.53
6:AF:30:LEU:HB3	6:AF:35:ALA:HB3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:38:ILE:O	8:AH:42:GLU:HG2	2.09	0.53
13:AM:50:GLU:HA	13:AM:53:VAL:HG23	1.90	0.53
25:BA:29:U:H2'	25:BA:30:G:C8	2.44	0.53
25:BA:330:A:HO2'	25:BA:331:A:H8	1.52	0.53
25:BA:652(D):C:H2'	25:BA:652(E):G:O4'	2.09	0.53
25:BA:1257:C:H4'	29:BF:83:PHE:CD2	2.44	0.53
25:BA:2011:U:OP1	42:BW:42:ARG:NH1	2.42	0.53
25:BA:2065:C:H2'	25:BA:2066:C:C6	2.44	0.53
27:BD:5:LYS:HA	27:BD:17:THR:HG22	1.90	0.53
40:BU:44:ASN:HD21	41:BV:75:PHE:HB3	1.73	0.53
43:BX:25:LYS:HE2	43:BX:82:GLN:NE2	2.23	0.53
43:BX:27:THR:CG2	43:BX:80:ILE:HG12	2.33	0.53
45:BZ:160:GLY:HA2	45:BZ:161:VAL:CG1	2.33	0.53
1:CA:922:G:N3	1:CA:1398:A:H2	2.07	0.53
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.73	0.53
1:CA:1250:A:H4'	9:CI:67:GLY:HA2	1.90	0.53
1:CA:1409:C:H42	1:CA:1491:G:H1	1.57	0.53
5:CE:29:GLY:HA2	5:CE:46:GLY:O	2.09	0.53
6:CF:61:LEU:HB3	6:CF:63:TYR:CE2	2.41	0.53
25:DA:1267:U:H2'	25:DA:1268:A:H8	1.74	0.53
28:DE:101:ARG:CZ	28:DE:171:GLU:HB2	2.39	0.53
31:DH:43:VAL:HG12	31:DH:44:VAL:H	1.74	0.53
32:DI:94:ALA:HA	32:DI:97:ILE:HB	1.90	0.53
38:DS:95:HIS:N	38:DS:99:LYS:HB3	2.23	0.53
44:DY:76:CYS:SG	44:DY:99:CYS:HB2	2.48	0.53
1:AA:177:C:OP1	20:AT:65:LYS:NZ	2.32	0.53
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.72	0.53
1:AA:1151:A:H5"	10:AJ:41:PRO:HA	1.90	0.53
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.44	0.53
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.73	0.53
8:AH:82:HIS:O	8:AH:137:VAL:HA	2.09	0.53
20:AT:72:LEU:HD23	20:AT:73:HIS:N	2.24	0.53
25:BA:1470:G:H5"	25:BA:1471:A:OP1	2.09	0.53
25:BA:2543:G:H1'	25:BA:2766:G:H5'	1.91	0.53
25:BA:2567:G:H2'	25:BA:2568:C:C6	2.44	0.53
36:BQ:137:TYR:HB3	45:BZ:76:LEU:HD21	1.91	0.53
43:BX:11:PRO:HB3	43:BX:92:LEU:HD11	1.89	0.53
1:CA:188:C:H1'	20:CT:104:LEU:CB	2.38	0.53
1:CA:946:A:H2'	1:CA:947:G:C8	2.44	0.53
4:CD:25:ARG:HG2	4:CD:30:LYS:O	2.08	0.53
25:DA:184:C:H2'	25:DA:185:U:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:263:C:H2'	25:DA:264:C:O4'	2.09	0.53
30:DG:107:LEU:HD23	30:DG:111:LEU:HD12	1.90	0.53
45:DZ:18:LEU:HD23	45:DZ:25:PRO:HG3	1.91	0.53
46:D0:53:MET:HE3	46:D0:57:PHE:CD1	2.43	0.53
1:AA:49:U:O2'	1:AA:50:A:H2'	2.08	0.53
1:AA:189(C):C:H2'	1:AA:189(D):C:O4'	2.09	0.53
1:AA:1164:G:C2'	1:AA:1165:C:H5'	2.38	0.53
5:AE:50:GLU:HB2	5:AE:53:LEU:HD22	1.91	0.53
25:BA:2321:G:H5"	25:BA:2322:A:OP2	2.08	0.53
26:BB:105:A:OP1	45:BZ:72:ARG:NH1	2.41	0.53
37:BR:67:LEU:HD13	37:BR:76:VAL:HG21	1.89	0.53
45:BZ:152:ALA:HA	45:BZ:155:LEU:HB2	1.91	0.53
1:CA:1053:G:N7	1:CA:1200:C:H5"	2.24	0.53
14:CN:25:VAL:HG22	14:CN:38:GLY:O	2.09	0.53
28:DE:107:THR:O	28:DE:190:GLY:HA2	2.08	0.53
32:DI:72:LEU:O	32:DI:74:ASN:N	2.38	0.53
39:DT:53:ARG:HG3	39:DT:53:ARG:O	2.09	0.53
45:DZ:151:HIS:C	45:DZ:153:SER:H	2.17	0.53
1:AA:237:C:H5"	17:AQ:25:ARG:CZ	2.38	0.53
3:AC:156:ARG:O	3:AC:158:GLY:N	2.42	0.53
7:AG:111:ARG:HB2	7:AG:119:ARG:HD2	1.91	0.53
25:BA:1430:C:H2'	25:BA:1431:U:H6	1.74	0.53
25:BA:1453:U:OP1	37:BR:77:ARG:HD3	2.09	0.53
25:BA:1720:U:OP2	58:BA:5303:HOH:O	2.19	0.53
25:BA:2272:U:H5"	25:BA:2273:A:OP1	2.08	0.53
25:BA:2273:A:O2'	25:BA:2274:A:H5'	2.09	0.53
30:BG:12:TYR:HA	30:BG:16:ARG:HG3	1.91	0.53
32:BI:110:ASP:H	32:BI:130:TYR:HH	1.57	0.53
35:BP:75:ILE:HD13	35:BP:77:ARG:NH1	2.24	0.53
1:CA:115:G:H1'	1:CA:116:A:N7	2.23	0.53
1:CA:192:U:H2'	1:CA:193:C:C6	2.44	0.53
1:CA:202:U:H3'	1:CA:203:U:C6	2.44	0.53
2:CB:42:ILE:HG22	2:CB:43:ASP:H	1.73	0.53
25:DA:323:G:O2'	25:DA:1205:U:N3	2.35	0.53
25:DA:2345:G:OP2	52:D6:38:LYS:HG3	2.09	0.53
25:DA:2527:C:C4	25:DA:2528:U:C5	2.97	0.53
27:DD:182:LEU:HD12	27:DD:272:ALA:HB3	1.90	0.53
31:DH:3:ARG:HG2	31:DH:6:ARG:CZ	2.38	0.53
36:DQ:111:GLU:O	36:DQ:115:MET:HG2	2.09	0.53
1:AA:129(A):G:H22	1:AA:189(D):C:N4	2.07	0.52
1:AA:457:C:H2'	1:AA:458:C:H6	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1089:G:H2'	1:AA:1090:U:H5'	1.91	0.52
5:AE:139:LEU:HA	5:AE:142:LEU:HD12	1.90	0.52
25:BA:1385:G:O2'	25:BA:1396:U:O2	2.25	0.52
25:BA:1865:G:N2	25:BA:1877:A:OP2	2.42	0.52
25:BA:1899:G:H2'	25:BA:1899:G:N3	2.24	0.52
25:BA:2690:C:H5"	25:BA:2872:G:H21	1.74	0.52
33:BN:112:LEU:HD12	33:BN:112:LEU:O	2.09	0.52
37:BR:72:ASP:O	37:BR:76:VAL:HG23	2.09	0.52
1:CA:928:G:H1	1:CA:1389:C:H42	1.57	0.52
1:CA:959:A:HO2'	1:CA:984:C:HO2'	1.55	0.52
2:CB:186:ALA:HB3	2:CB:197:VAL:HG11	1.89	0.52
25:DA:795:C:H2'	25:DA:796:C:C6	2.44	0.52
25:DA:994:C:O2	25:DA:994:C:H2'	2.09	0.52
25:DA:1430:C:H2'	25:DA:1431:U:H6	1.72	0.52
25:DA:2351:G:HO2'	25:DA:2352:A:H8	1.54	0.52
29:DF:129:PHE:CD2	29:DF:163:VAL:HG21	2.44	0.52
36:DQ:63:LYS:HE3	36:DQ:65:PHE:CE1	2.44	0.52
1:AA:221:C:H2'	1:AA:222:U:C6	2.44	0.52
1:AA:1179:A:H4'	9:AI:103:THR:HA	1.91	0.52
4:AD:79:PHE:HE1	4:AD:204:ILE:HD13	1.73	0.52
25:BA:1629:U:H2'	25:BA:1630:G:C8	2.44	0.52
25:BA:1935:G:N2	25:BA:1964:G:H5'	2.24	0.52
27:BD:147:LEU:HD13	27:BD:155:LEU:HD11	1.90	0.52
28:BE:116:VAL:HG22	28:BE:120:TRP:HD1	1.74	0.52
29:BF:123:LEU:HD21	29:BF:199:TRP:CZ3	2.44	0.52
42:BW:13:SER:HB3	42:BW:16:LYS:HD2	1.90	0.52
1:CA:296:U:O2'	1:CA:556:C:O2	2.25	0.52
1:CA:663:A:O3'	18:CR:64:ARG:NH2	2.42	0.52
1:CA:1241:G:H1	1:CA:1296:C:H42	1.55	0.52
2:CB:57:PHE:O	2:CB:61:LEU:N	2.42	0.52
25:DA:192:C:O2'	25:DA:802:A:N3	2.42	0.52
46:D0:47:PRO:HA	46:D0:51:VAL:HG12	1.91	0.52
1:AA:313:A:H2'	1:AA:314:C:C6	2.44	0.52
1:AA:373:A:O2'	1:AA:481:G:N2	2.42	0.52
4:AD:149:ALA:O	4:AD:152:SER:N	2.38	0.52
25:BA:64:A:O3'	43:BX:71:GLY:HA3	2.10	0.52
25:BA:1818:U:H2'	27:BD:157:ARG:HG3	1.90	0.52
25:BA:2483:C:O2	36:BQ:124:LYS:HE3	2.09	0.52
33:BN:47:ALA:HB2	33:BN:112:LEU:HD11	1.90	0.52
45:BZ:121:HIS:HB3	45:BZ:123:ASP:O	2.09	0.52
45:BZ:128:VAL:HG23	45:BZ:161:VAL:N	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:397:A:H3'	1:CA:397:A:N3	2.24	0.52
1:CA:512:U:H2'	1:CA:513:C:H6	1.74	0.52
1:CA:939:G:H5"	7:CG:102:ARG:HH12	1.73	0.52
1:CA:1052:U:H2'	1:CA:1055:A:OP1	2.09	0.52
1:CA:1057:G:H2'	1:CA:1058:G:O4'	2.09	0.52
1:CA:1135:U:H2'	1:CA:1137:C:O2	2.10	0.52
1:CA:1144:G:N2	1:CA:1146:A:H62	2.08	0.52
12:CL:53:ARG:NH1	12:CL:92:ASP:OD2	2.42	0.52
19:CS:49:ILE:HG13	19:CS:62:ILE:HD11	1.90	0.52
25:DA:41:C:H2'	25:DA:42:G:H8	1.75	0.52
25:DA:142:A:HO2'	25:DA:1407:C:HO2'	1.57	0.52
25:DA:636:G:C2	35:DP:115:LEU:HD11	2.44	0.52
25:DA:1477:A:H2'	25:DA:1478:G:O4'	2.09	0.52
25:DA:1506:C:H2'	25:DA:1507:A:H5'	1.90	0.52
25:DA:2273:A:H2'	25:DA:2274:A:C8	2.43	0.52
25:DA:2275:C:O2'	36:DQ:85:LYS:N	2.35	0.52
25:DA:2647:U:H2'	25:DA:2648:C:C6	2.44	0.52
25:DA:2869:G:H2'	25:DA:2870:C:O4'	2.09	0.52
49:D3:26:LEU:HD21	49:D3:46:ASN:HB2	1.91	0.52
1:AA:1362:C:H2'	1:AA:1363:C:H5"	1.90	0.52
25:BA:34:C:H4'	25:BA:35:G:OP2	2.10	0.52
25:BA:1692:U:O2'	25:BA:1693:U:H2'	2.10	0.52
30:BG:82:LEU:HD23	30:BG:86:MET:CB	2.39	0.52
34:BO:24:VAL:HA	34:BO:39:ILE:HG22	1.91	0.52
35:BP:55:ARG:HG2	35:BP:56:SER:N	2.24	0.52
1:CA:833:U:H2'	1:CA:834:C:H6	1.74	0.52
1:CA:964:A:N3	1:CA:969:A:O2'	2.40	0.52
2:CB:48:MET:HA	2:CB:51:LEU:HB2	1.91	0.52
5:CE:126:ARG:HH11	5:CE:126:ARG:HG2	1.75	0.52
6:CF:80:ARG:HG3	6:CF:80:ARG:HH21	1.73	0.52
10:CJ:8:LEU:HD11	10:CJ:20:ALA:HB2	1.91	0.52
13:CM:34:LEU:O	13:CM:38:GLY:N	2.42	0.52
20:CT:49:ALA:HB2	20:CT:92:LEU:HD22	1.91	0.52
25:DA:1384:A:O2'	25:DA:1404:C:O2	2.25	0.52
25:DA:1849:G:H2'	25:DA:1850:G:H8	1.74	0.52
25:DA:2019:A:H2'	25:DA:2020:A:O5'	2.09	0.52
26:DB:6:C:O2'	38:DS:29:PHE:HE1	1.93	0.52
29:DF:28:ILE:HA	29:DF:112:MET:HG2	1.91	0.52
53:D7:8:ASN:C	53:D7:8:ASN:OD1	2.53	0.52
1:AA:1300:G:O2'	1:AA:1301:U:P	2.67	0.52
17:AQ:11:VAL:HG23	17:AQ:20:THR:HB	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:12:ALA:O	20:AT:15:ARG:N	2.42	0.52
22:AY:106:ARG:HG2	22:AY:107:PRO:HA	1.91	0.52
25:BA:89:G:H3'	25:BA:90:U:H5"	1.90	0.52
25:BA:234:C:H2'	25:BA:235:U:O4'	2.10	0.52
25:BA:1359:A:C2	25:BA:1372:U:O4	2.62	0.52
25:BA:1607:C:N4	25:BA:1622:G:OP2	2.32	0.52
25:BA:1789:A:H5"	27:BD:220:HIS:O	2.10	0.52
25:BA:2233:U:H2'	25:BA:2234:G:C8	2.44	0.52
25:BA:2292:C:P	38:BS:17:ARG:HH22	2.32	0.52
25:BA:2405:G:H2'	25:BA:2411:A:H62	1.74	0.52
28:BE:101:ARG:CZ	28:BE:171:GLU:HB2	2.40	0.52
28:BE:170:LEU:HB3	28:BE:184:VAL:CG2	2.39	0.52
33:BN:38:HIS:CD2	33:BN:39:ARG:HG2	2.44	0.52
49:B3:54:VAL:HG12	49:B3:55:ARG:N	2.23	0.52
1:CA:131:C:H2'	1:CA:132:C:C6	2.45	0.52
1:CA:148:G:H2'	1:CA:149:A:C8	2.43	0.52
1:CA:433:C:H2'	1:CA:434:U:H6	1.75	0.52
1:CA:1098:C:H2'	1:CA:1099:G:O4'	2.09	0.52
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.45	0.52
1:CA:1502:A:H4'	1:CA:1503:A:OP2	2.09	0.52
25:DA:9:U:O2'	25:DA:10:G:OP1	2.24	0.52
25:DA:747:U:O2	25:DA:2014:A:H1'	2.09	0.52
25:DA:1652:A:C2'	25:DA:1653:G:H5'	2.39	0.52
25:DA:1819:A:H4'	25:DA:1820:U:O5'	2.08	0.52
26:DB:114:C:H4'	38:DS:46:VAL:HG13	1.91	0.52
32:DI:88:ILE:HD12	32:DI:121:LYS:C	2.34	0.52
38:DS:48:LEU:H	38:DS:48:LEU:HD12	1.74	0.52
1:AA:545:C:OP2	4:AD:62:GLN:NE2	2.42	0.52
1:AA:928:G:H1	1:AA:1389:C:N4	2.05	0.52
1:AA:949:A:H1'	1:AA:1364:U:N3	2.25	0.52
1:AA:979:C:H42	14:AN:18:VAL:HB	1.75	0.52
1:AA:1245:A:C6	1:AA:1293:G:C6	2.97	0.52
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.10	0.52
4:AD:33:MET:SD	4:AD:37:PRO:HA	2.50	0.52
13:AM:91:ARG:HB2	13:AM:98:VAL:HG23	1.91	0.52
16:AP:23:ASP:OD1	16:AP:25:ARG:HG2	2.09	0.52
25:BA:197:A:N6	25:BA:2430:A:H2'	2.25	0.52
25:BA:868:U:C4	25:BA:869:G:N7	2.78	0.52
25:BA:1878:G:H2'	25:BA:1879:C:H6	1.74	0.52
25:BA:2845:G:H5"	39:BT:54:ARG:O	2.10	0.52
29:BF:28:ILE:HD13	29:BF:119:ARG:HH21	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BW:79:GLY:CA	42:BW:100:THR:HG22	2.39	0.52
52:B6:47:THR:HB	52:B6:49:HIS:CE1	2.45	0.52
1:CA:243:A:H4'	1:CA:244:U:C5'	2.39	0.52
1:CA:664:G:P	18:CR:64:ARG:HH21	2.32	0.52
1:CA:737:A:H2'	1:CA:738:C:H6	1.74	0.52
5:CE:100:VAL:HA	5:CE:118:ILE:HG22	1.92	0.52
23:CV:36:U:H2'	23:CV:37:A:O4'	2.10	0.52
25:DA:244:A:C2	25:DA:255:A:C4	2.97	0.52
25:DA:632:A:H2'	25:DA:633:A:C8	2.45	0.52
25:DA:2262:U:O2'	25:DA:2263:C:H5'	2.09	0.52
25:DA:2302:G:H2'	25:DA:2303:G:H8	1.75	0.52
28:DE:175:VAL:HG23	28:DE:177:PRO:HD3	1.92	0.52
31:DH:149:ARG:HA	31:DH:162:ILE:HG21	1.92	0.52
36:DQ:42:ILE:HD13	36:DQ:97:VAL:CG2	2.39	0.52
46:D0:29:GLN:O	46:D0:67:VAL:HG23	2.10	0.52
1:AA:587:G:O2'	1:AA:588:G:OP2	2.24	0.52
1:AA:617:G:C2	1:AA:618:C:C5	2.98	0.52
1:AA:991:U:O4	1:AA:1212:U:O2'	2.28	0.52
1:AA:1220:G:O3'	19:AS:36:ARG:HD3	2.10	0.52
1:AA:1226:C:H4'	19:AS:80:TYR:OH	2.09	0.52
3:AC:134:ILE:HD11	3:AC:153:VAL:HG23	1.91	0.52
25:BA:615:G:OP2	29:BF:43:LYS:NZ	2.36	0.52
25:BA:1170:G:N2	25:BA:1180:C:C2	2.77	0.52
25:BA:1249:U:P	58:BA:5376:HOH:O	2.68	0.52
25:BA:1497:U:H5"	25:BA:1498:C:H5	1.74	0.52
25:BA:1693:U:O2'	25:BA:1695:G:O6	2.21	0.52
25:BA:1697:G:OP2	25:BA:1698:A:O2'	2.24	0.52
25:BA:2320:A:N3	25:BA:2320:A:H2'	2.24	0.52
34:BO:47:ILE:HB	34:BO:48:PRO:HD2	1.91	0.52
1:CA:401:C:H2'	1:CA:402:G:C8	2.44	0.52
1:CA:538:G:OP2	12:CL:115:LYS:HB2	2.09	0.52
1:CA:737:A:H2'	1:CA:738:C:C6	2.44	0.52
1:CA:874:G:H2'	1:CA:875:C:C6	2.44	0.52
1:CA:973:G:H3'	1:CA:974:A:H5"	1.90	0.52
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.45	0.52
1:CA:1170:A:C6	1:CA:1171:G:H1'	2.45	0.52
4:CD:17:VAL:HG22	4:CD:18:LYS:H	1.75	0.52
4:CD:64:LEU:HD22	4:CD:198:VAL:HG11	1.92	0.52
25:DA:195:A:H61	25:DA:198:C:H3'	1.75	0.52
25:DA:300:A:P	44:DY:86:ARG:NH2	2.80	0.52
25:DA:608:A:H2'	25:DA:609:A:H8	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1537:G:H2'	25:DA:1538:G:H8	1.74	0.52
25:DA:1607:C:N4	25:DA:1622:G:OP2	2.43	0.52
25:DA:2206:G:C3'	25:DA:2207:G:C8	2.91	0.52
25:DA:2576:G:H1'	58:DA:3853:HOH:O	2.10	0.52
30:DG:7:LEU:HD22	30:DG:100:TRP:CE3	2.44	0.52
30:DG:16:ARG:NE	30:DG:31:VAL:HG21	2.25	0.52
33:DN:24:GLY:HA2	33:DN:27:ALA:CB	2.37	0.52
1:AA:320:C:H42	1:AA:333:G:H1	1.56	0.52
1:AA:406:G:H21	4:AD:119:GLN:HE22	1.57	0.52
1:AA:460:G:C6	1:AA:470:C:H5"	2.44	0.52
1:AA:598:U:H2'	1:AA:599:C:C6	2.44	0.52
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.92	0.52
1:AA:1151:A:C5'	10:AJ:41:PRO:HA	2.40	0.52
7:AG:57:GLU:O	7:AG:59:LEU:N	2.43	0.52
18:AR:74:ARG:HG3	18:AR:79:LEU:HB2	1.91	0.52
25:BA:1041:C:N4	25:BA:1114:G:H1	2.05	0.52
25:BA:1903:G:OP1	27:BD:241:PRO:HB2	2.10	0.52
26:BB:78:A:C2	26:BB:100:A:C4	2.98	0.52
31:BH:149:ARG:HG3	31:BH:149:ARG:NH1	2.24	0.52
33:BN:42:TRP:HA	33:BN:48:MET:SD	2.50	0.52
34:BO:73:ASP:OD2	34:BO:75:SER:HB3	2.10	0.52
1:CA:500:G:N2	1:CA:546:G:H1'	2.25	0.52
1:CA:872:A:C4	1:CA:874:G:N7	2.78	0.52
4:CD:189:PRO:CB	4:CD:194:LEU:HD21	2.38	0.52
15:CO:67:LEU:O	15:CO:71:GLN:HB2	2.10	0.52
25:DA:698:C:O2'	25:DA:734:A:N6	2.43	0.52
25:DA:1198:U:H2'	25:DA:1199:U:H6	1.75	0.52
25:DA:1472:A:H61	25:DA:1519:G:H1'	1.74	0.52
25:DA:1653:G:C6	37:DR:9:LYS:HB2	2.45	0.52
30:DG:3:LEU:HD13	50:D4:25:TYR:CZ	2.45	0.52
36:DQ:21:THR:HG21	36:DQ:101:ARG:HH11	1.74	0.52
37:DR:52:ILE:HB	37:DR:94:TYR:HD1	1.73	0.52
39:DT:127:ALA:HA	39:DT:129:ARG:N	2.25	0.52
1:AA:402:G:OP1	4:AD:74:GLN:HG3	2.09	0.52
1:AA:1278:U:H6	1:AA:1278:U:H5"	1.75	0.52
7:AG:153:HIS:CE1	11:AK:58:PRO:HD2	2.45	0.52
16:AP:1:MET:HE3	16:AP:3:LYS:HE3	1.92	0.52
25:BA:848:G:N9	25:BA:933:A:H8	2.08	0.52
25:BA:1300:U:H4'	25:BA:1301:A:C5'	2.36	0.52
25:BA:2712:U:OP1	25:BA:2714:G:H4'	2.10	0.52
25:BA:2712(A):A:H5"	25:BA:2713:A:OP2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:751:U:H1'	15:CO:24:SER:H	1.75	0.52
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.45	0.52
1:CA:1281:U:H3'	1:CA:1281:U:C6	2.45	0.52
1:CA:1416:G:H1	1:CA:1484:C:H42	1.58	0.52
2:CB:171:ALA:HA	2:CB:174:VAL:HG23	1.92	0.52
5:CE:33:VAL:HG21	5:CE:109:ILE:HA	1.92	0.52
8:CH:20:TYR:HD1	8:CH:65:TYR:CD2	2.27	0.52
8:CH:77:GLU:HG3	8:CH:78:GLN:N	2.25	0.52
25:DA:479:A:H1'	25:DA:480:A:H5"	1.92	0.52
25:DA:1579:A:H2'	25:DA:1580:A:C8	2.44	0.52
29:DF:7:TYR:OH	29:DF:119:ARG:HD3	2.09	0.52
36:DQ:63:LYS:O	36:DQ:107:ALA:N	2.43	0.52
45:DZ:155:LEU:HB3	45:DZ:157:LEU:HD12	1.91	0.52
46:D0:26:TYR:O	46:D0:29:GLN:HB2	2.09	0.52
51:D5:41:PRO:O	51:D5:44:THR:OG1	2.27	0.52
1:AA:501:C:H2'	1:AA:502:G:H8	1.75	0.52
17:AQ:82:MET:O	17:AQ:86:GLU:N	2.32	0.52
25:BA:141:A:C8	25:BA:1408:C:O2'	2.54	0.52
25:BA:286:C:H2'	25:BA:287:C:H6	1.75	0.52
25:BA:673:C:H5"	29:BF:81:PRO:HD2	1.91	0.52
25:BA:1761:C:H3'	25:BA:1762:A:H5"	1.92	0.52
25:BA:2052:G:OP2	58:BA:5357:HOH:O	2.18	0.52
26:BB:86:G:N2	26:BB:91:C:N3	2.53	0.52
27:BD:134:ARG:HD3	27:BD:135:PHE:CZ	2.45	0.52
28:BE:29:GLY:H	28:BE:93:VAL:HG12	1.75	0.52
29:BF:22:ALA:HB1	29:BF:24:LEU:HB2	1.91	0.52
33:BN:39:ARG:NH2	33:BN:41:ASP:OD2	2.42	0.52
49:B3:23:LEU:HD13	49:B3:50:VAL:HG11	1.91	0.52
1:CA:545:C:O2'	1:CA:549:C:OP1	2.28	0.52
1:CA:1381:U:O2	1:CA:1381:U:H2'	2.09	0.52
3:CC:132:ARG:O	3:CC:136:GLN:HB2	2.10	0.52
10:CJ:11:PHE:HE2	10:CJ:67:THR:HG22	1.75	0.52
25:DA:71:A:C2	43:DX:31:HIS:HE1	2.28	0.52
25:DA:2280:G:O2'	25:DA:2388:A:N1	2.42	0.52
29:DF:51:THR:HG23	29:DF:92:PRO:HG2	1.92	0.52
35:DP:29:LYS:HG2	35:DP:30:THR:N	2.24	0.52
38:DS:95:HIS:C	38:DS:99:LYS:HB3	2.35	0.52
43:DX:35:THR:HG23	43:DX:38:GLU:H	1.74	0.52
44:DY:20:TYR:CD2	44:DY:42:VAL:HG13	2.45	0.52
1:AA:393:A:OP2	16:AP:12:LYS:HD2	2.10	0.51
1:AA:763:G:H2'	1:AA:764:C:H6	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:97:TRP:HH2	2:AB:176:GLU:CG	2.23	0.51
4:AD:41:GLY:C	4:AD:43:HIS:H	2.18	0.51
22:AY:21:ARG:HD3	22:AY:31:ASN:O	2.11	0.51
25:BA:53:A:H61	25:BA:117:G:H1'	1.75	0.51
25:BA:414:C:H2'	25:BA:415:A:C8	2.44	0.51
25:BA:888:C:H4'	25:BA:889:C:OP1	2.08	0.51
25:BA:1289:C:H2'	25:BA:1290:C:H6	1.75	0.51
25:BA:1341:U:O2	43:BX:80:ILE:HD12	2.10	0.51
25:BA:1379:A:H4'	25:BA:1380:G:OP2	2.10	0.51
25:BA:1420:U:O2'	25:BA:1421:G:OP1	2.22	0.51
25:BA:1491:G:C2'	25:BA:1492:G:H5'	2.40	0.51
25:BA:2335:A:C8	25:BA:2337:G:C5	2.99	0.51
25:BA:2869:G:H2'	25:BA:2870:C:O4'	2.09	0.51
30:BG:28:VAL:O	30:BG:31:VAL:HG13	2.10	0.51
31:BH:4:ILE:O	31:BH:69:ARG:HG2	2.09	0.51
42:BW:40:ASN:O	42:BW:41:LYS:HG3	2.09	0.51
50:B4:42:PHE:HB3	50:B4:43:TYR:CD1	2.44	0.51
1:CA:793:U:O2	1:CA:1516:G:H4'	2.10	0.51
9:CI:28:VAL:HA	9:CI:63:ILE:O	2.10	0.51
19:CS:67:VAL:HG23	19:CS:68:GLY:H	1.75	0.51
25:DA:363(E):U:O2'	25:DA:363(F):A:OP1	2.24	0.51
25:DA:827:U:H4'	25:DA:828:U:C5	2.45	0.51
25:DA:864:G:C6	25:DA:865:C:N4	2.78	0.51
25:DA:944:G:H5"	25:DA:945:A:O5'	2.10	0.51
25:DA:972:G:OP2	25:DA:973:A:O2'	2.20	0.51
25:DA:2316:C:O2'	30:DG:128:ARG:NH1	2.42	0.51
25:DA:2464:C:O2'	25:DA:2465:C:H5"	2.11	0.51
36:DQ:57:HIS:HD2	36:DQ:117:ALA:HB2	1.72	0.51
37:DR:103:ARG:HD3	37:DR:108:GLY:O	2.10	0.51
1:AA:197:A:N6	1:AA:221:C:H5'	2.25	0.51
1:AA:410:G:H5"	1:AA:411:A:OP1	2.10	0.51
1:AA:666:G:H5'	1:AA:726:C:H1'	1.92	0.51
6:AF:1:MET:HA	6:AF:67:MET:O	2.10	0.51
25:BA:250:G:OP2	54:B8:13:ARG:NH2	2.42	0.51
25:BA:576:U:H2'	25:BA:577:G:C8	2.45	0.51
25:BA:1405:U:H2'	25:BA:1406:U:C6	2.45	0.51
25:BA:2065:C:H2'	25:BA:2066:C:H6	1.75	0.51
25:BA:2479:G:OP1	25:BA:2537:U:H1'	2.10	0.51
1:CA:189(D):C:N4	1:CA:189(E):U:C2	2.78	0.51
1:CA:1119:C:OP1	9:CI:83:ARG:NH1	2.38	0.51
1:CA:1142:G:H3'	1:CA:1143:G:C8	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:15:GLU:OE2	4:CD:66:ARG:NH1	2.43	0.51
14:CN:24:CYS:HB3	14:CN:28:GLY:HA2	1.91	0.51
15:CO:78:TYR:O	15:CO:82:ILE:HG12	2.10	0.51
25:DA:610:G:H2'	25:DA:611:C:C6	2.45	0.51
25:DA:1371:G:H2'	25:DA:1372:U:H5	1.74	0.51
25:DA:1434:A:H61	25:DA:1558:A:H62	1.58	0.51
25:DA:2238:G:H2'	25:DA:2238:G:N3	2.26	0.51
30:DG:16:ARG:O	30:DG:20:ILE:HG13	2.10	0.51
1:AA:198:G:H2'	1:AA:199:G:C8	2.45	0.51
1:AA:250:A:H4'	1:AA:251:G:O5'	2.10	0.51
1:AA:559:A:OP2	5:AE:126:ARG:NH2	2.44	0.51
1:AA:820:U:H4'	1:AA:821:G:OP2	2.10	0.51
25:BA:71:A:H5'	25:BA:71:A:C8	2.46	0.51
25:BA:593:G:C4'	54:B8:4:MET:HE2	2.40	0.51
25:BA:733:G:OP2	58:BA:5174:HOH:O	2.18	0.51
26:BB:19:G:H5'	26:BB:20:C:OP2	2.10	0.51
29:BF:96:ASP:C	29:BF:96:ASP:OD1	2.52	0.51
1:CA:164:U:H2'	1:CA:165:C:C6	2.45	0.51
1:CA:724:G:C2	1:CA:725:G:C8	2.99	0.51
2:CB:100:GLY:O	2:CB:108:ILE:HG13	2.09	0.51
13:CM:90:LEU:C	13:CM:91:ARG:HG2	2.36	0.51
25:DA:84:A:H5"	44:DY:8:LYS:HG2	1.92	0.51
25:DA:586:A:N1	25:DA:809:G:O2'	2.31	0.51
25:DA:1267:U:H2'	25:DA:1268:A:C8	2.46	0.51
25:DA:1480:G:C6	25:DA:1481:U:N3	2.78	0.51
25:DA:2022:U:O2'	25:DA:2617:C:H5'	2.10	0.51
33:DN:19:GLU:HG3	33:DN:20:GLY:H	1.75	0.51
35:DP:38:GLN:C	35:DP:40:SER:H	2.18	0.51
38:DS:4:LEU:HD11	38:DS:12:PHE:HE1	1.75	0.51
42:DW:54:ALA:HB1	42:DW:107:LEU:HD22	1.92	0.51
1:AA:227:G:O2'	16:AP:62:VAL:HG21	2.11	0.51
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.46	0.51
12:AL:71:PRO:HG2	12:AL:102:ARG:HG3	1.91	0.51
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.92	0.51
25:BA:104:U:H5"	25:BA:105:C:OP2	2.11	0.51
25:BA:652(R):C:H1'	25:BA:652(S):C:C6	2.45	0.51
25:BA:2291:U:O2'	25:BA:2374:C:O2	2.28	0.51
25:BA:2722:G:H2'	25:BA:2723:C:C6	2.45	0.51
32:BI:129:THR:HA	32:BI:138:ILE:O	2.10	0.51
42:BW:29:LEU:HD12	42:BW:29:LEU:O	2.11	0.51
1:CA:97:G:O2'	1:CA:98:G:H5"	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:589:C:H2'	1:CA:590:C:H6	1.76	0.51
1:CA:1151:A:H5'	10:CJ:40:LEU:O	2.11	0.51
3:CC:20:SER:OG	3:CC:40:ARG:NH2	2.37	0.51
9:CI:114:TYR:HE1	10:CJ:60:ARG:H	1.55	0.51
23:CV:16:C:H5'	23:CV:59:A:N1	2.25	0.51
25:DA:2505:G:O6	25:DA:2576:G:H2'	2.10	0.51
26:DB:55:U:H1'	30:DG:29:TRP:HE1	1.75	0.51
28:DE:108:SER:HB3	28:DE:165:VAL:HG21	1.91	0.51
33:DN:38:HIS:ND1	33:DN:39:ARG:HG3	2.25	0.51
36:DQ:48:GLU:O	36:DQ:52:VAL:HG23	2.11	0.51
1:AA:129(A):G:H5'	1:AA:189(H):G:H5'	1.91	0.51
1:AA:985:C:C2	1:AA:1221:G:N2	2.78	0.51
1:AA:1138:G:C6	1:AA:1140:C:H1'	2.46	0.51
2:AB:106:LYS:O	2:AB:110:GLN:NE2	2.44	0.51
20:AT:77:ALA:O	20:AT:81:LYS:HG3	2.11	0.51
25:BA:1210:A:H5'	25:BA:1210:A:C8	2.39	0.51
25:BA:1945:G:H2'	25:BA:1946:U:C6	2.46	0.51
30:BG:41:GLN:NE2	30:BG:154:GLY:O	2.43	0.51
31:BH:94:TYR:HE1	31:BH:108:GLY:N	2.07	0.51
36:BQ:12:GLN:HG2	36:BQ:73:PRO:HD2	1.91	0.51
40:BU:65:ILE:HD11	40:BU:95:LEU:HB3	1.91	0.51
45:BZ:44:PHE:CD1	45:BZ:44:PHE:C	2.89	0.51
2:CB:102:LEU:HB3	2:CB:180:LEU:CD1	2.40	0.51
4:CD:100:ARG:NH1	4:CD:137:SER:HA	2.25	0.51
15:CO:8:LYS:O	15:CO:12:ILE:HG13	2.10	0.51
23:CV:47:U:H3'	23:CV:48:C:C5'	2.40	0.51
25:DA:57:C:H2'	25:DA:58:G:O4'	2.10	0.51
25:DA:272(G):C:N4	25:DA:363(C):G:H1	2.08	0.51
25:DA:1257:C:H4'	29:DF:83:PHE:CE2	2.46	0.51
25:DA:1514:U:H2'	25:DA:1515:G:C8	2.45	0.51
25:DA:1529:G:O6	25:DA:1541:G:N2	2.42	0.51
25:DA:1754:C:OP1	39:DT:96:ARG:NH1	2.41	0.51
25:DA:1945:G:H2'	25:DA:1946:U:H6	1.75	0.51
26:DB:94:C:H2'	26:DB:95:C:H6	1.75	0.51
30:DG:144:ILE:HG23	30:DG:148:MET:HE1	1.92	0.51
42:DW:72:LYS:N	42:DW:106:ILE:O	2.35	0.51
47:D1:67:ILE:N	47:D1:68:PRO:HD2	2.25	0.51
1:AA:926:G:C6	1:AA:1505:G:C6	2.98	0.51
6:AF:91:VAL:HG22	18:AR:72:ARG:HH21	1.74	0.51
11:AK:18:ARG:HB2	11:AK:33:THR:OG1	2.10	0.51
26:BB:8:U:H5'	26:BB:9:G:OP2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:11:ASN:O	32:BI:12:LEU:HD23	2.10	0.51
53:B7:8:ASN:C	53:B7:8:ASN:OD1	2.53	0.51
1:CA:693:G:H2'	1:CA:694:A:C8	2.46	0.51
1:CA:889:A:H4'	1:CA:890:G:OP1	2.10	0.51
1:CA:1126:U:H6	1:CA:1126:U:P	2.34	0.51
1:CA:1206:G:C6	1:CA:1207:G:C5	2.98	0.51
9:CI:105:ASP:HB2	9:CI:107:ARG:HD3	1.93	0.51
18:CR:53:ARG:HA	18:CR:56:THR:OG1	2.10	0.51
25:DA:2820:A:C5	37:DR:4:LEU:HD11	2.46	0.51
30:DG:101:ILE:HG21	50:D4:25:TYR:HB2	1.91	0.51
38:DS:26:LEU:HD22	38:DS:87:PHE:CD1	2.45	0.51
41:DV:57:VAL:HG12	41:DV:99:ILE:HG23	1.93	0.51
48:D2:50:ILE:C	48:D2:52:ASP:H	2.19	0.51
49:D3:44:ARG:O	49:D3:48:GLU:HG2	2.10	0.51
1:AA:827:U:H5'	1:AA:828:A:OP2	2.10	0.51
5:AE:15:ARG:NH2	22:AY:129:LYS:HG3	2.25	0.51
7:AG:146:GLU:O	7:AG:148:ASN:N	2.44	0.51
11:AK:70:LYS:NZ	11:AK:70:LYS:HB3	2.26	0.51
32:BI:59:ALA:O	32:BI:62:LYS:N	2.44	0.51
34:BO:116:SER:OG	34:BO:117:LEU:N	2.44	0.51
35:BP:38:GLN:O	35:BP:39:LYS:HB3	2.09	0.51
40:BU:58:ARG:HA	40:BU:61:TRP:CE3	2.46	0.51
45:BZ:80:ARG:HB3	45:BZ:82:ARG:HG3	1.92	0.51
47:B1:21:ARG:HG2	47:B1:21:ARG:NH1	2.26	0.51
52:B6:35:GLU:O	52:B6:36:LEU:HG	2.10	0.51
8:CH:4:ASP:OD1	8:CH:85:ARG:HD2	2.10	0.51
25:DA:267:C:H42	25:DA:425:G:H1	1.58	0.51
25:DA:307:G:N2	25:DA:310:A:O5'	2.43	0.51
25:DA:2777:G:C5'	25:DA:2778:A:H5'	2.37	0.51
30:DG:167:GLU:HA	30:DG:170:ARG:HB2	1.92	0.51
33:DN:97:ARG:O	33:DN:100:GLU:N	2.43	0.51
36:DQ:43:THR:N	36:DQ:46:GLN:OE1	2.31	0.51
39:DT:127:ALA:HA	39:DT:129:ARG:H	1.75	0.51
1:AA:153:C:H42	1:AA:169:C:H42	1.57	0.51
22:AY:38:HIS:O	22:AY:73:LYS:HA	2.10	0.51
25:BA:1510:G:H2'	25:BA:1511:C:C6	2.45	0.51
25:BA:2040:C:H2'	25:BA:2041:U:O4'	2.11	0.51
28:BE:16:ARG:O	28:BE:16:ARG:HG3	2.11	0.51
29:BF:117:ARG:HH21	29:BF:187:VAL:HA	1.75	0.51
48:B2:16:LEU:HB3	48:B2:20:GLU:HB2	1.92	0.51
1:CA:939:G:H5"	7:CG:102:ARG:HH22	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:963:G:H4'	58:CA:2207:HOH:O	2.11	0.51
1:CA:1222:G:C6	1:CA:1223:C:C4	2.99	0.51
1:CA:1365:G:H2'	1:CA:1366:C:O4'	2.11	0.51
1:CA:1370:G:C8	9:CI:109:VAL:HG11	2.46	0.51
2:CB:129:GLU:C	2:CB:130:ARG:HD2	2.36	0.51
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.75	0.51
25:DA:954:G:O2'	25:DA:2274:A:N1	2.41	0.51
25:DA:1558:A:C4'	25:DA:1559:G:O5'	2.56	0.51
28:DE:9:VAL:HG13	28:DE:25:VAL:O	2.10	0.51
29:DF:70:THR:C	29:DF:72:ARG:H	2.18	0.51
30:DG:64:THR:HG22	30:DG:94:LEU:HD11	1.91	0.51
30:DG:125:PHE:HB3	30:DG:166:ASP:OD2	2.11	0.51
33:DN:47:ALA:HB2	33:DN:112:LEU:HD11	1.92	0.51
38:DS:41:ASP:OD2	38:DS:44:LYS:HD3	2.11	0.51
49:D3:6:VAL:HG12	49:D3:56:VAL:HG22	1.93	0.51
1:AA:720:C:O5'	1:AA:720:C:H6	1.93	0.51
1:AA:972:C:C2'	10:AJ:55:LYS:HB2	2.41	0.51
1:AA:1258:G:H1	1:AA:1277:C:H42	1.59	0.51
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.92	0.51
3:AC:43:LEU:HD13	3:AC:47:LEU:HD12	1.91	0.51
8:AH:87:SER:HA	8:AH:93:VAL:CG2	2.40	0.51
10:AJ:64:GLU:HB3	14:AN:59:ALA:HB2	1.93	0.51
22:AY:20:ILE:O	22:AY:35:THR:HA	2.11	0.51
22:AY:21:ARG:HA	22:AY:35:THR:N	2.25	0.51
22:AY:61:HIS:HB3	22:AY:64:ILE:CG2	2.41	0.51
25:BA:528:A:C2	25:BA:2042:A:H2'	2.45	0.51
29:BF:7:TYR:CD2	29:BF:24:LEU:HB3	2.46	0.51
30:BG:131:TYR:O	30:BG:159:VAL:HG12	2.10	0.51
31:BH:86:GLU:HB2	31:BH:165:ALA:HB2	1.92	0.51
45:BZ:111:VAL:C	45:BZ:113:ALA:N	2.68	0.51
1:CA:232:G:H1'	1:CA:262:A:N1	2.25	0.51
1:CA:1225:A:N3	1:CA:1225:A:H2'	2.26	0.51
5:CE:41:VAL:HG23	5:CE:67:VAL:HG13	1.93	0.51
25:DA:271(J):C:O2'	25:DA:271(K):U:OP2	2.21	0.51
25:DA:328:U:H4'	44:DY:68:HIS:CD2	2.46	0.51
25:DA:1169:G:H2'	25:DA:1170:G:O4'	2.11	0.51
25:DA:1589:C:H2'	25:DA:1590:U:C6	2.46	0.51
25:DA:1668:A:H4'	25:DA:1669:A:O5'	2.10	0.51
25:DA:1788:C:OP1	27:DD:222:ARG:NH2	2.44	0.51
25:DA:2055:C:H5'	25:DA:2056:G:H5"	1.92	0.51
25:DA:2833:G:O2'	25:DA:2833:G:N3	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:116:G:H8	26:DB:116:G:OP2	1.93	0.51
1:AA:165:C:H2'	1:AA:166:G:H8	1.76	0.51
1:AA:915:A:H3'	1:AA:916:G:H5"	1.92	0.51
1:AA:1055:A:C6	1:AA:1206:G:C5	2.98	0.51
1:AA:1293:G:O2'	1:AA:1294:G:H8	1.93	0.51
6:AF:3:ARG:HA	6:AF:65:VAL:O	2.11	0.51
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.11	0.51
23:AV:47:U:H5'	23:AV:48:C:O5'	2.11	0.51
25:BA:530:G:O4'	25:BA:530:G:N3	2.37	0.51
25:BA:1026:U:O2	25:BA:1026:U:H2'	2.10	0.51
25:BA:1948:G:N7	58:BA:4912:HOH:O	2.33	0.51
32:BI:124:GLY:H	32:BI:144:VAL:HG13	1.76	0.51
50:B4:25:TYR:CD1	50:B4:25:TYR:N	2.78	0.51
1:CA:191:G:N3	20:CT:103:GLY:HA2	2.26	0.51
1:CA:202:U:H5"	1:CA:203:U:H5	1.75	0.51
1:CA:418:C:H1'	1:CA:540:G:O2'	2.11	0.51
1:CA:475:G:H2'	1:CA:476:G:H8	1.75	0.51
1:CA:678:U:H2'	1:CA:679:C:C6	2.46	0.51
1:CA:734:G:H21	18:CR:75:ILE:HD11	1.75	0.51
2:CB:134:GLU:HA	2:CB:137:ARG:NE	2.26	0.51
14:CN:40:CYS:O	14:CN:43:CYS:HB3	2.11	0.51
25:DA:271(L):U:H4'	25:DA:271(M):G:H5'	1.92	0.51
25:DA:662:G:H5"	35:DP:16:ARG:HG2	1.93	0.51
25:DA:1694:C:H4'	25:DA:1695:G:O5'	2.11	0.51
26:DB:79:C:O5'	26:DB:79:C:H6	1.94	0.51
27:DD:68:LYS:O	27:DD:69:ARG:HB2	2.10	0.51
34:DO:15:GLY:O	34:DO:47:ILE:HG12	2.11	0.51
36:DQ:10:ARG:HG3	36:DQ:10:ARG:HH11	1.75	0.51
36:DQ:114:ALA:O	36:DQ:118:LEU:HB2	2.11	0.51
1:AA:180:U:C2'	1:AA:181:G:H5'	2.41	0.50
1:AA:183:G:N2	1:AA:223:U:O2'	2.36	0.50
1:AA:195:A:H1'	1:AA:222:U:O2'	2.12	0.50
1:AA:232:G:H2'	1:AA:233:C:O4'	2.11	0.50
3:AC:134:ILE:HG22	3:AC:168:ALA:HB3	1.93	0.50
6:AF:35:ALA:HA	6:AF:67:MET:HB3	1.93	0.50
9:AI:43:ALA:HA	9:AI:45:ALA:HA	1.92	0.50
12:AL:92:ASP:O	12:AL:94:PRO:HD3	2.11	0.50
14:AN:21:TYR:OH	14:AN:23:ARG:NH2	2.39	0.50
25:BA:374:A:C2	25:BA:401:A:C4	2.99	0.50
25:BA:458:G:O2'	53:B7:39:ARG:HD3	2.11	0.50
25:BA:1945:G:H2'	25:BA:1946:U:H6	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BP:101:VAL:HA	35:BP:106:LEU:O	2.10	0.50
55:B9:9:ARG:HB3	55:B9:14:CYS:HB2	1.91	0.50
1:CA:130:A:O2'	1:CA:131:C:O5'	2.26	0.50
1:CA:382:A:H2'	1:CA:383:A:C8	2.46	0.50
1:CA:811:C:H4'	1:CA:900:A:N6	2.25	0.50
1:CA:991:U:O4	1:CA:1212:U:O2'	2.29	0.50
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.42	0.50
13:CM:68:GLY:H	13:CM:71:ARG:NH2	2.09	0.50
14:CN:23:ARG:HD3	14:CN:29:ARG:O	2.11	0.50
25:DA:1257:C:H4'	29:DF:83:PHE:CD2	2.45	0.50
25:DA:2357:U:OP1	46:D0:20:ARG:NH1	2.43	0.50
25:DA:2432:A:N1	47:D1:35:THR:HG22	2.25	0.50
25:DA:2821:A:OP2	25:DA:2822:G:OP2	2.29	0.50
26:DB:64:C:H2'	26:DB:65:C:C6	2.46	0.50
34:DO:68:GLU:H	34:DO:68:GLU:CD	2.19	0.50
35:DP:48:PRO:O	54:D8:57:ARG:NH2	2.45	0.50
45:DZ:29:TYR:HA	45:DZ:33:LEU:O	2.12	0.50
1:AA:501:C:H2'	1:AA:502:G:C8	2.46	0.50
1:AA:834:C:H2'	1:AA:835:U:C6	2.45	0.50
1:AA:1084:G:C5	1:AA:1085:U:C4	3.00	0.50
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.46	0.50
5:AE:92:LYS:O	5:AE:118:ILE:HG13	2.11	0.50
15:AO:32:LEU:O	15:AO:35:ARG:N	2.44	0.50
18:AR:32:ARG:HA	18:AR:69:THR:HG21	1.93	0.50
18:AR:43:PHE:C	18:AR:51:LEU:HD12	2.35	0.50
22:AY:34:SER:HB3	25:BA:2602:A:H61	1.75	0.50
25:BA:7:G:H2'	25:BA:8:A:C8	2.45	0.50
25:BA:61:G:H1	25:BA:94:C:H42	1.59	0.50
25:BA:531:C:H5'	58:BA:4026:HOH:O	2.11	0.50
25:BA:734:A:C4	25:BA:735:A:C8	2.99	0.50
32:BI:88:ILE:HG22	32:BI:90:GLY:N	2.25	0.50
34:BO:17:ARG:HD3	34:BO:47:ILE:HG23	1.94	0.50
48:B2:51:ARG:O	48:B2:53:LEU:N	2.44	0.50
1:CA:767:A:H2'	1:CA:768:A:O4'	2.11	0.50
1:CA:1256:A:H4'	1:CA:1257:U:OP1	2.10	0.50
1:CA:1321:C:C5'	1:CA:1322:C:H5"	2.38	0.50
1:CA:1375:A:H4'	7:CG:29:LYS:NZ	2.26	0.50
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.10	0.50
1:CA:1513:A:H2'	1:CA:1514:C:H6	1.74	0.50
2:CB:24:TRP:CZ3	2:CB:29:ALA:HB2	2.46	0.50
23:CV:55:U:N3	23:CV:58:A:OP2	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:718:A:H3'	25:DA:719:C:H6	1.76	0.50
25:DA:1446:C:H2'	25:DA:1447:G:H8	1.76	0.50
25:DA:1514:U:H2'	25:DA:1515:G:H8	1.76	0.50
25:DA:2562:U:H1'	34:DO:23:ARG:HH11	1.76	0.50
26:DB:32:C:O2	26:DB:50:G:N2	2.33	0.50
29:DF:8:GLN:OE1	29:DF:21:ALA:N	2.44	0.50
30:DG:15:VAL:HG12	30:DG:19:LEU:HG	1.92	0.50
45:DZ:124:ILE:HD11	45:DZ:165:VAL:HG21	1.93	0.50
1:AA:804:U:H5"	1:AA:805:C:OP2	2.12	0.50
6:AF:74:ASP:N	6:AF:74:ASP:OD2	2.43	0.50
25:BA:1188:U:H2'	25:BA:1189:A:H5'	1.93	0.50
25:BA:1889:A:N1	25:BA:2234:G:H1'	2.25	0.50
27:BD:139:GLY:H	27:BD:165:ILE:HB	1.74	0.50
32:BI:93:THR:O	32:BI:97:ILE:HG13	2.12	0.50
1:CA:437:U:H5"	4:CD:155:LEU:HD21	1.93	0.50
1:CA:1061:G:O2'	1:CA:1062:U:OP1	2.25	0.50
2:CB:166:ASP:O	2:CB:170:GLU:N	2.44	0.50
9:CI:21:PRO:HA	9:CI:59:PHE:HA	1.93	0.50
9:CI:45:ALA:HB3	9:CI:48:GLU:HB2	1.93	0.50
18:CR:61:LYS:O	18:CR:65:ILE:HG12	2.12	0.50
25:DA:27:G:N2	25:DA:512:G:H1'	2.26	0.50
25:DA:189:G:OP2	47:D1:39:LYS:NZ	2.45	0.50
25:DA:197:A:N6	25:DA:2430:A:H2'	2.25	0.50
25:DA:575:A:OP2	25:DA:2055:C:N4	2.31	0.50
25:DA:1139:G:O2'	25:DA:1143:A:N1	2.41	0.50
25:DA:2302:G:N1	25:DA:2315:G:C6	2.80	0.50
25:DA:2399:G:H2'	25:DA:2400:G:O4'	2.11	0.50
25:DA:2789:C:H4'	25:DA:2790:A:OP1	2.12	0.50
29:DF:13:SER:HB2	29:DF:18:ARG:HE	1.76	0.50
30:DG:33:ARG:H	30:DG:162:THR:HG23	1.74	0.50
33:DN:38:HIS:CE1	33:DN:39:ARG:HG3	2.46	0.50
45:DZ:153:SER:HB3	45:DZ:167:PRO:O	2.11	0.50
1:AA:666:G:C2	1:AA:741:G:C4	2.99	0.50
2:AB:178:ARG:NH1	2:AB:196:LEU:O	2.45	0.50
3:AC:141:VAL:HG11	3:AC:149:ALA:HB2	1.93	0.50
16:AP:21:VAL:O	16:AP:33:ILE:HG12	2.11	0.50
16:AP:60:LEU:HD11	16:AP:66:PRO:HD3	1.93	0.50
25:BA:819:A:C4	25:BA:1189:A:C2	2.98	0.50
25:BA:1156:A:N7	40:BU:51:LYS:HG2	2.26	0.50
25:BA:2420:C:H5'	52:B6:54:ILE:HD11	1.93	0.50
36:BQ:14:ARG:HG2	36:BQ:41:TRP:HH2	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BR:2:ARG:HA	37:BR:5:LYS:HD2	1.94	0.50
42:BW:41:LYS:HD2	51:B5:25:LEU:HD21	1.94	0.50
54:B8:33:ASN:HA	54:B8:36:LYS:HD2	1.92	0.50
1:CA:622:A:C8	1:CA:623:C:C6	2.99	0.50
3:CC:11:ARG:HB3	3:CC:15:THR:H	1.76	0.50
15:CO:29:VAL:HG12	15:CO:85:LEU:HD13	1.94	0.50
23:CV:23:C:H2'	23:CV:24:U:C6	2.46	0.50
23:CV:75:C:H5"	23:CV:76:A:OP2	2.10	0.50
25:DA:1025:G:C5	25:DA:1135:C:H1'	2.47	0.50
25:DA:1747:G:H2'	25:DA:1747(A):G:H8	1.76	0.50
25:DA:2285:C:OP2	52:D6:6:ARG:NH1	2.42	0.50
25:DA:2673:G:O3'	34:DO:26:LYS:NZ	2.44	0.50
26:DB:89:G:H2'	26:DB:90:A:C8	2.46	0.50
27:DD:177:LEU:HD11	27:DD:183:ARG:HB2	1.93	0.50
28:DE:135:HIS:CD2	28:DE:135:HIS:N	2.79	0.50
36:DQ:32:TYR:HE2	36:DQ:133:ARG:HG3	1.76	0.50
41:DV:5:VAL:HG11	41:DV:57:VAL:CG2	2.41	0.50
45:DZ:43:GLU:O	45:DZ:47:VAL:HG23	2.11	0.50
1:AA:895:G:H2'	1:AA:896:C:C6	2.47	0.50
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.45	0.50
3:AC:23:TYR:CD1	10:AJ:10:GLY:HA2	2.47	0.50
5:AE:12:LEU:HD11	5:AE:14:ARG:HB3	1.93	0.50
5:AE:137:GLU:O	5:AE:141:GLN:HG3	2.12	0.50
8:AH:51:VAL:HG11	8:AH:60:ARG:HD2	1.94	0.50
12:AL:82:VAL:HG23	12:AL:106:ASP:OD2	2.11	0.50
22:AY:9:ALA:CB	22:AY:10:ILE:HA	2.41	0.50
25:BA:13:A:N1	25:BA:525:U:H2'	2.26	0.50
25:BA:2700:C:C2'	25:BA:2701:C:H5'	2.41	0.50
32:BI:106:GLY:HA3	32:BI:107:VAL:HG23	1.92	0.50
38:BS:96:GLY:N	38:BS:99:LYS:H	2.05	0.50
1:CA:49:U:O2	1:CA:362:G:H1'	2.11	0.50
1:CA:308:C:OP1	58:CA:2117:HOH:O	2.20	0.50
5:CE:12:LEU:HB3	5:CE:31:LEU:HB2	1.92	0.50
7:CG:10:ARG:HG2	7:CG:10:ARG:HH11	1.76	0.50
18:CR:31:LEU:HD11	18:CR:62:GLU:HB3	1.93	0.50
25:DA:1003:G:N2	25:DA:1153:C:C2	2.80	0.50
25:DA:1406:U:H2'	25:DA:1407:C:C6	2.46	0.50
25:DA:1803:A:H4'	27:DD:259:THR:CG2	2.41	0.50
28:DE:115:GLY:O	28:DE:119:ARG:HB2	2.12	0.50
42:DW:14:PRO:HG2	42:DW:78:GLU:HG2	1.93	0.50
1:AA:97:G:O2'	1:AA:98:G:H5"	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:110:C:H2'	1:AA:111:G:O4'	2.12	0.50
1:AA:130:A:C8	17:AQ:63:ARG:HG3	2.46	0.50
1:AA:1216:G:H5"	14:AN:5:ALA:CB	2.41	0.50
2:AB:219:VAL:HA	2:AB:222:ILE:HD12	1.92	0.50
13:AM:82:MET:HA	13:AM:89:GLY:HA3	1.93	0.50
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.93	0.50
25:BA:895:U:H5'	25:BA:896:A:OP2	2.12	0.50
25:BA:1042:G:H5"	25:BA:1043:C:OP2	2.12	0.50
25:BA:1635:G:H5"	58:BA:5161:HOH:O	2.11	0.50
31:BH:3:ARG:HA	31:BH:3:ARG:HE	1.77	0.50
46:B0:49:LYS:O	46:B0:50:ASN:HB2	2.11	0.50
1:CA:57:G:C6	1:CA:58:C:C4	3.00	0.50
1:CA:176:C:H2'	1:CA:177:C:H6	1.77	0.50
1:CA:186:C:H2'	1:CA:187:C:C6	2.47	0.50
1:CA:690:G:H2'	1:CA:691:G:O4'	2.10	0.50
1:CA:1279:A:H4'	1:CA:1280:A:OP1	2.12	0.50
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.94	0.50
15:CO:35:ARG:NH2	15:CO:59:MET:HE2	2.26	0.50
16:CP:49:LEU:HD12	16:CP:50:LYS:H	1.75	0.50
25:DA:271(I):G:N2	25:DA:271(O):C:N3	2.46	0.50
25:DA:271(M):G:H4'	25:DA:271(N):U:OP1	2.10	0.50
25:DA:718:A:O5'	25:DA:718:A:H8	1.94	0.50
29:DF:184:TYR:HE1	35:DP:3:LEU:HD21	1.77	0.50
38:DS:105:ALA:O	38:DS:110:LEU:HB2	2.12	0.50
47:D1:86:SER:HB3	47:D1:89:GLU:HG2	1.94	0.50
1:AA:1184:G:H8	1:AA:1184:G:OP1	1.94	0.50
2:AB:9:GLU:C	2:AB:11:LEU:H	2.19	0.50
2:AB:111:ARG:HG2	2:AB:111:ARG:NH1	2.27	0.50
6:AF:44:GLY:HA2	6:AF:59:TYR:CZ	2.47	0.50
7:AG:85:TYR:HD1	7:AG:154:TYR:CE1	2.30	0.50
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.12	0.50
23:AV:45:G:H8	23:AV:45:G:O5'	1.95	0.50
27:BD:132:PRO:HA	27:BD:190:TYR:HA	1.94	0.50
28:BE:5:LEU:N	28:BE:5:LEU:HD23	2.26	0.50
28:BE:50:GLY:CA	28:BE:75:VAL:HG11	2.41	0.50
29:BF:25:PRO:HG2	29:BF:111:ALA:HB1	1.93	0.50
35:BP:75:ILE:CD1	35:BP:75:ILE:H	2.24	0.50
36:BQ:116:GLU:O	36:BQ:119:ARG:N	2.45	0.50
1:CA:685:G:C2	1:CA:686:U:C4	3.00	0.50
1:CA:1184:G:H2'	1:CA:1185:G:H5'	1.93	0.50
1:CA:1244:C:N4	1:CA:1293:G:H1	2.07	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:12:LEU:H	7:CG:12:LEU:HD12	1.76	0.50
25:DA:973:A:H5'	25:DA:1188:U:H1'	1.93	0.50
25:DA:1313:U:H2'	25:DA:1610:A:N1	2.27	0.50
25:DA:1878:G:C6	25:DA:1879:C:C4	3.00	0.50
25:DA:2262:U:H4'	25:DA:2328:A:H2	1.76	0.50
25:DA:2879:C:OP2	58:DA:4348:HOH:O	2.18	0.50
27:DD:147:LEU:HD12	27:DD:155:LEU:HD21	1.93	0.50
28:DE:75:VAL:HG13	28:DE:77:ILE:H	1.76	0.50
29:DF:6:VAL:O	29:DF:22:ALA:HB3	2.12	0.50
37:DR:84:ALA:N	37:DR:85:PRO:HD2	2.27	0.50
38:DS:41:ASP:OD1	38:DS:43:GLU:HB2	2.11	0.50
45:DZ:21:ALA:O	45:DZ:23:LYS:N	2.45	0.50
1:AA:119:A:H4'	1:AA:120:A:O5'	2.11	0.50
1:AA:353:A:H8	1:AA:353:A:H5'	1.77	0.50
1:AA:474:G:H2'	1:AA:475:G:H8	1.77	0.50
1:AA:1124:G:N7	1:AA:1145:C:O2'	2.39	0.50
1:AA:1307:U:H2'	1:AA:1308:U:O4'	2.12	0.50
4:AD:146:ILE:H	4:AD:146:ILE:HD12	1.76	0.50
14:AN:43:CYS:O	14:AN:46:GLU:HB2	2.12	0.50
25:BA:311:A:OP2	58:BA:4641:HOH:O	2.20	0.50
25:BA:858:U:O2	25:BA:2268:A:H2'	2.12	0.50
25:BA:1045:A:H3'	25:BA:1045:A:N3	2.27	0.50
49:B3:6:VAL:CG1	49:B3:54:VAL:HG11	2.42	0.50
1:CA:411:A:O2'	1:CA:413:G:H5'	2.10	0.50
1:CA:757:U:H2'	1:CA:758:G:O4'	2.12	0.50
1:CA:790:A:H61	1:CA:1498:U:P	2.35	0.50
1:CA:840:C:H4'	1:CA:841:U:OP1	2.10	0.50
1:CA:900:A:H2'	1:CA:901:A:O4'	2.12	0.50
1:CA:1452:C:O2'	1:CA:1456:G:P	2.70	0.50
3:CC:43:LEU:O	3:CC:47:LEU:HB2	2.12	0.50
12:CL:40:VAL:HG21	12:CL:78:GLN:HA	1.93	0.50
16:CP:68:ASP:C	16:CP:70:ALA:H	2.20	0.50
16:CP:68:ASP:C	16:CP:70:ALA:N	2.68	0.50
25:DA:243:U:OP1	54:D8:6:THR:OG1	2.17	0.50
25:DA:388:G:O2'	25:DA:389:G:N7	2.41	0.50
25:DA:571:A:OP2	25:DA:2030:A:N6	2.44	0.50
25:DA:910:A:N7	36:DQ:12:GLN:HB2	2.27	0.50
25:DA:1452:A:O2'	25:DA:2702:U:O4	2.28	0.50
27:DD:148:GLU:HB2	27:DD:151:LYS:HD3	1.93	0.50
47:D1:66:HIS:C	47:D1:68:PRO:HD2	2.37	0.50
49:D3:12:PRO:O	49:D3:15:TYR:HB2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D6:6:ARG:HG3	52:D6:6:ARG:O	2.12	0.50
1:AA:452:A:H4'	16:AP:72:ARG:NH1	2.27	0.50
1:AA:818:G:O2'	1:AA:819:A:H5'	2.12	0.50
1:AA:1071:C:H5"	5:AE:49:PRO:HG2	1.94	0.50
1:AA:1233:G:H2'	1:AA:1234:C:C6	2.46	0.50
1:AA:1483:A:HO2'	25:BA:1947:C:HO2'	1.58	0.50
2:AB:36:ARG:O	2:AB:39:ILE:N	2.33	0.50
2:AB:167:PRO:HG3	2:AB:188:ALA:CB	2.42	0.50
11:AK:29:ILE:HG23	11:AK:44:SER:HB3	1.94	0.50
25:BA:466:A:N3	25:BA:683:C:H1'	2.27	0.50
25:BA:631:A:H5"	25:BA:632:A:OP2	2.11	0.50
25:BA:848:G:H2'	25:BA:849:A:C8	2.47	0.50
25:BA:1243:G:O3'	35:BP:7:ARG:NH2	2.44	0.50
25:BA:1662:C:O2'	25:BA:1663:C:H5'	2.12	0.50
25:BA:2189:U:H2'	25:BA:2190:G:H8	1.77	0.50
30:BG:47:LYS:O	30:BG:82:LEU:HD22	2.12	0.50
50:B4:16:CYS:SG	50:B4:17:GLY:N	2.85	0.50
1:CA:187:C:H2'	1:CA:188:C:H6	1.76	0.50
1:CA:903:G:OP1	58:CA:2057:HOH:O	2.20	0.50
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.47	0.50
1:CA:1279:A:O2'	1:CA:1280:A:O5'	2.30	0.50
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.94	0.50
11:CK:33:THR:OG1	11:CK:34:ASP:O	2.30	0.50
12:CL:32:PHE:HE1	12:CL:86:ARG:HG3	1.76	0.50
25:DA:1006:C:C2	25:DA:1138:G:N2	2.80	0.50
25:DA:2103:C:O2	25:DA:2187:G:N1	2.45	0.50
25:DA:2473:U:O2	25:DA:2473:U:H2'	2.11	0.50
26:DB:9:G:OP1	38:DS:15:ARG:NH1	2.42	0.50
26:DB:49:C:OP1	38:DS:97:ARG:N	2.45	0.50
41:DV:74:LYS:HB2	41:DV:83:ARG:HB2	1.94	0.50
44:DY:98:VAL:HG23	44:DY:99:CYS:O	2.12	0.50
1:AA:142:G:C2	1:AA:143:A:C8	2.99	0.49
1:AA:186:C:H2'	1:AA:187:C:H6	1.73	0.49
1:AA:504:C:OP1	58:AA:2048:HOH:O	2.19	0.49
1:AA:518:C:C5	1:AA:530:G:C8	3.00	0.49
1:AA:765:G:H5"	1:AA:766:A:OP1	2.11	0.49
1:AA:994:A:N3	1:AA:994:A:H2'	2.26	0.49
6:AF:36:ARG:HH11	6:AF:36:ARG:CG	2.25	0.49
7:AG:26:PHE:CD1	7:AG:62:PHE:HE1	2.30	0.49
7:AG:28:ASN:OD1	7:AG:36:LYS:NZ	2.45	0.49
12:AL:78:GLN:O	12:AL:81:SER:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:31:ILE:HG23	19:AS:48:THR:O	2.12	0.49
25:BA:330:A:O2'	25:BA:331:A:H8	1.95	0.49
25:BA:866:A:O2'	25:BA:867:C:H5'	2.12	0.49
25:BA:1485:G:H1	25:BA:1504:C:H42	1.60	0.49
25:BA:2186:G:C3'	25:BA:2187:G:H5"	2.42	0.49
25:BA:2336:A:H61	46:B0:43:THR:CG2	2.22	0.49
25:BA:2787:C:H1'	28:BE:62:PRO:HG3	1.94	0.49
31:BH:7:LEU:HG	31:BH:69:ARG:NH1	2.26	0.49
32:BI:104:GLN:HG2	32:BI:105:HIS:HD2	1.76	0.49
45:BZ:140:ASP:OD2	45:BZ:142:SER:HB2	2.11	0.49
1:CA:21:G:H2'	1:CA:22:G:C8	2.46	0.49
1:CA:52:G:O2'	1:CA:53:A:H5'	2.12	0.49
1:CA:437:U:C5'	4:CD:155:LEU:HD21	2.42	0.49
1:CA:565:U:OP2	1:CA:566:G:O2'	2.29	0.49
1:CA:944:G:C2	1:CA:1340:A:C6	2.99	0.49
1:CA:1308:U:OP2	13:CM:99:ARG:HG3	2.12	0.49
2:CB:97:TRP:CZ2	2:CB:102:LEU:HD13	2.45	0.49
2:CB:198:ASP:OD2	2:CB:198:ASP:N	2.45	0.49
7:CG:140:ASP:O	7:CG:144:MET:N	2.45	0.49
10:CJ:45:ARG:HD3	10:CJ:65:LEU:HD23	1.94	0.49
12:CL:79:GLU:O	12:CL:80:HIS:HB2	2.10	0.49
25:DA:173:G:H2'	25:DA:174:C:C6	2.48	0.49
25:DA:848:G:C4	25:DA:933:A:H8	2.30	0.49
25:DA:1006:C:H1'	33:DN:106:MET:HB3	1.93	0.49
25:DA:1341:U:H1'	43:DX:55:ASN:HD22	1.76	0.49
25:DA:1709:U:H2'	25:DA:1710:C:C6	2.46	0.49
25:DA:2712:U:H1'	25:DA:2712(A):A:C8	2.47	0.49
26:DB:77:U:H4'	45:DZ:84:GLU:CD	2.37	0.49
27:DD:145:VAL:HG11	27:DD:175:LEU:HD11	1.94	0.49
28:DE:35:GLN:HB3	28:DE:48:GLN:HB3	1.93	0.49
32:DI:58:LEU:HD13	32:DI:59:ALA:HB2	1.94	0.49
33:DN:26:LEU:HD23	33:DN:60:ILE:HD11	1.92	0.49
37:DR:21:TYR:OH	37:DR:43:GLU:HG2	2.11	0.49
38:DS:96:GLY:H	38:DS:99:LYS:H	1.60	0.49
40:DU:72:HIS:N	40:DU:72:HIS:ND1	2.60	0.49
1:AA:60:A:H4'	1:AA:61:G:O5'	2.12	0.49
1:AA:129(A):G:N2	1:AA:189(H):G:C5	2.80	0.49
1:AA:444:C:H2'	1:AA:445:G:C8	2.47	0.49
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.12	0.49
10:AJ:9:ARG:HB2	10:AJ:95:GLU:CB	2.37	0.49
10:AJ:13:HIS:HB3	10:AJ:68:HIS:NE2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:795:C:H2'	25:BA:796:C:H6	1.76	0.49
25:BA:1183:G:H4'	49:B3:29:ARG:HH22	1.77	0.49
25:BA:1488:G:H5"	25:BA:1488:G:C8	2.47	0.49
25:BA:1503:U:H2'	25:BA:1504:C:C6	2.46	0.49
25:BA:2203:U:O4'	27:BD:151:LYS:HE2	2.12	0.49
38:BS:100:ALA:C	38:BS:101:LEU:O	2.48	0.49
40:BU:108:GLU:O	40:BU:111:GLU:N	2.45	0.49
49:B3:6:VAL:HG12	49:B3:54:VAL:CG1	2.42	0.49
55:B9:27:CYS:SG	55:B9:28:GLU:N	2.85	0.49
1:CA:872:A:O2'	1:CA:873:A:H5"	2.11	0.49
1:CA:959:A:O2'	1:CA:984:C:O2'	2.30	0.49
1:CA:1095:U:H2'	1:CA:1096:C:O4'	2.11	0.49
2:CB:69:LEU:HD13	2:CB:91:PRO:HB2	1.94	0.49
7:CG:27:ILE:HD11	7:CG:43:PHE:HD2	1.77	0.49
9:CI:26:VAL:O	9:CI:32:ASP:HA	2.12	0.49
25:DA:294:A:H2'	25:DA:295:G:O4'	2.12	0.49
25:DA:579:G:H2'	25:DA:580:C:H6	1.77	0.49
25:DA:631:A:OP2	54:D8:47:LYS:NZ	2.34	0.49
25:DA:1300:U:H4'	25:DA:1301:A:H5"	1.94	0.49
25:DA:1540:U:H2'	25:DA:1541:G:O4'	2.12	0.49
25:DA:2331:G:N3	25:DA:2336:A:H2	2.10	0.49
28:DE:103:ASP:OD2	28:DE:168:MET:HE3	2.12	0.49
29:DF:158:THR:HG21	29:DF:163:VAL:HG11	1.94	0.49
40:DU:49:HIS:HA	40:DU:52:ARG:HB3	1.94	0.49
40:DU:76:TYR:O	40:DU:80:ILE:HG12	2.12	0.49
1:AA:104:G:O6	20:AT:14:LYS:NZ	2.44	0.49
1:AA:324:G:N2	1:AA:327:A:C8	2.80	0.49
1:AA:428:G:O4'	1:AA:430:A:C8	2.65	0.49
4:AD:65:ARG:HG2	4:AD:75:PHE:CD1	2.47	0.49
25:BA:1322:A:H2'	25:BA:1323:U:H6	1.77	0.49
25:BA:2052:G:O4'	28:BE:142:GLY:HA3	2.12	0.49
25:BA:2507:C:C2	25:BA:2508:G:C8	3.00	0.49
33:BN:54:VAL:HG12	33:BN:55:VAL:N	2.27	0.49
33:BN:85:ILE:HG22	33:BN:86:PRO:HD2	1.95	0.49
33:BN:104:LYS:HB2	33:BN:117:PHE:CE1	2.47	0.49
35:BP:75:ILE:H	35:BP:75:ILE:HD12	1.77	0.49
37:BR:118:GLU:CD	37:BR:118:GLU:H	2.19	0.49
42:BW:80:PRO:O	42:BW:100:THR:HB	2.13	0.49
1:CA:991:U:H4'	1:CA:992:U:O5'	2.12	0.49
1:CA:1190:G:OP1	3:CC:5:ILE:N	2.30	0.49
1:CA:1268:A:O2'	1:CA:1269:A:O5'	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1352:C:H42	1:CA:1370:G:H1	1.61	0.49
3:CC:18:TRP:HD1	14:CN:54:PRO:HA	1.74	0.49
3:CC:52:LEU:HD21	3:CC:55:VAL:HG22	1.94	0.49
8:CH:12:ARG:HH21	8:CH:26:VAL:HA	1.78	0.49
25:DA:539:G:H2'	25:DA:540:C:C6	2.47	0.49
25:DA:1239:G:H2'	25:DA:1240:U:O4'	2.12	0.49
27:DD:52:ARG:HB2	27:DD:53:PHE:CD2	2.47	0.49
28:DE:54:GLN:HB2	28:DE:76:ARG:HB3	1.94	0.49
32:DI:4:ILE:HG12	32:DI:18:VAL:HG22	1.95	0.49
36:DQ:55:VAL:HG12	36:DQ:64:ILE:HD12	1.95	0.49
41:DV:20:LEU:O	41:DV:93:GLU:HG2	2.12	0.49
41:DV:52:VAL:CG2	41:DV:55:ALA:HB3	2.42	0.49
1:AA:407:G:O2'	4:AD:116:GLN:HG3	2.11	0.49
1:AA:731:G:OP1	1:AA:766:A:H1'	2.13	0.49
1:AA:812:C:OP1	1:AA:903:G:H1'	2.12	0.49
1:AA:1218:C:OP2	14:AN:9:LYS:NZ	2.32	0.49
1:AA:1282:C:OP2	1:AA:1282:C:H6	1.96	0.49
2:AB:21:ARG:HH11	2:AB:21:ARG:H	1.60	0.49
4:AD:127:THR:OG1	4:AD:128:VAL:N	2.44	0.49
9:AI:117:HIS:C	9:AI:119:ALA:H	2.20	0.49
19:AS:33:THR:OG1	19:AS:34:TRP:N	2.45	0.49
23:AV:3:C:H5'	25:BA:2255:G:O2'	2.13	0.49
25:BA:652(P):G:H1'	25:BA:652(Q):G:C8	2.47	0.49
25:BA:2485:G:OP1	36:BQ:46:GLN:NE2	2.45	0.49
29:BF:18:ARG:C	29:BF:19:GLU:HG2	2.37	0.49
34:BO:64:ARG:HG2	34:BO:79:PHE:CD2	2.48	0.49
51:B5:8:LYS:O	51:B5:9:LYS:HG2	2.13	0.49
1:CA:180:U:H2'	1:CA:181:G:H5'	1.94	0.49
1:CA:376:G:O3'	16:CP:5:ARG:HD2	2.13	0.49
1:CA:920:U:H2'	1:CA:921:U:H6	1.72	0.49
11:CK:105:VAL:HG23	11:CK:105:VAL:O	2.13	0.49
17:CQ:66:SER:OG	17:CQ:67:LYS:O	2.28	0.49
20:CT:10:LEU:HG	20:CT:12:ALA:H	1.76	0.49
25:DA:588:U:H2'	25:DA:589:C:C6	2.48	0.49
25:DA:667:U:H2'	25:DA:668:G:O4'	2.13	0.49
25:DA:900:A:H2'	25:DA:901:A:O4'	2.13	0.49
25:DA:2439:A:H1'	25:DA:2587:A:OP1	2.13	0.49
26:DB:20:C:H2'	26:DB:21:G:H5'	1.94	0.49
28:DE:47:VAL:HG12	28:DE:49:LEU:HD13	1.94	0.49
31:DH:9:ILE:HD12	31:DH:72:ILE:HG22	1.94	0.49
34:DO:115:VAL:HG12	34:DO:121:VAL:HG21	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DV:5:VAL:HG12	41:DV:37:VAL:HG22	1.94	0.49
46:D0:52:GLY:O	46:D0:59:LEU:HA	2.11	0.49
48:D2:44:LEU:HD23	48:D2:45:SER:O	2.13	0.49
49:D3:5:LYS:HE2	49:D3:57:GLU:HG3	1.95	0.49
52:D6:16:CYS:HB2	52:D6:18:ARG:HH11	1.78	0.49
1:AA:60:A:P	1:AA:60:A:H8	2.36	0.49
1:AA:453:A:C6	1:AA:454:C:N4	2.80	0.49
1:AA:946:A:H2'	1:AA:947:G:C8	2.47	0.49
1:AA:1531:A:H2'	1:AA:1532:U:O4'	2.13	0.49
4:AD:152:SER:O	4:AD:154:ASN:N	2.46	0.49
25:BA:376:C:H2'	25:BA:377:C:C6	2.47	0.49
25:BA:1472:A:H2'	25:BA:1473:G:H8	1.77	0.49
25:BA:1503:U:H2'	25:BA:1504:C:H6	1.77	0.49
25:BA:2220:G:N7	58:BA:4113:HOH:O	2.35	0.49
27:BD:136:ILE:O	27:BD:168:ARG:NH2	2.46	0.49
29:BF:150:GLY:HA2	29:BF:172:TRP:CE3	2.47	0.49
1:CA:551:U:H5'	12:CL:119:LYS:HE2	1.95	0.49
1:CA:1423:G:H2'	1:CA:1424:C:H6	1.76	0.49
2:CB:82:ARG:HG3	2:CB:92:TYR:CZ	2.48	0.49
3:CC:30:ARG:HH21	14:CN:38:GLY:HA2	1.76	0.49
8:CH:12:ARG:HH21	8:CH:27:PRO:HD3	1.73	0.49
9:CI:83:ARG:O	9:CI:86:VAL:HG22	2.12	0.49
10:CJ:55:LYS:H	10:CJ:56:HIS:CD2	2.30	0.49
25:DA:1252:G:O4'	40:DU:33:ARG:HD3	2.12	0.49
25:DA:1331:A:HO2'	25:DA:1332:G:H8	1.59	0.49
25:DA:2307:G:H4'	25:DA:2308:G:C5'	2.40	0.49
25:DA:2716:U:O2'	25:DA:2717:G:H5'	2.13	0.49
27:DD:239:ARG:HG3	27:DD:239:ARG:O	2.11	0.49
28:DE:4:ILE:HG12	28:DE:5:LEU:N	2.27	0.49
29:DF:188:ARG:HA	35:DP:3:LEU:HD11	1.95	0.49
31:DH:7:LEU:HB3	31:DH:69:ARG:NH1	2.26	0.49
36:DQ:55:VAL:HG12	36:DQ:64:ILE:CD1	2.42	0.49
38:DS:7:TYR:HA	38:DS:10:ARG:HH12	1.76	0.49
55:D9:30:PRO:O	55:D9:33:LYS:HB2	2.13	0.49
1:AA:115:G:H1	1:AA:312:C:H42	1.59	0.49
1:AA:618:C:N3	1:AA:622:A:N6	2.60	0.49
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.13	0.49
4:AD:158:ILE:O	4:AD:162:LEU:HB2	2.13	0.49
7:AG:145:ALA:O	7:AG:147:ALA:N	2.46	0.49
11:AK:73:MET:HG3	11:AK:103:LEU:HD21	1.95	0.49
19:AS:70:LYS:N	19:AS:70:LYS:HD2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:729:G:C5	27:BD:208:LYS:HB2	2.47	0.49
25:BA:861:A:H2'	25:BA:862:G:O4'	2.12	0.49
25:BA:1049:C:O2	25:BA:1050:A:N7	2.46	0.49
25:BA:1289:C:H2'	25:BA:1290:C:C6	2.47	0.49
25:BA:1429:G:H2'	25:BA:1430:C:C6	2.47	0.49
25:BA:1587:A:H2'	25:BA:1588:C:C6	2.47	0.49
25:BA:1641:A:H2'	25:BA:1642:G:O4'	2.13	0.49
27:BD:112:GLN:O	27:BD:115:GLN:HG2	2.12	0.49
33:BN:56:ASN:N	33:BN:125:GLY:HA3	2.13	0.49
33:BN:58:ASP:OD1	33:BN:58:ASP:N	2.44	0.49
34:BO:35:VAL:HG11	34:BO:103:ALA:CB	2.42	0.49
45:BZ:104:PHE:HB3	45:BZ:141:VAL:HG21	1.95	0.49
8:CH:13:ILE:O	8:CH:17:THR:HG23	2.12	0.49
16:CP:28:ARG:HG2	16:CP:28:ARG:NH1	2.25	0.49
19:CS:62:ILE:HG23	19:CS:66:MET:HG3	1.94	0.49
23:CV:53:G:H2'	23:CV:54:U:C6	2.47	0.49
25:DA:19:C:H2'	25:DA:20:C:C6	2.43	0.49
25:DA:1019:U:O2'	25:DA:1021:A:H2	1.94	0.49
25:DA:1022:G:C6	25:DA:1140:C:C4	3.00	0.49
25:DA:1319:G:H8	25:DA:1319:G:H5"	1.78	0.49
25:DA:2465:C:O2	25:DA:2486:G:C2	2.65	0.49
26:DB:105:A:OP1	45:DZ:72:ARG:NH1	2.46	0.49
27:DD:120:GLY:O	27:DD:131:LEU:HG	2.13	0.49
29:DF:39:TRP:CH2	29:DF:106:ARG:HD3	2.47	0.49
43:DX:5:TYR:CE2	48:D2:30:ARG:HB2	2.48	0.49
44:DY:43:ASN:OD1	44:DY:65:ALA:HB3	2.12	0.49
48:D2:46:GLN:O	48:D2:49:LYS:HG3	2.13	0.49
1:AA:880:C:OP1	12:AL:8:ASN:ND2	2.45	0.49
8:AH:4:ASP:OD1	8:AH:85:ARG:NH1	2.46	0.49
17:AQ:18:THR:HG23	17:AQ:69:LYS:NZ	2.27	0.49
20:AT:38:LYS:HA	20:AT:41:ILE:HG13	1.94	0.49
25:BA:1188:U:O2'	25:BA:1189:A:H5'	2.12	0.49
25:BA:1839:G:N7	25:BA:1927:A:H1'	2.27	0.49
25:BA:1994:C:O2'	25:BA:1995:U:H5'	2.13	0.49
25:BA:2319:G:H22	38:BS:3:ARG:HA	1.76	0.49
48:B2:50:ILE:O	48:B2:51:ARG:HB2	2.12	0.49
50:B4:42:PHE:CA	50:B4:43:TYR:HB2	2.43	0.49
1:CA:722:A:H5'	1:CA:723:U:OP2	2.13	0.49
1:CA:977:A:O2'	1:CA:981:U:N3	2.45	0.49
1:CA:1157:A:H62	1:CA:1177:G:N2	2.10	0.49
2:CB:20:GLU:O	2:CB:40:HIS:HB2	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:80:ILE:HG12	2:CB:211:ILE:HG22	1.93	0.49
2:CB:83:MET:SD	2:CB:234:PRO:HB2	2.52	0.49
2:CB:174:VAL:O	2:CB:178:ARG:HG3	2.13	0.49
2:CB:189:ASP:N	2:CB:189:ASP:OD1	2.45	0.49
25:DA:2550:G:C5	25:DA:2551:C:C5	3.01	0.49
29:DF:178:PRO:HB2	29:DF:201:VAL:HG22	1.94	0.49
34:DO:114:ILE:O	34:DO:117:LEU:N	2.45	0.49
38:DS:35:ILE:HD11	38:DS:101:LEU:HD12	1.93	0.49
48:D2:45:SER:O	48:D2:46:GLN:HB2	2.13	0.49
1:AA:445:G:C2	1:AA:446:G:C4	3.00	0.49
1:AA:1127:G:C2'	1:AA:1128:C:H5'	2.43	0.49
3:AC:121:ALA:O	3:AC:125:GLU:HG3	2.11	0.49
16:AP:61:SER:OG	16:AP:62:VAL:N	2.45	0.49
19:AS:36:ARG:HB3	19:AS:72:GLY:HA3	1.94	0.49
25:BA:603:A:N1	25:BA:625:G:O2'	2.43	0.49
25:BA:1163:G:C2	25:BA:1164:G:C8	3.01	0.49
43:BX:63:LYS:O	43:BX:64:LYS:HG2	2.13	0.49
48:B2:29:LYS:HD3	48:B2:57:ILE:HG21	1.95	0.49
1:CA:1112:C:H2'	1:CA:1113:C:H5'	1.94	0.49
1:CA:1245:A:H61	1:CA:1292:U:H3	1.61	0.49
1:CA:1378:C:H5	1:CA:1379:G:N9	2.10	0.49
3:CC:78:GLY:HA3	3:CC:83:ARG:H	1.76	0.49
5:CE:100:VAL:O	5:CE:107:ARG:NH2	2.45	0.49
12:CL:33:ARG:HG2	12:CL:60:LEU:HG	1.93	0.49
25:DA:139(A):G:H22	43:DX:44:GLU:CD	2.21	0.49
25:DA:637:A:C8	35:DP:117:GLU:HG3	2.45	0.49
25:DA:998:C:P	40:DU:92:ARG:HH22	2.36	0.49
25:DA:1357:U:H2'	25:DA:1358:G:C8	2.48	0.49
25:DA:1789:A:H5"	27:DD:220:HIS:O	2.13	0.49
27:DD:78:LYS:HE2	27:DD:114:GLY:HA2	1.93	0.49
27:DD:218:ARG:HB3	27:DD:219:PRO:HD2	1.95	0.49
28:DE:132:HIS:CD2	58:DE:410:HOH:O	2.65	0.49
29:DF:167:ALA:HB1	29:DF:173:VAL:HG11	1.95	0.49
30:DG:28:VAL:O	30:DG:31:VAL:HG13	2.11	0.49
36:DQ:108:GLY:HA3	45:DZ:116:VAL:HG11	1.95	0.49
1:AA:124:G:H4'	1:AA:291:C:O2'	2.13	0.49
1:AA:237:C:H5"	17:AQ:25:ARG:NE	2.28	0.49
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.31	0.49
1:AA:347:G:C6	1:AA:348:G:C8	3.00	0.49
1:AA:539:A:H2'	1:AA:540:G:H8	1.76	0.49
1:AA:939:G:H5"	7:AG:102:ARG:NH1	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1048:G:OP1	14:AN:3:ARG:HB3	2.13	0.49
1:AA:1233:G:H2'	1:AA:1234:C:H6	1.78	0.49
8:AH:34:GLU:OE1	8:AH:37:ARG:NH1	2.45	0.49
8:AH:53:VAL:HG12	8:AH:54:ASP:OD2	2.13	0.49
25:BA:700:G:OP2	58:BA:5149:HOH:O	2.20	0.49
25:BA:1168:G:H2'	25:BA:1169:G:O4'	2.13	0.49
25:BA:2100:G:C6	25:BA:2190:G:C6	3.00	0.49
25:BA:2286:A:H4'	25:BA:2287:A:O5'	2.12	0.49
29:BF:123:LEU:HD21	29:BF:199:TRP:HZ3	1.78	0.49
32:BI:27:ARG:HD3	47:B1:71:TYR:CE1	2.48	0.49
47:B1:58:ILE:O	47:B1:58:ILE:HG13	2.06	0.49
54:B8:29:LYS:NZ	54:B8:45:GLY:HA2	2.27	0.49
1:CA:434:U:H2'	1:CA:435:C:H6	1.77	0.49
1:CA:1182:G:H4'	1:CA:1183:A:H3'	1.95	0.49
1:CA:1281:U:H5"	1:CA:1282:C:OP2	2.13	0.49
1:CA:1360:A:H2'	1:CA:1361:G:O4'	2.13	0.49
8:CH:51:VAL:HG11	8:CH:60:ARG:NH1	2.28	0.49
11:CK:23:ALA:O	11:CK:86:GLY:HA3	2.12	0.49
14:CN:23:ARG:HG3	14:CN:24:CYS:N	2.26	0.49
18:CR:65:ILE:O	18:CR:69:THR:HG23	2.13	0.49
25:DA:12:U:O2	25:DA:12:U:H2'	2.12	0.49
25:DA:38:A:H2'	25:DA:39:C:C6	2.48	0.49
25:DA:321:G:C5	25:DA:341:G:H4'	2.47	0.49
25:DA:2801(A):A:H5"	25:DA:2802:G:H5'	1.93	0.49
26:DB:2:C:O2'	26:DB:3:C:H5'	2.12	0.49
28:DE:200:GLU:HG3	28:DE:201:THR:H	1.78	0.49
29:DF:17:ARG:HG3	29:DF:18:ARG:H	1.78	0.49
32:DI:14:ASP:N	32:DI:17:GLN:OE1	2.44	0.49
51:D5:29:THR:O	51:D5:30:LEU:HD23	2.13	0.49
1:AA:373:A:C2	1:AA:374:A:C8	3.00	0.49
1:AA:391:G:O3'	16:AP:8:ARG:NH2	2.44	0.49
5:AE:77:PRO:HD2	5:AE:142:LEU:HD22	1.93	0.49
14:AN:27:CYS:O	14:AN:29:ARG:N	2.46	0.49
25:BA:330:A:O2'	25:BA:331:A:C8	2.66	0.49
25:BA:384:U:H2'	25:BA:385:C:H6	1.77	0.49
25:BA:468:G:N7	53:B7:39:ARG:NH2	2.57	0.49
25:BA:580:C:H2'	25:BA:581:C:H6	1.77	0.49
25:BA:787:U:H5"	25:BA:788:A:H5'	1.95	0.49
25:BA:2287:A:C4	25:BA:2289:G:C8	3.00	0.49
25:BA:2463:C:C2'	25:BA:2464:C:H5'	2.43	0.49
31:BH:94:TYR:CE1	31:BH:108:GLY:N	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BV:98:GLU:OE1	41:BV:100:ARG:HD3	2.13	0.49
1:CA:376:G:H5"	16:CP:5:ARG:HB2	1.94	0.49
1:CA:588:G:H2'	1:CA:588:G:N3	2.27	0.49
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.48	0.49
2:CB:84:GLU:OE1	2:CB:87:ARG:NH1	2.46	0.49
3:CC:70:VAL:O	3:CC:106:VAL:N	2.40	0.49
25:DA:1154:G:H8	25:DA:1154:G:O5'	1.95	0.49
25:DA:1339:G:N2	25:DA:1603:A:H1'	2.27	0.49
25:DA:1450(A):C:N4	25:DA:1451:C:H41	2.11	0.49
25:DA:2319:G:O4'	25:DA:2319:G:N3	2.45	0.49
32:DI:38:LEU:O	32:DI:43:ASN:ND2	2.46	0.49
37:DR:94:TYR:CD2	37:DR:94:TYR:N	2.79	0.49
1:AA:254:G:H1'	17:AQ:15:MET:HB3	1.95	0.48
1:AA:447:G:O6	1:AA:485:G:O2'	2.27	0.48
1:AA:473:G:H2'	1:AA:474:G:C8	2.44	0.48
1:AA:616:G:C2	1:AA:617:G:N7	2.81	0.48
1:AA:943:U:C2'	1:AA:944:G:H5'	2.43	0.48
1:AA:952:U:O2'	1:AA:953:G:H5'	2.13	0.48
13:AM:50:GLU:HA	13:AM:53:VAL:CG2	2.43	0.48
16:AP:20:VAL:HG23	16:AP:35:LYS:HA	1.94	0.48
25:BA:911:A:H2'	36:BQ:9:TYR:OH	2.13	0.48
25:BA:1021:A:H3'	25:BA:1021:A:H8	1.75	0.48
25:BA:1168:G:H1	25:BA:1181:C:N4	2.11	0.48
25:BA:1815:A:C5	25:BA:1817:G:C6	3.01	0.48
25:BA:2729:G:O2'	28:BE:170:LEU:HD11	2.13	0.48
25:BA:2741:A:OP1	55:B9:22:ARG:NH2	2.31	0.48
27:BD:108:PRO:HB3	27:BD:143:HIS:HE1	1.76	0.48
34:BO:7:TYR:C	34:BO:8:LEU:HD22	2.38	0.48
36:BQ:67:ARG:HD2	36:BQ:105:GLU:OE1	2.13	0.48
37:BR:103:ARG:HG2	37:BR:103:ARG:NH1	2.28	0.48
43:BX:60:ARG:HH21	53:B7:47:ARG:NH2	2.11	0.48
1:CA:377:G:H1	1:CA:386:C:N4	1.96	0.48
1:CA:927:G:N2	1:CA:1391:U:H1'	2.27	0.48
1:CA:1161:C:H2'	1:CA:1162:C:C6	2.48	0.48
4:CD:38:TYR:CE1	4:CD:45:GLN:HG3	2.48	0.48
12:CL:6:THR:O	12:CL:9:GLN:HB2	2.13	0.48
23:CV:8:U:O2'	23:CV:21:A:N1	2.34	0.48
25:DA:776:G:H4'	25:DA:777:A:O5'	2.12	0.48
25:DA:1001:A:H2'	25:DA:1002:G:O4'	2.13	0.48
25:DA:1005:C:C2	25:DA:1143:A:C5	3.01	0.48
25:DA:1019:U:H2'	25:DA:1020:A:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2261:C:C5	46:D0:16:SER:HB3	2.48	0.48
28:DE:67:PHE:HB3	28:DE:72:VAL:O	2.12	0.48
31:DH:153:LYS:HG3	31:DH:154:PRO:HD2	1.94	0.48
32:DI:123:LEU:HA	32:DI:144:VAL:HG13	1.95	0.48
35:DP:143:GLY:O	35:DP:145:PRO:HD3	2.13	0.48
39:DT:53:ARG:HH11	39:DT:60:THR:HG23	1.77	0.48
40:DU:76:TYR:OH	40:DU:92:ARG:NH1	2.40	0.48
1:AA:40:C:H2'	1:AA:41:G:H8	1.78	0.48
1:AA:1138:G:C5	1:AA:1140:C:H1'	2.48	0.48
1:AA:1531:A:H2'	1:AA:1532:U:C1'	2.43	0.48
2:AB:97:TRP:CH2	2:AB:173:ALA:HA	2.49	0.48
4:AD:142:PRO:HG3	4:AD:185:PHE:CE2	2.48	0.48
6:AF:70:ASP:OD2	6:AF:71:ARG:HG3	2.13	0.48
10:AJ:39:PRO:HA	10:AJ:70:ARG:HD3	1.95	0.48
11:AK:99:GLN:HG3	11:AK:105:VAL:HG11	1.95	0.48
14:AN:27:CYS:C	14:AN:29:ARG:H	2.20	0.48
17:AQ:21:VAL:HG21	17:AQ:59:ILE:HG21	1.95	0.48
22:AY:103:LYS:HB3	25:BA:1915:U:H4'	1.95	0.48
25:BA:588:U:H2'	25:BA:589:C:C6	2.47	0.48
25:BA:764:A:OP1	27:BD:208:LYS:HE2	2.13	0.48
25:BA:1019:U:O2'	25:BA:1021:A:H2	1.96	0.48
25:BA:2609:U:OP1	25:BA:2609:U:H4'	2.11	0.48
27:BD:274:ARG:CB	27:BD:275:LYS:HB2	2.43	0.48
28:BE:78:LEU:C	28:BE:79:ARG:HG2	2.36	0.48
28:BE:82:ARG:HG2	28:BE:83:ASP:H	1.77	0.48
34:BO:64:ARG:HG2	34:BO:79:PHE:CG	2.48	0.48
39:BT:15:VAL:HG12	39:BT:16:ARG:N	2.28	0.48
50:B4:42:PHE:N	50:B4:43:TYR:HB2	2.28	0.48
1:CA:1227:A:C8	1:CA:1227:A:C3'	2.95	0.48
1:CA:1362:C:H2'	1:CA:1363:C:H5"	1.95	0.48
1:CA:1378:C:C5	1:CA:1379:G:C8	3.01	0.48
5:CE:50:GLU:HB2	5:CE:53:LEU:HD13	1.95	0.48
7:CG:109:ASN:O	7:CG:110:GLN:NE2	2.46	0.48
17:CQ:6:LEU:HB3	17:CQ:23:VAL:HG11	1.95	0.48
17:CQ:7:THR:HG23	17:CQ:58:GLU:HG3	1.96	0.48
25:DA:1141:U:P	33:DN:25:ARG:HH11	2.36	0.48
25:DA:1494:A:H2'	25:DA:1495:A:C8	2.48	0.48
25:DA:1859:A:C2	25:DA:1884:A:H1'	2.48	0.48
25:DA:1936:A:H2'	25:DA:1945:G:O6	2.14	0.48
25:DA:1963:U:H4'	25:DA:1964:G:OP1	2.13	0.48
30:DG:33:ARG:HE	30:DG:33:ARG:HB2	1.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:26:VAL:HG12	31:DH:79:VAL:HG21	1.95	0.48
44:DY:79:CYS:HB2	44:DY:81:LYS:H	1.77	0.48
45:DZ:30:ASN:N	45:DZ:33:LEU:O	2.38	0.48
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.13	0.48
13:AM:22:ILE:HG23	13:AM:67:GLU:HG3	1.95	0.48
25:BA:30:G:O2'	25:BA:1214:A:N3	2.41	0.48
25:BA:1045:A:H1'	25:BA:1047:G:N3	2.28	0.48
25:BA:1048:A:H1'	25:BA:1049:C:H2'	1.95	0.48
25:BA:1049:C:O2'	25:BA:1050:A:C8	2.67	0.48
27:BD:172:TYR:HD1	27:BD:185:VAL:C	2.21	0.48
1:CA:978:A:H5"	1:CA:979:C:OP2	2.12	0.48
1:CA:1142:G:H3'	1:CA:1143:G:H8	1.77	0.48
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.48	0.48
4:CD:107:ARG:HB3	4:CD:174:LEU:HD11	1.95	0.48
4:CD:117:ALA:O	4:CD:121:VAL:HG23	2.12	0.48
5:CE:36:ASP:O	5:CE:37:ARG:HB2	2.12	0.48
17:CQ:68:ARG:H	17:CQ:70:ARG:NH1	2.11	0.48
23:CV:49:G:C2'	23:CV:50:U:H5'	2.44	0.48
25:DA:673:C:H5"	29:DF:81:PRO:HD2	1.94	0.48
26:DB:66:A:H61	26:DB:109:C:H5"	1.77	0.48
48:D2:9:GLN:HE22	48:D2:56:GLN:HB3	1.78	0.48
1:AA:837:G:N7	58:AA:2311:HOH:O	2.35	0.48
1:AA:1164:G:O2'	1:AA:1165:C:H5'	2.13	0.48
2:AB:118:LEU:HD11	2:AB:141:GLU:HB3	1.94	0.48
5:AE:126:ARG:HH11	5:AE:126:ARG:CG	2.26	0.48
8:AH:7:ALA:HB2	8:AH:85:ARG:HD2	1.95	0.48
17:AQ:62:SER:HB3	17:AQ:72:ARG:HE	1.79	0.48
22:AY:69:VAL:HG12	22:AY:71:VAL:HG22	1.94	0.48
22:AY:113:ALA:O	22:AY:117:ARG:HG3	2.13	0.48
25:BA:831:G:O2'	35:BP:38:GLN:HG2	2.13	0.48
25:BA:1031:G:H21	55:B9:36:GLN:HE22	1.61	0.48
25:BA:1651:G:OP1	37:BR:40:LYS:HE3	2.13	0.48
25:BA:2784:C:H1'	28:BE:37:ARG:HH12	1.78	0.48
45:BZ:61:LEU:HD23	45:BZ:67:LEU:HD23	1.95	0.48
1:CA:1226:C:OP2	13:CM:103:THR:OG1	2.21	0.48
2:CB:212:GLN:O	2:CB:216:SER:OG	2.26	0.48
5:CE:80:ILE:CD1	5:CE:91:LEU:HB2	2.43	0.48
13:CM:65:LYS:HA	13:CM:66:LEU:CB	2.44	0.48
13:CM:65:LYS:HA	13:CM:66:LEU:CG	2.44	0.48
25:DA:659:C:H4'	29:DF:100:THR:O	2.12	0.48
25:DA:660:G:H5'	29:DF:99:TYR:CE2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:898:C:H2'	25:DA:899:A:O4'	2.13	0.48
25:DA:2102:U:O2	25:DA:2187:G:O6	2.31	0.48
25:DA:2575:C:H2'	25:DA:2578:G:O6	2.12	0.48
25:DA:2805:G:H2'	25:DA:2807:G:O4'	2.13	0.48
25:DA:2884:U:O2	51:D5:53:ALA:HB2	2.13	0.48
25:DA:2887:U:H2'	25:DA:2888:C:H6	1.79	0.48
28:DE:24:THR:HG22	28:DE:186:GLY:O	2.13	0.48
33:DN:18:ALA:HB1	33:DN:60:ILE:HD13	1.94	0.48
38:DS:26:LEU:HA	38:DS:39:ILE:HD13	1.95	0.48
38:DS:101:LEU:HD22	38:DS:102:ALA:HB2	1.94	0.48
39:DT:91:ARG:HD2	39:DT:120:ARG:NH1	2.29	0.48
40:DU:104:GLN:OE1	40:DU:105:VAL:HG23	2.13	0.48
45:DZ:34:ASN:O	45:DZ:35:ARG:HD2	2.13	0.48
1:AA:159:G:H2'	1:AA:161:A:OP2	2.13	0.48
1:AA:565:U:OP2	1:AA:566:G:O2'	2.26	0.48
1:AA:751:U:H5"	1:AA:752:G:OP2	2.14	0.48
1:AA:939:G:OP1	7:AG:102:ARG:NH1	2.36	0.48
1:AA:953:G:C2	1:AA:954:G:H1'	2.48	0.48
1:AA:1368:G:H5"	9:AI:112:LYS:HB3	1.94	0.48
4:AD:176:LEU:HG	4:AD:178:VAL:HG22	1.95	0.48
5:AE:30:ALA:O	5:AE:45:PHE:HA	2.13	0.48
17:AQ:40:LYS:HE2	17:AQ:42:TYR:CZ	2.49	0.48
20:AT:38:LYS:HA	20:AT:41:ILE:CG1	2.43	0.48
25:BA:154:G:H5"	25:BA:154:G:H8	1.77	0.48
25:BA:833:U:O2	35:BP:55:ARG:NH2	2.45	0.48
25:BA:975:C:OP2	25:BA:975:C:H4'	2.13	0.48
25:BA:1784:A:OP2	58:BA:5166:HOH:O	2.20	0.48
25:BA:2845:G:O2'	25:BA:2846:G:H5'	2.13	0.48
31:BH:154:PRO:HB3	31:BH:163:TYR:CZ	2.47	0.48
33:BN:102:ALA:O	33:BN:106:MET:HG3	2.14	0.48
50:B4:15:ILE:HG13	50:B4:21:VAL:HG13	1.95	0.48
52:B6:47:THR:HG22	52:B6:48:VAL:N	2.28	0.48
1:CA:271:C:H2'	1:CA:272:C:H6	1.78	0.48
1:CA:363:A:C2	12:CL:31:PRO:HG2	2.48	0.48
1:CA:1192:C:OP2	3:CC:4:LYS:NZ	2.38	0.48
8:CH:51:VAL:HG11	8:CH:60:ARG:HH11	1.77	0.48
23:CV:21:A:H2'	23:CV:46:G:O6	2.14	0.48
25:DA:287:C:N4	25:DA:354:G:H1	2.10	0.48
25:DA:533:G:H21	40:DU:45:TYR:HE2	1.61	0.48
25:DA:537:C:O2'	33:DN:5:VAL:HG21	2.13	0.48
25:DA:770:G:N3	25:DA:1354:A:H2	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:988:A:P	49:D3:11:SER:HB2	2.54	0.48
25:DA:1448:G:O2'	25:DA:1528:A:N6	2.38	0.48
25:DA:1689:A:N6	25:DA:1698:A:H2	1.97	0.48
25:DA:2295:C:C2	25:DA:2296:U:H5	2.31	0.48
31:DH:30:LYS:HG3	31:DH:80:SER:O	2.13	0.48
36:DQ:97:VAL:HG13	36:DQ:101:ARG:HB3	1.95	0.48
39:DT:109:GLU:O	39:DT:113:LYS:N	2.45	0.48
49:D3:43:ILE:O	49:D3:47:VAL:HG23	2.13	0.48
52:D6:9:LEU:CD2	52:D6:25:LYS:HB3	2.43	0.48
1:AA:66:G:O4'	1:AA:173:U:C4	2.66	0.48
1:AA:113:G:H2'	1:AA:114:U:C6	2.48	0.48
1:AA:865:A:H2	1:AA:918:A:H4'	1.78	0.48
1:AA:1223:C:OP2	19:AS:78:ARG:NH2	2.43	0.48
3:AC:33:LEU:HD22	14:AN:53:LEU:HD21	1.95	0.48
3:AC:153:VAL:HG22	3:AC:198:VAL:HG22	1.95	0.48
9:AI:45:ALA:HB3	9:AI:47:LEU:H	1.78	0.48
9:AI:46:ALA:HB1	9:AI:77:ILE:HB	1.95	0.48
23:AV:46:G:H8	23:AV:46:G:H3'	1.79	0.48
25:BA:89:G:H3'	25:BA:90:U:C5'	2.44	0.48
25:BA:832:G:N2	35:BP:53:GLY:HA3	2.27	0.48
25:BA:996:A:C2	25:BA:997:G:C8	3.01	0.48
25:BA:1186:G:OP1	58:BA:5190:HOH:O	2.20	0.48
25:BA:2573:C:H5"	25:BA:2574:G:C5'	2.44	0.48
26:BB:31:C:H4'	30:BG:29:TRP:CH2	2.49	0.48
29:BF:64:ILE:HG12	29:BF:65:TRP:N	2.29	0.48
30:BG:5:VAL:HG23	30:BG:104:GLU:OE2	2.13	0.48
35:BP:63:PRO:HG2	54:B8:25:MET:HB2	1.95	0.48
35:BP:138:LEU:HD23	35:BP:145:PRO:HG3	1.95	0.48
36:BQ:43:THR:O	36:BQ:46:GLN:HB2	2.14	0.48
1:CA:266:G:H5"	1:CA:267:C:C5	2.48	0.48
1:CA:411:A:OP2	4:CD:25:ARG:NH2	2.46	0.48
1:CA:502:G:C2	1:CA:503:C:C2	3.01	0.48
1:CA:539:A:H2'	1:CA:540:G:C8	2.49	0.48
1:CA:946:A:O2'	1:CA:1333:A:N3	2.41	0.48
1:CA:1065:U:H1'	1:CA:1066:C:OP2	2.14	0.48
1:CA:1135:U:H2'	1:CA:1137:C:C2	2.48	0.48
20:CT:56:MET:HE3	20:CT:88:VAL:HG11	1.95	0.48
25:DA:102:G:O2'	25:DA:103:A:P	2.71	0.48
25:DA:520:G:H2'	25:DA:521:G:H8	1.76	0.48
25:DA:1008:C:N4	25:DA:1136:G:C6	2.82	0.48
25:DA:2054:A:H5"	25:DA:2055:C:O5'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2326:C:H5”	25:DA:2327:A:OP2	2.13	0.48
25:DA:2376:A:H8	25:DA:2376:A:OP1	1.97	0.48
25:DA:2751:G:C8	31:DH:2:SER:N	2.81	0.48
27:DD:273:ARG:HG2	27:DD:274:ARG:N	2.28	0.48
33:DN:42:TRP:HA	33:DN:48:MET:SD	2.53	0.48
36:DQ:32:TYR:HB2	36:DQ:106:VAL:HG23	1.95	0.48
40:DU:17:ILE:HA	40:DU:20:LEU:HD12	1.95	0.48
43:DX:84:ALA:O	43:DX:87:GLN:HG3	2.13	0.48
45:DZ:108:PRO:HA	45:DZ:142:SER:HA	1.96	0.48
1:AA:189:G:C6	1:AA:189(L):G:N1	2.81	0.48
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.94	0.48
4:AD:138:TYR:HD2	4:AD:139:ARG:N	2.11	0.48
13:AM:23:TYR:CB	13:AM:67:GLU:HG2	2.38	0.48
13:AM:74:VAL:O	13:AM:77:ASN:HB2	2.14	0.48
20:AT:78:ALA:O	20:AT:82:SER:OG	2.31	0.48
22:AY:39:LEU:HD22	22:AY:71:VAL:HG12	1.95	0.48
22:AY:62:HIS:CD2	22:AY:63:LEU:HG	2.48	0.48
25:BA:848:G:C4	25:BA:933:A:C8	3.01	0.48
25:BA:2093:G:OP1	32:BI:23:PRO:HD2	2.13	0.48
25:BA:2575:C:H6	25:BA:2575:C:O5’	1.96	0.48
33:BN:33:LEU:HD12	33:BN:38:HIS:ND1	2.29	0.48
36:BQ:26:TYR:CE1	36:BQ:28:ALA:HB2	2.49	0.48
36:BQ:116:GLU:OE1	36:BQ:116:GLU:HA	2.12	0.48
37:BR:33:ARG:CB	37:BR:115:GLU:HB3	2.44	0.48
1:CA:73:G:C6	1:CA:97:G:C6	3.01	0.48
1:CA:677:U:H3	1:CA:713:G:N2	2.08	0.48
2:CB:58:ILE:H	2:CB:58:ILE:HG13	1.42	0.48
9:CI:11:LYS:H	9:CI:104:ARG:NH1	2.11	0.48
14:CN:29:ARG:HH21	14:CN:42:ILE:HD11	1.78	0.48
20:CT:54:LYS:HA	20:CT:57:ARG:NH2	2.29	0.48
20:CT:92:LEU:O	20:CT:96:GLY:HA2	2.12	0.48
23:CV:12:G:H4’	25:DA:1908:C:O2	2.14	0.48
25:DA:531:C:H4’	25:DA:532:A:H5”	1.94	0.48
25:DA:1292:U:H2’	25:DA:1293:C:H6	1.79	0.48
25:DA:2469:A:H5”	25:DA:2470:G:OP2	2.14	0.48
25:DA:2529:G:H5”	25:DA:2530:A:H5”	1.95	0.48
26:DB:37:C:C5	26:DB:38:C:C5	3.02	0.48
39:DT:6:LEU:HA	39:DT:6:LEU:HD13	1.47	0.48
43:DX:36:LYS:HE3	43:DX:56:THR:OG1	2.14	0.48
1:AA:28:G:H5”	1:AA:29:G:OP2	2.14	0.48
1:AA:115:G:O5’	1:AA:115:G:H8	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:719:C:O2'	18:AR:50:ILE:O	2.28	0.48
1:AA:923:A:OP1	5:AE:21:ALA:HB2	2.14	0.48
1:AA:941:G:C2	1:AA:942:G:H1'	2.48	0.48
1:AA:949:A:H1'	1:AA:1364:U:H3	1.78	0.48
3:AC:181:ASN:ND2	3:AC:204:LEU:HD12	2.28	0.48
9:AI:127:LYS:HD2	58:AI:301:HOH:O	2.14	0.48
23:AV:59:A:H2'	23:AV:60:U:H5'	1.96	0.48
25:BA:132:G:H1	25:BA:147:U:H3	1.60	0.48
25:BA:154:G:H5'	25:BA:154(A):C:OP2	2.13	0.48
25:BA:271(K):U:H1'	25:BA:271(L):U:OP1	2.14	0.48
25:BA:442:G:H4'	29:BF:46:ARG:HG3	1.95	0.48
25:BA:886:C:O2'	25:BA:889:C:N4	2.46	0.48
25:BA:1568:G:O5'	27:BD:61:LEU:HD22	2.14	0.48
28:BE:82:ARG:HG2	28:BE:83:ASP:N	2.29	0.48
44:BY:13:VAL:HB	44:BY:72:VAL:HG22	1.96	0.48
1:CA:406:G:H21	4:CD:119:GLN:HE22	1.59	0.48
1:CA:509:A:C8	1:CA:509:A:C3'	2.96	0.48
1:CA:541:G:C6	1:CA:542:G:C5	3.02	0.48
1:CA:764:C:C2	1:CA:765:G:C8	3.02	0.48
1:CA:1056:U:O3'	3:CC:155:GLY:HA2	2.14	0.48
1:CA:1123:A:H4'	10:CJ:37:PRO:HD2	1.96	0.48
5:CE:80:ILE:HD12	5:CE:91:LEU:HB2	1.94	0.48
7:CG:113:GLU:CD	7:CG:119:ARG:HG2	2.39	0.48
10:CJ:8:LEU:HB2	10:CJ:16:LEU:HD21	1.94	0.48
25:DA:109:G:H2'	25:DA:110:G:O4'	2.13	0.48
25:DA:614(C):A:N3	25:DA:615:G:H1'	2.29	0.48
25:DA:854:G:H2'	25:DA:855:G:H8	1.79	0.48
25:DA:1200:C:H1'	40:DU:2:PRO:HG3	1.95	0.48
25:DA:1638:C:H4'	25:DA:2710:C:O2	2.14	0.48
25:DA:1802:A:N1	25:DA:1822:G:H1'	2.29	0.48
25:DA:1839:G:C8	25:DA:1927:A:H1'	2.49	0.48
25:DA:2228:G:OP1	27:DD:261:LYS:HE2	2.14	0.48
25:DA:2534:A:C2	25:DA:2535:G:H1'	2.49	0.48
25:DA:2780:G:H4'	25:DA:2781:A:OP2	2.14	0.48
25:DA:2783:G:H2'	25:DA:2784:C:C6	2.49	0.48
33:DN:62:VAL:CG1	33:DN:66:LYS:HB2	2.44	0.48
37:DR:25:ALA:O	37:DR:29:LEU:HB2	2.14	0.48
48:D2:32:LEU:HD12	48:D2:53:LEU:HB3	1.96	0.48
1:AA:189(A):C:H2'	1:AA:189(B):C:C6	2.49	0.48
1:AA:626:U:C2	1:AA:627:G:C8	3.02	0.48
1:AA:800:G:HO2'	1:AA:801:U:H6	1.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2273:A:H2'	25:BA:2274:A:C8	2.49	0.48
58:BA:3942:HOH:O	46:B0:23:VAL:HG23	2.13	0.48
26:BB:77:U:P	45:BZ:19:ARG:HH22	2.37	0.48
27:BD:130:ALA:C	27:BD:131:LEU:HD12	2.39	0.48
28:BE:50:GLY:HA3	28:BE:75:VAL:HG11	1.96	0.48
30:BG:34:LEU:HD23	30:BG:34:LEU:HA	1.78	0.48
45:BZ:128:VAL:HG22	45:BZ:132:ASN:HB2	1.96	0.48
52:B6:47:THR:HG22	52:B6:48:VAL:O	2.14	0.48
1:CA:537:G:H5"	12:CL:113:ARG:NH1	2.29	0.48
1:CA:848:C:H2'	1:CA:849:C:O4'	2.14	0.48
1:CA:1253:G:H2'	1:CA:1254:C:C6	2.49	0.48
2:CB:30:ARG:HG3	2:CB:31:TYR:N	2.29	0.48
25:DA:705:A:H1'	27:DD:9:TYR:CE1	2.49	0.48
25:DA:754:C:H2'	25:DA:755:C:C6	2.49	0.48
25:DA:875:G:N2	25:DA:903:C:C2	2.81	0.48
25:DA:1356:G:C6	25:DA:1357:U:N3	2.81	0.48
25:DA:1810:A:H2'	25:DA:1811:G:O4'	2.13	0.48
25:DA:2009:G:OP1	42:DW:41:LYS:HE3	2.14	0.48
25:DA:2052:G:O4'	28:DE:142:GLY:HA3	2.14	0.48
25:DA:2361:A:OP1	54:D8:27:THR:HG23	2.13	0.48
25:DA:2833:G:O2'	25:DA:2834:G:P	2.71	0.48
30:DG:32:PRO:HB2	30:DG:172:LEU:HD22	1.96	0.48
33:DN:53:VAL:HG11	33:DN:128:HIS:HB2	1.96	0.48
36:DQ:63:LYS:HE3	36:DQ:65:PHE:CZ	2.49	0.48
47:D1:76:ARG:HE	47:D1:97:LEU:HD22	1.79	0.48
53:D7:24:THR:O	53:D7:28:ARG:HG3	2.13	0.48
1:AA:167:G:H2'	1:AA:168:G:C8	2.49	0.48
1:AA:324:G:N1	1:AA:327:A:OP2	2.47	0.48
1:AA:343:U:P	1:AA:343:U:H3'	2.53	0.48
1:AA:509:A:N3	1:AA:543:C:O2'	2.36	0.48
1:AA:976:G:C8	1:AA:1362:C:N4	2.82	0.48
1:AA:1246:C:H42	1:AA:1291:G:H1	1.62	0.48
3:AC:19:GLU:HB2	3:AC:55:VAL:O	2.13	0.48
6:AF:86:ARG:O	6:AF:87:ARG:HG2	2.13	0.48
22:AY:34:SER:HB2	25:BA:2602:A:H61	1.77	0.48
25:BA:570:G:H2'	25:BA:2030:A:C5	2.48	0.48
25:BA:2032:G:O2'	28:BE:145:LYS:NZ	2.46	0.48
25:BA:2637:U:H5"	28:BE:82:ARG:NH2	2.27	0.48
28:BE:77:ILE:HG21	28:BE:195:LEU:HD11	1.96	0.48
31:BH:62:LYS:HE2	31:BH:62:LYS:HB2	1.64	0.48
31:BH:143:GLN:O	31:BH:146:ALA:HB3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BQ:110:THR:HG23	36:BQ:113:GLN:CG	2.42	0.48
38:BS:65:VAL:O	38:BS:69:VAL:HG12	2.14	0.48
50:B4:42:PHE:HB3	50:B4:43:TYR:HB2	1.95	0.48
1:CA:189(H):G:C6	1:CA:189(I):G:C5	3.01	0.48
1:CA:433:C:H2'	1:CA:434:U:C6	2.49	0.48
1:CA:560:U:H5'	1:CA:566:G:N2	2.29	0.48
1:CA:1203:C:OP1	14:CN:3:ARG:HD3	2.14	0.48
1:CA:1273:G:H5'	1:CA:1274:G:OP2	2.14	0.48
1:CA:1493:A:C8	1:CA:1493:A:OP2	2.67	0.48
2:CB:187:LEU:HD23	2:CB:201:ILE:HG22	1.95	0.48
13:CM:65:LYS:HA	13:CM:66:LEU:HG	1.95	0.48
18:CR:70:ILE:O	18:CR:74:ARG:HG3	2.13	0.48
25:DA:296:C:O3'	44:DY:95:LYS:NZ	2.47	0.48
25:DA:483:A:O2'	44:DY:49:VAL:O	2.21	0.48
25:DA:1339:G:H21	25:DA:1603:A:H1'	1.79	0.48
25:DA:2461:C:H2'	25:DA:2462:U:C6	2.49	0.48
25:DA:2657:A:C2	25:DA:2665:A:C4	3.02	0.48
29:DF:53:THR:O	29:DF:55:GLY:N	2.47	0.48
29:DF:89:VAL:HG12	29:DF:90:PHE:N	2.28	0.48
31:DH:69:ARG:HG3	31:DH:70:THR:N	2.27	0.48
33:DN:128:HIS:O	33:DN:130:HIS:N	2.47	0.48
42:DW:59:VAL:HG12	42:DW:60:ASN:OD1	2.13	0.48
45:DZ:128:VAL:HG23	45:DZ:161:VAL:N	2.29	0.48
1:AA:189:G:C6	1:AA:189(A):C:C4	3.02	0.47
1:AA:993:G:N3	1:AA:993:G:H2'	2.29	0.47
1:AA:1125:U:H5"	1:AA:1126:U:C4	2.49	0.47
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.47	0.47
1:AA:1202:G:O4'	14:AN:29:ARG:NH1	2.40	0.47
1:AA:1245:A:N6	1:AA:1293:G:O6	2.47	0.47
2:AB:9:GLU:O	2:AB:11:LEU:N	2.39	0.47
4:AD:192:GLU:C	4:AD:194:LEU:H	2.21	0.47
25:BA:69:C:H2'	25:BA:70:G:H8	1.79	0.47
25:BA:1364:G:OP2	47:B1:3:LYS:HG3	2.14	0.47
25:BA:2469:A:O3'	36:BQ:56:ARG:HD3	2.14	0.47
28:BE:11:MET:HE2	28:BE:11:MET:HB3	1.80	0.47
32:BI:132:PRO:HD3	32:BI:138:ILE:CD1	2.44	0.47
47:B1:37:ILE:HG22	47:B1:38:SER:N	2.29	0.47
47:B1:94:LEU:O	47:B1:97:LEU:HB2	2.14	0.47
1:CA:240:C:H2'	1:CA:241:C:C6	2.49	0.47
1:CA:477:A:H2'	1:CA:479:C:H6	1.79	0.47
1:CA:561:U:O2'	1:CA:562:C:OP1	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:562:C:H4'	1:CA:563:A:O5'	2.14	0.47
1:CA:1268:A:H4'	21:CU:19:GLY:HA2	1.95	0.47
2:CB:109:SER:O	2:CB:112:VAL:N	2.47	0.47
25:DA:297:C:OP1	44:DY:87:LYS:HD2	2.14	0.47
25:DA:872:A:C6	25:DA:873:G:C6	3.01	0.47
25:DA:1183:G:O3'	49:D3:29:ARG:NH1	2.47	0.47
25:DA:1788:C:C2	25:DA:1789:A:C8	3.01	0.47
25:DA:2334:G:H8	25:DA:2334:G:OP1	1.96	0.47
25:DA:2528:U:O2'	25:DA:2529:G:H3'	2.13	0.47
25:DA:2779:U:H4'	25:DA:2780:G:H5"	1.95	0.47
28:DE:51:PHE:HB3	28:DE:77:ILE:HG22	1.95	0.47
29:DF:184:TYR:CE2	29:DF:188:ARG:HD2	2.49	0.47
34:DO:64:ARG:HB3	34:DO:79:PHE:CG	2.49	0.47
41:DV:64:HIS:ND1	41:DV:92:THR:OG1	2.38	0.47
1:AA:21:G:H2'	1:AA:22:G:C8	2.49	0.47
1:AA:153:C:H2'	1:AA:154:C:C6	2.49	0.47
1:AA:263:A:OP2	20:AT:79:ARG:NH1	2.47	0.47
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.49	0.47
1:AA:1129:C:O5'	1:AA:1130:A:H5'	2.13	0.47
1:AA:1457:G:H2'	1:AA:1458:G:H8	1.77	0.47
2:AB:185:ILE:CG2	2:AB:199:TYR:HB2	2.34	0.47
5:AE:126:ARG:HH11	5:AE:126:ARG:HG2	1.78	0.47
8:AH:7:ALA:HB2	8:AH:85:ARG:CD	2.45	0.47
18:AR:24:ALA:O	18:AR:26:LEU:N	2.47	0.47
25:BA:183:C:N4	25:BA:213:A:H61	2.11	0.47
25:BA:528:A:C2	25:BA:2043:C:H4'	2.49	0.47
25:BA:771:G:OP1	53:B7:14:LYS:NZ	2.48	0.47
25:BA:994:C:OP2	40:BU:54:LYS:NZ	2.39	0.47
25:BA:1916:A:H2'	25:BA:1917:U:O4'	2.14	0.47
25:BA:2562:U:H1'	34:BO:23:ARG:NH1	2.21	0.47
26:BB:32:C:C2	26:BB:51:G:N2	2.82	0.47
38:BS:36:TYR:N	38:BS:36:TYR:CD1	2.81	0.47
1:CA:257:G:C4	1:CA:258:G:C8	3.02	0.47
1:CA:574:A:H5"	1:CA:575:G:OP2	2.14	0.47
1:CA:619:U:C2	4:CD:135:LEU:HD21	2.49	0.47
1:CA:881:G:H2'	1:CA:882:C:O4'	2.14	0.47
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.80	0.47
2:CB:69:LEU:HD12	2:CB:70:PHE:N	2.29	0.47
3:CC:39:ILE:O	3:CC:43:LEU:HG	2.14	0.47
9:CI:118:LYS:C	9:CI:120:ARG:H	2.22	0.47
23:CV:72:A:H2'	23:CV:73:A:O4'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:533:G:H5'	40:DU:24:TYR:CD2	2.49	0.47
25:DA:565:C:H2'	25:DA:566:U:O4'	2.14	0.47
25:DA:646:A:H2'	25:DA:647:G:O4'	2.13	0.47
25:DA:886:C:H2'	25:DA:887:A:H5'	1.96	0.47
25:DA:1021:A:C8	25:DA:1021:A:H3'	2.50	0.47
25:DA:1497:U:H5"	25:DA:1498:C:H5	1.79	0.47
25:DA:2653:U:H3	25:DA:2667:C:H42	1.61	0.47
25:DA:2712:U:OP1	25:DA:2714:G:H4'	2.15	0.47
26:DB:45:A:OP1	30:DG:95:ARG:HD2	2.14	0.47
36:DQ:35:VAL:HG22	36:DQ:36:ALA:N	2.28	0.47
40:DU:8:VAL:HG13	40:DU:12:ARG:HE	1.79	0.47
44:DY:92:ASN:N	44:DY:93:GLY:HA2	2.28	0.47
51:D5:45:VAL:HG22	51:D5:52:TYR:HB2	1.94	0.47
1:AA:303:A:H2'	1:AA:304:U:O4'	2.14	0.47
1:AA:965:A:C2	1:AA:969:A:C2	3.03	0.47
1:AA:980:C:H5"	1:AA:981:U:OP2	2.14	0.47
10:AJ:7:LYS:HA	10:AJ:71:LEU:HA	1.96	0.47
20:AT:14:LYS:O	20:AT:18:GLN:HG3	2.13	0.47
22:AY:40:ARG:NH2	22:AY:88:LEU:HD22	2.30	0.47
23:AV:46:G:H3'	23:AV:46:G:C8	2.49	0.47
25:BA:1176:G:H1'	25:BA:1177:A:H5"	1.96	0.47
30:BG:109:VAL:C	30:BG:112:PRO:HD2	2.39	0.47
33:BN:63:THR:O	33:BN:66:LYS:HG3	2.14	0.47
40:BU:79:PHE:CE1	40:BU:83:LEU:HD21	2.50	0.47
47:B1:64:ALA:HA	47:B1:67:ILE:HG13	1.96	0.47
1:CA:114:U:H2'	1:CA:115:G:C8	2.48	0.47
1:CA:544:G:OP1	4:CD:62:GLN:NE2	2.30	0.47
1:CA:1308:U:H5"	13:CM:98:VAL:CG2	2.42	0.47
1:CA:1353:G:H2'	1:CA:1354:C:H6	1.78	0.47
1:CA:1389:C:H5"	1:CA:1390:U:OP2	2.14	0.47
1:CA:1512:U:H2'	1:CA:1513:A:H8	1.78	0.47
6:CF:2:ARG:CZ	6:CF:69:GLU:HG2	2.44	0.47
6:CF:50:TYR:HB2	6:CF:51:PRO:HD2	1.96	0.47
9:CI:24:GLY:HA2	9:CI:59:PHE:O	2.15	0.47
20:CT:26:ASN:OD1	20:CT:71:THR:HG23	2.14	0.47
25:DA:152:G:H2'	25:DA:153:C:O4'	2.14	0.47
25:DA:321:G:OP2	29:DF:136:THR:OG1	2.32	0.47
25:DA:960:A:H5"	25:DA:961:C:OP2	2.14	0.47
25:DA:1283:G:H2'	25:DA:1285:G:OP2	2.14	0.47
25:DA:1283:G:N2	25:DA:1286:A:H5'	2.29	0.47
25:DA:1302:A:H5'	25:DA:1608:A:OP1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2572:A:N7	28:DE:145:LYS:HB2	2.29	0.47
47:D1:73:LEU:HD22	47:D1:73:LEU:HA	1.80	0.47
1:AA:52:G:H2'	1:AA:53:A:H8	1.78	0.47
1:AA:1358:U:H3	1:AA:1363(A):A:H61	0.59	0.47
2:AB:220:ASP:O	2:AB:224:GLN:N	2.45	0.47
3:AC:118:GLN:HA	3:AC:121:ALA:HB3	1.95	0.47
6:AF:50:TYR:OH	18:AR:74:ARG:O	2.30	0.47
9:AI:126:SER:HA	9:AI:127:LYS:HD3	1.96	0.47
22:AY:44:ARG:CZ	22:AY:57:LEU:HD11	2.44	0.47
25:BA:603:A:C8	25:BA:655:A:C6	3.02	0.47
25:BA:2249:U:H4'	25:BA:2250:G:OP2	2.15	0.47
25:BA:2348:U:H2'	25:BA:2349:G:H5"	1.96	0.47
27:BD:71:ASP:CB	27:BD:103:ARG:HH22	2.26	0.47
47:B1:58:ILE:HD11	47:B1:60:PHE:CE2	2.48	0.47
49:B3:56:VAL:HG12	49:B3:57:GLU:N	2.30	0.47
1:CA:189(D):C:O2	1:CA:189(H):G:C2	2.67	0.47
1:CA:234:C:H2'	1:CA:235:C:H6	1.79	0.47
1:CA:270:A:C5	1:CA:271:C:C4	3.02	0.47
1:CA:832:C:O2'	1:CA:833:U:P	2.73	0.47
1:CA:836:G:C6	1:CA:851:G:C6	3.03	0.47
2:CB:185:ILE:HA	2:CB:199:TYR:O	2.14	0.47
4:CD:103:ASN:O	4:CD:106:TYR:N	2.48	0.47
4:CD:110:PHE:N	4:CD:110:PHE:CD1	2.82	0.47
4:CD:162:LEU:HD23	4:CD:162:LEU:HA	1.65	0.47
19:CS:35:SER:HB3	19:CS:37:ARG:HD3	1.96	0.47
23:CV:61:C:O2'	23:CV:62:C:H5'	2.14	0.47
25:DA:1438:U:O2'	25:DA:1439:A:H5'	2.14	0.47
25:DA:1515:G:H2'	25:DA:1516:C:H6	1.79	0.47
25:DA:1686:C:O2'	25:DA:1687:G:H5'	2.14	0.47
25:DA:1796:U:H2'	25:DA:1797:C:C6	2.50	0.47
25:DA:1915:U:H3'	25:DA:1916:A:H8	1.78	0.47
25:DA:2050:C:H1'	28:DE:156:MET:CE	2.44	0.47
25:DA:2262:U:OP1	46:D0:19:LYS:HD3	2.13	0.47
25:DA:2634:G:O6	25:DA:2784:C:N4	2.34	0.47
25:DA:2808:U:H5"	25:DA:2891:G:O6	2.14	0.47
27:DD:16:MET:HB2	27:DD:207:GLY:HA3	1.96	0.47
28:DE:18:ASP:HB3	39:DT:82:LEU:HD21	1.95	0.47
30:DG:106:LEU:HG	30:DG:111:LEU:HG	1.97	0.47
41:DV:42:GLY:O	41:DV:43:GLU:HG2	2.14	0.47
42:DW:71:VAL:HA	42:DW:107:LEU:HD12	1.95	0.47
45:DZ:19:ARG:HE	45:DZ:19:ARG:HB2	1.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:300:A:H1'	1:AA:565:U:O2	2.15	0.47
3:AC:3:ASN:OD1	3:AC:3:ASN:N	2.47	0.47
4:AD:133:VAL:HG11	4:AD:138:TYR:HD1	1.79	0.47
8:AH:28:ALA:HA	8:AH:32:LYS:HD3	1.97	0.47
9:AI:30:GLY:C	9:AI:31:GLN:HG2	2.39	0.47
9:AI:101:PHE:CD1	9:AI:101:PHE:N	2.80	0.47
13:AM:14:ARG:HG2	13:AM:17:VAL:HG22	1.97	0.47
16:AP:50:LYS:O	16:AP:51:VAL:HG23	2.15	0.47
22:AY:21:ARG:HA	22:AY:35:THR:HA	1.96	0.47
23:AV:20:U:O2'	23:AV:21:A:H5"	2.14	0.47
25:BA:118:A:C8	25:BA:119:A:C8	3.03	0.47
25:BA:143:G:H1'	43:BX:37:THR:HG21	1.96	0.47
25:BA:356:G:H2'	25:BA:357:A:H8	1.79	0.47
25:BA:885:C:N3	25:BA:890:A:N1	2.62	0.47
25:BA:1579:A:H2'	25:BA:1580:A:O4'	2.14	0.47
34:BO:79:PHE:HE2	34:BO:101:PRO:HB2	1.79	0.47
1:CA:664:G:H22	1:CA:741:G:H1	1.61	0.47
1:CA:832:C:N4	1:CA:855:G:C6	2.82	0.47
1:CA:1168:A:H8	1:CA:1168:A:OP1	1.97	0.47
1:CA:1181:G:H2'	1:CA:1182:G:C4	2.50	0.47
2:CB:19:HIS:ND1	2:CB:20:GLU:HG2	2.29	0.47
2:CB:136:VAL:O	2:CB:139:LYS:HB3	2.14	0.47
8:CH:4:ASP:OD1	8:CH:85:ARG:NH1	2.41	0.47
8:CH:73:ASP:OD2	8:CH:75:ARG:HD3	2.15	0.47
9:CI:44:VAL:HA	9:CI:45:ALA:HA	1.54	0.47
10:CJ:55:LYS:O	10:CJ:57:LYS:N	2.48	0.47
13:CM:9:ILE:HA	13:CM:10:PRO:HD3	1.53	0.47
25:DA:29:U:O5'	25:DA:29:U:H6	1.98	0.47
25:DA:251:A:C5	25:DA:252:G:H1'	2.50	0.47
25:DA:480:A:OP2	44:DY:47:LYS:HD3	2.14	0.47
25:DA:832:G:H21	35:DP:53:GLY:HA3	1.80	0.47
25:DA:1242:A:N1	35:DP:4:SER:HB2	2.29	0.47
25:DA:1927:A:H2'	25:DA:1928:A:C8	2.50	0.47
25:DA:2256:G:H2'	25:DA:2257:U:H6	1.79	0.47
25:DA:2467:C:H4'	36:DQ:123:HIS:ND1	2.30	0.47
25:DA:2787:C:O2'	28:DE:61:ARG:HD3	2.14	0.47
34:DO:13:ASN:C	34:DO:15:GLY:N	2.71	0.47
53:D7:35:ARG:HG3	53:D7:42:LEU:HD11	1.95	0.47
1:AA:262:A:C6	1:AA:263:A:C6	3.03	0.47
1:AA:875:C:O2'	8:AH:14:ARG:NH1	2.46	0.47
1:AA:975:A:N6	1:AA:1366:C:O2'	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.79	0.47
25:BA:221:A:N1	25:BA:265:A:O2'	2.44	0.47
25:BA:298:G:N7	58:BA:4997:HOH:O	2.35	0.47
25:BA:2036:C:P	58:BA:4649:HOH:O	2.73	0.47
27:BD:147:LEU:HD12	27:BD:155:LEU:HD11	1.97	0.47
28:BE:77:ILE:HA	28:BE:77:ILE:HD13	1.63	0.47
30:BG:21:ARG:HE	30:BG:21:ARG:HB3	1.41	0.47
45:BZ:54:HIS:ND1	45:BZ:101:PRO:HG3	2.30	0.47
47:B1:6:GLU:HG3	47:B1:61:ARG:O	2.15	0.47
1:CA:55:A:C5	1:CA:56:U:C5	3.02	0.47
1:CA:378:G:C6	1:CA:379:C:C4	3.01	0.47
1:CA:983:A:N1	1:CA:1222:G:N2	2.52	0.47
1:CA:1007:C:H2'	1:CA:1008:C:H6	1.79	0.47
2:CB:32:ILE:HD11	2:CB:190:THR:HG22	1.96	0.47
2:CB:86:GLU:C	2:CB:89:GLY:H	2.23	0.47
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	1.96	0.47
25:DA:71:A:C2	43:DX:31:HIS:CE1	3.02	0.47
25:DA:729:G:O5'	27:DD:208:LYS:NZ	2.48	0.47
25:DA:830:G:H4'	25:DA:831:G:OP2	2.15	0.47
25:DA:953:A:H2'	25:DA:954:G:H8	1.80	0.47
25:DA:2375:G:O2'	25:DA:2377:A:N7	2.38	0.47
30:DG:16:ARG:CZ	30:DG:31:VAL:HG21	2.44	0.47
32:DI:65:ALA:O	32:DI:68:LEU:HB2	2.14	0.47
35:DP:86:LYS:HB3	35:DP:118:GLY:HA2	1.97	0.47
36:DQ:60:ARG:NH2	45:DZ:177:PRO:HG3	2.30	0.47
38:DS:88:ASP:OD1	38:DS:88:ASP:C	2.58	0.47
46:D0:56:ASP:O	46:D0:57:PHE:HB2	2.14	0.47
1:AA:251:G:H4'	1:AA:252:U:O5'	2.15	0.47
1:AA:432:A:H3'	1:AA:433:C:H6	1.80	0.47
1:AA:832:C:N4	1:AA:855:G:C6	2.82	0.47
1:AA:872:A:C5	1:AA:874:G:C8	3.02	0.47
1:AA:983:A:H3'	1:AA:983:A:N3	2.29	0.47
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	2.30	0.47
1:AA:1351:U:O4'	7:AG:33:ASP:HB3	2.14	0.47
7:AG:18:TYR:CD2	7:AG:59:LEU:HD22	2.50	0.47
9:AI:4:TYR:CE1	9:AI:88:TYR:HA	2.49	0.47
10:AJ:55:LYS:HG2	10:AJ:56:HIS:N	2.29	0.47
16:AP:39:TYR:CE1	16:AP:41:PRO:HB3	2.50	0.47
17:AQ:5:VAL:O	17:AQ:6:LEU:HD12	2.15	0.47
18:AR:59:SER:N	18:AR:62:GLU:OE1	2.34	0.47
25:BA:70:G:H21	25:BA:71:A:H62	1.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:84:A:N1	25:BA:98:G:O2'	2.41	0.47
25:BA:204:A:H8	25:BA:204:A:OP1	1.97	0.47
25:BA:774:A:H2'	25:BA:774:A:N3	2.29	0.47
25:BA:1021:A:C8	25:BA:1021:A:C3'	2.97	0.47
25:BA:1152:C:O2'	25:BA:1153:C:H5'	2.15	0.47
25:BA:1290:C:O2'	25:BA:1291:C:H5'	2.14	0.47
25:BA:1336:A:H2'	25:BA:1337:G:C8	2.50	0.47
25:BA:1372:U:H6	25:BA:1372:U:O5'	1.97	0.47
25:BA:2570:G:O6	58:BA:4312:HOH:O	2.18	0.47
26:BB:89:G:OP2	26:BB:89:G:H8	1.98	0.47
27:BD:16:MET:HG2	27:BD:211:ARG:HH21	1.79	0.47
27:BD:35:LYS:HG2	27:BD:64:ILE:HD11	1.97	0.47
35:BP:26:GLY:CA	35:BP:28:GLY:H	2.28	0.47
36:BQ:31:ASP:HB2	36:BQ:32:TYR:HD1	1.80	0.47
36:BQ:52:VAL:HA	36:BQ:55:VAL:HG13	1.97	0.47
37:BR:4:LEU:HA	37:BR:4:LEU:HD23	1.41	0.47
38:BS:3:ARG:CZ	38:BS:3:ARG:HB2	2.44	0.47
38:BS:102:ALA:O	38:BS:106:ARG:N	2.34	0.47
39:BT:1:MET:O	39:BT:1:MET:HG3	2.13	0.47
52:B6:14:THR:OG1	52:B6:48:VAL:O	2.32	0.47
1:CA:129(A):G:N7	1:CA:189(E):U:O3'	2.48	0.47
1:CA:452:A:H1'	1:CA:453:A:C8	2.49	0.47
1:CA:920:U:O4'	1:CA:1080:A:C2	2.68	0.47
1:CA:1016:A:C5	1:CA:1017:G:H1'	2.50	0.47
1:CA:1127:G:C2'	1:CA:1147:C:H42	2.28	0.47
1:CA:1226:C:H2'	13:CM:103:THR:HB	1.96	0.47
1:CA:1347:G:HO2'	1:CA:1373:G:H1	1.63	0.47
1:CA:1392:G:N2	1:CA:1502:A:H8	2.12	0.47
3:CC:152:ILE:HD12	3:CC:199:LYS:HD2	1.97	0.47
4:CD:118:ARG:O	4:CD:121:VAL:N	2.48	0.47
6:CF:2:ARG:HB2	6:CF:4:TYR:CE2	2.49	0.47
11:CK:104:GLN:O	11:CK:105:VAL:HG22	2.14	0.47
20:CT:67:ALA:HB2	20:CT:77:ALA:HB2	1.96	0.47
25:DA:144:C:H2'	25:DA:145:G:H8	1.80	0.47
25:DA:176:G:O2'	25:DA:177:G:H5'	2.15	0.47
25:DA:323:G:H2'	29:DF:169:ASN:ND2	2.30	0.47
25:DA:475:U:C4	25:DA:481:G:O6	2.68	0.47
25:DA:614:U:H5'	25:DA:614(C):A:N6	2.30	0.47
25:DA:987:G:O2'	25:DA:1000:A:N3	2.37	0.47
25:DA:1529:G:C6	25:DA:1530:C:C4	3.02	0.47
25:DA:2070:G:C2	25:DA:2442:C:C2	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2261:C:C6	46:D0:16:SER:HB3	2.50	0.47
25:DA:2464:C:C2	25:DA:2487:G:C2	3.02	0.47
26:DB:45:A:C6	26:DB:46:A:C5	3.02	0.47
28:DE:98:PRO:HD3	28:DE:175:VAL:HG13	1.95	0.47
29:DF:28:ILE:HG13	29:DF:112:MET:HG2	1.97	0.47
30:DG:33:ARG:HE	30:DG:162:THR:HG21	1.78	0.47
31:DH:88:LEU:N	31:DH:163:TYR:O	2.47	0.47
36:DQ:2:LEU:HA	36:DQ:2:LEU:HD12	1.61	0.47
36:DQ:110:THR:HG23	36:DQ:113:GLN:OE1	2.14	0.47
40:DU:41:ALA:O	40:DU:45:TYR:HD1	1.97	0.47
40:DU:88:ILE:HG23	41:DV:48:GLY:O	2.14	0.47
44:DY:19:LYS:HE3	44:DY:20:TYR:CE1	2.50	0.47
49:D3:46:ASN:O	49:D3:50:VAL:HG22	2.14	0.47
1:AA:545:C:O3'	4:AD:72:GLU:HB3	2.15	0.47
1:AA:668:G:O4'	15:AO:49:ASP:HB2	2.15	0.47
1:AA:803:G:H2'	1:AA:804:U:O4'	2.15	0.47
1:AA:939:G:H2'	1:AA:940:C:C6	2.50	0.47
1:AA:1066:C:O2'	1:AA:1067:A:H5'	2.15	0.47
1:AA:1132:C:H2'	1:AA:1133:G:H8	1.79	0.47
3:AC:16:ARG:NH1	3:AC:183:ASP:OD2	2.44	0.47
3:AC:32:LEU:HD13	3:AC:59:ARG:HH11	1.80	0.47
4:AD:129:ASN:HD21	4:AD:144:ASP:CB	2.27	0.47
8:AH:25:ASP:HB3	8:AH:58:TYR:CD2	2.50	0.47
12:AL:60:LEU:HB2	12:AL:64:TYR:O	2.14	0.47
20:AT:61:SER:O	20:AT:65:LYS:HG3	2.15	0.47
25:BA:652(H):C:C2'	25:BA:652(I):C:H5'	2.44	0.47
25:BA:1309:G:H4'	53:B7:7:PRO:HG2	1.96	0.47
25:BA:1664:A:OP2	58:BA:5297:HOH:O	2.21	0.47
25:BA:2291:U:H2'	25:BA:2292:C:C6	2.50	0.47
25:BA:2431:U:OP1	58:BA:4603:HOH:O	2.20	0.47
27:BD:5:LYS:HB3	27:BD:5:LYS:HE3	1.66	0.47
27:BD:33:LEU:O	27:BD:64:ILE:HD12	2.15	0.47
28:BE:137:HIS:ND1	28:BE:138:PRO:HD2	2.29	0.47
28:BE:201:THR:OG1	28:BE:202:LYS:N	2.48	0.47
30:BG:33:ARG:HB2	30:BG:162:THR:HG21	1.96	0.47
36:BQ:42:ILE:HD12	36:BQ:97:VAL:HG21	1.96	0.47
1:CA:436:C:HO2'	1:CA:437:U:H6	1.57	0.47
1:CA:781:A:H4'	1:CA:1522:U:O2'	2.15	0.47
1:CA:947:G:H2'	1:CA:948:C:C6	2.50	0.47
2:CB:97:TRP:CH2	2:CB:176:GLU:CD	2.92	0.47
7:CG:134:ALA:O	7:CG:137:LYS:HB3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:20:TYR:HD1	8:CH:65:TYR:CE2	2.32	0.47
16:CP:51:VAL:CG1	16:CP:53:VAL:H	2.28	0.47
25:DA:686:G:N2	25:DA:788:A:H61	2.12	0.47
25:DA:1782:C:H1'	25:DA:2609:U:H5"	1.97	0.47
25:DA:1820:U:C2	27:DD:202:LYS:HG2	2.50	0.47
25:DA:2524:G:N2	25:DA:2539:C:O2	2.42	0.47
26:DB:66:A:H61	26:DB:109:C:C5'	2.27	0.47
27:DD:109:ASP:HB2	27:DD:197:GLY:HA2	1.96	0.47
30:DG:19:LEU:HA	30:DG:22:ARG:HB2	1.96	0.47
31:DH:137:ASP:HB3	31:DH:140:LYS:HB2	1.97	0.47
35:DP:60:MET:HA	54:D8:13:ARG:NH1	2.29	0.47
40:DU:18:LEU:HA	40:DU:18:LEU:HD23	1.64	0.47
44:DY:9:LYS:HB2	44:DY:27:VAL:O	2.14	0.47
47:D1:85:LEU:HB3	47:D1:89:GLU:HG3	1.97	0.47
52:D6:8:LYS:HD3	54:D8:34:TRP:CD2	2.49	0.47
1:AA:1067:A:H8	1:AA:1067:A:O5'	1.96	0.47
1:AA:1124:G:O2'	1:AA:1126:U:O4	2.18	0.47
1:AA:1317:C:OP1	14:AN:17:LYS:HG2	2.14	0.47
2:AB:215:LEU:O	2:AB:219:VAL:HG23	2.14	0.47
4:AD:78:LEU:O	4:AD:81:GLU:N	2.48	0.47
4:AD:192:GLU:C	4:AD:194:LEU:N	2.70	0.47
7:AG:69:VAL:O	7:AG:138:LYS:HG3	2.15	0.47
9:AI:126:SER:CA	9:AI:127:LYS:HB2	2.44	0.47
12:AL:124:LYS:HE3	12:AL:125:PRO:HD2	1.97	0.47
25:BA:265:A:H1'	25:BA:266:G:O4'	2.15	0.47
25:BA:652(G):G:H2'	25:BA:652(H):C:C6	2.49	0.47
25:BA:922:U:H2'	25:BA:923:C:C6	2.50	0.47
38:BS:27:SER:HA	38:BS:88:ASP:HB3	1.97	0.47
38:BS:110:LEU:HD12	38:BS:110:LEU:HA	1.81	0.47
1:CA:124:G:H2'	1:CA:125:U:H6	1.79	0.47
1:CA:377:G:OP1	16:CP:3:LYS:HD2	2.15	0.47
1:CA:426:G:OP1	4:CD:36:ARG:NH1	2.47	0.47
1:CA:450:G:OP1	16:CP:43:LYS:NZ	2.47	0.47
2:CB:28:PHE:CD2	2:CB:194:PRO:HG3	2.50	0.47
2:CB:68:ILE:HG13	2:CB:161:ALA:HB3	1.97	0.47
5:CE:60:TYR:CD1	5:CE:60:TYR:C	2.92	0.47
9:CI:114:TYR:CD1	10:CJ:60:ARG:HB2	2.50	0.47
12:CL:34:ARG:O	12:CL:61:THR:HG23	2.14	0.47
17:CQ:5:VAL:HG23	17:CQ:60:ILE:HD12	1.97	0.47
23:CV:55:U:O2'	23:CV:57:A:N7	2.39	0.47
25:DA:198:C:H5'	25:DA:2244:U:OP1	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:257:A:H2'	25:DA:258:G:O4'	2.15	0.47
25:DA:533:G:H5'	40:DU:24:TYR:CE2	2.50	0.47
25:DA:572:A:H2'	25:DA:573:G:O4'	2.15	0.47
25:DA:1441:G:H2'	25:DA:1442:G:H8	1.79	0.47
25:DA:1914:C:HO2'	25:DA:1915:U:P	2.35	0.47
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.50	0.47
54:D8:57:ARG:H	54:D8:57:ARG:HG3	1.44	0.47
1:AA:258:G:H2'	1:AA:259:G:H8	1.80	0.47
1:AA:580:U:H2'	1:AA:581:G:O4'	2.15	0.47
1:AA:1009:G:H3'	1:AA:1010:G:H8	1.80	0.47
1:AA:1089:G:C2'	1:AA:1090:U:H5'	2.44	0.47
1:AA:1245:A:N1	1:AA:1293:G:C6	2.83	0.47
1:AA:1499:A:O2'	1:AA:1520:G:H5'	2.14	0.47
4:AD:122:ARG:NH2	4:AD:134:ASP:HB2	2.29	0.47
6:AF:21:LEU:O	6:AF:25:ILE:HG12	2.15	0.47
7:AG:113:GLU:CG	7:AG:119:ARG:HG2	2.45	0.47
21:AU:3:LYS:HB3	21:AU:14:TRP:CD1	2.50	0.47
22:AY:45:ALA:HA	22:AY:53:LYS:HE3	1.97	0.47
25:BA:748:G:C8	42:BW:89:ALA:HB1	2.50	0.47
25:BA:960:A:H2'	25:BA:962:G:H5'	1.97	0.47
25:BA:1583:A:H5'	25:BA:1584:C:H5"	1.96	0.47
25:BA:2615:U:H2'	25:BA:2616:C:C6	2.50	0.47
25:BA:2808:U:H3	25:BA:2892:A:H62	1.63	0.47
26:BB:89:G:H2'	26:BB:90:A:C8	2.50	0.47
33:BN:67:LEU:HA	33:BN:87:LEU:CD1	2.42	0.47
34:BO:98:VAL:HG11	34:BO:114:ILE:HG23	1.97	0.47
35:BP:39:LYS:HG2	35:BP:39:LYS:O	2.14	0.47
36:BQ:3:MET:HE2	36:BQ:3:MET:HB3	1.81	0.47
40:BU:90:VAL:HG11	40:BU:95:LEU:HD13	1.96	0.47
45:BZ:39:VAL:CG2	45:BZ:44:PHE:HB2	2.44	0.47
45:BZ:53:ILE:HG22	45:BZ:71:VAL:HB	1.97	0.47
1:CA:741:G:H2'	1:CA:742:G:O4'	2.14	0.47
1:CA:862:C:H1'	1:CA:874:G:H5"	1.96	0.47
1:CA:885:G:O2'	1:CA:914:A:N1	2.36	0.47
1:CA:1095:U:P	1:CA:1108:G:H1	2.38	0.47
2:CB:100:GLY:C	2:CB:108:ILE:HG13	2.40	0.47
4:CD:32:ALA:HA	4:CD:35:ARG:HG3	1.96	0.47
12:CL:33:ARG:HH11	12:CL:62:SER:HB3	1.78	0.47
13:CM:90:LEU:C	13:CM:92:HIS:H	2.23	0.47
15:CO:7:GLU:O	15:CO:11:VAL:HG23	2.15	0.47
20:CT:56:MET:HE1	20:CT:85:MET:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:93:G:H2'	25:DA:94:C:C6	2.50	0.47
25:DA:1420:U:HO2'	25:DA:1421:G:P	2.36	0.47
25:DA:2410:G:N2	25:DA:2411:A:H1'	2.30	0.47
29:DF:178:PRO:HB2	29:DF:201:VAL:CG2	2.45	0.47
35:DP:112:LEU:HD22	35:DP:113:LYS:N	2.30	0.47
1:AA:153:C:H42	1:AA:169:C:N4	2.12	0.46
1:AA:515:G:H2'	1:AA:516:U:O4'	2.15	0.46
1:AA:678:U:H2'	1:AA:679:C:C6	2.50	0.46
1:AA:865:A:H5'	1:AA:1078:U:O4	2.15	0.46
1:AA:1149:C:P	9:AI:9:ARG:HH21	2.38	0.46
1:AA:1150:U:O2	10:AJ:39:PRO:HG2	2.15	0.46
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.97	0.46
1:AA:1305:G:H5"	21:AU:4:GLY:HA3	1.97	0.46
1:AA:1506:U:O2'	1:AA:1507:A:H5'	2.14	0.46
3:AC:22:TRP:HE3	3:AC:23:TYR:O	1.97	0.46
3:AC:195:VAL:HG12	3:AC:196:LEU:O	2.15	0.46
4:AD:13:ARG:O	4:AD:15:GLU:N	2.48	0.46
4:AD:121:VAL:HG11	4:AD:136:PRO:HA	1.98	0.46
7:AG:90:GLU:H	7:AG:90:GLU:CD	2.23	0.46
8:AH:35:ILE:O	8:AH:38:ILE:N	2.45	0.46
15:AO:63:ARG:HG2	15:AO:67:LEU:HD12	1.97	0.46
25:BA:527:C:C4	25:BA:2779:U:H2'	2.50	0.46
25:BA:819:A:OP2	25:BA:1187:G:N2	2.36	0.46
25:BA:2444:G:OP2	29:BF:68:LYS:HD2	2.14	0.46
25:BA:2773:C:H2'	25:BA:2774:C:H6	1.80	0.46
25:BA:2801(A):A:H1'	25:BA:2895:U:H1'	1.96	0.46
31:BH:20:ALA:HB1	31:BH:21:PRO:HD2	1.97	0.46
42:BW:14:PRO:HG2	42:BW:78:GLU:CG	2.40	0.46
44:BY:79:CYS:SG	44:BY:102:CYS:CB	2.97	0.46
45:BZ:151:HIS:C	45:BZ:153:SER:H	2.23	0.46
50:B4:7:PRO:HB2	50:B4:27:THR:HG21	1.97	0.46
54:B8:42:ARG:HD2	58:B8:201:HOH:O	2.14	0.46
1:CA:216:G:H2'	1:CA:217:C:H6	1.79	0.46
1:CA:572:A:H5'	1:CA:573:A:OP2	2.15	0.46
1:CA:790:A:C6	1:CA:791:G:C6	3.03	0.46
1:CA:818:G:O2'	1:CA:819:A:H5'	2.15	0.46
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.98	0.46
2:CB:112:VAL:O	2:CB:115:LEU:HB3	2.15	0.46
15:CO:48:LYS:HD2	15:CO:48:LYS:HA	1.78	0.46
15:CO:61:GLY:O	15:CO:65:ARG:HD3	2.16	0.46
25:DA:991:C:H5'	25:DA:991:C:C6	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1331:A:O2'	25:DA:1332:G:C8	2.66	0.46
25:DA:1655:A:C8	25:DA:1656:C:C5	3.02	0.46
25:DA:1815:A:C5	25:DA:1817:G:C6	3.03	0.46
25:DA:1849:G:H2'	25:DA:1850:G:C8	2.50	0.46
25:DA:2275:C:H5'	25:DA:2275:C:C6	2.47	0.46
26:DB:48:A:H4'	38:DS:95:HIS:CD2	2.41	0.46
30:DG:11:TYR:CZ	30:DG:16:ARG:HD3	2.51	0.46
1:AA:195:A:H2'	1:AA:196:A:C8	2.50	0.46
1:AA:264:U:O2	17:AQ:64:PRO:HG2	2.15	0.46
1:AA:352:C:H2'	1:AA:352:C:O2	2.15	0.46
1:AA:527:G:O2'	1:AA:535:A:N1	2.41	0.46
1:AA:998:G:H1	1:AA:1043:C:H42	1.63	0.46
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.50	0.46
2:AB:133:LYS:HE2	2:AB:133:LYS:HB3	1.81	0.46
11:AK:59:TYR:CE2	11:AK:63:LEU:HD12	2.50	0.46
13:AM:14:ARG:HA	13:AM:44:ARG:HA	1.97	0.46
14:AN:44:LEU:C	14:AN:44:LEU:HD12	2.40	0.46
16:AP:75:ARG:O	16:AP:78:GLY:N	2.43	0.46
25:BA:65:C:H2'	25:BA:66:C:H6	1.79	0.46
25:BA:244:A:H2'	25:BA:245:G:O4'	2.16	0.46
25:BA:641:C:O2'	25:BA:2350:C:OP1	2.26	0.46
25:BA:2223:G:C2'	25:BA:2224:G:H5'	2.45	0.46
25:BA:2394:C:OP1	35:BP:64:LYS:HB2	2.15	0.46
30:BG:6:ALA:HB3	30:BG:104:GLU:OE1	2.15	0.46
32:BI:96:ASP:O	32:BI:99:GLU:N	2.48	0.46
44:BY:79:CYS:HB2	44:BY:81:LYS:H	1.79	0.46
52:B6:25:LYS:HE3	52:B6:30:THR:O	2.15	0.46
1:CA:328:C:H4'	1:CA:329:A:O5'	2.15	0.46
2:CB:135:GLN:O	2:CB:138:LEU:HD12	2.15	0.46
2:CB:162:ILE:HG13	2:CB:184:VAL:HG13	1.97	0.46
2:CB:178:ARG:HH22	8:CH:68:ARG:NH1	2.14	0.46
7:CG:31:MET:SD	7:CG:34:GLY:HA2	2.55	0.46
25:DA:236:C:H2'	25:DA:237:C:C6	2.50	0.46
25:DA:320:A:H4'	25:DA:322:A:N7	2.30	0.46
25:DA:681:G:H2'	25:DA:682:G:O4'	2.16	0.46
25:DA:736:C:H42	25:DA:760:G:H1	1.63	0.46
25:DA:947:G:N3	25:DA:984:A:H2	2.13	0.46
25:DA:970:C:H2'	25:DA:971:C:C6	2.50	0.46
25:DA:1364:G:N7	47:D1:3:LYS:HE2	2.31	0.46
25:DA:1676:A:H8	25:DA:1676:A:OP2	1.99	0.46
25:DA:2016:U:O2	51:D5:7:PRO:HG2	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2680:C:OP2	28:DE:111:ARG:NH2	2.44	0.46
27:DD:68:LYS:HD2	27:DD:70:TRP:CZ2	2.50	0.46
28:DE:150:VAL:HG13	28:DE:154:LYS:HG3	1.96	0.46
30:DG:25:TYR:HB3	30:DG:30:GLU:HB2	1.97	0.46
31:DH:52:VAL:HG12	31:DH:65:HIS:CD2	2.50	0.46
35:DP:26:GLY:HA3	35:DP:27:HIS:CB	2.45	0.46
38:DS:94:TYR:CE2	38:DS:99:LYS:HD2	2.50	0.46
42:DW:31:GLU:O	42:DW:34:ASN:HB2	2.16	0.46
1:AA:651:C:H2'	1:AA:652:U:C6	2.50	0.46
1:AA:984:C:H2'	1:AA:985:C:C6	2.50	0.46
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.51	0.46
7:AG:74:GLU:OE1	7:AG:95:ARG:NH2	2.48	0.46
25:BA:1584:C:H3'	25:BA:1584:C:H6	1.80	0.46
25:BA:1781:C:H6	25:BA:1781:C:H5'	1.79	0.46
25:BA:1914:C:O2'	25:BA:1915:U:P	2.73	0.46
25:BA:2578:G:N3	25:BA:2578:G:H2'	2.29	0.46
25:BA:2615:U:H1'	51:B5:7:PRO:HB3	1.96	0.46
30:BG:3:LEU:HD12	30:BG:5:VAL:HG12	1.96	0.46
34:BO:9:GLU:O	34:BO:83:ALA:HA	2.15	0.46
44:BY:5:MET:HB2	44:BY:5:MET:HE2	1.36	0.46
1:CA:197:A:N6	1:CA:221:C:H5'	2.30	0.46
1:CA:325:A:H2'	1:CA:326:G:O4'	2.15	0.46
1:CA:377:G:N2	1:CA:386:C:N3	2.41	0.46
1:CA:385:C:O2'	1:CA:386:C:H5'	2.16	0.46
1:CA:406:G:H21	4:CD:119:GLN:NE2	2.14	0.46
1:CA:878:G:H5"	1:CA:879:C:OP2	2.16	0.46
1:CA:1085:U:H3'	1:CA:1086:U:H5	1.80	0.46
3:CC:125:GLU:HA	3:CC:191:THR:HG22	1.98	0.46
4:CD:68:TYR:CD2	4:CD:97:LEU:HD22	2.50	0.46
4:CD:101:LEU:HD23	4:CD:138:TYR:HB3	1.96	0.46
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.15	0.46
4:CD:158:ILE:O	4:CD:162:LEU:HB2	2.16	0.46
9:CI:42:ARG:O	9:CI:74:ILE:HG21	2.15	0.46
25:DA:817:C:H2'	25:DA:818:G:H8	1.80	0.46
25:DA:847:U:H5'	25:DA:848:G:OP2	2.15	0.46
25:DA:2567:G:H2'	25:DA:2568:C:H6	1.78	0.46
26:DB:7:G:H4'	38:DS:29:PHE:CD1	2.51	0.46
31:DH:149:ARG:HD2	31:DH:164:TYR:HE1	1.79	0.46
33:DN:33:LEU:HD12	33:DN:38:HIS:CD2	2.51	0.46
1:AA:848:C:O2'	1:AA:849:C:H5'	2.16	0.46
1:AA:983:A:H2	1:AA:984:C:C6	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:184:VAL:O	2:AB:198:ASP:HB2	2.16	0.46
6:AF:33:TYR:HB2	6:AF:75:LEU:HD12	1.97	0.46
8:AH:20:TYR:HA	8:AH:65:TYR:OH	2.14	0.46
8:AH:20:TYR:HE1	8:AH:78:GLN:HE22	1.64	0.46
20:AT:53:LEU:HA	20:AT:56:MET:HG2	1.98	0.46
22:AY:32:LYS:HE3	25:BA:2507:C:OP1	2.16	0.46
22:AY:63:LEU:O	22:AY:70:ILE:HA	2.15	0.46
25:BA:272(J):C:H2'	25:BA:274:G:O4'	2.15	0.46
25:BA:668:G:H5'	25:BA:669:G:OP2	2.14	0.46
25:BA:1665:A:N6	58:BA:5296:HOH:O	2.49	0.46
25:BA:2206:G:OP2	25:BA:2206:G:H4'	2.14	0.46
25:BA:2690:C:H5"	25:BA:2872:G:N2	2.30	0.46
25:BA:2808:U:H2'	25:BA:2809:A:H5'	1.96	0.46
29:BF:7:TYR:HB2	29:BF:22:ALA:CB	2.45	0.46
29:BF:158:THR:OG1	29:BF:159:GLY:N	2.48	0.46
34:BO:64:ARG:O	34:BO:82:ASN:HA	2.15	0.46
35:BP:88:LEU:HD23	35:BP:88:LEU:HA	1.65	0.46
43:BX:12:VAL:HG22	43:BX:29:TRP:CE2	2.50	0.46
43:BX:31:HIS:HD2	43:BX:33:LYS:H	1.59	0.46
44:BY:15:VAL:HG21	44:BY:42:VAL:HG11	1.97	0.46
47:B1:60:PHE:CE1	47:B1:95:LEU:HD11	2.44	0.46
49:B3:31:LEU:HD23	49:B3:31:LEU:HA	1.61	0.46
53:B7:9:ARG:NH2	53:B7:47:ARG:HG3	2.30	0.46
1:CA:665:A:N3	1:CA:732:C:H2'	2.30	0.46
1:CA:839:U:H5'	1:CA:840:C:H5	1.80	0.46
1:CA:880:C:H2'	1:CA:881:G:C8	2.50	0.46
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.50	0.46
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.50	0.46
4:CD:150:GLU:HA	4:CD:153:ARG:HE	1.80	0.46
11:CK:122:LYS:HB3	11:CK:122:LYS:HE2	1.70	0.46
16:CP:12:LYS:C	16:CP:14:ASN:H	2.24	0.46
20:CT:58:LYS:HE3	20:CT:62:LEU:HD11	1.97	0.46
25:DA:14:A:H5"	25:DA:15:G:OP2	2.16	0.46
25:DA:307:G:O2'	25:DA:309:G:N7	2.42	0.46
25:DA:826:U:OP1	25:DA:2428:G:H3'	2.15	0.46
25:DA:1420:U:O2'	25:DA:1421:G:OP1	2.28	0.46
27:DD:179:SER:O	27:DD:275:LYS:HB2	2.15	0.46
27:DD:221:VAL:HG23	27:DD:226:MET:CE	2.40	0.46
29:DF:53:THR:O	29:DF:56:GLU:N	2.42	0.46
32:DI:29:TYR:CD2	32:DI:30:LEU:HD23	2.49	0.46
36:DQ:38:GLU:HB2	36:DQ:127:ILE:HB	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DT:26:ASP:CG	39:DT:120:ARG:HH22	2.23	0.46
44:DY:28:LYS:HG2	44:DY:40:GLU:HG3	1.97	0.46
46:D0:34:GLY:N	46:D0:61:ALA:O	2.28	0.46
1:AA:1042:G:H2'	1:AA:1043:C:O4'	2.14	0.46
1:AA:1347:G:C8	9:AI:107:ARG:HB3	2.50	0.46
2:AB:208:ILE:H	2:AB:208:ILE:HG12	1.41	0.46
6:AF:76:ALA:HB1	6:AF:80:ARG:NH2	2.30	0.46
25:BA:557:U:H2'	25:BA:558:G:H8	1.81	0.46
25:BA:652(G):G:H2'	25:BA:652(H):C:H6	1.81	0.46
25:BA:2298:A:H2'	25:BA:2299:G:O4'	2.16	0.46
25:BA:2691:C:O3'	25:BA:2871:C:H4'	2.16	0.46
30:BG:167:GLU:H	30:BG:167:GLU:CD	2.22	0.46
39:BT:9:LEU:O	39:BT:12:SER:OG	2.32	0.46
52:B6:16:CYS:SG	52:B6:18:ARG:HG3	2.55	0.46
1:CA:570:G:H2'	1:CA:571:U:C6	2.50	0.46
1:CA:784:C:H2'	1:CA:785:G:C8	2.50	0.46
1:CA:968:A:C8	1:CA:1062:U:H4'	2.51	0.46
1:CA:977:A:O2'	1:CA:979:C:OP2	2.29	0.46
1:CA:1007:C:H2'	1:CA:1008:C:C6	2.50	0.46
3:CC:24:ALA:CB	3:CC:29:TYR:HB2	2.40	0.46
25:DA:841:A:H2'	25:DA:842:G:C8	2.50	0.46
25:DA:1515:G:H2'	25:DA:1516:C:C6	2.49	0.46
25:DA:2278:A:OP1	36:DQ:11:LYS:HE2	2.16	0.46
25:DA:2302:G:H2'	25:DA:2303:G:C8	2.50	0.46
25:DA:2611:U:H3'	25:DA:2611:U:OP2	2.16	0.46
25:DA:2766:G:H5"	25:DA:2767:C:OP2	2.14	0.46
33:DN:63:THR:HG22	33:DN:66:LYS:NZ	2.30	0.46
35:DP:95:VAL:CG2	35:DP:125:VAL:HG12	2.45	0.46
37:DR:67:LEU:HD13	37:DR:76:VAL:HG21	1.96	0.46
38:DS:66:ALA:O	38:DS:69:VAL:HG12	2.16	0.46
38:DS:78:LEU:HD22	38:DS:82:ILE:O	2.15	0.46
45:DZ:24:LEU:HD23	45:DZ:44:PHE:CD1	2.51	0.46
46:D0:41:ARG:HD3	46:D0:41:ARG:HA	1.63	0.46
48:D2:21:LEU:HD23	48:D2:21:LEU:HA	1.60	0.46
52:D6:17:LYS:HD3	52:D6:17:LYS:HA	1.73	0.46
1:AA:1392:G:H2'	1:AA:1393:U:C6	2.50	0.46
2:AB:21:ARG:NH1	2:AB:23:ARG:HB2	2.30	0.46
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.16	0.46
10:AJ:67:THR:O	10:AJ:67:THR:OG1	2.34	0.46
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.50	0.46
22:AY:34:SER:OG	22:AY:35:THR:O	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AV:31:G:C2	23:AV:40:C:C2	3.03	0.46
25:BA:271(I):G:H1	25:BA:271(O):C:N4	2.14	0.46
25:BA:330:A:H2	25:BA:1210:A:C2'	2.24	0.46
25:BA:614(C):A:C4	29:BF:180:GLY:HA2	2.50	0.46
25:BA:1109:C:C5	25:BA:1110:G:C6	3.03	0.46
25:BA:1257:C:H4'	29:BF:83:PHE:CE2	2.50	0.46
25:BA:1805:U:H5"	27:BD:250:TRP:CD2	2.50	0.46
25:BA:2405:G:O2'	25:BA:2411:A:N6	2.49	0.46
27:BD:85:ASP:HB2	27:BD:92:ILE:HD13	1.98	0.46
28:BE:59:VAL:HG21	28:BE:74:PRO:HB3	1.98	0.46
29:BF:176:LEU:HD21	29:BF:181:LEU:HA	1.97	0.46
42:BW:36:LEU:HA	42:BW:36:LEU:HD23	1.53	0.46
45:BZ:70:LEU:HG	45:BZ:91:LEU:HD21	1.97	0.46
54:B8:29:LYS:HZ3	54:B8:45:GLY:HA2	1.81	0.46
54:B8:40:GLU:O	54:B8:44:LYS:HG3	2.16	0.46
1:CA:149:A:O2'	1:CA:150:C:H5'	2.15	0.46
1:CA:262:A:C6	1:CA:263:A:C6	3.03	0.46
1:CA:509:A:H5"	4:CD:55:ALA:HB2	1.98	0.46
1:CA:1133:G:N2	1:CA:1142:G:C4	2.83	0.46
1:CA:1316:G:H2'	1:CA:1317:C:H5"	1.97	0.46
2:CB:127:ILE:C	2:CB:129:GLU:H	2.21	0.46
10:CJ:6:ILE:HA	10:CJ:97:GLU:O	2.15	0.46
11:CK:84:VAL:HG12	11:CK:110:ASP:OD1	2.15	0.46
25:DA:590:A:OP1	29:DF:95:ARG:NH1	2.49	0.46
25:DA:671:C:H2'	25:DA:672:C:C6	2.51	0.46
25:DA:774:A:N3	25:DA:774:A:H2'	2.31	0.46
25:DA:1495:A:H2'	25:DA:1496:A:H8	1.74	0.46
27:DD:36:PRO:HA	27:DD:61:LEU:CD1	2.46	0.46
29:DF:51:THR:HB	29:DF:88:VAL:HG11	1.96	0.46
29:DF:164:ARG:O	29:DF:168:ARG:HB2	2.16	0.46
30:DG:121:ASN:HA	30:DG:122:PRO:HD3	1.68	0.46
32:DI:41:GLU:H	32:DI:41:GLU:CD	2.24	0.46
32:DI:140:LEU:HD23	32:DI:140:LEU:HA	1.73	0.46
41:DV:87:HIS:NE2	41:DV:89:GLN:HG2	2.31	0.46
45:DZ:9:TYR:CE2	45:DZ:35:ARG:HG3	2.50	0.46
51:D5:51:TYR:CE1	51:D5:56:LYS:HG3	2.50	0.46
54:D8:16:ILE:HD12	54:D8:59:LYS:HD2	1.97	0.46
1:AA:633:G:H2'	1:AA:634:C:C6	2.50	0.46
1:AA:834:C:H2'	1:AA:835:U:H6	1.81	0.46
1:AA:1112:C:H1'	3:AC:179:ARG:HE	1.80	0.46
1:AA:1186:G:H21	14:AN:61:TRP:C	2.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.51	0.46
2:AB:103:THR:HA	2:AB:180:LEU:HD11	1.97	0.46
6:AF:68:PRO:HG2	6:AF:71:ARG:HD2	1.98	0.46
7:AG:120:ILE:H	7:AG:120:ILE:HG12	1.47	0.46
8:AH:25:ASP:HB3	8:AH:58:TYR:HD2	1.81	0.46
12:AL:56:ALA:O	12:AL:68:ALA:N	2.42	0.46
25:BA:725:G:C6	25:BA:726:G:N1	2.84	0.46
25:BA:807:U:OP2	35:BP:41:ARG:NH2	2.47	0.46
25:BA:824:A:H1'	25:BA:2358:G:N7	2.30	0.46
25:BA:833:U:H2'	25:BA:834:C:C6	2.51	0.46
25:BA:1260:G:C6	25:BA:1261:C:C4	3.03	0.46
25:BA:1786:A:H1'	25:BA:1938:A:N6	2.30	0.46
28:BE:60:ASN:O	28:BE:64:LYS:HB2	2.15	0.46
36:BQ:7:MET:HE3	36:BQ:7:MET:HB2	1.68	0.46
37:BR:2:ARG:O	37:BR:2:ARG:HG2	2.16	0.46
39:BT:38:ASN:HD22	39:BT:38:ASN:C	2.23	0.46
1:CA:124:G:H2'	1:CA:125:U:C6	2.51	0.46
1:CA:408:A:C6	1:CA:409:G:C5	3.04	0.46
1:CA:781:A:H5'	1:CA:782:A:OP2	2.16	0.46
1:CA:1399:C:C2	1:CA:1502:A:N6	2.84	0.46
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.15	0.46
20:CT:82:SER:O	20:CT:86:ARG:HG3	2.16	0.46
25:DA:137:C:N4	25:DA:139:G:O6	2.48	0.46
25:DA:854:G:H2'	25:DA:855:G:C8	2.50	0.46
25:DA:2295:C:H5	38:DS:13:ARG:NH2	2.13	0.46
25:DA:2295:C:H5	38:DS:13:ARG:HH22	1.63	0.46
25:DA:2418:A:C2	25:DA:2419:U:C2	3.03	0.46
25:DA:2461:C:H2'	25:DA:2462:U:H6	1.81	0.46
27:DD:65:ILE:HG21	27:DD:106:ILE:HG22	1.98	0.46
29:DF:149:ASP:OD2	29:DF:149:ASP:N	2.47	0.46
34:DO:89:ASN:OD1	34:DO:89:ASN:N	2.48	0.46
40:DU:79:PHE:CZ	40:DU:83:LEU:HD21	2.51	0.46
47:D1:94:LEU:HD23	47:D1:94:LEU:HA	1.70	0.46
1:AA:52:G:O2'	1:AA:53:A:H5'	2.16	0.46
1:AA:354:G:C2	1:AA:355:C:C5	3.04	0.46
1:AA:925:G:H1'	1:AA:1502:A:C4	2.51	0.46
1:AA:1495:U:O2'	25:BA:1919:A:N1	2.43	0.46
7:AG:36:LYS:O	7:AG:40:ALA:N	2.46	0.46
8:AH:20:TYR:HD1	8:AH:65:TYR:CE2	2.34	0.46
25:BA:620:G:N3	25:BA:620:G:H5'	2.30	0.46
25:BA:754:C:H2'	25:BA:755:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1508:A:H4'	25:BA:1509(A):A:C4	2.51	0.46
27:BD:166:GLN:HB2	27:BD:174:ILE:HG22	1.98	0.46
28:BE:178:GLU:CD	28:BE:178:GLU:H	2.22	0.46
29:BF:140:LEU:HD13	29:BF:140:LEU:HA	1.69	0.46
30:BG:94:LEU:HA	30:BG:94:LEU:HD23	1.69	0.46
35:BP:36:LYS:O	35:BP:40:SER:HB3	2.16	0.46
36:BQ:30:GLY:HA2	36:BQ:107:ALA:HB2	1.98	0.46
40:BU:104:GLN:H	40:BU:104:GLN:HG3	1.45	0.46
43:BX:5:TYR:CE1	48:B2:30:ARG:HB2	2.50	0.46
1:CA:124:G:H1	1:CA:237:C:H42	1.62	0.46
1:CA:330:C:H2'	1:CA:331:G:H5'	1.98	0.46
1:CA:734:G:H2'	1:CA:735:C:H6	1.81	0.46
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.51	0.46
2:CB:153:ARG:HG3	2:CB:154:LEU:N	2.28	0.46
9:CI:71:SER:HA	9:CI:74:ILE:HB	1.97	0.46
25:DA:41:C:H2'	25:DA:42:G:C8	2.51	0.46
25:DA:330:A:O2'	25:DA:331:A:H2'	2.15	0.46
25:DA:1007:C:H2'	25:DA:1008:C:H5	1.80	0.46
25:DA:1021:A:H3'	25:DA:1021:A:H8	1.80	0.46
26:DB:90:A:C6	26:DB:91:C:H1'	2.50	0.46
27:DD:51:VAL:CG1	27:DD:54:ARG:HD3	2.46	0.46
28:DE:117:MET:H	28:DE:117:MET:HG3	1.62	0.46
29:DF:181:LEU:O	29:DF:205:ARG:NH2	2.44	0.46
39:DT:11:GLU:O	39:DT:15:VAL:HG23	2.16	0.46
49:D3:52:HIS:CD2	49:D3:53:LEU:HG	2.51	0.46
1:AA:137:C:O5'	1:AA:137:C:H6	1.98	0.46
1:AA:522:C:H5"	12:AL:120:TYR:OH	2.16	0.46
1:AA:574:A:N3	1:AA:883:C:H1'	2.31	0.46
1:AA:784:C:C2	1:AA:799:G:N2	2.84	0.46
1:AA:937:A:H5"	1:AA:938:A:OP2	2.16	0.46
4:AD:70:ILE:HG12	4:AD:71:SER:H	1.81	0.46
22:AY:4:ILE:O	22:AY:4:ILE:HG22	2.15	0.46
22:AY:40:ARG:O	22:AY:71:VAL:HA	2.15	0.46
25:BA:27:G:O2'	25:BA:28:A:OP2	2.32	0.46
25:BA:236:C:H2'	25:BA:237:C:C6	2.50	0.46
25:BA:612:C:H2'	25:BA:613:G:O4'	2.16	0.46
25:BA:981:A:H2	25:BA:2027:G:N3	2.13	0.46
25:BA:1268:A:C2	25:BA:2013:A:C4	3.04	0.46
25:BA:1705:G:C6	25:BA:1706:U:C4	3.04	0.46
25:BA:1784:A:P	58:BA:5166:HOH:O	2.73	0.46
25:BA:1889:A:O2'	25:BA:2087:G:H5'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2096:U:H5'	25:BA:2097:C:OP2	2.16	0.46
25:BA:2466:C:C2'	25:BA:2467:C:H5'	2.45	0.46
27:BD:13:ARG:HA	27:BD:16:MET:HE3	1.97	0.46
31:BH:9:ILE:HD13	31:BH:72:ILE:HG22	1.97	0.46
36:BQ:58:PHE:HB3	36:BQ:61:GLY:HA3	1.98	0.46
36:BQ:69:PHE:CD1	36:BQ:70:PRO:HD2	2.51	0.46
41:BV:5:VAL:HG11	41:BV:57:VAL:HG21	1.97	0.46
1:CA:10:A:H2'	1:CA:11:G:C8	2.50	0.46
1:CA:273:A:N6	1:CA:274:A:C6	2.84	0.46
1:CA:518:C:H2'	1:CA:530:G:H8	1.77	0.46
1:CA:604:G:C6	1:CA:605:U:N3	2.84	0.46
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.15	0.46
1:CA:1343:G:C6	1:CA:1344:C:N4	2.84	0.46
2:CB:47:THR:HG23	2:CB:202:PRO:HG2	1.98	0.46
8:CH:96:GLY:H	8:CH:99:GLU:CD	2.24	0.46
14:CN:33:VAL:HA	14:CN:39:LEU:O	2.16	0.46
19:CS:51:VAL:O	19:CS:57:HIS:HA	2.16	0.46
25:DA:370:G:H4'	25:DA:371:A:OP2	2.16	0.46
25:DA:411:G:OP2	25:DA:2406:U:O2'	2.31	0.46
25:DA:517:C:OP1	51:D5:16:ARG:NH2	2.45	0.46
25:DA:528:A:H3'	25:DA:528:A:C8	2.50	0.46
25:DA:704:G:H1'	25:DA:726:G:N2	2.30	0.46
25:DA:850:C:O3'	49:D3:49:LYS:HE2	2.16	0.46
25:DA:1332:G:H4'	25:DA:1333:C:OP2	2.16	0.46
25:DA:1464:C:C2	25:DA:1465:G:C8	3.04	0.46
25:DA:1827:C:C2'	25:DA:1828:G:H5'	2.46	0.46
25:DA:1925:C:O2'	25:DA:1926:U:H5'	2.15	0.46
29:DF:187:VAL:HG12	35:DP:3:LEU:HD12	1.96	0.46
31:DH:13:LYS:HA	31:DH:14:GLY:HA2	1.57	0.46
34:DO:113:LYS:O	34:DO:117:LEU:HD12	2.15	0.46
41:DV:37:VAL:HG12	41:DV:39:LEU:H	1.81	0.46
1:AA:308:C:H2'	1:AA:309:G:C8	2.51	0.46
1:AA:1249:C:O4'	9:AI:70:LYS:HE2	2.16	0.46
3:AC:56:ASP:O	3:AC:57:ILE:HG13	2.16	0.46
5:AE:60:TYR:C	5:AE:60:TYR:CD1	2.92	0.46
7:AG:69:VAL:CG1	7:AG:100:ALA:HA	2.46	0.46
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.84	0.46
21:AU:25:LYS:HA	21:AU:26:LYS:NZ	2.31	0.46
23:AV:2:G:H2'	23:AV:2:G:N3	2.30	0.46
25:BA:413:C:H2'	25:BA:414:C:H6	1.78	0.46
25:BA:705:A:H2'	25:BA:706:A:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:847:U:C5	25:BA:933:A:N6	2.84	0.46
25:BA:1047:G:OP1	25:BA:1047:G:H4'	2.16	0.46
25:BA:2790:A:N3	25:BA:2790:A:H2'	2.31	0.46
25:BA:2837:G:H5"	58:BA:4879:HOH:O	2.15	0.46
28:BE:116:VAL:CG1	28:BE:122:PHE:CD2	2.99	0.46
31:BH:125:VAL:HG12	31:BH:127:GLU:O	2.15	0.46
36:BQ:43:THR:HA	36:BQ:94:VAL:HG12	1.97	0.46
37:BR:18:LEU:HD23	37:BR:18:LEU:HA	1.59	0.46
47:B1:22:GLY:O	47:B1:32:LYS:NZ	2.49	0.46
1:CA:382:A:H2'	1:CA:383:A:H8	1.80	0.46
1:CA:976:G:H5"	1:CA:1358:U:O2	2.15	0.46
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.30	0.46
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.98	0.46
10:CJ:55:LYS:HB3	10:CJ:55:LYS:HE2	1.45	0.46
25:DA:699:A:H2'	25:DA:700:G:O4'	2.16	0.46
32:DI:41:GLU:HA	32:DI:44:LEU:HB3	1.97	0.46
37:DR:118:GLU:H	37:DR:118:GLU:HG3	1.26	0.46
42:DW:51:LEU:O	42:DW:54:ALA:HB3	2.16	0.46
48:D2:32:LEU:O	48:D2:35:LEU:N	2.49	0.46
1:AA:170:U:O2'	1:AA:171:A:H5'	2.15	0.45
1:AA:323:U:H2'	1:AA:324:G:O4'	2.16	0.45
1:AA:657:G:C2	1:AA:658:G:C8	3.04	0.45
1:AA:671:G:H2'	1:AA:672:U:O4'	2.16	0.45
1:AA:1054:C:O2'	1:AA:1055:A:H5"	2.16	0.45
2:AB:215:LEU:HD23	2:AB:215:LEU:HA	1.67	0.45
11:AK:125:PHE:N	11:AK:125:PHE:CD2	2.84	0.45
12:AL:24:VAL:CG1	12:AL:26:ALA:HB2	2.46	0.45
17:AQ:43:LEU:HB3	17:AQ:69:LYS:CE	2.39	0.45
25:BA:297:C:H5"	44:BY:87:LYS:HG3	1.98	0.45
25:BA:518:G:H2'	25:BA:519:U:C6	2.51	0.45
25:BA:1632:A:N6	25:BA:1633:G:C6	2.84	0.45
25:BA:1721:G:H3'	25:BA:1722:A:H5"	1.98	0.45
25:BA:2088:G:C6	25:BA:2089:U:C4	3.04	0.45
25:BA:2298:A:N6	25:BA:2318:G:H8	2.13	0.45
25:BA:2355:C:H1'	46:B0:39:ARG:HH21	1.82	0.45
25:BA:2461:C:H2'	25:BA:2462:U:H6	1.81	0.45
25:BA:2623:G:H4'	25:BA:2825:C:O2	2.16	0.45
26:BB:119:G:O2'	26:BB:120:A:H5'	2.13	0.45
28:BE:168:MET:HE3	28:BE:168:MET:HB3	1.65	0.45
32:BI:29:TYR:HD2	32:BI:30:LEU:HD23	1.81	0.45
32:BI:38:LEU:HB3	32:BI:40:THR:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:104:GLN:O	32:BI:105:HIS:C	2.59	0.45
33:BN:128:HIS:HA	33:BN:129:PRO:HD2	1.46	0.45
35:BP:45:LEU:HA	35:BP:45:LEU:HD23	1.28	0.45
35:BP:47:ASP:C	35:BP:47:ASP:OD1	2.59	0.45
38:BS:61:ASN:O	38:BS:65:VAL:HG23	2.16	0.45
42:BW:65:LEU:HD12	42:BW:68:ARG:HE	1.81	0.45
1:CA:922:G:C2	1:CA:923:A:C4	3.04	0.45
1:CA:1189:C:O2	58:CA:2101:HOH:O	2.20	0.45
1:CA:1291:G:H2'	1:CA:1292:U:C6	2.51	0.45
1:CA:1501:C:OP2	1:CA:1504:G:H2'	2.15	0.45
2:CB:111:ARG:HD3	2:CB:111:ARG:HA	1.58	0.45
2:CB:130:ARG:HB3	2:CB:131:PRO:HD2	1.98	0.45
3:CC:30:ARG:NH2	14:CN:38:GLY:HA2	2.30	0.45
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.98	0.45
16:CP:53:VAL:HG13	16:CP:79:VAL:HG23	1.98	0.45
25:DA:271(K):U:O2'	25:DA:271(M):G:N2	2.49	0.45
25:DA:848:G:C4	25:DA:933:A:C8	3.04	0.45
25:DA:1164:G:H2'	25:DA:1165:U:C6	2.52	0.45
25:DA:2032:G:H4'	58:DA:4589:HOH:O	2.15	0.45
25:DA:2335:A:O2'	25:DA:2337:G:N7	2.41	0.45
26:DB:6:C:C2	26:DB:116:G:N2	2.84	0.45
29:DF:184:TYR:CE1	35:DP:3:LEU:HD21	2.51	0.45
32:DI:126:TYR:HB2	32:DI:142:VAL:O	2.15	0.45
37:DR:97:VAL:HG23	37:DR:114:VAL:HG23	1.98	0.45
1:AA:55:A:C6	1:AA:56:U:C4	3.04	0.45
1:AA:1065:U:H4'	1:AA:1066:C:O5'	2.15	0.45
1:AA:1225:A:H5'	1:AA:1226:C:OP2	2.16	0.45
4:AD:14:ARG:H	4:AD:39:PRO:HA	1.80	0.45
13:AM:37:THR:HG23	13:AM:59:TYR:CD2	2.46	0.45
17:AQ:31:LEU:HG	17:AQ:31:LEU:O	2.15	0.45
22:AY:62:HIS:O	22:AY:63:LEU:HB2	2.16	0.45
25:BA:181:A:H1'	58:BA:4020:HOH:O	2.16	0.45
25:BA:883:G:C6	25:BA:884:C:C4	3.04	0.45
25:BA:1332:G:N2	25:BA:1609:A:C2'	2.78	0.45
25:BA:1359:A:N1	25:BA:1372:U:O4	2.49	0.45
25:BA:1863:G:H2'	25:BA:1864:U:O4'	2.15	0.45
25:BA:2615:U:C2	51:B5:7:PRO:HA	2.51	0.45
29:BF:68:LYS:HB2	29:BF:69:HIS:ND1	2.31	0.45
33:BN:138:LEU:HA	33:BN:138:LEU:HD23	1.36	0.45
42:BW:86:LEU:HD12	42:BW:87:PRO:CD	2.41	0.45
51:B5:40:LYS:HE2	51:B5:40:LYS:HB2	1.43	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:234:C:H2'	1:CA:235:C:C6	2.51	0.45
1:CA:501:C:OP1	12:CL:117:ARG:NH2	2.49	0.45
1:CA:975:A:H4'	1:CA:1358:U:O2	2.16	0.45
1:CA:986:A:N3	19:CS:52:TYR:OH	2.41	0.45
1:CA:1347:G:H22	1:CA:1374:A:P	2.38	0.45
3:CC:137:ALA:HA	3:CC:140:ARG:HE	1.81	0.45
4:CD:57:ARG:HG2	4:CD:202:LEU:O	2.17	0.45
7:CG:145:ALA:C	7:CG:147:ALA:H	2.24	0.45
15:CO:17:ARG:HH11	15:CO:17:ARG:HG3	1.82	0.45
16:CP:55:ARG:O	16:CP:58:TYR:N	2.45	0.45
19:CS:12:ASP:HB3	19:CS:13:ASP:H	1.48	0.45
25:DA:271(Q):G:O2'	25:DA:271(R):G:OP2	2.30	0.45
25:DA:506:G:O3'	25:DA:507:A:H8	1.98	0.45
25:DA:600:G:N2	25:DA:605:C:O3'	2.49	0.45
25:DA:1006:C:N3	25:DA:1138:G:C2	2.84	0.45
25:DA:1115:G:H8	25:DA:1115:G:OP2	1.99	0.45
25:DA:1124:C:H1'	55:D9:36:GLN:NE2	2.31	0.45
25:DA:1341:U:OP1	25:DA:1397:U:N3	2.37	0.45
25:DA:2419:U:H2'	25:DA:2420:C:C6	2.52	0.45
26:DB:83:G:H1	26:DB:94:C:H42	1.64	0.45
27:DD:264:LYS:O	27:DD:267:SER:HB2	2.16	0.45
29:DF:59:TYR:CD1	29:DF:78:ILE:HD12	2.50	0.45
31:DH:87:LEU:HA	31:DH:163:TYR:O	2.16	0.45
32:DI:26:ALA:HA	32:DI:30:LEU:HB2	1.98	0.45
32:DI:61:ARG:C	32:DI:63:ALA:N	2.74	0.45
37:DR:107:ASP:OD2	37:DR:108:GLY:N	2.50	0.45
40:DU:104:GLN:OE1	40:DU:105:VAL:N	2.49	0.45
1:AA:297:G:H5"	58:AA:2148:HOH:O	2.15	0.45
1:AA:363:A:O2'	1:AA:364:A:H5'	2.16	0.45
1:AA:373:A:H2'	1:AA:374:A:H8	1.81	0.45
1:AA:599:C:H4'	8:AH:130:GLY:CA	2.46	0.45
1:AA:1261:A:H5"	1:AA:1262:C:OP2	2.17	0.45
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.51	0.45
4:AD:60:GLU:OE2	4:AD:198:VAL:HA	2.16	0.45
12:AL:27:LEU:CB	12:AL:30:ALA:HB3	2.47	0.45
20:AT:31:SER:HA	20:AT:34:LYS:HE3	1.97	0.45
25:BA:176:G:O2'	25:BA:177:G:H5'	2.16	0.45
25:BA:1932:A:H2'	25:BA:1933:G:O4'	2.17	0.45
26:BB:35:U:H5"	58:BB:335:HOH:O	2.15	0.45
32:BI:9:LEU:HD21	32:BI:35:LEU:HD13	1.99	0.45
33:BN:28:THR:HG22	33:BN:29:LYS:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BP:148:LEU:H	35:BP:148:LEU:HD23	1.80	0.45
37:BR:77:ARG:O	37:BR:81:ASP:HB2	2.17	0.45
41:BV:29:PRO:C	41:BV:31:ALA:H	2.25	0.45
45:BZ:45:ASP:O	45:BZ:46:LYS:C	2.60	0.45
52:B6:39:TYR:HE2	52:B6:41:PRO:HA	1.81	0.45
1:CA:352:C:O2'	1:CA:354:G:OP1	2.30	0.45
1:CA:910:C:H2'	1:CA:911:U:O4'	2.16	0.45
1:CA:923:A:H2'	1:CA:924:C:H6	1.81	0.45
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.51	0.45
1:CA:1091:U:O2	1:CA:1093:A:C8	2.69	0.45
1:CA:1176:A:H2'	1:CA:1177:G:O4'	2.16	0.45
2:CB:107:THR:HA	2:CB:110:GLN:HG3	1.99	0.45
2:CB:178:ARG:HD2	2:CB:196:LEU:O	2.17	0.45
6:CF:29:ALA:O	6:CF:32:ASN:HB2	2.15	0.45
13:CM:72:ALA:O	13:CM:75:ALA:HB3	2.16	0.45
15:CO:24:SER:O	15:CO:25:THR:C	2.60	0.45
17:CQ:83:ASP:N	17:CQ:83:ASP:OD1	2.48	0.45
20:CT:33:ILE:O	20:CT:37:SER:OG	2.27	0.45
23:CV:19:G:C4	23:CV:57:A:C2	3.05	0.45
25:DA:1017:G:O6	58:DA:4540:HOH:O	2.20	0.45
28:DE:12:THR:HG22	28:DE:13:ARG:N	2.31	0.45
31:DH:95:ARG:CB	31:DH:128:PRO:HB3	2.45	0.45
33:DN:63:THR:HG22	33:DN:66:LYS:HZ2	1.81	0.45
44:DY:39:VAL:HG12	44:DY:42:VAL:HG21	1.98	0.45
46:D0:27:GLU:HB2	46:D0:69:PHE:CD1	2.45	0.45
1:AA:185:A:H2'	1:AA:186:C:C6	2.52	0.45
1:AA:913:A:H4'	1:AA:914:A:O5'	2.16	0.45
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.39	0.45
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.16	0.45
9:AI:114:TYR:H	9:AI:114:TYR:HD2	1.65	0.45
12:AL:5:PRO:HG2	12:AL:10:LEU:HD21	1.99	0.45
12:AL:7:ILE:HA	12:AL:10:LEU:HD23	1.98	0.45
12:AL:24:VAL:O	12:AL:24:VAL:HG12	2.16	0.45
15:AO:62:GLN:O	15:AO:65:ARG:HB2	2.16	0.45
16:AP:74:LEU:HB3	16:AP:79:VAL:HG11	1.97	0.45
17:AQ:44:ALA:N	17:AQ:69:LYS:NZ	2.62	0.45
24:AX:3:A:O5'	24:AX:3:A:H8	1.99	0.45
25:BA:1142(A):A:C4	25:BA:1144:G:C8	3.04	0.45
25:BA:1790:C:H4'	27:BD:209:ALA:HB2	1.98	0.45
25:BA:2092:U:H4'	25:BA:2093:G:O5'	2.17	0.45
25:BA:2494:G:O2'	25:BA:2495:G:H5'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2496:C:OP1	36:BQ:82:ARG:HB3	2.17	0.45
27:BD:2:ALA:N	27:BD:20:ASP:OD2	2.49	0.45
28:BE:170:LEU:HB3	28:BE:184:VAL:HG21	1.97	0.45
31:BH:7:LEU:HA	31:BH:8:PRO:HD2	1.66	0.45
38:BS:101:LEU:O	38:BS:102:ALA:C	2.58	0.45
1:CA:129(A):G:O6	1:CA:189(E):U:O4'	2.34	0.45
1:CA:373:A:C2	1:CA:374:A:C8	3.04	0.45
1:CA:376:G:H2'	1:CA:377:G:H8	1.81	0.45
1:CA:460:G:O6	1:CA:470:C:H5"	2.15	0.45
1:CA:624:C:O3'	16:CP:10:GLY:HA2	2.17	0.45
1:CA:770:C:O2'	1:CA:899:C:N3	2.39	0.45
1:CA:1122:U:H2'	1:CA:1123:A:O4'	2.17	0.45
1:CA:1206:G:H4'	3:CC:192:THR:O	2.15	0.45
1:CA:1318:A:H4'	19:CS:10:PHE:CE2	2.51	0.45
3:CC:18:TRP:CD1	14:CN:53:LEU:O	2.70	0.45
4:CD:89:THR:O	4:CD:93:PHE:N	2.39	0.45
7:CG:26:PHE:CG	7:CG:62:PHE:HE1	2.34	0.45
10:CJ:8:LEU:O	10:CJ:16:LEU:HD11	2.17	0.45
17:CQ:45:HIS:HB3	17:CQ:72:ARG:HB3	1.98	0.45
25:DA:280:C:N3	25:DA:361:G:N2	2.64	0.45
25:DA:990:A:N6	25:DA:1186:G:H1'	2.31	0.45
25:DA:1375:C:H2'	25:DA:1376:C:H6	1.81	0.45
25:DA:1468:C:H2'	25:DA:1469:A:C8	2.52	0.45
25:DA:1952:A:C6	25:DA:1953:A:N1	2.85	0.45
25:DA:2571:C:H5"	25:DA:2572:A:H5"	1.98	0.45
30:DG:120:LEU:HB2	30:DG:180:PHE:HD2	1.82	0.45
31:DH:92:ILE:O	31:DH:94:TYR:HB2	2.16	0.45
34:DO:43:VAL:HG23	34:DO:56:ASP:O	2.16	0.45
35:DP:143:GLY:C	35:DP:145:PRO:HD3	2.42	0.45
45:DZ:22:GLY:O	45:DZ:23:LYS:HD3	2.16	0.45
1:AA:251:G:N2	1:AA:253:U:C5	2.85	0.45
1:AA:304:U:H2'	1:AA:305:G:C8	2.51	0.45
1:AA:392:G:H2'	1:AA:393:A:C8	2.52	0.45
1:AA:560:U:H4'	1:AA:561:U:O5'	2.16	0.45
1:AA:818:G:O2'	1:AA:820:U:H6	2.00	0.45
1:AA:832:C:H6	1:AA:832:C:H2'	1.59	0.45
1:AA:1053:G:C4'	1:AA:1054:C:H5'	2.46	0.45
1:AA:1316:G:N2	1:AA:1319:A:H5"	2.31	0.45
8:AH:68:ARG:HB3	8:AH:68:ARG:HH11	1.82	0.45
15:AO:35:ARG:NH2	15:AO:59:MET:HE2	2.32	0.45
25:BA:55:G:N3	25:BA:127:A:H2	2.14	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:857:C:H4'	46:B0:23:VAL:HG21	1.99	0.45
25:BA:1048:A:O2'	25:BA:1049:C:OP2	2.29	0.45
25:BA:1511:C:N4	58:BA:5287:HOH:O	2.49	0.45
25:BA:2877:G:O2'	25:BA:2878:U:H5'	2.17	0.45
26:BB:51:G:N7	38:BS:62:LYS:NZ	2.42	0.45
27:BD:94:LEU:HA	27:BD:94:LEU:HD23	1.63	0.45
28:BE:45:THR:O	28:BE:82:ARG:HG2	2.16	0.45
33:BN:30:ILE:O	33:BN:34:LEU:HB2	2.17	0.45
35:BP:19:VAL:CG2	35:BP:31:ALA:HB1	2.46	0.45
36:BQ:16:ARG:HE	36:BQ:16:ARG:HB3	1.62	0.45
48:B2:21:LEU:HD23	48:B2:21:LEU:HA	1.70	0.45
52:B6:47:THR:HB	52:B6:49:HIS:HE1	1.82	0.45
55:B9:2:LYS:HA	55:B9:2:LYS:HD2	1.50	0.45
1:CA:503:C:H2'	1:CA:504:C:H6	1.82	0.45
1:CA:622:A:C8	1:CA:623:C:C5	3.04	0.45
2:CB:37:ASN:O	2:CB:39:ILE:HG13	2.16	0.45
25:DA:507:A:H5"	25:DA:508:G:H3'	1.98	0.45
25:DA:563:G:H5'	25:DA:572:A:H4'	1.98	0.45
25:DA:571:A:H1'	25:DA:573:G:H5"	1.98	0.45
25:DA:573:G:O2'	25:DA:574:C:H3'	2.15	0.45
25:DA:874:G:H2'	25:DA:875:G:O4'	2.17	0.45
25:DA:889:C:HO2'	25:DA:890:A:H8	1.63	0.45
25:DA:2023:G:H5'	25:DA:2617:C:H4'	1.98	0.45
28:DE:4:ILE:C	28:DE:5:LEU:HD23	2.42	0.45
34:DO:107:ARG:HB2	34:DO:115:VAL:HG11	1.98	0.45
36:DQ:69:PHE:CD1	36:DQ:70:PRO:HD2	2.52	0.45
45:DZ:14:LYS:HA	45:DZ:15:PRO:HD3	1.75	0.45
1:AA:343:U:H3'	1:AA:343:U:OP2	2.15	0.45
1:AA:642:A:N3	8:AH:113:SER:OG	2.44	0.45
1:AA:1106:G:C5	1:AA:1107:C:C5	3.05	0.45
5:AE:71:LEU:HD23	5:AE:71:LEU:HA	1.58	0.45
13:AM:59:TYR:O	13:AM:63:THR:N	2.49	0.45
14:AN:3:ARG:O	14:AN:6:LEU:HB3	2.16	0.45
25:BA:658:C:H2'	25:BA:659:C:C6	2.51	0.45
25:BA:790:C:H6	25:BA:790:C:H2'	1.54	0.45
25:BA:806:C:C2	25:BA:807:U:C5	3.04	0.45
25:BA:1049:C:N4	25:BA:1111:A:C2	2.83	0.45
25:BA:1322:A:H2'	25:BA:1323:U:C6	2.51	0.45
25:BA:2101:G:H2'	25:BA:2102:U:C6	2.52	0.45
25:BA:2376:A:N3	38:BS:106:ARG:NH2	2.62	0.45
31:BH:157:TYR:C	31:BH:158:HIS:HD1	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BR:67:LEU:O	37:BR:71:GLN:N	2.49	0.45
41:BV:76:LYS:HG3	41:BV:81:TYR:CD1	2.52	0.45
43:BX:84:ALA:O	43:BX:87:GLN:HG3	2.17	0.45
43:BX:92:LEU:C	43:BX:94:GLY:H	2.24	0.45
45:BZ:24:LEU:HD11	45:BZ:85:HIS:HA	1.99	0.45
45:BZ:150:LEU:HB3	45:BZ:171:ILE:HD11	1.99	0.45
54:B8:61:LEU:C	54:B8:63:PRO:HD3	2.42	0.45
1:CA:563:A:N7	1:CA:567:G:H1'	2.32	0.45
1:CA:677:U:H1'	11:CK:119:CYS:SG	2.56	0.45
1:CA:872:A:C5	1:CA:874:G:C8	3.05	0.45
1:CA:939:G:H5"	7:CG:102:ARG:NH1	2.31	0.45
1:CA:1446:U:H4'	1:CA:1447:A:C6	2.51	0.45
2:CB:167:PRO:O	2:CB:171:ALA:N	2.49	0.45
3:CC:139:GLN:OE1	3:CC:139:GLN:HA	2.17	0.45
5:CE:12:LEU:O	5:CE:30:ALA:HA	2.16	0.45
8:CH:66:GLY:O	8:CH:76:PRO:HB3	2.17	0.45
10:CJ:42:THR:OG1	10:CJ:68:HIS:HB3	2.16	0.45
17:CQ:45:HIS:NE2	17:CQ:47:PRO:HG3	2.32	0.45
25:DA:95:G:O2'	48:D2:46:GLN:HA	2.16	0.45
25:DA:184:C:H2'	25:DA:185:U:H6	1.81	0.45
25:DA:953:A:C4	25:DA:954:G:C8	3.04	0.45
25:DA:970:C:H2'	25:DA:971:C:H6	1.81	0.45
25:DA:997:G:H5"	40:DU:92:ARG:HH21	1.81	0.45
25:DA:2262:U:H2'	25:DA:2263:C:C6	2.52	0.45
25:DA:2331:G:H4'	46:D0:43:THR:H	1.81	0.45
25:DA:2462:U:H1'	25:DA:2491:U:O4	2.17	0.45
25:DA:2557:G:H2'	25:DA:2558:C:C6	2.51	0.45
26:DB:28:C:H2'	26:DB:29:A:O4'	2.17	0.45
29:DF:24:LEU:HD21	29:DF:199:TRP:HH2	1.81	0.45
31:DH:71:LEU:O	31:DH:74:ASN:N	2.49	0.45
36:DQ:132:VAL:HG11	45:DZ:81:ARG:NH2	2.31	0.45
42:DW:12:ILE:HD13	42:DW:17:VAL:HG22	1.97	0.45
47:D1:41:ARG:HD3	47:D1:43:TYR:CE2	2.52	0.45
54:D8:57:ARG:O	54:D8:58:ILE:C	2.60	0.45
1:AA:608:A:H2'	1:AA:609:A:O4'	2.17	0.45
1:AA:754:C:P	15:AO:72:ARG:HH12	2.40	0.45
2:AB:80:ILE:HD11	2:AB:211:ILE:HG22	1.98	0.45
23:AV:47:U:H3'	23:AV:48:C:C5'	2.47	0.45
25:BA:181:A:H2'	25:BA:182:A:C8	2.51	0.45
25:BA:254:G:N7	54:B8:5:LYS:HE2	2.32	0.45
25:BA:398:G:H2'	25:BA:399:G:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1048:A:O2'	25:BA:1049:C:P	2.75	0.45
25:BA:1425:G:O2'	25:BA:1426:G:H5'	2.17	0.45
25:BA:2224:G:H4'	25:BA:2226:C:C2	2.52	0.45
25:BA:2328:A:H2'	25:BA:2329:G:C8	2.52	0.45
25:BA:2803:C:H2'	25:BA:2804:C:O4'	2.17	0.45
32:BI:7:GLU:HB3	32:BI:8:PRO:HD2	1.98	0.45
41:BV:24:LYS:HA	41:BV:92:THR:OG1	2.17	0.45
45:BZ:111:VAL:HG12	45:BZ:112:ARG:H	1.81	0.45
1:CA:120:A:C6	1:CA:122:G:C2	3.05	0.45
1:CA:250:A:H5'	1:CA:252:U:H1'	1.99	0.45
1:CA:947:G:H2'	1:CA:948:C:H6	1.82	0.45
1:CA:1157:A:H62	1:CA:1177:G:H22	1.65	0.45
1:CA:1227:A:N3	19:CS:83:HIS:HB3	2.32	0.45
1:CA:1281:U:C6	1:CA:1281:U:C3'	3.00	0.45
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.82	0.45
2:CB:16:HIS:CD2	2:CB:209:ARG:HG3	2.52	0.45
3:CC:8:ILE:O	3:CC:12:LEU:HG	2.16	0.45
7:CG:16:LEU:HD12	9:CI:41:VAL:HG12	1.98	0.45
7:CG:111:ARG:NE	7:CG:123:GLU:HB2	2.31	0.45
18:CR:53:ARG:HG3	18:CR:63:GLN:NE2	2.22	0.45
18:CR:53:ARG:NE	18:CR:58:LEU:O	2.50	0.45
18:CR:74:ARG:HA	18:CR:79:LEU:O	2.17	0.45
25:DA:103:A:OP2	25:DA:103:A:H8	2.00	0.45
25:DA:579:G:C8	25:DA:2017:U:C4	3.05	0.45
25:DA:1198:U:H2'	25:DA:1199:U:C6	2.50	0.45
25:DA:1274:A:N3	25:DA:1297:C:H1'	2.32	0.45
25:DA:1359:A:H2	25:DA:1372:U:O4	2.00	0.45
25:DA:1936:A:C8	25:DA:1940:U:O2	2.70	0.45
26:DB:108:U:H2'	26:DB:109:C:H5"	1.98	0.45
27:DD:2:ALA:HB3	27:DD:20:ASP:HB3	1.99	0.45
27:DD:145:VAL:HG13	27:DD:191:ALA:HB2	1.99	0.45
28:DE:61:ARG:HB3	28:DE:62:PRO:HD3	1.98	0.45
29:DF:9:ILE:HA	29:DF:10:PRO:HD2	1.65	0.45
29:DF:13:SER:O	29:DF:16:GLY:N	2.50	0.45
29:DF:19:GLU:O	29:DF:20:LEU:HD23	2.16	0.45
37:DR:56:LYS:NZ	37:DR:90:ARG:O	2.50	0.45
45:DZ:31:ARG:H	45:DZ:31:ARG:HG3	1.24	0.45
47:D1:41:ARG:HD3	47:D1:43:TYR:HE2	1.82	0.45
49:D3:4:LEU:O	49:D3:36:VAL:HA	2.17	0.45
1:AA:147:G:C2	1:AA:176:C:C2	3.05	0.45
1:AA:779:C:H2'	1:AA:780:A:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1067:A:N3	1:AA:1068:G:H1'	2.32	0.45
1:AA:1277:C:O2'	1:AA:1279:A:H1'	2.17	0.45
2:AB:221:LEU:HD22	2:AB:221:LEU:HA	1.79	0.45
3:AC:114:PRO:HG3	3:AC:185:GLY:HA3	1.97	0.45
6:AF:82:ARG:HA	6:AF:82:ARG:HD2	1.62	0.45
10:AJ:38:ILE:HG12	10:AJ:71:LEU:C	2.41	0.45
22:AY:127:SER:OG	58:AY:301:HOH:O	2.21	0.45
25:BA:151:C:O2'	25:BA:152:G:H5'	2.17	0.45
25:BA:320:A:OP1	29:BF:135:LYS:NZ	2.50	0.45
25:BA:613:G:N2	25:BA:615:G:C4	2.85	0.45
25:BA:1651:G:H5'	37:BR:39:PRO:HG2	1.98	0.45
25:BA:2243:U:H2'	25:BA:2244:U:C6	2.52	0.45
25:BA:2461:C:H2'	25:BA:2462:U:C6	2.51	0.45
28:BE:111:ARG:HB3	37:BR:1:MET:HE2	1.99	0.45
29:BF:194:MET:HB3	29:BF:198:ALA:HB3	1.98	0.45
34:BO:86:ILE:HG22	34:BO:94:ARG:HG3	1.97	0.45
36:BQ:62:GLY:O	45:BZ:178:GLU:HG2	2.16	0.45
1:CA:499:A:H4'	1:CA:500:G:OP1	2.16	0.45
1:CA:939:G:H5"	7:CG:102:ARG:NH2	2.32	0.45
1:CA:1285:A:H4'	1:CA:1286:A:O5'	2.17	0.45
1:CA:1415:G:N3	1:CA:1486:G:C2	2.85	0.45
1:CA:1421:G:H1	1:CA:1479:C:H42	1.64	0.45
2:CB:20:GLU:OE2	2:CB:23:ARG:NH2	2.45	0.45
2:CB:21:ARG:CB	2:CB:39:ILE:HA	2.44	0.45
13:CM:65:LYS:HE3	13:CM:65:LYS:O	2.17	0.45
25:DA:139(A):G:O2'	25:DA:140:G:H5'	2.17	0.45
25:DA:792:G:N3	25:DA:2072:G:O2'	2.41	0.45
25:DA:1221(A):C:C2	25:DA:1229:G:C2	3.05	0.45
25:DA:1298:C:H5"	25:DA:1299:G:OP2	2.17	0.45
25:DA:1669:A:H5"	25:DA:2550:G:OP1	2.17	0.45
25:DA:2019:A:C2'	25:DA:2020:A:O5'	2.65	0.45
25:DA:2393:A:C2'	25:DA:2394:C:H5'	2.47	0.45
26:DB:19:G:H2'	26:DB:20:C:O4'	2.17	0.45
27:DD:35:LYS:HG3	27:DD:64:ILE:HD11	1.98	0.45
27:DD:76:PRO:HA	27:DD:118:VAL:HB	1.99	0.45
32:DI:92:VAL:CG2	32:DI:120:ILE:HB	2.46	0.45
33:DN:11:PRO:O	33:DN:13:TRP:HD1	2.00	0.45
37:DR:65:LEU:HD12	37:DR:65:LEU:HA	1.72	0.45
38:DS:66:ALA:O	38:DS:69:VAL:N	2.50	0.45
41:DV:87:HIS:CE1	41:DV:89:GLN:HG2	2.52	0.45
42:DW:80:PRO:O	42:DW:100:THR:HB	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D2:22:GLU:HG3	48:D2:64:LEU:HD11	1.98	0.45
1:AA:55:A:C5	1:AA:56:U:C5	3.05	0.45
1:AA:275:G:O2'	17:AQ:15:MET:HG2	2.16	0.45
1:AA:342:C:N3	1:AA:343:U:C5	2.85	0.45
1:AA:428:G:H4'	1:AA:429:U:OP1	2.16	0.45
1:AA:542:G:H5'	4:AD:41:GLY:HA3	1.99	0.45
1:AA:599:C:H4'	8:AH:130:GLY:HA3	1.99	0.45
1:AA:1136:U:H5"	1:AA:1137:C:C2	2.52	0.45
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.51	0.45
1:AA:1263:C:H5"	1:AA:1264:C:OP2	2.17	0.45
1:AA:1355:G:H2'	1:AA:1356:G:C8	2.51	0.45
2:AB:222:ILE:HG22	2:AB:226:ARG:HD2	1.99	0.45
3:AC:12:LEU:HD23	3:AC:12:LEU:HA	1.76	0.45
4:AD:113:SER:OG	4:AD:116:GLN:N	2.37	0.45
6:AF:11:ASN:HA	6:AF:12:PRO:HD2	1.73	0.45
15:AO:53:HIS:O	15:AO:56:LEU:HB3	2.16	0.45
17:AQ:90:ILE:O	17:AQ:94:ASN:N	2.45	0.45
25:BA:1508:A:H4'	25:BA:1509(A):A:C5	2.51	0.45
25:BA:1784:A:H4'	25:BA:1785:A:C5'	2.47	0.45
25:BA:2043:C:H1'	25:BA:2779:U:O4	2.17	0.45
29:BF:194:MET:HE2	29:BF:199:TRP:HE3	1.82	0.45
31:BH:147:ASN:O	31:BH:148:ILE:C	2.59	0.45
36:BQ:18:LYS:HB2	36:BQ:18:LYS:HE3	1.75	0.45
40:BU:24:TYR:CD1	40:BU:38:THR:HG21	2.51	0.45
40:BU:50:ARG:O	40:BU:53:ARG:HB3	2.17	0.45
1:CA:189:G:C2	1:CA:189(L):G:C2	3.05	0.45
1:CA:245:C:O2	1:CA:283:C:N3	2.50	0.45
1:CA:731:G:OP1	1:CA:766:A:H1'	2.17	0.45
1:CA:936:C:H2'	1:CA:937:A:O4'	2.17	0.45
1:CA:1317:C:H42	14:CN:19:ARG:HH21	1.63	0.45
1:CA:1487:G:H8	1:CA:1487:G:O5'	2.00	0.45
2:CB:87:ARG:CZ	2:CB:233:SER:HB2	2.47	0.45
2:CB:98:LEU:H	2:CB:101:MET:HE3	1.81	0.45
4:CD:146:ILE:HD12	4:CD:146:ILE:N	2.32	0.45
5:CE:79:GLU:HG3	5:CE:93:PRO:HD2	1.98	0.45
7:CG:82:GLY:HA2	24:CX:1:A:N7	2.32	0.45
9:CI:5:TYR:OH	9:CI:16:ARG:HG2	2.16	0.45
14:CN:13:THR:N	14:CN:14:PRO:HD2	2.32	0.45
14:CN:29:ARG:NH2	14:CN:42:ILE:HD11	2.32	0.45
25:DA:362:U:O2'	25:DA:363:G:H5"	2.17	0.45
25:DA:1354:A:C8	25:DA:1355:G:C8	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:12:THR:HG21	39:DT:11:GLU:HG2	1.99	0.45
32:DI:124:GLY:H	32:DI:144:VAL:HG13	1.82	0.45
43:DX:25:LYS:HA	43:DX:81:VAL:O	2.16	0.45
51:D5:16:ARG:HG3	51:D5:17:ASP:H	1.82	0.45
52:D6:20:ASN:HD21	52:D6:42:TRP:CD1	2.34	0.45
1:AA:30:U:H4'	1:AA:31:G:OP2	2.15	0.45
1:AA:93:G:O2'	1:AA:96:U:P	2.75	0.45
1:AA:1346:A:C8	7:AG:10:ARG:NH2	2.85	0.45
2:AB:28:PHE:HD2	2:AB:194:PRO:HG3	1.81	0.45
2:AB:197:VAL:HG12	2:AB:198:ASP:H	1.82	0.45
4:AD:134:ASP:O	4:AD:136:PRO:HD3	2.17	0.45
5:AE:102:ALA:HB1	5:AE:106:PRO:HG2	1.99	0.45
12:AL:70:ILE:HG12	12:AL:100:ILE:HD12	1.99	0.45
16:AP:49:LEU:HD12	16:AP:50:LYS:O	2.17	0.45
20:AT:90:GLN:O	20:AT:93:GLU:HB3	2.17	0.45
24:AX:5:U:C2'	24:AX:6:G:H5'	2.47	0.45
25:BA:300:A:OP2	44:BY:86:ARG:NH2	2.50	0.45
25:BA:637:A:H4'	25:BA:638:G:O5'	2.17	0.45
25:BA:764:A:O4'	27:BD:213:ARG:HG3	2.17	0.45
25:BA:805:G:OP1	58:BA:5183:HOH:O	2.21	0.45
25:BA:1803:A:H4'	27:BD:259:THR:HG21	1.99	0.45
25:BA:2771:C:H2'	25:BA:2772:C:C6	2.52	0.45
26:BB:41:U:C6	30:BG:69:ALA:HB1	2.52	0.45
31:BH:37:VAL:HG22	31:BH:68:THR:HG23	1.98	0.45
31:BH:121:ILE:HD13	31:BH:121:ILE:HA	1.78	0.45
37:BR:100:LEU:HD11	51:B5:58:LEU:HD11	1.99	0.45
47:B1:35:THR:H	47:B1:35:THR:HG23	1.51	0.45
51:B5:42:PRO:HB2	51:B5:43:HIS:ND1	2.31	0.45
1:CA:429:U:H1'	1:CA:430:A:H5"	1.99	0.45
1:CA:730:G:C5	1:CA:731:G:H1'	2.52	0.45
1:CA:923:A:H2'	1:CA:924:C:C6	2.52	0.45
1:CA:987:G:H1	1:CA:1218:C:H42	1.65	0.45
1:CA:1305:G:N1	1:CA:1331:G:O2'	2.46	0.45
1:CA:1354:C:N3	1:CA:1368:G:O6	2.49	0.45
2:CB:17:PHE:C	2:CB:17:PHE:CD2	2.95	0.45
2:CB:18:GLY:HA2	2:CB:42:ILE:HG13	1.99	0.45
5:CE:98:THR:HG22	5:CE:99:GLY:N	2.32	0.45
8:CH:127:LEU:HD13	8:CH:127:LEU:HA	1.69	0.45
15:CO:24:SER:O	15:CO:27:VAL:N	2.50	0.45
19:CS:62:ILE:H	19:CS:62:ILE:HD12	1.82	0.45
25:DA:9:U:HO2'	25:DA:10:G:P	2.38	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:36:G:N3	25:DA:450:G:O2'	2.49	0.45
25:DA:389:G:H8	25:DA:389:G:O5'	1.99	0.45
25:DA:527:C:H5	58:DA:4190:HOH:O	1.99	0.45
25:DA:720:C:H2'	25:DA:721:C:H6	1.82	0.45
25:DA:1288:U:C2	25:DA:1327:C:O2	2.70	0.45
27:DD:96:HIS:NE2	27:DD:102:LYS:HE2	2.32	0.45
29:DF:132:VAL:HG23	29:DF:132:VAL:O	2.17	0.45
33:DN:48:MET:HE3	33:DN:48:MET:HB2	1.81	0.45
36:DQ:42:ILE:HG12	36:DQ:103:MET:HE2	1.99	0.45
40:DU:5:LYS:HG2	40:DU:7:GLY:H	1.81	0.45
42:DW:86:LEU:HD12	42:DW:87:PRO:HD2	1.99	0.45
50:D4:8:LYS:HE3	50:D4:8:LYS:HB3	1.66	0.45
1:AA:202:U:H3'	1:AA:203:U:H5	1.81	0.44
1:AA:370:C:H2'	1:AA:371:G:C8	2.52	0.44
1:AA:377:G:H1	1:AA:386:C:H42	1.64	0.44
1:AA:615:C:H2'	1:AA:616:G:O4'	2.17	0.44
1:AA:621:A:H2'	1:AA:622:A:C8	2.51	0.44
1:AA:831:U:OP1	2:AB:22:LYS:HD3	2.18	0.44
1:AA:922:G:C2	1:AA:923:A:C4	3.05	0.44
1:AA:974:A:OP1	1:AA:974:A:C8	2.69	0.44
2:AB:18:GLY:HA3	2:AB:41:ILE:HA	1.99	0.44
2:AB:208:ILE:O	2:AB:212:GLN:HB2	2.16	0.44
9:AI:69:GLY:O	9:AI:70:LYS:C	2.60	0.44
13:AM:69:GLU:O	13:AM:71:ARG:N	2.49	0.44
16:AP:55:ARG:HA	16:AP:55:ARG:HD2	1.75	0.44
25:BA:543:C:H2'	25:BA:545:G:O4'	2.17	0.44
25:BA:738:G:C6	25:BA:739:G:C2	3.05	0.44
25:BA:971:C:H2'	25:BA:972:G:O4'	2.17	0.44
25:BA:1354:A:H2'	25:BA:1355:G:O4'	2.17	0.44
25:BA:1904:G:O2'	25:BA:1928:A:N1	2.39	0.44
25:BA:2205:C:O2	25:BA:2220:G:C2	2.69	0.44
25:BA:2536:G:C6	25:BA:2537:U:C4	3.05	0.44
28:BE:181:LEU:HD11	39:BT:6:LEU:HD12	1.99	0.44
32:BI:65:ALA:HB1	32:BI:136:VAL:HG11	1.99	0.44
33:BN:47:ALA:HB2	33:BN:112:LEU:CD1	2.47	0.44
35:BP:27:HIS:ND1	35:BP:27:HIS:N	2.65	0.44
39:BT:16:ARG:HE	39:BT:19:LEU:HD21	1.80	0.44
45:BZ:179:ASP:O	45:BZ:182:LYS:HB2	2.17	0.44
1:CA:675:A:H2'	1:CA:676:A:H8	1.81	0.44
1:CA:678:U:H2'	1:CA:679:C:H6	1.82	0.44
1:CA:819:A:H4'	1:CA:820:U:OP2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1348:U:H4'	9:CI:120:ARG:HG3	1.99	0.44
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.52	0.44
2:CB:86:GLU:CD	2:CB:86:GLU:H	2.25	0.44
3:CC:18:TRP:N	3:CC:18:TRP:CE3	2.82	0.44
10:CJ:69:ASN:O	10:CJ:70:ARG:HG2	2.18	0.44
25:DA:247:G:H4'	25:DA:386:G:C6	2.53	0.44
25:DA:308:G:O2'	58:DA:3739:HOH:O	2.21	0.44
25:DA:1011:G:OP1	40:DU:77:SER:OG	2.29	0.44
25:DA:1020:A:H4'	25:DA:1021:A:O5'	2.17	0.44
25:DA:2555:U:C5	25:DA:2556:C:C2	3.05	0.44
25:DA:2850:A:OP2	25:DA:2866:U:H5	2.00	0.44
26:DB:46:A:H2'	26:DB:47:C:C6	2.52	0.44
29:DF:34:TRP:CE2	35:DP:8:PRO:HG3	2.51	0.44
36:DQ:19:GLY:O	36:DQ:98:LYS:HB3	2.17	0.44
38:DS:7:TYR:CZ	38:DS:91:PRO:HG3	2.52	0.44
38:DS:8:GLU:H	38:DS:8:GLU:HG3	1.47	0.44
44:DY:76:CYS:HA	44:DY:77:PRO:HD3	1.77	0.44
47:D1:46:LEU:HD22	47:D1:46:LEU:HA	1.80	0.44
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.82	0.44
1:AA:1256:A:H5"	1:AA:1257:U:OP1	2.16	0.44
1:AA:1358:U:H5"	14:AN:33:VAL:O	2.16	0.44
2:AB:28:PHE:CD2	2:AB:194:PRO:HG3	2.53	0.44
3:AC:23:TYR:CD2	3:AC:24:ALA:N	2.85	0.44
3:AC:179:ARG:H	3:AC:179:ARG:HG3	1.45	0.44
11:AK:120:ARG:HH11	11:AK:120:ARG:CG	2.27	0.44
13:AM:66:LEU:O	13:AM:69:GLU:O	2.35	0.44
25:BA:272(B):G:H2'	25:BA:272(C):G:H8	1.82	0.44
25:BA:1606:G:H5"	25:BA:1607:C:OP1	2.17	0.44
25:BA:2345:G:N3	25:BA:2381:C:H2'	2.32	0.44
25:BA:2789:C:O2'	25:BA:2790:A:O2'	2.06	0.44
27:BD:184:LYS:HE3	27:BD:271:ILE:HD11	2.00	0.44
30:BG:33:ARG:HB2	30:BG:162:THR:CG2	2.47	0.44
37:BR:75:LEU:HA	37:BR:75:LEU:HD22	1.64	0.44
50:B4:16:CYS:SG	50:B4:18:CYS:CB	3.06	0.44
53:B7:47:ARG:HH11	53:B7:47:ARG:CB	2.29	0.44
1:CA:129(A):G:N1	1:CA:189(D):C:O2	2.50	0.44
1:CA:243:A:C2	1:CA:246:A:C8	3.05	0.44
1:CA:436:C:O2'	1:CA:437:U:P	2.76	0.44
1:CA:590:C:H2'	1:CA:591:U:C6	2.52	0.44
1:CA:923:A:OP1	5:CE:21:ALA:HB2	2.17	0.44
1:CA:991:U:C5	1:CA:1212:U:H1'	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1328:C:OP2	21:CU:7:ARG:NH1	2.50	0.44
1:CA:1382:C:H2'	1:CA:1383:C:C6	2.52	0.44
5:CE:84:PHE:HB2	5:CE:134:ALA:HB2	1.98	0.44
5:CE:151:LEU:CD1	8:CH:77:GLU:HG2	2.47	0.44
10:CJ:51:ARG:HG3	10:CJ:60:ARG:HA	1.99	0.44
11:CK:67:ASP:O	11:CK:71:LYS:HG3	2.17	0.44
25:DA:192:C:C2'	25:DA:193:U:H5'	2.47	0.44
25:DA:300:A:OP2	44:DY:86:ARG:NH2	2.50	0.44
25:DA:628:G:H2'	25:DA:629:G:C8	2.53	0.44
25:DA:855:G:O2'	46:D0:27:GLU:OE2	2.30	0.44
25:DA:857:C:O2'	25:DA:858:U:H5'	2.17	0.44
25:DA:921:G:H2'	25:DA:922:U:C6	2.53	0.44
26:DB:35:U:H2'	26:DB:36:C:O4'	2.17	0.44
27:DD:36:PRO:HA	27:DD:61:LEU:HD12	1.99	0.44
29:DF:140:LEU:HD11	29:DF:170:LEU:HD11	1.98	0.44
31:DH:3:ARG:HG3	31:DH:3:ARG:NH1	2.30	0.44
35:DP:2:LYS:O	35:DP:5:ASP:HB2	2.17	0.44
36:DQ:108:GLY:HA3	45:DZ:116:VAL:CG1	2.48	0.44
37:DR:111:LEU:HD12	37:DR:111:LEU:HA	1.73	0.44
44:DY:84:ARG:O	44:DY:100:ALA:HB2	2.17	0.44
46:D0:37:LEU:HG	46:D0:60:PHE:HA	1.99	0.44
1:AA:40:C:H2'	1:AA:41:G:C8	2.51	0.44
1:AA:391:G:C6	1:AA:392:G:C5	3.06	0.44
1:AA:615:C:H2'	1:AA:616:G:H8	1.83	0.44
1:AA:620:C:H2'	1:AA:621:A:O4'	2.17	0.44
1:AA:659:U:C2'	1:AA:660:G:H5'	2.47	0.44
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.82	0.44
1:AA:1162:C:H42	1:AA:1174:G:H1	1.65	0.44
2:AB:44:LEU:H	2:AB:44:LEU:CD2	2.23	0.44
5:AE:147:ASP:OD2	5:AE:147:ASP:N	2.50	0.44
7:AG:74:GLU:HB2	7:AG:141:VAL:HG13	1.99	0.44
12:AL:48:PRO:O	22:AY:117:ARG:NE	2.48	0.44
22:AY:20:ILE:HG13	22:AY:37:ILE:HB	1.99	0.44
23:AV:75:C:H5"	23:AV:76:A:OP2	2.16	0.44
25:BA:602:G:O2'	25:BA:655:A:N6	2.49	0.44
25:BA:1109:C:C5	25:BA:1110:G:N1	2.86	0.44
25:BA:1803:A:O3'	27:BD:259:THR:HG21	2.17	0.44
25:BA:1887:C:H2'	25:BA:1888:G:H5'	1.98	0.44
25:BA:2311:A:C8	30:BG:80:PHE:CE2	3.05	0.44
25:BA:2552:U:C2	25:BA:2554:U:H5'	2.51	0.44
29:BF:106:ARG:H	29:BF:106:ARG:HG2	1.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:174:C:H2'	1:CA:175:C:H6	1.81	0.44
1:CA:1008:C:O2	1:CA:1009:G:H1'	2.17	0.44
1:CA:1370:G:O6	58:CA:1953:HOH:O	2.21	0.44
2:CB:132:LYS:O	2:CB:135:GLN:HG2	2.17	0.44
4:CD:36:ARG:HG2	4:CD:38:TYR:CZ	2.52	0.44
25:DA:236:C:H2'	25:DA:237:C:H6	1.82	0.44
25:DA:299:A:N1	25:DA:322:A:O2'	2.45	0.44
25:DA:652(D):C:H2'	25:DA:652(E):G:O4'	2.18	0.44
25:DA:861:A:C2	25:DA:917:A:C4	3.05	0.44
25:DA:888:C:H2'	25:DA:889:C:C4	2.52	0.44
25:DA:1142:U:OP2	58:DA:3755:HOH:O	2.21	0.44
25:DA:1721:G:N3	25:DA:1721:G:H5"	2.31	0.44
25:DA:1774:C:H6	25:DA:1774:C:O5'	2.00	0.44
25:DA:2648:C:H2'	25:DA:2649:U:C6	2.53	0.44
25:DA:2884:U:H1'	51:D5:53:ALA:CB	2.45	0.44
26:DB:42:C:O2	30:DG:92:VAL:HA	2.17	0.44
28:DE:98:PRO:HG3	28:DE:174:ASP:HA	2.00	0.44
31:DH:151:ILE:H	31:DH:151:ILE:HD12	1.82	0.44
34:DO:99:PHE:HB2	58:DO:303:HOH:O	2.17	0.44
35:DP:50:ARG:HH11	54:D8:7:HIS:CD2	2.35	0.44
44:DY:24:VAL:HG12	44:DY:25:GLY:N	2.32	0.44
45:DZ:137:ILE:HG23	45:DZ:156:LYS:HE3	1.99	0.44
1:AA:220:G:C6	1:AA:221:C:C4	3.05	0.44
1:AA:416:G:C5	1:AA:417:C:C4	3.05	0.44
1:AA:961:U:OP2	1:AA:1223:C:H1'	2.17	0.44
1:AA:1312:G:N2	1:AA:1326:C:C2	2.86	0.44
2:AB:72:GLY:HA3	2:AB:165:VAL:HG23	1.99	0.44
2:AB:211:ILE:O	2:AB:215:LEU:HB2	2.17	0.44
3:AC:5:ILE:HG12	14:AN:58:LYS:NZ	2.31	0.44
12:AL:86:ARG:HH21	12:AL:99:HIS:CD2	2.36	0.44
21:AU:25:LYS:HG2	21:AU:26:LYS:H	1.82	0.44
22:AY:35:THR:HG22	22:AY:36:ALA:H	1.82	0.44
22:AY:40:ARG:NH1	22:AY:40:ARG:HB3	2.32	0.44
23:AV:19:G:C2	23:AV:57:A:N3	2.85	0.44
25:BA:12:U:H2'	25:BA:12:U:O2	2.17	0.44
25:BA:244:A:C2	25:BA:255:A:C4	3.05	0.44
25:BA:652(Q):G:C2'	25:BA:652(R):C:H5'	2.46	0.44
25:BA:666:G:O2'	25:BA:667:U:H5'	2.18	0.44
25:BA:1031:G:C4'	55:B9:6:SER:HB2	2.48	0.44
25:BA:1435:G:H2'	25:BA:1436:G:O4'	2.18	0.44
25:BA:2183:C:C2'	25:BA:2184:G:H5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2308:G:O6	25:BA:2311:A:N7	2.51	0.44
25:BA:2349:G:H3'	25:BA:2350:C:H5"	1.99	0.44
25:BA:2556:C:H2'	25:BA:2557:G:O4'	2.17	0.44
28:BE:63:LEU:HD23	28:BE:63:LEU:HA	1.73	0.44
32:BI:33:ARG:HB3	32:BI:35:LEU:HG	1.99	0.44
33:BN:33:LEU:HD12	33:BN:33:LEU:HA	1.78	0.44
36:BQ:21:THR:CG2	36:BQ:101:ARG:HB2	2.36	0.44
37:BR:116:LEU:HD23	37:BR:116:LEU:HA	1.77	0.44
38:BS:56:LEU:C	38:BS:58:LEU:HD22	2.42	0.44
43:BX:25:LYS:HE2	43:BX:82:GLN:HE22	1.83	0.44
44:BY:78:ALA:HB3	44:BY:102:CYS:SG	2.58	0.44
45:BZ:29:TYR:HA	45:BZ:33:LEU:O	2.17	0.44
47:B1:73:LEU:HA	47:B1:73:LEU:HD23	1.67	0.44
1:CA:814:A:N7	1:CA:816:A:C4	2.85	0.44
1:CA:880:C:H2'	1:CA:881:G:H8	1.82	0.44
1:CA:1043:C:H2'	1:CA:1044:A:O4'	2.18	0.44
3:CC:92:ALA:HB2	3:CC:99:VAL:CB	2.48	0.44
4:CD:173:TRP:HB2	4:CD:187:ARG:O	2.18	0.44
13:CM:15:VAL:HG22	13:CM:42:ALA:O	2.18	0.44
13:CM:66:LEU:HD22	13:CM:66:LEU:HA	1.74	0.44
17:CQ:81:ARG:NH2	17:CQ:84:LEU:HD11	2.32	0.44
19:CS:52:TYR:HB2	19:CS:57:HIS:CE1	2.52	0.44
25:DA:734:A:O2'	25:DA:1635:G:H5'	2.17	0.44
25:DA:1007:C:H2'	25:DA:1008:C:C5	2.52	0.44
25:DA:1221(A):C:N4	25:DA:1228:G:H1	2.15	0.44
25:DA:1448:G:H2'	25:DA:1449:A:C8	2.52	0.44
25:DA:2854:G:H2'	25:DA:2855:C:C6	2.51	0.44
27:DD:258:LYS:HE2	27:DD:273:ARG:NH2	2.32	0.44
31:DH:3:ARG:NE	31:DH:3:ARG:HA	2.32	0.44
36:DQ:24:GLY:O	36:DQ:102:VAL:HG23	2.17	0.44
38:DS:15:ARG:O	38:DS:19:LYS:HG2	2.18	0.44
40:DU:5:LYS:HG2	40:DU:6:THR:N	2.32	0.44
41:DV:24:LYS:HA	41:DV:92:THR:OG1	2.18	0.44
1:AA:224:C:H2'	1:AA:225:C:C6	2.50	0.44
1:AA:742:G:H5'	15:AO:58:MET:HE3	2.00	0.44
1:AA:832:C:O2'	1:AA:833:U:P	2.76	0.44
1:AA:928:G:C2	1:AA:1390:U:O2	2.70	0.44
1:AA:981:U:O4	1:AA:1223:C:N4	2.50	0.44
1:AA:1168:A:C6	1:AA:1169:A:C6	3.06	0.44
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.18	0.44
1:AA:1278:U:H5'	1:AA:1279:A:C5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:52:SER:O	4:AD:53:ASP:C	2.61	0.44
5:AE:66:MET:HE3	5:AE:66:MET:HB3	1.75	0.44
6:AF:33:TYR:HE1	6:AF:78:GLU:HG2	1.82	0.44
10:AJ:42:THR:HG21	10:AJ:66:ARG:HD2	1.99	0.44
15:AO:74:ASP:OD2	15:AO:77:ARG:HD3	2.17	0.44
25:BA:320:A:H4'	25:BA:322:A:C8	2.53	0.44
25:BA:375:C:OP1	58:BA:4900:HOH:O	2.21	0.44
25:BA:823:G:C5	25:BA:835:A:C2	3.05	0.44
25:BA:969:U:OP1	49:B3:17:LYS:HG2	2.17	0.44
25:BA:1358:G:N2	25:BA:1372:U:C5	2.85	0.44
25:BA:1609:A:H5'	25:BA:1617:C:OP1	2.17	0.44
25:BA:1653:G:H3'	37:BR:2:ARG:HD3	1.99	0.44
25:BA:1854:A:H2'	25:BA:1855:G:O4'	2.18	0.44
25:BA:2418:A:OP2	54:B8:29:LYS:HE3	2.18	0.44
27:BD:242:ARG:HG2	27:BD:246:PRO:HG3	1.99	0.44
31:BH:171:LEU:H	31:BH:171:LEU:HD22	1.81	0.44
32:BI:72:LEU:C	32:BI:74:ASN:H	2.26	0.44
34:BO:77:ILE:HG13	39:BT:74:ARG:HD3	1.99	0.44
42:BW:19:LEU:HD12	42:BW:19:LEU:HA	1.71	0.44
42:BW:71:VAL:HA	42:BW:107:LEU:HD12	2.00	0.44
52:B6:11:LEU:HD23	52:B6:11:LEU:HA	1.70	0.44
53:B7:10:ARG:O	53:B7:14:LYS:HG2	2.18	0.44
1:CA:119:A:H5'	1:CA:120:A:C4	2.52	0.44
1:CA:376:G:H2'	1:CA:377:G:C8	2.52	0.44
1:CA:425:G:N2	1:CA:426:G:H1'	2.33	0.44
1:CA:727:G:N2	1:CA:730:G:OP2	2.48	0.44
1:CA:838:G:H2'	1:CA:839:U:H5"	2.00	0.44
1:CA:1309:G:H5'	13:CM:78:ILE:HD11	1.99	0.44
1:CA:1516:G:H2'	1:CA:1518:A:OP2	2.18	0.44
2:CB:22:LYS:NZ	58:CB:301:HOH:O	2.29	0.44
5:CE:88:LYS:HB3	5:CE:123:LEU:HB2	2.00	0.44
9:CI:69:GLY:O	9:CI:73:GLN:N	2.37	0.44
11:CK:73:MET:HE1	11:CK:101:SER:O	2.17	0.44
17:CQ:32:TYR:C	17:CQ:34:LYS:H	2.25	0.44
17:CQ:67:LYS:O	17:CQ:68:ARG:HB3	2.17	0.44
25:DA:85:G:H1	25:DA:97:C:H42	1.66	0.44
25:DA:90:U:HO2'	25:DA:92:A:H8	1.57	0.44
25:DA:597:U:H2'	25:DA:598:G:C8	2.52	0.44
25:DA:866:A:C6	25:DA:914:C:C5	3.05	0.44
25:DA:1028:A:H61	25:DA:1125:G:H2'	1.83	0.44
25:DA:1142(A):A:N7	25:DA:1144:G:C5	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1498:C:O4'	25:DA:1577:C:H4'	2.18	0.44
25:DA:1608:A:H1'	25:DA:1610:A:OP2	2.18	0.44
25:DA:1665:A:H4'	34:DO:67:LYS:HB2	2.00	0.44
25:DA:1813:G:H1'	27:DD:50:THR:OG1	2.18	0.44
25:DA:2356:C:H2'	25:DA:2357:U:O4'	2.17	0.44
27:DD:242:ARG:HD3	27:DD:242:ARG:H	1.83	0.44
47:D1:82:LEU:HA	47:D1:85:LEU:HD23	1.99	0.44
53:D7:1:MET:O	53:D7:3:ARG:HG2	2.18	0.44
1:AA:437:U:C5	1:AA:438:G:N7	2.85	0.44
1:AA:748:C:H4'	1:AA:749:C:O5'	2.18	0.44
1:AA:790:A:OP1	23:AV:38:A:O2'	2.31	0.44
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.52	0.44
1:AA:1446:U:O2'	1:AA:1447:A:C8	2.70	0.44
4:AD:118:ARG:O	4:AD:121:VAL:N	2.51	0.44
11:AK:114:VAL:HA	11:AK:115:PRO:HD2	1.76	0.44
13:AM:49:THR:HG23	13:AM:52:GLU:OE2	2.17	0.44
16:AP:4:ILE:HA	16:AP:20:VAL:O	2.18	0.44
25:BA:271(I):G:C6	25:BA:271(J):C:N4	2.85	0.44
25:BA:306:U:H2'	25:BA:307:G:O4'	2.17	0.44
25:BA:528:A:C8	25:BA:528:A:H3'	2.53	0.44
25:BA:652(J):G:H1	25:BA:652(P):G:H22	1.65	0.44
25:BA:1630:G:N2	25:BA:1636:C:O2	2.41	0.44
25:BA:2032:G:N2	25:BA:2572:A:OP2	2.50	0.44
25:BA:2207:G:HO2'	25:BA:2208:A:P	2.38	0.44
26:BB:89:G:C6	26:BB:90:A:N6	2.85	0.44
27:BD:71:ASP:CG	27:BD:103:ARG:HH22	2.26	0.44
27:BD:259:THR:O	27:BD:260:ARG:C	2.59	0.44
30:BG:139:LEU:HD23	30:BG:149:VAL:HG11	1.98	0.44
31:BH:56:SER:OG	31:BH:58:GLU:N	2.42	0.44
37:BR:100:LEU:HD21	37:BR:113:LEU:HD23	2.00	0.44
37:BR:107:ASP:OD2	37:BR:107:ASP:N	2.28	0.44
46:B0:51:VAL:HG22	46:B0:81:VAL:HG23	1.99	0.44
48:B2:52:ASP:O	48:B2:56:GLN:HG3	2.17	0.44
1:CA:39:G:C6	1:CA:40:C:C5	3.06	0.44
1:CA:384:G:C6	1:CA:385:C:N4	2.85	0.44
1:CA:663:A:H2'	1:CA:664:G:O4'	2.18	0.44
1:CA:1347:G:N1	1:CA:1374:A:OP2	2.42	0.44
2:CB:67:THR:HA	2:CB:90:MET:HE2	2.00	0.44
3:CC:4:LYS:HE3	3:CC:4:LYS:HB2	1.82	0.44
3:CC:114:PRO:O	3:CC:118:GLN:HG2	2.17	0.44
4:CD:73:ARG:O	4:CD:77:ASN:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:88:LYS:HG2	5:CE:123:LEU:HB2	2.00	0.44
6:CF:26:ILE:O	6:CF:30:LEU:HD12	2.17	0.44
14:CN:45:ARG:O	14:CN:49:HIS:HD2	1.99	0.44
20:CT:38:LYS:HA	20:CT:41:ILE:HD11	1.99	0.44
25:DA:861:A:N3	26:DB:79:C:O2'	2.50	0.44
25:DA:1344:G:H4'	25:DA:1384:A:C5	2.53	0.44
25:DA:1366:A:H2'	25:DA:1367:A:O4'	2.18	0.44
25:DA:1665:A:C4'	34:DO:67:LYS:HB2	2.47	0.44
25:DA:1857:G:H1'	25:DA:1885:A:N6	2.33	0.44
25:DA:2318:G:H2'	25:DA:2319:G:OP1	2.17	0.44
25:DA:2405:G:H8	25:DA:2405:G:O5'	2.00	0.44
25:DA:2456:C:N4	58:DA:3942:HOH:O	2.51	0.44
25:DA:2525:G:N2	25:DA:2539:C:C2	2.86	0.44
25:DA:2572:A:O2'	25:DA:2575:C:OP1	2.34	0.44
25:DA:2870:C:H2'	25:DA:2871:C:O4'	2.17	0.44
28:DE:111:ARG:HA	37:DR:1:MET:SD	2.58	0.44
30:DG:35:GLU:HB3	30:DG:160:VAL:O	2.18	0.44
30:DG:127:GLY:HA2	30:DG:166:ASP:CG	2.43	0.44
32:DI:11:ASN:O	32:DI:12:LEU:HG	2.18	0.44
35:DP:47:ASP:HA	35:DP:48:PRO:HD3	1.72	0.44
40:DU:76:TYR:CZ	40:DU:80:ILE:HG13	2.52	0.44
41:DV:52:VAL:HG21	41:DV:55:ALA:HB3	1.98	0.44
52:D6:9:LEU:HD21	52:D6:25:LYS:HB3	2.00	0.44
1:AA:351:G:H4'	1:AA:352:C:OP1	2.17	0.44
1:AA:1092:A:C6	1:AA:1093:A:C6	3.06	0.44
1:AA:1173:G:C6	1:AA:1174:G:C5	3.06	0.44
2:AB:166:ASP:OD2	2:AB:167:PRO:HD2	2.18	0.44
4:AD:98:GLU:O	4:AD:103:ASN:ND2	2.50	0.44
8:AH:20:TYR:HE2	8:AH:75:ARG:HG2	1.83	0.44
25:BA:28:A:C2	25:BA:513:A:C8	3.06	0.44
25:BA:655:A:H8	25:BA:656:G:C1'	2.31	0.44
25:BA:1653:G:H4'	25:BA:1654:A:O5'	2.18	0.44
25:BA:2012:G:O3'	42:BW:96:ILE:HD12	2.18	0.44
25:BA:2295:C:OP1	38:BS:10:ARG:NH1	2.51	0.44
25:BA:2663:G:C6	25:BA:2664:G:C4	3.05	0.44
25:BA:2698:U:H2'	25:BA:2699:C:H6	1.82	0.44
25:BA:2793:G:N2	25:BA:2804:C:H1'	2.33	0.44
26:BB:30:C:H2'	26:BB:31:C:H5'	2.00	0.44
28:BE:12:THR:HG22	28:BE:13:ARG:H	1.82	0.44
29:BF:129:PHE:HA	29:BF:142:TRP:NE1	2.33	0.44
33:BN:48:MET:HB2	33:BN:48:MET:HE3	1.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BP:83:VAL:HG13	35:BP:112:LEU:HD21	1.98	0.44
39:BT:97:ALA:O	39:BT:98:LYS:HD3	2.18	0.44
42:BW:30:GLU:O	42:BW:34:ASN:ND2	2.45	0.44
42:BW:78:GLU:OE1	42:BW:99:ARG:HD3	2.18	0.44
51:B5:59:GLU:O	51:B5:60:VAL:C	2.60	0.44
1:CA:587:G:N1	1:CA:754:C:OP2	2.51	0.44
1:CA:790:A:N6	1:CA:1498:U:OP1	2.51	0.44
1:CA:1107:C:C4	1:CA:1108:G:N7	2.86	0.44
1:CA:1305:G:N2	1:CA:1331:G:O2'	2.49	0.44
1:CA:1508:G:H2'	1:CA:1509:C:O4'	2.17	0.44
2:CB:194:PRO:HB2	2:CB:195:ASP:OD1	2.18	0.44
3:CC:37:GLN:NE2	14:CN:52:GLN:OE1	2.39	0.44
3:CC:52:LEU:HA	3:CC:70:VAL:HA	1.99	0.44
4:CD:103:ASN:OD1	4:CD:114:ARG:NE	2.45	0.44
5:CE:39:GLY:O	5:CE:69:VAL:HG13	2.17	0.44
7:CG:10:ARG:HG2	7:CG:10:ARG:NH1	2.33	0.44
8:CH:29:SER:O	8:CH:32:LYS:HB2	2.17	0.44
12:CL:84:LEU:HD23	12:CL:105:TYR:HE1	1.82	0.44
13:CM:33:ALA:HA	13:CM:59:TYR:HE1	1.79	0.44
13:CM:106:ASN:OD1	13:CM:106:ASN:N	2.49	0.44
23:CV:40:C:O2'	23:CV:41:C:H5'	2.17	0.44
25:DA:218:A:C2	25:DA:235:U:H4'	2.53	0.44
25:DA:228:A:H2'	25:DA:230:U:O4'	2.18	0.44
25:DA:234:C:H2'	25:DA:235:U:C6	2.53	0.44
25:DA:299:A:H5"	44:DY:86:ARG:NH2	2.25	0.44
25:DA:588:U:H1'	29:DF:90:PHE:CG	2.53	0.44
25:DA:1344:G:H4'	25:DA:1384:A:N7	2.33	0.44
25:DA:1654:A:OP1	37:DR:1:MET:HA	2.18	0.44
25:DA:2017:U:H4'	51:D5:8:LYS:O	2.17	0.44
25:DA:2667:C:H1'	31:DH:109:PHE:CD2	2.53	0.44
25:DA:2774:C:H2'	25:DA:2775:A:O4'	2.18	0.44
27:DD:171:ASP:O	27:DD:187:GLY:N	2.49	0.44
28:DE:181:LEU:HD13	28:DE:181:LEU:HA	1.60	0.44
34:DO:69:ILE:H	34:DO:69:ILE:HG13	1.58	0.44
38:DS:96:GLY:CA	38:DS:100:ALA:H	2.30	0.44
45:DZ:111:VAL:C	45:DZ:113:ALA:N	2.75	0.44
1:AA:44:G:H2'	1:AA:45:U:O4'	2.17	0.44
1:AA:243:A:C2	1:AA:246:A:C8	3.06	0.44
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.50	0.44
1:AA:511:C:O2	1:AA:512:U:C6	2.71	0.44
1:AA:552:U:C2'	1:AA:553:A:H5'	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:599:C:H4'	8:AH:130:GLY:C	2.43	0.44
1:AA:688:G:H2'	1:AA:689:C:C6	2.50	0.44
1:AA:690:G:C6	1:AA:691:G:C6	3.06	0.44
1:AA:783:C:OP1	1:AA:1515:C:O2'	2.33	0.44
1:AA:854:G:H3'	1:AA:871:U:O4	2.18	0.44
1:AA:1010:G:C2	1:AA:1011:G:C5	3.06	0.44
1:AA:1248:A:C6	1:AA:1249:C:C4	3.06	0.44
1:AA:1365:G:C6	1:AA:1366:C:C4	3.06	0.44
1:AA:1398:A:N1	5:AE:19:MET:HE1	2.33	0.44
4:AD:173:TRP:NE1	4:AD:174:LEU:HG	2.33	0.44
8:AH:111:ILE:O	8:AH:112:LEU:HB3	2.16	0.44
9:AI:15:ALA:HB2	9:AI:65:VAL:HG23	2.00	0.44
14:AN:53:LEU:HA	14:AN:54:PRO:HD3	1.86	0.44
25:BA:395:U:O2'	25:BA:396:G:N7	2.45	0.44
25:BA:1003:G:N2	25:BA:1153:C:C2	2.85	0.44
25:BA:1810:A:H2'	25:BA:1811:G:O4'	2.18	0.44
25:BA:2432:A:H5"	25:BA:2433:A:OP2	2.18	0.44
25:BA:2751:G:C5	31:BH:2:SER:N	2.85	0.44
38:BS:35:ILE:HD11	38:BS:101:LEU:CD1	2.47	0.44
43:BX:60:ARG:HH11	43:BX:60:ARG:CB	2.27	0.44
48:B2:37:PHE:O	48:B2:41:ILE:HD13	2.18	0.44
52:B6:8:LYS:HA	52:B6:24:GLU:HA	2.00	0.44
55:B9:26:ILE:H	55:B9:26:ILE:HG13	1.49	0.44
1:CA:503:C:H2'	1:CA:504:C:C6	2.53	0.44
1:CA:1073:U:O4	1:CA:1102:A:N1	2.51	0.44
1:CA:1298:C:H2'	7:CG:114:ARG:NH1	2.33	0.44
1:CA:1300:G:O2'	1:CA:1301:U:P	2.76	0.44
2:CB:78:GLN:NE2	2:CB:94:ASN:O	2.51	0.44
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	1.98	0.44
10:CJ:40:LEU:HD23	10:CJ:40:LEU:HA	1.70	0.44
12:CL:66:VAL:HG11	12:CL:98:TYR:CE1	2.52	0.44
25:DA:459:U:H5"	53:D7:40:TRP:CD2	2.53	0.44
25:DA:519:U:O2'	25:DA:520:G:H5'	2.17	0.44
25:DA:870:A:OP1	36:DQ:6:ARG:NE	2.50	0.44
25:DA:971:C:C2'	25:DA:972:G:H5'	2.48	0.44
25:DA:1022:G:N2	25:DA:1142(A):A:H2	2.16	0.44
25:DA:2079:U:OP1	47:D1:21:ARG:NH2	2.51	0.44
25:DA:2313:C:OP1	30:DG:71:THR:HG21	2.18	0.44
25:DA:2623:G:H4'	25:DA:2825:C:O2	2.18	0.44
26:DB:8:U:H6	26:DB:8:U:H5"	1.83	0.44
27:DD:119:ALA:HB2	27:DD:130:ALA:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:119:ARG:HG2	28:DE:160:TYR:HB2	2.00	0.44
45:DZ:119:GLU:OE2	45:DZ:122:ARG:NH1	2.51	0.44
45:DZ:160:GLY:HA2	45:DZ:161:VAL:HB	2.00	0.44
50:D4:14:ILE:HG22	50:D4:33:VAL:CG2	2.48	0.44
1:AA:189(E):U:O2'	1:AA:189(F):U:H5'	2.17	0.44
1:AA:245:C:O2	1:AA:283:C:N3	2.51	0.44
1:AA:658:G:H2'	1:AA:659:U:H6	1.82	0.44
1:AA:1118:C:O4'	1:AA:1179:A:H1'	2.18	0.44
1:AA:1201:A:O2'	1:AA:1202:G:OP2	2.34	0.44
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.18	0.44
2:AB:16:HIS:O	2:AB:210:SER:OG	2.35	0.44
7:AG:113:GLU:HG2	7:AG:119:ARG:HG2	1.98	0.44
7:AG:150:ALA:HA	11:AK:59:TYR:HB3	1.99	0.44
8:AH:11:THR:HG23	8:AH:14:ARG:HH12	1.82	0.44
9:AI:111:ARG:O	9:AI:113:LYS:HD2	2.17	0.44
12:AL:6:THR:O	12:AL:6:THR:OG1	2.36	0.44
12:AL:32:PHE:HB3	12:AL:85:ILE:O	2.17	0.44
17:AQ:45:HIS:CB	17:AQ:65:ILE:HD13	2.48	0.44
23:AV:8:U:O2'	23:AV:21:A:N1	2.48	0.44
24:AX:5:U:O2'	24:AX:6:G:H5'	2.18	0.44
25:BA:387:U:H4'	25:BA:388:G:O5'	2.18	0.44
25:BA:460:A:P	53:B7:41:ARG:HH22	2.41	0.44
25:BA:636:G:C2	35:BP:115:LEU:HD11	2.53	0.44
25:BA:826:U:C4'	35:BP:55:ARG:HB2	2.47	0.44
25:BA:1583:A:H5'	25:BA:1584:C:C5'	2.48	0.44
25:BA:1636:C:H2'	25:BA:1637:A:C8	2.53	0.44
25:BA:1693:U:H1'	27:BD:14:ARG:NH2	2.33	0.44
25:BA:2206:G:C5'	25:BA:2207:G:N7	2.80	0.44
28:BE:115:GLY:O	28:BE:119:ARG:HB2	2.17	0.44
30:BG:7:LEU:HD23	30:BG:7:LEU:HA	1.77	0.44
31:BH:41:MET:HE2	31:BH:65:HIS:CA	2.45	0.44
33:BN:67:LEU:O	33:BN:88:GLU:HG3	2.17	0.44
34:BO:45:GLU:HA	34:BO:54:GLU:HG2	2.00	0.44
34:BO:101:PRO:HA	34:BO:120:GLU:O	2.18	0.44
44:BY:34:LYS:HB3	44:BY:34:LYS:HE2	1.40	0.44
1:CA:634:C:H2'	1:CA:635:G:H8	1.83	0.44
1:CA:673:G:H5"	6:CF:87:ARG:NH1	2.33	0.44
1:CA:779:C:H5"	11:CK:122:LYS:HG2	2.00	0.44
1:CA:850:U:H2'	1:CA:851:G:H5"	2.00	0.44
1:CA:939:G:H1	1:CA:1344:C:N4	2.16	0.44
1:CA:1061:G:HO2'	1:CA:1062:U:P	2.39	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1134:G:H2'	1:CA:1134:G:N3	2.33	0.44
1:CA:1266:G:N2	1:CA:1269:A:OP2	2.48	0.44
4:CD:64:LEU:HB2	4:CD:198:VAL:HG21	1.99	0.44
14:CN:26:ARG:HB3	14:CN:43:CYS:SG	2.58	0.44
23:CV:12:G:H1'	25:DA:1923:U:O2'	2.17	0.44
23:CV:43:A:C2	23:CV:44:A:C4	3.06	0.44
25:DA:144:C:H2'	25:DA:145:G:C8	2.53	0.44
25:DA:627:A:C6	25:DA:637:A:C8	3.06	0.44
25:DA:647:G:H8	25:DA:647:G:O5'	2.01	0.44
25:DA:828:U:H4'	25:DA:831:G:N1	2.33	0.44
25:DA:925:C:C2	25:DA:926:A:C8	3.06	0.44
25:DA:977:G:N2	25:DA:986:C:O2	2.51	0.44
25:DA:1632:A:N6	58:DA:3968:HOH:O	2.50	0.44
31:DH:160:LYS:HE3	31:DH:160:LYS:HB2	1.84	0.44
33:DN:104:LYS:HB2	33:DN:117:PHE:HE1	1.78	0.44
33:DN:136:GLU:HG2	33:DN:137:LYS:O	2.17	0.44
36:DQ:11:LYS:HD2	36:DQ:87:LYS:HD3	1.99	0.44
40:DU:69:CYS:HB3	40:DU:74:LEU:HD13	1.99	0.44
46:D0:14:ARG:HG2	46:D0:14:ARG:HH11	1.83	0.44
1:AA:935:A:C2	1:AA:936:C:C2	3.05	0.43
2:AB:73:THR:HG23	2:AB:170:GLU:OE1	2.18	0.43
3:AC:53:ALA:O	3:AC:54:ARG:HB2	2.18	0.43
8:AH:12:ARG:NH2	8:AH:27:PRO:HD3	2.33	0.43
8:AH:81:HIS:ND1	8:AH:138:TRP:OXT	2.48	0.43
25:BA:15:G:OP2	58:BA:3992:HOH:O	2.21	0.43
25:BA:26:G:C6	25:BA:27:G:N1	2.86	0.43
25:BA:61:G:OP2	48:B2:54:LYS:NZ	2.51	0.43
25:BA:2078:C:H2'	25:BA:2079:U:O4'	2.18	0.43
26:BB:50:G:O5'	26:BB:50:G:H8	2.00	0.43
26:BB:95:C:H2'	26:BB:96:U:H6	1.81	0.43
27:BD:233:HIS:NE2	27:BD:246:PRO:HA	2.33	0.43
31:BH:26:VAL:HG12	31:BH:79:VAL:HG21	2.00	0.43
33:BN:137:LYS:HD3	33:BN:138:LEU:H	1.82	0.43
35:BP:84:ASN:ND2	35:BP:117:GLU:HB2	2.33	0.43
39:BT:37:GLY:HA2	39:BT:38:ASN:HA	1.75	0.43
43:BX:60:ARG:HH11	43:BX:60:ARG:CG	2.31	0.43
45:BZ:145:GLU:H	45:BZ:148:ASP:HB2	1.83	0.43
54:B8:39:LYS:HB2	54:B8:42:ARG:HH12	1.83	0.43
1:CA:35:G:O2'	12:CL:118:SER:O	2.35	0.43
1:CA:176:C:H2'	1:CA:177:C:C6	2.53	0.43
1:CA:558:G:O5'	1:CA:558:G:H8	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:717:C:H6	1:CA:717:C:H5"	1.82	0.43
1:CA:1452:C:O2'	1:CA:1456:G:OP1	2.31	0.43
1:CA:1471:G:H2'	1:CA:1472:U:H6	1.83	0.43
7:CG:99:LEU:HD22	7:CG:103:TRP:CZ2	2.53	0.43
23:CV:69:C:C2'	23:CV:70:G:H5'	2.47	0.43
25:DA:13:A:N1	25:DA:525:U:H2'	2.33	0.43
25:DA:76:C:O3'	48:D2:59:ARG:HD3	2.18	0.43
25:DA:225:A:N6	25:DA:226:G:C2	2.86	0.43
25:DA:272(A):U:H6	25:DA:272(A):U:H5'	1.82	0.43
25:DA:372:G:O2'	25:DA:373:U:P	2.75	0.43
25:DA:499:U:H2'	25:DA:500:G:O4'	2.18	0.43
25:DA:729:G:C6	27:DD:208:LYS:HB2	2.53	0.43
25:DA:729:G:H2'	25:DA:1775:U:O2	2.17	0.43
25:DA:892:G:H2'	25:DA:893:C:O4'	2.18	0.43
25:DA:1153:C:OP1	40:DU:76:TYR:OH	2.31	0.43
25:DA:1155:A:OP1	40:DU:55:ARG:HD3	2.18	0.43
25:DA:1264:G:OP1	51:D5:19:ARG:NH1	2.47	0.43
25:DA:2078:C:H2'	25:DA:2079:U:O4'	2.17	0.43
25:DA:2536:G:C5	25:DA:2537:U:C5	3.06	0.43
25:DA:2713:A:H2'	25:DA:2713:A:N3	2.33	0.43
26:DB:37:C:H2'	26:DB:38:C:H5'	2.00	0.43
26:DB:42:C:O2	30:DG:93:THR:N	2.38	0.43
27:DD:228:PRO:HD3	27:DD:235:GLY:HA3	1.99	0.43
28:DE:21:VAL:HA	28:DE:22:PRO:HD2	1.84	0.43
33:DN:96:GLU:OE2	33:DN:96:GLU:N	2.35	0.43
36:DQ:24:GLY:HA2	36:DQ:67:ARG:NH2	2.33	0.43
38:DS:30:ARG:HG3	38:DS:97:ARG:CZ	2.48	0.43
1:AA:96:U:O2'	1:AA:97:G:P	2.76	0.43
1:AA:144:G:H2'	1:AA:145:G:O4'	2.18	0.43
1:AA:160:A:O4'	1:AA:344:A:C2	2.71	0.43
1:AA:313:A:H2'	1:AA:314:C:H6	1.83	0.43
1:AA:545:C:H5'	4:AD:72:GLU:HG2	2.00	0.43
1:AA:840:C:H4'	1:AA:841:U:OP1	2.17	0.43
2:AB:97:TRP:HH2	2:AB:176:GLU:HG3	1.83	0.43
4:AD:101:LEU:HD23	4:AD:121:VAL:HG13	2.00	0.43
6:AF:76:ALA:HB1	6:AF:80:ARG:HH22	1.83	0.43
7:AG:144:MET:C	7:AG:145:ALA:O	2.60	0.43
10:AJ:49:VAL:HG23	14:AN:41:ARG:CG	2.49	0.43
22:AY:9:ALA:HB1	22:AY:10:ILE:HA	1.99	0.43
22:AY:88:LEU:HA	22:AY:88:LEU:HD13	1.64	0.43
25:BA:154:G:H5"	25:BA:154:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:619:G:O6	29:BF:103:LYS:HE3	2.18	0.43
25:BA:2064:C:H2'	25:BA:2065:C:C6	2.53	0.43
25:BA:2285:C:C5	52:B6:6:ARG:NH2	2.86	0.43
32:BI:42:SER:OG	32:BI:43:ASN:N	2.51	0.43
35:BP:36:LYS:HB3	35:BP:37:GLY:H	1.59	0.43
45:BZ:45:ASP:O	45:BZ:49:ARG:HG3	2.18	0.43
46:B0:17:GLN:O	46:B0:19:LYS:HE3	2.18	0.43
48:B2:33:MET:HE3	48:B2:37:PHE:CZ	2.52	0.43
1:CA:589:C:H2'	1:CA:590:C:C6	2.53	0.43
1:CA:665:A:H2'	1:CA:725:G:N2	2.33	0.43
1:CA:928:G:H1	1:CA:1389:C:N4	2.16	0.43
1:CA:1310:G:OP1	13:CM:77:ASN:ND2	2.48	0.43
1:CA:1319:A:H61	1:CA:1361:G:H21	1.67	0.43
2:CB:206:ASP:O	2:CB:211:ILE:HD11	2.18	0.43
8:CH:5:PRO:O	8:CH:8:ASP:HB3	2.18	0.43
10:CJ:8:LEU:HD13	10:CJ:19:SER:OG	2.18	0.43
10:CJ:50:ILE:HA	10:CJ:60:ARG:HG2	2.00	0.43
23:CV:25:C:H2'	23:CV:26:G:O4'	2.17	0.43
25:DA:1140:C:OP2	33:DN:66:LYS:NZ	2.49	0.43
25:DA:2290:G:O2'	25:DA:2381:C:H1'	2.18	0.43
25:DA:2745:C:H4'	31:DH:142:GLY:O	2.19	0.43
25:DA:2815:C:H5'	51:D5:29:THR:HG21	1.99	0.43
25:DA:2820:A:C8	28:DE:109:LYS:HE2	2.53	0.43
29:DF:183:VAL:O	29:DF:187:VAL:HG23	2.17	0.43
32:DI:38:LEU:C	32:DI:40:THR:H	2.26	0.43
37:DR:52:ILE:HD12	37:DR:94:TYR:CB	2.47	0.43
40:DU:39:LEU:HD23	40:DU:39:LEU:HA	1.68	0.43
50:D4:42:PHE:CA	50:D4:43:TYR:HB2	2.49	0.43
1:AA:37:U:H2'	1:AA:38:G:O4'	2.18	0.43
1:AA:342:C:N3	1:AA:348:G:C2	2.86	0.43
1:AA:564:C:C6	17:AQ:31:LEU:HD21	2.53	0.43
1:AA:601:C:O2'	1:AA:602:A:H5'	2.18	0.43
1:AA:693:G:H2'	1:AA:694:A:C8	2.53	0.43
1:AA:924:C:O2'	1:AA:1502:A:N6	2.52	0.43
2:AB:100:GLY:N	2:AB:176:GLU:OE2	2.40	0.43
5:AE:89:ILE:HD13	5:AE:90:VAL:N	2.34	0.43
13:AM:56:LEU:O	13:AM:60:VAL:HG22	2.18	0.43
13:AM:63:THR:HG22	13:AM:64:TRP:CD2	2.54	0.43
25:BA:266:G:C6	25:BA:267:C:C5	3.06	0.43
25:BA:804:A:H5"	25:BA:805:G:OP1	2.18	0.43
25:BA:836:G:C5	25:BA:837:C:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1567:A:O4'	25:BA:1568:G:C2	2.71	0.43
25:BA:1601:G:C5	25:BA:1602:U:C4	3.07	0.43
25:BA:1667:G:H2'	58:BA:4346:HOH:O	2.17	0.43
25:BA:2365:G:H4'	46:B0:60:PHE:CZ	2.54	0.43
25:BA:2615:U:C1'	51:B5:7:PRO:HB3	2.48	0.43
25:BA:2647:U:H2'	25:BA:2648:C:C6	2.53	0.43
26:BB:53:A:H2'	26:BB:54:G:O4'	2.18	0.43
27:BD:6:PHE:HB2	27:BD:13:ARG:O	2.18	0.43
27:BD:69:ARG:HD2	27:BD:105:ILE:HG21	2.00	0.43
27:BD:155:LEU:N	27:BD:155:LEU:CD1	2.80	0.43
27:BD:155:LEU:HD23	27:BD:177:LEU:HD22	2.00	0.43
31:BH:71:LEU:HD12	31:BH:71:LEU:HA	1.66	0.43
38:BS:61:ASN:OD1	38:BS:64:GLU:HG3	2.19	0.43
40:BU:44:ASN:ND2	41:BV:75:PHE:HB3	2.32	0.43
42:BW:96:ILE:HD13	42:BW:96:ILE:HA	1.64	0.43
43:BX:50:LYS:N	43:BX:87:GLN:OE1	2.50	0.43
45:BZ:111:VAL:O	45:BZ:113:ALA:N	2.51	0.43
45:BZ:124:ILE:HD12	45:BZ:124:ILE:HA	1.79	0.43
45:BZ:146:ILE:HA	45:BZ:174:VAL:HG12	2.00	0.43
45:BZ:180:VAL:HG13	45:BZ:183:LEU:HD12	2.01	0.43
48:B2:28:LYS:HE3	48:B2:56:GLN:OE1	2.17	0.43
1:CA:33:A:H2'	1:CA:34:C:C6	2.53	0.43
1:CA:257:G:H2'	1:CA:258:G:H8	1.84	0.43
1:CA:874:G:H2'	1:CA:875:C:H6	1.83	0.43
1:CA:1181:G:H2'	1:CA:1182:G:C5	2.53	0.43
1:CA:1329:A:H2'	1:CA:1330:U:O4'	2.19	0.43
2:CB:24:TRP:HZ3	2:CB:29:ALA:HB2	1.82	0.43
2:CB:72:GLY:O	2:CB:94:ASN:HA	2.18	0.43
2:CB:211:ILE:O	2:CB:215:LEU:HB2	2.18	0.43
4:CD:65:ARG:HG2	4:CD:75:PHE:CD1	2.53	0.43
7:CG:75:VAL:HG13	7:CG:145:ALA:HB2	2.01	0.43
23:CV:3:C:N4	23:CV:70:G:H1	2.10	0.43
25:DA:9:U:N3	25:DA:2629:A:H2	2.13	0.43
25:DA:341:G:H2'	25:DA:342:G:O4'	2.18	0.43
25:DA:539:G:H2'	25:DA:540:C:H6	1.84	0.43
25:DA:616:G:H5'	29:DF:205:ARG:HH11	1.82	0.43
25:DA:910:A:C5	36:DQ:13:GLN:HG3	2.53	0.43
25:DA:924:C:H2'	25:DA:925:C:H6	1.82	0.43
25:DA:1815:A:C6	25:DA:1817:G:O6	2.71	0.43
25:DA:2193:G:H2'	25:DA:2194:G:O4'	2.19	0.43
25:DA:2228:G:C6	25:DA:2229:C:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2262:U:H4'	25:DA:2328:A:C2	2.53	0.43
25:DA:2304:G:O6	58:DA:4705:HOH:O	2.21	0.43
25:DA:2562:U:H4'	34:DO:25:LEU:HD21	1.99	0.43
25:DA:2617:C:C2	25:DA:2618:G:C8	3.07	0.43
25:DA:2807:G:C6	25:DA:2808:U:C4	3.06	0.43
26:DB:91:C:OP1	36:DQ:16:ARG:HG2	2.17	0.43
29:DF:61:GLY:HA2	29:DF:77:ASP:HB3	2.00	0.43
33:DN:111:PRO:HA	33:DN:114:ARG:NH1	2.33	0.43
36:DQ:77:LYS:HE3	36:DQ:84:GLY:O	2.18	0.43
38:DS:61:ASN:C	38:DS:65:VAL:HG23	2.42	0.43
39:DT:22:PHE:N	39:DT:22:PHE:CD2	2.86	0.43
39:DT:123:GLN:H	39:DT:123:GLN:HG3	1.59	0.43
44:DY:39:VAL:O	44:DY:42:VAL:HB	2.18	0.43
47:D1:58:ILE:HD11	47:D1:60:PHE:CZ	2.53	0.43
48:D2:10:LEU:HD23	48:D2:10:LEU:HA	1.82	0.43
51:D5:41:PRO:HG2	51:D5:44:THR:OG1	2.18	0.43
1:AA:347:G:C5	1:AA:348:G:C8	3.06	0.43
1:AA:892:A:H2'	1:AA:893:C:C6	2.53	0.43
1:AA:911:U:H2'	1:AA:912:C:C6	2.53	0.43
1:AA:1367:C:H5'	10:AJ:60:ARG:NH1	2.33	0.43
4:AD:119:GLN:O	4:AD:123:HIS:ND1	2.44	0.43
6:AF:72:VAL:HG13	6:AF:73:ASN:N	2.33	0.43
7:AG:51:GLN:HA	7:AG:55:GLY:HA2	1.99	0.43
9:AI:127:LYS:HG2	58:AV:205:HOH:O	2.17	0.43
18:AR:59:SER:OG	18:AR:62:GLU:HG3	2.18	0.43
19:AS:74:PHE:N	19:AS:74:PHE:CD2	2.87	0.43
22:AY:131:MET:HE3	22:AY:132:ARG:NH1	2.32	0.43
25:BA:218:A:H2'	25:BA:219:G:O4'	2.17	0.43
25:BA:460:A:OP1	53:B7:41:ARG:NH2	2.49	0.43
25:BA:652(A):A:H2'	25:BA:652(A):A:N3	2.34	0.43
25:BA:1805:U:O2	27:BD:50:THR:HB	2.18	0.43
25:BA:2056:G:C2	25:BA:2057:A:C8	3.06	0.43
25:BA:2207:G:O2'	25:BA:2208:A:P	2.76	0.43
25:BA:2349:G:H5"	25:BA:2349:G:H8	1.82	0.43
31:BH:69:ARG:HG3	31:BH:70:THR:N	2.32	0.43
33:BN:43:THR:HG22	33:BN:45:ASN:H	1.83	0.43
34:BO:2:ILE:N	34:BO:2:ILE:HD13	2.33	0.43
35:BP:65:ARG:HD2	54:B8:25:MET:SD	2.58	0.43
1:CA:37:U:O2'	1:CA:547:A:N1	2.40	0.43
1:CA:502:G:H4'	1:CA:550:G:H4'	2.00	0.43
1:CA:631:G:H2'	1:CA:631:G:N3	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1049:U:H4'	1:CA:1050:G:O5'	2.19	0.43
1:CA:1123:A:H2	10:CJ:39:PRO:HD2	1.83	0.43
1:CA:1134:G:C2	1:CA:1135:U:O4'	2.72	0.43
1:CA:1323:G:H4'	1:CA:1363:C:N3	2.34	0.43
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.18	0.43
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.53	0.43
5:CE:68:GLU:HG2	5:CE:70:PRO:HD3	2.00	0.43
9:CI:97:LYS:O	9:CI:100:GLY:N	2.46	0.43
15:CO:88:ARG:HH11	15:CO:88:ARG:HG3	1.84	0.43
17:CQ:74:LEU:HD22	17:CQ:74:LEU:HA	1.72	0.43
25:DA:27:G:C2	25:DA:512:G:N3	2.86	0.43
25:DA:280:C:C4	25:DA:361:G:N2	2.87	0.43
25:DA:651:G:H4'	54:D8:18:ALA:HB3	1.99	0.43
25:DA:1668:A:N3	25:DA:1670:C:C4	2.86	0.43
25:DA:1971:A:OP2	27:DD:242:ARG:NH2	2.51	0.43
25:DA:2347:C:O2'	52:D6:21:TYR:OH	2.36	0.43
25:DA:2805:G:C6	25:DA:2807:G:C5	3.06	0.43
36:DQ:32:TYR:CE2	36:DQ:133:ARG:HG3	2.53	0.43
37:DR:87:TYR:OH	37:DR:117:VAL:O	2.31	0.43
38:DS:29:PHE:CD2	38:DS:29:PHE:C	2.93	0.43
45:DZ:150:LEU:HG	45:DZ:172:ALA:HB3	2.00	0.43
48:D2:44:LEU:HD22	48:D2:47:ASN:HA	2.00	0.43
48:D2:51:ARG:H	48:D2:54:LYS:HB2	1.83	0.43
54:D8:50:LEU:HB2	54:D8:55:ALA:HB2	2.00	0.43
1:AA:186:C:O2'	20:AT:85:MET:SD	2.68	0.43
1:AA:567:G:H2'	1:AA:568:G:O4'	2.18	0.43
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.53	0.43
1:AA:1181:G:O2'	1:AA:1182:G:C6	2.72	0.43
1:AA:1350:A:C6	1:AA:1351:U:C4	3.07	0.43
2:AB:84:GLU:OE1	2:AB:216:SER:HA	2.18	0.43
3:AC:71:ALA:HA	3:AC:106:VAL:CB	2.48	0.43
3:AC:141:VAL:HG11	3:AC:149:ALA:CB	2.49	0.43
5:AE:101:ILE:O	5:AE:120:THR:HG23	2.17	0.43
9:AI:107:ARG:CG	9:AI:107:ARG:HH11	2.31	0.43
17:AQ:74:LEU:HD13	17:AQ:75:ARG:HB3	2.01	0.43
25:BA:41:C:H2'	25:BA:42:G:O4'	2.18	0.43
25:BA:271(I):G:O2'	25:BA:271(J):C:H5'	2.19	0.43
25:BA:652(C):G:H2'	25:BA:652(C):G:N3	2.34	0.43
25:BA:719:C:O5'	25:BA:719:C:H6	2.02	0.43
25:BA:973:A:H8	25:BA:973:A:OP1	2.01	0.43
25:BA:1049:C:H41	25:BA:1111:A:H2	1.63	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2307:G:H4'	25:BA:2308:G:O5'	2.17	0.43
25:BA:2398:U:H2'	25:BA:2399:G:C8	2.53	0.43
25:BA:2669:G:C2	25:BA:2670:A:C8	3.07	0.43
32:BI:4:ILE:HD11	32:BI:44:LEU:HD12	2.00	0.43
36:BQ:42:ILE:HG22	36:BQ:47:ILE:HG13	2.00	0.43
36:BQ:57:HIS:NE2	36:BQ:116:GLU:HB3	2.34	0.43
40:BU:27:LEU:N	40:BU:27:LEU:HD23	2.32	0.43
44:BY:92:ASN:N	44:BY:93:GLY:HA2	2.33	0.43
1:CA:675:A:H2'	1:CA:676:A:C8	2.53	0.43
1:CA:1128:C:O2'	1:CA:1130:A:C8	2.71	0.43
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.54	0.43
5:CE:51:VAL:O	5:CE:54:ALA:HB3	2.17	0.43
6:CF:62:TRP:C	6:CF:63:TYR:CD2	2.91	0.43
16:CP:72:ARG:HH11	16:CP:72:ARG:CG	2.22	0.43
17:CQ:29:HIS:HB3	17:CQ:33:GLY:N	2.33	0.43
25:DA:34:C:H2'	25:DA:35:G:H5'	2.01	0.43
25:DA:64:A:H2'	25:DA:65:C:C6	2.53	0.43
25:DA:530:G:N1	25:DA:2022:U:OP1	2.51	0.43
25:DA:612:C:H2'	25:DA:613:G:O4'	2.17	0.43
25:DA:637:A:H4'	25:DA:638:G:O5'	2.19	0.43
25:DA:691:C:H2'	25:DA:692:C:H6	1.83	0.43
25:DA:953:A:OP2	36:DQ:16:ARG:NE	2.50	0.43
25:DA:1265:A:H8	25:DA:1265:A:OP1	2.02	0.43
25:DA:1356:G:N1	25:DA:1357:U:C2	2.86	0.43
25:DA:1778:U:P	58:DA:4165:HOH:O	2.76	0.43
25:DA:2013:A:H4'	42:DW:96:ILE:HD13	2.00	0.43
25:DA:2307:G:H8	25:DA:2307:G:OP1	2.01	0.43
25:DA:2791:C:H1'	25:DA:2807:G:N2	2.33	0.43
26:DB:14:U:OP2	26:DB:70:C:O2'	2.28	0.43
26:DB:54:G:H21	30:DG:29:TRP:HZ2	1.66	0.43
26:DB:110:G:H2'	26:DB:111:G:H8	1.84	0.43
29:DF:78:ILE:H	29:DF:78:ILE:HG13	1.57	0.43
35:DP:75:ILE:H	35:DP:75:ILE:HG12	1.39	0.43
38:DS:10:ARG:NE	38:DS:91:PRO:O	2.51	0.43
45:DZ:99:TYR:HB3	45:DZ:123:ASP:OD1	2.18	0.43
1:AA:44:G:N3	1:AA:399:G:C2	2.86	0.43
1:AA:160:A:O5'	1:AA:160:A:H8	2.02	0.43
1:AA:189(J):G:H2'	1:AA:189(K):U:H6	1.83	0.43
1:AA:198:G:H2'	1:AA:199:G:H8	1.84	0.43
1:AA:458:C:H3'	1:AA:460:G:H8	1.83	0.43
1:AA:511:C:C5	1:AA:541:G:N2	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:539:A:OP1	12:AL:114:LYS:HG2	2.19	0.43
1:AA:659:U:O2'	1:AA:660:G:H5'	2.18	0.43
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.83	0.43
2:AB:18:GLY:HA3	2:AB:41:ILE:HG23	2.00	0.43
2:AB:47:THR:HG23	2:AB:202:PRO:HG2	2.00	0.43
25:BA:469:G:O6	53:B7:37:LYS:HE3	2.17	0.43
25:BA:1421:G:C2	25:BA:1422:G:C8	3.07	0.43
25:BA:1581:G:C6	25:BA:1582:C:C4	3.06	0.43
25:BA:2630:G:C5	25:BA:2894:G:N2	2.87	0.43
25:BA:2773:C:H5"	28:BE:164:ARG:HG2	2.01	0.43
25:BA:2811:G:N2	25:BA:2891:G:H1'	2.34	0.43
26:BB:29:A:P	38:BS:32:LEU:HD12	2.59	0.43
27:BD:182:LEU:HD22	27:BD:182:LEU:HA	1.88	0.43
28:BE:134:ILE:O	28:BE:137:HIS:HB2	2.18	0.43
38:BS:15:ARG:NE	38:BS:88:ASP:OD2	2.50	0.43
38:BS:24:LEU:HA	38:BS:24:LEU:HD23	1.68	0.43
41:BV:28:GLU:HG3	41:BV:29:PRO:HD2	2.00	0.43
42:BW:65:LEU:CD1	42:BW:68:ARG:HH21	2.31	0.43
44:BY:99:CYS:HB3	44:BY:102:CYS:SG	2.57	0.43
50:B4:9:LEU:HA	50:B4:9:LEU:HD23	1.78	0.43
51:B5:41:PRO:HA	51:B5:42:PRO:HD2	1.86	0.43
51:B5:48:GLU:OE1	51:B5:48:GLU:HA	2.18	0.43
1:CA:25:C:H5'	1:CA:524:G:H1'	2.00	0.43
1:CA:93:G:H1'	1:CA:96:U:H5'	2.00	0.43
1:CA:255:G:OP1	17:CQ:69:LYS:NZ	2.51	0.43
1:CA:683:G:C2	1:CA:684:A:C4	3.06	0.43
1:CA:1053:G:N7	1:CA:1200:C:C5'	2.81	0.43
1:CA:1068:G:N3	1:CA:1191:A:C2	2.86	0.43
1:CA:1273:G:C5	1:CA:1274:G:C8	3.07	0.43
1:CA:1339:A:H2'	1:CA:1340:A:O4'	2.19	0.43
1:CA:1415:G:H1	1:CA:1485:U:H3	1.66	0.43
8:CH:58:TYR:O	8:CH:59:LEU:HD23	2.19	0.43
15:CO:79:ARG:HA	15:CO:82:ILE:HD11	2.01	0.43
15:CO:81:LEU:HG	15:CO:85:LEU:HD12	1.99	0.43
17:CQ:89:LEU:HD23	17:CQ:89:LEU:HA	1.85	0.43
25:DA:560:C:O2	40:DU:49:HIS:NE2	2.52	0.43
25:DA:992:C:H42	25:DA:1162:G:H1	1.67	0.43
25:DA:1331:A:H2'	25:DA:1333:C:C5	2.53	0.43
25:DA:2300:G:N7	58:DA:3780:HOH:O	2.36	0.43
25:DA:2315:G:C6	25:DA:2316:C:C4	3.07	0.43
26:DB:38:C:O4'	38:DS:95:HIS:NE2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:50:G:OP2	38:DS:62:LYS:HD3	2.18	0.43
32:DI:79:ILE:HA	32:DI:80:PRO:HD3	1.69	0.43
33:DN:62:VAL:HG13	33:DN:66:LYS:HB2	2.01	0.43
37:DR:29:LEU:HD23	37:DR:70:LEU:HD11	2.00	0.43
37:DR:70:LEU:HD23	37:DR:70:LEU:HA	1.80	0.43
45:DZ:182:LYS:O	45:DZ:186:GLU:HG3	2.18	0.43
48:D2:17:SER:O	48:D2:21:LEU:HB2	2.18	0.43
1:AA:142:G:N3	1:AA:143:A:C8	2.86	0.43
1:AA:507:C:H3'	1:AA:508:C:H2'	2.00	0.43
1:AA:1149:C:H6	1:AA:1149:C:O5'	2.01	0.43
1:AA:1222:G:C6	1:AA:1223:C:C4	3.06	0.43
1:AA:1244:C:C2	1:AA:1294:G:N2	2.87	0.43
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.34	0.43
1:AA:1392:G:N2	1:AA:1502:A:H8	2.06	0.43
4:AD:13:ARG:O	4:AD:14:ARG:HB3	2.19	0.43
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.99	0.43
13:AM:94:ARG:HH22	19:AS:80:TYR:HB3	1.84	0.43
13:AM:115:LYS:HB2	13:AM:115:LYS:HE2	1.61	0.43
18:AR:44:LEU:HD23	18:AR:50:ILE:HA	2.01	0.43
19:AS:62:ILE:H	19:AS:62:ILE:HD12	1.84	0.43
20:AT:72:LEU:HD21	20:AT:77:ALA:N	2.34	0.43
22:AY:51:TYR:HB3	22:AY:55:ARG:HH21	1.84	0.43
23:AV:18:G:N3	23:AV:58:A:C2	2.87	0.43
25:BA:569:U:C4	25:BA:570:G:C6	3.06	0.43
25:BA:672:C:C2'	25:BA:673:C:H5'	2.49	0.43
25:BA:818:G:H4'	25:BA:838:C:O3'	2.18	0.43
25:BA:1106:G:H4'	25:BA:1107:G:OP1	2.16	0.43
25:BA:1306:C:C2'	25:BA:1307:A:H5'	2.49	0.43
25:BA:1403:C:H5"	25:BA:1471:A:C1'	2.37	0.43
25:BA:1529:G:H2'	25:BA:1530:C:C6	2.53	0.43
25:BA:1776:G:C2	25:BA:1777:U:C6	3.07	0.43
25:BA:2095:C:H2'	25:BA:2096:U:O4'	2.19	0.43
25:BA:2312:U:H5'	30:BG:88:ILE:HD11	2.01	0.43
32:BI:23:PRO:O	32:BI:26:ALA:HB3	2.18	0.43
34:BO:90:GLN:O	34:BO:91:LEU:HB2	2.19	0.43
39:BT:120:ARG:HA	39:BT:123:GLN:HG2	2.01	0.43
40:BU:20:LEU:HA	40:BU:20:LEU:HD23	1.36	0.43
46:B0:40:GLN:HG3	46:B0:42:GLY:O	2.18	0.43
53:B7:1:MET:HE2	53:B7:1:MET:HB2	1.84	0.43
1:CA:5:U:H5'	1:CA:6:G:C5	2.54	0.43
1:CA:392:G:H2'	1:CA:393:A:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:401:C:O5'	1:CA:401:C:H6	2.01	0.43
2:CB:102:LEU:O	2:CB:105:PHE:HB2	2.19	0.43
2:CB:105:PHE:HD2	2:CB:158:LEU:HD22	1.83	0.43
6:CF:53:ALA:HB3	6:CF:86:ARG:NH1	2.33	0.43
8:CH:45:ILE:C	8:CH:47:GLY:H	2.26	0.43
9:CI:4:TYR:CE1	9:CI:88:TYR:HA	2.54	0.43
11:CK:55:LYS:H	11:CK:55:LYS:HG2	1.60	0.43
11:CK:98:LEU:HD22	11:CK:98:LEU:HA	1.84	0.43
16:CP:48:TRP:CD1	16:CP:48:TRP:H	2.33	0.43
16:CP:75:ARG:C	16:CP:78:GLY:H	2.27	0.43
23:CV:19:G:H5'	23:CV:20:U:C5	2.54	0.43
23:CV:64:G:C6	23:CV:65:C:C4	3.06	0.43
25:DA:950:G:H2'	25:DA:951:C:O4'	2.19	0.43
25:DA:1007:C:OP1	33:DN:37:LYS:HE2	2.19	0.43
25:DA:1142(A):A:C8	25:DA:1144:G:N7	2.87	0.43
25:DA:1321:A:H2'	25:DA:1322:A:O4'	2.18	0.43
25:DA:1657:C:H2'	25:DA:1658:C:H6	1.84	0.43
25:DA:1945:G:H2'	25:DA:1946:U:C6	2.52	0.43
25:DA:2051:A:H8	25:DA:2051:A:OP2	2.00	0.43
27:DD:94:LEU:HD23	27:DD:94:LEU:HA	1.84	0.43
27:DD:142:VAL:HG23	27:DD:193:VAL:HA	1.99	0.43
30:DG:116:ASP:O	30:DG:117:PHE:C	2.61	0.43
30:DG:139:LEU:H	30:DG:139:LEU:HG	1.55	0.43
35:DP:84:ASN:HB3	35:DP:86:LYS:HG2	2.01	0.43
45:DZ:93:ASP:O	45:DZ:131:ARG:NH2	2.51	0.43
48:D2:29:LYS:HD3	48:D2:57:ILE:HD12	1.99	0.43
48:D2:33:MET:HE3	48:D2:37:PHE:CE1	2.54	0.43
48:D2:35:LEU:HD12	48:D2:53:LEU:HD12	1.99	0.43
48:D2:37:PHE:O	48:D2:40:SER:OG	2.34	0.43
51:D5:36:CYS:SG	51:D5:48:GLU:HB2	2.59	0.43
1:AA:129(A):G:N1	1:AA:189(D):C:N4	2.66	0.43
1:AA:149:A:O2'	1:AA:150:C:H6	2.00	0.43
1:AA:149:A:O2'	1:AA:150:C:C6	2.70	0.43
1:AA:392:G:OP2	16:AP:12:LYS:HG3	2.18	0.43
1:AA:806:C:O2'	1:AA:807:A:H5'	2.18	0.43
1:AA:1143:G:H2'	1:AA:1144:G:C8	2.53	0.43
1:AA:1443:G:C2	1:AA:1460:A:N3	2.87	0.43
2:AB:37:ASN:O	2:AB:39:ILE:HG13	2.18	0.43
2:AB:174:VAL:O	2:AB:178:ARG:HB2	2.19	0.43
5:AE:31:LEU:HD23	5:AE:31:LEU:HA	1.78	0.43
8:AH:86:ILE:HA	8:AH:86:ILE:HD13	1.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:21:TYR:HE2	14:AN:23:ARG:NE	2.06	0.43
20:AT:69:GLY:O	20:AT:73:HIS:NE2	2.52	0.43
25:BA:524:U:H2'	25:BA:525:U:C6	2.54	0.43
25:BA:634:C:H2'	25:BA:635:C:C6	2.54	0.43
25:BA:1005:C:C2	25:BA:1143:A:C5	3.07	0.43
25:BA:1043:C:N4	25:BA:1044:G:N7	2.67	0.43
26:BB:43:C:OP1	50:B4:1:MET:HB3	2.19	0.43
29:BF:125:LEU:HD21	29:BF:199:TRP:CG	2.53	0.43
32:BI:17:GLN:HG2	32:BI:18:VAL:N	2.34	0.43
32:BI:27:ARG:O	32:BI:32:PRO:HD3	2.18	0.43
35:BP:59:LEU:HA	35:BP:59:LEU:HD23	1.77	0.43
36:BQ:32:TYR:OH	36:BQ:111:GLU:HB2	2.19	0.43
37:BR:54:LEU:HA	37:BR:54:LEU:HD12	1.33	0.43
47:B1:3:LYS:HB3	47:B1:4:VAL:H	1.64	0.43
1:CA:93:G:HO2'	1:CA:96:U:H6	1.66	0.43
1:CA:569:C:H42	1:CA:881:G:H1	1.66	0.43
1:CA:683:G:C6	1:CA:684:A:C6	3.07	0.43
1:CA:854:G:N1	1:CA:855:G:C5	2.87	0.43
1:CA:1061:G:H5"	10:CJ:59:SER:CB	2.49	0.43
1:CA:1332:A:H8	1:CA:1332:A:O5'	2.02	0.43
5:CE:19:MET:SD	5:CE:24:ARG:HB3	2.58	0.43
11:CK:79:SER:HA	11:CK:104:GLN:HB2	2.00	0.43
15:CO:43:LEU:HA	15:CO:43:LEU:HD23	1.59	0.43
16:CP:2:VAL:O	16:CP:64:ALA:HA	2.18	0.43
17:CQ:32:TYR:O	17:CQ:34:LYS:N	2.51	0.43
25:DA:372:G:H8	47:D1:65:SER:O	2.02	0.43
25:DA:740:U:H2'	25:DA:741:G:C8	2.53	0.43
25:DA:838:C:H2'	25:DA:839:U:O4'	2.19	0.43
25:DA:995:C:OP2	40:DU:54:LYS:HE3	2.18	0.43
25:DA:1394:U:C4	25:DA:1395:A:C5	3.06	0.43
25:DA:1517:G:C6	25:DA:1518:U:C4	3.06	0.43
25:DA:1530:C:H1'	25:DA:1531:C:OP1	2.19	0.43
25:DA:2286:A:H4'	25:DA:2287:A:O4'	2.18	0.43
27:DD:70:TRP:CZ2	27:DD:150:LYS:HG3	2.53	0.43
27:DD:183:ARG:HG2	27:DD:183:ARG:HH11	1.84	0.43
29:DF:64:ILE:HG13	29:DF:65:TRP:N	2.32	0.43
29:DF:155:LEU:HD23	29:DF:186:ILE:HG13	2.00	0.43
31:DH:32:GLU:H	31:DH:32:GLU:HG2	1.70	0.43
38:DS:96:GLY:N	38:DS:99:LYS:H	2.17	0.43
39:DT:109:GLU:O	39:DT:110:ILE:C	2.62	0.43
40:DU:104:GLN:CD	40:DU:104:GLN:H	2.26	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DU:105:VAL:O	40:DU:108:GLU:HB2	2.19	0.43
45:DZ:44:PHE:CE2	45:DZ:48:PHE:HB2	2.53	0.43
54:D8:34:TRP:O	54:D8:35:GLN:HG2	2.19	0.43
1:AA:189(A):C:H2'	1:AA:189(B):C:C5	2.54	0.43
1:AA:359:U:H2'	1:AA:360:A:C8	2.53	0.43
1:AA:626:U:H2'	1:AA:627:G:H8	1.83	0.43
1:AA:684:A:C6	1:AA:685:G:C6	3.07	0.43
1:AA:900:A:H2'	1:AA:901:A:C8	2.54	0.43
1:AA:1190:G:OP1	3:AC:5:ILE:HG22	2.19	0.43
1:AA:1381:U:C5	1:AA:1382:C:C4	3.07	0.43
1:AA:1517:G:H1'	25:BA:1919:A:O3'	2.19	0.43
4:AD:146:ILE:HD12	4:AD:146:ILE:N	2.32	0.43
5:AE:65:ASN:C	5:AE:66:MET:HG2	2.44	0.43
9:AI:9:ARG:CB	9:AI:104:ARG:HE	2.31	0.43
11:AK:43:SER:HB2	11:AK:68:ALA:HB2	2.00	0.43
12:AL:60:LEU:HA	12:AL:60:LEU:HD12	1.73	0.43
13:AM:102:ARG:HH21	13:AM:105:THR:HG23	1.84	0.43
14:AN:23:ARG:HD3	14:AN:23:ARG:HA	1.45	0.43
16:AP:74:LEU:O	16:AP:79:VAL:HB	2.19	0.43
25:BA:478:A:C6	25:BA:480:A:C6	3.06	0.43
25:BA:823:G:C6	25:BA:835:A:C2	3.07	0.43
25:BA:2223:G:H2'	25:BA:2224:G:C5'	2.48	0.43
25:BA:2406:U:C2	35:BP:72:PRO:HG2	2.54	0.43
29:BF:37:VAL:O	29:BF:38:ARG:C	2.62	0.43
32:BI:67:ARG:O	32:BI:71:ILE:HB	2.19	0.43
33:BN:33:LEU:HD12	33:BN:38:HIS:CE1	2.53	0.43
33:BN:123:TYR:CZ	33:BN:129:PRO:HG2	2.53	0.43
36:BQ:57:HIS:HD2	36:BQ:117:ALA:HB2	1.83	0.43
41:BV:31:ALA:O	41:BV:61:VAL:HG13	2.18	0.43
43:BX:47:PHE:O	43:BX:48:LYS:C	2.62	0.43
45:BZ:106:GLY:O	45:BZ:108:PRO:HD3	2.18	0.43
45:BZ:108:PRO:HB2	45:BZ:111:VAL:HG23	2.00	0.43
50:B4:16:CYS:SG	50:B4:18:CYS:HB2	2.58	0.43
54:B8:47:LYS:O	54:B8:48:PHE:HB3	2.18	0.43
1:CA:452:A:C2	1:CA:453:A:C4	3.07	0.43
1:CA:1057:G:C5	1:CA:1204:A:C2	3.07	0.43
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.18	0.43
1:CA:1291:G:C6	1:CA:1292:U:C4	3.06	0.43
2:CB:111:ARG:O	2:CB:115:LEU:N	2.52	0.43
2:CB:216:SER:O	2:CB:219:VAL:N	2.52	0.43
5:CE:57:LYS:HD3	5:CE:61:TYR:HE2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:715:G:H2'	25:DA:716:A:O4'	2.18	0.43
25:DA:848:G:H2'	25:DA:849:A:H8	1.82	0.43
25:DA:993:G:O2'	41:DV:89:GLN:HG3	2.19	0.43
25:DA:1122:G:H2'	25:DA:1122:G:N3	2.34	0.43
25:DA:1278:A:H2'	25:DA:1279:G:C8	2.53	0.43
25:DA:1462:C:H4'	25:DA:2703:C:H5'	2.00	0.43
25:DA:1889:A:H2'	25:DA:1890:A:H8	1.76	0.43
25:DA:2660:A:C6	25:DA:2661:G:C6	3.07	0.43
25:DA:2666:C:O5'	25:DA:2666:C:H6	2.01	0.43
25:DA:2684:U:H2'	25:DA:2685:G:O4'	2.19	0.43
27:DD:97:TYR:HB2	27:DD:101:GLU:O	2.19	0.43
29:DF:33:LEU:O	29:DF:37:VAL:HG23	2.19	0.43
30:DG:145:THR:OG1	30:DG:146:TYR:N	2.44	0.43
32:DI:6:LEU:HG	32:DI:36:ALA:HA	2.01	0.43
33:DN:38:HIS:O	40:DU:67:ALA:HB1	2.18	0.43
33:DN:128:HIS:C	33:DN:130:HIS:H	2.27	0.43
37:DR:81:ASP:N	37:DR:81:ASP:OD1	2.49	0.43
38:DS:39:ILE:HD13	38:DS:39:ILE:HA	1.80	0.43
43:DX:35:THR:HG22	43:DX:38:GLU:OE1	2.18	0.43
46:D0:24:LYS:O	46:D0:25:ARG:HD3	2.18	0.43
1:AA:189:G:C6	1:AA:189(L):G:C2	3.07	0.43
1:AA:270:A:C6	1:AA:271:C:C4	3.07	0.43
1:AA:663:A:H5"	18:AR:61:LYS:HE3	2.01	0.43
1:AA:1240:U:O4	7:AG:30:ILE:HG23	2.19	0.43
3:AC:36:ASP:OD2	3:AC:36:ASP:N	2.48	0.43
9:AI:79:LEU:O	9:AI:83:ARG:HG2	2.18	0.43
13:AM:27:LYS:HD3	13:AM:27:LYS:HA	1.84	0.43
23:AV:19:G:H4'	23:AV:20:U:OP2	2.19	0.43
25:BA:514:A:H1'	25:BA:581:C:O2'	2.18	0.43
25:BA:557:U:H2'	25:BA:558:G:C8	2.53	0.43
25:BA:1439:A:H2'	25:BA:1440:G:O4'	2.18	0.43
25:BA:1472:A:C4	25:BA:1473:G:C8	3.07	0.43
25:BA:1488:G:H5"	25:BA:1488:G:H8	1.82	0.43
25:BA:1614:A:OP1	25:BA:1617:C:N4	2.50	0.43
25:BA:1945:G:C4	25:BA:1946:U:C5	3.07	0.43
25:BA:2070:G:H2'	25:BA:2071:A:O4'	2.18	0.43
26:BB:42:C:OP2	50:B4:2:LYS:NZ	2.39	0.43
27:BD:71:ASP:OD2	27:BD:103:ARG:NH2	2.50	0.43
27:BD:95:LEU:O	27:BD:102:LYS:HA	2.18	0.43
29:BF:31:HIS:HB2	35:BP:9:ASN:OD1	2.19	0.43
31:BH:93:GLY:O	31:BH:95:ARG:NH2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BO:23:ARG:HG3	34:BO:24:VAL:N	2.33	0.43
35:BP:50:ARG:HG3	35:BP:50:ARG:NH2	2.33	0.43
35:BP:140:ALA:C	35:BP:142:GLY:H	2.27	0.43
38:BS:59:LYS:NZ	38:BS:60:GLY:HA2	2.34	0.43
42:BW:86:LEU:O	42:BW:94:ASP:N	2.47	0.43
1:CA:41:G:H2'	1:CA:42:G:C8	2.54	0.43
1:CA:447:G:H2'	1:CA:485:G:N2	2.34	0.43
1:CA:942:G:C2	1:CA:1342:C:C2	3.06	0.43
1:CA:1046:A:H3'	1:CA:1047:G:H8	1.84	0.43
1:CA:1058:G:H1	1:CA:1199:U:H3	1.67	0.43
3:CC:68:VAL:HG12	3:CC:70:VAL:HG22	2.00	0.43
9:CI:49:PRO:O	9:CI:52:ALA:N	2.44	0.43
11:CK:120:ARG:HA	11:CK:121:PRO:HD3	1.82	0.43
13:CM:23:TYR:CD1	13:CM:71:ARG:NH1	2.87	0.43
14:CN:53:LEU:HD23	14:CN:53:LEU:HA	1.70	0.43
25:DA:234:C:H2'	25:DA:235:U:H6	1.84	0.43
25:DA:614(C):A:C4	29:DF:180:GLY:HA2	2.54	0.43
25:DA:1165:U:H2'	25:DA:1166:C:C6	2.54	0.43
25:DA:1169:G:N2	25:DA:1181:C:C2	2.87	0.43
25:DA:1815:A:C6	25:DA:1817:G:C6	3.06	0.43
25:DA:2206:G:O2'	25:DA:2207:G:OP1	2.34	0.43
26:DB:33:G:C2	26:DB:50:G:C2	3.07	0.43
28:DE:103:ASP:OD1	28:DE:168:MET:HG3	2.19	0.43
29:DF:158:THR:HG21	29:DF:163:VAL:CG1	2.49	0.43
32:DI:9:LEU:HB3	32:DI:12:LEU:HB2	2.01	0.43
35:DP:3:LEU:HD12	35:DP:3:LEU:N	2.33	0.43
35:DP:25:SER:OG	35:DP:26:GLY:N	2.52	0.43
37:DR:28:LEU:O	37:DR:28:LEU:HD22	2.19	0.43
44:DY:9:LYS:HA	44:DY:10:GLY:HA2	1.76	0.43
46:D0:48:GLY:H	46:D0:51:VAL:HB	1.83	0.43
55:D9:9:ARG:HB3	55:D9:14:CYS:HB2	2.01	0.43
1:AA:52:G:C4	1:AA:53:A:C8	3.06	0.42
1:AA:153:C:N3	1:AA:169:C:N3	2.67	0.42
1:AA:344:A:C8	1:AA:344:A:O5'	2.72	0.42
1:AA:690:G:H2'	1:AA:691:G:O4'	2.18	0.42
1:AA:1065:U:H5'	1:AA:1066:C:OP1	2.18	0.42
1:AA:1071:C:O2'	1:AA:1072:G:H5'	2.19	0.42
1:AA:1399:C:H4'	1:AA:1400:C:C5'	2.49	0.42
2:AB:52:GLU:O	2:AB:55:PHE:N	2.45	0.42
5:AE:31:LEU:HD23	5:AE:45:PHE:HB2	2.01	0.42
25:BA:272(H):C:N3	25:BA:363(B):G:O6	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:278:A:O2'	25:BA:279:C:OP1	2.22	0.42
25:BA:337:C:H2'	25:BA:338:G:O4'	2.19	0.42
25:BA:528:A:O2'	25:BA:529:A:H5'	2.19	0.42
25:BA:2106:G:N2	25:BA:2183:C:N3	2.55	0.42
25:BA:2412:A:H2'	25:BA:2413:G:O4'	2.19	0.42
29:BF:197:ASP:O	29:BF:201:VAL:HG12	2.18	0.42
32:BI:111:PRO:C	32:BI:113:ARG:N	2.75	0.42
38:BS:18:ILE:HD13	38:BS:18:ILE:HA	1.86	0.42
52:B6:11:LEU:HB3	52:B6:49:HIS:HB3	2.01	0.42
1:CA:153:C:H2'	1:CA:154:C:C6	2.54	0.42
1:CA:171:A:C2	1:CA:172:A:C4	3.07	0.42
1:CA:499:A:H4'	1:CA:500:G:H5'	2.00	0.42
1:CA:841:U:OP1	1:CA:841:U:H6	2.02	0.42
1:CA:1207:G:H2'	1:CA:1208:C:H6	1.83	0.42
1:CA:1300:G:O2'	1:CA:1303:C:N4	2.52	0.42
4:CD:50:ARG:HA	4:CD:51:PRO:HD3	1.88	0.42
6:CF:3:ARG:HB2	6:CF:93:SER:HB2	2.00	0.42
7:CG:52:GLU:H	7:CG:52:GLU:HG2	1.57	0.42
9:CI:99:LEU:HB3	9:CI:101:PHE:HE1	1.82	0.42
12:CL:7:ILE:O	12:CL:11:VAL:HG23	2.18	0.42
12:CL:85:ILE:HD13	12:CL:85:ILE:HA	1.85	0.42
15:CO:37:ASN:HA	15:CO:40:SER:HB2	2.01	0.42
16:CP:55:ARG:O	16:CP:58:TYR:HB3	2.19	0.42
17:CQ:10:VAL:HG13	17:CQ:19:VAL:HG23	2.00	0.42
20:CT:43:LEU:O	20:CT:47:GLY:N	2.52	0.42
25:DA:1223:G:OP2	41:DV:66:ARG:NH1	2.52	0.42
25:DA:1889:A:N1	25:DA:2234:G:H1'	2.33	0.42
25:DA:2016:U:H1'	51:D5:6:VAL:HG13	2.00	0.42
25:DA:2502:G:H5"	25:DA:2503:A:H5"	2.01	0.42
25:DA:2872:G:C2'	25:DA:2873:A:H5'	2.49	0.42
28:DE:6:GLY:HA2	28:DE:51:PHE:CZ	2.54	0.42
29:DF:123:LEU:HD12	29:DF:124:LEU:H	1.84	0.42
30:DG:173:LEU:HD13	30:DG:178:PHE:CD2	2.54	0.42
33:DN:46:VAL:O	33:DN:47:ALA:HB3	2.19	0.42
33:DN:94:HIS:O	33:DN:97:ARG:HB2	2.19	0.42
37:DR:38:VAL:HB	37:DR:39:PRO:HD3	2.00	0.42
43:DX:29:TRP:CE3	43:DX:78:LYS:HB3	2.54	0.42
49:D3:7:LYS:HG3	49:D3:34:GLU:HG2	2.01	0.42
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.33	0.42
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.55	0.42
1:AA:660:G:H2'	1:AA:661:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:767:A:H2'	1:AA:768:A:O4'	2.19	0.42
1:AA:1128:C:H42	1:AA:1143:G:H1	1.67	0.42
2:AB:74:LYS:C	2:AB:76:GLN:N	2.76	0.42
6:AF:8:ILE:HG13	6:AF:88:VAL:HG22	2.02	0.42
7:AG:143:ARG:O	7:AG:145:ALA:O	2.36	0.42
10:AJ:54:PHE:C	10:AJ:55:LYS:O	2.60	0.42
13:AM:74:VAL:CG1	13:AM:78:ILE:HD11	2.48	0.42
25:BA:981:A:N1	25:BA:2027:G:O2'	2.50	0.42
25:BA:1956:U:H1'	25:BA:2552:U:OP1	2.18	0.42
25:BA:2325:G:H5"	25:BA:2326:C:OP2	2.20	0.42
25:BA:2536:G:C5	25:BA:2537:U:C5	3.06	0.42
39:BT:68:TYR:N	39:BT:68:TYR:CD2	2.87	0.42
42:BW:17:VAL:HG11	42:BW:103:ILE:HD13	2.01	0.42
54:B8:57:ARG:O	54:B8:58:ILE:C	2.61	0.42
55:B9:17:ILE:CG2	55:B9:24:TYR:HB2	2.49	0.42
1:CA:673:G:H5"	6:CF:87:ARG:CZ	2.49	0.42
1:CA:1346:A:N1	1:CA:1374:A:H5"	2.33	0.42
1:CA:1375:A:H2'	1:CA:1376:U:C6	2.54	0.42
1:CA:1480:G:H2'	1:CA:1481:U:O4'	2.19	0.42
2:CB:14:GLY:O	2:CB:15:VAL:HG22	2.19	0.42
2:CB:158:LEU:HA	2:CB:159:PRO:HD3	1.94	0.42
7:CG:26:PHE:CE2	7:CG:30:ILE:HD11	2.55	0.42
16:CP:19:ILE:HD12	16:CP:37:GLY:C	2.45	0.42
25:DA:271(O):C:C4	25:DA:271(P):C:C4	3.08	0.42
25:DA:322:A:H3'	29:DF:169:ASN:OD1	2.19	0.42
25:DA:363(E):U:HO2'	25:DA:363(F):A:P	2.39	0.42
25:DA:722:A:H2'	25:DA:723:G:C8	2.54	0.42
25:DA:977:G:C2	25:DA:978:G:C8	3.07	0.42
25:DA:1138:G:O2'	33:DN:105:GLY:HA3	2.19	0.42
25:DA:1388:G:H2'	25:DA:1389:G:H8	1.84	0.42
25:DA:1530:C:HO2'	25:DA:1531:C:P	2.35	0.42
25:DA:2183:C:H2'	25:DA:2184:G:H8	1.79	0.42
25:DA:2207:G:O2'	25:DA:2208:A:OP1	2.33	0.42
26:DB:20:C:N4	26:DB:63:G:H1	2.16	0.42
28:DE:35:GLN:HG3	28:DE:36:ARG:N	2.34	0.42
29:DF:123:LEU:HD12	29:DF:124:LEU:N	2.34	0.42
33:DN:67:LEU:O	33:DN:88:GLU:HG3	2.19	0.42
36:DQ:21:THR:CG2	36:DQ:101:ARG:HB2	2.47	0.42
38:DS:102:ALA:HA	38:DS:105:ALA:N	2.22	0.42
40:DU:65:ILE:HG13	40:DU:96:ALA:HB2	2.01	0.42
46:D0:21:LEU:HD23	46:D0:21:LEU:HA	1.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:93:G:O2'	1:AA:96:U:O5'	2.36	0.42
1:AA:384:G:C4	1:AA:385:C:C5	3.08	0.42
1:AA:406:G:N2	4:AD:119:GLN:HE22	2.17	0.42
1:AA:622:A:C8	1:AA:623:C:C5	3.07	0.42
1:AA:639:G:O2'	1:AA:640:A:H5'	2.19	0.42
1:AA:753:A:H4'	1:AA:754:C:H5"	2.01	0.42
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.53	0.42
1:AA:1127:G:H2'	1:AA:1128:C:H5'	2.01	0.42
1:AA:1492:A:O3'	1:AA:1493:A:H2'	2.19	0.42
15:AO:87:ILE:HG23	15:AO:88:ARG:N	2.34	0.42
16:AP:8:ARG:O	16:AP:9:PHE:CD2	2.72	0.42
18:AR:53:ARG:C	18:AR:55:ARG:H	2.27	0.42
22:AY:11:PRO:O	22:AY:13:GLY:N	2.52	0.42
22:AY:43:ILE:HA	22:AY:69:VAL:HA	2.02	0.42
25:BA:118:A:H3'	25:BA:119:A:C5'	2.49	0.42
25:BA:620:G:H4'	25:BA:621:A:O5'	2.19	0.42
25:BA:659:C:H5'	58:BA:4028:HOH:O	2.19	0.42
25:BA:722:A:H2'	25:BA:723:G:O4'	2.20	0.42
25:BA:1946:U:H2'	25:BA:1947:C:C6	2.54	0.42
27:BD:133:LEU:HD23	27:BD:133:LEU:HA	1.86	0.42
27:BD:246:PRO:O	27:BD:254:THR:HG22	2.19	0.42
28:BE:108:SER:O	28:BE:162:ALA:HA	2.19	0.42
31:BH:3:ARG:NH2	31:BH:5:GLY:H	2.17	0.42
32:BI:42:SER:O	32:BI:45:LYS:HB2	2.19	0.42
33:BN:21:LYS:NZ	33:BN:140:VAL:H	2.16	0.42
33:BN:107:LEU:HD23	33:BN:107:LEU:HA	1.69	0.42
35:BP:16:ARG:NH1	58:BP:303:HOH:O	2.52	0.42
35:BP:125:VAL:HG23	35:BP:125:VAL:O	2.18	0.42
37:BR:19:ALA:O	37:BR:20:LEU:C	2.62	0.42
39:BT:29:ARG:HG3	39:BT:46:GLU:HB2	2.01	0.42
45:BZ:75:ASN:O	45:BZ:84:GLU:HB2	2.20	0.42
1:CA:131:C:H2'	1:CA:132:C:H6	1.84	0.42
1:CA:189(F):U:C5	17:CQ:72:ARG:NH2	2.87	0.42
1:CA:866:C:C4	1:CA:867:G:H1'	2.55	0.42
1:CA:1310:G:H1	1:CA:1327:C:N4	2.18	0.42
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.19	0.42
3:CC:12:LEU:HD23	3:CC:12:LEU:HA	1.87	0.42
3:CC:153:VAL:O	3:CC:165:THR:HG23	2.19	0.42
6:CF:2:ARG:NE	6:CF:69:GLU:HG2	2.34	0.42
6:CF:10:LEU:HD21	6:CF:61:LEU:HD22	2.02	0.42
8:CH:73:ASP:CG	8:CH:75:ARG:HD3	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:42:THR:HG21	10:CJ:66:ARG:HB3	2.02	0.42
13:CM:69:GLU:HG3	13:CM:70:LEU:H	1.84	0.42
18:CR:24:ALA:C	18:CR:26:LEU:N	2.76	0.42
20:CT:51:GLU:O	20:CT:54:LYS:HB3	2.19	0.42
23:CV:63:G:N1	23:CV:64:G:C5	2.87	0.42
25:DA:31:C:N4	58:DA:4029:HOH:O	2.52	0.42
25:DA:195:A:H5"	25:DA:196:A:O5'	2.18	0.42
25:DA:298:G:H5"	25:DA:299:A:OP1	2.20	0.42
25:DA:543:C:C2	25:DA:551:G:N2	2.87	0.42
25:DA:561:G:H1'	40:DU:45:TYR:CE2	2.54	0.42
25:DA:1371:G:O6	58:DA:4145:HOH:O	2.21	0.42
25:DA:2292:C:H4'	25:DA:2375:G:H4'	2.01	0.42
27:DD:44:ASN:CG	27:DD:46:GLN:HG3	2.45	0.42
27:DD:172:TYR:HD1	27:DD:185:VAL:C	2.27	0.42
29:DF:36:VAL:HG11	29:DF:183:VAL:HG11	2.01	0.42
29:DF:53:THR:HG23	29:DF:55:GLY:H	1.83	0.42
30:DG:23:PHE:HB2	30:DG:25:TYR:HH	1.83	0.42
31:DH:57:ASP:O	31:DH:62:LYS:HE2	2.19	0.42
33:DN:59:LYS:HA	33:DN:59:LYS:HD3	1.85	0.42
35:DP:26:GLY:HA3	35:DP:27:HIS:HB2	2.02	0.42
35:DP:50:ARG:HG2	35:DP:51:PHE:N	2.33	0.42
39:DT:23:ARG:HG3	39:DT:120:ARG:CZ	2.49	0.42
44:DY:20:TYR:N	44:DY:20:TYR:CD1	2.86	0.42
47:D1:58:ILE:HD11	47:D1:60:PHE:CE2	2.54	0.42
1:AA:189(B):C:C2	1:AA:189(J):G:C2	3.07	0.42
1:AA:232:G:H1'	1:AA:262:A:N1	2.34	0.42
1:AA:373:A:N3	1:AA:374:A:C8	2.88	0.42
1:AA:618:C:H3'	1:AA:619:U:C5'	2.49	0.42
1:AA:625:G:C4	1:AA:626:U:C5	3.08	0.42
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.54	0.42
2:AB:71:VAL:HG13	2:AB:93:VAL:CG2	2.49	0.42
3:AC:156:ARG:O	3:AC:159:GLY:N	2.25	0.42
5:AE:83:GLU:HB3	5:AE:88:LYS:CB	2.48	0.42
6:AF:2:ARG:NE	6:AF:69:GLU:HG2	2.34	0.42
9:AI:94:ALA:C	9:AI:96:LEU:N	2.76	0.42
11:AK:27:ASN:OD1	11:AK:28:THR:N	2.50	0.42
12:AL:40:VAL:HG21	12:AL:78:GLN:HA	2.01	0.42
17:AQ:86:GLU:O	17:AQ:87:LYS:C	2.62	0.42
23:AV:21:A:O2'	23:AV:22:G:OP2	2.32	0.42
25:BA:1050:A:H2'	25:BA:1051:G:O4'	2.19	0.42
25:BA:1406:U:H2'	25:BA:1407:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1885:A:H2'	25:BA:1886:C:O4'	2.18	0.42
25:BA:2463:C:O2'	25:BA:2464:C:H5'	2.19	0.42
25:BA:2508:G:H2'	25:BA:2509:G:H8	1.85	0.42
25:BA:2766:G:N3	25:BA:2766:G:H2'	2.35	0.42
25:BA:2880:C:O3'	37:BR:90:ARG:NH1	2.51	0.42
27:BD:26:LYS:HD3	27:BD:83:GLU:OE1	2.19	0.42
27:BD:77:ALA:HB2	27:BD:97:TYR:HA	2.02	0.42
28:BE:9:VAL:HG13	28:BE:25:VAL:O	2.19	0.42
33:BN:22:THR:HB	33:BN:25:ARG:HB2	2.01	0.42
35:BP:37:GLY:C	35:BP:38:GLN:O	2.61	0.42
37:BR:22:ARG:O	37:BR:26:LYS:HG3	2.19	0.42
40:BU:28:ARG:HH11	40:BU:28:ARG:HG2	1.83	0.42
44:BY:90:LEU:HD12	44:BY:90:LEU:HA	1.72	0.42
1:CA:66:G:H2'	1:CA:66:G:N3	2.34	0.42
1:CA:625:G:H4'	16:CP:16:HIS:CD2	2.55	0.42
1:CA:881:G:P	12:CL:12:ARG:NH2	2.92	0.42
2:CB:170:GLU:O	2:CB:173:ALA:N	2.50	0.42
6:CF:49:ALA:HB2	18:CR:78:LEU:O	2.19	0.42
7:CG:65:ALA:O	7:CG:69:VAL:HG23	2.18	0.42
8:CH:9:MET:HE2	8:CH:32:LYS:HG2	2.01	0.42
8:CH:46:LYS:HB3	8:CH:46:LYS:HE2	1.75	0.42
8:CH:48:TYR:HA	8:CH:60:ARG:O	2.20	0.42
15:CO:4:THR:N	15:CO:7:GLU:OE2	2.46	0.42
15:CO:30:ALA:HA	15:CO:85:LEU:HD21	2.01	0.42
25:DA:204:A:H8	25:DA:204:A:OP1	2.01	0.42
25:DA:438:G:H2'	25:DA:440:G:H8	1.85	0.42
25:DA:902:C:H2'	25:DA:903:C:C6	2.54	0.42
25:DA:902:C:H2'	25:DA:903:C:H6	1.84	0.42
25:DA:926:A:C8	58:DA:4231:HOH:O	2.71	0.42
25:DA:1359:A:N1	25:DA:1372:U:O4	2.52	0.42
25:DA:1654:A:C1'	25:DA:2823:A:H5'	2.48	0.42
25:DA:1952:A:OP1	34:DO:44:LYS:HE2	2.19	0.42
25:DA:2311:A:H3'	25:DA:2312:U:C6	2.54	0.42
25:DA:2324:C:H5"	25:DA:2325:G:C5'	2.49	0.42
25:DA:2340:G:H2'	25:DA:2341:G:H8	1.84	0.42
25:DA:2546:U:H4'	25:DA:2566:A:H2	1.84	0.42
26:DB:11:C:OP2	26:DB:12:C:H5	2.03	0.42
29:DF:150:GLY:HA2	29:DF:172:TRP:CE3	2.54	0.42
31:DH:12:PRO:O	31:DH:15:VAL:HG12	2.20	0.42
32:DI:128:LEU:HD12	32:DI:142:VAL:HG21	2.02	0.42
33:DN:14:VAL:HG13	33:DN:138:LEU:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DV:8:GLY:O	41:DV:10:LYS:HE2	2.20	0.42
49:D3:21:ALA:O	49:D3:24:LYS:N	2.50	0.42
52:D6:25:LYS:HE3	52:D6:30:THR:O	2.18	0.42
1:AA:59:A:H1'	1:AA:354:G:N2	2.35	0.42
1:AA:872:A:C8	1:AA:874:G:C8	3.07	0.42
4:AD:88:VAL:HG13	5:AE:97:GLY:HA2	2.00	0.42
5:AE:17:ALA:HA	5:AE:26:PHE:HA	2.02	0.42
9:AI:43:ALA:C	9:AI:45:ALA:HA	2.43	0.42
19:AS:41:VAL:O	19:AS:44:MET:HB2	2.20	0.42
22:AY:16:GLU:O	22:AY:40:ARG:HA	2.19	0.42
25:BA:18:C:O3'	40:BU:23:GLY:HA2	2.19	0.42
25:BA:236:C:H2'	25:BA:237:C:H6	1.83	0.42
25:BA:715:G:H2'	25:BA:716:A:O4'	2.19	0.42
25:BA:1547:C:H2'	25:BA:1548:C:C6	2.54	0.42
25:BA:1550:C:H2'	25:BA:1551:C:H6	1.84	0.42
25:BA:1705:G:C5	25:BA:1706:U:C4	3.08	0.42
25:BA:1753:G:OP1	39:BT:95:ARG:HD3	2.19	0.42
25:BA:2467:C:O2'	25:BA:2468:G:H5'	2.19	0.42
26:BB:11:C:P	26:BB:12:C:H5	2.43	0.42
28:BE:119:ARG:HG2	28:BE:160:TYR:HB2	2.02	0.42
30:BG:47:LYS:HB3	30:BG:48:GLU:H	1.57	0.42
30:BG:139:LEU:HA	30:BG:144:ILE:HG22	2.00	0.42
37:BR:79:LEU:HA	37:BR:83:ILE:HD12	2.01	0.42
44:BY:54:LYS:O	44:BY:55:TYR:CD1	2.73	0.42
47:B1:4:VAL:O	47:B1:46:LEU:HD11	2.19	0.42
48:B2:36:ARG:O	48:B2:39:ALA:N	2.53	0.42
1:CA:112:G:H21	1:CA:354:G:C4'	2.33	0.42
1:CA:119:A:H4'	1:CA:120:A:O5'	2.19	0.42
1:CA:303:A:O2'	1:CA:555:C:H4'	2.20	0.42
1:CA:346:G:H2'	1:CA:347:G:O4'	2.20	0.42
1:CA:353:A:H5'	1:CA:353:A:C8	2.47	0.42
1:CA:404:U:H5"	4:CD:122:ARG:HD3	2.01	0.42
1:CA:451:A:N7	1:CA:481:G:C6	2.87	0.42
1:CA:601:C:C2	1:CA:638:G:N2	2.87	0.42
1:CA:1080:A:H5"	1:CA:1081:G:OP2	2.19	0.42
2:CB:77:ALA:O	2:CB:81:VAL:HG23	2.18	0.42
4:CD:200:GLU:O	4:CD:204:ILE:HG12	2.20	0.42
8:CH:112:LEU:HB3	8:CH:133:LEU:HA	2.00	0.42
8:CH:121:ASP:O	8:CH:125:ARG:HG3	2.19	0.42
9:CI:11:LYS:HE3	9:CI:11:LYS:HB2	1.72	0.42
11:CK:38:ASN:HA	11:CK:39:PRO:HD3	1.92	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CN:4:LYS:HA	14:CN:4:LYS:HZ2	1.85	0.42
17:CQ:45:HIS:CD2	17:CQ:47:PRO:HG3	2.54	0.42
23:CV:22:G:O5'	23:CV:22:G:H8	2.02	0.42
25:DA:221:A:C4	25:DA:266:G:N7	2.87	0.42
25:DA:524:U:H2'	25:DA:525:U:C6	2.55	0.42
25:DA:1023:U:O2'	25:DA:1122:G:H5'	2.20	0.42
25:DA:1404:C:N3	25:DA:1405:U:C5	2.88	0.42
25:DA:1678:G:H2'	25:DA:1679:U:H5'	2.01	0.42
25:DA:2543:G:C1'	25:DA:2766:G:H5'	2.50	0.42
25:DA:2745:C:H4'	31:DH:142:GLY:C	2.44	0.42
25:DA:2749:A:H1'	31:DH:63:SER:HB3	2.02	0.42
26:DB:31:C:O2'	26:DB:32:C:H5'	2.19	0.42
26:DB:32:C:C2	26:DB:51:G:N2	2.87	0.42
26:DB:110:G:H2'	26:DB:111:G:C8	2.54	0.42
31:DH:52:VAL:O	31:DH:65:HIS:NE2	2.48	0.42
32:DI:7:GLU:HB3	32:DI:8:PRO:HD2	2.01	0.42
33:DN:37:LYS:HA	33:DN:42:TRP:CD1	2.55	0.42
35:DP:45:LEU:HD23	35:DP:45:LEU:HA	1.56	0.42
35:DP:68:GLN:OE1	35:DP:68:GLN:HA	2.19	0.42
39:DT:80:SER:HA	39:DT:81:PRO:HD2	1.81	0.42
39:DT:117:ASP:OD2	39:DT:120:ARG:NE	2.52	0.42
1:AA:16:A:C2'	1:AA:17:U:H5'	2.49	0.42
1:AA:185:A:H2'	1:AA:186:C:H6	1.84	0.42
1:AA:343:U:C1'	1:AA:344:A:OP1	2.67	0.42
1:AA:631:G:H2'	1:AA:632:A:C8	2.54	0.42
2:AB:236:TYR:HB3	2:AB:237:ALA:H	1.56	0.42
5:AE:8:GLU:HB2	5:AE:34:VAL:HG23	2.01	0.42
5:AE:148:VAL:HG13	5:AE:152:ARG:CZ	2.50	0.42
7:AG:34:GLY:C	7:AG:36:LYS:H	2.28	0.42
22:AY:35:THR:HG22	22:AY:36:ALA:N	2.34	0.42
25:BA:234:C:H2'	25:BA:235:U:H6	1.84	0.42
25:BA:298:G:H1'	25:BA:340:A:H61	1.85	0.42
25:BA:412:A:H2'	25:BA:413:C:H5'	2.01	0.42
25:BA:434:U:H4'	58:BA:4020:HOH:O	2.19	0.42
25:BA:589:C:H2'	25:BA:590:A:C8	2.54	0.42
25:BA:597:U:H2'	25:BA:598:G:C8	2.55	0.42
25:BA:668:G:H2'	25:BA:670:A:H62	1.85	0.42
25:BA:1279:G:O2'	25:BA:1280:G:H5'	2.19	0.42
25:BA:1996:C:H4'	25:BA:1997:G:OP1	2.20	0.42
25:BA:2000:G:OP1	37:BR:5:LYS:NZ	2.52	0.42
25:BA:2323:G:C6	25:BA:2324:C:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2359:C:H2'	25:BA:2360:A:O4'	2.20	0.42
25:BA:2545:G:H2'	25:BA:2546:U:O4'	2.19	0.42
25:BA:2820:A:H2'	25:BA:2820:A:N3	2.33	0.42
26:BB:1:U:O2	26:BB:1:U:H2'	2.20	0.42
26:BB:8:U:O3'	38:BS:25:ARG:NH2	2.52	0.42
30:BG:135:LEU:O	30:BG:154:GLY:HA3	2.20	0.42
30:BG:155:MET:HE2	30:BG:155:MET:HB3	1.87	0.42
34:BO:44:LYS:HD3	34:BO:44:LYS:HA	1.79	0.42
36:BQ:109:VAL:HG22	36:BQ:113:GLN:OE1	2.18	0.42
39:BT:107:ASP:O	39:BT:111:ARG:HG3	2.20	0.42
39:BT:128:GLU:O	39:BT:129:ARG:C	2.61	0.42
45:BZ:39:VAL:HG23	45:BZ:40:ASP:O	2.20	0.42
46:B0:19:LYS:HD3	46:B0:19:LYS:HA	1.56	0.42
46:B0:23:VAL:HA	46:B0:38:VAL:HG13	2.00	0.42
49:B3:12:PRO:O	49:B3:15:TYR:HB2	2.19	0.42
1:CA:105:G:H2'	1:CA:106:C:C6	2.55	0.42
1:CA:149:A:O2'	1:CA:150:C:O4'	2.38	0.42
1:CA:406:G:N3	4:CD:119:GLN:NE2	2.68	0.42
1:CA:433:C:O2'	1:CA:434:U:H5'	2.20	0.42
1:CA:948:C:OP2	13:CM:108:ARG:HB2	2.19	0.42
1:CA:1269:A:H2	1:CA:1312:G:H21	1.67	0.42
2:CB:95:GLN:HG3	2:CB:147:LYS:O	2.19	0.42
2:CB:215:LEU:HD23	2:CB:215:LEU:HA	1.65	0.42
4:CD:67:ILE:HG22	4:CD:68:TYR:CD1	2.55	0.42
8:CH:49:GLU:HG2	8:CH:62:TYR:HE2	1.85	0.42
20:CT:13:LEU:H	20:CT:13:LEU:HG	1.53	0.42
25:DA:104:U:O5'	25:DA:104:U:H6	2.02	0.42
25:DA:271(Q):G:O2'	25:DA:271(R):G:P	2.78	0.42
25:DA:271(U):G:H2'	25:DA:271(V):G:C8	2.50	0.42
25:DA:757:U:H2'	25:DA:758:C:O4'	2.20	0.42
25:DA:862:G:H2'	25:DA:863:A:O4'	2.19	0.42
25:DA:925:C:H2'	25:DA:926:A:O4'	2.20	0.42
25:DA:1195:G:N7	35:DP:15:ARG:NH1	2.68	0.42
25:DA:1688:U:H1'	25:DA:1701:A:C6	2.55	0.42
25:DA:1900:A:N1	25:DA:1970:A:C6	2.87	0.42
25:DA:2303:G:O2'	25:DA:2304:G:H5'	2.19	0.42
25:DA:2303:G:H2'	25:DA:2304:G:H8	1.84	0.42
25:DA:2328:A:H2'	25:DA:2329:G:C8	2.54	0.42
27:DD:179:SER:O	27:DD:275:LYS:HD3	2.19	0.42
27:DD:206:LEU:HA	27:DD:206:LEU:HD23	1.43	0.42
28:DE:179:GLU:HB3	28:DE:181:LEU:CD2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:86:MET:HA	30:DG:87:PRO:HD3	1.78	0.42
30:DG:178:PHE:HA	30:DG:179:PRO:HD3	1.73	0.42
34:DO:29:ASN:OD1	34:DO:29:ASN:N	2.52	0.42
35:DP:100:LEU:HA	35:DP:100:LEU:HD23	1.70	0.42
36:DQ:41:TRP:HB3	36:DQ:94:VAL:HB	2.00	0.42
38:DS:76:LYS:O	38:DS:80:LEU:HD13	2.19	0.42
38:DS:101:LEU:C	38:DS:103:GLU:H	2.27	0.42
49:D3:8:LEU:HD13	49:D3:31:LEU:CD2	2.50	0.42
1:AA:342:C:C2	1:AA:348:G:C2	3.08	0.42
1:AA:406:G:N3	4:AD:119:GLN:NE2	2.68	0.42
1:AA:769:G:H4'	1:AA:1513:A:H4'	2.01	0.42
1:AA:1399:C:C2	1:AA:1502:A:N6	2.87	0.42
2:AB:21:ARG:HB2	2:AB:38:GLY:O	2.20	0.42
5:AE:11:ILE:HD11	5:AE:108:ALA:HB3	2.02	0.42
8:AH:114:THR:HB	8:AH:130:GLY:O	2.19	0.42
25:BA:271(F):C:H2'	25:BA:271(G):C:C6	2.49	0.42
25:BA:271(L):U:C4'	25:BA:271(M):G:OP1	2.66	0.42
25:BA:296:C:H2'	25:BA:297:C:H6	1.85	0.42
25:BA:455:C:N3	25:BA:473:G:H5'	2.34	0.42
25:BA:988:A:H8	25:BA:988:A:O5'	2.01	0.42
25:BA:1142(A):A:C4	25:BA:1144:G:N7	2.88	0.42
25:BA:1176:G:C4'	25:BA:1177:A:OP1	2.67	0.42
25:BA:1693:U:H4'	25:BA:1694:C:OP2	2.19	0.42
25:BA:2564:A:OP1	25:BA:2648:C:H4'	2.19	0.42
25:BA:2582:G:OP2	58:BA:5169:HOH:O	2.21	0.42
25:BA:2787:C:O3'	28:BE:61:ARG:HD3	2.19	0.42
27:BD:131:LEU:HD12	27:BD:131:LEU:N	2.34	0.42
30:BG:37:VAL:HG23	30:BG:99:MET:HG3	2.02	0.42
30:BG:161:THR:HG23	30:BG:172:LEU:HD23	2.00	0.42
32:BI:66:GLU:HA	32:BI:69:LYS:HB3	2.02	0.42
32:BI:133:HIS:ND1	32:BI:134:PRO:O	2.51	0.42
37:BR:117:VAL:HG12	37:BR:118:GLU:O	2.19	0.42
38:BS:35:ILE:HD11	38:BS:101:LEU:HD12	2.02	0.42
40:BU:29:SER:HB2	58:BU:301:HOH:O	2.20	0.42
42:BW:57:ASN:O	42:BW:61:ASN:HB2	2.20	0.42
45:BZ:67:LEU:HD12	45:BZ:90:VAL:HG11	2.01	0.42
45:BZ:126:VAL:HG11	45:BZ:161:VAL:HG23	2.01	0.42
48:B2:3:LEU:HD23	48:B2:3:LEU:HA	1.82	0.42
49:B3:37:LEU:HA	49:B3:37:LEU:HD23	1.70	0.42
1:CA:160:A:H8	1:CA:160:A:O5'	2.03	0.42
1:CA:540:G:H2'	1:CA:541:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:563:A:C8	1:CA:567:G:H1'	2.55	0.42
1:CA:617:G:H4'	16:CP:44:THR:O	2.18	0.42
1:CA:981:U:H2'	1:CA:982:U:C5	2.55	0.42
1:CA:1151:A:N3	10:CJ:39:PRO:HG3	2.34	0.42
1:CA:1179:A:O3'	9:CI:103:THR:HB	2.20	0.42
13:CM:64:TRP:CE3	13:CM:64:TRP:N	2.86	0.42
17:CQ:5:VAL:O	17:CQ:6:LEU:HD13	2.20	0.42
20:CT:56:MET:HE2	20:CT:56:MET:HB2	1.80	0.42
23:CV:73:A:H5"	23:CV:74:C:O5'	2.20	0.42
25:DA:29:U:H2'	25:DA:30:G:C8	2.54	0.42
25:DA:764:A:O4'	27:DD:213:ARG:HG3	2.20	0.42
25:DA:990:A:H1'	25:DA:1156:A:N3	2.35	0.42
25:DA:1204:A:H61	25:DA:1240:U:H2'	1.84	0.42
25:DA:1827:C:H2'	25:DA:1828:G:O4'	2.18	0.42
25:DA:2057:A:H2'	25:DA:2058:A:O4'	2.19	0.42
25:DA:2342:C:O2'	25:DA:2374:C:H5"	2.19	0.42
25:DA:2464:C:C2	25:DA:2487:G:N2	2.87	0.42
25:DA:2815:C:H2'	25:DA:2816:C:C6	2.55	0.42
26:DB:104:U:OP2	58:DB:317:HOH:O	2.21	0.42
27:DD:44:ASN:OD1	27:DD:46:GLN:HG3	2.20	0.42
28:DE:200:GLU:HG3	28:DE:201:THR:N	2.34	0.42
29:DF:184:TYR:O	29:DF:187:VAL:N	2.53	0.42
30:DG:73:ALA:HA	30:DG:88:ILE:HD11	2.00	0.42
31:DH:3:ARG:HG3	31:DH:3:ARG:HH11	1.84	0.42
33:DN:96:GLU:HB2	33:DN:122:VAL:HG12	2.02	0.42
35:DP:83:VAL:HG21	35:DP:100:LEU:HD11	2.01	0.42
35:DP:101:VAL:HA	35:DP:106:LEU:O	2.20	0.42
38:DS:96:GLY:N	38:DS:99:LYS:HB3	2.34	0.42
1:AA:300:A:H2'	1:AA:301:G:O4'	2.20	0.42
1:AA:374:A:C6	1:AA:375:U:C4	3.08	0.42
1:AA:570:G:H1'	1:AA:820:U:C4	2.55	0.42
1:AA:627:G:O2'	1:AA:628:G:H5'	2.20	0.42
1:AA:668:G:O2'	15:AO:46:HIS:HB3	2.20	0.42
1:AA:841:U:H5	1:AA:848:C:O2	2.03	0.42
2:AB:172:ILE:H	2:AB:172:ILE:HG13	1.52	0.42
5:AE:68:GLU:HG2	5:AE:70:PRO:HG3	2.02	0.42
7:AG:140:ASP:OD1	7:AG:143:ARG:NH2	2.53	0.42
14:AN:6:LEU:C	14:AN:8:GLU:N	2.77	0.42
25:BA:34:C:O2	25:BA:34:C:H2'	2.18	0.42
25:BA:183:C:H1'	25:BA:433:C:H1'	2.01	0.42
25:BA:271(L):U:H4'	25:BA:271(M):G:OP1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:459:U:OP2	53:B7:39:ARG:NH1	2.53	0.42
25:BA:536:A:H2'	25:BA:537:C:C6	2.55	0.42
25:BA:1126:A:H8	25:BA:1126:A:OP1	2.03	0.42
25:BA:1252:G:C2	25:BA:1253:A:C2	3.08	0.42
25:BA:2815:C:H5'	51:B5:29:THR:HG21	2.00	0.42
31:BH:40:GLU:OE1	31:BH:61:HIS:NE2	2.44	0.42
37:BR:36:THR:C	37:BR:111:LEU:HD12	2.44	0.42
46:B0:54:GLY:O	46:B0:57:PHE:N	2.39	0.42
1:CA:494:U:O5'	1:CA:494:U:H6	2.02	0.42
1:CA:590:C:H2'	1:CA:591:U:H6	1.84	0.42
1:CA:1101:A:C4	2:CB:99:GLY:HA3	2.55	0.42
1:CA:1154:G:C4	1:CA:1155:G:C8	3.07	0.42
2:CB:42:ILE:HG22	2:CB:43:ASP:N	2.34	0.42
3:CC:72:LYS:C	3:CC:74:GLY:H	2.28	0.42
6:CF:55:ASP:OD1	6:CF:56:PRO:HD2	2.20	0.42
9:CI:14:VAL:O	9:CI:65:VAL:HG23	2.19	0.42
9:CI:99:LEU:HB3	9:CI:101:PHE:CD1	2.55	0.42
14:CN:9:LYS:HB3	14:CN:9:LYS:HE3	1.90	0.42
19:CS:41:VAL:HA	19:CS:42:PRO:HD3	1.92	0.42
25:DA:66:C:H2'	25:DA:67:U:C6	2.52	0.42
25:DA:469:G:H2'	25:DA:470:A:H5"	2.00	0.42
25:DA:885:C:N4	25:DA:890:A:C6	2.47	0.42
25:DA:990:A:C6	25:DA:1186:G:H1'	2.55	0.42
25:DA:1011:G:C4	25:DA:1151:G:N2	2.88	0.42
25:DA:1309:G:HO2'	25:DA:1611:C:HO2'	1.61	0.42
25:DA:2320:A:H1'	25:DA:2321:G:C6	2.55	0.42
25:DA:2742:C:OP1	55:D9:35:ARG:HD3	2.20	0.42
27:DD:108:PRO:HB3	27:DD:143:HIS:HE1	1.82	0.42
27:DD:274:ARG:CB	27:DD:275:LYS:HB3	2.49	0.42
32:DI:13:GLY:HA3	32:DI:17:GLN:CD	2.45	0.42
33:DN:55:VAL:CG2	33:DN:126:PRO:HA	2.50	0.42
38:DS:64:GLU:CD	38:DS:64:GLU:H	2.27	0.42
48:D2:48:HIS:O	48:D2:52:ASP:HB2	2.19	0.42
52:D6:33:LYS:HE3	52:D6:51:GLU:HG2	2.01	0.42
1:AA:109:A:H2'	1:AA:326:G:H21	1.82	0.42
1:AA:119:A:H3'	58:AA:2057:HOH:O	2.18	0.42
1:AA:443:C:H2'	1:AA:444:C:H6	1.85	0.42
1:AA:655:A:C2	1:AA:656:C:C2	3.08	0.42
1:AA:674:G:N2	1:AA:717:C:O2	2.53	0.42
1:AA:1143:G:H2'	1:AA:1144:G:H8	1.84	0.42
1:AA:1143:G:H8	1:AA:1143:G:O5'	2.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1368:G:OP1	10:AJ:62:HIS:HE1	2.03	0.42
1:AA:1399:C:H4'	1:AA:1400:C:O5'	2.19	0.42
2:AB:162:ILE:HD12	2:AB:164:VAL:CG2	2.50	0.42
2:AB:189:ASP:OD1	2:AB:205:ASP:HB3	2.18	0.42
4:AD:30:LYS:C	4:AD:32:ALA:N	2.73	0.42
8:AH:21:LYS:O	8:AH:63:LEU:HD21	2.20	0.42
9:AI:49:PRO:HA	9:AI:52:ALA:HB3	2.02	0.42
12:AL:38:THR:OG1	12:AL:39:VAL:N	2.52	0.42
15:AO:4:THR:OG1	15:AO:5:LYS:N	2.53	0.42
16:AP:23:ASP:O	16:AP:26:ARG:HB2	2.20	0.42
22:AY:23:GLN:HB3	22:AY:75:GLN:NE2	2.35	0.42
25:BA:263:C:H2'	25:BA:264:C:O4'	2.20	0.42
25:BA:573:G:O2'	25:BA:574:C:H3'	2.20	0.42
25:BA:749:C:C5	25:BA:1618:A:C6	3.08	0.42
25:BA:775:G:C4	25:BA:794:G:C8	3.08	0.42
25:BA:914:C:H2'	25:BA:915:C:H5'	2.02	0.42
25:BA:957:A:N6	25:BA:2459:A:C8	2.87	0.42
25:BA:1164:G:H2'	25:BA:1165:U:C6	2.55	0.42
25:BA:1472:A:H2'	25:BA:1473:G:C8	2.55	0.42
25:BA:2277:G:H2'	25:BA:2278:A:O5'	2.20	0.42
25:BA:2648:C:H2'	25:BA:2649:U:C6	2.54	0.42
28:BE:50:GLY:HA2	28:BE:77:ILE:O	2.19	0.42
29:BF:68:LYS:HE3	29:BF:68:LYS:HB3	1.60	0.42
30:BG:82:LEU:HB3	30:BG:86:MET:CB	2.50	0.42
30:BG:111:LEU:HD23	30:BG:111:LEU:HA	1.86	0.42
33:BN:18:ALA:O	33:BN:19:GLU:C	2.63	0.42
37:BR:33:ARG:HD3	37:BR:115:GLU:OE2	2.20	0.42
41:BV:14:VAL:HB	41:BV:96:ILE:HG13	2.02	0.42
41:BV:16:PRO:HA	41:BV:96:ILE:HG22	2.01	0.42
45:BZ:128:VAL:HG23	45:BZ:161:VAL:H	1.85	0.42
47:B1:67:ILE:N	47:B1:68:PRO:HD2	2.35	0.42
1:CA:391:G:C6	1:CA:392:G:C5	3.08	0.42
1:CA:473:G:H2'	1:CA:474:G:C8	2.48	0.42
1:CA:612:C:H2'	1:CA:613:C:C6	2.55	0.42
1:CA:617:G:C2	1:CA:618:C:C5	3.08	0.42
1:CA:922:G:O2'	1:CA:1398:A:N1	2.45	0.42
1:CA:1013:G:N2	1:CA:1016:A:OP2	2.48	0.42
1:CA:1370:G:N7	9:CI:109:VAL:HG11	2.34	0.42
1:CA:1381:U:H2'	1:CA:1382:C:H5'	2.02	0.42
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.55	0.42
1:CA:1427:U:H2'	1:CA:1428:A:H8	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.19	0.42
3:CC:22:TRP:HB3	3:CC:59:ARG:HB2	2.01	0.42
5:CE:142:LEU:O	5:CE:143:ARG:NE	2.42	0.42
7:CG:58:PRO:HA	7:CG:61:VAL:CG1	2.50	0.42
7:CG:115:ARG:O	7:CG:118:VAL:HG23	2.20	0.42
11:CK:27:ASN:CG	11:CK:28:THR:H	2.27	0.42
11:CK:74:ALA:C	11:CK:76:GLY:N	2.78	0.42
23:CV:49:G:O6	23:CV:65:C:N4	2.53	0.42
25:DA:545:G:H4'	25:DA:545:G:OP1	2.20	0.42
25:DA:1528:A:C6	25:DA:1528(A):A:C6	3.08	0.42
25:DA:1614:A:C2	42:DW:93:ALA:HB2	2.55	0.42
25:DA:2010:G:H5"	42:DW:42:ARG:HB2	2.02	0.42
25:DA:2279:G:O6	46:D0:14:ARG:HG3	2.20	0.42
25:DA:2355:C:O3'	46:D0:24:LYS:HE3	2.20	0.42
25:DA:2400:G:C5	25:DA:2401:U:C5	3.08	0.42
25:DA:2401:U:H3'	25:DA:2402:C:H6	1.85	0.42
25:DA:2522:U:O2'	25:DA:2647:U:OP1	2.20	0.42
25:DA:2577:A:H5"	25:DA:2578:G:C5'	2.48	0.42
25:DA:2816:C:O2	25:DA:2883:A:O2'	2.38	0.42
28:DE:13:ARG:O	39:DT:57:PHE:HE1	2.03	0.42
28:DE:134:ILE:O	28:DE:137:HIS:HB2	2.20	0.42
29:DF:107:LYS:HE2	29:DF:205:ARG:O	2.19	0.42
30:DG:107:LEU:HD13	30:DG:177:GLY:O	2.20	0.42
30:DG:129:GLY:O	30:DG:161:THR:HB	2.19	0.42
31:DH:149:ARG:HA	31:DH:162:ILE:CG2	2.50	0.42
36:DQ:58:PHE:O	36:DQ:59:ARG:C	2.63	0.42
37:DR:37:THR:HA	37:DR:111:LEU:HD12	2.02	0.42
42:DW:43:GLY:O	42:DW:47:VAL:HG23	2.20	0.42
45:DZ:10:ARG:NE	45:DZ:37:VAL:O	2.50	0.42
45:DZ:28:MET:O	45:DZ:35:ARG:N	2.45	0.42
45:DZ:129:SER:O	45:DZ:133:ILE:HG23	2.19	0.42
45:DZ:159:PRO:HA	45:DZ:160:GLY:HA2	1.82	0.42
45:DZ:166:SER:HA	45:DZ:167:PRO:HD3	1.80	0.42
47:D1:61:ARG:HE	47:D1:61:ARG:HB3	1.65	0.42
48:D2:45:SER:O	48:D2:46:GLN:CB	2.68	0.42
51:D5:46:CYS:CB	51:D5:49:CYS:SG	3.02	0.42
1:AA:128:G:O2'	17:AQ:3:LYS:NZ	2.44	0.42
1:AA:149:A:N3	1:AA:150:C:C5	2.88	0.42
1:AA:160:A:C6	1:AA:161:A:C5	3.08	0.42
1:AA:195:A:N3	1:AA:222:U:O2'	2.48	0.42
1:AA:532:A:H2'	1:AA:533:A:OP1	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:736:C:H2'	1:AA:737:A:H8	1.80	0.42
1:AA:933:G:OP2	7:AG:3:ARG:HB2	2.19	0.42
1:AA:948:C:OP1	13:AM:109:THR:OG1	2.38	0.42
1:AA:1108:G:C5	1:AA:1109:C:C5	3.08	0.42
1:AA:1123:A:H4'	10:AJ:36:GLY:HA3	2.02	0.42
1:AA:1459:C:H2'	1:AA:1460:A:O4'	2.20	0.42
3:AC:182:ILE:HG12	3:AC:203:PHE:CD1	2.48	0.42
4:AD:118:ARG:O	4:AD:119:GLN:C	2.63	0.42
9:AI:9:ARG:HB2	9:AI:104:ARG:HE	1.85	0.42
11:AK:108:ILE:CG2	18:AR:87:ARG:HD2	2.50	0.42
18:AR:24:ALA:C	18:AR:26:LEU:H	2.27	0.42
19:AS:33:THR:HG23	19:AS:51:VAL:HA	2.02	0.42
19:AS:37:ARG:H	19:AS:37:ARG:HG3	1.33	0.42
22:AY:27:GLY:N	25:BA:2584:U:O2'	2.51	0.42
25:BA:103:A:H8	25:BA:103:A:O5'	2.03	0.42
25:BA:588:U:O4	25:BA:670:A:H1'	2.18	0.42
25:BA:1043:C:C4	25:BA:1044:G:C8	3.07	0.42
25:BA:1171:G:H5"	25:BA:1171:G:H8	1.85	0.42
25:BA:1500:G:C6	25:BA:1501:C:C4	3.07	0.42
25:BA:1766:U:H2'	25:BA:1767:C:H6	1.84	0.42
25:BA:1813:G:H1'	27:BD:50:THR:OG1	2.20	0.42
25:BA:2224:G:H4'	25:BA:2226:C:O2	2.20	0.42
25:BA:2590:A:H2'	25:BA:2591:C:C6	2.55	0.42
25:BA:2747:G:O6	25:BA:2755:C:H5"	2.20	0.42
25:BA:2846:G:H2'	25:BA:2847:U:O4'	2.20	0.42
29:BF:101:LEU:O	29:BF:106:ARG:HD3	2.20	0.42
32:BI:29:TYR:C	32:BI:32:PRO:HD2	2.45	0.42
33:BN:12:ARG:NH1	33:BN:50:ASP:OD2	2.52	0.42
34:BO:89:ASN:O	34:BO:91:LEU:HD23	2.20	0.42
35:BP:82:GLY:HA2	35:BP:113:LYS:O	2.20	0.42
41:BV:21:ARG:HG3	41:BV:91:TYR:CD1	2.55	0.42
49:B3:3:ARG:HH11	49:B3:60:GLU:CB	2.32	0.42
49:B3:23:LEU:HA	49:B3:23:LEU:HD12	1.69	0.42
1:CA:1170:A:N6	1:CA:1171:G:C2	2.87	0.42
1:CA:1219:U:O2'	19:CS:34:TRP:HB3	2.20	0.42
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.54	0.42
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.55	0.42
2:CB:105:PHE:HA	2:CB:108:ILE:HB	2.02	0.42
9:CI:45:ALA:HB1	9:CI:48:GLU:N	2.35	0.42
25:DA:52:A:OP2	25:DA:117:G:N1	2.41	0.42
25:DA:1033:U:OP1	55:D9:9:ARG:NH2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1469:A:H2'	25:DA:1470:G:O4'	2.19	0.42
25:DA:1579:A:H5'	25:DA:1579:A:H8	1.84	0.42
25:DA:1639:U:H4'	25:DA:2699:C:H4'	2.02	0.42
25:DA:1788:C:H2'	25:DA:1789:A:O4'	2.19	0.42
25:DA:1942:C:OP2	25:DA:1943:U:O2'	2.28	0.42
25:DA:2080:G:C2'	25:DA:2081:C:H5'	2.50	0.42
25:DA:2262:U:H2'	25:DA:2263:C:H6	1.85	0.42
25:DA:2288:A:H4'	25:DA:2289:G:OP2	2.20	0.42
25:DA:2557:G:H2'	25:DA:2558:C:H6	1.84	0.42
25:DA:2850:A:N7	25:DA:2868:A:O2'	2.50	0.42
27:DD:52:ARG:HB2	27:DD:53:PHE:CE2	2.55	0.42
28:DE:94:GLU:OE1	28:DE:94:GLU:HA	2.20	0.42
30:DG:120:LEU:HB2	30:DG:180:PHE:CD2	2.55	0.42
32:DI:79:ILE:HG22	32:DI:81:VAL:HG13	2.00	0.42
33:DN:133:GLN:H	33:DN:133:GLN:HG2	1.59	0.42
37:DR:11:ASN:ND2	58:DR:303:HOH:O	2.42	0.42
38:DS:21:THR:HG23	38:DS:23:ARG:HB2	2.02	0.42
42:DW:1:MET:HG3	42:DW:2:GLU:N	2.35	0.42
43:DX:40:LYS:HG3	43:DX:51:VAL:HB	2.02	0.42
46:D0:39:ARG:HD3	46:D0:58:THR:OG1	2.20	0.42
46:D0:84:LEU:HG	46:D0:85:ALA:H	1.85	0.42
1:AA:258:G:H2'	1:AA:259:G:C8	2.54	0.41
1:AA:411:A:C8	1:AA:413:G:C8	3.08	0.41
1:AA:544:G:OP2	4:AD:66:ARG:NH2	2.53	0.41
1:AA:655:A:C2	1:AA:754:C:N4	2.88	0.41
1:AA:717:C:H5"	1:AA:717:C:H6	1.86	0.41
1:AA:1399:C:H4'	1:AA:1400:C:H5"	2.00	0.41
3:AC:172:ARG:HB3	3:AC:174:PRO:HD3	2.01	0.41
4:AD:138:TYR:C	4:AD:138:TYR:CD2	2.97	0.41
8:AH:64:LYS:CB	8:AH:79:VAL:HG21	2.49	0.41
12:AL:52:LEU:HD13	12:AL:52:LEU:HA	1.94	0.41
22:AY:2:ILE:HG13	22:AY:12:ASP:HA	2.00	0.41
25:BA:655:A:H2'	25:BA:656:G:O4'	2.20	0.41
25:BA:734:A:C5	25:BA:735:A:C8	3.08	0.41
25:BA:1509(A):A:H2'	25:BA:1509(B):A:O4'	2.19	0.41
25:BA:2701:C:H2'	25:BA:2702:U:H2'	2.02	0.41
27:BD:8:PRO:HB3	27:BD:14:ARG:CB	2.49	0.41
27:BD:228:PRO:HD3	27:BD:235:GLY:CA	2.50	0.41
31:BH:7:LEU:HG	31:BH:69:ARG:HH12	1.84	0.41
36:BQ:64:ILE:HG13	45:BZ:178:GLU:HG3	2.01	0.41
45:BZ:138:GLU:HG2	45:BZ:156:LYS:HE3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:B1:7:ILE:HG23	47:B1:98:LEU:HD11	2.02	0.41
1:CA:32:A:N3	1:CA:32:A:H2'	2.34	0.41
1:CA:401:C:OP2	4:CD:73:ARG:NH1	2.53	0.41
1:CA:473:G:C5	1:CA:474:G:N7	2.88	0.41
1:CA:930:C:C4	1:CA:931:C:C5	3.08	0.41
1:CA:1192:C:N4	1:CA:1193:G:C4	2.88	0.41
1:CA:1288:A:H2'	1:CA:1289:A:C8	2.55	0.41
1:CA:1502:A:H5'	1:CA:1504:G:N7	2.35	0.41
4:CD:170:VAL:HG13	4:CD:174:LEU:O	2.20	0.41
9:CI:17:VAL:HG21	9:CI:80:GLY:O	2.20	0.41
16:CP:52:ASP:OD2	16:CP:55:ARG:N	2.26	0.41
25:DA:134:C:N4	25:DA:145:G:H1	2.12	0.41
25:DA:676:A:H2	25:DA:802:A:H61	1.68	0.41
25:DA:977:G:C4	25:DA:978:G:C8	3.07	0.41
25:DA:1223:G:C6	25:DA:1227:G:C6	3.07	0.41
25:DA:1296:G:O2'	25:DA:1297:C:H5'	2.20	0.41
25:DA:1525:G:C2	25:DA:1526:G:C4	3.08	0.41
25:DA:1557:C:P	25:DA:1558:A:HO2'	2.38	0.41
25:DA:2236:C:H2'	25:DA:2237:G:H5'	2.01	0.41
25:DA:2463:C:O2'	25:DA:2464:C:H5'	2.20	0.41
25:DA:2820:A:P	37:DR:2:ARG:HH21	2.43	0.41
29:DF:40:GLN:OE1	29:DF:183:VAL:HG13	2.20	0.41
32:DI:25:TYR:HD2	32:DI:25:TYR:HA	1.68	0.41
34:DO:122:LEU:HA	34:DO:122:LEU:HD23	1.54	0.41
37:DR:48:VAL:O	37:DR:51:LEU:HB2	2.19	0.41
40:DU:112:ARG:O	40:DU:115:ALA:HB3	2.20	0.41
44:DY:40:GLU:O	44:DY:42:VAL:HG23	2.20	0.41
1:AA:67:C:H2'	1:AA:68:G:H8	1.84	0.41
1:AA:127:G:N2	17:AQ:61:GLU:OE1	2.50	0.41
1:AA:129(A):G:C2	1:AA:189(H):G:C8	3.09	0.41
1:AA:194:C:H2'	1:AA:195:A:H5"	2.02	0.41
1:AA:244:U:C6	1:AA:894:G:N2	2.88	0.41
1:AA:357:G:C2	1:AA:358:U:C5	3.09	0.41
1:AA:377:G:OP1	16:AP:3:LYS:HD2	2.20	0.41
1:AA:576:G:OP1	58:AA:2251:HOH:O	2.22	0.41
1:AA:599:C:H5"	8:AH:95:VAL:O	2.19	0.41
1:AA:953:G:H2'	1:AA:954:G:O4'	2.20	0.41
1:AA:975:A:H5'	1:AA:975:A:H8	1.83	0.41
1:AA:1131:G:H1	1:AA:1143:G:N2	2.11	0.41
1:AA:1332:A:C2	1:AA:1333:A:C4	3.08	0.41
2:AB:24:TRP:CG	2:AB:25:ASN:H	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:41:GLY:C	4:AD:43:HIS:N	2.79	0.41
4:AD:204:ILE:O	4:AD:207:TYR:N	2.49	0.41
7:AG:15:ASP:O	7:AG:19:GLY:HA2	2.20	0.41
9:AI:3:GLN:OE1	9:AI:20:ARG:NH2	2.53	0.41
9:AI:83:ARG:HA	9:AI:86:VAL:HG22	2.02	0.41
10:AJ:40:LEU:HB2	10:AJ:69:ASN:HB2	2.01	0.41
15:AO:57:LEU:HD23	15:AO:57:LEU:HA	1.80	0.41
15:AO:87:ILE:CG2	15:AO:88:ARG:N	2.82	0.41
16:AP:49:LEU:HD13	16:AP:49:LEU:HA	1.72	0.41
17:AQ:45:HIS:O	17:AQ:73:VAL:HG23	2.19	0.41
17:AQ:84:LEU:O	17:AQ:87:LYS:HB2	2.20	0.41
25:BA:11:G:H2'	25:BA:12:U:H5'	2.02	0.41
25:BA:259:G:O2'	25:BA:621:A:O2'	2.36	0.41
25:BA:271(P):C:OP1	32:BI:45:LYS:HD3	2.20	0.41
25:BA:365:C:H2'	25:BA:366:C:O4'	2.20	0.41
25:BA:784:A:C5	27:BD:229:VAL:HG21	2.55	0.41
25:BA:1582:C:H2'	25:BA:1583:A:H8	1.84	0.41
25:BA:1991:U:H2'	25:BA:1992:G:H5"	2.02	0.41
26:BB:33:G:C2	26:BB:50:G:C2	3.08	0.41
31:BH:35:VAL:O	31:BH:37:VAL:HG23	2.20	0.41
34:BO:60:ALA:HB1	34:BO:84:ALA:HB1	2.02	0.41
37:BR:29:LEU:HD12	37:BR:29:LEU:HA	1.84	0.41
48:B2:4:SER:HA	48:B2:7:ARG:HG3	2.01	0.41
50:B4:18:CYS:SG	50:B4:39:CYS:CB	2.96	0.41
1:CA:255:G:H1'	17:CQ:16:GLN:OE1	2.20	0.41
1:CA:616:G:H5"	58:CA:1925:HOH:O	2.19	0.41
1:CA:722:A:H2'	1:CA:724:G:C8	2.56	0.41
5:CE:69:VAL:O	5:CE:69:VAL:HG22	2.20	0.41
7:CG:18:TYR:CD2	7:CG:59:LEU:HD22	2.51	0.41
10:CJ:35:SER:CB	10:CJ:73:ASP:HB2	2.41	0.41
13:CM:69:GLU:CD	13:CM:72:ALA:HB3	2.45	0.41
13:CM:69:GLU:OE1	13:CM:73:GLU:N	2.53	0.41
15:CO:87:ILE:CG2	15:CO:88:ARG:N	2.83	0.41
20:CT:43:LEU:C	20:CT:45:GLN:H	2.28	0.41
21:CU:5:ASP:O	21:CU:11:GLY:HA3	2.20	0.41
23:CV:18:G:C4	23:CV:58:A:C2	3.08	0.41
25:DA:192:C:H2'	25:DA:193:U:H5'	2.01	0.41
25:DA:320:A:H4'	25:DA:322:A:C8	2.55	0.41
25:DA:686:G:N7	53:D7:5:TRP:CH2	2.88	0.41
25:DA:805:G:H4'	35:DP:38:GLN:HB3	2.02	0.41
25:DA:910:A:N3	25:DA:2264:C:O2'	2.47	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:977:G:N3	25:DA:978:G:C8	2.88	0.41
25:DA:1025:G:C4	25:DA:1135:C:H1'	2.55	0.41
25:DA:1168:G:C2	25:DA:1182:A:C2	3.08	0.41
25:DA:1643:G:H2'	25:DA:1644:C:H6	1.85	0.41
25:DA:1798:U:OP2	27:DD:274:ARG:NH2	2.53	0.41
25:DA:2530:A:O2'	25:DA:2532:G:OP2	2.32	0.41
25:DA:2730:C:H4'	28:DE:168:MET:O	2.20	0.41
27:DD:77:ALA:O	27:DD:116:GLN:HG3	2.21	0.41
27:DD:240:ALA:HB1	27:DD:241:PRO:HD2	2.02	0.41
29:DF:124:LEU:HB3	29:DF:193:VAL:HG22	2.02	0.41
37:DR:12:ARG:HD3	37:DR:16:HIS:CD2	2.55	0.41
37:DR:42:LYS:HG2	37:DR:45:ARG:NH2	2.34	0.41
39:DT:33:LYS:HE3	39:DT:82:LEU:HA	2.03	0.41
43:DX:31:HIS:O	43:DX:34:ALA:HB3	2.20	0.41
45:DZ:99:TYR:HA	45:DZ:124:ILE:O	2.20	0.41
47:D1:40:ARG:HE	47:D1:40:ARG:HB2	1.59	0.41
47:D1:64:ALA:HA	47:D1:67:ILE:HD12	2.02	0.41
47:D1:86:SER:O	47:D1:89:GLU:HG2	2.20	0.41
49:D3:28:LEU:HD21	49:D3:35:ARG:HB2	2.02	0.41
1:AA:109:A:C6	1:AA:326:G:C6	3.07	0.41
1:AA:186:C:C2	1:AA:187:C:C5	3.08	0.41
1:AA:458:C:N4	1:AA:474:G:N1	2.68	0.41
1:AA:521:G:O6	1:AA:529:G:C2	2.73	0.41
1:AA:652:U:C2	1:AA:752:G:N2	2.88	0.41
1:AA:713:G:H2'	1:AA:714:G:C8	2.55	0.41
1:AA:923:A:C2	1:AA:924:C:C2	3.08	0.41
1:AA:1221:G:H4'	19:AS:77:THR:CG2	2.50	0.41
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.19	0.41
4:AD:15:GLU:OE1	4:AD:63:LYS:N	2.54	0.41
5:AE:15:ARG:HD2	5:AE:26:PHE:CD2	2.54	0.41
10:AJ:55:LYS:NZ	10:AJ:56:HIS:CE1	2.88	0.41
12:AL:66:VAL:HG11	12:AL:98:TYR:CE1	2.55	0.41
13:AM:73:GLU:C	13:AM:77:ASN:HD22	2.27	0.41
15:AO:39:LEU:C	15:AO:41:GLU:N	2.78	0.41
19:AS:10:PHE:CD2	19:AS:10:PHE:C	2.98	0.41
24:AX:2:A:H2'	24:AX:3:A:C8	2.54	0.41
25:BA:898:C:H2'	25:BA:899:A:O4'	2.20	0.41
25:BA:2030:A:H4'	25:BA:2031:A:C8	2.55	0.41
25:BA:2082:A:H2'	25:BA:2083:G:O4'	2.20	0.41
25:BA:2364:C:H2'	25:BA:2365:G:O4'	2.19	0.41
25:BA:2376:A:H2'	25:BA:2377:A:O4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2542:A:H4'	25:BA:2543:G:H8	1.85	0.41
25:BA:2662:A:H2'	25:BA:2663:G:O4'	2.20	0.41
25:BA:2687:U:H2'	25:BA:2688:U:O4'	2.21	0.41
30:BG:16:ARG:O	30:BG:20:ILE:HG13	2.20	0.41
32:BI:2:LYS:HG2	32:BI:20:ASP:OD1	2.20	0.41
39:BT:15:VAL:HG12	39:BT:16:ARG:H	1.84	0.41
41:BV:91:TYR:CD1	41:BV:91:TYR:C	2.98	0.41
47:B1:5:CYS:CB	47:B1:8:SER:HG	2.31	0.41
47:B1:23:LYS:HE3	47:B1:23:LYS:HB2	1.92	0.41
1:CA:890:G:O2'	1:CA:906:G:O6	2.34	0.41
1:CA:922:G:H2'	1:CA:923:A:H8	1.84	0.41
1:CA:1077:G:C2	1:CA:1081:G:C6	3.08	0.41
1:CA:1092:A:C5	1:CA:1183:A:N7	2.88	0.41
3:CC:149:ALA:HA	3:CC:201:TYR:O	2.19	0.41
4:CD:164:ALA:C	4:CD:166:LYS:H	2.28	0.41
7:CG:48:LYS:O	7:CG:52:GLU:HG2	2.21	0.41
7:CG:101:LEU:HD13	7:CG:101:LEU:HA	1.87	0.41
16:CP:9:PHE:CD2	16:CP:18:ARG:HG3	2.55	0.41
17:CQ:18:THR:HG22	17:CQ:19:VAL:N	2.34	0.41
25:DA:873:G:N2	25:DA:905:U:C2	2.89	0.41
25:DA:1328:G:H2'	25:DA:1330:C:C5	2.55	0.41
25:DA:1416:G:O2'	25:DA:1417:C:H5	2.02	0.41
25:DA:1915:U:H5'	25:DA:1916:A:OP2	2.20	0.41
25:DA:2483:C:N3	36:DQ:124:LYS:NZ	2.64	0.41
26:DB:46:A:C5	26:DB:47:C:C4	3.08	0.41
28:DE:78:LEU:O	28:DE:79:ARG:HG2	2.20	0.41
32:DI:120:ILE:HG21	32:DI:126:TYR:CE1	2.56	0.41
35:DP:29:LYS:C	35:DP:31:ALA:N	2.78	0.41
38:DS:110:LEU:HD12	38:DS:110:LEU:HA	1.71	0.41
40:DU:62:ILE:HG12	40:DU:76:TYR:CE1	2.56	0.41
42:DW:4:LYS:NZ	42:DW:6:ILE:HD11	2.35	0.41
42:DW:44:ALA:O	42:DW:45:TYR:C	2.63	0.41
45:DZ:8:TYR:HB2	45:DZ:38:TYR:CE2	2.55	0.41
46:D0:65:GLY:CA	46:D0:81:VAL:HG12	2.47	0.41
49:D3:23:LEU:HD22	49:D3:50:VAL:HG11	2.02	0.41
1:AA:131:C:O2	1:AA:231:G:N2	2.36	0.41
1:AA:649:G:C4	1:AA:650:G:C8	3.08	0.41
1:AA:1084:G:OP1	1:AA:1086:U:C4	2.73	0.41
1:AA:1240:U:P	7:AG:116:ALA:HB2	2.60	0.41
1:AA:1300:G:HO2'	1:AA:1301:U:P	2.42	0.41
1:AA:1374:A:C4	1:AA:1375:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1392:G:O2'	1:AA:1393:U:H5'	2.20	0.41
1:AA:1508:G:H2'	1:AA:1509:C:C6	2.56	0.41
2:AB:158:LEU:HA	2:AB:159:PRO:HD3	1.81	0.41
6:AF:4:TYR:HA	6:AF:91:VAL:O	2.21	0.41
8:AH:77:GLU:OE2	8:AH:81:HIS:NE2	2.53	0.41
11:AK:66:LEU:HD21	11:AK:97:ALA:HB1	2.03	0.41
12:AL:83:VAL:CG1	12:AL:100:ILE:HG12	2.49	0.41
12:AL:102:ARG:HE	12:AL:102:ARG:HB3	1.79	0.41
18:AR:58:LEU:HD12	18:AR:58:LEU:HA	1.85	0.41
22:AY:6:ARG:H	22:AY:6:ARG:HG3	1.57	0.41
22:AY:57:LEU:HD23	22:AY:57:LEU:HA	1.88	0.41
25:BA:16:G:C2	25:BA:17:G:C8	3.08	0.41
25:BA:855:G:O2'	46:B0:27:GLU:OE2	2.28	0.41
25:BA:1108:U:O2'	25:BA:1109:C:C6	2.74	0.41
25:BA:1272:A:OP1	58:BA:4875:HOH:O	2.22	0.41
25:BA:2286:A:H3'	52:B6:30:THR:HG21	2.03	0.41
27:BD:127:VAL:HA	27:BD:193:VAL:HG22	2.03	0.41
29:BF:22:ALA:HB1	29:BF:24:LEU:HD22	2.02	0.41
29:BF:39:TRP:CE2	29:BF:43:LYS:HD3	2.55	0.41
30:BG:37:VAL:O	30:BG:94:LEU:HB2	2.20	0.41
30:BG:103:LEU:HD23	30:BG:103:LEU:HA	1.76	0.41
30:BG:124:SER:HB2	30:BG:131:TYR:CE1	2.55	0.41
40:BU:65:ILE:CD1	40:BU:95:LEU:HB3	2.51	0.41
41:BV:39:LEU:HD23	41:BV:39:LEU:C	2.45	0.41
41:BV:85:LYS:HB2	41:BV:85:LYS:NZ	2.35	0.41
43:BX:8:ILE:O	48:B2:36:ARG:NH2	2.54	0.41
46:B0:56:ASP:O	46:B0:57:PHE:HB2	2.20	0.41
48:B2:51:ARG:HH11	48:B2:55:ARG:NH2	2.17	0.41
1:CA:475:G:H2'	1:CA:476:G:C8	2.55	0.41
1:CA:533:A:O2'	1:CA:535:A:OP2	2.26	0.41
1:CA:929:G:C6	1:CA:930:C:C4	3.08	0.41
1:CA:1015:A:O5'	1:CA:1015:A:H8	2.03	0.41
1:CA:1076:C:C2	1:CA:1082:G:N2	2.89	0.41
1:CA:1107:C:N4	1:CA:1108:G:N7	2.67	0.41
2:CB:102:LEU:HB2	2:CB:176:GLU:HB3	2.03	0.41
3:CC:178:LEU:HD13	3:CC:178:LEU:HA	1.78	0.41
5:CE:139:LEU:HD23	5:CE:139:LEU:HA	1.81	0.41
6:CF:41:GLU:HG2	6:CF:43:LEU:CD1	2.51	0.41
10:CJ:5:ARG:N	10:CJ:74:ILE:H	2.19	0.41
16:CP:51:VAL:HG12	16:CP:53:VAL:H	1.84	0.41
25:DA:548:A:N7	41:DV:19:LYS:HD2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:836:G:C5	25:DA:837:C:C4	3.08	0.41
25:DA:839:U:H3	25:DA:939:G:H1	1.68	0.41
25:DA:1580:A:OP2	25:DA:1580:A:H8	2.04	0.41
25:DA:2445:G:OP1	29:DF:74:ARG:NH2	2.54	0.41
25:DA:2470:G:C2	25:DA:2471:C:C6	3.08	0.41
26:DB:55:U:H4'	30:DG:28:VAL:HG13	2.02	0.41
28:DE:28:ALA:HB3	28:DE:93:VAL:HG13	2.02	0.41
30:DG:11:TYR:OH	30:DG:16:ARG:HD3	2.21	0.41
32:DI:72:LEU:O	32:DI:73:GLU:HB3	2.19	0.41
35:DP:93:GLY:O	35:DP:123:LEU:HD22	2.20	0.41
35:DP:125:VAL:O	35:DP:125:VAL:HG23	2.19	0.41
36:DQ:32:TYR:CE2	36:DQ:133:ARG:CG	3.03	0.41
39:DT:61:PHE:CE2	39:DT:76:PHE:HB2	2.55	0.41
45:DZ:70:LEU:HD23	45:DZ:70:LEU:HA	1.75	0.41
1:AA:189(F):U:C4	17:AQ:72:ARG:NH2	2.83	0.41
1:AA:258:G:N3	1:AA:259:G:C8	2.88	0.41
1:AA:390:C:H2'	1:AA:391:G:C8	2.55	0.41
1:AA:667:G:H4'	15:AO:51:HIS:ND1	2.34	0.41
1:AA:831:U:O2'	1:AA:832:C:H5'	2.21	0.41
1:AA:832:C:O2'	1:AA:833:U:H6	1.86	0.41
1:AA:1404:C:H2'	1:AA:1405:G:C8	2.55	0.41
2:AB:69:LEU:HD12	2:AB:70:PHE:N	2.36	0.41
11:AK:103:LEU:HD23	11:AK:103:LEU:HA	1.86	0.41
15:AO:67:LEU:HD22	15:AO:78:TYR:HE1	1.85	0.41
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.45	0.41
25:BA:190:A:N3	25:BA:679:C:O2'	2.48	0.41
25:BA:272(B):G:H2'	25:BA:272(C):G:C8	2.55	0.41
25:BA:515:A:H1'	25:BA:581:C:H1'	2.02	0.41
25:BA:973:A:O4'	25:BA:1188:U:C6	2.73	0.41
25:BA:996:A:H4'	40:BU:91:ASP:OD1	2.20	0.41
25:BA:1582:C:C2	25:BA:1583:A:C8	3.09	0.41
25:BA:2267:A:H5"	25:BA:2268:A:H5'	2.03	0.41
25:BA:2808:U:H2'	25:BA:2809:A:C5'	2.51	0.41
27:BD:25:THR:OG1	27:BD:81:ALA:HB1	2.20	0.41
27:BD:227:ASN:O	27:BD:230:ASP:HB2	2.21	0.41
28:BE:188:VAL:HG13	28:BE:189:PRO:HD2	2.02	0.41
29:BF:11:VAL:HG22	29:BF:125:LEU:HB2	2.02	0.41
29:BF:103:LYS:HA	29:BF:106:ARG:HG3	2.03	0.41
30:BG:39:ILE:H	30:BG:39:ILE:HG13	1.66	0.41
30:BG:43:LEU:HD12	30:BG:43:LEU:HA	1.70	0.41
30:BG:121:ASN:HA	30:BG:122:PRO:HD3	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BT:101:PHE:C	39:BT:101:PHE:CD2	2.98	0.41
40:BU:52:ARG:HA	40:BU:55:ARG:HG3	2.01	0.41
45:BZ:28:MET:O	45:BZ:34:ASN:HA	2.20	0.41
47:B1:91:LYS:O	47:B1:92:LYS:C	2.60	0.41
48:B2:17:SER:OG	48:B2:20:GLU:HG3	2.20	0.41
1:CA:338:A:H2'	1:CA:339:C:C6	2.56	0.41
1:CA:557:G:C6	1:CA:558:G:N1	2.88	0.41
1:CA:1292:U:C2	1:CA:1293:G:C8	3.08	0.41
1:CA:1309:G:C6	1:CA:1329:A:C2	3.08	0.41
4:CD:74:GLN:O	4:CD:78:LEU:HD13	2.20	0.41
7:CG:56:GLN:HB2	7:CG:57:GLU:H	1.64	0.41
9:CI:107:ARG:HH11	9:CI:107:ARG:CG	2.26	0.41
12:CL:93:LEU:HD23	12:CL:93:LEU:HA	1.75	0.41
20:CT:36:LEU:HA	20:CT:36:LEU:HD13	1.83	0.41
20:CT:51:GLU:HG2	20:CT:54:LYS:HD3	2.03	0.41
25:DA:271(E):U:H3	25:DA:271(S):G:H1	1.69	0.41
25:DA:686:G:H21	25:DA:788:A:H61	1.67	0.41
25:DA:863:A:O2'	25:DA:864:G:H5'	2.20	0.41
25:DA:1224:C:O5'	25:DA:1224:C:H6	2.03	0.41
25:DA:1431:U:H2'	25:DA:1432:C:C6	2.56	0.41
25:DA:1462:C:H2'	25:DA:1463:C:O4'	2.21	0.41
25:DA:1778:U:H2'	25:DA:1784:A:N6	2.36	0.41
29:DF:34:TRP:CE3	29:DF:35:GLU:HG2	2.56	0.41
30:DG:16:ARG:HD2	30:DG:16:ARG:HA	1.75	0.41
31:DH:44:VAL:HB	31:DH:51:ARG:O	2.21	0.41
32:DI:104:GLN:HG2	32:DI:105:HIS:CE1	2.55	0.41
33:DN:27:ALA:HA	33:DN:30:ILE:HD12	2.02	0.41
33:DN:93:THR:HB	33:DN:94:HIS:ND1	2.35	0.41
34:DO:97:ARG:HA	34:DO:117:LEU:HD22	2.02	0.41
42:DW:56:ALA:O	42:DW:57:ASN:C	2.63	0.41
45:DZ:156:LYS:HE3	45:DZ:156:LYS:HB3	1.88	0.41
50:D4:40:HIS:HB3	50:D4:43:TYR:CD1	2.55	0.41
1:AA:142:G:H2'	1:AA:143:A:H8	1.85	0.41
1:AA:148:G:N2	1:AA:175:C:C2	2.88	0.41
1:AA:204:U:H4'	1:AA:216:G:O5'	2.21	0.41
1:AA:945:G:N1	1:AA:1337:G:C2	2.89	0.41
2:AB:20:GLU:HB2	2:AB:190:THR:OG1	2.20	0.41
2:AB:114:ARG:NH1	2:AB:118:LEU:HD21	2.34	0.41
2:AB:170:GLU:O	2:AB:173:ALA:N	2.47	0.41
4:AD:50:ARG:HA	4:AD:51:PRO:HD3	1.93	0.41
5:AE:122:GLU:O	5:AE:123:LEU:HG	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:7:THR:O	9:AI:83:ARG:HD2	2.21	0.41
11:AK:107:SER:C	11:AK:108:ILE:HD12	2.46	0.41
14:AN:4:LYS:O	14:AN:7:ILE:HG22	2.21	0.41
14:AN:24:CYS:SG	14:AN:39:LEU:HA	2.60	0.41
25:BA:548:A:H61	41:BV:19:LYS:H	1.68	0.41
25:BA:751:A:C6	25:BA:789:A:C5	3.09	0.41
25:BA:1142(A):A:C5	25:BA:1144:G:C5	3.08	0.41
25:BA:1199:U:H2'	25:BA:1200:C:C6	2.55	0.41
25:BA:1605:C:P	58:BA:5261:HOH:O	2.78	0.41
25:BA:1844:C:H2'	25:BA:1845:G:H8	1.85	0.41
25:BA:1931:U:H2'	25:BA:1932:A:H8	1.85	0.41
25:BA:2543:G:C1'	25:BA:2766:G:H5'	2.49	0.41
25:BA:2708:G:H1'	37:BR:71:GLN:HE22	1.85	0.41
25:BA:2784:C:H1'	28:BE:37:ARG:NH1	2.35	0.41
26:BB:15:A:O4'	26:BB:110:G:C8	2.74	0.41
27:BD:82:ILE:HG23	27:BD:82:ILE:HD12	1.72	0.41
28:BE:117:MET:H	28:BE:117:MET:HG2	1.50	0.41
28:BE:118:LYS:O	28:BE:119:ARG:C	2.64	0.41
29:BF:60:SER:OG	29:BF:61:GLY:N	2.53	0.41
29:BF:117:ARG:HA	29:BF:117:ARG:HD3	1.79	0.41
29:BF:157:VAL:HA	29:BF:176:LEU:O	2.20	0.41
30:BG:67:LYS:HA	30:BG:68:PRO:HD3	1.87	0.41
33:BN:99:LEU:O	33:BN:103:VAL:HG23	2.21	0.41
41:BV:98:GLU:CD	41:BV:100:ARG:HD3	2.46	0.41
42:BW:68:ARG:HD3	42:BW:111:HIS:HA	2.02	0.41
45:BZ:72:ARG:NH2	45:BZ:97:GLU:O	2.53	0.41
45:BZ:133:ILE:H	45:BZ:133:ILE:HG13	1.45	0.41
1:CA:375:U:OP1	16:CP:69:THR:HG21	2.20	0.41
1:CA:509:A:C6	1:CA:510:A:N1	2.87	0.41
1:CA:604:G:C6	1:CA:635:G:C6	3.09	0.41
1:CA:620:C:H2'	1:CA:621:A:O4'	2.20	0.41
1:CA:723:U:O2'	1:CA:724:G:P	2.79	0.41
1:CA:936:C:C4	1:CA:937:A:C5	3.08	0.41
1:CA:1323:G:H4'	1:CA:1363:C:C2	2.56	0.41
1:CA:1330:U:H4'	13:CM:23:TYR:CE2	2.55	0.41
1:CA:1375:A:H4'	7:CG:29:LYS:HZ3	1.85	0.41
2:CB:88:ALA:HB1	2:CB:222:ILE:HG21	2.02	0.41
4:CD:110:PHE:N	4:CD:110:PHE:HD1	2.18	0.41
7:CG:72:ARG:HG2	7:CG:142:GLU:OE2	2.21	0.41
8:CH:7:ALA:HB2	8:CH:85:ARG:HD2	2.03	0.41
8:CH:63:LEU:HD23	8:CH:65:TYR:OH	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:80:VAL:HG23	11:CK:105:VAL:H	1.85	0.41
25:DA:57:C:O5'	25:DA:57:C:H6	2.04	0.41
25:DA:1210:A:H5"	25:DA:1212:G:C5'	2.49	0.41
25:DA:1796:U:H4'	27:DD:256:GLY:N	2.34	0.41
25:DA:2041:U:H2'	25:DA:2042:A:C8	2.55	0.41
25:DA:2236:C:C2'	25:DA:2237:G:H5'	2.51	0.41
25:DA:2505:G:O2'	25:DA:2506:U:H5"	2.21	0.41
26:DB:76:G:H2'	26:DB:77:U:O4'	2.20	0.41
26:DB:80:U:H2'	26:DB:81:G:C8	2.56	0.41
27:DD:37:LEU:HA	27:DD:37:LEU:HD12	1.71	0.41
28:DE:27:LEU:HD22	39:DT:1:MET:HE3	2.03	0.41
28:DE:36:ARG:HG2	28:DE:47:VAL:HG22	2.02	0.41
33:DN:58:ASP:OD1	33:DN:124:ALA:HA	2.20	0.41
35:DP:38:GLN:C	35:DP:40:SER:N	2.79	0.41
37:DR:94:TYR:C	37:DR:117:VAL:HG23	2.45	0.41
41:DV:62:LEU:HD11	41:DV:95:LEU:HB2	2.03	0.41
50:D4:42:PHE:HB3	50:D4:43:TYR:HB2	2.02	0.41
1:AA:105:G:H2'	1:AA:106:C:H6	1.83	0.41
1:AA:135:C:O2	16:AP:1:MET:HB3	2.21	0.41
1:AA:392:G:H2'	1:AA:393:A:H8	1.85	0.41
1:AA:797:C:O2'	1:AA:798:G:H5'	2.20	0.41
1:AA:1126:U:H6	1:AA:1280:A:C5	2.39	0.41
1:AA:1178:G:N2	1:AA:1181:G:C8	2.88	0.41
3:AC:201:TYR:C	3:AC:202:ILE:HG12	2.46	0.41
4:AD:12:CYS:O	4:AD:33:MET:HE2	2.21	0.41
6:AF:19:LEU:O	6:AF:19:LEU:HD23	2.21	0.41
6:AF:89:MET:HB3	6:AF:89:MET:HE2	1.75	0.41
7:AG:9:VAL:HG13	7:AG:94:ARG:NH1	2.35	0.41
17:AQ:15:MET:H	17:AQ:15:MET:HG3	1.62	0.41
19:AS:66:MET:H	19:AS:66:MET:HG3	1.57	0.41
20:AT:32:ALA:O	20:AT:35:THR:HG22	2.20	0.41
25:BA:69:C:H2'	25:BA:70:G:C8	2.55	0.41
25:BA:189:G:H2'	25:BA:205:G:N2	2.36	0.41
25:BA:272(A):U:H6	25:BA:272(A):U:H5'	1.86	0.41
25:BA:900:A:C4	25:BA:901:A:C8	3.08	0.41
25:BA:1803:A:H4'	27:BD:259:THR:HG22	2.01	0.41
25:BA:2314:C:H2'	25:BA:2315:G:H8	1.86	0.41
25:BA:2405:G:H2'	25:BA:2411:A:N6	2.35	0.41
25:BA:2466:C:O2'	25:BA:2467:C:H5'	2.20	0.41
25:BA:2572:A:N7	28:BE:145:LYS:HB2	2.35	0.41
25:BA:2657:A:O2'	31:BH:160:LYS:HE3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2864:G:H2'	25:BA:2865:U:O4'	2.21	0.41
27:BD:118:VAL:HG22	27:BD:119:ALA:N	2.36	0.41
28:BE:2:LYS:HG3	28:BE:200:GLU:HB3	2.01	0.41
31:BH:89:ILE:HB	31:BH:129:THR:HG22	2.02	0.41
32:BI:79:ILE:HB	32:BI:144:VAL:HA	2.03	0.41
37:BR:36:THR:O	37:BR:111:LEU:HD12	2.21	0.41
39:BT:56:GLY:C	39:BT:58:ASN:N	2.76	0.41
43:BX:63:LYS:C	43:BX:64:LYS:HG2	2.45	0.41
44:BY:92:ASN:CG	44:BY:94:LYS:HG2	2.45	0.41
45:BZ:18:LEU:O	45:BZ:21:ALA:N	2.48	0.41
45:BZ:160:GLY:CA	45:BZ:161:VAL:HG12	2.41	0.41
1:CA:25:C:O2'	1:CA:26:A:H5'	2.21	0.41
1:CA:403:C:O2'	1:CA:404:U:H5'	2.20	0.41
1:CA:451:A:C5	1:CA:481:G:C6	3.09	0.41
1:CA:579:G:C5	1:CA:580:U:C4	3.08	0.41
1:CA:719:C:N4	18:CR:71:LYS:HE2	2.35	0.41
1:CA:792:A:N3	1:CA:794:A:C5	2.89	0.41
1:CA:1144:G:H22	1:CA:1146:A:H62	1.68	0.41
2:CB:69:LEU:HD12	2:CB:70:PHE:H	1.86	0.41
2:CB:100:GLY:HA3	2:CB:104:ASN:HB3	2.03	0.41
3:CC:180:ALA:HB1	3:CC:203:PHE:HE1	1.86	0.41
4:CD:10:ARG:CB	4:CD:40:PRO:HG3	2.49	0.41
4:CD:74:GLN:NE2	4:CD:137:SER:HB3	2.36	0.41
5:CE:99:GLY:O	5:CE:117:ASP:HA	2.21	0.41
5:CE:126:ARG:CG	5:CE:126:ARG:NH1	2.81	0.41
5:CE:144:THR:HG22	5:CE:146:ALA:H	1.85	0.41
8:CH:42:GLU:HG3	8:CH:109:ILE:HD13	2.02	0.41
16:CP:43:LYS:C	16:CP:45:THR:N	2.78	0.41
25:DA:315:G:H2'	25:DA:316:C:O4'	2.20	0.41
25:DA:629:G:H1'	25:DA:639:U:O2'	2.20	0.41
25:DA:1296:G:H2'	25:DA:1297:C:H6	1.86	0.41
25:DA:2363:C:O2	46:D0:39:ARG:NH2	2.46	0.41
32:DI:98:ALA:CB	32:DI:111:PRO:HG3	2.51	0.41
33:DN:128:HIS:O	33:DN:128:HIS:CG	2.73	0.41
36:DQ:58:PHE:N	36:DQ:58:PHE:CD2	2.88	0.41
41:DV:21:ARG:HD2	41:DV:93:GLU:HG3	2.03	0.41
41:DV:89:GLN:HA	41:DV:90:PRO:HD2	1.79	0.41
44:DY:30:VAL:HG22	44:DY:37:VAL:HG12	2.03	0.41
49:D3:4:LEU:HD22	49:D3:56:VAL:HG11	2.02	0.41
54:D8:33:ASN:HA	54:D8:36:LYS:HG3	2.02	0.41
1:AA:70:G:H2'	1:AA:71:C:H6	1.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:202:U:H3'	1:AA:203:U:C5	2.56	0.41
1:AA:266:G:H8	1:AA:266:G:H2'	1.60	0.41
1:AA:436:C:O2'	1:AA:437:U:OP2	2.34	0.41
1:AA:581:G:N2	1:AA:582:U:C4	2.89	0.41
1:AA:881:G:H2'	1:AA:882:C:O4'	2.21	0.41
1:AA:1184:G:OP1	1:AA:1184:G:C8	2.73	0.41
58:AA:2208:HOH:O	20:AT:103:GLY:HA2	2.20	0.41
3:AC:184:TYR:CD2	3:AC:184:TYR:C	2.99	0.41
14:AN:14:PRO:HB2	14:AN:16:PHE:H	1.85	0.41
18:AR:63:GLN:O	18:AR:66:LEU:HB3	2.21	0.41
25:BA:109:G:H2'	25:BA:110:G:O4'	2.20	0.41
25:BA:376:C:H2'	25:BA:377:C:H6	1.85	0.41
25:BA:422:A:H2'	25:BA:423:A:O4'	2.21	0.41
25:BA:460:A:H2'	25:BA:461:C:O4'	2.21	0.41
25:BA:963:U:OP1	58:BA:5218:HOH:O	2.21	0.41
25:BA:1141:U:OP1	33:BN:25:ARG:NH1	2.54	0.41
25:BA:1268:A:H2'	25:BA:1269:A:O4'	2.20	0.41
25:BA:1329:U:H5"	25:BA:1330:C:C5	2.52	0.41
25:BA:1509(A):A:C5	25:BA:1509(B):A:C8	3.09	0.41
25:BA:2328:A:H2'	25:BA:2329:G:O4'	2.20	0.41
25:BA:2340:G:H2'	25:BA:2341:G:C8	2.56	0.41
25:BA:2648:C:H2'	25:BA:2649:U:H6	1.86	0.41
25:BA:2788:C:N4	25:BA:2789:C:N4	2.69	0.41
29:BF:36:VAL:HG11	29:BF:183:VAL:CG1	2.50	0.41
36:BQ:54:MET:O	36:BQ:55:VAL:C	2.63	0.41
36:BQ:118:LEU:HD23	36:BQ:118:LEU:HA	1.89	0.41
40:BU:105:VAL:H	40:BU:105:VAL:HG23	1.63	0.41
43:BX:18:TYR:C	43:BX:20:GLY:N	2.78	0.41
45:BZ:43:GLU:O	45:BZ:46:LYS:HB2	2.20	0.41
46:B0:51:VAL:CG2	46:B0:81:VAL:HG23	2.51	0.41
1:CA:65:U:C5	1:CA:381:C:N4	2.89	0.41
1:CA:129(A):G:C2	1:CA:189(H):G:C8	3.09	0.41
1:CA:175:C:H2'	1:CA:176:C:H6	1.86	0.41
1:CA:791:G:H2'	1:CA:792:A:H5'	2.02	0.41
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.55	0.41
1:CA:1203:C:H2'	1:CA:1204:A:O4'	2.21	0.41
1:CA:1367:C:H5"	9:CI:114:TYR:HA	2.02	0.41
1:CA:1368:G:H2'	1:CA:1369:C:C6	2.56	0.41
3:CC:111:LEU:HD12	3:CC:111:LEU:N	2.35	0.41
4:CD:79:PHE:C	4:CD:79:PHE:CD2	2.99	0.41
5:CE:78:HIS:NE2	5:CE:142:LEU:HD23	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:22:GLU:O	6:CF:26:ILE:HG13	2.21	0.41
10:CJ:55:LYS:HG2	10:CJ:56:HIS:N	2.36	0.41
11:CK:61:ALA:CB	11:CK:90:GLY:HA3	2.51	0.41
17:CQ:10:VAL:HG22	17:CQ:19:VAL:HG21	2.02	0.41
25:DA:528:A:H3'	25:DA:528:A:H8	1.84	0.41
25:DA:746:A:H2'	25:DA:2612:C:H5"	2.02	0.41
25:DA:847:U:C3'	25:DA:848:G:H5'	2.51	0.41
25:DA:870:A:C2	25:DA:908:C:C2	3.09	0.41
25:DA:1163:G:C2	25:DA:1164:G:C8	3.09	0.41
25:DA:1341:U:OP2	25:DA:1394:U:O2'	2.23	0.41
25:DA:1991:U:H2'	25:DA:1992:G:H5"	2.02	0.41
25:DA:2345:G:N3	25:DA:2381:C:H2'	2.36	0.41
25:DA:2619:C:H4'	28:DE:151:TYR:O	2.20	0.41
25:DA:2689:U:H4'	25:DA:2690:C:H5'	2.02	0.41
25:DA:2834:G:C5	25:DA:2879:C:C4	3.09	0.41
27:DD:44:ASN:ND2	27:DD:46:GLN:HG3	2.36	0.41
30:DG:41:GLN:NE2	30:DG:153:ARG:HG2	2.36	0.41
30:DG:60:LEU:HD12	30:DG:68:PRO:HG3	2.01	0.41
37:DR:55:ALA:HA	37:DR:80:PHE:CE1	2.56	0.41
37:DR:60:LEU:HD23	37:DR:60:LEU:HA	1.67	0.41
38:DS:32:LEU:HD23	38:DS:32:LEU:HA	1.83	0.41
45:DZ:128:VAL:HG22	45:DZ:132:ASN:O	2.21	0.41
51:D5:46:CYS:HB3	51:D5:49:CYS:SG	2.61	0.41
1:AA:270:A:H2'	1:AA:271:C:C6	2.55	0.41
1:AA:342:C:C2'	1:AA:343:U:H5'	2.47	0.41
1:AA:355:C:O2	1:AA:388:G:C2	2.74	0.41
1:AA:370:C:H2'	1:AA:371:G:O4'	2.21	0.41
1:AA:532:A:C2'	1:AA:533:A:OP1	2.68	0.41
1:AA:949:A:C2	1:AA:1233:G:N3	2.89	0.41
1:AA:1058:G:C6	1:AA:1059:C:N3	2.88	0.41
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.86	0.41
2:AB:121:LEU:HD23	2:AB:121:LEU:O	2.19	0.41
2:AB:207:ALA:O	2:AB:211:ILE:HD12	2.21	0.41
3:AC:36:ASP:HA	3:AC:39:ILE:HD12	2.02	0.41
4:AD:160:GLN:H	4:AD:160:GLN:HG3	1.71	0.41
7:AG:51:GLN:HG2	7:AG:55:GLY:CA	2.50	0.41
9:AI:43:ALA:HB1	9:AI:45:ALA:HB1	2.03	0.41
17:AQ:45:HIS:HB2	17:AQ:65:ILE:HD13	2.03	0.41
17:AQ:77:VAL:O	17:AQ:78:GLU:HB2	2.21	0.41
20:AT:55:ILE:O	20:AT:58:LYS:N	2.52	0.41
22:AY:48:LEU:HA	22:AY:49:PRO:HD3	1.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AY:74:ALA:HA	22:AY:90:ARG:HH12	1.86	0.41
23:AV:52:G:C2	23:AV:63:G:C4	3.08	0.41
25:BA:200:U:H5"	25:BA:201:C:OP2	2.21	0.41
25:BA:614:U:O2	25:BA:614:U:O4'	2.36	0.41
25:BA:910:A:N1	25:BA:2277:G:H1'	2.36	0.41
25:BA:1168:G:C2	25:BA:1182:A:C2	3.08	0.41
25:BA:1249:U:OP1	58:BA:5380:HOH:O	2.22	0.41
25:BA:1662:C:C2'	25:BA:1663:C:H5'	2.51	0.41
25:BA:1833:U:H2'	25:BA:1834:U:H6	1.85	0.41
25:BA:1933:G:N2	25:BA:1968:G:H1'	2.36	0.41
25:BA:2086:U:O4	58:BA:3944:HOH:O	2.22	0.41
25:BA:2094:G:O2'	25:BA:2095:C:H5'	2.21	0.41
25:BA:2362:G:OP1	54:B8:44:LYS:NZ	2.38	0.41
25:BA:2377:A:H2'	25:BA:2378:A:C8	2.55	0.41
25:BA:2378:A:C5	25:BA:2379:G:H1'	2.56	0.41
25:BA:2561:A:H2'	25:BA:2562:U:O4'	2.20	0.41
25:BA:2670:A:C2	25:BA:2671:A:C4	3.09	0.41
25:BA:2885:C:O2'	51:B5:34:PRO:HG3	2.20	0.41
26:BB:22:U:H3	26:BB:61:G:H1	1.68	0.41
26:BB:53:A:H5'	26:BB:53:A:N3	2.35	0.41
28:BE:35:GLN:H	28:BE:48:GLN:HB3	1.85	0.41
29:BF:12:LEU:HD22	29:BF:12:LEU:HA	1.78	0.41
32:BI:29:TYR:HB3	32:BI:30:LEU:H	1.72	0.41
35:BP:70:GLN:O	35:BP:73:GLY:N	2.53	0.41
36:BQ:133:ARG:HG2	36:BQ:134:ARG:H	1.86	0.41
44:BY:102:CYS:SG	44:BY:104:GLY:N	2.84	0.41
45:BZ:118:GLN:O	45:BZ:120:ILE:HG13	2.20	0.41
48:B2:28:LYS:HB3	48:B2:57:ILE:HG12	2.03	0.41
54:B8:39:LYS:HA	54:B8:42:ARG:NH1	2.35	0.41
1:CA:177:C:OP1	20:CT:65:LYS:NZ	2.49	0.41
1:CA:286:G:C6	1:CA:287:U:C4	3.09	0.41
1:CA:324:G:OP1	20:CT:22:ARG:NE	2.54	0.41
1:CA:736:C:N4	1:CA:737:A:H62	2.18	0.41
1:CA:784:C:H4'	25:DA:1837:C:OP1	2.20	0.41
1:CA:1057:G:C2'	1:CA:1058:G:H5'	2.50	0.41
1:CA:1067:A:O5'	1:CA:1067:A:C8	2.72	0.41
1:CA:1300:G:O2'	1:CA:1301:U:OP2	2.24	0.41
1:CA:1318:A:O2'	19:CS:37:ARG:HB3	2.20	0.41
1:CA:1322:C:OP1	1:CA:1322:C:H6	2.04	0.41
1:CA:1342:C:H1'	9:CI:124:GLN:NE2	2.36	0.41
2:CB:54:THR:O	2:CB:58:ILE:HG13	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:36:ASP:OD1	3:CC:57:ILE:HD12	2.21	0.41
5:CE:137:GLU:O	5:CE:141:GLN:HB2	2.20	0.41
6:CF:10:LEU:HD23	6:CF:61:LEU:HD13	2.03	0.41
12:CL:33:ARG:O	12:CL:85:ILE:HB	2.21	0.41
16:CP:55:ARG:HA	16:CP:55:ARG:HD2	1.69	0.41
17:CQ:27:PHE:CZ	17:CQ:36:ILE:HD11	2.56	0.41
19:CS:20:LEU:HA	19:CS:23:ASN:HB3	2.01	0.41
20:CT:91:LEU:HD22	20:CT:91:LEU:HA	1.78	0.41
23:CV:47:U:H2'	23:CV:50:U:OP1	2.20	0.41
25:DA:254:G:N7	54:D8:5:LYS:HE2	2.35	0.41
25:DA:781:A:C2	25:DA:1776:G:H2'	2.56	0.41
25:DA:856:C:O4'	46:D0:27:GLU:HB3	2.21	0.41
25:DA:862:G:H4'	26:DB:79:C:H5'	2.03	0.41
25:DA:1183:G:H4'	49:D3:29:ARG:HH12	1.86	0.41
25:DA:1278:A:H5"	37:DR:36:THR:HG22	2.03	0.41
25:DA:1506:C:C2'	25:DA:1507:A:H5'	2.51	0.41
25:DA:1629:U:H2'	25:DA:1630:G:O4'	2.20	0.41
25:DA:1751:C:O4'	25:DA:2860:A:C2	2.74	0.41
25:DA:2261:C:O2'	25:DA:2262:U:H5'	2.21	0.41
25:DA:2552:U:H2'	25:DA:2554:U:OP2	2.21	0.41
25:DA:2705:A:H2	37:DR:64:ARG:HH11	1.68	0.41
27:DD:77:ALA:HA	27:DD:97:TYR:HA	2.03	0.41
28:DE:9:VAL:HG13	28:DE:25:VAL:C	2.46	0.41
29:DF:32:LEU:CD2	29:DF:112:MET:HE1	2.51	0.41
29:DF:116:ASP:OD2	35:DP:1:MET:HB2	2.21	0.41
30:DG:114:ILE:HB	30:DG:117:PHE:HB2	2.02	0.41
33:DN:34:LEU:HD12	33:DN:34:LEU:HA	1.66	0.41
33:DN:55:VAL:CG1	33:DN:126:PRO:HA	2.50	0.41
34:DO:26:LYS:HD2	34:DO:37:ASP:CG	2.46	0.41
34:DO:44:LYS:HD2	34:DO:44:LYS:HA	1.92	0.41
34:DO:79:PHE:CD2	39:DT:72:VAL:HG22	2.56	0.41
35:DP:67:MET:HE3	35:DP:67:MET:HB2	1.95	0.41
35:DP:101:VAL:O	35:DP:104:GLY:N	2.38	0.41
36:DQ:72:LYS:HA	36:DQ:73:PRO:HD3	1.90	0.41
46:D0:19:LYS:HG2	46:D0:41:ARG:HH21	1.86	0.41
50:D4:15:ILE:O	50:D4:33:VAL:HG23	2.20	0.41
54:D8:39:LYS:O	54:D8:43:GLN:HG3	2.21	0.41
1:AA:344:A:C8	1:AA:344:A:OP2	2.74	0.41
1:AA:499:A:H4'	1:AA:500:G:OP1	2.21	0.41
1:AA:605:U:H2'	1:AA:606:G:H5'	2.02	0.41
1:AA:993:G:O6	1:AA:1045:C:N4	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1157:A:H4'	1:AA:1158:C:O4'	2.20	0.41
1:AA:1162:C:N4	1:AA:1174:G:H1	2.19	0.41
1:AA:1445:C:C4	1:AA:1446:U:C4	3.09	0.41
7:AG:65:ALA:HB3	7:AG:124:LEU:HD23	2.01	0.41
9:AI:8:GLY:HA3	9:AI:76:ALA:O	2.21	0.41
12:AL:11:VAL:HG13	17:AQ:29:HIS:CD2	2.56	0.41
14:AN:53:LEU:HA	14:AN:53:LEU:HD23	1.80	0.41
18:AR:73:ALA:O	18:AR:76:LEU:N	2.45	0.41
18:AR:73:ALA:HB1	18:AR:79:LEU:HG	2.03	0.41
20:AT:39:LYS:HE2	20:AT:39:LYS:HB2	1.90	0.41
21:AU:15:ARG:HH11	21:AU:15:ARG:HB2	1.86	0.41
22:AY:45:ALA:O	22:AY:46:SER:OG	2.39	0.41
25:BA:270:A:H1'	25:BA:370:G:C2	2.56	0.41
25:BA:436:C:H2'	25:BA:437:G:C8	2.56	0.41
25:BA:459:U:H4'	53:B7:40:TRP:CZ3	2.56	0.41
25:BA:757:U:H2'	25:BA:758:C:O4'	2.21	0.41
25:BA:805:G:H4'	35:BP:38:GLN:HB3	2.03	0.41
25:BA:962:G:H2'	25:BA:963:U:C6	2.55	0.41
25:BA:1278:A:H2'	25:BA:1279:G:H8	1.86	0.41
25:BA:1373:A:H2'	25:BA:1374:G:O4'	2.21	0.41
25:BA:1385:G:H4'	25:BA:1386:C:OP1	2.21	0.41
25:BA:1797:C:O2'	27:BD:259:THR:HB	2.21	0.41
25:BA:2405:G:O2'	25:BA:2406:U:P	2.79	0.41
25:BA:2699:C:H2'	25:BA:2700:C:O4'	2.21	0.41
25:BA:2854:G:H2'	25:BA:2855:C:C6	2.56	0.41
26:BB:12:C:N3	46:B0:74:ARG:NH2	2.68	0.41
30:BG:11:TYR:CE2	30:BG:16:ARG:HD3	2.56	0.41
33:BN:46:VAL:O	33:BN:47:ALA:HB3	2.21	0.41
38:BS:99:LYS:O	38:BS:102:ALA:HB3	2.20	0.41
39:BT:12:SER:HA	39:BT:15:VAL:HG23	2.03	0.41
41:BV:62:LEU:HD12	41:BV:62:LEU:HA	1.71	0.41
45:BZ:15:PRO:HB2	45:BZ:19:ARG:NH2	2.36	0.41
45:BZ:53:ILE:HG22	45:BZ:71:VAL:O	2.21	0.41
45:BZ:163:LEU:HD12	45:BZ:163:LEU:HA	1.93	0.41
46:B0:54:GLY:O	46:B0:56:ASP:N	2.54	0.41
1:CA:367:U:C2	1:CA:369:C:C5	3.09	0.41
1:CA:719:C:O2'	18:CR:49:LYS:HB3	2.21	0.41
1:CA:1240:U:O2'	1:CA:1241:G:OP1	2.37	0.41
1:CA:1285:A:H1'	1:CA:1286:A:OP2	2.21	0.41
3:CC:5:ILE:HD12	3:CC:5:ILE:HA	1.90	0.41
6:CF:80:ARG:HG3	6:CF:80:ARG:NH2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:118:VAL:O	7:CG:121:ALA:HB3	2.21	0.41
9:CI:112:LYS:NZ	9:CI:113:LYS:O	2.54	0.41
13:CM:4:ILE:HG12	13:CM:9:ILE:HG13	2.03	0.41
13:CM:25:ILE:HD11	13:CM:66:LEU:HD11	2.02	0.41
16:CP:8:ARG:HA	16:CP:17:TYR:CD2	2.56	0.41
16:CP:41:PRO:O	16:CP:43:LYS:HD2	2.21	0.41
17:CQ:94:ASN:O	17:CQ:98:LEU:HD13	2.21	0.41
20:CT:20:LEU:O	20:CT:24:LEU:HD23	2.21	0.41
25:DA:28:A:C2'	25:DA:29:U:H5'	2.51	0.41
25:DA:1252:G:C4	40:DU:33:ARG:HD2	2.56	0.41
25:DA:1344:G:O2'	25:DA:1385:G:H2'	2.21	0.41
25:DA:1355:G:N2	25:DA:1376:C:O2	2.48	0.41
25:DA:2398:U:O2'	25:DA:2399:G:H5'	2.22	0.41
25:DA:2531:A:H5'	31:DH:157:TYR:CE1	2.56	0.41
25:DA:2817:G:C4	25:DA:2830:G:N2	2.89	0.41
27:DD:10:THR:HG23	27:DD:13:ARG:HB2	2.03	0.41
29:DF:181:LEU:CD1	29:DF:186:ILE:HD11	2.51	0.41
31:DH:20:ALA:HB1	31:DH:21:PRO:CD	2.51	0.41
34:DO:45:GLU:HG2	34:DO:46:ALA:N	2.36	0.41
45:DZ:16:SER:O	45:DZ:20:ARG:HB2	2.21	0.41
45:DZ:38:TYR:HD1	45:DZ:39:VAL:O	2.04	0.41
48:D2:10:LEU:HD22	48:D2:14:ARG:NH1	2.36	0.41
1:AA:448:A:C2	1:AA:487:A:C2	3.09	0.40
1:AA:787:A:H8	1:AA:787:A:H5"	1.86	0.40
1:AA:1261:A:H3'	1:AA:1262:C:C6	2.56	0.40
5:AE:79:GLU:H	5:AE:79:GLU:HG3	1.56	0.40
6:AF:62:TRP:CD1	18:AR:35:ARG:CZ	3.04	0.40
7:AG:24:THR:O	7:AG:27:ILE:HG22	2.21	0.40
9:AI:43:ALA:HB2	9:AI:74:ILE:HG12	2.03	0.40
15:AO:24:SER:O	15:AO:25:THR:C	2.63	0.40
17:AQ:13:ASP:CG	17:AQ:14:LYS:H	2.28	0.40
17:AQ:31:LEU:HD23	17:AQ:32:TYR:CZ	2.56	0.40
22:AY:130:ALA:O	22:AY:131:MET:HG2	2.22	0.40
25:BA:190:A:P	25:BA:205:G:H22	2.44	0.40
25:BA:566:U:OP1	35:BP:29:LYS:HD2	2.21	0.40
25:BA:1166:C:O2	25:BA:1184:G:C2	2.74	0.40
25:BA:1756:G:H4'	25:BA:1758:G:O4'	2.21	0.40
25:BA:2340:G:H2'	25:BA:2341:G:H8	1.85	0.40
25:BA:2347:C:O2'	52:B6:21:TYR:OH	2.38	0.40
25:BA:2652:C:C2'	25:BA:2653:U:H5'	2.51	0.40
25:BA:2835:A:C6	25:BA:2879:C:C6	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:112:GLY:O	28:BE:159:HIS:HA	2.21	0.40
30:BG:152:LEU:HG	30:BG:152:LEU:O	2.21	0.40
32:BI:130:TYR:HB3	32:BI:138:ILE:HD13	2.02	0.40
45:BZ:22:GLY:C	45:BZ:23:LYS:HD3	2.46	0.40
52:B6:23:THR:OG1	52:B6:24:GLU:N	2.50	0.40
53:B7:9:ARG:HH21	53:B7:47:ARG:HG3	1.85	0.40
1:CA:1321:C:C3'	1:CA:1322:C:H5"	2.51	0.40
1:CA:1357:A:H5"	1:CA:1358:U:OP2	2.20	0.40
3:CC:18:TRP:HE3	3:CC:18:TRP:N	2.12	0.40
3:CC:66:VAL:O	3:CC:68:VAL:HG23	2.21	0.40
7:CG:23:VAL:HG13	7:CG:43:PHE:CE2	2.34	0.40
8:CH:33:GLU:HG2	8:CH:59:LEU:CD1	2.52	0.40
14:CN:4:LYS:HD3	14:CN:4:LYS:C	2.46	0.40
16:CP:18:ARG:NH1	16:CP:32:TYR:OH	2.55	0.40
16:CP:68:ASP:O	16:CP:70:ALA:N	2.54	0.40
17:CQ:68:ARG:H	17:CQ:70:ARG:HH11	1.68	0.40
20:CT:22:ARG:O	20:CT:25:ARG:N	2.53	0.40
25:DA:237:C:N3	25:DA:261:G:C2	2.89	0.40
25:DA:297:C:H2'	25:DA:298:G:O4'	2.21	0.40
25:DA:769:G:C2'	25:DA:770:G:H5'	2.51	0.40
25:DA:864:G:H1'	25:DA:914:C:N4	2.36	0.40
25:DA:872:A:OP1	36:DQ:5:ARG:NH1	2.54	0.40
25:DA:1031:G:O2'	55:D9:7:VAL:N	2.45	0.40
25:DA:1149:G:C2	25:DA:1150:C:C4	3.09	0.40
25:DA:1365:A:N6	25:DA:1366:A:C6	2.89	0.40
25:DA:1528(A):A:C8	25:DA:1529:G:C8	3.09	0.40
25:DA:1792:G:H2'	25:DA:1793:C:C6	2.56	0.40
25:DA:1945:G:C4	25:DA:1946:U:C5	3.09	0.40
25:DA:2056:G:O2'	51:D5:8:LYS:HD2	2.20	0.40
25:DA:2329:G:H2'	25:DA:2330:G:C8	2.55	0.40
25:DA:2510:C:H2'	25:DA:2511:U:C6	2.56	0.40
25:DA:2577:A:O4'	51:D5:3:LYS:HB2	2.21	0.40
25:DA:2699:C:H2'	25:DA:2700:C:O4'	2.21	0.40
25:DA:2740:A:C6	25:DA:2764:A:C8	3.09	0.40
29:DF:181:LEU:HD11	29:DF:186:ILE:HD11	2.03	0.40
31:DH:92:ILE:O	31:DH:93:GLY:C	2.64	0.40
35:DP:84:ASN:HB3	35:DP:117:GLU:O	2.20	0.40
35:DP:101:VAL:HG12	35:DP:102:ARG:N	2.36	0.40
43:DX:2:LYS:HD2	43:DX:2:LYS:HA	1.85	0.40
44:DY:41:GLY:C	44:DY:44:ILE:HD11	2.46	0.40
45:DZ:48:PHE:CE2	45:DZ:71:VAL:HG11	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:59:A:H2'	1:AA:59:A:N3	2.37	0.40
1:AA:157:G:H5"	58:AA:2201:HOH:O	2.20	0.40
1:AA:374:A:C4	1:AA:375:U:C5	3.09	0.40
1:AA:409:G:C2	1:AA:410:G:H1'	2.57	0.40
1:AA:427:U:H3'	1:AA:428:G:H2'	2.03	0.40
1:AA:458:C:H3'	1:AA:460:G:C8	2.56	0.40
1:AA:520:A:N1	1:AA:536:C:H1'	2.36	0.40
1:AA:827:U:C4	1:AA:870:U:C4	3.09	0.40
1:AA:1015:A:C6	1:AA:1016:A:C6	3.09	0.40
2:AB:27:LYS:HD2	2:AB:193:ASP:OD1	2.21	0.40
6:AF:9:VAL:HB	6:AF:87:ARG:HB2	2.02	0.40
8:AH:9:MET:O	8:AH:10:LEU:C	2.63	0.40
8:AH:114:THR:OG1	8:AH:115:SER:N	2.53	0.40
9:AI:70:LYS:O	9:AI:73:GLN:HB2	2.21	0.40
16:AP:48:TRP:CD1	16:AP:48:TRP:H	2.37	0.40
18:AR:47:THR:HG23	18:AR:49:LYS:HG3	2.04	0.40
25:BA:71:A:H5'	25:BA:71:A:H8	1.86	0.40
25:BA:143:G:H2'	25:BA:143(A):C:C6	2.56	0.40
25:BA:271(N):U:O2'	25:BA:271(O):C:H5'	2.21	0.40
25:BA:305:U:H2'	25:BA:306:U:C6	2.56	0.40
25:BA:528:A:H2	25:BA:2043:C:H5'	1.87	0.40
25:BA:805:G:P	58:BA:5183:HOH:O	2.78	0.40
25:BA:903:C:H2'	25:BA:904:C:C6	2.56	0.40
25:BA:1047:G:N7	25:BA:1110:G:C6	2.90	0.40
25:BA:1593:G:H2'	25:BA:1594:G:H8	1.84	0.40
25:BA:1854:A:C8	25:BA:1855:G:C8	3.09	0.40
25:BA:2058:A:H5"	25:BA:2059:A:OP2	2.21	0.40
25:BA:2319:G:N2	38:BS:3:ARG:HB2	2.36	0.40
25:BA:2404:C:O5'	25:BA:2404:C:H6	2.04	0.40
26:BB:31:C:O5'	26:BB:31:C:H6	2.03	0.40
26:BB:37:C:H2'	26:BB:38:C:H5'	2.03	0.40
26:BB:79:C:H42	26:BB:98:G:H1	1.69	0.40
27:BD:148:GLU:O	27:BD:151:LYS:HB2	2.21	0.40
27:BD:228:PRO:HD3	27:BD:235:GLY:N	2.37	0.40
28:BE:31:CYS:O	28:BE:91:VAL:HG23	2.21	0.40
29:BF:39:TRP:O	29:BF:43:LYS:HG2	2.21	0.40
29:BF:129:PHE:CD2	29:BF:129:PHE:N	2.89	0.40
31:BH:154:PRO:HB3	31:BH:163:TYR:CE2	2.56	0.40
38:BS:18:ILE:O	38:BS:21:THR:HG23	2.21	0.40
43:BX:72:LYS:HE2	43:BX:73:ARG:O	2.20	0.40
1:CA:15:G:C5	1:CA:1396:A:C2	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.39	0.40
1:CA:283:C:H2'	1:CA:284:G:O4'	2.22	0.40
1:CA:309:G:H1'	1:CA:608:A:C2	2.56	0.40
1:CA:579:G:H2'	1:CA:580:U:C6	2.56	0.40
1:CA:683:G:H2'	1:CA:684:A:O4'	2.21	0.40
1:CA:908:A:H8	1:CA:908:A:O5'	2.05	0.40
1:CA:983:A:H1'	1:CA:1049:U:O2	2.21	0.40
1:CA:1237:C:H5"	1:CA:1238:A:O4'	2.22	0.40
1:CA:1298:C:H2'	7:CG:114:ARG:HH12	1.86	0.40
1:CA:1319:A:N6	1:CA:1361:G:H21	2.17	0.40
1:CA:1324:A:O4'	1:CA:1362:C:H4'	2.21	0.40
1:CA:1492:A:C4'	1:CA:1493:A:OP1	2.67	0.40
2:CB:20:GLU:HB2	2:CB:190:THR:OG1	2.20	0.40
4:CD:9:CYS:O	4:CD:13:ARG:HG3	2.20	0.40
8:CH:132:GLU:O	8:CH:134:ILE:HG12	2.21	0.40
9:CI:100:GLY:C	9:CI:102:LEU:H	2.29	0.40
13:CM:82:MET:HA	13:CM:89:GLY:HA3	2.03	0.40
14:CN:60:SER:O	14:CN:61:TRP:HB3	2.20	0.40
16:CP:53:VAL:O	16:CP:56:ALA:N	2.55	0.40
18:CR:24:ALA:C	18:CR:26:LEU:H	2.28	0.40
23:CV:18:G:C2	23:CV:58:A:C4	3.10	0.40
25:DA:196:A:N3	25:DA:196:A:H2'	2.37	0.40
25:DA:307:G:H22	25:DA:310:A:P	2.44	0.40
25:DA:346:A:H2'	25:DA:346:A:N3	2.36	0.40
25:DA:817:C:H2'	25:DA:818:G:O4'	2.20	0.40
25:DA:1002:G:H2'	25:DA:1003:G:O4'	2.21	0.40
25:DA:1131:G:H4'	33:DN:82:LEU:HB2	2.03	0.40
25:DA:1153:C:OP1	40:DU:92:ARG:NH1	2.55	0.40
25:DA:1416:G:O2'	25:DA:1417:C:C5	2.74	0.40
25:DA:1418:G:H8	25:DA:1418:G:O5'	2.05	0.40
25:DA:1511:C:H2'	25:DA:1512:U:H6	1.85	0.40
25:DA:2296:U:H4'	25:DA:2297:C:OP1	2.20	0.40
25:DA:2448:A:N6	58:DA:3963:HOH:O	2.54	0.40
25:DA:2731:G:C6	25:DA:2732:G:O6	2.74	0.40
26:DB:6:C:H2'	26:DB:7:G:O4'	2.21	0.40
27:DD:25:THR:OG1	27:DD:81:ALA:HB1	2.21	0.40
30:DG:103:LEU:HA	30:DG:103:LEU:HD23	1.82	0.40
33:DN:19:GLU:CG	33:DN:20:GLY:H	2.34	0.40
41:DV:1:MET:HE2	41:DV:43:GLU:HG3	2.02	0.40
45:DZ:29:TYR:CE2	45:DZ:87:ASP:HB3	2.57	0.40
53:D7:36:GLN:O	53:D7:36:GLN:HG2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:D8:54:GLU:HA	54:D8:57:ARG:HD2	2.03	0.40
1:AA:445:G:H2'	1:AA:446:G:C8	2.57	0.40
1:AA:552:U:H4'	12:AL:86:ARG:HG2	2.02	0.40
1:AA:660:G:O2'	1:AA:661:G:OP1	2.38	0.40
1:AA:684:A:N6	1:AA:685:G:C6	2.89	0.40
1:AA:1298:C:O4'	1:AA:1299:A:C5	2.74	0.40
9:AI:16:ARG:HB2	9:AI:64:THR:CG2	2.51	0.40
11:AK:12:ARG:CG	11:AK:75:TYR:HA	2.51	0.40
13:AM:69:GLU:C	13:AM:71:ARG:N	2.79	0.40
15:AO:39:LEU:CD1	15:AO:56:LEU:HB2	2.51	0.40
15:AO:59:MET:O	15:AO:62:GLN:HB3	2.21	0.40
16:AP:22:THR:HG23	16:AP:23:ASP:N	2.37	0.40
18:AR:76:LEU:HA	18:AR:76:LEU:HD13	1.75	0.40
20:AT:8:ARG:HH11	20:AT:8:ARG:HD3	1.76	0.40
23:AV:17:C:H5	23:AV:17(B):U:C5	2.39	0.40
23:AV:74:C:O2	25:BA:2252:G:N2	2.45	0.40
25:BA:7:G:H2'	25:BA:8:A:O4'	2.20	0.40
25:BA:272:G:H1	25:BA:404:C:H42	1.68	0.40
25:BA:662:G:H5'	35:BP:14:LYS:O	2.22	0.40
25:BA:2755:C:C5	55:B9:19:ARG:NH1	2.88	0.40
27:BD:168:ARG:HG2	27:BD:173:VAL:HG12	2.04	0.40
29:BF:155:LEU:HD11	29:BF:176:LEU:HD22	2.03	0.40
32:BI:79:ILE:HG22	32:BI:81:VAL:HG13	2.04	0.40
35:BP:96:THR:O	35:BP:100:LEU:HG	2.21	0.40
43:BX:9:LEU:HA	43:BX:9:LEU:HD23	1.76	0.40
43:BX:57:LEU:HD12	43:BX:57:LEU:C	2.46	0.40
45:BZ:48:PHE:O	45:BZ:52:SER:N	2.48	0.40
46:B0:55:ARG:HH11	46:B0:55:ARG:CB	2.29	0.40
48:B2:1:MET:HB3	48:B2:5:GLU:HB2	2.02	0.40
1:CA:736:C:C2	1:CA:737:A:N7	2.90	0.40
1:CA:1178:G:N2	1:CA:1180:A:H3'	2.36	0.40
1:CA:1342:C:H2'	1:CA:1343:G:C8	2.56	0.40
2:CB:118:LEU:HB3	2:CB:142:LEU:HG	2.03	0.40
2:CB:162:ILE:C	2:CB:185:ILE:HG12	2.47	0.40
3:CC:34:LEU:CD1	3:CC:38:ARG:HD2	2.51	0.40
4:CD:13:ARG:HD2	4:CD:38:TYR:O	2.21	0.40
4:CD:119:GLN:OE1	4:CD:123:HIS:CE1	2.74	0.40
9:CI:18:PHE:O	9:CI:62:TYR:N	2.37	0.40
13:CM:70:LEU:O	13:CM:70:LEU:HD22	2.21	0.40
19:CS:57:HIS:O	19:CS:59:PRO:HD3	2.21	0.40
25:DA:108:U:H2'	25:DA:109:G:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:387:U:P	58:DA:4631:HOH:O	2.79	0.40
25:DA:724:U:H2'	25:DA:725:G:O4'	2.22	0.40
25:DA:969:U:OP1	49:D3:17:LYS:HB3	2.21	0.40
25:DA:2291:U:H5"	25:DA:2380:C:O2'	2.20	0.40
25:DA:2518:A:N3	25:DA:2518:A:H2'	2.36	0.40
25:DA:2652:C:H42	25:DA:2668:G:H1	1.70	0.40
25:DA:2687:U:H2'	25:DA:2688:U:O4'	2.21	0.40
25:DA:2697:G:H2'	25:DA:2698:U:O4'	2.21	0.40
25:DA:2769:C:H2'	25:DA:2770:G:O4'	2.22	0.40
26:DB:95:C:H2'	26:DB:96:U:C6	2.56	0.40
27:DD:75:ILE:HG21	27:DD:99:ASP:HB2	2.03	0.40
27:DD:274:ARG:CA	27:DD:275:LYS:HB3	2.52	0.40
28:DE:49:LEU:HA	28:DE:49:LEU:HD12	1.72	0.40
30:DG:122:PRO:HG3	30:DG:180:PHE:HB3	2.04	0.40
37:DR:54:LEU:O	37:DR:57:ARG:HB2	2.22	0.40
39:DT:121:ILE:HG22	39:DT:122:ASP:N	2.36	0.40
40:DU:55:ARG:HE	40:DU:55:ARG:HB3	1.51	0.40
48:D2:17:SER:HB3	48:D2:20:GLU:CD	2.46	0.40
1:AA:59:A:H3'	1:AA:331:G:H22	1.86	0.40
1:AA:157:G:H2'	1:AA:157:G:N3	2.36	0.40
1:AA:595:G:H1'	1:AA:596:C:C5	2.56	0.40
1:AA:719:C:C5	1:AA:720:C:C4	3.09	0.40
1:AA:926:G:H5"	1:AA:927:G:O5'	2.20	0.40
1:AA:1223:C:C5'	1:AA:1224:G:H5"	2.51	0.40
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.21	0.40
3:AC:156:ARG:HB3	3:AC:193:TYR:HD1	1.87	0.40
3:AC:204:LEU:HD23	3:AC:204:LEU:HA	1.79	0.40
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.21	0.40
8:AH:25:ASP:OD2	8:AH:60:ARG:HG3	2.21	0.40
8:AH:75:ARG:HA	8:AH:76:PRO:HD2	1.74	0.40
9:AI:95:LYS:O	9:AI:99:LEU:HD13	2.21	0.40
11:AK:29:ILE:HG23	11:AK:44:SER:CB	2.51	0.40
12:AL:6:THR:C	12:AL:8:ASN:N	2.79	0.40
12:AL:30:ALA:HA	12:AL:31:PRO:HD3	1.90	0.40
13:AM:106:ASN:HB3	13:AM:107:ALA:H	1.61	0.40
19:AS:61:TYR:CE2	19:AS:63:THR:HG22	2.56	0.40
23:AV:49:G:C6	23:AV:50:U:C4	3.09	0.40
25:BA:44:G:H5"	25:BA:45:C:OP1	2.20	0.40
25:BA:296:C:H2'	25:BA:297:C:C6	2.56	0.40
25:BA:322:A:C6	25:BA:340:A:C2	3.10	0.40
25:BA:452:G:C2	25:BA:458:G:C5	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:619:G:H5”	25:BA:620:G:OP2	2.22	0.40
25:BA:800:A:H8	25:BA:800:A:OP1	2.04	0.40
25:BA:876:C:H2’	25:BA:877:U:O4’	2.21	0.40
25:BA:878:A:C2	25:BA:879:G:C5	3.09	0.40
25:BA:1402:C:H2’	25:BA:1403:C:H5’	2.03	0.40
25:BA:1494:A:C2	25:BA:1495:A:C4	3.09	0.40
25:BA:1632:A:C6	25:BA:1633:G:C6	3.10	0.40
25:BA:2238:G:H4’	25:BA:2239:G:OP1	2.21	0.40
25:BA:2356:C:H2’	25:BA:2357:U:O4’	2.21	0.40
25:BA:2552:U:C2	25:BA:2554:U:C5’	3.04	0.40
25:BA:2633:G:H2’	25:BA:2634:G:O4’	2.22	0.40
25:BA:2872:G:O2’	25:BA:2873:A:H5’	2.21	0.40
25:BA:2876:G:H4’	39:BT:2:ASN:ND2	2.36	0.40
26:BB:31:C:N4	38:BS:32:LEU:HD22	2.37	0.40
29:BF:141:ALA:O	29:BF:142:TRP:C	2.63	0.40
29:BF:199:TRP:HE1	29:BF:203:GLN:HE21	1.70	0.40
30:BG:60:LEU:HA	30:BG:60:LEU:HD13	1.87	0.40
31:BH:40:GLU:OE1	31:BH:60:ARG:NH1	2.55	0.40
31:BH:88:LEU:HD13	31:BH:88:LEU:HA	1.64	0.40
33:BN:75:TYR:HA	33:BN:81:GLY:O	2.22	0.40
38:BS:3:ARG:HE	38:BS:4:LEU:H	1.68	0.40
39:BT:36:GLU:HB3	39:BT:37:GLY:H	1.69	0.40
44:BY:51:VAL:HG22	44:BY:58:GLY:CA	2.48	0.40
47:B1:82:LEU:C	47:B1:85:LEU:HD23	2.46	0.40
52:B6:10:LEU:HD11	52:B6:54:ILE:HA	2.03	0.40
55:B9:25:VAL:O	55:B9:33:LYS:HA	2.21	0.40
1:CA:57:G:C5	1:CA:58:C:C4	3.10	0.40
1:CA:196:A:H5”	58:CA:1907:HOH:O	2.20	0.40
1:CA:307:C:C5	1:CA:308:C:C5	3.10	0.40
1:CA:393:A:C4	1:CA:394:G:C8	3.10	0.40
1:CA:409:G:C6	1:CA:410:G:C4	3.10	0.40
1:CA:431:A:H5”	1:CA:432:A:OP2	2.21	0.40
1:CA:960:U:O2	1:CA:960:U:H2’	2.22	0.40
1:CA:1332:A:O5’	1:CA:1332:A:C8	2.74	0.40
5:CE:121:LYS:HD3	5:CE:121:LYS:HA	1.97	0.40
5:CE:152:ARG:HB3	8:CH:43:GLY:HA3	2.03	0.40
6:CF:69:GLU:H	6:CF:69:GLU:CD	2.30	0.40
7:CG:71:PRO:HG3	7:CG:103:TRP:CZ3	2.56	0.40
8:CH:49:GLU:O	8:CH:51:VAL:HG13	2.21	0.40
25:DA:330:A:H2	25:DA:1210:A:H2’	1.86	0.40
25:DA:1319:G:O2’	25:DA:1320:C:H5’	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1658:C:H2'	25:DA:1659:U:C6	2.57	0.40
25:DA:1854:A:H2'	25:DA:1855:G:O4'	2.21	0.40
25:DA:1901:A:OP2	27:DD:255:LYS:NZ	2.51	0.40
25:DA:2065:C:H2'	25:DA:2066:C:C6	2.57	0.40
25:DA:2298:A:H3'	25:DA:2299:G:H8	1.85	0.40
25:DA:2881:C:C4	25:DA:2882:A:N7	2.90	0.40
26:DB:19:G:N2	26:DB:64:C:N3	2.63	0.40
27:DD:125:ILE:HG22	27:DD:125:ILE:O	2.21	0.40
27:DD:148:GLU:OE1	27:DD:151:LYS:NZ	2.53	0.40
32:DI:132:PRO:HD3	32:DI:138:ILE:HG13	2.04	0.40
33:DN:39:ARG:NH2	33:DN:41:ASP:OD2	2.54	0.40
39:DT:2:ASN:OD1	39:DT:2:ASN:C	2.64	0.40
42:DW:100:THR:HG22	42:DW:100:THR:O	2.22	0.40
44:DY:67:LEU:HD22	44:DY:67:LEU:HA	1.88	0.40
45:DZ:57:ILE:HD13	45:DZ:71:VAL:HG23	2.02	0.40
52:D6:3:SER:N	52:D6:6:ARG:HB3	2.31	0.40
1:AA:24:U:H2'	1:AA:25:C:C6	2.56	0.40
1:AA:147:G:C2	1:AA:148:G:C4	3.09	0.40
1:AA:152:A:N6	1:AA:170:U:H3	2.19	0.40
1:AA:189(J):G:H2'	1:AA:189(K):U:C6	2.56	0.40
1:AA:407:G:O2'	4:AD:116:GLN:HA	2.22	0.40
1:AA:445:G:C6	1:AA:446:G:C6	3.10	0.40
1:AA:604:G:H2'	1:AA:605:U:O4'	2.21	0.40
1:AA:679:C:H2'	1:AA:680:C:H6	1.86	0.40
1:AA:1015:A:H2'	1:AA:1016:A:O4'	2.21	0.40
1:AA:1308:U:H5"	13:AM:98:VAL:CG1	2.51	0.40
6:AF:25:ILE:HG12	6:AF:25:ILE:H	1.41	0.40
9:AI:43:ALA:CA	9:AI:45:ALA:HA	2.51	0.40
9:AI:73:GLN:O	9:AI:77:ILE:HG13	2.22	0.40
11:AK:80:VAL:HG11	11:AK:103:LEU:HD13	2.02	0.40
12:AL:76:ASN:ND2	12:AL:106:ASP:O	2.55	0.40
22:AY:60:SER:HB3	25:BA:1947:C:OP1	2.22	0.40
23:AV:49:G:N2	23:AV:66:C:C2	2.90	0.40
25:BA:623:G:H2'	25:BA:624:C:C6	2.56	0.40
25:BA:945:A:C4	25:BA:2448:A:C2	3.10	0.40
25:BA:954:G:C5	25:BA:955:C:C5	3.10	0.40
25:BA:1152:C:C2'	25:BA:1153:C:H5'	2.52	0.40
25:BA:1494:A:C6	25:BA:1495:A:C6	3.10	0.40
25:BA:1682:G:C6	25:BA:1683:C:C4	3.09	0.40
25:BA:1835:G:H5"	25:BA:1836:C:OP2	2.21	0.40
25:BA:2553:G:H5"	25:BA:2554:U:OP2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2575:C:O2'	25:BA:2578:G:N7	2.54	0.40
25:BA:2820:A:OP1	37:BR:2:ARG:NH2	2.54	0.40
29:BF:32:LEU:HB3	29:BF:112:MET:CE	2.49	0.40
29:BF:110:LEU:HD23	29:BF:110:LEU:HA	1.73	0.40
31:BH:87:LEU:HA	31:BH:87:LEU:HD23	1.81	0.40
37:BR:56:LYS:NZ	37:BR:87:TYR:O	2.44	0.40
39:BT:45:PHE:HE2	39:BT:63:VAL:CG1	2.35	0.40
44:BY:23:ARG:HB2	44:BY:23:ARG:NH1	2.34	0.40
46:B0:47:PRO:HB2	46:B0:51:VAL:O	2.22	0.40
52:B6:40:CYS:HA	52:B6:41:PRO:HD3	1.62	0.40
1:CA:51:A:C6	1:CA:353:A:C2	3.10	0.40
1:CA:373:A:N3	1:CA:374:A:C8	2.89	0.40
1:CA:425:G:C2'	1:CA:426:G:H5'	2.51	0.40
1:CA:435:C:H2'	1:CA:436:C:H5'	2.03	0.40
1:CA:450:G:H5'	16:CP:41:PRO:O	2.22	0.40
1:CA:624:C:H2'	1:CA:625:G:C8	2.57	0.40
1:CA:738:C:OP1	6:CF:2:ARG:NH1	2.53	0.40
1:CA:1118:C:OP1	9:CI:104:ARG:HG3	2.21	0.40
1:CA:1426:C:O2	1:CA:1475:G:C2	2.74	0.40
2:CB:21:ARG:HB2	2:CB:38:GLY:O	2.22	0.40
13:CM:92:HIS:CD2	13:CM:98:VAL:HG11	2.56	0.40
17:CQ:8:GLY:HA3	17:CQ:22:LEU:O	2.21	0.40
17:CQ:37:LYS:O	17:CQ:38:ARG:NH2	2.55	0.40
25:DA:68:G:H2'	25:DA:69:C:O4'	2.22	0.40
25:DA:271(P):C:C2'	25:DA:271(Q):G:H5'	2.52	0.40
25:DA:288:C:O2	25:DA:353:G:N2	2.29	0.40
25:DA:328:U:H4'	44:DY:68:HIS:NE2	2.36	0.40
25:DA:513:A:C2	25:DA:514:A:C5	3.09	0.40
25:DA:704:G:N3	25:DA:726:G:C2	2.90	0.40
25:DA:848:G:N9	25:DA:933:A:C8	2.88	0.40
25:DA:872:A:C5	25:DA:906:G:N2	2.90	0.40
25:DA:1328:G:H2'	25:DA:1330:C:C4	2.56	0.40
25:DA:1721:G:O6	25:DA:1739:U:H5"	2.21	0.40
25:DA:2091:U:O2'	47:D1:47:GLN:HG3	2.22	0.40
25:DA:2295:C:O2	25:DA:2338:G:C2	2.74	0.40
25:DA:2489:G:C6	25:DA:2490:G:N1	2.90	0.40
25:DA:2709:G:H2'	25:DA:2710:C:C6	2.57	0.40
26:DB:14:U:H1'	26:DB:108:U:O2'	2.21	0.40
27:DD:228:PRO:HD3	27:DD:235:GLY:CA	2.51	0.40
28:DE:60:ASN:OD1	28:DE:62:PRO:HD2	2.22	0.40
30:DG:15:VAL:HG13	30:DG:175:LEU:HB3	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:9:ILE:HD11	31:DH:69:ARG:HD2	2.03	0.40
32:DI:62:LYS:O	32:DI:66:GLU:HB2	2.20	0.40
32:DI:116:LEU:HD11	32:DI:120:ILE:HG13	2.02	0.40
34:DO:12:ASP:CG	34:DO:14:THR:HG23	2.45	0.40
37:DR:1:MET:HB3	37:DR:2:ARG:H	1.54	0.40
38:DS:26:LEU:HD12	38:DS:39:ILE:HD11	2.04	0.40
41:DV:20:LEU:HD12	41:DV:20:LEU:HA	1.84	0.40
45:DZ:30:ASN:HB2	45:DZ:89:PHE:CE2	2.56	0.40
47:D1:83:GLU:HA	47:D1:84:GLY:HA2	1.86	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)
6:AF:14:LEU:O	4:CD:20:TYR:OH[3_654]	2.11	0.09

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
2	AB	231/256 (90%)	179 (78%)	50 (22%)	2 (1%)	14 47
2	CB	233/256 (91%)	182 (78%)	45 (19%)	6 (3%)	4 26
3	AC	202/239 (84%)	165 (82%)	33 (16%)	4 (2%)	6 31
3	CC	204/239 (85%)	168 (82%)	36 (18%)	0	100 100
4	AD	206/209 (99%)	166 (81%)	35 (17%)	5 (2%)	4 28
4	CD	206/209 (99%)	178 (86%)	23 (11%)	5 (2%)	4 28
5	AE	146/162 (90%)	120 (82%)	26 (18%)	0	100 100
5	CE	147/162 (91%)	129 (88%)	13 (9%)	5 (3%)	3 20
6	AF	98/101 (97%)	95 (97%)	3 (3%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
6	CF	98/101 (97%)	89 (91%)	9 (9%)	0	100	100
7	AG	152/156 (97%)	134 (88%)	17 (11%)	1 (1%)	18	52
7	CG	152/156 (97%)	131 (86%)	20 (13%)	1 (1%)	18	52
8	AH	136/138 (99%)	122 (90%)	13 (10%)	1 (1%)	18	52
8	CH	136/138 (99%)	126 (93%)	10 (7%)	0	100	100
9	AI	123/128 (96%)	105 (85%)	15 (12%)	3 (2%)	4	28
9	CI	123/128 (96%)	106 (86%)	13 (11%)	4 (3%)	3	21
10	AJ	94/105 (90%)	81 (86%)	9 (10%)	4 (4%)	2	16
10	CJ	94/105 (90%)	74 (79%)	17 (18%)	3 (3%)	3	21
11	AK	113/129 (88%)	101 (89%)	11 (10%)	1 (1%)	14	47
11	CK	112/129 (87%)	98 (88%)	14 (12%)	0	100	100
12	AL	120/132 (91%)	108 (90%)	10 (8%)	2 (2%)	7	35
12	CL	120/132 (91%)	111 (92%)	7 (6%)	2 (2%)	7	35
13	AM	113/126 (90%)	89 (79%)	20 (18%)	4 (4%)	3	20
13	CM	110/126 (87%)	82 (74%)	21 (19%)	7 (6%)	1	8
14	AN	57/61 (93%)	44 (77%)	13 (23%)	0	100	100
14	CN	57/61 (93%)	48 (84%)	8 (14%)	1 (2%)	6	34
15	AO	86/89 (97%)	74 (86%)	12 (14%)	0	100	100
15	CO	86/89 (97%)	75 (87%)	11 (13%)	0	100	100
16	AP	79/88 (90%)	62 (78%)	14 (18%)	3 (4%)	2	18
16	CP	80/88 (91%)	66 (82%)	10 (12%)	4 (5%)	1	13
17	AQ	97/105 (92%)	83 (86%)	13 (13%)	1 (1%)	12	45
17	CQ	97/105 (92%)	83 (86%)	13 (13%)	1 (1%)	12	45
18	AR	66/88 (75%)	56 (85%)	10 (15%)	0	100	100
18	CR	66/88 (75%)	58 (88%)	8 (12%)	0	100	100
19	AS	79/93 (85%)	63 (80%)	15 (19%)	1 (1%)	9	40
19	CS	73/93 (78%)	60 (82%)	13 (18%)	0	100	100
20	AT	94/106 (89%)	73 (78%)	19 (20%)	2 (2%)	5	31
20	CT	102/106 (96%)	73 (72%)	26 (26%)	3 (3%)	3	24
21	AU	23/27 (85%)	21 (91%)	2 (9%)	0	100	100
21	CU	21/27 (78%)	19 (90%)	2 (10%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
22	AY	130/140 (93%)	107 (82%)	21 (16%)	2 (2%)	8 37
27	BD	273/276 (99%)	254 (93%)	19 (7%)	0	100 100
27	DD	273/276 (99%)	255 (93%)	16 (6%)	2 (1%)	18 52
28	BE	202/206 (98%)	189 (94%)	9 (4%)	4 (2%)	6 31
28	DE	202/206 (98%)	187 (93%)	12 (6%)	3 (2%)	8 37
29	BF	198/210 (94%)	183 (92%)	15 (8%)	0	100 100
29	DF	198/210 (94%)	175 (88%)	23 (12%)	0	100 100
30	BG	179/182 (98%)	158 (88%)	17 (10%)	4 (2%)	5 29
30	DG	178/182 (98%)	150 (84%)	28 (16%)	0	100 100
31	BH	172/180 (96%)	160 (93%)	12 (7%)	0	100 100
31	DH	172/180 (96%)	153 (89%)	17 (10%)	2 (1%)	10 42
32	BI	145/148 (98%)	116 (80%)	25 (17%)	4 (3%)	4 25
32	DI	144/148 (97%)	119 (83%)	23 (16%)	2 (1%)	9 39
33	BN	138/140 (99%)	124 (90%)	11 (8%)	3 (2%)	5 29
33	DN	138/140 (99%)	117 (85%)	19 (14%)	2 (1%)	9 39
34	BO	120/122 (98%)	113 (94%)	6 (5%)	1 (1%)	16 50
34	DO	120/122 (98%)	112 (93%)	8 (7%)	0	100 100
35	BP	147/150 (98%)	128 (87%)	17 (12%)	2 (1%)	9 39
35	DP	147/150 (98%)	130 (88%)	15 (10%)	2 (1%)	9 39
36	BQ	139/141 (99%)	127 (91%)	10 (7%)	2 (1%)	9 39
36	DQ	139/141 (99%)	121 (87%)	18 (13%)	0	100 100
37	BR	116/118 (98%)	107 (92%)	9 (8%)	0	100 100
37	DR	116/118 (98%)	102 (88%)	14 (12%)	0	100 100
38	BS	108/112 (96%)	93 (86%)	12 (11%)	3 (3%)	4 25
38	DS	108/112 (96%)	88 (82%)	18 (17%)	2 (2%)	6 33
39	BT	130/146 (89%)	124 (95%)	6 (5%)	0	100 100
39	DT	128/146 (88%)	119 (93%)	9 (7%)	0	100 100
40	BU	114/118 (97%)	111 (97%)	3 (3%)	0	100 100
40	DU	114/118 (97%)	107 (94%)	7 (6%)	0	100 100
41	BV	98/101 (97%)	93 (95%)	5 (5%)	0	100 100
41	DV	98/101 (97%)	89 (91%)	9 (9%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
42	BW	110/113 (97%)	104 (94%)	6 (6%)	0	100	100
42	DW	109/113 (96%)	97 (89%)	12 (11%)	0	100	100
43	BX	93/96 (97%)	87 (94%)	6 (6%)	0	100	100
43	DX	93/96 (97%)	84 (90%)	9 (10%)	0	100	100
44	BY	105/110 (96%)	94 (90%)	10 (10%)	1 (1%)	12	45
44	DY	105/110 (96%)	96 (91%)	8 (8%)	1 (1%)	12	45
45	BZ	184/206 (89%)	161 (88%)	21 (11%)	2 (1%)	11	43
45	DZ	187/206 (91%)	163 (87%)	21 (11%)	3 (2%)	7	36
46	B0	74/85 (87%)	69 (93%)	5 (7%)	0	100	100
46	D0	75/85 (88%)	67 (89%)	8 (11%)	0	100	100
47	B1	95/98 (97%)	90 (95%)	4 (4%)	1 (1%)	11	43
47	D1	95/98 (97%)	91 (96%)	4 (4%)	0	100	100
48	B2	68/72 (94%)	62 (91%)	5 (7%)	1 (2%)	8	37
48	D2	69/72 (96%)	60 (87%)	9 (13%)	0	100	100
49	B3	57/60 (95%)	54 (95%)	2 (4%)	1 (2%)	6	34
49	D3	56/60 (93%)	52 (93%)	4 (7%)	0	100	100
50	B4	44/71 (62%)	36 (82%)	8 (18%)	0	100	100
50	D4	44/71 (62%)	34 (77%)	9 (20%)	1 (2%)	5	29
51	B5	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
51	D5	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
52	B6	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
52	D6	51/54 (94%)	45 (88%)	6 (12%)	0	100	100
53	B7	46/49 (94%)	43 (94%)	1 (2%)	2 (4%)	2	16
53	D7	46/49 (94%)	41 (89%)	4 (9%)	1 (2%)	5	29
54	B8	62/65 (95%)	58 (94%)	4 (6%)	0	100	100
54	D8	62/65 (95%)	57 (92%)	5 (8%)	0	100	100
55	B9	34/37 (92%)	33 (97%)	1 (3%)	0	100	100
55	D9	33/37 (89%)	32 (97%)	1 (3%)	0	100	100
All	All	11478/12268 (94%)	10072 (88%)	1276 (11%)	130 (1%)	11	43

All (130) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	77	ALA
3	AC	99	VAL
3	AC	100	ALA
3	AC	157	ILE
4	AD	110	PHE
9	AI	118	LYS
10	AJ	56	HIS
16	AP	53	VAL
17	AQ	49	GLU
22	AY	69	VAL
32	BI	107	VAL
2	CB	15	VAL
5	CE	73	ASN
9	CI	54	ASP
13	CM	7	VAL
13	CM	45	VAL
16	CP	44	THR
17	CQ	14	LYS
20	CT	46	GLU
4	AD	153	ARG
7	AG	147	ALA
9	AI	23	ASN
10	AJ	94	VAL
11	AK	13	GLN
13	AM	50	GLU
20	AT	10	LEU
20	AT	71	THR
2	CB	23	ARG
5	CE	8	GLU
9	CI	119	ALA
13	CM	10	PRO
16	CP	16	HIS
20	CT	96	GLY
2	AB	10	LEU
9	AI	103	THR
13	AM	49	THR
13	AM	84	ILE
16	AP	49	LEU
30	BG	14	GLU
30	BG	47	LYS
32	BI	75	LEU
32	BI	105	HIS
33	BN	19	GLU

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Mol	Chain	Res	Type
38	BS	101	LEU
45	BZ	165	VAL
47	B1	83	GLU
2	CB	22	LYS
4	CD	7	PRO
4	CD	177	ASP
5	CE	9	LYS
9	CI	21	PRO
12	CL	26	ALA
16	CP	15	PRO
16	CP	53	VAL
20	CT	95	ALA
33	DN	47	ALA
3	AC	111	LEU
4	AD	15	GLU
12	AL	12	ARG
12	AL	26	ALA
30	BG	82	LEU
33	BN	5	VAL
35	BP	36	LYS
36	BQ	135	ASP
48	B2	52	ASP
53	B7	46	VAL
4	CD	176	LEU
5	CE	98	THR
5	CE	146	ALA
9	CI	88	TYR
13	CM	66	LEU
31	DH	71	LEU
38	DS	62	LYS
4	AD	166	LYS
28	BE	118	LYS
30	BG	115	ARG
33	BN	4	TYR
38	BS	102	ALA
53	B7	45	ALA
10	CJ	89	ASP
10	CJ	90	LEU
13	CM	51	ALA
32	DI	10	GLU
44	DY	2	ARG
16	AP	79	VAL

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Mol	Chain	Res	Type
19	AS	5	LEU
35	BP	141	ALA
44	BY	2	ARG
2	CB	177	ALA
4	CD	5	ILE
7	CG	55	GLY
13	CM	63	THR
14	CN	14	PRO
27	DD	3	VAL
27	DD	275	LYS
31	DH	92	ILE
32	DI	107	VAL
33	DN	129	PRO
35	DP	53	GLY
38	DS	63	THR
53	D7	46	VAL
28	BE	52	LEU
32	BI	133	HIS
10	CJ	34	VAL
28	DE	52	LEU
45	DZ	128	VAL
4	AD	44	GLY
8	AH	57	PRO
38	BS	85	VAL
45	BZ	161	VAL
2	CB	239	VAL
45	DZ	161	VAL
22	AY	70	ILE
28	BE	72	VAL
28	BE	73	GLU
34	BO	48	PRO
2	CB	131	PRO
12	CL	25	PRO
50	D4	33	VAL
10	AJ	34	VAL
13	AM	7	VAL
36	BQ	27	VAL
49	B3	59	VAL
13	CM	40	ASN
28	DE	72	VAL
45	DZ	47	VAL
4	CD	197	PRO

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Mol	Chain	Res	Type
10	AJ	91	PRO
28	DE	30	PRO
35	DP	72	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	AB	180/220 (82%)	122 (68%)	58 (32%)	0 1
2	CB	181/220 (82%)	132 (73%)	49 (27%)	0 2
3	AC	112/188 (60%)	87 (78%)	25 (22%)	1 5
3	CC	114/188 (61%)	92 (81%)	22 (19%)	1 8
4	AD	139/181 (77%)	108 (78%)	31 (22%)	1 5
4	CD	142/181 (78%)	107 (75%)	35 (25%)	1 3
5	AE	108/123 (88%)	70 (65%)	38 (35%)	0 0
5	CE	109/123 (89%)	80 (73%)	29 (27%)	0 3
6	AF	77/90 (86%)	62 (80%)	15 (20%)	1 8
6	CF	76/90 (84%)	60 (79%)	16 (21%)	1 6
7	AG	103/127 (81%)	79 (77%)	24 (23%)	1 5
7	CG	102/127 (80%)	72 (71%)	30 (29%)	0 1
8	AH	103/119 (87%)	84 (82%)	19 (18%)	1 9
8	CH	104/119 (87%)	81 (78%)	23 (22%)	1 5
9	AI	64/99 (65%)	54 (84%)	10 (16%)	2 13
9	CI	62/99 (63%)	52 (84%)	10 (16%)	2 13
10	AJ	52/92 (56%)	38 (73%)	14 (27%)	0 2
10	CJ	52/92 (56%)	36 (69%)	16 (31%)	0 1
11	AK	83/99 (84%)	58 (70%)	25 (30%)	0 1
11	CK	81/99 (82%)	59 (73%)	22 (27%)	0 2
12	AL	92/109 (84%)	70 (76%)	22 (24%)	1 4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
12	CL	91/109 (84%)	69 (76%)	22 (24%)	1 4
13	AM	66/101 (65%)	43 (65%)	23 (35%)	0 0
13	CM	62/101 (61%)	43 (69%)	19 (31%)	0 1
14	AN	46/50 (92%)	39 (85%)	7 (15%)	3 14
14	CN	45/50 (90%)	31 (69%)	14 (31%)	0 1
15	AO	77/80 (96%)	61 (79%)	16 (21%)	1 7
15	CO	77/80 (96%)	63 (82%)	14 (18%)	2 9
16	AP	63/74 (85%)	41 (65%)	22 (35%)	0 0
16	CP	65/74 (88%)	45 (69%)	20 (31%)	0 1
17	AQ	94/97 (97%)	73 (78%)	21 (22%)	1 5
17	CQ	93/97 (96%)	73 (78%)	20 (22%)	1 6
18	AR	49/77 (64%)	40 (82%)	9 (18%)	1 9
18	CR	49/77 (64%)	35 (71%)	14 (29%)	0 2
19	AS	43/80 (54%)	35 (81%)	8 (19%)	1 9
19	CS	42/80 (52%)	28 (67%)	14 (33%)	0 1
20	AT	66/82 (80%)	48 (73%)	18 (27%)	0 2
20	CT	72/82 (88%)	53 (74%)	19 (26%)	0 3
21	AU	20/22 (91%)	13 (65%)	7 (35%)	0 0
21	CU	14/22 (64%)	12 (86%)	2 (14%)	3 16
22	AY	108/115 (94%)	75 (69%)	33 (31%)	0 1
27	BD	214/218 (98%)	163 (76%)	51 (24%)	1 4
27	DD	215/218 (99%)	156 (73%)	59 (27%)	0 2
28	BE	163/166 (98%)	119 (73%)	44 (27%)	0 2
28	DE	163/166 (98%)	117 (72%)	46 (28%)	0 2
29	BF	158/166 (95%)	115 (73%)	43 (27%)	0 2
29	DF	159/166 (96%)	124 (78%)	35 (22%)	1 6
30	BG	128/156 (82%)	97 (76%)	31 (24%)	1 4
30	DG	127/156 (81%)	92 (72%)	35 (28%)	0 2
31	BH	141/148 (95%)	105 (74%)	36 (26%)	0 3
31	DH	141/148 (95%)	109 (77%)	32 (23%)	1 5
32	BI	105/124 (85%)	67 (64%)	38 (36%)	0 0

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
32	DI	104/124 (84%)	76 (73%)	28 (27%)	0 2
33	BN	117/119 (98%)	90 (77%)	27 (23%)	1 5
33	DN	117/119 (98%)	85 (73%)	32 (27%)	0 2
34	BO	98/100 (98%)	73 (74%)	25 (26%)	0 3
34	DO	98/100 (98%)	67 (68%)	31 (32%)	0 1
35	BP	114/116 (98%)	84 (74%)	30 (26%)	0 3
35	DP	114/116 (98%)	87 (76%)	27 (24%)	1 4
36	BQ	111/111 (100%)	87 (78%)	24 (22%)	1 6
36	DQ	111/111 (100%)	93 (84%)	18 (16%)	2 12
37	BR	101/101 (100%)	77 (76%)	24 (24%)	1 4
37	DR	101/101 (100%)	79 (78%)	22 (22%)	1 6
38	BS	84/88 (96%)	63 (75%)	21 (25%)	0 3
38	DS	86/88 (98%)	63 (73%)	23 (27%)	0 3
39	BT	111/127 (87%)	86 (78%)	25 (22%)	1 5
39	DT	110/127 (87%)	81 (74%)	29 (26%)	0 3
40	BU	93/94 (99%)	78 (84%)	15 (16%)	2 13
40	DU	93/94 (99%)	77 (83%)	16 (17%)	2 10
41	BV	80/82 (98%)	61 (76%)	19 (24%)	1 4
41	DV	81/82 (99%)	56 (69%)	25 (31%)	0 1
42	BW	91/92 (99%)	67 (74%)	24 (26%)	0 3
42	DW	89/92 (97%)	66 (74%)	23 (26%)	0 3
43	BX	75/78 (96%)	58 (77%)	17 (23%)	1 5
43	DX	73/78 (94%)	60 (82%)	13 (18%)	2 10
44	BY	80/91 (88%)	63 (79%)	17 (21%)	1 6
44	DY	79/91 (87%)	56 (71%)	23 (29%)	0 1
45	BZ	156/179 (87%)	121 (78%)	35 (22%)	1 5
45	DZ	152/179 (85%)	114 (75%)	38 (25%)	0 3
46	B0	59/67 (88%)	46 (78%)	13 (22%)	1 6
46	D0	61/67 (91%)	47 (77%)	14 (23%)	1 5
47	B1	78/83 (94%)	57 (73%)	21 (27%)	0 2
47	D1	78/83 (94%)	56 (72%)	22 (28%)	0 2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
48	B2	65/67 (97%)	46 (71%)	19 (29%)	0 1
48	D2	63/67 (94%)	45 (71%)	18 (29%)	0 2
49	B3	49/52 (94%)	39 (80%)	10 (20%)	1 7
49	D3	49/52 (94%)	37 (76%)	12 (24%)	1 3
50	B4	39/63 (62%)	25 (64%)	14 (36%)	0 0
50	D4	39/63 (62%)	25 (64%)	14 (36%)	0 0
51	B5	50/52 (96%)	41 (82%)	9 (18%)	2 9
51	D5	49/52 (94%)	37 (76%)	12 (24%)	1 3
52	B6	50/52 (96%)	37 (74%)	13 (26%)	0 3
52	D6	48/52 (92%)	39 (81%)	9 (19%)	1 9
53	B7	41/42 (98%)	28 (68%)	13 (32%)	0 1
53	D7	38/42 (90%)	30 (79%)	8 (21%)	1 6
54	B8	52/55 (94%)	43 (83%)	9 (17%)	2 10
54	D8	52/55 (94%)	43 (83%)	9 (17%)	2 10
55	B9	32/34 (94%)	25 (78%)	7 (22%)	1 5
55	D9	32/34 (94%)	24 (75%)	8 (25%)	0 3
All	All	8835/10181 (87%)	6625 (75%)	2210 (25%)	0 3

All (2210) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	16	HIS
2	AB	17	PHE
2	AB	21	ARG
2	AB	41	ILE
2	AB	42	ILE
2	AB	44	LEU
2	AB	45	GLN
2	AB	48	MET
2	AB	49	GLU
2	AB	51	LEU
2	AB	58	ILE
2	AB	60	ASP
2	AB	61	LEU
2	AB	69	LEU

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Mol	Chain	Res	Type
2	AB	71	VAL
2	AB	80	ILE
2	AB	86	GLU
2	AB	87	ARG
2	AB	90	MET
2	AB	93	VAL
2	AB	101	MET
2	AB	107	THR
2	AB	108	ILE
2	AB	118	LEU
2	AB	119	GLU
2	AB	121	LEU
2	AB	126	GLU
2	AB	133	LYS
2	AB	136	VAL
2	AB	137	ARG
2	AB	140	HIS
2	AB	145	LEU
2	AB	149	LEU
2	AB	155	LEU
2	AB	156	LYS
2	AB	160	ASP
2	AB	162	ILE
2	AB	164	VAL
2	AB	170	GLU
2	AB	172	ILE
2	AB	178	ARG
2	AB	185	ILE
2	AB	187	LEU
2	AB	192	SER
2	AB	195	ASP
2	AB	197	VAL
2	AB	200	ILE
2	AB	206	ASP
2	AB	208	ILE
2	AB	209	ARG
2	AB	210	SER
2	AB	215	LEU
2	AB	221	LEU
2	AB	230	VAL
2	AB	236	TYR
2	AB	238	LEU

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Mol	Chain	Res	Type
2	AB	239	VAL
3	AC	3	ASN
3	AC	8	ILE
3	AC	12	LEU
3	AC	30	ARG
3	AC	31	HIS
3	AC	32	LEU
3	AC	38	ARG
3	AC	43	LEU
3	AC	47	LEU
3	AC	52	LEU
3	AC	104	GLN
3	AC	118	GLN
3	AC	130	VAL
3	AC	134	ILE
3	AC	136	GLN
3	AC	141	VAL
3	AC	165	THR
3	AC	175	LEU
3	AC	178	LEU
3	AC	179	ARG
3	AC	184	TYR
3	AC	188	LEU
3	AC	192	THR
3	AC	193	TYR
3	AC	202	ILE
4	AD	8	VAL
4	AD	12	CYS
4	AD	13	ARG
4	AD	15	GLU
4	AD	26	CYS
4	AD	33	MET
4	AD	34	GLU
4	AD	36	ARG
4	AD	57	ARG
4	AD	58	LEU
4	AD	65	ARG
4	AD	83	SER
4	AD	89	THR
4	AD	94	LEU
4	AD	107	ARG
4	AD	110	PHE

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Mol	Chain	Res	Type
4	AD	122	ARG
4	AD	126	ILE
4	AD	127	THR
4	AD	128	VAL
4	AD	134	ASP
4	AD	135	LEU
4	AD	155	LEU
4	AD	158	ILE
4	AD	175	SER
4	AD	178	VAL
4	AD	188	LEU
4	AD	194	LEU
4	AD	200	GLU
4	AD	201	GLN
4	AD	202	LEU
5	AE	11	ILE
5	AE	12	LEU
5	AE	13	ILE
5	AE	16	THR
5	AE	18	ARG
5	AE	27	ARG
5	AE	38	GLN
5	AE	41	VAL
5	AE	47	LYS
5	AE	49	PRO
5	AE	51	VAL
5	AE	53	LEU
5	AE	55	VAL
5	AE	57	LYS
5	AE	60	TYR
5	AE	65	ASN
5	AE	66	MET
5	AE	67	VAL
5	AE	71	LEU
5	AE	73	ASN
5	AE	75	THR
5	AE	76	ILE
5	AE	79	GLU
5	AE	80	ILE
5	AE	81	GLU
5	AE	82	VAL
5	AE	83	GLU

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Mol	Chain	Res	Type
5	AE	87	SER
5	AE	89	ILE
5	AE	91	LEU
5	AE	100	VAL
5	AE	112	LEU
5	AE	117	ASP
5	AE	120	THR
5	AE	126	ARG
5	AE	135	THR
5	AE	147	ASP
5	AE	149	GLU
6	AF	1	MET
6	AF	10	LEU
6	AF	13	ASN
6	AF	14	LEU
6	AF	25	ILE
6	AF	36	ARG
6	AF	55	ASP
6	AF	57	GLN
6	AF	64	GLN
6	AF	65	VAL
6	AF	70	ASP
6	AF	74	ASP
6	AF	82	ARG
6	AF	89	MET
6	AF	98	LEU
7	AG	12	LEU
7	AG	15	ASP
7	AG	21	VAL
7	AG	27	ILE
7	AG	30	ILE
7	AG	32	ARG
7	AG	51	GLN
7	AG	59	LEU
7	AG	61	VAL
7	AG	73	MET
7	AG	74	GLU
7	AG	89	MET
7	AG	98	SER
7	AG	104	LEU
7	AG	113	GLU
7	AG	114	ARG

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Mol	Chain	Res	Type
7	AG	120	ILE
7	AG	125	MET
7	AG	138	LYS
7	AG	141	VAL
7	AG	142	GLU
7	AG	144	MET
7	AG	146	GLU
7	AG	155	ARG
8	AH	24	THR
8	AH	26	VAL
8	AH	35	ILE
8	AH	52	ASP
8	AH	60	ARG
8	AH	63	LEU
8	AH	68	ARG
8	AH	75	ARG
8	AH	78	GLN
8	AH	83	ILE
8	AH	84	ARG
8	AH	91	ARG
8	AH	99	GLU
8	AH	107	LEU
8	AH	109	ILE
8	AH	114	THR
8	AH	115	SER
8	AH	127	LEU
8	AH	138	TRP
9	AI	11	LYS
9	AI	17	VAL
9	AI	31	GLN
9	AI	65	VAL
9	AI	83	ARG
9	AI	107	ARG
9	AI	108	VAL
9	AI	109	VAL
9	AI	114	TYR
9	AI	124	GLN
10	AJ	16	LEU
10	AJ	19	SER
10	AJ	38	ILE
10	AJ	51	ARG
10	AJ	55	LYS

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Mol	Chain	Res	Type
10	AJ	62	HIS
10	AJ	65	LEU
10	AJ	66	ARG
10	AJ	67	THR
10	AJ	68	HIS
10	AJ	94	VAL
10	AJ	96	ILE
10	AJ	97	GLU
10	AJ	100	THR
11	AK	12	ARG
11	AK	13	GLN
11	AK	14	VAL
11	AK	18	ARG
11	AK	25	TYR
11	AK	29	ILE
11	AK	43	SER
11	AK	48	ILE
11	AK	51	LYS
11	AK	54	ARG
11	AK	55	LYS
11	AK	62	GLN
11	AK	63	LEU
11	AK	70	LYS
11	AK	75	TYR
11	AK	82	VAL
11	AK	84	VAL
11	AK	87	THR
11	AK	96	ARG
11	AK	104	GLN
11	AK	105	VAL
11	AK	107	SER
11	AK	108	ILE
11	AK	117	ASN
11	AK	120	ARG
12	AL	39	VAL
12	AL	43	VAL
12	AL	44	THR
12	AL	52	LEU
12	AL	53	ARG
12	AL	54	LYS
12	AL	55	VAL
12	AL	58	VAL

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Mol	Chain	Res	Type
12	AL	59	ARG
12	AL	60	LEU
12	AL	61	THR
12	AL	66	VAL
12	AL	67	THR
12	AL	81	SER
12	AL	82	VAL
12	AL	84	LEU
12	AL	85	ILE
12	AL	93	LEU
12	AL	97	ARG
12	AL	104	VAL
12	AL	114	LYS
12	AL	115	LYS
13	AM	3	ARG
13	AM	4	ILE
13	AM	20	THR
13	AM	47	ASP
13	AM	49	THR
13	AM	56	LEU
13	AM	60	VAL
13	AM	63	THR
13	AM	64	TRP
13	AM	66	LEU
13	AM	69	GLU
13	AM	70	LEU
13	AM	78	ILE
13	AM	96	LEU
13	AM	98	VAL
13	AM	99	ARG
13	AM	104	ARG
13	AM	108	ARG
13	AM	109	THR
13	AM	110	ARG
13	AM	114	ARG
13	AM	115	LYS
13	AM	116	THR
14	AN	7	ILE
14	AN	13	THR
14	AN	18	VAL
14	AN	23	ARG
14	AN	33	VAL

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Mol	Chain	Res	Type
14	AN	41	ARG
14	AN	44	LEU
15	AO	3	ILE
15	AO	4	THR
15	AO	7	GLU
15	AO	10	LYS
15	AO	13	GLN
15	AO	17	ARG
15	AO	26	GLU
15	AO	28	GLN
15	AO	39	LEU
15	AO	41	GLU
15	AO	47	LYS
15	AO	64	ARG
15	AO	65	ARG
15	AO	71	GLN
15	AO	73	GLU
15	AO	87	ILE
16	AP	1	MET
16	AP	8	ARG
16	AP	11	SER
16	AP	19	ILE
16	AP	20	VAL
16	AP	22	THR
16	AP	25	ARG
16	AP	27	LYS
16	AP	32	TYR
16	AP	33	ILE
16	AP	40	ASP
16	AP	45	THR
16	AP	49	LEU
16	AP	51	VAL
16	AP	53	VAL
16	AP	55	ARG
16	AP	60	LEU
16	AP	61	SER
16	AP	67	THR
16	AP	69	THR
16	AP	72	ARG
16	AP	76	GLN
17	AQ	6	LEU
17	AQ	9	VAL

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Mol	Chain	Res	Type
17	AQ	14	LYS
17	AQ	17	LYS
17	AQ	18	THR
17	AQ	21	VAL
17	AQ	24	GLU
17	AQ	26	GLN
17	AQ	35	VAL
17	AQ	43	LEU
17	AQ	48	GLU
17	AQ	57	VAL
17	AQ	60	ILE
17	AQ	68	ARG
17	AQ	74	LEU
17	AQ	77	VAL
17	AQ	79	SER
17	AQ	89	LEU
17	AQ	90	ILE
17	AQ	96	GLU
17	AQ	100	LYS
18	AR	31	LEU
18	AR	32	ARG
18	AR	35	ARG
18	AR	47	THR
18	AR	55	ARG
18	AR	58	LEU
18	AR	69	THR
18	AR	76	LEU
18	AR	85	LEU
19	AS	7	LYS
19	AS	31	ILE
19	AS	33	THR
19	AS	37	ARG
19	AS	44	MET
19	AS	62	ILE
19	AS	66	MET
19	AS	79	THR
20	AT	8	ARG
20	AT	10	LEU
20	AT	13	LEU
20	AT	19	SER
20	AT	20	LEU
20	AT	24	LEU

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Mol	Chain	Res	Type
20	AT	30	LYS
20	AT	31	SER
20	AT	34	LYS
20	AT	36	LEU
20	AT	39	LYS
20	AT	62	LEU
20	AT	70	SER
20	AT	73	HIS
20	AT	74	LYS
20	AT	75	ASN
20	AT	82	SER
20	AT	84	LEU
21	AU	9	ARG
21	AU	12	LYS
21	AU	13	ILE
21	AU	15	ARG
21	AU	17	THR
21	AU	24	ARG
21	AU	26	LYS
22	AY	3	VAL
22	AY	6	ARG
22	AY	10	ILE
22	AY	14	GLU
22	AY	18	THR
22	AY	21	ARG
22	AY	33	THR
22	AY	40	ARG
22	AY	43	ILE
22	AY	44	ARG
22	AY	48	LEU
22	AY	54	GLU
22	AY	65	SER
22	AY	71	VAL
22	AY	73	LYS
22	AY	80	GLN
22	AY	81	GLU
22	AY	88	LEU
22	AY	91	LEU
22	AY	94	MET
22	AY	97	GLU
22	AY	103	LYS
22	AY	108	THR

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Mol	Chain	Res	Type
22	AY	109	ARG
22	AY	112	ARG
22	AY	118	ARG
22	AY	119	LEU
22	AY	122	LYS
22	AY	124	GLN
22	AY	125	LYS
22	AY	128	VAL
22	AY	131	MET
22	AY	132	ARG
27	BD	3	VAL
27	BD	5	LYS
27	BD	12	SER
27	BD	13	ARG
27	BD	14	ARG
27	BD	18	VAL
27	BD	27	THR
27	BD	31	LYS
27	BD	34	VAL
27	BD	35	LYS
27	BD	39	LYS
27	BD	40	THR
27	BD	49	ILE
27	BD	52	ARG
27	BD	54	ARG
27	BD	61	LEU
27	BD	69	ARG
27	BD	71	ASP
27	BD	72	LYS
27	BD	94	LEU
27	BD	103	ARG
27	BD	105	ILE
27	BD	106	ILE
27	BD	112	GLN
27	BD	113	VAL
27	BD	117	VAL
27	BD	138	VAL
27	BD	141	VAL
27	BD	142	VAL
27	BD	147	LEU
27	BD	150	LYS
27	BD	155	LEU

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Mol	Chain	Res	Type
27	BD	164	GLN
27	BD	181	GLU
27	BD	182	LEU
27	BD	192	THR
27	BD	193	VAL
27	BD	200	ASP
27	BD	208	LYS
27	BD	211	ARG
27	BD	213	ARG
27	BD	217	ARG
27	BD	221	VAL
27	BD	229	VAL
27	BD	239	ARG
27	BD	257	LEU
27	BD	259	THR
27	BD	260	ARG
27	BD	261	LYS
27	BD	271	ILE
27	BD	274	ARG
28	BE	2	LYS
28	BE	5	LEU
28	BE	7	VAL
28	BE	9	VAL
28	BE	12	THR
28	BE	13	ARG
28	BE	16	ARG
28	BE	21	VAL
28	BE	24	THR
28	BE	27	LEU
28	BE	33	VAL
28	BE	34	VAL
28	BE	39	PRO
28	BE	41	LYS
28	BE	47	VAL
28	BE	49	LEU
28	BE	52	LEU
28	BE	61	ARG
28	BE	63	LEU
28	BE	72	VAL
28	BE	75	VAL
28	BE	76	ARG
28	BE	77	ILE

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Mol	Chain	Res	Type
28	BE	79	ARG
28	BE	82	ARG
28	BE	91	VAL
28	BE	93	VAL
28	BE	116	VAL
28	BE	117	MET
28	BE	119	ARG
28	BE	144	ARG
28	BE	150	VAL
28	BE	154	LYS
28	BE	163	GLU
28	BE	167	VAL
28	BE	168	MET
28	BE	170	LEU
28	BE	173	VAL
28	BE	175	VAL
28	BE	178	GLU
28	BE	181	LEU
28	BE	182	LEU
28	BE	200	GLU
28	BE	202	LYS
29	BF	12	LEU
29	BF	15	SER
29	BF	19	GLU
29	BF	24	LEU
29	BF	28	ILE
29	BF	32	LEU
29	BF	33	LEU
29	BF	38	ARG
29	BF	50	SER
29	BF	52	LYS
29	BF	57	VAL
29	BF	60	SER
29	BF	62	ARG
29	BF	64	ILE
29	BF	68	LYS
29	BF	74	ARG
29	BF	77	ASP
29	BF	82	ILE
29	BF	88	VAL
29	BF	93	LYS
29	BF	106	ARG

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Mol	Chain	Res	Type
29	BF	124	LEU
29	BF	135	LYS
29	BF	136	THR
29	BF	137	LYS
29	BF	140	LEU
29	BF	145	GLU
29	BF	152	GLU
29	BF	158	THR
29	BF	161	GLU
29	BF	162	LEU
29	BF	168	ARG
29	BF	170	LEU
29	BF	175	THR
29	BF	183	VAL
29	BF	189	THR
29	BF	190	GLU
29	BF	191	ARG
29	BF	194	MET
29	BF	196	LEU
29	BF	200	GLU
29	BF	201	VAL
29	BF	205	ARG
30	BG	5	VAL
30	BG	7	LEU
30	BG	9	ARG
30	BG	13	GLU
30	BG	14	GLU
30	BG	22	ARG
30	BG	28	VAL
30	BG	31	VAL
30	BG	32	PRO
30	BG	35	GLU
30	BG	39	ILE
30	BG	43	LEU
30	BG	60	LEU
30	BG	64	THR
30	BG	70	VAL
30	BG	72	ARG
30	BG	91	ARG
30	BG	103	LEU
30	BG	126	ASP
30	BG	128	ARG

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Mol	Chain	Res	Type
30	BG	135	LEU
30	BG	136	ARG
30	BG	139	LEU
30	BG	143	GLU
30	BG	148	MET
30	BG	149	VAL
30	BG	152	LEU
30	BG	160	VAL
30	BG	161	THR
30	BG	165	THR
30	BG	170	ARG
31	BH	3	ARG
31	BH	6	ARG
31	BH	10	PRO
31	BH	15	VAL
31	BH	24	VAL
31	BH	27	LYS
31	BH	39	PRO
31	BH	41	MET
31	BH	43	VAL
31	BH	44	VAL
31	BH	45	VAL
31	BH	46	GLU
31	BH	49	VAL
31	BH	50	VAL
31	BH	56	SER
31	BH	62	LYS
31	BH	69	ARG
31	BH	70	THR
31	BH	71	LEU
31	BH	72	ILE
31	BH	88	LEU
31	BH	98	LEU
31	BH	101	ARG
31	BH	107	VAL
31	BH	111	HIS
31	BH	113	VAL
31	BH	116	GLU
31	BH	119	GLU
31	BH	122	THR
31	BH	129	THR
31	BH	136	ILE

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Mol	Chain	Res	Type
31	BH	139	GLN
31	BH	149	ARG
31	BH	160	LYS
31	BH	169	VAL
31	BH	171	LEU
32	BI	1	MET
32	BI	9	LEU
32	BI	12	LEU
32	BI	15	VAL
32	BI	18	VAL
32	BI	21	VAL
32	BI	28	ASN
32	BI	31	LEU
32	BI	33	ARG
32	BI	35	LEU
32	BI	37	VAL
32	BI	40	THR
32	BI	41	GLU
32	BI	42	SER
32	BI	51	ILE
32	BI	54	GLN
32	BI	57	ARG
32	BI	72	LEU
32	BI	73	GLU
32	BI	75	LEU
32	BI	76	THR
32	BI	78	THR
32	BI	79	ILE
32	BI	85	GLU
32	BI	86	THR
32	BI	87	LYS
32	BI	92	VAL
32	BI	102	SER
32	BI	107	VAL
32	BI	108	THR
32	BI	114	LEU
32	BI	116	LEU
32	BI	120	ILE
32	BI	121	LYS
32	BI	123	LEU
32	BI	140	LEU
32	BI	145	VAL

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Mol	Chain	Res	Type
32	BI	147	GLN
33	BN	1	MET
33	BN	5	VAL
33	BN	9	VAL
33	BN	12	ARG
33	BN	28	THR
33	BN	33	LEU
33	BN	34	LEU
33	BN	35	ARG
33	BN	45	ASN
33	BN	48	MET
33	BN	60	ILE
33	BN	62	VAL
33	BN	65	LYS
33	BN	67	LEU
33	BN	70	LYS
33	BN	73	THR
33	BN	82	LEU
33	BN	85	ILE
33	BN	87	LEU
33	BN	89	LYS
33	BN	97	ARG
33	BN	99	LEU
33	BN	120	LEU
33	BN	121	LYS
33	BN	133	GLN
33	BN	137	LYS
33	BN	140	VAL
34	BO	10	VAL
34	BO	21	CYS
34	BO	22	ILE
34	BO	23	ARG
34	BO	24	VAL
34	BO	29	ASN
34	BO	42	SER
34	BO	45	GLU
34	BO	52	VAL
34	BO	53	LYS
34	BO	77	ILE
34	BO	86	ILE
34	BO	88	ASN
34	BO	91	LEU

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Mol	Chain	Res	Type
34	BO	92	GLU
34	BO	94	ARG
34	BO	96	THR
34	BO	98	VAL
34	BO	104	ARG
34	BO	106	LEU
34	BO	113	LYS
34	BO	114	ILE
34	BO	116	SER
34	BO	120	GLU
34	BO	121	VAL
35	BP	1	MET
35	BP	17	LYS
35	BP	21	ARG
35	BP	32	THR
35	BP	33	ARG
35	BP	42	SER
35	BP	46	LYS
35	BP	49	ARG
35	BP	52	GLU
35	BP	55	ARG
35	BP	56	SER
35	BP	57	THR
35	BP	58	THR
35	BP	59	LEU
35	BP	64	LYS
35	BP	65	ARG
35	BP	67	MET
35	BP	75	ILE
35	BP	83	VAL
35	BP	90	ARG
35	BP	94	GLU
35	BP	99	LEU
35	BP	106	LEU
35	BP	112	LEU
35	BP	117	GLU
35	BP	119	GLU
35	BP	125	VAL
35	BP	126	VAL
35	BP	148	LEU
35	BP	149	GLU
36	BQ	1	MET

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Mol	Chain	Res	Type
36	BQ	7	MET
36	BQ	8	LYS
36	BQ	11	LYS
36	BQ	21	THR
36	BQ	22	LYS
36	BQ	35	VAL
36	BQ	37	LEU
36	BQ	45	GLN
36	BQ	46	GLN
36	BQ	54	MET
36	BQ	55	VAL
36	BQ	66	ILE
36	BQ	75	THR
36	BQ	81	VAL
36	BQ	106	VAL
36	BQ	109	VAL
36	BQ	110	THR
36	BQ	111	GLU
36	BQ	112	GLU
36	BQ	115	MET
36	BQ	127	ILE
36	BQ	131	ILE
36	BQ	134	ARG
37	BR	1	MET
37	BR	2	ARG
37	BR	6	SER
37	BR	18	LEU
37	BR	28	LEU
37	BR	29	LEU
37	BR	36	THR
37	BR	44	LEU
37	BR	54	LEU
37	BR	59	ASP
37	BR	60	LEU
37	BR	63	ARG
37	BR	65	LEU
37	BR	67	LEU
37	BR	72	ASP
37	BR	75	LEU
37	BR	79	LEU
37	BR	86	ARG
37	BR	91	GLN

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Mol	Chain	Res	Type
37	BR	97	VAL
37	BR	99	LYS
37	BR	100	LEU
37	BR	111	LEU
37	BR	114	VAL
38	BS	3	ARG
38	BS	14	VAL
38	BS	20	ARG
38	BS	21	THR
38	BS	25	ARG
38	BS	32	LEU
38	BS	35	ILE
38	BS	36	TYR
38	BS	42	ASP
38	BS	46	VAL
38	BS	49	VAL
38	BS	50	SER
38	BS	69	VAL
38	BS	71	ARG
38	BS	73	LEU
38	BS	78	LEU
38	BS	88	ASP
38	BS	95	HIS
38	BS	98	VAL
38	BS	101	LEU
38	BS	110	LEU
39	BT	1	MET
39	BT	6	LEU
39	BT	7	ILE
39	BT	13	ARG
39	BT	17	THR
39	BT	28	VAL
39	BT	34	VAL
39	BT	35	LYS
39	BT	38	ASN
39	BT	39	ARG
39	BT	49	VAL
39	BT	51	ARG
39	BT	53	ARG
39	BT	59	THR
39	BT	64	ARG
39	BT	70	VAL

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Mol	Chain	Res	Type
39	BT	78	LEU
39	BT	85	LYS
39	BT	87	ASP
39	BT	89	VAL
39	BT	96	ARG
39	BT	113	LYS
39	BT	118	ARG
39	BT	119	LYS
39	BT	132	LYS
40	BU	8	VAL
40	BU	15	LYS
40	BU	27	LEU
40	BU	31	SER
40	BU	36	ARG
40	BU	38	THR
40	BU	55	ARG
40	BU	59	ARG
40	BU	60	LEU
40	BU	74	LEU
40	BU	83	LEU
40	BU	89	GLU
40	BU	95	LEU
40	BU	104	GLN
40	BU	108	GLU
41	BV	18	LEU
41	BV	20	LEU
41	BV	21	ARG
41	BV	32	THR
41	BV	35	LEU
41	BV	43	GLU
41	BV	46	VAL
41	BV	51	VAL
41	BV	52	VAL
41	BV	61	VAL
41	BV	62	LEU
41	BV	70	ILE
41	BV	72	VAL
41	BV	73	SER
41	BV	79	VAL
41	BV	82	ARG
41	BV	85	LYS
41	BV	95	LEU

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Mol	Chain	Res	Type
41	BV	100	ARG
42	BW	1	MET
42	BW	2	GLU
42	BW	6	ILE
42	BW	11	ARG
42	BW	19	LEU
42	BW	23	LEU
42	BW	24	ILE
42	BW	27	LYS
42	BW	29	LEU
42	BW	51	LEU
42	BW	60	ASN
42	BW	67	ASP
42	BW	71	VAL
42	BW	78	GLU
42	BW	83	LYS
42	BW	90	ARG
42	BW	92	ARG
42	BW	95	ILE
42	BW	97	LYS
42	BW	98	LYS
42	BW	100	THR
42	BW	101	SER
42	BW	103	ILE
42	BW	107	LEU
43	BX	33	LYS
43	BX	38	GLU
43	BX	45	THR
43	BX	48	LYS
43	BX	50	LYS
43	BX	60	ARG
43	BX	65	ARG
43	BX	66	LEU
43	BX	70	LEU
43	BX	72	LYS
43	BX	73	ARG
43	BX	76	ARG
43	BX	81	VAL
43	BX	83	VAL
43	BX	87	GLN
43	BX	89	ILE
43	BX	92	LEU

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Mol	Chain	Res	Type
44	BY	1	MET
44	BY	5	MET
44	BY	8	LYS
44	BY	9	LYS
44	BY	23	ARG
44	BY	29	GLU
44	BY	34	LYS
44	BY	43	ASN
44	BY	47	LYS
44	BY	55	TYR
44	BY	70	SER
44	BY	72	VAL
44	BY	73	ARG
44	BY	83	THR
44	BY	90	LEU
44	BY	91	GLU
44	BY	97	ARG
45	BZ	5	LEU
45	BZ	16	SER
45	BZ	18	LEU
45	BZ	19	ARG
45	BZ	31	ARG
45	BZ	32	HIS
45	BZ	37	VAL
45	BZ	41	LEU
45	BZ	42	VAL
45	BZ	46	LYS
45	BZ	56	VAL
45	BZ	57	ILE
45	BZ	58	VAL
45	BZ	67	LEU
45	BZ	72	ARG
45	BZ	74	VAL
45	BZ	76	LEU
45	BZ	82	ARG
45	BZ	86	VAL
45	BZ	91	LEU
45	BZ	111	VAL
45	BZ	116	VAL
45	BZ	126	VAL
45	BZ	129	SER
45	BZ	133	ILE

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Mol	Chain	Res	Type
45	BZ	138	GLU
45	BZ	141	VAL
45	BZ	142	SER
45	BZ	155	LEU
45	BZ	156	LYS
45	BZ	157	LEU
45	BZ	161	VAL
45	BZ	170	THR
45	BZ	171	ILE
45	BZ	181	GLU
46	B0	9	SER
46	B0	10	THR
46	B0	17	GLN
46	B0	20	ARG
46	B0	29	GLN
46	B0	32	ARG
46	B0	37	LEU
46	B0	38	VAL
46	B0	44	ARG
46	B0	46	LYS
46	B0	55	ARG
46	B0	62	LEU
46	B0	63	VAL
47	B1	4	VAL
47	B1	21	ARG
47	B1	26	ARG
47	B1	30	VAL
47	B1	32	LYS
47	B1	33	LYS
47	B1	40	ARG
47	B1	46	LEU
47	B1	50	ARG
47	B1	51	VAL
47	B1	53	VAL
47	B1	58	ILE
47	B1	59	THR
47	B1	62	VAL
47	B1	65	SER
47	B1	70	VAL
47	B1	80	LEU
47	B1	81	LYS
47	B1	83	GLU

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Mol	Chain	Res	Type
47	B1	86	SER
47	B1	95	LEU
48	B2	3	LEU
48	B2	16	LEU
48	B2	19	VAL
48	B2	24	LEU
48	B2	25	VAL
48	B2	28	LYS
48	B2	30	ARG
48	B2	32	LEU
48	B2	34	GLU
48	B2	41	ILE
48	B2	46	GLN
48	B2	47	ASN
48	B2	50	ILE
48	B2	51	ARG
48	B2	53	LEU
48	B2	62	THR
48	B2	64	LEU
48	B2	68	ARG
48	B2	70	GLN
49	B3	6	VAL
49	B3	8	LEU
49	B3	9	VAL
49	B3	23	LEU
49	B3	29	ARG
49	B3	36	VAL
49	B3	40	THR
49	B3	48	GLU
49	B3	53	LEU
49	B3	58	VAL
50	B4	1	MET
50	B4	5	ILE
50	B4	8	LYS
50	B4	10	VAL
50	B4	15	ILE
50	B4	21	VAL
50	B4	22	ILE
50	B4	25	TYR
50	B4	27	THR
50	B4	30	GLU
50	B4	34	GLU

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Mol	Chain	Res	Type
50	B4	37	SER
50	B4	39	CYS
50	B4	43	TYR
51	B5	6	VAL
51	B5	11	THR
51	B5	16	ARG
51	B5	29	THR
51	B5	37	LYS
51	B5	40	LYS
51	B5	55	ARG
51	B5	57	VAL
51	B5	58	LEU
52	B6	6	ARG
52	B6	9	LEU
52	B6	10	LEU
52	B6	13	CYS
52	B6	14	THR
52	B6	18	ARG
52	B6	23	THR
52	B6	24	GLU
52	B6	27	LYS
52	B6	33	LYS
52	B6	35	GLU
52	B6	44	ARG
52	B6	48	VAL
53	B7	1	MET
53	B7	4	THR
53	B7	8	ASN
53	B7	9	ARG
53	B7	14	LYS
53	B7	24	THR
53	B7	29	LYS
53	B7	32	LYS
53	B7	41	ARG
53	B7	42	LEU
53	B7	43	THR
53	B7	44	PRO
53	B7	47	ARG
54	B8	14	VAL
54	B8	15	LYS
54	B8	26	LYS
54	B8	34	TRP

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Mol	Chain	Res	Type
54	B8	35	GLN
54	B8	41	ILE
54	B8	49	VAL
54	B8	58	ILE
54	B8	64	TYR
55	B9	2	LYS
55	B9	3	VAL
55	B9	6	SER
55	B9	9	ARG
55	B9	18	ARG
55	B9	26	ILE
55	B9	36	GLN
2	CB	15	VAL
2	CB	17	PHE
2	CB	21	ARG
2	CB	30	ARG
2	CB	45	GLN
2	CB	48	MET
2	CB	50	GLU
2	CB	58	ILE
2	CB	59	GLU
2	CB	61	LEU
2	CB	63	MET
2	CB	67	THR
2	CB	68	ILE
2	CB	69	LEU
2	CB	71	VAL
2	CB	73	THR
2	CB	80	ILE
2	CB	87	ARG
2	CB	90	MET
2	CB	93	VAL
2	CB	101	MET
2	CB	107	THR
2	CB	108	ILE
2	CB	116	GLU
2	CB	119	GLU
2	CB	122	PHE
2	CB	126	GLU
2	CB	127	ILE
2	CB	138	LEU
2	CB	142	LEU

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Mol	Chain	Res	Type
2	CB	153	ARG
2	CB	154	LEU
2	CB	158	LEU
2	CB	164	VAL
2	CB	172	ILE
2	CB	174	VAL
2	CB	175	ARG
2	CB	185	ILE
2	CB	187	LEU
2	CB	191	ASP
2	CB	193	ASP
2	CB	198	ASP
2	CB	200	ILE
2	CB	205	ASP
2	CB	221	LEU
2	CB	222	ILE
2	CB	229	VAL
2	CB	230	VAL
2	CB	231	GLU
3	CC	4	LYS
3	CC	5	ILE
3	CC	18	TRP
3	CC	30	ARG
3	CC	46	GLU
3	CC	47	LEU
3	CC	52	LEU
3	CC	57	ILE
3	CC	67	THR
3	CC	118	GLN
3	CC	130	VAL
3	CC	131	ARG
3	CC	132	ARG
3	CC	140	ARG
3	CC	152	ILE
3	CC	153	VAL
3	CC	154	SER
3	CC	164	ARG
3	CC	167	TRP
3	CC	178	LEU
3	CC	193	TYR
3	CC	207	VAL
4	CD	5	ILE

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Mol	Chain	Res	Type
4	CD	8	VAL
4	CD	10	ARG
4	CD	12	CYS
4	CD	15	GLU
4	CD	19	LEU
4	CD	26	CYS
4	CD	28	SER
4	CD	46	LYS
4	CD	58	LEU
4	CD	59	ARG
4	CD	65	ARG
4	CD	67	ILE
4	CD	73	ARG
4	CD	76	ARG
4	CD	77	ASN
4	CD	97	LEU
4	CD	101	LEU
4	CD	105	VAL
4	CD	106	TYR
4	CD	107	ARG
4	CD	119	GLN
4	CD	126	ILE
4	CD	127	THR
4	CD	135	LEU
4	CD	137	SER
4	CD	152	SER
4	CD	153	ARG
4	CD	156	GLU
4	CD	158	ILE
4	CD	162	LEU
4	CD	177	ASP
4	CD	188	LEU
4	CD	200	GLU
4	CD	201	GLN
5	CE	11	ILE
5	CE	13	ILE
5	CE	31	LEU
5	CE	37	ARG
5	CE	38	GLN
5	CE	41	VAL
5	CE	47	LYS
5	CE	51	VAL

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Mol	Chain	Res	Type
5	CE	55	VAL
5	CE	57	LYS
5	CE	67	VAL
5	CE	71	LEU
5	CE	76	ILE
5	CE	80	ILE
5	CE	81	GLU
5	CE	87	SER
5	CE	89	ILE
5	CE	90	VAL
5	CE	91	LEU
5	CE	98	THR
5	CE	101	ILE
5	CE	107	ARG
5	CE	112	LEU
5	CE	116	THR
5	CE	120	THR
5	CE	121	LYS
5	CE	126	ARG
5	CE	141	GLN
5	CE	153	LYS
6	CF	15	ASP
6	CF	19	LEU
6	CF	22	GLU
6	CF	25	ILE
6	CF	30	LEU
6	CF	36	ARG
6	CF	41	GLU
6	CF	42	GLU
6	CF	61	LEU
6	CF	63	TYR
6	CF	64	GLN
6	CF	65	VAL
6	CF	70	ASP
6	CF	75	LEU
6	CF	82	ARG
6	CF	91	VAL
7	CG	9	VAL
7	CG	12	LEU
7	CG	21	VAL
7	CG	27	ILE
7	CG	31	MET

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Mol	Chain	Res	Type
7	CG	36	LYS
7	CG	38	LEU
7	CG	51	GLN
7	CG	52	GLU
7	CG	56	GLN
7	CG	57	GLU
7	CG	69	VAL
7	CG	72	ARG
7	CG	75	VAL
7	CG	80	VAL
7	CG	85	TYR
7	CG	90	GLU
7	CG	96	GLN
7	CG	98	SER
7	CG	101	LEU
7	CG	104	LEU
7	CG	106	GLN
7	CG	111	ARG
7	CG	113	GLU
7	CG	118	VAL
7	CG	124	LEU
7	CG	141	VAL
7	CG	142	GLU
7	CG	146	GLU
7	CG	155	ARG
8	CH	3	THR
8	CH	9	MET
8	CH	13	ILE
8	CH	21	LYS
8	CH	35	ILE
8	CH	37	ARG
8	CH	38	ILE
8	CH	53	VAL
8	CH	82	HIS
8	CH	83	ILE
8	CH	84	ARG
8	CH	85	ARG
8	CH	91	ARG
8	CH	99	GLU
8	CH	112	LEU
8	CH	119	LEU
8	CH	123	GLU

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Mol	Chain	Res	Type
8	CH	127	LEU
8	CH	129	VAL
8	CH	133	LEU
8	CH	134	ILE
8	CH	137	VAL
8	CH	138	TRP
9	CI	11	LYS
9	CI	74	ILE
9	CI	75	ASP
9	CI	86	VAL
9	CI	99	LEU
9	CI	107	ARG
9	CI	108	VAL
9	CI	109	VAL
9	CI	114	TYR
9	CI	124	GLN
10	CJ	8	LEU
10	CJ	13	HIS
10	CJ	16	LEU
10	CJ	19	SER
10	CJ	33	GLN
10	CJ	47	PHE
10	CJ	48	THR
10	CJ	49	VAL
10	CJ	55	LYS
10	CJ	59	SER
10	CJ	61	GLU
10	CJ	62	HIS
10	CJ	68	HIS
10	CJ	95	GLU
10	CJ	96	ILE
10	CJ	100	THR
11	CK	18	ARG
11	CK	24	SER
11	CK	30	VAL
11	CK	31	THR
11	CK	33	THR
11	CK	38	ASN
11	CK	48	ILE
11	CK	55	LYS
11	CK	57	THR
11	CK	63	LEU

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Mol	Chain	Res	Type
11	CK	67	ASP
11	CK	70	LYS
11	CK	83	ILE
11	CK	84	VAL
11	CK	95	ILE
11	CK	96	ARG
11	CK	98	LEU
11	CK	105	VAL
11	CK	109	VAL
11	CK	114	VAL
11	CK	119	CYS
11	CK	126	ARG
12	CL	6	THR
12	CL	7	ILE
12	CL	24	VAL
12	CL	33	ARG
12	CL	39	VAL
12	CL	40	VAL
12	CL	43	VAL
12	CL	44	THR
12	CL	46	LYS
12	CL	52	LEU
12	CL	60	LEU
12	CL	66	VAL
12	CL	67	THR
12	CL	70	ILE
12	CL	79	GLU
12	CL	84	LEU
12	CL	92	ASP
12	CL	97	ARG
12	CL	99	HIS
12	CL	104	VAL
12	CL	112	ASP
12	CL	116	SER
13	CM	4	ILE
13	CM	17	VAL
13	CM	37	THR
13	CM	40	ASN
13	CM	43	THR
13	CM	52	GLU
13	CM	60	VAL
13	CM	64	TRP

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Mol	Chain	Res	Type
13	CM	65	LYS
13	CM	66	LEU
13	CM	70	LEU
13	CM	91	ARG
13	CM	94	ARG
13	CM	96	LEU
13	CM	102	ARG
13	CM	105	THR
13	CM	106	ASN
13	CM	109	THR
13	CM	110	ARG
14	CN	3	ARG
14	CN	4	LYS
14	CN	7	ILE
14	CN	13	THR
14	CN	17	LYS
14	CN	22	THR
14	CN	31	ARG
14	CN	33	VAL
14	CN	40	CYS
14	CN	41	ARG
14	CN	42	ILE
14	CN	44	LEU
14	CN	46	GLU
14	CN	56	VAL
15	CO	3	ILE
15	CO	4	THR
15	CO	13	GLN
15	CO	17	ARG
15	CO	22	THR
15	CO	26	GLU
15	CO	39	LEU
15	CO	40	SER
15	CO	41	GLU
15	CO	70	LEU
15	CO	71	GLN
15	CO	72	ARG
15	CO	87	ILE
15	CO	88	ARG
16	CP	1	MET
16	CP	2	VAL
16	CP	6	LEU

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Mol	Chain	Res	Type
16	CP	19	ILE
16	CP	20	VAL
16	CP	21	VAL
16	CP	22	THR
16	CP	28	ARG
16	CP	29	ASP
16	CP	42	ARG
16	CP	51	VAL
16	CP	53	VAL
16	CP	54	GLU
16	CP	55	ARG
16	CP	60	LEU
16	CP	62	VAL
16	CP	67	THR
16	CP	69	THR
16	CP	72	ARG
16	CP	76	GLN
17	CQ	5	VAL
17	CQ	6	LEU
17	CQ	7	THR
17	CQ	9	VAL
17	CQ	13	ASP
17	CQ	14	LYS
17	CQ	19	VAL
17	CQ	22	LEU
17	CQ	34	LYS
17	CQ	39	SER
17	CQ	50	LYS
17	CQ	63	ARG
17	CQ	68	ARG
17	CQ	73	VAL
17	CQ	74	LEU
17	CQ	77	VAL
17	CQ	79	SER
17	CQ	85	VAL
17	CQ	90	ILE
17	CQ	97	SER
18	CR	21	LYS
18	CR	31	LEU
18	CR	32	ARG
18	CR	35	ARG
18	CR	36	ASN

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Mol	Chain	Res	Type
18	CR	37	VAL
18	CR	47	THR
18	CR	69	THR
18	CR	72	ARG
18	CR	75	ILE
18	CR	76	LEU
18	CR	82	THR
18	CR	85	LEU
18	CR	86	VAL
19	CS	11	VAL
19	CS	12	ASP
19	CS	14	HIS
19	CS	22	LEU
19	CS	32	LYS
19	CS	33	THR
19	CS	36	ARG
19	CS	53	ASN
19	CS	57	HIS
19	CS	66	MET
19	CS	77	THR
19	CS	78	ARG
19	CS	79	THR
19	CS	81	ARG
20	CT	4	LYS
20	CT	13	LEU
20	CT	14	LYS
20	CT	21	LYS
20	CT	30	LYS
20	CT	33	ILE
20	CT	41	ILE
20	CT	45	GLN
20	CT	51	GLU
20	CT	56	MET
20	CT	71	THR
20	CT	72	LEU
20	CT	73	HIS
20	CT	75	ASN
20	CT	84	LEU
20	CT	88	VAL
20	CT	90	GLN
20	CT	91	LEU
20	CT	93	GLU

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Mol	Chain	Res	Type
21	CU	10	ARG
21	CU	20	LYS
27	DD	3	VAL
27	DD	4	LYS
27	DD	10	THR
27	DD	12	SER
27	DD	18	VAL
27	DD	27	THR
27	DD	30	GLU
27	DD	32	SER
27	DD	46	GLN
27	DD	52	ARG
27	DD	61	LEU
27	DD	64	ILE
27	DD	71	ASP
27	DD	72	LYS
27	DD	73	VAL
27	DD	82	ILE
27	DD	94	LEU
27	DD	102	LYS
27	DD	103	ARG
27	DD	105	ILE
27	DD	106	ILE
27	DD	111	LEU
27	DD	112	GLN
27	DD	113	VAL
27	DD	116	GLN
27	DD	126	GLN
27	DD	127	VAL
27	DD	131	LEU
27	DD	136	ILE
27	DD	138	VAL
27	DD	145	VAL
27	DD	147	LEU
27	DD	150	LYS
27	DD	154	LYS
27	DD	155	LEU
27	DD	157	ARG
27	DD	165	ILE
27	DD	171	ASP
27	DD	176	ARG
27	DD	185	VAL

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Mol	Chain	Res	Type
27	DD	192	THR
27	DD	193	VAL
27	DD	200	ASP
27	DD	202	LYS
27	DD	211	ARG
27	DD	215	LEU
27	DD	217	ARG
27	DD	218	ARG
27	DD	229	VAL
27	DD	239	ARG
27	DD	242	ARG
27	DD	257	LEU
27	DD	259	THR
27	DD	260	ARG
27	DD	264	LYS
27	DD	270	ILE
27	DD	274	ARG
27	DD	275	LYS
27	DD	276	LYS
28	DE	1	MET
28	DE	5	LEU
28	DE	7	VAL
28	DE	9	VAL
28	DE	11	MET
28	DE	12	THR
28	DE	21	VAL
28	DE	23	VAL
28	DE	24	THR
28	DE	25	VAL
28	DE	26	ILE
28	DE	31	CYS
28	DE	34	VAL
28	DE	40	GLU
28	DE	45	THR
28	DE	49	LEU
28	DE	52	LEU
28	DE	63	LEU
28	DE	72	VAL
28	DE	75	VAL
28	DE	77	ILE
28	DE	79	ARG
28	DE	87	GLU

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Mol	Chain	Res	Type
28	DE	89	ASP
28	DE	91	VAL
28	DE	92	THR
28	DE	93	VAL
28	DE	105	THR
28	DE	107	THR
28	DE	116	VAL
28	DE	119	ARG
28	DE	121	ASN
28	DE	144	ARG
28	DE	149	ARG
28	DE	154	LYS
28	DE	167	VAL
28	DE	168	MET
28	DE	170	LEU
28	DE	175	VAL
28	DE	179	GLU
28	DE	181	LEU
28	DE	182	LEU
28	DE	188	VAL
28	DE	195	LEU
28	DE	197	ILE
28	DE	200	GLU
29	DF	6	VAL
29	DF	13	SER
29	DF	18	ARG
29	DF	23	ASP
29	DF	24	LEU
29	DF	28	ILE
29	DF	33	LEU
29	DF	36	VAL
29	DF	68	LYS
29	DF	74	ARG
29	DF	78	ILE
29	DF	82	ILE
29	DF	88	VAL
29	DF	98	SER
29	DF	99	TYR
29	DF	110	LEU
29	DF	112	MET
29	DF	126	VAL
29	DF	140	LEU

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Mol	Chain	Res	Type
29	DF	149	ASP
29	DF	152	GLU
29	DF	158	THR
29	DF	162	LEU
29	DF	170	LEU
29	DF	174	VAL
29	DF	175	THR
29	DF	176	LEU
29	DF	179	GLU
29	DF	183	VAL
29	DF	186	ILE
29	DF	192	LEU
29	DF	195	ASP
29	DF	197	ASP
29	DF	201	VAL
29	DF	206	ILE
30	DG	9	ARG
30	DG	12	TYR
30	DG	13	GLU
30	DG	14	GLU
30	DG	15	VAL
30	DG	18	GLU
30	DG	21	ARG
30	DG	28	VAL
30	DG	33	ARG
30	DG	34	LEU
30	DG	39	ILE
30	DG	47	LYS
30	DG	60	LEU
30	DG	63	ILE
30	DG	80	PHE
30	DG	88	ILE
30	DG	91	ARG
30	DG	101	ILE
30	DG	116	ASP
30	DG	128	ARG
30	DG	130	ASN
30	DG	133	LEU
30	DG	135	LEU
30	DG	138	GLN
30	DG	139	LEU
30	DG	140	ILE

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Mol	Chain	Res	Type
30	DG	143	GLU
30	DG	148	MET
30	DG	149	VAL
30	DG	153	ARG
30	DG	155	MET
30	DG	162	THR
30	DG	165	THR
30	DG	167	GLU
30	DG	173	LEU
31	DH	7	LEU
31	DH	9	ILE
31	DH	15	VAL
31	DH	17	VAL
31	DH	24	VAL
31	DH	32	GLU
31	DH	41	MET
31	DH	43	VAL
31	DH	51	ARG
31	DH	59	ARG
31	DH	63	SER
31	DH	64	LEU
31	DH	67	LEU
31	DH	69	ARG
31	DH	70	THR
31	DH	90	LYS
31	DH	104	GLU
31	DH	105	LEU
31	DH	121	ILE
31	DH	124	GLU
31	DH	127	GLU
31	DH	129	THR
31	DH	130	ARG
31	DH	131	VAL
31	DH	133	VAL
31	DH	134	SER
31	DH	136	ILE
31	DH	140	LYS
31	DH	148	ILE
31	DH	153	LYS
31	DH	169	VAL
31	DH	171	LEU
32	DI	1	MET

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Mol	Chain	Res	Type
32	DI	2	LYS
32	DI	15	VAL
32	DI	19	VAL
32	DI	22	LYS
32	DI	35	LEU
32	DI	37	VAL
32	DI	38	LEU
32	DI	41	GLU
32	DI	43	ASN
32	DI	57	ARG
32	DI	58	LEU
32	DI	61	ARG
32	DI	72	LEU
32	DI	74	ASN
32	DI	75	LEU
32	DI	77	LEU
32	DI	78	THR
32	DI	85	GLU
32	DI	86	THR
32	DI	93	THR
32	DI	97	ILE
32	DI	123	LEU
32	DI	127	VAL
32	DI	129	THR
32	DI	138	ILE
32	DI	140	LEU
32	DI	142	VAL
33	DN	1	MET
33	DN	9	VAL
33	DN	12	ARG
33	DN	25	ARG
33	DN	32	THR
33	DN	33	LEU
33	DN	34	LEU
33	DN	37	LYS
33	DN	38	HIS
33	DN	43	THR
33	DN	46	VAL
33	DN	48	MET
33	DN	55	VAL
33	DN	58	ASP
33	DN	60	ILE

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Mol	Chain	Res	Type
33	DN	61	ARG
33	DN	62	VAL
33	DN	67	LEU
33	DN	68	GLU
33	DN	71	ILE
33	DN	83	LYS
33	DN	87	LEU
33	DN	93	THR
33	DN	97	ARG
33	DN	99	LEU
33	DN	106	MET
33	DN	119	ARG
33	DN	120	LEU
33	DN	133	GLN
33	DN	137	LYS
33	DN	138	LEU
33	DN	140	VAL
34	DO	7	TYR
34	DO	8	LEU
34	DO	9	GLU
34	DO	10	VAL
34	DO	17	ARG
34	DO	23	ARG
34	DO	24	VAL
34	DO	28	SER
34	DO	32	TYR
34	DO	39	ILE
34	DO	44	LYS
34	DO	45	GLU
34	DO	47	ILE
34	DO	53	LYS
34	DO	58	VAL
34	DO	59	LYS
34	DO	62	VAL
34	DO	66	LYS
34	DO	69	ILE
34	DO	73	ASP
34	DO	78	ARG
34	DO	82	ASN
34	DO	85	VAL
34	DO	86	ILE
34	DO	88	ASN

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Mol	Chain	Res	Type
34	DO	90	GLN
34	DO	94	ARG
34	DO	98	VAL
34	DO	99	PHE
34	DO	115	VAL
34	DO	117	LEU
35	DP	19	VAL
35	DP	21	ARG
35	DP	30	THR
35	DP	39	LYS
35	DP	42	SER
35	DP	46	LYS
35	DP	50	ARG
35	DP	55	ARG
35	DP	56	SER
35	DP	58	THR
35	DP	59	LEU
35	DP	64	LYS
35	DP	71	VAL
35	DP	75	ILE
35	DP	92	GLU
35	DP	96	THR
35	DP	100	LEU
35	DP	101	VAL
35	DP	106	LEU
35	DP	112	LEU
35	DP	119	GLU
35	DP	126	VAL
35	DP	133	SER
35	DP	135	LEU
35	DP	139	LYS
35	DP	144	GLU
35	DP	146	VAL
36	DQ	1	MET
36	DQ	5	ARG
36	DQ	16	ARG
36	DQ	21	THR
36	DQ	37	LEU
36	DQ	45	GLN
36	DQ	54	MET
36	DQ	55	VAL
36	DQ	60	ARG

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Mol	Chain	Res	Type
36	DQ	63	LYS
36	DQ	75	THR
36	DQ	81	VAL
36	DQ	90	VAL
36	DQ	106	VAL
36	DQ	110	THR
36	DQ	112	GLU
36	DQ	127	ILE
36	DQ	133	ARG
37	DR	6	SER
37	DR	9	LYS
37	DR	18	LEU
37	DR	28	LEU
37	DR	29	LEU
37	DR	37	THR
37	DR	44	LEU
37	DR	45	ARG
37	DR	48	VAL
37	DR	54	LEU
37	DR	60	LEU
37	DR	65	LEU
37	DR	73	VAL
37	DR	75	LEU
37	DR	79	LEU
37	DR	81	ASP
37	DR	97	VAL
37	DR	100	LEU
37	DR	102	GLU
37	DR	104	ARG
37	DR	111	LEU
37	DR	118	GLU
38	DS	4	LEU
38	DS	10	ARG
38	DS	14	VAL
38	DS	19	LYS
38	DS	20	ARG
38	DS	30	ARG
38	DS	36	TYR
38	DS	40	ILE
38	DS	43	GLU
38	DS	48	LEU
38	DS	49	VAL

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Mol	Chain	Res	Type
38	DS	52	SER
38	DS	59	LYS
38	DS	61	ASN
38	DS	64	GLU
38	DS	68	GLN
38	DS	73	LEU
38	DS	75	GLU
38	DS	78	LEU
38	DS	83	LYS
38	DS	98	VAL
38	DS	101	LEU
38	DS	110	LEU
39	DT	3	ARG
39	DT	6	LEU
39	DT	21	GLU
39	DT	23	ARG
39	DT	27	THR
39	DT	34	VAL
39	DT	36	GLU
39	DT	40	THR
39	DT	51	ARG
39	DT	54	ARG
39	DT	58	ASN
39	DT	59	THR
39	DT	63	VAL
39	DT	64	ARG
39	DT	67	SER
39	DT	73	GLU
39	DT	74	ARG
39	DT	85	LYS
39	DT	88	ILE
39	DT	89	VAL
39	DT	90	GLN
39	DT	95	ARG
39	DT	96	ARG
39	DT	105	LEU
39	DT	109	GLU
39	DT	111	ARG
39	DT	118	ARG
39	DT	121	ILE
39	DT	123	GLN
40	DU	20	LEU

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Mol	Chain	Res	Type
40	DU	36	ARG
40	DU	51	LYS
40	DU	55	ARG
40	DU	58	ARG
40	DU	59	ARG
40	DU	60	LEU
40	DU	63	VAL
40	DU	72	HIS
40	DU	74	LEU
40	DU	83	LEU
40	DU	88	ILE
40	DU	90	VAL
40	DU	100	VAL
40	DU	104	GLN
40	DU	108	GLU
41	DV	10	LYS
41	DV	12	TYR
41	DV	14	VAL
41	DV	18	LEU
41	DV	21	ARG
41	DV	28	GLU
41	DV	32	THR
41	DV	33	VAL
41	DV	35	LEU
41	DV	39	LEU
41	DV	43	GLU
41	DV	46	VAL
41	DV	51	VAL
41	DV	53	GLU
41	DV	56	SER
41	DV	58	VAL
41	DV	61	VAL
41	DV	62	LEU
41	DV	72	VAL
41	DV	73	SER
41	DV	79	VAL
41	DV	85	LYS
41	DV	93	GLU
41	DV	95	LEU
41	DV	98	GLU
42	DW	11	ARG
42	DW	17	VAL

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Mol	Chain	Res	Type
42	DW	18	ARG
42	DW	23	LEU
42	DW	35	ILE
42	DW	39	THR
42	DW	41	LYS
42	DW	51	LEU
42	DW	52	GLU
42	DW	59	VAL
42	DW	63	ASP
42	DW	65	LEU
42	DW	66	GLU
42	DW	71	VAL
42	DW	78	GLU
42	DW	92	ARG
42	DW	94	ASP
42	DW	95	ILE
42	DW	100	THR
42	DW	103	ILE
42	DW	105	VAL
42	DW	106	ILE
42	DW	107	LEU
43	DX	8	ILE
43	DX	23	GLU
43	DX	27	THR
43	DX	37	THR
43	DX	38	GLU
43	DX	53	LYS
43	DX	56	THR
43	DX	57	LEU
43	DX	70	LEU
43	DX	76	ARG
43	DX	80	ILE
43	DX	81	VAL
43	DX	92	LEU
44	DY	1	MET
44	DY	2	ARG
44	DY	9	LYS
44	DY	13	VAL
44	DY	30	VAL
44	DY	34	LYS
44	DY	38	ILE
44	DY	44	ILE

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Mol	Chain	Res	Type
44	DY	45	VAL
44	DY	49	VAL
44	DY	52	SER
44	DY	61	ILE
44	DY	67	LEU
44	DY	72	VAL
44	DY	75	ILE
44	DY	83	THR
44	DY	85	VAL
44	DY	86	ARG
44	DY	90	LEU
44	DY	97	ARG
44	DY	98	VAL
44	DY	101	LYS
44	DY	107	ASP
45	DZ	11	GLU
45	DZ	19	ARG
45	DZ	24	LEU
45	DZ	29	TYR
45	DZ	30	ASN
45	DZ	31	ARG
45	DZ	33	LEU
45	DZ	35	ARG
45	DZ	36	LYS
45	DZ	40	ASP
45	DZ	41	LEU
45	DZ	56	VAL
45	DZ	58	VAL
45	DZ	60	GLU
45	DZ	66	SER
45	DZ	72	ARG
45	DZ	73	GLN
45	DZ	74	VAL
45	DZ	82	ARG
45	DZ	86	VAL
45	DZ	93	ASP
45	DZ	94	GLU
45	DZ	100	VAL
45	DZ	107	THR
45	DZ	119	GLU
45	DZ	125	LEU
45	DZ	129	SER

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Mol	Chain	Res	Type
45	DZ	131	ARG
45	DZ	133	ILE
45	DZ	140	ASP
45	DZ	141	VAL
45	DZ	144	LEU
45	DZ	161	VAL
45	DZ	165	VAL
45	DZ	170	THR
45	DZ	175	VAL
45	DZ	179	ASP
45	DZ	185	GLU
46	D0	10	THR
46	D0	14	ARG
46	D0	16	SER
46	D0	19	LYS
46	D0	20	ARG
46	D0	41	ARG
46	D0	43	THR
46	D0	51	VAL
46	D0	53	MET
46	D0	55	ARG
46	D0	72	ARG
46	D0	74	ARG
46	D0	81	VAL
46	D0	84	LEU
47	D1	3	LYS
47	D1	4	VAL
47	D1	11	ARG
47	D1	21	ARG
47	D1	38	SER
47	D1	40	ARG
47	D1	41	ARG
47	D1	46	LEU
47	D1	51	VAL
47	D1	53	VAL
47	D1	58	ILE
47	D1	59	THR
47	D1	61	ARG
47	D1	62	VAL
47	D1	72	GLU
47	D1	73	LEU
47	D1	80	LEU

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Mol	Chain	Res	Type
47	D1	83	GLU
47	D1	90	ILE
47	D1	95	LEU
47	D1	97	LEU
47	D1	98	LEU
48	D2	1	MET
48	D2	3	LEU
48	D2	16	LEU
48	D2	17	SER
48	D2	21	LEU
48	D2	25	VAL
48	D2	26	ARG
48	D2	28	LYS
48	D2	43	GLN
48	D2	45	SER
48	D2	46	GLN
48	D2	50	ILE
48	D2	51	ARG
48	D2	53	LEU
48	D2	57	ILE
48	D2	62	THR
48	D2	64	LEU
48	D2	65	ASN
49	D3	8	LEU
49	D3	9	VAL
49	D3	11	SER
49	D3	23	LEU
49	D3	28	LEU
49	D3	31	LEU
49	D3	36	VAL
49	D3	37	LEU
49	D3	53	LEU
49	D3	54	VAL
49	D3	56	VAL
49	D3	57	GLU
50	D4	3	GLU
50	D4	5	ILE
50	D4	8	LYS
50	D4	10	VAL
50	D4	14	ILE
50	D4	16	CYS
50	D4	18	CYS

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Mol	Chain	Res	Type
50	D4	22	ILE
50	D4	31	ILE
50	D4	33	VAL
50	D4	36	CYS
50	D4	39	CYS
50	D4	43	TYR
50	D4	44	THR
51	D5	6	VAL
51	D5	9	LYS
51	D5	10	LYS
51	D5	13	LYS
51	D5	16	ARG
51	D5	19	ARG
51	D5	25	LEU
51	D5	26	THR
51	D5	33	CYS
51	D5	40	LYS
51	D5	55	ARG
51	D5	57	VAL
52	D6	4	GLU
52	D6	5	VAL
52	D6	8	LYS
52	D6	13	CYS
52	D6	34	LEU
52	D6	38	LYS
52	D6	40	CYS
52	D6	43	CYS
52	D6	44	ARG
53	D7	1	MET
53	D7	8	ASN
53	D7	9	ARG
53	D7	14	LYS
53	D7	24	THR
53	D7	29	LYS
53	D7	32	LYS
53	D7	43	THR
54	D8	13	ARG
54	D8	14	VAL
54	D8	23	VAL
54	D8	25	MET
54	D8	26	LYS
54	D8	29	LYS

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Mol	Chain	Res	Type
54	D8	32	LEU
54	D8	34	TRP
54	D8	41	ILE
55	D9	2	LYS
55	D9	4	ARG
55	D9	7	VAL
55	D9	12	ASP
55	D9	25	VAL
55	D9	26	ILE
55	D9	31	LYS
55	D9	33	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (87) such sidechains are listed below:

Mol	Chain	Res	Type
3	AC	6	HIS
4	AD	160	GLN
6	AF	73	ASN
7	AG	56	GLN
7	AG	153	HIS
10	AJ	56	HIS
11	AK	38	ASN
11	AK	62	GLN
11	AK	104	GLN
11	AK	116	HIS
12	AL	99	HIS
14	AN	52	GLN
15	AO	28	GLN
16	AP	16	HIS
20	AT	18	GLN
22	AY	75	GLN
22	AY	80	GLN
22	AY	83	ASN
22	AY	124	GLN
27	BD	87	ASN
27	BD	126	GLN
27	BD	143	HIS
28	BE	55	ASN
28	BE	180	ASN
30	BG	108	ASN
31	BH	74	ASN
32	BI	105	HIS

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Mol	Chain	Res	Type
32	BI	139	GLN
33	BN	94	HIS
34	BO	5	GLN
34	BO	29	ASN
34	BO	88	ASN
34	BO	90	GLN
35	BP	68	GLN
35	BP	84	ASN
37	BR	71	GLN
37	BR	91	GLN
38	BS	84	GLN
39	BT	84	GLN
43	BX	31	HIS
45	BZ	54	HIS
45	BZ	118	GLN
47	B1	56	GLN
49	B3	32	GLN
55	B9	36	GLN
2	CB	16	HIS
2	CB	135	GLN
4	CD	74	GLN
4	CD	77	ASN
4	CD	123	HIS
5	CE	141	GLN
6	CF	64	GLN
7	CG	28	ASN
9	CI	3	GLN
9	CI	23	ASN
9	CI	31	GLN
11	CK	99	GLN
11	CK	104	GLN
12	CL	9	GLN
15	CO	28	GLN
17	CQ	94	ASN
18	CR	63	GLN
19	CS	14	HIS
19	CS	23	ASN
20	CT	16	HIS
20	CT	45	GLN
20	CT	73	HIS
27	DD	112	GLN
27	DD	203	ASN

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Mol	Chain	Res	Type
28	DE	135	HIS
28	DE	180	ASN
29	DF	40	GLN
29	DF	75	HIS
29	DF	169	ASN
30	DG	40	ASN
33	DN	133	GLN
34	DO	88	ASN
36	DQ	45	GLN
40	DU	81	HIS
40	DU	117	GLN
43	DX	31	HIS
43	DX	55	ASN
52	D6	20	ASN
53	D7	36	GLN
54	D8	43	GLN
55	D9	29	ASN
55	D9	36	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1462/1522 (96%)	387 (26%)	33 (2%)
1	CA	1457/1522 (95%)	369 (25%)	33 (2%)
23	AV	76/77 (98%)	20 (26%)	1 (1%)
23	CV	76/77 (98%)	21 (27%)	0
24	AX	5/16 (31%)	1 (20%)	0
24	CX	5/16 (31%)	0	0
25	BA	2744/2915 (94%)	648 (23%)	64 (2%)
25	DA	2711/2915 (93%)	638 (23%)	55 (2%)
26	BB	119/122 (97%)	24 (20%)	0
26	DB	119/122 (97%)	26 (21%)	2 (1%)
All	All	8774/9304 (94%)	2134 (24%)	188 (2%)

All (2134) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	G
1	AA	9	G
1	AA	13	U
1	AA	22	G

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Mol	Chain	Res	Type
1	AA	28	G
1	AA	30	U
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	59	A
1	AA	60	A
1	AA	61	G
1	AA	63	C
1	AA	65	U
1	AA	76	C
1	AA	77	G
1	AA	78	G
1	AA	92	C
1	AA	93	G
1	AA	96	U
1	AA	97	G
1	AA	98	G
1	AA	101	A
1	AA	115	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	132	C
1	AA	143	A
1	AA	144	G
1	AA	150	C
1	AA	157	G
1	AA	163	C
1	AA	167	G
1	AA	169	C
1	AA	173	U
1	AA	181	G
1	AA	183	G
1	AA	184	G
1	AA	189(C)	C
1	AA	189(D)	C
1	AA	189(E)	U

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Mol	Chain	Res	Type
1	AA	189(F)	U
1	AA	189(G)	G
1	AA	189(H)	G
1	AA	195	A
1	AA	197	A
1	AA	199	G
1	AA	201	C
1	AA	202	U
1	AA	203	U
1	AA	204	U
1	AA	216	G
1	AA	217	C
1	AA	222	U
1	AA	243	A
1	AA	247	G
1	AA	251	G
1	AA	262	A
1	AA	266	G
1	AA	267	C
1	AA	272	C
1	AA	289	G
1	AA	301	G
1	AA	305	G
1	AA	308	C
1	AA	318	G
1	AA	320	C
1	AA	321	A
1	AA	328	C
1	AA	330	C
1	AA	331	G
1	AA	332	G
1	AA	335	C
1	AA	343	U
1	AA	344	A
1	AA	345	C
1	AA	346	G
1	AA	347	G
1	AA	348	G
1	AA	350	G
1	AA	351	G
1	AA	352	C
1	AA	353	A

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Mol	Chain	Res	Type
1	AA	354	G
1	AA	355	C
1	AA	365	U
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	374	A
1	AA	383	A
1	AA	388	G
1	AA	392	G
1	AA	396	G
1	AA	397	A
1	AA	398	C
1	AA	405	U
1	AA	406	G
1	AA	408	A
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	424	G
1	AA	429	U
1	AA	430	A
1	AA	435	C
1	AA	436	C
1	AA	437	U
1	AA	439	A
1	AA	442	C
1	AA	446	G
1	AA	452	A
1	AA	453	A
1	AA	460	G
1	AA	470	C
1	AA	472	A
1	AA	476	G
1	AA	482	A
1	AA	483	C
1	AA	484	G
1	AA	485	G

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Mol	Chain	Res	Type
1	AA	495	A
1	AA	496	A
1	AA	498	U
1	AA	504	C
1	AA	505	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	521	G
1	AA	527	G
1	AA	530	G
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	545	C
1	AA	547	A
1	AA	559	A
1	AA	561	U
1	AA	562	C
1	AA	564	C
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	577	G
1	AA	587	G
1	AA	588	G
1	AA	592	G
1	AA	595	G
1	AA	596	C
1	AA	601	C
1	AA	615	C
1	AA	619	U
1	AA	623	C
1	AA	630	G
1	AA	632	A
1	AA	637	G
1	AA	653	A
1	AA	660	G
1	AA	661	G
1	AA	665	A
1	AA	674	G

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Mol	Chain	Res	Type
1	AA	687	A
1	AA	688	G
1	AA	693	G
1	AA	722	A
1	AA	723	U
1	AA	729	A
1	AA	731	G
1	AA	734	G
1	AA	740	U
1	AA	742	G
1	AA	749	C
1	AA	751	U
1	AA	752	G
1	AA	753	A
1	AA	754	C
1	AA	755	G
1	AA	775	G
1	AA	777	A
1	AA	778	G
1	AA	786	G
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	796	C
1	AA	802	A
1	AA	817	C
1	AA	828	A
1	AA	829	G
1	AA	833	U
1	AA	839	U
1	AA	840	C
1	AA	841	U
1	AA	848	C
1	AA	851	G
1	AA	853	G
1	AA	855	G
1	AA	859	A
1	AA	860	A
1	AA	863	U
1	AA	866	C
1	AA	870	U
1	AA	873	A

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Mol	Chain	Res	Type
1	AA	876	G
1	AA	885	G
1	AA	891	U
1	AA	902	G
1	AA	913	A
1	AA	914	A
1	AA	916	G
1	AA	919	A
1	AA	925	G
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	936	C
1	AA	937	A
1	AA	940	C
1	AA	960	U
1	AA	961	U
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	980	C
1	AA	981	U
1	AA	982	U
1	AA	989	C
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	1011	G
1	AA	1020	U
1	AA	1021	G
1	AA	1043	C
1	AA	1051	C
1	AA	1053	G
1	AA	1056	U
1	AA	1065	U
1	AA	1066	C

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Mol	Chain	Res	Type
1	AA	1068	G
1	AA	1077	G
1	AA	1081	G
1	AA	1083	U
1	AA	1088	G
1	AA	1094	G
1	AA	1095	U
1	AA	1096	C
1	AA	1099	G
1	AA	1101	A
1	AA	1103	C
1	AA	1123	A
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1127	G
1	AA	1128	C
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1134	G
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1146	A
1	AA	1148	U
1	AA	1150	U
1	AA	1151	A
1	AA	1152	A
1	AA	1159	U
1	AA	1160	G
1	AA	1165	C
1	AA	1166	G
1	AA	1175	G
1	AA	1181	G
1	AA	1182	G
1	AA	1183	A
1	AA	1184	G
1	AA	1193	G
1	AA	1196	U
1	AA	1201	A

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Mol	Chain	Res	Type
1	AA	1202	G
1	AA	1206	G
1	AA	1210	C
1	AA	1211	U
1	AA	1212	U
1	AA	1213	A
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1238	A
1	AA	1241	G
1	AA	1250	A
1	AA	1255	G
1	AA	1257	U
1	AA	1258	G
1	AA	1260	C
1	AA	1261	A
1	AA	1263	C
1	AA	1264	C
1	AA	1268	A
1	AA	1269	A
1	AA	1270	C
1	AA	1272	G
1	AA	1273	G
1	AA	1275	A
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1286	A
1	AA	1287	A
1	AA	1291	G
1	AA	1294	G
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1304	G
1	AA	1305	G
1	AA	1313	U
1	AA	1317	C

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Mol	Chain	Res	Type
1	AA	1319	A
1	AA	1320	C
1	AA	1322	C
1	AA	1338	G
1	AA	1341	U
1	AA	1346	A
1	AA	1347	G
1	AA	1353	G
1	AA	1359	C
1	AA	1360	A
1	AA	1363	C
1	AA	1363(A)	A
1	AA	1364	U
1	AA	1370	G
1	AA	1377	A
1	AA	1379	G
1	AA	1398	A
1	AA	1399	C
1	AA	1401	G
1	AA	1402	C
1	AA	1403	C
1	AA	1406	U
1	AA	1419	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1446	U
1	AA	1447	A
1	AA	1452	C
1	AA	1456	G
1	AA	1457	G
1	AA	1460	A
1	AA	1487	G
1	AA	1492	A
1	AA	1494	G
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G

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Mol	Chain	Res	Type
1	AA	1528	U
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
1	AA	1532	U
23	AV	3	C
23	AV	8	U
23	AV	9	G
23	AV	10	G
23	AV	19	G
23	AV	21	A
23	AV	25	C
23	AV	31	G
23	AV	32	C
23	AV	33	U
23	AV	34	C
23	AV	41	C
23	AV	47	U
23	AV	48	C
23	AV	56	C
23	AV	59	A
23	AV	65	C
23	AV	69	C
23	AV	74	C
23	AV	76	A
24	AX	6	G
25	BA	27	G
25	BA	34	C
25	BA	35	G
25	BA	37	C
25	BA	42	G
25	BA	45	C
25	BA	47	C
25	BA	49	A
25	BA	51	G
25	BA	55	G
25	BA	63	U
25	BA	71	A
25	BA	72	U
25	BA	74	A
25	BA	75	G
25	BA	84	A

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Mol	Chain	Res	Type
25	BA	90	U
25	BA	92	A
25	BA	97	C
25	BA	98	G
25	BA	99	U
25	BA	100	G
25	BA	102	G
25	BA	103	A
25	BA	112	U
25	BA	118	A
25	BA	119	A
25	BA	120	U
25	BA	121	G
25	BA	123	G
25	BA	125	G
25	BA	154	G
25	BA	181	A
25	BA	182	A
25	BA	188	G
25	BA	196	A
25	BA	197	A
25	BA	199	A
25	BA	204	A
25	BA	205	G
25	BA	215	G
25	BA	216	A
25	BA	221	A
25	BA	222	A
25	BA	228	A
25	BA	229	A
25	BA	233	A
25	BA	240	G
25	BA	245	G
25	BA	248	G
25	BA	249	C
25	BA	250	G
25	BA	252	G
25	BA	265	A
25	BA	269	U
25	BA	271(C)	C
25	BA	271(I)	G
25	BA	271(K)	U

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Mol	Chain	Res	Type
25	BA	271(L)	U
25	BA	271(M)	G
25	BA	271(N)	U
25	BA	271(O)	C
25	BA	272(A)	U
25	BA	272(B)	G
25	BA	272(D)	G
25	BA	272(G)	C
25	BA	272(H)	C
25	BA	272(J)	C
25	BA	275	G
25	BA	279	C
25	BA	283	A
25	BA	308	G
25	BA	311	A
25	BA	325	G
25	BA	329	G
25	BA	330	A
25	BA	333	G
25	BA	335	C
25	BA	343	C
25	BA	345	A
25	BA	352	G
25	BA	353	G
25	BA	354	G
25	BA	362	U
25	BA	363	G
25	BA	363(F)	A
25	BA	372	G
25	BA	385	C
25	BA	386	G
25	BA	396	G
25	BA	399	G
25	BA	400	G
25	BA	404	C
25	BA	405	U
25	BA	411	G
25	BA	412	A
25	BA	418	G
25	BA	428	A
25	BA	442	G
25	BA	444	C

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Mol	Chain	Res	Type
25	BA	448	U
25	BA	470	A
25	BA	471	A
25	BA	475	U
25	BA	480	A
25	BA	481	G
25	BA	482	A
25	BA	494	G
25	BA	501	A
25	BA	504	U
25	BA	505	A
25	BA	509	C
25	BA	518	G
25	BA	521	G
25	BA	522	G
25	BA	523	C
25	BA	530	G
25	BA	531	C
25	BA	532	A
25	BA	533	G
25	BA	545	G
25	BA	549	G
25	BA	563	G
25	BA	564	C
25	BA	571	A
25	BA	573	G
25	BA	575	A
25	BA	582	G
25	BA	586	A
25	BA	587	C
25	BA	588	U
25	BA	603	A
25	BA	604	G
25	BA	605	C
25	BA	607	U
25	BA	610	G
25	BA	614(B)	G
25	BA	615	G
25	BA	616	G
25	BA	619	G
25	BA	627	A
25	BA	632	A

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Mol	Chain	Res	Type
25	BA	634	C
25	BA	637	A
25	BA	642	G
25	BA	645	C
25	BA	646	A
25	BA	648	G
25	BA	650	C
25	BA	652(B)	A
25	BA	652(C)	G
25	BA	652(D)	C
25	BA	652(E)	G
25	BA	652(I)	C
25	BA	652(P)	G
25	BA	652(R)	C
25	BA	652(T)	C
25	BA	652(U)	G
25	BA	654	A
25	BA	669	G
25	BA	673	C
25	BA	686	G
25	BA	698	C
25	BA	717	G
25	BA	730	C
25	BA	738	G
25	BA	740	U
25	BA	750	A
25	BA	752	A
25	BA	753	C
25	BA	757	U
25	BA	764	A
25	BA	765	G
25	BA	774	A
25	BA	775	G
25	BA	776	G
25	BA	779	U
25	BA	782	A
25	BA	784	A
25	BA	785	G
25	BA	790	C
25	BA	792	G
25	BA	805	G
25	BA	811	U

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Mol	Chain	Res	Type
25	BA	812	C
25	BA	819	A
25	BA	820	A
25	BA	827	U
25	BA	828	U
25	BA	831	G
25	BA	847	U
25	BA	859	G
25	BA	866	A
25	BA	867	C
25	BA	868	U
25	BA	869	G
25	BA	877	U
25	BA	878	A
25	BA	881	G
25	BA	884	C
25	BA	885	C
25	BA	886	C
25	BA	887	A
25	BA	888	C
25	BA	889	C
25	BA	890	A
25	BA	895	U
25	BA	896	A
25	BA	897	C
25	BA	899	A
25	BA	900	A
25	BA	901	A
25	BA	910	A
25	BA	914	C
25	BA	916	G
25	BA	917	A
25	BA	919	G
25	BA	924	C
25	BA	932	G
25	BA	939	G
25	BA	940	G
25	BA	941	A
25	BA	945	A
25	BA	946	G
25	BA	958	U
25	BA	959	A

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Mol	Chain	Res	Type
25	BA	961	C
25	BA	963	U
25	BA	965	C
25	BA	974	G
25	BA	975	C
25	BA	975(A)	G
25	BA	983	A
25	BA	990	A
25	BA	991	C
25	BA	996	A
25	BA	1012	U
25	BA	1013	C
25	BA	1020	A
25	BA	1022	G
25	BA	1023	U
25	BA	1025	G
25	BA	1026	U
25	BA	1027	A
25	BA	1030	G
25	BA	1033	U
25	BA	1039	G
25	BA	1041	C
25	BA	1042	G
25	BA	1044	G
25	BA	1045	A
25	BA	1046	A
25	BA	1047	G
25	BA	1048	A
25	BA	1049	C
25	BA	1050	A
25	BA	1107	G
25	BA	1108	U
25	BA	1109	C
25	BA	1110	G
25	BA	1111	A
25	BA	1112	G
25	BA	1113	U
25	BA	1124	C
25	BA	1128	A
25	BA	1129	A
25	BA	1130	U
25	BA	1131	G

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Mol	Chain	Res	Type
25	BA	1135	C
25	BA	1136	G
25	BA	1139	G
25	BA	1142(A)	A
25	BA	1143	A
25	BA	1151	G
25	BA	1154	G
25	BA	1155	A
25	BA	1156	A
25	BA	1170	G
25	BA	1171	G
25	BA	1173	G
25	BA	1174	A
25	BA	1175	U
25	BA	1176	G
25	BA	1177	A
25	BA	1184	G
25	BA	1190	G
25	BA	1204	A
25	BA	1210	A
25	BA	1211	U
25	BA	1218	C
25	BA	1229	G
25	BA	1240	U
25	BA	1244	G
25	BA	1253	A
25	BA	1254	A
25	BA	1256	G
25	BA	1267	U
25	BA	1271	G
25	BA	1272	A
25	BA	1273	U
25	BA	1287	A
25	BA	1288	U
25	BA	1292	U
25	BA	1298	C
25	BA	1300	U
25	BA	1301	A
25	BA	1307	A
25	BA	1310	G
25	BA	1312	U
25	BA	1319	G

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Mol	Chain	Res	Type
25	BA	1321	A
25	BA	1329	U
25	BA	1332	G
25	BA	1341	U
25	BA	1345	C
25	BA	1348	G
25	BA	1349	A
25	BA	1352	U
25	BA	1359	A
25	BA	1360	A
25	BA	1365	A
25	BA	1368	G
25	BA	1370	C
25	BA	1371	G
25	BA	1379	A
25	BA	1380	G
25	BA	1384	A
25	BA	1385	G
25	BA	1386	C
25	BA	1402	C
25	BA	1416	G
25	BA	1417	C
25	BA	1419	A
25	BA	1420	U
25	BA	1421	G
25	BA	1426	G
25	BA	1427	A
25	BA	1428	C
25	BA	1431	U
25	BA	1445	A
25	BA	1449	A
25	BA	1450	G
25	BA	1459	G
25	BA	1461	G
25	BA	1465	G
25	BA	1467	C
25	BA	1471	A
25	BA	1478	G
25	BA	1482	G
25	BA	1487	G
25	BA	1488	G
25	BA	1489	U

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Mol	Chain	Res	Type
25	BA	1492	G
25	BA	1493	C
25	BA	1495	A
25	BA	1496	A
25	BA	1497	U
25	BA	1506	C
25	BA	1507	A
25	BA	1508	A
25	BA	1509	C
25	BA	1509(A)	A
25	BA	1523	U
25	BA	1525	G
25	BA	1540	U
25	BA	1542	A
25	BA	1543	C
25	BA	1546	C
25	BA	1554	A
25	BA	1558	A
25	BA	1559	G
25	BA	1569	A
25	BA	1578	U
25	BA	1579	A
25	BA	1582	C
25	BA	1586	A
25	BA	1587	A
25	BA	1594	G
25	BA	1606	G
25	BA	1607	C
25	BA	1608	A
25	BA	1609	A
25	BA	1610	A
25	BA	1617	C
25	BA	1619	G
25	BA	1622	G
25	BA	1625	C
25	BA	1633	G
25	BA	1635	G
25	BA	1639	U
25	BA	1648	C
25	BA	1654	A
25	BA	1655	A
25	BA	1660	C

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Mol	Chain	Res	Type
25	BA	1674	G
25	BA	1675	C
25	BA	1688	U
25	BA	1695	G
25	BA	1696	G
25	BA	1700	A
25	BA	1701	A
25	BA	1717	G
25	BA	1721	G
25	BA	1722	A
25	BA	1739	U
25	BA	1746	G
25	BA	1762	A
25	BA	1763	G
25	BA	1764	G
25	BA	1773	A
25	BA	1781	C
25	BA	1782	C
25	BA	1791	A
25	BA	1795	C
25	BA	1799	G
25	BA	1800	C
25	BA	1801	G
25	BA	1802	A
25	BA	1811	G
25	BA	1812	A
25	BA	1816	G
25	BA	1819	A
25	BA	1820	U
25	BA	1828	G
25	BA	1829	A
25	BA	1834	U
25	BA	1835	G
25	BA	1837	C
25	BA	1847	A
25	BA	1858	G
25	BA	1876	A
25	BA	1877	A
25	BA	1878	G
25	BA	1889	A
25	BA	1896	G
25	BA	1900	A

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Mol	Chain	Res	Type
25	BA	1904	G
25	BA	1906	G
25	BA	1913	A
25	BA	1914	C
25	BA	1915	U
25	BA	1921	G
25	BA	1929	G
25	BA	1930	G
25	BA	1931	U
25	BA	1936	A
25	BA	1938	A
25	BA	1955	U
25	BA	1963	U
25	BA	1964	G
25	BA	1967	C
25	BA	1969	A
25	BA	1970	A
25	BA	1971	A
25	BA	1972	A
25	BA	1975	G
25	BA	1976	U
25	BA	1982	C
25	BA	1988	C
25	BA	1991	U
25	BA	1992	G
25	BA	1993	U
25	BA	1997	G
25	BA	2023	G
25	BA	2027	G
25	BA	2030	A
25	BA	2031	A
25	BA	2032	G
25	BA	2033	A
25	BA	2043	C
25	BA	2052	G
25	BA	2054	A
25	BA	2055	C
25	BA	2056	G
25	BA	2060	A
25	BA	2061	G
25	BA	2062	A
25	BA	2063	C

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Mol	Chain	Res	Type
25	BA	2069	G
25	BA	2072	G
25	BA	2074	U
25	BA	2081	C
25	BA	2093	G
25	BA	2097	C
25	BA	2102	U
25	BA	2104	G
25	BA	2105	C
25	BA	2184	G
25	BA	2186	G
25	BA	2187	G
25	BA	2188	C
25	BA	2191	G
25	BA	2198	A
25	BA	2199	A
25	BA	2200	C
25	BA	2201	C
25	BA	2206	G
25	BA	2207	G
25	BA	2208	A
25	BA	2218	U
25	BA	2225	A
25	BA	2234	G
25	BA	2238	G
25	BA	2243	U
25	BA	2268	A
25	BA	2269	A
25	BA	2273	A
25	BA	2274	A
25	BA	2275	C
25	BA	2278	A
25	BA	2279	G
25	BA	2283	C
25	BA	2287	A
25	BA	2288	A
25	BA	2289	G
25	BA	2294	C
25	BA	2298	A
25	BA	2305	A
25	BA	2306	C
25	BA	2307	G

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Mol	Chain	Res	Type
25	BA	2308	G
25	BA	2311	A
25	BA	2315	G
25	BA	2318	G
25	BA	2319	G
25	BA	2320	A
25	BA	2321	G
25	BA	2322	A
25	BA	2325	G
25	BA	2327	A
25	BA	2334	G
25	BA	2335	A
25	BA	2336	A
25	BA	2340	G
25	BA	2347	C
25	BA	2348	U
25	BA	2349	G
25	BA	2350	C
25	BA	2357	U
25	BA	2365	G
25	BA	2383	G
25	BA	2385	C
25	BA	2390	U
25	BA	2393	A
25	BA	2400	G
25	BA	2405	G
25	BA	2406	U
25	BA	2410	G
25	BA	2411	A
25	BA	2414	G
25	BA	2418	A
25	BA	2422	A
25	BA	2423	U
25	BA	2424	C
25	BA	2425	A
25	BA	2427	C
25	BA	2429	G
25	BA	2430	A
25	BA	2431	U
25	BA	2432	A
25	BA	2434	A
25	BA	2435	A

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Mol	Chain	Res	Type
25	BA	2439	A
25	BA	2440	C
25	BA	2441	C
25	BA	2445	G
25	BA	2448	A
25	BA	2451	A
25	BA	2459	A
25	BA	2464	C
25	BA	2467	C
25	BA	2469	A
25	BA	2471	C
25	BA	2475	C
25	BA	2476	A
25	BA	2477	C
25	BA	2478	A
25	BA	2487	G
25	BA	2494	G
25	BA	2496	C
25	BA	2502	G
25	BA	2505	G
25	BA	2506	U
25	BA	2507	C
25	BA	2518	A
25	BA	2520	C
25	BA	2525	G
25	BA	2529	G
25	BA	2535	G
25	BA	2554	U
25	BA	2566	A
25	BA	2567	G
25	BA	2573	C
25	BA	2574	G
25	BA	2585	U
25	BA	2586	C
25	BA	2596	U
25	BA	2602	A
25	BA	2604	U
25	BA	2609	U
25	BA	2610	C
25	BA	2611	U
25	BA	2612	C
25	BA	2615	U

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Mol	Chain	Res	Type
25	BA	2617	C
25	BA	2629	A
25	BA	2630	G
25	BA	2657	A
25	BA	2670	A
25	BA	2679	A
25	BA	2689	U
25	BA	2690	C
25	BA	2691	C
25	BA	2701	C
25	BA	2702	U
25	BA	2703	C
25	BA	2712(A)	A
25	BA	2713	A
25	BA	2714	G
25	BA	2726	U
25	BA	2733	A
25	BA	2739	U
25	BA	2758	A
25	BA	2765	A
25	BA	2766	G
25	BA	2769	C
25	BA	2778	A
25	BA	2779	U
25	BA	2790	A
25	BA	2791	C
25	BA	2792	G
25	BA	2802	G
25	BA	2808	U
25	BA	2818	G
25	BA	2820	A
25	BA	2821	A
25	BA	2826	A
25	BA	2833	G
25	BA	2834	G
25	BA	2835	A
25	BA	2848	G
25	BA	2858	C
25	BA	2870	C
25	BA	2872	G
25	BA	2873	A
25	BA	2892	A

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Mol	Chain	Res	Type
25	BA	2895	U
25	BA	2897	U
26	BB	2	C
26	BB	8	U
26	BB	9	G
26	BB	12	C
26	BB	13	A
26	BB	15	A
26	BB	16	G
26	BB	20	C
26	BB	29	A
26	BB	35	U
26	BB	39	A
26	BB	42	C
26	BB	45	A
26	BB	47	C
26	BB	54	G
26	BB	56	G
26	BB	64	C
26	BB	67	G
26	BB	73	A
26	BB	84	C
26	BB	91	C
26	BB	106	G
26	BB	110	G
26	BB	120	A
1	CA	6	G
1	CA	7	G
1	CA	9	G
1	CA	10	A
1	CA	13	U
1	CA	22	G
1	CA	26	A
1	CA	32	A
1	CA	39	G
1	CA	40	C
1	CA	47	C
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	58	C
1	CA	60	A

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Mol	Chain	Res	Type
1	CA	61	G
1	CA	65	U
1	CA	66	G
1	CA	73	G
1	CA	76	C
1	CA	96	U
1	CA	97	G
1	CA	101	A
1	CA	105	G
1	CA	112	G
1	CA	115	G
1	CA	116	A
1	CA	117	G
1	CA	120	A
1	CA	121	C
1	CA	129(A)	G
1	CA	131	C
1	CA	144	G
1	CA	146	G
1	CA	149	A
1	CA	150	C
1	CA	154	C
1	CA	163	C
1	CA	173	U
1	CA	182	U
1	CA	189(B)	C
1	CA	189(F)	U
1	CA	189(H)	G
1	CA	195	A
1	CA	197	A
1	CA	199	G
1	CA	200	G
1	CA	201	C
1	CA	202	U
1	CA	203	U
1	CA	204	U
1	CA	216	G
1	CA	227	G
1	CA	245	C
1	CA	247	G
1	CA	250	A
1	CA	251	G

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Mol	Chain	Res	Type
1	CA	253	U
1	CA	266	G
1	CA	267	C
1	CA	275	G
1	CA	281	G
1	CA	289	G
1	CA	300	A
1	CA	305	G
1	CA	314	C
1	CA	319	G
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	331	G
1	CA	332	G
1	CA	344	A
1	CA	349	A
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	355	C
1	CA	363	A
1	CA	365	U
1	CA	366	C
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	381	C
1	CA	382	A
1	CA	389	A
1	CA	397	A
1	CA	398	C
1	CA	404	U
1	CA	406	G
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	419	C
1	CA	421	U
1	CA	422	C
1	CA	424	G
1	CA	427	U

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Mol	Chain	Res	Type
1	CA	429	U
1	CA	430	A
1	CA	431	A
1	CA	436	C
1	CA	437	U
1	CA	439	A
1	CA	441	A
1	CA	442	C
1	CA	445	G
1	CA	452	A
1	CA	461	A
1	CA	475	G
1	CA	484	G
1	CA	485	G
1	CA	491	G
1	CA	496	A
1	CA	498	U
1	CA	499	A
1	CA	505	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	513	C
1	CA	518	C
1	CA	527	G
1	CA	532	A
1	CA	533	A
1	CA	541	G
1	CA	547	A
1	CA	549	C
1	CA	550	G
1	CA	558	G
1	CA	559	A
1	CA	560	U
1	CA	561	U
1	CA	562	C
1	CA	564	C
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	587	G

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Mol	Chain	Res	Type
1	CA	588	G
1	CA	595	G
1	CA	596	C
1	CA	597	G
1	CA	602	A
1	CA	617	G
1	CA	623	C
1	CA	630	G
1	CA	632	A
1	CA	633	G
1	CA	650	G
1	CA	653	A
1	CA	657	G
1	CA	665	A
1	CA	666	G
1	CA	687	A
1	CA	688	G
1	CA	711	G
1	CA	721	G
1	CA	723	U
1	CA	724	G
1	CA	729	A
1	CA	731	G
1	CA	749	C
1	CA	754	C
1	CA	755	G
1	CA	760	G
1	CA	763	G
1	CA	765	G
1	CA	776	G
1	CA	777	A
1	CA	782	A
1	CA	788	U
1	CA	792	A
1	CA	793	U
1	CA	794	A
1	CA	796	C
1	CA	799	G
1	CA	810	C
1	CA	812	C
1	CA	817	C
1	CA	819	A

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Mol	Chain	Res	Type
1	CA	820	U
1	CA	821	G
1	CA	828	A
1	CA	829	G
1	CA	833	U
1	CA	839	U
1	CA	840	C
1	CA	841	U
1	CA	848	C
1	CA	851	G
1	CA	858	G
1	CA	859	A
1	CA	870	U
1	CA	872	A
1	CA	873	A
1	CA	876	G
1	CA	877	C
1	CA	878	G
1	CA	884	U
1	CA	885	G
1	CA	902	G
1	CA	906	G
1	CA	914	A
1	CA	919	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	954	G
1	CA	960	U
1	CA	961	U
1	CA	966	G
1	CA	969	A
1	CA	972	C
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	984	C
1	CA	992	U
1	CA	993	G

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Mol	Chain	Res	Type
1	CA	995	C
1	CA	1009	G
1	CA	1011	G
1	CA	1017	G
1	CA	1045	C
1	CA	1050	G
1	CA	1053	G
1	CA	1054	C
1	CA	1055	A
1	CA	1057	G
1	CA	1058	G
1	CA	1062	U
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1069	C
1	CA	1079	G
1	CA	1081	G
1	CA	1086	U
1	CA	1093	A
1	CA	1095	U
1	CA	1101	A
1	CA	1104	G
1	CA	1113	C
1	CA	1117	G
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1127	G
1	CA	1134	G
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1140	C
1	CA	1147	C
1	CA	1148	U
1	CA	1152	A
1	CA	1154	G
1	CA	1159	U
1	CA	1160	G
1	CA	1170	A

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Mol	Chain	Res	Type
1	CA	1171	G
1	CA	1178	G
1	CA	1179	A
1	CA	1182	G
1	CA	1185	G
1	CA	1188	A
1	CA	1190	G
1	CA	1193	G
1	CA	1196	U
1	CA	1197	G
1	CA	1201	A
1	CA	1202	G
1	CA	1203	C
1	CA	1211	U
1	CA	1212	U
1	CA	1213	A
1	CA	1215	G
1	CA	1218	C
1	CA	1224	G
1	CA	1225	A
1	CA	1226	C
1	CA	1227	A
1	CA	1228	C
1	CA	1236	A
1	CA	1238	A
1	CA	1239	A
1	CA	1240	U
1	CA	1241	G
1	CA	1248	A
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1260	C
1	CA	1263	C
1	CA	1269	A
1	CA	1270	C
1	CA	1273	G
1	CA	1277	C
1	CA	1279	A
1	CA	1280	A
1	CA	1282	C
1	CA	1283	G

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Mol	Chain	Res	Type
1	CA	1286	A
1	CA	1287	A
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G
1	CA	1311	G
1	CA	1312	G
1	CA	1317	C
1	CA	1320	C
1	CA	1321	C
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1335	C
1	CA	1336	C
1	CA	1346	A
1	CA	1347	G
1	CA	1353	G
1	CA	1358	U
1	CA	1359	C
1	CA	1363	C
1	CA	1365	G
1	CA	1369	C
1	CA	1370	G
1	CA	1378	C
1	CA	1382	C
1	CA	1388	C
1	CA	1389	C
1	CA	1397	C
1	CA	1398	A
1	CA	1406	U
1	CA	1411	C
1	CA	1419	G
1	CA	1425	U
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1447	A
1	CA	1452	C
1	CA	1456	G
1	CA	1457	G

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Mol	Chain	Res	Type
1	CA	1487	G
1	CA	1492	A
1	CA	1493	A
1	CA	1494	G
1	CA	1499	A
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
23	CV	7	G
23	CV	8	U
23	CV	9	G
23	CV	10	G
23	CV	13	C
23	CV	17	C
23	CV	18	G
23	CV	19	G
23	CV	20	U
23	CV	21	A
23	CV	22	G
23	CV	47	U
23	CV	48	C
23	CV	49	G
23	CV	50	U
23	CV	52	G
23	CV	56	C
23	CV	65	C
23	CV	70	G
23	CV	74	C
23	CV	76	A
25	DA	9	U
25	DA	10	G
25	DA	14	A
25	DA	15	G

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Mol	Chain	Res	Type
25	DA	30	G
25	DA	34	C
25	DA	35	G
25	DA	36	G
25	DA	45	C
25	DA	55	G
25	DA	61	G
25	DA	64	A
25	DA	70	G
25	DA	71	A
25	DA	72	U
25	DA	74	A
25	DA	75	G
25	DA	84	A
25	DA	90	U
25	DA	92	A
25	DA	100	G
25	DA	102	G
25	DA	103	A
25	DA	118	A
25	DA	120	U
25	DA	133	C
25	DA	141	A
25	DA	153	C
25	DA	154	G
25	DA	154(A)	C
25	DA	157	U
25	DA	172	C
25	DA	173	G
25	DA	181	A
25	DA	182	A
25	DA	183	C
25	DA	196	A
25	DA	197	A
25	DA	199	A
25	DA	200	U
25	DA	204	A
25	DA	205	G
25	DA	215	G
25	DA	216	A
25	DA	221	A
25	DA	222	A

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Mol	Chain	Res	Type
25	DA	224	G
25	DA	228	A
25	DA	229	A
25	DA	232	G
25	DA	233	A
25	DA	245	G
25	DA	248	G
25	DA	250	G
25	DA	252	G
25	DA	271(I)	G
25	DA	271(K)	U
25	DA	271(L)	U
25	DA	271(M)	G
25	DA	271(N)	U
25	DA	271(O)	C
25	DA	271(R)	G
25	DA	272(A)	U
25	DA	272(B)	G
25	DA	281	G
25	DA	287	C
25	DA	308	G
25	DA	311	A
25	DA	324	A
25	DA	329	G
25	DA	330	A
25	DA	342	G
25	DA	352	G
25	DA	353	G
25	DA	363	G
25	DA	363(B)	G
25	DA	363(C)	G
25	DA	363(F)	A
25	DA	386	G
25	DA	387	U
25	DA	389	G
25	DA	396	G
25	DA	406	G
25	DA	407	G
25	DA	411	G
25	DA	412	A
25	DA	427	U
25	DA	428	A

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Mol	Chain	Res	Type
25	DA	444	C
25	DA	447	A
25	DA	455	C
25	DA	456	C
25	DA	457	A
25	DA	464	U
25	DA	470	A
25	DA	471	A
25	DA	472	A
25	DA	474	G
25	DA	475	U
25	DA	481	G
25	DA	482	A
25	DA	501	A
25	DA	503	A
25	DA	504	U
25	DA	505	A
25	DA	508	G
25	DA	509	C
25	DA	510	C
25	DA	521	G
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G
25	DA	545	G
25	DA	546	C
25	DA	549	G
25	DA	563	G
25	DA	571	A
25	DA	573	G
25	DA	574	C
25	DA	575	A
25	DA	587	C
25	DA	588	U
25	DA	603	A
25	DA	604	G
25	DA	607	U
25	DA	615	G
25	DA	616	G
25	DA	620	G
25	DA	627	A

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Mol	Chain	Res	Type
25	DA	637	A
25	DA	645	C
25	DA	646	A
25	DA	652(B)	A
25	DA	652(C)	G
25	DA	652(E)	G
25	DA	652(U)	G
25	DA	653	A
25	DA	668	G
25	DA	669	G
25	DA	670	A
25	DA	684	G
25	DA	685	A
25	DA	686	G
25	DA	701	G
25	DA	708	C
25	DA	709	U
25	DA	717	G
25	DA	718	A
25	DA	726	G
25	DA	730	C
25	DA	731	C
25	DA	738	G
25	DA	740	U
25	DA	746	A
25	DA	747	U
25	DA	748	G
25	DA	749	C
25	DA	753	C
25	DA	762	U
25	DA	765	G
25	DA	775	G
25	DA	776	G
25	DA	779	U
25	DA	782	A
25	DA	783	A
25	DA	784	A
25	DA	785	G
25	DA	790	C
25	DA	792	G
25	DA	805	G
25	DA	812	C

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Mol	Chain	Res	Type
25	DA	819	A
25	DA	822	U
25	DA	827	U
25	DA	828	U
25	DA	829	A
25	DA	830	G
25	DA	839	U
25	DA	840	C
25	DA	846	C
25	DA	848	G
25	DA	855	G
25	DA	857	C
25	DA	859	G
25	DA	869	G
25	DA	874	G
25	DA	875	G
25	DA	880	G
25	DA	884	C
25	DA	885	C
25	DA	886	C
25	DA	887	A
25	DA	888	C
25	DA	889	C
25	DA	890	A
25	DA	893	C
25	DA	894	C
25	DA	896	A
25	DA	900	A
25	DA	901	A
25	DA	905	U
25	DA	910	A
25	DA	911	A
25	DA	917	A
25	DA	931	G
25	DA	932	G
25	DA	933	A
25	DA	934	G
25	DA	938	G
25	DA	941	A
25	DA	944	G
25	DA	945	A
25	DA	946	G

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Mol	Chain	Res	Type
25	DA	947	G
25	DA	957	A
25	DA	958	U
25	DA	959	A
25	DA	961	C
25	DA	968	G
25	DA	974	G
25	DA	975	C
25	DA	975(A)	G
25	DA	983	A
25	DA	991	C
25	DA	996	A
25	DA	999	U
25	DA	1004	C
25	DA	1005	C
25	DA	1009	A
25	DA	1010	A
25	DA	1012	U
25	DA	1013	C
25	DA	1020	A
25	DA	1021	A
25	DA	1022	G
25	DA	1023	U
25	DA	1026	U
25	DA	1027	A
25	DA	1033	U
25	DA	1035	U
25	DA	1041	C
25	DA	1042	G
25	DA	1113	U
25	DA	1114	G
25	DA	1115	G
25	DA	1118	C
25	DA	1126	A
25	DA	1130	U
25	DA	1135	C
25	DA	1136	G
25	DA	1137	G
25	DA	1139	G
25	DA	1142(A)	A
25	DA	1143	A
25	DA	1150	C

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Mol	Chain	Res	Type
25	DA	1155	A
25	DA	1170	G
25	DA	1171	G
25	DA	1204	A
25	DA	1205	U
25	DA	1210	A
25	DA	1211	U
25	DA	1212	G
25	DA	1213	A
25	DA	1219	G
25	DA	1220	A
25	DA	1236	G
25	DA	1237	A
25	DA	1240	U
25	DA	1241	A
25	DA	1244	G
25	DA	1253	A
25	DA	1256	G
25	DA	1262	A
25	DA	1264	G
25	DA	1268	A
25	DA	1271	G
25	DA	1272	A
25	DA	1273	U
25	DA	1278	A
25	DA	1287	A
25	DA	1298	C
25	DA	1300	U
25	DA	1301	A
25	DA	1308	A
25	DA	1314	C
25	DA	1319	G
25	DA	1329	U
25	DA	1332	G
25	DA	1333	C
25	DA	1345	C
25	DA	1352	U
25	DA	1359	A
25	DA	1360	A
25	DA	1365	A
25	DA	1368	G
25	DA	1370	C

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Mol	Chain	Res	Type
25	DA	1373	A
25	DA	1379	A
25	DA	1380	G
25	DA	1384	A
25	DA	1385	G
25	DA	1386	C
25	DA	1416	G
25	DA	1419	A
25	DA	1420	U
25	DA	1421	G
25	DA	1427	A
25	DA	1428	C
25	DA	1437	C
25	DA	1445	A
25	DA	1448	G
25	DA	1449	A
25	DA	1450	G
25	DA	1452	A
25	DA	1455	G
25	DA	1465	G
25	DA	1467	C
25	DA	1471	A
25	DA	1478	G
25	DA	1482	G
25	DA	1489	U
25	DA	1493	C
25	DA	1496	A
25	DA	1497	U
25	DA	1507	A
25	DA	1508	A
25	DA	1509	C
25	DA	1509(A)	A
25	DA	1510	G
25	DA	1525	G
25	DA	1531	C
25	DA	1537	G
25	DA	1541	G
25	DA	1542	A
25	DA	1543	C
25	DA	1547	C
25	DA	1558	A
25	DA	1559	G

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Mol	Chain	Res	Type
25	DA	1560	G
25	DA	1569	A
25	DA	1578	U
25	DA	1579	A
25	DA	1581	G
25	DA	1584	C
25	DA	1586	A
25	DA	1598	C
25	DA	1603	A
25	DA	1608	A
25	DA	1609	A
25	DA	1616	A
25	DA	1617	C
25	DA	1619	G
25	DA	1621	U
25	DA	1625	C
25	DA	1640	C
25	DA	1648	C
25	DA	1653	G
25	DA	1654	A
25	DA	1655	A
25	DA	1665	A
25	DA	1674	G
25	DA	1676	A
25	DA	1695	G
25	DA	1696	G
25	DA	1700	A
25	DA	1701	A
25	DA	1703	G
25	DA	1721	G
25	DA	1722	A
25	DA	1740	G
25	DA	1742	G
25	DA	1746	G
25	DA	1752	C
25	DA	1756	G
25	DA	1758	G
25	DA	1762	A
25	DA	1763	G
25	DA	1764	G
25	DA	1769	G
25	DA	1773	A

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Mol	Chain	Res	Type
25	DA	1779	U
25	DA	1780	A
25	DA	1781	C
25	DA	1782	C
25	DA	1786	A
25	DA	1791	A
25	DA	1799	G
25	DA	1800	C
25	DA	1801	G
25	DA	1811	G
25	DA	1812	A
25	DA	1816	G
25	DA	1819	A
25	DA	1820	U
25	DA	1827	C
25	DA	1828	G
25	DA	1829	A
25	DA	1834	U
25	DA	1835	G
25	DA	1842	G
25	DA	1847	A
25	DA	1859	A
25	DA	1860	G
25	DA	1861	G
25	DA	1877	A
25	DA	1878	G
25	DA	1896	G
25	DA	1900	A
25	DA	1906	G
25	DA	1913	A
25	DA	1914	C
25	DA	1915	U
25	DA	1920	C
25	DA	1929	G
25	DA	1930	G
25	DA	1934	C
25	DA	1936	A
25	DA	1938	A
25	DA	1950	G
25	DA	1955	U
25	DA	1963	U
25	DA	1964	G

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Mol	Chain	Res	Type
25	DA	1967	C
25	DA	1968	G
25	DA	1969	A
25	DA	1970	A
25	DA	1971	A
25	DA	1972	A
25	DA	1979	C
25	DA	1980	G
25	DA	1982	C
25	DA	1984	G
25	DA	1991	U
25	DA	1992	G
25	DA	1993	U
25	DA	1996	C
25	DA	1997	G
25	DA	2018	G
25	DA	2020	A
25	DA	2023	G
25	DA	2031	A
25	DA	2032	G
25	DA	2033	A
25	DA	2036	C
25	DA	2039	C
25	DA	2043	C
25	DA	2049	G
25	DA	2052	G
25	DA	2055	C
25	DA	2056	G
25	DA	2060	A
25	DA	2061	G
25	DA	2062	A
25	DA	2069	G
25	DA	2070	G
25	DA	2082	A
25	DA	2097	C
25	DA	2099	U
25	DA	2103	C
25	DA	2104	G
25	DA	2105	C
25	DA	2185	C
25	DA	2187	G
25	DA	2188	C

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Mol	Chain	Res	Type
25	DA	2191	G
25	DA	2192	G
25	DA	2193	G
25	DA	2198	A
25	DA	2199	A
25	DA	2200	C
25	DA	2201	C
25	DA	2206	G
25	DA	2207	G
25	DA	2208	A
25	DA	2219	G
25	DA	2225	A
25	DA	2238	G
25	DA	2239	G
25	DA	2240	C
25	DA	2257	U
25	DA	2275	C
25	DA	2279	G
25	DA	2283	C
25	DA	2287	A
25	DA	2288	A
25	DA	2289	G
25	DA	2298	A
25	DA	2304	G
25	DA	2305	A
25	DA	2311	A
25	DA	2319	G
25	DA	2320	A
25	DA	2321	G
25	DA	2322	A
25	DA	2324	C
25	DA	2325	G
25	DA	2327	A
25	DA	2328	A
25	DA	2334	G
25	DA	2336	A
25	DA	2343	C
25	DA	2347	C
25	DA	2349	G
25	DA	2350	C
25	DA	2352	A
25	DA	2359	C

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Mol	Chain	Res	Type
25	DA	2366	A
25	DA	2375	G
25	DA	2383	G
25	DA	2384	G
25	DA	2385	C
25	DA	2388	A
25	DA	2391	G
25	DA	2392	A
25	DA	2400	G
25	DA	2405	G
25	DA	2406	U
25	DA	2410	G
25	DA	2414	G
25	DA	2416	C
25	DA	2421	G
25	DA	2422	A
25	DA	2423	U
25	DA	2425	A
25	DA	2426	A
25	DA	2427	C
25	DA	2428	G
25	DA	2429	G
25	DA	2430	A
25	DA	2432	A
25	DA	2435	A
25	DA	2436	G
25	DA	2439	A
25	DA	2440	C
25	DA	2441	C
25	DA	2445	G
25	DA	2448	A
25	DA	2459	A
25	DA	2469	A
25	DA	2470	G
25	DA	2474	C
25	DA	2476	A
25	DA	2479	G
25	DA	2480	C
25	DA	2481	G
25	DA	2486	G
25	DA	2497	A
25	DA	2502	G

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Mol	Chain	Res	Type
25	DA	2504	U
25	DA	2505	G
25	DA	2506	U
25	DA	2509	G
25	DA	2517	C
25	DA	2518	A
25	DA	2520	C
25	DA	2525	G
25	DA	2529	G
25	DA	2535	G
25	DA	2553	G
25	DA	2554	U
25	DA	2566	A
25	DA	2567	G
25	DA	2569	G
25	DA	2572	A
25	DA	2573	C
25	DA	2582	G
25	DA	2585	U
25	DA	2586	C
25	DA	2601	C
25	DA	2602	A
25	DA	2608	G
25	DA	2609	U
25	DA	2611	U
25	DA	2612	C
25	DA	2615	U
25	DA	2623	G
25	DA	2629	A
25	DA	2630	G
25	DA	2632	A
25	DA	2636	U
25	DA	2646	C
25	DA	2663	G
25	DA	2669	G
25	DA	2673	G
25	DA	2675	A
25	DA	2679	A
25	DA	2686	G
25	DA	2689	U
25	DA	2690	C
25	DA	2691	C

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Mol	Chain	Res	Type
25	DA	2702	U
25	DA	2711	A
25	DA	2712(A)	A
25	DA	2713	A
25	DA	2714	G
25	DA	2722	G
25	DA	2726	U
25	DA	2727	G
25	DA	2733	A
25	DA	2735	G
25	DA	2744	G
25	DA	2752	C
25	DA	2756	U
25	DA	2758	A
25	DA	2761	G
25	DA	2764	A
25	DA	2765	A
25	DA	2766	G
25	DA	2769	C
25	DA	2778	A
25	DA	2780	G
25	DA	2787	C
25	DA	2789	C
25	DA	2790	A
25	DA	2791	C
25	DA	2802	G
25	DA	2803	C
25	DA	2807	G
25	DA	2808	U
25	DA	2812	G
25	DA	2818	G
25	DA	2820	A
25	DA	2821	A
25	DA	2825	C
25	DA	2833	G
25	DA	2834	G
25	DA	2835	A
25	DA	2836	U
25	DA	2850	A
25	DA	2851	A
25	DA	2872	G
25	DA	2873	A

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Mol	Chain	Res	Type
25	DA	2879	C
25	DA	2880	C
25	DA	2892	A
25	DA	2895	U
26	DB	2	C
26	DB	7	G
26	DB	9	G
26	DB	12	C
26	DB	13	A
26	DB	23	G
26	DB	24	G
26	DB	30	C
26	DB	31	C
26	DB	40	U
26	DB	44	G
26	DB	45	A
26	DB	52	A
26	DB	53	A
26	DB	54	G
26	DB	56	G
26	DB	67	G
26	DB	73	A
26	DB	84	C
26	DB	96	U
26	DB	97	G
26	DB	106	G
26	DB	110	G
26	DB	116	G
26	DB	117	G
26	DB	120	A

All (188) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	60	A
1	AA	115	G
1	AA	119	A
1	AA	266	G
1	AA	327	A
1	AA	343	U
1	AA	366	C
1	AA	428	G

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Mol	Chain	Res	Type
1	AA	429	U
1	AA	509	A
1	AA	533	A
1	AA	560	U
1	AA	660	G
1	AA	687	A
1	AA	748	C
1	AA	793	U
1	AA	828	A
1	AA	913	A
1	AA	991	U
1	AA	992	U
1	AA	1019	C
1	AA	1065	U
1	AA	1067	A
1	AA	1126	U
1	AA	1165	C
1	AA	1201	A
1	AA	1256	A
1	AA	1281	U
1	AA	1285	A
1	AA	1300	G
1	AA	1456	G
1	AA	1504	G
1	AA	1530	G
23	AV	9	G
25	BA	34	C
25	BA	102	G
25	BA	196	A
25	BA	249	C
25	BA	271(K)	U
25	BA	271(L)	U
25	BA	271(M)	G
25	BA	278	A
25	BA	352	G
25	BA	362	U
25	BA	363(E)	U
25	BA	405	U
25	BA	474	G
25	BA	481	G
25	BA	587	C
25	BA	652(A)	A

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Mol	Chain	Res	Type
25	BA	685	A
25	BA	752	A
25	BA	764	A
25	BA	774	A
25	BA	827	U
25	BA	888	C
25	BA	900	A
25	BA	915	C
25	BA	1026	U
25	BA	1047	G
25	BA	1106	G
25	BA	1108	U
25	BA	1142(A)	A
25	BA	1174	A
25	BA	1175	U
25	BA	1176	G
25	BA	1210	A
25	BA	1253	A
25	BA	1286	A
25	BA	1301	A
25	BA	1379	A
25	BA	1420	U
25	BA	1427	A
25	BA	1507	A
25	BA	1558	A
25	BA	1559	G
25	BA	1608	A
25	BA	1609	A
25	BA	1653	G
25	BA	1781	C
25	BA	1799	G
25	BA	1819	A
25	BA	1914	C
25	BA	1992	G
25	BA	2062	A
25	BA	2318	G
25	BA	2319	G
25	BA	2335	A
25	BA	2405	G
25	BA	2406	U
25	BA	2422	A
25	BA	2439	A

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Mol	Chain	Res	Type
25	BA	2506	U
25	BA	2610	C
25	BA	2689	U
25	BA	2778	A
25	BA	2789	C
25	BA	2834	G
1	CA	60	A
1	CA	65	U
1	CA	115	G
1	CA	119	A
1	CA	149	A
1	CA	266	G
1	CA	366	C
1	CA	428	G
1	CA	429	U
1	CA	509	A
1	CA	560	U
1	CA	562	C
1	CA	687	A
1	CA	748	C
1	CA	793	U
1	CA	828	A
1	CA	840	C
1	CA	913	A
1	CA	991	U
1	CA	992	U
1	CA	1049	U
1	CA	1061	G
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A
1	CA	1201	A
1	CA	1256	A
1	CA	1279	A
1	CA	1285	A
1	CA	1300	G
1	CA	1492	A
1	CA	1504	G
1	CA	1530	G
25	DA	9	U
25	DA	34	C
25	DA	71	A

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Mol	Chain	Res	Type
25	DA	102	G
25	DA	196	A
25	DA	249	C
25	DA	271(M)	G
25	DA	310	A
25	DA	363(E)	U
25	DA	474	G
25	DA	481	G
25	DA	503	A
25	DA	587	C
25	DA	669	G
25	DA	685	A
25	DA	746	A
25	DA	752	A
25	DA	774	A
25	DA	827	U
25	DA	856	C
25	DA	888	C
25	DA	900	A
25	DA	974	G
25	DA	1026	U
25	DA	1210	A
25	DA	1332	G
25	DA	1378	A
25	DA	1379	A
25	DA	1420	U
25	DA	1427	A
25	DA	1507	A
25	DA	1530	C
25	DA	1558	A
25	DA	1559	G
25	DA	1608	A
25	DA	1653	G
25	DA	1819	A
25	DA	1914	C
25	DA	1963	U
25	DA	1992	G
25	DA	2019	A
25	DA	2238	G
25	DA	2282	G
25	DA	2288	A
25	DA	2318	G

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Mol	Chain	Res	Type
25	DA	2319	G
25	DA	2326	C
25	DA	2335	A
25	DA	2405	G
25	DA	2439	A
25	DA	2689	U
25	DA	2726	U
25	DA	2778	A
25	DA	2789	C
25	DA	2802	G
26	DB	44	G
26	DB	52	A

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2350 ligands modelled in this entry, 2350 are monoatomic - leaving 0 for Mogul analysis.

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, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	AA	1466/1522 (96%)	-0.22	10 (0%) 84 69	43, 93, 137, 172	0
1	CA	1461/1522 (95%)	-0.08	16 (1%) 78 61	55, 104, 145, 167	0
2	AB	233/256 (91%)	0.36	7 (3%) 52 33	72, 113, 134, 153	0
2	CB	235/256 (91%)	0.41	8 (3%) 48 30	100, 125, 139, 147	0
3	AC	204/239 (85%)	0.36	8 (3%) 43 27	97, 112, 125, 133	0
3	CC	206/239 (86%)	0.57	14 (6%) 23 15	110, 125, 136, 142	0
4	AD	208/209 (99%)	0.54	13 (6%) 26 17	76, 103, 118, 125	0
4	CD	208/209 (99%)	0.42	7 (3%) 48 30	85, 98, 114, 120	0
5	AE	148/162 (91%)	-0.02	1 (0%) 84 69	67, 89, 108, 134	0
5	CE	149/162 (91%)	0.16	1 (0%) 84 69	83, 99, 110, 131	0
6	AF	100/101 (99%)	-0.03	2 (2%) 65 45	68, 88, 104, 110	0
6	CF	100/101 (99%)	0.03	1 (1%) 79 63	78, 96, 110, 117	0
7	AG	154/156 (98%)	0.15	0 100 100	87, 102, 120, 133	0
7	CG	154/156 (98%)	0.33	11 (7%) 22 14	107, 119, 133, 144	0
8	AH	138/138 (100%)	-0.10	2 (1%) 73 54	73, 91, 100, 111	0
8	CH	138/138 (100%)	0.08	1 (0%) 84 69	82, 100, 111, 116	0
9	AI	125/128 (97%)	0.61	8 (6%) 25 16	71, 114, 126, 137	0
9	CI	125/128 (97%)	0.80	13 (10%) 11 8	101, 130, 138, 142	0
10	AJ	96/105 (91%)	0.77	4 (4%) 40 25	88, 119, 136, 140	0
10	CJ	96/105 (91%)	1.16	11 (11%) 9 7	111, 133, 141, 143	0
11	AK	115/129 (89%)	-0.02	0 100 100	53, 87, 104, 113	0
11	CK	114/129 (88%)	0.29	4 (3%) 47 29	78, 103, 118, 127	0
12	AL	122/132 (92%)	-0.05	2 (1%) 70 51	61, 84, 100, 111	0
12	CL	122/132 (92%)	0.09	1 (0%) 82 67	72, 90, 105, 114	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AM	115/126 (91%)	0.32	5 (4%) 40 24	66, 100, 113, 118	0
13	CM	112/126 (88%)	0.57	8 (7%) 22 14	102, 127, 135, 139	0
14	AN	59/61 (96%)	0.53	4 (6%) 23 15	94, 106, 114, 121	0
14	CN	59/61 (96%)	1.08	7 (11%) 9 6	116, 125, 133, 135	0
15	AO	88/89 (98%)	-0.02	0 100 100	65, 86, 106, 117	0
15	CO	88/89 (98%)	0.08	0 100 100	74, 96, 114, 118	0
16	AP	81/88 (92%)	0.35	2 (2%) 58 39	83, 100, 122, 127	0
16	CP	82/88 (93%)	0.29	0 100 100	84, 94, 112, 122	0
17	AQ	99/105 (94%)	0.03	3 (3%) 52 33	68, 89, 104, 113	0
17	CQ	99/105 (94%)	0.03	1 (1%) 79 63	77, 95, 110, 113	0
18	AR	68/88 (77%)	-0.16	0 100 100	69, 84, 102, 106	0
18	CR	68/88 (77%)	-0.07	0 100 100	82, 92, 111, 115	0
19	AS	81/93 (87%)	0.37	5 (6%) 26 17	96, 110, 130, 141	0
19	CS	75/93 (80%)	0.62	6 (8%) 18 12	107, 131, 142, 146	0
20	AT	96/106 (90%)	0.28	3 (3%) 51 32	77, 97, 113, 118	0
20	CT	104/106 (98%)	0.21	5 (4%) 35 22	81, 101, 123, 139	0
21	AU	25/27 (92%)	1.04	2 (8%) 18 12	80, 98, 105, 107	0
21	CU	23/27 (85%)	1.68	6 (26%) 1 2	115, 126, 132, 134	0
22	AY	132/140 (94%)	0.83	16 (12%) 8 6	69, 110, 138, 152	0
23	AV	77/77 (100%)	-0.38	1 (1%) 75 55	55, 82, 112, 132	0
23	CV	77/77 (100%)	-0.21	0 100 100	73, 109, 133, 150	0
24	AX	6/16 (37%)	0.17	0 100 100	67, 73, 127, 128	0
24	CX	6/16 (37%)	0.60	0 100 100	89, 96, 142, 147	0
25	BA	2752/2915 (94%)	-0.96	10 (0%) 88 79	23, 43, 115, 170	0
25	DA	2722/2915 (93%)	-0.57	13 (0%) 87 76	44, 74, 127, 170	0
26	BB	120/122 (98%)	-0.71	1 (0%) 82 67	36, 64, 90, 125	0
26	DB	120/122 (98%)	0.12	1 (0%) 82 67	73, 114, 129, 146	0
27	BD	275/276 (99%)	-0.66	1 (0%) 88 79	27, 43, 62, 110	0
27	DD	275/276 (99%)	-0.34	1 (0%) 88 79	41, 62, 82, 100	0
28	BE	204/206 (99%)	-0.69	0 100 100	22, 45, 71, 94	0
28	DE	204/206 (99%)	-0.27	2 (0%) 79 63	43, 74, 100, 113	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
29	BF	203/210 (96%)	-0.57	1 (0%) 87 76	26, 49, 87, 115	0
29	DF	203/210 (96%)	-0.09	2 (0%) 79 63	47, 88, 114, 127	0
30	BG	181/182 (99%)	-0.14	2 (1%) 78 61	58, 77, 105, 116	0
30	DG	180/182 (98%)	0.41	6 (3%) 49 30	101, 117, 127, 136	0
31	BH	174/180 (96%)	-0.45	1 (0%) 85 73	38, 65, 84, 98	0
31	DH	174/180 (96%)	0.23	1 (0%) 85 73	96, 116, 130, 140	0
32	BI	147/148 (99%)	-0.17	1 (0%) 84 69	50, 95, 112, 128	0
32	DI	146/148 (98%)	0.15	0 100 100	68, 108, 126, 131	0
33	BN	140/140 (100%)	-0.69	0 100 100	30, 42, 69, 83	0
33	DN	140/140 (100%)	-0.10	0 100 100	64, 86, 107, 117	0
34	BO	122/122 (100%)	-0.72	1 (0%) 82 67	33, 52, 71, 82	0
34	DO	122/122 (100%)	-0.35	0 100 100	57, 73, 88, 96	0
35	BP	149/150 (99%)	-0.37	0 100 100	25, 55, 86, 108	0
35	DP	149/150 (99%)	0.01	1 (0%) 84 69	52, 91, 116, 127	0
36	BQ	141/141 (100%)	-0.55	0 100 100	33, 50, 70, 90	0
36	DQ	141/141 (100%)	0.11	2 (1%) 73 54	67, 90, 106, 114	0
37	BR	118/118 (100%)	-0.75	0 100 100	27, 41, 59, 67	0
37	DR	118/118 (100%)	-0.36	0 100 100	49, 65, 86, 95	0
38	BS	110/112 (98%)	-0.40	0 100 100	44, 62, 86, 97	0
38	DS	110/112 (98%)	0.18	0 100 100	90, 109, 119, 127	0
39	BT	132/146 (90%)	-0.47	1 (0%) 82 67	41, 55, 94, 127	0
39	DT	130/146 (89%)	-0.23	1 (0%) 82 67	62, 77, 108, 123	0
40	BU	116/118 (98%)	-0.76	0 100 100	25, 36, 55, 71	0
40	DU	116/118 (98%)	-0.12	1 (0%) 81 64	54, 82, 103, 108	0
41	BV	100/101 (99%)	-0.80	0 100 100	28, 46, 73, 90	0
41	DV	100/101 (99%)	-0.06	0 100 100	56, 98, 119, 123	0
42	BW	112/113 (99%)	-0.80	0 100 100	28, 37, 63, 89	0
42	DW	111/113 (98%)	-0.40	2 (1%) 67 48	49, 63, 89, 114	0
43	BX	95/96 (98%)	-0.55	0 100 100	34, 46, 77, 92	0
43	DX	95/96 (98%)	-0.15	1 (1%) 78 61	61, 77, 100, 107	0
44	BY	107/110 (97%)	-0.51	0 100 100	41, 60, 91, 109	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	DY	107/110 (97%)	0.19	3 (2%) 55 35	77, 96, 112, 124	0
45	BZ	186/206 (90%)	-0.18	0 100 100	49, 76, 104, 126	0
45	DZ	189/206 (91%)	0.28	4 (2%) 63 43	98, 114, 131, 139	0
46	B0	76/85 (89%)	-0.59	0 100 100	32, 42, 59, 83	0
46	D0	77/85 (90%)	0.18	2 (2%) 57 37	73, 85, 101, 124	0
47	B1	97/98 (98%)	-0.43	0 100 100	32, 51, 90, 104	0
47	D1	97/98 (98%)	-0.16	1 (1%) 79 63	50, 72, 105, 115	0
48	B2	70/72 (97%)	-0.38	1 (1%) 73 54	41, 60, 78, 103	0
48	D2	71/72 (98%)	-0.02	0 100 100	78, 94, 106, 110	0
49	B3	59/60 (98%)	-0.78	0 100 100	33, 41, 76, 93	0
49	D3	58/60 (96%)	0.00	1 (1%) 69 49	71, 84, 114, 128	0
50	B4	46/71 (64%)	-0.32	0 100 100	78, 96, 112, 114	0
50	D4	46/71 (64%)	0.18	0 100 100	118, 126, 136, 138	0
51	B5	59/60 (98%)	-0.79	0 100 100	25, 41, 62, 74	0
51	D5	59/60 (98%)	-0.22	0 100 100	47, 66, 85, 106	0
52	B6	53/54 (98%)	-0.69	0 100 100	42, 49, 66, 76	0
52	D6	53/54 (98%)	-0.12	0 100 100	67, 81, 93, 101	0
53	B7	48/49 (97%)	-0.41	2 (4%) 40 25	25, 33, 68, 88	0
53	D7	48/49 (97%)	-0.21	2 (4%) 40 25	41, 53, 82, 105	0
54	B8	64/65 (98%)	-0.68	0 100 100	35, 41, 49, 72	0
54	D8	64/65 (98%)	-0.03	0 100 100	60, 71, 83, 94	0
55	B9	36/37 (97%)	-0.52	0 100 100	33, 46, 58, 72	0
55	D9	35/37 (94%)	0.64	3 (8%) 16 11	73, 88, 103, 115	0
All	All	20489/21572 (94%)	-0.25	291 (1%) 73 54	22, 83, 131, 172	0

All (291) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
30	DG	35	GLU	6.7
8	CH	1	MET	6.6
9	CI	126	SER	5.2
53	D7	48	LYS	4.9
13	AM	6	GLY	4.9
25	DA	272(A)	U	4.8

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Mol	Chain	Res	Type	RSRZ
4	AD	31	CYS	4.6
13	CM	102	ARG	4.6
22	AY	34	SER	4.5
1	CA	1286	A	4.5
25	BA	1509	C	4.4
27	BD	276	LYS	4.2
40	DU	89	GLU	4.2
9	CI	115	GLY	4.2
22	AY	119	LEU	4.0
9	AI	12	GLU	4.0
1	AA	1286	A	4.0
1	AA	1129	C	4.0
4	CD	12	CYS	3.9
10	CJ	38	ILE	3.9
30	BG	137	GLU	3.9
20	CT	74	LYS	3.9
47	D1	2	SER	3.9
4	CD	31	CYS	3.9
44	DY	80	GLY	3.8
9	CI	125	TYR	3.8
22	AY	133	GLY	3.8
14	CN	25	VAL	3.7
8	AH	1	MET	3.6
36	DQ	80	GLU	3.6
30	DG	36	LYS	3.5
1	CA	1224	G	3.5
30	DG	34	LEU	3.4
1	AA	532	A	3.4
11	CK	31	THR	3.4
4	CD	26	CYS	3.3
25	BA	652(B)	A	3.3
9	AI	13	ALA	3.3
1	CA	1129	C	3.3
19	CS	53	ASN	3.3
29	BF	20	LEU	3.3
3	CC	160	ALA	3.3
14	AN	3	ARG	3.3
3	AC	2	GLY	3.3
2	CB	163	PHE	3.2
3	CC	155	GLY	3.2
21	CU	4	GLY	3.2
3	AC	52	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
45	DZ	84	GLU	3.2
4	AD	9	CYS	3.2
9	AI	8	GLY	3.2
13	CM	115	LYS	3.2
2	CB	70	PHE	3.2
25	DA	2803	C	3.2
19	CS	67	VAL	3.2
4	CD	122	ARG	3.2
22	AY	22	ALA	3.1
13	CM	100	GLY	3.1
14	CN	3	ARG	3.1
25	BA	1049	C	3.1
46	D0	55	ARG	3.1
7	CG	80	VAL	3.1
14	CN	35	ARG	3.0
17	AQ	69	LYS	3.0
4	AD	26	CYS	3.0
25	DA	2790	A	3.0
53	B7	48	LYS	3.0
1	AA	630	G	3.0
25	BA	1508	A	3.0
2	AB	133	LYS	3.0
1	AA	1126	U	3.0
29	DF	175	THR	3.0
49	D3	2	PRO	2.9
25	DA	1536	C	2.9
25	BA	272(A)	U	2.9
21	CU	14	TRP	2.9
55	D9	21	GLY	2.9
25	DA	2802	G	2.9
4	AD	3	ARG	2.9
9	CI	66	ARG	2.9
21	CU	10	ARG	2.9
9	CI	21	PRO	2.9
10	CJ	63	PHE	2.9
3	CC	63	ASN	2.8
13	AM	12	ASN	2.8
9	AI	105	ASP	2.8
22	AY	33	THR	2.8
36	DQ	22	LYS	2.8
13	CM	88	ARG	2.8
42	DW	111	HIS	2.8

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Mol	Chain	Res	Type	RSRZ
21	AU	15	ARG	2.8
4	AD	120	LEU	2.8
7	CG	8	GLU	2.8
44	DY	89	PHE	2.8
1	AA	1531	A	2.8
10	CJ	20	ALA	2.8
21	CU	15	ARG	2.8
39	DT	130	ALA	2.8
1	CA	1124	G	2.8
13	AM	7	VAL	2.7
30	DG	161	THR	2.7
20	CT	8	ARG	2.7
55	D9	2	LYS	2.7
3	CC	56	ASP	2.7
32	BI	89	TYR	2.7
29	DF	20	LEU	2.7
4	AD	5	ILE	2.7
9	AI	10	ARG	2.7
25	BA	1106	G	2.7
9	AI	15	ALA	2.7
53	D7	47	ARG	2.6
3	CC	66	VAL	2.6
16	AP	39	TYR	2.6
10	CJ	47	PHE	2.6
1	CA	1130	A	2.6
1	CA	1219	U	2.6
14	CN	6	LEU	2.6
7	CG	2	ALA	2.6
17	AQ	97	SER	2.6
31	DH	175	LYS	2.6
3	CC	154	SER	2.6
25	DA	11	G	2.6
13	AM	10	PRO	2.6
25	BA	548	A	2.6
3	CC	19	GLU	2.6
2	CB	133	LYS	2.6
5	CE	18	ARG	2.5
30	BG	35	GLU	2.5
3	CC	159	GLY	2.5
9	CI	124	GLN	2.5
21	CU	24	ARG	2.5
13	CM	4	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
25	DA	2894	G	2.5
14	AN	5	ALA	2.5
7	CG	5	ARG	2.5
22	AY	38	HIS	2.5
46	D0	13	GLY	2.5
12	CL	18	VAL	2.5
16	AP	76	GLN	2.5
3	CC	5	ILE	2.5
6	AF	89	MET	2.5
4	CD	154	ASN	2.5
1	AA	1125	U	2.5
7	CG	154	TYR	2.5
9	CI	14	VAL	2.5
39	BT	130	ALA	2.4
10	AJ	30	SER	2.4
1	CA	1131	G	2.4
1	CA	1220	G	2.4
9	CI	103	THR	2.4
19	AS	71	LEU	2.4
23	AV	47	U	2.4
14	CN	18	VAL	2.4
53	B7	46	VAL	2.4
20	AT	11	SER	2.4
19	AS	5	LEU	2.4
45	DZ	179	ASP	2.4
9	CI	117	HIS	2.4
22	AY	19	ALA	2.4
48	B2	70	GLN	2.4
4	AD	135	LEU	2.4
3	CC	157	ILE	2.4
19	AS	13	ASP	2.4
28	DE	80	GLU	2.4
30	DG	142	PRO	2.4
45	DZ	175	VAL	2.4
22	AY	13	GLY	2.3
22	AY	18	THR	2.3
25	BA	652(G)	G	2.3
25	DA	2805	G	2.3
3	AC	28	GLN	2.3
3	AC	19	GLU	2.3
1	AA	1532	U	2.3
5	AE	130	ASN	2.3

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Mol	Chain	Res	Type	RSRZ
25	DA	280	C	2.3
10	CJ	10	GLY	2.3
21	CU	2	GLY	2.3
13	CM	12	ASN	2.3
22	AY	15	LEU	2.3
26	DB	120	A	2.3
10	AJ	33	GLN	2.3
22	AY	124	GLN	2.3
9	CI	2	GLU	2.3
14	AN	8	GLU	2.3
1	CA	1043	C	2.3
27	DD	38	LYS	2.3
13	AM	102	ARG	2.3
10	AJ	92	THR	2.3
1	CA	630	G	2.3
10	AJ	89	ASP	2.3
19	CS	11	VAL	2.3
10	CJ	71	LEU	2.3
7	CG	37	ASN	2.3
20	AT	18	GLN	2.3
20	CT	3	GLN	2.3
55	D9	18	ARG	2.3
3	CC	161	GLU	2.2
35	DP	27	HIS	2.2
43	DX	28	PHE	2.2
4	AD	22	LYS	2.2
7	CG	4	ARG	2.2
6	AF	90	VAL	2.2
17	CQ	24	GLU	2.2
4	CD	32	ALA	2.2
22	AY	104	ALA	2.2
25	DA	271(R)	G	2.2
9	CI	9	ARG	2.2
19	AS	4	SER	2.2
19	CS	13	ASP	2.2
25	DA	2105	C	2.2
25	DA	2791	C	2.2
31	BH	2	SER	2.2
2	AB	10	LEU	2.2
2	AB	12	GLU	2.2
25	BA	2801(A)	A	2.2
4	AD	32	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
2	AB	17	PHE	2.2
20	CT	86	ARG	2.2
11	CK	42	TRP	2.2
20	AT	61	SER	2.2
7	CG	83	ALA	2.2
10	CJ	57	LYS	2.2
1	CA	1235	U	2.2
3	CC	171	GLY	2.2
1	CA	1183	A	2.2
25	DA	281	G	2.2
2	CB	165	VAL	2.1
22	AY	128	VAL	2.1
2	AB	101	MET	2.1
2	CB	101	MET	2.1
14	AN	4	LYS	2.1
28	DE	204	ALA	2.1
4	AD	153	ARG	2.1
10	CJ	41	PRO	2.1
14	CN	37	PHE	2.1
26	BB	1	U	2.1
1	CA	1092	A	2.1
30	DG	39	ILE	2.1
3	AC	161	GLU	2.1
19	AS	84	GLY	2.1
22	AY	26	GLY	2.1
1	CA	1223	C	2.1
10	CJ	76	ASN	2.1
42	DW	94	ASP	2.1
3	CC	156	ARG	2.1
34	BO	1	MET	2.1
7	CG	97	GLN	2.1
4	AD	2	GLY	2.1
12	AL	18	VAL	2.1
1	CA	1284	C	2.1
9	CI	11	LYS	2.1
13	CM	6	GLY	2.1
14	CN	28	GLY	2.1
7	CG	26	PHE	2.1
2	CB	136	VAL	2.1
3	CC	6	HIS	2.1
17	AQ	68	ARG	2.1
4	CD	33	MET	2.1

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Mol	Chain	Res	Type	RSRZ
1	CA	972	C	2.1
9	CI	119	ALA	2.1
25	BA	2805	G	2.1
7	CG	82	GLY	2.1
4	AD	30	LYS	2.0
6	CF	90	VAL	2.0
12	AL	126	LYS	2.0
13	CM	7	VAL	2.0
22	AY	79	SER	2.0
9	AI	23	ASN	2.0
21	AU	6	ARG	2.0
3	AC	167	TRP	2.0
2	AB	193	ASP	2.0
3	AC	56	ASP	2.0
4	AD	102	ASP	2.0
10	CJ	67	THR	2.0
11	CK	89	ALA	2.0
19	CS	52	TYR	2.0
1	AA	345	C	2.0
1	AA	64	G	2.0
8	AH	2	LEU	2.0
9	AI	79	LEU	2.0
11	CK	91	ARG	2.0
10	CJ	30	SER	2.0
2	AB	16	HIS	2.0
45	DZ	170	THR	2.0
19	CS	12	ASP	2.0
20	CT	6	PRO	2.0
3	AC	198	VAL	2.0
2	CB	187	LEU	2.0
22	AY	39	LEU	2.0
44	DY	90	LEU	2.0
2	CB	201	ILE	2.0

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

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates (i)

There are no oligosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1686	1/1	0.26	0.33	112,112,112,112	0
56	MG	CA	1796	1/1	0.32	0.22	102,102,102,102	0
56	MG	CA	1701	1/1	0.49	0.24	109,109,109,109	0
56	MG	AA	1816	1/1	0.53	0.19	107,107,107,107	0
56	MG	BA	3742	1/1	0.54	0.23	72,72,72,72	0
56	MG	CA	1604	1/1	0.55	0.33	114,114,114,114	0
56	MG	AA	1683	1/1	0.55	0.30	106,106,106,106	0
56	MG	AA	1811	1/1	0.55	0.23	120,120,120,120	0
56	MG	AA	1695	1/1	0.56	0.32	102,102,102,102	0
56	MG	AA	1689	1/1	0.57	0.20	77,77,77,77	0
56	MG	DA	3432	1/1	0.57	0.13	85,85,85,85	0
56	MG	CA	1747	1/1	0.58	0.22	96,96,96,96	0
56	MG	CA	1708	1/1	0.59	0.47	91,91,91,91	0
56	MG	DA	3616	1/1	0.59	0.17	115,115,115,115	0
56	MG	CA	1782	1/1	0.60	0.16	96,96,96,96	0
56	MG	AA	1699	1/1	0.60	0.16	109,109,109,109	0
56	MG	AA	1742	1/1	0.60	0.23	93,93,93,93	0
56	MG	CA	1671	1/1	0.60	0.13	82,82,82,82	0
56	MG	DA	3570	1/1	0.61	0.24	79,79,79,79	0
56	MG	DA	3232	1/1	0.61	0.26	91,91,91,91	0
56	MG	AA	1932	1/1	0.62	0.12	116,116,116,116	0
56	MG	CA	1704	1/1	0.62	0.23	93,93,93,93	0
56	MG	CA	1775	1/1	0.62	0.24	99,99,99,99	0
56	MG	DA	3309	1/1	0.63	0.20	88,88,88,88	0
56	MG	CA	1797	1/1	0.64	0.17	121,121,121,121	0
56	MG	BA	3736	1/1	0.65	0.18	59,59,59,59	0
56	MG	AA	1711	1/1	0.65	0.19	76,76,76,76	0
56	MG	DA	3335	1/1	0.65	0.17	74,74,74,74	0
56	MG	AA	1813	1/1	0.65	0.16	121,121,121,121	0
56	MG	CA	1815	1/1	0.65	0.21	119,119,119,119	0
56	MG	CV	105	1/1	0.65	0.27	106,106,106,106	0
56	MG	AA	1915	1/1	0.66	0.13	121,121,121,121	0
56	MG	DA	3369	1/1	0.66	0.29	94,94,94,94	0
56	MG	AA	1709	1/1	0.66	0.22	86,86,86,86	0
56	MG	DA	3259	1/1	0.66	0.30	78,78,78,78	0
56	MG	AA	1612	1/1	0.66	0.25	60,60,60,60	0
56	MG	CA	1723	1/1	0.67	0.20	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3799	1/1	0.68	0.11	72,72,72,72	0
56	MG	DA	3148	1/1	0.68	0.28	80,80,80,80	0
56	MG	AA	1685	1/1	0.68	0.26	91,91,91,91	0
56	MG	AA	1844	1/1	0.68	0.21	86,86,86,86	0
56	MG	CA	1780	1/1	0.68	0.14	90,90,90,90	0
56	MG	AV	108	1/1	0.69	0.12	98,98,98,98	0
56	MG	AA	1796	1/1	0.69	0.32	77,77,77,77	0
56	MG	BA	3853	1/1	0.69	0.14	76,76,76,76	0
56	MG	CA	1703	1/1	0.69	0.26	100,100,100,100	0
56	MG	AA	1884	1/1	0.70	0.12	82,82,82,82	0
56	MG	CA	1702	1/1	0.70	0.21	114,114,114,114	0
56	MG	DA	3472	1/1	0.70	0.21	78,78,78,78	0
56	MG	DA	3017	1/1	0.70	0.31	69,69,69,69	0
56	MG	AA	1743	1/1	0.70	0.19	80,80,80,80	0
56	MG	DB	208	1/1	0.70	0.27	98,98,98,98	0
56	MG	CA	1659	1/1	0.71	0.18	85,85,85,85	0
56	MG	DA	3318	1/1	0.71	0.17	83,83,83,83	0
56	MG	BA	3430	1/1	0.71	0.17	69,69,69,69	0
56	MG	CA	1700	1/1	0.71	0.35	90,90,90,90	0
56	MG	DA	3025	1/1	0.71	0.19	76,76,76,76	0
56	MG	CA	1793	1/1	0.71	0.17	73,73,73,73	0
56	MG	DA	3152	1/1	0.71	0.26	69,69,69,69	0
56	MG	AA	1653	1/1	0.71	0.38	82,82,82,82	0
56	MG	CA	1614	1/1	0.71	0.20	81,81,81,81	0
56	MG	AA	1620	1/1	0.72	0.22	74,74,74,74	0
56	MG	AA	1838	1/1	0.72	0.15	72,72,72,72	0
56	MG	CA	1788	1/1	0.72	0.11	118,118,118,118	0
56	MG	CA	1722	1/1	0.72	0.24	76,76,76,76	0
56	MG	DA	3158	1/1	0.72	0.21	82,82,82,82	0
56	MG	CX	101	1/1	0.72	0.20	99,99,99,99	0
56	MG	DA	3519	1/1	0.72	0.14	93,93,93,93	0
56	MG	DA	3255	1/1	0.72	0.15	72,72,72,72	0
56	MG	DA	3013	1/1	0.72	0.19	97,97,97,97	0
56	MG	DA	3654	1/1	0.72	0.13	118,118,118,118	0
56	MG	DA	3265	1/1	0.72	0.19	68,68,68,68	0
56	MG	DA	3284	1/1	0.73	0.32	75,75,75,75	0
56	MG	DA	3296	1/1	0.73	0.23	80,80,80,80	0
56	MG	BA	3885	1/1	0.73	0.13	91,91,91,91	0
56	MG	BA	3102	1/1	0.73	0.15	51,51,51,51	0
56	MG	DA	3065	1/1	0.73	0.50	59,59,59,59	0
56	MG	BA	3395	1/1	0.73	0.25	100,100,100,100	0
56	MG	AA	1698	1/1	0.73	0.28	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1812	1/1	0.73	0.14	122,122,122,122	0
56	MG	DA	3509	1/1	0.73	0.10	122,122,122,122	0
56	MG	AA	1718	1/1	0.73	0.10	70,70,70,70	0
56	MG	DA	3541	1/1	0.73	0.22	106,106,106,106	0
56	MG	CA	1770	1/1	0.73	0.17	93,93,93,93	0
56	MG	DA	3590	1/1	0.73	0.19	89,89,89,89	0
56	MG	DA	3258	1/1	0.73	0.40	91,91,91,91	0
56	MG	AA	1795	1/1	0.73	0.39	70,70,70,70	0
56	MG	DA	3657	1/1	0.73	0.14	89,89,89,89	0
56	MG	DB	204	1/1	0.73	0.20	107,107,107,107	0
56	MG	AA	1736	1/1	0.73	0.16	82,82,82,82	0
56	MG	DB	212	1/1	0.73	0.10	111,111,111,111	0
56	MG	D0	102	1/1	0.73	0.13	99,99,99,99	0
56	MG	CA	1813	1/1	0.74	0.19	113,113,113,113	0
56	MG	BA	3778	1/1	0.74	0.12	92,92,92,92	0
56	MG	AA	1799	1/1	0.74	0.18	95,95,95,95	0
56	MG	BA	3826	1/1	0.74	0.19	92,92,92,92	0
56	MG	DA	3364	1/1	0.74	0.18	94,94,94,94	0
56	MG	CA	1705	1/1	0.74	0.23	112,112,112,112	0
56	MG	AA	1823	1/1	0.74	0.34	77,77,77,77	0
56	MG	AA	1803	1/1	0.74	0.54	92,92,92,92	0
56	MG	BA	3237	1/1	0.74	0.16	59,59,59,59	0
56	MG	AA	1756	1/1	0.74	0.21	90,90,90,90	0
56	MG	CA	1621	1/1	0.74	0.22	100,100,100,100	0
56	MG	DA	3157	1/1	0.74	0.29	82,82,82,82	0
56	MG	CA	1639	1/1	0.74	0.34	96,96,96,96	0
56	MG	DA	3199	1/1	0.74	0.56	81,81,81,81	0
56	MG	CA	1649	1/1	0.74	0.13	78,78,78,78	0
56	MG	AA	1659	1/1	0.74	0.27	97,97,97,97	0
56	MG	DA	3666	1/1	0.74	0.17	100,100,100,100	0
56	MG	CA	1664	1/1	0.74	0.35	76,76,76,76	0
56	MG	BA	3542	1/1	0.74	0.12	79,79,79,79	0
56	MG	AA	1741	1/1	0.74	0.30	85,85,85,85	0
56	MG	AA	1923	1/1	0.74	0.13	115,115,115,115	0
56	MG	DA	3009	1/1	0.75	0.20	90,90,90,90	0
56	MG	AA	1819	1/1	0.75	0.45	91,91,91,91	0
56	MG	CA	1692	1/1	0.75	0.38	84,84,84,84	0
56	MG	CA	1697	1/1	0.75	0.28	117,117,117,117	0
56	MG	DA	3564	1/1	0.75	0.20	88,88,88,88	0
56	MG	DA	3052	1/1	0.75	0.41	79,79,79,79	0
56	MG	CA	1795	1/1	0.75	0.16	100,100,100,100	0
56	MG	BA	3500	1/1	0.75	0.25	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3620	1/1	0.75	0.14	95,95,95,95	0
56	MG	CA	1736	1/1	0.75	0.17	97,97,97,97	0
56	MG	AA	1901	1/1	0.75	0.09	119,119,119,119	0
56	MG	BA	3591	1/1	0.75	0.19	64,64,64,64	0
56	MG	DB	203	1/1	0.75	0.23	105,105,105,105	0
56	MG	AA	1800	1/1	0.75	0.24	76,76,76,76	0
56	MG	DA	3381	1/1	0.75	0.21	88,88,88,88	0
56	MG	DA	3430	1/1	0.75	0.22	83,83,83,83	0
56	MG	BA	3399	1/1	0.75	0.21	95,95,95,95	0
56	MG	DA	3040	1/1	0.76	0.16	78,78,78,78	0
56	MG	DA	3306	1/1	0.76	0.13	106,106,106,106	0
56	MG	DA	3213	1/1	0.76	0.17	89,89,89,89	0
56	MG	DA	3664	1/1	0.76	0.11	97,97,97,97	0
56	MG	CA	1669	1/1	0.76	0.45	78,78,78,78	0
56	MG	AA	1687	1/1	0.76	0.33	105,105,105,105	0
56	MG	CA	1745	1/1	0.76	0.13	99,99,99,99	0
56	MG	CA	1799	1/1	0.76	0.11	94,94,94,94	0
56	MG	BA	3397	1/1	0.76	0.14	66,66,66,66	0
56	MG	AA	1675	1/1	0.76	0.36	78,78,78,78	0
56	MG	BA	3035	1/1	0.77	0.15	82,82,82,82	0
56	MG	AA	1727	1/1	0.77	0.30	73,73,73,73	0
56	MG	DA	3557	1/1	0.77	0.28	93,93,93,93	0
56	MG	AA	1821	1/1	0.77	0.24	78,78,78,78	0
56	MG	BA	3760	1/1	0.77	0.12	68,68,68,68	0
56	MG	AA	1657	1/1	0.77	0.33	67,67,67,67	0
56	MG	CA	1718	1/1	0.77	0.29	88,88,88,88	0
56	MG	AA	1737	1/1	0.77	0.29	88,88,88,88	0
56	MG	DA	3634	1/1	0.77	0.13	70,70,70,70	0
56	MG	DA	3348	1/1	0.77	0.23	77,77,77,77	0
56	MG	DA	3360	1/1	0.77	0.19	61,61,61,61	0
56	MG	BA	3820	1/1	0.77	0.18	93,93,93,93	0
56	MG	AA	1723	1/1	0.77	0.25	102,102,102,102	0
56	MG	DA	3678	1/1	0.77	0.13	89,89,89,89	0
56	MG	AI	202	1/1	0.77	0.17	90,90,90,90	0
56	MG	CA	1695	1/1	0.77	0.14	94,94,94,94	0
56	MG	AA	1859	1/1	0.77	0.14	91,91,91,91	0
56	MG	BB	203	1/1	0.77	0.17	63,63,63,63	0
56	MG	BA	3012	1/1	0.77	0.36	69,69,69,69	0
56	MG	DA	3510	1/1	0.78	0.26	77,77,77,77	0
56	MG	BA	3294	1/1	0.78	0.20	67,67,67,67	0
56	MG	CA	1662	1/1	0.78	0.19	92,92,92,92	0
56	MG	BA	3588	1/1	0.78	0.22	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3855	1/1	0.78	0.24	103,103,103,103	0
56	MG	AV	112	1/1	0.78	0.19	79,79,79,79	0
56	MG	BA	3396	1/1	0.78	0.28	95,95,95,95	0
56	MG	AA	1746	1/1	0.78	0.28	81,81,81,81	0
56	MG	CA	1733	1/1	0.78	0.17	90,90,90,90	0
56	MG	AA	1937	1/1	0.78	0.14	79,79,79,79	0
56	MG	CA	1812	1/1	0.78	0.11	114,114,114,114	0
56	MG	DA	3182	1/1	0.78	0.13	68,68,68,68	0
56	MG	AA	1720	1/1	0.78	0.28	92,92,92,92	0
56	MG	DA	3372	1/1	0.78	0.19	78,78,78,78	0
56	MG	BA	3446	1/1	0.78	0.20	87,87,87,87	0
56	MG	DA	3228	1/1	0.78	0.35	90,90,90,90	0
56	MG	CA	1748	1/1	0.78	0.18	75,75,75,75	0
56	MG	AA	1611	1/1	0.78	0.20	97,97,97,97	0
56	MG	DA	3497	1/1	0.78	0.11	70,70,70,70	0
56	MG	CA	1771	1/1	0.78	0.24	78,78,78,78	0
56	MG	DA	3206	1/1	0.79	0.21	92,92,92,92	0
56	MG	BA	3743	1/1	0.79	0.22	71,71,71,71	0
56	MG	AE	201	1/1	0.79	0.37	83,83,83,83	0
56	MG	AA	1747	1/1	0.79	0.10	93,93,93,93	0
56	MG	DA	3082	1/1	0.79	0.30	89,89,89,89	0
56	MG	DA	3631	1/1	0.79	0.18	94,94,94,94	0
56	MG	AK	201	1/1	0.79	0.20	107,107,107,107	0
56	MG	AA	1733	1/1	0.79	0.13	94,94,94,94	0
56	MG	AA	1794	1/1	0.79	0.35	68,68,68,68	0
56	MG	CA	1684	1/1	0.79	0.19	70,70,70,70	0
56	MG	DA	3294	1/1	0.79	0.20	82,82,82,82	0
56	MG	CA	1635	1/1	0.79	0.53	72,72,72,72	0
56	MG	DA	3185	1/1	0.79	0.14	58,58,58,58	0
56	MG	DA	3191	1/1	0.79	0.21	77,77,77,77	0
56	MG	DB	207	1/1	0.79	0.23	79,79,79,79	0
56	MG	DA	3532	1/1	0.79	0.17	90,90,90,90	0
56	MG	BA	3331	1/1	0.79	0.21	66,66,66,66	0
56	MG	DU	201	1/1	0.79	0.19	72,72,72,72	0
56	MG	DA	3201	1/1	0.79	0.13	80,80,80,80	0
56	MG	CA	1760	1/1	0.80	0.27	103,103,103,103	0
56	MG	AA	1693	1/1	0.80	0.18	103,103,103,103	0
56	MG	DA	3373	1/1	0.80	0.40	75,75,75,75	0
56	MG	DA	3380	1/1	0.80	0.21	84,84,84,84	0
56	MG	DA	3005	1/1	0.80	0.09	73,73,73,73	0
56	MG	BA	3558	1/1	0.80	0.17	61,61,61,61	0
56	MG	DA	3207	1/1	0.80	0.23	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3208	1/1	0.80	0.34	91,91,91,91	0
56	MG	BA	3388	1/1	0.80	0.14	77,77,77,77	0
56	MG	AA	1602	1/1	0.80	0.16	104,104,104,104	0
56	MG	AA	1805	1/1	0.80	0.41	89,89,89,89	0
56	MG	DA	3254	1/1	0.80	0.12	71,71,71,71	0
56	MG	CA	1784	1/1	0.80	0.14	96,96,96,96	0
56	MG	DA	3539	1/1	0.80	0.12	102,102,102,102	0
56	MG	DA	3049	1/1	0.80	0.23	76,76,76,76	0
56	MG	AA	1880	1/1	0.80	0.26	79,79,79,79	0
56	MG	CA	1675	1/1	0.80	0.15	77,77,77,77	0
56	MG	DA	3268	1/1	0.80	0.18	64,64,64,64	0
56	MG	DA	3272	1/1	0.80	0.20	68,68,68,68	0
56	MG	DA	3614	1/1	0.80	0.14	98,98,98,98	0
56	MG	DA	3279	1/1	0.80	0.19	74,74,74,74	0
56	MG	DA	3282	1/1	0.80	0.40	75,75,75,75	0
56	MG	AA	1715	1/1	0.80	0.19	72,72,72,72	0
56	MG	DA	3288	1/1	0.80	0.13	83,83,83,83	0
56	MG	CA	1612	1/1	0.80	0.28	84,84,84,84	0
56	MG	BA	3236	1/1	0.80	0.09	50,50,50,50	0
56	MG	CA	1737	1/1	0.80	0.30	90,90,90,90	0
56	MG	AA	1704	1/1	0.80	0.23	79,79,79,79	0
56	MG	DA	3674	1/1	0.80	0.10	105,105,105,105	0
56	MG	DA	3170	1/1	0.80	0.09	96,96,96,96	0
56	MG	DA	3177	1/1	0.80	0.28	75,75,75,75	0
56	MG	DA	3343	1/1	0.80	0.34	70,70,70,70	0
56	MG	AA	1903	1/1	0.80	0.12	117,117,117,117	0
56	MG	DA	3356	1/1	0.80	0.28	85,85,85,85	0
56	MG	BA	3808	1/1	0.80	0.11	70,70,70,70	0
56	MG	DA	3362	1/1	0.80	0.21	75,75,75,75	0
56	MG	DA	3186	1/1	0.80	0.37	76,76,76,76	0
56	MG	DA	3533	1/1	0.81	0.12	95,95,95,95	0
56	MG	CA	1699	1/1	0.81	0.16	97,97,97,97	0
56	MG	AA	1601	1/1	0.81	0.19	65,65,65,65	0
56	MG	AD	303	1/1	0.81	0.25	93,93,93,93	0
56	MG	BA	3026	1/1	0.81	0.20	92,92,92,92	0
56	MG	DA	3171	1/1	0.81	0.11	66,66,66,66	0
56	MG	BA	3708	1/1	0.81	0.10	85,85,85,85	0
56	MG	DA	3363	1/1	0.81	0.21	64,64,64,64	0
56	MG	AA	1913	1/1	0.81	0.08	109,109,109,109	0
56	MG	DA	3366	1/1	0.81	0.09	81,81,81,81	0
56	MG	AA	1629	1/1	0.81	0.28	68,68,68,68	0
56	MG	CA	1706	1/1	0.81	0.46	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3280	1/1	0.81	0.13	80,80,80,80	0
56	MG	BB	228	1/1	0.81	0.10	69,69,69,69	0
56	MG	CA	1717	1/1	0.81	0.23	77,77,77,77	0
56	MG	DA	3400	1/1	0.81	0.22	53,53,53,53	0
56	MG	AA	1618	1/1	0.81	0.26	61,61,61,61	0
56	MG	DA	3289	1/1	0.81	0.18	86,86,86,86	0
56	MG	DB	202	1/1	0.81	0.42	73,73,73,73	0
56	MG	AA	1851	1/1	0.81	0.09	80,80,80,80	0
56	MG	DA	3478	1/1	0.81	0.16	90,90,90,90	0
56	MG	CA	1687	1/1	0.81	0.21	81,81,81,81	0
56	MG	BA	3256	1/1	0.81	0.25	77,77,77,77	0
56	MG	AV	111	1/1	0.81	0.30	85,85,85,85	0
56	MG	BA	3300	1/1	0.81	0.26	70,70,70,70	0
56	MG	DA	3331	1/1	0.81	0.29	77,77,77,77	0
56	MG	AA	1922	1/1	0.82	0.11	106,106,106,106	0
56	MG	AA	1669	1/1	0.82	0.28	84,84,84,84	0
56	MG	CA	1688	1/1	0.82	0.24	68,68,68,68	0
56	MG	CA	1803	1/1	0.82	0.09	102,102,102,102	0
56	MG	DA	3178	1/1	0.82	0.23	77,77,77,77	0
56	MG	BA	3414	1/1	0.82	0.15	72,72,72,72	0
56	MG	CA	1694	1/1	0.82	0.30	80,80,80,80	0
56	MG	AA	1759	1/1	0.82	0.17	60,60,60,60	0
56	MG	BA	3435	1/1	0.82	0.14	84,84,84,84	0
56	MG	BA	3339	1/1	0.82	0.22	70,70,70,70	0
56	MG	CA	1752	1/1	0.82	0.18	58,58,58,58	0
56	MG	DA	3202	1/1	0.82	0.18	73,73,73,73	0
56	MG	DA	3607	1/1	0.82	0.11	90,90,90,90	0
56	MG	DA	3203	1/1	0.82	0.29	91,91,91,91	0
56	MG	CA	1757	1/1	0.82	0.13	94,94,94,94	0
56	MG	BA	3476	1/1	0.82	0.12	50,50,50,50	0
56	MG	DA	3625	1/1	0.82	0.12	80,80,80,80	0
56	MG	DA	3629	1/1	0.82	0.22	104,104,104,104	0
56	MG	BA	3481	1/1	0.82	0.10	87,87,87,87	0
56	MG	CA	1658	1/1	0.82	0.39	91,91,91,91	0
56	MG	DA	3227	1/1	0.82	0.27	79,79,79,79	0
56	MG	BA	3353	1/1	0.82	0.20	57,57,57,57	0
56	MG	BA	3363	1/1	0.82	0.29	63,63,63,63	0
56	MG	AA	1820	1/1	0.82	0.22	86,86,86,86	0
56	MG	AA	1655	1/1	0.82	0.24	77,77,77,77	0
56	MG	DA	3379	1/1	0.82	0.28	80,80,80,80	0
56	MG	DA	3072	1/1	0.82	0.18	65,65,65,65	0
56	MG	CA	1785	1/1	0.82	0.15	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3092	1/1	0.82	0.27	92,92,92,92	0
56	MG	DA	3109	1/1	0.82	0.27	74,74,74,74	0
56	MG	AA	1688	1/1	0.82	0.16	96,96,96,96	0
56	MG	DB	209	1/1	0.82	0.26	86,86,86,86	0
56	MG	DA	3465	1/1	0.82	0.11	104,104,104,104	0
56	MG	BA	3605	1/1	0.82	0.11	75,75,75,75	0
56	MG	CA	1683	1/1	0.82	0.42	71,71,71,71	0
56	MG	AV	113	1/1	0.83	0.19	84,84,84,84	0
56	MG	BA	3523	1/1	0.83	0.17	76,76,76,76	0
56	MG	BA	3287	1/1	0.83	0.25	82,82,82,82	0
56	MG	CA	1798	1/1	0.83	0.14	94,94,94,94	0
56	MG	BA	3844	1/1	0.83	0.08	99,99,99,99	0
56	MG	AA	1703	1/1	0.83	0.12	74,74,74,74	0
56	MG	DA	3522	1/1	0.83	0.17	76,76,76,76	0
56	MG	CA	1806	1/1	0.83	0.09	102,102,102,102	0
56	MG	DA	3295	1/1	0.83	0.21	75,75,75,75	0
56	MG	AY	201	1/1	0.83	0.12	111,111,111,111	0
56	MG	DA	3297	1/1	0.83	0.23	81,81,81,81	0
56	MG	AV	107	1/1	0.83	0.28	87,87,87,87	0
56	MG	BA	3892	1/1	0.83	0.20	94,94,94,94	0
56	MG	CV	104	1/1	0.83	0.24	92,92,92,92	0
56	MG	DA	3588	1/1	0.83	0.11	109,109,109,109	0
56	MG	BA	3420	1/1	0.83	0.16	65,65,65,65	0
56	MG	DA	3197	1/1	0.83	0.31	82,82,82,82	0
56	MG	BB	209	1/1	0.83	0.24	79,79,79,79	0
56	MG	DA	3004	1/1	0.83	0.42	75,75,75,75	0
56	MG	BA	3628	1/1	0.83	0.14	66,66,66,66	0
56	MG	AA	1731	1/1	0.83	0.24	70,70,70,70	0
56	MG	BA	3193	1/1	0.83	0.21	45,45,45,45	0
56	MG	BA	3439	1/1	0.83	0.26	82,82,82,82	0
56	MG	CA	1618	1/1	0.83	0.25	78,78,78,78	0
56	MG	DA	3365	1/1	0.83	0.11	71,71,71,71	0
56	MG	BA	3444	1/1	0.83	0.28	74,74,74,74	0
56	MG	AA	1724	1/1	0.83	0.20	92,92,92,92	0
56	MG	CA	1638	1/1	0.83	0.28	99,99,99,99	0
56	MG	BA	3372	1/1	0.83	0.16	77,77,77,77	0
56	MG	DA	3374	1/1	0.83	0.21	75,75,75,75	0
56	MG	DA	3682	1/1	0.83	0.09	90,90,90,90	0
56	MG	DA	3696	1/1	0.83	0.18	96,96,96,96	0
56	MG	CA	1645	1/1	0.83	0.32	74,74,74,74	0
56	MG	DA	3081	1/1	0.83	0.23	65,65,65,65	0
56	MG	BA	3792	1/1	0.83	0.15	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DB	206	1/1	0.83	0.21	77,77,77,77	0
56	MG	DA	3398	1/1	0.83	0.09	58,58,58,58	0
56	MG	AA	1775	1/1	0.83	0.07	77,77,77,77	0
56	MG	CA	1707	1/1	0.83	0.23	72,72,72,72	0
56	MG	DA	3114	1/1	0.83	0.28	70,70,70,70	0
56	MG	DB	213	1/1	0.83	0.15	115,115,115,115	0
56	MG	DE	304	1/1	0.83	0.19	70,70,70,70	0
56	MG	DO	201	1/1	0.83	0.15	80,80,80,80	0
56	MG	DA	3448	1/1	0.83	0.10	73,73,73,73	0
56	MG	DA	3119	1/1	0.83	0.19	39,39,39,39	0
56	MG	BA	3188	1/1	0.84	0.26	74,74,74,74	0
56	MG	DA	3585	1/1	0.84	0.17	104,104,104,104	0
56	MG	CA	1808	1/1	0.84	0.09	102,102,102,102	0
56	MG	DA	3116	1/1	0.84	0.24	79,79,79,79	0
56	MG	DA	3117	1/1	0.84	0.27	70,70,70,70	0
56	MG	AA	1784	1/1	0.84	0.28	69,69,69,69	0
56	MG	CA	1661	1/1	0.84	0.24	101,101,101,101	0
56	MG	DA	3618	1/1	0.84	0.15	80,80,80,80	0
56	MG	DA	3150	1/1	0.84	0.09	65,65,65,65	0
56	MG	BA	3230	1/1	0.84	0.15	57,57,57,57	0
56	MG	CA	1762	1/1	0.84	0.16	76,76,76,76	0
56	MG	DA	3269	1/1	0.84	0.29	85,85,85,85	0
56	MG	CA	1765	1/1	0.84	0.20	61,61,61,61	0
56	MG	DA	3278	1/1	0.84	0.09	66,66,66,66	0
56	MG	DA	3165	1/1	0.84	0.31	65,65,65,65	0
56	MG	AA	1726	1/1	0.84	0.22	55,55,55,55	0
56	MG	AA	1808	1/1	0.84	0.23	75,75,75,75	0
56	MG	BA	3499	1/1	0.84	0.29	73,73,73,73	0
56	MG	BA	3790	1/1	0.84	0.08	75,75,75,75	0
56	MG	DA	3180	1/1	0.84	0.19	75,75,75,75	0
56	MG	CA	1678	1/1	0.84	0.22	84,84,84,84	0
56	MG	AA	1898	1/1	0.84	0.07	98,98,98,98	0
56	MG	BA	3286	1/1	0.84	0.17	61,61,61,61	0
56	MG	AA	1900	1/1	0.84	0.12	110,110,110,110	0
56	MG	DB	205	1/1	0.84	0.09	79,79,79,79	0
56	MG	CA	1633	1/1	0.84	0.28	81,81,81,81	0
56	MG	AA	1810	1/1	0.84	0.22	84,84,84,84	0
56	MG	AA	1678	1/1	0.84	0.23	90,90,90,90	0
56	MG	DA	3069	1/1	0.84	0.29	83,83,83,83	0
56	MG	BA	3423	1/1	0.84	0.14	85,85,85,85	0
56	MG	CA	1742	1/1	0.84	0.18	89,89,89,89	0
56	MG	AA	1853	1/1	0.84	0.20	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3549	1/1	0.84	0.13	87,87,87,87	0
56	MG	AA	1856	1/1	0.84	0.16	66,66,66,66	0
56	MG	D0	101	1/1	0.84	0.37	79,79,79,79	0
56	MG	DA	3093	1/1	0.84	0.29	77,77,77,77	0
57	ZN	AN	101	1/1	0.84	0.15	164,164,164,164	0
56	MG	DA	3122	1/1	0.85	0.29	65,65,65,65	0
56	MG	DA	3126	1/1	0.85	0.12	69,69,69,69	0
56	MG	AA	1642	1/1	0.85	0.30	73,73,73,73	0
56	MG	AA	1846	1/1	0.85	0.17	90,90,90,90	0
56	MG	AA	1755	1/1	0.85	0.12	70,70,70,70	0
56	MG	AA	1697	1/1	0.85	0.10	75,75,75,75	0
56	MG	AA	1666	1/1	0.85	0.22	70,70,70,70	0
56	MG	CA	1814	1/1	0.85	0.10	114,114,114,114	0
56	MG	DA	3293	1/1	0.85	0.29	94,94,94,94	0
56	MG	DA	3167	1/1	0.85	0.18	67,67,67,67	0
56	MG	BB	208	1/1	0.85	0.12	54,54,54,54	0
56	MG	CA	1682	1/1	0.85	0.30	73,73,73,73	0
56	MG	AA	1714	1/1	0.85	0.20	74,74,74,74	0
56	MG	CV	108	1/1	0.85	0.18	79,79,79,79	0
56	MG	BB	219	1/1	0.85	0.27	85,85,85,85	0
56	MG	DA	3002	1/1	0.85	0.21	69,69,69,69	0
56	MG	DA	3598	1/1	0.85	0.21	69,69,69,69	0
56	MG	AA	1879	1/1	0.85	0.26	71,71,71,71	0
56	MG	BF	305	1/1	0.85	0.18	52,52,52,52	0
56	MG	CA	1601	1/1	0.85	0.34	79,79,79,79	0
56	MG	DA	3347	1/1	0.85	0.34	77,77,77,77	0
56	MG	AA	1690	1/1	0.85	0.09	65,65,65,65	0
56	MG	DA	3354	1/1	0.85	0.18	43,43,43,43	0
56	MG	DA	3628	1/1	0.85	0.19	80,80,80,80	0
56	MG	AD	302	1/1	0.85	0.31	79,79,79,79	0
56	MG	AA	1729	1/1	0.85	0.22	79,79,79,79	0
56	MG	BA	3120	1/1	0.85	0.17	51,51,51,51	0
56	MG	BA	3764	1/1	0.85	0.09	85,85,85,85	0
56	MG	DA	3656	1/1	0.85	0.09	90,90,90,90	0
56	MG	CA	1776	1/1	0.85	0.27	90,90,90,90	0
56	MG	DA	3056	1/1	0.85	0.15	59,59,59,59	0
56	MG	CA	1622	1/1	0.85	0.41	80,80,80,80	0
56	MG	DA	3673	1/1	0.85	0.13	111,111,111,111	0
56	MG	DA	3367	1/1	0.85	0.14	75,75,75,75	0
56	MG	DA	3368	1/1	0.85	0.21	80,80,80,80	0
56	MG	BA	3777	1/1	0.85	0.19	65,65,65,65	0
56	MG	DA	3685	1/1	0.85	0.11	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3690	1/1	0.85	0.09	107,107,107,107	0
56	MG	DA	3224	1/1	0.85	0.21	75,75,75,75	0
56	MG	BA	3364	1/1	0.85	0.08	69,69,69,69	0
56	MG	AA	1893	1/1	0.85	0.10	95,95,95,95	0
56	MG	CA	1787	1/1	0.85	0.11	98,98,98,98	0
56	MG	DA	3233	1/1	0.85	0.20	80,80,80,80	0
56	MG	DA	3236	1/1	0.85	0.23	68,68,68,68	0
56	MG	DA	3241	1/1	0.85	0.27	76,76,76,76	0
56	MG	BA	3483	1/1	0.85	0.17	70,70,70,70	0
56	MG	BA	3486	1/1	0.85	0.08	60,60,60,60	0
56	MG	BA	3491	1/1	0.85	0.13	41,41,41,41	0
56	MG	BA	3384	1/1	0.85	0.12	72,72,72,72	0
56	MG	DB	214	1/1	0.85	0.14	83,83,83,83	0
56	MG	CA	1716	1/1	0.85	0.10	66,66,66,66	0
56	MG	AA	1827	1/1	0.85	0.13	69,69,69,69	0
56	MG	DA	3473	1/1	0.85	0.24	81,81,81,81	0
56	MG	AA	1622	1/1	0.85	0.31	56,56,56,56	0
56	MG	DA	3481	1/1	0.85	0.34	85,85,85,85	0
56	MG	DA	3488	1/1	0.85	0.24	73,73,73,73	0
56	MG	CA	1710	1/1	0.86	0.14	95,95,95,95	0
56	MG	DA	3525	1/1	0.86	0.20	77,77,77,77	0
56	MG	AA	1930	1/1	0.86	0.12	58,58,58,58	0
56	MG	AA	1716	1/1	0.86	0.14	70,70,70,70	0
56	MG	BA	3355	1/1	0.86	0.16	62,62,62,62	0
56	MG	AA	1651	1/1	0.86	0.17	80,80,80,80	0
56	MG	AA	1942	1/1	0.86	0.16	93,93,93,93	0
56	MG	DA	3299	1/1	0.86	0.27	57,57,57,57	0
56	MG	DA	3303	1/1	0.86	0.24	54,54,54,54	0
56	MG	DA	3304	1/1	0.86	0.08	67,67,67,67	0
56	MG	DA	3579	1/1	0.86	0.14	104,104,104,104	0
56	MG	CA	1816	1/1	0.86	0.09	110,110,110,110	0
56	MG	DA	3176	1/1	0.86	0.21	67,67,67,67	0
56	MG	DA	3311	1/1	0.86	0.27	68,68,68,68	0
56	MG	DA	3317	1/1	0.86	0.09	84,84,84,84	0
56	MG	BA	3866	1/1	0.86	0.09	82,82,82,82	0
56	MG	BA	3875	1/1	0.86	0.17	74,74,74,74	0
56	MG	CA	1666	1/1	0.86	0.25	73,73,73,73	0
56	MG	BA	3107	1/1	0.86	0.10	44,44,44,44	0
56	MG	AA	1834	1/1	0.86	0.14	76,76,76,76	0
56	MG	BA	3896	1/1	0.86	0.11	72,72,72,72	0
56	MG	DA	3626	1/1	0.86	0.13	103,103,103,103	0
56	MG	CA	1676	1/1	0.86	0.23	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3008	1/1	0.86	0.09	108,108,108,108	0
56	MG	CA	1677	1/1	0.86	0.10	88,88,88,88	0
56	MG	AA	1694	1/1	0.86	0.22	74,74,74,74	0
56	MG	DA	3016	1/1	0.86	0.14	42,42,42,42	0
56	MG	AA	1722	1/1	0.86	0.15	68,68,68,68	0
56	MG	AA	1680	1/1	0.86	0.13	65,65,65,65	0
56	MG	BA	3235	1/1	0.86	0.10	55,55,55,55	0
56	MG	AA	1603	1/1	0.86	0.11	78,78,78,78	0
56	MG	AA	1902	1/1	0.86	0.06	121,121,121,121	0
56	MG	CA	1689	1/1	0.86	0.36	84,84,84,84	0
56	MG	BA	3741	1/1	0.86	0.08	63,63,63,63	0
56	MG	CA	1603	1/1	0.86	0.31	72,72,72,72	0
56	MG	BA	3244	1/1	0.86	0.14	60,60,60,60	0
56	MG	DA	3375	1/1	0.86	0.13	84,84,84,84	0
56	MG	DA	3073	1/1	0.86	0.18	63,63,63,63	0
56	MG	DA	3074	1/1	0.86	0.16	69,69,69,69	0
56	MG	DA	3240	1/1	0.86	0.21	74,74,74,74	0
56	MG	AA	1725	1/1	0.86	0.28	65,65,65,65	0
56	MG	BA	3258	1/1	0.86	0.11	71,71,71,71	0
56	MG	DA	3084	1/1	0.86	0.12	76,76,76,76	0
56	MG	CA	1786	1/1	0.86	0.14	80,80,80,80	0
56	MG	BA	3281	1/1	0.86	0.18	72,72,72,72	0
56	MG	DA	3098	1/1	0.86	0.17	39,39,39,39	0
56	MG	AA	1739	1/1	0.86	0.21	99,99,99,99	0
56	MG	CA	1790	1/1	0.86	0.17	64,64,64,64	0
56	MG	AV	109	1/1	0.86	0.18	81,81,81,81	0
56	MG	CA	1629	1/1	0.86	0.44	74,74,74,74	0
56	MG	AA	1764	1/1	0.86	0.11	72,72,72,72	0
56	MG	AA	1863	1/1	0.86	0.19	54,54,54,54	0
56	MG	BA	3326	1/1	0.86	0.16	100,100,100,100	0
56	MG	AA	1865	1/1	0.86	0.28	81,81,81,81	0
56	MG	CA	1642	1/1	0.86	0.28	84,84,84,84	0
56	MG	DA	3467	1/1	0.87	0.12	91,91,91,91	0
56	MG	BA	3714	1/1	0.87	0.10	62,62,62,62	0
56	MG	AA	1679	1/1	0.87	0.21	84,84,84,84	0
56	MG	DA	3475	1/1	0.87	0.18	78,78,78,78	0
56	MG	DA	3253	1/1	0.87	0.28	67,67,67,67	0
56	MG	AT	201	1/1	0.87	0.05	111,111,111,111	0
56	MG	BA	3312	1/1	0.87	0.20	54,54,54,54	0
56	MG	DA	3256	1/1	0.87	0.18	73,73,73,73	0
56	MG	AA	1702	1/1	0.87	0.21	71,71,71,71	0
56	MG	BA	3135	1/1	0.87	0.25	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3511	1/1	0.87	0.12	77,77,77,77	0
56	MG	DA	3264	1/1	0.87	0.17	74,74,74,74	0
56	MG	BA	3463	1/1	0.87	0.09	57,57,57,57	0
56	MG	DA	3083	1/1	0.87	0.20	82,82,82,82	0
56	MG	DA	3529	1/1	0.87	0.23	82,82,82,82	0
56	MG	BA	3182	1/1	0.87	0.25	25,25,25,25	0
56	MG	DA	3086	1/1	0.87	0.22	32,32,32,32	0
56	MG	CA	1605	1/1	0.87	0.21	59,59,59,59	0
56	MG	CA	1693	1/1	0.87	0.17	83,83,83,83	0
56	MG	DA	3544	1/1	0.87	0.10	79,79,79,79	0
56	MG	CA	1606	1/1	0.87	0.27	77,77,77,77	0
56	MG	DA	3550	1/1	0.87	0.26	42,42,42,42	0
56	MG	AA	1674	1/1	0.87	0.28	74,74,74,74	0
56	MG	AA	1617	1/1	0.87	0.12	58,58,58,58	0
56	MG	AA	1807	1/1	0.87	0.16	84,84,84,84	0
56	MG	CA	1619	1/1	0.87	0.17	71,71,71,71	0
56	MG	BA	3796	1/1	0.87	0.24	83,83,83,83	0
56	MG	BA	3797	1/1	0.87	0.12	91,91,91,91	0
56	MG	AA	1939	1/1	0.87	0.14	105,105,105,105	0
56	MG	DA	3139	1/1	0.87	0.39	64,64,64,64	0
56	MG	CA	1630	1/1	0.87	0.35	70,70,70,70	0
56	MG	CA	1804	1/1	0.87	0.12	103,103,103,103	0
56	MG	BA	3807	1/1	0.87	0.16	64,64,64,64	0
56	MG	CA	1634	1/1	0.87	0.28	63,63,63,63	0
56	MG	CA	1811	1/1	0.87	0.07	102,102,102,102	0
56	MG	DA	3163	1/1	0.87	0.37	68,68,68,68	0
56	MG	AA	1858	1/1	0.87	0.10	90,90,90,90	0
56	MG	AA	1788	1/1	0.87	0.26	62,62,62,62	0
56	MG	BA	3501	1/1	0.87	0.11	80,80,80,80	0
56	MG	CA	1711	1/1	0.87	0.31	70,70,70,70	0
56	MG	DA	3175	1/1	0.87	0.25	75,75,75,75	0
56	MG	CA	1641	1/1	0.87	0.20	80,80,80,80	0
56	MG	AA	1752	1/1	0.87	0.13	88,88,88,88	0
56	MG	BA	3848	1/1	0.87	0.14	43,43,43,43	0
56	MG	DA	3659	1/1	0.87	0.17	77,77,77,77	0
56	MG	DA	3179	1/1	0.87	0.12	67,67,67,67	0
56	MG	DA	3355	1/1	0.87	0.24	55,55,55,55	0
56	MG	CA	1719	1/1	0.87	0.14	85,85,85,85	0
56	MG	BA	3248	1/1	0.87	0.25	24,24,24,24	0
56	MG	CA	1651	1/1	0.87	0.15	54,54,54,54	0
56	MG	AA	1684	1/1	0.87	0.20	102,102,102,102	0
56	MG	DA	3187	1/1	0.87	0.25	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3857	1/1	0.87	0.10	78,78,78,78	0
56	MG	DA	3693	1/1	0.87	0.14	103,103,103,103	0
56	MG	CA	1660	1/1	0.87	0.16	92,92,92,92	0
56	MG	BA	3863	1/1	0.87	0.08	72,72,72,72	0
56	MG	DA	3010	1/1	0.87	0.15	78,78,78,78	0
56	MG	AA	1670	1/1	0.87	0.24	88,88,88,88	0
56	MG	DA	3371	1/1	0.87	0.09	65,65,65,65	0
56	MG	BA	3271	1/1	0.87	0.07	44,44,44,44	0
56	MG	BA	3044	1/1	0.87	0.08	46,46,46,46	0
56	MG	DA	3023	1/1	0.87	0.18	56,56,56,56	0
56	MG	BA	3886	1/1	0.87	0.12	94,94,94,94	0
56	MG	DA	3210	1/1	0.87	0.23	74,74,74,74	0
56	MG	DA	3035	1/1	0.87	0.18	76,76,76,76	0
56	MG	DA	3216	1/1	0.87	0.10	46,46,46,46	0
56	MG	BA	3048	1/1	0.87	0.13	54,54,54,54	0
56	MG	CA	1674	1/1	0.87	0.22	79,79,79,79	0
56	MG	BA	3652	1/1	0.87	0.07	53,53,53,53	0
56	MG	BA	3054	1/1	0.87	0.21	58,58,58,58	0
56	MG	DA	3058	1/1	0.87	0.18	83,83,83,83	0
56	MG	DA	3060	1/1	0.87	0.20	90,90,90,90	0
57	ZN	D9	101	1/1	0.87	0.13	117,117,117,117	0
56	MG	DA	3271	1/1	0.88	0.15	68,68,68,68	0
56	MG	DA	3144	1/1	0.88	0.23	71,71,71,71	0
56	MG	DA	3491	1/1	0.88	0.10	101,101,101,101	0
56	MG	DA	3494	1/1	0.88	0.18	70,70,70,70	0
56	MG	DA	3274	1/1	0.88	0.31	70,70,70,70	0
56	MG	BA	3111	1/1	0.88	0.31	66,66,66,66	0
56	MG	DA	3149	1/1	0.88	0.15	51,51,51,51	0
56	MG	BA	3475	1/1	0.88	0.07	42,42,42,42	0
56	MG	BA	3319	1/1	0.88	0.10	59,59,59,59	0
56	MG	DA	3521	1/1	0.88	0.20	60,60,60,60	0
56	MG	CA	1617	1/1	0.88	0.35	61,61,61,61	0
56	MG	DA	3287	1/1	0.88	0.22	62,62,62,62	0
56	MG	DA	3007	1/1	0.88	0.09	82,82,82,82	0
56	MG	DA	3162	1/1	0.88	0.26	54,54,54,54	0
56	MG	DA	3290	1/1	0.88	0.18	79,79,79,79	0
56	MG	DA	3535	1/1	0.88	0.14	96,96,96,96	0
56	MG	AA	1637	1/1	0.88	0.18	73,73,73,73	0
56	MG	DA	3164	1/1	0.88	0.16	87,87,87,87	0
56	MG	AA	1626	1/1	0.88	0.25	62,62,62,62	0
56	MG	AA	1789	1/1	0.88	0.12	77,77,77,77	0
56	MG	CA	1773	1/1	0.88	0.11	124,124,124,124	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3554	1/1	0.88	0.19	49,49,49,49	0
56	MG	DA	3555	1/1	0.88	0.15	94,94,94,94	0
56	MG	AA	1848	1/1	0.88	0.21	71,71,71,71	0
56	MG	AA	1911	1/1	0.88	0.06	106,106,106,106	0
56	MG	CA	1778	1/1	0.88	0.27	81,81,81,81	0
56	MG	BA	3356	1/1	0.88	0.20	66,66,66,66	0
56	MG	DA	3583	1/1	0.88	0.08	96,96,96,96	0
56	MG	DA	3028	1/1	0.88	0.27	56,56,56,56	0
56	MG	DA	3310	1/1	0.88	0.29	72,72,72,72	0
56	MG	DA	3029	1/1	0.88	0.24	68,68,68,68	0
56	MG	DA	3033	1/1	0.88	0.20	74,74,74,74	0
56	MG	BA	3357	1/1	0.88	0.16	82,82,82,82	0
56	MG	DA	3611	1/1	0.88	0.11	80,80,80,80	0
56	MG	DA	3319	1/1	0.88	0.35	69,69,69,69	0
56	MG	DA	3325	1/1	0.88	0.29	62,62,62,62	0
56	MG	DA	3617	1/1	0.88	0.10	86,86,86,86	0
56	MG	BA	3217	1/1	0.88	0.14	38,38,38,38	0
56	MG	DA	3044	1/1	0.88	0.24	62,62,62,62	0
56	MG	DA	3338	1/1	0.88	0.24	69,69,69,69	0
56	MG	DA	3339	1/1	0.88	0.17	74,74,74,74	0
56	MG	BA	3533	1/1	0.88	0.12	61,61,61,61	0
56	MG	DA	3346	1/1	0.88	0.21	70,70,70,70	0
56	MG	DA	3051	1/1	0.88	0.09	60,60,60,60	0
56	MG	BA	3229	1/1	0.88	0.08	41,41,41,41	0
56	MG	DA	3647	1/1	0.88	0.20	70,70,70,70	0
56	MG	AA	1647	1/1	0.88	0.24	77,77,77,77	0
56	MG	AA	1658	1/1	0.88	0.34	73,73,73,73	0
56	MG	AA	1921	1/1	0.88	0.09	97,97,97,97	0
56	MG	DA	3062	1/1	0.88	0.15	65,65,65,65	0
56	MG	AA	1696	1/1	0.88	0.26	95,95,95,95	0
56	MG	DA	3066	1/1	0.88	0.36	68,68,68,68	0
56	MG	AA	1817	1/1	0.88	0.31	93,93,93,93	0
56	MG	BA	3010	1/1	0.88	0.21	56,56,56,56	0
56	MG	BA	3888	1/1	0.88	0.07	99,99,99,99	0
56	MG	AA	1758	1/1	0.88	0.14	72,72,72,72	0
56	MG	DA	3219	1/1	0.88	0.17	67,67,67,67	0
56	MG	DA	3689	1/1	0.88	0.10	104,104,104,104	0
56	MG	DA	3220	1/1	0.88	0.11	83,83,83,83	0
56	MG	CA	1713	1/1	0.88	0.22	71,71,71,71	0
56	MG	CA	1802	1/1	0.88	0.08	115,115,115,115	0
56	MG	DB	201	1/1	0.88	0.25	61,61,61,61	0
56	MG	BA	3713	1/1	0.88	0.17	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1719	1/1	0.88	0.11	70,70,70,70	0
56	MG	AA	1802	1/1	0.88	0.17	67,67,67,67	0
56	MG	BA	3737	1/1	0.88	0.10	60,60,60,60	0
56	MG	AA	1728	1/1	0.88	0.28	81,81,81,81	0
56	MG	BA	3283	1/1	0.88	0.08	47,47,47,47	0
56	MG	DA	3247	1/1	0.88	0.08	58,58,58,58	0
56	MG	AA	1615	1/1	0.88	0.15	75,75,75,75	0
56	MG	BX	101	1/1	0.88	0.65	78,78,78,78	0
56	MG	B2	101	1/1	0.88	0.25	63,63,63,63	0
56	MG	AA	1831	1/1	0.88	0.14	63,63,63,63	0
56	MG	CA	1818	1/1	0.88	0.10	87,87,87,87	0
56	MG	BA	3441	1/1	0.88	0.13	47,47,47,47	0
56	MG	DO	202	1/1	0.88	0.06	95,95,95,95	0
56	MG	DA	3471	1/1	0.88	0.14	87,87,87,87	0
56	MG	DV	201	1/1	0.88	0.11	62,62,62,62	0
56	MG	DA	3123	1/1	0.88	0.21	61,61,61,61	0
56	MG	DA	3125	1/1	0.88	0.15	65,65,65,65	0
56	MG	D5	101	1/1	0.88	0.23	62,62,62,62	0
56	MG	AA	1782	1/1	0.88	0.15	51,51,51,51	0
56	MG	AA	1835	1/1	0.88	0.14	88,88,88,88	0
56	MG	AA	1661	1/1	0.89	0.26	56,56,56,56	0
56	MG	DA	3499	1/1	0.89	0.12	68,68,68,68	0
56	MG	DA	3507	1/1	0.89	0.12	109,109,109,109	0
56	MG	DA	3099	1/1	0.89	0.20	42,42,42,42	0
56	MG	AA	1663	1/1	0.89	0.14	76,76,76,76	0
56	MG	DA	3113	1/1	0.89	0.17	59,59,59,59	0
56	MG	DA	3514	1/1	0.89	0.15	76,76,76,76	0
56	MG	BA	3365	1/1	0.89	0.14	69,69,69,69	0
56	MG	BB	206	1/1	0.89	0.23	61,61,61,61	0
56	MG	DA	3277	1/1	0.89	0.13	67,67,67,67	0
56	MG	AA	1908	1/1	0.89	0.14	97,97,97,97	0
56	MG	DA	3527	1/1	0.89	0.14	81,81,81,81	0
56	MG	AA	1638	1/1	0.89	0.12	78,78,78,78	0
56	MG	CA	1686	1/1	0.89	0.08	72,72,72,72	0
56	MG	BB	217	1/1	0.89	0.17	80,80,80,80	0
56	MG	DA	3283	1/1	0.89	0.30	76,76,76,76	0
56	MG	BA	3387	1/1	0.89	0.20	48,48,48,48	0
56	MG	BB	222	1/1	0.89	0.16	70,70,70,70	0
56	MG	BA	3608	1/1	0.89	0.11	81,81,81,81	0
56	MG	AA	1874	1/1	0.89	0.20	95,95,95,95	0
56	MG	DA	3146	1/1	0.89	0.14	66,66,66,66	0
56	MG	BO	201	1/1	0.89	0.18	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3072	1/1	0.89	0.33	48,48,48,48	0
56	MG	BA	3656	1/1	0.89	0.08	63,63,63,63	0
56	MG	DA	3560	1/1	0.89	0.13	64,64,64,64	0
56	MG	BA	3098	1/1	0.89	0.11	51,51,51,51	0
56	MG	DA	3567	1/1	0.89	0.19	77,77,77,77	0
56	MG	CA	1602	1/1	0.89	0.24	72,72,72,72	0
56	MG	BA	3262	1/1	0.89	0.18	57,57,57,57	0
56	MG	BA	3264	1/1	0.89	0.13	59,59,59,59	0
56	MG	BA	3716	1/1	0.89	0.16	40,40,40,40	0
56	MG	BA	3400	1/1	0.89	0.20	122,122,122,122	0
56	MG	CA	1608	1/1	0.89	0.35	80,80,80,80	0
56	MG	CV	102	1/1	0.89	0.19	85,85,85,85	0
56	MG	DA	3606	1/1	0.89	0.06	76,76,76,76	0
56	MG	CA	1610	1/1	0.89	0.22	63,63,63,63	0
56	MG	BA	3408	1/1	0.89	0.19	44,44,44,44	0
56	MG	DA	3174	1/1	0.89	0.27	68,68,68,68	0
56	MG	BA	3099	1/1	0.89	0.15	32,32,32,32	0
56	MG	BA	3419	1/1	0.89	0.25	62,62,62,62	0
56	MG	BA	3280	1/1	0.89	0.09	58,58,58,58	0
56	MG	AA	1769	1/1	0.89	0.15	84,84,84,84	0
56	MG	DA	3622	1/1	0.89	0.13	74,74,74,74	0
56	MG	CA	1714	1/1	0.89	0.11	74,74,74,74	0
56	MG	BA	3427	1/1	0.89	0.17	48,48,48,48	0
56	MG	BA	3776	1/1	0.89	0.30	68,68,68,68	0
56	MG	DA	3183	1/1	0.89	0.08	106,106,106,106	0
56	MG	AA	1636	1/1	0.89	0.36	65,65,65,65	0
56	MG	AA	1809	1/1	0.89	0.19	83,83,83,83	0
56	MG	BA	3436	1/1	0.89	0.19	70,70,70,70	0
56	MG	AA	1887	1/1	0.89	0.06	90,90,90,90	0
56	MG	DA	3655	1/1	0.89	0.10	75,75,75,75	0
56	MG	CA	1728	1/1	0.89	0.20	83,83,83,83	0
56	MG	DA	3198	1/1	0.89	0.31	80,80,80,80	0
56	MG	CA	1731	1/1	0.89	0.21	84,84,84,84	0
56	MG	AA	1798	1/1	0.89	0.20	54,54,54,54	0
56	MG	CA	1636	1/1	0.89	0.34	50,50,50,50	0
56	MG	BA	3149	1/1	0.89	0.09	35,35,35,35	0
56	MG	DA	3204	1/1	0.89	0.08	76,76,76,76	0
56	MG	DA	3205	1/1	0.89	0.14	68,68,68,68	0
56	MG	CA	1738	1/1	0.89	0.10	98,98,98,98	0
56	MG	CA	1740	1/1	0.89	0.12	73,73,73,73	0
56	MG	BA	3153	1/1	0.89	0.13	56,56,56,56	0
56	MG	BA	3806	1/1	0.89	0.19	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3448	1/1	0.89	0.08	60,60,60,60	0
56	MG	CA	1644	1/1	0.89	0.23	69,69,69,69	0
56	MG	BA	3158	1/1	0.89	0.14	48,48,48,48	0
56	MG	BA	3474	1/1	0.89	0.13	56,56,56,56	0
56	MG	BA	3322	1/1	0.89	0.28	54,54,54,54	0
56	MG	CA	1654	1/1	0.89	0.18	74,74,74,74	0
56	MG	DA	3382	1/1	0.89	0.26	72,72,72,72	0
56	MG	DA	3388	1/1	0.89	0.09	74,74,74,74	0
56	MG	AA	1931	1/1	0.89	0.07	103,103,103,103	0
56	MG	CA	1768	1/1	0.89	0.12	94,94,94,94	0
56	MG	BA	3327	1/1	0.89	0.20	80,80,80,80	0
56	MG	DA	3234	1/1	0.89	0.18	62,62,62,62	0
56	MG	BA	3329	1/1	0.89	0.24	85,85,85,85	0
56	MG	AA	1894	1/1	0.89	0.19	83,83,83,83	0
56	MG	DE	301	1/1	0.89	0.08	64,64,64,64	0
56	MG	BA	3488	1/1	0.89	0.18	35,35,35,35	0
56	MG	DF	301	1/1	0.89	0.13	71,71,71,71	0
56	MG	DA	3242	1/1	0.89	0.17	77,77,77,77	0
56	MG	AA	1825	1/1	0.89	0.27	64,64,64,64	0
56	MG	CA	1777	1/1	0.89	0.12	82,82,82,82	0
56	MG	BA	3002	1/1	0.89	0.13	65,65,65,65	0
56	MG	CA	1779	1/1	0.89	0.22	95,95,95,95	0
56	MG	BA	3228	1/1	0.89	0.29	59,59,59,59	0
56	MG	AA	1627	1/1	0.89	0.44	83,83,83,83	0
56	MG	BA	3511	1/1	0.89	0.22	48,48,48,48	0
56	MG	AA	1732	1/1	0.89	0.17	65,65,65,65	0
56	MG	AV	114	1/1	0.90	0.11	67,67,67,67	0
56	MG	DA	3034	1/1	0.90	0.19	77,77,77,77	0
56	MG	AA	1905	1/1	0.90	0.06	130,130,130,130	0
56	MG	BA	3746	1/1	0.90	0.18	77,77,77,77	0
56	MG	CA	1631	1/1	0.90	0.32	66,66,66,66	0
56	MG	CA	1632	1/1	0.90	0.20	77,77,77,77	0
56	MG	AA	1843	1/1	0.90	0.08	73,73,73,73	0
56	MG	BA	3422	1/1	0.90	0.17	82,82,82,82	0
56	MG	CA	1741	1/1	0.90	0.12	92,92,92,92	0
56	MG	AA	1767	1/1	0.90	0.14	59,59,59,59	0
56	MG	BA	3017	1/1	0.90	0.11	64,64,64,64	0
56	MG	AA	1768	1/1	0.90	0.12	88,88,88,88	0
56	MG	BA	3433	1/1	0.90	0.15	30,30,30,30	0
56	MG	AA	1635	1/1	0.90	0.16	65,65,65,65	0
56	MG	DA	3244	1/1	0.90	0.13	64,64,64,64	0
56	MG	AA	1850	1/1	0.90	0.15	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1744	1/1	0.90	0.15	68,68,68,68	0
56	MG	BA	3440	1/1	0.90	0.24	56,56,56,56	0
56	MG	CA	1646	1/1	0.90	0.13	73,73,73,73	0
56	MG	DA	3078	1/1	0.90	0.39	75,75,75,75	0
56	MG	CA	1766	1/1	0.90	0.08	106,106,106,106	0
56	MG	DA	3524	1/1	0.90	0.09	99,99,99,99	0
56	MG	BA	3284	1/1	0.90	0.10	41,41,41,41	0
56	MG	AA	1745	1/1	0.90	0.22	64,64,64,64	0
56	MG	CA	1652	1/1	0.90	0.23	75,75,75,75	0
56	MG	DA	3530	1/1	0.90	0.09	72,72,72,72	0
56	MG	AA	1855	1/1	0.90	0.17	80,80,80,80	0
56	MG	CA	1655	1/1	0.90	0.17	66,66,66,66	0
56	MG	DA	3270	1/1	0.90	0.14	70,70,70,70	0
56	MG	BA	3076	1/1	0.90	0.35	39,39,39,39	0
56	MG	BA	3457	1/1	0.90	0.08	59,59,59,59	0
56	MG	BA	3078	1/1	0.90	0.20	49,49,49,49	0
56	MG	DA	3276	1/1	0.90	0.17	63,63,63,63	0
56	MG	DA	3101	1/1	0.90	0.23	53,53,53,53	0
56	MG	DA	3107	1/1	0.90	0.11	58,58,58,58	0
56	MG	BA	3081	1/1	0.90	0.09	53,53,53,53	0
56	MG	DA	3112	1/1	0.90	0.20	61,61,61,61	0
56	MG	DA	3559	1/1	0.90	0.18	76,76,76,76	0
56	MG	DA	3281	1/1	0.90	0.16	70,70,70,70	0
56	MG	BA	3314	1/1	0.90	0.23	65,65,65,65	0
56	MG	DA	3566	1/1	0.90	0.10	84,84,84,84	0
56	MG	CA	1663	1/1	0.90	0.30	63,63,63,63	0
56	MG	AA	1643	1/1	0.90	0.28	59,59,59,59	0
56	MG	DA	3574	1/1	0.90	0.14	53,53,53,53	0
56	MG	AA	1785	1/1	0.90	0.18	68,68,68,68	0
56	MG	BA	3482	1/1	0.90	0.07	73,73,73,73	0
56	MG	BA	3100	1/1	0.90	0.13	48,48,48,48	0
56	MG	CA	1672	1/1	0.90	0.20	76,76,76,76	0
56	MG	AA	1710	1/1	0.90	0.23	76,76,76,76	0
56	MG	BA	3328	1/1	0.90	0.14	68,68,68,68	0
56	MG	DA	3603	1/1	0.90	0.12	100,100,100,100	0
56	MG	DA	3132	1/1	0.90	0.19	66,66,66,66	0
56	MG	DA	3136	1/1	0.90	0.40	67,67,67,67	0
56	MG	AA	1749	1/1	0.90	0.23	69,69,69,69	0
56	MG	DA	3142	1/1	0.90	0.19	50,50,50,50	0
56	MG	AA	1790	1/1	0.90	0.13	70,70,70,70	0
56	MG	AA	1948	1/1	0.90	0.07	88,88,88,88	0
56	MG	BA	3342	1/1	0.90	0.27	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3121	1/1	0.90	0.13	40,40,40,40	0
56	MG	BA	3515	1/1	0.90	0.26	49,49,49,49	0
56	MG	BB	207	1/1	0.90	0.24	44,44,44,44	0
56	MG	BA	3522	1/1	0.90	0.09	62,62,62,62	0
56	MG	AA	1751	1/1	0.90	0.12	74,74,74,74	0
56	MG	DA	3160	1/1	0.90	0.22	69,69,69,69	0
56	MG	DA	3320	1/1	0.90	0.16	56,56,56,56	0
56	MG	DA	3633	1/1	0.90	0.18	62,62,62,62	0
56	MG	BB	210	1/1	0.90	0.10	53,53,53,53	0
56	MG	BA	3524	1/1	0.90	0.08	81,81,81,81	0
56	MG	DA	3334	1/1	0.90	0.20	83,83,83,83	0
56	MG	AA	1672	1/1	0.90	0.11	78,78,78,78	0
56	MG	AA	1822	1/1	0.90	0.19	77,77,77,77	0
56	MG	DA	3166	1/1	0.90	0.29	66,66,66,66	0
56	MG	AF	201	1/1	0.90	0.23	79,79,79,79	0
56	MG	DA	3345	1/1	0.90	0.09	67,67,67,67	0
56	MG	BB	230	1/1	0.90	0.13	56,56,56,56	0
56	MG	DA	3671	1/1	0.90	0.08	92,92,92,92	0
56	MG	AA	1681	1/1	0.90	0.13	91,91,91,91	0
56	MG	CA	1817	1/1	0.90	0.11	111,111,111,111	0
56	MG	DA	3349	1/1	0.90	0.17	72,72,72,72	0
56	MG	BG	201	1/1	0.90	0.18	54,54,54,54	0
56	MG	CT	201	1/1	0.90	0.13	67,67,67,67	0
56	MG	AA	1608	1/1	0.90	0.21	80,80,80,80	0
56	MG	BP	202	1/1	0.90	0.07	62,62,62,62	0
56	MG	DA	3361	1/1	0.90	0.14	60,60,60,60	0
56	MG	BA	3600	1/1	0.90	0.15	36,36,36,36	0
56	MG	AA	1667	1/1	0.90	0.08	71,71,71,71	0
56	MG	DA	3181	1/1	0.90	0.23	59,59,59,59	0
56	MG	BA	3211	1/1	0.90	0.17	46,46,46,46	0
56	MG	DA	3001	1/1	0.90	0.15	58,58,58,58	0
56	MG	AA	1717	1/1	0.90	0.10	76,76,76,76	0
56	MG	BA	3648	1/1	0.90	0.10	49,49,49,49	0
56	MG	BA	3651	1/1	0.90	0.08	49,49,49,49	0
56	MG	DA	3188	1/1	0.90	0.17	77,77,77,77	0
56	MG	AV	105	1/1	0.90	0.24	64,64,64,64	0
56	MG	DA	3196	1/1	0.90	0.15	77,77,77,77	0
56	MG	BA	3392	1/1	0.90	0.26	54,54,54,54	0
56	MG	AA	1833	1/1	0.90	0.14	70,70,70,70	0
56	MG	DD	304	1/1	0.90	0.22	65,65,65,65	0
56	MG	AA	1899	1/1	0.90	0.08	115,115,115,115	0
56	MG	DE	303	1/1	0.90	0.23	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1761	1/1	0.90	0.15	58,58,58,58	0
56	MG	AA	1762	1/1	0.90	0.09	74,74,74,74	0
56	MG	BA	3719	1/1	0.90	0.12	71,71,71,71	0
56	MG	DA	3383	1/1	0.90	0.21	76,76,76,76	0
56	MG	DT	203	1/1	0.90	0.28	73,73,73,73	0
56	MG	DA	3018	1/1	0.90	0.22	51,51,51,51	0
56	MG	DA	3019	1/1	0.90	0.20	65,65,65,65	0
56	MG	AA	1676	1/1	0.90	0.45	72,72,72,72	0
56	MG	AA	1842	1/1	0.90	0.18	89,89,89,89	0
56	MG	BA	3411	1/1	0.90	0.17	55,55,55,55	0
56	MG	D6	102	1/1	0.90	0.15	82,82,82,82	0
56	MG	CA	1727	1/1	0.90	0.12	74,74,74,74	0
57	ZN	CN	101	1/1	0.90	0.10	165,165,165,165	0
56	MG	DA	3460	1/1	0.90	0.15	67,67,67,67	0
56	MG	DA	3454	1/1	0.91	0.17	91,91,91,91	0
56	MG	BA	3095	1/1	0.91	0.17	48,48,48,48	0
56	MG	AA	1888	1/1	0.91	0.08	97,97,97,97	0
56	MG	AA	1892	1/1	0.91	0.07	84,84,84,84	0
56	MG	DA	3032	1/1	0.91	0.14	51,51,51,51	0
56	MG	DA	3211	1/1	0.91	0.23	83,83,83,83	0
56	MG	AA	1640	1/1	0.91	0.20	43,43,43,43	0
56	MG	DA	3474	1/1	0.91	0.11	76,76,76,76	0
56	MG	AA	1630	1/1	0.91	0.28	98,98,98,98	0
56	MG	BA	3728	1/1	0.91	0.14	68,68,68,68	0
56	MG	AA	1797	1/1	0.91	0.22	65,65,65,65	0
56	MG	DA	3222	1/1	0.91	0.23	73,73,73,73	0
56	MG	CA	1725	1/1	0.91	0.14	79,79,79,79	0
56	MG	AA	1845	1/1	0.91	0.19	59,59,59,59	0
56	MG	CA	1613	1/1	0.91	0.20	75,75,75,75	0
56	MG	DA	3230	1/1	0.91	0.10	68,68,68,68	0
56	MG	BA	3313	1/1	0.91	0.17	66,66,66,66	0
56	MG	DA	3053	1/1	0.91	0.17	55,55,55,55	0
56	MG	AA	1818	1/1	0.91	0.17	73,73,73,73	0
56	MG	CA	1734	1/1	0.91	0.14	80,80,80,80	0
56	MG	AV	103	1/1	0.91	0.20	53,53,53,53	0
56	MG	BA	3445	1/1	0.91	0.19	68,68,68,68	0
56	MG	DA	3064	1/1	0.91	0.09	66,66,66,66	0
56	MG	DA	3243	1/1	0.91	0.25	78,78,78,78	0
56	MG	AA	1625	1/1	0.91	0.18	69,69,69,69	0
56	MG	BA	3144	1/1	0.91	0.12	34,34,34,34	0
56	MG	DA	3249	1/1	0.91	0.20	55,55,55,55	0
56	MG	BA	3775	1/1	0.91	0.11	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3454	1/1	0.91	0.13	58,58,58,58	0
56	MG	CA	1743	1/1	0.91	0.29	86,86,86,86	0
56	MG	BA	3455	1/1	0.91	0.20	22,22,22,22	0
56	MG	AV	106	1/1	0.91	0.25	68,68,68,68	0
56	MG	BA	3779	1/1	0.91	0.14	80,80,80,80	0
56	MG	DA	3260	1/1	0.91	0.15	71,71,71,71	0
56	MG	DA	3261	1/1	0.91	0.19	69,69,69,69	0
56	MG	DA	3547	1/1	0.91	0.10	83,83,83,83	0
56	MG	AA	1772	1/1	0.91	0.11	77,77,77,77	0
56	MG	CA	1756	1/1	0.91	0.26	84,84,84,84	0
56	MG	DA	3266	1/1	0.91	0.14	62,62,62,62	0
56	MG	BA	3469	1/1	0.91	0.23	77,77,77,77	0
56	MG	BA	3793	1/1	0.91	0.16	69,69,69,69	0
56	MG	DA	3088	1/1	0.91	0.07	73,73,73,73	0
56	MG	CA	1637	1/1	0.91	0.21	80,80,80,80	0
56	MG	BA	3154	1/1	0.91	0.14	53,53,53,53	0
56	MG	BA	3155	1/1	0.91	0.24	58,58,58,58	0
56	MG	AA	1754	1/1	0.91	0.21	59,59,59,59	0
56	MG	DA	3100	1/1	0.91	0.20	45,45,45,45	0
56	MG	BA	3801	1/1	0.91	0.21	93,93,93,93	0
56	MG	DA	3578	1/1	0.91	0.14	50,50,50,50	0
56	MG	DA	3102	1/1	0.91	0.14	60,60,60,60	0
56	MG	DA	3580	1/1	0.91	0.09	76,76,76,76	0
56	MG	DA	3582	1/1	0.91	0.11	85,85,85,85	0
56	MG	BA	3477	1/1	0.91	0.23	45,45,45,45	0
56	MG	BA	3479	1/1	0.91	0.20	63,63,63,63	0
56	MG	DA	3587	1/1	0.91	0.09	86,86,86,86	0
56	MG	AA	1776	1/1	0.91	0.17	89,89,89,89	0
56	MG	BA	3812	1/1	0.91	0.08	87,87,87,87	0
56	MG	DA	3596	1/1	0.91	0.12	67,67,67,67	0
56	MG	BA	3352	1/1	0.91	0.27	68,68,68,68	0
56	MG	BA	3187	1/1	0.91	0.09	47,47,47,47	0
56	MG	CA	1653	1/1	0.91	0.15	78,78,78,78	0
56	MG	DA	3118	1/1	0.91	0.21	50,50,50,50	0
56	MG	DA	3609	1/1	0.91	0.08	75,75,75,75	0
56	MG	BA	3828	1/1	0.91	0.05	99,99,99,99	0
56	MG	AA	1646	1/1	0.91	0.28	64,64,64,64	0
56	MG	CA	1656	1/1	0.91	0.45	77,77,77,77	0
56	MG	DA	3124	1/1	0.91	0.29	50,50,50,50	0
56	MG	CA	1657	1/1	0.91	0.12	64,64,64,64	0
56	MG	AA	1706	1/1	0.91	0.18	62,62,62,62	0
56	MG	DA	3129	1/1	0.91	0.14	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3849	1/1	0.91	0.07	83,83,83,83	0
56	MG	DA	3135	1/1	0.91	0.20	66,66,66,66	0
56	MG	AA	1826	1/1	0.91	0.20	63,63,63,63	0
56	MG	DA	3138	1/1	0.91	0.27	58,58,58,58	0
56	MG	BA	3492	1/1	0.91	0.23	61,61,61,61	0
56	MG	CA	1791	1/1	0.91	0.17	85,85,85,85	0
56	MG	DA	3312	1/1	0.91	0.10	52,52,52,52	0
56	MG	AA	1914	1/1	0.91	0.06	104,104,104,104	0
56	MG	BA	3001	1/1	0.91	0.08	35,35,35,35	0
56	MG	AA	1619	1/1	0.91	0.33	68,68,68,68	0
56	MG	BA	3874	1/1	0.91	0.09	90,90,90,90	0
56	MG	AA	1828	1/1	0.91	0.09	70,70,70,70	0
56	MG	BA	3373	1/1	0.91	0.23	69,69,69,69	0
56	MG	DA	3153	1/1	0.91	0.45	66,66,66,66	0
56	MG	BA	3234	1/1	0.91	0.21	43,43,43,43	0
56	MG	AA	1786	1/1	0.91	0.28	69,69,69,69	0
56	MG	DA	3159	1/1	0.91	0.13	66,66,66,66	0
56	MG	BA	3889	1/1	0.91	0.08	80,80,80,80	0
56	MG	AA	1866	1/1	0.91	0.22	86,86,86,86	0
56	MG	BA	3895	1/1	0.91	0.08	78,78,78,78	0
56	MG	BA	3389	1/1	0.91	0.33	38,38,38,38	0
56	MG	CA	1679	1/1	0.91	0.16	65,65,65,65	0
56	MG	AA	1868	1/1	0.91	0.21	62,62,62,62	0
56	MG	DA	3691	1/1	0.91	0.09	91,91,91,91	0
56	MG	DA	3352	1/1	0.91	0.21	68,68,68,68	0
56	MG	BB	204	1/1	0.91	0.16	57,57,57,57	0
56	MG	BA	3032	1/1	0.91	0.10	45,45,45,45	0
56	MG	BA	3568	1/1	0.91	0.12	70,70,70,70	0
56	MG	BA	3578	1/1	0.91	0.15	68,68,68,68	0
56	MG	AA	1873	1/1	0.91	0.16	60,60,60,60	0
56	MG	AA	1607	1/1	0.91	0.18	44,44,44,44	0
56	MG	BA	3592	1/1	0.91	0.08	52,52,52,52	0
56	MG	AA	1875	1/1	0.91	0.17	59,59,59,59	0
56	MG	BA	3260	1/1	0.91	0.25	60,60,60,60	0
56	MG	BA	3607	1/1	0.91	0.24	59,59,59,59	0
56	MG	CV	110	1/1	0.91	0.06	100,100,100,100	0
56	MG	AA	1616	1/1	0.91	0.18	65,65,65,65	0
56	MG	CA	1698	1/1	0.91	0.40	114,114,114,114	0
56	MG	DA	3370	1/1	0.91	0.27	67,67,67,67	0
56	MG	BD	302	1/1	0.91	0.15	51,51,51,51	0
56	MG	BF	304	1/1	0.91	0.13	44,44,44,44	0
56	MG	BA	3614	1/1	0.91	0.21	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1654	1/1	0.91	0.19	80,80,80,80	0
56	MG	DF	303	1/1	0.91	0.11	77,77,77,77	0
56	MG	DA	3189	1/1	0.91	0.21	63,63,63,63	0
56	MG	BA	3629	1/1	0.91	0.11	64,64,64,64	0
56	MG	DA	3193	1/1	0.91	0.20	67,67,67,67	0
56	MG	BP	201	1/1	0.91	0.20	33,33,33,33	0
56	MG	AA	1943	1/1	0.91	0.14	92,92,92,92	0
56	MG	DX	101	1/1	0.91	0.10	55,55,55,55	0
56	MG	BQ	203	1/1	0.91	0.10	62,62,62,62	0
56	MG	BU	201	1/1	0.91	0.14	38,38,38,38	0
56	MG	D1	101	1/1	0.91	0.24	61,61,61,61	0
56	MG	BA	3274	1/1	0.91	0.07	35,35,35,35	0
56	MG	AA	1837	1/1	0.91	0.09	66,66,66,66	0
56	MG	D7	101	1/1	0.91	0.24	63,63,63,63	0
56	MG	B2	102	1/1	0.91	0.12	66,66,66,66	0
56	MG	DA	3020	1/1	0.91	0.29	75,75,75,75	0
56	MG	AA	1748	1/1	0.91	0.12	90,90,90,90	0
56	MG	DA	3079	1/1	0.92	0.12	57,57,57,57	0
56	MG	AA	1882	1/1	0.92	0.06	55,55,55,55	0
56	MG	AA	1849	1/1	0.92	0.13	59,59,59,59	0
56	MG	AA	1641	1/1	0.92	0.18	44,44,44,44	0
56	MG	AA	1668	1/1	0.92	0.16	65,65,65,65	0
56	MG	DA	3483	1/1	0.92	0.07	84,84,84,84	0
56	MG	BA	3529	1/1	0.92	0.12	49,49,49,49	0
56	MG	DA	3489	1/1	0.92	0.07	68,68,68,68	0
56	MG	AA	1682	1/1	0.92	0.11	118,118,118,118	0
56	MG	AA	1614	1/1	0.92	0.20	72,72,72,72	0
56	MG	BA	3272	1/1	0.92	0.05	72,72,72,72	0
56	MG	DA	3252	1/1	0.92	0.14	58,58,58,58	0
56	MG	AA	1936	1/1	0.92	0.09	84,84,84,84	0
56	MG	BA	3571	1/1	0.92	0.07	31,31,31,31	0
56	MG	BA	3576	1/1	0.92	0.12	66,66,66,66	0
56	MG	AA	1791	1/1	0.92	0.16	99,99,99,99	0
56	MG	BA	3413	1/1	0.92	0.19	58,58,58,58	0
56	MG	DA	3104	1/1	0.92	0.26	60,60,60,60	0
56	MG	BA	3589	1/1	0.92	0.08	38,38,38,38	0
56	MG	AV	118	1/1	0.92	0.06	83,83,83,83	0
56	MG	DA	3262	1/1	0.92	0.24	67,67,67,67	0
56	MG	DA	3111	1/1	0.92	0.15	51,51,51,51	0
56	MG	CA	1665	1/1	0.92	0.11	64,64,64,64	0
56	MG	BA	3417	1/1	0.92	0.31	44,44,44,44	0
56	MG	DA	3267	1/1	0.92	0.17	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3593	1/1	0.92	0.09	54,54,54,54	0
56	MG	CA	1670	1/1	0.92	0.15	69,69,69,69	0
56	MG	BA	3122	1/1	0.92	0.23	56,56,56,56	0
56	MG	BA	3125	1/1	0.92	0.19	48,48,48,48	0
56	MG	AA	1665	1/1	0.92	0.31	73,73,73,73	0
56	MG	DA	3273	1/1	0.92	0.25	62,62,62,62	0
56	MG	DA	3545	1/1	0.92	0.08	83,83,83,83	0
56	MG	AA	1691	1/1	0.92	0.29	121,121,121,121	0
56	MG	BA	3613	1/1	0.92	0.11	40,40,40,40	0
56	MG	BB	214	1/1	0.92	0.11	51,51,51,51	0
56	MG	AA	1692	1/1	0.92	0.20	67,67,67,67	0
56	MG	BA	3428	1/1	0.92	0.11	63,63,63,63	0
56	MG	CA	1681	1/1	0.92	0.23	70,70,70,70	0
56	MG	AA	1777	1/1	0.92	0.18	61,61,61,61	0
56	MG	DA	3133	1/1	0.92	0.25	51,51,51,51	0
56	MG	DA	3563	1/1	0.92	0.09	73,73,73,73	0
56	MG	DA	3134	1/1	0.92	0.20	61,61,61,61	0
56	MG	BA	3301	1/1	0.92	0.20	70,70,70,70	0
56	MG	DA	3285	1/1	0.92	0.22	62,62,62,62	0
56	MG	DA	3568	1/1	0.92	0.09	82,82,82,82	0
56	MG	AA	1778	1/1	0.92	0.26	83,83,83,83	0
56	MG	BA	3020	1/1	0.92	0.08	44,44,44,44	0
56	MG	DA	3575	1/1	0.92	0.13	65,65,65,65	0
56	MG	DA	3576	1/1	0.92	0.13	75,75,75,75	0
56	MG	AA	1779	1/1	0.92	0.15	60,60,60,60	0
56	MG	BA	3680	1/1	0.92	0.07	46,46,46,46	0
56	MG	DA	3291	1/1	0.92	0.16	50,50,50,50	0
56	MG	DA	3292	1/1	0.92	0.17	69,69,69,69	0
56	MG	BA	3693	1/1	0.92	0.06	38,38,38,38	0
56	MG	BA	3171	1/1	0.92	0.21	38,38,38,38	0
56	MG	BA	3172	1/1	0.92	0.21	44,44,44,44	0
56	MG	AA	1734	1/1	0.92	0.08	80,80,80,80	0
56	MG	AA	1801	1/1	0.92	0.23	65,65,65,65	0
56	MG	AA	1735	1/1	0.92	0.41	84,84,84,84	0
56	MG	DA	3302	1/1	0.92	0.17	76,76,76,76	0
56	MG	DA	3601	1/1	0.92	0.10	53,53,53,53	0
56	MG	CV	101	1/1	0.92	0.23	59,59,59,59	0
56	MG	DA	3154	1/1	0.92	0.17	65,65,65,65	0
56	MG	AA	1613	1/1	0.92	0.37	68,68,68,68	0
56	MG	DA	3308	1/1	0.92	0.11	60,60,60,60	0
56	MG	B0	102	1/1	0.92	0.05	50,50,50,50	0
56	MG	BA	3453	1/1	0.92	0.31	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3615	1/1	0.92	0.07	77,77,77,77	0
56	MG	CV	107	1/1	0.92	0.18	70,70,70,70	0
56	MG	BA	3194	1/1	0.92	0.31	70,70,70,70	0
56	MG	B3	101	1/1	0.92	0.17	57,57,57,57	0
56	MG	B5	102	1/1	0.92	0.10	58,58,58,58	0
56	MG	BA	3333	1/1	0.92	0.25	58,58,58,58	0
56	MG	BA	3199	1/1	0.92	0.18	29,29,29,29	0
56	MG	BA	3461	1/1	0.92	0.14	58,58,58,58	0
56	MG	BA	3744	1/1	0.92	0.21	44,44,44,44	0
56	MG	BA	3209	1/1	0.92	0.15	25,25,25,25	0
56	MG	CA	1709	1/1	0.92	0.32	82,82,82,82	0
56	MG	DA	3336	1/1	0.92	0.32	71,71,71,71	0
56	MG	BA	3344	1/1	0.92	0.16	62,62,62,62	0
56	MG	DA	3639	1/1	0.92	0.14	82,82,82,82	0
56	MG	DA	3645	1/1	0.92	0.13	93,93,93,93	0
56	MG	BA	3470	1/1	0.92	0.15	52,52,52,52	0
56	MG	DA	3341	1/1	0.92	0.15	60,60,60,60	0
56	MG	DA	3342	1/1	0.92	0.19	70,70,70,70	0
56	MG	BA	3770	1/1	0.92	0.11	49,49,49,49	0
56	MG	BA	3772	1/1	0.92	0.07	26,26,26,26	0
56	MG	BA	3472	1/1	0.92	0.18	58,58,58,58	0
56	MG	BA	3345	1/1	0.92	0.20	74,74,74,74	0
56	MG	BA	3050	1/1	0.92	0.13	60,60,60,60	0
56	MG	AA	1804	1/1	0.92	0.13	115,115,115,115	0
56	MG	BA	3222	1/1	0.92	0.21	28,28,28,28	0
56	MG	DA	3353	1/1	0.92	0.11	80,80,80,80	0
56	MG	DA	3676	1/1	0.92	0.16	94,94,94,94	0
56	MG	DA	3024	1/1	0.92	0.17	60,60,60,60	0
56	MG	DA	3681	1/1	0.92	0.08	71,71,71,71	0
56	MG	BA	3780	1/1	0.92	0.12	86,86,86,86	0
56	MG	BA	3223	1/1	0.92	0.10	59,59,59,59	0
56	MG	DA	3357	1/1	0.92	0.12	51,51,51,51	0
56	MG	DA	3358	1/1	0.92	0.08	60,60,60,60	0
56	MG	CA	1624	1/1	0.92	0.24	64,64,64,64	0
56	MG	DA	3692	1/1	0.92	0.11	46,46,46,46	0
56	MG	CA	1625	1/1	0.92	0.24	71,71,71,71	0
56	MG	DA	3694	1/1	0.92	0.06	95,95,95,95	0
56	MG	CA	1628	1/1	0.92	0.28	51,51,51,51	0
56	MG	CA	1732	1/1	0.92	0.12	81,81,81,81	0
56	MG	DA	3194	1/1	0.92	0.32	65,65,65,65	0
56	MG	BA	3058	1/1	0.92	0.09	46,46,46,46	0
56	MG	DA	3036	1/1	0.92	0.19	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3359	1/1	0.92	0.14	72,72,72,72	0
56	MG	AA	1881	1/1	0.92	0.15	50,50,50,50	0
56	MG	AA	1918	1/1	0.92	0.07	68,68,68,68	0
56	MG	AV	104	1/1	0.92	0.30	81,81,81,81	0
56	MG	BA	3369	1/1	0.92	0.12	65,65,65,65	0
56	MG	AA	1919	1/1	0.92	0.15	63,63,63,63	0
56	MG	DA	3055	1/1	0.92	0.16	57,57,57,57	0
56	MG	BA	3496	1/1	0.92	0.18	61,61,61,61	0
56	MG	BA	3498	1/1	0.92	0.10	54,54,54,54	0
56	MG	DA	3059	1/1	0.92	0.11	67,67,67,67	0
56	MG	DA	3209	1/1	0.92	0.19	89,89,89,89	0
56	MG	BA	3082	1/1	0.92	0.10	45,45,45,45	0
56	MG	BA	3819	1/1	0.92	0.08	71,71,71,71	0
56	MG	BA	3083	1/1	0.92	0.11	48,48,48,48	0
56	MG	DA	3386	1/1	0.92	0.14	47,47,47,47	0
56	MG	BA	3087	1/1	0.92	0.12	77,77,77,77	0
56	MG	CA	1754	1/1	0.92	0.20	70,70,70,70	0
56	MG	DA	3067	1/1	0.92	0.16	45,45,45,45	0
56	MG	DA	3221	1/1	0.92	0.10	82,82,82,82	0
56	MG	CA	1755	1/1	0.92	0.07	93,93,93,93	0
56	MG	DA	3070	1/1	0.92	0.17	74,74,74,74	0
56	MG	BA	3505	1/1	0.92	0.08	64,64,64,64	0
56	MG	BA	3509	1/1	0.92	0.20	54,54,54,54	0
56	MG	DA	3461	1/1	0.92	0.17	50,50,50,50	0
56	MG	DA	3229	1/1	0.92	0.19	52,52,52,52	0
56	MG	BA	3090	1/1	0.92	0.19	46,46,46,46	0
56	MG	DA	3469	1/1	0.92	0.11	84,84,84,84	0
56	MG	DA	3077	1/1	0.92	0.25	74,74,74,74	0
56	MG	CA	1648	1/1	0.92	0.30	73,73,73,73	0
56	MG	DA	3021	1/1	0.93	0.17	58,58,58,58	0
56	MG	DA	3441	1/1	0.93	0.09	72,72,72,72	0
56	MG	DA	3443	1/1	0.93	0.11	70,70,70,70	0
56	MG	BB	211	1/1	0.93	0.23	66,66,66,66	0
56	MG	DA	3453	1/1	0.93	0.07	77,77,77,77	0
56	MG	BA	3416	1/1	0.93	0.15	58,58,58,58	0
56	MG	DA	3456	1/1	0.93	0.11	56,56,56,56	0
56	MG	BA	3132	1/1	0.93	0.16	44,44,44,44	0
56	MG	DA	3027	1/1	0.93	0.28	72,72,72,72	0
56	MG	BA	3418	1/1	0.93	0.24	59,59,59,59	0
56	MG	DA	3215	1/1	0.93	0.23	46,46,46,46	0
56	MG	AA	1660	1/1	0.93	0.19	59,59,59,59	0
56	MG	DA	3470	1/1	0.93	0.11	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3137	1/1	0.93	0.23	55,55,55,55	0
56	MG	BA	3421	1/1	0.93	0.30	75,75,75,75	0
56	MG	BA	3142	1/1	0.93	0.24	44,44,44,44	0
56	MG	BE	303	1/1	0.93	0.08	32,32,32,32	0
56	MG	BF	301	1/1	0.93	0.09	40,40,40,40	0
56	MG	AA	1793	1/1	0.93	0.17	72,72,72,72	0
56	MG	DA	3041	1/1	0.93	0.32	54,54,54,54	0
56	MG	BA	3148	1/1	0.93	0.15	50,50,50,50	0
56	MG	AA	1707	1/1	0.93	0.26	64,64,64,64	0
56	MG	DA	3231	1/1	0.93	0.12	74,74,74,74	0
56	MG	DA	3490	1/1	0.93	0.17	45,45,45,45	0
56	MG	BA	3045	1/1	0.93	0.08	35,35,35,35	0
56	MG	BA	3431	1/1	0.93	0.23	75,75,75,75	0
56	MG	CA	1712	1/1	0.93	0.21	83,83,83,83	0
56	MG	BA	3293	1/1	0.93	0.06	45,45,45,45	0
56	MG	BA	3658	1/1	0.93	0.16	44,44,44,44	0
56	MG	DA	3057	1/1	0.93	0.25	66,66,66,66	0
56	MG	CA	1715	1/1	0.93	0.08	66,66,66,66	0
56	MG	BA	3659	1/1	0.93	0.09	60,60,60,60	0
56	MG	AA	1852	1/1	0.93	0.10	93,93,93,93	0
56	MG	DA	3061	1/1	0.93	0.34	78,78,78,78	0
56	MG	BA	3297	1/1	0.93	0.13	53,53,53,53	0
56	MG	B1	103	1/1	0.93	0.13	36,36,36,36	0
56	MG	CA	1721	1/1	0.93	0.11	75,75,75,75	0
56	MG	AA	1708	1/1	0.93	0.21	79,79,79,79	0
56	MG	BA	3157	1/1	0.93	0.20	42,42,42,42	0
56	MG	CA	1724	1/1	0.93	0.09	88,88,88,88	0
56	MG	BA	3302	1/1	0.93	0.07	53,53,53,53	0
56	MG	BA	3051	1/1	0.93	0.21	41,41,41,41	0
56	MG	B8	101	1/1	0.93	0.14	49,49,49,49	0
56	MG	BA	3162	1/1	0.93	0.16	36,36,36,36	0
56	MG	BA	3724	1/1	0.93	0.09	88,88,88,88	0
56	MG	BA	3166	1/1	0.93	0.18	30,30,30,30	0
56	MG	BA	3053	1/1	0.93	0.11	44,44,44,44	0
56	MG	BA	3450	1/1	0.93	0.11	42,42,42,42	0
56	MG	BA	3452	1/1	0.93	0.09	55,55,55,55	0
56	MG	CA	1607	1/1	0.93	0.11	73,73,73,73	0
56	MG	CA	1739	1/1	0.93	0.13	79,79,79,79	0
56	MG	DA	3085	1/1	0.93	0.18	64,64,64,64	0
56	MG	AA	1920	1/1	0.93	0.10	86,86,86,86	0
56	MG	CA	1609	1/1	0.93	0.15	70,70,70,70	0
56	MG	DA	3558	1/1	0.93	0.22	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3090	1/1	0.93	0.33	76,76,76,76	0
56	MG	BA	3174	1/1	0.93	0.24	62,62,62,62	0
56	MG	DA	3275	1/1	0.93	0.23	42,42,42,42	0
56	MG	BA	3181	1/1	0.93	0.28	69,69,69,69	0
56	MG	BA	3456	1/1	0.93	0.13	73,73,73,73	0
56	MG	BA	3753	1/1	0.93	0.18	31,31,31,31	0
56	MG	CA	1615	1/1	0.93	0.19	74,74,74,74	0
56	MG	CA	1616	1/1	0.93	0.30	54,54,54,54	0
56	MG	AA	1832	1/1	0.93	0.20	75,75,75,75	0
56	MG	BA	3458	1/1	0.93	0.24	44,44,44,44	0
56	MG	DA	3106	1/1	0.93	0.24	48,48,48,48	0
56	MG	DA	3577	1/1	0.93	0.07	95,95,95,95	0
56	MG	BA	3063	1/1	0.93	0.11	53,53,53,53	0
56	MG	AA	1757	1/1	0.93	0.13	58,58,58,58	0
56	MG	BA	3192	1/1	0.93	0.15	53,53,53,53	0
56	MG	CA	1761	1/1	0.93	0.18	68,68,68,68	0
56	MG	BA	3335	1/1	0.93	0.24	47,47,47,47	0
56	MG	BA	3471	1/1	0.93	0.12	49,49,49,49	0
56	MG	CA	1627	1/1	0.93	0.21	50,50,50,50	0
56	MG	AA	1609	1/1	0.93	0.27	61,61,61,61	0
56	MG	AA	1926	1/1	0.93	0.07	90,90,90,90	0
56	MG	BA	3195	1/1	0.93	0.17	19,19,19,19	0
56	MG	BA	3781	1/1	0.93	0.07	84,84,84,84	0
56	MG	CA	1774	1/1	0.93	0.12	111,111,111,111	0
56	MG	BA	3782	1/1	0.93	0.15	75,75,75,75	0
56	MG	BA	3784	1/1	0.93	0.12	88,88,88,88	0
56	MG	DA	3300	1/1	0.93	0.25	55,55,55,55	0
56	MG	DA	3301	1/1	0.93	0.23	62,62,62,62	0
56	MG	BA	3788	1/1	0.93	0.08	48,48,48,48	0
56	MG	BA	3196	1/1	0.93	0.25	66,66,66,66	0
56	MG	BA	3347	1/1	0.93	0.22	20,20,20,20	0
56	MG	AA	1662	1/1	0.93	0.22	71,71,71,71	0
56	MG	DA	3307	1/1	0.93	0.09	65,65,65,65	0
56	MG	BA	3203	1/1	0.93	0.22	44,44,44,44	0
56	MG	CA	1783	1/1	0.93	0.07	78,78,78,78	0
56	MG	AA	1860	1/1	0.93	0.10	85,85,85,85	0
56	MG	DA	3623	1/1	0.93	0.08	85,85,85,85	0
56	MG	DA	3624	1/1	0.93	0.07	82,82,82,82	0
56	MG	CA	1640	1/1	0.93	0.16	72,72,72,72	0
56	MG	AA	1780	1/1	0.93	0.19	55,55,55,55	0
56	MG	DA	3627	1/1	0.93	0.06	81,81,81,81	0
56	MG	DA	3140	1/1	0.93	0.32	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1639	1/1	0.93	0.27	74,74,74,74	0
56	MG	AA	1713	1/1	0.93	0.07	60,60,60,60	0
56	MG	BA	3362	1/1	0.93	0.18	51,51,51,51	0
56	MG	DA	3321	1/1	0.93	0.20	50,50,50,50	0
56	MG	DA	3636	1/1	0.93	0.10	78,78,78,78	0
56	MG	BA	3094	1/1	0.93	0.12	45,45,45,45	0
56	MG	DA	3327	1/1	0.93	0.14	64,64,64,64	0
56	MG	DA	3329	1/1	0.93	0.24	63,63,63,63	0
56	MG	DA	3648	1/1	0.93	0.19	53,53,53,53	0
56	MG	DA	3649	1/1	0.93	0.08	73,73,73,73	0
56	MG	DA	3330	1/1	0.93	0.18	78,78,78,78	0
56	MG	CA	1792	1/1	0.93	0.08	82,82,82,82	0
56	MG	BA	3811	1/1	0.93	0.07	85,85,85,85	0
56	MG	BA	3494	1/1	0.93	0.10	62,62,62,62	0
56	MG	BA	3225	1/1	0.93	0.14	46,46,46,46	0
56	MG	DA	3337	1/1	0.93	0.08	65,65,65,65	0
56	MG	AA	1664	1/1	0.93	0.12	51,51,51,51	0
56	MG	BA	3823	1/1	0.93	0.09	78,78,78,78	0
56	MG	AA	1941	1/1	0.93	0.07	94,94,94,94	0
56	MG	BA	3827	1/1	0.93	0.06	77,77,77,77	0
56	MG	AA	1671	1/1	0.93	0.09	94,94,94,94	0
56	MG	DA	3161	1/1	0.93	0.15	45,45,45,45	0
56	MG	BA	3833	1/1	0.93	0.08	41,41,41,41	0
56	MG	BA	3835	1/1	0.93	0.16	86,86,86,86	0
56	MG	BA	3837	1/1	0.93	0.09	33,33,33,33	0
56	MG	DA	3688	1/1	0.93	0.07	80,80,80,80	0
56	MG	BA	3841	1/1	0.93	0.15	91,91,91,91	0
56	MG	DA	3351	1/1	0.93	0.11	57,57,57,57	0
56	MG	AA	1904	1/1	0.93	0.05	118,118,118,118	0
56	MG	BA	3376	1/1	0.93	0.12	43,43,43,43	0
56	MG	DA	3168	1/1	0.93	0.30	53,53,53,53	0
56	MG	BA	3003	1/1	0.93	0.13	59,59,59,59	0
56	MG	BA	3104	1/1	0.93	0.15	50,50,50,50	0
56	MG	BA	3512	1/1	0.93	0.20	56,56,56,56	0
56	MG	BA	3514	1/1	0.93	0.17	58,58,58,58	0
56	MG	CA	1668	1/1	0.93	0.14	59,59,59,59	0
56	MG	CD	302	1/1	0.93	0.15	53,53,53,53	0
56	MG	AA	1944	1/1	0.93	0.11	97,97,97,97	0
56	MG	BA	3516	1/1	0.93	0.20	56,56,56,56	0
56	MG	BA	3867	1/1	0.93	0.09	60,60,60,60	0
56	MG	BA	3870	1/1	0.93	0.08	100,100,100,100	0
56	MG	BA	3871	1/1	0.93	0.09	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3517	1/1	0.93	0.16	58,58,58,58	0
56	MG	AA	1623	1/1	0.93	0.11	59,59,59,59	0
56	MG	CV	109	1/1	0.93	0.06	102,102,102,102	0
56	MG	DD	303	1/1	0.93	0.09	59,59,59,59	0
56	MG	BA	3879	1/1	0.93	0.11	53,53,53,53	0
56	MG	BA	3118	1/1	0.93	0.36	44,44,44,44	0
56	MG	BA	3251	1/1	0.93	0.16	51,51,51,51	0
56	MG	AA	1740	1/1	0.93	0.28	72,72,72,72	0
56	MG	AA	1770	1/1	0.93	0.10	76,76,76,76	0
56	MG	BA	3259	1/1	0.93	0.19	66,66,66,66	0
56	MG	AA	1912	1/1	0.93	0.06	106,106,106,106	0
56	MG	BA	3402	1/1	0.93	0.11	55,55,55,55	0
56	MG	BA	3405	1/1	0.93	0.17	62,62,62,62	0
56	MG	BA	3406	1/1	0.93	0.12	64,64,64,64	0
56	MG	BA	3407	1/1	0.93	0.09	44,44,44,44	0
56	MG	CA	1690	1/1	0.93	0.27	74,74,74,74	0
56	MG	BA	3123	1/1	0.93	0.20	58,58,58,58	0
56	MG	DA	3392	1/1	0.93	0.07	42,42,42,42	0
56	MG	DA	3393	1/1	0.93	0.15	63,63,63,63	0
56	MG	BA	3029	1/1	0.93	0.21	33,33,33,33	0
56	MG	BA	3265	1/1	0.93	0.07	67,67,67,67	0
56	MG	DA	3410	1/1	0.93	0.15	55,55,55,55	0
56	MG	DA	3423	1/1	0.93	0.11	45,45,45,45	0
56	MG	DA	3424	1/1	0.93	0.11	72,72,72,72	0
56	MG	BA	3129	1/1	0.93	0.06	49,49,49,49	0
56	MG	BA	3273	1/1	0.94	0.09	63,63,63,63	0
56	MG	DA	3413	1/1	0.94	0.12	40,40,40,40	0
56	MG	DA	3414	1/1	0.94	0.17	50,50,50,50	0
56	MG	DA	3415	1/1	0.94	0.28	33,33,33,33	0
56	MG	DA	3417	1/1	0.94	0.14	46,46,46,46	0
56	MG	CA	1685	1/1	0.94	0.21	64,64,64,64	0
56	MG	BA	3150	1/1	0.94	0.23	54,54,54,54	0
56	MG	BA	3275	1/1	0.94	0.08	55,55,55,55	0
56	MG	AA	1907	1/1	0.94	0.09	78,78,78,78	0
56	MG	AA	1644	1/1	0.94	0.17	48,48,48,48	0
56	MG	DA	3442	1/1	0.94	0.10	56,56,56,56	0
56	MG	BA	3073	1/1	0.94	0.22	39,39,39,39	0
56	MG	AA	1910	1/1	0.94	0.08	87,87,87,87	0
56	MG	BA	3077	1/1	0.94	0.11	45,45,45,45	0
56	MG	BA	3159	1/1	0.94	0.12	43,43,43,43	0
56	MG	BA	3288	1/1	0.94	0.10	77,77,77,77	0
56	MG	CA	1696	1/1	0.94	0.12	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3026	1/1	0.94	0.09	64,64,64,64	0
56	MG	DA	3464	1/1	0.94	0.10	82,82,82,82	0
56	MG	BA	3290	1/1	0.94	0.12	63,63,63,63	0
56	MG	DA	3218	1/1	0.94	0.13	71,71,71,71	0
56	MG	BB	213	1/1	0.94	0.09	58,58,58,58	0
56	MG	BA	3615	1/1	0.94	0.11	68,68,68,68	0
56	MG	DA	3031	1/1	0.94	0.15	49,49,49,49	0
56	MG	BA	3616	1/1	0.94	0.18	40,40,40,40	0
56	MG	DA	3223	1/1	0.94	0.23	70,70,70,70	0
56	MG	BB	218	1/1	0.94	0.14	57,57,57,57	0
56	MG	DA	3226	1/1	0.94	0.28	62,62,62,62	0
56	MG	DA	3476	1/1	0.94	0.11	71,71,71,71	0
56	MG	BA	3161	1/1	0.94	0.14	49,49,49,49	0
56	MG	AA	1763	1/1	0.94	0.10	54,54,54,54	0
56	MG	BA	3635	1/1	0.94	0.16	75,75,75,75	0
56	MG	DA	3037	1/1	0.94	0.24	83,83,83,83	0
56	MG	BA	3642	1/1	0.94	0.13	78,78,78,78	0
56	MG	BD	301	1/1	0.94	0.07	65,65,65,65	0
56	MG	DA	3042	1/1	0.94	0.09	47,47,47,47	0
56	MG	BA	3647	1/1	0.94	0.09	61,61,61,61	0
56	MG	DA	3046	1/1	0.94	0.18	79,79,79,79	0
56	MG	DA	3237	1/1	0.94	0.16	61,61,61,61	0
56	MG	DA	3502	1/1	0.94	0.07	68,68,68,68	0
56	MG	DA	3504	1/1	0.94	0.07	94,94,94,94	0
56	MG	DA	3047	1/1	0.94	0.14	65,65,65,65	0
56	MG	BA	3296	1/1	0.94	0.06	43,43,43,43	0
56	MG	BA	3424	1/1	0.94	0.06	42,42,42,42	0
56	MG	BA	3426	1/1	0.94	0.07	46,46,46,46	0
56	MG	AA	1750	1/1	0.94	0.07	79,79,79,79	0
56	MG	DA	3246	1/1	0.94	0.18	48,48,48,48	0
56	MG	BA	3657	1/1	0.94	0.17	51,51,51,51	0
56	MG	AA	1945	1/1	0.94	0.08	107,107,107,107	0
56	MG	DA	3251	1/1	0.94	0.14	62,62,62,62	0
56	MG	AA	1814	1/1	0.94	0.17	81,81,81,81	0
56	MG	BA	3661	1/1	0.94	0.16	53,53,53,53	0
56	MG	BQ	202	1/1	0.94	0.10	46,46,46,46	0
56	MG	BA	3084	1/1	0.94	0.10	43,43,43,43	0
56	MG	BT	201	1/1	0.94	0.09	53,53,53,53	0
56	MG	BA	3683	1/1	0.94	0.06	31,31,31,31	0
56	MG	CA	1720	1/1	0.94	0.10	84,84,84,84	0
56	MG	DA	3536	1/1	0.94	0.20	54,54,54,54	0
56	MG	DA	3537	1/1	0.94	0.19	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3303	1/1	0.94	0.11	51,51,51,51	0
56	MG	BA	3697	1/1	0.94	0.07	51,51,51,51	0
56	MG	B1	102	1/1	0.94	0.07	45,45,45,45	0
56	MG	DA	3263	1/1	0.94	0.32	67,67,67,67	0
56	MG	BA	3704	1/1	0.94	0.07	44,44,44,44	0
56	MG	DA	3548	1/1	0.94	0.08	72,72,72,72	0
56	MG	BA	3304	1/1	0.94	0.09	45,45,45,45	0
56	MG	AA	1815	1/1	0.94	0.11	69,69,69,69	0
56	MG	BA	3088	1/1	0.94	0.27	45,45,45,45	0
56	MG	CA	1729	1/1	0.94	0.10	80,80,80,80	0
56	MG	B5	101	1/1	0.94	0.09	50,50,50,50	0
56	MG	BA	3185	1/1	0.94	0.16	57,57,57,57	0
56	MG	B5	103	1/1	0.94	0.10	61,61,61,61	0
56	MG	B7	101	1/1	0.94	0.09	51,51,51,51	0
56	MG	BA	3316	1/1	0.94	0.08	48,48,48,48	0
56	MG	BA	3089	1/1	0.94	0.29	54,54,54,54	0
56	MG	BA	3726	1/1	0.94	0.19	48,48,48,48	0
56	MG	AA	1700	1/1	0.94	0.10	116,116,116,116	0
56	MG	BA	3733	1/1	0.94	0.08	49,49,49,49	0
56	MG	DA	3087	1/1	0.94	0.13	40,40,40,40	0
56	MG	BA	3734	1/1	0.94	0.14	40,40,40,40	0
56	MG	DA	3089	1/1	0.94	0.10	82,82,82,82	0
56	MG	BA	3325	1/1	0.94	0.22	83,83,83,83	0
56	MG	AA	1730	1/1	0.94	0.15	61,61,61,61	0
56	MG	BA	3738	1/1	0.94	0.26	42,42,42,42	0
56	MG	DA	3095	1/1	0.94	0.20	41,41,41,41	0
56	MG	BA	3740	1/1	0.94	0.10	48,48,48,48	0
56	MG	BA	3449	1/1	0.94	0.21	34,34,34,34	0
56	MG	CA	1751	1/1	0.94	0.08	86,86,86,86	0
56	MG	CA	1611	1/1	0.94	0.13	74,74,74,74	0
56	MG	BA	3013	1/1	0.94	0.13	57,57,57,57	0
56	MG	BA	3097	1/1	0.94	0.10	34,34,34,34	0
56	MG	AA	1836	1/1	0.94	0.14	59,59,59,59	0
56	MG	DA	3591	1/1	0.94	0.10	86,86,86,86	0
56	MG	DA	3592	1/1	0.94	0.06	69,69,69,69	0
56	MG	AI	201	1/1	0.94	0.34	66,66,66,66	0
56	MG	BA	3332	1/1	0.94	0.20	74,74,74,74	0
56	MG	DA	3110	1/1	0.94	0.26	60,60,60,60	0
56	MG	BA	3023	1/1	0.94	0.07	46,46,46,46	0
56	MG	DA	3605	1/1	0.94	0.07	101,101,101,101	0
56	MG	BA	3334	1/1	0.94	0.13	51,51,51,51	0
56	MG	DA	3298	1/1	0.94	0.20	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	1764	1/1	0.94	0.07	75,75,75,75	0
56	MG	DA	3610	1/1	0.94	0.15	97,97,97,97	0
56	MG	BA	3765	1/1	0.94	0.08	59,59,59,59	0
56	MG	BA	3025	1/1	0.94	0.07	68,68,68,68	0
56	MG	BA	3460	1/1	0.94	0.14	52,52,52,52	0
56	MG	CA	1769	1/1	0.94	0.09	93,93,93,93	0
56	MG	BA	3337	1/1	0.94	0.09	51,51,51,51	0
56	MG	DA	3121	1/1	0.94	0.19	37,37,37,37	0
56	MG	BA	3204	1/1	0.94	0.27	52,52,52,52	0
56	MG	BA	3340	1/1	0.94	0.21	55,55,55,55	0
56	MG	BA	3205	1/1	0.94	0.23	43,43,43,43	0
56	MG	BA	3343	1/1	0.94	0.24	37,37,37,37	0
56	MG	BA	3206	1/1	0.94	0.18	31,31,31,31	0
56	MG	AA	1753	1/1	0.94	0.26	86,86,86,86	0
56	MG	DA	3316	1/1	0.94	0.15	80,80,80,80	0
56	MG	AA	1652	1/1	0.94	0.28	69,69,69,69	0
56	MG	BA	3350	1/1	0.94	0.07	69,69,69,69	0
56	MG	BA	3109	1/1	0.94	0.12	58,58,58,58	0
56	MG	AA	1712	1/1	0.94	0.13	72,72,72,72	0
56	MG	BA	3115	1/1	0.94	0.19	52,52,52,52	0
56	MG	DA	3322	1/1	0.94	0.21	52,52,52,52	0
56	MG	DA	3324	1/1	0.94	0.17	55,55,55,55	0
56	MG	BA	3117	1/1	0.94	0.28	46,46,46,46	0
56	MG	DA	3326	1/1	0.94	0.13	62,62,62,62	0
56	MG	BA	3033	1/1	0.94	0.11	55,55,55,55	0
56	MG	AA	1631	1/1	0.94	0.20	59,59,59,59	0
56	MG	DA	3652	1/1	0.94	0.10	85,85,85,85	0
56	MG	DA	3653	1/1	0.94	0.13	59,59,59,59	0
56	MG	BA	3361	1/1	0.94	0.26	60,60,60,60	0
56	MG	DA	3143	1/1	0.94	0.18	50,50,50,50	0
56	MG	BA	3800	1/1	0.94	0.05	111,111,111,111	0
56	MG	BA	3037	1/1	0.94	0.07	37,37,37,37	0
56	MG	CA	1643	1/1	0.94	0.20	53,53,53,53	0
56	MG	BA	3039	1/1	0.94	0.07	34,34,34,34	0
56	MG	BA	3041	1/1	0.94	0.07	43,43,43,43	0
56	MG	DA	3669	1/1	0.94	0.05	93,93,93,93	0
56	MG	BA	3495	1/1	0.94	0.12	56,56,56,56	0
56	MG	AV	101	1/1	0.94	0.22	48,48,48,48	0
56	MG	AA	1925	1/1	0.94	0.05	86,86,86,86	0
56	MG	DA	3155	1/1	0.94	0.16	56,56,56,56	0
56	MG	DA	3156	1/1	0.94	0.15	57,57,57,57	0
56	MG	CA	1650	1/1	0.94	0.24	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3370	1/1	0.94	0.10	64,64,64,64	0
56	MG	CA	1801	1/1	0.94	0.09	83,83,83,83	0
56	MG	BA	3371	1/1	0.94	0.17	66,66,66,66	0
56	MG	DA	3350	1/1	0.94	0.12	72,72,72,72	0
56	MG	BA	3239	1/1	0.94	0.13	49,49,49,49	0
56	MG	AA	1673	1/1	0.94	0.20	74,74,74,74	0
56	MG	BA	3507	1/1	0.94	0.14	53,53,53,53	0
56	MG	CA	1807	1/1	0.94	0.05	100,100,100,100	0
56	MG	BA	3133	1/1	0.94	0.14	27,27,27,27	0
56	MG	BA	3379	1/1	0.94	0.14	39,39,39,39	0
56	MG	BA	3381	1/1	0.94	0.26	19,19,19,19	0
56	MG	BA	3513	1/1	0.94	0.10	60,60,60,60	0
56	MG	DA	3359	1/1	0.94	0.08	59,59,59,59	0
56	MG	DA	3169	1/1	0.94	0.15	51,51,51,51	0
56	MG	BA	3249	1/1	0.94	0.20	24,24,24,24	0
56	MG	BA	3385	1/1	0.94	0.10	58,58,58,58	0
56	MG	BA	3049	1/1	0.94	0.29	49,49,49,49	0
56	MG	AA	1621	1/1	0.94	0.07	54,54,54,54	0
56	MG	BA	3138	1/1	0.94	0.13	33,33,33,33	0
56	MG	BA	3139	1/1	0.94	0.10	56,56,56,56	0
56	MG	AA	1871	1/1	0.94	0.10	71,71,71,71	0
56	MG	BA	3859	1/1	0.94	0.10	31,31,31,31	0
56	MG	DD	301	1/1	0.94	0.10	84,84,84,84	0
56	MG	AA	1648	1/1	0.94	0.16	65,65,65,65	0
56	MG	CV	103	1/1	0.94	0.16	88,88,88,88	0
56	MG	BA	3531	1/1	0.94	0.06	59,59,59,59	0
56	MG	DE	302	1/1	0.94	0.14	55,55,55,55	0
56	MG	BA	3145	1/1	0.94	0.17	26,26,26,26	0
56	MG	DA	3184	1/1	0.94	0.20	57,57,57,57	0
56	MG	CV	106	1/1	0.94	0.20	78,78,78,78	0
56	MG	DF	302	1/1	0.94	0.15	75,75,75,75	0
56	MG	BA	3398	1/1	0.94	0.23	62,62,62,62	0
56	MG	DA	3378	1/1	0.94	0.07	64,64,64,64	0
56	MG	CA	1673	1/1	0.94	0.14	54,54,54,54	0
56	MG	DQ	202	1/1	0.94	0.21	77,77,77,77	0
56	MG	DR	201	1/1	0.94	0.12	44,44,44,44	0
56	MG	BA	3544	1/1	0.94	0.09	45,45,45,45	0
56	MG	BA	3147	1/1	0.94	0.23	54,54,54,54	0
56	MG	BA	3266	1/1	0.94	0.16	59,59,59,59	0
56	MG	DA	3192	1/1	0.94	0.29	71,71,71,71	0
56	MG	AA	1847	1/1	0.94	0.14	98,98,98,98	0
56	MG	BA	3881	1/1	0.94	0.05	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3390	1/1	0.94	0.09	55,55,55,55	0
56	MG	DA	3391	1/1	0.94	0.12	48,48,48,48	0
56	MG	BA	3403	1/1	0.94	0.09	51,51,51,51	0
56	MG	AA	1650	1/1	0.94	0.28	65,65,65,65	0
56	MG	D8	201	1/1	0.94	0.12	67,67,67,67	0
56	MG	BA	3579	1/1	0.94	0.17	64,64,64,64	0
56	MG	BA	3585	1/1	0.94	0.06	35,35,35,35	0
57	ZN	D6	101	1/1	0.94	0.08	106,106,106,106	0
56	MG	DA	3403	1/1	0.94	0.27	60,60,60,60	0
56	MG	BA	3510	1/1	0.95	0.08	60,60,60,60	0
56	MG	BA	3401	1/1	0.95	0.06	57,57,57,57	0
56	MG	BA	3200	1/1	0.95	0.16	35,35,35,35	0
56	MG	BA	3004	1/1	0.95	0.08	57,57,57,57	0
56	MG	BA	3008	1/1	0.95	0.11	84,84,84,84	0
56	MG	CA	1750	1/1	0.95	0.10	56,56,56,56	0
56	MG	DA	3257	1/1	0.95	0.20	51,51,51,51	0
56	MG	BA	3065	1/1	0.95	0.11	28,28,28,28	0
56	MG	DA	3482	1/1	0.95	0.12	63,63,63,63	0
56	MG	BA	3128	1/1	0.95	0.24	60,60,60,60	0
56	MG	DA	3485	1/1	0.95	0.07	42,42,42,42	0
56	MG	BA	3785	1/1	0.95	0.09	69,69,69,69	0
56	MG	BA	3786	1/1	0.95	0.09	44,44,44,44	0
56	MG	BA	3308	1/1	0.95	0.06	51,51,51,51	0
56	MG	BA	3521	1/1	0.95	0.07	68,68,68,68	0
56	MG	DA	3493	1/1	0.95	0.08	80,80,80,80	0
56	MG	BA	3791	1/1	0.95	0.14	29,29,29,29	0
56	MG	BA	3410	1/1	0.95	0.27	54,54,54,54	0
56	MG	BA	3311	1/1	0.95	0.09	59,59,59,59	0
56	MG	BA	3067	1/1	0.95	0.11	40,40,40,40	0
56	MG	DA	3096	1/1	0.95	0.16	41,41,41,41	0
56	MG	DA	3505	1/1	0.95	0.08	81,81,81,81	0
56	MG	DA	3506	1/1	0.95	0.09	66,66,66,66	0
56	MG	CA	1623	1/1	0.95	0.21	68,68,68,68	0
56	MG	DA	3508	1/1	0.95	0.07	87,87,87,87	0
56	MG	BA	3130	1/1	0.95	0.09	30,30,30,30	0
56	MG	BA	3213	1/1	0.95	0.11	37,37,37,37	0
56	MG	CA	1626	1/1	0.95	0.21	50,50,50,50	0
56	MG	DA	3512	1/1	0.95	0.15	49,49,49,49	0
56	MG	BA	3068	1/1	0.95	0.08	56,56,56,56	0
56	MG	DA	3515	1/1	0.95	0.23	51,51,51,51	0
56	MG	DA	3103	1/1	0.95	0.18	45,45,45,45	0
56	MG	BA	3535	1/1	0.95	0.14	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3105	1/1	0.95	0.17	52,52,52,52	0
56	MG	CA	1772	1/1	0.95	0.08	77,77,77,77	0
56	MG	BA	3802	1/1	0.95	0.10	71,71,71,71	0
56	MG	BA	3805	1/1	0.95	0.11	63,63,63,63	0
56	MG	BA	3221	1/1	0.95	0.19	17,17,17,17	0
56	MG	BA	3543	1/1	0.95	0.06	56,56,56,56	0
56	MG	DA	3531	1/1	0.95	0.19	66,66,66,66	0
56	MG	BA	3321	1/1	0.95	0.10	52,52,52,52	0
56	MG	BA	3071	1/1	0.95	0.12	41,41,41,41	0
56	MG	DA	3534	1/1	0.95	0.11	73,73,73,73	0
56	MG	BA	3560	1/1	0.95	0.19	39,39,39,39	0
56	MG	DA	3115	1/1	0.95	0.30	75,75,75,75	0
56	MG	DA	3286	1/1	0.95	0.32	69,69,69,69	0
56	MG	BA	3814	1/1	0.95	0.13	86,86,86,86	0
56	MG	CA	1781	1/1	0.95	0.11	103,103,103,103	0
56	MG	BA	3818	1/1	0.95	0.15	86,86,86,86	0
56	MG	BA	3562	1/1	0.95	0.12	53,53,53,53	0
56	MG	DA	3546	1/1	0.95	0.08	73,73,73,73	0
56	MG	BA	3567	1/1	0.95	0.12	55,55,55,55	0
56	MG	BA	3323	1/1	0.95	0.06	45,45,45,45	0
56	MG	BA	3824	1/1	0.95	0.08	90,90,90,90	0
56	MG	BA	3569	1/1	0.95	0.21	49,49,49,49	0
56	MG	BA	3570	1/1	0.95	0.10	60,60,60,60	0
56	MG	AA	1829	1/1	0.95	0.08	63,63,63,63	0
56	MG	DA	3556	1/1	0.95	0.06	58,58,58,58	0
56	MG	AA	1869	1/1	0.95	0.18	81,81,81,81	0
56	MG	BA	3577	1/1	0.95	0.09	78,78,78,78	0
56	MG	CA	1647	1/1	0.95	0.18	71,71,71,71	0
56	MG	BA	3075	1/1	0.95	0.12	47,47,47,47	0
56	MG	DA	3561	1/1	0.95	0.17	70,70,70,70	0
56	MG	DA	3562	1/1	0.95	0.17	69,69,69,69	0
56	MG	AA	1830	1/1	0.95	0.20	57,57,57,57	0
56	MG	BA	3842	1/1	0.95	0.08	85,85,85,85	0
56	MG	BA	3843	1/1	0.95	0.08	78,78,78,78	0
56	MG	BA	3584	1/1	0.95	0.09	54,54,54,54	0
56	MG	DA	3305	1/1	0.95	0.23	76,76,76,76	0
56	MG	DA	3569	1/1	0.95	0.06	76,76,76,76	0
56	MG	BA	3140	1/1	0.95	0.30	53,53,53,53	0
56	MG	BA	3015	1/1	0.95	0.24	59,59,59,59	0
56	MG	BA	3850	1/1	0.95	0.11	82,82,82,82	0
56	MG	BA	3851	1/1	0.95	0.06	35,35,35,35	0
56	MG	AA	1645	1/1	0.95	0.21	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1928	1/1	0.95	0.06	71,71,71,71	0
56	MG	BA	3022	1/1	0.95	0.08	85,85,85,85	0
56	MG	DA	3313	1/1	0.95	0.09	74,74,74,74	0
56	MG	CA	1810	1/1	0.95	0.07	92,92,92,92	0
56	MG	DA	3151	1/1	0.95	0.12	45,45,45,45	0
56	MG	BA	3238	1/1	0.95	0.19	55,55,55,55	0
56	MG	DA	3586	1/1	0.95	0.17	50,50,50,50	0
56	MG	BA	3594	1/1	0.95	0.08	44,44,44,44	0
56	MG	AA	1605	1/1	0.95	0.22	81,81,81,81	0
56	MG	BA	3437	1/1	0.95	0.11	63,63,63,63	0
56	MG	BA	3240	1/1	0.95	0.14	57,57,57,57	0
56	MG	AV	102	1/1	0.95	0.21	66,66,66,66	0
56	MG	DA	3593	1/1	0.95	0.07	75,75,75,75	0
56	MG	BA	3612	1/1	0.95	0.06	61,61,61,61	0
56	MG	CA	1667	1/1	0.95	0.22	66,66,66,66	0
56	MG	DA	3600	1/1	0.95	0.14	57,57,57,57	0
56	MG	CA	1819	1/1	0.95	0.08	96,96,96,96	0
56	MG	DA	3328	1/1	0.95	0.10	59,59,59,59	0
56	MG	DA	3604	1/1	0.95	0.06	97,97,97,97	0
56	MG	BA	3341	1/1	0.95	0.07	53,53,53,53	0
56	MG	BA	3246	1/1	0.95	0.21	53,53,53,53	0
56	MG	BA	3086	1/1	0.95	0.14	51,51,51,51	0
56	MG	DA	3332	1/1	0.95	0.37	63,63,63,63	0
56	MG	DA	3333	1/1	0.95	0.23	50,50,50,50	0
56	MG	BA	3151	1/1	0.95	0.10	38,38,38,38	0
56	MG	DA	3612	1/1	0.95	0.10	87,87,87,87	0
56	MG	DA	3613	1/1	0.95	0.15	60,60,60,60	0
56	MG	BA	3619	1/1	0.95	0.07	86,86,86,86	0
56	MG	AA	1792	1/1	0.95	0.18	44,44,44,44	0
56	MG	BA	3346	1/1	0.95	0.07	43,43,43,43	0
56	MG	BA	3254	1/1	0.95	0.22	21,21,21,21	0
56	MG	BA	3893	1/1	0.95	0.09	30,30,30,30	0
56	MG	BA	3255	1/1	0.95	0.18	16,16,16,16	0
56	MG	DA	3621	1/1	0.95	0.09	73,73,73,73	0
56	MG	BA	3646	1/1	0.95	0.12	44,44,44,44	0
56	MG	BA	3351	1/1	0.95	0.15	51,51,51,51	0
56	MG	DA	3344	1/1	0.95	0.20	88,88,88,88	0
56	MG	BA	3027	1/1	0.95	0.11	44,44,44,44	0
56	MG	AA	1738	1/1	0.95	0.07	84,84,84,84	0
56	MG	BA	3030	1/1	0.95	0.12	36,36,36,36	0
56	MG	AA	1806	1/1	0.95	0.20	59,59,59,59	0
56	MG	AA	1760	1/1	0.95	0.17	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3358	1/1	0.95	0.27	63,63,63,63	0
56	MG	BA	3096	1/1	0.95	0.15	37,37,37,37	0
56	MG	AA	1783	1/1	0.95	0.19	61,61,61,61	0
56	MG	BA	3672	1/1	0.95	0.06	41,41,41,41	0
56	MG	DA	3011	1/1	0.95	0.05	66,66,66,66	0
56	MG	DA	3640	1/1	0.95	0.07	63,63,63,63	0
56	MG	AA	1883	1/1	0.95	0.06	86,86,86,86	0
56	MG	BA	3269	1/1	0.95	0.09	55,55,55,55	0
56	MG	BA	3270	1/1	0.95	0.28	53,53,53,53	0
56	MG	BA	3169	1/1	0.95	0.26	14,14,14,14	0
56	MG	BB	224	1/1	0.95	0.12	57,57,57,57	0
56	MG	DA	3190	1/1	0.95	0.15	70,70,70,70	0
56	MG	BB	226	1/1	0.95	0.06	61,61,61,61	0
56	MG	BA	3702	1/1	0.95	0.18	49,49,49,49	0
56	MG	BA	3703	1/1	0.95	0.05	65,65,65,65	0
56	MG	AA	1610	1/1	0.95	0.13	48,48,48,48	0
56	MG	AA	1774	1/1	0.95	0.28	69,69,69,69	0
56	MG	BD	304	1/1	0.95	0.21	20,20,20,20	0
56	MG	BE	302	1/1	0.95	0.19	51,51,51,51	0
56	MG	BA	3101	1/1	0.95	0.13	26,26,26,26	0
56	MG	DA	3200	1/1	0.95	0.13	53,53,53,53	0
56	MG	BA	3179	1/1	0.95	0.25	45,45,45,45	0
56	MG	BF	302	1/1	0.95	0.16	41,41,41,41	0
56	MG	BA	3478	1/1	0.95	0.26	67,67,67,67	0
56	MG	BA	3718	1/1	0.95	0.06	87,87,87,87	0
56	MG	DA	3679	1/1	0.95	0.07	76,76,76,76	0
56	MG	BA	3277	1/1	0.95	0.15	65,65,65,65	0
56	MG	BA	3480	1/1	0.95	0.26	59,59,59,59	0
56	MG	DA	3683	1/1	0.95	0.12	94,94,94,94	0
56	MG	DA	3684	1/1	0.95	0.08	98,98,98,98	0
56	MG	BO	202	1/1	0.95	0.12	42,42,42,42	0
56	MG	BA	3043	1/1	0.95	0.34	42,42,42,42	0
56	MG	DA	3038	1/1	0.95	0.07	50,50,50,50	0
56	MG	AA	1701	1/1	0.95	0.11	57,57,57,57	0
56	MG	AA	1890	1/1	0.95	0.09	89,89,89,89	0
56	MG	DA	3212	1/1	0.95	0.28	66,66,66,66	0
56	MG	BA	3484	1/1	0.95	0.17	49,49,49,49	0
56	MG	DA	3214	1/1	0.95	0.12	64,64,64,64	0
56	MG	DA	3043	1/1	0.95	0.11	61,61,61,61	0
56	MG	BA	3485	1/1	0.95	0.17	52,52,52,52	0
56	MG	DA	3217	1/1	0.95	0.21	68,68,68,68	0
56	MG	BA	3383	1/1	0.95	0.17	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3186	1/1	0.95	0.20	27,27,27,27	0
56	MG	DA	3048	1/1	0.95	0.14	74,74,74,74	0
56	MG	DA	3401	1/1	0.95	0.22	36,36,36,36	0
56	MG	BZ	301	1/1	0.95	0.10	54,54,54,54	0
56	MG	DA	3050	1/1	0.95	0.23	67,67,67,67	0
56	MG	AA	1917	1/1	0.95	0.07	71,71,71,71	0
56	MG	B0	103	1/1	0.95	0.09	68,68,68,68	0
56	MG	B0	105	1/1	0.95	0.16	76,76,76,76	0
56	MG	B1	101	1/1	0.95	0.07	60,60,60,60	0
56	MG	DA	3418	1/1	0.95	0.12	52,52,52,52	0
56	MG	AV	117	1/1	0.95	0.06	69,69,69,69	0
56	MG	BA	3493	1/1	0.95	0.08	62,62,62,62	0
56	MG	DA	3425	1/1	0.95	0.14	50,50,50,50	0
56	MG	DA	3427	1/1	0.95	0.13	45,45,45,45	0
56	MG	DA	3429	1/1	0.95	0.05	73,73,73,73	0
56	MG	BA	3112	1/1	0.95	0.12	56,56,56,56	0
56	MG	BA	3289	1/1	0.95	0.13	61,61,61,61	0
56	MG	DA	3434	1/1	0.95	0.08	48,48,48,48	0
56	MG	DA	3435	1/1	0.95	0.08	70,70,70,70	0
56	MG	DA	3438	1/1	0.95	0.13	66,66,66,66	0
56	MG	DA	3439	1/1	0.95	0.07	42,42,42,42	0
56	MG	DQ	201	1/1	0.95	0.08	43,43,43,43	0
56	MG	BA	3391	1/1	0.95	0.13	27,27,27,27	0
56	MG	BA	3752	1/1	0.95	0.10	28,28,28,28	0
56	MG	DT	202	1/1	0.95	0.06	38,38,38,38	0
56	MG	BA	3497	1/1	0.95	0.10	61,61,61,61	0
56	MG	BA	3754	1/1	0.95	0.13	68,68,68,68	0
56	MG	DA	3449	1/1	0.95	0.10	45,45,45,45	0
56	MG	AA	1787	1/1	0.95	0.15	66,66,66,66	0
56	MG	DA	3239	1/1	0.95	0.23	62,62,62,62	0
56	MG	BA	3761	1/1	0.95	0.07	77,77,77,77	0
56	MG	D0	104	1/1	0.95	0.18	86,86,86,86	0
56	MG	DA	3459	1/1	0.95	0.21	46,46,46,46	0
56	MG	BA	3291	1/1	0.95	0.11	61,61,61,61	0
56	MG	DA	3068	1/1	0.95	0.32	44,44,44,44	0
56	MG	AA	1606	1/1	0.95	0.15	35,35,35,35	0
56	MG	AA	1624	1/1	0.95	0.24	57,57,57,57	0
56	MG	DA	3466	1/1	0.95	0.09	75,75,75,75	0
56	MG	AA	1867	1/1	0.95	0.39	80,80,80,80	0
56	MG	BA	3057	1/1	0.95	0.07	30,30,30,30	0
56	MG	BA	3299	1/1	0.95	0.05	58,58,58,58	0
56	MG	BA	3739	1/1	0.96	0.09	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1947	1/1	0.96	0.06	63,63,63,63	0
56	MG	BV	201	1/1	0.96	0.28	39,39,39,39	0
56	MG	CA	1735	1/1	0.96	0.08	78,78,78,78	0
56	MG	BA	3503	1/1	0.96	0.08	51,51,51,51	0
56	MG	BY	202	1/1	0.96	0.08	54,54,54,54	0
56	MG	BY	203	1/1	0.96	0.13	65,65,65,65	0
56	MG	BA	3504	1/1	0.96	0.14	57,57,57,57	0
56	MG	BZ	302	1/1	0.96	0.08	62,62,62,62	0
56	MG	BA	3031	1/1	0.96	0.15	29,29,29,29	0
56	MG	BA	3298	1/1	0.96	0.22	50,50,50,50	0
56	MG	BA	3745	1/1	0.96	0.08	75,75,75,75	0
56	MG	CA	1744	1/1	0.96	0.13	80,80,80,80	0
56	MG	BA	3508	1/1	0.96	0.20	41,41,41,41	0
56	MG	BA	3750	1/1	0.96	0.08	65,65,65,65	0
56	MG	DA	3516	1/1	0.96	0.11	50,50,50,50	0
56	MG	DA	3518	1/1	0.96	0.14	46,46,46,46	0
56	MG	AA	1677	1/1	0.96	0.16	84,84,84,84	0
56	MG	CA	1749	1/1	0.96	0.16	92,92,92,92	0
56	MG	BA	3207	1/1	0.96	0.15	41,41,41,41	0
56	MG	AA	1773	1/1	0.96	0.09	58,58,58,58	0
56	MG	BA	3210	1/1	0.96	0.15	36,36,36,36	0
56	MG	CA	1753	1/1	0.96	0.21	61,61,61,61	0
56	MG	DA	3528	1/1	0.96	0.05	88,88,88,88	0
56	MG	AV	115	1/1	0.96	0.08	65,65,65,65	0
56	MG	BA	3404	1/1	0.96	0.09	52,52,52,52	0
56	MG	DA	3108	1/1	0.96	0.15	45,45,45,45	0
56	MG	BA	3085	1/1	0.96	0.12	35,35,35,35	0
56	MG	BA	3768	1/1	0.96	0.07	90,90,90,90	0
56	MG	BA	3305	1/1	0.96	0.06	35,35,35,35	0
56	MG	B9	102	1/1	0.96	0.15	43,43,43,43	0
56	MG	BA	3771	1/1	0.96	0.08	79,79,79,79	0
56	MG	CA	1763	1/1	0.96	0.11	62,62,62,62	0
56	MG	DA	3538	1/1	0.96	0.08	96,96,96,96	0
56	MG	BA	3214	1/1	0.96	0.06	49,49,49,49	0
56	MG	AA	1824	1/1	0.96	0.22	33,33,33,33	0
56	MG	BA	3141	1/1	0.96	0.10	38,38,38,38	0
56	MG	CA	1767	1/1	0.96	0.11	62,62,62,62	0
56	MG	BA	3038	1/1	0.96	0.06	33,33,33,33	0
56	MG	BA	3412	1/1	0.96	0.06	56,56,56,56	0
56	MG	BA	3526	1/1	0.96	0.07	40,40,40,40	0
56	MG	AA	1885	1/1	0.96	0.10	90,90,90,90	0
56	MG	BA	3224	1/1	0.96	0.07	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3317	1/1	0.96	0.11	61,61,61,61	0
56	MG	BA	3318	1/1	0.96	0.13	63,63,63,63	0
56	MG	DA	3128	1/1	0.96	0.29	59,59,59,59	0
56	MG	BA	3040	1/1	0.96	0.09	46,46,46,46	0
56	MG	DA	3130	1/1	0.96	0.07	52,52,52,52	0
56	MG	BA	3227	1/1	0.96	0.25	41,41,41,41	0
56	MG	BA	3146	1/1	0.96	0.16	49,49,49,49	0
56	MG	DA	3314	1/1	0.96	0.11	52,52,52,52	0
56	MG	BA	3547	1/1	0.96	0.07	49,49,49,49	0
56	MG	BA	3548	1/1	0.96	0.13	39,39,39,39	0
56	MG	BA	3556	1/1	0.96	0.12	52,52,52,52	0
56	MG	AA	1906	1/1	0.96	0.10	89,89,89,89	0
56	MG	BA	3093	1/1	0.96	0.13	42,42,42,42	0
56	MG	BA	3231	1/1	0.96	0.19	31,31,31,31	0
56	MG	BA	3564	1/1	0.96	0.07	63,63,63,63	0
56	MG	DA	3323	1/1	0.96	0.07	57,57,57,57	0
56	MG	DA	3572	1/1	0.96	0.19	45,45,45,45	0
56	MG	BA	3233	1/1	0.96	0.11	22,22,22,22	0
56	MG	BA	3425	1/1	0.96	0.09	46,46,46,46	0
56	MG	AA	1927	1/1	0.96	0.05	85,85,85,85	0
56	MG	BA	3803	1/1	0.96	0.16	71,71,71,71	0
56	MG	CA	1789	1/1	0.96	0.07	66,66,66,66	0
56	MG	BA	3804	1/1	0.96	0.07	59,59,59,59	0
56	MG	AA	1886	1/1	0.96	0.05	79,79,79,79	0
56	MG	AA	1721	1/1	0.96	0.20	84,84,84,84	0
56	MG	BA	3572	1/1	0.96	0.07	66,66,66,66	0
56	MG	BA	3429	1/1	0.96	0.17	54,54,54,54	0
56	MG	BA	3046	1/1	0.96	0.10	49,49,49,49	0
56	MG	BA	3006	1/1	0.96	0.12	55,55,55,55	0
56	MG	AA	1632	1/1	0.96	0.32	51,51,51,51	0
56	MG	BA	3815	1/1	0.96	0.04	51,51,51,51	0
56	MG	BA	3009	1/1	0.96	0.08	83,83,83,83	0
56	MG	BA	3242	1/1	0.96	0.18	47,47,47,47	0
56	MG	DA	3340	1/1	0.96	0.27	55,55,55,55	0
56	MG	AA	1766	1/1	0.96	0.14	53,53,53,53	0
56	MG	AA	1841	1/1	0.96	0.15	75,75,75,75	0
56	MG	BA	3160	1/1	0.96	0.11	41,41,41,41	0
56	MG	BA	3103	1/1	0.96	0.37	54,54,54,54	0
56	MG	BA	3250	1/1	0.96	0.20	27,27,27,27	0
56	MG	CA	1809	1/1	0.96	0.05	101,101,101,101	0
56	MG	AA	1634	1/1	0.96	0.25	47,47,47,47	0
56	MG	BA	3832	1/1	0.96	0.07	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3597	1/1	0.96	0.06	66,66,66,66	0
56	MG	BA	3165	1/1	0.96	0.27	17,17,17,17	0
56	MG	BA	3836	1/1	0.96	0.09	23,23,23,23	0
56	MG	DA	3173	1/1	0.96	0.19	62,62,62,62	0
56	MG	BA	3603	1/1	0.96	0.09	32,32,32,32	0
56	MG	BA	3447	1/1	0.96	0.13	45,45,45,45	0
56	MG	BA	3106	1/1	0.96	0.06	28,28,28,28	0
56	MG	BA	3167	1/1	0.96	0.09	31,31,31,31	0
56	MG	BA	3611	1/1	0.96	0.13	43,43,43,43	0
56	MG	BA	3348	1/1	0.96	0.08	62,62,62,62	0
56	MG	BA	3056	1/1	0.96	0.05	50,50,50,50	0
56	MG	BA	3014	1/1	0.96	0.17	49,49,49,49	0
56	MG	AA	1938	1/1	0.96	0.07	84,84,84,84	0
56	MG	BA	3852	1/1	0.96	0.17	59,59,59,59	0
56	MG	BA	3061	1/1	0.96	0.13	45,45,45,45	0
56	MG	BA	3617	1/1	0.96	0.07	58,58,58,58	0
56	MG	BA	3856	1/1	0.96	0.09	68,68,68,68	0
56	MG	BA	3176	1/1	0.96	0.13	63,63,63,63	0
56	MG	BA	3622	1/1	0.96	0.07	65,65,65,65	0
56	MG	BA	3177	1/1	0.96	0.17	46,46,46,46	0
56	MG	BA	3178	1/1	0.96	0.16	43,43,43,43	0
56	MG	DA	3630	1/1	0.96	0.11	47,47,47,47	0
56	MG	BA	3633	1/1	0.96	0.05	52,52,52,52	0
56	MG	BA	3869	1/1	0.96	0.06	64,64,64,64	0
56	MG	BA	3459	1/1	0.96	0.09	49,49,49,49	0
56	MG	DA	3635	1/1	0.96	0.04	88,88,88,88	0
56	MG	BA	3636	1/1	0.96	0.08	63,63,63,63	0
56	MG	DA	3637	1/1	0.96	0.05	57,57,57,57	0
56	MG	BA	3637	1/1	0.96	0.05	62,62,62,62	0
56	MG	BA	3638	1/1	0.96	0.15	54,54,54,54	0
56	MG	DA	3643	1/1	0.96	0.08	89,89,89,89	0
56	MG	DA	3376	1/1	0.96	0.22	69,69,69,69	0
56	MG	DA	3377	1/1	0.96	0.18	89,89,89,89	0
56	MG	BA	3877	1/1	0.96	0.15	21,21,21,21	0
56	MG	BA	3878	1/1	0.96	0.11	81,81,81,81	0
56	MG	DA	3651	1/1	0.96	0.11	61,61,61,61	0
56	MG	BA	3639	1/1	0.96	0.06	63,63,63,63	0
56	MG	BA	3880	1/1	0.96	0.09	84,84,84,84	0
56	MG	BA	3641	1/1	0.96	0.07	62,62,62,62	0
56	MG	BA	3882	1/1	0.96	0.05	73,73,73,73	0
56	MG	DA	3384	1/1	0.96	0.11	51,51,51,51	0
56	MG	BA	3883	1/1	0.96	0.07	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3658	1/1	0.96	0.15	79,79,79,79	0
56	MG	BA	3114	1/1	0.96	0.21	37,37,37,37	0
56	MG	DA	3662	1/1	0.96	0.07	53,53,53,53	0
56	MG	BA	3644	1/1	0.96	0.06	72,72,72,72	0
56	MG	CA	1680	1/1	0.96	0.25	70,70,70,70	0
56	MG	AA	1705	1/1	0.96	0.04	55,55,55,55	0
56	MG	DA	3670	1/1	0.96	0.05	83,83,83,83	0
56	MG	BA	3018	1/1	0.96	0.25	53,53,53,53	0
56	MG	DA	3672	1/1	0.96	0.11	87,87,87,87	0
56	MG	DA	3395	1/1	0.96	0.07	58,58,58,58	0
56	MG	BA	3464	1/1	0.96	0.07	53,53,53,53	0
56	MG	DA	3399	1/1	0.96	0.23	47,47,47,47	0
56	MG	BA	3649	1/1	0.96	0.12	60,60,60,60	0
56	MG	BA	3894	1/1	0.96	0.11	52,52,52,52	0
56	MG	DA	3680	1/1	0.96	0.08	79,79,79,79	0
56	MG	BA	3466	1/1	0.96	0.14	50,50,50,50	0
56	MG	DA	3405	1/1	0.96	0.14	43,43,43,43	0
56	MG	BA	3183	1/1	0.96	0.28	22,22,22,22	0
56	MG	BB	201	1/1	0.96	0.05	57,57,57,57	0
56	MG	BB	202	1/1	0.96	0.05	57,57,57,57	0
56	MG	DA	3686	1/1	0.96	0.07	74,74,74,74	0
56	MG	BA	3653	1/1	0.96	0.20	38,38,38,38	0
56	MG	CA	1691	1/1	0.96	0.37	53,53,53,53	0
56	MG	BA	3654	1/1	0.96	0.08	59,59,59,59	0
56	MG	DA	3421	1/1	0.96	0.06	52,52,52,52	0
56	MG	AA	1896	1/1	0.96	0.05	88,88,88,88	0
56	MG	BA	3119	1/1	0.96	0.08	50,50,50,50	0
56	MG	AA	1857	1/1	0.96	0.12	62,62,62,62	0
56	MG	DA	3695	1/1	0.96	0.07	107,107,107,107	0
56	MG	BA	3366	1/1	0.96	0.12	52,52,52,52	0
56	MG	BA	3069	1/1	0.96	0.10	42,42,42,42	0
56	MG	BA	3668	1/1	0.96	0.07	29,29,29,29	0
56	MG	BA	3278	1/1	0.96	0.21	59,59,59,59	0
56	MG	BA	3190	1/1	0.96	0.21	42,42,42,42	0
56	MG	BB	215	1/1	0.96	0.15	62,62,62,62	0
56	MG	DA	3045	1/1	0.96	0.15	62,62,62,62	0
56	MG	AA	1649	1/1	0.96	0.09	60,60,60,60	0
56	MG	BA	3282	1/1	0.96	0.08	59,59,59,59	0
56	MG	BA	3375	1/1	0.96	0.11	47,47,47,47	0
56	MG	DB	211	1/1	0.96	0.09	83,83,83,83	0
56	MG	BA	3024	1/1	0.96	0.14	36,36,36,36	0
56	MG	BB	223	1/1	0.96	0.09	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1656	1/1	0.96	0.12	72,72,72,72	0
56	MG	DB	215	1/1	0.96	0.06	94,94,94,94	0
56	MG	DB	216	1/1	0.96	0.05	109,109,109,109	0
56	MG	DA	3450	1/1	0.96	0.11	59,59,59,59	0
56	MG	DA	3238	1/1	0.96	0.13	65,65,65,65	0
56	MG	BA	3380	1/1	0.96	0.10	44,44,44,44	0
56	MG	BA	3706	1/1	0.96	0.15	29,29,29,29	0
56	MG	BA	3285	1/1	0.96	0.09	55,55,55,55	0
56	MG	BA	3712	1/1	0.96	0.07	48,48,48,48	0
56	MG	BA	3382	1/1	0.96	0.09	68,68,68,68	0
56	MG	DA	3462	1/1	0.96	0.07	50,50,50,50	0
56	MG	BA	3126	1/1	0.96	0.24	40,40,40,40	0
56	MG	AA	1781	1/1	0.96	0.35	68,68,68,68	0
56	MG	BA	3717	1/1	0.96	0.08	21,21,21,21	0
56	MG	BE	304	1/1	0.96	0.26	14,14,14,14	0
56	MG	DO	203	1/1	0.96	0.14	79,79,79,79	0
56	MG	DA	3250	1/1	0.96	0.30	62,62,62,62	0
56	MG	BA	3197	1/1	0.96	0.15	41,41,41,41	0
56	MG	DA	3063	1/1	0.96	0.19	50,50,50,50	0
56	MG	BA	3386	1/1	0.96	0.17	54,54,54,54	0
56	MG	BA	3198	1/1	0.96	0.12	17,17,17,17	0
56	MG	AV	110	1/1	0.96	0.26	80,80,80,80	0
56	MG	BF	306	1/1	0.96	0.13	48,48,48,48	0
56	MG	AA	1946	1/1	0.96	0.11	81,81,81,81	0
56	MG	BG	202	1/1	0.96	0.04	82,82,82,82	0
56	MG	DA	3480	1/1	0.96	0.13	70,70,70,70	0
56	MG	BA	3731	1/1	0.96	0.09	53,53,53,53	0
56	MG	BA	3292	1/1	0.96	0.13	47,47,47,47	0
56	MG	CA	1726	1/1	0.96	0.17	70,70,70,70	0
56	MG	BA	3202	1/1	0.96	0.13	42,42,42,42	0
56	MG	D6	103	1/1	0.96	0.05	93,93,93,93	0
56	MG	DA	3487	1/1	0.96	0.06	70,70,70,70	0
56	MG	DA	3075	1/1	0.96	0.07	84,84,84,84	0
56	MG	BA	3393	1/1	0.96	0.10	28,28,28,28	0
57	ZN	B4	101	1/1	0.96	0.08	137,137,137,137	0
57	ZN	CD	301	1/1	0.96	0.18	90,90,90,90	0
56	MG	BA	3394	1/1	0.96	0.14	58,58,58,58	0
57	ZN	D4	101	1/1	0.96	0.11	178,178,178,178	0
56	MG	CA	1730	1/1	0.96	0.24	69,69,69,69	0
56	MG	BA	3131	1/1	0.96	0.05	34,34,34,34	0
56	MG	BA	3774	1/1	0.97	0.17	72,72,72,72	0
56	MG	DA	3172	1/1	0.97	0.17	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3012	1/1	0.97	0.04	76,76,76,76	0
56	MG	AA	1765	1/1	0.97	0.13	48,48,48,48	0
56	MG	DA	3015	1/1	0.97	0.15	66,66,66,66	0
56	MG	BA	3127	1/1	0.97	0.07	41,41,41,41	0
56	MG	BF	307	1/1	0.97	0.05	42,42,42,42	0
56	MG	DA	3551	1/1	0.97	0.13	42,42,42,42	0
56	MG	BA	3215	1/1	0.97	0.21	16,16,16,16	0
56	MG	BA	3596	1/1	0.97	0.04	39,39,39,39	0
56	MG	AA	1839	1/1	0.97	0.05	69,69,69,69	0
56	MG	BA	3599	1/1	0.97	0.05	52,52,52,52	0
56	MG	BA	3279	1/1	0.97	0.08	50,50,50,50	0
56	MG	BA	3602	1/1	0.97	0.07	22,22,22,22	0
56	MG	BA	3409	1/1	0.97	0.06	45,45,45,45	0
56	MG	BA	3604	1/1	0.97	0.08	80,80,80,80	0
56	MG	BQ	204	1/1	0.97	0.06	41,41,41,41	0
56	MG	BR	201	1/1	0.97	0.20	19,19,19,19	0
56	MG	BR	202	1/1	0.97	0.10	30,30,30,30	0
56	MG	DA	3565	1/1	0.97	0.07	50,50,50,50	0
56	MG	DA	3030	1/1	0.97	0.08	66,66,66,66	0
56	MG	BA	3219	1/1	0.97	0.22	43,43,43,43	0
56	MG	BA	3019	1/1	0.97	0.09	33,33,33,33	0
56	MG	BA	3170	1/1	0.97	0.23	43,43,43,43	0
56	MG	BA	3487	1/1	0.97	0.13	53,53,53,53	0
56	MG	AA	1870	1/1	0.97	0.09	85,85,85,85	0
56	MG	DA	3573	1/1	0.97	0.11	42,42,42,42	0
56	MG	AA	1916	1/1	0.97	0.05	82,82,82,82	0
56	MG	BA	3795	1/1	0.97	0.19	84,84,84,84	0
56	MG	BA	3415	1/1	0.97	0.07	50,50,50,50	0
56	MG	DA	3039	1/1	0.97	0.06	50,50,50,50	0
56	MG	BA	3173	1/1	0.97	0.11	31,31,31,31	0
56	MG	BA	3226	1/1	0.97	0.21	36,36,36,36	0
56	MG	BA	3070	1/1	0.97	0.14	51,51,51,51	0
56	MG	AA	1864	1/1	0.97	0.10	67,67,67,67	0
56	MG	BA	3620	1/1	0.97	0.05	49,49,49,49	0
56	MG	AA	1872	1/1	0.97	0.12	41,41,41,41	0
56	MG	BA	3625	1/1	0.97	0.05	41,41,41,41	0
56	MG	BA	3626	1/1	0.97	0.05	70,70,70,70	0
56	MG	BA	3136	1/1	0.97	0.17	32,32,32,32	0
56	MG	BA	3005	1/1	0.97	0.06	59,59,59,59	0
56	MG	AA	1895	1/1	0.97	0.05	87,87,87,87	0
56	MG	BA	3634	1/1	0.97	0.06	46,46,46,46	0
56	MG	BA	3047	1/1	0.97	0.14	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3502	1/1	0.97	0.07	33,33,33,33	0
56	MG	BA	3105	1/1	0.97	0.12	45,45,45,45	0
56	MG	BA	3295	1/1	0.97	0.15	45,45,45,45	0
56	MG	BA	3360	1/1	0.97	0.07	51,51,51,51	0
56	MG	DA	3602	1/1	0.97	0.08	47,47,47,47	0
56	MG	BA	3506	1/1	0.97	0.10	61,61,61,61	0
56	MG	BA	3184	1/1	0.97	0.18	31,31,31,31	0
56	MG	AA	1840	1/1	0.97	0.09	83,83,83,83	0
56	MG	BA	3028	1/1	0.97	0.07	33,33,33,33	0
56	MG	BA	3143	1/1	0.97	0.21	20,20,20,20	0
56	MG	BA	3432	1/1	0.97	0.10	29,29,29,29	0
56	MG	AA	1897	1/1	0.97	0.11	74,74,74,74	0
56	MG	BA	3110	1/1	0.97	0.20	51,51,51,51	0
56	MG	DA	3225	1/1	0.97	0.20	43,43,43,43	0
56	MG	BA	3367	1/1	0.97	0.25	50,50,50,50	0
56	MG	BA	3191	1/1	0.97	0.15	78,78,78,78	0
56	MG	BA	3438	1/1	0.97	0.11	62,62,62,62	0
56	MG	BA	3839	1/1	0.97	0.04	33,33,33,33	0
56	MG	BA	3840	1/1	0.97	0.07	41,41,41,41	0
56	MG	DA	3071	1/1	0.97	0.25	44,44,44,44	0
56	MG	DA	3619	1/1	0.97	0.05	39,39,39,39	0
56	MG	BA	3655	1/1	0.97	0.07	46,46,46,46	0
56	MG	BA	3245	1/1	0.97	0.16	42,42,42,42	0
56	MG	BA	3520	1/1	0.97	0.17	38,38,38,38	0
56	MG	DA	3235	1/1	0.97	0.13	53,53,53,53	0
56	MG	AA	1940	1/1	0.97	0.06	92,92,92,92	0
56	MG	DA	3076	1/1	0.97	0.06	51,51,51,51	0
56	MG	CA	1620	1/1	0.97	0.12	70,70,70,70	0
56	MG	CA	1758	1/1	0.97	0.17	56,56,56,56	0
56	MG	DA	3412	1/1	0.97	0.06	52,52,52,52	0
56	MG	CA	1759	1/1	0.97	0.09	76,76,76,76	0
56	MG	BA	3847	1/1	0.97	0.19	82,82,82,82	0
56	MG	AA	1909	1/1	0.97	0.07	91,91,91,91	0
56	MG	DA	3632	1/1	0.97	0.25	69,69,69,69	0
56	MG	DA	3416	1/1	0.97	0.05	53,53,53,53	0
56	MG	BA	3306	1/1	0.97	0.08	45,45,45,45	0
56	MG	BA	3307	1/1	0.97	0.06	48,48,48,48	0
56	MG	DA	3419	1/1	0.97	0.10	35,35,35,35	0
56	MG	DA	3245	1/1	0.97	0.12	39,39,39,39	0
56	MG	BA	3113	1/1	0.97	0.07	46,46,46,46	0
56	MG	BA	3527	1/1	0.97	0.09	90,90,90,90	0
56	MG	BA	3378	1/1	0.97	0.09	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3426	1/1	0.97	0.05	42,42,42,42	0
56	MG	DA	3646	1/1	0.97	0.13	62,62,62,62	0
56	MG	BA	3685	1/1	0.97	0.07	40,40,40,40	0
56	MG	BA	3687	1/1	0.97	0.12	23,23,23,23	0
56	MG	BA	3309	1/1	0.97	0.14	56,56,56,56	0
56	MG	DA	3431	1/1	0.97	0.08	33,33,33,33	0
56	MG	DA	3091	1/1	0.97	0.05	47,47,47,47	0
56	MG	BA	3858	1/1	0.97	0.12	70,70,70,70	0
56	MG	BA	3532	1/1	0.97	0.10	34,34,34,34	0
56	MG	DA	3437	1/1	0.97	0.12	70,70,70,70	0
56	MG	DA	3094	1/1	0.97	0.10	34,34,34,34	0
56	MG	BA	3310	1/1	0.97	0.10	54,54,54,54	0
56	MG	BA	3865	1/1	0.97	0.05	97,97,97,97	0
56	MG	DA	3097	1/1	0.97	0.28	31,31,31,31	0
56	MG	AA	1771	1/1	0.97	0.10	68,68,68,68	0
56	MG	DA	3663	1/1	0.97	0.05	81,81,81,81	0
56	MG	BA	3536	1/1	0.97	0.07	42,42,42,42	0
56	MG	DA	3665	1/1	0.97	0.04	87,87,87,87	0
56	MG	BA	3868	1/1	0.97	0.10	34,34,34,34	0
56	MG	DA	3667	1/1	0.97	0.06	74,74,74,74	0
56	MG	BA	3705	1/1	0.97	0.17	79,79,79,79	0
56	MG	DA	3452	1/1	0.97	0.13	60,60,60,60	0
56	MG	BA	3537	1/1	0.97	0.15	47,47,47,47	0
56	MG	BA	3055	1/1	0.97	0.07	37,37,37,37	0
56	MG	BA	3873	1/1	0.97	0.05	74,74,74,74	0
56	MG	DA	3457	1/1	0.97	0.10	102,102,102,102	0
56	MG	BA	3709	1/1	0.97	0.09	49,49,49,49	0
56	MG	BA	3710	1/1	0.97	0.08	58,58,58,58	0
56	MG	BA	3252	1/1	0.97	0.24	20,20,20,20	0
56	MG	BA	3116	1/1	0.97	0.18	37,37,37,37	0
56	MG	BA	3545	1/1	0.97	0.06	53,53,53,53	0
56	MG	BA	3546	1/1	0.97	0.08	48,48,48,48	0
56	MG	BA	3152	1/1	0.97	0.05	42,42,42,42	0
56	MG	AA	1854	1/1	0.97	0.08	73,73,73,73	0
56	MG	BA	3549	1/1	0.97	0.10	19,19,19,19	0
56	MG	BA	3884	1/1	0.97	0.04	66,66,66,66	0
56	MG	BA	3550	1/1	0.97	0.13	27,27,27,27	0
56	MG	BA	3725	1/1	0.97	0.09	69,69,69,69	0
56	MG	BA	3887	1/1	0.97	0.14	17,17,17,17	0
56	MG	CA	1794	1/1	0.97	0.09	59,59,59,59	0
56	MG	BA	3552	1/1	0.97	0.10	39,39,39,39	0
56	MG	BA	3554	1/1	0.97	0.06	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3891	1/1	0.97	0.08	74,74,74,74	0
56	MG	BA	3729	1/1	0.97	0.06	59,59,59,59	0
56	MG	BA	3555	1/1	0.97	0.06	47,47,47,47	0
56	MG	BA	3732	1/1	0.97	0.09	36,36,36,36	0
56	MG	BA	3257	1/1	0.97	0.18	48,48,48,48	0
56	MG	DA	3127	1/1	0.97	0.20	37,37,37,37	0
56	MG	BA	3557	1/1	0.97	0.05	62,62,62,62	0
56	MG	BA	3735	1/1	0.97	0.06	58,58,58,58	0
56	MG	BA	3034	1/1	0.97	0.08	23,23,23,23	0
56	MG	AA	1876	1/1	0.97	0.05	89,89,89,89	0
56	MG	BA	3156	1/1	0.97	0.27	54,54,54,54	0
56	MG	BB	205	1/1	0.97	0.20	29,29,29,29	0
56	MG	DB	210	1/1	0.97	0.15	91,91,91,91	0
56	MG	BA	3060	1/1	0.97	0.05	52,52,52,52	0
56	MG	DA	3495	1/1	0.97	0.04	62,62,62,62	0
56	MG	BA	3462	1/1	0.97	0.14	47,47,47,47	0
56	MG	DA	3137	1/1	0.97	0.13	39,39,39,39	0
56	MG	DA	3500	1/1	0.97	0.09	68,68,68,68	0
56	MG	BA	3324	1/1	0.97	0.21	62,62,62,62	0
56	MG	DA	3503	1/1	0.97	0.15	80,80,80,80	0
56	MG	DD	302	1/1	0.97	0.26	48,48,48,48	0
56	MG	BA	3036	1/1	0.97	0.07	54,54,54,54	0
56	MG	BA	3465	1/1	0.97	0.11	40,40,40,40	0
56	MG	BA	3091	1/1	0.97	0.12	60,60,60,60	0
56	MG	BB	212	1/1	0.97	0.07	62,62,62,62	0
56	MG	BA	3468	1/1	0.97	0.10	54,54,54,54	0
56	MG	DA	3145	1/1	0.97	0.06	41,41,41,41	0
56	MG	BA	3575	1/1	0.97	0.05	44,44,44,44	0
56	MG	DA	3147	1/1	0.97	0.06	70,70,70,70	0
56	MG	BA	3748	1/1	0.97	0.05	28,28,28,28	0
56	MG	BA	3749	1/1	0.97	0.11	76,76,76,76	0
56	MG	BA	3092	1/1	0.97	0.21	34,34,34,34	0
56	MG	BA	3268	1/1	0.97	0.09	52,52,52,52	0
56	MG	DA	3517	1/1	0.97	0.10	64,64,64,64	0
56	MG	BB	220	1/1	0.97	0.08	44,44,44,44	0
56	MG	BA	3208	1/1	0.97	0.13	57,57,57,57	0
56	MG	DT	201	1/1	0.97	0.11	73,73,73,73	0
56	MG	DA	3520	1/1	0.97	0.05	67,67,67,67	0
56	MG	BA	3330	1/1	0.97	0.08	57,57,57,57	0
56	MG	BA	3756	1/1	0.97	0.08	56,56,56,56	0
56	MG	DA	3523	1/1	0.97	0.05	86,86,86,86	0
56	MG	DA	3315	1/1	0.97	0.24	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BB	225	1/1	0.97	0.14	56,56,56,56	0
56	MG	BA	3580	1/1	0.97	0.04	68,68,68,68	0
56	MG	BB	227	1/1	0.97	0.07	81,81,81,81	0
56	MG	BA	3581	1/1	0.97	0.06	29,29,29,29	0
56	MG	BA	3763	1/1	0.97	0.05	84,84,84,84	0
56	MG	BA	3582	1/1	0.97	0.08	30,30,30,30	0
56	MG	BA	3473	1/1	0.97	0.20	22,22,22,22	0
56	MG	BA	3767	1/1	0.97	0.05	51,51,51,51	0
56	MG	DA	3003	1/1	0.97	0.05	43,43,43,43	0
57	ZN	AD	301	1/1	0.97	0.16	93,93,93,93	0
56	MG	BE	301	1/1	0.97	0.17	36,36,36,36	0
56	MG	BA	3124	1/1	0.97	0.06	34,34,34,34	0
56	MG	BA	3769	1/1	0.97	0.06	55,55,55,55	0
56	MG	BA	3062	1/1	0.97	0.14	34,34,34,34	0
56	MG	BA	3163	1/1	0.97	0.16	40,40,40,40	0
56	MG	BA	3212	1/1	0.97	0.03	35,35,35,35	0
56	MG	DA	3542	1/1	0.97	0.07	84,84,84,84	0
56	MG	BA	3829	1/1	0.98	0.20	82,82,82,82	0
56	MG	BA	3830	1/1	0.98	0.06	31,31,31,31	0
56	MG	DA	3436	1/1	0.98	0.13	50,50,50,50	0
56	MG	DA	3594	1/1	0.98	0.15	44,44,44,44	0
56	MG	DA	3595	1/1	0.98	0.10	43,43,43,43	0
56	MG	BA	3831	1/1	0.98	0.10	22,22,22,22	0
56	MG	DA	3597	1/1	0.98	0.05	57,57,57,57	0
56	MG	BA	3727	1/1	0.98	0.05	66,66,66,66	0
56	MG	BA	3247	1/1	0.98	0.11	20,20,20,20	0
56	MG	DA	3440	1/1	0.98	0.04	47,47,47,47	0
56	MG	BA	3834	1/1	0.98	0.10	27,27,27,27	0
56	MG	BA	3374	1/1	0.98	0.20	24,24,24,24	0
56	MG	BA	3730	1/1	0.98	0.05	63,63,63,63	0
56	MG	DA	3444	1/1	0.98	0.04	54,54,54,54	0
56	MG	DA	3445	1/1	0.98	0.08	43,43,43,43	0
56	MG	BA	3108	1/1	0.98	0.07	41,41,41,41	0
56	MG	DA	3608	1/1	0.98	0.05	82,82,82,82	0
56	MG	BA	3042	1/1	0.98	0.08	37,37,37,37	0
56	MG	BQ	201	1/1	0.98	0.03	18,18,18,18	0
56	MG	DA	3451	1/1	0.98	0.12	39,39,39,39	0
56	MG	BA	3377	1/1	0.98	0.11	50,50,50,50	0
56	MG	BA	3538	1/1	0.98	0.06	33,33,33,33	0
56	MG	BA	3539	1/1	0.98	0.07	22,22,22,22	0
56	MG	DA	3455	1/1	0.98	0.04	61,61,61,61	0
56	MG	BA	3540	1/1	0.98	0.05	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1628	1/1	0.98	0.19	22,22,22,22	0
56	MG	BA	3845	1/1	0.98	0.12	37,37,37,37	0
56	MG	BA	3621	1/1	0.98	0.09	30,30,30,30	0
56	MG	DA	3195	1/1	0.98	0.17	58,58,58,58	0
56	MG	BA	3216	1/1	0.98	0.12	28,28,28,28	0
56	MG	DA	3463	1/1	0.98	0.07	68,68,68,68	0
56	MG	BV	202	1/1	0.98	0.20	67,67,67,67	0
56	MG	BA	3623	1/1	0.98	0.06	75,75,75,75	0
56	MG	BA	3624	1/1	0.98	0.05	57,57,57,57	0
56	MG	BA	3011	1/1	0.98	0.15	54,54,54,54	0
56	MG	DA	3468	1/1	0.98	0.04	80,80,80,80	0
56	MG	BA	3253	1/1	0.98	0.12	20,20,20,20	0
56	MG	BA	3218	1/1	0.98	0.12	20,20,20,20	0
56	MG	CA	1800	1/1	0.98	0.04	105,105,105,105	0
56	MG	B0	101	1/1	0.98	0.05	43,43,43,43	0
56	MG	BA	3189	1/1	0.98	0.21	49,49,49,49	0
56	MG	BA	3632	1/1	0.98	0.07	59,59,59,59	0
56	MG	B0	104	1/1	0.98	0.07	58,58,58,58	0
56	MG	CA	1805	1/1	0.98	0.04	88,88,88,88	0
56	MG	BA	3336	1/1	0.98	0.07	46,46,46,46	0
56	MG	DA	3479	1/1	0.98	0.04	68,68,68,68	0
56	MG	BA	3220	1/1	0.98	0.19	27,27,27,27	0
56	MG	BA	3338	1/1	0.98	0.23	63,63,63,63	0
56	MG	BA	3861	1/1	0.98	0.04	66,66,66,66	0
56	MG	DA	3644	1/1	0.98	0.05	80,80,80,80	0
56	MG	BA	3489	1/1	0.98	0.10	55,55,55,55	0
56	MG	DA	3484	1/1	0.98	0.05	45,45,45,45	0
56	MG	BA	3864	1/1	0.98	0.04	79,79,79,79	0
56	MG	BA	3553	1/1	0.98	0.04	29,29,29,29	0
56	MG	B3	102	1/1	0.98	0.17	56,56,56,56	0
56	MG	DA	3650	1/1	0.98	0.08	43,43,43,43	0
56	MG	BA	3490	1/1	0.98	0.14	49,49,49,49	0
56	MG	AV	116	1/1	0.98	0.04	84,84,84,84	0
56	MG	BA	3757	1/1	0.98	0.07	28,28,28,28	0
56	MG	DA	3492	1/1	0.98	0.08	63,63,63,63	0
56	MG	BA	3759	1/1	0.98	0.15	40,40,40,40	0
56	MG	BA	3066	1/1	0.98	0.07	35,35,35,35	0
56	MG	AA	1862	1/1	0.98	0.04	45,45,45,45	0
56	MG	AA	1633	1/1	0.98	0.23	32,32,32,32	0
56	MG	BA	3261	1/1	0.98	0.09	69,69,69,69	0
56	MG	DA	3660	1/1	0.98	0.07	78,78,78,78	0
56	MG	DA	3661	1/1	0.98	0.10	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3561	1/1	0.98	0.09	64,64,64,64	0
56	MG	BA	3766	1/1	0.98	0.05	38,38,38,38	0
56	MG	BA	3442	1/1	0.98	0.16	45,45,45,45	0
56	MG	BA	3563	1/1	0.98	0.11	45,45,45,45	0
56	MG	AA	1604	1/1	0.98	0.06	42,42,42,42	0
56	MG	BA	3263	1/1	0.98	0.06	41,41,41,41	0
56	MG	DA	3668	1/1	0.98	0.09	100,100,100,100	0
56	MG	BA	3016	1/1	0.98	0.28	52,52,52,52	0
56	MG	AA	1889	1/1	0.98	0.04	71,71,71,71	0
56	MG	AA	1877	1/1	0.98	0.05	70,70,70,70	0
56	MG	BA	3349	1/1	0.98	0.08	52,52,52,52	0
56	MG	BA	3267	1/1	0.98	0.06	53,53,53,53	0
56	MG	BA	3573	1/1	0.98	0.08	54,54,54,54	0
56	MG	DA	3675	1/1	0.98	0.08	75,75,75,75	0
56	MG	BA	3052	1/1	0.98	0.10	35,35,35,35	0
56	MG	BA	3074	1/1	0.98	0.08	52,52,52,52	0
56	MG	DA	3120	1/1	0.98	0.08	42,42,42,42	0
56	MG	BA	3890	1/1	0.98	0.04	70,70,70,70	0
56	MG	BA	3663	1/1	0.98	0.05	21,21,21,21	0
56	MG	DA	3006	1/1	0.98	0.06	56,56,56,56	0
56	MG	BA	3665	1/1	0.98	0.04	44,44,44,44	0
56	MG	AA	1933	1/1	0.98	0.06	54,54,54,54	0
56	MG	BA	3783	1/1	0.98	0.08	74,74,74,74	0
56	MG	BA	3354	1/1	0.98	0.14	34,34,34,34	0
56	MG	DA	3687	1/1	0.98	0.03	64,64,64,64	0
56	MG	BA	3673	1/1	0.98	0.10	43,43,43,43	0
56	MG	DA	3248	1/1	0.98	0.13	53,53,53,53	0
56	MG	BA	3232	1/1	0.98	0.21	40,40,40,40	0
56	MG	BA	3201	1/1	0.98	0.22	54,54,54,54	0
56	MG	DA	3131	1/1	0.98	0.18	46,46,46,46	0
56	MG	DA	3014	1/1	0.98	0.15	38,38,38,38	0
56	MG	BA	3684	1/1	0.98	0.10	42,42,42,42	0
56	MG	AA	1934	1/1	0.98	0.04	48,48,48,48	0
56	MG	BA	3175	1/1	0.98	0.21	34,34,34,34	0
56	MG	BA	3688	1/1	0.98	0.05	25,25,25,25	0
56	MG	BA	3794	1/1	0.98	0.10	80,80,80,80	0
56	MG	BA	3021	1/1	0.98	0.04	35,35,35,35	0
56	MG	BA	3696	1/1	0.98	0.07	30,30,30,30	0
56	MG	DA	3022	1/1	0.98	0.15	46,46,46,46	0
56	MG	DA	3141	1/1	0.98	0.21	60,60,60,60	0
56	MG	DA	3540	1/1	0.98	0.18	57,57,57,57	0
56	MG	BA	3315	1/1	0.98	0.19	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3700	1/1	0.98	0.10	26,26,26,26	0
56	MG	DA	3543	1/1	0.98	0.04	74,74,74,74	0
56	MG	BA	3276	1/1	0.98	0.13	57,57,57,57	0
56	MG	AA	1891	1/1	0.98	0.04	75,75,75,75	0
56	MG	BA	3079	1/1	0.98	0.15	54,54,54,54	0
56	MG	CA	1746	1/1	0.98	0.03	65,65,65,65	0
56	MG	BA	3080	1/1	0.98	0.14	44,44,44,44	0
56	MG	BB	216	1/1	0.98	0.10	38,38,38,38	0
56	MG	BA	3519	1/1	0.98	0.18	53,53,53,53	0
56	MG	DA	3394	1/1	0.98	0.05	36,36,36,36	0
56	MG	DA	3552	1/1	0.98	0.11	39,39,39,39	0
56	MG	DA	3553	1/1	0.98	0.12	46,46,46,46	0
56	MG	BA	3320	1/1	0.98	0.17	58,58,58,58	0
56	MG	DA	3396	1/1	0.98	0.05	37,37,37,37	0
56	MG	BA	3467	1/1	0.98	0.09	56,56,56,56	0
56	MG	BA	3180	1/1	0.98	0.16	41,41,41,41	0
56	MG	BA	3241	1/1	0.98	0.15	38,38,38,38	0
56	MG	BA	3809	1/1	0.98	0.09	40,40,40,40	0
56	MG	BA	3368	1/1	0.98	0.12	63,63,63,63	0
56	MG	BA	3525	1/1	0.98	0.05	40,40,40,40	0
56	MG	DA	3406	1/1	0.98	0.05	48,48,48,48	0
56	MG	DA	3408	1/1	0.98	0.09	71,71,71,71	0
56	MG	DA	3409	1/1	0.98	0.07	64,64,64,64	0
56	MG	BA	3813	1/1	0.98	0.04	66,66,66,66	0
56	MG	DA	3411	1/1	0.98	0.12	55,55,55,55	0
56	MG	BA	3007	1/1	0.98	0.11	91,91,91,91	0
56	MG	AA	1924	1/1	0.98	0.05	80,80,80,80	0
56	MG	BB	229	1/1	0.98	0.03	67,67,67,67	0
56	MG	BA	3816	1/1	0.98	0.05	85,85,85,85	0
56	MG	BA	3528	1/1	0.98	0.06	71,71,71,71	0
56	MG	BA	3606	1/1	0.98	0.07	63,63,63,63	0
56	MG	BD	303	1/1	0.98	0.15	29,29,29,29	0
56	MG	BA	3720	1/1	0.98	0.08	22,22,22,22	0
56	MG	D0	103	1/1	0.98	0.10	55,55,55,55	0
56	MG	BD	305	1/1	0.98	0.08	54,54,54,54	0
56	MG	DA	3422	1/1	0.98	0.04	47,47,47,47	0
56	MG	BA	3822	1/1	0.98	0.12	66,66,66,66	0
56	MG	BA	3721	1/1	0.98	0.09	23,23,23,23	0
56	MG	BA	3722	1/1	0.98	0.08	61,61,61,61	0
56	MG	DA	3581	1/1	0.98	0.05	46,46,46,46	0
56	MG	BA	3059	1/1	0.98	0.13	25,25,25,25	0
56	MG	BE	305	1/1	0.98	0.05	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3584	1/1	0.98	0.06	76,76,76,76	0
56	MG	DA	3428	1/1	0.98	0.06	53,53,53,53	0
56	MG	DA	3054	1/1	0.98	0.14	78,78,78,78	0
56	MG	AA	1878	1/1	0.98	0.07	46,46,46,46	0
57	ZN	DY	201	1/1	0.98	0.04	123,123,123,123	0
56	MG	BA	3609	1/1	0.98	0.06	53,53,53,53	0
57	ZN	D5	102	1/1	0.98	0.04	88,88,88,88	0
56	MG	DA	3589	1/1	0.98	0.06	81,81,81,81	0
56	MG	BF	303	1/1	0.98	0.05	41,41,41,41	0
56	MG	DA	3387	1/1	0.99	0.04	40,40,40,40	0
56	MG	BA	3666	1/1	0.99	0.03	28,28,28,28	0
56	MG	DA	3389	1/1	0.99	0.04	66,66,66,66	0
56	MG	BA	3667	1/1	0.99	0.03	27,27,27,27	0
56	MG	DA	3477	1/1	0.99	0.03	78,78,78,78	0
56	MG	BA	3168	1/1	0.99	0.14	27,27,27,27	0
56	MG	BA	3669	1/1	0.99	0.04	34,34,34,34	0
56	MG	DA	3571	1/1	0.99	0.03	57,57,57,57	0
56	MG	BA	3670	1/1	0.99	0.05	57,57,57,57	0
56	MG	BA	3671	1/1	0.99	0.03	41,41,41,41	0
56	MG	BA	3798	1/1	0.99	0.12	45,45,45,45	0
56	MG	BA	3574	1/1	0.99	0.07	36,36,36,36	0
56	MG	DA	3397	1/1	0.99	0.04	35,35,35,35	0
56	MG	BA	3872	1/1	0.99	0.04	24,24,24,24	0
56	MG	DA	3486	1/1	0.99	0.09	42,42,42,42	0
56	MG	BA	3601	1/1	0.99	0.04	24,24,24,24	0
56	MG	BA	3674	1/1	0.99	0.04	27,27,27,27	0
56	MG	DA	3677	1/1	0.99	0.13	51,51,51,51	0
56	MG	BA	3676	1/1	0.99	0.04	20,20,20,20	0
56	MG	DA	3402	1/1	0.99	0.07	38,38,38,38	0
56	MG	BA	3876	1/1	0.99	0.05	54,54,54,54	0
56	MG	DA	3404	1/1	0.99	0.08	56,56,56,56	0
56	MG	BA	3677	1/1	0.99	0.06	29,29,29,29	0
56	MG	BA	3679	1/1	0.99	0.03	34,34,34,34	0
56	MG	BA	3064	1/1	0.99	0.14	41,41,41,41	0
56	MG	DA	3496	1/1	0.99	0.07	47,47,47,47	0
56	MG	BA	3681	1/1	0.99	0.07	52,52,52,52	0
56	MG	DA	3498	1/1	0.99	0.03	51,51,51,51	0
56	MG	BA	3682	1/1	0.99	0.07	28,28,28,28	0
56	MG	AA	1861	1/1	0.99	0.06	71,71,71,71	0
56	MG	DA	3501	1/1	0.99	0.07	81,81,81,81	0
56	MG	BA	3451	1/1	0.99	0.12	47,47,47,47	0
56	MG	BA	3810	1/1	0.99	0.03	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3164	1/1	0.99	0.14	26,26,26,26	0
56	MG	BA	3686	1/1	0.99	0.04	26,26,26,26	0
56	MG	BA	3541	1/1	0.99	0.03	35,35,35,35	0
56	MG	DA	3599	1/1	0.99	0.13	50,50,50,50	0
56	MG	BA	3559	1/1	0.99	0.06	53,53,53,53	0
56	MG	BA	3690	1/1	0.99	0.05	27,27,27,27	0
56	MG	BA	3751	1/1	0.99	0.07	56,56,56,56	0
56	MG	BA	3817	1/1	0.99	0.06	22,22,22,22	0
56	MG	BA	3134	1/1	0.99	0.07	35,35,35,35	0
56	MG	BA	3694	1/1	0.99	0.04	29,29,29,29	0
56	MG	DA	3513	1/1	0.99	0.07	59,59,59,59	0
56	MG	BA	3695	1/1	0.99	0.02	29,29,29,29	0
56	MG	BA	3821	1/1	0.99	0.04	76,76,76,76	0
56	MG	BA	3640	1/1	0.99	0.03	33,33,33,33	0
56	MG	BA	3243	1/1	0.99	0.19	35,35,35,35	0
56	MG	BA	3758	1/1	0.99	0.07	60,60,60,60	0
56	MG	BA	3698	1/1	0.99	0.04	44,44,44,44	0
56	MG	BA	3699	1/1	0.99	0.04	38,38,38,38	0
56	MG	BA	3610	1/1	0.99	0.06	41,41,41,41	0
56	MG	BA	3762	1/1	0.99	0.04	48,48,48,48	0
56	MG	DA	3433	1/1	0.99	0.10	46,46,46,46	0
56	MG	BA	3701	1/1	0.99	0.07	26,26,26,26	0
56	MG	BA	3643	1/1	0.99	0.02	54,54,54,54	0
56	MG	DA	3526	1/1	0.99	0.03	64,64,64,64	0
56	MG	BA	3443	1/1	0.99	0.06	41,41,41,41	0
56	MG	BA	3645	1/1	0.99	0.05	46,46,46,46	0
56	MG	AA	1935	1/1	0.99	0.09	56,56,56,56	0
56	MG	BA	3586	1/1	0.99	0.04	52,52,52,52	0
56	MG	BA	3707	1/1	0.99	0.03	25,25,25,25	0
56	MG	BA	3587	1/1	0.99	0.08	48,48,48,48	0
56	MG	BA	3838	1/1	0.99	0.05	28,28,28,28	0
56	MG	BA	3530	1/1	0.99	0.12	49,49,49,49	0
56	MG	BA	3650	1/1	0.99	0.04	46,46,46,46	0
56	MG	BA	3773	1/1	0.99	0.03	44,44,44,44	0
56	MG	DA	3446	1/1	0.99	0.10	40,40,40,40	0
56	MG	DA	3447	1/1	0.99	0.06	62,62,62,62	0
56	MG	BA	3566	1/1	0.99	0.06	54,54,54,54	0
56	MG	BA	3590	1/1	0.99	0.06	56,56,56,56	0
56	MG	BA	3618	1/1	0.99	0.04	46,46,46,46	0
56	MG	BA	3715	1/1	0.99	0.09	21,21,21,21	0
56	MG	BA	3846	1/1	0.99	0.06	27,27,27,27	0
56	MG	BA	3434	1/1	0.99	0.19	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3638	1/1	0.99	0.08	48,48,48,48	0
56	MG	BA	3518	1/1	0.99	0.12	33,33,33,33	0
56	MG	AA	1929	1/1	0.99	0.10	48,48,48,48	0
56	MG	DA	3642	1/1	0.99	0.04	71,71,71,71	0
56	MG	BA	3534	1/1	0.99	0.08	44,44,44,44	0
56	MG	BA	3595	1/1	0.99	0.03	45,45,45,45	0
56	MG	DA	3458	1/1	0.99	0.05	49,49,49,49	0
56	MG	BA	3551	1/1	0.99	0.03	68,68,68,68	0
56	MG	BA	3660	1/1	0.99	0.02	28,28,28,28	0
56	MG	BA	3854	1/1	0.99	0.05	25,25,25,25	0
56	MG	DA	3080	1/1	0.99	0.26	36,36,36,36	0
56	MG	BA	3723	1/1	0.99	0.04	51,51,51,51	0
56	MG	BA	3390	1/1	0.99	0.08	28,28,28,28	0
57	ZN	BY	201	1/1	0.99	0.04	70,70,70,70	0
56	MG	BA	3787	1/1	0.99	0.04	35,35,35,35	0
57	ZN	B6	101	1/1	0.99	0.03	48,48,48,48	0
57	ZN	B9	101	1/1	0.99	0.02	51,51,51,51	0
56	MG	BA	3598	1/1	0.99	0.04	54,54,54,54	0
56	MG	BA	3789	1/1	0.99	0.04	41,41,41,41	0
56	MG	BA	3860	1/1	0.99	0.02	57,57,57,57	0
56	MG	BA	3664	1/1	0.99	0.06	31,31,31,31	0
56	MG	BA	3862	1/1	0.99	0.09	59,59,59,59	0
56	MG	DA	3385	1/1	0.99	0.05	48,48,48,48	0
56	MG	BA	3627	1/1	0.99	0.07	56,56,56,56	0
56	MG	B6	102	1/1	1.00	0.07	73,73,73,73	0
56	MG	BA	3675	1/1	1.00	0.03	33,33,33,33	0
56	MG	DA	3641	1/1	1.00	0.04	50,50,50,50	0
56	MG	BA	3711	1/1	1.00	0.05	24,24,24,24	0
56	MG	B8	102	1/1	1.00	0.03	49,49,49,49	0
56	MG	BA	3691	1/1	1.00	0.03	31,31,31,31	0
56	MG	BA	3692	1/1	1.00	0.03	30,30,30,30	0
56	MG	BA	3825	1/1	1.00	0.06	37,37,37,37	0
56	MG	BA	3747	1/1	1.00	0.04	20,20,20,20	0
56	MG	BA	3565	1/1	1.00	0.03	34,34,34,34	0
56	MG	DA	3420	1/1	1.00	0.03	38,38,38,38	0
57	ZN	B5	104	1/1	1.00	0.04	75,75,75,75	0
56	MG	BA	3583	1/1	1.00	0.04	22,22,22,22	0
56	MG	BA	3678	1/1	1.00	0.03	22,22,22,22	0
56	MG	BA	3662	1/1	1.00	0.02	30,30,30,30	0
56	MG	BA	3630	1/1	1.00	0.05	23,23,23,23	0
56	MG	BA	3631	1/1	1.00	0.01	25,25,25,25	0
56	MG	DA	3407	1/1	1.00	0.03	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BB	221	1/1	1.00	0.03	44,44,44,44	0
56	MG	BA	3689	1/1	1.00	0.02	25,25,25,25	0
56	MG	BA	3755	1/1	1.00	0.04	40,40,40,40	0

6.5 Other polymers (i)

There are no such residues in this entry.