Full wwPDB X-ray Structure Validation Report ⓘ

Apr 18, 2026 – 06:07 PM UTC

PDB ID	:	4BTS / pdb_00004bts
Title	:	THE CRYSTAL STRUCTURE OF THE EUKARYOTIC 40S RIBOSOMAL SUBUNIT IN COMPLEX WITH EIF1 AND EIF1A
Authors	:	Weisser, M.; Voigts-Hoffmann, F.; Rabl, J.; Leibundgut, M.; Ban, N.
Deposited on	:	2013-06-19
Resolution	:	3.70 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:

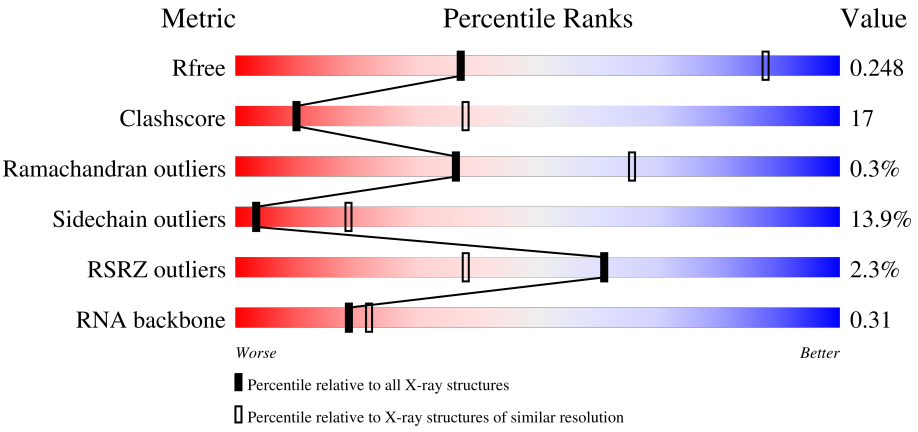
MolProbity	:	4-5-2 with Phenix2.0
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
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 3.70 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	1131 (3.80-3.60)
Clashscore	190562	1171 (3.80-3.60)
Ramachandran outliers	187476	1129 (3.80-3.60)
Sidechain outliers	187428	1126 (3.80-3.60)
RSRZ outliers	180081	1130 (3.80-3.60)
RNA backbone	3983	1007 (4.30-3.08)

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	A0	211	29% 16% • 53%
1	B0	211	28% 16% • 53%
1	C0	211	28% 16% • 53%
1	D0	211	30% 14% • 53%

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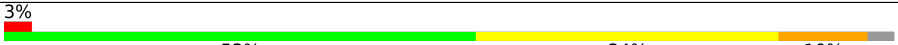
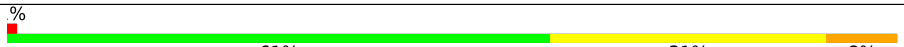
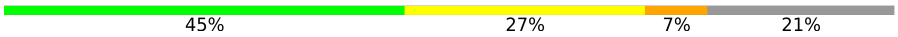
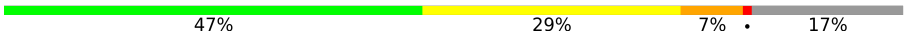
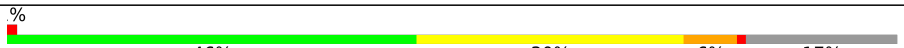
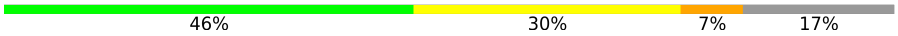
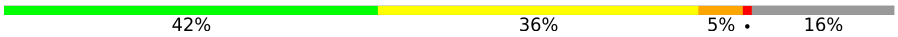
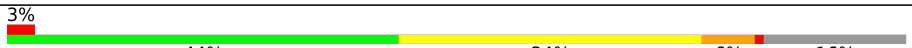
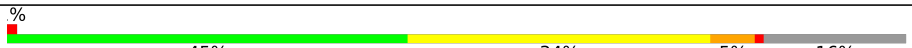
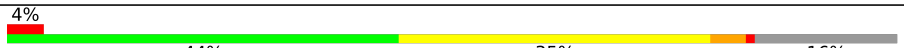
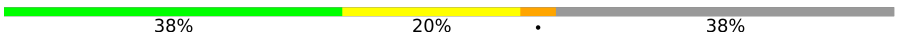
Mol	Chain	Length	Quality of chain
2	A1	68	
2	B1	68	
2	C1	68	
2	D1	68	
3	A2	208	
3	B2	208	
3	C2	208	
3	D2	208	
4	A3	197	
4	B3	197	
4	C3	197	
4	D3	197	
5	A4	265	
5	B4	265	
5	C4	265	
5	D4	265	
6	A5	119	
6	B5	119	
6	C5	119	
6	D5	119	
7	A6	81	
7	B6	81	
7	C6	81	
7	D6	81	
8	A7	162	

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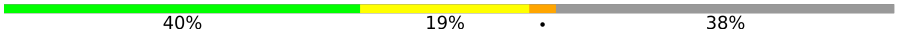
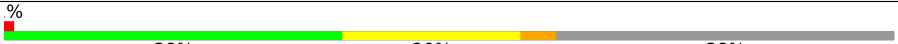
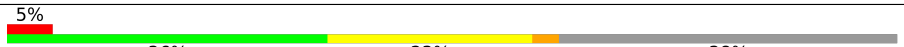
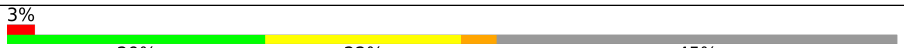
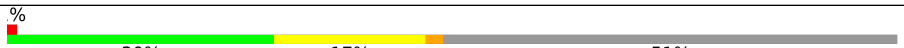
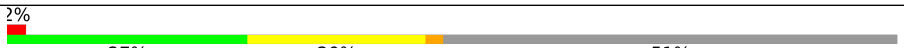
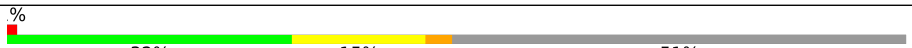
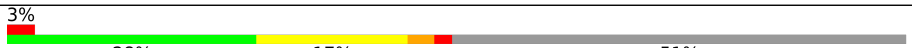
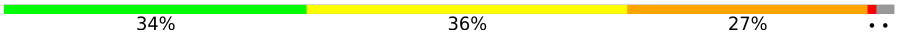
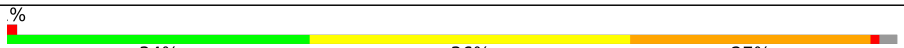
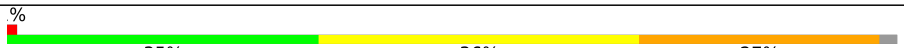
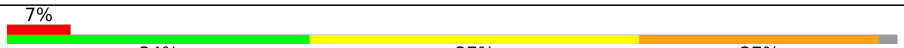
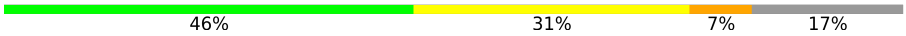
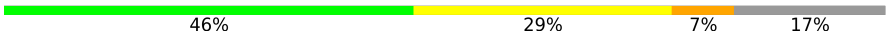
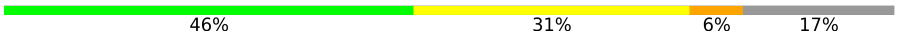
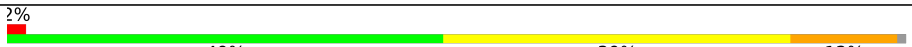
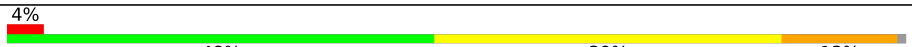
Mol	Chain	Length	Quality of chain
8	B7	162	
8	C7	162	
8	D7	162	
9	A8	143	
9	B8	143	
9	C8	143	
9	D8	143	
10	A9	189	
10	B9	189	
10	C9	189	
10	D9	189	
11	AA	1753	
11	BA	1753	
11	CA	1753	
11	DA	1753	
12	AB	241	
12	BB	241	
12	CB	241	
12	DB	241	
13	AC	243	
13	BC	243	
13	CC	243	
13	DC	243	
14	AD	181	
14	BD	181	

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Mol	Chain	Length	Quality of chain
14	CD	181	4% 50% 38% 11%
14	DD	181	3% 50% 37% 12%
15	AE	296	2% 41% 30% 6% 23%
15	BE	296	2% 42% 29% 5% 23%
15	CE	296	% 41% 30% 5% 23%
15	DE	296	% 41% 31% 5% 23%
16	AF	101	65% 20% 12%
16	BF	101	67% 18% 12%
16	CF	101	64% 20% 12%
16	DF	101	66% 19% 12%
17	AG	200	56% 32% 7%
17	BG	200	56% 33% 7%
17	CG	200	2% 57% 31% 8%
17	DG	200	13% 56% 32% 8%
18	AH	130	% 48% 38% 12%
18	BH	130	2% 50% 37% 12%
18	CH	130	48% 38% 13%
18	DH	130	2% 51% 36% 12%
19	AI	145	9% 56% 34% 8%
19	BI	145	6% 53% 36% 10%
19	CI	145	9% 54% 34% 10%
19	DI	145	16% 50% 39% 10%
20	AJ	120	2% 54% 28% 8% 10%
20	BJ	120	2% 50% 32% 8% 10%
20	CJ	120	% 51% 31% 8% 10%

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Mol	Chain	Length	Quality of chain
20	DJ	120	4% 52% 30% 8% 10%
21	AK	151	50% 32% 10% 7%
21	BK	151	2% 52% 30% 10% 7%
21	CK	151	3% 51% 30% 11% 7%
21	DK	151	2% 50% 33% 9% 7%
22	AL	142	57% 33% 8%
22	BL	142	% 55% 36% 7%
22	CL	142	2% 56% 36% 6%
22	DL	142	% 56% 35% 6%
23	AM	155	% 54% 35% 10%
23	BM	155	% 54% 34% 10%
23	CM	155	57% 32% 10%
23	DM	155	21% 47% 42% 10%
24	AN	55	4% 56% 33% 9%
24	BN	55	4% 58% 33% 7%
24	CN	55	7% 55% 35% 9%
24	DN	55	15% 55% 35% 9%
25	AO	153	3% 57% 37% 5%
25	BO	153	% 56% 38% 5%
25	CO	153	2% 58% 36% 5%
25	DO	153	3% 57% 36% 7%
26	AP	149	57% 37% 5%
26	BP	149	4% 59% 34% 6%
26	CP	149	3% 58% 36% 5%
26	DP	149	60% 34% 5%

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Mol	Chain	Length	Quality of chain
27	AQ	157	54% 35% 10%
27	BQ	157	4% 52% 38% 10%
27	CQ	157	55% 34% 10%
27	DQ	157	55% 34% 11%
28	AR	343	57% 35% 6%
28	BR	343	57% 35% 7%
28	CR	343	57% 34% 7%
28	DR	343	3% 57% 35% 6%
29	AS	144	51% 32% 5% 11%
29	BS	144	51% 33% 5% 11%
29	CS	144	50% 33% 5% 11%
29	DS	144	17% 55% 26% 8% 11%
30	AT	155	59% 34% 6%
30	BT	155	59% 34% 6%
30	CT	155	4% 58% 34% 6%
30	DT	155	20% 59% 34% 6%
31	AU	126	56% 37% 5%
31	BU	126	58% 34% 6%
31	CU	126	58% 34% 6%
31	DU	126	10% 57% 36% 5%
32	AV	130	55% 28% 8% 8%
32	BV	130	55% 31% 6% 8%
32	CV	130	52% 32% 8% 8%
32	DV	130	53% 32% 7% 8%
33	AW	259	58% 35% 7%

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Mol	Chain	Length	Quality of chain
33	BW	259	3% 54% 38% 8%
33	CW	259	% 55% 36% 8%
33	DW	259	55% 37% 8%
34	AX	80	% 65% 22% 8%
34	BX	80	61% 26% 8%
34	CX	80	% 62% 24% 5% 8%
34	DX	80	% 65% 21% 5% 8%
35	AY	293	% 44% 29% 22%
35	BY	293	44% 29% 22%
35	CY	293	2% 44% 30% 22%
35	DY	293	44% 30% 22%
36	AZ	97	57% 39%
36	BZ	97	% 56% 39% 5%
36	CZ	97	55% 40% 5%
36	DZ	97	% 58% 38%

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
38	MG	DA	5056	-	-	-	X

2 Entry composition (i)

There are 39 unique types of molecules in this entry. The entry contains 315512 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 protein called TRANSLATION INITIATION FACTOR EIF-1A FAMILY PROTEIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A0	99	Total	C	N	O	S	0	0	0
			817	517	142	152	6			
1	B0	99	Total	C	N	O	S	0	0	0
			817	517	142	152	6			
1	C0	99	Total	C	N	O	S	0	0	0
			817	517	142	152	6			
1	D0	99	Total	C	N	O	S	0	0	0
			817	517	142	152	6			

There are 76 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A0	-17	MET	-	expression tag	UNP I7MK25
A0	-16	GLY	-	expression tag	UNP I7MK25
A0	-15	SER	-	expression tag	UNP I7MK25
A0	-14	SER	-	expression tag	UNP I7MK25
A0	-13	HIS	-	expression tag	UNP I7MK25
A0	-12	HIS	-	expression tag	UNP I7MK25
A0	-11	HIS	-	expression tag	UNP I7MK25
A0	-10	HIS	-	expression tag	UNP I7MK25
A0	-9	HIS	-	expression tag	UNP I7MK25
A0	-8	HIS	-	expression tag	UNP I7MK25
A0	-7	GLU	-	expression tag	UNP I7MK25
A0	-6	ASN	-	expression tag	UNP I7MK25
A0	-5	LEU	-	expression tag	UNP I7MK25
A0	-4	TYR	-	expression tag	UNP I7MK25
A0	-3	PHE	-	expression tag	UNP I7MK25
A0	-2	GLN	-	expression tag	UNP I7MK25
A0	-1	SER	-	expression tag	UNP I7MK25
A0	0	ASN	-	expression tag	UNP I7MK25
A0	1	ALA	-	expression tag	UNP I7MK25
B0	-17	MET	-	expression tag	UNP I7MK25

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Chain	Residue	Modelled	Actual	Comment	Reference
B0	-16	GLY	-	expression tag	UNP I7MK25
B0	-15	SER	-	expression tag	UNP I7MK25
B0	-14	SER	-	expression tag	UNP I7MK25
B0	-13	HIS	-	expression tag	UNP I7MK25
B0	-12	HIS	-	expression tag	UNP I7MK25
B0	-11	HIS	-	expression tag	UNP I7MK25
B0	-10	HIS	-	expression tag	UNP I7MK25
B0	-9	HIS	-	expression tag	UNP I7MK25
B0	-8	HIS	-	expression tag	UNP I7MK25
B0	-7	GLU	-	expression tag	UNP I7MK25
B0	-6	ASN	-	expression tag	UNP I7MK25
B0	-5	LEU	-	expression tag	UNP I7MK25
B0	-4	TYR	-	expression tag	UNP I7MK25
B0	-3	PHE	-	expression tag	UNP I7MK25
B0	-2	GLN	-	expression tag	UNP I7MK25
B0	-1	SER	-	expression tag	UNP I7MK25
B0	0	ASN	-	expression tag	UNP I7MK25
B0	1	ALA	-	expression tag	UNP I7MK25
C0	-17	MET	-	expression tag	UNP I7MK25
C0	-16	GLY	-	expression tag	UNP I7MK25
C0	-15	SER	-	expression tag	UNP I7MK25
C0	-14	SER	-	expression tag	UNP I7MK25
C0	-13	HIS	-	expression tag	UNP I7MK25
C0	-12	HIS	-	expression tag	UNP I7MK25
C0	-11	HIS	-	expression tag	UNP I7MK25
C0	-10	HIS	-	expression tag	UNP I7MK25
C0	-9	HIS	-	expression tag	UNP I7MK25
C0	-8	HIS	-	expression tag	UNP I7MK25
C0	-7	GLU	-	expression tag	UNP I7MK25
C0	-6	ASN	-	expression tag	UNP I7MK25
C0	-5	LEU	-	expression tag	UNP I7MK25
C0	-4	TYR	-	expression tag	UNP I7MK25
C0	-3	PHE	-	expression tag	UNP I7MK25
C0	-2	GLN	-	expression tag	UNP I7MK25
C0	-1	SER	-	expression tag	UNP I7MK25
C0	0	ASN	-	expression tag	UNP I7MK25
C0	1	ALA	-	expression tag	UNP I7MK25
D0	-17	MET	-	expression tag	UNP I7MK25
D0	-16	GLY	-	expression tag	UNP I7MK25
D0	-15	SER	-	expression tag	UNP I7MK25
D0	-14	SER	-	expression tag	UNP I7MK25
D0	-13	HIS	-	expression tag	UNP I7MK25

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Chain	Residue	Modelled	Actual	Comment	Reference
D0	-12	HIS	-	expression tag	UNP I7MK25
D0	-11	HIS	-	expression tag	UNP I7MK25
D0	-10	HIS	-	expression tag	UNP I7MK25
D0	-9	HIS	-	expression tag	UNP I7MK25
D0	-8	HIS	-	expression tag	UNP I7MK25
D0	-7	GLU	-	expression tag	UNP I7MK25
D0	-6	ASN	-	expression tag	UNP I7MK25
D0	-5	LEU	-	expression tag	UNP I7MK25
D0	-4	TYR	-	expression tag	UNP I7MK25
D0	-3	PHE	-	expression tag	UNP I7MK25
D0	-2	GLN	-	expression tag	UNP I7MK25
D0	-1	SER	-	expression tag	UNP I7MK25
D0	0	ASN	-	expression tag	UNP I7MK25
D0	1	ALA	-	expression tag	UNP I7MK25

- Molecule 2 is a protein called 40S RIBOSOMAL PROTEIN RPS28E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	A1	66	Total	C	N	O	S	0	0	0
			511	308	103	96	4			
2	B1	66	Total	C	N	O	S	0	0	0
			511	308	103	96	4			
2	C1	66	Total	C	N	O	S	0	0	0
			511	308	103	96	4			
2	D1	66	Total	C	N	O	S	0	0	0
			511	308	103	96	4			

- Molecule 3 is a protein called 40S RIBOSOMAL PROTEIN S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	A2	207	Total	C	N	O	S	0	0	0
			1693	1057	336	296	4			
3	B2	207	Total	C	N	O	S	0	0	0
			1693	1057	336	296	4			
3	C2	207	Total	C	N	O	S	0	0	0
			1693	1057	336	296	4			
3	D2	207	Total	C	N	O	S	0	0	0
			1693	1057	336	296	4			

- Molecule 4 is a protein called 40S RIBOSOMAL PROTEIN RPS7E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	A3	196	Total	C	N	O	S	0	0	0
			1629	1048	286	294	1			
4	B3	196	Total	C	N	O	S	0	0	0
			1629	1048	286	294	1			
4	C3	196	Total	C	N	O	S	0	0	0
			1629	1048	286	294	1			
4	D3	196	Total	C	N	O	S	0	0	0
			1629	1048	286	294	1			

- Molecule 5 is a protein called 40S RIBOSOMAL PROTEIN S3A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	A4	209	Total	C	N	O	S	0	0	0
			1679	1061	304	310	4			
5	B4	221	Total	C	N	O	S	0	0	0
			1775	1121	319	331	4			
5	C4	221	Total	C	N	O	S	0	0	0
			1775	1121	319	331	4			
5	D4	221	Total	C	N	O	S	0	0	0
			1775	1121	319	331	4			

- Molecule 6 is a protein called 40S RIBOSOMAL PROTEIN RPS26E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	A5	100	Total	C	N	O	S	0	0	0
			812	496	172	138	6			
6	B5	100	Total	C	N	O	S	0	0	0
			812	496	172	138	6			
6	C5	100	Total	C	N	O	S	0	0	0
			812	496	172	138	6			
6	D5	100	Total	C	N	O	S	0	0	0
			812	496	172	138	6			

- Molecule 7 is a protein called 40S RIBOSOMAL PROTEIN S27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	A6	80	Total	C	N	O	S	0	0	0
			632	398	110	116	8			
7	B6	80	Total	C	N	O	S	0	0	0
			632	398	110	116	8			
7	C6	80	Total	C	N	O	S	0	0	0
			632	398	110	116	8			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	D6	80	Total	C	N	O	S	0	0	0
			632	398	110	116	8			

- Molecule 8 is a protein called 40S RIBOSOMAL PROTEIN RPS10E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	A7	101	Total	C	N	O	S	0	0	0
			833	546	139	146	2			
8	B7	101	Total	C	N	O	S	0	0	0
			833	546	139	146	2			
8	C7	101	Total	C	N	O	S	0	0	0
			833	546	139	146	2			
8	D7	101	Total	C	N	O	S	0	0	0
			833	546	139	146	2			

- Molecule 9 is a protein called 40S RIBOSOMAL PROTEIN RPS25E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	A8	79	Total	C	N	O	S	0	0	0
			615	388	112	113	2			
9	B8	79	Total	C	N	O	S	0	0	0
			615	388	112	113	2			
9	C8	79	Total	C	N	O	S	0	0	0
			615	388	112	113	2			
9	D8	79	Total	C	N	O	S	0	0	0
			615	388	112	113	2			

- Molecule 10 is a protein called 40S RIBOSOMAL PROTEIN RPS31E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	A9	93	Total	C	N	O	S	0	0	0
			751	477	143	126	5			
10	B9	93	Total	C	N	O	S	0	0	0
			751	477	143	126	5			
10	C9	93	Total	C	N	O	S	0	0	0
			751	477	143	126	5			
10	D9	93	Total	C	N	O	S	0	0	0
			751	477	143	126	5			

- Molecule 11 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AA	1717	Total	C	N	O	P	0	0	0
			36629	16385	6539	11988	1717			
11	BA	1717	Total	C	N	O	P	0	0	0
			36629	16385	6539	11988	1717			
11	CA	1717	Total	C	N	O	P	0	0	0
			36629	16385	6539	11988	1717			
11	DA	1717	Total	C	N	O	P	0	0	0
			36629	16385	6539	11988	1717			

- Molecule 12 is a protein called 40S RIBOSOMAL PROTEIN SA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AB	201	Total	C	N	O	S	0	0	0
			1619	1023	285	301	10			
12	BB	201	Total	C	N	O	S	0	0	0
			1619	1023	285	301	10			
12	CB	201	Total	C	N	O	S	0	0	0
			1619	1023	285	301	10			
12	DB	201	Total	C	N	O	S	0	0	0
			1619	1023	285	301	10			

- Molecule 13 is a protein called 40S RIBOSOMAL PROTEIN RPS3E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AC	228	Total	C	N	O	S	0	0	0
			1811	1167	318	318	8			
13	BC	228	Total	C	N	O	S	0	0	0
			1811	1167	318	318	8			
13	CC	228	Total	C	N	O	S	0	0	0
			1811	1167	318	318	8			
13	DC	228	Total	C	N	O	S	0	0	0
			1811	1167	318	318	8			

- Molecule 14 is a protein called 40S RIBOSOMAL PROTEIN RPS9E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AD	180	Total	C	N	O	S	0	0	0
			1478	932	287	254	5			
14	BD	180	Total	C	N	O	S	0	0	0
			1478	932	287	254	5			
14	CD	180	Total	C	N	O	S	0	0	0
			1478	932	287	254	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	DD	180	Total	C	N	O	S	0	0	0
			1478	932	287	254	5			

- Molecule 15 is a protein called 40S RIBOSOMAL PROTEIN RPS2E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AE	229	Total	C	N	O	S	0	0	0
			1818	1171	321	323	3			
15	BE	229	Total	C	N	O	S	0	0	0
			1818	1171	321	323	3			
15	CE	229	Total	C	N	O	S	0	0	0
			1818	1171	321	323	3			
15	DE	229	Total	C	N	O	S	0	0	0
			1818	1171	321	323	3			

- Molecule 16 is a protein called EIF1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AF	89	Total	C	N	O	S	0	0	0
			736	465	131	137	3			
16	BF	89	Total	C	N	O	S	0	0	0
			736	465	131	137	3			
16	CF	89	Total	C	N	O	S	0	0	0
			736	465	131	137	3			
16	DF	89	Total	C	N	O	S	0	0	0
			736	465	131	137	3			

- Molecule 17 is a protein called 40S RIBOSOMAL PROTEIN RPS5E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AG	192	Total	C	N	O	S	0	0	0
			1520	961	281	270	8			
17	BG	192	Total	C	N	O	S	0	0	0
			1520	961	281	270	8			
17	CG	192	Total	C	N	O	S	0	0	0
			1520	961	281	270	8			
17	DG	192	Total	C	N	O	S	0	0	0
			1520	961	281	270	8			

- Molecule 18 is a protein called 40S RIBOSOMAL PROTEIN RPS22E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AH	129	Total	C	N	O	S	0	0	0
			1040	671	184	180	5			
18	BH	129	Total	C	N	O	S	0	0	0
			1040	671	184	180	5			
18	CH	129	Total	C	N	O	S	0	0	0
			1040	671	184	180	5			
18	DH	129	Total	C	N	O	S	0	0	0
			1040	671	184	180	5			

- Molecule 19 is a protein called 40S RIBOSOMAL PROTEIN RPS16E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AI	143	Total	C	N	O	S	0	0	0
			1135	715	217	198	5			
19	BI	143	Total	C	N	O	S	0	0	0
			1135	715	217	198	5			
19	CI	143	Total	C	N	O	S	0	0	0
			1135	715	217	198	5			
19	DI	143	Total	C	N	O	S	0	0	0
			1135	715	217	198	5			

- Molecule 20 is a protein called 40S RIBOSOMAL PROTEIN RPS20E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AJ	108	Total	C	N	O	S	0	0	0
			859	539	154	160	6			
20	BJ	108	Total	C	N	O	S	0	0	0
			859	539	154	160	6			
20	CJ	108	Total	C	N	O	S	0	0	0
			859	539	154	160	6			
20	DJ	108	Total	C	N	O	S	0	0	0
			859	539	154	160	6			

- Molecule 21 is a protein called 40S RIBOSOMAL PROTEIN RPS14E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AK	140	Total	C	N	O	S	0	0	0
			1063	654	206	197	6			
21	BK	140	Total	C	N	O	S	0	0	0
			1063	654	206	197	6			
21	CK	140	Total	C	N	O	S	0	0	0
			1063	654	206	197	6			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	DK	140	Total	C	N	O	S	0	0	0
			1063	654	206	197	6			

- Molecule 22 is a protein called 40S RIBOSOMAL PROTEIN S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AL	140	Total	C	N	O	S	0	0	0
			1086	685	217	179	5			
22	BL	140	Total	C	N	O	S	0	0	0
			1086	685	217	179	5			
22	CL	140	Total	C	N	O	S	0	0	0
			1086	685	217	179	5			
22	DL	140	Total	C	N	O	S	0	0	0
			1086	685	217	179	5			

- Molecule 23 is a protein called 40S RIBOSOMAL PROTEIN RPS18E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AM	153	Total	C	N	O	S	0	0	0
			1231	775	236	215	5			
23	BM	153	Total	C	N	O	S	0	0	0
			1231	775	236	215	5			
23	CM	153	Total	C	N	O	S	0	0	0
			1231	775	236	215	5			
23	DM	153	Total	C	N	O	S	0	0	0
			1231	775	236	215	5			

- Molecule 24 is a protein called 40S RIBOSOMAL PROTEIN RPS29E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AN	54	Total	C	N	O	S	0	0	0
			454	283	92	73	6			
24	BN	54	Total	C	N	O	S	0	0	0
			454	283	92	73	6			
24	CN	54	Total	C	N	O	S	0	0	0
			454	283	92	73	6			
24	DN	54	Total	C	N	O	S	0	0	0
			454	283	92	73	6			

- Molecule 25 is a protein called 40S RIBOSOMAL PROTEIN RPS13E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	AO	152	Total	C	N	O	S	0	0	0
			1229	790	233	202	4			
25	BO	152	Total	C	N	O	S	0	0	0
			1229	790	233	202	4			
25	CO	152	Total	C	N	O	S	0	0	0
			1229	790	233	202	4			
25	DO	152	Total	C	N	O	S	0	0	0
			1229	790	233	202	4			

- Molecule 26 is a protein called 40S RIBOSOMAL PROTEIN S24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	AP	148	Total	C	N	O	0	0	0
			1197	763	221	213			
26	BP	148	Total	C	N	O	0	0	0
			1197	763	221	213			
26	CP	148	Total	C	N	O	0	0	0
			1197	763	221	213			
26	DP	148	Total	C	N	O	0	0	0
			1197	763	221	213			

- Molecule 27 is a protein called 40S RIBOSOMAL PROTEIN RPS11E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	AQ	156	Total	C	N	O	S	0	0	0
			1267	813	234	216	4			
27	BQ	156	Total	C	N	O	S	0	0	0
			1267	813	234	216	4			
27	CQ	156	Total	C	N	O	S	0	0	0
			1267	813	234	216	4			
27	DQ	156	Total	C	N	O	S	0	0	0
			1267	813	234	216	4			

- Molecule 28 is a protein called 40S RIBOSOMAL PROTEIN RACK1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	AR	338	Total	C	N	O	S	0	0	0
			2682	1711	462	501	8			
28	BR	338	Total	C	N	O	S	0	0	0
			2682	1711	462	501	8			
28	CR	338	Total	C	N	O	S	0	0	0
			2682	1711	462	501	8			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	DR	338	Total	C	N	O	S	0	0	0
			2682	1711	462	501	8			

- Molecule 29 is a protein called 40S RIBOSOMAL PROTEIN RPS15E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	AS	128	Total	C	N	O	S	0	0	0
			1010	648	178	180	4			
29	BS	128	Total	C	N	O	S	0	0	0
			1010	648	178	180	4			
29	CS	128	Total	C	N	O	S	0	0	0
			1010	648	178	180	4			
29	DS	128	Total	C	N	O	S	0	0	0
			1010	648	178	180	4			

- Molecule 30 is a protein called 40S RIBOSOMAL PROTEIN RPS19E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	AT	154	Total	C	N	O	S	0	0	0
			1242	785	234	221	2			
30	BT	154	Total	C	N	O	S	0	0	0
			1242	785	234	221	2			
30	CT	154	Total	C	N	O	S	0	0	0
			1242	785	234	221	2			
30	DT	154	Total	C	N	O	S	0	0	0
			1242	785	234	221	2			

- Molecule 31 is a protein called 40S RIBOSOMAL PROTEIN RPS12E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	AU	124	Total	C	N	O	S	0	0	0
			952	599	166	182	5			
31	BU	124	Total	C	N	O	S	0	0	0
			952	599	166	182	5			
31	CU	124	Total	C	N	O	S	0	0	0
			952	599	166	182	5			
31	DU	124	Total	C	N	O	S	0	0	0
			952	599	166	182	5			

- Molecule 32 is a protein called 40S RIBOSOMAL PROTEIN RPS17E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	AV	119	Total	C	N	O	S	0	0	0
			968	613	180	173	2			
32	BV	119	Total	C	N	O	S	0	0	0
			968	613	180	173	2			
32	CV	119	Total	C	N	O	S	0	0	0
			968	613	180	173	2			
32	DV	119	Total	C	N	O	S	0	0	0
			968	613	180	173	2			

- Molecule 33 is a protein called 40S RIBOSOMAL PROTEIN RPS4E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	AW	259	Total	C	N	O	S	0	0	0
			2079	1322	383	370	4			
33	BW	259	Total	C	N	O	S	0	0	0
			2079	1322	383	370	4			
33	CW	259	Total	C	N	O	S	0	0	0
			2079	1322	383	370	4			
33	DW	259	Total	C	N	O	S	0	0	0
			2079	1322	383	370	4			

- Molecule 34 is a protein called 40S RIBOSOMAL PROTEIN RPS30E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	AX	74	Total	C	N	O	S	0	0	0
			599	376	124	96	3			
34	BX	74	Total	C	N	O	S	0	0	0
			599	376	124	96	3			
34	CX	74	Total	C	N	O	S	0	0	0
			599	376	124	96	3			
34	DX	74	Total	C	N	O	S	0	0	0
			599	376	124	96	3			

- Molecule 35 is a protein called 40S RIBOSOMAL PROTEIN S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	AY	228	Total	C	N	O	S	0	0	0
			1826	1157	340	318	11			
35	BY	228	Total	C	N	O	S	0	0	0
			1826	1157	340	318	11			
35	CY	228	Total	C	N	O	S	0	0	0
			1826	1157	340	318	11			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	DY	228	Total	C	N	O	S	0	0	0
			1826	1157	340	318	11			

- Molecule 36 is a protein called 40S RIBOSOMAL PROTEIN RPS21E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	AZ	97	Total	C	N	O	S	0	0	0
			747	458	139	146	4			
36	BZ	97	Total	C	N	O	S	0	0	0
			747	458	139	146	4			
36	CZ	97	Total	C	N	O	S	0	0	0
			747	458	139	146	4			
36	DZ	97	Total	C	N	O	S	0	0	0
			747	458	139	146	4			

- Molecule 37 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
37	A5	1	Total	Zn	0	0
			1	1		
37	A6	1	Total	Zn	0	0
			1	1		
37	A9	1	Total	Zn	0	0
			1	1		
37	AN	1	Total	Zn	0	0
			1	1		
37	B5	1	Total	Zn	0	0
			1	1		
37	B6	1	Total	Zn	0	0
			1	1		
37	B9	1	Total	Zn	0	0
			1	1		
37	BN	1	Total	Zn	0	0
			1	1		
37	C5	1	Total	Zn	0	0
			1	1		
37	C6	1	Total	Zn	0	0
			1	1		
37	C9	1	Total	Zn	0	0
			1	1		
37	CN	1	Total	Zn	0	0
			1	1		

Continued on next page...

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	D5	1	Total Zn 1 1	0	0
37	D6	1	Total Zn 1 1	0	0
37	D9	1	Total Zn 1 1	0	0
37	DN	1	Total Zn 1 1	0	0

- Molecule 38 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
38	AA	79	Total Mg 79 79	0	0
38	BA	79	Total Mg 79 79	0	0
38	CA	79	Total Mg 79 79	0	0
38	DA	79	Total Mg 79 79	0	0

- Molecule 39 is water.

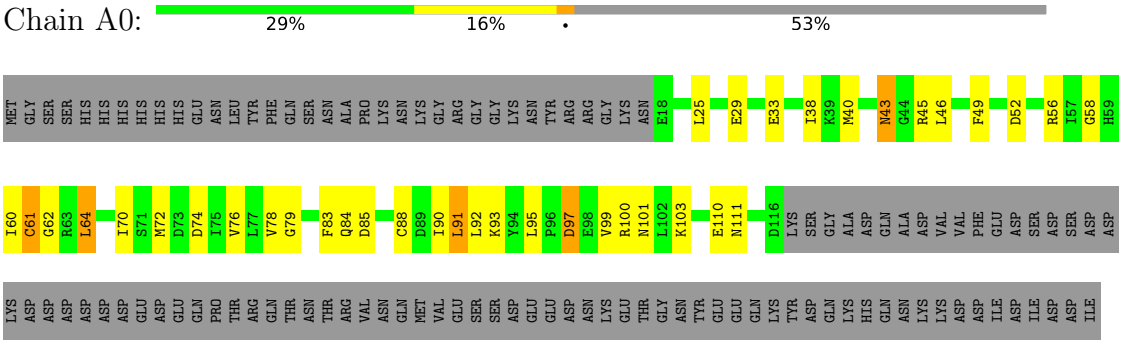
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
39	AA	474	Total O 474 474	0	0
39	BA	474	Total O 474 474	0	0
39	C2	2	Total O 2 2	0	0
39	C4	2	Total O 2 2	0	0
39	C5	3	Total O 3 3	0	0
39	CA	467	Total O 467 467	0	0
39	DA	474	Total O 474 474	0	0

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.

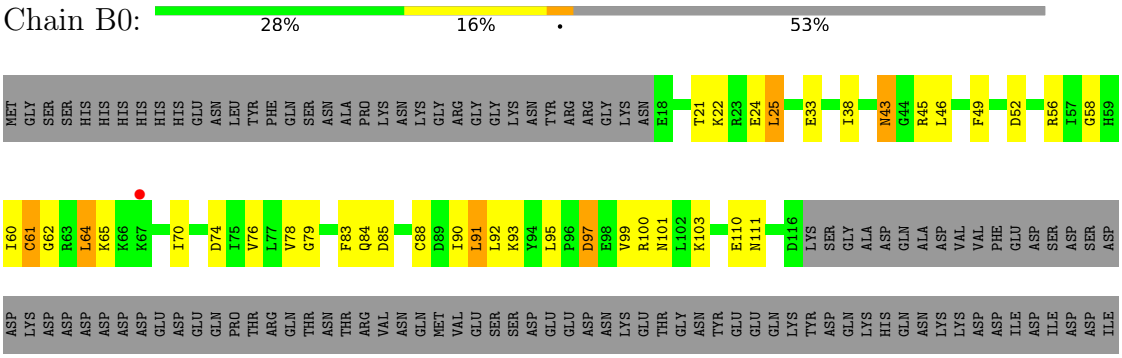
• Molecule 1: TRANSLATION INITIATION FACTOR EIF-1A FAMILY PROTEIN

Chain A0:



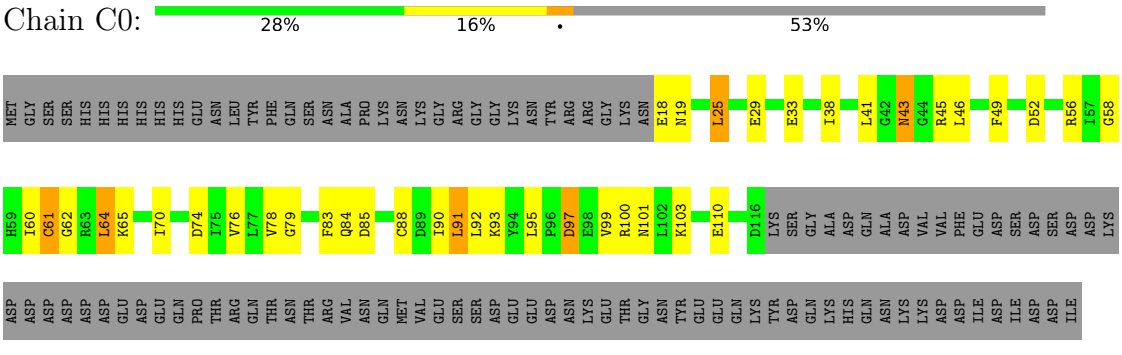
• Molecule 1: TRANSLATION INITIATION FACTOR EIF-1A FAMILY PROTEIN

Chain B0:



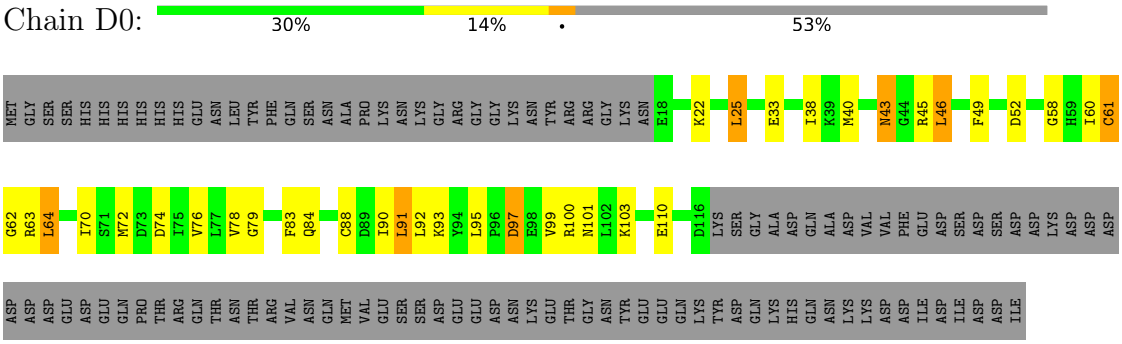
• Molecule 1: TRANSLATION INITIATION FACTOR EIF-1A FAMILY PROTEIN

Chain C0:



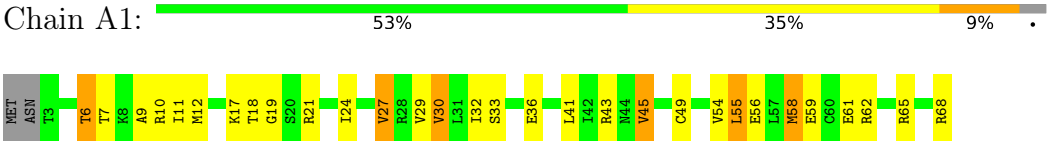
• Molecule 1: TRANSLATION INITIATION FACTOR EIF-1A FAMILY PROTEIN

Chain D0:



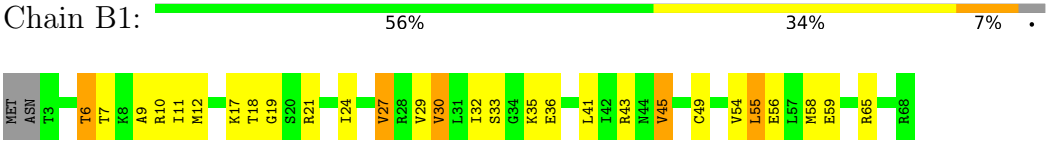
• Molecule 2: 40S RIBOSOMAL PROTEIN RPS28E

Chain A1:



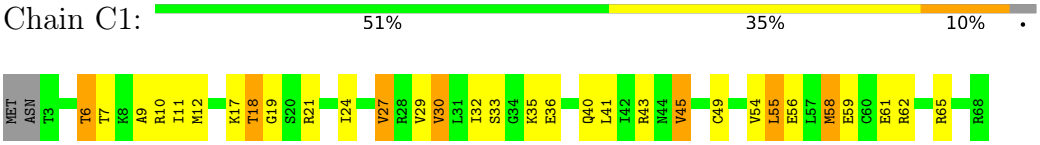
• Molecule 2: 40S RIBOSOMAL PROTEIN RPS28E

Chain B1:



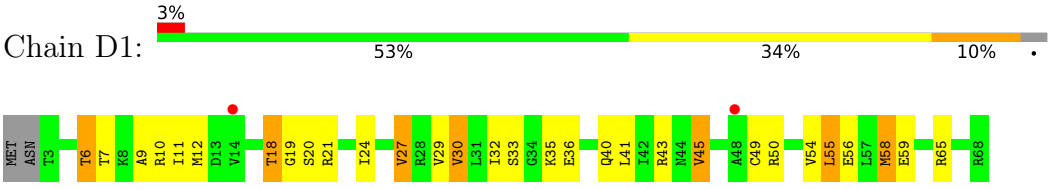
• Molecule 2: 40S RIBOSOMAL PROTEIN RPS28E

Chain C1:



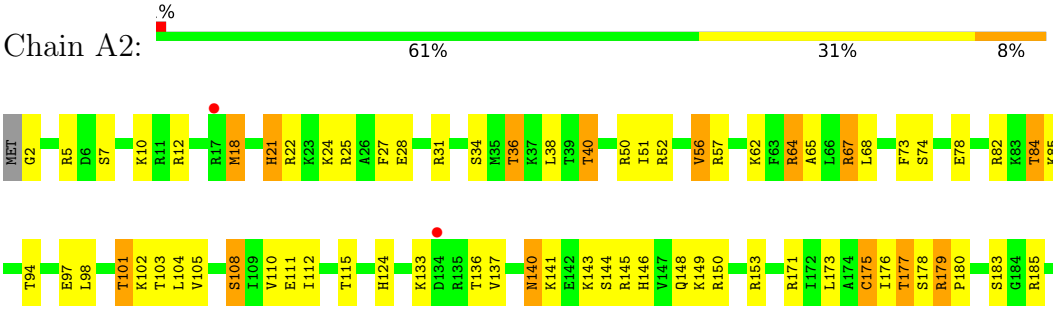
• Molecule 2: 40S RIBOSOMAL PROTEIN RPS28E

Chain D1:



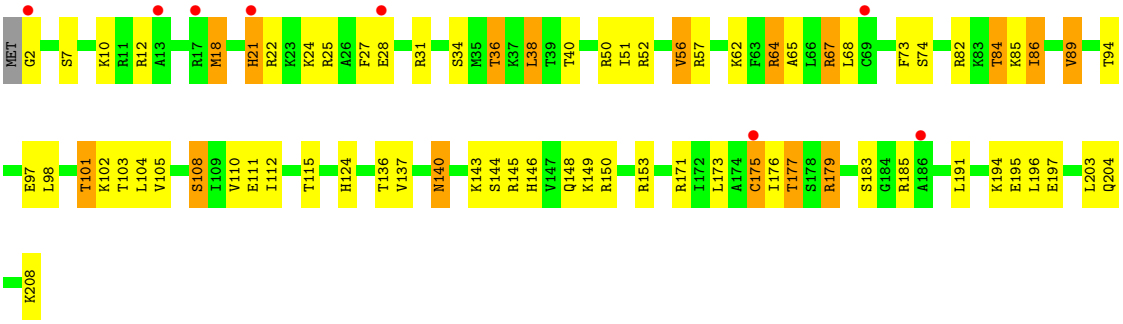
• Molecule 3: 40S RIBOSOMAL PROTEIN S8

Chain A2:



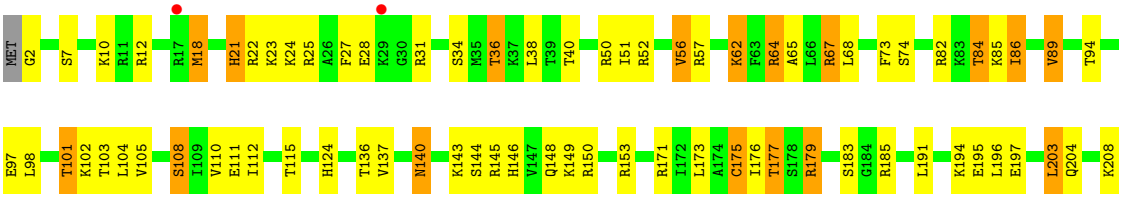
• Molecule 3: 40S RIBOSOMAL PROTEIN S8

Chain B2:



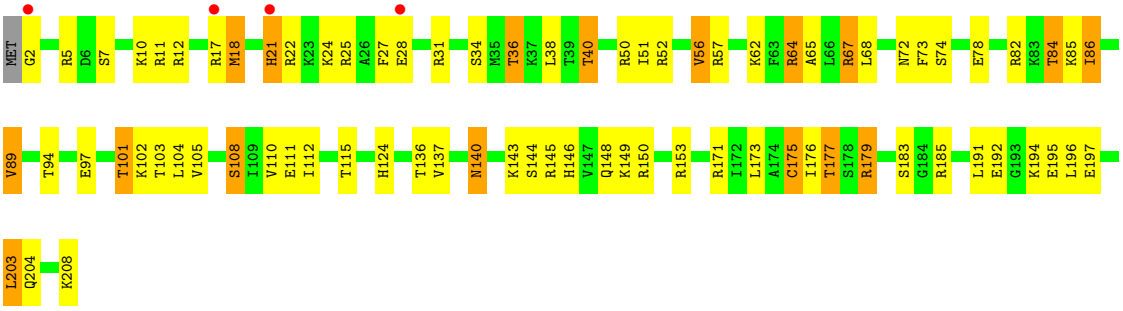
• Molecule 3: 40S RIBOSOMAL PROTEIN S8

Chain C2:



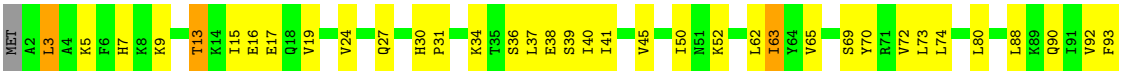
• Molecule 3: 40S RIBOSOMAL PROTEIN S8

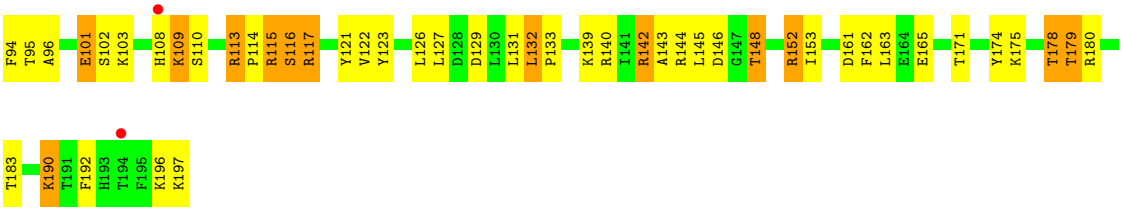
Chain D2:



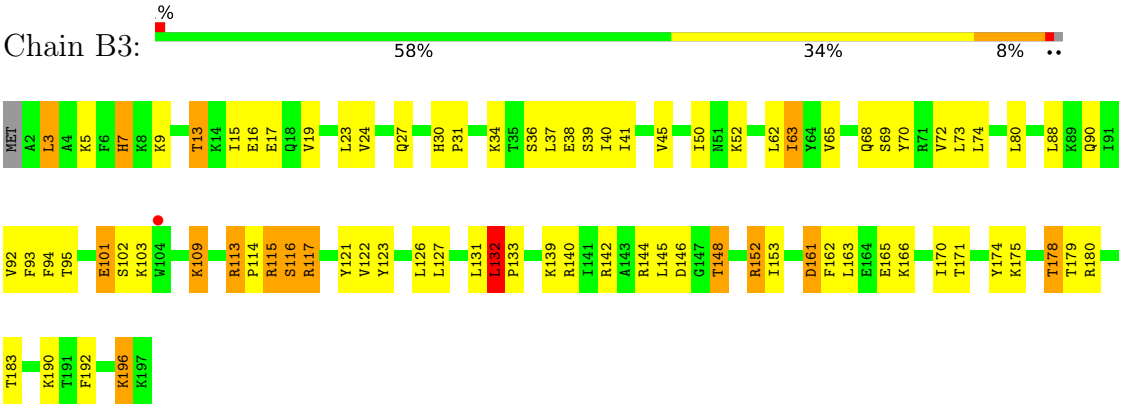
• Molecule 4: 40S RIBOSOMAL PROTEIN RPS7E

Chain A3:

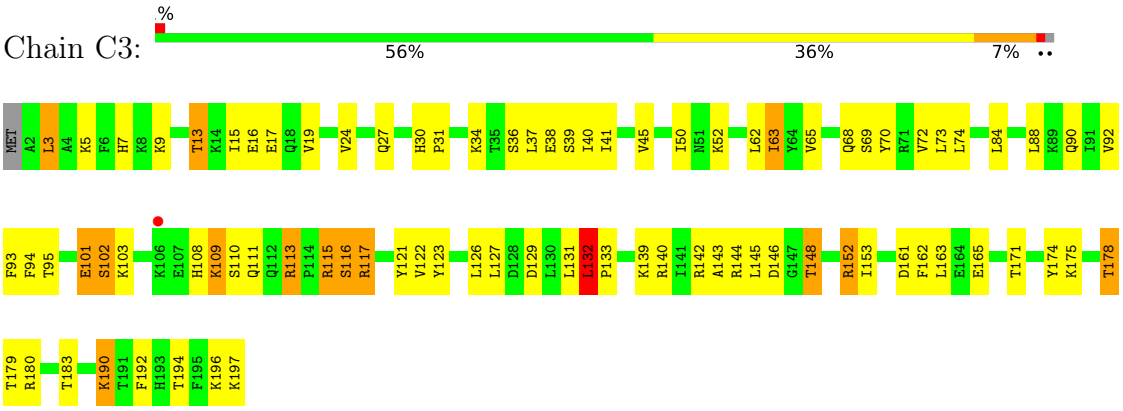




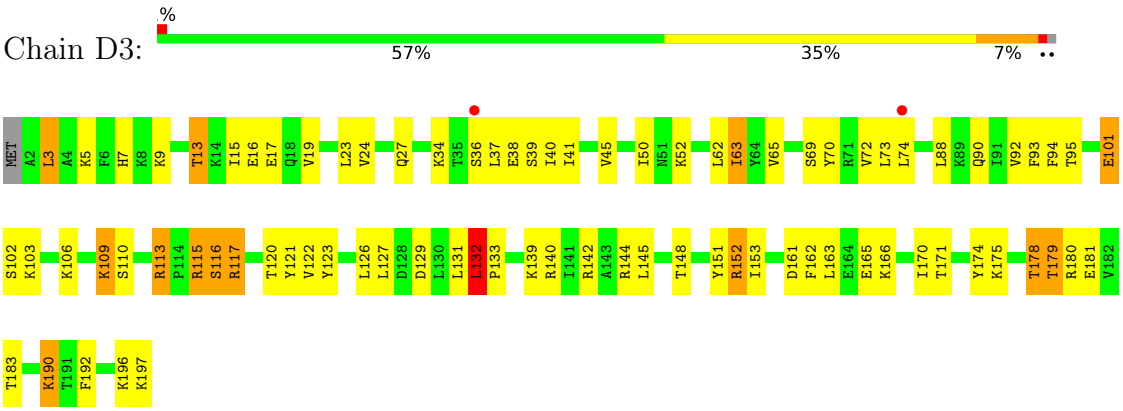
• Molecule 4: 40S RIBOSOMAL PROTEIN RPS7E



• Molecule 4: 40S RIBOSOMAL PROTEIN RPS7E

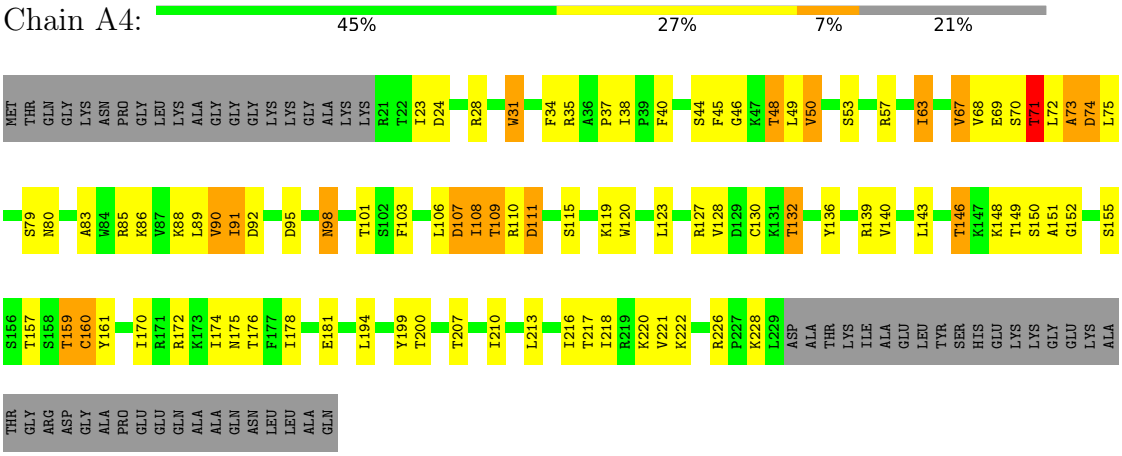


• Molecule 4: 40S RIBOSOMAL PROTEIN RPS7E



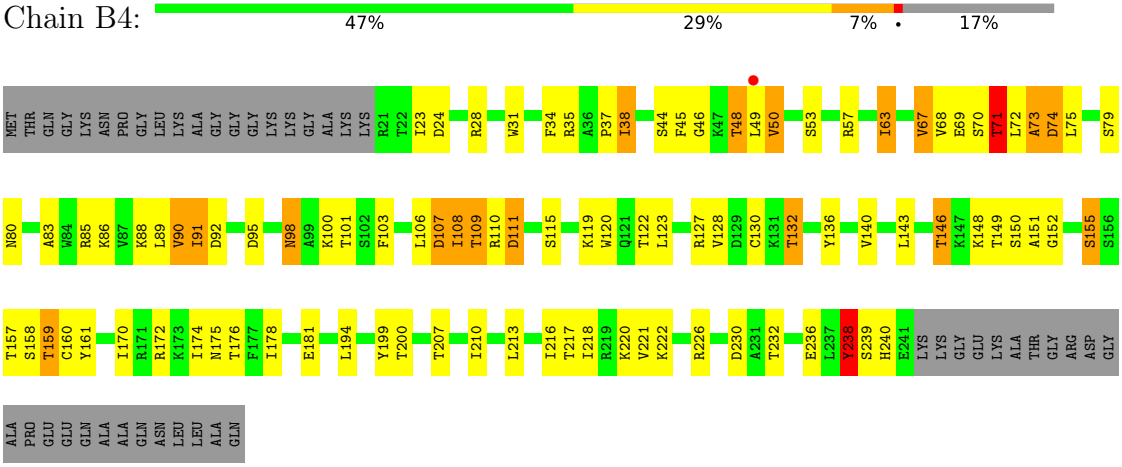
• Molecule 5: 40S RIBOSOMAL PROTEIN S3A

Chain A4:



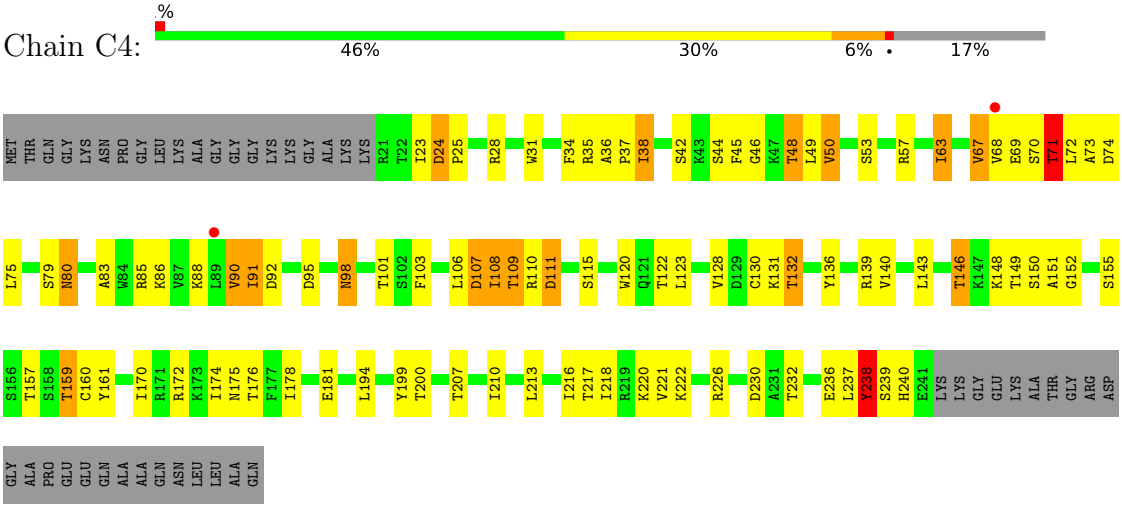
• Molecule 5: 40S RIBOSOMAL PROTEIN S3A

Chain B4:



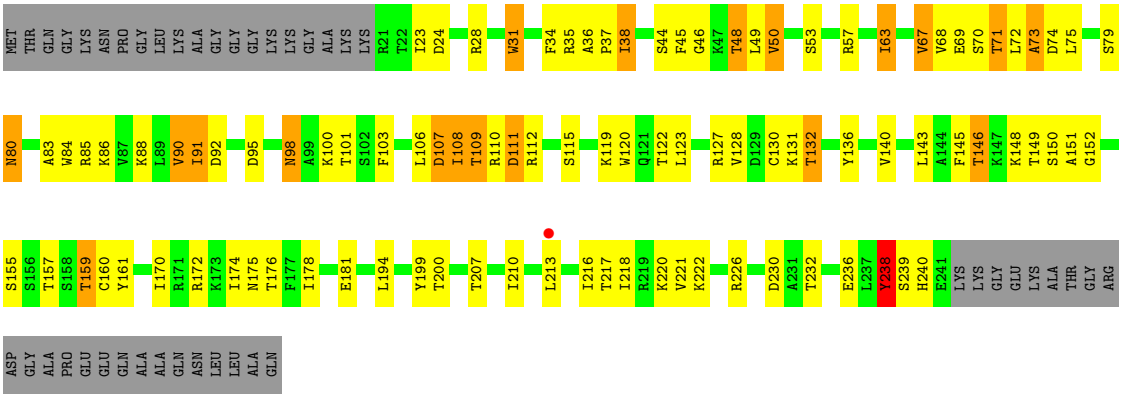
• Molecule 5: 40S RIBOSOMAL PROTEIN S3A

Chain C4:



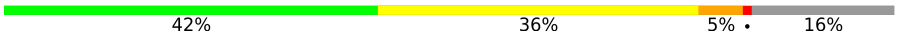
• Molecule 5: 40S RIBOSOMAL PROTEIN S3A

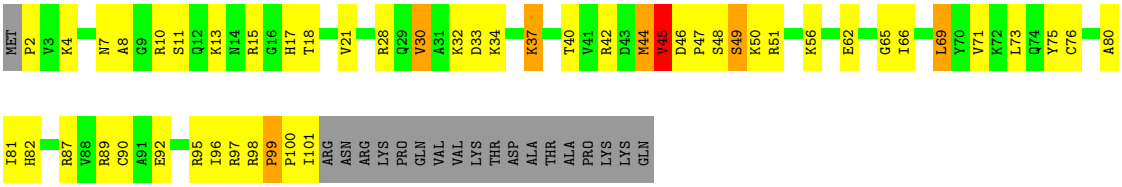
Chain D4:



• Molecule 6: 40S RIBOSOMAL PROTEIN RPS26E

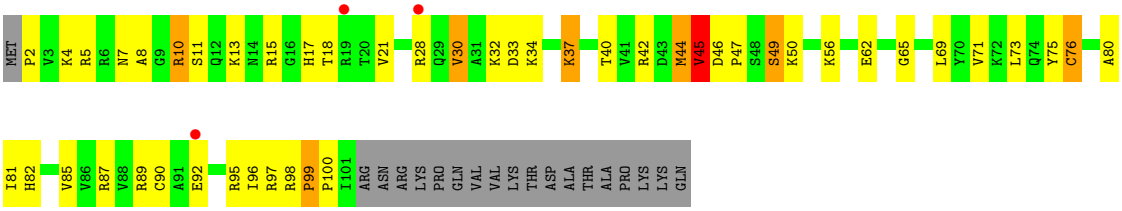
Chain A5:





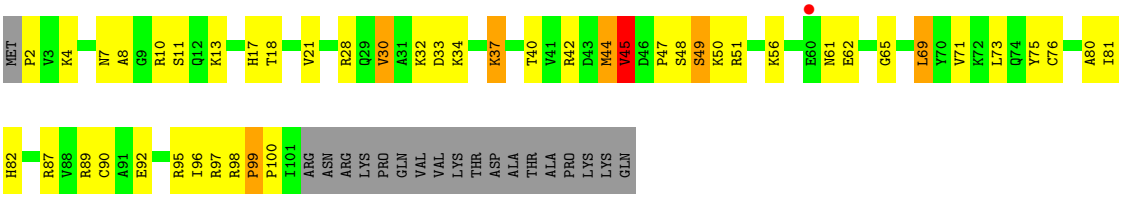
• Molecule 6: 40S RIBOSOMAL PROTEIN RPS26E

Chain B5:



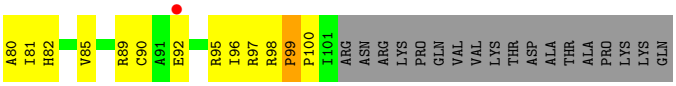
• Molecule 6: 40S RIBOSOMAL PROTEIN RPS26E

Chain C5:



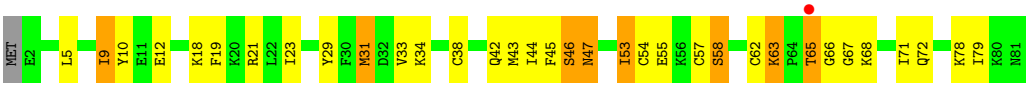
• Molecule 6: 40S RIBOSOMAL PROTEIN RPS26E

Chain D5:



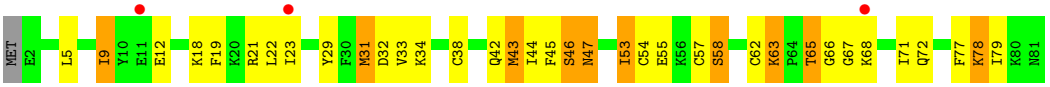
• Molecule 7: 40S RIBOSOMAL PROTEIN S27

Chain A6:



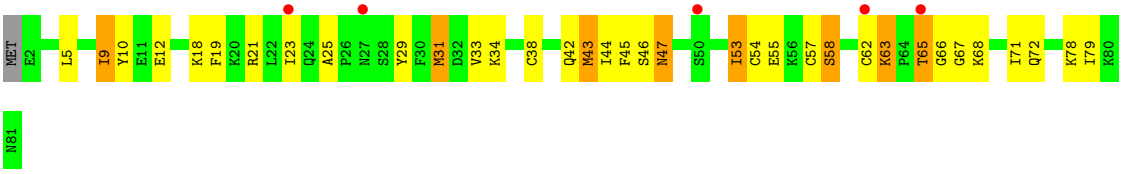
• Molecule 7: 40S RIBOSOMAL PROTEIN S27

Chain B6:



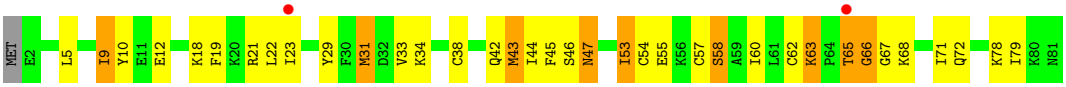
• Molecule 7: 40S RIBOSOMAL PROTEIN S27

Chain C6:



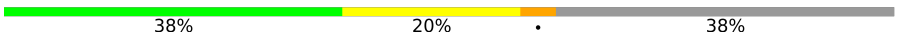
• Molecule 7: 40S RIBOSOMAL PROTEIN S27

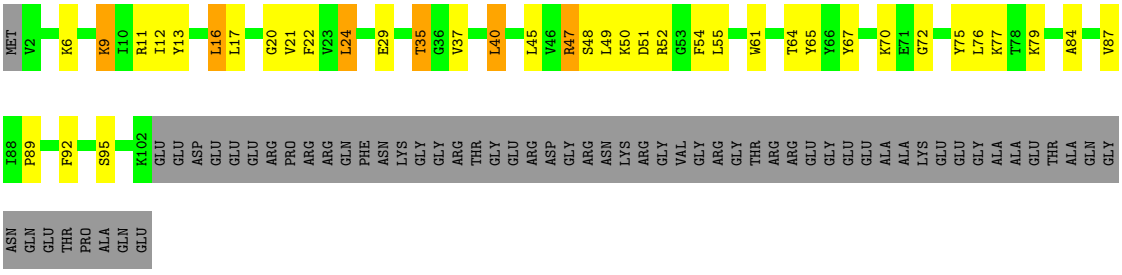
Chain D6:



• Molecule 8: 40S RIBOSOMAL PROTEIN RPS10E

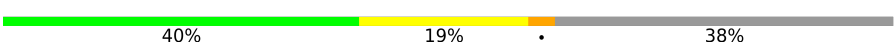
Chain A7:

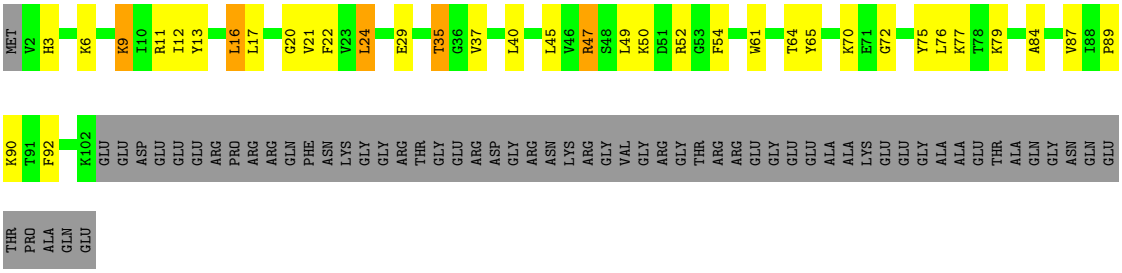




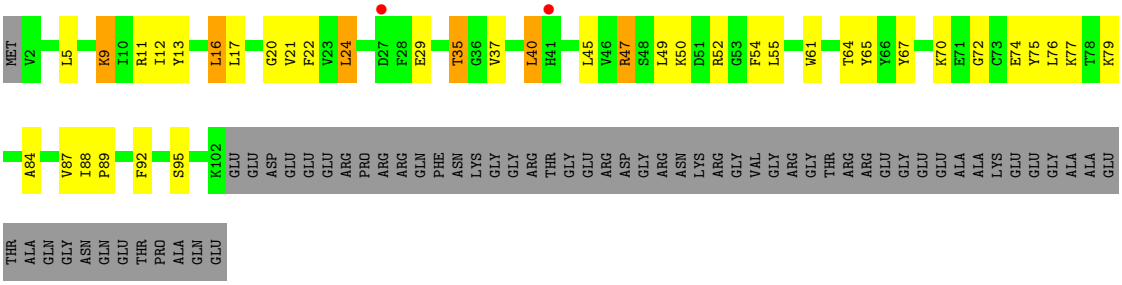
• Molecule 8: 40S RIBOSOMAL PROTEIN RPS10E

Chain B7:

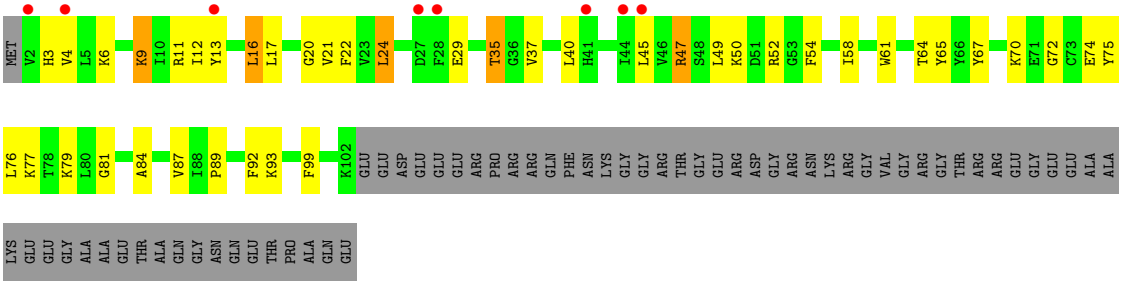




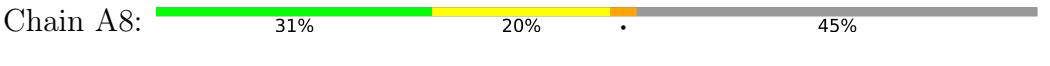
• Molecule 8: 40S RIBOSOMAL PROTEIN RPS10E

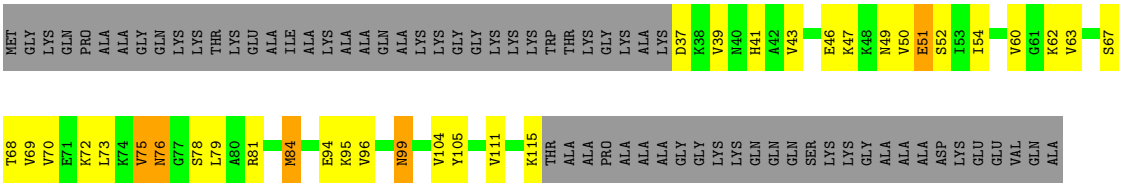


• Molecule 8: 40S RIBOSOMAL PROTEIN RPS10E

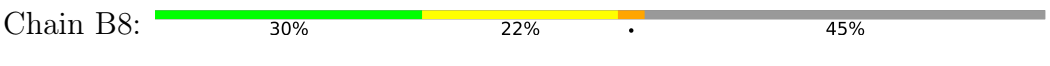


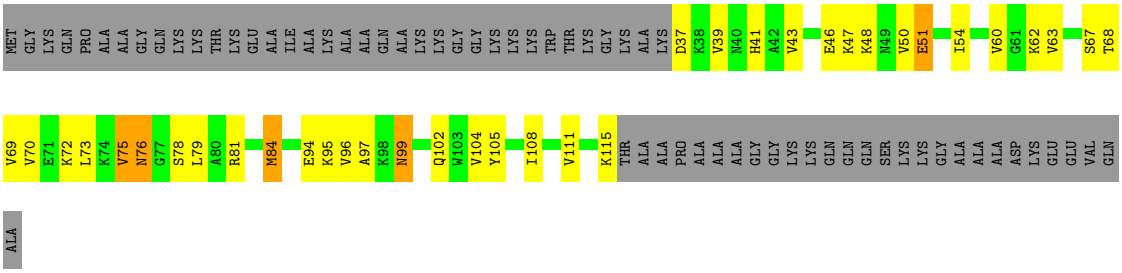
• Molecule 9: 40S RIBOSOMAL PROTEIN RPS25E





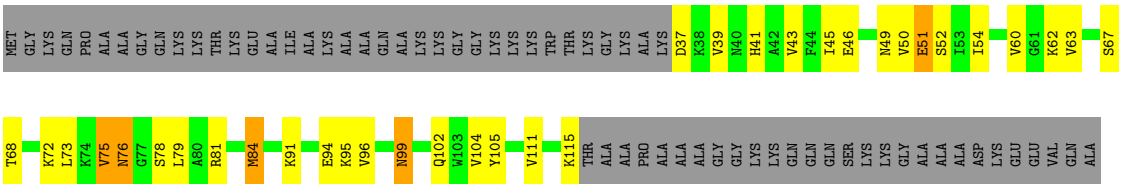
• Molecule 9: 40S RIBOSOMAL PROTEIN RPS25E





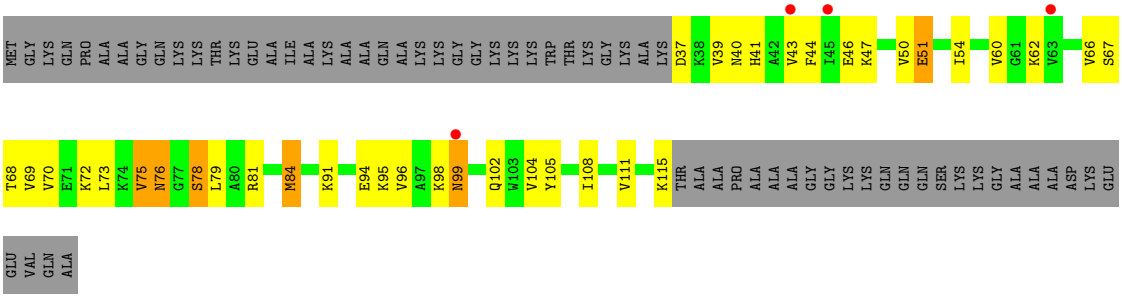
• Molecule 9: 40S RIBOSOMAL PROTEIN RPS25E

Chain C8:



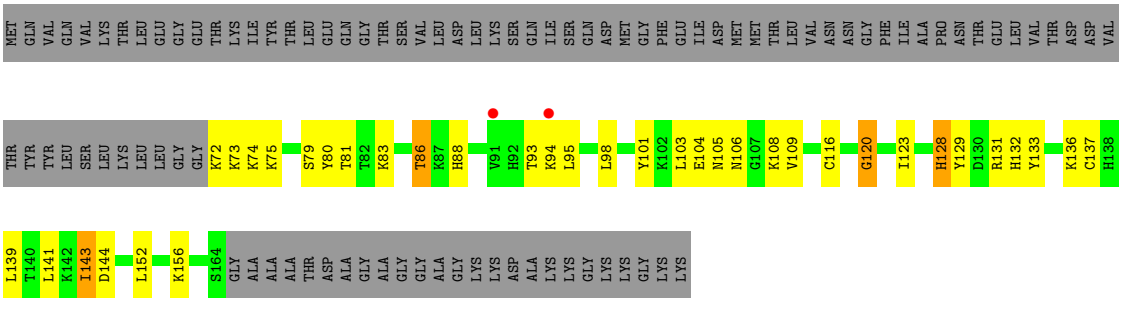
• Molecule 9: 40S RIBOSOMAL PROTEIN RPS25E

Chain D8:



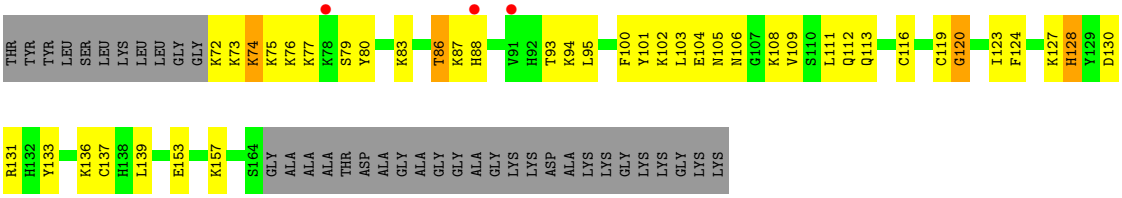
• Molecule 10: 40S RIBOSOMAL PROTEIN RPS31E

Chain A9:



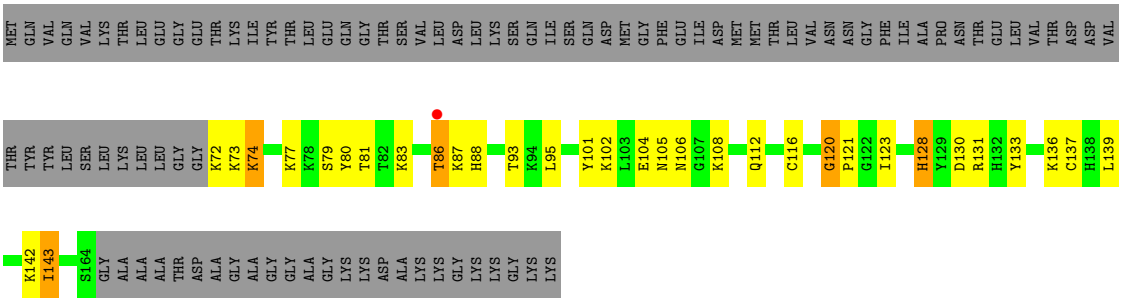
• Molecule 10: 40S RIBOSOMAL PROTEIN RPS31E

Chain B9:



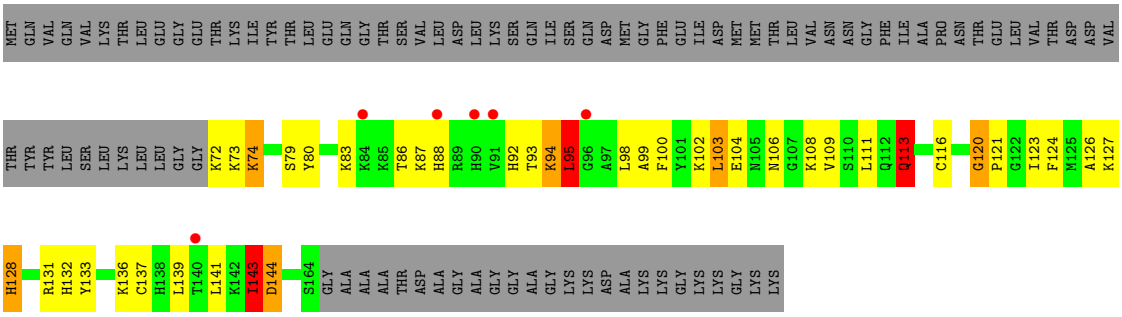
• Molecule 10: 40S RIBOSOMAL PROTEIN RPS31E

Chain C9:



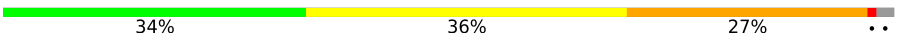
• Molecule 10: 40S RIBOSOMAL PROTEIN RPS31E

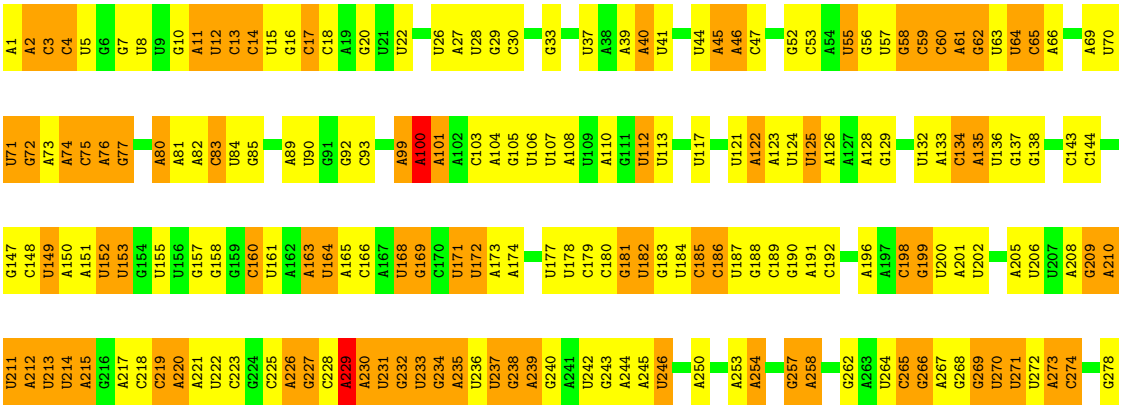
Chain D9:

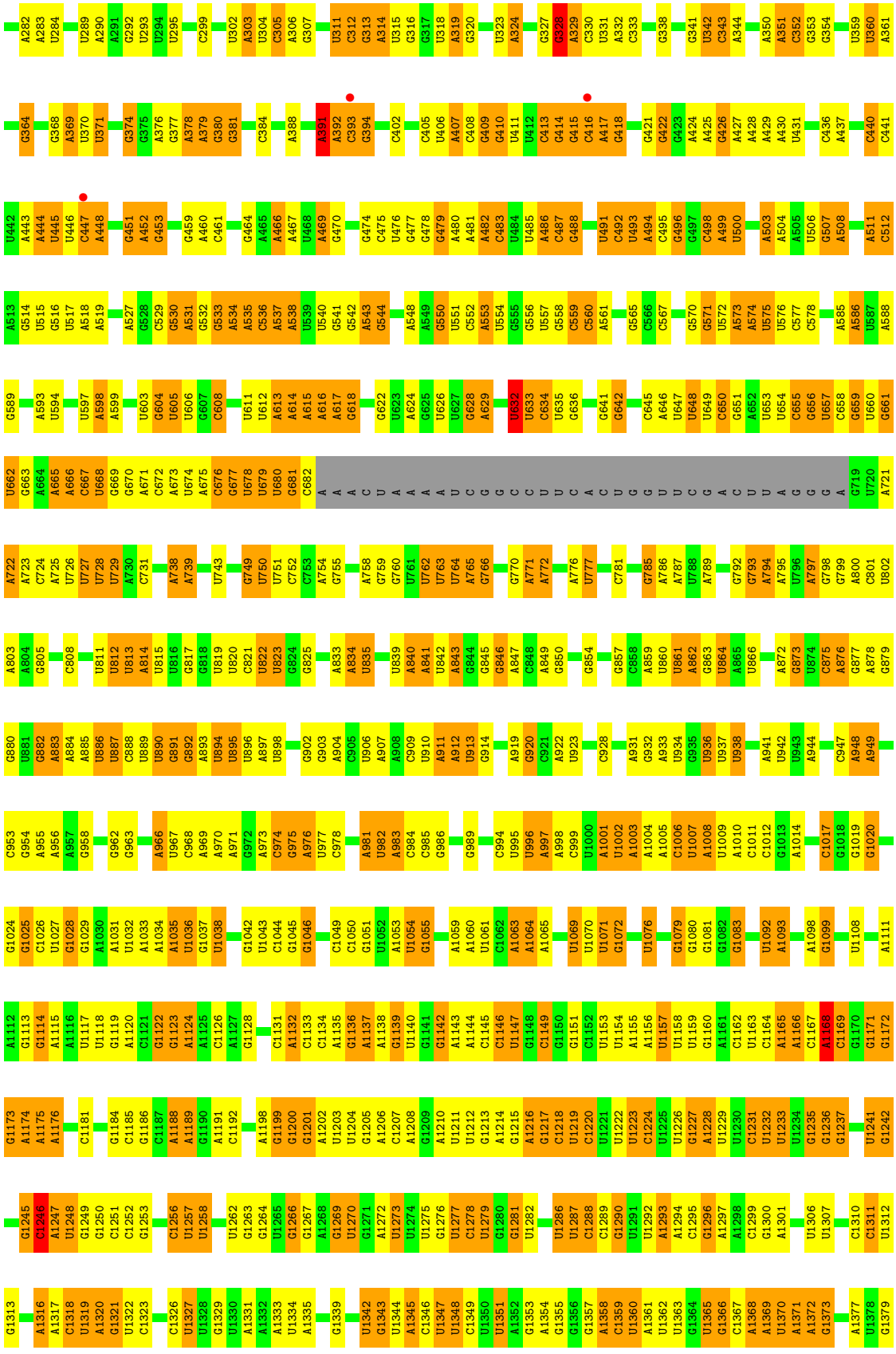


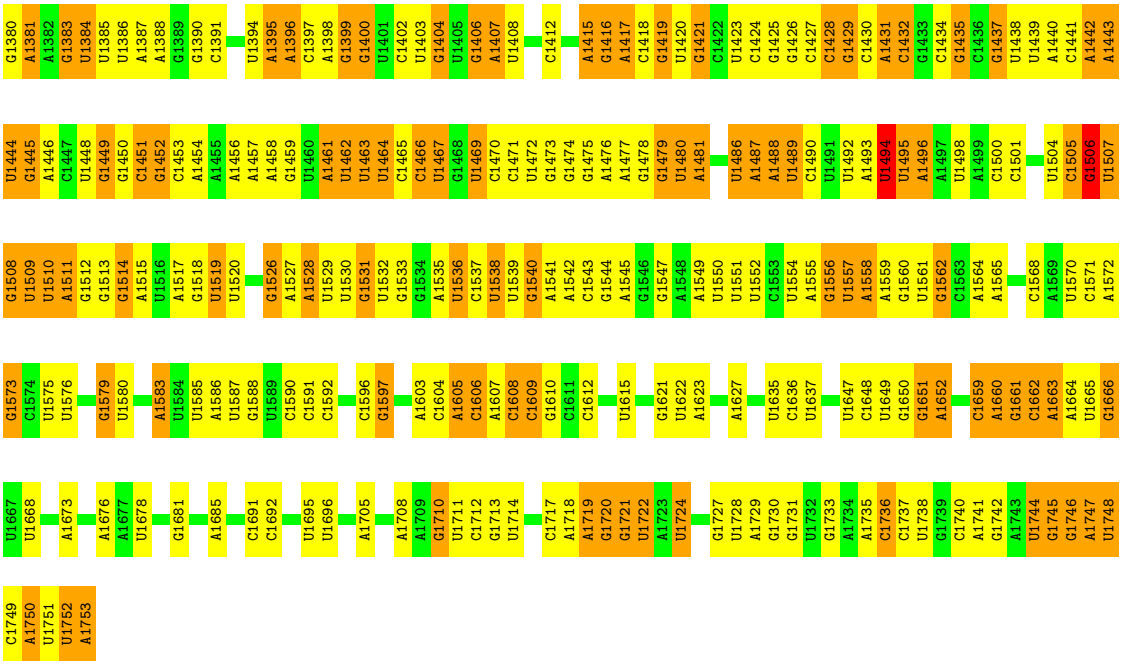
• Molecule 11: 18S ribosomal RNA

Chain AA:



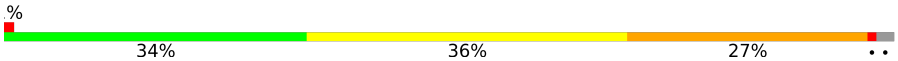


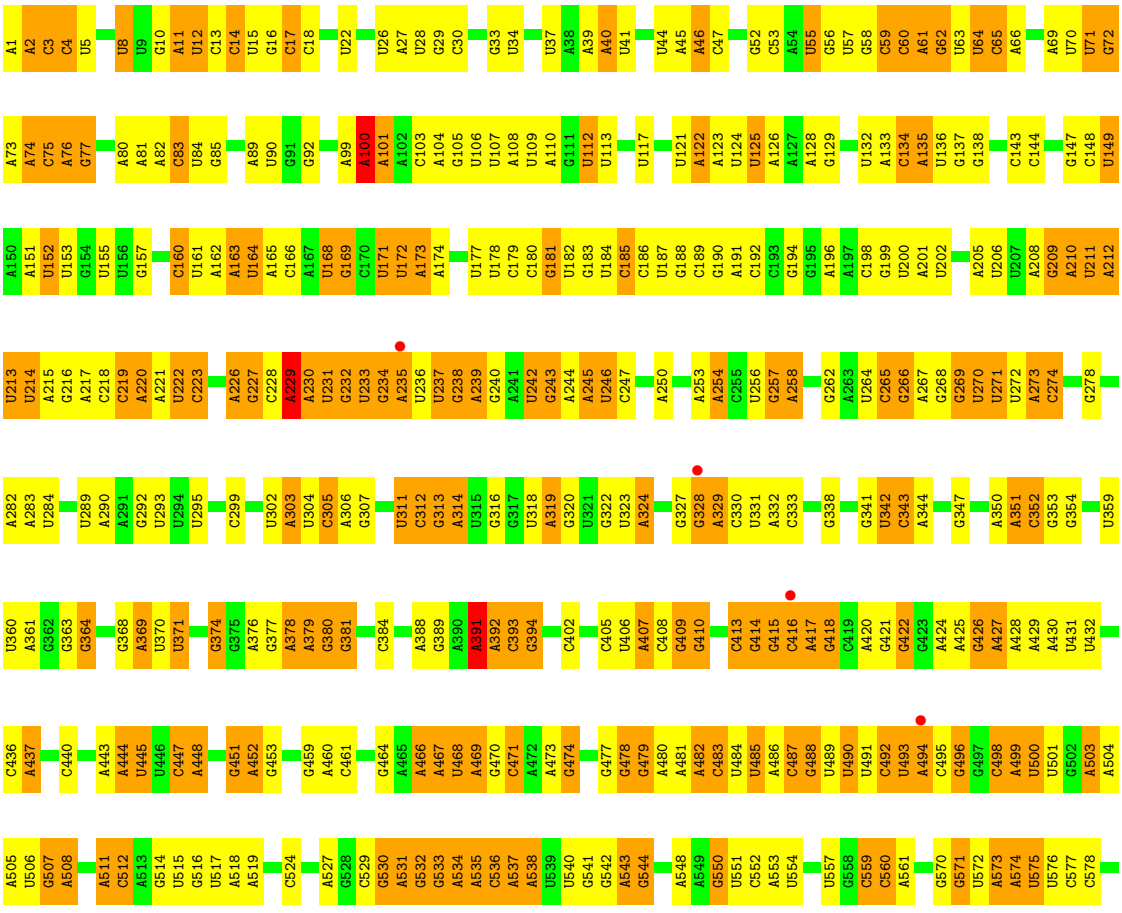


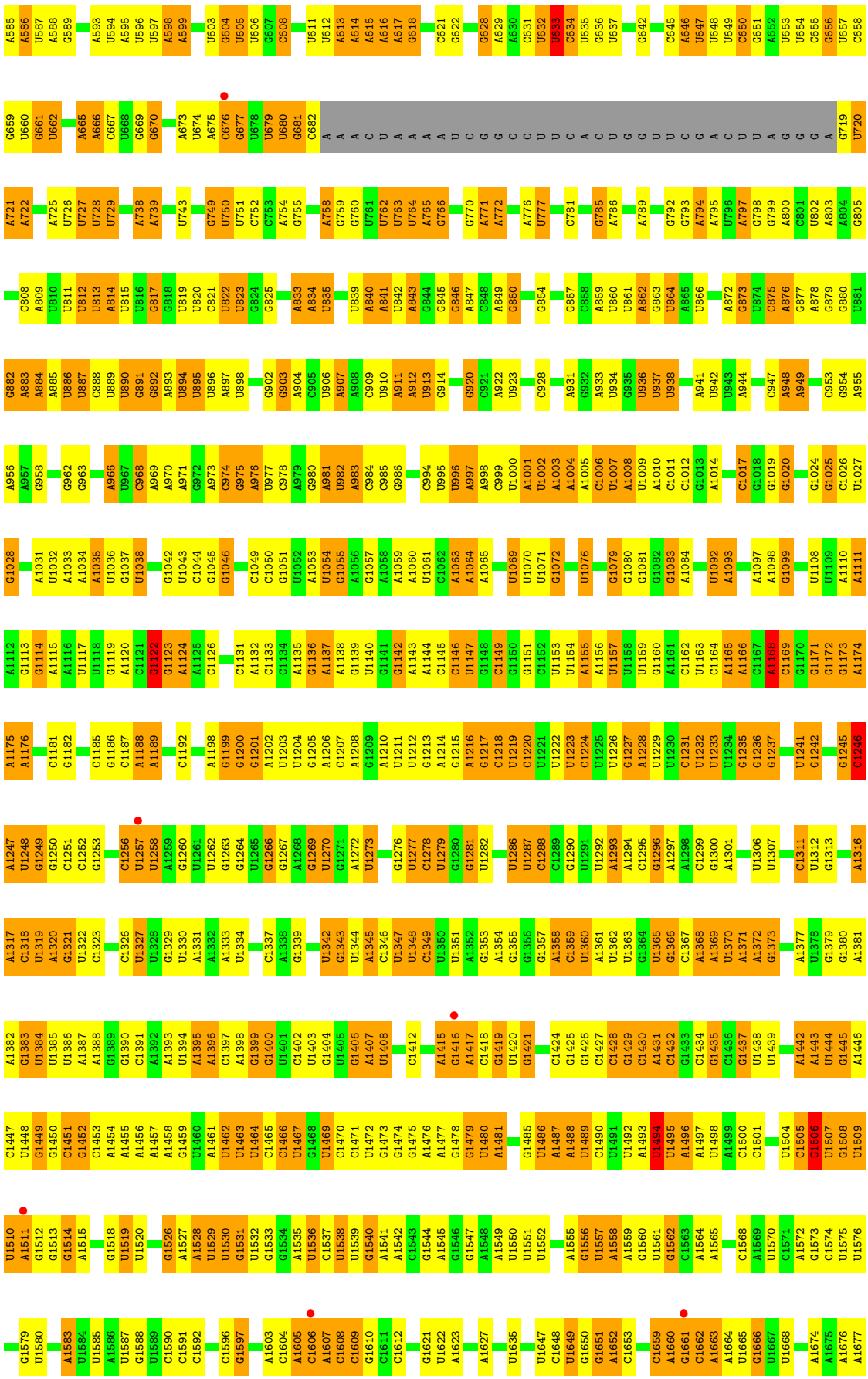


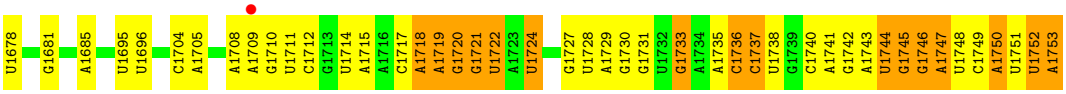
• Molecule 11: 18S ribosomal RNA

Chain BA:



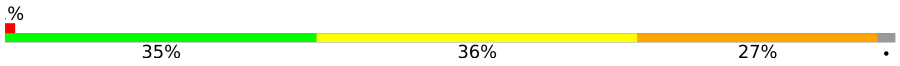


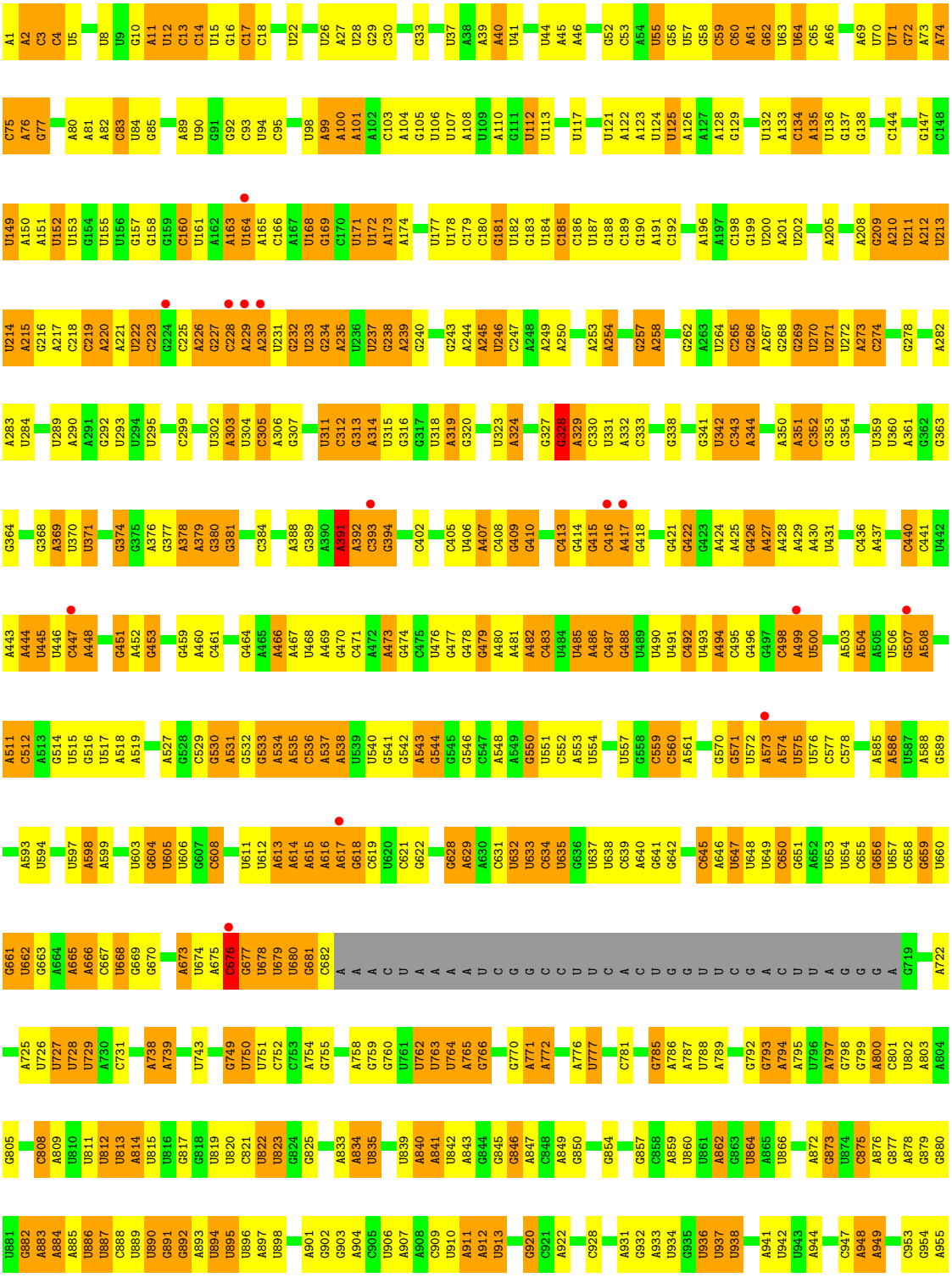


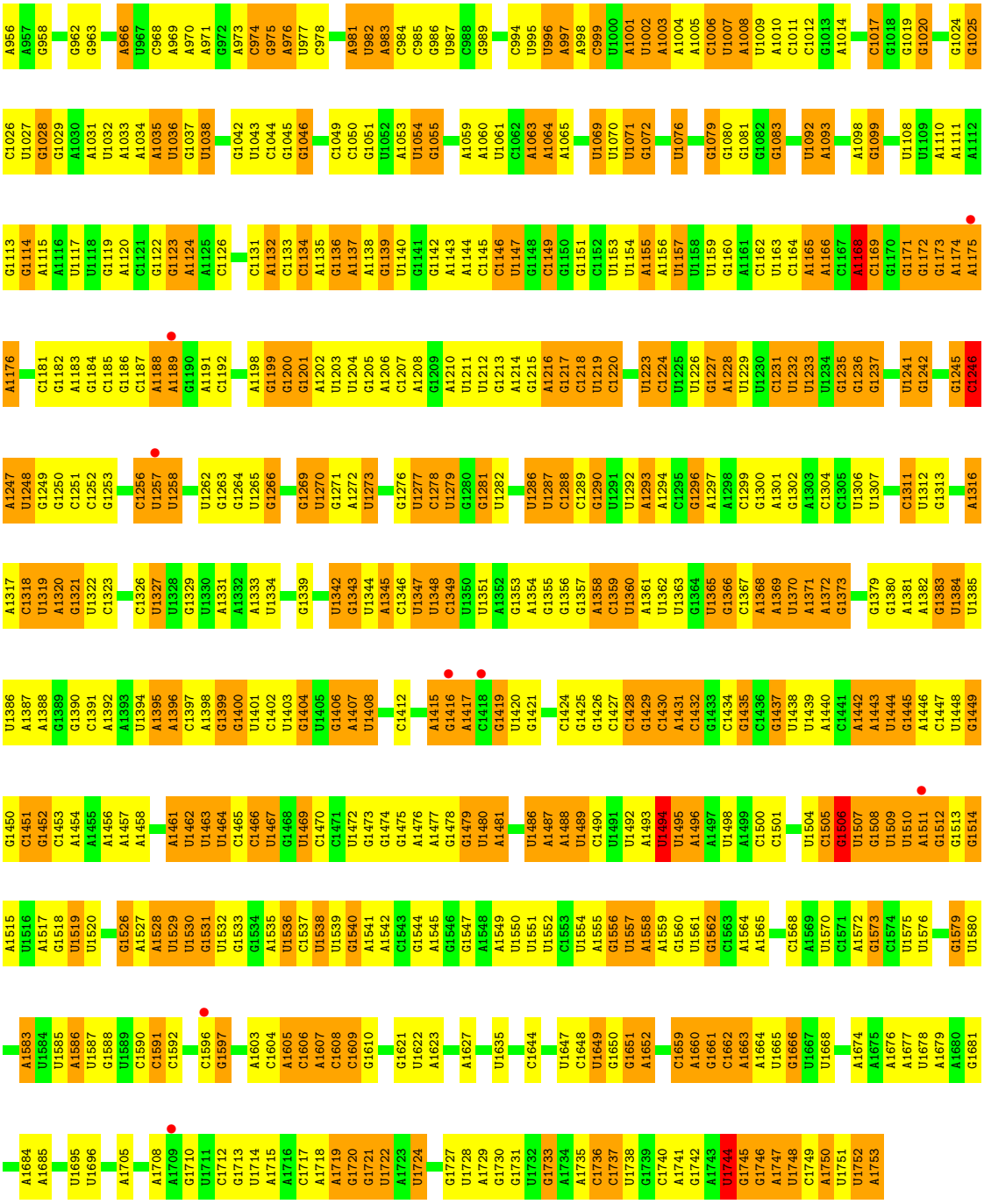


• Molecule 11: 18S ribosomal RNA

Chain CA:

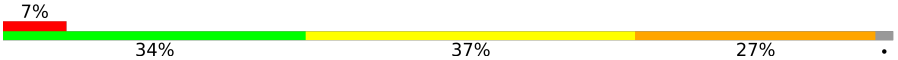


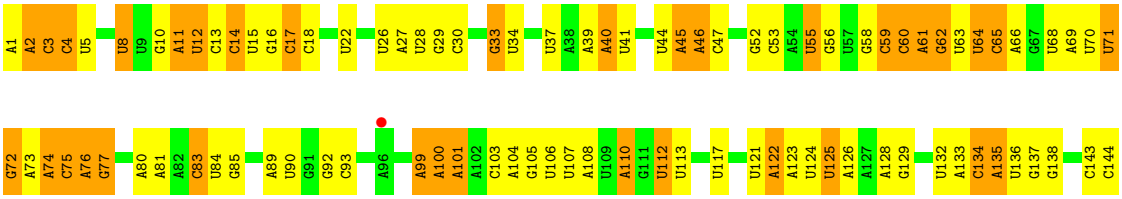


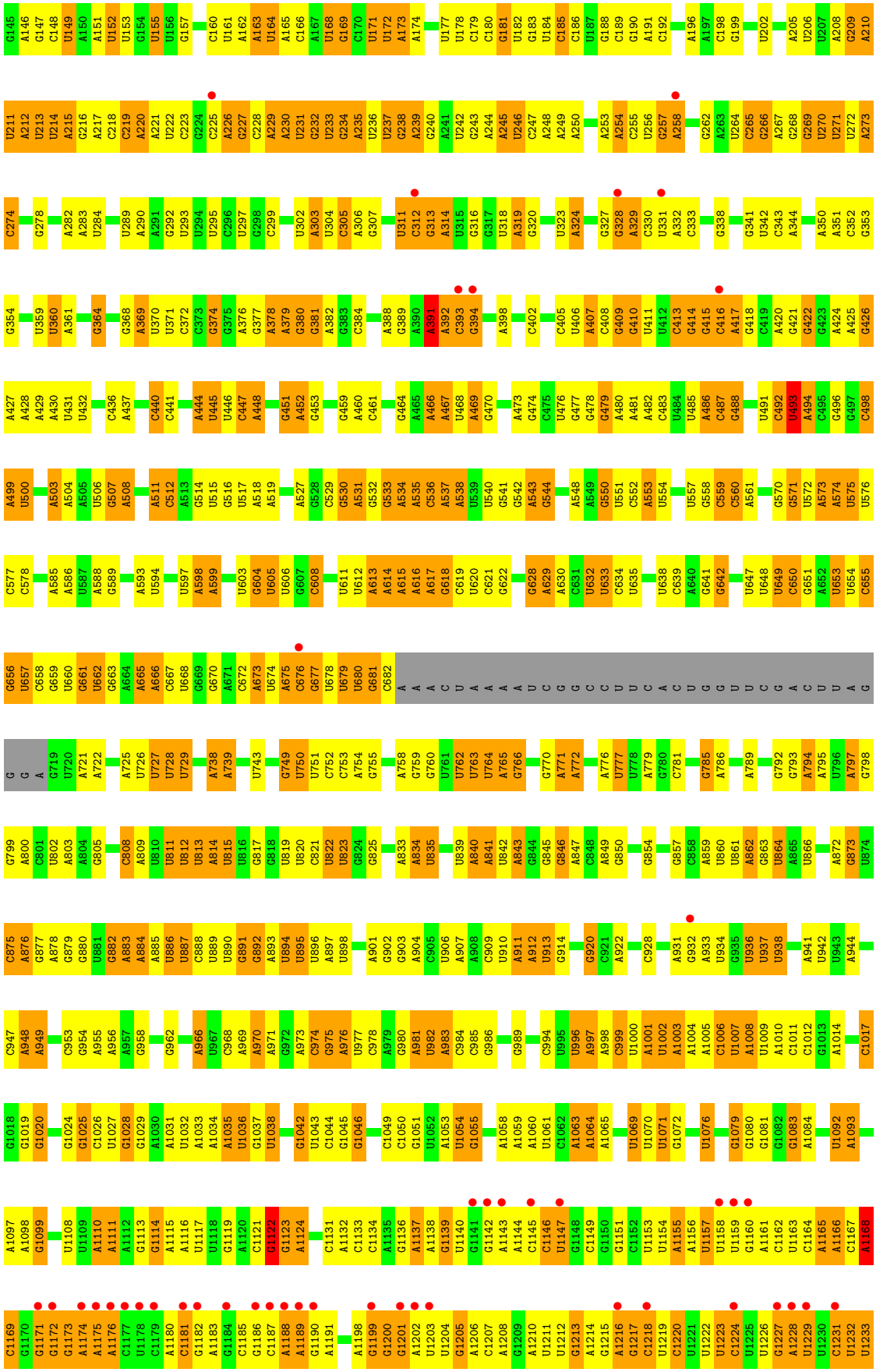


• Molecule 11: 18S ribosomal RNA

Chain DA:



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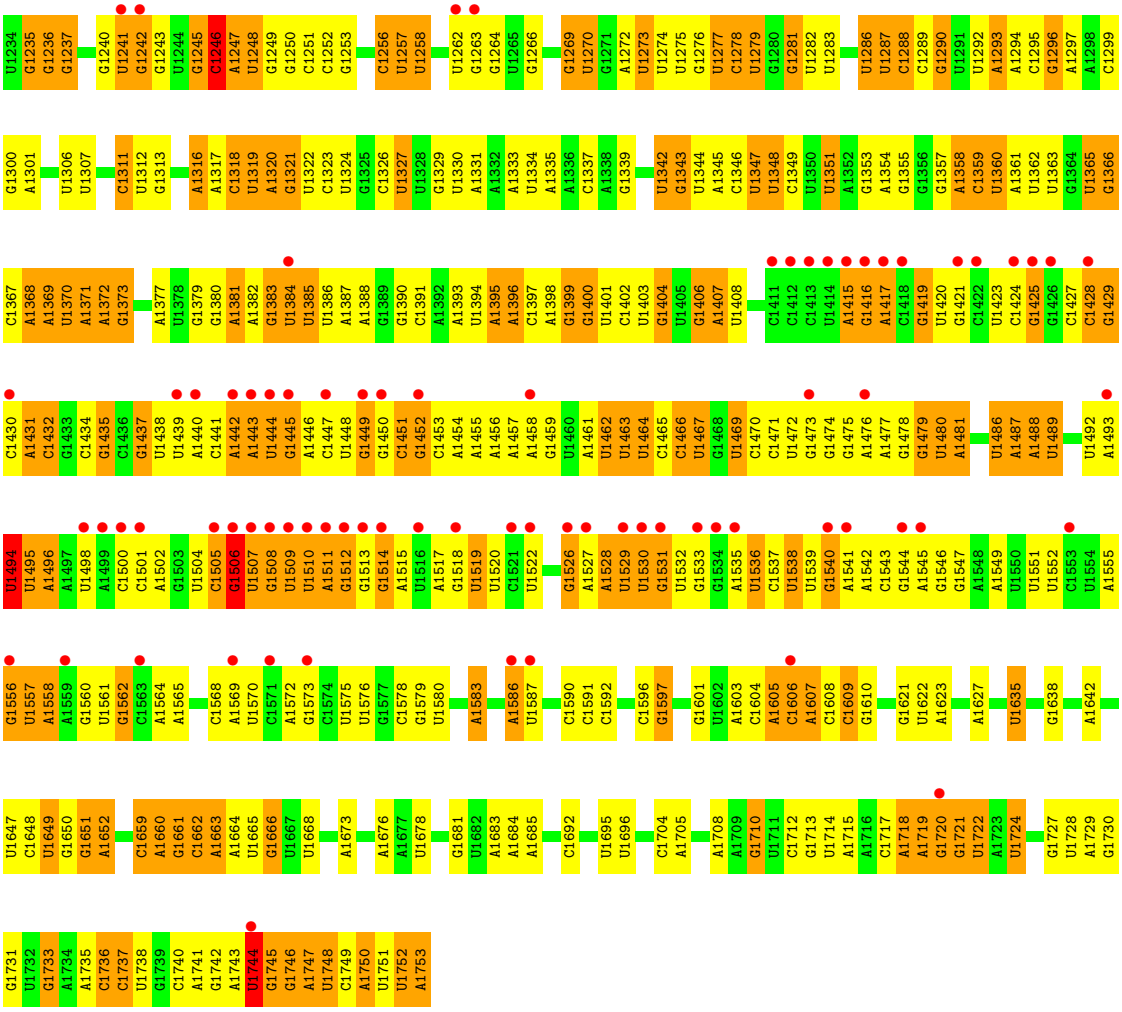
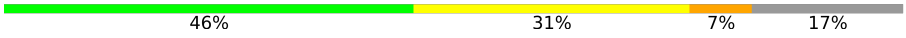
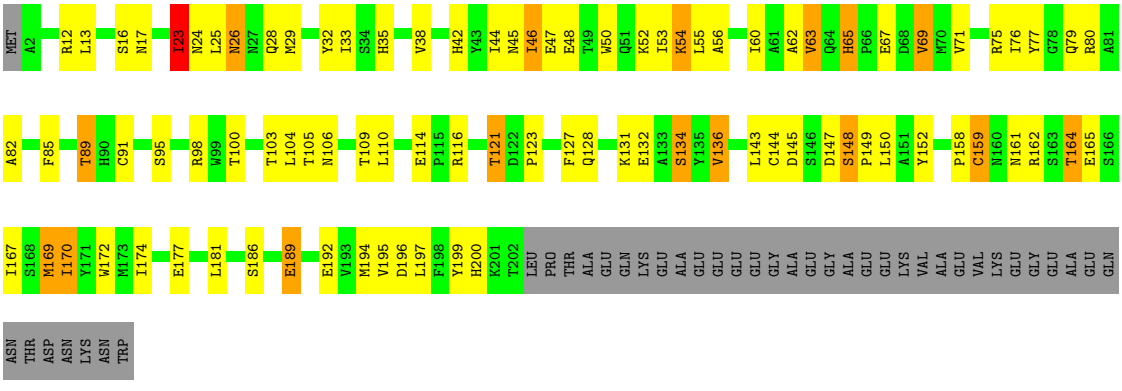
C1169 G1170 G1171 G1172 G1173 A1174 A1175 A1176 C1177 U1178 C1179 A1180 C1181 G1182 A1183 G1184 C1185 G1186 C1187 A1188 A1189 G1190 A1191 A1198 G1199 G1200 G1201 A1202 U1203 U1204 G1205 A1206 C1207 A1208 G1209 A1210 U1211 U1212 G1213 A1214 G1215 A1216 G1217 C1218 U1219 C1220 U1221 U1222 U1223 C1224 U1225 U1226 G1227 A1228 U1229 U1230 C1231 U1232 U1233



• Molecule 12: 40S RIBOSOMAL PROTEIN SA

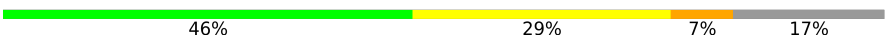
Chain AB:

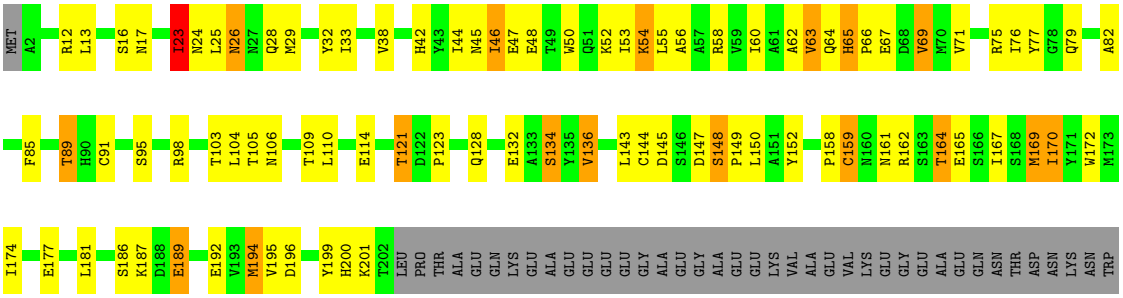




• Molecule 12: 40S RIBOSOMAL PROTEIN SA

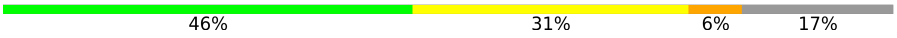
Chain BB:

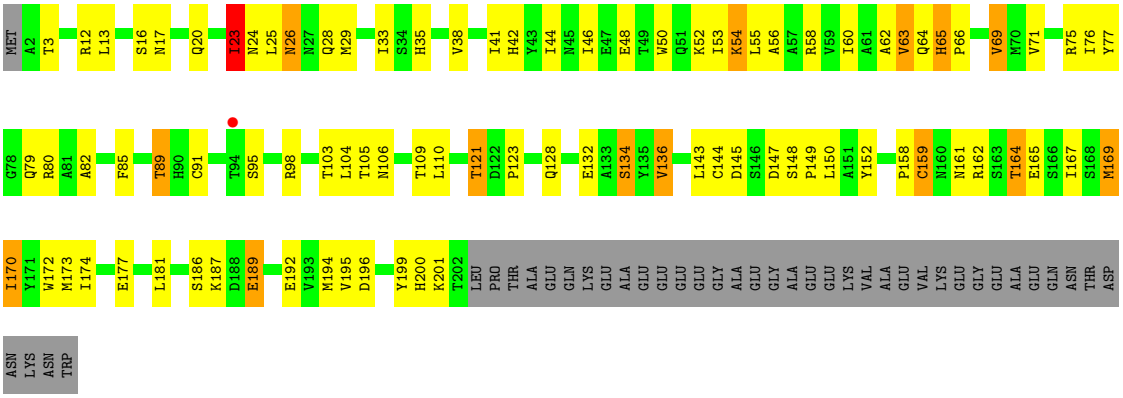




• Molecule 12: 40S RIBOSOMAL PROTEIN SA

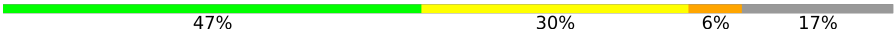
Chain CB:

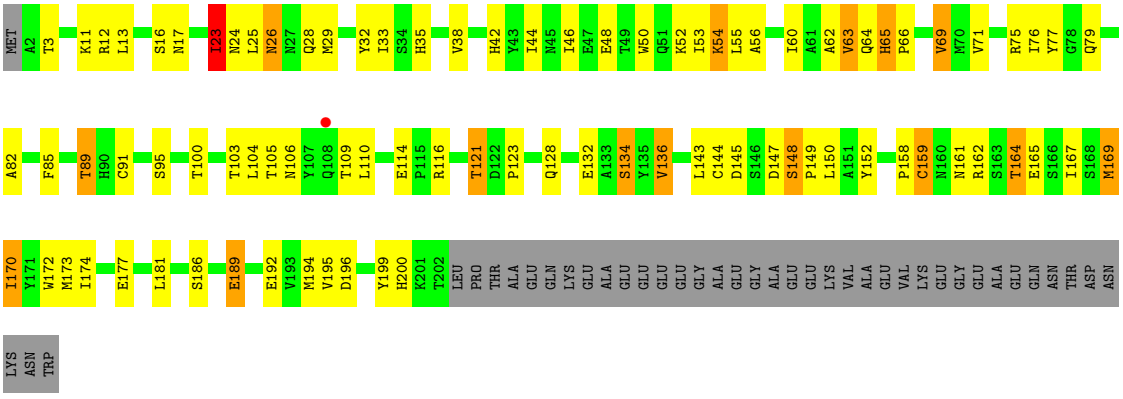




• Molecule 12: 40S RIBOSOMAL PROTEIN SA

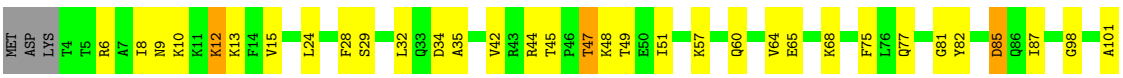
Chain DB:

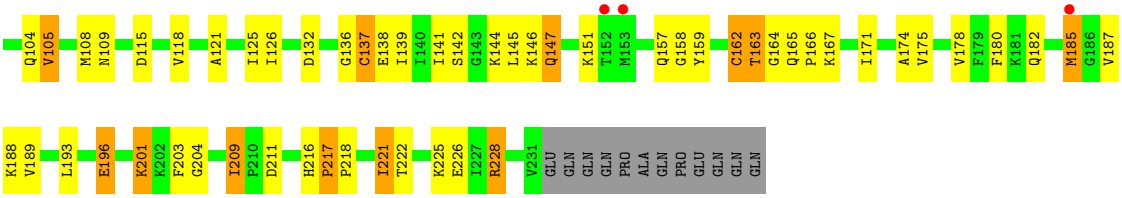




• Molecule 13: 40S RIBOSOMAL PROTEIN RPS3E

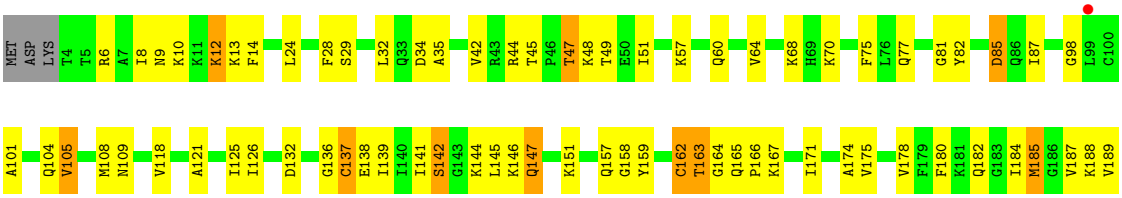
Chain AC:





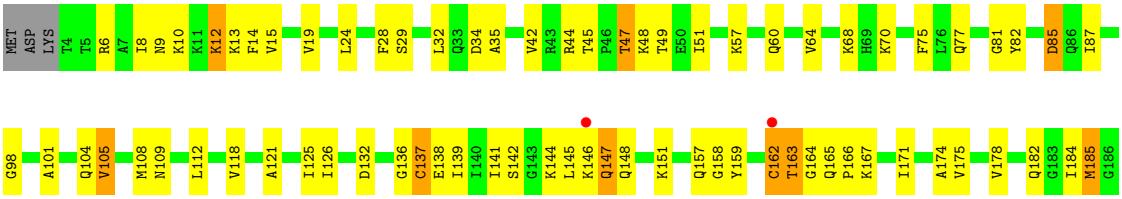
• Molecule 13: 40S RIBOSOMAL PROTEIN RPS3E

Chain BC:



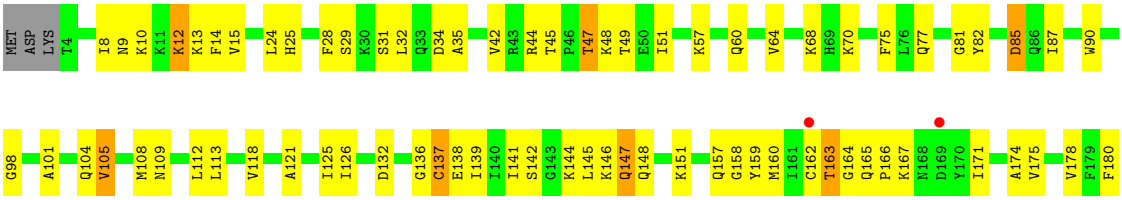
• Molecule 13: 40S RIBOSOMAL PROTEIN RPS3E

Chain CC:



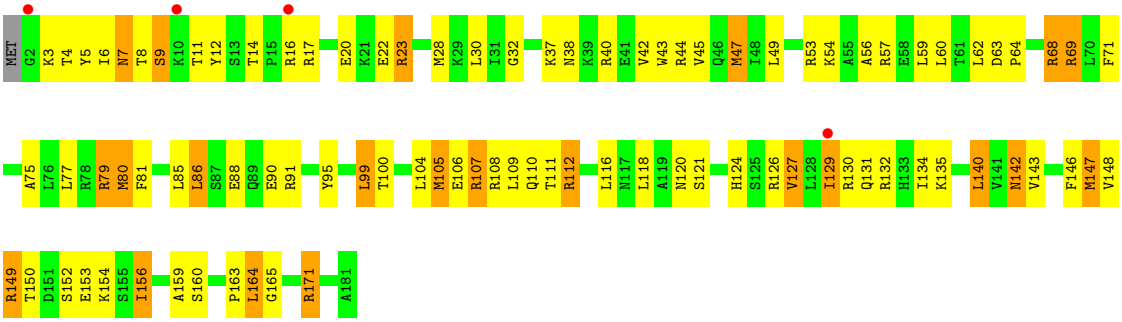
• Molecule 13: 40S RIBOSOMAL PROTEIN RPS3E

Chain DC:

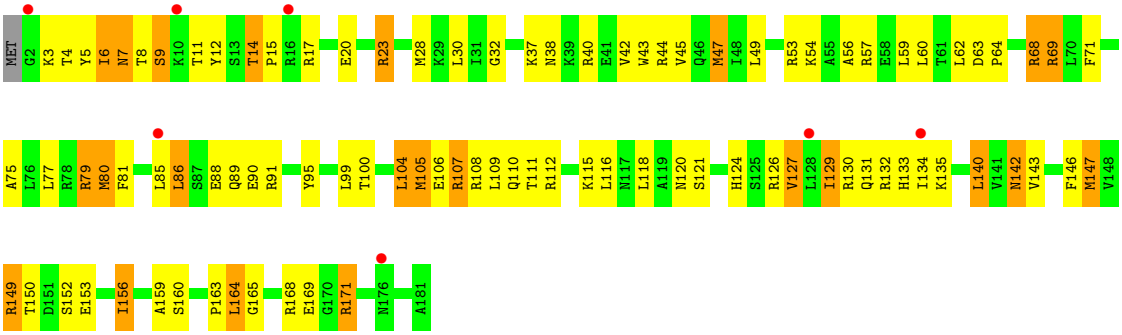


• Molecule 14: 40S RIBOSOMAL PROTEIN RPS9E

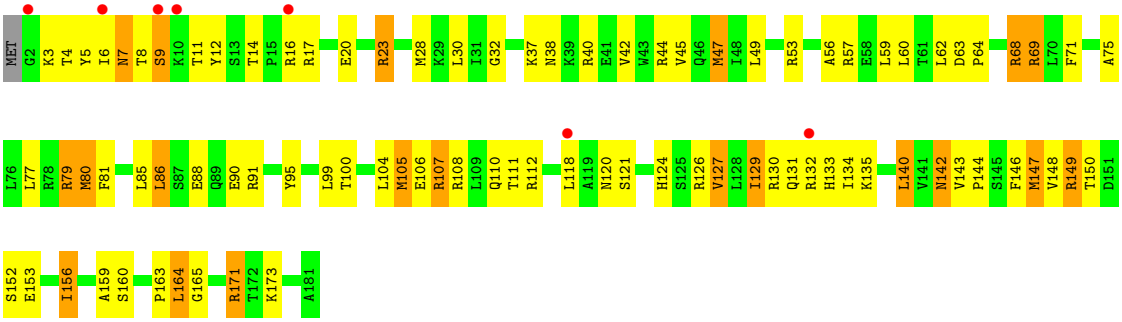
Chain AD:



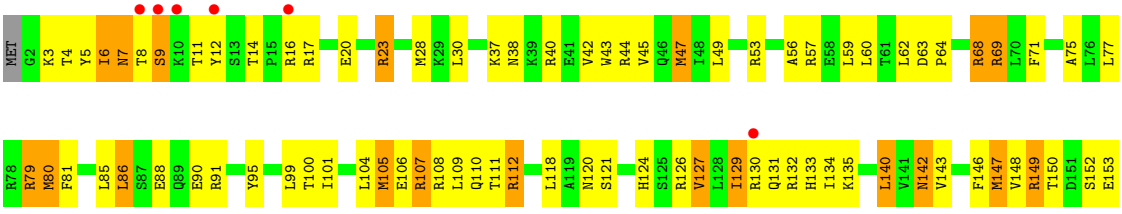
• Molecule 14: 40S RIBOSOMAL PROTEIN RPS9E



• Molecule 14: 40S RIBOSOMAL PROTEIN RPS9E

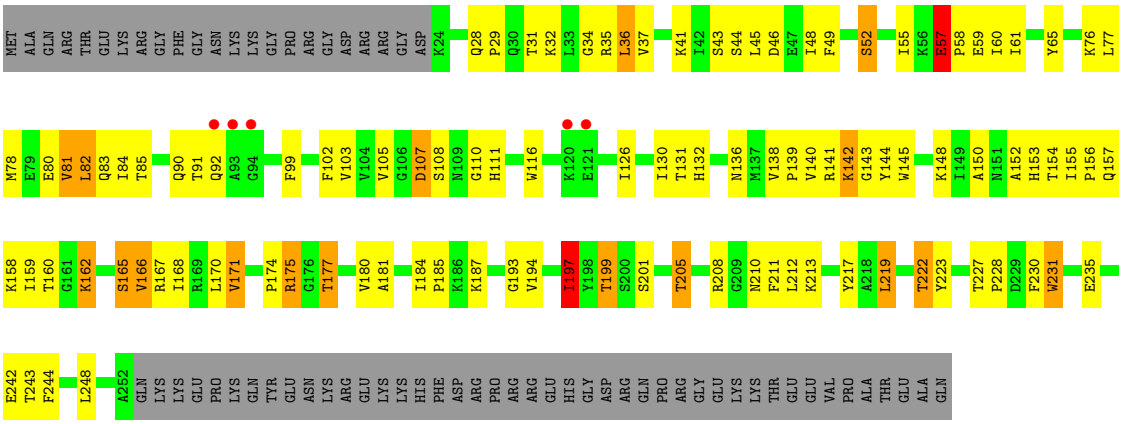


• Molecule 14: 40S RIBOSOMAL PROTEIN RPS9E



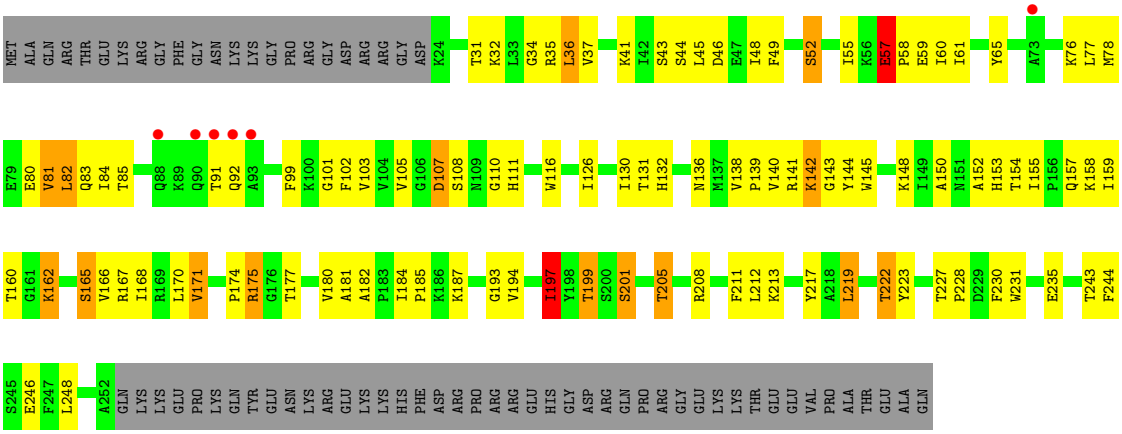
• Molecule 15: 40S RIBOSOMAL PROTEIN RPS2E

Chain AE:



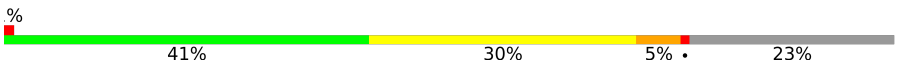
• Molecule 15: 40S RIBOSOMAL PROTEIN RPS2E

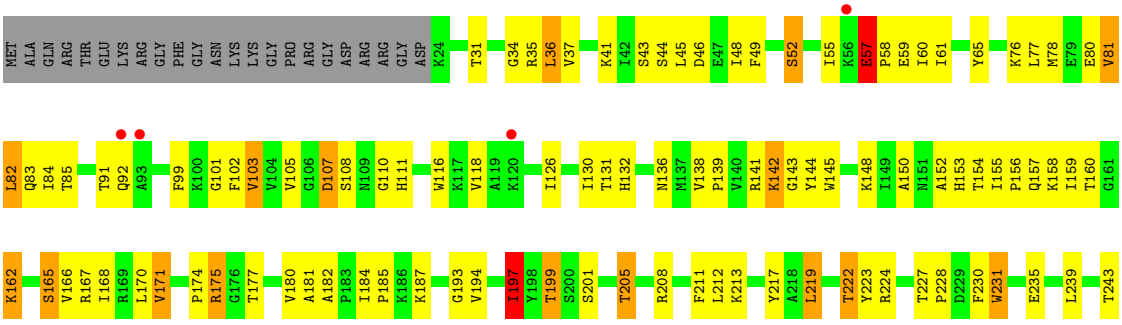
Chain BE:



• Molecule 15: 40S RIBOSOMAL PROTEIN RPS2E

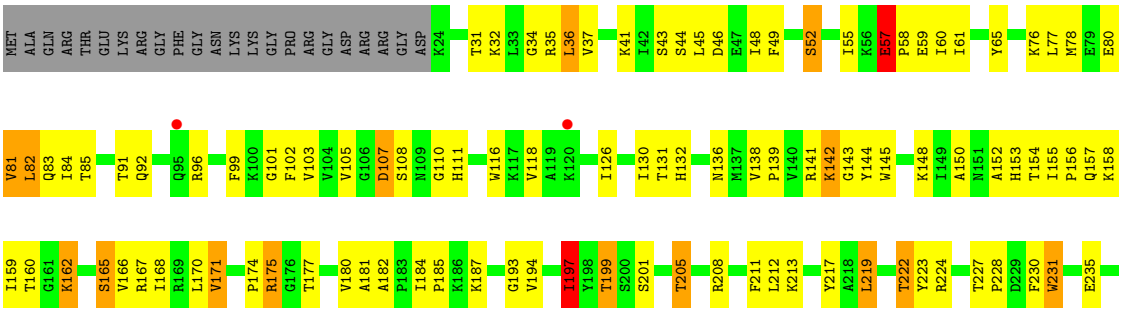
Chain CE:





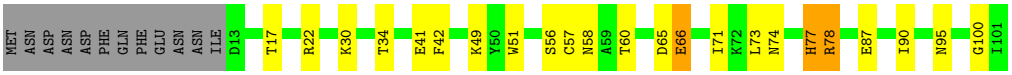
• Molecule 15: 40S RIBOSOMAL PROTEIN RPS2E

Chain DE:



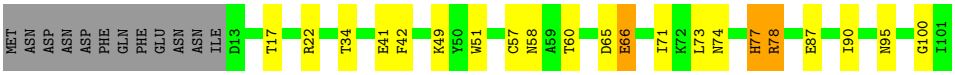
• Molecule 16: EIF1

Chain AF:



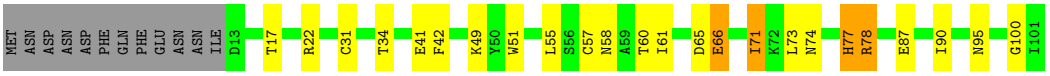
• Molecule 16: EIF1

Chain BF:



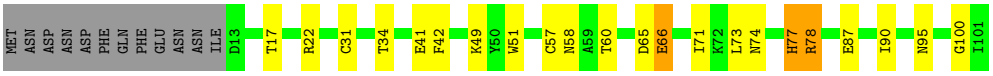
• Molecule 16: EIF1

Chain CF:



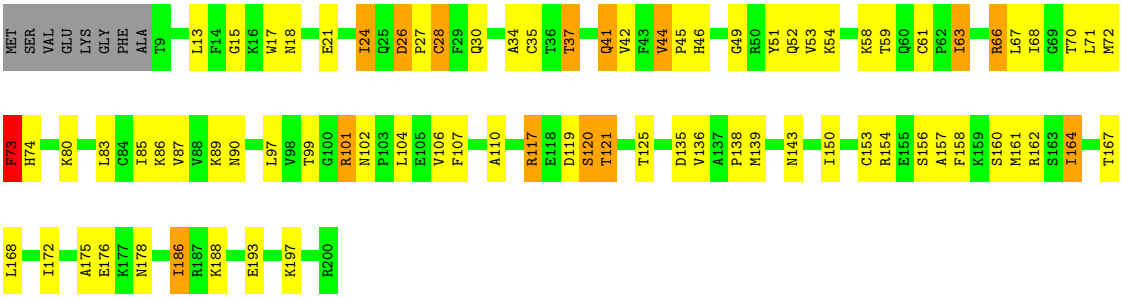
• Molecule 16: EIF1

Chain DF:

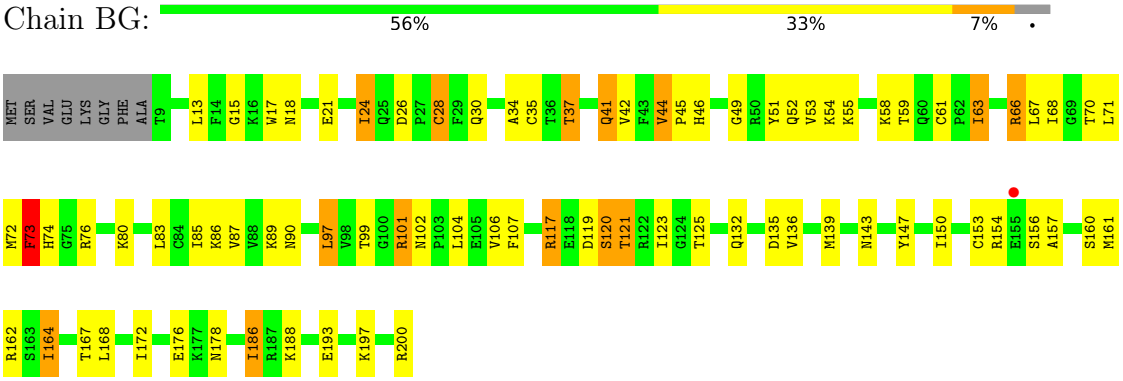


• Molecule 17: 40S RIBOSOMAL PROTEIN RPS5E

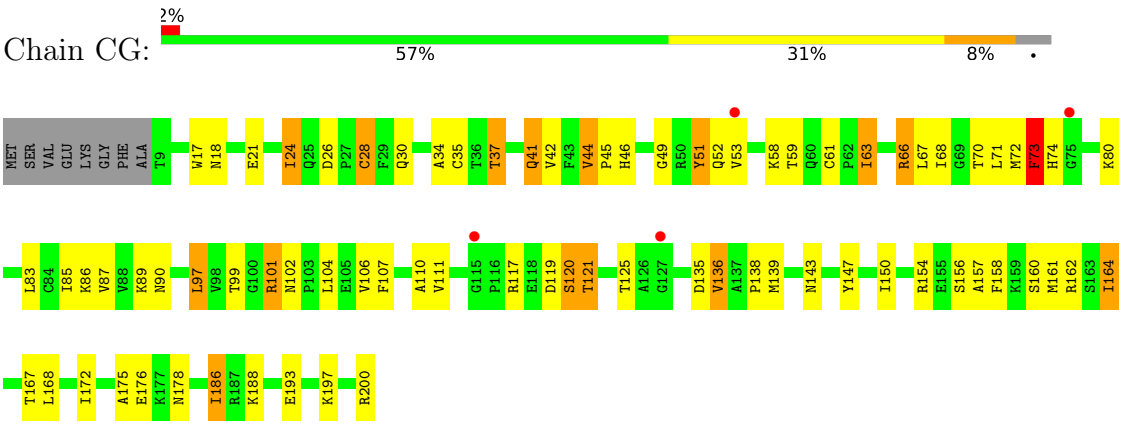
Chain AG:



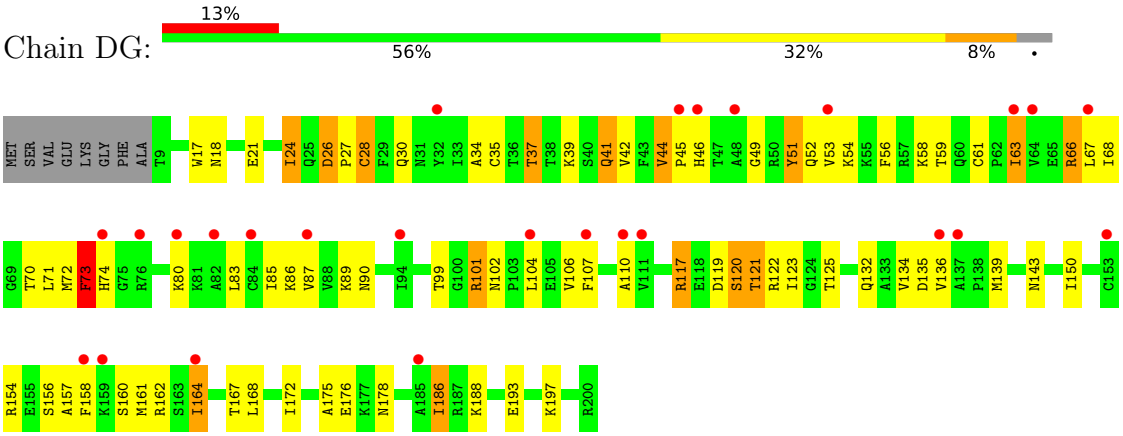
• Molecule 17: 40S RIBOSOMAL PROTEIN RPS5E



• Molecule 17: 40S RIBOSOMAL PROTEIN RPS5E

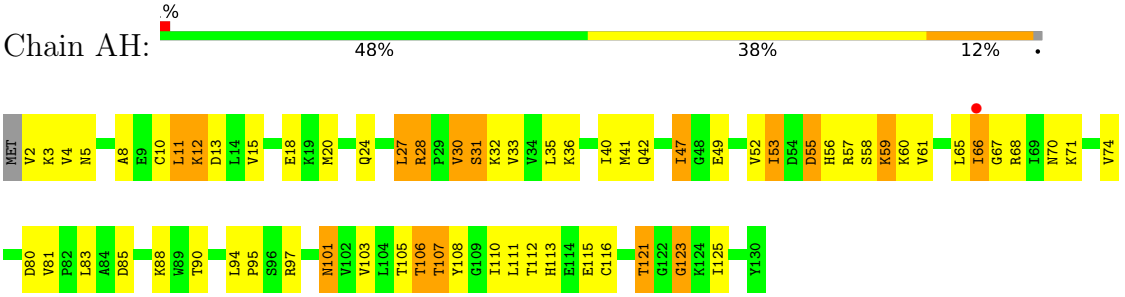


• Molecule 17: 40S RIBOSOMAL PROTEIN RPS5E



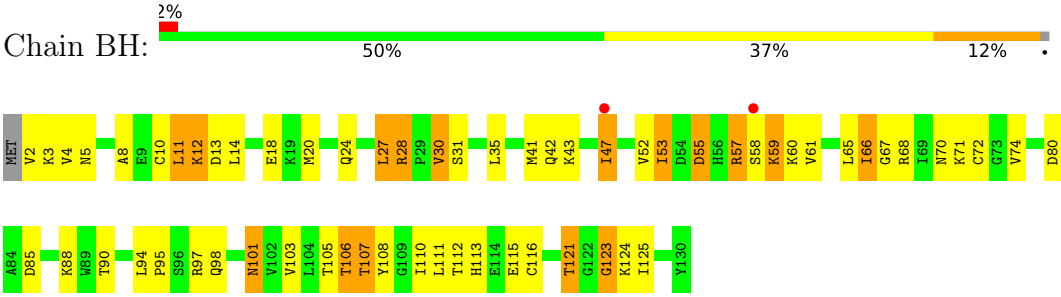
• Molecule 18: 40S RIBOSOMAL PROTEIN RPS22E

Chain AH:



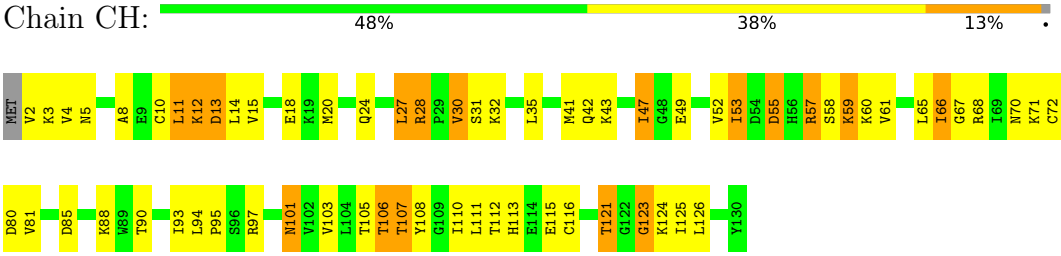
• Molecule 18: 40S RIBOSOMAL PROTEIN RPS22E

Chain BH:



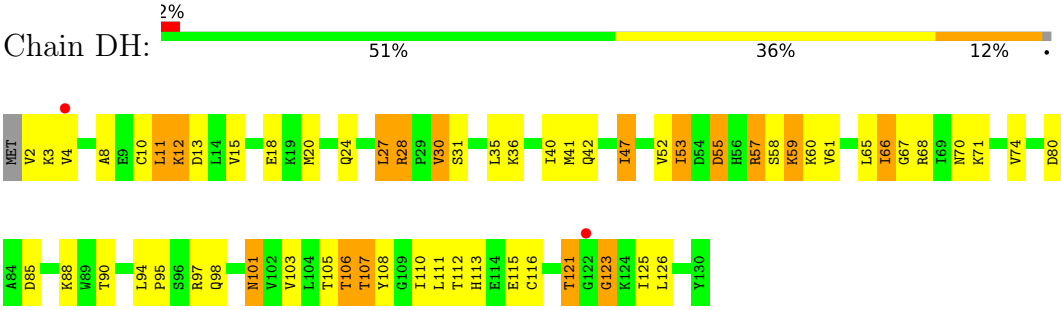
• Molecule 18: 40S RIBOSOMAL PROTEIN RPS22E

Chain CH:



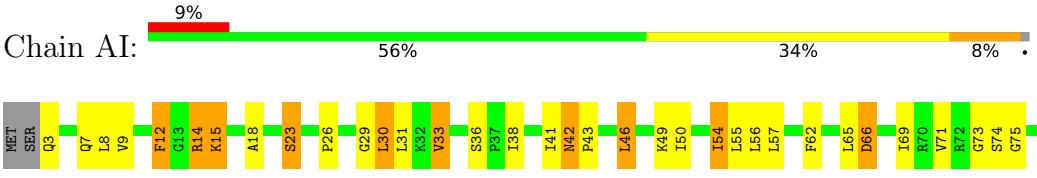
• Molecule 18: 40S RIBOSOMAL PROTEIN RPS22E

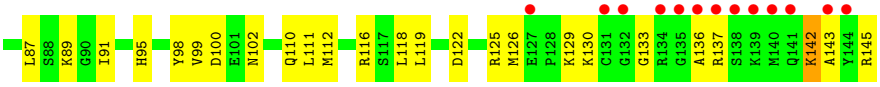
Chain DH:



• Molecule 19: 40S RIBOSOMAL PROTEIN RPS16E

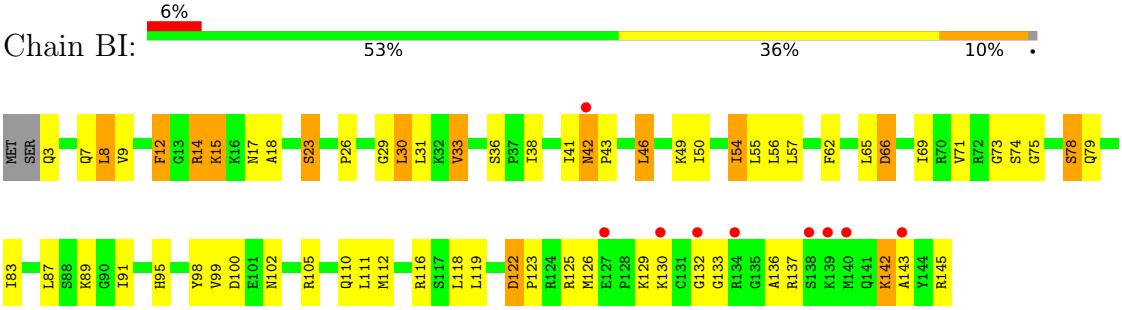
Chain AI:





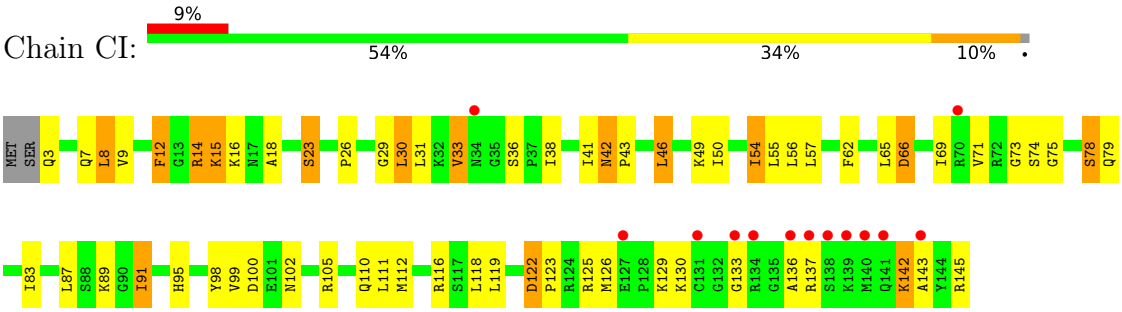
• Molecule 19: 40S RIBOSOMAL PROTEIN RPS16E

Chain BI:



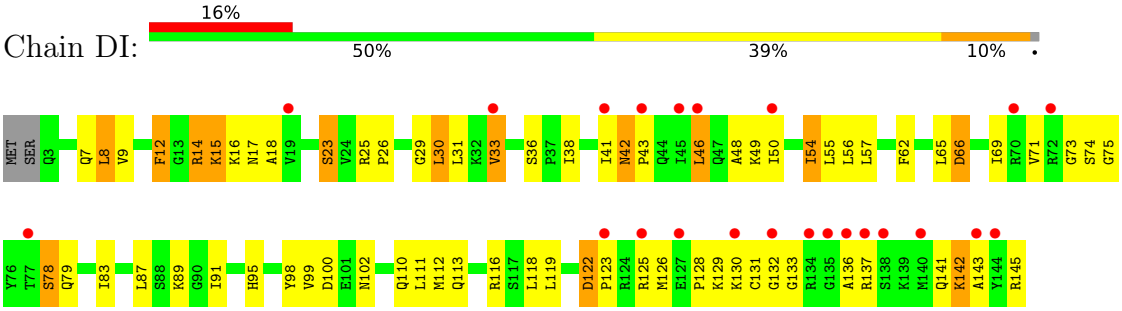
• Molecule 19: 40S RIBOSOMAL PROTEIN RPS16E

Chain CI:



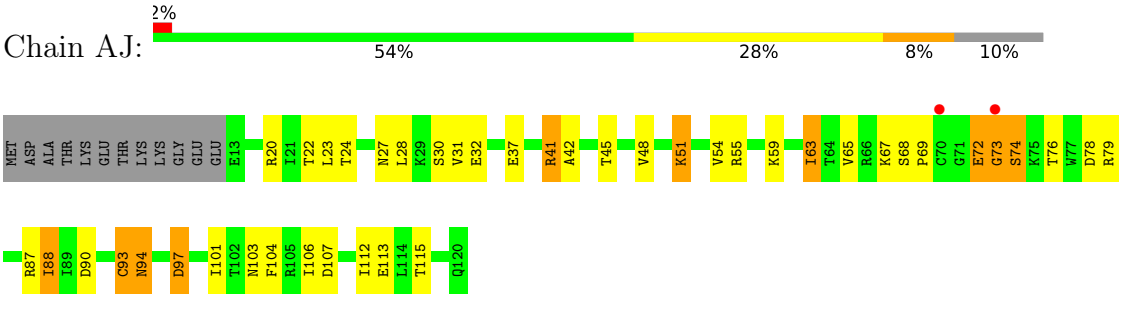
• Molecule 19: 40S RIBOSOMAL PROTEIN RPS16E

Chain DI:



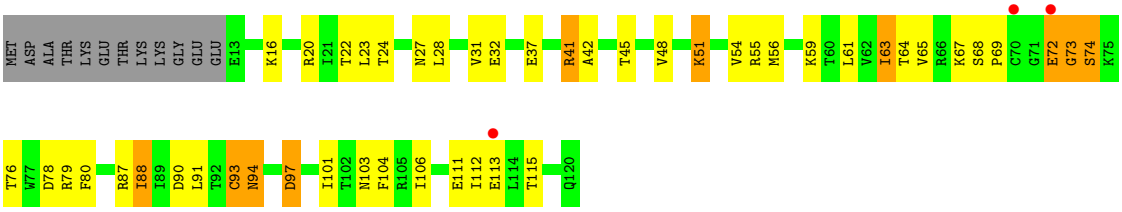
• Molecule 20: 40S RIBOSOMAL PROTEIN RPS20E

Chain AJ:



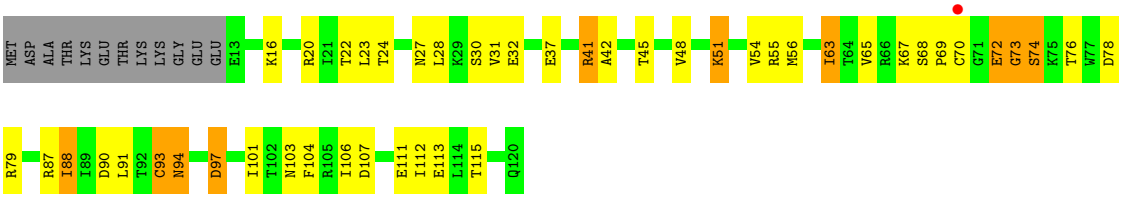
• Molecule 20: 40S RIBOSOMAL PROTEIN RPS20E

Chain BJ:



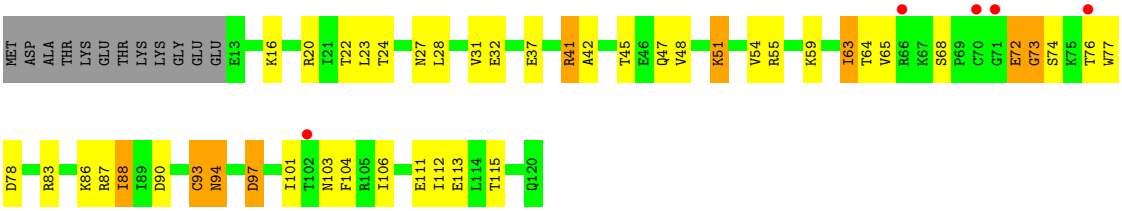
• Molecule 20: 40S RIBOSOMAL PROTEIN RPS20E

Chain CJ:



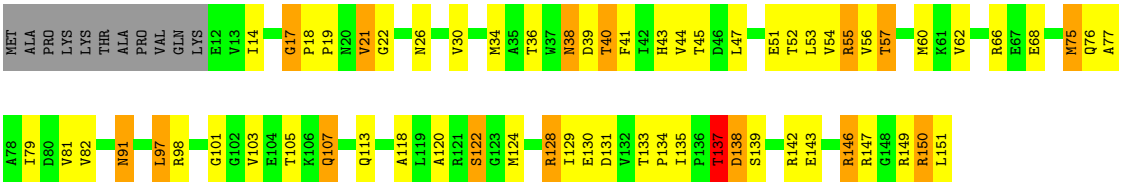
• Molecule 20: 40S RIBOSOMAL PROTEIN RPS20E

Chain DJ:



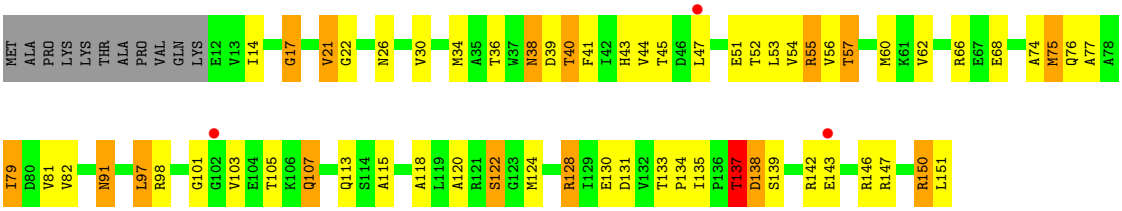
• Molecule 21: 40S RIBOSOMAL PROTEIN RPS14E

Chain AK:



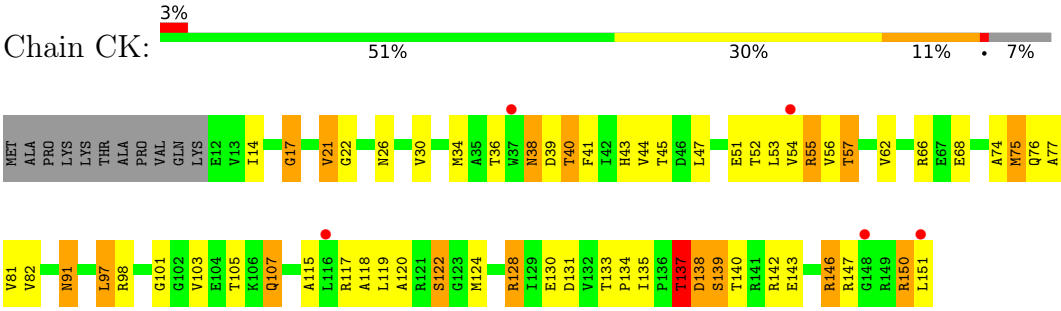
• Molecule 21: 40S RIBOSOMAL PROTEIN RPS14E

Chain BK:



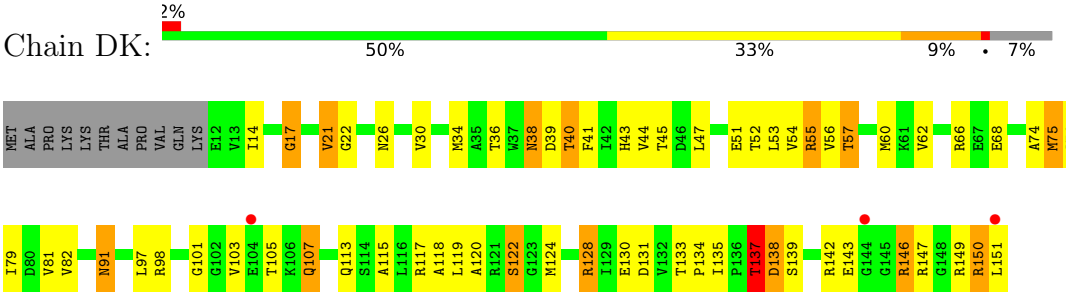
• Molecule 21: 40S RIBOSOMAL PROTEIN RPS14E

Chain CK:



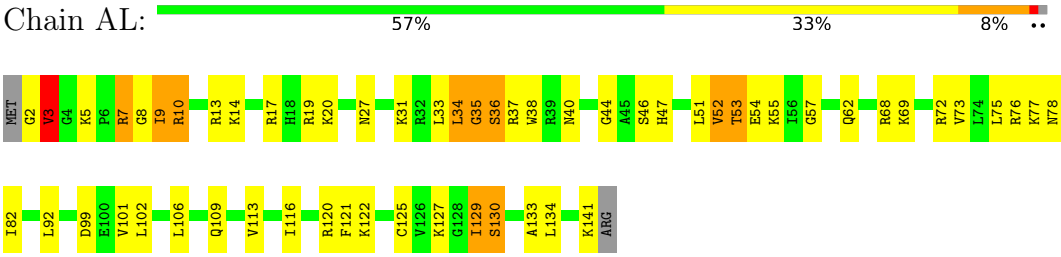
• Molecule 21: 40S RIBOSOMAL PROTEIN RPS14E

Chain DK:



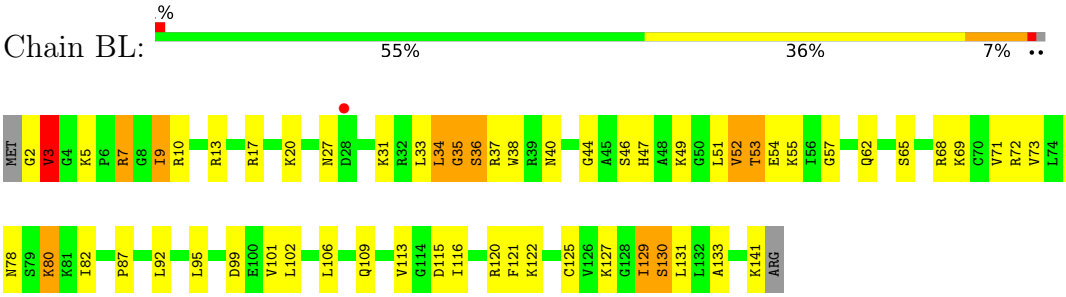
• Molecule 22: 40S RIBOSOMAL PROTEIN S12

Chain AL:



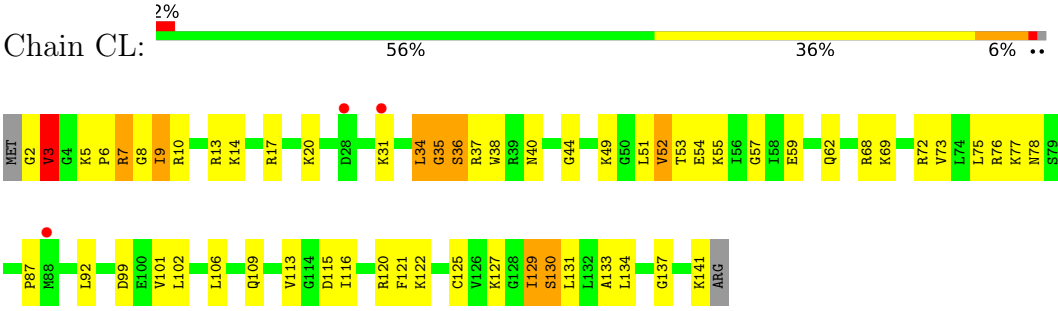
• Molecule 22: 40S RIBOSOMAL PROTEIN S12

Chain BL:



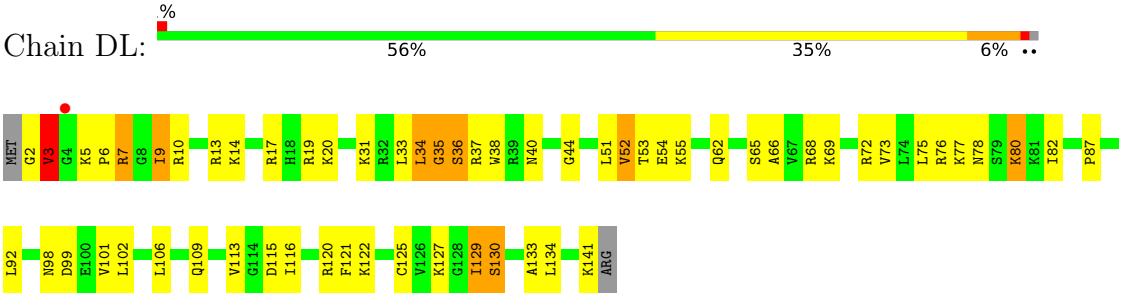
• Molecule 22: 40S RIBOSOMAL PROTEIN S12

Chain CL:



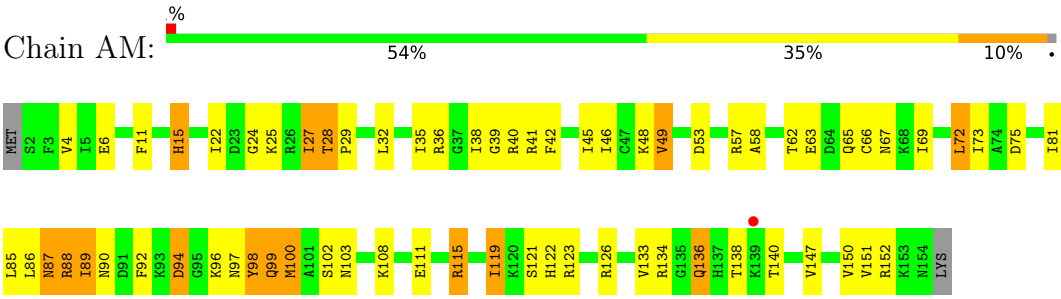
• Molecule 22: 40S RIBOSOMAL PROTEIN S12

Chain DL:



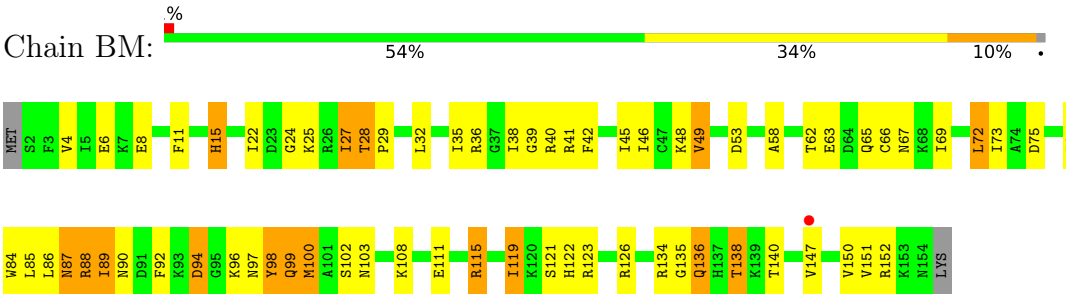
• Molecule 23: 40S RIBOSOMAL PROTEIN RPS18E

Chain AM:



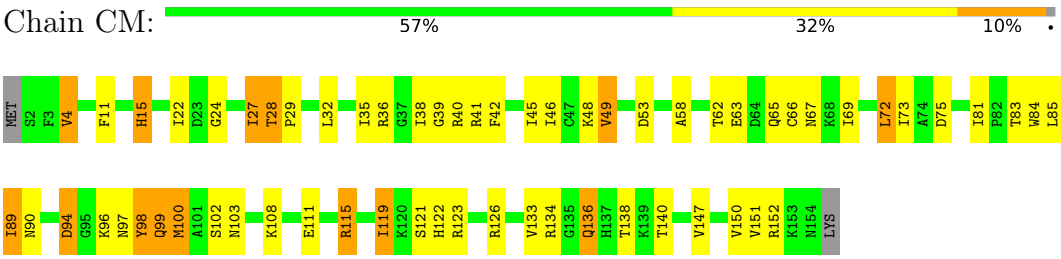
• Molecule 23: 40S RIBOSOMAL PROTEIN RPS18E

Chain BM:



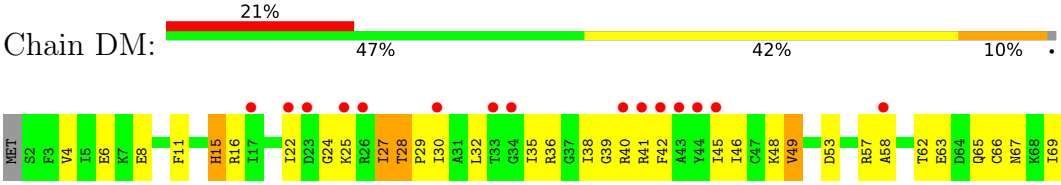
• Molecule 23: 40S RIBOSOMAL PROTEIN RPS18E

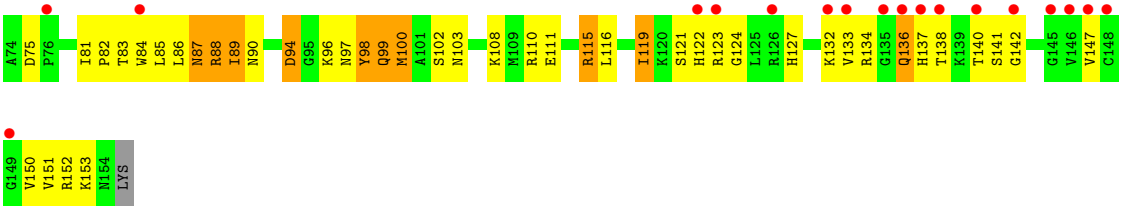
Chain CM:



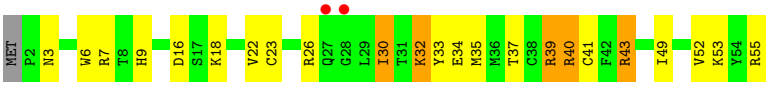
• Molecule 23: 40S RIBOSOMAL PROTEIN RPS18E

Chain DM:

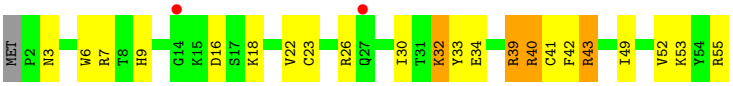




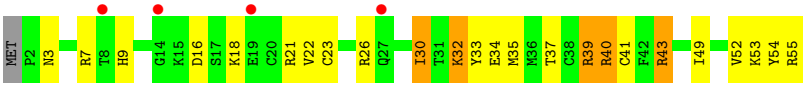
• Molecule 24: 40S RIBOSOMAL PROTEIN RPS29E



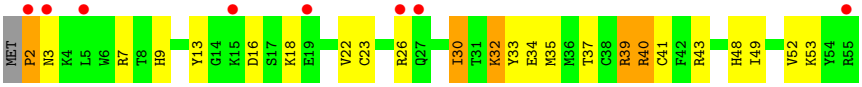
• Molecule 24: 40S RIBOSOMAL PROTEIN RPS29E



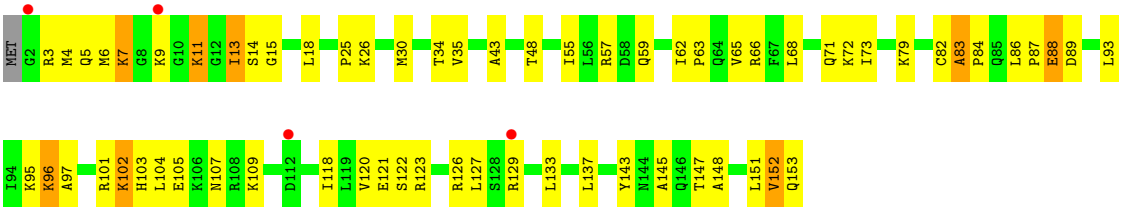
• Molecule 24: 40S RIBOSOMAL PROTEIN RPS29E



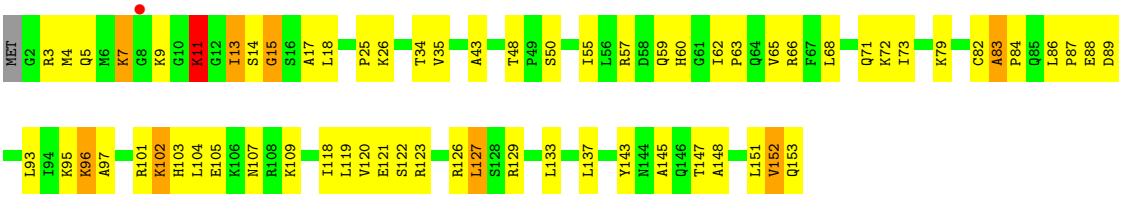
• Molecule 24: 40S RIBOSOMAL PROTEIN RPS29E



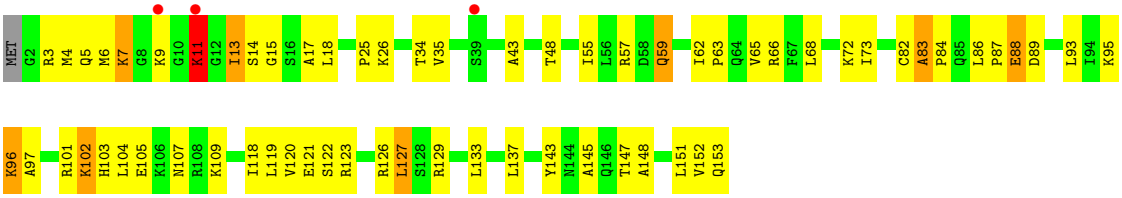
• Molecule 25: 40S RIBOSOMAL PROTEIN RPS13E



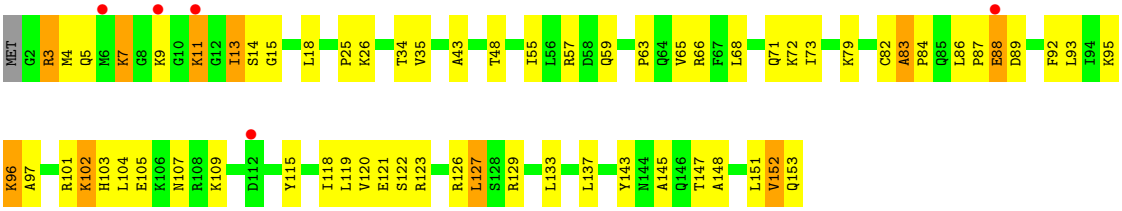
• Molecule 25: 40S RIBOSOMAL PROTEIN RPS13E



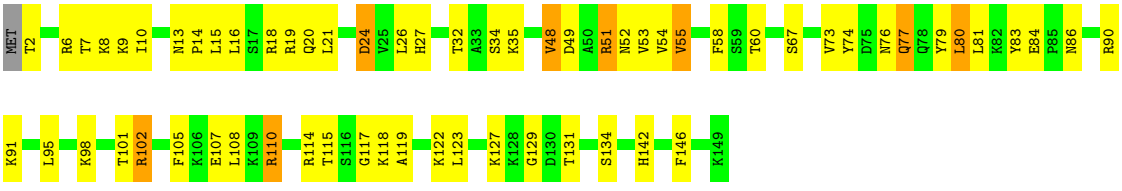
• Molecule 25: 40S RIBOSOMAL PROTEIN RPS13E



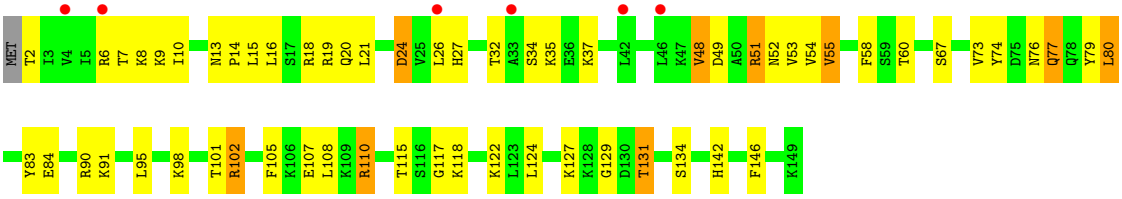
• Molecule 25: 40S RIBOSOMAL PROTEIN RPS13E



• Molecule 26: 40S RIBOSOMAL PROTEIN S24

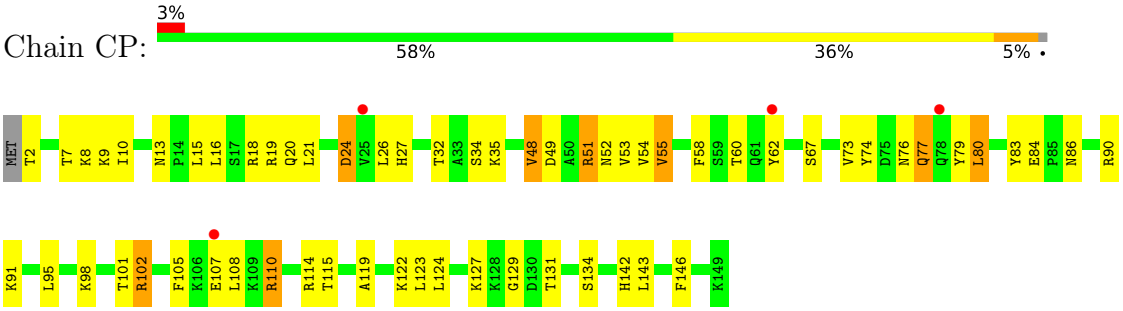


• Molecule 26: 40S RIBOSOMAL PROTEIN S24



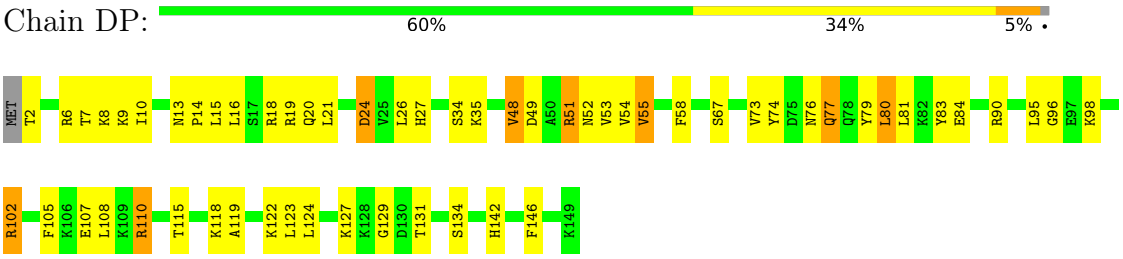
• Molecule 26: 40S RIBOSOMAL PROTEIN S24

Chain CP:



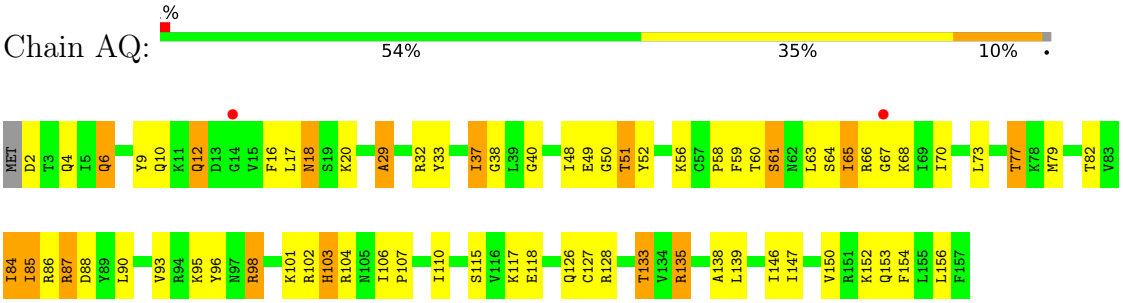
• Molecule 26: 40S RIBOSOMAL PROTEIN S24

Chain DP:



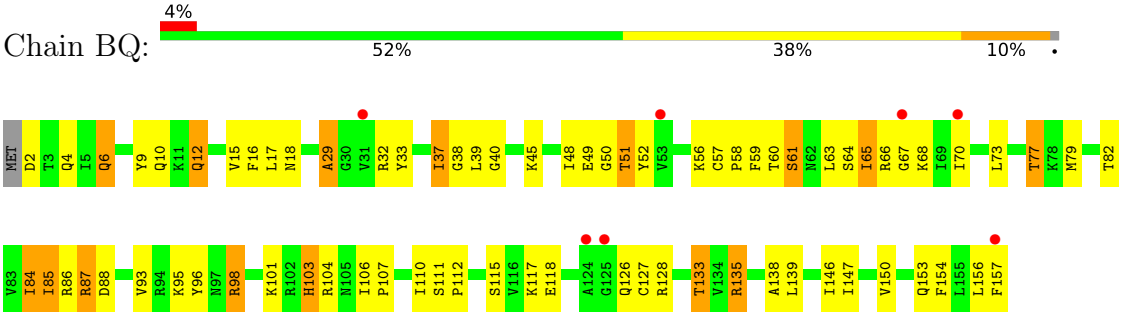
• Molecule 27: 40S RIBOSOMAL PROTEIN RPS11E

Chain AQ:



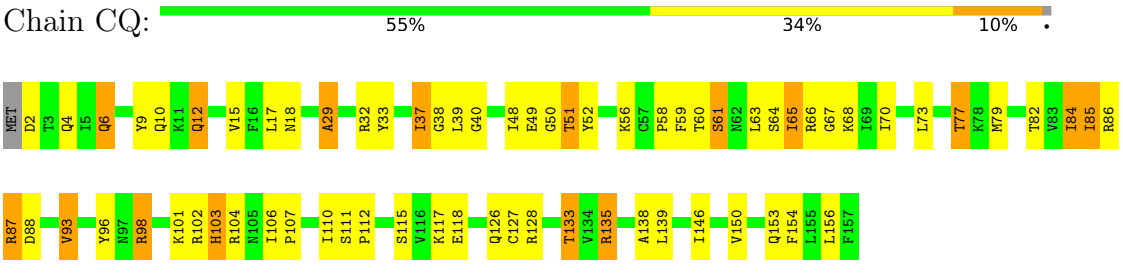
• Molecule 27: 40S RIBOSOMAL PROTEIN RPS11E

Chain BQ:



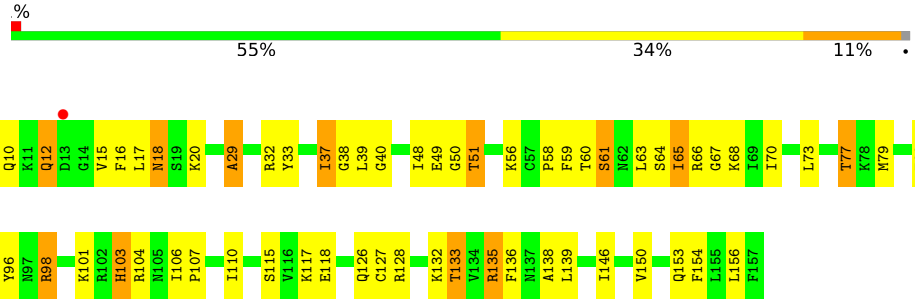
• Molecule 27: 40S RIBOSOMAL PROTEIN RPS11E

Chain CQ:



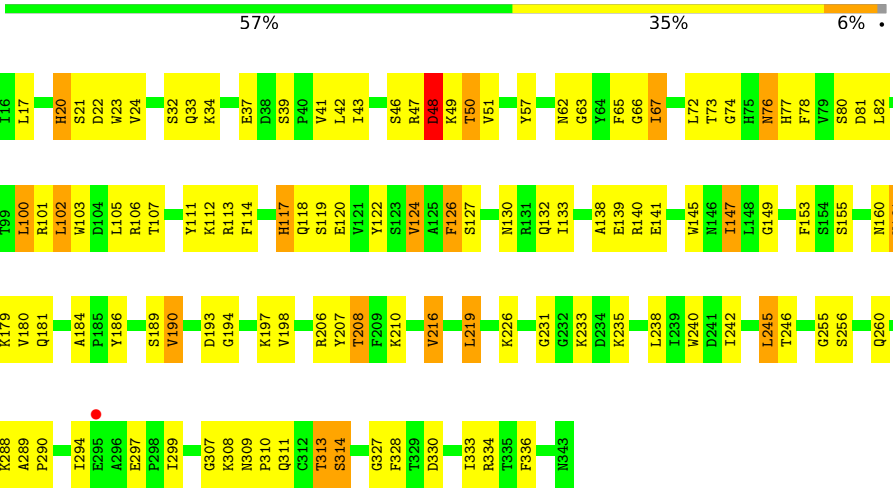
• Molecule 27: 40S RIBOSOMAL PROTEIN RPS11E

Chain DQ:



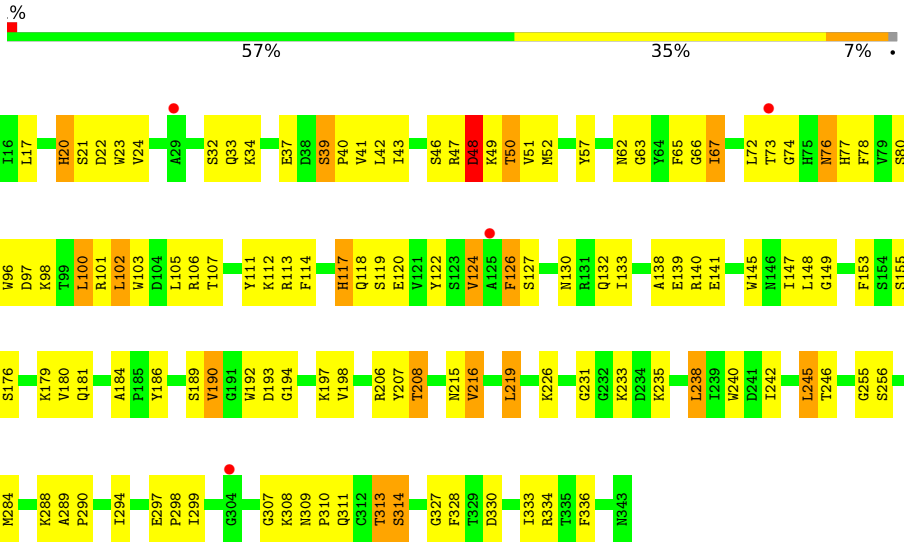
• Molecule 28: 40S RIBOSOMAL PROTEIN RACK1

Chain AR:



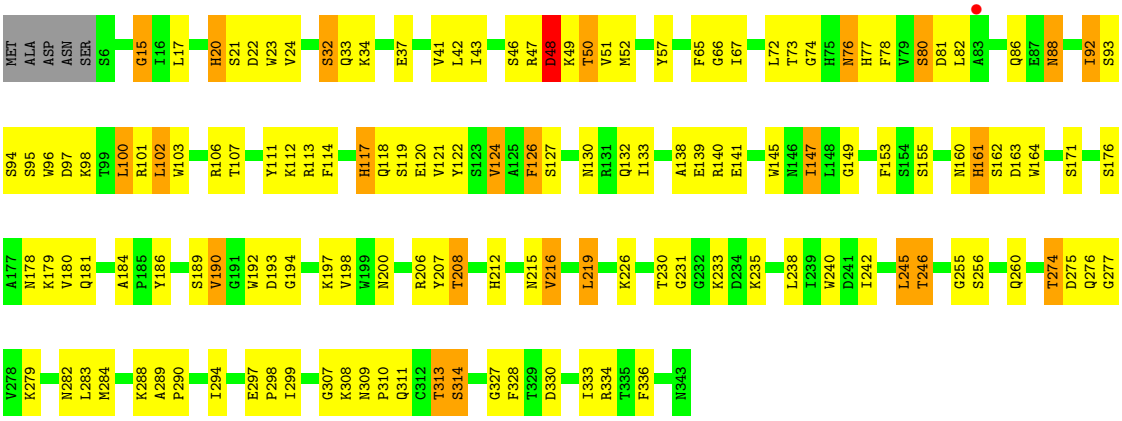
• Molecule 28: 40S RIBOSOMAL PROTEIN RACK1

Chain BR:



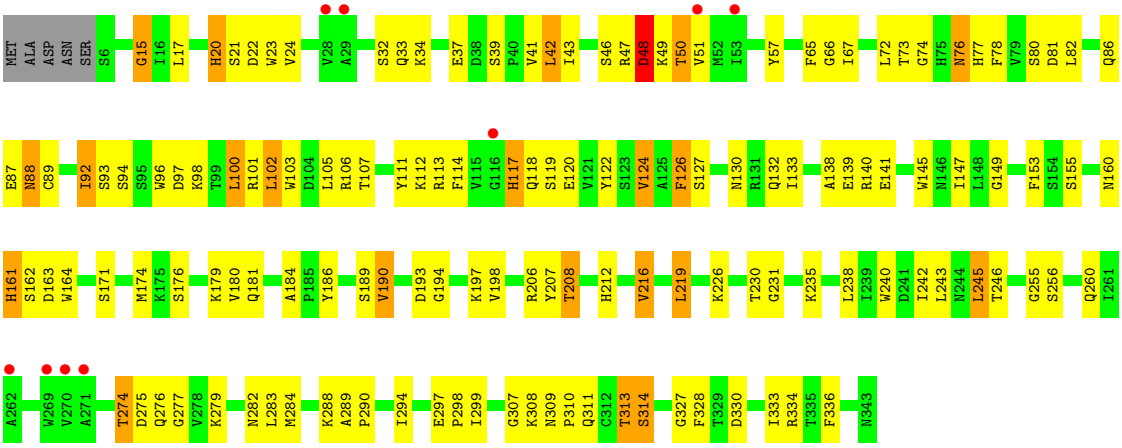
• Molecule 28: 40S RIBOSOMAL PROTEIN RACK1

Chain CR:



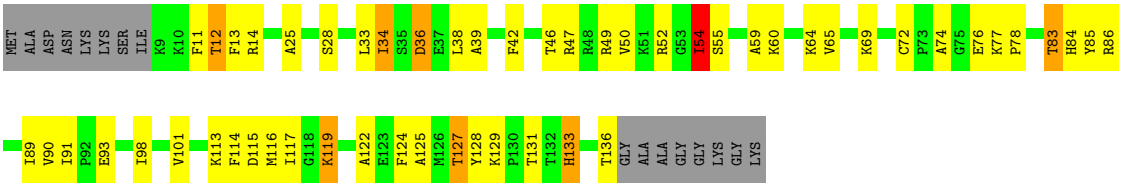
• Molecule 28: 40S RIBOSOMAL PROTEIN RACK1

Chain DR:



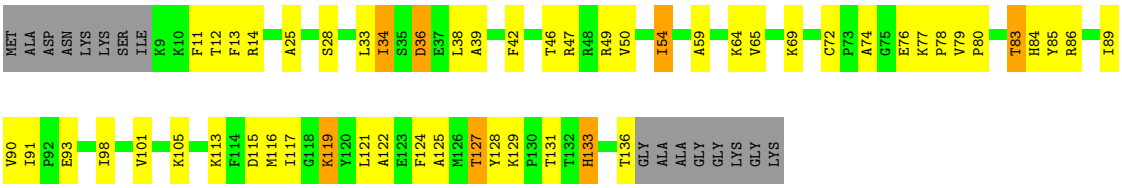
• Molecule 29: 40S RIBOSOMAL PROTEIN RPS15E

Chain AS:



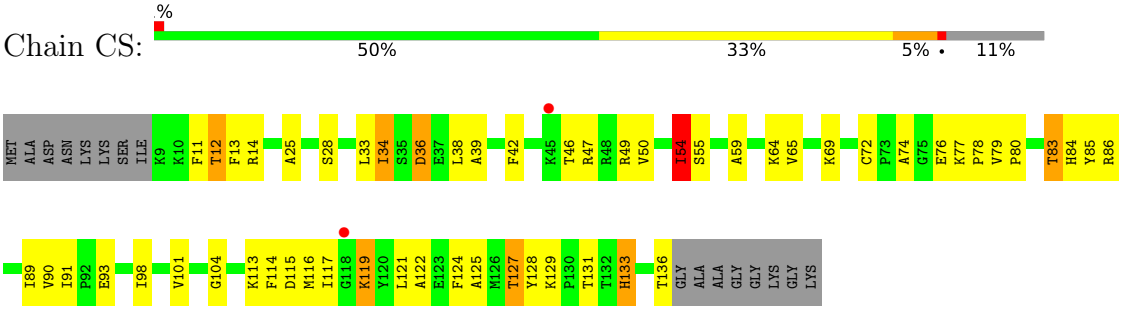
• Molecule 29: 40S RIBOSOMAL PROTEIN RPS15E

Chain BS:



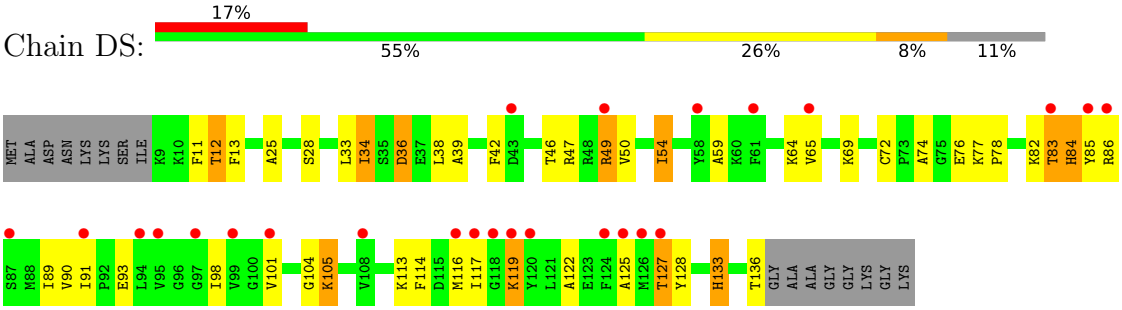
• Molecule 29: 40S RIBOSOMAL PROTEIN RPS15E

Chain CS:



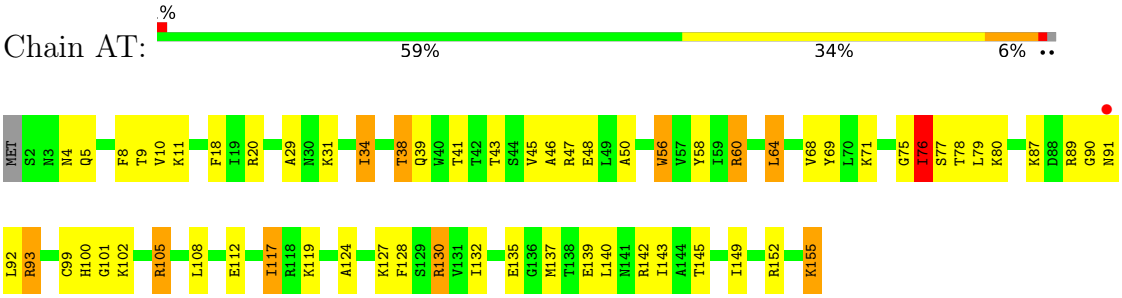
• Molecule 29: 40S RIBOSOMAL PROTEIN RPS15E

Chain DS:



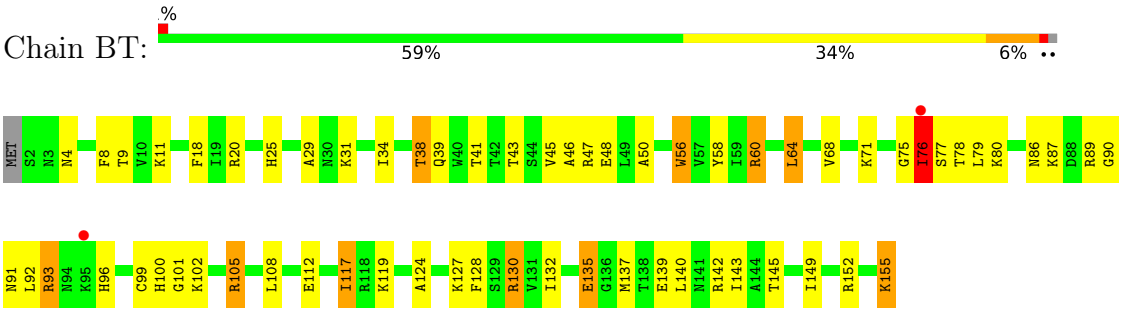
• Molecule 30: 40S RIBOSOMAL PROTEIN RPS19E

Chain AT:



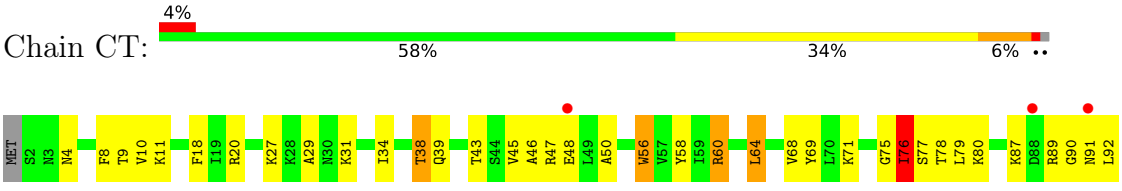
• Molecule 30: 40S RIBOSOMAL PROTEIN RPS19E

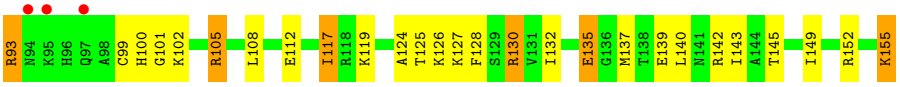
Chain BT:



• Molecule 30: 40S RIBOSOMAL PROTEIN RPS19E

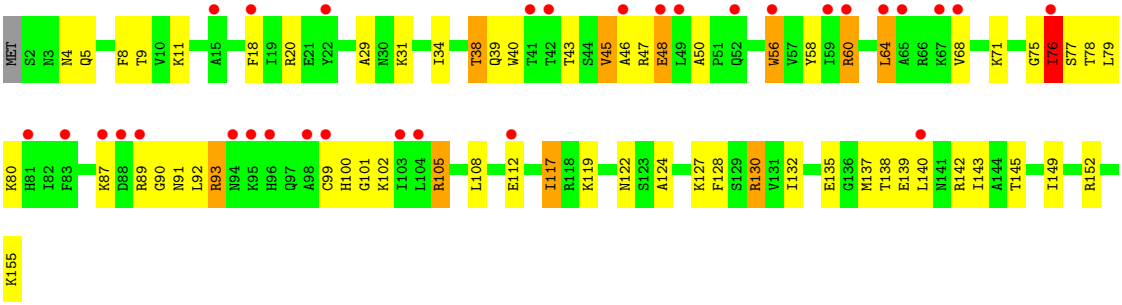
Chain CT:





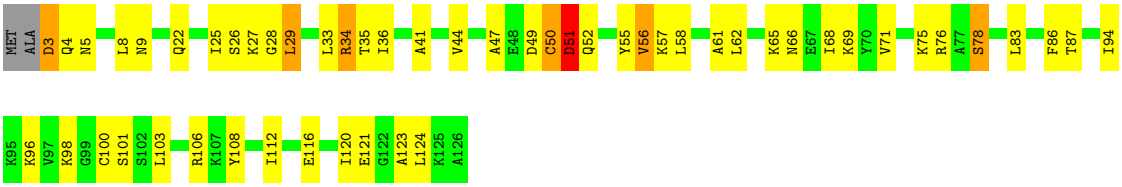
• Molecule 30: 40S RIBOSOMAL PROTEIN RPS19E

Chain DT:



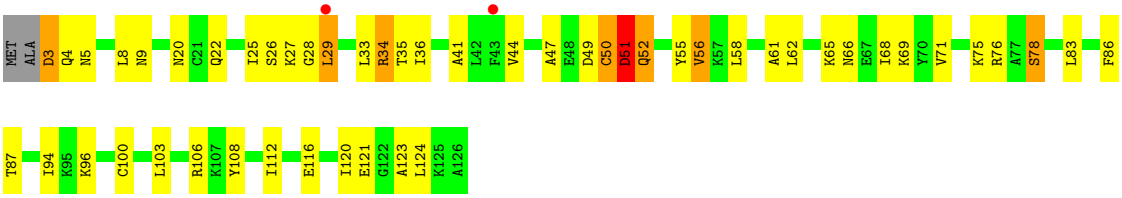
• Molecule 31: 40S RIBOSOMAL PROTEIN RPS12E

Chain AU:



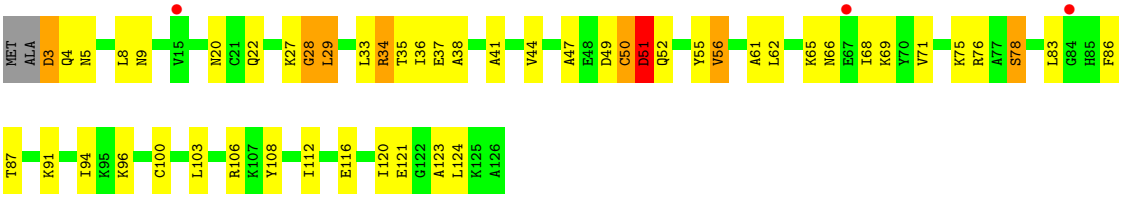
• Molecule 31: 40S RIBOSOMAL PROTEIN RPS12E

Chain BU:



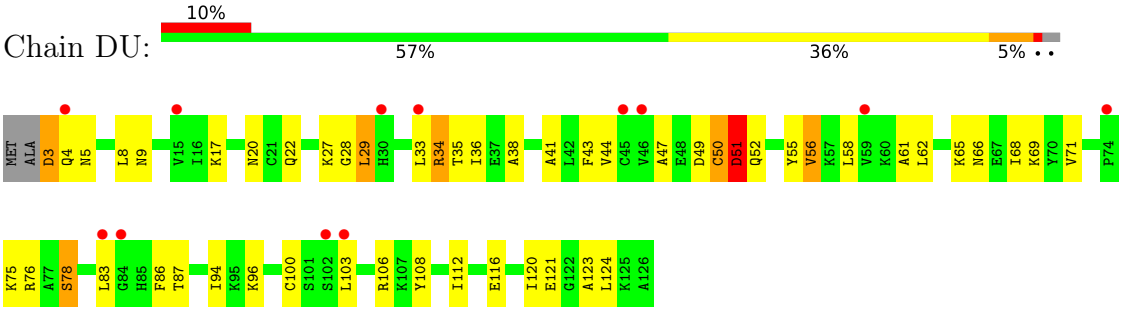
• Molecule 31: 40S RIBOSOMAL PROTEIN RPS12E

Chain CU:



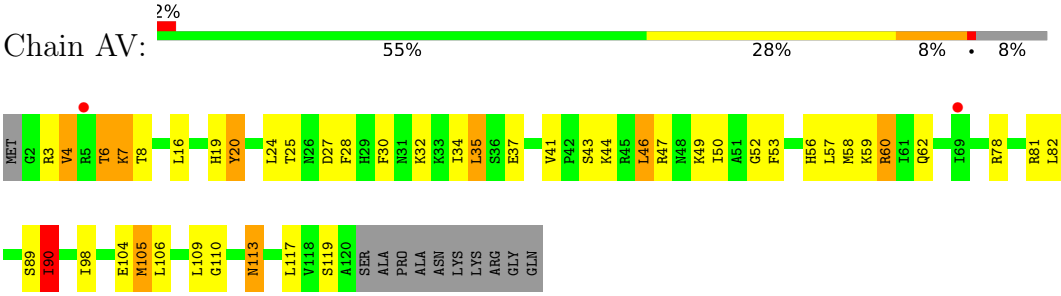
• Molecule 31: 40S RIBOSOMAL PROTEIN RPS12E

Chain DU:



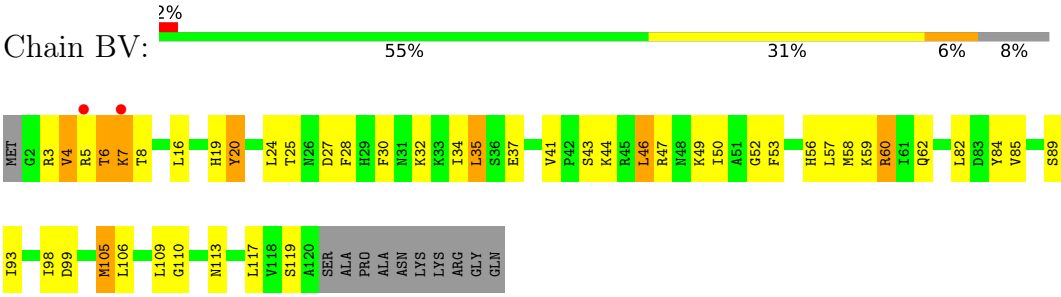
• Molecule 32: 40S RIBOSOMAL PROTEIN RPS17E

Chain AV:



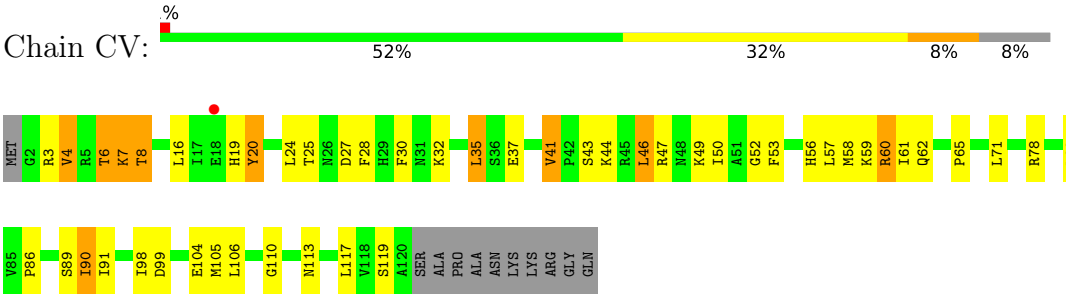
• Molecule 32: 40S RIBOSOMAL PROTEIN RPS17E

Chain BV:



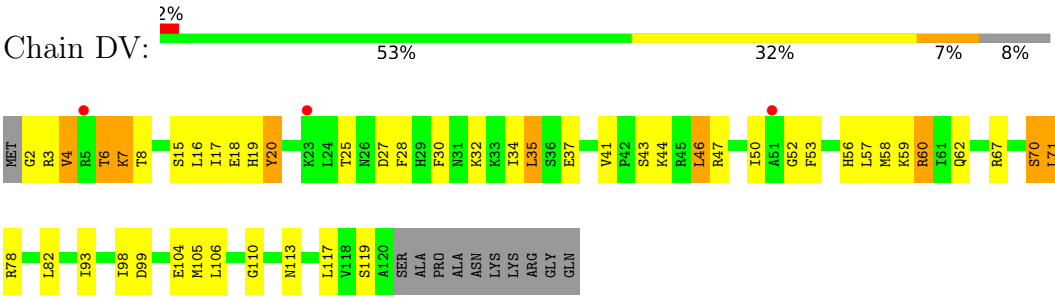
• Molecule 32: 40S RIBOSOMAL PROTEIN RPS17E

Chain CV:



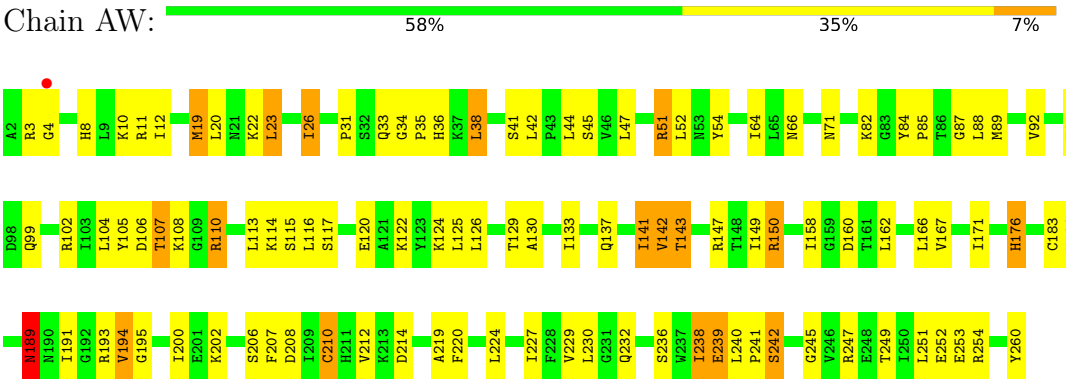
• Molecule 32: 40S RIBOSOMAL PROTEIN RPS17E

Chain DV:



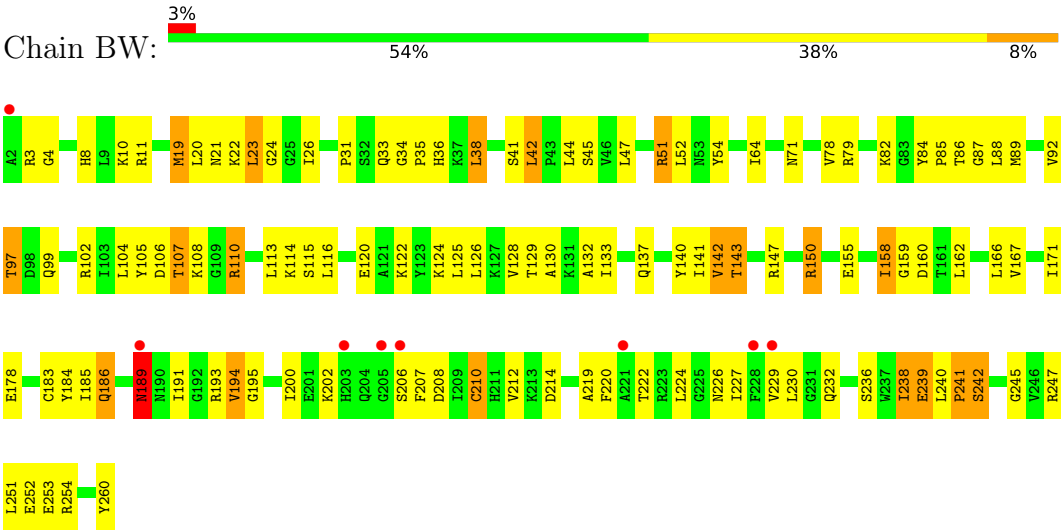
• Molecule 33: 40S RIBOSOMAL PROTEIN RPS4E

Chain AW:



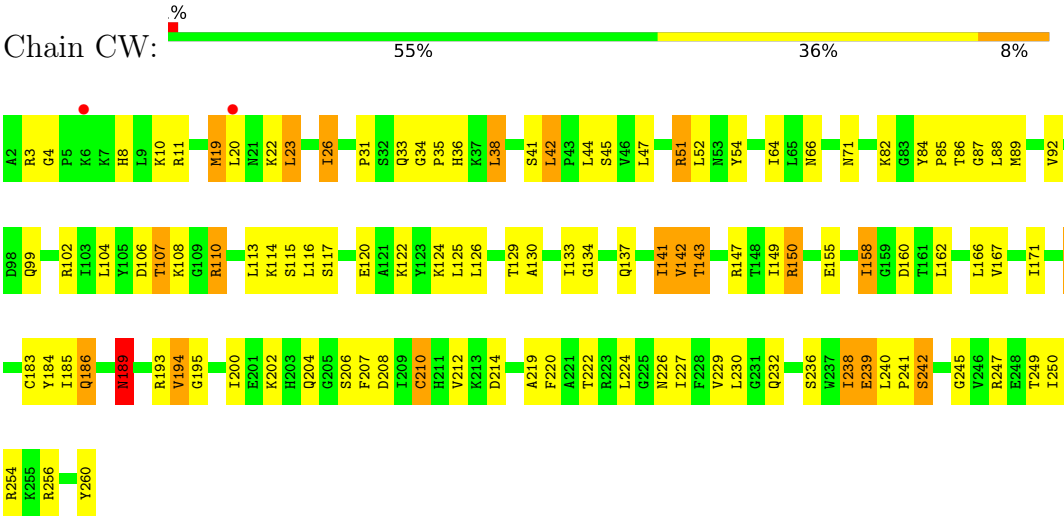
• Molecule 33: 40S RIBOSOMAL PROTEIN RPS4E

Chain BW:



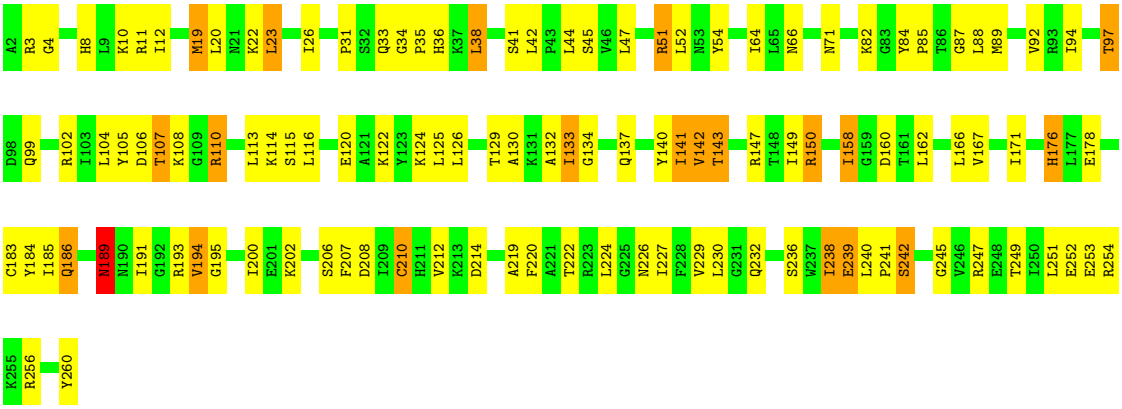
• Molecule 33: 40S RIBOSOMAL PROTEIN RPS4E

Chain CW:



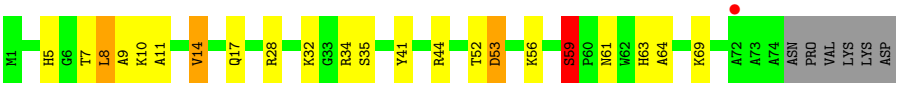
• Molecule 33: 40S RIBOSOMAL PROTEIN RPS4E

Chain DW:



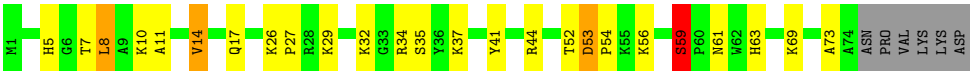
• Molecule 34: 40S RIBOSOMAL PROTEIN RPS30E

Chain AX:



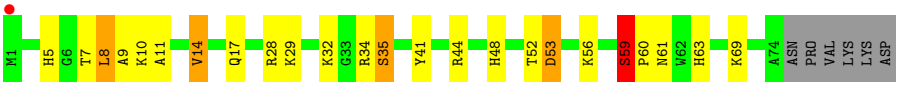
• Molecule 34: 40S RIBOSOMAL PROTEIN RPS30E

Chain BX:



• Molecule 34: 40S RIBOSOMAL PROTEIN RPS30E

Chain CX:

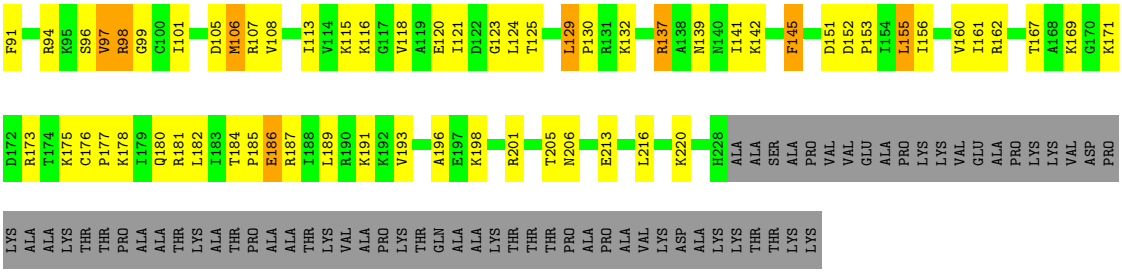


• Molecule 34: 40S RIBOSOMAL PROTEIN RPS30E

Chain DX:

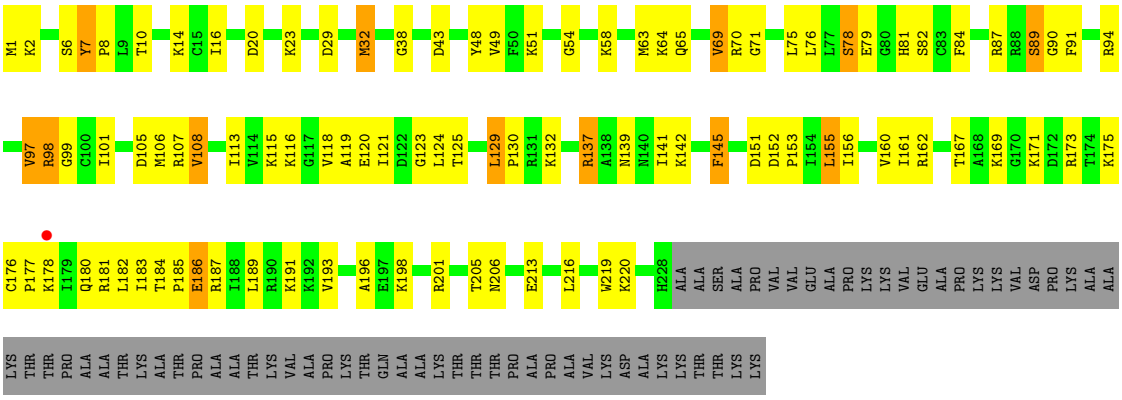
• Molecule 35: 40S RIBOSOMAL PROTEIN S6

Chain AY:



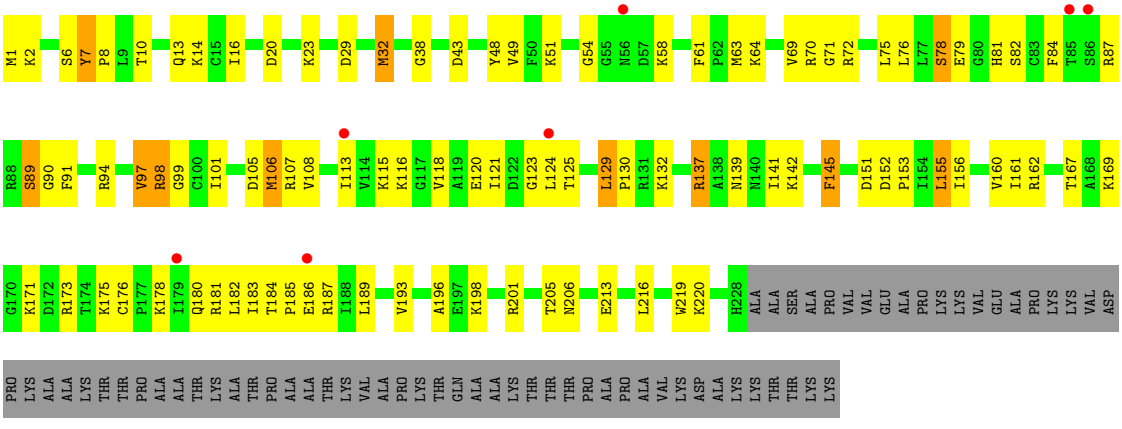
• Molecule 35: 40S RIBOSOMAL PROTEIN S6

Chain BY:



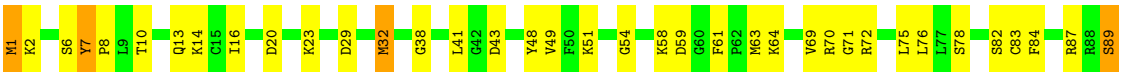
• Molecule 35: 40S RIBOSOMAL PROTEIN S6

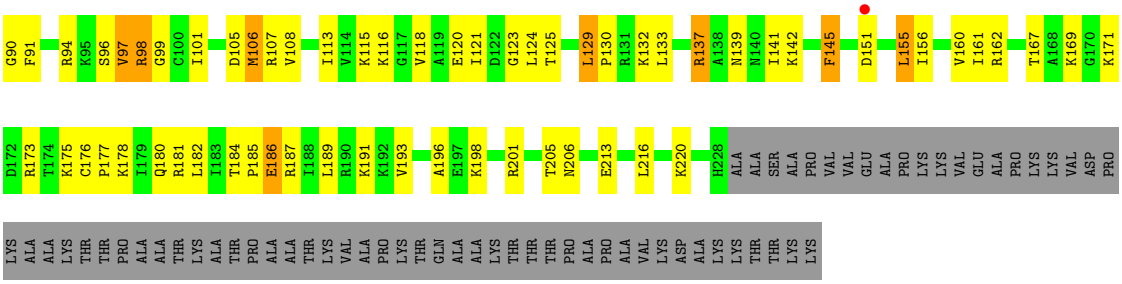
Chain CY:



• Molecule 35: 40S RIBOSOMAL PROTEIN S6

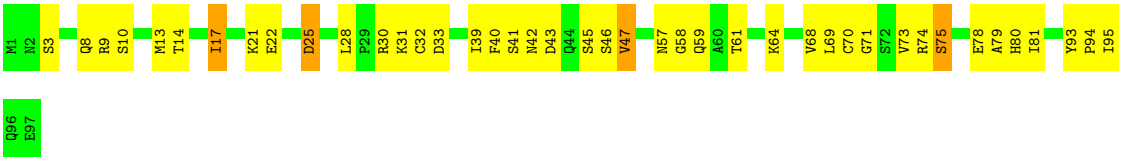
Chain DY:





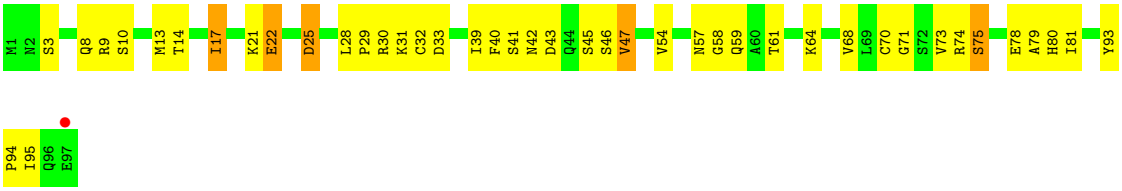
• Molecule 36: 40S RIBOSOMAL PROTEIN RPS21E

Chain AZ:



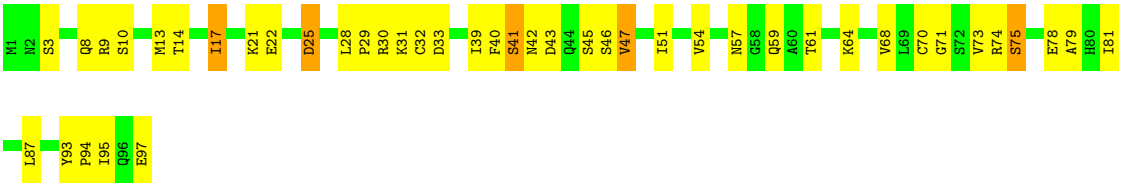
• Molecule 36: 40S RIBOSOMAL PROTEIN RPS21E

Chain BZ:



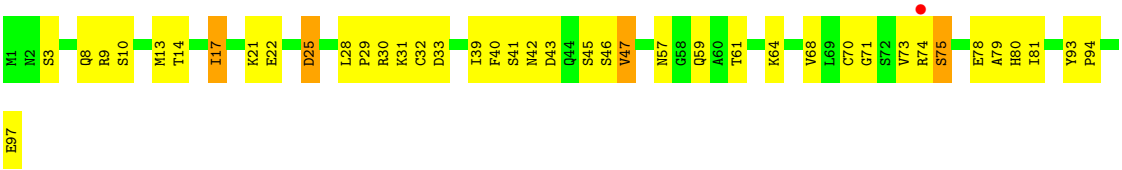
• Molecule 36: 40S RIBOSOMAL PROTEIN RPS21E

Chain CZ:



• Molecule 36: 40S RIBOSOMAL PROTEIN RPS21E

Chain DZ:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	209.99Å 471.55Å 298.54Å 90.00° 91.02° 90.00°	Depositor
Resolution (Å)	49.75 – 3.70 49.75 – 3.70	Depositor EDS
% Data completeness (in resolution range)	91.0 (49.75-3.70) 90.8 (49.75-3.70)	Depositor EDS
R_{merge}	0.15	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.43 (at 3.67Å)	Xtriage
Refinement program	PHENIX (PHENIX.REFINE)	Depositor
R, R_{free}	0.202 , 0.229 0.222 , 0.248	Depositor DCC
R_{free} test set	5823 reflections (0.96%)	wwPDB-VP
Wilson B-factor (Å^2)	97.6	Xtriage
Anisotropy	0.570	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.29 , 117.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.45$, $< L^2 > = 0.28$	Xtriage
Estimated twinning fraction	0.045 for h,-k,-l	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	315512	wwPDB-VP
Average B, all atoms (Å^2)	138.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.57% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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

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	A0	0.35	0/827	0.90	1/1103 (0.1%)
1	B0	0.36	0/827	0.91	0/1103
1	C0	0.35	0/827	0.91	1/1103 (0.1%)
1	D0	0.35	0/827	0.90	0/1103
2	A1	0.41	0/510	1.03	1/677 (0.1%)
2	B1	0.39	0/510	1.01	1/677 (0.1%)
2	C1	0.41	0/510	1.04	1/677 (0.1%)
2	D1	0.37	0/510	1.02	1/677 (0.1%)
3	A2	0.45	0/1717	0.99	3/2288 (0.1%)
3	B2	0.44	0/1717	0.98	2/2288 (0.1%)
3	C2	0.43	0/1717	0.98	3/2288 (0.1%)
3	D2	0.42	0/1717	0.97	3/2288 (0.1%)
4	A3	0.43	0/1656	0.94	4/2223 (0.2%)
4	B3	0.43	0/1656	0.95	4/2223 (0.2%)
4	C3	0.41	0/1656	0.93	4/2223 (0.2%)
4	D3	0.39	0/1656	0.93	4/2223 (0.2%)
5	A4	0.54	0/1703	1.12	12/2284 (0.5%)
5	B4	0.49	0/1801	1.09	11/2417 (0.5%)
5	C4	0.43	0/1801	1.07	11/2417 (0.5%)
5	D4	0.58	4/1801 (0.2%)	1.09	10/2417 (0.4%)
6	A5	0.56	0/823	1.14	4/1100 (0.4%)
6	B5	0.54	0/823	1.14	6/1100 (0.5%)
6	C5	0.52	0/823	1.14	4/1100 (0.4%)
6	D5	0.48	0/823	1.12	4/1100 (0.4%)
7	A6	0.46	0/640	0.95	2/855 (0.2%)
7	B6	0.49	0/640	0.95	2/855 (0.2%)
7	C6	0.42	0/640	0.92	0/855
7	D6	0.41	0/640	0.92	0/855
8	A7	0.40	0/853	0.95	1/1148 (0.1%)
8	B7	0.43	0/853	0.94	1/1148 (0.1%)
8	C7	0.42	0/853	0.95	1/1148 (0.1%)
8	D7	0.40	0/853	0.96	1/1148 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
9	A8	0.41	0/620	1.00	0/831
9	B8	0.47	0/620	1.04	2/831 (0.2%)
9	C8	0.42	0/620	1.01	0/831
9	D8	0.41	0/620	1.00	0/831
10	A9	0.35	0/764	0.90	3/1007 (0.3%)
10	B9	0.35	0/764	0.92	4/1007 (0.4%)
10	C9	0.43	0/764	0.89	3/1007 (0.3%)
10	D9	0.43	0/764	1.12	7/1007 (0.7%)
11	AA	0.28	0/40993	0.59	12/63880 (0.0%)
11	BA	0.28	0/40993	0.58	13/63880 (0.0%)
11	CA	0.26	0/40993	0.58	14/63880 (0.0%)
11	DA	0.25	1/40993 (0.0%)	0.57	13/63880 (0.0%)
12	AB	0.43	0/1652	0.97	8/2240 (0.4%)
12	BB	0.42	0/1652	0.98	8/2240 (0.4%)
12	CB	0.42	0/1652	0.98	6/2240 (0.3%)
12	DB	0.40	0/1652	0.97	8/2240 (0.4%)
13	AC	0.42	0/1846	0.99	8/2479 (0.3%)
13	BC	0.43	0/1846	0.99	8/2479 (0.3%)
13	CC	0.44	0/1846	0.98	8/2479 (0.3%)
13	DC	0.40	0/1846	0.98	8/2479 (0.3%)
14	AD	0.44	0/1501	1.06	7/2003 (0.3%)
14	BD	0.43	0/1501	1.05	6/2003 (0.3%)
14	CD	0.42	0/1501	1.05	7/2003 (0.3%)
14	DD	0.43	0/1501	1.05	7/2003 (0.3%)
15	AE	0.50	0/1864	1.01	7/2521 (0.3%)
15	BE	0.48	0/1864	1.01	6/2521 (0.2%)
15	CE	0.46	0/1864	1.01	6/2521 (0.2%)
15	DE	0.46	0/1864	1.00	6/2521 (0.2%)
16	AF	0.40	0/751	0.94	2/1010 (0.2%)
16	BF	0.40	0/751	0.93	2/1010 (0.2%)
16	CF	0.38	0/751	0.93	3/1010 (0.3%)
16	DF	0.40	0/751	0.94	3/1010 (0.3%)
17	AG	0.43	0/1546	1.06	10/2079 (0.5%)
17	BG	0.43	0/1546	1.06	10/2079 (0.5%)
17	CG	0.42	0/1546	1.06	10/2079 (0.5%)
17	DG	0.40	0/1546	1.07	10/2079 (0.5%)
18	AH	0.52	0/1058	1.14	8/1421 (0.6%)
18	BH	0.53	0/1058	1.14	7/1421 (0.5%)
18	CH	0.48	0/1058	1.14	8/1421 (0.6%)
18	DH	0.45	0/1058	1.12	6/1421 (0.4%)
19	AI	0.45	0/1151	1.01	4/1540 (0.3%)
19	BI	0.45	0/1151	1.00	5/1540 (0.3%)
19	CI	0.46	0/1151	1.03	7/1540 (0.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
19	DI	0.42	0/1151	1.01	6/1540 (0.4%)
20	AJ	0.46	0/868	1.03	2/1168 (0.2%)
20	BJ	0.48	0/868	1.03	4/1168 (0.3%)
20	CJ	0.44	0/868	1.02	4/1168 (0.3%)
20	DJ	0.44	0/868	1.02	2/1168 (0.2%)
21	AK	0.51	0/1078	1.14	7/1452 (0.5%)
21	BK	0.48	0/1078	1.12	7/1452 (0.5%)
21	CK	0.46	0/1078	1.12	7/1452 (0.5%)
21	DK	0.44	0/1078	1.12	7/1452 (0.5%)
22	AL	0.46	0/1103	1.02	3/1471 (0.2%)
22	BL	0.47	0/1103	1.03	2/1471 (0.1%)
22	CL	0.45	0/1103	0.99	1/1471 (0.1%)
22	DL	0.44	0/1103	1.02	2/1471 (0.1%)
23	AM	0.38	0/1252	1.01	5/1680 (0.3%)
23	BM	0.39	0/1252	1.01	5/1680 (0.3%)
23	CM	0.37	0/1252	1.00	5/1680 (0.3%)
23	DM	0.37	0/1252	1.00	5/1680 (0.3%)
24	AN	0.39	0/465	0.92	1/619 (0.2%)
24	BN	0.41	0/465	0.92	1/619 (0.2%)
24	CN	0.37	0/465	0.90	1/619 (0.2%)
24	DN	0.38	0/465	0.92	1/619 (0.2%)
25	AO	0.47	0/1253	1.02	5/1677 (0.3%)
25	BO	0.46	0/1253	1.01	6/1677 (0.4%)
25	CO	0.43	0/1253	1.00	5/1677 (0.3%)
25	DO	0.42	0/1253	1.00	5/1677 (0.3%)
26	AP	0.39	0/1215	0.95	1/1626 (0.1%)
26	BP	0.39	0/1215	0.91	0/1626
26	CP	0.39	0/1215	0.91	0/1626
26	DP	0.39	0/1215	0.92	1/1626 (0.1%)
27	AQ	0.48	0/1290	1.05	7/1731 (0.4%)
27	BQ	0.45	0/1290	1.05	7/1731 (0.4%)
27	CQ	0.45	0/1290	1.04	7/1731 (0.4%)
27	DQ	0.41	0/1290	1.03	6/1731 (0.3%)
28	AR	0.39	0/2750	1.00	12/3726 (0.3%)
28	BR	0.39	0/2750	1.00	13/3726 (0.3%)
28	CR	0.39	0/2750	1.00	11/3726 (0.3%)
28	DR	0.37	0/2750	0.99	13/3726 (0.3%)
29	AS	0.35	0/1028	0.86	1/1374 (0.1%)
29	BS	0.36	0/1028	0.86	1/1374 (0.1%)
29	CS	0.37	0/1028	0.87	1/1374 (0.1%)
29	DS	0.36	0/1028	0.87	1/1374 (0.1%)
30	AT	0.44	0/1264	0.92	3/1698 (0.2%)
30	BT	0.45	0/1264	0.94	3/1698 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
30	CT	0.40	0/1264	0.93	3/1698 (0.2%)
30	DT	0.41	0/1264	0.93	3/1698 (0.2%)
31	AU	0.38	0/961	0.92	1/1288 (0.1%)
31	BU	0.39	0/961	0.92	2/1288 (0.2%)
31	CU	0.38	0/961	0.92	2/1288 (0.2%)
31	DU	0.39	0/961	0.92	1/1288 (0.1%)
32	AV	0.44	0/981	1.01	7/1311 (0.5%)
32	BV	0.41	0/981	0.96	4/1311 (0.3%)
32	CV	0.43	0/981	0.97	4/1311 (0.3%)
32	DV	0.41	0/981	0.96	4/1311 (0.3%)
33	AW	0.46	0/2119	0.97	12/2849 (0.4%)
33	BW	0.42	0/2119	0.97	12/2849 (0.4%)
33	CW	0.42	0/2119	0.96	12/2849 (0.4%)
33	DW	0.43	0/2119	0.97	12/2849 (0.4%)
34	AX	0.39	0/612	1.01	3/812 (0.4%)
34	BX	0.37	0/612	1.01	3/812 (0.4%)
34	CX	0.36	0/612	1.01	3/812 (0.4%)
34	DX	0.36	0/612	1.02	3/812 (0.4%)
35	AY	0.38	0/1852	0.90	2/2462 (0.1%)
35	BY	0.39	0/1852	0.90	3/2462 (0.1%)
35	CY	0.38	0/1852	0.90	2/2462 (0.1%)
35	DY	0.38	0/1852	0.90	2/2462 (0.1%)
36	AZ	0.48	0/755	0.97	2/1013 (0.2%)
36	BZ	0.48	0/755	0.98	2/1013 (0.2%)
36	CZ	0.46	0/755	0.98	3/1013 (0.3%)
36	DZ	0.44	0/755	0.97	2/1013 (0.2%)
All	All	0.36	5/333578 (0.0%)	0.80	679/482983 (0.1%)

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
4	A3	0	1
4	B3	0	1
4	C3	0	1
4	D3	0	1
5	A4	0	1
5	B4	0	2
5	C4	0	2
5	D4	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
7	A6	0	1
7	B6	0	1
7	C6	0	1
7	D6	0	1
9	A8	0	1
9	B8	0	1
9	C8	0	1
9	D8	0	1
17	AG	0	1
17	BG	0	1
17	CG	0	1
17	DG	0	1
18	AH	0	2
18	BH	0	2
18	CH	0	2
18	DH	0	2
20	AJ	0	1
20	BJ	0	1
20	CJ	0	1
20	DJ	0	1
21	AK	0	1
21	BK	0	1
21	CK	0	1
21	DK	0	1
24	CN	0	1
25	AO	0	1
25	BO	0	1
25	CO	0	1
25	DO	0	1
29	AS	0	1
29	BS	0	1
29	CS	0	1
29	DS	0	2
31	AU	0	2
31	BU	0	2
31	CU	0	2
31	DU	0	2
32	DV	0	1
33	AW	0	1
33	BW	0	1
33	CW	0	1
33	DW	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
All	All	0	62

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	D4	31	TRP	NE1-CE2	-12.55	1.23	1.37
5	D4	31	TRP	CD1-NE1	6.91	1.52	1.37
11	DA	1586	A	O3'-P	6.08	1.70	1.61
5	D4	31	TRP	CG-CD2	6.05	1.54	1.43
5	D4	31	TRP	CD2-CE2	5.36	1.50	1.41

All (679) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	B9	120	GLY	N-CA-C	12.22	130.00	115.09
6	C5	99	PRO	N-CA-C	10.61	123.64	110.70
6	A5	99	PRO	N-CA-C	10.54	123.55	110.70
6	B5	99	PRO	N-CA-C	10.46	123.46	110.70
5	A4	73	ALA	N-CA-C	-10.46	100.00	113.17
5	B4	73	ALA	N-CA-C	-10.46	100.00	113.17
6	D5	99	PRO	N-CA-C	10.41	123.41	110.70
5	D4	73	ALA	N-CA-C	-10.34	100.14	113.17
21	BK	138	ASP	N-CA-C	10.12	124.45	109.07
21	DK	138	ASP	N-CA-C	10.08	124.39	109.07
12	BB	136	VAL	N-CA-C	10.06	122.79	112.83
12	CB	136	VAL	N-CA-C	10.02	122.75	112.83
21	CK	138	ASP	N-CA-C	10.00	124.27	109.07
21	AK	138	ASP	N-CA-C	9.93	124.16	109.07
5	C4	73	ALA	N-CA-C	-9.92	100.68	113.17
12	DB	136	VAL	N-CA-C	9.70	122.43	112.83
26	AP	117	GLY	N-CA-C	9.67	124.34	112.64
12	AB	136	VAL	N-CA-C	9.63	122.36	112.83
6	C5	98	ARG	CA-C-N	9.47	130.14	120.38
6	C5	98	ARG	C-N-CA	9.47	130.14	120.38
6	B5	98	ARG	CA-C-N	9.41	130.07	120.38
6	B5	98	ARG	C-N-CA	9.41	130.07	120.38
6	D5	98	ARG	CA-C-N	9.28	129.94	120.38
6	D5	98	ARG	C-N-CA	9.28	129.94	120.38
6	A5	98	ARG	CA-C-N	9.22	129.88	120.38
6	A5	98	ARG	C-N-CA	9.22	129.88	120.38
19	DI	42	ASN	CA-C-N	-9.14	109.80	120.13
19	DI	42	ASN	C-N-CA	-9.14	109.80	120.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	DJ	73	GLY	N-CA-C	9.12	123.95	112.83
14	AD	14	THR	CA-C-N	8.96	129.04	119.90
14	AD	14	THR	C-N-CA	8.96	129.04	119.90
19	CI	42	ASN	CA-C-N	-8.96	110.01	120.13
19	CI	42	ASN	C-N-CA	-8.96	110.01	120.13
14	BD	14	THR	CA-C-N	8.92	129.00	119.90
14	BD	14	THR	C-N-CA	8.92	129.00	119.90
19	AI	42	ASN	CA-C-N	-8.87	110.11	120.13
19	AI	42	ASN	C-N-CA	-8.87	110.11	120.13
19	BI	42	ASN	CA-C-N	-8.84	110.14	120.13
19	BI	42	ASN	C-N-CA	-8.84	110.14	120.13
20	AJ	73	GLY	N-CA-C	8.84	123.61	112.83
10	C9	120	GLY	N-CA-C	8.77	130.23	112.34
14	DD	14	THR	CA-C-N	8.68	128.75	119.90
14	DD	14	THR	C-N-CA	8.68	128.75	119.90
10	D9	94	LYS	N-CA-C	8.68	121.99	110.53
10	A9	120	GLY	N-CA-C	8.65	129.98	112.34
14	CD	14	THR	CA-C-N	8.63	128.71	119.90
14	CD	14	THR	C-N-CA	8.63	128.71	119.90
10	D9	120	GLY	N-CA-C	8.61	129.91	112.34
18	DH	55	ASP	N-CA-C	-8.61	96.32	110.17
20	BJ	73	GLY	N-CA-C	8.57	123.28	112.83
13	BC	217	PRO	CA-C-N	8.52	128.39	120.21
13	BC	217	PRO	C-N-CA	8.52	128.39	120.21
18	CH	55	ASP	N-CA-C	-8.49	96.50	110.17
17	BG	52	GLN	N-CA-C	8.45	123.31	112.92
17	AG	52	GLN	N-CA-C	8.43	123.29	112.92
13	AC	217	PRO	CA-C-N	8.42	128.30	120.21
13	AC	217	PRO	C-N-CA	8.42	128.30	120.21
18	BH	55	ASP	N-CA-C	-8.39	96.66	110.17
17	DG	52	GLN	N-CA-C	8.30	123.13	112.92
17	CG	52	GLN	N-CA-C	8.27	123.09	112.92
33	BW	195	GLY	N-CA-C	8.23	124.22	110.56
27	CQ	61	SER	N-CA-C	8.21	118.80	108.45
10	D9	143	ILE	CA-C-N	-8.21	111.39	122.72
10	D9	143	ILE	C-N-CA	-8.21	111.39	122.72
27	AQ	61	SER	N-CA-C	8.20	119.08	108.34
17	DG	73	PHE	N-CA-C	8.20	121.99	108.96
33	DW	195	GLY	N-CA-C	8.11	124.03	110.56
18	AH	55	ASP	N-CA-C	-8.10	97.13	110.17
20	CJ	73	GLY	N-CA-C	8.06	122.66	112.83
27	BQ	61	SER	N-CA-C	8.04	118.87	108.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	BV	20	TYR	N-CA-C	8.04	122.81	112.92
17	BG	44	VAL	CA-C-N	8.03	127.69	119.82
17	BG	44	VAL	C-N-CA	8.03	127.69	119.82
27	DQ	61	SER	N-CA-C	8.03	118.86	108.34
15	DE	138	VAL	CA-C-N	7.98	129.81	119.84
15	DE	138	VAL	C-N-CA	7.98	129.81	119.84
33	CW	195	GLY	N-CA-C	7.97	123.80	110.56
32	AV	20	TYR	N-CA-C	7.97	122.72	112.92
34	DX	59	SER	CA-C-N	7.94	128.37	119.32
34	DX	59	SER	C-N-CA	7.94	128.37	119.32
32	CV	20	TYR	N-CA-C	7.91	122.65	112.92
18	AH	123	GLY	N-CA-C	7.91	123.04	113.79
34	BX	59	SER	CA-C-N	7.89	128.32	119.32
34	BX	59	SER	C-N-CA	7.89	128.32	119.32
2	A1	19	GLY	N-CA-C	-7.89	101.57	110.96
17	CG	73	PHE	N-CA-C	7.84	121.51	108.73
17	AG	73	PHE	N-CA-C	7.83	121.49	108.73
17	BG	73	PHE	N-CA-C	7.79	121.35	108.96
33	AW	195	GLY	N-CA-C	7.75	123.43	110.56
34	AX	59	SER	CA-C-N	7.68	128.08	119.32
34	AX	59	SER	C-N-CA	7.68	128.08	119.32
32	DV	20	TYR	N-CA-C	7.67	122.84	113.17
2	B1	19	GLY	N-CA-C	-7.65	101.86	110.96
17	CG	44	VAL	CA-C-N	7.64	127.31	119.82
17	CG	44	VAL	C-N-CA	7.64	127.31	119.82
27	BQ	67	GLY	N-CA-C	7.63	124.16	115.08
2	D1	19	GLY	N-CA-C	-7.58	101.93	110.96
17	AG	44	VAL	CA-C-N	7.58	127.25	119.82
17	AG	44	VAL	C-N-CA	7.58	127.25	119.82
11	DA	391	A	C2'-C3'-O3'	7.58	120.86	109.50
27	DQ	67	GLY	N-CA-C	7.56	124.08	115.08
34	CX	59	SER	CA-C-N	7.55	127.93	119.32
34	CX	59	SER	C-N-CA	7.55	127.93	119.32
15	CE	138	VAL	CA-C-N	7.51	129.23	119.84
15	CE	138	VAL	C-N-CA	7.51	129.23	119.84
27	AQ	67	GLY	N-CA-C	7.50	124.01	115.08
18	DH	123	GLY	N-CA-C	7.49	122.55	113.79
2	C1	19	GLY	N-CA-C	-7.48	102.06	110.96
17	DG	44	VAL	CA-C-N	7.47	127.14	119.82
17	DG	44	VAL	C-N-CA	7.47	127.14	119.82
18	CH	123	GLY	CA-C-N	-7.42	112.31	122.77
18	CH	123	GLY	C-N-CA	-7.42	112.31	122.77

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	BE	138	VAL	CA-C-N	7.41	129.11	119.84
15	BE	138	VAL	C-N-CA	7.41	129.11	119.84
23	AM	53	ASP	CA-C-N	7.39	127.03	119.56
23	AM	53	ASP	C-N-CA	7.39	127.03	119.56
5	B4	238	TYR	N-CA-C	7.39	120.41	111.40
23	BM	53	ASP	CA-C-N	7.39	127.02	119.56
23	BM	53	ASP	C-N-CA	7.39	127.02	119.56
23	CM	53	ASP	CA-C-N	7.37	127.01	119.56
23	CM	53	ASP	C-N-CA	7.37	127.01	119.56
18	CH	123	GLY	N-CA-C	7.36	122.40	113.79
21	CK	133	THR	N-CA-C	-7.35	99.05	110.14
13	CC	217	PRO	CA-C-N	7.34	128.33	120.11
13	CC	217	PRO	C-N-CA	7.34	128.33	120.11
18	BH	123	GLY	CA-C-N	-7.31	112.46	122.77
18	BH	123	GLY	C-N-CA	-7.31	112.46	122.77
15	AE	138	VAL	CA-C-N	7.30	128.97	119.84
15	AE	138	VAL	C-N-CA	7.30	128.97	119.84
18	BH	123	GLY	N-CA-C	7.30	122.33	113.79
13	DC	217	PRO	CA-C-N	7.29	128.28	120.11
13	DC	217	PRO	C-N-CA	7.29	128.28	120.11
23	DM	53	ASP	CA-C-N	7.28	126.92	119.56
23	DM	53	ASP	C-N-CA	7.28	126.92	119.56
5	D4	31	TRP	CD2-CE2-CZ2	-7.25	115.15	122.40
5	D4	238	TYR	N-CA-C	7.24	120.24	111.40
17	DG	34	ALA	N-CA-C	7.24	119.17	111.28
5	A4	31	TRP	CG-CD1-NE1	-7.22	100.81	110.20
11	BA	391	A	C2'-C3'-O3'	7.21	120.31	109.50
17	CG	34	ALA	N-CA-C	7.21	119.14	111.28
5	C4	238	TYR	N-CA-C	7.20	120.19	111.40
11	AA	391	A	C2'-C3'-O3'	7.15	120.23	109.50
11	CA	391	A	C2'-C3'-O3'	7.13	120.19	109.50
18	DH	123	GLY	CA-C-N	-7.12	112.73	122.77
18	DH	123	GLY	C-N-CA	-7.12	112.73	122.77
10	D9	95	LEU	N-CA-C	7.10	121.03	111.24
5	A4	83	ALA	N-CA-C	-7.08	104.25	113.17
17	BG	34	ALA	N-CA-C	7.08	119.00	111.28
17	CG	74	HIS	N-CA-C	-7.07	95.74	110.80
21	AK	133	THR	N-CA-C	-7.04	99.51	110.14
28	AR	289	ALA	N-CA-C	7.01	118.85	108.76
11	AA	1246	C	C2'-C3'-O3'	7.00	120.00	109.50
17	AG	34	ALA	N-CA-C	7.00	118.91	111.28
18	CH	94	LEU	CA-C-N	6.98	126.79	119.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	CH	94	LEU	C-N-CA	6.98	126.79	119.05
18	AH	123	GLY	CA-C-N	-6.97	112.96	122.86
18	AH	123	GLY	C-N-CA	-6.97	112.96	122.86
21	BK	133	THR	N-CA-C	-6.97	99.61	110.14
21	DK	133	THR	N-CA-C	-6.97	99.61	110.14
17	AG	74	HIS	N-CA-C	-6.96	95.97	110.80
8	C7	87	VAL	N-CA-C	6.95	117.99	109.30
28	BR	289	ALA	N-CA-C	6.93	118.74	108.76
28	CR	289	ALA	N-CA-C	6.93	118.73	108.76
11	BA	633	U	P-O3'-C3'	6.91	130.57	120.20
17	BG	74	HIS	N-CA-C	-6.91	96.08	110.80
28	DR	289	ALA	N-CA-C	6.90	118.69	108.76
5	B4	83	ALA	N-CA-C	-6.89	104.49	113.17
17	DG	74	HIS	N-CA-C	-6.88	96.14	110.80
9	B8	108	ILE	N-CA-C	6.87	116.96	110.30
14	BD	143	VAL	N-CA-C	6.85	115.44	107.77
24	CN	32	LYS	N-CA-C	6.81	118.78	111.36
32	AV	41	VAL	CA-C-N	6.74	126.44	119.56
32	AV	41	VAL	C-N-CA	6.74	126.44	119.56
5	D4	83	ALA	N-CA-C	-6.74	104.68	113.17
8	A7	87	VAL	N-CA-C	6.74	117.72	109.30
27	AQ	18	ASN	N-CA-C	6.74	121.20	112.92
5	C4	83	ALA	N-CA-C	-6.74	104.68	113.17
33	AW	189	ASN	N-CA-C	-6.72	104.89	113.23
3	A2	18	MET	CA-C-N	6.68	126.64	120.03
3	A2	18	MET	C-N-CA	6.68	126.64	120.03
13	CC	196	GLU	CA-C-N	6.67	126.30	119.56
13	CC	196	GLU	C-N-CA	6.67	126.30	119.56
27	DQ	18	ASN	N-CA-C	6.65	121.10	112.92
3	D2	18	MET	CA-C-N	6.64	126.60	120.03
3	D2	18	MET	C-N-CA	6.64	126.60	120.03
21	AK	17	GLY	CA-C-N	6.63	127.21	120.38
21	AK	17	GLY	C-N-CA	6.63	127.21	120.38
27	CQ	67	GLY	N-CA-C	6.63	124.02	114.67
24	DN	32	LYS	N-CA-C	6.62	118.58	111.36
3	B2	18	MET	CA-C-N	6.62	126.58	120.03
3	B2	18	MET	C-N-CA	6.62	126.58	120.03
28	BR	231	GLY	N-CA-C	6.62	121.06	110.87
11	CA	1246	C	C2'-C3'-O3'	6.61	119.41	109.50
13	DC	196	GLU	CA-C-N	6.61	126.23	119.56
13	DC	196	GLU	C-N-CA	6.61	126.23	119.56
5	A4	38	ILE	CA-C-N	-6.60	112.90	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	A4	38	ILE	C-N-CA	-6.60	112.90	119.56
18	DH	94	LEU	CA-C-N	6.59	126.37	119.05
18	DH	94	LEU	C-N-CA	6.59	126.37	119.05
27	CQ	40	GLY	N-CA-C	-6.59	105.77	115.72
28	AR	231	GLY	N-CA-C	6.57	120.99	110.87
27	CQ	18	ASN	N-CA-C	6.57	121.00	112.92
8	D7	87	VAL	N-CA-C	6.57	117.51	109.30
11	DA	1494	U	C2'-C3'-O3'	6.57	119.35	109.50
10	D9	113	GLN	N-CA-C	6.57	119.41	110.55
32	BV	41	VAL	CA-C-N	6.56	126.25	119.56
32	BV	41	VAL	C-N-CA	6.56	126.25	119.56
33	DW	189	ASN	N-CA-C	-6.56	105.09	113.23
11	BA	1246	C	C2'-C3'-O3'	6.56	119.33	109.50
4	A3	132	LEU	CA-C-N	-6.55	111.78	119.05
4	A3	132	LEU	C-N-CA	-6.55	111.78	119.05
28	DR	231	GLY	N-CA-C	6.55	120.95	110.87
12	AB	26	ASN	N-CA-C	-6.53	100.37	110.10
33	CW	184	TYR	N-CA-C	-6.53	99.28	109.72
14	DD	7	ASN	N-CA-C	6.53	120.14	110.48
33	BW	189	ASN	N-CA-C	-6.51	105.16	113.23
27	BQ	40	GLY	N-CA-C	-6.50	105.90	115.72
11	DA	1246	C	C2'-C3'-O3'	6.50	119.25	109.50
3	C2	18	MET	CA-C-N	6.48	126.45	120.03
3	C2	18	MET	C-N-CA	6.48	126.45	120.03
15	BE	197	ILE	N-CA-C	6.47	116.81	107.88
15	AE	197	ILE	N-CA-C	6.47	116.94	107.75
13	BC	196	GLU	CA-C-N	6.45	126.08	119.56
13	BC	196	GLU	C-N-CA	6.45	126.08	119.56
18	AH	94	LEU	CA-C-N	6.44	126.20	119.05
18	AH	94	LEU	C-N-CA	6.44	126.20	119.05
13	DC	185	MET	N-CA-C	-6.44	99.67	109.85
13	AC	185	MET	N-CA-C	-6.44	99.68	109.85
28	CR	231	GLY	N-CA-C	6.43	120.77	110.87
29	BS	133	HIS	N-CA-C	6.42	119.99	110.48
24	AN	32	LYS	N-CA-C	6.42	118.36	111.36
27	AQ	40	GLY	N-CA-C	-6.42	106.03	115.72
27	BQ	18	ASN	N-CA-C	6.40	120.80	112.92
13	AC	196	GLU	CA-C-N	6.40	126.02	119.56
13	AC	196	GLU	C-N-CA	6.40	126.02	119.56
13	CC	185	MET	N-CA-C	-6.40	99.74	109.85
12	BB	26	ASN	N-CA-C	-6.39	100.58	110.10
18	BH	94	LEU	CA-C-N	6.39	126.14	119.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	BH	94	LEU	C-N-CA	6.39	126.14	119.05
4	D3	132	LEU	CA-C-N	-6.39	111.95	119.05
4	D3	132	LEU	C-N-CA	-6.39	111.95	119.05
5	B4	38	ILE	CA-C-N	-6.38	113.11	119.56
5	B4	38	ILE	C-N-CA	-6.38	113.11	119.56
13	BC	185	MET	N-CA-C	-6.37	99.79	109.85
14	AD	143	VAL	N-CA-C	6.37	114.90	107.77
14	CD	143	VAL	N-CA-C	6.37	114.90	107.77
32	DV	41	VAL	CA-C-N	6.35	126.03	119.56
32	DV	41	VAL	C-N-CA	6.35	126.03	119.56
24	BN	32	LYS	N-CA-C	6.31	118.24	111.36
21	CK	146	ARG	N-CA-C	-6.30	104.52	111.82
32	CV	41	VAL	CA-C-N	6.28	125.96	119.56
32	CV	41	VAL	C-N-CA	6.28	125.96	119.56
14	AD	7	ASN	N-CA-C	6.28	119.77	110.48
33	AW	184	TYR	N-CA-C	-6.26	99.71	109.72
12	DB	26	ASN	N-CA-C	-6.25	100.78	110.10
5	D4	38	ILE	CA-C-N	-6.25	113.25	119.56
5	D4	38	ILE	C-N-CA	-6.25	113.25	119.56
8	B7	87	VAL	N-CA-C	6.25	117.11	109.30
10	C9	143	ILE	N-CA-C	6.25	122.33	109.34
25	AO	11	LYS	N-CA-C	6.22	118.43	108.41
14	CD	7	ASN	N-CA-C	6.21	120.20	110.32
35	BY	7	TYR	CA-C-N	6.21	125.62	118.85
35	BY	7	TYR	C-N-CA	6.21	125.62	118.85
21	CK	17	GLY	CA-C-N	6.20	126.76	120.38
21	CK	17	GLY	C-N-CA	6.20	126.76	120.38
33	CW	189	ASN	N-CA-C	-6.18	105.56	113.23
35	AY	7	TYR	CA-C-N	6.17	125.57	118.85
35	AY	7	TYR	C-N-CA	6.17	125.57	118.85
4	B3	132	LEU	CA-C-N	-6.16	112.22	119.05
4	B3	132	LEU	C-N-CA	-6.16	112.22	119.05
16	CF	77	HIS	N-CA-C	6.15	121.54	113.30
25	DO	11	LYS	N-CA-C	6.15	118.31	108.41
29	DS	133	HIS	N-CA-C	6.15	119.58	110.48
4	C3	132	LEU	CA-C-N	-6.14	112.23	119.05
4	C3	132	LEU	C-N-CA	-6.14	112.23	119.05
25	AO	83	ALA	CA-C-N	6.14	127.51	119.84
25	AO	83	ALA	C-N-CA	6.14	127.51	119.84
12	CB	26	ASN	N-CA-C	-6.14	100.95	110.10
5	C4	38	ILE	CA-C-N	-6.13	113.37	119.56
5	C4	38	ILE	C-N-CA	-6.13	113.37	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	BU	44	VAL	N-CA-C	6.12	117.58	108.46
17	DG	26	ASP	CA-C-N	6.12	125.82	119.82
17	DG	26	ASP	C-N-CA	6.12	125.82	119.82
10	A9	128	HIS	N-CA-C	-6.12	102.29	110.55
10	C9	128	HIS	N-CA-C	-6.11	102.30	110.55
17	AG	26	ASP	CA-C-N	6.11	125.80	119.82
17	AG	26	ASP	C-N-CA	6.11	125.80	119.82
28	BR	245	LEU	N-CA-C	6.11	120.86	113.17
28	BR	328	PHE	N-CA-C	6.10	117.84	109.18
25	BO	83	ALA	CA-C-N	6.09	127.46	119.84
25	BO	83	ALA	C-N-CA	6.09	127.46	119.84
30	BT	50	ALA	CA-C-N	6.09	126.11	119.90
30	BT	50	ALA	C-N-CA	6.09	126.11	119.90
20	CJ	93	CYS	N-CA-C	6.09	116.28	108.24
25	AO	13	ILE	CB-CA-C	-6.09	102.73	111.19
23	AM	11	PHE	N-CA-C	-6.08	98.69	108.55
28	AR	245	LEU	N-CA-C	6.08	120.83	113.17
10	D9	128	HIS	N-CA-C	-6.08	102.35	110.55
32	AV	85	VAL	N-CA-C	6.07	117.30	107.71
28	CR	288	LYS	N-CA-C	6.07	120.85	113.38
35	CY	7	TYR	CA-C-N	6.07	125.47	118.85
35	CY	7	TYR	C-N-CA	6.07	125.47	118.85
16	AF	77	HIS	N-CA-C	6.07	121.43	113.30
29	CS	133	HIS	N-CA-C	6.06	119.45	110.48
16	BF	77	HIS	N-CA-C	6.06	121.42	113.30
23	CM	11	PHE	N-CA-C	-6.06	98.73	108.55
28	DR	328	PHE	N-CA-C	6.06	117.78	109.18
23	BM	11	PHE	N-CA-C	-6.06	98.74	108.55
25	AO	13	ILE	N-CA-C	6.05	116.32	107.37
31	AU	44	VAL	N-CA-C	6.05	117.47	108.46
28	AR	288	LYS	N-CA-C	6.04	120.81	113.38
21	BK	17	GLY	CA-C-N	6.04	126.60	120.38
21	BK	17	GLY	C-N-CA	6.04	126.60	120.38
23	DM	11	PHE	N-CA-C	-6.04	98.77	108.55
28	DR	288	LYS	N-CA-C	6.03	120.80	113.38
28	BR	288	LYS	N-CA-C	6.02	120.79	113.38
25	DO	83	ALA	CA-C-N	6.02	127.37	119.84
25	DO	83	ALA	C-N-CA	6.02	127.37	119.84
11	CA	1494	U	C2'-C3'-O3'	6.02	118.53	109.50
28	CR	328	PHE	N-CA-C	6.02	117.72	109.18
16	BF	78	ARG	N-CA-C	6.01	118.33	111.11
13	DC	81	GLY	N-CA-C	-6.01	98.93	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	DR	245	LEU	N-CA-C	6.01	120.74	113.17
15	AE	107	ASP	N-CA-C	-6.01	100.49	110.17
11	DA	1506	G	C2'-C3'-O3'	6.00	118.50	109.50
25	CO	83	ALA	CA-C-N	6.00	127.34	119.84
25	CO	83	ALA	C-N-CA	6.00	127.34	119.84
15	CE	197	ILE	N-CA-C	6.00	116.26	107.75
17	CG	26	ASP	CA-C-N	6.00	125.69	119.82
17	CG	26	ASP	C-N-CA	6.00	125.69	119.82
20	DJ	93	CYS	N-CA-C	5.99	116.15	108.24
11	CA	391	A	P-O3'-C3'	5.99	129.18	120.20
33	DW	184	TYR	N-CA-C	-5.98	100.15	109.72
28	CR	245	LEU	N-CA-C	5.98	120.70	113.17
35	DY	7	TYR	CA-C-N	5.97	125.36	118.85
35	DY	7	TYR	C-N-CA	5.97	125.36	118.85
31	DU	44	VAL	N-CA-C	5.97	117.36	108.46
6	C5	45	VAL	N-CA-C	5.97	116.88	108.17
12	BB	24	ASN	N-CA-C	-5.97	99.33	108.76
17	BG	26	ASP	CA-C-N	5.96	125.66	119.82
17	BG	26	ASP	C-N-CA	5.96	125.66	119.82
14	BD	7	ASN	N-CA-C	5.96	119.80	110.32
16	DF	77	HIS	N-CA-C	5.96	121.28	113.30
33	AW	34	GLY	CA-C-N	5.96	125.50	119.19
33	AW	34	GLY	C-N-CA	5.96	125.50	119.19
21	AK	146	ARG	N-CA-C	-5.95	104.92	111.82
19	BI	122	ASP	CA-C-N	5.95	125.57	119.56
19	BI	122	ASP	C-N-CA	5.95	125.57	119.56
5	A4	160	CYS	N-CA-C	5.94	120.66	113.17
21	BK	146	ARG	N-CA-C	-5.94	104.93	111.82
11	AA	229	A	C2'-C3'-O3'	5.94	118.41	109.50
25	BO	11	LYS	N-CA-C	5.94	117.97	108.41
11	BA	391	A	P-O3'-C3'	5.93	129.10	120.20
5	C4	160	CYS	N-CA-C	5.93	120.65	113.17
29	AS	133	HIS	N-CA-C	5.93	119.26	110.48
11	CA	1506	G	C2'-C3'-O3'	5.93	118.39	109.50
27	DQ	40	GLY	N-CA-C	-5.93	106.77	115.72
32	AV	90	ILE	CB-CA-C	-5.92	102.18	110.95
31	CU	44	VAL	N-CA-C	5.91	117.27	108.46
12	CB	24	ASN	N-CA-C	-5.91	99.43	108.76
19	DI	122	ASP	CA-C-N	5.90	125.52	119.56
19	DI	122	ASP	C-N-CA	5.90	125.52	119.56
4	A3	3	LEU	N-CA-C	-5.88	106.06	113.18
11	AA	391	A	P-O3'-C3'	5.88	129.03	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	DW	84	TYR	CA-C-N	5.88	127.19	119.84
33	DW	84	TYR	C-N-CA	5.88	127.19	119.84
28	BR	181	GLN	CA-C-N	5.88	125.50	119.56
28	BR	181	GLN	C-N-CA	5.88	125.50	119.56
11	AA	1506	G	C2'-C3'-O3'	5.87	118.31	109.50
25	BO	13	ILE	N-CA-C	5.87	116.06	107.37
5	D4	160	CYS	N-CA-C	5.87	120.56	113.17
6	B5	45	VAL	N-CA-C	5.86	116.73	108.17
25	CO	11	LYS	N-CA-C	5.86	117.84	108.41
20	BJ	93	CYS	N-CA-C	5.86	115.97	108.24
11	CA	676	C	C2'-C3'-O3'	5.86	118.28	109.50
28	AR	328	PHE	N-CA-C	5.85	117.49	109.18
12	DB	24	ASN	N-CA-C	-5.85	99.51	108.76
33	DW	241	PRO	CA-C-N	-5.85	112.97	122.34
33	DW	241	PRO	C-N-CA	-5.85	112.97	122.34
10	B9	128	HIS	N-CA-C	-5.85	102.65	110.55
33	AW	241	PRO	CA-C-N	-5.85	112.98	122.34
33	AW	241	PRO	C-N-CA	-5.85	112.98	122.34
21	DK	17	GLY	CA-C-N	5.85	126.40	120.38
21	DK	17	GLY	C-N-CA	5.85	126.40	120.38
28	AR	181	GLN	CA-C-N	5.83	125.45	119.56
28	AR	181	GLN	C-N-CA	5.83	125.45	119.56
25	BO	13	ILE	CB-CA-C	-5.83	103.09	111.19
11	BA	1506	G	C2'-C3'-O3'	5.82	118.23	109.50
11	AA	1494	U	C2'-C3'-O3'	5.82	118.23	109.50
19	CI	122	ASP	CA-C-N	5.82	125.44	119.56
19	CI	122	ASP	C-N-CA	5.82	125.44	119.56
11	DA	391	A	P-O3'-C3'	5.82	128.93	120.20
13	CC	81	GLY	N-CA-C	-5.81	99.42	113.18
20	AJ	93	CYS	N-CA-C	5.80	115.90	108.24
14	DD	143	VAL	N-CA-C	5.80	114.27	107.77
16	DF	78	ARG	N-CA-C	5.80	118.07	111.11
13	BC	81	GLY	N-CA-C	-5.79	99.46	113.18
13	AC	81	GLY	N-CA-C	-5.79	99.46	113.18
16	AF	78	ARG	N-CA-C	5.78	118.05	111.11
15	DE	197	ILE	N-CA-C	5.78	115.95	107.75
33	CW	241	PRO	CA-C-N	-5.76	113.12	122.34
33	CW	241	PRO	C-N-CA	-5.76	113.12	122.34
12	AB	23	ILE	CB-CA-C	-5.76	105.31	112.45
25	CO	13	ILE	CB-CA-C	-5.76	103.18	111.19
21	DK	137	THR	N-CA-C	-5.76	104.92	111.14
14	DD	143	VAL	CA-C-N	5.75	125.61	119.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	DD	143	VAL	C-N-CA	5.75	125.61	119.28
28	CR	181	GLN	CA-C-N	5.75	125.37	119.56
28	CR	181	GLN	C-N-CA	5.75	125.37	119.56
12	AB	24	ASN	N-CA-C	-5.75	99.68	108.76
5	A4	31	TRP	CG-CD2-CE3	-5.75	128.16	133.90
21	DK	146	ARG	N-CA-C	-5.74	105.16	111.82
19	AI	122	ASP	CA-C-N	5.73	125.35	119.56
19	AI	122	ASP	C-N-CA	5.73	125.35	119.56
5	D4	24	ASP	CA-C-N	5.73	127.00	119.84
5	D4	24	ASP	C-N-CA	5.73	127.00	119.84
11	DA	493	U	N1-C1'-C2'	5.73	122.59	114.00
12	BB	23	ILE	CB-CA-C	-5.72	105.36	112.45
15	BE	107	ASP	N-CA-C	-5.71	100.97	110.17
30	DT	50	ALA	CA-C-N	5.71	125.73	119.90
30	DT	50	ALA	C-N-CA	5.71	125.73	119.90
36	DZ	3	SER	N-CA-C	5.71	117.18	111.07
11	CA	1134	C	O3'-P-O5'	5.71	112.57	104.00
11	BA	1494	U	C2'-C3'-O3'	5.71	118.06	109.50
28	DR	181	GLN	CA-C-N	5.71	125.32	119.56
28	DR	181	GLN	C-N-CA	5.71	125.32	119.56
33	BW	184	TYR	N-CA-C	-5.70	100.59	109.72
4	B3	3	LEU	N-CA-C	-5.70	106.28	113.18
18	BH	5	ASN	N-CA-C	5.70	117.57	110.91
5	B4	24	ASP	CA-C-N	5.69	126.95	119.84
5	B4	24	ASP	C-N-CA	5.69	126.95	119.84
4	C3	132	LEU	N-CA-C	5.69	122.38	109.81
33	BW	241	PRO	CA-C-N	-5.68	113.25	122.34
33	BW	241	PRO	C-N-CA	-5.68	113.25	122.34
28	CR	314	SER	N-CA-C	5.68	117.47	108.79
12	CB	23	ILE	CB-CA-C	-5.67	105.42	112.45
5	C4	24	ASP	CA-C-N	5.66	126.91	119.84
5	C4	24	ASP	C-N-CA	5.66	126.91	119.84
13	AC	209	ILE	CA-C-N	5.66	125.36	119.82
13	AC	209	ILE	C-N-CA	5.66	125.36	119.82
4	B3	132	LEU	N-CA-C	5.65	122.30	109.81
33	CW	4	GLY	CA-C-N	5.65	126.13	120.14
33	CW	4	GLY	C-N-CA	5.65	126.13	120.14
23	DM	75	ASP	CA-C-N	5.65	125.01	118.85
23	DM	75	ASP	C-N-CA	5.65	125.01	118.85
23	BM	75	ASP	CA-C-N	5.64	125.00	118.85
23	BM	75	ASP	C-N-CA	5.64	125.00	118.85
18	CH	5	ASN	N-CA-C	5.64	117.51	110.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	DB	23	ILE	CB-CA-C	-5.64	105.46	112.45
5	C4	107	ASP	N-CA-C	5.61	115.79	107.88
33	DW	4	GLY	CA-C-N	5.61	126.09	120.14
33	DW	4	GLY	C-N-CA	5.61	126.09	120.14
28	BR	314	SER	N-CA-C	5.61	117.37	108.79
6	D5	45	VAL	N-CA-C	5.61	116.35	108.17
23	AM	75	ASP	CA-C-N	5.60	124.95	118.85
23	AM	75	ASP	C-N-CA	5.60	124.95	118.85
33	BW	4	GLY	CA-C-N	5.60	126.07	120.14
33	BW	4	GLY	C-N-CA	5.60	126.07	120.14
16	CF	78	ARG	N-CA-C	5.59	117.82	111.11
36	CZ	3	SER	N-CA-C	5.59	117.05	111.07
15	CE	107	ASP	N-CA-C	-5.58	101.18	110.17
22	BL	87	PRO	N-CA-C	5.58	119.78	111.41
27	AQ	156	LEU	N-CA-C	-5.58	106.24	113.16
12	CB	65	HIS	CA-C-N	5.58	125.42	119.28
12	CB	65	HIS	C-N-CA	5.58	125.42	119.28
22	DL	33	LEU	N-CA-C	5.57	117.35	111.28
5	A4	24	ASP	CA-C-N	5.57	126.80	119.84
5	A4	24	ASP	C-N-CA	5.57	126.80	119.84
3	C2	62	LYS	N-CA-C	-5.57	100.71	109.50
33	CW	84	TYR	CA-C-N	5.56	126.79	119.84
33	CW	84	TYR	C-N-CA	5.56	126.79	119.84
30	CT	50	ALA	CA-C-N	5.56	125.57	119.90
30	CT	50	ALA	C-N-CA	5.56	125.57	119.90
5	A4	107	ASP	N-CA-C	5.56	115.17	107.73
27	BQ	52	TYR	N-CA-C	5.56	118.29	109.96
34	AX	11	ALA	N-CA-C	5.55	117.14	111.14
30	DT	76	ILE	N-CA-C	5.55	115.75	110.42
32	CV	113	ASN	N-CA-C	5.55	120.17	113.17
32	BV	113	ASN	N-CA-C	5.54	120.15	113.17
28	BR	41	VAL	N-CA-C	5.54	115.93	108.17
10	A9	143	ILE	N-CA-C	5.54	116.08	110.05
4	D3	132	LEU	N-CA-C	5.53	122.03	109.81
36	BZ	3	SER	N-CA-C	5.52	116.98	111.07
33	AW	4	GLY	CA-C-N	5.52	125.99	120.14
33	AW	4	GLY	C-N-CA	5.52	125.99	120.14
33	BW	84	TYR	CA-C-N	5.52	126.74	119.84
33	BW	84	TYR	C-N-CA	5.52	126.74	119.84
33	BW	34	GLY	CA-C-N	5.52	125.04	119.19
33	BW	34	GLY	C-N-CA	5.52	125.04	119.19
11	DA	1134	C	OP2-P-O3'	5.52	124.55	108.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	DV	113	ASN	N-CA-C	5.51	120.11	113.17
22	AL	33	LEU	N-CA-C	5.50	117.28	111.28
23	CM	75	ASP	CA-C-N	5.50	124.85	118.85
23	CM	75	ASP	C-N-CA	5.50	124.85	118.85
11	CA	328	G	P-O3'-C3'	5.50	128.45	120.20
4	C3	3	LEU	N-CA-C	-5.50	106.53	113.18
33	AW	71	ASN	N-CA-C	5.49	119.15	112.23
4	D3	3	LEU	N-CA-C	-5.48	106.55	113.18
28	DR	41	VAL	N-CA-C	5.48	115.84	108.17
20	BJ	56	MET	CA-C-N	-5.48	114.32	119.85
20	BJ	56	MET	C-N-CA	-5.48	114.32	119.85
18	CH	93	ILE	N-CA-C	5.48	116.97	111.00
18	AH	32	LYS	N-CA-C	-5.47	105.22	111.07
11	CA	1586	A	O3'-P-O5'	-5.46	95.81	104.00
30	AT	50	ALA	CA-C-N	5.46	125.47	119.90
30	AT	50	ALA	C-N-CA	5.46	125.47	119.90
6	B5	76	CYS	N-CA-C	-5.46	103.70	110.41
33	BW	71	ASN	N-CA-C	5.45	119.10	112.23
22	CL	87	PRO	N-CA-C	5.45	119.59	111.41
36	BZ	10	SER	N-CA-C	5.45	117.92	111.33
28	AR	41	VAL	N-CA-C	5.45	115.80	108.17
4	A3	132	LEU	N-CA-C	5.43	121.81	109.81
12	BB	148	SER	CA-C-N	5.43	125.60	119.90
12	BB	148	SER	C-N-CA	5.43	125.60	119.90
21	AK	137	THR	N-CA-C	-5.42	105.28	111.14
33	CW	71	ASN	N-CA-C	5.42	119.06	112.23
28	AR	314	SER	N-CA-C	5.42	117.08	108.79
15	CE	110	GLY	N-CA-C	5.42	122.74	115.59
11	DA	1168	A	C2'-C3'-O3'	5.42	117.62	109.50
5	B4	160	CYS	N-CA-C	5.41	120.55	113.30
21	CK	137	THR	N-CA-C	-5.41	105.30	111.14
11	BA	229	A	C2'-C3'-O3'	5.41	117.61	109.50
14	DD	148	VAL	N-CA-C	5.41	116.51	108.23
5	B4	71	THR	CA-C-N	-5.41	113.69	122.34
5	B4	71	THR	C-N-CA	-5.41	113.69	122.34
21	BK	38	ASN	N-CA-C	5.40	119.97	113.17
17	BG	17	TRP	N-CA-C	5.39	117.18	108.34
25	DO	13	ILE	CB-CA-C	-5.39	103.70	111.19
27	CQ	156	LEU	N-CA-C	-5.39	106.48	113.16
5	D4	107	ASP	N-CA-C	5.39	115.48	107.88
15	DE	107	ASP	N-CA-C	-5.38	101.77	110.32
30	BT	76	ILE	N-CA-C	5.37	115.58	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	CR	41	VAL	N-CA-C	5.37	115.69	108.17
27	DQ	156	LEU	N-CA-C	-5.37	106.50	113.16
33	DW	71	ASN	N-CA-C	5.37	119.00	112.23
11	CA	1168	A	C2'-C3'-O3'	5.37	117.56	109.50
6	A5	45	VAL	N-CA-C	5.37	116.00	108.17
21	CK	38	ASN	N-CA-C	5.36	119.93	113.17
12	BB	65	HIS	CA-C-N	5.36	125.18	119.28
12	BB	65	HIS	C-N-CA	5.36	125.18	119.28
32	AV	113	ASN	N-CA-C	5.36	119.92	113.17
25	CO	13	ILE	N-CA-C	5.35	115.29	107.37
14	AD	143	VAL	CA-C-N	5.34	125.16	119.28
14	AD	143	VAL	C-N-CA	5.34	125.16	119.28
28	BR	153	PHE	N-CA-C	5.34	117.80	109.52
27	BQ	156	LEU	N-CA-C	-5.33	106.56	113.16
13	CC	209	ILE	CA-C-N	5.32	125.03	119.82
13	CC	209	ILE	C-N-CA	5.32	125.03	119.82
36	AZ	10	SER	N-CA-C	5.32	117.76	111.33
28	CR	153	PHE	N-CA-C	5.31	117.75	109.52
15	BE	110	GLY	N-CA-C	5.31	122.60	115.59
19	BI	8	LEU	N-CA-C	5.30	117.56	110.35
30	AT	76	ILE	N-CA-C	5.30	115.51	110.42
12	DB	65	HIS	CA-C-N	5.30	125.11	119.28
12	DB	65	HIS	C-N-CA	5.30	125.11	119.28
14	CD	143	VAL	CA-C-N	5.30	125.11	119.28
14	CD	143	VAL	C-N-CA	5.30	125.11	119.28
28	DR	314	SER	N-CA-C	5.30	116.89	108.79
28	DR	153	PHE	N-CA-C	5.29	117.73	109.52
33	DW	34	GLY	CA-C-N	5.29	124.80	119.19
33	DW	34	GLY	C-N-CA	5.29	124.80	119.19
36	AZ	3	SER	N-CA-C	5.29	116.73	111.07
20	CJ	56	MET	CA-C-N	-5.29	114.51	119.85
20	CJ	56	MET	C-N-CA	-5.29	114.51	119.85
21	BK	137	THR	N-CA-C	-5.29	105.43	111.14
17	DG	117	ARG	N-CA-C	-5.28	105.04	112.12
17	DG	17	TRP	N-CA-C	5.28	117.00	108.34
7	A6	46	SER	CA-C-N	-5.27	115.52	122.85
7	A6	46	SER	C-N-CA	-5.27	115.52	122.85
34	DX	11	ALA	N-CA-C	5.27	116.83	111.14
11	BA	1494	U	P-O3'-C3'	5.27	128.10	120.20
5	B4	107	ASP	N-CA-C	5.27	115.31	107.88
14	AD	148	VAL	N-CA-C	5.26	116.29	108.23
17	CG	111	VAL	N-CA-C	-5.26	105.71	110.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	CQ	52	TYR	N-CA-C	5.26	117.85	109.96
28	BR	39	SER	CA-C-N	5.26	125.34	119.87
28	BR	39	SER	C-N-CA	5.26	125.34	119.87
36	CZ	10	SER	N-CA-C	5.25	117.69	111.33
17	BG	117	ARG	N-CA-C	-5.25	105.09	112.12
30	CT	76	ILE	N-CA-C	5.25	115.45	110.42
5	A4	71	THR	CA-C-N	-5.24	113.95	122.34
5	A4	71	THR	C-N-CA	-5.24	113.95	122.34
17	CG	17	TRP	N-CA-C	5.24	116.93	108.34
21	AK	38	ASN	N-CA-C	5.23	119.75	113.17
34	BX	11	ALA	N-CA-C	5.23	116.78	111.14
13	BC	209	ILE	CA-C-N	5.22	124.94	119.82
13	BC	209	ILE	C-N-CA	5.22	124.94	119.82
16	DF	31	CYS	N-CA-C	5.22	115.13	108.24
19	DI	8	LEU	N-CA-C	5.22	117.44	110.35
17	AG	117	ARG	N-CA-C	-5.21	105.13	112.12
18	AH	5	ASN	N-CA-C	5.21	117.01	110.91
1	C0	29	GLU	N-CA-C	-5.21	103.81	110.53
15	CE	231	TRP	N-CA-C	5.21	117.86	111.82
15	BE	201	SER	N-CA-C	5.20	117.93	109.24
11	AA	1168	A	C2'-C3'-O3'	5.20	117.30	109.50
33	AW	84	TYR	CA-C-N	5.20	126.34	119.84
33	AW	84	TYR	C-N-CA	5.20	126.34	119.84
28	AR	39	SER	CA-C-N	5.20	125.28	119.87
28	AR	39	SER	C-N-CA	5.20	125.28	119.87
11	DA	1134	C	O3'-P-O5'	-5.19	96.22	104.00
15	AE	166	VAL	N-CA-C	5.18	117.10	109.63
11	BA	100	A	P-O3'-C3'	5.18	127.97	120.20
11	CA	1744	U	C4'-C3'-O3'	5.18	117.17	109.40
28	BR	15	GLY	N-CA-C	5.18	118.10	110.80
33	CW	34	GLY	CA-C-N	5.17	124.68	119.19
33	CW	34	GLY	C-N-CA	5.17	124.68	119.19
22	AL	33	LEU	CA-C-N	-5.17	115.12	123.23
22	AL	33	LEU	C-N-CA	-5.17	115.12	123.23
28	AR	153	PHE	N-CA-C	5.16	117.52	109.52
11	CA	1246	C	P-O3'-C3'	5.16	127.94	120.20
27	DQ	29	ALA	CB-CA-C	-5.16	110.65	116.63
11	DA	1122	G	C4'-C3'-O3'	5.16	120.73	113.00
21	DK	38	ASN	N-CA-C	5.15	119.66	113.17
5	C4	71	THR	CA-C-N	-5.15	114.10	122.34
5	C4	71	THR	C-N-CA	-5.15	114.10	122.34
11	DA	1246	C	P-O3'-C3'	5.15	127.93	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	DL	87	PRO	N-CA-C	5.15	119.14	111.41
3	D2	62	LYS	N-CA-C	-5.15	101.36	109.50
15	DE	231	TRP	N-CA-C	5.14	117.79	111.82
9	B8	97	ALA	N-CA-C	5.14	117.20	109.23
22	BL	33	LEU	N-CA-C	5.13	117.53	111.33
10	B9	119	CYS	CA-C-N	5.12	124.87	121.13
10	B9	119	CYS	C-N-CA	5.12	124.87	121.13
28	CR	15	GLY	N-CA-C	5.12	118.02	110.80
34	CX	11	ALA	N-CA-C	5.12	116.67	111.14
15	AE	110	GLY	N-CA-C	5.12	122.35	115.59
19	CI	8	LEU	N-CA-C	5.12	117.31	110.35
3	A2	62	LYS	N-CA-C	-5.11	101.42	109.50
15	AE	231	TRP	N-CA-C	5.11	117.75	111.82
25	BO	60	HIS	N-CA-C	5.11	119.61	113.17
36	DZ	10	SER	N-CA-C	5.11	117.51	111.33
27	AQ	52	TYR	N-CA-C	5.11	117.62	109.96
14	CD	148	VAL	N-CA-C	5.11	116.04	108.23
11	BA	633	U	C2'-C3'-O3'	5.10	117.15	109.50
31	BU	52	GLN	N-CA-C	-5.10	99.95	108.32
17	AG	17	TRP	N-CA-C	5.10	116.70	108.34
27	CQ	29	ALA	CB-CA-C	-5.10	110.72	116.63
11	DA	1586	A	O3'-P-O5'	5.10	111.65	104.00
32	AV	90	ILE	N-CA-C	-5.09	105.90	113.39
19	CI	91	ILE	CB-CA-C	-5.09	105.26	112.14
11	BA	1168	A	C2'-C3'-O3'	5.09	117.14	109.50
19	CI	16	LYS	CB-CA-C	-5.09	110.69	116.54
25	DO	13	ILE	N-CA-C	5.09	114.90	107.37
27	BQ	29	ALA	CB-CA-C	-5.08	110.74	116.63
11	AA	1122	G	C4'-C3'-O3'	5.08	120.61	113.00
11	BA	1246	C	P-O3'-C3'	5.08	127.81	120.20
28	DR	15	GLY	N-CA-C	5.07	117.95	110.80
16	CF	31	CYS	N-CA-C	5.07	114.93	108.24
11	AA	328	G	O3'-P-O5'	5.07	111.60	104.00
31	CU	28	GLY	N-CA-C	5.06	118.34	111.72
12	AB	148	SER	CA-C-N	5.05	125.21	119.90
12	AB	148	SER	C-N-CA	5.05	125.21	119.90
27	AQ	29	ALA	CB-CA-C	-5.05	110.77	116.63
28	DR	39	SER	CA-C-N	5.05	125.12	119.87
28	DR	39	SER	C-N-CA	5.05	125.12	119.87
11	AA	1494	U	P-O3'-C3'	5.05	127.77	120.20
15	DE	110	GLY	N-CA-C	5.05	122.25	115.59
19	DI	16	LYS	CB-CA-C	-5.05	110.73	116.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	DP	96	GLY	N-CA-C	5.04	116.74	110.29
11	CA	676	C	P-O3'-C3'	5.03	127.75	120.20
11	BA	1122	G	C4'-C3'-O3'	5.03	120.55	113.00
1	A0	29	GLU	N-CA-C	-5.03	104.04	110.53
11	CA	1494	U	P-O3'-C3'	5.02	127.73	120.20
12	DB	148	SER	CA-C-N	5.02	125.17	119.90
12	DB	148	SER	C-N-CA	5.02	125.17	119.90
14	BD	143	VAL	CA-C-N	5.02	124.80	119.28
14	BD	143	VAL	C-N-CA	5.02	124.80	119.28
11	AA	100	A	P-O3'-C3'	5.02	127.73	120.20
6	B5	85	VAL	CB-CA-C	-5.02	105.46	112.04
7	B6	46	SER	CA-C-N	-5.02	115.03	122.41
7	B6	46	SER	C-N-CA	-5.02	115.03	122.41
35	BY	108	VAL	N-CA-C	5.02	115.93	108.46
11	AA	632	U	O3'-P-O5'	-5.01	96.48	104.00
13	DC	209	ILE	CA-C-N	5.01	124.73	119.82
13	DC	209	ILE	C-N-CA	5.01	124.73	119.82
12	AB	65	HIS	CA-C-N	5.00	124.78	119.28
12	AB	65	HIS	C-N-CA	5.00	124.78	119.28
36	CZ	41	SER	N-CA-C	-5.00	105.72	111.07
11	DA	1744	U	C4'-C3'-O3'	5.00	116.91	109.40

There are no chirality outliers.

All (62) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
4	A3	131	LEU	Peptide
5	A4	71	THR	Peptide
7	A6	65	THR	Peptide
9	A8	99	ASN	Peptide
17	AG	73	PHE	Peptide
18	AH	58	SER	Peptide
18	AH	66	ILE	Peptide
20	AJ	72	GLU	Peptide
21	AK	137	THR	Peptide
25	AO	15	GLY	Peptide
29	AS	133	HIS	Peptide
31	AU	51	ASP	Peptide
31	AU	66	ASN	Peptide
33	AW	242	SER	Peptide
4	B3	131	LEU	Peptide
5	B4	238	TYR	Peptide

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Mol	Chain	Res	Type	Group
5	B4	71	THR	Peptide
7	B6	65	THR	Peptide
9	B8	99	ASN	Peptide
17	BG	73	PHE	Peptide
18	BH	58	SER	Peptide
18	BH	66	ILE	Peptide
20	BJ	72	GLU	Peptide
21	BK	137	THR	Peptide
25	BO	15	GLY	Peptide
29	BS	133	HIS	Peptide
31	BU	51	ASP	Peptide
31	BU	66	ASN	Peptide
33	BW	242	SER	Peptide
4	C3	131	LEU	Peptide
5	C4	238	TYR	Peptide
5	C4	71	THR	Peptide
7	C6	65	THR	Peptide
9	C8	99	ASN	Peptide
17	CG	73	PHE	Peptide
18	CH	58	SER	Peptide
18	CH	66	ILE	Peptide
20	CJ	72	GLU	Peptide
21	CK	137	THR	Peptide
24	CN	54	TYR	Peptide
25	CO	15	GLY	Peptide
29	CS	133	HIS	Peptide
31	CU	51	ASP	Peptide
31	CU	66	ASN	Peptide
33	CW	242	SER	Peptide
4	D3	131	LEU	Peptide
5	D4	238	TYR	Peptide
5	D4	71	THR	Peptide
7	D6	65	THR	Peptide
9	D8	99	ASN	Peptide
17	DG	73	PHE	Peptide
18	DH	58	SER	Peptide
18	DH	66	ILE	Peptide
20	DJ	72	GLU	Peptide
21	DK	137	THR	Peptide
25	DO	15	GLY	Peptide
29	DS	105	LYS	Peptide
29	DS	133	HIS	Peptide

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Mol	Chain	Res	Type	Group
31	DU	51	ASP	Peptide
31	DU	66	ASN	Peptide
32	DV	70	SER	Mainchain
33	DW	242	SER	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	A0	817	0	829	26	0
1	B0	817	0	829	48	0
1	C0	817	0	829	34	0
1	D0	817	0	829	31	0
2	A1	511	0	544	24	0
2	B1	511	0	544	18	0
2	C1	511	0	544	23	1
2	D1	511	0	544	22	0
3	A2	1693	0	1795	76	1
3	B2	1693	0	1795	61	0
3	C2	1693	0	1795	66	0
3	D2	1693	0	1795	68	0
4	A3	1629	0	1708	63	0
4	B3	1629	0	1708	63	0
4	C3	1629	0	1708	64	0
4	D3	1629	0	1708	57	0
5	A4	1679	0	1762	59	0
5	B4	1775	0	1851	64	0
5	C4	1775	0	1851	58	0
5	D4	1775	0	1851	66	0
6	A5	812	0	854	46	0
6	B5	812	0	854	41	0
6	C5	812	0	854	40	0
6	D5	812	0	854	39	0
7	A6	632	0	646	30	0
7	B6	632	0	646	34	1
7	C6	632	0	646	32	0
7	D6	632	0	646	36	0
8	A7	833	0	844	37	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	B7	833	0	844	29	0
8	C7	833	0	844	36	0
8	D7	833	0	844	48	0
9	A8	615	0	660	26	0
9	B8	615	0	660	29	1
9	C8	615	0	660	21	0
9	D8	615	0	660	36	0
10	A9	751	0	807	54	0
10	B9	751	0	809	74	0
10	C9	751	0	809	41	0
10	D9	751	0	809	56	0
11	AA	36629	0	18413	1089	0
11	BA	36629	0	18413	1125	3
11	CA	36629	0	18413	1066	2
11	DA	36629	0	18413	1116	1
12	AB	1619	0	1623	73	0
12	BB	1619	0	1623	81	0
12	CB	1619	0	1623	69	0
12	DB	1619	0	1623	62	0
13	AC	1811	0	1907	69	0
13	BC	1811	0	1907	68	0
13	CC	1811	0	1907	80	0
13	DC	1811	0	1907	88	0
14	AD	1478	0	1569	76	0
14	BD	1478	0	1569	76	0
14	CD	1478	0	1569	69	0
14	DD	1478	0	1569	68	0
15	AE	1818	0	1853	77	0
15	BE	1818	0	1853	76	0
15	CE	1818	0	1853	82	0
15	DE	1818	0	1853	79	0
16	AF	736	0	722	16	0
16	BF	736	0	722	13	0
16	CF	736	0	722	14	0
16	DF	736	0	722	12	0
17	AG	1520	0	1572	61	0
17	BG	1520	0	1572	60	0
17	CG	1520	0	1572	56	0
17	DG	1520	0	1572	56	0
18	AH	1040	0	1096	42	0
18	BH	1040	0	1096	43	0
18	CH	1040	0	1096	50	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
18	DH	1040	0	1096	43	0
19	AI	1135	0	1204	47	0
19	BI	1135	0	1204	50	0
19	CI	1135	0	1204	49	0
19	DI	1135	0	1204	51	0
20	AJ	859	0	921	36	0
20	BJ	859	0	921	41	0
20	CJ	859	0	921	39	0
20	DJ	859	0	921	39	0
21	AK	1063	0	1088	62	0
21	BK	1063	0	1088	59	0
21	CK	1063	0	1088	57	0
21	DK	1063	0	1088	61	0
22	AL	1086	0	1156	50	0
22	BL	1086	0	1156	45	0
22	CL	1086	0	1156	49	0
22	DL	1086	0	1156	46	0
23	AM	1231	0	1276	59	0
23	BM	1231	0	1276	62	0
23	CM	1231	0	1276	56	0
23	DM	1231	0	1276	78	0
24	AN	454	0	453	34	0
24	BN	454	0	453	32	0
24	CN	454	0	453	28	0
24	DN	454	0	453	33	0
25	AO	1229	0	1338	50	0
25	BO	1229	0	1338	50	0
25	CO	1229	0	1338	49	0
25	DO	1229	0	1338	50	0
26	AP	1197	0	1285	47	0
26	BP	1197	0	1285	52	0
26	CP	1197	0	1285	45	1
26	DP	1197	0	1285	45	0
27	AQ	1267	0	1342	62	0
27	BQ	1267	0	1342	61	0
27	CQ	1267	0	1342	55	0
27	DQ	1267	0	1342	59	0
28	AR	2682	0	2629	106	0
28	BR	2682	0	2629	108	0
28	CR	2682	0	2629	120	0
28	DR	2682	0	2629	103	0
29	AS	1010	0	1059	45	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	BS	1010	0	1059	41	0
29	CS	1010	0	1059	41	0
29	DS	1010	0	1059	41	0
30	AT	1242	0	1290	52	0
30	BT	1242	0	1290	58	0
30	CT	1242	0	1290	50	0
30	DT	1242	0	1290	53	1
31	AU	952	0	993	51	0
31	BU	952	0	993	44	0
31	CU	952	0	993	38	0
31	DU	952	0	993	47	0
32	AV	968	0	1031	41	0
32	BV	968	0	1031	45	0
32	CV	968	0	1031	43	0
32	DV	968	0	1031	40	0
33	AW	2079	0	2151	89	0
33	BW	2079	0	2151	96	0
33	CW	2079	0	2151	93	0
33	DW	2079	0	2151	91	0
34	AX	599	0	651	19	0
34	BX	599	0	651	22	0
34	CX	599	0	651	22	0
34	DX	599	0	651	18	0
35	AY	1826	0	1954	72	0
35	BY	1826	0	1954	80	0
35	CY	1826	0	1954	68	0
35	DY	1826	0	1954	81	0
36	AZ	747	0	758	31	0
36	BZ	747	0	758	33	0
36	CZ	747	0	758	32	0
36	DZ	747	0	758	29	0
37	A5	1	0	0	0	0
37	A6	1	0	0	0	0
37	A9	1	0	0	0	0
37	AN	1	0	0	0	0
37	B5	1	0	0	0	0
37	B6	1	0	0	0	0
37	B9	1	0	0	0	0
37	BN	1	0	0	0	0
37	C5	1	0	0	0	0
37	C6	1	0	0	0	0
37	C9	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
37	CN	1	0	0	0	0
37	D5	1	0	0	0	0
37	D6	1	0	0	0	0
37	D9	1	0	0	0	0
37	DN	1	0	0	0	0
38	AA	79	0	0	0	0
38	BA	79	0	0	0	0
38	CA	79	0	0	0	0
38	DA	79	0	0	0	0
39	AA	474	0	0	51	0
39	BA	474	0	0	48	0
39	C2	2	0	0	0	0
39	C4	2	0	0	0	0
39	C5	3	0	0	1	0
39	CA	467	0	0	47	0
39	DA	474	0	0	54	0
All	All	315512	0	247405	9661	6

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 (9661) 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)
10:B9:87:LYS:NZ	11:BA:1187:C:OP2	1.62	1.32
11:DA:1377:A:OP2	17:DG:54:LYS:NZ	1.65	1.29
11:BA:1377:A:OP2	17:BG:54:LYS:NZ	1.67	1.25
11:DA:1214:A:OP1	29:DS:64:LYS:NZ	1.71	1.23
9:D8:81:ARG:NH2	11:DA:1505:C:OP2	1.73	1.20
15:CE:141:ARG:NH1	36:CZ:25:ASP:OD2	1.76	1.17
15:BE:141:ARG:NH1	36:BZ:25:ASP:OD2	1.75	1.17
10:C9:87:LYS:NZ	11:CA:1187:C:OP2	1.77	1.17
15:DE:141:ARG:NH1	36:DZ:25:ASP:OD2	1.76	1.15
36:DZ:45:SER:O	36:DZ:74:ARG:NH1	1.81	1.14
36:AZ:45:SER:O	36:AZ:74:ARG:NH1	1.81	1.13
11:CA:1214:A:OP1	29:CS:64:LYS:NZ	1.80	1.12
36:BZ:45:SER:O	36:BZ:74:ARG:NH1	1.83	1.11
36:CZ:45:SER:O	36:CZ:74:ARG:NH1	1.83	1.10
15:AE:141:ARG:NH1	36:AZ:25:ASP:OD2	1.84	1.10
11:CA:1266:G:O6	39:CA:2240:HOH:O	1.71	1.09
3:A2:145:ARG:NH1	11:AA:183:G:O6	1.86	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1400:G:OP2	39:DA:8216:HOH:O	1.74	1.05
2:A1:68:ARG:HH12	6:A5:101:ILE:HD11	1.16	1.04
10:A9:156:LYS:NZ	7:D6:58:SER:O	1.91	1.02
11:AA:391:A:O2'	11:AA:392:A:OP2	1.80	1.00
11:CA:1580:U:H5"	19:CI:74:SER:HB2	1.43	1.00
11:AA:1400:G:OP2	39:AA:2388:HOH:O	1.79	0.99
13:BC:196:GLU:HG3	13:BC:203:PHE:HB3	1.44	0.99
13:CC:196:GLU:HG3	13:CC:203:PHE:HB3	1.44	0.99
11:CA:676:C:O2'	11:CA:677:G:OP2	1.80	0.99
11:AA:229:A:O2'	11:AA:230:A:OP2	1.80	0.98
11:BA:1200:G:O6	31:CU:91:LYS:NZ	1.94	0.98
11:BA:391:A:O2'	11:BA:392:A:OP2	1.81	0.98
11:BA:1214:A:OP1	29:BS:64:LYS:NZ	1.95	0.98
11:DA:391:A:O2'	11:DA:392:A:OP2	1.80	0.98
11:CA:391:A:O2'	11:CA:392:A:OP2	1.80	0.98
6:D5:8:ALA:HB1	11:DA:1744:U:H5'	1.44	0.98
8:D7:6:LYS:HZ1	31:DU:27:LYS:HZ1	1.02	0.98
11:AA:416:C:O2'	11:AA:417:A:OP2	1.81	0.97
8:A7:6:LYS:HZ1	31:AU:27:LYS:HZ1	1.01	0.97
11:DA:416:C:O2'	11:DA:417:A:OP2	1.82	0.97
8:D7:6:LYS:NZ	31:DU:27:LYS:HZ1	1.62	0.97
13:AC:196:GLU:HG3	13:AC:203:PHE:HB3	1.45	0.97
11:CA:416:C:O2'	11:CA:417:A:OP2	1.81	0.97
11:CA:1400:G:OP2	39:CA:2236:HOH:O	1.83	0.96
13:DC:196:GLU:HG3	13:DC:203:PHE:HB3	1.44	0.96
11:DA:1213:G:H4'	29:DS:83:THR:HA	1.47	0.96
13:DC:9:ASN:HB3	13:DC:12:LYS:HB3	1.46	0.96
11:DA:873:G:H1	11:DA:895:U:H3	1.13	0.96
11:CA:873:G:H1	11:CA:895:U:H3	1.13	0.96
11:DA:1318:C:OP1	20:DJ:51:LYS:NZ	1.98	0.96
11:DA:1580:U:H5"	19:DI:74:SER:HB2	1.46	0.96
11:BA:416:C:O2'	11:BA:417:A:OP2	1.82	0.96
11:BA:873:G:H1	11:BA:895:U:H3	1.12	0.96
11:CA:797:A:H61	11:CA:835:U:H3	1.14	0.96
11:AA:647:U:O2'	11:AA:649:U:OP2	1.83	0.95
11:CA:273:A:O2'	11:CA:274:C:OP2	1.84	0.95
11:CA:947:C:OP2	25:CO:7:LYS:NZ	2.00	0.95
11:AA:873:G:H1	11:AA:895:U:H3	1.12	0.95
11:AA:654:U:H1'	11:AA:656:G:H21	1.28	0.95
11:AA:1226:U:OP1	31:AU:34:ARG:NH1	2.00	0.95
10:D9:73:LYS:NZ	11:DA:1157:U:OP1	1.98	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:D9:87:LYS:NZ	11:DA:1187:C:OP2	2.00	0.95
11:CA:647:U:O2'	11:CA:649:U:OP2	1.83	0.95
28:CR:118:GLN:N	28:CR:139:GLU:OE2	1.99	0.94
28:CR:23:TRP:HB2	28:CR:47:ARG:HG3	1.48	0.94
11:DA:273:A:O2'	11:DA:274:C:OP2	1.84	0.94
11:DA:1166:A:OP2	20:DJ:73:GLY:HA3	1.67	0.94
28:DR:118:GLN:N	28:DR:139:GLU:OE2	2.00	0.94
11:AA:500:U:OP2	34:AX:28:ARG:NH2	2.01	0.94
11:BA:1226:U:OP1	31:BU:34:ARG:NH1	2.01	0.94
11:DA:947:C:OP2	25:DO:7:LYS:NZ	2.00	0.94
11:AA:273:A:O2'	11:AA:274:C:OP2	1.86	0.94
11:AA:1580:U:H5"	19:AI:74:SER:HB2	1.49	0.94
19:CI:71:VAL:HG21	19:CI:83:ILE:HG12	1.50	0.94
11:DA:797:A:H61	11:DA:835:U:H3	1.13	0.94
11:AA:4:C:O2'	14:AD:17:ARG:NH2	2.01	0.94
8:A7:6:LYS:NZ	31:AU:27:LYS:HZ1	1.64	0.93
13:CC:9:ASN:HB3	13:CC:12:LYS:HB3	1.49	0.93
8:D7:6:LYS:HZ1	31:DU:27:LYS:NZ	1.65	0.93
15:AE:80:GLU:OE2	15:AE:187:LYS:NZ	2.01	0.93
15:DE:80:GLU:OE2	15:DE:187:LYS:NZ	1.99	0.93
19:BI:71:VAL:HG21	19:BI:83:ILE:HG12	1.51	0.93
11:AA:1486:U:O2'	11:AA:1487:A:OP2	1.86	0.93
36:AZ:40:PHE:HB2	36:AZ:43:ASP:HB2	1.51	0.93
36:DZ:40:PHE:HB2	36:DZ:43:ASP:HB2	1.50	0.93
19:AI:71:VAL:HG21	19:AI:83:ILE:HG12	1.51	0.93
6:B5:8:ALA:HB1	11:BA:1744:U:H5'	1.50	0.93
11:DA:81:A:OP2	39:DA:7767:HOH:O	1.85	0.93
28:DR:23:TRP:HB2	28:DR:47:ARG:HG3	1.50	0.93
11:DA:1486:U:O2'	11:DA:1487:A:OP2	1.85	0.93
28:AR:23:TRP:HB2	28:AR:47:ARG:HG3	1.49	0.92
28:BR:118:GLN:N	28:BR:139:GLU:OE2	2.01	0.92
11:AA:1214:A:OP1	29:AS:64:LYS:NZ	2.02	0.92
28:AR:118:GLN:N	28:AR:139:GLU:OE2	2.01	0.92
11:CA:1452:G:O6	30:CT:11:LYS:NZ	2.02	0.92
11:DA:229:A:O2'	11:DA:230:A:OP2	1.86	0.92
15:BE:80:GLU:OE2	15:BE:187:LYS:NZ	2.02	0.92
36:CZ:40:PHE:HB2	36:CZ:43:ASP:HB2	1.52	0.92
12:AB:152:TYR:HA	36:AZ:74:ARG:HG2	1.51	0.92
11:BA:1486:U:O2'	11:BA:1487:A:OP2	1.87	0.92
11:CA:500:U:OP1	34:CX:28:ARG:NH2	2.01	0.92
13:DC:146:LYS:HD2	13:DC:151:LYS:HZ1	1.35	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:BC:9:ASN:HB3	13:BC:12:LYS:HB3	1.51	0.92
13:AC:9:ASN:HB3	13:AC:12:LYS:HB3	1.49	0.92
28:BR:23:TRP:HB2	28:BR:47:ARG:HG3	1.51	0.92
19:DI:71:VAL:HG21	19:DI:83:ILE:HG12	1.51	0.92
11:AA:1166:A:OP2	20:AJ:73:GLY:HA3	1.70	0.91
6:C5:62:GLU:HB2	6:C5:65:GLY:HA3	1.52	0.91
15:CE:80:GLU:OE2	15:CE:187:LYS:NZ	2.01	0.91
11:BA:273:A:O2'	11:BA:274:C:OP2	1.85	0.91
11:BA:1450:G:OP1	30:BT:60:ARG:NH1	2.02	0.91
11:BA:1580:U:H5"	19:BI:74:SER:HB2	1.48	0.91
11:CA:1226:U:OP1	31:CU:34:ARG:NH1	2.02	0.91
6:A5:62:GLU:HB2	6:A5:65:GLY:HA3	1.53	0.91
11:CA:4:C:O2'	14:CD:17:ARG:NH2	2.02	0.91
11:DA:1494:U:O2'	11:DA:1495:U:OP1	1.87	0.91
1:B0:22:LYS:HZ3	10:B9:76:LYS:HG2	1.36	0.91
11:BA:508:A:OP2	39:BA:6162:HOH:O	1.87	0.91
36:BZ:40:PHE:HB2	36:BZ:43:ASP:HB2	1.52	0.91
6:D5:62:GLU:HB2	6:D5:65:GLY:HA3	1.53	0.91
11:CA:1486:U:O2'	11:CA:1487:A:OP2	1.89	0.90
11:DA:604:G:O2'	11:DA:605:U:OP2	1.88	0.90
11:BA:63:U:H5'	11:BA:64:U:OP2	1.71	0.90
6:C5:7:ASN:ND2	11:CA:1750:A:OP1	2.04	0.90
10:A9:73:LYS:NZ	11:AA:1159:U:OP1	2.04	0.90
2:B1:21:ARG:NH1	11:BA:1591:C:O2	2.05	0.90
11:AA:797:A:H61	11:AA:835:U:H3	1.13	0.90
6:B5:7:ASN:ND2	11:BA:1750:A:OP1	2.03	0.90
11:BA:469:A:H2'	11:BA:470:G:H8	1.37	0.90
28:CR:178:ASN:HD22	23:DM:110:ARG:HH11	1.18	0.90
11:AA:63:U:H5'	11:AA:64:U:OP2	1.72	0.90
11:BA:1608:C:H4'	11:BA:1609:C:H5"	1.54	0.90
6:A5:7:ASN:ND2	11:AA:1750:A:OP1	2.04	0.89
11:DA:1311:C:O2'	11:DA:1313:G:N7	2.05	0.89
11:DA:63:U:H5'	11:DA:64:U:OP2	1.73	0.89
11:AA:797:A:N6	11:AA:835:U:H3	1.70	0.89
11:BA:1506:G:O2'	11:BA:1507:U:OP2	1.91	0.89
11:CA:229:A:O2'	11:CA:230:A:OP2	1.90	0.89
11:BA:947:C:OP2	25:BO:7:LYS:NZ	2.05	0.89
11:DA:989:G:N7	39:DA:7205:HOH:O	2.06	0.89
11:BA:797:A:N6	11:BA:835:U:H3	1.70	0.89
6:A5:42:ARG:HH22	21:AK:107:GLN:HG3	1.38	0.89
11:CA:797:A:N6	11:CA:835:U:H3	1.71	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:11:A:OP1	39:CA:2006:HOH:O	1.89	0.88
6:D5:7:ASN:ND2	11:DA:1750:A:OP1	2.06	0.88
11:DA:797:A:N6	11:DA:835:U:H3	1.71	0.88
11:BA:1318:C:OP1	20:BJ:51:LYS:NZ	2.06	0.88
11:DA:1428:C:OP1	39:DA:8116:HOH:O	1.92	0.88
6:A5:45:VAL:HG13	6:A5:49:SER:HB3	1.56	0.88
6:B5:62:GLU:HB2	6:B5:65:GLY:HA3	1.53	0.88
11:AA:1032:U:H3	11:AA:1035:A:H62	1.22	0.88
13:BC:146:LYS:HD2	13:BC:151:LYS:HZ1	1.36	0.88
5:C4:222:LYS:NZ	11:CA:864:U:OP2	2.07	0.88
3:A2:153:ARG:NH1	11:AA:189:C:O2	2.07	0.88
11:AA:604:G:O2'	11:AA:605:U:OP2	1.90	0.88
11:CA:1608:C:H4'	11:CA:1609:C:H5"	1.56	0.88
13:CC:146:LYS:HD2	13:CC:151:LYS:HZ1	1.39	0.88
6:D5:45:VAL:HG13	6:D5:49:SER:HB3	1.54	0.88
11:DA:108:A:O2'	27:DQ:66:ARG:NH1	2.07	0.88
6:B5:45:VAL:HG13	6:B5:49:SER:HB3	1.55	0.88
6:C5:8:ALA:HB1	11:CA:1744:U:H5'	1.54	0.88
11:DA:1608:C:H4'	11:DA:1609:C:H5"	1.57	0.87
15:DE:155:ILE:HD11	15:DE:197:ILE:HD11	1.55	0.87
11:AA:947:C:OP2	25:AO:7:LYS:NZ	2.07	0.87
15:BE:155:ILE:HD11	15:BE:197:ILE:HD11	1.56	0.87
11:AA:559:C:OP1	11:AA:559:C:H4'	1.74	0.87
11:CA:1311:C:O2'	11:CA:1313:G:N7	2.06	0.87
11:BA:1185:C:N4	39:BA:6569:HOH:O	2.08	0.87
6:C5:45:VAL:HG13	6:C5:49:SER:HB3	1.57	0.87
11:DA:469:A:H2'	11:DA:470:G:H8	1.38	0.87
11:CA:211:U:H4'	11:CA:212:A:OP1	1.75	0.87
11:CA:1263:G:N2	11:CA:1296:G:H22	1.72	0.87
11:CA:63:U:H5'	11:CA:64:U:OP2	1.74	0.87
11:BA:1032:U:H3	11:BA:1035:A:H62	1.23	0.87
28:BR:282:ASN:H	28:BR:290:PRO:HG2	1.40	0.87
9:A8:81:ARG:NH2	11:AA:1505:C:OP2	2.08	0.87
11:BA:1319:U:OP1	20:BJ:20:ARG:NH2	2.08	0.87
11:CA:108:A:O2'	27:CQ:66:ARG:NH1	2.08	0.86
11:AA:1452:G:O6	30:AT:11:LYS:NZ	2.07	0.86
11:BA:559:C:H4'	11:BA:559:C:OP1	1.75	0.86
11:BA:789:A:OP1	39:BA:6170:HOH:O	1.93	0.86
10:D9:103:LEU:HG	31:DU:58:LEU:HD23	1.57	0.86
11:CA:1420:U:OP2	39:CA:2269:HOH:O	1.93	0.86
11:AA:1311:C:O2'	11:AA:1313:G:N7	2.07	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:1399:G:OP1	39:AA:2388:HOH:O	1.92	0.86
11:AA:1450:G:OP1	30:AT:60:ARG:NH1	2.08	0.86
11:AA:1608:C:H4'	11:AA:1609:C:H5"	1.55	0.86
11:DA:676:C:O2'	11:DA:677:G:OP2	1.91	0.86
11:DA:1486:U:O2'	13:DC:9:ASN:HA	1.75	0.86
12:DB:152:TYR:HA	36:DZ:74:ARG:HG2	1.55	0.86
11:DA:654:U:H1'	11:DA:656:G:H21	1.40	0.86
11:DA:789:A:OP1	39:DA:7828:HOH:O	1.93	0.86
11:DA:1506:G:O2'	11:DA:1507:U:OP2	1.94	0.86
11:CA:1506:G:O2'	11:CA:1507:U:OP2	1.92	0.86
15:CE:155:ILE:HD11	15:CE:197:ILE:HD11	1.54	0.86
11:BA:413:C:OP1	35:BY:87:ARG:NH2	2.09	0.86
11:BA:797:A:H61	11:BA:835:U:H3	1.14	0.86
6:D5:97:ARG:O	11:DA:1750:A:O2'	1.94	0.86
10:A9:88:HIS:CD2	11:AA:1219:U:H5"	2.10	0.86
11:AA:673:A:H2'	11:AA:675:A:H62	1.41	0.86
33:AW:108:LYS:HB2	33:AW:110:ARG:HE	1.41	0.86
11:DA:1032:U:H3	11:DA:1035:A:H62	1.23	0.86
11:DA:1450:G:OP1	30:DT:60:ARG:NH1	2.08	0.86
28:DR:47:ARG:O	28:DR:49:LYS:N	2.09	0.86
11:AA:211:U:H4'	11:AA:212:A:OP1	1.74	0.86
12:BB:77:TYR:HD1	12:BB:164:THR:HG23	1.41	0.86
11:CA:1494:U:O2'	11:CA:1495:U:OP1	1.93	0.86
33:CW:108:LYS:HB2	33:CW:110:ARG:HE	1.40	0.86
23:BM:136:GLN:HE21	23:BM:136:GLN:H	1.24	0.85
9:D8:43:VAL:HG21	23:DM:25:LYS:HB2	1.57	0.85
11:DA:4:C:O2'	14:DD:17:ARG:NH2	2.07	0.85
12:DB:77:TYR:HD1	12:DB:164:THR:HG23	1.40	0.85
11:AA:1494:U:O2'	11:AA:1495:U:OP1	1.93	0.85
11:BA:1311:C:O2'	11:BA:1313:G:N7	2.09	0.85
11:CA:604:G:O2'	11:CA:605:U:OP2	1.92	0.85
11:BA:265:C:OP1	35:BY:180:GLN:NE2	2.07	0.85
11:BA:1399:G:OP1	39:BA:6592:HOH:O	1.95	0.85
11:BA:1452:G:O6	30:BT:11:LYS:NZ	2.09	0.85
28:BR:47:ARG:O	28:BR:49:LYS:N	2.09	0.85
11:BA:229:A:H1'	11:BA:230:A:C8	2.09	0.85
28:CR:282:ASN:H	28:CR:290:PRO:HG2	1.41	0.85
11:AA:1263:G:N2	11:AA:1296:G:H22	1.74	0.85
11:BA:604:G:O2'	11:BA:605:U:OP2	1.93	0.85
11:BA:1263:G:N2	11:BA:1296:G:H22	1.74	0.85
12:CB:77:TYR:HD1	12:CB:164:THR:HG23	1.39	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C5:87:ARG:NH1	11:CA:1126:C:OP1	2.10	0.85
11:CA:1012:C:HO2'	18:CH:2:VAL:N	1.75	0.85
11:DA:1263:G:N2	11:DA:1296:G:H22	1.74	0.85
11:DA:1452:G:O6	30:DT:11:LYS:NZ	2.09	0.85
11:AA:121:U:H4'	33:AW:150:ARG:NH1	1.91	0.85
11:AA:1001:A:O2'	11:AA:1002:U:OP2	1.94	0.85
28:AR:47:ARG:O	28:AR:49:LYS:N	2.08	0.85
28:AR:282:ASN:H	28:AR:290:PRO:HG2	1.42	0.85
11:BA:1166:A:OP2	20:BJ:73:GLY:HA3	1.77	0.85
11:DA:559:C:OP1	11:DA:559:C:H4'	1.76	0.85
11:BA:1473:G:OP2	30:BT:102:LYS:NZ	2.09	0.85
14:CD:106:GLU:HA	14:CD:111:THR:HG21	1.59	0.85
28:DR:282:ASN:H	28:DR:290:PRO:HG2	1.41	0.85
15:AE:155:ILE:HD11	15:AE:197:ILE:HD11	1.57	0.85
11:BA:227:G:H4'	11:BA:227:G:OP1	1.76	0.85
11:CA:10:G:O6	11:CA:1117:U:N3	2.10	0.85
11:CA:559:C:OP1	11:CA:559:C:H4'	1.76	0.85
11:AA:1185:C:N4	39:AA:2382:HOH:O	2.10	0.84
28:CR:47:ARG:O	28:CR:49:LYS:N	2.09	0.84
11:CA:1032:U:H3	11:CA:1035:A:H62	1.23	0.84
11:DA:467:A:OP2	14:DD:126:ARG:NH2	2.10	0.84
11:AA:1506:G:O2'	11:AA:1507:U:OP2	1.94	0.84
11:BA:755:G:H5"	14:BD:7:ASN:HB2	1.58	0.84
11:DA:1226:U:OP1	31:DU:34:ARG:NH1	2.11	0.84
14:DD:62:LEU:HD11	14:DD:68:ARG:NH1	1.92	0.84
5:A4:148:LYS:HZ3	5:A4:152:GLY:C	1.85	0.84
11:DA:1001:A:O2'	11:DA:1002:U:OP2	1.96	0.84
11:AA:1189:A:N6	24:AN:3:ASN:OD1	2.10	0.84
11:BA:211:U:H4'	11:BA:212:A:OP1	1.76	0.84
11:CA:654:U:H1'	11:CA:656:G:H21	1.42	0.84
11:CA:1001:A:O2'	11:CA:1002:U:OP2	1.96	0.84
14:CD:62:LEU:HD11	14:CD:68:ARG:NH1	1.91	0.84
10:D9:132:HIS:CD2	10:D9:143:ILE:HB	2.13	0.84
11:DA:413:C:OP1	35:DY:87:ARG:NH2	2.08	0.84
33:DW:108:LYS:HB2	33:DW:110:ARG:HE	1.41	0.84
11:BA:608:C:OP1	39:BA:6373:HOH:O	1.95	0.84
10:C9:95:LEU:HD11	31:CU:29:LEU:HD12	1.60	0.84
14:AD:106:GLU:HA	14:AD:111:THR:HG21	1.60	0.84
33:AW:200:ILE:HG12	33:AW:210:CYS:HB2	1.60	0.84
23:BM:126:ARG:NH1	29:BS:128:TYR:OH	2.10	0.84
11:DA:1505:C:H4'	11:DA:1511:A:N6	1.93	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B2:145:ARG:NH1	11:BA:183:G:O6	2.11	0.84
12:BB:201:LYS:NZ	32:BV:82:LEU:HD22	1.93	0.84
14:BD:106:GLU:HA	14:BD:111:THR:HG21	1.59	0.83
14:BD:62:LEU:HD11	14:BD:68:ARG:NH1	1.93	0.83
11:CA:391:A:HO2'	11:CA:392:A:P	2.01	0.83
11:CA:1166:A:OP2	20:CJ:73:GLY:HA3	1.79	0.83
5:B4:148:LYS:HZ3	5:B4:152:GLY:C	1.86	0.83
33:BW:108:LYS:HB2	33:BW:110:ARG:HE	1.41	0.83
6:C5:97:ARG:O	11:CA:1750:A:O2'	1.95	0.83
11:CA:81:A:OP2	39:CA:2023:HOH:O	1.94	0.83
22:CL:7:ARG:HH11	22:CL:7:ARG:HG3	1.43	0.83
11:BA:1494:U:O2'	11:BA:1495:U:OP1	1.94	0.83
5:D4:148:LYS:HZ3	5:D4:152:GLY:C	1.86	0.83
11:DA:770:G:H2'	11:DA:771:A:C8	2.13	0.83
11:BA:209:G:H5'	11:BA:210:A:H5'	1.60	0.83
9:D8:44:PHE:HE2	23:DM:8:GLU:HG3	1.42	0.83
35:BY:167:THR:HG22	35:BY:169:LYS:H	1.44	0.83
11:CA:1164:C:O3'	19:CI:142:LYS:NZ	2.10	0.83
11:DA:986:G:OP1	39:DA:7879:HOH:O	1.95	0.83
11:DA:1185:C:N4	39:DA:8148:HOH:O	2.11	0.83
2:B1:7:THR:HG23	2:B1:33:SER:HB2	1.60	0.83
11:DA:894:U:H3	21:DK:55:ARG:HH22	1.27	0.83
33:BW:200:ILE:HG12	33:BW:210:CYS:HB2	1.61	0.83
11:AA:246:U:OP1	27:AQ:33:TYR:OH	1.96	0.83
11:BA:1556:G:N2	11:BA:1583:A:OP2	2.12	0.83
39:C5:2002:HOH:O	11:CA:920:G:OP2	1.95	0.83
28:CR:255:GLY:H	28:CR:279:LYS:NZ	1.76	0.83
14:DD:106:GLU:HA	14:DD:111:THR:HG21	1.60	0.83
5:A4:222:LYS:NZ	11:AA:864:U:OP2	2.10	0.82
11:BA:406:U:O2	11:BA:409:G:N2	2.11	0.82
35:CY:167:THR:HG22	35:CY:169:LYS:H	1.44	0.82
6:B5:42:ARG:HH22	21:BK:107:GLN:HG3	1.42	0.82
12:BB:152:TYR:HA	36:BZ:74:ARG:HG2	1.62	0.82
23:DM:136:GLN:HE21	23:DM:136:GLN:H	1.26	0.82
2:A1:7:THR:HG23	2:A1:33:SER:HB2	1.61	0.82
11:BA:220:A:H3'	11:BA:221:A:H8	1.45	0.82
10:A9:156:LYS:HB3	7:D6:60:ILE:HD11	1.60	0.82
11:AA:1473:G:OP2	30:AT:102:LYS:NZ	2.11	0.82
11:BA:469:A:N6	39:BA:6084:HOH:O	2.12	0.82
11:CA:378:A:H8	11:CA:378:A:OP2	1.62	0.82
11:DA:1399:G:OP1	39:DA:8216:HOH:O	1.97	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:406:U:O2	11:AA:409:G:N2	2.12	0.82
11:AA:770:G:H2'	11:AA:771:A:C8	2.14	0.82
12:AB:77:TYR:HD1	12:AB:164:THR:HG23	1.43	0.82
5:C4:148:LYS:HZ3	5:C4:152:GLY:C	1.86	0.82
11:AA:755:G:H5"	14:AD:7:ASN:HB2	1.61	0.82
11:BA:108:A:O2'	27:BQ:66:ARG:NH1	2.11	0.82
11:BA:482:A:H5'	11:BA:483:C:OP2	1.79	0.82
11:BA:1012:C:HO2'	18:BH:2:VAL:N	1.78	0.82
11:CA:353:G:OP1	39:CA:2061:HOH:O	1.97	0.82
11:CA:1318:C:OP1	20:CJ:51:LYS:NZ	2.12	0.82
11:CA:1556:G:N2	11:CA:1583:A:OP2	2.13	0.82
24:DN:39:ARG:HG2	24:DN:39:ARG:HH11	1.45	0.82
11:CA:406:U:O2	11:CA:409:G:N2	2.12	0.82
11:CA:232:G:O2'	11:CA:233:U:OP1	1.96	0.82
33:CW:200:ILE:HG12	33:CW:210:CYS:HB2	1.60	0.82
23:AM:136:GLN:H	23:AM:136:GLN:HE21	1.26	0.82
35:AY:167:THR:HG22	35:AY:169:LYS:H	1.44	0.82
28:BR:255:GLY:H	28:BR:279:LYS:NZ	1.78	0.82
2:C1:7:THR:HG23	2:C1:33:SER:HB2	1.61	0.82
11:CA:770:G:H2'	11:CA:771:A:C8	2.14	0.82
14:CD:53:ARG:NH2	15:CE:175:ARG:O	2.13	0.82
6:B5:97:ARG:O	11:BA:1750:A:O2'	1.97	0.81
12:CB:152:TYR:HA	36:CZ:74:ARG:HG2	1.60	0.81
11:CA:679:U:H3	11:CA:722:A:H61	1.26	0.81
11:DA:391:A:HO2'	11:DA:392:A:P	2.03	0.81
35:DY:167:THR:HG22	35:DY:169:LYS:H	1.44	0.81
11:AA:615:A:H5'	11:AA:616:A:OP2	1.81	0.81
11:BA:770:G:H2'	11:BA:771:A:C8	2.15	0.81
11:CA:1265:U:O4	39:CA:2238:HOH:O	1.99	0.81
2:D1:7:THR:HG23	2:D1:33:SER:HB2	1.61	0.81
28:DR:255:GLY:H	28:DR:279:LYS:NZ	1.78	0.81
14:AD:62:LEU:HD11	14:AD:68:ARG:NH1	1.94	0.81
11:BA:378:A:H8	11:BA:378:A:OP2	1.62	0.81
28:DR:297:GLU:HG3	28:DR:310:PRO:HD3	1.63	0.81
11:AA:1123:G:H4'	11:AA:1124:A:OP2	1.80	0.81
11:BA:81:A:OP2	39:BA:6142:HOH:O	1.97	0.81
23:CM:136:GLN:HE21	23:CM:136:GLN:H	1.25	0.81
3:D2:140:ASN:H	3:D2:140:ASN:HD22	1.29	0.81
3:A2:175:CYS:HB3	3:A2:191:LEU:HD21	1.60	0.81
11:AA:378:A:OP2	11:AA:378:A:H8	1.64	0.81
11:AA:413:C:OP1	35:AY:87:ARG:NH2	2.13	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:629:A:OP1	39:AA:2136:HOH:O	1.99	0.81
13:AC:146:LYS:HD2	13:AC:151:LYS:HZ1	1.46	0.81
4:B3:113:ARG:NH2	11:BA:633:U:OP1	2.14	0.81
11:CA:121:U:H4'	33:CW:150:ARG:NH1	1.95	0.81
11:CA:1123:G:H4'	11:CA:1124:A:OP2	1.79	0.81
11:DA:1505:C:H4'	11:DA:1511:A:H61	1.44	0.81
3:C2:175:CYS:HB3	3:C2:191:LEU:HD21	1.60	0.81
35:CY:137:ARG:NH1	35:CY:181:ARG:HE	1.79	0.81
17:AG:58:LYS:HE2	17:AG:66:ARG:HH21	1.46	0.81
24:AN:39:ARG:HG2	24:AN:39:ARG:HH11	1.44	0.81
11:DA:920:G:OP2	39:DA:7043:HOH:O	1.98	0.81
33:DW:200:ILE:HG12	33:DW:210:CYS:HB2	1.62	0.81
11:CA:222:U:O2	11:CA:814:A:N6	2.13	0.81
30:CT:29:ALA:HB1	30:CT:31:LYS:HG3	1.62	0.81
1:D0:22:LYS:HB2	10:D9:74:LYS:HZ1	1.45	0.81
3:D2:175:CYS:HB3	3:D2:191:LEU:HD21	1.60	0.81
11:DA:378:A:OP2	11:DA:378:A:H8	1.63	0.81
11:AA:1508:G:O2'	11:AA:1509:U:OP2	1.99	0.80
11:BA:515:U:O4	39:BA:6061:HOH:O	1.99	0.80
11:BA:963:G:N7	39:BA:6228:HOH:O	2.13	0.80
11:BA:1479:G:H3'	11:BA:1480:U:H6	1.46	0.80
24:BN:39:ARG:HH11	24:BN:39:ARG:HG2	1.44	0.80
3:C2:140:ASN:H	3:C2:140:ASN:HD22	1.29	0.80
20:CJ:41:ARG:NH1	20:CJ:104:PHE:HB3	1.97	0.80
11:DA:393:C:O2'	11:DA:394:G:H5'	1.80	0.80
11:AA:1449:G:OP1	30:AT:43:THR:OG1	1.98	0.80
35:AY:137:ARG:NH1	35:AY:181:ARG:HE	1.80	0.80
6:D5:42:ARG:HH22	21:DK:107:GLN:HG3	1.46	0.80
11:AA:1556:G:N2	11:AA:1583:A:OP2	2.15	0.80
11:BA:1123:G:H4'	11:BA:1124:A:OP2	1.79	0.80
17:CG:58:LYS:HE2	17:CG:66:ARG:HH21	1.47	0.80
11:DA:846:G:OP1	25:DO:123:ARG:NH1	2.14	0.80
11:AA:608:C:OP1	39:AA:2132:HOH:O	1.98	0.80
11:CA:1479:G:H3'	11:CA:1480:U:H6	1.46	0.80
20:CJ:41:ARG:HH12	20:CJ:104:PHE:HB3	1.46	0.80
11:DA:1123:G:H4'	11:DA:1124:A:OP2	1.80	0.80
28:AR:297:GLU:HG3	28:AR:310:PRO:HD3	1.63	0.80
3:A2:140:ASN:H	3:A2:140:ASN:HD22	1.30	0.80
11:CA:1647:U:H3	11:CA:1678:U:H3	1.29	0.80
11:DA:11:A:OP1	39:DA:7094:HOH:O	1.98	0.80
11:DA:211:U:H4'	11:DA:212:A:OP1	1.78	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:DJ:41:ARG:HH12	20:DJ:104:PHE:HB3	1.46	0.80
22:DL:7:ARG:HG3	22:DL:7:ARG:HH11	1.47	0.80
11:AA:1647:U:H3	11:AA:1678:U:H3	1.30	0.80
14:BD:38:ASN:HD21	14:BD:40:ARG:NH1	1.80	0.80
1:D0:22:LYS:HB2	10:D9:74:LYS:NZ	1.97	0.80
3:D2:2:GLY:N	11:DA:384:C:OP1	2.15	0.80
11:DA:406:U:O2	11:DA:409:G:N2	2.14	0.80
11:DA:615:A:H5'	11:DA:616:A:OP2	1.82	0.80
13:DC:108:MET:HE1	13:DC:139:ILE:HG21	1.64	0.80
11:AA:392:A:H1'	33:AW:3:ARG:NH1	1.97	0.80
3:B2:175:CYS:HB3	3:B2:191:LEU:HD21	1.61	0.80
11:BA:920:G:OP2	39:BA:6012:HOH:O	2.00	0.80
11:CA:789:A:OP1	39:CA:2148:HOH:O	1.98	0.80
11:CA:1508:G:O2'	11:CA:1509:U:OP2	1.99	0.80
1:A0:103:LYS:NZ	1:A0:110:GLU:O	2.15	0.80
6:A5:8:ALA:HB1	11:AA:1744:U:H5'	1.62	0.80
11:BA:654:U:H1'	11:BA:656:G:H21	1.46	0.80
20:BJ:41:ARG:HH12	20:BJ:104:PHE:HB3	1.46	0.80
11:DA:613:A:OP1	39:DA:7988:HOH:O	2.00	0.80
11:BA:1001:A:O2'	11:BA:1002:U:OP2	1.99	0.80
11:BA:1263:G:H22	11:BA:1296:G:H1	1.29	0.80
11:BA:1400:G:OP2	39:BA:6592:HOH:O	1.99	0.80
14:CD:38:ASN:HD21	14:CD:40:ARG:NH1	1.79	0.80
11:BA:469:A:H2'	11:BA:470:G:C8	2.18	0.79
11:BA:1486:U:O2'	13:BC:9:ASN:HA	1.81	0.79
11:BA:1508:G:O2'	11:BA:1509:U:OP2	2.00	0.79
11:CA:1263:G:H22	11:CA:1296:G:H1	1.30	0.79
11:DA:1473:G:OP2	30:DT:102:LYS:NZ	2.14	0.79
11:DA:1479:G:H3'	11:DA:1480:U:H6	1.46	0.79
28:AR:94:SER:HB3	28:AR:124:VAL:HG22	1.63	0.79
1:B0:103:LYS:NZ	1:B0:110:GLU:O	2.15	0.79
11:BA:1428:C:OP1	39:BA:6555:HOH:O	1.99	0.79
11:BA:1647:U:H3	11:BA:1678:U:H3	1.29	0.79
13:BC:108:MET:HE1	13:BC:139:ILE:HG21	1.63	0.79
20:BJ:41:ARG:NH1	20:BJ:104:PHE:HB3	1.96	0.79
28:BR:94:SER:HB3	28:BR:124:VAL:HG22	1.64	0.79
11:CA:1450:G:OP1	30:CT:60:ARG:NH1	2.14	0.79
33:CW:35:PRO:HD2	33:CW:85:PRO:HG2	1.64	0.79
3:D2:22:ARG:HD2	3:D2:25:ARG:HE	1.47	0.79
5:D4:222:LYS:NZ	11:DA:864:U:OP2	2.15	0.79
22:AL:7:ARG:HH11	22:AL:7:ARG:HG3	1.46	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:AW:35:PRO:HD2	33:AW:85:PRO:HG2	1.64	0.79
11:BA:615:A:H5'	11:BA:616:A:OP2	1.81	0.79
11:BA:1708:A:H5'	22:BL:62:GLN:HG3	1.62	0.79
24:CN:39:ARG:HG2	24:CN:39:ARG:HH11	1.45	0.79
11:DA:1263:G:H22	11:DA:1296:G:H1	1.30	0.79
20:DJ:41:ARG:NH1	20:DJ:104:PHE:HB3	1.96	0.79
33:DW:35:PRO:HD2	33:DW:85:PRO:HG2	1.65	0.79
20:AJ:41:ARG:NH1	20:AJ:104:PHE:HB3	1.96	0.79
3:B2:140:ASN:HD22	3:B2:140:ASN:H	1.30	0.79
10:B9:73:LYS:NZ	11:BA:1159:U:OP1	2.16	0.79
1:D0:103:LYS:NZ	1:D0:110:GLU:O	2.16	0.79
10:A9:95:LEU:HD11	31:AU:29:LEU:HD12	1.64	0.79
30:BT:29:ALA:HB1	30:BT:31:LYS:HG3	1.64	0.79
11:CA:649:U:H2'	11:CA:650:C:O4'	1.83	0.79
11:CA:1399:G:OP1	39:CA:2236:HOH:O	2.01	0.79
32:DV:17:ILE:HG22	32:DV:71:LEU:HD21	1.65	0.79
11:AA:353:G:OP1	39:AA:2064:HOH:O	1.99	0.79
13:AC:108:MET:HE1	13:AC:139:ILE:HG21	1.63	0.79
20:AJ:41:ARG:HH12	20:AJ:104:PHE:HB3	1.46	0.79
28:AR:255:GLY:H	28:AR:279:LYS:NZ	1.78	0.79
11:AA:1299:C:OP1	13:AC:159:TYR:OH	1.99	0.79
11:BA:70:U:OP2	35:BY:171:LYS:NZ	2.16	0.79
1:B0:22:LYS:NZ	10:B9:76:LYS:HG2	1.98	0.79
3:B2:2:GLY:N	11:BA:384:C:OP1	2.15	0.79
6:A5:97:ARG:O	11:AA:1750:A:O2'	2.00	0.79
11:AA:219:C:H5'	11:AA:220:A:OP2	1.83	0.79
11:AA:393:C:O2'	11:AA:394:G:H5'	1.83	0.79
30:AT:29:ALA:HB1	30:AT:31:LYS:HG3	1.64	0.79
11:BA:760:G:N7	26:BP:9:LYS:NZ	2.30	0.79
35:BY:137:ARG:NH1	35:BY:181:ARG:HE	1.81	0.79
11:DA:1428:C:O2'	11:DA:1429:G:OP1	2.00	0.79
35:DY:137:ARG:NH1	35:DY:181:ARG:HE	1.81	0.79
1:B0:22:LYS:HG3	10:B9:74:LYS:HD3	1.65	0.78
29:CS:83:THR:HG23	29:CS:85:TYR:H	1.48	0.78
11:AA:1428:C:OP1	39:AA:2377:HOH:O	2.00	0.78
13:CC:108:MET:HE1	13:CC:139:ILE:HG21	1.64	0.78
11:AA:1479:G:H3'	11:AA:1480:U:H6	1.46	0.78
11:BA:608:C:OP1	39:BA:6374:HOH:O	2.01	0.78
11:CA:70:U:OP2	35:CY:171:LYS:NZ	2.16	0.78
10:D9:92:HIS:CE1	11:DA:1201:G:OP2	2.36	0.78
11:DA:608:C:OP1	39:DA:7253:HOH:O	2.01	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1508:G:O2'	11:DA:1509:U:OP2	2.00	0.78
28:DR:94:SER:HB3	28:DR:124:VAL:HG22	1.64	0.78
11:AA:81:A:OP2	39:AA:2023:HOH:O	2.00	0.78
11:AA:508:A:OP2	39:AA:2017:HOH:O	2.00	0.78
11:BA:121:U:H4'	33:BW:150:ARG:NH1	1.97	0.78
23:BM:100:MET:HE1	23:BM:108:LYS:HG3	1.63	0.78
28:CR:94:SER:HB3	28:CR:124:VAL:HG22	1.64	0.78
11:DA:209:G:H4'	11:DA:210:A:H5'	1.66	0.78
11:DA:755:G:H5"	14:DD:7:ASN:HB2	1.66	0.78
11:CA:608:C:OP1	39:CA:2130:HOH:O	2.00	0.78
9:D8:47:LYS:HB2	23:DM:6:GLU:HA	1.65	0.78
21:AK:34:MET:SD	21:AK:98:ARG:NH1	2.56	0.78
3:B2:22:ARG:HD2	3:B2:25:ARG:HE	1.47	0.78
11:DA:1556:G:N2	11:DA:1583:A:OP2	2.14	0.78
23:DM:100:MET:HE1	23:DM:108:LYS:HG3	1.64	0.78
3:C2:153:ARG:NH1	11:CA:189:C:O2	2.17	0.78
11:AA:11:A:OP1	39:AA:2007:HOH:O	2.02	0.78
11:BA:393:C:O2'	11:BA:394:G:H5'	1.84	0.78
6:C5:42:ARG:HH22	21:CK:107:GLN:HG3	1.49	0.78
11:CA:615:A:H5'	11:CA:616:A:OP2	1.83	0.78
11:CA:846:G:H1	11:CA:938:U:H3	1.32	0.78
12:CB:62:ALA:O	36:CZ:64:LYS:NZ	2.17	0.78
23:CM:126:ARG:NH1	29:CS:128:TYR:OH	2.16	0.78
11:DA:1211:U:O2	11:DA:1218:C:N4	2.17	0.78
29:AS:83:THR:HG23	29:AS:85:TYR:H	1.48	0.78
28:BR:297:GLU:HG3	28:BR:310:PRO:HD3	1.64	0.78
17:CG:70:THR:HB	17:CG:150:ILE:HD12	1.65	0.78
28:CR:297:GLU:HG3	28:CR:310:PRO:HD3	1.64	0.78
11:DA:1647:U:H3	11:DA:1678:U:H3	1.30	0.78
23:DM:89:ILE:O	23:DM:97:ASN:ND2	2.17	0.78
11:AA:70:U:OP2	35:AY:171:LYS:NZ	2.15	0.78
29:DS:83:THR:HG23	29:DS:85:TYR:H	1.49	0.78
14:AD:38:ASN:HD21	14:AD:40:ARG:NH1	1.81	0.77
12:AB:80:ARG:NH2	32:AV:83:ASP:OD1	2.16	0.77
11:BA:232:G:O2'	11:BA:233:U:OP1	2.02	0.77
11:BA:894:U:H3	21:BK:55:ARG:HH22	1.31	0.77
29:BS:83:THR:HG23	29:BS:85:TYR:H	1.47	0.77
3:C2:22:ARG:HD2	3:C2:25:ARG:HE	1.48	0.77
11:DA:215:A:N6	11:DA:811:U:O4	2.18	0.77
21:DK:34:MET:SD	21:DK:98:ARG:NH1	2.58	0.77
30:DT:29:ALA:HB1	30:DT:31:LYS:HG3	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:1277:U:OP1	39:AA:2392:HOH:O	2.00	0.77
11:CA:393:C:O2'	11:CA:394:G:H5'	1.83	0.77
28:CR:46:SER:OG	28:CR:48:ASP:OD1	2.02	0.77
11:DA:121:U:H4'	33:DW:150:ARG:NH1	1.98	0.77
11:DA:265:C:OP1	35:DY:180:GLN:NE2	2.16	0.77
11:DA:269:G:O6	11:DA:273:A:N6	2.18	0.77
11:BA:1211:U:O2	11:BA:1218:C:N4	2.18	0.77
33:BW:35:PRO:HD2	33:BW:85:PRO:HG2	1.65	0.77
9:C8:62:LYS:HG2	9:C8:111:VAL:HG21	1.67	0.77
11:CA:904:A:OP1	11:CA:994:C:O2'	2.00	0.77
26:AP:90:ARG:NH1	26:AP:98:LYS:HB2	1.99	0.77
28:AR:46:SER:OG	28:AR:48:ASP:OD1	2.02	0.77
11:BA:3:C:O2'	11:BA:4:C:OP1	2.02	0.77
11:CA:755:G:H5"	14:CD:7:ASN:HB2	1.65	0.77
14:DD:38:ASN:HD21	14:DD:40:ARG:NH1	1.82	0.77
11:CA:1449:G:OP1	30:CT:43:THR:OG1	2.02	0.77
23:CM:89:ILE:O	23:CM:97:ASN:ND2	2.18	0.77
11:DA:3:C:O2'	11:DA:4:C:OP1	2.02	0.77
17:DG:58:LYS:HE2	17:DG:66:ARG:HH21	1.49	0.77
11:AA:613:A:OP1	39:AA:2366:HOH:O	2.02	0.77
23:AM:94:ASP:OD2	23:AM:98:TYR:OH	2.02	0.77
1:B0:22:LYS:N	10:B9:74:LYS:HZ3	1.82	0.77
17:BG:58:LYS:HE2	17:BG:66:ARG:HH21	1.49	0.77
11:CA:1419:G:OP1	39:CA:2270:HOH:O	2.02	0.77
19:CI:66:ASP:OD1	19:CI:66:ASP:N	2.17	0.77
17:DG:70:THR:HB	17:DG:150:ILE:HD12	1.66	0.77
3:A2:22:ARG:HD2	3:A2:25:ARG:HE	1.48	0.77
11:AA:1720:G:O2'	11:AA:1721:G:OP2	2.02	0.77
12:BB:62:ALA:O	36:BZ:64:LYS:NZ	2.18	0.77
14:BD:80:MET:HG2	14:BD:86:LEU:HD22	1.67	0.77
22:BL:7:ARG:HH11	22:BL:7:ARG:HG3	1.48	0.77
26:BP:90:ARG:NH1	26:BP:98:LYS:HB2	2.00	0.77
33:BW:224:LEU:HD23	33:BW:227:ILE:HD12	1.67	0.77
11:CA:613:A:OP1	39:CA:2139:HOH:O	2.02	0.77
11:CA:1185:C:N4	39:CA:2230:HOH:O	2.16	0.77
31:BU:4:GLN:HB2	31:BU:9:ASN:HD21	1.50	0.77
23:CM:100:MET:HE1	23:CM:108:LYS:HG3	1.65	0.77
13:DC:35:ALA:HB2	13:DC:60:GLN:HB3	1.67	0.77
11:BA:221:A:N1	11:BA:814:A:N6	2.33	0.77
11:BA:1245:G:O2'	11:BA:1246:C:OP2	2.03	0.77
1:C0:103:LYS:NZ	1:C0:110:GLU:O	2.17	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:245:A:H4'	11:BA:246:U:OP1	1.83	0.76
11:BA:1189:A:N6	24:BN:3:ASN:OD1	2.18	0.76
11:BA:1720:G:O2'	11:BA:1721:G:OP2	2.02	0.76
11:CA:1319:U:OP1	20:CJ:20:ARG:NH2	2.17	0.76
11:DA:1399:G:H21	20:DJ:72:GLU:HG2	1.50	0.76
11:BA:211:U:H3	11:BA:238:G:H22	1.32	0.76
11:BA:1171:G:OP2	24:BN:40:ARG:NH2	2.18	0.76
11:CA:894:U:H3	21:CK:55:ARG:HH22	1.33	0.76
3:D2:145:ARG:NH1	11:DA:183:G:O6	2.18	0.76
11:DA:1269:G:H5'	11:DA:1270:U:OP2	1.85	0.76
23:DM:94:ASP:OD2	23:DM:98:TYR:OH	2.02	0.76
11:AA:1486:U:O2'	13:AC:9:ASN:HA	1.85	0.76
11:BA:511:A:H2'	11:BA:512:C:H5"	1.67	0.76
27:BQ:66:ARG:HH21	27:BQ:128:ARG:HA	1.50	0.76
7:D6:5:LEU:H	18:DH:24:GLN:NE2	1.81	0.76
10:D9:92:HIS:HE1	11:DA:1201:G:OP2	1.69	0.76
14:DD:80:MET:HG2	14:DD:86:LEU:HD22	1.67	0.76
11:AA:789:A:OP1	39:AA:2142:HOH:O	2.03	0.76
27:AQ:66:ARG:HH21	27:AQ:128:ARG:HA	1.49	0.76
11:BA:109:U:OP1	39:BA:6145:HOH:O	2.03	0.76
11:BA:470:G:H1	11:BA:503:A:H61	1.33	0.76
11:CA:269:G:O6	11:CA:273:A:N6	2.18	0.76
26:DP:90:ARG:NH1	26:DP:98:LYS:HB2	2.00	0.76
32:DV:43:SER:HB2	32:DV:46:LEU:HB2	1.67	0.76
10:B9:112:GLN:O	11:CA:534:A:N6	2.19	0.76
27:BQ:2:ASP:HA	27:BQ:51:THR:HG21	1.68	0.76
29:BS:86:ARG:HB3	29:BS:122:ALA:HB2	1.67	0.76
11:CA:222:U:H3	11:CA:235:A:H61	1.28	0.76
11:CA:1211:U:O2	11:CA:1218:C:N4	2.18	0.76
11:CA:1531:G:N7	39:CA:2289:HOH:O	2.18	0.76
31:CU:4:GLN:HB2	31:CU:9:ASN:HD21	1.51	0.76
11:AA:1211:U:O2	11:AA:1218:C:N4	2.18	0.76
10:B9:73:LYS:NZ	11:BA:1157:U:OP1	2.19	0.76
11:BA:531:A:N3	39:BA:6082:HOH:O	2.18	0.76
11:BA:846:G:OP1	25:BO:123:ARG:NH1	2.19	0.76
11:CA:1299:C:OP1	13:CC:159:TYR:OH	2.03	0.76
28:CR:240:TRP:HE3	28:CR:245:LEU:HD22	1.51	0.76
11:AA:1143:A:H2'	11:AA:1144:A:C8	2.21	0.76
19:BI:31:LEU:HD13	19:BI:38:ILE:HD11	1.68	0.76
33:CW:125:LEU:HD12	33:CW:238:ILE:HD11	1.67	0.76
6:A5:56:LYS:HG3	21:AK:120:ALA:HB1	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:846:G:H1	11:AA:938:U:H3	1.33	0.76
11:BA:1269:G:H5'	11:BA:1270:U:OP2	1.86	0.76
11:CA:1171:G:OP2	24:CN:40:ARG:NH2	2.19	0.76
11:CA:1269:G:H5'	11:CA:1270:U:OP2	1.85	0.76
26:CP:90:ARG:NH1	26:CP:98:LYS:HB2	1.99	0.76
33:DW:224:LEU:HD23	33:DW:227:ILE:HD12	1.67	0.76
9:A8:62:LYS:HG2	9:A8:111:VAL:HG21	1.68	0.76
11:AA:232:G:O2'	11:AA:233:U:OP1	2.03	0.76
11:AA:392:A:H1'	33:AW:3:ARG:HH11	1.51	0.76
11:AA:1444:U:OP1	17:AG:164:ILE:HG13	1.85	0.76
23:AM:89:ILE:O	23:AM:97:ASN:ND2	2.19	0.76
25:AO:86:LEU:HD12	25:AO:87:PRO:HD2	1.67	0.76
14:CD:80:MET:HG2	14:CD:86:LEU:HD22	1.68	0.76
17:CG:66:ARG:HH11	17:CG:66:ARG:HG3	1.51	0.76
11:AA:265:C:OP1	35:AY:180:GLN:NE2	2.19	0.76
11:BA:1186:G:H1	11:BA:1420:U:H3	1.34	0.76
1:C0:101:ASN:HD21	10:C9:77:LYS:NZ	1.84	0.76
11:CA:392:A:H1'	33:CW:3:ARG:NH1	2.01	0.76
10:D9:94:LYS:HA	11:DA:1201:G:OP2	1.86	0.76
19:AI:31:LEU:HD13	19:AI:38:ILE:HD11	1.68	0.75
19:AI:66:ASP:N	19:AI:66:ASP:OD1	2.17	0.75
28:DR:46:SER:OG	28:DR:48:ASP:OD1	2.02	0.75
17:AG:70:THR:HB	17:AG:150:ILE:HD12	1.68	0.75
31:AU:4:GLN:HB2	31:AU:9:ASN:HD21	1.49	0.75
3:B2:89:VAL:HG21	3:B2:102:LYS:HA	1.69	0.75
13:BC:35:ALA:HB2	13:BC:60:GLN:HB3	1.67	0.75
28:BR:46:SER:OG	28:BR:48:ASP:OD1	2.03	0.75
3:C2:31:ARG:NH2	11:CA:324:A:OP1	2.19	0.75
23:CM:94:ASP:OD2	23:CM:98:TYR:OH	2.03	0.75
11:DA:511:A:H2'	11:DA:512:C:H5"	1.67	0.75
11:DA:846:G:H1	11:DA:938:U:H3	1.33	0.75
11:DA:904:A:OP1	11:DA:994:C:O2'	2.04	0.75
11:AA:1012:C:HO2'	18:AH:2:VAL:N	1.83	0.75
28:AR:240:TRP:HE3	28:AR:245:LEU:HD22	1.52	0.75
11:CA:3:C:O2'	11:CA:4:C:OP1	2.03	0.75
11:DA:1441:C:O2	11:DA:1543:C:O2'	2.05	0.75
27:DQ:66:ARG:HH21	27:DQ:128:ARG:HA	1.50	0.75
33:AW:224:LEU:HD23	33:AW:227:ILE:HD12	1.68	0.75
33:BW:125:LEU:HD12	33:BW:238:ILE:HD11	1.68	0.75
11:CA:511:A:H2'	11:CA:512:C:H5"	1.67	0.75
15:CE:82:LEU:HD12	15:CE:212:LEU:HD21	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:CQ:66:ARG:HH21	27:CQ:128:ARG:HA	1.49	0.75
11:DA:172:U:H4'	11:DA:173:A:OP1	1.85	0.75
15:DE:82:LEU:HD12	15:DE:212:LEU:HD21	1.68	0.75
31:DU:4:GLN:HB2	31:DU:9:ASN:HD21	1.49	0.75
2:A1:62:ARG:HH11	6:A5:48:SER:HB3	1.52	0.75
11:AA:511:A:H2'	11:AA:512:C:H5"	1.67	0.75
10:B9:127:LYS:NZ	11:CA:534:A:N1	2.35	0.75
11:CA:846:G:OP1	25:CO:123:ARG:NH1	2.19	0.75
28:CR:178:ASN:HD22	23:DM:110:ARG:NH1	1.84	0.75
11:DA:1462:U:H4'	11:DA:1463:U:OP1	1.87	0.75
3:A2:89:VAL:HG21	3:A2:102:LYS:HA	1.69	0.75
8:A7:6:LYS:HZ1	31:AU:27:LYS:NZ	1.83	0.75
11:AA:121:U:H4'	33:AW:150:ARG:HH12	1.50	0.75
23:AM:48:LYS:HD3	30:AT:39:GLN:HG2	1.68	0.75
1:B0:22:LYS:HZ3	10:B9:76:LYS:CG	2.00	0.75
3:C2:89:VAL:HG21	3:C2:102:LYS:HA	1.69	0.75
11:CA:1200:G:OP2	31:CU:28:GLY:HA2	1.87	0.75
32:CV:43:SER:HB2	32:CV:46:LEU:HB2	1.68	0.75
11:DA:469:A:H2'	11:DA:470:G:C8	2.22	0.75
3:A2:2:GLY:N	11:AA:384:C:OP1	2.20	0.75
11:BA:237:U:H1'	11:BA:238:G:OP1	1.86	0.75
11:BA:754:A:H4'	14:BD:9:SER:HB3	1.68	0.75
11:BA:1462:U:H4'	11:BA:1463:U:OP1	1.86	0.75
20:BJ:51:LYS:HB3	20:BJ:90:ASP:HB2	1.68	0.75
14:DD:5:TYR:HB3	33:DW:22:LYS:HE2	1.67	0.75
19:DI:31:LEU:HD13	19:DI:38:ILE:HD11	1.67	0.75
11:BA:229:A:O2'	11:BA:230:A:OP2	2.05	0.75
11:BA:1164:C:O3'	19:BI:142:LYS:NZ	2.20	0.75
27:CQ:2:ASP:HA	27:CQ:51:THR:HG21	1.69	0.75
20:DJ:51:LYS:HB3	20:DJ:90:ASP:HB2	1.68	0.75
27:DQ:77:THR:O	27:DQ:77:THR:OG1	2.04	0.75
33:DW:125:LEU:HD12	33:DW:238:ILE:HD11	1.69	0.75
11:AA:269:G:O6	11:AA:273:A:N6	2.19	0.75
13:AC:35:ALA:HB2	13:AC:60:GLN:HB3	1.67	0.75
27:AQ:2:ASP:HA	27:AQ:51:THR:HG21	1.69	0.75
10:B9:95:LEU:HD11	31:BU:29:LEU:HD12	1.67	0.75
11:BA:1143:A:H2'	11:BA:1144:A:C8	2.22	0.75
19:CI:31:LEU:HD13	19:CI:38:ILE:HD11	1.69	0.75
11:DA:245:A:H4'	11:DA:246:U:OP1	1.87	0.75
11:DA:589:G:OP2	39:DA:7366:HOH:O	2.04	0.75
11:DA:1245:G:O2'	11:DA:1246:C:OP2	2.05	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1720:G:O2'	11:DA:1721:G:OP2	2.04	0.75
6:A5:37:LYS:NZ	11:AA:911:A:OP2	2.20	0.74
11:CA:1189:A:N6	24:CN:3:ASN:OD1	2.20	0.74
11:DA:69:A:H3'	35:DY:173:ARG:HH22	1.52	0.74
29:DS:86:ARG:HB3	29:DS:122:ALA:HB2	1.68	0.74
11:AA:327:G:H2'	11:AA:328:G:H5"	1.70	0.74
14:AD:5:TYR:HB3	33:AW:22:LYS:HE2	1.69	0.74
11:CA:1143:A:H2'	11:CA:1144:A:C8	2.21	0.74
11:DA:1319:U:OP1	20:DJ:20:ARG:NH2	2.14	0.74
11:AA:1399:G:H21	20:AJ:72:GLU:HG2	1.52	0.74
27:AQ:77:THR:O	27:AQ:77:THR:OG1	2.05	0.74
32:AV:43:SER:HB2	32:AV:46:LEU:HB2	1.69	0.74
11:BA:219:C:H5'	11:BA:220:A:OP2	1.87	0.74
11:BA:269:G:O6	11:BA:273:A:N6	2.19	0.74
11:AA:1269:G:H5'	11:AA:1270:U:OP2	1.87	0.74
20:AJ:51:LYS:HB3	20:AJ:90:ASP:HB2	1.69	0.74
15:BE:82:LEU:HD12	15:BE:212:LEU:HD21	1.69	0.74
28:BR:240:TRP:HE3	28:BR:245:LEU:HD22	1.52	0.74
29:CS:86:ARG:HB3	29:CS:122:ALA:HB2	1.69	0.74
11:DA:1012:C:HO2'	18:DH:2:VAL:N	1.85	0.74
29:AS:86:ARG:HB3	29:AS:122:ALA:HB2	1.68	0.74
11:BA:846:G:H1	11:BA:938:U:H3	1.33	0.74
27:DQ:2:ASP:HA	27:DQ:51:THR:HG21	1.68	0.74
11:BA:11:A:OP1	39:BA:6039:HOH:O	2.05	0.74
11:CA:1186:G:H1	11:CA:1420:U:H3	1.35	0.74
20:CJ:51:LYS:HB3	20:CJ:90:ASP:HB2	1.68	0.74
11:AA:234:G:O2'	11:AA:235:A:O4'	2.06	0.74
11:AA:846:G:OP1	25:AO:123:ARG:NH1	2.21	0.74
11:BA:765:A:C6	26:BP:19:ARG:NH1	2.55	0.74
23:BM:89:ILE:O	23:BM:97:ASN:ND2	2.21	0.74
23:BM:94:ASP:OD2	23:BM:98:TYR:OH	2.03	0.74
11:CA:172:U:H4'	11:CA:173:A:OP1	1.86	0.74
11:CA:608:C:OP1	39:CA:2132:HOH:O	2.05	0.74
11:CA:1362:U:OP1	32:CV:59:LYS:NZ	2.20	0.74
13:CC:35:ALA:HB2	13:CC:60:GLN:HB3	1.68	0.74
19:DI:66:ASP:N	19:DI:66:ASP:OD1	2.17	0.74
1:B0:62:GLY:N	11:BA:560:C:OP1	2.20	0.74
11:BA:676:C:O2'	11:BA:677:G:OP2	2.06	0.74
17:BG:66:ARG:HH11	17:BG:66:ARG:HG3	1.53	0.74
25:BO:86:LEU:HD12	25:BO:87:PRO:HD2	1.69	0.74
4:D3:113:ARG:NH2	11:DA:633:U:OP1	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1535:A:OP1	30:DT:87:LYS:NZ	2.21	0.74
28:DR:240:TRP:HE3	28:DR:245:LEU:HD22	1.51	0.74
4:A3:115:ARG:NH1	11:AA:632:U:C4	2.56	0.74
11:AA:108:A:O2'	27:AQ:66:ARG:NH1	2.19	0.74
11:AA:1186:G:H1	11:AA:1420:U:H3	1.35	0.74
15:AE:82:LEU:HD12	15:AE:212:LEU:HD21	1.70	0.74
11:BA:1176:A:N3	24:BN:9:HIS:NE2	2.33	0.74
10:C9:88:HIS:CD2	11:CA:1219:U:H5"	2.22	0.74
13:CC:228:ARG:HG3	28:CR:245:LEU:H	1.53	0.74
3:D2:89:VAL:HG21	3:D2:102:LYS:HA	1.70	0.74
11:AA:1661:G:H4'	11:AA:1662:C:H5"	1.70	0.74
9:B8:81:ARG:NH2	11:BA:1505:C:OP2	2.20	0.74
11:DA:1155:A:N3	11:DA:1182:G:O2'	2.17	0.74
11:AA:1318:C:OP1	20:AJ:51:LYS:NZ	2.21	0.73
11:CA:629:A:OP1	39:CA:2141:HOH:O	2.04	0.73
21:CK:34:MET:SD	21:CK:98:ARG:NH1	2.61	0.73
23:AM:100:MET:HE1	23:AM:108:LYS:HG3	1.68	0.73
11:CA:589:G:OP2	39:CA:2120:HOH:O	2.05	0.73
6:D5:2:PRO:HD3	11:DA:1115:A:OP1	1.88	0.73
21:BK:34:MET:SD	21:BK:98:ARG:NH1	2.61	0.73
32:BV:43:SER:HB2	32:BV:46:LEU:HB2	1.69	0.73
11:DA:840:A:OP2	25:DO:66:ARG:NH2	2.22	0.73
11:DA:948:A:H3'	11:DA:949:A:H5"	1.69	0.73
11:BA:1661:G:H4'	11:BA:1662:C:H5"	1.70	0.73
11:CA:847:A:H61	11:CA:936:U:H3	1.37	0.73
11:CA:1154:U:O2'	11:CA:1156:A:N7	2.19	0.73
27:CQ:77:THR:O	27:CQ:77:THR:OG1	2.03	0.73
1:D0:22:LYS:CB	10:D9:74:LYS:HZ1	2.01	0.73
9:D8:62:LYS:HG2	9:D8:111:VAL:HG21	1.69	0.73
11:DA:1154:U:O2'	11:DA:1156:A:N7	2.17	0.73
11:DA:1518:G:OP2	23:DM:134:ARG:NH1	2.21	0.73
25:DO:86:LEU:HD12	25:DO:87:PRO:HD2	1.69	0.73
11:AA:1168:A:O2'	11:AA:1169:C:OP2	2.06	0.73
11:AA:1263:G:H22	11:AA:1296:G:H1	1.35	0.73
11:DA:508:A:OP2	39:DA:7814:HOH:O	2.04	0.73
11:DA:608:C:OP1	39:DA:7252:HOH:O	2.06	0.73
11:DA:1186:G:H1	11:DA:1420:U:H3	1.35	0.73
11:DA:1274:U:O4	39:DA:7943:HOH:O	2.07	0.73
4:A3:113:ARG:NH2	11:AA:633:U:OP1	2.22	0.73
13:AC:175:VAL:HG22	13:AC:188:LYS:HG2	1.69	0.73
29:AS:78:PRO:HG2	29:AS:98:ILE:HG12	1.71	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B4:222:LYS:NZ	11:BA:864:U:OP2	2.19	0.73
17:BG:70:THR:HB	17:BG:150:ILE:HD12	1.69	0.73
28:BR:255:GLY:H	28:BR:279:LYS:HZ2	1.34	0.73
3:C2:10:LYS:HD2	11:CA:329:A:H5"	1.70	0.73
11:CA:531:A:N3	39:CA:2089:HOH:O	2.21	0.73
11:DA:246:U:OP1	27:DQ:33:TYR:OH	2.05	0.73
11:BA:194:G:O6	39:BA:6378:HOH:O	2.04	0.73
33:CW:239:GLU:CD	33:CW:239:GLU:H	1.97	0.73
8:D7:6:LYS:NZ	31:DU:20:ASN:HD21	1.86	0.73
11:AA:1495:U:H4'	11:AA:1496:A:OP1	1.89	0.73
11:BA:1154:U:O2'	11:BA:1156:A:N7	2.18	0.73
11:CA:1428:C:OP1	39:CA:2225:HOH:O	2.05	0.73
17:DG:66:ARG:HH11	17:DG:66:ARG:HG3	1.53	0.73
23:DM:86:LEU:HD22	23:DM:99:GLN:HG3	1.70	0.73
6:A5:42:ARG:NH2	21:AK:107:GLN:HG3	2.04	0.73
11:AA:92:G:OP1	33:AW:10:LYS:NZ	2.22	0.73
11:AA:649:U:H2'	11:AA:650:C:O4'	1.88	0.73
11:CA:1462:U:H4'	11:CA:1463:U:OP1	1.88	0.73
11:DA:470:G:H1	11:DA:503:A:H61	1.36	0.73
11:DA:1143:A:H2'	11:DA:1144:A:C8	2.23	0.73
11:DA:1335:A:N3	30:DT:5:GLN:NE2	2.36	0.73
11:AA:948:A:H3'	11:AA:949:A:H5"	1.70	0.73
33:AW:125:LEU:HD12	33:AW:238:ILE:HD11	1.71	0.73
27:BQ:32:ARG:NH1	27:BQ:50:GLY:O	2.22	0.73
11:AA:1368:A:H3'	11:AA:1369:A:H5'	1.71	0.72
33:AW:239:GLU:H	33:AW:239:GLU:CD	1.97	0.72
6:C5:2:PRO:HD3	11:CA:1115:A:OP1	1.89	0.72
2:D1:24:ILE:HD11	17:DG:121:THR:HB	1.69	0.72
11:AA:1462:U:H4'	11:AA:1463:U:OP1	1.87	0.72
11:CA:121:U:H4'	33:CW:150:ARG:HH12	1.53	0.72
5:D4:90:VAL:CG1	5:D4:226:ARG:HH12	2.02	0.72
11:DA:1005:A:OP2	39:DA:7044:HOH:O	2.06	0.72
11:AA:1164:C:O3'	19:AI:142:LYS:NZ	2.19	0.72
12:AB:62:ALA:O	36:AZ:64:LYS:NZ	2.21	0.72
6:C5:37:LYS:NZ	11:CA:911:A:OP2	2.22	0.72
10:D9:80:TYR:HB2	11:DA:1416:G:O6	1.89	0.72
11:DA:1495:U:H4'	11:DA:1496:A:OP1	1.88	0.72
3:A2:31:ARG:NH2	11:AA:324:A:OP1	2.22	0.72
4:A3:192:PHE:CG	7:A6:21:ARG:NH1	2.58	0.72
11:AA:760:G:N7	26:AP:9:LYS:NZ	2.34	0.72
11:AA:1428:C:O2'	11:AA:1429:G:OP1	2.06	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:1266:G:O6	39:BA:6215:HOH:O	2.06	0.72
11:BA:1449:G:OP1	30:BT:43:THR:OG1	2.05	0.72
5:C4:90:VAL:CG1	5:C4:226:ARG:HH12	2.02	0.72
11:CA:413:C:OP1	35:CY:87:ARG:NH2	2.21	0.72
11:CA:617:A:H4'	11:CA:618:G:OP2	1.89	0.72
11:CA:1560:G:H1	11:CA:1580:U:H3	1.37	0.72
25:CO:86:LEU:HD12	25:CO:87:PRO:HD2	1.70	0.72
11:DA:70:U:OP2	35:DY:171:LYS:NZ	2.22	0.72
11:DA:660:U:H2'	11:DA:661:G:O4'	1.89	0.72
11:DA:1661:G:H4'	11:DA:1662:C:H5"	1.70	0.72
11:AA:1531:G:N7	39:AA:2427:HOH:O	2.22	0.72
11:DA:765:A:C6	26:DP:19:ARG:NH1	2.57	0.72
7:A6:34:LYS:NZ	7:A6:78:LYS:HE3	2.04	0.72
11:AA:608:C:OP1	39:AA:2135:HOH:O	2.06	0.72
5:B4:90:VAL:CG1	5:B4:226:ARG:HH12	2.02	0.72
19:BI:66:ASP:OD1	19:BI:66:ASP:N	2.17	0.72
11:AA:81:A:OP2	39:AA:2025:HOH:O	2.07	0.72
11:AA:793:G:H5"	11:AA:794:A:OP2	1.89	0.72
11:AA:847:A:H61	11:AA:936:U:H3	1.36	0.72
11:AA:1245:G:O2'	11:AA:1246:C:OP2	2.06	0.72
11:AA:1360:U:O2'	11:AA:1361:A:OP2	2.06	0.72
11:BA:948:A:H3'	11:BA:949:A:H5"	1.72	0.72
29:BS:78:PRO:HG2	29:BS:98:ILE:HG12	1.71	0.72
11:CA:229:A:H1'	11:CA:230:A:C8	2.24	0.72
27:CQ:32:ARG:NH1	27:CQ:50:GLY:O	2.22	0.72
35:CY:32:MET:HE2	35:CY:54:GLY:HA2	1.72	0.72
9:D8:46:GLU:HG3	23:DM:8:GLU:HB2	1.70	0.72
14:AD:80:MET:HG2	14:AD:86:LEU:HD22	1.71	0.72
3:B2:10:LYS:HD2	11:BA:329:A:H5"	1.71	0.72
11:CA:1661:G:H4'	11:CA:1662:C:H5"	1.70	0.72
33:CW:224:LEU:HD23	33:CW:227:ILE:HD12	1.69	0.72
22:DL:78:ASN:HB3	22:DL:80:LYS:H	1.55	0.72
11:AA:531:A:N3	39:AA:2093:HOH:O	2.23	0.72
9:B8:62:LYS:HG2	9:B8:111:VAL:HG21	1.71	0.72
11:BA:10:G:O6	11:BA:1117:U:N3	2.17	0.72
11:BA:1560:G:H1	11:BA:1580:U:H3	1.38	0.72
11:CA:1444:U:OP1	17:CG:164:ILE:HG13	1.89	0.72
11:DA:847:A:H61	11:DA:936:U:H3	1.38	0.72
12:DB:63:VAL:HG21	12:DB:69:VAL:HG23	1.72	0.72
11:DA:327:G:H2'	11:DA:328:G:H5"	1.72	0.72
2:A1:43:ARG:NH2	2:A1:59:GLU:O	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:894:U:H3	21:AK:55:ARG:HH22	1.34	0.71
17:AG:66:ARG:HH11	17:AG:66:ARG:HG3	1.52	0.71
21:BK:128:ARG:HH11	21:BK:128:ARG:CG	2.04	0.71
33:BW:239:GLU:CD	33:BW:239:GLU:H	1.97	0.71
12:CB:80:ARG:NH2	32:CV:83:ASP:OD1	2.22	0.71
28:CR:255:GLY:H	28:CR:279:LYS:HZ2	1.34	0.71
5:A4:90:VAL:CG1	5:A4:226:ARG:HH12	2.03	0.71
11:AA:969:A:OP2	39:AA:2175:HOH:O	2.06	0.71
11:BA:531:A:N3	39:BA:6084:HOH:O	2.23	0.71
11:BA:617:A:H4'	11:BA:618:G:OP2	1.88	0.71
22:BL:78:ASN:HB3	22:BL:80:LYS:H	1.56	0.71
3:C2:145:ARG:NH1	11:CA:183:G:O6	2.23	0.71
10:C9:73:LYS:NZ	11:CA:1157:U:OP1	2.22	0.71
11:CA:11:A:N3	11:CA:1272:A:O2'	2.23	0.71
12:AB:63:VAL:HG21	12:AB:69:VAL:HG23	1.72	0.71
11:CA:1368:A:H3'	11:CA:1369:A:H5'	1.71	0.71
11:CA:1469:U:OP1	30:CT:78:THR:OG1	2.07	0.71
11:CA:1473:G:OP2	30:CT:102:LYS:NZ	2.23	0.71
11:DA:649:U:H2'	11:DA:650:C:O4'	1.91	0.71
11:AA:1518:G:OP2	23:AM:134:ARG:NH1	2.23	0.71
2:C1:43:ARG:NH2	2:C1:59:GLU:O	2.23	0.71
3:C2:12:ARG:NH1	11:CA:101:A:OP1	2.22	0.71
11:CA:948:A:H3'	11:CA:949:A:H5"	1.71	0.71
11:CA:1256:C:H4'	11:CA:1257:U:OP1	1.87	0.71
11:DA:1165:A:H4'	11:DA:1166:A:OP2	1.90	0.71
11:DA:1368:A:H3'	11:DA:1369:A:H5'	1.71	0.71
11:AA:3:C:O2'	11:AA:4:C:OP1	2.04	0.71
2:B1:43:ARG:NH2	2:B1:59:GLU:O	2.23	0.71
11:BA:4:C:O2'	14:BD:17:ARG:NH2	2.23	0.71
11:BA:613:A:OP1	39:BA:6237:HOH:O	2.08	0.71
11:BA:1368:A:H3'	11:BA:1369:A:H5'	1.71	0.71
11:BA:1444:U:OP1	17:BG:164:ILE:HG13	1.91	0.71
35:BY:32:MET:HE2	35:BY:54:GLY:HA2	1.72	0.71
13:CC:98:GLY:HA2	13:CC:104:GLN:HE21	1.54	0.71
6:A5:87:ARG:NH1	11:AA:1126:C:OP1	2.24	0.71
11:AA:589:G:OP2	39:AA:2123:HOH:O	2.09	0.71
11:AA:1420:U:OP2	39:AA:2409:HOH:O	2.07	0.71
11:BA:1399:G:H21	20:BJ:72:GLU:HG2	1.55	0.71
3:C2:149:LYS:O	3:C2:153:ARG:HG2	1.90	0.71
11:DA:209:G:O2'	11:DA:210:A:OP2	2.07	0.71
11:DA:1651:G:O2'	11:DA:1652:A:OP2	2.06	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AK:128:ARG:HH11	21:AK:128:ARG:CG	2.02	0.71
1:B0:21:THR:HA	10:B9:74:LYS:HG2	1.72	0.71
13:BC:175:VAL:HG22	13:BC:188:LYS:HG2	1.73	0.71
11:DA:353:G:OP1	39:DA:7605:HOH:O	2.08	0.71
3:A2:149:LYS:O	3:A2:153:ARG:HG2	1.91	0.71
11:AA:469:A:H2'	11:AA:470:G:H8	1.55	0.71
14:CD:132:ARG:HD3	14:CD:140:LEU:HD21	1.73	0.71
22:CL:7:ARG:HG3	22:CL:7:ARG:NH1	2.05	0.71
6:D5:37:LYS:NZ	11:DA:911:A:OP2	2.23	0.71
21:DK:128:ARG:CG	21:DK:128:ARG:HH11	2.02	0.71
11:AA:1560:G:H1	11:AA:1580:U:H3	1.37	0.71
11:AA:1651:G:O2'	11:AA:1652:A:OP2	2.09	0.71
23:AM:86:LEU:HD22	23:AM:99:GLN:HG3	1.72	0.71
11:BA:92:G:OP1	33:BW:10:LYS:NZ	2.24	0.71
11:CA:754:A:O2'	14:CD:9:SER:OG	2.08	0.71
3:D2:10:LYS:HD2	11:DA:329:A:H5"	1.71	0.71
3:D2:149:LYS:O	3:D2:153:ARG:HG2	1.91	0.71
16:DF:78:ARG:NH1	16:DF:100:GLY:HA3	2.06	0.71
10:A9:88:HIS:HD2	11:AA:1219:U:H5"	1.55	0.71
11:AA:556:G:N7	39:AA:2110:HOH:O	2.22	0.71
11:AA:1710:G:O6	39:AA:2224:HOH:O	2.07	0.71
11:BA:1153:U:H3	11:BA:1157:U:H5	1.39	0.71
7:C6:34:LYS:NZ	7:C6:78:LYS:HE3	2.06	0.71
21:CK:128:ARG:HH11	21:CK:128:ARG:CG	2.02	0.71
11:DA:121:U:H4'	33:DW:150:ARG:HH12	1.56	0.71
6:B5:56:LYS:HG3	21:BK:120:ALA:HB1	1.72	0.70
11:BA:327:G:H2'	11:BA:328:G:H5"	1.72	0.70
12:BB:29:MET:HE2	12:BB:150:LEU:HD21	1.73	0.70
11:CA:1479:G:N7	39:CA:2282:HOH:O	2.23	0.70
22:CL:78:ASN:HB3	22:CL:80:LYS:H	1.56	0.70
23:CM:86:LEU:HD22	23:CM:99:GLN:HG3	1.71	0.70
2:D1:43:ARG:NH2	2:D1:59:GLU:O	2.23	0.70
11:DA:1360:U:O2'	11:DA:1361:A:OP2	2.08	0.70
13:DC:98:GLY:HA2	13:DC:104:GLN:HE21	1.55	0.70
7:B6:34:LYS:NZ	7:B6:78:LYS:HE3	2.05	0.70
11:AA:273:A:HO2'	11:AA:274:C:P	2.13	0.70
27:AQ:32:ARG:NH1	27:AQ:50:GLY:O	2.23	0.70
5:B4:220:LYS:NZ	11:BA:864:U:OP1	2.24	0.70
6:B5:37:LYS:NZ	11:BA:911:A:OP2	2.24	0.70
11:BA:1469:U:OP1	30:BT:78:THR:OG1	2.08	0.70
11:BA:1495:U:H4'	11:BA:1496:A:OP1	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BD:5:TYR:HB3	33:BW:22:LYS:HE2	1.73	0.70
16:BF:78:ARG:NH1	16:BF:100:GLY:HA3	2.07	0.70
23:CM:48:LYS:HD3	30:CT:39:GLN:HG2	1.71	0.70
11:DA:1168:A:O2'	11:DA:1169:C:OP2	2.10	0.70
11:AA:378:A:H5"	11:AA:380:G:OP2	1.92	0.70
11:AA:920:G:OP2	39:AA:2343:HOH:O	2.08	0.70
11:AA:1153:U:H3	11:AA:1157:U:H5	1.39	0.70
23:AM:126:ARG:NH1	29:AS:128:TYR:OH	2.25	0.70
14:DD:132:ARG:HD3	14:DD:140:LEU:HD21	1.73	0.70
27:DQ:32:ARG:NH1	27:DQ:50:GLY:O	2.24	0.70
11:AA:125:U:H4'	11:AA:125:U:OP1	1.90	0.70
4:B3:144:ARG:O	18:BH:42:GLN:NE2	2.24	0.70
11:DA:1171:G:OP2	24:DN:40:ARG:NH2	2.24	0.70
29:DS:78:PRO:HG2	29:DS:98:ILE:HG12	1.72	0.70
6:A5:2:PRO:HD3	11:AA:1115:A:OP1	1.91	0.70
11:AA:1171:G:OP2	24:AN:40:ARG:NH2	2.24	0.70
12:BB:63:VAL:HG21	12:BB:69:VAL:HG23	1.72	0.70
11:DA:498:C:H4'	11:DA:499:A:OP1	1.89	0.70
35:AY:32:MET:HE2	35:AY:54:GLY:HA2	1.72	0.70
8:B7:29:GLU:OE2	24:BN:7:ARG:NH1	2.23	0.70
11:BA:125:U:OP1	11:BA:125:U:H4'	1.91	0.70
11:BA:1084:A:HO2'	11:BA:1704:C:HO2'	1.37	0.70
9:C8:63:VAL:HG22	17:CG:97:LEU:HB3	1.74	0.70
11:CA:235:A:O2'	11:CA:814:A:H5'	1.92	0.70
11:CA:1486:U:O2'	13:CC:9:ASN:HA	1.89	0.70
12:CB:63:VAL:HG21	12:CB:69:VAL:HG23	1.72	0.70
33:CW:102:ARG:HB2	33:CW:116:LEU:HD11	1.74	0.70
28:DR:15:GLY:HA3	28:DR:65:PHE:HB2	1.73	0.70
3:A2:10:LYS:HD2	11:AA:329:A:H5"	1.74	0.70
11:BA:444:A:O2'	11:BA:445:U:OP1	2.08	0.70
11:BA:1009:U:H4'	11:BA:1010:A:OP2	1.91	0.70
11:BA:1674:A:H4'	35:BY:81:HIS:CE1	2.27	0.70
33:BW:194:VAL:HB	33:BW:245:GLY:HA3	1.73	0.70
8:C7:52:ARG:NH2	11:CA:1192:C:OP1	2.24	0.70
11:CA:234:G:O2'	11:CA:235:A:O5'	2.10	0.70
11:CA:1495:U:H4'	11:CA:1496:A:OP1	1.90	0.70
11:DA:1153:U:H3	11:DA:1157:U:H5	1.39	0.70
11:DA:1560:G:H1	11:DA:1580:U:H3	1.38	0.70
13:DC:10:LYS:NZ	20:DJ:113:GLU:OE2	2.25	0.70
15:DE:231:TRP:CE2	18:DH:68:ARG:HG2	2.27	0.70
11:AA:391:A:H4'	11:AA:392:A:H5"	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AC:98:GLY:HA2	13:AC:104:GLN:HE21	1.56	0.70
11:BA:1531:G:N7	39:BA:6602:HOH:O	2.24	0.70
14:BD:132:ARG:HD3	14:BD:140:LEU:HD21	1.73	0.70
19:CI:130:LYS:HE3	19:CI:136:ALA:O	1.91	0.70
28:CR:15:GLY:HA3	28:CR:65:PHE:HB2	1.74	0.70
35:DY:32:MET:HE2	35:DY:54:GLY:HA2	1.73	0.70
33:AW:89:MET:HE1	33:AW:238:ILE:HD13	1.74	0.70
15:BE:49:PHE:HD1	36:BZ:41:SER:HB2	1.57	0.70
11:CA:963:G:N7	39:CA:2176:HOH:O	2.24	0.70
11:AA:1188:A:H2	11:AA:1417:A:H62	1.40	0.69
15:AE:49:PHE:HD1	36:AZ:41:SER:HB2	1.56	0.69
4:B3:145:LEU:HA	18:BH:42:GLN:HE21	1.56	0.69
11:BA:353:G:OP1	39:BA:6070:HOH:O	2.10	0.69
31:CU:120:ILE:HG22	31:CU:124:LEU:HD21	1.74	0.69
28:DR:21:SER:HB2	28:DR:48:ASP:HB2	1.74	0.69
7:A6:18:LYS:HA	7:A6:21:ARG:HE	1.57	0.69
11:AA:986:G:OP1	39:AA:2155:HOH:O	2.09	0.69
15:BE:116:TRP:H	15:BE:132:HIS:HD2	1.40	0.69
33:BW:102:ARG:HB2	33:BW:116:LEU:HD11	1.74	0.69
11:DA:1176:A:OP1	11:DA:1427:C:N4	2.26	0.69
11:DA:1531:G:N7	39:DA:8229:HOH:O	2.25	0.69
11:AA:229:A:H1'	11:AA:230:A:C8	2.26	0.69
14:AD:132:ARG:HD3	14:AD:140:LEU:HD21	1.73	0.69
11:BA:100:A:O2'	39:BA:6405:HOH:O	2.10	0.69
23:BM:86:LEU:HD22	23:BM:99:GLN:HG3	1.73	0.69
14:CD:5:TYR:HB3	33:CW:22:LYS:HE2	1.74	0.69
11:DA:573:A:N1	13:DC:148:GLN:HG2	2.07	0.69
33:DW:89:MET:HE1	33:DW:238:ILE:HD13	1.75	0.69
33:DW:239:GLU:H	33:DW:239:GLU:CD	1.98	0.69
19:AI:130:LYS:HE3	19:AI:136:ALA:O	1.91	0.69
4:C3:192:PHE:CG	7:C6:21:ARG:NH1	2.61	0.69
12:CB:13:LEU:HA	12:CB:169:MET:HE1	1.74	0.69
11:DA:232:G:O2'	11:DA:233:U:OP1	2.06	0.69
11:AA:243:G:O2'	27:AQ:38:GLY:O	2.09	0.69
12:AB:13:LEU:HA	12:AB:169:MET:HE1	1.73	0.69
3:B2:149:LYS:O	3:B2:153:ARG:HG2	1.92	0.69
11:BA:649:U:H2'	11:BA:650:C:O4'	1.93	0.69
11:BA:1360:U:O2'	11:BA:1361:A:OP2	2.10	0.69
7:C6:18:LYS:HA	7:C6:21:ARG:HE	1.58	0.69
29:CS:78:PRO:HG2	29:CS:98:ILE:HG12	1.74	0.69
11:DA:444:A:O2'	11:DA:445:U:OP1	2.11	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:159:THR:HG23	5:A4:161:TYR:CD2	2.27	0.69
11:AA:1154:U:O2'	11:AA:1156:A:N7	2.20	0.69
11:AA:1168:A:H4'	11:AA:1169:C:H5"	1.74	0.69
11:AA:1172:G:H4'	11:AA:1173:G:O5'	1.92	0.69
15:AE:116:TRP:H	15:AE:132:HIS:HD2	1.40	0.69
1:B0:22:LYS:H	10:B9:74:LYS:HG2	1.58	0.69
4:B3:196:LYS:HE2	7:B6:77:PHE:HZ	1.58	0.69
6:B5:2:PRO:HD3	11:BA:1115:A:OP1	1.92	0.69
13:BC:98:GLY:HA2	13:BC:104:GLN:HE21	1.56	0.69
11:CA:378:A:H5"	11:CA:380:G:OP2	1.92	0.69
11:CA:444:A:O2'	11:CA:445:U:OP1	2.09	0.69
11:DA:1708:A:N6	39:DA:7701:HOH:O	2.26	0.69
6:B5:87:ARG:HH11	11:BA:1126:C:H5'	1.55	0.69
11:BA:1419:G:OP1	39:BA:6517:HOH:O	2.11	0.69
28:BR:21:SER:HB2	28:BR:48:ASP:HB2	1.75	0.69
11:CA:543:A:H4'	11:CA:544:G:OP1	1.91	0.69
15:CE:116:TRP:H	15:CE:132:HIS:HD2	1.41	0.69
11:DA:391:A:H4'	11:DA:392:A:H5"	1.72	0.69
11:AA:233:U:H2'	11:AA:234:G:C8	2.27	0.69
11:AA:1165:A:H4'	11:AA:1166:A:OP2	1.92	0.69
22:AL:7:ARG:HG3	22:AL:7:ARG:NH1	2.07	0.69
27:AQ:107:PRO:HG3	27:AQ:133:THR:HB	1.75	0.69
31:AU:120:ILE:HG22	31:AU:124:LEU:HD21	1.75	0.69
10:B9:127:LYS:NZ	11:CA:534:A:C2	2.60	0.69
11:BA:347:G:OP2	39:BA:6400:HOH:O	2.10	0.69
11:BA:1651:G:O2'	11:BA:1652:A:OP2	2.09	0.69
3:C2:2:GLY:N	11:CA:384:C:OP1	2.25	0.69
11:CA:221:A:H3'	11:CA:222:U:H4'	1.75	0.69
11:CA:487:C:H3'	11:CA:488:G:C8	2.28	0.69
16:CF:78:ARG:NH1	16:CF:100:GLY:HA3	2.08	0.69
3:D2:31:ARG:NH2	11:DA:324:A:OP1	2.26	0.69
11:DA:228:C:H1'	11:DA:229:A:H5"	1.73	0.69
11:DA:234:G:O2'	11:DA:235:A:O4'	2.11	0.69
13:DC:175:VAL:HG22	13:DC:188:LYS:HG2	1.73	0.69
23:DM:40:ARG:NH2	30:DT:48:GLU:OE1	2.23	0.69
33:DW:194:VAL:HB	33:DW:245:GLY:HA3	1.73	0.69
4:B3:115:ARG:NH1	11:BA:632:U:C4	2.61	0.69
11:BA:754:A:O2'	14:BD:9:SER:OG	2.08	0.69
11:BA:1168:A:H4'	11:BA:1169:C:H5"	1.75	0.69
11:BA:1428:C:O2'	11:BA:1429:G:OP1	2.11	0.69
11:BA:1556:G:H3'	19:BI:125:ARG:O	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:1711:U:O4	39:BA:6114:HOH:O	2.09	0.69
11:CA:1651:G:O2'	11:CA:1652:A:OP2	2.10	0.69
15:CE:49:PHE:HD1	36:CZ:41:SER:HB2	1.58	0.69
19:CI:18:ALA:HA	19:CI:73:GLY:HA3	1.75	0.69
1:A0:62:GLY:N	11:AA:560:C:OP1	2.22	0.69
33:AW:102:ARG:HB2	33:AW:116:LEU:HD11	1.75	0.69
11:BA:1518:G:OP2	23:BM:134:ARG:NH1	2.26	0.69
13:DC:226:GLU:HB2	28:DR:207:TYR:HA	1.73	0.69
3:A2:150:ARG:NH2	11:AA:181:G:OP1	2.23	0.68
10:A9:95:LEU:HD13	11:AA:1200:G:H4'	1.75	0.68
11:AA:754:A:H4'	14:AD:9:SER:HB3	1.75	0.68
5:B4:159:THR:HG23	5:B4:161:TYR:CD2	2.28	0.68
11:BA:589:G:OP2	39:BA:6418:HOH:O	2.09	0.68
31:BU:120:ILE:HG22	31:BU:124:LEU:HD21	1.74	0.68
33:BW:89:MET:HE1	33:BW:238:ILE:HD13	1.75	0.68
13:CC:175:VAL:HG22	13:CC:188:LYS:HG2	1.73	0.68
28:CR:21:SER:HB2	28:CR:48:ASP:HB2	1.75	0.68
12:DB:13:LEU:HA	12:DB:169:MET:HE1	1.75	0.68
11:BA:1480:U:O2'	11:BA:1481:A:O5'	2.11	0.68
7:C6:65:THR:O	7:C6:67:GLY:N	2.26	0.68
11:CA:125:U:H4'	11:CA:125:U:OP1	1.91	0.68
11:CA:1009:U:H4'	11:CA:1010:A:OP2	1.93	0.68
11:CA:1518:G:OP2	23:CM:134:ARG:NH1	2.26	0.68
11:CA:1621:G:H2'	11:CA:1622:U:O4'	1.93	0.68
5:D4:220:LYS:NZ	11:DA:864:U:OP1	2.26	0.68
10:D9:92:HIS:NE2	11:DA:1201:G:N7	2.41	0.68
11:DA:892:G:HO2'	11:DA:893:A:H8	1.42	0.68
19:DI:56:LEU:HD23	19:DI:111:LEU:HD23	1.76	0.68
6:A5:32:LYS:NZ	11:AA:910:U:O2	2.25	0.68
11:AA:1736:C:H2'	11:AA:1737:C:H6	1.58	0.68
33:AW:194:VAL:HB	33:AW:245:GLY:HA3	1.75	0.68
11:BA:1165:A:H4'	11:BA:1166:A:OP2	1.94	0.68
11:BA:1621:G:H2'	11:BA:1622:U:O4'	1.93	0.68
9:C8:63:VAL:HG13	17:CG:97:LEU:HD12	1.74	0.68
11:CA:1505:C:H4'	11:CA:1511:A:H61	1.58	0.68
33:CW:194:VAL:HB	33:CW:245:GLY:HA3	1.74	0.68
7:D6:65:THR:O	7:D6:67:GLY:N	2.27	0.68
11:DA:647:U:O2'	11:DA:649:U:OP2	2.05	0.68
6:A5:11:SER:HB2	11:AA:912:A:H5'	1.76	0.68
24:AN:39:ARG:HG2	24:AN:39:ARG:NH1	2.09	0.68
11:BA:222:U:H1'	11:BA:814:A:H61	1.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:BI:130:LYS:HE3	19:BI:136:ALA:O	1.93	0.68
11:CA:469:A:H2'	11:CA:470:G:H8	1.55	0.68
11:CA:1176:A:OP1	11:CA:1427:C:N4	2.27	0.68
11:DA:982:U:H4'	11:DA:983:A:OP2	1.93	0.68
11:BA:543:A:H4'	11:BA:544:G:OP1	1.92	0.68
5:C4:159:THR:HG23	5:C4:161:TYR:CD2	2.28	0.68
11:CA:391:A:H4'	11:CA:392:A:H5"	1.75	0.68
11:DA:125:U:OP1	11:DA:125:U:H4'	1.92	0.68
11:DA:487:C:H3'	11:DA:488:G:C8	2.29	0.68
33:DW:102:ARG:HB2	33:DW:116:LEU:HD11	1.75	0.68
3:B2:153:ARG:NH1	11:BA:189:C:O2	2.26	0.68
21:BK:36:THR:HG22	21:BK:38:ASN:H	1.59	0.68
32:BV:16:LEU:HD13	32:BV:35:LEU:HG	1.76	0.68
11:CA:1168:A:H4'	11:CA:1169:C:H5"	1.76	0.68
7:D6:34:LYS:NZ	7:D6:78:LYS:HE3	2.08	0.68
11:DA:10:G:O6	11:DA:1117:U:N3	2.18	0.68
3:A2:146:HIS:ND1	11:AA:181:G:H2'	2.08	0.68
11:AA:184:U:H5'	11:AA:185:C:OP2	1.94	0.68
11:AA:238:G:O2'	11:AA:239:A:OP1	2.10	0.68
11:AA:904:A:OP1	11:AA:994:C:O2'	2.06	0.68
28:AR:57:TYR:HD1	28:AR:66:GLY:HA2	1.58	0.68
11:BA:1137:A:H2'	11:BA:1138:A:C8	2.29	0.68
12:BB:13:LEU:HA	12:BB:169:MET:HE1	1.74	0.68
11:CA:230:A:H2'	11:CA:231:U:H5'	1.76	0.68
11:CA:327:G:H2'	11:CA:328:G:H5"	1.76	0.68
11:CA:1153:U:H3	11:CA:1157:U:H5	1.39	0.68
28:CR:57:TYR:HD1	28:CR:66:GLY:HA2	1.59	0.68
10:D9:108:LYS:HA	31:DU:65:LYS:HE2	1.74	0.68
11:DA:92:G:OP1	33:DW:10:LYS:NZ	2.26	0.68
11:DA:1446:A:O2'	11:DA:1512:G:OP1	2.11	0.68
11:BA:490:U:H2'	11:BA:491:U:C6	2.29	0.68
28:BR:57:TYR:HD1	28:BR:66:GLY:HA2	1.58	0.68
31:BU:52:GLN:O	31:BU:55:TYR:HD1	1.77	0.68
3:C2:51:ILE:HD11	3:C2:68:LEU:HD21	1.76	0.68
11:CA:233:U:H2'	11:CA:234:G:C8	2.29	0.68
11:CA:1165:A:H4'	11:CA:1166:A:OP2	1.94	0.68
11:CA:1505:C:H4'	11:CA:1511:A:N6	2.09	0.68
33:CW:89:MET:HE1	33:CW:238:ILE:HD13	1.76	0.68
11:DA:392:A:H1'	33:DW:3:ARG:NH1	2.07	0.68
11:DA:1213:G:H1'	29:DS:84:HIS:CG	2.28	0.68
19:AI:56:LEU:HD23	19:AI:111:LEU:HD23	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:1661:G:O2'	11:BA:1662:C:OP2	2.10	0.68
11:CA:1360:U:O2'	11:CA:1361:A:OP2	2.09	0.68
11:DA:378:A:H5"	11:DA:380:G:OP2	1.93	0.68
11:DA:1168:A:H4'	11:DA:1169:C:H5"	1.75	0.68
11:DA:1621:G:H2'	11:DA:1622:U:O4'	1.93	0.68
7:A6:45:PHE:CG	25:AO:57:ARG:HD3	2.29	0.68
11:AA:1621:G:H2'	11:AA:1622:U:O4'	1.93	0.68
11:BA:1188:A:H2	11:BA:1417:A:H62	1.41	0.68
11:CA:190:G:H2'	11:CA:191:A:H8	1.59	0.68
15:DE:49:PHE:HD1	36:DZ:41:SER:HB2	1.58	0.68
31:DU:52:GLN:O	31:DU:55:TYR:HD1	1.77	0.68
28:AR:15:GLY:HA3	28:AR:65:PHE:HB2	1.73	0.67
15:BE:116:TRP:H	15:BE:132:HIS:CD2	2.12	0.67
28:BR:15:GLY:HA3	28:BR:65:PHE:HB2	1.74	0.67
11:CA:793:G:H5"	11:CA:794:A:OP2	1.94	0.67
11:CA:1168:A:O2'	11:CA:1169:C:OP2	2.12	0.67
11:CA:1736:C:H2'	11:CA:1737:C:H6	1.59	0.67
11:DA:235:A:O2'	11:DA:814:A:H5'	1.94	0.67
11:DA:1449:G:OP2	30:DT:47:ARG:NH1	2.28	0.67
19:DI:130:LYS:HE3	19:DI:136:ALA:O	1.94	0.67
22:DL:7:ARG:HG3	22:DL:7:ARG:NH1	2.08	0.67
7:A6:65:THR:O	7:A6:67:GLY:N	2.27	0.67
16:AF:78:ARG:NH1	16:AF:100:GLY:HA3	2.08	0.67
28:AR:21:SER:HB2	28:AR:48:ASP:HB2	1.74	0.67
32:AV:16:LEU:HD13	32:AV:35:LEU:HG	1.75	0.67
11:BA:17:C:O2'	11:BA:1110:A:N1	2.27	0.67
11:BA:1035:A:H2'	11:BA:1035:A:N3	2.08	0.67
11:BA:1168:A:O2'	11:BA:1169:C:OP2	2.11	0.67
11:CA:1188:A:H2	11:CA:1417:A:H62	1.41	0.67
11:CA:1661:G:O2'	11:CA:1662:C:OP2	2.10	0.67
12:CB:77:TYR:CD1	12:CB:164:THR:HG23	2.28	0.67
27:CQ:107:PRO:HG3	27:CQ:133:THR:HB	1.76	0.67
7:D6:18:LYS:HA	7:D6:21:ARG:HE	1.59	0.67
11:DA:75:C:O2'	35:DY:178:LYS:HE2	1.94	0.67
11:AA:658:C:H2'	11:AA:659:G:C8	2.29	0.67
12:AB:29:MET:HE2	12:AB:150:LEU:HD21	1.75	0.67
22:AL:78:ASN:HB3	22:AL:80:LYS:H	1.57	0.67
36:AZ:57:ASN:HB2	36:AZ:59:GLN:HG2	1.76	0.67
9:B8:95:LYS:HG2	9:B8:105:TYR:CE1	2.29	0.67
10:B9:100:PHE:HD1	10:B9:113:GLN:HG3	1.60	0.67
11:BA:847:A:H61	11:BA:936:U:H3	1.40	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:1045:G:H2'	11:CA:1046:G:H5"	1.77	0.67
4:D3:34:LYS:O	4:D3:38:GLU:HG2	1.95	0.67
11:DA:543:A:H4'	11:DA:544:G:OP1	1.93	0.67
11:AA:1035:A:H2'	11:AA:1035:A:N3	2.10	0.67
11:BA:190:G:H2'	11:BA:191:A:H8	1.60	0.67
11:BA:1005:A:OP2	39:BA:6013:HOH:O	2.12	0.67
4:C3:140:ARG:HD3	18:CH:53:ILE:HG23	1.76	0.67
11:CA:1257:U:H4'	11:CA:1258:U:O5'	1.94	0.67
11:CA:1480:U:O2'	11:CA:1481:A:O5'	2.12	0.67
11:DA:1744:U:H4'	11:DA:1745:G:OP1	1.94	0.67
12:DB:77:TYR:CD1	12:DB:164:THR:HG23	2.28	0.67
31:DU:120:ILE:HG22	31:DU:124:LEU:HD21	1.75	0.67
4:A3:140:ARG:HD3	18:AH:53:ILE:HG23	1.77	0.67
11:AA:1257:U:H4'	11:AA:1258:U:O5'	1.93	0.67
31:AU:52:GLN:O	31:AU:55:TYR:HD1	1.76	0.67
11:BA:969:A:OP2	39:BA:6319:HOH:O	2.11	0.67
11:CA:392:A:H1'	33:CW:3:ARG:HH11	1.59	0.67
11:CA:1137:A:H2'	11:CA:1138:A:C8	2.29	0.67
12:CB:29:MET:HE2	12:CB:150:LEU:HD21	1.75	0.67
15:CE:41:LYS:HB3	15:CE:244:PHE:CE2	2.30	0.67
31:CU:52:GLN:O	31:CU:55:TYR:HD1	1.77	0.67
9:D8:44:PHE:CE2	23:DM:8:GLU:HG3	2.26	0.67
11:DA:1137:A:H2'	11:DA:1138:A:C8	2.29	0.67
11:DA:1736:C:H2'	11:DA:1737:C:H6	1.59	0.67
12:DB:29:MET:HE2	12:DB:150:LEU:HD21	1.75	0.67
27:DQ:107:PRO:HG3	27:DQ:133:THR:HB	1.76	0.67
28:AR:260:GLN:HG3	28:AR:314:SER:HA	1.77	0.67
32:AV:32:LYS:HD2	32:AV:47:ARG:HH21	1.59	0.67
11:CA:498:C:H4'	11:CA:499:A:OP1	1.93	0.67
11:CA:1720:G:O2'	11:CA:1721:G:OP2	2.09	0.67
19:CI:30:LEU:HG	19:CI:66:ASP:HB3	1.76	0.67
3:D2:82:ARG:NH1	11:DA:254:A:OP1	2.28	0.67
11:AA:986:G:OP1	39:AA:2179:HOH:O	2.12	0.67
11:AA:1137:A:H2'	11:AA:1138:A:C8	2.29	0.67
6:B5:32:LYS:NZ	11:BA:910:U:O2	2.28	0.67
7:B6:47:ASN:OD1	7:B6:47:ASN:N	2.28	0.67
11:BA:1744:U:H4'	11:BA:1745:G:OP1	1.94	0.67
4:C3:34:LYS:O	4:C3:38:GLU:HG2	1.95	0.67
11:CA:1024:G:H2'	11:CA:1025:G:H5"	1.77	0.67
7:D6:47:ASN:OD1	7:D6:47:ASN:N	2.28	0.67
9:D8:43:VAL:HG12	23:DM:57:ARG:HG3	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:DE:116:TRP:H	15:DE:132:HIS:CD2	2.13	0.67
28:DR:57:TYR:HD1	28:DR:66:GLY:HA2	1.58	0.67
9:A8:95:LYS:HG2	9:A8:105:TYR:CE1	2.30	0.67
10:A9:75:LYS:HD3	11:AA:1418:C:C6	2.30	0.67
11:AA:543:A:H4'	11:AA:544:G:OP1	1.94	0.67
11:AA:642:G:N2	11:AA:667:C:O2	2.28	0.67
11:AA:866:U:H3	11:AA:902:G:H22	1.42	0.67
11:AA:1744:U:H4'	11:AA:1745:G:OP1	1.94	0.67
11:CA:986:G:OP1	39:CA:2160:HOH:O	2.12	0.67
11:CA:1399:G:H21	20:CJ:72:GLU:HG2	1.59	0.67
11:DA:969:A:OP2	39:DA:7204:HOH:O	2.12	0.67
11:AA:10:G:O6	11:AA:1117:U:N3	2.17	0.67
39:AA:2355:HOH:O	26:AP:90:ARG:NH2	2.26	0.67
5:D4:63:ILE:HG22	5:D4:91:ILE:HD12	1.77	0.67
15:DE:116:TRP:H	15:DE:132:HIS:HD2	1.41	0.67
11:AA:1176:A:OP1	11:AA:1427:C:N4	2.27	0.67
11:AA:1480:U:O2'	11:AA:1481:A:O5'	2.12	0.67
11:AA:1661:G:O2'	11:AA:1662:C:OP2	2.09	0.67
15:AE:162:LYS:HB3	15:AE:167:ARG:HH11	1.60	0.67
11:BA:391:A:H4'	11:BA:392:A:H5"	1.74	0.67
11:BA:1449:G:OP2	30:BT:47:ARG:NH1	2.28	0.67
11:BA:1736:C:H2'	11:BA:1737:C:H6	1.60	0.67
5:C4:63:ILE:HG22	5:C4:91:ILE:HD12	1.77	0.67
19:CI:56:LEU:HD23	19:CI:111:LEU:HD23	1.76	0.67
11:DA:617:A:H4'	11:DA:618:G:OP2	1.94	0.67
11:DA:1009:U:H4'	11:DA:1010:A:OP2	1.94	0.67
11:DA:1045:G:H2'	11:DA:1046:G:H5"	1.76	0.67
11:DA:1576:U:OP1	19:DI:132:GLY:N	2.27	0.67
11:DA:1661:G:O2'	11:DA:1662:C:OP2	2.10	0.67
19:DI:18:ALA:HA	19:DI:73:GLY:HA3	1.77	0.67
19:DI:30:LEU:HG	19:DI:66:ASP:HB3	1.77	0.67
14:AD:146:PHE:HZ	14:AD:149:ARG:HE	1.43	0.66
15:AE:116:TRP:H	15:AE:132:HIS:CD2	2.12	0.66
11:BA:231:U:H2'	11:BA:232:G:O4'	1.95	0.66
11:BA:866:U:H3	11:BA:902:G:H22	1.42	0.66
11:BA:1369:A:H3'	11:BA:1369:A:N3	2.11	0.66
19:BI:56:LEU:HD23	19:BI:111:LEU:HD23	1.76	0.66
32:BV:32:LYS:HD2	32:BV:47:ARG:HH21	1.61	0.66
12:CB:29:MET:HE1	12:CB:144:CYS:HB3	1.77	0.66
36:CZ:57:ASN:HB2	36:CZ:59:GLN:HG2	1.76	0.66
11:DA:573:A:N6	13:DC:147:GLN:OE1	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:184:U:H5'	11:BA:185:C:OP2	1.95	0.66
11:BA:954:G:N1	11:BA:1001:A:O2'	2.26	0.66
22:BL:7:ARG:HG3	22:BL:7:ARG:NH1	2.09	0.66
9:C8:95:LYS:HG2	9:C8:105:TYR:CE1	2.30	0.66
11:CA:184:U:H5'	11:CA:185:C:OP2	1.95	0.66
11:CA:1621:G:O6	39:CA:2304:HOH:O	2.12	0.66
15:CE:116:TRP:H	15:CE:132:HIS:CD2	2.12	0.66
3:D2:51:ILE:HD11	3:D2:68:LEU:HD21	1.77	0.66
11:DA:1188:A:H2	11:DA:1417:A:H62	1.41	0.66
11:AA:75:C:O2'	35:AY:178:LYS:HE2	1.95	0.66
11:CA:989:G:N7	39:CA:2179:HOH:O	2.28	0.66
11:AA:487:C:H3'	11:AA:488:G:C8	2.30	0.66
19:BI:30:LEU:HG	19:BI:66:ASP:HB3	1.77	0.66
27:BQ:107:PRO:HG3	27:BQ:133:THR:HB	1.78	0.66
2:C1:61:GLU:O	6:C5:51:ARG:NH1	2.29	0.66
9:C8:73:LEU:HB2	9:C8:75:VAL:HG23	1.78	0.66
11:CA:1369:A:H3'	11:CA:1369:A:N3	2.11	0.66
33:CW:126:LEU:HB3	33:CW:143:THR:HG21	1.77	0.66
11:DA:190:G:H2'	11:DA:191:A:H8	1.60	0.66
11:AA:444:A:O2'	11:AA:445:U:OP1	2.13	0.66
17:AG:101:ARG:NH2	17:AG:176:GLU:OE1	2.28	0.66
19:AI:18:ALA:HA	19:AI:73:GLY:HA3	1.78	0.66
21:AK:26:ASN:HA	21:AK:91:ASN:ND2	2.11	0.66
22:AL:52:VAL:HG23	22:AL:99:ASP:H	1.61	0.66
11:BA:133:A:H4'	11:BA:134:C:H5'	1.78	0.66
11:BA:230:A:H2'	11:BA:231:U:H5'	1.76	0.66
11:CA:537:A:OP1	11:CA:538:A:OP2	2.14	0.66
28:CR:260:GLN:HG3	28:CR:314:SER:HA	1.78	0.66
10:D9:92:HIS:CE1	11:DA:1201:G:C8	2.84	0.66
11:DA:901:A:N7	39:DA:7559:HOH:O	2.28	0.66
11:AA:171:U:H4'	11:AA:172:U:OP2	1.96	0.66
11:AA:982:U:H4'	11:AA:983:A:OP2	1.94	0.66
11:AA:1009:U:H4'	11:AA:1010:A:OP2	1.96	0.66
7:B6:18:LYS:HA	7:B6:21:ARG:HE	1.60	0.66
9:B8:73:LEU:HB2	9:B8:75:VAL:HG23	1.78	0.66
11:BA:71:U:O2'	11:BA:72:G:OP1	2.12	0.66
3:D2:150:ARG:NH2	11:DA:181:G:OP1	2.25	0.66
11:DA:573:A:N1	13:DC:147:GLN:OE1	2.28	0.66
36:DZ:57:ASN:HB2	36:DZ:59:GLN:HG2	1.76	0.66
11:AA:1005:A:OP2	39:AA:2188:HOH:O	2.13	0.66
15:AE:41:LYS:HB3	15:AE:244:PHE:CE2	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B3:34:LYS:O	4:B3:38:GLU:HG2	1.96	0.66
3:D2:153:ARG:NH1	11:DA:189:C:O2	2.28	0.66
5:D4:159:THR:HG23	5:D4:161:TYR:CD2	2.30	0.66
11:DA:311:U:H5'	11:DA:312:C:H5'	1.78	0.66
28:DR:255:GLY:H	28:DR:279:LYS:HZ2	1.43	0.66
1:A0:38:ILE:HD11	1:A0:49:PHE:HB2	1.78	0.66
4:A3:34:LYS:O	4:A3:38:GLU:HG2	1.95	0.66
12:BB:201:LYS:HZ3	32:BV:82:LEU:HD22	1.58	0.66
4:C3:113:ARG:NH2	11:CA:633:U:OP1	2.28	0.66
11:CA:754:A:H4'	14:CD:9:SER:HB3	1.78	0.66
17:CG:66:ARG:HG3	17:CG:66:ARG:NH1	2.11	0.66
11:DA:392:A:H1'	33:DW:3:ARG:HH11	1.61	0.66
27:DQ:4:GLN:NE2	27:DQ:10:GLN:O	2.29	0.66
32:DV:32:LYS:HD2	32:DV:47:ARG:HH21	1.59	0.66
11:AA:1711:U:O4	39:AA:2223:HOH:O	2.10	0.66
28:AR:233:LYS:NZ	32:AV:24:LEU:O	2.25	0.66
11:BA:210:A:OP2	11:BA:210:A:C8	2.48	0.66
11:BA:220:A:H5'	11:BA:221:A:OP2	1.96	0.66
11:BA:1024:G:H2'	11:BA:1025:G:H5"	1.77	0.66
11:BA:1176:A:OP1	11:BA:1427:C:N4	2.29	0.66
20:BJ:41:ARG:HH21	20:BJ:103:ASN:HB3	1.61	0.66
33:BW:11:ARG:NH1	33:BW:20:LEU:HB3	2.10	0.66
11:CA:377:G:O2'	11:CA:378:A:H5'	1.96	0.66
4:D3:109:LYS:H	4:D3:109:LYS:HE2	1.61	0.66
8:D7:6:LYS:HZ1	31:DU:20:ASN:HD21	1.42	0.66
9:D8:43:VAL:HA	9:D8:79:LEU:HD11	1.76	0.66
11:DA:184:U:H5'	11:DA:185:C:OP2	1.96	0.66
11:DA:1035:A:H2'	11:DA:1035:A:N3	2.10	0.66
11:DA:1173:G:O5'	39:DA:8020:HOH:O	2.13	0.66
14:DD:146:PHE:HZ	14:DD:149:ARG:HE	1.44	0.66
11:AA:887:U:H4'	11:AA:887:U:OP1	1.96	0.66
19:AI:30:LEU:HG	19:AI:66:ASP:HB3	1.77	0.66
22:AL:69:LYS:HB3	22:AL:92:LEU:HD22	1.76	0.66
14:BD:153:GLU:HA	14:BD:156:ILE:HD11	1.77	0.66
6:C5:99:PRO:HD2	6:C5:100:PRO:HD3	1.78	0.66
7:C6:5:LEU:H	18:CH:24:GLN:NE2	1.93	0.66
11:CA:74:A:H5"	35:CY:162:ARG:HH22	1.60	0.66
6:D5:32:LYS:NZ	11:DA:910:U:O2	2.29	0.66
11:DA:1449:G:OP1	30:DT:43:THR:OG1	2.08	0.66
11:AA:500:U:P	34:AX:28:ARG:HH21	2.18	0.65
27:AQ:4:GLN:NE2	27:AQ:10:GLN:O	2.28	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BE:158:LYS:HG2	15:BE:171:VAL:HG22	1.78	0.65
23:BM:46:ILE:HG12	23:BM:72:LEU:HD12	1.77	0.65
24:BN:23:CYS:HB3	24:BN:41:CYS:SG	2.36	0.65
11:CA:92:G:OP1	33:CW:10:LYS:NZ	2.29	0.65
11:CA:302:U:OP2	22:CL:20:LYS:HE3	1.96	0.65
11:CA:1292:U:H3'	12:CB:98:ARG:HH12	1.62	0.65
33:CW:11:ARG:NH1	33:CW:20:LEU:HB3	2.10	0.65
11:DA:244:A:H5'	27:DQ:38:GLY:HA3	1.76	0.65
11:DA:866:U:H3	11:DA:902:G:H22	1.43	0.65
11:DA:1480:U:O2'	11:DA:1481:A:O5'	2.12	0.65
17:DG:66:ARG:HG3	17:DG:66:ARG:NH1	2.11	0.65
4:A3:110:SER:OG	11:AA:794:A:OP1	2.15	0.65
11:AA:190:G:H2'	11:AA:191:A:H8	1.61	0.65
32:AV:89:SER:OG	32:AV:90:ILE:N	2.28	0.65
11:BA:230:A:N6	11:BA:231:U:O2	2.30	0.65
11:BA:1299:C:OP1	13:BC:159:TYR:OH	2.10	0.65
36:BZ:57:ASN:HB2	36:BZ:59:GLN:HG2	1.76	0.65
11:CA:982:U:H4'	11:CA:983:A:OP2	1.95	0.65
26:DP:18:ARG:HE	26:DP:20:GLN:HE21	1.44	0.65
3:A2:146:HIS:HD1	11:AA:181:G:H2'	1.61	0.65
33:AW:36:HIS:CG	33:AW:87:GLY:HA3	2.31	0.65
17:BG:101:ARG:NH2	17:BG:176:GLU:OE1	2.30	0.65
11:CA:220:A:H3'	11:CA:221:A:H8	1.60	0.65
11:CA:238:G:O2'	11:CA:239:A:OP1	2.12	0.65
11:CA:514:G:H4'	26:CP:34:SER:HB3	1.78	0.65
13:CC:157:GLN:HE21	13:CC:158:GLY:H	1.44	0.65
23:CM:46:ILE:HG12	23:CM:72:LEU:HD12	1.78	0.65
26:CP:18:ARG:HE	26:CP:20:GLN:HE21	1.44	0.65
8:D7:6:LYS:NZ	31:DU:27:LYS:NZ	2.32	0.65
11:DA:1024:G:H2'	11:DA:1025:G:H5"	1.78	0.65
11:DA:1213:G:C4'	29:DS:83:THR:HA	2.25	0.65
28:DR:260:GLN:HG3	28:DR:314:SER:HA	1.76	0.65
33:DW:11:ARG:NH1	33:DW:20:LEU:HB3	2.11	0.65
33:AW:193:ARG:HD3	33:AW:247:ARG:HB2	1.78	0.65
11:BA:887:U:OP1	11:BA:887:U:H4'	1.96	0.65
11:BA:982:U:H4'	11:BA:983:A:OP2	1.96	0.65
11:BA:1045:G:H2'	11:BA:1046:G:H5"	1.78	0.65
12:BB:201:LYS:HZ1	32:BV:82:LEU:HD22	1.61	0.65
33:BW:193:ARG:HD3	33:BW:247:ARG:HB2	1.78	0.65
35:BY:89:SER:OG	35:BY:90:GLY:N	2.28	0.65
3:A2:51:ILE:HD11	3:A2:68:LEU:HD21	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:1024:G:H2'	11:AA:1025:G:H5"	1.79	0.65
11:AA:1369:A:H3'	11:AA:1369:A:N3	2.11	0.65
6:B5:42:ARG:NH2	21:BK:107:GLN:HG3	2.09	0.65
11:CA:5:U:OP2	15:CE:205:THR:HG22	1.97	0.65
11:CA:677:G:N2	11:CA:725:A:H1'	2.10	0.65
14:CD:146:PHE:HZ	14:CD:149:ARG:HE	1.44	0.65
7:D6:68:LYS:HB3	11:DA:1027:U:OP1	1.97	0.65
9:D8:95:LYS:HG2	9:D8:105:TYR:CE1	2.31	0.65
11:DA:377:G:O2'	11:DA:378:A:H5'	1.96	0.65
11:DA:1281:G:H2'	11:DA:1372:A:C2	2.31	0.65
11:DA:1479:G:N7	39:DA:8084:HOH:O	2.29	0.65
23:DM:48:LYS:HD3	30:DT:39:GLN:HG2	1.78	0.65
1:A0:43:ASN:HB3	1:A0:45:ARG:NH1	2.12	0.65
3:A2:146:HIS:CE1	11:AA:181:G:H2'	2.32	0.65
4:B3:196:LYS:HE2	7:B6:77:PHE:CZ	2.31	0.65
12:BB:128:GLN:HE21	12:BB:132:GLU:HG3	1.62	0.65
1:C0:38:ILE:HD11	1:C0:49:PHE:HB2	1.79	0.65
7:C6:47:ASN:N	7:C6:47:ASN:OD1	2.29	0.65
11:CA:1744:U:H4'	11:CA:1745:G:OP1	1.95	0.65
17:CG:101:ARG:NH2	17:CG:176:GLU:OE1	2.30	0.65
35:CY:32:MET:HE1	35:CY:63:MET:HB2	1.79	0.65
1:D0:38:ILE:HD11	1:D0:49:PHE:HB2	1.79	0.65
11:DA:231:U:H5'	11:DA:232:G:OP2	1.96	0.65
11:DA:1257:U:H4'	11:DA:1258:U:O5'	1.96	0.65
11:DA:1514:G:O2'	11:DA:1541:A:N6	2.30	0.65
24:DN:39:ARG:HG2	24:DN:39:ARG:NH1	2.08	0.65
33:DW:193:ARG:HD3	33:DW:247:ARG:HB2	1.79	0.65
9:A8:43:VAL:HA	9:A8:79:LEU:HD11	1.78	0.65
17:AG:66:ARG:HG3	17:AG:66:ARG:NH1	2.12	0.65
11:BA:996:U:H5'	11:BA:997:A:OP2	1.96	0.65
6:C5:56:LYS:HG3	21:CK:120:ALA:HB1	1.79	0.65
11:DA:760:G:N7	26:DP:9:LYS:NZ	2.44	0.65
11:DA:1320:A:H5'	11:DA:1321:G:OP2	1.97	0.65
32:DV:16:LEU:HD13	32:DV:35:LEU:HG	1.78	0.65
5:A4:63:ILE:HG22	5:A4:91:ILE:HD12	1.78	0.65
11:AA:617:A:H4'	11:AA:618:G:OP2	1.95	0.65
11:AA:1200:G:N7	31:AU:76:ARG:NH1	2.45	0.65
3:B2:51:ILE:HD11	3:B2:68:LEU:HD21	1.77	0.65
11:BA:100:A:H61	11:BA:299:C:H5"	1.62	0.65
11:BA:378:A:H5"	11:BA:380:G:OP2	1.95	0.65
11:BA:1168:A:H4'	11:BA:1169:C:C5'	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:1200:G:OP2	31:BU:28:GLY:HA2	1.97	0.65
11:BA:1444:U:H5"	17:BG:164:ILE:HD11	1.77	0.65
11:CA:1035:A:N3	11:CA:1035:A:H2'	2.10	0.65
11:DA:813:U:OP1	11:DA:813:U:H4'	1.97	0.65
11:AA:3:C:HO2'	11:AA:4:C:P	2.18	0.65
11:AA:235:A:H4'	11:AA:236:U:OP2	1.97	0.65
11:AA:1168:A:H4'	11:AA:1169:C:C5'	2.27	0.65
23:AM:46:ILE:HG12	23:AM:72:LEU:HD12	1.78	0.65
24:AN:23:CYS:HB3	24:AN:41:CYS:SG	2.36	0.65
33:AW:11:ARG:NH1	33:AW:20:LEU:HB3	2.12	0.65
35:AY:32:MET:HE1	35:AY:63:MET:HB2	1.79	0.65
11:CA:273:A:HO2'	11:CA:274:C:P	2.19	0.65
11:CA:1245:G:O2'	11:CA:1246:C:OP2	2.14	0.65
27:CQ:12:GLN:HE21	27:CQ:60:THR:HG23	1.62	0.65
33:CW:193:ARG:HD3	33:CW:247:ARG:HB2	1.79	0.65
11:DA:100:A:H61	11:DA:299:C:H5"	1.62	0.65
22:DL:69:LYS:HB3	22:DL:92:LEU:HD22	1.77	0.65
11:AA:1045:G:H2'	11:AA:1046:G:H5"	1.78	0.65
11:BA:645:C:H2'	11:BA:646:A:C8	2.31	0.65
11:BA:813:U:H4'	11:BA:813:U:OP1	1.97	0.65
6:C5:32:LYS:NZ	11:CA:910:U:O2	2.29	0.65
11:CA:311:U:H5'	11:CA:312:C:H5'	1.78	0.65
27:CQ:104:ARG:HH11	27:CQ:104:ARG:HG2	1.61	0.65
11:DA:171:U:H4'	11:DA:172:U:OP2	1.97	0.65
11:DA:535:A:O2'	11:DA:536:C:O5'	2.14	0.65
11:DA:605:U:OP2	22:DL:5:LYS:NZ	2.30	0.65
11:DA:1444:U:OP1	17:DG:164:ILE:HG13	1.97	0.65
11:AA:963:G:N7	39:AA:2171:HOH:O	2.29	0.64
27:AQ:12:GLN:HE21	27:AQ:60:THR:HG23	1.62	0.64
27:AQ:79:MET:HG3	27:AQ:82:THR:HB	1.79	0.64
11:BA:270:U:H4'	11:BA:271:U:OP2	1.97	0.64
11:BA:840:A:OP2	25:BO:66:ARG:NH2	2.30	0.64
15:BE:41:LYS:HB3	15:BE:244:PHE:CE2	2.33	0.64
33:BW:126:LEU:HB3	33:BW:143:THR:HG21	1.79	0.64
11:CA:866:U:H3	11:CA:902:G:H22	1.44	0.64
11:CA:969:A:OP2	39:CA:2180:HOH:O	2.13	0.64
11:CA:1472:U:OP2	30:CT:105:ARG:NH2	2.30	0.64
11:DA:891:G:H4'	11:DA:892:G:OP2	1.97	0.64
27:DQ:12:GLN:HE21	27:DQ:60:THR:HG23	1.62	0.64
4:A3:109:LYS:HE2	4:A3:109:LYS:H	1.62	0.64
5:A4:220:LYS:NZ	11:AA:864:U:OP1	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:765:A:C6	26:AP:19:ARG:NH1	2.65	0.64
11:AA:879:G:N2	21:AK:68:GLU:OE1	2.30	0.64
11:AA:1092:U:H4'	11:AA:1093:A:OP2	1.97	0.64
11:AA:1320:A:H5'	11:AA:1321:G:OP2	1.97	0.64
7:B6:65:THR:O	7:B6:67:GLY:N	2.30	0.64
11:BA:74:A:H5"	35:BY:162:ARG:HH22	1.62	0.64
15:BE:145:TRP:H	15:BE:153:HIS:HE1	1.46	0.64
22:BL:52:VAL:HG23	22:BL:99:ASP:H	1.62	0.64
27:BQ:4:GLN:NE2	27:BQ:10:GLN:O	2.30	0.64
27:BQ:12:GLN:HE21	27:BQ:60:THR:HG23	1.62	0.64
9:C8:43:VAL:HA	9:C8:79:LEU:HD11	1.80	0.64
11:CA:660:U:H2'	11:CA:661:G:O4'	1.97	0.64
6:D5:99:PRO:HD2	6:D5:100:PRO:HD3	1.79	0.64
11:DA:5:U:OP2	15:DE:205:THR:HG22	1.98	0.64
11:DA:666:A:H2'	11:DA:667:C:O4'	1.96	0.64
11:DA:1288:C:OP2	32:DV:7:LYS:HE3	1.97	0.64
11:DA:1369:A:H3'	11:DA:1369:A:N3	2.11	0.64
16:DF:22:ARG:HB2	16:DF:34:THR:HB	1.80	0.64
17:DG:101:ARG:NH2	17:DG:176:GLU:OE1	2.30	0.64
22:DL:52:VAL:HG23	22:DL:99:ASP:H	1.62	0.64
11:AA:840:A:H62	25:AO:72:LYS:NZ	1.95	0.64
11:BA:1257:U:H4'	11:BA:1258:U:O5'	1.97	0.64
32:CV:32:LYS:HD2	32:CV:47:ARG:HH21	1.61	0.64
11:DA:1357:G:OP1	32:DV:32:LYS:NZ	2.30	0.64
15:DE:41:LYS:HB3	15:DE:244:PHE:CE2	2.32	0.64
23:DM:46:ILE:HG12	23:DM:72:LEU:HD12	1.78	0.64
6:A5:99:PRO:HD2	6:A5:100:PRO:HD3	1.79	0.64
11:AA:377:G:O2'	11:AA:378:A:H5'	1.97	0.64
11:AA:1172:G:H4'	11:AA:1173:G:C5'	2.28	0.64
13:AC:226:GLU:HB2	28:AR:207:TYR:HA	1.79	0.64
22:BL:69:LYS:HB3	22:BL:92:LEU:HD22	1.78	0.64
4:C3:109:LYS:H	4:C3:109:LYS:HE2	1.63	0.64
11:CA:1514:G:O2'	11:CA:1541:A:N6	2.30	0.64
16:CF:22:ARG:HB2	16:CF:34:THR:HB	1.79	0.64
12:DB:29:MET:HE1	12:DB:144:CYS:HB3	1.78	0.64
21:DK:36:THR:HG22	21:DK:38:ASN:H	1.62	0.64
7:A6:47:ASN:N	7:A6:47:ASN:OD1	2.31	0.64
9:A8:99:ASN:HD22	17:AG:90:ASN:HD21	1.46	0.64
11:AA:633:U:H4'	11:AA:634:C:H5"	1.78	0.64
11:AA:1137:A:H2'	11:AA:1138:A:H8	1.63	0.64
11:AA:1419:G:OP1	39:AA:2410:HOH:O	2.14	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AC:157:GLN:HE21	13:AC:158:GLY:H	1.46	0.64
33:AW:126:LEU:HB3	33:AW:143:THR:HG21	1.79	0.64
33:AW:130:ALA:HA	33:AW:158:ILE:HD11	1.80	0.64
11:BA:69:A:H3'	35:BY:173:ARG:HH22	1.62	0.64
12:BB:77:TYR:CD1	12:BB:164:THR:HG23	2.29	0.64
19:BI:18:ALA:HA	19:BI:73:GLY:HA3	1.78	0.64
11:CA:2:A:O2'	11:CA:3:C:OP1	2.13	0.64
11:CA:379:A:OP1	11:CA:415:G:O2'	2.16	0.64
21:CK:36:THR:HG22	21:CK:38:ASN:H	1.62	0.64
22:CL:69:LYS:HB3	22:CL:92:LEU:HD22	1.79	0.64
11:DA:1168:A:H4'	11:DA:1169:C:C5'	2.27	0.64
14:DD:53:ARG:NH2	15:DE:175:ARG:O	2.31	0.64
11:AA:234:G:H2'	11:AA:235:A:C8	2.32	0.64
11:AA:302:U:OP2	22:AL:20:LYS:HE3	1.98	0.64
11:AA:1708:A:N6	39:AA:2233:HOH:O	2.29	0.64
1:B0:43:ASN:HB3	1:B0:45:ARG:NH1	2.12	0.64
11:BA:1320:A:H5'	11:BA:1321:G:OP2	1.98	0.64
15:BE:162:LYS:HB3	15:BE:167:ARG:HH11	1.62	0.64
4:C3:145:LEU:HA	18:CH:42:GLN:HE21	1.63	0.64
11:CA:171:U:H4'	11:CA:172:U:OP2	1.96	0.64
11:CA:813:U:H4'	11:CA:813:U:OP1	1.97	0.64
9:D8:73:LEU:HB2	9:D8:75:VAL:HG23	1.78	0.64
11:DA:883:A:H5'	21:DK:66:ARG:HB3	1.79	0.64
11:DA:887:U:H4'	11:DA:887:U:OP1	1.96	0.64
11:AA:654:U:H1'	11:AA:656:G:N2	2.08	0.64
3:B2:97:GLU:O	3:B2:101:THR:OG1	2.15	0.64
4:B3:109:LYS:H	4:B3:109:LYS:HE2	1.63	0.64
5:B4:63:ILE:HG22	5:B4:91:ILE:HD12	1.80	0.64
6:B5:99:PRO:HD2	6:B5:100:PRO:HD3	1.78	0.64
11:CA:1434:C:H2'	11:CA:1435:G:H5"	1.79	0.64
11:DA:473:A:H2'	11:DA:474:G:H8	1.63	0.64
11:DA:1092:U:H4'	11:DA:1093:A:OP2	1.97	0.64
27:DQ:104:ARG:HG2	27:DQ:104:ARG:HH11	1.62	0.64
1:A0:43:ASN:HA	11:AA:1708:A:O2'	1.98	0.64
11:AA:535:A:O2'	11:AA:536:C:O5'	2.15	0.64
14:AD:154:LYS:NZ	11:BA:473:A:O3'	2.22	0.64
11:BA:377:G:O2'	11:BA:378:A:H5'	1.98	0.64
11:BA:535:A:O2'	11:BA:536:C:O5'	2.16	0.64
13:BC:226:GLU:HB2	28:BR:207:TYR:HA	1.79	0.64
21:BK:26:ASN:HA	21:BK:91:ASN:ND2	2.13	0.64
11:CA:89:A:H4'	11:CA:90:U:OP2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CL:52:VAL:HG23	22:CL:99:ASP:H	1.63	0.64
10:D9:132:HIS:HB2	10:D9:141:LEU:HB2	1.79	0.64
11:DA:149:U:OP1	35:DY:107:ARG:HG2	1.98	0.64
11:DA:209:G:C4'	11:DA:210:A:H5'	2.28	0.64
11:DA:477:G:H2'	11:DA:478:G:O4'	1.97	0.64
9:A8:73:LEU:HB2	9:A8:75:VAL:HG23	1.79	0.64
11:AA:133:A:H4'	11:AA:134:C:H5'	1.79	0.64
11:AA:885:A:N3	11:AA:975:G:O2'	2.27	0.64
26:AP:18:ARG:HE	26:AP:20:GLN:HE21	1.45	0.64
12:BB:29:MET:HE1	12:BB:144:CYS:HB3	1.80	0.64
16:BF:22:ARG:HB2	16:BF:34:THR:HB	1.80	0.64
11:CA:270:U:H4'	11:CA:271:U:OP2	1.98	0.64
3:D2:97:GLU:O	3:D2:101:THR:OG1	2.14	0.64
11:DA:754:A:H4'	14:DD:9:SER:HB3	1.78	0.64
11:DA:840:A:H62	25:DO:72:LYS:NZ	1.96	0.64
33:DW:126:LEU:HB3	33:DW:143:THR:HG21	1.78	0.64
35:DY:32:MET:HE1	35:DY:63:MET:HB2	1.80	0.64
11:AA:1002:U:H2'	11:AA:1003:A:H5"	1.80	0.64
11:BA:1092:U:H4'	11:BA:1093:A:OP2	1.98	0.64
20:BJ:69:PRO:O	24:BN:40:ARG:NH1	2.30	0.64
23:BM:29:PRO:HA	23:BM:32:LEU:HD12	1.80	0.64
11:DA:219:C:H5'	11:DA:220:A:OP2	1.97	0.64
11:DA:999:C:N4	39:DA:7716:HOH:O	2.31	0.64
33:DW:36:HIS:CG	33:DW:87:GLY:HA3	2.33	0.64
35:DY:89:SER:OG	35:DY:90:GLY:N	2.30	0.64
11:AA:100:A:OP2	11:AA:299:C:N4	2.31	0.63
11:AA:813:U:OP1	11:AA:813:U:H4'	1.97	0.63
11:AA:1071:U:OP1	18:AH:71:LYS:NZ	2.32	0.63
11:BA:633:U:H4'	11:BA:634:C:H5"	1.80	0.63
11:BA:634:C:H6	11:BA:634:C:H5'	1.64	0.63
13:BC:157:GLN:HE21	13:BC:158:GLY:H	1.46	0.63
27:BQ:104:ARG:HG2	27:BQ:104:ARG:HH11	1.63	0.63
11:CA:508:A:OP2	39:CA:2017:HOH:O	2.14	0.63
11:CA:1365:U:H4'	11:CA:1366:G:OP2	1.98	0.63
11:CA:1428:C:O2'	11:CA:1429:G:OP1	2.12	0.63
11:DA:133:A:H4'	11:DA:134:C:H5'	1.79	0.63
11:DA:533:G:N2	39:DA:7640:HOH:O	2.29	0.63
11:DA:834:A:O2'	11:DA:835:U:H4'	1.98	0.63
11:DA:1282:U:O3'	11:DA:1373:G:O2'	2.17	0.63
3:A2:82:ARG:NH1	11:AA:254:A:OP1	2.31	0.63
11:AA:16:G:H2'	11:AA:17:C:C6	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AI:54:ILE:HG22	19:AI:55:LEU:HD23	1.79	0.63
9:B8:43:VAL:HA	9:B8:79:LEU:HD11	1.79	0.63
11:BA:1172:G:H4'	11:BA:1173:G:O5'	1.97	0.63
11:CA:75:C:O2'	35:CY:178:LYS:HE2	1.99	0.63
11:CA:469:A:H5"	34:CX:35:SER:OG	1.98	0.63
11:CA:1263:G:N2	11:CA:1296:G:N2	2.45	0.63
14:CD:153:GLU:HA	14:CD:156:ILE:HD11	1.79	0.63
11:DA:1263:G:N2	11:DA:1296:G:N2	2.46	0.63
11:DA:1362:U:OP1	32:DV:59:LYS:NZ	2.24	0.63
11:DA:1568:C:OP2	24:DN:18:LYS:NZ	2.31	0.63
13:DC:157:GLN:HE21	13:DC:158:GLY:H	1.46	0.63
3:A2:97:GLU:O	3:A2:101:THR:OG1	2.15	0.63
11:AA:227:G:OP1	11:AA:227:G:H4'	1.98	0.63
11:AA:981:A:H2'	11:AA:983:A:N7	2.13	0.63
11:AA:1514:G:O2'	11:AA:1541:A:N6	2.31	0.63
11:BA:490:U:OP2	11:BA:490:U:H6	1.81	0.63
11:BA:1515:A:N1	23:BM:151:VAL:HG21	2.13	0.63
14:BD:146:PHE:HZ	14:BD:149:ARG:HE	1.44	0.63
28:BR:260:GLN:HG3	28:BR:314:SER:HA	1.81	0.63
10:C9:128:HIS:HE2	10:C9:133:TYR:HB3	1.61	0.63
11:CA:100:A:H61	11:CA:299:C:H5"	1.64	0.63
20:CJ:41:ARG:HH21	20:CJ:103:ASN:HB3	1.63	0.63
32:CV:16:LEU:HD13	32:CV:35:LEU:HG	1.80	0.63
11:DA:1147:U:OP2	23:DM:137:HIS:CE1	2.52	0.63
28:DR:47:ARG:C	28:DR:49:LYS:H	2.06	0.63
21:AK:36:THR:HG22	21:AK:38:ASN:H	1.62	0.63
10:B9:128:HIS:ND1	11:BA:1222:U:O2'	2.32	0.63
11:BA:533:G:N2	39:BA:6083:HOH:O	2.30	0.63
11:BA:1137:A:H2'	11:BA:1138:A:H8	1.64	0.63
11:BA:1434:C:H2'	11:BA:1435:G:H5"	1.80	0.63
11:CA:1320:A:H5'	11:CA:1321:G:OP2	1.98	0.63
13:CC:10:LYS:NZ	20:CJ:113:GLU:OE2	2.31	0.63
28:CR:47:ARG:C	28:CR:49:LYS:H	2.06	0.63
33:CW:36:HIS:CG	33:CW:87:GLY:HA3	2.34	0.63
1:D0:43:ASN:HB3	1:D0:45:ARG:NH1	2.14	0.63
10:A9:129:TYR:HB3	10:A9:152:LEU:HD13	1.79	0.63
11:BA:891:G:H4'	11:BA:892:G:OP2	1.99	0.63
28:BR:47:ARG:C	28:BR:49:LYS:H	2.06	0.63
1:C0:43:ASN:HB3	1:C0:45:ARG:NH1	2.13	0.63
4:C3:115:ARG:NH1	11:CA:632:U:C4	2.66	0.63
10:C9:121:PRO:HB2	31:CU:38:ALA:HA	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:840:A:H62	25:CO:72:LYS:NZ	1.95	0.63
11:CA:1137:A:H2'	11:CA:1138:A:H8	1.63	0.63
1:B0:38:ILE:HD11	1:B0:49:PHE:HB2	1.80	0.63
5:B4:67:VAL:HG21	11:BA:898:U:H4'	1.80	0.63
11:BA:75:C:O2'	35:BY:178:LYS:HE2	1.98	0.63
11:BA:121:U:H4'	33:BW:150:ARG:HH12	1.62	0.63
5:C4:220:LYS:NZ	11:CA:864:U:OP1	2.32	0.63
11:CA:840:A:OP2	25:CO:66:ARG:NH2	2.32	0.63
27:CQ:4:GLN:NE2	27:CQ:10:GLN:O	2.31	0.63
10:A9:128:HIS:ND1	11:AA:1222:U:O2'	2.31	0.63
11:AA:1059:A:N3	11:AA:1115:A:O2'	2.30	0.63
16:AF:22:ARG:HB2	16:AF:34:THR:HB	1.81	0.63
11:CA:100:A:OP2	11:CA:299:C:N4	2.31	0.63
11:CA:887:U:OP1	11:CA:887:U:H4'	1.97	0.63
11:CA:1722:U:H5'	21:CK:151:LEU:HD12	1.81	0.63
19:CI:54:ILE:HG22	19:CI:55:LEU:HD23	1.80	0.63
33:CW:97:THR:HB	33:CW:99:GLN:HG2	1.80	0.63
11:DA:11:A:H2'	11:DA:12:U:H5'	1.80	0.63
11:AA:270:U:H4'	11:AA:271:U:OP2	1.98	0.63
27:AQ:104:ARG:HG2	27:AQ:104:ARG:HH11	1.64	0.63
7:B6:42:GLN:NE2	7:B6:55:GLU:H	1.97	0.63
11:BA:171:U:H4'	11:BA:172:U:OP2	1.97	0.63
11:CA:133:A:H4'	11:CA:134:C:H5'	1.79	0.63
35:CY:89:SER:OG	35:CY:90:GLY:N	2.30	0.63
11:DA:1213:G:H22	11:DA:1423:U:H4'	1.63	0.63
19:DI:54:ILE:HG22	19:DI:55:LEU:HD23	1.79	0.63
15:BE:231:TRP:CE2	18:BH:68:ARG:HG2	2.34	0.63
3:C2:27:PHE:CE1	11:CA:292:G:H4'	2.34	0.63
3:C2:82:ARG:NH1	11:CA:254:A:OP1	2.32	0.63
11:CA:253:A:H5'	11:CA:254:A:OP2	1.99	0.63
11:CA:901:A:N7	39:CA:2161:HOH:O	2.30	0.63
15:CE:162:LYS:HB3	15:CE:167:ARG:HH11	1.64	0.63
9:D8:81:ARG:HA	9:D8:84:MET:HG3	1.81	0.63
11:AA:60:C:O2	11:AA:266:G:O2'	2.13	0.62
11:AA:479:G:H8	11:AA:479:G:OP2	1.81	0.62
11:AA:493:U:O4	14:BD:169:GLU:N	2.31	0.62
4:B3:103:LYS:HA	4:B3:113:ARG:NH1	2.14	0.62
11:BA:605:U:OP2	22:BL:5:LYS:NZ	2.32	0.62
11:BA:981:A:H2'	11:BA:983:A:C8	2.34	0.62
4:C3:144:ARG:O	18:CH:42:GLN:NE2	2.32	0.62
21:CK:26:ASN:HA	21:CK:91:ASN:ND2	2.13	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:10:G:OP1	11:DA:1605:A:H2'	1.99	0.62
11:DA:16:G:H2'	11:DA:17:C:C6	2.34	0.62
8:A7:52:ARG:NH2	11:AA:1192:C:OP1	2.32	0.62
11:AA:213:U:H4'	11:AA:214:U:H5'	1.80	0.62
29:AS:39:ALA:HA	29:AS:42:PHE:HD2	1.64	0.62
36:AZ:47:VAL:HB	36:AZ:74:ARG:CZ	2.30	0.62
7:B6:45:PHE:CG	25:BO:57:ARG:HD3	2.34	0.62
28:BR:161:HIS:HB2	28:BR:193:ASP:OD2	2.00	0.62
29:BS:39:ALA:HA	29:BS:42:PHE:HD2	1.63	0.62
10:C9:102:LYS:NZ	10:C9:112:GLN:HB3	2.14	0.62
11:CA:834:A:O2'	11:CA:835:U:H4'	1.98	0.62
11:CA:1002:U:H2'	11:CA:1003:A:H5"	1.81	0.62
11:CA:1288:C:HO2'	11:CA:1372:A:HO2'	1.41	0.62
11:CA:1367:C:H2'	11:CA:1368:A:O4'	2.00	0.62
12:CB:128:GLN:HE21	12:CB:132:GLU:HG3	1.63	0.62
6:D5:56:LYS:HG3	21:DK:120:ALA:HB1	1.82	0.62
11:DA:1122:G:H1'	11:DA:1718:A:C4	2.33	0.62
11:DA:1355:G:H21	28:DR:76:ASN:HD21	1.47	0.62
29:DS:39:ALA:HA	29:DS:42:PHE:HD2	1.64	0.62
11:AA:311:U:H5'	11:AA:312:C:H5'	1.81	0.62
11:AA:1486:U:HO2'	11:AA:1487:A:P	2.22	0.62
35:AY:89:SER:OG	35:AY:90:GLY:N	2.30	0.62
11:BA:100:A:OP2	11:BA:299:C:N4	2.30	0.62
11:BA:981:A:H2'	11:BA:983:A:N7	2.15	0.62
19:BI:54:ILE:HG22	19:BI:55:LEU:HD23	1.79	0.62
24:BN:39:ARG:HG2	24:BN:39:ARG:NH1	2.10	0.62
33:BW:210:CYS:HB3	33:BW:227:ILE:HD11	1.81	0.62
11:CA:1176:A:N3	24:CN:9:HIS:NE2	2.38	0.62
11:CA:1708:A:N6	39:CA:2311:HOH:O	2.32	0.62
15:DE:162:LYS:HB3	15:DE:167:ARG:HH11	1.63	0.62
20:DJ:41:ARG:HH21	20:DJ:103:ASN:HB3	1.63	0.62
4:A3:197:LYS:N	11:AA:1029:G:OP1	2.33	0.62
11:AA:11:A:H2'	11:AA:12:U:H5'	1.81	0.62
11:AA:379:A:OP1	11:AA:415:G:O2'	2.17	0.62
11:AA:1223:U:O2'	11:AA:1224:C:O4'	2.17	0.62
20:AJ:41:ARG:HH21	20:AJ:103:ASN:HB3	1.62	0.62
19:BI:31:LEU:HD11	19:BI:54:ILE:HD11	1.82	0.62
33:BW:97:THR:HB	33:BW:99:GLN:HG2	1.81	0.62
7:C6:34:LYS:HZ3	7:C6:78:LYS:HE3	1.63	0.62
11:CA:11:A:H2'	11:CA:12:U:H5'	1.81	0.62
11:CA:209:G:H4'	11:CA:210:A:H5'	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:654:U:H1'	11:CA:656:G:N2	2.14	0.62
11:CA:1164:C:OP2	11:CA:1165:A:O2'	2.16	0.62
11:CA:1223:U:O2'	11:CA:1224:C:O4'	2.17	0.62
11:CA:1415:A:H4'	11:CA:1416:G:H5'	1.81	0.62
22:CL:34:LEU:O	22:CL:36:SER:N	2.33	0.62
11:DA:1200:G:OP2	31:DU:28:GLY:HA2	1.98	0.62
11:DA:1722:U:H5'	21:DK:151:LEU:HD12	1.80	0.62
13:DC:216:HIS:O	32:DV:20:TYR:OH	2.18	0.62
33:DW:130:ALA:HA	33:DW:158:ILE:HD11	1.80	0.62
11:AA:666:A:H2'	11:AA:667:C:O4'	1.98	0.62
13:AC:141:ILE:HG12	13:AC:187:VAL:HG12	1.82	0.62
11:BA:213:U:H4'	11:BA:214:U:H5'	1.81	0.62
11:BA:234:G:O2'	11:BA:235:A:O5'	2.17	0.62
11:BA:1188:A:O2'	11:BA:1189:A:H3'	1.99	0.62
25:BO:133:LEU:HA	27:BQ:147:ILE:HG21	1.80	0.62
26:BP:18:ARG:HE	26:BP:20:GLN:HE21	1.46	0.62
36:BZ:47:VAL:HB	36:BZ:74:ARG:CZ	2.30	0.62
8:C7:29:GLU:OE2	24:CN:7:ARG:NH1	2.32	0.62
11:CA:1556:G:H3'	19:CI:125:ARG:O	1.98	0.62
28:CR:161:HIS:HB2	28:CR:193:ASP:OD2	1.99	0.62
36:CZ:47:VAL:HB	36:CZ:74:ARG:CZ	2.28	0.62
7:D6:47:ASN:HB3	7:D6:67:GLY:HA2	1.81	0.62
11:DA:75:C:H5'	35:DY:176:CYS:HB2	1.81	0.62
11:DA:257:G:H5"	11:DA:258:A:OP1	2.00	0.62
11:DA:273:A:HO2'	11:DA:274:C:P	2.19	0.62
21:DK:26:ASN:HA	21:DK:91:ASN:ND2	2.14	0.62
22:DL:13:ARG:NH2	27:DQ:101:LYS:O	2.32	0.62
11:AA:5:U:OP2	15:AE:205:THR:HG22	1.99	0.62
4:B3:140:ARG:HD3	18:BH:53:ILE:HG23	1.80	0.62
7:B6:45:PHE:CD2	25:BO:57:ARG:HD3	2.35	0.62
11:BA:840:A:H62	25:BO:72:LYS:NZ	1.98	0.62
11:BA:1223:U:O2'	11:BA:1224:C:O4'	2.18	0.62
17:BG:66:ARG:HG3	17:BG:66:ARG:NH1	2.13	0.62
28:BR:140:ARG:NH1	28:BR:162:SER:HA	2.15	0.62
6:C5:34:LYS:NZ	11:CA:1746:G:N7	2.38	0.62
11:CA:760:G:N7	26:CP:9:LYS:NZ	2.45	0.62
11:CA:891:G:H4'	11:CA:892:G:OP2	1.99	0.62
3:D2:140:ASN:H	3:D2:140:ASN:ND2	1.98	0.62
11:DA:553:A:C2	13:DC:181:LYS:NZ	2.66	0.62
11:DA:1137:A:H2'	11:DA:1138:A:H8	1.64	0.62
2:A1:68:ARG:NH1	6:A5:101:ILE:HD11	2.01	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A6:5:LEU:H	18:AH:24:GLN:NE2	1.97	0.62
7:B6:5:LEU:H	18:BH:24:GLN:NE2	1.97	0.62
11:BA:822:U:H5'	11:BA:823:U:OP2	2.00	0.62
11:BA:1372:A:OP2	32:BV:56:HIS:HE1	1.81	0.62
9:C8:81:ARG:HA	9:C8:84:MET:HG3	1.81	0.62
11:CA:673:A:H2'	11:CA:675:A:H62	1.63	0.62
11:CA:1168:A:H4'	11:CA:1169:C:C5'	2.28	0.62
13:CC:141:ILE:HG12	13:CC:187:VAL:HG12	1.82	0.62
11:DA:1434:C:H2'	11:DA:1435:G:H5"	1.81	0.62
11:DA:1515:A:N1	23:DM:151:VAL:HG21	2.14	0.62
14:DD:153:GLU:HA	14:DD:156:ILE:HD11	1.81	0.62
15:DE:91:THR:HG22	15:DE:92:GLN:HG2	1.82	0.62
15:DE:132:HIS:CE1	15:DE:136:ASN:HD21	2.18	0.62
23:DM:29:PRO:HA	23:DM:32:LEU:HD12	1.82	0.62
4:A3:103:LYS:HA	4:A3:113:ARG:NH1	2.14	0.62
11:AA:891:G:H4'	11:AA:892:G:OP2	2.00	0.62
15:AE:145:TRP:H	15:AE:153:HIS:HE1	1.48	0.62
15:AE:231:TRP:CE2	18:AH:68:ARG:HG2	2.34	0.62
4:B3:103:LYS:HD2	11:BA:633:U:H3'	1.82	0.62
5:B4:46:GLY:HA3	21:BK:47:LEU:HD12	1.82	0.62
11:BA:311:U:H5'	11:BA:312:C:H5'	1.81	0.62
11:BA:1355:G:H21	28:BR:76:ASN:HD21	1.48	0.62
11:BA:1649:U:H3	11:BA:1676:A:H61	1.48	0.62
25:BO:96:LYS:HG2	25:BO:120:VAL:HG11	1.82	0.62
35:BY:32:MET:HE1	35:BY:63:MET:HB2	1.80	0.62
33:CW:130:ALA:HA	33:CW:158:ILE:HD11	1.81	0.62
33:CW:189:ASN:OD1	33:CW:189:ASN:N	2.33	0.62
1:D0:62:GLY:N	11:DA:560:C:OP1	2.31	0.62
5:D4:46:GLY:HA3	21:DK:47:LEU:HD12	1.82	0.62
27:DQ:79:MET:HG3	27:DQ:82:THR:HB	1.82	0.62
31:DU:50:CYS:HB2	31:DU:76:ARG:HD3	1.82	0.62
11:AA:1556:G:H3'	19:AI:125:ARG:O	1.99	0.62
12:AB:29:MET:HE1	12:AB:144:CYS:HB3	1.80	0.62
12:AB:80:ARG:HH12	32:AV:82:LEU:HB2	1.64	0.62
31:AU:50:CYS:HB2	31:AU:76:ARG:HD3	1.82	0.62
11:BA:1037:G:H2'	11:BA:1038:U:H5"	1.82	0.62
11:BA:1514:G:O2'	11:BA:1541:A:N6	2.32	0.62
11:CA:666:A:H2'	11:CA:667:C:O4'	2.00	0.62
15:CE:91:THR:HG22	15:CE:92:GLN:HG2	1.82	0.62
15:CE:132:HIS:CE1	15:CE:136:ASN:HD21	2.17	0.62
11:DA:302:U:OP2	22:DL:20:LYS:HE3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:379:A:OP1	11:DA:415:G:O2'	2.18	0.62
11:DA:1164:C:O3'	19:DI:142:LYS:NZ	2.32	0.62
11:DA:1223:U:O2'	11:DA:1224:C:O4'	2.17	0.62
11:AA:676:C:O2'	11:AA:677:G:OP2	2.18	0.62
14:AD:153:GLU:HA	14:AD:156:ILE:HD11	1.81	0.62
33:AW:97:THR:HB	33:AW:99:GLN:HG2	1.81	0.62
11:BA:495:C:H2'	11:BA:496:G:O4'	2.00	0.62
11:BA:834:A:O2'	11:BA:835:U:H4'	1.99	0.62
11:BA:1367:C:H2'	11:BA:1368:A:O4'	2.00	0.62
15:BE:84:ILE:HD11	15:BE:126:ILE:HD11	1.82	0.62
1:C0:64:LEU:HD11	1:C0:92:LEU:HA	1.82	0.62
11:CA:822:U:H5'	11:CA:823:U:OP2	2.00	0.62
2:D1:50:ARG:HH21	17:DG:56:PHE:HB3	1.65	0.62
9:D8:47:LYS:CB	23:DM:6:GLU:HA	2.29	0.62
11:DA:981:A:H2'	11:DA:983:A:C8	2.35	0.62
12:DB:128:GLN:HE21	12:DB:132:GLU:HG3	1.63	0.62
5:A4:67:VAL:HG21	11:AA:898:U:H4'	1.81	0.61
7:A6:9:ILE:HB	7:A6:12:GLU:HG3	1.82	0.61
11:AA:1362:U:OP1	32:AV:59:LYS:NZ	2.25	0.61
11:AA:1736:C:H2'	11:AA:1737:C:C6	2.35	0.61
28:AR:255:GLY:H	28:AR:279:LYS:HZ2	1.45	0.61
6:B5:34:LYS:NZ	11:BA:1746:G:N7	2.36	0.61
7:B6:47:ASN:HB3	7:B6:67:GLY:HA2	1.82	0.61
9:B8:81:ARG:HA	9:B8:84:MET:HG3	1.82	0.61
10:B9:100:PHE:CD1	10:B9:113:GLN:HG3	2.34	0.61
11:BA:879:G:N2	21:BK:68:GLU:OE1	2.32	0.61
5:C4:46:GLY:HA3	21:CK:47:LEU:HD12	1.82	0.61
11:CA:678:U:H5'	11:CA:679:U:OP2	2.00	0.61
11:CA:981:A:H2'	11:CA:983:A:C8	2.35	0.61
11:CA:1001:A:HO2'	11:CA:1002:U:P	2.23	0.61
4:D3:144:ARG:O	18:DH:42:GLN:NE2	2.32	0.61
24:DN:23:CYS:HB3	24:DN:41:CYS:SG	2.39	0.61
28:DR:161:HIS:HB2	28:DR:193:ASP:OD2	1.99	0.61
11:AA:785:G:N3	18:AH:107:THR:HG21	2.15	0.61
11:AA:822:U:H5'	11:AA:823:U:OP2	2.01	0.61
11:AA:1367:C:H2'	11:AA:1368:A:O4'	2.01	0.61
11:AA:1479:G:H3'	11:AA:1480:U:C6	2.33	0.61
26:AP:90:ARG:HH12	26:AP:98:LYS:HB2	1.65	0.61
33:AW:193:ARG:HD2	33:AW:220:PHE:CZ	2.36	0.61
33:BW:130:ALA:HA	33:BW:158:ILE:HD11	1.81	0.61
4:C3:103:LYS:HA	4:C3:113:ARG:NH1	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:71:U:O2'	11:CA:72:G:OP1	2.13	0.61
11:CA:1092:U:H4'	11:CA:1093:A:OP2	1.99	0.61
14:CD:129:ILE:HG22	14:CD:134:ILE:HG12	1.81	0.61
3:D2:24:LYS:O	11:DA:391:A:H8	1.83	0.61
11:DA:233:U:H2'	11:DA:234:G:C8	2.36	0.61
5:A4:46:GLY:HA3	21:AK:47:LEU:HD12	1.81	0.61
11:AA:996:U:H5'	11:AA:997:A:OP2	2.00	0.61
13:AC:28:PHE:O	13:AC:32:LEU:HB2	2.01	0.61
11:BA:273:A:HO2'	11:BA:274:C:P	2.19	0.61
27:BQ:86:ARG:HE	27:BQ:103:HIS:HD2	1.47	0.61
28:BR:274:THR:HG22	28:BR:277:GLY:H	1.64	0.61
28:BR:282:ASN:N	28:BR:290:PRO:HG2	2.15	0.61
3:C2:97:GLU:O	3:C2:101:THR:OG1	2.17	0.61
29:CS:39:ALA:HA	29:CS:42:PHE:HD2	1.64	0.61
11:DA:270:U:H4'	11:DA:271:U:OP2	1.99	0.61
11:DA:1365:U:H4'	11:DA:1366:G:OP2	2.00	0.61
11:AA:257:G:H5"	11:AA:258:A:OP1	2.00	0.61
11:AA:834:A:O2'	11:AA:835:U:H4'	1.99	0.61
11:AA:1434:C:H2'	11:AA:1435:G:H5"	1.81	0.61
11:BA:11:A:H2'	11:BA:12:U:H5'	1.83	0.61
11:BA:1263:G:H21	11:BA:1296:G:H22	1.48	0.61
13:BC:141:ILE:HG12	13:BC:187:VAL:HG12	1.81	0.61
14:BD:149:ARG:HG3	14:BD:152:SER:HB2	1.82	0.61
3:C2:143:LYS:HA	3:C2:148:GLN:HE21	1.65	0.61
11:CA:535:A:O2'	11:CA:536:C:O5'	2.16	0.61
24:CN:23:CYS:HB3	24:CN:41:CYS:SG	2.39	0.61
34:CX:63:HIS:HD2	34:CX:69:LYS:HE2	1.66	0.61
11:DA:642:G:N2	11:DA:667:C:O2	2.33	0.61
11:DA:996:U:H5'	11:DA:997:A:OP2	2.00	0.61
11:DA:1037:G:H2'	11:DA:1038:U:H5"	1.82	0.61
11:DA:1329:G:N3	30:DT:137:MET:HE1	2.15	0.61
33:DW:210:CYS:HB3	33:DW:227:ILE:HD11	1.81	0.61
36:DZ:47:VAL:HB	36:DZ:74:ARG:CZ	2.30	0.61
11:AA:100:A:H61	11:AA:299:C:H5"	1.65	0.61
11:AA:236:U:O2'	11:AA:237:U:OP1	2.16	0.61
15:AE:143:GLY:N	15:AE:154:THR:O	2.33	0.61
3:B2:12:ARG:NH1	11:BA:101:A:OP1	2.34	0.61
11:BA:550:G:OP1	34:BX:59:SER:OG	2.11	0.61
11:BA:765:A:C5	26:BP:19:ARG:NH1	2.68	0.61
33:BW:36:HIS:CG	33:BW:87:GLY:HA3	2.35	0.61
11:CA:239:A:P	11:CA:239:A:H3'	2.40	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CC:98:GLY:HA2	13:CC:104:GLN:NE2	2.16	0.61
23:CM:136:GLN:H	23:CM:136:GLN:NE2	1.96	0.61
27:CQ:66:ARG:NH2	27:CQ:128:ARG:HA	2.15	0.61
5:D4:67:VAL:HG21	11:DA:898:U:H4'	1.81	0.61
11:DA:473:A:H2'	11:DA:474:G:C8	2.35	0.61
11:DA:986:G:OP1	39:DA:7877:HOH:O	2.16	0.61
13:DC:141:ILE:HG12	13:DC:187:VAL:HG12	1.81	0.61
23:DM:122:HIS:HE1	29:DS:128:TYR:OH	1.83	0.61
7:A6:47:ASN:HB3	7:A6:67:GLY:HA2	1.81	0.61
23:AM:136:GLN:H	23:AM:136:GLN:NE2	1.98	0.61
11:BA:144:C:O4'	35:BY:132:LYS:NZ	2.34	0.61
11:BA:238:G:O2'	11:BA:239:A:OP1	2.19	0.61
11:BA:302:U:OP2	22:BL:20:LYS:HE3	2.00	0.61
11:CA:658:C:H2'	11:CA:659:G:C8	2.35	0.61
11:CA:1071:U:OP1	18:CH:71:LYS:NZ	2.33	0.61
18:CH:101:ASN:HB3	18:CH:112:THR:HG23	1.83	0.61
8:D7:65:TYR:HB3	13:DC:75:PHE:CE1	2.36	0.61
10:D9:72:LYS:NZ	11:DA:1243:G:OP1	2.25	0.61
11:DA:1337:C:O2'	30:DT:11:LYS:HG3	2.00	0.61
11:AA:537:A:OP1	11:AA:538:A:OP2	2.18	0.61
11:AA:1368:A:H3'	11:AA:1369:A:C5'	2.31	0.61
11:AA:1415:A:H4'	11:AA:1416:G:H5'	1.82	0.61
3:B2:82:ARG:NH1	11:BA:254:A:OP1	2.34	0.61
5:B4:109:THR:HG22	21:BK:130:GLU:HG3	1.81	0.61
9:B8:95:LYS:HG2	9:B8:105:TYR:HE1	1.65	0.61
11:BA:392:A:H1'	33:BW:3:ARG:NH1	2.15	0.61
15:BE:91:THR:HG22	15:BE:92:GLN:HG2	1.81	0.61
11:CA:257:G:H5"	11:CA:258:A:OP1	2.01	0.61
11:CA:1368:A:H3'	11:CA:1369:A:C5'	2.31	0.61
11:CA:1736:C:H2'	11:CA:1737:C:C6	2.36	0.61
32:CV:6:THR:OG1	32:CV:7:LYS:N	2.34	0.61
4:D3:103:LYS:HA	4:D3:113:ARG:NH1	2.14	0.61
11:DA:1071:U:OP1	18:DH:71:LYS:NZ	2.33	0.61
17:DG:71:LEU:HG	17:DG:150:ILE:HD13	1.83	0.61
11:AA:981:A:H2'	11:AA:983:A:C8	2.34	0.61
12:AB:128:GLN:HE21	12:AB:132:GLU:HG3	1.64	0.61
22:AL:34:LEU:O	22:AL:36:SER:N	2.33	0.61
10:B9:75:LYS:HD3	11:BA:1418:C:C6	2.36	0.61
11:BA:1415:A:H4'	11:BA:1416:G:H5'	1.82	0.61
15:BE:228:PRO:HA	15:BE:231:TRP:NE1	2.15	0.61
23:BM:136:GLN:H	23:BM:136:GLN:NE2	1.95	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:506:U:H2'	11:CA:507:G:C8	2.36	0.61
11:CA:1515:A:N1	23:CM:151:VAL:HG21	2.16	0.61
13:CC:228:ARG:HG3	28:CR:245:LEU:N	2.15	0.61
5:D4:90:VAL:HG12	5:D4:226:ARG:HH12	1.66	0.61
6:D5:42:ARG:NH2	21:DK:107:GLN:HG3	2.14	0.61
11:DA:2:A:O2'	11:DA:3:C:OP1	2.18	0.61
11:DA:981:A:H2'	11:DA:983:A:N7	2.16	0.61
28:DR:282:ASN:N	28:DR:290:PRO:HG2	2.15	0.61
11:AA:1277:U:H4'	11:AA:1278:C:OP2	2.01	0.61
11:AA:1444:U:H5"	17:AG:164:ILE:HD11	1.81	0.61
28:AR:161:HIS:HB2	28:AR:193:ASP:OD2	2.01	0.61
3:B2:204:GLN:HE21	3:B2:208:LYS:HE3	1.66	0.61
11:BA:1752:U:O2'	11:BA:1753:A:O5'	2.18	0.61
15:BE:132:HIS:CE1	15:BE:136:ASN:HD21	2.19	0.61
11:CA:328:G:H4'	11:CA:329:A:O5'	2.01	0.61
21:CK:44:VAL:HG23	21:CK:53:LEU:HB2	1.82	0.61
3:D2:143:LYS:HA	3:D2:148:GLN:HE21	1.66	0.61
4:D3:115:ARG:NH1	11:DA:632:U:C4	2.69	0.61
11:DA:144:C:O4'	35:DY:132:LYS:NZ	2.34	0.61
11:DA:1217:G:O2'	11:DA:1218:C:OP2	2.16	0.61
11:DA:1736:C:H2'	11:DA:1737:C:C6	2.36	0.61
11:AA:209:G:C8	11:AA:209:G:H5"	2.36	0.61
11:AA:533:G:N2	39:AA:2092:HOH:O	2.34	0.61
17:AG:71:LEU:HG	17:AG:150:ILE:HD13	1.82	0.61
11:BA:1002:U:H2'	11:BA:1003:A:H5"	1.81	0.61
11:BA:1147:U:O4	23:BM:140:THR:HG21	2.00	0.61
27:BQ:48:ILE:HG22	27:BQ:49:GLU:HG3	1.82	0.61
27:BQ:66:ARG:NH2	27:BQ:128:ARG:HA	2.16	0.61
33:BW:189:ASN:N	33:BW:189:ASN:OD1	2.34	0.61
11:CA:1282:U:O4	39:CA:2257:HOH:O	2.10	0.61
11:CA:1479:G:H3'	11:CA:1480:U:C6	2.34	0.61
1:D0:22:LYS:CG	10:D9:74:LYS:HZ1	2.13	0.61
1:D0:43:ASN:O	1:D0:43:ASN:ND2	2.27	0.61
5:D4:49:LEU:HD23	21:DK:51:GLU:HB3	1.83	0.61
11:DA:680:U:O2'	11:DA:681:G:OP1	2.18	0.61
11:DA:1299:C:H5"	13:DC:160:MET:O	2.01	0.61
13:DC:28:PHE:O	13:DC:32:LEU:HB2	2.01	0.61
19:DI:31:LEU:HD11	19:DI:54:ILE:HD11	1.82	0.61
23:DM:35:ILE:HD12	23:DM:38:ILE:HD12	1.83	0.61
11:AA:209:G:H4'	11:AA:210:A:H5'	1.83	0.60
23:AM:29:PRO:HA	23:AM:32:LEU:HD12	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:75:C:H5'	35:BY:176:CYS:HB2	1.83	0.60
11:BA:222:U:H1'	11:BA:814:A:N6	2.15	0.60
3:C2:52:ARG:HB2	3:C2:64:ARG:HB2	1.83	0.60
11:CA:1649:U:H3	11:CA:1676:A:H61	1.48	0.60
5:D4:210:ILE:O	11:DA:1036:U:O2'	2.12	0.60
11:DA:550:G:OP1	34:DX:59:SER:OG	2.13	0.60
5:A4:49:LEU:HD23	21:AK:51:GLU:HB3	1.82	0.60
10:A9:95:LEU:N	11:AA:1201:G:OP2	2.34	0.60
11:AA:71:U:O2'	11:AA:72:G:OP1	2.13	0.60
11:AA:235:A:O2'	11:AA:814:A:OP2	2.16	0.60
11:AA:989:G:N7	39:AA:2183:HOH:O	2.30	0.60
11:AA:1216:A:H2'	11:AA:1218:C:H5'	1.83	0.60
12:AB:23:ILE:HA	12:AB:42:HIS:HD2	1.66	0.60
7:C6:42:GLN:NE2	7:C6:55:GLU:H	1.99	0.60
31:CU:36:ILE:HG12	31:CU:68:ILE:HD12	1.83	0.60
7:D6:9:ILE:HB	7:D6:12:GLU:HG3	1.83	0.60
11:DA:8:U:O2	11:DA:1111:A:H3'	2.00	0.60
11:DA:673:A:H2'	11:DA:675:A:H62	1.66	0.60
11:DA:1011:C:H4'	25:DO:7:LYS:HG2	1.84	0.60
11:DA:1368:A:H3'	11:DA:1369:A:C5'	2.31	0.60
11:DA:1710:G:O6	39:DA:7703:HOH:O	2.13	0.60
3:A2:143:LYS:HA	3:A2:148:GLN:HE21	1.65	0.60
7:A6:18:LYS:HE2	7:A6:19:PHE:CE1	2.36	0.60
11:AA:975:G:H5'	11:AA:976:A:OP2	2.01	0.60
4:B3:117:ARG:NH1	11:BA:834:A:C5	2.70	0.60
7:B6:9:ILE:HB	7:B6:12:GLU:HG3	1.83	0.60
11:BA:506:U:H2'	11:BA:507:G:C8	2.37	0.60
11:BA:904:A:OP1	11:BA:994:C:O2'	2.10	0.60
11:BA:1028:G:O6	39:BA:6055:HOH:O	2.15	0.60
11:BA:1505:C:H4'	11:BA:1511:A:N6	2.17	0.60
11:CA:468:U:H2'	34:CX:32:LYS:HB2	1.84	0.60
27:CQ:79:MET:HG3	27:CQ:82:THR:HB	1.83	0.60
31:CU:50:CYS:SG	31:CU:51:ASP:N	2.75	0.60
11:DA:822:U:H5'	11:DA:823:U:OP2	2.00	0.60
11:DA:1515:A:N6	11:DA:1540:G:H1'	2.17	0.60
33:DW:193:ARG:HD2	33:DW:220:PHE:CZ	2.36	0.60
11:AA:2:A:O2'	11:AA:3:C:OP1	2.20	0.60
26:AP:48:VAL:HG12	26:AP:49:ASP:H	1.66	0.60
9:B8:99:ASN:HD22	17:BG:90:ASN:HD21	1.50	0.60
11:BA:1373:G:OP1	32:BV:4:VAL:HA	2.02	0.60
12:BB:23:ILE:HA	12:BB:42:HIS:HD2	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C4:90:VAL:HG12	5:C4:226:ARG:HH12	1.67	0.60
11:CA:1216:A:H2'	11:CA:1218:C:H5'	1.84	0.60
28:CR:140:ARG:NH1	28:CR:162:SER:HA	2.16	0.60
33:CW:193:ARG:HD2	33:CW:220:PHE:CZ	2.37	0.60
7:D6:42:GLN:NE2	7:D6:55:GLU:H	1.99	0.60
11:DA:506:U:H2'	11:DA:507:G:C8	2.36	0.60
11:DA:975:G:H5'	11:DA:976:A:OP2	2.01	0.60
11:DA:1277:U:H4'	11:DA:1278:C:OP2	2.00	0.60
14:DD:129:ILE:HG22	14:DD:134:ILE:HG12	1.83	0.60
15:DE:145:TRP:H	15:DE:153:HIS:HE1	1.48	0.60
27:DQ:66:ARG:NH2	27:DQ:128:ARG:HA	2.16	0.60
28:DR:140:ARG:NH1	28:DR:162:SER:HA	2.16	0.60
31:DU:36:ILE:HG12	31:DU:68:ILE:HD12	1.82	0.60
32:DV:70:SER:HA	32:DV:75:GLU:OE2	2.01	0.60
33:DW:97:THR:HB	33:DW:99:GLN:HG2	1.81	0.60
11:AA:230:A:H2'	11:AA:231:U:H5'	1.83	0.60
11:AA:1365:U:H4'	11:AA:1366:G:OP2	2.00	0.60
11:AA:1649:U:H3	11:AA:1676:A:H61	1.50	0.60
25:AO:35:VAL:HG21	25:AO:68:LEU:HD23	1.83	0.60
3:B2:31:ARG:NH2	11:BA:324:A:OP1	2.34	0.60
3:B2:143:LYS:HA	3:B2:148:GLN:HE21	1.67	0.60
11:BA:16:G:H2'	11:BA:17:C:C6	2.36	0.60
4:C3:16:GLU:HG2	4:C3:45:VAL:HB	1.83	0.60
11:CA:1506:G:H4'	11:CA:1508:G:O6	2.02	0.60
19:CI:31:LEU:HD11	19:CI:54:ILE:HD11	1.82	0.60
4:D3:110:SER:OG	11:DA:794:A:OP1	2.18	0.60
11:DA:60:C:O2	11:DA:266:G:O2'	2.14	0.60
25:DO:35:VAL:HG21	25:DO:68:LEU:HD23	1.84	0.60
28:DR:274:THR:HG22	28:DR:277:GLY:H	1.65	0.60
4:A3:65:VAL:HG21	4:A3:73:LEU:HD22	1.84	0.60
11:AA:220:A:H5'	11:AA:221:A:OP2	2.01	0.60
11:AA:1263:G:H22	11:AA:1296:G:N2	2.00	0.60
11:BA:257:G:H5"	11:BA:258:A:OP1	2.01	0.60
11:BA:392:A:H1'	33:BW:3:ARG:HH11	1.67	0.60
11:BA:1277:U:H4'	11:BA:1278:C:OP2	2.01	0.60
14:BD:129:ILE:HG22	14:BD:134:ILE:HG12	1.84	0.60
27:BQ:146:ILE:HD12	27:BQ:153:GLN:HG2	1.84	0.60
33:BW:155:GLU:HG3	35:BY:219:TRP:HZ2	1.67	0.60
11:CA:469:A:N6	39:CA:2089:HOH:O	2.34	0.60
11:CA:605:U:OP2	22:CL:5:LYS:NZ	2.34	0.60
1:D0:64:LEU:HD11	1:D0:92:LEU:HA	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:71:U:O2'	11:DA:72:G:OP1	2.12	0.60
11:DA:622:G:H5'	25:DO:122:SER:OG	2.02	0.60
11:DA:1556:G:O2'	11:DA:1557:U:OP2	2.20	0.60
9:A8:81:ARG:HA	9:A8:84:MET:HG3	1.83	0.60
30:AT:139:GLU:O	30:AT:142:ARG:HG3	2.02	0.60
11:BA:168:U:H2'	11:BA:169:G:C8	2.37	0.60
11:BA:491:U:H2'	11:BA:492:C:C1'	2.32	0.60
11:BA:1263:G:N2	11:BA:1296:G:N2	2.46	0.60
11:BA:1368:A:H3'	11:BA:1369:A:C5'	2.31	0.60
21:BK:44:VAL:HG23	21:BK:53:LEU:HB2	1.83	0.60
7:C6:45:PHE:CG	25:CO:57:ARG:HD3	2.36	0.60
11:CA:16:G:H2'	11:CA:17:C:C6	2.37	0.60
11:CA:1216:A:H5'	11:CA:1217:G:OP2	2.01	0.60
31:CU:50:CYS:HB2	31:CU:76:ARG:HD3	1.83	0.60
9:D8:95:LYS:HG2	9:D8:105:TYR:HE1	1.67	0.60
11:DA:1372:A:OP2	32:DV:56:HIS:HE1	1.84	0.60
16:DF:78:ARG:HH12	16:DF:100:GLY:HA3	1.66	0.60
26:DP:90:ARG:HH12	26:DP:98:LYS:HB2	1.66	0.60
9:A8:95:LYS:HG2	9:A8:105:TYR:HE1	1.66	0.60
11:AA:559:C:O2'	11:AA:560:C:H5"	2.02	0.60
15:AE:91:THR:HG22	15:AE:92:GLN:HG2	1.82	0.60
22:AL:55:LYS:HG2	22:AL:92:LEU:HD11	1.83	0.60
25:AO:96:LYS:HG2	25:AO:120:VAL:HG11	1.83	0.60
8:C7:12:ILE:HD11	8:C7:37:VAL:HG11	1.84	0.60
11:CA:209:G:O2'	11:CA:210:A:OP2	2.17	0.60
11:CA:772:A:O2'	33:CW:108:LYS:NZ	2.33	0.60
33:CW:210:CYS:HB3	33:CW:227:ILE:HD11	1.81	0.60
4:D3:16:GLU:HG2	4:D3:45:VAL:HB	1.84	0.60
11:DA:1216:A:H2'	11:DA:1218:C:H5'	1.84	0.60
11:AA:506:U:H2'	11:AA:507:G:C8	2.37	0.60
15:AE:132:HIS:CE1	15:AE:136:ASN:HD21	2.19	0.60
21:AK:128:ARG:HH11	21:AK:128:ARG:HG2	1.67	0.60
28:AR:274:THR:HG22	28:AR:277:GLY:H	1.66	0.60
31:AU:36:ILE:HG12	31:AU:68:ILE:HD12	1.82	0.60
11:BA:1171:G:H5"	24:BN:39:ARG:NH1	2.16	0.60
11:BA:1216:A:H2'	11:BA:1218:C:H5'	1.83	0.60
11:BA:1555:A:H5'	19:BI:137:ARG:HH12	1.67	0.60
6:C5:11:SER:HB2	11:CA:912:A:H5'	1.84	0.60
11:CA:220:A:H5'	11:CA:221:A:OP2	2.02	0.60
11:CA:531:A:H1'	39:CA:2089:HOH:O	2.01	0.60
11:CA:1037:G:H2'	11:CA:1038:U:H5"	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:CL:37:ARG:HG3	22:CL:44:GLY:HA2	1.84	0.60
11:DA:1415:A:H4'	11:DA:1416:G:H5'	1.82	0.60
11:DA:1752:U:O2'	11:DA:1753:A:O5'	2.19	0.60
12:DB:23:ILE:HA	12:DB:42:HIS:HD2	1.67	0.60
21:DK:128:ARG:HH11	21:DK:128:ARG:HG2	1.65	0.60
7:A6:45:PHE:CD2	25:AO:57:ARG:HD3	2.36	0.60
11:AA:209:G:H5"	11:AA:209:G:H8	1.67	0.60
11:AA:486:A:H2'	11:AA:487:C:C4	2.36	0.60
19:AI:31:LEU:HD11	19:AI:54:ILE:HD11	1.84	0.60
34:AX:63:HIS:HD2	34:AX:69:LYS:HE2	1.66	0.60
11:BA:379:A:OP1	11:BA:415:G:O2'	2.19	0.60
11:BA:1365:U:H4'	11:BA:1366:G:OP2	2.01	0.60
34:BX:63:HIS:HD2	34:BX:69:LYS:HE2	1.67	0.60
7:C6:9:ILE:HB	7:C6:12:GLU:HG3	1.84	0.60
11:CA:646:A:H2'	11:CA:647:U:O4'	2.02	0.60
11:CA:1263:G:H22	11:CA:1296:G:N2	2.00	0.60
11:CA:1444:U:H5"	17:CG:164:ILE:HD11	1.83	0.60
11:CA:1515:A:N6	11:CA:1540:G:H1'	2.16	0.60
12:CB:23:ILE:HA	12:CB:42:HIS:HD2	1.65	0.60
16:CF:57:CYS:SG	16:CF:77:HIS:NE2	2.75	0.60
23:CM:29:PRO:HA	23:CM:32:LEU:HD12	1.83	0.60
4:D3:192:PHE:CG	7:D6:21:ARG:NH1	2.70	0.60
11:DA:168:U:H2'	11:DA:169:G:C8	2.37	0.60
11:DA:662:U:H2'	11:DA:663:G:C8	2.37	0.60
11:DA:1281:G:H2'	11:DA:1372:A:H2	1.66	0.60
11:DA:1359:C:O2'	32:DV:52:GLY:HA3	2.02	0.60
11:AA:1515:A:N6	11:AA:1540:G:H1'	2.17	0.59
3:B2:149:LYS:HE3	3:B2:150:ARG:HH11	1.67	0.59
4:B3:16:GLU:HG2	4:B3:45:VAL:HB	1.84	0.59
11:BA:149:U:OP1	35:BY:107:ARG:HG2	2.01	0.59
11:BA:1217:G:O2'	11:BA:1218:C:OP2	2.20	0.59
35:BY:64:LYS:HB2	35:BY:97:VAL:HG11	1.84	0.59
13:DC:228:ARG:HG3	28:DR:245:LEU:H	1.68	0.59
33:DW:189:ASN:N	33:DW:189:ASN:OD1	2.34	0.59
8:A7:12:ILE:HD11	8:A7:37:VAL:HG11	1.84	0.59
13:AC:98:GLY:HA2	13:AC:104:GLN:NE2	2.17	0.59
3:B2:149:LYS:HE3	3:B2:150:ARG:NH1	2.17	0.59
11:BA:328:G:H4'	11:BA:329:A:O5'	2.02	0.59
11:BA:537:A:OP1	11:BA:538:A:OP2	2.20	0.59
11:BA:1288:C:OP2	32:BV:7:LYS:HE3	2.02	0.59
11:BA:1737:C:H2'	11:BA:1738:U:C6	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BQ:79:MET:HG3	27:BQ:82:THR:HB	1.83	0.59
11:CA:885:A:N3	11:CA:975:G:O2'	2.34	0.59
14:CD:149:ARG:HG3	14:CD:152:SER:HB2	1.84	0.59
15:CE:145:TRP:H	15:CE:153:HIS:HE1	1.48	0.59
21:CK:128:ARG:HH11	21:CK:128:ARG:HG2	1.66	0.59
21:CK:147:ARG:HH11	21:CK:150:ARG:NH2	1.99	0.59
30:CT:139:GLU:O	30:CT:142:ARG:HG3	2.02	0.59
11:DA:250:A:H4'	33:DW:137:GLN:HE21	1.67	0.59
11:DA:328:G:H4'	11:DA:329:A:O5'	2.02	0.59
14:DD:149:ARG:HG3	14:DD:152:SER:HB2	1.83	0.59
18:DH:105:THR:HG22	18:DH:110:ILE:HG12	1.83	0.59
27:DQ:86:ARG:HE	27:DQ:103:HIS:HD2	1.50	0.59
34:DX:63:HIS:HD2	34:DX:69:LYS:HE2	1.66	0.59
11:AA:209:G:C5'	11:AA:210:A:H5'	2.32	0.59
11:AA:312:C:H4'	11:AA:313:G:OP1	2.01	0.59
35:AY:29:ASP:OD1	35:AY:70:ARG:NH2	2.36	0.59
11:BA:318:U:O2'	27:BQ:6:GLN:HG2	2.02	0.59
11:BA:1515:A:N6	11:BA:1540:G:H1'	2.17	0.59
11:BA:1587:U:C4	17:BG:55:LYS:HA	2.37	0.59
22:BL:13:ARG:NH2	27:BQ:101:LYS:O	2.36	0.59
27:BQ:77:THR:O	27:BQ:77:THR:OG1	2.06	0.59
3:C2:149:LYS:HE3	3:C2:150:ARG:HH11	1.67	0.59
7:C6:18:LYS:HE2	7:C6:19:PHE:CE1	2.37	0.59
22:CL:102:LEU:HB3	22:CL:125:CYS:HB2	1.83	0.59
8:D7:12:ILE:HD11	8:D7:37:VAL:HG11	1.84	0.59
11:DA:749:G:H4'	11:DA:750:U:OP1	2.01	0.59
11:DA:1002:U:H2'	11:DA:1003:A:H5"	1.82	0.59
11:DA:1591:C:H2'	11:DA:1592:C:H6	1.67	0.59
28:DR:275:ASP:HA	28:DR:311:GLN:HB3	1.84	0.59
4:A3:152:ARG:HB2	4:A3:183:THR:HB	1.84	0.59
5:A4:109:THR:HG22	21:AK:130:GLU:HG3	1.83	0.59
11:AA:1171:G:H5"	24:AN:39:ARG:NH1	2.17	0.59
11:AA:1469:U:OP1	30:AT:78:THR:OG1	2.12	0.59
23:AM:119:ILE:HG23	29:AS:124:PHE:HE2	1.66	0.59
28:AR:275:ASP:HA	28:AR:311:GLN:HB3	1.83	0.59
33:AW:210:CYS:HB3	33:AW:227:ILE:HD11	1.82	0.59
2:B1:6:THR:HG21	2:B1:56:GLU:OE2	2.03	0.59
5:B4:90:VAL:HG12	5:B4:226:ARG:HH12	1.66	0.59
10:B9:88:HIS:CD2	11:BA:1219:U:H5"	2.37	0.59
7:C6:47:ASN:HB3	7:C6:67:GLY:HA2	1.82	0.59
27:CQ:17:LEU:HD22	27:CQ:29:ALA:HA	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:CQ:86:ARG:HE	27:CQ:103:HIS:HD2	1.49	0.59
3:D2:204:GLN:HE21	3:D2:208:LYS:HE3	1.67	0.59
11:DA:469:A:N6	39:DA:7637:HOH:O	2.34	0.59
11:DA:1419:G:OP1	39:DA:8037:HOH:O	2.17	0.59
11:DA:1649:U:H3	11:DA:1676:A:H61	1.49	0.59
22:DL:34:LEU:O	22:DL:36:SER:N	2.36	0.59
6:A5:97:ARG:O	6:A5:99:PRO:HD3	2.03	0.59
11:AA:1216:A:H5'	11:AA:1217:G:OP2	2.02	0.59
11:AA:1263:G:N2	11:AA:1296:G:N2	2.47	0.59
14:AD:149:ARG:HG3	14:AD:152:SER:HB2	1.83	0.59
28:AR:47:ARG:C	28:AR:49:LYS:H	2.07	0.59
28:AR:140:ARG:NH1	28:AR:162:SER:HA	2.17	0.59
10:B9:86:THR:O	11:BA:1219:U:H5'	2.03	0.59
11:BA:1276:G:H5'	11:BA:1294:A:OP2	2.03	0.59
11:BA:1469:U:H5'	30:BT:75:GLY:HA3	1.85	0.59
23:BM:102:SER:OG	23:BM:103:ASN:N	2.35	0.59
3:C2:204:GLN:HE21	3:C2:208:LYS:HE3	1.66	0.59
9:C8:95:LYS:HG2	9:C8:105:TYR:HE1	1.65	0.59
11:CA:559:C:O2'	11:CA:560:C:H5"	2.03	0.59
13:CC:28:PHE:O	13:CC:32:LEU:HB2	2.02	0.59
15:CE:84:ILE:HD11	15:CE:126:ILE:HD11	1.83	0.59
25:CO:96:LYS:HG2	25:CO:120:VAL:HG11	1.83	0.59
27:CQ:48:ILE:HG22	27:CQ:49:GLU:HG3	1.83	0.59
28:CR:282:ASN:N	28:CR:290:PRO:HG2	2.15	0.59
2:D1:21:ARG:HA	11:DA:1591:C:C2	2.38	0.59
3:D2:149:LYS:HE3	3:D2:150:ARG:NH1	2.17	0.59
11:DA:1263:G:H22	11:DA:1296:G:N2	2.00	0.59
11:DA:1367:C:H2'	11:DA:1368:A:O4'	2.01	0.59
13:DC:105:VAL:HG22	13:DC:189:VAL:HB	1.83	0.59
22:DL:37:ARG:HG3	22:DL:44:GLY:HA2	1.83	0.59
11:AA:1002:U:C2'	11:AA:1003:A:H5"	2.33	0.59
11:AA:1505:C:H4'	11:AA:1511:A:N6	2.17	0.59
11:AA:1515:A:N1	23:AM:151:VAL:HG21	2.18	0.59
17:AG:73:PHE:HB2	17:AG:154:ARG:NH2	2.18	0.59
11:BA:1736:C:H2'	11:BA:1737:C:C6	2.37	0.59
21:BK:128:ARG:HH11	21:BK:128:ARG:HG2	1.67	0.59
11:CA:996:U:H5'	11:CA:997:A:OP2	2.02	0.59
25:CO:35:VAL:HG21	25:CO:68:LEU:HD23	1.84	0.59
3:D2:52:ARG:HB2	3:D2:64:ARG:HB2	1.85	0.59
11:DA:59:C:N4	11:DA:62:G:OP2	2.35	0.59
11:DA:585:A:OP2	34:DX:44:ARG:NH2	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1538:U:H5'	23:DM:39:GLY:N	2.18	0.59
17:DG:73:PHE:HB2	17:DG:154:ARG:NH2	2.17	0.59
22:DL:55:LYS:HG2	22:DL:92:LEU:HD11	1.85	0.59
4:A3:16:GLU:HG2	4:A3:45:VAL:HB	1.83	0.59
11:AA:857:G:O2'	25:AO:107:ASN:HB3	2.02	0.59
11:AA:1108:U:OP1	11:AA:1621:G:O2'	2.20	0.59
14:AD:53:ARG:NH2	15:AE:175:ARG:O	2.35	0.59
21:AK:147:ARG:HH11	21:AK:150:ARG:NH2	2.00	0.59
11:BA:5:U:OP2	15:BE:205:THR:HG22	2.02	0.59
11:BA:89:A:H4'	11:BA:90:U:OP2	2.01	0.59
31:BU:50:CYS:HB2	31:BU:76:ARG:HD3	1.82	0.59
4:C3:110:SER:OG	11:CA:794:A:OP1	2.21	0.59
4:C3:123:TYR:CG	4:C3:178:THR:HG23	2.38	0.59
5:C4:57:ARG:NH1	11:CA:873:G:OP1	2.36	0.59
11:CA:1752:U:O2'	11:CA:1753:A:O5'	2.19	0.59
26:CP:48:VAL:HG12	26:CP:49:ASP:H	1.67	0.59
2:D1:6:THR:HG21	2:D1:56:GLU:OE2	2.03	0.59
4:D3:117:ARG:NH1	11:DA:834:A:C5	2.71	0.59
7:D6:18:LYS:HE2	7:D6:19:PHE:CE1	2.38	0.59
11:DA:243:G:O2'	27:DQ:38:GLY:O	2.20	0.59
11:DA:1556:G:H3'	19:DI:125:ARG:O	2.02	0.59
23:DM:136:GLN:H	23:DM:136:GLN:NE2	1.97	0.59
25:DO:96:LYS:HG2	25:DO:120:VAL:HG11	1.83	0.59
25:DO:101:ARG:HH12	25:DO:145:ALA:CB	2.16	0.59
31:DU:50:CYS:SG	31:DU:51:ASP:N	2.76	0.59
32:DV:6:THR:OG1	32:DV:7:LYS:N	2.36	0.59
11:AA:213:U:H4'	11:AA:214:U:C5'	2.33	0.59
17:AG:68:ILE:HD13	17:AG:85:ILE:HG12	1.84	0.59
27:AQ:146:ILE:HD12	27:AQ:153:GLN:HG2	1.84	0.59
11:BA:633:U:H6	11:BA:633:U:H5"	1.68	0.59
22:BL:55:LYS:HG2	22:BL:92:LEU:HD11	1.85	0.59
25:BO:35:VAL:HG21	25:BO:68:LEU:HD23	1.85	0.59
2:C1:6:THR:HG21	2:C1:56:GLU:OE2	2.03	0.59
11:CA:60:C:O2	11:CA:266:G:O2'	2.18	0.59
11:CA:658:C:H2'	11:CA:659:G:H8	1.67	0.59
24:CN:39:ARG:HG2	24:CN:39:ARG:NH1	2.09	0.59
35:DY:64:LYS:HB2	35:DY:97:VAL:HG11	1.84	0.59
3:A2:149:LYS:HE3	3:A2:150:ARG:NH1	2.18	0.59
11:AA:74:A:H5"	35:AY:162:ARG:HH22	1.68	0.59
11:AA:1505:C:H4'	11:AA:1511:A:H61	1.68	0.59
13:AC:10:LYS:NZ	20:AJ:113:GLU:OE2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AM:90:ASN:HD21	29:AS:14:ARG:HD2	1.66	0.59
1:B0:64:LEU:HD11	1:B0:92:LEU:HA	1.84	0.59
6:B5:17:HIS:HE1	11:BA:1742:G:OP1	1.86	0.59
11:BA:59:C:H5'	11:BA:447:C:N4	2.18	0.59
11:BA:490:U:OP2	11:BA:490:U:C6	2.56	0.59
15:BE:213:LYS:O	15:BE:217:TYR:HD1	1.85	0.59
22:BL:34:LEU:O	22:BL:36:SER:N	2.36	0.59
31:BU:36:ILE:HG12	31:BU:68:ILE:HD12	1.82	0.59
11:CA:219:C:H5'	11:CA:220:A:OP2	2.03	0.59
11:CA:680:U:O2'	11:CA:681:G:OP1	2.15	0.59
22:CL:55:LYS:HG2	22:CL:92:LEU:HD11	1.85	0.59
4:D3:65:VAL:HG21	4:D3:73:LEU:HD22	1.83	0.59
11:DA:559:C:O2'	11:DA:560:C:H5"	2.03	0.59
11:DA:1145:C:OP2	23:DM:142:GLY:N	2.32	0.59
21:DK:44:VAL:HG23	21:DK:53:LEU:HB2	1.83	0.59
27:DQ:17:LEU:HD22	27:DQ:29:ALA:HA	1.85	0.59
7:A6:68:LYS:HB3	11:AA:1027:U:OP1	2.03	0.59
11:AA:493:U:H4'	11:AA:494:A:O5'	2.02	0.59
11:AA:495:C:H2'	11:AA:496:G:O4'	2.03	0.59
27:AQ:17:LEU:HD22	27:AQ:29:ALA:HA	1.84	0.59
27:AQ:96:TYR:O	27:AQ:98:ARG:HG2	2.03	0.59
31:AU:50:CYS:SG	31:AU:51:ASP:N	2.76	0.59
4:B3:123:TYR:CG	4:B3:178:THR:HG23	2.38	0.59
11:BA:2:A:O2'	11:BA:3:C:OP1	2.17	0.59
11:BA:1720:G:C8	11:BA:1720:G:H5"	2.38	0.59
22:BL:31:LYS:O	22:BL:36:SER:HB2	2.03	0.59
3:C2:148:GLN:NE2	11:CA:187:U:O4	2.34	0.59
9:C8:81:ARG:NH2	11:CA:1505:C:OP2	2.34	0.59
11:CA:168:U:H2'	11:CA:169:G:C8	2.38	0.59
11:CA:209:G:H5'	11:CA:210:A:H5'	1.84	0.59
11:CA:1537:C:OP1	23:CM:41:ARG:NH1	2.36	0.59
12:CB:75:ARG:O	12:CB:79:GLN:HG2	2.03	0.59
11:DA:661:G:H3'	11:DA:662:U:H6	1.67	0.59
11:DA:1188:A:H4'	11:DA:1189:A:OP1	2.03	0.59
3:A2:204:GLN:HE21	3:A2:208:LYS:HE3	1.67	0.58
7:A6:42:GLN:NE2	7:A6:55:GLU:H	2.00	0.58
8:A7:9:LYS:HG3	8:A7:45:LEU:HD21	1.85	0.58
11:AA:328:G:H4'	11:AA:329:A:O5'	2.03	0.58
11:AA:1037:G:H2'	11:AA:1038:U:H5"	1.84	0.58
11:AA:1501:C:OP2	17:AG:86:LYS:NZ	2.36	0.58
11:AA:1591:C:H2'	11:AA:1592:C:H6	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:1737:C:H2'	11:AA:1738:U:C6	2.38	0.58
15:AE:84:ILE:HD11	15:AE:126:ILE:HD11	1.85	0.58
18:AH:30:VAL:HG21	18:AH:61:VAL:HG23	1.85	0.58
27:AQ:66:ARG:NH2	27:AQ:128:ARG:HA	2.15	0.58
27:AQ:85:ILE:HG22	27:AQ:106:ILE:HB	1.83	0.58
27:AQ:86:ARG:HE	27:AQ:103:HIS:HD2	1.48	0.58
28:AR:81:ASP:N	28:AR:94:SER:OG	2.36	0.58
33:AW:249:THR:HG22	33:AW:251:LEU:H	1.68	0.58
3:B2:140:ASN:H	3:B2:140:ASN:ND2	1.99	0.58
6:B5:97:ARG:O	6:B5:99:PRO:HD3	2.02	0.58
7:B6:18:LYS:HE2	7:B6:19:PHE:CE1	2.38	0.58
11:BA:1071:U:OP1	18:BH:71:LYS:NZ	2.36	0.58
13:BC:98:GLY:HA2	13:BC:104:GLN:NE2	2.17	0.58
14:BD:62:LEU:HD11	14:BD:68:ARG:HH12	1.68	0.58
18:BH:105:THR:HG22	18:BH:110:ILE:HG12	1.85	0.58
33:BW:193:ARG:HD2	33:BW:220:PHE:CZ	2.38	0.58
11:CA:785:G:N3	18:CH:107:THR:HG21	2.18	0.58
11:CA:1289:C:O2'	11:CA:1371:A:H1'	2.03	0.58
28:CR:178:ASN:ND2	23:DM:110:ARG:HH11	1.97	0.58
3:D2:149:LYS:HE3	3:D2:150:ARG:HH11	1.67	0.58
11:DA:1216:A:H5'	11:DA:1217:G:OP2	2.01	0.58
1:A0:64:LEU:HD11	1:A0:92:LEU:HA	1.83	0.58
2:A1:6:THR:HG21	2:A1:56:GLU:OE2	2.02	0.58
11:AA:45:A:N1	11:AA:424:A:O2'	2.34	0.58
11:AA:89:A:H4'	11:AA:90:U:OP2	2.03	0.58
13:AC:105:VAL:HG22	13:AC:189:VAL:HB	1.84	0.58
31:AU:69:LYS:HB3	31:AU:124:LEU:HB3	1.86	0.58
11:BA:209:G:C5'	11:BA:210:A:H5'	2.32	0.58
11:BA:1059:A:N3	11:BA:1115:A:O2'	2.33	0.58
13:BC:28:PHE:O	13:BC:32:LEU:HB2	2.01	0.58
15:BE:174:PRO:O	15:BE:177:THR:OG1	2.20	0.58
4:C3:152:ARG:HB2	4:C3:183:THR:HB	1.85	0.58
11:CA:771:A:P	33:CW:110:ARG:HH22	2.25	0.58
11:CA:975:G:H5'	11:CA:976:A:OP2	2.03	0.58
11:CA:1002:U:C2'	11:CA:1003:A:H5"	2.33	0.58
14:CD:107:ARG:HB3	14:CD:147:MET:HE3	1.84	0.58
33:CW:212:VAL:HB	33:CW:220:PHE:HB2	1.85	0.58
5:D4:57:ARG:NH1	11:DA:873:G:OP1	2.36	0.58
8:D7:9:LYS:HG3	8:D7:45:LEU:HD21	1.85	0.58
9:D8:46:GLU:CG	23:DM:8:GLU:HB2	2.33	0.58
11:DA:89:A:H4'	11:DA:90:U:OP2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:912:A:O2'	11:DA:913:U:OP2	2.21	0.58
11:DA:1166:A:P	20:DJ:73:GLY:HA3	2.42	0.58
13:DC:98:GLY:HA2	13:DC:104:GLN:NE2	2.17	0.58
13:DC:147:GLN:OE1	13:DC:147:GLN:HA	2.02	0.58
22:DL:102:LEU:HB3	22:DL:125:CYS:HB2	1.85	0.58
26:DP:48:VAL:HG12	26:DP:49:ASP:H	1.67	0.58
4:A3:5:LYS:NZ	4:A3:37:LEU:O	2.35	0.58
5:A4:172:ARG:O	5:A4:176:THR:OG1	2.19	0.58
11:AA:1256:C:H4'	11:AA:1257:U:OP1	2.02	0.58
11:AA:1286:U:O2'	11:AA:1287:U:OP2	2.17	0.58
11:AA:1506:G:H4'	11:AA:1508:G:O6	2.03	0.58
15:AE:174:PRO:O	15:AE:177:THR:OG1	2.21	0.58
1:B0:22:LYS:NZ	10:B9:74:LYS:O	2.34	0.58
2:B1:65:ARG:NH1	17:BG:125:THR:HG21	2.19	0.58
11:BA:561:A:H1'	34:BX:14:VAL:HB	1.84	0.58
11:BA:1362:U:OP1	32:BV:59:LYS:NZ	2.28	0.58
13:BC:10:LYS:NZ	20:BJ:113:GLU:OE2	2.35	0.58
14:BD:127:VAL:O	14:BD:131:GLN:HG2	2.03	0.58
1:C0:43:ASN:O	1:C0:43:ASN:ND2	2.31	0.58
4:C3:109:LYS:NZ	11:CA:725:A:O3'	2.36	0.58
11:CA:209:G:C4'	11:CA:210:A:H5'	2.34	0.58
11:CA:912:A:O2'	11:CA:913:U:OP2	2.22	0.58
11:CA:981:A:H2'	11:CA:983:A:N7	2.18	0.58
13:CC:105:VAL:HG22	13:CC:189:VAL:HB	1.84	0.58
14:CD:127:VAL:O	14:CD:131:GLN:HG2	2.03	0.58
15:CE:228:PRO:HA	15:CE:231:TRP:NE1	2.18	0.58
4:D3:123:TYR:CG	4:D3:178:THR:HG23	2.38	0.58
4:D3:145:LEU:HA	18:DH:42:GLN:HE21	1.67	0.58
11:DA:561:A:H1'	34:DX:14:VAL:HB	1.85	0.58
11:DA:879:G:N2	21:DK:68:GLU:OE1	2.35	0.58
12:DB:75:ARG:O	12:DB:79:GLN:HG2	2.03	0.58
15:DE:108:SER:O	15:DE:193:GLY:HA3	2.03	0.58
27:DQ:48:ILE:HG22	27:DQ:49:GLU:HG3	1.85	0.58
2:A1:62:ARG:NH1	6:A5:48:SER:HB3	2.19	0.58
3:A2:52:ARG:HB2	3:A2:64:ARG:HB2	1.84	0.58
11:AA:1263:G:H22	11:AA:1296:G:H22	1.50	0.58
11:AA:1263:G:H21	11:AA:1296:G:H22	1.51	0.58
11:AA:1292:U:H3'	12:AB:98:ARG:HH12	1.68	0.58
22:AL:37:ARG:HG3	22:AL:44:GLY:HA2	1.85	0.58
1:B0:43:ASN:O	1:B0:43:ASN:ND2	2.31	0.58
4:B3:103:LYS:HA	4:B3:113:ARG:HH12	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:1263:G:H22	11:BA:1296:G:N2	2.02	0.58
32:BV:6:THR:OG1	32:BV:7:LYS:N	2.37	0.58
10:C9:88:HIS:HD2	11:CA:1219:U:H5"	1.67	0.58
11:CA:59:C:N4	11:CA:62:G:OP2	2.34	0.58
15:CE:231:TRP:CE2	18:CH:68:ARG:HG2	2.39	0.58
27:CQ:96:TYR:O	27:CQ:98:ARG:HG2	2.02	0.58
23:DM:36:ARG:HH12	23:DM:152:ARG:HG2	1.69	0.58
11:AA:425:A:H5"	11:AA:426:G:OP2	2.04	0.58
11:AA:482:A:H5'	11:AA:483:C:OP2	2.02	0.58
11:AA:840:A:H62	25:AO:72:LYS:HZ3	1.50	0.58
11:AA:1171:G:N3	11:AA:1171:G:H2'	2.17	0.58
14:AD:127:VAL:O	14:AD:131:GLN:HG2	2.02	0.58
16:AF:78:ARG:HH12	16:AF:100:GLY:HA3	1.67	0.58
18:AH:105:THR:HG22	18:AH:110:ILE:HG12	1.86	0.58
9:B8:47:LYS:HB2	23:BM:6:GLU:HA	1.85	0.58
11:BA:559:C:O2'	11:BA:560:C:H5"	2.04	0.58
11:BA:1172:G:H4'	11:BA:1173:G:C5'	2.33	0.58
11:BA:1406:G:H4'	11:BA:1407:A:O5'	2.03	0.58
11:BA:1568:C:OP2	24:BN:18:LYS:NZ	2.37	0.58
18:BH:30:VAL:HG21	18:BH:61:VAL:HG23	1.86	0.58
33:BW:52:LEU:HD21	33:BW:113:LEU:HD12	1.85	0.58
6:C5:97:ARG:O	6:C5:99:PRO:HD3	2.02	0.58
11:CA:239:A:C8	11:CA:239:A:OP2	2.56	0.58
11:CA:469:A:H2'	11:CA:470:G:C8	2.37	0.58
11:CA:1289:C:O2'	11:CA:1371:A:N3	2.36	0.58
28:CR:81:ASP:N	28:CR:94:SER:OG	2.36	0.58
28:CR:94:SER:HA	28:CR:100:LEU:HD12	1.85	0.58
33:CW:52:LEU:HD21	33:CW:113:LEU:HD12	1.84	0.58
11:DA:1171:G:H2'	11:DA:1171:G:N3	2.17	0.58
21:DK:147:ARG:HH11	21:DK:150:ARG:NH2	2.01	0.58
26:DP:16:LEU:HD21	33:DW:64:ILE:HG12	1.85	0.58
11:AA:469:A:N6	39:AA:2093:HOH:O	2.37	0.58
11:AA:770:G:H2'	11:AA:771:A:H8	1.68	0.58
11:AA:892:G:HO2'	11:AA:893:A:H8	1.51	0.58
11:AA:1452:G:H1'	30:AT:71:LYS:HE2	1.85	0.58
12:AB:54:LYS:HB2	36:AZ:95:ILE:HD13	1.86	0.58
27:AQ:48:ILE:HG22	27:AQ:49:GLU:HG3	1.84	0.58
10:B9:101:TYR:HE1	31:BU:33:LEU:HD21	1.68	0.58
11:BA:754:A:H4'	14:BD:9:SER:CB	2.32	0.58
16:BF:57:CYS:SG	16:BF:77:HIS:NE2	2.77	0.58
7:C6:45:PHE:CD2	25:CO:57:ARG:HD3	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:1171:G:H2'	11:CA:1171:G:N3	2.18	0.58
11:CA:1347:U:O2'	11:CA:1348:U:OP2	2.22	0.58
11:CA:1737:C:H2'	11:CA:1738:U:C6	2.39	0.58
17:CG:68:ILE:HD13	17:CG:85:ILE:HG12	1.86	0.58
11:DA:1479:G:H3'	11:DA:1480:U:C6	2.34	0.58
16:DF:57:CYS:SG	16:DF:77:HIS:NE2	2.76	0.58
31:DU:69:LYS:HB3	31:DU:124:LEU:HB3	1.86	0.58
1:A0:43:ASN:HB3	1:A0:45:ARG:HH12	1.68	0.58
3:A2:149:LYS:HE3	3:A2:150:ARG:HH11	1.69	0.58
5:A4:90:VAL:HG12	5:A4:226:ARG:HH12	1.68	0.58
3:B2:24:LYS:O	11:BA:391:A:H8	1.85	0.58
5:B4:172:ARG:O	5:B4:176:THR:OG1	2.19	0.58
11:BA:975:G:H5'	11:BA:976:A:OP2	2.03	0.58
14:BD:59:LEU:HA	14:BD:62:LEU:HD12	1.84	0.58
27:BQ:85:ILE:HG22	27:BQ:106:ILE:HB	1.86	0.58
1:C0:18:GLU:N	10:C9:74:LYS:HE2	2.18	0.58
5:C4:49:LEU:HD23	21:CK:51:GLU:HB3	1.86	0.58
11:CA:666:A:H5"	18:CH:43:LYS:NZ	2.18	0.58
11:CA:771:A:H5"	11:CA:772:A:O5'	2.03	0.58
17:CG:71:LEU:HG	17:CG:150:ILE:HD13	1.85	0.58
11:DA:1017:C:OP1	11:DA:1017:C:H4'	2.04	0.58
11:DA:1353:G:OP1	20:DJ:87:ARG:NH2	2.37	0.58
12:AB:75:ARG:O	12:AB:79:GLN:HG2	2.03	0.58
33:AW:52:LEU:HD21	33:AW:113:LEU:HD12	1.86	0.58
33:AW:254:ARG:NH1	33:AW:260:TYR:CG	2.71	0.58
11:BA:59:C:N4	11:BA:62:G:OP2	2.37	0.58
11:BA:1057:G:N7	39:BA:6209:HOH:O	2.32	0.58
26:BP:48:VAL:HG12	26:BP:49:ASP:H	1.68	0.58
31:BU:69:LYS:HB3	31:BU:124:LEU:HB3	1.86	0.58
11:CA:1171:G:H5"	24:CN:39:ARG:NH1	2.19	0.58
11:CA:1463:U:O2'	11:CA:1464:U:O5'	2.22	0.58
15:CE:213:LYS:O	15:CE:217:TYR:HD1	1.87	0.58
23:CM:102:SER:OG	23:CM:103:ASN:N	2.36	0.58
28:CR:274:THR:HG22	28:CR:277:GLY:H	1.67	0.58
6:D5:4:LYS:NZ	11:DA:1747:A:OP2	2.35	0.58
6:D5:97:ARG:O	6:D5:99:PRO:HD3	2.03	0.58
8:D7:29:GLU:OE2	24:DN:7:ARG:NH1	2.36	0.58
11:DA:311:U:H4'	11:DA:312:C:O4'	2.04	0.58
23:AM:40:ARG:NH2	30:AT:48:GLU:OE1	2.33	0.58
6:B5:11:SER:HB2	11:BA:912:A:H5'	1.86	0.58
8:B7:12:ILE:HD11	8:B7:37:VAL:HG11	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:45:A:N1	11:BA:424:A:O2'	2.36	0.58
11:BA:76:A:H4'	11:BA:77:G:OP2	2.03	0.58
11:BA:206:U:H5"	27:BQ:16:PHE:CG	2.38	0.58
11:BA:1480:U:HO2'	11:BA:1481:A:H8	1.50	0.58
11:BA:1531:G:C4	23:BM:134:ARG:HD2	2.39	0.58
30:BT:139:GLU:O	30:BT:142:ARG:HG3	2.04	0.58
32:BV:46:LEU:HD22	32:BV:50:ILE:HD11	1.86	0.58
3:C2:149:LYS:HE3	3:C2:150:ARG:NH1	2.18	0.58
11:CA:1449:G:OP2	30:CT:47:ARG:NH1	2.37	0.58
14:CD:62:LEU:HD11	14:CD:68:ARG:HH12	1.67	0.58
17:CG:73:PHE:HB2	17:CG:154:ARG:NH2	2.19	0.58
23:CM:36:ARG:HH12	23:CM:152:ARG:HG2	1.69	0.58
26:CP:90:ARG:HH12	26:CP:98:LYS:HB2	1.66	0.58
33:CW:47:LEU:HD11	33:CW:113:LEU:HD21	1.86	0.58
34:CX:63:HIS:CD2	34:CX:69:LYS:HE2	2.39	0.58
4:D3:152:ARG:HB2	4:D3:183:THR:HB	1.86	0.58
11:DA:1347:U:O2'	11:DA:1348:U:OP2	2.20	0.58
11:DA:1444:U:H5"	17:DG:164:ILE:HD11	1.85	0.58
11:DA:1506:G:H4'	11:DA:1508:G:O6	2.04	0.58
14:DD:59:LEU:HA	14:DD:62:LEU:HD12	1.84	0.58
28:DR:47:ARG:NH1	32:DV:27:ASP:OD2	2.34	0.58
11:AA:168:U:H2'	11:AA:169:G:C8	2.38	0.58
11:AA:1275:U:O4	39:AA:2214:HOH:O	2.17	0.58
11:AA:1296:G:N7	39:AA:2398:HOH:O	2.32	0.58
11:AA:1752:U:O2'	11:AA:1753:A:O5'	2.19	0.58
2:B1:45:VAL:HG11	2:B1:55:LEU:HD21	1.86	0.58
11:BA:253:A:H5'	11:BA:254:A:OP2	2.04	0.58
11:BA:1069:U:H4'	11:BA:1070:U:H5"	1.85	0.58
4:C3:5:LYS:NZ	4:C3:37:LEU:O	2.37	0.58
9:C8:96:VAL:HB	9:C8:104:VAL:HG12	1.86	0.58
11:CA:3:C:N4	14:CD:16:ARG:HB2	2.19	0.58
15:CE:108:SER:O	15:CE:193:GLY:HA3	2.04	0.58
31:CU:20:ASN:HD21	31:CU:27:LYS:HZ3	1.51	0.58
18:DH:101:ASN:HB3	18:DH:112:THR:HG23	1.84	0.58
33:DW:212:VAL:HB	33:DW:220:PHE:HB2	1.86	0.58
11:AA:1443:A:H4'	11:AA:1444:U:H5'	1.86	0.57
11:AA:1479:G:N7	39:AA:2421:HOH:O	2.32	0.57
23:AM:35:ILE:HD12	23:AM:38:ILE:HD12	1.86	0.57
25:AO:101:ARG:HH12	25:AO:145:ALA:CB	2.17	0.57
4:B3:65:VAL:HG21	4:B3:73:LEU:HD22	1.86	0.57
11:BA:1301:A:P	13:BC:163:THR:HG21	2.43	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:1420:U:OP2	39:BA:6518:HOH:O	2.17	0.57
11:BA:1591:C:H2'	11:BA:1592:C:H6	1.68	0.57
26:BP:90:ARG:HH12	26:BP:98:LYS:HB2	1.67	0.57
3:C2:140:ASN:H	3:C2:140:ASN:ND2	1.98	0.57
6:C5:42:ARG:NH2	21:CK:107:GLN:HG3	2.16	0.57
11:CA:231:U:O5'	11:CA:231:U:H6	1.87	0.57
11:CA:265:C:OP1	35:CY:180:GLN:NE2	2.37	0.57
11:CA:1277:U:H4'	11:CA:1278:C:OP2	2.03	0.57
11:CA:1568:C:OP2	24:CN:18:LYS:NZ	2.37	0.57
4:D3:103:LYS:HA	4:D3:113:ARG:HH12	1.69	0.57
11:DA:958:G:H4'	11:DA:1729:A:H4'	1.85	0.57
11:DA:1263:G:H21	11:DA:1296:G:H22	1.48	0.57
19:DI:112:MET:HG3	19:DI:119:LEU:HD13	1.86	0.57
28:DR:81:ASP:N	28:DR:94:SER:OG	2.37	0.57
32:DV:78:ARG:O	32:DV:82:LEU:HG	2.04	0.57
3:A2:140:ASN:H	3:A2:140:ASN:ND2	1.99	0.57
9:A8:96:VAL:HB	9:A8:104:VAL:HG12	1.86	0.57
11:AA:840:A:OP2	25:AO:66:ARG:NH2	2.37	0.57
12:AB:77:TYR:CD1	12:AB:164:THR:HG23	2.31	0.57
19:AI:46:LEU:O	19:AI:49:LYS:HB2	2.04	0.57
11:BA:3:C:HO2'	11:BA:4:C:P	2.26	0.57
11:BA:1506:G:H4'	11:BA:1508:G:O6	2.03	0.57
23:BM:35:ILE:HD12	23:BM:38:ILE:HD12	1.86	0.57
11:CA:1172:G:H4'	11:CA:1173:G:O5'	2.02	0.57
30:CT:132:ILE:HD12	30:CT:137:MET:HB2	1.86	0.57
3:D2:12:ARG:NH1	11:DA:101:A:OP1	2.33	0.57
11:DA:1752:U:O2'	11:DA:1753:A:H3'	2.03	0.57
14:DD:62:LEU:HD11	14:DD:68:ARG:HH12	1.67	0.57
30:DT:139:GLU:O	30:DT:142:ARG:HG3	2.03	0.57
11:AA:331:U:H2'	11:AA:332:A:C8	2.40	0.57
11:AA:605:U:OP2	22:AL:5:LYS:NZ	2.37	0.57
14:AD:59:LEU:HA	14:AD:62:LEU:HD12	1.84	0.57
22:AL:17:ARG:HH11	22:AL:20:LYS:HG2	1.68	0.57
23:AM:102:SER:OG	23:AM:103:ASN:N	2.35	0.57
32:AV:46:LEU:HD22	32:AV:50:ILE:HD11	1.86	0.57
33:AW:47:LEU:HD11	33:AW:113:LEU:HD11	1.86	0.57
35:AY:64:LYS:HB2	35:AY:97:VAL:HG11	1.85	0.57
11:BA:986:G:OP1	39:BA:6187:HOH:O	2.17	0.57
11:BA:1479:G:H3'	11:BA:1480:U:C6	2.34	0.57
13:BC:105:VAL:HG22	13:BC:189:VAL:HB	1.84	0.57
21:BK:147:ARG:HH11	21:BK:150:ARG:NH2	2.02	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BW:212:VAL:HB	33:BW:220:PHE:HB2	1.86	0.57
5:C4:172:ARG:O	5:C4:176:THR:OG1	2.18	0.57
11:CA:470:G:H5'	34:CX:34:ARG:NH2	2.19	0.57
11:CA:1051:G:O6	39:CA:2202:HOH:O	2.14	0.57
28:CR:275:ASP:HA	28:CR:311:GLN:HB3	1.86	0.57
35:CY:64:LYS:HB2	35:CY:97:VAL:HG11	1.85	0.57
4:D3:5:LYS:NZ	4:D3:37:LEU:O	2.37	0.57
10:D9:132:HIS:NE2	10:D9:143:ILE:HB	2.18	0.57
11:DA:100:A:OP2	11:DA:299:C:N4	2.30	0.57
11:DA:221:A:H61	11:DA:815:U:H3	1.52	0.57
11:DA:409:G:O2'	11:DA:410:G:O5'	2.21	0.57
11:DA:1002:U:C2'	11:DA:1003:A:H5"	2.33	0.57
11:DA:1213:G:N2	11:DA:1423:U:H4'	2.19	0.57
11:DA:1452:G:H1'	30:DT:71:LYS:HE2	1.85	0.57
15:DE:143:GLY:N	15:DE:154:THR:O	2.33	0.57
26:DP:13:ASN:ND2	33:DW:54:TYR:O	2.37	0.57
34:DX:53:ASP:OD1	34:DX:53:ASP:N	2.37	0.57
11:AA:1406:G:H4'	11:AA:1407:A:O5'	2.04	0.57
9:B8:70:VAL:HG11	17:BG:161:MET:SD	2.44	0.57
11:BA:487:C:H3'	11:BA:488:G:C8	2.40	0.57
11:BA:1439:U:H4'	30:BT:91:ASN:HA	1.87	0.57
15:BE:108:SER:O	15:BE:193:GLY:HA3	2.04	0.57
25:BO:101:ARG:HH12	25:BO:145:ALA:CB	2.17	0.57
26:BP:55:VAL:HG13	26:BP:58:PHE:CE1	2.40	0.57
11:CA:573:A:OP1	13:CC:148:GLN:NE2	2.37	0.57
11:CA:1263:G:H22	11:CA:1296:G:H22	1.52	0.57
11:DA:878:A:OP1	21:DK:57:THR:HB	2.05	0.57
11:DA:1145:C:H5"	23:DM:132:LYS:NZ	2.19	0.57
14:DD:107:ARG:HB3	14:DD:147:MET:HE3	1.86	0.57
11:AA:561:A:H1'	34:AX:14:VAL:HB	1.86	0.57
14:AD:62:LEU:HD11	14:AD:68:ARG:HH12	1.67	0.57
14:AD:129:ILE:HG22	14:AD:134:ILE:HG12	1.85	0.57
11:BA:1505:C:H4'	11:BA:1511:A:H61	1.69	0.57
11:CA:1591:C:H2'	11:CA:1592:C:H6	1.69	0.57
27:CQ:146:ILE:HD12	27:CQ:153:GLN:HG2	1.84	0.57
11:DA:411:U:OP1	35:DY:96:SER:OG	2.18	0.57
11:DA:1290:G:OP1	32:DV:67:ARG:HG2	2.04	0.57
28:DR:94:SER:HA	28:DR:100:LEU:HD12	1.86	0.57
34:DX:63:HIS:CD2	34:DX:69:LYS:HE2	2.40	0.57
11:AA:1660:A:H5'	11:AA:1661:G:OP2	2.05	0.57
21:AK:44:VAL:HG23	21:AK:53:LEU:HB2	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AL:102:LEU:HB3	22:AL:125:CYS:HB2	1.87	0.57
10:B9:75:LYS:NZ	11:BA:1418:C:OP1	2.34	0.57
11:BA:1463:U:O2'	11:BA:1464:U:O5'	2.22	0.57
17:BG:71:LEU:HG	17:BG:150:ILE:HD13	1.86	0.57
27:BQ:17:LEU:HD22	27:BQ:29:ALA:HA	1.85	0.57
4:C3:65:VAL:HG21	4:C3:73:LEU:HD22	1.86	0.57
11:CA:1406:G:H4'	11:CA:1407:A:O5'	2.05	0.57
25:CO:101:ARG:HH12	25:CO:145:ALA:CB	2.17	0.57
11:DA:845:G:H5"	25:DO:4:MET:HE2	1.87	0.57
11:DA:1171:G:H5"	24:DN:39:ARG:NH1	2.20	0.57
11:DA:1419:G:OP1	39:DA:8040:HOH:O	2.17	0.57
14:DD:127:VAL:O	14:DD:131:GLN:HG2	2.05	0.57
27:DQ:146:ILE:HD12	27:DQ:153:GLN:HG2	1.84	0.57
2:A1:65:ARG:NH1	17:AG:125:THR:HG21	2.18	0.57
4:A3:103:LYS:HA	4:A3:113:ARG:HH12	1.70	0.57
11:AA:311:U:H4'	11:AA:312:C:O4'	2.05	0.57
11:AA:1032:U:H3	11:AA:1035:A:N6	1.98	0.57
11:AA:1373:G:OP1	32:AV:4:VAL:HA	2.04	0.57
12:AB:106:ASN:O	12:AB:109:THR:HG22	2.04	0.57
15:AE:158:LYS:HG2	15:AE:171:VAL:HG22	1.87	0.57
23:AM:87:ASN:OD1	23:AM:99:GLN:NE2	2.37	0.57
7:B6:34:LYS:HZ3	7:B6:78:LYS:HE3	1.66	0.57
11:BA:654:U:H1'	11:BA:656:G:N2	2.16	0.57
11:BA:729:U:H1'	27:BQ:157:PHE:C	2.29	0.57
11:BA:749:G:H4'	11:BA:750:U:OP1	2.03	0.57
11:BA:1171:G:H2'	11:BA:1171:G:N3	2.18	0.57
11:BA:1172:G:N2	39:BA:6549:HOH:O	2.31	0.57
16:BF:78:ARG:HH12	16:BF:100:GLY:HA3	1.67	0.57
22:BL:37:ARG:HG3	22:BL:44:GLY:HA2	1.85	0.57
28:BR:275:ASP:HA	28:BR:311:GLN:HB3	1.85	0.57
34:BX:63:HIS:CD2	34:BX:69:LYS:HE2	2.40	0.57
11:CA:1550:U:H4'	19:CI:145:ARG:NH2	2.19	0.57
19:CI:112:MET:HG3	19:CI:119:LEU:HD13	1.86	0.57
30:CT:112:GLU:OE2	30:CT:119:LYS:HE3	2.05	0.57
34:CX:53:ASP:N	34:CX:53:ASP:OD1	2.37	0.57
5:D4:172:ARG:O	5:D4:176:THR:OG1	2.17	0.57
11:DA:515:U:O2'	26:DP:58:PHE:O	2.19	0.57
11:DA:1406:G:H4'	11:DA:1407:A:O5'	2.04	0.57
30:DT:112:GLU:OE2	30:DT:119:LYS:HE3	2.05	0.57
35:DY:184:THR:HB	35:DY:185:PRO:HD2	1.87	0.57
4:A3:123:TYR:CG	4:A3:178:THR:HG23	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:A6:33:VAL:HG21	7:A6:44:ILE:HD12	1.86	0.57
11:AA:233:U:H2'	11:AA:234:G:N9	2.19	0.57
11:AA:411:U:OP1	35:AY:96:SER:OG	2.20	0.57
1:B0:43:ASN:HB3	1:B0:45:ARG:HH12	1.69	0.57
11:BA:1216:A:H5'	11:BA:1217:G:OP2	2.04	0.57
12:BB:75:ARG:O	12:BB:79:GLN:HG2	2.04	0.57
3:C2:22:ARG:NH2	11:CA:293:U:OP1	2.33	0.57
5:C4:200:THR:HG23	5:C4:216:ILE:HB	1.87	0.57
11:CA:425:A:H5"	11:CA:426:G:OP2	2.05	0.57
11:CA:464:G:H5"	14:CD:11:THR:HG23	1.87	0.57
14:CD:59:LEU:HA	14:CD:62:LEU:HD12	1.85	0.57
14:CD:62:LEU:HD11	14:CD:68:ARG:HH11	1.69	0.57
2:D1:45:VAL:HG11	2:D1:55:LEU:HD21	1.86	0.57
11:DA:785:G:N3	18:DH:107:THR:HG21	2.20	0.57
11:DA:1121:C:H4'	11:DA:1608:C:OP2	2.05	0.57
11:DA:1189:A:N6	24:DN:3:ASN:OD1	2.38	0.57
25:DO:95:LYS:HB2	25:DO:153:GLN:NE2	2.20	0.57
29:DS:127:THR:HG22	29:DS:128:TYR:HD2	1.70	0.57
4:A3:117:ARG:NH1	11:AA:834:A:C5	2.73	0.57
5:A4:35:ARG:O	5:A4:101:THR:OG1	2.22	0.57
11:AA:628:G:H4'	18:AH:4:VAL:HG13	1.87	0.57
11:AA:1247:A:H3'	11:AA:1248:U:H5"	1.87	0.57
15:AE:108:SER:O	15:AE:193:GLY:HA3	2.04	0.57
21:AK:101:GLY:HA3	21:AK:134:PRO:HG2	1.87	0.57
26:AP:131:THR:HG23	26:AP:134:SER:H	1.70	0.57
28:AR:282:ASN:N	28:AR:290:PRO:HG2	2.16	0.57
4:B3:145:LEU:HA	18:BH:42:GLN:NE2	2.18	0.57
8:B7:16:LEU:O	8:B7:20:GLY:N	2.37	0.57
11:BA:1370:U:OP2	11:BA:1370:U:H2'	2.05	0.57
17:BG:68:ILE:HD13	17:BG:85:ILE:HG12	1.87	0.57
19:BI:112:MET:HG3	19:BI:119:LEU:HD13	1.87	0.57
31:BU:50:CYS:SG	31:BU:51:ASP:N	2.77	0.57
2:C1:45:VAL:HG11	2:C1:55:LEU:HD21	1.86	0.57
8:C7:9:LYS:HG3	8:C7:45:LEU:HD21	1.85	0.57
11:CA:311:U:H4'	11:CA:312:C:O4'	2.04	0.57
11:CA:409:G:O2'	11:CA:410:G:O5'	2.22	0.57
11:CA:771:A:C5	33:CW:19:MET:HE3	2.39	0.57
11:CA:1708:A:H5'	22:CL:62:GLN:HG3	1.87	0.57
15:CE:103:VAL:HG11	15:CE:130:ILE:HA	1.87	0.57
21:CK:101:GLY:HA3	21:CK:134:PRO:HG2	1.87	0.57
29:CS:25:ALA:HB1	29:CS:93:GLU:OE2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D5:40:THR:HB	6:D5:71:VAL:HB	1.87	0.57
11:DA:1463:U:O2'	11:DA:1464:U:O5'	2.21	0.57
11:DA:1568:C:P	24:DN:18:LYS:HZ3	2.28	0.57
15:DE:84:ILE:HD11	15:DE:126:ILE:HD11	1.87	0.57
18:DH:30:VAL:HG21	18:DH:61:VAL:HG23	1.86	0.57
22:DL:130:SER:HB2	22:DL:133:ALA:H	1.70	0.57
11:AA:253:A:H5'	11:AA:254:A:OP2	2.05	0.57
11:AA:1445:G:H2'	11:AA:1446:A:C8	2.40	0.57
32:AV:58:MET:O	32:AV:62:GLN:HG2	2.05	0.57
11:BA:64:U:H3'	35:BY:178:LYS:NZ	2.20	0.57
11:BA:770:G:H2'	11:BA:771:A:H8	1.70	0.57
11:BA:1722:U:H5'	21:BK:151:LEU:HD12	1.86	0.57
15:BE:143:GLY:N	15:BE:154:THR:O	2.36	0.57
28:BR:94:SER:HA	28:BR:100:LEU:HD12	1.86	0.57
29:BS:25:ALA:HB1	29:BS:93:GLU:OE2	2.05	0.57
33:BW:106:ASP:OD2	33:BW:110:ARG:HD2	2.05	0.57
27:CQ:85:ILE:HG22	27:CQ:106:ILE:HB	1.85	0.57
33:CW:106:ASP:OD2	33:CW:110:ARG:HD2	2.05	0.57
11:DA:1370:U:OP2	11:DA:1370:U:H2'	2.05	0.57
12:DB:106:ASN:O	12:DB:109:THR:HG22	2.05	0.57
22:DL:17:ARG:HH11	22:DL:20:LYS:HG2	1.70	0.57
3:A2:51:ILE:HD13	3:A2:65:ALA:HA	1.87	0.56
11:AA:1708:A:H5'	22:AL:62:GLN:HG3	1.85	0.56
15:AE:45:LEU:HG	15:AE:49:PHE:CE2	2.40	0.56
16:AF:57:CYS:SG	16:AF:77:HIS:NE2	2.78	0.56
26:AP:55:VAL:HG13	26:AP:58:PHE:CE1	2.39	0.56
32:AV:6:THR:OG1	32:AV:7:LYS:N	2.36	0.56
33:AW:47:LEU:HD11	33:AW:113:LEU:HD21	1.87	0.56
34:AX:63:HIS:CD2	34:AX:69:LYS:HE2	2.40	0.56
11:BA:409:G:O2'	11:BA:410:G:O5'	2.22	0.56
11:BA:1660:A:H5'	11:BA:1661:G:OP2	2.05	0.56
22:BL:102:LEU:HB3	22:BL:125:CYS:HB2	1.86	0.56
10:C9:73:LYS:NZ	11:CA:1159:U:OP1	2.25	0.56
11:CA:1720:G:C8	11:CA:1720:G:H5"	2.39	0.56
23:CM:35:ILE:HD12	23:CM:38:ILE:HD12	1.86	0.56
27:CQ:37:ILE:HD11	27:CQ:59:PHE:CE1	2.40	0.56
15:DE:36:LEU:HD13	15:DE:248:LEU:HD21	1.87	0.56
17:DG:68:ILE:HD13	17:DG:85:ILE:HG12	1.86	0.56
27:DQ:85:ILE:HG22	27:DQ:106:ILE:HB	1.87	0.56
33:DW:106:ASP:OD2	33:DW:110:ARG:HD2	2.04	0.56
3:A2:141:LYS:HG3	11:AA:182:U:H3	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:99:A:H2'	39:AA:2033:HOH:O	2.03	0.56
11:AA:409:G:O2'	11:AA:410:G:O5'	2.24	0.56
11:AA:444:A:H5'	11:AA:445:U:C5	2.40	0.56
23:AM:36:ARG:HH12	23:AM:152:ARG:HG2	1.70	0.56
28:AR:94:SER:HA	28:AR:100:LEU:HD12	1.86	0.56
30:AT:119:LYS:HD3	30:AT:128:PHE:HB3	1.87	0.56
4:B3:152:ARG:HB2	4:B3:183:THR:HB	1.87	0.56
11:BA:60:C:O2	11:BA:266:G:O2'	2.13	0.56
11:BA:647:U:O2'	11:BA:649:U:OP2	2.04	0.56
11:BA:1042:G:H5'	11:BA:1043:U:OP2	2.05	0.56
11:BA:1391:C:OP1	24:BN:53:LYS:NZ	2.38	0.56
30:BT:112:GLU:OE2	30:BT:119:LYS:HE3	2.05	0.56
6:C5:4:LYS:NZ	11:CA:1747:A:OP2	2.38	0.56
11:CA:331:U:H2'	11:CA:332:A:C8	2.40	0.56
11:CA:1752:U:HO2'	11:CA:1753:A:P	2.27	0.56
33:CW:88:LEU:HG	33:CW:89:MET:HG2	1.87	0.56
7:D6:5:LEU:H	18:DH:24:GLN:HE22	1.50	0.56
11:DA:1247:A:H3'	11:DA:1248:U:H5"	1.87	0.56
33:DW:47:LEU:HD11	33:DW:113:LEU:HD21	1.86	0.56
11:AA:912:A:O2'	11:AA:913:U:OP2	2.23	0.56
11:AA:984:C:H5"	11:AA:985:C:OP2	2.05	0.56
11:AA:1463:U:O2'	11:AA:1464:U:O5'	2.21	0.56
39:AA:2474:HOH:O	30:AT:93:ARG:NH1	2.21	0.56
14:AD:107:ARG:HB3	14:AD:147:MET:HE3	1.86	0.56
22:AL:13:ARG:NH2	27:AQ:101:LYS:O	2.38	0.56
28:AR:171:SER:OG	28:AR:186:TYR:O	2.18	0.56
33:AW:106:ASP:OD2	33:AW:110:ARG:HD2	2.04	0.56
35:AY:58:LYS:HG2	35:AY:105:ASP:O	2.05	0.56
35:AY:184:THR:HB	35:AY:185:PRO:HD2	1.87	0.56
6:B5:40:THR:HB	6:B5:71:VAL:HB	1.87	0.56
8:B7:52:ARG:NH2	11:BA:1192:C:OP1	2.38	0.56
9:B8:81:ARG:NH1	11:BA:1506:G:N7	2.51	0.56
11:BA:172:U:H4'	11:BA:173:A:OP1	2.03	0.56
11:BA:211:U:H3	11:BA:238:G:N2	2.00	0.56
11:BA:311:U:H4'	11:BA:312:C:O4'	2.04	0.56
11:BA:532:G:C8	39:BA:6083:HOH:O	2.53	0.56
11:BA:1002:U:C2'	11:BA:1003:A:H5"	2.35	0.56
11:BA:1173:G:O5'	39:BA:6511:HOH:O	2.18	0.56
11:BA:1752:U:O2'	11:BA:1753:A:H3'	2.06	0.56
14:BD:80:MET:HG3	14:BD:85:LEU:HB2	1.87	0.56
19:BI:46:LEU:O	19:BI:49:LYS:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BM:119:ILE:HG23	29:BS:124:PHE:HE2	1.70	0.56
26:BP:131:THR:HG23	26:BP:134:SER:H	1.70	0.56
35:BY:184:THR:HB	35:BY:185:PRO:HD2	1.87	0.56
1:C0:101:ASN:HD21	10:C9:77:LYS:HZ2	1.52	0.56
11:CA:1277:U:OP1	39:CA:2254:HOH:O	2.17	0.56
11:CA:1362:U:P	32:CV:59:LYS:HZ1	2.27	0.56
11:CA:1551:U:H4'	19:CI:142:LYS:O	2.06	0.56
12:CB:106:ASN:O	12:CB:109:THR:HG22	2.06	0.56
16:CF:78:ARG:HH12	16:CF:100:GLY:HA3	1.68	0.56
17:CG:44:VAL:HG12	17:CG:46:HIS:H	1.69	0.56
19:CI:33:VAL:HA	19:CI:69:ILE:O	2.05	0.56
20:CJ:69:PRO:O	24:CN:40:ARG:NH1	2.39	0.56
30:CT:135:GLU:CD	11:DA:891:G:H1	2.12	0.56
31:CU:47:ALA:HB1	31:CU:76:ARG:HG2	1.87	0.56
33:CW:108:LYS:HD2	33:CW:110:ARG:HH21	1.70	0.56
35:CY:29:ASP:OD1	35:CY:70:ARG:NH2	2.38	0.56
1:D0:43:ASN:HB3	1:D0:45:ARG:HH12	1.70	0.56
11:DA:312:C:H4'	11:DA:313:G:OP1	2.05	0.56
11:DA:331:U:H2'	11:DA:332:A:C8	2.40	0.56
11:DA:425:A:H5"	11:DA:426:G:OP2	2.05	0.56
11:DA:1069:U:H4'	11:DA:1070:U:H5"	1.87	0.56
11:DA:1276:G:H5'	11:DA:1294:A:OP2	2.06	0.56
22:DL:31:LYS:O	22:DL:36:SER:HB2	2.05	0.56
23:DM:87:ASN:OD1	23:DM:99:GLN:NE2	2.36	0.56
29:DS:25:ALA:HB1	29:DS:93:GLU:OE2	2.05	0.56
10:A9:132:HIS:HB2	10:A9:141:LEU:HB2	1.87	0.56
11:AA:231:U:H2'	11:AA:232:G:O4'	2.06	0.56
11:AA:493:U:C5	14:BD:168:ARG:HG3	2.40	0.56
11:AA:677:G:N2	11:AA:725:A:H1'	2.21	0.56
11:AA:754:A:H4'	14:AD:9:SER:CB	2.35	0.56
11:AA:1188:A:O2'	11:AA:1189:A:H3'	2.05	0.56
11:AA:1217:G:O2'	11:AA:1218:C:OP2	2.17	0.56
11:AA:1720:G:H5"	11:AA:1720:G:C8	2.40	0.56
18:AH:101:ASN:HB3	18:AH:112:THR:HG23	1.86	0.56
35:AY:64:LYS:NZ	35:AY:82:SER:H	2.03	0.56
35:AY:162:ARG:NH1	35:AY:176:CYS:SG	2.78	0.56
3:B2:52:ARG:HB2	3:B2:64:ARG:HB2	1.87	0.56
4:B3:5:LYS:NZ	4:B3:37:LEU:O	2.37	0.56
5:B4:90:VAL:HG11	5:B4:226:ARG:HH12	1.70	0.56
11:BA:268:G:H2'	11:BA:269:G:O4'	2.04	0.56
11:BA:771:A:P	33:BW:110:ARG:HH22	2.27	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:BH:101:ASN:HB3	18:BH:112:THR:HG23	1.87	0.56
29:BS:127:THR:HG22	29:BS:128:TYR:HD2	1.71	0.56
33:BW:47:LEU:HD11	33:BW:113:LEU:HD21	1.87	0.56
11:CA:64:U:H3'	35:CY:178:LYS:NZ	2.20	0.56
11:CA:128:A:H2'	11:CA:129:G:O4'	2.06	0.56
11:CA:136:U:P	35:CY:139:ASN:HD21	2.29	0.56
11:CA:516:G:OP2	26:CP:35:LYS:HE2	2.06	0.56
11:CA:1538:U:H5'	23:CM:39:GLY:N	2.19	0.56
11:CA:1752:U:O2'	11:CA:1753:A:H3'	2.04	0.56
26:CP:131:THR:HG23	26:CP:134:SER:H	1.70	0.56
32:CV:89:SER:C	32:CV:91:ILE:H	2.13	0.56
2:D1:21:ARG:HH21	17:DG:122:ARG:NH1	2.02	0.56
4:D3:140:ARG:HD3	18:DH:53:ILE:HG23	1.86	0.56
11:DA:128:A:H2'	11:DA:129:G:O4'	2.06	0.56
11:DA:1720:G:H5"	11:DA:1720:G:C8	2.40	0.56
15:DE:103:VAL:HG11	15:DE:130:ILE:HA	1.86	0.56
18:DH:106:THR:HG21	18:DH:121:THR:HB	1.86	0.56
7:A6:34:LYS:HZ1	7:A6:78:LYS:HE3	1.69	0.56
11:BA:229:A:C4	11:BA:229:A:OP1	2.59	0.56
7:C6:68:LYS:HB3	11:CA:1027:U:OP1	2.06	0.56
11:CA:749:G:H4'	11:CA:750:U:OP1	2.04	0.56
11:CA:845:G:H5"	25:CO:4:MET:HE2	1.88	0.56
11:CA:1069:U:H4'	11:CA:1070:U:H5"	1.86	0.56
11:CA:1137:A:OP1	17:CG:147:TYR:OH	2.20	0.56
11:CA:1373:G:OP1	32:CV:4:VAL:HA	2.06	0.56
12:CB:64:GLN:NE2	15:CE:246:GLU:HG2	2.20	0.56
12:CB:123:PRO:HD3	12:CB:143:LEU:O	2.06	0.56
14:CD:80:MET:HG3	14:CD:85:LEU:HB2	1.87	0.56
23:CM:87:ASN:OD1	23:CM:99:GLN:NE2	2.38	0.56
28:CR:102:LEU:O	28:CR:111:TYR:N	2.32	0.56
32:CV:46:LEU:HD22	32:CV:50:ILE:HD11	1.86	0.56
36:CZ:32:CYS:HA	36:CZ:68:VAL:HG12	1.88	0.56
11:DA:253:A:H5'	11:DA:254:A:OP2	2.05	0.56
11:DA:1164:C:OP2	11:DA:1165:A:O2'	2.17	0.56
12:DB:62:ALA:O	36:DZ:64:LYS:NZ	2.37	0.56
23:DM:102:SER:OG	23:DM:103:ASN:N	2.36	0.56
33:DW:130:ALA:H	33:DW:142:VAL:HG12	1.71	0.56
5:A4:90:VAL:HG11	5:A4:226:ARG:HH12	1.71	0.56
5:A4:200:THR:HG23	5:A4:216:ILE:HB	1.87	0.56
11:AA:14:C:O5'	15:AE:165:SER:HB3	2.06	0.56
12:AB:60:ILE:HG23	12:AB:69:VAL:HG21	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AD:159:ALA:O	14:AD:165:GLY:HA3	2.06	0.56
15:AE:36:LEU:HD13	15:AE:248:LEU:HD21	1.86	0.56
19:AI:112:MET:HG3	19:AI:119:LEU:HD13	1.88	0.56
22:AL:130:SER:HB2	22:AL:133:ALA:H	1.70	0.56
33:AW:189:ASN:N	33:AW:189:ASN:OD1	2.37	0.56
11:BA:469:A:OP2	34:BX:29:LYS:NZ	2.32	0.56
11:BA:1263:G:H22	11:BA:1296:G:H22	1.54	0.56
15:BE:141:ARG:HB3	15:BE:222:THR:HG22	1.88	0.56
22:BL:73:VAL:HB	22:BL:82:ILE:HG22	1.85	0.56
33:BW:130:ALA:H	33:BW:142:VAL:HG12	1.70	0.56
35:BY:64:LYS:NZ	35:BY:82:SER:H	2.03	0.56
6:C5:40:THR:HB	6:C5:71:VAL:HB	1.87	0.56
11:CA:1033:A:H4'	11:CA:1034:A:OP2	2.04	0.56
11:CA:1263:G:H21	11:CA:1296:G:H22	1.47	0.56
11:CA:1586:A:H5'	11:CA:1587:U:OP2	2.06	0.56
18:CH:105:THR:HG22	18:CH:110:ILE:HG12	1.85	0.56
22:CL:130:SER:HB2	22:CL:133:ALA:H	1.70	0.56
25:CO:95:LYS:HB2	25:CO:153:GLN:NE2	2.21	0.56
5:D4:200:THR:HG23	5:D4:216:ILE:HB	1.88	0.56
11:DA:1445:G:H2'	11:DA:1446:A:C8	2.41	0.56
11:DA:1562:G:N7	39:DA:8102:HOH:O	2.33	0.56
11:DA:1659:C:H5'	11:DA:1660:A:OP2	2.06	0.56
13:DC:228:ARG:NH1	28:DR:242:ILE:O	2.39	0.56
21:DK:56:VAL:HG11	21:DK:77:ALA:HA	1.88	0.56
26:DP:55:VAL:HG13	26:DP:58:PHE:CE1	2.41	0.56
33:DW:47:LEU:HD11	33:DW:113:LEU:HD11	1.88	0.56
11:AA:749:G:H4'	11:AA:750:U:OP1	2.05	0.56
11:AA:1538:U:H5'	23:AM:39:GLY:N	2.19	0.56
14:AD:154:LYS:HZ3	11:BA:474:G:P	2.27	0.56
25:AO:5:GLN:NE2	25:AO:123:ARG:HE	2.04	0.56
4:B3:109:LYS:HZ3	11:BA:726:U:P	2.27	0.56
8:B7:9:LYS:HG3	8:B7:45:LEU:HD21	1.86	0.56
11:BA:128:A:H2'	11:BA:129:G:O4'	2.06	0.56
23:BM:48:LYS:HD3	30:BT:39:GLN:HG2	1.87	0.56
11:CA:1288:C:OP1	32:CV:7:LYS:N	2.38	0.56
11:CA:1443:A:H4'	11:CA:1444:U:H5'	1.88	0.56
11:CA:1660:A:H5'	11:CA:1661:G:OP2	2.05	0.56
22:CL:7:ARG:HH11	22:CL:7:ARG:CG	2.18	0.56
31:CU:69:LYS:HB3	31:CU:124:LEU:HB3	1.86	0.56
11:DA:864:U:O2	21:DK:137:THR:N	2.29	0.56
11:DA:1514:G:C5'	30:DT:90:GLY:HA2	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1737:C:H2'	11:DA:1738:U:C6	2.40	0.56
11:DA:1744:U:H6	11:DA:1744:U:H5"	1.70	0.56
35:DY:29:ASP:OD1	35:DY:70:ARG:NH2	2.38	0.56
3:A2:12:ARG:NH1	11:AA:101:A:OP1	2.36	0.56
9:A8:70:VAL:HG11	17:AG:161:MET:SD	2.46	0.56
10:A9:129:TYR:CD2	10:A9:152:LEU:HD22	2.40	0.56
11:AA:487:C:H3'	11:AA:488:G:N7	2.21	0.56
11:AA:1342:U:H4'	11:AA:1343:G:OP1	2.06	0.56
11:AA:1449:G:OP2	30:AT:47:ARG:NH1	2.39	0.56
11:AA:1752:U:HO2'	11:AA:1753:A:P	2.29	0.56
15:AE:228:PRO:HA	15:AE:231:TRP:NE1	2.21	0.56
30:AT:112:GLU:OE2	30:AT:119:LYS:HE3	2.06	0.56
33:AW:130:ALA:H	33:AW:142:VAL:HG12	1.69	0.56
11:BA:1450:G:P	30:BT:60:ARG:NH1	2.78	0.56
14:BD:107:ARG:HB3	14:BD:147:MET:HE3	1.86	0.56
15:BE:36:LEU:HD13	15:BE:248:LEU:HD21	1.88	0.56
19:BI:12:PHE:HD1	19:BI:12:PHE:H	1.54	0.56
23:BM:36:ARG:HH12	23:BM:152:ARG:HG2	1.70	0.56
28:BR:283:LEU:HB2	28:BR:284:MET:HE2	1.88	0.56
33:BW:249:THR:HG22	33:BW:251:LEU:H	1.71	0.56
35:BY:29:ASP:OD1	35:BY:70:ARG:NH2	2.38	0.56
1:C0:43:ASN:HB3	1:C0:45:ARG:HH12	1.71	0.56
21:CK:56:VAL:HG11	21:CK:77:ALA:HA	1.88	0.56
22:CL:17:ARG:HH11	22:CL:20:LYS:HG2	1.70	0.56
28:CR:283:LEU:HB2	28:CR:284:MET:HE2	1.88	0.56
5:D4:106:LEU:HB2	5:D4:221:VAL:HB	1.88	0.56
11:DA:74:A:H5"	35:DY:162:ARG:HH22	1.71	0.56
11:DA:793:G:H5"	11:DA:794:A:OP2	2.06	0.56
11:DA:1205:G:OP1	24:DN:2:PRO:HG3	2.06	0.56
14:DD:62:LEU:HD11	14:DD:68:ARG:HH11	1.69	0.56
33:DW:89:MET:HE3	33:DW:104:LEU:HD21	1.86	0.56
33:DW:108:LYS:HD2	33:DW:110:ARG:HH21	1.70	0.56
35:DY:198:LYS:HA	35:DY:201:ARG:HD2	1.87	0.56
2:A1:45:VAL:HG11	2:A1:55:LEU:HD21	1.86	0.56
11:AA:1752:U:O2'	11:AA:1753:A:H3'	2.05	0.56
5:B4:238:TYR:O	5:B4:240:HIS:N	2.39	0.56
10:B9:108:LYS:HA	31:BU:65:LYS:HE2	1.88	0.56
39:BA:6548:HOH:O	30:BT:93:ARG:NH1	2.14	0.56
15:BE:45:LEU:HG	15:BE:49:PHE:CE2	2.40	0.56
18:BH:80:ASP:HA	18:BH:123:GLY:O	2.06	0.56
25:BO:101:ARG:HG3	25:BO:101:ARG:HH11	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:765:A:C6	26:CP:19:ARG:NH1	2.73	0.56
11:CA:1585:U:OP1	17:CG:143:ASN:ND2	2.39	0.56
11:CA:1659:C:H5'	11:CA:1660:A:OP2	2.06	0.56
15:CE:141:ARG:NH1	15:CE:230:PHE:CZ	2.74	0.56
15:CE:174:PRO:O	15:CE:177:THR:OG1	2.22	0.56
14:DD:80:MET:HG3	14:DD:85:LEU:HB2	1.87	0.56
26:DP:76:ASN:OD1	26:DP:77:GLN:N	2.39	0.56
31:DU:47:ALA:HB1	31:DU:76:ARG:HG2	1.88	0.56
11:AA:144:C:O4'	35:AY:132:LYS:NZ	2.39	0.56
15:AE:103:VAL:HG11	15:AE:130:ILE:HA	1.88	0.56
35:AY:198:LYS:HA	35:AY:201:ARG:HD2	1.88	0.56
13:BC:34:ASP:HB3	13:BC:60:GLN:HE22	1.71	0.56
22:BL:130:SER:HB2	22:BL:133:ALA:H	1.71	0.56
33:BW:108:LYS:HD2	33:BW:110:ARG:HH21	1.70	0.56
3:C2:51:ILE:HD13	3:C2:65:ALA:HA	1.87	0.56
12:CB:64:GLN:HE22	15:CE:246:GLU:HG2	1.70	0.56
18:CH:30:VAL:HG21	18:CH:61:VAL:HG23	1.86	0.56
26:CP:55:VAL:HG13	26:CP:58:PHE:CE1	2.41	0.56
33:CW:249:THR:HG22	33:CW:251:LEU:H	1.71	0.56
5:D4:35:ARG:O	5:D4:101:THR:OG1	2.24	0.56
11:DA:229:A:H1'	11:DA:230:A:C8	2.40	0.56
15:DE:213:LYS:O	15:DE:217:TYR:HD1	1.89	0.56
17:DG:44:VAL:HG12	17:DG:46:HIS:H	1.70	0.56
11:AA:550:G:OP1	34:AX:59:SER:OG	2.15	0.55
17:AG:45:PRO:HB2	17:AG:68:ILE:HD12	1.88	0.55
23:AM:28:THR:HG23	23:AM:58:ALA:HA	1.89	0.55
29:AS:127:THR:HG22	29:AS:128:TYR:HD2	1.71	0.55
33:AW:89:MET:HE3	33:AW:104:LEU:HD21	1.87	0.55
34:AX:53:ASP:OD1	34:AX:53:ASP:N	2.37	0.55
5:B4:35:ARG:O	5:B4:101:THR:OG1	2.23	0.55
11:BA:239:A:C8	11:BA:239:A:OP2	2.59	0.55
11:BA:312:C:H4'	11:BA:313:G:OP1	2.05	0.55
11:BA:1051:G:O6	39:BA:6096:HOH:O	2.18	0.55
11:BA:1659:C:H5'	11:BA:1660:A:OP2	2.06	0.55
15:BE:103:VAL:HG11	15:BE:130:ILE:HA	1.88	0.55
25:BO:5:GLN:NE2	25:BO:123:ARG:HE	2.04	0.55
27:BQ:96:TYR:O	27:BQ:98:ARG:HG2	2.07	0.55
31:BU:47:ALA:HB1	31:BU:76:ARG:HG2	1.88	0.55
1:C0:62:GLY:N	11:CA:560:C:OP1	2.31	0.55
3:C2:25:ARG:O	3:C2:28:GLU:HG2	2.06	0.55
4:C3:197:LYS:N	11:CA:1029:G:OP1	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C5:75:TYR:HB3	6:C5:80:ALA:HB2	1.89	0.55
11:CA:62:G:H4'	11:CA:164:U:C5	2.41	0.55
11:CA:840:A:H62	25:CO:72:LYS:HZ3	1.53	0.55
11:CA:1395:A:H5"	11:CA:1396:A:OP2	2.06	0.55
15:CE:143:GLY:N	15:CE:154:THR:O	2.35	0.55
29:CS:127:THR:HG22	29:CS:128:TYR:HD2	1.69	0.55
35:CY:162:ARG:NH1	35:CY:176:CYS:SG	2.79	0.55
11:DA:573:A:O2'	11:DA:574:A:OP1	2.22	0.55
11:DA:1001:A:HO2'	11:DA:1002:U:P	2.25	0.55
11:DA:1526:G:H5'	11:DA:1527:A:OP2	2.06	0.55
28:DR:102:LEU:O	28:DR:111:TYR:N	2.32	0.55
28:DR:171:SER:OG	28:DR:186:TYR:O	2.19	0.55
11:AA:209:G:C4'	11:AA:210:A:H5'	2.34	0.55
26:AP:13:ASN:HD22	26:AP:20:GLN:NE2	2.04	0.55
5:B4:128:VAL:HG22	5:B4:175:ASN:ND2	2.21	0.55
11:BA:771:A:H5"	11:BA:772:A:O5'	2.06	0.55
11:BA:1454:A:H4'	19:BI:73:GLY:O	2.06	0.55
22:BL:17:ARG:HH11	22:BL:20:LYS:HG2	1.70	0.55
28:BR:81:ASP:N	28:BR:94:SER:OG	2.38	0.55
28:BR:233:LYS:NZ	32:BV:24:LEU:O	2.29	0.55
33:BW:254:ARG:NH1	33:BW:260:TYR:CG	2.74	0.55
5:C4:35:ARG:O	5:C4:101:THR:OG1	2.25	0.55
7:C6:31:MET:HE1	7:C6:71:ILE:HD11	1.88	0.55
30:CT:89:ARG:NH1	30:CT:92:LEU:HB3	2.22	0.55
30:CT:119:LYS:HD3	30:CT:128:PHE:HB3	1.88	0.55
32:CV:58:MET:O	32:CV:62:GLN:HG2	2.06	0.55
33:CW:130:ALA:H	33:CW:142:VAL:HG12	1.71	0.55
7:D6:5:LEU:HD12	18:DH:24:GLN:HG3	1.88	0.55
9:D8:96:VAL:HB	9:D8:104:VAL:HG12	1.86	0.55
11:DA:1033:A:H4'	11:DA:1034:A:OP2	2.05	0.55
11:DA:1452:G:O4'	11:DA:1452:G:OP2	2.24	0.55
11:DA:1660:A:H5'	11:DA:1661:G:OP2	2.05	0.55
12:DB:123:PRO:HD3	12:DB:143:LEU:O	2.07	0.55
14:DD:120:ASN:H	14:DD:124:HIS:CD2	2.24	0.55
33:DW:249:THR:HG22	33:DW:251:LEU:H	1.71	0.55
2:A1:24:ILE:HD11	17:AG:121:THR:HB	1.88	0.55
11:AA:470:G:H5'	34:AX:34:ARG:NH2	2.20	0.55
11:AA:1164:C:OP2	11:AA:1165:A:O2'	2.15	0.55
11:AA:1319:U:O2	11:AA:1488:A:H2'	2.07	0.55
18:AH:106:THR:HG21	18:AH:121:THR:HB	1.87	0.55
28:AR:102:LEU:O	28:AR:111:TYR:N	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AT:89:ARG:NH1	30:AT:92:LEU:HB3	2.21	0.55
10:B9:80:TYR:HE2	10:B9:83:LYS:NZ	2.05	0.55
11:BA:984:C:H5"	11:BA:985:C:OP2	2.05	0.55
11:BA:1712:C:O2	11:BA:1733:G:N2	2.28	0.55
11:CA:312:C:H4'	11:CA:313:G:OP1	2.03	0.55
11:CA:534:A:H3'	11:CA:534:A:N3	2.22	0.55
11:CA:679:U:H4'	11:CA:680:U:OP1	2.06	0.55
11:CA:912:A:HO2'	11:CA:913:U:P	2.30	0.55
13:DC:34:ASP:HB3	13:DC:60:GLN:HE22	1.71	0.55
13:DC:146:LYS:HG2	13:DC:147:GLN:HB2	1.88	0.55
17:DG:45:PRO:HB2	17:DG:68:ILE:HD12	1.88	0.55
26:DP:14:PRO:HG3	33:DW:97:THR:HG23	1.87	0.55
10:A9:88:HIS:CE1	11:AA:1220:C:OP2	2.59	0.55
11:AA:912:A:HO2'	11:AA:913:U:P	2.30	0.55
11:AA:1391:C:OP1	24:AN:53:LYS:NZ	2.33	0.55
22:AL:31:LYS:O	22:AL:36:SER:HB2	2.06	0.55
29:AS:25:ALA:HB1	29:AS:93:GLU:OE2	2.05	0.55
35:AY:137:ARG:HG2	35:AY:181:ARG:HG3	1.87	0.55
11:BA:14:C:O5'	15:BE:165:SER:HB3	2.06	0.55
11:BA:1751:U:H4'	11:BA:1752:U:OP1	2.06	0.55
17:BG:73:PHE:HB2	17:BG:154:ARG:NH2	2.21	0.55
8:C7:16:LEU:O	8:C7:20:GLY:N	2.38	0.55
11:CA:879:G:N2	21:CK:68:GLU:OE1	2.37	0.55
14:CD:77:LEU:HD13	14:CD:91:ARG:O	2.06	0.55
18:CH:68:ARG:NH2	36:CZ:8:GLN:HG3	2.22	0.55
6:D5:75:TYR:HB3	6:D5:80:ALA:HB2	1.89	0.55
7:D6:33:VAL:HG21	7:D6:44:ILE:HD12	1.87	0.55
10:D9:108:LYS:HG2	31:DU:65:LYS:NZ	2.21	0.55
11:DA:628:G:H4'	18:DH:4:VAL:HG13	1.87	0.55
11:DA:765:A:C5	26:DP:19:ARG:NH1	2.74	0.55
11:DA:986:G:H5"	39:DA:7879:HOH:O	2.07	0.55
11:DA:1383:G:O2'	11:DA:1384:U:OP2	2.22	0.55
28:DR:51:VAL:HB	28:DR:72:LEU:HB2	1.89	0.55
5:A4:49:LEU:O	21:AK:51:GLU:HG3	2.06	0.55
11:AA:76:A:H4'	11:AA:77:G:OP2	2.07	0.55
11:AA:1751:U:H4'	11:AA:1752:U:OP1	2.06	0.55
7:B6:18:LYS:NZ	11:BA:936:U:H5'	2.22	0.55
9:B8:96:VAL:HB	9:B8:104:VAL:HG12	1.87	0.55
11:BA:1452:G:H8	11:BA:1452:G:H5"	1.70	0.55
14:BD:77:LEU:HD13	14:BD:91:ARG:O	2.07	0.55
15:BE:45:LEU:HG	15:BE:49:PHE:HE2	1.70	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BW:47:LEU:HD11	33:BW:113:LEU:HD11	1.89	0.55
33:BW:88:LEU:HG	33:BW:89:MET:HG2	1.88	0.55
5:C4:90:VAL:HG11	5:C4:226:ARG:HH12	1.71	0.55
5:C4:238:TYR:O	5:C4:240:HIS:N	2.40	0.55
11:CA:59:C:H5'	11:CA:447:C:N4	2.21	0.55
11:CA:209:G:C5'	11:CA:210:A:H5'	2.37	0.55
11:CA:1360:U:H5"	32:CV:3:ARG:NH1	2.21	0.55
13:CC:34:ASP:HB3	13:CC:60:GLN:NE2	2.22	0.55
35:CY:184:THR:HB	35:CY:185:PRO:HD2	1.89	0.55
11:DA:211:U:H3	11:DA:238:G:N2	2.04	0.55
11:DA:1358:A:H4'	11:DA:1359:C:O5'	2.07	0.55
11:DA:1373:G:OP1	32:DV:4:VAL:HA	2.07	0.55
27:DQ:37:ILE:HD11	27:DQ:59:PHE:CE1	2.42	0.55
30:DT:132:ILE:HD12	30:DT:137:MET:HB2	1.89	0.55
11:AA:1370:U:H2'	11:AA:1370:U:OP2	2.06	0.55
11:AA:1507:U:C6	17:AG:161:MET:HG2	2.42	0.55
11:BA:1032:U:H3	11:BA:1035:A:N6	1.98	0.55
11:CA:268:G:H2'	11:CA:269:G:O4'	2.07	0.55
11:CA:1445:G:H2'	11:CA:1446:A:C8	2.42	0.55
11:DA:661:G:H3'	11:DA:662:U:C6	2.41	0.55
11:DA:1342:U:H4'	11:DA:1343:G:OP1	2.07	0.55
18:DH:68:ARG:NH2	36:DZ:8:GLN:HG3	2.21	0.55
18:DH:80:ASP:HA	18:DH:123:GLY:O	2.07	0.55
30:DT:119:LYS:HD3	30:DT:128:PHE:HB3	1.88	0.55
8:A7:29:GLU:OE2	24:AN:7:ARG:NH1	2.40	0.55
14:AD:80:MET:HG3	14:AD:85:LEU:HB2	1.88	0.55
16:AF:51:TRP:HE3	16:AF:73:LEU:HD21	1.72	0.55
27:AQ:88:ASP:HB3	27:AQ:154:PHE:CE2	2.42	0.55
28:AR:51:VAL:HB	28:AR:72:LEU:HB2	1.89	0.55
31:AU:47:ALA:HB1	31:AU:76:ARG:HG2	1.87	0.55
3:B2:51:ILE:HD13	3:B2:65:ALA:HA	1.89	0.55
7:B6:33:VAL:HG21	7:B6:44:ILE:HD12	1.88	0.55
11:BA:331:U:H2'	11:BA:332:A:C8	2.41	0.55
11:BA:1428:C:OP1	39:BA:6550:HOH:O	2.18	0.55
11:BA:1564:A:H2'	11:BA:1565:A:C8	2.42	0.55
17:BG:45:PRO:HB2	17:BG:68:ILE:HD12	1.89	0.55
19:BI:33:VAL:HA	19:BI:69:ILE:O	2.07	0.55
27:BQ:37:ILE:HD11	27:BQ:59:PHE:CE1	2.41	0.55
30:BT:124:ALA:O	30:BT:127:LYS:HE2	2.06	0.55
2:C1:65:ARG:NH1	17:CG:125:THR:HG21	2.22	0.55
5:C4:106:LEU:HB2	5:C4:221:VAL:HB	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:1247:A:H3'	11:CA:1248:U:H5"	1.88	0.55
15:CE:158:LYS:HG2	15:CE:171:VAL:HG22	1.88	0.55
18:CH:106:THR:HG21	18:CH:121:THR:HB	1.88	0.55
23:CM:119:ILE:HG23	29:CS:124:PHE:HE2	1.72	0.55
11:DA:268:G:H2'	11:DA:269:G:O4'	2.07	0.55
11:DA:738:A:O2'	11:DA:739:A:OP1	2.24	0.55
11:DA:1395:A:H5"	11:DA:1396:A:OP2	2.07	0.55
11:DA:1752:U:HO2'	11:DA:1753:A:P	2.29	0.55
27:DQ:96:TYR:O	27:DQ:98:ARG:HG2	2.06	0.55
11:AA:128:A:H2'	11:AA:129:G:O4'	2.06	0.55
17:AG:68:ILE:HA	17:AG:71:LEU:HD12	1.89	0.55
23:AM:90:ASN:OD1	29:AS:14:ARG:NH1	2.40	0.55
25:AO:101:ARG:HH11	25:AO:101:ARG:HG3	1.72	0.55
30:AT:132:ILE:HD12	30:AT:137:MET:HB2	1.89	0.55
11:BA:466:A:H4'	14:BD:130:ARG:NH1	2.22	0.55
11:BA:676:C:HO2'	11:BA:677:G:P	2.30	0.55
11:BA:1123:G:H3'	11:BA:1721:G:H21	1.71	0.55
11:BA:1538:U:H5'	23:BM:39:GLY:N	2.22	0.55
26:BP:14:PRO:HG3	33:BW:97:THR:HG23	1.88	0.55
30:BT:89:ARG:NH1	30:BT:92:LEU:HB3	2.22	0.55
11:CA:680:U:HO2'	11:CA:681:G:P	2.28	0.55
11:CA:1147:U:O4	23:CM:140:THR:HG21	2.06	0.55
11:CA:1355:G:H21	28:CR:76:ASN:HD21	1.54	0.55
15:CE:45:LEU:HG	15:CE:49:PHE:CE2	2.42	0.55
36:CZ:41:SER:OG	36:CZ:42:ASN:N	2.40	0.55
5:D4:109:THR:HG22	21:DK:130:GLU:HG3	1.89	0.55
7:D6:65:THR:HB	7:D6:68:LYS:HG3	1.89	0.55
11:DA:1223:U:O2'	11:DA:1224:C:O5'	2.25	0.55
11:DA:1751:U:H4'	11:DA:1752:U:OP1	2.06	0.55
13:DC:34:ASP:HB3	13:DC:60:GLN:NE2	2.22	0.55
14:DD:159:ALA:O	14:DD:165:GLY:HA3	2.06	0.55
5:A4:95:ASP:O	5:A4:98:ASN:ND2	2.39	0.55
10:A9:94:LYS:HB2	11:AA:1201:G:OP1	2.07	0.55
11:AA:1489:U:H5'	11:AA:1490:C:H5	1.72	0.55
11:AA:1556:G:O2'	11:AA:1557:U:OP2	2.25	0.55
33:AW:212:VAL:HB	33:AW:220:PHE:HB2	1.88	0.55
36:AZ:41:SER:OG	36:AZ:42:ASN:N	2.39	0.55
6:B5:75:TYR:HB3	6:B5:80:ALA:HB2	1.89	0.55
11:BA:1551:U:H2'	11:BA:1552:U:C6	2.42	0.55
12:BB:123:PRO:HD3	12:BB:143:LEU:O	2.07	0.55
21:BK:82:VAL:HG11	21:BK:122:SER:HB3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BM:87:ASN:OD1	23:BM:99:GLN:NE2	2.39	0.55
25:BO:95:LYS:HB2	25:BO:153:GLN:NE2	2.22	0.55
10:C9:80:TYR:HE2	10:C9:83:LYS:NZ	2.05	0.55
11:CA:61:A:H5"	11:CA:62:G:OP1	2.07	0.55
11:CA:882:G:H2'	11:CA:883:A:O4'	2.07	0.55
11:CA:1564:A:H2'	11:CA:1565:A:C8	2.42	0.55
15:CE:45:LEU:HG	15:CE:49:PHE:HE2	1.72	0.55
15:CE:141:ARG:HB2	15:CE:223:TYR:CD1	2.42	0.55
35:CY:58:LYS:HG2	35:CY:105:ASP:O	2.07	0.55
11:DA:76:A:H4'	11:DA:77:G:OP2	2.06	0.55
11:DA:654:U:H1'	11:DA:656:G:N2	2.17	0.55
11:DA:771:A:P	33:DW:110:ARG:HH22	2.29	0.55
11:DA:1123:G:H3'	11:DA:1721:G:H21	1.72	0.55
15:DE:228:PRO:HA	15:DE:231:TRP:NE1	2.21	0.55
8:A7:61:TRP:CE2	24:AN:22:VAL:HG22	2.42	0.55
10:A9:103:LEU:HD12	31:AU:57:LYS:HB3	1.88	0.55
11:AA:268:G:H2'	11:AA:269:G:O4'	2.06	0.55
11:AA:658:C:H2'	11:AA:659:G:H8	1.71	0.55
18:AH:68:ARG:NH2	36:AZ:8:GLN:HG3	2.22	0.55
19:AI:112:MET:HE3	19:AI:116:ARG:HG3	1.89	0.55
33:AW:108:LYS:HD2	33:AW:110:ARG:HH21	1.71	0.55
7:B6:31:MET:HE1	7:B6:71:ILE:HD11	1.88	0.55
11:BA:765:A:N3	26:BP:19:ARG:HD3	2.22	0.55
11:BA:1286:U:O2'	11:BA:1287:U:OP2	2.20	0.55
11:BA:1342:U:H4'	11:BA:1343:G:OP1	2.07	0.55
11:BA:1556:G:O2'	11:BA:1557:U:OP2	2.24	0.55
12:BB:106:ASN:O	12:BB:109:THR:HG22	2.07	0.55
23:BM:28:THR:HG23	23:BM:58:ALA:HA	1.89	0.55
28:BR:51:VAL:HB	28:BR:72:LEU:HB2	1.89	0.55
33:BW:89:MET:HE3	33:BW:104:LEU:HD21	1.88	0.55
8:C7:13:TYR:HD1	8:C7:76:LEU:HD22	1.72	0.55
9:C8:99:ASN:HD22	17:CG:90:ASN:HD21	1.54	0.55
11:CA:29:G:H2'	11:CA:30:C:C6	2.42	0.55
11:CA:1017:C:H4'	11:CA:1017:C:OP1	2.06	0.55
11:CA:1172:G:H4'	11:CA:1173:G:C5'	2.37	0.55
33:CW:129:THR:HB	33:CW:142:VAL:HG12	1.89	0.55
5:D4:238:TYR:O	5:D4:240:HIS:N	2.39	0.55
11:DA:1190:G:C4	11:DA:1415:A:C6	2.95	0.55
11:DA:1206:A:OP2	11:DA:1217:G:O2'	2.25	0.55
14:DD:77:LEU:HD13	14:DD:91:ARG:O	2.07	0.55
19:DI:33:VAL:HA	19:DI:69:ILE:O	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:DK:82:VAL:HG11	21:DK:122:SER:HB3	1.88	0.55
35:DY:64:LYS:NZ	35:DY:82:SER:H	2.04	0.55
3:A2:56:VAL:HG13	11:AA:324:A:H5'	1.89	0.54
4:A3:145:LEU:HA	18:AH:42:GLN:HE21	1.72	0.54
11:AA:1200:G:OP1	31:AU:101:SER:N	2.40	0.54
11:AA:1358:A:H4'	11:AA:1359:C:O5'	2.06	0.54
13:AC:34:ASP:HB3	13:AC:60:GLN:NE2	2.22	0.54
15:AE:45:LEU:HG	15:AE:49:PHE:HE2	1.71	0.54
17:AG:44:VAL:HG12	17:AG:46:HIS:H	1.71	0.54
28:AR:283:LEU:HB2	28:AR:284:MET:HE2	1.87	0.54
11:BA:437:A:OP1	39:BA:6460:HOH:O	2.18	0.54
14:BD:159:ALA:O	14:BD:165:GLY:HA3	2.07	0.54
35:BY:189:LEU:O	35:BY:193:VAL:HG23	2.07	0.54
3:C2:150:ARG:NH2	11:CA:181:G:OP1	2.35	0.54
5:C4:37:PRO:HG3	5:C4:101:THR:O	2.07	0.54
7:C6:33:VAL:HG21	7:C6:44:ILE:HD12	1.88	0.54
10:C9:88:HIS:NE2	11:CA:1220:C:OP2	2.39	0.54
11:CA:76:A:H4'	11:CA:77:G:OP2	2.07	0.54
11:CA:984:C:H5"	11:CA:985:C:OP2	2.06	0.54
11:CA:1370:U:H2'	11:CA:1370:U:OP2	2.07	0.54
22:CL:31:LYS:O	22:CL:36:SER:HB2	2.07	0.54
22:CL:73:VAL:HB	22:CL:82:ILE:HG22	1.87	0.54
28:CR:72:LEU:HB3	28:CR:103:TRP:CZ3	2.42	0.54
35:CY:198:LYS:HA	35:CY:201:ARG:HD2	1.88	0.54
6:D5:97:ARG:C	6:D5:99:PRO:HD3	2.32	0.54
11:DA:70:U:OP2	35:DY:173:ARG:NH2	2.40	0.54
11:DA:1019:G:H2'	11:DA:1020:G:C8	2.42	0.54
11:DA:1123:G:H3'	11:DA:1721:G:N2	2.22	0.54
19:DI:46:LEU:O	19:DI:49:LYS:HB2	2.06	0.54
21:DK:101:GLY:HA3	21:DK:134:PRO:HG2	1.89	0.54
36:DZ:32:CYS:HA	36:DZ:68:VAL:HG12	1.89	0.54
10:A9:80:TYR:HE2	10:A9:83:LYS:NZ	2.05	0.54
20:AJ:79:ARG:HG2	24:AN:55:ARG:HB3	1.88	0.54
1:B0:61:CYS:HB3	1:B0:64:LEU:H	1.72	0.54
5:B4:200:THR:HG23	5:B4:216:ILE:HB	1.88	0.54
11:BA:1551:U:H4'	19:BI:142:LYS:O	2.07	0.54
18:BH:106:THR:HG21	18:BH:121:THR:HB	1.90	0.54
33:BW:155:GLU:HG3	35:BY:219:TRP:CZ2	2.41	0.54
11:CA:213:U:H4'	11:CA:214:U:H5'	1.90	0.54
3:D2:51:ILE:HD13	3:D2:65:ALA:HA	1.88	0.54
7:D6:34:LYS:HZ3	7:D6:78:LYS:HE3	1.69	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D6:66:GLY:O	11:DA:1026:C:H4'	2.07	0.54
10:D9:143:ILE:HG12	10:D9:144:ASP:H	1.71	0.54
11:DA:1146:C:OP1	23:DM:136:GLN:HB2	2.07	0.54
11:DA:1564:A:H2'	11:DA:1565:A:C8	2.41	0.54
25:DO:5:GLN:NE2	25:DO:123:ARG:HE	2.06	0.54
15:AE:141:ARG:HB2	15:AE:223:TYR:CD1	2.42	0.54
21:AK:82:VAL:HG11	21:AK:122:SER:HB3	1.89	0.54
5:B4:140:VAL:HG12	5:B4:221:VAL:HG22	1.90	0.54
8:B7:13:TYR:HD1	8:B7:76:LEU:HD22	1.72	0.54
11:BA:1033:A:H4'	11:BA:1034:A:OP2	2.08	0.54
11:BA:1452:G:H1'	30:BT:71:LYS:HE2	1.88	0.54
13:BC:34:ASP:HB3	13:BC:60:GLN:NE2	2.22	0.54
6:C5:87:ARG:NH1	11:CA:1126:C:P	2.80	0.54
11:CA:90:U:O2'	33:CW:8:HIS:HD2	1.90	0.54
13:CC:146:LYS:HG2	13:CC:147:GLN:HB2	1.89	0.54
15:CE:36:LEU:HD13	15:CE:248:LEU:HD21	1.89	0.54
15:CE:185:PRO:HD3	15:CE:211:PHE:CE2	2.42	0.54
21:CK:82:VAL:HG11	21:CK:122:SER:HB3	1.89	0.54
25:CO:5:GLN:NE2	25:CO:123:ARG:HE	2.05	0.54
28:CR:74:GLY:HA3	28:CR:101:ARG:NH1	2.22	0.54
35:CY:137:ARG:HG2	35:CY:181:ARG:HG3	1.89	0.54
15:DE:158:LYS:HG2	15:DE:171:VAL:HG22	1.88	0.54
32:DV:46:LEU:HD22	32:DV:50:ILE:HD11	1.89	0.54
11:AA:59:C:N4	11:AA:62:G:OP2	2.36	0.54
11:AA:61:A:H5"	11:AA:62:G:OP1	2.08	0.54
11:AA:190:G:H2'	11:AA:191:A:C8	2.42	0.54
11:AA:1001:A:HO2'	11:AA:1002:U:P	2.30	0.54
11:AA:1262:U:H2'	11:AA:1263:G:C8	2.42	0.54
6:B5:97:ARG:C	6:B5:99:PRO:HD3	2.33	0.54
11:BA:378:A:OP2	11:BA:378:A:C8	2.53	0.54
11:BA:660:U:H2'	11:BA:661:G:O4'	2.07	0.54
11:BA:1206:A:OP2	11:BA:1217:G:O2'	2.24	0.54
11:BA:1223:U:O2'	11:BA:1224:C:O5'	2.26	0.54
25:BO:148:ALA:HA	25:BO:151:LEU:HD12	1.90	0.54
6:C5:97:ARG:C	6:C5:99:PRO:HD3	2.32	0.54
11:CA:1551:U:H2'	11:CA:1552:U:C6	2.42	0.54
14:CD:120:ASN:H	14:CD:124:HIS:CD2	2.25	0.54
19:CI:46:LEU:O	19:CI:49:LYS:HB2	2.06	0.54
26:CP:13:ASN:HD22	26:CP:20:GLN:NE2	2.06	0.54
26:CP:76:ASN:OD1	26:CP:77:GLN:N	2.40	0.54
33:CW:254:ARG:NH1	33:CW:260:TYR:CG	2.75	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:840:A:O2'	11:DA:841:A:O5'	2.26	0.54
26:DP:131:THR:HG23	26:DP:134:SER:H	1.71	0.54
28:DR:74:GLY:HA3	28:DR:101:ARG:NH1	2.22	0.54
28:DR:283:LEU:HB2	28:DR:284:MET:HE2	1.87	0.54
10:A9:88:HIS:CD2	11:AA:1219:U:OP2	2.61	0.54
10:A9:106:ASN:HB3	10:A9:108:LYS:HG3	1.90	0.54
11:AA:845:G:H5"	25:AO:4:MET:HE2	1.89	0.54
35:AY:98:ARG:HD2	35:AY:99:GLY:H	1.71	0.54
3:B2:25:ARG:O	3:B2:28:GLU:HG2	2.07	0.54
11:BA:1419:G:OP1	39:BA:6514:HOH:O	2.17	0.54
17:BG:117:ARG:O	17:BG:136:VAL:N	2.38	0.54
35:BY:58:LYS:HG2	35:BY:105:ASP:O	2.07	0.54
35:BY:198:LYS:HA	35:BY:201:ARG:HD2	1.89	0.54
9:C8:45:ILE:O	23:CM:4:VAL:HA	2.08	0.54
10:C9:106:ASN:HB3	10:C9:108:LYS:HG3	1.90	0.54
11:CA:1370:U:H4'	11:CA:1371:A:H5'	1.90	0.54
11:CA:1454:A:H4'	19:CI:73:GLY:O	2.07	0.54
11:CA:1538:U:H5'	23:CM:39:GLY:H	1.73	0.54
17:CG:83:LEU:O	17:CG:87:VAL:HG23	2.06	0.54
19:CI:112:MET:HE3	19:CI:116:ARG:HG3	1.90	0.54
28:CR:51:VAL:HB	28:CR:72:LEU:HB2	1.90	0.54
35:CY:7:TYR:HB2	35:CY:113:ILE:HB	1.89	0.54
11:DA:234:G:H2'	11:DA:235:A:C8	2.42	0.54
6:A5:81:ILE:HD11	11:AA:1748:U:H5'	1.90	0.54
8:A7:16:LEU:O	8:A7:20:GLY:N	2.39	0.54
11:AA:866:U:O2	11:AA:966:A:O2'	2.26	0.54
11:AA:1200:G:OP2	31:AU:28:GLY:HA2	2.07	0.54
11:AA:1450:G:P	30:AT:60:ARG:NH1	2.80	0.54
11:AA:1551:U:H4'	19:AI:142:LYS:O	2.07	0.54
13:AC:34:ASP:HB3	13:AC:60:GLN:HE22	1.72	0.54
14:AD:71:PHE:CE1	33:AW:254:ARG:HD3	2.42	0.54
25:AO:101:ARG:HG3	25:AO:101:ARG:NH1	2.22	0.54
33:AW:160:ASP:CG	33:AW:176:HIS:HB3	2.32	0.54
12:BB:60:ILE:HG23	12:BB:69:VAL:HG21	1.89	0.54
26:BP:76:ASN:OD1	26:BP:77:GLN:N	2.41	0.54
1:C0:101:ASN:ND2	10:C9:77:LYS:NZ	2.55	0.54
4:C3:103:LYS:HA	4:C3:113:ARG:HH12	1.70	0.54
11:CA:45:A:N1	11:CA:424:A:O2'	2.36	0.54
11:CA:332:A:H2'	11:CA:333:C:C6	2.43	0.54
11:CA:1452:G:O4'	11:CA:1452:G:OP2	2.26	0.54
14:CD:159:ALA:O	14:CD:165:GLY:HA3	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CG:45:PRO:HB2	17:CG:68:ILE:HD12	1.88	0.54
7:D6:63:LYS:HD3	7:D6:72:GLN:NE2	2.23	0.54
9:D8:40:ASN:HB2	23:DM:25:LYS:NZ	2.22	0.54
12:DB:134:SER:HB2	12:DB:152:TYR:CD2	2.42	0.54
14:DD:120:ASN:H	14:DD:124:HIS:HD2	1.55	0.54
17:DG:68:ILE:HA	17:DG:71:LEU:HD12	1.90	0.54
11:AA:149:U:OP1	35:AY:107:ARG:HG2	2.07	0.54
11:AA:318:U:O2'	27:AQ:6:GLN:HG2	2.07	0.54
11:AA:1206:A:OP2	11:AA:1217:G:O2'	2.25	0.54
11:AA:1395:A:H5"	11:AA:1396:A:OP2	2.07	0.54
11:AA:1526:G:H5'	11:AA:1527:A:OP2	2.08	0.54
39:AA:2353:HOH:O	26:AP:86:ASN:HB2	2.08	0.54
2:B1:24:ILE:HD11	17:BG:121:THR:HB	1.90	0.54
11:BA:231:U:H2'	11:BA:232:G:C4'	2.38	0.54
11:BA:517:U:O2'	11:BA:519:A:N7	2.39	0.54
11:BA:726:U:H5"	11:BA:727:U:OP2	2.07	0.54
11:BA:1019:G:H2'	11:BA:1020:G:C8	2.43	0.54
11:BA:1228:A:C8	11:BA:1228:A:H5"	2.43	0.54
12:BB:25:LEU:HD22	12:BB:33:ILE:HD13	1.90	0.54
14:BD:120:ASN:H	14:BD:124:HIS:CD2	2.25	0.54
27:BQ:88:ASP:HB3	27:BQ:154:PHE:CE2	2.43	0.54
31:BU:75:LYS:O	31:BU:78:SER:OG	2.25	0.54
11:CA:1428:C:HO2'	11:CA:1429:G:P	2.30	0.54
11:CA:1555:A:H5'	19:CI:137:ARG:HH12	1.72	0.54
11:CA:1751:U:H4'	11:CA:1752:U:OP1	2.08	0.54
25:CO:148:ALA:HA	25:CO:151:LEU:HD12	1.89	0.54
8:D7:3:HIS:CE1	11:DA:1229:U:C4	2.96	0.54
11:DA:1172:G:H4'	11:DA:1173:G:C5'	2.37	0.54
15:DE:158:LYS:HG3	18:DH:95:PRO:O	2.07	0.54
26:DP:13:ASN:HD22	26:DP:20:GLN:NE2	2.06	0.54
33:DW:52:LEU:HD21	33:DW:113:LEU:HD12	1.88	0.54
6:A5:97:ARG:C	6:A5:99:PRO:HD3	2.32	0.54
11:AA:238:G:O2'	11:AA:238:G:N3	2.38	0.54
11:AA:1370:U:H4'	11:AA:1371:A:H5'	1.90	0.54
11:AA:1555:A:H5'	19:AI:137:ARG:HH12	1.72	0.54
13:AC:146:LYS:HG2	13:AC:147:GLN:HB2	1.89	0.54
19:AI:33:VAL:HA	19:AI:69:ILE:O	2.08	0.54
11:BA:190:G:H2'	11:BA:191:A:C8	2.41	0.54
11:BA:469:A:H2	11:BA:505:A:C2	2.25	0.54
11:BA:1383:G:O2'	11:BA:1384:U:OP2	2.25	0.54
11:BA:1445:G:H2'	11:BA:1446:A:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BD:49:LEU:O	14:BD:53:ARG:HG3	2.08	0.54
33:BW:129:THR:HB	33:BW:142:VAL:HG12	1.89	0.54
11:CA:771:A:H4'	11:CA:772:A:OP2	2.08	0.54
11:CA:1212:U:H1'	11:CA:1216:A:H62	1.73	0.54
11:CA:1302:G:N2	32:CV:8:THR:OG1	2.38	0.54
11:CA:1531:G:C4	23:CM:134:ARG:HD2	2.43	0.54
11:CA:1556:G:O2'	11:CA:1557:U:OP2	2.25	0.54
14:CD:71:PHE:CE1	33:CW:254:ARG:HD3	2.42	0.54
20:CJ:41:ARG:HB3	20:CJ:101:ILE:HG23	1.90	0.54
33:CW:89:MET:HE3	33:CW:104:LEU:HD21	1.88	0.54
8:D7:74:GLU:OE1	8:D7:77:LYS:NZ	2.30	0.54
10:D9:80:TYR:HE2	10:D9:83:LYS:NZ	2.05	0.54
11:DA:754:A:O2'	14:DD:9:SER:OG	2.17	0.54
11:DA:1517:A:OP1	23:DM:133:VAL:N	2.39	0.54
11:DA:1551:U:H2'	11:DA:1552:U:C6	2.43	0.54
12:DB:60:ILE:HG23	12:DB:69:VAL:HG21	1.89	0.54
6:A5:75:TYR:HB3	6:A5:80:ALA:HB2	1.88	0.54
11:AA:879:G:H22	21:AK:68:GLU:CD	2.15	0.54
11:AA:1347:U:O2'	11:AA:1348:U:OP2	2.23	0.54
13:AC:201:LYS:HB2	13:AC:203:PHE:HD2	1.72	0.54
15:AE:213:LYS:O	15:AE:217:TYR:HD1	1.91	0.54
21:AK:43:HIS:CD2	21:AK:55:ARG:HG3	2.43	0.54
28:AR:193:ASP:OD1	28:AR:193:ASP:N	2.37	0.54
6:B5:4:LYS:NZ	11:BA:1747:A:OP2	2.41	0.54
10:B9:94:LYS:HB2	11:BA:1201:G:OP1	2.08	0.54
11:BA:468:U:H5"	11:BA:469:A:O4'	2.07	0.54
11:BA:479:G:H2'	11:BA:480:A:C8	2.43	0.54
11:BA:649:U:O4'	11:BA:661:G:N2	2.41	0.54
11:BA:762:U:H5	26:BP:6:ARG:CZ	2.21	0.54
11:BA:883:A:H5'	21:BK:66:ARG:HB3	1.89	0.54
15:BE:180:VAL:O	15:BE:199:THR:HB	2.08	0.54
17:BG:44:VAL:HG12	17:BG:46:HIS:H	1.73	0.54
21:BK:101:GLY:HA3	21:BK:134:PRO:HG2	1.90	0.54
30:BT:119:LYS:HD3	30:BT:128:PHE:HB3	1.90	0.54
11:CA:622:G:H5'	25:CO:122:SER:OG	2.08	0.54
33:CW:89:MET:HE2	33:CW:89:MET:HA	1.90	0.54
5:D4:90:VAL:HG11	5:D4:226:ARG:HH12	1.71	0.54
9:D8:43:VAL:CG2	23:DM:25:LYS:HB2	2.34	0.54
11:DA:882:G:H2'	11:DA:883:A:O4'	2.08	0.54
11:DA:1083:G:O2'	11:DA:1705:A:H5"	2.08	0.54
15:DE:45:LEU:HG	15:DE:49:PHE:HE2	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DY:58:LYS:HG2	35:DY:105:ASP:O	2.08	0.54
3:A2:105:VAL:O	3:A2:108:SER:HB2	2.08	0.54
11:AA:1069:U:H4'	11:AA:1070:U:H5"	1.90	0.54
11:AA:1355:G:H21	28:AR:76:ASN:HD21	1.55	0.54
11:AA:1531:G:C4	23:AM:134:ARG:HD2	2.43	0.54
11:AA:1551:U:H2'	11:AA:1552:U:C6	2.43	0.54
18:AH:80:ASP:HA	18:AH:123:GLY:O	2.08	0.54
20:AJ:78:ASP:OD1	24:AN:53:LYS:HD2	2.08	0.54
5:B4:49:LEU:HD23	21:BK:51:GLU:HB3	1.89	0.54
11:BA:29:G:H2'	11:BA:30:C:C6	2.43	0.54
11:BA:470:G:H5'	34:BX:34:ARG:NH2	2.23	0.54
11:BA:845:G:H5"	25:BO:4:MET:HE2	1.90	0.54
11:BA:1501:C:OP2	17:BG:86:LYS:NZ	2.41	0.54
11:CA:332:A:H2'	11:CA:333:C:H6	1.73	0.54
11:CA:1019:G:H2'	11:CA:1020:G:C8	2.43	0.54
26:CP:53:VAL:HG22	26:CP:73:VAL:HG22	1.90	0.54
4:D3:101:GLU:HB2	4:D3:113:ARG:HG3	1.90	0.54
11:DA:29:G:H2'	11:DA:30:C:C6	2.43	0.54
11:DA:232:G:O2'	11:DA:233:U:H5'	2.07	0.54
11:DA:318:U:O2'	27:DQ:6:GLN:HG2	2.08	0.54
11:DA:364:G:OP1	27:DQ:95:LYS:HA	2.07	0.54
11:DA:534:A:H3'	11:DA:534:A:N3	2.23	0.54
11:DA:1121:C:C4'	11:DA:1608:C:OP2	2.56	0.54
13:DC:201:LYS:HB2	13:DC:203:PHE:HD2	1.73	0.54
26:DP:79:TYR:O	26:DP:83:TYR:HD1	1.91	0.54
3:A2:146:HIS:CE1	11:AA:181:G:C8	2.96	0.53
11:AA:29:G:H2'	11:AA:30:C:C6	2.42	0.53
11:AA:1647:U:H2'	11:AA:1648:C:H6	1.73	0.53
12:AB:85:PHE:O	12:AB:89:THR:OG1	2.23	0.53
20:AJ:41:ARG:HB3	20:AJ:101:ILE:HG23	1.90	0.53
22:AL:73:VAL:HB	22:AL:82:ILE:HG22	1.89	0.53
26:AP:55:VAL:HG13	26:AP:58:PHE:HE1	1.74	0.53
2:B1:65:ARG:HH11	17:BG:125:THR:HG21	1.73	0.53
8:B7:65:TYR:HB3	13:BC:75:PHE:CE1	2.43	0.53
11:BA:1715:A:H1'	11:BA:1736:C:H5'	1.90	0.53
15:BE:145:TRP:H	15:BE:153:HIS:CE1	2.25	0.53
3:C2:177:THR:HG21	11:CA:205:A:OP1	2.08	0.53
5:C4:140:VAL:HG12	5:C4:221:VAL:HG22	1.90	0.53
11:CA:986:G:OP1	39:CA:2185:HOH:O	2.18	0.53
15:CE:180:VAL:O	15:CE:199:THR:HB	2.08	0.53
23:CM:28:THR:HG23	23:CM:58:ALA:HA	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:CR:233:LYS:NZ	32:CV:24:LEU:O	2.34	0.53
31:CU:75:LYS:O	31:CU:78:SER:OG	2.26	0.53
8:D7:13:TYR:HD1	8:D7:76:LEU:HD22	1.72	0.53
11:DA:1212:U:H1'	11:DA:1216:A:H62	1.73	0.53
11:DA:1488:A:OP1	20:DJ:86:LYS:NZ	2.36	0.53
15:DE:45:LEU:HG	15:DE:49:PHE:CE2	2.43	0.53
25:DO:101:ARG:HG3	25:DO:101:ARG:NH1	2.23	0.53
35:DY:137:ARG:HG2	35:DY:181:ARG:HG3	1.89	0.53
4:A3:115:ARG:HG2	4:A3:121:TYR:CE2	2.44	0.53
6:A5:45:VAL:HA	21:AK:113:GLN:HG3	1.89	0.53
11:AA:738:A:O2'	11:AA:739:A:OP1	2.25	0.53
11:AA:1147:U:O4	23:AM:140:THR:HG21	2.08	0.53
11:AA:1659:C:H5'	11:AA:1660:A:OP2	2.07	0.53
27:AQ:37:ILE:HD11	27:AQ:59:PHE:CE1	2.42	0.53
5:B4:50:VAL:HG21	5:B4:63:ILE:HG12	1.89	0.53
11:BA:235:A:H4'	11:BA:236:U:OP2	2.07	0.53
11:BA:1186:G:H5'	11:BA:1216:A:C2	2.43	0.53
11:BA:1204:U:H2'	11:BA:1205:G:O4'	2.08	0.53
11:BA:1538:U:OP1	23:BM:42:PHE:HB2	2.08	0.53
15:BE:158:LYS:HG3	18:BH:95:PRO:O	2.08	0.53
5:C4:38:ILE:HB	5:C4:237:LEU:O	2.09	0.53
11:CA:840:A:O2'	11:CA:841:A:O5'	2.27	0.53
11:CA:1526:G:H5'	11:CA:1527:A:OP2	2.08	0.53
23:CM:96:LYS:HB2	23:CM:98:TYR:CZ	2.43	0.53
35:CY:98:ARG:HD2	35:CY:99:GLY:H	1.73	0.53
5:D4:170:ILE:HD13	5:D4:213:LEU:HD11	1.90	0.53
6:D5:17:HIS:HE1	11:DA:1742:G:OP1	1.91	0.53
11:DA:75:C:H1'	35:DY:178:LYS:HG2	1.90	0.53
11:DA:135:A:N6	35:DY:191:LYS:HB2	2.23	0.53
11:DA:172:U:C4'	11:DA:173:A:OP1	2.57	0.53
11:DA:1042:G:H5'	11:DA:1043:U:OP2	2.08	0.53
11:DA:1283:U:O3'	32:DV:2:GLY:HA2	2.07	0.53
20:DJ:41:ARG:HB3	20:DJ:101:ILE:HG23	1.91	0.53
30:DT:124:ALA:O	30:DT:127:LYS:HE2	2.07	0.53
11:AA:934:U:OP1	11:AA:1044:C:O2'	2.23	0.53
11:AA:1019:G:H2'	11:AA:1020:G:C8	2.43	0.53
11:AA:1212:U:H1'	11:AA:1216:A:H62	1.73	0.53
11:AA:1372:A:OP2	32:AV:56:HIS:HE1	1.91	0.53
14:AD:120:ASN:H	14:AD:124:HIS:CD2	2.26	0.53
15:AE:144:TYR:CD2	15:AE:148:LYS:HB3	2.43	0.53
33:AW:89:MET:HA	33:AW:89:MET:HE2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B0:22:LYS:HG3	10:B9:74:LYS:CD	2.37	0.53
10:B9:106:ASN:HB3	10:B9:108:LYS:HG3	1.90	0.53
11:BA:738:A:O2'	11:BA:739:A:OP1	2.26	0.53
11:BA:840:A:H62	25:BO:72:LYS:HZ3	1.56	0.53
11:BA:1122:G:H1'	11:BA:1718:A:C4	2.44	0.53
11:BA:1212:U:H1'	11:BA:1216:A:H62	1.73	0.53
11:BA:1247:A:H3'	11:BA:1248:U:H5"	1.89	0.53
11:BA:1262:U:H2'	11:BA:1263:G:C8	2.43	0.53
11:BA:1647:U:H2'	11:BA:1648:C:H6	1.73	0.53
14:BD:120:ASN:H	14:BD:124:HIS:HD2	1.55	0.53
28:BR:74:GLY:HA3	28:BR:101:ARG:NH1	2.23	0.53
35:BY:137:ARG:HG2	35:BY:181:ARG:HG3	1.90	0.53
11:CA:14:C:O5'	15:CE:165:SER:HB3	2.08	0.53
11:CA:40:A:H3'	11:CA:430:A:H62	1.73	0.53
12:CB:60:ILE:HG23	12:CB:69:VAL:HG21	1.91	0.53
25:CO:97:ALA:O	25:CO:101:ARG:HG2	2.08	0.53
8:D7:6:LYS:NZ	31:DU:20:ASN:ND2	2.55	0.53
11:DA:190:G:H2'	11:DA:191:A:C8	2.41	0.53
11:DA:533:G:N2	39:DA:7636:HOH:O	2.41	0.53
11:DA:839:U:H3'	11:DA:840:A:O4'	2.09	0.53
25:DO:95:LYS:HB2	25:DO:153:GLN:HE21	1.73	0.53
36:DZ:41:SER:OG	36:DZ:42:ASN:N	2.39	0.53
5:A4:72:LEU:O	5:A4:79:SER:OG	2.26	0.53
7:A6:34:LYS:HZ3	7:A6:78:LYS:HE3	1.73	0.53
11:AA:466:A:H4'	14:AD:130:ARG:NH1	2.24	0.53
11:AA:1564:A:H2'	11:AA:1565:A:C8	2.43	0.53
35:AY:7:TYR:HB2	35:AY:113:ILE:HB	1.90	0.53
11:BA:61:A:H5"	11:BA:62:G:OP1	2.07	0.53
11:BA:220:A:H3'	11:BA:221:A:C8	2.36	0.53
11:BA:677:G:N2	11:BA:725:A:H1'	2.23	0.53
11:BA:1358:A:H4'	11:BA:1359:C:O5'	2.07	0.53
13:BC:226:GLU:HB2	28:BR:208:THR:H	1.73	0.53
25:BO:101:ARG:HG3	25:BO:101:ARG:NH1	2.22	0.53
2:C1:24:ILE:HD11	17:CG:121:THR:HB	1.89	0.53
11:CA:17:C:O2'	11:CA:1110:A:N1	2.37	0.53
11:CA:1011:C:H4'	25:CO:7:LYS:HG2	1.91	0.53
11:CA:1228:A:H5"	11:CA:1228:A:C8	2.44	0.53
11:CA:1342:U:H4'	11:CA:1343:G:OP1	2.08	0.53
14:CD:120:ASN:H	14:CD:124:HIS:HD2	1.55	0.53
34:CX:53:ASP:HB2	34:CX:56:LYS:HB2	1.91	0.53
35:CY:64:LYS:NZ	35:CY:82:SER:H	2.05	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D0:58:GLY:HA2	1:D0:88:CYS:O	2.08	0.53
2:D1:12:MET:SD	2:D1:30:VAL:HG23	2.49	0.53
6:D5:81:ILE:HD11	11:DA:1748:U:H5'	1.91	0.53
13:DC:165:GLN:N	13:DC:166:PRO:HD2	2.24	0.53
15:DE:180:VAL:O	15:DE:199:THR:HB	2.09	0.53
34:DX:53:ASP:HB2	34:DX:56:LYS:HB2	1.91	0.53
11:AA:534:A:H3'	11:AA:534:A:N3	2.23	0.53
11:AA:771:A:P	33:AW:110:ARG:HH22	2.31	0.53
11:AA:840:A:H8	25:AO:66:ARG:HH22	1.54	0.53
11:AA:1288:C:OP1	32:AV:7:LYS:N	2.40	0.53
21:AK:56:VAL:HG11	21:AK:77:ALA:HA	1.90	0.53
25:AO:95:LYS:HB2	25:AO:153:GLN:NE2	2.23	0.53
10:B9:75:LYS:HZ1	11:BA:1418:C:P	2.32	0.53
11:BA:493:U:H4'	11:BA:494:A:OP2	2.05	0.53
11:BA:771:A:C5	33:BW:19:MET:HE3	2.44	0.53
11:BA:1443:A:H4'	11:BA:1444:U:H5'	1.89	0.53
30:BT:132:ILE:HD12	30:BT:137:MET:HB2	1.89	0.53
5:C4:95:ASP:O	5:C4:98:ASN:ND2	2.40	0.53
11:CA:1007:U:O2'	11:CA:1009:U:C5	2.61	0.53
11:CA:1206:A:OP2	11:CA:1217:G:O2'	2.26	0.53
28:CR:297:GLU:OE1	28:CR:297:GLU:N	2.38	0.53
33:CW:47:LEU:HD11	33:CW:113:LEU:HD11	1.91	0.53
9:D8:99:ASN:HD22	17:DG:90:ASN:HD21	1.55	0.53
10:D9:103:LEU:HD22	10:D9:109:VAL:HA	1.90	0.53
11:DA:478:G:C2'	11:DA:494:A:H61	2.21	0.53
25:DO:101:ARG:HG3	25:DO:101:ARG:HH11	1.73	0.53
1:B0:22:LYS:NZ	10:B9:76:LYS:CG	2.66	0.53
7:B6:63:LYS:HD3	7:B6:72:GLN:NE2	2.24	0.53
11:BA:229:A:H1'	11:BA:230:A:N7	2.22	0.53
11:BA:515:U:O2'	26:BP:58:PHE:O	2.25	0.53
11:BA:1370:U:H4'	11:BA:1371:A:H5'	1.91	0.53
11:BA:1395:A:H5"	11:BA:1396:A:OP2	2.08	0.53
11:BA:1452:G:OP2	11:BA:1452:G:O4'	2.26	0.53
11:BA:1471:C:P	30:BT:130:ARG:HH22	2.30	0.53
12:BB:165:GLU:HG3	12:BB:199:TYR:CE2	2.44	0.53
12:BB:194:MET:HE1	32:BV:89:SER:HB2	1.90	0.53
13:BC:201:LYS:HB2	13:BC:203:PHE:HD2	1.73	0.53
23:BM:40:ARG:NH2	30:BT:48:GLU:OE1	2.37	0.53
30:BT:18:PHE:HZ	30:BT:140:LEU:HD22	1.74	0.53
3:C2:105:VAL:O	3:C2:108:SER:HB2	2.09	0.53
6:C5:81:ILE:HD11	11:CA:1748:U:H5'	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:232:G:HO2'	11:CA:233:U:P	2.28	0.53
11:CA:1276:G:H5'	11:CA:1294:A:OP2	2.09	0.53
11:CA:1358:A:H4'	11:CA:1359:C:O5'	2.07	0.53
11:CA:1538:U:OP1	23:CM:42:PHE:HB2	2.08	0.53
13:CC:34:ASP:HB3	13:CC:60:GLN:HE22	1.71	0.53
26:CP:79:TYR:O	26:CP:83:TYR:HD1	1.92	0.53
11:DA:1370:U:H4'	11:DA:1371:A:H5'	1.90	0.53
11:DA:1514:G:H5'	30:DT:90:GLY:HA2	1.90	0.53
19:DI:12:PHE:HD1	19:DI:12:PHE:H	1.56	0.53
25:DO:97:ALA:O	25:DO:101:ARG:HG2	2.09	0.53
28:DR:72:LEU:HB3	28:DR:103:TRP:CZ3	2.44	0.53
3:A2:25:ARG:O	3:A2:28:GLU:HG2	2.09	0.53
6:A5:46:ASP:H	21:AK:113:GLN:CD	2.16	0.53
10:A9:101:TYR:CE1	31:AU:33:LEU:HD11	2.44	0.53
11:AA:486:A:H5"	11:AA:487:C:OP2	2.09	0.53
11:AA:1204:U:H2'	11:AA:1205:G:O4'	2.09	0.53
11:AA:1442:A:H62	11:AA:1510:U:H3	1.57	0.53
15:AE:141:ARG:NH1	15:AE:230:PHE:CZ	2.76	0.53
20:AJ:67:LYS:HA	24:AN:43:ARG:NE	2.23	0.53
28:AR:190:VAL:HG13	28:AR:216:VAL:HB	1.91	0.53
11:BA:912:A:O2'	11:BA:913:U:OP2	2.26	0.53
11:BA:1246:C:OP2	11:BA:1399:G:OP2	2.27	0.53
11:BA:1427:C:H2'	39:BA:6555:HOH:O	2.09	0.53
15:BE:31:THR:HB	15:BE:34:GLY:H	1.74	0.53
15:BE:141:ARG:NH1	15:BE:230:PHE:CZ	2.76	0.53
28:BR:72:LEU:HB3	28:BR:103:TRP:CZ3	2.44	0.53
8:C7:35:THR:HB	8:C7:37:VAL:HG23	1.91	0.53
11:CA:190:G:H2'	11:CA:191:A:C8	2.40	0.53
11:CA:210:A:OP2	11:CA:210:A:C8	2.62	0.53
11:CA:573:A:O2'	11:CA:574:A:OP1	2.24	0.53
11:CA:1278:C:H4'	11:CA:1279:U:OP1	2.08	0.53
9:D8:43:VAL:HG21	23:DM:25:LYS:CB	2.36	0.53
11:DA:1252:C:H2'	11:DA:1253:G:H8	1.74	0.53
11:DA:1712:C:O2	11:DA:1733:G:N2	2.29	0.53
19:DI:112:MET:HE3	19:DI:116:ARG:HG3	1.90	0.53
7:A6:31:MET:HE1	7:A6:71:ILE:HD11	1.91	0.53
11:AA:62:G:H4'	11:AA:164:U:C5	2.44	0.53
11:AA:661:G:H3'	11:AA:662:U:C6	2.43	0.53
11:AA:954:G:N1	11:AA:1001:A:O2'	2.39	0.53
11:AA:1017:C:OP1	11:AA:1017:C:H4'	2.09	0.53
11:AA:1042:G:H5'	11:AA:1043:U:OP2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:1301:A:P	13:AC:163:THR:HG21	2.48	0.53
11:AA:1452:G:H5"	11:AA:1452:G:H8	1.73	0.53
12:AB:123:PRO:HD3	12:AB:143:LEU:O	2.08	0.53
15:AE:141:ARG:HB3	15:AE:222:THR:HG22	1.90	0.53
25:AO:148:ALA:HA	25:AO:151:LEU:HD12	1.90	0.53
27:AQ:126:GLN:HG2	27:AQ:127:CYS:H	1.74	0.53
30:AT:124:ALA:O	30:AT:127:LYS:HE2	2.09	0.53
33:AW:88:LEU:HG	33:AW:89:MET:HG2	1.91	0.53
5:B4:119:LYS:HG3	11:BA:909:C:H5'	1.89	0.53
26:BP:55:VAL:HG13	26:BP:58:PHE:HE1	1.73	0.53
28:BR:161:HIS:HB3	28:BR:197:LYS:HE2	1.91	0.53
4:C3:63:ILE:HD11	4:C3:94:PHE:CZ	2.44	0.53
5:C4:170:ILE:HD13	5:C4:213:LEU:HD11	1.90	0.53
7:C6:63:LYS:HD3	7:C6:72:GLN:NE2	2.24	0.53
13:CC:201:LYS:HB2	13:CC:203:PHE:HD2	1.73	0.53
15:CE:81:VAL:HG21	15:CE:126:ILE:HD13	1.91	0.53
26:CP:13:ASN:ND2	33:CW:54:TYR:O	2.41	0.53
28:CR:190:VAL:HG13	28:CR:216:VAL:HB	1.91	0.53
11:DA:878:A:HO2'	11:DA:894:U:HO2'	1.57	0.53
11:DA:1051:G:O6	39:DA:7667:HOH:O	2.16	0.53
6:A5:40:THR:HB	6:A5:71:VAL:HB	1.90	0.53
11:AA:515:U:O2'	26:AP:58:PHE:O	2.27	0.53
11:AA:1049:C:O2'	11:AA:1050:C:H5'	2.09	0.53
11:AA:1168:A:HO2'	11:AA:1169:C:P	2.30	0.53
19:AI:12:PHE:HD1	19:AI:12:PHE:H	1.55	0.53
26:AP:51:ARG:NH1	26:AP:146:PHE:HE1	2.07	0.53
26:AP:53:VAL:HG22	26:AP:73:VAL:HG22	1.91	0.53
6:B5:81:ILE:HD11	11:BA:1748:U:H5'	1.90	0.53
16:BF:51:TRP:HE3	16:BF:73:LEU:HD21	1.74	0.53
31:BU:61:ALA:O	31:BU:65:LYS:HB2	2.09	0.53
33:BW:206:SER:HB2	33:BW:207:PHE:CD2	2.44	0.53
11:CA:1223:U:O2'	11:CA:1224:C:O5'	2.27	0.53
13:CC:44:ARG:HG3	13:CC:49:THR:HG22	1.91	0.53
27:CQ:88:ASP:HB3	27:CQ:154:PHE:CE2	2.43	0.53
35:CY:189:LEU:O	35:CY:193:VAL:HG23	2.09	0.53
3:D2:25:ARG:O	3:D2:28:GLU:HG2	2.08	0.53
7:D6:31:MET:HE1	7:D6:71:ILE:HD11	1.90	0.53
11:DA:1204:U:H2'	11:DA:1205:G:O4'	2.09	0.53
11:DA:1443:A:H4'	11:DA:1444:U:H5'	1.89	0.53
11:DA:1647:U:H2'	11:DA:1648:C:H6	1.73	0.53
32:DV:58:MET:O	32:DV:62:GLN:HG2	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DW:254:ARG:NH1	33:DW:260:TYR:CG	2.76	0.53
2:A1:54:VAL:HB	17:AG:28:CYS:HA	1.91	0.53
8:A7:13:TYR:HD1	8:A7:76:LEU:HD22	1.73	0.53
11:AA:614:A:H2'	11:AA:615:A:C8	2.44	0.53
11:AA:673:A:H2'	11:AA:675:A:N6	2.17	0.53
11:AA:1647:U:H2'	11:AA:1648:C:C6	2.44	0.53
13:AC:45:THR:HG22	13:AC:47:THR:H	1.74	0.53
14:AD:64:PRO:HA	14:AD:69:ARG:NH1	2.24	0.53
15:AE:31:THR:HB	15:AE:34:GLY:H	1.73	0.53
22:AL:127:LYS:HE2	22:AL:141:LYS:HE3	1.91	0.53
31:AU:8:LEU:HD11	31:AU:123:ALA:HB2	1.91	0.53
5:B4:110:ARG:HG3	21:BK:131:ASP:O	2.09	0.53
9:B8:47:LYS:CB	23:BM:6:GLU:HA	2.39	0.53
11:BA:882:G:H2'	11:BA:883:A:O4'	2.09	0.53
11:BA:1507:U:C6	17:BG:161:MET:HG2	2.43	0.53
11:BA:1558:A:OP1	19:BI:137:ARG:HB2	2.09	0.53
15:BE:185:PRO:HD3	15:BE:211:PHE:CE2	2.44	0.53
20:BJ:67:LYS:HA	24:BN:43:ARG:NE	2.24	0.53
26:BP:13:ASN:HD22	26:BP:20:GLN:NE2	2.07	0.53
28:BR:93:SER:HG	28:BR:103:TRP:HE1	1.53	0.53
10:C9:88:HIS:CD2	11:CA:1220:C:OP2	2.62	0.53
11:CA:1042:G:H5'	11:CA:1043:U:OP2	2.09	0.53
12:CB:29:MET:CE	12:CB:144:CYS:HB3	2.38	0.53
28:CR:178:ASN:N	23:DM:110:ARG:HH12	2.07	0.53
34:CX:34:ARG:NH1	34:CX:34:ARG:HB3	2.24	0.53
1:D0:61:CYS:HB3	1:D0:64:LEU:H	1.74	0.53
11:DA:416:C:O2'	11:DA:417:A:P	2.66	0.53
11:DA:494:A:C2	34:DX:48:HIS:HB3	2.43	0.53
11:DA:680:U:HO2'	11:DA:681:G:P	2.32	0.53
11:DA:770:G:H2'	11:DA:771:A:H8	1.67	0.53
11:DA:840:A:H62	25:DO:72:LYS:HZ3	1.57	0.53
11:DA:1399:G:N2	20:DJ:72:GLU:HG2	2.23	0.53
11:DA:1558:A:OP1	19:DI:137:ARG:HB2	2.09	0.53
13:DC:45:THR:HG22	13:DC:47:THR:H	1.74	0.53
15:DE:145:TRP:H	15:DE:153:HIS:CE1	2.27	0.53
15:DE:174:PRO:O	15:DE:177:THR:OG1	2.23	0.53
35:DY:162:ARG:NH1	35:DY:176:CYS:SG	2.82	0.53
7:A6:63:LYS:HD3	7:A6:72:GLN:NE2	2.24	0.52
11:AA:533:G:N2	39:AA:2091:HOH:O	2.41	0.52
11:AA:771:A:H5"	11:AA:772:A:O5'	2.08	0.52
11:AA:878:A:O2'	11:AA:894:U:H1'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:1270:U:O2'	15:AE:210:ASN:ND2	2.42	0.52
1:B0:22:LYS:HE3	10:B9:74:LYS:HD3	1.91	0.52
4:B3:101:GLU:HB2	4:B3:113:ARG:HG3	1.91	0.52
6:B5:30:VAL:HG21	6:B5:76:CYS:HA	1.91	0.52
11:BA:622:G:H5'	25:BO:122:SER:OG	2.09	0.52
11:BA:1653:C:H5'	35:BY:65:GLN:NE2	2.24	0.52
35:BY:162:ARG:NH1	35:BY:176:CYS:SG	2.82	0.52
3:C2:40:THR:HG21	3:C2:86:ILE:O	2.09	0.52
7:C6:5:LEU:H	18:CH:24:GLN:HE22	1.56	0.52
7:C6:65:THR:HB	7:C6:68:LYS:HG3	1.91	0.52
11:CA:227:G:OP1	11:CA:227:G:H4'	2.09	0.52
11:CA:477:G:H2'	11:CA:478:G:O4'	2.08	0.52
11:CA:1171:G:C5'	24:CN:39:ARG:HH12	2.22	0.52
11:CA:1204:U:H2'	11:CA:1205:G:O4'	2.09	0.52
11:CA:1555:A:C5'	19:CI:137:ARG:HH12	2.22	0.52
15:CE:145:TRP:H	15:CE:153:HIS:CE1	2.27	0.52
28:CR:33:GLN:HE21	28:CR:88:ASN:HD22	1.57	0.52
5:D4:37:PRO:HG3	5:D4:101:THR:O	2.10	0.52
11:DA:573:A:C6	13:DC:147:GLN:OE1	2.62	0.52
11:DA:1278:C:H4'	11:DA:1279:U:OP1	2.09	0.52
17:DG:117:ARG:O	17:DG:136:VAL:N	2.38	0.52
22:DL:73:VAL:HB	22:DL:82:ILE:HG22	1.89	0.52
27:DQ:88:ASP:HB3	27:DQ:154:PHE:CE2	2.43	0.52
31:DU:75:LYS:O	31:DU:78:SER:OG	2.26	0.52
33:DW:88:LEU:HG	33:DW:89:MET:HG2	1.90	0.52
11:AA:553:A:N6	13:AC:115:ASP:OD2	2.42	0.52
11:AA:839:U:O2'	18:AH:56:HIS:O	2.28	0.52
15:AE:145:TRP:H	15:AE:153:HIS:CE1	2.28	0.52
17:AG:117:ARG:O	17:AG:136:VAL:N	2.37	0.52
18:AH:55:ASP:OD1	18:AH:59:LYS:HA	2.09	0.52
28:AR:77:HIS:H	28:AR:97:ASP:HB3	1.74	0.52
1:B0:97:ASP:O	1:B0:101:ASN:ND2	2.43	0.52
8:B7:35:THR:HB	8:B7:37:VAL:HG23	1.91	0.52
11:BA:104:A:H2'	11:BA:105:G:C8	2.44	0.52
11:BA:163:A:H5'	11:BA:164:U:OP2	2.09	0.52
11:BA:234:G:O2'	11:BA:235:A:O4'	2.27	0.52
11:BA:958:G:H4'	11:BA:1729:A:H4'	1.91	0.52
11:BA:1246:C:O2'	11:BA:1247:A:OP2	2.24	0.52
11:BA:1469:U:C5'	30:BT:75:GLY:HA3	2.38	0.52
11:BA:1535:A:C2'	11:BA:1536:U:H5'	2.39	0.52
11:BA:1653:C:H4'	35:BY:65:GLN:OE1	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BB:29:MET:CE	12:BB:144:CYS:HB3	2.39	0.52
15:BE:81:VAL:HG21	15:BE:126:ILE:HD13	1.90	0.52
15:BE:141:ARG:HB3	15:BE:222:THR:CG2	2.38	0.52
17:BG:67:LEU:HD12	17:BG:150:ILE:HD11	1.91	0.52
31:BU:20:ASN:HD21	31:BU:27:LYS:HZ3	1.57	0.52
1:C0:97:ASP:O	1:C0:101:ASN:ND2	2.42	0.52
11:CA:1007:U:O2'	11:CA:1009:U:H5	1.92	0.52
11:CA:1452:G:H1'	30:CT:71:LYS:HE2	1.92	0.52
12:CB:85:PHE:O	12:CB:89:THR:OG1	2.28	0.52
28:CR:171:SER:OG	28:CR:186:TYR:O	2.19	0.52
3:D2:27:PHE:CE1	11:DA:292:G:H4'	2.45	0.52
5:D4:50:VAL:HG21	5:D4:63:ILE:HG12	1.92	0.52
11:DA:1199:G:O6	11:DA:1228:A:H2'	2.10	0.52
11:DA:1469:U:OP1	30:DT:78:THR:OG1	2.12	0.52
25:DO:148:ALA:HA	25:DO:151:LEU:HD12	1.90	0.52
28:DR:190:VAL:HG13	28:DR:216:VAL:HB	1.91	0.52
35:DY:98:ARG:HD2	35:DY:99:GLY:H	1.73	0.52
11:AA:1345:A:O2'	19:AI:3:GLN:OE1	2.27	0.52
11:AA:1439:U:H4'	30:AT:91:ASN:HA	1.92	0.52
13:AC:136:GLY:HA3	13:AC:159:TYR:O	2.10	0.52
26:AP:14:PRO:HG3	33:AW:97:THR:HG23	1.91	0.52
28:AR:72:LEU:HB3	28:AR:103:TRP:CZ3	2.44	0.52
28:AR:297:GLU:OE1	28:AR:297:GLU:N	2.38	0.52
3:B2:150:ARG:NH2	11:BA:181:G:OP1	2.33	0.52
9:B8:99:ASN:HD22	17:BG:90:ASN:ND2	2.07	0.52
11:BA:484:U:H2'	11:BA:485:U:O3'	2.10	0.52
11:BA:628:G:H4'	18:BH:4:VAL:HG13	1.91	0.52
11:BA:839:U:H3'	11:BA:840:A:O4'	2.10	0.52
14:BD:62:LEU:HD11	14:BD:68:ARG:HH11	1.70	0.52
20:BJ:41:ARG:HB3	20:BJ:101:ILE:HG23	1.90	0.52
21:BK:43:HIS:CD2	21:BK:55:ARG:HG3	2.44	0.52
23:BM:27:ILE:HG22	23:BM:29:PRO:HD2	1.92	0.52
13:CC:165:GLN:N	13:CC:166:PRO:HD2	2.24	0.52
16:CF:51:TRP:HE3	16:CF:73:LEU:HD21	1.74	0.52
28:CR:77:HIS:H	28:CR:97:ASP:HB3	1.75	0.52
30:CT:124:ALA:O	30:CT:127:LYS:HE2	2.08	0.52
31:CU:8:LEU:HD11	31:CU:123:ALA:HB2	1.92	0.52
15:DE:141:ARG:HB3	15:DE:222:THR:HG22	1.92	0.52
15:DE:185:PRO:HD3	15:DE:211:PHE:CE2	2.44	0.52
4:A3:109:LYS:NZ	11:AA:725:A:O3'	2.42	0.52
11:AA:1276:G:H5'	11:AA:1294:A:OP2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:1535:A:OP1	30:AT:87:LYS:NZ	2.41	0.52
11:AA:1537:C:OP1	23:AM:41:ARG:NH1	2.42	0.52
5:B4:72:LEU:O	5:B4:79:SER:OG	2.27	0.52
11:BA:332:A:H2'	11:BA:333:C:H6	1.75	0.52
11:BA:530:G:N7	14:BD:171:ARG:HD2	2.24	0.52
11:BA:1514:G:H2'	11:BA:1540:G:N2	2.24	0.52
11:BA:1744:U:H5"	11:BA:1744:U:H6	1.74	0.52
19:BI:99:VAL:HG12	19:BI:100:ASP:H	1.75	0.52
20:BJ:55:ARG:HE	20:BJ:87:ARG:NH1	2.07	0.52
21:BK:56:VAL:HG11	21:BK:77:ALA:HA	1.90	0.52
26:BP:79:TYR:O	26:BP:83:TYR:HD1	1.92	0.52
11:CA:75:C:H5'	35:CY:176:CYS:HB2	1.92	0.52
11:CA:89:A:C6	11:CA:389:G:C6	2.98	0.52
11:CA:878:A:OP1	21:CK:57:THR:HB	2.10	0.52
11:CA:1262:U:H2'	11:CA:1263:G:C8	2.44	0.52
11:CA:1568:C:P	24:CN:18:LYS:HZ3	2.32	0.52
11:CA:1744:U:H6	11:CA:1744:U:H5"	1.74	0.52
25:CO:25:PRO:HG3	25:CO:63:PRO:HG3	1.92	0.52
26:CP:55:VAL:HG13	26:CP:58:PHE:HE1	1.75	0.52
11:DA:738:A:H4'	11:DA:739:A:OP2	2.09	0.52
11:DA:879:G:H22	21:DK:68:GLU:CD	2.17	0.52
11:DA:886:U:H6	11:DA:886:U:H5"	1.75	0.52
11:DA:1428:C:OP1	39:DA:8119:HOH:O	2.19	0.52
11:DA:1441:C:H4'	11:DA:1512:G:N2	2.25	0.52
15:DE:31:THR:HB	15:DE:34:GLY:H	1.73	0.52
22:DL:127:LYS:HE2	22:DL:141:LYS:HE3	1.91	0.52
11:AA:64:U:H3'	35:AY:178:LYS:NZ	2.24	0.52
11:AA:1228:A:H5"	11:AA:1228:A:C8	2.44	0.52
12:AB:29:MET:CE	12:AB:144:CYS:HB3	2.38	0.52
12:AB:35:HIS:NE2	32:AV:104:GLU:OE1	2.42	0.52
21:AK:142:ARG:HG3	21:AK:143:GLU:N	2.25	0.52
28:AR:74:GLY:HA3	28:AR:101:ARG:NH1	2.24	0.52
28:AR:161:HIS:HB3	28:AR:197:LYS:HE2	1.91	0.52
5:B4:49:LEU:O	21:BK:51:GLU:HG3	2.09	0.52
10:B9:109:VAL:HG11	31:BU:62:LEU:HD21	1.91	0.52
11:BA:473:A:H2'	11:BA:474:G:C8	2.44	0.52
13:BC:146:LYS:HG2	13:BC:147:GLN:HB2	1.91	0.52
22:BL:127:LYS:HE2	22:BL:141:LYS:HE3	1.91	0.52
33:BW:160:ASP:CG	33:BW:176:HIS:HB3	2.34	0.52
35:BY:7:TYR:HB2	35:BY:113:ILE:HB	1.91	0.52
1:C0:101:ASN:HD21	10:C9:77:LYS:HZ1	1.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C1:54:VAL:HB	17:CG:28:CYS:HA	1.92	0.52
8:C7:13:TYR:HE1	8:C7:49:LEU:HD21	1.74	0.52
11:CA:100:A:H4'	11:CA:101:A:O5'	2.10	0.52
11:CA:222:U:C2	11:CA:814:A:N6	2.78	0.52
11:CA:1032:U:H3	11:CA:1035:A:N6	1.99	0.52
17:CG:68:ILE:HA	17:CG:71:LEU:HD12	1.91	0.52
22:CL:127:LYS:HE2	22:CL:141:LYS:HE3	1.91	0.52
25:CO:101:ARG:HH11	25:CO:101:ARG:HG3	1.74	0.52
27:CQ:126:GLN:HG2	27:CQ:127:CYS:H	1.74	0.52
29:CS:38:LEU:HG	29:CS:42:PHE:HE2	1.74	0.52
10:D9:80:TYR:HE2	10:D9:83:LYS:HZ3	1.55	0.52
11:DA:100:A:H4'	11:DA:101:A:O5'	2.10	0.52
11:DA:398:A:O2'	11:DA:1642:A:N3	2.39	0.52
11:DA:762:U:H5	26:DP:6:ARG:CZ	2.23	0.52
11:DA:885:A:N3	11:DA:975:G:O2'	2.41	0.52
24:DN:16:ASP:CG	24:DN:26:ARG:NH1	2.68	0.52
26:DP:55:VAL:HG13	26:DP:58:PHE:HE1	1.75	0.52
3:A2:27:PHE:CE1	11:AA:292:G:H4'	2.44	0.52
5:A4:140:VAL:HG12	5:A4:221:VAL:HG22	1.91	0.52
10:A9:94:LYS:HB2	11:AA:1201:G:P	2.49	0.52
11:AA:464:G:H5"	14:AD:11:THR:HG23	1.91	0.52
11:AA:634:C:H5'	11:AA:634:C:H6	1.74	0.52
11:AA:1452:G:O4'	11:AA:1452:G:OP2	2.28	0.52
11:AA:1514:G:C5'	30:AT:90:GLY:HA2	2.39	0.52
4:B3:24:VAL:O	4:B3:27:GLN:HG2	2.10	0.52
5:B4:159:THR:HG23	5:B4:161:TYR:HD2	1.75	0.52
7:B6:68:LYS:HB3	11:BA:1027:U:OP1	2.09	0.52
11:BA:573:A:N6	13:BC:182:GLN:HG3	2.24	0.52
13:BC:44:ARG:HG3	13:BC:49:THR:HG22	1.92	0.52
13:BC:165:GLN:N	13:BC:166:PRO:HD2	2.25	0.52
26:BP:51:ARG:NH1	26:BP:146:PHE:HE1	2.08	0.52
28:BR:190:VAL:HG13	28:BR:216:VAL:HB	1.91	0.52
11:CA:1188:A:O2'	11:CA:1189:A:H3'	2.09	0.52
11:CA:1199:G:O6	11:CA:1228:A:H2'	2.09	0.52
21:CK:139:SER:OG	21:CK:140:THR:O	2.19	0.52
26:CP:51:ARG:NH1	26:CP:146:PHE:HE1	2.08	0.52
33:CW:160:ASP:CG	33:CW:176:HIS:HB3	2.35	0.52
2:D1:21:ARG:NH2	17:DG:122:ARG:NH1	2.57	0.52
5:D4:119:LYS:HG3	11:DA:909:C:H5'	1.91	0.52
10:D9:88:HIS:NE2	11:DA:1220:C:OP2	2.42	0.52
11:DA:771:A:C5	33:DW:19:MET:HE3	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:947:C:H5'	11:DA:1076:U:H1'	1.90	0.52
11:DA:1201:G:C6	11:DA:1227:G:C6	2.98	0.52
11:DA:1647:U:H2'	11:DA:1648:C:C6	2.44	0.52
15:DE:170:LEU:HD22	15:DE:197:ILE:HD13	1.91	0.52
18:DH:55:ASP:OD1	18:DH:59:LYS:HA	2.09	0.52
20:DJ:55:ARG:HE	20:DJ:87:ARG:NH1	2.07	0.52
23:DM:96:LYS:HB2	23:DM:98:TYR:CZ	2.45	0.52
1:A0:43:ASN:O	1:A0:43:ASN:ND2	2.31	0.52
3:A2:40:THR:HG21	3:A2:86:ILE:O	2.10	0.52
11:AA:839:U:H3'	11:AA:840:A:O4'	2.09	0.52
11:AA:1535:A:C2'	11:AA:1536:U:H5'	2.40	0.52
14:AD:77:LEU:HD13	14:AD:91:ARG:O	2.09	0.52
23:AM:96:LYS:HB2	23:AM:98:TYR:CZ	2.44	0.52
29:AS:38:LEU:HG	29:AS:42:PHE:HE2	1.75	0.52
5:B4:75:LEU:O	5:B4:79:SER:HB2	2.10	0.52
5:B4:170:ILE:HD13	5:B4:213:LEU:HD11	1.92	0.52
11:BA:28:U:H2'	11:BA:29:G:C8	2.45	0.52
11:BA:534:A:H3'	11:BA:534:A:N3	2.24	0.52
11:BA:1721:G:C8	11:BA:1721:G:H3'	2.45	0.52
28:BR:92:ILE:HG21	28:BR:126:PHE:CE1	2.45	0.52
31:BU:8:LEU:HD11	31:BU:123:ALA:HB2	1.92	0.52
33:BW:89:MET:HE2	33:BW:89:MET:HA	1.90	0.52
36:BZ:32:CYS:HA	36:BZ:68:VAL:HG12	1.92	0.52
11:CA:282:A:H2'	11:CA:283:A:H8	1.75	0.52
11:CA:679:U:H2'	11:CA:680:U:H6	1.74	0.52
21:CK:91:ASN:OD1	21:CK:91:ASN:N	2.43	0.52
11:DA:242:U:C2	11:DA:244:A:OP2	2.63	0.52
11:DA:878:A:O2'	11:DA:894:U:H1'	2.10	0.52
11:DA:1372:A:OP1	32:DV:60:ARG:NH1	2.43	0.52
15:DE:141:ARG:HB2	15:DE:223:TYR:CD1	2.45	0.52
28:DR:92:ILE:HG21	28:DR:126:PHE:CE1	2.44	0.52
29:DS:38:LEU:HG	29:DS:42:PHE:HE2	1.75	0.52
31:DU:8:LEU:HD11	31:DU:123:ALA:HB2	1.92	0.52
11:AA:40:A:H3'	11:AA:430:A:H62	1.74	0.52
11:AA:1744:U:H6	11:AA:1744:U:H5"	1.75	0.52
13:AC:44:ARG:HG3	13:AC:49:THR:HG22	1.92	0.52
36:AZ:32:CYS:HA	36:AZ:68:VAL:HG12	1.92	0.52
5:B4:95:ASP:O	5:B4:98:ASN:ND2	2.40	0.52
11:BA:332:A:H2'	11:BA:333:C:C6	2.45	0.52
11:BA:1647:U:H2'	11:BA:1648:C:C6	2.45	0.52
14:BD:71:PHE:CE1	33:BW:254:ARG:HD3	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:BH:55:ASP:OD1	18:BH:59:LYS:HA	2.09	0.52
30:BT:4:ASN:HB2	30:BT:152:ARG:NH1	2.25	0.52
35:BY:76:LEU:HB2	35:BY:94:ARG:NH1	2.25	0.52
36:BZ:41:SER:OG	36:BZ:42:ASN:N	2.41	0.52
4:C3:115:ARG:HG2	4:C3:121:TYR:CE2	2.44	0.52
5:C4:67:VAL:HG21	11:CA:898:U:H4'	1.91	0.52
5:C4:109:THR:HG22	21:CK:130:GLU:HG3	1.92	0.52
11:CA:28:U:H2'	11:CA:29:G:C8	2.45	0.52
11:CA:144:C:O4'	35:CY:132:LYS:NZ	2.42	0.52
11:CA:661:G:H3'	11:CA:662:U:C6	2.45	0.52
11:CA:1507:U:C6	17:CG:161:MET:HG2	2.45	0.52
11:CA:1555:A:H5'	19:CI:137:ARG:NH1	2.24	0.52
12:CB:134:SER:HB2	12:CB:152:TYR:CD2	2.44	0.52
25:CO:101:ARG:HG3	25:CO:101:ARG:NH1	2.24	0.52
32:CV:65:PRO:HA	32:CV:78:ARG:HH12	1.75	0.52
10:D9:121:PRO:HB2	31:DU:38:ALA:HA	1.92	0.52
11:DA:45:A:N1	11:DA:424:A:O2'	2.36	0.52
11:DA:464:G:H5"	14:DD:11:THR:HG23	1.92	0.52
11:DA:665:A:H2'	11:DA:666:A:C8	2.44	0.52
11:DA:912:A:HO2'	11:DA:913:U:P	2.32	0.52
11:DA:1450:G:P	30:DT:60:ARG:NH1	2.83	0.52
11:DA:1480:U:O2'	11:DA:1481:A:H8	1.93	0.52
11:DA:1535:A:C2'	11:DA:1536:U:H5'	2.40	0.52
12:DB:29:MET:CE	12:DB:144:CYS:HB3	2.38	0.52
12:DB:50:TRP:O	12:DB:54:LYS:HG3	2.10	0.52
13:DC:101:ALA:O	13:DC:105:VAL:HG23	2.10	0.52
22:DL:7:ARG:HH11	22:DL:7:ARG:CG	2.21	0.52
33:DW:129:THR:HB	33:DW:142:VAL:HG12	1.91	0.52
3:A2:24:LYS:O	11:AA:391:A:H8	1.92	0.52
4:A3:144:ARG:O	18:AH:42:GLN:NE2	2.43	0.52
5:A4:75:LEU:O	5:A4:79:SER:HB2	2.10	0.52
11:AA:282:A:H2'	11:AA:283:A:H8	1.75	0.52
11:AA:316:G:OP1	27:AQ:133:THR:OG1	2.28	0.52
11:AA:622:G:H5'	25:AO:122:SER:OG	2.10	0.52
11:AA:1746:G:H4'	11:AA:1747:A:OP1	2.10	0.52
12:AB:165:GLU:HG3	12:AB:199:TYR:CE2	2.45	0.52
19:AI:99:VAL:HG12	19:AI:100:ASP:H	1.73	0.52
20:AJ:22:THR:HG22	20:AJ:88:ILE:HG12	1.92	0.52
25:AO:25:PRO:HG3	25:AO:63:PRO:HG3	1.91	0.52
27:AQ:56:LYS:O	27:AQ:63:LEU:HD22	2.09	0.52
28:AR:155:SER:OG	28:AR:160:ASN:ND2	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B0:24:GLU:HA	10:B9:77:LYS:NZ	2.25	0.52
11:BA:81:A:OP2	39:BA:6140:HOH:O	2.19	0.52
11:BA:477:G:H2'	11:BA:478:G:O4'	2.09	0.52
11:BA:878:A:O2'	11:BA:894:U:H1'	2.10	0.52
11:BA:1278:C:H4'	11:BA:1279:U:OP1	2.09	0.52
11:BA:1475:G:H2'	11:BA:1476:A:C8	2.45	0.52
12:BB:134:SER:HB2	12:BB:152:TYR:CD2	2.45	0.52
23:BM:96:LYS:HB2	23:BM:98:TYR:CZ	2.45	0.52
34:BX:7:THR:HG22	34:BX:8:LEU:O	2.10	0.52
1:C0:58:GLY:HA2	1:C0:88:CYS:O	2.09	0.52
10:C9:133:TYR:HA	10:C9:139:LEU:O	2.10	0.52
11:CA:104:A:H2'	11:CA:105:G:C8	2.44	0.52
11:CA:1480:U:O2'	11:CA:1481:A:H8	1.93	0.52
11:CA:1500:C:H5"	17:CG:86:LYS:HE3	1.91	0.52
15:CE:144:TYR:CD2	15:CE:148:LYS:HB3	2.45	0.52
17:CG:67:LEU:HD12	17:CG:150:ILE:HD11	1.92	0.52
3:D2:40:THR:HG21	3:D2:86:ILE:O	2.10	0.52
11:DA:1508:G:HO2'	11:DA:1509:U:P	2.28	0.52
14:DD:71:PHE:CE1	33:DW:254:ARG:HD3	2.45	0.52
1:A0:61:CYS:HB3	1:A0:64:LEU:H	1.74	0.52
5:A4:106:LEU:HB2	5:A4:221:VAL:HB	1.92	0.52
9:A8:99:ASN:HD22	17:AG:90:ASN:ND2	2.07	0.52
11:AA:1223:U:O2'	11:AA:1224:C:O5'	2.27	0.52
12:AB:134:SER:HB2	12:AB:152:TYR:CD2	2.45	0.52
15:AE:35:ARG:NH1	15:AE:248:LEU:O	2.41	0.52
28:AR:334:ARG:HB3	28:AR:336:PHE:CE2	2.45	0.52
31:AU:61:ALA:O	31:AU:65:LYS:HB2	2.09	0.52
33:AW:129:THR:HB	33:AW:142:VAL:HG12	1.91	0.52
9:B8:51:GLU:HA	9:B8:54:ILE:HB	1.92	0.52
11:BA:483:C:O2	11:BA:488:G:N1	2.37	0.52
11:BA:1372:A:OP1	32:BV:60:ARG:NH1	2.43	0.52
11:BA:1526:G:H5'	11:BA:1527:A:OP2	2.09	0.52
12:BB:85:PHE:O	12:BB:89:THR:OG1	2.28	0.52
29:BS:38:LEU:HG	29:BS:42:PHE:HE2	1.75	0.52
32:BV:58:MET:O	32:BV:62:GLN:HG2	2.09	0.52
33:BW:124:LYS:HB2	33:BW:166:LEU:HD11	1.92	0.52
34:BX:53:ASP:N	34:BX:53:ASP:OD1	2.38	0.52
35:BY:98:ARG:HD2	35:BY:99:GLY:H	1.73	0.52
36:BZ:46:SER:HA	36:BZ:74:ARG:HH22	1.74	0.52
4:C3:101:GLU:HB2	4:C3:113:ARG:HG3	1.92	0.52
11:CA:1345:A:O2'	19:CI:3:GLN:OE1	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CH:80:ASP:HA	18:CH:123:GLY:O	2.10	0.52
30:CT:4:ASN:HB2	30:CT:152:ARG:NH1	2.24	0.52
31:CU:61:ALA:O	31:CU:65:LYS:HB2	2.09	0.52
3:D2:25:ARG:NH2	11:DA:377:G:OP2	2.42	0.52
11:DA:537:A:OP1	11:DA:538:A:OP2	2.28	0.52
11:DA:1427:C:H2'	39:DA:8116:HOH:O	2.09	0.52
11:DA:1452:G:H8	11:DA:1452:G:H5"	1.75	0.52
11:DA:1721:G:C8	11:DA:1721:G:H3'	2.44	0.52
12:DB:56:ALA:O	12:DB:60:ILE:HG13	2.10	0.52
12:DB:121:THR:O	12:DB:143:LEU:HB2	2.10	0.52
13:DC:44:ARG:HG3	13:DC:49:THR:HG22	1.92	0.52
13:DC:136:GLY:HA3	13:DC:159:TYR:O	2.10	0.52
30:DT:89:ARG:NH1	30:DT:92:LEU:HB3	2.24	0.52
33:DW:206:SER:HB2	33:DW:207:PHE:CD2	2.45	0.52
35:DY:71:GLY:H	35:DY:98:ARG:CZ	2.23	0.52
8:A7:35:THR:HB	8:A7:37:VAL:HG23	1.91	0.51
10:A9:80:TYR:HE2	10:A9:83:LYS:HZ3	1.55	0.51
11:AA:1033:A:H4'	11:AA:1034:A:OP2	2.09	0.51
11:AA:1143:A:H2'	11:AA:1144:A:H8	1.75	0.51
15:AE:180:VAL:O	15:AE:199:THR:HB	2.09	0.51
15:AE:185:PRO:HD3	15:AE:211:PHE:CE2	2.44	0.51
23:AM:119:ILE:HD11	29:AS:115:ASP:HB3	1.93	0.51
5:B4:106:LEU:HB2	5:B4:221:VAL:HB	1.92	0.51
8:B7:75:TYR:CZ	8:B7:79:LYS:HE3	2.44	0.51
11:BA:633:U:H6	11:BA:633:U:C5'	2.23	0.51
11:BA:1442:A:H62	11:BA:1510:U:H3	1.58	0.51
11:BA:1537:C:OP1	23:BM:41:ARG:NH1	2.42	0.51
25:BO:25:PRO:HG3	25:BO:63:PRO:HG3	1.92	0.51
25:BO:95:LYS:HB2	25:BO:153:GLN:HE21	1.76	0.51
8:C7:65:TYR:HB3	13:CC:75:PHE:CE1	2.44	0.51
11:CA:550:G:OP1	34:CX:59:SER:OG	2.18	0.51
11:CA:839:U:H3'	11:CA:840:A:O4'	2.09	0.51
11:CA:958:G:H4'	11:CA:1729:A:H4'	1.92	0.51
11:CA:1311:C:H4'	11:CA:1312:U:OP2	2.10	0.51
15:CE:158:LYS:HG3	18:CH:95:PRO:O	2.11	0.51
11:DA:641:G:N2	11:DA:668:U:O2	2.43	0.51
11:DA:984:C:H5"	11:DA:985:C:OP2	2.09	0.51
11:DA:1286:U:O2'	11:DA:1287:U:OP2	2.18	0.51
23:DM:28:THR:HG23	23:DM:58:ALA:HA	1.91	0.51
29:DS:46:THR:HG23	29:DS:89:ILE:HD13	1.91	0.51
31:DU:61:ALA:O	31:DU:65:LYS:HB2	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DY:7:TYR:HB2	35:DY:113:ILE:HB	1.91	0.51
35:DY:189:LEU:O	35:DY:193:VAL:HG23	2.09	0.51
11:AA:104:A:H2'	11:AA:105:G:C8	2.45	0.51
11:AA:882:G:H2'	11:AA:883:A:O4'	2.10	0.51
11:AA:1278:C:H4'	11:AA:1279:U:OP1	2.10	0.51
11:AA:1454:A:H4'	19:AI:73:GLY:O	2.10	0.51
11:AA:1500:C:H5"	17:AG:86:LYS:HE3	1.91	0.51
13:AC:42:VAL:HG22	13:AC:51:ILE:HG12	1.92	0.51
15:AE:184:ILE:H	15:AE:184:ILE:HD12	1.74	0.51
17:AG:67:LEU:HD12	17:AG:150:ILE:HD11	1.91	0.51
26:AP:76:ASN:OD1	26:AP:77:GLN:N	2.43	0.51
33:AW:51:ARG:HD3	33:AW:51:ARG:N	2.26	0.51
36:AZ:73:VAL:HG13	36:AZ:78:GLU:HB2	1.92	0.51
11:BA:614:A:H2'	11:BA:615:A:C8	2.45	0.51
11:BA:879:G:H22	21:BK:68:GLU:CD	2.17	0.51
11:BA:1293:A:H4'	11:BA:1294:A:O5'	2.11	0.51
12:BB:12:ARG:CZ	32:BV:93:ILE:HD11	2.40	0.51
12:BB:64:GLN:NE2	15:BE:246:GLU:HG2	2.24	0.51
22:BL:7:ARG:HH11	22:BL:7:ARG:CG	2.20	0.51
26:BP:77:GLN:HE22	26:BP:142:HIS:HE1	1.58	0.51
2:C1:12:MET:SD	2:C1:30:VAL:HG23	2.50	0.51
4:C3:50:ILE:O	4:C3:50:ILE:HG13	2.09	0.51
5:C4:128:VAL:HG22	5:C4:175:ASN:ND2	2.25	0.51
6:C5:30:VAL:HG21	6:C5:76:CYS:HA	1.92	0.51
7:C6:38:CYS:HB3	7:C6:57:CYS:HB3	1.92	0.51
11:CA:318:U:H2'	11:CA:319:A:C8	2.45	0.51
11:CA:533:G:N2	39:CA:2088:HOH:O	2.42	0.51
11:CA:840:A:H8	25:CO:66:ARG:HH22	1.57	0.51
11:CA:976:A:N6	11:CA:982:U:OP2	2.44	0.51
11:CA:1442:A:H62	11:CA:1510:U:H3	1.56	0.51
11:CA:1647:U:H2'	11:CA:1648:C:H6	1.74	0.51
11:CA:1663:A:H3'	11:CA:1664:A:C8	2.46	0.51
15:CE:31:THR:HB	15:CE:34:GLY:H	1.74	0.51
28:CR:92:ILE:HG21	28:CR:126:PHE:CE1	2.45	0.51
28:CR:190:VAL:HB	28:CR:219:LEU:HD13	1.93	0.51
30:CT:18:PHE:HZ	30:CT:140:LEU:HD22	1.74	0.51
35:CY:71:GLY:H	35:CY:98:ARG:CZ	2.23	0.51
5:D4:95:ASP:O	5:D4:98:ASN:ND2	2.40	0.51
11:DA:282:A:H2'	11:DA:283:A:H8	1.76	0.51
11:DA:1032:U:H3	11:DA:1035:A:N6	1.99	0.51
11:DA:1442:A:H62	11:DA:1510:U:H3	1.57	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1569:A:C5	24:DN:13:TYR:HE2	2.29	0.51
13:DC:42:VAL:HG22	13:DC:51:ILE:HG12	1.92	0.51
15:DE:219:LEU:O	15:DE:222:THR:OG1	2.25	0.51
16:DF:51:TRP:HE3	16:DF:73:LEU:HD21	1.74	0.51
29:DS:39:ALA:O	29:DS:47:ARG:HG2	2.10	0.51
5:A4:50:VAL:HG21	5:A4:63:ILE:HG12	1.92	0.51
10:A9:129:TYR:HB2	10:A9:152:LEU:HB2	1.90	0.51
11:AA:3:C:N4	14:AD:16:ARG:HB2	2.24	0.51
11:AA:369:A:OP2	11:AA:370:U:OP2	2.29	0.51
11:AA:928:C:O2'	25:AO:103:HIS:HD2	1.92	0.51
11:AA:1045:G:C2'	11:AA:1046:G:H5"	2.40	0.51
11:AA:1293:A:H4'	11:AA:1294:A:O5'	2.11	0.51
11:AA:1377:A:OP2	17:AG:54:LYS:NZ	2.44	0.51
11:AA:1399:G:N2	20:AJ:72:GLU:HG2	2.23	0.51
13:AC:165:GLN:N	13:AC:166:PRO:HD2	2.24	0.51
14:AD:120:ASN:H	14:AD:124:HIS:HD2	1.56	0.51
23:AM:90:ASN:ND2	29:AS:14:ARG:HD2	2.26	0.51
28:AR:33:GLN:HE21	28:AR:88:ASN:HD22	1.57	0.51
28:AR:255:GLY:H	28:AR:279:LYS:HZ1	1.58	0.51
31:AU:75:LYS:O	31:AU:78:SER:OG	2.26	0.51
8:B7:6:LYS:HZ1	31:BU:27:LYS:NZ	2.08	0.51
11:BA:576:U:H6	11:BA:576:U:H5'	1.75	0.51
11:BA:1168:A:HO2'	11:BA:1169:C:P	2.31	0.51
13:BC:136:GLY:HA3	13:BC:159:TYR:O	2.10	0.51
20:BJ:41:ARG:NH2	20:BJ:103:ASN:HB3	2.24	0.51
21:BK:91:ASN:N	21:BK:91:ASN:OD1	2.44	0.51
21:BK:142:ARG:HG3	21:BK:143:GLU:N	2.25	0.51
31:BU:86:PHE:HB2	31:BU:94:ILE:HG23	1.92	0.51
11:CA:69:A:H3'	35:CY:173:ARG:HH22	1.75	0.51
11:CA:614:A:H2'	11:CA:615:A:C8	2.46	0.51
11:CA:1293:A:H4'	11:CA:1294:A:O5'	2.11	0.51
11:CA:1474:G:H8	11:CA:1474:G:OP1	1.94	0.51
11:CA:1647:U:H2'	11:CA:1648:C:C6	2.45	0.51
19:CI:12:PHE:HD1	19:CI:12:PHE:H	1.57	0.51
32:CV:65:PRO:CA	32:CV:78:ARG:HH12	2.23	0.51
11:DA:61:A:H5"	11:DA:62:G:OP1	2.09	0.51
11:DA:148:C:H5'	35:DY:108:VAL:HG21	1.92	0.51
11:DA:531:A:N3	39:DA:7637:HOH:O	2.35	0.51
11:DA:559:C:H5"	11:DA:571:G:H1'	1.93	0.51
11:DA:1439:U:H4'	30:DT:91:ASN:HA	1.92	0.51
22:DL:51:LEU:O	22:DL:73:VAL:HA	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DN:16:ASP:CG	24:DN:26:ARG:HH12	2.19	0.51
36:DZ:32:CYS:HB2	36:DZ:70:CYS:HB3	1.93	0.51
36:DZ:73:VAL:HG13	36:DZ:78:GLU:HB2	1.93	0.51
8:A7:13:TYR:HE1	8:A7:49:LEU:HD21	1.75	0.51
11:AA:1007:U:O2'	11:AA:1009:U:H5	1.93	0.51
11:AA:1469:U:H5'	11:AA:1470:C:OP2	2.11	0.51
23:AM:27:ILE:HG22	23:AM:29:PRO:HD2	1.92	0.51
30:AT:4:ASN:HB2	30:AT:152:ARG:NH1	2.25	0.51
6:B5:82:HIS:ND1	11:BA:1719:A:N1	2.57	0.51
11:BA:425:A:H5"	11:BA:426:G:OP2	2.10	0.51
14:BD:64:PRO:HA	14:BD:69:ARG:NH1	2.25	0.51
8:C7:9:LYS:HG2	8:C7:13:TYR:HE2	1.76	0.51
11:CA:883:A:H5'	21:CK:66:ARG:HB3	1.91	0.51
11:CA:1535:A:OP1	30:CT:87:LYS:NZ	2.41	0.51
13:CC:136:GLY:HA3	13:CC:159:TYR:O	2.11	0.51
15:CE:170:LEU:HD22	15:CE:197:ILE:HD13	1.92	0.51
4:D3:63:ILE:HD11	4:D3:94:PHE:CZ	2.44	0.51
5:D4:75:LEU:O	5:D4:79:SER:HB2	2.11	0.51
6:D5:10:ARG:HH12	11:DA:1743:A:P	2.34	0.51
11:DA:1213:G:H1'	29:DS:84:HIS:ND1	2.25	0.51
11:DA:1663:A:H3'	11:DA:1664:A:C8	2.45	0.51
15:DE:141:ARG:NH1	15:DE:230:PHE:CZ	2.79	0.51
26:DP:51:ARG:NH1	26:DP:146:PHE:HE1	2.08	0.51
28:DR:33:GLN:HE21	28:DR:88:ASN:HD22	1.57	0.51
28:DR:155:SER:OG	28:DR:160:ASN:ND2	2.43	0.51
28:DR:161:HIS:HB3	28:DR:197:LYS:HE2	1.93	0.51
4:A3:63:ILE:HD11	4:A3:94:PHE:CZ	2.45	0.51
4:A3:162:PHE:HD1	4:A3:163:LEU:HD23	1.75	0.51
5:A4:170:ILE:HD13	5:A4:213:LEU:HD11	1.91	0.51
11:AA:1319:U:OP1	20:AJ:20:ARG:NH2	2.33	0.51
12:AB:121:THR:O	12:AB:143:LEU:HB2	2.11	0.51
28:AR:92:ILE:HG21	28:AR:126:PHE:CE1	2.45	0.51
36:AZ:46:SER:HA	36:AZ:74:ARG:HH22	1.75	0.51
11:BA:1164:C:OP2	11:BA:1165:A:O2'	2.17	0.51
11:BA:1166:A:P	20:BJ:73:GLY:HA3	2.50	0.51
12:BB:50:TRP:O	12:BB:54:LYS:HG3	2.10	0.51
23:BM:94:ASP:CG	23:BM:98:TYR:HH	2.12	0.51
27:BQ:70:ILE:HG23	27:BQ:87:ARG:HD2	1.93	0.51
34:BX:53:ASP:HB2	34:BX:56:LYS:HB2	1.91	0.51
4:C3:68:GLN:NE2	11:CA:835:U:OP2	2.44	0.51
11:CA:227:G:N2	11:CA:229:A:H8	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:1246:C:OP2	11:CA:1399:G:OP2	2.28	0.51
11:CA:1514:G:H2'	11:CA:1540:G:N2	2.25	0.51
18:CH:41:MET:HB2	18:CH:47:ILE:HD13	1.93	0.51
11:DA:573:A:N1	13:DC:147:GLN:CD	2.68	0.51
11:DA:1171:G:H5"	24:DN:39:ARG:HH12	1.76	0.51
15:DE:49:PHE:CD1	15:DE:139:PRO:HD3	2.46	0.51
20:DJ:41:ARG:NH2	20:DJ:103:ASN:HB3	2.26	0.51
26:DP:53:VAL:HG22	26:DP:73:VAL:HG22	1.93	0.51
27:DQ:126:GLN:HG2	27:DQ:127:CYS:H	1.75	0.51
1:A0:58:GLY:HA2	1:A0:88:CYS:O	2.11	0.51
11:AA:378:A:OP2	11:AA:378:A:C8	2.55	0.51
11:AA:1246:C:O2'	11:AA:1247:A:OP2	2.27	0.51
11:AA:1252:C:H2'	11:AA:1253:G:H8	1.75	0.51
11:AA:1421:G:O2'	24:AN:6:TRP:HA	2.10	0.51
11:AA:1514:G:H2'	11:AA:1540:G:N2	2.26	0.51
31:AU:86:PHE:HB2	31:AU:94:ILE:HG23	1.93	0.51
34:AX:53:ASP:HB2	34:AX:56:LYS:HB2	1.92	0.51
1:B0:58:GLY:HA2	1:B0:88:CYS:O	2.10	0.51
3:B2:22:ARG:HB3	11:BA:376:A:H5"	1.92	0.51
11:BA:100:A:H4'	11:BA:101:A:O5'	2.11	0.51
11:BA:230:A:N6	11:BA:231:U:C2	2.78	0.51
11:BA:512:C:H4'	11:BA:512:C:OP1	2.11	0.51
11:BA:633:U:C4'	11:BA:634:C:H5"	2.41	0.51
11:BA:666:A:H5"	18:BH:43:LYS:NZ	2.25	0.51
11:BA:785:G:N3	18:BH:107:THR:HG21	2.26	0.51
11:BA:840:A:HO2'	11:BA:841:A:P	2.32	0.51
11:BA:1311:C:H4'	11:BA:1312:U:OP2	2.11	0.51
31:BU:116:GLU:O	31:BU:120:ILE:HG13	2.11	0.51
3:C2:56:VAL:HG13	11:CA:324:A:H5'	1.93	0.51
11:CA:640:A:H2'	11:CA:641:G:C8	2.46	0.51
12:CB:165:GLU:HG3	12:CB:199:TYR:CE2	2.45	0.51
13:CC:85:ASP:OD1	13:CC:85:ASP:N	2.44	0.51
28:CR:178:ASN:HB2	23:DM:110:ARG:NH1	2.26	0.51
33:CW:51:ARG:N	33:CW:51:ARG:HD3	2.26	0.51
1:D0:97:ASP:O	1:D0:101:ASN:ND2	2.43	0.51
11:DA:213:U:H4'	11:DA:214:U:H5'	1.92	0.51
11:DA:530:G:N7	14:DD:171:ARG:HD2	2.26	0.51
11:DA:1228:A:C8	11:DA:1228:A:H5"	2.45	0.51
12:DB:161:ASN:O	12:DB:167:ILE:HD11	2.10	0.51
27:DQ:70:ILE:HG23	27:DQ:87:ARG:HD2	1.92	0.51
28:DR:77:HIS:H	28:DR:97:ASP:HB3	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DW:51:ARG:HD3	33:DW:51:ARG:N	2.25	0.51
33:DW:160:ASP:CG	33:DW:176:HIS:HB3	2.35	0.51
11:AA:90:U:O2'	33:AW:8:HIS:HD2	1.93	0.51
11:AA:469:A:H2'	11:AA:470:G:C8	2.41	0.51
11:AA:1176:A:N3	24:AN:9:HIS:NE2	2.47	0.51
15:AE:141:ARG:HB3	15:AE:222:THR:CG2	2.41	0.51
20:AJ:41:ARG:NH2	20:AJ:103:ASN:HB3	2.25	0.51
28:AR:114:PHE:CE2	28:AR:149:GLY:HA2	2.46	0.51
4:B3:50:ILE:O	4:B3:50:ILE:HG13	2.10	0.51
11:BA:376:A:H2'	11:BA:377:G:C8	2.45	0.51
11:BA:878:A:OP1	21:BK:57:THR:HB	2.10	0.51
11:BA:934:U:OP1	11:BA:1044:C:O2'	2.24	0.51
11:BA:1472:U:OP2	30:BT:105:ARG:NH2	2.44	0.51
14:BD:135:LYS:HG3	14:BD:159:ALA:HA	1.93	0.51
15:BE:144:TYR:CD2	15:BE:148:LYS:HB3	2.46	0.51
28:BR:33:GLN:HE21	28:BR:88:ASN:HD22	1.57	0.51
29:BS:39:ALA:O	29:BS:47:ARG:HG2	2.11	0.51
7:C6:53:ILE:HG23	7:C6:58:SER:HA	1.93	0.51
11:CA:515:U:OP1	26:CP:35:LYS:HD2	2.11	0.51
11:CA:857:G:O2'	25:CO:107:ASN:HB3	2.09	0.51
11:CA:886:U:H6	11:CA:886:U:H5"	1.76	0.51
11:CA:1469:U:H5'	11:CA:1470:C:OP2	2.11	0.51
39:CA:2377:HOH:O	26:CP:90:ARG:NH2	2.42	0.51
13:CC:45:THR:HG22	13:CC:47:THR:H	1.75	0.51
15:CE:35:ARG:NH1	15:CE:248:LEU:O	2.40	0.51
19:CI:99:VAL:HG12	19:CI:100:ASP:H	1.76	0.51
22:CL:9:ILE:HA	27:CQ:98:ARG:HB3	1.91	0.51
24:CN:16:ASP:CG	24:CN:26:ARG:NH1	2.69	0.51
29:CS:39:ALA:O	29:CS:47:ARG:HG2	2.10	0.51
3:D2:10:LYS:CD	11:DA:329:A:H5"	2.39	0.51
4:D3:115:ARG:HG2	4:D3:121:TYR:CE2	2.45	0.51
6:D5:30:VAL:HG21	6:D5:76:CYS:HA	1.92	0.51
11:DA:332:A:H2'	11:DA:333:C:C6	2.46	0.51
11:DA:754:A:H4'	14:DD:9:SER:CB	2.40	0.51
11:DA:1311:C:H4'	11:DA:1312:U:OP2	2.10	0.51
12:DB:32:TYR:OH	36:DZ:80:HIS:HD2	1.93	0.51
15:DE:55:ILE:HG23	15:DE:60:ILE:HD12	1.91	0.51
30:DT:4:ASN:HB2	30:DT:152:ARG:NH1	2.25	0.51
31:DU:86:PHE:HB2	31:DU:94:ILE:HG23	1.92	0.51
5:A4:132:THR:OG1	5:A4:136:TYR:HB2	2.11	0.51
11:AA:206:U:H5"	27:AQ:16:PHE:CG	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:622:G:N1	11:AA:948:A:OP2	2.42	0.51
11:AA:738:A:H4'	11:AA:739:A:OP2	2.11	0.51
11:AA:1153:U:H1'	29:AS:131:THR:HG23	1.92	0.51
11:AA:1663:A:H3'	11:AA:1664:A:C8	2.46	0.51
11:BA:318:U:H2'	11:BA:319:A:C8	2.45	0.51
11:BA:416:C:O2'	11:BA:417:A:P	2.68	0.51
11:BA:886:U:H5"	11:BA:886:U:H6	1.76	0.51
11:BA:1171:G:C5'	24:BN:39:ARG:HH12	2.23	0.51
11:BA:1252:C:H2'	11:BA:1253:G:H8	1.76	0.51
11:BA:1359:C:O2'	32:BV:52:GLY:HA3	2.11	0.51
15:BE:52:SER:HB3	36:BZ:40:PHE:O	2.10	0.51
28:BR:114:PHE:CE2	28:BR:149:GLY:HA2	2.45	0.51
11:CA:149:U:OP1	35:CY:107:ARG:HG2	2.10	0.51
11:CA:163:A:H5'	11:CA:164:U:OP2	2.11	0.51
11:CA:1504:U:C2'	11:CA:1505:C:H5'	2.40	0.51
14:CD:49:LEU:O	14:CD:53:ARG:HG3	2.09	0.51
18:CH:55:ASP:OD1	18:CH:59:LYS:HA	2.11	0.51
28:CR:334:ARG:HB3	28:CR:336:PHE:CE2	2.46	0.51
35:CY:216:LEU:HB3	35:CY:220:LYS:HE3	1.92	0.51
4:D3:165:GLU:CD	4:D3:165:GLU:H	2.17	0.51
5:D4:128:VAL:HG13	5:D4:175:ASN:OD1	2.11	0.51
5:D4:140:VAL:HG12	5:D4:221:VAL:HG22	1.93	0.51
7:D6:53:ILE:HG23	7:D6:58:SER:HA	1.93	0.51
8:D7:3:HIS:CD2	11:DA:1229:U:C2	2.99	0.51
8:D7:47:ARG:HD3	11:DA:1191:A:O2'	2.10	0.51
10:D9:128:HIS:HE1	11:DA:1223:U:H1'	1.75	0.51
11:DA:376:A:H2'	11:DA:377:G:C8	2.46	0.51
11:DA:622:G:N1	11:DA:948:A:OP2	2.40	0.51
11:DA:934:U:OP1	11:DA:1044:C:O2'	2.28	0.51
11:DA:1213:G:C4	29:DS:84:HIS:CD2	2.99	0.51
11:DA:1313:G:O2'	28:DR:74:GLY:O	2.22	0.51
11:DA:1326:C:H5'	11:DA:1327:U:OP2	2.11	0.51
14:DD:49:LEU:O	14:DD:53:ARG:HG3	2.11	0.51
24:DN:39:ARG:HG3	24:DN:40:ARG:N	2.26	0.51
25:DO:25:PRO:HG3	25:DO:63:PRO:HG3	1.92	0.51
28:DR:23:TRP:O	28:DR:46:SER:HB2	2.11	0.51
31:DU:116:GLU:O	31:DU:120:ILE:HG13	2.11	0.51
7:A6:53:ILE:HG23	7:A6:58:SER:HA	1.93	0.51
8:A7:75:TYR:CZ	8:A7:79:LYS:HE3	2.46	0.51
11:AA:886:U:H6	11:AA:886:U:H5"	1.75	0.51
11:AA:976:A:N6	11:AA:982:U:OP2	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:1011:C:H4'	25:AO:7:LYS:HG2	1.92	0.51
11:AA:1166:A:P	20:AJ:73:GLY:HA3	2.50	0.51
11:AA:1199:G:O6	11:AA:1228:A:H2'	2.10	0.51
11:AA:1383:G:O2'	11:AA:1384:U:OP2	2.24	0.51
12:AB:161:ASN:O	12:AB:167:ILE:HD11	2.11	0.51
35:AY:189:LEU:O	35:AY:193:VAL:HG23	2.11	0.51
1:B0:97:ASP:HA	1:B0:100:ARG:HG2	1.93	0.51
11:BA:282:A:H2'	11:BA:283:A:H8	1.76	0.51
11:BA:371:U:H5	14:BD:4:THR:O	1.94	0.51
11:BA:1474:G:H8	11:BA:1474:G:OP1	1.93	0.51
11:BA:1500:C:H5"	17:BG:86:LYS:HE3	1.92	0.51
11:BA:1663:A:H3'	11:BA:1664:A:C8	2.46	0.51
16:BF:58:ASN:HB3	16:BF:74:ASN:ND2	2.26	0.51
26:BP:53:VAL:HG22	26:BP:73:VAL:HG22	1.92	0.51
35:BY:216:LEU:HB3	35:BY:220:LYS:HE3	1.92	0.51
11:CA:3:C:HO2'	11:CA:4:C:P	2.30	0.51
11:CA:494:A:C2	34:CX:48:HIS:HB3	2.45	0.51
11:CA:1217:G:O2'	11:CA:1218:C:OP2	2.19	0.51
20:CJ:32:GLU:OE2	20:CJ:55:ARG:NH2	2.44	0.51
28:CR:155:SER:OG	28:CR:160:ASN:ND2	2.43	0.51
29:CS:46:THR:HG23	29:CS:89:ILE:HD13	1.92	0.51
36:CZ:47:VAL:HB	36:CZ:74:ARG:NH1	2.26	0.51
1:D0:60:ILE:HD11	1:D0:70:ILE:HD11	1.93	0.51
3:D2:179:ARG:HG3	3:D2:179:ARG:NH1	2.26	0.51
4:D3:162:PHE:HD1	4:D3:163:LEU:HD23	1.76	0.51
11:DA:894:U:N3	21:DK:55:ARG:NH2	2.58	0.51
11:DA:1172:G:H4'	11:DA:1173:G:O5'	2.11	0.51
11:DA:1469:U:C5'	30:DT:75:GLY:HA3	2.41	0.51
11:DA:1568:C:P	24:DN:18:LYS:NZ	2.84	0.51
11:DA:1751:U:O2'	11:DA:1753:A:N6	2.44	0.51
19:DI:99:VAL:HG12	19:DI:100:ASP:H	1.75	0.51
32:DV:70:SER:O	32:DV:71:LEU:C	2.53	0.51
2:A1:12:MET:SD	2:A1:30:VAL:HG23	2.51	0.51
7:A6:65:THR:HB	7:A6:68:LYS:HG3	1.91	0.51
10:A9:81:THR:HG21	11:AA:1184:G:OP1	2.11	0.51
10:A9:86:THR:O	11:AA:1219:U:H5'	2.11	0.51
11:AA:332:A:H2'	11:AA:333:C:C6	2.46	0.51
11:AA:371:U:H5	14:AD:4:THR:O	1.94	0.51
11:AA:1504:U:C2'	11:AA:1505:C:H5'	2.41	0.51
11:AA:1507:U:C5	17:AG:161:MET:HG2	2.46	0.51
25:AO:129:ARG:O	25:AO:133:LEU:HG	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AR:190:VAL:HB	28:AR:219:LEU:HD13	1.93	0.51
29:AS:90:VAL:HB	29:AS:117:ILE:HA	1.93	0.51
11:BA:498:C:H4'	11:BA:499:A:OP1	2.11	0.51
11:BA:947:C:H5'	11:BA:1076:U:H1'	1.92	0.51
11:BA:1347:U:O2'	11:BA:1348:U:OP2	2.21	0.51
17:BG:83:LEU:O	17:BG:87:VAL:HG23	2.11	0.51
17:BG:168:LEU:O	17:BG:172:ILE:HG13	2.10	0.51
19:BI:79:GLN:O	19:BI:83:ILE:HG13	2.11	0.51
23:BM:119:ILE:HD11	29:BS:115:ASP:HB3	1.94	0.51
27:BQ:56:LYS:O	27:BQ:63:LEU:HD22	2.10	0.51
28:BR:23:TRP:O	28:BR:46:SER:HB2	2.12	0.51
4:C3:190:LYS:HD3	7:C6:10:TYR:HD1	1.76	0.51
11:CA:1005:A:OP2	39:CA:2192:HOH:O	2.19	0.51
23:CM:40:ARG:NH2	30:CT:48:GLU:OE1	2.41	0.51
28:CR:93:SER:HG	28:CR:103:TRP:HE1	1.56	0.51
28:CR:161:HIS:HB3	28:CR:197:LYS:HE2	1.92	0.51
36:CZ:32:CYS:HB2	36:CZ:70:CYS:HB3	1.93	0.51
3:D2:24:LYS:NZ	11:DA:1683:A:OP1	2.44	0.51
8:D7:16:LEU:O	8:D7:20:GLY:N	2.37	0.51
8:D7:35:THR:HB	8:D7:37:VAL:HG23	1.92	0.51
11:DA:560:C:OP2	22:DL:65:SER:HB3	2.10	0.51
11:DA:658:C:H2'	11:DA:659:G:C8	2.46	0.51
11:DA:1045:G:C2'	11:DA:1046:G:H5"	2.40	0.51
11:DA:1262:U:H2'	11:DA:1263:G:C8	2.45	0.51
28:DR:114:PHE:CE2	28:DR:149:GLY:HA2	2.47	0.51
29:DS:90:VAL:HB	29:DS:117:ILE:HA	1.93	0.51
4:A3:24:VAL:O	4:A3:27:GLN:HG2	2.10	0.50
4:A3:190:LYS:HB3	7:A6:10:TYR:CE1	2.45	0.50
11:AA:947:C:H5'	11:AA:1076:U:H1'	1.93	0.50
12:AB:116:ARG:HD3	15:AE:242:GLU:OE2	2.10	0.50
12:AB:147:ASP:OD2	12:AB:162:ARG:NH2	2.44	0.50
24:AN:16:ASP:CG	24:AN:26:ARG:HH12	2.20	0.50
5:B4:37:PRO:HG3	5:B4:101:THR:O	2.11	0.50
11:BA:488:G:H2'	11:BA:489:U:H6	1.76	0.50
11:BA:1568:C:P	24:BN:18:LYS:HZ3	2.34	0.50
15:BE:141:ARG:HB2	15:BE:223:TYR:CD1	2.45	0.50
17:BG:68:ILE:HA	17:BG:71:LEU:HD12	1.92	0.50
24:BN:39:ARG:HG3	24:BN:40:ARG:N	2.26	0.50
28:BR:334:ARG:HB3	28:BR:336:PHE:CE2	2.46	0.50
30:BT:38:THR:O	30:BT:56:TRP:HH2	1.95	0.50
36:BZ:73:VAL:HG13	36:BZ:78:GLU:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C3:162:PHE:HD1	4:C3:163:LEU:HD23	1.76	0.50
11:CA:1201:G:C6	11:CA:1227:G:C6	2.99	0.50
11:CA:1236:G:H4'	11:CA:1237:G:OP1	2.12	0.50
11:CA:1252:C:H2'	11:CA:1253:G:H8	1.76	0.50
11:CA:1452:G:H5"	11:CA:1452:G:H8	1.75	0.50
12:CB:23:ILE:HA	12:CB:42:HIS:CD2	2.46	0.50
15:CE:219:LEU:O	15:CE:222:THR:OG1	2.27	0.50
4:D3:24:VAL:O	4:D3:27:GLN:HG2	2.11	0.50
4:D3:190:LYS:HD3	7:D6:10:TYR:HD1	1.76	0.50
11:DA:28:U:H2'	11:DA:29:G:C8	2.46	0.50
11:DA:233:U:H2'	11:DA:234:G:N9	2.26	0.50
11:DA:248:A:H2'	11:DA:249:A:O4'	2.11	0.50
11:DA:371:U:H5	14:DD:4:THR:O	1.94	0.50
11:DA:491:U:H2'	11:DA:492:C:O4'	2.11	0.50
11:DA:1514:G:H2'	11:DA:1540:G:N2	2.26	0.50
28:DR:111:TYR:CD2	28:DR:112:LYS:HG2	2.46	0.50
4:A3:165:GLU:CD	4:A3:165:GLU:H	2.19	0.50
11:AA:1253:G:H1'	20:AJ:72:GLU:HG3	1.92	0.50
11:AA:1555:A:H5'	19:AI:137:ARG:NH1	2.27	0.50
13:AC:101:ALA:O	13:AC:105:VAL:HG23	2.11	0.50
23:AM:119:ILE:HG23	29:AS:124:PHE:CE2	2.47	0.50
28:AR:20:HIS:HE1	28:AR:50:THR:HG22	1.77	0.50
8:B7:9:LYS:HG2	8:B7:13:TYR:HE2	1.77	0.50
10:B9:102:LYS:HD3	10:B9:112:GLN:HB2	1.93	0.50
11:BA:573:A:O2'	11:BA:574:A:OP1	2.23	0.50
13:BC:101:ALA:O	13:BC:105:VAL:HG23	2.11	0.50
1:C0:61:CYS:HB3	1:C0:64:LEU:H	1.75	0.50
4:C3:145:LEU:HA	18:CH:42:GLN:NE2	2.25	0.50
11:CA:559:C:H5"	11:CA:571:G:H1'	1.93	0.50
11:CA:1535:A:C2'	11:CA:1536:U:H5'	2.40	0.50
13:CC:42:VAL:HG22	13:CC:51:ILE:HG12	1.92	0.50
5:D4:45:PHE:HE2	5:D4:68:VAL:HG11	1.76	0.50
11:DA:163:A:H5'	11:DA:164:U:OP2	2.11	0.50
11:DA:776:A:H5"	11:DA:777:U:O5'	2.11	0.50
11:DA:1263:G:N2	11:DA:1296:G:H1	2.05	0.50
15:DE:184:ILE:H	15:DE:184:ILE:HD12	1.75	0.50
26:DP:77:GLN:HE22	26:DP:142:HIS:HE1	1.59	0.50
8:A7:6:LYS:NZ	31:AU:27:LYS:NZ	2.49	0.50
11:AA:100:A:H4'	11:AA:101:A:O5'	2.11	0.50
11:AA:776:A:H5"	11:AA:777:U:O5'	2.11	0.50
11:AA:1480:U:O2'	11:AA:1481:A:H8	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AB:44:ILE:HG21	12:AB:158:PRO:HB2	1.93	0.50
12:AB:181:LEU:HA	36:AZ:58:GLY:O	2.12	0.50
13:AC:137:CYS:SG	13:AC:138:GLU:N	2.84	0.50
15:AE:37:VAL:HG21	15:AE:60:ILE:HG23	1.94	0.50
24:AN:16:ASP:CG	24:AN:26:ARG:NH1	2.69	0.50
34:AX:34:ARG:HB3	34:AX:34:ARG:NH1	2.27	0.50
11:BA:1108:U:OP1	11:BA:1621:G:O2'	2.29	0.50
11:BA:1199:G:O6	11:BA:1228:A:H2'	2.10	0.50
11:BA:1326:C:H5'	11:BA:1327:U:OP2	2.12	0.50
12:BB:12:ARG:NH2	32:BV:93:ILE:HD11	2.26	0.50
20:BJ:32:GLU:OE2	20:BJ:55:ARG:NH2	2.44	0.50
20:BJ:78:ASP:OD1	24:BN:53:LYS:HD2	2.11	0.50
28:BR:77:HIS:H	28:BR:97:ASP:HB3	1.75	0.50
3:C2:179:ARG:NH1	3:C2:179:ARG:HG3	2.26	0.50
4:C3:111:GLN:NE2	11:CA:800:A:O4'	2.44	0.50
11:CA:222:U:H3	11:CA:235:A:N6	2.05	0.50
11:CA:1045:G:C2'	11:CA:1046:G:H5"	2.40	0.50
11:CA:1153:U:N3	11:CA:1157:U:H5	2.08	0.50
11:CA:1246:C:O2'	11:CA:1247:A:OP2	2.26	0.50
11:CA:1372:A:OP1	32:CV:60:ARG:NH1	2.44	0.50
11:CA:1607:A:H5"	11:CA:1608:C:OP1	2.11	0.50
12:CB:44:ILE:HG21	12:CB:158:PRO:HB2	1.93	0.50
20:CJ:55:ARG:HE	20:CJ:87:ARG:NH1	2.07	0.50
22:CL:13:ARG:NH2	27:CQ:101:LYS:O	2.44	0.50
22:CL:77:LYS:HG3	22:CL:78:ASN:N	2.27	0.50
35:CY:76:LEU:HB2	35:CY:94:ARG:NH1	2.25	0.50
8:D7:13:TYR:HE1	8:D7:49:LEU:HD21	1.75	0.50
9:D8:60:VAL:HA	9:D8:72:LYS:HG3	1.93	0.50
11:DA:11:A:C2'	11:DA:12:U:H5'	2.41	0.50
11:DA:62:G:H4'	11:DA:164:U:C5	2.47	0.50
11:DA:64:U:H3'	35:DY:178:LYS:NZ	2.25	0.50
12:DB:165:GLU:HG3	12:DB:199:TYR:CE2	2.46	0.50
30:DT:18:PHE:HZ	30:DT:140:LEU:HD22	1.76	0.50
33:DW:124:LYS:HB2	33:DW:166:LEU:HD11	1.92	0.50
34:DX:34:ARG:HB3	34:DX:34:ARG:NH1	2.26	0.50
5:A4:159:THR:HG23	5:A4:161:TYR:HD2	1.73	0.50
11:AA:13:C:O2'	11:AA:1270:U:N3	2.32	0.50
11:AA:28:U:H2'	11:AA:29:G:C8	2.46	0.50
11:AA:878:A:HO2'	11:AA:894:U:H1'	1.76	0.50
11:AA:1538:U:H5'	23:AM:39:GLY:H	1.77	0.50
33:AW:124:LYS:HB2	33:AW:166:LEU:HD11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B9:101:TYR:CE1	31:BU:33:LEU:HD11	2.46	0.50
11:BA:1045:G:C2'	11:BA:1046:G:H5"	2.41	0.50
12:BB:152:TYR:CZ	36:BZ:75:SER:HB2	2.46	0.50
16:BF:58:ASN:HB3	16:BF:74:ASN:HD21	1.77	0.50
17:BG:21:GLU:OE1	17:BG:102:ASN:ND2	2.45	0.50
20:BJ:22:THR:HG22	20:BJ:88:ILE:HG12	1.92	0.50
26:BP:52:ASN:HA	26:BP:80:LEU:HD23	1.94	0.50
3:C2:10:LYS:NZ	11:CA:328:G:O2'	2.27	0.50
10:C9:88:HIS:CE1	11:CA:1220:C:OP2	2.64	0.50
11:CA:220:A:H3'	11:CA:221:A:C8	2.44	0.50
11:CA:490:U:H2'	11:CA:491:U:C6	2.47	0.50
11:CA:1143:A:H2'	11:CA:1144:A:H8	1.75	0.50
11:CA:1501:C:OP2	17:CG:86:LYS:NZ	2.45	0.50
11:CA:1751:U:O2'	11:CA:1753:A:N6	2.44	0.50
34:CX:7:THR:HG22	34:CX:8:LEU:O	2.12	0.50
5:D4:123:LEU:HD11	5:D4:143:LEU:HD11	1.94	0.50
8:D7:11:ARG:HE	8:D7:35:THR:HG22	1.76	0.50
8:D7:75:TYR:CZ	8:D7:79:LYS:HE3	2.45	0.50
11:DA:17:C:O2'	11:DA:1110:A:N1	2.42	0.50
11:DA:235:A:H4'	11:DA:236:U:OP2	2.11	0.50
11:DA:1474:G:H8	11:DA:1474:G:OP1	1.95	0.50
15:DE:144:TYR:CD2	15:DE:148:LYS:HB3	2.46	0.50
28:DR:334:ARG:HB3	28:DR:336:PHE:CE2	2.46	0.50
30:DT:38:THR:O	30:DT:56:TRP:HH2	1.93	0.50
4:A3:190:LYS:HD3	7:A6:10:TYR:HD1	1.75	0.50
8:A7:9:LYS:HG2	8:A7:13:TYR:HE2	1.76	0.50
11:AA:1281:G:H5'	11:AA:1282:U:OP2	2.12	0.50
11:AA:1722:U:H5'	21:AK:151:LEU:HD12	1.92	0.50
12:AB:186:SER:HB3	12:AB:189:GLU:HB3	1.93	0.50
24:AN:39:ARG:HG3	24:AN:40:ARG:N	2.26	0.50
29:AS:42:PHE:CD1	29:AS:46:THR:HG21	2.46	0.50
31:AU:108:TYR:HB3	31:AU:112:ILE:HD12	1.93	0.50
35:AY:2:LYS:HB3	35:AY:108:VAL:HG22	1.94	0.50
35:AY:216:LEU:HB3	35:AY:220:LYS:HE3	1.92	0.50
3:B2:25:ARG:NH2	11:BA:377:G:OP2	2.44	0.50
5:B4:140:VAL:HG21	5:B4:178:ILE:HG21	1.94	0.50
7:B6:65:THR:HB	7:B6:68:LYS:HG3	1.93	0.50
11:BA:227:G:H21	11:BA:229:A:H8	1.58	0.50
11:BA:622:G:N1	11:BA:948:A:OP2	2.42	0.50
11:BA:879:G:C6	11:BA:880:G:C6	3.00	0.50
11:BA:1083:G:O2'	11:BA:1705:A:H5"	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:1504:U:C2'	11:BA:1505:C:H5'	2.41	0.50
11:BA:1505:C:H5"	23:BM:27:ILE:HD12	1.93	0.50
11:BA:1663:A:H5'	11:BA:1664:A:OP2	2.12	0.50
33:BW:11:ARG:HH12	33:BW:20:LEU:HB3	1.76	0.50
5:C4:232:THR:HG22	5:C4:236:GLU:OE2	2.11	0.50
11:CA:93:C:O2	11:CA:417:A:O2'	2.26	0.50
11:CA:214:U:OP2	11:CA:214:U:C6	2.64	0.50
11:CA:738:A:O2'	11:CA:739:A:OP1	2.28	0.50
11:CA:1505:C:H5"	23:CM:27:ILE:HD12	1.94	0.50
23:CM:90:ASN:HD21	29:CS:14:ARG:HD2	1.76	0.50
26:CP:77:GLN:HE22	26:CP:142:HIS:HE1	1.59	0.50
28:CR:20:HIS:HE1	28:CR:50:THR:HG22	1.77	0.50
5:D4:31:TRP:CZ2	21:DK:17:GLY:HA2	2.46	0.50
5:D4:132:THR:OG1	5:D4:136:TYR:HB2	2.11	0.50
11:DA:973:A:H2'	11:DA:974:C:O4'	2.12	0.50
14:DD:135:LYS:HG3	14:DD:159:ALA:HA	1.93	0.50
18:DH:41:MET:HB2	18:DH:47:ILE:HD13	1.93	0.50
21:DK:43:HIS:CD2	21:DK:55:ARG:HG3	2.46	0.50
10:A9:88:HIS:CD2	11:AA:1220:C:OP2	2.64	0.50
11:AA:1311:C:H4'	11:AA:1312:U:OP2	2.10	0.50
13:AC:98:GLY:HA3	13:AC:132:ASP:OD2	2.12	0.50
17:AG:83:LEU:O	17:AG:87:VAL:HG23	2.11	0.50
19:AI:74:SER:OG	19:AI:75:GLY:N	2.44	0.50
22:AL:17:ARG:NH1	22:AL:20:LYS:HE2	2.27	0.50
26:AP:79:TYR:O	26:AP:83:TYR:HD1	1.94	0.50
27:AQ:70:ILE:HG23	27:AQ:87:ARG:HD2	1.93	0.50
29:AS:39:ALA:O	29:AS:47:ARG:HG2	2.11	0.50
2:B1:12:MET:SD	2:B1:30:VAL:HG23	2.52	0.50
4:B3:165:GLU:H	4:B3:165:GLU:CD	2.19	0.50
10:B9:87:LYS:NZ	11:BA:1187:C:P	2.77	0.50
11:BA:1200:G:C6	31:CU:91:LYS:NZ	2.73	0.50
11:BA:1384:U:H2'	11:BA:1387:A:OP1	2.12	0.50
12:BB:161:ASN:O	12:BB:167:ILE:HD11	2.11	0.50
19:BI:112:MET:HE3	19:BI:116:ARG:HG3	1.94	0.50
24:BN:16:ASP:CG	24:BN:26:ARG:NH1	2.69	0.50
28:BR:111:TYR:CD2	28:BR:112:LYS:HG2	2.47	0.50
28:BR:171:SER:OG	28:BR:186:TYR:O	2.18	0.50
29:BS:42:PHE:CD1	29:BS:46:THR:HG21	2.46	0.50
29:BS:46:THR:O	29:BS:50:VAL:HG23	2.11	0.50
1:C0:43:ASN:HA	11:CA:1708:A:O2'	2.12	0.50
4:C3:24:VAL:O	4:C3:27:GLN:HG2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C4:50:VAL:HG21	5:C4:63:ILE:HG12	1.94	0.50
11:CA:328:G:H5"	11:CA:329:A:N7	2.27	0.50
11:CA:934:U:OP1	11:CA:1044:C:O2'	2.29	0.50
11:CA:1212:U:H2'	11:CA:1214:A:OP2	2.11	0.50
12:CB:177:GLU:O	12:CB:181:LEU:HG	2.12	0.50
13:CC:101:ALA:O	13:CC:105:VAL:HG23	2.12	0.50
14:CD:37:LYS:HG3	14:CD:38:ASN:HB3	1.94	0.50
15:CE:37:VAL:HG21	15:CE:60:ILE:HG23	1.92	0.50
15:CE:184:ILE:H	15:CE:184:ILE:HD12	1.77	0.50
16:CF:58:ASN:HB3	16:CF:74:ASN:ND2	2.26	0.50
35:CY:2:LYS:HB3	35:CY:108:VAL:HG22	1.94	0.50
10:D9:104:GLU:OE2	10:D9:106:ASN:HB3	2.12	0.50
11:DA:14:C:O5'	15:DE:165:SER:HB3	2.10	0.50
11:DA:332:A:H2'	11:DA:333:C:H6	1.77	0.50
11:DA:840:A:H8	25:DO:66:ARG:HH22	1.58	0.50
11:DA:976:A:N6	11:DA:982:U:OP2	2.45	0.50
11:DA:1330:U:O3'	30:DT:138:THR:HG23	2.12	0.50
11:DA:1665:U:H2'	11:DA:1666:G:O4'	2.11	0.50
13:DC:136:GLY:HA2	13:DC:158:GLY:HA3	1.94	0.50
15:DE:37:VAL:HG21	15:DE:60:ILE:HG23	1.93	0.50
15:DE:141:ARG:HB3	15:DE:222:THR:CG2	2.42	0.50
26:DP:52:ASN:HA	26:DP:80:LEU:HD23	1.94	0.50
35:DY:76:LEU:HB2	35:DY:94:ARG:NH1	2.25	0.50
10:A9:88:HIS:NE2	11:AA:1220:C:OP2	2.45	0.50
11:AA:446:U:O4'	33:AW:66:ASN:ND2	2.41	0.50
11:AA:576:U:H5'	11:AA:576:U:H6	1.76	0.50
11:AA:754:A:O2'	14:AD:9:SER:OG	2.16	0.50
11:AA:1236:G:H4'	11:AA:1237:G:OP1	2.12	0.50
11:AA:1253:G:O3'	20:AJ:74:SER:HB2	2.12	0.50
11:AA:1360:U:H5"	32:AV:3:ARG:NH1	2.25	0.50
11:AA:1550:U:H4'	19:AI:145:ARG:NH2	2.27	0.50
11:AA:1621:G:P	22:AL:72:ARG:HH21	2.35	0.50
11:AA:1665:U:H2'	11:AA:1666:G:O4'	2.11	0.50
17:AG:21:GLU:OE1	17:AG:102:ASN:ND2	2.44	0.50
26:AP:52:ASN:HA	26:AP:80:LEU:HD23	1.94	0.50
29:AS:46:THR:HG23	29:AS:89:ILE:HD13	1.92	0.50
6:B5:87:ARG:NH1	11:BA:1126:C:OP1	2.44	0.50
11:BA:10:G:OP1	11:BA:1605:A:H2'	2.12	0.50
11:BA:464:G:H5"	14:BD:11:THR:HG23	1.94	0.50
11:BA:1360:U:H5"	32:BV:3:ARG:NH1	2.26	0.50
12:BB:44:ILE:HG21	12:BB:158:PRO:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:BC:45:THR:HG22	13:BC:47:THR:H	1.76	0.50
13:BC:136:GLY:HA2	13:BC:158:GLY:HA3	1.93	0.50
25:BO:129:ARG:O	25:BO:133:LEU:HG	2.12	0.50
26:BP:13:ASN:ND2	33:BW:54:TYR:O	2.43	0.50
29:BS:46:THR:HG23	29:BS:89:ILE:HD13	1.93	0.50
1:C0:97:ASP:HA	1:C0:100:ARG:HG2	1.94	0.50
5:C4:75:LEU:O	5:C4:79:SER:HB2	2.11	0.50
10:C9:81:THR:HG21	11:CA:1184:G:OP1	2.12	0.50
11:CA:1383:G:O2'	11:CA:1384:U:OP2	2.24	0.50
11:CA:1450:G:P	30:CT:60:ARG:NH1	2.84	0.50
27:CQ:70:ILE:HG23	27:CQ:87:ARG:HD2	1.93	0.50
28:CR:114:PHE:CE2	28:CR:149:GLY:HA2	2.46	0.50
30:CT:38:THR:O	30:CT:56:TRP:HH2	1.95	0.50
4:D3:50:ILE:HG13	4:D3:50:ILE:O	2.11	0.50
9:D8:78:SER:OG	23:DM:57:ARG:NH2	2.44	0.50
11:DA:1173:G:OP1	39:DA:8021:HOH:O	2.19	0.50
11:DA:1469:U:H5'	30:DT:75:GLY:HA3	1.93	0.50
11:DA:1501:C:OP2	17:DG:86:LYS:NZ	2.45	0.50
11:DA:1504:U:C2'	11:DA:1505:C:H5'	2.41	0.50
11:DA:1663:A:H5'	11:DA:1664:A:OP2	2.12	0.50
12:DB:44:ILE:HG21	12:DB:158:PRO:HB2	1.92	0.50
12:DB:114:GLU:OE1	15:DE:32:LYS:HG3	2.12	0.50
14:DD:80:MET:HB3	14:DD:86:LEU:HB2	1.94	0.50
3:A2:179:ARG:HG3	3:A2:179:ARG:NH1	2.27	0.50
7:A6:38:CYS:HB3	7:A6:57:CYS:HB3	1.94	0.50
11:AA:519:A:OP1	26:AP:91:LYS:NZ	2.24	0.50
11:AA:879:G:C6	11:AA:880:G:C6	3.00	0.50
15:AE:81:VAL:HG21	15:AE:126:ILE:HD13	1.94	0.50
20:AJ:55:ARG:HE	20:AJ:87:ARG:NH1	2.08	0.50
23:AM:36:ARG:HH22	23:AM:152:ARG:HD3	1.77	0.50
25:AO:97:ALA:O	25:AO:101:ARG:HG2	2.11	0.50
28:AR:161:HIS:H	28:AR:161:HIS:CD2	2.30	0.50
35:AY:76:LEU:HB2	35:AY:94:ARG:NH1	2.26	0.50
3:B2:179:ARG:HG3	3:B2:179:ARG:NH1	2.26	0.50
7:B6:53:ILE:HG23	7:B6:58:SER:HA	1.93	0.50
28:BR:155:SER:OG	28:BR:160:ASN:ND2	2.45	0.50
5:C4:128:VAL:HG13	5:C4:175:ASN:OD1	2.11	0.50
6:C5:45:VAL:HG12	6:C5:50:LYS:HG3	1.94	0.50
11:CA:369:A:OP2	11:CA:370:U:OP2	2.29	0.50
11:CA:1286:U:O2'	11:CA:1287:U:OP2	2.22	0.50
11:CA:1661:G:N3	11:CA:1661:G:H2'	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:CJ:79:ARG:HG2	24:CN:55:ARG:HB3	1.94	0.50
21:CK:43:HIS:CD2	21:CK:55:ARG:HG3	2.47	0.50
24:CN:16:ASP:CG	24:CN:26:ARG:HH12	2.19	0.50
28:CR:161:HIS:H	28:CR:161:HIS:CD2	2.30	0.50
31:CU:86:PHE:HB2	31:CU:94:ILE:HG23	1.94	0.50
33:CW:11:ARG:HH12	33:CW:20:LEU:HB3	1.75	0.50
1:D0:97:ASP:HA	1:D0:100:ARG:HG2	1.94	0.50
5:D4:72:LEU:O	5:D4:79:SER:OG	2.30	0.50
11:DA:413:C:C4	35:DY:87:ARG:HD3	2.47	0.50
11:DA:765:A:N3	26:DP:19:ARG:HD3	2.27	0.50
11:DA:1721:G:H4'	11:DA:1722:U:O5'	2.12	0.50
15:DE:35:ARG:NH1	15:DE:248:LEU:O	2.41	0.50
15:DE:150:ALA:H	15:DE:175:ARG:HH22	1.60	0.50
17:DG:83:LEU:O	17:DG:87:VAL:HG23	2.11	0.50
33:DW:89:MET:HA	33:DW:89:MET:HE2	1.93	0.50
36:DZ:46:SER:HA	36:DZ:74:ARG:HH22	1.77	0.50
1:A0:97:ASP:O	1:A0:101:ASN:ND2	2.45	0.50
11:AA:680:U:O2'	11:AA:681:G:OP1	2.28	0.50
11:AA:894:U:C4	21:AK:55:ARG:NH2	2.80	0.50
12:AB:50:TRP:O	12:AB:54:LYS:HG3	2.11	0.50
13:AC:85:ASP:N	13:AC:85:ASP:OD1	2.43	0.50
36:AZ:32:CYS:HB2	36:AZ:70:CYS:HB3	1.94	0.50
3:B2:27:PHE:CE1	11:BA:292:G:H4'	2.46	0.50
5:B4:100:LYS:HD3	5:B4:238:TYR:CE2	2.46	0.50
6:B5:45:VAL:HG12	6:B5:50:LYS:HG3	1.94	0.50
8:B7:13:TYR:HE1	8:B7:49:LEU:HD21	1.75	0.50
10:B9:80:TYR:HE2	10:B9:83:LYS:HZ3	1.60	0.50
11:BA:244:A:H8	11:BA:244:A:O5'	1.95	0.50
11:BA:887:U:C6	11:BA:887:U:H5"	2.47	0.50
11:BA:894:U:C4	21:BK:55:ARG:NH2	2.80	0.50
11:BA:973:A:H2'	11:BA:974:C:O4'	2.12	0.50
11:BA:1000:U:H4'	11:BA:1097:A:N6	2.27	0.50
11:BA:1355:G:H21	28:BR:76:ASN:ND2	2.10	0.50
11:BA:1399:G:N2	20:BJ:72:GLU:HG2	2.25	0.50
11:BA:1426:G:OP1	29:BS:127:THR:HG21	2.12	0.50
11:BA:1555:A:H5'	19:BI:137:ARG:NH1	2.25	0.50
11:BA:1665:U:H2'	11:BA:1666:G:O4'	2.11	0.50
12:BB:186:SER:HB3	12:BB:189:GLU:HB3	1.92	0.50
15:BE:55:ILE:HG23	15:BE:60:ILE:HD12	1.93	0.50
18:BH:41:MET:HB2	18:BH:47:ILE:HD13	1.94	0.50
27:BQ:126:GLN:HG2	27:BQ:127:CYS:H	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BY:71:GLY:H	35:BY:98:ARG:CZ	2.24	0.50
11:CA:376:A:H2'	11:CA:377:G:C8	2.47	0.50
11:CA:653:U:H3	11:CA:656:G:N2	2.10	0.50
11:CA:1665:U:H2'	11:CA:1666:G:O4'	2.11	0.50
14:CD:80:MET:HB3	14:CD:86:LEU:HB2	1.93	0.50
15:CE:150:ALA:H	15:CE:175:ARG:HH22	1.60	0.50
26:CP:52:ASN:HA	26:CP:80:LEU:HD23	1.94	0.50
28:CR:184:ALA:HB3	28:CR:206:ARG:NH1	2.26	0.50
31:CU:116:GLU:O	31:CU:120:ILE:HG13	2.12	0.50
2:D1:24:ILE:HD13	17:DG:134:VAL:HG21	1.94	0.50
11:DA:318:U:H2'	11:DA:319:A:C8	2.46	0.50
11:DA:468:U:H5"	11:DA:469:A:O4'	2.11	0.50
11:DA:531:A:H5"	11:DA:536:C:H41	1.77	0.50
11:DA:928:C:O2'	25:DO:103:HIS:HD2	1.94	0.50
11:DA:1147:U:OP2	23:DM:137:HIS:NE2	2.44	0.50
11:DA:1715:A:H1'	11:DA:1736:C:H5'	1.94	0.50
15:DE:145:TRP:O	18:DH:98:GLN:NE2	2.44	0.50
28:DR:161:HIS:H	28:DR:161:HIS:CD2	2.30	0.50
8:A7:51:ASP:OD2	11:AA:1191:A:N3	2.45	0.49
11:AA:376:A:H2'	11:AA:377:G:C8	2.48	0.49
11:AA:656:G:H2'	11:AA:657:U:C6	2.47	0.49
20:AJ:32:GLU:OE2	20:AJ:55:ARG:NH2	2.44	0.49
22:AL:77:LYS:HG3	22:AL:78:ASN:N	2.27	0.49
28:AR:23:TRP:O	28:AR:46:SER:HB2	2.12	0.49
28:AR:111:TYR:CD2	28:AR:112:LYS:HG2	2.47	0.49
30:AT:46:ALA:HB1	30:AT:87:LYS:HB3	1.94	0.49
35:AY:71:GLY:H	35:AY:98:ARG:CZ	2.24	0.49
2:B1:58:MET:HB2	2:B1:59:GLU:OE2	2.12	0.49
11:BA:15:U:H2'	11:BA:16:G:O4'	2.12	0.49
11:BA:1236:G:H4'	11:BA:1237:G:OP1	2.10	0.49
11:BA:1260:G:N3	11:BA:1393:A:C2	2.80	0.49
11:BA:1480:U:O2'	11:BA:1481:A:H8	1.93	0.49
22:BL:68:ARG:HG3	22:BL:116:ILE:HG12	1.93	0.49
11:CA:2:A:C2	11:CA:361:A:H1'	2.46	0.49
11:CA:1117:U:O2'	11:CA:1273:U:H4'	2.12	0.49
11:CA:1263:G:N2	11:CA:1296:G:H1	2.06	0.49
11:CA:1507:U:C5	17:CG:161:MET:HG2	2.46	0.49
31:CU:108:TYR:HB3	31:CU:112:ILE:HD12	1.95	0.49
8:D7:67:TYR:HB3	13:DC:75:PHE:CZ	2.47	0.49
12:DB:64:GLN:HE22	15:DE:246:GLU:HG2	1.77	0.49
18:DH:10:CYS:HA	18:DH:27:LEU:HD11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:DM:27:ILE:HG22	23:DM:29:PRO:HD2	1.94	0.49
29:DS:42:PHE:CD1	29:DS:46:THR:HG21	2.47	0.49
11:AA:771:A:H4'	11:AA:772:A:OP2	2.12	0.49
11:AA:1008:A:H4'	11:AA:1009:U:OP2	2.12	0.49
11:AA:1568:C:OP2	24:AN:18:LYS:NZ	2.45	0.49
13:AC:136:GLY:HA2	13:AC:158:GLY:HA3	1.94	0.49
15:AE:58:PRO:HG3	15:AE:131:THR:HG23	1.93	0.49
16:AF:58:ASN:HB3	16:AF:74:ASN:ND2	2.27	0.49
25:AO:102:LYS:O	25:AO:105:GLU:HG2	2.12	0.49
30:AT:38:THR:O	30:AT:56:TRP:HH2	1.94	0.49
32:AV:25:THR:HG22	32:AV:27:ASP:H	1.77	0.49
3:B2:40:THR:HG21	3:B2:86:ILE:O	2.11	0.49
8:B7:11:ARG:HE	8:B7:35:THR:HG22	1.76	0.49
11:BA:229:A:C4	11:BA:230:A:C6	3.00	0.49
11:BA:1011:C:H4'	25:BO:7:LYS:HG2	1.94	0.49
11:BA:1661:G:H2'	11:BA:1661:G:N3	2.27	0.49
12:BB:23:ILE:HA	12:BB:42:HIS:CD2	2.47	0.49
15:BE:170:LEU:HD22	15:BE:197:ILE:HD13	1.94	0.49
11:CA:75:C:H1'	35:CY:178:LYS:HG2	1.94	0.49
11:CA:318:U:O2'	27:CQ:6:GLN:HG2	2.12	0.49
11:CA:416:C:O2'	11:CA:417:A:P	2.69	0.49
11:CA:561:A:OP1	34:CX:9:ALA:HA	2.13	0.49
11:CA:754:A:H4'	14:CD:9:SER:CB	2.42	0.49
11:CA:1171:G:C5'	24:CN:39:ARG:NH1	2.75	0.49
13:CC:136:GLY:HA2	13:CC:158:GLY:HA3	1.94	0.49
20:CJ:41:ARG:NH2	20:CJ:103:ASN:HB3	2.26	0.49
23:CM:119:ILE:HD11	29:CS:115:ASP:HB3	1.93	0.49
26:CP:18:ARG:HH21	26:CP:20:GLN:NE2	2.11	0.49
5:D4:232:THR:HG22	5:D4:236:GLU:OE2	2.12	0.49
7:D6:38:CYS:HB3	7:D6:57:CYS:HB3	1.93	0.49
10:D9:133:TYR:HA	10:D9:139:LEU:O	2.12	0.49
11:DA:104:A:H2'	11:DA:105:G:C8	2.46	0.49
11:DA:331:U:H2'	11:DA:332:A:H8	1.76	0.49
11:DA:878:A:HO2'	11:DA:894:U:H1'	1.77	0.49
11:DA:1185:C:O2'	11:DA:1216:A:C2	2.64	0.49
11:DA:1253:G:H1'	20:DJ:72:GLU:HG3	1.94	0.49
11:DA:1319:U:O2	11:DA:1488:A:H2'	2.12	0.49
11:DA:1661:G:H2'	11:DA:1661:G:N3	2.27	0.49
17:DG:21:GLU:OE1	17:DG:102:ASN:ND2	2.45	0.49
25:DO:129:ARG:O	25:DO:133:LEU:HG	2.11	0.49
11:AA:416:C:O2'	11:AA:417:A:P	2.69	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:1201:G:C6	11:AA:1227:G:C6	3.00	0.49
11:AA:1555:A:C5'	19:AI:137:ARG:HH12	2.25	0.49
13:AC:146:LYS:HD2	13:AC:151:LYS:NZ	2.23	0.49
35:AY:142:LYS:HE3	35:AY:156:ILE:HD11	1.95	0.49
5:B4:132:THR:OG1	5:B4:136:TYR:HB2	2.12	0.49
12:BB:145:ASP:O	12:BB:148:SER:OG	2.27	0.49
22:BL:51:LEU:O	22:BL:73:VAL:HA	2.13	0.49
25:BO:4:MET:SD	25:BO:126:ARG:NH1	2.86	0.49
32:BV:25:THR:HG22	32:BV:27:ASP:H	1.78	0.49
34:BX:34:ARG:NH1	34:BX:34:ARG:HB3	2.27	0.49
3:C2:56:VAL:HG22	11:CA:324:A:P	2.52	0.49
5:C4:45:PHE:HE2	5:C4:68:VAL:HG11	1.77	0.49
11:CA:331:U:H2'	11:CA:332:A:H8	1.76	0.49
11:CA:421:G:H2'	11:CA:422:G:H5"	1.94	0.49
11:CA:726:U:H5"	11:CA:727:U:OP2	2.12	0.49
11:CA:947:C:H5'	11:CA:1076:U:H1'	1.93	0.49
11:CA:1663:A:H5'	11:CA:1664:A:OP2	2.12	0.49
12:CB:121:THR:O	12:CB:143:LEU:HB2	2.11	0.49
15:CE:141:ARG:HB3	15:CE:222:THR:HG22	1.94	0.49
28:CR:141:GLU:HA	28:CR:160:ASN:HD21	1.77	0.49
2:D1:9:ALA:HB1	2:D1:29:VAL:HG11	1.95	0.49
2:D1:11:ILE:HG12	2:D1:27:VAL:HG11	1.94	0.49
11:DA:295:U:OP1	27:DQ:135:ARG:HD3	2.13	0.49
11:DA:673:A:H2'	11:DA:675:A:N6	2.27	0.49
12:DB:147:ASP:OD2	12:DB:162:ARG:NH2	2.45	0.49
14:DD:37:LYS:HG3	14:DD:38:ASN:HB3	1.94	0.49
25:DO:101:ARG:HH12	25:DO:145:ALA:HA	1.77	0.49
26:DP:18:ARG:HH21	26:DP:20:GLN:NE2	2.11	0.49
28:DR:141:GLU:HA	28:DR:160:ASN:HD21	1.78	0.49
31:DU:35:THR:HG22	31:DU:41:ALA:HB2	1.94	0.49
8:A7:11:ARG:HE	8:A7:35:THR:HG22	1.77	0.49
10:A9:133:TYR:HA	10:A9:139:LEU:O	2.13	0.49
11:AA:1212:U:H2'	11:AA:1214:A:OP2	2.12	0.49
14:AD:135:LYS:HG3	14:AD:159:ALA:HA	1.95	0.49
19:AI:8:LEU:HD11	19:AI:23:SER:HB3	1.94	0.49
28:AR:330:ASP:OD2	28:AR:334:ARG:NH2	2.46	0.49
31:AU:55:TYR:CE2	31:AU:56:VAL:HG23	2.48	0.49
31:AU:116:GLU:O	31:AU:120:ILE:HG13	2.11	0.49
34:AX:7:THR:HG22	34:AX:8:LEU:O	2.13	0.49
11:BA:75:C:H1'	35:BY:178:LYS:HG2	1.95	0.49
11:BA:1201:G:C6	11:BA:1227:G:C6	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:1751:U:O2'	11:BA:1753:A:N6	2.45	0.49
23:BM:36:ARG:HH22	23:BM:152:ARG:HD3	1.77	0.49
4:C3:116:SER:HB2	4:C3:117:ARG:HD3	1.95	0.49
5:C4:132:THR:OG1	5:C4:136:TYR:HB2	2.13	0.49
11:CA:219:C:H3'	11:CA:220:A:H5"	1.94	0.49
11:CA:316:G:OP1	27:CQ:133:THR:OG1	2.29	0.49
11:CA:377:G:H2'	11:CA:378:A:C8	2.47	0.49
11:CA:1494:U:HO2'	11:CA:1495:U:P	2.29	0.49
14:CD:64:PRO:HA	14:CD:69:ARG:NH1	2.27	0.49
17:CG:21:GLU:OE1	17:CG:102:ASN:ND2	2.45	0.49
19:CI:8:LEU:HD11	19:CI:23:SER:HB3	1.95	0.49
31:CU:83:LEU:HD11	31:CU:103:LEU:HD21	1.94	0.49
11:DA:59:C:H5'	11:DA:447:C:N4	2.28	0.49
11:DA:1108:U:OP1	11:DA:1621:G:O2'	2.30	0.49
11:DA:1281:G:H5'	11:DA:1282:U:OP2	2.12	0.49
12:DB:186:SER:HB3	12:DB:189:GLU:HB3	1.93	0.49
35:DY:2:LYS:HB3	35:DY:108:VAL:HG22	1.95	0.49
1:A0:97:ASP:HA	1:A0:100:ARG:HG2	1.94	0.49
3:A2:195:GLU:HG2	27:AQ:9:TYR:CD2	2.47	0.49
11:AA:210:A:C8	11:AA:210:A:OP2	2.65	0.49
11:AA:573:A:O2'	11:AA:574:A:OP1	2.23	0.49
11:AA:1462:U:OP1	11:AA:1464:U:H5	1.96	0.49
13:AC:226:GLU:HB2	28:AR:208:THR:H	1.77	0.49
14:AD:37:LYS:HG3	14:AD:38:ASN:HB3	1.94	0.49
18:AH:10:CYS:HA	18:AH:27:LEU:HD11	1.94	0.49
29:AS:101:VAL:HB	29:AS:125:ALA:HB2	1.94	0.49
30:AT:18:PHE:HZ	30:AT:140:LEU:HD22	1.76	0.49
5:B4:128:VAL:HG13	5:B4:175:ASN:OD1	2.12	0.49
10:B9:133:TYR:HA	10:B9:139:LEU:O	2.12	0.49
11:BA:229:A:HO2'	11:BA:230:A:P	2.30	0.49
11:BA:559:C:H5"	11:BA:571:G:H1'	1.93	0.49
11:BA:1507:U:C5	17:BG:161:MET:HG2	2.48	0.49
12:BB:54:LYS:HB2	36:BZ:95:ILE:HD13	1.95	0.49
28:BR:141:GLU:HA	28:BR:160:ASN:HD21	1.77	0.49
29:BS:90:VAL:HB	29:BS:117:ILE:HA	1.94	0.49
35:BY:151:ASP:OD2	35:BY:155:LEU:HD12	2.12	0.49
8:C7:11:ARG:HE	8:C7:35:THR:HG22	1.76	0.49
11:CA:628:G:H4'	18:CH:4:VAL:HG13	1.93	0.49
13:CC:216:HIS:O	32:CV:20:TYR:OH	2.30	0.49
23:CM:27:ILE:HG22	23:CM:29:PRO:HD2	1.93	0.49
32:CV:89:SER:HB3	32:CV:91:ILE:H	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D3:62:LEU:HD11	4:D3:95:THR:OG1	2.12	0.49
8:D7:9:LYS:HG2	8:D7:13:TYR:HE2	1.77	0.49
11:DA:206:U:H5"	27:DQ:16:PHE:CG	2.47	0.49
11:DA:557:U:H4'	34:DX:17:GLN:OE1	2.12	0.49
11:DA:884:A:OP2	21:DK:66:ARG:N	2.46	0.49
11:DA:887:U:C6	11:DA:887:U:H5"	2.47	0.49
11:DA:954:G:N1	11:DA:1001:A:O2'	2.43	0.49
39:DA:7476:HOH:O	26:DP:90:ARG:NH2	2.38	0.49
15:DE:76:LYS:HG3	15:DE:78:MET:HE3	1.95	0.49
15:DE:81:VAL:HG21	15:DE:126:ILE:HD13	1.95	0.49
16:DF:58:ASN:HB3	16:DF:74:ASN:ND2	2.28	0.49
18:DH:111:LEU:HB3	18:DH:115:GLU:HB2	1.94	0.49
5:A4:123:LEU:HD11	5:A4:143:LEU:HD11	1.95	0.49
6:A5:45:VAL:HG12	6:A5:50:LYS:HG3	1.95	0.49
11:AA:163:A:H5'	11:AA:164:U:OP2	2.12	0.49
11:AA:181:G:H5'	11:AA:181:G:H8	1.76	0.49
11:AA:840:A:O2'	11:AA:841:A:O5'	2.27	0.49
11:AA:1289:C:O2'	11:AA:1371:A:H1'	2.12	0.49
11:AA:1360:U:HO2'	11:AA:1361:A:P	2.31	0.49
31:AU:35:THR:HG22	31:AU:41:ALA:HB2	1.94	0.49
33:AW:31:PRO:HG2	33:AW:38:LEU:HG	1.94	0.49
1:B0:33:GLU:HG2	1:B0:52:ASP:HB2	1.94	0.49
2:B1:9:ALA:HB1	2:B1:29:VAL:HG11	1.94	0.49
4:B3:162:PHE:HD1	4:B3:163:LEU:HD23	1.76	0.49
5:B4:45:PHE:HE2	5:B4:68:VAL:HG11	1.77	0.49
11:BA:2:A:HO2'	11:BA:3:C:P	2.34	0.49
11:BA:516:G:OP2	26:BP:35:LYS:HE2	2.13	0.49
11:BA:1007:U:O2'	11:BA:1009:U:C5	2.64	0.49
11:BA:1049:C:O2'	11:BA:1050:C:H5'	2.12	0.49
11:BA:1171:G:H5"	24:BN:39:ARG:HH12	1.75	0.49
12:BB:64:GLN:HE22	15:BE:246:GLU:HG2	1.77	0.49
16:BF:66:GLU:O	16:BF:66:GLU:HG3	2.12	0.49
31:BU:35:THR:HG22	31:BU:41:ALA:HB2	1.95	0.49
33:BW:51:ARG:HD3	33:BW:51:ARG:N	2.26	0.49
9:C8:99:ASN:HD22	17:CG:90:ASN:ND2	2.11	0.49
11:CA:238:G:H1'	11:CA:239:A:OP2	2.13	0.49
11:CA:246:U:OP1	27:CQ:33:TYR:OH	2.29	0.49
11:DA:238:G:O2'	11:DA:239:A:P	2.70	0.49
11:DA:292:G:H2'	11:DA:293:U:O4'	2.12	0.49
11:DA:316:G:OP1	27:DQ:133:THR:OG1	2.30	0.49
11:DA:873:G:O2'	21:DK:51:GLU:HA	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1569:A:C8	24:DN:13:TYR:HD2	2.31	0.49
19:DI:8:LEU:HD11	19:DI:23:SER:HB3	1.94	0.49
23:DM:36:ARG:HH22	23:DM:152:ARG:HD3	1.77	0.49
27:DQ:56:LYS:O	27:DQ:63:LEU:HD22	2.12	0.49
5:A4:69:GLU:OE1	5:A4:88:LYS:HG2	2.12	0.49
9:A8:60:VAL:HA	9:A8:72:LYS:HG3	1.95	0.49
11:AA:232:G:HO2'	11:AA:233:U:P	2.33	0.49
11:AA:299:C:OP2	27:AQ:102:ARG:NH1	2.37	0.49
11:AA:377:G:H2'	11:AA:378:A:C8	2.47	0.49
11:AA:559:C:H5"	11:AA:571:G:H1'	1.93	0.49
15:AE:49:PHE:CD1	15:AE:139:PRO:HD3	2.48	0.49
25:AO:95:LYS:HB2	25:AO:153:GLN:HE21	1.77	0.49
26:AP:13:ASN:ND2	33:AW:54:TYR:O	2.41	0.49
33:AW:206:SER:HB2	33:AW:207:PHE:CD2	2.48	0.49
2:B1:11:ILE:HG12	2:B1:27:VAL:HG11	1.94	0.49
10:B9:102:LYS:NZ	10:B9:112:GLN:HB3	2.28	0.49
11:BA:1421:G:O2'	24:BN:6:TRP:HA	2.13	0.49
12:BB:187:LYS:HD3	36:BZ:57:ASN:HA	1.95	0.49
29:BS:101:VAL:HB	29:BS:125:ALA:HB2	1.95	0.49
2:C1:58:MET:HB2	2:C1:59:GLU:OE2	2.12	0.49
4:C3:165:GLU:CD	4:C3:165:GLU:H	2.19	0.49
5:C4:123:LEU:HD11	5:C4:143:LEU:HD11	1.94	0.49
11:CA:270:U:H5'	11:CA:271:U:C6	2.48	0.49
11:CA:1751:U:HO2'	11:CA:1753:A:H61	1.61	0.49
21:CK:39:ASP:OD1	21:CK:40:THR:N	2.40	0.49
23:CM:36:ARG:HH22	23:CM:152:ARG:HD3	1.77	0.49
35:CY:70:ARG:HB2	35:CY:101:ILE:HB	1.95	0.49
36:CZ:46:SER:HA	36:CZ:74:ARG:HH22	1.77	0.49
11:DA:15:U:H2'	11:DA:16:G:O4'	2.11	0.49
11:DA:421:G:H2'	11:DA:422:G:H5"	1.95	0.49
11:DA:1406:G:O2'	11:DA:1407:A:OP2	2.30	0.49
11:DA:1469:U:H5'	11:DA:1470:C:OP2	2.13	0.49
11:DA:1527:A:H5"	11:DA:1528:A:OP2	2.13	0.49
22:DL:77:LYS:HG3	22:DL:78:ASN:N	2.27	0.49
28:DR:330:ASP:OD2	28:DR:334:ARG:NH2	2.46	0.49
29:DS:46:THR:O	29:DS:50:VAL:HG23	2.12	0.49
35:DY:216:LEU:HB3	35:DY:220:LYS:HE3	1.94	0.49
11:AA:69:A:H3'	35:AY:173:ARG:HH22	1.78	0.49
11:AA:214:U:O2'	11:AA:215:A:O5'	2.28	0.49
11:AA:1527:A:H5"	11:AA:1528:A:OP2	2.13	0.49
12:AB:46:ILE:HB	32:AV:105:MET:HE1	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AS:74:ALA:HB3	29:AS:76:GLU:OE2	2.13	0.49
4:B3:15:ILE:O	4:B3:19:VAL:HG23	2.13	0.49
4:B3:63:ILE:HD11	4:B3:94:PHE:CZ	2.47	0.49
5:B4:111:ASP:OD1	5:B4:111:ASP:N	2.46	0.49
5:B4:127:ARG:CZ	11:BA:862:A:H1'	2.41	0.49
5:B4:232:THR:HG22	5:B4:236:GLU:OE2	2.12	0.49
7:B6:38:CYS:HB3	7:B6:57:CYS:HB3	1.94	0.49
11:BA:338:G:OP1	27:BQ:84:ILE:HD11	2.12	0.49
11:BA:421:G:H2'	11:BA:422:G:H5"	1.95	0.49
11:BA:1153:U:N3	11:BA:1157:U:H5	2.07	0.49
11:BA:1171:G:C5'	24:BN:39:ARG:NH1	2.76	0.49
14:BD:90:GLU:HB3	14:BD:95:TYR:CD2	2.48	0.49
15:BE:65:TYR:CD2	15:BE:77:LEU:HB2	2.48	0.49
36:BZ:32:CYS:HB2	36:BZ:70:CYS:HB3	1.94	0.49
8:C7:75:TYR:CZ	8:C7:79:LYS:HE3	2.47	0.49
10:C9:102:LYS:HZ2	10:C9:112:GLN:HB3	1.76	0.49
11:CA:517:U:O2'	11:CA:519:A:N7	2.39	0.49
11:CA:1462:U:OP1	11:CA:1464:U:H5	1.95	0.49
14:CD:135:LYS:HG3	14:CD:159:ALA:HA	1.94	0.49
20:CJ:67:LYS:HA	24:CN:43:ARG:NE	2.28	0.49
28:CR:23:TRP:O	28:CR:46:SER:HB2	2.12	0.49
30:CT:124:ALA:C	30:CT:127:LYS:HE2	2.37	0.49
33:CW:124:LYS:HB2	33:CW:166:LEU:HD11	1.93	0.49
33:CW:206:SER:HB2	33:CW:207:PHE:CD2	2.47	0.49
2:D1:58:MET:HB2	2:D1:59:GLU:OE2	2.13	0.49
11:DA:235:A:OP2	11:DA:236:U:H5	1.96	0.49
11:DA:377:G:H2'	11:DA:378:A:C8	2.47	0.49
11:DA:656:G:H2'	11:DA:657:U:C6	2.48	0.49
11:DA:1262:U:OP1	15:DE:96:ARG:NH1	2.45	0.49
11:DA:1531:G:C4	23:DM:134:ARG:HD2	2.47	0.49
14:DD:64:PRO:HA	14:DD:69:ARG:NH1	2.27	0.49
28:DR:190:VAL:HB	28:DR:219:LEU:HD13	1.93	0.49
31:DU:55:TYR:CG	31:DU:56:VAL:N	2.80	0.49
31:DU:83:LEU:HD11	31:DU:103:LEU:HD21	1.94	0.49
36:DZ:47:VAL:HB	36:DZ:74:ARG:NH1	2.27	0.49
3:A2:196:LEU:HD23	3:A2:196:LEU:HA	1.63	0.49
11:AA:479:G:OP2	11:AA:479:G:C8	2.64	0.49
11:AA:660:U:H2'	11:AA:661:G:O4'	2.12	0.49
11:AA:771:A:C5	33:AW:19:MET:HE3	2.48	0.49
11:AA:772:A:O2'	33:AW:108:LYS:NZ	2.43	0.49
11:AA:1174:A:OP1	11:AA:1175:A:OP2	2.31	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:1474:G:H8	11:AA:1474:G:OP1	1.96	0.49
11:AA:1475:G:H2'	11:AA:1476:A:C8	2.48	0.49
11:AA:1661:G:N3	11:AA:1661:G:H2'	2.27	0.49
12:AB:12:ARG:HD3	12:AB:172:TRP:HZ3	1.78	0.49
15:AE:170:LEU:HD22	15:AE:197:ILE:HD13	1.94	0.49
22:AL:51:LEU:O	22:AL:73:VAL:HA	2.12	0.49
28:AR:114:PHE:CD2	28:AR:149:GLY:HA2	2.48	0.49
31:AU:83:LEU:HD11	31:AU:103:LEU:HD21	1.94	0.49
11:BA:493:U:C4'	11:BA:494:A:OP2	2.61	0.49
11:BA:636:G:H2'	11:BA:637:U:C6	2.47	0.49
11:BA:1250:G:H2'	11:BA:1251:C:O4'	2.13	0.49
11:BA:1357:G:OP1	32:BV:32:LYS:NZ	2.45	0.49
12:BB:12:ARG:NE	32:BV:93:ILE:HD11	2.28	0.49
12:BB:177:GLU:O	12:BB:181:LEU:HG	2.13	0.49
31:BU:55:TYR:CE2	31:BU:56:VAL:HG23	2.48	0.49
11:CA:292:G:H2'	11:CA:293:U:O4'	2.12	0.49
11:CA:1426:G:OP1	29:CS:127:THR:HG21	2.13	0.49
11:CA:1480:U:HO2'	11:CA:1481:A:P	2.36	0.49
12:CB:196:ASP:OD2	32:CV:89:SER:HA	2.12	0.49
15:CE:46:ASP:HA	15:CE:49:PHE:HD2	1.77	0.49
21:CK:147:ARG:NH1	21:CK:150:ARG:NH2	2.60	0.49
22:CL:51:LEU:O	22:CL:73:VAL:HA	2.13	0.49
24:CN:39:ARG:HG3	24:CN:40:ARG:N	2.27	0.49
27:CQ:65:ILE:CD1	27:CQ:139:LEU:HD21	2.43	0.49
28:CR:111:TYR:CD2	28:CR:112:LYS:HG2	2.47	0.49
11:DA:1153:U:N3	11:DA:1157:U:H5	2.07	0.49
11:DA:1161:A:H5'	11:DA:1401:U:OP1	2.13	0.49
11:DA:1293:A:H4'	11:DA:1294:A:O5'	2.13	0.49
13:DC:24:LEU:HD22	13:DC:28:PHE:HE1	1.77	0.49
19:DI:57:LEU:HD23	19:DI:110:GLN:HG2	1.95	0.49
20:DJ:22:THR:HG22	20:DJ:88:ILE:HG12	1.93	0.49
21:DK:39:ASP:OD1	21:DK:40:THR:N	2.43	0.49
23:DM:15:HIS:NE2	23:DM:66:CYS:SG	2.86	0.49
25:DO:4:MET:SD	25:DO:126:ARG:NH1	2.85	0.49
5:A4:140:VAL:HG21	5:A4:178:ILE:HG21	1.94	0.49
6:A5:30:VAL:HG21	6:A5:76:CYS:HA	1.95	0.49
11:AA:331:U:H2'	11:AA:332:A:H8	1.76	0.49
11:AA:765:A:C5	26:AP:19:ARG:NH1	2.81	0.49
11:AA:931:A:P	25:AO:96:LYS:NZ	2.86	0.49
13:AC:24:LEU:HD22	13:AC:28:PHE:HE1	1.77	0.49
27:AQ:70:ILE:HD13	27:AQ:106:ILE:HD13	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:AY:151:ASP:OD2	35:AY:155:LEU:HD12	2.13	0.49
1:B0:22:LYS:HG3	10:B9:74:LYS:NZ	2.28	0.49
3:B2:10:LYS:CD	11:BA:329:A:H5"	2.42	0.49
10:B9:102:LYS:HZ2	10:B9:112:GLN:HB3	1.78	0.49
10:B9:106:ASN:HD22	10:B9:108:LYS:HE2	1.78	0.49
11:BA:69:A:H2'	11:BA:70:U:H5"	1.95	0.49
11:BA:136:U:P	35:BY:139:ASN:HD21	2.36	0.49
11:BA:160:C:O2'	35:BY:132:LYS:O	2.31	0.49
11:BA:1313:G:H22	11:BA:1354:A:H2	1.61	0.49
11:BA:1430:C:OP2	23:BM:126:ARG:NH2	2.40	0.49
11:BA:1509:U:OP2	11:BA:1509:U:C4'	2.61	0.49
12:BB:12:ARG:HD3	12:BB:172:TRP:HZ3	1.77	0.49
13:BC:24:LEU:HD22	13:BC:28:PHE:HE1	1.78	0.49
25:BO:101:ARG:HH12	25:BO:145:ALA:HA	1.78	0.49
28:BR:20:HIS:HE1	28:BR:50:THR:HG22	1.77	0.49
35:BY:2:LYS:HB3	35:BY:108:VAL:HG22	1.95	0.49
35:BY:70:ARG:HB2	35:BY:101:ILE:HB	1.95	0.49
2:C1:9:ALA:HB1	2:C1:29:VAL:HG11	1.95	0.49
3:C2:21:HIS:HE1	11:CA:101:A:O2'	1.96	0.49
5:C4:111:ASP:OD1	5:C4:111:ASP:N	2.46	0.49
10:C9:72:LYS:HD3	11:CA:1160:G:H5'	1.94	0.49
11:CA:427:A:H5"	22:CL:49:LYS:HG3	1.95	0.49
11:CA:550:G:O5'	34:CX:61:ASN:HB3	2.13	0.49
11:CA:1326:C:H5'	11:CA:1327:U:OP2	2.12	0.49
11:CA:1573:G:OP2	30:CT:93:ARG:HD2	2.12	0.49
19:CI:57:LEU:HD23	19:CI:110:GLN:HG2	1.95	0.49
21:CK:142:ARG:HG3	21:CK:143:GLU:N	2.28	0.49
29:CS:74:ALA:HB3	29:CS:76:GLU:OE2	2.13	0.49
29:CS:90:VAL:HB	29:CS:117:ILE:HA	1.94	0.49
6:D5:45:VAL:HG12	6:D5:50:LYS:HG3	1.94	0.49
11:DA:1123:G:H2'	11:DA:1721:G:N3	2.28	0.49
11:DA:1475:G:H2'	11:DA:1476:A:C8	2.48	0.49
11:DA:1506:G:HO2'	11:DA:1507:U:P	2.26	0.49
12:DB:23:ILE:HA	12:DB:42:HIS:CD2	2.47	0.49
17:DG:67:LEU:HD12	17:DG:150:ILE:HD11	1.95	0.49
17:DG:157:ALA:HB2	17:DG:167:THR:OG1	2.13	0.49
27:DQ:70:ILE:HD13	27:DQ:106:ILE:HD13	1.95	0.49
35:DY:151:ASP:OD2	35:DY:155:LEU:HD12	2.12	0.49
1:A0:33:GLU:HG2	1:A0:52:ASP:HB2	1.95	0.48
4:A3:50:ILE:HG13	4:A3:50:ILE:O	2.11	0.48
6:A5:17:HIS:HE1	11:AA:1742:G:OP1	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:15:U:H2'	11:AA:16:G:O4'	2.13	0.48
11:AA:75:C:H1'	35:AY:178:LYS:HG2	1.95	0.48
11:AA:1027:U:H2'	11:AA:1028:G:C8	2.48	0.48
12:AB:169:MET:HE2	12:AB:169:MET:HB3	1.61	0.48
16:AF:17:THR:O	16:AF:95:ASN:HB3	2.13	0.48
33:AW:202:LYS:HG2	33:AW:208:ASP:OD2	2.13	0.48
36:AZ:47:VAL:HB	36:AZ:74:ARG:NH1	2.28	0.48
7:B6:5:LEU:H	18:BH:24:GLN:HE22	1.61	0.48
11:BA:40:A:H3'	11:BA:430:A:H62	1.78	0.48
11:BA:666:A:H2'	11:BA:667:C:O4'	2.13	0.48
11:BA:976:A:N6	11:BA:982:U:OP2	2.45	0.48
11:BA:1010:A:H2'	11:BA:1011:C:C6	2.48	0.48
11:BA:1212:U:H2'	11:BA:1214:A:OP2	2.13	0.48
11:BA:1464:U:OP2	11:BA:1465:C:H5	1.96	0.48
11:BA:1513:G:H2'	11:BA:1514:G:H1'	1.94	0.48
13:BC:85:ASP:OD1	13:BC:85:ASP:N	2.45	0.48
14:BD:80:MET:HB3	14:BD:86:LEU:HB2	1.95	0.48
28:BR:330:ASP:OD2	28:BR:334:ARG:NH2	2.46	0.48
29:BS:74:ALA:HB3	29:BS:76:GLU:OE2	2.13	0.48
32:BV:35:LEU:HD13	32:BV:47:ARG:HG3	1.94	0.48
3:C2:36:THR:HB	3:C2:65:ALA:O	2.13	0.48
3:C2:179:ARG:HG3	3:C2:179:ARG:HH11	1.78	0.48
6:C5:75:TYR:CB	6:C5:80:ALA:HB2	2.43	0.48
8:C7:61:TRP:CE2	24:CN:22:VAL:HG22	2.48	0.48
11:CA:227:G:N2	11:CA:229:A:O2'	2.45	0.48
11:CA:295:U:OP1	27:CQ:135:ARG:HD3	2.13	0.48
11:CA:645:C:H2'	11:CA:646:A:C8	2.47	0.48
11:CA:750:U:H3'	11:CA:752:C:OP2	2.13	0.48
11:CA:928:C:O2'	25:CO:103:HIS:HD2	1.95	0.48
11:CA:973:A:H2'	11:CA:974:C:O4'	2.13	0.48
11:CA:1176:A:H5'	11:CA:1176:A:C8	2.48	0.48
11:CA:1550:U:H4'	19:CI:145:ARG:HH21	1.76	0.48
15:CE:55:ILE:HG23	15:CE:60:ILE:HD12	1.93	0.48
15:CE:57:GLU:HG3	15:CE:59:GLU:HG2	1.95	0.48
25:CO:95:LYS:HB2	25:CO:153:GLN:HE21	1.74	0.48
25:CO:101:ARG:HH12	25:CO:145:ALA:HA	1.77	0.48
25:CO:129:ARG:O	25:CO:133:LEU:HG	2.12	0.48
28:CR:193:ASP:OD1	28:CR:193:ASP:N	2.37	0.48
29:CS:46:THR:O	29:CS:50:VAL:HG23	2.13	0.48
29:CS:101:VAL:HB	29:CS:125:ALA:HB2	1.95	0.48
36:CZ:73:VAL:HG13	36:CZ:78:GLU:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:D8:66:VAL:HG11	11:DA:1506:G:C6	2.48	0.48
10:D9:137:CYS:SG	10:D9:139:LEU:HB2	2.53	0.48
11:DA:69:A:H2'	11:DA:70:U:H5"	1.95	0.48
11:DA:270:U:H5'	11:DA:271:U:C6	2.48	0.48
11:DA:283:A:H2'	11:DA:284:U:H6	1.78	0.48
11:DA:614:A:H2'	11:DA:615:A:C8	2.47	0.48
11:DA:1250:G:H2'	11:DA:1251:C:O4'	2.13	0.48
12:DB:25:LEU:HD22	12:DB:33:ILE:HD13	1.94	0.48
12:DB:177:GLU:O	12:DB:181:LEU:HG	2.13	0.48
19:DI:9:VAL:HG23	19:DI:98:TYR:HE2	1.78	0.48
19:DI:74:SER:OG	19:DI:75:GLY:N	2.45	0.48
28:DR:297:GLU:OE1	28:DR:297:GLU:N	2.38	0.48
11:AA:1171:G:C5'	24:AN:39:ARG:HH12	2.25	0.48
11:AA:1663:A:H5'	11:AA:1664:A:OP2	2.12	0.48
11:AA:1751:U:O2'	11:AA:1753:A:N6	2.46	0.48
12:AB:23:ILE:HA	12:AB:42:HIS:CD2	2.47	0.48
12:AB:192:GLU:H	12:AB:192:GLU:CD	2.20	0.48
21:AK:147:ARG:NH1	21:AK:150:ARG:NH2	2.60	0.48
28:AR:141:GLU:HA	28:AR:160:ASN:HD21	1.78	0.48
3:B2:177:THR:HG21	11:BA:205:A:OP1	2.13	0.48
10:B9:131:ARG:NH2	11:BA:1208:A:N3	2.62	0.48
11:BA:377:G:H2'	11:BA:378:A:C8	2.48	0.48
11:BA:681:G:H1	11:BA:720:U:H3	1.61	0.48
11:BA:738:A:H4'	11:BA:739:A:OP2	2.12	0.48
11:BA:750:U:H3'	11:BA:752:C:OP2	2.13	0.48
15:BE:150:ALA:H	15:BE:175:ARG:HH22	1.61	0.48
18:BH:68:ARG:NH2	36:BZ:8:GLN:HG3	2.27	0.48
26:BP:107:GLU:O	26:BP:110:ARG:HB2	2.13	0.48
31:BU:55:TYR:CG	31:BU:56:VAL:N	2.81	0.48
3:C2:24:LYS:O	11:CA:391:A:H8	1.96	0.48
4:C3:192:PHE:HE2	7:C6:25:ALA:HB3	1.76	0.48
9:C8:60:VAL:HA	9:C8:72:LYS:HG3	1.95	0.48
11:CA:1509:U:OP2	11:CA:1509:U:C4'	2.61	0.48
15:CE:65:TYR:CD2	15:CE:77:LEU:HB2	2.48	0.48
25:CO:102:LYS:O	25:CO:105:GLU:HG2	2.13	0.48
28:CR:184:ALA:HB2	23:DM:16:ARG:CD	2.43	0.48
31:CU:35:THR:HG22	31:CU:41:ALA:HB2	1.95	0.48
7:D6:43:MET:HE2	7:D6:43:MET:HB3	1.76	0.48
11:DA:40:A:H3'	11:DA:430:A:H62	1.78	0.48
11:DA:237:U:H1'	11:DA:238:G:OP1	2.13	0.48
11:DA:771:A:H5"	11:DA:772:A:O5'	2.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1462:U:OP1	11:DA:1464:U:H5	1.96	0.48
11:DA:1569:A:C8	24:DN:13:TYR:CD2	3.00	0.48
15:DE:65:TYR:CD2	15:DE:77:LEU:HB2	2.48	0.48
16:DF:17:THR:O	16:DF:95:ASN:HB3	2.14	0.48
20:DJ:32:GLU:OE1	20:DJ:55:ARG:NH2	2.45	0.48
27:DQ:65:ILE:CD1	27:DQ:139:LEU:HD21	2.42	0.48
28:DR:240:TRP:HB3	28:DR:245:LEU:HD21	1.95	0.48
5:A4:128:VAL:HG22	5:A4:175:ASN:ND2	2.28	0.48
10:A9:73:LYS:NZ	11:AA:1157:U:OP1	2.46	0.48
11:AA:270:U:H5'	11:AA:271:U:C6	2.48	0.48
11:AA:413:C:C4	35:AY:87:ARG:HD3	2.48	0.48
11:AA:512:C:OP1	11:AA:512:C:H4'	2.11	0.48
11:AA:603:U:H4'	11:AA:604:G:O5'	2.12	0.48
11:AA:875:C:OP2	11:AA:875:C:H6	1.96	0.48
11:AA:1740:C:H2'	11:AA:1741:A:C8	2.48	0.48
12:AB:25:LEU:HD22	12:AB:33:ILE:HD13	1.94	0.48
13:AC:217:PRO:HA	13:AC:218:PRO:HD3	1.67	0.48
30:AT:68:VAL:HG11	30:AT:117:ILE:HG21	1.96	0.48
31:AU:55:TYR:CG	31:AU:56:VAL:N	2.80	0.48
33:AW:11:ARG:HH12	33:AW:20:LEU:HB3	1.77	0.48
11:BA:1137:A:OP1	17:BG:147:TYR:OH	2.23	0.48
11:BA:1462:U:OP1	11:BA:1464:U:H5	1.96	0.48
15:BE:46:ASP:HA	15:BE:49:PHE:HD2	1.77	0.48
22:BL:35:GLY:HA2	22:BL:38:TRP:HD1	1.78	0.48
1:C0:33:GLU:HG2	1:C0:52:ASP:HB2	1.95	0.48
2:C1:21:ARG:NH1	11:CA:1591:C:O2	2.45	0.48
10:C9:106:ASN:HD22	10:C9:108:LYS:HE2	1.78	0.48
11:CA:557:U:H4'	34:CX:17:GLN:OE1	2.14	0.48
11:CA:776:A:H5"	11:CA:777:U:O5'	2.14	0.48
11:CA:1166:A:P	20:CJ:73:GLY:HA3	2.52	0.48
11:CA:1469:U:H5'	30:CT:75:GLY:HA3	1.95	0.48
13:CC:24:LEU:HD22	13:CC:28:PHE:HE1	1.78	0.48
13:CC:98:GLY:HA3	13:CC:132:ASP:OD2	2.13	0.48
16:CF:17:THR:O	16:CF:95:ASN:HB3	2.13	0.48
26:CP:32:THR:OG1	26:CP:60:THR:OG1	2.19	0.48
31:CU:55:TYR:CG	31:CU:56:VAL:N	2.80	0.48
35:CY:151:ASP:OD2	35:CY:155:LEU:HD12	2.12	0.48
1:D0:22:LYS:HD2	10:D9:74:LYS:NZ	2.28	0.48
3:D2:105:VAL:O	3:D2:108:SER:HB2	2.12	0.48
6:D5:75:TYR:CB	6:D5:80:ALA:HB2	2.44	0.48
9:D8:51:GLU:HA	9:D8:54:ILE:HB	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:576:U:H5'	11:DA:576:U:H6	1.77	0.48
11:DA:1008:A:H4'	11:DA:1009:U:OP2	2.13	0.48
12:DB:145:ASP:O	12:DB:148:SER:OG	2.28	0.48
23:DM:82:PRO:HD3	30:DT:40:TRP:CE2	2.48	0.48
31:DU:55:TYR:CE2	31:DU:56:VAL:HG23	2.48	0.48
34:DX:7:THR:HG22	34:DX:8:LEU:O	2.13	0.48
1:A0:60:ILE:HD11	1:A0:70:ILE:HD11	1.95	0.48
2:A1:65:ARG:HH11	17:AG:125:THR:HG21	1.78	0.48
11:AA:11:A:C2'	11:AA:12:U:H5'	2.42	0.48
11:AA:332:A:H2'	11:AA:333:C:H6	1.77	0.48
11:AA:1171:G:C5'	24:AN:39:ARG:NH1	2.76	0.48
12:AB:114:GLU:OE1	15:AE:32:LYS:HG3	2.12	0.48
14:AD:147:MET:HE2	14:AD:147:MET:HB3	1.68	0.48
20:AJ:63:ILE:HG22	20:AJ:65:VAL:HG23	1.94	0.48
20:AJ:69:PRO:O	24:AN:40:ARG:NH1	2.47	0.48
26:AP:77:GLN:HE22	26:AP:142:HIS:HE1	1.60	0.48
11:BA:11:A:C2'	11:BA:12:U:H5'	2.44	0.48
11:BA:62:G:H4'	11:BA:164:U:C5	2.47	0.48
11:BA:519:A:OP1	26:BP:91:LYS:NZ	2.25	0.48
11:BA:772:A:O2'	33:BW:108:LYS:NZ	2.44	0.48
11:BA:1535:A:OP1	30:BT:87:LYS:NZ	2.46	0.48
13:BC:42:VAL:HG22	13:BC:51:ILE:HG12	1.94	0.48
36:BZ:47:VAL:HB	36:BZ:74:ARG:NH1	2.28	0.48
3:C2:22:ARG:HB3	11:CA:376:A:H5"	1.96	0.48
4:C3:194:THR:HB	11:CA:1027:U:O3'	2.13	0.48
5:C4:159:THR:HG23	5:C4:161:TYR:HD2	1.75	0.48
11:CA:680:U:H2'	11:CA:681:G:H8	1.79	0.48
12:CB:187:LYS:HD3	36:CZ:57:ASN:HA	1.94	0.48
15:CE:141:ARG:HB3	15:CE:222:THR:CG2	2.43	0.48
4:D3:45:VAL:HG13	4:D3:63:ILE:HG22	1.95	0.48
5:D4:140:VAL:HG21	5:D4:178:ILE:HG21	1.95	0.48
11:DA:487:C:H3'	11:DA:488:G:N7	2.28	0.48
11:DA:726:U:H5"	11:DA:727:U:OP2	2.13	0.48
11:DA:1213:G:H1'	29:DS:84:HIS:CB	2.43	0.48
11:DA:1440:A:H4'	11:DA:1513:G:H4'	1.94	0.48
13:DC:82:TYR:CD2	13:DC:87:ILE:HD11	2.48	0.48
18:DH:52:VAL:HG22	18:DH:61:VAL:HG22	1.96	0.48
21:DK:91:ASN:N	21:DK:91:ASN:OD1	2.47	0.48
28:DR:255:GLY:H	28:DR:279:LYS:HZ1	1.59	0.48
32:DV:18:GLU:HA	32:DV:71:LEU:HD23	1.94	0.48
8:A7:65:TYR:HB3	13:AC:75:PHE:CE1	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:2:A:HO2'	11:AA:3:C:P	2.35	0.48
11:AA:235:A:O2'	11:AA:814:A:H5'	2.13	0.48
11:AA:488:G:C8	11:AA:488:G:OP2	2.67	0.48
11:AA:1153:U:N3	11:AA:1157:U:H5	2.07	0.48
13:AC:121:ALA:O	13:AC:125:ILE:HD12	2.13	0.48
14:AD:62:LEU:HD11	14:AD:68:ARG:HH11	1.72	0.48
14:AD:90:GLU:HB3	14:AD:95:TYR:CD2	2.47	0.48
17:AG:168:LEU:O	17:AG:172:ILE:HG13	2.13	0.48
26:AP:18:ARG:HH21	26:AP:20:GLN:NE2	2.12	0.48
1:B0:60:ILE:HA	1:B0:90:ILE:HB	1.96	0.48
9:B8:63:VAL:HG22	17:BG:97:LEU:HB3	1.96	0.48
11:BA:57:U:O2'	11:BA:443:A:N3	2.42	0.48
11:BA:603:U:H4'	11:BA:604:G:O5'	2.14	0.48
11:BA:1008:A:H4'	11:BA:1009:U:OP2	2.13	0.48
12:BB:121:THR:O	12:BB:143:LEU:HB2	2.14	0.48
14:BD:86:LEU:HD12	14:BD:86:LEU:HA	1.65	0.48
24:BN:16:ASP:CG	24:BN:26:ARG:HH12	2.20	0.48
28:BR:190:VAL:HB	28:BR:219:LEU:HD13	1.94	0.48
31:BU:108:TYR:HB3	31:BU:112:ILE:HD12	1.94	0.48
33:BW:202:LYS:HG2	33:BW:208:ASP:OD2	2.13	0.48
3:C2:185:ARG:NH2	11:CA:202:U:O2	2.46	0.48
5:C4:72:LEU:O	5:C4:79:SER:OG	2.28	0.48
11:CA:338:G:OP1	27:CQ:84:ILE:HD11	2.12	0.48
11:CA:444:A:H5'	11:CA:445:U:C5	2.48	0.48
11:CA:512:C:OP1	11:CA:512:C:H4'	2.12	0.48
11:CA:519:A:OP1	26:CP:91:LYS:NZ	2.37	0.48
11:CA:537:A:O2'	34:CX:32:LYS:HE3	2.12	0.48
11:CA:875:C:OP2	11:CA:875:C:H6	1.96	0.48
11:CA:887:U:H5"	11:CA:887:U:C6	2.48	0.48
11:CA:1049:C:O2'	11:CA:1050:C:H5'	2.13	0.48
11:CA:1399:G:N2	20:CJ:72:GLU:HG2	2.26	0.48
14:CD:110:GLN:OE1	14:CD:126:ARG:HD2	2.14	0.48
16:CF:58:ASN:HB3	16:CF:74:ASN:HD21	1.77	0.48
19:CI:12:PHE:HE2	19:CI:14:ARG:HH12	1.62	0.48
28:CR:114:PHE:CD2	28:CR:149:GLY:HA2	2.48	0.48
10:D9:109:VAL:HG21	31:DU:62:LEU:HD23	1.96	0.48
11:DA:531:A:H1'	39:DA:7637:HOH:O	2.11	0.48
11:DA:1384:U:H2'	11:DA:1387:A:OP1	2.13	0.48
11:DA:1464:U:OP2	11:DA:1465:C:H5	1.97	0.48
11:DA:1514:G:H5'	30:DT:90:GLY:CA	2.44	0.48
21:DK:142:ARG:HG3	21:DK:143:GLU:N	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DO:43:ALA:HB1	25:DO:82:CYS:SG	2.54	0.48
26:DP:15:LEU:HD21	33:DW:94:ILE:CG2	2.44	0.48
27:DQ:12:GLN:NE2	27:DQ:60:THR:HG23	2.27	0.48
29:DS:74:ALA:HB3	29:DS:76:GLU:OE2	2.14	0.48
4:A3:143:ALA:O	18:AH:49:GLU:HG3	2.14	0.48
11:AA:887:U:C6	11:AA:887:U:H5"	2.48	0.48
11:AA:1051:G:O6	39:AA:2198:HOH:O	2.17	0.48
11:AA:1199:G:OP2	31:AU:98:LYS:HD2	2.12	0.48
11:AA:1508:G:HO2'	11:AA:1509:U:P	2.33	0.48
16:AF:58:ASN:HB3	16:AF:74:ASN:HD21	1.78	0.48
35:AY:129:LEU:HG	35:AY:130:PRO:HD2	1.96	0.48
5:B4:149:THR:O	5:B4:151:ALA:N	2.46	0.48
8:B7:6:LYS:NZ	31:BU:27:LYS:HZ3	2.12	0.48
11:BA:721:A:H5"	11:BA:722:A:OP2	2.13	0.48
11:BA:1538:U:H5'	23:BM:39:GLY:H	1.78	0.48
11:BA:1585:U:OP1	17:BG:143:ASN:ND2	2.47	0.48
15:BE:35:ARG:NH1	15:BE:248:LEU:O	2.42	0.48
18:BH:18:GLU:OE2	18:BH:67:GLY:HA2	2.12	0.48
22:BL:77:LYS:HG3	22:BL:78:ASN:N	2.29	0.48
25:BO:97:ALA:O	25:BO:101:ARG:HG2	2.13	0.48
27:BQ:68:LYS:HB2	27:BQ:126:GLN:OE1	2.13	0.48
11:CA:313:G:O4'	11:CA:314:A:H8	1.97	0.48
11:CA:770:G:H2'	11:CA:771:A:H8	1.69	0.48
11:CA:878:A:O2'	11:CA:894:U:H1'	2.13	0.48
11:CA:879:G:H22	21:CK:68:GLU:CD	2.22	0.48
11:CA:1008:A:H4'	11:CA:1009:U:OP2	2.14	0.48
11:CA:1319:U:O2	11:CA:1488:A:H2'	2.14	0.48
11:CA:1721:G:C8	11:CA:1721:G:H3'	2.48	0.48
20:CJ:22:THR:HG22	20:CJ:88:ILE:HG12	1.94	0.48
26:CP:107:GLU:O	26:CP:110:ARG:HB2	2.14	0.48
27:CQ:37:ILE:HD11	27:CQ:59:PHE:HE1	1.79	0.48
27:CQ:56:LYS:O	27:CQ:63:LEU:HD22	2.13	0.48
29:CS:42:PHE:CD1	29:CS:46:THR:HG21	2.48	0.48
33:CW:239:GLU:CD	33:CW:239:GLU:N	2.71	0.48
4:D3:109:LYS:H	4:D3:109:LYS:CE	2.27	0.48
5:D4:46:GLY:HA3	21:DK:47:LEU:CD1	2.44	0.48
11:DA:451:G:OP1	26:DP:102:ARG:NH2	2.47	0.48
11:DA:1183:A:H1'	29:DS:105:LYS:HA	1.96	0.48
11:DA:1236:G:H4'	11:DA:1237:G:OP1	2.12	0.48
16:DF:58:ASN:HB3	16:DF:74:ASN:HD21	1.78	0.48
16:DF:78:ARG:NH1	16:DF:100:GLY:CA	2.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DU:108:TYR:HB3	31:DU:112:ILE:HD12	1.94	0.48
33:DW:202:LYS:HG2	33:DW:208:ASP:OD2	2.13	0.48
35:DY:70:ARG:HB2	35:DY:101:ILE:HB	1.95	0.48
2:A1:9:ALA:HB1	2:A1:29:VAL:HG11	1.94	0.48
3:A2:179:ARG:HG3	3:A2:179:ARG:HH11	1.78	0.48
9:A8:43:VAL:HG21	23:AM:25:LYS:HB2	1.94	0.48
11:AA:75:C:H5'	35:AY:176:CYS:HB2	1.95	0.48
11:AA:482:A:H5'	26:BP:37:LYS:NZ	2.29	0.48
11:AA:482:A:C5'	26:BP:37:LYS:NZ	2.76	0.48
11:AA:662:U:H2'	11:AA:663:G:O4'	2.14	0.48
11:AA:1469:U:H5'	30:AT:75:GLY:HA3	1.95	0.48
11:AA:1692:C:N4	39:AA:2228:HOH:O	2.46	0.48
23:AM:89:ILE:HA	23:AM:89:ILE:HD13	1.79	0.48
23:AM:92:PHE:O	29:AS:14:ARG:N	2.35	0.48
25:AO:43:ALA:HB1	25:AO:82:CYS:SG	2.54	0.48
3:B2:50:ARG:NH1	11:BA:1649:U:OP2	2.39	0.48
5:B4:69:GLU:OE1	5:B4:88:LYS:HG2	2.14	0.48
9:B8:60:VAL:HA	9:B8:72:LYS:HG3	1.95	0.48
11:BA:560:C:OP2	22:BL:65:SER:HB3	2.13	0.48
11:BA:1007:U:O2'	11:BA:1009:U:H5	1.96	0.48
11:BA:1740:C:H2'	11:BA:1741:A:C8	2.48	0.48
12:BB:169:MET:HG3	12:BB:195:VAL:HG11	1.95	0.48
12:BB:201:LYS:HD2	32:BV:84:TYR:HE2	1.78	0.48
17:BG:49:GLY:HA3	17:BG:51:TYR:CE2	2.49	0.48
27:BQ:32:ARG:HH12	27:BQ:51:THR:C	2.22	0.48
11:CA:69:A:H2'	11:CA:70:U:H5"	1.95	0.48
11:CA:485:U:H2'	11:CA:486:A:H5'	1.95	0.48
11:CA:986:G:H5"	39:CA:2160:HOH:O	2.14	0.48
11:CA:1250:G:H2'	11:CA:1251:C:O4'	2.13	0.48
11:CA:1475:G:H2'	11:CA:1476:A:C8	2.48	0.48
11:CA:1621:G:OP1	22:CL:72:ARG:NH2	2.37	0.48
15:CE:107:ASP:OD1	15:CE:111:HIS:HB2	2.14	0.48
30:CT:68:VAL:HG11	30:CT:117:ILE:HG21	1.96	0.48
33:CW:162:LEU:HD13	33:CW:171:ILE:HG21	1.94	0.48
11:DA:1287:U:OP1	11:DA:1300:G:N2	2.47	0.48
11:DA:1464:U:OP2	11:DA:1465:C:C5	2.67	0.48
17:DG:168:LEU:O	17:DG:172:ILE:HG13	2.14	0.48
28:DR:117:HIS:HD2	28:DR:139:GLU:CD	2.22	0.48
28:DR:186:TYR:HB2	28:DR:198:VAL:HG13	1.96	0.48
35:DY:64:LYS:HZ1	35:DY:82:SER:H	1.60	0.48
4:A3:45:VAL:HG13	4:A3:63:ILE:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A3:115:ARG:NH1	11:AA:632:U:N3	2.61	0.48
10:A9:72:LYS:HD3	11:AA:1160:G:H5'	1.96	0.48
11:AA:69:A:H2'	11:AA:70:U:H5"	1.94	0.48
11:AA:498:C:H4'	11:AA:499:A:OP1	2.14	0.48
14:AD:90:GLU:HB3	14:AD:95:TYR:CG	2.49	0.48
18:AH:41:MET:HB2	18:AH:47:ILE:HD13	1.96	0.48
28:AR:186:TYR:HB2	28:AR:198:VAL:HG13	1.96	0.48
9:B8:43:VAL:HG21	23:BM:25:LYS:HB2	1.95	0.48
11:BA:210:A:HO2'	11:BA:239:A:H2	1.59	0.48
11:BA:762:U:H5	26:BP:6:ARG:NH1	2.12	0.48
11:BA:1337:C:O2'	30:BT:11:LYS:HG3	2.14	0.48
11:BA:1469:U:H5'	11:BA:1470:C:OP2	2.13	0.48
19:BI:8:LEU:HD11	19:BI:23:SER:HB3	1.94	0.48
21:BK:39:ASP:OD1	21:BK:40:THR:N	2.41	0.48
27:BQ:65:ILE:CD1	27:BQ:139:LEU:HD21	2.43	0.48
28:BR:117:HIS:HD2	28:BR:139:GLU:CD	2.22	0.48
29:BS:119:LYS:H	29:BS:119:LYS:HG2	1.39	0.48
30:BT:124:ALA:C	30:BT:127:LYS:HE2	2.38	0.48
35:BY:64:LYS:HZ1	35:BY:82:SER:H	1.61	0.48
4:C3:190:LYS:HB3	7:C6:10:TYR:CE1	2.48	0.48
27:CQ:63:LEU:HD21	27:CQ:127:CYS:SG	2.54	0.48
33:CW:107:THR:HG21	33:CW:247:ARG:HA	1.95	0.48
4:D3:197:LYS:N	11:DA:1029:G:OP1	2.46	0.48
11:DA:1246:C:OP2	11:DA:1399:G:OP2	2.31	0.48
11:DA:1404:G:C8	24:DN:40:ARG:HD2	2.49	0.48
11:DA:1538:U:H5'	23:DM:39:GLY:H	1.78	0.48
11:DA:1695:U:H2'	11:DA:1696:U:O4'	2.14	0.48
28:DR:24:VAL:O	28:DR:313:THR:HB	2.14	0.48
30:DT:46:ALA:HB1	30:DT:87:LYS:HB3	1.96	0.48
4:A3:108:HIS:CE1	11:AA:801:C:H5'	2.49	0.48
11:AA:214:U:H5'	11:AA:214:U:H6	1.79	0.48
11:AA:645:C:H2'	11:AA:646:A:C8	2.48	0.48
11:AA:1171:G:H5"	24:AN:39:ARG:HH12	1.78	0.48
11:AA:1721:G:C8	11:AA:1721:G:H3'	2.49	0.48
19:AI:9:VAL:HG23	19:AI:98:TYR:HE2	1.79	0.48
24:AN:34:GLU:O	24:AN:34:GLU:HG3	2.14	0.48
3:B2:105:VAL:O	3:B2:108:SER:HB2	2.13	0.48
3:B2:179:ARG:HG3	3:B2:179:ARG:HH11	1.79	0.48
11:BA:2:A:C2	11:BA:361:A:H1'	2.49	0.48
11:BA:210:A:OP2	11:BA:210:A:H8	1.94	0.48
11:BA:771:A:H4'	11:BA:772:A:OP2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:1464:U:OP2	11:BA:1465:C:C5	2.67	0.48
13:BC:98:GLY:HA3	13:BC:132:ASP:OD2	2.14	0.48
18:BH:112:THR:HB	18:BH:115:GLU:HG3	1.95	0.48
25:BO:102:LYS:O	25:BO:105:GLU:HG2	2.14	0.48
28:BR:114:PHE:CD2	28:BR:149:GLY:HA2	2.48	0.48
28:BR:163:ASP:HB3	28:BR:164:TRP:H	1.60	0.48
5:C4:69:GLU:OE1	5:C4:88:LYS:HG2	2.14	0.48
10:C9:130:ASP:OD1	10:C9:130:ASP:N	2.46	0.48
11:CA:137:G:H2'	11:CA:138:G:C8	2.49	0.48
11:CA:283:A:H2'	11:CA:284:U:H6	1.78	0.48
11:CA:1313:G:H22	11:CA:1354:A:H2	1.61	0.48
12:CB:56:ALA:O	12:CB:60:ILE:HG13	2.14	0.48
13:CC:146:LYS:CD	13:CC:151:LYS:HZ1	2.19	0.48
24:CN:34:GLU:HG3	24:CN:34:GLU:O	2.13	0.48
28:CR:117:HIS:HD2	28:CR:139:GLU:CD	2.22	0.48
28:CR:186:TYR:HB2	28:CR:198:VAL:HG13	1.96	0.48
29:CS:36:ASP:N	29:CS:36:ASP:OD1	2.47	0.48
5:D4:128:VAL:HG22	5:D4:175:ASN:ND2	2.29	0.48
8:D7:47:ARG:HH11	8:D7:47:ARG:HG3	1.78	0.48
11:DA:1454:A:H4'	19:DI:73:GLY:O	2.13	0.48
11:DA:1740:C:H2'	11:DA:1741:A:C8	2.49	0.48
13:DC:15:VAL:HG11	24:DN:35:MET:HB3	1.95	0.48
13:DC:215:ILE:HG13	32:DV:15:SER:HB3	1.95	0.48
28:DR:92:ILE:HD11	28:DR:124:VAL:HB	1.95	0.48
28:DR:176:SER:HB2	28:DR:179:LYS:HG2	1.96	0.48
5:A4:37:PRO:HG3	5:A4:101:THR:O	2.13	0.48
10:A9:106:ASN:HD22	10:A9:108:LYS:HE2	1.78	0.48
11:AA:655:C:OP2	11:AA:655:C:O4'	2.31	0.48
11:AA:726:U:H5"	11:AA:727:U:OP2	2.14	0.48
11:AA:973:A:H2'	11:AA:974:C:O4'	2.12	0.48
15:AE:55:ILE:HG23	15:AE:60:ILE:HD12	1.94	0.48
15:AE:65:TYR:CD2	15:AE:77:LEU:HB2	2.49	0.48
28:AR:86:GLN:HB3	28:AR:130:ASN:HD21	1.79	0.48
28:AR:93:SER:HG	28:AR:103:TRP:HE1	1.57	0.48
29:AS:46:THR:O	29:AS:50:VAL:HG23	2.13	0.48
33:AW:36:HIS:CD2	33:AW:87:GLY:HA3	2.48	0.48
11:BA:238:G:O2'	11:BA:239:A:P	2.72	0.48
11:BA:531:A:H5"	11:BA:536:C:H41	1.79	0.48
11:BA:1246:C:O2'	11:BA:1247:A:P	2.72	0.48
11:BA:1506:G:O2'	11:BA:1507:U:P	2.71	0.48
19:BI:57:LEU:HD23	19:BI:110:GLN:HG2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BR:86:GLN:HB3	28:BR:130:ASN:HD21	1.79	0.48
28:BR:161:HIS:H	28:BR:161:HIS:CD2	2.31	0.48
36:BZ:30:ARG:O	36:BZ:39:ILE:HG12	2.14	0.48
11:CA:603:U:H4'	11:CA:604:G:O5'	2.13	0.48
11:CA:1098:A:H5"	11:CA:1099:G:OP2	2.14	0.48
11:CA:1740:C:H2'	11:CA:1741:A:C8	2.49	0.48
12:CB:201:LYS:NZ	32:CV:82:LEU:HD22	2.29	0.48
17:CG:157:ALA:HB2	17:CG:167:THR:OG1	2.14	0.48
20:CJ:42:ALA:HB1	20:CJ:48:VAL:HG11	1.96	0.48
25:CO:43:ALA:HB1	25:CO:82:CYS:SG	2.54	0.48
26:CP:18:ARG:NE	26:CP:20:GLN:HE21	2.12	0.48
3:D2:179:ARG:HG3	3:D2:179:ARG:HH11	1.79	0.48
10:D9:92:HIS:NE2	11:DA:1201:G:C5	2.82	0.48
11:DA:137:G:H2'	11:DA:138:G:C8	2.49	0.48
11:DA:211:U:H3	11:DA:238:G:H22	1.61	0.48
11:DA:629:A:OP1	39:DA:7830:HOH:O	2.18	0.48
11:DA:650:C:H2'	11:DA:651:G:O4'	2.13	0.48
11:DA:679:U:H4'	11:DA:680:U:OP1	2.14	0.48
11:DA:1451:C:H4'	11:DA:1452:G:OP1	2.14	0.48
15:DE:46:ASP:HA	15:DE:49:PHE:HD2	1.79	0.48
32:DV:25:THR:HG22	32:DV:27:ASP:H	1.79	0.48
6:A5:75:TYR:CB	6:A5:80:ALA:HB2	2.44	0.47
11:AA:896:U:H2'	11:AA:897:A:H8	1.79	0.47
19:AI:129:LYS:HE3	19:AI:133:GLY:O	2.14	0.47
23:AM:66:CYS:HA	23:AM:69:ILE:HD12	1.96	0.47
28:AR:240:TRP:HB3	28:AR:245:LEU:HD21	1.96	0.47
35:AY:70:ARG:HB2	35:AY:101:ILE:HB	1.96	0.47
35:AY:98:ARG:HD2	35:AY:99:GLY:N	2.29	0.47
4:B3:174:TYR:CE2	4:B3:180:ARG:HB2	2.49	0.47
5:B4:38:ILE:HA	5:B4:240:HIS:NE2	2.29	0.47
11:BA:331:U:H2'	11:BA:332:A:H8	1.78	0.47
11:BA:1256:C:H4'	11:BA:1257:U:OP1	2.13	0.47
11:BA:1406:G:O2'	11:BA:1407:A:OP2	2.31	0.47
13:BC:146:LYS:CD	13:BC:151:LYS:HZ1	2.19	0.47
18:BH:111:LEU:HB3	18:BH:115:GLU:HB2	1.96	0.47
19:BI:9:VAL:HG23	19:BI:98:TYR:HE2	1.79	0.47
1:C0:60:ILE:HA	1:C0:90:ILE:HB	1.96	0.47
5:C4:140:VAL:HG21	5:C4:178:ILE:HG21	1.95	0.47
6:C5:82:HIS:ND1	11:CA:1719:A:N1	2.61	0.47
9:C8:41:HIS:HB3	9:C8:76:ASN:N	2.29	0.47
10:C9:101:TYR:OH	31:CU:37:GLU:HG3	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:2:A:H1'	11:CA:3:C:OP2	2.14	0.47
11:CA:221:A:C6	11:CA:222:U:H1'	2.49	0.47
11:CA:231:U:H5"	11:CA:232:G:OP2	2.14	0.47
11:CA:738:A:H4'	11:CA:739:A:OP2	2.14	0.47
12:CB:12:ARG:HD3	12:CB:172:TRP:HZ3	1.78	0.47
12:CB:186:SER:HB3	12:CB:189:GLU:HB3	1.95	0.47
13:CC:121:ALA:O	13:CC:125:ILE:HD12	2.14	0.47
19:CI:26:PRO:HA	19:CI:65:LEU:HD23	1.96	0.47
23:CM:45:ILE:O	23:CM:49:VAL:HG23	2.14	0.47
23:CM:122:HIS:HE1	29:CS:128:TYR:OH	1.97	0.47
4:D3:190:LYS:HB3	7:D6:10:TYR:CE1	2.48	0.47
5:D4:86:LYS:HB2	5:D4:107:ASP:HB3	1.95	0.47
11:DA:466:A:H4'	14:DD:130:ARG:NH1	2.28	0.47
11:DA:512:C:H4'	11:DA:512:C:OP1	2.13	0.47
11:DA:894:U:C4	21:DK:55:ARG:NH2	2.82	0.47
11:DA:1122:G:H1'	11:DA:1718:A:N3	2.28	0.47
11:DA:1246:C:O2'	11:DA:1247:A:P	2.72	0.47
12:DB:169:MET:HG3	12:DB:195:VAL:HG11	1.94	0.47
14:DD:81:PHE:CE1	14:DD:88:GLU:HA	2.49	0.47
32:DV:35:LEU:HD13	32:DV:47:ARG:HG3	1.96	0.47
11:AA:878:A:O2'	11:AA:894:U:O2'	2.32	0.47
11:AA:1200:G:C8	31:AU:76:ARG:NH1	2.82	0.47
11:AA:1326:C:H5'	11:AA:1327:U:OP2	2.12	0.47
13:AC:146:LYS:CD	13:AC:151:LYS:HZ1	2.22	0.47
16:AF:66:GLU:O	16:AF:66:GLU:HG3	2.13	0.47
18:AH:111:LEU:HB3	18:AH:115:GLU:HB2	1.95	0.47
21:AK:91:ASN:OD1	21:AK:91:ASN:N	2.46	0.47
4:B3:65:VAL:HG13	4:B3:69:SER:HB2	1.96	0.47
5:B4:31:TRP:CZ2	21:BK:17:GLY:HA2	2.49	0.47
5:B4:148:LYS:HE2	5:B4:152:GLY:H	1.79	0.47
8:B7:52:ARG:HB2	8:B7:54:PHE:CE2	2.49	0.47
11:BA:135:A:N6	35:BY:191:LYS:HB2	2.29	0.47
11:BA:407:A:H5'	11:BA:408:C:H5	1.79	0.47
11:BA:467:A:H5'	11:BA:467:A:H8	1.78	0.47
11:BA:840:A:O2'	11:BA:841:A:O5'	2.27	0.47
11:BA:1124:A:H4'	11:BA:1719:A:C5	2.49	0.47
11:BA:1176:A:H5'	11:BA:1176:A:C8	2.49	0.47
11:BA:1447:C:H5"	30:BT:48:GLU:OE2	2.14	0.47
12:BB:192:GLU:H	12:BB:192:GLU:CD	2.22	0.47
13:BC:105:VAL:HG21	13:BC:174:ALA:HB3	1.97	0.47
14:BD:149:ARG:CG	14:BD:152:SER:HB2	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BE:184:ILE:H	15:BE:184:ILE:HD12	1.78	0.47
17:BG:66:ARG:NH2	17:BG:143:ASN:HD21	2.12	0.47
18:BH:12:LYS:HB2	18:BH:12:LYS:HE3	1.47	0.47
28:BR:140:ARG:HH11	28:BR:162:SER:HA	1.79	0.47
1:C0:60:ILE:HD11	1:C0:70:ILE:HD11	1.96	0.47
11:CA:4:C:OP2	15:CE:201:SER:OG	2.30	0.47
11:CA:576:U:H6	11:CA:576:U:H5'	1.78	0.47
11:CA:879:G:C6	11:CA:880:G:C6	3.02	0.47
12:CB:147:ASP:OD2	12:CB:162:ARG:NH2	2.45	0.47
20:CJ:22:THR:OG1	20:CJ:113:GLU:HB2	2.14	0.47
21:CK:82:VAL:HG13	21:CK:124:MET:HE2	1.97	0.47
32:CV:35:LEU:HD13	32:CV:47:ARG:HG3	1.97	0.47
35:CY:142:LYS:HE3	35:CY:156:ILE:HD11	1.96	0.47
11:DA:1480:U:HO2'	11:DA:1481:A:P	2.37	0.47
11:DA:1513:G:H2'	11:DA:1514:G:H1'	1.96	0.47
12:DB:192:GLU:H	12:DB:192:GLU:CD	2.21	0.47
13:DC:85:ASP:N	13:DC:85:ASP:OD1	2.45	0.47
13:DC:178:VAL:HG23	13:DC:185:MET:HB3	1.96	0.47
13:DC:193:LEU:HB3	13:DC:204:GLY:HA2	1.96	0.47
14:DD:105:MET:HE2	14:DD:108:ARG:HD2	1.96	0.47
29:DS:101:VAL:HB	29:DS:125:ALA:HB2	1.95	0.47
29:DS:119:LYS:H	29:DS:119:LYS:HG2	1.39	0.47
30:DT:124:ALA:C	30:DT:127:LYS:HE2	2.39	0.47
36:DZ:9:ARG:HH22	36:DZ:33:ASP:HA	1.80	0.47
4:A3:36:SER:O	4:A3:40:ILE:HG13	2.14	0.47
8:A7:17:LEU:HD12	8:A7:89:PRO:HG3	1.94	0.47
11:AA:1007:U:O2'	11:AA:1009:U:C5	2.64	0.47
11:AA:1357:G:OP1	32:AV:32:LYS:NZ	2.44	0.47
14:AD:149:ARG:CG	14:AD:152:SER:HB2	2.43	0.47
17:AG:107:PHE:HD1	17:AG:172:ILE:HD13	1.78	0.47
5:B4:86:LYS:HB2	5:B4:107:ASP:HB3	1.96	0.47
9:B8:46:GLU:CG	23:BM:8:GLU:HB2	2.44	0.47
10:B9:104:GLU:HG2	10:B9:105:ASN:H	1.80	0.47
10:B9:157:LYS:NZ	22:CL:137:GLY:O	2.36	0.47
11:BA:137:G:H2'	11:BA:138:G:C8	2.49	0.47
11:BA:977:U:H2'	11:BA:978:C:O4'	2.13	0.47
11:BA:1473:G:P	30:BT:102:LYS:NZ	2.86	0.47
12:BB:147:ASP:OD2	12:BB:162:ARG:NH2	2.47	0.47
15:BE:37:VAL:HG21	15:BE:60:ILE:HG23	1.95	0.47
15:BE:78:MET:HE2	15:BE:78:MET:HA	1.96	0.47
16:BF:17:THR:O	16:BF:95:ASN:HB3	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BO:43:ALA:HB1	25:BO:82:CYS:SG	2.54	0.47
26:BP:18:ARG:HH21	26:BP:20:GLN:NE2	2.12	0.47
5:C4:86:LYS:HB2	5:C4:107:ASP:HB3	1.96	0.47
11:CA:2:A:HO2'	11:CA:3:C:P	2.35	0.47
11:CA:15:U:H2'	11:CA:16:G:O4'	2.13	0.47
11:CA:416:C:HO2'	11:CA:417:A:P	2.34	0.47
11:CA:466:A:H4'	14:CD:130:ARG:NH1	2.28	0.47
11:CA:575:U:H5"	11:CA:576:U:OP2	2.13	0.47
11:CA:1513:G:H2'	11:CA:1514:G:H1'	1.96	0.47
12:CB:192:GLU:H	12:CB:192:GLU:CD	2.21	0.47
14:CD:37:LYS:HG3	14:CD:38:ASN:CB	2.45	0.47
20:CJ:54:VAL:HB	20:CJ:88:ILE:HB	1.96	0.47
28:CR:330:ASP:OD2	28:CR:334:ARG:NH2	2.46	0.47
3:D2:67:ARG:O	3:D2:68:LEU:HD23	2.14	0.47
5:D4:100:LYS:HD3	5:D4:238:TYR:CE2	2.48	0.47
11:DA:494:A:H4'	11:DA:494:A:OP1	2.11	0.47
17:DG:106:VAL:HG12	17:DG:172:ILE:HG22	1.96	0.47
20:DJ:63:ILE:HG22	20:DJ:65:VAL:HG23	1.96	0.47
28:DR:98:LYS:HG2	28:DR:119:SER:O	2.14	0.47
1:A0:60:ILE:HA	1:A0:90:ILE:HB	1.96	0.47
2:A1:58:MET:HB2	2:A1:59:GLU:OE2	2.15	0.47
3:A2:22:ARG:HB3	11:AA:376:A:H5"	1.97	0.47
5:A4:149:THR:O	5:A4:151:ALA:N	2.47	0.47
11:AA:136:U:P	35:AY:139:ASN:HD21	2.36	0.47
11:AA:338:G:OP1	27:AQ:84:ILE:HD11	2.15	0.47
11:AA:931:A:P	25:AO:96:LYS:HZ2	2.36	0.47
11:AA:1287:U:OP1	11:AA:1300:G:N2	2.47	0.47
11:AA:1359:C:O2'	32:AV:52:GLY:HA3	2.15	0.47
11:AA:1513:G:H2'	11:AA:1514:G:H1'	1.95	0.47
14:AD:32:GLY:HA3	34:AX:41:TYR:CD1	2.48	0.47
15:AE:227:THR:HB	15:AE:228:PRO:HD2	1.96	0.47
18:AH:18:GLU:OE2	18:AH:67:GLY:HA2	2.14	0.47
23:AM:15:HIS:NE2	23:AM:66:CYS:SG	2.87	0.47
25:AO:101:ARG:HH12	25:AO:145:ALA:HA	1.78	0.47
11:BA:89:A:C6	11:BA:389:G:C6	3.02	0.47
11:BA:283:A:H2'	11:BA:284:U:H6	1.79	0.47
11:BA:444:A:H5'	11:BA:445:U:C5	2.49	0.47
11:BA:896:U:H2'	11:BA:897:A:H8	1.80	0.47
13:BC:121:ALA:O	13:BC:125:ILE:HD12	2.15	0.47
15:BE:45:LEU:HD12	15:BE:48:ILE:HD12	1.96	0.47
19:BI:26:PRO:HA	19:BI:65:LEU:HD23	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BK:147:ARG:NH1	21:BK:150:ARG:NH2	2.61	0.47
26:BP:15:LEU:HD12	33:BW:54:TYR:HB3	1.97	0.47
33:BW:31:PRO:HG2	33:BW:38:LEU:HG	1.97	0.47
3:C2:21:HIS:CE1	11:CA:101:A:O2'	2.68	0.47
10:C9:128:HIS:HB2	10:C9:131:ARG:HG3	1.97	0.47
11:CA:238:G:O2'	11:CA:239:A:P	2.71	0.47
11:CA:1171:G:H5"	24:CN:39:ARG:HH12	1.78	0.47
11:CA:1664:A:C5	11:CA:1665:U:H1'	2.49	0.47
12:CB:54:LYS:HB2	36:CZ:95:ILE:HD13	1.95	0.47
12:CB:161:ASN:O	12:CB:167:ILE:HD11	2.13	0.47
17:CG:117:ARG:O	17:CG:136:VAL:N	2.38	0.47
17:CG:168:LEU:O	17:CG:172:ILE:HG13	2.14	0.47
19:CI:9:VAL:HG23	19:CI:98:TYR:HE2	1.79	0.47
21:CK:76:GLN:O	21:CK:79:ILE:HG13	2.14	0.47
22:CL:35:GLY:HA2	22:CL:38:TRP:HD1	1.78	0.47
27:CQ:68:LYS:HB2	27:CQ:126:GLN:OE1	2.15	0.47
33:CW:42:LEU:O	33:CW:86:THR:OG1	2.31	0.47
5:D4:149:THR:O	5:D4:151:ALA:N	2.47	0.47
10:D9:143:ILE:HG23	10:D9:144:ASP:N	2.29	0.47
11:DA:90:U:O2'	33:DW:8:HIS:HD2	1.97	0.47
11:DA:1007:U:O2'	11:DA:1009:U:H5	1.98	0.47
12:DB:12:ARG:HD3	12:DB:172:TRP:HZ3	1.78	0.47
12:DB:53:ILE:HG23	12:DB:174:ILE:HG13	1.96	0.47
14:DD:90:GLU:HB3	14:DD:95:TYR:CD2	2.49	0.47
15:DE:45:LEU:HD12	15:DE:48:ILE:HD12	1.96	0.47
25:DO:102:LYS:O	25:DO:105:GLU:HG2	2.15	0.47
4:A3:65:VAL:HG13	4:A3:69:SER:HB2	1.97	0.47
9:A8:41:HIS:HB3	9:A8:76:ASN:N	2.29	0.47
11:AA:282:A:H2'	11:AA:283:A:C8	2.49	0.47
11:AA:283:A:H2'	11:AA:284:U:H6	1.78	0.47
11:AA:292:G:H2'	11:AA:293:U:O4'	2.15	0.47
11:AA:507:G:HO2'	11:AA:508:A:P	2.36	0.47
11:AA:876:A:H5'	21:AK:60:MET:HE3	1.96	0.47
11:AA:1176:A:H5'	11:AA:1176:A:C8	2.50	0.47
11:AA:1246:C:OP2	11:AA:1399:G:OP2	2.31	0.47
11:AA:1250:G:H2'	11:AA:1251:C:O4'	2.14	0.47
12:AB:152:TYR:CZ	36:AZ:75:SER:HB2	2.49	0.47
17:AG:106:VAL:HG12	17:AG:172:ILE:HG22	1.97	0.47
20:AJ:37:GLU:O	20:AJ:41:ARG:HB2	2.15	0.47
23:AM:45:ILE:O	23:AM:49:VAL:HG23	2.14	0.47
1:B0:60:ILE:HD11	1:B0:70:ILE:HD11	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B2:36:THR:HB	3:B2:65:ALA:O	2.14	0.47
6:B5:99:PRO:CD	6:B5:100:PRO:HD3	2.44	0.47
11:BA:229:A:C5	11:BA:230:A:N6	2.83	0.47
11:BA:1281:G:H5'	11:BA:1282:U:OP2	2.14	0.47
12:BB:56:ALA:O	12:BB:60:ILE:HG13	2.14	0.47
15:BE:107:ASP:OD1	15:BE:111:HIS:HB2	2.14	0.47
18:BH:10:CYS:HA	18:BH:27:LEU:HD11	1.95	0.47
25:BO:18:LEU:HD23	25:BO:18:LEU:HA	1.66	0.47
27:BQ:39:LEU:HD23	27:BQ:39:LEU:HA	1.66	0.47
30:BT:99:CYS:SG	30:BT:100:HIS:N	2.88	0.47
31:BU:83:LEU:HD11	31:BU:103:LEU:HD21	1.96	0.47
3:C2:67:ARG:O	3:C2:68:LEU:HD23	2.14	0.47
6:C5:17:HIS:HE1	11:CA:1742:G:OP1	1.96	0.47
11:CA:227:G:H21	11:CA:229:A:H8	1.61	0.47
11:CA:531:A:H5"	11:CA:536:C:H41	1.79	0.47
11:CA:679:U:H3	11:CA:722:A:N6	2.04	0.47
11:CA:1168:A:HO2'	11:CA:1169:C:P	2.36	0.47
11:CA:1575:U:H2'	11:CA:1576:U:C6	2.50	0.47
13:CC:178:VAL:HG23	13:CC:185:MET:HB3	1.96	0.47
14:CD:38:ASN:ND2	14:CD:40:ARG:NH1	2.57	0.47
16:CF:66:GLU:O	16:CF:66:GLU:HG3	2.14	0.47
19:CI:62:PHE:CE2	19:CI:91:ILE:HD11	2.50	0.47
25:CO:4:MET:SD	25:CO:126:ARG:NH1	2.87	0.47
27:CQ:32:ARG:HH12	27:CQ:51:THR:C	2.22	0.47
31:CU:55:TYR:CE2	31:CU:56:VAL:HG23	2.48	0.47
32:CV:25:THR:HG22	32:CV:27:ASP:H	1.79	0.47
1:D0:33:GLU:HG2	1:D0:52:ASP:HB2	1.95	0.47
11:DA:181:G:H5'	11:DA:181:G:H8	1.79	0.47
11:DA:1176:A:C8	11:DA:1176:A:H5'	2.50	0.47
11:DA:1212:U:H2'	11:DA:1214:A:OP2	2.12	0.47
22:DL:35:GLY:HA2	22:DL:38:TRP:HD1	1.79	0.47
28:DR:20:HIS:HE1	28:DR:50:THR:HG22	1.78	0.47
33:DW:107:THR:HG21	33:DW:247:ARG:HA	1.96	0.47
6:A5:99:PRO:CD	6:A5:100:PRO:HD3	2.44	0.47
11:AA:932:G:H4'	25:AO:6:MET:HE1	1.97	0.47
11:AA:1494:U:O2'	11:AA:1495:U:P	2.72	0.47
15:AE:150:ALA:H	15:AE:175:ARG:HH22	1.60	0.47
19:AI:57:LEU:HD23	19:AI:110:GLN:HG2	1.97	0.47
21:AK:82:VAL:HG13	21:AK:124:MET:HE2	1.97	0.47
27:AQ:65:ILE:CD1	27:AQ:139:LEU:HD21	2.44	0.47
29:AS:36:ASP:N	29:AS:36:ASP:OD1	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AT:108:LEU:HB3	30:AT:130:ARG:HD2	1.96	0.47
33:AW:194:VAL:HG21	33:AW:240:LEU:HD13	1.97	0.47
4:B3:62:LEU:HD11	4:B3:95:THR:OG1	2.14	0.47
7:B6:34:LYS:HZ1	7:B6:78:LYS:HE3	1.78	0.47
7:B6:65:THR:HG23	11:BA:850:G:O2'	2.14	0.47
11:BA:181:G:H5'	11:BA:181:G:H8	1.80	0.47
11:BA:270:U:H5'	11:BA:271:U:C6	2.49	0.47
11:BA:606:U:OP2	22:BL:5:LYS:NZ	2.47	0.47
11:BA:729:U:H1'	27:BQ:157:PHE:O	2.15	0.47
11:BA:892:G:O2'	11:BA:893:A:C8	2.68	0.47
16:BF:78:ARG:NH1	16:BF:100:GLY:CA	2.77	0.47
28:BR:102:LEU:O	28:BR:111:TYR:N	2.32	0.47
28:BR:186:TYR:HB2	28:BR:198:VAL:HG13	1.96	0.47
28:BR:297:GLU:OE1	28:BR:297:GLU:N	2.38	0.47
3:C2:111:GLU:OE2	3:C2:171:ARG:NH2	2.47	0.47
6:C5:99:PRO:CD	6:C5:100:PRO:HD3	2.44	0.47
11:CA:530:G:N7	14:CD:171:ARG:HD2	2.29	0.47
11:CA:1027:U:H2'	11:CA:1028:G:C8	2.49	0.47
11:CA:1173:G:O5'	39:CA:2223:HOH:O	2.21	0.47
11:CA:1287:U:OP1	11:CA:1300:G:N2	2.47	0.47
39:CA:2376:HOH:O	26:CP:86:ASN:HB2	2.14	0.47
14:CD:45:VAL:HG21	14:CD:105:MET:HE3	1.96	0.47
28:CR:235:LYS:HE2	28:CR:256:SER:H	1.80	0.47
7:D6:34:LYS:HZ1	7:D6:78:LYS:HE3	1.80	0.47
8:D7:17:LEU:HD12	8:D7:89:PRO:HG3	1.96	0.47
11:DA:338:G:OP1	27:DQ:84:ILE:HD11	2.14	0.47
11:DA:444:A:H5'	11:DA:445:U:C5	2.50	0.47
11:DA:892:G:O2'	11:DA:893:A:C8	2.66	0.47
11:DA:1007:U:O2'	11:DA:1009:U:C5	2.67	0.47
11:DA:1509:U:OP2	11:DA:1509:U:C4'	2.62	0.47
14:DD:37:LYS:HG3	14:DD:38:ASN:CB	2.45	0.47
21:DK:147:ARG:NH1	21:DK:150:ARG:NH2	2.61	0.47
23:DM:66:CYS:HA	23:DM:69:ILE:HD12	1.96	0.47
23:DM:69:ILE:O	23:DM:73:ILE:HG12	2.15	0.47
24:DN:34:GLU:HG3	24:DN:34:GLU:O	2.14	0.47
28:DR:299:ILE:HD12	28:DR:330:ASP:HB2	1.96	0.47
30:DT:68:VAL:HG11	30:DT:117:ILE:HG21	1.96	0.47
3:A2:78:GLU:OE2	27:AQ:20:LYS:HE2	2.14	0.47
3:A2:146:HIS:HE1	11:AA:181:G:C4	2.33	0.47
4:A3:101:GLU:HB2	4:A3:113:ARG:HG3	1.95	0.47
6:A5:82:HIS:ND1	11:AA:1719:A:N1	2.57	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:A7:48:SER:HB2	11:AA:1192:C:OP1	2.14	0.47
9:A8:51:GLU:HA	9:A8:54:ILE:HB	1.96	0.47
11:AA:137:G:H2'	11:AA:138:G:C8	2.50	0.47
11:AA:295:U:OP1	27:AQ:135:ARG:HD3	2.15	0.47
11:AA:416:C:HO2'	11:AA:417:A:P	2.38	0.47
11:AA:1431:A:H3'	11:AA:1431:A:H8	1.80	0.47
11:AA:1501:C:P	17:AG:86:LYS:HE2	2.55	0.47
14:AD:80:MET:HB3	14:AD:86:LEU:HB2	1.95	0.47
14:AD:81:PHE:CE1	14:AD:88:GLU:HA	2.49	0.47
20:AJ:54:VAL:HB	20:AJ:88:ILE:HB	1.97	0.47
23:AM:89:ILE:HG22	23:AM:90:ASN:N	2.30	0.47
23:AM:122:HIS:HE1	29:AS:128:TYR:OH	1.98	0.47
28:AR:117:HIS:HD2	28:AR:139:GLU:CD	2.23	0.47
28:AR:235:LYS:HE2	28:AR:256:SER:H	1.79	0.47
32:AV:106:LEU:O	32:AV:110:GLY:N	2.48	0.47
4:B3:36:SER:O	4:B3:40:ILE:HG13	2.14	0.47
6:B5:75:TYR:CB	6:B5:80:ALA:HB2	2.45	0.47
10:B9:94:LYS:HA	11:BA:1201:G:OP2	2.14	0.47
10:B9:128:HIS:HB2	10:B9:131:ARG:HG3	1.96	0.47
11:BA:282:A:H2'	11:BA:283:A:C8	2.50	0.47
11:BA:292:G:H2'	11:BA:293:U:O4'	2.14	0.47
11:BA:1098:A:H5"	11:BA:1099:G:OP2	2.14	0.47
11:BA:1292:U:O2	11:BA:1294:A:H5'	2.15	0.47
11:BA:1488:A:O2'	11:BA:1489:U:O5'	2.32	0.47
11:BA:1531:G:C8	23:BM:134:ARG:HB3	2.49	0.47
11:BA:1568:C:P	24:BN:18:LYS:NZ	2.88	0.47
11:BA:1575:U:H2'	11:BA:1576:U:C6	2.50	0.47
11:BA:1721:G:H4'	11:BA:1722:U:H5"	1.97	0.47
13:BC:193:LEU:HB3	13:BC:204:GLY:HA2	1.97	0.47
14:BD:81:PHE:CE1	14:BD:88:GLU:HA	2.48	0.47
20:BJ:63:ILE:HG22	20:BJ:65:VAL:HG23	1.97	0.47
21:BK:21:VAL:HG12	21:BK:22:GLY:H	1.79	0.47
28:BR:15:GLY:CA	28:BR:65:PHE:HB2	2.44	0.47
28:BR:176:SER:HB2	28:BR:179:LYS:HG2	1.96	0.47
35:BY:116:LYS:NZ	35:BY:125:THR:OG1	2.47	0.47
7:C6:29:TYR:H	7:C6:46:SER:HB3	1.80	0.47
8:C7:17:LEU:HD12	8:C7:89:PRO:HG3	1.96	0.47
11:CA:892:G:HO2'	11:CA:893:A:H8	1.60	0.47
11:CA:1186:G:OP1	11:CA:1218:C:O2'	2.25	0.47
11:CA:1272:A:H5"	11:CA:1273:U:OP2	2.15	0.47
11:CA:1527:A:H5"	11:CA:1528:A:OP2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CB:169:MET:HG3	12:CB:195:VAL:HG11	1.96	0.47
14:CD:81:PHE:CE1	14:CD:88:GLU:HA	2.50	0.47
18:CH:52:VAL:HG22	18:CH:61:VAL:HG22	1.97	0.47
19:CI:74:SER:OG	19:CI:75:GLY:N	2.46	0.47
23:CM:66:CYS:HA	23:CM:69:ILE:HD12	1.97	0.47
27:CQ:12:GLN:NE2	27:CQ:60:THR:HG23	2.28	0.47
27:CQ:58:PRO:HA	27:CQ:63:LEU:HB3	1.96	0.47
29:CS:119:LYS:H	29:CS:119:LYS:HG2	1.40	0.47
35:CY:213:GLU:O	35:CY:216:LEU:HB2	2.14	0.47
7:D6:45:PHE:CG	25:DO:57:ARG:HD3	2.50	0.47
11:DA:282:A:H2'	11:DA:283:A:C8	2.49	0.47
11:DA:416:C:HO2'	11:DA:417:A:P	2.37	0.47
11:DA:677:G:N2	11:DA:725:A:H1'	2.29	0.47
11:DA:896:U:H2'	11:DA:897:A:H8	1.79	0.47
11:DA:1166:A:OP2	20:DJ:73:GLY:CA	2.52	0.47
11:DA:1190:G:C5	11:DA:1415:A:C2	3.02	0.47
11:DA:1246:C:O2'	11:DA:1247:A:OP2	2.26	0.47
11:DA:1423:U:O2'	29:DS:84:HIS:HD2	1.98	0.47
11:DA:1605:A:H4'	11:DA:1606:C:O5'	2.15	0.47
11:DA:1664:A:C5	11:DA:1665:U:H1'	2.50	0.47
13:DC:98:GLY:HA3	13:DC:132:ASP:OD2	2.14	0.47
13:DC:118:VAL:HG21	13:DC:145:LEU:HD21	1.97	0.47
13:DC:228:ARG:H	13:DC:228:ARG:HG2	1.47	0.47
14:DD:90:GLU:HB3	14:DD:95:TYR:CG	2.50	0.47
15:DE:58:PRO:HG3	15:DE:131:THR:HG23	1.97	0.47
15:DE:231:TRP:HB3	18:DH:68:ARG:NH2	2.30	0.47
17:DG:107:PHE:HD1	17:DG:172:ILE:HD13	1.80	0.47
21:DK:21:VAL:HG12	21:DK:22:GLY:H	1.80	0.47
27:DQ:63:LEU:HD21	27:DQ:127:CYS:SG	2.55	0.47
28:DR:114:PHE:CD2	28:DR:149:GLY:HA2	2.49	0.47
33:DW:162:LEU:HD13	33:DW:171:ILE:HG21	1.97	0.47
35:DY:213:GLU:O	35:DY:216:LEU:HB2	2.14	0.47
3:A2:25:ARG:NH2	11:AA:377:G:OP2	2.48	0.47
3:A2:36:THR:HB	3:A2:65:ALA:O	2.15	0.47
11:AA:59:C:H5'	11:AA:447:C:N4	2.30	0.47
11:AA:327:G:C4	11:AA:329:A:C8	3.03	0.47
11:AA:1083:G:O2'	11:AA:1705:A:H5"	2.14	0.47
11:AA:1351:U:H1'	11:AA:1488:A:N6	2.29	0.47
13:AC:35:ALA:HB1	13:AC:57:LYS:HB2	1.96	0.47
14:AD:37:LYS:HG3	14:AD:38:ASN:CB	2.45	0.47
19:AI:111:LEU:HD22	19:AI:118:LEU:HD12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AK:21:VAL:HG12	21:AK:22:GLY:H	1.79	0.47
21:AK:128:ARG:HH11	21:AK:128:ARG:HG3	1.79	0.47
23:AM:88:ARG:HD2	23:AM:88:ARG:HA	1.57	0.47
28:AR:176:SER:HB2	28:AR:179:LYS:HG2	1.96	0.47
28:AR:235:LYS:HG3	28:AR:256:SER:O	2.15	0.47
3:B2:67:ARG:O	3:B2:68:LEU:HD23	2.15	0.47
7:B6:29:TYR:H	7:B6:46:SER:HB3	1.79	0.47
11:BA:413:C:C4	35:BY:87:ARG:HD3	2.49	0.47
11:BA:1568:C:O2'	11:BA:1570:U:H5	1.98	0.47
12:BB:47:GLU:HB2	32:BV:109:LEU:HD13	1.97	0.47
14:BD:37:LYS:HG3	14:BD:38:ASN:HB3	1.97	0.47
22:BL:106:LEU:HD23	22:BL:122:LYS:HE2	1.97	0.47
23:BM:24:GLY:HA2	23:BM:58:ALA:HB3	1.97	0.47
27:BQ:70:ILE:HD13	27:BQ:106:ILE:HD13	1.95	0.47
2:C1:11:ILE:HG12	2:C1:27:VAL:HG11	1.97	0.47
4:C3:45:VAL:HG13	4:C3:63:ILE:HG22	1.97	0.47
4:C3:62:LEU:HD11	4:C3:95:THR:OG1	2.15	0.47
7:C6:5:LEU:HD12	18:CH:24:GLN:HG3	1.97	0.47
8:C7:52:ARG:HB2	8:C7:54:PHE:CE2	2.50	0.47
9:C8:51:GLU:HA	9:C8:54:ILE:HB	1.96	0.47
11:CA:480:A:H2'	11:CA:481:A:O4'	2.15	0.47
11:CA:676:C:O2'	11:CA:677:G:P	2.73	0.47
11:CA:892:G:O2'	11:CA:893:A:C8	2.68	0.47
11:CA:1353:G:OP1	20:CJ:87:ARG:NH2	2.47	0.47
11:CA:1401:U:H4'	20:CJ:70:CYS:SG	2.55	0.47
14:CD:90:GLU:HB3	14:CD:95:TYR:CD2	2.49	0.47
21:CK:21:VAL:HG12	21:CK:22:GLY:H	1.80	0.47
22:CL:106:LEU:HD23	22:CL:122:LYS:HE2	1.97	0.47
28:CR:92:ILE:HD11	28:CR:124:VAL:HB	1.96	0.47
28:CR:178:ASN:ND2	23:DM:110:ARG:NH1	2.58	0.47
28:CR:240:TRP:HB3	28:CR:245:LEU:HD21	1.96	0.47
32:CV:106:LEU:O	32:CV:110:GLY:N	2.47	0.47
5:D4:122:THR:N	5:D4:146:THR:OG1	2.39	0.47
7:D6:29:TYR:H	7:D6:46:SER:HB3	1.79	0.47
10:D9:92:HIS:CE1	11:DA:1201:G:N7	2.83	0.47
11:DA:762:U:H5	26:DP:6:ARG:NH1	2.12	0.47
19:DI:12:PHE:HE2	19:DI:14:ARG:HH12	1.61	0.47
28:DR:86:GLN:HB3	28:DR:130:ASN:HD21	1.79	0.47
33:DW:194:VAL:HG21	33:DW:240:LEU:HD13	1.97	0.47
8:A7:52:ARG:HB2	8:A7:54:PHE:CE2	2.50	0.47
11:AA:626:U:OP1	27:AQ:101:LYS:HE3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:665:A:H4'	11:AA:666:A:OP1	2.15	0.47
11:AA:762:U:H5	26:AP:6:ARG:CZ	2.27	0.47
11:AA:1472:U:OP2	30:AT:105:ARG:NH2	2.48	0.47
11:AA:1538:U:OP1	23:AM:42:PHE:HB2	2.14	0.47
19:AI:62:PHE:CE2	19:AI:91:ILE:HD11	2.50	0.47
21:AK:39:ASP:OD1	21:AK:40:THR:N	2.40	0.47
26:AP:107:GLU:O	26:AP:110:ARG:HB2	2.15	0.47
27:AQ:68:LYS:O	27:AQ:126:GLN:N	2.47	0.47
36:AZ:74:ARG:HA	36:AZ:79:ALA:HB2	1.97	0.47
11:BA:327:G:C4	11:BA:329:A:C8	3.03	0.47
11:BA:854:G:H1'	11:BA:922:A:O4'	2.15	0.47
35:BY:98:ARG:HD2	35:BY:99:GLY:N	2.30	0.47
5:C4:210:ILE:O	11:CA:1036:U:O2'	2.17	0.47
11:CA:5:U:P	15:CE:205:THR:HG22	2.54	0.47
11:CA:11:A:C2'	11:CA:12:U:H5'	2.43	0.47
11:CA:237:U:OP2	11:CA:237:U:C6	2.67	0.47
11:CA:282:A:H2'	11:CA:283:A:C8	2.49	0.47
11:CA:854:G:H1'	11:CA:922:A:O4'	2.15	0.47
11:CA:1371:A:H2'	11:CA:1372:A:C8	2.50	0.47
11:CA:1621:G:P	22:CL:72:ARG:HH21	2.37	0.47
11:CA:1695:U:H2'	11:CA:1696:U:O4'	2.15	0.47
12:CB:50:TRP:O	12:CB:54:LYS:HG3	2.13	0.47
13:CC:137:CYS:SG	13:CC:138:GLU:N	2.88	0.47
23:CM:111:GLU:O	23:CM:115:ARG:HG2	2.15	0.47
28:CR:176:SER:HB2	28:CR:179:LYS:HG2	1.96	0.47
3:D2:78:GLU:OE2	27:DQ:20:LYS:HE2	2.15	0.47
8:D7:47:ARG:HH11	8:D7:47:ARG:CG	2.28	0.47
9:D8:41:HIS:HB3	9:D8:76:ASN:N	2.30	0.47
11:DA:470:G:N2	11:DA:503:A:N1	2.55	0.47
11:DA:550:G:O5'	34:DX:61:ASN:HB3	2.14	0.47
11:DA:1049:C:O2'	11:DA:1050:C:H5'	2.14	0.47
11:DA:1313:G:H22	11:DA:1354:A:H2	1.61	0.47
14:DD:149:ARG:CG	14:DD:152:SER:HB2	2.44	0.47
17:DG:18:ASN:HB3	17:DG:21:GLU:CD	2.40	0.47
22:DL:68:ARG:HG3	22:DL:116:ILE:HG12	1.97	0.47
26:DP:107:GLU:O	26:DP:110:ARG:HB2	2.15	0.47
35:DY:7:TYR:HA	35:DY:8:PRO:HD3	1.60	0.47
4:A3:171:THR:O	4:A3:175:LYS:HB2	2.15	0.47
11:AA:907:A:C8	21:AK:137:THR:O	2.68	0.47
11:AA:1621:G:OP1	22:AL:72:ARG:NH2	2.45	0.47
11:AA:1695:U:H2'	11:AA:1696:U:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AC:118:VAL:HG21	13:AC:145:LEU:HD21	1.97	0.47
22:AL:106:LEU:HD23	22:AL:122:LYS:HE2	1.96	0.47
27:AQ:73:LEU:O	27:AQ:85:ILE:HA	2.15	0.47
3:B2:195:GLU:HG2	27:BQ:9:TYR:CD2	2.50	0.47
10:B9:88:HIS:CD2	11:BA:1220:C:OP2	2.68	0.47
11:BA:328:G:H5"	11:BA:329:A:N7	2.30	0.47
11:BA:1153:U:H1'	29:BS:131:THR:HG23	1.97	0.47
11:BA:1174:A:OP1	11:BA:1175:A:OP2	2.32	0.47
11:BA:1371:A:H2'	11:BA:1372:A:C8	2.50	0.47
11:BA:1472:U:H5	30:BT:105:ARG:NH2	2.13	0.47
11:BA:1555:A:C5'	19:BI:137:ARG:HH12	2.28	0.47
17:BG:18:ASN:HB3	17:BG:21:GLU:CD	2.40	0.47
20:BJ:79:ARG:HG2	24:BN:55:ARG:HB3	1.97	0.47
23:BM:84:TRP:CZ3	23:BM:85:LEU:HG	2.50	0.47
25:BO:121:GLU:OE2	25:BO:143:TYR:HE2	1.98	0.47
31:BU:50:CYS:HB3	31:BU:55:TYR:CZ	2.50	0.47
33:BW:107:THR:HG21	33:BW:247:ARG:HA	1.96	0.47
11:CA:476:U:H2'	11:CA:477:G:H8	1.80	0.47
11:CA:482:A:H5'	11:CA:483:C:OP2	2.14	0.47
11:CA:1518:G:H2'	11:CA:1519:U:H5"	1.97	0.47
13:CC:105:VAL:HG21	13:CC:174:ALA:HB3	1.97	0.47
20:CJ:63:ILE:HG22	20:CJ:65:VAL:HG23	1.96	0.47
33:CW:31:PRO:HG2	33:CW:38:LEU:HG	1.97	0.47
35:CY:7:TYR:HA	35:CY:8:PRO:HD3	1.59	0.47
6:D5:11:SER:HB2	11:DA:912:A:H5'	1.97	0.47
8:D7:47:ARG:HG3	8:D7:47:ARG:NH1	2.29	0.47
10:D9:88:HIS:CE1	11:DA:1217:G:N2	2.83	0.47
11:DA:603:U:H4'	11:DA:604:G:O5'	2.15	0.47
11:DA:1119:G:O2'	11:DA:1607:A:N1	2.43	0.47
13:DC:121:ALA:O	13:DC:125:ILE:HD12	2.14	0.47
19:DI:79:GLN:O	19:DI:83:ILE:HG13	2.15	0.47
20:DJ:42:ALA:HB1	20:DJ:48:VAL:HG11	1.97	0.47
22:DL:17:ARG:NH1	22:DL:20:LYS:HE2	2.30	0.47
27:DQ:32:ARG:HH12	27:DQ:51:THR:C	2.22	0.47
11:AA:479:G:H2'	11:AA:480:A:O4'	2.14	0.46
11:AA:606:U:OP2	22:AL:5:LYS:NZ	2.48	0.46
11:AA:840:A:HO2'	11:AA:841:A:P	2.38	0.46
11:AA:1371:A:H2'	11:AA:1372:A:C8	2.50	0.46
13:AC:105:VAL:HG21	13:AC:174:ALA:HB3	1.96	0.46
13:AC:193:LEU:HB3	13:AC:204:GLY:HA2	1.97	0.46
15:AE:78:MET:HE2	15:AE:78:MET:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AG:51:TYR:CG	17:AG:61:CYS:HB2	2.50	0.46
21:AK:105:THR:HG22	21:AK:107:GLN:H	1.80	0.46
22:AL:129:ILE:H	22:AL:129:ILE:HG13	1.57	0.46
8:B7:77:LYS:HA	8:B7:84:ALA:HB3	1.97	0.46
11:BA:1001:A:HO2'	11:BA:1002:U:P	2.34	0.46
11:BA:1027:U:H2'	11:BA:1028:G:C8	2.50	0.46
11:BA:1518:G:H2'	11:BA:1519:U:H5"	1.97	0.46
11:BA:1664:A:C5	11:BA:1665:U:H1'	2.50	0.46
15:BE:227:THR:HB	15:BE:228:PRO:HD2	1.97	0.46
19:BI:111:LEU:HD22	19:BI:118:LEU:HD12	1.97	0.46
21:BK:54:VAL:HG11	21:BK:81:VAL:HA	1.98	0.46
23:BM:119:ILE:HG23	29:BS:124:PHE:CE2	2.49	0.46
24:BN:34:GLU:HG3	24:BN:34:GLU:O	2.14	0.46
35:BY:129:LEU:HG	35:BY:130:PRO:HD2	1.96	0.46
4:C3:15:ILE:O	4:C3:19:VAL:HG23	2.15	0.46
11:CA:328:G:H5'	11:CA:330:C:H41	1.79	0.46
11:CA:486:A:H5"	11:CA:487:C:OP2	2.15	0.46
11:CA:653:U:N3	11:CA:656:G:N2	2.63	0.46
11:CA:1439:U:H4'	30:CT:91:ASN:HA	1.96	0.46
12:CB:25:LEU:HD22	12:CB:33:ILE:HD13	1.96	0.46
15:CE:52:SER:HB3	36:CZ:40:PHE:O	2.15	0.46
19:CI:54:ILE:HA	19:CI:62:PHE:CE1	2.50	0.46
19:CI:129:LYS:HE3	19:CI:133:GLY:O	2.15	0.46
27:CQ:70:ILE:HD13	27:CQ:106:ILE:HD13	1.97	0.46
28:CR:184:ALA:H	28:CR:206:ARG:HH22	1.63	0.46
32:CV:65:PRO:N	32:CV:78:ARG:HH12	2.13	0.46
11:DA:750:U:H3'	11:DA:752:C:OP2	2.15	0.46
13:DC:77:GLN:HG3	13:DC:87:ILE:HD12	1.97	0.46
16:DF:66:GLU:HG3	16:DF:66:GLU:O	2.14	0.46
17:DG:49:GLY:HA3	17:DG:51:TYR:CE2	2.51	0.46
22:DL:78:ASN:ND2	22:DL:80:LYS:HE2	2.31	0.46
30:DT:108:LEU:HB3	30:DT:130:ARG:HD2	1.98	0.46
35:DY:129:LEU:HG	35:DY:130:PRO:HD2	1.96	0.46
11:AA:4:C:OP2	15:AE:201:SER:OG	2.33	0.46
11:AA:447:C:H5'	11:AA:448:A:N7	2.31	0.46
11:AA:1421:G:HO2'	24:AN:6:TRP:HA	1.81	0.46
11:AA:1472:U:H5	30:AT:105:ARG:NH2	2.13	0.46
12:AB:177:GLU:O	12:AB:181:LEU:HG	2.14	0.46
15:AE:45:LEU:HD12	15:AE:48:ILE:HD12	1.96	0.46
15:AE:46:ASP:HA	15:AE:49:PHE:HD2	1.80	0.46
30:AT:124:ALA:C	30:AT:127:LYS:HE2	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AV:27:ASP:HB3	32:AV:30:PHE:HD2	1.80	0.46
33:AW:36:HIS:CE1	33:AW:87:GLY:HA3	2.50	0.46
33:AW:107:THR:HG21	33:AW:247:ARG:HA	1.96	0.46
8:B7:17:LEU:HD12	8:B7:89:PRO:HG3	1.96	0.46
9:B8:41:HIS:HB3	9:B8:76:ASN:N	2.30	0.46
11:BA:15:U:O5'	11:BA:15:U:H6	1.99	0.46
11:BA:477:G:H4'	34:BX:73:ALA:O	2.14	0.46
11:BA:557:U:H4'	34:BX:17:GLN:OE1	2.16	0.46
11:BA:1145:C:C2'	11:BA:1146:C:H5'	2.45	0.46
11:BA:1263:G:N2	11:BA:1296:G:H1	2.05	0.46
11:BA:1494:U:O2'	11:BA:1495:U:P	2.72	0.46
13:BC:118:VAL:HG21	13:BC:145:LEU:HD21	1.97	0.46
14:BD:110:GLN:OE1	14:BD:126:ARG:HD2	2.15	0.46
17:BG:35:CYS:HB3	17:BG:63:ILE:HD11	1.97	0.46
24:BN:40:ARG:H	24:BN:40:ARG:HG2	1.36	0.46
1:C0:25:LEU:H	1:C0:25:LEU:HG	1.53	0.46
2:C1:21:ARG:HG3	11:CA:1134:C:H4'	1.96	0.46
4:C3:65:VAL:HG13	4:C3:69:SER:HB2	1.96	0.46
5:C4:149:THR:O	5:C4:151:ALA:N	2.48	0.46
8:C7:47:ARG:HH11	8:C7:47:ARG:HG3	1.81	0.46
9:C8:51:GLU:H	9:C8:51:GLU:HG3	1.61	0.46
11:CA:213:U:H4'	11:CA:214:U:C5'	2.46	0.46
11:CA:371:U:H5	14:CD:4:THR:O	1.98	0.46
13:CC:193:LEU:HB3	13:CC:204:GLY:HA2	1.96	0.46
27:CQ:104:ARG:HG2	27:CQ:104:ARG:NH1	2.30	0.46
28:CR:15:GLY:CA	28:CR:65:PHE:HB2	2.44	0.46
33:CW:202:LYS:HG2	33:CW:208:ASP:OD2	2.14	0.46
3:D2:195:GLU:HG2	27:DQ:9:TYR:CD2	2.50	0.46
5:D4:49:LEU:O	21:DK:51:GLU:HG3	2.15	0.46
8:D7:52:ARG:HB2	8:D7:54:PHE:CE2	2.50	0.46
11:DA:270:U:H5'	11:DA:271:U:H6	1.80	0.46
11:DA:327:G:C4	11:DA:329:A:C8	3.03	0.46
11:DA:328:G:H5"	11:DA:329:A:N7	2.30	0.46
11:DA:955:A:H2'	11:DA:956:A:O4'	2.15	0.46
11:DA:977:U:H2'	11:DA:978:C:O4'	2.14	0.46
11:DA:1171:G:C5'	24:DN:39:ARG:HH12	2.27	0.46
11:DA:1535:A:H4'	30:DT:45:VAL:HG11	1.95	0.46
12:DB:35:HIS:NE2	32:DV:104:GLU:OE1	2.48	0.46
13:DC:215:ILE:HG13	32:DV:15:SER:CB	2.46	0.46
14:DD:110:GLN:OE1	14:DD:126:ARG:HD2	2.16	0.46
21:DK:82:VAL:HG13	21:DK:124:MET:HE2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DO:65:VAL:HG21	25:DO:73:ILE:HD11	1.97	0.46
32:DV:27:ASP:HB3	32:DV:30:PHE:HD2	1.80	0.46
32:DV:106:LEU:O	32:DV:110:GLY:N	2.47	0.46
5:A4:128:VAL:HG13	5:A4:175:ASN:OD1	2.15	0.46
7:A6:18:LYS:NZ	11:AA:936:U:H5'	2.31	0.46
8:A7:47:ARG:HH11	8:A7:47:ARG:CG	2.29	0.46
9:A8:81:ARG:NH1	11:AA:1506:G:N7	2.62	0.46
11:AA:215:A:OP2	11:AA:812:U:H1'	2.15	0.46
11:AA:530:G:N7	14:AD:171:ARG:HD2	2.30	0.46
11:AA:893:A:C5	11:AA:894:U:C4	3.03	0.46
11:AA:1010:A:H2'	11:AA:1011:C:C6	2.50	0.46
11:AA:1025:G:H5"	11:AA:1025:G:H8	1.80	0.46
11:AA:1272:A:H5"	11:AA:1273:U:OP2	2.15	0.46
13:AC:35:ALA:HA	13:AC:57:LYS:HD2	1.98	0.46
15:AE:78:MET:O	15:AE:105:VAL:HA	2.15	0.46
18:AH:52:VAL:HG22	18:AH:61:VAL:HG22	1.97	0.46
19:AI:79:GLN:O	19:AI:83:ILE:HG13	2.15	0.46
28:AR:92:ILE:HD11	28:AR:124:VAL:HB	1.96	0.46
28:AR:313:THR:N	28:AR:327:GLY:O	2.49	0.46
4:B3:116:SER:HB2	4:B3:117:ARG:HD3	1.96	0.46
5:B4:127:ARG:NH2	11:BA:862:A:H1'	2.30	0.46
11:BA:70:U:OP2	35:BY:173:ARG:NH2	2.48	0.46
11:BA:313:G:O4'	11:BA:314:A:H8	1.99	0.46
11:BA:524:C:P	39:BA:6159:HOH:O	2.73	0.46
11:BA:937:U:H5'	25:BO:17:ALA:O	2.16	0.46
11:BA:955:A:H2'	11:BA:956:A:O4'	2.15	0.46
11:BA:1695:U:H2'	11:BA:1696:U:O4'	2.15	0.46
13:BC:82:TYR:CD2	13:BC:87:ILE:HD11	2.50	0.46
13:BC:178:VAL:HG23	13:BC:185:MET:HB3	1.97	0.46
14:BD:38:ASN:ND2	14:BD:40:ARG:NH1	2.58	0.46
15:BE:49:PHE:CD1	15:BE:139:PRO:HD3	2.50	0.46
20:BJ:80:PHE:CD2	24:BN:42:PHE:HE2	2.33	0.46
23:BM:90:ASN:OD1	29:BS:14:ARG:NH1	2.48	0.46
28:BR:235:LYS:HE2	28:BR:256:SER:H	1.80	0.46
1:C0:19:ASN:HB2	10:C9:74:LYS:HZ1	1.80	0.46
3:C2:10:LYS:CD	11:CA:329:A:H5"	2.44	0.46
4:C3:192:PHE:CE2	7:C6:25:ALA:HB3	2.50	0.46
11:CA:99:A:H2'	39:CA:2033:HOH:O	2.15	0.46
11:CA:407:A:H5'	11:CA:408:C:H5	1.79	0.46
11:CA:1064:A:O2'	11:CA:1065:A:H3'	2.15	0.46
11:CA:1494:U:O2'	11:CA:1495:U:P	2.73	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CE:45:LEU:HD12	15:CE:48:ILE:HD12	1.96	0.46
15:CE:49:PHE:CD1	15:CE:139:PRO:HD3	2.51	0.46
18:CH:10:CYS:HA	18:CH:27:LEU:HD11	1.96	0.46
20:CJ:37:GLU:O	20:CJ:41:ARG:HB2	2.15	0.46
23:CM:88:ARG:HD2	23:CM:88:ARG:HA	1.56	0.46
35:CY:98:ARG:HD2	35:CY:99:GLY:N	2.29	0.46
11:DA:854:G:H1'	11:DA:922:A:O4'	2.16	0.46
11:DA:1027:U:H2'	11:DA:1028:G:C8	2.50	0.46
11:DA:1306:U:H2'	11:DA:1307:U:C6	2.51	0.46
19:DI:62:PHE:CE2	19:DI:91:ILE:HD11	2.50	0.46
28:DR:174:MET:HE2	28:DR:174:MET:HB3	1.89	0.46
4:A3:116:SER:HB2	4:A3:117:ARG:HD3	1.97	0.46
6:A5:42:ARG:NH1	6:A5:71:VAL:HG21	2.29	0.46
10:A9:133:TYR:CE1	11:AA:1207:C:H1'	2.50	0.46
11:AA:238:G:O2'	11:AA:239:A:P	2.73	0.46
11:AA:407:A:H5'	11:AA:408:C:H5	1.80	0.46
11:AA:1064:A:O2'	11:AA:1065:A:H3'	2.15	0.46
11:AA:1241:U:H4'	11:AA:1242:G:O5'	2.15	0.46
11:AA:1288:C:OP2	32:AV:7:LYS:HE3	2.16	0.46
11:AA:1464:U:OP2	11:AA:1465:C:H5	1.99	0.46
11:AA:1509:U:OP2	11:AA:1509:U:C4'	2.62	0.46
14:AD:49:LEU:O	14:AD:53:ARG:HG3	2.14	0.46
15:AE:158:LYS:HG3	18:AH:95:PRO:O	2.15	0.46
17:AG:119:ASP:OD1	17:AG:120:SER:N	2.49	0.46
17:AG:157:ALA:HB2	17:AG:167:THR:OG1	2.15	0.46
21:AK:76:GLN:O	21:AK:79:ILE:HG13	2.16	0.46
32:AV:35:LEU:HD13	32:AV:47:ARG:HG3	1.97	0.46
36:AZ:9:ARG:HH22	36:AZ:33:ASP:HA	1.81	0.46
1:B0:22:LYS:HG3	10:B9:74:LYS:HZ3	1.80	0.46
3:B2:111:GLU:OE2	3:B2:171:ARG:NH2	2.48	0.46
4:B3:45:VAL:HG13	4:B3:63:ILE:HG22	1.97	0.46
4:B3:115:ARG:HG2	4:B3:121:TYR:CE2	2.50	0.46
11:BA:63:U:H3'	11:BA:64:U:H5"	1.97	0.46
11:BA:135:A:H2'	35:BY:183:ILE:HD11	1.96	0.46
11:BA:728:U:H5'	11:BA:729:U:OP2	2.16	0.46
12:BB:53:ILE:HG23	12:BB:174:ILE:HG13	1.97	0.46
13:BC:68:LYS:HE3	13:BC:68:LYS:HB2	1.64	0.46
25:BO:88:GLU:HG3	25:BO:89:ASP:H	1.81	0.46
27:BQ:12:GLN:NE2	27:BQ:60:THR:HG23	2.29	0.46
28:BR:24:VAL:O	28:BR:313:THR:HB	2.15	0.46
30:BT:68:VAL:HG11	30:BT:117:ILE:HG21	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BZ:74:ARG:HA	36:BZ:79:ALA:HB2	1.97	0.46
11:CA:1431:A:H3'	11:CA:1431:A:H8	1.81	0.46
14:CD:149:ARG:CG	14:CD:152:SER:HB2	2.45	0.46
15:CE:78:MET:O	15:CE:105:VAL:HA	2.16	0.46
28:CR:86:GLN:HB3	28:CR:130:ASN:HD21	1.80	0.46
32:CV:61:ILE:HD13	32:CV:71:LEU:HD11	1.97	0.46
36:CZ:13:MET:HE3	36:CZ:28:LEU:HB3	1.97	0.46
2:D1:65:ARG:NH1	17:DG:125:THR:HG21	2.30	0.46
4:D3:36:SER:O	4:D3:40:ILE:HG13	2.14	0.46
4:D3:145:LEU:HA	18:DH:42:GLN:NE2	2.28	0.46
11:DA:621:C:H4'	25:DO:119:LEU:HD22	1.96	0.46
11:DA:1463:U:H1'	11:DA:1464:U:OP1	2.16	0.46
14:DD:6:ILE:HD13	33:DW:23:LEU:HD11	1.97	0.46
17:DG:24:ILE:HG13	17:DG:30:GLN:HA	1.97	0.46
20:DJ:37:GLU:O	20:DJ:41:ARG:HB2	2.15	0.46
29:DS:113:LYS:O	29:DS:116:MET:HG2	2.15	0.46
5:A4:31:TRP:HE1	21:AK:17:GLY:C	2.23	0.46
5:A4:45:PHE:HE2	5:A4:68:VAL:HG11	1.79	0.46
5:A4:148:LYS:HE2	5:A4:152:GLY:H	1.80	0.46
8:A7:47:ARG:HH11	8:A7:47:ARG:HG3	1.80	0.46
10:A9:128:HIS:NE2	10:A9:133:TYR:HB3	2.31	0.46
11:AA:491:U:H5"	11:AA:492:C:OP2	2.15	0.46
11:AA:531:A:H5"	11:AA:536:C:H41	1.79	0.46
11:AA:1263:G:N2	11:AA:1296:G:H1	2.09	0.46
11:AA:1496:A:N1	11:AA:1579:G:N2	2.62	0.46
15:AE:52:SER:HB3	36:AZ:40:PHE:O	2.16	0.46
22:AL:35:GLY:HA2	22:AL:38:TRP:HD1	1.79	0.46
36:AZ:13:MET:HE3	36:AZ:28:LEU:HB3	1.96	0.46
10:B9:112:GLN:C	11:CA:534:A:N6	2.73	0.46
11:BA:143:C:OP1	26:BP:118:LYS:HB2	2.15	0.46
11:BA:1010:A:H2'	11:BA:1011:C:H6	1.80	0.46
11:BA:1186:G:H5'	11:BA:1216:A:N3	2.31	0.46
11:BA:1253:G:O3'	20:BJ:74:SER:HB2	2.15	0.46
11:BA:1272:A:H5"	11:BA:1273:U:OP2	2.14	0.46
11:BA:1605:A:H4'	11:BA:1606:C:O5'	2.15	0.46
14:BD:20:GLU:HG3	14:BD:23:ARG:HB3	1.98	0.46
23:BM:92:PHE:CE1	29:BS:13:PHE:HD1	2.34	0.46
5:C4:49:LEU:O	21:CK:51:GLU:HG3	2.15	0.46
11:CA:12:U:O2'	11:CA:1271:G:O2'	2.20	0.46
11:CA:57:U:O2'	11:CA:443:A:N3	2.42	0.46
12:CB:64:GLN:OE1	15:CE:245:SER:HB3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CC:82:TYR:CD2	13:CC:87:ILE:HD11	2.49	0.46
14:CD:129:ILE:O	14:CD:142:ASN:HA	2.15	0.46
16:CF:78:ARG:NH1	16:CF:100:GLY:CA	2.78	0.46
17:CG:106:VAL:HG12	17:CG:172:ILE:HG22	1.98	0.46
36:CZ:30:ARG:O	36:CZ:39:ILE:HG12	2.16	0.46
2:D1:54:VAL:HB	17:DG:28:CYS:HA	1.97	0.46
3:D2:36:THR:HB	3:D2:65:ALA:O	2.16	0.46
5:D4:69:GLU:OE1	5:D4:88:LYS:HG2	2.16	0.46
10:D9:128:HIS:HB2	10:D9:131:ARG:HG3	1.96	0.46
10:D9:128:HIS:NE2	10:D9:133:TYR:HB3	2.30	0.46
11:DA:369:A:OP2	11:DA:370:U:OP2	2.33	0.46
11:DA:1010:A:H2'	11:DA:1011:C:C6	2.50	0.46
11:DA:1064:A:O2'	11:DA:1065:A:H3'	2.15	0.46
11:DA:1555:A:H5'	19:DI:137:ARG:HH12	1.80	0.46
17:DG:37:THR:O	17:DG:41:GLN:HG2	2.16	0.46
23:DM:111:GLU:O	23:DM:115:ARG:HG2	2.16	0.46
35:DY:48:TYR:OH	35:DY:116:LYS:HE3	2.15	0.46
4:A3:179:THR:HG21	11:AA:636:G:H1'	1.96	0.46
8:A7:77:LYS:HA	8:A7:84:ALA:HB3	1.97	0.46
10:A9:123:ILE:HD13	10:A9:136:LYS:HD2	1.98	0.46
10:A9:128:HIS:HB2	10:A9:131:ARG:HG3	1.97	0.46
11:AA:313:G:O4'	11:AA:314:A:H8	1.99	0.46
11:AA:557:U:H4'	34:AX:17:GLN:OE1	2.15	0.46
11:AA:1387:A:H2'	11:AA:1388:A:C8	2.50	0.46
12:AB:145:ASP:HB3	12:AB:147:ASP:OD1	2.16	0.46
14:AD:20:GLU:HG3	14:AD:23:ARG:HB3	1.97	0.46
14:AD:45:VAL:HG21	14:AD:105:MET:HE3	1.97	0.46
15:AE:49:PHE:CD1	36:AZ:41:SER:HB2	2.45	0.46
19:AI:26:PRO:HA	19:AI:65:LEU:HD23	1.96	0.46
28:AR:22:ASP:HB3	28:AR:47:ARG:HB2	1.98	0.46
8:B7:47:ARG:HH11	8:B7:47:ARG:CG	2.29	0.46
9:B8:99:ASN:O	9:B8:102:GLN:N	2.28	0.46
10:B9:88:HIS:HD2	11:BA:1219:U:H5"	1.79	0.46
11:BA:363:G:H5"	18:BH:88:LYS:HE2	1.98	0.46
13:BC:77:GLN:HG3	13:BC:87:ILE:HD12	1.97	0.46
20:BJ:42:ALA:HB1	20:BJ:48:VAL:HG11	1.97	0.46
23:BM:66:CYS:HA	23:BM:69:ILE:HD12	1.96	0.46
27:BQ:58:PRO:HA	27:BQ:63:LEU:HB3	1.97	0.46
28:BR:98:LYS:HG2	28:BR:119:SER:O	2.16	0.46
28:BR:240:TRP:HB3	28:BR:245:LEU:HD21	1.96	0.46
31:BU:29:LEU:O	31:BU:33:LEU:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C3:36:SER:O	4:C3:40:ILE:HG13	2.14	0.46
6:C5:42:ARG:NH1	6:C5:71:VAL:HG21	2.31	0.46
11:CA:378:A:OP2	11:CA:378:A:C8	2.54	0.46
11:CA:622:G:N1	11:CA:948:A:OP2	2.45	0.46
11:CA:893:A:C5	11:CA:894:U:C4	3.04	0.46
11:CA:1010:A:H2'	11:CA:1011:C:C6	2.51	0.46
11:CA:1451:C:H4'	11:CA:1452:G:OP1	2.15	0.46
12:CB:173:MET:HE3	12:CB:173:MET:HB2	1.75	0.46
13:CC:196:GLU:HA	13:CC:197:PRO:HD3	1.65	0.46
20:CJ:48:VAL:HG22	20:CJ:93:CYS:SG	2.55	0.46
22:CL:17:ARG:NH1	22:CL:20:LYS:HE2	2.30	0.46
29:CS:13:PHE:CD2	29:CS:117:ILE:HD11	2.51	0.46
36:CZ:74:ARG:HA	36:CZ:79:ALA:HB2	1.97	0.46
3:D2:177:THR:HG21	11:DA:205:A:OP1	2.15	0.46
6:D5:99:PRO:CD	6:D5:100:PRO:HD3	2.45	0.46
8:D7:77:LYS:HA	8:D7:84:ALA:HB3	1.97	0.46
10:D9:99:ALA:O	10:D9:113:GLN:NE2	2.48	0.46
11:DA:407:A:H5'	11:DA:408:C:H5	1.80	0.46
11:DA:875:C:H6	11:DA:875:C:OP2	1.98	0.46
11:DA:1183:A:H1'	29:DS:104:GLY:O	2.15	0.46
11:DA:1371:A:H2'	11:DA:1372:A:C8	2.50	0.46
11:DA:1494:U:O2'	11:DA:1495:U:P	2.73	0.46
14:DD:71:PHE:HE1	33:DW:254:ARG:HD3	1.80	0.46
31:DU:50:CYS:HB3	31:DU:55:TYR:CZ	2.51	0.46
4:A3:133:PRO:HG3	4:A3:162:PHE:CE1	2.51	0.46
5:A4:85:ARG:HH12	5:A4:108:ILE:HD11	1.80	0.46
11:AA:391:A:C4'	11:AA:392:A:H5"	2.45	0.46
11:AA:451:G:OP1	26:AP:102:ARG:NH2	2.48	0.46
11:AA:1053:A:C4	11:AA:1063:A:N6	2.83	0.46
26:AP:81:LEU:HD12	26:AP:81:LEU:HA	1.83	0.46
29:AS:13:PHE:CD2	29:AS:117:ILE:HD11	2.50	0.46
29:AS:113:LYS:O	29:AS:116:MET:HG2	2.16	0.46
1:B0:70:ILE:HG13	11:BA:1709:A:N1	2.31	0.46
3:B2:94:THR:HG23	11:BA:319:A:C2	2.51	0.46
8:B7:90:LYS:O	13:BC:70:LYS:HD3	2.15	0.46
11:BA:151:A:H5'	11:BA:152:U:P	2.56	0.46
11:BA:213:U:H4'	11:BA:214:U:C5'	2.45	0.46
11:BA:250:A:H4'	33:BW:137:GLN:HE21	1.80	0.46
11:BA:1017:C:H4'	11:BA:1017:C:OP1	2.16	0.46
11:BA:1428:C:HO2'	11:BA:1429:G:P	2.37	0.46
11:BA:1513:G:H1'	11:BA:1542:A:H61	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:BG:51:TYR:CG	17:BG:61:CYS:HB2	2.50	0.46
18:BH:28:ARG:HB2	18:BH:60:LYS:HG2	1.98	0.46
19:BI:129:LYS:HE3	19:BI:133:GLY:O	2.15	0.46
35:BY:213:GLU:O	35:BY:216:LEU:HB2	2.16	0.46
2:C1:54:VAL:HB	17:CG:28:CYS:CA	2.46	0.46
8:C7:47:ARG:HG3	8:C7:47:ARG:NH1	2.31	0.46
11:CA:444:A:HO2'	11:CA:445:U:P	2.36	0.46
11:CA:468:U:H3'	11:CA:469:A:H5'	1.97	0.46
11:CA:641:G:N2	11:CA:668:U:O2	2.48	0.46
11:CA:1464:U:OP2	11:CA:1465:C:C5	2.69	0.46
11:CA:1489:U:H5'	11:CA:1490:C:H5	1.80	0.46
18:CH:111:LEU:HB3	18:CH:115:GLU:HB2	1.98	0.46
23:CM:89:ILE:HG22	23:CM:90:ASN:N	2.31	0.46
31:CU:87:THR:HB	31:CU:96:LYS:HB2	1.98	0.46
32:CV:27:ASP:HB3	32:CV:30:PHE:HD2	1.81	0.46
33:CW:194:VAL:HG21	33:CW:240:LEU:HD13	1.98	0.46
5:D4:148:LYS:HE2	5:D4:152:GLY:H	1.80	0.46
6:D5:42:ARG:NH1	6:D5:71:VAL:HG21	2.31	0.46
8:D7:12:ILE:HD12	8:D7:45:LEU:HD12	1.98	0.46
11:DA:33:G:C5	11:DA:467:A:N6	2.83	0.46
11:DA:151:A:H5'	11:DA:152:U:P	2.55	0.46
11:DA:249:A:H4'	33:DW:134:GLY:O	2.16	0.46
11:DA:313:G:O4'	11:DA:314:A:H8	1.98	0.46
11:DA:911:A:N6	39:DA:7031:HOH:O	2.35	0.46
11:DA:1488:A:H5"	20:DJ:59:LYS:NZ	2.31	0.46
12:DB:69:VAL:O	12:DB:91:CYS:HB2	2.16	0.46
14:DD:129:ILE:O	14:DD:142:ASN:HA	2.15	0.46
15:DE:78:MET:O	15:DE:105:VAL:HA	2.16	0.46
19:DI:111:LEU:HD22	19:DI:118:LEU:HD12	1.97	0.46
19:DI:129:LYS:HE3	19:DI:133:GLY:O	2.16	0.46
22:DL:68:ARG:NH2	22:DL:115:ASP:OD2	2.38	0.46
25:DO:83:ALA:HA	25:DO:84:PRO:HD2	1.78	0.46
27:DQ:37:ILE:HD11	27:DQ:59:PHE:HE1	1.80	0.46
28:DR:235:LYS:HE2	28:DR:256:SER:H	1.81	0.46
29:DS:13:PHE:CD2	29:DS:117:ILE:HD11	2.51	0.46
2:A1:11:ILE:HG12	2:A1:27:VAL:HG11	1.98	0.46
11:AA:421:G:H2'	11:AA:422:G:H5"	1.97	0.46
11:AA:598:A:N3	14:AD:16:ARG:NH1	2.64	0.46
11:AA:624:A:H5'	27:AQ:152:LYS:HE2	1.97	0.46
11:AA:892:G:O2'	11:AA:893:A:C8	2.68	0.46
11:AA:1664:A:C5	11:AA:1665:U:H1'	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AB:128:GLN:NE2	12:AB:132:GLU:HG3	2.31	0.46
18:AH:112:THR:HB	18:AH:115:GLU:HG3	1.98	0.46
20:AJ:42:ALA:HB1	20:AJ:48:VAL:HG11	1.97	0.46
28:AR:47:ARG:HA	28:AR:78:PHE:HB3	1.98	0.46
1:B0:70:ILE:HG13	11:BA:1709:A:C2	2.50	0.46
10:B9:75:LYS:HD3	11:BA:1418:C:H6	1.80	0.46
10:B9:130:ASP:OD1	10:B9:130:ASP:N	2.47	0.46
11:BA:2:A:H1'	11:BA:3:C:OP2	2.16	0.46
11:BA:232:G:HO2'	11:BA:233:U:P	2.36	0.46
11:BA:478:G:C2'	11:BA:494:A:H61	2.29	0.46
11:BA:893:A:C5	11:BA:894:U:C4	3.04	0.46
11:BA:1053:A:C4	11:BA:1063:A:N6	2.83	0.46
11:BA:1241:U:H4'	11:BA:1242:G:O5'	2.16	0.46
12:BB:46:ILE:HB	32:BV:105:MET:HE1	1.97	0.46
14:BD:90:GLU:HB3	14:BD:95:TYR:CG	2.49	0.46
28:BR:299:ILE:HD12	28:BR:330:ASP:HB2	1.96	0.46
30:BT:46:ALA:HB1	30:BT:87:LYS:HB3	1.97	0.46
5:C4:148:LYS:HE2	5:C4:152:GLY:H	1.81	0.46
11:CA:1281:G:H5'	11:CA:1282:U:OP2	2.15	0.46
13:CC:77:GLN:HG3	13:CC:87:ILE:HD12	1.98	0.46
14:CD:90:GLU:HB3	14:CD:95:TYR:CG	2.50	0.46
17:CG:18:ASN:HB3	17:CG:21:GLU:CD	2.41	0.46
17:CG:66:ARG:NH2	17:CG:143:ASN:HD21	2.14	0.46
19:CI:79:GLN:O	19:CI:83:ILE:HG13	2.15	0.46
28:CR:178:ASN:CA	23:DM:110:ARG:HH12	2.29	0.46
29:CS:127:THR:HG22	29:CS:128:TYR:CD2	2.50	0.46
30:CT:108:LEU:HB3	30:CT:130:ARG:HD2	1.97	0.46
33:CW:155:GLU:HG3	35:CY:219:TRP:HZ2	1.81	0.46
33:CW:212:VAL:O	33:CW:219:ALA:HA	2.16	0.46
1:D0:60:ILE:HA	1:D0:90:ILE:HB	1.97	0.46
4:D3:65:VAL:HG13	4:D3:69:SER:HB2	1.96	0.46
4:D3:171:THR:O	4:D3:175:LYS:HB2	2.15	0.46
5:D4:127:ARG:CZ	11:DA:862:A:H1'	2.46	0.46
9:D8:99:ASN:O	9:D8:102:GLN:N	2.27	0.46
11:DA:1000:U:H4'	11:DA:1097:A:N6	2.30	0.46
11:DA:1214:A:H4'	29:DS:85:TYR:OH	2.16	0.46
13:DC:105:VAL:HG21	13:DC:174:ALA:HB3	1.97	0.46
15:DE:107:ASP:OD1	15:DE:111:HIS:HB2	2.15	0.46
17:DG:188:LYS:HD3	17:DG:188:LYS:HA	1.66	0.46
31:DU:29:LEU:O	31:DU:33:LEU:HB2	2.16	0.46
35:DY:1:MET:HE2	35:DY:1:MET:HB3	1.86	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DZ:74:ARG:HA	36:DZ:79:ALA:HB2	1.97	0.46
5:A4:46:GLY:HA3	21:AK:47:LEU:CD1	2.46	0.46
6:A5:44:MET:HE2	21:AK:97:LEU:HD12	1.97	0.46
11:AA:318:U:H2'	11:AA:319:A:C8	2.51	0.46
11:AA:750:U:H3'	11:AA:752:C:OP2	2.15	0.46
11:AA:878:A:OP1	21:AK:57:THR:HB	2.15	0.46
11:AA:933:A:H2'	11:AA:934:U:O4'	2.16	0.46
11:AA:958:G:H4'	11:AA:1729:A:H4'	1.97	0.46
11:AA:1456:A:H2'	11:AA:1457:A:O4'	2.16	0.46
11:AA:1469:U:C5'	30:AT:75:GLY:HA3	2.46	0.46
11:AA:1506:G:O2'	11:AA:1507:U:P	2.73	0.46
12:AB:145:ASP:O	12:AB:148:SER:OG	2.27	0.46
12:AB:148:SER:HA	12:AB:149:PRO:HD3	1.75	0.46
20:AJ:48:VAL:HG22	20:AJ:93:CYS:SG	2.55	0.46
22:AL:17:ARG:CZ	22:AL:20:LYS:HE2	2.45	0.46
23:AM:69:ILE:O	23:AM:73:ILE:HG12	2.16	0.46
23:AM:84:TRP:CZ3	23:AM:85:LEU:HG	2.51	0.46
28:AR:105:LEU:HD23	28:AR:105:LEU:HA	1.76	0.46
35:AY:49:VAL:HB	35:AY:115:LYS:H	1.81	0.46
3:B2:10:LYS:HE2	11:BA:314:A:OP2	2.16	0.46
3:B2:194:LYS:HA	3:B2:194:LYS:HD3	1.76	0.46
10:B9:116:CYS:O	10:B9:120:GLY:N	2.49	0.46
11:BA:507:G:O2'	11:BA:508:A:OP1	2.31	0.46
11:BA:661:G:H3'	11:BA:662:U:C6	2.49	0.46
17:BG:157:ALA:HB2	17:BG:167:THR:OG1	2.16	0.46
18:BH:52:VAL:HG22	18:BH:61:VAL:HG22	1.97	0.46
23:BM:89:ILE:HG22	23:BM:90:ASN:N	2.30	0.46
23:BM:90:ASN:HD21	29:BS:14:ARG:HD2	1.80	0.46
28:BR:92:ILE:HD11	28:BR:124:VAL:HB	1.97	0.46
28:BR:245:LEU:HA	28:BR:245:LEU:HD23	1.57	0.46
29:BS:113:LYS:O	29:BS:116:MET:HG2	2.15	0.46
29:BS:127:THR:HG22	29:BS:128:TYR:CD2	2.51	0.46
35:BY:142:LYS:HE3	35:BY:156:ILE:HD11	1.98	0.46
1:C0:19:ASN:HB2	10:C9:74:LYS:NZ	2.31	0.46
2:C1:65:ARG:HH11	17:CG:125:THR:HG21	1.80	0.46
8:C7:77:LYS:HA	8:C7:84:ALA:HB3	1.98	0.46
11:CA:160:C:O2'	35:CY:132:LYS:O	2.34	0.46
11:CA:507:G:O2'	11:CA:508:A:OP1	2.30	0.46
11:CA:879:G:H5"	11:CA:880:G:OP2	2.16	0.46
11:CA:955:A:H2'	11:CA:956:A:O4'	2.16	0.46
11:CA:1464:U:OP2	11:CA:1465:C:H5	1.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:1506:G:O2'	11:CA:1507:U:P	2.73	0.46
14:CD:56:ALA:O	14:CD:60:LEU:HG	2.15	0.46
15:CE:58:PRO:HG3	15:CE:131:THR:HG23	1.98	0.46
15:CE:76:LYS:HG3	15:CE:78:MET:HE3	1.97	0.46
28:CR:245:LEU:HD23	28:CR:245:LEU:HA	1.56	0.46
35:CY:129:LEU:HG	35:CY:130:PRO:HD2	1.96	0.46
36:CZ:9:ARG:HH22	36:CZ:33:ASP:HA	1.81	0.46
4:D3:15:ILE:O	4:D3:19:VAL:HG23	2.16	0.46
10:D9:128:HIS:CE1	11:DA:1223:U:H1'	2.51	0.46
11:DA:16:G:H1'	11:DA:1111:A:H61	1.81	0.46
11:DA:675:A:H4'	11:DA:676:C:OP1	2.14	0.46
11:DA:1472:U:OP2	30:DT:105:ARG:NH2	2.49	0.46
18:DH:112:THR:HB	18:DH:115:GLU:HG3	1.98	0.46
19:DI:14:ARG:HD3	19:DI:125:ARG:HH22	1.81	0.46
20:DJ:22:THR:OG1	20:DJ:113:GLU:HB2	2.15	0.46
23:DM:88:ARG:HA	23:DM:88:ARG:HD2	1.54	0.46
27:DQ:68:LYS:HB2	27:DQ:126:GLN:OE1	2.16	0.46
3:A2:195:GLU:HG2	27:AQ:9:TYR:CE2	2.51	0.46
4:A3:62:LEU:HD11	4:A3:95:THR:OG1	2.16	0.46
5:A4:111:ASP:OD1	5:A4:111:ASP:N	2.49	0.46
11:AA:250:A:H4'	33:AW:137:GLN:HE21	1.81	0.46
11:AA:482:A:O5'	26:BP:37:LYS:NZ	2.49	0.46
11:AA:854:G:H1'	11:AA:922:A:O4'	2.15	0.46
11:AA:1513:G:H1'	11:AA:1542:A:H61	1.81	0.46
11:AA:1517:A:OP1	23:AM:133:VAL:N	2.45	0.46
12:AB:53:ILE:HG23	12:AB:174:ILE:HG13	1.96	0.46
22:AL:75:LEU:HD11	22:AL:82:ILE:HD12	1.97	0.46
27:AQ:63:LEU:HD21	27:AQ:127:CYS:SG	2.56	0.46
1:B0:22:LYS:N	10:B9:74:LYS:NZ	2.58	0.46
10:B9:101:TYR:CE1	31:BU:33:LEU:HD21	2.50	0.46
11:BA:1456:A:H2'	11:BA:1457:A:O4'	2.16	0.46
12:BB:165:GLU:HG3	12:BB:199:TYR:HE2	1.80	0.46
13:BC:216:HIS:HA	13:BC:217:PRO:HD2	1.81	0.46
14:BD:56:ALA:O	14:BD:60:LEU:HG	2.16	0.46
18:BH:81:VAL:HG21	18:BH:125:ILE:HB	1.98	0.46
32:BV:106:LEU:O	32:BV:110:GLY:N	2.48	0.46
10:C9:104:GLU:HG2	10:C9:105:ASN:H	1.80	0.46
11:CA:172:U:C4'	11:CA:173:A:OP1	2.62	0.46
11:CA:270:U:H5'	11:CA:271:U:H6	1.81	0.46
11:CA:840:A:HO2'	11:CA:841:A:P	2.39	0.46
11:CA:1430:C:OP2	23:CM:126:ARG:NH2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:1463:U:H1'	11:CA:1464:U:OP1	2.16	0.46
11:CA:1662:C:H5'	11:CA:1662:C:C6	2.51	0.46
12:CB:35:HIS:NE2	32:CV:104:GLU:OE1	2.48	0.46
22:CL:68:ARG:NH2	22:CL:115:ASP:OD2	2.37	0.46
23:CM:15:HIS:NE2	23:CM:66:CYS:SG	2.89	0.46
23:CM:90:ASN:OD1	29:CS:14:ARG:NH1	2.49	0.46
4:D3:117:ARG:HD2	11:DA:834:A:C6	2.51	0.46
11:DA:1147:U:O4	23:DM:140:THR:HG21	2.16	0.46
11:DA:1431:A:H8	11:DA:1431:A:H3'	1.81	0.46
13:DC:108:MET:HE1	13:DC:139:ILE:CG2	2.42	0.46
20:DJ:54:VAL:HB	20:DJ:88:ILE:HB	1.97	0.46
21:DK:75:MET:HG2	21:DK:118:ALA:HB2	1.98	0.46
35:DY:98:ARG:HD2	35:DY:99:GLY:N	2.30	0.46
5:A4:139:ARG:CZ	11:AA:862:A:H5'	2.46	0.45
11:AA:214:U:OP2	11:AA:214:U:C6	2.69	0.45
11:AA:1145:C:C2'	11:AA:1146:C:H5'	2.47	0.45
11:AA:1428:C:HO2'	11:AA:1429:G:P	2.38	0.45
11:AA:1489:U:H5'	11:AA:1490:C:C5	2.50	0.45
12:AB:69:VAL:O	12:AB:91:CYS:HB2	2.16	0.45
12:AB:169:MET:HG3	12:AB:195:VAL:HG11	1.97	0.45
13:AC:178:VAL:HG23	13:AC:185:MET:HB3	1.98	0.45
15:AE:102:PHE:CD1	15:AE:116:TRP:HB3	2.51	0.45
19:AI:95:HIS:HA	19:AI:99:VAL:HG23	1.98	0.45
19:AI:100:ASP:OD2	19:AI:102:ASN:HB3	2.16	0.45
26:AP:27:HIS:HE1	26:AP:67:SER:OG	1.99	0.45
31:AU:87:THR:HB	31:AU:96:LYS:HB2	1.98	0.45
6:B5:87:ARG:HH11	11:BA:1126:C:C5'	2.25	0.45
13:BC:137:CYS:SG	13:BC:138:GLU:N	2.89	0.45
19:BI:95:HIS:HA	19:BI:99:VAL:HG23	1.97	0.45
27:BQ:63:LEU:HD21	27:BQ:127:CYS:SG	2.56	0.45
35:BY:49:VAL:HB	35:BY:115:LYS:H	1.81	0.45
36:BZ:13:MET:HE3	36:BZ:28:LEU:HB3	1.97	0.45
11:CA:343:C:O2'	11:CA:344:A:OP2	2.25	0.45
11:CA:631:C:OP1	18:CH:32:LYS:N	2.49	0.45
11:CA:1387:A:H2'	11:CA:1388:A:C8	2.52	0.45
12:CB:76:ILE:HD12	12:CB:200:HIS:CD2	2.51	0.45
13:CC:144:LYS:NZ	13:CC:182:GLN:O	2.48	0.45
17:CG:24:ILE:HG13	17:CG:30:GLN:HA	1.97	0.45
17:CG:51:TYR:CG	17:CG:61:CYS:HB2	2.51	0.45
19:CI:100:ASP:OD2	19:CI:102:ASN:HB3	2.16	0.45
19:CI:111:LEU:HD22	19:CI:118:LEU:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CK:75:MET:HG2	21:CK:118:ALA:HB2	1.97	0.45
25:CO:127:LEU:HD22	25:CO:127:LEU:HA	1.84	0.45
30:CT:155:LYS:H	30:CT:155:LYS:HG2	1.49	0.45
5:D4:159:THR:HG23	5:D4:161:TYR:HD2	1.77	0.45
6:D5:28:ARG:HG3	21:DK:147:ARG:HA	1.98	0.45
10:D9:104:GLU:CD	10:D9:108:LYS:HB2	2.41	0.45
10:D9:126:ALA:HB2	11:DA:1224:C:O4'	2.15	0.45
11:DA:63:U:H3'	11:DA:64:U:H5"	1.98	0.45
11:DA:122:A:C8	35:DY:201:ARG:HD3	2.52	0.45
11:DA:493:U:C4'	11:DA:494:A:OP2	2.63	0.45
11:DA:561:A:OP2	22:DL:66:ALA:HB1	2.15	0.45
11:DA:1025:G:H5"	11:DA:1025:G:H8	1.81	0.45
11:DA:1168:A:HO2'	11:DA:1169:C:P	2.36	0.45
11:DA:1301:A:OP2	13:DC:163:THR:HG21	2.15	0.45
11:DA:1736:C:O2'	11:DA:1737:C:H5'	2.16	0.45
12:DB:76:ILE:HD12	12:DB:200:HIS:CD2	2.51	0.45
12:DB:128:GLN:NE2	12:DB:132:GLU:HG3	2.31	0.45
26:DP:27:HIS:HE1	26:DP:67:SER:OG	1.99	0.45
33:DW:11:ARG:HH12	33:DW:20:LEU:HB3	1.77	0.45
3:A2:111:GLU:OE2	3:A2:171:ARG:NH2	2.48	0.45
5:A4:67:VAL:CG2	11:AA:898:U:H4'	2.45	0.45
5:A4:110:ARG:HG3	21:AK:131:ASP:O	2.15	0.45
10:A9:116:CYS:O	10:A9:120:GLY:N	2.49	0.45
10:A9:137:CYS:SG	10:A9:139:LEU:HB2	2.56	0.45
11:AA:1172:G:N2	39:AA:2376:HOH:O	2.43	0.45
12:AB:76:ILE:HD12	12:AB:200:HIS:CD2	2.51	0.45
14:AD:56:ALA:O	14:AD:60:LEU:HG	2.16	0.45
17:AG:66:ARG:NH2	17:AG:143:ASN:HD21	2.13	0.45
19:AI:54:ILE:HA	19:AI:62:PHE:CE1	2.51	0.45
25:AO:4:MET:SD	25:AO:126:ARG:NH1	2.90	0.45
36:AZ:30:ARG:O	36:AZ:39:ILE:HG12	2.17	0.45
1:B0:43:ASN:HD22	1:B0:43:ASN:C	2.22	0.45
5:B4:123:LEU:HD11	5:B4:143:LEU:HD11	1.97	0.45
6:B5:10:ARG:HH12	11:BA:1743:A:P	2.39	0.45
6:B5:46:ASP:H	21:BK:113:GLN:CD	2.24	0.45
6:B5:87:ARG:NH1	11:BA:1126:C:C5'	2.80	0.45
11:BA:470:G:N2	11:BA:503:A:N1	2.48	0.45
11:BA:533:G:N2	39:BA:6087:HOH:O	2.48	0.45
11:BA:809:A:O2'	27:BQ:49:GLU:OE2	2.31	0.45
11:BA:1163:U:H2'	11:BA:1164:C:C6	2.51	0.45
11:BA:1463:U:H1'	11:BA:1464:U:OP1	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:1486:U:O2'	11:BA:1487:A:P	2.74	0.45
11:BA:1501:C:P	17:BG:86:LYS:HE2	2.56	0.45
13:BC:35:ALA:HA	13:BC:57:LYS:HD2	1.98	0.45
15:BE:181:ALA:HA	15:BE:199:THR:HG21	1.98	0.45
17:BG:24:ILE:HG13	17:BG:30:GLN:HA	1.99	0.45
19:BI:62:PHE:CE2	19:BI:91:ILE:HD11	2.51	0.45
23:BM:111:GLU:O	23:BM:115:ARG:HG2	2.17	0.45
25:BO:101:ARG:HH12	25:BO:145:ALA:CA	2.29	0.45
30:BT:8:PHE:HB2	30:BT:145:THR:HA	1.98	0.45
36:BZ:9:ARG:HH22	36:BZ:33:ASP:HA	1.80	0.45
2:C1:62:ARG:NH1	6:C5:48:SER:HB3	2.32	0.45
10:C9:137:CYS:SG	10:C9:139:LEU:HB2	2.57	0.45
11:CA:151:A:H5'	11:CA:152:U:P	2.56	0.45
11:CA:491:U:H2'	11:CA:492:C:O4'	2.15	0.45
11:CA:1083:G:O2'	11:CA:1705:A:H5"	2.16	0.45
11:CA:1736:C:O2'	11:CA:1737:C:H5'	2.15	0.45
12:CB:121:THR:HG23	12:CB:143:LEU:HD12	1.98	0.45
12:CB:164:THR:CG2	12:CB:200:HIS:HB3	2.46	0.45
18:CH:81:VAL:HG21	18:CH:125:ILE:HB	1.97	0.45
21:CK:103:VAL:HG11	21:CK:142:ARG:HA	1.97	0.45
30:CT:46:ALA:HB1	30:CT:87:LYS:HB3	1.97	0.45
3:D2:56:VAL:HG13	11:DA:324:A:H5'	1.98	0.45
11:DA:110:A:C6	11:DA:245:A:C5	3.04	0.45
11:DA:1053:A:C4	11:DA:1063:A:N6	2.85	0.45
12:DB:26:ASN:ND2	12:DB:149:PRO:HA	2.31	0.45
12:DB:71:VAL:HG11	12:DB:82:ALA:HB1	1.98	0.45
15:DE:78:MET:HE2	15:DE:78:MET:HA	1.98	0.45
19:DI:26:PRO:HA	19:DI:65:LEU:HD23	1.98	0.45
27:DQ:58:PRO:HA	27:DQ:63:LEU:HB3	1.97	0.45
27:DQ:104:ARG:HG2	27:DQ:104:ARG:NH1	2.30	0.45
5:A4:86:LYS:HB2	5:A4:107:ASP:HB3	1.98	0.45
8:A7:9:LYS:HA	8:A7:45:LEU:HD11	1.99	0.45
10:A9:156:LYS:HD3	7:D6:60:ILE:HG13	1.97	0.45
11:AA:151:A:H5'	11:AA:152:U:P	2.56	0.45
11:AA:227:G:H2'	11:AA:229:A:N7	2.31	0.45
11:AA:1306:U:H2'	11:AA:1307:U:C6	2.51	0.45
11:AA:1508:G:N3	11:AA:1508:G:H2'	2.31	0.45
13:AC:82:TYR:CD2	13:AC:87:ILE:HD11	2.50	0.45
17:AG:18:ASN:HB3	17:AG:21:GLU:CD	2.40	0.45
18:AH:81:VAL:HG21	18:AH:125:ILE:HB	1.99	0.45
20:AJ:22:THR:OG1	20:AJ:113:GLU:HB2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AL:9:ILE:HA	27:AQ:98:ARG:HB3	1.96	0.45
23:AM:111:GLU:O	23:AM:115:ARG:HG2	2.15	0.45
11:BA:226:A:H3'	11:BA:227:G:C4'	2.46	0.45
11:BA:776:A:H5"	11:BA:777:U:O5'	2.16	0.45
11:BA:866:U:O2	11:BA:966:A:O2'	2.35	0.45
11:BA:1155:A:C4	29:BS:105:LYS:HB2	2.52	0.45
11:BA:1306:U:H2'	11:BA:1307:U:C6	2.51	0.45
12:BB:194:MET:CE	32:BV:89:SER:HB2	2.47	0.45
17:BG:106:VAL:HG12	17:BG:172:ILE:HG22	1.97	0.45
29:BS:13:PHE:CD2	29:BS:117:ILE:HD11	2.52	0.45
30:BT:108:LEU:HB3	30:BT:130:ARG:HD2	1.99	0.45
11:CA:243:G:C4'	33:CW:204:GLN:HE21	2.30	0.45
11:CA:762:U:O2	11:CA:762:U:H2'	2.16	0.45
11:CA:1246:C:O2'	11:CA:1247:A:P	2.74	0.45
11:CA:1372:A:OP2	32:CV:56:HIS:HE1	2.00	0.45
11:CA:1469:U:C5'	30:CT:75:GLY:HA3	2.46	0.45
19:CI:95:HIS:HA	19:CI:99:VAL:HG23	1.98	0.45
20:CJ:23:LEU:HD22	20:CJ:112:ILE:HG12	1.98	0.45
25:CO:121:GLU:OE2	25:CO:143:TYR:HE2	2.00	0.45
29:CS:34:ILE:HD13	29:CS:50:VAL:HG21	1.98	0.45
31:CU:50:CYS:HB3	31:CU:55:TYR:CZ	2.51	0.45
33:CW:126:LEU:HB3	33:CW:143:THR:CG2	2.44	0.45
1:D0:25:LEU:H	1:D0:25:LEU:HG	1.51	0.45
5:D4:110:ARG:HG3	21:DK:131:ASP:O	2.16	0.45
5:D4:181:GLU:HG2	5:D4:199:TYR:CE1	2.51	0.45
10:D9:111:LEU:CD1	10:D9:124:PHE:HE2	2.30	0.45
11:DA:2:A:H1'	11:DA:3:C:OP2	2.17	0.45
11:DA:143:C:OP1	26:DP:118:LYS:HB2	2.17	0.45
11:DA:249:A:H4'	33:DW:133:ILE:HG22	1.98	0.45
11:DA:638:U:H2'	11:DA:639:C:C6	2.52	0.45
11:DA:1420:U:OP2	39:DA:8036:HOH:O	2.21	0.45
11:DA:1455:A:H4'	19:DI:17:ASN:ND2	2.32	0.45
12:DB:28:GLN:HB3	12:DB:150:LEU:HD12	1.99	0.45
14:DD:20:GLU:HG3	14:DD:23:ARG:HB3	1.97	0.45
19:DI:54:ILE:HA	19:DI:62:PHE:CE1	2.51	0.45
19:DI:57:LEU:CD2	19:DI:110:GLN:HG2	2.47	0.45
28:DR:22:ASP:HB3	28:DR:47:ARG:HB2	1.98	0.45
29:DS:36:ASP:OD1	29:DS:36:ASP:N	2.47	0.45
2:A1:17:LYS:HE2	11:AA:1588:G:O2'	2.17	0.45
3:A2:89:VAL:CG2	3:A2:102:LYS:HA	2.45	0.45
8:A7:70:LYS:HG2	8:A7:92:PHE:HE2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:328:G:H5"	11:AA:329:A:N7	2.31	0.45
11:AA:535:A:H8	11:AA:535:A:OP2	2.00	0.45
11:AA:605:U:OP1	22:AL:19:ARG:NH2	2.49	0.45
11:AA:641:G:H2'	11:AA:642:G:O4'	2.17	0.45
11:AA:1463:U:H1'	11:AA:1464:U:OP1	2.15	0.45
12:AB:45:ASN:OD1	32:AV:109:LEU:HD11	2.16	0.45
13:AC:68:LYS:HB2	13:AC:68:LYS:HE3	1.64	0.45
22:AL:7:ARG:HH11	22:AL:7:ARG:CG	2.20	0.45
25:AO:101:ARG:HH12	25:AO:145:ALA:HB1	1.81	0.45
26:AP:18:ARG:NE	26:AP:20:GLN:HE21	2.14	0.45
27:AQ:32:ARG:HH12	27:AQ:51:THR:C	2.24	0.45
27:AQ:68:LYS:HB2	27:AQ:126:GLN:OE1	2.17	0.45
32:AV:53:PHE:CE2	32:AV:57:LEU:HD11	2.51	0.45
35:AY:116:LYS:NZ	35:AY:125:THR:OG1	2.48	0.45
6:B5:42:ARG:NH1	6:B5:71:VAL:HG21	2.31	0.45
11:BA:912:A:HO2'	11:BA:913:U:P	2.38	0.45
11:BA:1054:U:H4'	11:BA:1055:G:O5'	2.15	0.45
11:BA:1662:C:C6	11:BA:1662:C:H5'	2.52	0.45
11:BA:1721:G:H4'	11:BA:1722:U:O5'	2.17	0.45
12:BB:45:ASN:OD1	32:BV:109:LEU:HD11	2.16	0.45
14:BD:129:ILE:O	14:BD:142:ASN:HA	2.15	0.45
20:BJ:37:GLU:O	20:BJ:41:ARG:HB2	2.17	0.45
23:BM:69:ILE:O	23:BM:73:ILE:HG12	2.16	0.45
27:BQ:68:LYS:O	27:BQ:126:GLN:N	2.48	0.45
11:CA:89:A:H1'	33:CW:3:ARG:O	2.16	0.45
11:CA:931:A:P	25:CO:96:LYS:NZ	2.89	0.45
11:CA:1059:A:N3	11:CA:1115:A:O2'	2.44	0.45
11:CA:1605:A:H4'	11:CA:1606:C:O5'	2.16	0.45
12:CB:26:ASN:ND2	12:CB:149:PRO:HA	2.31	0.45
12:CB:58:ARG:CZ	36:CZ:54:VAL:HG21	2.46	0.45
28:CR:22:ASP:HB3	28:CR:47:ARG:HB2	1.98	0.45
28:CR:140:ARG:HH11	28:CR:162:SER:HA	1.81	0.45
29:CS:113:LYS:O	29:CS:116:MET:HG2	2.15	0.45
9:D8:70:VAL:HG11	17:DG:161:MET:SD	2.56	0.45
11:DA:575:U:H5"	11:DA:576:U:OP2	2.15	0.45
11:DA:1186:G:OP1	11:DA:1218:C:O2'	2.21	0.45
11:DA:1292:U:O2	11:DA:1294:A:H5'	2.17	0.45
11:DA:1513:G:H1'	11:DA:1542:A:H61	1.81	0.45
21:DK:119:LEU:HD12	21:DK:119:LEU:HA	1.86	0.45
34:DX:59:SER:HA	34:DX:60:PRO:HD3	1.78	0.45
2:A1:61:GLU:O	6:A5:51:ARG:CZ	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A2:10:LYS:CD	11:AA:329:A:H5"	2.43	0.45
3:A2:185:ARG:NH2	11:AA:202:U:O2	2.50	0.45
9:A8:49:ASN:O	9:A8:52:SER:OG	2.28	0.45
11:AA:267:A:H2'	11:AA:268:G:C8	2.51	0.45
11:AA:516:G:OP2	26:AP:35:LYS:HE2	2.14	0.45
11:AA:1406:G:O2'	11:AA:1407:A:OP2	2.32	0.45
11:AA:1691:C:N4	39:AA:2230:HOH:O	2.30	0.45
13:AC:221:ILE:HG22	13:AC:222:THR:H	1.82	0.45
13:AC:228:ARG:H	13:AC:228:ARG:HG2	1.48	0.45
17:AG:161:MET:HE2	17:AG:161:MET:HB3	1.83	0.45
21:AK:54:VAL:HG11	21:AK:81:VAL:HA	1.99	0.45
23:AM:24:GLY:HA2	23:AM:58:ALA:HB3	1.99	0.45
24:AN:33:TYR:O	24:AN:34:GLU:HB3	2.16	0.45
28:AR:299:ILE:HD12	28:AR:330:ASP:HB2	1.98	0.45
10:B9:128:HIS:NE2	10:B9:133:TYR:HB3	2.31	0.45
10:B9:137:CYS:SG	10:B9:139:LEU:HB2	2.57	0.45
11:BA:234:G:O2'	11:BA:235:A:P	2.74	0.45
11:BA:447:C:H5'	11:BA:448:A:N7	2.32	0.45
11:BA:802:U:H2'	11:BA:803:A:C8	2.52	0.45
11:BA:872:A:H3'	11:BA:873:G:H5"	1.98	0.45
11:BA:933:A:H2'	11:BA:934:U:O4'	2.15	0.45
11:BA:1451:C:H4'	11:BA:1452:G:OP1	2.17	0.45
11:BA:1514:G:O2'	11:BA:1515:A:C8	2.68	0.45
11:BA:1736:C:O2'	11:BA:1737:C:H5'	2.17	0.45
12:BB:76:ILE:HD12	12:BB:200:HIS:CD2	2.51	0.45
12:BB:128:GLN:NE2	12:BB:132:GLU:HG3	2.30	0.45
17:BG:178:ASN:HA	17:BG:186:ILE:HD12	1.99	0.45
21:BK:82:VAL:HG13	21:BK:124:MET:HE2	1.96	0.45
22:BL:17:ARG:NH1	22:BL:20:LYS:HE2	2.31	0.45
27:BQ:73:LEU:O	27:BQ:85:ILE:HA	2.17	0.45
28:BR:140:ARG:HG2	28:BR:163:ASP:O	2.17	0.45
4:C3:133:PRO:HG3	4:C3:162:PHE:CE1	2.52	0.45
11:CA:3:C:O2'	15:CE:182:ALA:N	2.49	0.45
11:CA:673:A:H2'	11:CA:675:A:N6	2.28	0.45
11:CA:1406:G:O2'	11:CA:1407:A:OP2	2.33	0.45
11:CA:1715:A:H1'	11:CA:1736:C:H5'	1.98	0.45
12:CB:12:ARG:HD3	12:CB:172:TRP:CZ3	2.52	0.45
18:CH:28:ARG:HB2	18:CH:60:LYS:HG2	1.98	0.45
18:CH:112:THR:HB	18:CH:115:GLU:HG3	1.99	0.45
22:CL:17:ARG:CZ	22:CL:20:LYS:HE2	2.46	0.45
28:CR:235:LYS:HG3	28:CR:256:SER:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:D7:70:LYS:HG2	8:D7:92:PHE:HE2	1.81	0.45
10:D9:123:ILE:HD13	10:D9:136:LYS:HD2	1.98	0.45
11:DA:328:G:H5'	11:DA:330:C:H41	1.81	0.45
11:DA:535:A:OP2	11:DA:535:A:H8	1.98	0.45
11:DA:893:A:C5	11:DA:894:U:C4	3.04	0.45
11:DA:1240:G:N7	39:DA:8007:HOH:O	2.36	0.45
11:DA:1387:A:H2'	11:DA:1388:A:C8	2.51	0.45
11:DA:1662:C:C6	11:DA:1662:C:H5'	2.52	0.45
14:DD:45:VAL:HG21	14:DD:105:MET:HE3	1.97	0.45
18:DH:8:ALA:HA	18:DH:74:VAL:HG21	1.97	0.45
21:DK:76:GLN:O	21:DK:79:ILE:HG13	2.16	0.45
8:A7:47:ARG:HG3	8:A7:47:ARG:NH1	2.30	0.45
11:AA:668:U:H2'	11:AA:669:G:O4'	2.16	0.45
11:AA:802:U:H2'	11:AA:803:A:C8	2.52	0.45
11:AA:977:U:H2'	11:AA:978:C:O4'	2.15	0.45
11:AA:1461:A:H4'	13:AC:6:ARG:HE	1.81	0.45
11:AA:1480:U:HO2'	11:AA:1481:A:P	2.39	0.45
12:AB:56:ALA:O	12:AB:60:ILE:HG13	2.16	0.45
12:AB:196:ASP:HA	12:AB:199:TYR:CD1	2.52	0.45
21:AK:135:ILE:HD13	21:AK:135:ILE:HA	1.86	0.45
25:AO:121:GLU:OE2	25:AO:143:TYR:HE2	1.99	0.45
28:AR:24:VAL:O	28:AR:313:THR:HB	2.17	0.45
30:AT:145:THR:HG22	30:AT:149:ILE:HD11	1.98	0.45
8:B7:12:ILE:HD12	8:B7:45:LEU:HD12	1.99	0.45
11:BA:90:U:OP1	33:BW:3:ARG:HB2	2.17	0.45
11:BA:575:U:H5"	11:BA:576:U:OP2	2.16	0.45
11:BA:719:G:C8	11:BA:719:G:OP2	2.70	0.45
11:BA:762:U:O2	11:BA:762:U:H2'	2.17	0.45
11:BA:1226:U:C2'	11:BA:1227:G:H5'	2.47	0.45
12:BB:26:ASN:ND2	12:BB:149:PRO:HA	2.31	0.45
12:BB:71:VAL:HG11	12:BB:82:ALA:HB1	1.99	0.45
12:BB:145:ASP:HB3	12:BB:147:ASP:OD1	2.17	0.45
19:BI:54:ILE:HA	19:BI:62:PHE:CE1	2.51	0.45
28:BR:193:ASP:OD1	28:BR:193:ASP:N	2.40	0.45
32:BV:27:ASP:HB3	32:BV:30:PHE:HD2	1.80	0.45
33:BW:162:LEU:HD13	33:BW:171:ILE:HG21	1.97	0.45
33:BW:193:ARG:NH1	33:BW:220:PHE:HE1	2.15	0.45
33:BW:194:VAL:HG21	33:BW:240:LEU:HD13	1.97	0.45
3:C2:50:ARG:HB3	3:C2:67:ARG:HG3	1.97	0.45
4:C3:174:TYR:CE2	4:C3:180:ARG:HB2	2.51	0.45
8:C7:47:ARG:HH11	8:C7:47:ARG:CG	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:55:U:H4'	11:CA:56:G:O5'	2.17	0.45
11:CA:234:G:O2'	11:CA:235:A:O4'	2.34	0.45
11:CA:451:G:OP1	26:CP:102:ARG:NH2	2.50	0.45
11:CA:977:U:H2'	11:CA:978:C:O4'	2.16	0.45
11:CA:1306:U:H2'	11:CA:1307:U:C6	2.51	0.45
11:CA:1573:G:H22	30:CT:91:ASN:ND2	2.14	0.45
12:CB:145:ASP:HB3	12:CB:147:ASP:OD1	2.17	0.45
17:CG:178:ASN:HA	17:CG:186:ILE:HD12	1.99	0.45
21:CK:105:THR:HG22	21:CK:107:GLN:H	1.82	0.45
33:CW:185:ILE:HD12	33:CW:193:ARG:HB2	1.99	0.45
4:D3:174:TYR:CE2	4:D3:180:ARG:HB2	2.51	0.45
10:D9:116:CYS:O	10:D9:120:GLY:N	2.49	0.45
11:DA:3:C:N4	14:DD:16:ARG:HB2	2.32	0.45
11:DA:382:A:H4'	11:DA:1684:A:H5'	1.99	0.45
11:DA:447:C:H5'	11:DA:448:A:N7	2.31	0.45
11:DA:553:A:H2	13:DC:181:LYS:NZ	2.10	0.45
11:DA:676:C:HO2'	11:DA:677:G:P	2.36	0.45
11:DA:879:G:C6	11:DA:880:G:C6	3.04	0.45
11:DA:982:U:C4'	11:DA:983:A:OP2	2.63	0.45
11:DA:1145:C:OP1	23:DM:132:LYS:NZ	2.28	0.45
11:DA:1241:U:H4'	11:DA:1242:G:O5'	2.17	0.45
11:DA:1518:G:H2'	11:DA:1519:U:H5"	1.97	0.45
11:DA:1575:U:H2'	11:DA:1576:U:C6	2.50	0.45
18:DH:28:ARG:HB2	18:DH:60:LYS:HG2	1.99	0.45
21:DK:103:VAL:HG11	21:DK:142:ARG:HA	1.98	0.45
23:DM:24:GLY:HA2	23:DM:58:ALA:HB3	1.97	0.45
30:DT:145:THR:HG22	30:DT:149:ILE:HD11	1.98	0.45
33:DW:31:PRO:HG2	33:DW:38:LEU:HG	1.98	0.45
33:DW:114:LYS:HA	33:DW:114:LYS:HD2	1.73	0.45
33:DW:143:THR:OG1	33:DW:147:ARG:HB2	2.17	0.45
3:A2:94:THR:HG23	11:AA:319:A:C2	2.52	0.45
4:A3:174:TYR:CE2	4:A3:180:ARG:HB2	2.51	0.45
5:A4:74:ASP:OD1	5:A4:74:ASP:N	2.50	0.45
6:A5:28:ARG:HG3	21:AK:147:ARG:HA	1.97	0.45
7:A6:29:TYR:H	7:A6:46:SER:HB3	1.81	0.45
9:A8:63:VAL:HG22	17:AG:97:LEU:HB3	1.99	0.45
11:AA:558:G:N1	11:AA:574:A:OP2	2.46	0.45
11:AA:1355:G:H21	28:AR:76:ASN:ND2	2.14	0.45
11:AA:1527:A:OP2	29:AS:52:ARG:NH1	2.50	0.45
12:AB:12:ARG:HD3	12:AB:172:TRP:CZ3	2.52	0.45
12:AB:71:VAL:HG11	12:AB:82:ALA:HB1	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AD:118:LEU:HD12	14:AD:118:LEU:HA	1.82	0.45
22:AL:68:ARG:HG3	22:AL:116:ILE:HG12	1.99	0.45
23:AM:87:ASN:HB2	23:AM:100:MET:HG3	1.98	0.45
27:AQ:12:GLN:NE2	27:AQ:60:THR:HG23	2.28	0.45
27:AQ:58:PRO:HA	27:AQ:63:LEU:HB3	1.99	0.45
33:AW:126:LEU:HB3	33:AW:143:THR:CG2	2.47	0.45
36:AZ:47:VAL:N	36:AZ:74:ARG:HH22	2.15	0.45
36:AZ:71:GLY:O	36:AZ:75:SER:HB3	2.16	0.45
4:B3:161:ASP:OD1	4:B3:161:ASP:N	2.42	0.45
5:B4:72:LEU:HD12	5:B4:85:ARG:HB3	1.99	0.45
10:B9:123:ILE:HD13	10:B9:136:LYS:HD2	1.98	0.45
11:BA:500:U:H2'	11:BA:501:U:H6	1.81	0.45
11:BA:875:C:OP2	11:BA:875:C:H6	1.99	0.45
11:BA:1154:U:H5"	29:BS:129:LYS:HD3	1.99	0.45
11:BA:1431:A:H8	11:BA:1431:A:H3'	1.81	0.45
20:BJ:22:THR:OG1	20:BJ:113:GLU:HB2	2.16	0.45
21:BK:103:VAL:HG11	21:BK:142:ARG:HA	1.98	0.45
23:BM:89:ILE:HD13	23:BM:89:ILE:HA	1.80	0.45
26:BP:16:LEU:HD21	33:BW:64:ILE:HG12	1.98	0.45
35:BY:48:TYR:OH	35:BY:116:LYS:HE3	2.17	0.45
1:C0:43:ASN:HD22	1:C0:43:ASN:C	2.22	0.45
4:C3:109:LYS:H	4:C3:109:LYS:CE	2.29	0.45
11:CA:363:G:H5"	18:CH:88:LYS:HE2	1.99	0.45
11:CA:447:C:H5'	11:CA:448:A:N7	2.31	0.45
11:CA:593:A:H2'	11:CA:594:U:C6	2.52	0.45
11:CA:665:A:O3'	11:CA:666:A:H8	1.98	0.45
11:CA:728:U:H5'	11:CA:729:U:OP2	2.17	0.45
11:CA:1119:G:O2'	11:CA:1607:A:N1	2.45	0.45
11:CA:1241:U:H4'	11:CA:1242:G:O5'	2.16	0.45
11:CA:1513:G:H1'	11:CA:1542:A:H61	1.81	0.45
11:CA:1568:C:O2'	11:CA:1570:U:H5	2.00	0.45
15:CE:141:ARG:HB2	15:CE:223:TYR:CE1	2.52	0.45
25:CO:101:ARG:HH12	25:CO:145:ALA:CA	2.29	0.45
33:CW:143:THR:OG1	33:CW:147:ARG:HB2	2.17	0.45
35:CY:14:LYS:HD2	35:CY:123:GLY:HA3	1.99	0.45
35:CY:84:PHE:CZ	35:CY:91:PHE:HD1	2.35	0.45
36:CZ:17:ILE:HG22	36:CZ:21:LYS:HA	1.99	0.45
4:D3:63:ILE:HG12	4:D3:93:PHE:O	2.17	0.45
11:DA:17:C:H2'	11:DA:18:C:C6	2.51	0.45
11:DA:486:A:H5"	11:DA:487:C:OP2	2.16	0.45
11:DA:872:A:H3'	11:DA:873:G:H5"	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:978:C:O2'	11:DA:980:G:N7	2.46	0.45
11:DA:1163:U:H2'	11:DA:1164:C:C6	2.52	0.45
11:DA:1288:C:P	32:DV:7:LYS:HE3	2.57	0.45
15:DE:205:THR:HG23	15:DE:211:PHE:CE2	2.52	0.45
18:DH:18:GLU:OE2	18:DH:67:GLY:HA2	2.16	0.45
19:DI:15:LYS:HG3	19:DI:78:SER:HB3	1.99	0.45
19:DI:143:ALA:HA	19:DI:145:ARG:NH1	2.32	0.45
25:DO:88:GLU:HG3	25:DO:89:ASP:H	1.82	0.45
28:DR:161:HIS:H	28:DR:161:HIS:HD2	1.65	0.45
28:DR:235:LYS:HG3	28:DR:256:SER:O	2.17	0.45
33:DW:36:HIS:CD2	33:DW:87:GLY:HA3	2.51	0.45
3:A2:56:VAL:HG22	11:AA:324:A:P	2.57	0.45
6:A5:15:ARG:NH2	11:AA:913:U:C5	2.85	0.45
11:AA:63:U:H3'	11:AA:64:U:H5"	1.98	0.45
11:AA:83:C:H5'	11:AA:84:U:OP2	2.16	0.45
11:AA:593:A:H2'	11:AA:594:U:C6	2.52	0.45
11:AA:672:C:H2'	11:AA:673:A:O4'	2.17	0.45
11:AA:1031:A:H2	11:AA:1037:G:H22	1.63	0.45
11:AA:1212:U:O4	29:AS:60:LYS:NZ	2.44	0.45
11:AA:1464:U:OP2	11:AA:1465:C:C5	2.69	0.45
11:AA:1518:G:H2'	11:AA:1519:U:H5"	1.98	0.45
11:AA:1662:C:C6	11:AA:1662:C:H5'	2.52	0.45
12:AB:28:GLN:HB3	12:AB:150:LEU:HD12	1.98	0.45
12:AB:165:GLU:HG3	12:AB:199:TYR:HE2	1.82	0.45
14:AD:32:GLY:HA3	34:AX:41:TYR:CE1	2.52	0.45
14:AD:129:ILE:O	14:AD:142:ASN:HA	2.16	0.45
16:AF:78:ARG:NH1	16:AF:100:GLY:CA	2.78	0.45
18:AH:8:ALA:HA	18:AH:74:VAL:HG21	1.97	0.45
30:AT:155:LYS:H	30:AT:155:LYS:HG2	1.48	0.45
33:AW:193:ARG:NH1	33:AW:220:PHE:HE1	2.15	0.45
35:AY:64:LYS:HZ1	35:AY:82:SER:H	1.63	0.45
1:B0:22:LYS:HZ3	10:B9:76:LYS:CA	2.29	0.45
2:B1:54:VAL:HB	17:BG:28:CYS:HA	1.98	0.45
3:B2:94:THR:HG23	11:BA:319:A:H2	1.82	0.45
8:B7:3:HIS:CE1	11:BA:1204:U:O4'	2.70	0.45
8:B7:70:LYS:HG2	8:B7:92:PHE:HE2	1.82	0.45
11:BA:226:A:H3'	11:BA:227:G:O4'	2.16	0.45
11:BA:289:U:H2'	11:BA:290:A:O4'	2.17	0.45
11:BA:514:G:H4'	26:BP:34:SER:HB3	1.99	0.45
11:BA:1123:G:C6	11:BA:1721:G:C6	3.05	0.45
12:BB:196:ASP:HA	12:BB:199:TYR:CD1	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BE:102:PHE:CD1	15:BE:116:TRP:HB3	2.51	0.45
28:BR:235:LYS:HG3	28:BR:256:SER:O	2.16	0.45
31:BU:87:THR:HB	31:BU:96:LYS:HB2	1.98	0.45
3:C2:94:THR:HG23	11:CA:319:A:C2	2.52	0.45
5:C4:85:ARG:HH12	5:C4:108:ILE:HD11	1.80	0.45
8:C7:70:LYS:HG2	8:C7:92:PHE:HE2	1.82	0.45
11:CA:250:A:H4'	33:CW:137:GLN:HE21	1.81	0.45
11:CA:535:A:H8	11:CA:535:A:OP2	1.99	0.45
11:CA:866:U:O2	11:CA:966:A:O2'	2.35	0.45
11:CA:1076:U:H5"	22:CL:14:LYS:HE2	1.98	0.45
11:CA:1199:G:N2	31:CU:27:LYS:HG3	2.32	0.45
13:CC:118:VAL:HG21	13:CC:145:LEU:HD21	1.98	0.45
15:CE:78:MET:HE2	15:CE:78:MET:HA	1.97	0.45
15:CE:102:PHE:CD1	15:CE:116:TRP:HB3	2.51	0.45
18:CH:8:ALA:HA	18:CH:74:VAL:HG21	1.99	0.45
18:CH:18:GLU:OE2	18:CH:67:GLY:HA2	2.15	0.45
28:CR:80:SER:OG	28:CR:121:VAL:O	2.27	0.45
9:D8:40:ASN:HB2	23:DM:25:LYS:HZ3	1.81	0.45
10:D9:100:PHE:HB3	10:D9:124:PHE:CZ	2.51	0.45
11:DA:515:U:OP1	26:DP:35:LYS:HD2	2.15	0.45
11:DA:516:G:OP2	26:DP:35:LYS:HE2	2.16	0.45
11:DA:593:A:H2'	11:DA:594:U:C6	2.52	0.45
11:DA:937:U:O2	25:DO:63:PRO:HB2	2.17	0.45
11:DA:1025:G:H2'	11:DA:1026:C:O4'	2.17	0.45
11:DA:1508:G:N3	11:DA:1508:G:H2'	2.32	0.45
11:DA:1721:G:H4'	11:DA:1722:U:C5'	2.47	0.45
15:DE:57:GLU:HG3	15:DE:59:GLU:HG2	1.99	0.45
24:DN:33:TYR:O	24:DN:34:GLU:HB3	2.17	0.45
28:DR:184:ALA:H	28:DR:206:ARG:HH22	1.65	0.45
28:DR:313:THR:N	28:DR:327:GLY:O	2.50	0.45
30:DT:105:ARG:H	30:DT:105:ARG:HG2	1.59	0.45
31:DU:87:THR:HB	31:DU:96:LYS:HB2	1.97	0.45
33:DW:36:HIS:CE1	33:DW:87:GLY:HA3	2.51	0.45
36:DZ:13:MET:HE3	36:DZ:28:LEU:HB3	1.97	0.45
4:A3:5:LYS:HD3	4:A3:5:LYS:HA	1.70	0.45
11:AA:20:G:H5"	11:AA:565:G:C4	2.52	0.45
11:AA:531:A:H1'	39:AA:2093:HOH:O	2.16	0.45
11:AA:955:A:H2'	11:AA:956:A:O4'	2.17	0.45
11:AA:1098:A:H5"	11:AA:1099:G:OP2	2.17	0.45
11:AA:1246:C:O2'	11:AA:1247:A:P	2.75	0.45
11:AA:1575:U:H2'	11:AA:1576:U:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AC:77:GLN:HG3	13:AC:87:ILE:HD12	1.98	0.45
14:AD:110:GLN:OE1	14:AD:126:ARG:HD2	2.16	0.45
28:AR:184:ALA:H	28:AR:206:ARG:HH22	1.65	0.45
31:AU:29:LEU:O	31:AU:33:LEU:HB2	2.16	0.45
33:AW:36:HIS:ND1	33:AW:87:GLY:HA3	2.32	0.45
35:AY:7:TYR:HA	35:AY:8:PRO:HD3	1.59	0.45
35:AY:198:LYS:O	35:AY:201:ARG:HB2	2.17	0.45
36:AZ:17:ILE:HG22	36:AZ:21:LYS:HA	1.99	0.45
1:B0:22:LYS:CA	10:B9:74:LYS:HZ3	2.30	0.45
4:B3:109:LYS:NZ	11:BA:725:A:O3'	2.50	0.45
5:B4:216:ILE:H	5:B4:216:ILE:HG13	1.57	0.45
6:B5:45:VAL:HA	21:BK:113:GLN:HG3	1.99	0.45
9:B8:46:GLU:C	9:B8:48:LYS:N	2.75	0.45
11:BA:229:A:C5	11:BA:230:A:C6	3.05	0.45
11:BA:809:A:O2'	27:BQ:45:LYS:NZ	2.23	0.45
11:BA:1025:G:H2'	11:BA:1026:C:O4'	2.16	0.45
11:BA:1429:G:H5"	23:BM:138:THR:OG1	2.17	0.45
14:BD:12:TYR:HA	14:BD:47:MET:HG3	1.98	0.45
15:BE:57:GLU:HG3	15:BE:59:GLU:HG2	1.99	0.45
19:BI:122:ASP:HA	19:BI:123:PRO:HD3	1.75	0.45
21:BK:75:MET:HG2	21:BK:118:ALA:HB2	1.98	0.45
22:BL:82:ILE:HD11	22:BL:121:PHE:CE1	2.52	0.45
25:BO:65:VAL:HG21	25:BO:73:ILE:HD11	1.99	0.45
27:BQ:37:ILE:HD11	27:BQ:59:PHE:HE1	1.80	0.45
28:BR:22:ASP:HB3	28:BR:47:ARG:HB2	1.98	0.45
28:BR:47:ARG:HA	28:BR:78:PHE:HB3	1.98	0.45
28:BR:127:SER:OG	28:BR:132:GLN:HB2	2.17	0.45
35:BY:182:LEU:O	35:BY:187:ARG:HD2	2.17	0.45
36:BZ:17:ILE:HG22	36:BZ:21:LYS:HA	1.99	0.45
11:CA:289:U:H2'	11:CA:290:A:O4'	2.17	0.45
11:CA:982:U:C4'	11:CA:983:A:OP2	2.64	0.45
11:CA:1025:G:H5"	11:CA:1025:G:H8	1.82	0.45
11:CA:1390:G:H2'	11:CA:1391:C:O4'	2.16	0.45
11:CA:1480:U:O2'	11:CA:1481:A:C8	2.70	0.45
13:CC:15:VAL:HG11	24:CN:35:MET:HB3	1.99	0.45
13:CC:226:GLU:HB2	28:CR:208:THR:H	1.81	0.45
17:CG:107:PHE:HD1	17:CG:172:ILE:HD13	1.82	0.45
17:CG:188:LYS:HD3	17:CG:188:LYS:HA	1.67	0.45
28:CR:178:ASN:CB	23:DM:110:ARG:NH1	2.80	0.45
36:CZ:71:GLY:O	36:CZ:75:SER:HB3	2.17	0.45
3:D2:194:LYS:HA	3:D2:194:LYS:HD3	1.75	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D3:127:LEU:HB2	4:D3:174:TYR:CE1	2.51	0.45
8:D7:67:TYR:HB3	13:DC:75:PHE:HZ	1.81	0.45
10:D9:102:LYS:HG2	10:D9:103:LEU:N	2.31	0.45
11:DA:297:U:O4	39:DA:7336:HOH:O	2.21	0.45
11:DA:372:C:O2'	11:DA:739:A:N1	2.46	0.45
11:DA:378:A:OP2	11:DA:378:A:C8	2.55	0.45
11:DA:630:A:OP2	39:DA:7827:HOH:O	2.20	0.45
19:DI:29:GLY:HA2	19:DI:65:LEU:O	2.17	0.45
21:DK:105:THR:HG22	21:DK:107:GLN:H	1.82	0.45
31:DU:3:ASP:C	31:DU:5:ASN:H	2.24	0.45
4:A3:109:LYS:H	4:A3:109:LYS:CE	2.29	0.45
9:A8:47:LYS:HB2	23:AM:6:GLU:HA	1.99	0.45
10:A9:104:GLU:HG2	10:A9:105:ASN:H	1.80	0.45
11:AA:57:U:O2'	11:AA:443:A:N3	2.47	0.45
11:AA:517:U:O2'	11:AA:519:A:N7	2.40	0.45
11:AA:1313:G:H22	11:AA:1354:A:H2	1.64	0.45
11:AA:1431:A:H3'	11:AA:1431:A:C8	2.52	0.45
11:AA:1440:A:H4'	11:AA:1513:G:H4'	1.99	0.45
11:AA:1463:U:HO2'	11:AA:1464:U:P	2.39	0.45
11:AA:1586:A:C5'	11:AA:1587:U:OP2	2.65	0.45
26:AP:127:LYS:HG2	26:AP:129:GLY:H	1.82	0.45
29:AS:34:ILE:HD13	29:AS:50:VAL:HG21	1.99	0.45
35:AY:152:ASP:HA	35:AY:153:PRO:HD2	1.84	0.45
4:B3:117:ARG:HD2	11:BA:834:A:C6	2.51	0.45
4:B3:171:THR:O	4:B3:175:LYS:HB2	2.16	0.45
11:BA:17:C:H2'	11:BA:18:C:C6	2.52	0.45
12:BB:148:SER:HA	12:BB:149:PRO:HD3	1.75	0.45
17:BG:24:ILE:HD13	17:BG:24:ILE:H	1.82	0.45
20:BJ:23:LEU:HD22	20:BJ:112:ILE:HG12	1.99	0.45
28:BR:238:LEU:HD12	28:BR:238:LEU:HA	1.89	0.45
29:BS:36:ASP:OD1	29:BS:36:ASP:N	2.47	0.45
8:C7:67:TYR:HB3	13:CC:75:PHE:HZ	1.82	0.45
8:C7:95:SER:OG	13:CC:70:LYS:HE3	2.16	0.45
11:CA:1025:G:H2'	11:CA:1026:C:O4'	2.17	0.45
11:CA:1440:A:H4'	11:CA:1513:G:H4'	1.98	0.45
11:CA:1486:U:HO2'	11:CA:1487:A:P	2.36	0.45
11:CA:1586:A:H3'	11:CA:1587:U:H6	1.82	0.45
12:CB:53:ILE:HG23	12:CB:174:ILE:HG13	1.98	0.45
13:CC:146:LYS:HD2	13:CC:151:LYS:NZ	2.22	0.45
17:CG:35:CYS:HB3	17:CG:63:ILE:HD11	1.98	0.45
19:CI:143:ALA:HA	19:CI:145:ARG:NH1	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:CO:147:THR:O	25:CO:151:LEU:HG	2.17	0.45
28:CR:147:ILE:H	28:CR:147:ILE:HG12	1.58	0.45
35:CY:49:VAL:HB	35:CY:115:LYS:H	1.81	0.45
3:D2:38:LEU:HD21	3:D2:104:LEU:HD21	1.99	0.45
4:D3:70:TYR:OH	4:D3:129:ASP:OD1	2.32	0.45
8:D7:22:PHE:HE1	8:D7:24:LEU:HG	1.82	0.45
11:DA:162:A:OP1	35:DY:137:ARG:HB2	2.16	0.45
11:DA:1145:C:OP2	23:DM:141:SER:HB2	2.16	0.45
11:DA:1437:G:P	19:DI:141:GLN:HG2	2.57	0.45
11:DA:1486:U:O2'	11:DA:1487:A:P	2.74	0.45
12:DB:12:ARG:HD3	12:DB:172:TRP:CZ3	2.52	0.45
13:DC:221:ILE:HG22	13:DC:222:THR:H	1.82	0.45
20:DJ:16:LYS:HD3	20:DJ:16:LYS:HA	1.83	0.45
25:DO:101:ARG:HH12	25:DO:145:ALA:HB1	1.80	0.45
27:DQ:39:LEU:HD23	27:DQ:39:LEU:HA	1.66	0.45
33:DW:249:THR:HB	33:DW:252:GLU:HG3	1.98	0.45
3:A2:10:LYS:HE2	11:AA:314:A:OP2	2.17	0.44
7:A6:5:LEU:H	18:AH:24:GLN:HE22	1.61	0.44
10:A9:101:TYR:HE1	31:AU:33:LEU:HD21	1.82	0.44
11:AA:122:A:C8	35:AY:201:ARG:HD3	2.52	0.44
11:AA:597:U:H2'	11:AA:598:A:C8	2.53	0.44
11:AA:1729:A:H2'	11:AA:1730:G:C8	2.52	0.44
17:AG:188:LYS:HA	17:AG:188:LYS:HD3	1.67	0.44
19:AI:15:LYS:HG3	19:AI:78:SER:HB3	2.00	0.44
21:AK:75:MET:HG2	21:AK:118:ALA:HB2	1.98	0.44
28:AR:161:HIS:H	28:AR:161:HIS:HD2	1.65	0.44
29:AS:65:VAL:HG12	29:AS:69:LYS:HD2	1.99	0.44
35:AY:14:LYS:HD2	35:AY:123:GLY:HA3	1.99	0.44
4:B3:174:TYR:CZ	4:B3:178:THR:HG21	2.52	0.44
8:B7:9:LYS:HA	8:B7:45:LEU:HD11	1.98	0.44
11:BA:3:C:O2'	15:BE:182:ALA:N	2.50	0.44
11:BA:233:U:H2'	11:BA:234:G:C8	2.52	0.44
11:BA:246:U:OP1	27:BQ:33:TYR:OH	2.35	0.44
11:BA:1031:A:H2	11:BA:1037:G:H22	1.65	0.44
11:BA:1471:C:P	30:BT:130:ARG:NH2	2.90	0.44
14:BD:37:LYS:HG3	14:BD:38:ASN:CB	2.47	0.44
19:BI:15:LYS:HG3	19:BI:78:SER:HB3	1.99	0.44
22:BL:17:ARG:CZ	22:BL:20:LYS:HE2	2.47	0.44
23:BM:45:ILE:O	23:BM:49:VAL:HG23	2.16	0.44
33:BW:129:THR:HB	33:BW:142:VAL:CG1	2.47	0.44
9:C8:99:ASN:O	9:C8:102:GLN:N	2.27	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:C9:72:LYS:HB3	11:CA:1160:G:OP1	2.16	0.44
11:CA:507:G:HO2'	11:CA:508:A:P	2.40	0.44
11:CA:985:C:H2'	11:CA:986:G:H8	1.82	0.44
12:CB:169:MET:HB3	12:CB:169:MET:HE2	1.63	0.44
14:CD:147:MET:HE2	14:CD:147:MET:HB3	1.72	0.44
17:CG:49:GLY:HA3	17:CG:51:TYR:CE2	2.52	0.44
19:CI:14:ARG:HD3	19:CI:125:ARG:HH22	1.81	0.44
23:CM:87:ASN:HB2	23:CM:100:MET:HG3	1.98	0.44
28:CR:24:VAL:O	28:CR:313:THR:HB	2.17	0.44
33:CW:249:THR:HB	33:CW:252:GLU:HG3	1.97	0.44
3:D2:22:ARG:HB3	11:DA:376:A:H5"	1.98	0.44
4:D3:123:TYR:O	4:D3:126:LEU:HB3	2.17	0.44
11:DA:209:G:C5'	11:DA:210:A:H5'	2.47	0.44
11:DA:211:U:H1'	11:DA:212:A:O5'	2.16	0.44
11:DA:232:G:HO2'	11:DA:233:U:P	2.33	0.44
11:DA:391:A:C4'	11:DA:392:A:H5"	2.45	0.44
11:DA:1010:A:H2'	11:DA:1011:C:H6	1.83	0.44
11:DA:1319:U:C4	20:DJ:88:ILE:HD11	2.52	0.44
11:DA:1471:C:P	30:DT:130:ARG:HH22	2.40	0.44
11:DA:1520:U:H1'	23:DM:89:ILE:HG13	1.99	0.44
11:DA:1568:C:O2'	11:DA:1570:U:H5	2.00	0.44
12:DB:196:ASP:HA	12:DB:199:TYR:CD1	2.52	0.44
17:DG:66:ARG:NH2	17:DG:143:ASN:HD21	2.15	0.44
18:DH:57:ARG:H	18:DH:57:ARG:HG2	1.54	0.44
20:DJ:48:VAL:HG22	20:DJ:93:CYS:SG	2.57	0.44
21:DK:128:ARG:CG	21:DK:128:ARG:NH1	2.70	0.44
22:DL:106:LEU:HD23	22:DL:122:LYS:HE2	1.98	0.44
23:DM:45:ILE:O	23:DM:49:VAL:HG23	2.17	0.44
23:DM:89:ILE:HG22	23:DM:90:ASN:N	2.31	0.44
28:DR:140:ARG:HH11	28:DR:162:SER:HA	1.81	0.44
33:DW:126:LEU:HB3	33:DW:143:THR:CG2	2.45	0.44
35:DY:38:GLY:N	35:DY:48:TYR:O	2.47	0.44
11:AA:7:G:H4'	11:AA:567:C:H4'	2.00	0.44
11:AA:270:U:H5'	11:AA:271:U:H6	1.81	0.44
11:AA:561:A:OP1	34:AX:9:ALA:HA	2.17	0.44
11:AA:722:A:H5"	11:AA:723:A:OP2	2.18	0.44
11:AA:1025:G:H2'	11:AA:1026:C:O4'	2.17	0.44
12:AB:26:ASN:ND2	12:AB:149:PRO:HA	2.32	0.44
14:AD:54:LYS:HA	14:AD:54:LYS:HD3	1.87	0.44
15:AE:76:LYS:HG3	15:AE:78:MET:HE3	1.98	0.44
15:AE:107:ASP:OD1	15:AE:111:HIS:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AG:35:CYS:HB3	17:AG:63:ILE:HD11	1.98	0.44
27:AQ:37:ILE:HD11	27:AQ:59:PHE:HE1	1.82	0.44
28:AR:17:LEU:HB2	28:AR:333:ILE:HB	1.99	0.44
35:AY:213:GLU:O	35:AY:216:LEU:HB2	2.17	0.44
4:B3:109:LYS:NZ	11:BA:726:U:P	2.90	0.44
10:B9:88:HIS:NE2	11:BA:1220:C:OP2	2.50	0.44
11:BA:507:G:HO2'	11:BA:508:A:P	2.39	0.44
12:BB:12:ARG:HD3	12:BB:172:TRP:CZ3	2.52	0.44
15:BE:219:LEU:O	15:BE:222:THR:OG1	2.27	0.44
17:BG:37:THR:O	17:BG:41:GLN:HG2	2.17	0.44
17:BG:107:PHE:HD1	17:BG:172:ILE:HD13	1.81	0.44
17:BG:119:ASP:OD1	17:BG:120:SER:N	2.49	0.44
19:BI:74:SER:OG	19:BI:75:GLY:N	2.49	0.44
28:BR:161:HIS:HB3	28:BR:197:LYS:CE	2.47	0.44
4:C3:143:ALA:O	18:CH:49:GLU:HG3	2.17	0.44
7:C6:18:LYS:NZ	11:CA:936:U:H5'	2.32	0.44
10:C9:116:CYS:O	10:C9:120:GLY:N	2.49	0.44
11:CA:17:C:H2'	11:CA:18:C:C6	2.52	0.44
11:CA:181:G:H8	11:CA:181:G:H5'	1.80	0.44
11:CA:243:G:O2'	27:CQ:38:GLY:HA3	2.18	0.44
11:CA:1253:G:O3'	20:CJ:74:SER:HB2	2.17	0.44
11:CA:1321:G:O2'	11:CA:1349:C:N3	2.45	0.44
11:CA:1488:A:O2'	11:CA:1489:U:O5'	2.34	0.44
11:CA:1520:U:H1'	23:CM:89:ILE:HG13	1.99	0.44
14:CD:20:GLU:HG3	14:CD:23:ARG:HB3	1.98	0.44
14:CD:75:ALA:O	14:CD:79:ARG:HB2	2.17	0.44
21:CK:54:VAL:HG11	21:CK:81:VAL:HA	1.99	0.44
23:CM:15:HIS:HB3	23:CM:22:ILE:HB	2.00	0.44
23:CM:89:ILE:HA	23:CM:89:ILE:HD13	1.79	0.44
28:CR:194:GLY:HA2	28:CR:216:VAL:HG23	1.99	0.44
29:CS:65:VAL:HG12	29:CS:69:LYS:HD2	2.00	0.44
35:CY:48:TYR:OH	35:CY:116:LYS:HE3	2.18	0.44
11:DA:507:G:HO2'	11:DA:508:A:P	2.40	0.44
11:DA:1226:U:C2'	11:DA:1227:G:H5'	2.47	0.44
11:DA:1456:A:H2'	11:DA:1457:A:O4'	2.17	0.44
11:DA:1488:A:O2'	11:DA:1489:U:O5'	2.31	0.44
11:DA:1578:C:OP2	19:DI:128:PRO:HA	2.17	0.44
15:DE:102:PHE:CD1	15:DE:116:TRP:HB3	2.52	0.44
18:DH:81:VAL:HG21	18:DH:125:ILE:HB	1.98	0.44
18:DH:113:HIS:O	18:DH:116:CYS:HB2	2.17	0.44
21:DK:54:VAL:HG11	21:DK:81:VAL:HA	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DN:30:ILE:HB	24:DN:37:THR:O	2.17	0.44
28:DR:17:LEU:HB2	28:DR:333:ILE:HB	1.99	0.44
29:DS:77:LYS:HD3	29:DS:77:LYS:HA	1.82	0.44
30:DT:8:PHE:HB2	30:DT:145:THR:HA	1.99	0.44
35:DY:14:LYS:HD2	35:DY:123:GLY:HA3	2.00	0.44
3:A2:67:ARG:O	3:A2:68:LEU:HD23	2.18	0.44
4:A3:13:THR:O	4:A3:17:GLU:HG3	2.17	0.44
8:A7:12:ILE:HD12	8:A7:45:LEU:HD12	1.98	0.44
11:AA:135:A:N6	35:AY:191:LYS:HB2	2.31	0.44
11:AA:1163:U:H2'	11:AA:1164:C:C6	2.53	0.44
11:AA:1322:U:H2'	11:AA:1323:C:O4'	2.17	0.44
11:AA:1527:A:P	29:AS:52:ARG:HH11	2.40	0.44
15:AE:141:ARG:HB2	15:AE:223:TYR:CE1	2.52	0.44
18:AH:28:ARG:HB2	18:AH:60:LYS:HG2	1.98	0.44
19:AI:143:ALA:HA	19:AI:145:ARG:NH1	2.32	0.44
28:AR:161:HIS:HB3	28:AR:197:LYS:CE	2.47	0.44
30:AT:101:GLY:O	30:AT:105:ARG:HG2	2.18	0.44
31:AU:34:ARG:HG2	31:AU:35:THR:N	2.32	0.44
33:AW:162:LEU:HD13	33:AW:171:ILE:HG21	1.98	0.44
8:B7:47:ARG:HG3	8:B7:47:ARG:NH1	2.31	0.44
11:BA:535:A:OP2	11:BA:535:A:H8	2.00	0.44
11:BA:892:G:HO2'	11:BA:893:A:H8	1.64	0.44
13:BC:35:ALA:HB1	13:BC:57:LYS:HB2	1.98	0.44
14:BD:32:GLY:HA3	34:BX:41:TYR:CD1	2.52	0.44
20:BJ:54:VAL:HB	20:BJ:88:ILE:HB	1.98	0.44
24:BN:33:TYR:O	24:BN:34:GLU:HB3	2.18	0.44
28:BR:308:LYS:O	28:BR:309:ASN:HB2	2.18	0.44
8:C7:22:PHE:HE1	8:C7:24:LEU:HG	1.82	0.44
9:C8:49:ASN:O	9:C8:52:SER:OG	2.29	0.44
11:CA:15:U:O5'	11:CA:15:U:H6	2.01	0.44
11:CA:561:A:H1'	34:CX:14:VAL:HB	1.99	0.44
11:CA:1031:A:H2	11:CA:1037:G:H22	1.64	0.44
11:CA:1292:U:O2	11:CA:1294:A:H5'	2.16	0.44
11:CA:1322:U:H2'	11:CA:1323:C:O4'	2.18	0.44
11:CA:1531:G:C8	23:CM:134:ARG:HB3	2.52	0.44
12:CB:3:THR:OG1	36:CZ:97:GLU:HG3	2.17	0.44
12:CB:28:GLN:HB3	12:CB:150:LEU:HD12	1.99	0.44
13:CC:10:LYS:HA	13:CC:10:LYS:HD3	1.75	0.44
13:CC:35:ALA:HA	13:CC:57:LYS:HD2	1.99	0.44
13:CC:227:ILE:HG21	28:CR:246:THR:HA	2.00	0.44
27:CQ:73:LEU:O	27:CQ:85:ILE:HA	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:CT:64:LEU:O	30:CT:68:VAL:HG23	2.18	0.44
11:DA:99:A:H2'	39:DA:7320:HOH:O	2.18	0.44
11:DA:209:G:H5"	11:DA:209:G:H8	1.82	0.44
11:DA:1054:U:H4'	11:DA:1055:G:O5'	2.15	0.44
11:DA:1324:U:OP1	19:DI:25:ARG:NH1	2.50	0.44
13:DC:10:LYS:HD3	13:DC:10:LYS:HA	1.74	0.44
13:DC:68:LYS:HB2	13:DC:68:LYS:HE3	1.64	0.44
13:DC:209:ILE:HG22	13:DC:211:ASP:H	1.83	0.44
15:DE:49:PHE:CE1	15:DE:139:PRO:HD3	2.52	0.44
22:DL:9:ILE:HA	27:DQ:98:ARG:HB3	1.99	0.44
1:A0:83:PHE:HD2	1:A0:84:GLN:HG3	1.83	0.44
11:AA:2:A:H1'	11:AA:3:C:OP2	2.17	0.44
11:AA:648:U:O2'	14:BD:89:GLN:HG3	2.18	0.44
11:AA:665:A:O3'	11:AA:666:A:C8	2.69	0.44
11:AA:872:A:H3'	11:AA:873:G:H5"	1.98	0.44
11:AA:928:C:O2'	25:AO:103:HIS:CD2	2.70	0.44
12:AB:32:TYR:OH	36:AZ:80:HIS:HD2	2.00	0.44
13:AC:144:LYS:NZ	13:AC:182:GLN:O	2.47	0.44
15:AE:205:THR:HG23	15:AE:211:PHE:CE2	2.53	0.44
17:AG:178:ASN:HA	17:AG:186:ILE:HD12	2.00	0.44
21:AK:103:VAL:HG11	21:AK:142:ARG:HA	1.97	0.44
25:AO:101:ARG:HH12	25:AO:145:ALA:CA	2.30	0.44
28:AR:245:LEU:HA	28:AR:245:LEU:HD23	1.56	0.44
31:AU:34:ARG:NH2	31:AU:106:ARG:HH22	2.16	0.44
32:AV:78:ARG:O	32:AV:82:LEU:HG	2.18	0.44
33:AW:114:LYS:HD2	33:AW:114:LYS:HA	1.74	0.44
33:AW:239:GLU:CD	33:AW:239:GLU:N	2.71	0.44
3:B2:50:ARG:HB3	3:B2:67:ARG:HG3	1.99	0.44
4:B3:13:THR:O	4:B3:17:GLU:HG3	2.17	0.44
4:B3:109:LYS:H	4:B3:109:LYS:CE	2.29	0.44
4:B3:192:PHE:CG	7:B6:21:ARG:NH1	2.86	0.44
11:BA:316:G:OP1	27:BQ:133:THR:OG1	2.33	0.44
11:BA:931:A:P	25:BO:96:LYS:NZ	2.91	0.44
11:BA:1752:U:O2'	11:BA:1753:A:P	2.75	0.44
19:BI:143:ALA:HA	19:BI:145:ARG:NH1	2.33	0.44
28:BR:206:ARG:HG2	28:BR:207:TYR:CD1	2.52	0.44
29:BS:34:ILE:HD13	29:BS:50:VAL:HG21	1.99	0.44
4:C3:171:THR:O	4:C3:175:LYS:HB2	2.16	0.44
5:C4:46:GLY:HA3	21:CK:47:LEU:CD1	2.46	0.44
11:CA:235:A:HO2'	11:CA:814:A:H5'	1.81	0.44
11:CA:327:G:C4	11:CA:329:A:C8	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:534:A:OP1	11:CA:534:A:C5	2.71	0.44
11:CA:615:A:H1'	11:CA:1079:G:O4'	2.18	0.44
11:CA:1113:G:C2'	11:CA:1114:G:H5'	2.47	0.44
11:CA:1431:A:H3'	11:CA:1431:A:C8	2.53	0.44
11:CA:1496:A:N1	11:CA:1579:G:N2	2.64	0.44
12:CB:128:GLN:NE2	12:CB:132:GLU:HG3	2.31	0.44
19:CI:57:LEU:CD2	19:CI:110:GLN:HG2	2.47	0.44
25:CO:65:VAL:HG21	25:CO:73:ILE:HD11	1.98	0.44
25:CO:83:ALA:HA	25:CO:84:PRO:HD2	1.79	0.44
26:CP:27:HIS:HE1	26:CP:67:SER:OG	2.01	0.44
28:CR:127:SER:OG	28:CR:132:GLN:HB2	2.18	0.44
28:CR:299:ILE:HD12	28:CR:330:ASP:HB2	1.97	0.44
30:CT:145:THR:HG22	30:CT:149:ILE:HD11	1.98	0.44
35:CY:20:ASP:HB3	35:CY:23:LYS:H	1.83	0.44
35:CY:78:SER:OG	35:CY:79:GLU:N	2.50	0.44
4:D3:133:PRO:HG3	4:D3:162:PHE:CE1	2.53	0.44
5:D4:36:ALA:O	5:D4:240:HIS:HE1	2.00	0.44
11:DA:92:G:H5'	11:DA:452:A:O2'	2.17	0.44
11:DA:234:G:O2'	11:DA:235:A:P	2.76	0.44
11:DA:267:A:H2'	11:DA:268:G:C8	2.53	0.44
11:DA:381:G:O2'	11:DA:1684:A:H5"	2.17	0.44
17:DG:161:MET:HE2	17:DG:161:MET:HB3	1.81	0.44
20:DJ:27:ASN:OD1	20:DJ:28:LEU:N	2.50	0.44
21:DK:30:VAL:HG23	21:DK:47:LEU:HD23	2.00	0.44
35:DY:20:ASP:HB3	35:DY:23:LYS:H	1.83	0.44
1:A0:74:ASP:N	1:A0:74:ASP:OD1	2.51	0.44
1:A0:103:LYS:NZ	1:A0:110:GLU:C	2.76	0.44
3:A2:38:LEU:HD21	3:A2:104:LEU:HD21	2.00	0.44
3:A2:50:ARG:HB3	3:A2:67:ARG:HG3	1.99	0.44
4:A3:123:TYR:O	4:A3:126:LEU:HB3	2.18	0.44
10:A9:75:LYS:HD3	11:AA:1418:C:H6	1.81	0.44
11:AA:13:C:H4'	11:AA:1270:U:O2	2.18	0.44
12:AB:197:LEU:HD23	12:AB:197:LEU:HA	1.83	0.44
14:AD:71:PHE:HE1	33:AW:254:ARG:HD3	1.83	0.44
14:AD:105:MET:HE2	14:AD:108:ARG:HD2	2.00	0.44
17:AG:49:GLY:HA3	17:AG:51:TYR:CE2	2.52	0.44
18:AH:12:LYS:HE3	18:AH:12:LYS:HB2	1.49	0.44
23:AM:15:HIS:HB3	23:AM:22:ILE:HB	2.00	0.44
28:AR:15:GLY:CA	28:AR:65:PHE:HB2	2.44	0.44
35:AY:48:TYR:OH	35:AY:116:LYS:HE3	2.17	0.44
1:B0:24:GLU:HA	10:B9:77:LYS:HZ3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B3:123:TYR:O	4:B3:126:LEU:HB3	2.17	0.44
11:BA:230:A:N7	11:BA:231:U:C6	2.85	0.44
11:BA:1025:G:H5"	11:BA:1025:G:H8	1.81	0.44
12:BB:28:GLN:HB3	12:BB:150:LEU:HD12	1.99	0.44
14:BD:105:MET:HE2	14:BD:108:ARG:HD2	1.99	0.44
15:BE:76:LYS:HG3	15:BE:78:MET:HE3	1.99	0.44
21:BK:76:GLN:O	21:BK:79:ILE:HG13	2.17	0.44
29:BS:72:CYS:SG	29:BS:78:PRO:HA	2.58	0.44
33:BW:212:VAL:O	33:BW:219:ALA:HA	2.17	0.44
8:C7:13:TYR:CE1	8:C7:49:LEU:HD21	2.52	0.44
11:CA:426:G:OP1	22:CL:77:LYS:HA	2.18	0.44
11:CA:911:A:N6	39:CA:2166:HOH:O	2.40	0.44
11:CA:1108:U:OP1	11:CA:1621:G:O2'	2.34	0.44
11:CA:1359:C:O2'	32:CV:52:GLY:HA3	2.17	0.44
11:CA:1508:G:H2'	11:CA:1508:G:N3	2.33	0.44
12:CB:64:GLN:HE22	15:CE:246:GLU:CG	2.31	0.44
14:CD:105:MET:HE2	14:CD:108:ARG:HD2	2.00	0.44
25:CO:88:GLU:HG3	25:CO:89:ASP:H	1.82	0.44
3:D2:50:ARG:HB3	3:D2:67:ARG:HG3	1.99	0.44
5:D4:85:ARG:HH12	5:D4:108:ILE:HD11	1.82	0.44
10:D9:88:HIS:CE1	11:DA:1217:G:H21	2.35	0.44
11:DA:214:U:OP2	11:DA:214:U:C6	2.70	0.44
11:DA:507:G:O2'	11:DA:508:A:OP1	2.33	0.44
11:DA:762:U:O2	11:DA:762:U:H2'	2.17	0.44
11:DA:857:G:O2'	25:DO:107:ASN:HB3	2.17	0.44
11:DA:1272:A:H5"	11:DA:1273:U:OP2	2.16	0.44
11:DA:1721:G:H3'	11:DA:1721:G:H8	1.82	0.44
13:DC:14:PHE:CE1	20:DJ:111:GLU:HG3	2.53	0.44
17:DG:26:ASP:HA	17:DG:27:PRO:HD2	1.87	0.44
25:DO:101:ARG:HH12	25:DO:145:ALA:CA	2.29	0.44
29:DS:127:THR:HG22	29:DS:128:TYR:CD2	2.51	0.44
8:A7:67:TYR:HB3	13:AC:75:PHE:HZ	1.82	0.44
10:A9:95:LEU:HD11	31:AU:29:LEU:CD1	2.44	0.44
11:AA:391:A:HO2'	11:AA:392:A:P	2.37	0.44
11:AA:679:U:H2'	11:AA:680:U:O4'	2.17	0.44
11:AA:1390:G:H2'	11:AA:1391:C:O4'	2.17	0.44
11:AA:1488:A:O2'	11:AA:1489:U:O5'	2.32	0.44
11:AA:1612:C:O5'	11:AA:1612:C:H6	2.01	0.44
11:AA:1724:U:H6	11:AA:1724:U:H5"	1.82	0.44
14:AD:64:PRO:HA	14:AD:69:ARG:HH11	1.81	0.44
14:AD:75:ALA:O	14:AD:79:ARG:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AG:24:ILE:HG13	17:AG:30:GLN:HA	1.97	0.44
17:AG:193:GLU:O	17:AG:197:LYS:HG3	2.17	0.44
25:AO:4:MET:O	25:AO:5:GLN:HG2	2.18	0.44
35:AY:137:ARG:CG	35:AY:181:ARG:HG3	2.47	0.44
1:B0:103:LYS:NZ	1:B0:110:GLU:C	2.75	0.44
5:B4:46:GLY:HA3	21:BK:47:LEU:CD1	2.46	0.44
5:B4:57:ARG:NH1	11:BA:873:G:OP1	2.51	0.44
8:B7:47:ARG:HH11	8:B7:47:ARG:HG3	1.81	0.44
11:BA:210:A:O2'	11:BA:239:A:H2	2.00	0.44
11:BA:374:G:H8	11:BA:374:G:H5"	1.83	0.44
11:BA:1489:U:H5'	11:BA:1490:C:H5	1.83	0.44
11:BA:1527:A:H5"	11:BA:1528:A:OP2	2.17	0.44
11:BA:1653:C:H5'	35:BY:65:GLN:CD	2.43	0.44
12:BB:69:VAL:O	12:BB:91:CYS:HB2	2.17	0.44
13:BC:10:LYS:HD3	13:BC:10:LYS:HA	1.75	0.44
22:BL:68:ARG:NH2	22:BL:115:ASP:OD2	2.38	0.44
23:BM:87:ASN:HB2	23:BM:100:MET:HG3	2.00	0.44
26:BP:105:PHE:CZ	26:BP:127:LYS:HE2	2.52	0.44
28:BR:93:SER:OG	28:BR:103:TRP:NE1	2.29	0.44
30:BT:155:LYS:H	30:BT:155:LYS:HG2	1.48	0.44
33:BW:249:THR:HB	33:BW:252:GLU:HG3	1.98	0.44
4:C3:102:SER:HA	11:CA:633:U:C4	2.53	0.44
11:CA:243:G:O2'	27:CQ:38:GLY:O	2.29	0.44
11:CA:469:A:C2'	11:CA:470:G:H8	2.25	0.44
11:CA:802:U:H2'	11:CA:803:A:C8	2.52	0.44
11:CA:907:A:C8	21:CK:137:THR:O	2.70	0.44
11:CA:1199:G:H21	31:CU:27:LYS:HG3	1.81	0.44
11:CA:1674:A:H4'	35:CY:81:HIS:CE1	2.52	0.44
12:CB:69:VAL:O	12:CB:91:CYS:HB2	2.17	0.44
28:CR:98:LYS:HG2	28:CR:119:SER:O	2.17	0.44
28:CR:161:HIS:HB3	28:CR:197:LYS:CE	2.48	0.44
3:D2:94:THR:HG23	11:DA:319:A:C2	2.52	0.44
6:D5:34:LYS:NZ	11:DA:1746:G:N7	2.43	0.44
8:D7:61:TRP:CE2	24:DN:22:VAL:HG22	2.53	0.44
9:D8:41:HIS:HD2	11:DA:1507:U:OP1	2.01	0.44
11:DA:597:U:H2'	11:DA:598:A:C8	2.52	0.44
11:DA:1506:G:O2'	11:DA:1507:U:P	2.73	0.44
22:DL:17:ARG:CZ	22:DL:20:LYS:HE2	2.48	0.44
30:DT:34:ILE:HD11	30:DT:58:TYR:OH	2.18	0.44
30:DT:76:ILE:O	30:DT:80:LYS:HG3	2.18	0.44
36:DZ:30:ARG:O	36:DZ:39:ILE:HG12	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A5:15:ARG:HD3	11:AA:914:G:O6	2.17	0.44
11:AA:478:G:C2'	11:AA:494:A:H61	2.29	0.44
11:AA:482:A:H5'	26:BP:37:LYS:HZ1	1.82	0.44
11:AA:654:U:O4	14:BD:115:LYS:NZ	2.45	0.44
11:AA:1226:U:C2'	11:AA:1227:G:H5'	2.47	0.44
11:AA:1292:U:C6	12:AB:98:ARG:NH1	2.86	0.44
11:AA:1596:C:H2'	11:AA:1597:G:O4'	2.18	0.44
19:AI:14:ARG:HD3	19:AI:125:ARG:HH22	1.83	0.44
25:AO:88:GLU:HG3	25:AO:89:ASP:H	1.82	0.44
28:AR:194:GLY:HA2	28:AR:216:VAL:HG23	2.00	0.44
31:AU:50:CYS:HB3	31:AU:55:TYR:CZ	2.52	0.44
35:AY:20:ASP:HB3	35:AY:23:LYS:H	1.83	0.44
5:B4:181:GLU:HG2	5:B4:199:TYR:CE1	2.52	0.44
9:B8:63:VAL:HG13	17:BG:97:LEU:HD12	1.98	0.44
11:BA:550:G:O5'	34:BX:61:ASN:HB3	2.17	0.44
11:BA:593:A:H2'	11:BA:594:U:C6	2.52	0.44
11:BA:863:G:H2'	11:BA:864:U:C6	2.53	0.44
11:BA:1360:U:OP2	32:BV:49:LYS:HE2	2.18	0.44
14:BD:64:PRO:HA	14:BD:69:ARG:HH11	1.83	0.44
15:BE:205:THR:HG23	15:BE:211:PHE:CE2	2.53	0.44
19:BI:57:LEU:CD2	19:BI:110:GLN:HG2	2.48	0.44
21:BK:44:VAL:HG22	21:BK:54:VAL:HB	1.99	0.44
21:BK:105:THR:HG22	21:BK:107:GLN:H	1.82	0.44
25:BO:4:MET:O	25:BO:5:GLN:HG2	2.18	0.44
3:C2:73:PHE:CZ	3:C2:112:ILE:HD11	2.52	0.44
8:C7:9:LYS:HA	8:C7:45:LEU:HD11	2.00	0.44
11:CA:63:U:H3'	11:CA:64:U:H5"	1.98	0.44
11:CA:267:A:H2'	11:CA:268:G:C8	2.53	0.44
11:CA:872:A:H3'	11:CA:873:G:H5"	1.99	0.44
11:CA:896:U:H2'	11:CA:897:A:H8	1.83	0.44
11:CA:1135:A:H8	11:CA:1135:A:O5'	2.00	0.44
12:CB:196:ASP:HA	12:CB:199:TYR:CD1	2.52	0.44
31:CU:29:LEU:O	31:CU:33:LEU:HB2	2.17	0.44
35:CY:180:GLN:O	35:CY:181:ARG:HB2	2.18	0.44
36:CZ:47:VAL:N	36:CZ:74:ARG:HH22	2.15	0.44
1:D0:74:ASP:OD1	1:D0:74:ASP:N	2.51	0.44
3:D2:111:GLU:OE2	3:D2:171:ARG:NH2	2.51	0.44
3:D2:185:ARG:NH2	11:DA:202:U:O2	2.50	0.44
4:D3:120:THR:OG1	11:DA:633:U:OP2	2.25	0.44
6:D5:5:ARG:NH2	11:DA:1748:U:OP2	2.38	0.44
11:DA:14:C:O2'	11:DA:613:A:N1	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:15:U:O5'	11:DA:15:U:H6	2.00	0.44
11:DA:93:C:O2	11:DA:417:A:O2'	2.35	0.44
11:DA:289:U:H2'	11:DA:290:A:O4'	2.18	0.44
11:DA:728:U:H5'	11:DA:729:U:OP2	2.18	0.44
11:DA:772:A:O2'	33:DW:108:LYS:NZ	2.45	0.44
11:DA:1145:C:C2'	11:DA:1146:C:H5'	2.48	0.44
11:DA:1269:G:N2	11:DA:1272:A:OP2	2.51	0.44
11:DA:1437:G:H2'	11:DA:1438:U:C6	2.53	0.44
26:DP:105:PHE:CZ	26:DP:127:LYS:HE2	2.53	0.44
33:DW:193:ARG:NH1	33:DW:220:PHE:HE1	2.16	0.44
33:DW:212:VAL:O	33:DW:219:ALA:HA	2.18	0.44
35:DY:116:LYS:NZ	35:DY:125:THR:OG1	2.48	0.44
4:A3:15:ILE:O	4:A3:19:VAL:HG23	2.16	0.44
11:AA:63:U:C3'	11:AA:64:U:H5"	2.48	0.44
11:AA:894:U:N3	21:AK:55:ARG:NH2	2.63	0.44
11:AA:909:C:H5"	11:AA:910:U:H2'	2.00	0.44
11:AA:1426:G:OP1	29:AS:127:THR:HG21	2.18	0.44
12:AB:47:GLU:HB2	32:AV:109:LEU:HD13	1.99	0.44
13:AC:209:ILE:HG22	13:AC:211:ASP:H	1.83	0.44
14:AD:110:GLN:NE2	14:AD:126:ARG:HB2	2.33	0.44
18:AH:85:ASP:O	18:AH:88:LYS:HB2	2.18	0.44
21:AK:128:ARG:CG	21:AK:128:ARG:NH1	2.70	0.44
28:AR:308:LYS:O	28:AR:309:ASN:HB2	2.18	0.44
29:AS:127:THR:HG22	29:AS:128:TYR:CD2	2.52	0.44
33:AW:12:ILE:H	33:AW:12:ILE:HG12	1.63	0.44
33:AW:143:THR:OG1	33:AW:147:ARG:HB2	2.18	0.44
35:AY:84:PHE:CZ	35:AY:91:PHE:HD1	2.36	0.44
4:B3:174:TYR:CD2	4:B3:180:ARG:HB2	2.53	0.44
9:B8:73:LEU:HB2	9:B8:75:VAL:CG2	2.48	0.44
11:BA:90:U:O2'	33:BW:8:HIS:HD2	2.00	0.44
11:BA:409:G:O2'	11:BA:410:G:O4'	2.34	0.44
11:BA:451:G:OP1	26:BP:102:ARG:NH2	2.51	0.44
11:BA:1387:A:H2'	11:BA:1388:A:C8	2.53	0.44
11:BA:1508:G:H2'	11:BA:1508:G:N3	2.33	0.44
11:BA:1721:G:H4'	11:BA:1722:U:C5'	2.47	0.44
13:BC:144:LYS:NZ	13:BC:182:GLN:O	2.47	0.44
15:BE:78:MET:O	15:BE:105:VAL:HA	2.18	0.44
27:BQ:66:ARG:H	27:BQ:66:ARG:HG2	1.61	0.44
30:BT:76:ILE:HA	30:BT:79:LEU:HD12	2.00	0.44
33:BW:114:LYS:HA	33:BW:114:LYS:HD2	1.74	0.44
35:BY:14:LYS:HD2	35:BY:123:GLY:HA3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BY:84:PHE:CZ	35:BY:91:PHE:HD1	2.36	0.44
7:C6:43:MET:HB3	7:C6:43:MET:HE2	1.74	0.44
10:C9:123:ILE:HD13	10:C9:136:LYS:HD2	1.99	0.44
11:CA:315:U:O3'	27:CQ:133:THR:OG1	2.35	0.44
11:CA:342:U:H4'	11:CA:343:C:OP2	2.18	0.44
11:CA:1154:U:H5"	29:CS:129:LYS:HD3	2.00	0.44
11:CA:1163:U:H2'	11:CA:1164:C:C6	2.52	0.44
11:CA:1242:G:N2	11:CA:1412:C:H1'	2.33	0.44
11:CA:1404:G:C8	24:CN:40:ARG:HD2	2.53	0.44
11:CA:1427:C:H2'	39:CA:2225:HOH:O	2.17	0.44
11:CA:1462:U:C4'	11:CA:1463:U:OP1	2.64	0.44
13:CC:228:ARG:CG	28:CR:245:LEU:H	2.27	0.44
17:CG:193:GLU:O	17:CG:197:LYS:HG3	2.17	0.44
33:CW:88:LEU:HD11	33:CW:104:LEU:HD23	1.99	0.44
1:D0:22:LYS:HD2	10:D9:74:LYS:HZ2	1.83	0.44
5:D4:73:ALA:HB2	21:DK:128:ARG:HH12	1.82	0.44
11:DA:1156:A:H2	11:DA:1425:G:N3	2.16	0.44
11:DA:1322:U:H2'	11:DA:1323:C:O4'	2.17	0.44
11:DA:1431:A:H3'	11:DA:1431:A:C8	2.53	0.44
11:DA:1509:U:OP2	11:DA:1509:U:H4'	2.18	0.44
11:DA:1596:C:H2'	11:DA:1597:G:O4'	2.18	0.44
12:DB:145:ASP:HB3	12:DB:147:ASP:OD1	2.18	0.44
13:DC:35:ALA:HA	13:DC:57:LYS:HD2	1.99	0.44
14:DD:56:ALA:O	14:DD:60:LEU:HG	2.18	0.44
17:DG:72:MET:HE2	17:DG:72:MET:HB3	1.89	0.44
29:DS:72:CYS:SG	29:DS:78:PRO:HA	2.57	0.44
33:DW:36:HIS:ND1	33:DW:87:GLY:HA3	2.33	0.44
35:DY:75:LEU:O	35:DY:94:ARG:HA	2.18	0.44
8:A7:22:PHE:HE1	8:A7:24:LEU:HG	1.82	0.44
11:AA:585:A:OP2	34:AX:44:ARG:NH2	2.38	0.44
11:AA:1054:U:H4'	11:AA:1055:G:O5'	2.16	0.44
11:AA:1113:G:C2'	11:AA:1114:G:H5'	2.48	0.44
11:AA:1151:G:H21	11:AA:1431:A:H62	1.66	0.44
11:AA:1353:G:OP1	20:AJ:87:ARG:NH2	2.50	0.44
11:AA:1361:A:H2'	11:AA:1362:U:C6	2.53	0.44
14:AD:154:LYS:NZ	11:BA:474:G:P	2.91	0.44
23:AM:92:PHE:CE1	29:AS:13:PHE:HD1	2.36	0.44
27:AQ:104:ARG:HG2	27:AQ:104:ARG:NH1	2.32	0.44
1:B0:83:PHE:HD2	1:B0:84:GLN:HG3	1.83	0.44
5:B4:170:ILE:HG13	5:B4:210:ILE:HG21	1.99	0.44
11:BA:55:U:H4'	11:BA:56:G:O5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:83:C:H5'	11:BA:84:U:OP2	2.18	0.44
11:BA:665:A:O3'	11:BA:666:A:H8	2.00	0.44
11:BA:1135:A:C6	11:BA:1136:G:C5	3.06	0.44
11:BA:1431:A:H3'	11:BA:1431:A:C8	2.53	0.44
11:BA:1530:U:H4'	23:BM:135:GLY:HA3	2.00	0.44
12:BB:48:GLU:O	12:BB:52:LYS:HG2	2.18	0.44
13:BC:209:ILE:HG22	13:BC:211:ASP:H	1.83	0.44
19:BI:100:ASP:OD2	19:BI:102:ASN:HB3	2.18	0.44
19:BI:105:ARG:HH21	28:BR:52:MET:HE1	1.82	0.44
21:BK:45:THR:HG22	21:BK:52:THR:HA	2.00	0.44
25:BO:101:ARG:HH12	25:BO:145:ALA:HB1	1.81	0.44
28:BR:161:HIS:H	28:BR:161:HIS:HD2	1.66	0.44
28:BR:184:ALA:H	28:BR:206:ARG:HH22	1.65	0.44
31:BU:34:ARG:NH2	31:BU:106:ARG:HH22	2.15	0.44
33:BW:143:THR:OG1	33:BW:147:ARG:HB2	2.17	0.44
1:C0:84:GLN:NE2	22:CL:57:GLY:H	2.15	0.44
1:C0:103:LYS:NZ	1:C0:110:GLU:C	2.76	0.44
4:C3:70:TYR:OH	4:C3:129:ASP:OD1	2.33	0.44
5:C4:181:GLU:HG2	5:C4:199:TYR:CE1	2.53	0.44
11:CA:303:A:C2	11:CA:305:C:C2	3.06	0.44
11:CA:661:G:H3'	11:CA:662:U:H6	1.83	0.44
11:CA:665:A:O3'	11:CA:666:A:C8	2.71	0.44
11:CA:1155:A:N3	11:CA:1182:G:O2'	2.47	0.44
11:CA:1712:C:O2	11:CA:1733:G:N2	2.37	0.44
12:CB:71:VAL:HG11	12:CB:82:ALA:HB1	1.99	0.44
14:CD:12:TYR:HA	14:CD:47:MET:HG3	2.00	0.44
15:CE:181:ALA:HA	15:CE:199:THR:HG21	2.00	0.44
17:CG:119:ASP:OD1	17:CG:120:SER:N	2.51	0.44
20:CJ:97:ASP:OD1	20:CJ:97:ASP:N	2.51	0.44
21:CK:34:MET:HB3	21:CK:41:PHE:HB2	2.00	0.44
21:CK:135:ILE:HD13	21:CK:135:ILE:HA	1.89	0.44
27:CQ:68:LYS:O	27:CQ:126:GLN:N	2.47	0.44
30:CT:76:ILE:O	30:CT:80:LYS:HG3	2.18	0.44
32:CV:98:ILE:HD11	32:CV:117:LEU:HD22	2.00	0.44
35:CY:137:ARG:CG	35:CY:181:ARG:HG3	2.48	0.44
3:D2:195:GLU:HG2	27:DQ:9:TYR:CE2	2.53	0.44
6:D5:99:PRO:HG2	11:DA:1750:A:C8	2.53	0.44
8:D7:3:HIS:CE1	11:DA:1229:U:N3	2.86	0.44
11:DA:479:G:H2'	11:DA:480:A:O4'	2.18	0.44
11:DA:514:G:H4'	26:DP:34:SER:HB3	2.00	0.44
11:DA:985:C:H2'	11:DA:986:G:H8	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1463:U:HO2'	11:DA:1464:U:P	2.39	0.44
11:DA:1472:U:H5	30:DT:105:ARG:NH2	2.16	0.44
12:DB:3:THR:OG1	36:DZ:97:GLU:HG3	2.18	0.44
12:DB:165:GLU:HG3	12:DB:199:TYR:HE2	1.82	0.44
13:DC:226:GLU:HB2	28:DR:208:THR:H	1.82	0.44
14:DD:109:LEU:HD23	14:DD:129:ILE:HD12	1.99	0.44
17:DG:51:TYR:CG	17:DG:61:CYS:HB2	2.52	0.44
25:DO:147:THR:O	25:DO:151:LEU:HG	2.17	0.44
28:DR:15:GLY:CA	28:DR:65:PHE:HB2	2.43	0.44
29:DS:65:VAL:HG12	29:DS:69:LYS:HD2	2.00	0.44
36:DZ:17:ILE:HG22	36:DZ:21:LYS:HA	1.99	0.44
3:A2:64:ARG:HD3	3:A2:64:ARG:HA	1.83	0.43
11:AA:58:G:C2	11:AA:444:A:C4	3.05	0.43
11:AA:507:G:O2'	11:AA:508:A:OP1	2.32	0.43
11:AA:986:G:H5"	39:AA:2155:HOH:O	2.18	0.43
11:AA:1158:U:OP1	11:AA:1427:C:O2'	2.25	0.43
11:AA:1289:C:H2'	11:AA:1290:G:O4'	2.18	0.43
1:B0:65:LYS:HA	11:BA:1709:A:H62	1.82	0.43
3:B2:196:LEU:HD23	3:B2:196:LEU:HA	1.65	0.43
4:B3:80:LEU:HD12	4:B3:80:LEU:HA	1.85	0.43
11:BA:237:U:C1'	11:BA:238:G:OP1	2.63	0.43
11:BA:646:A:H2'	11:BA:647:U:O4'	2.17	0.43
11:BA:658:C:H2'	11:BA:659:G:H8	1.83	0.43
11:BA:1550:U:H4'	19:BI:145:ARG:NH2	2.32	0.43
11:BA:1576:U:OP1	19:BI:132:GLY:N	2.47	0.43
11:BA:1720:G:H5"	11:BA:1720:G:H8	1.83	0.43
11:BA:1724:U:H6	11:BA:1724:U:H5"	1.83	0.43
13:BC:14:PHE:HE1	20:BJ:111:GLU:HG3	1.83	0.43
26:BP:74:TYR:HB2	26:BP:80:LEU:HB2	1.99	0.43
28:BR:17:LEU:HB2	28:BR:333:ILE:HB	2.00	0.43
33:BW:88:LEU:HD11	33:BW:104:LEU:HD23	2.00	0.43
35:BY:121:ILE:HD12	35:BY:124:LEU:HD11	2.00	0.43
35:BY:216:LEU:O	35:BY:220:LYS:HG3	2.18	0.43
2:C1:35:LYS:HD3	2:C1:35:LYS:HA	1.79	0.43
6:C5:99:PRO:HG2	11:CA:1750:A:C8	2.52	0.43
8:C7:12:ILE:HD12	8:C7:45:LEU:HD12	1.99	0.43
11:CA:136:U:O4	35:CY:181:ARG:NH2	2.51	0.43
11:CA:150:A:H1'	11:CA:407:A:N7	2.33	0.43
11:CA:245:A:O2'	11:CA:246:U:OP1	2.29	0.43
11:CA:391:A:C4'	11:CA:392:A:H5"	2.47	0.43
11:CA:1054:U:H4'	11:CA:1055:G:O5'	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:1509:U:OP2	11:CA:1509:U:H4'	2.17	0.43
13:CC:221:ILE:HG22	13:CC:222:THR:H	1.83	0.43
18:CH:113:HIS:O	18:CH:116:CYS:HB2	2.18	0.43
28:CR:141:GLU:HA	28:CR:160:ASN:ND2	2.33	0.43
35:CY:116:LYS:NZ	35:CY:125:THR:OG1	2.47	0.43
1:D0:103:LYS:NZ	1:D0:110:GLU:C	2.76	0.43
4:D3:116:SER:HB2	4:D3:117:ARG:HD3	2.00	0.43
5:D4:106:LEU:HD23	5:D4:106:LEU:HA	1.87	0.43
8:D7:9:LYS:HA	8:D7:45:LEU:HD11	1.99	0.43
10:D9:128:HIS:HD1	11:DA:1222:U:HO2'	1.62	0.43
11:DA:392:A:O2'	11:DA:393:C:H4'	2.18	0.43
11:DA:486:A:H2'	11:DA:487:C:C4	2.53	0.43
11:DA:672:C:H2'	11:DA:673:A:O4'	2.18	0.43
11:DA:1275:U:O4	39:DA:7939:HOH:O	2.21	0.43
11:DA:1569:A:C5	24:DN:13:TYR:CE2	3.06	0.43
12:DB:164:THR:CG2	12:DB:200:HIS:HB3	2.47	0.43
17:DG:119:ASP:OD1	17:DG:120:SER:N	2.50	0.43
18:DH:106:THR:CG2	18:DH:121:THR:HB	2.48	0.43
23:DM:87:ASN:HB2	23:DM:100:MET:HG3	2.00	0.43
30:DT:76:ILE:HA	30:DT:79:LEU:HD12	2.00	0.43
32:DV:53:PHE:CE2	32:DV:57:LEU:HD11	2.53	0.43
35:DY:84:PHE:CZ	35:DY:91:PHE:HD1	2.36	0.43
4:A3:70:TYR:O	4:A3:74:LEU:HG	2.18	0.43
4:A3:174:TYR:CZ	4:A3:178:THR:HG21	2.52	0.43
8:A7:13:TYR:CE1	8:A7:49:LEU:HD21	2.53	0.43
11:AA:289:U:H2'	11:AA:290:A:O4'	2.18	0.43
11:AA:534:A:OP1	11:AA:534:A:C5	2.71	0.43
11:AA:611:U:H2'	11:AA:612:U:C6	2.53	0.43
11:AA:762:U:H5	26:AP:6:ARG:NH1	2.16	0.43
11:AA:762:U:O2	11:AA:762:U:H2'	2.17	0.43
11:AA:764:U:H4'	11:AA:765:A:OP1	2.17	0.43
11:AA:933:A:H4'	11:AA:1045:G:O2'	2.18	0.43
11:AA:1010:A:H2'	11:AA:1011:C:H6	1.83	0.43
11:AA:1310:C:H1'	11:AA:1381:A:C4	2.53	0.43
11:AA:1372:A:OP1	32:AV:60:ARG:NH1	2.50	0.43
11:AA:1480:U:O2'	11:AA:1481:A:C8	2.71	0.43
11:AA:1509:U:OP2	11:AA:1509:U:H4'	2.19	0.43
19:AI:12:PHE:HE2	19:AI:14:ARG:HH12	1.65	0.43
25:AO:65:VAL:HG21	25:AO:73:ILE:HD11	1.99	0.43
26:AP:8:LYS:HE3	26:AP:24:ASP:CG	2.44	0.43
32:AV:19:HIS:HB2	32:AV:20:TYR:CD1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B3:113:ARG:HA	4:B3:114:PRO:HD3	1.81	0.43
10:B9:87:LYS:HD3	11:BA:1219:U:OP1	2.17	0.43
11:BA:840:A:H8	25:BO:66:ARG:HH22	1.64	0.43
14:BD:45:VAL:HG21	14:BD:105:MET:HE3	1.99	0.43
14:BD:149:ARG:HB2	14:BD:152:SER:H	1.83	0.43
17:BG:72:MET:HE3	17:BG:80:LYS:C	2.44	0.43
18:BH:35:LEU:HD21	18:BH:61:VAL:HG21	2.00	0.43
30:BT:145:THR:HG22	30:BT:149:ILE:HD11	2.00	0.43
31:BU:34:ARG:HG2	31:BU:35:THR:N	2.33	0.43
31:BU:34:ARG:HH21	31:BU:106:ARG:HH22	1.66	0.43
35:BY:20:ASP:HB3	35:BY:23:LYS:H	1.82	0.43
35:BY:198:LYS:O	35:BY:201:ARG:HB2	2.18	0.43
4:C3:13:THR:O	4:C3:17:GLU:HG3	2.17	0.43
4:C3:30:HIS:HA	4:C3:31:PRO:HD2	1.89	0.43
11:CA:117:U:H1'	33:CW:33:GLN:HB2	1.99	0.43
11:CA:504:A:H5'	14:CD:173:LYS:HB2	2.00	0.43
11:CA:593:A:H2'	11:CA:594:U:H6	1.83	0.43
11:CA:894:U:N3	21:CK:55:ARG:NH2	2.63	0.43
11:CA:909:C:H5"	11:CA:910:U:H2'	2.00	0.43
11:CA:1456:A:H2'	11:CA:1457:A:O4'	2.17	0.43
11:CA:1677:A:OP2	11:CA:1677:A:H8	2.00	0.43
13:CC:157:GLN:NE2	13:CC:158:GLY:H	2.14	0.43
17:CG:44:VAL:HA	17:CG:45:PRO:HD2	1.78	0.43
20:CJ:78:ASP:OD1	24:CN:53:LYS:HD2	2.18	0.43
28:CR:163:ASP:HB3	28:CR:164:TRP:H	1.61	0.43
31:CU:34:ARG:NH2	31:CU:106:ARG:HH22	2.15	0.43
35:CY:38:GLY:N	35:CY:48:TYR:O	2.47	0.43
4:D3:174:TYR:CZ	4:D3:178:THR:HG21	2.53	0.43
5:D4:119:LYS:HE2	11:DA:910:U:H5"	2.00	0.43
8:D7:4:VAL:N	11:DA:1229:U:H1'	2.33	0.43
10:D9:131:ARG:HE	11:DA:1207:C:H42	1.64	0.43
11:DA:662:U:H2'	11:DA:663:G:O4'	2.17	0.43
11:DA:762:U:C5	26:DP:6:ARG:NH1	2.86	0.43
11:DA:1180:A:OP2	39:DA:8039:HOH:O	2.21	0.43
11:DA:1480:U:O2'	11:DA:1481:A:C8	2.70	0.43
11:DA:1591:C:H2'	11:DA:1592:C:C6	2.51	0.43
13:DC:14:PHE:HE1	20:DJ:111:GLU:HG3	1.83	0.43
17:DG:193:GLU:O	17:DG:197:LYS:HG3	2.18	0.43
25:DO:121:GLU:OE2	25:DO:143:TYR:HE2	2.01	0.43
30:DT:64:LEU:O	30:DT:68:VAL:HG23	2.18	0.43
30:DT:101:GLY:O	30:DT:105:ARG:HG2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:170:ILE:HG13	5:A4:210:ILE:HG21	2.00	0.43
7:A6:9:ILE:HD12	7:A6:12:GLU:CD	2.44	0.43
11:AA:470:G:H1	11:AA:503:A:H61	1.66	0.43
11:AA:478:G:H2'	11:AA:479:G:C8	2.53	0.43
11:AA:772:A:C2	14:AD:71:PHE:HE2	2.36	0.43
11:AA:1006:C:H4'	11:AA:1007:U:H5'	2.00	0.43
11:AA:1207:C:H5'	11:AA:1208:A:OP2	2.18	0.43
11:AA:1360:U:OP2	32:AV:49:LYS:HE2	2.18	0.43
11:AA:1459:G:H2'	11:AA:1487:A:H61	1.83	0.43
11:AA:1605:A:H4'	11:AA:1606:C:O5'	2.17	0.43
11:AA:1736:C:O2'	11:AA:1737:C:H5'	2.17	0.43
18:AH:83:LEU:HD23	18:AH:83:LEU:HA	1.79	0.43
20:AJ:97:ASP:OD1	20:AJ:97:ASP:N	2.52	0.43
30:AT:8:PHE:HB2	30:AT:145:THR:HA	1.99	0.43
30:AT:76:ILE:O	30:AT:80:LYS:HG3	2.17	0.43
35:AY:106:MET:HE2	35:AY:106:MET:HB3	1.83	0.43
1:B0:111:ASN:OD1	1:B0:111:ASN:N	2.46	0.43
4:B3:115:ARG:NH1	11:BA:631:C:N3	2.67	0.43
4:B3:133:PRO:HG3	4:B3:162:PHE:CE1	2.54	0.43
5:B4:74:ASP:N	5:B4:74:ASP:OD1	2.51	0.43
8:B7:22:PHE:HE1	8:B7:24:LEU:HG	1.83	0.43
10:B9:111:LEU:HD22	10:B9:124:PHE:CE2	2.54	0.43
10:B9:128:HIS:CD2	10:B9:131:ARG:HG3	2.54	0.43
11:BA:148:C:H5'	35:BY:108:VAL:HG21	2.00	0.43
11:BA:444:A:HO2'	11:BA:445:U:P	2.37	0.43
11:BA:489:U:H2'	11:BA:490:U:C6	2.53	0.43
11:BA:1235:G:C2	11:BA:1236:G:H1'	2.54	0.43
11:BA:1253:G:H1'	20:BJ:72:GLU:HG3	2.01	0.43
11:BA:1514:G:C5'	30:BT:90:GLY:HA2	2.48	0.43
24:BN:39:ARG:HH11	24:BN:39:ARG:CG	2.22	0.43
35:BY:75:LEU:O	35:BY:94:ARG:HA	2.19	0.43
35:BY:180:GLN:O	35:BY:181:ARG:HB2	2.18	0.43
11:CA:245:A:H4'	11:CA:246:U:OP1	2.18	0.43
11:CA:313:G:OP2	11:CA:313:G:H2'	2.18	0.43
11:CA:668:U:H2'	11:CA:669:G:O4'	2.18	0.43
11:CA:894:U:C4	21:CK:55:ARG:NH2	2.85	0.43
11:CA:1119:G:C6	11:CA:1120:A:C6	3.06	0.43
11:CA:1226:U:C2'	11:CA:1227:G:H5'	2.48	0.43
11:CA:1362:U:H2'	11:CA:1363:U:C6	2.54	0.43
11:CA:1596:C:H2'	11:CA:1597:G:O4'	2.18	0.43
18:CH:85:ASP:O	18:CH:88:LYS:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:CR:313:THR:N	28:CR:327:GLY:O	2.51	0.43
33:CW:129:THR:HB	33:CW:142:VAL:CG1	2.47	0.43
4:D3:5:LYS:HD3	4:D3:5:LYS:HA	1.70	0.43
6:D5:71:VAL:HG11	6:D5:73:LEU:HD13	2.00	0.43
11:DA:2:A:HO2'	11:DA:3:C:P	2.39	0.43
11:DA:227:G:N2	11:DA:229:A:H8	2.16	0.43
11:DA:653:U:OP2	11:DA:653:U:H6	2.01	0.43
11:DA:802:U:H2'	11:DA:803:A:C8	2.52	0.43
11:DA:1207:C:H5'	11:DA:1208:A:OP2	2.18	0.43
11:DA:1708:A:H5'	22:DL:62:GLN:HG3	2.00	0.43
11:DA:1721:G:H4'	11:DA:1722:U:H5"	2.00	0.43
16:DF:78:ARG:HH12	16:DF:100:GLY:CA	2.31	0.43
21:DK:150:ARG:HH11	21:DK:150:ARG:CG	2.32	0.43
28:DR:47:ARG:HA	28:DR:78:PHE:HB3	2.00	0.43
36:DZ:47:VAL:N	36:DZ:74:ARG:HH22	2.16	0.43
4:A3:63:ILE:HG12	4:A3:93:PHE:O	2.18	0.43
6:A5:4:LYS:NZ	11:AA:1747:A:OP2	2.47	0.43
11:AA:482:A:C5'	26:BP:37:LYS:HZ1	2.30	0.43
11:AA:575:U:H5"	11:AA:576:U:OP2	2.18	0.43
11:AA:763:U:OP1	11:AA:763:U:C5	2.72	0.43
11:AA:1443:A:H4'	11:AA:1444:U:C5'	2.49	0.43
11:AA:1558:A:OP1	19:AI:137:ARG:HB2	2.19	0.43
17:AG:37:THR:O	17:AG:41:GLN:HG2	2.19	0.43
22:AL:53:THR:N	22:AL:72:ARG:O	2.51	0.43
27:AQ:63:LEU:HD12	27:AQ:63:LEU:HA	1.87	0.43
28:AR:77:HIS:HB3	28:AR:96:TRP:HB2	2.01	0.43
28:AR:98:LYS:HG2	28:AR:119:SER:O	2.18	0.43
28:AR:140:ARG:HG2	28:AR:163:ASP:O	2.17	0.43
28:AR:206:ARG:HG2	28:AR:207:TYR:CD1	2.53	0.43
4:B3:132:LEU:HD23	4:B3:132:LEU:HA	1.83	0.43
5:B4:110:ARG:NH2	21:BK:135:ILE:HB	2.34	0.43
5:B4:122:THR:N	5:B4:146:THR:OG1	2.41	0.43
11:BA:885:A:N3	11:BA:975:G:O2'	2.35	0.43
11:BA:1301:A:OP2	13:BC:163:THR:HG21	2.18	0.43
11:BA:1455:A:H4'	19:BI:17:ASN:ND2	2.33	0.43
11:BA:1488:A:H5"	20:BJ:59:LYS:NZ	2.33	0.43
13:BC:221:ILE:HG22	13:BC:222:THR:H	1.82	0.43
15:BE:162:LYS:CB	15:BE:167:ARG:HH11	2.30	0.43
19:BI:12:PHE:HE2	19:BI:14:ARG:HH12	1.65	0.43
30:BT:34:ILE:HD11	30:BT:58:TYR:OH	2.18	0.43
33:BW:128:VAL:HB	33:BW:159:GLY:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C2:56:VAL:HG13	3:C2:57:ARG:N	2.34	0.43
3:C2:124:HIS:HE1	3:C2:153:ARG:CZ	2.30	0.43
4:C3:127:LEU:HB2	4:C3:174:TYR:CE1	2.52	0.43
11:CA:1165:A:P	19:CI:142:LYS:NZ	2.91	0.43
11:CA:1461:A:H4'	13:CC:6:ARG:HE	1.82	0.43
39:CA:2449:HOH:O	30:CT:93:ARG:NH1	2.28	0.43
13:CC:35:ALA:HB1	13:CC:57:LYS:HB2	2.01	0.43
26:CP:74:TYR:CE1	26:CP:84:GLU:OE2	2.72	0.43
28:CR:17:LEU:HB2	28:CR:333:ILE:HB	2.00	0.43
28:CR:184:ALA:HB3	28:CR:206:ARG:CZ	2.48	0.43
28:CR:206:ARG:HG2	28:CR:207:TYR:CD2	2.54	0.43
31:CU:34:ARG:HH21	31:CU:106:ARG:HH22	1.67	0.43
3:D2:56:VAL:HG13	3:D2:57:ARG:N	2.34	0.43
10:D9:109:VAL:HG11	31:DU:62:LEU:HD21	2.00	0.43
10:D9:128:HIS:CD2	10:D9:131:ARG:HG3	2.54	0.43
11:DA:3:C:HO2'	11:DA:4:C:P	2.38	0.43
11:DA:470:G:H1	11:DA:503:A:N6	2.09	0.43
11:DA:517:U:O2'	11:DA:519:A:N7	2.38	0.43
11:DA:605:U:OP1	22:DL:19:ARG:NH2	2.51	0.43
11:DA:933:A:H2'	11:DA:934:U:O4'	2.18	0.43
11:DA:1171:G:C5'	24:DN:39:ARG:NH1	2.81	0.43
13:DC:137:CYS:SG	13:DC:138:GLU:N	2.91	0.43
14:DD:75:ALA:O	14:DD:79:ARG:HB2	2.19	0.43
17:DG:178:ASN:HA	17:DG:186:ILE:HD12	2.00	0.43
27:DQ:73:LEU:O	27:DQ:85:ILE:HA	2.18	0.43
28:DR:100:LEU:HB3	28:DR:114:PHE:HD1	1.83	0.43
35:DY:49:VAL:HB	35:DY:115:LYS:H	1.82	0.43
3:A2:94:THR:HG23	11:AA:319:A:H2	1.84	0.43
7:A6:9:ILE:H	7:A6:9:ILE:HG13	1.51	0.43
11:AA:55:U:H4'	11:AA:56:G:O5'	2.18	0.43
11:AA:611:U:H2'	11:AA:612:U:H6	1.82	0.43
11:AA:787:A:N3	18:AH:105:THR:HB	2.34	0.43
11:AA:1142:G:H21	11:AA:1543:C:H4'	1.83	0.43
11:AA:1144:A:H2'	11:AA:1145:C:O4'	2.18	0.43
11:AA:1292:U:O2	11:AA:1294:A:H5'	2.18	0.43
11:AA:1295:C:H5'	12:AB:100:THR:HG23	2.00	0.43
11:AA:1445:G:H2'	11:AA:1446:A:H8	1.82	0.43
11:AA:1471:C:P	30:AT:130:ARG:HH22	2.41	0.43
26:AP:15:LEU:HD12	33:AW:54:TYR:HB3	2.00	0.43
26:AP:74:TYR:CE1	26:AP:84:GLU:OE2	2.72	0.43
28:AR:141:GLU:HA	28:AR:160:ASN:ND2	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:AT:34:ILE:HD11	30:AT:58:TYR:OH	2.18	0.43
31:AU:34:ARG:HH21	31:AU:106:ARG:HH22	1.66	0.43
33:AW:47:LEU:HD21	33:AW:92:VAL:HG11	2.01	0.43
33:AW:193:ARG:NH1	33:AW:220:PHE:CE1	2.86	0.43
3:B2:84:THR:OG1	3:B2:85:LYS:N	2.51	0.43
3:B2:124:HIS:HE1	3:B2:153:ARG:CZ	2.32	0.43
11:BA:392:A:O2'	11:BA:393:C:H4'	2.17	0.43
11:BA:597:U:H2'	11:BA:598:A:C8	2.53	0.43
11:BA:763:U:OP1	11:BA:763:U:C5	2.71	0.43
11:BA:1113:G:C2'	11:BA:1114:G:H5'	2.49	0.43
11:BA:1269:G:H5"	11:BA:1269:G:H8	1.84	0.43
11:BA:1752:U:HO2'	11:BA:1753:A:P	2.40	0.43
14:BD:110:GLN:NE2	14:BD:126:ARG:HB2	2.33	0.43
25:BO:11:LYS:H	25:BO:11:LYS:HG3	1.63	0.43
28:BR:141:GLU:HA	28:BR:160:ASN:ND2	2.33	0.43
35:BY:78:SER:OG	35:BY:79:GLU:N	2.52	0.43
4:C3:63:ILE:HG12	4:C3:93:PHE:O	2.19	0.43
11:CA:63:U:C3'	11:CA:64:U:H5"	2.48	0.43
11:CA:138:G:N2	11:CA:166:C:O2	2.52	0.43
11:CA:621:C:H4'	25:CO:119:LEU:HD22	1.99	0.43
11:CA:666:A:H5"	18:CH:43:LYS:HZ1	1.83	0.43
11:CA:1006:C:H4'	11:CA:1007:U:H5'	2.00	0.43
11:CA:1288:C:OP2	32:CV:7:LYS:HE3	2.18	0.43
15:CE:205:THR:HG23	15:CE:211:PHE:CE2	2.54	0.43
18:CH:12:LYS:HB2	18:CH:12:LYS:HE3	1.51	0.43
23:CM:69:ILE:O	23:CM:73:ILE:HG12	2.18	0.43
24:CN:33:TYR:O	24:CN:34:GLU:HB3	2.18	0.43
29:CS:72:CYS:SG	29:CS:78:PRO:HA	2.58	0.43
35:CY:216:LEU:O	35:CY:220:LYS:HG3	2.18	0.43
3:D2:196:LEU:HD23	3:D2:196:LEU:HA	1.64	0.43
8:D7:16:LEU:HD23	8:D7:16:LEU:HA	1.86	0.43
10:D9:127:LYS:HE2	10:D9:132:HIS:HE1	1.83	0.43
11:DA:64:U:O2'	11:DA:65:C:O5'	2.37	0.43
11:DA:68:U:OP1	35:DY:167:THR:HG23	2.19	0.43
11:DA:493:U:O2	11:DA:493:U:O2'	2.25	0.43
11:DA:558:G:N1	11:DA:574:A:OP2	2.47	0.43
11:DA:763:U:OP1	11:DA:763:U:C5	2.72	0.43
11:DA:763:U:H4'	11:DA:764:U:OP2	2.19	0.43
11:DA:771:A:H4'	11:DA:772:A:OP2	2.19	0.43
11:DA:1540:G:H5'	23:DM:153:LYS:HB2	2.01	0.43
12:DB:64:GLN:NE2	15:DE:246:GLU:HG2	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:DC:196:GLU:HA	13:DC:197:PRO:HD3	1.66	0.43
19:DI:95:HIS:HA	19:DI:99:VAL:HG23	2.00	0.43
21:DK:44:VAL:HG22	21:DK:54:VAL:HB	2.00	0.43
24:DN:16:ASP:OD1	24:DN:26:ARG:NH1	2.52	0.43
28:DR:105:LEU:HD23	28:DR:105:LEU:HA	1.76	0.43
28:DR:163:ASP:HB3	28:DR:164:TRP:H	1.61	0.43
33:DW:126:LEU:HD13	33:DW:143:THR:HG21	2.00	0.43
35:DY:216:LEU:O	35:DY:220:LYS:HG3	2.19	0.43
3:A2:148:GLN:NE2	11:AA:187:U:O4	2.51	0.43
10:A9:109:VAL:HB	31:AU:65:LYS:HG2	2.00	0.43
11:AA:52:G:H2'	11:AA:53:C:O4'	2.18	0.43
11:AA:474:G:H2'	11:AA:475:C:H6	1.84	0.43
11:AA:794:A:H1'	11:AA:797:A:H2	1.83	0.43
11:AA:949:A:C5'	11:AA:949:A:H8	2.32	0.43
11:AA:1269:G:H5"	11:AA:1269:G:H8	1.83	0.43
14:AD:12:TYR:HA	14:AD:47:MET:HG3	2.01	0.43
14:AD:38:ASN:ND2	14:AD:40:ARG:NH1	2.59	0.43
22:AL:54:GLU:OE1	22:AL:72:ARG:NH1	2.52	0.43
22:AL:78:ASN:ND2	22:AL:80:LYS:HE2	2.34	0.43
29:AS:72:CYS:SG	29:AS:78:PRO:HA	2.58	0.43
29:AS:77:LYS:HA	29:AS:77:LYS:HD3	1.81	0.43
30:AT:64:LEU:O	30:AT:68:VAL:HG23	2.19	0.43
1:B0:74:ASP:OD1	1:B0:74:ASP:N	2.52	0.43
1:B0:95:LEU:O	1:B0:99:VAL:HG23	2.18	0.43
2:B1:59:GLU:OE2	17:BG:200:ARG:NH2	2.51	0.43
4:B3:70:TYR:O	4:B3:74:LEU:HG	2.18	0.43
5:B4:69:GLU:OE2	5:B4:86:LYS:HE2	2.19	0.43
5:B4:73:ALA:HB2	21:BK:128:ARG:HH12	1.83	0.43
11:BA:34:U:O2'	11:BA:508:A:H5'	2.18	0.43
11:BA:209:G:H5"	11:BA:209:G:C8	2.53	0.43
11:BA:267:A:H2'	11:BA:268:G:C8	2.53	0.43
11:BA:506:U:H5'	14:BD:133:HIS:NE2	2.33	0.43
11:BA:661:G:H3'	11:BA:662:U:H6	1.84	0.43
11:BA:907:A:C8	21:BK:137:THR:O	2.71	0.43
11:BA:985:C:H2'	11:BA:986:G:H8	1.83	0.43
11:BA:1390:G:H2'	11:BA:1391:C:O4'	2.18	0.43
11:BA:1394:U:H2'	11:BA:1395:A:O4'	2.19	0.43
11:BA:1509:U:OP2	11:BA:1509:U:H4'	2.18	0.43
11:BA:1729:A:H2'	11:BA:1730:G:C8	2.53	0.43
12:BB:103:THR:HA	12:BB:109:THR:HG21	2.01	0.43
20:BJ:48:VAL:HG22	20:BJ:93:CYS:SG	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BO:147:THR:O	25:BO:151:LEU:HG	2.19	0.43
26:BP:127:LYS:HG2	26:BP:129:GLY:H	1.84	0.43
27:BQ:111:SER:HA	27:BQ:112:PRO:HD3	1.90	0.43
35:BY:141:ILE:O	35:BY:145:PHE:HB2	2.19	0.43
2:C1:59:GLU:OE2	17:CG:200:ARG:NH2	2.52	0.43
3:C2:203:LEU:HD12	3:C2:203:LEU:HA	1.85	0.43
8:C7:55:LEU:HD23	8:C7:55:LEU:HA	1.85	0.43
8:C7:88:ILE:HA	8:C7:89:PRO:HD3	1.90	0.43
11:CA:39:A:H61	11:CA:459:G:H1'	1.84	0.43
11:CA:1010:A:H2'	11:CA:1011:C:H6	1.83	0.43
11:CA:1053:A:C4	11:CA:1063:A:N6	2.87	0.43
11:CA:1289:C:H2'	11:CA:1290:G:O4'	2.19	0.43
11:CA:1360:U:OP2	32:CV:49:LYS:HE2	2.19	0.43
18:CH:126:LEU:HD23	18:CH:126:LEU:HA	1.86	0.43
21:CK:44:VAL:HG22	21:CK:54:VAL:HB	2.00	0.43
21:CK:128:ARG:CG	21:CK:128:ARG:NH1	2.70	0.43
28:CR:297:GLU:HA	28:CR:298:PRO:HD2	1.89	0.43
30:CT:76:ILE:HA	30:CT:79:LEU:HD12	1.99	0.43
33:CW:36:HIS:CD2	33:CW:87:GLY:HA3	2.52	0.43
35:CY:198:LYS:O	35:CY:201:ARG:HB2	2.19	0.43
3:D2:73:PHE:CZ	3:D2:112:ILE:HD11	2.53	0.43
8:D7:99:PHE:O	13:DC:90:TRP:HE3	2.02	0.43
11:DA:105:G:O2'	11:DA:779:A:N1	2.50	0.43
11:DA:534:A:OP1	11:DA:534:A:C5	2.72	0.43
15:DE:224:ARG:HD2	36:DZ:40:PHE:HZ	1.83	0.43
19:DI:100:ASP:OD2	19:DI:102:ASN:HB3	2.17	0.43
23:DM:84:TRP:CZ3	23:DM:85:LEU:HG	2.54	0.43
28:DR:127:SER:OG	28:DR:132:GLN:HB2	2.18	0.43
28:DR:141:GLU:HA	28:DR:160:ASN:ND2	2.34	0.43
28:DR:206:ARG:HG2	28:DR:207:TYR:CD1	2.54	0.43
35:DY:142:LYS:HE3	35:DY:156:ILE:HD11	2.00	0.43
5:A4:181:GLU:HG2	5:A4:199:TYR:CE1	2.54	0.43
8:A7:16:LEU:HD23	8:A7:16:LEU:HA	1.86	0.43
10:A9:98:LEU:HD21	31:AU:29:LEU:CD1	2.49	0.43
10:A9:101:TYR:HB2	31:AU:58:LEU:HD22	2.00	0.43
11:AA:1266:G:C2	11:AA:1267:G:C8	3.07	0.43
11:AA:1514:G:H5'	30:AT:90:GLY:CA	2.49	0.43
11:AA:1661:G:C2'	11:AA:1662:C:OP2	2.66	0.43
19:AI:57:LEU:CD2	19:AI:110:GLN:HG2	2.49	0.43
22:AL:10:ARG:HH21	27:AQ:90:LEU:HD11	1.83	0.43
26:AP:74:TYR:HB2	26:AP:80:LEU:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AR:100:LEU:HB3	28:AR:114:PHE:HD1	1.84	0.43
28:AR:140:ARG:HH11	28:AR:162:SER:HA	1.82	0.43
30:AT:99:CYS:SG	30:AT:100:HIS:N	2.92	0.43
33:AW:249:THR:HB	33:AW:252:GLU:HG3	1.99	0.43
35:AY:176:CYS:HA	35:AY:177:PRO:HD3	1.88	0.43
5:B4:67:VAL:CG2	11:BA:898:U:H4'	2.49	0.43
6:B5:5:ARG:NH2	11:BA:1748:U:OP2	2.39	0.43
7:B6:18:LYS:NZ	11:BA:936:U:OP2	2.52	0.43
11:BA:1494:U:O2'	11:BA:1495:U:H5'	2.19	0.43
18:BH:113:HIS:O	18:BH:116:CYS:HB2	2.19	0.43
22:BL:78:ASN:ND2	22:BL:80:LYS:HE2	2.34	0.43
23:BM:62:THR:HB	23:BM:65:GLN:HG3	2.01	0.43
26:BP:27:HIS:HE1	26:BP:67:SER:OG	2.01	0.43
29:BS:121:LEU:HD23	29:BS:121:LEU:HA	1.89	0.43
3:C2:98:LEU:HA	3:C2:98:LEU:HD23	1.85	0.43
5:C4:139:ARG:CZ	11:CA:862:A:H5'	2.49	0.43
10:C9:88:HIS:CD2	11:CA:1219:U:OP2	2.72	0.43
11:CA:949:A:C5'	11:CA:949:A:H8	2.31	0.43
11:CA:1145:C:C2'	11:CA:1146:C:H5'	2.48	0.43
11:CA:1174:A:OP1	11:CA:1175:A:OP2	2.36	0.43
11:CA:1207:C:H5'	11:CA:1208:A:OP2	2.19	0.43
11:CA:1486:U:O2'	11:CA:1487:A:P	2.76	0.43
12:CB:165:GLU:HG3	12:CB:199:TYR:HE2	1.82	0.43
13:CC:228:ARG:NH1	28:CR:242:ILE:O	2.52	0.43
25:CO:101:ARG:HH12	25:CO:145:ALA:HB1	1.81	0.43
28:CR:308:LYS:O	28:CR:309:ASN:HB2	2.19	0.43
30:CT:18:PHE:CZ	30:CT:140:LEU:HD22	2.54	0.43
34:CX:59:SER:HA	34:CX:60:PRO:HD3	1.80	0.43
1:D0:83:PHE:HD2	1:D0:84:GLN:HG3	1.83	0.43
5:D4:69:GLU:OE2	5:D4:86:LYS:HE2	2.19	0.43
11:DA:3:C:O2'	15:DE:182:ALA:N	2.51	0.43
11:DA:4:C:OP2	15:DE:201:SER:OG	2.35	0.43
11:DA:39:A:H61	11:DA:459:G:H1'	1.84	0.43
11:DA:65:C:H5'	35:DY:177:PRO:HA	2.01	0.43
11:DA:841:A:O2'	11:DA:843:A:OP1	2.36	0.43
11:DA:931:A:P	25:DO:96:LYS:NZ	2.92	0.43
11:DA:1300:G:O4'	11:DA:1393:A:H1'	2.19	0.43
11:DA:1379:G:H2'	11:DA:1380:G:O4'	2.19	0.43
22:DL:75:LEU:HD11	22:DL:82:ILE:HD12	1.99	0.43
26:DP:8:LYS:HE3	26:DP:24:ASP:CG	2.44	0.43
28:DR:194:GLY:HA2	28:DR:216:VAL:HG23	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DW:116:LEU:HB3	33:DW:120:GLU:HB2	2.01	0.43
35:DY:141:ILE:O	35:DY:145:PHE:HB2	2.17	0.43
35:DY:198:LYS:O	35:DY:201:ARG:HB2	2.19	0.43
4:A3:24:VAL:HA	4:A3:27:GLN:NE2	2.34	0.43
4:A3:145:LEU:HA	18:AH:42:GLN:NE2	2.34	0.43
6:A5:71:VAL:HG11	6:A5:73:LEU:HD13	2.00	0.43
11:AA:39:A:H61	11:AA:459:G:H1'	1.84	0.43
11:AA:160:C:O2'	35:AY:132:LYS:O	2.36	0.43
11:AA:313:G:OP2	11:AA:313:G:H2'	2.18	0.43
11:AA:392:A:O2'	11:AA:393:C:H4'	2.19	0.43
11:AA:863:G:H2'	11:AA:864:U:C6	2.53	0.43
11:AA:947:C:H4'	11:AA:1076:U:O2'	2.18	0.43
11:AA:1379:G:H2'	11:AA:1380:G:O4'	2.19	0.43
11:AA:1404:G:C8	24:AN:40:ARG:HD2	2.54	0.43
19:AI:29:GLY:HA2	19:AI:65:LEU:O	2.17	0.43
20:AJ:94:ASN:ND2	20:AJ:97:ASP:OD2	2.52	0.43
26:AP:16:LEU:HD21	33:AW:64:ILE:HG12	2.00	0.43
28:AR:147:ILE:H	28:AR:147:ILE:HG12	1.56	0.43
30:AT:93:ARG:H	30:AT:93:ARG:HG3	1.46	0.43
35:AY:78:SER:OG	35:AY:79:GLU:N	2.51	0.43
3:B2:148:GLN:NE2	11:BA:187:U:O4	2.46	0.43
4:B3:24:VAL:HA	4:B3:27:GLN:NE2	2.33	0.43
7:B6:9:ILE:HD12	7:B6:12:GLU:CD	2.44	0.43
9:B8:46:GLU:HG3	23:BM:8:GLU:HB2	2.01	0.43
11:BA:63:U:C3'	11:BA:64:U:H5"	2.47	0.43
11:BA:242:U:C2	11:BA:244:A:OP2	2.71	0.43
11:BA:243:G:O2'	27:BQ:38:GLY:O	2.34	0.43
11:BA:1316:A:H2'	11:BA:1317:A:C8	2.54	0.43
11:BA:1362:U:H2'	11:BA:1363:U:C6	2.54	0.43
11:BA:1494:U:HO2'	11:BA:1495:U:P	2.33	0.43
12:BB:169:MET:HE2	12:BB:169:MET:HB3	1.63	0.43
19:BI:14:ARG:HD3	19:BI:125:ARG:HH22	1.84	0.43
22:BL:106:LEU:HD13	22:BL:113:VAL:HG22	2.01	0.43
23:BM:63:GLU:O	23:BM:67:ASN:ND2	2.52	0.43
26:BP:8:LYS:HE3	26:BP:24:ASP:CG	2.44	0.43
28:BR:93:SER:OG	28:BR:101:ARG:HB2	2.19	0.43
28:BR:313:THR:N	28:BR:327:GLY:O	2.51	0.43
30:BT:130:ARG:H	30:BT:130:ARG:HG2	1.65	0.43
33:BW:89:MET:HE2	33:BW:102:ARG:HD3	2.00	0.43
36:BZ:93:TYR:CG	36:BZ:94:PRO:HA	2.54	0.43
3:C2:21:HIS:CD2	11:CA:98:U:H1'	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C4:122:THR:N	5:C4:146:THR:OG1	2.40	0.43
11:CA:392:A:O2'	11:CA:393:C:H4'	2.18	0.43
11:CA:637:U:H2'	11:CA:638:U:C6	2.53	0.43
11:CA:771:A:C6	33:CW:19:MET:HE3	2.53	0.43
11:CA:933:A:H2'	11:CA:934:U:O4'	2.18	0.43
11:CA:1183:A:H1'	29:CS:104:GLY:O	2.19	0.43
15:CE:227:THR:HB	15:CE:228:PRO:HD2	1.99	0.43
17:CG:72:MET:HE3	17:CG:80:LYS:C	2.44	0.43
21:CK:30:VAL:HG23	21:CK:47:LEU:HD23	2.01	0.43
22:CL:8:GLY:H	27:CQ:98:ARG:NH1	2.17	0.43
26:CP:8:LYS:HE3	26:CP:24:ASP:CG	2.44	0.43
27:CQ:15:VAL:HG21	27:CQ:33:TYR:HB2	2.01	0.43
29:CS:76:GLU:O	29:CS:77:LYS:HB2	2.19	0.43
32:CV:53:PHE:O	32:CV:56:HIS:HB3	2.18	0.43
33:CW:36:HIS:CE1	33:CW:87:GLY:HA3	2.54	0.43
33:CW:193:ARG:NH1	33:CW:220:PHE:HE1	2.16	0.43
35:CY:182:LEU:O	35:CY:187:ARG:HD2	2.18	0.43
1:D0:95:LEU:O	1:D0:99:VAL:HG23	2.18	0.43
5:D4:170:ILE:HG13	5:D4:210:ILE:HG21	2.01	0.43
6:D5:15:ARG:HD3	11:DA:914:G:O6	2.19	0.43
9:D8:98:LYS:HG3	11:DA:1502:A:OP1	2.18	0.43
11:DA:250:A:H4'	33:DW:137:GLN:NE2	2.32	0.43
11:DA:606:U:OP2	22:DL:5:LYS:NZ	2.52	0.43
11:DA:794:A:H1'	11:DA:797:A:H2	1.83	0.43
11:DA:909:C:H5"	11:DA:910:U:H2'	2.00	0.43
11:DA:1174:A:OP1	11:DA:1175:A:OP2	2.36	0.43
11:DA:1191:A:C6	11:DA:1237:G:H1'	2.54	0.43
11:DA:1232:U:H2'	11:DA:1233:U:O4'	2.19	0.43
11:DA:1423:U:OP1	24:DN:9:HIS:ND1	2.51	0.43
11:DA:1721:G:C8	11:DA:1721:G:C3'	3.02	0.43
18:DH:85:ASP:O	18:DH:88:LYS:HB2	2.18	0.43
20:DJ:97:ASP:OD1	20:DJ:97:ASP:N	2.51	0.43
22:DL:6:PRO:HG3	22:DL:14:LYS:HE3	2.01	0.43
23:DM:15:HIS:HB3	23:DM:22:ILE:HB	2.01	0.43
23:DM:63:GLU:O	23:DM:67:ASN:ND2	2.52	0.43
28:DR:43:ILE:HG22	28:DR:82:LEU:HD13	2.01	0.43
1:A0:95:LEU:O	1:A0:99:VAL:HG23	2.18	0.43
3:A2:146:HIS:HA	3:A2:149:LYS:HG2	2.01	0.43
5:A4:40:PHE:N	5:A4:40:PHE:CD1	2.87	0.43
9:A8:46:GLU:O	9:A8:50:VAL:HG23	2.19	0.43
11:AA:413:C:H4'	11:AA:414:G:OP2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:606:U:H4'	11:AA:1072:G:O6	2.18	0.43
11:AA:1568:C:O2'	11:AA:1570:U:H5	2.00	0.43
17:AG:24:ILE:H	17:AG:24:ILE:HD13	1.84	0.43
20:AJ:23:LEU:HD22	20:AJ:112:ILE:HG12	2.00	0.43
35:AY:121:ILE:HD12	35:AY:124:LEU:HD11	2.01	0.43
4:B3:68:GLN:NE2	11:BA:835:U:OP2	2.49	0.43
11:BA:223:C:N4	11:BA:234:G:H1	2.17	0.43
11:BA:772:A:C2	14:BD:71:PHE:HE2	2.37	0.43
11:BA:876:A:H5'	21:BK:60:MET:HE3	1.99	0.43
11:BA:884:A:OP2	21:BK:66:ARG:N	2.52	0.43
12:BB:181:LEU:HA	36:BZ:58:GLY:O	2.19	0.43
15:BE:58:PRO:HG3	15:BE:131:THR:HG23	2.00	0.43
26:BP:18:ARG:NE	26:BP:20:GLN:HE21	2.14	0.43
33:BW:185:ILE:HD12	33:BW:193:ARG:HB2	2.01	0.43
33:BW:193:ARG:NH1	33:BW:220:PHE:CE1	2.86	0.43
35:BY:193:VAL:O	35:BY:196:ALA:HB3	2.19	0.43
6:C5:47:PRO:O	6:C5:50:LYS:HB2	2.19	0.43
10:C9:86:THR:O	11:CA:1219:U:H5'	2.19	0.43
11:CA:52:G:H2'	11:CA:53:C:O4'	2.18	0.43
11:CA:135:A:H2'	35:CY:183:ILE:HD11	2.01	0.43
11:CA:299:C:OP2	27:CQ:102:ARG:NH1	2.37	0.43
11:CA:374:G:H5"	11:CA:374:G:H8	1.84	0.43
11:CA:763:U:H4'	11:CA:764:U:OP2	2.18	0.43
11:CA:1269:G:H8	11:CA:1269:G:H5"	1.84	0.43
11:CA:1361:A:H2'	11:CA:1362:U:C6	2.54	0.43
11:CA:1544:G:H2'	11:CA:1544:G:N3	2.34	0.43
11:CA:1660:A:H61	11:CA:1665:U:H3	1.67	0.43
11:CA:1746:G:H4'	11:CA:1747:A:OP1	2.19	0.43
14:CD:149:ARG:HB2	14:CD:152:SER:H	1.83	0.43
15:CE:142:LYS:HD2	15:CE:152:ALA:O	2.18	0.43
22:CL:2:GLY:C	22:CL:3:VAL:HG23	2.44	0.43
22:CL:78:ASN:ND2	22:CL:80:LYS:HE2	2.34	0.43
26:CP:15:LEU:HD23	33:CW:96:LYS:HG3	2.00	0.43
28:CR:47:ARG:HA	28:CR:78:PHE:HB3	1.99	0.43
31:CU:121:GLU:HA	31:CU:124:LEU:HG	2.01	0.43
32:CV:19:HIS:HB2	32:CV:20:TYR:CD1	2.54	0.43
33:CW:47:LEU:HD21	33:CW:92:VAL:HG11	2.01	0.43
35:CY:75:LEU:O	35:CY:94:ARG:HA	2.19	0.43
3:D2:89:VAL:CG2	3:D2:102:LYS:HA	2.45	0.43
5:D4:111:ASP:N	5:D4:111:ASP:OD1	2.48	0.43
11:DA:863:G:H2'	11:DA:864:U:C6	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1031:A:H2	11:DA:1037:G:H22	1.64	0.43
11:DA:1538:U:OP1	23:DM:42:PHE:HB2	2.18	0.43
12:DB:65:HIS:HA	12:DB:66:PRO:HD3	1.79	0.43
17:DG:35:CYS:HB3	17:DG:63:ILE:HD11	1.99	0.43
26:DP:74:TYR:HB2	26:DP:80:LEU:HB2	2.01	0.43
33:DW:185:ILE:HD12	33:DW:193:ARG:HB2	2.01	0.43
3:A2:178:SER:O	3:A2:180:PRO:HD3	2.18	0.43
4:A3:146:ASP:OD1	4:A3:148:THR:OG1	2.37	0.43
4:A3:192:PHE:CB	7:A6:21:ARG:HH12	2.32	0.43
11:AA:493:U:H1'	11:AA:494:A:OP2	2.19	0.43
11:AA:728:U:H5'	11:AA:729:U:OP2	2.19	0.43
11:AA:1329:G:H21	30:AT:137:MET:HE1	1.84	0.43
11:AA:1514:G:H5'	30:AT:90:GLY:HA2	2.01	0.43
12:AB:164:THR:CG2	12:AB:200:HIS:HB3	2.49	0.43
15:AE:57:GLU:HG3	15:AE:59:GLU:HG2	2.00	0.43
20:AJ:87:ARG:HA	20:AJ:87:ARG:HD3	1.82	0.43
33:AW:88:LEU:HD11	33:AW:104:LEU:HD23	2.00	0.43
35:AY:216:LEU:O	35:AY:220:LYS:HG3	2.19	0.43
6:B5:28:ARG:HG3	21:BK:147:ARG:HA	2.01	0.43
6:B5:71:VAL:HG11	6:B5:73:LEU:HD13	1.99	0.43
10:B9:103:LEU:HG	31:BU:58:LEU:HD23	2.00	0.43
11:BA:138:G:N2	11:BA:166:C:O2	2.52	0.43
11:BA:303:A:C2	11:BA:305:C:C2	3.06	0.43
11:BA:616:A:H4'	11:BA:617:A:O5'	2.19	0.43
11:BA:763:U:H4'	11:BA:764:U:OP2	2.18	0.43
11:BA:1379:G:H2'	11:BA:1380:G:O4'	2.19	0.43
11:BA:1437:G:H2'	11:BA:1438:U:C6	2.54	0.43
23:BM:88:ARG:HA	23:BM:88:ARG:HD2	1.57	0.43
28:BR:100:LEU:HB3	28:BR:114:PHE:HD1	1.83	0.43
28:BR:105:LEU:HA	28:BR:105:LEU:HD23	1.77	0.43
28:BR:194:GLY:HA2	28:BR:216:VAL:HG23	2.00	0.43
28:BR:309:ASN:HD22	28:BR:309:ASN:HA	1.71	0.43
30:BT:18:PHE:CZ	30:BT:140:LEU:HD22	2.53	0.43
33:BW:23:LEU:HD12	33:BW:23:LEU:HA	1.86	0.43
33:BW:116:LEU:HB3	33:BW:120:GLU:HB2	2.01	0.43
36:BZ:28:LEU:HA	36:BZ:29:PRO:HD2	1.85	0.43
1:C0:83:PHE:HD2	1:C0:84:GLN:HG3	1.83	0.43
8:C7:16:LEU:HD23	8:C7:16:LEU:HA	1.86	0.43
11:CA:585:A:OP2	34:CX:44:ARG:NH2	2.45	0.43
11:CA:1729:A:H2'	11:CA:1730:G:C8	2.54	0.43
13:CC:45:THR:HB	13:CC:48:LYS:H	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CD:71:PHE:CE2	33:CW:250:ILE:HG21	2.54	0.43
14:CD:110:GLN:CD	14:CD:126:ARG:HD2	2.44	0.43
14:CD:110:GLN:NE2	14:CD:126:ARG:HB2	2.33	0.43
22:CL:106:LEU:HD13	22:CL:113:VAL:HG22	2.00	0.43
26:CP:105:PHE:CZ	26:CP:127:LYS:HE2	2.54	0.43
29:CS:79:VAL:HA	29:CS:80:PRO:HD3	1.88	0.43
1:D0:63:ARG:NH1	11:DA:559:C:OP2	2.52	0.43
4:D3:24:VAL:HA	4:D3:27:GLN:NE2	2.34	0.43
11:DA:52:G:H2'	11:DA:53:C:O4'	2.19	0.43
11:DA:303:A:C2	11:DA:305:C:C2	3.06	0.43
11:DA:1256:C:H4'	11:DA:1257:U:OP1	2.17	0.43
11:DA:1385:U:H5"	32:DV:3:ARG:NE	2.33	0.43
11:DA:1391:C:OP1	24:DN:53:LYS:NZ	2.47	0.43
11:DA:1537:C:OP1	23:DM:41:ARG:NH1	2.48	0.43
11:DA:1724:U:H6	11:DA:1724:U:H5"	1.84	0.43
39:DA:8103:HOH:O	30:DT:93:ARG:NH1	2.46	0.43
12:DB:103:THR:HA	12:DB:109:THR:HG21	2.01	0.43
13:DC:35:ALA:HB1	13:DC:57:LYS:HB2	2.00	0.43
18:DH:35:LEU:HD21	18:DH:61:VAL:HG21	2.01	0.43
27:DQ:110:ILE:HD13	27:DQ:138:ALA:CB	2.49	0.43
31:DU:34:ARG:HG2	31:DU:35:THR:N	2.32	0.43
32:DV:53:PHE:O	32:DV:57:LEU:HG	2.19	0.43
35:DY:137:ARG:CG	35:DY:181:ARG:HG3	2.49	0.43
2:A1:21:ARG:NH1	11:AA:1591:C:O2	2.52	0.42
4:A3:30:HIS:HA	4:A3:31:PRO:HD2	1.89	0.42
11:AA:117:U:H1'	33:AW:33:GLN:HB2	2.01	0.42
11:AA:593:A:H2'	11:AA:594:U:H6	1.84	0.42
11:AA:1362:U:H2'	11:AA:1363:U:C6	2.54	0.42
13:AC:157:GLN:NE2	13:AC:158:GLY:H	2.15	0.42
13:AC:164:GLY:O	13:AC:167:LYS:HB3	2.19	0.42
15:AE:243:THR:HB	15:AE:244:PHE:HD1	1.84	0.42
16:AF:78:ARG:HH12	16:AF:100:GLY:CA	2.32	0.42
21:AK:30:VAL:HG23	21:AK:47:LEU:HD23	2.00	0.42
25:AO:147:THR:O	25:AO:151:LEU:HG	2.18	0.42
1:B0:43:ASN:HA	11:BA:1708:A:H1'	2.01	0.42
3:B2:64:ARG:NH2	11:BA:323:U:OP1	2.43	0.42
5:B4:85:ARG:HH12	5:B4:108:ILE:HD11	1.84	0.42
11:BA:125:U:H6	11:BA:125:U:H5"	1.84	0.42
11:BA:219:C:O2	11:BA:817:G:N1	2.45	0.42
11:BA:270:U:H4'	11:BA:270:U:OP1	2.19	0.42
11:BA:380:G:H2'	11:BA:381:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:534:A:C5	11:BA:534:A:OP1	2.72	0.42
11:BA:933:A:H4'	11:BA:1045:G:O2'	2.18	0.42
11:BA:1006:C:H4'	11:BA:1007:U:H5'	2.01	0.42
11:BA:1124:A:H4'	11:BA:1719:A:N7	2.34	0.42
11:BA:1199:G:H21	31:BU:27:LYS:HG3	1.83	0.42
11:BA:1443:A:H4'	11:BA:1444:U:C5'	2.49	0.42
11:BA:1596:C:H2'	11:BA:1597:G:O4'	2.19	0.42
12:BB:114:GLU:OE1	15:BE:32:LYS:HG3	2.19	0.42
14:BD:32:GLY:HA3	34:BX:41:TYR:CE1	2.53	0.42
14:BD:40:ARG:HA	14:BD:43:TRP:HB2	2.01	0.42
14:BD:147:MET:HB3	14:BD:147:MET:HE2	1.70	0.42
17:BG:71:LEU:C	17:BG:73:PHE:H	2.27	0.42
17:BG:188:LYS:HA	17:BG:188:LYS:HD3	1.67	0.42
18:BH:8:ALA:HA	18:BH:74:VAL:HG21	2.00	0.42
25:BO:71:GLN:NE2	25:BO:79:LYS:NZ	2.67	0.42
31:BU:62:LEU:HD23	31:BU:62:LEU:HA	1.92	0.42
33:BW:126:LEU:HB3	33:BW:143:THR:CG2	2.46	0.42
1:C0:95:LEU:O	1:C0:99:VAL:HG23	2.19	0.42
11:CA:125:U:H6	11:CA:125:U:H5"	1.84	0.42
11:CA:466:A:H5'	14:CD:144:PRO:HD2	2.00	0.42
11:CA:516:G:OP2	26:CP:35:LYS:CE	2.67	0.42
11:CA:932:G:H2'	11:CA:933:A:C8	2.54	0.42
11:CA:1012:C:O2'	18:CH:2:VAL:N	2.46	0.42
11:CA:1379:G:H2'	11:CA:1380:G:O4'	2.18	0.42
14:CD:32:GLY:HA3	34:CX:41:TYR:CD1	2.54	0.42
17:CG:110:ALA:HB1	17:CG:175:ALA:HB3	2.01	0.42
18:CH:106:THR:CG2	18:CH:121:THR:HB	2.49	0.42
20:CJ:87:ARG:HA	20:CJ:87:ARG:HD3	1.82	0.42
23:CM:84:TRP:CZ3	23:CM:85:LEU:HG	2.54	0.42
25:CO:11:LYS:H	25:CO:11:LYS:HG3	1.65	0.42
26:CP:74:TYR:HB2	26:CP:80:LEU:HB2	2.01	0.42
27:CQ:39:LEU:HD23	27:CQ:39:LEU:HA	1.66	0.42
28:CR:140:ARG:HG2	28:CR:163:ASP:O	2.19	0.42
33:CW:116:LEU:HB3	33:CW:120:GLU:HB2	2.01	0.42
33:CW:176:HIS:CD2	33:CW:178:GLU:OE2	2.71	0.42
35:CY:152:ASP:HA	35:CY:153:PRO:HD2	1.85	0.42
4:D3:106:LYS:HE2	11:DA:793:G:H22	1.84	0.42
5:D4:45:PHE:CE2	5:D4:68:VAL:HG11	2.54	0.42
11:DA:70:U:H5'	35:DY:173:ARG:HH12	1.84	0.42
11:DA:146:A:H1'	35:DY:13:GLN:OE1	2.19	0.42
11:DA:655:C:OP2	11:DA:655:C:O4'	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1357:G:O2'	11:DA:1381:A:N6	2.52	0.42
11:DA:1544:G:H2'	11:DA:1544:G:N3	2.34	0.42
15:DE:52:SER:HB3	36:DZ:40:PHE:O	2.19	0.42
21:DK:135:ILE:HD13	21:DK:135:ILE:HA	1.90	0.42
23:DM:62:THR:HB	23:DM:65:GLN:HG3	2.01	0.42
27:DQ:63:LEU:HD12	27:DQ:63:LEU:HA	1.88	0.42
28:DR:308:LYS:O	28:DR:309:ASN:HB2	2.19	0.42
34:DX:35:SER:O	34:DX:38:ARG:HB3	2.19	0.42
35:DY:121:ILE:HD12	35:DY:124:LEU:HD11	2.00	0.42
36:DZ:71:GLY:O	36:DZ:75:SER:HB3	2.17	0.42
3:A2:73:PHE:CZ	3:A2:112:ILE:HD11	2.54	0.42
11:AA:39:A:H2'	11:AA:40:A:O4'	2.19	0.42
11:AA:422:G:H5"	11:AA:422:G:H8	1.85	0.42
11:AA:477:G:C2	11:AA:478:G:H1'	2.54	0.42
11:AA:550:G:O5'	34:AX:61:ASN:HB3	2.18	0.42
11:AA:615:A:H1'	11:AA:1079:G:O4'	2.19	0.42
11:AA:982:U:C4'	11:AA:983:A:OP2	2.64	0.42
11:AA:1076:U:H5"	22:AL:14:LYS:HE2	2.01	0.42
11:AA:1544:G:H2'	11:AA:1544:G:N3	2.34	0.42
12:AB:65:HIS:CD2	12:AB:67:GLU:HB2	2.55	0.42
14:AD:109:LEU:HD23	14:AD:129:ILE:HD12	2.01	0.42
31:AU:3:ASP:C	31:AU:5:ASN:H	2.27	0.42
11:BA:209:G:H4'	11:BA:210:A:O4'	2.19	0.42
11:BA:295:U:OP1	27:BQ:135:ARG:HD3	2.18	0.42
11:BA:909:C:H5"	11:BA:910:U:H2'	2.01	0.42
11:BA:949:A:C5'	11:BA:949:A:H8	2.33	0.42
11:BA:1462:U:C4'	11:BA:1463:U:OP1	2.62	0.42
11:BA:1513:G:H2'	11:BA:1514:G:C1'	2.48	0.42
11:BA:1660:A:H61	11:BA:1665:U:H3	1.67	0.42
12:BB:159:CYS:HB3	12:BB:170:ILE:CD1	2.49	0.42
15:BE:145:TRP:O	18:BH:98:GLN:NE2	2.48	0.42
27:BQ:4:GLN:HE22	27:BQ:10:GLN:C	2.27	0.42
28:BR:77:HIS:HB3	28:BR:96:TRP:HB2	2.01	0.42
29:BS:76:GLU:O	29:BS:77:LYS:HB2	2.19	0.42
33:BW:42:LEU:O	33:BW:86:THR:OG1	2.33	0.42
35:BY:185:PRO:HG2	35:BY:186:GLU:HG2	2.02	0.42
3:C2:64:ARG:HH22	11:CA:323:U:P	2.42	0.42
4:C3:174:TYR:CZ	4:C3:178:THR:HG21	2.54	0.42
6:C5:69:LEU:HD12	6:C5:69:LEU:HA	1.84	0.42
10:C9:128:HIS:NE2	10:C9:133:TYR:HB3	2.31	0.42
11:CA:83:C:H5'	11:CA:84:U:OP2	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:585:A:H2'	11:CA:586:A:C8	2.54	0.42
11:CA:632:U:OP2	18:CH:32:LYS:NZ	2.50	0.42
11:CA:680:U:H2'	11:CA:681:G:C8	2.54	0.42
11:CA:1144:A:H2'	11:CA:1145:C:O4'	2.19	0.42
11:CA:1356:G:H5'	11:CA:1357:G:OP2	2.20	0.42
19:CI:42:ASN:HB3	19:CI:43:PRO:HD3	2.00	0.42
20:CJ:27:ASN:OD1	20:CJ:28:LEU:N	2.51	0.42
22:CL:75:LEU:HD11	22:CL:82:ILE:HD12	2.00	0.42
25:CO:59:GLN:H	25:CO:59:GLN:HG2	1.58	0.42
28:CR:133:ILE:HB	28:CR:145:TRP:HB2	2.01	0.42
2:D1:35:LYS:HD3	2:D1:35:LYS:HA	1.80	0.42
6:D5:45:VAL:HA	21:DK:113:GLN:HG3	2.01	0.42
11:DA:83:C:H5'	11:DA:84:U:OP2	2.18	0.42
11:DA:117:U:H1'	33:DW:33:GLN:HB2	2.00	0.42
11:DA:840:A:HO2'	11:DA:841:A:P	2.42	0.42
11:DA:1443:A:H5'	11:DA:1445:G:O4'	2.19	0.42
13:DC:164:GLY:O	13:DC:167:LYS:HB3	2.19	0.42
28:DR:34:LYS:HB2	28:DR:37:GLU:CD	2.45	0.42
31:DU:34:ARG:NH2	31:DU:106:ARG:HH22	2.16	0.42
3:A2:22:ARG:NH2	11:AA:293:U:OP1	2.45	0.42
8:A7:55:LEU:HD23	8:A7:55:LEU:HA	1.86	0.42
11:AA:234:G:HO2'	11:AA:235:A:C1'	2.31	0.42
11:AA:270:U:H4'	11:AA:270:U:OP1	2.19	0.42
11:AA:764:U:C5	11:AA:766:G:C2	3.07	0.42
11:AA:1479:G:H5'	11:AA:1480:U:OP2	2.19	0.42
11:AA:1513:G:H2'	11:AA:1514:G:C1'	2.49	0.42
13:AC:10:LYS:HD3	13:AC:10:LYS:HA	1.75	0.42
18:AH:106:THR:CG2	18:AH:121:THR:HB	2.47	0.42
27:AQ:110:ILE:HD13	27:AQ:138:ALA:CB	2.49	0.42
28:AR:127:SER:OG	28:AR:132:GLN:HB2	2.18	0.42
28:AR:297:GLU:HG3	28:AR:310:PRO:CD	2.44	0.42
35:AY:182:LEU:O	35:AY:187:ARG:HD2	2.18	0.42
4:B3:5:LYS:HD3	4:B3:5:LYS:HA	1.70	0.42
4:B3:7:HIS:HE1	11:BA:833:A:OP1	2.03	0.42
4:B3:15:ILE:HD12	4:B3:15:ILE:HA	1.90	0.42
4:B3:30:HIS:HA	4:B3:31:PRO:HD2	1.90	0.42
11:BA:137:G:OP2	35:BY:139:ASN:ND2	2.53	0.42
11:BA:493:U:H4'	11:BA:494:A:O5'	2.15	0.42
11:BA:669:G:C6	11:BA:670:G:N7	2.87	0.42
11:BA:1143:A:H2'	11:BA:1144:A:H8	1.76	0.42
11:BA:1232:U:H2'	11:BA:1233:U:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:1443:A:H5'	11:BA:1445:G:O4'	2.19	0.42
11:BA:1466:C:H5'	11:BA:1467:U:OP2	2.20	0.42
11:BA:1621:G:P	22:BL:72:ARG:HH21	2.42	0.42
12:BB:58:ARG:CZ	36:BZ:54:VAL:HG21	2.50	0.42
12:BB:65:HIS:HA	12:BB:66:PRO:HD3	1.79	0.42
12:BB:121:THR:HG23	12:BB:143:LEU:HD12	2.01	0.42
13:BC:45:THR:HB	13:BC:48:LYS:H	1.84	0.42
14:BD:75:ALA:O	14:BD:79:ARG:HB2	2.18	0.42
17:BG:161:MET:HE2	17:BG:161:MET:HB3	1.84	0.42
19:BI:42:ASN:HB3	19:BI:43:PRO:HD3	2.02	0.42
28:BR:226:LYS:O	28:BR:242:ILE:HG13	2.19	0.42
28:BR:297:GLU:OE2	28:BR:307:GLY:HA3	2.19	0.42
29:BS:65:VAL:HG12	29:BS:69:LYS:HD2	2.00	0.42
33:BW:36:HIS:CD2	33:BW:87:GLY:HA3	2.54	0.42
33:BW:239:GLU:CD	33:BW:239:GLU:N	2.71	0.42
4:C3:24:VAL:HA	4:C3:27:GLN:NE2	2.35	0.42
4:C3:115:ARG:NH1	11:CA:631:C:N3	2.67	0.42
11:CA:606:U:H4'	11:CA:1072:G:O6	2.19	0.42
11:CA:983:A:H2'	11:CA:984:C:C6	2.55	0.42
11:CA:1591:C:H2'	11:CA:1592:C:C6	2.52	0.42
11:CA:1650:G:C6	11:CA:1651:G:N1	2.87	0.42
11:CA:1661:G:C2'	11:CA:1662:C:OP2	2.67	0.42
13:CC:108:MET:HE1	13:CC:139:ILE:CG2	2.42	0.42
13:CC:228:ARG:HG2	28:CR:245:LEU:HB2	2.01	0.42
23:CM:24:GLY:HA2	23:CM:58:ALA:HB3	2.01	0.42
11:DA:55:U:H4'	11:DA:56:G:O5'	2.19	0.42
11:DA:63:U:C3'	11:DA:64:U:H5"	2.48	0.42
11:DA:221:A:N6	11:DA:815:U:H3	2.17	0.42
11:DA:446:U:O4'	33:DW:66:ASN:ND2	2.49	0.42
11:DA:479:G:N1	11:DA:492:C:O2	2.51	0.42
11:DA:949:A:C5'	11:DA:949:A:H8	2.32	0.42
11:DA:1390:G:H2'	11:DA:1391:C:O4'	2.18	0.42
11:DA:1434:C:C2'	11:DA:1435:G:H5"	2.48	0.42
11:DA:1661:G:C2'	11:DA:1662:C:OP2	2.67	0.42
17:DG:39:LYS:HG2	19:DI:113:GLN:O	2.19	0.42
21:DK:34:MET:HB3	21:DK:41:PHE:HB2	2.00	0.42
22:DL:78:ASN:CG	22:DL:80:LYS:HB2	2.44	0.42
27:DQ:68:LYS:O	27:DQ:126:GLN:N	2.49	0.42
28:DR:100:LEU:HB3	28:DR:114:PHE:CD1	2.54	0.42
3:A2:64:ARG:HH22	11:AA:323:U:P	2.41	0.42
5:A4:88:LYS:O	5:A4:89:LEU:HD23	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:127:ARG:NH2	11:AA:923:U:O2	2.52	0.42
10:A9:109:VAL:HG11	31:AU:62:LEU:HD21	2.02	0.42
11:AA:138:G:N2	11:AA:166:C:O2	2.52	0.42
11:AA:474:G:H2'	11:AA:475:C:C6	2.55	0.42
11:AA:763:U:H4'	11:AA:764:U:OP2	2.18	0.42
11:AA:896:U:H2'	11:AA:897:A:C8	2.55	0.42
11:AA:1451:C:H4'	11:AA:1452:G:OP1	2.19	0.42
11:AA:1494:U:O2'	11:AA:1495:U:H5'	2.20	0.42
11:AA:1752:U:O2'	11:AA:1753:A:P	2.77	0.42
16:AF:42:PHE:HE2	16:AF:90:ILE:HG23	1.84	0.42
17:AG:71:LEU:HG	17:AG:150:ILE:CD1	2.49	0.42
18:AH:113:HIS:O	18:AH:116:CYS:HB2	2.20	0.42
21:AK:18:PRO:HA	21:AK:19:PRO:HD3	1.85	0.42
22:AL:46:SER:C	22:AL:47:HIS:HD2	2.27	0.42
23:AM:63:GLU:O	23:AM:67:ASN:ND2	2.53	0.42
26:AP:32:THR:OG1	26:AP:60:THR:OG1	2.18	0.42
28:AR:43:ILE:HG22	28:AR:82:LEU:HD13	2.02	0.42
2:B1:17:LYS:HE2	11:BA:1588:G:O2'	2.19	0.42
3:B2:89:VAL:CG2	3:B2:102:LYS:HA	2.44	0.42
11:BA:112:U:H2'	11:BA:113:U:C6	2.55	0.42
11:BA:209:G:C4'	11:BA:210:A:H5'	2.49	0.42
11:BA:236:U:O2'	11:BA:237:U:OP1	2.32	0.42
11:BA:427:A:H5"	22:BL:49:LYS:HG3	2.02	0.42
11:BA:794:A:H1'	11:BA:797:A:H2	1.84	0.42
11:BA:879:G:H5"	11:BA:880:G:OP2	2.19	0.42
11:BA:947:C:H4'	11:BA:1076:U:O2'	2.19	0.42
11:BA:982:U:C4'	11:BA:983:A:OP2	2.65	0.42
11:BA:1012:C:O2'	18:BH:2:VAL:N	2.46	0.42
11:BA:1434:C:C2'	11:BA:1435:G:H5"	2.47	0.42
11:BA:1574:C:H2'	11:BA:1575:U:C6	2.55	0.42
18:BH:106:THR:CG2	18:BH:121:THR:HB	2.49	0.42
20:BJ:61:LEU:HD13	24:BN:33:TYR:CE1	2.55	0.42
20:BJ:97:ASP:OD1	20:BJ:97:ASP:N	2.52	0.42
21:BK:34:MET:HB3	21:BK:41:PHE:HB2	2.01	0.42
27:BQ:110:ILE:HD13	27:BQ:138:ALA:CB	2.49	0.42
32:BV:19:HIS:HB2	32:BV:20:TYR:CD1	2.55	0.42
32:BV:53:PHE:CE2	32:BV:57:LEU:HD11	2.54	0.42
35:BY:137:ARG:CG	35:BY:181:ARG:HG3	2.49	0.42
3:C2:94:THR:HG23	11:CA:319:A:H2	1.84	0.42
3:C2:146:HIS:HA	3:C2:149:LYS:HE2	2.02	0.42
4:C3:192:PHE:CD1	7:C6:21:ARG:NH1	2.86	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:177:U:H2'	11:CA:178:U:C6	2.54	0.42
11:CA:473:A:C6	11:CA:474:G:C6	3.07	0.42
11:CA:560:C:H4'	34:CX:8:LEU:HG	2.02	0.42
11:CA:1060:A:C5	11:CA:1061:U:H1'	2.54	0.42
11:CA:1188:A:HO2'	11:CA:1189:A:H3'	1.85	0.42
11:CA:1514:G:C5'	30:CT:90:GLY:HA2	2.49	0.42
12:CB:148:SER:HA	12:CB:149:PRO:HD3	1.76	0.42
13:CC:109:ASN:ND2	13:CC:178:VAL:HG12	2.34	0.42
13:CC:228:ARG:HG2	13:CC:228:ARG:H	1.44	0.42
14:CD:142:ASN:ND2	26:CP:62:TYR:OH	2.52	0.42
24:CN:30:ILE:HB	24:CN:37:THR:O	2.19	0.42
26:CP:16:LEU:HD21	33:CW:64:ILE:HG12	2.01	0.42
27:CQ:110:ILE:HD13	27:CQ:138:ALA:CB	2.49	0.42
30:CT:99:CYS:SG	30:CT:100:HIS:N	2.92	0.42
31:CU:34:ARG:HG2	31:CU:35:THR:N	2.32	0.42
9:D8:46:GLU:O	9:D8:50:VAL:HG23	2.19	0.42
11:DA:1121:C:H5'	11:DA:1608:C:OP2	2.20	0.42
11:DA:1144:A:H2'	11:DA:1145:C:O4'	2.19	0.42
11:DA:1269:G:H5"	11:DA:1269:G:H8	1.85	0.42
11:DA:1307:U:H5'	20:DJ:83:ARG:HH22	1.84	0.42
11:DA:1445:G:H2'	11:DA:1446:A:H8	1.83	0.42
13:DC:157:GLN:NE2	13:DC:158:GLY:H	2.16	0.42
14:DD:86:LEU:HD12	14:DD:86:LEU:HA	1.65	0.42
14:DD:149:ARG:HB2	14:DD:152:SER:H	1.84	0.42
21:DK:150:ARG:NH1	21:DK:150:ARG:HG2	2.34	0.42
28:DR:140:ARG:HG2	28:DR:163:ASP:O	2.18	0.42
2:A1:61:GLU:O	6:A5:51:ARG:NH1	2.53	0.42
3:A2:192:GLU:HB2	27:AQ:18:ASN:CG	2.44	0.42
8:A7:72:GLY:O	8:A7:76:LEU:HG	2.19	0.42
10:A9:128:HIS:CD2	10:A9:131:ARG:HG3	2.54	0.42
11:AA:27:A:H2'	11:AA:28:U:O4'	2.19	0.42
11:AA:177:U:H2'	11:AA:178:U:C6	2.53	0.42
11:AA:328:G:H5'	11:AA:330:C:H41	1.84	0.42
11:AA:680:U:H3	11:AA:721:A:H61	1.66	0.42
11:AA:1232:U:H2'	11:AA:1233:U:O4'	2.20	0.42
11:AA:1362:U:P	32:AV:59:LYS:HZ1	2.38	0.42
11:AA:1660:A:H61	11:AA:1665:U:H3	1.67	0.42
11:AA:1752:U:H4'	11:AA:1753:A:N7	2.35	0.42
12:AB:121:THR:HG23	12:AB:143:LEU:HD12	2.01	0.42
13:AC:45:THR:HB	13:AC:48:LYS:H	1.84	0.42
14:AD:149:ARG:HB2	14:AD:152:SER:H	1.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:AR:20:HIS:CE1	28:AR:50:THR:HG22	2.54	0.42
30:AT:76:ILE:HA	30:AT:79:LEU:HD12	2.01	0.42
33:AW:129:THR:HB	33:AW:142:VAL:CG1	2.49	0.42
35:AY:193:VAL:O	35:AY:196:ALA:HB3	2.20	0.42
1:B0:43:ASN:HA	11:BA:1708:A:O2'	2.18	0.42
11:BA:270:U:H5'	11:BA:271:U:H6	1.83	0.42
11:BA:369:A:OP2	11:BA:370:U:OP2	2.38	0.42
11:BA:585:A:OP2	34:BX:44:ARG:NH2	2.39	0.42
11:BA:679:U:H4'	11:BA:680:U:OP1	2.19	0.42
11:BA:873:G:O2'	21:BK:51:GLU:HA	2.20	0.42
11:BA:903:G:N3	11:BA:966:A:H1'	2.35	0.42
11:BA:1151:G:H21	11:BA:1431:A:H62	1.65	0.42
11:BA:1292:U:H3'	12:BB:98:ARG:HH12	1.83	0.42
11:BA:1421:G:HO2'	24:BN:6:TRP:HA	1.84	0.42
13:BC:228:ARG:H	13:BC:228:ARG:HG2	1.47	0.42
14:BD:54:LYS:HA	14:BD:54:LYS:HD3	1.86	0.42
28:BR:62:ASN:HB3	28:BR:63:GLY:H	1.62	0.42
28:BR:133:ILE:HB	28:BR:145:TRP:HB2	2.01	0.42
28:BR:184:ALA:HB3	28:BR:206:ARG:NH1	2.35	0.42
32:BV:32:LYS:HB2	32:BV:47:ARG:HE	1.84	0.42
3:C2:10:LYS:HE2	11:CA:314:A:OP2	2.19	0.42
6:C5:44:MET:HE2	21:CK:97:LEU:HD12	2.01	0.42
11:CA:98:U:O2'	11:CA:101:A:N3	2.47	0.42
11:CA:135:A:N1	35:CY:187:ARG:HB3	2.35	0.42
11:CA:158:G:N3	35:CY:13:GLN:NE2	2.67	0.42
11:CA:228:C:O2'	11:CA:229:A:H5"	2.18	0.42
11:CA:515:U:O2'	26:CP:58:PHE:O	2.37	0.42
11:CA:533:G:N2	39:CA:2090:HOH:O	2.49	0.42
11:CA:731:C:H4'	18:CH:80:ASP:OD2	2.19	0.42
11:CA:764:U:C5	11:CA:766:G:C2	3.08	0.42
11:CA:933:A:H4'	11:CA:1045:G:O2'	2.19	0.42
11:CA:1151:G:H21	11:CA:1431:A:H62	1.66	0.42
11:CA:1174:A:C2'	11:CA:1175:A:H5'	2.49	0.42
11:CA:1434:C:C2'	11:CA:1435:G:H5"	2.47	0.42
11:CA:1443:A:H5'	11:CA:1445:G:O4'	2.19	0.42
30:CT:8:PHE:HB2	30:CT:145:THR:HA	2.00	0.42
30:CT:34:ILE:HD11	30:CT:58:TYR:OH	2.19	0.42
32:CV:53:PHE:CE2	32:CV:57:LEU:HD11	2.54	0.42
2:D1:54:VAL:HB	17:DG:28:CYS:HB3	2.02	0.42
3:D2:64:ARG:HA	3:D2:64:ARG:HD3	1.79	0.42
3:D2:146:HIS:HA	3:D2:149:LYS:HE2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:D7:81:GLY:HA3	31:DU:17:LYS:HE2	2.01	0.42
11:DA:125:U:H6	11:DA:125:U:H5"	1.85	0.42
11:DA:283:A:H2'	11:DA:284:U:C6	2.54	0.42
11:DA:313:G:H2'	11:DA:313:G:OP2	2.20	0.42
11:DA:1098:A:H5"	11:DA:1099:G:OP2	2.20	0.42
15:DE:227:THR:HB	15:DE:228:PRO:HD2	1.99	0.42
20:DJ:94:ASN:ND2	20:DJ:97:ASP:OD2	2.53	0.42
28:DR:184:ALA:HB3	28:DR:206:ARG:NH1	2.35	0.42
33:DW:222:THR:CG2	33:DW:226:ASN:HB2	2.50	0.42
33:DW:239:GLU:CD	33:DW:239:GLU:N	2.72	0.42
35:DY:193:VAL:O	35:DY:196:ALA:HB3	2.20	0.42
2:A1:21:ARG:HG3	11:AA:1134:C:H4'	2.00	0.42
5:A4:69:GLU:OE2	5:A4:86:LYS:HE2	2.20	0.42
10:A9:103:LEU:HG	31:AU:58:LEU:HD23	2.01	0.42
11:AA:12:U:H2'	11:AA:13:C:C6	2.54	0.42
11:AA:514:G:H4'	26:AP:34:SER:HB3	2.01	0.42
11:AA:1119:G:C6	11:AA:1120:A:C6	3.07	0.42
11:AA:1443:A:H5'	11:AA:1445:G:O4'	2.20	0.42
11:AA:1651:G:C5	11:AA:1673:A:N6	2.88	0.42
12:AB:48:GLU:O	12:AB:52:LYS:HG2	2.19	0.42
17:AG:72:MET:HE3	17:AG:80:LYS:C	2.45	0.42
24:AN:39:ARG:HH11	24:AN:39:ARG:CG	2.21	0.42
25:AO:96:LYS:HE3	25:AO:96:LYS:HB2	1.81	0.42
31:AU:49:ASP:OD1	31:AU:75:LYS:HA	2.20	0.42
31:AU:121:GLU:HA	31:AU:124:LEU:HG	2.01	0.42
33:AW:89:MET:HE2	33:AW:102:ARG:HD3	2.02	0.42
33:AW:160:ASP:OD1	33:AW:176:HIS:HB3	2.19	0.42
2:B1:35:LYS:HA	2:B1:35:LYS:HD3	1.79	0.42
3:B2:73:PHE:CZ	3:B2:112:ILE:HD11	2.55	0.42
3:B2:146:HIS:HA	3:B2:149:LYS:HE2	2.01	0.42
6:B5:99:PRO:HG2	11:BA:1750:A:C8	2.54	0.42
11:BA:39:A:H61	11:BA:459:G:H1'	1.84	0.42
11:BA:221:A:H2'	11:BA:221:A:N3	2.34	0.42
11:BA:328:G:H5'	11:BA:330:C:H41	1.84	0.42
11:BA:762:U:C5	26:BP:6:ARG:NH1	2.87	0.42
11:BA:896:U:H2'	11:BA:897:A:C8	2.55	0.42
11:BA:1207:C:H5'	11:BA:1208:A:OP2	2.18	0.42
11:BA:1661:G:C2'	11:BA:1662:C:OP2	2.67	0.42
11:BA:1721:G:H3'	11:BA:1721:G:H8	1.83	0.42
12:BB:79:GLN:NE2	12:BB:95:SER:O	2.52	0.42
22:BL:46:SER:C	22:BL:47:HIS:HD2	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BN:16:ASP:OD1	24:BN:26:ARG:NH1	2.52	0.42
28:BR:297:GLU:HA	28:BR:298:PRO:HD2	1.89	0.42
29:BS:79:VAL:HA	29:BS:80:PRO:HD3	1.87	0.42
31:BU:121:GLU:HA	31:BU:124:LEU:HG	2.01	0.42
35:BY:7:TYR:HA	35:BY:8:PRO:HD3	1.59	0.42
3:C2:196:LEU:HD23	3:C2:196:LEU:HA	1.65	0.42
4:C3:70:TYR:O	4:C3:74:LEU:HG	2.19	0.42
5:C4:72:LEU:HD12	5:C4:85:ARG:HB3	2.00	0.42
11:CA:223:C:H42	11:CA:235:A:H2	1.66	0.42
11:CA:238:G:HO2'	11:CA:239:A:P	2.38	0.42
11:CA:384:C:H41	11:CA:391:A:H1'	1.84	0.42
11:CA:479:G:H2'	11:CA:480:A:O4'	2.19	0.42
11:CA:535:A:HO2'	11:CA:536:C:P	2.42	0.42
11:CA:662:U:H2'	11:CA:663:G:O4'	2.19	0.42
11:CA:1153:U:H1'	29:CS:131:THR:HG23	2.01	0.42
11:CA:1358:A:C5	11:CA:1382:A:C6	3.07	0.42
12:CB:79:GLN:NE2	12:CB:95:SER:O	2.52	0.42
13:CC:68:LYS:HB2	13:CC:68:LYS:HE3	1.66	0.42
13:CC:164:GLY:O	13:CC:167:LYS:HB3	2.20	0.42
18:CH:80:ASP:OD1	18:CH:124:LYS:HE3	2.20	0.42
22:CL:8:GLY:O	27:CQ:98:ARG:HD3	2.19	0.42
28:CR:240:TRP:CE3	28:CR:245:LEU:HD22	2.42	0.42
33:CW:36:HIS:ND1	33:CW:87:GLY:HA3	2.34	0.42
5:D4:127:ARG:NH2	11:DA:862:A:H1'	2.33	0.42
5:D4:216:ILE:H	5:D4:216:ILE:HG13	1.58	0.42
8:D7:13:TYR:CE1	8:D7:49:LEU:HD21	2.54	0.42
11:DA:933:A:H4'	11:DA:1045:G:O2'	2.19	0.42
11:DA:970:A:O2'	11:DA:1738:U:O2	2.38	0.42
11:DA:1060:A:C5	11:DA:1061:U:H1'	2.55	0.42
11:DA:1143:A:H2'	11:DA:1144:A:H8	1.77	0.42
11:DA:1394:U:H2'	11:DA:1395:A:O4'	2.19	0.42
14:DD:163:PRO:O	14:DD:164:LEU:HB2	2.20	0.42
15:DE:141:ARG:HB2	15:DE:223:TYR:CE1	2.55	0.42
18:DH:108:TYR:CE2	18:DH:121:THR:HG21	2.55	0.42
22:DL:78:ASN:HD21	22:DL:80:LYS:HE2	1.84	0.42
28:DR:161:HIS:HB3	28:DR:197:LYS:CE	2.48	0.42
28:DR:297:GLU:HA	28:DR:298:PRO:HD2	1.89	0.42
33:DW:47:LEU:HD21	33:DW:92:VAL:HG11	2.02	0.42
6:A5:69:LEU:HA	6:A5:69:LEU:HD12	1.83	0.42
11:AA:112:U:H2'	11:AA:113:U:C6	2.54	0.42
11:AA:238:G:H1'	11:AA:239:A:OP2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:384:C:H41	11:AA:391:A:H1'	1.84	0.42
11:AA:879:G:H5"	11:AA:880:G:OP2	2.20	0.42
11:AA:1223:U:H4'	11:AA:1224:C:OP1	2.20	0.42
11:AA:1296:G:N3	11:AA:1296:G:H2'	2.35	0.42
15:AE:49:PHE:CE1	15:AE:139:PRO:HD3	2.55	0.42
17:AG:150:ILE:O	17:AG:153:CYS:HB2	2.18	0.42
21:AK:44:VAL:HG22	21:AK:54:VAL:HB	2.02	0.42
5:B4:155:SER:H	5:B4:158:SER:HB2	1.84	0.42
10:B9:133:TYR:CE1	11:BA:1207:C:H1'	2.55	0.42
11:BA:27:A:H2'	11:BA:28:U:O4'	2.20	0.42
11:BA:621:C:H4'	25:BO:119:LEU:HD22	2.02	0.42
11:BA:978:C:O2'	11:BA:980:G:N7	2.47	0.42
11:BA:1004:A:N3	11:BA:1743:A:H1'	2.34	0.42
11:BA:1508:G:O2'	11:BA:1509:U:P	2.78	0.42
11:BA:1520:U:H1'	23:BM:89:ILE:HG13	2.02	0.42
22:BL:131:LEU:HD23	22:BL:131:LEU:HA	1.76	0.42
23:BM:15:HIS:HB3	23:BM:22:ILE:HB	2.01	0.42
23:BM:15:HIS:NE2	23:BM:66:CYS:SG	2.92	0.42
23:BM:122:HIS:HE1	29:BS:128:TYR:OH	2.02	0.42
28:BR:100:LEU:HB3	28:BR:114:PHE:CD1	2.54	0.42
28:BR:276:GLN:O	28:BR:294:ILE:HG23	2.20	0.42
30:BT:64:LEU:O	30:BT:68:VAL:HG23	2.20	0.42
1:C0:41:LEU:HA	1:C0:41:LEU:HD23	1.79	0.42
4:C3:123:TYR:O	4:C3:126:LEU:HB3	2.19	0.42
5:C4:24:ASP:HA	5:C4:25:PRO:HD2	1.74	0.42
10:C9:128:HIS:CD2	10:C9:131:ARG:HG3	2.54	0.42
11:CA:12:U:H2'	11:CA:13:C:C6	2.54	0.42
11:CA:631:C:OP1	18:CH:32:LYS:HG3	2.20	0.42
11:CA:812:U:H3'	11:CA:813:U:H5"	2.01	0.42
11:CA:1573:G:N2	30:CT:91:ASN:HB2	2.35	0.42
14:CD:71:PHE:CD1	33:CW:254:ARG:HD3	2.55	0.42
15:CE:57:GLU:HG3	15:CE:59:GLU:CG	2.50	0.42
18:CH:57:ARG:H	18:CH:57:ARG:HG2	1.52	0.42
3:D2:192:GLU:HB2	27:DQ:18:ASN:CG	2.45	0.42
4:D3:70:TYR:O	4:D3:74:LEU:HG	2.19	0.42
8:D7:6:LYS:HZ3	31:DU:20:ASN:ND2	2.16	0.42
8:D7:13:TYR:CD1	8:D7:76:LEU:HD22	2.54	0.42
11:DA:33:G:C4	11:DA:467:A:C6	3.08	0.42
11:DA:69:A:H3'	35:DY:173:ARG:NH2	2.28	0.42
11:DA:135:A:H61	35:DY:191:LYS:HB2	1.84	0.42
11:DA:615:A:H1'	11:DA:1079:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:983:A:H2'	11:DA:984:C:C6	2.55	0.42
11:DA:1113:G:C2'	11:DA:1114:G:H5'	2.49	0.42
11:DA:1362:U:H2'	11:DA:1363:U:C6	2.55	0.42
11:DA:1462:U:C4'	11:DA:1463:U:OP1	2.63	0.42
12:DB:173:MET:HB2	12:DB:173:MET:HE3	1.74	0.42
13:DC:112:LEU:HD23	13:DC:112:LEU:HA	1.90	0.42
14:DD:110:GLN:NE2	14:DD:126:ARG:HB2	2.35	0.42
18:DH:12:LYS:HB2	18:DH:12:LYS:HE3	1.47	0.42
20:DJ:23:LEU:HD22	20:DJ:112:ILE:HG12	2.00	0.42
32:DV:98:ILE:HD11	32:DV:117:LEU:HD22	2.02	0.42
33:DW:88:LEU:HD11	33:DW:104:LEU:HD23	2.00	0.42
33:DW:141:ILE:HG22	33:DW:149:ILE:HB	2.02	0.42
4:A3:127:LEU:HB2	4:A3:174:TYR:CE1	2.55	0.42
11:AA:200:U:H2'	11:AA:201:A:O4'	2.20	0.42
11:AA:1520:U:O2'	23:AM:89:ILE:HG21	2.20	0.42
14:AD:131:GLN:O	14:AD:132:ARG:HB2	2.19	0.42
15:AE:85:THR:O	15:AE:99:PHE:HA	2.20	0.42
17:AG:26:ASP:HA	17:AG:27:PRO:HD2	1.88	0.42
22:AL:2:GLY:C	22:AL:3:VAL:HG23	2.44	0.42
22:AL:34:LEU:H	22:AL:34:LEU:HG	1.61	0.42
23:AM:62:THR:HB	23:AM:65:GLN:HG3	2.01	0.42
25:AO:133:LEU:HA	27:AQ:147:ILE:HG21	2.01	0.42
28:AR:174:MET:HE2	28:AR:174:MET:HB3	1.89	0.42
35:AY:75:LEU:O	35:AY:94:ARG:HA	2.20	0.42
4:B3:115:ARG:NH1	11:BA:632:U:N3	2.68	0.42
6:B5:47:PRO:O	6:B5:50:LYS:HB2	2.20	0.42
11:BA:52:G:H2'	11:BA:53:C:O4'	2.19	0.42
11:BA:206:U:H5"	27:BQ:16:PHE:CD2	2.54	0.42
11:BA:364:G:OP1	27:BQ:95:LYS:HA	2.20	0.42
11:BA:413:C:H5'	35:BY:87:ARG:HH12	1.84	0.42
11:BA:538:A:H2'	34:BX:32:LYS:HD2	2.01	0.42
11:BA:593:A:H2'	11:BA:594:U:H6	1.84	0.42
11:BA:812:U:H3'	11:BA:813:U:H5"	2.02	0.42
11:BA:1064:A:O2'	11:BA:1065:A:H3'	2.19	0.42
11:BA:1119:G:C6	11:BA:1120:A:C6	3.07	0.42
11:BA:1466:C:C2	11:BA:1485:G:N2	2.88	0.42
11:BA:1472:U:H5	30:BT:105:ARG:CZ	2.33	0.42
11:BA:1561:U:H2'	11:BA:1562:G:C8	2.54	0.42
12:BB:12:ARG:HB3	12:BB:169:MET:SD	2.59	0.42
15:BE:36:LEU:HD12	15:BE:36:LEU:HA	1.92	0.42
19:BI:29:GLY:HA2	19:BI:65:LEU:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BO:83:ALA:HA	25:BO:84:PRO:HD2	1.77	0.42
25:BO:88:GLU:HG3	25:BO:89:ASP:N	2.35	0.42
26:BP:74:TYR:CE1	26:BP:84:GLU:OE2	2.72	0.42
28:BR:122:TYR:HE2	28:BR:138:ALA:HB2	1.85	0.42
28:BR:148:LEU:HD23	28:BR:148:LEU:HA	1.87	0.42
7:C6:34:LYS:HZ1	7:C6:78:LYS:HE3	1.82	0.42
11:CA:229:A:HO2'	11:CA:230:A:P	2.31	0.42
11:CA:506:U:H5'	14:CD:133:HIS:NE2	2.35	0.42
11:CA:597:U:H2'	11:CA:598:A:C8	2.54	0.42
11:CA:611:U:H2'	11:CA:612:U:H6	1.85	0.42
11:CA:886:U:O2	11:CA:987:U:H1'	2.20	0.42
11:CA:1246:C:HO2'	11:CA:1247:A:P	2.42	0.42
11:CA:1360:U:HO2'	11:CA:1361:A:P	2.38	0.42
11:CA:1362:U:P	32:CV:59:LYS:NZ	2.89	0.42
11:CA:1446:A:O2'	11:CA:1512:G:OP1	2.37	0.42
11:CA:1466:C:H5'	11:CA:1467:U:OP2	2.20	0.42
11:CA:1517:A:OP1	23:CM:133:VAL:N	2.48	0.42
11:CA:1724:U:H5"	11:CA:1724:U:H6	1.84	0.42
11:CA:1742:G:N7	21:CK:146:ARG:NH2	2.67	0.42
14:CD:163:PRO:O	14:CD:164:LEU:HB2	2.20	0.42
15:CE:101:GLY:O	15:CE:116:TRP:HA	2.20	0.42
17:CG:71:LEU:C	17:CG:73:PHE:H	2.28	0.42
19:CI:29:GLY:HA2	19:CI:65:LEU:O	2.18	0.42
26:CP:110:ARG:O	26:CP:114:ARG:HD2	2.19	0.42
28:CR:161:HIS:H	28:CR:161:HIS:HD2	1.65	0.42
29:CS:121:LEU:HD23	29:CS:121:LEU:HA	1.87	0.42
30:CT:101:GLY:O	30:CT:105:ARG:HG2	2.20	0.42
4:D3:13:THR:O	4:D3:17:GLU:HG3	2.20	0.42
4:D3:174:TYR:CD2	4:D3:180:ARG:HB2	2.55	0.42
5:D4:72:LEU:HD12	5:D4:85:ARG:HB3	2.02	0.42
7:D6:45:PHE:CD2	25:DO:57:ARG:HD3	2.55	0.42
11:DA:374:G:H8	11:DA:374:G:H5"	1.85	0.42
11:DA:620:U:O2'	25:DO:115:TYR:OH	2.36	0.42
11:DA:633:U:H3	11:DA:675:A:C4'	2.32	0.42
11:DA:771:A:C6	33:DW:19:MET:HE3	2.55	0.42
11:DA:866:U:O2	11:DA:966:A:O2'	2.38	0.42
11:DA:896:U:H2'	11:DA:897:A:C8	2.55	0.42
11:DA:1479:G:H5'	11:DA:1480:U:OP2	2.20	0.42
11:DA:1488:A:H1'	11:DA:1489:U:OP1	2.20	0.42
11:DA:1535:A:O3'	30:DT:45:VAL:HG12	2.19	0.42
11:DA:1660:A:H61	11:DA:1665:U:H3	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1751:U:HO2'	11:DA:1753:A:H61	1.67	0.42
13:DC:45:THR:HB	13:DC:48:LYS:H	1.84	0.42
13:DC:109:ASN:C	13:DC:109:ASN:HD22	2.28	0.42
13:DC:217:PRO:HA	13:DC:218:PRO:HD3	1.66	0.42
15:DE:101:GLY:O	15:DE:116:TRP:HA	2.20	0.42
17:DG:71:LEU:HG	17:DG:150:ILE:CD1	2.49	0.42
28:DR:133:ILE:HB	28:DR:145:TRP:HB2	2.00	0.42
29:DS:34:ILE:HD13	29:DS:50:VAL:HG21	2.01	0.42
32:DV:32:LYS:HB2	32:DV:47:ARG:HE	1.85	0.42
33:DW:129:THR:HB	33:DW:142:VAL:CG1	2.49	0.42
3:A2:84:THR:OG1	3:A2:85:LYS:N	2.53	0.42
6:A5:47:PRO:O	6:A5:50:LYS:HB2	2.20	0.42
9:A8:43:VAL:HG12	23:AM:57:ARG:HG3	2.02	0.42
11:AA:283:A:H2'	11:AA:284:U:C6	2.54	0.42
11:AA:1242:G:N2	11:AA:1412:C:H1'	2.35	0.42
11:AA:1466:C:H5'	11:AA:1467:U:OP2	2.20	0.42
11:AA:1488:A:H5"	20:AJ:59:LYS:NZ	2.34	0.42
11:AA:1558:A:H3'	11:AA:1559:A:H8	1.84	0.42
11:AA:1585:U:H2'	11:AA:1586:A:H8	1.84	0.42
13:AC:225:LYS:HE2	28:AR:210:LYS:HB3	2.02	0.42
14:AD:163:PRO:O	14:AD:164:LEU:HB2	2.20	0.42
15:AE:219:LEU:HD12	15:AE:219:LEU:HA	1.85	0.42
17:AG:44:VAL:HA	17:AG:45:PRO:HD2	1.77	0.42
24:AN:16:ASP:OD1	24:AN:26:ARG:NH1	2.52	0.42
25:AO:30:MET:HE2	25:AO:30:MET:HB3	1.99	0.42
28:AR:226:LYS:O	28:AR:242:ILE:HG13	2.20	0.42
29:AS:33:LEU:HD11	29:AS:59:ALA:HA	2.02	0.42
30:AT:89:ARG:HH11	30:AT:92:LEU:HB3	1.84	0.42
32:AV:53:PHE:O	32:AV:57:LEU:HG	2.20	0.42
32:AV:98:ILE:HD11	32:AV:117:LEU:HD22	2.02	0.42
33:AW:116:LEU:HB3	33:AW:120:GLU:HB2	2.01	0.42
10:B9:95:LEU:HD12	10:B9:95:LEU:HA	1.73	0.42
11:BA:92:G:H5'	11:BA:452:A:O2'	2.20	0.42
11:BA:413:C:H4'	11:BA:414:G:OP2	2.20	0.42
11:BA:611:U:H2'	11:BA:612:U:H6	1.85	0.42
11:BA:764:U:C5	11:BA:766:G:C2	3.07	0.42
11:BA:936:U:C5	25:BO:15:GLY:O	2.72	0.42
11:BA:1144:A:H2'	11:BA:1145:C:O4'	2.20	0.42
11:BA:1199:G:N2	31:BU:27:LYS:HG3	2.34	0.42
11:BA:1361:A:H2'	11:BA:1362:U:C6	2.54	0.42
14:BD:116:LEU:HD23	14:BD:116:LEU:HA	1.89	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:BK:150:ARG:CG	21:BK:150:ARG:HH11	2.33	0.42
22:BL:9:ILE:HA	27:BQ:98:ARG:HB3	2.01	0.42
31:BU:3:ASP:C	31:BU:5:ASN:H	2.27	0.42
32:BV:28:PHE:CE2	32:BV:32:LYS:HD3	2.55	0.42
32:BV:98:ILE:HG22	32:BV:99:ASP:O	2.20	0.42
35:BY:38:GLY:N	35:BY:48:TYR:O	2.46	0.42
35:BY:152:ASP:HA	35:BY:153:PRO:HD2	1.84	0.42
36:BZ:47:VAL:N	36:BZ:74:ARG:HH22	2.18	0.42
5:C4:170:ILE:HG13	5:C4:210:ILE:HG21	2.02	0.42
11:CA:639:C:H2'	11:CA:640:A:O4'	2.20	0.42
11:CA:772:A:C2	14:CD:71:PHE:HE2	2.38	0.42
11:CA:1191:A:C6	11:CA:1237:G:H1'	2.55	0.42
11:CA:1508:G:O2'	11:CA:1509:U:P	2.78	0.42
12:CB:48:GLU:O	12:CB:52:LYS:HG2	2.18	0.42
15:CE:243:THR:HB	15:CE:244:PHE:HD1	1.85	0.42
20:CJ:16:LYS:HD3	20:CJ:16:LYS:HA	1.84	0.42
22:CL:6:PRO:HG3	22:CL:14:LYS:HE3	2.01	0.42
28:CR:77:HIS:HB3	28:CR:96:TRP:HB2	2.01	0.42
28:CR:100:LEU:HB2	28:CR:114:PHE:HB2	2.02	0.42
30:CT:125:THR:HB	30:CT:126:LYS:H	1.64	0.42
32:CV:28:PHE:CE2	32:CV:32:LYS:HD3	2.55	0.42
35:CY:106:MET:HE2	35:CY:106:MET:HB3	1.85	0.42
35:CY:121:ILE:HD12	35:CY:124:LEU:HD11	2.01	0.42
2:D1:20:SER:O	11:DA:1591:C:C6	2.72	0.42
3:D2:11:ARG:O	27:DQ:132:LYS:NZ	2.52	0.42
3:D2:84:THR:OG1	3:D2:85:LYS:N	2.52	0.42
6:D5:47:PRO:O	6:D5:50:LYS:HB2	2.19	0.42
7:D6:22:LEU:HD23	7:D6:22:LEU:HA	1.84	0.42
10:D9:95:LEU:HD13	31:DU:52:GLN:HB2	2.02	0.42
11:DA:138:G:N2	11:DA:166:C:O2	2.53	0.42
11:DA:947:C:H4'	11:DA:1076:U:O2'	2.19	0.42
11:DA:1447:C:H5"	30:DT:48:GLU:OE2	2.20	0.42
11:DA:1752:U:O2'	11:DA:1753:A:P	2.77	0.42
12:DB:159:CYS:HB3	12:DB:170:ILE:CD1	2.50	0.42
14:DD:147:MET:HE2	14:DD:147:MET:HB3	1.69	0.42
19:DI:122:ASP:HA	19:DI:123:PRO:HD3	1.76	0.42
27:DQ:15:VAL:HG21	27:DQ:33:TYR:HB2	2.02	0.42
28:DR:100:LEU:HB2	28:DR:114:PHE:HB2	2.01	0.42
32:DV:28:PHE:CE2	32:DV:32:LYS:HD3	2.54	0.42
33:DW:89:MET:HE2	33:DW:102:ARG:HD3	2.01	0.42
3:A2:56:VAL:HG13	3:A2:57:ARG:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A4:72:LEU:HD12	5:A4:85:ARG:HB3	2.00	0.42
10:A9:129:TYR:CB	10:A9:152:LEU:HB2	2.49	0.42
11:AA:440:C:H2'	11:AA:441:C:C6	2.55	0.42
11:AA:453:G:H4'	33:AW:26:ILE:HG13	2.01	0.42
11:AA:477:G:H2'	11:AA:478:G:O4'	2.20	0.42
11:AA:657:U:H2'	11:AA:658:C:C6	2.55	0.42
11:AA:985:C:H2'	11:AA:986:G:H8	1.83	0.42
11:AA:1060:A:C5	11:AA:1061:U:H1'	2.55	0.42
11:AA:1191:A:C6	11:AA:1237:G:H1'	2.54	0.42
11:AA:1423:U:OP1	24:AN:9:HIS:ND1	2.53	0.42
13:AC:109:ASN:C	13:AC:109:ASN:HD22	2.27	0.42
14:AD:99:LEU:HD23	14:AD:99:LEU:HA	1.85	0.42
15:AE:181:ALA:HA	15:AE:199:THR:HG21	2.02	0.42
17:AG:13:LEU:C	17:AG:15:GLY:H	2.28	0.42
19:AI:102:ASN:HB2	28:AR:67:ILE:HG23	2.01	0.42
24:AN:30:ILE:HB	24:AN:37:THR:O	2.20	0.42
28:AR:133:ILE:HB	28:AR:145:TRP:HB2	2.01	0.42
33:AW:126:LEU:HD13	33:AW:143:THR:HG21	2.02	0.42
1:B0:84:GLN:NE2	22:BL:57:GLY:H	2.17	0.42
7:B6:42:GLN:HE22	7:B6:55:GLU:H	1.68	0.42
8:B7:13:TYR:CE1	8:B7:49:LEU:HD21	2.54	0.42
9:B8:46:GLU:O	9:B8:50:VAL:HG23	2.20	0.42
11:BA:191:A:H2'	11:BA:192:C:C6	2.55	0.42
11:BA:246:U:H5	27:BQ:33:TYR:CZ	2.38	0.42
11:BA:488:G:C8	11:BA:488:G:OP2	2.73	0.42
11:BA:537:A:O2'	34:BX:32:LYS:HE3	2.20	0.42
11:BA:587:U:O4	34:BX:37:LYS:HE2	2.19	0.42
11:BA:1113:G:N3	11:BA:1113:G:H2'	2.35	0.42
11:BA:1287:U:OP1	11:BA:1300:G:N2	2.53	0.42
11:BA:1345:A:O2'	19:BI:3:GLN:OE1	2.35	0.42
11:BA:1529:U:C2'	11:BA:1530:U:OP1	2.68	0.42
12:BB:164:THR:CG2	12:BB:200:HIS:HB3	2.49	0.42
13:BC:180:PHE:HE2	13:BC:185:MET:HE2	1.84	0.42
20:BJ:90:ASP:O	20:BJ:91:LEU:HD23	2.19	0.42
28:BR:34:LYS:HB2	28:BR:37:GLU:CD	2.45	0.42
33:BW:36:HIS:ND1	33:BW:87:GLY:HA3	2.35	0.42
33:BW:176:HIS:CD2	33:BW:178:GLU:OE2	2.73	0.42
1:C0:74:ASP:N	1:C0:74:ASP:OD1	2.52	0.42
3:C2:84:THR:OG1	3:C2:85:LYS:N	2.53	0.42
11:CA:794:A:H1'	11:CA:797:A:H2	1.85	0.42
11:CA:1232:U:H2'	11:CA:1233:U:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:1408:U:O2'	13:CC:184:ILE:HG12	2.19	0.42
11:CA:1437:G:H2'	11:CA:1438:U:C6	2.55	0.42
11:CA:1727:G:H2'	11:CA:1728:U:O4'	2.20	0.42
12:CB:65:HIS:HA	12:CB:66:PRO:HD3	1.79	0.42
17:CG:161:MET:HE2	17:CG:161:MET:HB3	1.83	0.42
19:CI:15:LYS:HG3	19:CI:78:SER:HB3	2.02	0.42
26:CP:119:ALA:O	26:CP:123:LEU:HG	2.19	0.42
26:CP:124:LEU:HD23	26:CP:124:LEU:HA	1.86	0.42
26:CP:127:LYS:HG2	26:CP:129:GLY:H	1.83	0.42
29:CS:90:VAL:HG23	29:CS:119:LYS:O	2.20	0.42
30:CT:10:VAL:HB	30:CT:69:TYR:CE2	2.55	0.42
31:CU:3:ASP:C	31:CU:5:ASN:H	2.27	0.42
33:CW:222:THR:CG2	33:CW:226:ASN:HB2	2.50	0.42
3:D2:5:ARG:NH2	11:DA:323:U:O2'	2.53	0.42
3:D2:185:ARG:NH2	11:DA:256:U:H1'	2.34	0.42
8:D7:93:LYS:O	13:DC:70:LYS:NZ	2.47	0.42
10:D9:95:LEU:HG	11:DA:1200:G:C1'	2.49	0.42
11:DA:593:A:H2'	11:DA:594:U:H6	1.84	0.42
11:DA:665:A:H4'	11:DA:666:A:OP1	2.19	0.42
11:DA:1060:A:H4'	11:DA:1116:A:H5'	2.02	0.42
11:DA:1223:U:H4'	11:DA:1224:C:OP1	2.20	0.42
11:DA:1358:A:C5	11:DA:1382:A:C6	3.07	0.42
11:DA:1651:G:C5	11:DA:1673:A:N6	2.88	0.42
17:DG:110:ALA:HB1	17:DG:175:ALA:HB3	2.01	0.42
19:DI:131:CYS:SG	20:DJ:77:TRP:HD1	2.42	0.42
22:DL:2:GLY:C	22:DL:3:VAL:HG23	2.45	0.42
23:DM:119:ILE:HG22	23:DM:121:SER:N	2.35	0.42
25:DO:127:LEU:HD22	25:DO:127:LEU:HA	1.84	0.42
3:A2:21:HIS:HE1	11:AA:101:A:O2'	2.03	0.41
4:A3:174:TYR:CD2	4:A3:180:ARG:HB2	2.54	0.41
6:A5:99:PRO:HG2	11:AA:1750:A:C8	2.55	0.41
11:AA:70:U:OP2	35:AY:173:ARG:NH2	2.53	0.41
11:AA:82:A:H2'	11:AA:83:C:C6	2.55	0.41
11:AA:89:A:H1'	33:AW:3:ARG:O	2.20	0.41
11:AA:125:U:H6	11:AA:125:U:H5"	1.85	0.41
11:AA:153:U:OP2	26:AP:114:ARG:HG2	2.20	0.41
11:AA:315:U:O3'	27:AQ:133:THR:OG1	2.37	0.41
11:AA:342:U:H4'	11:AA:343:C:OP2	2.20	0.41
11:AA:1132:A:H2'	11:AA:1133:C:C6	2.55	0.41
11:AA:1361:A:H2'	11:AA:1362:U:H6	1.85	0.41
11:AA:1394:U:H2'	11:AA:1395:A:O4'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:1615:U:O2	16:AF:56:SER:HB3	2.20	0.41
12:AB:79:GLN:NE2	12:AB:95:SER:O	2.51	0.41
13:AC:118:VAL:HG21	13:AC:145:LEU:HD11	2.01	0.41
13:AC:162:CYS:O	13:AC:167:LYS:HB2	2.19	0.41
14:AD:110:GLN:CD	14:AD:126:ARG:HD2	2.45	0.41
14:AD:116:LEU:HD23	14:AD:116:LEU:HA	1.91	0.41
15:AE:143:GLY:N	15:AE:156:PRO:HD3	2.35	0.41
18:AH:35:LEU:HD21	18:AH:61:VAL:HG21	2.01	0.41
20:AJ:30:SER:HB3	20:AJ:107:ASP:HB2	2.01	0.41
28:AR:34:LYS:HB2	28:AR:37:GLU:CD	2.44	0.41
35:AY:180:GLN:O	35:AY:181:ARG:HB2	2.19	0.41
3:B2:22:ARG:NH2	11:BA:293:U:OP1	2.45	0.41
4:B3:127:LEU:HB2	4:B3:174:TYR:CE1	2.55	0.41
11:BA:239:A:P	11:BA:239:A:H3'	2.60	0.41
11:BA:585:A:H2'	11:BA:586:A:C8	2.55	0.41
11:BA:665:A:O3'	11:BA:666:A:C8	2.73	0.41
11:BA:719:G:H8	11:BA:719:G:O5'	2.03	0.41
11:BA:1060:A:C5	11:BA:1061:U:H1'	2.55	0.41
11:BA:1497:A:O3'	30:BT:86:ASN:ND2	2.53	0.41
11:BA:1708:A:N6	39:BA:6367:HOH:O	2.53	0.41
11:BA:1727:G:H2'	11:BA:1728:U:O4'	2.20	0.41
14:BD:6:ILE:HD13	33:BW:23:LEU:HD11	2.01	0.41
27:BQ:57:CYS:HA	27:BQ:58:PRO:HD3	1.84	0.41
28:BR:20:HIS:CE1	28:BR:50:THR:HG22	2.54	0.41
29:BS:33:LEU:HD11	29:BS:59:ALA:HA	2.02	0.41
33:BW:51:ARG:HD2	33:BW:51:ARG:HA	1.93	0.41
2:C1:18:THR:O	2:C1:24:ILE:HB	2.20	0.41
4:C3:174:TYR:CD2	4:C3:180:ARG:HB2	2.55	0.41
5:C4:69:GLU:OE2	5:C4:86:LYS:HE2	2.19	0.41
11:CA:477:G:C2	11:CA:478:G:H1'	2.55	0.41
11:CA:494:A:H2'	11:CA:495:C:O4'	2.19	0.41
11:CA:884:A:OP2	21:CK:66:ARG:N	2.52	0.41
11:CA:1176:A:H5'	11:CA:1176:A:H8	1.85	0.41
12:CB:103:THR:HA	12:CB:109:THR:HG21	2.02	0.41
13:CC:109:ASN:C	13:CC:109:ASN:HD22	2.27	0.41
13:CC:213:VAL:C	13:CC:214:ILE:HG13	2.45	0.41
25:CO:4:MET:O	25:CO:5:GLN:HG2	2.20	0.41
33:CW:89:MET:HE2	33:CW:102:ARG:HD3	2.02	0.41
1:D0:79:GLY:HA3	1:D0:91:LEU:HD13	2.02	0.41
3:D2:203:LEU:HD12	3:D2:203:LEU:HA	1.86	0.41
4:D3:132:LEU:HD23	4:D3:132:LEU:HA	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D5:46:ASP:H	21:DK:113:GLN:CD	2.27	0.41
7:D6:5:LEU:HG	18:DH:24:GLN:HE21	1.85	0.41
7:D6:9:ILE:HD12	7:D6:12:GLU:CD	2.45	0.41
10:D9:94:LYS:HG2	10:D9:95:LEU:HB2	2.02	0.41
11:DA:191:A:H2'	11:DA:192:C:C6	2.55	0.41
11:DA:753:C:H2'	11:DA:754:A:H8	1.85	0.41
11:DA:1466:C:H5'	11:DA:1467:U:OP2	2.20	0.41
11:DA:1494:U:HO2'	11:DA:1495:U:P	2.36	0.41
11:DA:1513:G:H2'	11:DA:1514:G:C1'	2.50	0.41
11:DA:1729:A:H2'	11:DA:1730:G:C8	2.55	0.41
11:DA:1746:G:H4'	11:DA:1747:A:OP1	2.20	0.41
15:DE:162:LYS:CB	15:DE:167:ARG:HH11	2.31	0.41
15:DE:181:ALA:HA	15:DE:199:THR:HG21	2.02	0.41
17:DG:44:VAL:CG2	19:DI:48:ALA:HB3	2.50	0.41
22:DL:129:ILE:H	22:DL:129:ILE:HG13	1.57	0.41
27:DQ:93:VAL:HG23	27:DQ:98:ARG:O	2.20	0.41
28:DR:122:TYR:HE2	28:DR:138:ALA:HB2	1.85	0.41
28:DR:243:LEU:HD23	28:DR:243:LEU:HA	1.81	0.41
10:A9:101:TYR:CE2	31:AU:62:LEU:HD21	2.54	0.41
11:AA:17:C:H2'	11:AA:18:C:C6	2.54	0.41
11:AA:150:A:H1'	11:AA:407:A:N7	2.35	0.41
11:AA:191:A:H2'	11:AA:192:C:C6	2.55	0.41
11:AA:225:C:H2'	11:AA:226:A:C8	2.55	0.41
11:AA:374:G:H5"	11:AA:374:G:H8	1.85	0.41
11:AA:380:G:H2'	11:AA:381:G:O4'	2.20	0.41
11:AA:749:G:O5'	11:AA:749:G:H8	2.03	0.41
11:AA:894:U:H5"	11:AA:895:U:OP2	2.20	0.41
11:AA:1316:A:H2'	11:AA:1317:A:C8	2.55	0.41
11:AA:1636:C:H2'	11:AA:1637:U:C6	2.54	0.41
12:AB:12:ARG:HB3	12:AB:169:MET:SD	2.60	0.41
16:AF:42:PHE:CE2	16:AF:90:ILE:HD12	2.54	0.41
17:AG:83:LEU:HD12	17:AG:83:LEU:HA	1.91	0.41
29:AS:76:GLU:O	29:AS:77:LYS:HB2	2.19	0.41
33:AW:31:PRO:HD2	33:AW:38:LEU:HD11	2.02	0.41
1:B0:25:LEU:H	1:B0:25:LEU:HG	1.52	0.41
6:B5:44:MET:HE2	21:BK:97:LEU:HD12	2.02	0.41
11:BA:238:G:H1'	11:BA:239:A:OP2	2.20	0.41
11:BA:636:G:H2'	11:BA:637:U:H6	1.85	0.41
11:BA:841:A:O2'	11:BA:843:A:OP1	2.36	0.41
11:BA:1142:G:C2	11:BA:1143:A:C8	3.07	0.41
13:BC:109:ASN:ND2	13:BC:178:VAL:HG12	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BD:14:THR:HA	14:BD:15:PRO:HD2	1.67	0.41
14:BD:163:PRO:O	14:BD:164:LEU:HB2	2.19	0.41
18:BH:57:ARG:H	18:BH:57:ARG:HG2	1.56	0.41
21:BK:30:VAL:HG23	21:BK:47:LEU:HD23	2.01	0.41
25:BO:127:LEU:HD22	25:BO:127:LEU:HA	1.86	0.41
30:BT:101:GLY:O	30:BT:105:ARG:HG2	2.20	0.41
30:BT:105:ARG:HG2	30:BT:105:ARG:H	1.57	0.41
32:BV:98:ILE:HD11	32:BV:117:LEU:HD22	2.03	0.41
34:BX:53:ASP:HA	34:BX:54:PRO:HD2	1.93	0.41
5:C4:34:PHE:CZ	5:C4:48:THR:HB	2.55	0.41
11:CA:112:U:H2'	11:CA:113:U:C6	2.55	0.41
11:CA:283:A:H2'	11:CA:284:U:C6	2.55	0.41
11:CA:679:U:H2'	11:CA:680:U:C6	2.53	0.41
11:CA:1235:G:C2	11:CA:1236:G:H1'	2.55	0.41
11:CA:1561:U:H2'	11:CA:1562:G:C8	2.55	0.41
11:CA:1721:G:H3'	11:CA:1721:G:H8	1.85	0.41
14:CD:86:LEU:HD12	14:CD:86:LEU:HA	1.63	0.41
14:CD:142:ASN:HB3	26:CP:62:TYR:HE2	1.84	0.41
15:CE:143:GLY:N	15:CE:156:PRO:HD3	2.35	0.41
20:CJ:94:ASN:ND2	20:CJ:97:ASP:OD2	2.53	0.41
21:CK:45:THR:HG22	21:CK:52:THR:HA	2.02	0.41
22:CL:54:GLU:OE1	22:CL:72:ARG:NH1	2.52	0.41
28:CR:100:LEU:HB3	28:CR:114:PHE:HD1	1.84	0.41
28:CR:297:GLU:OE2	28:CR:307:GLY:HA3	2.20	0.41
33:CW:23:LEU:HD12	33:CW:23:LEU:HA	1.85	0.41
35:CY:193:VAL:O	35:CY:196:ALA:HB3	2.20	0.41
5:D4:84:TRP:HB2	5:D4:112:ARG:CG	2.50	0.41
11:DA:39:A:H2'	11:DA:40:A:O4'	2.20	0.41
11:DA:206:U:H5"	27:DQ:16:PHE:CD2	2.55	0.41
11:DA:1147:U:O4'	11:DA:1168:A:N6	2.52	0.41
11:DA:1443:A:H4'	11:DA:1444:U:C5'	2.50	0.41
13:DC:180:PHE:HE2	13:DC:185:MET:HE2	1.85	0.41
14:DD:12:TYR:HA	14:DD:47:MET:HG3	2.01	0.41
17:DG:72:MET:HE3	17:DG:80:LYS:C	2.45	0.41
19:DI:42:ASN:HB3	19:DI:43:PRO:HD3	2.02	0.41
21:DK:74:ALA:HB1	21:DK:115:ALA:HB2	2.02	0.41
28:DR:77:HIS:HB3	28:DR:96:TRP:HB2	2.01	0.41
29:DS:76:GLU:O	29:DS:77:LYS:HB2	2.19	0.41
31:DU:121:GLU:HA	31:DU:124:LEU:HG	2.01	0.41
33:DW:193:ARG:NH1	33:DW:220:PHE:CE1	2.88	0.41
36:DZ:28:LEU:HA	36:DZ:29:PRO:HD2	1.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A0:56:ARG:NH1	1:A0:85:ASP:OD2	2.53	0.41
1:A0:92:LEU:HG	1:A0:93:LYS:N	2.35	0.41
3:A2:194:LYS:HD3	3:A2:194:LYS:HA	1.76	0.41
10:A9:156:LYS:HD3	7:D6:60:ILE:CG1	2.50	0.41
11:AA:93:C:O2	11:AA:417:A:O2'	2.35	0.41
11:AA:103:C:H2'	11:AA:104:A:C8	2.55	0.41
11:AA:537:A:O2'	34:AX:32:LYS:HE3	2.21	0.41
11:AA:654:U:O2	11:AA:656:G:N2	2.52	0.41
11:AA:1554:U:N3	11:AA:1586:A:C4	2.88	0.41
11:AA:1650:G:C6	11:AA:1651:G:N1	2.89	0.41
11:AA:1713:G:OP2	16:AF:30:LYS:HD2	2.21	0.41
11:AA:1742:G:N7	21:AK:146:ARG:NH2	2.68	0.41
18:AH:36:LYS:O	18:AH:40:ILE:HG13	2.20	0.41
22:AL:82:ILE:HD11	22:AL:121:PHE:CE1	2.55	0.41
25:AO:18:LEU:HD23	25:AO:18:LEU:HA	1.69	0.41
27:AQ:66:ARG:H	27:AQ:66:ARG:HG2	1.64	0.41
33:AW:254:ARG:NH1	33:AW:260:TYR:CD2	2.88	0.41
3:B2:98:LEU:HD23	3:B2:98:LEU:HA	1.86	0.41
4:B3:63:ILE:HG12	4:B3:93:PHE:O	2.20	0.41
4:B3:166:LYS:O	4:B3:170:ILE:HG13	2.20	0.41
8:B7:61:TRP:CE2	24:BN:22:VAL:HG22	2.55	0.41
9:B8:46:GLU:C	9:B8:48:LYS:H	2.27	0.41
11:BA:82:A:H2'	11:BA:83:C:C6	2.54	0.41
11:BA:420:A:N3	11:BA:432:U:O2'	2.41	0.41
11:BA:894:U:N3	21:BK:55:ARG:NH2	2.60	0.41
11:BA:1223:U:H4'	11:BA:1224:C:OP1	2.20	0.41
11:BA:1242:G:N2	11:BA:1412:C:H1'	2.35	0.41
11:BA:1330:U:C1'	30:BT:137:MET:HE2	2.51	0.41
11:BA:1342:U:H2'	11:BA:1343:G:C8	2.56	0.41
11:BA:1408:U:O2'	13:BC:184:ILE:HG12	2.20	0.41
11:BA:1431:A:H2'	11:BA:1432:C:O4'	2.20	0.41
11:BA:1721:G:C8	11:BA:1721:G:C3'	3.03	0.41
13:BC:6:ARG:HD3	13:BC:6:ARG:HA	1.87	0.41
16:BF:78:ARG:HH12	16:BF:100:GLY:CA	2.31	0.41
17:BG:13:LEU:C	17:BG:15:GLY:H	2.28	0.41
21:BK:128:ARG:HH11	21:BK:128:ARG:HG3	1.82	0.41
21:BK:150:ARG:NH1	21:BK:150:ARG:HG2	2.35	0.41
2:C1:29:VAL:O	2:C1:40:GLN:HA	2.21	0.41
3:C2:38:LEU:HD21	3:C2:104:LEU:HD21	2.02	0.41
5:C4:45:PHE:CE2	5:C4:68:VAL:HG11	2.54	0.41
5:C4:80:ASN:HB3	6:C5:61:ASN:CB	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:C5:71:VAL:HG11	6:C5:73:LEU:HD13	2.01	0.41
8:C7:74:GLU:OE1	8:C7:77:LYS:NZ	2.29	0.41
10:C9:102:LYS:HD3	10:C9:112:GLN:HB2	2.02	0.41
11:CA:39:A:H2'	11:CA:40:A:O4'	2.20	0.41
11:CA:179:C:H2'	11:CA:180:C:H6	1.85	0.41
11:CA:764:U:H4'	11:CA:765:A:OP1	2.19	0.41
11:CA:1317:A:OP1	20:CJ:51:LYS:HG3	2.20	0.41
11:CA:1431:A:H2'	11:CA:1432:C:O4'	2.20	0.41
11:CA:1520:U:O2'	23:CM:89:ILE:HG21	2.20	0.41
11:CA:1558:A:H3'	11:CA:1559:A:H8	1.85	0.41
11:CA:1644:C:P	35:CY:94:ARG:HH22	2.44	0.41
13:CC:213:VAL:HG13	32:CV:41:VAL:HG22	2.03	0.41
14:CD:131:GLN:O	14:CD:132:ARG:HB2	2.20	0.41
20:CJ:30:SER:HB3	20:CJ:107:ASP:HB2	2.02	0.41
22:CL:82:ILE:HD11	22:CL:121:PHE:CE1	2.55	0.41
27:CQ:93:VAL:HG23	27:CQ:98:ARG:O	2.21	0.41
28:CR:226:LYS:O	28:CR:242:ILE:HG13	2.20	0.41
30:CT:27:LYS:HG2	30:CT:58:TYR:CE2	2.55	0.41
31:CU:49:ASP:OD1	31:CU:75:LYS:HA	2.21	0.41
33:CW:114:LYS:HA	33:CW:114:LYS:HD2	1.75	0.41
9:D8:51:GLU:H	9:D8:51:GLU:HG3	1.61	0.41
11:DA:112:U:H2'	11:DA:113:U:C6	2.55	0.41
11:DA:179:C:H2'	11:DA:180:C:H6	1.85	0.41
11:DA:230:A:H3'	11:DA:231:U:H5"	2.01	0.41
11:DA:420:A:N3	11:DA:432:U:O2'	2.37	0.41
11:DA:764:U:C5	11:DA:766:G:C2	3.08	0.41
11:DA:812:U:H3'	11:DA:813:U:H5"	2.02	0.41
11:DA:845:G:OP1	25:DO:3:ARG:HD2	2.20	0.41
11:DA:1208:A:N6	11:DA:1217:G:O6	2.52	0.41
11:DA:1235:G:C2	11:DA:1236:G:H1'	2.55	0.41
11:DA:1316:A:H2'	11:DA:1317:A:C8	2.55	0.41
11:DA:1651:G:C2'	11:DA:1652:A:OP2	2.68	0.41
11:DA:1742:G:N7	21:DK:146:ARG:NH2	2.68	0.41
12:DB:48:GLU:O	12:DB:52:LYS:HG2	2.20	0.41
14:DD:110:GLN:CD	14:DD:126:ARG:HD2	2.45	0.41
17:DG:24:ILE:H	17:DG:24:ILE:HD13	1.85	0.41
22:DL:106:LEU:HD23	22:DL:106:LEU:HA	1.86	0.41
28:DR:226:LYS:O	28:DR:242:ILE:HG13	2.20	0.41
32:DV:19:HIS:HB2	32:DV:20:TYR:CD1	2.54	0.41
33:DW:88:LEU:HD22	33:DW:186:GLN:HB3	2.02	0.41
35:DY:182:LEU:O	35:DY:187:ARG:HD2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A0:79:GLY:HA3	1:A0:91:LEU:HD13	2.02	0.41
3:A2:98:LEU:HD23	3:A2:98:LEU:HA	1.87	0.41
4:A3:95:THR:HG22	4:A3:96:ALA:H	1.85	0.41
4:A3:178:THR:O	4:A3:179:THR:OG1	2.36	0.41
11:AA:143:C:OP1	26:AP:118:LYS:HB2	2.21	0.41
11:AA:1135:A:C6	11:AA:1136:G:C5	3.08	0.41
11:AA:1167:C:H5"	11:AA:1169:C:C6	2.56	0.41
15:AE:162:LYS:CB	15:AE:167:ARG:HH11	2.29	0.41
23:AM:134:ARG:HB2	23:AM:136:GLN:HE22	1.85	0.41
27:AQ:118:GLU:HG2	27:AQ:150:VAL:HG21	2.03	0.41
28:AR:94:SER:HB3	28:AR:124:VAL:CG2	2.44	0.41
28:AR:163:ASP:HB3	28:AR:164:TRP:H	1.61	0.41
28:AR:184:ALA:HB3	28:AR:206:ARG:NH1	2.36	0.41
29:AS:12:THR:C	29:AS:114:PHE:HE2	2.29	0.41
33:AW:51:ARG:HD2	33:AW:51:ARG:HA	1.92	0.41
1:B0:79:GLY:HA3	1:B0:91:LEU:HD13	2.02	0.41
1:B0:92:LEU:HG	1:B0:93:LYS:N	2.35	0.41
3:B2:21:HIS:ND1	3:B2:21:HIS:N	2.68	0.41
11:BA:8:U:O2	11:BA:1111:A:H3'	2.20	0.41
11:BA:103:C:H2'	11:BA:104:A:C8	2.54	0.41
11:BA:177:U:H2'	11:BA:178:U:C6	2.54	0.41
11:BA:611:U:H2'	11:BA:612:U:C6	2.56	0.41
11:BA:1329:G:N3	30:BT:137:MET:HE1	2.35	0.41
11:BA:1496:A:O3'	30:BT:96:HIS:ND1	2.53	0.41
11:BA:1544:G:N3	11:BA:1544:G:H2'	2.35	0.41
15:BE:57:GLU:HG3	15:BE:59:GLU:CG	2.50	0.41
32:BV:89:SER:C	32:BV:91:ILE:H	2.27	0.41
35:BY:20:ASP:HB2	35:BY:23:LYS:HB2	2.02	0.41
2:C1:17:LYS:HE2	11:CA:1588:G:O2'	2.19	0.41
3:C2:86:ILE:HG22	3:C2:112:ILE:CD1	2.50	0.41
3:C2:195:GLU:HG2	27:CQ:9:TYR:CD2	2.55	0.41
6:C5:28:ARG:HG3	21:CK:147:ARG:HA	2.03	0.41
11:CA:931:A:P	25:CO:96:LYS:HZ2	2.44	0.41
11:CA:937:U:H5'	25:CO:17:ALA:O	2.20	0.41
11:CA:1059:A:C6	11:CA:1060:A:C6	3.09	0.41
11:CA:1529:U:C2'	11:CA:1530:U:OP1	2.68	0.41
11:CA:1752:U:H4'	11:CA:1753:A:N7	2.35	0.41
6:D5:82:HIS:HA	11:DA:1719:A:N6	2.36	0.41
11:DA:34:U:O2'	11:DA:508:A:H5'	2.20	0.41
11:DA:177:U:H2'	11:DA:178:U:C6	2.55	0.41
11:DA:875:C:N4	11:DA:892:G:C4	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1295:C:H5'	12:DB:100:THR:HG23	2.03	0.41
28:DR:297:GLU:OE2	28:DR:307:GLY:HA3	2.20	0.41
30:DT:99:CYS:SG	30:DT:100:HIS:N	2.92	0.41
35:DY:185:PRO:HG2	35:DY:186:GLU:HG2	2.01	0.41
3:A2:5:ARG:NH1	11:AA:327:G:O6	2.52	0.41
3:A2:204:GLN:O	3:A2:208:LYS:N	2.53	0.41
11:AA:243:G:C6	11:AA:244:A:C6	3.08	0.41
11:AA:303:A:C2	11:AA:305:C:C2	3.08	0.41
11:AA:812:U:H3'	11:AA:813:U:H5"	2.03	0.41
11:AA:911:A:N6	39:AA:2161:HOH:O	2.37	0.41
12:AB:127:PHE:CG	12:AB:128:GLN:N	2.89	0.41
14:AD:149:ARG:H	14:AD:149:ARG:HG2	1.44	0.41
17:AG:71:LEU:C	17:AG:73:PHE:H	2.28	0.41
18:AH:11:LEU:O	18:AH:15:VAL:HG23	2.20	0.41
21:AK:150:ARG:HH11	21:AK:150:ARG:CG	2.34	0.41
24:AN:40:ARG:H	24:AN:40:ARG:HG2	1.36	0.41
28:AR:77:HIS:CD2	28:AR:96:TRP:HB2	2.55	0.41
32:AV:28:PHE:CE2	32:AV:32:LYS:HD3	2.56	0.41
36:AZ:45:SER:O	36:AZ:74:ARG:CZ	2.62	0.41
1:B0:56:ARG:NH1	1:B0:85:ASP:OD2	2.54	0.41
3:B2:51:ILE:HA	3:B2:64:ARG:O	2.21	0.41
3:B2:56:VAL:HG13	3:B2:57:ARG:N	2.35	0.41
11:BA:162:A:OP1	35:BY:137:ARG:HB2	2.20	0.41
11:BA:179:C:H2'	11:BA:180:C:H6	1.85	0.41
11:BA:318:U:C1'	27:BQ:6:GLN:HE21	2.33	0.41
11:BA:384:C:H41	11:BA:391:A:H1'	1.85	0.41
11:BA:391:A:C4'	11:BA:392:A:H5"	2.47	0.41
11:BA:471:C:H4'	14:BD:120:ASN:HD22	1.85	0.41
11:BA:606:U:H4'	11:BA:1072:G:O6	2.20	0.41
11:BA:857:G:O2'	25:BO:107:ASN:HB3	2.19	0.41
11:BA:968:C:H5"	39:BA:6347:HOH:O	2.19	0.41
11:BA:1149:C:H6	11:BA:1149:C:H5"	1.84	0.41
11:BA:1322:U:H2'	11:BA:1323:C:O4'	2.20	0.41
11:BA:1373:G:H5'	32:BV:4:VAL:HA	2.01	0.41
11:BA:1450:G:P	30:BT:60:ARG:HH12	2.42	0.41
11:BA:1612:C:H6	11:BA:1612:C:O5'	2.03	0.41
12:BB:29:MET:CE	12:BB:150:LEU:HD21	2.47	0.41
12:BB:201:LYS:HD2	32:BV:84:TYR:CE2	2.55	0.41
13:BC:118:VAL:HG21	13:BC:145:LEU:HD11	2.03	0.41
14:BD:110:GLN:CD	14:BD:126:ARG:HD2	2.45	0.41
14:BD:118:LEU:HD12	14:BD:118:LEU:HA	1.81	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:BE:85:THR:O	15:BE:99:PHE:HA	2.20	0.41
17:BG:150:ILE:HA	17:BG:153:CYS:SG	2.61	0.41
18:BH:83:LEU:HA	18:BH:83:LEU:HD23	1.79	0.41
19:BI:102:ASN:HB2	28:BR:67:ILE:HG23	2.03	0.41
20:BJ:64:THR:HA	20:BJ:78:ASP:O	2.20	0.41
22:BL:2:GLY:C	22:BL:3:VAL:HG23	2.45	0.41
27:BQ:139:LEU:HD23	27:BQ:139:LEU:HA	1.74	0.41
28:BR:240:TRP:CE3	28:BR:245:LEU:HD22	2.43	0.41
32:BV:53:PHE:O	32:BV:57:LEU:HG	2.20	0.41
1:C0:79:GLY:HA3	1:C0:91:LEU:HD13	2.03	0.41
3:C2:64:ARG:NH2	11:CA:323:U:OP1	2.39	0.41
4:C3:5:LYS:HA	4:C3:5:LYS:HD3	1.69	0.41
9:C8:91:LYS:HG2	9:C8:91:LYS:O	2.21	0.41
10:C9:80:TYR:HE2	10:C9:83:LYS:HZ3	1.68	0.41
10:C9:101:TYR:CE2	31:CU:62:LEU:HD21	2.56	0.41
11:CA:2:A:OP1	15:CE:180:VAL:HG11	2.20	0.41
11:CA:214:U:O2'	11:CA:215:A:H5'	2.19	0.41
11:CA:237:U:C4'	11:CA:238:G:OP1	2.69	0.41
11:CA:270:U:H4'	11:CA:270:U:OP1	2.19	0.41
11:CA:763:U:C5	11:CA:763:U:OP1	2.73	0.41
11:CA:932:G:H4'	25:CO:6:MET:HE1	2.02	0.41
11:CA:1301:A:P	13:CC:163:THR:HG21	2.61	0.41
11:CA:1316:A:H2'	11:CA:1317:A:C8	2.55	0.41
11:CA:1443:A:H4'	11:CA:1444:U:C5'	2.50	0.41
13:CC:209:ILE:HG22	13:CC:211:ASP:H	1.85	0.41
14:CD:118:LEU:HD12	14:CD:118:LEU:HA	1.84	0.41
18:CH:11:LEU:O	18:CH:15:VAL:HG23	2.20	0.41
18:CH:35:LEU:HD21	18:CH:61:VAL:HG21	2.01	0.41
28:CR:122:TYR:HE2	28:CR:138:ALA:HB2	1.85	0.41
2:D1:54:VAL:HB	17:DG:28:CYS:CA	2.50	0.41
11:DA:89:A:C6	11:DA:389:G:C6	3.09	0.41
11:DA:1084:A:O2'	11:DA:1704:C:O2'	2.36	0.41
11:DA:1151:G:H21	11:DA:1431:A:H62	1.68	0.41
11:DA:1289:C:H2'	11:DA:1290:G:O4'	2.21	0.41
11:DA:1551:U:H4'	19:DI:142:LYS:O	2.20	0.41
16:DF:42:PHE:HE2	16:DF:90:ILE:HG23	1.86	0.41
18:DH:36:LYS:O	18:DH:40:ILE:HG13	2.21	0.41
23:DM:89:ILE:HA	23:DM:89:ILE:HD13	1.79	0.41
26:DP:74:TYR:CE1	26:DP:84:GLU:OE2	2.73	0.41
33:DW:12:ILE:H	33:DW:12:ILE:HG12	1.70	0.41
33:DW:176:HIS:CD2	33:DW:178:GLU:OE2	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A0:72:MET:HE2	1:A0:72:MET:HB3	1.76	0.41
5:A4:34:PHE:CZ	5:A4:48:THR:HB	2.56	0.41
5:A4:146:THR:HG21	5:A4:160:CYS:O	2.21	0.41
9:A8:63:VAL:HG13	17:AG:97:LEU:HD12	2.03	0.41
11:AA:616:A:H4'	11:AA:617:A:O5'	2.20	0.41
11:AA:883:A:H5'	21:AK:66:ARG:HB3	2.03	0.41
11:AA:912:A:O2'	11:AA:913:U:P	2.79	0.41
11:AA:1335:A:N3	30:AT:5:GLN:NE2	2.69	0.41
11:AA:1441:C:O2	11:AA:1543:C:O2'	2.36	0.41
11:AA:1568:C:P	24:AN:18:LYS:NZ	2.94	0.41
11:AA:1586:A:H5'	11:AA:1587:U:OP2	2.20	0.41
13:AC:216:HIS:O	32:AV:20:TYR:OH	2.38	0.41
26:AP:74:TYR:CD1	26:AP:80:LEU:HD13	2.55	0.41
33:AW:117:SER:HB3	33:AW:120:GLU:OE2	2.20	0.41
9:B8:76:ASN:OD1	11:BA:1506:G:H3'	2.20	0.41
11:BA:65:C:C5	35:BY:177:PRO:HB3	2.56	0.41
11:BA:200:U:H2'	11:BA:201:A:O4'	2.20	0.41
11:BA:322:G:H2'	11:BA:323:U:C6	2.55	0.41
11:BA:422:G:H5"	11:BA:422:G:H8	1.85	0.41
11:BA:615:A:H1'	11:BA:1079:G:O4'	2.19	0.41
11:BA:1353:G:OP1	20:BJ:87:ARG:NH2	2.54	0.41
11:BA:1558:A:H3'	11:BA:1559:A:H8	1.85	0.41
11:BA:1661:G:C4'	11:BA:1662:C:H5"	2.46	0.41
14:BD:109:LEU:HB2	14:BD:146:PHE:HB3	2.02	0.41
14:BD:109:LEU:HD23	14:BD:129:ILE:HD12	2.03	0.41
16:BF:42:PHE:HE2	16:BF:90:ILE:HG23	1.86	0.41
22:BL:54:GLU:OE1	22:BL:72:ARG:NH1	2.52	0.41
25:BO:151:LEU:O	25:BO:152:VAL:HB	2.21	0.41
28:BR:39:SER:HA	28:BR:40:PRO:HD3	1.78	0.41
30:BT:25:HIS:CE1	30:BT:142:ARG:HH22	2.39	0.41
33:BW:222:THR:HG21	33:BW:226:ASN:HB2	2.02	0.41
8:C7:40:LEU:HD21	11:CA:1189:A:N3	2.36	0.41
8:C7:67:TYR:HB3	13:CC:75:PHE:CZ	2.56	0.41
11:CA:1208:A:N6	11:CA:1217:G:O6	2.54	0.41
11:CA:1361:A:H2'	11:CA:1362:U:H6	1.85	0.41
11:CA:1394:U:H2'	11:CA:1395:A:O4'	2.19	0.41
11:CA:1721:G:H4'	11:CA:1722:U:H5"	2.03	0.41
19:CI:105:ARG:HH21	28:CR:52:MET:HE1	1.85	0.41
21:CK:119:LEU:HD12	21:CK:119:LEU:HA	1.86	0.41
28:CR:34:LYS:HB2	28:CR:37:GLU:CD	2.44	0.41
28:CR:95:SER:HB3	28:CR:97:ASP:OD1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:CR:200:ASN:OD1	28:CR:206:ARG:HD2	2.21	0.41
29:CS:54:ILE:HG12	29:CS:55:SER:H	1.86	0.41
33:CW:160:ASP:OD1	33:CW:176:HIS:HB3	2.21	0.41
4:D3:166:LYS:O	4:D3:170:ILE:HG13	2.20	0.41
5:D4:34:PHE:CZ	5:D4:48:THR:HB	2.56	0.41
11:DA:136:U:P	35:DY:139:ASN:HD21	2.44	0.41
11:DA:611:U:H2'	11:DA:612:U:H6	1.85	0.41
11:DA:1174:A:C2'	11:DA:1175:A:H5'	2.50	0.41
11:DA:1357:G:OP1	28:DR:77:HIS:HE1	2.04	0.41
11:DA:1361:A:H2'	11:DA:1362:U:C6	2.55	0.41
11:DA:1650:G:C6	11:DA:1651:G:N1	2.88	0.41
11:DA:1752:U:H4'	11:DA:1753:A:N7	2.35	0.41
12:DB:85:PHE:O	12:DB:89:THR:OG1	2.26	0.41
13:DC:146:LYS:CD	13:DC:151:LYS:HZ1	2.18	0.41
13:DC:228:ARG:HG3	28:DR:245:LEU:N	2.34	0.41
18:DH:126:LEU:HA	18:DH:126:LEU:HD23	1.85	0.41
26:DP:127:LYS:HG2	26:DP:129:GLY:H	1.84	0.41
28:DR:276:GLN:O	28:DR:294:ILE:HG23	2.20	0.41
30:DT:18:PHE:CZ	30:DT:140:LEU:HD22	2.54	0.41
32:DV:30:PHE:O	32:DV:34:ILE:HG13	2.20	0.41
35:DY:180:GLN:O	35:DY:181:ARG:HB2	2.20	0.41
5:A4:119:LYS:HG3	11:AA:909:C:H5'	2.01	0.41
8:A7:67:TYR:HB3	13:AC:75:PHE:CZ	2.56	0.41
11:AA:64:U:O2'	11:AA:65:C:O5'	2.34	0.41
11:AA:364:G:OP1	27:AQ:95:LYS:HA	2.20	0.41
11:AA:494:A:H3'	11:AA:495:C:C6	2.55	0.41
11:AA:550:G:H21	34:AX:64:ALA:CB	2.34	0.41
11:AA:575:U:H3'	11:AA:575:U:O2	2.20	0.41
11:AA:1301:A:OP2	13:AC:163:THR:HG21	2.20	0.41
11:AA:1437:G:H2'	11:AA:1438:U:C6	2.55	0.41
11:AA:1508:G:O2'	11:AA:1509:U:P	2.79	0.41
13:AC:180:PHE:HE2	13:AC:185:MET:HE2	1.86	0.41
17:AG:110:ALA:HB1	17:AG:175:ALA:HB3	2.02	0.41
22:AL:8:GLY:O	27:AQ:98:ARG:HD3	2.21	0.41
22:AL:78:ASN:CG	22:AL:80:LYS:HB2	2.44	0.41
23:AM:94:ASP:CG	23:AM:98:TYR:HH	2.16	0.41
26:AP:105:PHE:CZ	26:AP:127:LYS:HE2	2.55	0.41
26:AP:119:ALA:O	26:AP:123:LEU:HG	2.20	0.41
30:AT:10:VAL:HB	30:AT:69:TYR:CE2	2.56	0.41
9:B8:69:VAL:HG13	9:B8:73:LEU:HD12	2.03	0.41
10:B9:153:GLU:CD	10:B9:157:LYS:HE3	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:416:C:H4'	11:BA:418:G:OP1	2.21	0.41
11:BA:1269:G:N2	11:BA:1272:A:OP2	2.52	0.41
11:BA:1321:G:O2'	11:BA:1349:C:N3	2.46	0.41
15:BE:155:ILE:HG21	15:BE:155:ILE:HD13	1.85	0.41
33:BW:36:HIS:CE1	33:BW:87:GLY:HA3	2.55	0.41
33:BW:88:LEU:HD22	33:BW:186:GLN:HB3	2.02	0.41
3:C2:194:LYS:HA	3:C2:194:LYS:HD3	1.75	0.41
6:C5:99:PRO:HG2	11:CA:1750:A:H8	1.85	0.41
11:CA:225:C:H2'	11:CA:226:A:C8	2.56	0.41
11:CA:440:C:H2'	11:CA:441:C:C6	2.56	0.41
11:CA:611:U:H2'	11:CA:612:U:C6	2.56	0.41
11:CA:763:U:OP1	11:CA:763:U:C6	2.74	0.41
11:CA:1113:G:N3	11:CA:1113:G:H2'	2.36	0.41
11:CA:1263:G:P	11:CA:1263:G:H8	2.43	0.41
11:CA:1329:G:N3	30:CT:137:MET:HE1	2.36	0.41
14:CD:85:LEU:HA	14:CD:85:LEU:HD23	1.86	0.41
15:CE:224:ARG:HD2	36:CZ:40:PHE:HZ	1.86	0.41
22:CL:106:LEU:HD21	22:CL:122:LYS:HB3	2.03	0.41
22:CL:129:ILE:H	22:CL:129:ILE:HG13	1.57	0.41
25:CO:62:ILE:HA	25:CO:63:PRO:HD2	1.94	0.41
33:CW:126:LEU:HD13	33:CW:143:THR:HG21	2.02	0.41
33:CW:193:ARG:NH1	33:CW:220:PHE:CE1	2.88	0.41
33:CW:222:THR:HG21	33:CW:226:ASN:HB2	2.02	0.41
1:D0:40:MET:HE1	1:D0:46:LEU:HD23	2.03	0.41
3:D2:124:HIS:HE1	3:D2:153:ARG:CZ	2.33	0.41
4:D3:19:VAL:O	4:D3:23:LEU:HG	2.21	0.41
5:D4:38:ILE:HA	5:D4:240:HIS:NE2	2.36	0.41
6:D5:49:SER:OG	21:DK:117:ARG:HB2	2.21	0.41
11:DA:46:A:H4'	11:DA:47:C:C5'	2.51	0.41
11:DA:103:C:H5"	11:DA:374:G:H2'	2.01	0.41
11:DA:380:G:H2'	11:DA:381:G:O4'	2.21	0.41
11:DA:879:G:H5"	11:DA:880:G:OP2	2.21	0.41
11:DA:1006:C:H4'	11:DA:1007:U:H5'	2.02	0.41
11:DA:1301:A:P	13:DC:163:THR:HG21	2.61	0.41
11:DA:1476:A:C2	11:DA:1522:U:O4'	2.74	0.41
39:DA:7876:HOH:O	21:DK:149:ARG:HD2	2.20	0.41
13:DC:109:ASN:ND2	13:DC:178:VAL:HG12	2.35	0.41
14:DD:64:PRO:HA	14:DD:69:ARG:HH11	1.84	0.41
21:DK:45:THR:HG22	21:DK:52:THR:HA	2.03	0.41
22:DL:106:LEU:HD13	22:DL:113:VAL:HG22	2.01	0.41
22:DL:106:LEU:HD21	22:DL:122:LYS:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DP:81:LEU:HD12	26:DP:81:LEU:HA	1.82	0.41
29:DS:33:LEU:HD11	29:DS:59:ALA:HA	2.03	0.41
35:DY:41:LEU:HD23	35:DY:41:LEU:HA	1.88	0.41
36:DZ:93:TYR:CG	36:DZ:94:PRO:HA	2.56	0.41
5:A4:57:ARG:NH1	11:AA:873:G:OP1	2.53	0.41
8:A7:95:SER:O	13:AC:65:GLU:OE2	2.39	0.41
10:A9:75:LYS:NZ	11:AA:1418:C:OP1	2.47	0.41
11:AA:15:U:O5'	11:AA:15:U:H6	2.03	0.41
11:AA:46:A:H4'	11:AA:47:C:C5'	2.51	0.41
11:AA:55:U:H5"	11:AA:394:G:H22	1.85	0.41
11:AA:84:U:O4	39:AA:2027:HOH:O	2.21	0.41
11:AA:179:C:H2'	11:AA:180:C:H6	1.86	0.41
11:AA:413:C:N4	35:AY:87:ARG:HD3	2.36	0.41
11:AA:535:A:O2'	11:AA:536:C:H3'	2.21	0.41
11:AA:763:U:OP1	11:AA:763:U:C6	2.74	0.41
11:AA:866:U:O2'	11:AA:967:U:H4'	2.20	0.41
11:AA:1231:C:H2'	11:AA:1232:U:C6	2.56	0.41
11:AA:1488:A:H1'	11:AA:1489:U:OP1	2.21	0.41
13:AC:15:VAL:HG11	24:AN:35:MET:HB3	2.02	0.41
14:AD:22:GLU:HG3	14:AD:23:ARG:N	2.35	0.41
23:AM:119:ILE:HG22	23:AM:121:SER:N	2.36	0.41
25:AO:83:ALA:HA	25:AO:84:PRO:HD2	1.79	0.41
26:AP:101:THR:HG23	26:AP:105:PHE:CE1	2.56	0.41
28:AR:297:GLU:OE2	28:AR:307:GLY:HA3	2.20	0.41
32:AV:53:PHE:O	32:AV:56:HIS:HB3	2.21	0.41
32:AV:113:ASN:HD22	32:AV:113:ASN:HA	1.69	0.41
33:AW:212:VAL:O	33:AW:219:ALA:HA	2.20	0.41
35:AY:61:PHE:CD2	35:AY:72:ARG:HD3	2.55	0.41
2:B1:54:VAL:HB	17:BG:28:CYS:CA	2.50	0.41
3:B2:56:VAL:HG21	3:B2:62:LYS:HD3	2.02	0.41
5:B4:88:LYS:O	5:B4:89:LEU:HD23	2.21	0.41
11:BA:342:U:H4'	11:BA:343:C:OP2	2.20	0.41
11:BA:928:C:O2'	25:BO:103:HIS:HD2	2.03	0.41
11:BA:1059:A:C6	11:BA:1060:A:C6	3.09	0.41
11:BA:1155:A:N3	11:BA:1182:G:O2'	2.50	0.41
11:BA:1188:A:H8	11:BA:1188:A:O5'	2.03	0.41
11:BA:1373:G:OP1	32:BV:5:ARG:N	2.46	0.41
11:BA:1479:G:H5'	11:BA:1480:U:OP2	2.21	0.41
11:BA:1496:A:H2'	11:BA:1497:A:C8	2.56	0.41
12:BB:64:GLN:HE22	15:BE:246:GLU:CG	2.33	0.41
18:BH:85:ASP:O	18:BH:88:LYS:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:BH:108:TYR:CE2	18:BH:121:THR:HG21	2.56	0.41
20:BJ:94:ASN:ND2	20:BJ:97:ASP:OD2	2.53	0.41
26:BP:32:THR:OG1	26:BP:60:THR:OG1	2.20	0.41
31:BU:25:ILE:HG12	31:BU:26:SER:H	1.86	0.41
33:BW:132:ALA:HB3	33:BW:140:TYR:CE1	2.56	0.41
33:BW:222:THR:CG2	33:BW:226:ASN:HB2	2.50	0.41
36:BZ:71:GLY:O	36:BZ:75:SER:HB3	2.21	0.41
1:C0:56:ARG:HD3	1:C0:85:ASP:O	2.21	0.41
8:C7:54:PHE:HB3	8:C7:72:GLY:HA2	2.02	0.41
11:CA:380:G:H2'	11:CA:381:G:O4'	2.21	0.41
11:CA:654:U:O2'	11:CA:656:G:H1'	2.21	0.41
11:CA:890:U:H5"	11:CA:892:G:C1'	2.51	0.41
11:CA:995:U:H2'	11:CA:996:U:C6	2.56	0.41
11:CA:1479:G:H5'	11:CA:1480:U:OP2	2.21	0.41
16:CF:61:ILE:HD13	16:CF:71:ILE:HG12	2.03	0.41
16:CF:78:ARG:HH12	16:CF:100:GLY:CA	2.32	0.41
17:CG:37:THR:O	17:CG:41:GLN:HG2	2.21	0.41
24:CN:16:ASP:OD1	24:CN:26:ARG:NH1	2.53	0.41
27:CQ:68:LYS:HB2	27:CQ:126:GLN:HB2	2.03	0.41
32:CV:98:ILE:HG22	32:CV:99:ASP:O	2.20	0.41
33:CW:88:LEU:HD22	33:CW:186:GLN:HB3	2.03	0.41
36:CZ:51:ILE:HD13	36:CZ:87:LEU:HD11	2.03	0.41
5:D4:103:PHE:HZ	5:D4:106:LEU:HG	1.86	0.41
11:DA:239:A:P	11:DA:239:A:H3'	2.60	0.41
11:DA:413:C:H4'	11:DA:414:G:OP2	2.19	0.41
11:DA:1138:A:H2'	11:DA:1139:G:O4'	2.21	0.41
14:DD:40:ARG:HA	14:DD:43:TRP:HB2	2.02	0.41
14:DD:109:LEU:HB2	14:DD:146:PHE:HB3	2.02	0.41
15:DE:85:THR:O	15:DE:99:PHE:HA	2.21	0.41
15:DE:142:LYS:HD2	15:DE:152:ALA:O	2.21	0.41
18:DH:11:LEU:O	18:DH:15:VAL:HG23	2.21	0.41
1:A0:40:MET:HA	1:A0:40:MET:HE2	2.03	0.41
1:A0:84:GLN:NE2	22:AL:57:GLY:H	2.19	0.41
1:A0:111:ASN:OD1	1:A0:111:ASN:N	2.47	0.41
4:A3:113:ARG:HA	4:A3:114:PRO:HD3	1.81	0.41
5:A4:103:PHE:HZ	5:A4:106:LEU:HG	1.86	0.41
6:A5:99:PRO:HG2	11:AA:1750:A:H8	1.86	0.41
11:AA:185:C:H5"	11:AA:186:C:OP2	2.20	0.41
11:AA:351:A:H2'	11:AA:352:C:H4'	2.03	0.41
11:AA:535:A:HO2'	11:AA:536:C:P	2.42	0.41
11:AA:890:U:H5"	11:AA:892:G:C1'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:954:G:C6	11:AA:1001:A:C4	3.09	0.41
11:AA:1113:G:H2'	11:AA:1114:G:H5'	2.02	0.41
11:AA:1138:A:H2'	11:AA:1139:G:O4'	2.20	0.41
11:AA:1149:C:H6	11:AA:1149:C:H5"	1.85	0.41
11:AA:1175:A:C3'	11:AA:1176:A:H5"	2.51	0.41
11:AA:1561:U:H2'	11:AA:1562:G:C8	2.56	0.41
11:AA:1585:U:OP1	17:AG:143:ASN:ND2	2.54	0.41
11:AA:1712:C:H2'	11:AA:1713:G:O4'	2.21	0.41
12:AB:104:LEU:HB2	12:AB:132:GLU:HB3	2.03	0.41
15:AE:28:GLN:HA	15:AE:29:PRO:HD3	1.86	0.41
15:AE:142:LYS:HD2	15:AE:152:ALA:O	2.20	0.41
15:AE:162:LYS:HB3	15:AE:167:ARG:NH1	2.32	0.41
19:AI:42:ASN:HB3	19:AI:43:PRO:HD3	2.03	0.41
21:AK:34:MET:HB3	21:AK:41:PHE:HB2	2.02	0.41
22:AL:46:SER:C	22:AL:47:HIS:CD2	2.99	0.41
27:AQ:139:LEU:HD23	27:AQ:139:LEU:HA	1.76	0.41
28:AR:62:ASN:HB3	28:AR:63:GLY:H	1.63	0.41
28:AR:93:SER:OG	28:AR:101:ARG:HB2	2.21	0.41
28:AR:95:SER:HB3	28:AR:97:ASP:OD1	2.21	0.41
29:AS:54:ILE:HG12	29:AS:55:SER:H	1.86	0.41
29:AS:119:LYS:H	29:AS:119:LYS:HG2	1.38	0.41
31:AU:25:ILE:HG12	31:AU:26:SER:H	1.86	0.41
35:AY:1:MET:N	35:AY:18:ILE:O	2.48	0.41
2:B1:9:ALA:HB1	2:B1:29:VAL:CG1	2.51	0.41
3:B2:38:LEU:HD21	3:B2:104:LEU:HD21	2.03	0.41
3:B2:185:ARG:NH2	11:BA:256:U:H1'	2.36	0.41
5:B4:128:VAL:HG22	5:B4:175:ASN:CG	2.46	0.41
7:B6:43:MET:HE2	7:B6:43:MET:HB3	1.73	0.41
8:B7:54:PHE:HB3	8:B7:72:GLY:HA2	2.03	0.41
10:B9:87:LYS:HZ3	11:BA:1187:C:P	2.27	0.41
10:B9:113:GLN:HB2	10:B9:124:PHE:HD2	1.86	0.41
11:BA:18:C:H5'	11:BA:1110:A:N6	2.36	0.41
11:BA:39:A:H2'	11:BA:40:A:O4'	2.20	0.41
11:BA:46:A:H4'	11:BA:47:C:C5'	2.51	0.41
11:BA:122:A:C8	35:BY:201:ARG:HD3	2.56	0.41
11:BA:230:A:C8	11:BA:230:A:H3'	2.56	0.41
11:BA:482:A:H2	11:BA:489:U:O2	2.04	0.41
11:BA:515:U:OP1	26:BP:35:LYS:HD2	2.21	0.41
11:BA:595:A:H2'	11:BA:596:U:O4'	2.21	0.41
11:BA:763:U:OP1	11:BA:763:U:C6	2.73	0.41
11:BA:771:A:C6	33:BW:19:MET:HE3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:890:U:H5”	11:BA:892:G:O4’	2.21	0.41
11:BA:894:U:O4	21:BK:55:ARG:NH2	2.54	0.41
11:BA:983:A:H2’	11:BA:984:C:C6	2.56	0.41
11:BA:1231:C:H2’	11:BA:1232:U:C6	2.56	0.41
11:BA:1266:G:C2	11:BA:1267:G:C8	3.09	0.41
11:BA:1288:C:P	32:BV:7:LYS:HE3	2.61	0.41
11:BA:1295:C:H2’	11:BA:1296:G:O4’	2.20	0.41
11:BA:1296:G:N3	11:BA:1296:G:H2’	2.36	0.41
11:BA:1358:A:C5	11:BA:1382:A:C6	3.09	0.41
11:BA:1508:G:HO2’	11:BA:1509:U:P	2.40	0.41
11:BA:1591:C:H2’	11:BA:1592:C:C6	2.51	0.41
11:BA:1650:G:C6	11:BA:1651:G:N1	2.88	0.41
12:BB:71:VAL:HG21	12:BB:85:PHE:CD1	2.56	0.41
13:BC:164:GLY:O	13:BC:167:LYS:HB3	2.21	0.41
15:BE:142:LYS:HD2	15:BE:152:ALA:O	2.21	0.41
15:BE:243:THR:HB	15:BE:244:PHE:HD1	1.86	0.41
18:BH:11:LEU:HD22	18:BH:11:LEU:HA	1.94	0.41
18:BH:14:LEU:HD23	18:BH:72:CYS:SG	2.61	0.41
20:BJ:87:ARG:HA	20:BJ:87:ARG:HD3	1.84	0.41
23:BM:87:ASN:OD1	23:BM:87:ASN:N	2.54	0.41
25:BO:62:ILE:HA	25:BO:63:PRO:HD2	1.94	0.41
26:BP:124:LEU:HD23	26:BP:124:LEU:HA	1.86	0.41
28:BR:43:ILE:HG22	28:BR:82:LEU:HD13	2.03	0.41
28:BR:100:LEU:HB2	28:BR:114:PHE:HB2	2.02	0.41
29:BS:116:MET:HE2	29:BS:116:MET:HB3	1.85	0.41
30:BT:76:ILE:O	30:BT:80:LYS:HG3	2.21	0.41
33:BW:125:LEU:HD23	33:BW:125:LEU:HA	1.85	0.41
34:BX:26:LYS:HA	34:BX:27:PRO:HD2	1.91	0.41
1:C0:92:LEU:HG	1:C0:93:LYS:N	2.35	0.41
3:C2:21:HIS:ND1	3:C2:21:HIS:N	2.69	0.41
4:C3:108:HIS:CE1	11:CA:801:C:H5’	2.56	0.41
4:C3:132:LEU:HD23	4:C3:132:LEU:HA	1.84	0.41
11:CA:27:A:H2’	11:CA:28:U:O4’	2.21	0.41
11:CA:82:A:H2’	11:CA:83:C:C6	2.55	0.41
11:CA:103:C:H2’	11:CA:104:A:C8	2.56	0.41
11:CA:191:A:H2’	11:CA:192:C:C6	2.56	0.41
11:CA:381:G:O2’	11:CA:1684:A:H5”	2.20	0.41
11:CA:422:G:H5”	11:CA:422:G:H8	1.85	0.41
11:CA:575:U:H3’	11:CA:575:U:O2	2.20	0.41
11:CA:658:C:O2’	11:CA:659:G:H5’	2.21	0.41
11:CA:676:C:H5’	39:CA:2145:HOH:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:999:C:N4	39:CA:2174:HOH:O	2.52	0.41
11:CA:1132:A:H2'	11:CA:1133:C:C6	2.56	0.41
11:CA:1135:A:C6	11:CA:1136:G:C5	3.09	0.41
11:CA:1149:C:H6	11:CA:1149:C:H5"	1.85	0.41
11:CA:1175:A:C3'	11:CA:1176:A:H5"	2.51	0.41
11:CA:1231:C:H2'	11:CA:1232:U:C6	2.56	0.41
11:CA:1494:U:O2'	11:CA:1495:U:H5'	2.20	0.41
11:CA:1568:C:P	24:CN:18:LYS:NZ	2.93	0.41
13:CC:32:LEU:HA	13:CC:32:LEU:HD23	1.79	0.41
15:CE:239:LEU:H	15:CE:239:LEU:HG	1.71	0.41
16:CF:42:PHE:HE2	16:CF:90:ILE:HG23	1.86	0.41
16:CF:55:LEU:HB3	16:CF:77:HIS:CE1	2.56	0.41
18:CH:108:TYR:CE2	18:CH:121:THR:HG21	2.56	0.41
21:CK:74:ALA:HB1	21:CK:115:ALA:HB2	2.02	0.41
23:CM:62:THR:HB	23:CM:65:GLN:HG3	2.01	0.41
25:CO:18:LEU:HD23	25:CO:18:LEU:HA	1.69	0.41
28:CR:276:GLN:O	28:CR:294:ILE:HG23	2.20	0.41
29:CS:33:LEU:HD11	29:CS:59:ALA:HA	2.02	0.41
32:CV:84:TYR:O	32:CV:86:PRO:HD3	2.20	0.41
36:CZ:28:LEU:HA	36:CZ:29:PRO:HD2	1.86	0.41
36:CZ:93:TYR:CG	36:CZ:94:PRO:HA	2.56	0.41
1:D0:92:LEU:HG	1:D0:93:LYS:N	2.35	0.41
2:D1:18:THR:O	2:D1:24:ILE:HB	2.21	0.41
3:D2:204:GLN:O	3:D2:208:LYS:N	2.54	0.41
4:D3:178:THR:O	4:D3:179:THR:OG1	2.37	0.41
5:D4:80:ASN:HB3	6:D5:61:ASN:CB	2.51	0.41
5:D4:123:LEU:HD13	5:D4:145:PHE:CZ	2.56	0.41
8:D7:54:PHE:HB3	8:D7:72:GLY:HA2	2.03	0.41
9:D8:69:VAL:HG13	9:D8:73:LEU:HD12	2.03	0.41
11:DA:137:G:OP2	35:DY:139:ASN:ND2	2.54	0.41
11:DA:410:G:OP1	35:DY:72:ARG:NH1	2.53	0.41
11:DA:440:C:H2'	11:DA:441:C:C6	2.56	0.41
11:DA:444:A:HO2'	11:DA:445:U:P	2.41	0.41
11:DA:477:G:C2	11:DA:478:G:H1'	2.56	0.41
11:DA:500:U:OP2	34:DX:28:ARG:NH2	2.49	0.41
11:DA:538:A:H2'	34:DX:32:LYS:HD2	2.02	0.41
11:DA:763:U:OP1	11:DA:763:U:C6	2.74	0.41
11:DA:840:A:H5'	25:DO:18:LEU:HD12	2.02	0.41
11:DA:876:A:H5'	21:DK:60:MET:HE3	2.03	0.41
11:DA:1132:A:H2'	11:DA:1133:C:C6	2.56	0.41
11:DA:1159:U:H2'	11:DA:1160:G:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1176:A:H5'	11:DA:1176:A:H8	1.86	0.41
11:DA:1500:C:H5"	17:DG:86:LYS:HE3	2.01	0.41
12:DB:11:LYS:HD2	32:DV:93:ILE:HG23	2.02	0.41
12:DB:116:ARG:HD3	15:DE:242:GLU:OE2	2.21	0.41
12:DB:121:THR:HG23	12:DB:143:LEU:HD12	2.02	0.41
13:DC:47:THR:HB	13:DC:48:LYS:HG3	2.03	0.41
14:DD:112:ARG:HA	14:DD:112:ARG:HD3	1.35	0.41
15:DE:243:THR:HB	15:DE:244:PHE:HD1	1.85	0.41
22:DL:54:GLU:OE1	22:DL:72:ARG:NH1	2.53	0.41
25:DO:4:MET:O	25:DO:5:GLN:HG2	2.20	0.41
25:DO:71:GLN:NE2	25:DO:79:LYS:NZ	2.69	0.41
25:DO:88:GLU:HG3	25:DO:89:ASP:N	2.36	0.41
27:DQ:118:GLU:HG2	27:DQ:150:VAL:HG21	2.03	0.41
31:DU:34:ARG:HH21	31:DU:106:ARG:HH22	1.67	0.41
33:DW:105:TYR:CD1	33:DW:191:ILE:HD11	2.56	0.41
35:DY:106:MET:HB3	35:DY:106:MET:HE2	1.83	0.41
3:A2:146:HIS:HE1	11:AA:181:G:C8	2.37	0.41
4:A3:70:TYR:OH	4:A3:129:ASP:OD1	2.35	0.41
11:AA:80:A:H5'	39:AA:2023:HOH:O	2.21	0.41
11:AA:92:G:H5'	11:AA:452:A:O2'	2.21	0.41
11:AA:1727:G:H2'	11:AA:1728:U:O4'	2.20	0.41
12:AB:159:CYS:HB3	12:AB:170:ILE:CD1	2.51	0.41
13:AC:108:MET:HE1	13:AC:139:ILE:CG2	2.43	0.41
15:AE:219:LEU:O	15:AE:222:THR:OG1	2.28	0.41
20:AJ:27:ASN:OD1	20:AJ:28:LEU:N	2.54	0.41
21:AK:45:THR:HG22	21:AK:52:THR:HA	2.03	0.41
22:AL:8:GLY:H	27:AQ:98:ARG:HH11	1.68	0.41
25:AO:71:GLN:NE2	25:AO:79:LYS:NZ	2.68	0.41
26:AP:110:ARG:O	26:AP:114:ARG:HD2	2.21	0.41
28:AR:93:SER:OG	28:AR:103:TRP:NE1	2.32	0.41
28:AR:240:TRP:CE3	28:AR:245:LEU:HD22	2.43	0.41
33:AW:95:GLU:OE1	33:AW:95:GLU:HA	2.20	0.41
35:AY:20:ASP:HB2	35:AY:23:LYS:HB2	2.03	0.41
11:BA:677:G:C6	11:BA:725:A:C2	3.09	0.41
11:BA:764:U:H4'	11:BA:765:A:OP1	2.20	0.41
11:BA:1463:U:OP1	11:BA:1463:U:H3'	2.21	0.41
11:BA:1486:U:HO2'	11:BA:1487:A:P	2.41	0.41
15:BE:101:GLY:O	15:BE:116:TRP:HA	2.20	0.41
31:BU:29:LEU:HD11	31:BU:55:TYR:HB2	2.03	0.41
36:BZ:40:PHE:HB3	36:BZ:42:ASN:N	2.35	0.41
2:C1:54:VAL:O	17:CG:138:PRO:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:C3:84:LEU:HD23	4:C3:84:LEU:HA	1.97	0.41
4:C3:194:THR:HG21	11:CA:1027:U:H4'	2.03	0.41
6:C5:49:SER:OG	21:CK:117:ARG:HB2	2.20	0.41
11:CA:200:U:H2'	11:CA:201:A:O4'	2.20	0.41
11:CA:1138:A:H2'	11:CA:1139:G:O4'	2.20	0.41
11:CA:1159:U:H2'	11:CA:1160:G:H8	1.85	0.41
12:CB:104:LEU:HD23	12:CB:104:LEU:HA	1.89	0.41
12:CB:196:ASP:OD1	32:CV:89:SER:O	2.39	0.41
15:CE:162:LYS:CB	15:CE:167:ARG:HH11	2.33	0.41
17:CG:164:ILE:HG13	17:CG:164:ILE:H	1.63	0.41
18:CH:14:LEU:HD23	18:CH:72:CYS:SG	2.61	0.41
21:CK:150:ARG:HH11	21:CK:150:ARG:CG	2.34	0.41
22:CL:8:GLY:H	27:CQ:98:ARG:HH11	1.68	0.41
28:CR:100:LEU:HB3	28:CR:114:PHE:CD1	2.56	0.41
1:D0:72:MET:HB3	1:D0:72:MET:HE2	1.75	0.41
2:D1:29:VAL:O	2:D1:40:GLN:HA	2.21	0.41
8:D7:72:GLY:O	8:D7:76:LEU:HG	2.21	0.41
11:DA:155:U:OP1	35:DY:83:CYS:O	2.38	0.41
11:DA:537:A:O2'	34:DX:32:LYS:HE3	2.21	0.41
11:DA:575:U:H3'	11:DA:575:U:O2	2.21	0.41
11:DA:598:A:H3'	11:DA:599:A:H5"	2.03	0.41
11:DA:912:A:H8	11:DA:912:A:H2'	1.70	0.41
11:DA:1158:U:O2'	11:DA:1181:C:H5'	2.20	0.41
11:DA:1231:C:H2'	11:DA:1232:U:C6	2.56	0.41
11:DA:1404:G:H1'	24:DN:40:ARG:HG3	2.03	0.41
11:DA:1431:A:H2'	11:DA:1432:C:O4'	2.21	0.41
11:DA:1561:U:H2'	11:DA:1562:G:C8	2.56	0.41
11:DA:1692:C:N4	39:DA:7960:HOH:O	2.54	0.41
12:DB:71:VAL:HG21	12:DB:85:PHE:CD1	2.57	0.41
22:DL:82:ILE:HD11	22:DL:121:PHE:CE1	2.56	0.41
23:DM:127:HIS:NE2	23:DM:133:VAL:HG21	2.36	0.41
33:DW:132:ALA:HB3	33:DW:140:TYR:CE1	2.56	0.41
33:DW:222:THR:HG21	33:DW:226:ASN:HB2	2.02	0.41
3:A2:124:HIS:HE1	3:A2:153:ARG:CZ	2.33	0.40
3:A2:145:ARG:NH1	11:AA:183:G:C6	2.80	0.40
4:A3:80:LEU:HD12	4:A3:80:LEU:HA	1.86	0.40
5:A4:210:ILE:O	11:AA:1036:U:O2'	2.26	0.40
6:A5:34:LYS:NZ	11:AA:1746:G:N7	2.44	0.40
6:A5:66:ILE:HG12	21:AK:129:ILE:HD12	2.03	0.40
9:A8:73:LEU:HB2	9:A8:75:VAL:CG2	2.50	0.40
11:AA:148:C:H5'	35:AY:108:VAL:HG21	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AA:158:G:N3	35:AY:13:GLN:NE2	2.70	0.40
11:AA:678:U:C2'	11:AA:679:U:H5'	2.51	0.40
11:AA:731:C:H4'	18:AH:80:ASP:OD2	2.21	0.40
11:AA:841:A:O2'	11:AA:843:A:OP1	2.38	0.40
11:AA:861:U:H3	11:AA:923:U:H3	1.70	0.40
11:AA:983:A:H2'	11:AA:984:C:C6	2.56	0.40
11:AA:1113:G:C2	11:AA:1114:G:C8	3.09	0.40
11:AA:1208:A:N6	11:AA:1217:G:O6	2.53	0.40
11:AA:1235:G:C2	11:AA:1236:G:H1'	2.56	0.40
11:AA:1383:G:O2'	11:AA:1384:U:P	2.79	0.40
11:AA:1570:U:H2'	11:AA:1571:C:H5'	2.02	0.40
14:AD:112:ARG:HD3	14:AD:112:ARG:HA	1.33	0.40
18:AH:108:TYR:CE2	18:AH:121:THR:HG21	2.56	0.40
19:AI:33:VAL:HG22	19:AI:69:ILE:HB	2.03	0.40
27:AQ:4:GLN:HE22	27:AQ:10:GLN:C	2.26	0.40
28:AR:100:LEU:HB3	28:AR:114:PHE:CD1	2.55	0.40
29:AS:116:MET:HE2	29:AS:116:MET:HB3	1.86	0.40
33:AW:141:ILE:HG22	33:AW:149:ILE:HB	2.03	0.40
7:B6:22:LEU:HD23	7:B6:22:LEU:HA	1.86	0.40
11:BA:4:C:OP2	15:BE:201:SER:OG	2.39	0.40
11:BA:163:A:OP1	35:BY:137:ARG:HG3	2.20	0.40
11:BA:313:G:H2'	11:BA:313:G:OP2	2.21	0.40
11:BA:550:G:C5'	34:BX:61:ASN:HB3	2.51	0.40
11:BA:793:G:H8	11:BA:793:G:OP2	2.04	0.40
11:BA:1488:A:H1'	11:BA:1489:U:OP1	2.21	0.40
11:BA:1651:G:C2'	11:BA:1652:A:OP2	2.69	0.40
22:BL:129:ILE:H	22:BL:129:ILE:HG13	1.58	0.40
26:BP:101:THR:HG23	26:BP:105:PHE:CE1	2.57	0.40
27:BQ:63:LEU:HA	27:BQ:63:LEU:HD12	1.88	0.40
27:BQ:118:GLU:HG2	27:BQ:150:VAL:HG21	2.03	0.40
30:BT:89:ARG:HB2	30:BT:92:LEU:HB2	2.04	0.40
33:BW:47:LEU:HD21	33:BW:92:VAL:HG11	2.02	0.40
33:BW:105:TYR:CD1	33:BW:191:ILE:HD11	2.56	0.40
36:BZ:22:GLU:H	36:BZ:22:GLU:HG2	1.69	0.40
3:C2:51:ILE:HA	3:C2:64:ARG:O	2.21	0.40
5:C4:103:PHE:HZ	5:C4:106:LEU:HG	1.87	0.40
11:CA:249:A:H4'	33:CW:134:GLY:O	2.21	0.40
11:CA:535:A:H62	34:CX:29:LYS:HD3	1.86	0.40
11:CA:738:A:HO2'	11:CA:739:A:P	2.43	0.40
11:CA:947:C:H4'	11:CA:1076:U:O2'	2.20	0.40
11:CA:954:G:N1	11:CA:1001:A:O2'	2.46	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CA:1188:A:H8	11:CA:1188:A:O5'	2.03	0.40
11:CA:1712:C:H2'	11:CA:1713:G:O4'	2.21	0.40
13:CC:162:CYS:O	13:CC:167:LYS:HB2	2.22	0.40
23:CM:134:ARG:HB2	23:CM:136:GLN:HE22	1.86	0.40
27:CQ:111:SER:HA	27:CQ:112:PRO:HD3	1.89	0.40
28:CR:192:TRP:HA	28:CR:215:ASN:HB2	2.03	0.40
36:CZ:40:PHE:HB3	36:CZ:42:ASN:N	2.35	0.40
3:D2:22:ARG:NH2	11:DA:293:U:OP1	2.47	0.40
6:D5:82:HIS:ND1	11:DA:1719:A:N1	2.68	0.40
9:D8:60:VAL:O	9:D8:72:LYS:HE3	2.20	0.40
11:DA:912:A:O2'	11:DA:913:U:P	2.79	0.40
11:DA:1058:A:C2	11:DA:1114:G:N3	2.89	0.40
11:DA:1416:G:O2'	11:DA:1417:A:OP1	2.33	0.40
11:DA:1661:G:C4'	11:DA:1662:C:H5"	2.46	0.40
11:DA:1712:C:H2'	11:DA:1713:G:O4'	2.21	0.40
13:DC:32:LEU:HD23	13:DC:32:LEU:HA	1.77	0.40
14:DD:101:ILE:H	14:DD:101:ILE:HG13	1.77	0.40
14:DD:118:LEU:HD12	14:DD:118:LEU:HA	1.86	0.40
20:DJ:64:THR:HA	20:DJ:78:ASP:O	2.21	0.40
26:DP:18:ARG:NE	26:DP:20:GLN:HE21	2.13	0.40
28:DR:93:SER:OG	28:DR:101:ARG:HB2	2.22	0.40
29:DS:12:THR:C	29:DS:114:PHE:HE2	2.29	0.40
2:A1:54:VAL:HB	17:AG:28:CYS:CA	2.51	0.40
3:A2:146:HIS:HE1	11:AA:181:G:N9	2.19	0.40
3:A2:177:THR:HG21	11:AA:205:A:OP1	2.21	0.40
4:A3:192:PHE:CD1	7:A6:21:ARG:NH1	2.90	0.40
10:A9:75:LYS:HD3	11:AA:1418:C:C5	2.55	0.40
10:A9:152:LEU:HD21	7:D6:58:SER:HB3	2.03	0.40
11:AA:5:U:P	15:AE:205:THR:HG22	2.62	0.40
11:AA:10:G:OP1	11:AA:1605:A:H2'	2.20	0.40
11:AA:416:C:H4'	11:AA:418:G:OP1	2.21	0.40
11:AA:476:U:H2'	11:AA:477:G:H8	1.85	0.40
11:AA:919:A:O2'	11:AA:955:A:H5'	2.21	0.40
11:AA:1118:U:O2'	15:AE:90:GLN:O	2.32	0.40
11:AA:1287:U:O2	32:AV:4:VAL:HG11	2.21	0.40
11:AA:1370:U:H4'	11:AA:1371:A:C5'	2.52	0.40
11:AA:1473:G:P	30:AT:102:LYS:NZ	2.94	0.40
16:AF:42:PHE:CE2	16:AF:90:ILE:HG23	2.56	0.40
22:AL:106:LEU:HD21	22:AL:122:LYS:HB3	2.03	0.40
22:AL:134:LEU:HD23	22:AL:134:LEU:HA	1.90	0.40
28:AR:122:TYR:HE2	28:AR:138:ALA:HB2	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:AV:32:LYS:HB2	32:AV:47:ARG:HE	1.86	0.40
33:AW:105:TYR:CD1	33:AW:191:ILE:HD11	2.56	0.40
35:AY:185:PRO:HG2	35:AY:186:GLU:HG2	2.03	0.40
3:B2:185:ARG:NH2	11:BA:202:U:O2	2.54	0.40
4:B3:19:VAL:O	4:B3:23:LEU:HG	2.21	0.40
11:BA:213:U:C4'	11:BA:214:U:OP2	2.70	0.40
11:BA:351:A:H2'	11:BA:352:C:H4'	2.03	0.40
11:BA:573:A:C6	13:BC:182:GLN:HG3	2.57	0.40
11:BA:749:G:H2'	14:BD:149:ARG:HH12	1.87	0.40
11:BA:875:C:N4	11:BA:892:G:C4	2.90	0.40
11:BA:1208:A:N6	11:BA:1217:G:O6	2.54	0.40
13:BC:228:ARG:HD3	28:BR:207:TYR:CZ	2.56	0.40
17:BG:193:GLU:O	17:BG:197:LYS:HG3	2.21	0.40
18:BH:80:ASP:OD1	18:BH:124:LYS:HE3	2.22	0.40
20:BJ:27:ASN:OD1	20:BJ:28:LEU:N	2.54	0.40
22:BL:46:SER:C	22:BL:47:HIS:CD2	2.99	0.40
28:BR:174:MET:HE2	28:BR:174:MET:HB3	1.89	0.40
32:BV:30:PHE:O	32:BV:34:ILE:HG13	2.21	0.40
7:C6:9:ILE:HD12	7:C6:12:GLU:CD	2.46	0.40
8:C7:72:GLY:O	8:C7:76:LEU:HG	2.20	0.40
11:CA:94:U:H2'	11:CA:95:C:C6	2.56	0.40
11:CA:125:U:OP1	11:CA:125:U:C4'	2.67	0.40
11:CA:1288:C:O2'	11:CA:1372:A:O2'	2.14	0.40
11:CA:1447:C:H5"	30:CT:48:GLU:OE2	2.21	0.40
12:CB:20:GLN:NE2	12:CB:41:ILE:HD13	2.37	0.40
15:CE:211:PHE:HD1	15:CE:211:PHE:HA	1.78	0.40
23:CM:63:GLU:O	23:CM:67:ASN:ND2	2.54	0.40
28:CR:43:ILE:HG22	28:CR:82:LEU:HD13	2.02	0.40
33:CW:141:ILE:HG22	33:CW:149:ILE:HB	2.02	0.40
35:CY:61:PHE:CD2	35:CY:72:ARG:HD3	2.56	0.40
35:CY:141:ILE:O	35:CY:145:PHE:HB2	2.20	0.40
3:D2:51:ILE:HA	3:D2:64:ARG:O	2.22	0.40
4:D3:73:LEU:HD21	4:D3:94:PHE:HB3	2.02	0.40
8:D7:9:LYS:HG3	8:D7:45:LEU:CD2	2.51	0.40
11:DA:360:U:H5"	11:DA:361:A:OP2	2.20	0.40
11:DA:508:A:H5'	39:DA:7814:HOH:O	2.21	0.40
11:DA:611:U:H2'	11:DA:612:U:C6	2.55	0.40
11:DA:638:U:H2'	11:DA:639:C:H6	1.86	0.40
11:DA:1213:G:H4'	29:DS:82:LYS:O	2.21	0.40
11:DA:1495:U:C4'	11:DA:1496:A:OP1	2.65	0.40
11:DA:1569:A:C4	24:DN:13:TYR:CE2	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1601:G:H5"	11:DA:1747:A:OP2	2.20	0.40
13:DC:118:VAL:HG21	13:DC:145:LEU:HD11	2.02	0.40
13:DC:144:LYS:NZ	13:DC:182:GLN:O	2.49	0.40
14:DD:38:ASN:ND2	14:DD:40:ARG:NH1	2.60	0.40
26:DP:77:GLN:O	26:DP:81:LEU:HB2	2.21	0.40
26:DP:124:LEU:HD23	26:DP:124:LEU:HA	1.87	0.40
27:DQ:4:GLN:HE22	27:DQ:10:GLN:C	2.27	0.40
27:DQ:65:ILE:HD12	27:DQ:139:LEU:HD21	2.03	0.40
31:DU:49:ASP:OD1	31:DU:75:LYS:HA	2.21	0.40
36:DZ:40:PHE:HB3	36:DZ:42:ASN:N	2.36	0.40
2:A1:9:ALA:HB1	2:A1:29:VAL:CG1	2.51	0.40
2:A1:54:VAL:O	17:AG:138:PRO:HG3	2.20	0.40
3:A2:203:LEU:HD12	3:A2:203:LEU:HA	1.86	0.40
11:AA:151:A:H5'	11:AA:152:U:OP2	2.21	0.40
11:AA:198:C:H4'	11:AA:199:G:OP1	2.21	0.40
11:AA:912:A:H8	11:AA:912:A:H2'	1.72	0.40
11:AA:995:U:H2'	11:AA:996:U:C6	2.56	0.40
11:AA:1463:U:OP1	11:AA:1463:U:H3'	2.22	0.40
12:AB:103:THR:HA	12:AB:109:THR:HG21	2.03	0.40
14:AD:86:LEU:HD12	14:AD:86:LEU:HA	1.62	0.40
24:AN:35:MET:HE3	24:AN:35:MET:HB2	1.89	0.40
25:AO:101:ARG:NH1	25:AO:145:ALA:CB	2.85	0.40
25:AO:151:LEU:O	25:AO:152:VAL:HB	2.20	0.40
30:AT:18:PHE:CZ	30:AT:140:LEU:HD22	2.55	0.40
35:AY:141:ILE:O	35:AY:145:PHE:HB2	2.21	0.40
5:B4:103:PHE:HZ	5:B4:106:LEU:HG	1.86	0.40
5:B4:106:LEU:HD23	5:B4:106:LEU:HA	1.84	0.40
11:BA:535:A:P	11:BA:535:A:H2'	2.61	0.40
11:BA:1132:A:H2'	11:BA:1133:C:C6	2.57	0.40
11:BA:1442:A:O2'	17:BG:76:ARG:NH1	2.54	0.40
12:BB:104:LEU:HA	12:BB:104:LEU:HD23	1.89	0.40
13:BC:109:ASN:C	13:BC:109:ASN:HD22	2.29	0.40
13:BC:162:CYS:O	13:BC:167:LYS:HB2	2.20	0.40
16:BF:42:PHE:CE2	16:BF:90:ILE:HD12	2.57	0.40
20:BJ:16:LYS:HD3	20:BJ:16:LYS:HA	1.84	0.40
21:BK:74:ALA:HB1	21:BK:115:ALA:HB2	2.02	0.40
22:BL:53:THR:N	22:BL:72:ARG:O	2.51	0.40
22:BL:71:VAL:HG11	22:BL:95:LEU:HD13	2.03	0.40
22:BL:75:LEU:HD11	22:BL:82:ILE:HD12	2.04	0.40
26:BP:15:LEU:HD21	33:BW:94:ILE:CG2	2.51	0.40
28:BR:192:TRP:HA	28:BR:215:ASN:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BW:160:ASP:OD1	33:BW:176:HIS:HB3	2.21	0.40
35:BY:176:CYS:HA	35:BY:177:PRO:HD3	1.87	0.40
5:C4:31:TRP:CZ2	21:CK:17:GLY:HA2	2.56	0.40
5:C4:42:SER:HB2	5:C4:240:HIS:ND1	2.36	0.40
8:C7:5:LEU:H	8:C7:5:LEU:HG	1.76	0.40
8:C7:9:LYS:HG3	8:C7:45:LEU:CD2	2.51	0.40
9:C8:46:GLU:O	9:C8:50:VAL:HG23	2.20	0.40
11:CA:3:C:H1'	15:CE:181:ALA:C	2.47	0.40
11:CA:5:U:O2'	11:CA:546:G:O3'	2.39	0.40
11:CA:137:G:OP2	35:CY:139:ASN:ND2	2.55	0.40
11:CA:351:A:H2'	11:CA:352:C:H4'	2.04	0.40
11:CA:446:U:O4'	33:CW:66:ASN:ND2	2.48	0.40
11:CA:453:G:H4'	33:CW:26:ILE:HG13	2.04	0.40
12:CB:71:VAL:HG21	12:CB:85:PHE:CD1	2.57	0.40
13:CC:118:VAL:HG21	13:CC:145:LEU:HD11	2.03	0.40
15:CE:99:PHE:O	15:CE:118:VAL:HA	2.22	0.40
17:CG:72:MET:HE2	17:CG:72:MET:HB3	1.86	0.40
21:CK:128:ARG:HH11	21:CK:128:ARG:HG3	1.80	0.40
23:CM:119:ILE:HG22	23:CM:121:SER:N	2.37	0.40
25:CO:88:GLU:HG3	25:CO:89:ASP:N	2.37	0.40
26:CP:143:LEU:HD12	26:CP:143:LEU:HA	1.83	0.40
28:CR:20:HIS:CE1	28:CR:50:THR:HG22	2.55	0.40
28:CR:32:SER:OG	28:CR:37:GLU:O	2.39	0.40
28:CR:77:HIS:CD2	28:CR:96:TRP:HB2	2.55	0.40
29:CS:12:THR:C	29:CS:114:PHE:HE2	2.29	0.40
33:CW:117:SER:HB3	33:CW:120:GLU:OE2	2.20	0.40
3:D2:72:ASN:ND2	11:DA:255:C:O4'	2.54	0.40
4:D3:151:TYR:HB2	4:D3:181:GLU:O	2.21	0.40
9:D8:91:LYS:O	9:D8:108:ILE:HG13	2.21	0.40
11:DA:27:A:H2'	11:DA:28:U:O4'	2.21	0.40
11:DA:65:C:N3	35:DY:133:LEU:HA	2.36	0.40
11:DA:225:C:H2'	11:DA:226:A:C8	2.56	0.40
11:DA:413:C:H5'	35:DY:87:ARG:HH12	1.85	0.40
11:DA:506:U:H5'	14:DD:133:HIS:NE2	2.35	0.40
11:DA:550:G:C5'	34:DX:61:ASN:HB3	2.52	0.40
11:DA:847:A:H5'	25:DO:92:PHE:CG	2.56	0.40
11:DA:932:G:H2'	11:DA:933:A:C8	2.55	0.40
11:DA:1059:A:C6	11:DA:1060:A:C6	3.09	0.40
11:DA:1175:A:C3'	11:DA:1176:A:H5"	2.51	0.40
11:DA:1296:G:N3	11:DA:1296:G:H2'	2.36	0.40
11:DA:1529:U:C2'	11:DA:1530:U:OP1	2.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:DA:1727:G:H2'	11:DA:1728:U:O4'	2.21	0.40
15:DE:143:GLY:N	15:DE:156:PRO:HD3	2.35	0.40
17:DG:123:ILE:HD12	17:DG:132:GLN:HG2	2.03	0.40
18:DH:83:LEU:HD23	18:DH:83:LEU:HA	1.81	0.40
22:DL:98:ASN:HD22	22:DL:98:ASN:HA	1.71	0.40
23:DM:30:ILE:HG22	23:DM:40:ARG:HG2	2.04	0.40
23:DM:116:LEU:HB3	23:DM:124:GLY:HA3	2.03	0.40
27:DQ:70:ILE:HD11	27:DQ:136:PHE:CZ	2.56	0.40
28:DR:42:LEU:HD23	28:DR:42:LEU:HA	1.89	0.40
28:DR:212:HIS:CE1	28:DR:230:THR:HG22	2.57	0.40
29:DS:116:MET:HE2	29:DS:116:MET:HB3	1.85	0.40
31:DU:62:LEU:HD23	31:DU:62:LEU:HA	1.95	0.40
3:A2:146:HIS:HB2	11:AA:182:U:O2'	2.21	0.40
4:A3:142:ARG:NH1	4:A3:152:ARG:NH1	2.70	0.40
5:A4:73:ALA:HB2	21:AK:128:ARG:HH12	1.86	0.40
5:A4:110:ARG:NH2	21:AK:135:ILE:HB	2.37	0.40
5:A4:127:ARG:CZ	11:AA:862:A:H1'	2.52	0.40
9:A8:51:GLU:H	9:A8:51:GLU:HG3	1.59	0.40
11:AA:873:G:O2'	21:AK:51:GLU:HA	2.22	0.40
11:AA:894:U:O4	21:AK:55:ARG:NH2	2.54	0.40
11:AA:1154:U:H5"	29:AS:129:LYS:HD3	2.04	0.40
11:AA:1159:U:H2'	11:AA:1160:G:H8	1.86	0.40
11:AA:1295:C:H5'	12:AB:100:THR:CG2	2.51	0.40
11:AA:1479:G:H8	11:AA:1479:G:H5"	1.86	0.40
11:AA:1520:U:H1'	23:AM:89:ILE:HG13	2.03	0.40
14:AD:40:ARG:HA	14:AD:43:TRP:HB2	2.02	0.40
25:AO:62:ILE:HA	25:AO:63:PRO:HD2	1.93	0.40
27:AQ:68:LYS:HB2	27:AQ:126:GLN:HB2	2.02	0.40
31:AU:29:LEU:HD11	31:AU:55:TYR:HB2	2.04	0.40
33:AW:23:LEU:HA	33:AW:23:LEU:HD12	1.84	0.40
36:AZ:69:LEU:HD23	36:AZ:69:LEU:HA	1.91	0.40
3:B2:64:ARG:HA	3:B2:64:ARG:HD3	1.81	0.40
4:B3:146:ASP:OD1	4:B3:148:THR:OG1	2.39	0.40
5:B4:34:PHE:CZ	5:B4:48:THR:HB	2.56	0.40
6:B5:15:ARG:HD3	11:BA:914:G:O6	2.22	0.40
7:B6:18:LYS:HZ1	11:BA:936:U:H5'	1.87	0.40
7:B6:18:LYS:HZ2	11:BA:936:U:H5'	1.85	0.40
10:B9:113:GLN:HB2	10:B9:124:PHE:CD2	2.57	0.40
11:BA:81:A:O3'	26:BP:117:GLY:HA2	2.21	0.40
11:BA:117:U:H1'	33:BW:33:GLN:HB2	2.04	0.40
11:BA:283:A:H2'	11:BA:284:U:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:491:U:H2'	11:BA:492:C:O4'	2.21	0.40
11:BA:598:A:H3'	11:BA:599:A:H5"	2.03	0.40
11:BA:726:U:O5'	11:BA:726:U:H6	2.04	0.40
11:BA:995:U:H2'	11:BA:996:U:C6	2.56	0.40
11:BA:1119:G:N3	11:BA:1607:A:H2	2.19	0.40
11:BA:1752:U:H4'	11:BA:1753:A:N7	2.35	0.40
12:BB:32:TYR:OH	36:BZ:80:HIS:HD2	2.03	0.40
12:BB:65:HIS:CD2	12:BB:67:GLU:HB2	2.56	0.40
13:BC:47:THR:HB	13:BC:48:LYS:HG3	2.04	0.40
14:BD:85:LEU:HA	14:BD:85:LEU:HD23	1.86	0.40
14:BD:85:LEU:HD21	14:BD:104:LEU:HD13	2.04	0.40
15:BE:228:PRO:HA	15:BE:231:TRP:CD1	2.57	0.40
23:BM:119:ILE:HG22	23:BM:121:SER:N	2.35	0.40
29:BS:90:VAL:HG23	29:BS:119:LYS:O	2.20	0.40
33:BW:21:ASN:OD1	33:BW:24:GLY:HA3	2.21	0.40
33:BW:78:VAL:O	33:BW:79:ARG:HD3	2.22	0.40
33:BW:114:LYS:HD3	33:BW:241:PRO:HA	2.03	0.40
35:BY:48:TYR:HE1	35:BY:119:ALA:HB3	1.87	0.40
3:C2:23:LYS:HG3	11:CA:377:G:OP1	2.20	0.40
4:C3:115:ARG:NH1	11:CA:632:U:N3	2.69	0.40
4:C3:146:ASP:OD1	4:C3:148:THR:OG1	2.39	0.40
5:C4:36:ALA:HA	5:C4:37:PRO:HD3	1.87	0.40
5:C4:110:ARG:HG3	21:CK:131:ASP:O	2.20	0.40
11:CA:229:A:H1'	11:CA:230:A:N9	2.35	0.40
11:CA:479:G:N1	11:CA:492:C:O2	2.54	0.40
11:CA:787:A:H2'	11:CA:788:U:O4'	2.22	0.40
11:CA:808:C:H2'	11:CA:809:A:O4'	2.22	0.40
11:CA:890:U:H5"	11:CA:892:G:O4'	2.22	0.40
11:CA:1355:G:H21	28:CR:76:ASN:ND2	2.17	0.40
11:CA:1513:G:H2'	11:CA:1514:G:C1'	2.51	0.40
11:CA:1558:A:OP1	19:CI:137:ARG:HB2	2.21	0.40
12:CB:159:CYS:HB3	12:CB:170:ILE:CD1	2.52	0.40
13:CC:15:VAL:O	13:CC:19:VAL:HG23	2.22	0.40
13:CC:112:LEU:HD23	13:CC:112:LEU:HA	1.88	0.40
15:CE:36:LEU:HD12	15:CE:36:LEU:HA	1.89	0.40
19:CI:122:ASP:HA	19:CI:123:PRO:HD3	1.75	0.40
20:CJ:90:ASP:O	20:CJ:91:LEU:HD23	2.21	0.40
22:CL:68:ARG:HG3	22:CL:116:ILE:HG12	2.04	0.40
22:CL:131:LEU:HD23	22:CL:131:LEU:HA	1.78	0.40
22:CL:134:LEU:HA	22:CL:134:LEU:HD23	1.90	0.40
29:CS:116:MET:HE2	29:CS:116:MET:HB3	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:D2:17:ARG:NH2	11:DA:1635:U:H4'	2.36	0.40
3:D2:21:HIS:ND1	3:D2:21:HIS:N	2.69	0.40
3:D2:86:ILE:HG22	3:D2:112:ILE:CD1	2.52	0.40
8:D7:58:ILE:HD13	13:DC:31:SER:HB2	2.02	0.40
9:D8:78:SER:HA	9:D8:81:ARG:CZ	2.51	0.40
11:DA:270:U:H4'	11:DA:270:U:OP1	2.20	0.40
11:DA:633:U:H3	11:DA:675:A:H4'	1.85	0.40
11:DA:1054:U:H6	11:DA:1054:U:H2'	1.64	0.40
11:DA:1113:G:C2	11:DA:1114:G:C8	3.09	0.40
11:DA:1167:C:H5"	11:DA:1169:C:C6	2.56	0.40
11:DA:1342:U:H2'	11:DA:1343:G:C8	2.56	0.40
11:DA:1351:U:H1'	11:DA:1488:A:N6	2.36	0.40
11:DA:1437:G:OP2	19:DI:141:GLN:HG3	2.21	0.40
13:DC:113:LEU:HD23	13:DC:113:LEU:HA	1.88	0.40
15:DE:99:PHE:O	15:DE:118:VAL:HA	2.21	0.40
22:DL:134:LEU:HD23	22:DL:134:LEU:HA	1.89	0.40
28:DR:87:GLU:C	28:DR:89:CYS:H	2.30	0.40
29:DS:49:ARG:O	29:DS:49:ARG:HG3	2.22	0.40
35:DY:61:PHE:CD2	35:DY:72:ARG:HD3	2.56	0.40
35:DY:61:PHE:CE1	35:DY:96:SER:HB2	2.57	0.40
4:A3:117:ARG:HD3	4:A3:117:ARG:N	2.37	0.40
8:A7:40:LEU:HD23	8:A7:40:LEU:HA	1.89	0.40
9:A8:41:HIS:HD2	11:AA:1507:U:OP1	2.05	0.40
9:A8:69:VAL:HG13	9:A8:73:LEU:HD12	2.03	0.40
11:AA:360:U:H5"	11:AA:361:A:OP2	2.22	0.40
11:AA:585:A:H2'	11:AA:586:A:C8	2.56	0.40
11:AA:662:U:OP2	11:AA:662:U:H6	2.05	0.40
11:AA:777:U:O2	11:AA:777:U:H2'	2.21	0.40
11:AA:1431:A:H2'	11:AA:1432:C:O4'	2.21	0.40
11:AA:1558:A:H1'	11:AA:1583:A:N6	2.36	0.40
11:AA:1573:G:H22	30:AT:91:ASN:ND2	2.19	0.40
11:AA:1587:U:H5"	11:AA:1588:G:O5'	2.21	0.40
39:AA:2326:HOH:O	21:AK:149:ARG:HD2	2.21	0.40
12:AB:131:LYS:O	12:AB:134:SER:HB3	2.22	0.40
18:AH:31:SER:OG	18:AH:33:VAL:N	2.54	0.40
22:AL:106:LEU:HD13	22:AL:113:VAL:HG22	2.04	0.40
28:AR:276:GLN:O	28:AR:294:ILE:HG23	2.22	0.40
31:AU:52:GLN:O	31:AU:55:TYR:CD1	2.66	0.40
32:AV:30:PHE:O	32:AV:34:ILE:HG13	2.21	0.40
36:AZ:93:TYR:CG	36:AZ:94:PRO:HA	2.55	0.40
10:B9:72:LYS:HD3	11:BA:1160:G:H5'	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BA:376:A:H2'	11:BA:377:G:H8	1.86	0.40
11:BA:530:G:H5"	11:BA:531:A:OP1	2.22	0.40
11:BA:575:U:H3'	11:BA:575:U:O2	2.20	0.40
11:BA:758:A:C6	11:BA:770:G:C4	3.10	0.40
11:BA:861:U:H3	11:BA:923:U:H3	1.70	0.40
11:BA:890:U:H5"	11:BA:892:G:C1'	2.51	0.40
11:BA:1113:G:H2'	11:BA:1114:G:H5'	2.02	0.40
11:BA:1176:A:H5'	11:BA:1176:A:H8	1.86	0.40
11:BA:1249:G:H5'	13:BC:142:SER:HB2	2.03	0.40
11:BA:1677:A:H8	11:BA:1677:A:OP2	2.04	0.40
15:BE:49:PHE:CE1	15:BE:139:PRO:HD3	2.57	0.40
17:BG:123:ILE:HD12	17:BG:132:GLN:HG2	2.04	0.40
26:BP:74:TYR:CD1	26:BP:80:LEU:HD13	2.57	0.40
27:BQ:15:VAL:HG21	27:BQ:33:TYR:HB2	2.04	0.40
30:BT:135:GLU:H	30:BT:135:GLU:HG2	1.40	0.40
31:BU:49:ASP:OD1	31:BU:75:LYS:HA	2.21	0.40
1:C0:60:ILE:HG22	1:C0:65:LYS:HG3	2.03	0.40
3:C2:56:VAL:HG21	3:C2:62:LYS:HD3	2.04	0.40
11:CA:634:C:H2'	11:CA:635:U:H5'	2.04	0.40
11:CA:1147:U:O4'	11:CA:1168:A:N6	2.55	0.40
11:CA:1554:U:N3	11:CA:1586:A:C4	2.90	0.40
13:CC:14:PHE:HE1	20:CJ:111:GLU:HG3	1.85	0.40
13:CC:226:GLU:HB2	28:CR:207:TYR:HA	2.03	0.40
15:CE:85:THR:O	15:CE:99:PHE:HA	2.22	0.40
18:CH:13:ASP:OD1	18:CH:13:ASP:N	2.55	0.40
23:CM:96:LYS:HD2	23:CM:98:TYR:OH	2.22	0.40
26:CP:101:THR:HG23	26:CP:105:PHE:CE1	2.57	0.40
27:CQ:118:GLU:HG2	27:CQ:150:VAL:HG21	2.04	0.40
28:CR:212:HIS:CE1	28:CR:230:THR:HG22	2.56	0.40
1:D0:64:LEU:HD12	1:D0:90:ILE:HG22	2.04	0.40
3:D2:51:ILE:HB	11:DA:258:A:N6	2.37	0.40
3:D2:56:VAL:HG22	11:DA:324:A:P	2.62	0.40
5:D4:90:VAL:HG11	5:D4:226:ARG:NH1	2.37	0.40
11:DA:384:C:H41	11:DA:391:A:H1'	1.86	0.40
11:DA:493:U:H4'	11:DA:494:A:OP2	2.19	0.40
11:DA:676:C:O2'	11:DA:677:G:P	2.79	0.40
11:DA:753:C:H2'	11:DA:754:A:C8	2.57	0.40
11:DA:808:C:H2'	11:DA:809:A:O4'	2.21	0.40
11:DA:1509:U:H6	11:DA:1509:U:H2'	1.57	0.40
12:DB:79:GLN:NE2	12:DB:95:SER:O	2.52	0.40
12:DB:104:LEU:HD23	12:DB:104:LEU:HA	1.88	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:DC:25:HIS:CD2	24:DN:48:HIS:CE1	3.10	0.40
20:DJ:47:GLN:HG2	20:DJ:48:VAL:HG23	2.04	0.40
25:DO:18:LEU:HA	25:DO:18:LEU:HD23	1.72	0.40
25:DO:151:LEU:O	25:DO:152:VAL:HB	2.22	0.40
26:DP:119:ALA:O	26:DP:123:LEU:HG	2.21	0.40
28:DR:77:HIS:CD2	28:DR:96:TRP:HB2	2.57	0.40
31:DU:43:PHE:CE1	31:DU:124:LEU:HD22	2.57	0.40
32:DV:98:ILE:HG22	32:DV:99:ASP:O	2.20	0.40
35:DY:59:ASP:HB2	35:DY:61:PHE:CD2	2.57	0.40

All (6) 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)
9:B8:47:LYS:NZ	11:BA:270:U:O2[2_556]	1.96	0.24
7:B6:32:ASP:OD2	2:C1:35:LYS:NZ[1_556]	1.99	0.21
11:CA:891:G:OP2	30:DT:122:ASN:ND2[1_455]	2.07	0.13
3:A2:133:LYS:NZ	11:BA:1730:G:OP1[1_655]	2.10	0.10
11:BA:229:A:OP2	26:CP:146:PHE:N[2_546]	2.19	0.01
11:CA:1679:A:OP1	11:DA:1638:G:O2'[2_555]	2.19	0.01

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	
1	A0	97/211 (46%)	92 (95%)	5 (5%)	0	100	100
1	B0	97/211 (46%)	92 (95%)	5 (5%)	0	100	100
1	C0	97/211 (46%)	92 (95%)	5 (5%)	0	100	100
1	D0	97/211 (46%)	91 (94%)	6 (6%)	0	100	100
2	A1	64/68 (94%)	62 (97%)	2 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	B1	64/68 (94%)	62 (97%)	2 (3%)	0	100	100
2	C1	64/68 (94%)	62 (97%)	2 (3%)	0	100	100
2	D1	64/68 (94%)	62 (97%)	2 (3%)	0	100	100
3	A2	205/208 (99%)	197 (96%)	8 (4%)	0	100	100
3	B2	205/208 (99%)	195 (95%)	10 (5%)	0	100	100
3	C2	205/208 (99%)	195 (95%)	10 (5%)	0	100	100
3	D2	205/208 (99%)	195 (95%)	10 (5%)	0	100	100
4	A3	194/197 (98%)	187 (96%)	7 (4%)	0	100	100
4	B3	194/197 (98%)	187 (96%)	7 (4%)	0	100	100
4	C3	194/197 (98%)	188 (97%)	6 (3%)	0	100	100
4	D3	194/197 (98%)	187 (96%)	7 (4%)	0	100	100
5	A4	207/265 (78%)	191 (92%)	14 (7%)	2 (1%)	12	43
5	B4	219/265 (83%)	202 (92%)	14 (6%)	3 (1%)	9	37
5	C4	219/265 (83%)	203 (93%)	13 (6%)	3 (1%)	9	37
5	D4	219/265 (83%)	203 (93%)	13 (6%)	3 (1%)	9	37
6	A5	98/119 (82%)	98 (100%)	0	0	100	100
6	B5	98/119 (82%)	98 (100%)	0	0	100	100
6	C5	98/119 (82%)	97 (99%)	1 (1%)	0	100	100
6	D5	98/119 (82%)	98 (100%)	0	0	100	100
7	A6	78/81 (96%)	71 (91%)	6 (8%)	1 (1%)	9	38
7	B6	78/81 (96%)	70 (90%)	7 (9%)	1 (1%)	9	38
7	C6	78/81 (96%)	71 (91%)	6 (8%)	1 (1%)	9	38
7	D6	78/81 (96%)	71 (91%)	6 (8%)	1 (1%)	9	38
8	A7	99/162 (61%)	94 (95%)	5 (5%)	0	100	100
8	B7	99/162 (61%)	96 (97%)	3 (3%)	0	100	100
8	C7	99/162 (61%)	95 (96%)	4 (4%)	0	100	100
8	D7	99/162 (61%)	95 (96%)	4 (4%)	0	100	100
9	A8	77/143 (54%)	74 (96%)	3 (4%)	0	100	100
9	B8	77/143 (54%)	73 (95%)	4 (5%)	0	100	100
9	C8	77/143 (54%)	73 (95%)	4 (5%)	0	100	100
9	D8	77/143 (54%)	73 (95%)	4 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
10	A9	91/189 (48%)	90 (99%)	1 (1%)	0	100	100
10	B9	91/189 (48%)	89 (98%)	2 (2%)	0	100	100
10	C9	91/189 (48%)	89 (98%)	2 (2%)	0	100	100
10	D9	91/189 (48%)	89 (98%)	1 (1%)	1 (1%)	11	42
12	AB	199/241 (83%)	197 (99%)	2 (1%)	0	100	100
12	BB	199/241 (83%)	197 (99%)	2 (1%)	0	100	100
12	CB	199/241 (83%)	197 (99%)	2 (1%)	0	100	100
12	DB	199/241 (83%)	197 (99%)	2 (1%)	0	100	100
13	AC	226/243 (93%)	213 (94%)	13 (6%)	0	100	100
13	BC	226/243 (93%)	214 (95%)	12 (5%)	0	100	100
13	CC	226/243 (93%)	214 (95%)	12 (5%)	0	100	100
13	DC	226/243 (93%)	214 (95%)	12 (5%)	0	100	100
14	AD	178/181 (98%)	174 (98%)	4 (2%)	0	100	100
14	BD	178/181 (98%)	174 (98%)	4 (2%)	0	100	100
14	CD	178/181 (98%)	175 (98%)	3 (2%)	0	100	100
14	DD	178/181 (98%)	174 (98%)	4 (2%)	0	100	100
15	AE	227/296 (77%)	211 (93%)	15 (7%)	1 (0%)	30	60
15	BE	227/296 (77%)	212 (93%)	14 (6%)	1 (0%)	30	60
15	CE	227/296 (77%)	211 (93%)	15 (7%)	1 (0%)	30	60
15	DE	227/296 (77%)	212 (93%)	14 (6%)	1 (0%)	30	60
16	AF	87/101 (86%)	82 (94%)	5 (6%)	0	100	100
16	BF	87/101 (86%)	82 (94%)	5 (6%)	0	100	100
16	CF	87/101 (86%)	82 (94%)	5 (6%)	0	100	100
16	DF	87/101 (86%)	82 (94%)	5 (6%)	0	100	100
17	AG	190/200 (95%)	178 (94%)	11 (6%)	1 (0%)	24	56
17	BG	190/200 (95%)	178 (94%)	12 (6%)	0	100	100
17	CG	190/200 (95%)	179 (94%)	9 (5%)	2 (1%)	11	42
17	DG	190/200 (95%)	178 (94%)	10 (5%)	2 (1%)	11	42
18	AH	127/130 (98%)	112 (88%)	14 (11%)	1 (1%)	16	48
18	BH	127/130 (98%)	111 (87%)	15 (12%)	1 (1%)	16	48
18	CH	127/130 (98%)	112 (88%)	14 (11%)	1 (1%)	16	48

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
18	DH	127/130 (98%)	112 (88%)	14 (11%)	1 (1%)	16 48
19	AI	141/145 (97%)	132 (94%)	9 (6%)	0	100 100
19	BI	141/145 (97%)	131 (93%)	10 (7%)	0	100 100
19	CI	141/145 (97%)	132 (94%)	9 (6%)	0	100 100
19	DI	141/145 (97%)	132 (94%)	9 (6%)	0	100 100
20	AJ	106/120 (88%)	104 (98%)	2 (2%)	0	100 100
20	BJ	106/120 (88%)	105 (99%)	1 (1%)	0	100 100
20	CJ	106/120 (88%)	104 (98%)	2 (2%)	0	100 100
20	DJ	106/120 (88%)	104 (98%)	2 (2%)	0	100 100
21	AK	138/151 (91%)	133 (96%)	5 (4%)	0	100 100
21	BK	138/151 (91%)	134 (97%)	4 (3%)	0	100 100
21	CK	138/151 (91%)	133 (96%)	5 (4%)	0	100 100
21	DK	138/151 (91%)	133 (96%)	5 (4%)	0	100 100
22	AL	138/142 (97%)	126 (91%)	10 (7%)	2 (1%)	9 37
22	BL	138/142 (97%)	126 (91%)	10 (7%)	2 (1%)	9 37
22	CL	138/142 (97%)	127 (92%)	9 (6%)	2 (1%)	9 37
22	DL	138/142 (97%)	125 (91%)	11 (8%)	2 (1%)	9 37
23	AM	151/155 (97%)	138 (91%)	11 (7%)	2 (1%)	9 38
23	BM	151/155 (97%)	139 (92%)	10 (7%)	2 (1%)	9 38
23	CM	151/155 (97%)	138 (91%)	11 (7%)	2 (1%)	9 38
23	DM	151/155 (97%)	138 (91%)	11 (7%)	2 (1%)	9 38
24	AN	52/55 (94%)	49 (94%)	3 (6%)	0	100 100
24	BN	52/55 (94%)	50 (96%)	2 (4%)	0	100 100
24	CN	52/55 (94%)	49 (94%)	3 (6%)	0	100 100
24	DN	52/55 (94%)	49 (94%)	3 (6%)	0	100 100
25	AO	150/153 (98%)	140 (93%)	9 (6%)	1 (1%)	18 50
25	BO	150/153 (98%)	140 (93%)	9 (6%)	1 (1%)	18 50
25	CO	150/153 (98%)	140 (93%)	9 (6%)	1 (1%)	18 50
25	DO	150/153 (98%)	140 (93%)	9 (6%)	1 (1%)	18 50
26	AP	146/149 (98%)	135 (92%)	11 (8%)	0	100 100
26	BP	146/149 (98%)	136 (93%)	10 (7%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
26	CP	146/149 (98%)	135 (92%)	11 (8%)	0	100	100
26	DP	146/149 (98%)	135 (92%)	11 (8%)	0	100	100
27	AQ	154/157 (98%)	148 (96%)	6 (4%)	0	100	100
27	BQ	154/157 (98%)	149 (97%)	5 (3%)	0	100	100
27	CQ	154/157 (98%)	150 (97%)	4 (3%)	0	100	100
27	DQ	154/157 (98%)	149 (97%)	5 (3%)	0	100	100
28	AR	336/343 (98%)	309 (92%)	25 (7%)	2 (1%)	21	52
28	BR	336/343 (98%)	308 (92%)	26 (8%)	2 (1%)	21	52
28	CR	336/343 (98%)	308 (92%)	26 (8%)	2 (1%)	21	52
28	DR	336/343 (98%)	307 (91%)	27 (8%)	2 (1%)	21	52
29	AS	126/144 (88%)	122 (97%)	3 (2%)	1 (1%)	16	48
29	BS	126/144 (88%)	122 (97%)	3 (2%)	1 (1%)	16	48
29	CS	126/144 (88%)	122 (97%)	3 (2%)	1 (1%)	16	48
29	DS	126/144 (88%)	122 (97%)	3 (2%)	1 (1%)	16	48
30	AT	152/155 (98%)	145 (95%)	7 (5%)	0	100	100
30	BT	152/155 (98%)	144 (95%)	8 (5%)	0	100	100
30	CT	152/155 (98%)	145 (95%)	7 (5%)	0	100	100
30	DT	152/155 (98%)	144 (95%)	8 (5%)	0	100	100
31	AU	122/126 (97%)	112 (92%)	10 (8%)	0	100	100
31	BU	122/126 (97%)	113 (93%)	9 (7%)	0	100	100
31	CU	122/126 (97%)	112 (92%)	10 (8%)	0	100	100
31	DU	122/126 (97%)	112 (92%)	10 (8%)	0	100	100
32	AV	117/130 (90%)	115 (98%)	2 (2%)	0	100	100
32	BV	117/130 (90%)	116 (99%)	1 (1%)	0	100	100
32	CV	117/130 (90%)	114 (97%)	2 (2%)	1 (1%)	14	45
32	DV	117/130 (90%)	115 (98%)	1 (1%)	1 (1%)	14	45
33	AW	257/259 (99%)	246 (96%)	11 (4%)	0	100	100
33	BW	257/259 (99%)	248 (96%)	9 (4%)	0	100	100
33	CW	257/259 (99%)	247 (96%)	10 (4%)	0	100	100
33	DW	257/259 (99%)	247 (96%)	10 (4%)	0	100	100
34	AX	72/80 (90%)	68 (94%)	4 (6%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
34	BX	72/80 (90%)	68 (94%)	4 (6%)	0	100	100
34	CX	72/80 (90%)	68 (94%)	4 (6%)	0	100	100
34	DX	72/80 (90%)	68 (94%)	4 (6%)	0	100	100
35	AY	226/293 (77%)	214 (95%)	11 (5%)	1 (0%)	30	60
35	BY	226/293 (77%)	214 (95%)	10 (4%)	2 (1%)	14	45
35	CY	226/293 (77%)	214 (95%)	11 (5%)	1 (0%)	30	60
35	DY	226/293 (77%)	215 (95%)	10 (4%)	1 (0%)	30	60
36	AZ	95/97 (98%)	93 (98%)	2 (2%)	0	100	100
36	BZ	95/97 (98%)	93 (98%)	2 (2%)	0	100	100
36	CZ	95/97 (98%)	93 (98%)	2 (2%)	0	100	100
36	DZ	95/97 (98%)	93 (98%)	2 (2%)	0	100	100
All	All	20528/23556 (87%)	19447 (95%)	1013 (5%)	68 (0%)	36	65

All (68) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
22	AL	3	VAL
25	AO	152	VAL
28	AR	48	ASP
22	BL	3	VAL
25	BO	152	VAL
28	BR	48	ASP
22	CL	3	VAL
25	CO	152	VAL
28	CR	48	ASP
32	CV	90	ILE
22	DL	3	VAL
25	DO	152	VAL
28	DR	48	ASP
7	A6	66	GLY
22	AL	35	GLY
5	B4	239	SER
7	B6	66	GLY
22	BL	35	GLY
5	C4	239	SER
7	C6	66	GLY
22	CL	35	GLY
5	D4	239	SER

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Mol	Chain	Res	Type
7	D6	66	GLY
22	DL	35	GLY
32	DV	71	LEU
5	A4	150	SER
18	AH	59	LYS
5	B4	150	SER
18	BH	59	LYS
35	BY	89	SER
5	C4	150	SER
18	CH	59	LYS
35	CY	89	SER
5	D4	150	SER
18	DH	59	LYS
29	AS	54	ILE
35	AY	89	SER
29	BS	54	ILE
29	CS	54	ILE
29	DS	54	ILE
35	DY	89	SER
17	CG	51	TYR
17	DG	51	TYR
17	DG	158	PHE
17	AG	158	PHE
17	CG	158	PHE
5	A4	23	ILE
15	AE	57	GLU
28	AR	180	VAL
5	B4	23	ILE
15	BE	57	GLU
28	BR	180	VAL
5	C4	23	ILE
15	CE	57	GLU
28	CR	180	VAL
5	D4	23	ILE
28	DR	180	VAL
15	DE	57	GLU
23	AM	81	ILE
23	AM	150	VAL
23	BM	81	ILE
23	BM	150	VAL
35	BY	69	VAL
23	CM	81	ILE

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Mol	Chain	Res	Type
23	CM	150	VAL
10	D9	143	ILE
23	DM	81	ILE
23	DM	150	VAL

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
1	A0	90/192 (47%)	81 (90%)	9 (10%)	7 30
1	B0	90/192 (47%)	81 (90%)	9 (10%)	7 30
1	C0	90/192 (47%)	81 (90%)	9 (10%)	7 30
1	D0	90/192 (47%)	81 (90%)	9 (10%)	7 30
2	A1	55/57 (96%)	43 (78%)	12 (22%)	1 7
2	B1	55/57 (96%)	44 (80%)	11 (20%)	1 9
2	C1	55/57 (96%)	43 (78%)	12 (22%)	1 7
2	D1	55/57 (96%)	43 (78%)	12 (22%)	1 7
3	A2	184/185 (100%)	154 (84%)	30 (16%)	2 14
3	B2	184/185 (100%)	154 (84%)	30 (16%)	2 14
3	C2	184/185 (100%)	155 (84%)	29 (16%)	2 15
3	D2	184/185 (100%)	154 (84%)	30 (16%)	2 14
4	A3	182/183 (100%)	151 (83%)	31 (17%)	2 13
4	B3	182/183 (100%)	151 (83%)	31 (17%)	2 13
4	C3	182/183 (100%)	151 (83%)	31 (17%)	2 13
4	D3	182/183 (100%)	151 (83%)	31 (17%)	2 13
5	A4	187/225 (83%)	155 (83%)	32 (17%)	2 13
5	B4	197/225 (88%)	165 (84%)	32 (16%)	2 14
5	C4	197/225 (88%)	164 (83%)	33 (17%)	2 13
5	D4	197/225 (88%)	164 (83%)	33 (17%)	2 13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	A5	90/107 (84%)	74 (82%)	16 (18%)	2	12
6	B5	90/107 (84%)	74 (82%)	16 (18%)	2	12
6	C5	90/107 (84%)	74 (82%)	16 (18%)	2	12
6	D5	90/107 (84%)	73 (81%)	17 (19%)	1	10
7	A6	71/72 (99%)	60 (84%)	11 (16%)	2	15
7	B6	71/72 (99%)	59 (83%)	12 (17%)	2	13
7	C6	71/72 (99%)	60 (84%)	11 (16%)	2	15
7	D6	71/72 (99%)	60 (84%)	11 (16%)	2	15
8	A7	91/136 (67%)	82 (90%)	9 (10%)	7	30
8	B7	91/136 (67%)	82 (90%)	9 (10%)	7	30
8	C7	91/136 (67%)	82 (90%)	9 (10%)	7	30
8	D7	91/136 (67%)	82 (90%)	9 (10%)	7	30
9	A8	70/109 (64%)	59 (84%)	11 (16%)	2	15
9	B8	70/109 (64%)	59 (84%)	11 (16%)	2	15
9	C8	70/109 (64%)	59 (84%)	11 (16%)	2	15
9	D8	70/109 (64%)	59 (84%)	11 (16%)	2	15
10	A9	81/156 (52%)	75 (93%)	6 (7%)	13	39
10	B9	81/156 (52%)	77 (95%)	4 (5%)	22	48
10	C9	81/156 (52%)	75 (93%)	6 (7%)	13	39
10	D9	81/156 (52%)	71 (88%)	10 (12%)	4	22
12	AB	180/211 (85%)	159 (88%)	21 (12%)	5	24
12	BB	180/211 (85%)	159 (88%)	21 (12%)	5	24
12	CB	180/211 (85%)	159 (88%)	21 (12%)	5	24
12	DB	180/211 (85%)	159 (88%)	21 (12%)	5	24
13	AC	196/210 (93%)	178 (91%)	18 (9%)	8	32
13	BC	196/210 (93%)	178 (91%)	18 (9%)	8	32
13	CC	196/210 (93%)	179 (91%)	17 (9%)	9	34
13	DC	196/210 (93%)	179 (91%)	17 (9%)	9	34
14	AD	161/162 (99%)	126 (78%)	35 (22%)	1	7
14	BD	161/162 (99%)	126 (78%)	35 (22%)	1	7
14	CD	161/162 (99%)	126 (78%)	35 (22%)	1	7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
14	DD	161/162 (99%)	126 (78%)	35 (22%)	1 7
15	AE	193/250 (77%)	164 (85%)	29 (15%)	3 16
15	BE	193/250 (77%)	165 (86%)	28 (14%)	3 17
15	CE	193/250 (77%)	165 (86%)	28 (14%)	3 17
15	DE	193/250 (77%)	166 (86%)	27 (14%)	3 18
16	AF	80/92 (87%)	73 (91%)	7 (9%)	9 33
16	BF	80/92 (87%)	73 (91%)	7 (9%)	9 33
16	CF	80/92 (87%)	73 (91%)	7 (9%)	9 33
16	DF	80/92 (87%)	73 (91%)	7 (9%)	9 33
17	AG	163/169 (96%)	141 (86%)	22 (14%)	4 20
17	BG	163/169 (96%)	140 (86%)	23 (14%)	3 18
17	CG	163/169 (96%)	139 (85%)	24 (15%)	3 17
17	DG	163/169 (96%)	141 (86%)	22 (14%)	4 20
18	AH	116/117 (99%)	94 (81%)	22 (19%)	1 10
18	BH	116/117 (99%)	94 (81%)	22 (19%)	1 10
18	CH	116/117 (99%)	94 (81%)	22 (19%)	1 10
18	DH	116/117 (99%)	94 (81%)	22 (19%)	1 10
19	AI	120/122 (98%)	102 (85%)	18 (15%)	3 16
19	BI	120/122 (98%)	102 (85%)	18 (15%)	3 16
19	CI	120/122 (98%)	102 (85%)	18 (15%)	3 16
19	DI	120/122 (98%)	102 (85%)	18 (15%)	3 16
20	AJ	101/111 (91%)	87 (86%)	14 (14%)	3 19
20	BJ	101/111 (91%)	87 (86%)	14 (14%)	3 19
20	CJ	101/111 (91%)	87 (86%)	14 (14%)	3 19
20	DJ	101/111 (91%)	87 (86%)	14 (14%)	3 19
21	AK	112/121 (93%)	97 (87%)	15 (13%)	4 20
21	BK	112/121 (93%)	96 (86%)	16 (14%)	3 18
21	CK	112/121 (93%)	96 (86%)	16 (14%)	3 18
21	DK	112/121 (93%)	97 (87%)	15 (13%)	4 20
22	AL	112/114 (98%)	95 (85%)	17 (15%)	3 16
22	BL	112/114 (98%)	95 (85%)	17 (15%)	3 16

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
22	CL	112/114 (98%)	95 (85%)	17 (15%)	3	16
22	DL	112/114 (98%)	96 (86%)	16 (14%)	3	18
23	AM	133/135 (98%)	113 (85%)	20 (15%)	3	16
23	BM	133/135 (98%)	113 (85%)	20 (15%)	3	16
23	CM	133/135 (98%)	113 (85%)	20 (15%)	3	16
23	DM	133/135 (98%)	113 (85%)	20 (15%)	3	16
24	AN	48/49 (98%)	41 (85%)	7 (15%)	3	17
24	BN	48/49 (98%)	41 (85%)	7 (15%)	3	17
24	CN	48/49 (98%)	40 (83%)	8 (17%)	2	14
24	DN	48/49 (98%)	40 (83%)	8 (17%)	2	14
25	AO	135/136 (99%)	115 (85%)	20 (15%)	3	17
25	BO	135/136 (99%)	115 (85%)	20 (15%)	3	17
25	CO	135/136 (99%)	115 (85%)	20 (15%)	3	17
25	DO	135/136 (99%)	115 (85%)	20 (15%)	3	17
26	AP	133/134 (99%)	115 (86%)	18 (14%)	4	20
26	BP	133/134 (99%)	114 (86%)	19 (14%)	3	18
26	CP	133/134 (99%)	115 (86%)	18 (14%)	4	20
26	DP	133/134 (99%)	115 (86%)	18 (14%)	4	20
27	AQ	140/141 (99%)	122 (87%)	18 (13%)	4	21
27	BQ	140/141 (99%)	122 (87%)	18 (13%)	4	21
27	CQ	140/141 (99%)	122 (87%)	18 (13%)	4	21
27	DQ	140/141 (99%)	122 (87%)	18 (13%)	4	21
28	AR	291/295 (99%)	259 (89%)	32 (11%)	6	26
28	BR	291/295 (99%)	260 (89%)	31 (11%)	6	27
28	CR	291/295 (99%)	260 (89%)	31 (11%)	6	27
28	DR	291/295 (99%)	260 (89%)	31 (11%)	6	27
29	AS	108/117 (92%)	95 (88%)	13 (12%)	5	23
29	BS	108/117 (92%)	95 (88%)	13 (12%)	5	23
29	CS	108/117 (92%)	95 (88%)	13 (12%)	5	23
29	DS	108/117 (92%)	95 (88%)	13 (12%)	5	23
30	AT	133/134 (99%)	115 (86%)	18 (14%)	4	20

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	BT	133/134 (99%)	116 (87%)	17 (13%)	4	21
30	CT	133/134 (99%)	117 (88%)	16 (12%)	5	23
30	DT	133/134 (99%)	116 (87%)	17 (13%)	4	21
31	AU	103/104 (99%)	93 (90%)	10 (10%)	8	31
31	BU	103/104 (99%)	93 (90%)	10 (10%)	8	31
31	CU	103/104 (99%)	93 (90%)	10 (10%)	8	31
31	DU	103/104 (99%)	93 (90%)	10 (10%)	8	31
32	AV	107/115 (93%)	93 (87%)	14 (13%)	4	20
32	BV	107/115 (93%)	95 (89%)	12 (11%)	6	25
32	CV	107/115 (93%)	95 (89%)	12 (11%)	6	25
32	DV	107/115 (93%)	96 (90%)	11 (10%)	7	29
33	AW	226/226 (100%)	190 (84%)	36 (16%)	2	15
33	BW	226/226 (100%)	189 (84%)	37 (16%)	2	14
33	CW	226/226 (100%)	188 (83%)	38 (17%)	2	13
33	DW	226/226 (100%)	188 (83%)	38 (17%)	2	13
34	AX	61/67 (91%)	53 (87%)	8 (13%)	4	20
34	BX	61/67 (91%)	53 (87%)	8 (13%)	4	20
34	CX	61/67 (91%)	53 (87%)	8 (13%)	4	20
34	DX	61/67 (91%)	53 (87%)	8 (13%)	4	20
35	AY	197/244 (81%)	173 (88%)	24 (12%)	5	22
35	BY	197/244 (81%)	173 (88%)	24 (12%)	5	22
35	CY	197/244 (81%)	173 (88%)	24 (12%)	5	22
35	DY	197/244 (81%)	173 (88%)	24 (12%)	5	22
36	AZ	82/82 (100%)	73 (89%)	9 (11%)	6	26
36	BZ	82/82 (100%)	73 (89%)	9 (11%)	6	26
36	CZ	82/82 (100%)	73 (89%)	9 (11%)	6	26
36	DZ	82/82 (100%)	73 (89%)	9 (11%)	6	26
All	All	18158/20320 (89%)	15634 (86%)	2524 (14%)	3	19

All (2524) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A0	25	LEU

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Mol	Chain	Res	Type
1	A0	43	ASN
1	A0	46	LEU
1	A0	61	CYS
1	A0	64	LEU
1	A0	76	VAL
1	A0	78	VAL
1	A0	91	LEU
1	A0	97	ASP
2	A1	6	THR
2	A1	10	ARG
2	A1	18	THR
2	A1	27	VAL
2	A1	30	VAL
2	A1	32	ILE
2	A1	36	GLU
2	A1	41	LEU
2	A1	45	VAL
2	A1	49	CYS
2	A1	55	LEU
2	A1	58	MET
3	A2	7	SER
3	A2	18	MET
3	A2	21	HIS
3	A2	34	SER
3	A2	36	THR
3	A2	40	THR
3	A2	56	VAL
3	A2	64	ARG
3	A2	67	ARG
3	A2	74	SER
3	A2	84	THR
3	A2	86	ILE
3	A2	89	VAL
3	A2	101	THR
3	A2	103	THR
3	A2	108	SER
3	A2	110	VAL
3	A2	115	THR
3	A2	136	THR
3	A2	137	VAL
3	A2	140	ASN
3	A2	144	SER

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Mol	Chain	Res	Type
3	A2	173	LEU
3	A2	175	CYS
3	A2	176	ILE
3	A2	177	THR
3	A2	179	ARG
3	A2	183	SER
3	A2	197	GLU
3	A2	203	LEU
4	A3	3	LEU
4	A3	7	HIS
4	A3	9	LYS
4	A3	13	THR
4	A3	39	SER
4	A3	41	ILE
4	A3	52	LYS
4	A3	63	ILE
4	A3	72	VAL
4	A3	88	LEU
4	A3	90	GLN
4	A3	92	VAL
4	A3	101	GLU
4	A3	102	SER
4	A3	109	LYS
4	A3	113	ARG
4	A3	115	ARG
4	A3	116	SER
4	A3	117	ARG
4	A3	122	VAL
4	A3	132	LEU
4	A3	139	LYS
4	A3	142	ARG
4	A3	148	THR
4	A3	152	ARG
4	A3	153	ILE
4	A3	161	ASP
4	A3	178	THR
4	A3	179	THR
4	A3	190	LYS
4	A3	196	LYS
5	A4	28	ARG
5	A4	44	SER
5	A4	48	THR

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Mol	Chain	Res	Type
5	A4	50	VAL
5	A4	53	SER
5	A4	63	ILE
5	A4	67	VAL
5	A4	70	SER
5	A4	71	THR
5	A4	74	ASP
5	A4	80	ASN
5	A4	90	VAL
5	A4	91	ILE
5	A4	92	ASP
5	A4	98	ASN
5	A4	108	ILE
5	A4	109	THR
5	A4	111	ASP
5	A4	115	SER
5	A4	120	TRP
5	A4	130	CYS
5	A4	132	THR
5	A4	146	THR
5	A4	155	SER
5	A4	157	THR
5	A4	159	THR
5	A4	174	ILE
5	A4	194	LEU
5	A4	207	THR
5	A4	217	THR
5	A4	218	ILE
5	A4	228	LYS
6	A5	10	ARG
6	A5	13	LYS
6	A5	18	THR
6	A5	21	VAL
6	A5	30	VAL
6	A5	33	ASP
6	A5	37	LYS
6	A5	44	MET
6	A5	45	VAL
6	A5	49	SER
6	A5	69	LEU
6	A5	89	ARG
6	A5	90	CYS

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Mol	Chain	Res	Type
6	A5	92	GLU
6	A5	95	ARG
6	A5	96	ILE
7	A6	9	ILE
7	A6	23	ILE
7	A6	31	MET
7	A6	43	MET
7	A6	47	ASN
7	A6	53	ILE
7	A6	54	CYS
7	A6	58	SER
7	A6	62	CYS
7	A6	63	LYS
7	A6	79	ILE
8	A7	9	LYS
8	A7	16	LEU
8	A7	21	VAL
8	A7	24	LEU
8	A7	35	THR
8	A7	40	LEU
8	A7	47	ARG
8	A7	50	LYS
8	A7	64	THR
9	A8	37	ASP
9	A8	39	VAL
9	A8	51	GLU
9	A8	67	SER
9	A8	68	THR
9	A8	75	VAL
9	A8	76	ASN
9	A8	78	SER
9	A8	84	MET
9	A8	94	GLU
9	A8	115	LYS
10	A9	74	LYS
10	A9	79	SER
10	A9	86	THR
10	A9	93	THR
10	A9	143	ILE
10	A9	144	ASP
12	AB	16	SER
12	AB	17	ASN

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Mol	Chain	Res	Type
12	AB	23	ILE
12	AB	38	VAL
12	AB	46	ILE
12	AB	54	LYS
12	AB	55	LEU
12	AB	63	VAL
12	AB	69	VAL
12	AB	89	THR
12	AB	105	THR
12	AB	110	LEU
12	AB	121	THR
12	AB	134	SER
12	AB	136	VAL
12	AB	159	CYS
12	AB	164	THR
12	AB	169	MET
12	AB	170	ILE
12	AB	189	GLU
12	AB	194	MET
13	AC	8	ILE
13	AC	12	LYS
13	AC	13	LYS
13	AC	29	SER
13	AC	47	THR
13	AC	64	VAL
13	AC	85	ASP
13	AC	105	VAL
13	AC	126	ILE
13	AC	137	CYS
13	AC	142	SER
13	AC	147	GLN
13	AC	162	CYS
13	AC	163	THR
13	AC	171	ILE
13	AC	201	LYS
13	AC	221	ILE
13	AC	228	ARG
14	AD	3	LYS
14	AD	6	ILE
14	AD	8	THR
14	AD	9	SER
14	AD	23	ARG

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Mol	Chain	Res	Type
14	AD	28	MET
14	AD	30	LEU
14	AD	42	VAL
14	AD	44	ARG
14	AD	47	MET
14	AD	57	ARG
14	AD	63	ASP
14	AD	68	ARG
14	AD	69	ARG
14	AD	79	ARG
14	AD	80	MET
14	AD	86	LEU
14	AD	99	LEU
14	AD	100	THR
14	AD	104	LEU
14	AD	105	MET
14	AD	107	ARG
14	AD	112	ARG
14	AD	121	SER
14	AD	127	VAL
14	AD	129	ILE
14	AD	140	LEU
14	AD	142	ASN
14	AD	147	MET
14	AD	149	ARG
14	AD	150	THR
14	AD	156	ILE
14	AD	160	SER
14	AD	164	LEU
14	AD	171	ARG
15	AE	36	LEU
15	AE	43	SER
15	AE	44	SER
15	AE	52	SER
15	AE	57	GLU
15	AE	61	ILE
15	AE	81	VAL
15	AE	82	LEU
15	AE	83	GLN
15	AE	140	VAL
15	AE	142	LYS
15	AE	157	GLN

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Mol	Chain	Res	Type
15	AE	159	ILE
15	AE	160	THR
15	AE	162	LYS
15	AE	165	SER
15	AE	166	VAL
15	AE	168	ILE
15	AE	171	VAL
15	AE	175	ARG
15	AE	177	THR
15	AE	194	VAL
15	AE	197	ILE
15	AE	199	THR
15	AE	205	THR
15	AE	208	ARG
15	AE	219	LEU
15	AE	222	THR
15	AE	235	GLU
16	AF	41	GLU
16	AF	49	LYS
16	AF	60	THR
16	AF	65	ASP
16	AF	66	GLU
16	AF	71	ILE
16	AF	87	GLU
17	AG	24	ILE
17	AG	28	CYS
17	AG	37	THR
17	AG	41	GLN
17	AG	42	VAL
17	AG	53	VAL
17	AG	59	THR
17	AG	63	ILE
17	AG	66	ARG
17	AG	89	LYS
17	AG	99	THR
17	AG	101	ARG
17	AG	104	LEU
17	AG	120	SER
17	AG	121	THR
17	AG	135	ASP
17	AG	139	MET
17	AG	156	SER

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Mol	Chain	Res	Type
17	AG	160	SER
17	AG	162	ARG
17	AG	164	ILE
17	AG	186	ILE
18	AH	3	LYS
18	AH	11	LEU
18	AH	12	LYS
18	AH	13	ASP
18	AH	20	MET
18	AH	27	LEU
18	AH	28	ARG
18	AH	30	VAL
18	AH	31	SER
18	AH	47	ILE
18	AH	53	ILE
18	AH	57	ARG
18	AH	65	LEU
18	AH	66	ILE
18	AH	70	ASN
18	AH	90	THR
18	AH	97	ARG
18	AH	101	ASN
18	AH	103	VAL
18	AH	106	THR
18	AH	107	THR
18	AH	121	THR
19	AI	7	GLN
19	AI	12	PHE
19	AI	14	ARG
19	AI	15	LYS
19	AI	23	SER
19	AI	30	LEU
19	AI	33	VAL
19	AI	36	SER
19	AI	41	ILE
19	AI	46	LEU
19	AI	50	ILE
19	AI	54	ILE
19	AI	66	ASP
19	AI	78	SER
19	AI	87	LEU
19	AI	89	LYS

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Mol	Chain	Res	Type
19	AI	126	MET
19	AI	142	LYS
20	AJ	24	THR
20	AJ	31	VAL
20	AJ	41	ARG
20	AJ	45	THR
20	AJ	51	LYS
20	AJ	63	ILE
20	AJ	68	SER
20	AJ	74	SER
20	AJ	76	THR
20	AJ	88	ILE
20	AJ	94	ASN
20	AJ	97	ASP
20	AJ	106	ILE
20	AJ	115	THR
21	AK	14	ILE
21	AK	21	VAL
21	AK	40	THR
21	AK	55	ARG
21	AK	57	THR
21	AK	62	VAL
21	AK	75	MET
21	AK	91	ASN
21	AK	97	LEU
21	AK	107	GLN
21	AK	122	SER
21	AK	128	ARG
21	AK	138	ASP
21	AK	139	SER
21	AK	150	ARG
22	AL	3	VAL
22	AL	7	ARG
22	AL	9	ILE
22	AL	10	ARG
22	AL	27	ASN
22	AL	34	LEU
22	AL	36	SER
22	AL	40	ASN
22	AL	52	VAL
22	AL	53	THR
22	AL	76	ARG

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Mol	Chain	Res	Type
22	AL	80	LYS
22	AL	101	VAL
22	AL	109	GLN
22	AL	120	ARG
22	AL	129	ILE
22	AL	130	SER
23	AM	4	VAL
23	AM	15	HIS
23	AM	27	ILE
23	AM	28	THR
23	AM	49	VAL
23	AM	72	LEU
23	AM	83	THR
23	AM	87	ASN
23	AM	88	ARG
23	AM	89	ILE
23	AM	94	ASP
23	AM	98	TYR
23	AM	99	GLN
23	AM	100	MET
23	AM	115	ARG
23	AM	119	ILE
23	AM	123	ARG
23	AM	136	GLN
23	AM	138	THR
23	AM	147	VAL
24	AN	30	ILE
24	AN	32	LYS
24	AN	39	ARG
24	AN	40	ARG
24	AN	43	ARG
24	AN	49	ILE
24	AN	52	VAL
25	AO	3	ARG
25	AO	7	LYS
25	AO	9	LYS
25	AO	11	LYS
25	AO	13	ILE
25	AO	14	SER
25	AO	26	LYS
25	AO	34	THR
25	AO	48	THR

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Mol	Chain	Res	Type
25	AO	55	ILE
25	AO	59	GLN
25	AO	88	GLU
25	AO	93	LEU
25	AO	96	LYS
25	AO	102	LYS
25	AO	104	LEU
25	AO	109	LYS
25	AO	118	ILE
25	AO	127	LEU
25	AO	137	LEU
26	AP	2	THR
26	AP	7	THR
26	AP	10	ILE
26	AP	21	LEU
26	AP	24	ASP
26	AP	26	LEU
26	AP	48	VAL
26	AP	51	ARG
26	AP	54	VAL
26	AP	55	VAL
26	AP	77	GLN
26	AP	80	LEU
26	AP	95	LEU
26	AP	102	ARG
26	AP	108	LEU
26	AP	110	ARG
26	AP	115	THR
26	AP	122	LYS
27	AQ	6	GLN
27	AQ	12	GLN
27	AQ	37	ILE
27	AQ	51	THR
27	AQ	61	SER
27	AQ	64	SER
27	AQ	65	ILE
27	AQ	77	THR
27	AQ	84	ILE
27	AQ	85	ILE
27	AQ	87	ARG
27	AQ	93	VAL
27	AQ	98	ARG

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Mol	Chain	Res	Type
27	AQ	103	HIS
27	AQ	115	SER
27	AQ	117	LYS
27	AQ	133	THR
27	AQ	135	ARG
28	AR	20	HIS
28	AR	32	SER
28	AR	42	LEU
28	AR	48	ASP
28	AR	50	THR
28	AR	67	ILE
28	AR	73	THR
28	AR	76	ASN
28	AR	80	SER
28	AR	88	ASN
28	AR	92	ILE
28	AR	100	LEU
28	AR	102	LEU
28	AR	106	ARG
28	AR	107	THR
28	AR	113	ARG
28	AR	117	HIS
28	AR	120	GLU
28	AR	124	VAL
28	AR	126	PHE
28	AR	147	ILE
28	AR	161	HIS
28	AR	178	ASN
28	AR	189	SER
28	AR	190	VAL
28	AR	208	THR
28	AR	216	VAL
28	AR	219	LEU
28	AR	238	LEU
28	AR	246	THR
28	AR	274	THR
28	AR	313	THR
29	AS	11	PHE
29	AS	12	THR
29	AS	28	SER
29	AS	34	ILE
29	AS	36	ASP

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Mol	Chain	Res	Type
29	AS	49	ARG
29	AS	54	ILE
29	AS	83	THR
29	AS	84	HIS
29	AS	91	ILE
29	AS	119	LYS
29	AS	127	THR
29	AS	136	THR
30	AT	9	THR
30	AT	20	ARG
30	AT	34	ILE
30	AT	38	THR
30	AT	41	THR
30	AT	45	VAL
30	AT	56	TRP
30	AT	60	ARG
30	AT	64	LEU
30	AT	76	ILE
30	AT	77	SER
30	AT	93	ARG
30	AT	105	ARG
30	AT	117	ILE
30	AT	130	ARG
30	AT	135	GLU
30	AT	143	ILE
30	AT	155	LYS
31	AU	3	ASP
31	AU	22	GLN
31	AU	29	LEU
31	AU	34	ARG
31	AU	50	CYS
31	AU	51	ASP
31	AU	56	VAL
31	AU	71	VAL
31	AU	78	SER
31	AU	100	CYS
32	AV	4	VAL
32	AV	6	THR
32	AV	7	LYS
32	AV	8	THR
32	AV	35	LEU
32	AV	37	GLU

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Mol	Chain	Res	Type
32	AV	44	LYS
32	AV	46	LEU
32	AV	60	ARG
32	AV	81	ARG
32	AV	83	ASP
32	AV	90	ILE
32	AV	105	MET
32	AV	119	SER
33	AW	19	MET
33	AW	23	LEU
33	AW	26	ILE
33	AW	38	LEU
33	AW	41	SER
33	AW	42	LEU
33	AW	44	LEU
33	AW	45	SER
33	AW	51	ARG
33	AW	82	LYS
33	AW	97	THR
33	AW	107	THR
33	AW	110	ARG
33	AW	115	SER
33	AW	122	LYS
33	AW	133	ILE
33	AW	141	ILE
33	AW	142	VAL
33	AW	143	THR
33	AW	150	ARG
33	AW	167	VAL
33	AW	176	HIS
33	AW	183	CYS
33	AW	186	GLN
33	AW	189	ASN
33	AW	194	VAL
33	AW	210	CYS
33	AW	214	ASP
33	AW	229	VAL
33	AW	230	LEU
33	AW	232	GLN
33	AW	236	SER
33	AW	238	ILE
33	AW	239	GLU

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Mol	Chain	Res	Type
33	AW	242	SER
33	AW	253	GLU
34	AX	5	HIS
34	AX	8	LEU
34	AX	10	LYS
34	AX	14	VAL
34	AX	35	SER
34	AX	52	THR
34	AX	53	ASP
34	AX	59	SER
35	AY	1	MET
35	AY	6	SER
35	AY	10	THR
35	AY	16	ILE
35	AY	32	MET
35	AY	43	ASP
35	AY	51	LYS
35	AY	69	VAL
35	AY	78	SER
35	AY	97	VAL
35	AY	98	ARG
35	AY	106	MET
35	AY	118	VAL
35	AY	120	GLU
35	AY	129	LEU
35	AY	137	ARG
35	AY	145	PHE
35	AY	155	LEU
35	AY	160	VAL
35	AY	161	ILE
35	AY	175	LYS
35	AY	186	GLU
35	AY	205	THR
35	AY	206	ASN
36	AZ	14	THR
36	AZ	17	ILE
36	AZ	22	GLU
36	AZ	25	ASP
36	AZ	31	LYS
36	AZ	47	VAL
36	AZ	61	THR
36	AZ	75	SER

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Mol	Chain	Res	Type
36	AZ	81	ILE
1	B0	25	LEU
1	B0	43	ASN
1	B0	46	LEU
1	B0	61	CYS
1	B0	64	LEU
1	B0	76	VAL
1	B0	78	VAL
1	B0	91	LEU
1	B0	97	ASP
2	B1	6	THR
2	B1	10	ARG
2	B1	18	THR
2	B1	27	VAL
2	B1	30	VAL
2	B1	32	ILE
2	B1	36	GLU
2	B1	41	LEU
2	B1	45	VAL
2	B1	49	CYS
2	B1	55	LEU
3	B2	7	SER
3	B2	18	MET
3	B2	21	HIS
3	B2	34	SER
3	B2	36	THR
3	B2	38	LEU
3	B2	56	VAL
3	B2	64	ARG
3	B2	67	ARG
3	B2	74	SER
3	B2	84	THR
3	B2	86	ILE
3	B2	89	VAL
3	B2	101	THR
3	B2	103	THR
3	B2	108	SER
3	B2	110	VAL
3	B2	115	THR
3	B2	136	THR
3	B2	137	VAL
3	B2	140	ASN

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Mol	Chain	Res	Type
3	B2	144	SER
3	B2	173	LEU
3	B2	175	CYS
3	B2	176	ILE
3	B2	177	THR
3	B2	179	ARG
3	B2	183	SER
3	B2	197	GLU
3	B2	203	LEU
4	B3	3	LEU
4	B3	7	HIS
4	B3	9	LYS
4	B3	13	THR
4	B3	39	SER
4	B3	41	ILE
4	B3	52	LYS
4	B3	63	ILE
4	B3	72	VAL
4	B3	88	LEU
4	B3	90	GLN
4	B3	92	VAL
4	B3	101	GLU
4	B3	102	SER
4	B3	109	LYS
4	B3	113	ARG
4	B3	115	ARG
4	B3	116	SER
4	B3	117	ARG
4	B3	122	VAL
4	B3	132	LEU
4	B3	139	LYS
4	B3	142	ARG
4	B3	148	THR
4	B3	152	ARG
4	B3	153	ILE
4	B3	161	ASP
4	B3	178	THR
4	B3	179	THR
4	B3	190	LYS
4	B3	196	LYS
5	B4	28	ARG
5	B4	44	SER

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Mol	Chain	Res	Type
5	B4	48	THR
5	B4	50	VAL
5	B4	53	SER
5	B4	63	ILE
5	B4	67	VAL
5	B4	70	SER
5	B4	71	THR
5	B4	74	ASP
5	B4	80	ASN
5	B4	90	VAL
5	B4	91	ILE
5	B4	92	ASP
5	B4	98	ASN
5	B4	108	ILE
5	B4	109	THR
5	B4	111	ASP
5	B4	115	SER
5	B4	120	TRP
5	B4	130	CYS
5	B4	132	THR
5	B4	146	THR
5	B4	155	SER
5	B4	157	THR
5	B4	159	THR
5	B4	174	ILE
5	B4	194	LEU
5	B4	207	THR
5	B4	217	THR
5	B4	218	ILE
5	B4	230	ASP
6	B5	10	ARG
6	B5	13	LYS
6	B5	18	THR
6	B5	21	VAL
6	B5	30	VAL
6	B5	33	ASP
6	B5	37	LYS
6	B5	44	MET
6	B5	45	VAL
6	B5	49	SER
6	B5	69	LEU
6	B5	89	ARG

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Mol	Chain	Res	Type
6	B5	90	CYS
6	B5	92	GLU
6	B5	95	ARG
6	B5	96	ILE
7	B6	9	ILE
7	B6	23	ILE
7	B6	31	MET
7	B6	43	MET
7	B6	47	ASN
7	B6	53	ILE
7	B6	54	CYS
7	B6	58	SER
7	B6	62	CYS
7	B6	63	LYS
7	B6	78	LYS
7	B6	79	ILE
8	B7	9	LYS
8	B7	16	LEU
8	B7	21	VAL
8	B7	24	LEU
8	B7	35	THR
8	B7	40	LEU
8	B7	47	ARG
8	B7	50	LYS
8	B7	64	THR
9	B8	37	ASP
9	B8	39	VAL
9	B8	51	GLU
9	B8	67	SER
9	B8	68	THR
9	B8	75	VAL
9	B8	76	ASN
9	B8	78	SER
9	B8	84	MET
9	B8	94	GLU
9	B8	115	LYS
10	B9	74	LYS
10	B9	79	SER
10	B9	86	THR
10	B9	93	THR
12	BB	16	SER
12	BB	17	ASN

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Mol	Chain	Res	Type
12	BB	23	ILE
12	BB	38	VAL
12	BB	46	ILE
12	BB	54	LYS
12	BB	55	LEU
12	BB	63	VAL
12	BB	69	VAL
12	BB	89	THR
12	BB	105	THR
12	BB	110	LEU
12	BB	121	THR
12	BB	134	SER
12	BB	136	VAL
12	BB	159	CYS
12	BB	164	THR
12	BB	169	MET
12	BB	170	ILE
12	BB	189	GLU
12	BB	194	MET
13	BC	8	ILE
13	BC	12	LYS
13	BC	13	LYS
13	BC	29	SER
13	BC	47	THR
13	BC	64	VAL
13	BC	85	ASP
13	BC	105	VAL
13	BC	126	ILE
13	BC	137	CYS
13	BC	142	SER
13	BC	147	GLN
13	BC	162	CYS
13	BC	163	THR
13	BC	171	ILE
13	BC	201	LYS
13	BC	221	ILE
13	BC	228	ARG
14	BD	3	LYS
14	BD	6	ILE
14	BD	8	THR
14	BD	9	SER
14	BD	23	ARG

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Mol	Chain	Res	Type
14	BD	28	MET
14	BD	30	LEU
14	BD	42	VAL
14	BD	44	ARG
14	BD	47	MET
14	BD	57	ARG
14	BD	63	ASP
14	BD	68	ARG
14	BD	69	ARG
14	BD	79	ARG
14	BD	80	MET
14	BD	86	LEU
14	BD	99	LEU
14	BD	100	THR
14	BD	104	LEU
14	BD	105	MET
14	BD	107	ARG
14	BD	112	ARG
14	BD	121	SER
14	BD	127	VAL
14	BD	129	ILE
14	BD	140	LEU
14	BD	142	ASN
14	BD	147	MET
14	BD	149	ARG
14	BD	150	THR
14	BD	156	ILE
14	BD	160	SER
14	BD	164	LEU
14	BD	171	ARG
15	BE	36	LEU
15	BE	43	SER
15	BE	44	SER
15	BE	52	SER
15	BE	57	GLU
15	BE	61	ILE
15	BE	81	VAL
15	BE	82	LEU
15	BE	83	GLN
15	BE	140	VAL
15	BE	142	LYS
15	BE	157	GLN

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Mol	Chain	Res	Type
15	BE	159	ILE
15	BE	160	THR
15	BE	162	LYS
15	BE	165	SER
15	BE	166	VAL
15	BE	168	ILE
15	BE	171	VAL
15	BE	175	ARG
15	BE	194	VAL
15	BE	197	ILE
15	BE	199	THR
15	BE	205	THR
15	BE	208	ARG
15	BE	219	LEU
15	BE	222	THR
15	BE	235	GLU
16	BF	41	GLU
16	BF	49	LYS
16	BF	60	THR
16	BF	65	ASP
16	BF	66	GLU
16	BF	71	ILE
16	BF	87	GLU
17	BG	24	ILE
17	BG	28	CYS
17	BG	37	THR
17	BG	41	GLN
17	BG	42	VAL
17	BG	53	VAL
17	BG	59	THR
17	BG	63	ILE
17	BG	66	ARG
17	BG	89	LYS
17	BG	97	LEU
17	BG	99	THR
17	BG	101	ARG
17	BG	104	LEU
17	BG	120	SER
17	BG	121	THR
17	BG	135	ASP
17	BG	139	MET
17	BG	156	SER

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Mol	Chain	Res	Type
17	BG	160	SER
17	BG	162	ARG
17	BG	164	ILE
17	BG	186	ILE
18	BH	3	LYS
18	BH	11	LEU
18	BH	12	LYS
18	BH	13	ASP
18	BH	20	MET
18	BH	27	LEU
18	BH	28	ARG
18	BH	30	VAL
18	BH	31	SER
18	BH	47	ILE
18	BH	53	ILE
18	BH	57	ARG
18	BH	65	LEU
18	BH	66	ILE
18	BH	70	ASN
18	BH	90	THR
18	BH	97	ARG
18	BH	101	ASN
18	BH	103	VAL
18	BH	106	THR
18	BH	107	THR
18	BH	121	THR
19	BI	7	GLN
19	BI	12	PHE
19	BI	14	ARG
19	BI	15	LYS
19	BI	23	SER
19	BI	30	LEU
19	BI	33	VAL
19	BI	36	SER
19	BI	41	ILE
19	BI	46	LEU
19	BI	50	ILE
19	BI	54	ILE
19	BI	66	ASP
19	BI	78	SER
19	BI	87	LEU
19	BI	89	LYS

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Mol	Chain	Res	Type
19	BI	126	MET
19	BI	142	LYS
20	BJ	24	THR
20	BJ	31	VAL
20	BJ	41	ARG
20	BJ	45	THR
20	BJ	51	LYS
20	BJ	63	ILE
20	BJ	68	SER
20	BJ	74	SER
20	BJ	76	THR
20	BJ	88	ILE
20	BJ	94	ASN
20	BJ	97	ASP
20	BJ	106	ILE
20	BJ	115	THR
21	BK	14	ILE
21	BK	21	VAL
21	BK	40	THR
21	BK	55	ARG
21	BK	57	THR
21	BK	62	VAL
21	BK	75	MET
21	BK	79	ILE
21	BK	91	ASN
21	BK	97	LEU
21	BK	107	GLN
21	BK	122	SER
21	BK	128	ARG
21	BK	138	ASP
21	BK	139	SER
21	BK	150	ARG
22	BL	3	VAL
22	BL	7	ARG
22	BL	9	ILE
22	BL	10	ARG
22	BL	27	ASN
22	BL	34	LEU
22	BL	36	SER
22	BL	40	ASN
22	BL	52	VAL
22	BL	53	THR

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Mol	Chain	Res	Type
22	BL	76	ARG
22	BL	80	LYS
22	BL	101	VAL
22	BL	109	GLN
22	BL	120	ARG
22	BL	129	ILE
22	BL	130	SER
23	BM	4	VAL
23	BM	15	HIS
23	BM	27	ILE
23	BM	28	THR
23	BM	49	VAL
23	BM	72	LEU
23	BM	83	THR
23	BM	87	ASN
23	BM	88	ARG
23	BM	89	ILE
23	BM	94	ASP
23	BM	98	TYR
23	BM	99	GLN
23	BM	100	MET
23	BM	115	ARG
23	BM	119	ILE
23	BM	123	ARG
23	BM	136	GLN
23	BM	138	THR
23	BM	147	VAL
24	BN	30	ILE
24	BN	32	LYS
24	BN	39	ARG
24	BN	40	ARG
24	BN	43	ARG
24	BN	49	ILE
24	BN	52	VAL
25	BO	3	ARG
25	BO	7	LYS
25	BO	9	LYS
25	BO	11	LYS
25	BO	13	ILE
25	BO	14	SER
25	BO	26	LYS
25	BO	34	THR

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Mol	Chain	Res	Type
25	BO	48	THR
25	BO	50	SER
25	BO	55	ILE
25	BO	59	GLN
25	BO	93	LEU
25	BO	96	LYS
25	BO	102	LYS
25	BO	104	LEU
25	BO	109	LYS
25	BO	118	ILE
25	BO	127	LEU
25	BO	137	LEU
26	BP	2	THR
26	BP	7	THR
26	BP	10	ILE
26	BP	21	LEU
26	BP	24	ASP
26	BP	26	LEU
26	BP	48	VAL
26	BP	51	ARG
26	BP	54	VAL
26	BP	55	VAL
26	BP	77	GLN
26	BP	80	LEU
26	BP	95	LEU
26	BP	102	ARG
26	BP	108	LEU
26	BP	110	ARG
26	BP	115	THR
26	BP	122	LYS
26	BP	131	THR
27	BQ	6	GLN
27	BQ	12	GLN
27	BQ	37	ILE
27	BQ	51	THR
27	BQ	61	SER
27	BQ	64	SER
27	BQ	65	ILE
27	BQ	77	THR
27	BQ	84	ILE
27	BQ	85	ILE
27	BQ	87	ARG

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Mol	Chain	Res	Type
27	BQ	93	VAL
27	BQ	98	ARG
27	BQ	103	HIS
27	BQ	115	SER
27	BQ	117	LYS
27	BQ	133	THR
27	BQ	135	ARG
28	BR	20	HIS
28	BR	32	SER
28	BR	42	LEU
28	BR	48	ASP
28	BR	50	THR
28	BR	67	ILE
28	BR	73	THR
28	BR	76	ASN
28	BR	80	SER
28	BR	88	ASN
28	BR	92	ILE
28	BR	100	LEU
28	BR	102	LEU
28	BR	106	ARG
28	BR	107	THR
28	BR	113	ARG
28	BR	117	HIS
28	BR	120	GLU
28	BR	124	VAL
28	BR	126	PHE
28	BR	147	ILE
28	BR	161	HIS
28	BR	189	SER
28	BR	190	VAL
28	BR	208	THR
28	BR	216	VAL
28	BR	219	LEU
28	BR	238	LEU
28	BR	246	THR
28	BR	274	THR
28	BR	313	THR
29	BS	11	PHE
29	BS	12	THR
29	BS	28	SER
29	BS	34	ILE

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Mol	Chain	Res	Type
29	BS	36	ASP
29	BS	49	ARG
29	BS	54	ILE
29	BS	83	THR
29	BS	84	HIS
29	BS	91	ILE
29	BS	119	LYS
29	BS	127	THR
29	BS	136	THR
30	BT	9	THR
30	BT	20	ARG
30	BT	38	THR
30	BT	41	THR
30	BT	45	VAL
30	BT	56	TRP
30	BT	60	ARG
30	BT	64	LEU
30	BT	76	ILE
30	BT	77	SER
30	BT	93	ARG
30	BT	105	ARG
30	BT	117	ILE
30	BT	130	ARG
30	BT	135	GLU
30	BT	143	ILE
30	BT	155	LYS
31	BU	3	ASP
31	BU	22	GLN
31	BU	29	LEU
31	BU	34	ARG
31	BU	50	CYS
31	BU	51	ASP
31	BU	56	VAL
31	BU	71	VAL
31	BU	78	SER
31	BU	100	CYS
32	BV	4	VAL
32	BV	6	THR
32	BV	7	LYS
32	BV	8	THR
32	BV	35	LEU
32	BV	37	GLU

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Mol	Chain	Res	Type
32	BV	44	LYS
32	BV	46	LEU
32	BV	60	ARG
32	BV	85	VAL
32	BV	105	MET
32	BV	119	SER
33	BW	19	MET
33	BW	23	LEU
33	BW	26	ILE
33	BW	38	LEU
33	BW	41	SER
33	BW	42	LEU
33	BW	44	LEU
33	BW	45	SER
33	BW	51	ARG
33	BW	82	LYS
33	BW	97	THR
33	BW	107	THR
33	BW	110	ARG
33	BW	115	SER
33	BW	122	LYS
33	BW	133	ILE
33	BW	141	ILE
33	BW	142	VAL
33	BW	143	THR
33	BW	150	ARG
33	BW	158	ILE
33	BW	167	VAL
33	BW	176	HIS
33	BW	183	CYS
33	BW	186	GLN
33	BW	189	ASN
33	BW	194	VAL
33	BW	210	CYS
33	BW	214	ASP
33	BW	229	VAL
33	BW	230	LEU
33	BW	232	GLN
33	BW	236	SER
33	BW	238	ILE
33	BW	239	GLU
33	BW	242	SER

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Mol	Chain	Res	Type
33	BW	253	GLU
34	BX	5	HIS
34	BX	8	LEU
34	BX	10	LYS
34	BX	14	VAL
34	BX	35	SER
34	BX	52	THR
34	BX	53	ASP
34	BX	59	SER
35	BY	1	MET
35	BY	6	SER
35	BY	10	THR
35	BY	16	ILE
35	BY	32	MET
35	BY	43	ASP
35	BY	51	LYS
35	BY	69	VAL
35	BY	78	SER
35	BY	97	VAL
35	BY	98	ARG
35	BY	106	MET
35	BY	118	VAL
35	BY	120	GLU
35	BY	129	LEU
35	BY	137	ARG
35	BY	145	PHE
35	BY	155	LEU
35	BY	160	VAL
35	BY	161	ILE
35	BY	175	LYS
35	BY	186	GLU
35	BY	205	THR
35	BY	206	ASN
36	BZ	14	THR
36	BZ	17	ILE
36	BZ	22	GLU
36	BZ	25	ASP
36	BZ	31	LYS
36	BZ	47	VAL
36	BZ	61	THR
36	BZ	75	SER
36	BZ	81	ILE

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Mol	Chain	Res	Type
1	C0	25	LEU
1	C0	43	ASN
1	C0	46	LEU
1	C0	61	CYS
1	C0	64	LEU
1	C0	76	VAL
1	C0	78	VAL
1	C0	91	LEU
1	C0	97	ASP
2	C1	6	THR
2	C1	10	ARG
2	C1	18	THR
2	C1	27	VAL
2	C1	30	VAL
2	C1	32	ILE
2	C1	36	GLU
2	C1	41	LEU
2	C1	45	VAL
2	C1	49	CYS
2	C1	55	LEU
2	C1	58	MET
3	C2	7	SER
3	C2	18	MET
3	C2	21	HIS
3	C2	34	SER
3	C2	36	THR
3	C2	56	VAL
3	C2	64	ARG
3	C2	67	ARG
3	C2	74	SER
3	C2	84	THR
3	C2	86	ILE
3	C2	89	VAL
3	C2	101	THR
3	C2	103	THR
3	C2	108	SER
3	C2	110	VAL
3	C2	115	THR
3	C2	136	THR
3	C2	137	VAL
3	C2	140	ASN
3	C2	144	SER

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Mol	Chain	Res	Type
3	C2	173	LEU
3	C2	175	CYS
3	C2	176	ILE
3	C2	177	THR
3	C2	179	ARG
3	C2	183	SER
3	C2	197	GLU
3	C2	203	LEU
4	C3	3	LEU
4	C3	7	HIS
4	C3	9	LYS
4	C3	13	THR
4	C3	39	SER
4	C3	41	ILE
4	C3	52	LYS
4	C3	63	ILE
4	C3	72	VAL
4	C3	88	LEU
4	C3	90	GLN
4	C3	92	VAL
4	C3	101	GLU
4	C3	102	SER
4	C3	109	LYS
4	C3	113	ARG
4	C3	115	ARG
4	C3	116	SER
4	C3	117	ARG
4	C3	122	VAL
4	C3	132	LEU
4	C3	139	LYS
4	C3	142	ARG
4	C3	148	THR
4	C3	152	ARG
4	C3	153	ILE
4	C3	161	ASP
4	C3	178	THR
4	C3	179	THR
4	C3	190	LYS
4	C3	196	LYS
5	C4	28	ARG
5	C4	44	SER
5	C4	48	THR

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Mol	Chain	Res	Type
5	C4	50	VAL
5	C4	53	SER
5	C4	63	ILE
5	C4	67	VAL
5	C4	70	SER
5	C4	71	THR
5	C4	74	ASP
5	C4	80	ASN
5	C4	90	VAL
5	C4	91	ILE
5	C4	92	ASP
5	C4	98	ASN
5	C4	108	ILE
5	C4	109	THR
5	C4	111	ASP
5	C4	115	SER
5	C4	120	TRP
5	C4	130	CYS
5	C4	131	LYS
5	C4	132	THR
5	C4	146	THR
5	C4	155	SER
5	C4	157	THR
5	C4	159	THR
5	C4	174	ILE
5	C4	194	LEU
5	C4	207	THR
5	C4	217	THR
5	C4	218	ILE
5	C4	230	ASP
6	C5	10	ARG
6	C5	13	LYS
6	C5	18	THR
6	C5	21	VAL
6	C5	30	VAL
6	C5	33	ASP
6	C5	37	LYS
6	C5	44	MET
6	C5	45	VAL
6	C5	49	SER
6	C5	69	LEU
6	C5	89	ARG

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Mol	Chain	Res	Type
6	C5	90	CYS
6	C5	92	GLU
6	C5	95	ARG
6	C5	96	ILE
7	C6	9	ILE
7	C6	23	ILE
7	C6	31	MET
7	C6	43	MET
7	C6	47	ASN
7	C6	53	ILE
7	C6	54	CYS
7	C6	58	SER
7	C6	62	CYS
7	C6	63	LYS
7	C6	79	ILE
8	C7	9	LYS
8	C7	16	LEU
8	C7	21	VAL
8	C7	24	LEU
8	C7	35	THR
8	C7	40	LEU
8	C7	47	ARG
8	C7	50	LYS
8	C7	64	THR
9	C8	37	ASP
9	C8	39	VAL
9	C8	51	GLU
9	C8	67	SER
9	C8	68	THR
9	C8	75	VAL
9	C8	76	ASN
9	C8	78	SER
9	C8	84	MET
9	C8	94	GLU
9	C8	115	LYS
10	C9	74	LYS
10	C9	79	SER
10	C9	86	THR
10	C9	93	THR
10	C9	142	LYS
10	C9	143	ILE
12	CB	16	SER

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Mol	Chain	Res	Type
12	CB	17	ASN
12	CB	23	ILE
12	CB	38	VAL
12	CB	46	ILE
12	CB	54	LYS
12	CB	55	LEU
12	CB	63	VAL
12	CB	69	VAL
12	CB	89	THR
12	CB	105	THR
12	CB	110	LEU
12	CB	121	THR
12	CB	134	SER
12	CB	136	VAL
12	CB	159	CYS
12	CB	164	THR
12	CB	169	MET
12	CB	170	ILE
12	CB	189	GLU
12	CB	194	MET
13	CC	8	ILE
13	CC	12	LYS
13	CC	13	LYS
13	CC	29	SER
13	CC	47	THR
13	CC	64	VAL
13	CC	85	ASP
13	CC	105	VAL
13	CC	126	ILE
13	CC	137	CYS
13	CC	142	SER
13	CC	147	GLN
13	CC	162	CYS
13	CC	163	THR
13	CC	171	ILE
13	CC	201	LYS
13	CC	221	ILE
14	CD	3	LYS
14	CD	6	ILE
14	CD	8	THR
14	CD	9	SER
14	CD	23	ARG

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Mol	Chain	Res	Type
14	CD	28	MET
14	CD	30	LEU
14	CD	42	VAL
14	CD	44	ARG
14	CD	47	MET
14	CD	57	ARG
14	CD	63	ASP
14	CD	68	ARG
14	CD	69	ARG
14	CD	79	ARG
14	CD	80	MET
14	CD	86	LEU
14	CD	99	LEU
14	CD	100	THR
14	CD	104	LEU
14	CD	105	MET
14	CD	107	ARG
14	CD	112	ARG
14	CD	121	SER
14	CD	127	VAL
14	CD	129	ILE
14	CD	140	LEU
14	CD	142	ASN
14	CD	147	MET
14	CD	149	ARG
14	CD	150	THR
14	CD	156	ILE
14	CD	160	SER
14	CD	164	LEU
14	CD	171	ARG
15	CE	36	LEU
15	CE	43	SER
15	CE	44	SER
15	CE	52	SER
15	CE	57	GLU
15	CE	61	ILE
15	CE	81	VAL
15	CE	82	LEU
15	CE	83	GLN
15	CE	103	VAL
15	CE	142	LYS
15	CE	157	GLN

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Mol	Chain	Res	Type
15	CE	159	ILE
15	CE	160	THR
15	CE	162	LYS
15	CE	165	SER
15	CE	166	VAL
15	CE	168	ILE
15	CE	171	VAL
15	CE	175	ARG
15	CE	194	VAL
15	CE	197	ILE
15	CE	199	THR
15	CE	205	THR
15	CE	208	ARG
15	CE	219	LEU
15	CE	222	THR
15	CE	235	GLU
16	CF	41	GLU
16	CF	49	LYS
16	CF	60	THR
16	CF	65	ASP
16	CF	66	GLU
16	CF	71	ILE
16	CF	87	GLU
17	CG	24	ILE
17	CG	28	CYS
17	CG	37	THR
17	CG	41	GLN
17	CG	42	VAL
17	CG	53	VAL
17	CG	59	THR
17	CG	63	ILE
17	CG	66	ARG
17	CG	89	LYS
17	CG	97	LEU
17	CG	99	THR
17	CG	101	ARG
17	CG	104	LEU
17	CG	120	SER
17	CG	121	THR
17	CG	135	ASP
17	CG	136	VAL
17	CG	139	MET

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Mol	Chain	Res	Type
17	CG	156	SER
17	CG	160	SER
17	CG	162	ARG
17	CG	164	ILE
17	CG	186	ILE
18	CH	3	LYS
18	CH	11	LEU
18	CH	12	LYS
18	CH	13	ASP
18	CH	20	MET
18	CH	27	LEU
18	CH	28	ARG
18	CH	30	VAL
18	CH	31	SER
18	CH	47	ILE
18	CH	53	ILE
18	CH	57	ARG
18	CH	65	LEU
18	CH	66	ILE
18	CH	70	ASN
18	CH	90	THR
18	CH	97	ARG
18	CH	101	ASN
18	CH	103	VAL
18	CH	106	THR
18	CH	107	THR
18	CH	121	THR
19	CI	7	GLN
19	CI	12	PHE
19	CI	14	ARG
19	CI	15	LYS
19	CI	23	SER
19	CI	30	LEU
19	CI	33	VAL
19	CI	36	SER
19	CI	41	ILE
19	CI	46	LEU
19	CI	50	ILE
19	CI	54	ILE
19	CI	66	ASP
19	CI	78	SER
19	CI	87	LEU

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Mol	Chain	Res	Type
19	CI	89	LYS
19	CI	126	MET
19	CI	142	LYS
20	CJ	24	THR
20	CJ	31	VAL
20	CJ	41	ARG
20	CJ	45	THR
20	CJ	51	LYS
20	CJ	63	ILE
20	CJ	68	SER
20	CJ	74	SER
20	CJ	76	THR
20	CJ	88	ILE
20	CJ	94	ASN
20	CJ	97	ASP
20	CJ	106	ILE
20	CJ	115	THR
21	CK	14	ILE
21	CK	21	VAL
21	CK	40	THR
21	CK	55	ARG
21	CK	57	THR
21	CK	62	VAL
21	CK	75	MET
21	CK	79	ILE
21	CK	91	ASN
21	CK	97	LEU
21	CK	107	GLN
21	CK	122	SER
21	CK	128	ARG
21	CK	138	ASP
21	CK	139	SER
21	CK	150	ARG
22	CL	3	VAL
22	CL	7	ARG
22	CL	9	ILE
22	CL	10	ARG
22	CL	34	LEU
22	CL	36	SER
22	CL	40	ASN
22	CL	52	VAL
22	CL	53	THR

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Mol	Chain	Res	Type
22	CL	59	GLU
22	CL	76	ARG
22	CL	80	LYS
22	CL	101	VAL
22	CL	109	GLN
22	CL	120	ARG
22	CL	129	ILE
22	CL	130	SER
23	CM	4	VAL
23	CM	15	HIS
23	CM	27	ILE
23	CM	28	THR
23	CM	49	VAL
23	CM	72	LEU
23	CM	83	THR
23	CM	87	ASN
23	CM	88	ARG
23	CM	89	ILE
23	CM	94	ASP
23	CM	98	TYR
23	CM	99	GLN
23	CM	100	MET
23	CM	115	ARG
23	CM	119	ILE
23	CM	123	ARG
23	CM	136	GLN
23	CM	138	THR
23	CM	147	VAL
24	CN	21	ARG
24	CN	30	ILE
24	CN	32	LYS
24	CN	39	ARG
24	CN	40	ARG
24	CN	43	ARG
24	CN	49	ILE
24	CN	52	VAL
25	CO	3	ARG
25	CO	7	LYS
25	CO	9	LYS
25	CO	11	LYS
25	CO	13	ILE
25	CO	14	SER

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Mol	Chain	Res	Type
25	CO	26	LYS
25	CO	34	THR
25	CO	48	THR
25	CO	55	ILE
25	CO	59	GLN
25	CO	88	GLU
25	CO	93	LEU
25	CO	96	LYS
25	CO	102	LYS
25	CO	104	LEU
25	CO	109	LYS
25	CO	118	ILE
25	CO	127	LEU
25	CO	137	LEU
26	CP	2	THR
26	CP	7	THR
26	CP	10	ILE
26	CP	21	LEU
26	CP	24	ASP
26	CP	26	LEU
26	CP	48	VAL
26	CP	51	ARG
26	CP	54	VAL
26	CP	55	VAL
26	CP	77	GLN
26	CP	80	LEU
26	CP	95	LEU
26	CP	102	ARG
26	CP	108	LEU
26	CP	110	ARG
26	CP	115	THR
26	CP	122	LYS
27	CQ	6	GLN
27	CQ	12	GLN
27	CQ	37	ILE
27	CQ	51	THR
27	CQ	61	SER
27	CQ	64	SER
27	CQ	65	ILE
27	CQ	77	THR
27	CQ	84	ILE
27	CQ	85	ILE

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Mol	Chain	Res	Type
27	CQ	87	ARG
27	CQ	93	VAL
27	CQ	98	ARG
27	CQ	103	HIS
27	CQ	115	SER
27	CQ	117	LYS
27	CQ	133	THR
27	CQ	135	ARG
28	CR	20	HIS
28	CR	32	SER
28	CR	42	LEU
28	CR	48	ASP
28	CR	50	THR
28	CR	67	ILE
28	CR	73	THR
28	CR	76	ASN
28	CR	80	SER
28	CR	88	ASN
28	CR	92	ILE
28	CR	100	LEU
28	CR	102	LEU
28	CR	106	ARG
28	CR	107	THR
28	CR	113	ARG
28	CR	117	HIS
28	CR	120	GLU
28	CR	124	VAL
28	CR	126	PHE
28	CR	147	ILE
28	CR	161	HIS
28	CR	189	SER
28	CR	190	VAL
28	CR	208	THR
28	CR	216	VAL
28	CR	219	LEU
28	CR	238	LEU
28	CR	246	THR
28	CR	274	THR
28	CR	313	THR
29	CS	11	PHE
29	CS	12	THR
29	CS	28	SER

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Mol	Chain	Res	Type
29	CS	34	ILE
29	CS	36	ASP
29	CS	49	ARG
29	CS	54	ILE
29	CS	83	THR
29	CS	84	HIS
29	CS	91	ILE
29	CS	119	LYS
29	CS	127	THR
29	CS	136	THR
30	CT	9	THR
30	CT	20	ARG
30	CT	38	THR
30	CT	45	VAL
30	CT	56	TRP
30	CT	60	ARG
30	CT	64	LEU
30	CT	76	ILE
30	CT	77	SER
30	CT	93	ARG
30	CT	105	ARG
30	CT	117	ILE
30	CT	130	ARG
30	CT	135	GLU
30	CT	143	ILE
30	CT	155	LYS
31	CU	3	ASP
31	CU	22	GLN
31	CU	29	LEU
31	CU	34	ARG
31	CU	50	CYS
31	CU	51	ASP
31	CU	56	VAL
31	CU	71	VAL
31	CU	78	SER
31	CU	100	CYS
32	CV	4	VAL
32	CV	6	THR
32	CV	7	LYS
32	CV	8	THR
32	CV	35	LEU
32	CV	37	GLU

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Mol	Chain	Res	Type
32	CV	44	LYS
32	CV	46	LEU
32	CV	60	ARG
32	CV	90	ILE
32	CV	105	MET
32	CV	119	SER
33	CW	19	MET
33	CW	23	LEU
33	CW	26	ILE
33	CW	38	LEU
33	CW	41	SER
33	CW	42	LEU
33	CW	44	LEU
33	CW	45	SER
33	CW	51	ARG
33	CW	82	LYS
33	CW	97	THR
33	CW	107	THR
33	CW	110	ARG
33	CW	115	SER
33	CW	122	LYS
33	CW	133	ILE
33	CW	141	ILE
33	CW	142	VAL
33	CW	143	THR
33	CW	150	ARG
33	CW	158	ILE
33	CW	167	VAL
33	CW	176	HIS
33	CW	183	CYS
33	CW	186	GLN
33	CW	189	ASN
33	CW	194	VAL
33	CW	210	CYS
33	CW	214	ASP
33	CW	229	VAL
33	CW	230	LEU
33	CW	232	GLN
33	CW	236	SER
33	CW	238	ILE
33	CW	239	GLU
33	CW	242	SER

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Mol	Chain	Res	Type
33	CW	253	GLU
33	CW	256	ARG
34	CX	5	HIS
34	CX	8	LEU
34	CX	10	LYS
34	CX	14	VAL
34	CX	35	SER
34	CX	52	THR
34	CX	53	ASP
34	CX	59	SER
35	CY	1	MET
35	CY	6	SER
35	CY	10	THR
35	CY	16	ILE
35	CY	32	MET
35	CY	43	ASP
35	CY	51	LYS
35	CY	69	VAL
35	CY	78	SER
35	CY	97	VAL
35	CY	98	ARG
35	CY	106	MET
35	CY	118	VAL
35	CY	120	GLU
35	CY	129	LEU
35	CY	137	ARG
35	CY	145	PHE
35	CY	155	LEU
35	CY	160	VAL
35	CY	161	ILE
35	CY	175	LYS
35	CY	186	GLU
35	CY	205	THR
35	CY	206	ASN
36	CZ	14	THR
36	CZ	17	ILE
36	CZ	22	GLU
36	CZ	25	ASP
36	CZ	31	LYS
36	CZ	47	VAL
36	CZ	61	THR
36	CZ	75	SER

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Mol	Chain	Res	Type
36	CZ	81	ILE
1	D0	25	LEU
1	D0	43	ASN
1	D0	46	LEU
1	D0	61	CYS
1	D0	64	LEU
1	D0	76	VAL
1	D0	78	VAL
1	D0	91	LEU
1	D0	97	ASP
2	D1	6	THR
2	D1	10	ARG
2	D1	18	THR
2	D1	27	VAL
2	D1	30	VAL
2	D1	32	ILE
2	D1	36	GLU
2	D1	41	LEU
2	D1	45	VAL
2	D1	49	CYS
2	D1	55	LEU
2	D1	58	MET
3	D2	7	SER
3	D2	18	MET
3	D2	21	HIS
3	D2	34	SER
3	D2	36	THR
3	D2	40	THR
3	D2	56	VAL
3	D2	64	ARG
3	D2	67	ARG
3	D2	74	SER
3	D2	84	THR
3	D2	86	ILE
3	D2	89	VAL
3	D2	101	THR
3	D2	103	THR
3	D2	108	SER
3	D2	110	VAL
3	D2	115	THR
3	D2	136	THR
3	D2	137	VAL

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Mol	Chain	Res	Type
3	D2	140	ASN
3	D2	144	SER
3	D2	173	LEU
3	D2	175	CYS
3	D2	176	ILE
3	D2	177	THR
3	D2	179	ARG
3	D2	183	SER
3	D2	197	GLU
3	D2	203	LEU
4	D3	3	LEU
4	D3	7	HIS
4	D3	9	LYS
4	D3	13	THR
4	D3	39	SER
4	D3	41	ILE
4	D3	52	LYS
4	D3	63	ILE
4	D3	72	VAL
4	D3	88	LEU
4	D3	90	GLN
4	D3	92	VAL
4	D3	101	GLU
4	D3	102	SER
4	D3	109	LYS
4	D3	113	ARG
4	D3	115	ARG
4	D3	116	SER
4	D3	117	ARG
4	D3	122	VAL
4	D3	132	LEU
4	D3	139	LYS
4	D3	142	ARG
4	D3	148	THR
4	D3	152	ARG
4	D3	153	ILE
4	D3	161	ASP
4	D3	178	THR
4	D3	179	THR
4	D3	190	LYS
4	D3	196	LYS
5	D4	28	ARG

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Mol	Chain	Res	Type
5	D4	44	SER
5	D4	48	THR
5	D4	50	VAL
5	D4	53	SER
5	D4	63	ILE
5	D4	67	VAL
5	D4	70	SER
5	D4	71	THR
5	D4	74	ASP
5	D4	80	ASN
5	D4	90	VAL
5	D4	91	ILE
5	D4	92	ASP
5	D4	98	ASN
5	D4	108	ILE
5	D4	109	THR
5	D4	111	ASP
5	D4	115	SER
5	D4	120	TRP
5	D4	130	CYS
5	D4	131	LYS
5	D4	132	THR
5	D4	146	THR
5	D4	155	SER
5	D4	157	THR
5	D4	159	THR
5	D4	174	ILE
5	D4	194	LEU
5	D4	207	THR
5	D4	217	THR
5	D4	218	ILE
5	D4	230	ASP
6	D5	10	ARG
6	D5	13	LYS
6	D5	18	THR
6	D5	21	VAL
6	D5	30	VAL
6	D5	33	ASP
6	D5	37	LYS
6	D5	44	MET
6	D5	45	VAL
6	D5	49	SER

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Mol	Chain	Res	Type
6	D5	69	LEU
6	D5	85	VAL
6	D5	89	ARG
6	D5	90	CYS
6	D5	92	GLU
6	D5	95	ARG
6	D5	96	ILE
7	D6	9	ILE
7	D6	23	ILE
7	D6	31	MET
7	D6	43	MET
7	D6	47	ASN
7	D6	53	ILE
7	D6	54	CYS
7	D6	58	SER
7	D6	62	CYS
7	D6	63	LYS
7	D6	79	ILE
8	D7	9	LYS
8	D7	16	LEU
8	D7	21	VAL
8	D7	24	LEU
8	D7	35	THR
8	D7	40	LEU
8	D7	47	ARG
8	D7	50	LYS
8	D7	64	THR
9	D8	37	ASP
9	D8	39	VAL
9	D8	51	GLU
9	D8	67	SER
9	D8	68	THR
9	D8	75	VAL
9	D8	76	ASN
9	D8	78	SER
9	D8	84	MET
9	D8	94	GLU
9	D8	115	LYS
10	D9	74	LYS
10	D9	79	SER
10	D9	86	THR
10	D9	93	THR

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Mol	Chain	Res	Type
10	D9	95	LEU
10	D9	98	LEU
10	D9	103	LEU
10	D9	113	GLN
10	D9	143	ILE
10	D9	144	ASP
12	DB	16	SER
12	DB	17	ASN
12	DB	23	ILE
12	DB	38	VAL
12	DB	46	ILE
12	DB	54	LYS
12	DB	55	LEU
12	DB	63	VAL
12	DB	69	VAL
12	DB	89	THR
12	DB	105	THR
12	DB	110	LEU
12	DB	121	THR
12	DB	134	SER
12	DB	136	VAL
12	DB	159	CYS
12	DB	164	THR
12	DB	169	MET
12	DB	170	ILE
12	DB	189	GLU
12	DB	194	MET
13	DC	8	ILE
13	DC	12	LYS
13	DC	13	LYS
13	DC	29	SER
13	DC	47	THR
13	DC	64	VAL
13	DC	85	ASP
13	DC	105	VAL
13	DC	126	ILE
13	DC	137	CYS
13	DC	142	SER
13	DC	147	GLN
13	DC	162	CYS
13	DC	163	THR
13	DC	171	ILE

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Mol	Chain	Res	Type
13	DC	201	LYS
13	DC	221	ILE
14	DD	3	LYS
14	DD	6	ILE
14	DD	8	THR
14	DD	9	SER
14	DD	23	ARG
14	DD	28	MET
14	DD	30	LEU
14	DD	42	VAL
14	DD	44	ARG
14	DD	47	MET
14	DD	57	ARG
14	DD	63	ASP
14	DD	68	ARG
14	DD	69	ARG
14	DD	79	ARG
14	DD	80	MET
14	DD	86	LEU
14	DD	99	LEU
14	DD	100	THR
14	DD	104	LEU
14	DD	105	MET
14	DD	107	ARG
14	DD	112	ARG
14	DD	121	SER
14	DD	127	VAL
14	DD	129	ILE
14	DD	140	LEU
14	DD	142	ASN
14	DD	147	MET
14	DD	149	ARG
14	DD	150	THR
14	DD	156	ILE
14	DD	160	SER
14	DD	164	LEU
14	DD	171	ARG
15	DE	36	LEU
15	DE	43	SER
15	DE	44	SER
15	DE	52	SER
15	DE	57	GLU

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Mol	Chain	Res	Type
15	DE	61	ILE
15	DE	81	VAL
15	DE	82	LEU
15	DE	83	GLN
15	DE	142	LYS
15	DE	157	GLN
15	DE	159	ILE
15	DE	160	THR
15	DE	162	LYS
15	DE	165	SER
15	DE	166	VAL
15	DE	168	ILE
15	DE	171	VAL
15	DE	175	ARG
15	DE	194	VAL
15	DE	197	ILE
15	DE	199	THR
15	DE	205	THR
15	DE	208	ARG
15	DE	219	LEU
15	DE	222	THR
15	DE	235	GLU
16	DF	41	GLU
16	DF	49	LYS
16	DF	60	THR
16	DF	65	ASP
16	DF	66	GLU
16	DF	71	ILE
16	DF	87	GLU
17	DG	24	ILE
17	DG	28	CYS
17	DG	37	THR
17	DG	41	GLN
17	DG	42	VAL
17	DG	53	VAL
17	DG	59	THR
17	DG	63	ILE
17	DG	66	ARG
17	DG	89	LYS
17	DG	99	THR
17	DG	101	ARG
17	DG	104	LEU

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Mol	Chain	Res	Type
17	DG	120	SER
17	DG	121	THR
17	DG	135	ASP
17	DG	139	MET
17	DG	156	SER
17	DG	160	SER
17	DG	162	ARG
17	DG	164	ILE
17	DG	186	ILE
18	DH	3	LYS
18	DH	11	LEU
18	DH	12	LYS
18	DH	13	ASP
18	DH	20	MET
18	DH	27	LEU
18	DH	28	ARG
18	DH	30	VAL
18	DH	31	SER
18	DH	47	ILE
18	DH	53	ILE
18	DH	57	ARG
18	DH	65	LEU
18	DH	66	ILE
18	DH	70	ASN
18	DH	90	THR
18	DH	97	ARG
18	DH	101	ASN
18	DH	103	VAL
18	DH	106	THR
18	DH	107	THR
18	DH	121	THR
19	DI	7	GLN
19	DI	12	PHE
19	DI	14	ARG
19	DI	15	LYS
19	DI	23	SER
19	DI	30	LEU
19	DI	33	VAL
19	DI	36	SER
19	DI	41	ILE
19	DI	46	LEU
19	DI	50	ILE

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Mol	Chain	Res	Type
19	DI	54	ILE
19	DI	66	ASP
19	DI	78	SER
19	DI	87	LEU
19	DI	89	LYS
19	DI	126	MET
19	DI	142	LYS
20	DJ	24	THR
20	DJ	31	VAL
20	DJ	41	ARG
20	DJ	45	THR
20	DJ	51	LYS
20	DJ	63	ILE
20	DJ	68	SER
20	DJ	74	SER
20	DJ	76	THR
20	DJ	88	ILE
20	DJ	94	ASN
20	DJ	97	ASP
20	DJ	106	ILE
20	DJ	115	THR
21	DK	14	ILE
21	DK	21	VAL
21	DK	40	THR
21	DK	55	ARG
21	DK	57	THR
21	DK	62	VAL
21	DK	75	MET
21	DK	91	ASN
21	DK	97	LEU
21	DK	107	GLN
21	DK	122	SER
21	DK	128	ARG
21	DK	138	ASP
21	DK	139	SER
21	DK	150	ARG
22	DL	3	VAL
22	DL	7	ARG
22	DL	9	ILE
22	DL	10	ARG
22	DL	34	LEU
22	DL	36	SER

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Mol	Chain	Res	Type
22	DL	40	ASN
22	DL	52	VAL
22	DL	53	THR
22	DL	76	ARG
22	DL	80	LYS
22	DL	101	VAL
22	DL	109	GLN
22	DL	120	ARG
22	DL	129	ILE
22	DL	130	SER
23	DM	4	VAL
23	DM	15	HIS
23	DM	27	ILE
23	DM	28	THR
23	DM	49	VAL
23	DM	72	LEU
23	DM	83	THR
23	DM	87	ASN
23	DM	88	ARG
23	DM	89	ILE
23	DM	94	ASP
23	DM	98	TYR
23	DM	99	GLN
23	DM	100	MET
23	DM	115	ARG
23	DM	119	ILE
23	DM	123	ARG
23	DM	136	GLN
23	DM	138	THR
23	DM	147	VAL
24	DN	2	PRO
24	DN	30	ILE
24	DN	32	LYS
24	DN	39	ARG
24	DN	40	ARG
24	DN	43	ARG
24	DN	49	ILE
24	DN	52	VAL
25	DO	3	ARG
25	DO	7	LYS
25	DO	9	LYS
25	DO	11	LYS

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Mol	Chain	Res	Type
25	DO	13	ILE
25	DO	14	SER
25	DO	26	LYS
25	DO	34	THR
25	DO	48	THR
25	DO	55	ILE
25	DO	59	GLN
25	DO	88	GLU
25	DO	93	LEU
25	DO	96	LYS
25	DO	102	LYS
25	DO	104	LEU
25	DO	109	LYS
25	DO	118	ILE
25	DO	127	LEU
25	DO	137	LEU
26	DP	2	THR
26	DP	7	THR
26	DP	10	ILE
26	DP	21	LEU
26	DP	24	ASP
26	DP	26	LEU
26	DP	48	VAL
26	DP	51	ARG
26	DP	54	VAL
26	DP	55	VAL
26	DP	77	GLN
26	DP	80	LEU
26	DP	95	LEU
26	DP	102	ARG
26	DP	108	LEU
26	DP	110	ARG
26	DP	115	THR
26	DP	122	LYS
27	DQ	6	GLN
27	DQ	12	GLN
27	DQ	37	ILE
27	DQ	51	THR
27	DQ	61	SER
27	DQ	64	SER
27	DQ	65	ILE
27	DQ	77	THR

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Mol	Chain	Res	Type
27	DQ	84	ILE
27	DQ	85	ILE
27	DQ	87	ARG
27	DQ	93	VAL
27	DQ	98	ARG
27	DQ	103	HIS
27	DQ	115	SER
27	DQ	117	LYS
27	DQ	133	THR
27	DQ	135	ARG
28	DR	20	HIS
28	DR	32	SER
28	DR	42	LEU
28	DR	48	ASP
28	DR	50	THR
28	DR	67	ILE
28	DR	73	THR
28	DR	76	ASN
28	DR	80	SER
28	DR	88	ASN
28	DR	92	ILE
28	DR	100	LEU
28	DR	102	LEU
28	DR	106	ARG
28	DR	107	THR
28	DR	113	ARG
28	DR	117	HIS
28	DR	120	GLU
28	DR	124	VAL
28	DR	126	PHE
28	DR	147	ILE
28	DR	161	HIS
28	DR	189	SER
28	DR	190	VAL
28	DR	208	THR
28	DR	216	VAL
28	DR	219	LEU
28	DR	238	LEU
28	DR	246	THR
28	DR	274	THR
28	DR	313	THR
29	DS	11	PHE

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Mol	Chain	Res	Type
29	DS	12	THR
29	DS	28	SER
29	DS	34	ILE
29	DS	36	ASP
29	DS	49	ARG
29	DS	54	ILE
29	DS	83	THR
29	DS	84	HIS
29	DS	91	ILE
29	DS	119	LYS
29	DS	127	THR
29	DS	136	THR
30	DT	9	THR
30	DT	20	ARG
30	DT	38	THR
30	DT	45	VAL
30	DT	48	GLU
30	DT	56	TRP
30	DT	60	ARG
30	DT	64	LEU
30	DT	76	ILE
30	DT	77	SER
30	DT	93	ARG
30	DT	105	ARG
30	DT	117	ILE
30	DT	130	ARG
30	DT	135	GLU
30	DT	143	ILE
30	DT	155	LYS
31	DU	3	ASP
31	DU	22	GLN
31	DU	29	LEU
31	DU	34	ARG
31	DU	50	CYS
31	DU	51	ASP
31	DU	56	VAL
31	DU	71	VAL
31	DU	78	SER
31	DU	100	CYS
32	DV	4	VAL
32	DV	6	THR
32	DV	7	LYS

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Mol	Chain	Res	Type
32	DV	8	THR
32	DV	35	LEU
32	DV	37	GLU
32	DV	44	LYS
32	DV	46	LEU
32	DV	60	ARG
32	DV	105	MET
32	DV	119	SER
33	DW	19	MET
33	DW	23	LEU
33	DW	26	ILE
33	DW	38	LEU
33	DW	41	SER
33	DW	42	LEU
33	DW	44	LEU
33	DW	45	SER
33	DW	51	ARG
33	DW	82	LYS
33	DW	97	THR
33	DW	107	THR
33	DW	110	ARG
33	DW	115	SER
33	DW	122	LYS
33	DW	133	ILE
33	DW	141	ILE
33	DW	142	VAL
33	DW	143	THR
33	DW	150	ARG
33	DW	158	ILE
33	DW	167	VAL
33	DW	176	HIS
33	DW	183	CYS
33	DW	186	GLN
33	DW	189	ASN
33	DW	194	VAL
33	DW	210	CYS
33	DW	214	ASP
33	DW	229	VAL
33	DW	230	LEU
33	DW	232	GLN
33	DW	236	SER
33	DW	238	ILE

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Mol	Chain	Res	Type
33	DW	239	GLU
33	DW	242	SER
33	DW	253	GLU
33	DW	256	ARG
34	DX	5	HIS
34	DX	8	LEU
34	DX	10	LYS
34	DX	14	VAL
34	DX	35	SER
34	DX	52	THR
34	DX	53	ASP
34	DX	59	SER
35	DY	1	MET
35	DY	6	SER
35	DY	10	THR
35	DY	16	ILE
35	DY	32	MET
35	DY	43	ASP
35	DY	51	LYS
35	DY	69	VAL
35	DY	78	SER
35	DY	97	VAL
35	DY	98	ARG
35	DY	106	MET
35	DY	118	VAL
35	DY	120	GLU
35	DY	129	LEU
35	DY	137	ARG
35	DY	145	PHE
35	DY	155	LEU
35	DY	160	VAL
35	DY	161	ILE
35	DY	175	LYS
35	DY	186	GLU
35	DY	205	THR
35	DY	206	ASN
36	DZ	14	THR
36	DZ	17	ILE
36	DZ	22	GLU
36	DZ	25	ASP
36	DZ	31	LYS
36	DZ	47	VAL

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Mol	Chain	Res	Type
36	DZ	61	THR
36	DZ	75	SER
36	DZ	81	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (460) such sidechains are listed below:

Mol	Chain	Res	Type
1	A0	84	GLN
1	A0	101	ASN
3	A2	21	HIS
3	A2	124	HIS
3	A2	140	ASN
3	A2	146	HIS
3	A2	148	GLN
3	A2	157	GLN
3	A2	170	GLN
3	A2	204	GLN
4	A3	30	HIS
4	A3	54	ASN
4	A3	97	GLN
4	A3	108	HIS
5	A4	78	ASN
5	A4	98	ASN
5	A4	209	ASN
6	A5	17	HIS
7	A6	24	GLN
7	A6	42	GLN
8	A7	32	HIS
8	A7	60	ASN
9	A8	41	HIS
9	A8	99	ASN
10	A9	88	HIS
10	A9	90	HIS
10	A9	92	HIS
10	A9	106	ASN
10	A9	112	GLN
10	A9	132	HIS
12	AB	20	GLN
12	AB	27	ASN
12	AB	128	GLN
12	AB	137	ASN
12	AB	200	HIS

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Mol	Chain	Res	Type
13	AC	25	HIS
13	AC	74	GLN
13	AC	109	ASN
13	AC	157	GLN
13	AC	168	ASN
14	AD	38	ASN
14	AD	102	HIS
14	AD	120	ASN
14	AD	142	ASN
15	AE	63	HIS
15	AE	75	HIS
15	AE	83	GLN
15	AE	109	ASN
15	AE	132	HIS
15	AE	136	ASN
15	AE	157	GLN
15	AE	210	ASN
15	AE	237	ASN
16	AF	74	ASN
17	AG	10	GLN
17	AG	143	ASN
17	AG	174	ASN
17	AG	199	ASN
18	AH	42	GLN
18	AH	44	ASN
18	AH	56	HIS
19	AI	10	GLN
19	AI	85	GLN
19	AI	141	GLN
21	AK	43	HIS
22	AL	47	HIS
22	AL	78	ASN
22	AL	98	ASN
22	AL	111	HIS
23	AM	67	ASN
23	AM	79	HIS
23	AM	97	ASN
23	AM	122	HIS
23	AM	136	GLN
24	AN	48	HIS
25	AO	5	GLN
25	AO	71	GLN

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Mol	Chain	Res	Type
25	AO	103	HIS
25	AO	134	ASN
25	AO	135	GLN
26	AP	20	GLN
26	AP	27	HIS
26	AP	77	GLN
27	AQ	6	GLN
27	AQ	18	ASN
27	AQ	103	HIS
27	AQ	144	ASN
28	AR	20	HIS
28	AR	33	GLN
28	AR	76	ASN
28	AR	77	HIS
28	AR	117	HIS
28	AR	130	ASN
28	AR	160	ASN
28	AR	161	HIS
28	AR	212	HIS
28	AR	309	ASN
30	AT	3	ASN
30	AT	86	ASN
31	AU	9	ASN
31	AU	20	ASN
31	AU	52	GLN
31	AU	85	HIS
32	AV	29	HIS
32	AV	48	ASN
32	AV	56	HIS
32	AV	113	ASN
33	AW	8	HIS
33	AW	176	HIS
33	AW	199	HIS
33	AW	203	HIS
33	AW	218	ASN
34	AX	63	HIS
35	AY	65	GLN
35	AY	112	GLN
35	AY	139	ASN
35	AY	206	ASN
36	AZ	8	GLN
36	AZ	80	HIS

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Mol	Chain	Res	Type
1	B0	59	HIS
1	B0	84	GLN
1	B0	101	ASN
3	B2	124	HIS
3	B2	140	ASN
3	B2	157	GLN
3	B2	182	GLN
3	B2	204	GLN
4	B3	7	HIS
4	B3	30	HIS
4	B3	54	ASN
4	B3	97	GLN
5	B4	78	ASN
5	B4	98	ASN
6	B5	17	HIS
7	B6	42	GLN
8	B7	3	HIS
8	B7	32	HIS
9	B8	99	ASN
10	B9	88	HIS
10	B9	90	HIS
10	B9	92	HIS
10	B9	106	ASN
10	B9	132	HIS
12	BB	20	GLN
12	BB	64	GLN
12	BB	128	GLN
12	BB	137	ASN
12	BB	200	HIS
13	BC	74	GLN
13	BC	109	ASN
13	BC	157	GLN
13	BC	168	ASN
13	BC	182	GLN
14	BD	102	HIS
14	BD	117	ASN
14	BD	120	ASN
14	BD	142	ASN
15	BE	63	HIS
15	BE	75	HIS
15	BE	83	GLN
15	BE	109	ASN

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Mol	Chain	Res	Type
15	BE	132	HIS
15	BE	136	ASN
15	BE	157	GLN
15	BE	210	ASN
15	BE	237	ASN
16	BF	74	ASN
17	BG	10	GLN
17	BG	90	ASN
17	BG	143	ASN
17	BG	174	ASN
17	BG	199	ASN
18	BH	24	GLN
18	BH	42	GLN
18	BH	44	ASN
18	BH	56	HIS
19	BI	10	GLN
19	BI	85	GLN
19	BI	102	ASN
21	BK	43	HIS
22	BL	47	HIS
22	BL	78	ASN
22	BL	98	ASN
22	BL	111	HIS
23	BM	67	ASN
23	BM	79	HIS
23	BM	97	ASN
23	BM	122	HIS
23	BM	136	GLN
24	BN	48	HIS
25	BO	5	GLN
25	BO	71	GLN
25	BO	103	HIS
25	BO	134	ASN
25	BO	135	GLN
26	BP	20	GLN
26	BP	27	HIS
26	BP	77	GLN
27	BQ	6	GLN
27	BQ	18	ASN
27	BQ	103	HIS
28	BR	20	HIS
28	BR	33	GLN

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Mol	Chain	Res	Type
28	BR	76	ASN
28	BR	77	HIS
28	BR	117	HIS
28	BR	130	ASN
28	BR	160	ASN
28	BR	161	HIS
28	BR	212	HIS
28	BR	309	ASN
29	BS	84	HIS
30	BT	3	ASN
30	BT	86	ASN
31	BU	9	ASN
31	BU	20	ASN
31	BU	30	HIS
31	BU	52	GLN
31	BU	85	HIS
32	BV	56	HIS
32	BV	113	ASN
33	BW	8	HIS
33	BW	176	HIS
33	BW	199	HIS
33	BW	203	HIS
33	BW	218	ASN
34	BX	63	HIS
35	BY	112	GLN
35	BY	139	ASN
35	BY	206	ASN
36	BZ	8	GLN
36	BZ	57	ASN
36	BZ	80	HIS
1	C0	84	GLN
1	C0	101	ASN
3	C2	21	HIS
3	C2	124	HIS
3	C2	140	ASN
3	C2	157	GLN
3	C2	170	GLN
3	C2	182	GLN
3	C2	204	GLN
4	C3	7	HIS
4	C3	30	HIS
4	C3	54	ASN

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Mol	Chain	Res	Type
4	C3	97	GLN
4	C3	108	HIS
4	C3	193	HIS
5	C4	78	ASN
5	C4	98	ASN
6	C5	17	HIS
7	C6	42	GLN
8	C7	3	HIS
8	C7	32	HIS
9	C8	82	GLN
9	C8	99	ASN
10	C9	88	HIS
10	C9	90	HIS
10	C9	92	HIS
10	C9	106	ASN
10	C9	132	HIS
12	CB	20	GLN
12	CB	42	HIS
12	CB	64	GLN
12	CB	128	GLN
12	CB	137	ASN
12	CB	200	HIS
13	CC	69	HIS
13	CC	109	ASN
13	CC	157	GLN
13	CC	168	ASN
14	CD	38	ASN
14	CD	102	HIS
14	CD	142	ASN
15	CE	63	HIS
15	CE	75	HIS
15	CE	83	GLN
15	CE	109	ASN
15	CE	132	HIS
15	CE	136	ASN
15	CE	157	GLN
15	CE	210	ASN
15	CE	237	ASN
16	CF	74	ASN
17	CG	10	GLN
17	CG	90	ASN
17	CG	102	ASN

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Mol	Chain	Res	Type
17	CG	143	ASN
17	CG	174	ASN
17	CG	199	ASN
18	CH	24	GLN
18	CH	42	GLN
18	CH	44	ASN
18	CH	101	ASN
19	CI	10	GLN
19	CI	85	GLN
21	CK	43	HIS
22	CL	47	HIS
22	CL	78	ASN
22	CL	93	ASN
22	CL	98	ASN
22	CL	111	HIS
23	CM	67	ASN
23	CM	97	ASN
23	CM	122	HIS
23	CM	136	GLN
24	CN	48	HIS
25	CO	5	GLN
25	CO	71	GLN
25	CO	103	HIS
25	CO	134	ASN
25	CO	135	GLN
26	CP	20	GLN
26	CP	27	HIS
26	CP	77	GLN
27	CQ	18	ASN
27	CQ	103	HIS
27	CQ	144	ASN
28	CR	33	GLN
28	CR	76	ASN
28	CR	77	HIS
28	CR	117	HIS
28	CR	130	ASN
28	CR	160	ASN
28	CR	161	HIS
28	CR	178	ASN
28	CR	212	HIS
28	CR	309	ASN
29	CS	84	HIS

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Mol	Chain	Res	Type
30	CT	3	ASN
30	CT	86	ASN
31	CU	9	ASN
31	CU	20	ASN
31	CU	30	HIS
31	CU	54	ASN
31	CU	85	HIS
32	CV	29	HIS
32	CV	48	ASN
32	CV	56	HIS
32	CV	113	ASN
33	CW	8	HIS
33	CW	176	HIS
33	CW	199	HIS
33	CW	203	HIS
33	CW	204	GLN
33	CW	218	ASN
34	CX	63	HIS
35	CY	65	GLN
35	CY	112	GLN
35	CY	139	ASN
35	CY	206	ASN
36	CZ	8	GLN
36	CZ	57	ASN
36	CZ	80	HIS
1	D0	84	GLN
3	D2	124	HIS
3	D2	140	ASN
3	D2	146	HIS
3	D2	157	GLN
3	D2	170	GLN
3	D2	182	GLN
3	D2	204	GLN
4	D3	7	HIS
4	D3	30	HIS
4	D3	54	ASN
4	D3	97	GLN
4	D3	108	HIS
4	D3	193	HIS
5	D4	78	ASN
5	D4	98	ASN
5	D4	240	HIS

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Mol	Chain	Res	Type
6	D5	17	HIS
7	D6	24	GLN
7	D6	42	GLN
8	D7	32	HIS
8	D7	60	ASN
9	D8	41	HIS
9	D8	82	GLN
9	D8	99	ASN
10	D9	106	ASN
12	DB	20	GLN
12	DB	27	ASN
12	DB	128	GLN
12	DB	137	ASN
12	DB	200	HIS
13	DC	25	HIS
13	DC	109	ASN
13	DC	157	GLN
13	DC	168	ASN
14	DD	38	ASN
14	DD	142	ASN
15	DE	63	HIS
15	DE	75	HIS
15	DE	83	GLN
15	DE	109	ASN
15	DE	132	HIS
15	DE	136	ASN
15	DE	157	GLN
15	DE	210	ASN
15	DE	237	ASN
16	DF	74	ASN
17	DG	10	GLN
17	DG	143	ASN
17	DG	174	ASN
17	DG	199	ASN
18	DH	24	GLN
18	DH	42	GLN
18	DH	44	ASN
18	DH	113	HIS
19	DI	85	GLN
21	DK	43	HIS
22	DL	47	HIS
22	DL	78	ASN

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Mol	Chain	Res	Type
22	DL	98	ASN
22	DL	111	HIS
23	DM	67	ASN
23	DM	79	HIS
23	DM	97	ASN
23	DM	122	HIS
23	DM	136	GLN
24	DN	48	HIS
25	DO	5	GLN
25	DO	71	GLN
25	DO	103	HIS
25	DO	134	ASN
25	DO	135	GLN
26	DP	20	GLN
26	DP	27	HIS
26	DP	77	GLN
27	DQ	18	ASN
27	DQ	103	HIS
27	DQ	144	ASN
28	DR	20	HIS
28	DR	33	GLN
28	DR	76	ASN
28	DR	77	HIS
28	DR	117	HIS
28	DR	130	ASN
28	DR	160	ASN
28	DR	161	HIS
28	DR	212	HIS
28	DR	309	ASN
29	DS	84	HIS
30	DT	3	ASN
30	DT	86	ASN
31	DU	9	ASN
31	DU	20	ASN
31	DU	52	GLN
32	DV	56	HIS
32	DV	113	ASN
33	DW	8	HIS
33	DW	176	HIS
33	DW	199	HIS
33	DW	218	ASN
34	DX	63	HIS

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Mol	Chain	Res	Type
35	DY	112	GLN
35	DY	139	ASN
35	DY	206	ASN
36	DZ	8	GLN
36	DZ	80	HIS

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
11	AA	1716/1753 (97%)	653 (38%)	149 (8%)
11	BA	1716/1753 (97%)	657 (38%)	148 (8%)
11	CA	1716/1753 (97%)	654 (38%)	149 (8%)
11	DA	1716/1753 (97%)	652 (37%)	149 (8%)
All	All	6864/7012 (97%)	2616 (38%)	595 (8%)

All (2616) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
11	AA	2	A
11	AA	3	C
11	AA	4	C
11	AA	8	U
11	AA	11	A
11	AA	12	U
11	AA	13	C
11	AA	14	C
11	AA	17	C
11	AA	22	U
11	AA	26	U
11	AA	33	G
11	AA	37	U
11	AA	40	A
11	AA	41	U
11	AA	44	U
11	AA	45	A
11	AA	46	A
11	AA	55	U
11	AA	58	G
11	AA	59	C
11	AA	60	C
11	AA	62	G

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Mol	Chain	Res	Type
11	AA	64	U
11	AA	65	C
11	AA	66	A
11	AA	71	U
11	AA	72	G
11	AA	73	A
11	AA	74	A
11	AA	75	C
11	AA	76	A
11	AA	77	G
11	AA	80	A
11	AA	83	C
11	AA	85	G
11	AA	99	A
11	AA	100	A
11	AA	101	A
11	AA	106	U
11	AA	107	U
11	AA	110	A
11	AA	112	U
11	AA	122	A
11	AA	123	A
11	AA	124	U
11	AA	125	U
11	AA	126	A
11	AA	132	U
11	AA	134	C
11	AA	135	A
11	AA	147	G
11	AA	149	U
11	AA	152	U
11	AA	153	U
11	AA	155	U
11	AA	157	G
11	AA	160	C
11	AA	161	U
11	AA	163	A
11	AA	164	U
11	AA	165	A
11	AA	168	U
11	AA	169	G
11	AA	171	U

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Mol	Chain	Res	Type
11	AA	172	U
11	AA	173	A
11	AA	174	A
11	AA	181	G
11	AA	182	U
11	AA	185	C
11	AA	186	C
11	AA	188	G
11	AA	196	A
11	AA	199	G
11	AA	208	A
11	AA	209	G
11	AA	210	A
11	AA	211	U
11	AA	212	A
11	AA	213	U
11	AA	214	U
11	AA	215	A
11	AA	217	A
11	AA	218	C
11	AA	219	C
11	AA	220	A
11	AA	222	U
11	AA	223	C
11	AA	226	A
11	AA	227	G
11	AA	228	C
11	AA	229	A
11	AA	230	A
11	AA	231	U
11	AA	232	G
11	AA	233	U
11	AA	234	G
11	AA	235	A
11	AA	237	U
11	AA	238	G
11	AA	239	A
11	AA	240	G
11	AA	242	U
11	AA	245	A
11	AA	246	U
11	AA	254	A

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Mol	Chain	Res	Type
11	AA	258	A
11	AA	262	G
11	AA	264	U
11	AA	265	C
11	AA	266	G
11	AA	269	G
11	AA	270	U
11	AA	271	U
11	AA	272	U
11	AA	273	A
11	AA	274	C
11	AA	278	G
11	AA	303	A
11	AA	304	U
11	AA	305	C
11	AA	306	A
11	AA	307	G
11	AA	311	U
11	AA	312	C
11	AA	313	G
11	AA	314	A
11	AA	319	A
11	AA	320	G
11	AA	324	A
11	AA	329	A
11	AA	341	G
11	AA	342	U
11	AA	343	C
11	AA	344	A
11	AA	350	A
11	AA	351	A
11	AA	352	C
11	AA	354	G
11	AA	359	U
11	AA	360	U
11	AA	364	G
11	AA	368	G
11	AA	369	A
11	AA	371	U
11	AA	374	G
11	AA	378	A
11	AA	379	A

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Mol	Chain	Res	Type
11	AA	381	G
11	AA	388	A
11	AA	391	A
11	AA	392	A
11	AA	393	C
11	AA	394	G
11	AA	402	C
11	AA	405	C
11	AA	407	A
11	AA	409	G
11	AA	410	G
11	AA	413	C
11	AA	414	G
11	AA	415	G
11	AA	416	C
11	AA	417	A
11	AA	418	G
11	AA	422	G
11	AA	426	G
11	AA	428	A
11	AA	429	A
11	AA	431	U
11	AA	436	C
11	AA	437	A
11	AA	440	C
11	AA	444	A
11	AA	445	U
11	AA	447	C
11	AA	448	A
11	AA	451	G
11	AA	452	A
11	AA	453	G
11	AA	460	A
11	AA	461	C
11	AA	466	A
11	AA	467	A
11	AA	469	A
11	AA	479	G
11	AA	481	A
11	AA	482	A
11	AA	483	C
11	AA	485	U

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Mol	Chain	Res	Type
11	AA	487	C
11	AA	488	G
11	AA	491	U
11	AA	492	C
11	AA	493	U
11	AA	494	A
11	AA	496	G
11	AA	498	C
11	AA	499	A
11	AA	500	U
11	AA	503	A
11	AA	504	A
11	AA	508	A
11	AA	511	A
11	AA	512	C
11	AA	518	A
11	AA	527	A
11	AA	529	C
11	AA	530	G
11	AA	531	A
11	AA	532	G
11	AA	533	G
11	AA	534	A
11	AA	535	A
11	AA	536	C
11	AA	537	A
11	AA	538	A
11	AA	540	U
11	AA	541	G
11	AA	542	G
11	AA	544	G
11	AA	548	A
11	AA	550	G
11	AA	551	U
11	AA	552	C
11	AA	553	A
11	AA	554	U
11	AA	559	C
11	AA	560	C
11	AA	570	G
11	AA	571	G
11	AA	572	U

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Mol	Chain	Res	Type
11	AA	573	A
11	AA	574	A
11	AA	575	U
11	AA	577	C
11	AA	578	C
11	AA	586	A
11	AA	588	A
11	AA	598	A
11	AA	599	A
11	AA	605	U
11	AA	608	C
11	AA	613	A
11	AA	614	A
11	AA	615	A
11	AA	616	A
11	AA	617	A
11	AA	618	G
11	AA	628	G
11	AA	629	A
11	AA	632	U
11	AA	633	U
11	AA	634	C
11	AA	635	U
11	AA	642	G
11	AA	648	U
11	AA	650	C
11	AA	651	G
11	AA	653	U
11	AA	655	C
11	AA	656	G
11	AA	657	U
11	AA	659	G
11	AA	661	G
11	AA	662	U
11	AA	666	A
11	AA	667	C
11	AA	668	U
11	AA	670	G
11	AA	671	A
11	AA	674	U
11	AA	676	C
11	AA	677	G

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Mol	Chain	Res	Type
11	AA	678	U
11	AA	679	U
11	AA	680	U
11	AA	681	G
11	AA	682	C
11	AA	722	A
11	AA	724	C
11	AA	727	U
11	AA	728	U
11	AA	729	U
11	AA	739	A
11	AA	743	U
11	AA	749	G
11	AA	750	U
11	AA	751	U
11	AA	758	A
11	AA	759	G
11	AA	762	U
11	AA	764	U
11	AA	765	A
11	AA	766	G
11	AA	772	A
11	AA	777	U
11	AA	781	C
11	AA	785	G
11	AA	786	A
11	AA	792	G
11	AA	793	G
11	AA	794	A
11	AA	795	A
11	AA	797	A
11	AA	798	G
11	AA	799	G
11	AA	800	A
11	AA	805	G
11	AA	808	C
11	AA	811	U
11	AA	812	U
11	AA	813	U
11	AA	814	A
11	AA	815	U
11	AA	817	G

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Mol	Chain	Res	Type
11	AA	819	U
11	AA	820	U
11	AA	821	C
11	AA	822	U
11	AA	823	U
11	AA	825	G
11	AA	834	A
11	AA	835	U
11	AA	840	A
11	AA	841	A
11	AA	842	U
11	AA	843	A
11	AA	846	G
11	AA	849	A
11	AA	850	G
11	AA	859	A
11	AA	860	U
11	AA	861	U
11	AA	862	A
11	AA	864	U
11	AA	873	G
11	AA	875	C
11	AA	876	A
11	AA	877	G
11	AA	882	G
11	AA	883	A
11	AA	884	A
11	AA	886	U
11	AA	887	U
11	AA	888	C
11	AA	889	U
11	AA	890	U
11	AA	891	G
11	AA	892	G
11	AA	894	U
11	AA	895	U
11	AA	903	G
11	AA	906	U
11	AA	911	A
11	AA	912	A
11	AA	913	U
11	AA	920	G

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Mol	Chain	Res	Type
11	AA	936	U
11	AA	937	U
11	AA	938	U
11	AA	941	A
11	AA	942	U
11	AA	944	A
11	AA	948	A
11	AA	949	A
11	AA	953	C
11	AA	962	G
11	AA	966	A
11	AA	968	C
11	AA	970	A
11	AA	971	A
11	AA	974	C
11	AA	975	G
11	AA	976	A
11	AA	981	A
11	AA	983	A
11	AA	996	U
11	AA	997	A
11	AA	998	A
11	AA	999	C
11	AA	1002	U
11	AA	1003	A
11	AA	1004	A
11	AA	1006	C
11	AA	1007	U
11	AA	1008	A
11	AA	1014	A
11	AA	1017	C
11	AA	1020	G
11	AA	1025	G
11	AA	1028	G
11	AA	1035	A
11	AA	1036	U
11	AA	1038	U
11	AA	1046	G
11	AA	1055	G
11	AA	1063	A
11	AA	1064	A
11	AA	1069	U

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Mol	Chain	Res	Type
11	AA	1072	G
11	AA	1076	U
11	AA	1080	G
11	AA	1081	G
11	AA	1083	G
11	AA	1092	U
11	AA	1093	A
11	AA	1099	G
11	AA	1111	A
11	AA	1114	G
11	AA	1122	G
11	AA	1123	G
11	AA	1124	A
11	AA	1128	G
11	AA	1131	C
11	AA	1132	A
11	AA	1136	G
11	AA	1137	A
11	AA	1139	G
11	AA	1140	U
11	AA	1142	G
11	AA	1146	C
11	AA	1147	U
11	AA	1149	C
11	AA	1155	A
11	AA	1157	U
11	AA	1162	C
11	AA	1165	A
11	AA	1166	A
11	AA	1168	A
11	AA	1169	C
11	AA	1171	G
11	AA	1172	G
11	AA	1173	G
11	AA	1174	A
11	AA	1175	A
11	AA	1176	A
11	AA	1181	C
11	AA	1189	A
11	AA	1198	A
11	AA	1199	G
11	AA	1200	G

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Mol	Chain	Res	Type
11	AA	1201	G
11	AA	1202	A
11	AA	1203	U
11	AA	1210	A
11	AA	1213	G
11	AA	1215	G
11	AA	1216	A
11	AA	1217	G
11	AA	1218	C
11	AA	1219	U
11	AA	1220	C
11	AA	1223	U
11	AA	1224	C
11	AA	1227	G
11	AA	1228	A
11	AA	1229	U
11	AA	1232	U
11	AA	1233	U
11	AA	1235	G
11	AA	1236	G
11	AA	1237	G
11	AA	1242	G
11	AA	1245	G
11	AA	1246	C
11	AA	1247	A
11	AA	1248	U
11	AA	1249	G
11	AA	1256	C
11	AA	1257	U
11	AA	1258	U
11	AA	1264	G
11	AA	1266	G
11	AA	1269	G
11	AA	1270	U
11	AA	1273	U
11	AA	1278	C
11	AA	1279	U
11	AA	1281	G
11	AA	1286	U
11	AA	1287	U
11	AA	1288	C
11	AA	1290	G

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Mol	Chain	Res	Type
11	AA	1293	A
11	AA	1296	G
11	AA	1297	A
11	AA	1311	C
11	AA	1316	A
11	AA	1318	C
11	AA	1319	U
11	AA	1320	A
11	AA	1321	G
11	AA	1327	U
11	AA	1331	A
11	AA	1333	A
11	AA	1334	U
11	AA	1339	G
11	AA	1343	G
11	AA	1344	U
11	AA	1345	A
11	AA	1347	U
11	AA	1348	U
11	AA	1349	C
11	AA	1351	U
11	AA	1358	A
11	AA	1359	C
11	AA	1360	U
11	AA	1365	U
11	AA	1366	G
11	AA	1368	A
11	AA	1369	A
11	AA	1370	U
11	AA	1371	A
11	AA	1372	A
11	AA	1373	G
11	AA	1381	A
11	AA	1383	G
11	AA	1384	U
11	AA	1385	U
11	AA	1386	U
11	AA	1395	A
11	AA	1396	A
11	AA	1397	C
11	AA	1398	A
11	AA	1399	G

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Mol	Chain	Res	Type
11	AA	1400	G
11	AA	1402	C
11	AA	1403	U
11	AA	1404	G
11	AA	1406	G
11	AA	1407	A
11	AA	1408	U
11	AA	1415	A
11	AA	1416	G
11	AA	1417	A
11	AA	1419	G
11	AA	1421	G
11	AA	1424	C
11	AA	1425	G
11	AA	1428	C
11	AA	1429	G
11	AA	1430	C
11	AA	1431	A
11	AA	1432	C
11	AA	1435	G
11	AA	1437	G
11	AA	1442	A
11	AA	1444	U
11	AA	1445	G
11	AA	1448	U
11	AA	1449	G
11	AA	1452	G
11	AA	1453	C
11	AA	1458	A
11	AA	1461	A
11	AA	1462	U
11	AA	1463	U
11	AA	1464	U
11	AA	1466	C
11	AA	1467	U
11	AA	1469	U
11	AA	1477	A
11	AA	1478	G
11	AA	1479	G
11	AA	1480	U
11	AA	1481	A
11	AA	1487	A

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Mol	Chain	Res	Type
11	AA	1488	A
11	AA	1489	U
11	AA	1492	U
11	AA	1493	A
11	AA	1494	U
11	AA	1495	U
11	AA	1496	A
11	AA	1498	U
11	AA	1505	C
11	AA	1506	G
11	AA	1507	U
11	AA	1508	G
11	AA	1509	U
11	AA	1510	U
11	AA	1511	A
11	AA	1512	G
11	AA	1514	G
11	AA	1519	U
11	AA	1526	G
11	AA	1528	A
11	AA	1529	U
11	AA	1530	U
11	AA	1531	G
11	AA	1532	U
11	AA	1533	G
11	AA	1536	U
11	AA	1538	U
11	AA	1539	U
11	AA	1540	G
11	AA	1545	A
11	AA	1547	G
11	AA	1549	A
11	AA	1556	G
11	AA	1557	U
11	AA	1558	A
11	AA	1562	G
11	AA	1572	A
11	AA	1573	G
11	AA	1579	G
11	AA	1583	A
11	AA	1590	C
11	AA	1597	G

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Mol	Chain	Res	Type
11	AA	1603	A
11	AA	1604	C
11	AA	1605	A
11	AA	1606	C
11	AA	1607	A
11	AA	1608	C
11	AA	1609	C
11	AA	1610	G
11	AA	1623	A
11	AA	1627	A
11	AA	1635	U
11	AA	1652	A
11	AA	1659	C
11	AA	1660	A
11	AA	1661	G
11	AA	1662	C
11	AA	1663	A
11	AA	1666	G
11	AA	1668	U
11	AA	1681	G
11	AA	1685	A
11	AA	1710	G
11	AA	1714	U
11	AA	1717	C
11	AA	1718	A
11	AA	1719	A
11	AA	1720	G
11	AA	1721	G
11	AA	1722	U
11	AA	1724	U
11	AA	1731	G
11	AA	1733	G
11	AA	1735	A
11	AA	1736	C
11	AA	1745	G
11	AA	1746	G
11	AA	1747	A
11	AA	1748	U
11	AA	1749	C
11	AA	1750	A
11	AA	1752	U
11	AA	1753	A

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Mol	Chain	Res	Type
11	BA	2	A
11	BA	3	C
11	BA	4	C
11	BA	8	U
11	BA	11	A
11	BA	12	U
11	BA	13	C
11	BA	14	C
11	BA	17	C
11	BA	22	U
11	BA	26	U
11	BA	33	G
11	BA	37	U
11	BA	40	A
11	BA	41	U
11	BA	44	U
11	BA	46	A
11	BA	55	U
11	BA	58	G
11	BA	59	C
11	BA	60	C
11	BA	62	G
11	BA	64	U
11	BA	65	C
11	BA	66	A
11	BA	71	U
11	BA	72	G
11	BA	73	A
11	BA	74	A
11	BA	75	C
11	BA	76	A
11	BA	77	G
11	BA	80	A
11	BA	83	C
11	BA	85	G
11	BA	99	A
11	BA	100	A
11	BA	101	A
11	BA	106	U
11	BA	107	U
11	BA	110	A
11	BA	112	U

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Mol	Chain	Res	Type
11	BA	122	A
11	BA	123	A
11	BA	124	U
11	BA	125	U
11	BA	126	A
11	BA	132	U
11	BA	134	C
11	BA	135	A
11	BA	147	G
11	BA	149	U
11	BA	152	U
11	BA	153	U
11	BA	155	U
11	BA	157	G
11	BA	160	C
11	BA	161	U
11	BA	163	A
11	BA	164	U
11	BA	165	A
11	BA	168	U
11	BA	169	G
11	BA	171	U
11	BA	172	U
11	BA	173	A
11	BA	174	A
11	BA	181	G
11	BA	182	U
11	BA	185	C
11	BA	186	C
11	BA	188	G
11	BA	196	A
11	BA	199	G
11	BA	208	A
11	BA	210	A
11	BA	211	U
11	BA	212	A
11	BA	213	U
11	BA	214	U
11	BA	215	A
11	BA	216	G
11	BA	217	A
11	BA	218	C

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Mol	Chain	Res	Type
11	BA	219	C
11	BA	220	A
11	BA	222	U
11	BA	223	C
11	BA	226	A
11	BA	227	G
11	BA	228	C
11	BA	229	A
11	BA	230	A
11	BA	231	U
11	BA	232	G
11	BA	233	U
11	BA	234	G
11	BA	235	A
11	BA	237	U
11	BA	238	G
11	BA	239	A
11	BA	240	G
11	BA	242	U
11	BA	243	G
11	BA	246	U
11	BA	247	C
11	BA	254	A
11	BA	258	A
11	BA	262	G
11	BA	264	U
11	BA	265	C
11	BA	266	G
11	BA	269	G
11	BA	270	U
11	BA	271	U
11	BA	272	U
11	BA	273	A
11	BA	274	C
11	BA	278	G
11	BA	303	A
11	BA	304	U
11	BA	305	C
11	BA	306	A
11	BA	307	G
11	BA	311	U
11	BA	312	C

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Mol	Chain	Res	Type
11	BA	313	G
11	BA	314	A
11	BA	319	A
11	BA	320	G
11	BA	324	A
11	BA	329	A
11	BA	341	G
11	BA	342	U
11	BA	343	C
11	BA	344	A
11	BA	350	A
11	BA	351	A
11	BA	352	C
11	BA	354	G
11	BA	359	U
11	BA	360	U
11	BA	364	G
11	BA	368	G
11	BA	369	A
11	BA	371	U
11	BA	374	G
11	BA	378	A
11	BA	379	A
11	BA	380	G
11	BA	381	G
11	BA	388	A
11	BA	391	A
11	BA	392	A
11	BA	393	C
11	BA	394	G
11	BA	402	C
11	BA	405	C
11	BA	407	A
11	BA	409	G
11	BA	410	G
11	BA	413	C
11	BA	414	G
11	BA	415	G
11	BA	416	C
11	BA	417	A
11	BA	418	G
11	BA	422	G

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Mol	Chain	Res	Type
11	BA	426	G
11	BA	428	A
11	BA	429	A
11	BA	431	U
11	BA	436	C
11	BA	437	A
11	BA	440	C
11	BA	444	A
11	BA	445	U
11	BA	447	C
11	BA	448	A
11	BA	451	G
11	BA	452	A
11	BA	453	G
11	BA	460	A
11	BA	461	C
11	BA	466	A
11	BA	467	A
11	BA	468	U
11	BA	469	A
11	BA	471	C
11	BA	474	G
11	BA	478	G
11	BA	479	G
11	BA	481	A
11	BA	482	A
11	BA	483	C
11	BA	485	U
11	BA	487	C
11	BA	488	G
11	BA	490	U
11	BA	492	C
11	BA	493	U
11	BA	494	A
11	BA	496	G
11	BA	498	C
11	BA	499	A
11	BA	500	U
11	BA	503	A
11	BA	504	A
11	BA	508	A
11	BA	511	A

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Mol	Chain	Res	Type
11	BA	512	C
11	BA	518	A
11	BA	527	A
11	BA	529	C
11	BA	530	G
11	BA	531	A
11	BA	532	G
11	BA	533	G
11	BA	534	A
11	BA	535	A
11	BA	536	C
11	BA	537	A
11	BA	538	A
11	BA	540	U
11	BA	541	G
11	BA	542	G
11	BA	544	G
11	BA	548	A
11	BA	550	G
11	BA	551	U
11	BA	552	C
11	BA	553	A
11	BA	554	U
11	BA	559	C
11	BA	560	C
11	BA	570	G
11	BA	571	G
11	BA	572	U
11	BA	573	A
11	BA	574	A
11	BA	575	U
11	BA	577	C
11	BA	578	C
11	BA	586	A
11	BA	588	A
11	BA	598	A
11	BA	599	A
11	BA	605	U
11	BA	608	C
11	BA	613	A
11	BA	614	A
11	BA	615	A

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Mol	Chain	Res	Type
11	BA	616	A
11	BA	617	A
11	BA	618	G
11	BA	628	G
11	BA	629	A
11	BA	632	U
11	BA	633	U
11	BA	634	C
11	BA	635	U
11	BA	642	G
11	BA	646	A
11	BA	647	U
11	BA	648	U
11	BA	650	C
11	BA	651	G
11	BA	653	U
11	BA	655	C
11	BA	656	G
11	BA	657	U
11	BA	661	G
11	BA	662	U
11	BA	665	A
11	BA	666	A
11	BA	670	G
11	BA	673	A
11	BA	674	U
11	BA	676	C
11	BA	677	G
11	BA	680	U
11	BA	681	G
11	BA	682	C
11	BA	720	U
11	BA	721	A
11	BA	722	A
11	BA	727	U
11	BA	728	U
11	BA	729	U
11	BA	739	A
11	BA	743	U
11	BA	749	G
11	BA	750	U
11	BA	751	U

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Mol	Chain	Res	Type
11	BA	758	A
11	BA	759	G
11	BA	762	U
11	BA	764	U
11	BA	765	A
11	BA	766	G
11	BA	772	A
11	BA	777	U
11	BA	781	C
11	BA	785	G
11	BA	786	A
11	BA	792	G
11	BA	794	A
11	BA	795	A
11	BA	797	A
11	BA	798	G
11	BA	799	G
11	BA	800	A
11	BA	805	G
11	BA	808	C
11	BA	811	U
11	BA	812	U
11	BA	813	U
11	BA	814	A
11	BA	815	U
11	BA	817	G
11	BA	819	U
11	BA	820	U
11	BA	821	C
11	BA	822	U
11	BA	823	U
11	BA	825	G
11	BA	834	A
11	BA	835	U
11	BA	840	A
11	BA	841	A
11	BA	842	U
11	BA	843	A
11	BA	846	G
11	BA	849	A
11	BA	850	G
11	BA	859	A

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Mol	Chain	Res	Type
11	BA	860	U
11	BA	862	A
11	BA	864	U
11	BA	873	G
11	BA	875	C
11	BA	876	A
11	BA	877	G
11	BA	882	G
11	BA	883	A
11	BA	884	A
11	BA	886	U
11	BA	887	U
11	BA	888	C
11	BA	889	U
11	BA	890	U
11	BA	891	G
11	BA	892	G
11	BA	894	U
11	BA	895	U
11	BA	903	G
11	BA	906	U
11	BA	907	A
11	BA	911	A
11	BA	912	A
11	BA	913	U
11	BA	920	G
11	BA	936	U
11	BA	937	U
11	BA	938	U
11	BA	941	A
11	BA	942	U
11	BA	944	A
11	BA	948	A
11	BA	949	A
11	BA	953	C
11	BA	962	G
11	BA	966	A
11	BA	968	C
11	BA	970	A
11	BA	971	A
11	BA	974	C
11	BA	975	G

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Mol	Chain	Res	Type
11	BA	976	A
11	BA	981	A
11	BA	983	A
11	BA	996	U
11	BA	997	A
11	BA	998	A
11	BA	999	C
11	BA	1002	U
11	BA	1003	A
11	BA	1004	A
11	BA	1006	C
11	BA	1007	U
11	BA	1008	A
11	BA	1014	A
11	BA	1017	C
11	BA	1020	G
11	BA	1025	G
11	BA	1028	G
11	BA	1035	A
11	BA	1036	U
11	BA	1038	U
11	BA	1046	G
11	BA	1055	G
11	BA	1063	A
11	BA	1064	A
11	BA	1069	U
11	BA	1072	G
11	BA	1076	U
11	BA	1080	G
11	BA	1081	G
11	BA	1083	G
11	BA	1092	U
11	BA	1093	A
11	BA	1099	G
11	BA	1111	A
11	BA	1114	G
11	BA	1122	G
11	BA	1123	G
11	BA	1124	A
11	BA	1131	C
11	BA	1136	G
11	BA	1137	A

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Mol	Chain	Res	Type
11	BA	1139	G
11	BA	1140	U
11	BA	1142	G
11	BA	1146	C
11	BA	1147	U
11	BA	1149	C
11	BA	1155	A
11	BA	1157	U
11	BA	1162	C
11	BA	1165	A
11	BA	1166	A
11	BA	1168	A
11	BA	1169	C
11	BA	1171	G
11	BA	1172	G
11	BA	1173	G
11	BA	1174	A
11	BA	1175	A
11	BA	1176	A
11	BA	1181	C
11	BA	1189	A
11	BA	1198	A
11	BA	1199	G
11	BA	1200	G
11	BA	1201	G
11	BA	1202	A
11	BA	1203	U
11	BA	1210	A
11	BA	1213	G
11	BA	1215	G
11	BA	1216	A
11	BA	1217	G
11	BA	1218	C
11	BA	1219	U
11	BA	1220	C
11	BA	1223	U
11	BA	1224	C
11	BA	1227	G
11	BA	1228	A
11	BA	1229	U
11	BA	1232	U
11	BA	1233	U

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Mol	Chain	Res	Type
11	BA	1235	G
11	BA	1236	G
11	BA	1237	G
11	BA	1242	G
11	BA	1245	G
11	BA	1246	C
11	BA	1247	A
11	BA	1248	U
11	BA	1249	G
11	BA	1256	C
11	BA	1257	U
11	BA	1258	U
11	BA	1264	G
11	BA	1266	G
11	BA	1269	G
11	BA	1270	U
11	BA	1273	U
11	BA	1278	C
11	BA	1279	U
11	BA	1281	G
11	BA	1286	U
11	BA	1287	U
11	BA	1288	C
11	BA	1290	G
11	BA	1293	A
11	BA	1296	G
11	BA	1297	A
11	BA	1311	C
11	BA	1316	A
11	BA	1317	A
11	BA	1318	C
11	BA	1319	U
11	BA	1320	A
11	BA	1321	G
11	BA	1327	U
11	BA	1331	A
11	BA	1333	A
11	BA	1334	U
11	BA	1339	G
11	BA	1343	G
11	BA	1344	U
11	BA	1345	A

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Mol	Chain	Res	Type
11	BA	1347	U
11	BA	1348	U
11	BA	1349	C
11	BA	1351	U
11	BA	1358	A
11	BA	1359	C
11	BA	1360	U
11	BA	1365	U
11	BA	1366	G
11	BA	1368	A
11	BA	1369	A
11	BA	1370	U
11	BA	1371	A
11	BA	1372	A
11	BA	1373	G
11	BA	1381	A
11	BA	1383	G
11	BA	1384	U
11	BA	1385	U
11	BA	1386	U
11	BA	1395	A
11	BA	1396	A
11	BA	1397	C
11	BA	1398	A
11	BA	1399	G
11	BA	1400	G
11	BA	1402	C
11	BA	1403	U
11	BA	1404	G
11	BA	1406	G
11	BA	1407	A
11	BA	1408	U
11	BA	1415	A
11	BA	1416	G
11	BA	1417	A
11	BA	1419	G
11	BA	1421	G
11	BA	1424	C
11	BA	1425	G
11	BA	1428	C
11	BA	1429	G
11	BA	1430	C

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Mol	Chain	Res	Type
11	BA	1431	A
11	BA	1432	C
11	BA	1435	G
11	BA	1437	G
11	BA	1442	A
11	BA	1444	U
11	BA	1445	G
11	BA	1448	U
11	BA	1449	G
11	BA	1452	G
11	BA	1453	C
11	BA	1458	A
11	BA	1459	G
11	BA	1461	A
11	BA	1462	U
11	BA	1463	U
11	BA	1464	U
11	BA	1466	C
11	BA	1467	U
11	BA	1469	U
11	BA	1477	A
11	BA	1478	G
11	BA	1479	G
11	BA	1480	U
11	BA	1481	A
11	BA	1487	A
11	BA	1488	A
11	BA	1489	U
11	BA	1492	U
11	BA	1493	A
11	BA	1494	U
11	BA	1495	U
11	BA	1496	A
11	BA	1498	U
11	BA	1505	C
11	BA	1506	G
11	BA	1507	U
11	BA	1508	G
11	BA	1509	U
11	BA	1510	U
11	BA	1511	A
11	BA	1512	G

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Mol	Chain	Res	Type
11	BA	1514	G
11	BA	1519	U
11	BA	1526	G
11	BA	1528	A
11	BA	1529	U
11	BA	1530	U
11	BA	1531	G
11	BA	1532	U
11	BA	1533	G
11	BA	1536	U
11	BA	1538	U
11	BA	1539	U
11	BA	1540	G
11	BA	1545	A
11	BA	1547	G
11	BA	1549	A
11	BA	1556	G
11	BA	1557	U
11	BA	1558	A
11	BA	1562	G
11	BA	1572	A
11	BA	1573	G
11	BA	1579	G
11	BA	1583	A
11	BA	1590	C
11	BA	1597	G
11	BA	1603	A
11	BA	1604	C
11	BA	1605	A
11	BA	1606	C
11	BA	1607	A
11	BA	1608	C
11	BA	1609	C
11	BA	1610	G
11	BA	1623	A
11	BA	1627	A
11	BA	1635	U
11	BA	1649	U
11	BA	1652	A
11	BA	1659	C
11	BA	1660	A
11	BA	1661	G

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Mol	Chain	Res	Type
11	BA	1662	C
11	BA	1663	A
11	BA	1666	G
11	BA	1668	U
11	BA	1681	G
11	BA	1685	A
11	BA	1710	G
11	BA	1714	U
11	BA	1717	C
11	BA	1718	A
11	BA	1719	A
11	BA	1720	G
11	BA	1721	G
11	BA	1722	U
11	BA	1724	U
11	BA	1731	G
11	BA	1733	G
11	BA	1735	A
11	BA	1736	C
11	BA	1737	C
11	BA	1745	G
11	BA	1746	G
11	BA	1747	A
11	BA	1749	C
11	BA	1750	A
11	BA	1752	U
11	BA	1753	A
11	CA	2	A
11	CA	3	C
11	CA	4	C
11	CA	8	U
11	CA	11	A
11	CA	12	U
11	CA	13	C
11	CA	14	C
11	CA	17	C
11	CA	22	U
11	CA	26	U
11	CA	33	G
11	CA	37	U
11	CA	40	A
11	CA	41	U

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Mol	Chain	Res	Type
11	CA	44	U
11	CA	46	A
11	CA	55	U
11	CA	58	G
11	CA	59	C
11	CA	60	C
11	CA	62	G
11	CA	64	U
11	CA	65	C
11	CA	66	A
11	CA	71	U
11	CA	72	G
11	CA	73	A
11	CA	74	A
11	CA	75	C
11	CA	76	A
11	CA	77	G
11	CA	80	A
11	CA	83	C
11	CA	85	G
11	CA	99	A
11	CA	100	A
11	CA	101	A
11	CA	106	U
11	CA	107	U
11	CA	110	A
11	CA	112	U
11	CA	122	A
11	CA	123	A
11	CA	124	U
11	CA	125	U
11	CA	126	A
11	CA	132	U
11	CA	134	C
11	CA	135	A
11	CA	147	G
11	CA	149	U
11	CA	152	U
11	CA	153	U
11	CA	155	U
11	CA	157	G
11	CA	160	C

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Mol	Chain	Res	Type
11	CA	161	U
11	CA	163	A
11	CA	164	U
11	CA	165	A
11	CA	168	U
11	CA	169	G
11	CA	171	U
11	CA	172	U
11	CA	173	A
11	CA	174	A
11	CA	181	G
11	CA	182	U
11	CA	185	C
11	CA	186	C
11	CA	188	G
11	CA	196	A
11	CA	199	G
11	CA	208	A
11	CA	210	A
11	CA	211	U
11	CA	212	A
11	CA	213	U
11	CA	214	U
11	CA	215	A
11	CA	216	G
11	CA	217	A
11	CA	218	C
11	CA	219	C
11	CA	220	A
11	CA	222	U
11	CA	223	C
11	CA	226	A
11	CA	227	G
11	CA	228	C
11	CA	229	A
11	CA	230	A
11	CA	232	G
11	CA	233	U
11	CA	234	G
11	CA	235	A
11	CA	237	U
11	CA	238	G

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Mol	Chain	Res	Type
11	CA	239	A
11	CA	240	G
11	CA	244	A
11	CA	245	A
11	CA	246	U
11	CA	247	C
11	CA	254	A
11	CA	258	A
11	CA	262	G
11	CA	264	U
11	CA	265	C
11	CA	266	G
11	CA	269	G
11	CA	270	U
11	CA	271	U
11	CA	272	U
11	CA	273	A
11	CA	274	C
11	CA	278	G
11	CA	303	A
11	CA	304	U
11	CA	305	C
11	CA	306	A
11	CA	307	G
11	CA	311	U
11	CA	312	C
11	CA	313	G
11	CA	314	A
11	CA	319	A
11	CA	320	G
11	CA	324	A
11	CA	328	G
11	CA	329	A
11	CA	341	G
11	CA	342	U
11	CA	343	C
11	CA	344	A
11	CA	350	A
11	CA	351	A
11	CA	352	C
11	CA	354	G
11	CA	359	U

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Mol	Chain	Res	Type
11	CA	360	U
11	CA	364	G
11	CA	368	G
11	CA	369	A
11	CA	371	U
11	CA	374	G
11	CA	378	A
11	CA	379	A
11	CA	381	G
11	CA	388	A
11	CA	391	A
11	CA	392	A
11	CA	393	C
11	CA	394	G
11	CA	402	C
11	CA	405	C
11	CA	407	A
11	CA	409	G
11	CA	410	G
11	CA	413	C
11	CA	414	G
11	CA	415	G
11	CA	416	C
11	CA	417	A
11	CA	418	G
11	CA	422	G
11	CA	426	G
11	CA	428	A
11	CA	429	A
11	CA	431	U
11	CA	436	C
11	CA	437	A
11	CA	440	C
11	CA	444	A
11	CA	445	U
11	CA	447	C
11	CA	448	A
11	CA	451	G
11	CA	452	A
11	CA	453	G
11	CA	460	A
11	CA	461	C

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Mol	Chain	Res	Type
11	CA	466	A
11	CA	467	A
11	CA	471	C
11	CA	473	A
11	CA	479	G
11	CA	482	A
11	CA	483	C
11	CA	485	U
11	CA	487	C
11	CA	488	G
11	CA	492	C
11	CA	493	U
11	CA	494	A
11	CA	496	G
11	CA	499	A
11	CA	500	U
11	CA	503	A
11	CA	504	A
11	CA	508	A
11	CA	511	A
11	CA	512	C
11	CA	518	A
11	CA	527	A
11	CA	529	C
11	CA	530	G
11	CA	531	A
11	CA	532	G
11	CA	533	G
11	CA	534	A
11	CA	535	A
11	CA	536	C
11	CA	537	A
11	CA	538	A
11	CA	540	U
11	CA	541	G
11	CA	542	G
11	CA	544	G
11	CA	548	A
11	CA	550	G
11	CA	551	U
11	CA	552	C
11	CA	553	A

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Mol	Chain	Res	Type
11	CA	554	U
11	CA	559	C
11	CA	560	C
11	CA	570	G
11	CA	571	G
11	CA	572	U
11	CA	573	A
11	CA	574	A
11	CA	575	U
11	CA	577	C
11	CA	578	C
11	CA	586	A
11	CA	588	A
11	CA	598	A
11	CA	599	A
11	CA	605	U
11	CA	608	C
11	CA	613	A
11	CA	614	A
11	CA	615	A
11	CA	616	A
11	CA	617	A
11	CA	618	G
11	CA	619	C
11	CA	628	G
11	CA	629	A
11	CA	632	U
11	CA	633	U
11	CA	634	C
11	CA	635	U
11	CA	642	G
11	CA	645	C
11	CA	647	U
11	CA	648	U
11	CA	650	C
11	CA	651	G
11	CA	655	C
11	CA	656	G
11	CA	657	U
11	CA	659	G
11	CA	661	G
11	CA	662	U

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Mol	Chain	Res	Type
11	CA	665	A
11	CA	666	A
11	CA	668	U
11	CA	670	G
11	CA	673	A
11	CA	674	U
11	CA	676	C
11	CA	677	G
11	CA	678	U
11	CA	679	U
11	CA	680	U
11	CA	681	G
11	CA	682	C
11	CA	727	U
11	CA	728	U
11	CA	729	U
11	CA	739	A
11	CA	743	U
11	CA	749	G
11	CA	750	U
11	CA	751	U
11	CA	758	A
11	CA	759	G
11	CA	762	U
11	CA	764	U
11	CA	765	A
11	CA	766	G
11	CA	772	A
11	CA	777	U
11	CA	781	C
11	CA	785	G
11	CA	786	A
11	CA	792	G
11	CA	793	G
11	CA	794	A
11	CA	795	A
11	CA	797	A
11	CA	798	G
11	CA	799	G
11	CA	800	A
11	CA	805	G
11	CA	808	C

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Mol	Chain	Res	Type
11	CA	811	U
11	CA	812	U
11	CA	813	U
11	CA	814	A
11	CA	815	U
11	CA	817	G
11	CA	819	U
11	CA	820	U
11	CA	821	C
11	CA	822	U
11	CA	823	U
11	CA	825	G
11	CA	834	A
11	CA	835	U
11	CA	840	A
11	CA	841	A
11	CA	842	U
11	CA	843	A
11	CA	846	G
11	CA	849	A
11	CA	850	G
11	CA	859	A
11	CA	860	U
11	CA	862	A
11	CA	864	U
11	CA	873	G
11	CA	875	C
11	CA	876	A
11	CA	877	G
11	CA	882	G
11	CA	883	A
11	CA	884	A
11	CA	886	U
11	CA	887	U
11	CA	888	C
11	CA	889	U
11	CA	890	U
11	CA	891	G
11	CA	892	G
11	CA	894	U
11	CA	895	U
11	CA	903	G

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Mol	Chain	Res	Type
11	CA	906	U
11	CA	911	A
11	CA	912	A
11	CA	913	U
11	CA	920	G
11	CA	936	U
11	CA	937	U
11	CA	938	U
11	CA	941	A
11	CA	942	U
11	CA	944	A
11	CA	948	A
11	CA	949	A
11	CA	953	C
11	CA	962	G
11	CA	966	A
11	CA	968	C
11	CA	970	A
11	CA	971	A
11	CA	974	C
11	CA	975	G
11	CA	976	A
11	CA	981	A
11	CA	983	A
11	CA	996	U
11	CA	997	A
11	CA	998	A
11	CA	999	C
11	CA	1002	U
11	CA	1003	A
11	CA	1004	A
11	CA	1006	C
11	CA	1007	U
11	CA	1008	A
11	CA	1014	A
11	CA	1017	C
11	CA	1020	G
11	CA	1025	G
11	CA	1028	G
11	CA	1035	A
11	CA	1036	U
11	CA	1038	U

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Mol	Chain	Res	Type
11	CA	1046	G
11	CA	1055	G
11	CA	1063	A
11	CA	1064	A
11	CA	1069	U
11	CA	1072	G
11	CA	1076	U
11	CA	1080	G
11	CA	1081	G
11	CA	1083	G
11	CA	1092	U
11	CA	1093	A
11	CA	1099	G
11	CA	1111	A
11	CA	1114	G
11	CA	1122	G
11	CA	1123	G
11	CA	1124	A
11	CA	1131	C
11	CA	1132	A
11	CA	1136	G
11	CA	1137	A
11	CA	1139	G
11	CA	1140	U
11	CA	1142	G
11	CA	1146	C
11	CA	1147	U
11	CA	1149	C
11	CA	1155	A
11	CA	1157	U
11	CA	1162	C
11	CA	1165	A
11	CA	1166	A
11	CA	1168	A
11	CA	1169	C
11	CA	1171	G
11	CA	1172	G
11	CA	1173	G
11	CA	1174	A
11	CA	1175	A
11	CA	1176	A
11	CA	1181	C

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Mol	Chain	Res	Type
11	CA	1189	A
11	CA	1198	A
11	CA	1199	G
11	CA	1200	G
11	CA	1201	G
11	CA	1202	A
11	CA	1203	U
11	CA	1210	A
11	CA	1213	G
11	CA	1215	G
11	CA	1216	A
11	CA	1217	G
11	CA	1218	C
11	CA	1219	U
11	CA	1220	C
11	CA	1223	U
11	CA	1224	C
11	CA	1227	G
11	CA	1228	A
11	CA	1229	U
11	CA	1232	U
11	CA	1233	U
11	CA	1235	G
11	CA	1236	G
11	CA	1237	G
11	CA	1242	G
11	CA	1245	G
11	CA	1246	C
11	CA	1247	A
11	CA	1248	U
11	CA	1249	G
11	CA	1256	C
11	CA	1257	U
11	CA	1258	U
11	CA	1264	G
11	CA	1266	G
11	CA	1269	G
11	CA	1270	U
11	CA	1273	U
11	CA	1278	C
11	CA	1279	U
11	CA	1281	G

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Mol	Chain	Res	Type
11	CA	1286	U
11	CA	1287	U
11	CA	1288	C
11	CA	1290	G
11	CA	1293	A
11	CA	1296	G
11	CA	1297	A
11	CA	1304	C
11	CA	1311	C
11	CA	1316	A
11	CA	1318	C
11	CA	1319	U
11	CA	1320	A
11	CA	1321	G
11	CA	1327	U
11	CA	1331	A
11	CA	1333	A
11	CA	1334	U
11	CA	1339	G
11	CA	1343	G
11	CA	1344	U
11	CA	1345	A
11	CA	1347	U
11	CA	1348	U
11	CA	1349	C
11	CA	1351	U
11	CA	1358	A
11	CA	1359	C
11	CA	1360	U
11	CA	1365	U
11	CA	1366	G
11	CA	1368	A
11	CA	1369	A
11	CA	1370	U
11	CA	1371	A
11	CA	1372	A
11	CA	1373	G
11	CA	1381	A
11	CA	1383	G
11	CA	1384	U
11	CA	1385	U
11	CA	1386	U

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Mol	Chain	Res	Type
11	CA	1392	A
11	CA	1395	A
11	CA	1396	A
11	CA	1397	C
11	CA	1398	A
11	CA	1399	G
11	CA	1400	G
11	CA	1402	C
11	CA	1403	U
11	CA	1404	G
11	CA	1406	G
11	CA	1407	A
11	CA	1408	U
11	CA	1415	A
11	CA	1416	G
11	CA	1417	A
11	CA	1419	G
11	CA	1421	G
11	CA	1424	C
11	CA	1425	G
11	CA	1428	C
11	CA	1429	G
11	CA	1430	C
11	CA	1431	A
11	CA	1432	C
11	CA	1435	G
11	CA	1437	G
11	CA	1442	A
11	CA	1444	U
11	CA	1445	G
11	CA	1448	U
11	CA	1449	G
11	CA	1452	G
11	CA	1453	C
11	CA	1458	A
11	CA	1461	A
11	CA	1462	U
11	CA	1463	U
11	CA	1464	U
11	CA	1466	C
11	CA	1467	U
11	CA	1469	U

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Mol	Chain	Res	Type
11	CA	1477	A
11	CA	1478	G
11	CA	1479	G
11	CA	1480	U
11	CA	1481	A
11	CA	1487	A
11	CA	1488	A
11	CA	1489	U
11	CA	1492	U
11	CA	1493	A
11	CA	1494	U
11	CA	1495	U
11	CA	1496	A
11	CA	1498	U
11	CA	1505	C
11	CA	1506	G
11	CA	1507	U
11	CA	1508	G
11	CA	1509	U
11	CA	1510	U
11	CA	1511	A
11	CA	1512	G
11	CA	1514	G
11	CA	1519	U
11	CA	1526	G
11	CA	1528	A
11	CA	1529	U
11	CA	1530	U
11	CA	1531	G
11	CA	1532	U
11	CA	1533	G
11	CA	1536	U
11	CA	1538	U
11	CA	1539	U
11	CA	1540	G
11	CA	1545	A
11	CA	1547	G
11	CA	1549	A
11	CA	1556	G
11	CA	1557	U
11	CA	1558	A
11	CA	1562	G

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Mol	Chain	Res	Type
11	CA	1572	A
11	CA	1573	G
11	CA	1579	G
11	CA	1583	A
11	CA	1590	C
11	CA	1591	C
11	CA	1597	G
11	CA	1603	A
11	CA	1604	C
11	CA	1605	A
11	CA	1606	C
11	CA	1607	A
11	CA	1608	C
11	CA	1609	C
11	CA	1610	G
11	CA	1623	A
11	CA	1627	A
11	CA	1635	U
11	CA	1649	U
11	CA	1652	A
11	CA	1659	C
11	CA	1660	A
11	CA	1661	G
11	CA	1662	C
11	CA	1663	A
11	CA	1666	G
11	CA	1668	U
11	CA	1681	G
11	CA	1685	A
11	CA	1710	G
11	CA	1714	U
11	CA	1717	C
11	CA	1718	A
11	CA	1719	A
11	CA	1720	G
11	CA	1721	G
11	CA	1722	U
11	CA	1724	U
11	CA	1731	G
11	CA	1733	G
11	CA	1735	A
11	CA	1736	C

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Mol	Chain	Res	Type
11	CA	1737	C
11	CA	1745	G
11	CA	1746	G
11	CA	1747	A
11	CA	1748	U
11	CA	1749	C
11	CA	1750	A
11	CA	1752	U
11	CA	1753	A
11	DA	2	A
11	DA	3	C
11	DA	4	C
11	DA	8	U
11	DA	11	A
11	DA	12	U
11	DA	13	C
11	DA	14	C
11	DA	17	C
11	DA	22	U
11	DA	26	U
11	DA	33	G
11	DA	37	U
11	DA	40	A
11	DA	41	U
11	DA	44	U
11	DA	45	A
11	DA	46	A
11	DA	55	U
11	DA	58	G
11	DA	59	C
11	DA	60	C
11	DA	62	G
11	DA	64	U
11	DA	65	C
11	DA	66	A
11	DA	71	U
11	DA	72	G
11	DA	73	A
11	DA	74	A
11	DA	75	C
11	DA	76	A
11	DA	77	G

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Mol	Chain	Res	Type
11	DA	80	A
11	DA	83	C
11	DA	85	G
11	DA	99	A
11	DA	100	A
11	DA	101	A
11	DA	106	U
11	DA	107	U
11	DA	110	A
11	DA	112	U
11	DA	122	A
11	DA	123	A
11	DA	124	U
11	DA	125	U
11	DA	126	A
11	DA	132	U
11	DA	134	C
11	DA	135	A
11	DA	147	G
11	DA	149	U
11	DA	152	U
11	DA	153	U
11	DA	155	U
11	DA	157	G
11	DA	160	C
11	DA	161	U
11	DA	163	A
11	DA	164	U
11	DA	165	A
11	DA	168	U
11	DA	169	G
11	DA	171	U
11	DA	172	U
11	DA	173	A
11	DA	174	A
11	DA	181	G
11	DA	182	U
11	DA	185	C
11	DA	186	C
11	DA	188	G
11	DA	196	A
11	DA	199	G

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Mol	Chain	Res	Type
11	DA	208	A
11	DA	209	G
11	DA	210	A
11	DA	211	U
11	DA	212	A
11	DA	213	U
11	DA	214	U
11	DA	215	A
11	DA	216	G
11	DA	217	A
11	DA	218	C
11	DA	219	C
11	DA	220	A
11	DA	222	U
11	DA	223	C
11	DA	226	A
11	DA	227	G
11	DA	229	A
11	DA	230	A
11	DA	231	U
11	DA	232	G
11	DA	233	U
11	DA	234	G
11	DA	235	A
11	DA	237	U
11	DA	238	G
11	DA	239	A
11	DA	240	G
11	DA	246	U
11	DA	247	C
11	DA	254	A
11	DA	258	A
11	DA	262	G
11	DA	264	U
11	DA	265	C
11	DA	266	G
11	DA	269	G
11	DA	270	U
11	DA	271	U
11	DA	272	U
11	DA	273	A
11	DA	274	C

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Mol	Chain	Res	Type
11	DA	278	G
11	DA	303	A
11	DA	304	U
11	DA	305	C
11	DA	306	A
11	DA	307	G
11	DA	311	U
11	DA	312	C
11	DA	313	G
11	DA	314	A
11	DA	319	A
11	DA	320	G
11	DA	324	A
11	DA	329	A
11	DA	341	G
11	DA	342	U
11	DA	343	C
11	DA	344	A
11	DA	350	A
11	DA	351	A
11	DA	352	C
11	DA	354	G
11	DA	359	U
11	DA	360	U
11	DA	364	G
11	DA	368	G
11	DA	369	A
11	DA	374	G
11	DA	378	A
11	DA	379	A
11	DA	381	G
11	DA	388	A
11	DA	391	A
11	DA	392	A
11	DA	393	C
11	DA	394	G
11	DA	402	C
11	DA	405	C
11	DA	407	A
11	DA	409	G
11	DA	410	G
11	DA	413	C

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Mol	Chain	Res	Type
11	DA	414	G
11	DA	415	G
11	DA	416	C
11	DA	417	A
11	DA	418	G
11	DA	422	G
11	DA	426	G
11	DA	428	A
11	DA	429	A
11	DA	431	U
11	DA	436	C
11	DA	437	A
11	DA	440	C
11	DA	444	A
11	DA	445	U
11	DA	447	C
11	DA	448	A
11	DA	451	G
11	DA	452	A
11	DA	453	G
11	DA	460	A
11	DA	461	C
11	DA	466	A
11	DA	467	A
11	DA	469	A
11	DA	476	U
11	DA	479	G
11	DA	481	A
11	DA	482	A
11	DA	483	C
11	DA	485	U
11	DA	487	C
11	DA	488	G
11	DA	492	C
11	DA	493	U
11	DA	494	A
11	DA	496	G
11	DA	499	A
11	DA	500	U
11	DA	503	A
11	DA	504	A
11	DA	508	A

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Mol	Chain	Res	Type
11	DA	511	A
11	DA	512	C
11	DA	518	A
11	DA	527	A
11	DA	529	C
11	DA	530	G
11	DA	531	A
11	DA	532	G
11	DA	533	G
11	DA	534	A
11	DA	535	A
11	DA	536	C
11	DA	537	A
11	DA	538	A
11	DA	540	U
11	DA	541	G
11	DA	542	G
11	DA	544	G
11	DA	548	A
11	DA	550	G
11	DA	551	U
11	DA	552	C
11	DA	553	A
11	DA	554	U
11	DA	559	C
11	DA	560	C
11	DA	570	G
11	DA	571	G
11	DA	572	U
11	DA	573	A
11	DA	574	A
11	DA	575	U
11	DA	577	C
11	DA	578	C
11	DA	586	A
11	DA	588	A
11	DA	598	A
11	DA	599	A
11	DA	605	U
11	DA	608	C
11	DA	613	A
11	DA	614	A

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Mol	Chain	Res	Type
11	DA	615	A
11	DA	616	A
11	DA	617	A
11	DA	618	G
11	DA	619	C
11	DA	628	G
11	DA	629	A
11	DA	632	U
11	DA	633	U
11	DA	634	C
11	DA	635	U
11	DA	642	G
11	DA	648	U
11	DA	649	U
11	DA	650	C
11	DA	653	U
11	DA	655	C
11	DA	656	G
11	DA	657	U
11	DA	661	G
11	DA	662	U
11	DA	665	A
11	DA	666	A
11	DA	670	G
11	DA	673	A
11	DA	674	U
11	DA	676	C
11	DA	677	G
11	DA	678	U
11	DA	680	U
11	DA	681	G
11	DA	682	C
11	DA	721	A
11	DA	722	A
11	DA	727	U
11	DA	728	U
11	DA	729	U
11	DA	739	A
11	DA	743	U
11	DA	749	G
11	DA	750	U
11	DA	751	U

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Mol	Chain	Res	Type
11	DA	758	A
11	DA	759	G
11	DA	762	U
11	DA	764	U
11	DA	765	A
11	DA	766	G
11	DA	772	A
11	DA	777	U
11	DA	781	C
11	DA	785	G
11	DA	786	A
11	DA	792	G
11	DA	794	A
11	DA	795	A
11	DA	797	A
11	DA	798	G
11	DA	799	G
11	DA	800	A
11	DA	805	G
11	DA	808	C
11	DA	811	U
11	DA	812	U
11	DA	813	U
11	DA	814	A
11	DA	815	U
11	DA	817	G
11	DA	819	U
11	DA	820	U
11	DA	821	C
11	DA	822	U
11	DA	823	U
11	DA	825	G
11	DA	834	A
11	DA	835	U
11	DA	840	A
11	DA	841	A
11	DA	842	U
11	DA	843	A
11	DA	846	G
11	DA	849	A
11	DA	850	G
11	DA	859	A

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Mol	Chain	Res	Type
11	DA	860	U
11	DA	861	U
11	DA	862	A
11	DA	864	U
11	DA	873	G
11	DA	875	C
11	DA	876	A
11	DA	877	G
11	DA	882	G
11	DA	883	A
11	DA	884	A
11	DA	886	U
11	DA	887	U
11	DA	888	C
11	DA	889	U
11	DA	890	U
11	DA	891	G
11	DA	892	G
11	DA	894	U
11	DA	895	U
11	DA	903	G
11	DA	906	U
11	DA	907	A
11	DA	911	A
11	DA	912	A
11	DA	913	U
11	DA	920	G
11	DA	936	U
11	DA	937	U
11	DA	938	U
11	DA	941	A
11	DA	942	U
11	DA	944	A
11	DA	948	A
11	DA	949	A
11	DA	953	C
11	DA	962	G
11	DA	966	A
11	DA	968	C
11	DA	970	A
11	DA	971	A
11	DA	974	C

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Mol	Chain	Res	Type
11	DA	975	G
11	DA	976	A
11	DA	981	A
11	DA	983	A
11	DA	996	U
11	DA	997	A
11	DA	998	A
11	DA	999	C
11	DA	1002	U
11	DA	1003	A
11	DA	1004	A
11	DA	1006	C
11	DA	1007	U
11	DA	1008	A
11	DA	1014	A
11	DA	1017	C
11	DA	1020	G
11	DA	1025	G
11	DA	1028	G
11	DA	1035	A
11	DA	1036	U
11	DA	1038	U
11	DA	1042	G
11	DA	1046	G
11	DA	1055	G
11	DA	1063	A
11	DA	1064	A
11	DA	1069	U
11	DA	1072	G
11	DA	1076	U
11	DA	1080	G
11	DA	1081	G
11	DA	1083	G
11	DA	1092	U
11	DA	1093	A
11	DA	1099	G
11	DA	1111	A
11	DA	1114	G
11	DA	1122	G
11	DA	1123	G
11	DA	1124	A
11	DA	1131	C

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Mol	Chain	Res	Type
11	DA	1136	G
11	DA	1137	A
11	DA	1139	G
11	DA	1140	U
11	DA	1142	G
11	DA	1146	C
11	DA	1147	U
11	DA	1149	C
11	DA	1155	A
11	DA	1157	U
11	DA	1162	C
11	DA	1165	A
11	DA	1166	A
11	DA	1168	A
11	DA	1169	C
11	DA	1171	G
11	DA	1172	G
11	DA	1173	G
11	DA	1174	A
11	DA	1175	A
11	DA	1176	A
11	DA	1181	C
11	DA	1189	A
11	DA	1198	A
11	DA	1199	G
11	DA	1200	G
11	DA	1201	G
11	DA	1202	A
11	DA	1203	U
11	DA	1205	G
11	DA	1210	A
11	DA	1213	G
11	DA	1215	G
11	DA	1216	A
11	DA	1217	G
11	DA	1218	C
11	DA	1219	U
11	DA	1220	C
11	DA	1223	U
11	DA	1224	C
11	DA	1227	G
11	DA	1228	A

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Mol	Chain	Res	Type
11	DA	1229	U
11	DA	1232	U
11	DA	1233	U
11	DA	1235	G
11	DA	1236	G
11	DA	1237	G
11	DA	1242	G
11	DA	1245	G
11	DA	1246	C
11	DA	1247	A
11	DA	1248	U
11	DA	1249	G
11	DA	1256	C
11	DA	1257	U
11	DA	1258	U
11	DA	1264	G
11	DA	1266	G
11	DA	1269	G
11	DA	1270	U
11	DA	1273	U
11	DA	1278	C
11	DA	1279	U
11	DA	1281	G
11	DA	1286	U
11	DA	1287	U
11	DA	1288	C
11	DA	1290	G
11	DA	1293	A
11	DA	1296	G
11	DA	1297	A
11	DA	1311	C
11	DA	1316	A
11	DA	1318	C
11	DA	1319	U
11	DA	1320	A
11	DA	1321	G
11	DA	1327	U
11	DA	1331	A
11	DA	1333	A
11	DA	1334	U
11	DA	1339	G
11	DA	1343	G

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Mol	Chain	Res	Type
11	DA	1344	U
11	DA	1345	A
11	DA	1347	U
11	DA	1348	U
11	DA	1349	C
11	DA	1351	U
11	DA	1358	A
11	DA	1359	C
11	DA	1360	U
11	DA	1365	U
11	DA	1366	G
11	DA	1368	A
11	DA	1369	A
11	DA	1370	U
11	DA	1371	A
11	DA	1372	A
11	DA	1373	G
11	DA	1381	A
11	DA	1383	G
11	DA	1384	U
11	DA	1385	U
11	DA	1386	U
11	DA	1395	A
11	DA	1396	A
11	DA	1397	C
11	DA	1398	A
11	DA	1399	G
11	DA	1400	G
11	DA	1402	C
11	DA	1403	U
11	DA	1404	G
11	DA	1406	G
11	DA	1407	A
11	DA	1408	U
11	DA	1415	A
11	DA	1416	G
11	DA	1417	A
11	DA	1419	G
11	DA	1421	G
11	DA	1424	C
11	DA	1425	G
11	DA	1428	C

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Mol	Chain	Res	Type
11	DA	1429	G
11	DA	1430	C
11	DA	1431	A
11	DA	1432	C
11	DA	1435	G
11	DA	1437	G
11	DA	1442	A
11	DA	1444	U
11	DA	1445	G
11	DA	1448	U
11	DA	1449	G
11	DA	1452	G
11	DA	1453	C
11	DA	1458	A
11	DA	1459	G
11	DA	1461	A
11	DA	1462	U
11	DA	1463	U
11	DA	1464	U
11	DA	1466	C
11	DA	1467	U
11	DA	1469	U
11	DA	1477	A
11	DA	1478	G
11	DA	1479	G
11	DA	1480	U
11	DA	1481	A
11	DA	1487	A
11	DA	1488	A
11	DA	1489	U
11	DA	1492	U
11	DA	1493	A
11	DA	1494	U
11	DA	1495	U
11	DA	1496	A
11	DA	1498	U
11	DA	1505	C
11	DA	1506	G
11	DA	1507	U
11	DA	1508	G
11	DA	1509	U
11	DA	1510	U

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Mol	Chain	Res	Type
11	DA	1511	A
11	DA	1512	G
11	DA	1514	G
11	DA	1519	U
11	DA	1526	G
11	DA	1528	A
11	DA	1529	U
11	DA	1530	U
11	DA	1531	G
11	DA	1532	U
11	DA	1533	G
11	DA	1536	U
11	DA	1538	U
11	DA	1539	U
11	DA	1540	G
11	DA	1545	A
11	DA	1546	G
11	DA	1547	G
11	DA	1549	A
11	DA	1556	G
11	DA	1557	U
11	DA	1558	A
11	DA	1562	G
11	DA	1572	A
11	DA	1573	G
11	DA	1579	G
11	DA	1583	A
11	DA	1587	U
11	DA	1590	C
11	DA	1597	G
11	DA	1603	A
11	DA	1604	C
11	DA	1605	A
11	DA	1606	C
11	DA	1607	A
11	DA	1609	C
11	DA	1610	G
11	DA	1623	A
11	DA	1627	A
11	DA	1635	U
11	DA	1649	U
11	DA	1652	A

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Mol	Chain	Res	Type
11	DA	1659	C
11	DA	1660	A
11	DA	1661	G
11	DA	1662	C
11	DA	1663	A
11	DA	1666	G
11	DA	1668	U
11	DA	1681	G
11	DA	1685	A
11	DA	1710	G
11	DA	1714	U
11	DA	1717	C
11	DA	1718	A
11	DA	1719	A
11	DA	1720	G
11	DA	1721	G
11	DA	1722	U
11	DA	1724	U
11	DA	1731	G
11	DA	1733	G
11	DA	1735	A
11	DA	1736	C
11	DA	1737	C
11	DA	1745	G
11	DA	1746	G
11	DA	1747	A
11	DA	1748	U
11	DA	1749	C
11	DA	1750	A
11	DA	1752	U
11	DA	1753	A

All (595) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
11	AA	1	A
11	AA	2	A
11	AA	3	C
11	AA	61	A
11	AA	64	U
11	AA	65	C
11	AA	71	U

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Mol	Chain	Res	Type
11	AA	99	A
11	AA	100	A
11	AA	163	A
11	AA	168	U
11	AA	171	U
11	AA	172	U
11	AA	181	G
11	AA	198	C
11	AA	209	G
11	AA	210	A
11	AA	211	U
11	AA	213	U
11	AA	214	U
11	AA	229	A
11	AA	232	G
11	AA	234	G
11	AA	237	U
11	AA	238	G
11	AA	239	A
11	AA	245	A
11	AA	257	G
11	AA	271	U
11	AA	272	U
11	AA	273	A
11	AA	312	C
11	AA	328	G
11	AA	341	G
11	AA	343	C
11	AA	378	A
11	AA	380	G
11	AA	391	A
11	AA	393	C
11	AA	409	G
11	AA	413	C
11	AA	414	G
11	AA	416	C
11	AA	427	A
11	AA	444	A
11	AA	451	G
11	AA	486	A
11	AA	493	U
11	AA	498	C

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Mol	Chain	Res	Type
11	AA	499	A
11	AA	507	G
11	AA	534	A
11	AA	536	C
11	AA	543	A
11	AA	550	G
11	AA	572	U
11	AA	573	A
11	AA	604	G
11	AA	615	A
11	AA	632	U
11	AA	633	U
11	AA	665	A
11	AA	676	C
11	AA	679	U
11	AA	680	U
11	AA	738	A
11	AA	763	U
11	AA	764	U
11	AA	771	A
11	AA	794	A
11	AA	798	G
11	AA	814	A
11	AA	833	A
11	AA	834	A
11	AA	840	A
11	AA	882	G
11	AA	890	U
11	AA	912	A
11	AA	941	A
11	AA	982	U
11	AA	1001	A
11	AA	1002	U
11	AA	1054	U
11	AA	1071	U
11	AA	1079	G
11	AA	1080	G
11	AA	1092	U
11	AA	1122	G
11	AA	1123	G
11	AA	1146	C
11	AA	1168	A

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Mol	Chain	Res	Type
11	AA	1172	G
11	AA	1175	A
11	AA	1188	A
11	AA	1199	G
11	AA	1201	G
11	AA	1217	G
11	AA	1223	U
11	AA	1228	A
11	AA	1231	C
11	AA	1236	G
11	AA	1241	U
11	AA	1245	G
11	AA	1246	C
11	AA	1256	C
11	AA	1257	U
11	AA	1277	U
11	AA	1278	C
11	AA	1286	U
11	AA	1318	C
11	AA	1342	U
11	AA	1346	C
11	AA	1347	U
11	AA	1365	U
11	AA	1371	A
11	AA	1383	G
11	AA	1397	C
11	AA	1402	C
11	AA	1403	U
11	AA	1406	G
11	AA	1428	C
11	AA	1429	G
11	AA	1431	A
11	AA	1443	A
11	AA	1444	U
11	AA	1451	C
11	AA	1452	G
11	AA	1462	U
11	AA	1463	U
11	AA	1480	U
11	AA	1486	U
11	AA	1488	A
11	AA	1494	U

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Mol	Chain	Res	Type
11	AA	1495	U
11	AA	1506	G
11	AA	1509	U
11	AA	1529	U
11	AA	1556	G
11	AA	1557	U
11	AA	1572	A
11	AA	1605	A
11	AA	1651	G
11	AA	1661	G
11	AA	1662	C
11	AA	1720	G
11	AA	1721	G
11	AA	1744	U
11	AA	1749	C
11	AA	1752	U
11	BA	1	A
11	BA	2	A
11	BA	3	C
11	BA	61	A
11	BA	64	U
11	BA	65	C
11	BA	71	U
11	BA	99	A
11	BA	100	A
11	BA	163	A
11	BA	168	U
11	BA	171	U
11	BA	172	U
11	BA	181	G
11	BA	198	C
11	BA	209	G
11	BA	210	A
11	BA	211	U
11	BA	213	U
11	BA	214	U
11	BA	229	A
11	BA	232	G
11	BA	234	G
11	BA	237	U
11	BA	238	G
11	BA	245	A

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Mol	Chain	Res	Type
11	BA	257	G
11	BA	271	U
11	BA	272	U
11	BA	273	A
11	BA	312	C
11	BA	328	G
11	BA	341	G
11	BA	343	C
11	BA	378	A
11	BA	380	G
11	BA	391	A
11	BA	393	C
11	BA	409	G
11	BA	413	C
11	BA	414	G
11	BA	416	C
11	BA	427	A
11	BA	444	A
11	BA	451	G
11	BA	486	A
11	BA	492	C
11	BA	493	U
11	BA	498	C
11	BA	499	A
11	BA	507	G
11	BA	534	A
11	BA	536	C
11	BA	543	A
11	BA	550	G
11	BA	572	U
11	BA	573	A
11	BA	604	G
11	BA	615	A
11	BA	632	U
11	BA	633	U
11	BA	665	A
11	BA	675	A
11	BA	676	C
11	BA	679	U
11	BA	680	U
11	BA	738	A
11	BA	763	U

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Mol	Chain	Res	Type
11	BA	764	U
11	BA	771	A
11	BA	794	A
11	BA	798	G
11	BA	814	A
11	BA	833	A
11	BA	834	A
11	BA	840	A
11	BA	882	G
11	BA	890	U
11	BA	912	A
11	BA	941	A
11	BA	982	U
11	BA	1001	A
11	BA	1002	U
11	BA	1054	U
11	BA	1079	G
11	BA	1080	G
11	BA	1092	U
11	BA	1122	G
11	BA	1123	G
11	BA	1146	C
11	BA	1168	A
11	BA	1172	G
11	BA	1175	A
11	BA	1188	A
11	BA	1199	G
11	BA	1201	G
11	BA	1217	G
11	BA	1223	U
11	BA	1228	A
11	BA	1231	C
11	BA	1236	G
11	BA	1241	U
11	BA	1245	G
11	BA	1246	C
11	BA	1256	C
11	BA	1257	U
11	BA	1277	U
11	BA	1278	C
11	BA	1286	U
11	BA	1318	C

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Mol	Chain	Res	Type
11	BA	1342	U
11	BA	1346	C
11	BA	1347	U
11	BA	1365	U
11	BA	1371	A
11	BA	1383	G
11	BA	1397	C
11	BA	1402	C
11	BA	1403	U
11	BA	1406	G
11	BA	1428	C
11	BA	1429	G
11	BA	1431	A
11	BA	1443	A
11	BA	1444	U
11	BA	1451	C
11	BA	1452	G
11	BA	1462	U
11	BA	1463	U
11	BA	1480	U
11	BA	1486	U
11	BA	1488	A
11	BA	1494	U
11	BA	1495	U
11	BA	1506	G
11	BA	1509	U
11	BA	1529	U
11	BA	1556	G
11	BA	1557	U
11	BA	1605	A
11	BA	1651	G
11	BA	1661	G
11	BA	1662	C
11	BA	1720	G
11	BA	1721	G
11	BA	1744	U
11	BA	1749	C
11	BA	1752	U
11	CA	1	A
11	CA	2	A
11	CA	3	C
11	CA	61	A

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Mol	Chain	Res	Type
11	CA	64	U
11	CA	65	C
11	CA	71	U
11	CA	99	A
11	CA	100	A
11	CA	163	A
11	CA	168	U
11	CA	171	U
11	CA	172	U
11	CA	181	G
11	CA	198	C
11	CA	209	G
11	CA	210	A
11	CA	211	U
11	CA	213	U
11	CA	214	U
11	CA	229	A
11	CA	232	G
11	CA	234	G
11	CA	237	U
11	CA	238	G
11	CA	239	A
11	CA	245	A
11	CA	257	G
11	CA	271	U
11	CA	272	U
11	CA	273	A
11	CA	312	C
11	CA	328	G
11	CA	341	G
11	CA	343	C
11	CA	378	A
11	CA	380	G
11	CA	391	A
11	CA	393	C
11	CA	409	G
11	CA	413	C
11	CA	414	G
11	CA	416	C
11	CA	427	A
11	CA	444	A
11	CA	451	G

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Mol	Chain	Res	Type
11	CA	486	A
11	CA	492	C
11	CA	493	U
11	CA	498	C
11	CA	499	A
11	CA	507	G
11	CA	534	A
11	CA	536	C
11	CA	543	A
11	CA	550	G
11	CA	572	U
11	CA	573	A
11	CA	604	G
11	CA	615	A
11	CA	632	U
11	CA	633	U
11	CA	665	A
11	CA	676	C
11	CA	679	U
11	CA	680	U
11	CA	738	A
11	CA	763	U
11	CA	764	U
11	CA	771	A
11	CA	794	A
11	CA	798	G
11	CA	814	A
11	CA	833	A
11	CA	834	A
11	CA	840	A
11	CA	882	G
11	CA	890	U
11	CA	912	A
11	CA	941	A
11	CA	982	U
11	CA	1001	A
11	CA	1002	U
11	CA	1054	U
11	CA	1071	U
11	CA	1079	G
11	CA	1080	G
11	CA	1092	U

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Mol	Chain	Res	Type
11	CA	1122	G
11	CA	1123	G
11	CA	1146	C
11	CA	1168	A
11	CA	1172	G
11	CA	1175	A
11	CA	1188	A
11	CA	1199	G
11	CA	1201	G
11	CA	1217	G
11	CA	1223	U
11	CA	1228	A
11	CA	1231	C
11	CA	1236	G
11	CA	1241	U
11	CA	1245	G
11	CA	1246	C
11	CA	1256	C
11	CA	1257	U
11	CA	1277	U
11	CA	1278	C
11	CA	1286	U
11	CA	1318	C
11	CA	1342	U
11	CA	1346	C
11	CA	1347	U
11	CA	1365	U
11	CA	1371	A
11	CA	1383	G
11	CA	1397	C
11	CA	1402	C
11	CA	1403	U
11	CA	1406	G
11	CA	1428	C
11	CA	1429	G
11	CA	1431	A
11	CA	1443	A
11	CA	1444	U
11	CA	1451	C
11	CA	1452	G
11	CA	1462	U
11	CA	1463	U

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Mol	Chain	Res	Type
11	CA	1480	U
11	CA	1486	U
11	CA	1488	A
11	CA	1494	U
11	CA	1495	U
11	CA	1506	G
11	CA	1509	U
11	CA	1529	U
11	CA	1556	G
11	CA	1557	U
11	CA	1605	A
11	CA	1651	G
11	CA	1661	G
11	CA	1662	C
11	CA	1720	G
11	CA	1721	G
11	CA	1744	U
11	CA	1749	C
11	CA	1752	U
11	DA	1	A
11	DA	2	A
11	DA	3	C
11	DA	61	A
11	DA	64	U
11	DA	65	C
11	DA	71	U
11	DA	99	A
11	DA	100	A
11	DA	163	A
11	DA	168	U
11	DA	171	U
11	DA	172	U
11	DA	181	G
11	DA	198	C
11	DA	209	G
11	DA	211	U
11	DA	213	U
11	DA	214	U
11	DA	229	A
11	DA	232	G
11	DA	234	G
11	DA	237	U

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Mol	Chain	Res	Type
11	DA	238	G
11	DA	239	A
11	DA	245	A
11	DA	257	G
11	DA	271	U
11	DA	272	U
11	DA	273	A
11	DA	312	C
11	DA	328	G
11	DA	341	G
11	DA	343	C
11	DA	378	A
11	DA	380	G
11	DA	391	A
11	DA	393	C
11	DA	409	G
11	DA	413	C
11	DA	414	G
11	DA	427	A
11	DA	444	A
11	DA	451	G
11	DA	486	A
11	DA	492	C
11	DA	493	U
11	DA	498	C
11	DA	499	A
11	DA	507	G
11	DA	534	A
11	DA	536	C
11	DA	543	A
11	DA	550	G
11	DA	572	U
11	DA	573	A
11	DA	604	G
11	DA	615	A
11	DA	632	U
11	DA	665	A
11	DA	675	A
11	DA	676	C
11	DA	679	U
11	DA	680	U
11	DA	738	A

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Mol	Chain	Res	Type
11	DA	763	U
11	DA	764	U
11	DA	771	A
11	DA	794	A
11	DA	798	G
11	DA	814	A
11	DA	833	A
11	DA	834	A
11	DA	840	A
11	DA	882	G
11	DA	890	U
11	DA	912	A
11	DA	941	A
11	DA	982	U
11	DA	1001	A
11	DA	1002	U
11	DA	1054	U
11	DA	1071	U
11	DA	1079	G
11	DA	1080	G
11	DA	1092	U
11	DA	1110	A
11	DA	1122	G
11	DA	1123	G
11	DA	1146	C
11	DA	1168	A
11	DA	1172	G
11	DA	1175	A
11	DA	1188	A
11	DA	1199	G
11	DA	1201	G
11	DA	1217	G
11	DA	1223	U
11	DA	1228	A
11	DA	1231	C
11	DA	1236	G
11	DA	1241	U
11	DA	1245	G
11	DA	1246	C
11	DA	1256	C
11	DA	1257	U
11	DA	1277	U

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Mol	Chain	Res	Type
11	DA	1278	C
11	DA	1286	U
11	DA	1318	C
11	DA	1342	U
11	DA	1346	C
11	DA	1347	U
11	DA	1365	U
11	DA	1371	A
11	DA	1383	G
11	DA	1397	C
11	DA	1402	C
11	DA	1403	U
11	DA	1406	G
11	DA	1428	C
11	DA	1429	G
11	DA	1431	A
11	DA	1443	A
11	DA	1444	U
11	DA	1451	C
11	DA	1452	G
11	DA	1462	U
11	DA	1463	U
11	DA	1480	U
11	DA	1486	U
11	DA	1488	A
11	DA	1494	U
11	DA	1495	U
11	DA	1506	G
11	DA	1509	U
11	DA	1529	U
11	DA	1556	G
11	DA	1557	U
11	DA	1586	A
11	DA	1605	A
11	DA	1651	G
11	DA	1661	G
11	DA	1662	C
11	DA	1720	G
11	DA	1721	G
11	DA	1744	U
11	DA	1749	C
11	DA	1752	U

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

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

Of 332 ligands modelled in this entry, 332 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

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A0	99/211 (46%)	-0.13	0 100 100	88, 142, 216, 291	0
1	B0	99/211 (46%)	0.20	1 (1%) 79 55	85, 127, 207, 282	0
1	C0	99/211 (46%)	0.29	0 100 100	106, 156, 225, 248	0
1	D0	99/211 (46%)	-0.05	0 100 100	92, 149, 224, 274	0
2	A1	66/68 (97%)	0.03	0 100 100	92, 140, 222, 249	0
2	B1	66/68 (97%)	0.14	0 100 100	89, 134, 206, 234	0
2	C1	66/68 (97%)	0.07	0 100 100	81, 112, 181, 215	0
2	D1	66/68 (97%)	0.54	2 (3%) 52 32	203, 261, 324, 343	0
3	A2	207/208 (99%)	-0.02	2 (0%) 79 55	66, 90, 157, 218	0
3	B2	207/208 (99%)	0.50	8 (3%) 43 28	80, 126, 196, 251	0
3	C2	207/208 (99%)	0.08	2 (0%) 79 55	61, 97, 172, 255	0
3	D2	207/208 (99%)	0.22	4 (1%) 66 42	71, 144, 216, 259	0
4	A3	196/197 (99%)	-0.01	2 (1%) 79 55	73, 125, 204, 261	0
4	B3	196/197 (99%)	0.10	1 (0%) 87 69	66, 113, 185, 234	0
4	C3	196/197 (99%)	0.19	1 (0%) 87 69	92, 164, 230, 267	0
4	D3	196/197 (99%)	0.23	2 (1%) 79 55	116, 179, 252, 285	0
5	A4	209/265 (78%)	0.01	0 100 100	56, 92, 164, 235	0
5	B4	221/265 (83%)	0.01	1 (0%) 87 69	59, 105, 175, 263	0
5	C4	221/265 (83%)	0.22	2 (0%) 81 58	86, 139, 217, 254	0
5	D4	221/265 (83%)	0.21	1 (0%) 87 69	103, 155, 208, 245	0
6	A5	100/119 (84%)	0.09	0 100 100	49, 81, 197, 247	0
6	B5	100/119 (84%)	0.13	3 (3%) 52 32	58, 85, 201, 233	0
6	C5	100/119 (84%)	0.26	1 (1%) 79 55	65, 100, 205, 287	0
6	D5	100/119 (84%)	0.38	5 (5%) 34 22	86, 134, 219, 240	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
7	A6	80/81 (98%)	-0.03	1 (1%) 75 50	62, 104, 165, 180	0
7	B6	80/81 (98%)	0.19	3 (3%) 44 28	62, 95, 150, 209	0
7	C6	80/81 (98%)	0.37	5 (6%) 26 18	80, 144, 188, 218	0
7	D6	80/81 (98%)	0.33	2 (2%) 58 36	117, 170, 216, 228	0
8	A7	101/162 (62%)	0.02	0 100 100	126, 182, 218, 252	0
8	B7	101/162 (62%)	0.03	0 100 100	94, 132, 192, 242	0
8	C7	101/162 (62%)	0.17	2 (1%) 65 41	109, 147, 199, 248	0
8	D7	101/162 (62%)	0.60	8 (7%) 18 15	130, 187, 230, 255	0
9	A8	79/143 (55%)	-0.22	0 100 100	118, 159, 233, 299	0
9	B8	79/143 (55%)	0.10	0 100 100	98, 134, 208, 242	0
9	C8	79/143 (55%)	0.13	0 100 100	90, 144, 211, 272	0
9	D8	79/143 (55%)	0.79	4 (5%) 33 22	252, 277, 348, 437	0
10	A9	93/189 (49%)	0.23	2 (2%) 62 39	172, 238, 339, 370	0
10	B9	93/189 (49%)	0.31	3 (3%) 50 31	124, 171, 239, 269	0
10	C9	93/189 (49%)	0.27	1 (1%) 78 53	148, 195, 256, 286	0
10	D9	93/189 (49%)	0.69	6 (6%) 25 18	197, 257, 314, 331	0
11	AA	1717/1753 (97%)	-0.12	3 (0%) 91 80	54, 98, 250, 465	0
11	BA	1717/1753 (97%)	0.13	11 (0%) 85 66	52, 98, 270, 521	0
11	CA	1717/1753 (97%)	0.22	22 (1%) 75 50	58, 111, 256, 459	0
11	DA	1717/1753 (97%)	0.46	122 (7%) 22 16	79, 137, 297, 532	0
12	AB	201/241 (83%)	-0.18	0 100 100	64, 116, 167, 234	0
12	BB	201/241 (83%)	0.04	0 100 100	60, 107, 164, 201	0
12	CB	201/241 (83%)	0.11	1 (0%) 87 69	84, 128, 181, 226	0
12	DB	201/241 (83%)	0.19	1 (0%) 87 69	102, 168, 221, 256	0
13	AC	228/243 (93%)	-0.04	3 (1%) 75 50	80, 144, 214, 246	0
13	BC	228/243 (93%)	0.08	1 (0%) 88 72	74, 133, 210, 254	0
13	CC	228/243 (93%)	0.10	2 (0%) 81 58	77, 132, 210, 272	0
13	DC	228/243 (93%)	0.02	2 (0%) 81 58	89, 156, 238, 280	0
14	AD	180/181 (99%)	0.16	4 (2%) 62 39	69, 103, 167, 214	0
14	BD	180/181 (99%)	0.72	7 (3%) 43 28	80, 142, 207, 289	0
14	CD	180/181 (99%)	0.43	7 (3%) 43 28	81, 124, 187, 242	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
14	DD	180/181 (99%)	0.35	6 (3%) 49 31	86, 115, 180, 234	0
15	AE	229/296 (77%)	-0.02	5 (2%) 62 39	58, 99, 205, 259	0
15	BE	229/296 (77%)	0.15	6 (2%) 57 35	43, 95, 202, 258	0
15	CE	229/296 (77%)	0.14	4 (1%) 69 43	64, 109, 228, 260	0
15	DE	229/296 (77%)	0.19	2 (0%) 81 58	81, 123, 226, 266	0
16	AF	89/101 (88%)	-0.17	0 100 100	86, 133, 211, 281	0
16	BF	89/101 (88%)	0.03	0 100 100	84, 130, 216, 319	0
16	CF	89/101 (88%)	-0.04	0 100 100	116, 161, 252, 292	0
16	DF	89/101 (88%)	-0.02	0 100 100	93, 146, 216, 259	0
17	AG	192/200 (96%)	0.01	0 100 100	82, 127, 195, 248	0
17	BG	192/200 (96%)	0.14	1 (0%) 87 69	65, 116, 187, 227	0
17	CG	192/200 (96%)	0.08	4 (2%) 63 40	69, 107, 180, 237	0
17	DG	192/200 (96%)	1.01	26 (13%) 7 8	198, 256, 315, 346	0
18	AH	129/130 (99%)	-0.02	1 (0%) 82 60	51, 76, 118, 163	0
18	BH	129/130 (99%)	0.00	2 (1%) 70 45	47, 67, 118, 151	0
18	CH	129/130 (99%)	0.19	0 100 100	65, 88, 129, 160	0
18	DH	129/130 (99%)	0.29	2 (1%) 70 45	76, 117, 156, 179	0
19	AI	143/145 (98%)	0.37	13 (9%) 15 13	69, 111, 212, 248	0
19	BI	143/145 (98%)	0.39	9 (6%) 26 18	65, 109, 197, 284	0
19	CI	143/145 (98%)	0.54	13 (9%) 15 13	77, 114, 215, 266	0
19	DI	143/145 (98%)	1.00	23 (16%) 4 6	152, 218, 272, 312	0
20	AJ	108/120 (90%)	-0.06	2 (1%) 66 42	70, 123, 225, 295	0
20	BJ	108/120 (90%)	0.15	3 (2%) 55 34	61, 112, 220, 250	0
20	CJ	108/120 (90%)	0.13	1 (0%) 81 58	81, 125, 238, 303	0
20	DJ	108/120 (90%)	0.23	5 (4%) 37 24	89, 145, 231, 248	0
21	AK	140/151 (92%)	-0.09	0 100 100	58, 86, 152, 222	0
21	BK	140/151 (92%)	0.10	3 (2%) 63 40	60, 97, 160, 214	0
21	CK	140/151 (92%)	0.43	5 (3%) 46 29	77, 126, 200, 233	0
21	DK	140/151 (92%)	0.36	3 (2%) 63 40	89, 147, 206, 225	0
22	AL	140/142 (98%)	0.09	0 100 100	47, 92, 129, 193	0
22	BL	140/142 (98%)	0.17	1 (0%) 84 63	52, 83, 125, 244	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
22	CL	140/142 (98%)	0.44	3 (2%) 63 40	56, 100, 153, 185	0
22	DL	140/142 (98%)	0.24	1 (0%) 84 63	77, 105, 148, 213	0
23	AM	153/155 (98%)	0.07	1 (0%) 84 63	105, 156, 208, 238	0
23	BM	153/155 (98%)	0.23	1 (0%) 84 63	80, 122, 181, 217	0
23	CM	153/155 (98%)	0.26	0 100 100	101, 149, 205, 238	0
23	DM	153/155 (98%)	1.33	33 (21%) 2 3	198, 260, 333, 366	0
24	AN	54/55 (98%)	0.27	2 (3%) 45 28	77, 115, 174, 210	0
24	BN	54/55 (98%)	0.27	2 (3%) 45 28	60, 92, 133, 168	0
24	CN	54/55 (98%)	0.63	4 (7%) 20 15	87, 116, 142, 171	0
24	DN	54/55 (98%)	0.94	8 (14%) 5 7	95, 135, 203, 233	0
25	AO	152/153 (99%)	-0.03	4 (2%) 57 35	58, 88, 169, 229	0
25	BO	152/153 (99%)	0.05	1 (0%) 84 63	53, 94, 177, 244	0
25	CO	152/153 (99%)	0.39	3 (1%) 65 41	73, 124, 196, 280	0
25	DO	152/153 (99%)	0.31	5 (3%) 49 31	91, 153, 215, 269	0
26	AP	148/149 (99%)	0.02	0 100 100	86, 125, 168, 232	0
26	BP	148/149 (99%)	0.63	6 (4%) 41 26	84, 143, 190, 226	0
26	CP	148/149 (99%)	0.51	4 (2%) 56 35	101, 155, 212, 242	0
26	DP	148/149 (99%)	0.01	0 100 100	92, 125, 170, 225	0
27	AQ	156/157 (99%)	0.04	2 (1%) 75 50	49, 83, 196, 262	0
27	BQ	156/157 (99%)	0.67	7 (4%) 38 24	69, 126, 206, 274	0
27	CQ	156/157 (99%)	0.01	0 100 100	56, 93, 190, 227	0
27	DQ	156/157 (99%)	0.19	1 (0%) 85 66	80, 129, 223, 275	0
28	AR	338/343 (98%)	0.02	1 (0%) 90 76	94, 157, 239, 316	0
28	BR	338/343 (98%)	0.29	4 (1%) 76 51	106, 171, 250, 317	0
28	CR	338/343 (98%)	0.05	1 (0%) 90 76	91, 140, 226, 297	0
28	DR	338/343 (98%)	0.34	9 (2%) 56 35	172, 250, 315, 352	0
29	AS	128/144 (88%)	0.06	0 100 100	127, 185, 235, 293	0
29	BS	128/144 (88%)	0.15	0 100 100	86, 132, 204, 236	0
29	CS	128/144 (88%)	0.23	2 (1%) 70 45	117, 163, 226, 260	0
29	DS	128/144 (88%)	1.16	25 (19%) 3 4	231, 263, 309, 342	0
30	AT	154/155 (99%)	0.21	1 (0%) 85 66	78, 115, 186, 268	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
30	BT	154/155 (99%)	0.14	2 (1%) 75 50	60, 97, 181, 264	0
30	CT	154/155 (99%)	0.35	6 (3%) 43 28	87, 126, 181, 222	0
30	DT	154/155 (99%)	1.29	31 (20%) 3 3	169, 226, 303, 354	0
31	AU	124/126 (98%)	-0.01	0 100 100	191, 241, 287, 311	0
31	BU	124/126 (98%)	0.28	2 (1%) 70 45	140, 196, 236, 257	0
31	CU	124/126 (98%)	0.39	3 (2%) 59 37	142, 191, 234, 269	0
31	DU	124/126 (98%)	0.93	12 (9%) 13 13	210, 259, 325, 375	0
32	AV	119/130 (91%)	-0.02	2 (1%) 69 43	77, 129, 196, 215	0
32	BV	119/130 (91%)	0.03	2 (1%) 69 43	76, 139, 211, 238	0
32	CV	119/130 (91%)	0.17	1 (0%) 82 60	74, 135, 220, 246	0
32	DV	119/130 (91%)	0.26	3 (2%) 58 36	135, 188, 258, 292	0
33	AW	259/259 (100%)	-0.09	1 (0%) 88 72	63, 92, 133, 174	0
33	BW	259/259 (100%)	0.53	8 (3%) 51 32	83, 139, 195, 234	0
33	CW	259/259 (100%)	0.27	2 (0%) 82 60	72, 119, 168, 230	0
33	DW	259/259 (100%)	0.09	0 100 100	76, 118, 164, 211	0
34	AX	74/80 (92%)	0.16	1 (1%) 73 48	87, 141, 227, 272	0
34	BX	74/80 (92%)	0.48	0 100 100	86, 139, 242, 277	0
34	CX	74/80 (92%)	0.29	1 (1%) 73 48	101, 159, 222, 277	0
34	DX	74/80 (92%)	0.20	1 (1%) 73 48	84, 141, 259, 292	0
35	AY	228/293 (77%)	0.19	3 (1%) 75 50	91, 149, 211, 251	0
35	BY	228/293 (77%)	0.45	1 (0%) 88 72	88, 150, 229, 308	0
35	CY	228/293 (77%)	0.46	7 (3%) 51 32	91, 157, 227, 259	0
35	DY	228/293 (77%)	0.22	1 (0%) 88 72	99, 163, 225, 282	0
36	AZ	97/97 (100%)	-0.20	0 100 100	70, 97, 167, 203	0
36	BZ	97/97 (100%)	-0.03	1 (1%) 79 55	63, 94, 165, 205	0
36	CZ	97/97 (100%)	0.02	0 100 100	79, 116, 189, 207	0
36	DZ	97/97 (100%)	0.23	1 (1%) 79 55	106, 143, 197, 210	0
All	All	27676/30568 (90%)	0.21	624 (2%) 61 38	43, 129, 254, 532	0

All (624) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
19	AI	134	ARG	7.2

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Mol	Chain	Res	Type	RSRZ
19	AI	140	MET	6.5
15	BE	93	ALA	5.7
23	DM	146	VAL	5.6
19	BI	134	ARG	5.2
3	B2	2	GLY	5.2
30	DT	95	LYS	5.1
11	DA	1444	U	5.0
3	C2	17	ARG	5.0
14	DD	10	LYS	5.0
23	DM	137	HIS	4.9
19	DI	134	ARG	4.9
30	DT	89	ARG	4.7
31	DU	59	VAL	4.7
19	AI	143	ALA	4.5
11	DA	1530	U	4.4
17	DG	53	VAL	4.4
19	DI	137	ARG	4.4
11	DA	1511	A	4.3
23	DM	147	VAL	4.3
13	CC	162	CYS	4.3
19	CI	140	MET	4.3
19	CI	139	LYS	4.3
30	DT	60	ARG	4.2
21	BK	143	GLU	4.2
23	DM	148	CYS	4.2
14	CD	2	GLY	4.1
11	DA	1505	C	4.1
14	CD	132	ARG	4.1
17	DG	111	VAL	4.1
20	CJ	70	CYS	4.1
11	DA	1418	C	4.1
17	DG	45	PRO	4.1
19	DI	140	MET	4.1
23	DM	58	ALA	4.1
21	CK	151	LEU	4.0
27	AQ	67	GLY	4.0
20	DJ	70	CYS	4.0
19	CI	138	SER	4.0
17	DG	84	CYS	4.0
8	D7	2	VAL	4.0
30	DT	18	PHE	3.9
19	BI	140	MET	3.9

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Mol	Chain	Res	Type	RSRZ
30	DT	41	THR	3.9
29	DS	43	ASP	3.9
11	DA	1445	G	3.9
15	BE	92	GLN	3.9
19	DI	46	LEU	3.9
19	CI	134	ARG	3.9
19	CI	141	GLN	3.9
11	DA	1424	C	3.9
11	DA	1189	A	3.8
34	DX	33	GLY	3.8
15	DE	95	GLN	3.8
17	DG	164	ILE	3.8
26	BP	46	LEU	3.8
14	BD	2	GLY	3.8
11	DA	1534	G	3.7
19	BI	138	SER	3.7
11	DA	1175	A	3.7
11	DA	1176	A	3.7
11	BA	676	C	3.7
11	DA	1540	G	3.7
19	DI	136	ALA	3.7
3	B2	17	ARG	3.6
24	DN	27	GLN	3.6
14	BD	85	LEU	3.6
19	AI	127	GLU	3.6
19	DI	50	ILE	3.6
11	DA	1535	A	3.6
19	CI	70	ARG	3.6
30	DT	96	HIS	3.6
11	DA	1533	G	3.6
25	DO	11	LYS	3.6
19	CI	137	ARG	3.6
23	DM	45	ILE	3.5
30	DT	67	LYS	3.5
6	D5	28	ARG	3.5
21	DK	144	GLY	3.5
29	DS	65	VAL	3.5
19	BI	127	GLU	3.5
23	DM	136	GLN	3.5
29	DS	117	ILE	3.4
11	AA	416	C	3.4
11	DA	1573	G	3.4

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Mol	Chain	Res	Type	RSRZ
11	DA	393	C	3.4
11	DA	1440	A	3.4
30	CT	88	ASP	3.4
11	DA	1187	C	3.4
33	BW	2	ALA	3.4
23	DM	140	THR	3.3
29	DS	91	ILE	3.3
11	DA	1172	G	3.3
23	DM	135	GLY	3.3
11	CA	676	C	3.3
17	DG	107	PHE	3.3
19	AI	144	TYR	3.3
28	DR	271	ALA	3.2
29	DS	124	PHE	3.2
29	DS	118	GLY	3.2
25	AO	2	GLY	3.2
19	DI	45	ILE	3.2
17	DG	48	ALA	3.2
30	DT	81	HIS	3.2
18	DH	122	GLY	3.2
23	DM	126	ARG	3.2
11	DA	1439	U	3.2
11	DA	1428	C	3.1
23	DM	26	ARG	3.1
19	DI	43	PRO	3.1
14	AD	10	LYS	3.1
25	CO	9	LYS	3.1
22	BL	28	ASP	3.1
10	D9	91	VAL	3.1
23	BM	147	VAL	3.1
29	DS	101	VAL	3.1
11	DA	1516	U	3.1
8	D7	27	ASP	3.1
18	AH	66	ILE	3.1
24	DN	2	PRO	3.1
15	CE	92	GLN	3.1
21	DK	151	LEU	3.1
11	DA	1606	C	3.1
19	DI	19	VAL	3.1
8	D7	44	ILE	3.1
17	DG	63	ILE	3.1
20	AJ	70	CYS	3.1

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Mol	Chain	Res	Type	RSRZ
11	DA	1229	U	3.1
11	DA	1508	G	3.1
14	AD	2	GLY	3.1
10	A9	91	VAL	3.0
29	DS	85	TYR	3.0
11	DA	1178	U	3.0
30	DT	88	ASP	3.0
15	BE	91	THR	3.0
31	DU	103	LEU	3.0
20	BJ	70	CYS	3.0
11	DA	1416	G	3.0
11	CA	229	A	3.0
17	CG	115	GLY	3.0
11	DA	1571	C	3.0
4	D3	74	LEU	3.0
11	DA	1171	G	3.0
19	CI	136	ALA	3.0
28	BR	29	ALA	3.0
30	DT	46	ALA	3.0
30	CT	91	ASN	2.9
30	DT	94	ASN	2.9
11	DA	1506	G	2.9
14	CD	10	LYS	2.9
21	CK	148	GLY	2.9
19	AI	131	CYS	2.9
14	AD	129	ILE	2.9
30	DT	56	TRP	2.9
11	DA	1142	G	2.9
11	DA	1447	C	2.9
25	CO	11	LYS	2.9
19	DI	127	GLU	2.9
24	AN	28	GLY	2.9
28	DR	53	ILE	2.9
30	DT	83	PHE	2.9
11	DA	1227	G	2.9
11	DA	1509	U	2.9
11	DA	1514	G	2.9
27	BQ	53	VAL	2.9
29	DS	87	SER	2.9
30	DT	22	TYR	2.9
11	DA	676	C	2.8
25	DO	9	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
31	DU	30	HIS	2.8
11	BA	1606	C	2.8
11	DA	1413	C	2.8
19	AI	137	ARG	2.8
29	CS	45	LYS	2.8
11	DA	1556	G	2.8
23	DM	30	ILE	2.8
11	DA	1541	A	2.8
11	DA	1241	U	2.8
11	DA	1498	U	2.8
30	DT	49	LEU	2.8
11	DA	1500	C	2.8
3	D2	2	GLY	2.8
30	DT	42	THR	2.8
11	DA	1421	G	2.8
11	DA	1586	A	2.8
29	DS	99	VAL	2.8
10	D9	88	HIS	2.7
29	DS	86	ARG	2.7
23	DM	132	LYS	2.7
11	DA	1199	G	2.7
11	DA	1415	A	2.7
17	DG	46	HIS	2.7
31	DU	15	VAL	2.7
19	DI	130	LYS	2.7
24	BN	27	GLN	2.7
14	BD	128	LEU	2.7
17	DG	137	ALA	2.7
24	DN	26	ARG	2.7
29	DS	116	MET	2.7
35	AY	69	VAL	2.7
11	BA	494	A	2.7
30	DT	104	LEU	2.7
9	D8	99	ASN	2.7
30	DT	68	VAL	2.7
11	DA	1422	C	2.7
19	AI	132	GLY	2.7
7	B6	11	GLU	2.7
7	D6	65	THR	2.7
33	BW	189	ASN	2.7
11	CA	573	A	2.7
11	DA	1228	A	2.7

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Mol	Chain	Res	Type	RSRZ
11	DA	1159	U	2.7
6	D5	19	ARG	2.7
29	CS	118	GLY	2.7
23	DM	138	THR	2.7
30	DT	64	LEU	2.7
17	DG	64	VAL	2.6
17	DG	76	ARG	2.6
23	DM	40	ARG	2.6
35	CY	179	ILE	2.6
19	CI	133	GLY	2.6
22	CL	28	ASP	2.6
27	BQ	67	GLY	2.6
7	A6	65	THR	2.6
11	CA	417	A	2.6
11	DA	1499	A	2.6
11	DA	1587	U	2.6
31	DU	83	LEU	2.6
11	DA	394	G	2.6
11	DA	1513	G	2.6
11	DA	1518	G	2.6
11	DA	1531	G	2.6
19	AI	138	SER	2.6
19	CI	131	CYS	2.6
17	CG	53	VAL	2.6
6	D5	2	PRO	2.6
30	DT	65	ALA	2.6
20	DJ	76	THR	2.6
13	BC	99	LEU	2.6
19	DI	138	SER	2.6
31	DU	46	VAL	2.6
11	DA	258	A	2.6
27	BQ	70	ILE	2.6
32	BV	5	ARG	2.6
11	BA	1257	U	2.6
11	DA	1507	U	2.6
11	DA	1529	U	2.6
33	AW	4	GLY	2.6
19	CI	34	ASN	2.6
27	BQ	31	VAL	2.6
17	DG	80	LYS	2.6
11	DA	1430	C	2.6
15	BE	90	GLN	2.6

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Mol	Chain	Res	Type	RSRZ
23	DM	44	TYR	2.6
11	DA	1174	A	2.6
24	DN	19	GLU	2.6
5	C4	68	VAL	2.6
4	A3	108	HIS	2.6
8	D7	41	HIS	2.6
28	DR	116	GLY	2.6
11	DA	1190	G	2.6
17	BG	155	GLU	2.6
8	D7	4	VAL	2.6
28	DR	51	VAL	2.6
28	DR	270	VAL	2.6
31	CU	15	VAL	2.6
11	DA	1476	A	2.6
17	DG	185	ALA	2.6
19	CI	143	ALA	2.6
19	DI	123	PRO	2.6
11	DA	331	U	2.6
23	DM	149	GLY	2.6
31	CU	84	GLY	2.6
13	AC	152	THR	2.5
23	DM	22	ILE	2.5
9	D8	63	VAL	2.5
11	BA	1416	G	2.5
11	DA	328	G	2.5
19	DI	143	ALA	2.5
32	DV	51	ALA	2.5
8	D7	13	TYR	2.5
23	AM	139	LYS	2.5
14	CD	16	ARG	2.5
11	DA	1158	U	2.5
17	DG	104	LEU	2.5
30	CT	94	ASN	2.5
29	DS	61	PHE	2.5
15	AE	94	GLY	2.5
7	D6	23	ILE	2.5
30	DT	103	ILE	2.5
35	CY	124	LEU	2.5
11	DA	1452	G	2.5
11	CA	1418	C	2.5
27	AQ	14	GLY	2.5
7	C6	50	SER	2.5

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Mol	Chain	Res	Type	RSRZ
29	DS	125	ALA	2.5
30	DT	87	LYS	2.5
23	DM	142	GLY	2.5
23	DM	133	VAL	2.5
11	AA	393	C	2.5
11	CA	393	C	2.5
11	DA	1177	C	2.5
11	DA	1224	C	2.5
11	CA	1416	G	2.5
11	DA	1526	G	2.5
32	CV	18	GLU	2.5
36	BZ	97	GLU	2.5
11	DA	1188	A	2.5
14	CD	6	ILE	2.5
17	DG	94	ILE	2.5
22	DL	4	GLY	2.5
3	D2	21	HIS	2.4
6	C5	60	GLU	2.4
30	DT	48	GLU	2.4
7	C6	23	ILE	2.4
32	DV	5	ARG	2.4
20	DJ	71	GLY	2.4
23	DM	145	GLY	2.4
29	DS	97	GLY	2.4
11	DA	1522	U	2.4
10	B9	91	VAL	2.4
11	DA	1182	G	2.4
11	DA	1242	G	2.4
11	DA	1426	G	2.4
11	DA	1450	G	2.4
7	B6	23	ILE	2.4
20	BJ	72	GLU	2.4
26	CP	107	GLU	2.4
14	DD	130	ARG	2.4
24	AN	27	GLN	2.4
24	DN	3	ASN	2.4
30	DT	52	GLN	2.4
23	DM	76	PRO	2.4
21	BK	102	GLY	2.4
12	CB	94	THR	2.4
28	BR	73	THR	2.4
35	DY	151	ASP	2.4

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Mol	Chain	Res	Type	RSRZ
22	CL	31	LYS	2.4
24	DN	15	LYS	2.4
21	BK	47	LEU	2.4
23	DM	122	HIS	2.4
11	DA	1181	C	2.4
11	DA	1412	C	2.4
11	DA	1544	G	2.4
10	A9	94	LYS	2.4
25	AO	9	LYS	2.4
3	A2	134	ASP	2.4
31	DU	45	CYS	2.4
28	AR	295	GLU	2.4
12	DB	108	GLN	2.4
28	DR	262	ALA	2.4
17	DG	159	LYS	2.4
31	DU	102	SER	2.4
26	CP	25	VAL	2.4
11	DA	1510	U	2.4
29	DS	94	LEU	2.4
11	CA	416	C	2.4
11	DA	312	C	2.4
14	AD	16	ARG	2.4
3	B2	186	ALA	2.4
13	AC	153	MET	2.4
15	BE	88	GLN	2.4
22	CL	88	MET	2.4
34	AX	72	ALA	2.4
27	BQ	125	GLY	2.4
17	DG	158	PHE	2.4
3	A2	17	ARG	2.4
19	DI	70	ARG	2.4
27	DQ	13	ASP	2.4
29	DS	58	TYR	2.4
15	CE	93	ALA	2.4
14	BD	10	LYS	2.4
29	DS	119	LYS	2.4
31	DU	4	GLN	2.3
3	B2	69	CYS	2.3
19	DI	135	GLY	2.3
11	DA	1179	C	2.3
26	BP	4	VAL	2.3
29	DS	95	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
7	B6	68	LYS	2.3
11	DA	1512	G	2.3
32	DV	23	LYS	2.3
26	BP	33	ALA	2.3
30	DT	15	ALA	2.3
30	DT	98	ALA	2.3
19	AI	135	GLY	2.3
24	DN	5	LEU	2.3
19	BI	42	ASN	2.3
6	B5	19	ARG	2.3
11	DA	1147	U	2.3
11	DA	1384	U	2.3
11	CA	1511	A	2.3
11	DA	1216	A	2.3
11	DA	1231	C	2.3
25	AO	112	ASP	2.3
17	DG	67	LEU	2.3
10	D9	96	GLY	2.3
33	BW	206	SER	2.3
23	DM	33	THR	2.3
11	DA	1141	G	2.3
11	DA	1263	G	2.3
26	CP	62	TYR	2.3
26	BP	42	LEU	2.3
21	DK	104	GLU	2.3
31	DU	74	PRO	2.3
19	DI	33	VAL	2.3
21	CK	54	VAL	2.3
4	A3	194	THR	2.3
10	B9	78	LYS	2.3
11	BA	1511	A	2.3
20	DJ	66	ARG	2.3
11	CA	1596	C	2.3
11	DA	416	C	2.3
17	DG	153	CYS	2.3
30	DT	99	CYS	2.3
17	DG	32	TYR	2.3
23	DM	17	ILE	2.3
35	AY	33	GLY	2.3
8	C7	41	HIS	2.3
19	BI	139	LYS	2.3
5	B4	49	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
31	DU	33	LEU	2.3
15	BE	73	ALA	2.3
33	BW	221	ALA	2.3
11	CA	230	A	2.3
11	DA	1442	A	2.3
11	DA	1443	A	2.3
11	DA	1545	A	2.3
13	AC	185	MET	2.3
23	DM	41	ARG	2.3
7	C6	27	ASN	2.2
10	B9	88	HIS	2.2
28	DR	269	TRP	2.2
35	CY	113	ILE	2.2
23	DM	43	ALA	2.2
1	B0	67	LYS	2.2
15	AE	120	LYS	2.2
25	DO	88	GLU	2.2
11	BA	328	G	2.2
11	DA	1414	U	2.2
11	DA	1449	G	2.2
24	DN	55	ARG	2.2
28	BR	304	GLY	2.2
29	DS	83	THR	2.2
30	AT	91	ASN	2.2
30	DT	59	ILE	2.2
11	DA	1417	A	2.2
17	DG	110	ALA	2.2
11	AA	447	C	2.2
11	DA	225	C	2.2
11	DA	1521	C	2.2
15	CE	120	LYS	2.2
26	CP	78	GLN	2.2
30	BT	95	LYS	2.2
29	DS	126	MET	2.2
33	BW	205	GLY	2.2
10	D9	140	THR	2.2
29	DS	127	THR	2.2
27	BQ	157	PHE	2.2
11	CA	1257	U	2.2
11	BA	1661	G	2.2
11	CA	507	G	2.2
11	DA	1473	G	2.2

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Mol	Chain	Res	Type	RSRZ
26	BP	26	LEU	2.2
7	C6	65	THR	2.2
24	CN	8	THR	2.2
31	BU	43	PHE	2.2
11	DA	1145	C	2.2
11	DA	1553	C	2.2
19	BI	130	LYS	2.2
23	DM	23	ASP	2.2
3	B2	21	HIS	2.2
17	DG	74	HIS	2.2
23	DM	84	TRP	2.2
15	AE	92	GLN	2.2
30	DT	140	LEU	2.2
20	AJ	73	GLY	2.2
20	BJ	113	GLU	2.2
30	BT	76	ILE	2.2
11	DA	1203	U	2.2
11	DA	1262	U	2.2
35	CY	85	THR	2.2
3	C2	29	LYS	2.2
35	CY	56	ASN	2.2
15	AE	93	ALA	2.2
25	DO	6	MET	2.2
6	D5	11	SER	2.2
11	CA	1189	A	2.2
11	DA	1425	G	2.2
11	DA	1559	A	2.2
14	DD	9	SER	2.2
23	DM	123	ARG	2.2
32	AV	5	ARG	2.2
11	DA	1411	C	2.2
23	DM	34	GLY	2.2
23	DM	42	PHE	2.2
24	CN	19	GLU	2.2
14	DD	8	THR	2.2
20	DJ	102	THR	2.2
32	BV	7	LYS	2.2
14	BD	176	ASN	2.2
13	DC	169	ASP	2.1
11	DA	1744	U	2.1
24	CN	27	GLN	2.1
21	CK	37	TRP	2.1

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Mol	Chain	Res	Type	RSRZ
18	BH	47	ILE	2.1
29	DS	120	TYR	2.1
13	CC	146	LYS	2.1
17	CG	127	GLY	2.1
6	B5	92	GLU	2.1
11	DA	1202	A	2.1
3	B2	13	ALA	2.1
28	CR	83	ALA	2.1
19	DI	72	ARG	2.1
25	AO	129	ARG	2.1
11	BA	416	C	2.1
30	CT	97	GLN	2.1
32	AV	69	ILE	2.1
4	B3	104	TRP	2.1
19	BI	132	GLY	2.1
19	DI	132	GLY	2.1
3	B2	28	GLU	2.1
11	CA	164	U	2.1
19	BI	143	ALA	2.1
28	BR	125	ALA	2.1
29	DS	49	ARG	2.1
36	DZ	74	ARG	2.1
35	CY	86	SER	2.1
14	BD	134	ILE	2.1
19	DI	41	ILE	2.1
19	AI	139	LYS	2.1
29	DS	108	VAL	2.1
33	BW	203	HIS	2.1
35	BY	178	LYS	2.1
11	DA	1143	A	2.1
11	DA	1493	A	2.1
11	DA	1527	A	2.1
7	C6	62	CYS	2.1
13	DC	162	CYS	2.1
8	D7	45	LEU	2.1
19	CI	127	GLU	2.1
35	AY	79	GLU	2.1
10	C9	86	THR	2.1
11	DA	932	G	2.1
11	DA	1184	G	2.1
19	DI	77	THR	2.1
6	B5	28	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
18	BH	58	SER	2.1
15	CE	56	LYS	2.1
9	D8	43	VAL	2.1
17	DG	136	VAL	2.1
28	DR	28	VAL	2.1
31	BU	29	LEU	2.1
3	B2	175	CYS	2.1
15	AE	121	GLU	2.1
30	CT	48	GLU	2.1
3	D2	17	ARG	2.1
14	BD	16	ARG	2.1
2	D1	48	ALA	2.1
11	BA	1709	A	2.1
11	CA	617	A	2.1
11	DA	1569	A	2.1
19	AI	136	ALA	2.1
27	BQ	124	ALA	2.1
30	DT	76	ILE	2.1
4	D3	36	SER	2.1
15	DE	120	LYS	2.1
17	DG	87	VAL	2.1
33	BW	229	VAL	2.1
21	CK	116	LEU	2.1
11	CA	447	C	2.1
11	DA	1501	C	2.1
8	C7	27	ASP	2.1
11	CA	224	G	2.1
11	DA	1186	G	2.1
11	DA	1201	G	2.1
25	BO	8	GLY	2.1
19	DI	125	ARG	2.1
9	D8	45	ILE	2.1
10	D9	84	LYS	2.1
19	AI	141	GLN	2.1
33	BW	228	PHE	2.1
10	D9	90	HIS	2.0
11	BA	235	A	2.0
11	CA	499	A	2.0
14	DD	12	TYR	2.0
6	D5	92	GLU	2.0
26	BP	6	ARG	2.0
28	DR	29	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
2	D1	14	VAL	2.0
11	CA	228	C	2.0
11	DA	1160	G	2.0
11	DA	1720	G	2.0
34	CX	1	MET	2.0
24	BN	14	GLY	2.0
24	CN	14	GLY	2.0
31	DU	84	GLY	2.0
4	C3	106	LYS	2.0
23	DM	25	LYS	2.0
3	D2	28	GLU	2.0
31	CU	67	GLU	2.0
35	CY	186	GLU	2.0
5	C4	89	LEU	2.0
5	D4	213	LEU	2.0
25	CO	39	SER	2.0
33	CW	20	LEU	2.0
11	CA	1175	A	2.0
11	CA	1709	A	2.0
11	DA	96	A	2.0
11	DA	1458	A	2.0
18	DH	4	VAL	2.0
14	DD	16	ARG	2.0
17	CG	75	GLY	2.0
30	CT	95	LYS	2.0
33	CW	6	LYS	2.0
19	DI	144	TYR	2.0
11	DA	1218	C	2.0
11	DA	1563	C	2.0
8	D7	28	PHE	2.0
14	CD	118	LEU	2.0
30	DT	112	GLU	2.0
14	CD	9	SER	2.0
17	DG	82	ALA	2.0
25	DO	112	ASP	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
38	MG	DA	5016	1/1	0.24	0.10	191,191,191,191	0
38	MG	DA	5029	1/1	0.25	0.24	217,217,217,217	0
38	MG	DA	5071	1/1	0.25	0.15	238,238,238,238	0
38	MG	CA	5053	1/1	0.27	0.23	246,246,246,246	0
38	MG	DA	5078	1/1	0.27	0.28	241,241,241,241	0
38	MG	AA	5073	1/1	0.28	0.24	205,205,205,205	0
38	MG	DA	5070	1/1	0.32	0.21	251,251,251,251	0
38	MG	DA	5013	1/1	0.33	0.16	218,218,218,218	0
38	MG	BA	5071	1/1	0.33	0.25	215,215,215,215	0
38	MG	DA	5006	1/1	0.34	0.21	159,159,159,159	0
38	MG	DA	5048	1/1	0.37	0.19	222,222,222,222	0
38	MG	DA	5066	1/1	0.39	0.24	251,251,251,251	0
38	MG	CA	5077	1/1	0.43	0.20	222,222,222,222	0
38	MG	CA	5016	1/1	0.44	0.17	195,195,195,195	0
38	MG	BA	5013	1/1	0.44	0.17	182,182,182,182	0
38	MG	AA	5071	1/1	0.44	0.25	212,212,212,212	0
38	MG	DA	5053	1/1	0.46	0.18	256,256,256,256	0
38	MG	BA	5067	1/1	0.47	0.18	227,227,227,227	0
38	MG	BA	5078	1/1	0.49	0.29	232,232,232,232	0
38	MG	CA	5014	1/1	0.51	0.31	232,232,232,232	0
38	MG	DA	5077	1/1	0.51	0.13	235,235,235,235	0
38	MG	AA	5067	1/1	0.51	0.15	194,194,194,194	0
38	MG	DA	5034	1/1	0.52	0.17	220,220,220,220	0
38	MG	BA	5031	1/1	0.52	0.15	205,205,205,205	0
38	MG	AA	5014	1/1	0.53	0.22	220,220,220,220	0
38	MG	CA	5021	1/1	0.53	0.23	201,201,201,201	0
38	MG	CA	5010	1/1	0.53	0.11	212,212,212,212	0
38	MG	AA	5077	1/1	0.53	0.20	198,198,198,198	0
38	MG	DA	5056	1/1	0.54	0.81	238,238,238,238	0
38	MG	CA	5073	1/1	0.54	0.19	208,208,208,208	0
38	MG	CA	5071	1/1	0.55	0.21	190,190,190,190	0
38	MG	BA	5073	1/1	0.57	0.18	179,179,179,179	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
38	MG	AA	5013	1/1	0.57	0.14	222,222,222,222	0
38	MG	BA	5059	1/1	0.57	0.11	206,206,206,206	0
38	MG	DA	5035	1/1	0.57	0.13	196,196,196,196	0
38	MG	AA	5059	1/1	0.58	0.13	220,220,220,220	0
38	MG	DA	5031	1/1	0.58	0.19	218,218,218,218	0
38	MG	CA	5013	1/1	0.58	0.13	174,174,174,174	0
38	MG	BA	5029	1/1	0.59	0.16	231,231,231,231	0
38	MG	AA	5078	1/1	0.59	0.20	207,207,207,207	0
38	MG	CA	5029	1/1	0.59	0.16	206,206,206,206	0
38	MG	BA	5014	1/1	0.59	0.15	192,192,192,192	0
38	MG	BA	5075	1/1	0.59	0.13	176,176,176,176	0
38	MG	DA	5019	1/1	0.59	0.25	184,184,184,184	0
38	MG	DA	5052	1/1	0.60	0.07	218,218,218,218	0
38	MG	DA	5043	1/1	0.60	0.22	197,197,197,197	0
38	MG	BA	5032	1/1	0.61	0.24	175,175,175,175	0
38	MG	BA	5056	1/1	0.61	0.39	200,200,200,200	0
38	MG	BA	5016	1/1	0.61	0.12	237,237,237,237	0
38	MG	DA	5058	1/1	0.62	0.20	227,227,227,227	0
38	MG	CA	5067	1/1	0.62	0.14	199,199,199,199	0
38	MG	DA	5014	1/1	0.63	0.13	206,206,206,206	0
38	MG	BA	5043	1/1	0.64	0.17	200,200,200,200	0
38	MG	DA	5076	1/1	0.64	0.13	201,201,201,201	0
38	MG	CA	5028	1/1	0.65	0.19	184,184,184,184	0
38	MG	BA	5058	1/1	0.65	0.17	169,169,169,169	0
38	MG	BA	5017	1/1	0.65	0.33	197,197,197,197	0
38	MG	AA	5043	1/1	0.65	0.13	174,174,174,174	0
38	MG	CA	5057	1/1	0.66	0.23	191,191,191,191	0
38	MG	DA	5020	1/1	0.66	0.20	199,199,199,199	0
38	MG	DA	5037	1/1	0.67	0.17	178,178,178,178	0
38	MG	DA	5062	1/1	0.67	0.12	213,213,213,213	0
38	MG	BA	5062	1/1	0.67	0.18	219,219,219,219	0
38	MG	DA	5032	1/1	0.67	0.17	174,174,174,174	0
38	MG	CA	5008	1/1	0.69	0.14	179,179,179,179	0
38	MG	AA	5058	1/1	0.69	0.16	160,160,160,160	0
38	MG	DA	5017	1/1	0.69	0.20	192,192,192,192	0
38	MG	DA	5075	1/1	0.69	0.14	239,239,239,239	0
38	MG	CA	5078	1/1	0.69	0.28	199,199,199,199	0
38	MG	CA	5031	1/1	0.69	0.12	231,231,231,231	0
38	MG	CA	5038	1/1	0.69	0.17	173,173,173,173	0
38	MG	CA	5076	1/1	0.70	0.10	172,172,172,172	0
38	MG	DA	5045	1/1	0.70	0.20	197,197,197,197	0
38	MG	CA	5035	1/1	0.70	0.12	158,158,158,158	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
38	MG	DA	5026	1/1	0.70	0.20	208,208,208,208	0
38	MG	DA	5042	1/1	0.70	0.14	177,177,177,177	0
38	MG	BA	5046	1/1	0.71	0.18	182,182,182,182	0
38	MG	CA	5043	1/1	0.71	0.22	218,218,218,218	0
38	MG	CA	5048	1/1	0.71	0.14	208,208,208,208	0
38	MG	DA	5068	1/1	0.71	0.17	169,169,169,169	0
38	MG	AA	5030	1/1	0.71	0.19	271,271,271,271	0
38	MG	DA	5049	1/1	0.72	0.23	207,207,207,207	0
38	MG	CA	5061	1/1	0.72	0.17	136,136,136,136	0
38	MG	DA	5038	1/1	0.72	0.18	191,191,191,191	0
38	MG	DA	5073	1/1	0.72	0.14	221,221,221,221	0
38	MG	CA	5037	1/1	0.72	0.15	178,178,178,178	0
38	MG	CA	5032	1/1	0.72	0.10	186,186,186,186	0
38	MG	CA	5056	1/1	0.72	0.37	200,200,200,200	0
38	MG	CA	5006	1/1	0.72	0.10	170,170,170,170	0
38	MG	BA	5001	1/1	0.73	0.15	135,135,135,135	0
38	MG	CA	5036	1/1	0.73	0.09	193,193,193,193	0
38	MG	BA	5053	1/1	0.74	0.39	231,231,231,231	0
38	MG	AA	5048	1/1	0.74	0.26	213,213,213,213	0
38	MG	BA	5034	1/1	0.74	0.12	174,174,174,174	0
38	MG	BA	5077	1/1	0.74	0.16	199,199,199,199	0
38	MG	DA	5059	1/1	0.74	0.11	205,205,205,205	0
38	MG	DA	5069	1/1	0.75	0.20	199,199,199,199	0
38	MG	CA	5062	1/1	0.75	0.10	188,188,188,188	0
38	MG	BA	5021	1/1	0.75	0.18	191,191,191,191	0
38	MG	BA	5049	1/1	0.75	0.17	210,210,210,210	0
38	MG	AA	5049	1/1	0.75	0.22	167,167,167,167	0
38	MG	BA	5069	1/1	0.75	0.18	123,123,123,123	0
38	MG	AA	5053	1/1	0.75	0.24	222,222,222,222	0
38	MG	BA	5045	1/1	0.75	0.12	164,164,164,164	0
38	MG	DA	5011	1/1	0.76	0.12	187,187,187,187	0
38	MG	CA	5059	1/1	0.76	0.10	206,206,206,206	0
38	MG	CA	5030	1/1	0.76	0.16	224,224,224,224	0
38	MG	BA	5070	1/1	0.76	0.15	143,143,143,143	0
38	MG	AA	5027	1/1	0.76	0.13	208,208,208,208	0
38	MG	AA	5056	1/1	0.76	0.29	163,163,163,163	0
38	MG	CA	5004	1/1	0.77	0.20	203,203,203,203	0
38	MG	AA	5055	1/1	0.77	0.13	150,150,150,150	0
38	MG	CA	5026	1/1	0.77	0.14	177,177,177,177	0
38	MG	AA	5029	1/1	0.77	0.12	161,161,161,161	0
38	MG	CA	5034	1/1	0.77	0.13	178,178,178,178	0
38	MG	CA	5045	1/1	0.77	0.11	207,207,207,207	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
38	MG	DA	5054	1/1	0.77	0.12	169,169,169,169	0
38	MG	CA	5017	1/1	0.78	0.19	165,165,165,165	0
38	MG	DA	5001	1/1	0.78	0.14	159,159,159,159	0
38	MG	BA	5030	1/1	0.78	0.29	252,252,252,252	0
38	MG	AA	5076	1/1	0.78	0.11	189,189,189,189	0
38	MG	AA	5034	1/1	0.79	0.18	186,186,186,186	0
38	MG	AA	5045	1/1	0.79	0.10	186,186,186,186	0
38	MG	AA	5069	1/1	0.79	0.13	147,147,147,147	0
38	MG	CA	5070	1/1	0.79	0.13	134,134,134,134	0
38	MG	BA	5074	1/1	0.79	0.18	153,153,153,153	0
38	MG	CA	5042	1/1	0.79	0.12	183,183,183,183	0
38	MG	CA	5058	1/1	0.79	0.14	178,178,178,178	0
38	MG	CA	5005	1/1	0.79	0.14	153,153,153,153	0
38	MG	BA	5004	1/1	0.80	0.25	234,234,234,234	0
38	MG	DA	5063	1/1	0.80	0.10	141,141,141,141	0
38	MG	DA	5021	1/1	0.80	0.23	189,189,189,189	0
38	MG	CA	5049	1/1	0.80	0.29	201,201,201,201	0
38	MG	DA	5067	1/1	0.81	0.17	220,220,220,220	0
38	MG	DA	5008	1/1	0.81	0.10	170,170,170,170	0
38	MG	CA	5012	1/1	0.81	0.12	123,123,123,123	0
38	MG	BA	5037	1/1	0.81	0.12	185,185,185,185	0
38	MG	CA	5022	1/1	0.81	0.11	135,135,135,135	0
38	MG	DA	5030	1/1	0.81	0.08	229,229,229,229	0
38	MG	AA	5046	1/1	0.81	0.12	135,135,135,135	0
38	MG	DA	5046	1/1	0.81	0.14	148,148,148,148	0
38	MG	CA	5027	1/1	0.81	0.09	185,185,185,185	0
38	MG	BA	5020	1/1	0.81	0.12	200,200,200,200	0
38	MG	DA	5057	1/1	0.82	0.15	178,178,178,178	0
38	MG	BA	5054	1/1	0.82	0.15	135,135,135,135	0
38	MG	AA	5062	1/1	0.82	0.10	160,160,160,160	0
38	MG	CA	5075	1/1	0.82	0.11	157,157,157,157	0
38	MG	DA	5064	1/1	0.83	0.10	186,186,186,186	0
38	MG	BA	5011	1/1	0.83	0.14	136,136,136,136	0
38	MG	BA	5042	1/1	0.83	0.08	210,210,210,210	0
38	MG	DA	5036	1/1	0.84	0.12	199,199,199,199	0
38	MG	AA	5032	1/1	0.84	0.12	170,170,170,170	0
38	MG	CA	5069	1/1	0.84	0.11	129,129,129,129	0
38	MG	AA	5004	1/1	0.84	0.15	194,194,194,194	0
38	MG	BA	5006	1/1	0.84	0.11	175,175,175,175	0
38	MG	DA	5010	1/1	0.84	0.10	201,201,201,201	0
38	MG	DA	5004	1/1	0.85	0.14	167,167,167,167	0
38	MG	BA	5048	1/1	0.85	0.20	151,151,151,151	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
38	MG	BA	5061	1/1	0.85	0.12	132,132,132,132	0
38	MG	BA	5039	1/1	0.85	0.08	110,110,110,110	0
38	MG	AA	5016	1/1	0.85	0.07	167,167,167,167	0
38	MG	AA	5057	1/1	0.85	0.10	170,170,170,170	0
38	MG	DA	5074	1/1	0.85	0.11	198,198,198,198	0
38	MG	AA	5010	1/1	0.85	0.09	184,184,184,184	0
38	MG	DA	5015	1/1	0.85	0.12	118,118,118,118	0
38	MG	CA	5052	1/1	0.85	0.07	146,146,146,146	0
38	MG	AA	5031	1/1	0.85	0.10	190,190,190,190	0
38	MG	AA	5020	1/1	0.86	0.27	171,171,171,171	0
38	MG	AA	5022	1/1	0.86	0.11	128,128,128,128	0
38	MG	DA	5003	1/1	0.86	0.15	175,175,175,175	0
38	MG	AA	5070	1/1	0.86	0.14	144,144,144,144	0
38	MG	AA	5036	1/1	0.86	0.09	176,176,176,176	0
38	MG	CA	5074	1/1	0.86	0.08	148,148,148,148	0
38	MG	AA	5040	1/1	0.86	0.09	121,121,121,121	0
38	MG	BA	5005	1/1	0.86	0.13	146,146,146,146	0
38	MG	BA	5033	1/1	0.86	0.11	146,146,146,146	0
38	MG	BA	5076	1/1	0.87	0.13	172,172,172,172	0
38	MG	CA	5009	1/1	0.87	0.10	127,127,127,127	0
38	MG	AA	5037	1/1	0.87	0.11	173,173,173,173	0
38	MG	AA	5006	1/1	0.87	0.08	128,128,128,128	0
38	MG	BA	5064	1/1	0.87	0.10	134,134,134,134	0
37	ZN	D9	500	1/1	0.87	0.08	278,278,278,278	0
38	MG	AA	5028	1/1	0.87	0.12	176,176,176,176	0
38	MG	AA	5005	1/1	0.88	0.18	131,131,131,131	0
38	MG	CA	5060	1/1	0.88	0.22	170,170,170,170	0
38	MG	BA	5052	1/1	0.88	0.09	144,144,144,144	0
38	MG	AA	5017	1/1	0.88	0.25	201,201,201,201	0
38	MG	AA	5019	1/1	0.88	0.12	136,136,136,136	0
38	MG	AA	5042	1/1	0.88	0.06	200,200,200,200	0
38	MG	CA	5020	1/1	0.88	0.11	154,154,154,154	0
38	MG	BA	5057	1/1	0.88	0.14	144,144,144,144	0
38	MG	AA	5035	1/1	0.88	0.13	137,137,137,137	0
38	MG	BA	5026	1/1	0.88	0.09	159,159,159,159	0
38	MG	BA	5035	1/1	0.88	0.10	153,153,153,153	0
38	MG	DA	5065	1/1	0.88	0.11	146,146,146,146	0
38	MG	CA	5039	1/1	0.89	0.11	123,123,123,123	0
38	MG	CA	5040	1/1	0.89	0.08	139,139,139,139	0
38	MG	BA	5022	1/1	0.89	0.14	115,115,115,115	0
38	MG	AA	5023	1/1	0.89	0.09	122,122,122,122	0
38	MG	DA	5060	1/1	0.89	0.14	148,148,148,148	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
38	MG	AA	5021	1/1	0.89	0.13	177,177,177,177	0
38	MG	DA	5007	1/1	0.89	0.09	142,142,142,142	0
38	MG	DA	5028	1/1	0.90	0.19	163,163,163,163	0
38	MG	DA	5040	1/1	0.90	0.13	161,161,161,161	0
38	MG	AA	5061	1/1	0.90	0.10	108,108,108,108	0
38	MG	AA	5008	1/1	0.90	0.13	154,154,154,154	0
38	MG	DA	5044	1/1	0.90	0.10	134,134,134,134	0
38	MG	AA	5066	1/1	0.90	0.08	172,172,172,172	0
38	MG	CA	5051	1/1	0.90	0.08	126,126,126,126	0
38	MG	BA	5047	1/1	0.90	0.12	115,115,115,115	0
38	MG	BA	5038	1/1	0.90	0.13	165,165,165,165	0
38	MG	AA	5011	1/1	0.90	0.08	137,137,137,137	0
38	MG	BA	5027	1/1	0.90	0.08	161,161,161,161	0
38	MG	CA	5050	1/1	0.91	0.08	135,135,135,135	0
38	MG	CA	5024	1/1	0.91	0.08	123,123,123,123	0
38	MG	BA	5041	1/1	0.91	0.18	119,119,119,119	0
38	MG	DA	5061	1/1	0.91	0.09	132,132,132,132	0
38	MG	AA	5075	1/1	0.91	0.10	155,155,155,155	0
38	MG	AA	5054	1/1	0.91	0.11	112,112,112,112	0
38	MG	DA	5041	1/1	0.91	0.12	162,162,162,162	0
38	MG	CA	5063	1/1	0.91	0.11	101,101,101,101	0
38	MG	CA	5065	1/1	0.91	0.09	158,158,158,158	0
38	MG	CA	5023	1/1	0.91	0.09	110,110,110,110	0
38	MG	BA	5051	1/1	0.92	0.10	130,130,130,130	0
38	MG	BA	5036	1/1	0.92	0.05	177,177,177,177	0
38	MG	DA	5025	1/1	0.92	0.08	105,105,105,105	0
38	MG	AA	5065	1/1	0.92	0.07	170,170,170,170	0
38	MG	CA	5011	1/1	0.92	0.06	128,128,128,128	0
38	MG	AA	5026	1/1	0.92	0.08	153,153,153,153	0
38	MG	AA	5063	1/1	0.93	0.12	112,112,112,112	0
38	MG	BA	5024	1/1	0.93	0.07	106,106,106,106	0
38	MG	DA	5018	1/1	0.93	0.08	104,104,104,104	0
38	MG	CA	5019	1/1	0.93	0.09	114,114,114,114	0
38	MG	CA	5054	1/1	0.93	0.09	120,120,120,120	0
38	MG	DA	5072	1/1	0.93	0.10	146,146,146,146	0
38	MG	CA	5064	1/1	0.93	0.09	133,133,133,133	0
38	MG	BA	5008	1/1	0.93	0.17	125,125,125,125	0
38	MG	DA	5050	1/1	0.93	0.11	123,123,123,123	0
38	MG	AA	5041	1/1	0.93	0.09	127,127,127,127	0
38	MG	BA	5012	1/1	0.93	0.09	90,90,90,90	0
38	MG	AA	5003	1/1	0.93	0.19	120,120,120,120	0
38	MG	CA	5033	1/1	0.94	0.11	123,123,123,123	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
38	MG	CA	5046	1/1	0.94	0.08	138,138,138,138	0
38	MG	CA	5047	1/1	0.94	0.08	169,169,169,169	0
38	MG	AA	5060	1/1	0.94	0.20	137,137,137,137	0
38	MG	CA	5001	1/1	0.94	0.13	116,116,116,116	0
38	MG	DA	5051	1/1	0.94	0.07	162,162,162,162	0
38	MG	AA	5038	1/1	0.94	0.11	162,162,162,162	0
38	MG	DA	5000	1/1	0.94	0.06	107,107,107,107	0
38	MG	BA	5010	1/1	0.94	0.07	156,156,156,156	0
38	MG	BA	5028	1/1	0.94	0.06	159,159,159,159	0
38	MG	AA	5052	1/1	0.94	0.06	141,141,141,141	0
38	MG	AA	5068	1/1	0.94	0.13	112,112,112,112	0
38	MG	DA	5023	1/1	0.94	0.07	127,127,127,127	0
38	MG	DA	5024	1/1	0.94	0.07	144,144,144,144	0
38	MG	BA	5066	1/1	0.94	0.07	104,104,104,104	0
38	MG	AA	5001	1/1	0.94	0.09	106,106,106,106	0
38	MG	CA	5068	1/1	0.95	0.09	98,98,98,98	0
38	MG	DA	5039	1/1	0.95	0.07	120,120,120,120	0
38	MG	DA	5027	1/1	0.95	0.05	162,162,162,162	0
38	MG	AA	5025	1/1	0.95	0.23	96,96,96,96	0
38	MG	DA	5055	1/1	0.95	0.05	152,152,152,152	0
38	MG	AA	5051	1/1	0.95	0.06	111,111,111,111	0
38	MG	AA	5064	1/1	0.95	0.05	153,153,153,153	0
38	MG	CA	5015	1/1	0.95	0.07	80,80,80,80	0
38	MG	DA	5012	1/1	0.95	0.07	118,118,118,118	0
38	MG	DA	5022	1/1	0.95	0.05	108,108,108,108	0
38	MG	DA	5047	1/1	0.95	0.06	128,128,128,128	0
38	MG	CA	5066	1/1	0.95	0.07	130,130,130,130	0
38	MG	BA	5000	1/1	0.95	0.09	91,91,91,91	0
38	MG	DA	5005	1/1	0.95	0.19	123,123,123,123	0
38	MG	AA	5015	1/1	0.96	0.07	88,88,88,88	0
38	MG	BA	5019	1/1	0.96	0.15	163,163,163,163	0
38	MG	AA	5050	1/1	0.96	0.07	104,104,104,104	0
38	MG	AA	5012	1/1	0.96	0.07	102,102,102,102	0
38	MG	CA	5025	1/1	0.96	0.06	100,100,100,100	0
38	MG	DA	5033	1/1	0.96	0.06	122,122,122,122	0
38	MG	AA	5033	1/1	0.96	0.08	143,143,143,143	0
38	MG	DA	5002	1/1	0.96	0.11	111,111,111,111	0
38	MG	CA	5003	1/1	0.96	0.07	135,135,135,135	0
38	MG	AA	5074	1/1	0.96	0.08	113,113,113,113	0
38	MG	BA	5040	1/1	0.96	0.07	121,121,121,121	0
38	MG	BA	5060	1/1	0.96	0.16	158,158,158,158	0
38	MG	CA	5044	1/1	0.96	0.06	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
38	MG	CA	5072	1/1	0.96	0.06	110,110,110,110	0
38	MG	DA	5009	1/1	0.96	0.05	110,110,110,110	0
38	MG	CA	5007	1/1	0.96	0.07	97,97,97,97	0
38	MG	BA	5009	1/1	0.96	0.07	96,96,96,96	0
38	MG	BA	5068	1/1	0.97	0.08	82,82,82,82	0
38	MG	AA	5047	1/1	0.97	0.06	112,112,112,112	0
38	MG	BA	5023	1/1	0.97	0.06	115,115,115,115	0
38	MG	BA	5007	1/1	0.97	0.06	106,106,106,106	0
38	MG	BA	5025	1/1	0.97	0.13	93,93,93,93	0
37	ZN	D6	500	1/1	0.97	0.04	173,173,173,173	0
37	ZN	C9	1165	1/1	0.97	0.05	159,159,159,159	0
38	MG	BA	5018	1/1	0.97	0.15	90,90,90,90	0
38	MG	BA	5050	1/1	0.97	0.06	123,123,123,123	0
38	MG	BA	5003	1/1	0.97	0.19	138,138,138,138	0
38	MG	CA	5041	1/1	0.97	0.08	130,130,130,130	0
38	MG	CA	5000	1/1	0.97	0.07	85,85,85,85	0
38	MG	AA	5018	1/1	0.97	0.08	85,85,85,85	0
37	ZN	DN	500	1/1	0.97	0.04	132,132,132,132	0
38	MG	BA	5072	1/1	0.98	0.05	91,91,91,91	0
37	ZN	A9	500	1/1	0.98	0.04	218,218,218,218	0
38	MG	BA	5063	1/1	0.98	0.07	82,82,82,82	0
38	MG	BA	5055	1/1	0.98	0.06	88,88,88,88	0
38	MG	CA	5018	1/1	0.98	0.05	95,95,95,95	0
38	MG	AA	5072	1/1	0.98	0.07	113,113,113,113	0
37	ZN	B9	500	1/1	0.98	0.04	148,148,148,148	0
38	MG	AA	5000	1/1	0.98	0.04	78,78,78,78	0
38	MG	BA	5015	1/1	0.98	0.07	87,87,87,87	0
38	MG	AA	5009	1/1	0.98	0.05	104,104,104,104	0
38	MG	AA	5039	1/1	0.98	0.09	109,109,109,109	0
38	MG	AA	5044	1/1	0.99	0.04	93,93,93,93	0
37	ZN	AN	500	1/1	0.99	0.02	124,124,124,124	0
38	MG	CA	5055	1/1	0.99	0.04	126,126,126,126	0
38	MG	BA	5065	1/1	0.99	0.06	89,89,89,89	0
38	MG	AA	5002	1/1	0.99	0.07	86,86,86,86	0
37	ZN	CN	1056	1/1	0.99	0.02	94,94,94,94	0
38	MG	CA	5002	1/1	0.99	0.03	88,88,88,88	0
37	ZN	B5	500	1/1	0.99	0.02	71,71,71,71	0
38	MG	BA	5044	1/1	0.99	0.07	88,88,88,88	0
37	ZN	A6	500	1/1	0.99	0.03	114,114,114,114	0
37	ZN	C5	1102	1/1	0.99	0.03	87,87,87,87	0
38	MG	BA	5002	1/1	0.99	0.05	85,85,85,85	0
38	MG	AA	5007	1/1	0.99	0.05	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
38	MG	AA	5024	1/1	0.99	0.04	100,100,100,100	0
37	ZN	C6	1082	1/1	0.99	0.03	179,179,179,179	0
37	ZN	D5	500	1/1	1.00	0.02	117,117,117,117	0
37	ZN	A5	500	1/1	1.00	0.01	70,70,70,70	0
37	ZN	BN	500	1/1	1.00	0.02	94,94,94,94	0
37	ZN	B6	500	1/1	1.00	0.02	97,97,97,97	0

6.5 Other polymers (i)

There are no such residues in this entry.