



Full wwPDB X-ray Structure Validation Report

Jun 16, 2014 – 08:04 PM BST

PDB ID : 4V63
Title : Structural basis for translation termination on the 70S ribosome.
Authors : Laurberg, M.; Asahara, H.; Korostelev, A.; Zhu, J.; Trakhanov, S.; Noller, H.F.
Deposited on : 2008-05-16
Resolution : 3.21 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

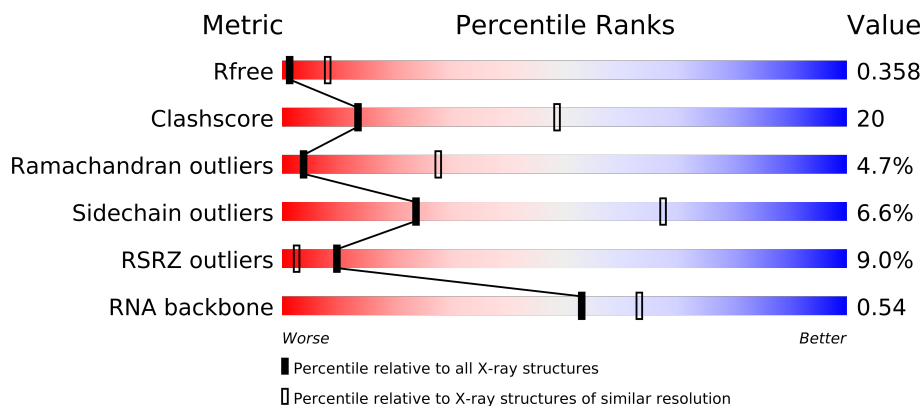
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.16 November 2013
Xtriage (Phenix) : dev-1323
EDS : stable23397
Percentile statistics : 21963
Refmac : 5.8.0049
CCP4 : 6.3.0 (Settle)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable23397

1 Overall quality at a glance

The reported resolution of this entry is 3.21 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}	66092	1824 (3.30-3.10)
Clashscore	79885	1078 (3.26-3.14)
Ramachandran outliers	78287	1059 (3.26-3.14)
Sidechain outliers	78261	1058 (3.26-3.14)
RSRZ outliers	66119	1825 (3.30-3.10)
RNA backbone	1838	1002 (3.72-2.68)

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 on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	AA	1525	
1	CA	1525	
2	AY	77	
2	AZ	77	
2	CY	77	
2	CZ	77	
3	AV	27	
3	CV	27	
4	AB	256	
4	CB	256	
5	AC	239	

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Mol	Chain	Length	Quality of chain
5	CC	239	
6	AD	209	
6	CD	209	
7	AE	162	
7	CE	162	
8	AF	101	
8	CF	101	
9	AG	156	
9	CG	156	
10	AH	138	
10	CH	138	
11	AI	128	
11	CI	128	
12	AJ	105	
12	CJ	105	
13	AK	129	
13	CK	129	
14	AL	134	
14	CL	134	
15	AM	126	
15	CM	126	
16	AN	61	
16	CN	61	
17	AO	89	
17	CO	89	
18	AP	88	
18	CP	88	
19	AQ	105	
19	CQ	105	
20	AR	88	
20	CR	88	
21	AS	93	
21	CS	93	
22	AT	106	
22	CT	106	
23	AU	27	
23	CU	27	
24	AX	354	
24	CX	354	
25	BA	2894	
25	DA	2894	
26	BB	124	

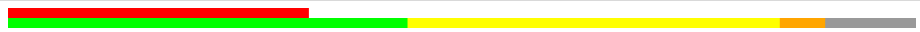
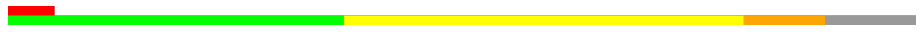
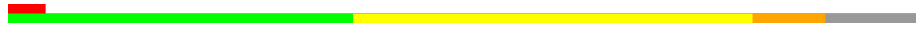

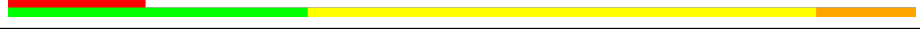




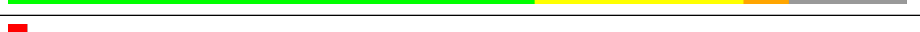




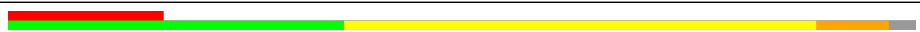
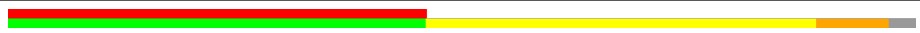

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Mol	Chain	Length	Quality of chain
26	DB	124	
27	BD	276	
27	DD	276	
28	BE	206	
28	DE	206	
29	BF	210	
29	DF	210	
30	BG	182	
30	DG	182	
31	BH	180	
31	DH	180	
32	BI	148	
32	DI	148	
33	BJ	173	
33	DJ	173	
34	BN	163	
34	DN	163	
35	BO	122	
35	DO	122	
36	BP	150	
36	DP	150	
37	BQ	141	
37	DQ	141	
38	BR	118	
38	DR	118	
39	BS	112	
39	DS	112	
40	BT	146	
40	DT	146	
41	BU	118	
41	DU	118	
42	BV	101	
42	DV	101	
43	BW	113	
43	DW	113	
44	BX	96	
44	DX	96	
45	BY	110	
45	DY	110	
46	BZ	206	
46	DZ	206	
47	B0	85	

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Mol	Chain	Length	Quality of chain
47	D0	85	
48	B1	98	
48	D1	98	
49	B2	72	
49	D2	72	
50	B3	60	
50	D3	60	
51	B4	97	
51	D4	97	
52	B5	60	
52	D5	60	
53	B6	54	
53	D6	54	
54	B7	49	
54	D7	49	
55	B8	65	
55	D8	65	

2 Entry composition

There are 57 unique types of molecules in this entry. The entry contains 299961 atoms, of which 0 are hydrogen and 0 are deuterium.

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

- Molecule 1 is a RNA chain called 16S RRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1504	Total	C	N	O	P	0	0	0
			32332	14391	5994	10444	1503			
1	CA	1504	Total	C	N	O	P	0	0	0
			32332	14391	5994	10444	1503			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AA	466	G	C	CONFLICT	GB 155076
CA	466	G	C	CONFLICT	GB 155076

- Molecule 2 is a RNA chain called P and E-site tRNA(fMet).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AZ	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
2	AY	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
2	CZ	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
2	CY	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			

- Molecule 3 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AV	12	Total	C	N	O	P	0	0	0
			258	118	54	75	11			
3	CV	12	Total	C	N	O	P	0	0	0
			258	118	54	75	11			

- Molecule 4 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AB	234	Total	C	N	O	S	0	0	0
			1900	1213	341	341	5			
4	CB	234	Total	C	N	O	S	0	0	0
			1900	1213	341	341	5			

- Molecule 5 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AC	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			
5	CC	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			

- Molecule 6 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
6	CD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 7 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AE	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
7	CE	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 8 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
8	CF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 9 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	CG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 10 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
10	CH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 11 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AI	127	Total	C	N	O	S	0	0	0
			1011	639	198	174				
11	CI	127	Total	C	N	O	S	0	0	0
			1011	639	198	174				

- Molecule 12 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AJ	98	Total	C	N	O	S	0	0	0
			794	499	156	138	1			
12	CJ	98	Total	C	N	O	S	0	0	0
			794	499	156	138	1			

- Molecule 13 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
13	CK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 14 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AL	124	Total	C	N	O	S	0	0	0
			970	611	195	163	1			
14	CL	124	Total	C	N	O	S	0	0	0
			970	611	195	163	1			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AL	2	ALA	-	INSERTION	UNP P61941
AL	3	LEU	-	INSERTION	UNP P61941
CL	2	ALA	-	INSERTION	UNP P61941
CL	3	LEU	-	INSERTION	UNP P61941

- Molecule 15 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AM	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			
15	CM	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			

- Molecule 16 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
16	CN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 17 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
17	CO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 18 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AP	83	Total	C	N	O	S	0	0	0
			700	443	139	117	1			
18	CP	83	Total	C	N	O	S	0	0	0
			700	443	139	117	1			

- Molecule 19 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AQ	99	Total	C	N	O	S	0	0	0
			823	528	152	141	2			
19	CQ	99	Total	C	N	O	S	0	0	0
			823	528	152	141	2			

- Molecule 20 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AR	70	Total	C	N	O		0	0	0
			574	367	112	95				
20	CR	70	Total	C	N	O		0	0	0
			574	367	112	95				

- Molecule 21 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AS	78	Total	C	N	O	S	0	0	0
			629	403	114	110	2			
21	CS	78	Total	C	N	O	S	0	0	0
			629	403	114	110	2			

- Molecule 22 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AT	99	Total	C	N	O	S	0	0	0
			762	469	162	129	2			
22	CT	99	Total	C	N	O	S	0	0	0
			762	469	162	129	2			

- Molecule 23 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AU	24	Total	C	N	O		0	0	0
			208	128	50	30				
23	CU	24	Total	C	N	O		0	0	0
			208	128	50	30				

- Molecule 24 is a protein called Peptide chain release factor 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	354	Total	C	N	O	S	0	0	0
			2813	1743	509	549	12			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	CX	354	Total	C	N	O	S	0	0	0
			2813	1743	509	549	12			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BA	2879	Total	C	N	O	P	0	0	0
			61997	27594	11582	19943	2878			
25	DA	2879	Total	C	N	O	P	0	0	0
			61997	27594	11582	19943	2878			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			
26	DB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BB	-1	A	-	INSERTION	GB 48271
BB	120	U	-	INSERTION	GB 48271
BB	121	U	-	INSERTION	GB 48271
DB	-1	A	-	INSERTION	GB 48271
DB	120	U	-	INSERTION	GB 48271
DB	121	U	-	INSERTION	GB 48271

- Molecule 27 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BD	271	Total	C	N	O	S	0	0	0
			2104	1329	416	356	3			
27	DD	271	Total	C	N	O	S	0	0	0
			2104	1329	416	356	3			

- Molecule 28 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BE	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	DE	204	Total	C	N	O	S	0	0	0
			1563	988	299	270	6			

- Molecule 29 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BF	202	Total	C	N	O	S	0	0	0
			1586	1011	297	275	3			
29	DF	202	Total	C	N	O	S	0	0	0
			1586	1011	297	275	3			

There are 10 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BF	1	MET	-	INSERTION	UNP Q72I05
BF	2	LYS	-	INSERTION	UNP Q72I05
BF	3	GLU	-	INSERTION	UNP Q72I05
BF	4	VAL	-	INSERTION	UNP Q72I05
BF	5	ALA	-	INSERTION	UNP Q72I05
DF	1	MET	-	INSERTION	UNP Q72I05
DF	2	LYS	-	INSERTION	UNP Q72I05
DF	3	GLU	-	INSERTION	UNP Q72I05
DF	4	VAL	-	INSERTION	UNP Q72I05
DF	5	ALA	-	INSERTION	UNP Q72I05

- Molecule 30 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BG	181	Total	C	N	O	S	0	0	0
			1475	943	268	260	4			
30	DG	181	Total	C	N	O	S	0	0	0
			1475	943	268	260	4			

- Molecule 31 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BH	159	Total	C	N	O	S	0	0	0
			1222	773	228	220	1			
31	DH	159	Total	C	N	O	S	0	0	0
			1222	773	228	220	1			

- Molecule 32 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BI	145	Total	C	N	O	S	0	0	0
			1132	724	200	207	1			
32	DI	145	Total	C	N	O	S	0	0	0
			1132	724	200	207	1			

- Molecule 33 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BJ	32	Total	C	N	O	S	0	0	0
			253	157	49	47				
33	DJ	32	Total	C	N	O	S	0	0	0
			253	157	49	47				

- Molecule 34 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BN	137	Total	C	N	O	S	0	0	0
			1096	707	205	181	3			
34	DN	137	Total	C	N	O	S	0	0	0
			1096	707	205	181	3			

There are 46 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BN	2	VAL	-	INSERTION	UNP Q72IN1
BN	3	LYS	-	INSERTION	UNP Q72IN1
BN	4	SER	-	INSERTION	UNP Q72IN1
BN	5	SER	-	INSERTION	UNP Q72IN1
BN	6	LEU	-	INSERTION	UNP Q72IN1
BN	7	ALA	-	INSERTION	UNP Q72IN1
BN	8	PHE	-	INSERTION	UNP Q72IN1
BN	9	LEU	-	INSERTION	UNP Q72IN1
BN	10	ARG	-	INSERTION	UNP Q72IN1
BN	11	GLY	-	INSERTION	UNP Q72IN1
BN	12	PRO	-	INSERTION	UNP Q72IN1
BN	13	PRO	-	INSERTION	UNP Q72IN1
BN	14	ILE	-	INSERTION	UNP Q72IN1
BN	15	PRO	-	INSERTION	UNP Q72IN1
BN	16	ARG	-	INSERTION	UNP Q72IN1
BN	17	GLN	-	INSERTION	UNP Q72IN1
BN	18	GLU	-	INSERTION	UNP Q72IN1
BN	19	GLN	-	INSERTION	UNP Q72IN1
BN	20	ARG	-	INSERTION	UNP Q72IN1

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Chain	Residue	Modelled	Actual	Comment	Reference
BN	21	ARG	-	INSERTION	UNP Q72IN1
BN	22	ALA	-	INSERTION	UNP Q72IN1
BN	23	LEU	-	INSERTION	UNP Q72IN1
BN	24	VAL	-	INSERTION	UNP Q72IN1
DN	2	VAL	-	INSERTION	UNP Q72IN1
DN	3	LYS	-	INSERTION	UNP Q72IN1
DN	4	SER	-	INSERTION	UNP Q72IN1
DN	5	SER	-	INSERTION	UNP Q72IN1
DN	6	LEU	-	INSERTION	UNP Q72IN1
DN	7	ALA	-	INSERTION	UNP Q72IN1
DN	8	PHE	-	INSERTION	UNP Q72IN1
DN	9	LEU	-	INSERTION	UNP Q72IN1
DN	10	ARG	-	INSERTION	UNP Q72IN1
DN	11	GLY	-	INSERTION	UNP Q72IN1
DN	12	PRO	-	INSERTION	UNP Q72IN1
DN	13	PRO	-	INSERTION	UNP Q72IN1
DN	14	ILE	-	INSERTION	UNP Q72IN1
DN	15	PRO	-	INSERTION	UNP Q72IN1
DN	16	ARG	-	INSERTION	UNP Q72IN1
DN	17	GLN	-	INSERTION	UNP Q72IN1
DN	18	GLU	-	INSERTION	UNP Q72IN1
DN	19	GLN	-	INSERTION	UNP Q72IN1
DN	20	ARG	-	INSERTION	UNP Q72IN1
DN	21	ARG	-	INSERTION	UNP Q72IN1
DN	22	ALA	-	INSERTION	UNP Q72IN1
DN	23	LEU	-	INSERTION	UNP Q72IN1
DN	24	VAL	-	INSERTION	UNP Q72IN1

- Molecule 35 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BO	122	Total	C	N	O	S	0	0	0
			932	587	171	170	4			
35	DO	122	Total	C	N	O	S	0	0	0
			932	587	171	170	4			

- Molecule 36 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	DP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

- Molecule 37 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BQ	136	Total	C	N	O	S	0	0	0
			1079	688	204	182	5			
37	DQ	136	Total	C	N	O	S	0	0	0
			1079	688	204	182	5			

- Molecule 38 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BR	117	Total	C	N	O		0	0	0
			960	599	202	159				
38	DR	117	Total	C	N	O		0	0	0
			960	599	202	159				

- Molecule 39 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BS	98	Total	C	N	O		0	0	0
			770	486	154	130				
39	DS	98	Total	C	N	O		0	0	0
			770	486	154	130				

- Molecule 40 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BT	137	Total	C	N	O	S	0	0	0
			1143	713	234	195	1			
40	DT	137	Total	C	N	O	S	0	0	0
			1143	713	234	195	1			

- Molecule 41 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
41	DU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 42 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
42	DV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 43 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BW	112	Total	C	N	O	S	0	0	0
			890	560	175	153	2			
43	DW	112	Total	C	N	O	S	0	0	0
			890	560	175	153	2			

- Molecule 44 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
44	BX	92	Total	C	N	O	0	0	0
			725	471	131	123			
44	DX	92	Total	C	N	O	0	0	0
			725	471	131	123			

- Molecule 45 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BY	100	Total	C	N	O	S	0	0	0
			775	500	148	123	4			
45	DY	100	Total	C	N	O	S	0	0	0
			775	500	148	123	4			

- Molecule 46 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BZ	188	Total	C	N	O	S	0	0	0
			1491	950	265	274	2			
46	DZ	188	Total	C	N	O	S	0	0	0
			1491	950	265	274	2			

- Molecule 47 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	B0	76	Total	C	N	O	S	0	0	0
			605	376	126	102	1			
47	D0	76	Total	C	N	O	S	0	0	0
			605	376	126	102	1			

- Molecule 48 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B1	88	Total	C	N	O		0	0	0
			694	435	141	118				
48	D1	88	Total	C	N	O		0	0	0
			694	435	141	118				

- Molecule 49 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B2	72	Total	C	N	O	S	0	0	0
			605	375	122	106	2			
49	D2	72	Total	C	N	O	S	0	0	0
			605	375	122	106	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B3	59	Total	C	N	O	S	0	0	0
			467	298	90	78	1			
50	D3	59	Total	C	N	O	S	0	0	0
			467	298	90	78	1			

- Molecule 51 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B4	30	Total	C	N	O	S	0	0	0
			225	142	36	43	4			
51	D4	30	Total	C	N	O	S	0	0	0
			225	142	36	43	4			

There are 52 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B4	2	PRO	-	INSERTION	UNP Q72JR0
B4	3	LEU	-	INSERTION	UNP Q72JR0
B4	4	GLY	-	INSERTION	UNP Q72JR0

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Chain	Residue	Modelled	Actual	Comment	Reference
B4	5	VAL	-	INSERTION	UNP Q72JR0
B4	6	HIS	-	INSERTION	UNP Q72JR0
B4	7	PRO	-	INSERTION	UNP Q72JR0
B4	8	LEU	-	INSERTION	UNP Q72JR0
B4	9	TYR	-	INSERTION	UNP Q72JR0
B4	10	THR	-	INSERTION	UNP Q72JR0
B4	11	LYS	-	INSERTION	UNP Q72JR0
B4	12	ARG	-	INSERTION	UNP Q72JR0
B4	13	TRP	-	INSERTION	UNP Q72JR0
B4	14	LEU	-	INSERTION	UNP Q72JR0
B4	15	ALA	-	INSERTION	UNP Q72JR0
B4	16	HIS	-	INSERTION	UNP Q72JR0
B4	17	GLY	-	INSERTION	UNP Q72JR0
B4	18	GLN	-	INSERTION	UNP Q72JR0
B4	19	ASP	-	INSERTION	UNP Q72JR0
B4	20	ARG	-	INSERTION	UNP Q72JR0
B4	21	ALA	-	INSERTION	UNP Q72JR0
B4	22	LYS	-	INSERTION	UNP Q72JR0
B4	23	LYS	-	INSERTION	UNP Q72JR0
B4	24	GLU	-	INSERTION	UNP Q72JR0
B4	25	ALA	-	INSERTION	UNP Q72JR0
B4	26	ASN	-	INSERTION	UNP Q72JR0
B4	27	VAL	-	INSERTION	UNP Q72JR0
D4	2	PRO	-	INSERTION	UNP Q72JR0
D4	3	LEU	-	INSERTION	UNP Q72JR0
D4	4	GLY	-	INSERTION	UNP Q72JR0
D4	5	VAL	-	INSERTION	UNP Q72JR0
D4	6	HIS	-	INSERTION	UNP Q72JR0
D4	7	PRO	-	INSERTION	UNP Q72JR0
D4	8	LEU	-	INSERTION	UNP Q72JR0
D4	9	TYR	-	INSERTION	UNP Q72JR0
D4	10	THR	-	INSERTION	UNP Q72JR0
D4	11	LYS	-	INSERTION	UNP Q72JR0
D4	12	ARG	-	INSERTION	UNP Q72JR0
D4	13	TRP	-	INSERTION	UNP Q72JR0
D4	14	LEU	-	INSERTION	UNP Q72JR0
D4	15	ALA	-	INSERTION	UNP Q72JR0
D4	16	HIS	-	INSERTION	UNP Q72JR0
D4	17	GLY	-	INSERTION	UNP Q72JR0
D4	18	GLN	-	INSERTION	UNP Q72JR0
D4	19	ASP	-	INSERTION	UNP Q72JR0
D4	20	ARG	-	INSERTION	UNP Q72JR0

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Chain	Residue	Modelled	Actual	Comment	Reference
D4	21	ALA	-	INSERTION	UNP Q72JR0
D4	22	LYS	-	INSERTION	UNP Q72JR0
D4	23	LYS	-	INSERTION	UNP Q72JR0
D4	24	GLU	-	INSERTION	UNP Q72JR0
D4	25	ALA	-	INSERTION	UNP Q72JR0
D4	26	ASN	-	INSERTION	UNP Q72JR0
D4	27	VAL	-	INSERTION	UNP Q72JR0

- Molecule 52 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B5	52	Total	C	N	O	S	0	0	0
			404	255	79	65	5			
52	D5	52	Total	C	N	O	S	0	0	0
			404	255	79	65	5			

- Molecule 53 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B6	44	Total	C	N	O	S	0	0	0
			380	235	77	64	4			
53	D6	44	Total	C	N	O	S	0	0	0
			380	235	77	64	4			

- Molecule 54 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
54	D7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 55 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	B8	63	Total	C	N	O	S	0	0	0
			507	326	101	78	2			
55	D8	63	Total	C	N	O	S	0	0	0
			507	326	101	78	2			

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AP	1	Total 1 Mg 1	0	0
56	CZ	19	Total 19 Mg 19	0	0
56	BA	806	Total 806 Mg 806	0	0
56	AK	1	Total 1 Mg 1	0	0
56	DQ	1	Total 1 Mg 1	0	0
56	AB	2	Total 2 Mg 2	0	0
56	DF	1	Total 1 Mg 1	0	0
56	CV	4	Total 4 Mg 4	0	0
56	CI	2	Total 2 Mg 2	0	0
56	BE	1	Total 1 Mg 1	0	0
56	D8	1	Total 1 Mg 1	0	0
56	B1	2	Total 2 Mg 2	0	0
56	CD	2	Total 2 Mg 2	0	0
56	BP	1	Total 1 Mg 1	0	0
56	AX	6	Total 6 Mg 6	0	0
56	DN	1	Total 1 Mg 1	0	0
56	BI	3	Total 3 Mg 3	0	0
56	CY	21	Total 21 Mg 21	0	0
56	CA	414	Total 414 Mg 414	0	0
56	B5	1	Total 1 Mg 1	0	0
56	BB	26	Total 26 Mg 26	0	0
56	AJ	1	Total 1 Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	BT	2	Total 2	Mg 2	0	0
56	DO	2	Total 2	Mg 2	0	0
56	AE	1	Total 1	Mg 1	0	0
56	DG	1	Total 1	Mg 1	0	0
56	CF	1	Total 1	Mg 1	0	0
56	DT	1	Total 1	Mg 1	0	0
56	D3	1	Total 1	Mg 1	0	0
56	BF	5	Total 5	Mg 5	0	0
56	AV	1	Total 1	Mg 1	0	0
56	DR	1	Total 1	Mg 1	0	0
56	B2	3	Total 3	Mg 3	0	0
56	AA	310	Total 310	Mg 310	0	0
56	BQ	3	Total 3	Mg 3	0	0
56	D7	2	Total 2	Mg 2	0	0
56	BJ	1	Total 1	Mg 1	0	0
56	CX	9	Total 9	Mg 9	0	0
56	DV	1	Total 1	Mg 1	0	0
56	CH	1	Total 1	Mg 1	0	0
56	DI	2	Total 2	Mg 2	0	0
56	AM	1	Total 1	Mg 1	0	0
56	BU	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	CC	7	Total 7	Mg 7	0	0
56	AD	8	Total 8	Mg 8	0	0
56	BN	2	Total 2	Mg 2	0	0
56	DH	4	Total 4	Mg 4	0	0
56	CG	1	Total 1	Mg 1	0	0
56	BG	3	Total 3	Mg 3	0	0
56	AI	2	Total 2	Mg 2	0	0
56	BY	1	Total 1	Mg 1	0	0
56	CJ	1	Total 1	Mg 1	0	0
56	BR	3	Total 3	Mg 3	0	0
56	AZ	6	Total 6	Mg 6	0	0
56	D4	3	Total 3	Mg 3	0	0
56	DA	758	Total 758	Mg 758	0	0
56	CE	1	Total 1	Mg 1	0	0
56	DW	3	Total 3	Mg 3	0	0
56	B7	3	Total 3	Mg 3	0	0
56	D2	2	Total 2	Mg 2	0	0
56	AL	2	Total 2	Mg 2	0	0
56	BV	1	Total 1	Mg 1	0	0
56	AG	1	Total 1	Mg 1	0	0
56	BO	3	Total 3	Mg 3	0	0

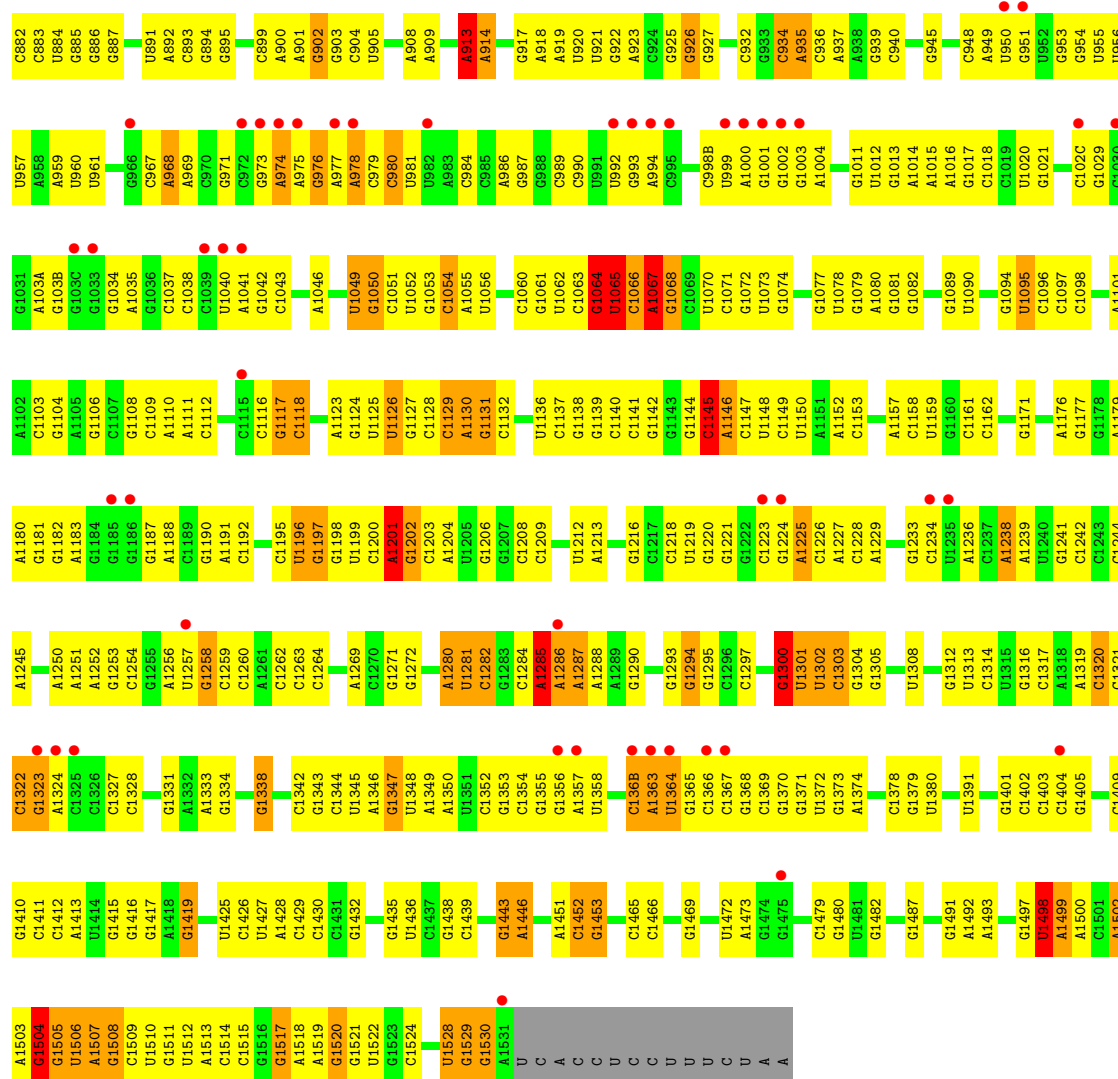
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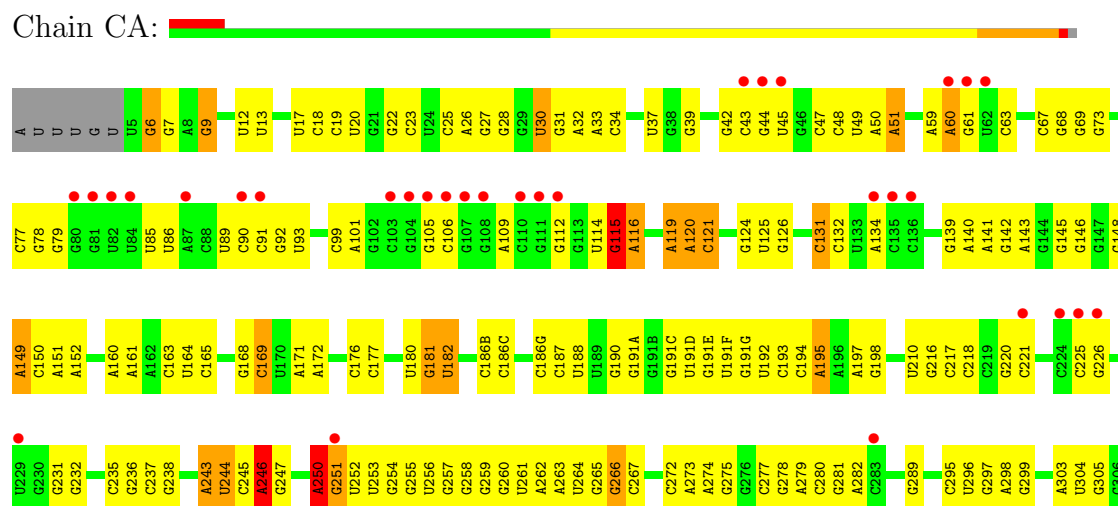
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AQ	1	Total 1	Mg 1	0	0
56	DX	1	Total 1	Mg 1	0	0
56	AH	2	Total 2	Mg 2	0	0
56	BZ	1	Total 1	Mg 1	0	0
56	CO	2	Total 2	Mg 2	0	0
56	DZ	4	Total 4	Mg 4	0	0
56	AC	6	Total 6	Mg 6	0	0
56	DB	28	Total 28	Mg 28	0	0
56	CB	2	Total 2	Mg 2	0	0
56	D5	1	Total 1	Mg 1	0	0
56	BD	2	Total 2	Mg 2	0	0
56	CL	1	Total 1	Mg 1	0	0
56	DP	6	Total 6	Mg 6	0	0
56	CP	1	Total 1	Mg 1	0	0
56	AO	3	Total 3	Mg 3	0	0
56	BW	2	Total 2	Mg 2	0	0
56	AY	25	Total 25	Mg 25	0	0
56	DD	1	Total 1	Mg 1	0	0
56	CK	2	Total 2	Mg 2	0	0
56	AF	2	Total 2	Mg 2	0	0
56	BH	2	Total 2	Mg 2	0	0

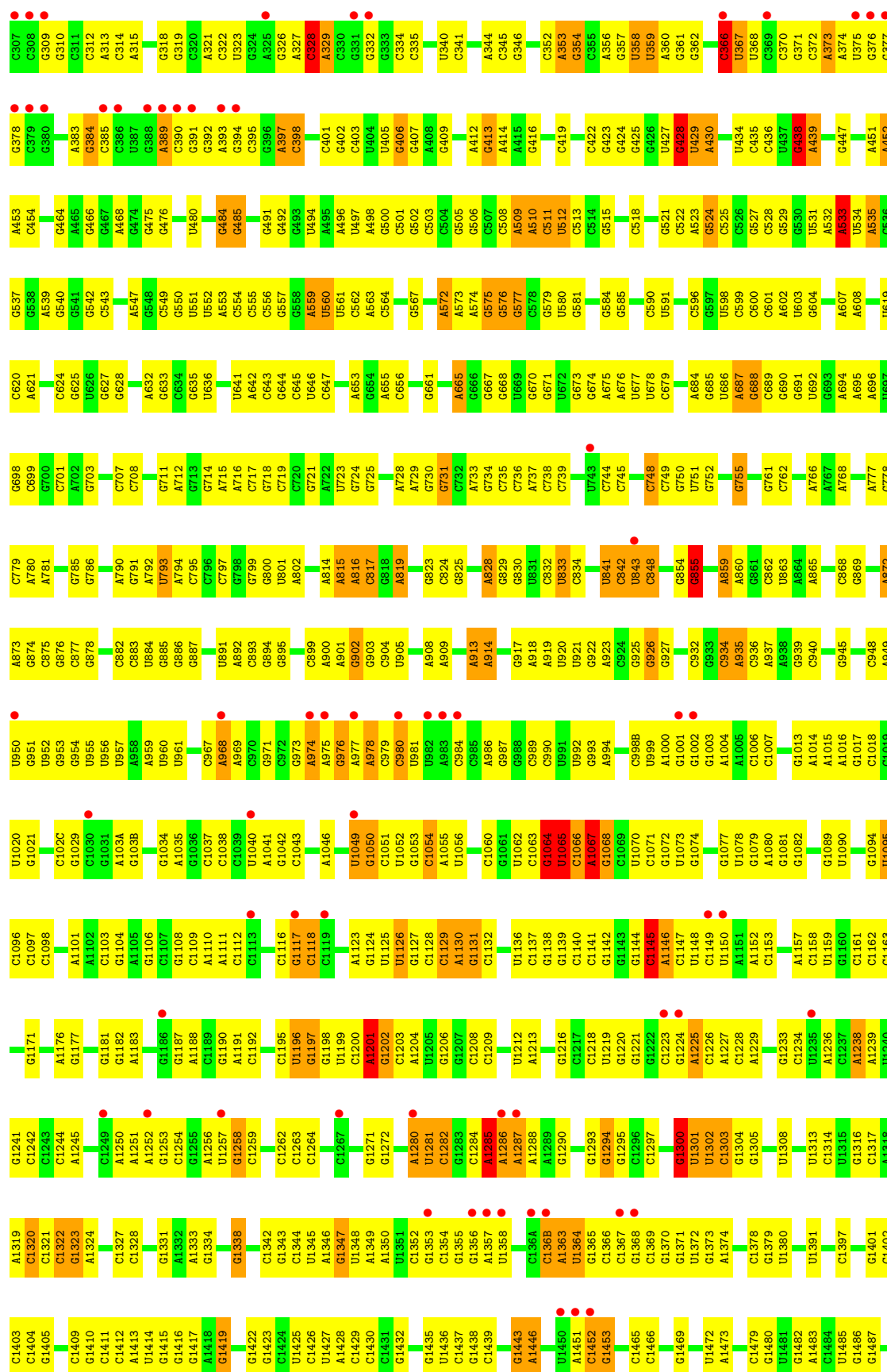
- Molecule 57 is ZINC ION (three-letter code: ZN) (formula: Zn).

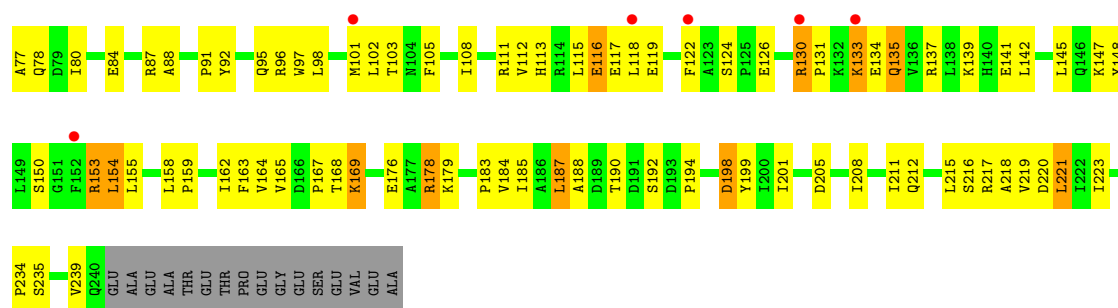
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	CN	1	Total 1	Zn 1	0	0
57	AD	1	Total 1	Zn 1	0	0
57	CD	1	Total 1	Zn 1	0	0
57	AN	1	Total 1	Zn 1	0	0



• Molecule 1: 16S rRNA

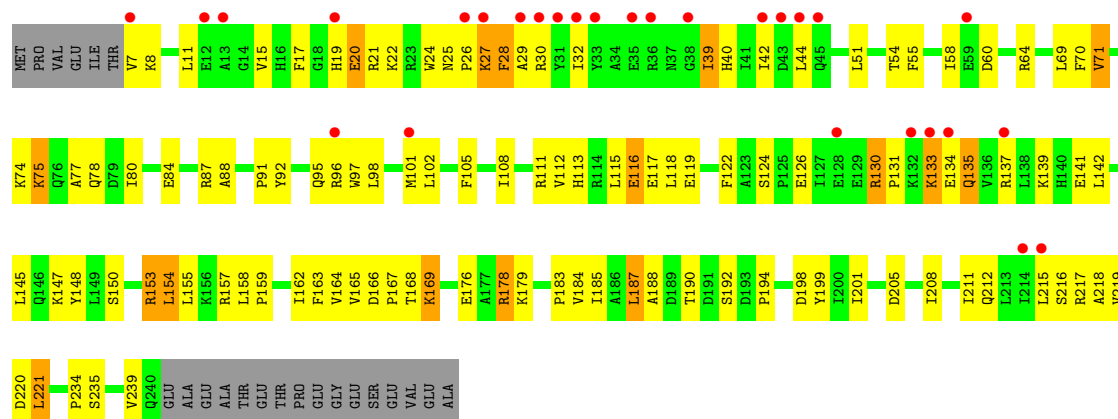






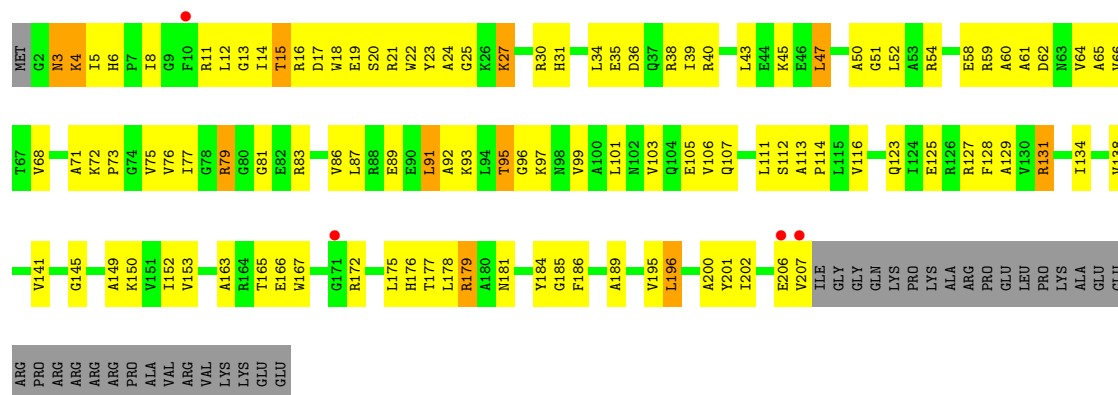
• Molecule 4: 30S ribosomal protein S2

Chain CB:



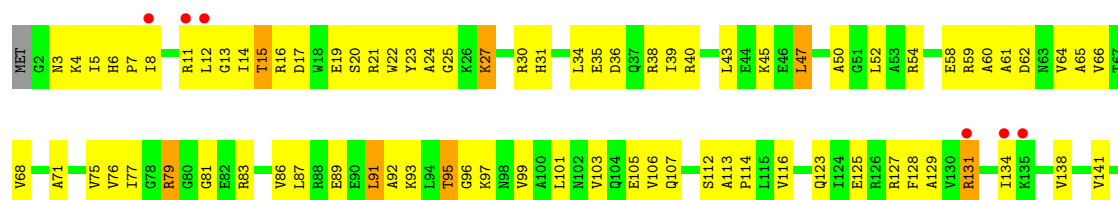
• Molecule 5: 30S ribosomal protein S3

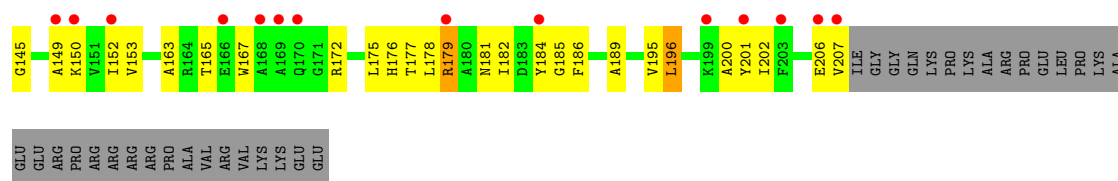
Chain AC:



• Molecule 5: 30S ribosomal protein S3

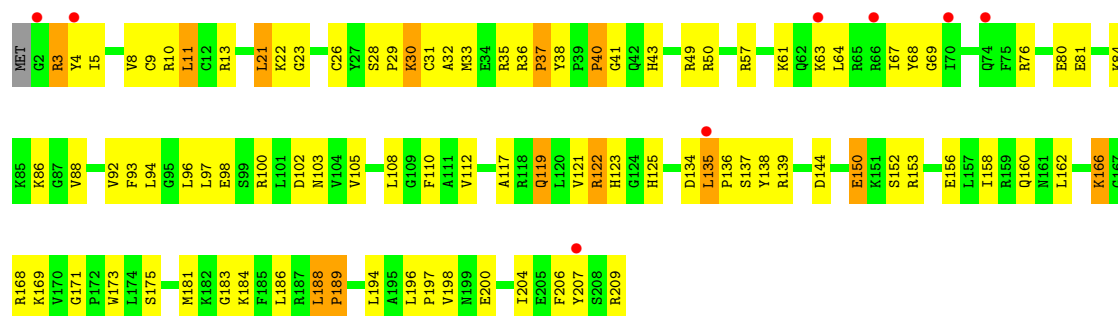
Chain CC:





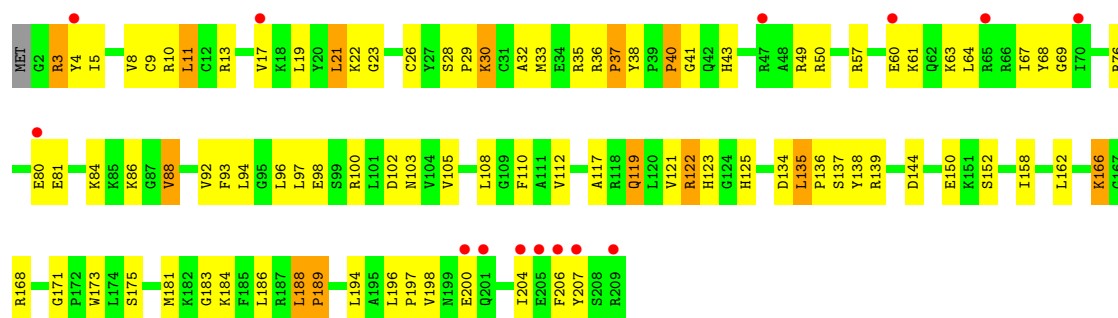
• Molecule 6: 30S ribosomal protein S4

Chain AD:



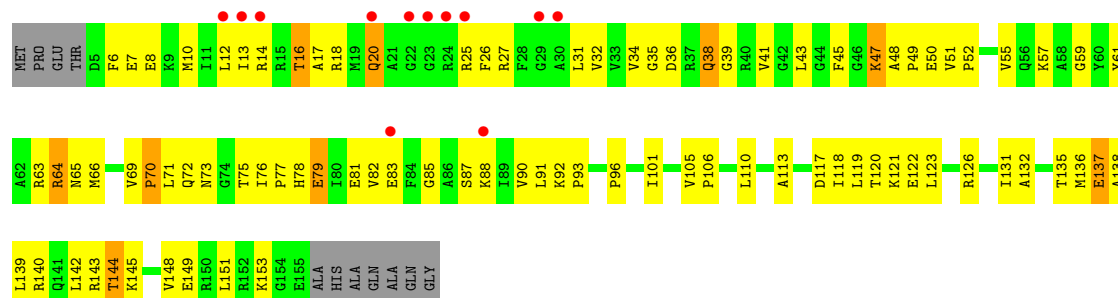
• Molecule 6: 30S ribosomal protein S4

Chain CD:



• Molecule 7: 30S ribosomal protein S5

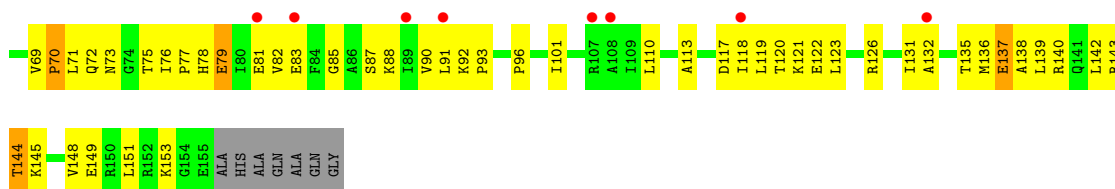
Chain AE:



• Molecule 7: 30S ribosomal protein S5

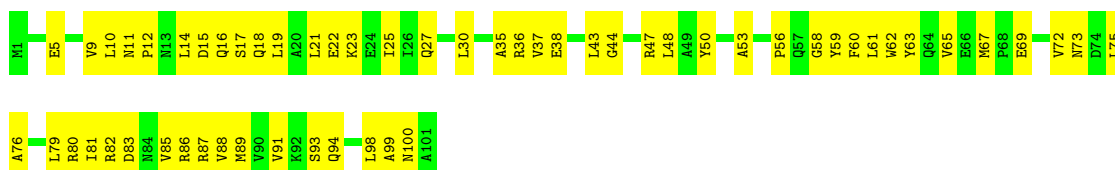
Chain CE:





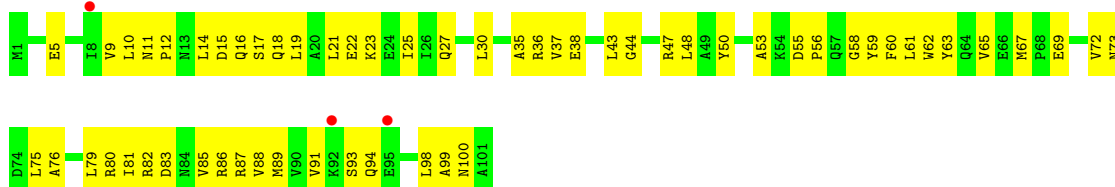
- Molecule 8: 30S ribosomal protein S6

Chain AF:



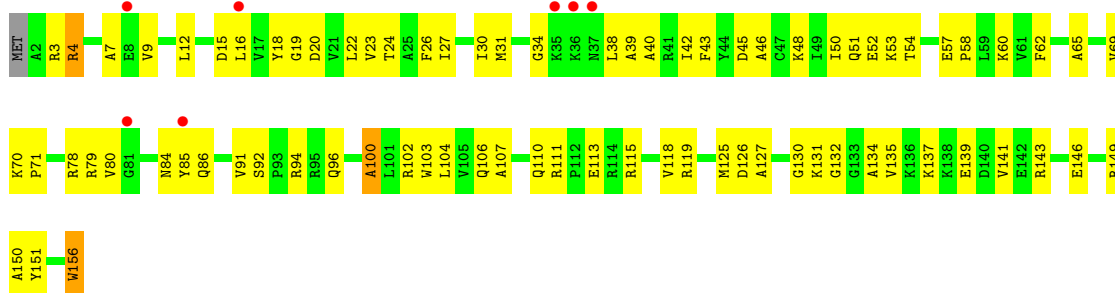
- Molecule 8: 30S ribosomal protein S6

Chain CF:



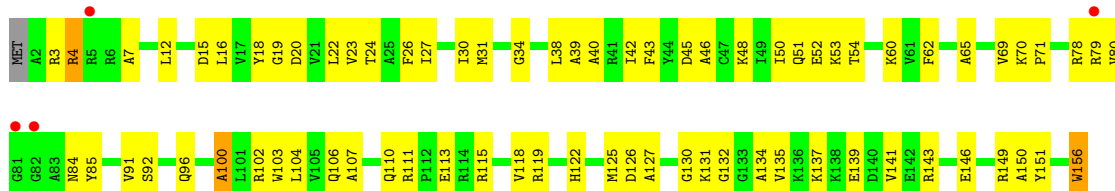
- Molecule 9: 30S ribosomal protein S7

Chain AG:



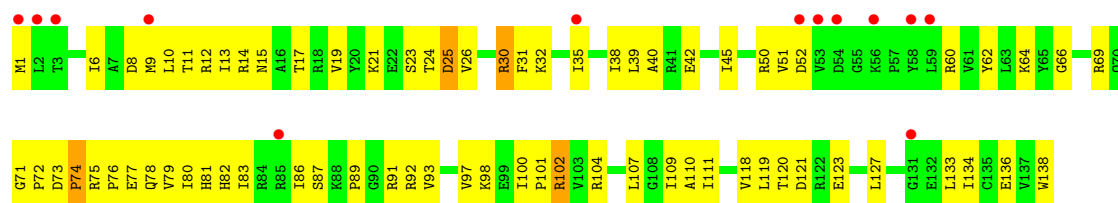
- Molecule 9: 30S ribosomal protein S7

Chain CG:



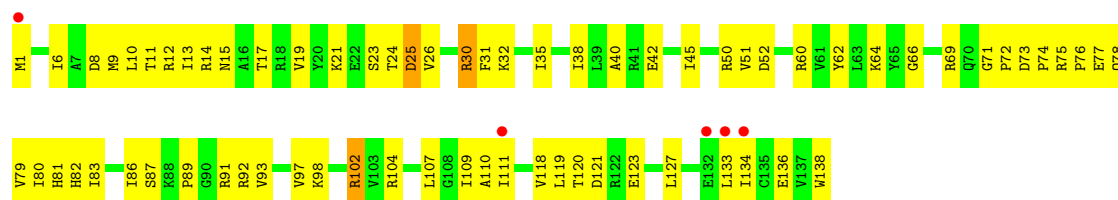
- Molecule 10: 30S ribosomal protein S8

Chain AH:



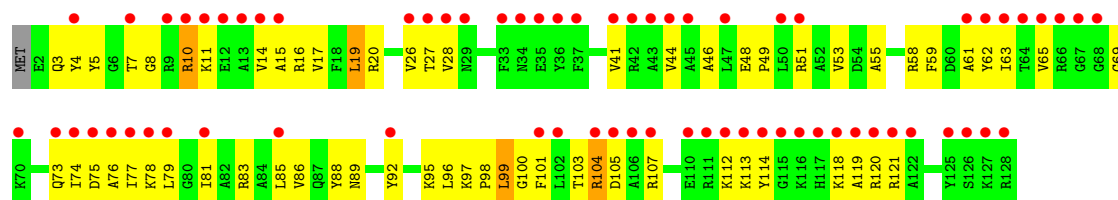
• Molecule 10: 30S ribosomal protein S8

Chain CH:



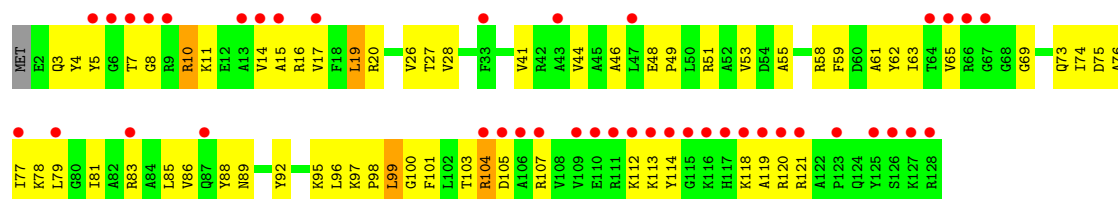
• Molecule 11: 30S ribosomal protein S9

Chain AI:



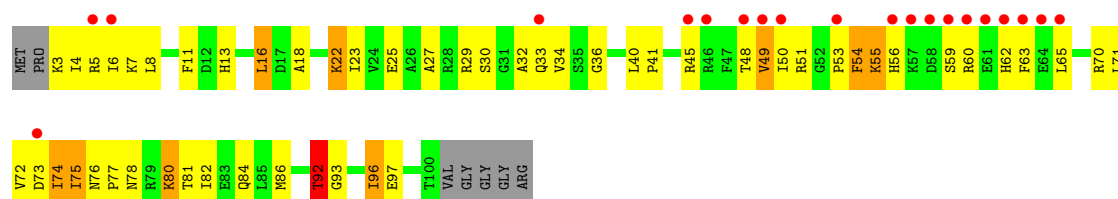
• Molecule 11: 30S ribosomal protein S9

Chain CI:



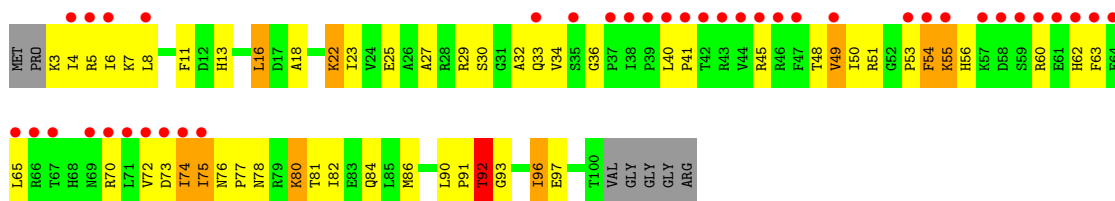
• Molecule 12: 30S ribosomal protein S10

Chain AJ:



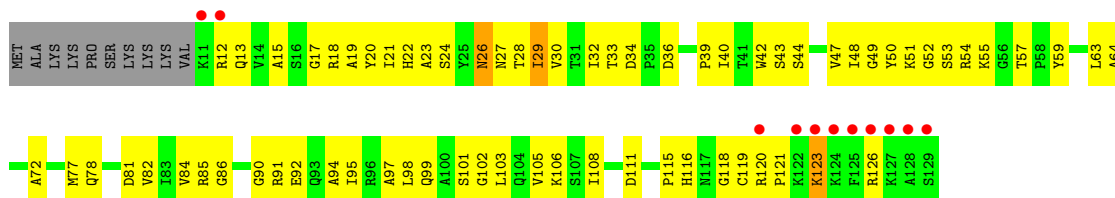
• Molecule 12: 30S ribosomal protein S10

Chain CJ:



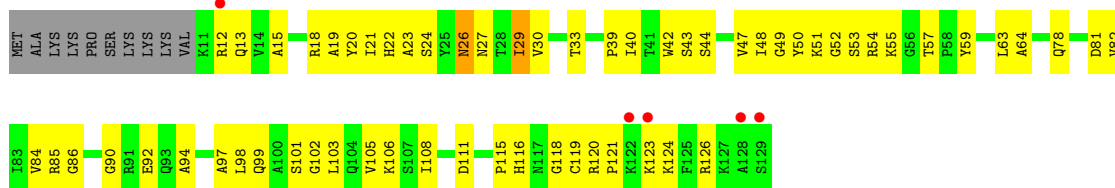
• Molecule 13: 30S ribosomal protein S11

Chain AK:



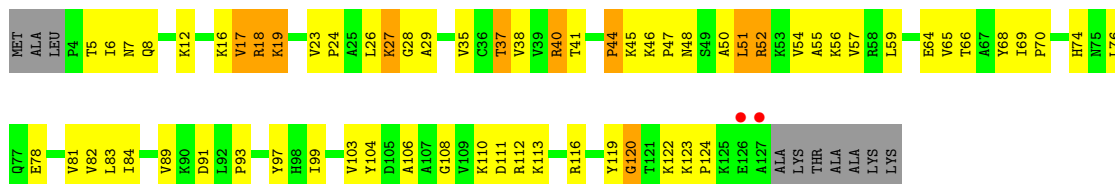
• Molecule 13: 30S ribosomal protein S11

Chain CK:



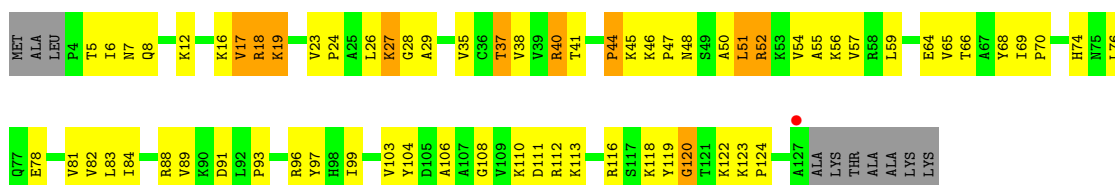
• Molecule 14: 30S ribosomal protein S12

Chain AL:



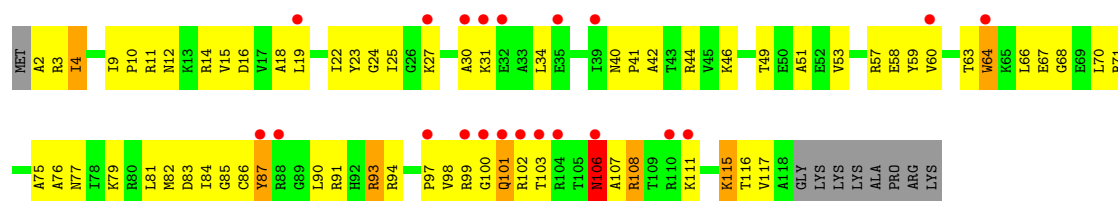
• Molecule 14: 30S ribosomal protein S12

Chain CL:



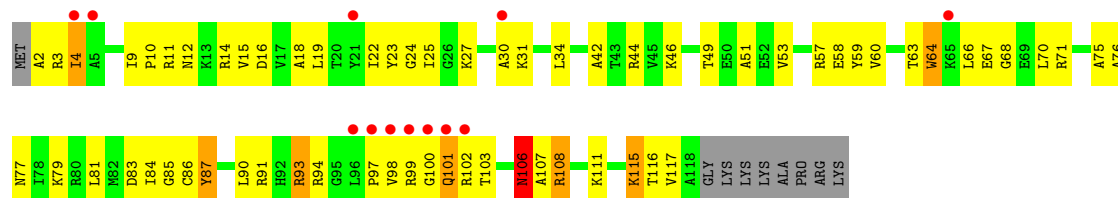
• Molecule 15: 30S ribosomal protein S13

Chain AM:



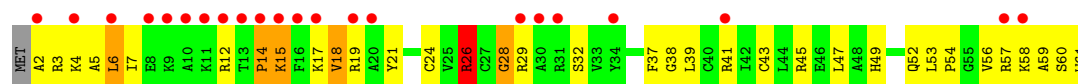
• Molecule 15: 30S ribosomal protein S13

Chain CM:



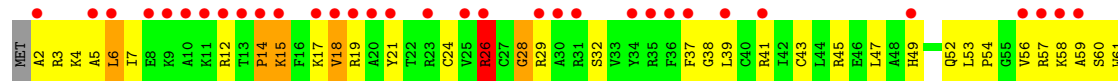
• Molecule 16: 30S ribosomal protein S14

Chain AN:



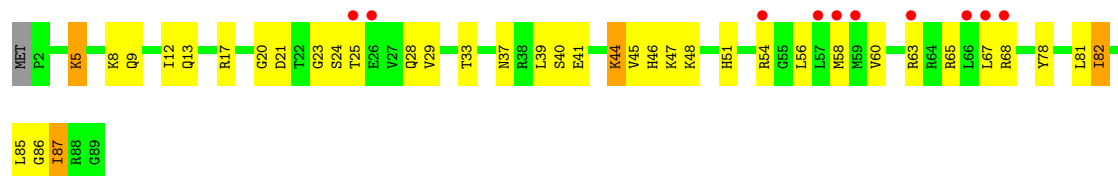
• Molecule 16: 30S ribosomal protein S14

Chain CN:



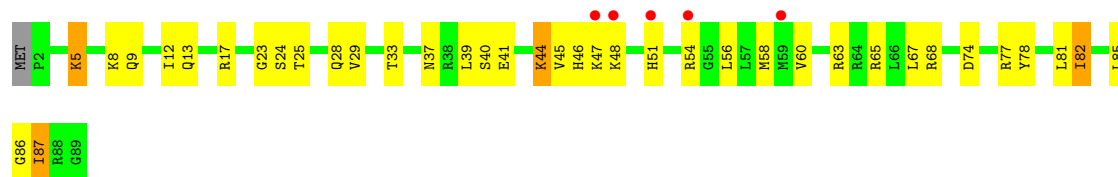
• Molecule 17: 30S ribosomal protein S15

Chain AO:



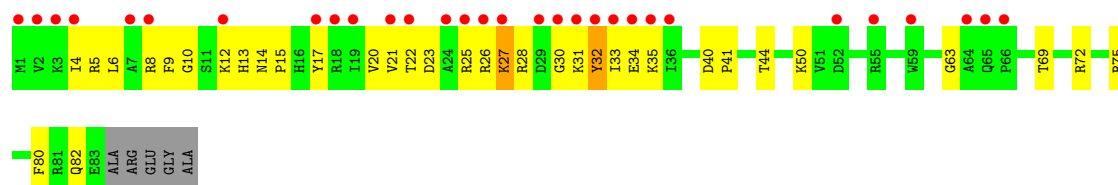
• Molecule 17: 30S ribosomal protein S15

Chain CO:



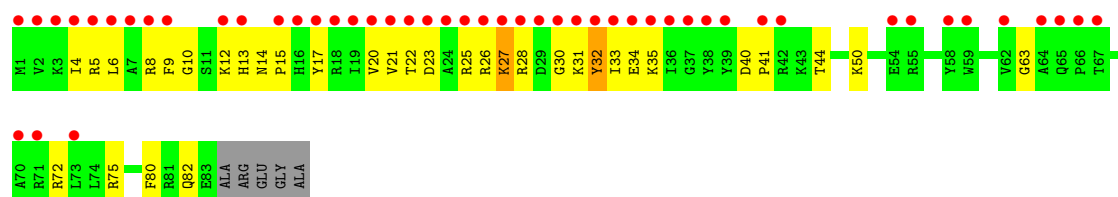
• Molecule 18: 30S ribosomal protein S16

Chain AP:



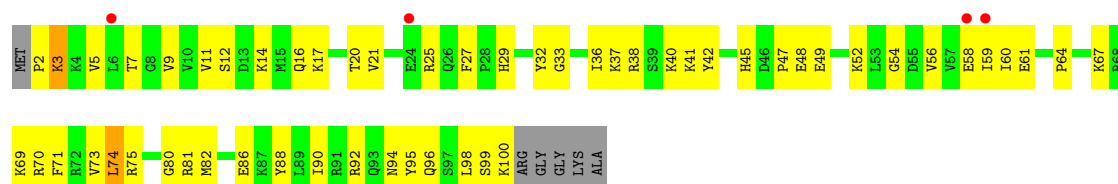
- Molecule 18: 30S ribosomal protein S16

Chain CP:



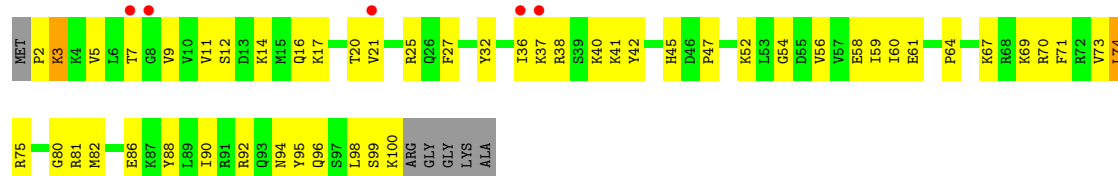
- Molecule 19: 30S ribosomal protein S17

Chain AQ:



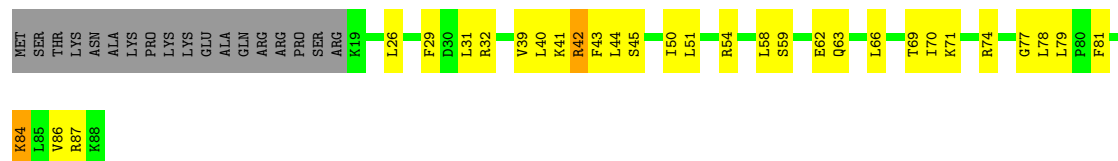
- Molecule 19: 30S ribosomal protein S17

Chain CQ:



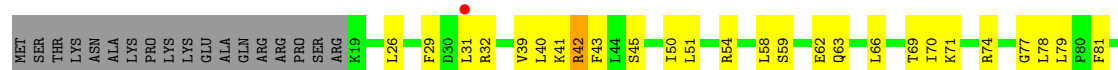
- Molecule 20: 30S ribosomal protein S18

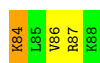
Chain AR:



- Molecule 20: 30S ribosomal protein S18

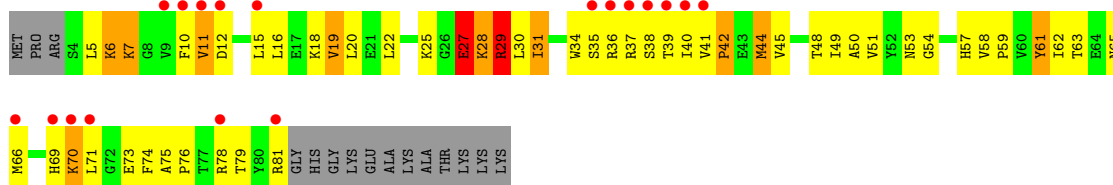
Chain CR:





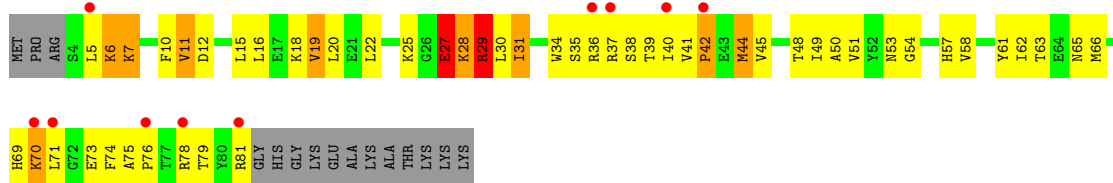
- Molecule 21: 30S ribosomal protein S19

Chain AS:



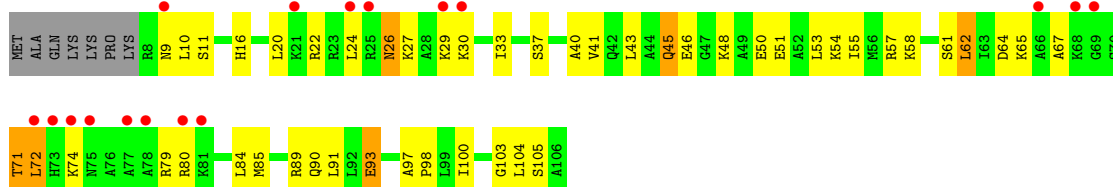
- Molecule 21: 30S ribosomal protein S19

Chain CS:



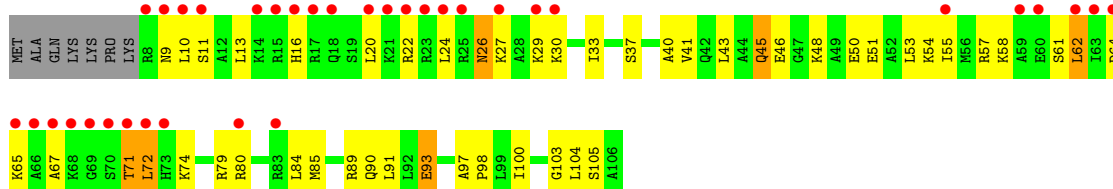
- Molecule 22: 30S ribosomal protein S20

Chain AT:



- Molecule 22: 30S ribosomal protein S20

Chain CT:



- Molecule 23: 30S ribosomal protein Thx

Chain AU:

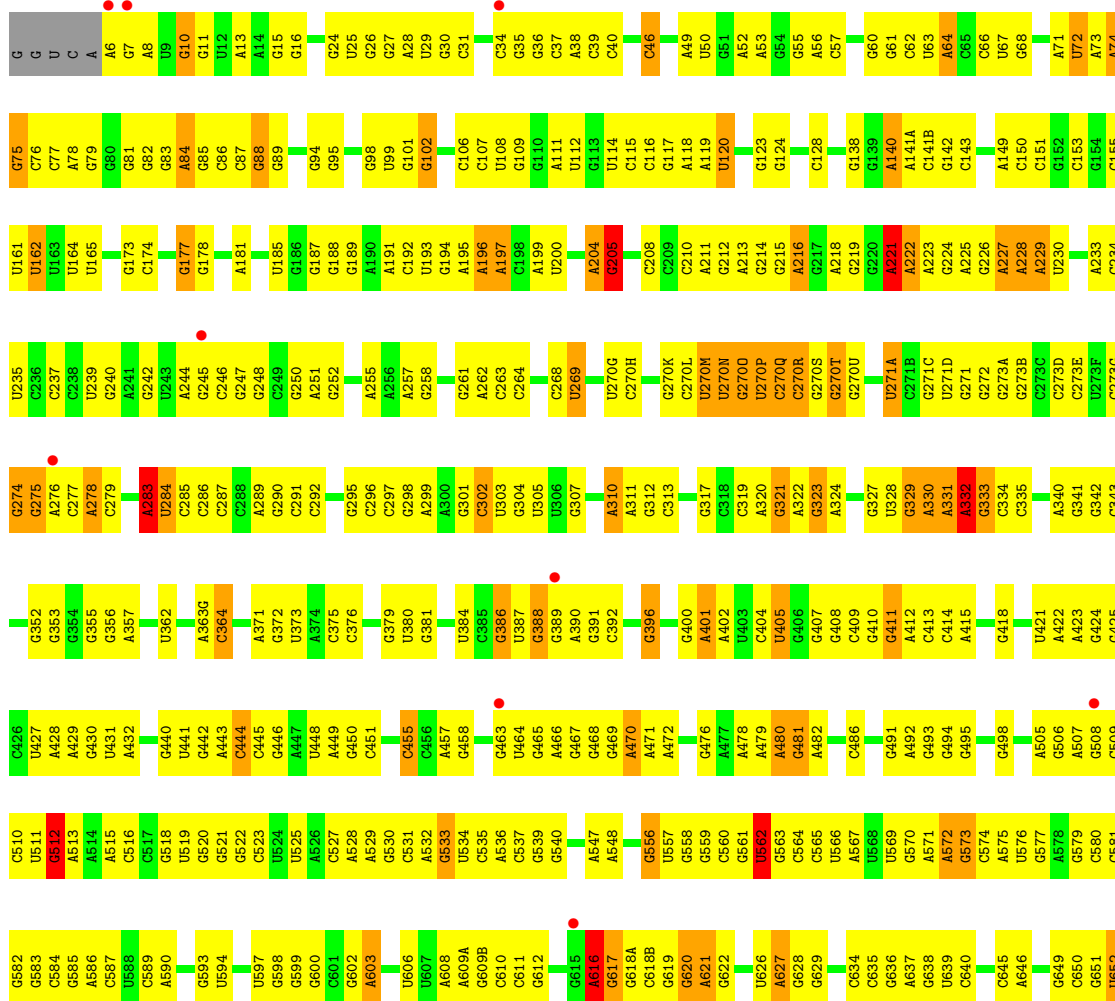


- Molecule 23: 30S ribosomal protein Thx

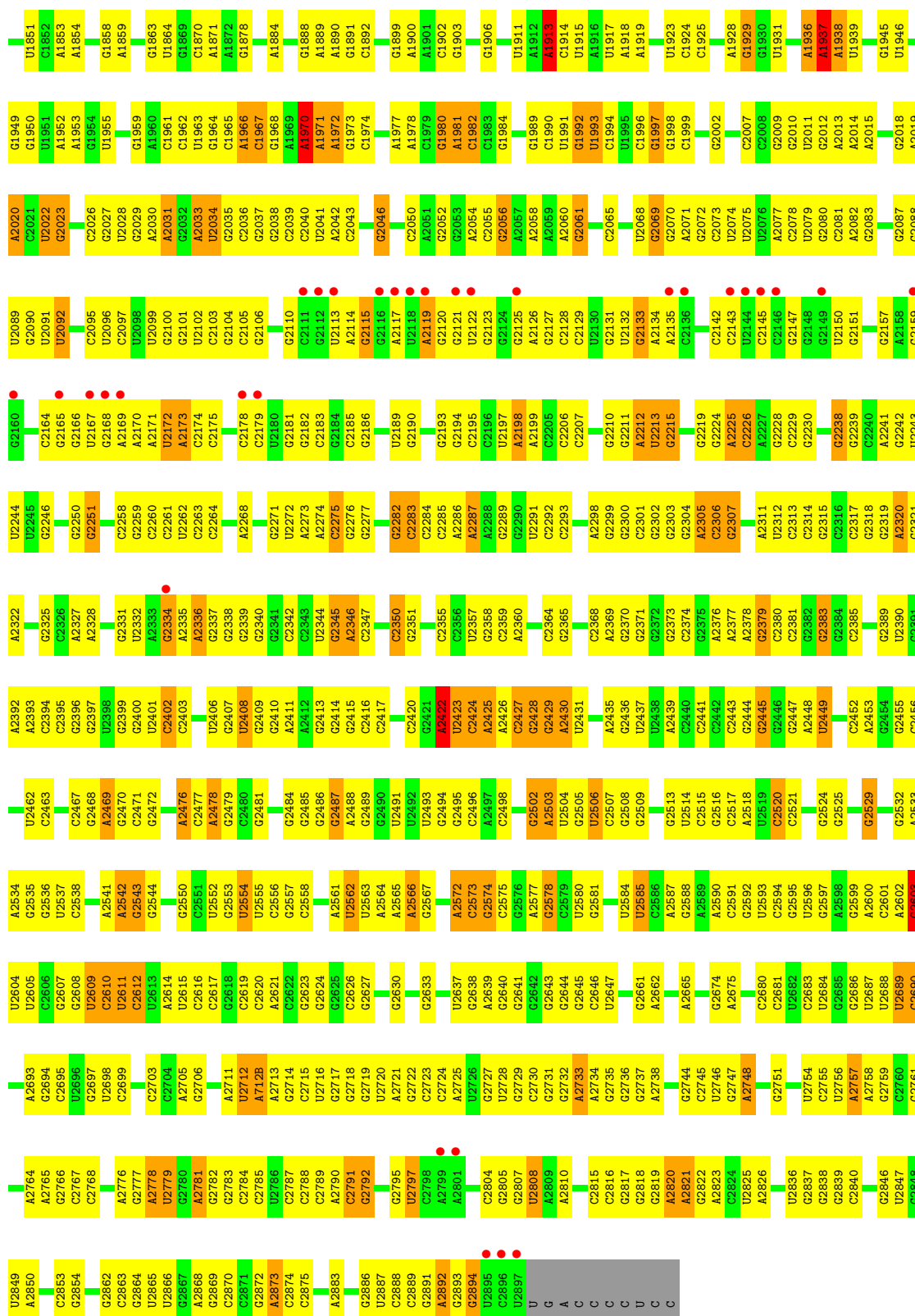
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G1195	C1196	G1197	U1198	A1199	G1200	C1201	C1202	G1203	A1204	U1205	G1283	A1210	U1211	A1212	C1289	C1290	G1291	U1292	C1293	U1294	C1295	C1296	C1297	C1298	G1299	U1300	A1301	A1302	G1303	A1308	G1309	G1310	G1311	U1312	U1313	C1314	G1315	U1316	A1317	A1322	U1323	G1324	U1325	U1326	C1327	G1328	U1329	C1330	A1331	C1332	C1333	G1336	A1337	A1338	G1339	U1340																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
G1120	G1121	G1122	G1125	A1126	A1127	A1128	A1129	A1130	A1131	A1132	U1133	G1135	G1136	G1137	G1138	G1139	C1140	C1141	C1142	C1143	C1144	C1145	G1151	C1152	C1153	G1154	A1155	G1161	G1162	U1165	C1166	U1167	G1168	G1173	A1174	U1175	G1176	C1177	C1178	G1183	G1184	G1185	G1186	G1187	U1188	G1189	G1190	G1191	G1192	A1193	A1194																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
G1046	G1047	A1050	G1051	A1054	G1055	A1057	A1058	G1059	U1060	U1061	G1062	G1063	C1064	U1065	A1069	G1071	C1072	A1073	G1074	C1075	C1076	A1077	U1078	C1079	G1080	U1081	U1082	U1083	C1084	A1085	U1086	G1087	U1088	U1089	G1090	G1091	G1092	A1095	U1096	U1097	A1098	G1099	C1102	A1103	G1104	U1105	G1106	G1107	U1108	A1111	G1112																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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G2472	U2401	A2327	G2251	U2167	U2098	U2028	G1954	C1790	C1683	C1599	C1518	A1434	U1341
A2476	C2402	A2328	G2258	G2168	U2099	G2029	U1955	A1791	C1686	C1600	G1518	G1435	A1342
G2477	C2403	G2331	G2259	A2169	G2100	A2030	C1961	G1792	U1687	G1601	A1528	G1436	G1348
A2478	U2406	U2332	G2260	A2170	G2101	A2031	U1962	C1793	U1688	U1602	A1529	U1437	A1349
G2480	G2407	A2333	C2261	U2172	U2102	G2032	C1963	U1794	U1693	A1603	C1530	A1438	
G2481	U2408	G2334	U2262	A2173	G2103	U2034	G1964	U1795	C1694	C1607	G1440	A1353	
	G2409	G2335	C2263	C2174	G2104	G2035	C1965	C1796	C1695	A1608	G1441	A1354	
	G2410	A2336	C2264	C2175	G2105	G2036	A1966	U1797	G1696	U1609	G1442	G1356	
		G2337			G2106	G2037	U1967	G1798	A1698	A1610	G1443	U1357	
		G2338			C2107	G2038	G1968	G1799	G1613	G1539	A1448	G1358	
		G2339			U2109	C2039	A1969	G1800	G1614	G1540	C1445	G1359	
		G2340			G2110	C2040	A1970	A1801	G1615	U1541		A1359	
		G2341			C2111	U2041	A1971	A1802	G1616	G1542	G1448	A1360	
		C2342			U2112	C2042	A1972	A1803	U1709	A1543	A1498	G1361	
		U2344			G2113	C2043	U1973		C1710	G1544	G1449		
		G2345			A2114		C1974	A1809	U1727	A1618	C1450	G1364	
		G2346			G2115	G2046		A1810	U1728	G1619	G1451	A1365	
		A2347			G2116	C2050	A1977	A1811	G1729	G1620	U1547	G1368	
		C2347			U2117	A2051	U1978	A1812	U1730	U1548	U1454		
		C2350			A2118	G2052	G1979	G1813	G1731	C1548	G1455		
		G2351			G2119	G2053	A1980	A1815	A1631	C1550		A1378	
					G2120	A2054	G1981	G1816	U1632	G1459	G1380	A1379	
					U2121	G2055	C1982	U1817	A1632	G1460	G1381	G1382	
					G2122	G2056	G1983	A1818	U1639	G1461	C1383		
					C2123		G1984	A1819	C1642	G1466	C1384	G1385	
					G2124	A2057		A1820	U1647	G1467	C1386		
					U2125	G2058	G1989	A1821	G1648	G1478	C1387		
					A2126	A2059	U1990	G1824	C1648	U1394		U1394	
					G2127	G2060	G1991	A1825	G1651	U1395		U1396	
					U2128	G2061	U1992	G1826	A1567	U1397		U1397	
					C2129		G1993	A1827	G1485	C1398			
					U2130	C2065	U1995	G1828	G1650				
					G2131		G1996	A1829	A1654				
					U2132	U2068	G1997	G1830	G1655				
					A2133	G2069	U1998	A1831	G1656				
					G2134	G2070	G1999	G1832	A1570				
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						G2072		A1762	C1658				
						C2073	G2002	G1763					
						U2074		C1764					
						U2075	C2007	U1766					
						G2076	C2008	C1659					
						A2077	G2009	C1661					
						C2078	G2010	C1662					
						U2079	U2011	C1663					
						G2080	G2012	A1579					
						C2081	A2013	C1585					
							A2014	C1586					
						G2087	A2015	A1668					
						U2088		A1669					
						G2089	G2018	G1674					
						C2090	A2019	C1675					
						U2091	A2020	A1506					
						U2092	C2021	A1508					
						G2093	U2092	G1591					
						C2094	G2022	A1509					
						U2245	G2023	A1510					
						G2246		A1511					
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							G2027	U1517					
								C1681					
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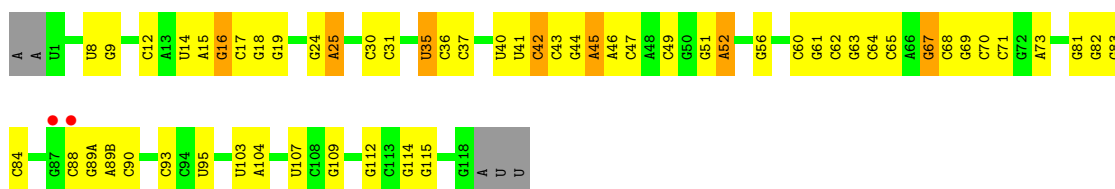


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A1784	A1677	A1511	C1428	U1267	G1193	G1107	U1035	U963	A890	U811		G655
A1785	G1678	G1591	G1429	A1268	A1194	G1039	G968	G969	G892	U810		G656
A1786	U1679	U1514	C1430	C1269	G1196	U969	G968	G970	C893	U813	G738	U657
A1787	U1680	U1515		A1270	G1197	A1111	C1040	C971	C894	U814	G739	C658
A1788	G1681	U1516	A1434	G1271	U1198	G1112		C972	U895	C914	U740	
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A1790	C1683	C1518	A1436	A1273	U1200	G1121	A1045	A974	C897	C916	G742	G662
A1791	C1686	A1528	G1437	A1274	C1201	G1122	A1046	A973	C904	A819	G743	G663
A1792	G1687	A1529	U1438	A1275	G1202		A974A	C974B	U905	G823	A746	G665
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C1795	U1693	C1531	G1440	A1278	U1205	A1126	G1047		U907	A824	G748	U667
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C1797	C1695	C1537	G1442	U1282	A1210	A1128	A1054	G979	C909	U826	C755	G669
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A1801	G1613	U1541	A1495	C1289	G1216	U1132	G1058	C986	C914	G830	U763	G673
A1802	A1614	G1542	G1449	C1290	C1217	U1133	U1060		C915	G831	G764	G674
A1803	C1615	A1543	G1450	G1291	G1218	G1134	U1061	A990	G916	U832	A765	A675
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A1812	G1630	C1550	G1459	G1297	U1227	U1142	U1069	U999			G771	G682
G1813	C1638	C1551	G1460	C1298	G1230	U1143	A1070	U1000	G829	G845	C772	G683
A1814	A1631	G1552	G1461	G1299	G1231	G1144	G1071	A1001	U930	G846	U773	G684
A1815	A1632	A1553	C1462	U1300	U1234	C1145	C1073	A1002	U931	U847	G774	A685
G1816	U1639	A1554	G1466	A1301	G1234	G1151	G1074	G1003	G932	G848	G775	A686
A1817	A1640	C1556	C1467	A1302	U1234	C1152	C1075	C1004	A933	A849	G776	
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A1820	G1647	G1559	G1483	G1309	G1244	A1155	C1079	G1007	G938	G854	A784	G695
A1821	C1648	A1562	G1484	U1310	G1245	C1161	U1082	C1008	G939	G855	G785	
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G1823	G1650	C1564	G1485	U1312	A1247	U1165	G1087	G1010	A941	C857	A789	U703
A1829	G1651	C1565	A1486	U1313	G1248	U1166	A1088	G1011	G942	U858	C790	A705
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U1834	G1656	A1570	C1493	U1322	U1253	U1175	G1092	U1019	G947	G864	C795	U714
	C1657	A1571	C1408	U1323	A1254	G1176	G1093	A1020		C865	C796	G717
	C1658	A1495	C1411	G1324	U1255	A1177	U1094	G1021	G950	A866	C797	
C1838	C1662	A1496	A1412	U1325	G1256	G1183	U1095	G1022	C951	G799	G798	G721
G1840	C1663	U1497	G1413	U1326	C1257	U1184	A1096	U1023	G952	A800	G799	A722
U1841	A1664	C1499	G1416	C1327	C1258	G1185	U1097	G1024	A953	U871	A801	G723
G1842			G1417	U1328	G1259	G1186	A1098	U1025	G954	G802	A802	U724
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C1844	A1669	C1505	G1419	C1330	G1261	G1187	G1099	A1027	G956	U877	A804	G726
		U1506	U1420	C1331	U1262	U1188	C1102	A1028	U958	C886	G805	A727
		A1508	U1421	U1332	U1263	U1189	C1103	G1030	A959	A887	C806	G728
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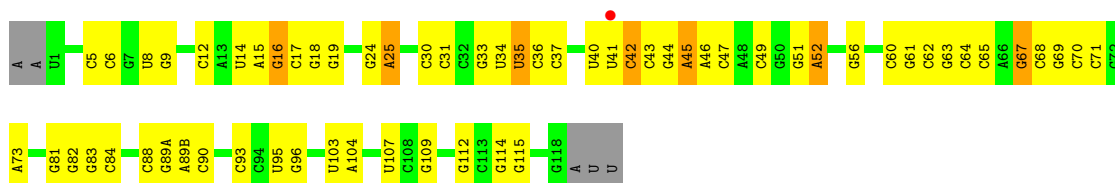
• Molecule 26: 5S rRNA

Chain BB:



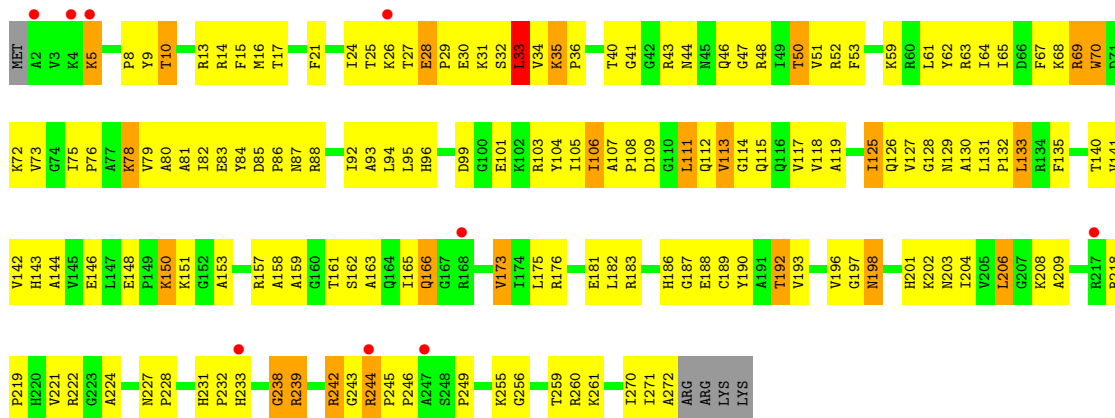
• Molecule 26: 5S rRNA

Chain DB:



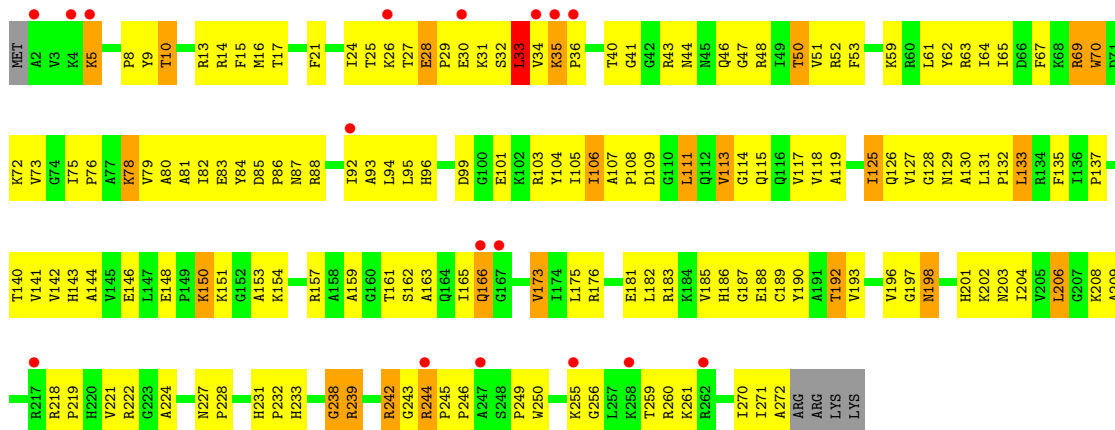
• Molecule 27: 50S ribosomal protein L2

Chain BD:



• Molecule 27: 50S ribosomal protein L2

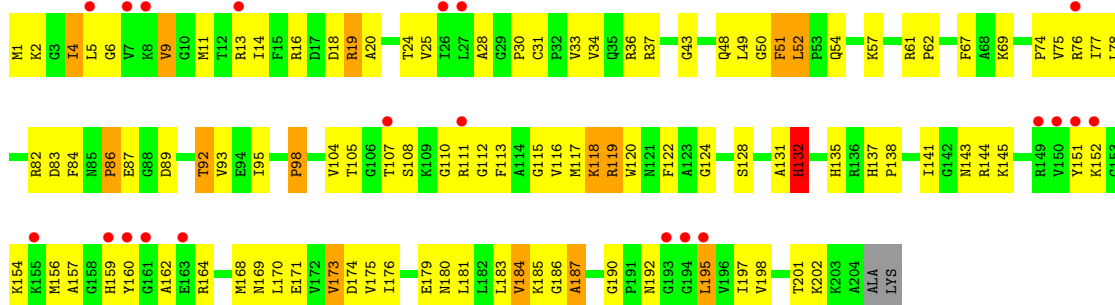
Chain DD:



• Molecule 28: 50S ribosomal protein L3

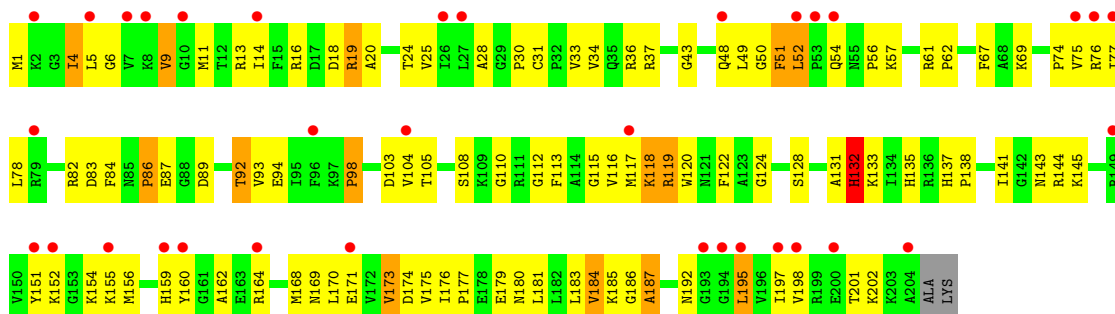
Chain BE:





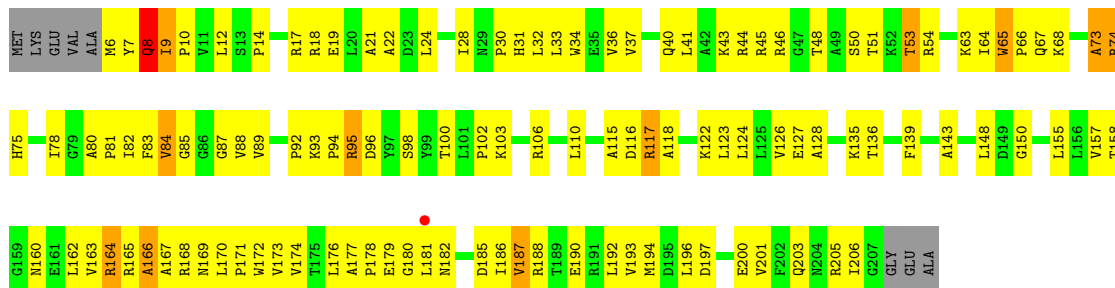
• Molecule 28: 50S ribosomal protein L3

Chain DE:



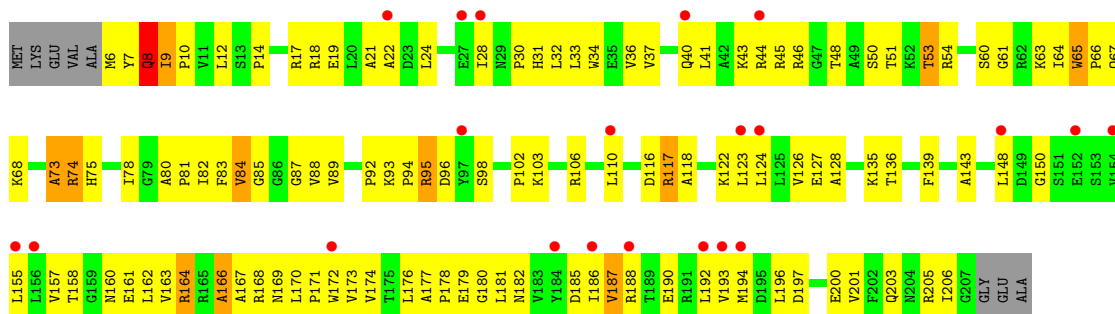
• Molecule 29: 50S ribosomal protein L4

Chain BF:



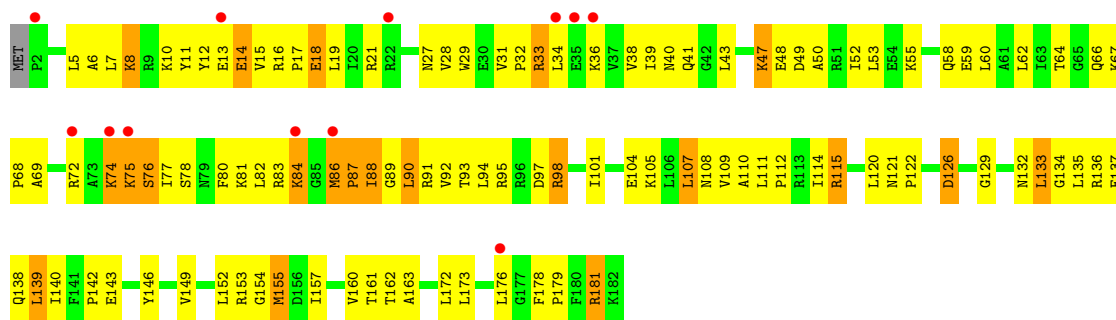
• Molecule 29: 50S ribosomal protein L4

Chain DF:



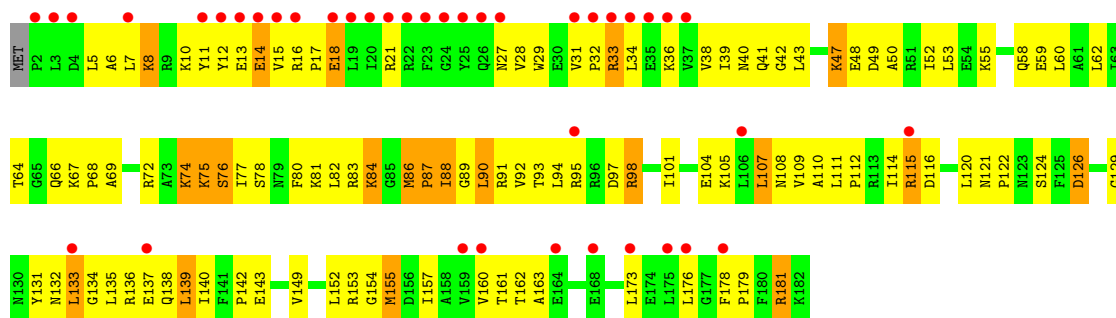
• Molecule 30: 50S ribosomal protein L5

Chain BG:



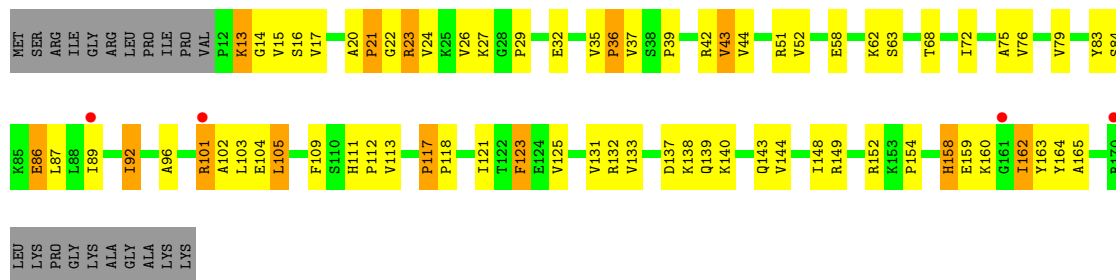
- Molecule 30: 50S ribosomal protein L5

Chain DG:



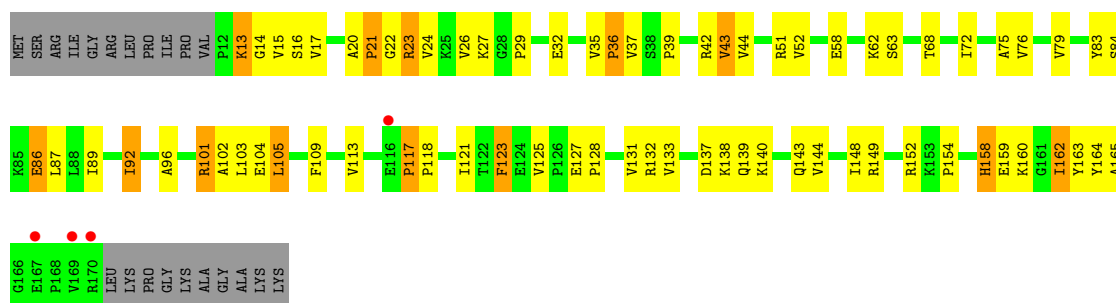
- Molecule 31: 50S ribosomal protein L6

Chain BH:



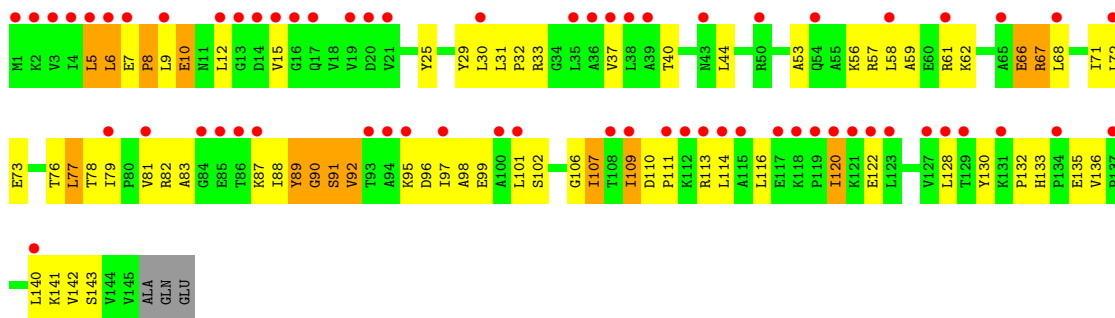
- Molecule 31: 50S ribosomal protein L6

Chain DH:



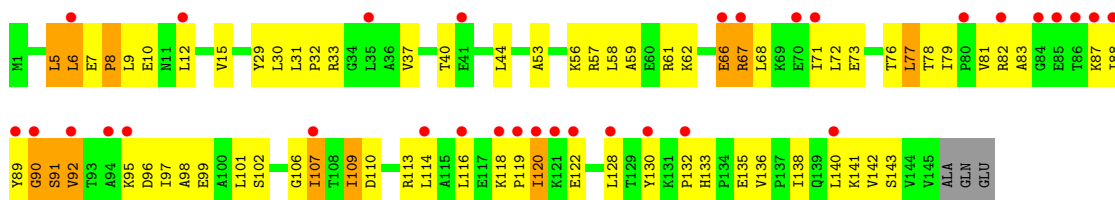
- Molecule 32: 50S ribosomal protein L9

Chain BI:



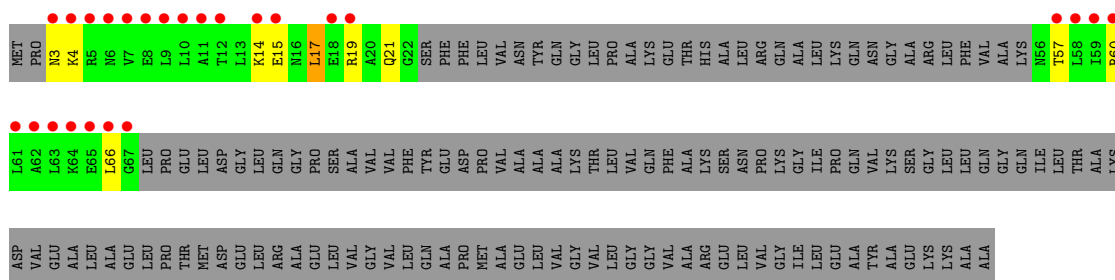
- Molecule 32: 50S ribosomal protein L9

Chain DI:



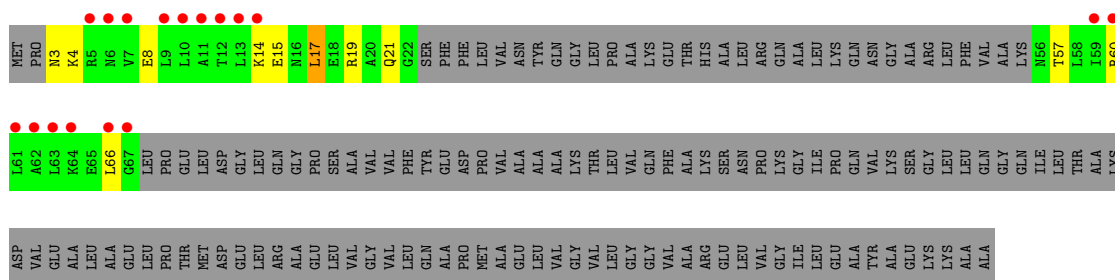
- Molecule 33: 50S ribosomal protein L10

Chain BJ:



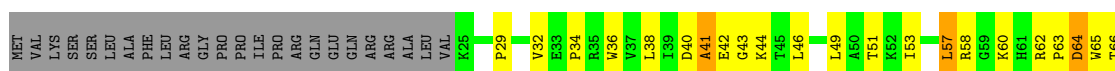
- Molecule 33: 50S ribosomal protein L10

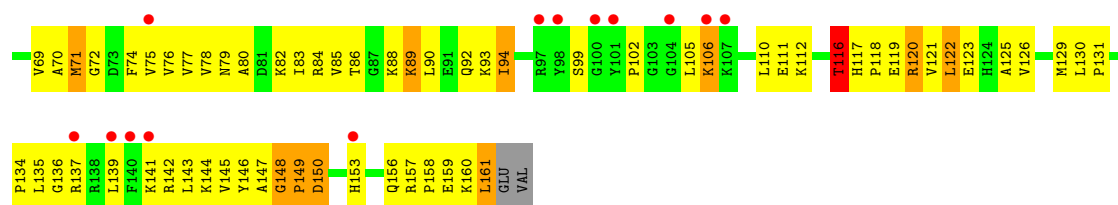
Chain DJ:



- Molecule 34: 50S ribosomal protein L13

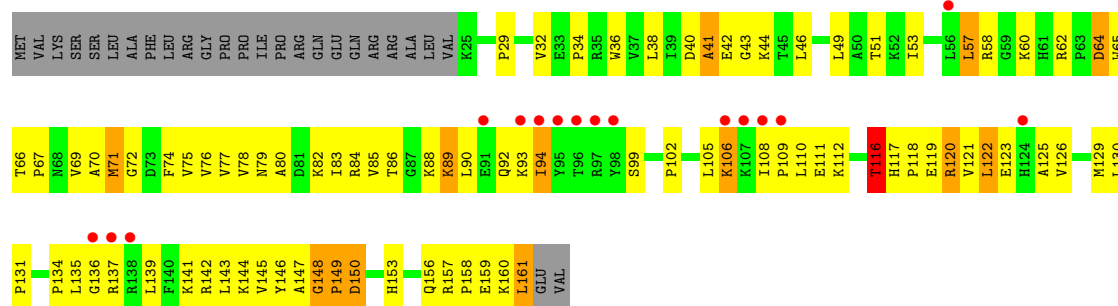
Chain BN:





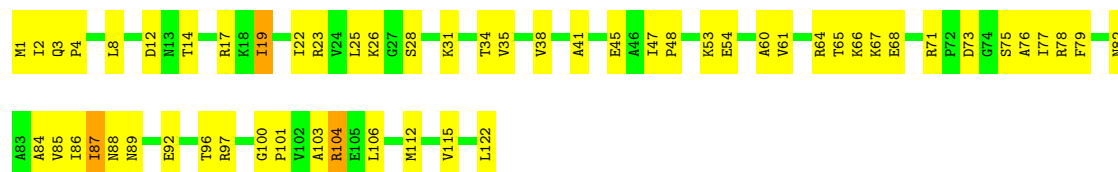
• Molecule 34: 50S ribosomal protein L13

Chain DN:



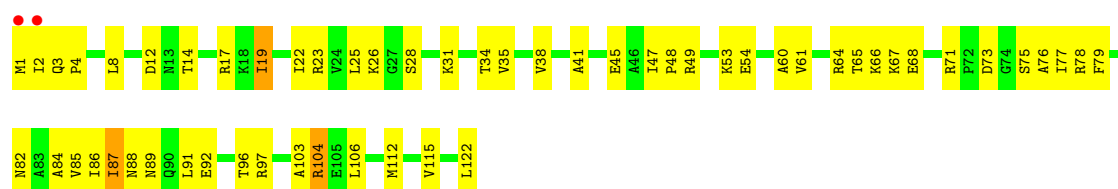
• Molecule 35: 50S ribosomal protein L14

Chain BO:



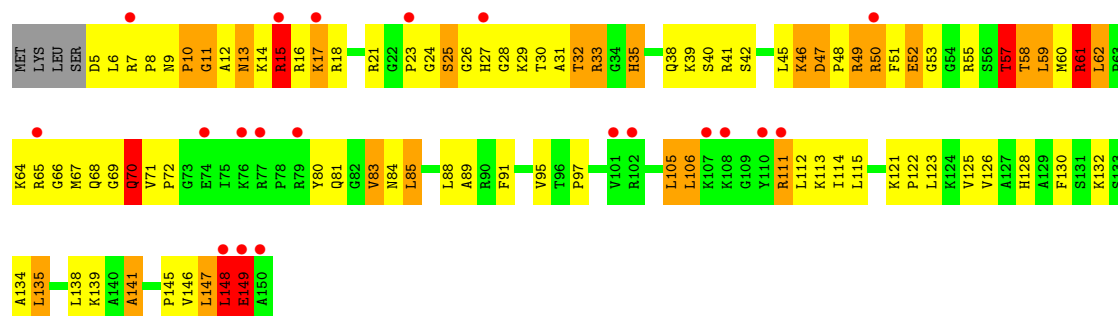
• Molecule 35: 50S ribosomal protein L14

Chain DO:



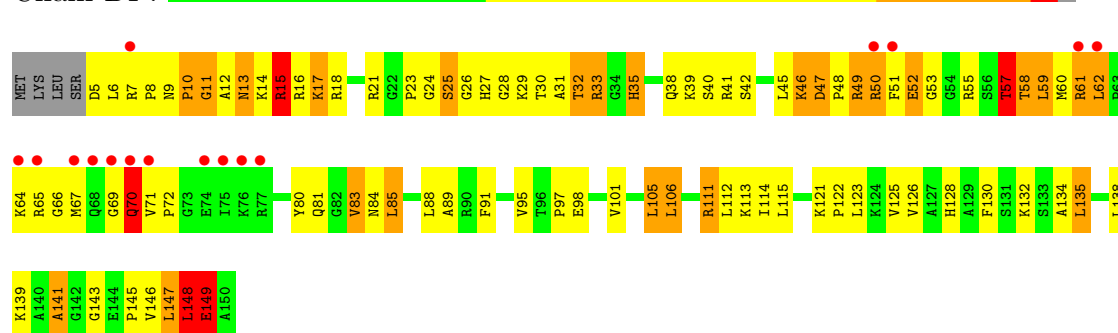
• Molecule 36: 50S ribosomal protein L15

Chain BP:



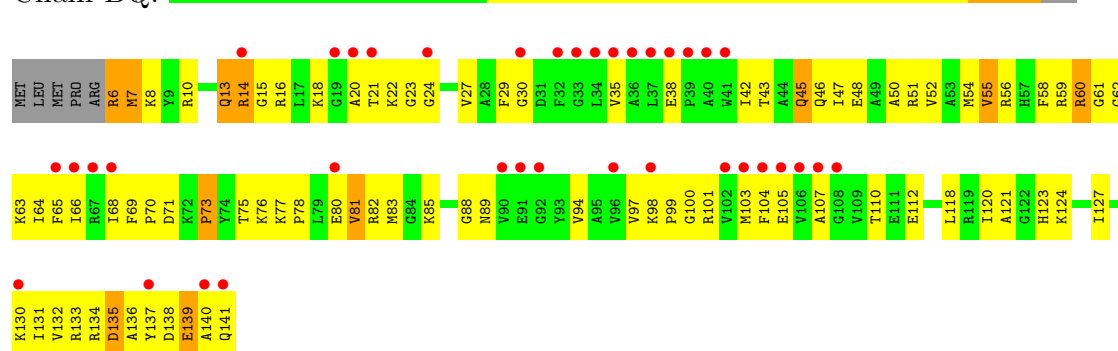
- Molecule 36: 50S ribosomal protein L15

Chain DP:



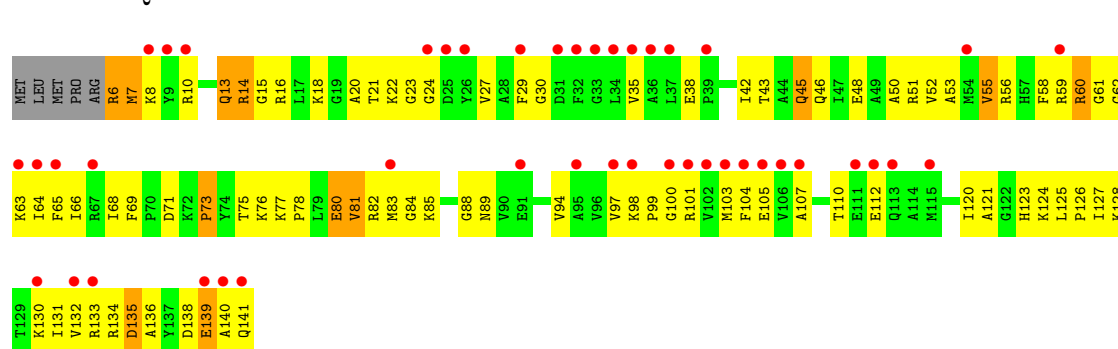
- Molecule 37: 50S ribosomal protein L16

Chain BQ:



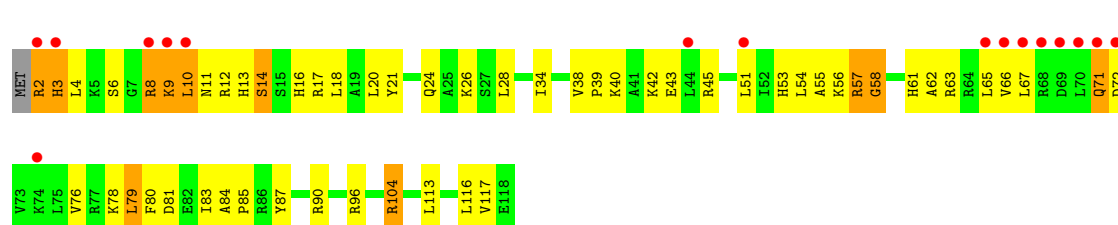
- Molecule 37: 50S ribosomal protein L16

Chain DQ:



- Molecule 38: 50S ribosomal protein L17

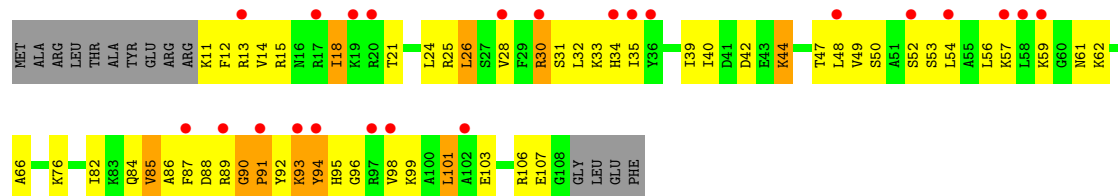
Chain BR:



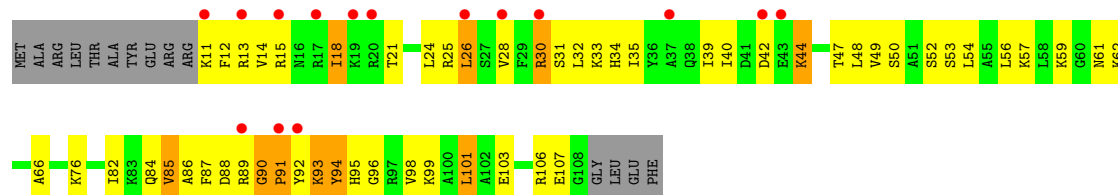
- Molecule 38: 50S ribosomal protein L17

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D72	1000
V76	1000
R77	1000
K78	1000
L79	1000
F80	1000
D81	1000
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R86	1000
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R90	1000
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V97	1000
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L116	1000
V117	1000
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D73	1000
V77	1000
R78	1000
K79	1000
L80	1000
F81	1000
D82	1000
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Y88	1000
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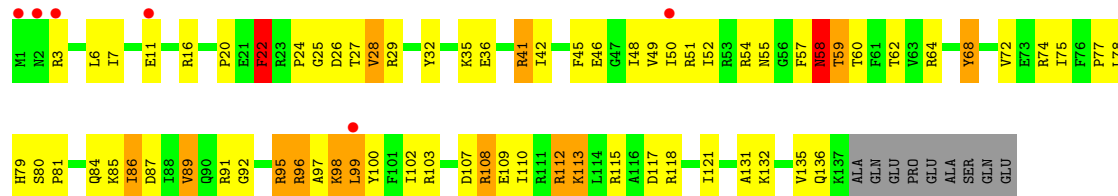
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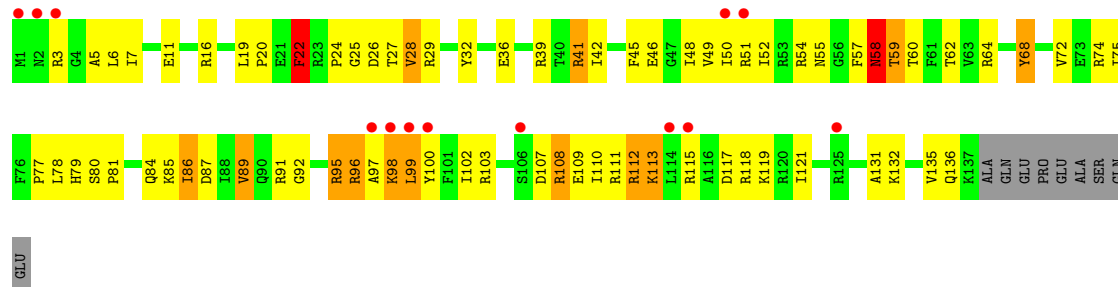
- Chain DS:



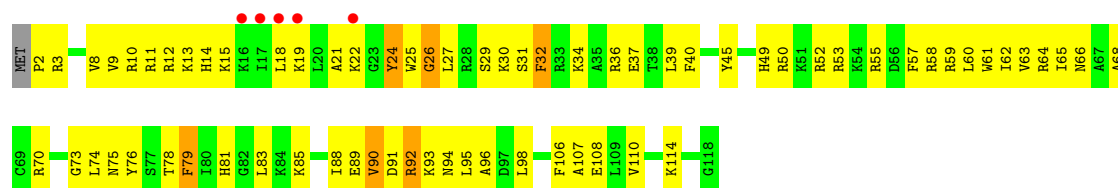
- Chain BT: 



- Chain DT:



- Chain BU:



- Chain DU:



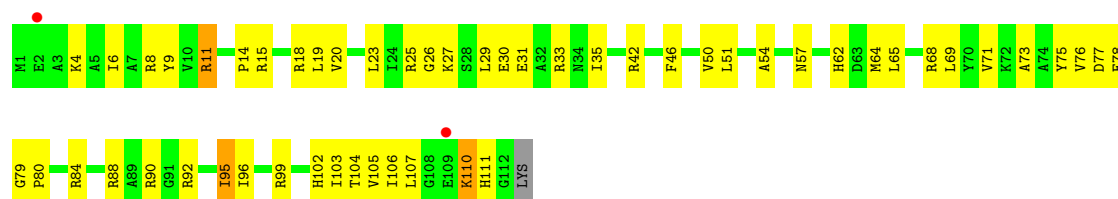
- Chain BV:



- Chain DV:

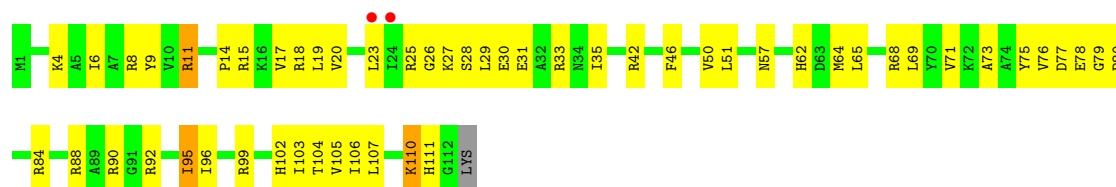


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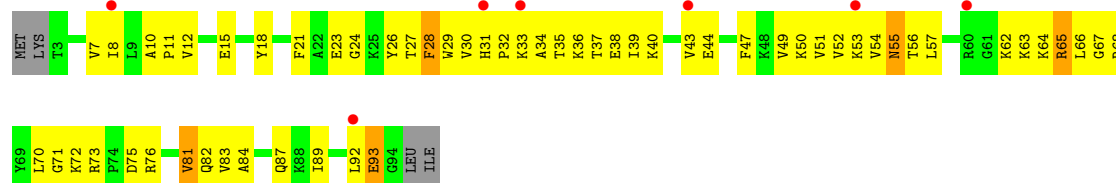
- Molecule 43: 50S ribosomal protein L22

Chain DW:



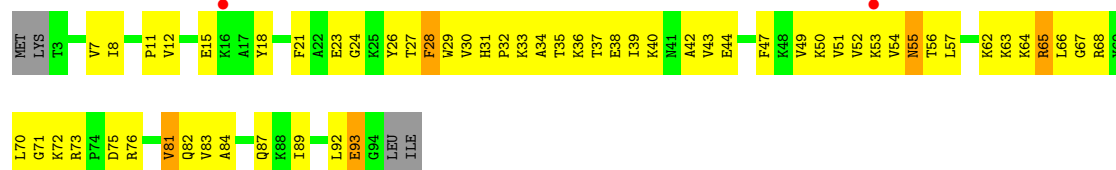
- Molecule 44: 50S ribosomal protein L23

Chain BX:



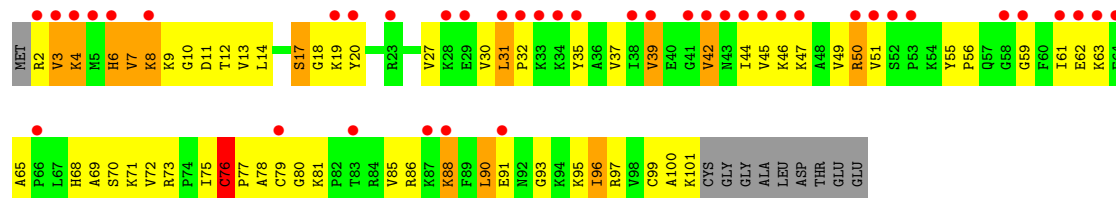
- Molecule 44: 50S ribosomal protein L23

Chain DX:



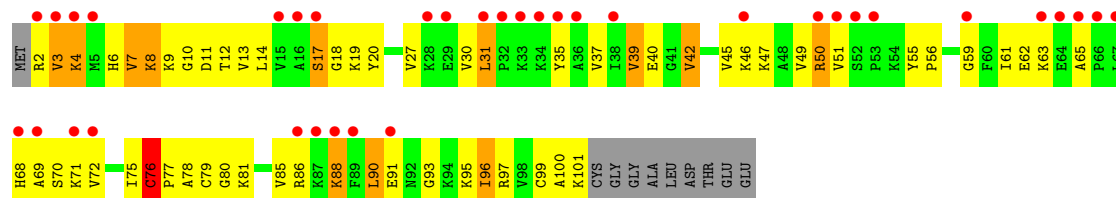
- Molecule 45: 50S ribosomal protein L24

Chain BY:



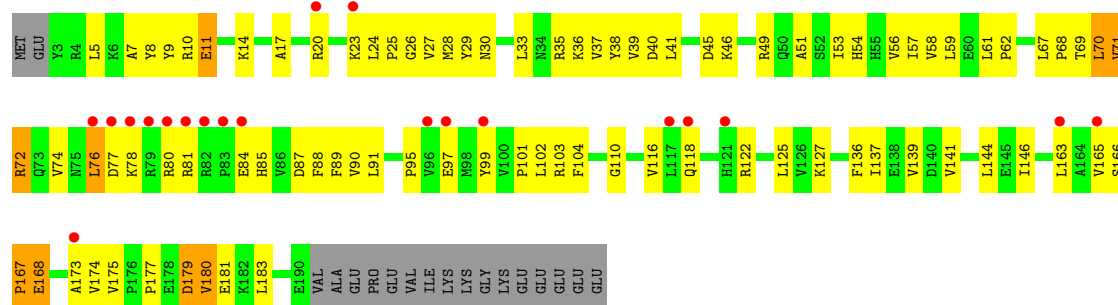
- Molecule 45: 50S ribosomal protein L24

Chain DY:



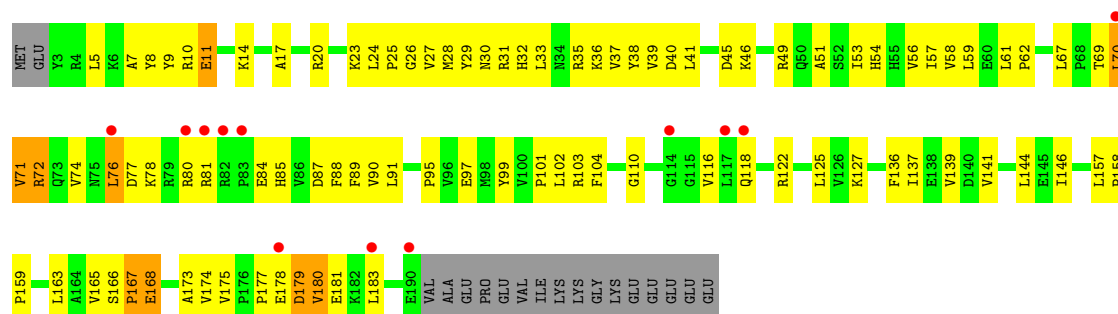
- Molecule 46: 50S ribosomal protein L25

Chain BZ:



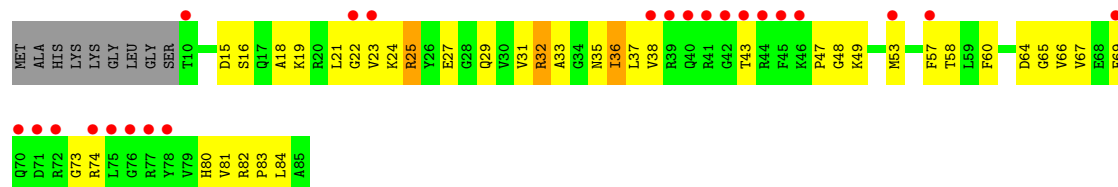
- Molecule 46: 50S ribosomal protein L25

Chain DZ:



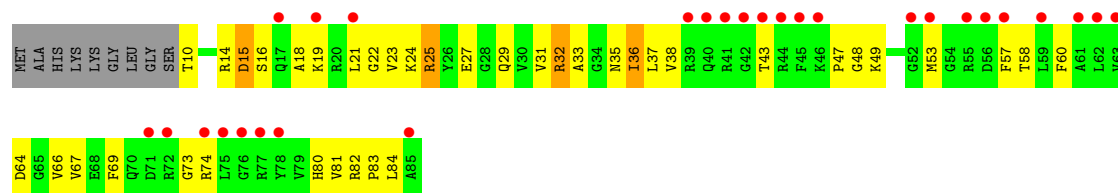
- Molecule 47: 50S ribosomal protein L27

Chain B0:



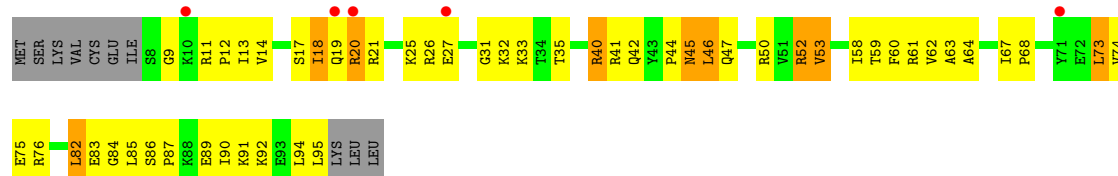
- Molecule 47: 50S ribosomal protein L27

Chain D0:



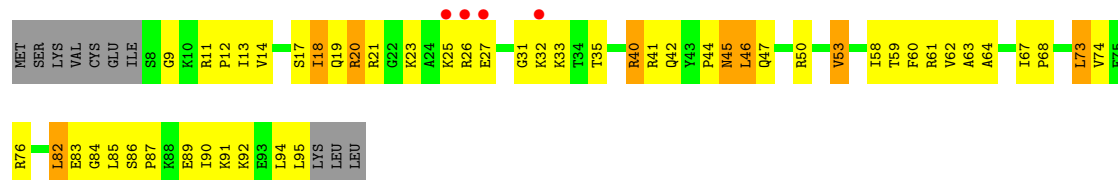
- Molecule 48: 50S ribosomal protein L28

Chain B1:



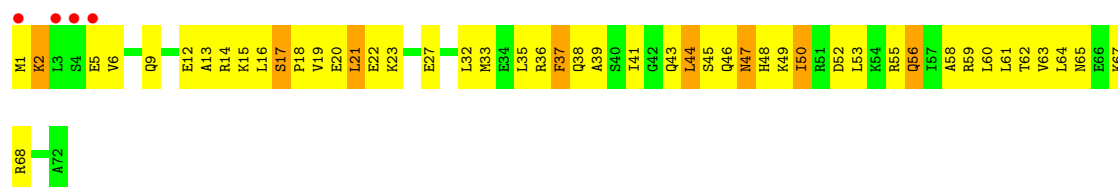
- Molecule 48: 50S ribosomal protein L28

Chain D1:



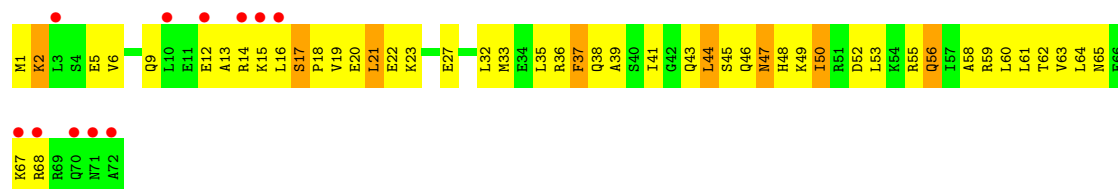
- Molecule 49: 50S ribosomal protein L29

Chain B2:



- Molecule 49: 50S ribosomal protein L29

Chain D2:



- Molecule 50: 50S ribosomal protein L30

Chain B3:



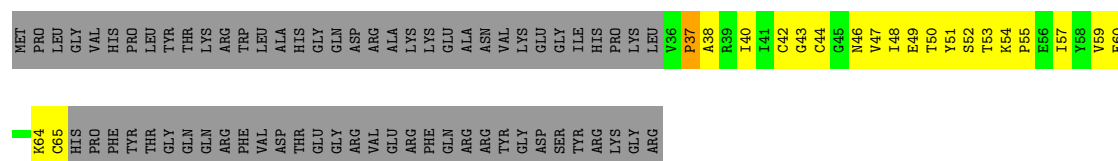
- Molecule 50: 50S ribosomal protein L30

Chain D3:



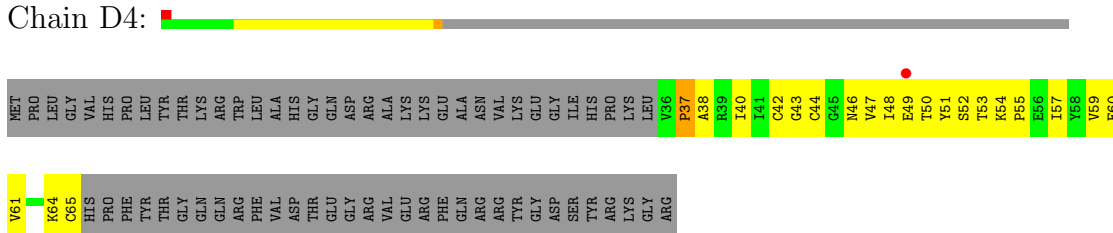
- Molecule 51: 50S ribosomal protein L31

Chain B4:



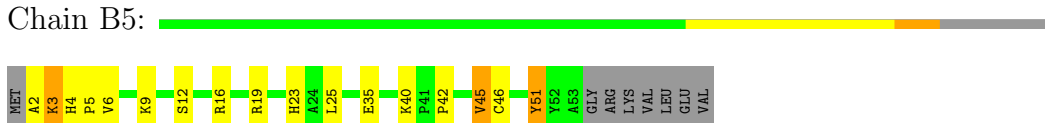
- Molecule 51: 50S ribosomal protein L31

Chain D4:



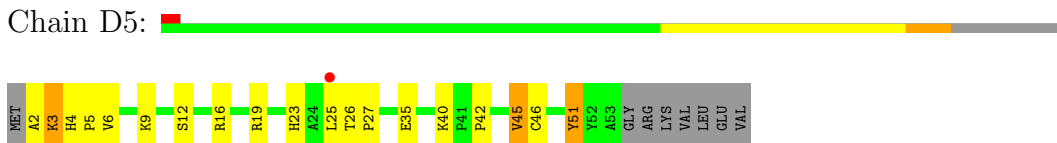
- Molecule 52: 50S ribosomal protein L32

Chain B5:



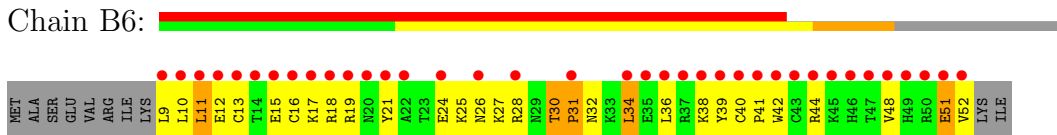
- Molecule 52: 50S ribosomal protein L32

Chain D5:



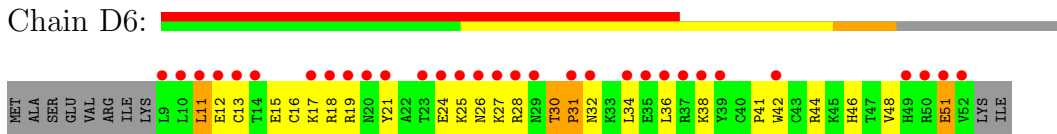
- Molecule 53: 50S ribosomal protein L33

Chain B6:



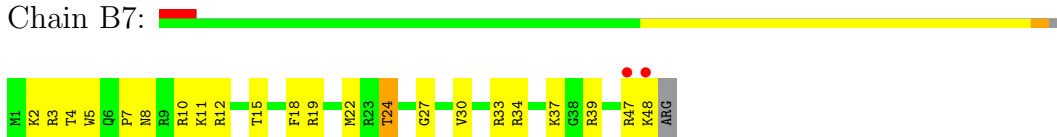
- Molecule 53: 50S ribosomal protein L33

Chain D6:



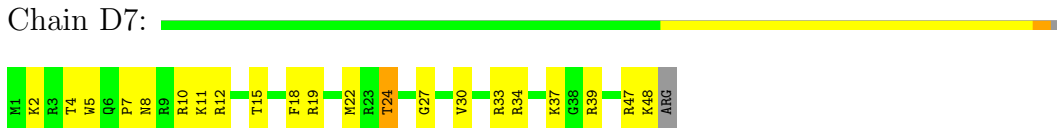
- Molecule 54: 50S ribosomal protein L34

Chain B7:



- Molecule 54: 50S ribosomal protein L34

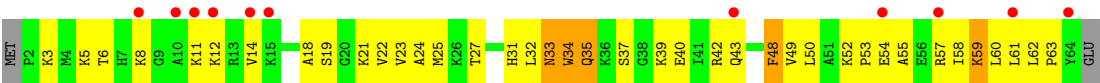
Chain D7:



- Molecule 55: 50S ribosomal protein L35

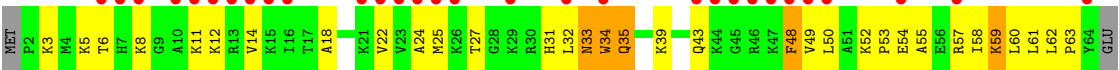
Chain B8:





• Molecule 55: 50S ribosomal protein L35

Chain D8:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.13Å 454.39Å 616.45Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.90 – 3.21 87.17 – 3.20	Depositor EDS
% Data completeness (in resolution range)	95.1 (49.90-3.21) 95.1 (87.17-3.20)	Depositor EDS
R_{merge}	0.27	Depositor
R_{sym}	0.27	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.69 (at 3.19Å)	Xtriage
Refinement program	PHENIX (phenix.refine)	Depositor
R, R_{free}	0.292 , 0.319 0.336 , 0.358	Depositor DCC
R_{free} test set	7069 reflections (0.78%)	DCC
Wilson B-factor (Å ²)	54.0	Xtriage
Anisotropy	0.069	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.17 , 31.5	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.26$, $\langle L^2 \rangle = 0.11$	Xtriage
Outliers	0 of 952768 reflections	Xtriage
F_o, F_c correlation	0.82	EDS
Total number of atoms	299961	wwPDB-VP
Average B, all atoms (Å ²)	143.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.17% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	AA	0.42	0/36194	0.85	27/56493 (0.0%)
1	CA	0.41	0/36194	0.85	24/56493 (0.0%)
2	AY	0.42	0/1832	0.81	1/2855 (0.0%)
2	AZ	0.39	0/1832	0.80	0/2855
2	CY	0.43	0/1832	0.82	1/2855 (0.0%)
2	CZ	0.40	0/1832	0.80	0/2855
3	AV	0.43	0/291	0.81	0/452
3	CV	0.42	0/291	0.82	0/452
4	AB	0.21	0/1935	0.38	0/2609
4	CB	0.21	0/1935	0.38	0/2609
5	AC	0.21	0/1636	0.36	0/2205
5	CC	0.21	0/1636	0.36	0/2205
6	AD	0.22	0/1733	0.38	0/2318
6	CD	0.22	0/1733	0.37	0/2318
7	AE	0.22	0/1171	0.39	0/1576
7	CE	0.22	0/1171	0.39	0/1576
8	AF	0.22	0/856	0.39	0/1154
8	CF	0.23	0/856	0.40	0/1154
9	AG	0.21	0/1276	0.36	0/1709
9	CG	0.21	0/1276	0.36	0/1709
10	AH	0.22	0/1136	0.40	0/1527
10	CH	0.21	0/1136	0.40	0/1527
11	AI	0.21	0/1029	0.37	0/1378
11	CI	0.21	0/1029	0.37	0/1378
12	AJ	0.21	0/807	0.39	0/1085
12	CJ	0.21	0/807	0.39	0/1085
13	AK	0.21	0/900	0.39	0/1213
13	CK	0.22	0/900	0.39	0/1213
14	AL	0.23	0/986	0.42	0/1320
14	CL	0.23	0/986	0.42	0/1320
15	AM	0.19	0/943	0.39	0/1265
15	CM	0.19	0/943	0.39	0/1265

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	AN	0.22	0/501	0.36	0/664
16	CN	0.22	0/501	0.36	0/664
17	AO	0.22	0/745	0.36	0/992
17	CO	0.21	0/745	0.36	0/992
18	AP	0.22	0/716	0.40	0/963
18	CP	0.21	0/716	0.39	0/963
19	AQ	0.22	0/836	0.38	0/1117
19	CQ	0.23	0/836	0.38	0/1117
20	AR	0.22	0/579	0.39	0/768
20	CR	0.22	0/579	0.39	0/768
21	AS	0.21	0/642	0.38	0/865
21	CS	0.21	0/642	0.38	0/865
22	AT	0.22	0/764	0.36	0/1006
22	CT	0.21	0/764	0.36	0/1006
23	AU	0.20	0/212	0.36	0/277
23	CU	0.19	0/212	0.36	0/277
24	AX	0.23	0/2850	0.40	0/3829
24	CX	0.22	0/2850	0.40	0/3829
25	BA	0.44	0/69437	0.88	51/108401 (0.0%)
25	DA	0.44	0/69437	0.89	55/108401 (0.1%)
26	BB	0.41	0/2853	0.85	1/4451 (0.0%)
26	DB	0.41	0/2853	0.84	1/4451 (0.0%)
27	BD	0.25	0/2154	0.44	0/2905
27	DD	0.26	0/2154	0.44	0/2905
28	BE	0.24	0/1596	0.44	0/2153
28	DE	0.23	0/1596	0.44	0/2153
29	BF	0.23	0/1621	0.40	0/2194
29	DF	0.23	0/1621	0.40	0/2194
30	BG	0.21	0/1500	0.40	0/2017
30	DG	0.21	0/1500	0.40	0/2017
31	BH	0.20	0/1245	0.40	0/1682
31	DH	0.20	0/1245	0.40	0/1682
32	BI	0.21	0/1147	0.41	0/1552
32	DI	0.21	0/1147	0.41	0/1552
33	BJ	0.21	0/251	0.38	0/333
33	DJ	0.21	0/251	0.38	0/333
34	BN	0.22	0/1123	0.44	0/1515
34	DN	0.22	0/1123	0.44	0/1515
35	BO	0.25	0/942	0.42	0/1268
35	DO	0.24	0/942	0.42	0/1268
36	BP	0.24	0/1131	0.45	0/1504
36	DP	0.24	0/1131	0.46	0/1504
37	BQ	0.24	0/1099	0.44	0/1468

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
37	DQ	0.24	0/1099	0.44	0/1468
38	BR	0.23	0/974	0.45	1/1302 (0.1%)
38	DR	0.22	0/974	0.41	0/1302
39	BS	0.21	0/778	0.38	0/1036
39	DS	0.21	0/778	0.38	0/1036
40	BT	0.23	0/1157	0.40	0/1544
40	DT	0.22	0/1157	0.39	0/1544
41	BU	0.26	0/982	0.41	0/1306
41	DU	0.28	0/982	0.42	0/1306
42	BV	0.23	0/790	0.40	0/1057
42	DV	0.23	0/790	0.40	0/1057
43	BW	0.23	0/901	0.40	0/1209
43	DW	0.24	0/901	0.39	0/1209
44	BX	0.24	0/739	0.41	0/993
44	DX	0.24	0/739	0.41	0/993
45	BY	0.24	0/788	0.44	0/1051
45	DY	0.24	0/788	0.43	0/1051
46	BZ	0.22	0/1523	0.42	0/2068
46	DZ	0.22	0/1523	0.42	0/2068
47	B0	0.22	0/613	0.39	0/816
47	D0	0.22	0/613	0.39	0/816
48	B1	0.25	0/701	0.47	0/932
48	D1	0.25	0/701	0.47	0/932
49	B2	0.24	0/607	0.48	0/803
49	D2	0.24	0/607	0.48	0/803
50	B3	0.22	0/472	0.40	0/634
50	D3	0.22	0/472	0.40	0/634
51	B4	0.20	0/228	0.41	0/309
51	D4	0.21	0/228	0.41	0/309
52	B5	0.22	0/418	0.43	0/567
52	D5	0.22	0/418	0.43	0/567
53	B6	0.23	0/387	0.43	0/518
53	D6	0.23	0/387	0.43	0/518
54	B7	0.23	0/426	0.41	0/561
54	D7	0.25	0/426	0.41	0/561
55	B8	0.24	0/515	0.41	0/679
55	D8	0.24	0/515	0.41	0/679
All	All	0.38	0/323000	0.77	162/482646 (0.0%)

There are no bond length outliers.

All (162) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1379	A	C1'-O4'-C4'	-11.90	100.38	109.90
25	BA	1379	A	C1'-O4'-C4'	-11.49	100.71	109.90
25	DA	1091	G	P-O3'-C3'	10.71	132.56	119.70
25	BA	1091	G	P-O3'-C3'	10.65	132.48	119.70
25	DA	1786	A	C1'-O4'-C4'	-9.82	102.04	109.90
25	BA	1786	A	C1'-O4'-C4'	-9.75	102.10	109.90
25	BA	1786	A	C3'-C2'-C1'	-8.72	94.53	101.50
25	DA	1786	A	C3'-C2'-C1'	-8.49	94.70	101.50
25	DA	1071	G	P-O3'-C3'	-8.41	109.61	119.70
25	BA	1071	G	P-O3'-C3'	-8.37	109.65	119.70
25	BA	1913	A	C1'-O4'-C4'	-8.10	103.42	109.90
25	DA	1069	A	P-O3'-C3'	8.08	129.39	119.70
25	BA	1069	A	P-O3'-C3'	8.03	129.34	119.70
25	BA	1786	A	O4'-C1'-N9	8.02	114.61	108.20
25	DA	1786	A	O4'-C1'-N9	7.79	114.43	108.20
25	BA	1098	A	P-O3'-C3'	-7.75	110.40	119.70
25	DA	1098	A	P-O3'-C3'	-7.72	110.43	119.70
25	DA	1913	A	C1'-O4'-C4'	-7.67	103.76	109.90
25	DA	1022	G	P-O3'-C3'	7.57	128.79	119.70
25	DA	2603	G	C4'-C3'-C2'	-7.50	95.10	102.60
25	DA	1558	A	P-O3'-C3'	7.35	128.52	119.70
25	BA	1558	A	P-O3'-C3'	7.26	128.41	119.70
25	BA	1022	G	P-O3'-C3'	7.25	128.40	119.70
25	BA	2603	G	C4'-C3'-C2'	-7.25	95.36	102.60
1	CA	115	G	P-O3'-C3'	7.11	128.23	119.70
1	AA	115	G	P-O3'-C3'	7.06	128.17	119.70
25	DA	1266	G	C3'-C2'-C1'	-7.02	95.89	101.50
1	AA	1300	G	P-O3'-C3'	6.98	128.08	119.70
25	DA	2603	G	C1'-O4'-C4'	-6.85	104.42	109.90
1	CA	1498	U	P-O3'-C3'	6.77	127.83	119.70
1	AA	1201	A	P-O3'-C3'	6.72	127.77	119.70
25	BA	1069	A	O4'-C1'-N9	6.71	113.56	108.20
25	DA	1069	A	O4'-C1'-N9	6.70	113.56	108.20
1	CA	1201	A	P-O3'-C3'	6.66	127.69	119.70
1	CA	1300	G	P-O3'-C3'	6.62	127.65	119.70
25	BA	221	A	P-O3'-C3'	6.59	127.61	119.70
25	DA	512	G	C1'-O4'-C4'	-6.57	104.64	109.90
1	AA	1285	A	P-O3'-C3'	6.57	127.58	119.70
25	BA	1365	A	C4'-C3'-C2'	-6.56	96.04	102.60
25	BA	1266	G	C3'-C2'-C1'	-6.56	96.25	101.50
25	DA	221	A	P-O3'-C3'	6.55	127.56	119.70
25	DA	945	A	C1'-O4'-C4'	-6.51	104.69	109.90
25	BA	1300	U	P-O3'-C3'	6.51	127.51	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1300	U	P-O3'-C3'	6.50	127.50	119.70
1	AA	1498	U	P-O3'-C3'	6.49	127.49	119.70
25	BA	2603	G	C1'-O4'-C4'	-6.49	104.70	109.90
1	CA	1064	G	P-O3'-C3'	6.49	127.49	119.70
25	DA	676	A	C1'-O4'-C4'	-6.49	104.71	109.90
25	BA	512	G	C1'-O4'-C4'	-6.45	104.74	109.90
1	CA	1285	A	P-O3'-C3'	6.43	127.42	119.70
25	BA	676	A	C1'-O4'-C4'	-6.38	104.80	109.90
25	BA	945	A	C1'-O4'-C4'	-6.37	104.80	109.90
25	DA	1937	A	P-O3'-C3'	6.33	127.29	119.70
1	AA	1064	G	P-O3'-C3'	6.28	127.24	119.70
25	DA	2603	G	O4'-C1'-N9	6.27	113.22	108.20
25	DA	1786	A	O4'-C1'-C2'	-6.16	99.64	105.80
1	CA	855	G	C4'-C3'-C2'	-6.15	96.45	102.60
1	AA	855	G	C4'-C3'-C2'	-6.05	96.55	102.60
25	BA	2346	A	C1'-O4'-C4'	-6.04	105.06	109.90
25	DA	2422	A	P-O3'-C3'	6.03	126.94	119.70
25	DA	1365	A	C4'-C3'-C2'	-5.97	96.62	102.60
1	AA	438	G	P-O3'-C3'	5.93	126.82	119.70
25	BA	1937	A	P-O3'-C3'	5.92	126.81	119.70
25	BA	2422	A	P-O3'-C3'	5.89	126.77	119.70
1	CA	1065	U	P-O3'-C3'	5.87	126.74	119.70
25	BA	205	G	C3'-C2'-C1'	-5.87	96.81	101.50
25	DA	2346	A	C1'-O4'-C4'	-5.84	105.23	109.90
1	CA	438	G	P-O3'-C3'	5.84	126.70	119.70
1	CA	1504	G	P-O3'-C3'	5.80	126.66	119.70
25	DA	1698	A	C3'-C2'-C1'	-5.71	96.93	101.50
1	AA	266	G	P-O3'-C3'	5.70	126.54	119.70
25	BA	387	U	C3'-C2'-C1'	-5.69	96.95	101.50
25	DA	205	G	C3'-C2'-C1'	-5.67	96.96	101.50
1	AA	51	A	C3'-C2'-C1'	-5.66	96.97	101.50
25	BA	1786	A	O4'-C1'-C2'	-5.66	100.14	105.80
1	CA	266	G	P-O3'-C3'	5.66	126.49	119.70
1	AA	250	A	P-O3'-C3'	5.63	126.46	119.70
25	DA	616	A	P-O3'-C3'	5.62	126.45	119.70
25	DA	1913	A	O4'-C1'-N9	5.62	112.69	108.20
25	BA	1241	A	C1'-O4'-C4'	-5.60	105.42	109.90
1	CA	428	G	P-O3'-C3'	5.60	126.42	119.70
1	AA	1145	C	P-O3'-C3'	5.56	126.37	119.70
25	BA	1195	G	C4'-C3'-C2'	-5.56	97.04	102.60
1	AA	366	C	P-O3'-C3'	5.55	126.36	119.70
1	CA	366	C	P-O3'-C3'	5.54	126.35	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	428	G	P-O3'-C3'	5.54	126.34	119.70
1	AA	30	U	P-O3'-C3'	5.52	126.33	119.70
1	CA	533	A	P-O3'-C3'	5.50	126.31	119.70
1	CA	250	A	P-O3'-C3'	5.50	126.30	119.70
1	AA	1065	U	P-O3'-C3'	5.49	126.28	119.70
25	BA	2225	A	P-O3'-C3'	5.48	126.28	119.70
25	DA	2225	A	P-O3'-C3'	5.47	126.26	119.70
25	BA	2092	U	P-O3'-C3'	-5.46	113.15	119.70
25	DA	387	U	C3'-C2'-C1'	-5.44	97.15	101.50
25	BA	1698	A	C3'-C2'-C1'	-5.43	97.15	101.50
25	BA	2603	G	O4'-C1'-N9	5.43	112.55	108.20
25	DA	283	A	P-O3'-C3'	5.43	126.22	119.70
25	DA	1195	G	C4'-C3'-C2'	-5.42	97.18	102.60
25	DA	1241	A	C1'-O4'-C4'	-5.41	105.57	109.90
1	CA	1145	C	P-O3'-C3'	5.40	126.18	119.70
25	BA	1913	A	O4'-C1'-N9	5.37	112.49	108.20
25	BA	332	A	P-O3'-C3'	5.36	126.13	119.70
1	AA	498	A	C3'-C2'-C1'	-5.33	97.24	101.50
1	AA	1504	G	P-O3'-C3'	5.33	126.09	119.70
25	DA	1204	A	C3'-C2'-C1'	-5.33	97.24	101.50
25	BA	283	A	P-O3'-C3'	5.32	126.08	119.70
1	CA	748	C	P-O3'-C3'	5.31	126.08	119.70
25	DA	332	A	P-O3'-C3'	5.30	126.07	119.70
25	BA	974(B)	C	C3'-C2'-C1'	-5.29	97.27	101.50
1	CA	1067	A	P-O3'-C3'	5.28	126.04	119.70
25	DA	401	A	C1'-O4'-C4'	-5.28	105.68	109.90
25	DA	128	C	P-O3'-C3'	-5.27	113.38	119.70
25	BA	2346	A	C3'-C2'-C1'	-5.25	97.30	101.50
25	BA	1211	U	C1'-O4'-C4'	-5.25	105.70	109.90
1	AA	748	C	P-O3'-C3'	5.23	125.98	119.70
2	AY	21	A	C3'-C2'-C1'	5.23	105.69	101.50
1	CA	498	A	C3'-C2'-C1'	-5.23	97.31	101.50
25	DA	1970	A	C1'-O4'-C4'	-5.23	105.72	109.90
1	CA	328	C	P-O3'-C3'	5.22	125.97	119.70
25	BA	401	A	C1'-O4'-C4'	-5.21	105.73	109.90
25	BA	627	A	C3'-C2'-C1'	-5.21	97.33	101.50
1	CA	30	U	P-O3'-C3'	5.21	125.95	119.70
25	BA	1494	A	P-O3'-C3'	5.20	125.94	119.70
25	DA	907	U	C4'-C3'-C2'	-5.20	97.40	102.60
25	BA	1204	A	C3'-C2'-C1'	-5.19	97.35	101.50
1	CA	246	A	C1'-O4'-C4'	-5.19	105.75	109.90
25	DA	317	G	C4'-C3'-C2'	-5.18	97.42	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	533	A	P-O3'-C3'	5.18	125.91	119.70
25	BA	1970	A	C1'-O4'-C4'	-5.17	105.76	109.90
25	DA	562	U	C3'-C2'-C1'	5.17	105.64	101.50
25	DA	2609	U	C3'-C2'-C1'	-5.17	97.36	101.50
1	AA	246	A	C1'-O4'-C4'	-5.17	105.77	109.90
25	DA	627	A	C3'-C2'-C1'	-5.16	97.37	101.50
1	CA	51	A	C3'-C2'-C1'	-5.16	97.37	101.50
25	DA	1098	A	OP1-P-O3'	5.15	116.53	105.20
25	BA	1098	A	OP1-P-O3'	5.14	116.51	105.20
1	AA	533	A	C3'-C2'-C1'	5.13	105.60	101.50
1	AA	1067	A	P-O3'-C3'	5.12	125.85	119.70
25	DA	1494	A	P-O3'-C3'	5.12	125.85	119.70
25	BA	616	A	P-O3'-C3'	5.10	125.82	119.70
25	DA	1378	A	P-O3'-C3'	5.10	125.82	119.70
2	CY	21	A	C3'-C2'-C1'	5.09	105.58	101.50
25	DA	974(B)	C	C3'-C2'-C1'	-5.09	97.42	101.50
25	DA	1071	G	N9-C1'-C2'	-5.09	106.40	112.00
25	BA	317	G	C4'-C3'-C2'	-5.09	97.51	102.60
25	DA	2595	G	C4'-C3'-C2'	-5.08	97.52	102.60
1	AA	1067	A	C3'-C2'-C1'	5.08	105.57	101.50
26	DB	84	C	C4'-C3'-C2'	-5.08	97.53	102.60
25	DA	2092	U	P-O3'-C3'	5.07	125.79	119.70
25	DA	2035	G	C1'-O4'-C4'	-5.07	105.85	109.90
25	BA	72	U	C3'-C2'-C1'	-5.06	97.45	101.50
1	AA	913	A	P-O3'-C3'	5.05	125.76	119.70
1	AA	60	A	P-O3'-C3'	5.04	125.75	119.70
25	DA	2346	A	C3'-C2'-C1'	-5.03	97.47	101.50
25	BA	1071	G	N9-C1'-C2'	-5.02	106.47	112.00
26	BB	84	C	C4'-C3'-C2'	-5.02	97.58	102.60
25	DA	1617	C	C4'-C3'-C2'	-5.02	97.58	102.60
38	BR	2	ARG	NE-CZ-NH1	-5.02	117.79	120.30
25	BA	1742	C	C4'-C3'-C2'	-5.01	97.59	102.60
1	CA	60	A	P-O3'-C3'	5.01	125.72	119.70
1	AA	328	C	P-O3'-C3'	5.01	125.71	119.70
25	BA	74	A	P-O3'-C3'	5.00	125.70	119.70

There are no chirality outliers.

There are no planarity outliers.

5.2 Close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32332	0	16318	788	0
1	CA	32332	0	16318	782	0
2	AY	1640	0	837	31	0
2	AZ	1640	0	837	34	0
2	CY	1640	0	837	32	0
2	CZ	1640	0	837	32	0
3	AV	258	0	132	4	0
3	CV	258	0	132	6	0
4	AB	1900	0	1951	109	0
4	CB	1900	0	1951	109	0
5	AC	1612	0	1677	92	0
5	CC	1612	0	1677	88	0
6	AD	1703	0	1765	74	0
6	CD	1703	0	1765	72	0
7	AE	1155	0	1213	74	0
7	CE	1155	0	1213	70	0
8	AF	843	0	857	44	0
8	CF	843	0	857	45	0
9	AG	1257	0	1296	64	0
9	CG	1257	0	1296	59	0
10	AH	1116	0	1177	64	0
10	CH	1116	0	1177	62	0
11	AI	1011	0	1043	62	0
11	CI	1011	0	1043	60	0
12	AJ	794	0	840	61	0
12	CJ	794	0	840	61	0
13	AK	885	0	904	60	0
13	CK	885	0	904	55	0
14	AL	970	0	1057	74	0
14	CL	970	0	1057	78	0
15	AM	933	0	992	55	0
15	CM	933	0	992	56	0
16	AN	492	0	531	42	0
16	CN	492	0	532	40	0
17	AO	734	0	771	33	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
17	CO	734	0	771	31	0
18	AP	700	0	720	36	0
18	CP	700	0	720	36	0
19	AQ	823	0	893	44	0
19	CQ	823	0	893	43	0
20	AR	574	0	644	28	0
20	CR	574	0	644	27	0
21	AS	629	0	652	61	0
21	CS	629	0	652	59	0
22	AT	762	0	859	39	0
22	CT	762	0	859	40	0
23	AU	208	0	221	8	0
23	CU	208	0	221	7	0
24	AX	2813	0	2823	159	0
24	CX	2813	0	2823	155	0
25	BA	61997	0	31250	1569	0
25	DA	61997	0	31250	1579	0
26	BB	2551	0	1295	54	0
26	DB	2551	0	1295	58	0
27	BD	2104	0	2182	166	0
27	DD	2104	0	2182	170	0
28	BE	1563	0	1629	110	0
28	DE	1563	0	1629	111	0
29	BF	1586	0	1632	128	0
29	DF	1586	0	1632	124	0
30	BG	1475	0	1537	115	0
30	DG	1475	0	1537	114	0
31	BH	1222	0	1282	59	0
31	DH	1222	0	1282	58	0
32	BI	1132	0	1220	60	0
32	DI	1132	0	1220	57	0
33	BJ	253	0	275	8	0
33	DJ	253	0	275	10	0
34	BN	1096	0	1168	83	0
34	DN	1096	0	1168	85	0
35	BO	932	0	994	52	0
35	DO	932	0	994	56	0
36	BP	1114	0	1187	148	0
36	DP	1114	0	1187	150	0
37	BQ	1079	0	1127	85	0
37	DQ	1079	0	1127	89	0
38	BR	960	0	1021	60	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	DR	960	0	1021	57	0
39	BS	770	0	832	57	0
39	DS	770	0	832	57	0
40	BT	1143	0	1211	77	0
40	DT	1143	0	1211	82	0
41	BU	964	0	1022	84	0
41	DU	964	0	1022	80	0
42	BV	779	0	852	57	0
42	DV	779	0	852	57	0
43	BW	890	0	951	51	0
43	DW	890	0	951	55	0
44	BX	725	0	778	68	0
44	DX	725	0	778	68	0
45	BY	775	0	870	76	0
45	DY	775	0	870	71	0
46	BZ	1491	0	1513	79	0
46	DZ	1491	0	1513	83	0
47	B0	605	0	628	31	0
47	D0	605	0	628	34	0
48	B1	694	0	764	64	0
48	D1	694	0	764	66	0
49	B2	605	0	665	61	0
49	D2	605	0	665	62	0
50	B3	467	0	523	20	0
50	D3	467	0	523	18	0
51	B4	225	0	225	18	0
51	D4	225	0	225	20	0
52	B5	404	0	420	27	0
52	D5	404	0	420	28	0
53	B6	380	0	391	32	0
53	D6	380	0	391	28	0
54	B7	418	0	467	18	0
54	D7	418	0	467	17	0
55	B8	507	0	576	39	0
55	D8	507	0	576	38	0
56	AA	310	0	0	0	0
56	AB	2	0	0	0	0
56	AC	6	0	0	0	0
56	AD	8	0	0	0	0
56	AE	1	0	0	0	0
56	AF	2	0	0	0	0
56	AG	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	AH	2	0	0	0	0
56	AI	2	0	0	0	0
56	AJ	1	0	0	0	0
56	AK	1	0	0	0	0
56	AL	2	0	0	0	0
56	AM	1	0	0	0	0
56	AO	3	0	0	0	0
56	AP	1	0	0	0	0
56	AQ	1	0	0	0	0
56	AV	1	0	0	0	0
56	AX	6	0	0	0	0
56	AY	25	0	0	0	0
56	AZ	6	0	0	0	0
56	B1	2	0	0	0	0
56	B2	3	0	0	0	0
56	B5	1	0	0	0	0
56	B7	3	0	0	0	0
56	BA	806	0	0	0	0
56	BB	26	0	0	0	0
56	BD	2	0	0	0	0
56	BE	1	0	0	0	0
56	BF	5	0	0	0	0
56	BG	3	0	0	0	0
56	BH	2	0	0	0	0
56	BI	3	0	0	0	0
56	BJ	1	0	0	0	0
56	BN	2	0	0	0	0
56	BO	3	0	0	0	0
56	BP	1	0	0	0	0
56	BQ	3	0	0	0	0
56	BR	3	0	0	0	0
56	BT	2	0	0	0	0
56	BU	1	0	0	0	0
56	BV	1	0	0	0	0
56	BW	2	0	0	0	0
56	BY	1	0	0	0	0
56	BZ	1	0	0	0	0
56	CA	414	0	0	0	0
56	CB	2	0	0	0	0
56	CC	7	0	0	0	0
56	CD	2	0	0	0	0
56	CE	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	CF	1	0	0	0	0
56	CG	1	0	0	0	0
56	CH	1	0	0	0	0
56	CI	2	0	0	0	0
56	CJ	1	0	0	0	0
56	CK	2	0	0	0	0
56	CL	1	0	0	0	0
56	CO	2	0	0	0	0
56	CP	1	0	0	0	0
56	CV	4	0	0	0	0
56	CX	9	0	0	0	0
56	CY	21	0	0	0	0
56	CZ	19	0	0	0	0
56	D2	2	0	0	0	0
56	D3	1	0	0	0	0
56	D4	3	0	0	0	0
56	D5	1	0	0	0	0
56	D7	2	0	0	0	0
56	D8	1	0	0	0	0
56	DA	758	0	0	0	0
56	DB	28	0	0	0	0
56	DD	1	0	0	0	0
56	DF	1	0	0	0	0
56	DG	1	0	0	0	0
56	DH	4	0	0	0	0
56	DI	2	0	0	0	0
56	DN	1	0	0	0	0
56	DO	2	0	0	0	0
56	DP	6	0	0	0	0
56	DQ	1	0	0	0	0
56	DR	1	0	0	0	0
56	DT	1	0	0	0	0
56	DV	1	0	0	0	0
56	DW	3	0	0	0	0
56	DX	1	0	0	0	0
56	DZ	4	0	0	0	0
57	AD	1	0	0	0	0
57	AN	1	0	0	0	0
57	CD	1	0	0	0	0
57	CN	1	0	0	0	0
All	All	299961	0	202995	10201	0

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including

hydrogens) of the entry. The overall clashscore for this entry is 20.

All (10201) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:40:GLN:HE22	29:DF:182:ASN:HB2	1.10	1.14
37:DQ:23:GLY:HA3	37:DQ:98:LYS:HG3	1.31	1.13
37:BQ:23:GLY:HA3	37:BQ:98:LYS:HG3	1.31	1.12
29:BF:40:GLN:HE22	29:BF:182:ASN:HB2	1.10	1.07
37:BQ:14:ARG:HG2	37:BQ:14:ARG:HH11	1.20	1.06
37:DQ:14:ARG:HH11	37:DQ:14:ARG:HG2	1.20	1.06
27:DD:242:ARG:HE	25:DA:1826:G:H4'	1.23	1.04
11:CI:19:LEU:HD21	11:CI:59:PHE:HB3	1.44	1.00
37:DQ:55:VAL:HG12	37:DQ:64:ILE:HD12	1.41	0.99
11:AI:19:LEU:HD21	11:AI:59:PHE:HB3	1.44	0.98
49:D2:39:ALA:HA	49:D2:45:SER:HB3	1.44	0.98
28:DE:119:ARG:HH11	28:DE:119:ARG:HG3	1.29	0.98
9:CG:113:GLU:HB2	9:CG:119:ARG:HG2	1.46	0.97
25:BA:1813:G:H1'	27:BD:50:THR:HG21	1.46	0.97
48:D1:19:GLN:HE21	48:D1:41:ARG:HB2	1.30	0.97
27:DD:50:THR:HG21	25:DA:1813:G:H1'	1.47	0.97
45:DY:75:ILE:HG13	45:DY:80:GLY:H	1.29	0.97
28:BE:119:ARG:HH11	28:BE:119:ARG:HG3	1.28	0.97
44:DX:11:PRO:HA	44:DX:28:PHE:HB3	1.46	0.96
25:DA:1899:G:H21	25:DA:1902:C:H42	0.97	0.96
42:BV:4:ILE:HB	42:BV:39:LEU:HB2	1.48	0.96
25:BA:1826:G:H4'	27:BD:242:ARG:HE	1.24	0.96
49:B2:39:ALA:HA	49:B2:45:SER:HB3	1.44	0.96
45:BY:75:ILE:HG13	45:BY:80:GLY:H	1.28	0.96
36:DP:128:HIS:HA	36:DP:147:LEU:HB3	1.48	0.95
44:BX:11:PRO:HA	44:BX:28:PHE:HB3	1.46	0.95
25:DA:1541:U:H3'	25:DA:1542:G:H3'	1.49	0.94
49:D2:16:LEU:HB2	49:D2:20:GLU:HG2	1.49	0.94
45:DY:90:LEU:HG	45:DY:91:GLU:HG2	1.49	0.94
5:CC:30:ARG:HD3	16:CN:38:GLY:HA3	1.50	0.94
36:BP:128:HIS:HA	36:BP:147:LEU:HB3	1.48	0.94
48:B1:19:GLN:HE21	48:B1:41:ARG:HB2	1.30	0.94
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.33	0.94
9:AG:113:GLU:HB2	9:AG:119:ARG:HG2	1.46	0.93
48:D1:45:ASN:HD21	48:D1:47:GLN:HE21	1.14	0.93
37:BQ:55:VAL:HG12	37:BQ:64:ILE:HD12	1.50	0.93
25:BA:1541:U:H3'	25:BA:1542:G:H3'	1.48	0.93
52:D5:2:ALA:HA	25:DA:2015:A:H1'	1.51	0.93
45:BY:90:LEU:HG	45:BY:91:GLU:HG2	1.51	0.93
42:DV:4:ILE:HB	42:DV:39:LEU:HB2	1.48	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:B2:16:LEU:HB2	49:B2:20:GLU:HG2	1.49	0.92
4:AB:185:ILE:HG22	4:AB:199:TYR:HB2	1.51	0.92
25:BA:2781:A:H5'	25:BA:2782:G:H5'	1.50	0.92
5:AC:30:ARG:HD3	16:AN:38:GLY:HA3	1.49	0.92
39:BS:24:LEU:HD12	39:BS:84:GLN:HB3	1.52	0.92
48:B1:45:ASN:HD21	48:B1:47:GLN:HE21	1.16	0.92
6:CD:189:PRO:HB2	6:CD:194:LEU:HD21	1.51	0.92
25:BA:273(G):C:H3'	25:BA:274:G:H5''	1.52	0.91
4:CB:185:ILE:HG22	4:CB:199:TYR:HB2	1.52	0.91
25:DA:273(G):C:H3'	25:DA:274:G:H5''	1.52	0.91
1:CA:1128:C:H1'	1:CA:1146:A:H61	1.33	0.91
48:B1:11:ARG:HB3	48:B1:12:PRO:HD2	1.51	0.91
13:CK:22:HIS:HB3	13:CK:29:ILE:HG13	1.52	0.91
48:D1:11:ARG:HB3	48:D1:12:PRO:HD2	1.50	0.91
25:DA:2426:A:H3'	25:DA:2427:C:H5''	1.52	0.90
25:BA:1899:G:H21	25:BA:1902:C:H42	0.97	0.90
25:BA:2015:A:H1'	52:B5:2:ALA:HA	1.51	0.90
29:DF:89:VAL:HG11	25:DA:586:A:H5'	1.54	0.90
25:BA:2426:A:H3'	25:BA:2427:C:H5''	1.50	0.90
6:AD:189:PRO:HB2	6:AD:194:LEU:HD21	1.51	0.90
6:AD:108:LEU:HD21	6:AD:183:GLY:HA3	1.53	0.90
6:CD:108:LEU:HD21	6:CD:183:GLY:HA3	1.54	0.90
25:DA:2781:A:H5'	25:DA:2782:G:H5'	1.51	0.89
46:DZ:77:ASP:HB2	46:DZ:84:GLU:HG3	1.54	0.89
50:B3:8:LEU:HA	50:B3:54:VAL:HG12	1.54	0.89
1:CA:1056:U:H5''	5:CC:163:ALA:HB2	1.54	0.89
1:AA:1056:U:H5''	5:AC:163:ALA:HB2	1.55	0.89
25:BA:142:G:H4'	44:BX:35:THR:HG21	1.55	0.89
41:BU:50:ARG:HH22	42:BV:72:VAL:HG12	1.38	0.89
7:AE:78:HIS:HE1	7:AE:143:ARG:H	1.21	0.89
45:DY:2:ARG:HE	25:DA:106:C:H1'	1.38	0.89
36:DP:126:VAL:HA	36:DP:145:PRO:HB2	1.55	0.89
25:BA:586:A:H5'	29:BF:89:VAL:HG11	1.53	0.88
37:DQ:30:GLY:HA2	37:DQ:107:ALA:HB2	1.56	0.88
39:DS:24:LEU:HD12	39:DS:84:GLN:HB3	1.52	0.88
5:CC:150:LYS:HB3	5:CC:201:TYR:HB2	1.55	0.88
47:D0:23:VAL:HG21	25:DA:857:C:H4'	1.56	0.88
13:AK:22:HIS:HB3	13:AK:29:ILE:HG13	1.52	0.88
37:BQ:43:THR:HB	37:BQ:45:GLN:HE21	1.39	0.88
29:BF:63:LYS:HZ1	29:BF:67:GLN:HE21	1.22	0.88
37:DQ:43:THR:HB	37:DQ:45:GLN:HE21	1.39	0.88
37:BQ:30:GLY:HA2	37:BQ:107:ALA:HB2	1.56	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:63:LYS:HZ1	29:DF:67:GLN:HE21	1.22	0.87
1:AA:922:G:H4'	7:AE:20:GLN:HA	1.54	0.87
1:CA:922:G:H4'	7:CE:20:GLN:HA	1.53	0.87
41:BU:88:ILE:HB	41:BU:90:VAL:HG12	1.56	0.87
10:CH:51:VAL:HG12	10:CH:52:ASP:H	1.39	0.87
50:D3:8:LEU:HA	50:D3:54:VAL:HG12	1.54	0.87
25:BA:106:C:H1'	45:BY:2:ARG:HE	1.39	0.87
29:DF:139:PHE:HB2	29:DF:166:ALA:HB1	1.55	0.87
25:DA:2777:G:H5''	25:DA:2778:A:H5'	1.56	0.87
25:DA:1899:G:N2	25:DA:1902:C:H42	1.73	0.87
41:DU:50:ARG:HH22	42:DV:72:VAL:HG12	1.37	0.87
25:BA:1899:G:N2	25:BA:1902:C:H42	1.72	0.87
41:DU:88:ILE:HB	41:DU:90:VAL:HG12	1.56	0.86
25:DA:1378:A:O2'	25:DA:1379:A:H5''	1.75	0.86
21:AS:6:LYS:HG2	21:AS:7:LYS:HD3	1.57	0.86
25:BA:1378:A:O2'	25:BA:1379:A:H5''	1.76	0.86
1:AA:522:C:H41	14:AL:52:ARG:HH22	1.23	0.86
1:AA:1427:U:H2'	1:AA:1428:A:H8	1.39	0.86
36:BP:126:VAL:HA	36:BP:145:PRO:HB2	1.55	0.86
18:AP:28:ARG:HG2	18:AP:28:ARG:HH11	1.41	0.86
10:AH:51:VAL:HG12	10:AH:52:ASP:H	1.39	0.86
25:BA:857:C:H4'	47:B0:23:VAL:HG21	1.56	0.86
44:DX:35:THR:HG21	25:DA:142:G:H4'	1.54	0.86
46:BZ:77:ASP:HB2	46:BZ:84:GLU:HG3	1.55	0.86
21:CS:6:LYS:HG2	21:CS:7:LYS:HD3	1.56	0.86
32:BI:92:VAL:HG13	32:BI:120:ILE:HB	1.58	0.86
25:DA:1578:U:H2'	25:DA:1579:A:H5''	1.57	0.86
25:BA:1578:U:H2'	25:BA:1579:A:H5''	1.58	0.85
49:D2:2:LYS:HA	49:D2:5:GLU:CD	1.97	0.85
25:BA:2777:G:H5''	25:BA:2778:A:H5'	1.56	0.85
4:CB:84:GLU:HB3	4:CB:219:VAL:HG21	1.58	0.85
5:AC:150:LYS:HB3	5:AC:201:TYR:HB2	1.55	0.85
1:CA:522:C:H41	14:CL:52:ARG:HH22	1.23	0.85
1:CA:1427:U:H2'	1:CA:1428:A:H8	1.40	0.85
7:CE:78:HIS:HE1	7:CE:143:ARG:H	1.21	0.85
4:AB:84:GLU:HB3	4:AB:219:VAL:HG21	1.59	0.85
24:AX:93:GLU:HG3	24:AX:96:LEU:HD12	1.59	0.85
24:CX:93:GLU:HG3	24:CX:96:LEU:HD12	1.59	0.85
29:BF:139:PHE:HB2	29:BF:166:ALA:HB1	1.55	0.84
45:DY:2:ARG:HG2	45:DY:3:VAL:HG23	1.58	0.84
25:DA:1075:C:H2'	25:DA:1076:C:C6	2.13	0.84
49:B2:2:LYS:HA	49:B2:5:GLU:CD	1.98	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AX:93:GLU:HA	24:AX:96:LEU:HB3	1.59	0.84
25:BA:1075:C:H2'	25:BA:1076:C:C6	2.13	0.84
1:AA:1123:A:H4'	12:AJ:36:GLY:HA3	1.59	0.84
27:BD:8:PRO:HB3	27:BD:14:ARG:HB3	1.60	0.84
25:DA:140:A:H8	25:DA:1408:C:HO2'	1.23	0.84
30:BG:83:ARG:HG3	30:BG:84:LYS:H	1.43	0.84
29:DF:40:GLN:NE2	29:DF:182:ASN:HB2	1.91	0.84
12:CJ:45:ARG:HB2	12:CJ:65:LEU:HB3	1.59	0.84
32:DI:92:VAL:HG13	32:DI:120:ILE:HB	1.58	0.83
7:CE:76:ILE:HG12	7:CE:77:PRO:HD2	1.60	0.83
45:BY:96:ILE:HD11	45:BY:99:CYS:HB2	1.60	0.83
30:DG:83:ARG:HG3	30:DG:84:LYS:H	1.42	0.83
19:AQ:9:VAL:HG12	19:AQ:56:VAL:HG22	1.60	0.83
1:CA:979:C:H3'	1:CA:980:C:H5''	1.61	0.83
1:AA:979:C:H3'	1:AA:980:C:H5''	1.61	0.83
36:DP:59:LEU:HA	36:DP:61:ARG:NE	1.94	0.83
45:BY:2:ARG:HG2	45:BY:3:VAL:HG23	1.59	0.83
40:DT:62:THR:HG22	40:DT:75:ILE:HG13	1.60	0.83
30:DG:77:ILE:HG22	30:DG:80:PHE:H	1.43	0.83
25:DA:1348:G:H2'	25:DA:1349:A:H5''	1.61	0.83
17:AO:33:THR:HA	17:AO:63:ARG:HH12	1.43	0.83
25:BA:1899:G:H21	25:BA:1902:C:N4	1.75	0.83
7:AE:76:ILE:HG12	7:AE:77:PRO:HD2	1.61	0.83
25:DA:2681:C:H5	25:DA:2725:A:H62	1.24	0.82
27:DD:8:PRO:HB3	27:DD:14:ARG:HB3	1.60	0.82
2:AZ:71:C:H4'	25:BA:1851:U:H4'	1.59	0.82
17:CO:33:THR:HA	17:CO:63:ARG:HH12	1.44	0.82
29:BF:40:GLN:NE2	29:BF:182:ASN:HB2	1.91	0.82
45:BY:76:CYS:HB3	45:BY:77:PRO:HD2	1.62	0.82
36:BP:59:LEU:HA	36:BP:61:ARG:NE	1.94	0.82
19:CQ:9:VAL:HG12	19:CQ:56:VAL:HG22	1.60	0.82
1:CA:1123:A:H4'	12:CJ:36:GLY:HA3	1.59	0.82
5:AC:105:GLU:HG2	5:AC:106:VAL:H	1.44	0.82
25:DA:1899:G:H21	25:DA:1902:C:N4	1.76	0.82
12:AJ:45:ARG:HB2	12:AJ:65:LEU:HB3	1.58	0.82
18:CP:28:ARG:HH11	18:CP:28:ARG:HG2	1.43	0.82
51:D4:50:THR:HG22	51:D4:51:TYR:H	1.44	0.82
5:CC:105:GLU:HG2	5:CC:106:VAL:H	1.44	0.82
5:AC:47:LEU:HD21	5:AC:68:VAL:HG11	1.61	0.82
30:BG:77:ILE:HG22	30:BG:80:PHE:H	1.43	0.82
4:AB:101:MET:HA	4:AB:108:ILE:HG13	1.62	0.82
25:BA:2681:C:H5	25:BA:2725:A:H62	1.24	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1028:A:H1'	25:DA:2487:G:H5'	1.62	0.82
40:BT:62:THR:HG22	40:BT:75:ILE:HG13	1.62	0.82
25:DA:1189:A:H3'	25:DA:1190:G:H5''	1.62	0.82
45:DY:96:ILE:HD11	45:DY:99:CYS:HB2	1.61	0.82
38:BR:104:ARG:HG2	38:BR:104:ARG:HH11	1.45	0.82
51:B4:50:THR:HG22	51:B4:51:TYR:H	1.44	0.81
24:CX:93:GLU:HA	24:CX:96:LEU:HB3	1.60	0.81
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.45	0.81
5:AC:189:ALA:HB3	5:AC:196:LEU:HB3	1.63	0.81
40:DT:95:ARG:HH11	40:DT:95:ARG:HG3	1.45	0.81
25:BA:2478:A:H3'	25:BA:2479:G:H8	1.46	0.81
25:BA:273(G):C:H3'	25:BA:274:G:C5'	2.10	0.81
5:CC:47:LEU:HD21	5:CC:68:VAL:HG11	1.61	0.81
7:CE:6:PHE:HD2	7:CE:36:ASP:HB3	1.45	0.81
14:CL:56:LYS:HG2	14:CL:66:THR:HG22	1.62	0.81
45:BY:88:LYS:HE2	45:BY:93:GLY:HA3	1.63	0.81
5:CC:59:ARG:HG2	5:CC:64:VAL:HG22	1.63	0.81
41:DU:92:ARG:HB2	41:DU:92:ARG:HH11	1.46	0.81
25:DA:1794:U:H2'	25:DA:1795:C:H6	1.44	0.81
45:DY:88:LYS:HE2	45:DY:93:GLY:HA3	1.62	0.81
29:BF:170:LEU:HD12	29:BF:171:PRO:HD2	1.63	0.81
8:AF:99:ALA:HB2	20:AR:31:LEU:HD22	1.61	0.81
12:CJ:50:ILE:HA	12:CJ:60:ARG:HB2	1.63	0.81
25:DA:273(G):C:H3'	25:DA:274:G:C5'	2.11	0.80
1:CA:1220:G:H21	21:CS:54:GLY:HA2	1.46	0.80
39:DS:35:ILE:HG12	39:DS:101:LEU:HD21	1.63	0.80
12:AJ:50:ILE:HB	16:AN:41:ARG:HH21	1.45	0.80
25:BA:2056:G:H22	52:B5:4:HIS:HA	1.47	0.80
25:BA:1794:U:H2'	25:BA:1795:C:H6	1.44	0.80
14:AL:56:LYS:HG2	14:AL:66:THR:HG22	1.62	0.80
25:DA:141(A):A:H5''	25:DA:141(B):C:H5	1.45	0.80
7:AE:6:PHE:HD2	7:AE:36:ASP:HB3	1.45	0.80
4:CB:101:MET:HA	4:CB:108:ILE:HG13	1.61	0.80
40:DT:84:GLN:HG3	40:DT:85:LYS:HG3	1.64	0.80
36:DP:66:GLY:HA3	25:DA:2415:G:H4'	1.62	0.80
1:CA:922:G:H2'	1:CA:923:A:C8	2.17	0.80
29:BF:103:LYS:HA	29:BF:106:ARG:HG3	1.63	0.80
25:BA:1348:G:H2'	25:BA:1349:A:H5''	1.62	0.80
49:D2:21:LEU:HD22	49:D2:22:GLU:HG3	1.62	0.80
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.46	0.80
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.17	0.80
45:DY:76:CYS:CB	45:DY:77:PRO:HD2	2.12	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2415:G:H4'	36:BP:66:GLY:HA3	1.63	0.80
45:DY:76:CYS:HB3	45:DY:77:PRO:HD2	1.62	0.79
25:BA:1028:A:H1'	25:BA:2487:G:H5'	1.62	0.79
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.17	0.79
1:AA:1220:G:H21	21:AS:54:GLY:HA2	1.46	0.79
40:BT:84:GLN:HG3	40:BT:85:LYS:HG3	1.65	0.79
27:DD:125:ILE:H	27:DD:125:ILE:HD12	1.47	0.79
13:CK:12:ARG:HG2	13:CK:13:GLN:H	1.47	0.79
25:DA:2478:A:H3'	25:DA:2479:G:H8	1.47	0.79
1:AA:922:G:H2'	1:AA:923:A:C8	2.17	0.79
39:BS:35:ILE:HG12	39:BS:101:LEU:HD21	1.63	0.79
31:BH:89:ILE:HG12	31:BH:162:ILE:HG22	1.63	0.79
25:BA:1050:A:H2'	25:BA:1051:G:C8	2.17	0.79
40:BT:95:ARG:HH11	40:BT:95:ARG:HG3	1.45	0.79
5:CC:189:ALA:HB3	5:CC:196:LEU:HB3	1.63	0.79
25:BA:1189:A:H3'	25:BA:1190:G:H5''	1.63	0.79
25:BA:1466:G:H2'	25:BA:1547:C:H41	1.48	0.79
8:CF:99:ALA:HB2	20:CR:31:LEU:HD22	1.63	0.79
5:AC:59:ARG:HG2	5:AC:64:VAL:HG22	1.63	0.79
1:CA:1117:G:H4'	11:CI:104:ARG:HH21	1.47	0.79
38:DR:104:ARG:HG2	38:DR:104:ARG:HH11	1.47	0.79
25:BA:942:G:H5'	36:BP:35:HIS:HB2	1.63	0.79
28:DE:84:PHE:CZ	28:DE:86:PRO:HG3	2.17	0.79
6:AD:188:LEU:HD12	6:AD:188:LEU:H	1.48	0.79
36:DP:146:VAL:HG22	36:DP:147:LEU:H	1.48	0.79
1:AA:244:U:H5'	1:AA:244:U:H6	1.47	0.79
28:BE:84:PHE:CZ	28:BE:86:PRO:HG3	2.18	0.79
25:BA:587:C:C4	36:BP:33:ARG:HG2	2.18	0.79
52:D5:4:HIS:HA	25:DA:2056:G:H22	1.47	0.79
7:CE:148:VAL:HG21	10:CH:107:LEU:HD22	1.65	0.79
49:B2:21:LEU:HD22	49:B2:22:GLU:HG3	1.65	0.79
7:AE:148:VAL:HG21	10:AH:107:LEU:HD22	1.64	0.78
31:DH:89:ILE:HG12	31:DH:162:ILE:HG22	1.63	0.78
1:AA:1432:G:OP1	40:BT:108:ARG:HG3	1.81	0.78
25:BA:141(A):A:H5''	25:BA:141(B):C:H5	1.46	0.78
36:DP:33:ARG:HG2	25:DA:587:C:C4	2.19	0.78
43:DW:84:ARG:HB2	43:DW:96:ILE:HG22	1.66	0.78
1:CA:244:U:H6	1:CA:244:U:H5'	1.48	0.78
28:DE:52:LEU:H	28:DE:52:LEU:HD12	1.48	0.78
49:B2:36:ARG:HA	49:B2:39:ALA:HB3	1.65	0.78
45:BY:76:CYS:CB	45:BY:77:PRO:HD2	2.12	0.78
25:BA:2621:A:O2'	28:BE:159:HIS:HB3	1.84	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:390:C:H2'	1:AA:391:G:C8	2.19	0.78
29:DF:103:LYS:HA	29:DF:106:ARG:HG3	1.64	0.78
28:BE:52:LEU:HD12	28:BE:52:LEU:H	1.48	0.78
48:D1:45:ASN:ND2	48:D1:47:GLN:HE21	1.81	0.78
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.19	0.78
24:CX:141:GLU:HB3	24:CX:163:ARG:HB3	1.66	0.78
7:AE:78:HIS:CE1	7:AE:143:ARG:H	2.01	0.78
1:AA:1427:U:H2'	1:AA:1428:A:C8	2.18	0.78
7:CE:78:HIS:CE1	7:CE:143:ARG:H	2.01	0.78
25:BA:1651:G:H5''	38:BR:39:PRO:HG2	1.66	0.78
43:BW:84:ARG:HB2	43:BW:96:ILE:HG22	1.66	0.78
13:AK:12:ARG:HG2	13:AK:13:GLN:H	1.47	0.78
41:BU:92:ARG:HH11	41:BU:92:ARG:HB2	1.46	0.78
7:CE:50:GLU:HG3	7:CE:52:PRO:HD2	1.64	0.78
28:DE:159:HIS:HB3	25:DA:2621:A:O2'	1.84	0.78
25:DA:1102:C:H2'	25:DA:1103:A:C8	2.20	0.77
32:DI:5:LEU:H	32:DI:5:LEU:HD23	1.49	0.77
28:BE:119:ARG:NH1	28:BE:119:ARG:HG3	1.96	0.77
12:CJ:50:ILE:HB	16:CN:41:ARG:HH21	1.46	0.77
12:AJ:50:ILE:HA	12:AJ:60:ARG:HB2	1.65	0.77
25:BA:2415:G:H4'	36:BP:66:GLY:CA	2.14	0.77
24:AX:255:SER:HB3	24:AX:261:ASN:HD21	1.49	0.77
25:BA:2030:A:H4'	25:BA:2031:A:H8	1.49	0.77
24:CX:237:SER:HB3	24:CX:258:GLN:HB2	1.66	0.77
25:DA:695:G:OP1	25:DA:1380:G:H4'	1.85	0.77
25:BA:1841:U:H1'	27:BD:244:ARG:HH22	1.50	0.77
15:AM:9:ILE:HG22	15:AM:11:ARG:HG3	1.67	0.77
31:DH:101:ARG:HE	31:DH:101:ARG:H	1.32	0.77
25:DA:2030:A:H4'	25:DA:2031:A:H8	1.49	0.77
32:BI:5:LEU:H	32:BI:5:LEU:HD23	1.49	0.77
38:BR:10:LEU:HD22	38:BR:17:ARG:HD3	1.66	0.77
38:DR:39:PRO:HG2	25:DA:1651:G:H5''	1.67	0.77
24:AX:237:SER:HB3	24:AX:258:GLN:HB2	1.64	0.77
48:B1:17:SER:HB3	48:B1:44:PRO:HD3	1.66	0.77
25:DA:686:G:N2	25:DA:788:A:H61	1.82	0.77
36:BP:95:VAL:HG23	36:BP:125:VAL:HA	1.66	0.77
35:DO:47:ILE:HG13	35:DO:48:PRO:HD2	1.66	0.77
35:BO:47:ILE:HG13	35:BO:48:PRO:HD2	1.66	0.77
36:BP:146:VAL:HG22	36:BP:147:LEU:H	1.48	0.77
42:DV:38:LEU:HD13	42:DV:55:ALA:HB1	1.67	0.77
36:DP:95:VAL:HG23	36:DP:125:VAL:HA	1.66	0.77
36:DP:66:GLY:CA	25:DA:2415:G:H4'	2.13	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.19	0.77
1:AA:1117:G:H4'	11:AI:104:ARG:HH21	1.49	0.77
39:DS:34:HIS:HA	39:DS:54:LEU:HD23	1.67	0.77
7:AE:50:GLU:HG3	7:AE:52:PRO:HD2	1.65	0.77
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.20	0.77
29:DF:170:LEU:HD12	29:DF:171:PRO:HD2	1.64	0.77
31:BH:35:VAL:HG21	31:BH:75:ALA:HB2	1.67	0.77
37:BQ:6:ARG:N	37:BQ:6:ARG:HE	1.83	0.77
49:B2:17:SER:HB3	49:B2:18:PRO:CD	2.15	0.76
6:AD:28:SER:HB3	6:AD:29:PRO:HD2	1.67	0.76
36:DP:39:LYS:HD2	36:DP:40:SER:H	1.50	0.76
27:BD:125:ILE:HD12	27:BD:125:ILE:H	1.48	0.76
10:CH:10:LEU:HD22	10:CH:83:ILE:HD11	1.67	0.76
6:CD:188:LEU:HD12	6:CD:188:LEU:H	1.49	0.76
44:DX:23:GLU:HG3	44:DX:24:GLY:H	1.50	0.76
30:BG:60:LEU:HD11	30:BG:92:VAL:HG11	1.67	0.76
34:BN:42:GLU:HA	34:BN:82:LYS:HB3	1.68	0.76
6:CD:28:SER:HB3	6:CD:29:PRO:HD2	1.67	0.76
38:BR:104:ARG:HH11	38:BR:104:ARG:CG	1.97	0.76
49:D2:17:SER:HB3	49:D2:18:PRO:CD	2.14	0.76
2:AZ:4:G:HO2'	2:AZ:5:G:H8	1.33	0.76
25:BA:1102:C:H2'	25:BA:1103:A:C8	2.20	0.76
25:BA:1434:A:H61	25:BA:1558:A:H62	1.32	0.76
38:DR:79:LEU:HD23	38:DR:83:ILE:HB	1.67	0.76
25:BA:498:G:H21	45:BY:47:LYS:HE3	1.51	0.76
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.67	0.76
25:BA:729:G:C5	27:BD:208:LYS:HB2	2.21	0.76
36:DP:35:HIS:HB2	25:DA:942:G:H5'	1.65	0.76
44:BX:23:GLU:HG3	44:BX:24:GLY:H	1.51	0.76
41:BU:90:VAL:HG13	41:BU:91:ASP:H	1.50	0.76
41:DU:90:VAL:HG13	41:DU:91:ASP:H	1.50	0.76
25:DA:1466:G:H2'	25:DA:1547:C:H41	1.49	0.76
24:AX:141:GLU:HB3	24:AX:163:ARG:HB3	1.66	0.76
27:DD:242:ARG:NE	25:DA:1826:G:H4'	1.99	0.76
1:AA:1507:A:H2'	1:AA:1508:G:C8	2.21	0.76
39:BS:34:HIS:HA	39:BS:54:LEU:HD23	1.67	0.76
15:CM:9:ILE:HG22	15:CM:11:ARG:HG3	1.67	0.76
24:CX:259:ILE:H	24:CX:259:ILE:HD13	1.51	0.76
4:AB:168:THR:OG1	4:AB:192:SER:HA	1.86	0.76
49:D2:36:ARG:HA	49:D2:39:ALA:HB3	1.66	0.76
1:AA:1346:A:H5'	11:AI:120:ARG:HH12	1.50	0.76
12:AJ:49:VAL:HG22	12:AJ:50:ILE:H	1.50	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:695:G:OP1	25:BA:1380:G:H4'	1.86	0.76
10:AH:89:PRO:HA	10:AH:92:ARG:HH11	1.50	0.76
1:CA:390:C:H2'	1:CA:391:G:C8	2.20	0.76
1:AA:148:G:H2'	1:AA:149:A:H8	1.50	0.76
45:DY:47:LYS:HE3	25:DA:498:G:H21	1.51	0.76
32:DI:90:GLY:O	32:DI:91:SER:HB2	1.86	0.76
1:CA:1236:A:H4'	1:CA:1304:G:H4'	1.66	0.76
11:CI:49:PRO:HD3	11:CI:101:PHE:HE1	1.51	0.76
30:BG:41:GLN:HG2	30:BG:155:MET:HB3	1.68	0.76
1:CA:148:G:H2'	1:CA:149:A:H8	1.50	0.76
24:AX:259:ILE:HD13	24:AX:259:ILE:H	1.50	0.76
30:DG:60:LEU:HD11	30:DG:92:VAL:HG11	1.67	0.76
31:BH:149:ARG:HH21	31:BH:163:TYR:HA	1.50	0.75
25:BA:1639:U:H2'	25:BA:1640:C:H5''	1.68	0.75
27:DD:244:ARG:HH22	25:DA:1841:U:H1'	1.51	0.75
20:CR:26:LEU:HD13	20:CR:39:VAL:HG13	1.67	0.75
46:DZ:10:ARG:HG2	46:DZ:11:GLU:H	1.50	0.75
25:BA:1024:G:H3'	25:BA:1025:G:H5''	1.67	0.75
1:AA:1228:C:H2'	1:AA:1229:A:H8	1.51	0.75
22:CT:26:ASN:HD22	22:CT:27:LYS:N	1.84	0.75
36:BP:39:LYS:HD2	36:BP:40:SER:H	1.48	0.75
24:CX:255:SER:HB3	24:CX:261:ASN:HD21	1.50	0.75
25:DA:404:C:H4'	25:DA:405:U:H5'	1.69	0.75
1:CA:1346:A:H5'	11:CI:120:ARG:HH12	1.50	0.75
51:B4:59:VAL:HG12	51:B4:60:GLU:H	1.51	0.75
25:DA:2426:A:H3'	25:DA:2427:C:C5'	2.16	0.75
31:DH:149:ARG:HH21	31:DH:163:TYR:HA	1.50	0.75
38:DR:78:LYS:HE2	38:DR:83:ILE:HD11	1.69	0.75
10:CH:89:PRO:HA	10:CH:92:ARG:HH11	1.51	0.75
25:BA:1826:G:H4'	27:BD:242:ARG:NE	2.01	0.75
48:B1:45:ASN:ND2	48:B1:47:GLN:HE21	1.83	0.75
25:BA:2426:A:H3'	25:BA:2427:C:C5'	2.16	0.75
4:CB:77:ALA:HB2	4:CB:211:ILE:HD13	1.68	0.75
48:D1:17:SER:HB3	48:D1:44:PRO:HD3	1.66	0.75
54:D7:12:ARG:HG3	25:DA:686:G:O6	1.87	0.75
10:CH:42:GLU:HG3	10:CH:109:ILE:HD12	1.68	0.75
25:BA:404:C:H4'	25:BA:405:U:H5'	1.69	0.75
28:DE:119:ARG:HG3	28:DE:119:ARG:NH1	1.96	0.75
27:BD:242:ARG:HD3	27:BD:242:ARG:H	1.52	0.75
25:BA:1676:A:H2	25:BA:1993:U:H5'	1.51	0.75
38:DR:10:LEU:HD22	38:DR:17:ARG:HD3	1.67	0.75
30:DG:41:GLN:HG2	30:DG:155:MET:HB3	1.68	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AH:10:LEU:HD22	10:AH:83:ILE:HD11	1.67	0.75
25:BA:2593:U:H2'	25:BA:2594:C:C6	2.22	0.75
37:DQ:6:ARG:HE	37:DQ:6:ARG:N	1.84	0.75
25:DA:1434:A:H61	25:DA:1558:A:H62	1.32	0.75
1:CA:1507:A:H2'	1:CA:1508:G:C8	2.21	0.75
25:BA:2722:G:H5''	25:BA:2820:A:H2	1.52	0.75
12:CJ:49:VAL:HG22	12:CJ:50:ILE:H	1.50	0.75
1:AA:892:A:H2'	1:AA:893:C:C6	2.22	0.75
27:BD:79:VAL:HG21	27:BD:111:LEU:HD11	1.69	0.75
31:DH:87:LEU:HD13	31:DH:148:ILE:HG21	1.69	0.75
25:BA:1652:A:OP1	38:BR:9:LYS:HE3	1.87	0.75
1:CA:892:A:H2'	1:CA:893:C:C6	2.22	0.75
22:AT:26:ASN:HD22	22:AT:27:LYS:N	1.83	0.75
38:BR:79:LEU:HD23	38:BR:83:ILE:HB	1.67	0.75
42:BV:22:VAL:HG12	42:BV:23:GLU:H	1.51	0.74
38:DR:104:ARG:CG	38:DR:104:ARG:HH11	1.98	0.74
25:DA:1639:U:H2'	25:DA:1640:C:H5''	1.69	0.74
45:BY:31:LEU:HD23	45:BY:31:LEU:H	1.52	0.74
49:D2:16:LEU:HB3	49:D2:19:VAL:HB	1.70	0.74
42:DV:22:VAL:HG12	42:DV:23:GLU:H	1.50	0.74
27:DD:208:LYS:HB2	25:DA:729:G:C5	2.22	0.74
21:CS:18:LYS:HG2	21:CS:31:ILE:HD13	1.70	0.74
46:BZ:10:ARG:HG2	46:BZ:11:GLU:H	1.51	0.74
34:DN:42:GLU:HA	34:DN:82:LYS:HB3	1.69	0.74
44:DX:63:LYS:HD2	44:DX:72:LYS:HA	1.68	0.74
40:DT:27:THR:HG23	40:DT:89:VAL:HG13	1.69	0.74
42:BV:38:LEU:HD13	42:BV:55:ALA:HB1	1.68	0.74
20:AR:26:LEU:HD13	20:AR:39:VAL:HG13	1.68	0.74
44:BX:63:LYS:HD2	44:BX:72:LYS:HA	1.67	0.74
35:BO:60:ALA:HA	35:BO:87:ILE:HG13	1.69	0.74
19:CQ:64:PRO:HA	19:CQ:70:ARG:HG3	1.69	0.74
11:AI:49:PRO:HD3	11:AI:101:PHE:HE1	1.51	0.74
32:BI:90:GLY:O	32:BI:91:SER:HB2	1.87	0.74
25:DA:2593:U:H2'	25:DA:2594:C:C6	2.22	0.74
5:CC:11:ARG:HB3	5:CC:15:THR:HB	1.68	0.74
49:B2:16:LEU:HB3	49:B2:19:VAL:HB	1.69	0.74
28:DE:36:ARG:HH12	28:DE:86:PRO:HD2	1.52	0.74
1:CA:1507:A:H2'	1:CA:1508:G:H8	1.52	0.74
15:CM:76:ALA:HA	15:CM:79:LYS:HE2	1.69	0.74
4:AB:54:THR:HG21	4:AB:201:ILE:HD11	1.70	0.74
29:DF:41:LEU:HA	29:DF:44:ARG:HD3	1.70	0.74
25:BA:2850:A:H5'	25:BA:2868:A:H2	1.52	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BH:101:ARG:HE	31:BH:101:ARG:H	1.32	0.74
29:DF:10:PRO:HA	29:DF:19:GLU:HG2	1.68	0.74
1:CA:1128:C:H4'	11:CI:16:ARG:HH12	1.53	0.74
34:BN:126:VAL:HG12	34:BN:130:LEU:HD11	1.70	0.74
9:AG:69:VAL:HG22	9:AG:135:VAL:HG22	1.69	0.74
15:CM:90:LEU:HA	15:CM:93:ARG:HD2	1.70	0.74
29:BF:10:PRO:HA	29:BF:19:GLU:HG2	1.69	0.74
1:CA:1228:C:H2'	1:CA:1229:A:H8	1.50	0.74
37:BQ:14:ARG:HH11	37:BQ:14:ARG:CG	2.00	0.74
10:AH:42:GLU:HG3	10:AH:109:ILE:HD12	1.69	0.74
15:CM:57:ARG:HH12	51:D4:60:GLU:HB2	1.52	0.74
4:CB:168:THR:OG1	4:CB:192:SER:HA	1.87	0.74
4:AB:77:ALA:HB2	4:AB:211:ILE:HD13	1.68	0.74
31:BH:87:LEU:HD13	31:BH:148:ILE:HG21	1.70	0.74
9:CG:102:ARG:HG2	9:CG:106:GLN:HE21	1.52	0.74
24:AX:212:LEU:HD12	24:AX:212:LEU:H	1.53	0.74
45:BY:81:LYS:HE2	45:BY:97:ARG:HD3	1.68	0.74
50:D3:5:LYS:HB3	50:D3:57:GLU:HB2	1.69	0.74
9:AG:102:ARG:HG2	9:AG:106:GLN:HE21	1.53	0.74
25:BA:221:A:H4'	25:BA:222:A:O5'	1.88	0.74
50:B3:5:LYS:HB3	50:B3:57:GLU:HB2	1.69	0.74
25:BA:1540:G:C2	25:BA:1541:U:H1'	2.23	0.74
52:D5:40:LYS:HE2	52:D5:46:CYS:HB3	1.70	0.74
46:BZ:69:THR:HG22	46:BZ:90:VAL:HG22	1.68	0.74
18:AP:4:ILE:HG13	18:AP:21:VAL:HG12	1.70	0.74
15:AM:90:LEU:HA	15:AM:93:ARG:HD2	1.70	0.74
45:DY:81:LYS:HE2	45:DY:97:ARG:HD3	1.70	0.73
1:AA:1128:C:H4'	11:AI:16:ARG:HH12	1.53	0.73
35:DO:3:GLN:HB2	35:DO:4:PRO:HD2	1.70	0.73
27:BD:21:PHE:O	27:BD:24:ILE:HG22	1.88	0.73
40:BT:27:THR:HG23	40:BT:89:VAL:HG13	1.70	0.73
36:DP:45:LEU:HD23	36:DP:46:LYS:N	2.03	0.73
25:DA:1024:G:H3'	25:DA:1025:G:H5''	1.68	0.73
35:BO:3:GLN:HB2	35:BO:4:PRO:HD2	1.69	0.73
37:DQ:55:VAL:HG12	37:DQ:64:ILE:CD1	2.18	0.73
38:BR:78:LYS:HE2	38:BR:83:ILE:HD11	1.68	0.73
14:AL:17:VAL:HG23	14:AL:18:ARG:H	1.53	0.73
36:BP:45:LEU:HD23	36:BP:46:LYS:N	2.02	0.73
2:CZ:1:C:H2'	2:CZ:2:G:H8	1.53	0.73
24:CX:212:LEU:HD12	24:CX:212:LEU:H	1.53	0.73
28:DE:179:GLU:HB3	28:DE:181:LEU:HD23	1.69	0.73
52:B5:40:LYS:HE2	52:B5:46:CYS:HB3	1.69	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:D4:59:VAL:HG12	51:D4:60:GLU:H	1.50	0.73
9:CG:69:VAL:HG22	9:CG:135:VAL:HG22	1.69	0.73
46:DZ:69:THR:HG22	46:DZ:90:VAL:HG22	1.68	0.73
21:AS:18:LYS:HG2	21:AS:31:ILE:HD13	1.69	0.73
27:DD:79:VAL:HG21	27:DD:111:LEU:HD11	1.70	0.73
31:DH:35:VAL:HG21	31:DH:75:ALA:HB2	1.69	0.73
25:DA:1540:G:C2	25:DA:1541:U:H1'	2.23	0.73
1:AA:1182:G:H4'	1:AA:1183:A:H5''	1.71	0.73
4:CB:54:THR:HG21	4:CB:201:ILE:HD11	1.70	0.73
32:BI:71:ILE:HG23	32:BI:72:LEU:HD22	1.69	0.73
10:CH:102:ARG:HE	10:CH:102:ARG:N	1.87	0.73
27:DD:31:LYS:HE3	27:DD:33:LEU:HD21	1.71	0.73
25:DA:1542:G:H4'	25:DA:1543:A:O5'	1.89	0.73
41:DU:95:LEU:HD11	42:DV:12:TYR:HA	1.70	0.73
7:CE:6:PHE:HB2	7:CE:34:VAL:HG12	1.70	0.73
28:BE:36:ARG:HH12	28:BE:86:PRO:HD2	1.51	0.73
32:BI:116:LEU:HD22	32:BI:128:LEU:HD21	1.71	0.73
7:AE:6:PHE:HB2	7:AE:34:VAL:HG12	1.70	0.73
30:DG:43:LEU:HD22	30:DG:90:LEU:HB2	1.70	0.73
25:BA:686:G:O6	54:B7:12:ARG:HG3	1.89	0.73
45:DY:31:LEU:H	45:DY:31:LEU:HD23	1.52	0.73
25:BA:140:A:H8	25:BA:1408:C:HO2'	1.34	0.73
35:DO:60:ALA:HA	35:DO:87:ILE:HG13	1.69	0.73
36:BP:115:LEU:HA	36:BP:134:ALA:HB2	1.71	0.73
41:BU:95:LEU:HD11	42:BV:12:TYR:HA	1.71	0.73
25:DA:221:A:H4'	25:DA:222:A:O5'	1.88	0.73
25:DA:2722:G:H5''	25:DA:2820:A:H2	1.53	0.73
5:CC:141:VAL:HG11	5:CC:202:ILE:HD12	1.70	0.73
40:BT:26:ASP:CB	40:BT:91:ARG:HA	2.18	0.73
1:AA:390:C:H2'	1:AA:391:G:H8	1.53	0.73
25:BA:686:G:N2	25:BA:788:A:H61	1.85	0.73
8:CF:50:TYR:HE2	8:CF:87:ARG:HH21	1.36	0.73
47:B0:49:LYS:HB2	47:B0:80:HIS:HB3	1.71	0.73
25:BA:1210:A:H4'	25:BA:1211:U:O5'	1.88	0.73
43:BW:110:LYS:HG3	43:BW:111:HIS:ND1	2.03	0.73
34:BN:90:LEU:H	34:BN:90:LEU:HD12	1.54	0.72
15:AM:76:ALA:HA	15:AM:79:LYS:HE2	1.69	0.72
8:CF:30:LEU:HB3	8:CF:35:ALA:HB3	1.71	0.72
25:DA:519:U:H2'	25:DA:520:G:H8	1.54	0.72
25:DA:1676:A:H2	25:DA:1993:U:H5'	1.52	0.72
27:BD:31:LYS:HE3	27:BD:33:LEU:HD21	1.70	0.72
40:DT:26:ASP:CB	40:DT:91:ARG:HA	2.18	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:9:LYS:HE3	25:DA:1652:A:OP1	1.89	0.72
11:AI:48:GLU:N	11:AI:49:PRO:HD2	2.04	0.72
48:D1:58:ILE:HD11	48:D1:91:LYS:HG2	1.70	0.72
27:DD:62:TYR:HA	27:DD:87:ASN:HD21	1.53	0.72
28:BE:179:GLU:HB3	28:BE:181:LEU:HD23	1.69	0.72
1:AA:975:A:H4'	1:AA:976:G:H5''	1.72	0.72
5:AC:11:ARG:HB3	5:AC:15:THR:HB	1.69	0.72
27:DD:21:PHE:O	27:DD:24:ILE:HG22	1.89	0.72
29:BF:143:ALA:HB1	29:BF:148:LEU:HB2	1.71	0.72
29:BF:41:LEU:HA	29:BF:44:ARG:HD3	1.71	0.72
25:DA:2850:A:H5'	25:DA:2868:A:H2	1.52	0.72
41:BU:55:ARG:HA	41:BU:58:ARG:HD2	1.70	0.72
25:BA:2420:C:OP1	55:B8:34:TRP:HA	1.90	0.72
1:CA:390:C:H2'	1:CA:391:G:H8	1.54	0.72
10:CH:102:ARG:H	10:CH:102:ARG:HE	1.37	0.72
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.25	0.72
8:AF:30:LEU:HB3	8:AF:35:ALA:HB3	1.71	0.72
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.24	0.72
37:DQ:14:ARG:HH11	37:DQ:14:ARG:CG	2.00	0.72
11:CI:28:VAL:HG22	11:CI:63:ILE:HB	1.72	0.72
49:D2:18:PRO:O	49:D2:21:LEU:HB3	1.89	0.72
11:AI:85:LEU:HD11	11:AI:96:LEU:HD22	1.72	0.72
27:DD:83:GLU:HB2	27:DD:92:ILE:HD11	1.72	0.72
25:BA:848:G:H2'	25:BA:849:A:C8	2.24	0.72
25:DA:848:G:H2'	25:DA:849:A:C8	2.25	0.72
36:DP:50:ARG:HB2	55:D8:60:LEU:HD11	1.72	0.72
27:DD:242:ARG:H	27:DD:242:ARG:HD3	1.52	0.72
1:CA:17:U:H2'	1:CA:18:C:C6	2.24	0.72
18:CP:4:ILE:HG13	18:CP:21:VAL:HG12	1.70	0.72
41:BU:24:TYR:HB2	41:BU:29:SER:HB3	1.72	0.72
13:CK:18:ARG:HB3	13:CK:33:THR:HG23	1.72	0.72
37:DQ:141:GLN:HB3	46:DZ:70:LEU:HD12	1.71	0.72
45:BY:45:VAL:HG22	45:BY:62:GLU:HB3	1.71	0.72
1:CA:891:U:H2'	1:CA:892:A:H8	1.55	0.72
29:DF:8:GLN:HA	29:DF:21:ALA:HA	1.72	0.72
43:DW:110:LYS:HG3	43:DW:111:HIS:ND1	2.04	0.72
45:DY:45:VAL:HG22	45:DY:62:GLU:HB3	1.72	0.72
27:BD:62:TYR:HA	27:BD:87:ASN:HD21	1.55	0.72
32:DI:71:ILE:HG23	32:DI:72:LEU:HD22	1.69	0.72
44:BX:8:ILE:HD12	44:BX:8:ILE:H	1.53	0.72
4:AB:91:PRO:HA	4:AB:154:LEU:HD11	1.72	0.72
40:DT:107:ASP:O	40:DT:110:ILE:HG22	1.89	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:B1:58:ILE:HD11	48:B1:91:LYS:HG2	1.71	0.72
24:CX:300:GLU:HG3	24:CX:301:LYS:H	1.53	0.72
37:BQ:141:GLN:HB3	46:BZ:70:LEU:HD12	1.70	0.72
27:BD:28:GLU:HB3	27:BD:29:PRO:HD3	1.69	0.72
25:DA:2422:A:H4'	25:DA:2423:U:OP1	1.89	0.72
25:BA:1542:G:H4'	25:BA:1543:A:O5'	1.90	0.72
1:AA:1507:A:H2'	1:AA:1508:G:H8	1.53	0.72
8:AF:50:TYR:HE2	8:AF:87:ARG:HH21	1.36	0.72
36:DP:115:LEU:HA	36:DP:134:ALA:HB2	1.72	0.72
32:DI:78:THR:HA	32:DI:143:SER:HB3	1.72	0.71
25:DA:972:G:H3'	25:DA:973:A:H2'	1.72	0.71
25:DA:886:C:H2'	25:DA:887:A:H4'	1.71	0.71
24:AX:300:GLU:HG3	24:AX:301:LYS:H	1.54	0.71
25:BA:2422:A:H4'	25:BA:2423:U:OP1	1.89	0.71
25:DA:38:A:H2'	25:DA:39:C:C6	2.25	0.71
26:BB:8:U:H5''	39:BS:15:ARG:HH22	1.55	0.71
47:D0:49:LYS:HB2	47:D0:80:HIS:HB3	1.71	0.71
25:DA:1210:A:H4'	25:DA:1211:U:O5'	1.89	0.71
11:CI:48:GLU:N	11:CI:49:PRO:HD2	2.04	0.71
1:AA:891:U:H2'	1:AA:892:A:H8	1.55	0.71
2:AZ:1:C:H2'	2:AZ:2:G:H8	1.53	0.71
1:AA:1504:G:H4'	1:AA:1505:G:O5'	1.90	0.71
29:DF:143:ALA:HB1	29:DF:148:LEU:HB2	1.71	0.71
25:BA:996:A:H4'	41:BU:92:ARG:NH1	2.05	0.71
45:BY:76:CYS:HB3	45:BY:77:PRO:CD	2.20	0.71
36:BP:125:VAL:HG11	36:BP:138:LEU:HD22	1.72	0.71
30:DG:98:ARG:H	30:DG:98:ARG:HD2	1.55	0.71
15:CM:57:ARG:NH1	51:D4:60:GLU:HB2	2.05	0.71
1:AA:17:U:H2'	1:AA:18:C:C6	2.26	0.71
47:B0:23:VAL:HA	47:B0:38:VAL:HG22	1.72	0.71
40:BT:107:ASP:O	40:BT:110:ILE:HG22	1.90	0.71
24:CX:255:SER:HB3	24:CX:261:ASN:ND2	2.06	0.71
5:AC:141:VAL:HG11	5:AC:202:ILE:HD12	1.71	0.71
46:BZ:163:LEU:HD23	46:BZ:163:LEU:H	1.55	0.71
10:AH:102:ARG:N	10:AH:102:ARG:HE	1.87	0.71
31:BH:92:ILE:H	31:BH:92:ILE:HD12	1.55	0.71
29:DF:160:ASN:HD21	29:DF:162:LEU:HD13	1.56	0.71
1:CA:537:G:H5''	14:CL:112:ARG:NH2	2.06	0.71
4:AB:178:ARG:HE	10:AH:74:PRO:HD3	1.55	0.71
46:DZ:163:LEU:H	46:DZ:163:LEU:HD23	1.55	0.71
1:CA:1504:G:H4'	1:CA:1505:G:O5'	1.90	0.71
42:DV:22:VAL:HG12	42:DV:23:GLU:N	2.05	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CB:91:PRO:HA	4:CB:154:LEU:HD11	1.72	0.71
1:CA:1182:G:H4'	1:CA:1183:A:H5''	1.71	0.71
14:CL:17:VAL:HG23	14:CL:18:ARG:H	1.53	0.71
1:CA:1104:G:H5'	4:CB:111:ARG:HD2	1.73	0.71
34:DN:90:LEU:H	34:DN:90:LEU:HD12	1.54	0.71
41:DU:55:ARG:HA	41:DU:58:ARG:HD2	1.71	0.71
11:CI:85:LEU:HD11	11:CI:96:LEU:HD22	1.73	0.71
48:D1:90:ILE:O	48:D1:94:LEU:HB2	1.90	0.71
13:CK:52:GLY:H	13:CK:55:LYS:NZ	1.89	0.71
31:DH:92:ILE:HD12	31:DH:92:ILE:H	1.55	0.71
25:BA:886:C:H2'	25:BA:887:A:H4'	1.71	0.71
25:DA:1786:A:H3'	25:DA:1787:A:H8	1.55	0.71
44:DX:8:ILE:HD12	44:DX:8:ILE:H	1.54	0.71
27:DD:28:GLU:HB3	27:DD:29:PRO:HD3	1.71	0.71
42:BV:25:LEU:HD23	42:BV:26:ASP:H	1.56	0.71
55:D8:34:TRP:HA	25:DA:2420:C:OP1	1.91	0.71
19:AQ:12:SER:HB3	19:AQ:20:THR:HB	1.71	0.71
42:BV:22:VAL:HG12	42:BV:23:GLU:N	2.06	0.71
47:D0:23:VAL:HA	47:D0:38:VAL:HG22	1.73	0.71
32:DI:116:LEU:HD22	32:DI:128:LEU:HD21	1.71	0.71
4:CB:178:ARG:HE	10:CH:74:PRO:HD3	1.56	0.71
42:BV:34:GLU:HG3	42:BV:58:VAL:HG22	1.73	0.71
24:AX:13:ARG:HD2	24:AX:13:ARG:H	1.55	0.71
25:BA:204:A:OP1	25:BA:204:A:H8	1.73	0.71
25:DA:1858:G:HO2'	25:DA:1859:A:H8	1.37	0.71
41:BU:90:VAL:HG23	42:BV:39:LEU:HB3	1.72	0.71
25:DA:1050:A:H2'	25:DA:1051:G:C8	2.26	0.71
25:BA:972:G:H3'	25:BA:973:A:H2'	1.73	0.71
30:BG:64:THR:HG23	30:BG:66:GLN:H	1.56	0.70
40:DT:26:ASP:HB3	40:DT:91:ARG:HA	1.73	0.70
19:AQ:64:PRO:HA	19:AQ:70:ARG:HG3	1.71	0.70
31:DH:16:SER:HB2	31:DH:27:LYS:HB2	1.73	0.70
1:CA:736:C:H2'	1:CA:737:A:C8	2.26	0.70
39:DS:15:ARG:HH22	26:DB:8:U:H5''	1.54	0.70
1:CA:344:A:H4'	40:DT:39:ARG:HH22	1.56	0.70
35:DO:86:ILE:H	35:DO:86:ILE:HD12	1.55	0.70
19:CQ:12:SER:HB3	19:CQ:20:THR:HB	1.71	0.70
49:B2:18:PRO:O	49:B2:21:LEU:HB3	1.90	0.70
36:BP:52:GLU:HG3	36:BP:53:GLY:H	1.56	0.70
15:AM:10:PRO:HB2	15:AM:18:ALA:HB1	1.73	0.70
37:BQ:38:GLU:HB2	37:BQ:127:ILE:HG23	1.74	0.70
25:BA:189:G:H2'	25:BA:205:G:N2	2.07	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:D1:11:ARG:HH11	48:D1:61:ARG:H	1.40	0.70
38:DR:38:VAL:HB	38:DR:39:PRO:HD3	1.73	0.70
30:BG:98:ARG:H	30:BG:98:ARG:HD2	1.55	0.70
30:BG:43:LEU:HD22	30:BG:90:LEU:HB2	1.71	0.70
15:CM:99:ARG:HB2	15:CM:101:GLN:HE21	1.55	0.70
6:CD:162:LEU:HD13	6:CD:181:MET:HG2	1.74	0.70
25:DA:204:A:H8	25:DA:204:A:OP1	1.73	0.70
51:D4:46:ASN:HB2	51:D4:64:LYS:HB2	1.73	0.70
25:BA:519:U:H2'	25:BA:520:G:H8	1.55	0.70
41:DU:90:VAL:HG23	42:DV:39:LEU:HB3	1.72	0.70
36:BP:64:LYS:HB2	55:B8:25:MET:HG3	1.73	0.70
27:BD:33:LEU:O	27:BD:36:PRO:HD2	1.92	0.70
13:AK:18:ARG:HB3	13:AK:33:THR:HG23	1.73	0.70
1:AA:687:A:H2'	1:AA:701:C:H41	1.56	0.70
20:CR:50:ILE:HD12	20:CR:70:ILE:HG21	1.74	0.70
32:DI:62:LYS:HB2	32:DI:133:HIS:CE1	2.26	0.70
24:CX:13:ARG:H	24:CX:13:ARG:HD2	1.54	0.70
48:B1:90:ILE:O	48:B1:94:LEU:HB2	1.91	0.70
7:CE:51:VAL:HB	7:CE:52:PRO:HD3	1.74	0.70
25:BA:1183:G:H2'	25:BA:1184:G:H8	1.56	0.70
42:DV:25:LEU:HD23	42:DV:26:ASP:H	1.57	0.70
41:DU:24:TYR:HB2	41:DU:29:SER:HB3	1.73	0.70
11:AI:28:VAL:HG22	11:AI:63:ILE:HB	1.72	0.70
6:AD:162:LEU:HD13	6:AD:181:MET:HG2	1.74	0.70
27:BD:148:GLU:HB2	27:BD:151:LYS:HD2	1.74	0.70
1:AA:1104:G:H5'	4:AB:111:ARG:HD2	1.72	0.70
35:BO:86:ILE:HD12	35:BO:86:ILE:H	1.55	0.70
24:AX:255:SER:HB3	24:AX:261:ASN:ND2	2.05	0.70
10:AH:102:ARG:H	10:AH:102:ARG:HE	1.38	0.70
36:BP:50:ARG:HB2	55:B8:60:LEU:HD11	1.73	0.70
45:BY:27:VAL:HG12	45:BY:39:VAL:HG22	1.74	0.70
27:BD:83:GLU:HB2	27:BD:92:ILE:HD11	1.73	0.70
25:DA:107:C:H2'	25:DA:108:U:C6	2.27	0.70
54:B7:5:TRP:NE1	54:B7:7:PRO:HG3	2.07	0.70
13:AK:52:GLY:H	13:AK:55:LYS:NZ	1.89	0.70
1:AA:537:G:H5''	14:AL:112:ARG:NH2	2.07	0.70
40:BT:26:ASP:HB3	40:BT:91:ARG:HA	1.73	0.70
1:AA:673:G:H5''	8:AF:87:ARG:NH1	2.07	0.70
45:DY:76:CYS:HB3	45:DY:77:PRO:CD	2.20	0.69
48:D1:62:VAL:HG22	48:D1:63:ALA:H	1.57	0.69
13:AK:21:ILE:HB	13:AK:84:VAL:HG12	1.74	0.69
33:BJ:14:LYS:HA	33:BJ:14:LYS:HE2	1.74	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1786:A:H3'	25:BA:1787:A:H8	1.57	0.69
1:CA:975:A:H4'	1:CA:976:G:H5''	1.73	0.69
17:AO:33:THR:HG23	17:AO:63:ARG:HH22	1.57	0.69
25:BA:2103:C:H2'	25:BA:2104:G:C8	2.27	0.69
37:DQ:38:GLU:HB2	37:DQ:127:ILE:HG23	1.74	0.69
36:DP:52:GLU:HG3	36:DP:53:GLY:H	1.57	0.69
24:AX:293:ILE:HG13	24:AX:294:GLY:N	2.07	0.69
15:AM:99:ARG:HB2	15:AM:101:GLN:HE21	1.54	0.69
32:DI:83:ALA:HB2	32:DI:88:ILE:HD13	1.74	0.69
41:DU:92:ARG:NH1	25:DA:996:A:H4'	2.06	0.69
22:CT:26:ASN:HD22	22:CT:27:LYS:H	1.38	0.69
5:CC:15:THR:HG21	5:CC:181:ASN:HA	1.75	0.69
27:DD:33:LEU:O	27:DD:36:PRO:HD2	1.92	0.69
1:AA:736:C:H2'	1:AA:737:A:C8	2.27	0.69
1:AA:1065:U:H4'	1:AA:1066:C:O5'	1.91	0.69
8:AF:16:GLN:CD	8:AF:16:GLN:H	1.95	0.69
25:DA:2103:C:H2'	25:DA:2104:G:C8	2.27	0.69
25:DA:1183:G:H2'	25:DA:1184:G:H8	1.57	0.69
54:D7:7:PRO:HB2	25:DA:1309:G:H4'	1.75	0.69
1:CA:67:C:H2'	1:CA:68:G:C8	2.27	0.69
31:DH:121:ILE:HD11	31:DH:140:LYS:HD3	1.74	0.69
25:BA:691:C:H2'	25:BA:692:C:C6	2.27	0.69
14:AL:23:VAL:HG13	14:AL:97:TYR:CE2	2.28	0.69
7:AE:51:VAL:HB	7:AE:52:PRO:HD3	1.74	0.69
8:CF:72:VAL:HG13	8:CF:73:ASN:H	1.57	0.69
27:DD:148:GLU:HB2	27:DD:151:LYS:HD2	1.74	0.69
29:BF:8:GLN:HA	29:BF:21:ALA:HA	1.73	0.69
37:DQ:23:GLY:HA3	37:DQ:98:LYS:CG	2.18	0.69
36:DP:64:LYS:HB2	55:D8:25:MET:HG3	1.74	0.69
8:AF:72:VAL:HG13	8:AF:73:ASN:H	1.57	0.69
51:B4:46:ASN:HB2	51:B4:64:LYS:HB2	1.74	0.69
44:DX:64:LYS:HG2	44:DX:65:ARG:H	1.57	0.69
5:CC:138:VAL:HG13	5:CC:149:ALA:HB3	1.75	0.69
12:CJ:49:VAL:HG21	16:CN:41:ARG:HB2	1.75	0.69
38:BR:38:VAL:HB	38:BR:39:PRO:HD3	1.73	0.69
11:CI:89:ASN:HB3	11:CI:92:TYR:HB2	1.74	0.69
22:AT:26:ASN:HD22	22:AT:27:LYS:H	1.38	0.69
14:AL:74:HIS:CD2	14:AL:76:LEU:H	2.11	0.69
33:DJ:14:LYS:HE2	33:DJ:14:LYS:HA	1.75	0.69
36:DP:125:VAL:HG11	36:DP:138:LEU:HD22	1.73	0.69
30:BG:66:GLN:HG2	30:BG:67:LYS:H	1.58	0.69
11:AI:79:LEU:HD23	11:AI:101:PHE:O	1.92	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:197:A:H8	25:BA:197:A:H5'	1.56	0.69
27:BD:33:LEU:HD23	27:BD:33:LEU:H	1.57	0.69
27:DD:25:THR:CG2	27:DD:82:ILE:H	2.06	0.69
27:BD:25:THR:CG2	27:BD:82:ILE:H	2.06	0.69
25:DA:1858:G:H1'	25:DA:1884:A:N6	2.08	0.69
1:AA:684:A:H2'	1:AA:685:G:C8	2.28	0.69
24:AX:198:THR:HB	24:AX:293:ILE:HD13	1.75	0.69
25:DA:27:G:HO2'	25:DA:28:A:H8	1.41	0.69
25:BA:2698:U:H2'	25:BA:2699:C:C6	2.28	0.69
38:DR:12:ARG:HD3	38:DR:16:HIS:ND1	2.08	0.69
6:CD:13:ARG:HB2	6:CD:40:PRO:HD3	1.75	0.69
1:AA:668:G:H1'	17:AO:46:HIS:HD2	1.58	0.69
29:BF:78:ILE:HD12	29:BF:78:ILE:H	1.58	0.69
1:CA:134:A:H61	18:CP:25:ARG:NH1	1.91	0.69
12:CJ:92:THR:HG23	12:CJ:93:GLY:H	1.58	0.69
13:CK:21:ILE:HB	13:CK:84:VAL:HG12	1.75	0.69
27:DD:159:ALA:HB1	27:DD:198:ASN:O	1.93	0.69
1:AA:505:G:H2'	1:AA:506:G:H8	1.58	0.69
10:CH:50:ARG:HD2	10:CH:50:ARG:H	1.58	0.69
42:DV:47:VAL:HG12	42:DV:49:THR:O	1.93	0.69
48:B1:11:ARG:HG3	48:B1:62:VAL:HA	1.75	0.69
48:B1:11:ARG:HH11	48:B1:61:ARG:H	1.39	0.69
5:AC:138:VAL:HG13	5:AC:149:ALA:HB3	1.75	0.69
32:BI:78:THR:HA	32:BI:143:SER:HB3	1.73	0.69
20:AR:50:ILE:HD12	20:AR:70:ILE:HG21	1.73	0.69
27:DD:146:GLU:HA	27:DD:153:ALA:HA	1.75	0.69
12:CJ:54:PHE:HD2	12:CJ:55:LYS:HG3	1.58	0.69
25:DA:189:G:H2'	25:DA:205:G:N2	2.07	0.69
42:DV:34:GLU:HG3	42:DV:58:VAL:HG22	1.74	0.69
12:AJ:49:VAL:HG21	16:AN:41:ARG:HB2	1.75	0.69
30:DG:64:THR:HG23	30:DG:66:GLN:H	1.56	0.69
30:DG:66:GLN:HG2	30:DG:67:LYS:H	1.58	0.69
11:AI:89:ASN:HB3	11:AI:92:TYR:HB2	1.75	0.69
42:BV:18:LEU:H	42:BV:96:ILE:HB	1.57	0.69
1:CA:950:U:H2'	1:CA:951:G:H8	1.58	0.69
53:D6:21:TYR:HE1	25:DA:2399:G:H1'	1.58	0.69
25:BA:1858:G:H1'	25:BA:1884:A:N6	2.07	0.69
32:BI:62:LYS:HB2	32:BI:133:HIS:CE1	2.27	0.69
31:BH:16:SER:HB2	31:BH:27:LYS:HB2	1.73	0.69
37:BQ:14:ARG:HG2	37:BQ:14:ARG:NH1	2.00	0.68
48:B1:62:VAL:HG22	48:B1:63:ALA:H	1.59	0.68
14:CL:23:VAL:HG13	14:CL:97:TYR:CE2	2.28	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DD:25:THR:HG23	27:DD:27:THR:HG22	1.74	0.68
1:CA:684:A:H2'	1:CA:685:G:C8	2.27	0.68
45:DY:27:VAL:HG12	45:DY:39:VAL:HG22	1.74	0.68
34:DN:126:VAL:HG12	34:DN:130:LEU:HD11	1.73	0.68
42:DV:18:LEU:H	42:DV:96:ILE:HB	1.57	0.68
24:CX:111:ILE:HD12	24:CX:111:ILE:H	1.57	0.68
5:AC:43:LEU:O	5:AC:47:LEU:HB3	1.94	0.68
1:AA:505:G:H2'	1:AA:506:G:C8	2.28	0.68
25:BA:811:U:H2'	36:BP:25:SER:HA	1.75	0.68
25:DA:2698:U:H2'	25:DA:2699:C:C6	2.28	0.68
25:BA:107:C:H2'	25:BA:108:U:C6	2.28	0.68
11:CI:79:LEU:HD23	11:CI:101:PHE:O	1.92	0.68
27:BD:25:THR:HG23	27:BD:27:THR:HG22	1.75	0.68
54:D7:5:TRP:NE1	54:D7:7:PRO:HG3	2.08	0.68
11:CI:44:VAL:HB	11:CI:51:ARG:HH22	1.58	0.68
25:BA:2331:G:H4'	47:B0:43:THR:H	1.57	0.68
24:AX:111:ILE:H	24:AX:111:ILE:HD12	1.57	0.68
29:DF:78:ILE:HD12	29:DF:78:ILE:H	1.58	0.68
14:CL:113:LYS:O	14:CL:116:ARG:HG3	1.93	0.68
9:AG:103:TRP:HB3	9:AG:134:ALA:HB1	1.75	0.68
4:CB:84:GLU:HG3	4:CB:215:LEU:HB3	1.75	0.68
35:DO:76:ALA:HB3	40:DT:75:ILE:HB	1.76	0.68
25:DA:1131:G:H4'	25:DA:1132:A:OP1	1.94	0.68
25:BA:38:A:H2'	25:BA:39:C:C6	2.28	0.68
25:BA:1483:G:H2'	25:BA:1484:G:C8	2.29	0.68
1:AA:134:A:H61	18:AP:25:ARG:NH1	1.90	0.68
47:D0:43:THR:H	25:DA:2331:G:H4'	1.58	0.68
17:CO:33:THR:HG23	17:CO:63:ARG:HH22	1.58	0.68
24:AX:85:LYS:O	24:AX:89:GLU:HG2	1.94	0.68
1:CA:250:A:H4'	1:CA:251:G:O5'	1.93	0.68
29:BF:160:ASN:HD21	29:BF:162:LEU:HD13	1.57	0.68
25:BA:1050:A:H2'	25:BA:1051:G:H8	1.56	0.68
25:DA:1105:U:H2'	25:DA:1106:G:C8	2.28	0.68
25:DA:2564:A:C2	25:DA:2647:U:H4'	2.29	0.68
1:AA:67:C:H2'	1:AA:68:G:C8	2.28	0.68
31:BH:121:ILE:HD11	31:BH:140:LYS:HD3	1.74	0.68
15:CM:10:PRO:HB2	15:CM:18:ALA:HB1	1.73	0.68
48:B1:50:ARG:HG2	48:B1:59:THR:HG22	1.76	0.68
25:BA:2564:A:C2	25:BA:2647:U:H4'	2.29	0.68
48:D1:11:ARG:HG3	48:D1:62:VAL:HA	1.75	0.68
24:CX:163:ARG:HH12	24:CX:204:LYS:HD3	1.58	0.68
5:AC:15:THR:HG21	5:AC:181:ASN:HA	1.75	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:25:SER:HA	25:DA:811:U:H2'	1.75	0.68
24:CX:293:ILE:HG13	24:CX:294:GLY:N	2.08	0.68
1:CA:668:G:H1'	17:CO:46:HIS:HD2	1.58	0.68
25:DA:2275:C:H5'	25:DA:2275:C:H6	1.59	0.68
24:AX:61:ALA:HB3	24:AX:74:ALA:HB2	1.76	0.68
8:CF:16:GLN:CD	8:CF:16:GLN:H	1.95	0.68
25:BA:1105:U:H2'	25:BA:1106:G:C8	2.29	0.68
32:BI:83:ALA:HB2	32:BI:88:ILE:HD13	1.76	0.68
6:AD:123:HIS:HB2	6:AD:125:HIS:CD2	2.29	0.68
1:CA:687:A:H2'	1:CA:701:C:H41	1.57	0.68
5:CC:185:GLY:HA3	5:CC:200:ALA:HB3	1.76	0.68
42:BV:47:VAL:HG12	42:BV:49:THR:O	1.94	0.68
2:AY:56:C:O2'	30:BG:78:SER:HB3	1.93	0.68
25:BA:195:A:OP1	36:BP:46:LYS:HE2	1.94	0.68
43:BW:14:PRO:O	43:BW:18:ARG:HG3	1.94	0.68
34:BN:148:GLY:HA3	34:BN:149:PRO:O	1.94	0.68
9:AG:146:GLU:OE1	9:AG:149:ARG:HD2	1.94	0.68
52:D5:19:ARG:HA	25:DA:2046:G:H5'	1.76	0.68
15:CM:44:ARG:HB2	15:CM:46:LYS:HG2	1.76	0.68
25:BA:1766:U:H2'	25:BA:1767:C:H6	1.59	0.68
43:BW:29:LEU:HD22	43:BW:69:LEU:HD11	1.76	0.68
49:D2:38:GLN:O	49:D2:41:ILE:HG12	1.94	0.68
35:BO:76:ALA:HB3	40:BT:75:ILE:HB	1.75	0.68
1:AA:250:A:H4'	1:AA:251:G:O5'	1.93	0.68
24:AX:48:ILE:HA	24:AX:51:TYR:CD1	2.28	0.68
5:CC:43:LEU:O	5:CC:47:LEU:HB3	1.94	0.67
36:DP:45:LEU:HD23	36:DP:46:LYS:H	1.59	0.67
36:BP:45:LEU:HD23	36:BP:46:LYS:H	1.58	0.67
27:DD:33:LEU:HD23	27:DD:33:LEU:H	1.58	0.67
25:BA:2298:A:H2'	25:BA:2299:G:O4'	1.94	0.67
25:BA:2046:G:H5'	52:B5:19:ARG:HA	1.76	0.67
6:AD:13:ARG:HB2	6:AD:40:PRO:HD3	1.76	0.67
6:CD:123:HIS:HB2	6:CD:125:HIS:CD2	2.28	0.67
14:AL:113:LYS:O	14:AL:116:ARG:HG3	1.93	0.67
12:AJ:54:PHE:HD2	12:AJ:55:LYS:HG3	1.58	0.67
45:BY:81:LYS:HD3	45:BY:97:ARG:HB3	1.76	0.67
4:AB:84:GLU:HG3	4:AB:215:LEU:HB3	1.75	0.67
1:CA:1117:G:H4'	11:CI:104:ARG:NH2	2.09	0.67
32:DI:101:LEU:HG	32:DI:107:ILE:HG23	1.76	0.67
27:BD:159:ALA:HB1	27:BD:198:ASN:O	1.94	0.67
25:DA:2287:A:H62	25:DA:2344:U:H3	1.41	0.67
25:BA:2314:C:H2'	25:BA:2315:G:H8	1.60	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:27:HIS:CD2	25:DA:814:C:H41	2.12	0.67
28:DE:132:HIS:CG	28:DE:135:HIS:HE2	2.12	0.67
25:DA:2502:G:H5'	25:DA:2503:A:H5''	1.75	0.67
44:BX:64:LYS:HG2	44:BX:65:ARG:H	1.58	0.67
29:BF:117:ARG:HG3	29:BF:122:LYS:HB2	1.77	0.67
1:CA:1271:G:H2'	1:CA:1272:G:H8	1.60	0.67
9:CG:103:TRP:HB3	9:CG:134:ALA:HB1	1.76	0.67
10:AH:50:ARG:HD2	10:AH:50:ARG:H	1.58	0.67
27:BD:201:HIS:O	27:BD:204:ILE:HG13	1.94	0.67
48:D1:50:ARG:HG2	48:D1:59:THR:HG22	1.75	0.67
1:CA:505:G:H2'	1:CA:506:G:C8	2.29	0.67
52:D5:45:VAL:HG12	52:D5:46:CYS:H	1.59	0.67
18:AP:21:VAL:HG23	18:AP:33:ILE:HB	1.76	0.67
52:B5:45:VAL:HG12	52:B5:46:CYS:H	1.58	0.67
32:BI:101:LEU:HG	32:BI:107:ILE:HG23	1.75	0.67
24:AX:112:ARG:HB2	24:AX:198:THR:HG23	1.77	0.67
1:AA:1271:G:H2'	1:AA:1272:G:H8	1.59	0.67
25:DA:2164:C:H2'	25:DA:2165:G:H8	1.60	0.67
24:CX:48:ILE:HA	24:CX:51:TYR:CD1	2.29	0.67
1:CA:1065:U:H4'	1:CA:1066:C:O5'	1.93	0.67
32:DI:31:LEU:HD13	32:DI:37:VAL:HA	1.76	0.67
9:CG:80:VAL:HG21	9:CG:85:TYR:CE1	2.30	0.67
8:AF:36:ARG:HH21	8:AF:38:GLU:HG2	1.59	0.67
9:CG:15:ASP:HB3	9:CG:20:ASP:H	1.59	0.67
1:CA:1224:G:H4'	15:CM:102:ARG:HH22	1.59	0.67
28:DE:51:PHE:H	28:DE:75:VAL:HB	1.60	0.67
1:CA:673:G:H5''	8:CF:87:ARG:NH1	2.09	0.67
9:CG:15:ASP:HA	9:CG:24:THR:HG23	1.77	0.67
27:DD:201:HIS:O	27:DD:204:ILE:HG13	1.95	0.67
9:AG:80:VAL:HG21	9:AG:85:TYR:CE1	2.29	0.67
30:DG:36:LYS:HB3	30:DG:160:VAL:HB	1.77	0.67
25:BA:1548:C:H2'	25:BA:1549:C:H6	1.59	0.67
48:B1:25:LYS:HG2	48:B1:35:THR:HG22	1.75	0.67
55:D8:8:LYS:HE3	25:DA:245:G:O6	1.95	0.67
12:AJ:92:THR:HG23	12:AJ:93:GLY:H	1.57	0.67
48:B1:11:ARG:NH1	48:B1:61:ARG:H	1.93	0.67
24:CX:198:THR:HB	24:CX:293:ILE:HD13	1.76	0.67
15:CM:16:ASP:HB3	15:CM:34:LEU:HD11	1.77	0.67
25:BA:814:C:H41	36:BP:27:HIS:CD2	2.12	0.67
24:CX:61:ALA:HB3	24:CX:74:ALA:HB2	1.76	0.67
34:DN:148:GLY:HA3	34:DN:149:PRO:O	1.94	0.67
28:BE:118:LYS:HE2	38:BR:2:ARG:NH1	2.10	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DY:8:LYS:HZ2	45:DY:8:LYS:N	1.93	0.67
18:AP:13:HIS:C	18:AP:15:PRO:HD3	2.15	0.67
1:AA:1508:G:H2'	1:AA:1509:C:H6	1.59	0.67
25:DA:107:C:H2'	25:DA:108:U:H6	1.60	0.67
24:CX:112:ARG:HB2	24:CX:198:THR:HG23	1.77	0.67
24:CX:283:GLU:HG3	24:CX:287:LYS:HE3	1.77	0.67
25:BA:441:U:H2'	25:BA:442:G:C8	2.29	0.67
43:DW:29:LEU:HD22	43:DW:69:LEU:HD11	1.77	0.67
25:BA:833:U:H2'	25:BA:834:C:C6	2.30	0.67
1:AA:279:A:H2'	19:AQ:95:TYR:HE2	1.60	0.67
1:AA:950:U:H2'	1:AA:951:G:H8	1.59	0.67
44:BX:34:ALA:HB1	44:BX:39:ILE:HD11	1.77	0.67
16:CN:32:SER:HB3	16:CN:41:ARG:HG2	1.77	0.67
25:BA:1309:G:H4'	54:B7:7:PRO:HB2	1.77	0.67
28:BE:132:HIS:CG	28:BE:135:HIS:HE2	2.12	0.67
15:AM:27:LYS:HG3	15:AM:31:LYS:HE3	1.77	0.67
24:CX:85:LYS:O	24:CX:89:GLU:HG2	1.94	0.67
15:AM:44:ARG:HB2	15:AM:46:LYS:HG2	1.77	0.67
2:CZ:71:C:H4'	25:DA:1851:U:H4'	1.77	0.67
1:AA:168:G:H2'	1:AA:169:C:H5''	1.77	0.67
15:CM:49:THR:HG22	15:CM:51:ALA:H	1.60	0.67
32:BI:6:LEU:HA	32:BI:15:VAL:HG13	1.77	0.67
25:DA:1056:G:H4'	25:DA:1086:A:H8	1.59	0.67
12:AJ:75:ILE:HG13	12:AJ:76:ASN:H	1.59	0.67
38:DR:51:LEU:HD22	38:DR:66:VAL:HG13	1.77	0.67
25:BA:1131:G:H4'	25:BA:1132:A:OP1	1.95	0.67
48:D1:11:ARG:NH1	48:D1:61:ARG:H	1.93	0.67
25:DA:197:A:H5'	25:DA:197:A:H8	1.58	0.67
55:B8:14:VAL:HG22	55:B8:24:ALA:HB2	1.77	0.67
27:BD:146:GLU:HA	27:BD:153:ALA:HA	1.75	0.67
1:CA:304:U:H2'	1:CA:305:G:C8	2.30	0.67
25:DA:1483:G:H2'	25:DA:1484:G:C8	2.29	0.67
2:AY:23:C:H2'	2:AY:24:U:C6	2.29	0.67
25:BA:2275:C:H5'	25:BA:2275:C:H6	1.60	0.67
49:D2:33:MET:O	49:D2:37:PHE:HB2	1.95	0.67
25:BA:729:G:N7	27:BD:208:LYS:HB2	2.09	0.66
24:AX:163:ARG:HH12	24:AX:204:LYS:HD3	1.59	0.66
25:BA:2747:G:O6	25:BA:2755:C:H5''	1.96	0.66
25:DA:2298:A:H2'	25:DA:2299:G:O4'	1.94	0.66
28:BE:173:VAL:HG12	28:BE:174:ASP:H	1.60	0.66
5:AC:185:GLY:HA3	5:AC:200:ALA:HB3	1.76	0.66
7:AE:43:LEU:HD11	7:AE:132:ALA:HB1	1.76	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BR:12:ARG:HD3	38:BR:16:HIS:ND1	2.09	0.66
44:BX:83:VAL:HB	44:BX:87:GLN:HE21	1.60	0.66
13:CK:44:SER:H	13:CK:47:VAL:HB	1.60	0.66
18:CP:13:HIS:C	18:CP:15:PRO:HD3	2.15	0.66
25:DA:1658:C:H42	25:DA:2002:G:H1	1.43	0.66
25:DA:691:C:H2'	25:DA:692:C:C6	2.29	0.66
35:DO:8:LEU:HB2	35:DO:19:ILE:HD11	1.77	0.66
1:CA:829:G:H2'	1:CA:830:G:H8	1.61	0.66
9:AG:15:ASP:HB3	9:AG:20:ASP:H	1.59	0.66
25:DA:2314:C:H2'	25:DA:2315:G:H8	1.60	0.66
14:CL:74:HIS:CD2	14:CL:76:LEU:H	2.12	0.66
36:DP:46:LYS:HE2	25:DA:195:A:OP1	1.94	0.66
1:CA:684:A:H1'	13:CK:39:PRO:HD2	1.76	0.66
6:AD:169:LYS:HE2	8:CF:21:LEU:HD12	1.78	0.66
48:D1:25:LYS:HG2	48:D1:35:THR:HG22	1.78	0.66
45:BY:50:ARG:HD3	45:BY:51:VAL:H	1.60	0.66
1:CA:900:A:H2'	1:CA:901:A:C8	2.30	0.66
25:DA:806:C:O2'	25:DA:2445:G:H4'	1.96	0.66
25:DA:2661:G:H2'	25:DA:2662:A:C8	2.30	0.66
1:AA:1224:G:H4'	15:AM:102:ARG:HH22	1.60	0.66
25:DA:1766:U:H2'	25:DA:1767:C:H6	1.60	0.66
1:AA:900:A:H2'	1:AA:901:A:C8	2.30	0.66
44:DX:51:VAL:HG12	44:DX:52:VAL:H	1.59	0.66
25:BA:1161:C:O2'	42:BV:23:GLU:HG2	1.96	0.66
1:AA:1117:G:H4'	11:AI:104:ARG:NH2	2.10	0.66
1:CA:1505:G:H4'	1:CA:1506:U:H5'	1.78	0.66
1:AA:829:G:H2'	1:AA:830:G:H8	1.61	0.66
8:CF:76:ALA:O	8:CF:80:ARG:HG2	1.95	0.66
45:DY:50:ARG:HD3	45:DY:51:VAL:H	1.61	0.66
1:AA:304:U:H2'	1:AA:305:G:C8	2.31	0.66
25:BA:2502:G:H5'	25:BA:2503:A:H5''	1.77	0.66
53:B6:11:LEU:HD11	53:B6:51:GLU:HG3	1.76	0.66
25:BA:2287:A:H62	25:BA:2344:U:H3	1.41	0.66
1:CA:986:A:H1'	21:CS:54:GLY:O	1.96	0.66
1:CA:1508:G:H2'	1:CA:1509:C:H6	1.59	0.66
5:CC:14:ILE:HG23	5:CC:15:THR:H	1.61	0.66
30:DG:7:LEU:HD23	30:DG:10:LYS:HD2	1.77	0.66
11:AI:44:VAL:HB	11:AI:51:ARG:HH22	1.60	0.66
53:D6:11:LEU:HD11	53:D6:51:GLU:HG3	1.76	0.66
1:AA:559:A:H4'	1:AA:560:U:H5''	1.78	0.66
39:DS:13:ARG:HH22	25:DA:2335:A:H2'	1.61	0.66
1:AA:194:C:H2'	1:AA:195:A:H5''	1.78	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2399:G:H1'	53:B6:21:TYR:HE1	1.58	0.66
29:DF:117:ARG:HG3	29:DF:122:LYS:HB2	1.78	0.66
15:CM:27:LYS:HG3	15:CM:31:LYS:HE3	1.77	0.66
44:BX:51:VAL:HG12	44:BX:52:VAL:H	1.60	0.66
32:DI:72:LEU:HD12	32:DI:140:LEU:HD13	1.77	0.66
1:AA:1505:G:H4'	1:AA:1506:U:H5'	1.76	0.66
1:AA:684:A:H1'	13:AK:39:PRO:HD2	1.75	0.66
15:AM:16:ASP:HB3	15:AM:34:LEU:HD11	1.77	0.66
25:DA:833:U:H2'	25:DA:834:C:C6	2.31	0.66
25:BA:1791:A:H3'	25:BA:1792:G:C8	2.31	0.66
7:CE:70:PRO:HB3	7:CE:144:THR:HG22	1.78	0.66
25:BA:1056:G:H4'	25:BA:1086:A:H8	1.59	0.66
18:CP:21:VAL:HG23	18:CP:33:ILE:HB	1.77	0.66
13:CK:21:ILE:HG13	13:CK:30:VAL:HG12	1.78	0.66
12:CJ:75:ILE:HG13	12:CJ:76:ASN:H	1.59	0.66
34:BN:70:ALA:HB2	34:BN:135:LEU:HD12	1.78	0.66
32:DI:76:THR:HG22	32:DI:141:LYS:HD3	1.78	0.66
25:BA:94:G:H21	49:B2:47:ASN:ND2	1.94	0.66
25:BA:1060:U:H4'	25:BA:1061:U:H3'	1.77	0.66
44:DX:26:TYR:O	44:DX:81:VAL:HG22	1.96	0.66
1:AA:1144:G:H21	1:AA:1146:A:H62	1.43	0.66
27:BD:243:GLY:O	27:BD:244:ARG:HB2	1.96	0.66
25:BA:295:G:H4'	45:BY:2:ARG:NH1	2.11	0.66
12:AJ:50:ILE:HB	16:AN:41:ARG:NH2	2.11	0.66
1:CA:244:U:H5'	1:CA:244:U:C6	2.29	0.66
28:BE:51:PHE:H	28:BE:75:VAL:HB	1.60	0.66
27:DD:81:ALA:HB3	27:DD:94:LEU:HB3	1.78	0.66
1:CA:505:G:H2'	1:CA:506:G:H8	1.59	0.66
38:BR:51:LEU:HD22	38:BR:66:VAL:HG13	1.76	0.66
24:AX:316:ARG:HE	24:AX:346:ARG:HH22	1.44	0.66
25:BA:2074:U:H2'	25:BA:2075:U:C6	2.31	0.66
25:BA:245:G:O6	55:B8:8:LYS:HE3	1.95	0.66
6:CD:98:GLU:HA	6:CD:103:ASN:ND2	2.11	0.66
48:D1:32:LYS:HG2	48:D1:33:LYS:H	1.61	0.66
42:DV:23:GLU:HG2	25:DA:1161:C:O2'	1.96	0.66
48:B1:11:ARG:HB3	48:B1:12:PRO:CD	2.26	0.66
13:AK:44:SER:H	13:AK:47:VAL:HB	1.61	0.66
43:DW:14:PRO:O	43:DW:18:ARG:HG3	1.95	0.66
8:AF:76:ALA:O	8:AF:80:ARG:HG2	1.96	0.66
7:CE:43:LEU:HD11	7:CE:132:ALA:HB1	1.77	0.66
20:CR:45:SER:HB3	20:CR:51:LEU:HG	1.78	0.66
49:B2:33:MET:O	49:B2:37:PHE:HB2	1.96	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AF:12:PRO:HD3	8:AF:58:GLY:HA2	1.76	0.66
31:BH:162:ILE:H	31:BH:162:ILE:HD13	1.61	0.66
25:BA:581:C:H2'	25:BA:582:G:C8	2.30	0.66
1:CA:523:A:N1	14:CL:91:ASP:HB2	2.11	0.66
25:DA:441:U:H2'	25:DA:442:G:C8	2.31	0.66
25:DA:2747:G:O6	25:DA:2755:C:H5''	1.96	0.66
27:DD:67:PHE:HE1	27:DD:157:ARG:NH1	1.94	0.66
25:BA:1681:G:O2'	25:BA:1762:A:H2'	1.96	0.66
9:CG:146:GLU:OE1	9:CG:149:ARG:HD2	1.96	0.66
45:DY:81:LYS:HD3	45:DY:97:ARG:HB3	1.78	0.65
44:DX:83:VAL:HB	44:DX:87:GLN:HE21	1.61	0.65
42:BV:5:VAL:HG23	42:BV:37:VAL:HG23	1.78	0.65
44:BX:35:THR:HG22	44:BX:37:THR:H	1.61	0.65
1:CA:1313:U:OP1	21:CS:6:LYS:HG3	1.97	0.65
32:BI:31:LEU:HD13	32:BI:37:VAL:HA	1.76	0.65
1:CA:168:G:H2'	1:CA:169:C:H5''	1.77	0.65
48:B1:32:LYS:HG2	48:B1:33:LYS:H	1.60	0.65
15:AM:49:THR:HG22	15:AM:51:ALA:H	1.60	0.65
6:AD:98:GLU:HA	6:AD:103:ASN:ND2	2.11	0.65
30:DG:136:ARG:O	30:DG:154:GLY:HA2	1.96	0.65
1:AA:523:A:N1	14:AL:91:ASP:HB2	2.11	0.65
25:DA:1111:A:N3	25:DA:1112:G:H1'	2.11	0.65
35:BO:8:LEU:HB2	35:BO:19:ILE:HD11	1.77	0.65
27:DD:243:GLY:O	27:DD:244:ARG:HB2	1.95	0.65
7:AE:91:LEU:HB3	7:AE:118:ILE:HD11	1.78	0.65
1:CA:1413:A:H2	1:CA:1487:G:H22	1.45	0.65
49:D2:21:LEU:HA	49:D2:64:LEU:HD13	1.78	0.65
25:DA:671:C:H42	25:DA:809:G:H1	1.44	0.65
25:BA:1568:G:H5''	27:BD:61:LEU:HD13	1.78	0.65
25:BA:27:G:HO2'	25:BA:28:A:H8	1.42	0.65
27:DD:61:LEU:HD13	25:DA:1568:G:H5''	1.78	0.65
30:BG:136:ARG:O	30:BG:154:GLY:HA2	1.95	0.65
1:CA:194:C:H2'	1:CA:195:A:H5''	1.78	0.65
30:BG:36:LYS:HB3	30:BG:160:VAL:HB	1.77	0.65
35:DO:22:ILE:HG23	25:DA:1952:A:C2	2.31	0.65
2:CY:23:C:H2'	2:CY:24:U:C6	2.31	0.65
50:B3:8:LEU:HD12	50:B3:31:LEU:HA	1.79	0.65
1:CA:1348:U:H4'	11:CI:120:ARG:HD2	1.79	0.65
27:DD:30:GLU:HG3	27:DD:63:ARG:HH21	1.60	0.65
7:CE:72:GLN:O	7:CE:75:THR:HG22	1.97	0.65
43:DW:8:ARG:HA	43:DW:102:HIS:HD2	1.61	0.65
24:AX:283:GLU:HG3	24:AX:287:LYS:HE3	1.77	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DE:173:VAL:HG12	28:DE:174:ASP:H	1.59	0.65
30:BG:76:SER:HA	30:BG:83:ARG:HA	1.78	0.65
17:AO:82:ILE:HG12	17:AO:87:ILE:HG13	1.78	0.65
25:BA:661:C:O3'	36:BP:18:ARG:HG2	1.97	0.65
21:AS:29:ARG:HD3	21:AS:48:THR:HB	1.78	0.65
25:DA:519:U:H2'	25:DA:520:G:C8	2.31	0.65
25:BA:1105:U:H2'	25:BA:1106:G:H8	1.62	0.65
25:DA:1060:U:H4'	25:DA:1061:U:H3'	1.78	0.65
21:AS:19:VAL:HG21	21:AS:44:MET:HG3	1.79	0.65
40:BT:41:ARG:HD2	40:BT:42:ILE:H	1.61	0.65
40:BT:59:THR:O	40:BT:78:LEU:HB2	1.95	0.65
25:BA:1316:U:H2'	25:BA:1317:A:C8	2.32	0.65
25:BA:2164:C:H2'	25:BA:2165:G:H8	1.60	0.65
4:CB:169:LYS:HE2	4:CB:169:LYS:O	1.97	0.65
1:CA:279:A:H2'	19:CQ:95:TYR:HE2	1.60	0.65
8:CF:36:ARG:HH21	8:CF:38:GLU:HG2	1.60	0.65
19:CQ:45:HIS:CD2	19:CQ:47:PRO:HD3	2.31	0.65
1:AA:1348:U:H4'	11:AI:120:ARG:HD2	1.79	0.65
25:BA:1658:C:H42	25:BA:2002:G:H1	1.43	0.65
40:DT:59:THR:O	40:DT:78:LEU:HB2	1.95	0.65
32:DI:6:LEU:HA	32:DI:15:VAL:HG13	1.77	0.65
27:BD:78:LYS:HD3	27:BD:114:GLY:HA2	1.79	0.65
1:AA:908:A:H2'	1:AA:909:A:C8	2.31	0.65
31:DH:162:ILE:HD13	31:DH:162:ILE:H	1.61	0.65
13:AK:21:ILE:HG13	13:AK:30:VAL:HG12	1.77	0.65
36:DP:18:ARG:HG2	25:DA:661:C:O3'	1.97	0.65
25:BA:1358:G:O2'	25:BA:1359:A:H5''	1.97	0.65
41:BU:31:SER:O	41:BU:32:PHE:C	2.34	0.65
25:BA:1111:A:N3	25:BA:1112:G:H1'	2.11	0.65
34:DN:157:ARG:N	34:DN:158:PRO:HD3	2.12	0.65
45:DY:81:LYS:HD2	45:DY:96:ILE:HD12	1.77	0.65
44:BX:28:PHE:HE2	44:BX:92:LEU:HD11	1.62	0.65
42:DV:5:VAL:HG23	42:DV:37:VAL:HG23	1.78	0.65
7:CE:76:ILE:CG1	7:CE:77:PRO:HD2	2.26	0.65
25:DA:587:C:C5	25:DA:671:C:H1'	2.31	0.65
1:AA:1520:G:H2'	1:AA:1521:G:C8	2.32	0.65
25:DA:1152:C:H2'	25:DA:1153:C:H6	1.62	0.65
20:AR:45:SER:HB3	20:AR:51:LEU:HG	1.79	0.65
25:BA:2661:G:H2'	25:BA:2662:A:C8	2.31	0.65
1:CA:908:A:H2'	1:CA:909:A:C8	2.31	0.65
16:AN:45:ARG:HG2	16:AN:49:HIS:CD2	2.32	0.65
25:DA:270(T):G:H2'	25:DA:270(U):G:C8	2.31	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1548:C:H2'	25:DA:1549:C:H6	1.59	0.65
30:BG:7:LEU:HD23	30:BG:10:LYS:HD2	1.77	0.65
43:BW:8:ARG:HA	43:BW:102:HIS:HD2	1.62	0.65
7:AE:70:PRO:HB3	7:AE:144:THR:HG22	1.78	0.65
14:AL:65:VAL:HG11	14:AL:97:TYR:CE1	2.32	0.65
36:DP:24:GLY:HA3	36:DP:33:ARG:NH1	2.12	0.65
52:D5:45:VAL:HG13	52:D5:51:TYR:HB2	1.79	0.65
44:DX:35:THR:HG22	44:DX:37:THR:H	1.61	0.65
45:BY:81:LYS:HD2	45:BY:96:ILE:HD12	1.77	0.65
1:CA:1144:G:H21	1:CA:1146:A:H62	1.43	0.65
29:BF:63:LYS:NZ	29:BF:67:GLN:HE21	1.92	0.65
27:DD:208:LYS:HB2	25:DA:729:G:N7	2.11	0.65
25:BA:519:U:H2'	25:BA:520:G:C8	2.32	0.65
53:D6:19:ARG:HB2	25:DA:2400:G:H4'	1.79	0.65
43:BW:73:ALA:HB3	43:BW:106:ILE:HD11	1.79	0.65
7:CE:91:LEU:HB3	7:CE:118:ILE:HD11	1.77	0.65
27:BD:67:PHE:HE1	27:BD:157:ARG:NH1	1.95	0.65
31:DH:20:ALA:HB1	31:DH:21:PRO:HD2	1.79	0.65
15:AM:19:LEU:HD13	15:AM:22:ILE:HG13	1.78	0.65
24:CX:316:ARG:HE	24:CX:346:ARG:HH22	1.44	0.65
27:DD:144:ALA:HB3	27:DD:192:THR:CG2	2.27	0.65
25:DA:1681:G:O2'	25:DA:1762:A:H2'	1.97	0.65
1:AA:986:A:H1'	21:AS:54:GLY:O	1.96	0.65
36:BP:24:GLY:HA3	36:BP:33:ARG:HH11	1.62	0.65
21:CS:29:ARG:HD3	21:CS:48:THR:HB	1.78	0.65
46:BZ:10:ARG:HG2	46:BZ:11:GLU:N	2.12	0.65
33:BJ:17:LEU:HD22	33:BJ:21:GLN:NE2	2.12	0.65
12:CJ:32:ALA:H	12:CJ:78:ASN:HD21	1.45	0.65
1:CA:125:U:H2'	1:CA:126:G:C8	2.31	0.65
25:BA:1952:A:C2	35:BO:22:ILE:HG23	2.32	0.65
49:B2:38:GLN:O	49:B2:41:ILE:HG12	1.96	0.65
47:D0:32:ARG:N	47:D0:35:ASN:HD21	1.95	0.65
15:AM:67:GLU:HG3	15:AM:68:GLY:H	1.61	0.65
1:CA:1520:G:H2'	1:CA:1521:G:C8	2.31	0.65
15:AM:87:TYR:O	15:AM:91:ARG:HG2	1.97	0.65
25:BA:1693:U:H1'	27:BD:14:ARG:HH22	1.62	0.64
25:DA:813:U:H2'	25:DA:814:C:C6	2.33	0.64
33:DJ:17:LEU:HD22	33:DJ:21:GLN:NE2	2.12	0.64
51:D4:48:ILE:H	51:D4:48:ILE:HD12	1.61	0.64
25:DA:581:C:H2'	25:DA:582:G:C8	2.32	0.64
44:BX:26:TYR:O	44:BX:81:VAL:HG22	1.97	0.64
48:D1:45:ASN:C	48:D1:45:ASN:HD22	2.01	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AB:88:ALA:HB2	4:AB:219:VAL:HG13	1.79	0.64
36:BP:57:THR:HG23	36:BP:59:LEU:HB3	1.78	0.64
38:DR:104:ARG:HG2	38:DR:104:ARG:NH1	2.09	0.64
28:DE:76:ARG:HG2	28:DE:77:ILE:HG13	1.78	0.64
39:DS:33:LYS:HD3	39:DS:33:LYS:O	1.97	0.64
25:BA:107:C:H2'	25:BA:108:U:H6	1.61	0.64
25:DA:2074:U:H2'	25:DA:2075:U:C6	2.32	0.64
40:DT:41:ARG:HD2	40:DT:42:ILE:H	1.61	0.64
11:AI:103:THR:HG22	11:AI:105:ASP:H	1.61	0.64
34:BN:157:ARG:N	34:BN:158:PRO:HD3	2.12	0.64
27:DD:140:THR:HG22	27:DD:141:VAL:H	1.62	0.64
44:DX:34:ALA:HB1	44:DX:39:ILE:HD11	1.78	0.64
45:BY:75:ILE:HG12	45:BY:76:CYS:H	1.61	0.64
25:BA:691:C:H2'	25:BA:692:C:H6	1.62	0.64
1:AA:579:G:H5'	1:AA:728:A:H1'	1.80	0.64
51:B4:48:ILE:H	51:B4:48:ILE:HD12	1.61	0.64
25:DA:2134:A:N6	25:DA:2157:G:H1'	2.12	0.64
5:AC:31:HIS:O	5:AC:35:GLU:HG2	1.97	0.64
14:CL:65:VAL:HG11	14:CL:97:TYR:CE1	2.32	0.64
16:AN:32:SER:HB3	16:AN:41:ARG:HG2	1.77	0.64
1:AA:244:U:H5'	1:AA:244:U:C6	2.29	0.64
36:DP:24:GLY:HA3	36:DP:33:ARG:HH11	1.62	0.64
27:BD:30:GLU:HG3	27:BD:63:ARG:HH21	1.60	0.64
25:BA:626:U:H3	36:BP:105:LEU:HB3	1.61	0.64
7:CE:81:GLU:HA	7:CE:90:VAL:HG22	1.78	0.64
25:BA:806:C:O2'	25:BA:2445:G:H4'	1.98	0.64
32:BI:76:THR:HG22	32:BI:141:LYS:HD3	1.79	0.64
11:CI:103:THR:HG22	11:CI:105:ASP:H	1.61	0.64
6:AD:4:TYR:HE1	6:AD:11:LEU:HD11	1.63	0.64
34:DN:70:ALA:HB2	34:DN:135:LEU:HD12	1.79	0.64
31:BH:20:ALA:HB1	31:BH:21:PRO:HD2	1.79	0.64
25:DA:1541:U:H3'	25:DA:1542:G:C3'	2.26	0.64
30:DG:76:SER:HA	30:DG:83:ARG:HA	1.78	0.64
8:CF:12:PRO:HD3	8:CF:58:GLY:HA2	1.77	0.64
25:BA:270(T):G:H2'	25:BA:270(U):G:C8	2.32	0.64
28:DE:201:THR:HG22	28:DE:202:LYS:H	1.61	0.64
31:BH:68:THR:O	31:BH:72:ILE:HG12	1.97	0.64
46:DZ:27:VAL:HA	46:DZ:37:VAL:HG22	1.80	0.64
49:D2:47:ASN:ND2	25:DA:94:G:H21	1.96	0.64
25:BA:1678:G:H2'	25:BA:1679:U:H6	1.63	0.64
25:BA:1541:U:H3'	25:BA:1542:G:C3'	2.27	0.64
39:DS:24:LEU:O	39:DS:86:ALA:HB3	1.96	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1496:A:H1'	25:BA:1577:C:O2'	1.98	0.64
25:BA:1693:U:H1'	27:BD:14:ARG:NH2	2.12	0.64
25:DA:1405:U:H2'	25:DA:1406:U:C6	2.33	0.64
25:BA:2010:G:H5''	43:BW:42:ARG:HB2	1.80	0.64
25:BA:1152:C:H2'	25:BA:1153:C:H6	1.62	0.64
27:BD:81:ALA:HB3	27:BD:94:LEU:HB3	1.79	0.64
9:AG:15:ASP:HA	9:AG:24:THR:HG23	1.78	0.64
34:BN:29:PRO:HG3	34:BN:66:THR:OG1	1.96	0.64
47:D0:74:ARG:HG2	26:DB:12:C:O2'	1.97	0.64
27:BD:140:THR:HG22	27:BD:141:VAL:H	1.62	0.64
25:DA:1419:A:O2'	25:DA:1420:U:H5''	1.97	0.64
28:DE:143:ASN:O	25:DA:2052:G:H4'	1.98	0.64
49:D2:48:HIS:CE1	49:D2:49:LYS:HD2	2.33	0.64
1:CA:1128:C:H4'	11:CI:16:ARG:NH1	2.13	0.64
29:DF:63:LYS:NZ	29:DF:67:GLN:HE21	1.93	0.64
25:DA:1495:A:H2'	25:DA:1495:A:N3	2.13	0.64
2:AY:56:C:H1'	30:BG:76:SER:HB3	1.78	0.64
36:BP:24:GLY:HA3	36:BP:33:ARG:NH1	2.12	0.64
43:DW:42:ARG:HB2	25:DA:2010:G:H5''	1.79	0.64
28:BE:76:ARG:HG2	28:BE:77:ILE:HG13	1.80	0.64
36:DP:40:SER:C	36:DP:41:ARG:HD2	2.18	0.64
25:BA:651:G:H2'	25:BA:652:U:H5''	1.80	0.64
25:DA:1358:G:O2'	25:DA:1359:A:H5''	1.96	0.64
25:DA:1173:G:HO2'	25:DA:1175:U:H6	1.44	0.64
12:AJ:74:ILE:HD13	12:AJ:74:ILE:H	1.61	0.64
1:AA:125:U:H2'	1:AA:126:G:C8	2.32	0.64
24:AX:274:LEU:HD11	24:AX:278:ARG:HE	1.63	0.64
1:CA:392:G:H2'	1:CA:393:A:H8	1.63	0.64
16:CN:37:PHE:HZ	16:CN:56:VAL:HG21	1.63	0.64
27:DD:132:PRO:HD3	27:DD:190:TYR:CE2	2.33	0.64
28:BE:201:THR:HG22	28:BE:202:LYS:H	1.62	0.64
50:B3:6:VAL:HG12	50:B3:54:VAL:HB	1.80	0.64
14:CL:44:PRO:HG2	14:CL:50:ALA:H	1.63	0.64
36:DP:57:THR:HG23	36:DP:59:LEU:HB3	1.79	0.64
5:CC:58:GLU:O	5:CC:64:VAL:HA	1.98	0.64
25:BA:671:C:H42	25:BA:809:G:H1	1.45	0.64
36:DP:23:PRO:HB2	36:DP:33:ARG:HG3	1.80	0.64
1:AA:1227:A:N3	1:AA:1227:A:H2'	2.12	0.64
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.62	0.64
15:CM:4:ILE:HA	15:CM:57:ARG:HG3	1.80	0.64
1:AA:735:C:H2'	1:AA:736:C:C6	2.33	0.64
34:DN:79:ASN:HD21	34:DN:149:PRO:HD3	1.62	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2400:G:H4'	53:B6:19:ARG:HB2	1.80	0.64
25:BA:2134:A:N6	25:BA:2157:G:H1'	2.12	0.64
36:DP:105:LEU:HB3	25:DA:626:U:H3	1.61	0.64
20:CR:59:SER:HB3	20:CR:62:GLU:HG3	1.79	0.64
26:BB:12:C:O2'	47:B0:74:ARG:HG2	1.97	0.64
44:BX:35:THR:O	44:BX:39:ILE:HG12	1.97	0.64
45:DY:2:ARG:NH1	25:DA:295:G:H4'	2.13	0.64
50:D3:8:LEU:HD12	50:D3:31:LEU:HA	1.78	0.64
38:BR:104:ARG:HG2	38:BR:104:ARG:NH1	2.07	0.64
24:AX:84:ARG:O	24:AX:88:LEU:HG	1.98	0.64
34:DN:29:PRO:HG3	34:DN:66:THR:OG1	1.97	0.64
25:DA:1437:C:H2'	25:DA:1438:U:C6	2.32	0.64
25:DA:1165:U:H2'	25:DA:1166:C:C6	2.33	0.64
1:CA:559:A:H4'	1:CA:560:U:H5''	1.78	0.64
25:DA:830:G:H4'	25:DA:831:G:OP2	1.98	0.64
38:BR:84:ALA:HB3	38:BR:85:PRO:HD3	1.80	0.64
24:CX:274:LEU:HD11	24:CX:278:ARG:HE	1.63	0.64
49:B2:21:LEU:HA	49:B2:64:LEU:HD13	1.79	0.64
1:CA:687:A:H1'	1:CA:688:G:O4'	1.98	0.64
43:DW:73:ALA:HB3	43:DW:106:ILE:HD11	1.79	0.64
55:D8:14:VAL:HG22	55:D8:24:ALA:HB2	1.78	0.64
21:CS:19:VAL:HG21	21:CS:44:MET:HG3	1.79	0.64
15:CM:67:GLU:HG3	15:CM:68:GLY:H	1.62	0.64
6:CD:4:TYR:HE1	6:CD:11:LEU:HD11	1.63	0.64
25:BA:1437:C:H2'	25:BA:1438:U:C6	2.32	0.64
29:DF:24:LEU:HD12	29:DF:24:LEU:H	1.63	0.64
25:DA:1542:G:H1'	25:DA:1543:A:C4	2.34	0.63
37:BQ:51:ARG:O	37:BQ:55:VAL:HG13	1.98	0.63
39:BS:24:LEU:O	39:BS:86:ALA:HB3	1.97	0.63
5:CC:195:VAL:HG12	5:CC:196:LEU:H	1.62	0.63
46:DZ:10:ARG:HG2	46:DZ:11:GLU:N	2.12	0.63
25:BA:1676:A:C2	25:BA:1993:U:H5'	2.32	0.63
40:DT:27:THR:HA	40:DT:48:ILE:HA	1.80	0.63
1:CA:537:G:H5''	14:CL:112:ARG:HH22	1.62	0.63
15:CM:68:GLY:HA3	30:DG:116:ASP:OD2	1.98	0.63
14:CL:81:VAL:HG23	14:CL:104:TYR:HB3	1.79	0.63
19:AQ:45:HIS:CD2	19:AQ:47:PRO:HD3	2.32	0.63
12:CJ:74:ILE:H	12:CJ:74:ILE:HD13	1.62	0.63
25:BA:407:G:H2'	25:BA:408:G:H8	1.63	0.63
9:AG:12:LEU:H	9:AG:12:LEU:HD23	1.63	0.63
25:BA:1980:G:H3'	25:BA:1981:A:H5''	1.79	0.63
1:AA:1313:U:OP1	21:AS:6:LYS:HG3	1.97	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:64:LYS:HD2	55:D8:25:MET:SD	2.39	0.63
5:AC:195:VAL:HG12	5:AC:196:LEU:H	1.62	0.63
39:BS:33:LYS:HD3	39:BS:33:LYS:O	1.96	0.63
32:BI:72:LEU:HD12	32:BI:140:LEU:HD13	1.79	0.63
45:BY:45:VAL:HA	45:BY:62:GLU:HA	1.80	0.63
25:BA:771:G:P	54:B7:10:ARG:HH12	2.21	0.63
45:DY:10:GLY:HA2	45:DY:27:VAL:HG23	1.80	0.63
30:BG:6:ALA:HB1	30:BG:10:LYS:HE3	1.80	0.63
25:BA:1165:U:H2'	25:BA:1166:C:C6	2.34	0.63
41:BU:49:HIS:HA	41:BU:52:ARG:HB2	1.81	0.63
4:AB:112:VAL:O	4:AB:115:LEU:HB3	1.98	0.63
25:DA:284:U:H2'	25:DA:285:C:C6	2.33	0.63
27:BD:144:ALA:HB3	27:BD:192:THR:CG2	2.28	0.63
36:DP:6:LEU:H	36:DP:6:LEU:HD23	1.63	0.63
4:CB:112:VAL:O	4:CB:115:LEU:HB3	1.99	0.63
27:DD:47:GLY:HA3	25:DA:773:U:C4'	2.29	0.63
44:DX:84:ALA:O	44:DX:87:GLN:HG2	1.99	0.63
41:DU:92:ARG:CD	41:DU:94:ASN:HB3	2.29	0.63
42:BV:72:VAL:HG22	42:BV:85:LYS:O	1.98	0.63
39:DS:24:LEU:HD13	39:DS:82:ILE:HG23	1.81	0.63
4:CB:88:ALA:HB2	4:CB:219:VAL:HG13	1.80	0.63
40:BT:50:ILE:HA	40:BT:99:LEU:HD11	1.81	0.63
43:DW:96:ILE:HD11	25:DA:2012:G:O2'	1.99	0.63
25:BA:2873:A:C2	38:BR:6:SER:HB2	2.34	0.63
25:DA:1796:U:H2'	25:DA:1797:C:C6	2.32	0.63
25:DA:1980:G:H3'	25:DA:1981:A:H5''	1.80	0.63
34:DN:93:LYS:HB3	34:DN:110:LEU:HB2	1.80	0.63
12:CJ:6:ILE:HG12	12:CJ:72:VAL:O	1.98	0.63
20:AR:54:ARG:N	20:AR:54:ARG:HD2	2.14	0.63
25:BA:1419:A:O2'	25:BA:1420:U:H5''	1.98	0.63
30:BG:39:ILE:HG23	30:BG:157:ILE:HG22	1.80	0.63
25:DA:1791:A:H3'	25:DA:1792:G:C8	2.32	0.63
37:BQ:55:VAL:HG12	37:BQ:64:ILE:CD1	2.24	0.63
41:DU:50:ARG:NH2	42:DV:72:VAL:HG12	2.11	0.63
25:BA:1495:A:N3	25:BA:1495:A:H2'	2.12	0.63
7:AE:76:ILE:CG1	7:AE:77:PRO:HD2	2.27	0.63
17:CO:82:ILE:HG12	17:CO:87:ILE:HG13	1.79	0.63
1:AA:1413:A:H2	1:AA:1487:G:H22	1.46	0.63
25:BA:587:C:C5	25:BA:671:C:H1'	2.32	0.63
36:BP:23:PRO:HB2	36:BP:33:ARG:HG3	1.80	0.63
12:CJ:54:PHE:CD2	12:CJ:55:LYS:HG3	2.33	0.63
12:AJ:54:PHE:CD2	12:AJ:55:LYS:HG3	2.32	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:270(S):G:O2'	25:DA:270(T):G:H5'	1.98	0.63
25:DA:2804:C:H2'	25:DA:2805:G:C8	2.33	0.63
35:BO:68:GLU:HB3	35:BO:78:ARG:HB2	1.79	0.63
25:BA:291:C:H2'	25:BA:292:C:C6	2.33	0.63
15:CM:19:LEU:HD13	15:CM:22:ILE:HG13	1.78	0.63
25:BA:2335:A:H2'	39:BS:13:ARG:HH22	1.61	0.63
45:BY:71:LYS:NZ	45:BY:71:LYS:HB2	2.12	0.63
20:CR:54:ARG:HD2	20:CR:54:ARG:N	2.14	0.63
7:AE:72:GLN:O	7:AE:75:THR:HG22	1.98	0.63
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.63	0.63
25:DA:1496:A:H1'	25:DA:1577:C:O2'	1.98	0.63
5:CC:31:HIS:O	5:CC:35:GLU:HG2	1.98	0.63
1:CA:377:G:H2'	1:CA:378:G:H8	1.63	0.63
25:DA:651:G:H2'	25:DA:652:U:H5''	1.80	0.63
4:AB:169:LYS:HE2	4:AB:169:LYS:O	1.96	0.63
25:DA:1498:C:H2'	25:DA:1499:C:C6	2.34	0.63
16:CN:45:ARG:HG2	16:CN:49:HIS:CD2	2.33	0.63
44:DX:28:PHE:HE2	44:DX:92:LEU:HD11	1.63	0.63
44:BX:84:ALA:O	44:BX:87:GLN:HG2	1.99	0.63
1:AA:1371:G:OP1	11:AI:11:LYS:HB3	1.99	0.63
4:AB:70:PHE:O	4:AB:92:TYR:HA	1.99	0.63
48:B1:45:ASN:C	48:B1:45:ASN:HD22	2.01	0.63
25:BA:2014:A:H2'	25:BA:2015:A:C8	2.34	0.63
25:BA:2012:G:O2'	43:BW:96:ILE:HD11	1.98	0.63
45:BY:10:GLY:HA2	45:BY:27:VAL:HG23	1.80	0.63
25:DA:189:G:H2'	25:DA:205:G:H22	1.62	0.63
25:DA:691:C:H2'	25:DA:692:C:H6	1.63	0.63
46:BZ:27:VAL:HA	46:BZ:37:VAL:HG22	1.80	0.63
36:DP:14:LYS:O	36:DP:15:ARG:HB2	1.97	0.63
1:AA:484:G:H4'	1:AA:485:G:O5'	1.99	0.63
45:BY:86:ARG:HH11	45:BY:95:LYS:HE3	1.63	0.63
31:DH:68:THR:O	31:DH:72:ILE:HG12	1.97	0.63
25:DA:291:C:H2'	25:DA:292:C:C6	2.33	0.63
29:BF:51:THR:HB	29:BF:88:VAL:HG11	1.80	0.63
37:BQ:23:GLY:HA3	37:BQ:98:LYS:CG	2.19	0.63
45:DY:75:ILE:HG12	45:DY:76:CYS:H	1.62	0.63
41:BU:92:ARG:CD	41:BU:94:ASN:HB3	2.27	0.63
11:CI:17:VAL:HA	11:CI:63:ILE:HG13	1.81	0.63
2:CY:56:C:H1'	30:DG:76:SER:HB3	1.80	0.63
36:BP:62:LEU:HD11	55:B8:27:THR:HA	1.81	0.63
5:AC:14:ILE:HG23	5:AC:15:THR:H	1.61	0.63
25:DA:1105:U:H2'	25:DA:1106:G:H8	1.62	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BF:117:ARG:HH22	29:BF:187:VAL:HA	1.64	0.63
25:BA:270(S):G:O2'	25:BA:270(T):G:H5'	1.97	0.63
1:AA:833:U:H2'	1:AA:834:C:C6	2.34	0.63
25:BA:919:G:H2'	25:BA:920:G:H8	1.63	0.63
27:DD:78:LYS:HD3	27:DD:114:GLY:HA2	1.81	0.63
1:CA:191(F):U:H2'	1:CA:191(G):G:H8	1.64	0.63
35:DO:68:GLU:HB3	35:DO:78:ARG:HB2	1.79	0.63
46:BZ:76:LEU:H	46:BZ:76:LEU:HD12	1.64	0.63
25:BA:2052:G:H4'	28:BE:143:ASN:O	1.99	0.63
25:BA:773:U:C4'	27:BD:47:GLY:HA3	2.28	0.63
25:BA:2436:G:H2'	25:BA:2437:U:H6	1.63	0.63
36:DP:71:VAL:HG23	25:DA:389:G:O6	1.99	0.63
1:AA:1338:G:H21	2:AY:41:C:H1'	1.62	0.63
25:DA:2014:A:H2'	25:DA:2015:A:C8	2.33	0.63
27:DD:14:ARG:NH2	25:DA:1693:U:H1'	2.14	0.63
5:AC:58:GLU:O	5:AC:64:VAL:HA	1.99	0.63
29:DF:45:ARG:HH12	25:DA:443:A:H2'	1.64	0.63
1:CA:735:C:H2'	1:CA:736:C:C6	2.34	0.63
29:DF:117:ARG:HH22	29:DF:187:VAL:HA	1.64	0.63
45:DY:71:LYS:NZ	45:DY:71:LYS:HB2	2.13	0.63
29:BF:24:LEU:HD12	29:BF:24:LEU:H	1.64	0.63
15:CM:87:TYR:O	15:CM:91:ARG:HG2	1.97	0.63
12:AJ:6:ILE:HG12	12:AJ:72:VAL:O	1.98	0.63
25:BA:830:G:H4'	25:BA:831:G:OP2	1.98	0.63
1:CA:176:C:H5''	22:CT:29:LYS:NZ	2.14	0.63
1:AA:392:G:H2'	1:AA:393:A:H8	1.64	0.63
26:BB:35:U:H2'	26:BB:36:C:H6	1.63	0.63
32:BI:110:ASP:HB2	32:BI:113:ARG:HG2	1.80	0.63
49:B2:48:HIS:CE1	49:B2:49:LYS:HD2	2.33	0.63
1:AA:176:C:H5''	22:AT:29:LYS:NZ	2.14	0.63
36:BP:14:LYS:O	36:BP:15:ARG:HB2	1.98	0.63
41:BU:34:LYS:HE2	41:BU:34:LYS:HA	1.80	0.63
44:DX:35:THR:O	44:DX:39:ILE:HG12	1.98	0.63
44:BX:47:PHE:HB3	44:BX:89:ILE:HD12	1.81	0.63
25:BA:1478:G:H2'	25:BA:1479:G:H8	1.64	0.63
25:BA:1024:G:H3'	25:BA:1025:G:C5'	2.29	0.63
1:AA:687:A:H1'	1:AA:688:G:O4'	1.99	0.63
25:BA:813:U:H2'	25:BA:814:C:C6	2.34	0.63
24:CX:54:VAL:HG11	24:CX:81:LEU:HD22	1.81	0.63
21:CS:40:ILE:HD13	21:CS:62:ILE:HD11	1.81	0.63
14:CL:82:VAL:HG11	14:CL:99:ILE:HD11	1.81	0.63
24:AX:181:GLN:NE2	24:AX:306:ASN:HD22	1.97	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BW:26:GLY:HA2	43:BW:71:VAL:O	1.98	0.63
32:DI:110:ASP:HB2	32:DI:113:ARG:HG2	1.81	0.63
25:BA:2804:C:H2'	25:BA:2805:G:C8	2.34	0.63
9:CG:46:ALA:O	9:CG:50:ILE:HG12	1.99	0.63
36:BP:114:ILE:HD11	36:BP:130:PHE:CD1	2.34	0.63
10:AH:91:ARG:HB2	14:AL:6:ILE:HD13	1.81	0.63
25:BA:2150:U:H2'	25:BA:2151:G:C8	2.34	0.63
25:DA:2150:U:H2'	25:DA:2151:G:C8	2.34	0.63
29:BF:54:ARG:HA	29:BF:87:GLY:HA3	1.80	0.63
14:AL:44:PRO:HG2	14:AL:50:ALA:H	1.63	0.62
14:CL:65:VAL:HG12	14:CL:66:THR:H	1.64	0.62
25:BA:661:C:H4'	36:BP:16:ARG:HD3	1.81	0.62
34:BN:79:ASN:HD21	34:BN:149:PRO:HD3	1.63	0.62
43:DW:29:LEU:HD21	43:DW:33:ARG:HH21	1.63	0.62
30:BG:38:VAL:HG22	30:BG:93:THR:HG23	1.80	0.62
44:DX:31:HIS:ND1	44:DX:32:PRO:HD2	2.13	0.62
31:DH:24:VAL:HG23	31:DH:37:VAL:HG21	1.81	0.62
47:B0:32:ARG:N	47:B0:35:ASN:HD21	1.96	0.62
8:AF:37:VAL:HA	8:AF:65:VAL:HG12	1.81	0.62
9:CG:12:LEU:HD23	9:CG:12:LEU:H	1.65	0.62
25:BA:955:C:OP2	37:BQ:14:ARG:HD3	1.99	0.62
27:BD:242:ARG:HD3	27:BD:242:ARG:N	2.14	0.62
12:CJ:50:ILE:HB	16:CN:41:ARG:NH2	2.12	0.62
1:AA:908:A:H2'	1:AA:909:A:H8	1.64	0.62
25:DA:401:A:H2'	25:DA:402:A:C8	2.34	0.62
8:CF:53:ALA:HB3	8:CF:86:ARG:HH11	1.64	0.62
1:AA:191(F):U:H2'	1:AA:191(G):G:H8	1.63	0.62
20:AR:59:SER:HB3	20:AR:62:GLU:HG3	1.80	0.62
28:DE:108:SER:O	28:DE:162:ALA:HA	1.99	0.62
25:BA:2402:C:H5'	25:BA:2403:C:OP2	2.00	0.62
28:BE:108:SER:O	28:BE:162:ALA:HA	1.99	0.62
45:DY:86:ARG:HH11	45:DY:95:LYS:HE3	1.65	0.62
46:DZ:76:LEU:H	46:DZ:76:LEU:HD12	1.64	0.62
24:CX:181:GLN:NE2	24:CX:306:ASN:HD22	1.97	0.62
37:DQ:14:ARG:NH1	37:DQ:14:ARG:HG2	2.00	0.62
37:DQ:51:ARG:O	37:DQ:55:VAL:HG13	1.98	0.62
1:AA:1128:C:H4'	11:AI:16:ARG:NH1	2.13	0.62
4:AB:163:PHE:HA	4:AB:185:ILE:O	2.00	0.62
39:BS:24:LEU:HD13	39:BS:82:ILE:HG23	1.80	0.62
29:DF:84:VAL:HG12	25:DA:1257:C:O2'	1.98	0.62
49:D2:14:ARG:NH2	49:D2:67:LYS:HD2	2.14	0.62
36:DP:35:HIS:CD2	25:DA:941:A:H4'	2.34	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AL:81:VAL:HG23	14:AL:104:TYR:HB3	1.81	0.62
24:CX:213:ASN:O	24:CX:216:GLU:HG2	1.99	0.62
5:CC:19:GLU:HG3	5:CC:54:ARG:HD2	1.82	0.62
27:BD:44:ASN:HD21	27:BD:46:GLN:HB2	1.64	0.62
36:DP:114:ILE:HD11	36:DP:130:PHE:CD1	2.34	0.62
1:CA:833:U:H2'	1:CA:834:C:C6	2.34	0.62
27:DD:166:GLN:N	27:DD:166:GLN:HE21	1.97	0.62
25:BA:1405:U:H2'	25:BA:1406:U:C6	2.34	0.62
25:DA:1478:G:H2'	25:DA:1479:G:H8	1.64	0.62
43:BW:29:LEU:HD21	43:BW:33:ARG:HH21	1.65	0.62
1:CA:377:G:H2'	1:CA:378:G:C8	2.34	0.62
25:DA:1316:U:H2'	25:DA:1317:A:C8	2.33	0.62
34:DN:118:PRO:O	34:DN:121:VAL:HG22	1.99	0.62
16:AN:37:PHE:HZ	16:AN:56:VAL:HG21	1.63	0.62
25:BA:1498:C:H2'	25:BA:1499:C:C6	2.35	0.62
5:AC:95:THR:HG22	5:AC:96:GLY:H	1.64	0.62
41:DU:37:GLU:HA	41:DU:40:PHE:HD1	1.63	0.62
34:BN:93:LYS:HB3	34:BN:110:LEU:HB2	1.80	0.62
11:AI:17:VAL:HA	11:AI:63:ILE:HG13	1.81	0.62
36:BP:64:LYS:HD2	55:B8:25:MET:SD	2.38	0.62
5:AC:34:LEU:HD21	5:AC:38:ARG:HH21	1.65	0.62
5:AC:36:ASP:HA	5:AC:39:ILE:HD12	1.82	0.62
14:AL:65:VAL:HG12	14:AL:66:THR:H	1.64	0.62
25:BA:941:A:H4'	36:BP:35:HIS:CD2	2.34	0.62
36:DP:21:ARG:HD2	25:DA:663:G:H5''	1.82	0.62
1:CA:1371:G:OP1	11:CI:11:LYS:HB3	1.99	0.62
40:BT:27:THR:HA	40:BT:48:ILE:HA	1.81	0.62
25:BA:443:A:H2'	29:BF:45:ARG:HH12	1.64	0.62
30:DG:39:ILE:HG23	30:DG:157:ILE:HG22	1.81	0.62
10:CH:91:ARG:HB2	14:CL:6:ILE:HD13	1.81	0.62
26:DB:35:U:H2'	26:DB:36:C:H6	1.63	0.62
25:BA:1796:U:H2'	25:BA:1797:C:C6	2.35	0.62
25:BA:1542:G:H1'	25:BA:1543:A:C4	2.34	0.62
4:CB:163:PHE:HA	4:CB:185:ILE:O	2.00	0.62
25:BA:1257:C:O2'	29:BF:84:VAL:HG12	1.98	0.62
36:DP:62:LEU:HD11	55:D8:27:THR:HA	1.81	0.62
21:CS:29:ARG:HB2	21:CS:48:THR:H	1.64	0.62
25:DA:114(B):A:O2'	25:DA:1143:A:H3'	2.00	0.62
1:AA:974:A:OP1	1:AA:974:A:H8	1.83	0.62
27:BD:132:PRO:HD3	27:BD:190:TYR:CE2	2.34	0.62
25:BA:389:G:O6	36:BP:71:VAL:HG23	1.99	0.62
41:BU:37:GLU:HA	41:BU:40:PHE:HD1	1.64	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:484:G:H4'	1:CA:485:G:O5'	1.99	0.62
25:BA:401:A:H2'	25:BA:402:A:C8	2.34	0.62
36:BP:6:LEU:H	36:BP:6:LEU:HD23	1.64	0.62
25:BA:2735:G:H2'	25:BA:2736:G:H8	1.65	0.62
44:DX:11:PRO:HA	44:DX:28:PHE:CB	2.25	0.62
25:BA:1639:U:C2'	25:BA:1640:C:H5''	2.30	0.62
1:AA:691:G:O6	13:AK:52:GLY:HA2	2.00	0.62
45:BY:17:SER:HB2	45:BY:71:LYS:HD2	1.81	0.62
25:DA:2436:G:H2'	25:DA:2437:U:H6	1.64	0.62
24:AX:213:ASN:O	24:AX:216:GLU:HG2	1.99	0.62
45:BY:8:LYS:HE2	45:BY:37:VAL:HG11	1.82	0.62
38:DR:6:SER:HB2	25:DA:2873:A:C2	2.34	0.62
25:DA:2455:G:H2'	25:DA:2456:C:C6	2.35	0.62
25:BA:284:U:H2'	25:BA:285:C:C6	2.34	0.62
25:BA:1655:A:H1'	28:BE:113:PHE:CD2	2.35	0.62
25:BA:2886:G:H2'	25:BA:2887:U:C6	2.35	0.62
38:DR:84:ALA:HB3	38:DR:85:PRO:HD3	1.82	0.62
50:D3:6:VAL:HG12	50:D3:54:VAL:HB	1.80	0.62
25:DA:2028:U:H2'	25:DA:2029:G:C8	2.35	0.62
40:BT:24:PRO:HD3	40:BT:52:ILE:HD12	1.82	0.62
21:AS:29:ARG:HB2	21:AS:48:THR:H	1.64	0.62
25:DA:1676:A:C2	25:DA:1993:U:H5'	2.33	0.62
45:DY:45:VAL:HA	45:DY:62:GLU:HA	1.81	0.62
25:BA:189:G:H2'	25:BA:205:G:H22	1.62	0.62
48:B1:86:SER:O	48:B1:90:ILE:HG12	1.99	0.62
1:CA:1223:C:P	21:CS:78:ARG:HH21	2.23	0.62
27:BD:10:THR:O	27:BD:13:ARG:HB3	1.99	0.62
25:DA:1411:C:H2'	25:DA:1412:A:C8	2.35	0.62
1:AA:377:G:H2'	1:AA:378:G:H8	1.65	0.62
2:CZ:39:C:H2'	2:CZ:40:C:C6	2.34	0.62
1:CA:579:G:H5'	1:CA:728:A:H1'	1.80	0.62
39:BS:103:GLU:O	39:BS:107:GLU:HG2	2.00	0.62
27:DD:242:ARG:N	27:DD:242:ARG:HD3	2.14	0.62
42:BV:12:TYR:OH	42:BV:22:VAL:HG13	2.00	0.62
16:CN:6:LEU:HD22	16:CN:21:TYR:OH	2.00	0.62
27:DD:14:ARG:HH22	25:DA:1693:U:H1'	1.64	0.62
1:AA:781:A:H4'	1:AA:1522:U:O2'	2.00	0.62
12:AJ:55:LYS:O	12:AJ:55:LYS:HD2	2.00	0.62
9:CG:39:ALA:HA	9:CG:42:ILE:HD12	1.82	0.62
34:BN:116:THR:HG23	34:BN:117:HIS:H	1.64	0.62
34:BN:118:PRO:O	34:BN:121:VAL:HG22	2.00	0.62
25:BA:721:C:H2'	25:BA:722:A:H8	1.65	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2303:G:H1'	30:BG:132:ASN:HD22	1.64	0.62
13:CK:50:TYR:HB3	13:CK:54:ARG:HB2	1.82	0.62
25:BA:2615:U:H2'	25:BA:2616:C:H6	1.65	0.62
8:CF:37:VAL:HA	8:CF:65:VAL:HG12	1.79	0.62
7:AE:81:GLU:HA	7:AE:90:VAL:HG22	1.80	0.62
49:D2:19:VAL:HG12	49:D2:23:LYS:HE3	1.82	0.62
5:AC:131:ARG:NH2	7:AE:52:PRO:HG2	2.15	0.62
52:B5:45:VAL:HG13	52:B5:51:TYR:HB2	1.81	0.62
24:AX:54:VAL:O	24:AX:58:LEU:HG	2.00	0.62
43:DW:29:LEU:HG	43:DW:33:ARG:HE	1.65	0.62
54:D7:10:ARG:HH12	25:DA:771:G:P	2.23	0.62
21:AS:40:ILE:HD13	21:AS:62:ILE:HD11	1.81	0.62
14:AL:82:VAL:HG11	14:AL:99:ILE:HD11	1.82	0.62
5:AC:27:LYS:NZ	5:AC:27:LYS:HA	2.15	0.62
29:BF:155:LEU:HD23	29:BF:186:ILE:HD13	1.82	0.62
29:DF:51:THR:HB	29:DF:88:VAL:HG11	1.82	0.62
29:DF:54:ARG:HA	29:DF:87:GLY:HA3	1.80	0.62
27:DD:227:ASN:HB3	27:DD:228:PRO:HD2	1.82	0.62
25:BA:2693:A:H2'	25:BA:2694:G:C8	2.35	0.62
5:CC:27:LYS:NZ	5:CC:27:LYS:HA	2.14	0.62
12:AJ:32:ALA:H	12:AJ:78:ASN:HD21	1.46	0.62
27:BD:166:GLN:HE21	27:BD:166:GLN:N	1.97	0.62
9:AG:46:ALA:O	9:AG:50:ILE:HG12	1.99	0.62
1:AA:59:A:H1'	1:AA:354:G:N2	2.15	0.62
27:DD:44:ASN:HD21	27:DD:46:GLN:HB2	1.63	0.62
25:DA:1825:A:H2'	25:DA:1826:G:H8	1.65	0.61
25:DA:1189:A:C3'	25:DA:1190:G:H5''	2.29	0.61
25:BA:1794:U:H2'	25:BA:1795:C:C6	2.31	0.61
48:D1:86:SER:O	48:D1:90:ILE:HG12	1.99	0.61
1:CA:690:G:H2'	1:CA:691:G:C8	2.35	0.61
30:DG:6:ALA:HB1	30:DG:10:LYS:HE3	1.80	0.61
40:DT:54:ARG:HA	40:DT:59:THR:OG1	2.00	0.61
12:CJ:16:LEU:HD12	12:CJ:70:ARG:HD2	1.81	0.61
41:DU:2:PRO:HD2	25:DA:1248:G:OP1	2.00	0.61
24:CX:84:ARG:O	24:CX:88:LEU:HG	1.99	0.61
25:BA:1759:A:H1'	25:BA:2711:A:C2	2.35	0.61
25:DA:547:A:H2'	25:DA:548:A:C8	2.35	0.61
4:AB:55:PHE:HE1	4:AB:218:ALA:HA	1.65	0.61
54:D7:37:LYS:HD3	54:D7:39:ARG:HE	1.65	0.61
1:AA:502:G:H4'	1:AA:550:G:H4'	1.82	0.61
25:BA:2455:G:H2'	25:BA:2456:C:C6	2.35	0.61
25:BA:1248:G:OP1	41:BU:2:PRO:HD2	2.00	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BX:55:ASN:HD22	44:BX:55:ASN:N	1.98	0.61
44:DX:47:PHE:HB3	44:DX:89:ILE:HD12	1.81	0.61
44:BX:11:PRO:HA	44:BX:28:PHE:CB	2.25	0.61
7:AE:70:PRO:O	7:AE:77:PRO:HD3	2.00	0.61
39:BS:66:ALA:HB1	39:BS:101:LEU:HD22	1.82	0.61
5:CC:131:ARG:NH2	7:CE:52:PRO:HG2	2.14	0.61
15:AM:4:ILE:HA	15:AM:57:ARG:HG3	1.81	0.61
1:CA:1227:A:H2'	1:CA:1227:A:N3	2.13	0.61
40:DT:50:ILE:HA	40:DT:99:LEU:HD11	1.81	0.61
25:BA:2314:C:H2'	25:BA:2315:G:C8	2.35	0.61
53:D6:11:LEU:HB3	53:D6:24:GLU:HB3	1.82	0.61
1:CA:794:A:H4'	1:CA:1521:G:O2'	2.00	0.61
24:CX:307:PHE:N	24:CX:308:PRO:HD2	2.14	0.61
34:DN:116:THR:HG23	34:DN:117:HIS:H	1.64	0.61
44:BX:70:LEU:HD23	44:BX:71:GLY:N	2.15	0.61
22:CT:50:GLU:HB3	22:CT:100:ILE:HD13	1.82	0.61
8:AF:82:ARG:HA	8:AF:82:ARG:HH11	1.65	0.61
27:DD:183:ARG:CB	27:DD:270:ILE:HG22	2.30	0.61
1:CA:1327:C:OP1	23:CU:20:LYS:HB3	2.01	0.61
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.36	0.61
49:B2:14:ARG:NH2	49:B2:67:LYS:HD2	2.15	0.61
41:DU:62:ILE:HD12	41:DU:76:TYR:CE1	2.35	0.61
32:BI:130:TYR:HD2	32:BI:132:PRO:HG3	1.65	0.61
25:DA:2615:U:H2'	25:DA:2616:C:H6	1.65	0.61
25:DA:407:G:H2'	25:DA:408:G:H8	1.64	0.61
29:DF:192:LEU:HD21	29:DF:194:MET:HE3	1.81	0.61
25:BA:547:A:H2'	25:BA:548:A:C8	2.35	0.61
44:DX:55:ASN:HD22	44:DX:55:ASN:N	1.98	0.61
24:AX:134:PHE:HB2	24:AX:332:LEU:HD21	1.83	0.61
25:BA:392:C:H5''	25:BA:409:C:H5''	1.82	0.61
28:BE:170:LEU:HB3	28:BE:184:VAL:HG12	1.82	0.61
25:DA:919:G:H2'	25:DA:920:G:H8	1.64	0.61
29:BF:192:LEU:HD21	29:BF:194:MET:HE3	1.83	0.61
25:DA:2886:G:H2'	25:DA:2887:U:C6	2.35	0.61
2:AZ:39:C:H2'	2:AZ:40:C:C6	2.34	0.61
9:CG:27:ILE:HD12	9:CG:40:ALA:HA	1.83	0.61
37:DQ:14:ARG:HD3	25:DA:955:C:OP2	2.00	0.61
25:DA:1788:C:H2'	25:DA:1789:A:C8	2.35	0.61
42:DV:12:TYR:OH	42:DV:22:VAL:HG13	2.00	0.61
1:AA:980:C:H5'	1:AA:981:U:C5	2.35	0.61
25:BA:2681:C:H5	25:BA:2725:A:N6	1.98	0.61
5:CC:36:ASP:HA	5:CC:39:ILE:HD12	1.82	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1189:A:C3'	25:BA:1190:G:H5''	2.30	0.61
27:DD:10:THR:O	27:DD:13:ARG:HB3	2.00	0.61
27:BD:25:THR:HG22	27:BD:82:ILE:H	1.66	0.61
1:AA:829:G:H2'	1:AA:830:G:C8	2.35	0.61
1:CA:908:A:H2'	1:CA:909:A:H8	1.64	0.61
34:BN:112:LYS:O	34:BN:116:THR:HG22	2.01	0.61
25:DA:2735:G:H2'	25:DA:2736:G:H8	1.65	0.61
1:CA:59:A:H1'	1:CA:354:G:N2	2.14	0.61
9:AG:27:ILE:HD12	9:AG:40:ALA:HA	1.82	0.61
28:DE:154:LYS:HA	28:DE:154:LYS:HE3	1.82	0.61
35:DO:104:ARG:HH11	35:DO:104:ARG:HB3	1.65	0.61
25:DA:1678:G:H2'	25:DA:1679:U:H6	1.64	0.61
4:CB:70:PHE:O	4:CB:92:TYR:HA	1.98	0.61
42:DV:72:VAL:HG22	42:DV:85:LYS:O	2.00	0.61
5:AC:17:ASP:HB2	5:AC:21:ARG:HH22	1.65	0.61
25:DA:1102:C:H2'	25:DA:1103:A:H8	1.64	0.61
25:BA:197:A:C8	25:BA:197:A:H5'	2.34	0.61
28:DE:201:THR:HG22	28:DE:202:LYS:N	2.15	0.61
49:D2:35:LEU:HD11	49:D2:49:LYS:HB3	1.81	0.61
24:AX:307:PHE:N	24:AX:308:PRO:HD2	2.15	0.61
25:DA:2712:U:H1'	25:DA:712(B):A:C8	2.35	0.61
29:DF:136:THR:HG21	25:DA:320:A:H2'	1.81	0.61
25:DA:2467:C:H2'	25:DA:2468:G:O4'	2.00	0.61
25:BA:114(B):A:O2'	25:BA:1143:A:H3'	2.00	0.61
40:BT:92:GLY:HA2	40:BT:117:ASP:H	1.65	0.61
30:DG:74:LYS:HA	30:DG:74:LYS:HE3	1.82	0.61
28:DE:92:THR:HG22	28:DE:93:VAL:H	1.65	0.61
4:CB:55:PHE:HE1	4:CB:218:ALA:HA	1.65	0.61
16:AN:6:LEU:HD22	16:AN:21:TYR:OH	2.00	0.61
1:AA:728:A:H2'	1:AA:729:A:C8	2.35	0.61
38:DR:6:SER:HB2	25:DA:2873:A:N3	2.16	0.61
54:B7:37:LYS:HD3	54:B7:39:ARG:HE	1.65	0.61
6:CD:135:LEU:H	6:CD:135:LEU:HD22	1.66	0.61
22:AT:50:GLU:HB3	22:AT:100:ILE:HD13	1.82	0.61
41:DU:49:HIS:HA	41:DU:52:ARG:HB2	1.81	0.61
43:DW:26:GLY:HA2	43:DW:71:VAL:O	1.99	0.61
29:DF:83:PHE:O	29:DF:84:VAL:C	2.39	0.61
41:BU:50:ARG:NH2	42:BV:72:VAL:HG12	2.11	0.61
1:CA:980:C:H5'	1:CA:981:U:C5	2.36	0.61
49:D2:17:SER:HB3	49:D2:18:PRO:HD2	1.80	0.61
36:DP:23:PRO:HB2	36:DP:33:ARG:NE	2.16	0.61
36:BP:40:SER:C	36:BP:41:ARG:HD2	2.21	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DT:24:PRO:HD3	40:DT:52:ILE:HD12	1.82	0.61
20:CR:70:ILE:O	20:CR:74:ARG:HG3	2.01	0.61
1:AA:537:G:H5''	14:AL:112:ARG:HH22	1.64	0.61
25:DA:825:C:H4'	25:DA:2428:G:N7	2.15	0.61
1:CA:728:A:H2'	1:CA:729:A:C8	2.34	0.61
25:BA:2712:U:H1'	25:BA:712(B):A:C8	2.36	0.61
1:AA:1363:A:H4'	1:AA:1364:U:H5''	1.82	0.61
28:BE:92:THR:HG22	28:BE:93:VAL:H	1.65	0.61
2:CZ:4:G:HO2'	2:CZ:5:G:H8	1.47	0.61
12:AJ:16:LEU:HD12	12:AJ:70:ARG:HD2	1.81	0.61
25:BA:1411:C:H2'	25:BA:1412:A:C8	2.36	0.61
1:CA:576:G:H3'	1:CA:577:G:H5''	1.82	0.61
25:BA:2271:G:OP1	47:B0:18:ALA:HB1	2.00	0.61
31:DH:143:GLN:NE2	25:DA:2761:G:H1'	2.15	0.61
25:BA:13:A:N1	25:BA:525:U:H2'	2.16	0.61
25:BA:663:G:H5''	36:BP:21:ARG:HD2	1.83	0.61
25:BA:2873:A:N3	38:BR:6:SER:HB2	2.15	0.61
25:DA:1024:G:H3'	25:DA:1025:G:C5'	2.30	0.61
25:DA:1759:A:H1'	25:DA:2711:A:C2	2.35	0.61
25:BA:1173:G:HO2'	25:BA:1175:U:H6	1.49	0.61
37:DQ:60:ARG:HB2	37:DQ:60:ARG:HH11	1.66	0.61
34:BN:32:VAL:HG11	34:BN:62:ARG:HH12	1.66	0.61
31:BH:24:VAL:HG23	31:BH:37:VAL:HG21	1.82	0.61
45:BY:75:ILE:HG12	45:BY:76:CYS:N	2.16	0.61
29:BF:83:PHE:O	29:BF:84:VAL:C	2.39	0.61
5:CC:17:ASP:HB2	5:CC:21:ARG:HH22	1.65	0.61
36:DP:23:PRO:HD2	36:DP:33:ARG:HH21	1.66	0.61
1:AA:1499:A:H1'	1:AA:1520:G:H5'	1.83	0.61
49:B2:50:ILE:H	49:B2:50:ILE:HD12	1.66	0.61
21:AS:63:THR:HG22	21:AS:66:MET:HE3	1.83	0.61
36:DP:16:ARG:HD3	25:DA:661:C:H4'	1.83	0.61
1:AA:377:G:H2'	1:AA:378:G:C8	2.35	0.61
25:BA:959:A:H2'	25:BA:960:A:C8	2.36	0.61
25:BA:556:G:H2'	25:BA:557:U:C6	2.35	0.61
1:AA:451:A:N6	1:AA:480:U:H2'	2.15	0.61
45:BY:42:VAL:HG12	45:BY:65:ALA:HB3	1.83	0.61
26:BB:51:G:N2	26:BB:52:A:H62	1.98	0.61
1:CA:451:A:N6	1:CA:480:U:H2'	2.15	0.61
25:BA:746:A:C5	25:BA:2611:U:H5''	2.36	0.61
25:BA:2373:G:H2'	25:BA:2374:C:C6	2.36	0.61
25:DA:1632:A:H8	25:DA:1632:A:O5'	1.84	0.61
48:B1:46:LEU:HD21	48:B1:61:ARG:NE	2.16	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:AP:28:ARG:HG2	18:AP:28:ARG:NH1	2.14	0.61
25:DA:2402:C:H5'	25:DA:2403:C:OP2	2.00	0.61
25:DA:1466:G:H2'	25:DA:1547:C:N4	2.15	0.61
4:AB:80:ILE:HD11	4:AB:208:ILE:HG23	1.83	0.61
1:AA:1520:G:H2'	1:AA:1521:G:H8	1.66	0.61
1:AA:794:A:H4'	1:AA:1521:G:O2'	2.01	0.61
1:CA:691:G:O6	13:CK:52:GLY:HA2	2.00	0.61
24:CX:54:VAL:O	24:CX:58:LEU:HG	2.01	0.61
28:BE:201:THR:HG22	28:BE:202:LYS:N	2.15	0.61
25:BA:1980:G:H3'	25:BA:1981:A:C5'	2.30	0.61
25:DA:1980:G:H3'	25:DA:1981:A:C5'	2.31	0.61
49:B2:46:GLN:O	49:B2:49:LYS:HD3	2.01	0.61
14:AL:69:ILE:HG13	14:AL:99:ILE:HG21	1.83	0.61
1:CA:1443:G:N7	40:DT:118:ARG:HD2	2.15	0.61
1:CA:777:A:H2'	1:CA:778:G:C8	2.36	0.61
2:CZ:47:U:H3'	2:CZ:48:C:H5'	1.83	0.61
25:DA:13:A:N1	25:DA:525:U:H2'	2.16	0.61
1:CA:1363:A:H4'	1:CA:1364:U:H5''	1.83	0.61
25:DA:634:C:H2'	25:DA:635:C:C6	2.36	0.61
7:CE:70:PRO:O	7:CE:77:PRO:HD3	2.01	0.60
25:BA:2056:G:N2	52:B5:4:HIS:HA	2.14	0.60
52:D5:4:HIS:HA	25:DA:2056:G:N2	2.14	0.60
1:CA:781:A:H4'	1:CA:1522:U:O2'	2.01	0.60
40:DT:92:GLY:HA2	40:DT:117:ASP:H	1.65	0.60
27:BD:227:ASN:HB3	27:BD:228:PRO:HD2	1.82	0.60
25:BA:713:G:H2'	25:BA:714:U:C6	2.36	0.60
44:BX:31:HIS:ND1	44:BX:32:PRO:HD2	2.16	0.60
13:AK:50:TYR:HB3	13:AK:54:ARG:HB2	1.83	0.60
25:BA:742:G:H2'	25:BA:743:G:H8	1.65	0.60
25:DA:721:C:H2'	25:DA:722:A:H8	1.65	0.60
27:BD:183:ARG:CB	27:BD:270:ILE:HG22	2.31	0.60
8:AF:47:ARG:HH12	8:AF:56:PRO:HB2	1.66	0.60
35:BO:104:ARG:HH11	35:BO:104:ARG:HB3	1.66	0.60
30:BG:74:LYS:HE3	30:BG:74:LYS:HA	1.82	0.60
25:DA:491:G:H2'	25:DA:492:A:C8	2.36	0.60
2:AZ:47:U:H3'	2:AZ:48:C:H5'	1.83	0.60
25:BA:1825:A:H2'	25:BA:1826:G:H8	1.65	0.60
41:DU:92:ARG:NH2	42:DV:11:GLN:H	1.99	0.60
25:BA:675:A:H4'	29:BF:67:GLN:HE21	1.66	0.60
25:DA:2553:G:H2'	25:DA:2554:U:O4'	2.01	0.60
24:AX:54:VAL:HG11	24:AX:81:LEU:HD22	1.81	0.60
8:CF:11:ASN:HB3	8:CF:14:LEU:HD12	1.83	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DG:38:VAL:HG22	30:DG:93:THR:HG23	1.80	0.60
1:AA:1152:A:H5''	12:AJ:13:HIS:CD2	2.36	0.60
5:CC:95:THR:HG22	5:CC:96:GLY:H	1.65	0.60
24:AX:149:PRO:HA	24:AX:155:PHE:HA	1.83	0.60
1:AA:707:C:H4'	13:AK:20:TYR:CD1	2.36	0.60
25:DA:255:A:H4'	25:DA:384:U:OP1	2.01	0.60
25:BA:2514:U:H2'	25:BA:2515:C:C6	2.36	0.60
25:DA:2514:U:H2'	25:DA:2515:C:C6	2.36	0.60
25:BA:1789:A:H2'	25:BA:1790:C:O4'	2.02	0.60
44:BX:26:TYR:HB3	44:BX:92:LEU:HD13	1.83	0.60
25:BA:1544:C:H3'	25:BA:1545:A:C5'	2.31	0.60
45:DY:8:LYS:HE2	45:DY:37:VAL:HG11	1.81	0.60
39:DS:66:ALA:HB1	39:DS:101:LEU:HD22	1.82	0.60
32:DI:101:LEU:HG	32:DI:107:ILE:CG2	2.32	0.60
1:CA:829:G:H2'	1:CA:830:G:C8	2.36	0.60
53:B6:11:LEU:HB3	53:B6:24:GLU:HB3	1.82	0.60
40:BT:54:ARG:HA	40:BT:59:THR:OG1	2.00	0.60
25:BA:255:A:H4'	25:BA:384:U:OP1	2.00	0.60
8:CF:47:ARG:HH12	8:CF:56:PRO:HB2	1.67	0.60
1:CA:692:U:H5	13:CK:26:ASN:HD22	1.49	0.60
46:DZ:30:ASN:H	46:DZ:33:LEU:HB3	1.65	0.60
9:CG:150:ALA:HB1	13:CK:57:THR:HG21	1.84	0.60
28:DE:113:PHE:CD2	25:DA:1655:A:H1'	2.36	0.60
39:DS:103:GLU:O	39:DS:107:GLU:HG2	2.00	0.60
44:DX:70:LEU:HD23	44:DX:71:GLY:N	2.16	0.60
8:AF:53:ALA:HB3	8:AF:86:ARG:HH11	1.65	0.60
1:AA:261:U:H5	22:AT:79:ARG:CZ	2.14	0.60
25:BA:2761:G:H1'	31:BH:143:GLN:NE2	2.16	0.60
9:AG:39:ALA:HA	9:AG:42:ILE:HD12	1.82	0.60
12:CJ:30:SER:HB2	12:CJ:80:LYS:CG	2.30	0.60
37:BQ:52:VAL:O	37:BQ:56:ARG:HB2	2.02	0.60
5:CC:34:LEU:HD21	5:CC:38:ARG:HH21	1.65	0.60
49:B2:17:SER:HB3	49:B2:18:PRO:HD2	1.80	0.60
1:CA:1251:A:H2'	1:CA:1252:A:H8	1.66	0.60
36:DP:45:LEU:HD22	36:DP:48:PRO:HG3	1.82	0.60
8:AF:16:GLN:HA	8:AF:19:LEU:HB3	1.83	0.60
30:DG:135:LEU:HD23	30:DG:140:ILE:HD11	1.83	0.60
30:DG:136:ARG:HH22	25:DA:2306:C:H4'	1.66	0.60
34:BN:36:TRP:HB2	34:BN:156:GLN:CB	2.31	0.60
20:CR:58:LEU:HB3	20:CR:62:GLU:HB2	1.82	0.60
2:AZ:53:G:H2'	2:AZ:54:U:C6	2.37	0.60
23:AU:14:TRP:CE3	23:AU:15:ARG:HG2	2.37	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:634:C:H2'	25:BA:635:C:C6	2.36	0.60
47:D0:18:ALA:HB1	25:DA:2271:G:OP1	2.00	0.60
29:DF:150:GLY:HA2	29:DF:172:TRP:CE3	2.36	0.60
25:DA:556:G:H2'	25:DA:557:U:C6	2.36	0.60
24:CX:333:THR:N	24:CX:334:PRO:HD2	2.16	0.60
14:CL:46:LYS:HB3	14:CL:47:PRO:HD3	1.82	0.60
26:DB:51:G:N2	26:DB:52:A:H62	1.99	0.60
6:AD:135:LEU:H	6:AD:135:LEU:HD22	1.66	0.60
25:BA:783:A:H8	25:BA:784:A:H4'	1.66	0.60
25:DA:1544:C:H3'	25:DA:1545:A:C5'	2.31	0.60
49:B2:19:VAL:HG12	49:B2:23:LYS:HE3	1.82	0.60
48:B1:11:ARG:HB2	48:B1:13:ILE:HG22	1.82	0.60
1:AA:1251:A:H2'	1:AA:1252:A:H8	1.65	0.60
1:AA:1508:G:H2'	1:AA:1509:C:C6	2.36	0.60
10:AH:110:ALA:HB3	10:AH:121:ASP:HB3	1.83	0.60
25:DA:197:A:H5'	25:DA:197:A:C8	2.36	0.60
36:BP:45:LEU:HD22	36:BP:48:PRO:HG3	1.83	0.60
25:DA:848:G:N3	25:DA:933:A:H1'	2.16	0.60
1:AA:690:G:H2'	1:AA:691:G:C8	2.36	0.60
20:AR:70:ILE:O	20:AR:74:ARG:HG3	2.02	0.60
8:AF:11:ASN:HB3	8:AF:14:LEU:HD12	1.82	0.60
25:BA:2306:C:H4'	30:BG:136:ARG:HH22	1.67	0.60
30:BG:135:LEU:HD23	30:BG:140:ILE:HD11	1.83	0.60
12:AJ:63:PHE:HZ	16:AN:45:ARG:HG3	1.67	0.60
45:DY:17:SER:HB2	45:DY:71:LYS:HD2	1.82	0.60
5:CC:19:GLU:HA	5:CC:54:ARG:HE	1.66	0.60
49:D2:55:ARG:HH21	25:DA:74:A:H5'	1.66	0.60
25:BA:2467:C:H2'	25:BA:2468:G:O4'	2.00	0.60
30:BG:83:ARG:HG3	30:BG:84:LYS:N	2.16	0.60
32:BI:101:LEU:HG	32:BI:107:ILE:CG2	2.31	0.60
1:AA:1223:C:P	21:AS:78:ARG:HH21	2.23	0.60
12:CJ:63:PHE:HZ	16:CN:45:ARG:HG3	1.66	0.60
25:DA:919:G:H2'	25:DA:920:G:C8	2.37	0.60
26:BB:51:G:H21	26:BB:52:A:H62	1.49	0.60
1:CA:715:A:H2'	1:CA:716:A:C8	2.36	0.60
2:CZ:35:A:H2'	2:CZ:36:U:C6	2.37	0.60
25:DA:970:C:H2'	25:DA:971:C:H6	1.67	0.60
25:DA:2693:A:H2'	25:DA:2694:G:H8	1.66	0.60
30:DG:47:LYS:HG3	30:DG:82:LEU:HD22	1.84	0.60
25:BA:320:A:H2'	29:BF:136:THR:HG21	1.82	0.60
25:BA:74:A:H5'	49:B2:55:ARG:HH21	1.66	0.60
30:DG:132:ASN:HD22	25:DA:2303:G:H1'	1.65	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:D1:11:ARG:HB3	48:D1:12:PRO:CD	2.26	0.60
42:DV:38:LEU:HD22	42:DV:52:VAL:HG11	1.83	0.60
45:BY:4:LYS:HD3	45:BY:4:LYS:H	1.66	0.60
46:BZ:24:LEU:HB2	46:BZ:41:LEU:HD23	1.84	0.60
20:CR:39:VAL:HG12	20:CR:43:PHE:HE1	1.66	0.60
25:DA:587:C:C6	25:DA:671:C:H1'	2.36	0.60
36:DP:40:SER:O	36:DP:41:ARG:HD2	2.02	0.60
25:DA:1639:U:C2'	25:DA:1640:C:H5''	2.31	0.60
12:CJ:55:LYS:O	12:CJ:55:LYS:HD2	2.01	0.60
34:DN:36:TRP:HB2	34:DN:156:GLN:CB	2.32	0.60
14:CL:69:ILE:HG13	14:CL:99:ILE:HG21	1.84	0.60
25:BA:919:G:H2'	25:BA:920:G:C8	2.36	0.60
25:BA:598:G:H5'	36:BP:15:ARG:HG2	1.84	0.60
25:DA:2693:A:H2'	25:DA:2694:G:C8	2.35	0.60
25:DA:392:C:H5''	25:DA:409:C:H5''	1.83	0.60
4:AB:97:TRP:HZ2	4:AB:102:LEU:HD13	1.66	0.60
37:BQ:130:LYS:HG2	37:BQ:131:ILE:N	2.16	0.60
34:DN:57:LEU:O	34:DN:72:GLY:HA3	2.01	0.60
25:DA:742:G:H2'	25:DA:743:G:H8	1.66	0.60
1:CA:1203:C:H2'	1:CA:1204:A:H8	1.66	0.60
37:DQ:130:LYS:HG2	37:DQ:131:ILE:N	2.16	0.60
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.36	0.60
35:BO:45:GLU:HA	35:BO:54:GLU:HG2	1.84	0.60
25:DA:1788:C:H2'	25:DA:1789:A:H8	1.65	0.60
36:BP:23:PRO:HB2	36:BP:33:ARG:NE	2.16	0.60
4:AB:187:LEU:HA	4:AB:201:ILE:HB	1.84	0.60
27:DD:62:TYR:HA	27:DD:87:ASN:ND2	2.17	0.60
1:CA:974:A:H8	1:CA:974:A:OP1	1.83	0.60
25:BA:1766:U:H2'	25:BA:1767:C:C6	2.37	0.60
28:BE:154:LYS:HE3	28:BE:154:LYS:HA	1.83	0.60
1:AA:777:A:H2'	1:AA:778:G:C8	2.37	0.60
12:AJ:30:SER:HB2	12:AJ:80:LYS:CG	2.31	0.60
24:CX:149:PRO:HA	24:CX:155:PHE:HA	1.82	0.60
2:AZ:35:A:H2'	2:AZ:36:U:C6	2.37	0.60
24:CX:244:LEU:HB2	24:CX:245:PRO:HD3	1.84	0.60
37:BQ:60:ARG:HH11	37:BQ:60:ARG:HB2	1.66	0.60
8:CF:82:ARG:HA	8:CF:82:ARG:HH11	1.65	0.60
25:BA:675:A:H4'	29:BF:67:GLN:NE2	2.16	0.60
25:BA:2393:A:H4'	36:BP:61:ARG:O	2.02	0.60
25:BA:1102:C:H2'	25:BA:1103:A:H8	1.64	0.60
25:BA:1675:C:H2'	25:BA:1676:A:O4'	2.02	0.60
25:BA:251:A:H5''	36:BP:51:PHE:CE1	2.37	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CB:187:LEU:HA	4:CB:201:ILE:HB	1.84	0.60
27:BD:32:SER:HA	27:BD:36:PRO:HG2	1.84	0.60
41:BU:62:ILE:HD12	41:BU:76:TYR:CE1	2.37	0.60
25:BA:848:G:N3	25:BA:933:A:H1'	2.16	0.60
25:DA:1050:A:H2'	25:DA:1051:G:H8	1.64	0.60
1:CA:688:G:H2'	1:CA:689:C:C6	2.37	0.60
27:BD:204:ILE:O	27:BD:204:ILE:HD12	2.02	0.60
1:AA:370:C:H2'	1:AA:371:G:H8	1.67	0.60
1:AA:452:A:H2'	1:AA:453:A:C8	2.37	0.60
5:AC:19:GLU:HG3	5:AC:54:ARG:HD2	1.82	0.60
25:DA:2728:U:H2'	25:DA:2729:G:C8	2.37	0.60
2:CZ:53:G:H2'	2:CZ:54:U:C6	2.36	0.60
25:BA:1751:C:H2'	25:BA:1752:C:C6	2.37	0.60
48:D1:11:ARG:HB2	48:D1:13:ILE:HG22	1.82	0.60
42:DV:39:LEU:HD12	42:DV:47:VAL:HG11	1.83	0.60
25:BA:675:A:O2'	25:BA:676:A:H5'	2.02	0.60
39:BS:35:ILE:O	39:BS:53:SER:HB2	2.02	0.60
20:AR:58:LEU:HB3	20:AR:62:GLU:HB2	1.83	0.60
24:CX:134:PHE:HB2	24:CX:332:LEU:HD21	1.83	0.60
25:BA:481:G:HO2'	25:BA:507:A:N6	2.00	0.60
46:BZ:95:PRO:HB2	46:BZ:127:LYS:HE3	1.83	0.60
16:AN:26:ARG:HD3	16:AN:43:CYS:HB2	1.84	0.60
1:AA:1327:C:OP1	23:AU:20:LYS:HB3	2.02	0.60
25:DA:1923:U:H2'	25:DA:1924:C:C6	2.37	0.60
25:BA:2728:U:H2'	25:BA:2729:G:C8	2.37	0.60
1:CA:502:G:H4'	1:CA:550:G:H4'	1.83	0.60
41:BU:92:ARG:NH2	42:BV:11:GLN:H	2.00	0.59
25:BA:1466:G:H2'	25:BA:1547:C:N4	2.14	0.59
1:CA:1508:G:H2'	1:CA:1509:C:C6	2.37	0.59
5:CC:206:GLU:HG2	5:CC:207:VAL:HG23	1.85	0.59
54:B7:5:TRP:HE1	54:B7:7:PRO:HG3	1.67	0.59
1:AA:692:U:H5	13:AK:26:ASN:HD22	1.51	0.59
25:DA:783:A:H8	25:DA:784:A:H4'	1.67	0.59
1:CA:707:C:H4'	13:CK:20:TYR:CD1	2.37	0.59
4:AB:235:SER:O	4:AB:239:VAL:HG23	2.02	0.59
36:DP:7:ARG:HB3	36:DP:8:PRO:HD3	1.84	0.59
34:BN:57:LEU:O	34:BN:72:GLY:HA3	2.01	0.59
25:DA:1751:C:H2'	25:DA:1752:C:C6	2.37	0.59
1:CA:452:A:H2'	1:CA:453:A:C8	2.37	0.59
23:CU:14:TRP:CE3	23:CU:15:ARG:HG2	2.37	0.59
1:CA:1281:U:H4'	1:CA:1282:C:OP2	2.02	0.59
45:DY:42:VAL:HG12	45:DY:65:ALA:HB3	1.83	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:55:G:H2'	25:DA:56:A:H8	1.66	0.59
9:AG:111:ARG:HB3	9:AG:113:GLU:HG2	1.84	0.59
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.37	0.59
40:DT:95:ARG:CG	40:DT:95:ARG:HH11	2.13	0.59
12:AJ:49:VAL:HG22	12:AJ:50:ILE:N	2.17	0.59
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.17	0.59
40:DT:26:ASP:HB2	40:DT:91:ARG:HA	1.84	0.59
25:DA:1021:A:H62	25:DA:1141:U:H3	1.49	0.59
48:B1:73:LEU:HD11	48:B1:94:LEU:HG	1.83	0.59
14:CL:68:TYR:O	14:CL:99:ILE:HG22	2.02	0.59
25:BA:2693:A:H2'	25:BA:2694:G:H8	1.66	0.59
1:AA:715:A:H2'	1:AA:716:A:C8	2.36	0.59
40:DT:132:LYS:O	40:DT:136:GLN:HG3	2.03	0.59
25:DA:953:A:H2'	25:DA:954:G:H8	1.67	0.59
25:DA:2373:G:H2'	25:DA:2374:C:C6	2.37	0.59
14:AL:46:LYS:HB3	14:AL:47:PRO:HD3	1.83	0.59
25:DA:539:G:H2'	25:DA:540:G:H8	1.67	0.59
29:BF:150:GLY:HA2	29:BF:172:TRP:CE3	2.37	0.59
36:BP:28:GLY:C	36:BP:29:LYS:HD2	2.23	0.59
25:BA:953:A:H2'	25:BA:954:G:H8	1.67	0.59
25:DA:746:A:C5	25:DA:2611:U:H5''	2.37	0.59
48:D1:62:VAL:HG22	48:D1:63:ALA:N	2.18	0.59
45:DY:8:LYS:NZ	45:DY:8:LYS:N	2.49	0.59
25:BA:825:C:H4'	25:BA:2428:G:N7	2.17	0.59
45:BY:8:LYS:N	45:BY:8:LYS:NZ	2.50	0.59
34:DN:83:ILE:HD13	34:DN:122:LEU:HD23	1.84	0.59
41:BU:15:LYS:O	41:BU:19:LYS:HG3	2.02	0.59
25:BA:747:U:P	52:B5:3:LYS:HD3	2.42	0.59
25:BA:618(A):G:H5'	29:BF:205:ARG:NH2	2.18	0.59
34:DN:32:VAL:HG11	34:DN:62:ARG:HH12	1.66	0.59
25:BA:1789:A:OP1	27:BD:222:ARG:HG3	2.03	0.59
48:D1:73:LEU:HD11	48:D1:94:LEU:HG	1.84	0.59
34:DN:112:LYS:O	34:DN:116:THR:HG22	2.01	0.59
1:AA:692:U:H5	13:AK:26:ASN:ND2	2.00	0.59
14:AL:37:THR:HG23	14:AL:38:VAL:H	1.67	0.59
25:BA:283:A:H2	25:BA:427:U:H1'	1.67	0.59
25:BA:1923:U:H2'	25:BA:1924:C:C6	2.37	0.59
1:CA:37:U:P	14:CL:122:LYS:HG3	2.42	0.59
29:DF:155:LEU:HD23	29:DF:186:ILE:HD13	1.83	0.59
25:BA:491:G:H2'	25:BA:492:A:C8	2.37	0.59
25:DA:2119:A:C2	25:DA:2170:A:H2'	2.36	0.59
25:DA:247:G:H4'	25:DA:386:G:C6	2.38	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2243:U:H2'	25:DA:2244:U:C6	2.37	0.59
28:DE:30:PRO:HD3	28:DE:180:ASN:ND2	2.18	0.59
37:DQ:52:VAL:O	37:DQ:56:ARG:HB2	2.02	0.59
45:DY:75:ILE:HG12	45:DY:76:CYS:N	2.16	0.59
29:DF:81:PRO:HB3	29:DF:89:VAL:HG22	1.85	0.59
25:BA:2393:A:H5''	36:BP:62:LEU:HB3	1.84	0.59
25:BA:587:C:C6	25:BA:671:C:H1'	2.37	0.59
36:BP:16:ARG:CZ	36:BP:18:ARG:HG3	2.32	0.59
2:CZ:1:C:H2'	2:CZ:2:G:C8	2.37	0.59
8:CF:16:GLN:HA	8:CF:19:LEU:HB3	1.84	0.59
25:DA:2314:C:H2'	25:DA:2315:G:C8	2.36	0.59
41:DU:36:ARG:HG2	41:DU:40:PHE:CE1	2.38	0.59
26:DB:51:G:H21	26:DB:52:A:H62	1.49	0.59
5:AC:19:GLU:HA	5:AC:54:ARG:HE	1.67	0.59
24:AX:244:LEU:HB2	24:AX:245:PRO:HD3	1.83	0.59
25:DA:713:G:H2'	25:DA:714:U:C6	2.37	0.59
1:AA:677:U:H2'	1:AA:678:U:C6	2.37	0.59
25:BA:2119:A:C2	25:BA:2170:A:H2'	2.37	0.59
6:AD:3:ARG:HD3	6:AD:5:ILE:HD11	1.85	0.59
11:CI:113:LYS:HG2	11:CI:119:ALA:HA	1.85	0.59
16:CN:12:ARG:HB3	16:CN:14:PRO:HD3	1.85	0.59
6:CD:57:ARG:HB3	6:CD:206:PHE:HB2	1.84	0.59
46:DZ:24:LEU:HB2	46:DZ:41:LEU:HD23	1.84	0.59
45:DY:7:VAL:HB	45:DY:8:LYS:HZ2	1.67	0.59
11:CI:85:LEU:O	11:CI:89:ASN:HB2	2.02	0.59
25:DA:1675:C:H2'	25:DA:1676:A:O4'	2.02	0.59
27:DD:25:THR:HG22	27:DD:82:ILE:H	1.67	0.59
25:BA:1021:A:H62	25:BA:1141:U:H3	1.50	0.59
36:BP:7:ARG:HB3	36:BP:8:PRO:HD3	1.85	0.59
35:DO:45:GLU:HA	35:DO:54:GLU:HG2	1.84	0.59
25:DA:161:U:H3'	25:DA:162:U:H5''	1.84	0.59
25:BA:242:G:C8	55:B8:5:LYS:HG2	2.38	0.59
25:DA:1833:U:H2'	25:DA:1834:U:H6	1.67	0.59
38:DR:28:LEU:HD11	38:DR:116:LEU:HD21	1.85	0.59
46:BZ:30:ASN:H	46:BZ:33:LEU:HB3	1.67	0.59
16:CN:26:ARG:HD3	16:CN:43:CYS:HB2	1.84	0.59
41:DU:92:ARG:HD2	41:DU:95:LEU:H	1.68	0.59
25:DA:83:G:N2	25:DA:102:G:H2'	2.18	0.59
25:BA:2591:C:H2'	25:BA:2592:G:C8	2.37	0.59
36:DP:15:ARG:HG2	25:DA:598:G:H5'	1.83	0.59
46:DZ:17:ALA:HA	46:DZ:20:ARG:HD2	1.84	0.59
54:D7:11:LYS:NZ	54:D7:15:THR:HG21	2.17	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:205:ARG:NH2	25:DA:618(A):G:H5'	2.17	0.59
24:AX:333:THR:N	24:AX:334:PRO:HD2	2.18	0.59
1:CA:677:U:H2'	1:CA:678:U:C6	2.37	0.59
46:DZ:118:GLN:HB2	46:DZ:173:ALA:O	2.03	0.59
25:BA:2243:U:H2'	25:BA:2244:U:C6	2.37	0.59
32:DI:56:LYS:HA	32:DI:59:ALA:HB3	1.85	0.59
46:BZ:17:ALA:HA	46:BZ:20:ARG:HD2	1.84	0.59
54:B7:11:LYS:NZ	54:B7:15:THR:HG21	2.17	0.59
25:DA:2600:A:O2'	25:DA:2601:C:H5'	2.03	0.59
44:DX:89:ILE:HG22	44:DX:92:LEU:H	1.67	0.59
42:BV:38:LEU:HD22	42:BV:52:VAL:HG11	1.83	0.59
42:BV:39:LEU:HD12	42:BV:47:VAL:HG11	1.83	0.59
14:CL:44:PRO:HG3	14:CL:52:ARG:HD3	1.85	0.59
36:DP:61:ARG:O	25:DA:2393:A:H4'	2.03	0.59
2:AZ:71:C:H2'	2:AZ:72:A:C8	2.37	0.59
25:DA:686:G:H21	25:DA:788:A:H61	1.48	0.59
25:DA:2591:C:H2'	25:DA:2592:G:C8	2.37	0.59
1:CA:684:A:H2'	1:CA:685:G:H8	1.66	0.59
25:DA:2061:G:H5''	25:DA:2503:A:C2	2.38	0.59
12:CJ:32:ALA:H	12:CJ:78:ASN:ND2	2.01	0.59
49:D2:50:ILE:HD12	49:D2:50:ILE:H	1.66	0.59
1:CA:692:U:H5	13:CK:26:ASN:ND2	1.99	0.59
34:BN:83:ILE:HD13	34:BN:122:LEU:HD23	1.84	0.59
1:AA:37:U:P	14:AL:122:LYS:HG3	2.43	0.59
25:DA:1970:A:H5''	25:DA:1971:A:OP1	2.02	0.59
36:BP:135:LEU:O	36:BP:139:LYS:HB2	2.02	0.59
55:D8:5:LYS:HG2	25:DA:242:G:C8	2.38	0.59
25:DA:990:A:C6	25:DA:1186:G:H1'	2.38	0.59
36:DP:135:LEU:O	36:DP:139:LYS:HB2	2.02	0.59
25:DA:1348:G:C2'	25:DA:1349:A:H5''	2.31	0.59
20:AR:39:VAL:HG12	20:AR:43:PHE:HE1	1.67	0.59
25:DA:2011:U:H2'	25:DA:2012:G:O4'	2.03	0.59
1:CA:1355:G:H2'	1:CA:1356:G:C8	2.38	0.59
25:DA:1183:G:H2'	25:DA:1184:G:C8	2.37	0.59
44:DX:64:LYS:HG2	44:DX:65:ARG:N	2.17	0.59
9:CG:91:VAL:HG12	9:CG:92:SER:H	1.68	0.59
49:B2:35:LEU:HD11	49:B2:49:LYS:HB3	1.82	0.59
36:DP:28:GLY:C	36:DP:29:LYS:HD2	2.22	0.59
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.37	0.59
1:AA:576:G:H3'	1:AA:577:G:H5''	1.82	0.59
9:AG:150:ALA:HB1	13:AK:57:THR:HG21	1.83	0.59
36:DP:148:LEU:HD13	36:DP:148:LEU:H	1.67	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CD:49:ARG:NH2	6:CD:50:ARG:HB2	2.18	0.59
36:DP:62:LEU:HB3	25:DA:2393:A:H5''	1.83	0.59
36:BP:23:PRO:HD2	36:BP:33:ARG:HH21	1.67	0.59
37:BQ:6:ARG:O	37:BQ:7:MET:HB2	2.03	0.59
25:BA:1434:A:H61	25:BA:1558:A:N6	2.01	0.59
27:DD:140:THR:HG22	27:DD:141:VAL:N	2.18	0.59
24:CX:87:ALA:O	24:CX:91:GLU:HG2	2.03	0.59
1:AA:646:U:H2'	1:AA:647:C:C6	2.38	0.59
43:DW:46:PHE:O	43:DW:50:VAL:HG12	2.03	0.59
47:B0:19:LYS:HB2	47:B0:21:LEU:HD11	1.85	0.59
36:BP:148:LEU:H	36:BP:148:LEU:HD13	1.67	0.59
25:DA:49:A:H4'	25:DA:50:U:H5''	1.83	0.59
5:AC:66:VAL:HB	5:AC:101:LEU:HD23	1.85	0.59
37:DQ:66:ILE:HG22	37:DQ:104:PHE:CD2	2.38	0.59
4:AB:22:LYS:HZ2	4:AB:22:LYS:HA	1.67	0.59
44:BX:15:GLU:H	44:BX:15:GLU:CD	2.06	0.59
1:AA:258:G:H2'	1:AA:259:G:H8	1.68	0.59
26:DB:40:U:H1'	26:DB:45:A:N6	2.18	0.59
28:DE:170:LEU:HB3	28:DE:184:VAL:HG12	1.84	0.59
4:AB:19:HIS:CD2	4:AB:20:GLU:H	2.21	0.59
42:BV:49:THR:HB	42:BV:50:PRO:HD2	1.85	0.58
25:BA:1788:C:H2'	25:BA:1789:A:C8	2.38	0.58
41:DU:92:ARG:CB	41:DU:92:ARG:HH11	2.16	0.58
36:DP:62:LEU:N	36:DP:62:LEU:HD13	2.18	0.58
25:BA:1348:G:C2'	25:BA:1349:A:H5''	2.33	0.58
39:BS:30:ARG:HB3	39:BS:35:ILE:HD13	1.84	0.58
38:DR:10:LEU:HB2	38:DR:17:ARG:HE	1.68	0.58
36:DP:51:PHE:CE1	25:DA:251:A:H5''	2.38	0.58
5:AC:206:GLU:HG2	5:AC:207:VAL:HG23	1.85	0.58
25:DA:270(T):G:H2'	25:DA:270(U):G:H8	1.68	0.58
25:BA:270(T):G:H2'	25:BA:270(U):G:H8	1.68	0.58
1:CA:370:C:H2'	1:CA:371:G:H8	1.68	0.58
32:BI:130:TYR:CD2	32:BI:132:PRO:HG3	2.38	0.58
25:BA:161:U:H3'	25:BA:162:U:H5''	1.85	0.58
1:AA:1281:U:H4'	1:AA:1282:C:OP2	2.03	0.58
12:AJ:48:THR:HA	12:AJ:62:HIS:HB3	1.85	0.58
1:AA:475:G:H2'	1:AA:476:G:C8	2.38	0.58
25:BA:2206:C:H2'	25:BA:2207:C:H6	1.68	0.58
32:BI:9:LEU:HB3	32:BI:12:LEU:HD23	1.84	0.58
28:DE:118:LYS:HZ3	38:DR:2:ARG:HH22	1.50	0.58
1:CA:646:U:H2'	1:CA:647:C:C6	2.38	0.58
25:DA:1647:G:H3'	25:DA:1647:G:OP2	2.02	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DI:9:LEU:HB3	32:DI:12:LEU:HD23	1.84	0.58
1:AA:603:U:H2'	1:AA:604:G:C8	2.38	0.58
25:DA:1839:G:H5'	25:DA:1839:G:H8	1.68	0.58
46:DZ:95:PRO:HB2	46:DZ:127:LYS:HE3	1.83	0.58
48:D1:46:LEU:HD21	48:D1:61:ARG:NE	2.18	0.58
5:CC:22:TRP:HB3	5:CC:59:ARG:H	1.69	0.58
2:AZ:1:C:H2'	2:AZ:2:G:C8	2.36	0.58
25:DA:1548:C:H2'	25:DA:1549:C:C6	2.38	0.58
1:CA:1520:G:H2'	1:CA:1521:G:H8	1.65	0.58
1:CA:1499:A:H1'	1:CA:1520:G:H5'	1.84	0.58
32:DI:130:TYR:HD2	32:DI:132:PRO:HG3	1.67	0.58
5:CC:20:SER:HB2	5:CC:40:ARG:NH1	2.18	0.58
36:BP:9:ASN:N	36:BP:10:PRO:HD3	2.19	0.58
25:DA:516:C:O2'	25:DA:1262:A:H5'	2.03	0.58
40:DT:16:ARG:H	40:DT:79:HIS:HD2	1.51	0.58
47:D0:24:LYS:HB2	47:D0:37:LEU:O	2.03	0.58
1:CA:475:G:H2'	1:CA:476:G:C8	2.38	0.58
52:D5:3:LYS:HD3	25:DA:747:U:P	2.43	0.58
25:BA:970:C:H2'	25:BA:971:C:H6	1.67	0.58
27:DD:222:ARG:HG3	25:DA:1789:A:OP1	2.03	0.58
44:DX:26:TYR:HB3	44:DX:92:LEU:HD13	1.84	0.58
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.19	0.58
25:BA:1902:C:H5'	27:BD:246:PRO:HD3	1.86	0.58
25:BA:1496:A:H1'	25:BA:1577:C:HO2'	1.68	0.58
25:DA:1794:U:H2'	25:DA:1795:C:C6	2.32	0.58
25:DA:2554:U:H2'	25:DA:2555:U:C6	2.38	0.58
36:BP:39:LYS:CD	36:BP:40:SER:H	2.17	0.58
10:CH:110:ALA:HB3	10:CH:121:ASP:HB3	1.83	0.58
25:DA:1434:A:H61	25:DA:1558:A:N6	1.99	0.58
1:AA:688:G:H2'	1:AA:689:C:C6	2.39	0.58
38:DR:12:ARG:HD3	38:DR:16:HIS:CE1	2.38	0.58
24:CX:5:LEU:HD22	24:CX:48:ILE:HD12	1.85	0.58
14:CL:82:VAL:HG22	14:CL:83:LEU:H	1.68	0.58
32:DI:95:LYS:O	32:DI:99:GLU:HB2	2.03	0.58
48:D1:83:GLU:HG2	48:D1:84:GLY:N	2.18	0.58
25:DA:283:A:H2	25:DA:427:U:H1'	1.68	0.58
30:BG:47:LYS:HG3	30:BG:82:LEU:HD22	1.84	0.58
4:CB:19:HIS:CD2	4:CB:20:GLU:H	2.21	0.58
22:AT:67:ALA:HA	22:AT:72:LEU:O	2.04	0.58
12:CJ:48:THR:HA	12:CJ:62:HIS:HB3	1.84	0.58
25:BA:1632:A:H8	25:BA:1632:A:O5'	1.84	0.58
40:BT:132:LYS:O	40:BT:136:GLN:HG3	2.04	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:261:U:H5	22:CT:79:ARG:CZ	2.15	0.58
41:BU:92:ARG:CB	41:BU:92:ARG:HH11	2.16	0.58
25:BA:1825:A:H2'	25:BA:1826:G:C8	2.38	0.58
44:BX:89:ILE:HG22	44:BX:92:LEU:H	1.68	0.58
27:BD:34:VAL:O	27:BD:35:LYS:HD3	2.04	0.58
27:BD:140:THR:HG22	27:BD:141:VAL:N	2.18	0.58
24:CX:88:LEU:HA	24:CX:91:GLU:HB2	1.86	0.58
28:BE:151:TYR:HB3	34:BN:102:PRO:HG3	1.85	0.58
5:AC:20:SER:HB2	5:AC:40:ARG:NH1	2.19	0.58
25:BA:516:C:O2'	25:BA:1262:A:H5'	2.04	0.58
25:DA:1230:C:H2'	25:DA:1231:G:H8	1.68	0.58
4:CB:162:ILE:O	4:CB:162:ILE:HD12	2.04	0.58
1:CA:603:U:H2'	1:CA:604:G:C8	2.38	0.58
25:BA:2142:C:H2'	25:BA:2143:C:C6	2.38	0.58
25:BA:1647:G:OP2	25:BA:1647:G:H3'	2.03	0.58
28:BE:119:ARG:HD2	28:BE:120:TRP:NE1	2.19	0.58
25:BA:83:G:N2	25:BA:102:G:H2'	2.18	0.58
14:AL:44:PRO:HG3	14:AL:52:ARG:HD3	1.84	0.58
25:DA:141(A):A:H5''	25:DA:141(B):C:C5	2.34	0.58
39:DS:35:ILE:O	39:DS:53:SER:HB2	2.03	0.58
31:BH:149:ARG:HA	31:BH:162:ILE:HG12	1.86	0.58
4:CB:80:ILE:HD11	4:CB:208:ILE:HG23	1.84	0.58
11:AI:85:LEU:O	11:AI:89:ASN:HB2	2.02	0.58
53:D6:27:LYS:HZ1	25:DA:2285:C:H5	1.48	0.58
2:CZ:71:C:H2'	2:CZ:72:A:C8	2.38	0.58
49:B2:43:GLN:O	49:B2:44:LEU:HG	2.03	0.58
44:DX:31:HIS:CD2	44:DX:33:LYS:H	2.22	0.58
14:AL:82:VAL:HG22	14:AL:83:LEU:H	1.67	0.58
25:DA:407:G:H2'	25:DA:408:G:C8	2.38	0.58
2:AZ:50:U:H2'	2:AZ:51:C:C6	2.39	0.58
26:BB:40:U:H1'	26:BB:45:A:N6	2.18	0.58
6:AD:57:ARG:HB3	6:AD:206:PHE:HB2	1.86	0.58
27:BD:69:ARG:HH21	27:BD:130:ALA:HB2	1.68	0.58
25:DA:214:G:H1'	25:DA:216:A:O2'	2.02	0.58
25:DA:1825:A:H2'	25:DA:1826:G:C8	2.38	0.58
41:BU:92:ARG:HD2	41:BU:95:LEU:HG	1.86	0.58
41:BU:92:ARG:HD3	41:BU:94:ASN:HB3	1.85	0.58
29:DF:67:GLN:NE2	25:DA:675:A:H4'	2.19	0.58
30:DG:86:MET:N	30:DG:87:PRO:HD2	2.19	0.58
7:AE:6:PHE:CD2	7:AE:36:ASP:HB3	2.34	0.58
30:DG:91:ARG:HG3	25:DA:2313:C:H4'	1.86	0.58
34:BN:126:VAL:O	34:BN:130:LEU:HD12	2.04	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D2:46:GLN:O	49:D2:49:LYS:HD3	2.03	0.58
25:BA:407:G:H2'	25:BA:408:G:C8	2.38	0.58
25:BA:2271:G:H2'	25:BA:2272:U:C6	2.38	0.58
28:DE:187:ALA:HB3	25:DA:2729:G:H1'	1.86	0.58
36:DP:9:ASN:N	36:DP:10:PRO:HD3	2.18	0.58
38:BR:28:LEU:HD11	38:BR:116:LEU:HD21	1.85	0.58
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.38	0.58
1:CA:1152:A:H5''	12:CJ:13:HIS:CD2	2.37	0.58
11:AI:15:ALA:HA	11:AI:65:VAL:HA	1.86	0.58
25:BA:539:G:H2'	25:BA:540:G:H8	1.68	0.58
25:BA:55:G:H2'	25:BA:56:A:H8	1.68	0.58
47:D0:19:LYS:HB2	47:D0:21:LEU:HD11	1.85	0.58
41:DU:15:LYS:O	41:DU:19:LYS:HG3	2.02	0.58
25:BA:307:G:H8	25:BA:307:G:O5'	1.87	0.58
25:BA:247:G:H4'	25:BA:386:G:C6	2.39	0.58
40:DT:77:PRO:HB2	40:DT:80:SER:HB2	1.85	0.58
41:BU:92:ARG:HD2	41:BU:95:LEU:H	1.67	0.58
12:CJ:49:VAL:O	12:CJ:60:ARG:HB2	2.04	0.58
25:BA:2554:U:H2'	25:BA:2555:U:C6	2.39	0.58
1:CA:878:G:H5'	10:CH:89:PRO:HG2	1.85	0.58
37:DQ:6:ARG:O	37:DQ:7:MET:HB2	2.03	0.58
32:DI:109:ILE:H	32:DI:109:ILE:HD13	1.69	0.58
9:AG:15:ASP:CB	9:AG:20:ASP:H	2.17	0.58
43:BW:73:ALA:O	43:BW:106:ILE:HG12	2.03	0.58
27:BD:118:VAL:HG22	27:BD:119:ALA:H	1.69	0.58
35:BO:35:VAL:HG23	35:BO:65:THR:HG23	1.86	0.58
4:CB:97:TRP:HZ2	4:CB:102:LEU:HD13	1.67	0.58
1:AA:744:C:H2'	1:AA:745:C:C6	2.39	0.58
21:CS:69:HIS:HB3	21:CS:73:GLU:HG3	1.86	0.58
28:DE:151:TYR:HB3	34:DN:102:PRO:HG3	1.86	0.58
22:CT:67:ALA:HA	22:CT:72:LEU:O	2.04	0.58
1:CA:744:C:H2'	1:CA:745:C:C6	2.39	0.58
44:DX:15:GLU:H	44:DX:15:GLU:CD	2.05	0.58
1:AA:1118:C:H5'	1:AA:1118:C:H6	1.69	0.58
6:CD:3:ARG:HD3	6:CD:5:ILE:HD11	1.85	0.58
41:DU:92:ARG:HD2	41:DU:95:LEU:HG	1.85	0.58
42:DV:49:THR:HB	42:DV:50:PRO:HD2	1.85	0.58
25:DA:1496:A:H1'	25:DA:1577:C:HO2'	1.67	0.58
24:CX:163:ARG:HA	24:CX:163:ARG:HE	1.69	0.58
38:BR:10:LEU:HB2	38:BR:17:ARG:HE	1.68	0.58
1:CA:1285:A:H4'	1:CA:1286:A:O5'	2.04	0.58
1:AA:892:A:H2'	1:AA:893:C:H6	1.67	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:AP:22:THR:HA	18:AP:33:ILE:HG12	1.86	0.58
27:DD:32:SER:HA	27:DD:36:PRO:HG2	1.84	0.58
27:DD:34:VAL:O	27:DD:35:LYS:HD3	2.04	0.58
18:CP:22:THR:HA	18:CP:33:ILE:HG12	1.86	0.58
25:DA:1786:A:H3'	25:DA:1787:A:C8	2.38	0.58
12:CJ:82:ILE:O	12:CJ:86:MET:HB2	2.04	0.58
25:DA:1175:U:OP1	25:DA:1175:U:H4'	2.04	0.58
26:DB:35:U:H2'	26:DB:36:C:C6	2.39	0.58
25:DA:1230:C:H2'	25:DA:1231:G:C8	2.39	0.58
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.39	0.58
37:BQ:66:ILE:HG22	37:BQ:104:PHE:CD2	2.38	0.58
1:CA:258:G:H2'	1:CA:259:G:H8	1.68	0.58
11:AI:113:LYS:HG2	11:AI:119:ALA:HA	1.85	0.58
32:BI:56:LYS:HA	32:BI:59:ALA:HB3	1.85	0.58
46:DZ:51:ALA:HB1	46:DZ:57:ILE:HD11	1.86	0.58
11:CI:15:ALA:HA	11:CI:65:VAL:HA	1.86	0.58
25:BA:214:G:H1'	25:BA:216:A:O2'	2.03	0.58
27:DD:161:THR:H	27:DD:196:VAL:HB	1.69	0.58
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.39	0.58
43:BW:51:LEU:HD23	43:BW:105:VAL:HG11	1.86	0.58
25:BA:1608:A:H1'	25:BA:1610:A:OP2	2.04	0.58
42:BV:38:LEU:O	42:BV:39:LEU:HD13	2.04	0.58
31:DH:149:ARG:HA	31:DH:162:ILE:HG12	1.86	0.58
25:BA:2011:U:H2'	25:BA:2012:G:O4'	2.03	0.58
39:BS:34:HIS:ND1	39:BS:54:LEU:HB2	2.19	0.58
46:DZ:10:ARG:NH2	46:DZ:26:GLY:H	2.01	0.58
36:BP:40:SER:O	36:BP:41:ARG:HD2	2.04	0.58
25:BA:2590:A:H2'	25:BA:2591:C:C6	2.39	0.58
51:D4:46:ASN:HB2	51:D4:64:LYS:CB	2.34	0.58
15:CM:14:ARG:HG2	15:CM:44:ARG:NH1	2.19	0.58
43:BW:29:LEU:HG	43:BW:33:ARG:HE	1.67	0.58
36:DP:105:LEU:CB	25:DA:626:U:H3	2.17	0.58
25:DA:959:A:H2'	25:DA:960:A:C8	2.37	0.58
41:DU:34:LYS:HA	41:DU:34:LYS:HE2	1.84	0.58
46:BZ:118:GLN:HB2	46:BZ:173:ALA:O	2.03	0.58
1:CA:926:G:H22	3:CV:15:A:H3'	1.69	0.58
40:DT:28:VAL:HG23	40:DT:87:ASP:O	2.03	0.58
25:DA:2142:C:H2'	25:DA:2143:C:C6	2.39	0.58
5:CC:66:VAL:HB	5:CC:101:LEU:HD23	1.85	0.58
45:DY:76:CYS:SG	45:DY:77:PRO:HD2	2.43	0.58
45:BY:76:CYS:CB	45:BY:77:PRO:CD	2.81	0.58
48:B1:62:VAL:HG22	48:B1:63:ALA:N	2.18	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2313:C:H4'	30:BG:91:ARG:HG3	1.86	0.58
40:BT:25:GLY:H	40:BT:49:VAL:HG13	1.69	0.58
32:DI:98:ALA:HA	32:DI:109:ILE:HD11	1.86	0.58
1:CA:1199:U:H4'	12:CJ:54:PHE:CE1	2.39	0.58
49:D2:43:GLN:O	49:D2:44:LEU:HG	2.04	0.58
38:BR:12:ARG:HD3	38:BR:16:HIS:CE1	2.38	0.58
30:DG:7:LEU:HA	30:DG:10:LYS:HD2	1.86	0.58
25:BA:1817:G:H3'	27:BD:157:ARG:NH2	2.19	0.58
13:CK:57:THR:HG22	13:CK:59:TYR:H	1.69	0.58
25:DA:2115:G:H1'	25:DA:2171:A:H61	1.69	0.58
46:DZ:180:VAL:HG23	46:DZ:181:GLU:H	1.69	0.58
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.68	0.58
39:BS:14:VAL:HG12	39:BS:18:ILE:HD11	1.86	0.58
27:DD:5:LYS:HD2	27:DD:5:LYS:N	2.19	0.58
25:DA:1789:A:H2'	25:DA:1790:C:O4'	2.02	0.57
45:DY:4:LYS:H	45:DY:4:LYS:HD3	1.69	0.57
29:BF:81:PRO:HB3	29:BF:89:VAL:HG22	1.84	0.57
36:BP:62:LEU:N	36:BP:62:LEU:HD13	2.19	0.57
5:AC:22:TRP:HB3	5:AC:59:ARG:H	1.68	0.57
25:BA:1384:A:N3	25:BA:1405:U:H1'	2.19	0.57
28:DE:51:PHE:HB3	28:DE:52:LEU:HD12	1.86	0.57
4:AB:168:THR:HG1	4:AB:192:SER:HA	1.69	0.57
21:CS:49:ILE:H	21:CS:49:ILE:HD12	1.69	0.57
4:AB:178:ARG:HD2	10:AH:71:GLY:O	2.04	0.57
25:DA:1771:C:H2'	25:DA:1772:G:C8	2.39	0.57
27:DD:204:ILE:O	27:DD:204:ILE:HD12	2.04	0.57
15:AM:14:ARG:HG2	15:AM:44:ARG:NH1	2.19	0.57
25:DA:1766:U:H2'	25:DA:1767:C:C6	2.38	0.57
14:AL:68:TYR:O	14:AL:99:ILE:HG22	2.03	0.57
41:BU:36:ARG:HG2	41:BU:40:PHE:CE1	2.39	0.57
44:BX:31:HIS:CD2	44:BX:33:LYS:H	2.22	0.57
48:D1:82:LEU:O	48:D1:83:GLU:HB2	2.04	0.57
25:BA:990:A:C6	25:BA:1186:G:H1'	2.38	0.57
46:DZ:46:LYS:HD3	25:DA:1040:C:H4'	1.86	0.57
30:BG:55:LYS:O	30:BG:59:GLU:HG3	2.03	0.57
25:BA:2293:C:H4'	39:BS:93:LYS:NZ	2.19	0.57
7:AE:151:LEU:HD13	10:AH:77:GLU:HG2	1.86	0.57
5:AC:89:GLU:O	5:AC:93:LYS:HB2	2.04	0.57
30:DG:28:VAL:O	30:DG:31:VAL:HG12	2.04	0.57
25:BA:910:A:C6	25:BA:911:A:C6	2.92	0.57
25:BA:2600:A:O2'	25:BA:2601:C:H5'	2.04	0.57
1:CA:1097:C:H2'	1:CA:1098:C:C6	2.38	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:27:VAL:HG23	46:BZ:81:ARG:NH2	2.19	0.57
40:BT:77:PRO:HB2	40:BT:80:SER:HB2	1.86	0.57
4:AB:17:PHE:HB2	4:AB:42:ILE:HG22	1.86	0.57
28:BE:120:TRP:HB2	28:BE:122:PHE:CE1	2.39	0.57
29:DF:139:PHE:CB	29:DF:166:ALA:HB1	2.31	0.57
25:BA:2028:U:H2'	25:BA:2029:G:C8	2.38	0.57
39:DS:34:HIS:ND1	39:DS:54:LEU:HB2	2.19	0.57
34:BN:40:ASP:CG	34:BN:41:ALA:H	2.08	0.57
1:CA:688:G:H2'	1:CA:689:C:H6	1.68	0.57
9:CG:15:ASP:CB	9:CG:20:ASP:H	2.17	0.57
30:BG:7:LEU:HA	30:BG:10:LYS:HD2	1.86	0.57
25:BA:1175:U:OP1	25:BA:1175:U:H4'	2.03	0.57
22:CT:45:GLN:HG2	22:CT:91:LEU:HD22	1.85	0.57
43:DW:51:LEU:HD23	43:DW:105:VAL:HG11	1.86	0.57
25:BA:1040:C:H4'	46:BZ:46:LYS:HD3	1.85	0.57
6:AD:49:ARG:NH2	6:AD:50:ARG:HB2	2.19	0.57
41:DU:31:SER:O	41:DU:32:PHE:C	2.42	0.57
1:AA:1233:G:H2'	1:AA:1234:C:C6	2.39	0.57
40:BT:28:VAL:HG23	40:BT:87:ASP:O	2.03	0.57
25:DA:2210:G:N3	25:DA:2210:G:H3'	2.19	0.57
1:CA:1233:G:H2'	1:CA:1234:C:C6	2.39	0.57
41:DU:92:ARG:HG2	42:DV:11:GLN:HG3	1.86	0.57
48:B1:11:ARG:HH11	48:B1:61:ARG:N	2.02	0.57
25:DA:675:A:O2'	25:DA:676:A:H5'	2.04	0.57
46:DZ:10:ARG:HH21	46:DZ:26:GLY:H	1.53	0.57
40:BT:26:ASP:HB2	40:BT:91:ARG:HA	1.85	0.57
27:BD:62:TYR:HA	27:BD:87:ASN:ND2	2.19	0.57
41:DU:62:ILE:HG23	41:DU:76:TYR:CE1	2.39	0.57
34:BN:36:TRP:O	34:BN:158:PRO:HG2	2.05	0.57
24:AX:87:ALA:O	24:AX:91:GLU:HG2	2.03	0.57
21:CS:63:THR:HG22	21:CS:66:MET:HE3	1.85	0.57
12:AJ:32:ALA:H	12:AJ:78:ASN:ND2	2.02	0.57
25:DA:1923:U:H2'	25:DA:1924:C:H6	1.69	0.57
26:BB:45:A:H1'	30:BG:95:ARG:NH1	2.19	0.57
17:CO:44:LYS:O	17:CO:47:LYS:HE3	2.04	0.57
5:CC:89:GLU:O	5:CC:93:LYS:HB2	2.05	0.57
4:CB:235:SER:O	4:CB:239:VAL:HG23	2.03	0.57
22:AT:40:ALA:HB2	22:AT:55:ILE:HG22	1.86	0.57
48:B1:83:GLU:HG2	48:B1:84:GLY:N	2.18	0.57
9:CG:111:ARG:HB3	9:CG:113:GLU:HG2	1.85	0.57
27:BD:231:HIS:CG	27:BD:232:PRO:HD2	2.39	0.57
1:AA:1285:A:H4'	1:AA:1286:A:O5'	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DU:92:ARG:HD3	41:DU:94:ASN:HB3	1.86	0.57
32:BI:114:LEU:HD21	32:BI:128:LEU:HD13	1.85	0.57
53:D6:11:LEU:HD21	53:D6:51:GLU:CD	2.25	0.57
25:BA:626:U:H3	36:BP:105:LEU:CB	2.17	0.57
34:DN:135:LEU:HD13	25:DA:558:G:H5'	1.87	0.57
43:DW:73:ALA:O	43:DW:106:ILE:HG12	2.04	0.57
45:BY:7:VAL:HB	45:BY:8:LYS:HZ2	1.68	0.57
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.40	0.57
28:BE:171:GLU:HG2	28:BE:185:LYS:HG2	1.87	0.57
25:DA:1138:G:H2'	25:DA:1139:G:O4'	2.05	0.57
29:DF:110:LEU:HD11	29:DF:181:LEU:HB3	1.86	0.57
35:DO:35:VAL:HG23	35:DO:65:THR:HG23	1.86	0.57
25:DA:1972:A:H2'	25:DA:1973:G:C8	2.39	0.57
25:BA:1833:U:H2'	25:BA:1834:U:H6	1.70	0.57
27:DD:133:LEU:HD13	27:DD:173:VAL:HG13	1.87	0.57
42:DV:38:LEU:O	42:DV:39:LEU:HD13	2.05	0.57
29:BF:63:LYS:HZ3	29:BF:67:GLN:HG2	1.69	0.57
25:DA:676:A:H8	25:DA:2069:G:H21	1.52	0.57
29:DF:67:GLN:HE21	25:DA:675:A:H4'	1.69	0.57
25:BA:2553:G:H2'	25:BA:2554:U:O4'	2.03	0.57
51:B4:46:ASN:HB2	51:B4:64:LYS:CB	2.35	0.57
1:AA:684:A:H2'	1:AA:685:G:H8	1.67	0.57
24:AX:5:LEU:HD22	24:AX:48:ILE:HD12	1.86	0.57
53:B6:11:LEU:HD21	53:B6:51:GLU:CD	2.24	0.57
21:AS:40:ILE:HG12	21:AS:71:LEU:HD23	1.87	0.57
36:DP:16:ARG:CZ	36:DP:18:ARG:HG3	2.33	0.57
32:DI:130:TYR:CD2	32:DI:132:PRO:HG3	2.40	0.57
30:DG:95:ARG:NH1	26:DB:45:A:H1'	2.19	0.57
25:DA:2410:G:H2'	25:DA:2411:A:H8	1.70	0.57
25:BA:2573:C:H5''	25:BA:2574:G:H5''	1.85	0.57
37:DQ:27:VAL:HG23	46:DZ:81:ARG:NH2	2.19	0.57
9:AG:91:VAL:HG12	9:AG:92:SER:H	1.68	0.57
24:CX:325:GLU:HG3	24:CX:326:GLY:H	1.70	0.57
36:DP:89:ALA:HB1	36:DP:121:LYS:HD3	1.87	0.57
12:CJ:96:ILE:HD13	12:CJ:96:ILE:H	1.69	0.57
25:BA:2210:G:N3	25:BA:2210:G:H3'	2.19	0.57
1:AA:256:U:H2'	1:AA:257:G:C8	2.39	0.57
45:BY:76:CYS:SG	45:BY:77:PRO:HD2	2.44	0.57
46:BZ:70:LEU:HD21	46:BZ:91:LEU:HG	1.87	0.57
1:AA:1199:U:H4'	12:AJ:54:PHE:CE1	2.40	0.57
53:B6:30:THR:O	53:B6:32:ASN:N	2.37	0.57
32:DI:6:LEU:HD23	32:DI:6:LEU:H	1.69	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2271:G:H2'	25:DA:2272:U:C6	2.38	0.57
14:CL:123:LYS:HG3	14:CL:124:PRO:HD2	1.87	0.57
1:CA:1301:U:H3'	1:CA:1302:U:H5''	1.87	0.57
16:AN:24:CYS:HB3	16:AN:29:ARG:H	1.69	0.57
7:CE:151:LEU:HD13	10:CH:77:GLU:HG2	1.86	0.57
25:BA:1230:C:H2'	25:BA:1231:G:H8	1.69	0.57
46:BZ:166:SER:O	46:BZ:168:GLU:N	2.38	0.57
32:BI:95:LYS:O	32:BI:99:GLU:HB2	2.04	0.57
4:AB:162:ILE:HD12	4:AB:162:ILE:O	2.03	0.57
30:BG:28:VAL:O	30:BG:31:VAL:HG12	2.05	0.57
48:B1:46:LEU:HD23	48:B1:46:LEU:O	2.05	0.57
25:DA:482:A:H1'	25:DA:498:G:N2	2.19	0.57
37:BQ:141:GLN:HA	46:BZ:71:VAL:O	2.04	0.57
1:AA:688:G:H2'	1:AA:689:C:H6	1.70	0.57
34:DN:126:VAL:O	34:DN:130:LEU:HD12	2.05	0.57
25:DA:2286:A:H4'	25:DA:2287:A:O4'	2.05	0.57
44:BX:64:LYS:HG2	44:BX:65:ARG:N	2.19	0.57
32:BI:6:LEU:H	32:BI:6:LEU:HD23	1.70	0.57
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.40	0.57
25:BA:2729:G:H1'	28:BE:187:ALA:HB3	1.86	0.57
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.05	0.57
47:B0:24:LYS:HB2	47:B0:37:LEU:O	2.04	0.57
1:AA:936:C:H2'	1:AA:937:A:O4'	2.05	0.57
34:DN:34:PRO:HB3	34:DN:74:PHE:CE1	2.40	0.57
33:BJ:57:THR:HG23	33:BJ:60:ARG:HH12	1.69	0.57
1:AA:1301:U:H3'	1:AA:1302:U:H5''	1.87	0.57
27:BD:161:THR:H	27:BD:196:VAL:HB	1.69	0.57
25:DA:2206:C:H2'	25:DA:2207:C:H6	1.69	0.57
25:BA:1839:G:H5'	25:BA:1839:G:H8	1.70	0.57
25:BA:1328:G:H8	25:BA:1328:G:O5'	1.88	0.57
25:BA:1669:A:H5''	25:BA:2550:G:OP1	2.05	0.57
48:D1:46:LEU:HD23	48:D1:46:LEU:O	2.05	0.57
29:BF:139:PHE:CB	29:BF:166:ALA:HB1	2.31	0.57
25:DA:2681:C:H5	25:DA:2725:A:N6	1.98	0.57
1:AA:878:G:H5'	10:AH:89:PRO:HG2	1.86	0.57
25:DA:1434:A:H2'	25:DA:1435:G:C8	2.40	0.57
4:AB:51:LEU:HD23	4:AB:201:ILE:HD12	1.87	0.57
21:AS:31:ILE:HG23	21:AS:49:ILE:HA	1.87	0.57
32:BI:98:ALA:HA	32:BI:109:ILE:HD11	1.85	0.57
1:AA:1355:G:H2'	1:AA:1356:G:C8	2.39	0.57
39:DS:14:VAL:HG12	39:DS:18:ILE:HD11	1.86	0.57
25:BA:1771:C:H2'	25:BA:1772:G:C8	2.40	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:27:G:H1'	25:DA:513:A:N6	2.19	0.57
53:D6:30:THR:O	53:D6:32:ASN:N	2.38	0.57
25:BA:442:G:H1'	29:BF:48:THR:HG21	1.87	0.57
27:DD:144:ALA:HB3	27:DD:192:THR:HG22	1.86	0.57
36:BP:114:ILE:HD12	36:BP:114:ILE:O	2.05	0.57
1:AA:238:G:P	19:AQ:25:ARG:HH22	2.28	0.57
1:CA:121:C:N4	1:CA:237:C:H41	2.03	0.57
25:BA:2020:A:H5'	52:B5:12:SER:HB3	1.87	0.57
27:DD:69:ARG:HH21	27:DD:130:ALA:HB2	1.68	0.57
25:BA:2115:G:H1'	25:BA:2171:A:H61	1.69	0.57
25:BA:49:A:H4'	25:BA:50:U:H5''	1.86	0.57
29:DF:126:VAL:O	29:DF:196:LEU:HG	2.05	0.57
25:BA:1970:A:H5''	25:BA:1971:A:OP1	2.04	0.57
25:BA:1972:A:H2'	25:BA:1973:G:C8	2.39	0.57
25:BA:1590:U:H2'	25:BA:1591:G:C8	2.39	0.57
1:CA:397:A:H5'	1:CA:398:C:OP1	2.05	0.57
48:D1:20:ARG:NH1	25:DA:380:U:H1'	2.19	0.57
41:BU:66:ASN:O	41:BU:70:ARG:HB2	2.05	0.57
34:BN:58:ARG:HH21	34:BN:131:PRO:HG3	1.70	0.57
25:DA:1590:U:H2'	25:DA:1591:G:C8	2.40	0.57
22:AT:45:GLN:HG2	22:AT:91:LEU:HD22	1.85	0.57
25:BA:1578:U:C2'	25:BA:1579:A:H5''	2.32	0.57
46:BZ:10:ARG:NH2	46:BZ:26:GLY:H	2.02	0.57
21:AS:49:ILE:HD12	21:AS:49:ILE:H	1.70	0.57
25:BA:686:G:H21	25:BA:788:A:H61	1.53	0.57
24:AX:88:LEU:HA	24:AX:91:GLU:HB2	1.85	0.57
25:BA:534:U:H3	25:BA:559:G:H1	1.52	0.57
25:DA:910:A:C6	25:DA:911:A:C6	2.93	0.57
25:BA:1923:U:H2'	25:BA:1924:C:H6	1.70	0.57
29:BF:178:PRO:HB2	29:BF:201:VAL:HG11	1.87	0.57
1:AA:296:U:H2'	1:AA:297:G:C8	2.40	0.57
25:BA:2689:U:H4'	25:BA:2690:C:H6	1.70	0.57
22:AT:58:LYS:O	22:AT:62:LEU:HB2	2.05	0.57
1:AA:1127:G:N2	1:AA:1147:C:H42	2.03	0.57
25:DA:2573:C:H5''	25:DA:2574:G:H5''	1.86	0.57
4:CB:17:PHE:HB2	4:CB:42:ILE:HG22	1.85	0.57
1:CA:936:C:H2'	1:CA:937:A:O4'	2.05	0.57
33:DJ:57:THR:HG23	33:DJ:60:ARG:HH12	1.69	0.57
24:CX:234:THR:HG23	24:CX:235:THR:H	1.69	0.57
24:CX:184:PRO:HG2	24:CX:187:GLU:HG2	1.87	0.57
28:DE:120:TRP:HB2	28:DE:122:PHE:CE1	2.40	0.57
11:AI:10:ARG:HH21	11:AI:107:ARG:HB2	1.70	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AX:223:ARG:HH11	24:AX:223:ARG:HG3	1.70	0.57
45:BY:31:LEU:HD23	45:BY:31:LEU:N	2.20	0.57
25:DA:2590:A:H2'	25:DA:2591:C:C6	2.40	0.57
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.40	0.57
20:AR:74:ARG:HA	20:AR:79:LEU:O	2.05	0.57
25:BA:1548:C:H2'	25:BA:1549:C:C6	2.38	0.57
1:CA:559:A:H4'	1:CA:560:U:C5'	2.34	0.57
36:DP:71:VAL:HB	36:DP:72:PRO:HD3	1.87	0.57
1:AA:678:U:H2'	1:AA:679:C:C6	2.39	0.57
4:CB:69:LEU:HD22	4:CB:159:PRO:HG2	1.86	0.57
34:BN:34:PRO:HB3	34:BN:74:PHE:CE1	2.39	0.57
25:BA:278:A:H61	25:BA:362:U:H3	1.52	0.57
6:AD:76:ARG:HD3	6:AD:207:TYR:CE2	2.40	0.57
25:BA:1731:G:HO2'	25:BA:1732:A:H8	1.52	0.57
25:BA:193:U:H2'	25:BA:194:G:H8	1.70	0.57
2:CZ:50:U:H2'	2:CZ:51:C:C6	2.39	0.57
39:DS:93:LYS:NZ	25:DA:2293:C:H4'	2.19	0.57
14:AL:5:THR:HG23	14:AL:8:GLN:HE21	1.69	0.57
14:CL:37:THR:HG23	14:CL:38:VAL:H	1.69	0.57
20:CR:84:LYS:HA	20:CR:84:LYS:NZ	2.20	0.57
25:BA:655:A:O2'	25:BA:656:G:H5'	2.05	0.57
41:BU:92:ARG:HG2	42:BV:11:GLN:HG3	1.86	0.56
30:BG:86:MET:N	30:BG:87:PRO:HD2	2.19	0.56
16:AN:6:LEU:HD22	16:AN:21:TYR:HH	1.69	0.56
39:DS:98:VAL:HA	39:DS:101:LEU:HD23	1.87	0.56
25:BA:482:A:H1'	25:BA:498:G:N2	2.19	0.56
27:BD:144:ALA:HB3	27:BD:192:THR:HG22	1.87	0.56
25:BA:388:G:H5'	25:BA:389:G:OP2	2.04	0.56
25:BA:2292:C:H2'	25:BA:2293:C:C6	2.40	0.56
46:BZ:167:PRO:O	46:BZ:168:GLU:HB2	2.05	0.56
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.40	0.56
53:D6:15:GLU:OE2	53:D6:18:ARG:HD2	2.05	0.56
46:DZ:166:SER:O	46:DZ:168:GLU:N	2.38	0.56
34:BN:43:GLY:HA2	34:BN:84:ARG:HG3	1.87	0.56
16:AN:12:ARG:HB3	16:AN:14:PRO:HD3	1.85	0.56
25:DA:1669:A:H5"	25:DA:2550:G:OP1	2.05	0.56
46:DZ:102:LEU:HD23	46:DZ:137:ILE:HB	1.86	0.56
25:BA:323:G:H2'	29:BF:169:ASN:OD1	2.05	0.56
25:DA:1493:C:O2	25:DA:1493:C:H2'	2.04	0.56
29:DF:169:ASN:OD1	25:DA:323:G:H2'	2.05	0.56
52:D5:12:SER:HB3	25:DA:2020:A:H5'	1.85	0.56
25:DA:2259:G:H1'	25:DA:2427:C:C2	2.40	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CX:223:ARG:HH11	24:CX:223:ARG:HG3	1.70	0.56
1:CA:892:A:H2'	1:CA:893:C:H6	1.67	0.56
25:BA:848:G:C2	25:BA:933:A:H1'	2.41	0.56
32:DI:68:LEU:O	32:DI:72:LEU:HB2	2.06	0.56
25:BA:651:G:C2'	25:BA:652:U:H5''	2.35	0.56
12:AJ:78:ASN:O	12:AJ:82:ILE:HG12	2.06	0.56
1:CA:678:U:H2'	1:CA:679:C:C6	2.40	0.56
25:BA:1230:C:H2'	25:BA:1231:G:C8	2.40	0.56
40:BT:16:ARG:H	40:BT:79:HIS:CD2	2.23	0.56
46:BZ:51:ALA:HB1	46:BZ:57:ILE:HD11	1.86	0.56
1:CA:231:G:H2'	1:CA:232:G:H8	1.69	0.56
32:BI:58:LEU:HD23	32:BI:61:ARG:HD2	1.87	0.56
19:AQ:86:GLU:O	19:AQ:90:ILE:HG12	2.05	0.56
29:DF:178:PRO:HB2	29:DF:201:VAL:HG11	1.87	0.56
1:CA:296:U:H2'	1:CA:297:G:C8	2.40	0.56
22:CT:58:LYS:O	22:CT:62:LEU:HB2	2.05	0.56
25:BA:2259:G:H1'	25:BA:2427:C:C2	2.39	0.56
25:BA:1075:C:H2'	25:BA:1076:C:H6	1.68	0.56
17:CO:63:ARG:HH21	17:CO:87:ILE:HG21	1.70	0.56
15:AM:3:ARG:HA	15:AM:9:ILE:HG12	1.86	0.56
24:AX:163:ARG:HE	24:AX:163:ARG:HA	1.70	0.56
25:DA:2722:G:H5''	25:DA:2820:A:C2	2.38	0.56
25:DA:848:G:C2	25:DA:933:A:H1'	2.40	0.56
37:DQ:141:GLN:HA	46:DZ:71:VAL:O	2.05	0.56
48:D1:92:LYS:HE2	25:DA:153:C:OP1	2.06	0.56
25:DA:1771:C:H2'	25:DA:1772:G:H8	1.70	0.56
45:BY:49:VAL:O	45:BY:50:ARG:HB2	2.05	0.56
25:BA:2286:A:H4'	25:BA:2287:A:O4'	2.05	0.56
1:AA:559:A:H4'	1:AA:560:U:C5'	2.35	0.56
25:BA:27:G:H1'	25:BA:513:A:N6	2.20	0.56
1:AA:1060:C:H5''	12:AJ:51:ARG:HB3	1.87	0.56
15:AM:87:TYR:HE1	21:AS:76:PRO:HA	1.69	0.56
39:BS:99:LYS:O	39:BS:103:GLU:HB2	2.06	0.56
25:DA:2735:G:H2'	25:DA:2736:G:C8	2.40	0.56
40:BT:118:ARG:HA	40:BT:121:ILE:HB	1.86	0.56
25:DA:2410:G:H2'	25:DA:2411:A:C8	2.39	0.56
4:AB:69:LEU:HD22	4:AB:159:PRO:HG2	1.87	0.56
1:CA:238:G:P	19:CQ:25:ARG:HH22	2.28	0.56
25:BA:657:U:H2'	25:BA:658:C:C6	2.40	0.56
25:BA:1187:G:HO2'	25:BA:1188:U:H6	1.54	0.56
25:DA:1328:G:H2'	25:DA:1330:C:C5	2.40	0.56
36:BP:89:ALA:HB1	36:BP:121:LYS:HD3	1.86	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DG:55:LYS:O	30:DG:59:GLU:HG3	2.06	0.56
33:BJ:66:LEU:O	33:BJ:66:LEU:HD23	2.05	0.56
45:DY:35:TYR:CD2	45:DY:69:ALA:HB3	2.41	0.56
1:CA:1017:G:H2'	1:CA:1018:C:C6	2.41	0.56
25:DA:2212:A:H1'	25:DA:2215:G:C4	2.39	0.56
1:AA:231:G:H2'	1:AA:232:G:H8	1.70	0.56
2:AZ:56:C:H2'	2:AZ:57:A:C8	2.41	0.56
20:AR:84:LYS:NZ	20:AR:84:LYS:HA	2.19	0.56
1:CA:1118:C:H5'	1:CA:1118:C:H6	1.70	0.56
25:BA:1697:G:H3'	25:BA:1698:A:H5''	1.88	0.56
46:BZ:180:VAL:HG23	46:BZ:181:GLU:H	1.69	0.56
24:AX:234:THR:HG23	24:AX:235:THR:H	1.70	0.56
10:AH:120:THR:H	10:AH:123:GLU:HB2	1.71	0.56
25:BA:2212:A:H1'	25:BA:2215:G:C4	2.39	0.56
1:AA:600:C:OP1	10:AH:97:VAL:HG12	2.05	0.56
25:BA:1505:C:H2'	25:BA:1506:C:C6	2.41	0.56
22:CT:40:ALA:HB2	22:CT:55:ILE:HG22	1.87	0.56
25:BA:1126:A:H4'	25:BA:1127:A:H5''	1.87	0.56
25:BA:428:A:H8	25:BA:428:A:O5'	1.88	0.56
19:CQ:86:GLU:O	19:CQ:90:ILE:HG12	2.05	0.56
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.05	0.56
25:BA:1788:C:H2'	25:BA:1789:A:H8	1.69	0.56
25:DA:1384:A:N3	25:DA:1405:U:H1'	2.20	0.56
12:CJ:49:VAL:HG22	12:CJ:50:ILE:N	2.17	0.56
12:AJ:49:VAL:O	12:AJ:60:ARG:HB2	2.05	0.56
25:BA:1993:U:H2'	25:BA:1994:C:H6	1.70	0.56
31:BH:144:VAL:O	31:BH:148:ILE:HG12	2.05	0.56
4:AB:178:ARG:HG3	10:AH:72:PRO:HA	1.88	0.56
39:DS:21:THR:HG23	25:DA:2379:G:H5'	1.88	0.56
25:BA:1771:C:H2'	25:BA:1772:G:H8	1.70	0.56
25:DA:2645:G:H3'	25:DA:2646:C:H5'	1.87	0.56
15:CM:14:ARG:NH1	15:CM:42:ALA:HA	2.20	0.56
45:BY:13:VAL:HG11	45:BY:72:VAL:HB	1.87	0.56
45:BY:8:LYS:N	45:BY:8:LYS:HZ2	2.02	0.56
12:AJ:82:ILE:O	12:AJ:86:MET:HB2	2.05	0.56
36:DP:135:LEU:HD13	36:DP:135:LEU:O	2.05	0.56
40:BT:16:ARG:H	40:BT:79:HIS:HD2	1.52	0.56
1:CA:435:C:H2'	1:CA:436:C:H6	1.71	0.56
8:AF:15:ASP:OD1	8:AF:17:SER:HB2	2.05	0.56
37:BQ:124:LYS:HA	37:BQ:124:LYS:HE2	1.87	0.56
1:AA:512:U:H2'	1:AA:513:C:H6	1.71	0.56
25:DA:2789:C:H1'	25:DA:2892:A:C2	2.41	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DN:65:TRP:CD1	41:DU:63:VAL:HG11	2.41	0.56
37:DQ:14:ARG:NH1	37:DQ:14:ARG:CG	2.65	0.56
25:BA:2722:G:H2'	25:BA:2723:C:C6	2.41	0.56
39:DS:30:ARG:HB3	39:DS:35:ILE:HD13	1.85	0.56
36:DP:23:PRO:HD2	36:DP:33:ARG:NH2	2.20	0.56
21:CS:31:ILE:HG23	21:CS:49:ILE:HA	1.87	0.56
25:BA:680:G:H2'	25:BA:681:G:C8	2.40	0.56
41:BU:58:ARG:O	41:BU:62:ILE:HG12	2.06	0.56
4:AB:154:LEU:HD13	4:AB:155:LEU:H	1.71	0.56
20:CR:74:ARG:HA	20:CR:79:LEU:O	2.05	0.56
6:CD:13:ARG:NH2	6:CD:40:PRO:HA	2.20	0.56
6:AD:13:ARG:NH2	6:AD:40:PRO:HA	2.20	0.56
24:CX:5:LEU:HD13	24:CX:52:ARG:HE	1.71	0.56
1:CA:392:G:H2'	1:CA:393:A:C8	2.40	0.56
25:BA:74:A:H4'	25:BA:75:G:O5'	2.05	0.56
25:DA:2599:G:H2'	25:DA:2600:A:H8	1.70	0.56
4:AB:17:PHE:HB2	4:AB:42:ILE:CG2	2.36	0.56
1:AA:255:G:H2'	1:AA:256:U:C6	2.40	0.56
27:DD:118:VAL:HG22	27:DD:119:ALA:N	2.21	0.56
34:BN:58:ARG:NH2	34:BN:131:PRO:HG3	2.21	0.56
34:BN:65:TRP:CD1	41:BU:63:VAL:HG11	2.41	0.56
25:DA:2292:C:H2'	25:DA:2293:C:C6	2.41	0.56
29:BF:110:LEU:HD11	29:BF:181:LEU:HB3	1.86	0.56
1:CA:256:U:H2'	1:CA:257:G:C8	2.41	0.56
25:DA:1608:A:H1'	25:DA:1610:A:OP2	2.05	0.56
8:CF:43:LEU:HB3	8:CF:60:PHE:HB2	1.87	0.56
33:BJ:3:ASN:CG	33:BJ:4:LYS:H	2.09	0.56
25:BA:2410:G:H2'	25:BA:2411:A:C8	2.40	0.56
25:DA:1731:G:HO2'	25:DA:1732:A:H8	1.52	0.56
37:DQ:75:THR:HA	37:DQ:88:GLY:HA3	1.88	0.56
12:AJ:96:ILE:H	12:AJ:96:ILE:HD13	1.69	0.56
1:AA:435:C:H2'	1:AA:436:C:H6	1.71	0.56
25:DA:2893:G:H4'	25:DA:2894:G:H8	1.69	0.56
36:DP:57:THR:C	36:DP:59:LEU:H	2.09	0.56
36:BP:61:ARG:H	36:BP:61:ARG:HD2	1.70	0.56
25:BA:2415:G:H4'	36:BP:66:GLY:HA2	1.87	0.56
25:DA:2478:A:H3'	25:DA:2479:G:C8	2.36	0.56
29:BF:158:THR:HG21	29:BF:163:VAL:HB	1.88	0.56
25:BA:2061:G:H5''	25:BA:2503:A:C2	2.41	0.56
27:DD:157:ARG:NH2	25:DA:1817:G:H3'	2.21	0.56
40:BT:55:ASN:H	40:BT:59:THR:HB	1.69	0.56
25:BA:270(T):G:H5'	25:BA:270(T):G:H8	1.69	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:651:G:C2'	25:DA:652:U:H5''	2.34	0.56
40:DT:118:ARG:HA	40:DT:121:ILE:HB	1.87	0.56
9:AG:115:ARG:O	9:AG:118:VAL:HG22	2.06	0.56
25:DA:2039:C:H2'	25:DA:2040:C:H6	1.71	0.56
2:CZ:56:C:H2'	2:CZ:57:A:C8	2.41	0.56
4:CB:28:PHE:HD2	4:CB:194:PRO:HD3	1.71	0.56
1:CA:7:G:H21	7:CE:121:LYS:CE	2.19	0.56
10:CH:120:THR:H	10:CH:123:GLU:HB2	1.70	0.56
25:BA:2893:G:H4'	25:BA:2894:G:H8	1.69	0.56
1:AA:7:G:H21	7:AE:121:LYS:CE	2.19	0.56
27:DD:231:HIS:CG	27:DD:232:PRO:HD2	2.41	0.56
48:D1:19:GLN:HG2	48:D1:41:ARG:HA	1.88	0.56
36:BP:16:ARG:NH1	36:BP:18:ARG:HG3	2.21	0.56
4:CB:154:LEU:HD13	4:CB:155:LEU:H	1.71	0.56
20:CR:74:ARG:HH21	20:CR:81:PHE:HA	1.71	0.56
15:CM:87:TYR:HE1	21:CS:76:PRO:HA	1.70	0.56
32:BI:113:ARG:HB2	32:BI:130:TYR:CZ	2.40	0.56
25:BA:2150:U:H2'	25:BA:2151:G:H8	1.70	0.56
25:BA:2822:G:H2'	25:BA:2823:A:H5''	1.88	0.56
36:DP:114:ILE:O	36:DP:114:ILE:HD12	2.06	0.56
25:DA:74:A:H4'	25:DA:75:G:O5'	2.05	0.56
13:AK:57:THR:HG22	13:AK:59:TYR:H	1.71	0.56
25:BA:2410:G:H2'	25:BA:2411:A:H8	1.71	0.56
25:DA:1505:C:H2'	25:DA:1506:C:C6	2.41	0.56
25:BA:1270:C:H5''	25:BA:1271:G:O5'	2.06	0.56
25:DA:1014:U:H2'	25:DA:1015:G:C8	2.41	0.56
47:B0:27:GLU:HB2	47:B0:69:PHE:HD1	1.71	0.56
1:AA:1017:G:H2'	1:AA:1018:C:C6	2.40	0.56
31:BH:125:VAL:HG22	31:BH:131:VAL:HG22	1.88	0.56
25:BA:2194:G:H2'	25:BA:2195:C:H6	1.71	0.56
28:BE:51:PHE:HB3	28:BE:52:LEU:HD12	1.86	0.56
25:BA:251:A:H5''	36:BP:51:PHE:HE1	1.71	0.56
41:BU:62:ILE:HG23	41:BU:76:TYR:CE1	2.41	0.56
27:BD:94:LEU:HD11	27:BD:96:HIS:CE1	2.41	0.56
15:AM:14:ARG:NH1	15:AM:42:ALA:HA	2.20	0.56
29:DF:48:THR:HG21	25:DA:442:G:H1'	1.88	0.56
25:DA:401:A:H2'	25:DA:402:A:H8	1.69	0.56
25:BA:2406:U:N3	36:BP:72:PRO:HB2	2.20	0.56
25:BA:2599:G:H2'	25:BA:2600:A:H8	1.71	0.56
48:B1:82:LEU:O	48:B1:83:GLU:HB2	2.05	0.56
25:BA:1328:G:H2'	25:BA:1330:C:C5	2.40	0.56
27:DD:118:VAL:HG22	27:DD:119:ALA:H	1.69	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:642:A:H2'	1:CA:643:C:C6	2.41	0.56
31:DH:58:GLU:O	31:DH:62:LYS:HG3	2.06	0.56
15:CM:23:TYR:CE1	15:CM:71:ARG:HB2	2.41	0.56
25:DA:193:U:H2'	25:DA:194:G:H8	1.70	0.56
27:BD:5:LYS:N	27:BD:5:LYS:HD2	2.21	0.56
37:DQ:124:LYS:HE2	37:DQ:124:LYS:HA	1.88	0.56
16:CN:24:CYS:HB3	16:CN:29:ARG:H	1.70	0.56
4:CB:131:PRO:O	4:CB:135:GLN:HG3	2.05	0.56
11:CI:10:ARG:HH21	11:CI:107:ARG:HB2	1.70	0.56
46:BZ:10:ARG:HH21	46:BZ:26:GLY:H	1.53	0.56
1:CA:1323:G:H4'	1:CA:136(B):C:N3	2.20	0.56
8:CF:15:ASP:OD1	8:CF:17:SER:HB2	2.06	0.56
30:BG:115:ARG:NH2	30:BG:136:ARG:H	2.04	0.56
26:BB:35:U:H2'	26:BB:36:C:C6	2.40	0.56
25:BA:721:C:H2'	25:BA:722:A:C8	2.41	0.56
36:BP:135:LEU:HD13	36:BP:135:LEU:O	2.06	0.56
40:DT:16:ARG:H	40:DT:79:HIS:CD2	2.23	0.56
25:BA:216:A:C8	25:BA:432:A:C6	2.94	0.56
25:BA:2379:G:H5'	39:BS:21:THR:HG23	1.88	0.56
48:D1:67:ILE:N	48:D1:68:PRO:HD2	2.20	0.56
43:BW:78:GLU:OE2	43:BW:99:ARG:HD3	2.06	0.56
25:DA:2637:U:C4	25:DA:2638:G:C6	2.94	0.56
24:AX:114:GLY:O	25:BA:1913:A:C2	2.59	0.56
21:AS:69:HIS:HB3	21:AS:73:GLU:HG3	1.86	0.56
1:CA:366:C:O2'	1:CA:394:G:N2	2.38	0.56
28:BE:30:PRO:HD3	28:BE:180:ASN:ND2	2.20	0.56
6:AD:200:GLU:O	6:AD:204:ILE:HG13	2.06	0.56
37:BQ:83:MET:O	37:BQ:83:MET:HG3	2.06	0.56
25:BA:2359:C:H2'	25:BA:2360:A:O4'	2.06	0.56
1:AA:22:G:H2'	1:AA:23:C:C6	2.41	0.56
5:CC:50:ALA:HB2	5:CC:75:VAL:HB	1.88	0.56
34:DN:40:ASP:CG	34:DN:41:ALA:H	2.08	0.56
18:AP:20:VAL:HG23	18:AP:34:GLU:O	2.06	0.56
25:DA:2722:G:H2'	25:DA:2723:C:C6	2.41	0.56
45:DY:49:VAL:O	45:DY:50:ARG:HB2	2.05	0.56
25:DA:270(T):G:H8	25:DA:270(T):G:H5'	1.70	0.56
49:B2:41:ILE:HD11	49:B2:44:LEU:HD12	1.87	0.56
27:DD:183:ARG:HB2	27:DD:270:ILE:HG22	1.87	0.56
25:BA:960:A:H61	37:BQ:82:ARG:HH21	1.54	0.56
25:BA:1802:A:H2'	25:BA:1803:A:C8	2.40	0.56
34:DN:43:GLY:HA2	34:DN:84:ARG:HG3	1.86	0.56
6:CD:76:ARG:HD3	6:CD:207:TYR:CE2	2.41	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2359:C:H2'	25:DA:2360:A:O4'	2.06	0.56
24:AX:325:GLU:HG3	24:AX:326:GLY:H	1.70	0.56
1:AA:397:A:H5'	1:AA:398:C:OP1	2.05	0.56
1:CA:1216:G:H5''	16:CN:5:ALA:HB2	1.88	0.56
28:DE:98:PRO:HG3	28:DE:175:VAL:HG12	1.88	0.56
40:DT:20:PRO:HD2	40:DT:86:ILE:HG23	1.88	0.56
38:DR:3:HIS:CE1	25:DA:1654:A:OP2	2.59	0.56
25:DA:655:A:O2'	25:DA:656:G:H5'	2.06	0.56
14:AL:123:LYS:HG3	14:AL:124:PRO:HD2	1.88	0.56
6:CD:30:LYS:C	6:CD:32:ALA:H	2.09	0.56
48:B1:67:ILE:N	48:B1:68:PRO:HD2	2.21	0.56
1:CA:600:C:OP1	10:CH:97:VAL:HG12	2.05	0.56
25:DA:1126:A:H4'	25:DA:1127:A:H5''	1.87	0.56
25:DA:680:G:H2'	25:DA:681:G:C8	2.41	0.56
1:CA:522:C:H42	1:CA:528:C:H42	1.54	0.55
17:AO:63:ARG:HH21	17:AO:87:ILE:HG21	1.71	0.55
25:BA:1434:A:H2'	25:BA:1435:G:C8	2.41	0.55
25:BA:1478:G:O2'	25:BA:1558:A:H2	1.89	0.55
4:CB:51:LEU:HD23	4:CB:201:ILE:HD12	1.87	0.55
32:DI:77:LEU:HG	32:DI:101:LEU:HD13	1.87	0.55
1:AA:1504:G:O2'	1:AA:1505:G:OP2	2.24	0.55
13:CK:52:GLY:H	13:CK:55:LYS:HZ1	1.53	0.55
1:CA:719:C:C2	20:CR:50:ILE:HG12	2.40	0.55
25:BA:1183:G:H2'	25:BA:1184:G:C8	2.37	0.55
30:DG:115:ARG:NH2	30:DG:136:ARG:H	2.04	0.55
25:BA:2134:A:H2	25:BA:2159:G:HO2'	1.54	0.55
1:AA:392:G:H2'	1:AA:393:A:C8	2.41	0.55
25:DA:782:A:H5'	25:DA:783:A:C2	2.41	0.55
4:AB:69:LEU:HB3	4:AB:162:ILE:HG22	1.88	0.55
25:BA:2113:U:H2'	25:BA:2114:A:H8	1.71	0.55
25:DA:1697:G:H3'	25:DA:1698:A:H5''	1.88	0.55
43:BW:46:PHE:O	43:BW:50:VAL:HG12	2.06	0.55
25:BA:2789:C:H1'	25:BA:2892:A:C2	2.41	0.55
21:CS:50:ALA:HB1	21:CS:57:HIS:HB3	1.88	0.55
5:AC:50:ALA:HB2	5:AC:75:VAL:HB	1.88	0.55
40:BT:20:PRO:HD2	40:BT:86:ILE:HG23	1.87	0.55
25:DA:2089:U:H2'	25:DA:2090:G:C8	2.41	0.55
25:BA:2089:U:H2'	25:BA:2090:G:C8	2.41	0.55
26:DB:64:C:H2'	26:DB:65:C:C6	2.41	0.55
27:DD:246:PRO:HD3	25:DA:1902:C:H5'	1.88	0.55
48:D1:11:ARG:HH11	48:D1:61:ARG:N	2.02	0.55
6:AD:108:LEU:HD23	6:AD:110:PHE:CE2	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DG:86:MET:N	30:DG:87:PRO:CD	2.69	0.55
15:CM:3:ARG:HA	15:CM:9:ILE:HG12	1.86	0.55
36:DP:51:PHE:HE1	25:DA:251:A:H5''	1.72	0.55
20:AR:74:ARG:HH21	20:AR:81:PHE:HA	1.72	0.55
1:CA:1498:U:H1'	1:CA:1499:A:N7	2.21	0.55
29:DF:124:LEU:HB3	29:DF:193:VAL:HG22	1.88	0.55
31:DH:143:GLN:NE2	25:DA:2744:G:H21	2.04	0.55
25:DA:216:A:C8	25:DA:432:A:C6	2.94	0.55
10:CH:66:GLY:HA3	10:CH:77:GLU:HB3	1.88	0.55
25:BA:1270:C:H5''	25:BA:1271:G:C5'	2.37	0.55
25:DA:657:U:H2'	25:DA:658:C:C6	2.42	0.55
25:DA:528:A:C2	25:DA:2042:A:H2'	2.42	0.55
25:BA:859:G:N2	25:BA:916:G:H2'	2.22	0.55
6:CD:94:LEU:HA	6:CD:97:LEU:HD12	1.87	0.55
4:AB:58:ILE:HG22	4:AB:221:LEU:HD12	1.87	0.55
37:BQ:71:ASP:O	37:BQ:73:PRO:HD3	2.06	0.55
52:D5:9:LYS:HE2	25:DA:2018:G:OP1	2.05	0.55
8:AF:23:LYS:O	8:AF:27:GLN:HG2	2.06	0.55
37:BQ:138:ASP:O	37:BQ:139:GLU:HB2	2.07	0.55
32:DI:58:LEU:HD23	32:DI:61:ARG:HD2	1.86	0.55
17:AO:44:LYS:O	17:AO:47:LYS:HE3	2.06	0.55
25:BA:332:A:C6	25:BA:335:C:C2	2.95	0.55
1:AA:902:G:H2'	1:AA:903:G:H8	1.72	0.55
42:BV:22:VAL:CG1	42:BV:23:GLU:H	2.20	0.55
30:DG:83:ARG:HG3	30:DG:84:LYS:N	2.15	0.55
25:DA:682:G:H2'	25:DA:683:C:C6	2.41	0.55
25:DA:1478:G:O2'	25:DA:1558:A:H2	1.90	0.55
39:DS:18:ILE:HA	39:DS:21:THR:OG1	2.06	0.55
20:CR:66:LEU:O	20:CR:70:ILE:HG12	2.06	0.55
40:DT:55:ASN:H	40:DT:59:THR:HB	1.70	0.55
15:CM:91:ARG:HH11	21:CS:81:ARG:HH22	1.54	0.55
25:DA:2822:G:H2'	25:DA:2823:A:H5''	1.87	0.55
24:CX:307:PHE:H	24:CX:308:PRO:HD2	1.71	0.55
36:BP:71:VAL:HB	36:BP:72:PRO:HD3	1.88	0.55
27:BD:183:ARG:HB2	27:BD:270:ILE:HG22	1.88	0.55
29:DF:180:GLY:HA2	25:DA:616:A:N3	2.21	0.55
27:BD:118:VAL:HG22	27:BD:119:ALA:N	2.20	0.55
25:BA:116:C:H2'	25:BA:117:G:C8	2.42	0.55
37:DQ:82:ARG:HH21	25:DA:960:A:H61	1.54	0.55
13:AK:99:GLN:HE22	13:AK:105:VAL:HG21	1.72	0.55
25:DA:228:A:H5'	25:DA:229:A:OP2	2.06	0.55
41:DU:66:ASN:O	41:DU:70:ARG:HB2	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BH:58:GLU:O	31:BH:62:LYS:HG3	2.06	0.55
1:AA:366:C:O2'	1:AA:394:G:N2	2.39	0.55
25:DA:2194:G:H2'	25:DA:2195:C:H6	1.71	0.55
33:DJ:66:LEU:HD23	33:DJ:66:LEU:O	2.06	0.55
24:CX:122:LEU:O	24:CX:125:ARG:HG2	2.06	0.55
25:DA:1270:C:H5''	25:DA:1271:G:O5'	2.07	0.55
4:AB:131:PRO:O	4:AB:135:GLN:HG3	2.06	0.55
8:CF:23:LYS:O	8:CF:27:GLN:HG2	2.06	0.55
25:BA:153:C:OP1	48:B1:92:LYS:HE2	2.06	0.55
45:DY:13:VAL:HG11	45:DY:72:VAL:HB	1.89	0.55
25:DA:1190:G:H8	25:DA:1190:G:H5'	1.70	0.55
25:DA:2033:A:H4'	25:DA:2034:U:OP1	2.06	0.55
40:DT:25:GLY:H	40:DT:49:VAL:HG13	1.71	0.55
32:BI:77:LEU:HG	32:BI:101:LEU:HD13	1.88	0.55
29:DF:158:THR:HG21	29:DF:163:VAL:HB	1.88	0.55
20:AR:66:LEU:O	20:AR:70:ILE:HG12	2.06	0.55
25:BA:2285:C:H5	53:B6:27:LYS:HZ1	1.52	0.55
25:BA:401:A:H2'	25:BA:402:A:H8	1.69	0.55
25:BA:616:A:N3	29:BF:180:GLY:HA2	2.21	0.55
28:DE:171:GLU:HG2	28:DE:185:LYS:HG2	1.88	0.55
4:CB:69:LEU:HB3	4:CB:162:ILE:HG22	1.88	0.55
25:BA:1448:G:H21	25:BA:1529:A:H2	1.54	0.55
25:DA:2784:C:H2'	25:DA:2785:C:C6	2.42	0.55
25:DA:2185:C:H2'	25:DA:2186:G:C8	2.41	0.55
25:DA:332:A:C6	25:DA:335:C:C2	2.94	0.55
25:BA:2301:C:H2'	25:BA:2302:G:H8	1.71	0.55
25:DA:2282:G:H5''	25:DA:2283:C:O4'	2.07	0.55
25:BA:380:U:H1'	48:B1:20:ARG:NH1	2.21	0.55
25:BA:2039:C:H2'	25:BA:2040:C:H6	1.72	0.55
27:BD:133:LEU:HD13	27:BD:173:VAL:HG13	1.87	0.55
47:B0:53:MET:HA	47:B0:58:THR:O	2.06	0.55
46:BZ:102:LEU:HD23	46:BZ:137:ILE:HB	1.87	0.55
24:AX:184:PRO:HG2	24:AX:187:GLU:HG2	1.88	0.55
25:BA:1427:A:H4'	25:BA:1428:C:O5'	2.06	0.55
9:AG:100:ALA:O	9:AG:104:LEU:HD23	2.06	0.55
28:DE:119:ARG:HD2	28:DE:120:TRP:NE1	2.21	0.55
25:BA:1841:U:H2'	25:BA:1842:G:H8	1.71	0.55
25:BA:2722:G:H5''	25:BA:2820:A:C2	2.37	0.55
36:BP:23:PRO:HD2	36:BP:33:ARG:NH2	2.20	0.55
36:DP:39:LYS:CD	36:DP:40:SER:H	2.18	0.55
25:DA:1434:A:H2'	25:DA:1435:G:H8	1.71	0.55
21:CS:18:LYS:O	21:CS:22:LEU:HD23	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1201:C:H2'	25:DA:1202:C:C6	2.42	0.55
9:CG:132:GLY:H	9:CG:135:VAL:HB	1.71	0.55
1:AA:1112:C:O2	5:AC:179:ARG:HG2	2.06	0.55
1:CA:1323:G:H4'	1:CA:136(B):C:C2	2.42	0.55
25:BA:2645:G:H3'	25:BA:2646:C:H5'	1.87	0.55
53:B6:15:GLU:OE2	53:B6:18:ARG:HD2	2.06	0.55
36:DP:18:ARG:CZ	36:DP:18:ARG:HB3	2.36	0.55
12:CJ:78:ASN:O	12:CJ:82:ILE:HG12	2.07	0.55
9:AG:38:LEU:O	9:AG:42:ILE:HG13	2.07	0.55
35:BO:17:ARG:HB2	35:BO:45:GLU:HG3	1.89	0.55
29:BF:28:ILE:O	29:BF:30:PRO:HD3	2.07	0.55
1:AA:1294:G:H2'	1:AA:1295:G:C8	2.42	0.55
1:CA:358:U:H2'	1:CA:359:U:C6	2.42	0.55
37:BQ:75:THR:HA	37:BQ:88:GLY:HA3	1.88	0.55
35:DO:28:SER:HA	25:DA:2563:U:H4'	1.89	0.55
43:DW:78:GLU:OE2	43:DW:99:ARG:HD3	2.07	0.55
1:AA:1216:G:H5''	16:AN:5:ALA:HB2	1.88	0.55
37:DQ:71:ASP:O	37:DQ:73:PRO:HD3	2.06	0.55
53:B6:36:LEU:HD23	53:B6:36:LEU:H	1.71	0.55
25:BA:2637:U:C4	25:BA:2638:G:C6	2.95	0.55
2:AY:50:U:H2'	2:AY:51:C:C6	2.42	0.55
28:BE:119:ARG:HD2	28:BE:120:TRP:CD1	2.41	0.55
25:BA:996:A:H2'	25:BA:997:G:H8	1.71	0.55
44:BX:37:THR:O	44:BX:40:LYS:HB3	2.06	0.55
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.41	0.55
25:DA:1578:U:C2'	25:DA:1579:A:H5''	2.32	0.55
25:DA:1074:G:O2'	25:DA:1075:C:H5'	2.07	0.55
24:CX:222:MET:C	24:CX:236:ASP:HB2	2.27	0.55
31:DH:144:VAL:O	31:DH:148:ILE:HG12	2.06	0.55
27:DD:238:GLY:O	27:DD:239:ARG:C	2.45	0.55
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.40	0.55
1:CA:1355:G:H2'	1:CA:1356:G:H8	1.71	0.55
1:CA:1356:G:H2'	1:CA:1357:A:H8	1.72	0.55
32:DI:114:LEU:HD21	32:DI:128:LEU:HD13	1.88	0.55
41:DU:58:ARG:O	41:DU:62:ILE:HG12	2.07	0.55
26:DB:8:U:H2'	26:DB:9:G:H8	1.72	0.55
25:BA:1786:A:H3'	25:BA:1787:A:C8	2.39	0.55
36:DP:16:ARG:NH1	36:DP:18:ARG:HG3	2.22	0.55
34:DN:36:TRP:O	34:DN:158:PRO:HG2	2.06	0.55
1:AA:716:A:N3	13:AK:118:GLY:HA2	2.22	0.55
25:DA:116:C:H2'	25:DA:117:G:C8	2.42	0.55
1:AA:677:U:H2'	1:AA:678:U:H6	1.71	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:167:PRO:O	46:DZ:168:GLU:HB2	2.05	0.55
1:CA:512:U:H2'	1:CA:513:C:H6	1.71	0.55
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.07	0.55
25:BA:1090:U:H2'	25:BA:1091:G:C8	2.42	0.55
28:DE:104:VAL:HG22	28:DE:198:VAL:HG22	1.89	0.55
15:AM:23:TYR:CE1	15:AM:71:ARG:HB2	2.41	0.55
1:CA:1294:G:H2'	1:CA:1295:G:C8	2.42	0.55
10:AH:19:VAL:HG23	10:AH:21:LYS:HG2	1.88	0.55
25:DA:1544:C:H3'	25:DA:1545:A:H5''	1.88	0.55
25:BA:1544:C:H3'	25:BA:1545:A:H5''	1.88	0.55
25:BA:676:A:H8	25:BA:2069:G:H21	1.54	0.55
25:BA:2777:G:C5'	25:BA:2778:A:H5'	2.34	0.55
36:DP:61:ARG:HD2	36:DP:61:ARG:H	1.71	0.55
46:DZ:70:LEU:HD21	46:DZ:91:LEU:HG	1.87	0.55
1:AA:736:C:H2'	1:AA:737:A:H8	1.72	0.55
25:BA:558:G:H5'	34:BN:135:LEU:HD13	1.87	0.55
15:AM:91:ARG:HH11	21:AS:81:ARG:HH22	1.53	0.55
19:AQ:17:LYS:HE3	19:AQ:47:PRO:HA	1.88	0.55
25:BA:2735:G:H2'	25:BA:2736:G:C8	2.40	0.55
34:DN:32:VAL:HG11	34:DN:62:ARG:NH1	2.21	0.55
1:AA:121:C:N4	1:AA:237:C:H41	2.04	0.55
1:AA:464:G:O6	1:AA:466:G:H5''	2.06	0.55
45:BY:35:TYR:CD2	45:BY:69:ALA:HB3	2.42	0.55
1:AA:1472:U:H2'	1:AA:1473:A:C8	2.42	0.55
21:AS:50:ALA:HB1	21:AS:57:HIS:HB3	1.88	0.55
25:BA:528:A:C2	25:BA:2042:A:H2'	2.42	0.55
1:CA:464:G:O6	1:CA:466:G:H5''	2.06	0.55
1:CA:1127:G:N2	1:CA:1147:C:H42	2.04	0.55
47:D0:27:GLU:HB2	47:D0:69:PHE:HD1	1.71	0.55
31:BH:15:VAL:HG11	31:BH:76:VAL:HG13	1.87	0.55
25:DA:2301:C:H2'	25:DA:2302:G:H8	1.70	0.55
6:AD:63:LYS:O	6:AD:67:ILE:HG13	2.06	0.55
42:DV:99:ILE:HD13	42:DV:99:ILE:H	1.71	0.55
31:DH:125:VAL:HG22	31:DH:131:VAL:HG22	1.88	0.55
25:BA:228:A:H5'	25:BA:229:A:OP2	2.07	0.55
1:AA:262:A:C6	1:AA:263:A:C6	2.94	0.55
33:DJ:3:ASN:CG	33:DJ:4:LYS:H	2.09	0.55
25:BA:1074:G:O2'	25:BA:1075:C:H5'	2.07	0.55
25:DA:1190:G:H8	25:DA:1190:G:C5'	2.20	0.55
49:B2:63:VAL:HG13	49:B2:67:LYS:HE2	1.89	0.55
28:DE:67:PHE:CE2	28:DE:75:VAL:HG22	2.42	0.55
46:BZ:10:ARG:HB3	46:BZ:36:LYS:HB3	1.89	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:939:G:H5''	9:AG:102:ARG:NH1	2.21	0.55
1:AA:1323:G:H4'	1:AA:136(B):C:C2	2.42	0.55
41:BU:62:ILE:HD13	41:BU:65:ILE:HD12	1.89	0.55
13:CK:39:PRO:O	13:CK:40:ILE:HD13	2.07	0.55
55:D8:18:ALA:HB3	25:DA:651:G:H5''	1.88	0.55
36:DP:72:PRO:HB2	25:DA:2406:U:N3	2.21	0.55
25:DA:388:G:H5'	25:DA:389:G:OP2	2.06	0.55
2:CZ:39:C:H2'	2:CZ:40:C:H6	1.72	0.55
25:BA:2744:G:H21	31:BH:143:GLN:NE2	2.05	0.55
1:CA:1281:U:H5'	1:CA:1282:C:H5	1.72	0.55
25:DA:1328:G:H8	25:DA:1328:G:O5'	1.90	0.55
34:DN:58:ARG:HH21	34:DN:131:PRO:HG3	1.72	0.55
1:CA:255:G:H2'	1:CA:256:U:C6	2.42	0.55
35:BO:79:PHE:HD2	40:BT:72:VAL:HG22	1.71	0.55
25:DA:536:A:H2'	25:DA:537:C:C6	2.42	0.55
50:D3:29:ARG:HE	50:D3:29:ARG:HA	1.72	0.55
29:BF:9:ILE:H	29:BF:9:ILE:HD13	1.72	0.55
13:CK:119:CYS:O	13:CK:121:PRO:HD3	2.07	0.55
1:AA:642:A:H2'	1:AA:643:C:C6	2.42	0.55
4:CB:58:ILE:HG22	4:CB:221:LEU:HD12	1.88	0.55
11:AI:16:ARG:O	11:AI:63:ILE:HG23	2.07	0.55
25:DA:996:A:H2'	25:DA:997:G:H8	1.71	0.55
25:BA:2478:A:H3'	25:BA:2479:G:C8	2.34	0.55
5:CC:35:GLU:O	5:CC:39:ILE:HG13	2.07	0.55
36:DP:21:ARG:O	36:DP:23:PRO:HD3	2.07	0.55
4:AB:205:ASP:O	4:AB:211:ILE:HD11	2.07	0.55
1:CA:939:G:H5''	9:CG:102:ARG:NH1	2.22	0.55
27:DD:94:LEU:HD11	27:DD:96:HIS:CE1	2.41	0.55
4:CB:178:ARG:HD2	10:CH:71:GLY:O	2.06	0.55
37:BQ:38:GLU:O	37:BQ:127:ILE:HD13	2.07	0.55
25:BA:1858:G:HO2'	25:BA:1859:A:H8	1.55	0.55
53:B6:30:THR:HG22	53:B6:31:PRO:HD2	1.89	0.55
25:BA:1568:G:H4'	27:BD:59:LYS:HB3	1.88	0.55
2:AZ:39:C:H2'	2:AZ:40:C:H6	1.72	0.55
25:DA:534:U:H3	25:DA:559:G:H1	1.53	0.55
34:BN:32:VAL:HG11	34:BN:62:ARG:NH1	2.21	0.55
25:DA:2515:C:H2'	25:DA:2516:G:H8	1.72	0.55
39:DS:99:LYS:O	39:DS:103:GLU:HB2	2.07	0.55
1:CA:1097:C:H2'	1:CA:1098:C:H6	1.72	0.55
1:CA:512:U:H2'	1:CA:513:C:C6	2.42	0.55
26:DB:44:G:H1'	26:DB:47:C:H42	1.72	0.55
7:AE:25:ARG:HD2	7:AE:25:ARG:H	1.72	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CH:87:SER:HA	10:CH:93:VAL:HG23	1.89	0.55
25:DA:2037:G:H2'	25:DA:2038:G:C8	2.42	0.55
6:AD:94:LEU:HA	6:AD:97:LEU:HD12	1.89	0.55
25:BA:321:G:C2	25:BA:341:G:H4'	2.42	0.55
48:B1:46:LEU:HD11	48:B1:61:ARG:HG3	1.89	0.55
30:BG:86:MET:N	30:BG:87:PRO:CD	2.70	0.55
1:CA:1220:G:H2'	1:CA:1221:G:H8	1.72	0.55
25:BA:140:A:C6	25:BA:141(A):A:N6	2.75	0.55
24:AX:223:ARG:HD3	24:AX:236:ASP:HB3	1.89	0.55
25:BA:682:G:H2'	25:BA:683:C:C6	2.42	0.55
25:DA:221:A:H8	25:DA:221:A:H5''	1.72	0.55
54:D7:5:TRP:HE1	54:D7:7:PRO:HG3	1.69	0.55
25:BA:270(G):U:H3	25:BA:270(U):G:H1	1.55	0.55
28:DE:141:ILE:HD11	25:DA:2052:G:C8	2.42	0.55
1:CA:1060:C:H5''	12:CJ:51:ARG:HB3	1.88	0.55
29:BF:124:LEU:HB3	29:BF:193:VAL:HG22	1.88	0.55
25:DA:970:C:H2'	25:DA:971:C:C6	2.42	0.55
1:AA:452:A:H2'	1:AA:453:A:H8	1.72	0.55
28:DE:168:MET:O	25:DA:2730:C:H4'	2.07	0.55
25:DA:539:G:H2'	25:DA:540:G:C8	2.42	0.55
25:BA:539:G:H2'	25:BA:540:G:C8	2.43	0.55
13:CK:99:GLN:HE22	13:CK:105:VAL:HG21	1.72	0.55
4:AB:28:PHE:HD2	4:AB:194:PRO:HD3	1.71	0.55
25:DA:1977:A:H2'	25:DA:1978:A:O4'	2.07	0.55
2:CY:50:U:H2'	2:CY:51:C:C6	2.42	0.55
14:CL:5:THR:HG23	14:CL:8:GLN:HE21	1.71	0.55
25:DA:859:G:N2	25:DA:916:G:H2'	2.21	0.55
13:AK:119:CYS:O	13:AK:121:PRO:HD3	2.07	0.55
29:DF:14:PRO:HG3	29:DF:128:ALA:HB2	1.88	0.55
48:D1:45:ASN:HD22	48:D1:46:LEU:N	2.05	0.54
25:BA:1977:A:H2'	25:BA:1978:A:O4'	2.08	0.54
39:BS:98:VAL:HA	39:BS:101:LEU:HD23	1.87	0.54
36:BP:21:ARG:O	36:BP:23:PRO:HD3	2.07	0.54
25:DA:941:A:H2'	25:DA:942:G:C8	2.42	0.54
21:AS:18:LYS:O	21:AS:22:LEU:HD23	2.06	0.54
1:AA:1323:G:H4'	1:AA:136(B):C:N3	2.22	0.54
13:AK:39:PRO:O	13:AK:40:ILE:HD13	2.07	0.54
29:BF:160:ASN:OD1	29:BF:163:VAL:HG23	2.07	0.54
25:BA:27:G:H22	25:BA:512:G:H2'	1.72	0.54
25:BA:1678:G:N2	25:BA:1989:G:H22	2.05	0.54
21:CS:40:ILE:HG12	21:CS:71:LEU:HD23	1.89	0.54
25:BA:2730:C:H4'	28:BE:168:MET:O	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CB:17:PHE:HB2	4:CB:42:ILE:CG2	2.36	0.54
1:AA:22:G:H4'	1:AA:885:G:C8	2.42	0.54
7:CE:57:LYS:HE2	7:CE:61:TYR:HE2	1.72	0.54
25:DA:2224:G:H4'	25:DA:2226:C:C2	2.42	0.54
25:BA:1620:G:O2'	54:B7:2:LYS:HG2	2.06	0.54
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.07	0.54
25:DA:1802:A:H2'	25:DA:1803:A:C8	2.42	0.54
47:D0:53:MET:HA	47:D0:58:THR:O	2.07	0.54
7:AE:96:PRO:HA	7:AE:117:ASP:OD2	2.07	0.54
25:DA:1790:C:H2'	25:DA:1791:A:C5	2.42	0.54
6:AD:108:LEU:HD23	6:AD:110:PHE:HE2	1.72	0.54
1:CA:1287:A:H2'	1:CA:1288:A:C8	2.42	0.54
1:CA:1112:C:O2	5:CC:179:ARG:HG2	2.06	0.54
9:AG:132:GLY:H	9:AG:135:VAL:HB	1.71	0.54
25:BA:1153:C:H5'	41:BU:76:TYR:HE2	1.73	0.54
27:BD:25:THR:HG21	27:BD:81:ALA:HA	1.90	0.54
48:D1:86:SER:HA	48:D1:89:GLU:HG3	1.88	0.54
24:AX:115:THR:H	24:AX:196:THR:HB	1.72	0.54
53:D6:30:THR:HG22	53:D6:31:PRO:HD2	1.89	0.54
25:BA:651:G:H5''	55:B8:18:ALA:HB3	1.88	0.54
25:DA:2150:U:H2'	25:DA:2151:G:H8	1.71	0.54
25:BA:2401:U:O2'	25:BA:2402:C:H5''	2.07	0.54
34:DN:53:ILE:O	34:DN:57:LEU:HB2	2.08	0.54
1:AA:694:A:OP1	13:AK:53:SER:HB3	2.07	0.54
39:BS:18:ILE:HA	39:BS:21:THR:OG1	2.06	0.54
25:BA:2039:C:O2'	25:BA:2040:C:H5'	2.08	0.54
5:CC:77:ILE:C	5:CC:83:ARG:HB3	2.27	0.54
25:DA:321:G:C2	25:DA:341:G:H4'	2.42	0.54
1:CA:1258:G:H2'	1:CA:1259:C:H6	1.72	0.54
25:DA:1427:A:H4'	25:DA:1428:C:O5'	2.07	0.54
40:DT:96:ARG:HG3	40:DT:97:ALA:H	1.72	0.54
1:AA:491:G:H2'	1:AA:492:G:H8	1.72	0.54
25:BA:2784:C:H2'	25:BA:2785:C:C6	2.42	0.54
35:DO:79:PHE:HD2	40:DT:72:VAL:HG22	1.71	0.54
1:CA:1472:U:H2'	1:CA:1473:A:C8	2.41	0.54
26:BB:64:C:H2'	26:BB:65:C:C6	2.41	0.54
37:DQ:83:MET:HG3	37:DQ:83:MET:O	2.07	0.54
8:AF:43:LEU:HB3	8:AF:60:PHE:HB2	1.87	0.54
1:CA:1054:C:O2'	1:CA:1055:A:H5''	2.07	0.54
6:CD:63:LYS:O	6:CD:67:ILE:HG13	2.06	0.54
28:DE:119:ARG:HD2	28:DE:120:TRP:CD1	2.43	0.54
25:BA:941:A:H2'	25:BA:942:G:C8	2.43	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CB:168:THR:HG1	4:CB:192:SER:HA	1.72	0.54
40:BT:24:PRO:HA	40:BT:49:VAL:HG13	1.90	0.54
1:AA:1498:U:H1'	1:AA:1499:A:N7	2.22	0.54
4:CB:178:ARG:HG3	10:CH:72:PRO:HA	1.89	0.54
25:BA:1952:A:C6	25:BA:1953:A:C6	2.95	0.54
25:DA:1678:G:N2	25:DA:1989:G:H22	2.05	0.54
30:DG:47:LYS:HG3	30:DG:82:LEU:CD2	2.38	0.54
38:BR:87:TYR:OH	38:BR:116:LEU:HB3	2.06	0.54
10:AH:66:GLY:HA3	10:AH:77:GLU:HB3	1.88	0.54
53:D6:16:CYS:SG	53:D6:48:VAL:HG23	2.47	0.54
31:DH:15:VAL:HG11	31:DH:76:VAL:HG13	1.87	0.54
1:CA:999:U:H2'	1:CA:1000:A:C8	2.41	0.54
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.41	0.54
25:DA:476:G:N2	25:DA:478:A:H3'	2.22	0.54
25:DA:1187:G:HO2'	25:DA:1188:U:H6	1.53	0.54
28:BE:98:PRO:HG3	28:BE:175:VAL:HG12	1.89	0.54
29:DF:93:LYS:HB3	29:DF:94:PRO:HD2	1.89	0.54
25:DA:1292:U:H2'	25:DA:1293:C:C6	2.42	0.54
5:AC:107:GLN:CD	5:AC:107:GLN:H	2.09	0.54
1:AA:1258:G:H2'	1:AA:1259:C:H6	1.73	0.54
25:BA:1510:A:H2'	25:BA:1511:A:C8	2.43	0.54
29:DF:67:GLN:HG3	29:DF:67:GLN:O	2.07	0.54
25:DA:140:A:C6	25:DA:141(A):A:N6	2.76	0.54
24:AX:222:MET:C	24:AX:236:ASP:HB2	2.28	0.54
27:BD:238:GLY:O	27:BD:239:ARG:C	2.45	0.54
48:D1:73:LEU:HD21	48:D1:94:LEU:HD21	1.89	0.54
25:BA:518:G:H2'	25:BA:519:U:C6	2.42	0.54
8:AF:72:VAL:HG13	8:AF:73:ASN:N	2.22	0.54
1:AA:719:C:C2	20:AR:50:ILE:HG12	2.42	0.54
12:CJ:30:SER:HB2	12:CJ:80:LYS:HG3	1.88	0.54
41:BU:18:LEU:HD21	41:BU:22:LYS:HE2	1.90	0.54
38:DR:87:TYR:OH	38:DR:116:LEU:HB3	2.07	0.54
39:BS:26:LEU:HG	39:BS:39:ILE:HD13	1.89	0.54
25:DA:1270:C:H5''	25:DA:1271:G:C5'	2.38	0.54
25:DA:1510:A:H2'	25:DA:1511:A:C8	2.42	0.54
1:AA:926:G:H22	3:AV:15:A:H3'	1.72	0.54
9:CG:100:ALA:O	9:CG:104:LEU:HD23	2.07	0.54
25:BA:1014:U:H2'	25:BA:1015:G:C8	2.42	0.54
28:BE:19:ARG:HG3	28:BE:20:ALA:N	2.22	0.54
25:BA:1138:G:H2'	25:BA:1139:G:O4'	2.07	0.54
53:D6:36:LEU:HD23	53:D6:36:LEU:H	1.70	0.54
28:BE:104:VAL:HG22	28:BE:198:VAL:HG22	1.89	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:357:G:H2'	1:AA:358:U:H5''	1.88	0.54
25:DA:218:A:H2'	25:DA:219:G:O4'	2.07	0.54
27:BD:126:GLN:HG2	27:BD:127:VAL:H	1.73	0.54
28:BE:116:VAL:HG11	28:BE:138:PRO:HD3	1.89	0.54
25:BA:996:A:H4'	41:BU:92:ARG:CZ	2.38	0.54
4:AB:70:PHE:O	4:AB:71:VAL:HG13	2.08	0.54
24:CX:97:LEU:HD13	24:CX:102:MET:SD	2.48	0.54
25:BA:1190:G:C5'	25:BA:1190:G:H8	2.21	0.54
25:DA:1557:C:H5''	25:DA:1558:A:OP2	2.06	0.54
44:DX:62:LYS:O	44:DX:63:LYS:HD3	2.07	0.54
27:DD:239:ARG:HB2	25:DA:2591:C:P	2.48	0.54
25:DA:27:G:H22	25:DA:512:G:H2'	1.73	0.54
29:BF:160:ASN:ND2	29:BF:162:LEU:H	2.05	0.54
24:AX:5:LEU:HD13	24:AX:52:ARG:HE	1.71	0.54
1:AA:1054:C:O2'	1:AA:1055:A:H5''	2.08	0.54
14:CL:82:VAL:HG22	14:CL:83:LEU:N	2.23	0.54
24:AX:307:PHE:H	24:AX:308:PRO:HD2	1.72	0.54
25:BA:2515:C:H2'	25:BA:2516:G:H8	1.73	0.54
1:CA:694:A:O2'	2:CZ:38:A:H1'	2.08	0.54
1:AA:1281:U:H5'	1:AA:1282:C:H5	1.72	0.54
30:BG:55:LYS:HG3	30:BG:59:GLU:OE2	2.06	0.54
25:BA:915:C:H2'	25:BA:916:G:C8	2.43	0.54
1:CA:357:G:H2'	1:CA:358:U:H5''	1.90	0.54
25:BA:807:U:H2'	25:BA:808:G:H8	1.73	0.54
42:BV:24:LYS:HA	42:BV:92:THR:HG23	1.90	0.54
25:DA:2689:U:H4'	25:DA:2690:C:H6	1.71	0.54
1:CA:22:G:H2'	1:CA:23:C:C6	2.42	0.54
1:AA:1106:G:H5''	5:AC:172:ARG:HG2	1.90	0.54
25:BA:1654:A:OP2	38:BR:3:HIS:CE1	2.60	0.54
10:AH:87:SER:HA	10:AH:93:VAL:HG23	1.90	0.54
26:BB:44:G:H1'	26:BB:47:C:H42	1.73	0.54
1:CA:1106:G:H5''	5:CC:172:ARG:HG2	1.89	0.54
25:DA:455:C:N3	25:DA:472:A:H2'	2.22	0.54
37:BQ:140:ALA:HB3	46:BZ:53:ILE:HD13	1.90	0.54
5:CC:107:GLN:H	5:CC:107:GLN:CD	2.10	0.54
37:DQ:138:ASP:O	37:DQ:139:GLU:HB2	2.07	0.54
25:BA:2185:C:H2'	25:BA:2186:G:C8	2.42	0.54
1:AA:376:G:H5''	18:AP:5:ARG:HB2	1.89	0.54
49:D2:16:LEU:HD23	49:D2:20:GLU:OE2	2.07	0.54
41:DU:92:ARG:HG2	42:DV:11:GLN:CD	2.28	0.54
5:AC:35:GLU:O	5:AC:39:ILE:HG13	2.07	0.54
28:BE:67:PHE:CE2	28:BE:75:VAL:HG22	2.43	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DY:31:LEU:N	45:DY:31:LEU:HD23	2.20	0.54
7:AE:16:THR:HG23	7:AE:27:ARG:O	2.08	0.54
39:DS:26:LEU:HG	39:DS:39:ILE:HD13	1.90	0.54
21:AS:40:ILE:HG21	21:AS:62:ILE:HD11	1.89	0.54
25:BA:956:G:N2	25:BA:959:A:H3'	2.23	0.54
25:DA:721:C:H2'	25:DA:722:A:C8	2.42	0.54
39:BS:26:LEU:HG	39:BS:39:ILE:CD1	2.38	0.54
27:BD:80:ALA:HA	27:BD:113:VAL:HG13	1.89	0.54
24:AX:122:LEU:O	24:AX:125:ARG:HG2	2.07	0.54
10:CH:19:VAL:HG23	10:CH:21:LYS:HG2	1.89	0.54
25:BA:2563:U:H4'	35:BO:28:SER:HA	1.89	0.54
9:CG:23:VAL:HG13	9:CG:43:PHE:CE2	2.43	0.54
1:AA:999:U:H2'	1:AA:1000:A:C8	2.42	0.54
1:AA:755:G:OP2	17:AO:65:ARG:HG3	2.08	0.54
25:DA:527:C:C4	25:DA:2779:U:H2'	2.42	0.54
25:BA:2033:A:H4'	25:BA:2034:U:OP1	2.07	0.54
25:BA:476:G:N2	25:BA:478:A:H3'	2.23	0.54
25:DA:36:G:H4'	25:DA:451:C:C2	2.43	0.54
25:DA:375:C:H2'	25:DA:376:C:H6	1.73	0.54
9:AG:23:VAL:HG13	9:AG:43:PHE:CE2	2.43	0.54
25:BA:2619:C:H5"	28:BE:152:LYS:HG2	1.90	0.54
40:BT:96:ARG:HG3	40:BT:97:ALA:H	1.72	0.54
25:DA:863:A:H2'	25:DA:864:G:C8	2.43	0.54
49:D2:16:LEU:H	49:D2:20:GLU:HG3	1.73	0.54
6:CD:108:LEU:HD23	6:CD:110:PHE:CE2	2.43	0.54
25:BA:448:U:H1'	29:BF:84:VAL:CG2	2.38	0.54
25:BA:1190:G:H5'	25:BA:1190:G:H8	1.73	0.54
36:BP:18:ARG:CZ	36:BP:18:ARG:HB3	2.36	0.54
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.43	0.54
25:DA:518:G:H2'	25:DA:519:U:C6	2.43	0.54
5:AC:14:ILE:HG21	5:AC:178:LEU:HD12	1.89	0.54
26:BB:8:U:H2'	26:BB:9:G:H8	1.72	0.54
25:DA:27:G:O2'	25:DA:28:A:H8	1.90	0.54
49:D2:41:ILE:HD11	49:D2:44:LEU:HD12	1.88	0.54
24:CX:58:LEU:O	24:CX:62:GLU:HG3	2.08	0.54
48:B1:27:GLU:HB2	48:B1:33:LYS:HA	1.90	0.54
25:BA:826:U:H2'	25:BA:828:U:O4'	2.08	0.54
52:D5:3:LYS:O	52:D5:6:VAL:HG23	2.08	0.54
30:BG:47:LYS:HG3	30:BG:82:LEU:CD2	2.38	0.54
30:DG:55:LYS:HG3	30:DG:59:GLU:OE2	2.08	0.54
2:CZ:27:U:H2'	2:CZ:28:C:C6	2.43	0.54
7:CE:96:PRO:HA	7:CE:117:ASP:OD2	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BF:14:PRO:HG3	29:BF:128:ALA:HB2	1.89	0.54
25:DA:428:A:H8	25:DA:428:A:O5'	1.90	0.54
28:DE:116:VAL:HG11	28:DE:138:PRO:HD3	1.89	0.54
25:BA:2224:G:H4'	25:BA:2226:C:C2	2.43	0.54
25:BA:576:U:H2'	25:BA:577:G:C8	2.43	0.54
25:BA:765:G:H2'	25:BA:766:C:C6	2.43	0.54
1:CA:1419:G:C6	1:CA:1482:G:C2	2.95	0.54
1:AA:1419:G:C6	1:AA:1482:G:C2	2.96	0.54
37:DQ:140:ALA:HB3	46:DZ:53:ILE:HD13	1.89	0.54
37:DQ:140:ALA:HB1	46:DZ:99:TYR:HB2	1.90	0.54
44:BX:56:THR:C	44:BX:57:LEU:HD12	2.28	0.54
37:DQ:43:THR:OG1	37:DQ:45:GLN:HG2	2.08	0.54
36:DP:23:PRO:HB2	36:DP:33:ARG:HE	1.72	0.54
5:CC:14:ILE:HG21	5:CC:178:LEU:HD12	1.89	0.54
36:BP:46:LYS:HE3	36:BP:51:PHE:HE2	1.73	0.54
43:DW:18:ARG:NH1	25:DA:518:G:H4'	2.23	0.54
18:CP:22:THR:HG22	18:CP:32:TYR:HA	1.90	0.54
48:B1:86:SER:HA	48:B1:89:GLU:HG3	1.89	0.54
24:CX:115:THR:H	24:CX:196:THR:HB	1.73	0.54
34:BN:69:VAL:HG13	34:BN:71:MET:HG3	1.89	0.54
27:DD:59:LYS:HB3	25:DA:1568:G:H4'	1.88	0.54
25:DA:270(G):U:H3	25:DA:270(U):G:H1	1.56	0.54
32:DI:113:ARG:HB2	32:DI:130:TYR:CZ	2.42	0.54
25:BA:782:A:H5'	25:BA:783:A:C2	2.42	0.54
25:DA:2113:U:H2'	25:DA:2114:A:H8	1.71	0.54
52:D5:9:LYS:NZ	25:DA:2019:A:H62	2.06	0.54
1:CA:1064:G:H21	1:CA:1190:G:H2'	1.72	0.54
15:CM:86:CYS:HB3	21:CS:74:PHE:CE1	2.43	0.54
1:CA:902:G:H2'	1:CA:903:G:H8	1.72	0.54
25:DA:1529:A:H3'	25:DA:1530:G:H8	1.73	0.54
25:BA:1292:U:H2'	25:BA:1293:C:C6	2.43	0.54
1:CA:376:G:H5''	18:CP:5:ARG:HB2	1.90	0.54
25:DA:2580:U:C5	25:DA:2581:G:C6	2.95	0.54
7:CE:25:ARG:H	7:CE:25:ARG:HD2	1.72	0.54
1:AA:792:A:H4'	1:AA:793:U:O5'	2.08	0.54
25:DA:307:G:H8	25:DA:307:G:O5'	1.89	0.54
1:CA:792:A:H4'	1:CA:793:U:O5'	2.07	0.54
29:DF:80:ALA:O	29:DF:83:PHE:HB2	2.08	0.54
25:BA:1027:A:C2	25:BA:2488:A:H5'	2.43	0.54
28:DE:192:ASN:HB2	25:DA:2820:A:N6	2.23	0.54
29:DF:160:ASN:ND2	29:DF:162:LEU:H	2.06	0.54
25:BA:2105:C:H2'	25:BA:2106:G:C8	2.43	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1483:G:H2'	25:BA:1484:G:H8	1.72	0.54
14:AL:83:LEU:HD12	14:AL:103:VAL:HG11	1.90	0.54
28:BE:28:ALA:HB3	28:BE:93:VAL:HG12	1.89	0.54
22:CT:45:GLN:HB2	22:CT:91:LEU:HD13	1.89	0.54
37:BQ:75:THR:HA	37:BQ:88:GLY:CA	2.38	0.54
25:DA:2301:C:H2'	25:DA:2302:G:C8	2.43	0.54
29:BF:126:VAL:O	29:BF:196:LEU:HG	2.06	0.54
11:AI:8:GLY:HA3	11:AI:76:ALA:O	2.08	0.54
25:BA:2018:G:OP1	52:B5:9:LYS:HE2	2.08	0.54
25:BA:297:C:H5''	45:BY:85:VAL:HG21	1.90	0.54
1:CA:491:G:H2'	1:CA:492:G:H8	1.71	0.54
25:DA:278:A:H61	25:DA:362:U:H3	1.54	0.54
25:BA:1490:A:H4'	25:BA:1491:G:OP2	2.08	0.54
8:AF:85:VAL:HG11	8:AF:88:VAL:HG22	1.90	0.54
37:DQ:20:ALA:HB1	37:DQ:99:PRO:O	2.08	0.54
49:B2:16:LEU:HD23	49:B2:20:GLU:OE2	2.08	0.54
18:AP:28:ARG:HH11	18:AP:28:ARG:CG	2.17	0.54
38:BR:104:ARG:CB	38:BR:104:ARG:HH11	2.20	0.54
40:BT:95:ARG:HH11	40:BT:95:ARG:CG	2.13	0.54
34:BN:42:GLU:O	34:BN:44:LYS:HG2	2.08	0.54
46:DZ:10:ARG:HB3	46:DZ:36:LYS:HB3	1.89	0.54
25:DA:1993:U:H2'	25:DA:1994:C:H6	1.72	0.54
55:D8:54:GLU:HA	55:D8:57:ARG:NH1	2.23	0.54
25:BA:1273:U:H4'	25:BA:1275:A:OP2	2.08	0.54
53:B6:16:CYS:SG	53:B6:48:VAL:HG23	2.47	0.54
35:DO:22:ILE:HD12	25:DA:1952:A:C4	2.43	0.54
25:DA:956:G:N2	25:DA:959:A:H3'	2.23	0.54
1:AA:512:U:H2'	1:AA:513:C:C6	2.42	0.54
1:CA:429:U:H4'	1:CA:430:A:O5'	2.08	0.54
25:BA:2110:G:H4'	25:BA:2145:C:N4	2.23	0.54
25:BA:455:C:N3	25:BA:472:A:H2'	2.23	0.54
15:AM:86:CYS:HB3	21:AS:74:PHE:CE1	2.43	0.54
25:DA:1090:U:H2'	25:DA:1091:G:C8	2.42	0.54
1:CA:563:A:N3	1:CA:563:A:H2'	2.22	0.54
25:BA:1493:C:H2'	25:BA:1493:C:O2	2.06	0.54
1:AA:328:C:H4'	1:AA:329:A:H5'	1.90	0.54
5:AC:77:ILE:C	5:AC:83:ARG:HB3	2.28	0.54
1:AA:510:A:H5''	1:AA:511:C:OP2	2.07	0.54
7:CE:38:GLN:HA	7:CE:71:LEU:HD11	1.90	0.54
30:BG:33:ARG:CZ	30:BG:162:THR:HG21	2.38	0.54
25:BA:2096:U:H2'	25:BA:2097:C:C6	2.43	0.54
37:BQ:20:ALA:HB1	37:BQ:99:PRO:O	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1528:A:H62	25:DA:1543:A:H2	1.56	0.53
48:D1:46:LEU:HD11	48:D1:61:ARG:HG3	1.89	0.53
25:BA:1577:C:H2'	25:BA:1578:U:C6	2.43	0.53
5:AC:105:GLU:HG2	5:AC:106:VAL:N	2.21	0.53
4:CB:205:ASP:O	4:CB:211:ILE:HD11	2.07	0.53
34:DN:42:GLU:O	34:DN:44:LYS:HG2	2.08	0.53
25:BA:1201:C:H2'	25:BA:1202:C:C6	2.43	0.53
25:DA:2850:A:H5'	25:DA:2868:A:C2	2.39	0.53
25:BA:1265:A:H3'	52:B5:19:ARG:NH1	2.23	0.53
28:BE:111:ARG:HB3	38:BR:2:ARG:HH11	1.73	0.53
25:BA:1058:G:H2'	25:BA:1059:G:C8	2.44	0.53
30:BG:114:ILE:HG23	30:BG:115:ARG:HD2	1.90	0.53
30:BG:115:ARG:HH22	30:BG:136:ARG:H	1.56	0.53
24:AX:306:ASN:OD1	24:AX:308:PRO:HG2	2.08	0.53
25:BA:1140:C:OP1	34:BN:46:LEU:HB3	2.08	0.53
5:AC:13:GLY:HA3	16:AN:57:ARG:HE	1.73	0.53
1:CA:1161:C:H2'	1:CA:1162:C:H6	1.73	0.53
28:DE:62:PRO:HG3	25:DA:2787:C:H1'	1.90	0.53
1:CA:817:C:H1'	1:CA:819:A:H5'	1.90	0.53
25:BA:1005:C:H1'	25:BA:1012:U:N3	2.23	0.53
54:D7:2:LYS:HG2	25:DA:1620:G:O2'	2.07	0.53
25:DA:1278:A:H2'	25:DA:1279:G:H8	1.73	0.53
25:DA:289:A:H2'	25:DA:290:G:O4'	2.08	0.53
1:CA:731:G:OP1	1:CA:766:A:H1'	2.09	0.53
29:DF:9:ILE:HD13	29:DF:9:ILE:H	1.72	0.53
25:BA:1838:C:H5''	25:BA:1838:C:C6	2.42	0.53
35:DO:12:ASP:OD1	35:DO:85:VAL:HG13	2.08	0.53
25:BA:702:G:C6	25:BA:703:U:C4	2.96	0.53
11:CI:4:TYR:HB2	11:CI:19:LEU:HB3	1.90	0.53
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.42	0.53
48:B1:45:ASN:HD22	48:B1:46:LEU:N	2.07	0.53
29:DF:63:LYS:NZ	29:DF:67:GLN:HG2	2.23	0.53
25:DA:1404:C:H2'	25:DA:1405:U:H6	1.73	0.53
25:DA:141(A):A:H3'	25:DA:141(B):C:H6	1.73	0.53
17:AO:60:VAL:HG11	25:BA:715:G:O4'	2.08	0.53
25:DA:2401:U:O2'	25:DA:2402:C:H5''	2.08	0.53
36:DP:66:GLY:HA2	25:DA:2415:G:H4'	1.87	0.53
36:BP:23:PRO:HB2	36:BP:33:ARG:HE	1.73	0.53
25:DA:2030:A:H5''	25:DA:2031:A:OP1	2.07	0.53
40:DT:24:PRO:HA	40:DT:49:VAL:HG13	1.90	0.53
1:CA:1342:C:H2'	1:CA:1343:G:C8	2.42	0.53
32:BI:68:LEU:O	32:BI:72:LEU:HB2	2.07	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:160:ASN:OD1	29:DF:163:VAL:HG23	2.08	0.53
1:CA:1504:G:O2'	1:CA:1505:G:OP2	2.26	0.53
41:DU:76:TYR:HE2	25:DA:1153:C:H5'	1.72	0.53
31:DH:27:LYS:HG2	31:DH:32:GLU:HB2	1.91	0.53
25:BA:518:G:H4'	43:BW:18:ARG:NH1	2.23	0.53
25:BA:94:G:N2	49:B2:47:ASN:ND2	2.56	0.53
27:DD:47:GLY:HA3	25:DA:773:U:H4'	1.90	0.53
25:BA:2052:G:C8	28:BE:141:ILE:HD11	2.43	0.53
28:DE:28:ALA:HB3	28:DE:93:VAL:HG12	1.90	0.53
22:AT:45:GLN:HB2	22:AT:91:LEU:HD13	1.89	0.53
1:CA:22:G:H4'	1:CA:885:G:C8	2.42	0.53
25:DA:1448:G:H21	25:DA:1529:A:H2	1.57	0.53
25:BA:2019:A:H5"	41:BU:27:LEU:HD12	1.90	0.53
31:DH:109:PHE:CE1	31:DH:152:ARG:HD3	2.43	0.53
6:CD:200:GLU:O	6:CD:204:ILE:HG13	2.07	0.53
1:AA:1064:G:H21	1:AA:1190:G:H2'	1.72	0.53
25:DA:792:G:H5"	25:DA:793:A:H5'	1.90	0.53
22:CT:10:LEU:HD12	22:CT:11:SER:H	1.73	0.53
44:DX:56:THR:C	44:DX:57:LEU:HD12	2.28	0.53
1:AA:1201:A:H4'	1:AA:1202:G:O5'	2.09	0.53
25:DA:210:C:H2'	25:DA:211:A:H8	1.73	0.53
22:AT:90:GLN:O	22:AT:93:GLU:HB3	2.08	0.53
11:AI:4:TYR:HB2	11:AI:19:LEU:HB3	1.90	0.53
42:BV:4:ILE:HD13	42:BV:13:ARG:HA	1.90	0.53
25:BA:1827:C:H2'	25:BA:1828:G:O4'	2.08	0.53
1:AA:529:G:O6	14:AL:48:ASN:HA	2.08	0.53
25:DA:1577:C:H2'	25:DA:1578:U:C6	2.43	0.53
24:AX:96:LEU:C	24:AX:98:PRO:HD3	2.29	0.53
36:BP:57:THR:C	36:BP:59:LEU:H	2.09	0.53
49:D2:63:VAL:HG13	49:D2:67:LYS:HE2	1.89	0.53
44:BX:62:LYS:O	44:BX:63:LYS:HD3	2.08	0.53
32:BI:109:ILE:H	32:BI:109:ILE:HD13	1.73	0.53
17:AO:45:VAL:HG23	17:AO:46:HIS:ND1	2.23	0.53
20:CR:45:SER:HB3	20:CR:51:LEU:CG	2.38	0.53
25:DA:826:U:H2'	25:DA:828:U:O4'	2.08	0.53
25:DA:2513:G:C2	25:DA:2514:U:C2	2.97	0.53
29:DF:176:LEU:HD21	29:DF:180:GLY:O	2.07	0.53
1:AA:259:G:H2'	1:AA:260:G:C8	2.43	0.53
25:BA:536:A:H2'	25:BA:537:C:C6	2.42	0.53
27:DD:70:TRP:CH2	27:DD:150:LYS:HA	2.44	0.53
25:DA:702:G:C6	25:DA:703:U:C4	2.97	0.53
8:CF:89:MET:SD	8:CF:91:VAL:HG23	2.49	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DE:19:ARG:HG3	28:DE:20:ALA:N	2.23	0.53
25:DA:1914:C:H2'	25:DA:1915:U:O4'	2.08	0.53
25:BA:210:C:H2'	25:BA:211:A:H8	1.73	0.53
13:CK:85:ARG:HE	13:CK:111:ASP:HB3	1.72	0.53
25:BA:1914:C:H2'	25:BA:1915:U:O4'	2.08	0.53
41:BU:92:ARG:HG2	42:BV:11:GLN:CD	2.29	0.53
49:B2:39:ALA:CA	49:B2:45:SER:HB3	2.30	0.53
1:CA:529:G:O6	14:CL:48:ASN:HA	2.09	0.53
4:AB:98:LEU:O	4:AB:101:MET:HG3	2.09	0.53
1:AA:1220:G:H2'	1:AA:1221:G:H8	1.73	0.53
13:CK:12:ARG:HG2	13:CK:13:GLN:N	2.21	0.53
36:BP:50:ARG:HG2	36:BP:50:ARG:O	2.08	0.53
25:DA:2105:C:H2'	25:DA:2106:G:C8	2.44	0.53
52:D5:19:ARG:NH1	25:DA:1265:A:H3'	2.24	0.53
1:AA:1271:G:H2'	1:AA:1272:G:C8	2.42	0.53
35:DO:104:ARG:HB3	35:DO:104:ARG:NH1	2.24	0.53
34:BN:53:ILE:O	34:BN:57:LEU:HB2	2.08	0.53
25:BA:1009:A:O4'	41:BU:59:ARG:HD3	2.09	0.53
1:CA:262:A:C6	1:CA:263:A:C6	2.96	0.53
34:DN:43:GLY:HA2	34:DN:84:ARG:CG	2.39	0.53
1:CA:464:G:C6	1:CA:466:G:H5''	2.44	0.53
7:CE:16:THR:HG23	7:CE:27:ARG:O	2.09	0.53
4:CB:25:ASN:N	4:CB:25:ASN:HD22	2.07	0.53
25:DA:807:U:H2'	25:DA:808:G:H8	1.73	0.53
42:DV:24:LYS:HA	42:DV:92:THR:HG23	1.90	0.53
1:CA:553:A:H2'	1:CA:554:C:C6	2.43	0.53
19:CQ:73:VAL:HG12	19:CQ:74:LEU:H	1.74	0.53
19:CQ:7:THR:HG22	19:CQ:58:GLU:HG2	1.90	0.53
11:CI:97:LYS:HB3	11:CI:98:PRO:HD3	1.90	0.53
25:DA:2110:G:H4'	25:DA:2145:C:N4	2.23	0.53
30:DG:33:ARG:CZ	30:DG:162:THR:HG21	2.38	0.53
27:DD:242:ARG:N	27:DD:242:ARG:CD	2.71	0.53
44:DX:18:TYR:HA	44:DX:21:PHE:CD1	2.44	0.53
44:DX:37:THR:O	44:DX:40:LYS:HB3	2.09	0.53
25:BA:1790:C:H2'	25:BA:1791:A:C5	2.43	0.53
42:DV:4:ILE:HD13	42:DV:13:ARG:HA	1.89	0.53
37:DQ:43:THR:HA	37:DQ:94:VAL:HG12	1.91	0.53
18:AP:8:ARG:HH21	18:AP:15:PRO:HG3	1.74	0.53
36:DP:46:LYS:HE3	36:DP:51:PHE:HE2	1.73	0.53
25:BA:443:A:C6	29:BF:45:ARG:HD2	2.44	0.53
1:AA:1355:G:H2'	1:AA:1356:G:H8	1.72	0.53
41:DU:62:ILE:HD13	41:DU:65:ILE:HD12	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DS:26:LEU:HG	39:DS:39:ILE:CD1	2.38	0.53
24:AX:283:GLU:OE1	24:AX:283:GLU:HA	2.08	0.53
25:BA:2134:A:H2'	25:BA:2135:A:H8	1.74	0.53
9:CG:38:LEU:O	9:CG:42:ILE:HG13	2.07	0.53
12:AJ:30:SER:HB2	12:AJ:80:LYS:HG3	1.88	0.53
29:BF:176:LEU:HD21	29:BF:180:GLY:O	2.08	0.53
29:DF:28:ILE:O	29:DF:30:PRO:HD3	2.07	0.53
28:BE:31:CYS:HB3	28:BE:49:LEU:HB3	1.91	0.53
25:DA:1005:C:H1'	25:DA:1012:U:N3	2.23	0.53
25:BA:36:G:H4'	25:BA:451:C:C2	2.44	0.53
25:BA:1006:C:O2	34:BN:129:MET:HG2	2.08	0.53
9:CG:16:LEU:HB2	11:CI:41:VAL:HG12	1.90	0.53
9:CG:115:ARG:O	9:CG:118:VAL:HG22	2.07	0.53
25:BA:666:G:H4'	36:BP:49:ARG:NH1	2.24	0.53
31:DH:44:VAL:HB	31:DH:51:ARG:HB2	1.89	0.53
25:DA:1360:A:H5'	25:DA:1361:G:OP2	2.08	0.53
25:BA:494:G:N2	43:BW:57:ASN:HD21	2.06	0.53
1:CA:328:C:H4'	1:CA:329:A:H5'	1.89	0.53
11:CI:16:ARG:O	11:CI:63:ILE:HG23	2.08	0.53
24:CX:96:LEU:C	24:CX:98:PRO:HD3	2.29	0.53
30:BG:53:LEU:CD1	30:BG:88:ILE:HG12	2.39	0.53
25:BA:2820:A:N6	28:BE:192:ASN:HB2	2.23	0.53
44:BX:62:LYS:O	44:BX:73:ARG:HB2	2.08	0.53
21:AS:29:ARG:HD2	21:AS:30:LEU:N	2.24	0.53
27:DD:80:ALA:HA	27:DD:113:VAL:HG13	1.90	0.53
25:DA:1058:G:H2'	25:DA:1059:G:C8	2.44	0.53
19:CQ:94:ASN:O	19:CQ:98:LEU:HG	2.09	0.53
1:CA:716:A:N3	13:CK:118:GLY:HA2	2.23	0.53
12:AJ:62:HIS:HD2	16:AN:59:ALA:HB3	1.74	0.53
25:BA:1270:C:H5''	25:BA:1271:G:H5'	1.90	0.53
25:BA:2302:G:H21	30:BG:126:ASP:HB2	1.74	0.53
25:BA:2019:A:H62	52:B5:9:LYS:NZ	2.06	0.53
25:DA:1891:G:H2'	25:DA:1892:C:O4'	2.09	0.53
4:AB:95:GLN:HG3	4:AB:147:LYS:O	2.09	0.53
10:AH:86:ILE:HB	10:AH:133:LEU:HD22	1.91	0.53
25:BA:2683:C:H2'	25:BA:2684:U:C6	2.44	0.53
30:BG:27:ASN:HD21	30:BG:29:TRP:HD1	1.56	0.53
1:AA:91:C:O5'	1:AA:91:C:H6	1.91	0.53
41:BU:75:ASN:HB2	41:BU:78:THR:OG1	2.09	0.53
7:AE:38:GLN:HA	7:AE:71:LEU:HD11	1.91	0.53
25:BA:2787:C:H1'	28:BE:62:PRO:HG3	1.90	0.53
51:B4:38:ALA:HA	51:B4:55:PRO:HA	1.91	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BY:96:ILE:CD1	45:BY:99:CYS:HB2	2.37	0.53
49:B2:16:LEU:H	49:B2:20:GLU:HG3	1.73	0.53
25:BA:2258:C:O2'	25:BA:2426:A:H4'	2.09	0.53
37:DQ:30:GLY:CA	37:DQ:107:ALA:HB2	2.35	0.53
24:CX:236:ASP:CG	24:CX:237:SER:H	2.11	0.53
45:DY:47:LYS:HE3	25:DA:498:G:N2	2.23	0.53
11:CI:53:VAL:HG12	11:CI:92:TYR:HD2	1.74	0.53
1:AA:1228:C:H2'	1:AA:1229:A:C8	2.39	0.53
21:CS:29:ARG:HD2	21:CS:30:LEU:N	2.24	0.53
36:DP:25:SER:O	25:DA:811:U:H3'	2.09	0.53
4:CB:32:ILE:HD11	4:CB:40:HIS:HB3	1.91	0.53
21:CS:16:LEU:O	21:CS:20:LEU:HG	2.09	0.53
25:BA:2821:A:OP1	28:BE:110:GLY:N	2.42	0.53
34:DN:53:ILE:HD12	34:DN:122:LEU:HD11	1.91	0.53
52:B5:3:LYS:O	52:B5:6:VAL:HG23	2.09	0.53
28:DE:184:VAL:HG12	28:DE:185:LYS:H	1.74	0.53
25:BA:970:C:H2'	25:BA:971:C:C6	2.42	0.53
4:CB:135:GLN:O	4:CB:139:LYS:HG2	2.09	0.53
22:CT:90:GLN:O	22:CT:93:GLU:HB3	2.09	0.53
30:DG:29:TRP:CH2	26:DB:31:C:H4'	2.44	0.53
10:AH:17:THR:HB	10:AH:78:GLN:HE22	1.74	0.53
27:DD:126:GLN:HG2	27:DD:127:VAL:H	1.71	0.53
11:AI:97:LYS:HB3	11:AI:98:PRO:HD3	1.90	0.53
45:DY:85:VAL:HG21	25:DA:297:C:H5''	1.91	0.53
25:DA:1838:C:H5''	25:DA:1838:C:C6	2.44	0.53
25:BA:329:G:OP1	25:BA:329:G:H8	1.91	0.53
32:DI:81:VAL:HG12	32:DI:82:ARG:H	1.74	0.53
9:AG:51:GLN:HA	9:AG:54:THR:O	2.09	0.53
25:BA:1528:A:H62	25:BA:1543:A:H2	1.56	0.53
24:AX:97:LEU:HD13	24:AX:102:MET:SD	2.49	0.53
51:B4:42:CYS:SG	51:B4:46:ASN:HB3	2.49	0.53
51:D4:42:CYS:HA	51:D4:59:VAL:C	2.28	0.53
27:DD:35:LYS:HE3	27:DD:104:TYR:HB2	1.90	0.53
25:BA:886:C:H3'	25:BA:886:C:H6	1.74	0.53
1:CA:736:C:H2'	1:CA:737:A:H8	1.71	0.53
55:B8:54:GLU:HA	55:B8:57:ARG:NH1	2.24	0.53
25:DA:1273:U:H4'	25:DA:1275:A:OP2	2.08	0.53
24:CX:46:GLY:O	24:CX:50:GLU:HG2	2.09	0.53
21:CS:40:ILE:HG21	21:CS:62:ILE:HD11	1.90	0.53
1:AA:191(F):U:H2'	1:AA:191(G):G:C8	2.44	0.53
13:AK:85:ARG:HE	13:AK:111:ASP:HB3	1.73	0.53
25:BA:954:G:H5''	37:BQ:13:GLN:CG	2.39	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:247:G:H4'	25:BA:386:G:C5	2.44	0.53
41:DU:59:ARG:HD3	25:DA:1009:A:O4'	2.08	0.53
2:CZ:18:G:H22	2:CZ:57:A:H2'	1.73	0.53
1:AA:553:A:H2'	1:AA:554:C:C6	2.44	0.53
27:BD:93:ALA:HB2	27:BD:107:ALA:HB2	1.91	0.53
1:AA:313:A:H2'	1:AA:314:C:C6	2.44	0.53
11:CI:8:GLY:HA3	11:CI:76:ALA:O	2.08	0.53
27:BD:242:ARG:N	27:BD:242:ARG:CD	2.71	0.53
45:DY:9:LYS:HB3	25:DA:84:A:H5'	1.90	0.53
29:BF:63:LYS:NZ	29:BF:67:GLN:HG2	2.23	0.53
29:BF:67:GLN:HG3	29:BF:67:GLN:O	2.09	0.53
29:BF:103:LYS:HA	29:BF:106:ARG:CG	2.38	0.53
27:DD:125:ILE:N	27:DD:125:ILE:HD12	2.23	0.53
28:BE:77:ILE:HG21	28:BE:195:LEU:HD13	1.91	0.53
7:AE:51:VAL:O	7:AE:55:VAL:HG23	2.09	0.53
11:CI:99:LEU:HD12	11:CI:101:PHE:HE2	1.74	0.53
44:DX:62:LYS:O	44:DX:73:ARG:HB2	2.09	0.53
18:CP:20:VAL:HG21	18:CP:32:TYR:CG	2.44	0.53
24:AX:58:LEU:O	24:AX:62:GLU:HG3	2.08	0.53
28:BE:111:ARG:O	38:BR:2:ARG:HD3	2.09	0.53
19:AQ:94:ASN:O	19:AQ:98:LEU:HG	2.08	0.53
39:DS:13:ARG:HH22	25:DA:2335:A:H8	1.57	0.53
30:DG:114:ILE:HG23	30:DG:115:ARG:HD2	1.90	0.53
25:DA:1952:A:C6	25:DA:1953:A:C6	2.97	0.53
25:DA:2134:A:H2'	25:DA:2135:A:H8	1.74	0.53
16:CN:37:PHE:CZ	16:CN:56:VAL:HG21	2.42	0.53
25:DA:1980:G:H5''	25:DA:1980:G:H8	1.74	0.53
49:B2:56:GLN:O	49:B2:60:LEU:HG	2.09	0.53
25:BA:2542:A:H1'	25:BA:2543:G:N7	2.24	0.53
1:AA:619:U:C2	6:AD:135:LEU:HD21	2.44	0.53
28:DE:187:ALA:CB	25:DA:2729:G:H1'	2.39	0.53
45:DY:20:TYR:CE1	45:DY:42:VAL:HA	2.44	0.53
37:BQ:66:ILE:HG22	37:BQ:104:PHE:HD2	1.74	0.53
25:BA:2113:U:H2'	25:BA:2114:A:C8	2.44	0.53
1:AA:22:G:H2'	1:AA:23:C:H6	1.74	0.53
25:BA:1529:A:H3'	25:BA:1530:G:H8	1.74	0.53
50:D3:2:PRO:HB2	50:D3:59:VAL:O	2.09	0.53
1:CA:91:C:H6	1:CA:91:C:O5'	1.92	0.53
25:BA:1278:A:H2'	25:BA:1279:G:H8	1.74	0.53
25:DA:2096:U:H2'	25:DA:2097:C:C6	2.44	0.53
25:BA:2037:G:H2'	25:BA:2038:G:C8	2.44	0.53
10:AH:111:ILE:O	10:AH:134:ILE:HB	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AH:82:HIS:HD2	10:AH:138:TRP:NE1	2.07	0.53
25:DA:576:U:H2'	25:DA:577:G:C8	2.44	0.53
31:DH:96:ALA:HA	31:DH:105:LEU:HB3	1.90	0.53
25:DA:1197:G:H5'	25:DA:1227:G:O2'	2.08	0.53
1:CA:1316:G:H8	1:CA:1316:G:O5'	1.92	0.53
10:CH:86:ILE:HB	10:CH:133:LEU:HD22	1.91	0.53
30:BG:8:LYS:O	30:BG:12:TYR:HD1	1.92	0.53
1:AA:353:A:H5'	1:AA:353:A:H8	1.74	0.53
42:BV:99:ILE:H	42:BV:99:ILE:HD13	1.72	0.53
1:CA:313:A:H2'	1:CA:314:C:C6	2.44	0.53
1:CA:1320:C:H2'	1:CA:1321:C:O4'	2.09	0.53
1:CA:510:A:H5''	1:CA:511:C:OP2	2.09	0.53
22:CT:80:ARG:O	22:CT:84:LEU:HB2	2.09	0.53
25:BA:527:C:C4	25:BA:2779:U:H2'	2.43	0.53
25:BA:729:G:H2'	25:BA:1775:U:H1'	1.91	0.53
6:CD:108:LEU:HD23	6:CD:110:PHE:HE2	1.74	0.53
1:AA:522:C:H42	1:AA:528:C:H42	1.56	0.53
36:BP:97:PRO:HD3	36:BP:126:VAL:O	2.09	0.53
30:BG:97:ASP:O	30:BG:101:ILE:HG23	2.09	0.53
25:DA:670:A:H4'	25:DA:671:C:H5'	1.91	0.53
28:DE:77:ILE:HG21	28:DE:195:LEU:HD13	1.91	0.53
51:B4:42:CYS:HA	51:B4:59:VAL:C	2.30	0.53
25:DA:729:G:H2'	25:DA:1775:U:H1'	1.91	0.53
1:AA:1356:G:H2'	1:AA:1357:A:H8	1.71	0.53
55:D8:48:PHE:CE1	55:D8:50:LEU:HD21	2.44	0.53
1:CA:1502:A:H8	1:CA:1505:G:H22	1.57	0.53
48:B1:73:LEU:HD21	48:B1:94:LEU:HD21	1.89	0.53
4:AB:32:ILE:HD11	4:AB:40:HIS:HB3	1.91	0.53
48:D1:27:GLU:HB3	48:D1:33:LYS:HG3	1.91	0.53
25:BA:27:G:O5'	25:BA:27:G:H8	1.91	0.53
25:BA:270(R):C:O2'	25:BA:270(S):G:H5'	2.09	0.53
49:D2:32:LEU:HA	49:D2:53:LEU:HD13	1.91	0.53
44:DX:31:HIS:HE1	25:DA:71:A:C2	2.27	0.53
8:CF:53:ALA:HB3	8:CF:86:ARG:NH1	2.24	0.53
25:DA:247:G:H4'	25:DA:386:G:C5	2.43	0.53
1:CA:677:U:H2'	1:CA:678:U:H6	1.72	0.53
46:DZ:57:ILE:N	46:DZ:57:ILE:HD12	2.24	0.53
48:D1:20:ARG:HH11	48:D1:20:ARG:HB2	1.74	0.53
37:DQ:75:THR:HA	37:DQ:88:GLY:CA	2.38	0.53
1:CA:312:C:H2'	1:CA:313:A:C8	2.43	0.53
28:DE:152:LYS:HG2	25:DA:2619:C:H5''	1.90	0.53
19:AQ:73:VAL:HG12	19:AQ:74:LEU:H	1.74	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CF:85:VAL:HG11	8:CF:88:VAL:HG22	1.91	0.53
27:DD:93:ALA:HB2	27:DD:107:ALA:HB2	1.91	0.53
25:BA:1945:G:H1	25:BA:1961:C:H42	1.57	0.53
7:AE:57:LYS:HE2	7:AE:61:TYR:HE2	1.72	0.53
49:B2:59:ARG:HA	49:B2:62:THR:HB	1.90	0.53
4:CB:153:ARG:NH1	4:CB:153:ARG:HB2	2.25	0.53
1:AA:429:U:H4'	1:AA:430:A:O5'	2.08	0.53
50:B3:29:ARG:HE	50:B3:29:ARG:HA	1.73	0.53
25:DA:1490:A:H4'	25:DA:1491:G:OP2	2.09	0.53
25:BA:1891:G:H2'	25:BA:1892:C:O4'	2.09	0.53
1:AA:539:A:H2'	1:AA:540:G:C8	2.44	0.53
25:DA:1034:G:C5	25:DA:1035:U:C4	2.97	0.53
25:DA:1827:C:H2'	25:DA:1828:G:O4'	2.08	0.52
25:DA:2258:C:O2'	25:DA:2426:A:H4'	2.09	0.52
16:AN:2:ALA:O	16:AN:6:LEU:HB2	2.09	0.52
49:D2:21:LEU:HD12	49:D2:64:LEU:HB3	1.91	0.52
28:DE:84:PHE:CE2	28:DE:86:PRO:HG3	2.44	0.52
25:BA:2030:A:H5''	25:BA:2031:A:OP1	2.09	0.52
25:BA:2591:C:P	27:BD:239:ARG:HB2	2.49	0.52
1:AA:1342:C:H2'	1:AA:1343:G:C8	2.43	0.52
27:BD:35:LYS:HE3	27:BD:104:TYR:HB2	1.90	0.52
25:DA:1785:A:H2'	25:DA:1786:A:H5''	1.92	0.52
8:CF:72:VAL:HG13	8:CF:73:ASN:N	2.22	0.52
25:DA:2502:G:H5'	25:DA:2503:A:C5'	2.38	0.52
9:CG:92:SER:O	9:CG:96:GLN:HG3	2.09	0.52
48:D1:27:GLU:HB2	48:D1:33:LYS:HA	1.90	0.52
1:CA:191(E):G:H2'	1:CA:191(F):U:C6	2.44	0.52
14:AL:82:VAL:HG22	14:AL:83:LEU:N	2.23	0.52
1:CA:694:A:OP1	13:CK:53:SER:HB3	2.08	0.52
25:DA:713:G:H2'	25:DA:714:U:H6	1.74	0.52
34:DN:46:LEU:HB3	25:DA:1140:C:OP1	2.09	0.52
25:BA:915:C:H2'	25:BA:916:G:H8	1.74	0.52
26:DB:44:G:H1'	26:DB:47:C:N4	2.24	0.52
25:DA:915:C:H2'	25:DA:916:G:H8	1.74	0.52
37:BQ:140:ALA:HB1	46:BZ:99:TYR:HB2	1.90	0.52
1:AA:312:C:H2'	1:AA:313:A:C8	2.44	0.52
19:AQ:7:THR:HG22	19:AQ:58:GLU:HG2	1.90	0.52
25:DA:329:G:OP1	25:DA:329:G:H8	1.91	0.52
2:AZ:27:U:H2'	2:AZ:28:C:C6	2.43	0.52
1:CA:438:G:H4'	1:CA:439:A:OP1	2.09	0.52
36:DP:30:THR:HG22	36:DP:31:ALA:N	2.24	0.52
31:BH:109:PHE:CE1	31:BH:152:ARG:HD3	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CG:51:GLN:HA	9:CG:54:THR:O	2.09	0.52
25:DA:756:C:C4	25:DA:757:U:C5	2.97	0.52
29:BF:93:LYS:HB3	29:BF:94:PRO:HD2	1.90	0.52
34:DN:129:MET:HG2	25:DA:1006:C:O2	2.08	0.52
42:BV:28:GLU:HB3	42:BV:29:PRO:HD2	1.90	0.52
25:BA:2795:G:H3'	25:BA:2797:U:H5''	1.91	0.52
1:AA:1316:G:O2'	16:AN:18:VAL:HG21	2.09	0.52
50:B3:2:PRO:HB2	50:B3:59:VAL:O	2.09	0.52
29:DF:164:ARG:O	29:DF:168:ARG:HB2	2.10	0.52
10:CH:17:THR:HB	10:CH:78:GLN:HE22	1.73	0.52
48:D1:46:LEU:HA	48:D1:63:ALA:HA	1.90	0.52
25:BA:84:A:H5'	45:BY:9:LYS:HB3	1.91	0.52
16:CN:2:ALA:O	16:CN:6:LEU:HB2	2.09	0.52
52:D5:4:HIS:N	52:D5:5:PRO:HD2	2.25	0.52
25:BA:1434:A:H2'	25:BA:1435:G:H8	1.72	0.52
25:BA:2850:A:H5'	25:BA:2868:A:C2	2.39	0.52
25:BA:221:A:H8	25:BA:221:A:H5''	1.73	0.52
18:CP:20:VAL:HG23	18:CP:34:GLU:O	2.08	0.52
25:DA:2305:A:H3'	25:DA:2306:C:H5''	1.91	0.52
25:BA:1952:A:C4	35:BO:22:ILE:HD12	2.44	0.52
21:AS:36:ARG:HH12	21:AS:75:ALA:HB3	1.74	0.52
12:AJ:6:ILE:HD11	12:AJ:72:VAL:HB	1.92	0.52
1:AA:191(E):G:H2'	1:AA:191(F):U:C6	2.45	0.52
16:AN:37:PHE:CZ	16:AN:56:VAL:HG21	2.42	0.52
25:DA:919:G:C5'	26:DB:81:G:H1'	2.39	0.52
25:DA:2469:A:H5'	25:DA:2470:G:OP2	2.08	0.52
25:BA:2513:G:C2	25:BA:2514:U:C2	2.97	0.52
35:DO:17:ARG:HB2	35:DO:45:GLU:HG3	1.89	0.52
1:AA:256:U:H2'	1:AA:257:G:H8	1.74	0.52
34:DN:58:ARG:NH2	34:DN:131:PRO:HG3	2.22	0.52
1:AA:394:G:H2'	1:AA:395:C:H6	1.74	0.52
30:DG:126:ASP:HB2	25:DA:2302:G:H21	1.74	0.52
41:DU:75:ASN:HB2	41:DU:78:THR:OG1	2.08	0.52
25:BA:2580:U:C5	25:BA:2581:G:C6	2.97	0.52
8:AF:89:MET:SD	8:AF:91:VAL:HG23	2.49	0.52
31:BH:44:VAL:HB	31:BH:51:ARG:HB2	1.90	0.52
35:BO:12:ASP:OD1	35:BO:85:VAL:HG13	2.09	0.52
34:DN:160:LYS:HD2	34:DN:161:LEU:H	1.75	0.52
25:BA:2131:G:O5'	25:BA:2131:G:H8	1.93	0.52
4:CB:21:ARG:HB3	4:CB:39:ILE:HG23	1.90	0.52
1:AA:1404:C:H2'	1:AA:1405:G:C8	2.44	0.52
10:CH:111:ILE:O	10:CH:134:ILE:HB	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1528:U:H5''	1:CA:1528:U:H6	1.73	0.52
48:D1:18:ILE:HD13	48:D1:18:ILE:H	1.74	0.52
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.44	0.52
44:DX:36:LYS:HE3	44:DX:54:VAL:O	2.10	0.52
25:BA:1790:C:O2'	27:BD:209:ALA:HB2	2.10	0.52
25:BA:1842:G:H2'	25:BA:1843:C:C6	2.43	0.52
37:BQ:43:THR:OG1	37:BQ:45:GLN:HG2	2.08	0.52
10:CH:51:VAL:HG12	10:CH:52:ASP:N	2.18	0.52
10:AH:51:VAL:HG12	10:AH:52:ASP:N	2.18	0.52
30:DG:53:LEU:CD1	30:DG:88:ILE:HG12	2.39	0.52
18:CP:8:ARG:HH21	18:CP:15:PRO:HG3	1.74	0.52
38:DR:104:ARG:CB	38:DR:104:ARG:HH11	2.21	0.52
1:AA:1253:G:H2'	1:AA:1254:C:H6	1.74	0.52
27:DD:25:THR:HG21	27:DD:81:ALA:HA	1.90	0.52
25:DA:27:G:H8	25:DA:27:G:O5'	1.92	0.52
25:BA:811:U:H3'	36:BP:25:SER:O	2.09	0.52
24:AX:46:GLY:O	24:AX:50:GLU:HG2	2.09	0.52
1:AA:1320:C:H2'	1:AA:1321:C:O4'	2.09	0.52
25:BA:919:G:C5'	26:BB:81:G:H1'	2.40	0.52
25:BA:773:U:H4'	27:BD:47:GLY:HA3	1.90	0.52
34:BN:43:GLY:HA2	34:BN:84:ARG:CG	2.40	0.52
25:BA:323:G:HO2'	25:BA:1205:U:H3	1.56	0.52
2:AZ:18:G:H22	2:AZ:57:A:H2'	1.74	0.52
28:BE:117:MET:HE2	28:BE:124:GLY:HA3	1.92	0.52
21:CS:36:ARG:HH12	21:CS:75:ALA:HB3	1.74	0.52
1:AA:1316:G:O5'	1:AA:1316:G:H8	1.91	0.52
4:CB:95:GLN:HG3	4:CB:147:LYS:O	2.08	0.52
25:DA:1889:A:H2'	25:DA:1890:A:C8	2.44	0.52
1:CA:755:G:OP2	17:CO:65:ARG:HG3	2.09	0.52
4:AB:75:LYS:HD3	4:AB:75:LYS:C	2.30	0.52
26:DB:16:G:OP2	26:DB:16:G:H3'	2.09	0.52
44:BX:18:TYR:HA	44:BX:21:PHE:CD1	2.44	0.52
48:B1:19:GLN:HG2	48:B1:41:ARG:HA	1.91	0.52
36:DP:62:LEU:HD12	25:DA:2393:A:C5'	2.39	0.52
29:DF:102:PRO:O	29:DF:106:ARG:HG2	2.09	0.52
1:AA:1253:G:H2'	1:AA:1254:C:C6	2.45	0.52
38:DR:17:ARG:O	38:DR:20:LEU:HB3	2.09	0.52
1:CA:675:A:H2'	1:CA:676:A:C8	2.45	0.52
31:BH:27:LYS:HG2	31:BH:32:GLU:HB2	1.91	0.52
28:DE:132:HIS:ND1	25:DA:1658:C:OP1	2.43	0.52
25:BA:441:U:H1'	29:BF:46:ARG:HH22	1.74	0.52
15:AM:12:ASN:HA	15:AM:46:LYS:HE2	1.90	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:27:G:O2'	25:BA:28:A:H8	1.91	0.52
25:DA:1682:G:H5'	25:DA:1762:A:O2'	2.09	0.52
49:B2:35:LEU:HD12	49:B2:53:LEU:HD12	1.91	0.52
28:DE:110:GLY:N	25:DA:2821:A:OP1	2.41	0.52
27:DD:166:GLN:CA	27:DD:166:GLN:HE21	2.22	0.52
5:CC:27:LYS:HZ3	5:CC:27:LYS:HA	1.73	0.52
28:DE:154:LYS:O	28:DE:156:MET:HG3	2.09	0.52
25:BA:71:A:C2	44:BX:31:HIS:HE1	2.26	0.52
1:AA:237:C:H5''	19:AQ:25:ARG:CZ	2.38	0.52
1:AA:464:G:C6	1:AA:466:G:H5''	2.44	0.52
25:DA:210:C:H2'	25:DA:211:A:C8	2.45	0.52
4:AB:21:ARG:HB3	4:AB:39:ILE:HG23	1.92	0.52
4:CB:60:ASP:O	4:CB:64:ARG:HG2	2.10	0.52
46:DZ:8:TYR:HB2	46:DZ:38:TYR:CZ	2.45	0.52
24:CX:208:GLU:O	24:CX:210:PHE:N	2.43	0.52
6:AD:33:MET:HG2	6:AD:37:PRO:HA	1.92	0.52
4:AB:141:GLU:O	4:AB:145:LEU:HD23	2.09	0.52
1:CA:1201:A:H4'	1:CA:1202:G:O5'	2.09	0.52
4:AB:96:ARG:N	4:AB:96:ARG:HD2	2.24	0.52
4:CB:96:ARG:N	4:CB:96:ARG:HD2	2.24	0.52
25:DA:2795:G:H3'	25:DA:2797:U:H5''	1.90	0.52
36:BP:26:GLY:HA2	36:BP:30:THR:HG23	1.91	0.52
25:DA:6:A:H2'	25:DA:7:G:C8	2.45	0.52
9:AG:53:LYS:HG3	9:AG:125:MET:HE3	1.92	0.52
22:AT:10:LEU:HD12	22:AT:11:SER:H	1.73	0.52
4:CB:8:LYS:HG2	4:CB:217:ARG:NH1	2.24	0.52
25:BA:2282:G:H5''	25:BA:2283:C:O4'	2.09	0.52
1:AA:817:C:H1'	1:AA:819:A:H5'	1.90	0.52
42:BV:38:LEU:O	42:BV:52:VAL:HG12	2.10	0.52
48:D1:13:ILE:HG23	48:D1:14:VAL:H	1.73	0.52
29:DF:84:VAL:CG2	25:DA:448:U:H1'	2.40	0.52
24:AX:93:GLU:CD	24:AX:344:GLN:HB3	2.30	0.52
17:CO:60:VAL:O	17:CO:63:ARG:HB3	2.10	0.52
5:AC:105:GLU:CG	5:AC:106:VAL:H	2.20	0.52
4:CB:98:LEU:O	4:CB:101:MET:HG3	2.09	0.52
25:BA:141(A):A:H3'	25:BA:141(B):C:H6	1.73	0.52
24:AX:236:ASP:CG	24:AX:237:SER:H	2.11	0.52
55:B8:48:PHE:CE1	55:B8:50:LEU:HD21	2.45	0.52
12:CJ:6:ILE:HD11	12:CJ:72:VAL:HB	1.91	0.52
24:CX:80:ALA:O	24:CX:84:ARG:HB2	2.09	0.52
1:CA:1327:C:H2'	1:CA:1328:C:H6	1.74	0.52
34:BN:80:ALA:HB3	34:BN:147:ALA:HB2	1.91	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1152:A:H2'	1:CA:1153:C:C6	2.44	0.52
46:BZ:57:ILE:HD12	46:BZ:57:ILE:N	2.24	0.52
1:AA:394:G:C4	1:AA:395:C:C5	2.97	0.52
36:BP:30:THR:HG22	36:BP:31:ALA:N	2.24	0.52
7:AE:126:ARG:HA	7:AE:131:ILE:HD11	1.91	0.52
4:CB:141:GLU:O	4:CB:145:LEU:HD23	2.09	0.52
31:DH:13:LYS:HE2	31:DH:14:GLY:H	1.73	0.52
25:BA:375:C:H2'	25:BA:376:C:H6	1.73	0.52
55:B8:39:LYS:O	55:B8:43:GLN:HG2	2.10	0.52
31:BH:96:ALA:HA	31:BH:105:LEU:HB3	1.91	0.52
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.08	0.52
34:DN:85:VAL:HG22	34:DN:89:LYS:HG3	1.92	0.52
42:DV:28:GLU:HB3	42:DV:29:PRO:HD2	1.90	0.52
31:BH:13:LYS:HE2	31:BH:14:GLY:H	1.73	0.52
48:B1:18:ILE:HD13	48:B1:18:ILE:H	1.75	0.52
46:DZ:146:ILE:HA	46:DZ:174:VAL:HB	1.91	0.52
36:DP:97:PRO:HD3	36:DP:126:VAL:O	2.10	0.52
5:CC:58:GLU:HB2	5:CC:65:ALA:HB3	1.91	0.52
25:BA:141(A):A:H5''	25:BA:141(B):C:C5	2.36	0.52
24:CX:222:MET:HG2	25:DA:2555:U:H3	1.75	0.52
24:CX:223:ARG:HD3	24:CX:236:ASP:HB3	1.91	0.52
25:BA:1557:C:H5''	25:BA:1558:A:OP2	2.08	0.52
34:DN:40:ASP:OD1	34:DN:42:GLU:HG2	2.09	0.52
31:BH:101:ARG:HB2	31:BH:117:PRO:HG3	1.91	0.52
25:BA:2105:C:H2'	25:BA:2106:G:H8	1.74	0.52
32:BI:31:LEU:HB3	32:BI:32:PRO:HD3	1.92	0.52
24:AX:80:ALA:O	24:AX:84:ARG:HB2	2.10	0.52
1:AA:370:C:H2'	1:AA:371:G:C8	2.45	0.52
25:BA:2729:G:H1'	28:BE:187:ALA:CB	2.40	0.52
34:BN:53:ILE:HD12	34:BN:122:LEU:HD11	1.92	0.52
9:AG:92:SER:O	9:AG:96:GLN:HG3	2.10	0.52
4:AB:135:GLN:O	4:AB:139:LYS:HG2	2.08	0.52
25:DA:915:C:H2'	25:DA:916:G:C8	2.44	0.52
25:BA:210:C:H2'	25:BA:211:A:C8	2.45	0.52
30:DG:18:GLU:HG3	30:DG:21:ARG:HH21	1.74	0.52
25:DA:2623:G:H5'	25:DA:2826:A:H1'	1.92	0.52
29:BF:65:TRP:CZ3	29:BF:75:HIS:HD2	2.28	0.52
25:DA:2837:G:H2'	25:DA:2838:G:H8	1.74	0.52
24:AX:312:VAL:HG21	24:AX:327:VAL:HG21	1.92	0.52
7:CE:126:ARG:HA	7:CE:131:ILE:HD11	1.92	0.52
5:CC:13:GLY:HA3	16:CN:57:ARG:HE	1.74	0.52
9:AG:16:LEU:HB2	11:AI:41:VAL:HG12	1.90	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:218:A:H2'	25:BA:219:G:O4'	2.08	0.52
1:AA:563:A:H2'	1:AA:563:A:N3	2.24	0.52
1:AA:1161:C:H2'	1:AA:1162:C:H6	1.75	0.52
25:BA:1820:U:H4'	25:BA:1821:A:OP2	2.10	0.52
27:DD:186:HIS:CD2	27:DD:188:GLU:H	2.28	0.52
26:DB:67:G:N2	26:DB:68:C:C2	2.78	0.52
2:CY:26:G:H2'	2:CY:27:U:H6	1.75	0.52
25:DA:1824:G:O2'	25:DA:1825:A:H5'	2.09	0.52
44:DX:40:LYS:O	44:DX:44:GLU:HB2	2.09	0.52
44:DX:89:ILE:HB	44:DX:92:LEU:HB2	1.92	0.52
48:B1:13:ILE:HG23	48:B1:14:VAL:H	1.74	0.52
48:B1:11:ARG:HG3	48:B1:62:VAL:CA	2.40	0.52
25:BA:586:A:C5'	29:BF:89:VAL:HG11	2.34	0.52
11:AI:53:VAL:HG12	11:AI:92:TYR:HD2	1.74	0.52
18:AP:22:THR:HG22	18:AP:32:TYR:HA	1.91	0.52
27:DD:25:THR:O	27:DD:27:THR:HG22	2.10	0.52
27:BD:25:THR:O	27:BD:27:THR:HG22	2.10	0.52
1:AA:675:A:H2'	1:AA:676:A:C8	2.45	0.52
37:DQ:38:GLU:O	37:DQ:127:ILE:HD13	2.09	0.52
25:BA:1682:G:H5'	25:BA:1762:A:O2'	2.09	0.52
21:AS:16:LEU:O	21:AS:20:LEU:HG	2.09	0.52
14:CL:83:LEU:HD12	14:CL:103:VAL:HG11	1.91	0.52
25:DA:1980:G:H5''	25:DA:1980:G:C8	2.45	0.52
25:DA:1498:C:OP2	25:DA:1498:C:H3'	2.10	0.52
1:CA:176:C:H2'	1:CA:177:C:C6	2.45	0.52
1:CA:176:C:H5''	22:CT:29:LYS:HZ1	1.74	0.52
27:BD:166:GLN:HE21	27:BD:166:GLN:CA	2.23	0.52
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.45	0.52
25:DA:2542:A:H1'	25:DA:2543:G:N7	2.25	0.52
2:CZ:37:A:H2'	2:CZ:38:A:C8	2.45	0.52
12:CJ:30:SER:HB2	12:CJ:80:LYS:HG2	1.91	0.52
28:BE:154:LYS:O	28:BE:156:MET:HG3	2.09	0.52
1:AA:1148:U:O3'	11:AI:14:VAL:HG11	2.10	0.52
41:BU:59:ARG:O	41:BU:63:VAL:HG23	2.09	0.52
2:CZ:18:G:N2	2:CZ:57:A:H2'	2.25	0.52
1:CA:1080:A:H5''	1:CA:1081:G:OP2	2.10	0.52
25:BA:2837:G:H2'	25:BA:2838:G:H8	1.72	0.52
28:DE:31:CYS:HB3	28:DE:49:LEU:HB3	1.90	0.52
30:DG:173:LEU:HA	30:DG:176:LEU:HD12	1.91	0.52
9:AG:31:MET:SD	9:AG:34:GLY:HA2	2.49	0.52
25:DA:2683:C:H2'	25:DA:2684:U:C6	2.44	0.52
25:DA:2189:U:H2'	25:DA:2190:G:H8	1.75	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AC:134:ILE:HD11	5:AC:153:VAL:HG22	1.92	0.52
24:CX:312:VAL:HG21	24:CX:327:VAL:HG21	1.92	0.52
29:BF:164:ARG:O	29:BF:168:ARG:HB2	2.09	0.52
37:DQ:63:LYS:HD3	46:DZ:175:VAL:HG21	1.92	0.52
25:BA:1034:G:C5	25:BA:1035:U:C4	2.97	0.52
4:CB:75:LYS:C	4:CB:75:LYS:HD3	2.30	0.52
44:DX:44:GLU:HG3	44:DX:50:LYS:HA	1.91	0.52
44:DX:7:VAL:HG13	44:DX:30:VAL:HG13	1.92	0.52
4:CB:70:PHE:O	4:CB:71:VAL:HG13	2.09	0.52
12:AJ:49:VAL:CG2	16:AN:41:ARG:HB2	2.39	0.52
24:CX:163:ARG:NH1	24:CX:204:LYS:HD3	2.23	0.52
13:AK:12:ARG:HG2	13:AK:13:GLN:N	2.21	0.52
38:BR:17:ARG:O	38:BR:20:LEU:HB3	2.09	0.52
34:BN:40:ASP:OD1	34:BN:42:GLU:HG2	2.09	0.52
15:AM:57:ARG:HH12	51:B4:60:GLU:HB2	1.75	0.52
27:DD:239:ARG:HB2	25:DA:2591:C:OP2	2.10	0.52
1:AA:939:G:H2'	1:AA:940:C:C6	2.45	0.52
1:CA:1493:A:C5	25:DA:1913:A:C5	2.98	0.52
24:CX:316:ARG:NE	24:CX:346:ARG:HH22	2.07	0.52
2:CZ:37:A:H2'	2:CZ:38:A:H8	1.74	0.52
13:CK:57:THR:HG22	13:CK:59:TYR:N	2.25	0.52
8:AF:53:ALA:HB3	8:AF:86:ARG:NH1	2.24	0.52
41:DU:18:LEU:HD21	41:DU:22:LYS:HE2	1.90	0.52
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.73	0.52
25:DA:2113:U:H2'	25:DA:2114:A:C8	2.44	0.52
1:CA:429:U:H1'	1:CA:430:A:H5''	1.92	0.52
26:BB:16:G:H3'	26:BB:16:G:OP2	2.10	0.52
5:CC:92:ALA:HB2	5:CC:99:VAL:HG13	1.92	0.52
46:BZ:104:PHE:HA	46:BZ:139:VAL:HB	1.92	0.52
1:AA:25:C:H2'	1:AA:26:A:C8	2.44	0.52
25:BA:371:A:C8	25:BA:373:U:C2	2.98	0.52
36:DP:49:ARG:NH1	25:DA:666:G:H4'	2.25	0.52
1:AA:542:G:H2'	1:AA:543:C:H6	1.75	0.52
29:DF:74:ARG:HD3	25:DA:674:G:O2'	2.10	0.52
1:AA:695:A:H2'	1:AA:696:A:C8	2.45	0.52
1:CA:843:U:H5'	1:CA:848:C:O4'	2.10	0.52
15:AM:60:VAL:HG13	15:AM:64:TRP:HE1	1.74	0.52
26:BB:70:C:H2'	26:BB:71:C:H6	1.75	0.52
4:AB:153:ARG:HB2	4:AB:153:ARG:NH1	2.25	0.52
25:BA:796:C:H2'	25:BA:797:C:C6	2.45	0.52
1:AA:438:G:H4'	1:AA:439:A:OP1	2.09	0.52
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BF:80:ALA:O	29:BF:83:PHE:HB2	2.08	0.52
7:CE:6:PHE:CD2	7:CE:36:ASP:HB3	2.35	0.52
5:AC:58:GLU:HB2	5:AC:65:ALA:HB3	1.91	0.52
31:DH:101:ARG:HB2	31:DH:117:PRO:HG3	1.92	0.52
41:BU:81:HIS:O	41:BU:85:LYS:HB2	2.09	0.52
25:DA:2379:G:H2'	25:DA:2380:C:C6	2.45	0.52
48:B1:27:GLU:HB3	48:B1:33:LYS:HG3	1.90	0.52
49:B2:46:GLN:HB2	49:B2:49:LYS:NZ	2.25	0.52
1:CA:237:C:H5''	19:CQ:25:ARG:CZ	2.39	0.52
1:CA:256:U:H2'	1:CA:257:G:H8	1.75	0.52
1:CA:394:G:C4	1:CA:395:C:C5	2.97	0.52
25:DA:2194:G:H2'	25:DA:2195:C:C6	2.44	0.52
26:BB:31:C:H4'	30:BG:29:TRP:CH2	2.45	0.52
1:CA:1316:G:O2'	16:CN:18:VAL:HG21	2.10	0.52
36:DP:26:GLY:HA2	36:DP:30:THR:HG23	1.90	0.52
46:DZ:110:GLY:HA2	46:DZ:146:ILE:HG23	1.92	0.52
1:AA:151:A:H2'	1:AA:152:A:O4'	2.10	0.52
1:AA:1465:C:H2'	1:AA:1466:C:O4'	2.09	0.52
1:CA:1338:G:H21	2:CY:41:C:H1'	1.74	0.52
25:BA:1360:A:H5'	25:BA:1361:G:OP2	2.09	0.52
5:CC:134:ILE:HD11	5:CC:153:VAL:HG22	1.91	0.52
30:BG:173:LEU:HA	30:BG:176:LEU:HD12	1.91	0.52
34:BN:160:LYS:HD2	34:BN:161:LEU:H	1.75	0.52
7:CE:149:GLU:O	7:CE:153:LYS:HB2	2.10	0.52
31:DH:103:LEU:H	31:DH:103:LEU:HD23	1.75	0.52
35:BO:53:LYS:N	35:BO:53:LYS:HD2	2.25	0.52
25:BA:2817:G:H2'	25:BA:2818:G:O4'	2.10	0.52
26:DB:60:C:H2'	26:DB:61:G:H8	1.75	0.52
44:DX:40:LYS:HD2	44:DX:51:VAL:HB	1.92	0.52
27:DD:246:PRO:HB2	27:DD:255:LYS:HB3	1.92	0.52
42:DV:22:VAL:CG1	42:DV:23:GLU:H	2.19	0.52
29:DF:80:ALA:HB3	29:DF:83:PHE:HD1	1.74	0.52
1:CA:522:C:N4	1:CA:528:C:H42	2.06	0.52
14:CL:84:ILE:HG23	14:CL:97:TYR:HB3	1.92	0.52
49:D2:17:SER:CB	49:D2:18:PRO:CD	2.86	0.52
51:D4:42:CYS:SG	51:D4:46:ASN:HB3	2.50	0.52
43:DW:18:ARG:HG2	43:DW:76:VAL:CG1	2.39	0.52
1:AA:1080:A:H5''	1:AA:1081:G:OP2	2.10	0.52
43:BW:18:ARG:HG2	43:BW:76:VAL:CG1	2.40	0.52
34:DN:36:TRP:HB2	34:DN:156:GLN:HB2	1.92	0.52
30:BG:133:LEU:HD23	30:BG:133:LEU:H	1.74	0.52
1:AA:176:C:H2'	1:AA:177:C:C6	2.45	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:176:C:H5''	22:AT:29:LYS:HZ1	1.73	0.52
29:DF:150:GLY:HA2	29:DF:172:TRP:CZ3	2.44	0.52
25:BA:2468:G:H5'	37:BQ:120:ILE:HD12	1.92	0.52
2:AZ:37:A:H2'	2:AZ:38:A:H8	1.75	0.52
34:BN:53:ILE:HG23	34:BN:75:VAL:HG11	1.92	0.52
35:BO:106:LEU:HD12	35:BO:106:LEU:H	1.75	0.52
25:DA:2807:G:N1	25:DA:2893:G:O6	2.43	0.52
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.45	0.52
1:AA:542:G:H5'	6:AD:41:GLY:CA	2.40	0.52
26:DB:70:C:H2'	26:DB:71:C:H6	1.74	0.52
49:D2:59:ARG:HA	49:D2:62:THR:HB	1.90	0.52
1:CA:539:A:H2'	1:CA:540:G:C8	2.45	0.52
25:BA:289:A:H2'	25:BA:290:G:O4'	2.09	0.52
25:BA:6:A:H2'	25:BA:7:G:C8	2.44	0.52
49:D2:15:LYS:HE2	49:D2:15:LYS:HA	1.92	0.52
2:AZ:33:U:H4'	9:AG:84:ASN:HD22	1.74	0.52
25:BA:2189:U:H2'	25:BA:2190:G:H8	1.75	0.52
25:DA:1842:G:H2'	25:DA:1843:C:C6	2.45	0.51
44:BX:40:LYS:O	44:BX:44:GLU:HB2	2.10	0.51
44:BX:44:GLU:HG3	44:BX:50:LYS:HA	1.91	0.51
48:D1:11:ARG:HG3	48:D1:62:VAL:CA	2.40	0.51
1:AA:522:C:N4	1:AA:528:C:H42	2.08	0.51
12:CJ:49:VAL:CG2	16:CN:41:ARG:HB2	2.39	0.51
52:B5:4:HIS:N	52:B5:5:PRO:HD2	2.25	0.51
29:BF:102:PRO:O	29:BF:106:ARG:HG2	2.09	0.51
25:BA:1190:G:P	36:BP:32:THR:HG21	2.50	0.51
29:DF:45:ARG:HD2	25:DA:443:A:C6	2.45	0.51
39:DS:21:THR:HG21	25:DA:2378:A:O2'	2.09	0.51
15:CM:12:ASN:HA	15:CM:46:LYS:HE2	1.91	0.51
25:BA:2502:G:H5'	25:BA:2503:A:C5'	2.40	0.51
25:BA:94:G:H21	49:B2:47:ASN:HD22	1.58	0.51
19:CQ:17:LYS:HE3	19:CQ:47:PRO:HA	1.91	0.51
5:AC:6:HIS:ND1	16:AN:49:HIS:HB3	2.25	0.51
34:BN:36:TRP:HB2	34:BN:156:GLN:HB2	1.91	0.51
49:D2:47:ASN:ND2	25:DA:94:G:N2	2.58	0.51
12:AJ:74:ILE:HG12	12:AJ:74:ILE:O	2.09	0.51
1:CA:191(F):U:H2'	1:CA:191(G):G:C8	2.44	0.51
25:DA:2468:G:N2	25:DA:2481:G:H2'	2.25	0.51
12:CJ:62:HIS:HD2	16:CN:59:ALA:HB3	1.74	0.51
1:CA:259:G:H2'	1:CA:260:G:C8	2.45	0.51
25:BA:2291:U:H2'	25:BA:2292:C:C6	2.45	0.51
2:AZ:18:G:N2	2:AZ:57:A:H2'	2.25	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DU:27:LEU:HD12	25:DA:2019:A:H5''	1.90	0.51
26:BB:44:G:H1'	26:BB:47:C:N4	2.25	0.51
1:AA:843:U:H5'	1:AA:848:C:O4'	2.10	0.51
25:BA:2128:C:H2'	25:BA:2129:C:C6	2.45	0.51
25:BA:740:U:H2'	25:BA:741:G:C8	2.45	0.51
1:AA:1528:U:H6	1:AA:1528:U:H5''	1.75	0.51
5:AC:52:LEU:HD23	5:AC:52:LEU:H	1.75	0.51
45:DY:75:ILE:HD11	45:DY:79:CYS:HA	1.92	0.51
25:BA:2626:C:H2'	25:BA:2627:G:O4'	2.10	0.51
25:BA:2393:A:C5'	36:BP:62:LEU:HD12	2.39	0.51
5:AC:23:TYR:HA	12:AJ:11:PHE:CE1	2.45	0.51
25:DA:941:A:H2'	25:DA:942:G:O4'	2.10	0.51
25:DA:2592:G:C2	25:DA:2603:G:C2	2.98	0.51
36:DP:50:ARG:HG2	36:DP:50:ARG:O	2.08	0.51
25:BA:1130:U:O2'	25:BA:1131:G:H5''	2.11	0.51
25:BA:2305:A:H3'	25:BA:2306:C:H5''	1.92	0.51
25:BA:1952:A:C6	25:BA:1953:A:N1	2.79	0.51
25:BA:1980:G:H8	25:BA:1980:G:H5''	1.75	0.51
5:CC:6:HIS:ND1	16:CN:49:HIS:HB3	2.25	0.51
30:DG:133:LEU:HD23	30:DG:133:LEU:H	1.74	0.51
25:DA:919:G:H5''	26:DB:81:G:H1'	1.92	0.51
35:BO:104:ARG:NH1	35:BO:104:ARG:HB3	2.25	0.51
9:AG:42:ILE:O	9:AG:45:ASP:HB2	2.10	0.51
34:DN:80:ALA:HB3	34:DN:147:ALA:HB2	1.92	0.51
24:CX:325:GLU:HG3	24:CX:326:GLY:N	2.24	0.51
25:DA:2039:C:O2'	25:DA:2040:C:H5'	2.10	0.51
25:BA:2807:G:N1	25:BA:2893:G:O6	2.43	0.51
25:BA:2301:C:H2'	25:BA:2302:G:C8	2.44	0.51
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.45	0.51
5:AC:13:GLY:HA3	16:AN:57:ARG:NE	2.25	0.51
1:CA:1161:C:H2'	1:CA:1162:C:C6	2.44	0.51
24:AX:208:GLU:O	24:AX:210:PHE:N	2.43	0.51
25:DA:2131:G:H5'	25:DA:2133:G:O4'	2.11	0.51
25:BA:2345:G:N3	25:BA:2381:C:H2'	2.25	0.51
1:AA:551:U:H2'	1:AA:552:U:C6	2.45	0.51
25:BA:273(A):G:H1	25:BA:364:C:H42	1.58	0.51
1:AA:784:C:H4'	25:BA:1837:C:OP1	2.10	0.51
40:DT:29:ARG:HD3	40:DT:46:GLU:OE1	2.11	0.51
25:DA:286:C:H2'	25:DA:287:C:C6	2.45	0.51
44:BX:36:LYS:HE3	44:BX:54:VAL:O	2.10	0.51
43:BW:31:GLU:O	43:BW:35:ILE:HG13	2.10	0.51
25:BA:1264:G:H8	25:BA:1264:G:O5'	1.93	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DW:103:ILE:H	43:DW:103:ILE:HD12	1.75	0.51
1:AA:524:G:H2'	1:AA:525:C:C6	2.45	0.51
46:BZ:146:ILE:HA	46:BZ:174:VAL:HB	1.91	0.51
2:CZ:11:A:H2'	2:CZ:12:G:C8	2.46	0.51
11:CI:4:TYR:CE2	11:CI:88:TYR:HB2	2.45	0.51
1:AA:1286:A:N6	1:AA:1354:C:H5''	2.26	0.51
28:BE:84:PHE:CE2	28:BE:86:PRO:HG3	2.45	0.51
24:AX:237:SER:CB	24:AX:258:GLN:HB2	2.39	0.51
1:AA:17:U:H2'	1:AA:18:C:H6	1.75	0.51
25:BA:973:A:OP2	42:BV:78:LYS:NZ	2.42	0.51
39:DS:26:LEU:O	39:DS:88:ASP:HB3	2.10	0.51
17:CO:45:VAL:HG23	17:CO:46:HIS:ND1	2.25	0.51
25:DA:270(R):C:O2'	25:DA:270(S):G:H5'	2.10	0.51
49:D2:35:LEU:HD12	49:D2:53:LEU:HD12	1.92	0.51
41:DU:40:PHE:HB3	42:DV:75:PHE:CD1	2.45	0.51
28:BE:184:VAL:HG12	28:BE:185:LYS:H	1.74	0.51
45:BY:20:TYR:CE1	45:BY:42:VAL:HA	2.46	0.51
44:BX:31:HIS:HD2	44:BX:33:LYS:O	1.93	0.51
24:AX:325:GLU:HG3	24:AX:326:GLY:N	2.25	0.51
48:B1:20:ARG:HB2	48:B1:20:ARG:HH11	1.75	0.51
29:BF:14:PRO:HD3	29:BF:128:ALA:HB2	1.92	0.51
28:DE:117:MET:HE2	28:DE:124:GLY:HA3	1.91	0.51
25:DA:755:C:H2'	25:DA:756:C:H6	1.75	0.51
25:BA:364:C:H6	25:BA:364:C:H5'	1.75	0.51
1:CA:25:C:H2'	1:CA:26:A:C8	2.45	0.51
29:DF:65:TRP:CZ3	29:DF:75:HIS:HD2	2.29	0.51
27:BD:186:HIS:CD2	27:BD:188:GLU:H	2.28	0.51
10:CH:82:HIS:HD2	10:CH:138:TRP:NE1	2.07	0.51
25:BA:863:A:H2'	25:BA:864:G:C8	2.44	0.51
5:CC:52:LEU:HD23	5:CC:52:LEU:H	1.75	0.51
1:CA:718:G:C8	13:CK:116:HIS:HB3	2.46	0.51
5:AC:92:ALA:HB2	5:AC:99:VAL:HG13	1.93	0.51
15:CM:60:VAL:HG13	15:CM:64:TRP:HE1	1.74	0.51
11:AI:4:TYR:CE2	11:AI:88:TYR:HB2	2.45	0.51
11:AI:5:TYR:HA	11:AI:17:VAL:O	2.11	0.51
37:BQ:43:THR:HA	37:BQ:94:VAL:HG12	1.92	0.51
25:DA:1075:C:H2'	25:DA:1076:C:H6	1.67	0.51
30:DG:97:ASP:O	30:DG:101:ILE:HG23	2.09	0.51
49:B2:21:LEU:HD12	49:B2:64:LEU:HB3	1.91	0.51
24:CX:237:SER:CB	24:CX:258:GLN:HB2	2.39	0.51
31:DH:101:ARG:NE	31:DH:101:ARG:H	2.05	0.51
11:AI:99:LEU:HD12	11:AI:101:PHE:HE2	1.74	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:939:G:H2'	1:CA:940:C:C6	2.45	0.51
36:BP:115:LEU:HA	36:BP:134:ALA:CB	2.39	0.51
37:DQ:141:GLN:HG2	46:DZ:72:ARG:HA	1.92	0.51
37:BQ:141:GLN:HG2	46:BZ:72:ARG:HA	1.92	0.51
26:DB:8:U:H2'	26:DB:9:G:C8	2.46	0.51
19:CQ:45:HIS:HB2	19:CQ:69:LYS:HE2	1.93	0.51
36:DP:16:ARG:HE	36:DP:17:LYS:N	2.08	0.51
24:CX:342:ALA:O	24:CX:346:ARG:HG3	2.10	0.51
49:B2:32:LEU:HA	49:B2:53:LEU:HD13	1.91	0.51
4:AB:20:GLU:HA	4:AB:20:GLU:OE1	2.11	0.51
25:BA:2194:G:H2'	25:BA:2195:C:C6	2.44	0.51
25:DA:2817:G:H2'	25:DA:2818:G:O4'	2.10	0.51
4:AB:27:LYS:O	4:AB:30:ARG:HG2	2.11	0.51
1:AA:731:G:OP1	1:AA:766:A:H1'	2.10	0.51
25:DA:414:C:H2'	25:DA:415:A:C8	2.46	0.51
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.46	0.51
10:AH:73:ASP:O	10:AH:75:ARG:HG2	2.11	0.51
5:AC:184:TYR:HE2	5:AC:186:PHE:HB2	1.74	0.51
25:DA:1570:A:C6	25:DA:1571:A:C6	2.98	0.51
19:CQ:40:LYS:HD2	19:CQ:42:TYR:CE1	2.45	0.51
1:CA:278:G:OP2	19:CQ:41:LYS:HE2	2.11	0.51
1:AA:598:U:H2'	1:AA:599:C:C6	2.45	0.51
25:BA:414:C:H2'	25:BA:415:A:C8	2.46	0.51
1:CA:1015:A:H1'	1:CA:1218:C:O2'	2.11	0.51
18:AP:23:ASP:O	18:AP:26:ARG:HB2	2.10	0.51
31:DH:29:PRO:HD2	31:DH:79:VAL:O	2.11	0.51
25:BA:2623:G:H5'	25:BA:2826:A:H1'	1.93	0.51
45:BY:75:ILE:HD11	45:BY:79:CYS:HA	1.90	0.51
41:DU:92:ARG:HB3	42:DV:11:GLN:OE1	2.11	0.51
11:CI:5:TYR:HA	11:CI:17:VAL:O	2.10	0.51
36:DP:32:THR:HG21	25:DA:1190:G:P	2.51	0.51
1:CA:1286:A:N6	1:CA:1354:C:H5''	2.25	0.51
1:CA:891:U:H2'	1:CA:892:A:C8	2.42	0.51
36:DP:45:LEU:CD2	36:DP:46:LYS:H	2.24	0.51
42:DV:78:LYS:NZ	25:DA:973:A:OP2	2.42	0.51
24:AX:177:VAL:HG12	24:AX:301:LYS:HB2	1.93	0.51
25:BA:1858:G:O2'	25:BA:1859:A:H8	1.94	0.51
32:BI:133:HIS:CD2	32:BI:135:GLU:HG2	2.45	0.51
25:DA:1483:G:H2'	25:DA:1484:G:H8	1.72	0.51
49:D2:47:ASN:ND2	25:DA:61:G:C5	2.78	0.51
25:BA:828:U:H4'	25:BA:831:G:N1	2.26	0.51
37:DQ:120:ILE:HD12	25:DA:2468:G:H5'	1.91	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:713:G:H2'	25:BA:714:U:H6	1.74	0.51
14:CL:45:LYS:HG3	14:CL:93:PRO:HD3	1.93	0.51
25:BA:481:G:O2'	25:BA:507:A:N6	2.44	0.51
37:DQ:13:GLN:CG	25:DA:954:G:H5''	2.40	0.51
25:BA:1900:A:N1	25:BA:1970:A:C6	2.79	0.51
25:DA:1270:C:H5''	25:DA:1271:G:H5'	1.91	0.51
25:BA:2131:G:H5'	25:BA:2133:G:O4'	2.11	0.51
4:CB:137:ARG:O	4:CB:141:GLU:HG2	2.11	0.51
27:BD:70:TRP:CH2	27:BD:150:LYS:HA	2.45	0.51
2:CY:57:A:O2'	2:CY:58:A:H5'	2.10	0.51
25:BA:286:C:H2'	25:BA:287:C:C6	2.45	0.51
39:BS:40:ILE:HG12	39:BS:47:THR:OG1	2.10	0.51
6:AD:31:CYS:O	6:AD:32:ALA:HB3	2.10	0.51
17:AO:9:GLN:O	17:AO:13:GLN:HG2	2.11	0.51
4:AB:60:ASP:O	4:AB:64:ARG:HG2	2.10	0.51
5:CC:184:TYR:HE2	5:CC:186:PHE:HB2	1.74	0.51
22:AT:80:ARG:O	22:AT:84:LEU:HB2	2.10	0.51
25:DA:2128:C:H2'	25:DA:2129:C:C6	2.45	0.51
25:DA:2596:U:H2'	25:DA:2597:G:O4'	2.10	0.51
1:CA:353:A:H8	1:CA:353:A:H5'	1.74	0.51
25:BA:1889:A:H2'	25:BA:1890:A:C8	2.45	0.51
25:BA:609(A):A:H2'	25:BA:609(B):G:O4'	2.11	0.51
44:DX:89:ILE:HG13	44:DX:92:LEU:HD12	1.92	0.51
48:B1:46:LEU:HA	48:B1:63:ALA:HA	1.91	0.51
29:BF:63:LYS:HZ1	29:BF:67:GLN:NE2	2.01	0.51
45:BY:4:LYS:HD3	45:BY:4:LYS:N	2.25	0.51
25:DA:2626:C:H2'	25:DA:2627:G:O4'	2.10	0.51
17:AO:60:VAL:O	17:AO:63:ARG:HB3	2.09	0.51
25:BA:1664:A:H61	25:BA:1996:C:H42	1.58	0.51
25:BA:108:U:H2'	25:BA:109:G:C8	2.46	0.51
24:CX:112:ARG:HB2	24:CX:198:THR:CG2	2.41	0.51
24:CX:294:GLY:O	24:CX:297:GLU:HG3	2.11	0.51
34:DN:69:VAL:HG13	34:DN:71:MET:HG3	1.91	0.51
24:CX:306:ASN:OD1	24:CX:308:PRO:HG2	2.09	0.51
25:BA:1655:A:H1'	28:BE:113:PHE:HD2	1.75	0.51
25:BA:705:A:H1'	27:BD:9:TYR:CE1	2.46	0.51
25:DA:1833:U:H2'	25:DA:1834:U:C6	2.46	0.51
39:BS:26:LEU:O	39:BS:88:ASP:HB3	2.09	0.51
27:BD:133:LEU:HD22	27:BD:173:VAL:HG11	1.93	0.51
31:BH:13:LYS:HA	31:BH:13:LYS:HE2	1.92	0.51
9:CG:31:MET:SD	9:CG:34:GLY:HA2	2.50	0.51
1:CA:151:A:H2'	1:CA:152:A:O4'	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.45	0.51
41:BU:26:GLY:O	41:BU:30:LYS:HG2	2.11	0.51
1:CA:551:U:H2'	1:CA:552:U:C6	2.46	0.51
26:BB:67:G:N2	26:BB:68:C:C2	2.79	0.51
25:BA:212:G:O2'	25:BA:213:A:H5'	2.11	0.51
6:AD:23:GLY:HA3	6:AD:112:VAL:HG22	1.93	0.51
5:CC:175:LEU:O	5:CC:175:LEU:HD23	2.10	0.51
46:DZ:104:PHE:HA	46:DZ:139:VAL:HB	1.93	0.51
22:CT:85:MET:HB2	22:CT:104:LEU:HD21	1.93	0.51
31:BH:29:PRO:HD2	31:BH:79:VAL:O	2.10	0.51
37:BQ:59:ARG:HA	46:BZ:179:ASP:OD2	2.10	0.51
25:BA:2557:G:H2'	25:BA:2558:C:C6	2.45	0.51
25:DA:1841:U:H2'	25:DA:1842:G:H8	1.75	0.51
29:BF:80:ALA:HB3	29:BF:83:PHE:HD1	1.75	0.51
7:CE:79:GLU:OE1	10:CH:104:ARG:HG3	2.10	0.51
25:BA:941:A:H2'	25:BA:942:G:O4'	2.10	0.51
49:B2:17:SER:CB	49:B2:18:PRO:CD	2.87	0.51
27:BD:125:ILE:HD12	27:BD:125:ILE:N	2.23	0.51
36:BP:45:LEU:CD2	36:BP:46:LYS:H	2.23	0.51
25:DA:1996:C:H4'	25:DA:1997:G:H5'	1.93	0.51
25:BA:1785:A:H2'	25:BA:1786:A:H5''	1.91	0.51
25:DA:1130:U:O2'	25:DA:1131:G:H5''	2.11	0.51
28:BE:169:ASN:CG	28:BE:201:THR:HG21	2.31	0.51
29:BF:150:GLY:HA2	29:BF:172:TRP:CZ3	2.46	0.51
25:BA:380:U:H4'	48:B1:21:ARG:O	2.10	0.51
25:BA:380:U:O2'	48:B1:20:ARG:HB3	2.11	0.51
1:AA:358:U:H2'	1:AA:359:U:C6	2.45	0.51
25:DA:807:U:H2'	25:DA:808:G:C8	2.46	0.51
1:CA:328:C:H4'	1:CA:329:A:C5'	2.41	0.51
4:AB:137:ARG:O	4:AB:141:GLU:HG2	2.10	0.51
34:DN:86:THR:O	34:DN:89:LYS:HG2	2.11	0.51
29:BF:164:ARG:HH22	29:BF:177:ALA:HA	1.76	0.51
25:DA:2131:G:O5'	25:DA:2131:G:H8	1.93	0.51
4:AB:25:ASN:HD22	4:AB:25:ASN:N	2.08	0.51
1:AA:1452:C:H4'	1:AA:1453:G:C4	2.46	0.51
1:AA:180:U:H2'	1:AA:181:G:H5''	1.93	0.51
43:DW:57:ASN:HD21	25:DA:494:G:N2	2.08	0.51
25:BA:1197:G:H5'	25:BA:1227:G:O2'	2.10	0.51
37:BQ:68:ILE:HG23	37:BQ:103:MET:HA	1.93	0.51
41:DU:10:ARG:HD2	25:DA:583:G:OP2	2.10	0.51
35:DO:53:LYS:N	35:DO:53:LYS:HD2	2.25	0.51
6:CD:166:LYS:HD2	6:CD:166:LYS:O	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:D1:42:GLN:OE1	25:DA:396:G:H1'	2.10	0.51
29:DF:63:LYS:HZ1	29:DF:67:GLN:NE2	2.01	0.51
5:CC:23:TYR:HA	12:CJ:11:PHE:CE1	2.45	0.51
5:CC:125:GLU:OE2	5:CC:189:ALA:HA	2.11	0.51
18:AP:20:VAL:HG21	18:AP:32:TYR:CG	2.45	0.51
25:DA:2105:C:H2'	25:DA:2106:G:H8	1.75	0.51
1:AA:427:U:C4	1:AA:428:G:C6	2.99	0.51
1:AA:413:G:O6	6:AD:35:ARG:HD3	2.10	0.51
24:CX:283:GLU:OE1	24:CX:283:GLU:HA	2.10	0.51
29:DF:46:ARG:HH22	25:DA:441:U:H1'	1.75	0.51
34:DN:53:ILE:HG23	34:DN:75:VAL:HG11	1.92	0.51
1:AA:715:A:H2'	1:AA:716:A:H8	1.76	0.51
12:AJ:30:SER:HB2	12:AJ:80:LYS:HG2	1.92	0.51
24:CX:234:THR:HG21	25:DA:2452:C:H4'	1.93	0.51
40:BT:96:ARG:HG3	40:BT:97:ALA:N	2.26	0.51
10:AH:9:MET:HG3	10:AH:26:VAL:HG21	1.93	0.51
1:AA:373:A:H2'	1:AA:374:A:H8	1.76	0.51
35:BO:88:ASN:OD1	35:BO:89:ASN:N	2.44	0.51
1:AA:1015:A:H1'	1:AA:1218:C:O2'	2.11	0.51
25:DA:481:G:O2'	25:DA:507:A:N6	2.44	0.51
24:CX:313:THR:HG22	24:CX:320:THR:OG1	2.10	0.51
25:BA:396:G:H1'	48:B1:42:GLN:OE1	2.11	0.51
35:DO:88:ASN:OD1	35:DO:89:ASN:N	2.43	0.51
40:DT:22:PHE:N	40:DT:22:PHE:CD2	2.79	0.51
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.46	0.51
19:AQ:40:LYS:HD2	19:AQ:42:TYR:CE1	2.46	0.51
18:CP:23:ASP:O	18:CP:26:ARG:HB2	2.10	0.51
1:CA:142:G:H1	1:CA:221:C:H42	1.59	0.51
19:CQ:99:SER:O	19:CQ:100:LYS:HD3	2.11	0.51
25:BA:1826:G:H2'	25:BA:1827:C:H6	1.76	0.51
36:DP:125:VAL:O	36:DP:145:PRO:HD2	2.11	0.51
37:BQ:30:GLY:CA	37:BQ:107:ALA:HB2	2.36	0.51
36:BP:125:VAL:O	36:BP:145:PRO:HD2	2.11	0.51
14:CL:44:PRO:CG	14:CL:50:ALA:H	2.24	0.51
36:BP:16:ARG:HE	36:BP:17:LYS:N	2.09	0.51
25:BA:1407:C:H2'	25:BA:1408:C:C6	2.45	0.51
30:DG:64:THR:HG23	30:DG:66:GLN:N	2.24	0.51
32:BI:67:ARG:O	32:BI:71:ILE:HG22	2.11	0.51
25:DA:1664:A:H61	25:DA:1996:C:H42	1.56	0.51
1:AA:668:G:H1'	17:AO:46:HIS:CD2	2.44	0.51
1:CA:668:G:H1'	17:CO:46:HIS:CD2	2.43	0.51
9:AG:15:ASP:HB3	9:AG:19:GLY:H	1.76	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AX:316:ARG:NE	24:AX:346:ARG:HH22	2.07	0.51
1:CA:125:U:H2'	1:CA:126:G:H8	1.76	0.51
25:BA:270(G):U:H2'	25:BA:270(H):C:C6	2.46	0.51
25:DA:2543:G:H2'	25:DA:2544:G:C8	2.46	0.51
14:CL:46:LYS:CB	14:CL:47:PRO:HD3	2.41	0.51
1:AA:620:C:C2	6:AD:135:LEU:HG	2.46	0.51
25:BA:2469:A:H5'	25:BA:2470:G:OP2	2.10	0.51
1:AA:1327:C:H2'	1:AA:1328:C:H6	1.74	0.51
25:DA:55:G:H2'	25:DA:56:A:C8	2.45	0.51
37:DQ:66:ILE:HG22	37:DQ:104:PHE:HD2	1.74	0.51
3:CV:15:A:H8	3:CV:15:A:O5'	1.94	0.51
25:BA:2379:G:H2'	25:BA:2380:C:C6	2.46	0.51
25:BA:2378:A:O2'	39:BS:21:THR:HG21	2.10	0.51
24:CX:230:GLN:O	24:CX:234:THR:HG22	2.11	0.51
25:DA:1529:A:H3'	25:DA:1530:G:C8	2.46	0.51
30:DG:27:ASN:HD21	30:DG:29:TRP:HD1	1.58	0.51
25:BA:10:G:C8	25:BA:11:G:C8	2.99	0.51
1:CA:1517:G:H1'	25:DA:1919:A:O3'	2.10	0.51
1:CA:1253:G:H2'	1:CA:1254:C:C6	2.46	0.51
46:BZ:8:TYR:HB2	46:BZ:38:TYR:CZ	2.45	0.51
1:AA:751:U:H2'	1:AA:752:G:O4'	2.11	0.51
25:BA:1754:C:H5''	40:BT:113:LYS:HD3	1.92	0.51
25:DA:1429:G:H2'	25:DA:1430:C:C6	2.46	0.51
1:CA:180:U:H2'	1:CA:181:G:H5''	1.92	0.51
1:CA:373:A:H2'	1:CA:374:A:H8	1.76	0.51
39:DS:40:ILE:HG12	39:DS:47:THR:OG1	2.11	0.51
2:AY:26:G:H2'	2:AY:27:U:H6	1.75	0.51
30:BG:18:GLU:HG3	30:BG:21:ARG:HH21	1.75	0.51
25:BA:1536:A:O5'	25:BA:1536:A:H8	1.94	0.51
6:AD:166:LYS:HD2	6:AD:166:LYS:O	2.10	0.51
28:BE:1:MET:HB3	28:BE:83:ASP:O	2.11	0.51
25:DA:765:G:H2'	25:DA:766:C:C6	2.46	0.51
1:AA:1518:A:H2'	1:AA:1519:A:C8	2.46	0.51
7:AE:122:GLU:O	7:AE:123:LEU:HD23	2.11	0.51
41:DU:88:ILE:HB	41:DU:90:VAL:CG1	2.35	0.51
42:DV:38:LEU:O	42:DV:52:VAL:HG12	2.10	0.51
7:AE:79:GLU:OE1	10:AH:104:ARG:HG3	2.11	0.51
1:CA:528:C:H41	14:CL:48:ASN:ND2	2.09	0.51
25:DA:1407:C:H2'	25:DA:1408:C:C6	2.46	0.51
30:DG:53:LEU:HD13	30:DG:88:ILE:HG12	1.93	0.51
49:D2:13:ALA:O	49:D2:17:SER:HA	2.11	0.51
25:BA:670:A:H4'	25:BA:671:C:H5'	1.92	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:671:C:N4	25:BA:809:G:H1	2.08	0.51
25:BA:1404:C:H2'	25:BA:1405:U:H6	1.75	0.51
24:AX:163:ARG:NH1	24:AX:204:LYS:HD3	2.24	0.51
24:CX:177:VAL:HG12	24:CX:301:LYS:HB2	1.92	0.51
25:DA:1784:A:H4'	25:DA:1785:A:O5'	2.11	0.51
32:DI:133:HIS:CD2	32:DI:135:GLU:HG2	2.46	0.51
38:DR:11:ASN:OD1	38:DR:12:ARG:N	2.41	0.51
41:BU:40:PHE:HB3	42:BV:75:PHE:CD1	2.46	0.51
1:CA:619:U:C2	6:CD:135:LEU:HD21	2.46	0.51
31:DH:143:GLN:HE22	25:DA:2744:G:H21	1.59	0.51
13:CK:59:TYR:CE2	13:CK:63:LEU:HD11	2.46	0.51
1:AA:1126:U:H2'	1:AA:1127:G:O4'	2.11	0.51
33:BJ:15:GLU:O	33:BJ:19:ARG:HG3	2.11	0.51
25:DA:1292:U:H2'	25:DA:1293:C:H6	1.76	0.51
1:AA:328:C:H4'	1:AA:329:A:C5'	2.41	0.51
1:AA:429:U:H1'	1:AA:430:A:H5''	1.93	0.51
46:BZ:110:GLY:HA2	46:BZ:146:ILE:HG23	1.93	0.51
34:BN:86:THR:O	34:BN:89:LYS:HG2	2.11	0.51
1:CA:1070:U:H2'	1:CA:1071:C:C6	2.46	0.51
25:DA:2557:G:H2'	25:DA:2558:C:C6	2.46	0.51
25:DA:257:A:H2'	25:DA:258:G:O4'	2.11	0.51
25:BA:2596:U:H2'	25:BA:2597:G:O4'	2.10	0.51
28:DE:1:MET:HB3	28:DE:83:ASP:O	2.11	0.51
10:AH:8:ASP:O	10:AH:12:ARG:HG2	2.11	0.51
25:DA:2327:A:H2'	25:DA:2328:A:C8	2.46	0.51
43:DW:31:GLU:O	43:DW:35:ILE:HG13	2.11	0.51
25:DA:298:G:H8	25:DA:298:G:O5'	1.94	0.51
14:AL:44:PRO:CG	14:AL:50:ALA:H	2.24	0.50
40:BT:51:ARG:HB3	40:BT:62:THR:HG23	1.93	0.50
49:B2:14:ARG:HH21	49:B2:67:LYS:HD2	1.76	0.50
46:DZ:72:ARG:HD2	26:DB:103:U:H4'	1.92	0.50
26:BB:8:U:H2'	26:BB:9:G:C8	2.46	0.50
4:AB:24:TRP:HZ3	4:AB:26:PRO:HA	1.76	0.50
46:DZ:28:MET:HE3	46:DZ:37:VAL:HG11	1.93	0.50
12:CJ:74:ILE:HG12	12:CJ:74:ILE:O	2.10	0.50
25:BA:55:G:H2'	25:BA:56:A:C8	2.46	0.50
41:DU:59:ARG:O	41:DU:63:VAL:HG23	2.10	0.50
1:AA:7:G:H21	7:AE:121:LYS:HE3	1.76	0.50
1:CA:1126:U:H2'	1:CA:1127:G:O4'	2.11	0.50
25:BA:765:G:H2'	25:BA:766:C:H6	1.76	0.50
25:DA:329:G:H4'	25:DA:330:A:OP2	2.11	0.50
1:AA:9:G:C6	1:AA:26:A:N6	2.79	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2556:C:H2'	25:BA:2557:G:O4'	2.11	0.50
34:BN:85:VAL:HG22	34:BN:89:LYS:HG3	1.92	0.50
25:DA:2099:U:H2'	25:DA:2100:G:H8	1.76	0.50
1:AA:85:U:H2'	1:AA:86:U:O4'	2.11	0.50
6:AD:8:VAL:HB	6:AD:21:LEU:HD22	1.93	0.50
2:AZ:11:A:H2'	2:AZ:12:G:C8	2.46	0.50
5:AC:175:LEU:HD23	5:AC:175:LEU:O	2.10	0.50
1:CA:413:G:O6	6:CD:35:ARG:HD3	2.11	0.50
25:BA:1788:C:O2'	25:BA:1789:A:H5'	2.11	0.50
27:BD:231:HIS:ND1	27:BD:232:PRO:HD2	2.26	0.50
44:BX:40:LYS:HD2	44:BX:51:VAL:HB	1.93	0.50
51:B4:43:GLY:H	51:B4:60:GLU:HA	1.76	0.50
27:DD:9:TYR:CD2	27:DD:10:THR:HG22	2.46	0.50
25:DA:886:C:H3'	25:DA:886:C:C6	2.46	0.50
25:BA:1771:C:HO2'	25:BA:1786:A:H8	1.58	0.50
1:CA:828:A:H2'	1:CA:829:G:O4'	2.11	0.50
20:AR:45:SER:HB3	20:AR:51:LEU:CG	2.39	0.50
25:BA:1980:G:H5''	25:BA:1980:G:C8	2.46	0.50
20:CR:54:ARG:HD2	20:CR:54:ARG:H	1.76	0.50
14:AL:46:LYS:CB	14:AL:47:PRO:HD3	2.41	0.50
11:CI:113:LYS:H	11:CI:119:ALA:HA	1.76	0.50
11:AI:113:LYS:H	11:AI:119:ALA:HA	1.76	0.50
8:AF:61:LEU:HB3	8:AF:63:TYR:HE2	1.76	0.50
3:AV:15:A:O5'	3:AV:15:A:H8	1.94	0.50
25:BA:2684:U:H3	25:BA:2727:G:H1'	1.76	0.50
40:DT:113:LYS:HD3	25:DA:1754:C:H5''	1.92	0.50
41:DU:79:PHE:HE1	41:DU:83:LEU:HD11	1.76	0.50
25:DA:10:G:C8	25:DA:11:G:C8	3.00	0.50
1:CA:1452:C:H4'	1:CA:1453:G:C4	2.46	0.50
31:BH:103:LEU:H	31:BH:103:LEU:HD23	1.76	0.50
25:BA:1570:A:C6	25:BA:1571:A:C6	3.00	0.50
25:BA:583:G:OP2	41:BU:10:ARG:HD2	2.11	0.50
55:D8:11:LYS:HB2	55:D8:61:LEU:HD22	1.93	0.50
21:CS:10:PHE:H	21:CS:10:PHE:HD1	1.60	0.50
40:BT:22:PHE:N	40:BT:22:PHE:CD2	2.79	0.50
25:DA:1826:G:H2'	25:DA:1827:C:H6	1.75	0.50
1:AA:1353:G:H2'	1:AA:1354:C:H6	1.76	0.50
41:DU:92:ARG:CZ	25:DA:996:A:H4'	2.40	0.50
1:AA:980:C:H5'	1:AA:981:U:H5	1.75	0.50
5:CC:35:GLU:HA	5:CC:38:ARG:HG2	1.94	0.50
40:BT:50:ILE:HA	40:BT:99:LEU:CD1	2.41	0.50
25:BA:2592:G:C2	25:BA:2603:G:C2	2.98	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1228:C:H2'	1:CA:1229:A:C8	2.38	0.50
25:BA:680:G:C6	25:BA:681:G:C6	2.99	0.50
1:CA:1493:A:C5	25:DA:1913:A:C6	2.99	0.50
49:D2:46:GLN:HB2	49:D2:49:LYS:NZ	2.27	0.50
49:D2:56:GLN:O	49:D2:60:LEU:HG	2.12	0.50
25:DA:2819:G:H2'	25:DA:2821:A:N7	2.26	0.50
1:CA:779:C:O2'	1:CA:780:A:H5'	2.11	0.50
25:BA:2468:G:N2	25:BA:2481:G:H2'	2.25	0.50
1:CA:1203:C:H2'	1:CA:1204:A:C8	2.45	0.50
2:AZ:37:A:H2'	2:AZ:38:A:C8	2.45	0.50
13:AK:59:TYR:CE2	13:AK:63:LEU:HD11	2.46	0.50
1:CA:394:G:H2'	1:CA:395:C:H6	1.75	0.50
25:DA:2345:G:N3	25:DA:2381:C:H2'	2.26	0.50
1:AA:1014:A:H1'	21:AS:34:TRP:HB2	1.92	0.50
1:AA:191(C):G:H2'	1:AA:191(D):U:C6	2.46	0.50
54:B7:47:ARG:O	54:B7:48:LYS:HB2	2.11	0.50
27:BD:72:LYS:HE3	27:BD:101:GLU:HB3	1.93	0.50
25:DA:2643:G:O2'	25:DA:2644:G:H5'	2.11	0.50
25:DA:609(A):A:H2'	25:DA:609(B):G:O4'	2.12	0.50
25:BA:2869:G:H2'	25:BA:2870:C:C6	2.47	0.50
19:CQ:59:ILE:CG2	19:CQ:71:PHE:HB3	2.42	0.50
30:DG:8:LYS:O	30:DG:12:TYR:HD1	1.93	0.50
1:AA:718:G:C8	13:AK:116:HIS:HB3	2.46	0.50
5:AC:113:ALA:HB3	5:AC:114:PRO:HD3	1.93	0.50
25:BA:2336:A:H8	25:BA:2336:A:H5''	1.76	0.50
1:CA:598:U:H2'	1:CA:599:C:C6	2.45	0.50
25:DA:2507:C:H2'	25:DA:2508:G:O4'	2.10	0.50
14:AL:45:LYS:HG3	14:AL:93:PRO:HD3	1.92	0.50
25:DA:1945:G:H2'	25:DA:1946:U:C6	2.46	0.50
25:DA:589:C:H2'	25:DA:590:A:C8	2.47	0.50
19:AQ:59:ILE:CG2	19:AQ:71:PHE:HB3	2.41	0.50
37:DQ:20:ALA:HA	37:DQ:98:LYS:HB2	1.93	0.50
27:DD:209:ALA:HB2	25:DA:1790:C:O2'	2.12	0.50
25:BA:1824:G:O2'	25:BA:1825:A:H5'	2.11	0.50
27:BD:52:ARG:NH1	27:BD:249:PRO:HG2	2.26	0.50
44:BX:7:VAL:HG13	44:BX:30:VAL:HG13	1.93	0.50
27:BD:246:PRO:HB2	27:BD:255:LYS:HB3	1.91	0.50
30:BG:87:PRO:O	30:BG:88:ILE:HB	2.12	0.50
25:DA:1027:A:C2	25:DA:2488:A:H5'	2.46	0.50
4:CB:98:LEU:HB2	4:CB:101:MET:CG	2.41	0.50
25:BA:1189:A:H3'	25:BA:1190:G:C5'	2.38	0.50
25:BA:2747:G:H1	25:BA:2754:U:H2'	1.76	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2747:G:H1	25:DA:2754:U:H2'	1.76	0.50
1:CA:620:C:C2	6:CD:135:LEU:HG	2.45	0.50
25:BA:2744:G:H21	31:BH:143:GLN:HE22	1.59	0.50
24:CX:332:LEU:HD23	24:CX:332:LEU:H	1.76	0.50
13:AK:57:THR:HG22	13:AK:59:TYR:N	2.26	0.50
25:DA:1839:G:H5'	25:DA:1839:G:C8	2.47	0.50
11:AI:14:VAL:O	11:AI:65:VAL:HG23	2.11	0.50
1:AA:1147:C:O5'	1:AA:1147:C:H6	1.94	0.50
1:CA:1147:C:H6	1:CA:1147:C:O5'	1.94	0.50
1:CA:22:G:H2'	1:CA:23:C:H6	1.75	0.50
1:AA:89:U:H2'	1:AA:90:C:C6	2.47	0.50
4:CB:8:LYS:HA	4:CB:217:ARG:HH12	1.76	0.50
1:CA:9:G:C6	1:CA:26:A:N6	2.79	0.50
1:AA:278:G:OP2	19:AQ:41:LYS:HE2	2.11	0.50
1:CA:1518:A:H2'	1:CA:1519:A:C8	2.46	0.50
25:BA:257:A:H2'	25:BA:258:G:O4'	2.10	0.50
1:CA:894:G:H2'	1:CA:895:G:C8	2.47	0.50
38:DR:54:LEU:HD23	38:DR:62:ALA:HB1	1.94	0.50
30:BG:139:LEU:HD23	30:BG:149:VAL:HG21	1.93	0.50
55:D8:39:LYS:O	55:D8:43:GLN:HG2	2.11	0.50
32:BI:81:VAL:HG12	32:BI:82:ARG:H	1.75	0.50
4:AB:8:LYS:HA	4:AB:217:ARG:HH12	1.76	0.50
4:AB:8:LYS:HG2	4:AB:217:ARG:NH1	2.25	0.50
25:BA:2087:G:H8	25:BA:2087:G:O5'	1.94	0.50
25:DA:1203:G:O6	25:DA:1204:A:N6	2.45	0.50
44:DX:40:LYS:CD	44:DX:51:VAL:HB	2.42	0.50
42:DV:4:ILE:HG22	42:DV:5:VAL:N	2.26	0.50
14:AL:51:LEU:HD12	14:AL:51:LEU:H	1.77	0.50
30:BG:86:MET:O	30:BG:87:PRO:O	2.30	0.50
1:AA:979:C:H3'	1:AA:980:C:C5'	2.38	0.50
6:CD:28:SER:HB3	6:CD:29:PRO:CD	2.40	0.50
46:DZ:56:VAL:HG22	46:DZ:70:LEU:HD22	1.93	0.50
1:CA:1308:U:OP1	15:CM:97:PRO:HA	2.12	0.50
13:AK:33:THR:HA	13:AK:40:ILE:HG12	1.93	0.50
38:DR:16:HIS:HE1	25:DA:1276:A:O2'	1.94	0.50
25:BA:61:G:C5	49:B2:47:ASN:ND2	2.79	0.50
25:DA:270(G):U:H2'	25:DA:270(H):C:C6	2.47	0.50
47:D0:32:ARG:C	47:D0:35:ASN:HD21	2.14	0.50
25:DA:1173:G:O2'	25:DA:1175:U:H6	1.95	0.50
25:BA:2819:G:H2'	25:BA:2821:A:N7	2.26	0.50
9:CG:42:ILE:O	9:CG:45:ASP:HB2	2.11	0.50
16:CN:4:LYS:O	16:CN:7:ILE:HG13	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1148:U:O3'	11:CI:14:VAL:HG11	2.10	0.50
37:DQ:81:VAL:O	37:DQ:82:ARG:HD3	2.11	0.50
35:DO:106:LEU:HD12	35:DO:106:LEU:H	1.76	0.50
25:DA:7:G:H2'	25:DA:8:A:C8	2.47	0.50
5:CC:13:GLY:HA3	16:CN:57:ARG:NE	2.26	0.50
1:AA:1161:C:H2'	1:AA:1162:C:C6	2.46	0.50
1:CA:1253:G:H2'	1:CA:1254:C:H6	1.76	0.50
1:AA:274:A:H4'	1:AA:275:G:OP1	2.12	0.50
1:AA:142:G:H1	1:AA:221:C:H42	1.58	0.50
25:DA:2178:C:H2'	25:DA:2179:C:C6	2.46	0.50
54:D7:19:ARG:NH2	25:DA:124:G:C6	2.79	0.50
41:DU:81:HIS:O	41:DU:85:LYS:HB2	2.10	0.50
51:D4:38:ALA:HA	51:D4:55:PRO:HA	1.92	0.50
19:CQ:54:GLY:HA3	19:CQ:82:MET:HE2	1.93	0.50
1:AA:1020:U:H2'	1:AA:1021:G:C8	2.47	0.50
25:DA:619:G:H5''	25:DA:620:G:OP2	2.11	0.50
25:DA:363(G):A:H5''	25:DA:364:C:OP1	2.11	0.50
1:AA:406:G:H2'	1:AA:407:G:H8	1.76	0.50
25:DA:371:A:C8	25:DA:373:U:C2	3.00	0.50
17:AO:5:LYS:N	17:AO:5:LYS:HD3	2.26	0.50
25:BA:2720:U:H2'	25:BA:2721:A:H8	1.77	0.50
25:BA:1001:A:H61	25:BA:1154:G:H1'	1.76	0.50
10:CH:8:ASP:O	10:CH:12:ARG:HG2	2.11	0.50
28:BE:192:ASN:N	28:BE:192:ASN:HD22	2.09	0.50
7:CE:51:VAL:O	7:CE:55:VAL:HG23	2.11	0.50
25:BA:2552:U:H2'	25:BA:2554:U:OP2	2.12	0.50
30:DG:68:PRO:O	26:DB:42:C:H5'	2.12	0.50
1:CA:17:U:H2'	1:CA:18:C:H6	1.73	0.50
13:CK:33:THR:HA	13:CK:40:ILE:HG12	1.93	0.50
26:BB:103:U:H4'	46:BZ:72:ARG:HD2	1.93	0.50
24:CX:295:THR:C	24:CX:297:GLU:H	2.14	0.50
25:BA:1658:C:OP1	28:BE:132:HIS:ND1	2.44	0.50
25:BA:558:G:OP1	34:BN:134:PRO:HD2	2.11	0.50
25:DA:2755:C:O5'	25:DA:2755:C:H6	1.94	0.50
30:DG:115:ARG:HH22	30:DG:136:ARG:H	1.57	0.50
46:DZ:27:VAL:HG13	46:DZ:35:ARG:O	2.12	0.50
21:CS:16:LEU:HA	21:CS:19:VAL:HG12	1.94	0.50
47:B0:32:ARG:C	47:B0:35:ASN:HD21	2.15	0.50
25:BA:2887:U:H2'	25:BA:2888:C:H6	1.77	0.50
37:BQ:81:VAL:O	37:BQ:82:ARG:HD3	2.12	0.50
28:DE:115:GLY:N	25:DA:1655:A:H4'	2.27	0.50
4:CB:20:GLU:HA	4:CB:20:GLU:OE1	2.10	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:329:G:H4'	25:BA:330:A:OP2	2.10	0.50
8:CF:75:LEU:O	8:CF:79:LEU:HG	2.12	0.50
25:BA:1945:G:H2'	25:BA:1946:U:C6	2.47	0.50
29:DF:164:ARG:HH22	29:DF:177:ALA:HA	1.76	0.50
25:BA:363(G):A:H5''	25:BA:364:C:OP1	2.11	0.50
29:DF:33:LEU:O	29:DF:37:VAL:HG23	2.11	0.50
25:BA:2099:U:H2'	25:BA:2100:G:H8	1.76	0.50
2:CY:47:U:H3'	2:CY:48:C:H5'	1.94	0.50
46:BZ:58:VAL:HA	46:BZ:67:LEU:O	2.12	0.50
1:CA:542:G:H2'	1:CA:543:C:H6	1.76	0.50
1:CA:323:U:O3'	22:CT:22:ARG:HD3	2.12	0.50
1:CA:191(C):G:H2'	1:CA:191(D):U:C6	2.47	0.50
1:CA:1034:G:H2'	1:CA:1035:A:H8	1.77	0.50
55:B8:11:LYS:HB2	55:B8:61:LEU:HD22	1.92	0.50
1:CA:1001:G:H2'	1:CA:1002:G:O4'	2.12	0.50
25:BA:2327:A:H2'	25:BA:2328:A:C8	2.46	0.50
49:B2:15:LYS:HE2	49:B2:15:LYS:HA	1.92	0.50
41:BU:79:PHE:HE1	41:BU:83:LEU:HD11	1.76	0.50
5:CC:113:ALA:HB3	5:CC:114:PRO:HD3	1.94	0.50
42:BV:52:VAL:HG13	42:BV:55:ALA:HB3	1.94	0.50
44:BX:51:VAL:HA	44:BX:83:VAL:HA	1.94	0.50
27:BD:246:PRO:HD2	27:BD:255:LYS:HD3	1.94	0.50
1:AA:528:C:H41	14:AL:48:ASN:ND2	2.10	0.50
30:BG:53:LEU:HD13	30:BG:88:ILE:HG12	1.93	0.50
18:CP:8:ARG:HB3	18:CP:28:ARG:NH1	2.27	0.50
14:AL:84:ILE:HG23	14:AL:97:TYR:HB3	1.92	0.50
28:DE:67:PHE:HE2	28:DE:75:VAL:HG22	1.77	0.50
51:D4:43:GLY:H	51:D4:60:GLU:HA	1.76	0.50
37:DQ:141:GLN:HE21	46:DZ:72:ARG:HG2	1.77	0.50
25:DA:886:C:H3'	25:DA:886:C:H6	1.75	0.50
25:DA:1858:G:O2'	25:DA:1859:A:H8	1.93	0.50
24:AX:342:ALA:O	24:AX:346:ARG:HG3	2.12	0.50
25:DA:1952:A:C6	25:DA:1953:A:N1	2.79	0.50
4:AB:118:LEU:O	4:AB:122:PHE:HB2	2.12	0.50
25:DA:492:A:H2'	25:DA:493:G:O4'	2.12	0.50
37:BQ:132:VAL:HG11	46:BZ:81:ARG:CZ	2.42	0.50
27:DD:133:LEU:HD22	27:DD:173:VAL:HG11	1.92	0.50
48:D1:21:ARG:O	25:DA:380:U:H4'	2.12	0.50
33:DJ:15:GLU:O	33:DJ:19:ARG:HG3	2.11	0.50
40:DT:96:ARG:HG3	40:DT:97:ALA:N	2.27	0.50
25:BA:807:U:H2'	25:BA:808:G:C8	2.46	0.50
1:CA:1190:G:H5'	1:CA:1191:A:OP1	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DN:51:THR:HG21	25:DA:1005:C:O2'	2.11	0.50
1:AA:90:C:H2'	1:AA:91:C:C6	2.47	0.50
31:DH:13:LYS:HE2	31:DH:13:LYS:HA	1.93	0.50
25:DA:2869:G:H2'	25:DA:2870:C:C6	2.47	0.50
17:CO:9:GLN:O	17:CO:13:GLN:HG2	2.11	0.50
37:BQ:63:LYS:HD3	46:BZ:175:VAL:HG21	1.92	0.50
25:BA:1831:G:H2'	25:BA:1832:C:C6	2.46	0.50
25:DA:1355:G:H2'	25:DA:1356:G:H8	1.77	0.50
25:BA:756:C:C4	25:BA:757:U:C5	2.99	0.50
37:DQ:50:ALA:HB1	37:DQ:121:ALA:HB1	1.94	0.50
1:CA:751:U:H2'	1:CA:752:G:O4'	2.11	0.50
7:AE:110:LEU:HA	7:AE:113:ALA:HB3	1.93	0.50
4:CB:22:LYS:HA	4:CB:22:LYS:HZ2	1.75	0.50
25:DA:1536:A:O5'	25:DA:1536:A:H8	1.94	0.50
10:CH:80:ILE:HD12	10:CH:80:ILE:N	2.26	0.50
24:CX:263:GLU:O	24:CX:267:MET:HG2	2.12	0.50
1:AA:1443:G:O2'	1:AA:1446:A:H5''	2.12	0.50
27:DD:52:ARG:NH1	27:DD:249:PRO:HG2	2.27	0.50
49:D2:39:ALA:CA	49:D2:45:SER:HB3	2.31	0.50
44:DX:26:TYR:CE1	44:DX:89:ILE:HG12	2.47	0.50
30:DG:86:MET:O	30:DG:87:PRO:O	2.30	0.50
31:DH:101:ARG:HE	31:DH:101:ARG:N	2.07	0.50
30:BG:64:THR:HG23	30:BG:66:GLN:N	2.24	0.50
53:B6:25:LYS:HD3	55:B8:34:TRP:CZ3	2.47	0.50
24:AX:294:GLY:O	24:AX:297:GLU:HG3	2.11	0.50
1:CA:1271:G:H2'	1:CA:1272:G:C8	2.43	0.50
9:CG:15:ASP:HB3	9:CG:19:GLY:H	1.76	0.50
25:BA:1441:G:H2'	25:BA:1442:G:H8	1.77	0.50
43:DW:69:LEU:O	43:DW:69:LEU:HD12	2.12	0.50
38:BR:11:ASN:OD1	38:BR:12:ARG:N	2.40	0.50
1:AA:828:A:H2'	1:AA:829:G:O4'	2.12	0.50
34:DN:134:PRO:HD2	25:DA:558:G:OP1	2.12	0.50
46:BZ:27:VAL:HG13	46:BZ:35:ARG:O	2.12	0.50
25:BA:64:A:O2'	44:BX:71:GLY:HA2	2.12	0.50
36:DP:11:GLY:HA3	25:DA:1244:G:H4'	1.94	0.50
11:CI:14:VAL:O	11:CI:65:VAL:HG23	2.12	0.50
40:BT:60:THR:HG22	40:BT:77:PRO:HA	1.94	0.50
25:DA:2291:U:H2'	25:DA:2292:C:C6	2.46	0.50
25:DA:2263:C:H2'	25:DA:2264:C:C6	2.46	0.50
25:DA:364:C:H6	25:DA:364:C:H5'	1.76	0.50
25:BA:755:C:H2'	25:BA:756:C:H6	1.76	0.50
7:AE:149:GLU:O	7:AE:153:LYS:HB2	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AX:313:THR:HG22	24:AX:320:THR:OG1	2.10	0.50
25:DA:796:C:H2'	25:DA:797:C:C6	2.46	0.50
25:BA:2808:U:H5'	25:BA:2891:G:O6	2.11	0.50
25:BA:871:U:H4'	37:BQ:69:PHE:CE2	2.47	0.50
25:BA:674:G:O2'	29:BF:74:ARG:HD3	2.12	0.50
46:BZ:97:GLU:HB3	46:BZ:125:LEU:HD21	1.94	0.50
26:BB:60:C:H2'	26:BB:61:G:H8	1.76	0.50
6:CD:122:ARG:O	6:CD:122:ARG:HD3	2.12	0.50
25:DA:2607:G:H2'	25:DA:2608:G:O4'	2.12	0.50
2:CY:21:A:O2'	2:CY:22:G:C8	2.65	0.50
25:BA:1252:G:C2	25:BA:1253:A:C2	2.99	0.50
25:BA:1543:A:H5'	25:BA:1544:C:OP2	2.12	0.50
1:AA:529:G:H22	14:AL:50:ALA:HB2	1.77	0.50
25:DA:2056:G:N3	25:DA:2056:G:H2'	2.27	0.50
30:BG:41:GLN:HB2	30:BG:90:LEU:HB3	1.93	0.50
28:DE:192:ASN:HD22	28:DE:192:ASN:N	2.09	0.50
1:CA:674:G:H2'	1:CA:675:A:H8	1.77	0.50
40:DT:50:ILE:HA	40:DT:99:LEU:CD1	2.41	0.50
41:DU:76:TYR:CE2	25:DA:1153:C:H5'	2.47	0.50
25:BA:886:C:H3'	25:BA:886:C:C6	2.46	0.50
25:BA:1784:A:H4'	25:BA:1785:A:O5'	2.11	0.50
15:AM:15:VAL:O	15:AM:19:LEU:HD23	2.12	0.50
1:CA:370:C:H2'	1:CA:371:G:C8	2.46	0.50
44:DX:31:HIS:HD2	44:DX:33:LYS:O	1.94	0.50
1:CA:452:A:H2'	1:CA:453:A:H8	1.73	0.50
25:BA:747:U:H5'	43:BW:90:ARG:NH1	2.27	0.50
26:DB:45:A:N3	26:DB:45:A:H2'	2.27	0.50
24:AX:114:GLY:O	25:BA:1913:A:H2	1.94	0.50
25:DA:859:G:H22	25:DA:916:G:H2'	1.76	0.50
4:CB:27:LYS:O	4:CB:30:ARG:HG2	2.11	0.50
1:CA:90:C:H2'	1:CA:91:C:C6	2.47	0.50
1:CA:42:G:H2'	1:CA:43:C:C6	2.47	0.50
25:DA:270(L):C:H2'	25:DA:270(N):U:C5	2.46	0.50
38:DR:53:HIS:O	38:DR:56:LYS:HB3	2.12	0.50
17:CO:5:LYS:N	17:CO:5:LYS:HD3	2.27	0.50
10:AH:80:ILE:HD12	10:AH:80:ILE:N	2.26	0.50
1:CA:85:U:H2'	1:CA:86:U:O4'	2.12	0.50
24:CX:21:ASP:O	24:CX:24:VAL:HG12	2.12	0.50
1:CA:695:A:H2'	1:CA:696:A:C8	2.47	0.50
44:BX:89:ILE:HB	44:BX:92:LEU:HB2	1.92	0.49
46:DZ:45:ASP:O	46:DZ:49:ARG:HG2	2.11	0.49
25:DA:2777:G:C5'	25:DA:2778:A:H5'	2.34	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:671:C:N4	25:DA:809:G:H1	2.07	0.49
1:AA:673:G:H2'	1:AA:674:G:C8	2.47	0.49
1:CA:427:U:C4	1:CA:428:G:C6	2.99	0.49
32:DI:31:LEU:HB3	32:DI:32:PRO:HD3	1.93	0.49
2:AY:23:C:H2'	2:AY:24:U:H6	1.73	0.49
1:AA:145:G:H2'	1:AA:146:G:C8	2.47	0.49
25:BA:1498:C:H2'	25:BA:1499:C:H6	1.76	0.49
29:DF:53:THR:OG1	29:DF:54:ARG:N	2.45	0.49
1:CA:715:A:H2'	1:CA:716:A:H8	1.76	0.49
44:DX:71:GLY:HA2	25:DA:64:A:O2'	2.11	0.49
25:DA:2169:A:H2'	25:DA:2170:A:C8	2.47	0.49
25:BA:1833:U:H2'	25:BA:1834:U:C6	2.47	0.49
10:AH:119:LEU:HD22	10:AH:123:GLU:HB3	1.93	0.49
25:DA:2684:U:H3	25:DA:2727:G:H1'	1.76	0.49
6:AD:30:LYS:C	6:AD:32:ALA:H	2.14	0.49
19:CQ:80:GLY:O	19:CQ:81:ARG:HG2	2.11	0.49
28:DE:54:GLN:HB2	28:DE:74:PRO:O	2.12	0.49
54:D7:30:VAL:HG22	54:D7:33:ARG:HH22	1.76	0.49
1:AA:1034:G:H2'	1:AA:1035:A:C8	2.47	0.49
25:BA:2607:G:H2'	25:BA:2608:G:O4'	2.11	0.49
1:CA:406:G:H2'	1:CA:407:G:H8	1.75	0.49
1:AA:625:G:OP1	18:AP:9:PHE:HB3	2.12	0.49
2:AY:57:A:O2'	2:AY:58:A:H5'	2.11	0.49
4:CB:130:ARG:HD3	4:CB:134:GLU:CD	2.32	0.49
37:DQ:48:GLU:O	37:DQ:52:VAL:HG12	2.12	0.49
44:DX:21:PHE:CD2	44:DX:26:TYR:HD2	2.31	0.49
44:DX:51:VAL:HG12	44:DX:52:VAL:N	2.27	0.49
29:DF:63:LYS:HZ3	29:DF:67:GLN:HG2	1.77	0.49
21:AS:6:LYS:HD2	21:AS:6:LYS:H	1.76	0.49
46:BZ:45:ASP:O	46:BZ:49:ARG:HG2	2.12	0.49
25:DA:2392:A:C6	25:DA:2429:G:C8	2.99	0.49
49:D2:14:ARG:HH21	49:D2:67:LYS:HD2	1.75	0.49
25:BA:140:A:H8	25:BA:1408:C:O2'	1.93	0.49
32:DI:107:ILE:HG13	32:DI:109:ILE:HG23	1.94	0.49
39:DS:25:ARG:HG3	39:DS:88:ASP:HB2	1.93	0.49
24:AX:295:THR:C	24:AX:297:GLU:H	2.14	0.49
53:D6:27:LYS:HE2	25:DA:2286:A:H2	1.77	0.49
25:BA:558:G:H5''	34:BN:135:LEU:HD22	1.94	0.49
14:AL:89:VAL:HG12	14:AL:91:ASP:H	1.77	0.49
36:DP:18:ARG:NH1	36:DP:18:ARG:HB3	2.26	0.49
1:AA:1320:C:H42	21:AS:36:ARG:HG3	1.77	0.49
4:CB:118:LEU:O	4:CB:122:PHE:HB2	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2335:A:H8	39:BS:13:ARG:HH22	1.58	0.49
25:BA:919:G:H5''	26:BB:81:G:H1'	1.93	0.49
24:AX:230:GLN:O	24:AX:234:THR:HG22	2.12	0.49
24:CX:128:PHE:CE1	24:CX:132:LEU:HD11	2.48	0.49
35:BO:79:PHE:CD2	40:BT:72:VAL:HG22	2.48	0.49
26:DB:46:A:C5	26:DB:47:C:C4	3.01	0.49
43:DW:103:ILE:N	43:DW:103:ILE:HD12	2.27	0.49
46:BZ:54:HIS:CG	46:BZ:101:PRO:HG3	2.47	0.49
1:CA:217:C:H2'	1:CA:218:C:H6	1.77	0.49
25:DA:2453:A:O2'	25:DA:2572:A:H1'	2.13	0.49
43:BW:19:LEU:O	43:BW:23:LEU:HD13	2.12	0.49
10:CH:73:ASP:O	10:CH:75:ARG:HG2	2.11	0.49
24:CX:239:VAL:HG11	24:CX:262:ARG:HA	1.94	0.49
25:DA:560:C:O2'	25:DA:561:G:H5'	2.12	0.49
14:AL:40:ARG:HH11	14:AL:40:ARG:HB3	1.76	0.49
25:BA:792:G:H5''	25:BA:793:A:H5'	1.94	0.49
25:DA:302:C:H2'	25:DA:303:U:C6	2.47	0.49
27:DD:224:ALA:HA	27:DD:233:HIS:O	2.12	0.49
41:BU:92:ARG:HB3	42:BV:11:GLN:OE1	2.12	0.49
14:AL:54:VAL:HG12	14:AL:55:ALA:N	2.27	0.49
30:DG:72:ARG:HD3	30:DG:86:MET:O	2.12	0.49
25:BA:2392:A:C6	25:BA:2429:G:C8	3.00	0.49
49:B2:13:ALA:O	49:B2:17:SER:HA	2.12	0.49
49:B2:12:GLU:C	49:B2:14:ARG:H	2.15	0.49
36:DP:115:LEU:HA	36:DP:134:ALA:CB	2.40	0.49
13:CK:51:LYS:HA	13:CK:55:LYS:HZ3	1.78	0.49
43:BW:29:LEU:HB2	43:BW:69:LEU:HD12	1.94	0.49
43:DW:29:LEU:HB2	43:DW:69:LEU:HD12	1.95	0.49
19:AQ:45:HIS:HB2	19:AQ:69:LYS:HE2	1.93	0.49
20:AR:58:LEU:HD23	20:AR:62:GLU:HB3	1.95	0.49
25:BA:1655:A:H4'	28:BE:115:GLY:N	2.26	0.49
41:DU:2:PRO:HD3	25:DA:444:C:O5'	2.12	0.49
25:BA:1173:G:O2'	25:BA:1175:U:H6	1.94	0.49
25:DA:1924:C:H2'	25:DA:1925:C:H6	1.76	0.49
26:BB:93:C:H5''	46:BZ:20:ARG:NH2	2.28	0.49
48:D1:20:ARG:HB3	25:DA:380:U:O2'	2.11	0.49
25:BA:1529:A:H3'	25:BA:1530:G:C8	2.47	0.49
25:BA:2758:A:H2'	25:BA:2759:G:O4'	2.12	0.49
25:DA:2197:U:O2'	25:DA:2198:A:H5''	2.12	0.49
24:CX:303:ARG:HD2	24:CX:305:TYR:CZ	2.47	0.49
25:BA:589:C:H2'	25:BA:590:A:C8	2.47	0.49
1:CA:1014:A:H1'	21:CS:34:TRP:HB2	1.93	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CL:40:ARG:HB3	14:CL:40:ARG:HH11	1.77	0.49
2:AZ:31:G:H21	9:AG:86:GLN:HE21	1.60	0.49
13:CK:120:ARG:HH21	13:CK:126:ARG:HH21	1.60	0.49
25:DA:2808:U:H5'	25:DA:2891:G:O6	2.12	0.49
25:DA:1788:C:O2'	25:DA:1789:A:H5'	2.13	0.49
4:CB:164:VAL:HG12	4:CB:165:VAL:H	1.76	0.49
14:CL:54:VAL:HG12	14:CL:55:ALA:N	2.28	0.49
5:AC:35:GLU:HA	5:AC:38:ARG:HG2	1.94	0.49
36:BP:18:ARG:HB3	36:BP:18:ARG:NH1	2.26	0.49
1:CA:1353:G:H2'	1:CA:1354:C:H6	1.78	0.49
25:BA:2592:G:C6	25:BA:2593:U:C2	3.00	0.49
25:DA:1997:G:H2'	25:DA:1998:G:C8	2.48	0.49
53:D6:25:LYS:HD3	55:D8:34:TRP:CZ3	2.47	0.49
24:AX:112:ARG:HB2	24:AX:198:THR:CG2	2.41	0.49
1:AA:1308:U:OP1	15:AM:97:PRO:HA	2.12	0.49
53:B6:11:LEU:HD13	53:B6:12:GLU:N	2.28	0.49
25:BA:2286:A:H2	53:B6:27:LYS:HE2	1.76	0.49
14:CL:89:VAL:HG12	14:CL:91:ASP:H	1.77	0.49
34:DN:135:LEU:HD22	25:DA:558:G:H5''	1.94	0.49
14:CL:83:LEU:HG	14:CL:104:TYR:CE1	2.47	0.49
29:BF:53:THR:OG1	29:BF:54:ARG:N	2.45	0.49
45:BY:30:VAL:HG13	45:BY:37:VAL:HG12	1.94	0.49
49:B2:61:LEU:O	49:B2:65:ASN:N	2.46	0.49
28:DE:113:PHE:HD2	25:DA:1655:A:H1'	1.76	0.49
25:BA:492:A:H2'	25:BA:493:G:O4'	2.12	0.49
25:DA:2574:G:H2'	25:DA:2575:C:C6	2.47	0.49
34:DN:58:ARG:HB2	34:DN:65:TRP:CH2	2.48	0.49
8:CF:61:LEU:HB3	8:CF:63:TYR:HE2	1.77	0.49
25:DA:656:G:C6	25:DA:657:U:C4	3.01	0.49
25:BA:333:G:H2'	25:BA:333:G:N3	2.27	0.49
29:DF:14:PRO:HD3	29:DF:128:ALA:HB2	1.93	0.49
25:BA:1005:C:O2'	34:BN:51:THR:HG21	2.12	0.49
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.48	0.49
31:BH:105:LEU:HD22	31:BH:113:VAL:HB	1.94	0.49
2:CY:21:A:H8	2:CY:21:A:H5'	1.76	0.49
40:BT:29:ARG:HD3	40:BT:46:GLU:OE1	2.11	0.49
35:DO:1:MET:C	35:DO:2:ILE:HD12	2.33	0.49
25:BA:191:A:H2'	25:BA:192:C:C6	2.47	0.49
25:DA:1252:G:C2	25:DA:1253:A:C2	3.01	0.49
7:CE:82:VAL:HG21	7:CE:138:ALA:HA	1.94	0.49
25:BA:560:C:O2'	25:BA:561:G:H5'	2.11	0.49
34:DN:119:GLU:O	34:DN:123:GLU:HG3	2.11	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CG:53:LYS:HG3	9:CG:125:MET:HE3	1.93	0.49
37:DQ:24:GLY:HA2	37:DQ:101:ARG:HA	1.94	0.49
6:CD:23:GLY:HA3	6:CD:112:VAL:HG22	1.93	0.49
42:BV:4:ILE:HG22	42:BV:5:VAL:N	2.27	0.49
36:BP:128:HIS:CA	36:BP:147:LEU:HB3	2.34	0.49
42:DV:52:VAL:CG1	42:DV:55:ALA:HB3	2.43	0.49
49:D2:2:LYS:H	49:D2:2:LYS:CD	2.26	0.49
24:AX:96:LEU:HD23	24:AX:348:LEU:HA	1.95	0.49
14:AL:65:VAL:HG11	14:AL:97:TYR:CD1	2.48	0.49
49:D2:12:GLU:C	49:D2:14:ARG:H	2.15	0.49
30:DG:41:GLN:HB2	30:DG:90:LEU:HB3	1.94	0.49
34:DN:42:GLU:HG3	34:DN:42:GLU:O	2.12	0.49
35:BO:38:VAL:HG12	35:BO:61:VAL:HB	1.95	0.49
13:CK:19:ALA:HB3	13:CK:82:VAL:HG22	1.95	0.49
28:BE:118:LYS:HG3	38:BR:2:ARG:HH22	1.76	0.49
53:B6:15:GLU:HG2	53:B6:16:CYS:N	2.27	0.49
25:BA:94:G:N2	49:B2:47:ASN:HD22	2.09	0.49
12:CJ:78:ASN:HB2	12:CJ:81:THR:HG23	1.95	0.49
34:BN:36:TRP:HB2	34:BN:156:GLN:HB3	1.94	0.49
20:CR:58:LEU:HD23	20:CR:62:GLU:HB3	1.94	0.49
44:DX:53:LYS:HE3	44:DX:55:ASN:HD21	1.77	0.49
24:AX:332:LEU:HD23	24:AX:332:LEU:H	1.75	0.49
1:CA:777:A:H2'	1:CA:778:G:H8	1.77	0.49
25:DA:2728:U:H2'	25:DA:2729:G:H8	1.76	0.49
25:BA:1244:G:H4'	36:BP:11:GLY:HA3	1.95	0.49
39:BS:25:ARG:HG3	39:BS:88:ASP:HB2	1.93	0.49
10:CH:119:LEU:HD22	10:CH:123:GLU:HB3	1.93	0.49
25:DA:2193:G:H2'	25:DA:2194:G:H8	1.78	0.49
24:CX:125:ARG:HB3	24:CX:154:GLY:HA2	1.95	0.49
1:AA:1190:G:H5'	1:AA:1191:A:OP1	2.13	0.49
1:CA:89:U:H2'	1:CA:90:C:C6	2.47	0.49
25:DA:2619:C:H2'	25:DA:2620:C:H6	1.77	0.49
10:AH:73:ASP:CG	10:AH:75:ARG:HD3	2.33	0.49
25:DA:273(A):G:H1	25:DA:364:C:H42	1.59	0.49
7:CE:110:LEU:HA	7:CE:113:ALA:HB3	1.93	0.49
1:AA:894:G:H2'	1:AA:895:G:C8	2.46	0.49
25:DA:2364:C:H2'	25:DA:2365:G:O4'	2.12	0.49
1:CA:625:G:OP1	18:CP:9:PHE:HB3	2.12	0.49
25:BA:2023:G:H4'	25:BA:2617:C:O3'	2.12	0.49
27:DD:75:ILE:HG21	27:DD:99:ASP:HB2	1.94	0.49
25:DA:2758:A:H2'	25:DA:2759:G:O4'	2.12	0.49
25:DA:1462:C:H4'	25:DA:2703:C:H5'	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DN:76:VAL:HG22	34:DN:144:LYS:HB2	1.94	0.49
2:AY:21:A:O2'	2:AY:22:G:C8	2.65	0.49
25:DA:740:U:H2'	25:DA:741:G:C8	2.47	0.49
43:BW:103:ILE:HD12	43:BW:103:ILE:H	1.76	0.49
25:DA:1531:C:H6	25:DA:1531:C:O5'	1.95	0.49
25:BA:1339:G:N2	25:BA:1603:A:H1'	2.28	0.49
25:BA:1331:A:O2'	25:BA:1332:G:C8	2.65	0.49
27:BD:75:ILE:HG21	27:BD:99:ASP:HB2	1.95	0.49
25:DA:2336:A:H5''	25:DA:2336:A:H8	1.76	0.49
4:AB:164:VAL:HG12	4:AB:165:VAL:H	1.76	0.49
54:B7:30:VAL:HG22	54:B7:33:ARG:HH22	1.76	0.49
25:DA:1812:A:H2'	25:DA:1813:G:C8	2.48	0.49
36:BP:146:VAL:HG22	36:BP:147:LEU:N	2.23	0.49
25:BA:1997:G:H2'	25:BA:1998:G:C8	2.47	0.49
30:BG:91:ARG:HG2	30:BG:92:VAL:N	2.27	0.49
30:BG:94:LEU:H	30:BG:94:LEU:HD23	1.77	0.49
11:CI:48:GLU:N	11:CI:49:PRO:CD	2.75	0.49
30:DG:94:LEU:H	30:DG:94:LEU:HD23	1.77	0.49
25:BA:464:U:C2	25:BA:788:A:C6	3.01	0.49
31:DH:137:ASP:HB3	31:DH:140:LYS:HD2	1.94	0.49
43:BW:69:LEU:HD12	43:BW:69:LEU:O	2.11	0.49
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.42	0.49
15:CM:49:THR:O	15:CM:53:VAL:HG23	2.13	0.49
25:BA:2755:C:H6	25:BA:2755:C:O5'	1.95	0.49
30:DG:135:LEU:O	25:DA:2305:A:H1'	2.13	0.49
21:AS:16:LEU:HA	21:AS:19:VAL:HG12	1.94	0.49
22:CT:48:LYS:HD3	22:CT:51:GLU:OE2	2.12	0.49
28:DE:115:GLY:HA3	25:DA:1655:A:O3'	2.13	0.49
29:DF:34:TRP:HB2	36:DP:10:PRO:O	2.12	0.49
25:BA:1924:C:H2'	25:BA:1925:C:H6	1.77	0.49
26:BB:45:A:H2'	26:BB:45:A:N3	2.28	0.49
16:AN:4:LYS:O	16:AN:7:ILE:HG13	2.12	0.49
37:DQ:132:VAL:HG11	46:DZ:81:ARG:CZ	2.42	0.49
25:BA:1125:G:C6	25:BA:1126:A:N6	2.80	0.49
1:AA:1017:G:H2'	1:AA:1018:C:H6	1.76	0.49
19:AQ:80:GLY:O	19:AQ:81:ARG:HG2	2.11	0.49
34:BN:76:VAL:HG22	34:BN:144:LYS:HB2	1.94	0.49
25:DA:2087:G:O5'	25:DA:2087:G:H8	1.94	0.49
29:BF:43:LYS:HA	29:BF:98:SER:HB3	1.94	0.49
25:DA:2565:A:H5''	25:DA:2566:A:OP2	2.13	0.49
25:BA:529:A:H62	25:BA:2041:U:H3	1.59	0.49
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2241:A:H2'	25:BA:2242:G:C8	2.47	0.49
1:CA:1020:U:H2'	1:CA:1021:G:C8	2.47	0.49
17:CO:24:SER:O	17:CO:28:GLN:HG3	2.12	0.49
30:DG:139:LEU:HD23	30:DG:149:VAL:HG21	1.94	0.49
25:DA:212:G:O2'	25:DA:213:A:H5'	2.13	0.49
12:AJ:8:LEU:HD21	12:AJ:23:ILE:HD12	1.95	0.49
25:BA:2643:G:O2'	25:BA:2644:G:H5'	2.13	0.49
27:BD:224:ALA:HA	27:BD:233:HIS:O	2.12	0.49
42:DV:2:PHE:HD2	42:DV:13:ARG:HB2	1.78	0.49
42:DV:52:VAL:HG13	42:DV:55:ALA:HB3	1.94	0.49
25:BA:1497:U:N3	25:BA:1578:U:OP1	2.46	0.49
36:DP:57:THR:C	36:DP:59:LEU:N	2.66	0.49
4:AB:98:LEU:HB2	4:AB:101:MET:CG	2.43	0.49
25:BA:1996:C:H4'	25:BA:1997:G:H5'	1.93	0.49
25:DA:1190:G:C8	25:DA:1190:G:H5'	2.47	0.49
5:AC:22:TRP:CE2	16:AN:54:PRO:HG2	2.48	0.49
36:DP:47:ASP:H	36:DP:48:PRO:HA	1.78	0.49
14:CL:74:HIS:CD2	14:CL:76:LEU:HB2	2.47	0.49
2:CY:23:C:H2'	2:CY:24:U:H6	1.75	0.49
30:BG:10:LYS:O	30:BG:14:GLU:HB3	2.13	0.49
30:BG:39:ILE:HG22	30:BG:40:ASN:N	2.28	0.49
15:CM:15:VAL:O	15:CM:19:LEU:HD23	2.12	0.49
25:DA:1039:G:H2'	25:DA:1040:C:C6	2.48	0.49
25:BA:2293:C:H4'	39:BS:93:LYS:HZ1	1.77	0.49
35:DO:35:VAL:HG11	35:DO:103:ALA:HB3	1.94	0.49
25:DA:2039:C:H2'	25:DA:2040:C:C6	2.48	0.49
1:CA:7:G:H21	7:CE:121:LYS:HE3	1.76	0.49
31:BH:104:GLU:HA	31:BH:113:VAL:O	2.13	0.49
1:CA:1034:G:H2'	1:CA:1035:A:C8	2.48	0.49
1:AA:624:C:H2'	1:AA:625:G:H8	1.78	0.49
22:AT:89:ARG:HH21	22:AT:104:LEU:HD22	1.78	0.49
34:BN:119:GLU:O	34:BN:123:GLU:HG3	2.12	0.49
37:BQ:35:VAL:HA	37:BQ:101:ARG:O	2.12	0.49
1:CA:932:C:H5"	9:CG:4:ARG:HG3	1.95	0.49
29:BF:33:LEU:O	29:BF:37:VAL:HG23	2.12	0.49
25:BA:1266:G:H5"	52:B5:23:HIS:NE2	2.28	0.49
1:AA:925:G:H1	1:AA:1391:U:H3	1.60	0.49
22:AT:53:LEU:O	22:AT:57:ARG:HD3	2.13	0.49
52:D5:23:HIS:NE2	25:DA:1266:G:H5"	2.28	0.49
24:AX:239:VAL:HG11	24:AX:262:ARG:HA	1.95	0.49
24:AX:21:ASP:O	24:AX:24:VAL:HG12	2.12	0.49
25:BA:2178:C:H2'	25:BA:2179:C:C6	2.46	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:43:LYS:HA	29:DF:98:SER:HB3	1.94	0.49
25:BA:1531:C:O5'	25:BA:1531:C:H6	1.95	0.49
7:CE:39:GLY:HA2	7:CE:69:VAL:HB	1.95	0.49
40:BT:131:ALA:O	40:BT:135:VAL:HG23	2.13	0.49
44:DX:40:LYS:HE3	44:DX:51:VAL:O	2.13	0.49
1:AA:1314:C:H5	21:AS:6:LYS:HZ1	1.60	0.49
55:D8:32:LEU:HB3	25:DA:2392:A:OP1	2.12	0.49
36:DP:59:LEU:O	36:DP:59:LEU:HG	2.13	0.49
25:BA:570:G:H2'	25:BA:2030:A:H62	1.78	0.49
25:DA:464:U:C2	25:DA:788:A:C6	3.01	0.49
34:BN:42:GLU:O	34:BN:42:GLU:HG3	2.12	0.49
44:BX:23:GLU:HG3	44:BX:24:GLY:N	2.26	0.49
4:AB:179:LYS:HA	10:AH:72:PRO:HG3	1.94	0.49
4:CB:179:LYS:HA	10:CH:72:PRO:HG3	1.95	0.49
14:AL:74:HIS:CD2	14:AL:76:LEU:HB2	2.47	0.49
25:DA:1265:A:OP1	25:DA:1265:A:H8	1.95	0.49
1:AA:950:U:H2'	1:AA:951:G:C8	2.44	0.49
25:BA:2073:C:O2'	25:BA:2074:U:H5'	2.12	0.49
5:CC:20:SER:HB2	5:CC:40:ARG:HH12	1.77	0.49
44:BX:53:LYS:HE3	44:BX:55:ASN:HD21	1.78	0.49
22:AT:50:GLU:HG3	22:AT:51:GLU:N	2.28	0.49
1:AA:949:A:H1'	1:AA:1364:U:N3	2.27	0.49
1:CA:949:A:H1'	1:CA:1364:U:N3	2.28	0.49
5:AC:20:SER:HB2	5:AC:40:ARG:HH12	1.78	0.49
25:BA:2728:U:H2'	25:BA:2729:G:H8	1.75	0.49
25:BA:1039:G:H2'	25:BA:1040:C:C6	2.47	0.49
26:BB:46:A:C5	26:BB:47:C:C4	3.01	0.49
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.48	0.49
25:BA:1936:A:C8	25:BA:1945:G:C8	3.01	0.49
25:DA:1945:G:H1	25:DA:1961:C:H42	1.61	0.49
2:AZ:58:A:H4'	2:AZ:59:A:OP1	2.13	0.49
37:DQ:69:PHE:CE2	25:DA:871:U:H4'	2.47	0.49
46:DZ:97:GLU:HB3	46:DZ:125:LEU:HD21	1.95	0.49
40:DT:131:ALA:O	40:DT:135:VAL:HG23	2.12	0.49
41:DU:26:GLY:O	41:DU:30:LYS:HG2	2.12	0.49
37:BQ:50:ALA:HB1	37:BQ:121:ALA:HB1	1.93	0.49
54:D7:47:ARG:O	54:D7:48:LYS:HB2	2.12	0.49
37:DQ:68:ILE:HG23	37:DQ:103:MET:HA	1.94	0.49
55:D8:6:THR:HG23	55:D8:63:PRO:HG2	1.94	0.49
25:DA:2720:U:H2'	25:DA:2721:A:H8	1.78	0.49
30:DG:62:LEU:HB3	30:DG:143:GLU:HG3	1.94	0.49
4:CB:158:LEU:HD12	4:CB:158:LEU:H	1.77	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.47	0.49
5:CC:61:ALA:O	5:CC:62:ASP:HB2	2.13	0.49
28:DE:9:VAL:HG22	28:DE:25:VAL:HB	1.95	0.49
1:AA:627:G:H2'	1:AA:628:G:C8	2.47	0.49
14:CL:110:LYS:O	14:CL:111:ASP:HB2	2.13	0.49
45:DY:30:VAL:HG13	45:DY:37:VAL:HG12	1.95	0.49
37:DQ:45:GLN:CD	37:DQ:45:GLN:H	2.16	0.49
25:BA:2392:A:OP1	55:B8:32:LEU:HB3	2.13	0.49
25:BA:1998:G:H2'	25:BA:1999:C:C6	2.48	0.49
5:AC:125:GLU:OE2	5:AC:189:ALA:HA	2.12	0.49
30:DG:60:LEU:O	30:DG:64:THR:HG22	2.13	0.49
4:AB:80:ILE:HD12	4:AB:211:ILE:HB	1.94	0.49
25:BA:466:A:N3	25:BA:683:C:H1'	2.28	0.49
5:AC:179:ARG:HG3	5:AC:179:ARG:O	2.13	0.49
36:BP:52:GLU:CG	36:BP:53:GLY:H	2.25	0.49
12:CJ:55:LYS:O	12:CJ:56:HIS:CG	2.65	0.49
25:DA:2645:G:H3'	25:DA:2646:C:C5'	2.43	0.49
12:AJ:75:ILE:HG13	12:AJ:76:ASN:N	2.27	0.49
4:CB:24:TRP:HZ3	4:CB:26:PRO:HA	1.76	0.49
4:AB:24:TRP:CD1	4:AB:40:HIS:HE1	2.31	0.49
21:CS:63:THR:HG23	21:CS:65:ASN:H	1.77	0.49
45:DY:17:SER:CB	45:DY:71:LYS:HD2	2.43	0.49
7:AE:90:VAL:O	7:AE:120:THR:HA	2.13	0.49
25:DA:2887:U:H2'	25:DA:2888:C:H6	1.78	0.49
25:BA:2342:C:O2'	25:BA:2374:C:H5''	2.12	0.49
25:BA:953:A:H2'	25:BA:954:G:C8	2.48	0.49
25:DA:161:U:H3'	25:DA:162:U:C5'	2.43	0.49
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.48	0.49
25:BA:2210:G:H5''	25:BA:2210:G:N3	2.28	0.49
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.13	0.49
1:AA:394:G:H2'	1:AA:395:C:C6	2.48	0.49
25:DA:330:A:O2'	25:DA:331:A:C8	2.65	0.49
25:DA:2556:C:H2'	25:DA:2557:G:O4'	2.12	0.49
43:BW:103:ILE:HD12	43:BW:103:ILE:N	2.27	0.49
25:DA:2087:G:H2'	25:DA:2088:G:C8	2.48	0.49
22:AT:85:MET:HB2	22:AT:104:LEU:HD21	1.94	0.49
25:BA:907:U:H2'	25:BA:908:C:C6	2.48	0.49
44:DX:29:TRP:CZ3	44:DX:76:ARG:HD3	2.48	0.49
24:CX:9:GLU:HA	24:CX:12:TYR:CD1	2.48	0.49
24:AX:303:ARG:HD2	24:AX:305:TYR:CZ	2.48	0.49
7:CE:122:GLU:O	7:CE:123:LEU:HD23	2.12	0.49
1:AA:102(C):C:H2'	1:AA:1029:G:C8	2.48	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:665:A:H2'	1:AA:725:G:N2	2.28	0.49
10:CH:9:MET:HG3	10:CH:26:VAL:HG21	1.93	0.49
25:BA:678:C:H2'	25:BA:679:C:C6	2.48	0.49
1:CA:103(A):A:H2'	1:CA:103(B):G:O4'	2.13	0.49
25:DA:1001:A:H61	25:DA:1154:G:H1'	1.76	0.49
1:CA:102(C):C:H2'	1:CA:1029:G:C8	2.47	0.49
25:BA:2213:U:H6	25:BA:2213:U:O5'	1.96	0.49
28:BE:9:VAL:HG22	28:BE:25:VAL:HB	1.94	0.49
1:AA:932:C:H5''	9:AG:4:ARG:HG3	1.95	0.49
25:DA:2307:G:H8	25:DA:2307:G:O5'	1.95	0.49
37:BQ:14:ARG:CG	37:BQ:14:ARG:NH1	2.65	0.49
45:DY:96:ILE:HG23	45:DY:101:LYS:O	2.13	0.49
44:BX:26:TYR:CE1	44:BX:89:ILE:HG12	2.47	0.49
44:BX:49:VAL:HG21	44:BX:89:ILE:HD11	1.95	0.49
48:B1:19:GLN:NE2	48:B1:41:ARG:HB2	2.14	0.49
25:BA:274:G:H5''	25:BA:274:G:H8	1.78	0.49
45:DY:8:LYS:HZ2	45:DY:8:LYS:H	1.59	0.49
36:BP:57:THR:C	36:BP:59:LEU:N	2.66	0.49
25:DA:466:A:N3	25:DA:683:C:H1'	2.27	0.49
26:BB:42:C:O4'	30:BG:69:ALA:HB2	2.13	0.49
4:CB:80:ILE:HD12	4:CB:211:ILE:HB	1.94	0.49
30:DG:10:LYS:O	30:DG:14:GLU:HB3	2.13	0.49
6:CD:121:VAL:O	6:CD:134:ASP:HA	2.13	0.49
25:DA:2073:C:O2'	25:DA:2074:U:H5'	2.13	0.49
25:BA:1022:G:O2'	25:BA:1023:U:P	2.71	0.49
22:AT:48:LYS:HD3	22:AT:51:GLU:OE2	2.13	0.49
25:DA:2342:C:O2'	25:DA:2374:C:H5''	2.13	0.49
8:AF:75:LEU:O	8:AF:79:LEU:HG	2.12	0.49
25:DA:414:C:H2'	25:DA:415:A:H8	1.78	0.49
43:BW:19:LEU:HB3	52:B5:25:LEU:HD12	1.94	0.49
37:BQ:24:GLY:HA2	37:BQ:101:ARG:HA	1.95	0.49
25:DA:2688:U:C5	25:DA:2720:U:OP2	2.65	0.49
25:BA:619:G:H5''	25:BA:620:G:OP2	2.13	0.49
40:DT:98:LYS:HB3	40:DT:100:TYR:CE1	2.48	0.49
1:AA:1001:G:H2'	1:AA:1002:G:O4'	2.11	0.49
25:DA:1331:A:O2'	25:DA:1332:G:C8	2.66	0.49
1:CA:627:G:H2'	1:CA:628:G:C8	2.48	0.49
2:CY:7:G:H3'	2:CY:8:U:H5'	1.95	0.49
25:BA:1829:A:H2'	25:BA:1830:C:O5'	2.13	0.49
38:BR:54:LEU:HD23	38:BR:62:ALA:HB1	1.95	0.49
25:BA:1587:A:H2'	25:BA:1588:C:C6	2.48	0.49
14:AL:110:LYS:O	14:AL:111:ASP:HB2	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1282:U:H2'	25:DA:1283:G:O4'	2.13	0.49
25:BA:302:C:H2'	25:BA:303:U:C6	2.48	0.49
1:CA:925:G:H1	1:CA:1391:U:H3	1.60	0.49
2:AY:47:U:H3'	2:AY:48:C:H5'	1.94	0.49
25:BA:1967:C:H2'	25:BA:1968:G:O4'	2.13	0.49
25:BA:2364:C:H2'	25:BA:2365:G:O4'	2.12	0.49
7:AE:82:VAL:HG21	7:AE:138:ALA:HA	1.94	0.49
24:AX:70:LEU:HD13	24:AX:73:MET:SD	2.53	0.49
27:DD:231:HIS:HE1	27:DD:233:HIS:ND1	2.11	0.48
45:BY:81:LYS:CD	45:BY:97:ARG:HB3	2.42	0.48
47:D0:22:GLY:O	47:D0:38:VAL:HG13	2.13	0.48
13:AK:22:HIS:HB3	13:AK:29:ILE:CG1	2.33	0.48
21:CS:6:LYS:HD2	21:CS:6:LYS:H	1.78	0.48
30:DG:87:PRO:O	30:DG:88:ILE:HB	2.12	0.48
7:AE:39:GLY:HA2	7:AE:69:VAL:HB	1.94	0.48
25:BA:661:C:O2'	36:BP:16:ARG:HD2	2.13	0.48
26:BB:42:C:H5'	30:BG:68:PRO:O	2.12	0.48
30:DG:69:ALA:HB2	26:DB:42:C:O4'	2.13	0.48
25:DA:108:U:H2'	25:DA:109:G:C8	2.48	0.48
13:AK:51:LYS:HA	13:AK:55:LYS:HZ3	1.78	0.48
25:BA:1265:A:OP1	25:BA:1265:A:H8	1.96	0.48
9:AG:85:TYR:HB3	9:AG:151:TYR:HD2	1.78	0.48
25:DA:2745:C:H2'	25:DA:2746:U:C6	2.48	0.48
33:BJ:17:LEU:HD22	33:BJ:21:GLN:HE21	1.77	0.48
7:CE:90:VAL:O	7:CE:120:THR:HA	2.13	0.48
25:DA:1498:C:H2'	25:DA:1499:C:H6	1.75	0.48
27:DD:183:ARG:HB3	27:DD:270:ILE:HG22	1.95	0.48
25:DA:2119:A:H61	25:DA:2168:G:H1'	1.78	0.48
25:DA:1900:A:N1	25:DA:1970:A:C6	2.81	0.48
43:DW:90:ARG:NH1	25:DA:747:U:H5'	2.28	0.48
25:BA:656:G:C6	25:BA:657:U:C4	3.01	0.48
4:AB:130:ARG:HD3	4:AB:134:GLU:CD	2.34	0.48
45:DY:46:LYS:HE2	25:DA:480:A:OP2	2.13	0.48
6:AD:8:VAL:C	6:AD:10:ARG:H	2.15	0.48
35:BO:112:MET:O	35:BO:115:VAL:HG22	2.13	0.48
25:DA:1322:A:C5	25:DA:1323:U:C5	3.01	0.48
25:DA:410:G:C2	25:DA:418:G:C2	3.01	0.48
22:CT:16:HIS:O	22:CT:20:LEU:HG	2.13	0.48
1:CA:274:A:H4'	1:CA:275:G:OP1	2.13	0.48
41:DU:3:ARG:HD3	25:DA:446:G:OP1	2.13	0.48
6:CD:33:MET:HG2	6:CD:37:PRO:HA	1.94	0.48
5:CC:79:ARG:N	5:CC:79:ARG:HD3	2.27	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AC:79:ARG:HD3	5:AC:79:ARG:N	2.27	0.48
1:AA:164:U:H2'	1:AA:165:C:C6	2.48	0.48
2:AY:7:G:H3'	2:AY:8:U:C5'	2.43	0.48
25:DA:951:C:H2'	25:DA:952:G:H8	1.78	0.48
2:CZ:19:G:H4'	2:CZ:20:U:OP2	2.13	0.48
44:BX:21:PHE:CD2	44:BX:26:TYR:HD2	2.31	0.48
44:BX:89:ILE:HG13	44:BX:92:LEU:HD12	1.93	0.48
1:AA:1346:A:N6	1:AA:1374:A:H3'	2.27	0.48
18:AP:8:ARG:HB3	18:AP:28:ARG:NH1	2.28	0.48
30:DG:84:LYS:HB3	30:DG:86:MET:SD	2.53	0.48
40:BT:75:ILE:N	40:BT:75:ILE:HD12	2.28	0.48
1:AA:939:G:H5''	9:AG:102:ARG:CZ	2.43	0.48
18:CP:20:VAL:HG23	18:CP:35:LYS:HA	1.95	0.48
4:CB:154:LEU:HD13	4:CB:155:LEU:N	2.28	0.48
25:DA:2846:G:H2'	25:DA:2847:U:O4'	2.13	0.48
6:AD:4:TYR:HE1	6:AD:11:LEU:CD1	2.26	0.48
25:DA:828:U:H4'	25:DA:831:G:N1	2.27	0.48
25:DA:1678:G:H2'	25:DA:1679:U:C6	2.47	0.48
4:AB:102:LEU:HB2	4:AB:176:GLU:OE1	2.13	0.48
32:BI:12:LEU:H	32:BI:12:LEU:HD22	1.78	0.48
40:DT:60:THR:HG22	40:DT:77:PRO:HA	1.95	0.48
53:D6:15:GLU:HG2	53:D6:16:CYS:N	2.27	0.48
25:DA:2023:G:H4'	25:DA:2617:C:O3'	2.13	0.48
10:AH:97:VAL:HG13	10:AH:98:LYS:N	2.28	0.48
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.12	0.48
25:DA:1125:G:C6	25:DA:1126:A:N6	2.81	0.48
1:AA:262:A:H5'	22:AT:74:LYS:HG3	1.94	0.48
8:AF:10:LEU:HD13	8:AF:61:LEU:HD13	1.95	0.48
1:CA:1320:C:H42	21:CS:36:ARG:HG3	1.77	0.48
25:DA:286:C:H2'	25:DA:287:C:H6	1.78	0.48
25:BA:286:C:H2'	25:BA:287:C:H6	1.77	0.48
28:BE:54:GLN:HB2	28:BE:74:PRO:O	2.12	0.48
1:AA:42:G:H2'	1:AA:43:C:C6	2.48	0.48
22:AT:30:LYS:O	22:AT:33:ILE:HB	2.13	0.48
19:CQ:37:LYS:C	19:CQ:38:ARG:HD2	2.33	0.48
41:BU:8:VAL:HG13	41:BU:11:ARG:HH21	1.78	0.48
28:DE:61:ARG:HD3	25:DA:2633:G:O2'	2.14	0.48
1:CA:1089:G:C6	1:CA:1090:U:C4	3.01	0.48
13:CK:48:ILE:HD11	13:CK:64:ALA:HA	1.94	0.48
25:BA:2307:G:O5'	25:BA:2307:G:H8	1.95	0.48
19:AQ:99:SER:O	19:AQ:100:LYS:HD3	2.13	0.48
1:AA:217:C:H2'	1:AA:218:C:H6	1.77	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:54:HIS:CG	46:DZ:101:PRO:HG3	2.49	0.48
25:BA:1203:G:O6	25:BA:1204:A:N6	2.46	0.48
25:BA:1763:G:H2'	25:BA:1764:G:H5'	1.95	0.48
25:DA:823:G:H2'	25:DA:824:A:C8	2.48	0.48
25:BA:1863:G:H2'	25:BA:1864:U:O4'	2.13	0.48
25:DA:1831:G:H2'	25:DA:1832:C:C6	2.48	0.48
25:BA:86:C:H2'	25:BA:87:C:H6	1.78	0.48
22:CT:53:LEU:O	22:CT:57:ARG:HD3	2.14	0.48
8:CF:98:LEU:HD12	8:CF:98:LEU:O	2.14	0.48
25:BA:2197:U:O2'	25:BA:2198:A:H5''	2.13	0.48
41:BU:88:ILE:HB	41:BU:90:VAL:CG1	2.35	0.48
42:BV:2:PHE:HD2	42:BV:13:ARG:HB2	1.78	0.48
42:BV:52:VAL:CG1	42:BV:55:ALA:HB3	2.43	0.48
27:BD:243:GLY:O	27:BD:244:ARG:CB	2.61	0.48
45:DY:2:ARG:NH2	25:DA:81:G:H21	2.11	0.48
36:BP:95:VAL:CG2	36:BP:125:VAL:HA	2.40	0.48
24:AX:96:LEU:HG	24:AX:348:LEU:HB2	1.95	0.48
24:CX:93:GLU:CD	24:CX:344:GLN:HB3	2.34	0.48
18:CP:28:ARG:NH1	18:CP:28:ARG:HG2	2.16	0.48
1:AA:1409:C:H2'	1:AA:1410:G:C8	2.48	0.48
39:BS:35:ILE:H	39:BS:53:SER:HB3	1.79	0.48
27:DD:9:TYR:CE1	25:DA:705:A:H1'	2.47	0.48
27:DD:72:LYS:HE3	27:DD:101:GLU:HB3	1.94	0.48
25:BA:1153:C:H5'	41:BU:76:TYR:CE2	2.48	0.48
4:AB:154:LEU:HD13	4:AB:155:LEU:N	2.27	0.48
1:CA:1182:G:H4'	1:CA:1183:A:C5'	2.41	0.48
49:D2:47:ASN:HD22	25:DA:94:G:N2	2.11	0.48
15:CM:22:ILE:HB	15:CM:25:ILE:HB	1.95	0.48
45:BY:17:SER:CB	45:BY:71:LYS:HD2	2.43	0.48
39:DS:96:GLY:HA3	26:DB:49:C:OP1	2.13	0.48
1:AA:694:A:O2'	2:AZ:38:A:H1'	2.14	0.48
39:BS:93:LYS:HE3	39:BS:93:LYS:HA	1.95	0.48
34:BN:58:ARG:HB2	34:BN:65:TRP:CH2	2.48	0.48
40:BT:86:ILE:O	40:BT:86:ILE:HD13	2.12	0.48
31:DH:104:GLU:HA	31:DH:113:VAL:O	2.12	0.48
46:DZ:8:TYR:HB2	46:DZ:38:TYR:CE2	2.48	0.48
46:BZ:8:TYR:HB2	46:BZ:38:TYR:CE2	2.49	0.48
1:CA:542:G:H5'	6:CD:41:GLY:CA	2.43	0.48
1:CA:624:C:H2'	1:CA:625:G:H8	1.78	0.48
25:DA:2228:G:H2'	25:DA:2229:C:O4'	2.13	0.48
1:CA:524:G:H2'	1:CA:525:C:C6	2.48	0.48
1:AA:1479:C:H2'	1:AA:1480:G:H8	1.78	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:529:A:H62	25:DA:2041:U:H3	1.60	0.48
24:AX:10:GLU:O	24:AX:14:GLU:HB2	2.13	0.48
1:CA:1479:C:H2'	1:CA:1480:G:H8	1.78	0.48
1:CA:841:U:O2'	1:CA:842:C:H5''	2.13	0.48
4:AB:158:LEU:H	4:AB:158:LEU:HD12	1.79	0.48
25:DA:333:G:N3	25:DA:333:G:H2'	2.29	0.48
30:DG:153:ARG:HB3	30:DG:153:ARG:NH1	2.29	0.48
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.49	0.48
37:BQ:20:ALA:HA	37:BQ:98:LYS:HB2	1.94	0.48
27:DD:231:HIS:ND1	27:DD:232:PRO:HD2	2.27	0.48
37:BQ:48:GLU:O	37:BQ:52:VAL:HG12	2.13	0.48
41:DU:92:ARG:HG2	42:DV:11:GLN:CG	2.44	0.48
25:DA:2781:A:H5'	25:DA:2782:G:C5'	2.35	0.48
5:CC:22:TRP:CE2	16:CN:54:PRO:HG2	2.48	0.48
14:AL:23:VAL:HG13	14:AL:97:TYR:HE2	1.78	0.48
30:DG:91:ARG:HG2	30:DG:92:VAL:N	2.27	0.48
36:BP:47:ASP:H	36:BP:48:PRO:HA	1.77	0.48
25:BA:1152:C:H2'	25:BA:1153:C:C6	2.46	0.48
1:AA:1502:A:H8	1:AA:1505:G:H22	1.58	0.48
1:AA:1079:G:O3'	7:AE:14:ARG:NH2	2.46	0.48
14:AL:74:HIS:HD2	14:AL:76:LEU:HB2	1.78	0.48
42:DV:15:GLU:HB2	42:DV:18:LEU:HG	1.94	0.48
21:AS:63:THR:HG23	21:AS:65:ASN:H	1.78	0.48
25:DA:1550:C:H2'	25:DA:1551:C:H6	1.79	0.48
45:DY:71:LYS:HZ2	45:DY:71:LYS:HB2	1.78	0.48
1:AA:191(G):G:C4	22:AT:105:SER:HB3	2.49	0.48
25:BA:2169:A:H2'	25:BA:2170:A:C8	2.47	0.48
48:B1:83:GLU:HG2	48:B1:84:GLY:H	1.78	0.48
25:BA:1292:U:H2'	25:BA:1293:C:H6	1.77	0.48
25:BA:414:C:H2'	25:BA:415:A:H8	1.78	0.48
1:AA:197:A:C6	1:AA:221:C:H4'	2.49	0.48
1:AA:1034:G:H2'	1:AA:1035:A:H8	1.77	0.48
13:CK:120:ARG:HH21	13:CK:126:ARG:NH2	2.11	0.48
2:CY:7:G:H3'	2:CY:8:U:C5'	2.43	0.48
2:AZ:19:G:H4'	2:AZ:20:U:OP2	2.13	0.48
25:BA:1355:G:H2'	25:BA:1356:G:H8	1.78	0.48
1:AA:103(A):A:H2'	1:AA:103(B):G:O4'	2.13	0.48
17:CO:29:VAL:HG11	17:CO:81:LEU:HD21	1.95	0.48
40:BT:57:PHE:CG	40:BT:58:ASN:N	2.81	0.48
25:BA:2507:C:H2'	25:BA:2508:G:O4'	2.14	0.48
25:DA:463:G:N1	25:DA:467:G:C6	2.81	0.48
25:DA:372:G:H22	25:DA:400:G:H2'	1.78	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:191:A:H2'	25:DA:192:C:C6	2.47	0.48
25:BA:2529:G:O5'	25:BA:2529:G:H8	1.97	0.48
25:BA:2781:A:H5'	25:BA:2782:G:C5'	2.35	0.48
45:DY:4:LYS:N	45:DY:4:LYS:HD3	2.27	0.48
14:CL:51:LEU:HD12	14:CL:51:LEU:H	1.78	0.48
40:DT:51:ARG:HB3	40:DT:62:THR:HG23	1.94	0.48
25:BA:2686:G:H2'	25:BA:2687:U:C6	2.48	0.48
25:DA:1189:A:H3'	25:DA:1190:G:C5'	2.38	0.48
35:DO:38:VAL:HG12	35:DO:61:VAL:HB	1.95	0.48
46:BZ:56:VAL:HG22	46:BZ:70:LEU:HD22	1.95	0.48
13:AK:52:GLY:H	13:AK:55:LYS:HZ1	1.58	0.48
25:BA:1550:C:H2'	25:BA:1551:C:H6	1.78	0.48
38:BR:12:ARG:HH22	38:BR:40:LYS:NZ	2.11	0.48
53:D6:11:LEU:HD13	53:D6:12:GLU:N	2.28	0.48
25:BA:2846:G:H2'	25:BA:2847:U:O4'	2.14	0.48
25:DA:1762:A:H8	25:DA:1762:A:O5'	1.96	0.48
12:AJ:74:ILE:HD13	12:AJ:74:ILE:N	2.27	0.48
25:BA:1498:C:OP2	25:BA:1498:C:H3'	2.14	0.48
25:DA:953:A:H2'	25:DA:954:G:C8	2.47	0.48
25:BA:161:U:H3'	25:BA:162:U:C5'	2.43	0.48
25:DA:412:A:H3'	25:DA:413:C:C6	2.49	0.48
53:D6:15:GLU:HG2	53:D6:16:CYS:H	1.79	0.48
25:BA:2193:G:H2'	25:BA:2194:G:H8	1.78	0.48
40:DT:86:ILE:O	40:DT:86:ILE:HD13	2.13	0.48
25:BA:859:G:H22	25:BA:916:G:H2'	1.77	0.48
25:BA:2619:C:H2'	25:BA:2620:C:H6	1.78	0.48
31:DH:105:LEU:HD22	31:DH:113:VAL:HB	1.94	0.48
25:DA:481:G:H1'	25:DA:506:G:N2	2.28	0.48
25:BA:583:G:C5	25:BA:584:C:C5	3.01	0.48
2:AY:21:A:H5'	2:AY:21:A:H8	1.78	0.48
25:DA:2304:G:H1	25:DA:2312:U:H3	1.61	0.48
11:AI:7:THR:O	11:AI:83:ARG:HD2	2.13	0.48
9:AG:126:ASP:HB3	9:AG:131:LYS:O	2.13	0.48
25:BA:2453:A:O2'	25:BA:2572:A:H1'	2.13	0.48
25:DA:1820:U:H4'	25:DA:1821:A:OP2	2.12	0.48
43:DW:6:ILE:HG12	43:DW:104:THR:HG23	1.95	0.48
25:BA:2026:C:C4	25:BA:2027:G:N7	2.82	0.48
34:DN:64:ASP:HA	41:DU:64:ARG:HH11	1.79	0.48
25:BA:1282:U:H2'	25:BA:1283:G:O4'	2.13	0.48
32:BI:102:SER:O	32:BI:106:GLY:HA2	2.14	0.48
2:CZ:58:A:H4'	2:CZ:59:A:OP1	2.14	0.48
25:BA:636:G:OP1	36:BP:132:LYS:HD3	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DO:112:MET:O	35:DO:115:VAL:HG22	2.13	0.48
13:AK:48:ILE:HD11	13:AK:64:ALA:HA	1.95	0.48
1:CA:192:U:H2'	1:CA:193:C:C6	2.48	0.48
55:B8:6:THR:HG23	55:B8:63:PRO:HG2	1.95	0.48
1:CA:665:A:H2'	1:CA:725:G:N2	2.28	0.48
25:BA:124:G:C6	54:B7:19:ARG:NH2	2.79	0.48
6:AD:122:ARG:HD3	6:AD:122:ARG:O	2.12	0.48
24:AX:9:GLU:HA	24:AX:12:TYR:CD1	2.49	0.48
25:BA:149:A:H2'	25:BA:150:C:C6	2.49	0.48
24:CX:123:PHE:CE1	24:CX:180:VAL:HB	2.48	0.48
35:BO:1:MET:C	35:BO:2:ILE:HD12	2.34	0.48
7:AE:83:GLU:HG2	7:AE:88:LYS:HG3	1.96	0.48
44:DX:51:VAL:HA	44:DX:83:VAL:HA	1.95	0.48
27:BD:231:HIS:HE1	27:BD:233:HIS:ND1	2.11	0.48
44:BX:40:LYS:CD	44:BX:51:VAL:HB	2.43	0.48
49:B2:2:LYS:H	49:B2:2:LYS:CD	2.26	0.48
5:CC:105:GLU:HG2	5:CC:106:VAL:N	2.21	0.48
25:BA:2680:C:H2'	25:BA:2681:C:O2	2.13	0.48
14:CL:65:VAL:HG11	14:CL:97:TYR:CD1	2.49	0.48
5:AC:22:TRP:CZ3	5:AC:24:ALA:HB2	2.49	0.48
6:AD:28:SER:HB3	6:AD:29:PRO:CD	2.41	0.48
37:DQ:7:MET:O	25:DA:870:A:H5'	2.13	0.48
32:BI:107:ILE:HG13	32:BI:109:ILE:HG23	1.95	0.48
1:AA:1521:G:H2'	1:AA:1522:U:C6	2.48	0.48
25:DA:2104:G:H2'	25:DA:2105:C:C6	2.49	0.48
25:BA:2745:C:H2'	25:BA:2746:U:C6	2.48	0.48
12:CJ:75:ILE:CG1	12:CJ:76:ASN:H	2.26	0.48
25:BA:2305:A:H1'	30:BG:135:LEU:O	2.13	0.48
25:DA:1441:G:H2'	25:DA:1442:G:H8	1.78	0.48
49:D2:61:LEU:O	49:D2:65:ASN:N	2.46	0.48
14:AL:83:LEU:HG	14:AL:104:TYR:CE1	2.49	0.48
30:DG:133:LEU:HD11	30:DG:157:ILE:HD11	1.95	0.48
1:AA:714:G:H21	1:AA:777:A:H1'	1.77	0.48
1:AA:779:C:O2'	1:AA:780:A:H5'	2.13	0.48
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.48	0.48
1:AA:1203:C:H2'	1:AA:1204:A:C8	2.47	0.48
25:DA:2210:G:N3	25:DA:2210:G:H5''	2.28	0.48
1:CA:1017:G:H2'	1:CA:1018:C:H6	1.76	0.48
25:BA:412:A:H3'	25:BA:413:C:C6	2.49	0.48
7:AE:18:ARG:HH21	7:AE:25:ARG:HB2	1.79	0.48
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.43	0.48
1:AA:79:G:H1	1:AA:90:C:H42	1.61	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:539:A:H2'	1:AA:540:G:H8	1.79	0.48
1:AA:542:G:H2'	1:AA:543:C:C6	2.48	0.48
25:BA:7:G:H2'	25:BA:8:A:C8	2.48	0.48
25:DA:583:G:C5	25:DA:584:C:C5	3.02	0.48
25:BA:2336:A:H3'	25:BA:2337:G:H8	1.79	0.48
55:B8:11:LYS:HD3	55:B8:11:LYS:C	2.34	0.48
1:AA:624:C:O3'	18:AP:10:GLY:HA2	2.13	0.48
1:CA:624:C:O3'	18:CP:10:GLY:HA2	2.14	0.48
25:BA:150:C:H2'	25:BA:151:C:C6	2.49	0.48
25:DA:86:C:H2'	25:DA:87:C:H6	1.78	0.48
25:BA:2565:A:H5''	25:BA:2566:A:OP2	2.13	0.48
1:AA:323:U:O3'	22:AT:22:ARG:HD3	2.13	0.48
1:AA:192:U:H2'	1:AA:193:C:C6	2.49	0.48
25:BA:728:G:C2	25:BA:730:C:C2	3.02	0.48
1:AA:1208:C:H2'	1:AA:1209:C:C6	2.49	0.48
25:BA:1295:C:H2'	25:BA:1296:G:H8	1.79	0.48
30:BG:153:ARG:NH1	30:BG:153:ARG:HB3	2.29	0.48
1:CA:44:G:H2'	1:CA:45:U:C6	2.49	0.48
24:AX:263:GLU:O	24:AX:267:MET:HG2	2.13	0.48
6:CD:8:VAL:C	6:CD:10:ARG:H	2.15	0.48
25:DA:1829:A:H2'	25:DA:1830:C:O5'	2.13	0.48
28:DE:69:LYS:O	28:DE:69:LYS:HD3	2.14	0.48
19:AQ:37:LYS:C	19:AQ:38:ARG:HD2	2.33	0.48
1:CA:131:C:H2'	1:CA:132:C:C6	2.48	0.48
42:BV:22:VAL:CG1	42:BV:23:GLU:N	2.74	0.48
36:DP:146:VAL:HG22	36:DP:147:LEU:N	2.23	0.48
44:BX:40:LYS:HE3	44:BX:51:VAL:O	2.13	0.48
25:BA:1418:G:H22	25:BA:1579:A:H5'	1.79	0.48
36:DP:62:LEU:HD12	25:DA:2393:A:H5'	1.95	0.48
40:BT:51:ARG:HB3	40:BT:62:THR:CG2	2.43	0.48
5:CC:22:TRP:HZ3	5:CC:24:ALA:HB2	1.79	0.48
25:BA:2056:G:H2'	25:BA:2056:G:N3	2.28	0.48
28:BE:67:PHE:HE2	28:BE:75:VAL:HG22	1.78	0.48
25:BA:1653:G:OP1	38:BR:4:LEU:HD22	2.14	0.48
25:BA:2591:C:OP2	27:BD:239:ARG:HB2	2.13	0.48
11:AI:48:GLU:N	11:AI:49:PRO:CD	2.75	0.48
1:CA:676:A:H1'	13:CK:115:PRO:HB3	1.95	0.48
32:DI:67:ARG:O	32:DI:71:ILE:HG22	2.12	0.48
20:CR:63:GLN:O	20:CR:66:LEU:HB3	2.13	0.48
31:BH:137:ASP:HB3	31:BH:140:LYS:HD2	1.95	0.48
1:CA:1521:G:H2'	1:CA:1522:U:C6	2.49	0.48
49:D2:47:ASN:HD22	25:DA:94:G:H21	1.60	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:145:G:H2'	1:CA:146:G:C8	2.48	0.48
25:BA:444:C:O5'	41:BU:2:PRO:HD3	2.13	0.48
25:BA:2119:A:H61	25:BA:2168:G:H1'	1.78	0.48
25:BA:2574:G:H2'	25:BA:2575:C:C6	2.48	0.48
14:AL:5:THR:HG23	14:AL:8:GLN:NE2	2.29	0.48
25:DA:680:G:C6	25:DA:681:G:C6	3.01	0.48
42:BV:99:ILE:HD13	42:BV:99:ILE:N	2.29	0.48
25:BA:674:G:H2'	25:BA:804:A:H61	1.78	0.48
6:CD:8:VAL:HB	6:CD:21:LEU:HD22	1.95	0.48
1:AA:272:C:H2'	1:AA:273:A:H8	1.78	0.48
22:AT:16:HIS:O	22:AT:20:LEU:HG	2.13	0.48
11:CI:26:VAL:HG13	11:CI:61:ALA:HB3	1.96	0.48
25:BA:823:G:H2'	25:BA:824:A:C8	2.48	0.48
30:BG:121:ASN:HD22	30:BG:122:PRO:HD2	1.78	0.48
24:AX:150:THR:HG23	24:AX:153:GLY:O	2.14	0.48
1:CA:272:C:H2'	1:CA:273:A:H8	1.78	0.48
25:BA:298:G:O5'	25:BA:298:G:H8	1.96	0.48
39:BS:90:GLY:O	39:BS:92:TYR:N	2.47	0.48
25:BA:67:U:H2'	25:BA:68:G:C8	2.49	0.48
37:DQ:59:ARG:HA	46:DZ:179:ASP:OD2	2.13	0.48
17:AO:24:SER:O	17:AO:28:GLN:HG3	2.12	0.48
4:AB:74:LYS:O	4:AB:78:GLN:HG3	2.13	0.48
5:AC:61:ALA:O	5:AC:62:ASP:HB2	2.13	0.48
9:CG:126:ASP:HB3	9:CG:131:LYS:O	2.14	0.48
25:BA:372:G:H22	25:BA:400:G:H2'	1.79	0.48
1:CA:1319:A:H8	1:CA:1319:A:H5''	1.79	0.48
25:DA:114:U:H2'	25:DA:115:C:C6	2.47	0.48
25:DA:1587:A:H2'	25:DA:1588:C:C6	2.48	0.48
31:BH:17:VAL:HG22	31:BH:26:VAL:HG22	1.95	0.48
27:DD:242:ARG:HE	25:DA:1826:G:C4'	2.09	0.48
45:BY:96:ILE:HG23	45:BY:101:LYS:O	2.14	0.48
25:DA:1543:A:H5'	25:DA:1544:C:OP2	2.13	0.48
25:DA:274:G:H5''	25:DA:274:G:H8	1.78	0.48
36:DP:95:VAL:CG2	36:DP:125:VAL:HA	2.39	0.48
1:CA:529:G:H22	14:CL:50:ALA:HB2	1.78	0.48
28:DE:51:PHE:HD1	28:DE:52:LEU:HG	1.79	0.48
25:BA:870:A:H5'	37:BQ:7:MET:O	2.13	0.48
26:DB:42:C:H2'	26:DB:43:C:C6	2.49	0.48
35:BO:61:VAL:N	35:BO:87:ILE:HD11	2.29	0.48
34:BN:88:LYS:CB	34:BN:92:GLN:HB2	2.44	0.48
25:DA:848:G:O6	25:DA:929:G:H2'	2.14	0.48
37:BQ:141:GLN:HE21	46:BZ:72:ARG:HG2	1.77	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DU:55:ARG:HG2	41:DU:58:ARG:NH1	2.28	0.48
25:DA:1772:G:N2	25:DA:1774:C:H5'	2.29	0.48
38:DR:12:ARG:HH22	38:DR:40:LYS:NZ	2.11	0.48
25:BA:1276:A:O2'	38:BR:16:HIS:HE1	1.96	0.48
40:DT:54:ARG:HB2	25:DA:2846:G:OP2	2.13	0.48
20:AR:54:ARG:H	20:AR:54:ARG:HD2	1.76	0.48
25:DA:2406:U:H4'	25:DA:2407:G:H5''	1.96	0.48
25:BA:2406:U:H4'	25:BA:2407:G:H5''	1.96	0.48
25:DA:2436:G:H2'	25:DA:2437:U:C6	2.46	0.48
27:BD:9:TYR:CD2	27:BD:10:THR:HG22	2.47	0.48
39:BS:94:TYR:CE1	39:BS:99:LYS:HG3	2.49	0.48
22:CT:48:LYS:HD3	22:CT:51:GLU:CD	2.34	0.48
29:BF:34:TRP:HB2	36:BP:10:PRO:O	2.13	0.48
1:CA:262:A:H5'	22:CT:74:LYS:HG3	1.95	0.48
25:BA:185:U:H4'	25:BA:218:A:H4'	1.96	0.48
34:BN:160:LYS:CD	34:BN:161:LEU:H	2.27	0.48
24:CX:311:ARG:HG2	24:CX:313:THR:HG23	1.96	0.48
31:DH:158:HIS:CD2	31:DH:160:LYS:HE2	2.47	0.48
43:DW:19:LEU:HB3	52:D5:25:LEU:HD12	1.95	0.48
25:DA:1486:A:N6	25:DA:1504:C:H42	2.12	0.48
25:DA:930:U:H4'	25:DA:931:G:O5'	2.14	0.48
31:DH:86:GLU:HB3	31:DH:132:ARG:NH1	2.28	0.48
25:BA:1322:A:C5	25:BA:1323:U:C5	3.02	0.48
40:BT:98:LYS:HB3	40:BT:100:TYR:CE1	2.48	0.48
12:CJ:8:LEU:HD21	12:CJ:23:ILE:HD12	1.95	0.48
30:DG:121:ASN:HD22	30:DG:122:PRO:HD2	1.78	0.48
36:DP:13:ASN:HD22	36:DP:13:ASN:N	2.10	0.48
4:CB:74:LYS:O	4:CB:78:GLN:HG3	2.13	0.48
25:BA:1429:G:H2'	25:BA:1430:C:C6	2.48	0.48
7:CE:45:PHE:CE2	7:CE:47:LYS:HD2	2.48	0.48
25:DA:1301:A:C8	25:DA:1303:G:C8	3.02	0.48
1:AA:1089:G:C6	1:AA:1090:U:C4	3.02	0.48
27:DD:246:PRO:HD2	27:DD:255:LYS:HD3	1.95	0.48
30:BG:72:ARG:HD3	30:BG:86:MET:O	2.13	0.48
30:DG:83:ARG:CG	30:DG:84:LYS:H	2.14	0.48
36:BP:59:LEU:HG	36:BP:59:LEU:O	2.14	0.48
25:BA:1190:G:H5'	25:BA:1190:G:C8	2.49	0.48
27:BD:108:PRO:HB3	27:BD:143:HIS:CE1	2.49	0.48
18:AP:20:VAL:HG23	18:AP:35:LYS:HA	1.96	0.48
47:B0:48:GLY:HA3	47:B0:80:HIS:ND1	2.29	0.48
25:BA:848:G:O6	25:BA:929:G:H2'	2.14	0.48
47:D0:48:GLY:HA3	47:D0:80:HIS:ND1	2.29	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AX:81:LEU:O	24:AX:85:LYS:HG2	2.14	0.48
24:AX:61:ALA:CB	24:AX:74:ALA:HB2	2.43	0.48
12:AJ:55:LYS:O	12:AJ:56:HIS:CG	2.67	0.48
4:CB:24:TRP:CD1	4:CB:40:HIS:HE1	2.31	0.48
25:BA:1061:U:H4'	25:BA:1070:A:H4'	1.96	0.48
2:CZ:36:U:H2'	2:CZ:37:A:O4'	2.13	0.48
2:AZ:36:U:H2'	2:AZ:37:A:O4'	2.12	0.48
5:AC:19:GLU:HA	5:AC:54:ARG:NE	2.29	0.48
32:DI:12:LEU:HD22	32:DI:12:LEU:H	1.78	0.48
22:AT:64:ASP:O	22:AT:67:ALA:HB3	2.14	0.48
25:BA:2193:G:H2'	25:BA:2194:G:C8	2.49	0.48
25:DA:2282:G:C2	25:DA:2425:A:C5	3.02	0.48
1:CA:1293:G:HO2'	1:CA:1294:G:H8	1.59	0.48
6:AD:64:LEU:O	6:AD:67:ILE:HB	2.13	0.48
35:DO:79:PHE:CD2	40:DT:72:VAL:HG22	2.48	0.48
8:AF:79:LEU:HB2	8:AF:88:VAL:HG11	1.94	0.48
25:BA:1332:G:H5'	25:BA:1333:C:H5	1.79	0.48
1:AA:1244:C:H2'	1:AA:1245:A:C8	2.49	0.48
25:DA:2462:U:H2'	25:DA:2463:C:O4'	2.14	0.48
38:BR:53:HIS:O	38:BR:56:LYS:HB3	2.13	0.48
25:DA:177:G:H3'	25:DA:178:G:H8	1.79	0.48
1:CA:1149:C:H2'	1:CA:1150:U:C6	2.49	0.48
7:AE:45:PHE:CE2	7:AE:47:LYS:HD2	2.49	0.48
8:AF:44:GLY:HA2	8:AF:59:TYR:CZ	2.49	0.48
25:BA:951:C:H2'	25:BA:952:G:H8	1.78	0.48
31:BH:158:HIS:CD2	31:BH:160:LYS:HE2	2.49	0.48
24:AX:123:PHE:CE1	24:AX:180:VAL:HB	2.49	0.48
17:CO:48:LYS:HE2	17:CO:48:LYS:HA	1.96	0.48
25:DA:1642:G:O5'	25:DA:1642:G:H8	1.96	0.48
1:AA:12:U:H2'	1:AA:13:U:H5''	1.96	0.48
32:DI:87:LYS:HA	32:DI:122:GLU:HA	1.96	0.48
25:BA:1826:G:C4'	27:BD:242:ARG:HE	2.11	0.48
25:BA:2069:G:N2	25:BA:2443:C:C2	2.82	0.48
14:CL:44:PRO:HG2	14:CL:50:ALA:N	2.28	0.48
25:BA:1997:G:C2	25:BA:1998:G:C5	3.02	0.48
26:BB:42:C:H2'	26:BB:43:C:C6	2.49	0.48
25:DA:1997:G:C2	25:DA:1998:G:C5	3.02	0.48
27:BD:85:ASP:HB2	27:BD:92:ILE:HG23	1.96	0.48
1:AA:674:G:H2'	1:AA:675:A:H8	1.78	0.48
42:BV:15:GLU:HB2	42:BV:18:LEU:HG	1.94	0.48
25:BA:2645:G:H3'	25:BA:2646:C:C5'	2.43	0.48
25:BA:2275:C:H5'	25:BA:2275:C:C6	2.47	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AD:121:VAL:O	6:AD:134:ASP:HA	2.13	0.48
21:AS:16:LEU:O	21:AS:19:VAL:HG12	2.14	0.48
47:D0:31:VAL:HB	47:D0:35:ASN:ND2	2.29	0.48
28:DE:169:ASN:CG	28:DE:201:THR:HG21	2.34	0.48
30:DG:39:ILE:HG22	30:DG:40:ASN:N	2.28	0.48
22:CT:50:GLU:HG3	22:CT:51:GLU:N	2.28	0.48
1:CA:1443:G:O2'	1:CA:1446:A:H5''	2.13	0.48
25:BA:2543:G:H2'	25:BA:2544:G:C8	2.48	0.48
46:DZ:20:ARG:NH2	26:DB:93:C:H5''	2.28	0.48
35:BO:35:VAL:HG11	35:BO:103:ALA:HB3	1.95	0.48
22:CT:64:ASP:O	22:CT:67:ALA:HB3	2.14	0.48
31:DH:103:LEU:HD22	31:DH:123:PHE:CE1	2.49	0.48
25:BA:2623:G:H2'	25:BA:2624:G:H8	1.79	0.48
43:BW:15:ARG:O	43:BW:19:LEU:HD13	2.14	0.48
10:CH:73:ASP:CG	10:CH:75:ARG:HD3	2.34	0.48
27:DD:202:LYS:HG3	27:DD:203:ASN:OD1	2.14	0.48
43:DW:19:LEU:O	43:DW:23:LEU:HD13	2.14	0.48
39:DS:90:GLY:O	39:DS:92:TYR:N	2.47	0.48
1:CA:12:U:H2'	1:CA:13:U:H5''	1.96	0.48
25:DA:150:C:H2'	25:DA:151:C:C6	2.49	0.48
25:DA:2733:A:H2'	25:DA:2734:A:O4'	2.14	0.48
34:DN:77:VAL:HB	34:DN:145:VAL:HG22	1.96	0.48
40:DT:57:PHE:CG	40:DT:58:ASN:N	2.81	0.48
4:AB:116:GLU:HA	4:AB:119:GLU:OE1	2.14	0.48
25:DA:2395:C:H2'	25:DA:2396:G:O4'	2.14	0.48
25:BA:2791:C:H4'	25:BA:2792:G:O5'	2.13	0.48
9:CG:137:LYS:O	9:CG:141:VAL:HG23	2.14	0.48
25:DA:2026:C:C4	25:DA:2027:G:N7	2.82	0.48
25:BA:1301:A:C8	25:BA:1303:G:C8	3.02	0.48
49:B2:6:VAL:O	49:B2:9:GLN:HB2	2.14	0.48
1:CA:1409:C:H2'	1:CA:1410:G:C8	2.48	0.48
52:D5:2:ALA:CA	25:DA:2015:A:H1'	2.34	0.47
1:CA:939:G:H5''	9:CG:102:ARG:NH2	2.29	0.47
5:AC:179:ARG:HD2	5:AC:207:VAL:H	1.79	0.47
1:AA:1355:G:C6	1:AA:1368:G:C6	3.02	0.47
1:CA:1432:G:OP1	40:DT:107:ASP:HB2	2.13	0.47
55:B8:50:LEU:HB2	55:B8:54:GLU:CG	2.44	0.47
43:DW:30:GLU:HA	43:DW:33:ARG:HD2	1.96	0.47
30:DG:13:GLU:O	30:DG:14:GLU:HB2	2.14	0.47
53:B6:15:GLU:HG2	53:B6:16:CYS:H	1.78	0.47
30:BG:133:LEU:HD11	30:BG:157:ILE:HD11	1.96	0.47
29:BF:24:LEU:CD1	29:BF:24:LEU:H	2.27	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:389:G:C8	25:BA:2413:G:H4'	2.49	0.47
25:BA:1655:A:O2'	28:BE:115:GLY:HA2	2.14	0.47
39:BS:96:GLY:O	39:BS:99:LYS:HB3	2.14	0.47
28:DE:115:GLY:HA2	25:DA:1655:A:O2'	2.14	0.47
25:DA:323:G:HO2'	25:DA:1205:U:H3	1.62	0.47
27:DD:70:TRP:O	27:DD:73:VAL:HG23	2.14	0.47
19:CQ:59:ILE:HD12	19:CQ:59:ILE:N	2.29	0.47
25:BA:791:C:H4'	25:BA:792:G:OP1	2.14	0.47
25:DA:2336:A:H3'	25:DA:2337:G:H8	1.78	0.47
2:AY:7:G:H3'	2:AY:8:U:H5'	1.96	0.47
43:DW:15:ARG:O	43:DW:19:LEU:HD13	2.13	0.47
25:BA:994:C:OP1	41:BU:53:ARG:NH2	2.47	0.47
24:CX:10:GLU:O	24:CX:14:GLU:HB2	2.13	0.47
25:BA:269:U:C4	25:BA:271(A):U:C2	3.02	0.47
1:AA:841:U:O2'	1:AA:842:C:H5''	2.13	0.47
37:BQ:112:GLU:CD	37:BQ:112:GLU:H	2.18	0.47
1:AA:1493:A:H5''	3:AV:19:U:O2'	2.13	0.47
25:BA:839:U:H2'	25:BA:840:C:C6	2.49	0.47
11:CI:7:THR:O	11:CI:83:ARG:HD2	2.13	0.47
30:BG:62:LEU:HB3	30:BG:143:GLU:HG3	1.94	0.47
1:AA:139:G:H2'	1:AA:140:A:H8	1.79	0.47
15:CM:106:ASN:O	15:CM:107:ALA:HB3	2.14	0.47
25:DA:1863:G:H2'	25:DA:1864:U:O4'	2.13	0.47
29:BF:139:PHE:CE2	29:BF:167:ALA:HB2	2.49	0.47
25:DA:2552:U:H2'	25:DA:2554:U:OP2	2.13	0.47
24:AX:222:MET:HG2	25:BA:2555:U:H3	1.79	0.47
30:BG:60:LEU:O	30:BG:64:THR:HG22	2.14	0.47
5:CC:179:ARG:HD2	5:CC:207:VAL:H	1.79	0.47
29:DF:41:LEU:O	29:DF:45:ARG:HG3	2.14	0.47
4:CB:187:LEU:HD22	4:CB:188:ALA:N	2.29	0.47
34:DN:88:LYS:CB	34:DN:92:GLN:HB2	2.44	0.47
25:DA:1061:U:H4'	25:DA:1070:A:C4'	2.44	0.47
25:DA:1061:U:H4'	25:DA:1070:A:H4'	1.96	0.47
25:BA:2846:G:OP2	40:BT:54:ARG:HB2	2.14	0.47
34:DN:36:TRP:HB2	34:DN:156:GLN:HB3	1.95	0.47
15:AM:22:ILE:HB	15:AM:25:ILE:HB	1.95	0.47
26:BB:49:C:OP1	39:BS:96:GLY:HA3	2.14	0.47
1:AA:435:C:H2'	1:AA:436:C:C6	2.49	0.47
25:DA:2893:G:H4'	25:DA:2894:G:C8	2.48	0.47
10:CH:97:VAL:HG13	10:CH:98:LYS:N	2.29	0.47
24:AX:125:ARG:HB3	24:AX:154:GLY:HA2	1.95	0.47
1:CA:791:G:C6	1:CA:792:A:N7	2.82	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:115:G:H4'	1:AA:116:A:O5'	2.14	0.47
19:AQ:74:LEU:HD12	19:AQ:75:ARG:HG2	1.96	0.47
1:CA:197:A:C6	1:CA:221:C:H4'	2.49	0.47
55:D8:11:LYS:C	55:D8:11:LYS:HD3	2.35	0.47
25:BA:191:A:H2'	25:BA:192:C:H6	1.79	0.47
38:DR:96:ARG:HH12	38:DR:117:VAL:HA	1.78	0.47
25:BA:446:G:OP1	41:BU:3:ARG:HD3	2.14	0.47
29:DF:50:SER:HB3	25:DA:37:C:O2'	2.15	0.47
24:CX:70:LEU:HD13	24:CX:73:MET:SD	2.54	0.47
25:BA:1486:A:N6	25:BA:1504:C:H42	2.12	0.47
42:DV:89:GLN:NE2	42:DV:90:PRO:HD2	2.29	0.47
1:AA:750:G:N3	17:AO:23:GLY:HA3	2.28	0.47
25:BA:114:U:H2'	25:BA:115:C:C6	2.49	0.47
24:CX:150:THR:HG23	24:CX:153:GLY:O	2.14	0.47
37:DQ:112:GLU:H	37:DQ:112:GLU:CD	2.16	0.47
50:B3:4:LEU:HD11	50:B3:39:ASP:OD1	2.14	0.47
38:BR:96:ARG:HH12	38:BR:117:VAL:HA	1.78	0.47
17:AO:48:LYS:HE2	17:AO:48:LYS:HA	1.95	0.47
25:BA:2320:A:H2'	25:BA:2320:A:N3	2.30	0.47
37:DQ:134:ARG:HG2	46:DZ:122:ARG:HH22	1.79	0.47
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.14	0.47
34:BN:64:ASP:HA	41:BU:64:ARG:HH11	1.78	0.47
25:DA:861:A:H2'	25:DA:862:G:O4'	2.14	0.47
12:AJ:29:ARG:HG2	12:AJ:29:ARG:O	2.15	0.47
42:BV:38:LEU:C	42:BV:39:LEU:HD22	2.34	0.47
24:AX:298:ARG:O	24:AX:299:SER:HB3	2.14	0.47
24:AX:96:LEU:HD22	24:AX:96:LEU:O	2.14	0.47
40:DT:75:ILE:HD12	40:DT:75:ILE:N	2.29	0.47
25:BA:2393:A:H5'	36:BP:62:LEU:HD12	1.96	0.47
30:DG:67:LYS:O	26:DB:42:C:H4'	2.14	0.47
25:BA:1025:G:H8	25:BA:1025:G:H5''	1.79	0.47
30:DG:41:GLN:HG2	30:DG:155:MET:CB	2.43	0.47
40:DT:109:GLU:HA	40:DT:112:ARG:HG3	1.95	0.47
1:AA:1103:C:H2'	1:AA:1104:G:H8	1.79	0.47
55:B8:55:ALA:O	55:B8:59:LYS:HG2	2.14	0.47
25:BA:1858:G:H1'	25:BA:1884:A:H62	1.79	0.47
30:DG:14:GLU:O	30:DG:17:PRO:HG2	2.14	0.47
25:BA:1655:A:H1'	28:BE:113:PHE:CE2	2.49	0.47
4:CB:102:LEU:HB2	4:CB:176:GLU:OE1	2.13	0.47
1:AA:1514:C:H2'	1:AA:1515:C:C6	2.49	0.47
25:DA:2115:G:O4'	25:DA:2167:U:H1'	2.14	0.47
25:BA:2115:G:O4'	25:BA:2167:U:H1'	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DS:93:LYS:HE3	39:DS:93:LYS:HA	1.96	0.47
1:CA:255:G:H1'	19:CQ:16:GLN:NE2	2.29	0.47
25:BA:480:A:OP2	45:BY:46:LYS:HE2	2.14	0.47
29:BF:65:TRP:CZ3	29:BF:75:HIS:CD2	3.02	0.47
10:CH:81:HIS:HB2	10:CH:138:TRP:OXT	2.14	0.47
22:CT:89:ARG:HH21	22:CT:104:LEU:HD22	1.79	0.47
40:DT:22:PHE:HD2	40:DT:22:PHE:N	2.13	0.47
25:BA:2263:C:H2'	25:BA:2264:C:C6	2.49	0.47
25:BA:776:G:O6	25:BA:793:A:H2'	2.14	0.47
19:AQ:54:GLY:O	19:AQ:81:ARG:HB2	2.15	0.47
49:D2:6:VAL:O	49:D2:9:GLN:HB2	2.15	0.47
1:AA:44:G:H2'	1:AA:45:U:C6	2.49	0.47
46:BZ:103:ARG:HG3	46:BZ:136:PHE:CG	2.49	0.47
7:AE:10:MET:HA	7:AE:32:VAL:HA	1.95	0.47
22:CT:30:LYS:O	22:CT:33:ILE:HB	2.14	0.47
25:DA:2213:U:H6	25:DA:2213:U:O5'	1.96	0.47
11:AI:4:TYR:CD2	11:AI:88:TYR:HB2	2.49	0.47
21:AS:6:LYS:CD	21:AS:6:LYS:H	2.27	0.47
25:DA:1497:U:N3	25:DA:1578:U:OP1	2.48	0.47
1:CA:522:C:H5''	14:CL:119:TYR:OH	2.15	0.47
25:BA:2416:C:H2'	25:BA:2417:C:C6	2.49	0.47
11:CI:92:TYR:O	11:CI:96:LEU:HB2	2.15	0.47
38:DR:4:LEU:HD22	25:DA:1653:G:OP1	2.13	0.47
27:DD:16:MET:HE1	27:DD:208:LYS:HE2	1.96	0.47
13:AK:19:ALA:HB3	13:AK:82:VAL:HG22	1.96	0.47
25:BA:1772:G:N2	25:BA:1774:C:H5'	2.30	0.47
25:DA:1264:G:O5'	25:DA:1264:G:H8	1.97	0.47
24:CX:81:LEU:O	24:CX:85:LYS:HG2	2.14	0.47
15:AM:49:THR:O	15:AM:53:VAL:HG23	2.13	0.47
19:CQ:92:ARG:O	19:CQ:95:TYR:HB2	2.15	0.47
34:DN:36:TRP:CD1	34:DN:156:GLN:HG3	2.49	0.47
25:BA:1678:G:H2'	25:BA:1679:U:C6	2.46	0.47
21:CS:16:LEU:O	21:CS:19:VAL:HG12	2.14	0.47
30:BG:133:LEU:HD23	30:BG:133:LEU:N	2.29	0.47
44:DX:31:HIS:CG	44:DX:32:PRO:HD2	2.49	0.47
14:AL:82:VAL:HG21	14:AL:99:ILE:HD11	1.96	0.47
25:BA:1655:A:O3'	28:BE:115:GLY:HA3	2.13	0.47
41:BU:19:LYS:HA	41:BU:22:LYS:HG2	1.97	0.47
16:AN:24:CYS:O	16:AN:28:GLY:HA2	2.14	0.47
24:CX:125:ARG:O	24:CX:128:PHE:HB3	2.15	0.47
6:AD:93:PHE:CE1	6:AD:97:LEU:HD11	2.50	0.47
6:CD:64:LEU:O	6:CD:67:ILE:HB	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:185:U:H4'	25:DA:218:A:H4'	1.96	0.47
24:AX:128:PHE:CE1	24:AX:132:LEU:HD11	2.49	0.47
1:CA:438:G:H2'	1:CA:494:U:O4	2.14	0.47
34:DN:160:LYS:CD	34:DN:161:LEU:H	2.26	0.47
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.78	0.47
25:DA:2263:C:H2'	25:DA:2264:C:H6	1.80	0.47
25:BA:1001:A:H2'	25:BA:1002:G:O4'	2.15	0.47
1:AA:894:G:H2'	1:AA:895:G:H8	1.79	0.47
1:CA:841:U:HO2'	1:CA:842:C:H6	1.60	0.47
40:BT:100:TYR:HD2	40:BT:103:ARG:HE	1.62	0.47
1:AA:1188:A:H4'	16:AN:58:LYS:NZ	2.30	0.47
7:CE:101:ILE:HD11	7:CE:119:LEU:CD2	2.45	0.47
25:BA:2346:A:H5'	25:BA:2383:G:O4'	2.14	0.47
27:DD:108:PRO:HB3	27:DD:143:HIS:CE1	2.50	0.47
25:DA:2260:C:O5'	25:DA:2260:C:H6	1.97	0.47
24:CX:298:ARG:O	24:CX:299:SER:HB3	2.14	0.47
8:CF:44:GLY:HA2	8:CF:59:TYR:CZ	2.49	0.47
25:DA:233:A:H2'	25:DA:234:C:H6	1.80	0.47
1:CA:865:A:H5'	1:CA:1078:U:O4	2.15	0.47
2:CY:53:G:O2'	2:CY:54:U:H5'	2.15	0.47
25:DA:2476:A:C6	25:DA:2477:C:H5	2.32	0.47
1:CA:572:A:N3	1:CA:917:G:H1'	2.30	0.47
25:BA:930:U:H4'	25:BA:931:G:O5'	2.13	0.47
1:AA:590:C:OP1	10:AH:30:ARG:HB2	2.15	0.47
46:DZ:58:VAL:HA	46:DZ:67:LEU:O	2.13	0.47
13:AK:120:ARG:HH21	13:AK:126:ARG:NH2	2.13	0.47
44:DX:28:PHE:CE2	44:DX:92:LEU:HD11	2.46	0.47
44:DX:49:VAL:HG21	44:DX:89:ILE:HD11	1.96	0.47
41:BU:92:ARG:HG2	42:BV:11:GLN:CG	2.44	0.47
45:DY:37:VAL:HG21	45:DY:72:VAL:HG21	1.96	0.47
21:CS:6:LYS:CD	21:CS:6:LYS:H	2.28	0.47
1:CA:980:C:H5'	1:CA:981:U:H5	1.77	0.47
11:AI:114:TYR:CD1	12:AJ:60:ARG:HG2	2.49	0.47
5:AC:22:TRP:HZ3	5:AC:24:ALA:HB2	1.80	0.47
1:CA:673:G:H2'	1:CA:674:G:C8	2.49	0.47
25:BA:1787:A:H2'	25:BA:1787:A:N3	2.30	0.47
29:BF:160:ASN:OD1	29:BF:162:LEU:HB2	2.14	0.47
9:CG:85:TYR:HB3	9:CG:151:TYR:HD2	1.78	0.47
8:CF:18:GLN:O	8:CF:22:GLU:HG2	2.15	0.47
25:BA:1762:A:O5'	25:BA:1762:A:H8	1.97	0.47
33:DJ:17:LEU:HD22	33:DJ:21:GLN:HE21	1.77	0.47
45:BY:71:LYS:HZ2	45:BY:71:LYS:HB2	1.78	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:833:U:H2'	1:AA:834:C:H6	1.78	0.47
25:DA:71:A:H4'	25:DA:72:U:H5''	1.96	0.47
47:B0:31:VAL:HB	47:B0:35:ASN:ND2	2.30	0.47
25:BA:391:G:C5	25:BA:411:G:C2	3.02	0.47
1:CA:714:G:H21	1:CA:777:A:H1'	1.80	0.47
27:BD:183:ARG:HB3	27:BD:270:ILE:HG22	1.97	0.47
48:D1:83:GLU:HG2	48:D1:84:GLY:H	1.78	0.47
8:CF:10:LEU:HD13	8:CF:61:LEU:HD13	1.95	0.47
24:AX:289:ARG:NH1	25:BA:1915:U:H4'	2.28	0.47
10:AH:81:HIS:HB2	10:AH:138:TRP:OXT	2.14	0.47
29:DF:64:ILE:HG13	29:DF:65:TRP:CD1	2.50	0.47
25:DA:1936:A:C8	25:DA:1945:G:C8	3.01	0.47
35:BO:112:MET:HA	35:BO:115:VAL:HG22	1.97	0.47
27:DD:202:LYS:HB3	25:DA:1820:U:C2	2.50	0.47
34:BN:77:VAL:HB	34:BN:145:VAL:HG22	1.96	0.47
25:BA:1353:A:H2'	25:BA:1354:A:C8	2.50	0.47
25:BA:177:G:H3'	25:BA:178:G:H8	1.79	0.47
1:CA:164:U:H2'	1:CA:165:C:C6	2.49	0.47
42:DV:88:ARG:HD2	42:DV:88:ARG:O	2.15	0.47
7:CE:83:GLU:HG2	7:CE:88:LYS:HG3	1.95	0.47
25:DA:728:G:C2	25:DA:730:C:C2	3.02	0.47
31:BH:86:GLU:HB3	31:BH:132:ARG:NH1	2.28	0.47
31:BH:83:TYR:CZ	31:BH:138:LYS:HG3	2.50	0.47
37:BQ:134:ARG:HG2	46:BZ:122:ARG:HH22	1.79	0.47
6:CD:22:LYS:HB2	6:CD:26:CYS:SG	2.55	0.47
25:BA:410:G:C2	25:BA:418:G:C2	3.02	0.47
4:CB:116:GLU:HA	4:CB:119:GLU:OE1	2.14	0.47
40:BT:109:GLU:HA	40:BT:112:ARG:HG3	1.96	0.47
25:DA:1294:U:H2'	25:DA:1295:C:C6	2.49	0.47
21:AS:10:PHE:H	21:AS:10:PHE:HD1	1.60	0.47
42:BV:88:ARG:HD2	42:BV:88:ARG:O	2.14	0.47
1:CA:1040:U:H2'	1:CA:1041:A:C8	2.50	0.47
25:BA:2462:U:H2'	25:BA:2463:C:O4'	2.14	0.47
25:DA:1812:A:H2'	25:DA:1813:G:H8	1.79	0.47
25:DA:2069:G:N2	25:DA:2443:C:C2	2.82	0.47
29:DF:139:PHE:CE2	29:DF:167:ALA:HB2	2.50	0.47
1:CA:980:C:H3'	1:CA:981:U:H6	1.80	0.47
40:DT:51:ARG:HB3	40:DT:62:THR:CG2	2.44	0.47
5:CC:71:ALA:HA	5:CC:106:VAL:HB	1.97	0.47
49:D2:18:PRO:HB3	49:D2:68:ARG:HD2	1.96	0.47
28:BE:51:PHE:HD1	28:BE:52:LEU:HG	1.78	0.47
25:DA:569:U:H2'	25:DA:570:G:O4'	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1478:G:HO2'	25:BA:1558:A:H2	1.61	0.47
1:CA:939:G:H5''	9:CG:102:ARG:CZ	2.44	0.47
25:DA:2686:G:H2'	25:DA:2687:U:C6	2.49	0.47
24:AX:295:THR:O	24:AX:295:THR:HG22	2.15	0.47
38:BR:11:ASN:O	38:BR:12:ARG:HB2	2.15	0.47
22:AT:48:LYS:HD3	22:AT:51:GLU:CD	2.34	0.47
24:CX:246:THR:OG1	24:CX:248:ILE:HG22	2.15	0.47
24:AX:218:ARG:HB2	24:AX:244:LEU:HD21	1.95	0.47
34:DN:58:ARG:HB2	34:DN:65:TRP:CZ3	2.49	0.47
47:B0:27:GLU:HA	47:B0:67:VAL:O	2.15	0.47
47:D0:53:MET:HE3	47:D0:57:PHE:HA	1.96	0.47
29:DF:135:LYS:HA	25:DA:321:G:OP2	2.15	0.47
8:CF:79:LEU:HB2	8:CF:88:VAL:HG11	1.95	0.47
27:BD:202:LYS:HG3	27:BD:203:ASN:OD1	2.14	0.47
19:AQ:59:ILE:HD12	19:AQ:59:ILE:N	2.28	0.47
25:BA:2688:U:C5	25:BA:2720:U:OP2	2.67	0.47
24:CX:303:ARG:HD2	24:CX:305:TYR:OH	2.14	0.47
37:DQ:35:VAL:HA	37:DQ:101:ARG:O	2.13	0.47
25:BA:2476:A:C6	25:BA:2477:C:H5	2.33	0.47
9:CG:79:ARG:HE	9:CG:84:ASN:ND2	2.13	0.47
25:BA:1462:C:H4'	25:BA:2703:C:H5'	1.95	0.47
34:DN:99:SER:HB3	25:DA:2641:G:H5''	1.97	0.47
44:DX:66:LEU:HD23	44:DX:67:GLY:N	2.30	0.47
25:DA:269:U:C4	25:DA:271(A):U:C2	3.03	0.47
2:CZ:68:C:H2'	2:CZ:69:C:C6	2.49	0.47
1:AA:131:C:H2'	1:AA:132:C:C6	2.49	0.47
38:BR:13:HIS:O	38:BR:14:SER:C	2.53	0.47
13:CK:81:ASP:CG	13:CK:106:LYS:HD3	2.35	0.47
1:CA:139:G:H2'	1:CA:140:A:H8	1.79	0.47
13:CK:22:HIS:HB3	13:CK:29:ILE:CG1	2.33	0.47
25:BA:1843:C:H2'	25:BA:1844:C:C6	2.50	0.47
25:BA:2069:G:C6	25:BA:2070:G:N7	2.82	0.47
50:D3:8:LEU:HB2	50:D3:28:LEU:HD23	1.96	0.47
1:AA:522:C:N4	14:AL:52:ARG:HH22	2.02	0.47
7:CE:70:PRO:CB	7:CE:144:THR:HG22	2.43	0.47
1:CA:981:U:OP1	16:CN:6:LEU:HD21	2.14	0.47
14:CL:24:PRO:HD2	14:CL:97:TYR:OH	2.14	0.47
5:CC:59:ARG:NH2	5:CC:97:LYS:HE2	2.29	0.47
5:CC:22:TRP:CZ3	5:CC:24:ALA:HB2	2.48	0.47
1:CA:1220:G:H2'	1:CA:1221:G:C8	2.50	0.47
24:CX:106:ASP:O	24:CX:204:LYS:HG2	2.15	0.47
25:DA:570:G:H2'	25:DA:2030:A:H62	1.80	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BB:42:C:H4'	30:BG:67:LYS:O	2.14	0.47
36:DP:35:HIS:CD2	25:DA:1191:G:OP1	2.68	0.47
25:DA:2592:G:C6	25:DA:2593:U:C2	3.03	0.47
31:BH:101:ARG:HE	31:BH:101:ARG:N	2.08	0.47
35:DO:87:ILE:HG22	35:DO:92:GLU:N	2.30	0.47
27:DD:85:ASP:C	27:DD:87:ASN:H	2.18	0.47
55:D8:50:LEU:HB2	55:D8:54:GLU:CG	2.45	0.47
1:CA:1079:G:O3'	7:CE:14:ARG:NH2	2.46	0.47
27:BD:35:LYS:O	27:BD:63:ARG:HA	2.14	0.47
1:AA:675:A:H2'	1:AA:676:A:H8	1.80	0.47
32:DI:109:ILE:HD13	32:DI:109:ILE:N	2.30	0.47
25:BA:2104:G:H2'	25:BA:2105:C:C6	2.49	0.47
36:DP:52:GLU:CG	36:DP:53:GLY:H	2.25	0.47
24:CX:295:THR:O	24:CX:295:THR:HG22	2.14	0.47
24:CX:61:ALA:CB	24:CX:74:ALA:HB2	2.43	0.47
14:CL:74:HIS:HD2	14:CL:76:LEU:HB2	1.79	0.47
27:DD:67:PHE:CE1	27:DD:157:ARG:NH1	2.80	0.47
34:BN:36:TRP:CD1	34:BN:156:GLN:HG3	2.50	0.47
25:BA:652:U:H5'	25:BA:652:U:C6	2.50	0.47
15:CM:87:TYR:CE1	21:CS:76:PRO:HA	2.49	0.47
30:DG:133:LEU:HD23	30:DG:133:LEU:N	2.29	0.47
25:BA:2456:C:H6	25:BA:2456:C:O5'	1.98	0.47
25:DA:2886:G:H2'	25:DA:2887:U:H6	1.77	0.47
44:DX:53:LYS:CE	44:DX:55:ASN:HD21	2.28	0.47
34:BN:32:VAL:HG21	34:BN:62:ARG:HH12	1.78	0.47
1:CA:1443:G:N2	40:DT:119:LYS:HA	2.30	0.47
39:DS:94:TYR:CE1	39:DS:99:LYS:HG3	2.49	0.47
24:CX:218:ARG:HB2	24:CX:244:LEU:HD21	1.96	0.47
36:DP:7:ARG:O	36:DP:10:PRO:HD3	2.15	0.47
28:DE:118:LYS:HZ3	38:DR:2:ARG:NH2	2.13	0.47
1:AA:254:G:H2'	1:AA:255:G:H8	1.80	0.47
1:AA:255:G:H1'	19:AQ:16:GLN:NE2	2.30	0.47
25:DA:380:U:H2'	25:DA:381:G:C8	2.50	0.47
1:CA:262:A:H2'	1:CA:263:A:C8	2.50	0.47
1:CA:295:C:H2'	1:CA:296:U:C6	2.50	0.47
45:DY:35:TYR:CE2	45:DY:69:ALA:HB3	2.50	0.47
1:CA:394:G:H2'	1:CA:395:C:C6	2.49	0.47
25:DA:2193:G:H2'	25:DA:2194:G:C8	2.48	0.47
42:DV:99:ILE:HD13	42:DV:99:ILE:N	2.29	0.47
13:CK:105:VAL:O	13:CK:105:VAL:HG23	2.14	0.47
25:BA:1509:A:H4'	25:BA:1510:A:C8	2.49	0.47
25:DA:1509:A:H4'	25:DA:1510:A:C8	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CE:18:ARG:HH21	7:CE:25:ARG:HB2	1.79	0.47
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.29	0.47
25:DA:776:G:O6	25:DA:793:A:H2'	2.15	0.47
25:BA:330:A:O2'	25:BA:331:A:C8	2.67	0.47
25:BA:312:G:C6	25:BA:313:C:C4	3.03	0.47
2:AZ:28:C:H2'	2:AZ:29:G:C8	2.50	0.47
17:CO:65:ARG:O	17:CO:68:ARG:HB2	2.15	0.47
25:BA:2282:G:C2	25:BA:2425:A:C5	3.03	0.47
25:DA:674:G:H2'	25:DA:804:A:H61	1.80	0.47
29:DF:65:TRP:CZ3	29:DF:75:HIS:CD2	3.03	0.47
6:AD:9:CYS:HB3	6:AD:32:ALA:CB	2.44	0.47
25:BA:2087:G:H2'	25:BA:2088:G:C8	2.49	0.47
4:CB:22:LYS:HZ3	4:CB:22:LYS:H	1.61	0.47
25:DA:1331:A:HO2'	25:DA:1332:G:H8	1.62	0.47
25:DA:191:A:H2'	25:DA:192:C:H6	1.79	0.47
25:DA:149:A:H2'	25:DA:150:C:C6	2.49	0.47
13:AK:23:ALA:HB3	13:AK:86:GLY:O	2.15	0.47
7:CE:65:ASN:O	7:CE:66:MET:HB2	2.14	0.47
8:CF:5:GLU:HB3	8:CF:62:TRP:HE1	1.80	0.47
25:BA:270(L):C:H2'	25:BA:270(N):U:C5	2.49	0.47
38:DR:13:HIS:O	38:DR:14:SER:C	2.53	0.47
25:BA:2228:G:H2'	25:BA:2229:C:O4'	2.15	0.47
4:CB:183:PRO:HA	4:CB:198:ASP:OD1	2.15	0.47
25:DA:1727:U:H2'	25:DA:1728:G:O4'	2.14	0.47
1:CA:1503:A:N6	3:CV:13:A:C8	2.83	0.47
1:AA:1040:U:H2'	1:AA:1041:A:C8	2.49	0.47
25:DA:566:U:H2'	25:DA:567:A:O4'	2.15	0.47
43:BW:6:ILE:HG12	43:BW:104:THR:HG23	1.96	0.47
25:DA:678:C:H2'	25:DA:679:C:C6	2.49	0.47
28:DE:33:VAL:HG12	28:DE:89:ASP:O	2.15	0.47
1:AA:49:U:H3	1:AA:362:G:H1'	1.80	0.47
29:BF:197:ASP:O	29:BF:200:GLU:HB3	2.15	0.47
32:BI:29:TYR:O	32:BI:33:ARG:HG3	2.14	0.47
42:BV:89:GLN:NE2	42:BV:90:PRO:HD2	2.30	0.47
38:DR:34:ILE:O	38:DR:113:LEU:HD12	2.15	0.47
12:CJ:29:ARG:HG2	12:CJ:29:ARG:O	2.15	0.47
9:AG:137:LYS:O	9:AG:141:VAL:HG23	2.14	0.47
2:CY:68:C:H2'	2:CY:69:C:C6	2.50	0.47
1:AA:584:G:H2'	1:AA:585:G:H8	1.79	0.47
1:CA:49:U:H3	1:CA:362:G:H1'	1.79	0.47
25:DA:907:U:H2'	25:DA:908:C:C6	2.49	0.47
25:BA:2065:C:H1'	25:BA:2449:U:O2	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:7:ALA:O	46:DZ:62:PRO:HD3	2.15	0.47
32:DI:102:SER:O	32:DI:106:GLY:HA2	2.15	0.47
1:CA:115:G:H4'	1:CA:116:A:O5'	2.14	0.47
28:BE:69:LYS:O	28:BE:69:LYS:HD3	2.15	0.47
40:DT:68:TYR:N	40:DT:68:TYR:CD2	2.83	0.47
36:BP:13:ASN:HD22	36:BP:13:ASN:N	2.12	0.47
31:DH:83:TYR:CZ	31:DH:138:LYS:HG3	2.50	0.47
25:DA:2791:C:H4'	25:DA:2792:G:O5'	2.14	0.47
1:CA:785:G:C2	1:CA:786:G:C8	3.02	0.47
1:CA:235:C:H1'	19:CQ:61:GLU:OE1	2.15	0.47
1:CA:799:G:C2	1:CA:800:G:H1'	2.50	0.47
41:BU:90:VAL:HG13	41:BU:91:ASP:N	2.26	0.47
42:DV:38:LEU:C	42:DV:39:LEU:HD22	2.35	0.47
11:CI:114:TYR:CD1	12:CJ:60:ARG:HG2	2.50	0.47
25:BA:587:C:C5	36:BP:33:ARG:HG2	2.50	0.47
25:BA:1406:U:H2'	25:BA:1407:C:C6	2.50	0.47
43:BW:84:ARG:O	43:BW:95:ILE:HA	2.14	0.47
38:DR:63:ARG:HG3	38:DR:80:PHE:CE2	2.50	0.47
1:CA:939:G:H1	1:CA:1344:C:H42	1.63	0.47
1:AA:939:G:H5''	9:AG:102:ARG:NH2	2.29	0.47
40:DT:102:ILE:HG22	40:DT:110:ILE:HD11	1.96	0.47
1:CA:1103:C:H2'	1:CA:1104:G:H8	1.79	0.47
39:DS:14:VAL:HG11	39:DS:89:ARG:HD3	1.97	0.47
9:AG:107:ALA:HB2	9:AG:134:ALA:HB2	1.97	0.47
39:DS:13:ARG:HH12	25:DA:2335:A:H2'	1.80	0.47
25:BA:581:C:H2'	25:BA:582:G:H8	1.77	0.47
21:AS:41:VAL:HG13	21:AS:42:PRO:HD2	1.96	0.47
15:AM:87:TYR:CE1	21:AS:76:PRO:HA	2.49	0.47
25:BA:2335:A:H2'	39:BS:13:ARG:HH12	1.80	0.47
46:BZ:28:MET:HE3	46:BZ:37:VAL:HG11	1.97	0.47
47:B0:32:ARG:HB3	47:B0:33:ALA:H	1.53	0.47
25:BA:2406:U:C5	36:BP:72:PRO:HG2	2.50	0.47
30:DG:132:ASN:ND2	25:DA:2303:G:H1'	2.29	0.47
25:BA:481:G:H1'	25:BA:506:G:N2	2.29	0.47
4:CB:97:TRP:HH2	4:CB:176:GLU:CD	2.18	0.47
1:CA:296:U:H2'	1:CA:297:G:H8	1.79	0.47
27:BD:70:TRP:O	27:BD:73:VAL:HG23	2.14	0.47
25:BA:1755:A:C2	25:BA:2716:U:H1'	2.50	0.47
25:DA:765:G:H2'	25:DA:766:C:H6	1.79	0.47
25:DA:1755:A:C2	25:DA:2716:U:H1'	2.50	0.47
31:BH:103:LEU:HD22	31:BH:123:PHE:CE1	2.50	0.47
25:BA:298:G:H5''	25:BA:299:A:OP1	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AF:9:VAL:HA	8:AF:59:TYR:O	2.15	0.47
7:AE:135:THR:O	7:AE:139:LEU:HG	2.14	0.47
26:BB:24:G:H4'	26:BB:25:A:N7	2.29	0.47
25:DA:938:G:C2	25:DA:939:G:N7	2.83	0.47
13:AK:81:ASP:CG	13:AK:106:LYS:HD3	2.36	0.47
25:BA:2408:U:H2'	25:BA:2409:G:C8	2.50	0.47
32:BI:87:LYS:HA	32:BI:122:GLU:HA	1.96	0.47
25:DA:1371:G:HO2'	25:DA:1372:U:H6	1.61	0.47
1:CA:590:C:OP1	10:CH:30:ARG:HB2	2.14	0.47
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.49	0.47
7:CE:10:MET:HA	7:CE:32:VAL:HA	1.96	0.47
22:AT:24:LEU:H	22:AT:24:LEU:HD22	1.80	0.47
8:AF:98:LEU:O	8:AF:98:LEU:HD12	2.15	0.47
2:CY:17(A):U:H4'	2:CY:18:G:OP1	2.15	0.47
25:BA:1516:U:H2'	25:BA:1517:G:C8	2.50	0.47
26:BB:82:G:H2'	26:BB:83:G:H8	1.80	0.47
1:AA:711:G:O2'	1:AA:712:A:H5'	2.15	0.47
44:BX:28:PHE:CE2	44:BX:92:LEU:HD11	2.45	0.47
37:BQ:52:VAL:HG23	46:BZ:183:LEU:HD13	1.97	0.47
42:DV:6:LYS:HA	42:DV:11:GLN:HB3	1.96	0.47
47:B0:22:GLY:O	47:B0:38:VAL:HG13	2.14	0.47
25:DA:141(A):A:H3'	25:DA:141(B):C:C6	2.49	0.47
1:AA:980:C:H3'	1:AA:981:U:H6	1.78	0.47
17:CO:39:LEU:HD12	17:CO:56:LEU:HB2	1.97	0.47
49:B2:18:PRO:HB3	49:B2:68:ARG:HD2	1.97	0.47
38:BR:63:ARG:O	38:BR:67:LEU:HD23	2.15	0.47
11:AI:92:TYR:O	11:AI:96:LEU:HB2	2.14	0.47
55:D8:54:GLU:O	55:D8:58:ILE:HG12	2.14	0.47
1:AA:673:G:H5''	8:AF:87:ARG:HH11	1.80	0.47
55:B8:54:GLU:O	55:B8:58:ILE:HG12	2.14	0.47
25:DA:245:G:H2'	25:DA:246:C:H6	1.80	0.47
25:BA:95:G:H1'	49:B2:47:ASN:HB3	1.96	0.47
25:BA:1259:G:H2'	25:BA:1260:G:C8	2.50	0.47
30:BG:13:GLU:O	30:BG:14:GLU:HB2	2.14	0.47
21:CS:44:MET:O	21:CS:62:ILE:HG21	2.15	0.47
29:DF:24:LEU:H	29:DF:24:LEU:CD1	2.27	0.47
1:CA:191(G):G:C4	22:CT:105:SER:HB3	2.49	0.47
49:B2:52:ASP:O	49:B2:56:GLN:HB2	2.15	0.47
39:DS:96:GLY:O	39:DS:99:LYS:HB3	2.15	0.47
25:BA:1750:G:H2'	25:BA:1751:C:C6	2.50	0.47
41:DU:19:LYS:HA	41:DU:22:LYS:HG2	1.96	0.47
25:BA:2574:G:H2'	25:BA:2575:C:H6	1.80	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:278:A:N6	25:BA:362:U:H3	2.13	0.47
1:AA:791:G:C6	1:AA:792:A:N7	2.83	0.47
1:CA:1316:G:H5''	16:CN:17:LYS:HE2	1.97	0.47
25:DA:2815:C:H2'	25:DA:2816:C:H6	1.79	0.47
1:CA:894:G:H2'	1:CA:895:G:H8	1.79	0.47
24:AX:311:ARG:HG2	24:AX:313:THR:HG23	1.95	0.47
25:BA:1331:A:O2'	25:BA:1332:G:H8	1.98	0.47
25:BA:907:U:H2'	25:BA:908:C:H6	1.79	0.47
35:DO:71:ARG:HH12	40:DT:74:ARG:HH22	1.63	0.47
1:AA:187:C:H2'	1:AA:188:U:O4'	2.15	0.47
1:CA:1423:G:P	35:DO:49:ARG:HH12	2.38	0.47
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.49	0.47
38:BR:34:ILE:O	38:BR:113:LEU:HD12	2.15	0.47
2:AZ:68:C:H2'	2:AZ:69:C:C6	2.50	0.47
1:CA:920:U:H2'	1:CA:921:U:C6	2.49	0.47
2:AY:17(A):U:H4'	2:AY:18:G:OP1	2.14	0.47
25:DA:2357:U:H6	25:DA:2357:U:O5'	1.97	0.47
36:DP:132:LYS:HD3	25:DA:636:G:OP1	2.15	0.47
48:D1:19:GLN:NE2	48:D1:41:ARG:HB2	2.13	0.47
45:DY:96:ILE:CD1	45:DY:99:CYS:HB2	2.39	0.47
11:CI:62:TYR:C	11:CI:63:ILE:HD12	2.35	0.47
50:B3:8:LEU:HB2	50:B3:28:LEU:HD23	1.96	0.47
25:DA:1405:U:H2'	25:DA:1406:U:H6	1.78	0.47
1:AA:981:U:OP1	16:AN:6:LEU:HD21	2.15	0.47
7:AE:76:ILE:HD11	7:AE:142:LEU:HD11	1.96	0.47
5:AC:195:VAL:HG12	5:AC:196:LEU:N	2.30	0.47
30:BG:94:LEU:N	30:BG:94:LEU:HD23	2.30	0.47
10:CH:110:ALA:H	10:CH:121:ASP:HB3	1.80	0.47
21:AS:25:LYS:HB3	21:AS:27:GLU:OE1	2.15	0.47
27:DD:111:LEU:HD22	27:DD:115:GLN:OE1	2.15	0.47
35:DO:61:VAL:N	35:DO:87:ILE:HD11	2.30	0.47
25:DA:1998:G:H2'	25:DA:1999:C:C6	2.49	0.47
15:AM:75:ALA:O	15:AM:79:LYS:HG3	2.15	0.47
55:D8:31:HIS:CE1	25:DA:2422:A:N7	2.83	0.47
25:DA:1152:C:H2'	25:DA:1153:C:C6	2.46	0.47
8:CF:69:GLU:O	8:CF:72:VAL:HG12	2.15	0.47
24:CX:45:ILE:HA	24:CX:48:ILE:HG12	1.97	0.47
36:DP:70:GLN:H	25:DA:245:G:H5''	1.80	0.47
43:DW:8:ARG:HA	43:DW:102:HIS:CD2	2.48	0.47
30:BG:14:GLU:O	30:BG:17:PRO:HG2	2.15	0.47
4:AB:118:LEU:HD13	4:AB:142:LEU:HA	1.95	0.47
5:CC:19:GLU:HA	5:CC:54:ARG:NE	2.29	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BF:192:LEU:HD21	29:BF:194:MET:CE	2.45	0.47
34:DN:32:VAL:HG21	34:DN:62:ARG:HH12	1.79	0.47
6:AD:3:ARG:HD3	6:AD:5:ILE:CD1	2.45	0.47
25:DA:2574:G:H2'	25:DA:2575:C:H6	1.79	0.47
25:BA:2039:C:H2'	25:BA:2040:C:C6	2.48	0.47
47:B0:53:MET:HE3	47:B0:57:PHE:HA	1.96	0.47
24:AX:125:ARG:O	24:AX:128:PHE:HB3	2.14	0.47
5:AC:83:ARG:O	5:AC:87:LEU:HG	2.15	0.47
29:BF:64:ILE:HG13	29:BF:65:TRP:CD1	2.50	0.47
25:DA:298:G:H5''	25:DA:299:A:OP1	2.15	0.47
24:AX:303:ARG:HD2	24:AX:305:TYR:OH	2.14	0.47
55:B8:6:THR:CG2	55:B8:63:PRO:HG2	2.45	0.47
25:BA:1294:U:H2'	25:BA:1295:C:C6	2.50	0.47
13:AK:120:ARG:HH21	13:AK:126:ARG:HH21	1.62	0.47
1:CA:1422:G:O3'	35:DO:49:ARG:NH1	2.46	0.47
7:CE:7:GLU:HB3	7:CE:35:GLY:O	2.14	0.47
25:BA:263:C:H2'	25:BA:264:C:O4'	2.15	0.47
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.50	0.47
26:BB:17:C:H2'	26:BB:18:G:O4'	2.16	0.47
25:BA:1727:U:H2'	25:BA:1728:G:O4'	2.14	0.47
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.49	0.47
25:DA:263:C:H2'	25:DA:264:C:O4'	2.15	0.47
26:DB:24:G:H4'	26:DB:25:A:N7	2.29	0.47
25:BA:861:A:H2'	25:BA:862:G:O4'	2.15	0.47
2:AZ:17:C:O5'	2:AZ:17:C:H6	1.98	0.47
46:DZ:103:ARG:HG3	46:DZ:136:PHE:CG	2.50	0.47
25:DA:1763:G:H2'	25:DA:1764:G:H5'	1.97	0.47
25:BA:2376:A:H2'	25:BA:2377:A:O4'	2.15	0.47
25:BA:955:C:H5''	37:BQ:85:LYS:HD3	1.97	0.46
11:CI:4:TYR:CD2	11:CI:88:TYR:HB2	2.49	0.46
48:D1:19:GLN:HG2	48:D1:41:ARG:CB	2.45	0.46
27:DD:243:GLY:O	27:DD:244:ARG:CB	2.61	0.46
14:AL:50:ALA:O	14:AL:51:LEU:C	2.53	0.46
24:CX:96:LEU:HG	24:CX:348:LEU:HB2	1.97	0.46
25:DA:1594:G:H2'	25:DA:1595:G:O4'	2.15	0.46
30:DG:88:ILE:HG13	30:DG:89:GLY:N	2.30	0.46
25:BA:1191:G:OP1	36:BP:35:HIS:CD2	2.68	0.46
40:BT:102:ILE:HG22	40:BT:110:ILE:HD11	1.97	0.46
25:DA:664:C:H4'	25:DA:941:A:OP1	2.16	0.46
38:BR:63:ARG:HG3	38:BR:80:PHE:CE2	2.49	0.46
5:CC:179:ARG:O	5:CC:179:ARG:HG3	2.14	0.46
10:AH:110:ALA:H	10:AH:121:ASP:HB3	1.80	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1025:G:H8	25:DA:1025:G:H5''	1.79	0.46
1:CA:675:A:H2'	1:CA:676:A:H8	1.80	0.46
55:B8:33:ASN:ND2	55:B8:34:TRP:H	2.13	0.46
1:CA:1355:G:C6	1:CA:1368:G:C6	3.03	0.46
25:BA:1567:A:H3'	27:BD:86:PRO:HG3	1.97	0.46
25:DA:1022:G:O2'	25:DA:1023:U:P	2.73	0.46
25:DA:1787:A:N3	25:DA:1787:A:H2'	2.30	0.46
1:AA:687:A:H4'	1:AA:688:G:O5'	2.15	0.46
25:BA:39:C:H2'	25:BA:40:C:C6	2.50	0.46
53:D6:27:LYS:NZ	25:DA:2285:C:H5	2.13	0.46
25:BA:1061:U:H4'	25:BA:1070:A:C4'	2.44	0.46
36:DP:16:ARG:HD2	25:DA:661:C:O2'	2.14	0.46
1:AA:125:U:H2'	1:AA:126:G:H8	1.77	0.46
16:CN:37:PHE:O	16:CN:39:LEU:HG	2.15	0.46
4:CB:118:LEU:HD13	4:CB:142:LEU:HA	1.96	0.46
25:DA:1980:G:C5'	25:DA:1980:G:H8	2.28	0.46
32:BI:113:ARG:HB2	32:BI:130:TYR:CE1	2.51	0.46
12:AJ:78:ASN:HB2	12:AJ:81:THR:HG23	1.96	0.46
28:DE:113:PHE:CE2	25:DA:1655:A:H1'	2.50	0.46
25:BA:56:A:H2'	25:BA:57:C:C6	2.50	0.46
8:AF:18:GLN:O	8:AF:22:GLU:HG2	2.15	0.46
25:BA:2090:G:C6	25:BA:2230:G:C6	3.03	0.46
47:D0:27:GLU:HA	47:D0:67:VAL:O	2.16	0.46
5:CC:83:ARG:O	5:CC:87:LEU:HG	2.14	0.46
25:DA:2623:G:H2'	25:DA:2624:G:H8	1.80	0.46
28:DE:49:LEU:O	28:DE:78:LEU:HA	2.15	0.46
14:AL:45:LYS:HE2	14:AL:45:LYS:HB3	1.68	0.46
19:CQ:54:GLY:O	19:CQ:81:ARG:HB2	2.15	0.46
1:CA:542:G:H2'	1:CA:543:C:C6	2.49	0.46
50:D3:4:LEU:HD11	50:D3:39:ASP:OD1	2.15	0.46
44:BX:29:TRP:CZ3	44:BX:76:ARG:HD3	2.50	0.46
25:BA:2484:G:H2'	25:BA:2485:G:H8	1.79	0.46
46:BZ:7:ALA:O	46:BZ:62:PRO:HD3	2.15	0.46
25:DA:2370:G:H2'	25:DA:2371:G:O4'	2.15	0.46
2:CY:74:C:O2'	2:CY:75:C:H5'	2.14	0.46
25:DA:2529:G:H8	25:DA:2529:G:O5'	1.98	0.46
1:AA:1319:A:H5''	1:AA:1319:A:H8	1.79	0.46
29:BF:18:ARG:O	29:BF:18:ARG:HG3	2.15	0.46
21:AS:15:LEU:HD21	21:AS:35:SER:OG	2.16	0.46
28:BE:119:ARG:HD2	28:BE:120:TRP:CE2	2.50	0.46
25:BA:1843:C:H2'	25:BA:1844:C:H6	1.80	0.46
37:BQ:45:GLN:CD	37:BQ:45:GLN:H	2.18	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CL:50:ALA:O	14:CL:51:LEU:C	2.53	0.46
1:AA:980:C:H3'	1:AA:981:U:C6	2.50	0.46
25:DA:2680:C:H2'	25:DA:2681:C:O2	2.14	0.46
25:DA:2416:C:H2'	25:DA:2417:C:C6	2.50	0.46
25:BA:1349:A:N6	25:BA:1598:C:N4	2.64	0.46
1:AA:986:A:H2'	1:AA:987:G:C8	2.50	0.46
5:AC:59:ARG:NH2	5:AC:97:LYS:HE2	2.29	0.46
43:DW:84:ARG:O	43:DW:95:ILE:HA	2.14	0.46
10:AH:6:ILE:O	10:AH:10:LEU:HG	2.15	0.46
34:BN:88:LYS:HB2	34:BN:92:GLN:HB2	1.97	0.46
27:DD:35:LYS:HE3	27:DD:104:TYR:CG	2.51	0.46
1:AA:794:A:H2'	1:AA:795:C:C6	2.50	0.46
1:CA:950:U:H2'	1:CA:951:G:C8	2.43	0.46
25:DA:1131:G:H2'	25:DA:1132:A:C8	2.50	0.46
31:DH:20:ALA:HB1	31:DH:21:PRO:CD	2.46	0.46
5:CC:6:HIS:HA	5:CC:7:PRO:HD2	1.79	0.46
36:DP:71:VAL:HG23	25:DA:389:G:C6	2.50	0.46
25:DA:2711:A:OP1	25:DA:712(B):A:P	2.72	0.46
25:DA:634:C:H2'	25:DA:635:C:H6	1.80	0.46
1:CA:1187:G:H5'	11:CI:113:LYS:HE2	1.97	0.46
25:DA:1126:A:H4'	25:DA:1127:A:C5'	2.45	0.46
1:AA:1293:G:HO2'	1:AA:1294:G:H8	1.62	0.46
26:BB:46:A:H2'	26:BB:47:C:C6	2.50	0.46
30:DG:32:PRO:HA	30:DG:162:THR:OG1	2.15	0.46
25:BA:610:C:H2'	25:BA:611:C:C6	2.51	0.46
25:BA:611:C:H2'	25:BA:612:G:O4'	2.16	0.46
40:BT:22:PHE:HD2	40:BT:22:PHE:N	2.12	0.46
25:DA:1295:C:H2'	25:DA:1296:G:H8	1.80	0.46
1:AA:584:G:H2'	1:AA:585:G:C8	2.50	0.46
25:DA:907:U:H2'	25:DA:908:C:H6	1.81	0.46
25:DA:2346:A:H5'	25:DA:2383:G:O4'	2.15	0.46
25:DA:1967:C:H2'	25:DA:1968:G:O4'	2.14	0.46
13:AK:24:SER:HB3	13:AK:27:ASN:O	2.15	0.46
1:CA:994:A:H62	1:CA:1046:A:H2	1.62	0.46
25:BA:1198:U:C2	25:BA:1199:U:C5	3.03	0.46
25:BA:2174:C:H6	25:BA:2174:C:O5'	1.99	0.46
7:CE:135:THR:O	7:CE:139:LEU:HG	2.15	0.46
1:CA:644:G:C2	1:CA:645:C:H1'	2.51	0.46
2:CY:4:G:C2	2:CY:70:G:C2	3.03	0.46
25:DA:1198:U:C2	25:DA:1199:U:C5	3.03	0.46
25:DA:2241:A:H2'	25:DA:2242:G:C8	2.51	0.46
42:DV:40:LEU:HA	42:DV:45:THR:HB	1.96	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BG:88:ILE:HG13	30:BG:89:GLY:N	2.30	0.46
30:DG:5:LEU:HD21	51:D4:50:THR:HA	1.97	0.46
11:CI:53:VAL:HG23	11:CI:55:ALA:H	1.80	0.46
1:CA:1372:U:H2'	1:CA:1373:G:O4'	2.15	0.46
1:AA:939:G:H1	1:AA:1344:C:H42	1.64	0.46
25:DA:222:A:N6	25:DA:224:G:C2	2.84	0.46
27:DD:35:LYS:O	27:DD:63:ARG:HA	2.15	0.46
46:DZ:71:VAL:HG11	46:DZ:74:VAL:CG2	2.46	0.46
27:BD:35:LYS:HE3	27:BD:104:TYR:CG	2.51	0.46
25:BA:1131:G:H2'	25:BA:1132:A:C8	2.50	0.46
6:CD:105:VAL:HG21	6:CD:121:VAL:CG2	2.45	0.46
5:AC:27:LYS:HA	5:AC:27:LYS:HZ3	1.77	0.46
29:DF:192:LEU:HD21	29:DF:194:MET:CE	2.45	0.46
4:AB:97:TRP:HH2	4:AB:176:GLU:CD	2.19	0.46
36:DP:111:ARG:HH22	36:DP:148:LEU:HD21	1.80	0.46
37:DQ:81:VAL:HG13	25:DA:2496:C:OP1	2.15	0.46
46:BZ:166:SER:HA	46:BZ:167:PRO:HD2	1.78	0.46
1:AA:554:C:H2'	1:AA:555:C:H6	1.80	0.46
25:BA:196:A:H2'	25:BA:805:G:O6	2.15	0.46
1:CA:405:U:H3'	1:CA:406:G:H5'	1.96	0.46
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.79	0.46
40:DT:100:TYR:HD2	40:DT:103:ARG:HE	1.62	0.46
1:AA:841:U:HO2'	1:AA:842:C:H6	1.61	0.46
25:BA:2174:C:H2'	25:BA:2175:C:O4'	2.15	0.46
1:AA:334:C:H2'	1:AA:335:C:C6	2.50	0.46
26:DB:82:G:H2'	26:DB:83:G:H8	1.79	0.46
25:DA:391:G:C5	25:DA:411:G:C2	3.03	0.46
25:BA:2395:C:H2'	25:BA:2396:G:O4'	2.15	0.46
25:DA:1339:G:N2	25:DA:1603:A:H1'	2.30	0.46
25:BA:2641:G:H5"	34:BN:99:SER:HB3	1.97	0.46
27:DD:218:ARG:HB3	27:DD:219:PRO:HD2	1.98	0.46
5:CC:152:ILE:HD11	5:CC:167:TRP:CD1	2.50	0.46
41:DU:53:ARG:NH2	25:DA:994:C:OP1	2.49	0.46
25:BA:2537:U:H2'	25:BA:2538:C:C6	2.51	0.46
13:AK:108:ILE:O	20:AR:87:ARG:HA	2.15	0.46
26:DB:17:C:H2'	26:DB:18:G:O4'	2.15	0.46
17:AO:29:VAL:HG11	17:AO:81:LEU:HD21	1.96	0.46
1:CA:750:G:N3	17:CO:23:GLY:HA3	2.29	0.46
25:DA:196:A:H2'	25:DA:805:G:O6	2.16	0.46
27:DD:163:ALA:HA	27:DD:176:ARG:O	2.15	0.46
25:BA:2357:U:O5'	25:BA:2357:U:H6	1.99	0.46
13:CK:108:ILE:O	20:CR:87:ARG:HA	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DE:34:VAL:HB	28:DE:48:GLN:HB3	1.98	0.46
37:DQ:85:LYS:HD3	25:DA:955:C:H5'	1.97	0.46
11:CI:27:THR:O	11:CI:62:TYR:HA	2.16	0.46
25:BA:81:G:H21	45:BY:2:ARG:NH2	2.14	0.46
10:AH:51:VAL:HG21	10:AH:60:ARG:HG3	1.98	0.46
24:CX:96:LEU:HD22	24:CX:96:LEU:O	2.15	0.46
25:DA:1408:C:C2	25:DA:1595:G:N2	2.83	0.46
40:DT:95:ARG:NH1	40:DT:95:ARG:CG	2.74	0.46
39:DS:35:ILE:H	39:DS:53:SER:HB3	1.79	0.46
14:AL:24:PRO:HD2	14:AL:97:TYR:OH	2.15	0.46
49:B2:63:VAL:O	49:B2:67:LYS:HG2	2.14	0.46
24:CX:223:ARG:HA	24:CX:236:ASP:CB	2.46	0.46
39:DS:33:LYS:HD3	39:DS:54:LEU:HG	1.96	0.46
10:CH:6:ILE:O	10:CH:10:LEU:HG	2.14	0.46
38:DR:63:ARG:O	38:DR:67:LEU:HD23	2.16	0.46
30:DG:94:LEU:N	30:DG:94:LEU:HD23	2.29	0.46
11:AI:53:VAL:HG23	11:AI:55:ALA:H	1.79	0.46
18:AP:4:ILE:HD12	18:AP:4:ILE:N	2.30	0.46
1:AA:976:G:H8	1:AA:1358:U:O2'	1.99	0.46
1:AA:676:A:H1'	13:AK:115:PRO:HB3	1.96	0.46
1:AA:69:G:H2'	1:AA:73:G:H8	1.81	0.46
12:AJ:33:GLN:O	12:AJ:75:ILE:HG12	2.15	0.46
12:CJ:34:VAL:HG22	12:CJ:74:ILE:HG22	1.98	0.46
25:BA:2334:G:H4'	25:BA:2335:A:OP2	2.16	0.46
36:DP:83:VAL:HG13	36:DP:114:ILE:HA	1.98	0.46
1:CA:832:C:HO2'	1:CA:833:U:H6	1.61	0.46
45:BY:37:VAL:HG21	45:BY:72:VAL:HG21	1.97	0.46
25:BA:1022:G:C6	25:BA:1141:U:C5	3.03	0.46
44:BX:31:HIS:CG	44:BX:32:PRO:HD2	2.51	0.46
34:BN:57:LEU:HD11	34:BN:139:LEU:O	2.16	0.46
25:BA:1839:G:C8	25:BA:1839:G:H5'	2.49	0.46
48:D1:64:ALA:O	48:D1:67:ILE:HG13	2.16	0.46
45:BY:35:TYR:CE2	45:BY:69:ALA:HB3	2.51	0.46
1:AA:641:U:H1'	1:AA:642:A:N7	2.31	0.46
14:CL:5:THR:HG23	14:CL:8:GLN:NE2	2.30	0.46
17:AO:65:ARG:O	17:AO:68:ARG:HB2	2.14	0.46
25:BA:2815:C:H2'	25:BA:2816:C:H6	1.80	0.46
25:DA:1001:A:H2'	25:DA:1002:G:O4'	2.15	0.46
25:BA:67:U:H2'	25:BA:68:G:H8	1.80	0.46
25:BA:2718:G:H4'	40:BT:98:LYS:HB2	1.97	0.46
25:DA:2317:C:H2'	25:DA:2318:G:O4'	2.15	0.46
2:CY:39:C:H2'	2:CY:40:C:H6	1.80	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CK:24:SER:HB3	13:CK:27:ASN:O	2.15	0.46
23:CU:12:LYS:HB3	23:CU:17:THR:O	2.16	0.46
22:CT:43:LEU:HD23	22:CT:46:GLU:OE2	2.16	0.46
1:AA:235:C:H1'	19:AQ:61:GLU:OE1	2.14	0.46
25:DA:67:U:H2'	25:DA:68:G:C8	2.49	0.46
15:AM:84:ILE:HG23	15:AM:85:GLY:H	1.79	0.46
34:BN:105:LEU:O	34:BN:106:LYS:C	2.54	0.46
25:BA:2633:G:O2'	28:BE:61:ARG:HD3	2.15	0.46
27:DD:231:HIS:CD2	27:DD:249:PRO:HA	2.51	0.46
25:BA:1812:A:H2'	25:BA:1813:G:C8	2.51	0.46
45:DY:2:ARG:HD3	25:DA:295:G:O5'	2.15	0.46
25:DA:82:G:H5'	25:DA:295:G:O2'	2.16	0.46
25:BA:82:G:H5'	25:BA:295:G:O2'	2.16	0.46
7:CE:144:THR:O	7:CE:148:VAL:HG23	2.16	0.46
25:DA:2392:A:H2	25:DA:2424:C:H42	1.63	0.46
11:CI:104:ARG:HD2	11:CI:104:ARG:O	2.15	0.46
6:AD:188:LEU:CD1	6:AD:188:LEU:H	2.25	0.46
11:AI:104:ARG:HD2	11:AI:104:ARG:O	2.15	0.46
39:BS:33:LYS:HD3	39:BS:54:LEU:HG	1.97	0.46
27:DD:85:ASP:OD1	27:DD:87:ASN:HB2	2.15	0.46
41:BU:55:ARG:HG2	41:BU:58:ARG:NH1	2.30	0.46
55:D8:22:VAL:HB	55:D8:54:GLU:HG2	1.97	0.46
25:BA:887:A:H1'	25:BA:889:C:N4	2.31	0.46
8:AF:69:GLU:O	8:AF:72:VAL:HG12	2.16	0.46
6:AD:13:ARG:NH1	6:AD:36:ARG:HD3	2.31	0.46
12:CJ:33:GLN:O	12:CJ:75:ILE:HG12	2.16	0.46
12:CJ:75:ILE:HG13	12:CJ:76:ASN:N	2.27	0.46
6:AD:117:ALA:O	6:AD:121:VAL:HG23	2.16	0.46
15:AM:24:GLY:O	15:AM:25:ILE:HD13	2.16	0.46
25:BA:2886:G:H2'	25:BA:2887:U:H6	1.76	0.46
25:BA:1248:G:P	29:BF:92:PRO:HG3	2.56	0.46
36:BP:111:ARG:HH22	36:BP:148:LEU:HD21	1.80	0.46
52:D5:12:SER:HB3	25:DA:2020:A:C5'	2.45	0.46
25:BA:2893:G:H4'	25:BA:2894:G:C8	2.49	0.46
25:DA:606:U:H4'	25:DA:658:C:H4'	1.98	0.46
26:DB:46:A:H2'	26:DB:47:C:C6	2.50	0.46
1:CA:1064:G:N2	1:CA:1190:G:H2'	2.30	0.46
25:BA:470:A:H2'	25:BA:471:A:O4'	2.16	0.46
30:BG:32:PRO:HA	30:BG:162:THR:OG1	2.15	0.46
1:AA:1063:C:H2'	1:AA:1064:G:C8	2.50	0.46
1:AA:1316:G:H5''	16:AN:17:LYS:HE2	1.98	0.46
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:405:U:H3'	1:AA:406:G:H5'	1.96	0.46
54:D7:24:THR:HG23	54:D7:27:GLY:HA3	1.98	0.46
40:DT:98:LYS:HB2	25:DA:2718:G:H4'	1.96	0.46
25:BA:2304:G:H1	25:BA:2312:U:H3	1.62	0.46
25:BA:2572:A:N7	28:BE:145:LYS:HG3	2.31	0.46
31:DH:158:HIS:HB2	31:DH:159:GLU:H	1.61	0.46
1:CA:1188:A:H4'	16:CN:58:LYS:NZ	2.30	0.46
24:CX:289:ARG:O	24:CX:292:GLN:HB2	2.15	0.46
15:CM:84:ILE:HG23	15:CM:85:GLY:H	1.80	0.46
46:DZ:23:LYS:HD3	46:DZ:40:ASP:HA	1.98	0.46
10:CH:40:ALA:HB2	10:CH:45:ILE:HG12	1.97	0.46
7:CE:137:GLU:OE1	7:CE:140:ARG:HB3	2.16	0.46
25:BA:566:U:H2'	25:BA:567:A:O4'	2.15	0.46
25:BA:1298:C:H2'	25:BA:1299:G:O4'	2.16	0.46
25:DA:173:G:H2'	25:DA:174:C:C6	2.51	0.46
1:CA:1195:C:H5''	1:CA:1196:U:OP2	2.15	0.46
1:CA:584:G:H2'	1:CA:585:G:H8	1.80	0.46
1:AA:1415:G:H2'	1:AA:1416:G:C8	2.51	0.46
42:BV:40:LEU:HA	42:BV:45:THR:HB	1.96	0.46
1:AA:865:A:H5'	1:AA:1078:U:O4	2.15	0.46
41:DU:57:PHE:HA	41:DU:60:LEU:HB3	1.98	0.46
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.49	0.46
27:BD:231:HIS:CD2	27:BD:249:PRO:HA	2.51	0.46
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.31	0.46
25:BA:2069:G:C2	25:BA:2070:G:C8	3.04	0.46
30:BG:84:LYS:HB3	30:BG:86:MET:SD	2.55	0.46
7:CE:76:ILE:HD11	7:CE:142:LEU:HD11	1.96	0.46
30:BG:5:LEU:HD21	51:B4:50:THR:HA	1.97	0.46
27:BD:111:LEU:HD22	27:BD:115:GLN:OE1	2.15	0.46
15:CM:90:LEU:O	15:CM:93:ARG:HB2	2.16	0.46
25:BA:250:G:H2'	25:BA:251:A:C8	2.51	0.46
29:DF:160:ASN:OD1	29:DF:162:LEU:HB2	2.15	0.46
1:AA:1065:U:O2'	1:AA:1066:C:OP2	2.31	0.46
29:BF:6:MET:HB3	29:BF:7:TYR:H	1.50	0.46
1:CA:687:A:H4'	1:CA:688:G:O5'	2.15	0.46
53:D6:27:LYS:HG2	53:D6:32:ASN:HD22	1.81	0.46
53:B6:11:LEU:HB2	53:B6:26:ASN:H	1.81	0.46
6:CD:100:ARG:HG2	6:CD:102:ASP:OD1	2.15	0.46
6:AD:105:VAL:HG21	6:AD:121:VAL:CG2	2.45	0.46
21:CS:41:VAL:HG13	21:CS:42:PRO:HD2	1.97	0.46
5:CC:6:HIS:CE1	5:CC:8:ILE:HB	2.50	0.46
25:DA:714:U:H1'	25:DA:717:G:N7	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:579:G:C2	25:DA:1262:A:C4	3.04	0.46
47:B0:24:LYS:O	47:B0:25:ARG:HD2	2.15	0.46
25:BA:2020:A:C5	25:BA:2022:U:C5	3.04	0.46
25:BA:2115:G:H4'	25:BA:2166:G:H2'	1.98	0.46
34:BN:58:ARG:HB2	34:BN:65:TRP:CZ3	2.50	0.46
25:BA:1126:A:H4'	25:BA:1127:A:C5'	2.46	0.46
1:CA:254:G:H2'	1:CA:255:G:H8	1.80	0.46
8:AF:61:LEU:N	8:AF:61:LEU:HD12	2.31	0.46
19:CQ:74:LEU:HD12	19:CQ:75:ARG:HG2	1.97	0.46
25:DA:2110:G:H4'	25:DA:2145:C:H42	1.80	0.46
1:CA:79:G:H1	1:CA:90:C:H42	1.62	0.46
31:DH:105:LEU:HD13	31:DH:105:LEU:N	2.30	0.46
25:BA:1256:G:O2'	29:BF:75:HIS:HE1	1.99	0.46
7:CE:145:LYS:HG3	7:CE:149:GLU:OE2	2.16	0.46
26:DB:60:C:H2'	26:DB:61:G:C8	2.51	0.46
18:CP:26:ARG:HH22	18:CP:31:LYS:HD3	1.81	0.46
4:CB:158:LEU:HD12	4:CB:158:LEU:N	2.31	0.46
25:DA:1331:A:O2'	25:DA:1332:G:H8	1.99	0.46
30:BG:143:GLU:CD	30:BG:143:GLU:H	2.19	0.46
31:DH:17:VAL:HG22	31:DH:26:VAL:HG22	1.97	0.46
25:DA:2174:C:H2'	25:DA:2175:C:O4'	2.15	0.46
1:AA:920:U:H2'	1:AA:921:U:C6	2.50	0.46
1:CA:27:G:N2	1:CA:557:G:H1'	2.31	0.46
20:CR:41:LYS:HE3	20:CR:42:ARG:HH21	1.81	0.46
25:BA:2317:C:H2'	25:BA:2318:G:O4'	2.16	0.46
32:DI:40:THR:O	32:DI:44:LEU:HG	2.16	0.46
40:BT:3:ARG:HH11	40:BT:6:LEU:HD23	1.81	0.46
25:BA:78:A:H2'	25:BA:79:G:C8	2.51	0.46
25:BA:1044:G:O2'	25:BA:1045:A:H5''	2.15	0.46
25:DA:769:G:H2'	25:DA:770:G:H8	1.80	0.46
25:BA:2370:G:H2'	25:BA:2371:G:O4'	2.15	0.46
25:BA:1814:G:H4'	27:BD:51:VAL:HG21	1.97	0.46
45:DY:30:VAL:HG22	45:DY:37:VAL:HG12	1.98	0.46
25:DA:2484:G:H2'	25:DA:2485:G:H8	1.80	0.46
25:DA:2069:G:C6	25:DA:2070:G:N7	2.83	0.46
17:CO:33:THR:HA	17:CO:63:ARG:NH1	2.21	0.46
5:AC:71:ALA:HA	5:AC:106:VAL:HB	1.97	0.46
25:BA:141(A):A:H3'	25:BA:141(B):C:C6	2.50	0.46
30:BG:41:GLN:HG2	30:BG:155:MET:CB	2.43	0.46
55:D8:55:ALA:O	55:D8:59:LYS:HG2	2.15	0.46
36:DP:85:LEU:HD23	36:DP:115:LEU:O	2.16	0.46
25:DA:39:C:H2'	25:DA:40:C:C6	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:D8:33:ASN:ND2	55:D8:34:TRP:H	2.14	0.46
1:AA:515:G:C2	1:AA:537:G:C2	3.04	0.46
1:CA:976:G:H5'	1:CA:1358:U:O2'	2.15	0.46
1:CA:976:G:H8	1:CA:1358:U:O2'	1.99	0.46
43:BW:30:GLU:HA	43:BW:33:ARG:HD2	1.97	0.46
28:DE:135:HIS:CD2	25:DA:1658:C:OP1	2.69	0.46
9:CG:107:ALA:HB2	9:CG:134:ALA:HB2	1.97	0.46
35:DO:19:ILE:H	35:DO:19:ILE:HD13	1.81	0.46
4:CB:24:TRP:CD1	4:CB:40:HIS:CE1	3.04	0.46
25:DA:440:G:H2'	25:DA:441:U:C6	2.51	0.46
27:DD:65:ILE:HB	27:DD:67:PHE:CE2	2.51	0.46
8:CF:11:ASN:HA	8:CF:12:PRO:HD2	1.82	0.46
16:AN:37:PHE:O	16:AN:39:LEU:HG	2.15	0.46
44:BX:53:LYS:CE	44:BX:55:ASN:HD21	2.28	0.46
47:D0:24:LYS:O	47:D0:25:ARG:HD2	2.16	0.46
25:BA:2115:G:H8	25:BA:2115:G:O5'	1.99	0.46
36:BP:121:LYS:O	36:BP:123:LEU:HD23	2.15	0.46
24:AX:289:ARG:O	24:AX:292:GLN:HB2	2.16	0.46
28:BE:49:LEU:O	28:BE:78:LEU:HA	2.16	0.46
1:CA:327:A:HO2'	1:CA:329:A:H8	1.62	0.46
25:BA:2815:C:O2'	52:B5:42:PRO:HB2	2.16	0.46
19:CQ:40:LYS:HG2	19:CQ:41:LYS:N	2.31	0.46
25:BA:609(B):G:H2'	25:BA:610:C:C6	2.51	0.46
25:DA:2716:U:H2'	25:DA:2717:G:C8	2.51	0.46
25:DA:610:C:H2'	25:DA:611:C:C6	2.51	0.46
55:D8:6:THR:CG2	55:D8:63:PRO:HG2	2.45	0.46
24:AX:303:ARG:HB3	24:AX:314:ASP:HA	1.97	0.46
25:DA:86:C:H2'	25:DA:87:C:C6	2.51	0.46
7:AE:47:LYS:HD3	7:AE:47:LYS:N	2.31	0.46
25:BA:445:C:H2'	25:BA:446:G:O4'	2.15	0.46
25:DA:2174:C:H6	25:DA:2174:C:O5'	1.99	0.46
1:CA:340:U:H2'	1:CA:341:C:C6	2.51	0.46
25:DA:839:U:H2'	25:DA:840:C:C6	2.51	0.46
11:AI:26:VAL:HG13	11:AI:61:ALA:HB3	1.97	0.46
25:BA:2534:A:H2'	25:BA:2535:G:O4'	2.16	0.46
25:DA:1353:A:H2'	25:DA:1354:A:C8	2.51	0.46
1:AA:1042:G:H2'	1:AA:1043:C:C6	2.50	0.46
46:DZ:9:TYR:OH	46:DZ:61:LEU:HD13	2.16	0.46
25:BA:233:A:H2'	25:BA:234:C:H6	1.81	0.46
7:AE:7:GLU:HB3	7:AE:35:GLY:O	2.16	0.46
25:DA:2320:A:N3	25:DA:2320:A:H2'	2.30	0.46
18:AP:50:LYS:HD3	18:AP:50:LYS:C	2.36	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CZ:17:C:H6	2:CZ:17:C:O5'	1.98	0.46
28:DE:176:ILE:O	28:DE:176:ILE:HG22	2.15	0.46
28:DE:183:LEU:HD11	40:DT:11:GLU:HG2	1.98	0.46
27:DD:51:VAL:HG21	25:DA:1814:G:H4'	1.96	0.46
24:CX:96:LEU:HD23	24:CX:348:LEU:HA	1.97	0.46
7:AE:70:PRO:CB	7:AE:144:THR:HG22	2.43	0.46
25:BA:2577:A:H2'	25:BA:2614:A:N6	2.30	0.46
25:BA:498:G:N2	45:BY:47:LYS:HE3	2.23	0.46
39:BS:31:SER:HB3	39:BS:34:HIS:HB2	1.97	0.46
25:BA:224:G:H2'	25:BA:225:A:O4'	2.16	0.46
40:BT:48:ILE:N	40:BT:48:ILE:HD12	2.31	0.46
27:DD:85:ASP:HB2	27:DD:92:ILE:HG23	1.97	0.46
25:BA:443:A:C2'	29:BF:45:ARG:HH12	2.27	0.46
18:CP:4:ILE:N	18:CP:4:ILE:HD12	2.30	0.46
1:AA:1308:U:OP1	15:AM:98:VAL:HG23	2.14	0.46
38:DR:11:ASN:O	38:DR:12:ARG:HB2	2.15	0.46
1:AA:973:G:OP1	1:AA:974:A:H3'	2.15	0.46
25:BA:440:G:H2'	25:BA:441:U:C6	2.51	0.46
25:BA:245:G:H2'	25:BA:246:C:H6	1.80	0.46
7:CE:43:LEU:HB3	7:CE:136:MET:HG3	1.98	0.46
31:BH:20:ALA:HB1	31:BH:21:PRO:CD	2.46	0.46
25:BA:1677:A:C5	25:BA:1678:G:C5	3.04	0.46
12:AJ:4:ILE:HG22	12:AJ:5:ARG:N	2.30	0.46
5:AC:25:GLY:C	5:AC:27:LYS:H	2.20	0.46
5:CC:25:GLY:C	5:CC:27:LYS:H	2.19	0.46
25:DA:56:A:H2'	25:DA:57:C:C6	2.51	0.46
29:BF:34:TRP:CH2	36:BP:12:ALA:HB2	2.50	0.46
1:AA:295:C:H2'	1:AA:296:U:C6	2.51	0.46
25:BA:1697:G:H3'	25:BA:1698:A:C5'	2.46	0.46
48:B1:64:ALA:O	48:B1:67:ILE:HG13	2.15	0.46
17:AO:37:ASN:O	17:AO:40:SER:HB3	2.16	0.46
1:CA:1063:C:H2'	1:CA:1064:G:C8	2.51	0.46
29:DF:74:ARG:HH11	25:DA:674:G:H1'	1.80	0.46
25:BA:2716:U:H2'	25:BA:2717:G:H8	1.81	0.46
25:BA:2688:U:H1'	25:BA:2721:A:N6	2.31	0.46
25:BA:1154:G:O5'	25:BA:1154:G:H8	1.98	0.46
35:DO:112:MET:HA	35:DO:115:VAL:HG22	1.97	0.46
30:BG:138:GLN:NE2	30:BG:153:ARG:HG2	2.30	0.46
25:DA:1965:C:H3'	25:DA:1966:A:H5''	1.98	0.46
25:DA:422:A:C6	25:DA:423:A:C6	3.04	0.46
7:AE:65:ASN:O	7:AE:66:MET:HB2	2.15	0.46
27:DD:53:PHE:CE1	27:DD:221:VAL:HG12	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2260:C:O5'	25:BA:2260:C:H6	1.99	0.46
1:AA:409:G:OP2	6:AD:22:LYS:HD2	2.16	0.46
25:BA:1686:C:H2'	25:BA:1687:G:O4'	2.15	0.46
18:CP:50:LYS:HD3	18:CP:50:LYS:C	2.35	0.46
1:CA:1042:G:H2'	1:CA:1043:C:C6	2.51	0.46
35:BO:71:ARG:HH12	40:BT:74:ARG:HH22	1.63	0.46
25:BA:2733:A:H2'	25:BA:2734:A:O4'	2.15	0.46
1:AA:27:G:N2	1:AA:557:G:H1'	2.30	0.46
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.51	0.46
13:CK:23:ALA:HB3	13:CK:86:GLY:O	2.16	0.46
50:D3:3:ARG:HD3	50:D3:36:VAL:HG11	1.98	0.46
45:DY:78:ALA:HB3	45:DY:81:LYS:HE3	1.98	0.46
44:DX:30:VAL:HG11	44:DX:39:ILE:CD1	2.46	0.46
42:BV:6:LYS:HA	42:BV:11:GLN:HB3	1.96	0.46
48:B1:11:ARG:HG3	48:B1:61:ARG:C	2.36	0.46
25:BA:274:G:C6	25:BA:275:G:N2	2.84	0.46
36:DP:91:PHE:CE2	36:DP:95:VAL:HG12	2.51	0.46
24:AX:92:LEU:HG	24:AX:348:LEU:HD22	1.97	0.46
25:DA:1406:U:H2'	25:DA:1407:C:C6	2.51	0.46
20:AR:29:PHE:CE1	20:AR:31:LEU:HB3	2.51	0.46
31:BH:162:ILE:N	31:BH:162:ILE:HD13	2.29	0.46
25:BA:664:C:H2'	25:BA:665:C:H6	1.81	0.46
25:DA:1056:G:H21	25:DA:1103:A:H62	1.64	0.46
25:DA:1651:G:C2	25:DA:2007:C:N3	2.84	0.46
46:DZ:26:GLY:HA2	46:DZ:85:HIS:CD2	2.50	0.46
46:BZ:26:GLY:HA2	46:BZ:85:HIS:CD2	2.50	0.46
21:AS:27:GLU:HB3	21:AS:28:LYS:H	1.62	0.46
25:DA:224:G:H2'	25:DA:225:A:O4'	2.16	0.46
29:BF:41:LEU:O	29:BF:45:ARG:HG3	2.16	0.46
55:B8:33:ASN:HD22	55:B8:34:TRP:H	1.64	0.46
46:BZ:71:VAL:HG11	46:BZ:74:VAL:CG2	2.46	0.46
25:BA:2422:A:N7	55:B8:31:HIS:CE1	2.84	0.46
24:AX:81:LEU:HG	24:AX:85:LYS:HD2	1.98	0.46
9:AG:146:GLU:HA	9:AG:149:ARG:HB2	1.98	0.46
25:BA:833:U:H2'	25:BA:834:C:H6	1.79	0.46
25:BA:2746:U:H2'	25:BA:2747:G:H5'	1.98	0.46
30:DG:16:ARG:HB3	30:DG:17:PRO:CD	2.46	0.46
25:DA:441:U:H2'	25:DA:442:G:H8	1.80	0.46
25:DA:2746:U:H2'	25:DA:2747:G:H5'	1.98	0.46
19:CQ:95:TYR:HD2	19:CQ:98:LEU:HD12	1.81	0.46
27:BD:65:ILE:HB	27:BD:67:PHE:CE2	2.50	0.46
34:DN:135:LEU:HD23	34:DN:136:GLY:N	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:832:C:H42	1:AA:854:G:H1	1.64	0.46
25:DA:389:G:C8	25:DA:2413:G:H4'	2.50	0.46
25:BA:2711:A:OP1	25:BA:712(B):A:P	2.74	0.46
1:CA:576:G:OP2	1:CA:577:G:H5''	2.16	0.46
46:DZ:118:GLN:HB2	46:DZ:173:ALA:C	2.37	0.46
4:CB:162:ILE:HD11	4:CB:184:VAL:HG22	1.97	0.46
25:DA:412:A:H3'	25:DA:413:C:H6	1.79	0.46
25:BA:606:U:H4'	25:BA:658:C:H4'	1.98	0.46
32:DI:53:ALA:O	32:DI:57:ARG:HB2	2.15	0.46
25:BA:471:A:H2'	25:BA:472:A:O4'	2.16	0.46
25:DA:312:G:C6	25:DA:313:C:C4	3.04	0.46
31:BH:109:PHE:CZ	31:BH:152:ARG:HD3	2.51	0.46
1:CA:539:A:H2'	1:CA:540:G:H8	1.80	0.46
25:BA:674:G:H1'	29:BF:74:ARG:HH11	1.80	0.46
43:BW:19:LEU:HB3	52:B5:25:LEU:CD1	2.46	0.46
24:CX:64:LEU:HD22	24:CX:70:LEU:HG	1.98	0.46
25:DA:1044:G:O2'	25:DA:1045:A:H5''	2.16	0.46
25:BA:1809:A:H2'	25:BA:1810:A:C8	2.50	0.46
44:BX:66:LEU:HD23	44:BX:67:GLY:N	2.31	0.46
38:BR:8:ARG:CZ	38:BR:43:GLU:HG3	2.46	0.46
25:BA:37:C:O2'	29:BF:50:SER:HB3	2.16	0.46
25:BA:463:G:N1	25:BA:467:G:C6	2.84	0.46
17:CO:67:LEU:HB3	17:CO:78:TYR:HE1	1.81	0.46
32:DI:29:TYR:O	32:DI:33:ARG:HG3	2.16	0.46
10:CH:64:LYS:HG2	10:CH:79:VAL:HG21	1.98	0.46
24:AX:173:TYR:HB3	24:AX:339:LEU:HD22	1.98	0.46
25:BA:769:G:H2'	25:BA:770:G:H8	1.80	0.46
6:AD:119:GLN:HE21	6:AD:119:GLN:HA	1.81	0.46
29:DF:18:ARG:O	29:DF:18:ARG:HG3	2.16	0.46
38:DR:72:ASP:O	38:DR:76:VAL:HG12	2.16	0.46
25:BA:2251:G:H8	25:BA:2251:G:O5'	1.99	0.46
8:AF:5:GLU:HB3	8:AF:62:TRP:HE1	1.80	0.46
9:AG:57:GLU:HA	9:AG:58:PRO:HD2	1.85	0.46
1:AA:419:C:C2	1:AA:425:G:C2	3.04	0.46
25:DA:1218:C:O2'	25:DA:1219:G:H5'	2.16	0.46
44:DX:89:ILE:O	44:DX:93:GLU:HG2	2.16	0.46
42:DV:22:VAL:CG1	42:DV:23:GLU:N	2.74	0.46
25:BA:2426:A:H8	25:BA:2426:A:O5'	2.00	0.46
1:CA:986:A:H2'	1:CA:987:G:C8	2.51	0.46
49:D2:21:LEU:CD1	49:D2:64:LEU:HB3	2.46	0.46
25:DA:2478:A:H5'	25:DA:2479:G:OP2	2.16	0.46
1:AA:891:U:H2'	1:AA:892:A:C8	2.42	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CG:106:GLN:O	9:CG:110:GLN:HG3	2.16	0.46
25:BA:1564:C:H2'	25:BA:1565:C:C6	2.51	0.46
27:DD:92:ILE:C	27:DD:92:ILE:HD12	2.37	0.46
27:BD:92:ILE:C	27:BD:92:ILE:HD12	2.36	0.46
25:BA:1308:A:H2'	25:BA:1309:G:O4'	2.16	0.46
1:AA:1053:G:N7	1:AA:1200:C:H5''	2.32	0.46
21:AS:44:MET:O	21:AS:62:ILE:HG21	2.15	0.46
21:CS:45:VAL:HA	21:CS:62:ILE:HG23	1.98	0.46
24:AX:330:GLY:C	24:AX:332:LEU:HD23	2.37	0.46
25:DA:2888:C:H2'	25:DA:2889:C:O4'	2.16	0.46
25:BA:714:U:H1'	25:BA:717:G:N7	2.31	0.46
1:CA:1281:U:H3'	1:CA:1281:U:H6	1.81	0.46
1:AA:576:G:OP2	1:AA:577:G:H5''	2.16	0.46
25:DA:2115:G:H8	25:DA:2115:G:O5'	1.99	0.46
2:CZ:51:C:H2'	2:CZ:52:G:O4'	2.16	0.46
25:BA:412:A:H3'	25:BA:413:C:H6	1.80	0.46
25:BA:380:U:H2'	25:BA:381:G:C8	2.50	0.46
1:AA:1294:G:H2'	1:AA:1295:G:H8	1.81	0.46
25:DA:470:A:H2'	25:DA:471:A:O4'	2.15	0.46
31:BH:105:LEU:N	31:BH:105:LEU:HD13	2.30	0.46
1:CA:353:A:H5'	1:CA:353:A:C8	2.51	0.46
25:BA:583:G:C6	25:BA:584:C:C5	3.04	0.46
1:CA:1089:G:C2	1:CA:1090:U:C2	3.04	0.46
8:CF:9:VAL:HA	8:CF:59:TYR:O	2.16	0.46
1:AA:1195:C:H5''	1:AA:1196:U:OP2	2.15	0.46
25:BA:2862:G:C6	25:BA:2863:C:C4	3.03	0.46
25:BA:1928:A:H5''	25:BA:1929:G:OP2	2.16	0.46
1:CA:957:U:O2	1:CA:959:A:H8	1.99	0.46
25:BA:119:A:H4'	25:BA:120:U:H5'	1.98	0.46
25:DA:1917:U:H2'	25:DA:1918:A:C8	2.51	0.46
1:AA:785:G:C2	1:AA:786:G:C8	3.04	0.46
5:AC:112:SER:O	5:AC:116:VAL:HG23	2.16	0.46
25:DA:1928:A:H5''	25:DA:1929:G:OP2	2.15	0.46
44:BX:12:VAL:HG12	44:BX:27:THR:O	2.16	0.46
9:AG:26:PHE:O	9:AG:30:ILE:HG12	2.17	0.46
10:AH:69:ARG:HD3	10:AH:69:ARG:HA	1.75	0.46
7:AE:101:ILE:HD11	7:AE:119:LEU:CD2	2.46	0.46
1:AA:340:U:H2'	1:AA:341:C:C6	2.51	0.46
24:CX:264:LYS:O	24:CX:268:ILE:HD13	2.16	0.46
44:BX:89:ILE:O	44:BX:93:GLU:HG2	2.15	0.45
48:D1:11:ARG:HG3	48:D1:61:ARG:C	2.36	0.45
25:DA:2426:A:O5'	25:DA:2426:A:H8	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:77:ASP:HB2	46:DZ:84:GLU:CG	2.36	0.45
25:BA:675:A:C4'	29:BF:67:GLN:NE2	2.78	0.45
25:BA:295:G:O5'	45:BY:2:ARG:HD3	2.15	0.45
25:DA:1349:A:N6	25:DA:1598:C:N4	2.64	0.45
7:AE:144:THR:O	7:AE:148:VAL:HG23	2.15	0.45
14:CL:65:VAL:HG12	14:CL:66:THR:N	2.30	0.45
5:CC:195:VAL:HG12	5:CC:196:LEU:N	2.30	0.45
1:CA:1116:C:H2'	1:CA:1117:G:H5''	1.98	0.45
25:BA:1594:G:H2'	25:BA:1595:G:O4'	2.16	0.45
29:DF:103:LYS:HA	29:DF:106:ARG:CG	2.39	0.45
25:BA:1651:G:C2	25:BA:2007:C:N3	2.84	0.45
5:CC:14:ILE:HG23	5:CC:15:THR:N	2.30	0.45
1:AA:1182:G:H4'	1:AA:1183:A:C5'	2.42	0.45
45:BY:11:ASP:H	45:BY:27:VAL:CG2	2.28	0.45
9:CG:20:ASP:OD1	9:CG:22:LEU:HB3	2.16	0.45
25:BA:2285:C:H5	53:B6:27:LYS:NZ	2.13	0.45
25:BA:245:G:H5''	36:BP:70:GLN:H	1.81	0.45
25:DA:828:U:C5	25:DA:829:A:N6	2.84	0.45
12:CJ:63:PHE:CZ	16:CN:45:ARG:HG3	2.49	0.45
25:BA:2821:A:OP2	25:BA:2822:G:OP2	2.35	0.45
34:DN:117:HIS:CE1	34:DN:120:ARG:HE	2.34	0.45
25:BA:2303:G:H1'	30:BG:132:ASN:ND2	2.29	0.45
25:DA:2711:A:H3'	25:DA:2712:U:H5'	1.97	0.45
34:DN:80:ALA:O	34:DN:83:ILE:HG13	2.16	0.45
25:DA:1750:G:H2'	25:DA:1751:C:C6	2.50	0.45
37:DQ:80:GLU:HB3	37:DQ:81:VAL:H	1.58	0.45
1:CA:641:U:H1'	1:CA:642:A:N7	2.31	0.45
2:CZ:28:C:H2'	2:CZ:29:G:C8	2.51	0.45
25:DA:330:A:O2'	25:DA:331:A:H8	1.99	0.45
25:DA:2825:U:H2'	25:DA:2826:A:O4'	2.16	0.45
1:AA:438:G:H2'	1:AA:494:U:O4	2.15	0.45
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.81	0.45
29:DF:75:HIS:HE1	25:DA:1256:G:O2'	1.99	0.45
1:CA:1253:G:H1	1:CA:1284:C:H42	1.64	0.45
29:BF:203:GLN:HA	29:BF:206:ILE:O	2.16	0.45
1:AA:644:G:C2	1:AA:645:C:H1'	2.52	0.45
2:AY:74:C:O2'	2:AY:75:C:H5'	2.16	0.45
36:BP:112:LEU:HD23	36:BP:113:LYS:N	2.32	0.45
25:DA:2737:G:H2'	25:DA:2738:A:C8	2.51	0.45
25:BA:1735:U:H2'	25:BA:1741:C:C6	2.51	0.45
29:DF:203:GLN:HA	29:DF:206:ILE:O	2.16	0.45
25:DA:815:C:H2'	25:DA:816:C:C6	2.51	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:994:A:H62	1:AA:1046:A:H2	1.62	0.45
1:AA:948:C:OP1	15:AM:107:ALA:HA	2.16	0.45
28:BE:34:VAL:HB	28:BE:48:GLN:HB3	1.98	0.45
25:DA:585:G:O5'	25:DA:585:G:H8	1.98	0.45
25:BA:1642:G:O5'	25:BA:1642:G:H8	1.99	0.45
22:CT:24:LEU:HD22	22:CT:24:LEU:H	1.81	0.45
25:BA:984:A:H5''	25:BA:985:C:C5	2.51	0.45
5:CC:112:SER:O	5:CC:116:VAL:HG23	2.15	0.45
43:BW:62:HIS:O	43:BW:64:MET:HG3	2.15	0.45
25:DA:2408:U:H2'	25:DA:2409:G:C8	2.51	0.45
28:DE:119:ARG:HD2	28:DE:120:TRP:CE2	2.51	0.45
25:DA:2069:G:C2	25:DA:2070:G:C8	3.04	0.45
14:AL:44:PRO:HG2	14:AL:50:ALA:N	2.28	0.45
30:DG:77:ILE:HG21	30:DG:80:PHE:HB2	1.97	0.45
51:B4:50:THR:HG22	51:B4:51:TYR:N	2.22	0.45
49:D2:63:VAL:O	49:D2:67:LYS:HG2	2.16	0.45
28:BE:6:GLY:HA2	28:BE:51:PHE:CZ	2.51	0.45
38:DR:55:ALA:CB	38:DR:79:LEU:HD22	2.46	0.45
35:BO:87:ILE:HG22	35:BO:92:GLU:N	2.31	0.45
1:AA:976:G:H5'	1:AA:1358:U:O2'	2.16	0.45
25:DA:887:A:H1'	25:DA:889:C:N4	2.31	0.45
48:D1:73:LEU:HD21	48:D1:94:LEU:CD2	2.47	0.45
25:DA:1771:C:HO2'	25:DA:1786:A:H8	1.63	0.45
25:BA:2299:G:H2'	25:BA:2300:G:C8	2.52	0.45
25:BA:441:U:H2'	25:BA:442:G:H8	1.79	0.45
19:AQ:92:ARG:O	19:AQ:95:TYR:HB2	2.16	0.45
19:AQ:95:TYR:HD2	19:AQ:98:LEU:HD12	1.82	0.45
1:CA:303:A:H2'	1:CA:304:U:O4'	2.16	0.45
1:AA:303:A:H2'	1:AA:304:U:O4'	2.16	0.45
34:BN:135:LEU:HD23	34:BN:136:GLY:N	2.30	0.45
1:CA:832:C:H42	1:CA:854:G:H1	1.63	0.45
45:BY:6:HIS:HB2	45:BY:7:VAL:H	1.55	0.45
44:BX:53:LYS:NZ	44:BX:55:ASN:HD21	2.14	0.45
36:BP:7:ARG:O	36:BP:10:PRO:HD3	2.16	0.45
6:CD:3:ARG:HD3	6:CD:5:ILE:CD1	2.46	0.45
25:DA:1697:G:H3'	25:DA:1698:A:C5'	2.46	0.45
13:AK:105:VAL:HG23	13:AK:105:VAL:O	2.15	0.45
7:CE:48:ALA:HB2	7:CE:57:LYS:HD3	1.98	0.45
30:BG:129:GLY:HA3	30:BG:163:ALA:O	2.15	0.45
1:CA:554:C:H2'	1:CA:555:C:H6	1.81	0.45
7:AE:48:ALA:HB2	7:AE:57:LYS:HD3	1.98	0.45
19:AQ:40:LYS:HG2	19:AQ:41:LYS:N	2.32	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:277:C:OP1	19:AQ:41:LYS:HE3	2.16	0.45
30:DG:143:GLU:H	30:DG:143:GLU:CD	2.19	0.45
25:DA:1154:G:O5'	25:DA:1154:G:H8	2.00	0.45
25:BA:1198:U:H2'	25:BA:1199:U:C6	2.51	0.45
24:AX:238:ALA:HB1	24:AX:253:GLN:HB3	1.99	0.45
25:BA:1003:G:H2'	25:BA:1004:C:C6	2.51	0.45
30:BG:178:PHE:HA	30:BG:179:PRO:HD2	1.82	0.45
1:AA:119:A:H4'	1:AA:120:A:O5'	2.16	0.45
38:DR:8:ARG:CZ	38:DR:43:GLU:HG3	2.46	0.45
1:AA:321:A:H2'	1:AA:322:C:C6	2.51	0.45
28:BE:33:VAL:HG12	28:BE:89:ASP:O	2.16	0.45
25:DA:2862:G:C6	25:DA:2863:C:C4	3.04	0.45
25:BA:2284:C:O5'	25:BA:2284:C:H6	1.99	0.45
14:AL:19:LYS:H	14:AL:19:LYS:HD3	1.81	0.45
1:CA:1469:G:H8	1:CA:1469:G:O5'	1.99	0.45
51:B4:40:ILE:O	51:B4:47:VAL:HA	2.17	0.45
46:BZ:23:LYS:HD3	46:BZ:40:ASP:HA	1.98	0.45
27:BD:53:PHE:CE1	27:BD:221:VAL:HG12	2.51	0.45
44:BX:51:VAL:HG12	44:BX:52:VAL:N	2.28	0.45
1:AA:1372:U:H2'	1:AA:1373:G:O4'	2.16	0.45
11:AI:62:TYR:C	11:AI:63:ILE:HD12	2.36	0.45
10:CH:51:VAL:HG21	10:CH:60:ARG:HG3	1.98	0.45
20:CR:29:PHE:CD1	20:CR:39:VAL:HG11	2.51	0.45
25:BA:664:C:H4'	25:BA:941:A:OP1	2.16	0.45
39:DS:34:HIS:N	39:DS:34:HIS:CD2	2.85	0.45
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.31	0.45
11:AI:49:PRO:HB2	11:AI:85:LEU:HD21	1.98	0.45
9:AG:106:GLN:O	9:AG:110:GLN:HG3	2.17	0.45
27:DD:32:SER:HA	27:DD:36:PRO:CG	2.46	0.45
27:DD:31:LYS:O	27:DD:36:PRO:HD3	2.17	0.45
27:BD:85:ASP:C	27:BD:87:ASN:H	2.19	0.45
25:DA:1022:G:C6	25:DA:1141:U:C5	3.04	0.45
55:D8:34:TRP:CG	55:D8:35:GLN:N	2.84	0.45
13:AK:21:ILE:HD12	13:AK:21:ILE:N	2.31	0.45
25:BA:1657:C:H2'	25:BA:1658:C:H6	1.82	0.45
8:CF:21:LEU:O	8:CF:25:ILE:HG12	2.16	0.45
34:BN:69:VAL:O	34:BN:70:ALA:HB3	2.17	0.45
25:DA:1259:G:H2'	25:DA:1260:G:C8	2.51	0.45
1:AA:729:A:H2'	1:AA:730:G:O4'	2.16	0.45
14:CL:82:VAL:HG21	14:CL:99:ILE:HD11	1.97	0.45
25:DA:652:U:H5'	25:DA:652:U:C6	2.51	0.45
25:BA:2436:G:H2'	25:BA:2437:U:C6	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:389:G:C6	36:BP:71:VAL:HG23	2.51	0.45
25:BA:2711:A:H3'	25:BA:2712:U:H5'	1.97	0.45
25:BA:2516:G:C6	25:BA:2517:C:N4	2.85	0.45
34:BN:80:ALA:O	34:BN:83:ILE:HG13	2.16	0.45
1:AA:1281:U:H6	1:AA:1281:U:H3'	1.81	0.45
1:AA:1187:G:H5'	11:AI:113:LYS:HE2	1.97	0.45
39:BS:26:LEU:O	39:BS:28:VAL:HG23	2.17	0.45
39:BS:14:VAL:HG11	39:BS:89:ARG:HD3	1.99	0.45
16:CN:24:CYS:O	16:CN:28:GLY:HA2	2.15	0.45
47:D0:27:GLU:HB2	47:D0:69:PHE:CD1	2.50	0.45
25:BA:321:G:OP2	29:BF:135:LYS:HA	2.16	0.45
52:D5:42:PRO:HB2	25:DA:2815:C:O2'	2.17	0.45
37:DQ:63:LYS:HB2	46:DZ:116:VAL:HG11	1.98	0.45
9:AG:79:ARG:HE	9:AG:84:ASN:ND2	2.13	0.45
6:CD:166:LYS:C	6:CD:166:LYS:HD2	2.37	0.45
18:CP:26:ARG:NH2	18:CP:31:LYS:HD3	2.32	0.45
25:DA:611:C:H2'	25:DA:612:G:O4'	2.15	0.45
7:AE:145:LYS:HG3	7:AE:149:GLU:OE2	2.16	0.45
38:BR:54:LEU:HD23	38:BR:54:LEU:O	2.16	0.45
1:CA:409:G:OP2	6:CD:22:LYS:HD2	2.16	0.45
26:BB:82:G:C2	26:BB:95:U:C2	3.03	0.45
25:DA:1198:U:H2'	25:DA:1199:U:C6	2.52	0.45
1:CA:1425:U:H2'	1:CA:1426:C:H6	1.81	0.45
25:DA:2534:A:H2'	25:DA:2535:G:O4'	2.16	0.45
11:AI:3:GLN:HG2	11:AI:20:ARG:HG2	1.98	0.45
34:DN:105:LEU:O	34:DN:106:LYS:C	2.54	0.45
32:BI:7:GLU:OE1	32:BI:8:PRO:HD2	2.17	0.45
35:DO:23:ARG:NH1	25:DA:2562:U:H1'	2.32	0.45
1:AA:957:U:O2	1:AA:959:A:H8	1.99	0.45
27:BD:271:ILE:O	27:BD:272:ALA:HB3	2.16	0.45
25:DA:738:G:H2'	25:DA:739:G:C8	2.52	0.45
25:DA:1289:C:H2'	25:DA:1290:C:H6	1.81	0.45
50:B3:3:ARG:HD3	50:B3:36:VAL:HG11	1.99	0.45
25:BA:585:G:H8	25:BA:585:G:O5'	1.98	0.45
40:DT:3:ARG:HH11	40:DT:6:LEU:HD23	1.81	0.45
25:DA:78:A:H2'	25:DA:79:G:C8	2.51	0.45
1:CA:321:A:H2'	1:CA:322:C:H6	1.81	0.45
1:CA:875:C:H1'	10:CH:15:ASN:OD1	2.16	0.45
25:DA:1843:C:H2'	25:DA:1844:C:C6	2.52	0.45
25:BA:142:G:H2'	25:BA:143:C:O4'	2.17	0.45
1:CA:522:C:N4	14:CL:52:ARG:HH22	2.02	0.45
17:AO:39:LEU:HD12	17:AO:56:LEU:HB2	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AE:69:VAL:HA	7:AE:70:PRO:HD2	1.82	0.45
51:D4:50:THR:HG22	51:D4:51:TYR:N	2.22	0.45
25:BA:2478:A:H5'	25:BA:2479:G:OP2	2.17	0.45
12:AJ:50:ILE:HA	12:AJ:60:ARG:CB	2.43	0.45
31:BH:149:ARG:HA	31:BH:162:ILE:CG1	2.46	0.45
39:DS:31:SER:HB3	39:DS:34:HIS:HB2	1.97	0.45
24:AX:106:ASP:O	24:AX:204:LYS:HG2	2.15	0.45
40:DT:48:ILE:HD12	40:DT:48:ILE:N	2.31	0.45
4:AB:187:LEU:HD22	4:AB:188:ALA:N	2.31	0.45
25:DA:1564:C:H2'	25:DA:1565:C:C6	2.52	0.45
1:AA:17:U:O2'	1:AA:1079:G:H1'	2.17	0.45
1:CA:1504:G:HO2'	1:CA:1505:G:P	2.38	0.45
1:CA:1502:A:H8	1:CA:1505:G:N2	2.14	0.45
1:CA:1308:U:OP1	15:CM:98:VAL:HG23	2.16	0.45
20:AR:63:GLN:O	20:AR:66:LEU:HB3	2.15	0.45
24:CX:1:MET:O	24:CX:5:LEU:HG	2.17	0.45
53:B6:27:LYS:HG2	53:B6:32:ASN:HD22	1.80	0.45
32:DI:6:LEU:HD23	32:DI:6:LEU:N	2.32	0.45
5:AC:6:HIS:CE1	5:AC:8:ILE:HB	2.51	0.45
25:DA:581:C:H2'	25:DA:582:G:H8	1.78	0.45
21:CS:41:VAL:O	21:CS:44:MET:HB2	2.16	0.45
6:CD:4:TYR:HE1	6:CD:11:LEU:CD1	2.26	0.45
12:CJ:74:ILE:N	12:CJ:74:ILE:HD13	2.29	0.45
27:BD:142:VAL:HG23	27:BD:192:THR:C	2.37	0.45
25:BA:1021:A:C8	25:BA:1021:A:H3'	2.51	0.45
26:DB:40:U:H3'	26:DB:41:U:C5'	2.46	0.45
25:BA:2206:C:N3	25:BA:2219:G:C2	2.85	0.45
1:CA:603:U:H2'	1:CA:604:G:H8	1.82	0.45
2:AZ:51:C:H2'	2:AZ:52:G:O4'	2.17	0.45
26:BB:40:U:H3'	26:BB:41:U:C5'	2.46	0.45
1:AA:262:A:H2'	1:AA:263:A:C8	2.50	0.45
29:DF:14:PRO:CD	29:DF:128:ALA:HB2	2.47	0.45
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.51	0.45
25:BA:2815:C:H2'	25:BA:2816:C:C6	2.52	0.45
37:BQ:69:PHE:HA	37:BQ:70:PRO:HD2	1.86	0.45
37:DQ:68:ILE:HD13	37:DQ:103:MET:HG3	1.99	0.45
1:CA:842:C:H6	1:CA:842:C:H5''	1.81	0.45
25:DA:727:A:H2'	25:DA:728:G:C8	2.52	0.45
1:CA:584:G:H2'	1:CA:585:G:C8	2.51	0.45
1:CA:160:A:H2'	1:CA:161:A:O4'	2.16	0.45
4:AB:183:PRO:HA	4:AB:198:ASP:OD1	2.16	0.45
1:CA:187:C:H2'	1:CA:188:U:O4'	2.15	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AK:102:GLY:C	13:AK:103:LEU:HD22	2.37	0.45
24:AX:109:VAL:HB	24:AX:160:PHE:CB	2.46	0.45
36:DP:112:LEU:HD23	36:DP:113:LYS:N	2.32	0.45
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.51	0.45
20:CR:32:ARG:HA	20:CR:69:THR:HG21	1.98	0.45
37:BQ:42:ILE:HD13	37:BQ:97:VAL:HB	1.99	0.45
25:BA:1326:U:H2'	25:BA:1327:C:C6	2.52	0.45
1:CA:574:A:H5''	1:CA:575:G:OP2	2.17	0.45
32:DI:7:GLU:OE1	32:DI:8:PRO:HD2	2.17	0.45
9:AG:60:LYS:HA	9:AG:60:LYS:HD2	1.78	0.45
28:BE:176:ILE:HG22	28:BE:176:ILE:O	2.16	0.45
35:BO:14:THR:O	35:BO:14:THR:HG22	2.17	0.45
1:AA:989:C:H2'	1:AA:990:C:H6	1.81	0.45
25:BA:943:U:OP2	36:BP:38:GLN:CD	2.55	0.45
2:AY:4:G:C2	2:AY:70:G:C2	3.05	0.45
5:AC:152:ILE:HD11	5:AC:167:TRP:CD1	2.51	0.45
11:CI:17:VAL:HG11	11:CI:81:ILE:HA	1.98	0.45
30:BG:77:ILE:HG21	30:BG:80:PHE:HB2	1.97	0.45
20:CR:29:PHE:CE1	20:CR:31:LEU:HB3	2.52	0.45
31:DH:149:ARG:HA	31:DH:162:ILE:CG1	2.47	0.45
36:DP:33:ARG:HG2	25:DA:587:C:C5	2.51	0.45
25:BA:569:U:H2'	25:BA:570:G:O4'	2.16	0.45
24:AX:223:ARG:NH1	24:AX:223:ARG:HG3	2.32	0.45
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.52	0.45
11:CI:49:PRO:HB2	11:CI:85:LEU:HD21	1.98	0.45
10:CH:110:ALA:CB	10:CH:121:ASP:HB3	2.47	0.45
15:CM:75:ALA:O	15:CM:79:LYS:HG3	2.16	0.45
1:CA:1228:C:P	15:CM:108:ARG:HH22	2.40	0.45
24:CX:13:ARG:N	24:CX:13:ARG:HD2	2.27	0.45
25:BA:2697:G:H2'	25:BA:2698:U:O4'	2.17	0.45
45:DY:11:ASP:H	45:DY:27:VAL:CG2	2.29	0.45
24:CX:196:THR:HG21	24:CX:297:GLU:HB2	1.99	0.45
24:AX:45:ILE:HA	24:AX:48:ILE:HG12	1.98	0.45
9:AG:20:ASP:OD1	9:AG:22:LEU:HB3	2.16	0.45
4:AB:24:TRP:CD1	4:AB:40:HIS:CE1	3.04	0.45
6:CD:117:ALA:O	6:CD:121:VAL:HG23	2.17	0.45
21:AS:45:VAL:HA	21:AS:62:ILE:HG23	1.98	0.45
27:BD:67:PHE:CE1	27:BD:157:ARG:NH1	2.81	0.45
46:DZ:5:LEU:HB3	46:DZ:59:LEU:HD23	1.99	0.45
14:CL:103:VAL:HG12	14:CL:104:TYR:CD1	2.52	0.45
36:DP:72:PRO:HG2	25:DA:2406:U:C5	2.52	0.45
25:DA:2456:C:O5'	25:DA:2456:C:H6	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2054:A:C2	25:BA:2616:C:C2	3.05	0.45
25:BA:1248:G:OP1	29:BF:92:PRO:HG3	2.16	0.45
44:DX:53:LYS:NZ	44:DX:55:ASN:HD21	2.15	0.45
25:BA:71:A:H4'	25:BA:72:U:H5''	1.98	0.45
25:DA:710:G:C6	25:DA:722:A:C6	3.05	0.45
25:DA:990:A:N6	25:DA:1186:G:H1'	2.31	0.45
25:BA:990:A:N6	25:BA:1186:G:H1'	2.31	0.45
17:CO:37:ASN:O	17:CO:40:SER:HB3	2.16	0.45
1:CA:435:C:H2'	1:CA:436:C:C6	2.49	0.45
25:DA:2815:C:H2'	25:DA:2816:C:C6	2.51	0.45
5:CC:184:TYR:CE2	5:CC:186:PHE:HB2	2.51	0.45
25:DA:589:C:H2'	25:DA:590:A:H8	1.82	0.45
6:CD:122:ARG:C	6:CD:122:ARG:HD3	2.37	0.45
25:DA:445:C:H2'	25:DA:446:G:O4'	2.17	0.45
35:BO:1:MET:H1	35:BO:67:LYS:HB3	1.82	0.45
25:BA:727:A:H2'	25:BA:728:G:C8	2.51	0.45
1:AA:139:G:H2'	1:AA:140:A:C8	2.51	0.45
15:AM:84:ILE:HG23	15:AM:85:GLY:N	2.31	0.45
1:CA:989:C:H2'	1:CA:990:C:H6	1.81	0.45
25:DA:1326:U:H2'	25:DA:1327:C:C6	2.52	0.45
29:DF:197:ASP:O	29:DF:200:GLU:HB3	2.15	0.45
25:DA:1336:A:H2'	25:DA:1337:G:H8	1.81	0.45
43:DW:62:HIS:O	43:DW:64:MET:HG3	2.16	0.45
43:DW:88:ARG:HB3	43:DW:92:ARG:HB2	1.99	0.45
25:BA:564:C:H2'	25:BA:565:C:H6	1.81	0.45
24:AX:43:GLU:O	24:AX:47:LEU:HG	2.16	0.45
1:AA:967:C:H2'	1:AA:968:A:C8	2.52	0.45
4:AB:212:GLN:HE22	4:AB:216:SER:HB2	1.82	0.45
1:AA:1469:G:O5'	1:AA:1469:G:H8	1.99	0.45
2:AY:39:C:H2'	2:AY:40:C:H6	1.82	0.45
25:BA:733:G:H8	25:BA:733:G:O5'	1.99	0.45
1:AA:160:A:H2'	1:AA:161:A:O4'	2.16	0.45
28:BE:105:THR:HG21	28:BE:164:ARG:CZ	2.46	0.45
27:BD:218:ARG:HB3	27:BD:219:PRO:HD2	1.97	0.45
11:AI:27:THR:O	11:AI:62:TYR:HA	2.17	0.45
4:AB:163:PHE:HD1	4:AB:185:ILE:HG13	1.82	0.45
46:DZ:41:LEU:O	46:DZ:45:ASP:HB2	2.16	0.45
36:BP:91:PHE:CE2	36:BP:95:VAL:HG12	2.51	0.45
25:BA:1418:G:O5'	25:BA:1418:G:H8	2.00	0.45
30:BG:50:ALA:O	30:BG:53:LEU:HB3	2.17	0.45
40:BT:50:ILE:N	40:BT:50:ILE:HD12	2.31	0.45
1:AA:148:G:H2'	1:AA:149:A:C8	2.40	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DG:66:GLN:CG	30:DG:67:LYS:H	2.26	0.45
25:DA:1298:C:H2'	25:DA:1299:G:O4'	2.17	0.45
31:BH:101:ARG:NE	31:BH:101:ARG:H	2.06	0.45
36:BP:85:LEU:HD23	36:BP:115:LEU:O	2.15	0.45
29:DF:6:MET:HB3	29:DF:7:TYR:H	1.50	0.45
34:DN:88:LYS:HB2	34:DN:92:GLN:HB2	1.97	0.45
41:DU:65:ILE:O	41:DU:68:ALA:HB3	2.17	0.45
48:B1:73:LEU:HD21	48:B1:94:LEU:CD2	2.46	0.45
1:AA:1067:A:H1'	1:AA:1068:G:O4'	2.17	0.45
1:CA:69:G:H2'	1:CA:73:G:H8	1.81	0.45
15:CM:30:ALA:O	15:CM:34:LEU:HG	2.16	0.45
24:AX:1:MET:O	24:AX:5:LEU:HG	2.16	0.45
53:D6:27:LYS:HG3	25:DA:2286:A:OP2	2.16	0.45
15:AM:30:ALA:O	15:AM:34:LEU:HG	2.16	0.45
7:AE:43:LEU:HD23	7:AE:43:LEU:C	2.36	0.45
8:AF:11:ASN:HA	8:AF:12:PRO:HD2	1.82	0.45
1:CA:124:G:C6	1:CA:125:U:C4	3.04	0.45
36:DP:105:LEU:HD23	25:DA:626:U:O2	2.17	0.45
25:BA:1980:G:H8	25:BA:1980:G:C5'	2.29	0.45
45:BY:30:VAL:HG22	45:BY:37:VAL:HG12	1.98	0.45
29:DF:92:PRO:HG3	25:DA:1248:G:OP1	2.16	0.45
1:AA:500:G:H2'	1:AA:501:C:C6	2.52	0.45
25:BA:390:A:H4'	25:BA:391:G:H5'	1.99	0.45
8:CF:47:ARG:NH1	8:CF:56:PRO:HB2	2.32	0.45
1:AA:777:A:H2'	1:AA:778:G:H8	1.78	0.45
1:AA:453:A:H5'	18:AP:72:ARG:HG3	1.98	0.45
23:CU:14:TRP:HE3	23:CU:15:ARG:HG2	1.81	0.45
25:BA:579:G:H2'	25:BA:580:C:C6	2.52	0.45
8:AF:21:LEU:O	8:AF:25:ILE:HG12	2.16	0.45
1:CA:1294:G:H2'	1:CA:1295:G:H8	1.81	0.45
1:CA:1053:G:N7	1:CA:1200:C:H5''	2.32	0.45
24:CX:9:GLU:O	24:CX:12:TYR:HB2	2.17	0.45
38:DR:90:ARG:HH11	38:DR:117:VAL:HG13	1.82	0.45
15:AM:106:ASN:O	15:AM:107:ALA:HB3	2.16	0.45
1:AA:321:A:H2'	1:AA:322:C:H6	1.81	0.45
1:CA:1425:U:H2'	1:CA:1426:C:C6	2.52	0.45
10:AH:64:LYS:HG2	10:AH:79:VAL:HG21	1.99	0.45
35:BO:73:ASP:OD1	35:BO:75:SER:HB3	2.17	0.45
25:BA:270(O):G:H2'	25:BA:270(P):U:H5''	1.98	0.45
25:BA:2494:G:H2'	25:BA:2495:G:H8	1.82	0.45
34:BN:141:LYS:C	34:BN:143:LEU:H	2.20	0.45
24:CX:179:ARG:HD3	24:CX:304:THR:OG1	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1289:C:H2'	25:BA:1290:C:H6	1.82	0.45
21:CS:15:LEU:HD21	21:CS:35:SER:OG	2.17	0.45
1:CA:119:A:H4'	1:CA:120:A:O5'	2.17	0.45
28:BE:183:LEU:HD11	40:BT:11:GLU:HG2	1.98	0.45
41:BU:108:GLU:CD	42:BV:44:LYS:HD3	2.37	0.45
30:BG:11:TYR:HA	30:BG:15:VAL:HB	1.99	0.45
14:AL:78:GLU:O	14:AL:78:GLU:HG2	2.17	0.45
1:CA:945:G:N3	1:CA:945:G:H2'	2.32	0.45
1:CA:419:C:C2	1:CA:425:G:C2	3.04	0.45
41:DU:108:GLU:CD	42:DV:44:LYS:HD3	2.37	0.45
25:DA:1843:C:H2'	25:DA:1844:C:H6	1.82	0.45
41:DU:92:ARG:CZ	42:DV:11:GLN:HG3	2.47	0.45
4:CB:163:PHE:HD1	4:CB:185:ILE:HG13	1.81	0.45
30:DG:75:LYS:HB3	30:DG:76:SER:H	1.52	0.45
25:DA:2487:G:H2'	25:DA:2488:A:C8	2.52	0.45
30:BG:5:LEU:HD12	30:BG:101:ILE:HG22	1.99	0.45
1:CA:1220:G:H21	21:CS:54:GLY:CA	2.23	0.45
1:CA:1511:G:H8	1:CA:1511:G:O5'	2.00	0.45
15:AM:90:LEU:O	15:AM:93:ARG:HB2	2.16	0.45
28:DE:128:SER:HB3	25:DA:1993:U:H4'	1.97	0.45
39:DS:26:LEU:O	39:DS:28:VAL:HG23	2.17	0.45
25:BA:2306:C:H4'	30:BG:136:ARG:NH2	2.32	0.45
12:CJ:4:ILE:HG22	12:CJ:5:ARG:N	2.31	0.45
27:BD:142:VAL:HG23	27:BD:192:THR:O	2.17	0.45
4:AB:169:LYS:C	4:AB:169:LYS:HE2	2.37	0.45
54:D7:34:ARG:HD2	54:D7:39:ARG:HG3	1.99	0.45
29:BF:123:LEU:HD12	29:BF:192:LEU:HD22	1.99	0.45
25:DA:1677:A:C5	25:DA:1678:G:C5	3.05	0.45
8:CF:55:ASP:HA	8:CF:56:PRO:HD2	1.79	0.45
25:BA:2206:C:H2'	25:BA:2207:C:C6	2.49	0.45
37:BQ:65:PHE:HB2	37:BQ:105:GLU:HG3	1.98	0.45
46:BZ:118:GLN:HB2	46:BZ:173:ALA:C	2.37	0.45
48:B1:82:LEU:N	48:B1:82:LEU:HD12	2.32	0.45
25:BA:914:C:H2'	25:BA:915:C:H5'	1.99	0.45
47:D0:36:ILE:HG23	47:D0:58:THR:HG23	1.99	0.45
25:BA:2110:G:H4'	25:BA:2145:C:H42	1.80	0.45
30:DG:129:GLY:HA3	30:DG:163:ALA:O	2.16	0.45
25:DA:609(B):G:H2'	25:DA:610:C:C6	2.51	0.45
25:BA:2262:U:H4'	25:BA:2328:A:C2	2.51	0.45
25:BA:1331:A:HO2'	25:BA:1332:G:H8	1.64	0.45
28:BE:9:VAL:HG21	40:BT:7:ILE:HG21	1.99	0.45
4:AB:158:LEU:HD12	4:AB:158:LEU:N	2.32	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:44:G:N2	1:CA:45:U:H1'	2.32	0.45
24:CX:69:GLU:O	24:CX:73:MET:HG3	2.17	0.45
6:AD:22:LYS:HB2	6:AD:26:CYS:SG	2.57	0.45
1:AA:32:A:H2'	1:AA:33:A:C8	2.52	0.45
17:CO:8:LYS:O	17:CO:12:ILE:HG13	2.16	0.45
1:CA:334:C:H2'	1:CA:335:C:C6	2.52	0.45
25:DA:1516:U:H2'	25:DA:1517:G:C8	2.51	0.45
25:BA:1917:U:H2'	25:BA:1918:A:C8	2.52	0.45
25:DA:572:A:H5''	25:DA:573:G:OP2	2.17	0.45
47:D0:29:GLN:O	47:D0:66:VAL:HA	2.17	0.45
21:CS:51:VAL:O	21:CS:58:VAL:HG22	2.17	0.45
25:DA:2494:G:H2'	25:DA:2495:G:H8	1.82	0.45
25:DA:2251:G:H8	25:DA:2251:G:O5'	1.99	0.45
6:AD:209:ARG:HD2	6:AD:209:ARG:HA	1.78	0.45
37:DQ:52:VAL:HG23	46:DZ:183:LEU:HD13	1.99	0.45
44:BX:30:VAL:HG11	44:BX:39:ILE:CD1	2.46	0.45
48:B1:19:GLN:HG2	48:B1:41:ARG:CB	2.46	0.45
11:AI:17:VAL:HG11	11:AI:81:ILE:HA	1.98	0.45
38:DR:104:ARG:CG	38:DR:104:ARG:NH1	2.66	0.45
25:BA:570:G:H2'	25:BA:2030:A:N7	2.31	0.45
24:AX:223:ARG:HA	24:AX:236:ASP:CB	2.46	0.45
1:AA:1116:C:H2'	1:AA:1117:G:H5''	1.99	0.45
1:AA:1507:A:H5'	1:AA:1507:A:H8	1.81	0.45
27:BD:27:THR:O	27:BD:27:THR:HG23	2.16	0.45
36:DP:84:ASN:HA	36:DP:115:LEU:O	2.16	0.45
1:AA:1498:U:H4'	1:AA:1499:A:O5'	2.17	0.45
1:CA:1493:A:C6	25:DA:1913:A:N7	2.84	0.45
1:AA:1055:A:C5	1:AA:1206:G:C6	3.05	0.45
30:DG:16:ARG:N	30:DG:17:PRO:HD2	2.32	0.45
25:BA:1259:G:H2'	25:BA:1260:G:H8	1.80	0.45
1:CA:794:A:H2'	1:CA:795:C:C6	2.51	0.45
24:AX:91:GLU:O	24:AX:94:ARG:HB3	2.17	0.45
12:CJ:4:ILE:HB	12:CJ:74:ILE:HG12	1.99	0.45
43:BW:26:GLY:C	43:BW:27:LYS:HD2	2.37	0.45
25:BA:710:G:C6	25:BA:722:A:C6	3.05	0.45
29:DF:92:PRO:HG3	25:DA:1248:G:P	2.57	0.45
1:CA:678:U:H2'	1:CA:679:C:H6	1.82	0.45
25:BA:1607:C:H4'	25:BA:1608:A:O5'	2.17	0.45
29:DF:127:GLU:HB2	29:DF:196:LEU:HD12	1.98	0.45
25:DA:2090:G:C6	25:DA:2230:G:C6	3.05	0.45
17:AO:40:SER:O	17:AO:44:LYS:HD2	2.16	0.45
25:BA:1011:G:OP1	41:BU:75:ASN:HB3	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1820:U:C2	27:BD:202:LYS:HB3	2.51	0.45
4:AB:25:ASN:HB3	4:AB:27:LYS:HE2	1.99	0.45
25:BA:2716:U:H2'	25:BA:2717:G:C8	2.51	0.45
28:DE:145:LYS:HG3	25:DA:2572:A:N7	2.31	0.45
25:DA:823:G:C6	25:DA:824:A:C6	3.05	0.45
7:CE:47:LYS:N	7:CE:47:LYS:HD3	2.32	0.45
25:DA:67:U:H2'	25:DA:68:G:H8	1.81	0.45
1:AA:572:A:N3	1:AA:917:G:H1'	2.31	0.45
51:D4:40:ILE:O	51:D4:47:VAL:HA	2.16	0.45
32:BI:40:THR:O	32:BI:44:LEU:HG	2.17	0.45
25:DA:984:A:H5''	25:DA:985:C:C5	2.51	0.45
1:CA:913:A:H4'	1:CA:914:A:O5'	2.16	0.45
9:AG:78:ARG:NH1	9:AG:156:TRP:HB3	2.31	0.45
9:CG:78:ARG:NH1	9:CG:156:TRP:HB3	2.32	0.45
27:BD:163:ALA:HA	27:BD:176:ARG:O	2.17	0.45
34:DN:141:LYS:C	34:DN:143:LEU:H	2.19	0.45
1:AA:92:G:C5	1:AA:93:U:C4	3.05	0.45
25:DA:725:G:O5'	25:DA:725:G:H8	1.99	0.45
40:BT:68:TYR:N	40:BT:68:TYR:CD2	2.83	0.45
10:AH:40:ALA:HB2	10:AH:45:ILE:HG12	1.97	0.45
25:DA:304:G:C6	25:DA:305:U:C4	3.05	0.45
27:DD:40:THR:HG22	27:DD:41:GLY:N	2.32	0.45
1:CA:979:C:H3'	1:CA:980:C:C5'	2.38	0.45
30:DG:5:LEU:HD12	30:DG:101:ILE:HG22	1.99	0.45
14:CL:23:VAL:HG13	14:CL:97:TYR:HE2	1.78	0.45
39:BS:34:HIS:N	39:BS:34:HIS:CD2	2.85	0.45
15:CM:2:ALA:C	15:CM:9:ILE:HG23	2.38	0.45
30:DG:98:ARG:HH12	26:DB:43:C:H4'	1.82	0.45
1:CA:1346:A:N6	1:CA:1374:A:H3'	2.27	0.45
25:BA:1993:U:H4'	28:BE:128:SER:HB3	1.98	0.45
10:AH:110:ALA:CB	10:AH:121:ASP:HB3	2.46	0.45
18:AP:4:ILE:HG13	18:AP:21:VAL:CG1	2.44	0.45
36:BP:84:ASN:HA	36:BP:115:LEU:O	2.17	0.45
27:DD:35:LYS:HZ1	27:DD:104:TYR:H	1.65	0.45
27:BD:35:LYS:HZ1	27:BD:104:TYR:H	1.65	0.45
26:DB:9:G:C6	26:DB:112:G:C6	3.05	0.45
25:DA:1308:A:H2'	25:DA:1309:G:O4'	2.17	0.45
1:CA:73:G:C2	1:CA:99:C:C2	3.05	0.45
1:CA:973:G:H4'	12:CJ:54:PHE:O	2.17	0.45
1:CA:973:G:OP1	1:CA:974:A:H3'	2.16	0.45
31:BH:137:ASP:OD1	31:BH:139:GLN:HB3	2.16	0.45
1:AA:973:G:H4'	12:AJ:54:PHE:O	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2286:A:OP2	53:B6:27:LYS:HG3	2.16	0.45
47:D0:32:ARG:CA	47:D0:35:ASN:HD21	2.30	0.45
4:CB:115:LEU:HD12	4:CB:118:LEU:HD12	1.99	0.45
25:DA:2821:A:OP2	25:DA:2822:G:OP2	2.34	0.45
26:BB:49:C:O5'	26:BB:49:C:H6	2.00	0.45
29:DF:123:LEU:HD12	29:DF:192:LEU:HD22	1.99	0.45
24:CX:243:HIS:HB3	24:CX:246:THR:OG1	2.17	0.45
29:DF:34:TRP:CH2	36:DP:12:ALA:HB2	2.52	0.45
37:DQ:65:PHE:HB2	37:DQ:105:GLU:HG3	1.98	0.45
1:CA:604:G:C2	1:CA:635:G:C5	3.05	0.45
37:BQ:65:PHE:HZ	46:BZ:118:GLN:HE22	1.65	0.45
1:CA:1216:G:H5''	16:CN:5:ALA:CB	2.47	0.45
1:AA:1216:G:H5''	16:AN:5:ALA:CB	2.46	0.45
25:DA:471:A:H2'	25:DA:472:A:O4'	2.16	0.45
24:AX:128:PHE:CE2	24:AX:158:VAL:HG11	2.52	0.45
1:CA:328:C:H4'	1:CA:329:A:O5'	2.17	0.45
1:CA:1320:C:N4	21:CS:36:ARG:HG3	2.32	0.45
25:DA:310:A:O2'	25:DA:311:A:H2'	2.17	0.45
4:CB:96:ARG:HD2	4:CB:96:ARG:H	1.82	0.45
25:DA:583:G:C6	25:DA:584:C:C5	3.04	0.45
6:AD:166:LYS:C	6:AD:166:LYS:HD2	2.37	0.45
1:CA:948:C:OP1	15:CM:107:ALA:HA	2.16	0.45
42:BV:69:LYS:HA	42:BV:88:ARG:HB3	1.99	0.45
1:CA:139:G:H2'	1:CA:140:A:C8	2.51	0.45
25:BA:2260:C:H2'	25:BA:2261:C:H6	1.82	0.45
20:AR:41:LYS:HE3	20:AR:42:ARG:HH21	1.82	0.45
25:BA:815:C:H2'	25:BA:816:C:C6	2.52	0.45
38:BR:42:LYS:O	38:BR:45:ARG:HB3	2.16	0.45
25:BA:2767:C:H2'	25:BA:2768:C:C6	2.52	0.45
1:CA:823:G:H2'	1:CA:824:C:C6	2.52	0.45
10:CH:23:SER:HB3	10:CH:62:TYR:HA	1.99	0.45
25:BA:938:G:C2	25:BA:939:G:N7	2.85	0.45
1:AA:953:G:C6	1:AA:954:G:C5	3.05	0.45
14:AL:57:VAL:O	14:AL:59:LEU:HD22	2.17	0.45
25:BA:1769:G:C6	25:BA:1984:G:C6	3.04	0.45
25:DA:1735:U:H2'	25:DA:1741:C:C6	2.52	0.45
1:AA:1141:C:H2'	1:AA:1142:G:C8	2.52	0.45
25:BA:2077:A:C5	25:BA:2435:A:C5	3.04	0.45
24:AX:317:ILE:H	24:AX:317:ILE:HD13	1.82	0.45
25:DA:2284:C:O5'	25:DA:2284:C:H6	2.00	0.45
24:AX:19:LEU:O	24:AX:19:LEU:HD23	2.17	0.45
25:DA:836:G:O5'	25:DA:836:G:H8	2.00	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1686:C:H2'	25:DA:1687:G:O4'	2.17	0.45
1:CA:1141:C:H2'	1:CA:1142:G:C8	2.52	0.45
25:BA:342:G:H2'	25:BA:343:C:H6	1.82	0.45
44:DX:26:TYR:CD1	44:DX:89:ILE:HG12	2.52	0.45
7:AE:92:LYS:O	7:AE:118:ILE:HD12	2.17	0.45
1:AA:1220:G:H21	21:AS:54:GLY:CA	2.23	0.45
49:B2:21:LEU:CD1	49:B2:64:LEU:HB3	2.46	0.45
36:DP:23:PRO:O	36:DP:33:ARG:HA	2.17	0.45
35:BO:61:VAL:O	35:BO:84:ALA:HB1	2.17	0.45
41:BU:65:ILE:O	41:BU:68:ALA:HB3	2.17	0.45
40:DT:50:ILE:N	40:DT:50:ILE:HD12	2.32	0.45
1:CA:515:G:C2	1:CA:537:G:C2	3.05	0.45
25:DA:2420:C:H6	25:DA:2420:C:O5'	2.01	0.45
55:B8:22:VAL:HB	55:B8:54:GLU:HG2	1.98	0.45
1:AA:1066:C:H3'	1:AA:1067:A:C8	2.51	0.45
1:AA:73:G:C2	1:AA:99:C:C2	3.05	0.45
43:BW:69:LEU:HD13	43:BW:107:LEU:HD23	1.99	0.45
9:CG:70:LYS:HG3	9:CG:96:GLN:HB3	1.99	0.45
1:CA:505:G:C6	1:CA:535:A:C2	3.05	0.45
6:CD:105:VAL:HG21	6:CD:121:VAL:HG22	1.98	0.45
25:BA:582:G:C2	25:BA:1259:G:C2	3.05	0.45
21:AS:41:VAL:O	21:AS:44:MET:HB2	2.16	0.45
30:BG:38:VAL:HG12	30:BG:39:ILE:N	2.32	0.45
15:CM:24:GLY:O	15:CM:25:ILE:HD13	2.16	0.45
36:BP:83:VAL:HG13	36:BP:114:ILE:HA	1.99	0.45
25:DA:2712:U:H1'	25:DA:712(B):A:H8	1.79	0.45
25:DA:2469:A:H2	25:DA:2481:G:H21	1.65	0.45
25:BA:2496:C:OP1	37:BQ:81:VAL:HG13	2.17	0.45
25:DA:2516:G:C6	25:DA:2517:C:N4	2.84	0.45
34:DN:57:LEU:HD11	34:DN:139:LEU:O	2.17	0.45
1:CA:453:A:H5'	18:CP:72:ARG:HG3	1.99	0.45
25:BA:618(A):G:C2	25:BA:618(B):C:C2	3.05	0.45
24:AX:246:THR:OG1	24:AX:248:ILE:HG22	2.16	0.45
1:AA:604:G:C2	1:AA:635:G:C5	3.05	0.45
4:AB:162:ILE:HD11	4:AB:184:VAL:HG22	1.98	0.45
1:AA:296:U:H2'	1:AA:297:G:H8	1.78	0.45
1:CA:1191:A:H2'	1:CA:1192:C:C6	2.52	0.45
25:DA:2619:C:O2'	25:DA:2620:C:H5'	2.17	0.45
18:AP:26:ARG:HH22	18:AP:31:LYS:HD3	1.81	0.45
25:BA:2825:U:H2'	25:BA:2826:A:O4'	2.17	0.45
25:DA:1461:G:H2'	25:DA:1462:C:H6	1.82	0.45
24:AX:180:VAL:HG13	24:AX:195:SER:HB2	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2260:C:H2'	25:DA:2261:C:H6	1.82	0.45
24:CX:43:GLU:O	24:CX:47:LEU:HG	2.17	0.45
23:AU:12:LYS:HB3	23:AU:17:THR:O	2.16	0.45
25:BA:1614:A:N6	43:BW:88:ARG:H	2.15	0.45
24:CX:109:VAL:HB	24:CX:160:PHE:CB	2.46	0.45
46:BZ:9:TYR:OH	46:BZ:61:LEU:HD13	2.17	0.45
25:DA:342:G:H2'	25:DA:343:C:H6	1.82	0.45
25:BA:1662:C:H2'	25:BA:1663:C:C6	2.52	0.45
25:DA:1809:A:H2'	25:DA:1810:A:C8	2.52	0.45
25:BA:1965:C:H3'	25:BA:1966:A:H5''	2.00	0.45
25:DA:2121:G:H2'	25:DA:2122:U:C6	2.52	0.45
25:DA:1003:G:H2'	25:DA:1004:C:C6	2.52	0.45
49:B2:1:MET:SD	49:B2:1:MET:O	2.75	0.45
14:CL:78:GLU:HG2	14:CL:78:GLU:O	2.17	0.45
25:BA:1054:A:H2'	25:BA:1055:G:C8	2.52	0.45
1:AA:799:G:C2	1:AA:800:G:H1'	2.52	0.45
25:BA:422:A:C6	25:BA:423:A:C6	3.05	0.45
44:DX:30:VAL:HG11	44:DX:39:ILE:HD12	1.98	0.44
13:AK:29:ILE:C	13:AK:29:ILE:HD12	2.37	0.44
29:DF:67:GLN:NE2	25:DA:675:A:C4'	2.81	0.44
10:CH:51:VAL:HG21	10:CH:60:ARG:CG	2.47	0.44
25:BA:768:G:O2'	25:BA:1379:A:N6	2.46	0.44
17:AO:33:THR:HG21	17:AO:85:LEU:HD22	1.99	0.44
52:D5:4:HIS:O	25:DA:2056:G:N2	2.50	0.44
31:DH:102:ALA:HB2	31:DH:117:PRO:HD3	1.99	0.44
44:DX:23:GLU:HG3	44:DX:24:GLY:N	2.25	0.44
30:DG:60:LEU:HD13	30:DG:60:LEU:C	2.37	0.44
1:AA:1228:C:P	15:AM:108:ARG:HH22	2.40	0.44
25:BA:195:A:N7	25:BA:197:A:OP1	2.50	0.44
21:AS:28:LYS:HE2	21:AS:29:ARG:HH12	1.81	0.44
26:BB:9:G:C6	26:BB:112:G:C6	3.05	0.44
15:CM:98:VAL:C	15:CM:99:ARG:HD2	2.38	0.44
1:AA:688:G:N2	1:AA:699:C:O2	2.49	0.44
32:DI:62:LYS:HE3	32:DI:136:VAL:CG2	2.47	0.44
6:CD:13:ARG:NH1	6:CD:36:ARG:HD3	2.32	0.44
1:CA:1066:C:H3'	1:CA:1067:A:C8	2.52	0.44
25:DA:2299:G:H2'	25:DA:2300:G:C8	2.52	0.44
7:CE:43:LEU:HD23	7:CE:43:LEU:C	2.36	0.44
25:DA:1817:G:C6	25:DA:1818:U:C5	3.05	0.44
27:DD:142:VAL:HG23	27:DD:192:THR:C	2.37	0.44
25:DA:1259:G:H2'	25:DA:1260:G:H8	1.82	0.44
46:DZ:5:LEU:HD21	46:DZ:39:VAL:HB	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AJ:34:VAL:HG22	12:AJ:74:ILE:HG22	1.99	0.44
46:BZ:5:LEU:HB3	46:BZ:59:LEU:HD23	1.99	0.44
1:CA:176:C:H5''	22:CT:29:LYS:HZ2	1.82	0.44
47:B0:32:ARG:CA	47:B0:35:ASN:HD21	2.30	0.44
1:CA:729:A:H2'	1:CA:730:G:O4'	2.17	0.44
34:BN:117:HIS:CE1	34:BN:120:ARG:HE	2.35	0.44
4:AB:55:PHE:CE1	4:AB:218:ALA:HA	2.50	0.44
43:DW:26:GLY:C	43:DW:27:LYS:HD2	2.37	0.44
25:BA:616:A:O2'	25:BA:617:G:P	2.75	0.44
37:DQ:65:PHE:HZ	46:DZ:118:GLN:HE22	1.64	0.44
25:BA:579:G:C2	25:BA:1262:A:C4	3.04	0.44
25:DA:2115:G:H4'	25:DA:2166:G:H2'	1.98	0.44
39:BS:87:PHE:CE2	39:BS:89:ARG:HA	2.52	0.44
36:DP:121:LYS:O	36:DP:123:LEU:HD23	2.16	0.44
1:CA:935:A:H2'	1:CA:936:C:H6	1.82	0.44
32:BI:53:ALA:O	32:BI:57:ARG:HB2	2.16	0.44
34:DN:58:ARG:C	34:DN:60:LYS:H	2.20	0.44
17:AO:41:GLU:O	17:AO:44:LYS:HB2	2.18	0.44
1:AA:328:C:H4'	1:AA:329:A:O5'	2.17	0.44
31:DH:109:PHE:CZ	31:DH:152:ARG:HD3	2.51	0.44
25:DA:791:C:H4'	25:DA:792:G:OP1	2.17	0.44
5:AC:184:TYR:CE2	5:AC:186:PHE:HB2	2.51	0.44
25:DA:1569:A:H2'	25:DA:1570:A:O4'	2.16	0.44
37:BQ:68:ILE:HD13	37:BQ:103:MET:HG3	1.99	0.44
25:BA:1754:C:H2'	25:BA:1755:A:O4'	2.18	0.44
38:DR:54:LEU:HD11	38:DR:65:LEU:HD23	1.98	0.44
25:DA:272:G:C2	25:DA:273(A):G:C4	3.05	0.44
41:BU:79:PHE:CD1	41:BU:79:PHE:C	2.90	0.44
54:B7:24:THR:HG23	54:B7:27:GLY:HA3	1.98	0.44
1:AA:192:U:H2'	1:AA:193:C:H6	1.82	0.44
25:DA:1587:A:H2'	25:DA:1588:C:H6	1.82	0.44
43:DW:19:LEU:HB3	52:D5:25:LEU:CD1	2.47	0.44
25:DA:2732:G:O2'	25:DA:2733:A:H5'	2.17	0.44
25:BA:2476:A:H2'	25:BA:2477:C:H5''	1.99	0.44
1:AA:585:G:H4'	14:AL:7:ASN:HD21	1.82	0.44
25:BA:1003:G:H2'	25:BA:1004:C:H6	1.82	0.44
28:BE:183:LEU:HD21	40:BT:11:GLU:HG2	1.99	0.44
1:AA:918:A:H2'	1:AA:919:A:O4'	2.17	0.44
7:CE:59:GLY:O	7:CE:63:ARG:HG3	2.17	0.44
25:DA:2065:C:H1'	25:DA:2449:U:O2	2.16	0.44
25:DA:1600:C:O2'	25:DA:1601:G:H5'	2.16	0.44
25:BA:1098:A:H2'	25:BA:1099:G:H8	1.81	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DE:105:THR:HG21	28:DE:164:ARG:CZ	2.47	0.44
25:DA:847:U:H3	25:DA:934:G:N2	2.16	0.44
27:DD:129:ASN:H	27:DD:193:VAL:HG12	1.81	0.44
2:CY:65:C:H2'	2:CY:66:C:C6	2.52	0.44
25:DA:449:A:C6	25:DA:450:G:C5	3.05	0.44
1:CA:112:G:H5'	1:CA:389:A:H4'	1.99	0.44
1:AA:198:G:C6	1:AA:220:G:C2	3.05	0.44
24:CX:238:ALA:HB1	24:CX:253:GLN:HB3	1.99	0.44
39:DS:49:VAL:HG13	39:DS:76:LYS:HD2	1.99	0.44
7:AE:59:GLY:O	7:AE:63:ARG:HG3	2.17	0.44
43:DW:25:ARG:HB2	43:DW:25:ARG:NH1	2.33	0.44
25:BA:725:G:H8	25:BA:725:G:O5'	1.99	0.44
54:B7:3:ARG:HD3	54:B7:3:ARG:HA	1.81	0.44
25:DA:1826:G:H2'	25:DA:1827:C:C6	2.52	0.44
45:DY:81:LYS:CD	45:DY:97:ARG:HB3	2.43	0.44
44:BX:30:VAL:HG11	44:BX:39:ILE:HD12	1.98	0.44
25:DA:1542:G:H5'	25:DA:1542:G:N3	2.32	0.44
25:BA:675:A:H8	25:BA:675:A:H5''	1.82	0.44
1:CA:1314:C:H5	21:CS:6:LYS:HZ1	1.63	0.44
28:DE:86:PRO:HB2	28:DE:87:GLU:H	1.61	0.44
49:B2:17:SER:HB3	49:B2:18:PRO:HD3	1.97	0.44
38:BR:17:ARG:HG3	38:BR:18:LEU:N	2.32	0.44
30:BG:60:LEU:C	30:BG:60:LEU:HD13	2.37	0.44
34:BN:40:ASP:CG	34:BN:41:ALA:N	2.71	0.44
29:DF:45:ARG:HH12	25:DA:443:A:C2'	2.27	0.44
32:BI:66:GLU:HB3	32:BI:67:ARG:NH1	2.31	0.44
27:DD:27:THR:HG23	27:DD:27:THR:O	2.17	0.44
27:BD:25:THR:HG21	27:BD:82:ILE:H	1.81	0.44
35:BO:19:ILE:HD13	35:BO:19:ILE:H	1.82	0.44
1:AA:124:G:C6	1:AA:125:U:C4	3.05	0.44
25:BA:1980:G:C6	25:BA:1982:C:N4	2.85	0.44
25:BA:828:U:C5	25:BA:829:A:N6	2.85	0.44
1:AA:451:A:H61	1:AA:480:U:H2'	1.81	0.44
1:CA:1049:U:H4'	1:CA:1050:G:OP2	2.17	0.44
1:CA:1514:C:H2'	1:CA:1515:C:C6	2.52	0.44
37:DQ:81:VAL:HG12	37:DQ:82:ARG:N	2.32	0.44
1:CA:1300:G:O2'	1:CA:1301:U:OP2	2.35	0.44
27:DD:119:ALA:HA	27:DD:130:ALA:O	2.17	0.44
24:CX:230:GLN:HE21	25:DA:2506:U:H1'	1.82	0.44
29:DF:169:ASN:ND2	25:DA:322:A:H2'	2.32	0.44
6:CD:93:PHE:CE1	6:CD:97:LEU:HD11	2.52	0.44
29:BF:14:PRO:CD	29:BF:128:ALA:HB2	2.46	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1961:C:O2'	25:DA:1962:C:H5'	2.17	0.44
26:BB:60:C:H2'	26:BB:61:G:C8	2.51	0.44
25:DA:2688:U:H1'	25:DA:2721:A:N6	2.33	0.44
1:CA:627:G:H2'	1:CA:628:G:H8	1.82	0.44
24:AX:69:GLU:O	24:AX:73:MET:HG3	2.17	0.44
1:CA:957:U:H4'	21:CS:79:THR:HB	1.99	0.44
7:AE:137:GLU:OE1	7:AE:140:ARG:HB3	2.16	0.44
2:AY:68:C:H2'	2:AY:69:C:C6	2.52	0.44
1:AA:823:G:H2'	1:AA:824:C:C6	2.52	0.44
25:BA:173:G:H2'	25:BA:174:C:C6	2.52	0.44
30:BG:111:LEU:HB2	30:BG:112:PRO:HD3	1.99	0.44
1:CA:711:G:O2'	1:CA:712:A:H5'	2.16	0.44
17:AO:8:LYS:O	17:AO:12:ILE:HG13	2.17	0.44
1:AA:702:A:C6	25:BA:1848:A:C6	3.05	0.44
38:BR:72:ASP:O	38:BR:76:VAL:HG12	2.17	0.44
1:CA:1380:U:O2'	9:CG:3:ARG:HD3	2.18	0.44
25:DA:2767:C:H2'	25:DA:2768:C:C6	2.53	0.44
41:DU:8:VAL:HG13	41:DU:11:ARG:HH21	1.81	0.44
25:DA:535:C:H6	25:DA:535:C:O5'	2.00	0.44
14:CL:19:LYS:H	14:CL:19:LYS:HD3	1.82	0.44
1:CA:401:C:H2'	1:CA:402:G:C8	2.52	0.44
1:CA:967:C:H2'	1:CA:968:A:C8	2.52	0.44
4:CB:212:GLN:HE22	4:CB:216:SER:HB2	1.82	0.44
25:BA:1336:A:H2'	25:BA:1337:G:H8	1.81	0.44
1:CA:1226:C:H2'	15:CM:103:THR:HB	1.99	0.44
1:CA:109:A:C6	1:CA:326:G:C6	3.06	0.44
25:DA:142:G:H2'	25:DA:143:C:O4'	2.17	0.44
11:AI:69:GLY:O	11:AI:73:GLN:HG3	2.18	0.44
4:CB:70:PHE:HA	4:CB:163:PHE:O	2.17	0.44
1:AA:522:C:H5''	14:AL:119:TYR:OH	2.16	0.44
36:BP:59:LEU:HA	36:BP:61:ARG:CZ	2.47	0.44
14:AL:65:VAL:HG12	14:AL:66:THR:N	2.30	0.44
28:DE:6:GLY:HA2	28:DE:51:PHE:CZ	2.51	0.44
1:CA:1507:A:H5'	1:CA:1507:A:H8	1.81	0.44
27:BD:108:PRO:HG2	27:BD:111:LEU:HD23	1.99	0.44
38:BR:55:ALA:CB	38:BR:79:LEU:HD22	2.46	0.44
1:CA:934:C:H5	1:CA:1344:C:H2'	1.82	0.44
25:DA:1668:A:C5	25:DA:1674:G:C5	3.06	0.44
1:AA:1521:G:H2'	1:AA:1522:U:H6	1.82	0.44
35:DO:8:LEU:HB2	35:DO:19:ILE:CD1	2.45	0.44
36:DP:55:ARG:NH1	25:DA:833:U:H1'	2.32	0.44
27:DD:157:ARG:HH21	25:DA:1817:G:H3'	1.81	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CB:169:LYS:HE2	4:CB:169:LYS:C	2.38	0.44
25:BA:1817:G:C6	25:BA:1818:U:C5	3.05	0.44
25:BA:1952:A:C5	25:BA:1953:A:C6	3.06	0.44
25:DA:2134:A:H61	25:DA:2157:G:H1'	1.82	0.44
4:AB:115:LEU:HD12	4:AB:118:LEU:HD12	1.99	0.44
24:CX:91:GLU:O	24:CX:94:ARG:HB3	2.17	0.44
29:BF:192:LEU:HD23	29:BF:193:VAL:N	2.33	0.44
25:BA:72:U:H6	49:B2:61:LEU:HD23	1.83	0.44
39:BS:26:LEU:C	39:BS:88:ASP:HB3	2.38	0.44
35:DO:103:ALA:H	35:DO:106:LEU:HD13	1.82	0.44
34:BN:58:ARG:C	34:BN:60:LYS:H	2.21	0.44
47:B0:36:ILE:HG23	47:B0:58:THR:HG23	1.97	0.44
25:DA:478:A:C6	25:DA:480:A:C6	3.05	0.44
1:AA:327:A:HO2'	1:AA:329:A:H8	1.61	0.44
25:BA:1278:A:H2'	25:BA:1279:G:C8	2.52	0.44
4:AB:96:ARG:HD2	4:AB:96:ARG:H	1.82	0.44
19:CQ:40:LYS:HD2	19:CQ:42:TYR:CZ	2.52	0.44
37:BQ:63:LYS:HB2	46:BZ:116:VAL:HG11	1.99	0.44
25:DA:1332:G:H5'	25:DA:1333:C:H5	1.81	0.44
1:AA:1089:G:C2	1:AA:1090:U:C2	3.05	0.44
28:DE:13:ARG:O	40:DT:57:PHE:HE1	2.01	0.44
1:AA:842:C:H6	1:AA:842:C:H5''	1.81	0.44
26:DB:82:G:C2	26:DB:95:U:C2	3.05	0.44
26:DB:18:G:H2'	26:DB:19:G:C8	2.53	0.44
25:DA:2561:A:H2'	25:DA:2562:U:O4'	2.18	0.44
25:BA:937:U:H2'	25:BA:938:G:O4'	2.18	0.44
25:DA:1003:G:H2'	25:DA:1004:C:H6	1.82	0.44
25:DA:449:A:N6	25:DA:450:G:C6	2.85	0.44
31:BH:43:VAL:HA	31:BH:52:VAL:HG22	2.00	0.44
24:AX:133:ARG:O	24:AX:136:GLU:HB2	2.17	0.44
45:BY:59:GLY:C	45:BY:61:ILE:H	2.21	0.44
25:DA:1662:C:H2'	25:DA:1663:C:C6	2.52	0.44
1:AA:574:A:H5''	1:AA:575:G:OP2	2.17	0.44
25:DA:621:A:H2'	25:DA:622:G:O4'	2.18	0.44
1:CA:309:G:H1'	1:CA:608:A:N1	2.33	0.44
43:DW:77:ASP:OD1	25:DA:24:G:H1'	2.18	0.44
1:AA:309:G:H1'	1:AA:608:A:N1	2.32	0.44
25:BA:854:G:H1	25:BA:923:C:H42	1.65	0.44
25:BA:304:G:C6	25:BA:305:U:C4	3.04	0.44
30:DG:120:LEU:N	30:DG:181:ARG:H	2.16	0.44
45:BY:14:LEU:HD23	45:BY:14:LEU:C	2.38	0.44
25:DA:923:C:H2'	25:DA:924:C:C6	2.52	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AS:11:VAL:HG22	21:AS:12:ASP:H	1.83	0.44
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.52	0.44
1:CA:1415:G:H2'	1:CA:1416:G:C8	2.52	0.44
4:AB:70:PHE:HA	4:AB:163:PHE:O	2.17	0.44
37:BQ:43:THR:OG1	37:BQ:46:GLN:HG3	2.17	0.44
25:BA:857:C:H2'	25:BA:858:U:C6	2.53	0.44
1:CA:980:C:H3'	1:CA:981:U:C6	2.52	0.44
36:DP:58:THR:HG23	36:DP:61:ARG:HH21	1.82	0.44
25:BA:2487:G:H2'	25:BA:2488:A:C8	2.53	0.44
25:DA:1056:G:O2'	25:DA:1086:A:H1'	2.17	0.44
25:DA:570:G:H2'	25:DA:2030:A:N7	2.32	0.44
1:AA:1511:G:O5'	1:AA:1511:G:H8	2.00	0.44
21:CS:28:LYS:HE2	21:CS:29:ARG:HH12	1.81	0.44
1:AA:934:C:H5	1:AA:1344:C:H2'	1.82	0.44
55:B8:34:TRP:CG	55:B8:35:GLN:N	2.85	0.44
13:CK:21:ILE:HD12	13:CK:21:ILE:N	2.32	0.44
9:AG:15:ASP:OD1	9:AG:18:TYR:HB2	2.17	0.44
4:AB:29:ALA:O	4:AB:32:ILE:HG22	2.17	0.44
30:DG:6:ALA:O	30:DG:10:LYS:HG3	2.18	0.44
25:BA:61:G:H5'	49:B2:50:ILE:HG21	1.99	0.44
25:BA:1060:U:H4'	25:BA:1061:U:C3'	2.46	0.44
49:D2:52:ASP:O	49:D2:56:GLN:HB2	2.16	0.44
12:AJ:4:ILE:HB	12:AJ:74:ILE:HG12	1.98	0.44
36:DP:72:PRO:HB2	25:DA:2406:U:C4	2.53	0.44
29:BF:22:ALA:HB1	29:BF:24:LEU:HD13	2.00	0.44
1:CA:832:C:N4	1:CA:855:G:O6	2.50	0.44
25:BA:2735:G:C2	25:BA:2736:G:C5	3.05	0.44
25:BA:2888:C:H2'	25:BA:2889:C:O4'	2.18	0.44
29:BF:157:VAL:HB	29:BF:194:MET:CB	2.48	0.44
25:DA:2735:G:C2	25:DA:2736:G:C5	3.05	0.44
25:BA:2514:U:H2'	25:BA:2515:C:H6	1.81	0.44
12:CJ:80:LYS:O	12:CJ:84:GLN:HB2	2.17	0.44
25:DA:618(A):G:C2	25:DA:618(B):C:C2	3.05	0.44
46:BZ:14:LYS:HB2	46:BZ:17:ALA:HB3	2.00	0.44
25:DA:579:G:H2'	25:DA:580:C:C6	2.52	0.44
47:D0:21:LEU:N	47:D0:21:LEU:HD12	2.33	0.44
1:CA:434:U:H2'	1:CA:435:C:C6	2.52	0.44
47:B0:27:GLU:HB2	47:B0:69:PHE:CD1	2.49	0.44
44:DX:57:LEU:HD23	25:DA:1340:U:H3'	1.98	0.44
1:CA:1321:C:H3'	1:CA:1322:C:H5''	1.99	0.44
25:BA:2580:U:H5'	28:BE:131:ALA:H	1.82	0.44
1:AA:696:A:O5'	1:AA:696:A:H8	2.01	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:272:G:C2	25:BA:273(A):G:C4	3.06	0.44
18:AP:26:ARG:NH2	18:AP:31:LYS:HD3	2.32	0.44
25:BA:1227:G:OP1	41:BU:13:LYS:HG2	2.18	0.44
25:DA:2716:U:H2'	25:DA:2717:G:H8	1.81	0.44
25:BA:775:G:C4	25:BA:794:G:C8	3.05	0.44
19:AQ:54:GLY:HA3	19:AQ:82:MET:CE	2.46	0.44
1:AA:627:G:H2'	1:AA:628:G:H8	1.81	0.44
24:AX:64:LEU:HD22	24:AX:70:LEU:HG	1.98	0.44
25:BA:86:C:H2'	25:BA:87:C:C6	2.52	0.44
25:BA:2508:G:C4	25:BA:2509:G:C8	3.06	0.44
1:CA:665:A:H2'	1:CA:725:G:H22	1.83	0.44
6:AD:122:ARG:C	6:AD:122:ARG:HD3	2.37	0.44
24:CX:180:VAL:HG13	24:CX:195:SER:HB2	1.99	0.44
1:CA:321:A:H2'	1:CA:322:C:C6	2.52	0.44
1:AA:160:A:H2'	1:AA:161:A:C8	2.51	0.44
26:DB:89(A):G:C6	26:DB:89(B):A:C6	3.06	0.44
22:AT:43:LEU:HD23	22:AT:46:GLU:OE2	2.18	0.44
25:BA:2748:A:C6	25:BA:2757:A:N7	2.86	0.44
25:BA:2121:G:H2'	25:BA:2122:U:C6	2.51	0.44
1:CA:367:U:O2'	1:CA:368:U:H4'	2.17	0.44
36:BP:81:GLN:HG2	36:BP:106:LEU:HD22	2.00	0.44
21:CS:11:VAL:HG22	21:CS:12:ASP:H	1.83	0.44
24:AX:264:LYS:O	24:AX:268:ILE:HD13	2.16	0.44
24:AX:35:SER:HA	24:AX:38:TYR:HB2	2.00	0.44
38:DR:57:ARG:HG2	38:DR:58:GLY:H	1.82	0.44
25:DA:1381:G:C6	25:DA:1382:G:C6	3.06	0.44
1:AA:1349:A:H2'	1:AA:1350:A:O4'	2.18	0.44
25:DA:950:G:C2	25:DA:968:G:C2	3.05	0.44
43:BW:65:LEU:HB2	43:BW:68:ARG:HG2	2.00	0.44
44:BX:35:THR:O	44:BX:38:GLU:HG2	2.18	0.44
6:CD:173:TRP:CE2	6:CD:189:PRO:HB3	2.52	0.44
13:CK:29:ILE:C	13:CK:29:ILE:HD12	2.37	0.44
25:BA:2392:A:H2	25:BA:2424:C:H42	1.65	0.44
36:BP:23:PRO:O	36:BP:33:ARG:HA	2.18	0.44
25:DA:2577:A:H2'	25:DA:2614:A:N6	2.32	0.44
25:BA:2029:G:C4	25:BA:2031:A:OP2	2.70	0.44
21:CS:25:LYS:HB3	21:CS:27:GLU:OE1	2.17	0.44
25:DA:250:G:H2'	25:DA:251:A:C8	2.53	0.44
27:BD:31:LYS:O	27:BD:36:PRO:HD3	2.17	0.44
27:DD:86:PRO:HG3	25:DA:1567:A:H3'	1.98	0.44
39:DS:87:PHE:CE2	39:DS:89:ARG:HA	2.53	0.44
36:BP:52:GLU:HA	36:BP:52:GLU:OE1	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:734:G:O2'	20:CR:71:LYS:HD3	2.17	0.44
24:AX:196:THR:HG21	24:AX:297:GLU:HB2	1.99	0.44
15:AM:98:VAL:C	15:AM:99:ARG:HD2	2.37	0.44
6:CD:125:HIS:HA	6:CD:152:SER:OG	2.17	0.44
32:BI:6:LEU:N	32:BI:6:LEU:HD23	2.32	0.44
47:D0:32:ARG:HB3	47:D0:33:ALA:H	1.53	0.44
1:AA:1321:C:H3'	1:AA:1322:C:H5''	2.00	0.44
29:DF:157:VAL:HB	29:DF:194:MET:CB	2.47	0.44
29:BF:157:VAL:HB	29:BF:194:MET:HB3	2.00	0.44
25:DA:2517:C:C2	25:DA:2542:A:N1	2.85	0.44
24:CX:330:GLY:C	24:CX:332:LEU:HD23	2.38	0.44
1:CA:501:C:H1'	1:CA:549:C:H1'	2.00	0.44
1:CA:453:A:H2'	1:CA:454:C:C6	2.53	0.44
26:DB:40:U:H3'	26:DB:41:U:H5''	2.00	0.44
25:DA:412:A:H2'	25:DA:412:A:N3	2.33	0.44
25:DA:2206:C:N3	25:DA:2219:G:C2	2.86	0.44
33:BJ:15:GLU:HB2	33:BJ:66:LEU:HG	1.99	0.44
1:CA:1055:A:C5	1:CA:1206:G:C6	3.06	0.44
28:DE:131:ALA:H	25:DA:2580:U:H5'	1.81	0.44
30:BG:161:THR:HG22	30:BG:163:ALA:H	1.82	0.44
25:BA:375:C:H2'	25:BA:376:C:C6	2.52	0.44
4:AB:153:ARG:H	4:AB:153:ARG:HG3	1.56	0.44
4:AB:27:LYS:H	4:AB:27:LYS:HD3	1.83	0.44
25:BA:1570:A:H2'	25:BA:1571:A:C8	2.52	0.44
25:DA:1945:G:C6	25:DA:1946:U:C4	3.06	0.44
19:CQ:54:GLY:HA3	19:CQ:82:MET:CE	2.46	0.44
24:CX:303:ARG:HB3	24:CX:314:ASP:HA	1.98	0.44
30:DG:138:GLN:NE2	30:DG:153:ARG:HG2	2.31	0.44
15:CM:84:ILE:HG23	15:CM:85:GLY:N	2.32	0.44
28:DE:183:LEU:HD21	40:DT:11:GLU:HG2	1.99	0.44
43:DW:88:ARG:H	25:DA:1614:A:N6	2.15	0.44
43:BW:65:LEU:HD23	43:BW:65:LEU:HA	1.85	0.44
25:DA:2077:A:C5	25:DA:2435:A:C5	3.05	0.44
53:B6:40:CYS:HA	53:B6:41:PRO:HD3	1.81	0.44
25:DA:1054:A:H2'	25:DA:1055:G:C8	2.53	0.44
47:B0:29:GLN:O	47:B0:66:VAL:HA	2.17	0.44
6:AD:144:ASP:O	6:AD:184:LYS:HA	2.18	0.44
37:DQ:42:ILE:HD13	37:DQ:97:VAL:HB	1.99	0.44
30:DG:104:GLU:O	30:DG:108:ASN:HB2	2.18	0.44
24:CX:133:ARG:O	24:CX:136:GLU:HB2	2.17	0.44
28:BE:11:MET:CB	28:BE:24:THR:HA	2.48	0.44
25:DA:1268:A:C2	25:DA:2013:A:C4	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1226:C:H2'	15:AM:103:THR:HB	1.99	0.44
25:BA:950:G:C2	25:BA:968:G:C2	3.06	0.44
25:BA:1218:C:O2'	25:BA:1219:G:H5'	2.16	0.44
39:BS:85:VAL:HG11	39:BS:106:ARG:HG2	2.00	0.44
24:CX:19:LEU:HD23	24:CX:19:LEU:O	2.17	0.44
25:BA:535:C:O5'	25:BA:535:C:H6	2.00	0.44
25:BA:1919:A:O5'	25:BA:1919:A:H8	2.00	0.44
45:DY:63:LYS:HE3	45:DY:63:LYS:HB2	1.80	0.44
25:DA:1769:G:C6	25:DA:1984:G:C6	3.06	0.44
4:CB:124:SER:C	4:CB:126:GLU:H	2.21	0.44
44:BX:26:TYR:CD1	44:BX:89:ILE:HG12	2.53	0.44
29:DF:89:VAL:HG11	25:DA:586:A:C5'	2.35	0.44
18:AP:14:ASN:N	18:AP:15:PRO:HD3	2.32	0.44
10:AH:51:VAL:HG21	10:AH:60:ARG:CG	2.47	0.44
46:BZ:41:LEU:O	46:BZ:45:ASP:HB2	2.17	0.44
25:DA:1418:G:H22	25:DA:1579:A:H5'	1.81	0.44
7:CE:76:ILE:O	7:CE:93:PRO:HB3	2.17	0.44
36:DP:62:LEU:HD12	25:DA:2393:A:H5''	2.00	0.44
25:DA:2029:G:C4	25:DA:2031:A:OP2	2.71	0.44
1:CA:1112:C:H42	5:CC:177:THR:HA	1.83	0.44
25:DA:1668:A:C4	25:DA:1674:G:N7	2.86	0.44
36:DP:85:LEU:HA	36:DP:88:LEU:HB3	2.00	0.44
1:AA:1504:G:HO2'	1:AA:1505:G:P	2.41	0.44
4:AB:178:ARG:HH21	10:AH:74:PRO:HG3	1.82	0.44
55:D8:33:ASN:HD22	55:D8:34:TRP:H	1.65	0.44
24:AX:13:ARG:HD2	24:AX:13:ARG:N	2.28	0.44
1:CA:735:C:H2'	1:CA:736:C:H6	1.83	0.44
1:CA:976:G:H22	1:CA:136(B):C:H5''	1.82	0.44
1:CA:688:G:N2	1:CA:699:C:O2	2.50	0.44
53:D6:11:LEU:HB2	53:D6:26:ASN:H	1.81	0.44
35:BO:8:LEU:N	35:BO:8:LEU:HD22	2.33	0.44
30:BG:16:ARG:HB3	30:BG:17:PRO:CD	2.47	0.44
21:AS:78:ARG:HB2	21:AS:81:ARG:HG3	2.00	0.44
34:DN:69:VAL:O	34:DN:70:ALA:HB3	2.18	0.44
49:D2:48:HIS:HD2	49:D2:52:ASP:OD2	2.01	0.44
25:BA:831:G:H2'	25:BA:832:G:O4'	2.17	0.44
29:DF:12:LEU:HB2	29:DF:124:LEU:HD11	1.99	0.44
25:BA:114(B):A:C4	25:BA:1144:G:N7	2.85	0.44
46:DZ:29:TYR:HB2	46:DZ:33:LEU:O	2.18	0.44
9:AG:38:LEU:HG	9:AG:42:ILE:HD11	2.00	0.44
1:CA:1203:C:OP1	16:CN:3:ARG:HD3	2.18	0.44
1:CA:500:G:H2'	1:CA:501:C:C6	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:954:G:H5''	37:BQ:13:GLN:HG3	1.98	0.44
41:DU:14:HIS:CE1	41:DU:32:PHE:CD2	3.06	0.44
17:CO:40:SER:O	17:CO:44:LYS:HD2	2.17	0.44
25:DA:1973:G:H2'	25:DA:1974:C:C6	2.53	0.44
25:BA:603:A:N6	25:BA:655:A:H2'	2.33	0.44
1:CA:358:U:H6	1:CA:358:U:C5'	2.31	0.44
25:DA:278:A:N6	25:DA:362:U:H3	2.15	0.44
25:BA:312:G:H5'	25:BA:331:A:H2'	1.99	0.44
1:AA:555:C:H2'	1:AA:556:C:C6	2.53	0.44
1:AA:353:A:C8	1:AA:353:A:H5'	2.51	0.44
1:AA:1015:A:H8	1:AA:1015:A:O5'	2.01	0.44
25:BA:1569:A:H2'	25:BA:1570:A:O4'	2.17	0.44
25:DA:270(L):C:O2'	25:DA:270(M):U:H5''	2.18	0.44
10:CH:75:ARG:HA	10:CH:76:PRO:HD2	1.81	0.44
25:BA:589:C:H2'	25:BA:590:A:H8	1.83	0.44
1:CA:1020:U:H2'	1:CA:1021:G:H8	1.83	0.44
25:DA:2307:G:N2	25:DA:2312:U:C4	2.86	0.44
25:BA:2529:G:O5'	25:BA:2529:G:C8	2.71	0.44
30:BG:109:VAL:C	30:BG:112:PRO:HD2	2.38	0.44
39:DS:85:VAL:HG11	39:DS:106:ARG:HG2	2.00	0.44
9:CG:26:PHE:O	9:CG:30:ILE:HG12	2.17	0.44
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.52	0.44
24:CX:100:ASP:HA	24:CX:101:PRO:HD2	1.89	0.44
4:CB:7:VAL:O	4:CB:11:LEU:HG	2.18	0.44
25:DA:1615:C:C5	25:DA:1617:C:C4	3.06	0.44
1:CA:32:A:H2'	1:CA:33:A:C8	2.53	0.44
30:DG:49:ASP:HB3	30:DG:52:ILE:HG12	2.00	0.44
1:CA:918:A:H2'	1:CA:919:A:O4'	2.17	0.44
25:BA:1107:G:H2'	25:BA:1108:U:O4'	2.18	0.44
24:AX:179:ARG:HD3	24:AX:304:THR:OG1	2.16	0.44
1:CA:655:A:H2'	1:CA:656:C:O4'	2.18	0.44
25:DA:1095:A:H2'	25:DA:1096:A:C8	2.52	0.44
25:DA:1098:A:H2'	25:DA:1099:G:H8	1.82	0.44
24:CX:173:TYR:HB3	24:CX:339:LEU:HD22	1.99	0.44
45:BY:63:LYS:HE3	45:BY:63:LYS:HB2	1.79	0.44
25:BA:2058:A:O5'	25:BA:2058:A:H8	2.01	0.44
31:DH:84:SER:HA	31:DH:133:VAL:O	2.18	0.44
25:DA:119:A:H4'	25:DA:120:U:H5'	1.98	0.44
51:B4:53:THR:O	51:B4:57:ILE:HD11	2.18	0.44
25:BA:1826:G:H2'	25:BA:1827:C:C6	2.53	0.44
25:DA:675:A:H8	25:DA:675:A:H5''	1.82	0.44
2:CY:56:C:O2'	30:DG:78:SER:HB3	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1220:G:H2'	1:AA:1221:G:C8	2.51	0.44
25:BA:672:C:C2	25:BA:809:G:N2	2.86	0.44
24:CX:223:ARG:NH1	24:CX:223:ARG:HG3	2.32	0.44
31:DH:117:PRO:HA	31:DH:118:PRO:HD2	1.88	0.44
1:AA:1253:G:H1	1:AA:1284:C:H42	1.64	0.44
1:CA:1371:G:O3'	11:CI:69:GLY:HA3	2.18	0.44
31:BH:102:ALA:HB2	31:BH:117:PRO:HD3	2.00	0.44
1:CA:1227:A:OP2	15:CM:111:LYS:HE3	2.18	0.44
9:CG:127:ALA:HA	9:CG:135:VAL:HG21	1.99	0.44
5:AC:14:ILE:HG23	5:AC:15:THR:N	2.30	0.44
25:BA:692:C:C2	25:BA:771:G:C2	3.05	0.44
1:CA:1224:G:H4'	15:CM:102:ARG:NH2	2.31	0.44
25:BA:1658:C:OP1	28:BE:135:HIS:CD2	2.70	0.44
24:CX:81:LEU:HG	24:CX:85:LYS:HD2	1.98	0.44
25:BA:2287:A:C6	25:BA:2289:G:C4	3.06	0.44
53:D6:13:CYS:SG	53:D6:24:GLU:HG3	2.58	0.44
25:DA:2334:G:H4'	25:DA:2335:A:OP2	2.17	0.44
6:CD:100:ARG:O	6:CD:103:ASN:HB3	2.18	0.44
6:AD:105:VAL:HG21	6:AD:121:VAL:HG22	1.98	0.44
30:BG:6:ALA:O	30:BG:10:LYS:HG3	2.17	0.44
25:DA:1980:G:C6	25:DA:1982:C:N4	2.86	0.44
32:DI:113:ARG:HB2	32:DI:130:TYR:CE1	2.53	0.44
9:CG:38:LEU:HG	9:CG:42:ILE:HD11	1.99	0.44
25:BA:2712:U:H1'	25:BA:712(B):A:H8	1.79	0.44
54:B7:34:ARG:HD2	54:B7:39:ARG:HG3	2.00	0.44
1:CA:778:G:H2'	1:CA:779:C:C6	2.52	0.44
34:BN:57:LEU:HD11	34:BN:142:ARG:HB2	1.99	0.44
53:D6:18:ARG:HH21	53:D6:44:ARG:HH11	1.66	0.44
1:AA:464:G:H8	1:AA:464:G:O5'	2.00	0.44
28:DE:116:VAL:HG13	28:DE:117:MET:H	1.83	0.44
7:CE:25:ARG:N	7:CE:25:ARG:HD2	2.33	0.44
41:DU:79:PHE:C	41:DU:79:PHE:CD1	2.90	0.44
21:CS:10:PHE:CD1	21:CS:10:PHE:N	2.86	0.44
25:DA:590:A:C4	25:DA:668:G:N2	2.85	0.44
1:AA:1020:U:H2'	1:AA:1021:G:H8	1.83	0.44
1:CA:216:G:C2	1:CA:217:C:C4	3.05	0.44
28:DE:144:ARG:HB2	25:DA:2572:A:P	2.58	0.44
1:AA:186(B):C:O2'	22:AT:89:ARG:HD2	2.18	0.44
24:AX:180:VAL:CG1	24:AX:195:SER:HB2	2.48	0.44
1:AA:44:G:N2	1:AA:45:U:H1'	2.32	0.44
25:BA:1461:G:H2'	25:BA:1462:C:H6	1.83	0.44
15:CM:83:ASP:OD2	15:CM:84:ILE:HG22	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:D0:66:VAL:O	47:D0:81:VAL:HA	2.18	0.44
25:BA:923:C:H2'	25:BA:924:C:C6	2.52	0.44
25:DA:854:G:C2	25:DA:855:G:C5	3.05	0.44
13:AK:94:ALA:O	13:AK:98:LEU:HG	2.17	0.44
1:AA:734:G:O2'	20:AR:71:LYS:HD3	2.18	0.44
1:CA:171:A:H2'	1:CA:172:A:C8	2.53	0.44
25:BA:649:G:H2'	25:BA:650:C:O4'	2.18	0.44
1:CA:814:A:N7	1:CA:816:A:C5	2.86	0.44
1:CA:468:A:P	18:CP:75:ARG:HH12	2.41	0.44
5:AC:76:VAL:HG21	5:AC:103:VAL:HG11	2.00	0.44
1:AA:875:C:H1'	10:AH:15:ASN:OD1	2.17	0.44
1:CA:1397:C:H41	3:CV:22:A:H5''	1.81	0.44
14:AL:108:GLY:HA3	14:AL:120:GLY:O	2.17	0.44
25:BA:310:A:O2'	25:BA:311:A:H2'	2.17	0.44
15:AM:70:LEU:C	15:AM:70:LEU:HD23	2.38	0.44
14:CL:108:GLY:HA3	14:CL:120:GLY:O	2.18	0.44
25:DA:1853:A:H2'	25:DA:1854:A:C8	2.53	0.44
27:DD:187:GLY:C	27:DD:189:CYS:H	2.21	0.44
1:AA:1425:U:H2'	1:AA:1426:C:H6	1.83	0.44
24:AX:67:ASP:HA	24:AX:68:PRO:HD2	1.87	0.44
2:AY:53:G:O2'	2:AY:54:U:H5'	2.17	0.44
27:BD:129:ASN:H	27:BD:193:VAL:HG12	1.83	0.44
25:BA:430:G:H5''	25:BA:431:U:OP2	2.18	0.44
44:DX:35:THR:O	44:DX:38:GLU:HG2	2.18	0.44
25:BA:1792:G:H8	25:BA:1792:G:O5'	2.01	0.44
25:DA:996:A:H2'	25:DA:997:G:C8	2.51	0.44
13:CK:29:ILE:HG22	13:CK:44:SER:CB	2.48	0.44
6:AD:173:TRP:CE2	6:AD:189:PRO:HB3	2.53	0.44
25:BA:82:G:O2'	25:BA:83:G:H5'	2.17	0.44
36:DP:59:LEU:HA	36:DP:61:ARG:CZ	2.48	0.44
25:BA:1999:C:H5''	25:BA:2723:C:O2'	2.17	0.44
31:DH:162:ILE:N	31:DH:162:ILE:HD13	2.29	0.44
25:BA:1408:C:C2	25:BA:1595:G:N2	2.86	0.44
15:AM:2:ALA:C	15:AM:9:ILE:HG23	2.38	0.44
30:BG:66:GLN:CG	30:BG:67:LYS:H	2.25	0.44
25:BA:1025:G:C8	25:BA:1025:G:H5''	2.53	0.44
1:AA:1227:A:H2	1:AA:1228:C:C2	2.36	0.44
34:DN:40:ASP:CG	34:DN:41:ALA:N	2.71	0.44
40:DT:48:ILE:HG22	40:DT:49:VAL:N	2.33	0.44
25:DA:2591:C:H2'	25:DA:2592:G:H8	1.82	0.44
1:CA:1112:C:C4	5:CC:178:LEU:HD23	2.53	0.44
25:BA:222:A:N6	25:BA:224:G:C2	2.86	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1077:G:N1	1:AA:1081:G:C6	2.86	0.44
4:AB:178:ARG:HD2	10:AH:71:GLY:C	2.38	0.44
12:CJ:54:PHE:HB3	12:CJ:55:LYS:H	1.61	0.44
6:AD:125:HIS:HA	6:AD:152:SER:OG	2.17	0.44
52:B5:16:ARG:O	52:B5:19:ARG:HB3	2.18	0.44
9:CG:71:PRO:HD3	9:CG:103:TRP:HZ3	1.83	0.44
4:CB:29:ALA:O	4:CB:32:ILE:HG22	2.17	0.44
39:DS:13:ARG:NH2	25:DA:2335:A:H8	2.16	0.44
5:AC:8:ILE:CD1	5:AC:16:ARG:HH21	2.31	0.44
43:BW:8:ARG:HA	43:BW:102:HIS:CD2	2.48	0.44
25:BA:1817:G:H3'	27:BD:157:ARG:HH21	1.80	0.44
25:BA:1817:G:OP1	27:BD:88:ARG:NH2	2.50	0.44
25:BA:640:C:H6	25:BA:640:C:O5'	2.00	0.44
34:DN:66:THR:HA	34:DN:67:PRO:HD2	1.86	0.44
25:DA:640:C:H6	25:DA:640:C:O5'	2.00	0.44
46:BZ:5:LEU:HD21	46:BZ:39:VAL:HB	1.99	0.44
29:BF:24:LEU:HD12	29:BF:24:LEU:N	2.31	0.44
25:BA:2406:U:C4	36:BP:72:PRO:HB2	2.52	0.44
1:AA:501:C:H2'	1:AA:502:G:C8	2.53	0.44
29:DF:192:LEU:HD23	29:DF:193:VAL:N	2.33	0.44
25:BA:634:C:H2'	25:BA:635:C:H6	1.80	0.44
16:CN:3:ARG:O	16:CN:7:ILE:HG23	2.17	0.44
12:AJ:80:LYS:O	12:AJ:84:GLN:HB2	2.17	0.44
1:AA:453:A:H2'	1:AA:454:C:C6	2.52	0.44
5:AC:19:GLU:HG3	5:AC:54:ARG:CD	2.48	0.44
29:DF:176:LEU:HD11	29:DF:180:GLY:HA3	2.00	0.44
26:BB:40:U:H3'	26:BB:41:U:H5''	2.00	0.44
47:B0:37:LEU:H	47:B0:60:PHE:HA	1.83	0.44
27:DD:117:VAL:HG22	27:DD:118:VAL:N	2.33	0.44
24:CX:234:THR:HG23	24:CX:235:THR:N	2.32	0.44
25:DA:2020:A:C5	25:DA:2022:U:C5	3.06	0.44
8:CF:61:LEU:HD12	8:CF:61:LEU:N	2.32	0.44
28:DE:5:LEU:HD22	28:DE:197:ILE:HG22	2.00	0.44
26:DB:16:G:C6	26:DB:69:G:C2	3.06	0.44
1:CA:278:G:O4'	1:CA:282:A:H1'	2.18	0.44
25:DA:1919:A:O5'	25:DA:1919:A:H8	2.00	0.44
25:BA:1453:A:H62	25:BA:2703:C:H41	1.66	0.44
26:BB:18:G:H2'	26:BB:19:G:C8	2.53	0.44
25:DA:66:C:H2'	25:DA:67:U:O4'	2.18	0.44
15:AM:83:ASP:OD2	15:AM:84:ILE:HG22	2.17	0.44
2:AY:75:C:OP1	25:BA:2602:A:OP1	2.36	0.44
25:BA:854:G:C2	25:BA:855:G:C5	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1349:A:H2'	1:CA:1350:A:O4'	2.17	0.44
1:CA:953:G:C6	1:CA:954:G:C5	3.05	0.44
25:DA:827:U:O2	25:DA:2246:G:H4'	2.18	0.44
39:BS:49:VAL:HG13	39:BS:76:LYS:HD2	2.00	0.44
25:DA:564:C:H2'	25:DA:565:C:H6	1.81	0.44
25:DA:111:A:H2'	25:DA:112:U:O4'	2.18	0.44
31:BH:22:GLY:C	31:BH:23:ARG:HD3	2.38	0.44
25:BA:2737:G:H2'	25:BA:2738:A:C8	2.52	0.44
28:DE:119:ARG:HG2	28:DE:160:TYR:CG	2.53	0.44
1:AA:1371:G:O3'	11:AI:69:GLY:HA3	2.18	0.44
25:DA:274:G:C6	25:DA:275:G:N2	2.86	0.44
45:BY:2:ARG:HG2	45:BY:3:VAL:N	2.33	0.44
25:DA:1418:G:O5'	25:DA:1418:G:H8	1.99	0.44
7:AE:76:ILE:O	7:AE:93:PRO:HB3	2.18	0.44
18:CP:28:ARG:CG	18:CP:28:ARG:NH1	2.78	0.44
25:BA:1651:G:N2	25:BA:2007:C:C2	2.86	0.44
25:DA:195:A:N7	25:DA:197:A:OP1	2.51	0.44
55:D8:58:ILE:C	55:D8:60:LEU:H	2.21	0.44
18:CP:4:ILE:HG13	18:CP:21:VAL:CG1	2.44	0.44
27:BD:85:ASP:OD1	27:BD:87:ASN:HB2	2.18	0.44
32:DI:66:GLU:HB3	32:DI:67:ARG:NH1	2.33	0.44
42:DV:25:LEU:HD23	42:DV:26:ASP:N	2.29	0.44
25:BA:2646:C:H2'	25:BA:2647:U:O4'	2.17	0.44
1:CA:1493:A:C6	25:DA:1913:A:C5	3.06	0.44
29:BF:117:ARG:NH2	29:BF:187:VAL:HA	2.32	0.44
53:B6:18:ARG:HH21	53:B6:44:ARG:HH11	1.66	0.44
1:AA:1320:C:N4	21:AS:36:ARG:HG3	2.32	0.44
25:DA:597:U:H2'	25:DA:598:G:C8	2.53	0.44
27:DD:183:ARG:HA	27:DD:270:ILE:HA	1.99	0.44
29:DF:118:ALA:HB2	29:DF:123:LEU:HD22	2.00	0.44
29:DF:157:VAL:HB	29:DF:194:MET:HB3	2.00	0.44
28:DE:156:MET:CE	25:DA:2050:C:H1'	2.48	0.44
1:AA:778:G:H2'	1:AA:779:C:C6	2.53	0.44
46:DZ:14:LYS:HB2	46:DZ:17:ALA:HB3	1.99	0.44
47:B0:21:LEU:HD12	47:B0:21:LEU:N	2.33	0.44
27:BD:117:VAL:HG22	27:BD:118:VAL:N	2.33	0.44
24:AX:323:ASP:O	24:AX:326:GLY:N	2.51	0.44
38:DR:3:HIS:NE2	25:DA:1654:A:OP2	2.51	0.44
1:CA:1095:U:H2'	1:CA:1096:C:H6	1.83	0.44
25:DA:1090:U:H2'	25:DA:1091:G:H8	1.83	0.44
25:DA:666:G:C5	25:DA:667:U:C4	3.06	0.44
25:BA:2623:G:H2'	25:BA:2624:G:C8	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:804:A:H5''	25:BA:805:G:OP1	2.18	0.44
38:BR:54:LEU:HD11	38:BR:65:LEU:HD23	1.98	0.44
1:AA:216:G:C2	1:AA:217:C:C4	3.06	0.44
17:CO:25:THR:O	17:CO:29:VAL:HG23	2.18	0.44
24:AX:9:GLU:O	24:AX:12:TYR:HB2	2.17	0.44
31:BH:154:PRO:HA	31:BH:160:LYS:O	2.18	0.44
47:D0:16:SER:HB3	25:DA:2261:C:C6	2.53	0.44
1:CA:585:G:H4'	14:CL:7:ASN:HD21	1.82	0.44
1:CA:160:A:H2'	1:CA:161:A:C8	2.53	0.44
25:BA:1911:U:C2	25:BA:1918:A:C2	3.06	0.44
24:CX:109:VAL:HB	24:CX:160:PHE:HB3	2.00	0.44
46:DZ:157:LEU:HA	46:DZ:158:PRO:HD2	1.88	0.44
1:AA:913:A:H4'	1:AA:914:A:O5'	2.17	0.44
2:AZ:24:U:H2'	2:AZ:25:C:C6	2.53	0.44
13:CK:102:GLY:C	13:CK:103:LEU:HD22	2.38	0.44
25:BA:2101:G:H2'	25:BA:2102:U:O4'	2.18	0.44
25:BA:738:G:H2'	25:BA:739:G:C8	2.53	0.44
25:DA:2376:A:H2'	25:DA:2377:A:O4'	2.16	0.44
1:CA:298:A:C6	1:CA:299:G:N1	2.86	0.44
25:BA:1216:G:N1	25:BA:1234:U:C2	2.86	0.44
25:BA:958:U:O2	26:BB:89(B):A:H4'	2.18	0.44
27:BD:43:ARG:HB2	27:BD:48:ARG:O	2.17	0.44
25:BA:2578:G:OP2	25:BA:2578:G:H4'	2.18	0.44
1:AA:1225:A:H2'	1:AA:1225:A:N3	2.31	0.44
19:AQ:14:LYS:HD2	19:AQ:14:LYS:N	2.33	0.44
20:AR:32:ARG:HA	20:AR:69:THR:HG21	1.99	0.44
25:DA:1792:G:O5'	25:DA:1792:G:H8	2.01	0.43
25:BA:996:A:H2'	25:BA:997:G:C8	2.52	0.43
11:AI:118:LYS:C	11:AI:120:ARG:H	2.21	0.43
48:D1:45:ASN:C	48:D1:45:ASN:ND2	2.70	0.43
13:AK:29:ILE:HG22	13:AK:44:SER:CB	2.48	0.43
25:BA:1246:A:OP1	36:BP:18:ARG:HD3	2.18	0.43
25:BA:671:C:H5	36:BP:42:SER:HA	1.82	0.43
36:DP:42:SER:HA	25:DA:671:C:H5	1.83	0.43
25:DA:1651:G:N2	25:DA:2007:C:C2	2.86	0.43
36:DP:46:LYS:HA	36:DP:46:LYS:HD2	1.79	0.43
31:DH:35:VAL:HA	31:DH:36:PRO:HD2	1.77	0.43
4:CB:166:ASP:HA	4:CB:167:PRO:HD2	1.83	0.43
27:DD:21:PHE:HE1	25:DA:1565:C:O5'	2.01	0.43
41:BU:61:TRP:O	41:BU:65:ILE:HG13	2.18	0.43
25:DA:2697:G:H2'	25:DA:2698:U:O4'	2.17	0.43
25:DA:1657:C:H2'	25:DA:1658:C:H6	1.82	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DE:135:HIS:NE2	25:DA:1658:C:OP1	2.51	0.43
9:CG:15:ASP:OD1	9:CG:18:TYR:HB2	2.18	0.43
9:CG:15:ASP:HB2	9:CG:20:ASP:O	2.18	0.43
7:AE:43:LEU:HB3	7:AE:136:MET:HG3	1.98	0.43
35:DO:8:LEU:O	35:DO:19:ILE:HD13	2.18	0.43
53:B6:38:LYS:HA	53:B6:48:VAL:HA	1.99	0.43
27:DD:142:VAL:HG12	27:DD:165:ILE:HD11	2.00	0.43
27:DD:142:VAL:HG23	27:DD:192:THR:O	2.18	0.43
49:D2:47:ASN:HB3	25:DA:95:G:H1'	1.98	0.43
25:DA:1173:G:H1'	25:DA:1177:A:N6	2.32	0.43
25:BA:533:G:C6	25:BA:534:U:C4	3.06	0.43
1:AA:501:C:H1'	1:AA:549:C:H1'	2.00	0.43
27:BD:183:ARG:HA	27:BD:270:ILE:HA	2.00	0.43
1:CA:1049:U:C5	16:CN:3:ARG:HB2	2.53	0.43
37:DQ:13:GLN:HG3	25:DA:954:G:H5''	1.99	0.43
1:AA:678:U:H2'	1:AA:679:C:H6	1.81	0.43
35:BO:103:ALA:H	35:BO:106:LEU:HD13	1.82	0.43
24:CX:323:ASP:O	24:CX:326:GLY:N	2.51	0.43
25:DA:2206:C:H2'	25:DA:2207:C:C6	2.49	0.43
25:BA:322:A:OP2	29:BF:169:ASN:HB2	2.18	0.43
33:DJ:15:GLU:HB2	33:DJ:66:LEU:HG	1.99	0.43
1:CA:464:G:H8	1:CA:464:G:O5'	2.00	0.43
25:DA:536:A:H2'	25:DA:537:C:H6	1.82	0.43
1:AA:790:A:H2'	1:AA:791:G:C8	2.53	0.43
41:DU:13:LYS:HG2	25:DA:1227:G:OP1	2.18	0.43
1:AA:278:G:O4'	1:AA:282:A:H1'	2.18	0.43
2:CY:46:G:H2'	2:CY:47:U:H5''	2.00	0.43
54:D7:27:GLY:O	54:D7:30:VAL:HB	2.18	0.43
25:DA:561:G:O2'	25:DA:562:U:H5'	2.18	0.43
29:DF:96:ASP:CG	29:DF:98:SER:H	2.21	0.43
38:BR:90:ARG:HH11	38:BR:117:VAL:HG13	1.82	0.43
25:BA:1517:G:H2'	25:BA:1518:C:C6	2.53	0.43
25:DA:958:U:O2	26:DB:89(B):A:H4'	2.18	0.43
21:CS:11:VAL:HG23	21:CS:38:SER:HB2	2.00	0.43
21:AS:51:VAL:O	21:AS:58:VAL:HG22	2.18	0.43
38:BR:57:ARG:HG2	38:BR:58:GLY:H	1.83	0.43
25:BA:572:A:H5''	25:BA:573:G:OP2	2.18	0.43
1:AA:862:C:O2'	1:AA:863:U:H5'	2.18	0.43
35:DO:73:ASP:OD1	35:DO:75:SER:HB3	2.18	0.43
45:DY:59:GLY:C	45:DY:61:ILE:H	2.21	0.43
14:CL:57:VAL:O	14:CL:59:LEU:HD22	2.18	0.43
30:DG:111:LEU:HB2	30:DG:112:PRO:HD3	1.99	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:872:A:C5	1:AA:874:G:C8	3.06	0.43
25:DA:2058:A:O5'	25:DA:2058:A:H8	2.01	0.43
25:DA:2578:G:H4'	25:DA:2578:G:OP2	2.17	0.43
29:DF:95:ARG:HD2	29:DF:95:ARG:O	2.18	0.43
55:D8:52:LYS:N	55:D8:53:PRO:HD2	2.32	0.43
25:BA:26:G:H1'	25:BA:515:A:H61	1.82	0.43
46:DZ:141:VAL:HA	46:DZ:144:LEU:HD23	2.00	0.43
1:AA:814:A:N7	1:AA:816:A:C5	2.86	0.43
25:BA:1812:A:H2'	25:BA:1813:G:H8	1.82	0.43
25:DA:1841:U:H2'	25:DA:1842:G:C8	2.52	0.43
1:CA:1129:C:O2'	1:CA:1130:A:P	2.76	0.43
47:D0:23:VAL:HG21	25:DA:857:C:C4'	2.40	0.43
25:DA:857:C:H2'	25:DA:858:U:C6	2.52	0.43
37:DQ:43:THR:OG1	37:DQ:46:GLN:HG3	2.17	0.43
18:CP:12:LYS:O	18:CP:13:HIS:HB2	2.18	0.43
7:CE:6:PHE:HB2	7:CE:34:VAL:CG1	2.44	0.43
7:AE:6:PHE:HB2	7:AE:34:VAL:CG1	2.44	0.43
43:BW:84:ARG:HB2	43:BW:96:ILE:CG2	2.43	0.43
38:DR:55:ALA:HA	38:DR:80:PHE:CE1	2.52	0.43
25:DA:664:C:H2'	25:DA:665:C:H6	1.82	0.43
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.52	0.43
1:CA:1250:A:C2	1:CA:1370:G:H1'	2.53	0.43
27:BD:30:GLU:HG3	27:BD:63:ARG:NH2	2.31	0.43
48:D1:73:LEU:HD23	48:D1:74:VAL:N	2.33	0.43
42:BV:25:LEU:HD23	42:BV:26:ASP:N	2.28	0.43
55:B8:58:ILE:C	55:B8:60:LEU:H	2.22	0.43
1:AA:1067:A:O5'	1:AA:1067:A:H8	2.02	0.43
43:DW:69:LEU:HD13	43:DW:107:LEU:HD23	1.99	0.43
48:B1:27:GLU:CB	48:B1:33:LYS:HA	2.48	0.43
6:AD:100:ARG:HG2	6:AD:102:ASP:OD1	2.16	0.43
36:DP:18:ARG:HD3	25:DA:1246:A:OP1	2.18	0.43
25:BA:652:U:H2'	25:BA:653:C:O4'	2.18	0.43
27:BD:142:VAL:HG12	27:BD:165:ILE:HD11	2.00	0.43
25:BA:2250:G:O4'	25:BA:2250:G:N3	2.51	0.43
37:BQ:81:VAL:HG12	37:BQ:82:ARG:N	2.33	0.43
36:DP:9:ASN:N	36:DP:10:PRO:CD	2.81	0.43
25:DA:1750:G:H2'	25:DA:1751:C:H6	1.84	0.43
46:BZ:29:TYR:HB2	46:BZ:33:LEU:O	2.17	0.43
47:D0:37:LEU:H	47:D0:60:PHE:HA	1.83	0.43
25:BA:2291:U:H2'	25:BA:2292:C:H6	1.83	0.43
25:DA:914:C:H2'	25:DA:915:C:H5'	2.00	0.43
25:BA:2561:A:H2'	25:BA:2562:U:O4'	2.17	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:478:A:C6	25:BA:480:A:C6	3.06	0.43
25:BA:1422:G:H4'	25:BA:1493:C:OP1	2.18	0.43
1:AA:78:G:H2'	1:AA:79:G:C8	2.53	0.43
25:BA:2581:G:C6	25:BA:2610:C:N3	2.87	0.43
25:DA:1754:C:H2'	25:DA:1755:A:O4'	2.17	0.43
32:BI:81:VAL:HG12	32:BI:82:ARG:N	2.34	0.43
30:BG:121:ASN:HA	30:BG:122:PRO:HD2	1.86	0.43
1:CA:114:U:H2'	1:CA:115:G:C8	2.53	0.43
25:DA:390:A:H4'	25:DA:391:G:H5'	1.99	0.43
1:AA:1415:G:H2'	1:AA:1416:G:H8	1.82	0.43
1:AA:957:U:H4'	21:AS:79:THR:HB	1.99	0.43
25:BA:1326:U:H2'	25:BA:1327:C:H6	1.83	0.43
30:DG:11:TYR:HA	30:DG:15:VAL:HB	1.99	0.43
31:DH:42:ARG:O	31:DH:52:VAL:HA	2.18	0.43
31:DH:43:VAL:HA	31:DH:52:VAL:HG22	2.00	0.43
25:DA:356:G:H2'	25:DA:357:A:C8	2.53	0.43
50:D3:55:ARG:HD3	50:D3:55:ARG:HA	1.74	0.43
24:CX:317:ILE:H	24:CX:317:ILE:HD13	1.82	0.43
28:BE:14:ILE:HD12	28:BE:14:ILE:C	2.39	0.43
25:BA:2321:G:H2'	25:BA:2321:G:N3	2.33	0.43
15:AM:82:MET:HG3	25:BA:888:C:H5'	2.00	0.43
25:BA:1600:C:O2'	25:BA:1601:G:H5'	2.18	0.43
1:CA:886:G:C4	1:CA:887:G:C8	3.06	0.43
25:DA:1792:G:N2	25:DA:1827:C:O2	2.51	0.43
13:CK:42:TRP:HZ3	13:CK:47:VAL:HG22	1.83	0.43
46:DZ:24:LEU:HA	46:DZ:25:PRO:HD2	1.82	0.43
25:DA:2443:C:O2'	25:DA:2444:G:H5'	2.18	0.43
50:D3:8:LEU:CA	50:D3:54:VAL:HG12	2.37	0.43
25:DA:768:G:O2'	25:DA:1379:A:N6	2.48	0.43
24:CX:92:LEU:HG	24:CX:348:LEU:HD22	2.00	0.43
2:CY:56:C:C1'	30:DG:76:SER:HB3	2.48	0.43
25:BA:1997:G:H2'	25:BA:1998:G:H8	1.82	0.43
51:B4:37:PRO:HA	51:B4:50:THR:O	2.18	0.43
25:BA:1190:G:C5'	25:BA:1190:G:C8	3.00	0.43
25:BA:2010:G:C5	25:BA:2011:U:C5	3.07	0.43
38:BR:10:LEU:HD22	38:BR:17:ARG:CD	2.42	0.43
25:BA:1056:G:O2'	25:BA:1086:A:H1'	2.18	0.43
25:DA:1025:G:C8	25:DA:1025:G:H5''	2.53	0.43
35:DO:61:VAL:O	35:DO:84:ALA:HB1	2.18	0.43
1:AA:976:G:H22	1:AA:136(B):C:H5''	1.83	0.43
39:DS:15:ARG:NH2	26:DB:8:U:H5''	2.28	0.43
31:DH:137:ASP:OD1	31:DH:139:GLN:HB3	2.17	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:D5:16:ARG:O	52:D5:19:ARG:HB3	2.19	0.43
53:B6:11:LEU:HB3	53:B6:24:GLU:CB	2.48	0.43
25:BA:1059:G:H3'	25:BA:1060:U:H2'	2.00	0.43
30:DG:136:ARG:NH2	25:DA:2306:C:H4'	2.31	0.43
1:AA:1060:C:H5'	16:AN:45:ARG:HH22	1.83	0.43
30:BG:16:ARG:N	30:BG:17:PRO:HD2	2.33	0.43
1:CA:1498:U:H4'	1:CA:1499:A:O5'	2.18	0.43
1:CA:370:C:N3	1:CA:392:G:C2	2.87	0.43
41:BU:45:TYR:O	41:BU:49:HIS:CD2	2.71	0.43
5:CC:8:ILE:CD1	5:CC:16:ARG:HH21	2.31	0.43
25:BA:319:C:H2'	25:BA:320:A:O4'	2.18	0.43
25:BA:579:G:N2	25:BA:1262:A:C4	2.86	0.43
27:BD:117:VAL:HG23	27:BD:128:GLY:O	2.18	0.43
25:DA:1139:G:O2'	25:DA:1140:C:H5'	2.18	0.43
27:BD:161:THR:O	27:BD:196:VAL:HG23	2.18	0.43
27:DD:117:VAL:HG23	27:DD:128:GLY:O	2.18	0.43
10:AH:97:VAL:HG13	10:AH:98:LYS:H	1.83	0.43
24:AX:323:ASP:O	24:AX:324:LEU:C	2.57	0.43
10:AH:19:VAL:CG2	10:AH:21:LYS:HG2	2.48	0.43
25:BA:1654:A:OP2	38:BR:3:HIS:NE2	2.51	0.43
25:BA:2619:C:O2'	25:BA:2620:C:H5'	2.19	0.43
29:BF:127:GLU:HB2	29:BF:196:LEU:HD12	1.99	0.43
25:DA:1278:A:H2'	25:DA:1279:G:C8	2.51	0.43
25:BA:536:A:H2'	25:BA:537:C:H6	1.81	0.43
4:AB:95:GLN:HB3	4:AB:148:TYR:HD1	1.84	0.43
1:CA:1013:G:H2'	1:CA:1015:A:OP2	2.19	0.43
4:CB:22:LYS:HA	4:CB:22:LYS:NZ	2.33	0.43
25:BA:590:A:C4	25:BA:668:G:N2	2.86	0.43
1:CA:192:U:H2'	1:CA:193:C:H6	1.82	0.43
25:DA:937:U:H2'	25:DA:938:G:O4'	2.17	0.43
25:BA:223:A:N7	25:BA:422:A:H1'	2.33	0.43
26:BB:89(A):G:C6	26:BB:89(B):A:C6	3.06	0.43
25:DA:88:G:H5'	25:DA:89:G:OP2	2.19	0.43
10:AH:23:SER:HB3	10:AH:62:TYR:HA	1.99	0.43
14:AL:27:LYS:C	14:AL:29:ALA:N	2.71	0.43
1:AA:655:A:H2'	1:AA:656:C:O4'	2.17	0.43
25:DA:2181:G:C2	25:DA:2182:G:C8	3.07	0.43
1:AA:112:G:H5'	1:AA:389:A:H4'	1.99	0.43
24:CX:118:GLU:O	24:CX:121:ALA:HB3	2.19	0.43
25:DA:430:G:H5''	25:DA:431:U:OP2	2.18	0.43
35:BO:96:THR:O	35:BO:97:ARG:C	2.56	0.43
25:DA:2748:A:C6	25:DA:2757:A:N7	2.87	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:26:G:H1'	25:DA:515:A:H61	1.82	0.43
26:BB:104:A:H4'	46:BZ:89:PHE:CE2	2.54	0.43
25:BA:301:G:H5'	25:BA:334:C:O2'	2.18	0.43
1:CA:581:G:O5'	1:CA:581:G:H8	2.01	0.43
28:DE:14:ILE:HD12	28:DE:14:ILE:C	2.39	0.43
1:CA:416:G:O5'	1:CA:416:G:H8	2.01	0.43
19:CQ:14:LYS:N	19:CQ:14:LYS:HD2	2.33	0.43
6:CD:119:GLN:HA	6:CD:119:GLN:HE21	1.81	0.43
25:BA:1615:C:C5	25:BA:1617:C:C4	3.06	0.43
41:BU:92:ARG:CZ	42:BV:11:GLN:HG3	2.49	0.43
48:D1:11:ARG:CB	48:D1:12:PRO:HD2	2.35	0.43
4:CB:84:GLU:HB3	4:CB:219:VAL:CG2	2.39	0.43
25:DA:140:A:N6	25:DA:141(A):A:N6	2.66	0.43
25:BA:2393:A:H5''	36:BP:62:LEU:HD12	2.00	0.43
18:CP:14:ASN:N	18:CP:15:PRO:HD3	2.33	0.43
22:CT:26:ASN:HB2	22:CT:71:THR:HG23	2.01	0.43
38:BR:55:ALA:HA	38:BR:80:PHE:CE1	2.52	0.43
34:BN:126:VAL:HG12	34:BN:130:LEU:CD1	2.43	0.43
8:AF:35:ALA:HA	8:AF:67:MET:HB3	2.00	0.43
1:CA:685:G:O2'	1:CA:686:U:H5'	2.18	0.43
25:DA:1021:A:C8	25:DA:1021:A:H3'	2.53	0.43
39:DS:26:LEU:C	39:DS:88:ASP:HB3	2.38	0.43
1:AA:1103:C:H2'	1:AA:1104:G:C8	2.54	0.43
1:AA:505:G:C6	1:AA:535:A:C2	3.06	0.43
25:DA:2287:A:C6	25:DA:2289:G:C4	3.07	0.43
1:CA:1065:U:O2'	1:CA:1066:C:OP2	2.33	0.43
36:DP:69:GLY:O	36:DP:70:GLN:HB2	2.18	0.43
1:AA:194:C:C2'	1:AA:195:A:H5''	2.47	0.43
34:BN:134:PRO:HA	34:BN:137:ARG:NE	2.33	0.43
6:CD:134:ASP:O	6:CD:136:PRO:HD3	2.19	0.43
25:BA:626:U:N3	36:BP:105:LEU:HB3	2.32	0.43
29:DF:24:LEU:N	29:DF:24:LEU:HD12	2.31	0.43
29:DF:22:ALA:HB1	29:DF:24:LEU:HD13	2.00	0.43
25:DA:652:U:H2'	25:DA:653:C:O4'	2.18	0.43
46:BZ:28:MET:HA	46:BZ:88:PHE:HB2	2.01	0.43
21:CS:78:ARG:HB2	21:CS:81:ARG:HG3	2.00	0.43
49:D2:61:LEU:HD23	25:DA:72:U:H6	1.83	0.43
25:BA:1173:G:H1'	25:BA:1177:A:N6	2.33	0.43
14:CL:45:LYS:HE2	14:CL:45:LYS:HB3	1.69	0.43
25:BA:2469:A:H2	25:BA:2481:G:H21	1.66	0.43
25:BA:1750:G:H2'	25:BA:1751:C:H6	1.83	0.43
25:DA:2250:G:N3	25:DA:2250:G:O4'	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DE:116:VAL:HG13	28:DE:117:MET:N	2.33	0.43
1:CA:790:A:H2'	1:CA:791:G:C8	2.53	0.43
4:CB:25:ASN:HB3	4:CB:27:LYS:HE2	2.00	0.43
30:DG:161:THR:HG22	30:DG:163:ALA:H	1.82	0.43
1:CA:277:C:OP1	19:CQ:41:LYS:HE3	2.17	0.43
54:B7:27:GLY:O	54:B7:30:VAL:HB	2.18	0.43
25:BA:2718:G:H2'	25:BA:2719:G:C8	2.54	0.43
1:CA:235:C:H2'	1:CA:236:G:C8	2.54	0.43
25:BA:2536:G:C5	25:BA:2537:U:C4	3.07	0.43
7:AE:64:ARG:HG3	7:AE:65:ASN:N	2.34	0.43
35:BO:71:ARG:NH1	40:BT:74:ARG:HH22	2.16	0.43
25:DA:950:G:C6	25:DA:968:G:N1	2.86	0.43
1:AA:367:U:O2'	1:AA:368:U:H4'	2.18	0.43
30:BG:104:GLU:O	30:BG:108:ASN:HB2	2.18	0.43
1:AA:105:G:C6	1:AA:106:C:C4	3.06	0.43
1:CA:723:U:H5''	1:CA:724:G:OP2	2.18	0.43
1:CA:384:G:H2'	1:CA:385:C:C6	2.53	0.43
25:BA:1120:G:C5	25:BA:1121:C:C4	3.06	0.43
7:CE:17:ALA:HB2	7:CE:26:PHE:CD2	2.53	0.43
27:DD:271:ILE:O	27:DD:272:ALA:HB3	2.17	0.43
25:BA:1824:G:OP1	27:BD:52:ARG:HD3	2.19	0.43
27:BD:16:MET:HE1	27:BD:208:LYS:HE2	1.99	0.43
45:BY:78:ALA:HB3	45:BY:81:LYS:HE3	1.99	0.43
37:DQ:43:THR:O	37:DQ:46:GLN:HB2	2.19	0.43
30:DG:50:ALA:O	30:DG:53:LEU:HB3	2.18	0.43
20:AR:40:LEU:HA	20:AR:43:PHE:HD1	1.83	0.43
49:D2:14:ARG:HH21	49:D2:67:LYS:HB3	1.83	0.43
25:BA:1405:U:H2'	25:BA:1406:U:H6	1.80	0.43
38:DR:17:ARG:HG3	38:DR:18:LEU:N	2.32	0.43
25:DA:1478:G:HO2'	25:DA:1558:A:H2	1.67	0.43
34:BN:88:LYS:O	34:BN:90:LEU:N	2.52	0.43
8:CF:35:ALA:HA	8:CF:67:MET:HB3	2.01	0.43
8:AF:50:TYR:CE1	20:AR:77:GLY:HA2	2.53	0.43
1:AA:1080:A:H5''	7:AE:16:THR:HG21	2.00	0.43
24:AX:13:ARG:CD	24:AX:13:ARG:H	2.29	0.43
25:DA:1858:G:H1'	25:DA:1884:A:H62	1.80	0.43
1:CA:737:A:H2'	1:CA:738:C:C6	2.54	0.43
36:DP:52:GLU:HA	36:DP:52:GLU:OE1	2.18	0.43
25:DA:2646:C:H2'	25:DA:2647:U:O4'	2.18	0.43
25:BA:1550:C:H2'	25:BA:1551:C:C6	2.53	0.43
25:DA:244:A:H2'	25:DA:245:G:O4'	2.18	0.43
6:CD:102:ASP:HA	6:CD:121:VAL:HG21	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CG:146:GLU:HA	9:CG:149:ARG:HB2	1.99	0.43
48:B1:27:GLU:HG3	48:B1:33:LYS:HE3	2.01	0.43
6:AD:100:ARG:O	6:AD:103:ASN:HB3	2.18	0.43
30:BG:134:GLY:C	30:BG:135:LEU:HD12	2.39	0.43
35:DO:22:ILE:HD12	25:DA:1952:A:C5	2.54	0.43
25:DA:638:G:C5	25:DA:651:G:C2	3.07	0.43
25:BA:597:U:H2'	25:BA:598:G:C8	2.54	0.43
25:BA:1759:A:H4'	25:BA:2715:C:O4'	2.18	0.43
44:BX:55:ASN:ND2	44:BX:55:ASN:N	2.65	0.43
25:BA:2517:C:C2	25:BA:2542:A:N1	2.87	0.43
24:AX:243:HIS:HB3	24:AX:246:THR:OG1	2.18	0.43
25:DA:616:A:O2'	25:DA:617:G:P	2.76	0.43
25:DA:579:G:N2	25:DA:1262:A:C4	2.87	0.43
27:BD:119:ALA:HA	27:BD:130:ALA:O	2.18	0.43
1:AA:1049:U:C5	16:AN:3:ARG:HB2	2.53	0.43
25:BA:1139:G:O2'	25:BA:1140:C:H5'	2.17	0.43
1:AA:114:U:H2'	1:AA:115:G:C8	2.54	0.43
1:AA:1013:G:H2'	1:AA:1015:A:OP2	2.19	0.43
19:CQ:59:ILE:HG22	19:CQ:71:PHE:HD1	1.83	0.43
38:DR:54:LEU:O	38:DR:54:LEU:HD23	2.19	0.43
25:DA:372:G:N2	25:DA:400:G:H2'	2.34	0.43
25:BA:66:C:H2'	25:BA:67:U:O4'	2.17	0.43
25:DA:2476:A:H2'	25:DA:2477:C:H5''	1.99	0.43
25:BA:2732:G:O2'	25:BA:2733:A:H5'	2.17	0.43
25:BA:950:G:C6	25:BA:968:G:N1	2.86	0.43
13:CK:97:ALA:O	13:CK:101:SER:HB3	2.18	0.43
2:CZ:24:U:H2'	2:CZ:25:C:C6	2.53	0.43
25:BA:1095:A:H2'	25:BA:1096:A:C8	2.52	0.43
31:DH:22:GLY:C	31:DH:23:ARG:HD3	2.38	0.43
34:BN:38:LEU:O	34:BN:159:GLU:HA	2.19	0.43
41:BU:57:PHE:HA	41:BU:60:LEU:HB3	1.99	0.43
9:CG:139:GLU:O	9:CG:143:ARG:HG3	2.19	0.43
25:DA:1562:A:C2	25:DA:1563:G:C4	3.07	0.43
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.32	0.43
25:BA:2706:G:H8	25:BA:2706:G:O5'	2.02	0.43
25:BA:1990:C:H2'	25:BA:1991:U:C6	2.54	0.43
45:BY:12:THR:O	45:BY:75:ILE:HG22	2.19	0.43
42:DV:35:LEU:HB3	42:DV:37:VAL:HG23	2.00	0.43
25:BA:1841:U:H2'	25:BA:1842:G:C8	2.50	0.43
45:DY:2:ARG:HG2	45:DY:3:VAL:N	2.32	0.43
30:BG:86:MET:SD	30:BG:87:PRO:HD3	2.59	0.43
36:DP:60:MET:HE3	25:DA:2392:A:H1'	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1998:G:H2'	25:BA:1999:C:H6	1.83	0.43
49:D2:14:ARG:HA	49:D2:17:SER:HB2	2.01	0.43
26:BB:43:C:H4'	30:BG:98:ARG:HH12	1.83	0.43
24:AX:106:ASP:HA	24:AX:167:ALA:HB3	2.00	0.43
45:BY:31:LEU:HA	45:BY:32:PRO:HD2	1.81	0.43
27:DD:13:ARG:NH1	27:DD:16:MET:SD	2.91	0.43
9:AG:127:ALA:HA	9:AG:135:VAL:HG21	2.00	0.43
36:BP:85:LEU:HA	36:BP:88:LEU:HB3	2.01	0.43
27:DD:35:LYS:HE3	27:DD:104:TYR:CB	2.49	0.43
55:D8:59:LYS:O	55:D8:60:LEU:HD23	2.18	0.43
24:CX:300:GLU:CG	24:CX:301:LYS:H	2.28	0.43
46:BZ:70:LEU:HD23	46:BZ:70:LEU:N	2.33	0.43
32:DI:77:LEU:O	32:DI:143:SER:HB3	2.18	0.43
1:AA:1502:A:H8	1:AA:1505:G:N2	2.15	0.43
1:CA:1493:A:N1	25:DA:1913:A:C8	2.87	0.43
1:AA:828:A:O2'	4:AB:26:PRO:HB3	2.19	0.43
53:D6:11:LEU:HB3	53:D6:24:GLU:CB	2.48	0.43
48:D1:27:GLU:HG3	48:D1:33:LYS:HE3	2.00	0.43
6:AD:134:ASP:O	6:AD:136:PRO:HD3	2.18	0.43
25:DA:1549:C:H2'	25:DA:1550:C:C6	2.54	0.43
1:AA:370:C:N3	1:AA:392:G:C2	2.86	0.43
25:BA:2887:U:H2'	25:BA:2888:C:C6	2.53	0.43
28:DE:4:ILE:HG12	28:DE:28:ALA:HB1	2.00	0.43
1:AA:261:U:H5	22:AT:79:ARG:NH1	2.16	0.43
30:DG:81:LYS:C	30:DG:82:LEU:HD23	2.39	0.43
34:DN:57:LEU:HD11	34:DN:142:ARG:HB2	2.00	0.43
24:CX:243:HIS:ND1	24:CX:245:PRO:HD2	2.34	0.43
25:BA:155:C:H2'	25:BA:161:U:H5'	2.00	0.43
40:DT:80:SER:HA	40:DT:81:PRO:HD3	1.85	0.43
24:CX:323:ASP:O	24:CX:324:LEU:C	2.56	0.43
25:BA:2020:A:C5'	52:B5:12:SER:HB3	2.47	0.43
53:D6:38:LYS:HA	53:D6:48:VAL:HA	1.99	0.43
2:CY:51:C:H2'	2:CY:52:G:C8	2.54	0.43
8:AF:60:PHE:C	8:AF:61:LEU:HD12	2.39	0.43
28:BE:104:VAL:HA	28:BE:197:ILE:O	2.18	0.43
28:BE:116:VAL:HG13	28:BE:117:MET:N	2.34	0.43
25:DA:469:G:C2'	25:DA:470:A:H5''	2.49	0.43
25:BA:2037:G:C6	25:BA:2038:G:C6	3.06	0.43
26:BB:16:G:C6	26:BB:69:G:C2	3.06	0.43
25:BA:2572:A:P	28:BE:144:ARG:HB2	2.59	0.43
4:AB:113:HIS:O	4:AB:116:GLU:HG2	2.19	0.43
25:BA:269:U:H1'	25:BA:424:G:N2	2.34	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AS:10:PHE:N	21:AS:10:PHE:CD1	2.86	0.43
25:BA:815:C:C2	25:BA:1193:G:C2	3.06	0.43
1:AA:1425:U:H2'	1:AA:1426:C:C6	2.54	0.43
30:DG:109:VAL:C	30:DG:112:PRO:HD2	2.39	0.43
25:DA:88:G:H2'	25:DA:88:G:N3	2.34	0.43
38:BR:26:LYS:HE2	38:BR:71:GLN:H	1.83	0.43
24:AX:319:PHE:HE2	24:AX:335:ILE:HG12	1.84	0.43
11:CI:3:GLN:HG2	11:CI:20:ARG:HG2	1.99	0.43
25:DA:649:G:H2'	25:DA:650:C:O4'	2.18	0.43
36:DP:81:GLN:HG2	36:DP:106:LEU:HD22	2.00	0.43
24:CX:131:TYR:HE1	24:CX:174:GLU:HG3	1.84	0.43
25:DA:30:G:H2'	25:DA:31:C:O4'	2.18	0.43
50:B3:26:LEU:HD11	50:B3:46:ASN:HB3	2.01	0.43
4:AB:124:SER:C	4:AB:126:GLU:H	2.21	0.43
45:DY:68:HIS:CE1	45:DY:70:SER:HB2	2.52	0.43
25:BA:2783:G:H22	28:BE:37:ARG:HH12	1.66	0.43
25:BA:2078:C:H2'	25:BA:2079:U:C6	2.54	0.43
1:AA:899:C:H6	1:AA:899:C:O5'	2.01	0.43
35:DO:14:THR:HG22	35:DO:14:THR:O	2.17	0.43
29:BF:95:ARG:O	29:BF:95:ARG:HD2	2.19	0.43
1:AA:945:G:H2'	1:AA:945:G:N3	2.33	0.43
1:AA:1438:G:H2'	1:AA:1439:C:H6	1.82	0.43
1:AA:723:U:H5''	1:AA:724:G:OP2	2.18	0.43
37:DQ:85:LYS:HB2	25:DA:2276:G:O3'	2.18	0.43
27:BD:231:HIS:CE1	27:BD:232:PRO:HD2	2.53	0.43
1:AA:1250:A:C2	1:AA:1370:G:H1'	2.53	0.43
52:D5:2:ALA:N	25:DA:2015:A:N3	2.67	0.43
13:AK:42:TRP:HZ3	13:AK:47:VAL:HG22	1.83	0.43
25:BA:1056:G:H21	25:BA:1103:A:H62	1.65	0.43
1:AA:1344:C:O2'	1:AA:1345:U:H5'	2.19	0.43
25:BA:2420:C:O5'	25:BA:2420:C:H6	2.02	0.43
27:BD:85:ASP:HA	27:BD:86:PRO:HD2	1.87	0.43
25:DA:2275:C:H5'	25:DA:2275:C:C6	2.46	0.43
25:DA:1658:C:N4	25:DA:2002:G:H1	2.13	0.43
25:BA:833:U:H1'	36:BP:55:ARG:NH1	2.33	0.43
25:BA:2072:G:C6	25:BA:2073:C:C4	3.07	0.43
35:BO:8:LEU:HB2	35:BO:19:ILE:CD1	2.45	0.43
25:BA:511:U:C5	25:BA:512:G:C5	3.07	0.43
43:DW:4:LYS:HG2	43:DW:106:ILE:HG22	2.01	0.43
1:AA:502:G:C6	1:AA:503:C:C4	3.07	0.43
25:BA:1023:U:O2'	25:BA:1122:G:H5''	2.18	0.43
2:AZ:47:U:H3'	2:AZ:48:C:C5'	2.49	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2543:G:H2'	25:DA:2544:G:H8	1.83	0.43
26:DB:49:C:O5'	26:DB:49:C:H6	2.00	0.43
1:AA:1203:C:OP1	16:AN:3:ARG:HD3	2.19	0.43
25:BA:1039:G:H2'	25:BA:1040:C:H6	1.82	0.43
1:AA:358:U:H6	1:AA:358:U:C5'	2.31	0.43
25:BA:469:G:C2'	25:BA:470:A:H5''	2.48	0.43
25:DA:791:C:N4	25:DA:794:G:H1'	2.33	0.43
4:CB:95:GLN:HB3	4:CB:148:TYR:HD1	1.84	0.43
25:DA:2623:G:H2'	25:DA:2624:G:C8	2.54	0.43
1:CA:551:U:H2'	1:CA:552:U:H6	1.82	0.43
25:DA:2262:U:H4'	25:DA:2328:A:C2	2.53	0.43
25:DA:273(B):G:C6	25:DA:364:C:N4	2.87	0.43
19:AQ:54:GLY:HA3	19:AQ:82:MET:HE2	2.00	0.43
25:DA:2720:U:H2'	25:DA:2721:A:C8	2.54	0.43
31:DH:154:PRO:HA	31:DH:160:LYS:O	2.17	0.43
25:DA:223:A:N7	25:DA:422:A:H1'	2.34	0.43
8:AF:5:GLU:HG3	8:AF:93:SER:OG	2.18	0.43
25:DA:1917:U:H2'	25:DA:1918:A:H8	1.83	0.43
25:DA:1326:U:H2'	25:DA:1327:C:H6	1.83	0.43
25:DA:1336:A:H2'	25:DA:1337:G:C8	2.54	0.43
25:DA:1517:G:H2'	25:DA:1518:C:C6	2.53	0.43
43:BW:88:ARG:HB3	43:BW:92:ARG:HB2	2.00	0.43
25:DA:853:G:H2'	25:DA:854:G:C8	2.53	0.43
47:B0:66:VAL:O	47:B0:81:VAL:HA	2.18	0.43
28:BE:11:MET:HE3	28:BE:186:GLY:HA2	2.01	0.43
21:AS:58:VAL:HA	21:AS:59:PRO:HD2	1.87	0.43
29:BF:116:ASP:OD2	36:BP:5:ASP:HB2	2.19	0.43
25:BA:1268:A:C2	25:BA:2013:A:C4	3.07	0.43
25:BA:449:A:C6	25:BA:450:G:C5	3.06	0.43
43:DW:65:LEU:HB2	43:DW:68:ARG:HG2	2.00	0.43
38:DR:42:LYS:O	38:DR:45:ARG:HB3	2.17	0.43
25:DA:2674:G:H2'	25:DA:2675:A:C8	2.54	0.43
39:DS:32:LEU:HD11	26:DB:30:C:OP2	2.19	0.43
29:BF:173:VAL:HG12	29:BF:174:VAL:N	2.34	0.43
1:AA:886:G:C4	1:AA:887:G:C8	3.06	0.43
25:DA:2321:G:N3	25:DA:2321:G:H2'	2.34	0.43
25:BA:836:G:O5'	25:BA:836:G:H8	2.01	0.43
50:B3:17:LYS:HD3	50:B3:17:LYS:C	2.39	0.43
46:DZ:89:PHE:CE2	26:DB:104:A:H4'	2.53	0.43
44:DX:12:VAL:HG12	44:DX:27:THR:O	2.18	0.43
25:DA:46:C:OP2	25:DA:215:G:H2'	2.19	0.43
30:BG:49:ASP:HB3	30:BG:52:ILE:HG12	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:904:C:H2'	1:AA:905:U:O4'	2.19	0.43
48:D1:11:ARG:HH11	48:D1:60:PHE:HA	1.84	0.43
45:DY:2:ARG:C	45:DY:4:LYS:H	2.22	0.43
36:DP:57:THR:HG23	36:DP:59:LEU:CB	2.48	0.43
36:DP:61:ARG:CD	36:DP:61:ARG:H	2.28	0.43
20:AR:29:PHE:CD1	20:AR:39:VAL:HG11	2.53	0.43
1:CA:1219:U:H2'	1:CA:1220:G:C8	2.53	0.43
25:BA:941:A:O2'	36:BP:35:HIS:HB3	2.18	0.43
25:BA:140:A:N6	25:BA:141(A):A:N6	2.65	0.43
27:DD:10:THR:HG23	27:DD:13:ARG:CB	2.48	0.43
25:DA:197:A:C6	25:DA:2430:A:C8	3.07	0.43
9:CG:65:ALA:O	9:CG:69:VAL:HG23	2.19	0.43
32:BI:142:VAL:HG12	32:BI:143:SER:H	1.84	0.43
25:DA:1999:C:H5''	25:DA:2723:C:O2'	2.19	0.43
27:DD:25:THR:HG21	27:DD:82:ILE:H	1.81	0.43
25:DA:114(B):A:C4	25:DA:1144:G:N7	2.87	0.43
32:BI:62:LYS:HE3	32:BI:136:VAL:CG2	2.48	0.43
1:AA:250:A:N3	1:AA:252:U:C4	2.87	0.43
25:BA:2299:G:H2'	25:BA:2300:G:H8	1.83	0.43
25:BA:1658:C:N4	25:BA:2002:G:H1	2.13	0.43
35:DO:8:LEU:HD22	35:DO:8:LEU:N	2.34	0.43
34:DN:134:PRO:HA	34:DN:137:ARG:NE	2.33	0.43
25:BA:638:G:C6	25:BA:639:U:C4	3.06	0.43
25:DA:831:G:H2'	25:DA:832:G:O4'	2.18	0.43
49:B2:48:HIS:HD2	49:B2:52:ASP:OD2	2.02	0.43
44:DX:55:ASN:ND2	44:DX:55:ASN:N	2.65	0.43
29:BF:12:LEU:HB2	29:BF:124:LEU:HD11	1.99	0.43
34:DN:122:LEU:O	34:DN:125:ALA:HB3	2.18	0.43
1:AA:453:A:C2	1:AA:454:C:C2	3.07	0.43
1:AA:37:U:OP2	14:AL:122:LYS:HG3	2.19	0.43
48:D1:82:LEU:N	48:D1:82:LEU:HD12	2.33	0.43
1:AA:1049:U:H4'	1:AA:1050:G:OP2	2.18	0.43
1:AA:434:U:H2'	1:AA:435:C:C6	2.53	0.43
25:DA:603:A:N6	25:DA:655:A:H2'	2.33	0.43
25:DA:2090:G:C6	25:DA:2091:U:C4	3.07	0.43
10:CH:19:VAL:CG2	10:CH:21:LYS:HG2	2.48	0.43
32:DI:81:VAL:HG12	32:DI:82:ARG:N	2.33	0.43
1:CA:78:G:H2'	1:CA:79:G:C8	2.53	0.43
25:DA:312:G:H5'	25:DA:331:A:H2'	1.99	0.43
4:CB:39:ILE:HD12	4:CB:39:ILE:H	1.84	0.43
5:CC:91:LEU:HB3	5:CC:99:VAL:HG11	2.01	0.43
25:BA:372:G:N2	25:BA:400:G:H2'	2.34	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CY:17(A):U:H5''	2:CY:18:G:OP2	2.19	0.43
1:AA:235:C:H2'	1:AA:236:G:C8	2.54	0.43
25:BA:1336:A:H2'	25:BA:1337:G:C8	2.54	0.43
1:CA:309:G:H2'	1:CA:310:G:H8	1.84	0.43
25:DA:1870:C:H2'	25:DA:1871:A:C8	2.53	0.43
25:BA:25:U:H5''	43:BW:80:PRO:HD3	2.00	0.43
41:DU:110:VAL:O	41:DU:114:LYS:HG2	2.19	0.43
1:AA:468:A:P	18:AP:75:ARG:HH12	2.41	0.43
1:CA:1438:G:H2'	1:CA:1439:C:H6	1.84	0.43
34:DN:108:ILE:HA	34:DN:109:PRO:HD2	1.89	0.43
26:BB:30:C:OP2	39:BS:32:LEU:HD11	2.19	0.43
55:B8:52:LYS:N	55:B8:53:PRO:HD2	2.33	0.43
21:CS:39:THR:OG1	21:CS:70:LYS:HE2	2.18	0.43
21:AS:39:THR:OG1	21:AS:70:LYS:HE2	2.18	0.43
26:DB:14:U:H1'	26:DB:107:U:H1'	2.01	0.43
1:AA:955:U:H2'	1:AA:956:U:H6	1.84	0.43
14:CL:27:LYS:C	14:CL:29:ALA:N	2.71	0.43
25:DA:270(O):G:H2'	25:DA:270(P):U:H5''	1.99	0.43
25:BA:957:A:OP1	37:BQ:76:LYS:HD2	2.19	0.43
1:CA:899:C:O5'	1:CA:899:C:H6	2.01	0.43
27:DD:43:ARG:HB2	27:DD:48:ARG:O	2.18	0.43
45:BY:90:LEU:HD23	45:BY:90:LEU:N	2.34	0.43
7:CE:20:GLN:HB3	7:CE:20:GLN:HE21	1.60	0.43
25:DA:2626:C:H42	25:DA:2777:G:H1	1.67	0.43
1:CA:979:C:H2'	16:CN:19:ARG:HH12	1.84	0.43
36:BP:58:THR:C	36:BP:60:MET:H	2.22	0.43
49:B2:14:ARG:HH21	49:B2:67:LYS:HB3	1.84	0.43
11:CI:118:LYS:C	11:CI:120:ARG:H	2.21	0.43
25:DA:1652:A:H2'	25:DA:1653:G:O4'	2.19	0.43
1:CA:1511:G:C6	1:CA:1512:U:N3	2.87	0.43
38:DR:61:HIS:CG	25:DA:2850:A:H2	2.36	0.43
2:CZ:76:A:N1	55:D8:31:HIS:NE2	2.67	0.43
25:BA:886:C:C3'	25:BA:886:C:C6	3.01	0.43
25:DA:511:U:C5	25:DA:512:G:C5	3.06	0.43
36:DP:70:GLN:N	25:DA:245:G:H5''	2.33	0.43
12:AJ:75:ILE:CG1	12:AJ:76:ASN:H	2.26	0.43
1:CA:828:A:O2'	4:CB:26:PRO:HB3	2.18	0.43
48:D1:27:GLU:CB	48:D1:33:LYS:HA	2.48	0.43
30:BG:110:ALA:O	30:BG:114:ILE:HG13	2.19	0.43
22:CT:61:SER:O	22:CT:65:LYS:HG2	2.18	0.43
27:DD:165:ILE:N	27:DD:165:ILE:HD12	2.34	0.43
1:AA:176:C:H5''	22:AT:29:LYS:HZ2	1.82	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AL:103:VAL:HG12	14:AL:104:TYR:CD1	2.53	0.43
41:DU:45:TYR:O	41:DU:49:HIS:CD2	2.72	0.43
25:BA:2050:C:H1'	28:BE:156:MET:CE	2.49	0.43
13:AK:59:TYR:CZ	13:AK:63:LEU:HD11	2.54	0.43
38:BR:24:GLN:O	38:BR:28:LEU:HB2	2.19	0.43
5:CC:86:VAL:O	5:CC:89:GLU:HB3	2.18	0.43
4:CB:17:PHE:CD1	4:CB:44:LEU:HD21	2.54	0.43
46:DZ:166:SER:HA	46:DZ:167:PRO:HD2	1.78	0.43
25:BA:322:A:H2'	29:BF:169:ASN:ND2	2.34	0.43
25:DA:1607:C:H4'	25:DA:1608:A:O5'	2.17	0.43
25:BA:2789:C:H1'	25:BA:2892:A:H2	1.83	0.43
7:AE:25:ARG:HD2	7:AE:25:ARG:N	2.33	0.43
25:DA:375:C:H2'	25:DA:376:C:C6	2.51	0.43
25:DA:2581:G:C6	25:DA:2610:C:N3	2.86	0.43
1:AA:1191:A:H2'	1:AA:1192:C:C6	2.54	0.43
25:DA:775:G:C4	25:DA:794:G:C8	3.06	0.43
25:BA:666:G:C5	25:BA:667:U:C4	3.07	0.43
1:CA:77:C:H2'	1:CA:78:G:C8	2.54	0.43
2:AZ:34:C:H5	9:AG:79:ARG:HH22	1.67	0.43
25:BA:273(A):G:C4	25:BA:273(B):G:C8	3.06	0.43
1:CA:718:G:C4	13:CK:116:HIS:ND1	2.87	0.43
1:CA:186(B):C:O2'	22:CT:89:ARG:HD2	2.18	0.43
10:AH:9:MET:SD	10:AH:32:LYS:HG2	2.59	0.43
25:BA:2720:U:H2'	25:BA:2721:A:C8	2.53	0.43
25:BA:2263:C:H2'	25:BA:2264:C:H6	1.83	0.43
35:DO:1:MET:H1	35:DO:67:LYS:HB3	1.83	0.43
41:DU:25:TRP:O	41:DU:26:GLY:C	2.57	0.43
25:DA:2718:G:H2'	25:DA:2719:G:C8	2.54	0.43
25:DA:1322:A:H2'	25:DA:1323:U:H6	1.83	0.43
25:BA:1765:C:H6	25:BA:1765:C:O5'	2.02	0.43
25:BA:1322:A:H2'	25:BA:1323:U:H6	1.84	0.43
39:DS:11:LYS:HD2	39:DS:91:PRO:HB3	2.01	0.43
37:BQ:134:ARG:O	37:BQ:135:ASP:HB2	2.18	0.43
7:AE:101:ILE:HD11	7:AE:119:LEU:HD22	2.01	0.43
24:AX:108:ILE:HA	24:AX:160:PHE:O	2.19	0.43
25:DA:2078:C:H2'	25:DA:2079:U:C6	2.54	0.43
1:CA:768:A:H5'	1:CA:1524:C:H1'	2.01	0.43
25:BA:187:G:C6	25:BA:188:G:C5	3.07	0.43
36:DP:38:GLN:CD	25:DA:943:U:OP2	2.57	0.43
1:AA:6:G:H4'	1:AA:298:A:H4'	2.01	0.43
51:D4:53:THR:O	51:D4:57:ILE:HD11	2.18	0.43
41:BU:107:ALA:O	41:BU:110:VAL:HB	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AB:7:VAL:O	4:AB:11:LEU:HG	2.18	0.43
25:BA:847:U:H3	25:BA:934:G:N2	2.17	0.43
31:BH:84:SER:HA	31:BH:133:VAL:O	2.18	0.43
1:CA:105:G:C6	1:CA:106:C:C4	3.06	0.43
25:BA:1029:A:N3	25:BA:2486:G:H1'	2.34	0.43
35:DO:96:THR:O	35:DO:97:ARG:C	2.57	0.43
15:CM:70:LEU:C	15:CM:70:LEU:HD23	2.39	0.43
1:AA:581:G:O5'	1:AA:581:G:H8	2.02	0.43
1:CA:1290:G:H2'	1:CA:1290:G:N3	2.34	0.43
43:BW:25:ARG:HB2	43:BW:25:ARG:NH1	2.33	0.43
6:AD:80:GLU:O	6:AD:84:LYS:HG2	2.19	0.43
1:CA:872:A:C5	1:CA:874:G:C8	3.06	0.43
50:B3:40:THR:O	50:B3:44:ARG:HG3	2.18	0.43
48:B1:11:ARG:HG3	48:B1:61:ARG:O	2.19	0.43
25:BA:2056:G:N2	52:B5:4:HIS:O	2.52	0.43
1:AA:1303:C:H2'	1:AA:1304:G:O4'	2.19	0.43
1:CA:939:G:H5''	9:CG:102:ARG:HH12	1.84	0.43
25:DA:1997:G:H2'	25:DA:1998:G:H8	1.84	0.43
34:BN:90:LEU:O	34:BN:111:GLU:HG3	2.19	0.43
40:DT:108:ARG:HG3	40:DT:108:ARG:H	1.68	0.43
25:DA:1022:G:O2'	25:DA:1023:U:OP2	2.37	0.43
48:D1:86:SER:CB	48:D1:90:ILE:HG12	2.49	0.43
38:DR:12:ARG:HH22	38:DR:40:LYS:HZ1	1.67	0.43
12:AJ:76:ASN:HA	12:AJ:77:PRO:HD2	1.86	0.43
9:AG:15:ASP:HB2	9:AG:20:ASP:O	2.19	0.43
48:B1:26:ARG:O	48:B1:27:GLU:HB3	2.19	0.43
43:BW:4:LYS:HG2	43:BW:106:ILE:HG22	2.01	0.43
49:D2:50:ILE:HG21	25:DA:61:G:H5'	2.00	0.43
14:AL:69:ILE:HD12	14:AL:69:ILE:N	2.34	0.43
27:BD:10:THR:HG23	27:BD:13:ARG:CB	2.49	0.43
25:BA:722:A:H2'	25:BA:723:G:C8	2.54	0.43
29:BF:186:ILE:C	29:BF:188:ARG:H	2.22	0.43
37:DQ:120:ILE:HA	37:DQ:123:HIS:HD2	1.84	0.43
14:CL:46:LYS:HG2	14:CL:47:PRO:N	2.34	0.43
1:AA:714:G:N2	1:AA:777:A:H1'	2.33	0.43
29:DF:31:HIS:O	29:DF:34:TRP:HB3	2.19	0.43
34:BN:49:LEU:HD23	34:BN:122:LEU:HD21	2.01	0.43
16:AN:3:ARG:O	16:AN:7:ILE:HG23	2.19	0.43
41:DU:75:ASN:HB3	25:DA:1011:G:OP1	2.19	0.43
4:CB:39:ILE:HD12	4:CB:39:ILE:N	2.34	0.43
25:DA:1936:A:H5''	25:DA:1936:A:N3	2.33	0.43
25:DA:1782:C:H2'	25:DA:2608:G:O2'	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2758:A:C2	25:BA:2759:G:H1'	2.54	0.43
28:DE:9:VAL:HG21	40:DT:7:ILE:HG21	2.00	0.43
1:AA:665:A:C8	1:AA:725:G:C2	3.07	0.43
2:AY:46:G:H2'	2:AY:47:U:H5''	2.01	0.43
25:BA:29:U:H1'	41:BU:11:ARG:HH12	1.84	0.43
25:BA:1283:G:H1'	25:BA:1329:U:O2	2.19	0.43
1:AA:272:C:H2'	1:AA:273:A:C8	2.53	0.43
25:BA:952:G:P	37:BQ:16:ARG:HH12	2.42	0.43
1:CA:27:G:H2'	1:CA:28:G:O4'	2.19	0.43
35:BO:122:LEU:CD2	40:BT:74:ARG:HE	2.32	0.43
40:BT:68:TYR:N	40:BT:68:TYR:HD2	2.17	0.43
41:BU:110:VAL:O	41:BU:114:LYS:HG2	2.19	0.43
2:AY:65:C:H2'	2:AY:66:C:C6	2.54	0.43
27:DD:106:ILE:H	27:DD:106:ILE:HG13	1.63	0.43
39:DS:95:HIS:HE1	26:DB:37:C:H2'	1.84	0.43
25:DA:239:U:H2'	25:DA:240:G:O4'	2.19	0.43
25:BA:30:G:H2'	25:BA:31:C:O4'	2.18	0.43
25:BA:1870:C:H2'	25:BA:1871:A:C8	2.53	0.43
45:BY:68:HIS:CE1	45:BY:70:SER:HB2	2.54	0.43
1:CA:632:A:H2'	1:CA:633:G:O4'	2.19	0.43
25:DA:15:G:C4	25:DA:16:G:C8	3.07	0.43
25:DA:802:A:C5	25:DA:803:U:C4	3.07	0.43
36:DP:98:GLU:O	36:DP:101:VAL:HG12	2.19	0.43
25:DA:273(D):C:H2'	25:DA:273(E):C:C6	2.54	0.43
25:DA:2864:G:H2'	25:DA:2865:U:O4'	2.18	0.43
38:DR:26:LYS:HE2	38:DR:71:GLN:H	1.84	0.43
6:CD:144:ASP:O	6:CD:184:LYS:HA	2.19	0.43
25:DA:733:G:O5'	25:DA:733:G:H8	2.02	0.43
7:CE:13:ILE:N	7:CE:13:ILE:HD12	2.34	0.43
1:AA:978:A:H8	1:AA:978:A:H5''	1.83	0.43
25:BA:2181:G:C2	25:BA:2182:G:C8	3.07	0.43
25:BA:2276:G:H2'	25:BA:2277:G:C8	2.54	0.42
42:BV:35:LEU:HB3	42:BV:37:VAL:HG23	2.01	0.42
1:AA:1145:C:O2'	1:AA:1146:A:P	2.77	0.42
4:AB:185:ILE:HA	4:AB:199:TYR:O	2.19	0.42
37:BQ:43:THR:O	37:BQ:46:GLN:HB2	2.18	0.42
18:AP:8:ARG:NH2	18:AP:15:PRO:HG3	2.34	0.42
1:CA:521:G:H2'	1:CA:522:C:H6	1.84	0.42
49:D2:17:SER:HB3	49:D2:18:PRO:HD3	1.97	0.42
25:BA:2415:G:C6	25:BA:2416:C:C4	3.07	0.42
1:AA:1219:U:H2'	1:AA:1220:G:C8	2.53	0.42
25:BA:570:G:H2'	25:BA:2030:A:N6	2.32	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BG:94:LEU:HD12	30:BG:98:ARG:O	2.19	0.42
25:BA:1675:C:N3	28:BE:128:SER:HB2	2.34	0.42
25:BA:2591:C:H2'	25:BA:2592:G:H8	1.83	0.42
10:AH:109:ILE:HG12	10:AH:110:ALA:N	2.34	0.42
25:BA:197:A:C6	25:BA:2430:A:C8	3.07	0.42
27:BD:32:SER:HA	27:BD:36:PRO:CG	2.47	0.42
27:DD:72:LYS:HE3	27:DD:101:GLU:HG2	2.01	0.42
34:DN:88:LYS:O	34:DN:90:LEU:N	2.52	0.42
48:D1:90:ILE:HA	48:D1:90:ILE:HD13	1.86	0.42
42:DV:17:GLY:HA2	42:DV:96:ILE:O	2.19	0.42
25:BA:2073:C:H2'	25:BA:2074:U:H6	1.84	0.42
35:BO:8:LEU:O	35:BO:19:ILE:HD13	2.19	0.42
41:BU:14:HIS:CE1	41:BU:32:PHE:CD2	3.06	0.42
15:AM:91:ARG:NH1	21:AS:81:ARG:HH12	2.16	0.42
46:DZ:28:MET:HA	46:DZ:88:PHE:HB2	2.01	0.42
1:CA:1060:C:H5'	16:CN:45:ARG:HH22	1.84	0.42
45:BY:95:LYS:HG2	45:BY:100:ALA:HA	2.01	0.42
24:AX:182:ARG:HB3	24:AX:307:PHE:HB2	2.01	0.42
5:CC:19:GLU:HG2	5:CC:40:ARG:HH22	1.84	0.42
1:CA:833:U:H2'	1:CA:834:C:H6	1.78	0.42
22:CT:50:GLU:O	22:CT:54:LYS:HB2	2.19	0.42
25:DA:2513:G:H2'	25:DA:2514:U:C6	2.54	0.42
34:BN:122:LEU:O	34:BN:125:ALA:HB3	2.19	0.42
1:AA:603:U:H2'	1:AA:604:G:H8	1.81	0.42
30:BG:47:LYS:HD3	30:BG:48:GLU:N	2.34	0.42
27:BD:161:THR:O	27:BD:162:SER:HB2	2.19	0.42
24:AX:234:THR:HG23	24:AX:235:THR:N	2.32	0.42
25:DA:2037:G:C6	25:DA:2038:G:C6	3.06	0.42
1:AA:360:A:H2'	1:AA:361:G:C8	2.55	0.42
28:BE:78:LEU:HD23	28:BE:78:LEU:N	2.33	0.42
1:AA:77:C:H2'	1:AA:78:G:C8	2.53	0.42
25:BA:1961:C:O2'	25:BA:1962:C:H5'	2.19	0.42
25:DA:1570:A:H2'	25:DA:1571:A:C8	2.53	0.42
1:CA:1015:A:H8	1:CA:1015:A:O5'	2.01	0.42
25:DA:363(G):A:H4'	25:DA:364:C:H5'	2.01	0.42
25:BA:1587:A:H2'	25:BA:1588:C:H6	1.82	0.42
37:DQ:134:ARG:O	37:DQ:135:ASP:HB2	2.19	0.42
25:BA:931:G:H3'	25:BA:931:G:H8	1.84	0.42
8:CF:5:GLU:HG3	8:CF:93:SER:OG	2.19	0.42
25:BA:262:A:H2'	25:BA:263:C:O4'	2.19	0.42
25:BA:2173:A:H2'	25:BA:2174:C:O4'	2.19	0.42
1:AA:92:G:C6	1:AA:93:U:N3	2.87	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BH:42:ARG:O	31:BH:52:VAL:HA	2.19	0.42
25:BA:2121:G:H8	25:BA:2121:G:O5'	2.02	0.42
1:AA:886:G:H2'	1:AA:887:G:O4'	2.19	0.42
43:BW:25:ARG:HH11	43:BW:25:ARG:HB2	1.84	0.42
50:D3:40:THR:O	50:D3:44:ARG:HG3	2.19	0.42
35:BO:66:LYS:HB2	35:BO:82:ASN:OD1	2.19	0.42
24:AX:130:MET:HE3	24:AX:328:LEU:HD23	2.01	0.42
18:AP:27:LYS:N	18:AP:27:LYS:HD2	2.34	0.42
19:AQ:11:VAL:HG21	19:AQ:88:TYR:CG	2.54	0.42
27:BD:105:ILE:HG12	27:BD:106:ILE:HD12	2.01	0.42
27:DD:131:LEU:HD13	27:DD:135:PHE:HB2	2.01	0.42
13:AK:97:ALA:O	13:AK:101:SER:HB3	2.18	0.42
19:CQ:3:LYS:HD3	19:CQ:60:ILE:HD11	2.01	0.42
24:CX:130:MET:HE3	24:CX:328:LEU:HD23	2.01	0.42
24:CX:319:PHE:HE2	24:CX:335:ILE:HG12	1.84	0.42
1:CA:862:C:O2'	1:CA:863:U:H5'	2.19	0.42
25:BA:1992:G:H8	25:BA:1992:G:OP1	2.02	0.42
10:CH:69:ARG:HA	10:CH:69:ARG:HD3	1.77	0.42
1:CA:198:G:C6	1:CA:220:G:C2	3.07	0.42
30:DG:137:GLU:HG2	30:DG:152:LEU:HD13	2.01	0.42
1:CA:92:G:C5	1:CA:93:U:C4	3.07	0.42
28:BE:119:ARG:HG2	28:BE:160:TYR:CG	2.53	0.42
36:DP:128:HIS:CA	36:DP:147:LEU:HB3	2.34	0.42
1:AA:1129:C:O2'	1:AA:1130:A:P	2.77	0.42
1:AA:1353:G:C2	1:AA:1370:G:C2	3.07	0.42
46:DZ:25:PRO:HG2	46:DZ:84:GLU:O	2.19	0.42
25:BA:586:A:H5'	29:BF:89:VAL:CG1	2.38	0.42
25:DA:1495:A:H5'	25:DA:1496:A:OP2	2.19	0.42
25:BA:662:G:C2	25:BA:663:G:C5	3.07	0.42
1:CA:1303:C:H2'	1:CA:1304:G:O4'	2.19	0.42
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.54	0.42
1:AA:939:G:H5''	9:AG:102:ARG:HH12	1.84	0.42
32:BI:109:ILE:N	32:BI:109:ILE:HD13	2.33	0.42
32:BI:77:LEU:O	32:BI:143:SER:HB3	2.19	0.42
27:DD:62:TYR:CG	27:DD:63:ARG:N	2.88	0.42
25:DA:1019:U:O2'	25:DA:1021:A:H2	2.03	0.42
4:CB:178:ARG:HD2	10:CH:71:GLY:C	2.39	0.42
55:B8:59:LYS:O	55:B8:60:LEU:HD23	2.18	0.42
29:BF:7:TYR:O	29:BF:8:GLN:C	2.58	0.42
25:BA:270(Q):C:HO2'	25:BA:270(R):C:H6	1.65	0.42
28:BE:4:ILE:HG12	28:BE:28:ALA:HB1	2.00	0.42
14:CL:45:LYS:HB3	14:CL:46:LYS:H	1.47	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DN:49:LEU:HD23	34:DN:122:LEU:HD21	2.01	0.42
1:CA:501:C:H2'	1:CA:502:G:C8	2.54	0.42
25:BA:617:G:C2	25:BA:618(A):G:C4	3.08	0.42
24:AX:243:HIS:ND1	24:AX:245:PRO:HD2	2.34	0.42
25:DA:155:C:H2'	25:DA:161:U:H5'	2.01	0.42
16:CN:43:CYS:O	16:CN:47:LEU:HG	2.19	0.42
36:DP:80:TYR:CZ	36:DP:111:ARG:HG2	2.54	0.42
25:DA:1039:G:H2'	25:DA:1040:C:H6	1.83	0.42
4:AB:17:PHE:CD1	4:AB:44:LEU:HD21	2.54	0.42
30:DG:55:LYS:O	30:DG:58:GLN:HG2	2.19	0.42
10:CH:97:VAL:HG13	10:CH:98:LYS:H	1.84	0.42
25:BA:340:A:H2'	25:BA:341:G:O4'	2.19	0.42
42:DV:77:ALA:O	42:DV:79:VAL:N	2.52	0.42
25:DA:470:A:H2'	25:DA:471:A:C8	2.55	0.42
25:BA:2095:C:H2'	25:BA:2096:U:C6	2.54	0.42
1:AA:1201:A:O2'	1:AA:1202:G:OP2	2.35	0.42
4:CB:27:LYS:HD3	4:CB:27:LYS:H	1.83	0.42
1:AA:542:G:H5'	6:AD:41:GLY:HA2	2.01	0.42
1:AA:438:G:O5'	1:AA:438:G:H8	2.01	0.42
19:AQ:40:LYS:HD2	19:AQ:42:TYR:CZ	2.53	0.42
1:AA:1517:G:H2'	1:AA:1518:A:C8	2.54	0.42
4:AB:217:ARG:O	4:AB:220:ASP:HB2	2.18	0.42
2:CY:21:A:O2'	2:CY:22:G:H8	2.02	0.42
25:DA:1458:C:H4'	25:DA:1459:G:C4	2.54	0.42
25:BA:2307:G:N2	25:BA:2312:U:C4	2.87	0.42
7:CE:64:ARG:HG3	7:CE:65:ASN:N	2.34	0.42
25:DA:1764:G:C2	25:DA:1765:C:C2	3.07	0.42
25:DA:2121:G:O5'	25:DA:2121:G:H8	2.02	0.42
25:DA:2122:U:H2'	25:DA:2123:G:O4'	2.19	0.42
1:AA:309:G:H2'	1:AA:310:G:H8	1.85	0.42
25:BA:853:G:H2'	25:BA:854:G:C8	2.54	0.42
1:CA:1415:G:H2'	1:CA:1416:G:H8	1.83	0.42
1:CA:952:U:H2'	1:CA:953:G:H8	1.84	0.42
41:DU:107:ALA:O	41:DU:110:VAL:HB	2.19	0.42
1:AA:298:A:C6	1:AA:299:G:N1	2.87	0.42
27:DD:105:ILE:HG12	27:DD:106:ILE:HD12	2.01	0.42
25:BA:164:U:C4	25:BA:165:U:C4	3.08	0.42
25:DA:962:G:H2'	25:DA:963:U:O4'	2.19	0.42
19:AQ:3:LYS:HD3	19:AQ:60:ILE:HD11	2.01	0.42
6:CD:80:GLU:O	6:CD:84:LYS:HG2	2.18	0.42
25:BA:2674:G:H2'	25:BA:2675:A:C8	2.55	0.42
7:AE:17:ALA:HB2	7:AE:26:PHE:CD2	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AI:75:ASP:O	11:AI:78:LYS:HB3	2.19	0.42
30:BG:137:GLU:HG2	30:BG:152:LEU:HD13	2.01	0.42
45:DY:14:LEU:HD23	45:DY:14:LEU:C	2.39	0.42
49:D2:1:MET:O	49:D2:1:MET:SD	2.77	0.42
17:AO:67:LEU:HB3	17:AO:78:TYR:HE1	1.83	0.42
1:AA:1347:G:H22	1:AA:1374:A:P	2.42	0.42
1:AA:979:C:H2'	16:AN:19:ARG:HH12	1.84	0.42
36:DP:57:THR:O	36:DP:59:LEU:N	2.52	0.42
18:CP:12:LYS:HE3	18:CP:12:LYS:HB2	1.88	0.42
28:BE:86:PRO:HB2	28:BE:87:GLU:H	1.61	0.42
14:AL:16:LYS:HD3	14:AL:17:VAL:H	1.85	0.42
25:DA:1999:C:H1'	25:DA:2687:U:H1'	2.02	0.42
1:AA:1112:C:H42	5:AC:177:THR:HA	1.83	0.42
25:BA:1151:G:C6	25:BA:1152:C:C4	3.07	0.42
27:BD:25:THR:HG22	27:BD:82:ILE:O	2.19	0.42
39:DS:28:VAL:HG21	39:DS:87:PHE:CE1	2.54	0.42
55:B8:49:VAL:HG12	55:B8:50:LEU:H	1.83	0.42
28:BE:118:LYS:HE2	38:BR:2:ARG:CZ	2.49	0.42
25:BA:1658:C:OP1	28:BE:135:HIS:NE2	2.53	0.42
12:AJ:63:PHE:CZ	16:AN:45:ARG:HG3	2.50	0.42
25:DA:2072:G:C6	25:DA:2073:C:C4	3.07	0.42
49:D2:46:GLN:HA	49:D2:46:GLN:OE1	2.19	0.42
25:BA:1144:G:H2'	25:BA:1145:C:C6	2.54	0.42
34:BN:62:ARG:HA	34:BN:63:PRO:HD2	1.86	0.42
30:DG:47:LYS:HD3	30:DG:48:GLU:N	2.34	0.42
28:BE:151:TYR:HD2	28:BE:154:LYS:HZ2	1.67	0.42
32:BI:12:LEU:N	32:BI:12:LEU:HD22	2.34	0.42
1:CA:1148:U:H4'	11:CI:14:VAL:HG11	2.01	0.42
25:BA:1188:U:H4'	42:BV:79:VAL:HG13	2.01	0.42
24:AX:234:THR:HG21	25:BA:2452:C:H4'	2.01	0.42
25:DA:340:A:H2'	25:DA:341:G:O4'	2.19	0.42
1:CA:1054:C:H3'	1:CA:1054:C:O2	2.19	0.42
25:BA:1509:A:H4'	25:BA:1510:A:N9	2.34	0.42
28:DE:78:LEU:HD23	28:DE:78:LEU:N	2.34	0.42
19:AQ:59:ILE:HG22	19:AQ:71:PHE:HD1	1.85	0.42
1:CA:696:A:H8	1:CA:696:A:O5'	2.01	0.42
25:BA:1782:C:H2'	25:BA:2608:G:O2'	2.19	0.42
1:AA:624:C:H2'	1:AA:625:G:C8	2.54	0.42
35:DO:2:ILE:HD12	35:DO:2:ILE:N	2.34	0.42
1:AA:665:A:H2'	1:AA:725:G:H22	1.82	0.42
25:BA:677:A:C6	25:BA:678:C:C4	3.08	0.42
25:DA:1313:U:H4'	25:DA:1332:G:H4'	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BH:158:HIS:HB2	31:BH:159:GLU:H	1.61	0.42
37:DQ:110:THR:HB	37:DQ:112:GLU:OE1	2.19	0.42
43:BW:75:TYR:CZ	43:BW:104:THR:HG21	2.55	0.42
35:DO:71:ARG:NH1	40:DT:74:ARG:HH22	2.16	0.42
25:DA:2529:G:O5'	25:DA:2529:G:C8	2.71	0.42
25:BA:2731:G:O2'	25:BA:2732:G:H5'	2.19	0.42
24:AX:225:SER:HB3	24:AX:253:GLN:HE22	1.85	0.42
25:BA:1917:U:H2'	25:BA:1918:A:H8	1.84	0.42
1:AA:918:A:H2'	1:AA:919:A:C8	2.54	0.42
25:BA:1919:A:O5'	25:BA:1919:A:C8	2.72	0.42
25:DA:355:G:H2'	25:DA:356:G:C8	2.54	0.42
1:CA:886:G:H2'	1:CA:887:G:O4'	2.19	0.42
2:AZ:21:A:O3'	2:AZ:22:G:H8	2.02	0.42
13:CK:94:ALA:O	13:CK:98:LEU:HG	2.18	0.42
2:CZ:21:A:O3'	2:CZ:22:G:H8	2.02	0.42
25:BA:2839:G:H2'	25:BA:2840:C:C6	2.53	0.42
23:AU:22:ARG:HA	23:AU:23:PRO:HD2	1.87	0.42
1:AA:1379:G:N1	1:AA:1380:U:C4	2.88	0.42
1:AA:1380:U:O2'	9:AG:3:ARG:HD3	2.19	0.42
29:BF:32:LEU:O	29:BF:36:VAL:HG23	2.19	0.42
25:BA:2864:G:H2'	25:BA:2865:U:O4'	2.18	0.42
1:AA:761:G:H2'	1:AA:762:C:C6	2.54	0.42
28:DE:11:MET:CB	28:DE:24:THR:HA	2.48	0.42
50:B3:10:LYS:CB	50:B3:53:LEU:HA	2.49	0.42
25:DA:2101:G:H2'	25:DA:2102:U:O4'	2.19	0.42
25:DA:187:G:C6	25:DA:188:G:C5	3.07	0.42
11:CI:75:ASP:O	11:CI:78:LYS:HB3	2.19	0.42
25:BA:2520:C:O2'	25:BA:2521:C:H5'	2.18	0.42
25:DA:947:G:H8	25:DA:947:G:O5'	2.02	0.42
36:DP:122:PRO:HA	36:DP:141:ALA:O	2.19	0.42
25:BA:979:G:C4	25:BA:982:C:N4	2.87	0.42
1:AA:416:G:O5'	1:AA:416:G:H8	2.02	0.42
25:DA:1029:A:C8	25:DA:1030:G:C8	3.07	0.42
25:BA:239:U:H2'	25:BA:240:G:O4'	2.19	0.42
6:AD:96:LEU:HD12	6:AD:139:ARG:HD2	2.01	0.42
1:AA:171:A:H2'	1:AA:172:A:C8	2.53	0.42
25:BA:2276:G:O3'	37:BQ:85:LYS:HB2	2.19	0.42
45:DY:12:THR:O	45:DY:75:ILE:HG22	2.20	0.42
41:BU:88:ILE:O	41:BU:88:ILE:HG13	2.18	0.42
1:AA:1371:G:C5	1:AA:1372:U:C5	3.08	0.42
32:BI:92:VAL:HG21	32:BI:97:ILE:HD11	2.02	0.42
25:BA:1496:A:O2'	25:BA:1497:U:H5''	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:95:ARG:NH1	40:BT:95:ARG:CG	2.74	0.42
5:AC:23:TYR:CG	5:AC:24:ALA:N	2.88	0.42
15:AM:11:ARG:NH1	30:BG:146:TYR:HB3	2.34	0.42
1:CA:1353:G:C2	1:CA:1370:G:C2	3.08	0.42
4:AB:167:PRO:HG3	4:AB:188:ALA:HB2	2.01	0.42
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.55	0.42
40:BT:48:ILE:HG22	40:BT:49:VAL:N	2.33	0.42
25:DA:1998:G:H2'	25:DA:1999:C:H6	1.84	0.42
29:DF:7:TYR:O	29:DF:8:GLN:C	2.57	0.42
34:DN:90:LEU:O	34:DN:111:GLU:HG3	2.19	0.42
45:DY:39:VAL:HB	45:DY:40:GLU:H	1.58	0.42
9:AG:71:PRO:HD3	9:AG:103:TRP:HZ3	1.84	0.42
24:CX:48:ILE:O	24:CX:52:ARG:HG3	2.20	0.42
9:CG:15:ASP:HB3	9:CG:19:GLY:N	2.34	0.42
9:CG:22:LEU:HG	9:CG:62:PHE:HE2	1.84	0.42
25:BA:1549:C:H2'	25:BA:1550:C:C6	2.54	0.42
25:BA:1682:G:C6	25:BA:1683:C:C4	3.07	0.42
25:DA:1952:A:C5	25:DA:1953:A:C6	3.07	0.42
21:AS:62:ILE:HD12	21:AS:66:MET:HG3	2.01	0.42
25:DA:1550:C:H2'	25:DA:1551:C:C6	2.54	0.42
25:BA:638:G:C5	25:BA:651:G:C2	3.07	0.42
21:CS:62:ILE:HD12	21:CS:66:MET:HG3	2.00	0.42
21:CS:63:THR:H	21:CS:66:MET:CG	2.33	0.42
1:CA:377:G:O2'	1:CA:378:G:H5'	2.20	0.42
1:AA:832:C:N4	1:AA:855:G:O6	2.51	0.42
15:CM:91:ARG:NH1	21:CS:81:ARG:HH12	2.17	0.42
30:DG:38:VAL:HG12	30:DG:39:ILE:N	2.33	0.42
28:BE:171:GLU:HG2	28:BE:185:LYS:CG	2.49	0.42
25:DA:319:C:H2'	25:DA:320:A:O4'	2.19	0.42
25:DA:533:G:C6	25:DA:534:U:C4	3.07	0.42
13:CK:59:TYR:CZ	13:CK:63:LEU:HD11	2.55	0.42
5:AC:19:GLU:HG2	5:AC:40:ARG:HH22	1.84	0.42
1:CA:37:U:OP2	14:CL:122:LYS:HG3	2.19	0.42
29:DF:185:ASP:HA	29:DF:188:ARG:HB3	2.02	0.42
36:BP:9:ASN:N	36:BP:10:PRO:CD	2.81	0.42
36:BP:80:TYR:CZ	36:BP:111:ARG:HG2	2.54	0.42
1:CA:1367:C:O2'	12:CJ:48:THR:HG21	2.19	0.42
1:CA:1513:A:H2'	1:CA:1514:C:H6	1.83	0.42
25:BA:55:G:C2	25:BA:116:C:C2	3.07	0.42
39:BS:26:LEU:HD22	39:BS:28:VAL:HG22	2.01	0.42
39:BS:28:VAL:HG21	39:BS:87:PHE:CE1	2.54	0.42
4:AB:162:ILE:HD11	4:AB:184:VAL:HG13	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2022:U:O2'	25:DA:2617:C:H5'	2.20	0.42
25:BA:412:A:N7	25:BA:2411:A:H2	2.18	0.42
25:BA:380:U:H2'	25:BA:381:G:H8	1.85	0.42
1:CA:509:A:HO2'	1:CA:510:A:P	2.41	0.42
25:DA:2825:U:H6	25:DA:2825:U:O5'	2.02	0.42
25:BA:2825:U:O5'	25:BA:2825:U:H6	2.03	0.42
27:BD:72:LYS:HE3	27:BD:101:GLU:CB	2.49	0.42
25:DA:608:A:H2'	25:DA:609(A):A:C8	2.54	0.42
19:CQ:21:VAL:HG11	19:CQ:59:ILE:HD11	2.02	0.42
28:BE:13:ARG:O	40:BT:57:PHE:HE1	2.01	0.42
25:DA:463:G:C2	25:DA:467:G:C6	3.07	0.42
35:BO:2:ILE:N	35:BO:2:ILE:HD12	2.34	0.42
1:CA:272:C:H2'	1:CA:273:A:C8	2.54	0.42
25:BA:270(L):C:O2'	25:BA:270(M):U:H5''	2.18	0.42
35:DO:122:LEU:CD2	40:DT:74:ARG:HE	2.32	0.42
2:CY:4:G:C6	2:CY:70:G:C6	3.07	0.42
24:AX:109:VAL:HB	24:AX:160:PHE:HB3	2.00	0.42
25:DA:1314:C:H2'	25:DA:1315:C:H6	1.84	0.42
25:BA:621:A:H2'	25:BA:622:G:O4'	2.19	0.42
1:CA:667:G:H4'	17:CO:51:HIS:ND1	2.34	0.42
1:AA:564:C:H5'	19:AQ:32:TYR:CE2	2.54	0.42
50:D3:10:LYS:CB	50:D3:53:LEU:HA	2.49	0.42
6:CD:88:VAL:O	6:CD:92:VAL:HG23	2.20	0.42
1:AA:1110:A:H5''	1:AA:1111:A:OP2	2.20	0.42
25:BA:2339:G:H2'	25:BA:2340:G:C8	2.54	0.42
1:CA:63:C:H5''	1:CA:383:A:H61	1.84	0.42
30:BG:19:LEU:HD11	30:BG:172:LEU:HD13	2.02	0.42
50:D3:17:LYS:HD3	50:D3:17:LYS:C	2.39	0.42
1:AA:19:C:H2'	1:AA:20:U:C6	2.55	0.42
1:CA:876:G:H2'	1:CA:877:C:C6	2.55	0.42
4:CB:164:VAL:HG12	4:CB:165:VAL:N	2.34	0.42
13:CK:43:SER:HA	13:CK:47:VAL:HG11	2.02	0.42
45:BY:2:ARG:C	45:BY:4:LYS:H	2.22	0.42
1:CA:528:C:H41	14:CL:48:ASN:CG	2.23	0.42
17:CO:33:THR:HG21	17:CO:85:LEU:HD22	2.01	0.42
25:BA:1668:A:C4	25:BA:1674:G:N7	2.87	0.42
38:DR:9:LYS:O	38:DR:10:LEU:HG	2.18	0.42
25:DA:2593:U:H2'	25:DA:2594:C:C5	2.54	0.42
9:AG:65:ALA:O	9:AG:69:VAL:HG23	2.20	0.42
1:CA:1227:A:H2	1:CA:1228:C:C2	2.36	0.42
25:BA:1565:C:O5'	27:BD:21:PHE:HE1	2.03	0.42
27:BD:62:TYR:CG	27:BD:63:ARG:N	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:886:C:C3'	25:DA:886:C:C6	3.02	0.42
25:DA:1144:G:H2'	25:DA:1145:C:C6	2.55	0.42
25:BA:204:A:OP1	25:BA:204:A:C8	2.64	0.42
25:BA:1771:C:O2'	25:BA:1786:A:H8	2.02	0.42
32:BI:133:HIS:HD2	32:BI:135:GLU:HG2	1.85	0.42
53:B6:13:CYS:SG	53:B6:24:GLU:HG3	2.59	0.42
36:BP:69:GLY:O	36:BP:70:GLN:HB2	2.19	0.42
6:AD:102:ASP:HA	6:AD:121:VAL:HG21	2.01	0.42
7:CE:92:LYS:O	7:CE:118:ILE:HD12	2.19	0.42
25:BA:639:U:H2'	25:BA:640:C:C6	2.55	0.42
1:AA:832:C:HO2'	1:AA:833:U:H6	1.66	0.42
25:DA:1759:A:H4'	25:DA:2715:C:O4'	2.19	0.42
25:BA:2250:G:H8	25:BA:2496:C:H5''	1.85	0.42
25:BA:742:G:H2'	25:BA:743:G:C8	2.50	0.42
25:DA:2514:U:H2'	25:DA:2515:C:H6	1.81	0.42
23:AU:14:TRP:HE3	23:AU:15:ARG:HG2	1.80	0.42
25:DA:2694:G:C6	25:DA:2695:C:C4	3.08	0.42
29:BF:176:LEU:HD11	29:BF:180:GLY:HA3	2.00	0.42
25:BA:2243:U:H2'	25:BA:2244:U:C5	2.54	0.42
25:DA:216:A:N7	25:DA:432:A:C6	2.87	0.42
9:AG:70:LYS:HG3	9:AG:96:GLN:HB3	2.01	0.42
24:CX:128:PHE:CE2	24:CX:158:VAL:HG11	2.55	0.42
25:DA:1509:A:H4'	25:DA:1510:A:N9	2.34	0.42
1:CA:1077:G:N1	1:CA:1081:G:C6	2.88	0.42
1:CA:555:C:H2'	1:CA:556:C:C6	2.54	0.42
25:BA:1936:A:H5''	25:BA:1936:A:N3	2.34	0.42
40:DT:29:ARG:HA	40:DT:45:PHE:O	2.19	0.42
27:BD:72:LYS:HE3	27:BD:101:GLU:HG2	2.01	0.42
25:DA:273(B):G:C2	25:DA:364:C:C4	3.08	0.42
25:DA:2758:A:C2	25:DA:2759:G:H1'	2.54	0.42
37:DQ:16:ARG:HH12	25:DA:952:G:P	2.43	0.42
25:BA:123:G:H2'	25:BA:124:G:H8	1.84	0.42
25:BA:268:C:C2	25:BA:425:G:C2	3.08	0.42
37:BQ:110:THR:HB	37:BQ:112:GLU:OE1	2.20	0.42
7:CE:101:ILE:HD11	7:CE:119:LEU:HD22	2.01	0.42
25:DA:269:U:H1'	25:DA:424:G:N2	2.35	0.42
13:AK:23:ALA:HA	13:AK:28:THR:HG23	2.02	0.42
25:BA:1728:G:O5'	25:BA:1728:G:H8	2.01	0.42
41:DU:60:LEU:HD23	41:DU:60:LEU:C	2.40	0.42
1:CA:27:G:O5'	1:CA:27:G:H8	2.03	0.42
25:BA:2261:C:C6	47:B0:16:SER:HB3	2.54	0.42
1:AA:1196:U:H3'	1:AA:1197:G:C5'	2.49	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2493:U:C4	25:BA:2494:G:C8	3.07	0.42
1:CA:918:A:H2'	1:CA:919:A:C8	2.54	0.42
31:DH:63:SER:HA	25:DA:2748:A:O2'	2.19	0.42
25:BA:187:G:C6	25:BA:188:G:N7	2.88	0.42
19:AQ:3:LYS:HB3	19:AQ:60:ILE:HD11	2.01	0.42
50:D3:26:LEU:HD11	50:D3:46:ASN:HB3	2.01	0.42
25:BA:917:A:H5'	25:BA:2268:A:H61	1.84	0.42
36:BP:122:PRO:HA	36:BP:141:ALA:O	2.19	0.42
31:BH:111:HIS:HA	31:BH:112:PRO:HD2	1.86	0.42
1:CA:904:C:H2'	1:CA:905:U:O4'	2.19	0.42
9:AG:139:GLU:O	9:AG:143:ARG:HG3	2.20	0.42
25:DA:1798:U:C4	25:DA:1819:A:C2	3.08	0.42
25:BA:111:A:H2'	25:BA:112:U:O4'	2.19	0.42
27:BD:187:GLY:C	27:BD:189:CYS:H	2.21	0.42
25:DA:1649:G:H2'	25:DA:1650:G:H8	1.85	0.42
27:BD:40:THR:HG22	27:BD:41:GLY:N	2.34	0.42
25:BA:237:C:N3	25:BA:261:G:C2	2.87	0.42
25:BA:1394:U:H6	25:BA:1394:U:H3'	1.84	0.42
25:BA:876:C:H2'	25:BA:877:U:O4'	2.20	0.42
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.55	0.42
24:CX:35:SER:HA	24:CX:38:TYR:HB2	2.00	0.42
25:DA:82:G:O2'	25:DA:83:G:H5'	2.19	0.42
18:AP:28:ARG:NH1	18:AP:28:ARG:CG	2.77	0.42
25:DA:1496:A:O2'	25:DA:1497:U:H5''	2.20	0.42
36:BP:58:THR:HG23	36:BP:61:ARG:HH21	1.84	0.42
51:D4:37:PRO:HA	51:D4:50:THR:O	2.18	0.42
20:CR:40:LEU:HA	20:CR:43:PHE:HD1	1.84	0.42
52:D5:4:HIS:HB3	25:DA:2577:A:H1'	2.02	0.42
36:DP:24:GLY:CA	36:DP:33:ARG:NH1	2.81	0.42
25:DA:570:G:H2'	25:DA:2030:A:N6	2.34	0.42
11:CI:69:GLY:O	11:CI:73:GLN:HG3	2.19	0.42
1:CA:1344:C:O2'	1:CA:1345:U:H5'	2.19	0.42
4:CB:167:PRO:HG3	4:CB:188:ALA:HB2	2.01	0.42
1:CA:673:G:H5''	8:CF:87:ARG:HH11	1.82	0.42
55:D8:54:GLU:HG2	55:D8:57:ARG:HH12	1.85	0.42
32:DI:128:LEU:HG	32:DI:142:VAL:HG21	2.01	0.42
1:CA:1103:C:H2'	1:CA:1104:G:C8	2.54	0.42
1:AA:685:G:O2'	1:AA:686:U:H5'	2.19	0.42
13:AK:21:ILE:HD13	13:AK:82:VAL:HG13	2.02	0.42
42:BV:17:GLY:HA2	42:BV:96:ILE:O	2.19	0.42
29:BF:117:ARG:HD2	29:BF:190:GLU:O	2.19	0.42
55:D8:8:LYS:HB3	55:D8:12:LYS:HE2	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CX:50:GLU:O	24:CX:54:VAL:HG23	2.20	0.42
25:DA:2299:G:H2'	25:DA:2300:G:H8	1.83	0.42
25:BA:1275:A:C4	38:BR:16:HIS:CD2	3.08	0.42
25:BA:61:G:O2'	25:BA:62:C:H5'	2.20	0.42
55:B8:8:LYS:HB3	55:B8:12:LYS:HE2	2.02	0.42
25:DA:61:G:C6	25:DA:62:C:C4	3.08	0.42
38:BR:81:ASP:O	38:BR:85:PRO:HG2	2.20	0.42
1:CA:176:C:H2'	1:CA:177:C:H6	1.83	0.42
24:AX:181:GLN:HE21	24:AX:306:ASN:HD22	1.68	0.42
38:DR:81:ASP:O	38:DR:85:PRO:HG2	2.20	0.42
25:BA:2729:G:C2	25:BA:2730:C:C2	3.07	0.42
1:CA:453:A:C2	1:CA:454:C:C2	3.08	0.42
14:AL:37:THR:HG23	14:AL:38:VAL:N	2.34	0.42
29:DF:186:ILE:C	29:DF:188:ARG:H	2.22	0.42
35:BO:103:ALA:O	35:BO:106:LEU:HD13	2.19	0.42
17:CO:41:GLU:O	17:CO:44:LYS:HB2	2.19	0.42
1:AA:935:A:H2'	1:AA:936:C:H6	1.85	0.42
32:BI:57:ARG:O	32:BI:61:ARG:HG3	2.20	0.42
1:CA:356:A:H2'	1:CA:357:G:O4'	2.20	0.42
35:DO:66:LYS:HB2	35:DO:82:ASN:OD1	2.19	0.42
25:BA:1340:U:H3'	44:BX:57:LEU:HD23	1.99	0.42
19:CQ:58:GLU:HB2	19:CQ:74:LEU:HB3	2.02	0.42
1:CA:1201:A:H4'	1:CA:1202:G:C5'	2.50	0.42
25:DA:2795:G:H3'	25:DA:2797:U:C5'	2.50	0.42
1:AA:1529:G:H4'	1:AA:1530:G:OP2	2.20	0.42
31:BH:13:LYS:CA	31:BH:13:LYS:HE2	2.49	0.42
5:AC:91:LEU:HB3	5:AC:99:VAL:HG11	2.01	0.42
6:AD:30:LYS:C	6:AD:32:ALA:N	2.73	0.42
35:DO:88:ASN:O	35:DO:91:LEU:N	2.49	0.42
18:CP:27:LYS:HD2	18:CP:27:LYS:N	2.34	0.42
19:CQ:5:VAL:HA	19:CQ:59:ILE:O	2.20	0.42
1:AA:142:G:H2'	1:AA:143:A:C8	2.54	0.42
40:BT:29:ARG:HA	40:BT:45:PHE:O	2.19	0.42
4:AB:164:VAL:HG12	4:AB:165:VAL:N	2.35	0.42
29:BF:96:ASP:CG	29:BF:98:SER:H	2.22	0.42
22:AT:89:ARG:NH2	22:AT:104:LEU:HD22	2.34	0.42
1:CA:1150:U:H1'	1:CA:1280:A:N6	2.34	0.42
49:B2:6:VAL:HA	49:B2:9:GLN:OE1	2.19	0.42
25:DA:2173:A:H2'	25:DA:2174:C:O4'	2.19	0.42
25:BA:1769:G:C6	25:BA:1984:G:O6	2.73	0.42
25:BA:2077:A:C8	25:BA:2435:A:C4	3.08	0.42
1:AA:575:G:OP1	1:AA:575:G:H4'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2748:A:O2'	31:BH:63:SER:HA	2.19	0.42
1:CA:955:U:H2'	1:CA:956:U:H6	1.83	0.42
25:BA:2094:G:H5'	32:BI:25:TYR:CD2	2.54	0.42
41:BU:96:ALA:C	41:BU:98:LEU:H	2.23	0.42
18:CP:40:ASP:HA	18:CP:41:PRO:HD2	1.80	0.42
25:BA:273(D):C:H2'	25:BA:273(E):C:C6	2.54	0.42
1:AA:63:C:H5''	1:AA:383:A:H61	1.84	0.42
37:BQ:58:PHE:CD1	37:BQ:61:GLY:HA3	2.55	0.42
30:BG:120:LEU:N	30:BG:181:ARG:H	2.17	0.42
25:DA:1392:A:N6	25:DA:1393:A:H61	2.18	0.42
26:BB:37:C:H2'	39:BS:95:HIS:HE1	1.85	0.42
18:AP:6:LEU:HD23	18:AP:17:TYR:CG	2.54	0.42
1:AA:401:C:H2'	1:AA:402:G:C8	2.54	0.42
1:AA:141:A:H1'	1:AA:182:U:C2	2.55	0.42
18:AP:40:ASP:HA	18:AP:41:PRO:HD2	1.81	0.42
1:CA:978:A:H8	1:CA:978:A:H5''	1.84	0.42
7:AE:13:ILE:N	7:AE:13:ILE:HD12	2.35	0.42
5:CC:76:VAL:HG21	5:CC:103:VAL:HG11	2.00	0.42
25:DA:486:C:C2	25:DA:495:G:C2	3.07	0.42
29:DF:173:VAL:HG12	29:DF:174:VAL:N	2.35	0.42
25:BA:2276:G:H2'	25:BA:2277:G:H8	1.85	0.42
25:BA:1792:G:N2	25:BA:1827:C:O2	2.52	0.42
1:AA:1145:C:HO2'	1:AA:1146:A:P	2.43	0.42
41:DU:88:ILE:HG13	41:DU:88:ILE:O	2.19	0.42
41:DU:90:VAL:HG13	41:DU:91:ASP:N	2.26	0.42
25:BA:2015:A:H1'	52:B5:2:ALA:CA	2.35	0.42
18:AP:12:LYS:HB2	18:AP:12:LYS:HE3	1.88	0.42
25:BA:1495:A:H5'	25:BA:1496:A:OP2	2.20	0.42
24:AX:97:LEU:N	24:AX:98:PRO:HD3	2.35	0.42
30:BG:66:GLN:HG2	30:BG:67:LYS:N	2.29	0.42
1:CA:1370:G:O2'	1:CA:1371:G:H5'	2.20	0.42
10:CH:109:ILE:HG12	10:CH:110:ALA:N	2.35	0.42
21:CS:27:GLU:HB3	21:CS:28:LYS:H	1.63	0.42
25:BA:2850:A:H2	38:BR:61:HIS:CG	2.37	0.42
31:BH:117:PRO:HA	31:BH:118:PRO:HD2	1.88	0.42
8:CF:50:TYR:CE1	20:CR:77:GLY:HA2	2.54	0.42
28:DE:128:SER:HB2	25:DA:1675:C:N3	2.34	0.42
27:DD:72:LYS:HE2	27:DD:103:ARG:NH1	2.34	0.42
46:DZ:70:LEU:N	46:DZ:70:LEU:HD23	2.34	0.42
32:DI:142:VAL:HG12	32:DI:143:SER:H	1.83	0.42
41:DU:61:TRP:O	41:DU:65:ILE:HG13	2.20	0.42
39:DS:25:ARG:CG	39:DS:88:ASP:HB2	2.49	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AD:158:ILE:O	6:AD:162:LEU:HG	2.19	0.42
13:AK:51:LYS:HB3	13:AK:51:LYS:HE2	1.88	0.42
25:DA:510:C:H2'	25:DA:511:U:O4'	2.19	0.42
1:CA:250:A:N3	1:CA:252:U:C4	2.88	0.42
24:AX:48:ILE:HA	24:AX:51:TYR:CE1	2.54	0.42
24:AX:49:ARG:HA	24:AX:52:ARG:HD2	2.02	0.42
1:CA:194:C:H5''	22:CT:65:LYS:HE2	2.02	0.42
35:DO:22:ILE:H	35:DO:41:ALA:HA	1.85	0.42
25:DA:1682:G:C6	25:DA:1683:C:C4	3.08	0.42
6:AD:11:LEU:HG	6:AD:11:LEU:H	1.63	0.42
36:DP:105:LEU:HB3	25:DA:626:U:N3	2.31	0.42
12:AJ:27:ALA:HA	12:AJ:81:THR:HG22	2.02	0.42
29:BF:12:LEU:HD13	29:BF:17:ARG:HG2	2.01	0.42
25:BA:468:G:OP2	54:B7:37:LYS:HE3	2.20	0.42
8:AF:47:ARG:NH1	8:AF:56:PRO:HB2	2.31	0.42
25:BA:747:U:OP1	52:B5:3:LYS:HD3	2.19	0.42
5:AC:86:VAL:O	5:AC:89:GLU:HB3	2.18	0.42
6:CD:9:CYS:HB3	6:CD:32:ALA:CB	2.50	0.42
25:BA:2090:G:C6	25:BA:2091:U:C4	3.07	0.42
25:BA:332:A:O2'	25:BA:333:G:P	2.78	0.42
4:AB:130:ARG:HA	4:AB:131:PRO:HD2	1.85	0.42
1:AA:1201:A:H4'	1:AA:1202:G:C5'	2.49	0.42
25:BA:330:A:O2'	25:BA:331:A:H8	2.01	0.42
1:CA:438:G:O5'	1:CA:438:G:H8	2.01	0.42
1:CA:142:G:H2'	1:CA:143:A:C8	2.54	0.42
25:DA:1919:A:O5'	25:DA:1919:A:C8	2.72	0.42
40:DT:100:TYR:HD2	40:DT:103:ARG:NE	2.16	0.42
25:DA:1331:A:C2'	25:DA:1332:G:H5''	2.49	0.42
11:AI:83:ARG:HA	11:AI:86:VAL:HG12	2.02	0.42
49:D2:6:VAL:HA	49:D2:9:GLN:OE1	2.19	0.42
25:BA:1458:C:H4'	25:BA:1459:G:C4	2.55	0.42
25:DA:268:C:C2	25:DA:425:G:C2	3.07	0.42
35:DO:122:LEU:OXT	35:DO:122:LEU:HD23	2.20	0.42
25:DA:854:G:H1	25:DA:923:C:H42	1.67	0.42
1:CA:955:U:H2'	1:CA:956:U:C6	2.55	0.42
1:AA:955:U:H2'	1:AA:956:U:C6	2.55	0.42
25:DA:2078:C:C4	25:DA:2079:U:C4	3.07	0.42
25:DA:122(A):C:H2'	25:DA:1222:C:H6	1.85	0.42
6:AD:156:GLU:O	6:AD:160:GLN:HG3	2.20	0.42
25:BA:356:G:H2'	25:BA:357:A:C8	2.54	0.42
25:BA:24:G:H1'	43:BW:77:ASP:OD1	2.19	0.42
25:BA:1649:G:N1	25:BA:2009:G:C6	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1630:G:H2'	25:DA:163(B):C:C6	2.55	0.42
47:B0:64:ASP:O	47:B0:83:PRO:HA	2.20	0.42
14:CL:26:LEU:C	14:CL:28:GLY:H	2.23	0.42
1:AA:667:G:H4'	17:AO:51:HIS:ND1	2.34	0.42
1:AA:876:G:H2'	1:AA:877:C:C6	2.55	0.42
37:DQ:58:PHE:CD1	37:DQ:58:PHE:O	2.73	0.42
1:CA:1483:A:H2	25:DA:1959:G:N3	2.17	0.42
27:DD:15:PHE:O	27:DD:17:THR:HG23	2.20	0.42
50:B3:55:ARG:HA	50:B3:55:ARG:HD3	1.76	0.42
1:AA:768:A:H5'	1:AA:1524:C:H1'	2.02	0.42
25:DA:2706:G:O5'	25:DA:2706:G:H8	2.02	0.42
53:D6:17:LYS:HD3	53:D6:17:LYS:HA	1.86	0.42
1:CA:533:A:OP1	1:CA:533:A:H3'	2.19	0.42
19:CQ:11:VAL:HG21	19:CQ:88:TYR:CG	2.54	0.42
35:BO:100:GLY:HA2	35:BO:101:PRO:HD3	1.95	0.42
27:DD:206:LEU:HD12	25:DA:1792:G:OP2	2.19	0.42
27:DD:52:ARG:HD3	25:DA:1824:G:OP1	2.19	0.42
44:DX:34:ALA:CB	44:DX:39:ILE:HD11	2.49	0.42
25:DA:141(A):A:H8	25:DA:1595:G:H21	1.68	0.42
25:DA:1692:U:O2'	25:DA:1693:U:H2'	2.19	0.42
36:BP:57:THR:O	36:BP:59:LEU:N	2.52	0.42
49:B2:14:ARG:HA	49:B2:17:SER:HB2	2.00	0.42
25:BA:1652:A:H2'	25:BA:1653:G:O4'	2.20	0.42
31:BH:35:VAL:HA	31:BH:36:PRO:HD2	1.78	0.42
46:DZ:11:GLU:OE1	46:DZ:11:GLU:HA	2.20	0.42
1:CA:1285:A:H4'	1:CA:1286:A:C5'	2.50	0.42
25:BA:1668:A:C5	25:BA:1674:G:C5	3.07	0.42
1:AA:1343:G:C6	1:AA:1344:C:N4	2.88	0.42
27:DD:72:LYS:HE3	27:DD:101:GLU:CB	2.50	0.42
1:AA:1112:C:C4	5:AC:178:LEU:HD23	2.54	0.42
45:BY:44:ILE:HG22	45:BY:45:VAL:N	2.35	0.42
1:AA:1500:A:OP2	1:AA:1505:G:OP2	2.38	0.42
25:DA:1151:G:C6	25:DA:1152:C:C4	3.07	0.42
6:CD:158:ILE:O	6:CD:162:LEU:HG	2.19	0.42
1:AA:735:C:H2'	1:AA:736:C:H6	1.82	0.42
1:AA:737:A:H2'	1:AA:738:C:C6	2.55	0.42
1:AA:67:C:H2'	1:AA:68:G:H8	1.82	0.42
1:AA:427:U:OP1	6:AD:13:ARG:NH2	2.53	0.42
24:CX:48:ILE:HA	24:CX:51:TYR:CE1	2.55	0.42
1:CA:1067:A:H1'	1:CA:1068:G:O4'	2.19	0.42
25:BA:812:C:H2'	25:BA:813:U:H6	1.85	0.42
25:DA:692:C:C2	25:DA:771:G:C2	3.07	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AG:22:LEU:HG	9:AG:62:PHE:HE2	1.84	0.42
30:DG:134:GLY:C	30:DG:135:LEU:HD12	2.40	0.42
25:DA:1059:G:H3'	25:DA:1060:U:H2'	2.00	0.42
1:CA:1521:G:H2'	1:CA:1522:U:H6	1.83	0.42
46:BZ:59:LEU:HD11	46:BZ:88:PHE:CD2	2.55	0.42
1:CA:447:G:H2'	1:CA:485:G:N2	2.35	0.42
25:BA:64:A:H2'	25:BA:65:C:C6	2.54	0.42
25:BA:1021:A:C8	25:BA:1021:A:C3'	3.03	0.42
25:BA:1019:U:O2'	25:BA:1021:A:H2	2.02	0.42
25:BA:959:A:O2'	25:BA:960:A:H5'	2.20	0.42
25:DA:2515:C:H2'	25:DA:2516:G:C8	2.53	0.42
16:CN:14:PRO:HG2	16:CN:15:LYS:H	1.85	0.42
4:AB:22:LYS:HA	4:AB:22:LYS:NZ	2.34	0.42
4:CB:162:ILE:HD11	4:CB:184:VAL:HG13	2.01	0.42
30:BG:55:LYS:O	30:BG:58:GLN:HG2	2.20	0.42
1:AA:1300:G:O2'	1:AA:1301:U:OP2	2.36	0.42
25:BA:412:A:N3	25:BA:412:A:H2'	2.34	0.42
25:DA:602:G:N2	25:DA:656:G:C4	2.88	0.42
46:BZ:102:LEU:CD2	46:BZ:137:ILE:HB	2.50	0.42
28:DE:104:VAL:HA	28:DE:197:ILE:O	2.19	0.42
42:DV:79:VAL:HG13	25:DA:1188:U:H4'	2.01	0.42
25:BA:469:G:H2'	25:BA:470:A:H5''	2.01	0.42
1:AA:1063:C:H2'	1:AA:1064:G:N7	2.35	0.42
4:CB:133:LYS:O	4:CB:137:ARG:HG2	2.20	0.42
41:BU:25:TRP:O	41:BU:26:GLY:C	2.58	0.42
1:CA:186(B):C:H2'	1:CA:186(C):C:H6	1.84	0.42
2:AY:21:A:O2'	2:AY:22:G:H8	2.02	0.42
1:CA:192:U:H1'	22:CT:103:GLY:HA2	2.01	0.42
24:CX:180:VAL:CG1	24:CX:195:SER:HB2	2.49	0.42
1:AA:192:U:H1'	22:AT:103:GLY:HA2	2.02	0.42
39:BS:11:LYS:HD2	39:BS:91:PRO:HB3	2.02	0.42
42:DV:69:LYS:HA	42:DV:88:ARG:HB3	2.00	0.42
40:DT:68:TYR:HD2	40:DT:68:TYR:N	2.16	0.42
1:AA:27:G:H2'	1:AA:28:G:O4'	2.20	0.42
30:BG:107:LEU:HA	30:BG:111:LEU:HD12	2.02	0.42
21:AS:11:VAL:HG23	21:AS:38:SER:HB2	2.01	0.42
1:CA:6:G:H4'	1:CA:298:A:H4'	2.01	0.42
7:CE:17:ALA:HA	7:CE:26:PHE:HA	2.02	0.42
27:BD:106:ILE:HG13	27:BD:106:ILE:H	1.65	0.42
1:AA:876:G:H2'	1:AA:877:C:H6	1.85	0.42
25:DA:2339:G:H2'	25:DA:2340:G:C8	2.54	0.42
25:BA:1709:U:H2'	25:BA:1710:C:C6	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BG:105:LYS:HE3	51:B4:52:SER:HB2	2.02	0.42
42:BV:62:LEU:HB3	42:BV:93:GLU:HB2	2.02	0.42
41:DU:73:GLY:O	41:DU:74:LEU:HB3	2.19	0.42
25:BA:904:C:H2'	25:BA:905:U:H6	1.83	0.42
55:B8:37:SER:OG	55:B8:40:GLU:HG2	2.19	0.42
25:DA:1107:G:H2'	25:DA:1108:U:O4'	2.18	0.42
25:DA:1709:U:H2'	25:DA:1710:C:C6	2.55	0.42
25:DA:2471:C:H2'	25:DA:2472:G:O4'	2.20	0.42
1:AA:859:A:H2'	1:AA:860:A:O4'	2.20	0.42
23:CU:18:TYR:O	23:CU:22:ARG:HB3	2.20	0.42
25:BA:1853:A:H2'	25:BA:1854:A:C8	2.55	0.42
46:BZ:141:VAL:HA	46:BZ:144:LEU:HD23	2.01	0.42
1:AA:825:G:N2	10:AH:11:THR:HG21	2.35	0.42
1:AA:609:A:C5	1:AA:610:G:C8	3.08	0.42
25:BA:2810:A:H8	25:BA:2810:A:O5'	2.02	0.42
13:CK:15:ALA:HB1	13:CK:78:GLN:HB2	2.02	0.42
1:CA:882:C:O2'	1:CA:883:C:H5'	2.20	0.42
1:AA:1130:A:C2	1:AA:1146:A:C5	3.08	0.42
1:CA:1145:C:O2'	1:CA:1146:A:P	2.77	0.42
13:CK:29:ILE:HG22	13:CK:44:SER:HB2	2.01	0.42
6:CD:108:LEU:HD12	6:CD:108:LEU:HA	1.83	0.42
50:B3:8:LEU:HD13	50:B3:31:LEU:HD12	2.02	0.42
21:AS:6:LYS:HD2	21:AS:6:LYS:N	2.35	0.42
25:DA:1190:G:C8	25:DA:1190:G:C5'	2.99	0.42
5:CC:23:TYR:CG	5:CC:24:ALA:N	2.88	0.42
36:BP:24:GLY:CA	36:BP:33:ARG:NH1	2.82	0.42
25:DA:662:G:C2	25:DA:663:G:C5	3.08	0.42
28:DE:52:LEU:O	28:DE:76:ARG:N	2.53	0.42
24:CX:106:ASP:HA	24:CX:167:ALA:HB3	2.02	0.42
38:BR:9:LYS:O	38:BR:10:LEU:HG	2.19	0.42
25:BA:1478:G:O2'	25:BA:1558:A:C2	2.71	0.42
1:CA:1371:G:C5	1:CA:1372:U:C5	3.08	0.42
35:DO:60:ALA:HA	35:DO:87:ILE:CG1	2.46	0.42
43:DW:14:PRO:C	43:DW:18:ARG:HG3	2.40	0.42
25:DA:1023:U:O2'	25:DA:1122:G:H5''	2.19	0.42
25:DA:1771:C:O2'	25:DA:1786:A:H8	2.03	0.42
48:B1:73:LEU:HD23	48:B1:74:VAL:N	2.34	0.42
38:DR:16:HIS:CD2	25:DA:1275:A:C4	3.08	0.42
9:AG:15:ASP:HB3	9:AG:19:GLY:N	2.34	0.42
25:BA:244:A:H2'	25:BA:245:G:O4'	2.19	0.42
25:DA:1441:G:N2	25:DA:1551:C:C2	2.88	0.42
34:DN:135:LEU:HD22	25:DA:558:G:C5'	2.50	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:638:G:C6	25:DA:639:U:C4	3.07	0.42
25:BA:2515:C:H2'	25:BA:2516:G:C8	2.54	0.42
4:AB:22:LYS:HZ3	4:AB:22:LYS:H	1.67	0.42
1:AA:1367:C:O2'	12:AJ:48:THR:HG21	2.20	0.42
1:CA:261:U:H5	22:CT:79:ARG:NH1	2.18	0.42
25:DA:216:A:C8	25:DA:432:A:N6	2.88	0.42
27:DD:161:THR:O	27:DD:196:VAL:HG23	2.18	0.42
25:BA:2595:G:C2	25:BA:2599:G:C6	3.08	0.42
1:CA:1300:G:H4'	1:CA:1301:U:O5'	2.20	0.42
25:DA:2789:C:H1'	25:DA:2892:A:H2	1.82	0.42
6:CD:30:LYS:C	6:CD:32:ALA:N	2.72	0.42
1:AA:359:U:H2'	1:AA:360:A:H8	1.84	0.42
25:DA:469:G:H2'	25:DA:470:A:H5''	2.02	0.42
29:DF:64:ILE:HG23	29:DF:65:TRP:N	2.35	0.42
18:CP:27:LYS:HD3	18:CP:30:GLY:HA3	2.02	0.42
25:BA:2332:U:H4'	25:BA:2336:A:N6	2.34	0.42
1:CA:624:C:H2'	1:CA:625:G:C8	2.54	0.42
1:CA:665:A:C8	1:CA:725:G:C2	3.08	0.42
40:BT:100:TYR:HD2	40:BT:103:ARG:NE	2.17	0.42
2:CZ:33:U:H4'	9:CG:84:ASN:HD22	1.83	0.42
2:AY:17(A):U:H5''	2:AY:18:G:OP2	2.19	0.42
1:CA:955:U:H2'	1:CA:956:U:O4'	2.20	0.42
14:AL:26:LEU:C	14:AL:28:GLY:H	2.22	0.42
36:DP:81:GLN:HE21	36:DP:81:GLN:HB2	1.69	0.42
6:AD:81:GLU:O	6:AD:84:LYS:HB2	2.19	0.42
25:DA:1029:A:N3	25:DA:2486:G:H1'	2.34	0.42
37:DQ:58:PHE:CD1	37:DQ:61:GLY:HA3	2.55	0.42
25:DA:2520:C:O2'	25:DA:2521:C:H5'	2.19	0.42
10:AH:100:ILE:HA	10:AH:101:PRO:HD3	1.80	0.42
19:CQ:27:PHE:CZ	19:CQ:36:ILE:HD11	2.55	0.42
1:AA:721:G:C6	1:AA:733:A:C2	3.08	0.42
25:BA:2389:G:H5''	25:BA:2390:U:O4'	2.20	0.42
15:CM:77:ASN:O	15:CM:81:LEU:HG	2.19	0.42
1:CA:1176:A:H2'	1:CA:1177:G:C8	2.55	0.42
25:BA:2350:C:H5'	55:B8:42:ARG:HD3	2.02	0.42
43:DW:80:PRO:HD3	25:DA:25:U:H5''	2.02	0.42
25:DA:904:C:H2'	25:DA:905:U:H6	1.84	0.42
22:CT:37:SER:O	22:CT:41:VAL:HG23	2.20	0.42
25:BA:599:G:H2'	25:BA:600:G:H8	1.85	0.42
1:AA:882:C:O2'	1:AA:883:C:H5'	2.19	0.42
36:DP:149:GLU:HA	36:DP:149:GLU:OE1	2.20	0.42
25:DA:2810:A:H8	25:DA:2810:A:O5'	2.03	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1290:G:H2'	1:AA:1290:G:N3	2.35	0.42
41:BU:73:GLY:O	41:BU:74:LEU:HB3	2.20	0.42
25:DA:1215:G:C5	25:DA:1216:G:N7	2.88	0.42
24:AX:118:GLU:O	24:AX:121:ALA:HB3	2.20	0.42
25:DA:2276:G:H2'	25:DA:2277:G:H8	1.85	0.42
25:DA:2276:G:H2'	25:DA:2277:G:C8	2.55	0.42
25:BA:1792:G:OP2	27:BD:206:LEU:HD12	2.20	0.42
45:DY:90:LEU:HD23	45:DY:90:LEU:N	2.35	0.42
11:CI:63:ILE:HG21	11:CI:77:ILE:HG12	2.02	0.42
13:AK:43:SER:HA	13:AK:47:VAL:HG11	2.02	0.42
37:BQ:43:THR:O	37:BQ:47:ILE:HD12	2.20	0.42
46:BZ:24:LEU:HA	46:BZ:25:PRO:HD2	1.82	0.42
25:BA:2626:C:H42	25:BA:2777:G:H1	1.68	0.42
24:CX:340:LYS:O	24:CX:344:GLN:HG3	2.19	0.42
17:AO:56:LEU:HD21	25:BA:715:G:C2	2.55	0.42
17:CO:63:ARG:HH21	17:CO:87:ILE:CG2	2.30	0.42
25:BA:1999:C:H1'	25:BA:2687:U:H1'	2.01	0.42
14:CL:84:ILE:N	14:CL:84:ILE:HD12	2.35	0.42
36:DP:23:PRO:HB2	36:DP:33:ARG:CG	2.49	0.42
1:AA:1227:A:OP2	15:AM:111:LYS:HE3	2.19	0.42
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.55	0.42
1:CA:1371:G:C6	1:CA:1372:U:C4	3.08	0.42
38:DR:10:LEU:HD22	38:DR:17:ARG:CD	2.43	0.42
22:AT:26:ASN:HB2	22:AT:71:THR:HG23	2.01	0.42
27:BD:35:LYS:HE3	27:BD:104:TYR:CB	2.49	0.42
1:AA:1054:C:O2	1:AA:1054:C:H3'	2.19	0.42
29:DF:117:ARG:HD2	29:DF:190:GLU:O	2.20	0.42
25:BA:245:G:H5''	36:BP:70:GLN:N	2.35	0.42
27:DD:154:LYS:HD3	25:DA:1818:U:O4	2.20	0.42
25:DA:1060:U:H4'	25:DA:1061:U:C3'	2.46	0.42
5:CC:19:GLU:HG3	5:CC:54:ARG:CD	2.47	0.42
29:BF:118:ALA:HB2	29:BF:123:LEU:HD22	2.00	0.42
25:DA:2887:U:H2'	25:DA:2888:C:C6	2.54	0.42
1:AA:707:C:H2'	1:AA:708:C:H6	1.85	0.42
1:AA:714:G:C6	1:AA:715:A:N1	2.88	0.42
26:DB:40:U:H1'	26:DB:45:A:H61	1.83	0.42
32:DI:12:LEU:N	32:DI:12:LEU:HD22	2.34	0.42
30:BG:81:LYS:C	30:BG:82:LEU:HD23	2.40	0.42
40:BT:80:SER:HA	40:BT:81:PRO:HD3	1.85	0.42
35:DO:103:ALA:O	35:DO:106:LEU:HD13	2.19	0.42
29:BF:165:ARG:H	29:BF:165:ARG:HG2	1.71	0.42
25:BA:2816:C:H2'	25:BA:2817:G:H8	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:551:U:H2'	1:AA:552:U:H6	1.82	0.42
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.83	0.42
27:BD:72:LYS:HE2	27:BD:103:ARG:NH1	2.34	0.42
19:AQ:21:VAL:HG11	19:AQ:59:ILE:HD11	2.02	0.42
25:BA:791:C:N4	25:BA:794:G:H1'	2.34	0.42
37:DQ:24:GLY:HA2	37:DQ:100:GLY:C	2.40	0.42
25:DA:1728:G:H8	25:DA:1728:G:O5'	2.01	0.42
25:DA:1911:U:C2	25:DA:1918:A:C2	3.08	0.42
25:BA:449:A:N6	25:BA:450:G:C6	2.87	0.42
6:CD:81:GLU:O	6:CD:84:LYS:HB2	2.20	0.42
7:AE:17:ALA:HA	7:AE:26:PHE:HA	2.02	0.42
25:DA:1216:G:N1	25:DA:1234:U:C2	2.88	0.42
25:BA:2471:C:H2'	25:BA:2472:G:O4'	2.20	0.42
47:D0:64:ASP:O	47:D0:83:PRO:HA	2.19	0.42
25:DA:1324:G:H4'	25:DA:1616:A:C2	2.54	0.42
23:AU:24:ARG:HG3	23:AU:25:LYS:N	2.35	0.42
25:BA:271(C):G:C2	25:BA:421:U:C4	3.07	0.42
25:BA:1381:G:C6	25:BA:1382:G:C6	3.07	0.42
26:BB:114:G:H2'	26:BB:115:G:H8	1.85	0.42
25:BA:486:C:C2	25:BA:495:G:C2	3.08	0.42
25:DA:52:A:H2'	25:DA:53:A:O4'	2.20	0.42
5:AC:123:GLN:O	5:AC:128:PHE:HB2	2.20	0.42
25:DA:2394:C:H6	25:DA:2394:C:O5'	2.03	0.42
1:CA:318:G:H2'	1:CA:319:G:H8	1.85	0.42
45:BY:76:CYS:HB2	45:BY:96:ILE:HD13	2.02	0.41
44:BX:10:ALA:HA	44:BX:11:PRO:HD3	1.94	0.41
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.55	0.41
11:AI:63:ILE:HG21	11:AI:77:ILE:HG12	2.02	0.41
7:CE:78:HIS:HD2	10:CH:104:ARG:HD2	1.85	0.41
17:AO:63:ARG:HH21	17:AO:87:ILE:CG2	2.32	0.41
18:CP:8:ARG:NH2	18:CP:15:PRO:HG3	2.35	0.41
5:CC:39:ILE:O	5:CC:43:LEU:HG	2.19	0.41
1:CA:243:A:C2	1:CA:246:A:C8	3.08	0.41
11:CI:79:LEU:HD22	11:CI:79:LEU:O	2.20	0.41
25:BA:443:A:H2'	29:BF:45:ARG:NH1	2.33	0.41
4:CB:178:ARG:HH21	10:CH:74:PRO:HG3	1.83	0.41
39:DS:26:LEU:HD22	39:DS:28:VAL:HG22	2.02	0.41
1:CA:427:U:OP1	6:CD:13:ARG:NH2	2.54	0.41
1:CA:1067:A:O5'	1:CA:1067:A:H8	2.02	0.41
12:AJ:3:LYS:HD2	12:AJ:77:PRO:HD3	2.02	0.41
53:B6:18:ARG:HB3	53:B6:19:ARG:H	1.74	0.41
8:AF:80:ARG:HG2	8:AF:80:ARG:H	1.71	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DG:110:ALA:O	30:DG:114:ILE:HG13	2.20	0.41
25:BA:1952:A:C5	35:BO:22:ILE:HD12	2.55	0.41
21:AS:75:ALA:HA	21:AS:76:PRO:HD2	1.82	0.41
25:DA:2073:C:H2'	25:DA:2074:U:H6	1.85	0.41
25:DA:61:G:O5'	25:DA:61:G:H8	2.02	0.41
29:BF:24:LEU:HB3	29:BF:115:ALA:HB2	2.02	0.41
32:BI:110:ASP:HA	32:BI:111:PRO:HD2	1.88	0.41
28:DE:110:GLY:CA	28:DE:162:ALA:HB2	2.50	0.41
22:AT:50:GLU:O	22:AT:54:LYS:HB2	2.20	0.41
25:BA:2513:G:H2'	25:BA:2514:U:C6	2.55	0.41
16:AN:43:CYS:O	16:AN:47:LEU:HG	2.20	0.41
25:DA:1272:A:OP2	25:DA:1647:G:OP1	2.38	0.41
8:CF:60:PHE:C	8:CF:61:LEU:HD12	2.40	0.41
10:CH:31:PHE:O	10:CH:35:ILE:HG12	2.21	0.41
1:CA:360:A:H2'	1:CA:361:G:C8	2.55	0.41
28:BE:5:LEU:HD22	28:BE:197:ILE:HG22	2.01	0.41
19:AQ:58:GLU:HB2	19:AQ:74:LEU:HB3	2.00	0.41
4:AB:133:LYS:O	4:AB:137:ARG:HG2	2.19	0.41
1:AA:815:A:C2	1:AA:1529:G:C4	3.07	0.41
7:AE:87:SER:HB3	7:AE:131:ILE:HD13	2.02	0.41
1:CA:374:A:C6	1:CA:375:U:C4	3.08	0.41
46:BZ:67:LEU:HA	46:BZ:68:PRO:HD2	1.85	0.41
25:BA:776:G:H4'	25:BA:777:A:O5'	2.20	0.41
25:DA:931:G:H8	25:DA:931:G:H3'	1.84	0.41
25:BA:268:C:H2'	25:BA:269:U:O4'	2.19	0.41
7:CE:31:LEU:HD23	7:CE:32:VAL:N	2.35	0.41
1:AA:186(G):C:H2'	1:AA:187:C:O4'	2.20	0.41
25:DA:1198:U:H2'	25:DA:1199:U:H6	1.85	0.41
25:BA:573:G:O2'	25:BA:574:C:H3'	2.20	0.41
23:AU:18:TYR:O	23:AU:22:ARG:HB3	2.19	0.41
47:B0:82:ARG:HA	47:B0:83:PRO:HD2	1.85	0.41
25:BA:2351:G:O5'	25:BA:2351:G:H8	2.03	0.41
1:AA:34:C:H2'	1:AA:35:G:C8	2.55	0.41
25:BA:1798:U:C4	25:BA:1819:A:C2	3.08	0.41
1:AA:109:A:C6	1:AA:326:G:C6	3.08	0.41
25:DA:164:U:C4	25:DA:165:U:C4	3.07	0.41
1:CA:141:A:H1'	1:CA:182:U:C2	2.54	0.41
25:DA:1455:G:C6	25:DA:2705:A:C2	3.08	0.41
25:BA:827:U:O2	25:BA:2246:G:H4'	2.20	0.41
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.55	0.41
48:D1:23:LYS:HE2	48:D1:23:LYS:HB3	1.91	0.41
19:AQ:27:PHE:CZ	19:AQ:36:ILE:HD11	2.55	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:264:U:H2'	1:AA:265:G:O4'	2.20	0.41
25:DA:1120:G:C5	25:DA:1121:C:C4	3.07	0.41
12:CJ:7:LYS:HB2	12:CJ:97:GLU:O	2.20	0.41
44:DX:43:VAL:HG23	44:DX:47:PHE:HD1	1.84	0.41
25:BA:729:G:N3	25:BA:729:G:H2'	2.34	0.41
44:BX:43:VAL:HG23	44:BX:47:PHE:HD1	1.85	0.41
1:CA:1130:A:C2	1:CA:1146:A:C5	3.08	0.41
50:B3:8:LEU:CA	50:B3:54:VAL:HG12	2.37	0.41
5:CC:149:ALA:HA	5:CC:201:TYR:O	2.20	0.41
13:AK:29:ILE:HG22	13:AK:44:SER:HB2	2.02	0.41
1:AA:528:C:H41	14:AL:48:ASN:CG	2.24	0.41
18:AP:12:LYS:O	18:AP:13:HIS:HB2	2.18	0.41
49:D2:2:LYS:H	49:D2:2:LYS:HD2	1.85	0.41
5:AC:149:ALA:HA	5:AC:201:TYR:O	2.20	0.41
32:DI:92:VAL:HG21	32:DI:97:ILE:HD11	2.01	0.41
25:BA:809:G:O2'	25:BA:810:U:H5'	2.20	0.41
30:DG:94:LEU:HD12	30:DG:98:ARG:O	2.20	0.41
25:DA:729:G:N3	25:DA:729:G:H2'	2.34	0.41
25:BA:195:A:H61	25:BA:198:C:H3'	1.85	0.41
34:BN:92:GLN:O	34:BN:94:ILE:HG13	2.20	0.41
27:DD:25:THR:HG23	27:DD:27:THR:CG2	2.47	0.41
1:CA:17:U:O2'	1:CA:1079:G:H1'	2.19	0.41
1:AA:1499:A:C2	1:AA:1500:A:C8	3.08	0.41
1:CA:1505:G:C8	1:CA:1505:G:H5''	2.55	0.41
14:CL:16:LYS:HD3	14:CL:17:VAL:H	1.85	0.41
1:AA:738:C:C4	1:AA:739:C:N4	2.88	0.41
1:AA:68:G:C2	1:AA:69:G:C4	3.08	0.41
22:AT:61:SER:O	22:AT:65:LYS:HG2	2.20	0.41
25:DA:1817:G:C6	25:DA:1818:U:C4	3.09	0.41
35:BO:22:ILE:H	35:BO:41:ALA:HA	1.85	0.41
40:DT:41:ARG:CD	40:DT:42:ILE:H	2.31	0.41
14:CL:35:VAL:HG22	14:CL:81:VAL:HG12	2.02	0.41
9:AG:12:LEU:CD2	9:AG:12:LEU:H	2.30	0.41
25:DA:284:U:H2'	25:DA:285:C:H6	1.84	0.41
25:DA:1980:G:C5'	25:DA:1980:G:C8	3.04	0.41
37:BQ:137:TYR:HB3	46:BZ:76:LEU:HD21	2.02	0.41
14:AL:83:LEU:CD1	14:AL:103:VAL:HG11	2.49	0.41
14:AL:35:VAL:HG22	14:AL:81:VAL:HG12	2.01	0.41
1:CA:716:A:C6	1:CA:717:C:C4	3.08	0.41
25:DA:2729:G:C2	25:DA:2730:C:C2	3.08	0.41
1:CA:707:C:H2'	1:CA:708:C:H6	1.85	0.41
25:BA:970:C:H6	25:BA:970:C:O5'	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DU:33:ARG:O	41:DU:34:LYS:C	2.58	0.41
39:DS:93:LYS:HZ1	25:DA:2293:C:H4'	1.83	0.41
25:DA:1422:G:H4'	25:DA:1493:C:OP1	2.19	0.41
29:DF:169:ASN:HB2	25:DA:322:A:OP2	2.20	0.41
1:AA:643:C:H5'	10:AH:31:PHE:CD1	2.55	0.41
35:DO:64:ARG:HG2	35:DO:79:PHE:CE1	2.55	0.41
35:DO:64:ARG:O	35:DO:82:ASN:HA	2.20	0.41
28:BE:116:VAL:HG13	28:BE:117:MET:H	1.84	0.41
37:DQ:138:ASP:HB2	37:DQ:139:GLU:H	1.67	0.41
25:BA:2562:U:H1'	35:BO:23:ARG:NH1	2.35	0.41
1:CA:1529:G:H4'	1:CA:1530:G:OP2	2.20	0.41
1:CA:1081:G:H2'	1:CA:1082:G:H8	1.85	0.41
25:DA:2095:C:H2'	25:DA:2096:U:C6	2.55	0.41
28:DE:152:LYS:HE2	28:DE:152:LYS:HB3	1.93	0.41
4:AB:39:ILE:H	4:AB:39:ILE:HD12	1.85	0.41
25:DA:2099:U:H2'	25:DA:2100:G:C8	2.54	0.41
25:BA:2337:G:C2	25:BA:2338:G:C8	3.08	0.41
25:DA:2508:G:C4	25:DA:2509:G:C8	3.08	0.41
25:DA:273(A):G:C4	25:DA:273(B):G:C8	3.08	0.41
39:DS:90:GLY:O	39:DS:91:PRO:C	2.59	0.41
25:DA:2731:G:O2'	25:DA:2732:G:H5'	2.19	0.41
15:CM:106:ASN:HB2	15:CM:107:ALA:H	1.55	0.41
25:BA:1516:U:H2'	25:BA:1517:G:H8	1.84	0.41
1:CA:1263:C:H2'	1:CA:1264:C:C6	2.55	0.41
25:DA:262:A:H2'	25:DA:263:C:O4'	2.19	0.41
35:BO:122:LEU:OXT	35:BO:122:LEU:HD23	2.19	0.41
24:AX:108:ILE:O	24:AX:201:VAL:HA	2.20	0.41
30:DG:107:LEU:HA	30:DG:111:LEU:HD12	2.02	0.41
25:BA:25:U:H5'	43:BW:79:GLY:HA2	2.02	0.41
1:CA:92:G:C6	1:CA:93:U:N3	2.89	0.41
25:BA:2675:A:OP1	35:BO:31:LYS:HB2	2.20	0.41
13:AK:34:ASP:C	13:AK:36:ASP:H	2.24	0.41
54:D7:18:PHE:CE2	54:D7:22:MET:HG3	2.55	0.41
29:DF:116:ASP:OD2	36:DP:5:ASP:HB2	2.20	0.41
24:AX:131:TYR:HE1	24:AX:174:GLU:HG3	1.83	0.41
26:BB:14:U:H1'	26:BB:107:U:H1'	2.02	0.41
25:DA:1783:A:C2	25:DA:2587:A:C5	3.08	0.41
25:BA:122(A):C:H2'	25:BA:1222:C:H6	1.85	0.41
1:CA:424:G:O5'	1:CA:424:G:H8	2.03	0.41
25:BA:2751:G:H2'	25:BA:2751:G:N3	2.35	0.41
25:BA:2394:C:H6	25:BA:2394:C:O5'	2.03	0.41
25:DA:1992:G:H8	25:DA:1992:G:OP1	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DS:48:LEU:HD12	39:DS:48:LEU:N	2.35	0.41
25:DA:301:G:H5'	25:DA:334:C:O2'	2.20	0.41
25:DA:593:G:C6	25:DA:594:U:C4	3.08	0.41
41:BU:95:LEU:HD13	42:BV:4:ILE:HD12	2.02	0.41
1:AA:1285:A:H4'	1:AA:1286:A:C5'	2.51	0.41
1:AA:1371:G:C6	1:AA:1372:U:C4	3.08	0.41
48:B1:11:ARG:HH11	48:B1:60:PHE:HA	1.85	0.41
46:BZ:77:ASP:HB2	46:BZ:84:GLU:CG	2.37	0.41
14:CL:54:VAL:HG12	14:CL:55:ALA:H	1.85	0.41
24:CX:96:LEU:O	24:CX:96:LEU:HD13	2.21	0.41
30:BG:75:LYS:HB3	30:BG:76:SER:H	1.52	0.41
17:AO:33:THR:HA	17:AO:63:ARG:NH1	2.21	0.41
25:DA:2488:A:H2'	25:DA:2489:G:O4'	2.20	0.41
5:AC:21:ARG:HG3	5:AC:58:GLU:HG2	2.03	0.41
1:AA:1432:G:OP1	40:BT:107:ASP:HB2	2.19	0.41
38:BR:10:LEU:HB2	38:BR:17:ARG:NE	2.34	0.41
51:B4:59:VAL:HG12	51:B4:60:GLU:N	2.28	0.41
27:DD:80:ALA:HB3	27:DD:96:HIS:HD1	1.84	0.41
1:CA:1432:G:OP1	40:DT:108:ARG:HG3	2.20	0.41
5:AC:111:LEU:HD23	5:AC:141:VAL:HG13	2.01	0.41
25:DA:1019:U:H3	25:DA:114(B):A:H62	1.68	0.41
34:DN:92:GLN:O	34:DN:94:ILE:HG13	2.20	0.41
1:AA:698:G:C6	1:AA:699:C:C4	3.08	0.41
37:DQ:127:ILE:HG22	37:DQ:128:LYS:O	2.20	0.41
29:DF:117:ARG:NH2	29:DF:187:VAL:HA	2.32	0.41
25:DA:582:G:C2	25:DA:1259:G:C2	3.07	0.41
25:BA:270(S):G:O2'	25:BA:270(T):G:H8	2.03	0.41
25:DA:1357:U:H2'	25:DA:1358:G:O4'	2.20	0.41
45:DY:95:LYS:HG2	45:DY:100:ALA:HA	2.01	0.41
25:DA:2054:A:C2	25:DA:2616:C:C2	3.08	0.41
29:DF:12:LEU:HD13	29:DF:17:ARG:HG2	2.02	0.41
25:DA:782:A:H4'	25:DA:783:A:O5'	2.20	0.41
37:DQ:13:GLN:HB2	25:DA:910:A:C8	2.56	0.41
25:DA:2170:A:H8	25:DA:2170:A:O5'	2.03	0.41
38:DR:24:GLN:O	38:DR:28:LEU:HB2	2.20	0.41
36:DP:29:LYS:HD2	36:DP:29:LYS:N	2.35	0.41
26:BB:40:U:H1'	26:BB:45:A:H61	1.82	0.41
35:BO:34:THR:O	35:BO:35:VAL:C	2.59	0.41
25:DA:2114:A:H3'	25:DA:2115:G:C8	2.56	0.41
25:BA:530:G:C6	25:BA:2022:U:H5''	2.55	0.41
27:DD:76:PRO:HA	27:DD:118:VAL:HG23	2.02	0.41
37:BQ:138:ASP:HB2	37:BQ:139:GLU:H	1.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:359:U:H2'	1:CA:360:A:C8	2.55	0.41
2:AY:51:C:H2'	2:AY:52:G:C8	2.55	0.41
1:CA:1054:C:C2'	1:CA:1055:A:H5''	2.51	0.41
1:CA:1080:A:H5''	7:CE:16:THR:HG21	2.01	0.41
25:BA:1599:C:OP2	44:BX:36:LYS:HD3	2.21	0.41
22:CT:89:ARG:NH2	22:CT:104:LEU:HD22	2.35	0.41
18:CP:26:ARG:HB3	18:CP:27:LYS:H	1.67	0.41
43:BW:20:VAL:O	43:BW:23:LEU:HB2	2.20	0.41
37:BQ:24:GLY:HA2	37:BQ:100:GLY:C	2.40	0.41
41:BU:8:VAL:HG12	41:BU:12:ARG:HG3	2.02	0.41
25:DA:2476:A:N3	25:DA:2476:A:H3'	2.36	0.41
25:DA:2536:G:C5	25:DA:2537:U:C4	3.08	0.41
1:CA:1196:U:H3'	1:CA:1197:G:C5'	2.50	0.41
25:BA:78:A:H2'	25:BA:79:G:H8	1.85	0.41
1:AA:955:U:H2'	1:AA:956:U:O4'	2.20	0.41
17:CO:54:ARG:NH1	17:CO:58:MET:SD	2.93	0.41
1:CA:564:C:H5'	19:CQ:32:TYR:CE2	2.54	0.41
1:CA:19:C:H2'	1:CA:20:U:C6	2.55	0.41
25:BA:1297:C:OP1	25:BA:2710:C:H4'	2.21	0.41
1:AA:1011:G:C5	1:AA:1012:U:C4	3.09	0.41
12:CJ:18:ALA:O	12:CJ:22:LYS:HB2	2.21	0.41
41:DU:96:ALA:C	41:DU:98:LEU:H	2.22	0.41
2:CY:72:A:C6	2:CY:73:A:C6	3.08	0.41
1:AA:533:A:OP1	1:AA:533:A:H3'	2.20	0.41
44:BX:82:GLN:O	44:BX:82:GLN:HG3	2.20	0.41
25:DA:2751:G:H2'	25:DA:2751:G:N3	2.35	0.41
1:AA:1037:C:H6	1:AA:1037:C:O5'	2.03	0.41
44:DX:82:GLN:O	44:DX:82:GLN:HG3	2.20	0.41
25:BA:2093:G:C6	25:BA:2225:A:C8	3.09	0.41
28:DE:120:TRP:CD1	28:DE:155:LYS:HB3	2.56	0.41
44:DX:44:GLU:HA	44:DX:49:VAL:O	2.21	0.41
48:B1:19:GLN:NE2	48:B1:41:ARG:HE	2.18	0.41
11:AI:73:GLN:O	11:AI:77:ILE:HG13	2.21	0.41
25:BA:1540:G:N1	25:BA:1541:U:H1'	2.35	0.41
11:CI:17:VAL:HG13	11:CI:63:ILE:HD11	2.03	0.41
13:CK:44:SER:OG	13:CK:47:VAL:HG23	2.20	0.41
25:BA:2015:A:N3	52:B5:2:ALA:N	2.68	0.41
14:AL:54:VAL:HG12	14:AL:55:ALA:H	1.84	0.41
36:DP:58:THR:C	36:DP:60:MET:H	2.24	0.41
25:BA:2488:A:H2'	25:BA:2489:G:O4'	2.20	0.41
1:CA:1347:G:H22	1:CA:1374:A:P	2.43	0.41
11:AI:79:LEU:O	11:AI:79:LEU:HD22	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1343:G:C6	1:CA:1344:C:N4	2.88	0.41
25:BA:681:G:H2'	25:BA:682:G:C8	2.56	0.41
26:BB:8:U:H5''	39:BS:15:ARG:NH2	2.29	0.41
34:DN:92:GLN:HE21	25:DA:1022:G:H8	1.69	0.41
55:B8:54:GLU:HG2	55:B8:57:ARG:HH12	1.85	0.41
1:CA:68:G:H2'	1:CA:69:G:C8	2.56	0.41
14:CL:76:LEU:HD11	14:CL:106:ALA:HA	2.02	0.41
25:BA:2399:G:C6	25:BA:2400:G:C5	3.07	0.41
25:DA:833:U:H2'	25:DA:834:C:H6	1.79	0.41
25:BA:510:C:H2'	25:BA:511:U:O4'	2.20	0.41
28:DE:103:ASP:OD2	28:DE:201:THR:HA	2.20	0.41
34:DN:116:THR:HG23	34:DN:117:HIS:N	2.33	0.41
34:DN:117:HIS:HA	34:DN:118:PRO:HD2	1.80	0.41
34:BN:117:HIS:HA	34:BN:118:PRO:HD2	1.79	0.41
25:BA:2694:G:C6	25:BA:2695:C:C4	3.08	0.41
1:CA:714:G:N2	1:CA:777:A:H1'	2.35	0.41
4:AB:20:GLU:HB2	4:AB:190:THR:HB	2.03	0.41
4:AB:19:HIS:CD2	4:AB:20:GLU:N	2.87	0.41
25:DA:2250:G:H8	25:DA:2496:C:H5''	1.85	0.41
25:DA:412:A:N7	25:DA:2411:A:H2	2.17	0.41
8:AF:17:SER:O	8:AF:21:LEU:HD23	2.21	0.41
25:DA:1014:U:H2'	25:DA:1015:G:H8	1.85	0.41
35:BO:64:ARG:HG2	35:BO:79:PHE:CE1	2.55	0.41
32:DI:79:ILE:HG22	32:DI:81:VAL:CG2	2.51	0.41
25:DA:310:A:HO2'	25:DA:311:A:P	2.43	0.41
29:DF:164:ARG:NH2	29:DF:177:ALA:HA	2.36	0.41
41:DU:79:PHE:HE2	41:DU:106:PHE:CZ	2.39	0.41
25:DA:1945:G:C4	25:DA:1946:U:C5	3.08	0.41
19:AQ:5:VAL:HA	19:AQ:59:ILE:O	2.20	0.41
25:DA:123:G:H2'	25:DA:124:G:H8	1.85	0.41
25:DA:1453:A:H62	25:DA:2703:C:H41	1.67	0.41
25:DA:2332:U:H4'	25:DA:2336:A:N6	2.35	0.41
25:BA:123:G:H2'	25:BA:124:G:C8	2.56	0.41
7:CE:45:PHE:CD2	7:CE:47:LYS:HD2	2.55	0.41
49:D2:6:VAL:HA	49:D2:9:GLN:CD	2.40	0.41
4:CB:113:HIS:O	4:CB:116:GLU:HG2	2.20	0.41
12:CJ:25:GLU:O	12:CJ:29:ARG:HB3	2.20	0.41
28:DE:176:ILE:HA	28:DE:177:PRO:HD2	1.84	0.41
1:AA:1197:G:C2	1:AA:1198:G:C8	3.08	0.41
25:DA:78:A:H2'	25:DA:79:G:H8	1.86	0.41
24:CX:108:ILE:HA	24:CX:160:PHE:O	2.19	0.41
29:DF:85:GLY:HA2	25:DA:449:A:OP1	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DU:11:ARG:HH12	25:DA:29:U:H1'	1.85	0.41
1:CA:1414:U:H2'	1:CA:1415:G:H8	1.86	0.41
6:CD:175:SER:OG	6:CD:184:LYS:HB2	2.21	0.41
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.20	0.41
1:AA:632:A:H2'	1:AA:633:G:O4'	2.20	0.41
1:AA:544:G:C6	1:AA:545:C:C4	3.09	0.41
25:BA:2836:U:C4	25:BA:2883:A:N6	2.88	0.41
25:BA:802:A:C5	25:BA:803:U:C4	3.07	0.41
25:DA:2082:A:H2'	25:DA:2083:G:O4'	2.20	0.41
25:DA:893:C:H2'	25:DA:894:C:C6	2.55	0.41
6:CD:96:LEU:HD12	6:CD:139:ARG:HD2	2.01	0.41
1:AA:670:G:H2'	1:AA:671:G:O4'	2.20	0.41
37:BQ:77:LYS:HA	37:BQ:78:PRO:HD3	1.78	0.41
15:AM:40:ASN:HA	15:AM:41:PRO:HD3	1.96	0.41
1:CA:1110:A:H5''	1:CA:1111:A:OP2	2.20	0.41
16:AN:52:GLN:O	16:AN:53:LEU:HD23	2.20	0.41
34:DN:38:LEU:O	34:DN:159:GLU:HA	2.20	0.41
1:CA:670:G:H2'	1:CA:671:G:O4'	2.21	0.41
15:AM:115:LYS:HD3	15:AM:115:LYS:N	2.36	0.41
25:DA:1394:U:H3'	25:DA:1394:U:H6	1.85	0.41
53:B6:42:TRP:HA	53:B6:42:TRP:CE3	2.55	0.41
25:DA:2355:C:O5'	25:DA:2355:C:H6	2.04	0.41
11:AI:112:LYS:C	11:AI:112:LYS:HD3	2.40	0.41
36:BP:149:GLU:HA	36:BP:149:GLU:OE1	2.20	0.41
48:B1:40:ARG:HD3	48:B1:40:ARG:C	2.41	0.41
1:AA:801:U:H2'	1:AA:802:A:C8	2.55	0.41
25:BA:1064:C:H2'	25:BA:1065:U:O4'	2.20	0.41
26:DB:62:C:H2'	26:DB:63:G:H8	1.85	0.41
28:BE:107:THR:O	28:BE:190:GLY:HA2	2.20	0.41
1:CA:825:G:N2	10:CH:11:THR:HG21	2.36	0.41
28:DE:37:ARG:HH12	25:DA:2783:G:H22	1.66	0.41
27:BD:16:MET:HG3	27:BD:206:LEU:O	2.20	0.41
11:AI:10:ARG:HD3	11:AI:11:LYS:N	2.36	0.41
48:D1:13:ILE:HG23	48:D1:14:VAL:N	2.36	0.41
32:DI:92:VAL:HG23	32:DI:96:ASP:HB2	2.03	0.41
40:BT:50:ILE:HD13	40:BT:64:ARG:H	1.86	0.41
25:BA:141(A):A:H8	25:BA:1595:G:H21	1.67	0.41
1:CA:243:A:H4'	1:CA:244:U:O5'	2.19	0.41
28:BE:50:GLY:HA3	28:BE:75:VAL:HG11	2.03	0.41
28:BE:52:LEU:O	28:BE:76:ARG:N	2.53	0.41
36:DP:35:HIS:HB3	25:DA:941:A:O2'	2.19	0.41
1:AA:1511:G:C6	1:AA:1512:U:N3	2.88	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:B4:43:GLY:N	51:B4:60:GLU:HA	2.36	0.41
21:CS:49:ILE:N	21:CS:49:ILE:HD12	2.35	0.41
55:D8:49:VAL:HG12	55:D8:50:LEU:H	1.83	0.41
27:BD:25:THR:HG23	27:BD:27:THR:CG2	2.47	0.41
1:AA:1081:G:H2'	1:AA:1082:G:H8	1.85	0.41
1:CA:738:C:C4	1:CA:739:C:N4	2.88	0.41
39:DS:25:ARG:HH22	26:DB:9:G:H5'	1.86	0.41
20:AR:44:LEU:HD11	20:AR:70:ILE:HD12	2.03	0.41
24:AX:48:ILE:O	24:AX:52:ARG:HG3	2.20	0.41
28:DE:132:HIS:HB3	25:DA:1658:C:OP1	2.21	0.41
27:DD:88:ARG:NH2	25:DA:1817:G:OP1	2.52	0.41
40:BT:32:TYR:O	40:BT:42:ILE:HA	2.21	0.41
25:BA:1357:U:H2'	25:BA:1358:G:O4'	2.21	0.41
25:DA:1419:A:HO2'	25:DA:1420:U:H5''	1.86	0.41
24:AX:274:LEU:CD1	24:AX:278:ARG:HE	2.31	0.41
21:CS:63:THR:HG22	21:CS:66:MET:HG2	2.03	0.41
1:AA:146:G:H1	1:AA:177:C:N4	2.18	0.41
1:CA:579:G:H2'	1:CA:580:U:C6	2.56	0.41
41:DU:49:HIS:ND1	25:DA:559:G:N2	2.68	0.41
40:DT:117:ASP:O	40:DT:121:ILE:HG13	2.20	0.41
25:DA:722:A:H2'	25:DA:723:G:C8	2.56	0.41
1:CA:502:G:C6	1:CA:503:C:C4	3.08	0.41
25:DA:954:G:H1'	25:DA:2274:A:N1	2.35	0.41
29:BF:31:HIS:O	29:BF:34:TRP:HB3	2.20	0.41
25:DA:617:G:C2	25:DA:618(A):G:C4	3.09	0.41
25:BA:2244:U:H6	25:BA:2244:U:O5'	2.02	0.41
30:DG:95:ARG:CZ	26:DB:45:A:H1'	2.50	0.41
4:CB:20:GLU:HB2	4:CB:190:THR:HB	2.02	0.41
27:BD:76:PRO:HA	27:BD:118:VAL:HG23	2.03	0.41
1:AA:1301:U:H3'	1:AA:1302:U:C5'	2.50	0.41
1:AA:1095:U:H2'	1:AA:1096:C:H6	1.82	0.41
16:AN:14:PRO:HG2	16:AN:15:LYS:H	1.84	0.41
1:AA:1417:G:C6	1:AA:1482:G:C6	3.08	0.41
1:CA:1063:C:H2'	1:CA:1064:G:N7	2.35	0.41
36:DP:26:GLY:HA2	36:DP:30:THR:CG2	2.50	0.41
46:DZ:146:ILE:HG22	46:DZ:174:VAL:HG12	2.03	0.41
25:DA:2818:G:H5'	25:DA:2837:G:H1'	2.02	0.41
25:BA:608:A:H2'	25:BA:609(A):A:C8	2.55	0.41
1:AA:374:A:C2	1:AA:375:U:C2	3.09	0.41
2:AY:25:C:H2'	2:AY:26:G:O4'	2.20	0.41
43:DW:28:SER:HB3	43:DW:31:GLU:HB2	2.02	0.41
25:DA:2337:G:C2	25:DA:2338:G:C8	3.08	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BP:132:LYS:HD2	36:BP:132:LYS:N	2.36	0.41
25:BA:823:G:C6	25:BA:824:A:C6	3.08	0.41
1:CA:115:G:H1'	1:CA:116:A:N7	2.35	0.41
25:BA:1198:U:H2'	25:BA:1199:U:H6	1.84	0.41
1:AA:1061:G:C6	1:AA:1197:G:C6	3.09	0.41
1:AA:786:G:C2	1:AA:797:C:C2	3.08	0.41
1:AA:823:G:H2'	1:AA:824:C:H6	1.86	0.41
25:BA:2122:U:H2'	25:BA:2123:G:O4'	2.19	0.41
14:AL:26:LEU:HB3	14:AL:27:LYS:H	1.61	0.41
18:AP:27:LYS:HD3	18:AP:30:GLY:HA3	2.02	0.41
19:CQ:3:LYS:HB3	19:CQ:60:ILE:HD11	2.02	0.41
25:BA:355:G:H2'	25:BA:356:G:C8	2.56	0.41
26:BB:115:G:H5'	39:BS:50:SER:OG	2.20	0.41
16:CN:52:GLN:O	16:CN:53:LEU:HD23	2.20	0.41
29:BF:66:PRO:O	29:BF:68:LYS:HG2	2.20	0.41
1:AA:601:C:H2'	1:AA:602:A:H8	1.86	0.41
25:DA:978:G:C2	25:DA:986:C:C2	3.08	0.41
1:AA:1108:G:H5'	5:AC:176:HIS:CD2	2.56	0.41
1:AA:567:G:H2'	1:AA:568:G:O4'	2.20	0.41
27:DD:175:LEU:HD12	27:DD:185:VAL:HG21	2.03	0.41
1:CA:264:U:H2'	1:CA:265:G:O4'	2.20	0.41
15:AM:77:ASN:O	15:AM:81:LEU:HG	2.20	0.41
25:BA:46:C:OP2	25:BA:215:G:H2'	2.19	0.41
39:BS:52:SER:HB2	39:BS:56:LEU:HB2	2.02	0.41
5:AC:3:ASN:HB2	5:AC:4:LYS:H	1.75	0.41
25:BA:1455:G:C6	25:BA:2705:A:C2	3.09	0.41
24:CX:26:LYS:N	24:CX:26:LYS:HD2	2.36	0.41
39:BS:48:LEU:N	39:BS:48:LEU:HD12	2.36	0.41
11:CI:112:LYS:C	11:CI:112:LYS:HD3	2.41	0.41
29:BF:179:GLU:CD	29:BF:179:GLU:H	2.23	0.41
24:AX:100:ASP:HA	24:AX:101:PRO:HD2	1.87	0.41
39:DS:52:SER:HB2	39:DS:56:LEU:HB2	2.01	0.41
1:CA:1051:C:H2'	1:CA:1052:U:C6	2.55	0.41
1:AA:1144:G:H21	1:AA:1146:A:N6	2.15	0.41
41:DU:95:LEU:HD13	42:DV:4:ILE:HD12	2.03	0.41
48:B1:45:ASN:C	48:B1:45:ASN:ND2	2.71	0.41
4:CB:185:ILE:HA	4:CB:199:TYR:O	2.20	0.41
29:DF:81:PRO:C	29:DF:83:PHE:H	2.24	0.41
14:CL:119:TYR:CD1	14:CL:119:TYR:N	2.89	0.41
25:DA:2681:C:C5	25:DA:2724:C:N4	2.89	0.41
17:CO:56:LEU:O	17:CO:60:VAL:HG23	2.20	0.41
18:CP:8:ARG:HB3	18:CP:28:ARG:HH12	1.85	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:672:C:C2	25:DA:809:G:N2	2.89	0.41
25:DA:2010:G:C5	25:DA:2011:U:C5	3.08	0.41
28:BE:51:PHE:HB3	28:BE:52:LEU:H	1.67	0.41
25:DA:682:G:H2'	25:DA:683:C:H6	1.86	0.41
21:CS:29:ARG:O	21:CS:31:ILE:HG22	2.20	0.41
5:CC:182:ILE:HA	5:CC:202:ILE:O	2.21	0.41
46:DZ:71:VAL:HA	46:DZ:87:ASP:O	2.21	0.41
46:BZ:71:VAL:HA	46:BZ:87:ASP:O	2.20	0.41
24:CX:49:ARG:HA	24:CX:52:ARG:HD2	2.02	0.41
25:BA:1441:G:H2'	25:BA:1442:G:C8	2.54	0.41
34:DN:78:VAL:O	34:DN:79:ASN:HB2	2.20	0.41
25:BA:558:G:C5'	34:BN:135:LEU:HD22	2.51	0.41
43:DW:9:TYR:H	43:DW:102:HIS:CD2	2.39	0.41
43:BW:9:TYR:H	43:BW:102:HIS:CD2	2.38	0.41
21:CS:44:MET:HA	21:CS:44:MET:HE2	2.02	0.41
25:BA:559:G:N2	41:BU:49:HIS:ND1	2.69	0.41
25:BA:2335:A:H8	39:BS:13:ARG:NH2	2.17	0.41
47:B0:31:VAL:HG22	47:B0:65:GLY:O	2.21	0.41
29:BF:185:ASP:HA	29:BF:188:ARG:HB3	2.02	0.41
54:D7:37:LYS:HE3	25:DA:468:G:OP2	2.21	0.41
1:AA:716:A:C6	1:AA:717:C:C4	3.09	0.41
25:DA:2244:U:O5'	25:DA:2244:U:H6	2.02	0.41
36:BP:10:PRO:CD	36:BP:11:GLY:H	2.34	0.41
10:CH:123:GLU:O	10:CH:127:LEU:HD23	2.20	0.41
25:DA:1511:A:H8	25:DA:1511:A:O5'	2.04	0.41
4:CB:153:ARG:HG3	4:CB:153:ARG:H	1.56	0.41
25:BA:2795:G:H3'	25:BA:2797:U:C5'	2.50	0.41
29:DF:73:ALA:O	29:DF:74:ARG:HB2	2.21	0.41
1:AA:374:A:C6	1:AA:375:U:C4	3.08	0.41
1:CA:1517:G:H2'	1:CA:1518:A:C8	2.55	0.41
25:BA:2262:U:H2'	25:BA:2263:C:H6	1.86	0.41
25:DA:1283:G:H1'	25:DA:1329:U:O2	2.20	0.41
25:BA:1764:G:C2	25:BA:1765:C:C2	3.09	0.41
1:CA:1479:C:H2'	1:CA:1480:G:C8	2.55	0.41
34:DN:64:ASP:OD1	34:DN:64:ASP:N	2.54	0.41
24:CX:123:PHE:CG	24:CX:180:VAL:HG11	2.56	0.41
25:BA:2476:A:H3'	25:BA:2476:A:N3	2.36	0.41
25:DA:1765:C:O5'	25:DA:1765:C:H6	2.03	0.41
25:BA:2260:C:H2'	25:BA:2261:C:C6	2.55	0.41
1:CA:875:C:O2'	10:CH:14:ARG:HD2	2.20	0.41
1:CA:575:G:H4'	1:CA:575:G:OP1	2.21	0.41
2:AY:4:G:C6	2:AY:70:G:C6	3.08	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1337:G:H2'	25:BA:1338:G:O4'	2.20	0.41
25:BA:310:A:P	45:BY:18:GLY:HA2	2.61	0.41
46:DZ:158:PRO:HA	46:DZ:159:PRO:HD3	1.97	0.41
25:BA:449:A:OP1	29:BF:85:GLY:HA2	2.20	0.41
1:AA:34:C:H2'	1:AA:35:G:H8	1.86	0.41
25:BA:2651:C:O2'	25:BA:2652:C:H5'	2.21	0.41
25:DA:2080:G:H2'	25:DA:2081:C:C6	2.55	0.41
32:DI:118:LYS:HA	32:DI:119:PRO:HD3	1.89	0.41
25:BA:1364:G:H1'	25:BA:1368:G:N2	2.35	0.41
25:DA:599:G:H2'	25:DA:600:G:H8	1.84	0.41
25:DA:1064:C:H2'	25:DA:1065:U:O4'	2.20	0.41
16:AN:60:SER:O	16:AN:61:TRP:HB3	2.21	0.41
29:DF:60:SER:OG	29:DF:61:GLY:N	2.54	0.41
1:CA:859:A:H2'	1:CA:860:A:O4'	2.19	0.41
1:AA:318:G:H2'	1:AA:319:G:H8	1.86	0.41
29:BF:100:THR:O	29:BF:100:THR:HG22	2.21	0.41
42:DV:61:VAL:O	42:DV:61:VAL:HG23	2.21	0.41
27:DD:231:HIS:CE1	27:DD:232:PRO:HD2	2.55	0.41
45:DY:76:CYS:HB2	45:DY:96:ILE:HD13	2.01	0.41
27:BD:244:ARG:HD2	27:BD:245:PRO:HB3	2.03	0.41
24:CX:97:LEU:N	24:CX:98:PRO:HD3	2.36	0.41
25:DA:140:A:H8	25:DA:1408:C:O2'	1.95	0.41
1:AA:981:U:H5''	16:AN:6:LEU:HD21	2.03	0.41
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.86	0.41
28:DE:36:ARG:NH1	28:DE:86:PRO:HD2	2.27	0.41
49:B2:21:LEU:HG	49:B2:64:LEU:HB3	2.02	0.41
14:AL:17:VAL:O	14:AL:18:ARG:HB3	2.20	0.41
36:BP:46:LYS:HD2	36:BP:46:LYS:HA	1.79	0.41
25:BA:465:G:C6	25:BA:466:A:N6	2.88	0.41
1:CA:68:G:C2	1:CA:69:G:C4	3.08	0.41
38:BR:2:ARG:HD3	38:BR:2:ARG:HH11	1.66	0.41
15:AM:14:ARG:HB3	15:AM:16:ASP:OD2	2.21	0.41
1:AA:194:C:H5''	22:AT:65:LYS:HE2	2.01	0.41
25:BA:1817:G:C6	25:BA:1818:U:C4	3.08	0.41
28:BE:169:ASN:ND2	28:BE:201:THR:HG21	2.35	0.41
25:DA:1796:U:H2'	25:DA:1797:C:H6	1.81	0.41
1:AA:176:C:H2'	1:AA:177:C:H6	1.84	0.41
25:BA:2406:U:C2	36:BP:72:PRO:HB2	2.56	0.41
45:BY:8:LYS:HZ3	45:BY:8:LYS:C	2.23	0.41
1:AA:377:G:O2'	1:AA:378:G:H5'	2.20	0.41
2:CZ:4:G:O2'	2:CZ:5:G:H8	2.02	0.41
1:CA:451:A:H61	1:CA:480:U:H2'	1.82	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2243:U:H2'	25:DA:2244:U:C5	2.56	0.41
1:AA:604:G:H2'	1:AA:605:U:O4'	2.21	0.41
27:DD:161:THR:O	27:DD:162:SER:HB2	2.19	0.41
25:DA:2115:G:N2	25:DA:2117:A:H8	2.19	0.41
27:BD:158:ALA:O	27:BD:196:VAL:HG11	2.21	0.41
25:DA:2291:U:H2'	25:DA:2292:C:H6	1.86	0.41
10:AH:123:GLU:O	10:AH:127:LEU:HD23	2.21	0.41
1:CA:563:A:HO2'	1:CA:567:G:H8	1.63	0.41
25:BA:329:G:H1	45:BY:19:LYS:HG3	1.86	0.41
1:CA:1528:U:H6	1:CA:1528:U:C5'	2.34	0.41
25:DA:2816:C:H2'	25:DA:2817:G:H8	1.85	0.41
2:CY:25:C:H2'	2:CY:26:G:O4'	2.21	0.41
1:CA:374:A:C2	1:CA:375:U:C2	3.08	0.41
39:BS:90:GLY:O	39:BS:91:PRO:C	2.59	0.41
25:BA:1686:C:N3	25:BA:1703:G:C2	2.89	0.41
1:AA:557:G:C2	1:AA:558:G:C2	3.09	0.41
43:DW:88:ARG:H	25:DA:1614:A:H62	1.69	0.41
25:DA:1516:U:H2'	25:DA:1517:G:H8	1.86	0.41
24:CX:225:SER:HB3	24:CX:253:GLN:HE22	1.84	0.41
6:AD:175:SER:OG	6:AD:184:LYS:HB2	2.20	0.41
1:AA:875:C:O2'	10:AH:14:ARG:HD2	2.20	0.41
25:BA:1215:G:C5	25:BA:1216:G:N7	2.88	0.41
25:DA:187:G:C6	25:DA:188:G:N7	2.88	0.41
25:BA:2519:U:H4'	25:BA:2520:C:OP1	2.20	0.41
25:DA:1649:G:N1	25:DA:2009:G:C6	2.89	0.41
37:BQ:58:PHE:O	37:BQ:58:PHE:CD1	2.74	0.41
47:D0:82:ARG:HA	47:D0:83:PRO:HD2	1.84	0.41
25:BA:1167:U:H2'	25:BA:1168:G:H8	1.85	0.41
25:BA:15:G:C4	25:BA:16:G:C8	3.08	0.41
25:DA:226:G:C2	25:DA:227:A:C6	3.08	0.41
30:DG:178:PHE:HA	30:DG:179:PRO:HD2	1.82	0.41
1:AA:384:G:H2'	1:AA:385:C:C6	2.55	0.41
12:AJ:7:LYS:HB2	12:AJ:97:GLU:O	2.21	0.41
22:AT:37:SER:O	22:AT:41:VAL:HG23	2.20	0.41
17:CO:74:ASP:OD1	17:CO:77:ARG:HG2	2.21	0.41
25:BA:52:A:H2'	25:BA:53:A:O4'	2.21	0.41
25:DA:2389:G:H5''	25:DA:2390:U:O4'	2.20	0.41
50:B3:16:PRO:HB2	50:B3:18:ASP:OD1	2.21	0.41
17:AO:20:GLY:O	17:AO:21:ASP:C	2.58	0.41
6:CD:17:VAL:O	6:CD:19:LEU:HG	2.21	0.41
25:BA:2080:G:H2'	25:BA:2081:C:C6	2.55	0.41
6:AD:68:TYR:O	6:AD:69:GLY:C	2.58	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:35:LYS:HE3	40:BT:35:LYS:HB2	1.87	0.41
13:AK:123:LYS:HE3	13:AK:123:LYS:HB3	1.89	0.41
15:AM:66:LEU:N	15:AM:66:LEU:HD23	2.36	0.41
9:AG:48:LYS:O	9:AG:52:GLU:HG2	2.21	0.41
12:AJ:18:ALA:O	12:AJ:22:LYS:HB2	2.21	0.41
25:BA:1342:A:C5	25:BA:1397:U:C6	3.09	0.41
41:BU:92:ARG:O	41:BU:93:LYS:C	2.59	0.41
25:DA:2070:G:H2'	25:DA:2071:A:O4'	2.21	0.41
14:AL:52:ARG:O	14:AL:54:VAL:HG23	2.21	0.41
32:BI:92:VAL:HG23	32:BI:96:ASP:HB2	2.03	0.41
1:CA:981:U:H5''	16:CN:6:LEU:HD21	2.03	0.41
7:AE:92:LYS:HA	7:AE:93:PRO:HD2	1.85	0.41
49:D2:21:LEU:HG	49:D2:64:LEU:HB3	2.03	0.41
1:AA:243:A:C2	1:AA:246:A:C8	3.09	0.41
36:BP:23:PRO:HB2	36:BP:33:ARG:CG	2.49	0.41
28:BE:112:GLY:O	28:BE:159:HIS:HA	2.21	0.41
1:AA:1260:C:OP1	1:AA:1284:C:H4'	2.21	0.41
29:DF:170:LEU:HA	29:DF:171:PRO:HD2	1.83	0.41
1:AA:1227:A:OP1	15:AM:94:ARG:CZ	2.68	0.41
25:DA:1299:G:H22	25:DA:1640:C:H5'	1.86	0.41
29:DF:45:ARG:NH1	25:DA:443:A:H2'	2.33	0.41
43:DW:17:VAL:HG21	43:DW:76:VAL:HG21	2.03	0.41
25:DA:849:A:H3'	25:DA:850:C:C6	2.56	0.41
39:DS:18:ILE:HD12	25:DA:2378:A:H2	1.85	0.41
25:BA:518:G:H2'	25:BA:519:U:H6	1.86	0.41
43:BW:18:ARG:NH1	43:BW:76:VAL:HG13	2.36	0.41
48:B1:86:SER:CB	48:B1:90:ILE:HG12	2.51	0.41
25:BA:108:U:H2'	25:BA:109:G:H8	1.85	0.41
1:CA:698:G:C6	1:CA:699:C:C4	3.09	0.41
25:BA:1441:G:N2	25:BA:1551:C:C2	2.89	0.41
25:BA:27:G:C8	25:BA:27:G:O5'	2.73	0.41
21:AS:61:TYR:CG	21:AS:62:ILE:N	2.89	0.41
25:DA:270(Q):C:C2	25:DA:270(R):C:C5	3.09	0.41
12:CJ:27:ALA:HA	12:CJ:81:THR:HG22	2.03	0.41
47:D0:32:ARG:N	47:D0:35:ASN:ND2	2.65	0.41
1:AA:579:G:H2'	1:AA:580:U:C6	2.56	0.41
25:DA:491:G:H2'	25:DA:492:A:H8	1.85	0.41
36:DP:10:PRO:HD2	36:DP:11:GLY:H	1.85	0.41
52:D5:3:LYS:HD3	25:DA:747:U:OP1	2.21	0.41
26:BB:45:A:H1'	30:BG:95:ARG:CZ	2.50	0.41
1:CA:1301:U:H3'	1:CA:1302:U:C5'	2.50	0.41
20:AR:84:LYS:HZ3	20:AR:84:LYS:HA	1.84	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:512:U:C2	1:AA:513:C:C5	3.09	0.41
25:DA:2018:G:H2'	25:DA:2019:A:C8	2.56	0.41
1:CA:512:U:C2	1:CA:513:C:C5	3.09	0.41
1:AA:356:A:H2'	1:AA:357:G:O4'	2.21	0.41
25:DA:218:A:H2	25:DA:235:U:H4'	1.86	0.41
4:CB:217:ARG:O	4:CB:220:ASP:HB2	2.19	0.41
1:AA:815:A:H4'	1:AA:817:C:C5	2.56	0.41
25:DA:2127:G:H2'	25:DA:2128:C:O4'	2.21	0.41
1:AA:718:G:C4	13:AK:116:HIS:ND1	2.88	0.41
1:CA:542:G:H5'	6:CD:41:GLY:HA2	2.03	0.41
28:DE:54:GLN:O	28:DE:56:PRO:HD3	2.21	0.41
1:AA:186(B):C:H2'	1:AA:186(C):C:H6	1.86	0.41
25:DA:951:C:H2'	25:DA:952:G:C8	2.56	0.41
25:BA:149:A:H2'	25:BA:150:C:H6	1.85	0.41
36:BP:112:LEU:C	36:BP:112:LEU:HD23	2.41	0.41
25:DA:1337:G:H2'	25:DA:1338:G:O4'	2.21	0.41
43:DW:25:ARG:HB2	43:DW:25:ARG:HH11	1.85	0.41
25:DA:968:G:H2'	25:DA:969:U:C6	2.56	0.41
50:B3:41:PRO:HA	50:B3:44:ARG:HD2	2.02	0.41
25:DA:748:G:OP1	25:DA:2612:C:N4	2.53	0.41
5:CC:123:GLN:O	5:CC:128:PHE:HB2	2.20	0.41
10:CH:24:THR:HG22	10:CH:25:ASP:N	2.35	0.41
9:CG:48:LYS:O	9:CG:52:GLU:HG2	2.21	0.41
25:DA:979:G:C4	25:DA:982:C:N4	2.89	0.41
25:DA:521:G:H2'	25:DA:522:G:C8	2.56	0.41
25:BA:593:G:H4'	55:B8:62:LEU:HD13	2.02	0.41
25:DA:2853:C:H2'	25:DA:2854:G:H8	1.86	0.41
27:DD:250:TRP:CD1	25:DA:1805:U:H5''	2.56	0.41
25:BA:2700:C:O2'	25:BA:2701:C:H5'	2.21	0.41
37:DQ:77:LYS:HA	37:DQ:78:PRO:HD3	1.78	0.41
15:CM:115:LYS:N	15:CM:115:LYS:HD3	2.35	0.41
27:DD:181:GLU:O	27:DD:182:LEU:HD23	2.21	0.41
25:DA:1949:G:C6	25:DA:1950:G:C6	3.08	0.41
26:DB:114:G:H2'	26:DB:115:G:H8	1.86	0.41
13:AK:17:GLY:HA3	13:AK:77:MET:SD	2.61	0.41
37:DQ:48:GLU:HA	37:DQ:51:ARG:HB3	2.03	0.41
27:DD:245:PRO:HB2	27:DD:246:PRO:HD2	2.03	0.41
42:BV:6:LYS:CA	42:BV:11:GLN:HB3	2.51	0.41
25:BA:1161:C:H2'	25:BA:1162:G:C8	2.56	0.41
1:AA:1370:G:O2'	1:AA:1371:G:H5'	2.20	0.41
42:DV:6:LYS:CA	42:DV:11:GLN:HB3	2.51	0.41
49:B2:23:LYS:O	49:B2:27:GLU:HG3	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:B1:11:ARG:CB	48:B1:12:PRO:HD2	2.35	0.41
6:CD:188:LEU:HA	6:CD:189:PRO:HD2	1.91	0.41
25:DA:2426:A:H8	25:DA:2426:A:P	2.44	0.41
27:BD:245:PRO:HB2	27:BD:246:PRO:HD2	2.02	0.41
25:BA:2426:A:P	25:BA:2426:A:H8	2.44	0.41
25:BA:2070:G:H2'	25:BA:2071:A:O4'	2.21	0.41
37:DQ:45:GLN:HB2	25:DA:2484:G:H5''	2.03	0.41
50:D3:8:LEU:HD13	50:D3:31:LEU:HD12	2.02	0.41
14:AL:51:LEU:HD11	24:AX:299:SER:O	2.21	0.41
32:BI:120:ILE:HG13	32:BI:120:ILE:H	1.71	0.41
49:B2:2:LYS:HD2	49:B2:2:LYS:H	1.86	0.41
5:AC:39:ILE:O	5:AC:43:LEU:HG	2.21	0.41
25:DA:2415:G:C6	25:DA:2416:C:C4	3.08	0.41
36:BP:66:GLY:C	36:BP:68:GLN:N	2.72	0.41
25:BA:819:A:C4	25:BA:1189:A:C2	3.09	0.41
25:BA:662:G:OP1	36:BP:18:ARG:HD2	2.21	0.41
28:DE:50:GLY:HA3	28:DE:75:VAL:HG11	2.02	0.41
28:DE:112:GLY:O	28:DE:159:HIS:HA	2.21	0.41
11:CI:10:ARG:HD3	11:CI:11:LYS:N	2.36	0.41
1:CA:1511:G:H2'	1:CA:1512:U:O4'	2.21	0.41
25:DA:443:A:H1'	25:DA:1201:C:O4'	2.21	0.41
51:D4:60:GLU:HG2	51:D4:61:VAL:HG23	2.03	0.41
4:AB:80:ILE:HG21	4:AB:211:ILE:HG22	2.02	0.41
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.55	0.41
18:AP:20:VAL:HG22	18:AP:21:VAL:N	2.34	0.41
52:B5:40:LYS:HG2	52:B5:46:CYS:HB2	2.03	0.41
25:DA:1668:A:H61	25:DA:1676:A:H61	1.68	0.41
55:D8:54:GLU:HA	55:D8:57:ARG:HH11	1.86	0.41
27:BD:84:TYR:CD2	27:BD:86:PRO:HD3	2.56	0.41
40:DT:50:ILE:HD13	40:DT:64:ARG:H	1.86	0.41
27:BD:94:LEU:HD23	27:BD:104:TYR:CE1	2.56	0.41
24:AX:300:GLU:HG3	24:AX:301:LYS:N	2.29	0.41
1:AA:795:C:H5''	1:AA:796:C:OP2	2.21	0.41
1:AA:1080:A:H5'	7:AE:14:ARG:NH2	2.36	0.41
14:CL:17:VAL:O	14:CL:18:ARG:HB3	2.21	0.41
44:DX:8:ILE:HD11	44:DX:42:ALA:HB1	2.03	0.41
14:AL:76:LEU:HD11	14:AL:106:ALA:HA	2.02	0.41
33:DJ:14:LYS:CA	33:DJ:14:LYS:HE2	2.48	0.41
25:BA:39:C:H2'	25:BA:40:C:H6	1.85	0.41
24:AX:50:GLU:O	24:AX:54:VAL:HG23	2.20	0.41
55:B8:14:VAL:HG13	55:B8:23:VAL:O	2.21	0.41
25:DA:2662:A:H8	25:DA:2662:A:O5'	2.04	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:61:G:C6	25:BA:62:C:C4	3.09	0.41
48:D1:26:ARG:O	48:D1:27:GLU:HB3	2.20	0.41
21:AS:63:THR:HG22	21:AS:66:MET:HG2	2.03	0.41
40:BT:54:ARG:HA	40:BT:59:THR:HG1	1.85	0.41
40:DT:54:ARG:HA	40:DT:59:THR:HG1	1.86	0.41
25:DA:270(S):G:O2'	25:DA:270(T):G:H8	2.03	0.41
40:DT:32:TYR:O	40:DT:42:ILE:HA	2.21	0.41
46:DZ:59:LEU:HD11	46:DZ:88:PHE:CD2	2.56	0.41
25:BA:2134:A:H61	25:BA:2157:G:H1'	1.83	0.41
25:DA:825:C:H2'	25:DA:826:U:O4'	2.21	0.41
25:BA:2335:A:H2'	39:BS:13:ARG:NH2	2.32	0.41
25:DA:639:U:H2'	25:DA:640:C:C6	2.56	0.41
1:CA:1060:C:C5'	12:CJ:51:ARG:HB3	2.50	0.41
1:AA:447:G:H2'	1:AA:485:G:N2	2.35	0.41
25:BA:825:C:H2'	25:BA:826:U:O4'	2.21	0.41
28:BE:110:GLY:CA	28:BE:162:ALA:HB2	2.51	0.41
25:BA:705:A:H2'	25:BA:706:A:H8	1.86	0.41
1:CA:59:A:H1'	1:CA:354:G:C2	2.56	0.41
1:CA:692:U:O2	1:CA:694:A:C8	2.74	0.41
37:BQ:120:ILE:HA	37:BQ:123:HIS:HD2	1.85	0.41
25:DA:970:C:O5'	25:DA:970:C:H6	2.04	0.41
25:DA:742:G:H2'	25:DA:743:G:C8	2.50	0.41
4:AB:102:LEU:O	4:AB:105:PHE:HB2	2.21	0.41
1:AA:692:U:O2	1:AA:694:A:C8	2.74	0.41
25:BA:954:G:H1'	25:BA:2274:A:N1	2.36	0.41
25:DA:2119:A:H5''	25:DA:2172:U:O2	2.21	0.41
6:CD:61:LYS:HD2	6:CD:206:PHE:CE2	2.55	0.41
1:AA:1513:A:H2'	1:AA:1514:C:H6	1.83	0.41
27:DD:5:LYS:H	27:DD:5:LYS:HD2	1.84	0.41
25:BA:2599:G:H2'	25:BA:2600:A:C8	2.53	0.41
35:DO:34:THR:O	35:DO:35:VAL:C	2.59	0.41
25:DA:1973:G:C6	25:DA:1974:C:N4	2.89	0.41
25:BA:2114:A:H3'	25:BA:2115:G:C8	2.56	0.41
25:BA:1973:G:H2'	25:BA:1974:C:C6	2.55	0.41
25:DA:380:U:H2'	25:DA:381:G:H8	1.84	0.41
42:BV:77:ALA:O	42:BV:79:VAL:N	2.54	0.41
1:CA:600:C:H2'	1:CA:601:C:H6	1.86	0.41
40:DT:19:LEU:HA	40:DT:20:PRO:HD3	1.85	0.41
1:CA:601:C:H2'	1:CA:602:A:H8	1.85	0.41
32:DI:57:ARG:O	32:DI:61:ARG:HG3	2.20	0.41
46:BZ:137:ILE:N	46:BZ:137:ILE:HD12	2.36	0.41
1:CA:359:U:H2'	1:CA:360:A:H8	1.85	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:297:C:H5''	45:BY:85:VAL:CG2	2.51	0.41
25:BA:296:C:H2'	25:BA:297:C:C6	2.56	0.41
1:CA:815:A:H4'	1:CA:817:C:C5	2.56	0.41
27:DD:70:TRP:CD1	27:DD:70:TRP:C	2.94	0.41
30:DG:33:ARG:O	30:DG:161:THR:HG23	2.20	0.41
25:DA:296:C:H2'	25:DA:297:C:C6	2.56	0.41
25:BA:1945:G:C6	25:BA:1946:U:C4	3.09	0.41
7:AE:48:ALA:HA	7:AE:49:PRO:HD3	1.89	0.41
45:DY:18:GLY:HA2	25:DA:310:A:P	2.61	0.41
44:DX:36:LYS:HD3	25:DA:1599:C:OP2	2.20	0.41
1:CA:1528:U:H5''	1:CA:1528:U:C6	2.55	0.41
31:DH:13:LYS:HE2	31:DH:13:LYS:CA	2.50	0.41
27:DD:186:HIS:CD2	27:DD:188:GLU:HB2	2.56	0.41
30:DG:173:LEU:HD23	30:DG:176:LEU:HD12	2.03	0.41
34:BN:161:LEU:HD23	34:BN:161:LEU:N	2.36	0.41
25:BA:2127:G:H2'	25:BA:2128:C:O4'	2.21	0.41
25:BA:273(B):G:C6	25:BA:364:C:N4	2.89	0.41
25:BA:610:C:H2'	25:BA:611:C:H6	1.86	0.41
1:CA:197:A:N6	1:CA:221:C:H4'	2.36	0.41
1:CA:191(C):G:H2'	1:CA:191(D):U:H6	1.85	0.41
41:BU:79:PHE:CE1	41:BU:83:LEU:HD11	2.56	0.41
25:BA:2099:U:H2'	25:BA:2100:G:C8	2.55	0.41
25:BA:561:G:O2'	25:BA:562:U:H5'	2.21	0.41
25:DA:1459:G:C6	25:DA:1461:G:C5	3.09	0.41
25:BA:907:U:H4'	37:BQ:101:ARG:HH22	1.86	0.41
1:AA:1479:C:H2'	1:AA:1480:G:C8	2.54	0.41
25:DA:931:G:C8	25:DA:931:G:H3'	2.56	0.41
7:AE:45:PHE:CD2	7:AE:47:LYS:HD2	2.56	0.41
11:CI:83:ARG:HA	11:CI:86:VAL:HG12	2.02	0.41
25:DA:2260:C:H2'	25:DA:2261:C:C6	2.55	0.41
25:BA:931:G:H3'	25:BA:931:G:C8	2.56	0.41
25:DA:268:C:H2'	25:DA:269:U:O4'	2.20	0.41
1:CA:590:C:H2'	1:CA:591:U:C6	2.56	0.41
1:AA:1150:U:H1'	1:AA:1280:A:N6	2.35	0.41
25:DA:815:C:C2	25:DA:1193:G:C2	3.08	0.41
25:DA:2493:U:C4	25:DA:2494:G:C8	3.09	0.41
25:BA:1054:A:H2'	25:BA:1055:G:H8	1.85	0.41
41:DU:8:VAL:HG12	41:DU:12:ARG:HG3	2.03	0.41
1:CA:1379:G:N1	1:CA:1380:U:C4	2.88	0.41
25:DA:2182:G:H2'	25:DA:2183:C:C6	2.55	0.41
25:DA:628:G:H2'	25:DA:629:G:C8	2.56	0.41
35:DO:31:LYS:HB2	25:DA:2675:A:OP1	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1437:C:H2'	1:CA:1438:G:H8	1.86	0.41
25:BA:1029:A:C8	25:BA:1030:G:C8	3.08	0.41
25:BA:2182:G:H2'	25:BA:2183:C:C6	2.56	0.41
25:BA:2350:C:H2'	25:BA:2351:G:O4'	2.21	0.41
55:D8:62:LEU:HD13	25:DA:593:G:H4'	2.02	0.41
39:DS:50:SER:OG	26:DB:115:G:H5'	2.21	0.41
25:DA:522:G:C6	25:DA:523:C:C4	3.09	0.41
1:AA:39:G:C6	1:AA:40:C:C4	3.09	0.41
29:DF:32:LEU:O	29:DF:36:VAL:HG23	2.21	0.41
52:D5:26:THR:HA	52:D5:27:PRO:HD2	1.88	0.41
55:B8:19:SER:OG	55:B8:21:LYS:HE2	2.21	0.41
25:DA:2532:G:C6	25:DA:2533:A:C5	3.08	0.41
25:DA:237:C:N3	25:DA:261:G:C2	2.88	0.41
14:CL:88:ARG:HA	14:CL:96:ARG:HA	2.03	0.41
29:DF:66:PRO:O	29:DF:68:LYS:HG2	2.19	0.41
47:D0:14:ARG:O	47:D0:15:ASP:HB2	2.21	0.41
23:CU:24:ARG:HG3	23:CU:25:LYS:N	2.35	0.41
2:AY:14:A:H2'	2:AY:15:G:O4'	2.21	0.41
1:CA:1108:G:H5'	5:CC:176:HIS:CD2	2.56	0.41
17:AO:54:ARG:NH1	17:AO:58:MET:SD	2.94	0.41
5:AC:72:LYS:HA	5:AC:73:PRO:HD2	1.88	0.41
10:CH:13:ILE:HD12	10:CH:13:ILE:H	1.86	0.41
53:B6:52:VAL:O	53:B6:52:VAL:HG12	2.21	0.41
9:CG:60:LYS:HD2	9:CG:60:LYS:HA	1.79	0.41
25:BA:226:G:C2	25:BA:227:A:C6	3.08	0.41
24:AX:26:LYS:N	24:AX:26:LYS:HD2	2.36	0.41
7:AE:105:VAL:N	7:AE:106:PRO:HD2	2.36	0.41
30:DG:124:SER:HB2	30:DG:131:TYR:CE1	2.56	0.41
13:AK:91:ARG:O	13:AK:95:ILE:HG13	2.21	0.41
25:BA:851:U:O2'	50:B3:45:GLY:HA3	2.21	0.41
27:BD:131:LEU:HD13	27:BD:135:PHE:HB2	2.02	0.41
37:DQ:125:LEU:HA	37:DQ:126:PRO:HD3	1.84	0.41
16:CN:60:SER:O	16:CN:61:TRP:HB3	2.21	0.41
25:DA:1937:A:O2'	25:DA:1938:A:H5'	2.21	0.41
1:CA:801:U:H2'	1:CA:802:A:C8	2.55	0.41
25:BA:2853:C:H2'	25:BA:2854:G:H8	1.86	0.41
12:CJ:40:LEU:HB3	12:CJ:41:PRO:HD2	2.03	0.41
12:CJ:3:LYS:HD2	12:CJ:77:PRO:HD3	2.02	0.41
24:CX:145:LEU:HB2	24:CX:159:VAL:CG2	2.50	0.41
25:BA:88:G:H5'	25:BA:89:G:OP2	2.20	0.41
27:DD:64:ILE:H	27:DD:64:ILE:HD12	1.86	0.41
4:AB:87:ARG:O	4:AB:87:ARG:HD2	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AD:88:VAL:O	6:AD:92:VAL:HG23	2.21	0.41
10:AH:24:THR:HG22	10:AH:25:ASP:N	2.36	0.41
1:CA:797:C:OP1	13:CK:124:LYS:HG3	2.21	0.41
41:BU:90:VAL:O	41:BU:92:ARG:N	2.50	0.41
48:D1:11:ARG:HG3	48:D1:61:ARG:O	2.20	0.41
37:BQ:48:GLU:HA	37:BQ:51:ARG:HB3	2.03	0.41
41:DU:94:ASN:C	41:DU:94:ASN:OD1	2.60	0.41
7:AE:78:HIS:HD2	10:AH:104:ARG:HD2	1.85	0.41
45:DY:8:LYS:HB2	45:DY:9:LYS:H	1.72	0.41
25:BA:448:U:H1'	29:BF:84:VAL:HG21	2.03	0.41
14:AL:51:LEU:HD12	14:AL:51:LEU:N	2.35	0.41
14:CL:51:LEU:HD12	14:CL:51:LEU:N	2.36	0.41
5:CC:21:ARG:HG3	5:CC:58:GLU:HG2	2.03	0.41
1:AA:1220:G:N2	21:AS:54:GLY:HA2	2.26	0.41
1:AA:243:A:H4'	1:AA:244:U:O5'	2.21	0.41
28:DE:51:PHE:CD1	28:DE:52:LEU:HG	2.56	0.41
25:DA:464:U:H2'	25:DA:465:G:O4'	2.20	0.41
1:AA:1509:C:H2'	1:AA:1510:U:O4'	2.21	0.41
25:DA:1478:G:O2'	25:DA:1558:A:C2	2.72	0.41
32:BI:89:TYR:O	32:BI:90:GLY:O	2.39	0.41
27:DD:25:THR:HG22	27:DD:82:ILE:O	2.20	0.41
25:BA:443:A:H1'	25:BA:1201:C:O4'	2.21	0.41
18:CP:20:VAL:HG22	18:CP:21:VAL:N	2.36	0.41
48:D1:92:LYS:C	48:D1:94:LEU:H	2.24	0.41
48:B1:53:VAL:HG22	48:B1:74:VAL:HG13	2.03	0.41
25:BA:107:C:O2'	25:BA:108:U:H5'	2.21	0.41
1:AA:68:G:H2'	1:AA:69:G:C8	2.56	0.41
24:CX:115:THR:HG1	25:DA:1913:A:H2	1.67	0.41
15:CM:14:ARG:HB3	15:CM:16:ASP:OD2	2.21	0.41
1:AA:1053:G:C6	1:AA:1199:U:C2	3.09	0.41
53:D6:11:LEU:HA	53:D6:11:LEU:HD22	1.95	0.41
34:BN:66:THR:HB	34:BN:69:VAL:HG12	2.03	0.41
25:BA:2075:U:C4	25:BA:2238:G:C6	3.09	0.41
25:BA:626:U:O2	36:BP:105:LEU:HD23	2.20	0.41
24:CX:182:ARG:HB3	24:CX:307:PHE:CD1	2.56	0.41
36:BP:10:PRO:HD2	36:BP:11:GLY:H	1.85	0.41
25:DA:1230:C:C2	25:DA:1231:G:N7	2.88	0.41
6:AD:61:LYS:HD2	6:AD:206:PHE:CE2	2.57	0.41
1:CA:926:G:N2	3:CV:15:A:H3'	2.33	0.41
25:BA:655:A:C2'	25:BA:656:G:H5'	2.51	0.41
1:CA:643:C:H5'	10:CH:31:PHE:CD1	2.56	0.41
25:BA:2358:G:C5	25:BA:2359:C:C5	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:AO:44:LYS:HZ3	17:AO:44:LYS:N	2.18	0.41
1:AA:1472:U:H2'	1:AA:1473:A:H8	1.86	0.41
47:D0:27:GLU:HB3	25:DA:856:C:H4'	2.02	0.41
6:CD:60:GLU:O	6:CD:63:LYS:HB3	2.21	0.41
30:BG:33:ARG:O	30:BG:161:THR:HG23	2.21	0.41
25:DA:583:G:N2	25:DA:1258:C:C2	2.89	0.41
1:AA:375:U:OP1	18:AP:69:THR:HG21	2.21	0.41
25:DA:2262:U:H2'	25:DA:2263:C:H6	1.86	0.41
10:CH:9:MET:SD	10:CH:32:LYS:HG2	2.61	0.41
46:DZ:54:HIS:HB3	46:DZ:101:PRO:HD3	2.03	0.41
25:BA:1680:U:O2	25:BA:1763:G:C8	2.74	0.41
43:DW:75:TYR:CZ	43:DW:104:THR:HG21	2.56	0.41
1:CA:192:U:C1'	22:CT:103:GLY:HA2	2.51	0.41
43:DW:20:VAL:O	43:DW:23:LEU:HB2	2.21	0.41
34:BN:64:ASP:OD1	34:BN:64:ASP:N	2.54	0.41
25:BA:1459:G:C6	25:BA:1461:G:C5	3.09	0.41
25:DA:677:A:C6	25:DA:678:C:C4	3.09	0.41
1:AA:49:U:O2'	1:AA:50:A:H2'	2.21	0.41
5:CC:152:ILE:HG12	5:CC:167:TRP:HA	2.03	0.41
27:BD:271:ILE:N	27:BD:271:ILE:HD12	2.36	0.41
25:DA:1289:C:H2'	25:DA:1290:C:C6	2.55	0.41
25:DA:1326:U:H2'	25:DA:1327:C:O4'	2.21	0.41
25:DA:1686:C:N3	25:DA:1703:G:C2	2.89	0.41
24:CX:108:ILE:O	24:CX:201:VAL:HA	2.20	0.41
27:DD:129:ASN:H	27:DD:193:VAL:CG1	2.34	0.41
1:CA:33:A:C6	1:CA:34:C:N4	2.89	0.41
41:BU:60:LEU:C	41:BU:60:LEU:HD23	2.40	0.41
28:DE:11:MET:HE3	28:DE:186:GLY:HA2	2.02	0.41
25:BA:1648:C:H2'	25:BA:1649:G:O4'	2.21	0.41
1:AA:802:A:H2'	1:AA:803:G:O4'	2.21	0.41
31:DH:127:GLU:HB3	31:DH:128:PRO:HD2	2.03	0.41
25:BA:1630:G:H2'	25:BA:163(B):C:C6	2.56	0.41
25:DA:327:G:H2'	25:DA:328:U:C6	2.56	0.41
25:DA:271(C):G:C2	25:DA:421:U:C4	3.08	0.41
25:DA:2368:C:H2'	25:DA:2369:A:H8	1.86	0.41
25:DA:2639:A:H2'	25:DA:2640:G:O4'	2.20	0.41
24:CX:57:ASP:HB3	24:CX:77:GLU:OE2	2.21	0.41
25:BA:1562:A:C2	25:BA:1563:G:C4	3.09	0.41
25:BA:1324:G:H4'	25:BA:1616:A:C2	2.56	0.41
25:DA:1553:A:C6	25:DA:1555:G:C4	3.09	0.41
24:AX:32:GLN:NE2	24:AX:36:ARG:HH21	2.19	0.41
11:CI:46:ALA:HB2	11:CI:74:ILE:CG2	2.51	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:761:G:H2'	1:CA:762:C:C6	2.56	0.41
37:DQ:76:LYS:HD2	25:DA:957:A:OP1	2.21	0.41
53:B6:17:LYS:HD3	53:B6:17:LYS:HA	1.87	0.41
48:D1:40:ARG:HD3	48:D1:40:ARG:C	2.41	0.41
10:AH:39:LEU:HA	10:AH:39:LEU:HD12	1.91	0.41
27:BD:112:GLN:N	27:BD:112:GLN:OE1	2.54	0.41
53:D6:42:TRP:HA	53:D6:42:TRP:CE3	2.55	0.41
38:DR:33:ARG:HD2	38:DR:33:ARG:N	2.36	0.41
26:DB:5:C:H2'	26:DB:6:C:H6	1.87	0.41
2:CY:14:A:H2'	2:CY:15:G:O4'	2.21	0.41
1:CA:225:C:H2'	1:CA:226:G:C8	2.56	0.41
25:BA:893:C:H2'	25:BA:894:C:C6	2.56	0.41
19:AQ:48:GLU:O	19:AQ:49:GLU:HB2	2.21	0.41
25:BA:1813:G:H2'	25:BA:1814:G:O4'	2.21	0.40
41:BU:89:GLU:O	41:BU:90:VAL:C	2.60	0.40
25:BA:448:U:H1'	29:BF:84:VAL:HG23	2.03	0.40
46:BZ:25:PRO:HG2	46:BZ:84:GLU:O	2.20	0.40
36:DP:61:ARG:HD2	36:DP:61:ARG:N	2.36	0.40
36:BP:62:LEU:CD2	55:B8:25:MET:HB2	2.51	0.40
25:BA:2392:A:H1'	36:BP:60:MET:HE3	2.03	0.40
25:BA:2681:C:C5	25:BA:2724:C:N4	2.89	0.40
40:BT:64:ARG:NH1	40:BT:102:ILE:HG13	2.36	0.40
28:DE:195:LEU:HD23	28:DE:195:LEU:O	2.21	0.40
25:DA:465:G:C6	25:DA:466:A:N6	2.89	0.40
1:AA:1236:A:OP2	23:AU:3:LYS:HD2	2.21	0.40
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.56	0.40
1:CA:1236:A:OP2	23:CU:3:LYS:HD2	2.21	0.40
25:BA:2593:U:H2'	25:BA:2594:C:C5	2.54	0.40
51:D4:59:VAL:HG12	51:D4:60:GLU:N	2.28	0.40
27:DD:84:TYR:CD2	27:DD:86:PRO:HD3	2.55	0.40
27:DD:94:LEU:HD23	27:DD:104:TYR:CE1	2.56	0.40
32:DI:72:LEU:HB2	32:DI:138:ILE:HG21	2.03	0.40
41:DU:62:ILE:HD11	41:DU:93:LYS:HD3	2.03	0.40
1:AA:690:G:C6	1:AA:691:G:C6	3.09	0.40
13:CK:21:ILE:HD13	13:CK:82:VAL:HG13	2.01	0.40
1:AA:413:G:N2	1:AA:428:G:H1'	2.37	0.40
34:DN:79:ASN:HD21	34:DN:149:PRO:CD	2.32	0.40
8:CF:22:GLU:O	8:CF:25:ILE:HB	2.21	0.40
43:DW:8:ARG:CA	43:DW:102:HIS:HD2	2.31	0.40
25:DA:1438:U:O2'	25:DA:1439:A:H5'	2.21	0.40
25:DA:2413:G:H2'	25:DA:2414:G:O4'	2.20	0.40
24:AX:182:ARG:HB3	24:AX:307:PHE:CD1	2.56	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:391:G:H2'	25:BA:392:C:C6	2.56	0.40
25:BA:1021:A:H8	25:BA:1021:A:H3'	1.86	0.40
25:BA:1019:U:H3	25:BA:114(B):A:H62	1.68	0.40
1:AA:620:C:H2'	1:AA:621:A:O4'	2.21	0.40
25:DA:784:A:OP1	25:DA:2588:G:H5''	2.21	0.40
54:D7:11:LYS:HZ2	54:D7:15:THR:HG21	1.85	0.40
4:CB:102:LEU:O	4:CB:105:PHE:HB2	2.21	0.40
43:BW:51:LEU:O	43:BW:54:ALA:HB3	2.21	0.40
25:BA:2378:A:H2	39:BS:18:ILE:HD12	1.86	0.40
39:BS:25:ARG:CG	39:BS:88:ASP:HB2	2.50	0.40
24:CX:183:VAL:HA	24:CX:184:PRO:HD2	1.81	0.40
46:DZ:102:LEU:CD2	46:DZ:137:ILE:HB	2.49	0.40
8:AF:22:GLU:O	8:AF:25:ILE:HB	2.22	0.40
1:CA:253:U:H2'	1:CA:254:G:C8	2.56	0.40
25:DA:657:U:C4	25:DA:658:C:N4	2.89	0.40
25:BA:2638:G:P	28:BE:82:ARG:HH22	2.44	0.40
1:CA:998(B):C:H2'	1:CA:999:U:C6	2.57	0.40
25:DA:2787:C:N4	25:DA:2788:C:N4	2.68	0.40
22:CT:10:LEU:O	22:CT:13:LEU:HD13	2.21	0.40
25:BA:797:C:H2'	25:BA:798:G:O4'	2.21	0.40
25:BA:2189:U:H2'	25:BA:2190:G:C8	2.55	0.40
27:BD:186:HIS:CD2	27:BD:188:GLU:HB2	2.56	0.40
1:AA:142:G:H1	1:AA:221:C:N4	2.18	0.40
25:BA:561:G:C2'	25:BA:562:U:H5'	2.51	0.40
25:BA:1331:A:C2'	25:BA:1332:G:H5''	2.50	0.40
25:DA:177:G:H3'	25:DA:178:G:C8	2.56	0.40
31:BH:159:GLU:O	31:BH:160:LYS:HG3	2.20	0.40
25:BA:968:G:H2'	25:BA:969:U:C6	2.56	0.40
1:CA:954:G:H2'	1:CA:955:U:C6	2.56	0.40
25:DA:629:G:H5''	25:DA:650:C:O2'	2.20	0.40
1:AA:35:G:H2'	1:AA:36:C:C6	2.56	0.40
25:DA:917:A:H5'	25:DA:2268:A:H61	1.85	0.40
6:AD:150:GLU:HA	6:AD:153:ARG:HG3	2.03	0.40
12:AJ:40:LEU:HB3	12:AJ:41:PRO:HD2	2.03	0.40
25:BA:1907:G:C6	25:BA:1908:C:C4	3.09	0.40
25:DA:2541:A:H4'	25:DA:2764:A:C2	2.56	0.40
18:CP:6:LEU:HD23	18:CP:17:TYR:CG	2.55	0.40
50:D3:16:PRO:HB2	50:D3:18:ASP:OD1	2.20	0.40
27:BD:15:PHE:O	27:BD:17:THR:HG23	2.21	0.40
6:AD:196:LEU:C	6:AD:198:VAL:H	2.24	0.40
1:CA:1037:C:H6	1:CA:1037:C:O5'	2.04	0.40
27:BD:64:ILE:H	27:BD:64:ILE:HD12	1.86	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1178:C:O5'	25:BA:1178:C:H6	2.05	0.40
19:AQ:29:HIS:HB3	19:AQ:33:GLY:N	2.35	0.40
10:AH:38:ILE:HD12	10:AH:118:VAL:HG12	2.02	0.40
40:DT:5:ALA:HB2	25:DA:2875:C:O2'	2.21	0.40
48:D1:19:GLN:NE2	48:D1:41:ARG:HE	2.20	0.40
28:BE:119:ARG:HH11	28:BE:119:ARG:CG	2.11	0.40
27:DD:244:ARG:HD2	27:DD:245:PRO:HB3	2.03	0.40
25:BA:2443:C:O2'	25:BA:2444:G:H5'	2.21	0.40
36:BP:138:LEU:C	36:BP:138:LEU:HD12	2.42	0.40
14:CL:52:ARG:O	14:CL:54:VAL:HG23	2.21	0.40
36:DP:62:LEU:CD2	55:D8:25:MET:HB2	2.52	0.40
11:AI:114:TYR:HE1	12:AJ:59:SER:CA	2.34	0.40
25:BA:2577:A:H1'	52:B5:4:HIS:HB3	2.02	0.40
25:DA:2403:C:N3	25:DA:2415:G:C2	2.90	0.40
25:DA:809:G:O2'	25:DA:810:U:H5'	2.21	0.40
25:DA:2029:G:O6	25:DA:2033:A:OP1	2.39	0.40
38:BR:4:LEU:C	38:BR:6:SER:N	2.75	0.40
25:BA:2551:C:H2'	25:BA:2552:U:C6	2.57	0.40
25:BA:1668:A:H61	25:BA:1676:A:H61	1.68	0.40
37:DQ:6:ARG:HB3	37:DQ:7:MET:H	1.72	0.40
11:AI:53:VAL:HG12	11:AI:92:TYR:CD2	2.56	0.40
21:AS:29:ARG:O	21:AS:31:ILE:HG22	2.20	0.40
1:AA:1181:G:H4'	1:AA:1182:G:OP1	2.22	0.40
27:DD:35:LYS:NZ	27:DD:103:ARG:HA	2.36	0.40
27:DD:85:ASP:HA	27:DD:86:PRO:HD2	1.87	0.40
55:D8:54:GLU:CG	55:D8:57:ARG:HH12	2.35	0.40
1:CA:1181:G:H4'	1:CA:1182:G:OP1	2.22	0.40
25:DA:107:C:O2'	25:DA:108:U:H5'	2.21	0.40
25:DA:27:G:C8	25:DA:27:G:O5'	2.74	0.40
34:BN:78:VAL:O	34:BN:79:ASN:HB2	2.21	0.40
1:AA:1053:G:C6	1:AA:1199:U:H2'	2.57	0.40
1:AA:1054:C:C2'	1:AA:1055:A:H5''	2.51	0.40
8:CF:17:SER:O	8:CF:21:LEU:HD23	2.21	0.40
40:BT:41:ARG:CD	40:BT:42:ILE:H	2.31	0.40
12:CJ:34:VAL:CG2	12:CJ:74:ILE:HG22	2.51	0.40
1:CA:146:G:H1	1:CA:177:C:N4	2.18	0.40
24:CX:181:GLN:HB3	24:CX:192:ILE:HD11	2.03	0.40
25:BA:2413:G:H2'	25:BA:2414:G:O4'	2.21	0.40
13:CK:54:ARG:HG2	13:CK:54:ARG:H	1.70	0.40
40:BT:117:ASP:O	40:BT:121:ILE:HG13	2.21	0.40
28:DE:92:THR:HB	28:DE:94:GLU:HG2	2.03	0.40
43:DW:27:LYS:O	43:DW:71:VAL:HG23	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:707:C:H5''	13:AK:85:ARG:NH1	2.37	0.40
1:AA:261:U:C5	22:AT:79:ARG:NH1	2.90	0.40
25:BA:2119:A:H5''	25:BA:2172:U:O2	2.21	0.40
55:D8:5:LYS:HE2	25:DA:242:G:N7	2.36	0.40
1:AA:1148:U:H4'	11:AI:14:VAL:HG11	2.02	0.40
25:DA:959:A:O2'	25:DA:960:A:H5'	2.21	0.40
25:BA:2115:G:N2	25:BA:2117:A:H8	2.19	0.40
46:DZ:137:ILE:N	46:DZ:137:ILE:HD12	2.37	0.40
25:DA:2358:G:C5	25:DA:2359:C:C5	3.09	0.40
1:AA:38:G:C2	1:AA:397:A:C2	3.09	0.40
1:CA:601:C:H2'	1:CA:602:A:C8	2.56	0.40
25:BA:1071:G:H2'	25:BA:1072:C:C6	2.56	0.40
28:DE:131:ALA:O	28:DE:133:LYS:N	2.47	0.40
1:AA:115:G:H1'	1:AA:116:A:N7	2.35	0.40
25:DA:310:A:C6	25:DA:330:A:N1	2.89	0.40
25:BA:218:A:H2	25:BA:235:U:H4'	1.84	0.40
29:BF:164:ARG:O	29:BF:165:ARG:C	2.60	0.40
32:BI:79:ILE:HG22	32:BI:81:VAL:CG2	2.51	0.40
1:AA:197:A:N6	1:AA:221:C:H4'	2.36	0.40
2:CY:47:U:H3'	2:CY:48:C:C5'	2.51	0.40
41:BU:79:PHE:HE2	41:BU:106:PHE:CZ	2.39	0.40
1:AA:1263:C:H2'	1:AA:1264:C:C6	2.55	0.40
1:CA:1149:C:H6	1:CA:1149:C:O5'	2.04	0.40
25:DA:2396:G:O2'	25:DA:2397:G:H5'	2.22	0.40
49:B2:6:VAL:HA	49:B2:9:GLN:CD	2.41	0.40
38:DR:96:ARG:HH22	38:DR:117:VAL:HG23	1.85	0.40
50:B3:4:LEU:HD23	50:B3:4:LEU:HA	1.95	0.40
38:BR:21:TYR:HE2	38:BR:43:GLU:HB3	1.86	0.40
36:DP:112:LEU:C	36:DP:112:LEU:HD23	2.41	0.40
5:AC:152:ILE:HG23	5:AC:166:GLU:O	2.21	0.40
1:CA:402:G:C6	1:CA:403:C:C4	3.10	0.40
21:CS:11:VAL:HG22	21:CS:12:ASP:N	2.37	0.40
25:DA:968:G:H2'	25:DA:969:U:H6	1.86	0.40
25:DA:355:G:H2'	25:DA:356:G:H8	1.86	0.40
27:DD:271:ILE:N	27:DD:271:ILE:HD12	2.36	0.40
1:AA:298:A:C5	1:AA:299:G:C6	3.10	0.40
27:DD:135:PHE:O	27:DD:137:PRO:HD3	2.21	0.40
1:AA:402:G:C6	1:AA:403:C:C4	3.10	0.40
25:BA:88:G:N3	25:BA:88:G:H2'	2.35	0.40
9:AG:9:VAL:HG21	9:AG:94:ARG:HD2	2.03	0.40
53:D6:41:PRO:HD2	53:D6:46:HIS:H	1.86	0.40
30:DG:105:LYS:HE3	51:D4:52:SER:HB2	2.02	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BU:21:ALA:HB2	41:BU:39:LEU:HD21	2.02	0.40
27:BD:181:GLU:O	27:BD:182:LEU:HD23	2.21	0.40
25:BA:1949:G:C6	25:BA:1950:G:C6	3.10	0.40
1:CA:868:C:H2'	1:CA:869:G:O4'	2.21	0.40
42:BV:1:MET:HA	42:BV:42:GLY:HA3	2.03	0.40
1:AA:424:G:H8	1:AA:424:G:O5'	2.04	0.40
53:B6:34:LEU:N	53:B6:34:LEU:HD13	2.36	0.40
12:CJ:90:LEU:N	12:CJ:91:PRO:CD	2.84	0.40
25:BA:522:G:C6	25:BA:523:C:C4	3.10	0.40
25:DA:1161:C:H2'	25:DA:1162:G:C8	2.57	0.40
36:DP:138:LEU:C	36:DP:138:LEU:HD12	2.41	0.40
25:BA:2686:G:C2	25:BA:2724:C:O2	2.74	0.40
25:BA:1190:G:OP1	36:BP:32:THR:HG21	2.21	0.40
5:AC:18:TRP:CD1	16:AN:54:PRO:HA	2.57	0.40
1:AA:243:A:C8	1:AA:281:G:N2	2.90	0.40
1:CA:1227:A:OP1	15:CM:94:ARG:CZ	2.69	0.40
40:BT:24:PRO:HA	40:BT:49:VAL:CG1	2.50	0.40
25:BA:464:U:H2'	25:BA:465:G:O4'	2.22	0.40
40:DT:107:ASP:OD2	40:DT:109:GLU:HB2	2.22	0.40
46:DZ:163:LEU:O	46:DZ:163:LEU:HG	2.22	0.40
1:CA:690:G:C6	1:CA:691:G:C6	3.09	0.40
1:CA:68:G:H22	1:CA:101:A:H2	1.70	0.40
24:AX:5:LEU:HB3	24:AX:52:ARG:HH21	1.87	0.40
9:CG:70:LYS:HA	9:CG:71:PRO:HD2	1.84	0.40
25:DA:834:C:C2	25:DA:835:A:C8	3.09	0.40
25:BA:61:G:H8	25:BA:61:G:O5'	2.05	0.40
1:CA:194:C:C2'	1:CA:195:A:H5''	2.48	0.40
25:DA:61:G:O2'	25:DA:62:C:H5'	2.22	0.40
25:BA:1438:U:O2'	25:BA:1439:A:H5'	2.21	0.40
14:CL:83:LEU:CD1	14:CL:103:VAL:HG11	2.49	0.40
9:AG:12:LEU:N	9:AG:12:LEU:HD23	2.34	0.40
27:BD:165:ILE:HD12	27:BD:165:ILE:N	2.35	0.40
15:CM:91:ARG:NH2	15:CM:100:GLY:HA2	2.37	0.40
24:CX:191:ARG:HG2	24:CX:192:ILE:N	2.36	0.40
1:CA:620:C:H2'	1:CA:621:A:O4'	2.22	0.40
1:CA:714:G:C6	1:CA:715:A:N1	2.89	0.40
25:BA:784:A:OP1	25:BA:2588:G:H5''	2.22	0.40
54:B7:11:LYS:HZ1	54:B7:15:THR:HG21	1.85	0.40
44:BX:15:GLU:CD	44:BX:15:GLU:N	2.74	0.40
28:DE:171:GLU:HG2	28:DE:185:LYS:CG	2.50	0.40
25:DA:656:G:C5	25:DA:657:U:C4	3.10	0.40
25:BA:335:C:H4'	45:BY:73:ARG:HD2	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1269:A:H2'	25:DA:1270:C:C6	2.57	0.40
25:BA:1090:U:H2'	25:BA:1091:G:H8	1.82	0.40
33:DJ:4:LYS:O	33:DJ:8:GLU:HG3	2.22	0.40
10:AH:31:PHE:O	10:AH:35:ILE:HG12	2.21	0.40
1:AA:358:U:C5'	1:AA:358:U:C6	3.05	0.40
1:AA:359:U:H2'	1:AA:360:A:C8	2.55	0.40
25:DA:428:A:N6	25:DA:429:A:C6	2.90	0.40
25:BA:563:G:C6	25:BA:2018:G:C5	3.09	0.40
25:DA:1071:G:H2'	25:DA:1072:C:C6	2.56	0.40
19:CQ:73:VAL:HG12	19:CQ:74:LEU:N	2.36	0.40
25:DA:1197:G:H1'	25:DA:1250:G:N2	2.36	0.40
4:CB:153:ARG:CZ	4:CB:153:ARG:HB2	2.52	0.40
34:DN:161:LEU:N	34:DN:161:LEU:HD23	2.36	0.40
1:AA:819:A:H4'	1:AA:820:U:OP2	2.21	0.40
30:BG:173:LEU:HD23	30:BG:176:LEU:HD12	2.04	0.40
25:DA:2262:U:H2'	25:DA:2263:C:C6	2.56	0.40
29:BF:73:ALA:O	29:BF:74:ARG:HB2	2.22	0.40
25:DA:561:G:C2'	25:DA:562:U:H5'	2.51	0.40
2:AZ:31:G:H2'	2:AZ:32:C:O4'	2.22	0.40
1:AA:1263:C:H2'	1:AA:1264:C:H6	1.86	0.40
46:DZ:178:GLU:O	46:DZ:179:ASP:O	2.39	0.40
25:DA:677:A:C5	25:DA:678:C:C5	3.10	0.40
25:BA:2125:G:H1'	25:BA:2173:A:H61	1.86	0.40
17:AO:25:THR:O	17:AO:29:VAL:HG23	2.20	0.40
25:DA:2125:G:H1'	25:DA:2173:A:H61	1.86	0.40
1:CA:186(G):C:H2'	1:CA:187:C:O4'	2.20	0.40
25:DA:573:G:O2'	25:DA:574:C:H3'	2.21	0.40
6:CD:96:LEU:HD22	6:CD:96:LEU:N	2.37	0.40
25:DA:2368:C:H2'	25:DA:2369:A:C8	2.56	0.40
11:AI:46:ALA:HB2	11:AI:74:ILE:CG2	2.51	0.40
25:DA:876:C:H2'	25:DA:877:U:O4'	2.21	0.40
24:AX:229:GLY:C	24:AX:231:GLY:H	2.24	0.40
2:AY:11:A:O2'	25:BA:1909:C:H1'	2.22	0.40
10:CH:38:ILE:HD12	10:CH:118:VAL:HG12	2.03	0.40
2:CZ:31:G:H2'	2:CZ:32:C:O4'	2.21	0.40
25:BA:2532:G:C6	25:BA:2533:A:C5	3.10	0.40
4:AB:52:GLU:O	4:AB:56:ARG:HG3	2.21	0.40
25:DA:2836:U:C4	25:DA:2883:A:N6	2.90	0.40
25:DA:2839:G:H2'	25:DA:2840:C:C6	2.55	0.40
1:AA:1003:G:N2	1:AA:1038:C:C2	2.89	0.40
3:CV:16:A:C6	2:CY:37:A:C2	3.10	0.40
32:BI:10:GLU:HG2	32:BI:10:GLU:H	1.70	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CB:87:ARG:HD2	4:CB:87:ARG:O	2.21	0.40
48:B1:52:ARG:HD3	48:B1:52:ARG:N	2.37	0.40
25:DA:76:C:H2'	25:DA:77:C:H6	1.86	0.40
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.22	0.40
37:DQ:52:VAL:HG13	37:DQ:53:ALA:N	2.36	0.40
41:BU:94:ASN:OD1	41:BU:94:ASN:C	2.60	0.40
49:D2:23:LYS:O	49:D2:27:GLU:HG3	2.21	0.40
25:BA:274:G:C8	25:BA:274:G:H5''	2.56	0.40
36:DP:143:GLY:C	36:DP:145:PRO:HD3	2.42	0.40
29:BF:81:PRO:C	29:BF:83:PHE:H	2.25	0.40
50:D3:28:LEU:HA	50:D3:33:GLN:OE1	2.22	0.40
25:BA:1494:A:H4'	25:BA:1495:A:OP1	2.22	0.40
28:BE:51:PHE:CD1	28:BE:52:LEU:HG	2.55	0.40
25:BA:2029:G:H2'	25:BA:2031:A:OP2	2.22	0.40
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.22	0.40
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.21	0.40
51:D4:43:GLY:N	51:D4:60:GLU:HA	2.36	0.40
25:BA:1151:G:H5''	41:BU:81:HIS:CE1	2.57	0.40
40:DT:64:ARG:NH1	40:DT:102:ILE:HG13	2.36	0.40
25:DA:1021:A:C3'	25:DA:1021:A:C8	3.04	0.40
48:D1:53:VAL:HG22	48:D1:74:VAL:HG13	2.03	0.40
6:CD:36:ARG:C	6:CD:38:TYR:H	2.24	0.40
6:AD:36:ARG:C	6:AD:38:TYR:H	2.24	0.40
48:B1:27:GLU:CB	48:B1:33:LYS:HG3	2.51	0.40
25:DA:2075:U:C4	25:DA:2238:G:C6	3.10	0.40
14:CL:69:ILE:HD12	14:CL:69:ILE:N	2.36	0.40
1:CA:579:G:H2'	1:CA:580:U:H6	1.87	0.40
26:DB:81:G:N1	26:DB:96:G:C2	2.90	0.40
25:BA:1750:G:C2	25:BA:1751:C:C4	3.10	0.40
25:DA:55:G:C2	25:DA:116:C:C2	3.09	0.40
36:BP:29:LYS:HD2	36:BP:29:LYS:N	2.36	0.40
1:AA:744:C:H2'	1:AA:745:C:H6	1.85	0.40
25:BA:1230:C:C2	25:BA:1231:G:N7	2.89	0.40
25:BA:1972:A:H2'	25:BA:1973:G:H8	1.85	0.40
25:DA:379:G:C5	25:DA:380:U:C5	3.10	0.40
25:DA:655:A:C2'	25:DA:656:G:H5'	2.51	0.40
1:CA:358:U:C5'	1:CA:358:U:C6	3.05	0.40
25:BA:1511:A:O5'	25:BA:1511:A:H8	2.04	0.40
25:BA:2562:U:O2'	25:BA:2563:U:H5'	2.22	0.40
1:CA:815:A:C2	1:CA:1529:G:C4	3.08	0.40
45:DY:19:LYS:HG3	25:DA:329:G:H1	1.85	0.40
25:DA:756:C:C2	25:DA:757:U:C6	3.09	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1201:A:O2'	1:CA:1202:G:OP2	2.36	0.40
36:BP:26:GLY:HA2	36:BP:30:THR:CG2	2.51	0.40
10:AH:75:ARG:HA	10:AH:76:PRO:HD2	1.81	0.40
25:DA:2869:G:H2'	25:DA:2870:C:H6	1.86	0.40
1:CA:406:G:H2'	1:CA:407:G:C8	2.56	0.40
9:CG:122:HIS:HA	9:CG:125:MET:CE	2.51	0.40
2:AY:47:U:H3'	2:AY:48:C:C5'	2.51	0.40
43:DW:23:LEU:HD11	52:D5:25:LEU:HB2	2.03	0.40
25:BA:951:C:H2'	25:BA:952:G:C8	2.56	0.40
7:AE:31:LEU:HD23	7:AE:32:VAL:N	2.37	0.40
25:BA:2756:U:H1'	25:BA:2757:A:H5''	2.03	0.40
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.56	0.40
2:CY:72:A:N6	2:CY:73:A:C6	2.90	0.40
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.21	0.40
25:BA:593:G:O2'	55:B8:62:LEU:HD13	2.22	0.40
24:AX:229:GLY:C	24:AX:231:GLY:N	2.75	0.40
1:AA:636:U:H5'	19:AQ:2:PRO:HD3	2.03	0.40
25:DA:2350:C:H2'	25:DA:2351:G:O4'	2.22	0.40
42:DV:62:LEU:HB3	42:DV:93:GLU:HB2	2.03	0.40
1:AA:101:A:C6	1:AA:102:G:N7	2.90	0.40
25:DA:1990:C:H2'	25:DA:1991:U:C6	2.56	0.40
37:BQ:54:MET:SD	37:BQ:118:LEU:HD23	2.62	0.40
1:CA:1006:C:H2'	1:CA:1007:C:C6	2.57	0.40
25:DA:2584:U:O2	25:DA:2585:U:C4	2.74	0.40
25:BA:962:G:H2'	25:BA:963:U:O4'	2.20	0.40
26:DB:33:G:O2'	26:DB:34:U:H5'	2.22	0.40
14:CL:118:LYS:HB3	14:CL:118:LYS:HE2	1.91	0.40
29:DF:179:GLU:H	29:DF:179:GLU:CD	2.25	0.40
15:CM:66:LEU:HD23	15:CM:66:LEU:N	2.36	0.40
1:CA:1163:C:O5'	1:CA:1163:C:H6	2.05	0.40
27:BD:175:LEU:HA	27:BD:175:LEU:HD23	1.93	0.40
7:CE:12:LEU:HD22	7:CE:12:LEU:C	2.42	0.40
10:AH:13:ILE:HD12	10:AH:13:ILE:H	1.86	0.40
28:BE:2:LYS:HD3	28:BE:95:ILE:HG22	2.03	0.40
54:B7:18:PHE:CE2	54:B7:22:MET:HG3	2.56	0.40
25:DA:2604:U:O2'	25:DA:2605:U:H5'	2.22	0.40
6:CD:68:TYR:O	6:CD:69:GLY:C	2.59	0.40
25:DA:1813:G:H2'	25:DA:1814:G:O4'	2.21	0.40
45:BY:75:ILE:HG13	45:BY:80:GLY:N	2.13	0.40
44:BX:44:GLU:HA	44:BX:49:VAL:O	2.20	0.40
11:AI:28:VAL:HG13	11:AI:63:ILE:HG22	2.03	0.40
4:CB:71:VAL:HG23	4:CB:164:VAL:HG13	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:84:A:H62	25:BA:102:G:H21	1.70	0.40
1:AA:521:G:H2'	1:AA:522:C:H6	1.85	0.40
14:CL:52:ARG:N	14:CL:52:ARG:HD2	2.36	0.40
4:AB:88:ALA:HA	4:AB:223:ILE:HD11	2.04	0.40
25:BA:1693:U:C4	25:BA:1977:A:C4	3.10	0.40
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.21	0.40
32:DI:5:LEU:HD23	32:DI:5:LEU:N	2.28	0.40
11:CI:89:ASN:HB3	11:CI:92:TYR:CD1	2.57	0.40
1:CA:1509:C:H2'	1:CA:1510:U:O4'	2.21	0.40
36:DP:47:ASP:HB3	36:DP:48:PRO:CA	2.52	0.40
32:BI:128:LEU:HG	32:BI:142:VAL:HG21	2.03	0.40
43:DW:18:ARG:NH1	43:DW:76:VAL:HG13	2.36	0.40
27:DD:30:GLU:HG3	27:DD:63:ARG:NH2	2.31	0.40
25:BA:443:A:C4	29:BF:45:ARG:NH1	2.90	0.40
40:DT:108:ARG:HA	40:DT:111:ARG:HG3	2.04	0.40
20:CR:71:LYS:HA	20:CR:74:ARG:HD3	2.03	0.40
37:DQ:38:GLU:H	37:DQ:127:ILE:CG2	2.35	0.40
25:DA:189:G:N2	25:DA:208:C:N4	2.69	0.40
25:DA:2399:G:C6	25:DA:2400:G:C5	3.09	0.40
52:D5:19:ARG:NH2	25:DA:1264:G:OP1	2.54	0.40
25:BA:1265:A:H3'	52:B5:19:ARG:HH11	1.86	0.40
53:B6:38:LYS:HG2	53:B6:39:TYR:N	2.37	0.40
21:AS:63:THR:H	21:AS:66:MET:CG	2.33	0.40
15:AM:91:ARG:NH2	15:AM:100:GLY:HA2	2.36	0.40
12:AJ:6:ILE:O	12:AJ:71:LEU:HD12	2.21	0.40
25:BA:1022:G:HO2'	25:BA:1023:U:P	2.43	0.40
36:DP:10:PRO:CD	36:DP:11:GLY:H	2.34	0.40
4:CB:157:ARG:O	4:CB:159:PRO:HD3	2.21	0.40
25:BA:216:A:N7	25:BA:432:A:C6	2.89	0.40
25:BA:2291:U:O5'	25:BA:2291:U:H6	2.04	0.40
1:AA:253:U:H2'	1:AA:254:G:C8	2.57	0.40
25:BA:657:U:C4	25:BA:658:C:N4	2.89	0.40
1:CA:232:G:H1'	1:CA:262:A:N1	2.36	0.40
25:BA:856:C:H4'	47:B0:27:GLU:HB3	2.02	0.40
28:DE:82:ARG:HH22	25:DA:2638:G:P	2.44	0.40
29:BF:28:ILE:HG13	29:BF:28:ILE:O	2.22	0.40
1:AA:643:C:O5'	1:AA:643:C:H6	2.04	0.40
1:AA:998(B):C:H2'	1:AA:999:U:C6	2.57	0.40
1:CA:1417:G:C6	1:CA:1482:G:C6	3.10	0.40
31:DH:96:ALA:CB	31:DH:105:LEU:HB3	2.51	0.40
25:DA:755:C:H2'	25:DA:756:C:C6	2.56	0.40
29:DF:161:GLU:O	29:DF:164:ARG:HB2	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BH:96:ALA:CB	31:BH:105:LEU:HB3	2.52	0.40
7:CE:87:SER:HB3	7:CE:131:ILE:HD13	2.02	0.40
2:AZ:33:U:H4'	9:AG:84:ASN:ND2	2.37	0.40
25:BA:363(G):A:H4'	25:BA:364:C:H5'	2.02	0.40
46:BZ:146:ILE:HG22	46:BZ:174:VAL:HG12	2.03	0.40
27:BD:68:LYS:O	27:BD:70:TRP:N	2.54	0.40
25:DA:797:C:H2'	25:DA:798:G:O4'	2.22	0.40
46:BZ:54:HIS:HB3	46:BZ:101:PRO:HD3	2.03	0.40
40:BT:57:PHE:O	40:BT:58:ASN:C	2.59	0.40
12:AJ:25:GLU:O	12:AJ:29:ARG:HB3	2.20	0.40
7:AE:10:MET:SD	7:AE:10:MET:N	2.91	0.40
1:AA:590:C:H2'	1:AA:591:U:C6	2.57	0.40
25:BA:270(L):C:H6	25:BA:270(L):C:O5'	2.04	0.40
1:CA:1197:G:C2	1:CA:1198:G:C8	3.09	0.40
1:AA:27:G:H8	1:AA:27:G:O5'	2.04	0.40
5:AC:152:ILE:HG12	5:AC:167:TRP:HA	2.03	0.40
25:BA:1289:C:H2'	25:BA:1290:C:C6	2.56	0.40
25:BA:1661:G:C6	25:BA:1662:C:C4	3.09	0.40
1:CA:1416:G:C2	1:CA:1485:U:O2	2.75	0.40
25:DA:1648:C:H2'	25:DA:1649:G:O4'	2.21	0.40
43:DW:79:GLY:HA2	25:DA:25:U:H5'	2.03	0.40
25:BA:521:G:H2'	25:BA:522:G:C8	2.56	0.40
25:DA:2524:G:N2	25:DA:2525:G:H1'	2.37	0.40
53:B6:9:LEU:HD23	53:B6:10:LEU:N	2.37	0.40
3:AV:16:A:C6	2:AY:37:A:C2	3.10	0.40
25:BA:2851:A:C5	25:BA:2852:G:C5	3.10	0.40
1:CA:721:G:C6	1:CA:733:A:C2	3.10	0.40
46:DZ:31:ARG:HG3	46:DZ:32:HIS:CD2	2.57	0.40
24:AX:145:LEU:HB2	24:AX:159:VAL:CG2	2.52	0.40
1:CA:636:U:H5'	19:CQ:2:PRO:HD3	2.03	0.40
37:DQ:84:GLY:HA3	47:D0:10:THR:CG2	2.51	0.40
1:AA:868:C:H2'	1:AA:869:G:O4'	2.21	0.40
6:CD:196:LEU:C	6:CD:198:VAL:H	2.25	0.40
1:CA:1003:G:N2	1:CA:1038:C:C2	2.90	0.40
13:AK:32:ILE:HG13	13:AK:72:ALA:HB2	2.03	0.40
13:AK:15:ALA:HB1	13:AK:78:GLN:HB2	2.02	0.40
26:BB:62:C:H2'	26:BB:63:G:H8	1.85	0.40
25:BA:144(B):A:H5''	25:BA:1445:C:H5	1.86	0.40
1:AA:1269:A:H2	1:AA:1312:G:N3	2.20	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone ⓘ

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	
4	AB	232/256 (91%)	186 (80%)	37 (16%)	9 (4%)	5	33
4	CB	232/256 (91%)	188 (81%)	37 (16%)	7 (3%)	7	42
5	AC	204/239 (85%)	156 (76%)	36 (18%)	12 (6%)	2	20
5	CC	204/239 (85%)	155 (76%)	38 (19%)	11 (5%)	3	24
6	AD	206/209 (99%)	163 (79%)	31 (15%)	12 (6%)	3	21
6	CD	206/209 (99%)	163 (79%)	30 (15%)	13 (6%)	2	18
7	AE	149/162 (92%)	122 (82%)	24 (16%)	3 (2%)	11	56
7	CE	149/162 (92%)	122 (82%)	24 (16%)	3 (2%)	11	56
8	AF	99/101 (98%)	85 (86%)	13 (13%)	1 (1%)	22	74
8	CF	99/101 (98%)	85 (86%)	13 (13%)	1 (1%)	22	74
9	AG	153/156 (98%)	125 (82%)	24 (16%)	4 (3%)	8	47
9	CG	153/156 (98%)	127 (83%)	22 (14%)	4 (3%)	8	47
10	AH	136/138 (99%)	118 (87%)	17 (12%)	1 (1%)	30	80
10	CH	136/138 (99%)	118 (87%)	18 (13%)	0	100	100
11	AI	125/128 (98%)	100 (80%)	23 (18%)	2 (2%)	14	63
11	CI	125/128 (98%)	101 (81%)	22 (18%)	2 (2%)	14	63
12	AJ	96/105 (91%)	73 (76%)	18 (19%)	5 (5%)	3	25
12	CJ	96/105 (91%)	73 (76%)	18 (19%)	5 (5%)	3	25
13	AK	117/129 (91%)	97 (83%)	18 (15%)	2 (2%)	14	62
13	CK	117/129 (91%)	96 (82%)	19 (16%)	2 (2%)	14	62
14	AL	122/134 (91%)	88 (72%)	26 (21%)	8 (7%)	2	16
14	CL	122/134 (91%)	88 (72%)	26 (21%)	8 (7%)	2	16
15	AM	115/126 (91%)	92 (80%)	16 (14%)	7 (6%)	2	19
15	CM	115/126 (91%)	92 (80%)	16 (14%)	7 (6%)	2	19
16	AN	58/61 (95%)	45 (78%)	8 (14%)	5 (9%)	1	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
16	CN	58/61 (95%)	45 (78%)	8 (14%)	5 (9%)	1	8
17	AO	86/89 (97%)	70 (81%)	15 (17%)	1 (1%)	19	70
17	CO	86/89 (97%)	69 (80%)	16 (19%)	1 (1%)	19	70
18	AP	81/88 (92%)	65 (80%)	14 (17%)	2 (2%)	9	49
18	CP	81/88 (92%)	65 (80%)	14 (17%)	2 (2%)	9	49
19	AQ	97/105 (92%)	87 (90%)	8 (8%)	2 (2%)	11	55
19	CQ	97/105 (92%)	86 (89%)	9 (9%)	2 (2%)	11	55
20	AR	68/88 (77%)	53 (78%)	13 (19%)	2 (3%)	7	43
20	CR	68/88 (77%)	52 (76%)	14 (21%)	2 (3%)	7	43
21	AS	76/93 (82%)	53 (70%)	16 (21%)	7 (9%)	1	8
21	CS	76/93 (82%)	53 (70%)	16 (21%)	7 (9%)	1	8
22	AT	97/106 (92%)	79 (81%)	14 (14%)	4 (4%)	4	32
22	CT	97/106 (92%)	79 (81%)	14 (14%)	4 (4%)	4	32
23	AU	22/27 (82%)	18 (82%)	3 (14%)	1 (4%)	4	29
23	CU	22/27 (82%)	18 (82%)	3 (14%)	1 (4%)	4	29
24	AX	352/354 (99%)	297 (84%)	44 (12%)	11 (3%)	7	41
24	CX	352/354 (99%)	296 (84%)	45 (13%)	11 (3%)	7	41
27	BD	269/276 (98%)	213 (79%)	40 (15%)	16 (6%)	2	20
27	DD	269/276 (98%)	213 (79%)	40 (15%)	16 (6%)	2	20
28	BE	202/206 (98%)	151 (75%)	41 (20%)	10 (5%)	3	26
28	DE	202/206 (98%)	151 (75%)	42 (21%)	9 (4%)	4	29
29	BF	200/210 (95%)	158 (79%)	35 (18%)	7 (4%)	6	37
29	DF	200/210 (95%)	158 (79%)	35 (18%)	7 (4%)	6	37
30	BG	179/182 (98%)	127 (71%)	42 (24%)	10 (6%)	3	23
30	DG	179/182 (98%)	124 (69%)	44 (25%)	11 (6%)	2	19
31	BH	157/180 (87%)	126 (80%)	24 (15%)	7 (4%)	4	29
31	DH	157/180 (87%)	126 (80%)	24 (15%)	7 (4%)	4	29
32	BI	143/148 (97%)	111 (78%)	25 (18%)	7 (5%)	3	26
32	DI	143/148 (97%)	112 (78%)	24 (17%)	7 (5%)	3	26
33	BJ	28/173 (16%)	27 (96%)	1 (4%)	0	100	100
33	DJ	28/173 (16%)	27 (96%)	1 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
34	BN	135/163 (83%)	100 (74%)	27 (20%)	8 (6%)	2	20
34	DN	135/163 (83%)	100 (74%)	27 (20%)	8 (6%)	2	20
35	BO	120/122 (98%)	101 (84%)	18 (15%)	1 (1%)	27	77
35	DO	120/122 (98%)	101 (84%)	18 (15%)	1 (1%)	27	77
36	BP	144/150 (96%)	82 (57%)	44 (31%)	18 (12%)	1	3
36	DP	144/150 (96%)	82 (57%)	45 (31%)	17 (12%)	1	4
37	BQ	134/141 (95%)	86 (64%)	36 (27%)	12 (9%)	1	8
37	DQ	134/141 (95%)	87 (65%)	35 (26%)	12 (9%)	1	8
38	BR	115/118 (98%)	92 (80%)	18 (16%)	5 (4%)	4	30
38	DR	115/118 (98%)	91 (79%)	18 (16%)	6 (5%)	3	25
39	BS	96/112 (86%)	62 (65%)	24 (25%)	10 (10%)	1	5
39	DS	96/112 (86%)	61 (64%)	25 (26%)	10 (10%)	1	5
40	BT	135/146 (92%)	102 (76%)	29 (22%)	4 (3%)	7	42
40	DT	135/146 (92%)	103 (76%)	28 (21%)	4 (3%)	7	42
41	BU	115/118 (98%)	90 (78%)	21 (18%)	4 (4%)	6	37
41	DU	115/118 (98%)	89 (77%)	22 (19%)	4 (4%)	6	37
42	BV	99/101 (98%)	69 (70%)	21 (21%)	9 (9%)	1	8
42	DV	99/101 (98%)	69 (70%)	21 (21%)	9 (9%)	1	8
43	BW	110/113 (97%)	91 (83%)	17 (16%)	2 (2%)	13	60
43	DW	110/113 (97%)	91 (83%)	17 (16%)	2 (2%)	13	60
44	BX	90/96 (94%)	69 (77%)	20 (22%)	1 (1%)	21	72
44	DX	90/96 (94%)	69 (77%)	20 (22%)	1 (1%)	21	72
45	BY	98/110 (89%)	65 (66%)	21 (21%)	12 (12%)	1	3
45	DY	98/110 (89%)	65 (66%)	21 (21%)	12 (12%)	1	3
46	BZ	186/206 (90%)	142 (76%)	34 (18%)	10 (5%)	3	24
46	DZ	186/206 (90%)	142 (76%)	34 (18%)	10 (5%)	3	24
47	B0	74/85 (87%)	55 (74%)	14 (19%)	5 (7%)	2	15
47	D0	74/85 (87%)	55 (74%)	14 (19%)	5 (7%)	2	15
48	B1	86/98 (88%)	53 (62%)	27 (31%)	6 (7%)	2	13
48	D1	86/98 (88%)	53 (62%)	28 (33%)	5 (6%)	3	21
49	B2	70/72 (97%)	48 (69%)	16 (23%)	6 (9%)	1	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
49	D2	70/72 (97%)	48 (69%)	16 (23%)	6 (9%)	1	8
50	B3	57/60 (95%)	43 (75%)	13 (23%)	1 (2%)	13	60
50	D3	57/60 (95%)	44 (77%)	12 (21%)	1 (2%)	13	60
51	B4	28/97 (29%)	14 (50%)	11 (39%)	3 (11%)	1	5
51	D4	28/97 (29%)	14 (50%)	11 (39%)	3 (11%)	1	5
52	B5	50/60 (83%)	36 (72%)	12 (24%)	2 (4%)	5	32
52	D5	50/60 (83%)	36 (72%)	12 (24%)	2 (4%)	5	32
53	B6	42/54 (78%)	31 (74%)	8 (19%)	3 (7%)	2	13
53	D6	42/54 (78%)	31 (74%)	8 (19%)	3 (7%)	2	13
54	B7	46/49 (94%)	39 (85%)	7 (15%)	0	100	100
54	D7	46/49 (94%)	39 (85%)	7 (15%)	0	100	100
55	B8	61/65 (94%)	42 (69%)	15 (25%)	4 (7%)	2	16
55	D8	61/65 (94%)	42 (69%)	15 (25%)	4 (7%)	2	16
All	All	11920/13210 (90%)	9191 (77%)	2165 (18%)	564 (5%)	4	27

All (564) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	AC	47	LEU
12	AJ	75	ILE
15	AM	4	ILE
15	AM	106	ASN
15	AM	117	VAL
16	AN	26	ARG
22	AT	71	THR
24	AX	300	GLU
24	AX	301	LYS
27	BD	33	LEU
27	BD	35	LYS
27	BD	244	ARG
28	BE	16	ARG
28	BE	86	PRO
29	BF	73	ALA
29	BF	84	VAL
30	BG	75	LYS
30	BG	87	PRO
31	BH	92	ILE

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Mol	Chain	Res	Type
32	BI	89	TYR
32	BI	91	SER
34	BN	89	LYS
34	BN	116	THR
34	BN	149	PRO
34	BN	153	HIS
36	BP	15	ARG
37	BQ	10	ARG
37	BQ	21	THR
37	BQ	133	ARG
37	BQ	139	GLU
39	BS	12	PHE
39	BS	91	PRO
41	BU	90	VAL
42	BV	53	GLU
43	BW	110	LYS
44	BX	93	GLU
45	BY	3	VAL
45	BY	7	VAL
45	BY	88	LYS
46	BZ	168	GLU
46	BZ	179	ASP
47	B0	32	ARG
47	B0	47	PRO
49	B2	17	SER
53	B6	31	PRO
5	CC	47	LEU
12	CJ	75	ILE
15	CM	4	ILE
15	CM	106	ASN
15	CM	117	VAL
16	CN	26	ARG
22	CT	71	THR
24	CX	300	GLU
24	CX	301	LYS
27	DD	33	LEU
27	DD	35	LYS
27	DD	244	ARG
28	DE	16	ARG
28	DE	86	PRO
29	DF	73	ALA
29	DF	84	VAL

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Mol	Chain	Res	Type
30	DG	75	LYS
30	DG	87	PRO
31	DH	92	ILE
32	DI	89	TYR
32	DI	91	SER
34	DN	89	LYS
34	DN	116	THR
34	DN	149	PRO
34	DN	153	HIS
36	DP	15	ARG
37	DQ	10	ARG
37	DQ	21	THR
37	DQ	133	ARG
37	DQ	139	GLU
39	DS	12	PHE
39	DS	91	PRO
41	DU	90	VAL
42	DV	53	GLU
43	DW	110	LYS
44	DX	93	GLU
45	DY	3	VAL
45	DY	7	VAL
45	DY	88	LYS
46	DZ	168	GLU
46	DZ	179	ASP
47	D0	32	ARG
47	D0	47	PRO
49	D2	17	SER
53	D6	31	PRO
4	AB	150	SER
5	AC	15	THR
5	AC	45	LYS
5	AC	179	ARG
6	AD	43	HIS
6	AD	86	LYS
6	AD	137	SER
6	AD	138	TYR
6	AD	171	GLY
7	AE	85	GLY
13	AK	49	GLY
14	AL	12	LYS
14	AL	17	VAL

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Mol	Chain	Res	Type
14	AL	51	LEU
15	AM	63	THR
15	AM	116	THR
16	AN	15	LYS
16	AN	28	GLY
18	AP	44	THR
19	AQ	67	LYS
20	AR	78	LEU
21	AS	28	LYS
21	AS	31	ILE
24	AX	209	ASP
24	AX	299	SER
27	BD	26	LYS
27	BD	69	ARG
27	BD	106	ILE
27	BD	197	GLY
27	BD	206	LEU
27	BD	239	ARG
29	BF	166	ALA
30	BG	14	GLU
31	BH	165	ALA
32	BI	90	GLY
34	BN	148	GLY
36	BP	57	THR
36	BP	65	ARG
36	BP	141	ALA
36	BP	148	LEU
36	BP	149	GLU
37	BQ	7	MET
37	BQ	15	GLY
37	BQ	18	LYS
38	BR	14	SER
38	BR	57	ARG
38	BR	58	GLY
39	BS	59	LYS
39	BS	90	GLY
39	BS	101	LEU
40	BT	58	ASN
40	BT	115	ARG
41	BU	24	TYR
41	BU	26	GLY
42	BV	78	LYS

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Mol	Chain	Res	Type
43	BW	11	ARG
46	BZ	167	PRO
47	B0	73	GLY
49	B2	47	ASN
49	B2	58	ALA
53	B6	28	ARG
53	B6	51	GLU
55	B8	35	GLN
4	CB	150	SER
5	CC	15	THR
5	CC	45	LYS
5	CC	179	ARG
6	CD	43	HIS
6	CD	137	SER
6	CD	138	TYR
6	CD	171	GLY
7	CE	85	GLY
13	CK	49	GLY
14	CL	12	LYS
14	CL	17	VAL
14	CL	51	LEU
15	CM	63	THR
15	CM	116	THR
16	CN	15	LYS
16	CN	28	GLY
18	CP	44	THR
19	CQ	67	LYS
20	CR	78	LEU
21	CS	28	LYS
21	CS	31	ILE
24	CX	209	ASP
24	CX	299	SER
27	DD	26	LYS
27	DD	69	ARG
27	DD	106	ILE
27	DD	197	GLY
27	DD	206	LEU
27	DD	239	ARG
29	DF	166	ALA
30	DG	14	GLU
31	DH	165	ALA
32	DI	90	GLY

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Mol	Chain	Res	Type
34	DN	148	GLY
36	DP	57	THR
36	DP	65	ARG
36	DP	141	ALA
36	DP	148	LEU
36	DP	149	GLU
37	DQ	7	MET
37	DQ	15	GLY
37	DQ	18	LYS
38	DR	3	HIS
38	DR	14	SER
38	DR	57	ARG
38	DR	58	GLY
39	DS	44	LYS
39	DS	59	LYS
39	DS	90	GLY
39	DS	101	LEU
40	DT	58	ASN
40	DT	115	ARG
41	DU	24	TYR
41	DU	26	GLY
42	DV	78	LYS
43	DW	11	ARG
45	DY	42	VAL
46	DZ	167	PRO
47	D0	73	GLY
49	D2	47	ASN
49	D2	58	ALA
53	D6	28	ARG
53	D6	51	GLU
55	D8	35	GLN
4	AB	20	GLU
4	AB	135	GLN
5	AC	4	LYS
6	AD	30	LYS
7	AE	38	GLN
9	AG	7	ALA
11	AI	58	ARG
12	AJ	92	THR
16	AN	14	PRO
17	AO	86	GLY
21	AS	27	GLU

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Mol	Chain	Res	Type
22	AT	98	PRO
23	AU	9	ARG
24	AX	235	THR
24	AX	236	ASP
24	AX	293	ILE
27	BD	70	TRP
27	BD	198	ASN
27	BD	260	ARG
28	BE	43	GLY
28	BE	51	PHE
28	BE	132	HIS
28	BE	187	ALA
29	BF	8	GLN
29	BF	74	ARG
29	BF	82	ILE
30	BG	8	LYS
30	BG	142	PRO
30	BG	181	ARG
31	BH	21	PRO
32	BI	10	GLU
36	BP	10	PRO
36	BP	17	LYS
36	BP	25	SER
36	BP	46	LYS
36	BP	58	THR
37	BQ	62	GLY
37	BQ	81	VAL
38	BR	3	HIS
38	BR	8	ARG
39	BS	44	LYS
39	BS	94	TYR
42	BV	29	PRO
45	BY	39	VAL
45	BY	42	VAL
45	BY	50	ARG
45	BY	56	PRO
48	B1	31	GLY
48	B1	85	LEU
48	B1	87	PRO
49	B2	44	LEU
52	B5	35	GLU
55	B8	3	LYS

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Mol	Chain	Res	Type
55	B8	34	TRP
4	CB	20	GLU
5	CC	4	LYS
6	CD	30	LYS
6	CD	86	LYS
7	CE	38	GLN
9	CG	7	ALA
11	CI	58	ARG
12	CJ	92	THR
16	CN	14	PRO
17	CO	86	GLY
21	CS	27	GLU
22	CT	98	PRO
23	CU	9	ARG
24	CX	235	THR
24	CX	236	ASP
24	CX	293	ILE
27	DD	70	TRP
27	DD	198	ASN
27	DD	260	ARG
28	DE	43	GLY
28	DE	51	PHE
28	DE	132	HIS
28	DE	187	ALA
29	DF	8	GLN
29	DF	74	ARG
29	DF	82	ILE
30	DG	8	LYS
30	DG	142	PRO
30	DG	181	ARG
31	DH	21	PRO
32	DI	10	GLU
36	DP	10	PRO
36	DP	17	LYS
36	DP	25	SER
36	DP	46	LYS
36	DP	58	THR
37	DQ	62	GLY
37	DQ	81	VAL
38	DR	8	ARG
39	DS	94	TYR
42	DV	29	PRO

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Mol	Chain	Res	Type
45	DY	39	VAL
45	DY	50	ARG
45	DY	56	PRO
46	DZ	11	GLU
48	D1	31	GLY
48	D1	85	LEU
48	D1	87	PRO
49	D2	44	LEU
52	D5	35	GLU
55	D8	34	TRP
5	AC	127	ARG
5	AC	131	ARG
6	AD	168	ARG
6	AD	186	LEU
9	AG	4	ARG
9	AG	100	ALA
13	AK	90	GLY
14	AL	18	ARG
15	AM	59	TYR
21	AS	29	ARG
21	AS	61	TYR
22	AT	9	ASN
22	AT	97	ALA
24	AX	175	SER
28	BE	18	ASP
28	BE	173	VAL
30	BG	84	LYS
30	BG	126	ASP
34	BN	41	ALA
35	BO	26	LYS
36	BP	11	GLY
36	BP	47	ASP
36	BP	52	GLU
36	BP	70	GLN
39	BS	57	LYS
39	BS	62	LYS
40	BT	36	GLU
42	BV	2	PHE
45	BY	17	SER
45	BY	76	CYS
45	BY	96	ILE
46	BZ	11	GLU

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Mol	Chain	Res	Type
46	BZ	78	LYS
46	BZ	165	VAL
46	BZ	177	PRO
46	BZ	180	VAL
48	B1	9	GLY
51	B4	44	CYS
4	CB	135	GLN
5	CC	127	ARG
5	CC	131	ARG
6	CD	168	ARG
6	CD	186	LEU
9	CG	4	ARG
9	CG	100	ALA
13	CK	90	GLY
14	CL	18	ARG
15	CM	59	TYR
21	CS	29	ARG
21	CS	61	TYR
22	CT	9	ASN
22	CT	97	ALA
24	CX	175	SER
27	DD	256	GLY
28	DE	18	ASP
28	DE	173	VAL
30	DG	84	LYS
30	DG	126	ASP
34	DN	41	ALA
35	DO	26	LYS
36	DP	11	GLY
36	DP	47	ASP
36	DP	52	GLU
36	DP	70	GLN
39	DS	57	LYS
39	DS	62	LYS
40	DT	36	GLU
42	DV	2	PHE
45	DY	17	SER
45	DY	76	CYS
45	DY	96	ILE
46	DZ	78	LYS
46	DZ	165	VAL
46	DZ	177	PRO

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Mol	Chain	Res	Type
46	DZ	180	VAL
48	D1	9	GLY
49	D2	21	LEU
51	D4	44	CYS
55	D8	3	LYS
4	AB	103	THR
4	AB	133	LYS
5	AC	60	ALA
5	AC	81	GLY
5	AC	129	ALA
6	AD	40	PRO
7	AE	70	PRO
12	AJ	54	PHE
14	AL	27	LYS
15	AM	101	GLN
19	AQ	3	LYS
24	AX	136	GLU
27	BD	125	ILE
27	BD	256	GLY
29	BF	187	VAL
31	BH	39	PRO
31	BH	164	TYR
32	BI	30	LEU
36	BP	59	LEU
36	BP	61	ARG
39	BS	85	VAL
40	BT	22	PHE
41	BU	9	VAL
42	BV	16	PRO
42	BV	94	LEU
45	BY	55	TYR
45	BY	90	LEU
46	BZ	80	ARG
47	B0	15	ASP
48	B1	53	VAL
49	B2	21	LEU
50	B3	29	ARG
51	B4	37	PRO
52	B5	45	VAL
4	CB	133	LYS
5	CC	60	ALA
5	CC	81	GLY

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Mol	Chain	Res	Type
5	CC	129	ALA
6	CD	40	PRO
7	CE	70	PRO
12	CJ	54	PHE
14	CL	27	LYS
15	CM	101	GLN
19	CQ	3	LYS
24	CX	136	GLU
27	DD	125	ILE
29	DF	187	VAL
30	DG	76	SER
31	DH	39	PRO
31	DH	164	TYR
32	DI	30	LEU
36	DP	59	LEU
39	DS	85	VAL
40	DT	22	PHE
41	DU	9	VAL
42	DV	16	PRO
42	DV	80	GLN
42	DV	94	LEU
45	DY	55	TYR
45	DY	90	LEU
46	DZ	80	ARG
47	D0	15	ASP
48	D1	53	VAL
50	D3	29	ARG
51	D4	37	PRO
51	D4	54	LYS
52	D5	45	VAL
55	D8	59	LYS
4	AB	130	ARG
4	AB	198	ASP
4	AB	234	PRO
5	AC	145	GLY
11	AI	100	GLY
14	AL	70	PRO
16	AN	18	VAL
28	BE	98	PRO
28	BE	157	ALA
30	BG	76	SER
30	BG	88	ILE

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Mol	Chain	Res	Type
34	BN	106	LYS
34	BN	150	ASP
36	BP	33	ARG
37	BQ	8	LYS
37	BQ	136	ALA
42	BV	80	GLN
48	B1	52	ARG
49	B2	50	ILE
51	B4	54	LYS
55	B8	59	LYS
4	CB	130	ARG
4	CB	234	PRO
5	CC	145	GLY
11	CI	100	GLY
14	CL	70	PRO
16	CN	18	VAL
28	DE	98	PRO
30	DG	88	ILE
34	DN	106	LYS
34	DN	150	ASP
36	DP	33	ARG
37	DQ	8	LYS
37	DQ	136	ALA
38	DR	12	ARG
49	D2	50	ILE
8	AF	81	ILE
12	AJ	49	VAL
12	AJ	53	PRO
14	AL	44	PRO
14	AL	120	GLY
21	AS	11	VAL
24	AX	302	ILE
27	BD	238	GLY
12	CJ	49	VAL
12	CJ	53	PRO
14	CL	44	PRO
14	CL	120	GLY
21	CS	11	VAL
24	CX	302	ILE
27	DD	238	GLY
31	DH	117	PRO
4	AB	15	VAL

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Mol	Chain	Res	Type
24	AX	228	GLY
31	BH	117	PRO
32	BI	8	PRO
37	BQ	73	PRO
42	BV	48	GLY
46	BZ	71	VAL
47	B0	36	ILE
4	CB	15	VAL
8	CF	81	ILE
24	CX	228	GLY
32	DI	8	PRO
37	DQ	73	PRO
46	DZ	71	VAL
47	D0	36	ILE
6	AD	37	PRO
6	AD	197	PRO
9	AG	130	GLY
18	AP	63	GLY
20	AR	86	VAL
27	BD	113	VAL
32	BI	120	ILE
42	BV	17	GLY
6	CD	37	PRO
6	CD	197	PRO
9	CG	130	GLY
18	CP	63	GLY
20	CR	86	VAL
27	DD	113	VAL
32	DI	120	ILE
42	DV	48	GLY
6	AD	189	PRO
21	AS	42	PRO
6	CD	189	PRO
21	CS	42	PRO
42	DV	17	GLY
5	AC	51	GLY
10	AH	74	PRO
31	BH	36	PRO
6	CD	88	VAL
30	DG	42	GLY
31	DH	36	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	AB	202/220 (92%)	189 (94%)	13 (6%)	25	69
4	CB	202/220 (92%)	189 (94%)	13 (6%)	25	69
5	AC	160/188 (85%)	151 (94%)	9 (6%)	30	75
5	CC	160/188 (85%)	151 (94%)	9 (6%)	30	75
6	AD	180/181 (99%)	171 (95%)	9 (5%)	34	78
6	CD	180/181 (99%)	171 (95%)	9 (5%)	34	78
7	AE	116/123 (94%)	105 (90%)	11 (10%)	12	45
7	CE	116/123 (94%)	105 (90%)	11 (10%)	12	45
8	AF	90/90 (100%)	86 (96%)	4 (4%)	39	81
8	CF	90/90 (100%)	86 (96%)	4 (4%)	39	81
9	AG	126/127 (99%)	125 (99%)	1 (1%)	89	98
9	CG	126/127 (99%)	125 (99%)	1 (1%)	89	98
10	AH	119/119 (100%)	114 (96%)	5 (4%)	40	82
10	CH	119/119 (100%)	114 (96%)	5 (4%)	40	82
11	AI	98/99 (99%)	92 (94%)	6 (6%)	26	71
11	CI	98/99 (99%)	92 (94%)	6 (6%)	26	71
12	AJ	88/92 (96%)	80 (91%)	8 (9%)	14	47
12	CJ	88/92 (96%)	80 (91%)	8 (9%)	14	47
13	AK	90/99 (91%)	86 (96%)	4 (4%)	39	81
13	CK	90/99 (91%)	86 (96%)	4 (4%)	39	81
14	AL	104/110 (94%)	98 (94%)	6 (6%)	28	73
14	CL	104/110 (94%)	98 (94%)	6 (6%)	28	73
15	AM	94/101 (93%)	87 (93%)	7 (7%)	20	62
15	CM	94/101 (93%)	87 (93%)	7 (7%)	20	62
16	AN	49/50 (98%)	47 (96%)	2 (4%)	41	82
16	CN	49/50 (98%)	47 (96%)	2 (4%)	41	82
17	AO	79/80 (99%)	74 (94%)	5 (6%)	25	69

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
17	CO	79/80 (99%)	74 (94%)	5 (6%)	25	69
18	AP	72/74 (97%)	68 (94%)	4 (6%)	30	75
18	CP	72/74 (97%)	68 (94%)	4 (6%)	30	75
19	AQ	94/97 (97%)	91 (97%)	3 (3%)	51	87
19	CQ	94/97 (97%)	91 (97%)	3 (3%)	51	87
20	AR	61/77 (79%)	59 (97%)	2 (3%)	50	87
20	CR	61/77 (79%)	59 (97%)	2 (3%)	50	87
21	AS	69/80 (86%)	59 (86%)	10 (14%)	5	22
21	CS	69/80 (86%)	59 (86%)	10 (14%)	5	22
22	AT	76/82 (93%)	71 (93%)	5 (7%)	24	67
22	CT	76/82 (93%)	71 (93%)	5 (7%)	24	67
23	AU	19/22 (86%)	19 (100%)	0	100	100
23	CU	19/22 (86%)	19 (100%)	0	100	100
24	AX	299/299 (100%)	278 (93%)	21 (7%)	21	64
24	CX	299/299 (100%)	278 (93%)	21 (7%)	21	64
27	BD	213/218 (98%)	196 (92%)	17 (8%)	17	57
27	DD	213/218 (98%)	196 (92%)	17 (8%)	17	57
28	BE	165/166 (99%)	153 (93%)	12 (7%)	20	62
28	DE	165/166 (99%)	153 (93%)	12 (7%)	20	62
29	BF	161/166 (97%)	154 (96%)	7 (4%)	40	81
29	DF	161/166 (97%)	154 (96%)	7 (4%)	40	81
30	BG	155/156 (99%)	142 (92%)	13 (8%)	16	53
30	DG	155/156 (99%)	142 (92%)	13 (8%)	16	53
31	BH	132/148 (89%)	123 (93%)	9 (7%)	22	65
31	DH	132/148 (89%)	123 (93%)	9 (7%)	22	65
32	BI	122/124 (98%)	113 (93%)	9 (7%)	20	62
32	DI	122/124 (98%)	113 (93%)	9 (7%)	20	62
33	BJ	27/135 (20%)	26 (96%)	1 (4%)	45	85
33	DJ	27/135 (20%)	26 (96%)	1 (4%)	45	85
34	BN	116/139 (84%)	106 (91%)	10 (9%)	15	52
34	DN	116/139 (84%)	106 (91%)	10 (9%)	15	52

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
35	BO	100/100 (100%)	95 (95%)	5 (5%)	34	78
35	DO	100/100 (100%)	95 (95%)	5 (5%)	34	78
36	BP	112/116 (97%)	92 (82%)	20 (18%)	2	12
36	DP	112/116 (97%)	92 (82%)	20 (18%)	2	12
37	BQ	106/111 (96%)	95 (90%)	11 (10%)	10	39
37	DQ	106/111 (96%)	95 (90%)	11 (10%)	10	39
38	BR	100/101 (99%)	95 (95%)	5 (5%)	34	78
38	DR	100/101 (99%)	95 (95%)	5 (5%)	34	78
39	BS	77/88 (88%)	70 (91%)	7 (9%)	14	47
39	DS	77/88 (88%)	70 (91%)	7 (9%)	14	47
40	BT	121/128 (94%)	106 (88%)	15 (12%)	7	30
40	DT	121/128 (94%)	106 (88%)	15 (12%)	7	30
41	BU	93/94 (99%)	90 (97%)	3 (3%)	51	87
41	DU	93/94 (99%)	89 (96%)	4 (4%)	40	81
42	BV	82/82 (100%)	73 (89%)	9 (11%)	9	36
42	DV	82/82 (100%)	73 (89%)	9 (11%)	9	36
43	BW	91/92 (99%)	89 (98%)	2 (2%)	64	91
43	DW	91/92 (99%)	89 (98%)	2 (2%)	64	91
44	BX	74/78 (95%)	68 (92%)	6 (8%)	17	56
44	DX	74/78 (95%)	68 (92%)	6 (8%)	17	56
45	BY	84/91 (92%)	79 (94%)	5 (6%)	27	72
45	DY	84/91 (92%)	79 (94%)	5 (6%)	27	72
46	BZ	163/179 (91%)	160 (98%)	3 (2%)	71	93
46	DZ	163/179 (91%)	160 (98%)	3 (2%)	71	93
47	B0	61/67 (91%)	59 (97%)	2 (3%)	50	87
47	D0	61/67 (91%)	59 (97%)	2 (3%)	50	87
48	B1	73/83 (88%)	63 (86%)	10 (14%)	5	25
48	D1	73/83 (88%)	64 (88%)	9 (12%)	7	31
49	B2	67/67 (100%)	64 (96%)	3 (4%)	38	81
49	D2	67/67 (100%)	64 (96%)	3 (4%)	38	81
50	B3	51/52 (98%)	47 (92%)	4 (8%)	18	59

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
50	D3	51/52 (98%)	48 (94%)	3 (6%)	28	72
51	B4	27/84 (32%)	25 (93%)	2 (7%)	20	62
51	D4	27/84 (32%)	25 (93%)	2 (7%)	20	62
52	B5	45/52 (86%)	43 (96%)	2 (4%)	39	81
52	D5	45/52 (86%)	43 (96%)	2 (4%)	39	81
53	B6	43/52 (83%)	40 (93%)	3 (7%)	21	64
53	D6	43/52 (83%)	40 (93%)	3 (7%)	21	64
54	B7	41/42 (98%)	38 (93%)	3 (7%)	20	62
54	D7	41/42 (98%)	38 (93%)	3 (7%)	20	62
55	B8	53/55 (96%)	51 (96%)	2 (4%)	44	84
55	D8	53/55 (96%)	51 (96%)	2 (4%)	44	84
All	All	10080/10952 (92%)	9411 (93%)	669 (7%)	24	67

All (669) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	AB	27	LYS
4	AB	28	PHE
4	AB	39	ILE
4	AB	71	VAL
4	AB	75	LYS
4	AB	116	GLU
4	AB	117	GLU
4	AB	153	ARG
4	AB	154	LEU
4	AB	169	LYS
4	AB	178	ARG
4	AB	187	LEU
4	AB	221	LEU
5	AC	3	ASN
5	AC	5	ILE
5	AC	12	LEU
5	AC	27	LYS
5	AC	79	ARG
5	AC	91	LEU
5	AC	95	THR
5	AC	165	THR
5	AC	196	LEU

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Mol	Chain	Res	Type
6	AD	3	ARG
6	AD	11	LEU
6	AD	21	LEU
6	AD	119	GLN
6	AD	122	ARG
6	AD	135	LEU
6	AD	150	GLU
6	AD	166	LYS
6	AD	188	LEU
7	AE	8	GLU
7	AE	12	LEU
7	AE	16	THR
7	AE	20	GLN
7	AE	41	VAL
7	AE	47	LYS
7	AE	64	ARG
7	AE	73	ASN
7	AE	79	GLU
7	AE	137	GLU
7	AE	144	THR
8	AF	48	LEU
8	AF	83	ASP
8	AF	94	GLN
8	AF	100	ASN
9	AG	156	TRP
10	AH	1	MET
10	AH	25	ASP
10	AH	30	ARG
10	AH	102	ARG
10	AH	136	GLU
11	AI	10	ARG
11	AI	19	LEU
11	AI	95	LYS
11	AI	99	LEU
11	AI	104	ARG
11	AI	121	ARG
12	AJ	16	LEU
12	AJ	22	LYS
12	AJ	55	LYS
12	AJ	73	ASP
12	AJ	74	ILE
12	AJ	80	LYS

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Mol	Chain	Res	Type
12	AJ	92	THR
12	AJ	96	ILE
13	AK	26	ASN
13	AK	29	ILE
13	AK	92	GLU
13	AK	123	LYS
14	AL	19	LYS
14	AL	37	THR
14	AL	40	ARG
14	AL	41	THR
14	AL	52	ARG
14	AL	64	GLU
15	AM	58	GLU
15	AM	64	TRP
15	AM	87	TYR
15	AM	93	ARG
15	AM	106	ASN
15	AM	108	ARG
15	AM	115	LYS
16	AN	6	LEU
16	AN	26	ARG
17	AO	5	LYS
17	AO	17	ARG
17	AO	44	LYS
17	AO	82	ILE
17	AO	87	ILE
18	AP	27	LYS
18	AP	32	TYR
18	AP	80	PHE
18	AP	82	GLN
19	AQ	52	LYS
19	AQ	74	LEU
19	AQ	96	GLN
20	AR	42	ARG
20	AR	84	LYS
21	AS	5	LEU
21	AS	6	LYS
21	AS	7	LYS
21	AS	19	VAL
21	AS	27	GLU
21	AS	29	ARG
21	AS	37	ARG

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Mol	Chain	Res	Type
21	AS	44	MET
21	AS	53	ASN
21	AS	70	LYS
22	AT	26	ASN
22	AT	45	GLN
22	AT	62	LEU
22	AT	72	LEU
22	AT	93	GLU
24	AX	7	ARG
24	AX	8	LEU
24	AX	13	ARG
24	AX	38	TYR
24	AX	43	GLU
24	AX	150	THR
24	AX	152	LEU
24	AX	160	PHE
24	AX	163	ARG
24	AX	177	VAL
24	AX	187	GLU
24	AX	202	LEU
24	AX	230	GLN
24	AX	249	MET
24	AX	259	ILE
24	AX	269	LEU
24	AX	293	ILE
24	AX	297	GLU
24	AX	317	ILE
24	AX	332	LEU
24	AX	351	LEU
27	BD	5	LYS
27	BD	10	THR
27	BD	28	GLU
27	BD	33	LEU
27	BD	50	THR
27	BD	78	LYS
27	BD	95	LEU
27	BD	109	ASP
27	BD	111	LEU
27	BD	133	LEU
27	BD	150	LYS
27	BD	166	GLN
27	BD	173	VAL

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Mol	Chain	Res	Type
27	BD	192	THR
27	BD	242	ARG
27	BD	259	THR
27	BD	261	LYS
28	BE	4	ILE
28	BE	9	VAL
28	BE	19	ARG
28	BE	52	LEU
28	BE	57	LYS
28	BE	92	THR
28	BE	118	LYS
28	BE	119	ARG
28	BE	132	HIS
28	BE	137	HIS
28	BE	184	VAL
28	BE	195	LEU
29	BF	8	GLN
29	BF	9	ILE
29	BF	53	THR
29	BF	65	TRP
29	BF	95	ARG
29	BF	117	ARG
29	BF	164	ARG
30	BG	18	GLU
30	BG	33	ARG
30	BG	34	LEU
30	BG	47	LYS
30	BG	74	LYS
30	BG	86	MET
30	BG	90	LEU
30	BG	98	ARG
30	BG	107	LEU
30	BG	115	ARG
30	BG	133	LEU
30	BG	139	LEU
30	BG	155	MET
31	BH	13	LYS
31	BH	23	ARG
31	BH	43	VAL
31	BH	86	GLU
31	BH	101	ARG
31	BH	105	LEU

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Mol	Chain	Res	Type
31	BH	123	PHE
31	BH	158	HIS
31	BH	162	ILE
32	BI	5	LEU
32	BI	6	LEU
32	BI	66	GLU
32	BI	67	ARG
32	BI	73	GLU
32	BI	77	LEU
32	BI	92	VAL
32	BI	107	ILE
32	BI	109	ILE
33	BJ	17	LEU
34	BN	57	LEU
34	BN	64	ASP
34	BN	71	MET
34	BN	94	ILE
34	BN	116	THR
34	BN	120	ARG
34	BN	122	LEU
34	BN	146	TYR
34	BN	150	ASP
34	BN	161	LEU
35	BO	19	ILE
35	BO	25	LEU
35	BO	77	ILE
35	BO	87	ILE
35	BO	104	ARG
36	BP	13	ASN
36	BP	15	ARG
36	BP	32	THR
36	BP	35	HIS
36	BP	49	ARG
36	BP	50	ARG
36	BP	57	THR
36	BP	61	ARG
36	BP	62	LEU
36	BP	67	MET
36	BP	70	GLN
36	BP	83	VAL
36	BP	85	LEU
36	BP	105	LEU

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Mol	Chain	Res	Type
36	BP	106	LEU
36	BP	111	ARG
36	BP	135	LEU
36	BP	147	LEU
36	BP	148	LEU
36	BP	149	GLU
37	BQ	6	ARG
37	BQ	13	GLN
37	BQ	14	ARG
37	BQ	22	LYS
37	BQ	29	PHE
37	BQ	45	GLN
37	BQ	55	VAL
37	BQ	60	ARG
37	BQ	80	GLU
37	BQ	89	ASN
37	BQ	135	ASP
38	BR	9	LYS
38	BR	10	LEU
38	BR	71	GLN
38	BR	79	LEU
38	BR	104	ARG
39	BS	18	ILE
39	BS	26	LEU
39	BS	30	ARG
39	BS	42	ASP
39	BS	44	LYS
39	BS	61	ASN
39	BS	93	LYS
40	BT	22	PHE
40	BT	28	VAL
40	BT	41	ARG
40	BT	58	ASN
40	BT	59	THR
40	BT	68	TYR
40	BT	86	ILE
40	BT	89	VAL
40	BT	95	ARG
40	BT	96	ARG
40	BT	98	LYS
40	BT	99	LEU
40	BT	108	ARG

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Mol	Chain	Res	Type
40	BT	112	ARG
40	BT	113	LYS
41	BU	32	PHE
41	BU	79	PHE
41	BU	92	ARG
42	BV	11	GLN
42	BV	12	TYR
42	BV	13	ARG
42	BV	18	LEU
42	BV	25	LEU
42	BV	37	VAL
42	BV	80	GLN
42	BV	98	GLU
42	BV	99	ILE
43	BW	11	ARG
43	BW	95	ILE
44	BX	28	PHE
44	BX	55	ASN
44	BX	65	ARG
44	BX	68	ARG
44	BX	75	ASP
44	BX	81	VAL
45	BY	4	LYS
45	BY	6	HIS
45	BY	8	LYS
45	BY	31	LEU
45	BY	76	CYS
46	BZ	70	LEU
46	BZ	72	ARG
46	BZ	76	LEU
47	B0	25	ARG
47	B0	84	LEU
48	B1	18	ILE
48	B1	20	ARG
48	B1	40	ARG
48	B1	45	ASN
48	B1	46	LEU
48	B1	73	LEU
48	B1	75	GLU
48	B1	76	ARG
48	B1	82	LEU
48	B1	95	LEU

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Mol	Chain	Res	Type
49	B2	2	LYS
49	B2	37	PHE
49	B2	56	GLN
50	B3	1	MET
50	B3	10	LYS
50	B3	29	ARG
50	B3	46	ASN
51	B4	49	GLU
51	B4	65	CYS
52	B5	3	LYS
52	B5	51	TYR
53	B6	11	LEU
53	B6	30	THR
53	B6	34	LEU
54	B7	4	THR
54	B7	8	ASN
54	B7	24	THR
55	B8	33	ASN
55	B8	48	PHE
4	CB	27	LYS
4	CB	28	PHE
4	CB	39	ILE
4	CB	71	VAL
4	CB	75	LYS
4	CB	116	GLU
4	CB	117	GLU
4	CB	153	ARG
4	CB	154	LEU
4	CB	169	LYS
4	CB	178	ARG
4	CB	187	LEU
4	CB	221	LEU
5	CC	3	ASN
5	CC	5	ILE
5	CC	12	LEU
5	CC	27	LYS
5	CC	79	ARG
5	CC	91	LEU
5	CC	95	THR
5	CC	165	THR
5	CC	196	LEU
6	CD	3	ARG

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Mol	Chain	Res	Type
6	CD	11	LEU
6	CD	21	LEU
6	CD	119	GLN
6	CD	122	ARG
6	CD	135	LEU
6	CD	150	GLU
6	CD	166	LYS
6	CD	188	LEU
7	CE	8	GLU
7	CE	12	LEU
7	CE	16	THR
7	CE	20	GLN
7	CE	41	VAL
7	CE	47	LYS
7	CE	64	ARG
7	CE	73	ASN
7	CE	79	GLU
7	CE	137	GLU
7	CE	144	THR
8	CF	48	LEU
8	CF	83	ASP
8	CF	94	GLN
8	CF	100	ASN
9	CG	156	TRP
10	CH	1	MET
10	CH	25	ASP
10	CH	30	ARG
10	CH	102	ARG
10	CH	136	GLU
11	CI	10	ARG
11	CI	19	LEU
11	CI	95	LYS
11	CI	99	LEU
11	CI	104	ARG
11	CI	121	ARG
12	CJ	16	LEU
12	CJ	22	LYS
12	CJ	55	LYS
12	CJ	73	ASP
12	CJ	74	ILE
12	CJ	80	LYS
12	CJ	92	THR

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Mol	Chain	Res	Type
12	CJ	96	ILE
13	CK	26	ASN
13	CK	29	ILE
13	CK	92	GLU
13	CK	123	LYS
14	CL	19	LYS
14	CL	37	THR
14	CL	40	ARG
14	CL	41	THR
14	CL	52	ARG
14	CL	64	GLU
15	CM	58	GLU
15	CM	64	TRP
15	CM	87	TYR
15	CM	93	ARG
15	CM	106	ASN
15	CM	108	ARG
15	CM	115	LYS
16	CN	6	LEU
16	CN	26	ARG
17	CO	5	LYS
17	CO	17	ARG
17	CO	44	LYS
17	CO	82	ILE
17	CO	87	ILE
18	CP	27	LYS
18	CP	32	TYR
18	CP	80	PHE
18	CP	82	GLN
19	CQ	52	LYS
19	CQ	74	LEU
19	CQ	96	GLN
20	CR	42	ARG
20	CR	84	LYS
21	CS	5	LEU
21	CS	6	LYS
21	CS	7	LYS
21	CS	19	VAL
21	CS	27	GLU
21	CS	29	ARG
21	CS	37	ARG
21	CS	44	MET

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Mol	Chain	Res	Type
21	CS	53	ASN
21	CS	70	LYS
22	CT	26	ASN
22	CT	45	GLN
22	CT	62	LEU
22	CT	72	LEU
22	CT	93	GLU
24	CX	7	ARG
24	CX	8	LEU
24	CX	13	ARG
24	CX	38	TYR
24	CX	43	GLU
24	CX	150	THR
24	CX	152	LEU
24	CX	160	PHE
24	CX	163	ARG
24	CX	177	VAL
24	CX	187	GLU
24	CX	202	LEU
24	CX	230	GLN
24	CX	249	MET
24	CX	259	ILE
24	CX	269	LEU
24	CX	293	ILE
24	CX	297	GLU
24	CX	317	ILE
24	CX	332	LEU
24	CX	351	LEU
27	DD	5	LYS
27	DD	10	THR
27	DD	28	GLU
27	DD	33	LEU
27	DD	50	THR
27	DD	78	LYS
27	DD	95	LEU
27	DD	109	ASP
27	DD	111	LEU
27	DD	133	LEU
27	DD	150	LYS
27	DD	166	GLN
27	DD	173	VAL
27	DD	192	THR

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Mol	Chain	Res	Type
27	DD	242	ARG
27	DD	259	THR
27	DD	261	LYS
28	DE	4	ILE
28	DE	9	VAL
28	DE	19	ARG
28	DE	52	LEU
28	DE	57	LYS
28	DE	92	THR
28	DE	118	LYS
28	DE	119	ARG
28	DE	132	HIS
28	DE	137	HIS
28	DE	184	VAL
28	DE	195	LEU
29	DF	8	GLN
29	DF	9	ILE
29	DF	53	THR
29	DF	65	TRP
29	DF	95	ARG
29	DF	117	ARG
29	DF	164	ARG
30	DG	18	GLU
30	DG	33	ARG
30	DG	34	LEU
30	DG	47	LYS
30	DG	74	LYS
30	DG	86	MET
30	DG	90	LEU
30	DG	98	ARG
30	DG	107	LEU
30	DG	115	ARG
30	DG	133	LEU
30	DG	139	LEU
30	DG	155	MET
31	DH	13	LYS
31	DH	23	ARG
31	DH	43	VAL
31	DH	86	GLU
31	DH	101	ARG
31	DH	105	LEU
31	DH	123	PHE

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Mol	Chain	Res	Type
31	DH	158	HIS
31	DH	162	ILE
32	DI	5	LEU
32	DI	6	LEU
32	DI	66	GLU
32	DI	67	ARG
32	DI	73	GLU
32	DI	77	LEU
32	DI	92	VAL
32	DI	107	ILE
32	DI	109	ILE
33	DJ	17	LEU
34	DN	57	LEU
34	DN	64	ASP
34	DN	71	MET
34	DN	94	ILE
34	DN	116	THR
34	DN	120	ARG
34	DN	122	LEU
34	DN	146	TYR
34	DN	150	ASP
34	DN	161	LEU
35	DO	19	ILE
35	DO	25	LEU
35	DO	77	ILE
35	DO	87	ILE
35	DO	104	ARG
36	DP	13	ASN
36	DP	15	ARG
36	DP	32	THR
36	DP	35	HIS
36	DP	49	ARG
36	DP	50	ARG
36	DP	57	THR
36	DP	61	ARG
36	DP	62	LEU
36	DP	67	MET
36	DP	70	GLN
36	DP	83	VAL
36	DP	85	LEU
36	DP	105	LEU
36	DP	106	LEU

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Mol	Chain	Res	Type
36	DP	111	ARG
36	DP	135	LEU
36	DP	147	LEU
36	DP	148	LEU
36	DP	149	GLU
37	DQ	6	ARG
37	DQ	13	GLN
37	DQ	14	ARG
37	DQ	22	LYS
37	DQ	29	PHE
37	DQ	45	GLN
37	DQ	55	VAL
37	DQ	60	ARG
37	DQ	80	GLU
37	DQ	89	ASN
37	DQ	135	ASP
38	DR	9	LYS
38	DR	10	LEU
38	DR	71	GLN
38	DR	79	LEU
38	DR	104	ARG
39	DS	18	ILE
39	DS	26	LEU
39	DS	30	ARG
39	DS	42	ASP
39	DS	44	LYS
39	DS	61	ASN
39	DS	93	LYS
40	DT	22	PHE
40	DT	28	VAL
40	DT	41	ARG
40	DT	58	ASN
40	DT	59	THR
40	DT	68	TYR
40	DT	86	ILE
40	DT	89	VAL
40	DT	95	ARG
40	DT	96	ARG
40	DT	98	LYS
40	DT	99	LEU
40	DT	108	ARG
40	DT	112	ARG

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Mol	Chain	Res	Type
40	DT	113	LYS
41	DU	31	SER
41	DU	32	PHE
41	DU	79	PHE
41	DU	92	ARG
42	DV	11	GLN
42	DV	12	TYR
42	DV	13	ARG
42	DV	18	LEU
42	DV	25	LEU
42	DV	37	VAL
42	DV	80	GLN
42	DV	98	GLU
42	DV	99	ILE
43	DW	11	ARG
43	DW	95	ILE
44	DX	28	PHE
44	DX	55	ASN
44	DX	65	ARG
44	DX	68	ARG
44	DX	75	ASP
44	DX	81	VAL
45	DY	4	LYS
45	DY	6	HIS
45	DY	8	LYS
45	DY	31	LEU
45	DY	76	CYS
46	DZ	70	LEU
46	DZ	72	ARG
46	DZ	76	LEU
47	D0	25	ARG
47	D0	84	LEU
48	D1	18	ILE
48	D1	20	ARG
48	D1	40	ARG
48	D1	45	ASN
48	D1	46	LEU
48	D1	73	LEU
48	D1	76	ARG
48	D1	82	LEU
48	D1	95	LEU
49	D2	2	LYS

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Mol	Chain	Res	Type
49	D2	37	PHE
49	D2	56	GLN
50	D3	10	LYS
50	D3	29	ARG
50	D3	46	ASN
51	D4	49	GLU
51	D4	65	CYS
52	D5	3	LYS
52	D5	51	TYR
53	D6	11	LEU
53	D6	30	THR
53	D6	34	LEU
54	D7	4	THR
54	D7	8	ASN
54	D7	24	THR
55	D8	33	ASN
55	D8	48	PHE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (231) such sidechains are listed below:

Mol	Chain	Res	Type
4	AB	19	HIS
4	AB	25	ASN
4	AB	37	ASN
4	AB	40	HIS
4	AB	146	GLN
4	AB	212	GLN
5	AC	28	GLN
5	AC	31	HIS
5	AC	37	GLN
5	AC	170	GLN
6	AD	116	GLN
6	AD	119	GLN
7	AE	20	GLN
7	AE	73	ASN
7	AE	78	HIS
8	AF	27	GLN
8	AF	32	ASN
8	AF	100	ASN
9	AG	84	ASN
9	AG	106	GLN
10	AH	78	GLN

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Mol	Chain	Res	Type
10	AH	82	HIS
11	AI	23	ASN
11	AI	73	GLN
12	AJ	13	HIS
12	AJ	62	HIS
12	AJ	78	ASN
13	AK	38	ASN
13	AK	117	ASN
14	AL	7	ASN
14	AL	48	ASN
14	AL	74	HIS
15	AM	101	GLN
17	AO	37	ASN
17	AO	46	HIS
18	AP	16	HIS
18	AP	82	GLN
22	AT	26	ASN
24	AX	32	GLN
24	AX	181	GLN
24	AX	230	GLN
24	AX	261	ASN
24	AX	315	HIS
27	BD	44	ASN
27	BD	58	HIS
27	BD	87	ASN
27	BD	126	GLN
27	BD	166	GLN
27	BD	186	HIS
28	BE	60	ASN
28	BE	66	HIS
28	BE	169	ASN
28	BE	192	ASN
29	BF	67	GLN
29	BF	75	HIS
29	BF	203	GLN
30	BG	108	ASN
30	BG	121	ASN
30	BG	132	ASN
31	BH	143	GLN
31	BH	147	ASN
31	BH	158	HIS
32	BI	133	HIS

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Mol	Chain	Res	Type
33	BJ	3	ASN
33	BJ	6	ASN
33	BJ	21	GLN
34	BN	79	ASN
34	BN	154	GLN
36	BP	13	ASN
36	BP	38	GLN
36	BP	81	GLN
37	BQ	13	GLN
37	BQ	45	GLN
37	BQ	123	HIS
38	BR	16	HIS
38	BR	53	HIS
38	BR	61	HIS
38	BR	71	GLN
38	BR	91	GLN
39	BS	61	ASN
40	BT	43	GLN
40	BT	58	ASN
40	BT	79	HIS
40	BT	84	GLN
40	BT	90	GLN
41	BU	44	ASN
41	BU	49	HIS
41	BU	75	ASN
42	BV	80	GLN
43	BW	34	ASN
43	BW	57	ASN
43	BW	102	HIS
44	BX	31	HIS
44	BX	41	ASN
44	BX	55	ASN
44	BX	87	GLN
46	BZ	34	ASN
46	BZ	55	HIS
46	BZ	118	GLN
47	B0	35	ASN
47	B0	50	ASN
47	B0	70	GLN
48	B1	19	GLN
48	B1	45	ASN
48	B1	56	GLN

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Mol	Chain	Res	Type
48	B1	66	HIS
49	B2	47	ASN
50	B3	19	GLN
50	B3	46	ASN
51	B4	46	ASN
52	B5	43	HIS
53	B6	29	ASN
53	B6	46	HIS
54	B7	8	ASN
54	B7	36	GLN
55	B8	33	ASN
4	CB	19	HIS
4	CB	25	ASN
4	CB	37	ASN
4	CB	40	HIS
4	CB	146	GLN
4	CB	212	GLN
5	CC	28	GLN
5	CC	31	HIS
5	CC	37	GLN
5	CC	170	GLN
6	CD	116	GLN
6	CD	119	GLN
7	CE	20	GLN
7	CE	73	ASN
7	CE	78	HIS
8	CF	27	GLN
8	CF	32	ASN
8	CF	100	ASN
9	CG	84	ASN
9	CG	106	GLN
10	CH	78	GLN
10	CH	82	HIS
11	CI	23	ASN
11	CI	73	GLN
12	CJ	13	HIS
12	CJ	62	HIS
12	CJ	78	ASN
13	CK	38	ASN
13	CK	117	ASN
14	CL	7	ASN
14	CL	48	ASN

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Mol	Chain	Res	Type
14	CL	74	HIS
15	CM	101	GLN
17	CO	37	ASN
17	CO	46	HIS
18	CP	16	HIS
18	CP	82	GLN
22	CT	26	ASN
24	CX	32	GLN
24	CX	181	GLN
24	CX	230	GLN
24	CX	261	ASN
24	CX	315	HIS
27	DD	44	ASN
27	DD	58	HIS
27	DD	87	ASN
27	DD	116	GLN
27	DD	126	GLN
27	DD	166	GLN
27	DD	186	HIS
28	DE	60	ASN
28	DE	66	HIS
28	DE	169	ASN
28	DE	192	ASN
29	DF	67	GLN
29	DF	75	HIS
29	DF	203	GLN
30	DG	108	ASN
30	DG	121	ASN
30	DG	132	ASN
31	DH	143	GLN
31	DH	147	ASN
31	DH	158	HIS
32	DI	133	HIS
33	DJ	3	ASN
33	DJ	6	ASN
33	DJ	21	GLN
34	DN	79	ASN
34	DN	154	GLN
36	DP	13	ASN
36	DP	38	GLN
36	DP	81	GLN
37	DQ	13	GLN

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Mol	Chain	Res	Type
37	DQ	45	GLN
37	DQ	123	HIS
37	DQ	141	GLN
38	DR	16	HIS
38	DR	53	HIS
38	DR	61	HIS
38	DR	71	GLN
38	DR	91	GLN
39	DS	61	ASN
40	DT	43	GLN
40	DT	79	HIS
40	DT	84	GLN
40	DT	90	GLN
41	DU	44	ASN
41	DU	49	HIS
41	DU	75	ASN
43	DW	34	ASN
43	DW	57	ASN
43	DW	102	HIS
44	DX	31	HIS
44	DX	41	ASN
44	DX	55	ASN
44	DX	87	GLN
46	DZ	34	ASN
46	DZ	55	HIS
46	DZ	118	GLN
47	D0	35	ASN
47	D0	50	ASN
47	D0	70	GLN
48	D1	19	GLN
48	D1	45	ASN
48	D1	56	GLN
48	D1	66	HIS
49	D2	47	ASN
50	D3	19	GLN
50	D3	46	ASN
52	D5	43	HIS
53	D6	29	ASN
53	D6	46	HIS
54	D7	8	ASN
54	D7	36	GLN
55	D8	33	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1525 (98%)	211 (14%)	56 (3%)
1	CA	1503/1525 (98%)	211 (14%)	56 (3%)
2	AY	76/77 (98%)	11 (14%)	2 (2%)
2	AZ	76/77 (98%)	8 (10%)	1 (1%)
2	CY	76/77 (98%)	11 (14%)	2 (2%)
2	CZ	76/77 (98%)	8 (10%)	1 (1%)
25	BA	2878/2894 (99%)	448 (15%)	101 (3%)
25	DA	2878/2894 (99%)	445 (15%)	102 (3%)
26	BB	118/124 (95%)	12 (10%)	1 (0%)
26	DB	118/124 (95%)	12 (10%)	1 (0%)
3	AV	11/27 (40%)	2 (18%)	1 (9%)
3	CV	11/27 (40%)	2 (18%)	1 (9%)
All	All	9324/9448 (98%)	1381 (14%)	325 (3%)

All (1381) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	6	G
1	AA	9	G
1	AA	31	G
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	61	G
1	AA	115	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	150	C
1	AA	163	C
1	AA	169	C
1	AA	182	U
1	AA	190	G
1	AA	191(A)	G
1	AA	195	A
1	AA	210	U
1	AA	244	U
1	AA	245	C

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Mol	Chain	Res	Type
1	AA	247	G
1	AA	251	G
1	AA	266	G
1	AA	267	C
1	AA	280	C
1	AA	281	G
1	AA	289	G
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	345	C
1	AA	346	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	358	U
1	AA	359	U
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	384	G
1	AA	389	A
1	AA	397	A
1	AA	398	C
1	AA	406	G
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	422	C
1	AA	423	G
1	AA	429	U
1	AA	430	A
1	AA	439	A
1	AA	452	A
1	AA	484	G
1	AA	485	G
1	AA	496	A
1	AA	497	U
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	512	U

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Mol	Chain	Res	Type
1	AA	518	C
1	AA	524	G
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	535	A
1	AA	547	A
1	AA	559	A
1	AA	561	U
1	AA	562	C
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	596	C
1	AA	607	A
1	AA	653	A
1	AA	661	G
1	AA	665	A
1	AA	687	A
1	AA	688	G
1	AA	703	G
1	AA	731	G
1	AA	749	C
1	AA	755	G
1	AA	793	U
1	AA	815	A
1	AA	816	A
1	AA	817	C
1	AA	819	A
1	AA	828	A
1	AA	833	U
1	AA	841	U
1	AA	842	C
1	AA	843	U
1	AA	848	C
1	AA	855	G
1	AA	859	A
1	AA	873	A

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Mol	Chain	Res	Type
1	AA	902	G
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	960	U
1	AA	961	U
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	974	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	980	C
1	AA	984	C
1	AA	992	U
1	AA	993	G
1	AA	1004	A
1	AA	1050	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1117	G
1	AA	1118	C
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C

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Mol	Chain	Res	Type
1	AA	1146	A
1	AA	1159	U
1	AA	1171	G
1	AA	1196	U
1	AA	1197	G
1	AA	1202	G
1	AA	1212	U
1	AA	1213	A
1	AA	1225	A
1	AA	1238	A
1	AA	1239	A
1	AA	1256	A
1	AA	1257	U
1	AA	1258	G
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1285	A
1	AA	1286	A
1	AA	1287	A
1	AA	1294	G
1	AA	1297	C
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1303	C
1	AA	1305	G
1	AA	1317	C
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1338	G
1	AA	1347	G
1	AA	136(B)	C
1	AA	1363	A
1	AA	1364	U
1	AA	1365	G
1	AA	1378	C
1	AA	1401	G
1	AA	1419	G
1	AA	1443	G

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Mol	Chain	Res	Type
1	AA	1446	A
1	AA	1451	A
1	AA	1452	C
1	AA	1453	G
1	AA	1492	A
1	AA	1497	G
1	AA	1499	A
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1508	G
1	AA	1517	G
1	AA	1520	G
1	AA	1528	U
1	AA	1529	G
1	AA	1530	G
2	AZ	5	G
2	AZ	17(A)	U
2	AZ	18	G
2	AZ	19	G
2	AZ	20	U
2	AZ	47	U
2	AZ	48	C
2	AZ	61	C
3	AV	22	A
3	AV	23	A
2	AY	8	U
2	AY	17(A)	U
2	AY	18	G
2	AY	19	G
2	AY	20	U
2	AY	21	A
2	AY	22	G
2	AY	47	U
2	AY	48	C
2	AY	49	G
2	AY	76	A
25	BA	10	G
25	BA	34	C

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Mol	Chain	Res	Type
25	BA	35	G
25	BA	46	C
25	BA	63	U
25	BA	64	A
25	BA	72	U
25	BA	73	A
25	BA	74	A
25	BA	75	G
25	BA	84	A
25	BA	85	G
25	BA	88	G
25	BA	98	G
25	BA	99	U
25	BA	101	G
25	BA	102	G
25	BA	118	A
25	BA	120	U
25	BA	138	G
25	BA	140	A
25	BA	162	U
25	BA	181	A
25	BA	196	A
25	BA	197	A
25	BA	199	A
25	BA	200	U
25	BA	204	A
25	BA	205	G
25	BA	216	A
25	BA	221	A
25	BA	222	A
25	BA	227	A
25	BA	228	A
25	BA	229	A
25	BA	230	U
25	BA	248	G
25	BA	252	G
25	BA	269	U
25	BA	270(K)	G
25	BA	270(M)	U
25	BA	270(N)	U
25	BA	270(O)	G
25	BA	270(P)	U

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Mol	Chain	Res	Type
25	BA	270(Q)	C
25	BA	270(R)	C
25	BA	270(T)	G
25	BA	271(D)	U
25	BA	271	G
25	BA	274	G
25	BA	275	G
25	BA	276	A
25	BA	277	C
25	BA	278	A
25	BA	279	C
25	BA	283	A
25	BA	284	U
25	BA	302	C
25	BA	323	G
25	BA	324	A
25	BA	329	G
25	BA	330	A
25	BA	331	A
25	BA	332	A
25	BA	333	G
25	BA	352	G
25	BA	353	G
25	BA	364	C
25	BA	386	G
25	BA	388	G
25	BA	396	G
25	BA	405	U
25	BA	411	G
25	BA	444	C
25	BA	455	C
25	BA	457	A
25	BA	458	G
25	BA	470	A
25	BA	473	G
25	BA	480	A
25	BA	481	G
25	BA	505	A
25	BA	508	G
25	BA	509	C
25	BA	512	G
25	BA	530	G

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Mol	Chain	Res	Type
25	BA	531	C
25	BA	532	A
25	BA	533	G
25	BA	556	G
25	BA	562	U
25	BA	563	G
25	BA	572	A
25	BA	573	G
25	BA	575	A
25	BA	603	A
25	BA	616	A
25	BA	617	G
25	BA	620	G
25	BA	621	A
25	BA	627	A
25	BA	637	A
25	BA	645	C
25	BA	646	A
25	BA	652	U
25	BA	653	C
25	BA	656	G
25	BA	657	U
25	BA	668	G
25	BA	671	C
25	BA	676	A
25	BA	686	G
25	BA	695	G
25	BA	717	G
25	BA	730	C
25	BA	746	A
25	BA	747	U
25	BA	765	G
25	BA	776	G
25	BA	782	A
25	BA	784	A
25	BA	785	G
25	BA	789	A
25	BA	792	G
25	BA	800	A
25	BA	805	G
25	BA	812	C
25	BA	819	A

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Mol	Chain	Res	Type
25	BA	827	U
25	BA	828	U
25	BA	830	G
25	BA	845	G
25	BA	846	C
25	BA	859	G
25	BA	866	A
25	BA	886	C
25	BA	890	A
25	BA	896	A
25	BA	897	C
25	BA	907	U
25	BA	910	A
25	BA	917	A
25	BA	932	G
25	BA	933	A
25	BA	941	A
25	BA	945	A
25	BA	946	G
25	BA	959	A
25	BA	961	C
25	BA	973	A
25	BA	974(A)	G
25	BA	974(B)	C
25	BA	983	A
25	BA	990	A
25	BA	996	A
25	BA	999	U
25	BA	1008	C
25	BA	1009	A
25	BA	1011	G
25	BA	1012	U
25	BA	1013	C
25	BA	1022	G
25	BA	1023	U
25	BA	1025	G
25	BA	1026	U
25	BA	1033	U
25	BA	1047	G
25	BA	1057	A
25	BA	1060	U
25	BA	1061	U

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Mol	Chain	Res	Type
25	BA	1062	G
25	BA	1069	A
25	BA	1070	A
25	BA	1071	G
25	BA	1072	C
25	BA	1078	U
25	BA	1079	C
25	BA	1088	A
25	BA	1090	U
25	BA	1112	G
25	BA	1129	A
25	BA	1130	U
25	BA	1131	G
25	BA	1132	A
25	BA	1135	C
25	BA	1136	G
25	BA	1139	G
25	BA	1142	U
25	BA	114(B)	A
25	BA	1143	A
25	BA	1155	A
25	BA	1174	A
25	BA	1175	U
25	BA	1177	A
25	BA	1190	G
25	BA	1204	A
25	BA	1205	U
25	BA	1210	A
25	BA	1211	U
25	BA	1212	G
25	BA	1221	C
25	BA	1247	A
25	BA	1248	G
25	BA	1253	A
25	BA	1254	A
25	BA	1256	G
25	BA	1265	A
25	BA	1271	G
25	BA	1272	A
25	BA	1274	A
25	BA	1286	A
25	BA	1300	U

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Mol	Chain	Res	Type
25	BA	1301	A
25	BA	1302	A
25	BA	1311	G
25	BA	1312	U
25	BA	1314	C
25	BA	1325	G
25	BA	1329	U
25	BA	1332	G
25	BA	1349	A
25	BA	1359	A
25	BA	1360	A
25	BA	1368	G
25	BA	1379	A
25	BA	1380	G
25	BA	1384	A
25	BA	1385	G
25	BA	1386	C
25	BA	1395	A
25	BA	1396	U
25	BA	1398	C
25	BA	1416	G
25	BA	1417	C
25	BA	1420	U
25	BA	1421	G
25	BA	1428	C
25	BA	144(B)	A
25	BA	1449	G
25	BA	1451	C
25	BA	1453	A
25	BA	1454	U
25	BA	1455	G
25	BA	1458	C
25	BA	1459	G
25	BA	1460	A
25	BA	1467	C
25	BA	1483	G
25	BA	1490	A
25	BA	1493	C
25	BA	1494	A
25	BA	1495	A
25	BA	1497	U
25	BA	1498	C

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Mol	Chain	Res	Type
25	BA	1505	C
25	BA	1510	A
25	BA	1538	G
25	BA	1540	G
25	BA	1542	G
25	BA	1543	A
25	BA	1545	A
25	BA	1554	A
25	BA	1558	A
25	BA	1559	G
25	BA	1569	A
25	BA	1579	A
25	BA	1585	C
25	BA	1599	C
25	BA	1603	A
25	BA	1608	A
25	BA	1609	A
25	BA	1610	A
25	BA	1613	G
25	BA	1617	C
25	BA	1618	A
25	BA	1640	C
25	BA	1648	C
25	BA	1664	A
25	BA	1674	G
25	BA	1694	C
25	BA	1695	G
25	BA	1696	G
25	BA	1729	A
25	BA	1732	A
25	BA	1763	G
25	BA	1764	G
25	BA	1773	A
25	BA	1784	A
25	BA	1786	A
25	BA	1800	C
25	BA	1801	G
25	BA	1816	G
25	BA	1830	C
25	BA	1838	C
25	BA	1839	G
25	BA	1847	A

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Mol	Chain	Res	Type
25	BA	1878	G
25	BA	1888	G
25	BA	1903	G
25	BA	1906	G
25	BA	1913	A
25	BA	1929	G
25	BA	1931	U
25	BA	1936	A
25	BA	1938	A
25	BA	1939	U
25	BA	1955	U
25	BA	1963	U
25	BA	1964	G
25	BA	1966	A
25	BA	1967	C
25	BA	1971	A
25	BA	1972	A
25	BA	1980	G
25	BA	1981	A
25	BA	1982	C
25	BA	1992	G
25	BA	1993	U
25	BA	1997	G
25	BA	2020	A
25	BA	2023	G
25	BA	2031	A
25	BA	2033	A
25	BA	2034	U
25	BA	2036	C
25	BA	2043	C
25	BA	2046	G
25	BA	2055	C
25	BA	2056	G
25	BA	2060	A
25	BA	2061	G
25	BA	2068	U
25	BA	2069	G
25	BA	2092	U
25	BA	2115	G
25	BA	2119	A
25	BA	2120	G
25	BA	2126	A

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Mol	Chain	Res	Type
25	BA	2132	U
25	BA	2133	G
25	BA	2147	G
25	BA	2159	G
25	BA	2173	A
25	BA	2198	A
25	BA	2199	A
25	BA	2211	G
25	BA	2212	A
25	BA	2213	U
25	BA	2215	G
25	BA	2225	A
25	BA	2226	C
25	BA	2238	G
25	BA	2239	G
25	BA	2251	G
25	BA	2273	A
25	BA	2275	C
25	BA	2283	C
25	BA	2287	A
25	BA	2305	A
25	BA	2306	C
25	BA	2307	G
25	BA	2319	G
25	BA	2320	A
25	BA	2322	A
25	BA	2325	G
25	BA	2334	G
25	BA	2336	A
25	BA	2345	G
25	BA	2347	C
25	BA	2350	C
25	BA	2379	G
25	BA	2383	G
25	BA	2385	C
25	BA	2402	C
25	BA	2408	U
25	BA	2423	U
25	BA	2424	C
25	BA	2425	A
25	BA	2427	C
25	BA	2428	G

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Mol	Chain	Res	Type
25	BA	2429	G
25	BA	2430	A
25	BA	2431	U
25	BA	2439	A
25	BA	2441	C
25	BA	2445	G
25	BA	2447	G
25	BA	2448	A
25	BA	2449	U
25	BA	2469	A
25	BA	2476	A
25	BA	2478	A
25	BA	2487	G
25	BA	2491	U
25	BA	2498	C
25	BA	2502	G
25	BA	2503	A
25	BA	2504	U
25	BA	2505	G
25	BA	2506	U
25	BA	2518	A
25	BA	2520	C
25	BA	2529	G
25	BA	2542	A
25	BA	2543	G
25	BA	2554	U
25	BA	2562	U
25	BA	2566	A
25	BA	2567	G
25	BA	2572	A
25	BA	2573	C
25	BA	2574	G
25	BA	2578	G
25	BA	2585	U
25	BA	2602	A
25	BA	2603	G
25	BA	2609	U
25	BA	2610	C
25	BA	2611	U
25	BA	2612	C
25	BA	2630	G
25	BA	2665	A

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Mol	Chain	Res	Type
25	BA	2690	C
25	BA	2712	U
25	BA	712(B)	A
25	BA	2713	A
25	BA	2714	G
25	BA	2733	A
25	BA	2748	A
25	BA	2757	A
25	BA	2765	A
25	BA	2766	G
25	BA	2778	A
25	BA	2779	U
25	BA	2781	A
25	BA	2790	A
25	BA	2791	C
25	BA	2792	G
25	BA	2797	U
25	BA	2808	U
25	BA	2820	A
25	BA	2821	A
25	BA	2849	U
25	BA	2872	G
25	BA	2873	A
25	BA	2874	C
25	BA	2892	A
25	BA	2894	G
26	BB	15	A
26	BB	16	G
26	BB	25	A
26	BB	35	U
26	BB	42	C
26	BB	45	A
26	BB	52	A
26	BB	67	G
26	BB	73	A
26	BB	88	C
26	BB	90	C
26	BB	109	G
1	CA	6	G
1	CA	9	G
1	CA	31	G
1	CA	39	G

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Mol	Chain	Res	Type
1	CA	47	C
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	61	G
1	CA	115	G
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	131	C
1	CA	150	C
1	CA	163	C
1	CA	169	C
1	CA	182	U
1	CA	190	G
1	CA	191(A)	G
1	CA	195	A
1	CA	210	U
1	CA	244	U
1	CA	245	C
1	CA	247	G
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	280	C
1	CA	281	G
1	CA	289	G
1	CA	328	C
1	CA	329	A
1	CA	332	G
1	CA	345	C
1	CA	346	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	358	U
1	CA	359	U
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	384	G
1	CA	389	A

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Mol	Chain	Res	Type
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	422	C
1	CA	423	G
1	CA	429	U
1	CA	430	A
1	CA	439	A
1	CA	452	A
1	CA	484	G
1	CA	485	G
1	CA	496	A
1	CA	497	U
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	512	U
1	CA	518	C
1	CA	524	G
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	534	U
1	CA	535	A
1	CA	547	A
1	CA	559	A
1	CA	561	U
1	CA	562	C
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	596	C
1	CA	607	A
1	CA	653	A
1	CA	661	G
1	CA	665	A

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Mol	Chain	Res	Type
1	CA	687	A
1	CA	688	G
1	CA	703	G
1	CA	731	G
1	CA	749	C
1	CA	755	G
1	CA	793	U
1	CA	815	A
1	CA	816	A
1	CA	817	C
1	CA	819	A
1	CA	828	A
1	CA	833	U
1	CA	841	U
1	CA	842	C
1	CA	843	U
1	CA	848	C
1	CA	855	G
1	CA	859	A
1	CA	873	A
1	CA	902	G
1	CA	914	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	960	U
1	CA	961	U
1	CA	968	A
1	CA	969	A
1	CA	971	G
1	CA	974	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	984	C
1	CA	992	U
1	CA	993	G
1	CA	1004	A
1	CA	1050	G
1	CA	1054	C

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Mol	Chain	Res	Type
1	CA	1064	G
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1117	G
1	CA	1118	C
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1129	C
1	CA	1130	A
1	CA	1131	G
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1140	C
1	CA	1146	A
1	CA	1159	U
1	CA	1171	G
1	CA	1196	U
1	CA	1197	G
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1225	A
1	CA	1238	A
1	CA	1239	A
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1280	A
1	CA	1281	U
1	CA	1282	C
1	CA	1285	A
1	CA	1286	A
1	CA	1287	A
1	CA	1294	G
1	CA	1297	C

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Mol	Chain	Res	Type
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1303	C
1	CA	1305	G
1	CA	1317	C
1	CA	1320	C
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1338	G
1	CA	1347	G
1	CA	136(B)	C
1	CA	1363	A
1	CA	1364	U
1	CA	1365	G
1	CA	1378	C
1	CA	1401	G
1	CA	1419	G
1	CA	1443	G
1	CA	1446	A
1	CA	1451	A
1	CA	1452	C
1	CA	1453	G
1	CA	1492	A
1	CA	1497	G
1	CA	1499	A
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1508	G
1	CA	1517	G
1	CA	1520	G
1	CA	1528	U
1	CA	1529	G
1	CA	1530	G
2	CZ	5	G
2	CZ	17(A)	U
2	CZ	18	G

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Mol	Chain	Res	Type
2	CZ	19	G
2	CZ	20	U
2	CZ	47	U
2	CZ	48	C
2	CZ	61	C
3	CV	22	A
3	CV	23	A
2	CY	8	U
2	CY	17(A)	U
2	CY	18	G
2	CY	19	G
2	CY	20	U
2	CY	21	A
2	CY	22	G
2	CY	47	U
2	CY	48	C
2	CY	49	G
2	CY	76	A
25	DA	10	G
25	DA	34	C
25	DA	35	G
25	DA	46	C
25	DA	63	U
25	DA	64	A
25	DA	72	U
25	DA	73	A
25	DA	74	A
25	DA	75	G
25	DA	84	A
25	DA	85	G
25	DA	88	G
25	DA	98	G
25	DA	99	U
25	DA	101	G
25	DA	102	G
25	DA	118	A
25	DA	120	U
25	DA	138	G
25	DA	140	A
25	DA	162	U
25	DA	181	A
25	DA	196	A

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Mol	Chain	Res	Type
25	DA	197	A
25	DA	199	A
25	DA	200	U
25	DA	204	A
25	DA	205	G
25	DA	216	A
25	DA	221	A
25	DA	222	A
25	DA	227	A
25	DA	228	A
25	DA	229	A
25	DA	230	U
25	DA	248	G
25	DA	252	G
25	DA	269	U
25	DA	270(K)	G
25	DA	270(M)	U
25	DA	270(N)	U
25	DA	270(O)	G
25	DA	270(P)	U
25	DA	270(Q)	C
25	DA	270(R)	C
25	DA	270(T)	G
25	DA	271(D)	U
25	DA	271	G
25	DA	274	G
25	DA	275	G
25	DA	276	A
25	DA	277	C
25	DA	278	A
25	DA	279	C
25	DA	283	A
25	DA	284	U
25	DA	302	C
25	DA	323	G
25	DA	324	A
25	DA	329	G
25	DA	330	A
25	DA	331	A
25	DA	332	A
25	DA	333	G
25	DA	352	G

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Mol	Chain	Res	Type
25	DA	353	G
25	DA	364	C
25	DA	386	G
25	DA	388	G
25	DA	396	G
25	DA	405	U
25	DA	411	G
25	DA	444	C
25	DA	457	A
25	DA	458	G
25	DA	470	A
25	DA	480	A
25	DA	481	G
25	DA	505	A
25	DA	508	G
25	DA	509	C
25	DA	512	G
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G
25	DA	556	G
25	DA	562	U
25	DA	563	G
25	DA	572	A
25	DA	573	G
25	DA	575	A
25	DA	603	A
25	DA	616	A
25	DA	617	G
25	DA	620	G
25	DA	621	A
25	DA	627	A
25	DA	637	A
25	DA	645	C
25	DA	646	A
25	DA	652	U
25	DA	653	C
25	DA	656	G
25	DA	657	U
25	DA	668	G
25	DA	671	C

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Mol	Chain	Res	Type
25	DA	676	A
25	DA	686	G
25	DA	695	G
25	DA	717	G
25	DA	730	C
25	DA	746	A
25	DA	747	U
25	DA	765	G
25	DA	776	G
25	DA	782	A
25	DA	784	A
25	DA	785	G
25	DA	789	A
25	DA	792	G
25	DA	800	A
25	DA	805	G
25	DA	812	C
25	DA	819	A
25	DA	827	U
25	DA	828	U
25	DA	830	G
25	DA	845	G
25	DA	846	C
25	DA	859	G
25	DA	866	A
25	DA	886	C
25	DA	890	A
25	DA	896	A
25	DA	897	C
25	DA	907	U
25	DA	910	A
25	DA	917	A
25	DA	932	G
25	DA	933	A
25	DA	941	A
25	DA	945	A
25	DA	946	G
25	DA	959	A
25	DA	961	C
25	DA	973	A
25	DA	974(A)	G
25	DA	974(B)	C

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Mol	Chain	Res	Type
25	DA	983	A
25	DA	990	A
25	DA	996	A
25	DA	999	U
25	DA	1008	C
25	DA	1009	A
25	DA	1011	G
25	DA	1012	U
25	DA	1013	C
25	DA	1022	G
25	DA	1023	U
25	DA	1025	G
25	DA	1026	U
25	DA	1033	U
25	DA	1047	G
25	DA	1057	A
25	DA	1060	U
25	DA	1061	U
25	DA	1062	G
25	DA	1069	A
25	DA	1070	A
25	DA	1071	G
25	DA	1072	C
25	DA	1078	U
25	DA	1079	C
25	DA	1088	A
25	DA	1090	U
25	DA	1112	G
25	DA	1129	A
25	DA	1130	U
25	DA	1131	G
25	DA	1132	A
25	DA	1135	C
25	DA	1136	G
25	DA	1139	G
25	DA	1142	U
25	DA	114(B)	A
25	DA	1143	A
25	DA	1155	A
25	DA	1174	A
25	DA	1175	U
25	DA	1177	A

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Mol	Chain	Res	Type
25	DA	1190	G
25	DA	1204	A
25	DA	1205	U
25	DA	1210	A
25	DA	1211	U
25	DA	1212	G
25	DA	1221	C
25	DA	1247	A
25	DA	1248	G
25	DA	1253	A
25	DA	1254	A
25	DA	1256	G
25	DA	1265	A
25	DA	1271	G
25	DA	1272	A
25	DA	1274	A
25	DA	1286	A
25	DA	1300	U
25	DA	1301	A
25	DA	1302	A
25	DA	1311	G
25	DA	1312	U
25	DA	1314	C
25	DA	1325	G
25	DA	1329	U
25	DA	1332	G
25	DA	1349	A
25	DA	1359	A
25	DA	1360	A
25	DA	1368	G
25	DA	1379	A
25	DA	1380	G
25	DA	1384	A
25	DA	1385	G
25	DA	1386	C
25	DA	1395	A
25	DA	1396	U
25	DA	1398	C
25	DA	1416	G
25	DA	1417	C
25	DA	1420	U
25	DA	1421	G

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Mol	Chain	Res	Type
25	DA	1428	C
25	DA	144(B)	A
25	DA	1449	G
25	DA	1451	C
25	DA	1453	A
25	DA	1454	U
25	DA	1455	G
25	DA	1458	C
25	DA	1459	G
25	DA	1460	A
25	DA	1467	C
25	DA	1483	G
25	DA	1490	A
25	DA	1493	C
25	DA	1494	A
25	DA	1495	A
25	DA	1497	U
25	DA	1498	C
25	DA	1505	C
25	DA	1510	A
25	DA	1538	G
25	DA	1540	G
25	DA	1542	G
25	DA	1543	A
25	DA	1545	A
25	DA	1554	A
25	DA	1558	A
25	DA	1559	G
25	DA	1569	A
25	DA	1579	A
25	DA	1585	C
25	DA	1599	C
25	DA	1603	A
25	DA	1608	A
25	DA	1609	A
25	DA	1610	A
25	DA	1613	G
25	DA	1617	C
25	DA	1618	A
25	DA	1640	C
25	DA	1648	C
25	DA	1664	A

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Mol	Chain	Res	Type
25	DA	1674	G
25	DA	1694	C
25	DA	1695	G
25	DA	1696	G
25	DA	1729	A
25	DA	1732	A
25	DA	1763	G
25	DA	1764	G
25	DA	1773	A
25	DA	1786	A
25	DA	1800	C
25	DA	1801	G
25	DA	1816	G
25	DA	1830	C
25	DA	1838	C
25	DA	1839	G
25	DA	1847	A
25	DA	1878	G
25	DA	1888	G
25	DA	1903	G
25	DA	1906	G
25	DA	1913	A
25	DA	1929	G
25	DA	1931	U
25	DA	1936	A
25	DA	1938	A
25	DA	1939	U
25	DA	1955	U
25	DA	1963	U
25	DA	1964	G
25	DA	1966	A
25	DA	1967	C
25	DA	1971	A
25	DA	1972	A
25	DA	1980	G
25	DA	1981	A
25	DA	1982	C
25	DA	1992	G
25	DA	1993	U
25	DA	1997	G
25	DA	2020	A
25	DA	2023	G

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Mol	Chain	Res	Type
25	DA	2031	A
25	DA	2033	A
25	DA	2034	U
25	DA	2036	C
25	DA	2043	C
25	DA	2046	G
25	DA	2055	C
25	DA	2056	G
25	DA	2060	A
25	DA	2061	G
25	DA	2068	U
25	DA	2069	G
25	DA	2092	U
25	DA	2115	G
25	DA	2119	A
25	DA	2120	G
25	DA	2126	A
25	DA	2132	U
25	DA	2133	G
25	DA	2147	G
25	DA	2159	G
25	DA	2173	A
25	DA	2198	A
25	DA	2199	A
25	DA	2211	G
25	DA	2212	A
25	DA	2213	U
25	DA	2215	G
25	DA	2225	A
25	DA	2226	C
25	DA	2238	G
25	DA	2239	G
25	DA	2251	G
25	DA	2273	A
25	DA	2275	C
25	DA	2283	C
25	DA	2287	A
25	DA	2305	A
25	DA	2306	C
25	DA	2307	G
25	DA	2319	G
25	DA	2320	A

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Mol	Chain	Res	Type
25	DA	2322	A
25	DA	2325	G
25	DA	2334	G
25	DA	2336	A
25	DA	2345	G
25	DA	2347	C
25	DA	2350	C
25	DA	2379	G
25	DA	2383	G
25	DA	2385	C
25	DA	2402	C
25	DA	2408	U
25	DA	2423	U
25	DA	2424	C
25	DA	2425	A
25	DA	2427	C
25	DA	2428	G
25	DA	2429	G
25	DA	2430	A
25	DA	2431	U
25	DA	2439	A
25	DA	2441	C
25	DA	2445	G
25	DA	2447	G
25	DA	2448	A
25	DA	2449	U
25	DA	2469	A
25	DA	2476	A
25	DA	2478	A
25	DA	2487	G
25	DA	2491	U
25	DA	2498	C
25	DA	2502	G
25	DA	2503	A
25	DA	2504	U
25	DA	2505	G
25	DA	2506	U
25	DA	2518	A
25	DA	2520	C
25	DA	2529	G
25	DA	2542	A
25	DA	2543	G

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Mol	Chain	Res	Type
25	DA	2554	U
25	DA	2562	U
25	DA	2566	A
25	DA	2567	G
25	DA	2572	A
25	DA	2573	C
25	DA	2574	G
25	DA	2578	G
25	DA	2585	U
25	DA	2602	A
25	DA	2603	G
25	DA	2609	U
25	DA	2610	C
25	DA	2611	U
25	DA	2612	C
25	DA	2630	G
25	DA	2665	A
25	DA	2690	C
25	DA	2712	U
25	DA	712(B)	A
25	DA	2713	A
25	DA	2714	G
25	DA	2733	A
25	DA	2748	A
25	DA	2757	A
25	DA	2765	A
25	DA	2766	G
25	DA	2778	A
25	DA	2779	U
25	DA	2781	A
25	DA	2790	A
25	DA	2791	C
25	DA	2792	G
25	DA	2797	U
25	DA	2808	U
25	DA	2820	A
25	DA	2821	A
25	DA	2849	U
25	DA	2872	G
25	DA	2873	A
25	DA	2874	C
25	DA	2892	A

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Mol	Chain	Res	Type
25	DA	2894	G
26	DB	15	A
26	DB	16	G
26	DB	25	A
26	DB	35	U
26	DB	42	C
26	DB	45	A
26	DB	52	A
26	DB	67	G
26	DB	73	A
26	DB	88	C
26	DB	90	C
26	DB	109	G

All (325) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	30	U
1	AA	48	C
1	AA	60	A
1	AA	115	G
1	AA	119	A
1	AA	149	A
1	AA	181	G
1	AA	243	A
1	AA	244	U
1	AA	246	A
1	AA	250	A
1	AA	266	G
1	AA	315	A
1	AA	328	C
1	AA	358	U
1	AA	366	C
1	AA	372	C
1	AA	412	A
1	AA	428	G
1	AA	429	U
1	AA	438	G
1	AA	484	G
1	AA	496	A
1	AA	508	C
1	AA	509	A

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Mol	Chain	Res	Type
1	AA	533	A
1	AA	560	U
1	AA	561	U
1	AA	687	A
1	AA	748	C
1	AA	815	A
1	AA	843	U
1	AA	872	A
1	AA	884	U
1	AA	913	A
1	AA	968	A
1	AA	971	G
1	AA	978	A
1	AA	1049	U
1	AA	1064	G
1	AA	1065	U
1	AA	1067	A
1	AA	1129	C
1	AA	1145	C
1	AA	1201	A
1	AA	1213	A
1	AA	1239	A
1	AA	1281	U
1	AA	1285	A
1	AA	1300	G
1	AA	1491	G
1	AA	1498	U
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1507	A
2	AZ	17(A)	U
3	AV	18	G
2	AY	17(A)	U
2	AY	21	A
25	BA	34	C
25	BA	60	G
25	BA	63	U
25	BA	74	A
25	BA	101	G
25	BA	120	U
25	BA	177	G

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Mol	Chain	Res	Type
25	BA	196	A
25	BA	199	A
25	BA	221	A
25	BA	270(N)	U
25	BA	271(A)	U
25	BA	278	A
25	BA	283	A
25	BA	310	A
25	BA	321	G
25	BA	331	A
25	BA	332	A
25	BA	455	C
25	BA	457	A
25	BA	479	A
25	BA	531	C
25	BA	532	A
25	BA	571	A
25	BA	616	A
25	BA	652	U
25	BA	675	A
25	BA	685	A
25	BA	746	A
25	BA	762	U
25	BA	764	A
25	BA	776	G
25	BA	801	G
25	BA	829	A
25	BA	945	A
25	BA	974(A)	G
25	BA	1008	C
25	BA	1022	G
25	BA	1047	G
25	BA	1069	A
25	BA	1071	G
25	BA	1089	G
25	BA	1131	G
25	BA	1154	G
25	BA	1190	G
25	BA	1210	A
25	BA	1211	U
25	BA	1253	A
25	BA	1266	G

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Mol	Chain	Res	Type
25	BA	1300	U
25	BA	1301	A
25	BA	1378	A
25	BA	1379	A
25	BA	1419	A
25	BA	1427	A
25	BA	1451	C
25	BA	1453	A
25	BA	1458	C
25	BA	1494	A
25	BA	1495	A
25	BA	1542	G
25	BA	1558	A
25	BA	1608	A
25	BA	1617	C
25	BA	1800	C
25	BA	1816	G
25	BA	1829	A
25	BA	1838	C
25	BA	1847	A
25	BA	1937	A
25	BA	1938	A
25	BA	1939	U
25	BA	1970	A
25	BA	1980	G
25	BA	1992	G
25	BA	2022	U
25	BA	2033	A
25	BA	2060	A
25	BA	2172	U
25	BA	2225	A
25	BA	2282	G
25	BA	2311	A
25	BA	2319	G
25	BA	2320	A
25	BA	2345	G
25	BA	2422	A
25	BA	2427	C
25	BA	2428	G
25	BA	2448	A
25	BA	2502	G
25	BA	2529	G

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Mol	Chain	Res	Type
25	BA	2542	A
25	BA	2572	A
25	BA	2603	G
25	BA	2610	C
25	BA	2689	U
25	BA	2756	U
25	BA	2776	A
25	BA	2791	C
25	BA	2866	U
25	BA	2873	A
26	BB	56	G
1	CA	30	U
1	CA	48	C
1	CA	60	A
1	CA	115	G
1	CA	119	A
1	CA	149	A
1	CA	181	G
1	CA	243	A
1	CA	244	U
1	CA	246	A
1	CA	250	A
1	CA	266	G
1	CA	315	A
1	CA	328	C
1	CA	358	U
1	CA	366	C
1	CA	372	C
1	CA	412	A
1	CA	428	G
1	CA	429	U
1	CA	438	G
1	CA	484	G
1	CA	496	A
1	CA	508	C
1	CA	509	A
1	CA	533	A
1	CA	560	U
1	CA	561	U
1	CA	687	A
1	CA	748	C
1	CA	815	A

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Mol	Chain	Res	Type
1	CA	843	U
1	CA	872	A
1	CA	884	U
1	CA	913	A
1	CA	968	A
1	CA	971	G
1	CA	978	A
1	CA	1049	U
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A
1	CA	1129	C
1	CA	1145	C
1	CA	1201	A
1	CA	1213	A
1	CA	1239	A
1	CA	1281	U
1	CA	1285	A
1	CA	1300	G
1	CA	1491	G
1	CA	1498	U
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1507	A
2	CZ	17(A)	U
3	CV	18	G
2	CY	17(A)	U
2	CY	21	A
25	DA	34	C
25	DA	60	G
25	DA	63	U
25	DA	74	A
25	DA	101	G
25	DA	120	U
25	DA	177	G
25	DA	196	A
25	DA	199	A
25	DA	221	A
25	DA	270(N)	U
25	DA	271(A)	U
25	DA	278	A

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Mol	Chain	Res	Type
25	DA	283	A
25	DA	310	A
25	DA	321	G
25	DA	331	A
25	DA	332	A
25	DA	455	C
25	DA	457	A
25	DA	479	A
25	DA	531	C
25	DA	532	A
25	DA	571	A
25	DA	616	A
25	DA	652	U
25	DA	675	A
25	DA	685	A
25	DA	746	A
25	DA	762	U
25	DA	764	A
25	DA	776	G
25	DA	829	A
25	DA	945	A
25	DA	974(A)	G
25	DA	1008	C
25	DA	1022	G
25	DA	1047	G
25	DA	1069	A
25	DA	1071	G
25	DA	1089	G
25	DA	1131	G
25	DA	1154	G
25	DA	1190	G
25	DA	1210	A
25	DA	1211	U
25	DA	1253	A
25	DA	1266	G
25	DA	1300	U
25	DA	1301	A
25	DA	1378	A
25	DA	1379	A
25	DA	1419	A
25	DA	1427	A
25	DA	1451	C

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Mol	Chain	Res	Type
25	DA	1453	A
25	DA	1458	C
25	DA	1494	A
25	DA	1495	A
25	DA	1542	G
25	DA	1558	A
25	DA	1608	A
25	DA	1617	C
25	DA	1800	C
25	DA	1816	G
25	DA	1829	A
25	DA	1838	C
25	DA	1847	A
25	DA	1937	A
25	DA	1938	A
25	DA	1939	U
25	DA	1970	A
25	DA	1980	G
25	DA	1992	G
25	DA	2022	U
25	DA	2033	A
25	DA	2060	A
25	DA	2092	U
25	DA	2172	U
25	DA	2225	A
25	DA	2282	G
25	DA	2311	A
25	DA	2319	G
25	DA	2320	A
25	DA	2345	G
25	DA	2422	A
25	DA	2427	C
25	DA	2428	G
25	DA	2448	A
25	DA	2502	G
25	DA	2529	G
25	DA	2542	A
25	DA	2572	A
25	DA	2603	G
25	DA	2610	C
25	DA	2689	U
25	DA	2713	A

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Mol	Chain	Res	Type
25	DA	2756	U
25	DA	2776	A
25	DA	2791	C
25	DA	2866	U
25	DA	2873	A
26	DB	56	G

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 carbohydrates in this entry.

5.6 Ligand geometry ⓘ

Of 2581 ligands modelled in this entry, 2581 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.

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	1504/1525 (98%)	-0.05	61 (4%) 35 7	85, 138, 234, 323	0
1	CA	1504/1525 (98%)	0.16	98 (6%) 18 4	93, 155, 241, 322	0
2	AY	77/77 (100%)	-0.24	0 100 100	97, 129, 164, 212	0
2	AZ	77/77 (100%)	0.55	9 (11%) 5 2	216, 256, 275, 295	0
2	CY	77/77 (100%)	-0.31	0 100 100	86, 127, 171, 213	0
2	CZ	77/77 (100%)	0.29	6 (7%) 13 3	219, 254, 280, 289	0
3	AV	12/27 (44%)	1.09	3 (25%) 1 1	120, 129, 207, 226	0
3	CV	12/27 (44%)	1.15	2 (16%) 2 1	118, 127, 212, 221	0
4	AB	234/256 (91%)	0.19	8 (3%) 43 9	155, 190, 223, 247	0
4	CB	234/256 (91%)	0.71	28 (11%) 5 1	158, 188, 218, 246	0
5	AC	206/239 (86%)	0.07	4 (1%) 64 18	160, 191, 220, 245	0
5	CC	206/239 (86%)	0.47	20 (9%) 8 2	157, 174, 194, 224	0
6	AD	208/209 (99%)	0.31	8 (3%) 38 7	125, 146, 174, 188	0
6	CD	208/209 (99%)	0.52	14 (6%) 17 4	146, 177, 205, 230	0
7	AE	151/162 (93%)	0.29	12 (7%) 13 3	124, 145, 174, 198	0
7	CE	151/162 (93%)	0.49	9 (5%) 21 5	133, 154, 184, 220	0
8	AF	101/101 (100%)	0.01	0 100 100	128, 148, 172, 192	0
8	CF	101/101 (100%)	0.20	3 (2%) 48 10	133, 151, 182, 195	0
9	AG	155/156 (99%)	0.08	7 (4%) 32 6	150, 170, 198, 213	0
9	CG	155/156 (99%)	-0.03	4 (2%) 53 11	149, 171, 195, 210	0
10	AH	138/138 (100%)	0.57	13 (9%) 9 2	121, 147, 175, 193	0
10	CH	138/138 (100%)	0.38	5 (3%) 41 8	138, 162, 187, 202	0
11	AI	127/128 (99%)	2.14	68 (53%) 0 0	150, 194, 216, 233	0
11	CI	127/128 (99%)	1.47	42 (33%) 1 0	154, 183, 205, 227	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
12	AJ	98/105 (93%)	0.77	20 (20%) 1 1	161, 211, 241, 252	0
12	CJ	98/105 (93%)	1.51	39 (39%) 1 0	159, 190, 217, 226	0
13	AK	119/129 (92%)	0.34	11 (9%) 9 2	117, 147, 176, 185	0
13	CK	119/129 (92%)	0.09	5 (4%) 35 7	114, 136, 169, 204	0
14	AL	124/134 (92%)	0.09	2 (1%) 68 20	106, 118, 143, 171	0
14	CL	124/134 (92%)	0.03	1 (0%) 83 35	122, 134, 161, 208	0
15	AM	117/126 (92%)	1.00	21 (17%) 2 1	152, 182, 203, 216	0
15	CM	117/126 (92%)	0.74	12 (10%) 7 2	164, 193, 219, 240	0
16	AN	60/61 (98%)	1.65	22 (36%) 1 0	171, 185, 211, 230	0
16	CN	60/61 (98%)	2.21	33 (55%) 0 0	163, 173, 205, 214	0
17	AO	88/89 (98%)	0.64	10 (11%) 6 2	114, 134, 161, 176	0
17	CO	88/89 (98%)	0.35	5 (5%) 23 5	121, 148, 175, 193	0
18	AP	83/88 (94%)	1.61	30 (36%) 1 0	120, 133, 162, 173	0
18	CP	83/88 (94%)	2.95	50 (60%) 0 0	154, 178, 202, 235	0
19	AQ	99/105 (94%)	0.47	4 (4%) 36 7	115, 126, 154, 159	0
19	CQ	99/105 (94%)	0.32	5 (5%) 27 5	122, 151, 171, 188	0
20	AR	70/88 (79%)	-0.02	0 100 100	134, 151, 184, 198	0
20	CR	70/88 (79%)	0.14	1 (1%) 72 22	131, 147, 174, 191	0
21	AS	78/93 (83%)	0.93	18 (23%) 1 1	163, 192, 214, 226	0
21	CS	78/93 (83%)	0.75	10 (12%) 4 1	171, 196, 216, 232	0
22	AT	99/106 (93%)	0.86	17 (17%) 2 1	126, 144, 174, 200	0
22	CT	99/106 (93%)	1.47	35 (35%) 1 0	155, 177, 205, 234	0
23	AU	24/27 (88%)	4.53	23 (95%) 0 0	195, 213, 232, 241	0
23	CU	24/27 (88%)	4.86	20 (83%) 0 0	180, 201, 227, 248	0
24	AX	354/354 (100%)	0.32	22 (6%) 20 4	98, 137, 242, 255	0
24	CX	354/354 (100%)	0.53	36 (10%) 7 2	105, 134, 292, 310	0
25	BA	2879/2894 (99%)	-0.21	89 (3%) 47 10	65, 112, 248, 354	0
25	DA	2879/2894 (99%)	-0.24	64 (2%) 59 14	59, 110, 238, 321	0
26	BB	119/124 (95%)	-0.18	2 (1%) 67 19	138, 171, 208, 265	0
26	DB	119/124 (95%)	-0.32	1 (0%) 83 35	132, 181, 215, 265	0
27	BD	271/276 (98%)	0.35	9 (3%) 44 9	98, 122, 149, 167	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
27	DD	271/276 (98%)	0.55	17 (6%)	19	4	93, 115, 140, 163	0
28	BE	204/206 (99%)	0.62	21 (10%)	7	2	95, 126, 164, 180	0
28	DE	204/206 (99%)	0.89	34 (16%)	2	1	99, 141, 171, 194	0
29	BF	202/210 (96%)	0.02	1 (0%)	88	46	97, 142, 175, 194	0
29	DF	202/210 (96%)	0.61	21 (10%)	7	2	92, 132, 163, 183	0
30	BG	181/182 (99%)	0.37	12 (6%)	18	4	147, 198, 223, 252	0
30	DG	181/182 (99%)	1.06	40 (22%)	1	1	146, 197, 233, 251	0
31	BH	159/180 (88%)	0.31	4 (2%)	54	12	141, 172, 206, 222	0
31	DH	159/180 (88%)	0.04	4 (2%)	54	12	148, 172, 202, 215	0
32	BI	145/148 (97%)	2.25	64 (44%)	1	0	134, 211, 264, 286	0
32	DI	145/148 (97%)	1.11	32 (22%)	1	1	125, 203, 254, 286	0
33	BJ	32/173 (18%)	2.90	25 (78%)	0	0	203, 228, 245, 262	0
33	DJ	32/173 (18%)	2.82	17 (53%)	0	0	188, 222, 247, 258	0
34	BN	137/163 (84%)	0.56	13 (9%)	8	2	110, 142, 167, 219	0
34	DN	137/163 (84%)	0.74	16 (11%)	5	2	112, 140, 165, 184	0
35	BO	122/122 (100%)	-0.05	0	100	100	104, 113, 133, 184	0
35	DO	122/122 (100%)	0.31	2 (1%)	68	20	111, 128, 146, 175	0
36	BP	146/150 (97%)	0.69	20 (13%)	4	1	105, 145, 182, 203	0
36	DP	146/150 (97%)	0.61	16 (10%)	6	2	100, 143, 178, 198	0
37	BQ	136/141 (96%)	1.55	37 (27%)	1	1	109, 142, 172, 226	0
37	DQ	136/141 (96%)	1.61	44 (32%)	1	0	105, 140, 174, 226	0
38	BR	117/118 (99%)	0.81	16 (13%)	4	1	102, 116, 153, 180	0
38	DR	117/118 (99%)	1.17	25 (21%)	1	1	108, 129, 167, 183	0
39	BS	98/112 (87%)	1.11	23 (23%)	1	1	164, 192, 215, 232	0
39	DS	98/112 (87%)	0.86	15 (15%)	3	1	164, 197, 225, 240	0
40	BT	137/146 (93%)	0.39	6 (4%)	33	7	107, 120, 163, 190	0
40	DT	137/146 (93%)	0.53	13 (9%)	8	2	121, 145, 189, 205	0
41	BU	117/118 (99%)	0.41	5 (4%)	34	7	109, 144, 175, 196	0
41	DU	117/118 (99%)	0.51	8 (6%)	17	4	102, 136, 170, 183	0
42	BV	101/101 (100%)	0.36	8 (7%)	13	3	110, 160, 187, 202	0
42	DV	101/101 (100%)	0.18	5 (4%)	28	5	104, 150, 183, 202	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
43	BW	112/113 (99%)	0.17	2 (1%) 65 18	95, 118, 156, 181	0
43	DW	112/113 (99%)	0.30	2 (1%) 65 18	92, 116, 145, 172	0
44	BX	92/96 (95%)	0.73	7 (7%) 14 3	111, 129, 161, 179	0
44	DX	92/96 (95%)	0.29	2 (2%) 59 14	101, 120, 145, 174	0
45	BY	100/110 (90%)	1.86	41 (41%) 1 0	131, 150, 181, 216	0
45	DY	100/110 (90%)	1.58	36 (36%) 1 0	115, 135, 172, 199	0
46	BZ	188/206 (91%)	0.75	20 (10%) 7 2	138, 180, 207, 229	0
46	DZ	188/206 (91%)	0.22	12 (6%) 19 4	134, 173, 200, 215	0
47	B0	76/85 (89%)	1.31	23 (30%) 1 1	116, 147, 174, 187	0
47	D0	76/85 (89%)	1.51	28 (36%) 1 0	115, 148, 175, 193	0
48	B1	88/98 (89%)	0.58	5 (5%) 23 5	107, 128, 162, 180	0
48	D1	88/98 (89%)	0.29	4 (4%) 32 6	102, 121, 165, 187	0
49	B2	72/72 (100%)	0.51	4 (5%) 24 5	128, 148, 181, 208	0
49	D2	72/72 (100%)	0.49	11 (15%) 3 1	115, 129, 183, 197	0
50	B3	59/60 (98%)	0.61	3 (5%) 27 5	127, 147, 180, 210	0
50	D3	59/60 (98%)	0.57	5 (8%) 11 3	121, 143, 172, 212	0
51	B4	30/97 (30%)	0.12	0 100 100	204, 221, 244, 244	0
51	D4	30/97 (30%)	0.66	1 (3%) 44 9	208, 226, 243, 245	0
52	B5	52/60 (86%)	0.04	0 100 100	98, 120, 159, 188	0
52	D5	52/60 (86%)	0.17	1 (1%) 64 18	96, 126, 177, 192	0
53	B6	44/54 (81%)	3.66	37 (84%) 0 0	132, 166, 195, 199	0
53	D6	44/54 (81%)	3.21	31 (70%) 0 0	134, 165, 193, 200	0
54	B7	48/49 (97%)	0.15	2 (4%) 35 7	98, 105, 132, 171	0
54	D7	48/49 (97%)	-0.06	0 100 100	92, 97, 120, 175	0
55	B8	63/65 (96%)	1.17	11 (17%) 2 1	115, 125, 158, 176	0
55	D8	63/65 (96%)	1.98	30 (47%) 1 0	109, 124, 151, 190	0
All	All	21460/22658 (94%)	0.33	1923 (8%) 10 2	59, 143, 230, 354	0

All (1923) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	AA	80	G	15.9
1	AA	81	G	13.7

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Mol	Chain	Res	Type	RSRZ
23	CU	18	TYR	12.2
2	AZ	17(A)	U	12.2
24	CX	28	LYS	11.9
25	BA	1090	U	11.7
2	AZ	17	C	11.5
1	CA	1451	A	11.5
53	B6	13	CYS	11.2
24	AX	64	LEU	11.2
37	DQ	140	ALA	10.7
25	BA	1174	A	9.9
32	DI	88	ILE	9.8
24	AX	65	LEU	9.8
25	BA	2146	C	9.7
24	CX	26	LYS	9.6
18	CP	1	MET	9.5
25	BA	1084	A	9.5
1	AA	84	U	9.4
1	CA	1257	U	9.4
33	DJ	63	LEU	9.2
23	AU	15	ARG	8.9
23	CU	23	PRO	8.8
18	CP	8	ARG	8.7
15	AM	101	GLN	8.7
33	DJ	62	ALA	8.5
24	CX	31	TYR	8.5
18	CP	17	TYR	8.2
32	BI	111	PRO	8.2
23	CU	25	LYS	8.1
32	BI	119	PRO	8.1
1	AA	85	U	8.1
24	CX	30	ARG	8.0
45	DY	50	ARG	8.0
23	CU	24	ARG	7.9
30	DG	34	LEU	7.8
32	BI	112	LYS	7.8
18	CP	28	ARG	7.6
18	CP	34	GLU	7.6
25	DA	2145	C	7.6
37	DQ	139	GLU	7.5
25	BA	1081	U	7.4
32	BI	86	THR	7.4
23	CU	15	ARG	7.2

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Mol	Chain	Res	Type	RSRZ
1	AA	1257	U	7.2
18	CP	29	ASP	7.2
13	AK	11	LYS	7.1
24	CX	29	GLY	7.1
40	BT	1	MET	7.1
2	CZ	17(A)	U	7.1
24	AX	99	LYS	7.1
23	CU	17	THR	7.0
23	AU	18	TYR	7.0
32	BI	109	ILE	7.0
10	AH	1	MET	7.0
53	D6	28	ARG	6.9
2	CZ	17	C	6.8
11	AI	66	ARG	6.8
12	CJ	64	GLU	6.8
53	D6	36	LEU	6.8
40	DT	1	MET	6.8
23	AU	2	GLY	6.8
32	BI	85	GLU	6.7
33	BJ	5	ARG	6.7
11	CI	8	GLY	6.7
18	CP	7	ALA	6.7
32	BI	100	ALA	6.7
18	CP	18	ARG	6.7
21	AS	81	ARG	6.6
32	BI	128	LEU	6.6
15	AM	102	ARG	6.6
1	AA	82	U	6.5
53	B6	51	GLU	6.5
32	DI	89	TYR	6.5
30	DG	2	PRO	6.5
23	AU	16	GLY	6.4
18	CP	3	LYS	6.4
32	BI	121	LYS	6.4
45	DY	51	VAL	6.4
11	CI	66	ARG	6.4
23	CU	22	ARG	6.4
32	BI	117	GLU	6.4
32	BI	36	ALA	6.3
23	AU	17	THR	6.3
11	AI	12	GLU	6.3
30	DG	35	GLU	6.3

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Mol	Chain	Res	Type	RSRZ
12	CJ	73	ASP	6.3
53	D6	9	LEU	6.2
1	CA	1286	A	6.2
11	CI	9	ARG	6.2
53	B6	39	TYR	6.2
53	D6	11	LEU	6.2
30	DG	13	GLU	6.2
16	CN	12	ARG	6.2
34	DN	97	ARG	6.2
18	CP	65	GLN	6.1
24	AX	66	ASP	6.1
18	CP	19	ILE	6.1
13	AK	128	ALA	6.1
33	DJ	59	ILE	6.1
32	BI	1	MET	6.0
22	CT	15	ARG	6.0
32	DI	90	GLY	6.0
53	D6	50	ARG	6.0
39	DS	20	ARG	6.0
1	AA	1001	G	6.0
37	DQ	105	GLU	5.9
32	BI	94	ALA	5.9
11	AI	10	ARG	5.9
13	AK	129	SER	5.9
25	BA	1082	U	5.9
24	CX	23	GLU	5.9
37	BQ	24	GLY	5.9
25	BA	2116	G	5.9
30	DG	25	TYR	5.8
18	CP	6	LEU	5.8
22	CT	14	LYS	5.8
25	BA	2148	G	5.8
12	CJ	5	ARG	5.8
32	BI	118	LYS	5.8
53	B6	14	THR	5.7
25	BA	1104	C	5.7
53	B6	44	ARG	5.7
25	BA	2147	G	5.7
36	DP	65	ARG	5.7
30	DG	22	ARG	5.6
47	D0	53	MET	5.6
11	CI	7	THR	5.6

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Mol	Chain	Res	Type	RSRZ
23	AU	14	TRP	5.6
3	CV	13	A	5.6
32	BI	131	LYS	5.6
53	B6	50	ARG	5.6
18	CP	5	ARG	5.6
16	CN	14	PRO	5.6
45	BY	50	ARG	5.6
3	CV	12	A	5.6
47	D0	52	GLY	5.6
32	BI	87	LYS	5.6
18	CP	4	ILE	5.5
38	BR	8	ARG	5.5
25	BA	1079	C	5.5
12	CJ	61	GLU	5.5
12	CJ	71	LEU	5.5
39	DS	19	LYS	5.5
23	CU	14	TRP	5.5
25	BA	2144	U	5.5
33	DJ	67	GLY	5.5
23	CU	12	LYS	5.5
21	CS	81	ARG	5.4
53	D6	35	GLU	5.4
25	BA	2145	C	5.4
11	AI	105	ASP	5.4
25	BA	1087	G	5.4
16	CN	2	ALA	5.4
32	BI	35	LEU	5.4
30	DG	21	ARG	5.4
1	CA	1149	C	5.4
18	CP	22	THR	5.4
33	DJ	10	LEU	5.4
18	CP	31	LYS	5.4
53	B6	49	HIS	5.4
21	AS	71	LEU	5.4
24	CX	24	VAL	5.3
55	D8	64	TYR	5.3
33	DJ	9	LEU	5.3
37	BQ	91	GLU	5.3
23	AU	13	ILE	5.3
45	DY	34	LYS	5.3
15	AM	100	GLY	5.3
23	CU	2	GLY	5.3

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Mol	Chain	Res	Type	RSRZ
1	CA	87	A	5.3
18	CP	25	ARG	5.3
53	B6	17	LYS	5.3
23	AU	12	LYS	5.2
25	BA	1083	U	5.2
32	DI	121	LYS	5.2
38	DR	8	ARG	5.2
36	BP	77	ARG	5.2
1	CA	135	C	5.2
23	AU	10	ARG	5.2
10	AH	2	LEU	5.2
25	BA	2797	U	5.2
53	D6	14	THR	5.2
45	BY	3	VAL	5.2
1	CA	389	A	5.2
22	CT	25	ARG	5.2
30	BG	2	PRO	5.2
18	CP	35	LYS	5.2
32	BI	65	ALA	5.1
37	DQ	133	ARG	5.1
24	CX	27	ASP	5.1
25	BA	1103	A	5.1
1	CA	134	A	5.1
2	AZ	34	C	5.1
32	DI	120	ILE	5.1
47	B0	40	GLN	5.1
39	DS	13	ARG	5.1
53	D6	51	GLU	5.1
24	CX	25	LEU	5.1
25	DA	508	G	5.1
11	AI	33	PHE	5.1
32	BI	4	ILE	5.0
37	DQ	130	LYS	5.0
32	BI	58	LEU	5.0
53	D6	10	LEU	5.0
18	CP	21	VAL	5.0
37	BQ	103	MET	5.0
23	AU	3	LYS	5.0
45	BY	52	SER	5.0
37	BQ	140	ALA	5.0
47	B0	75	LEU	5.0
32	BI	137	PRO	5.0

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Mol	Chain	Res	Type	RSRZ
36	DP	68	GLN	5.0
25	DA	34	C	5.0
45	BY	5	MET	5.0
16	AN	34	TYR	5.0
46	BZ	79	ARG	5.0
37	BQ	105	GLU	5.0
53	B6	16	CYS	5.0
16	CN	9	LYS	4.9
39	BS	58	LEU	4.9
39	BS	13	ARG	4.9
25	BA	2334	G	4.9
11	AI	65	VAL	4.9
14	CL	127	ALA	4.9
25	BA	1383	C	4.9
31	DH	170	ARG	4.9
45	BY	59	GLY	4.9
32	BI	93	THR	4.9
2	CZ	34	C	4.9
45	BY	34	LYS	4.8
23	CU	16	GLY	4.8
33	BJ	14	LYS	4.8
4	CB	30	ARG	4.8
1	CA	390	C	4.8
26	BB	88	C	4.8
16	CN	19	ARG	4.8
55	D8	13	ARG	4.8
18	CP	9	PHE	4.8
1	CA	136	C	4.8
33	BJ	64	LYS	4.8
23	AU	23	PRO	4.8
1	CA	107	G	4.8
45	DY	52	SER	4.8
18	CP	30	GLY	4.7
1	AA	1002	G	4.7
1	CA	1224	G	4.7
36	BP	110	TYR	4.7
33	BJ	8	GLU	4.7
50	D3	1	MET	4.7
11	CI	65	VAL	4.7
39	BS	89	ARG	4.7
32	BI	38	LEU	4.7
5	CC	179	ARG	4.7

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Mol	Chain	Res	Type	RSRZ
18	CP	37	GLY	4.7
3	AV	13	A	4.7
53	D6	37	ARG	4.7
11	AI	114	TYR	4.7
1	AA	975	A	4.7
23	AU	19	GLY	4.7
12	CJ	43	ARG	4.7
45	DY	2	ARG	4.7
12	CJ	72	VAL	4.7
32	BI	68	LEU	4.7
18	CP	33	ILE	4.7
4	CB	7	VAL	4.7
23	CU	3	LYS	4.7
30	BG	35	GLU	4.7
37	DQ	33	GLY	4.7
25	DA	2897	U	4.7
36	BP	102	ARG	4.6
11	AI	111	ARG	4.6
13	CK	12	ARG	4.6
30	DG	36	LYS	4.6
32	BI	14	ASP	4.6
1	CA	225	C	4.6
1	AA	1224	G	4.6
1	CA	378	G	4.6
16	AN	14	PRO	4.6
45	BY	35	TYR	4.6
1	CA	843	U	4.6
12	AJ	60	ARG	4.6
25	BA	1026	U	4.6
47	B0	45	PHE	4.6
25	DA	2144	U	4.6
16	AN	17	LYS	4.5
14	AL	127	ALA	4.5
18	CP	32	TYR	4.5
22	CT	21	LYS	4.5
22	CT	18	GLN	4.5
6	AD	4	TYR	4.5
18	CP	16	HIS	4.5
32	BI	114	LEU	4.5
45	BY	51	VAL	4.5
25	BA	2335	A	4.5
1	CA	1358	U	4.5

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Mol	Chain	Res	Type	RSRZ
32	BI	72	LEU	4.5
46	BZ	80	ARG	4.5
25	BA	1384	A	4.5
53	D6	12	GLU	4.5
30	BG	74	LYS	4.5
22	CT	9	ASN	4.5
12	CJ	45	ARG	4.5
11	CI	105	ASP	4.5
33	DJ	14	LYS	4.5
55	D8	24	ALA	4.5
45	BY	62	GLU	4.5
22	CT	80	ARG	4.4
1	CA	60	A	4.4
11	AI	15	ALA	4.4
23	CU	21	TYR	4.4
47	B0	78	TYR	4.4
25	BA	1080	C	4.4
1	CA	226	G	4.4
32	BI	61	ARG	4.4
16	CN	13	THR	4.4
45	BY	45	VAL	4.4
53	B6	22	ALA	4.4
25	DA	2111	C	4.4
33	BJ	4	LYS	4.4
11	AI	14	VAL	4.4
53	B6	52	VAL	4.4
11	AI	63	ILE	4.4
37	DQ	106	VAL	4.4
13	AK	126	ARG	4.4
18	CP	2	VAL	4.4
11	AI	42	ARG	4.3
11	AI	120	ARG	4.3
37	BQ	107	ALA	4.3
49	D2	14	ARG	4.3
53	B6	18	ARG	4.3
18	CP	36	ILE	4.3
23	AU	24	ARG	4.3
28	DE	195	LEU	4.3
45	BY	6	HIS	4.3
30	DG	33	ARG	4.3
19	CQ	7	THR	4.3
1	CA	325	A	4.3

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Mol	Chain	Res	Type	RSRZ
1	CA	977	A	4.3
53	D6	26	ASN	4.3
30	BG	34	LEU	4.3
45	DY	35	TYR	4.3
46	DZ	80	ARG	4.3
36	BP	79	ARG	4.3
55	D8	44	LYS	4.3
25	DA	2113	U	4.3
21	AS	69	HIS	4.3
46	BZ	77	ASP	4.3
38	DR	9	LYS	4.3
53	B6	45	LYS	4.3
21	CS	71	LEU	4.3
36	DP	64	LYS	4.3
47	B0	77	ARG	4.3
39	BS	94	TYR	4.3
1	AA	994	A	4.2
32	BI	2	LYS	4.2
1	AA	1033	G	4.2
18	CP	55	ARG	4.2
25	DA	1174	A	4.2
55	B8	64	TYR	4.2
47	D0	78	TYR	4.2
53	B6	38	LYS	4.2
53	B6	40	CYS	4.2
16	CN	30	ALA	4.2
47	B0	44	ARG	4.2
33	DJ	61	LEU	4.2
11	AI	43	ALA	4.2
13	AK	124	LYS	4.2
32	DI	94	ALA	4.2
11	AI	117	HIS	4.2
22	CT	63	ILE	4.2
15	AM	99	ARG	4.2
45	DY	53	PRO	4.2
49	B2	3	LEU	4.2
36	BP	149	GLU	4.2
18	AP	29	ASP	4.2
22	CT	68	LYS	4.2
53	D6	19	ARG	4.2
12	CJ	44	VAL	4.2
37	BQ	104	PHE	4.2

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Mol	Chain	Res	Type	RSRZ
22	AT	25	ARG	4.1
24	CX	64	LEU	4.1
47	D0	41	ARG	4.1
46	BZ	82	ARG	4.1
32	BI	37	VAL	4.1
1	AA	1364	U	4.1
47	B0	53	MET	4.1
16	CN	15	LYS	4.1
25	BA	1074	G	4.1
11	CI	119	ALA	4.1
1	CA	111	G	4.1
21	AS	37	ARG	4.1
16	CN	11	LYS	4.1
25	BA	1046	A	4.1
25	DA	2801	A	4.1
34	BN	97	ARG	4.1
13	AK	127	LYS	4.1
2	CZ	20	U	4.1
12	CJ	58	ASP	4.1
25	BA	2319	G	4.1
25	DA	6	A	4.1
53	B6	43	CYS	4.1
32	BI	95	LYS	4.1
22	AT	21	LYS	4.0
39	BS	17	ARG	4.0
11	AI	127	LYS	4.0
33	DJ	13	LEU	4.0
21	AS	78	ARG	4.0
25	BA	101	G	4.0
1	AA	974	A	4.0
25	DA	245	G	4.0
37	BQ	141	GLN	4.0
38	BR	68	ARG	4.0
32	BI	39	ALA	4.0
18	AP	65	GLN	4.0
30	DG	176	LEU	4.0
37	DQ	107	ALA	4.0
11	AI	41	VAL	4.0
25	DA	1574	C	4.0
53	D6	13	CYS	4.0
32	BI	5	LEU	4.0
37	DQ	132	VAL	4.0

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Mol	Chain	Res	Type	RSRZ
32	BI	122	GLU	4.0
53	B6	19	ARG	4.0
32	DI	86	THR	4.0
21	CS	70	LYS	4.0
25	DA	2334	G	4.0
24	CX	19	LEU	4.0
47	D0	72	ARG	4.0
16	AN	13	THR	4.0
18	AP	36	ILE	4.0
25	BA	2143	C	4.0
13	AK	123	LYS	4.0
32	DI	80	PRO	3.9
1	AA	1000	A	3.9
45	DY	88	LYS	3.9
36	DP	70	GLN	3.9
1	AA	91	C	3.9
25	DA	276	A	3.9
25	DA	2118	U	3.9
11	AI	79	LEU	3.9
25	BA	1085	A	3.9
25	BA	2121	G	3.9
24	AX	62	GLU	3.9
47	D0	40	GLN	3.9
1	CA	61	G	3.9
11	AI	121	ARG	3.9
5	CC	149	ALA	3.9
1	CA	81	G	3.9
32	BI	120	ILE	3.9
1	CA	1531	A	3.9
37	DQ	103	MET	3.9
33	BJ	67	GLY	3.9
1	CA	366	C	3.9
25	BA	1078	U	3.9
5	CC	11	ARG	3.9
12	CJ	66	ARG	3.9
18	AP	1	MET	3.8
16	CN	6	LEU	3.8
24	AX	70	LEU	3.8
1	AA	1040	U	3.8
12	CJ	59	SER	3.8
55	D8	15	LYS	3.8
18	CP	24	ALA	3.8

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Mol	Chain	Res	Type	RSRZ
24	CX	152	LEU	3.8
1	CA	975	A	3.8
24	AX	71	LYS	3.8
16	AN	2	ALA	3.8
37	DQ	32	PHE	3.8
53	D6	25	LYS	3.8
1	CA	136(B)	C	3.8
4	CB	29	ALA	3.8
1	AA	951	G	3.8
37	BQ	32	PHE	3.8
48	D1	27	GLU	3.8
12	CJ	41	PRO	3.8
15	AM	103	THR	3.8
30	DG	164	GLU	3.8
11	CI	43	ALA	3.8
16	CN	26	ARG	3.8
45	BY	53	PRO	3.8
25	BA	2165	G	3.8
11	AI	64	THR	3.8
25	DA	1092	C	3.8
1	CA	1280	A	3.8
23	AU	9	ARG	3.8
1	CA	108	G	3.8
28	DE	204	ALA	3.8
13	AK	125	PHE	3.8
25	DA	2143	C	3.8
37	BQ	108	GLY	3.8
1	AA	92	G	3.7
25	DA	2116	G	3.7
30	DG	4	ASP	3.7
24	AX	63	SER	3.7
32	BI	134	PRO	3.7
32	DI	132	PRO	3.7
32	BI	97	ILE	3.7
1	CA	1186	G	3.7
39	DS	43	GLU	3.7
47	B0	41	ARG	3.7
18	CP	27	LYS	3.7
34	DN	107	LYS	3.7
2	AZ	20	U	3.7
16	CN	35	ARG	3.7
32	DI	85	GLU	3.7

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Mol	Chain	Res	Type	RSRZ
53	D6	24	GLU	3.7
55	D8	57	ARG	3.7
23	CU	7	ARG	3.7
53	B6	15	GLU	3.7
55	D8	26	LYS	3.7
15	CM	102	ARG	3.7
25	BA	1573	G	3.7
33	BJ	12	THR	3.7
12	CJ	65	LEU	3.7
32	BI	13	GLY	3.7
29	DF	152	GLU	3.7
25	DA	1078	U	3.7
32	BI	115	ALA	3.7
37	DQ	104	PHE	3.7
46	BZ	20	ARG	3.7
38	BR	67	LEU	3.7
45	DY	3	VAL	3.7
45	BY	47	LYS	3.7
6	CD	205	GLU	3.7
25	DA	2112	G	3.7
22	CT	72	LEU	3.7
32	BI	20	ASP	3.7
32	DI	87	LYS	3.7
46	BZ	84	GLU	3.7
1	CA	110	C	3.7
1	CA	950	U	3.7
1	CA	1030	C	3.7
12	AJ	64	GLU	3.7
24	CX	40	GLU	3.7
33	DJ	6	ASN	3.7
23	AU	20	LYS	3.7
49	D2	15	LYS	3.7
11	AI	126	SER	3.7
47	D0	17	GLN	3.7
23	CU	6	ARG	3.6
25	DA	1090	U	3.6
45	BY	46	LYS	3.6
1	CA	1001	G	3.6
11	AI	106	ALA	3.6
34	DN	95	TYR	3.6
48	B1	27	GLU	3.6
36	BP	150	ALA	3.6

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Mol	Chain	Res	Type	RSRZ
6	CD	201	GLN	3.6
25	BA	2897	U	3.6
42	BV	73	SER	3.6
1	CA	1353	G	3.6
37	DQ	24	GLY	3.6
12	AJ	58	ASP	3.6
45	BY	2	ARG	3.6
32	DI	92	VAL	3.6
37	DQ	100	GLY	3.6
30	DG	23	PHE	3.6
1	CA	91	C	3.6
53	B6	35	GLU	3.6
53	D6	49	HIS	3.6
1	AA	1286	A	3.6
16	CN	57	ARG	3.6
22	CT	23	ARG	3.6
22	CT	60	GLU	3.6
23	AU	11	GLY	3.6
55	D8	25	MET	3.6
47	D0	46	LYS	3.6
22	CT	66	ALA	3.6
30	BG	22	ARG	3.6
45	BY	91	GLU	3.6
46	BZ	81	ARG	3.6
55	D8	46	ARG	3.6
15	CM	99	ARG	3.6
47	B0	42	GLY	3.6
11	CI	117	HIS	3.6
28	BE	27	LEU	3.6
47	D0	77	ARG	3.6
53	B6	10	LEU	3.6
30	DG	12	TYR	3.6
11	CI	113	LYS	3.6
18	CP	12	LYS	3.6
39	BS	30	ARG	3.6
17	AO	59	MET	3.6
15	AM	87	TYR	3.6
32	BI	113	ARG	3.6
40	DT	115	ARG	3.6
53	B6	12	GLU	3.6
15	CM	97	PRO	3.6
18	CP	20	VAL	3.6

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Mol	Chain	Res	Type	RSRZ
15	AM	31	LYS	3.5
22	AT	68	LYS	3.5
39	DS	89	ARG	3.5
53	D6	21	TYR	3.5
21	AS	70	LYS	3.5
5	CC	168	ALA	3.5
22	AT	72	LEU	3.5
53	D6	29	ASN	3.5
23	CU	10	ARG	3.5
45	DY	59	GLY	3.5
12	CJ	74	ILE	3.5
47	D0	75	LEU	3.5
1	CA	1368	G	3.5
45	DY	33	LYS	3.5
1	CA	1002	G	3.5
18	CP	26	ARG	3.5
23	AU	21	TYR	3.5
32	BI	129	THR	3.5
28	BE	163	GLU	3.5
36	DP	67	MET	3.5
12	CJ	46	ARG	3.5
16	AN	8	GLU	3.5
29	DF	192	LEU	3.5
33	BJ	61	LEU	3.5
5	CC	152	ILE	3.5
1	CA	80	G	3.5
24	CX	99	LYS	3.5
46	BZ	78	LYS	3.5
1	CA	1113	C	3.5
2	AZ	61	C	3.5
9	AG	37	ASN	3.5
1	CA	982	U	3.5
46	DZ	178	GLU	3.5
16	AN	31	ARG	3.5
18	CP	13	HIS	3.5
45	BY	44	ILE	3.5
16	CN	23	ARG	3.5
18	AP	4	ILE	3.5
40	BT	2	ASN	3.5
25	DA	1383	C	3.5
16	AN	12	ARG	3.5
53	D6	18	ARG	3.5

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Mol	Chain	Res	Type	RSRZ
1	CA	376	G	3.5
11	CI	106	ALA	3.5
37	DQ	9	TYR	3.5
47	B0	46	LYS	3.5
32	BI	84	GLY	3.5
47	D0	44	ARG	3.5
34	BN	98	TYR	3.5
18	AP	35	LYS	3.5
47	D0	76	GLY	3.5
25	BA	34	C	3.5
25	BA	1386	C	3.5
11	CI	15	ALA	3.4
44	BX	53	LYS	3.4
12	AJ	5	ARG	3.4
36	BP	50	ARG	3.4
36	DP	7	ARG	3.4
12	CJ	47	PHE	3.4
1	CA	84	U	3.4
38	BR	2	ARG	3.4
40	BT	3	ARG	3.4
53	B6	36	LEU	3.4
11	AI	11	LYS	3.4
9	AG	16	LEU	3.4
12	CJ	75	ILE	3.4
30	DG	26	GLN	3.4
16	CN	37	PHE	3.4
11	AI	113	LYS	3.4
32	BI	50	ARG	3.4
32	BI	81	VAL	3.4
32	DI	130	TYR	3.4
50	B3	1	MET	3.4
16	CN	10	ALA	3.4
36	DP	77	ARG	3.4
11	CI	64	THR	3.4
39	DS	15	ARG	3.4
21	CS	40	ILE	3.4
1	CA	1367	C	3.4
18	AP	26	ARG	3.4
18	AP	64	ALA	3.4
39	BS	34	HIS	3.4
21	AS	10	PHE	3.4
46	DZ	76	LEU	3.4

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Mol	Chain	Res	Type	RSRZ
42	DV	84	LYS	3.4
55	D8	47	LYS	3.4
13	CK	129	SER	3.4
55	D8	12	LYS	3.4
11	AI	119	ALA	3.4
49	D2	70	GLN	3.4
53	B6	47	THR	3.4
30	DG	11	TYR	3.4
22	CT	24	LEU	3.4
53	D6	52	VAL	3.4
25	BA	6	A	3.4
16	AN	4	LYS	3.4
11	AI	73	GLN	3.4
37	BQ	39	PRO	3.4
45	BY	31	LEU	3.4
25	BA	2180	U	3.4
11	CI	104	ARG	3.4
53	B6	37	ARG	3.4
25	BA	1089	G	3.4
11	AI	9	ARG	3.3
22	AT	75	ASN	3.3
24	AX	67	ASP	3.3
11	AI	70	LYS	3.3
12	AJ	48	THR	3.3
55	D8	50	LEU	3.3
12	AJ	46	ARG	3.3
41	DU	17	ILE	3.3
53	B6	24	GLU	3.3
10	AH	56	LYS	3.3
38	BR	9	LYS	3.3
1	CA	136(A)	C	3.3
14	AL	126	GLU	3.3
24	CX	69	GLU	3.3
30	DG	175	LEU	3.3
9	CG	81	GLY	3.3
11	CI	112	LYS	3.3
32	DI	118	LYS	3.3
41	DU	16	LYS	3.3
50	B3	29	ARG	3.3
18	AP	19	ILE	3.3
1	AA	972	C	3.3
11	AI	37	PHE	3.3

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Mol	Chain	Res	Type	RSRZ
37	BQ	68	ILE	3.3
12	CJ	35	SER	3.3
23	AU	6	ARG	3.3
55	D8	8	LYS	3.3
1	CA	112	G	3.3
33	BJ	9	LEU	3.3
16	CN	29	ARG	3.3
18	AP	25	ARG	3.3
53	B6	11	LEU	3.3
18	CP	67	THR	3.3
45	BY	33	LYS	3.3
45	DY	91	GLU	3.3
18	AP	52	ASP	3.3
25	BA	2109	U	3.3
36	DP	50	ARG	3.3
55	D8	11	LYS	3.3
55	D8	14	VAL	3.3
38	DR	69	ASP	3.3
11	AI	118	LYS	3.3
21	CS	37	ARG	3.3
1	CA	1119	C	3.3
23	CU	9	ARG	3.3
47	B0	74	ARG	3.3
11	AI	115	GLY	3.3
23	AU	8	THR	3.3
1	CA	224	C	3.3
33	BJ	11	ALA	3.3
47	D0	85	ALA	3.3
22	AT	30	LYS	3.3
34	DN	124	HIS	3.3
40	DT	98	LYS	3.3
4	CB	128	GLU	3.3
46	DZ	81	ARG	3.3
12	CJ	40	LEU	3.3
38	DR	70	LEU	3.3
39	BS	91	PRO	3.3
47	B0	76	GLY	3.3
1	AA	982	U	3.3
25	DA	2135	A	3.3
37	DQ	31	ASP	3.3
37	DQ	113	GLN	3.3
33	BJ	6	ASN	3.2

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Mol	Chain	Res	Type	RSRZ
11	CI	110	GLU	3.2
18	CP	66	PRO	3.2
1	AA	950	U	3.2
47	D0	57	PHE	3.2
53	D6	20	ASN	3.2
24	CX	18	LEU	3.2
45	DY	29	GLU	3.2
28	BE	151	TYR	3.2
49	D2	67	LYS	3.2
22	CT	70	SER	3.2
1	AA	1531	A	3.2
55	B8	57	ARG	3.2
29	DF	155	LEU	3.2
45	BY	8	LYS	3.2
54	B7	47	ARG	3.2
55	D8	29	LYS	3.2
11	AI	125	TYR	3.2
15	AM	60	VAL	3.2
21	AS	36	ARG	3.2
37	DQ	63	LYS	3.2
11	AI	13	ALA	3.2
8	CF	92	LYS	3.2
15	AM	32	GLU	3.2
1	AA	1363	A	3.2
11	CI	114	TYR	3.2
28	BE	195	LEU	3.2
28	DE	77	ILE	3.2
23	AU	5	ASP	3.2
30	BG	13	GLU	3.2
41	DU	15	LYS	3.2
25	DA	2159	G	3.2
16	AN	58	LYS	3.2
38	DR	2	ARG	3.2
11	AI	36	TYR	3.2
1	CA	377	G	3.2
12	CJ	67	THR	3.2
42	DV	74	LYS	3.2
27	DD	244	ARG	3.2
18	CP	15	PRO	3.2
12	CJ	38	ILE	3.2
12	CJ	63	PHE	3.2
30	DG	20	ILE	3.2

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Mol	Chain	Res	Type	RSRZ
33	BJ	7	VAL	3.2
53	B6	21	TYR	3.2
10	AH	131	GLY	3.2
22	AT	80	ARG	3.2
12	CJ	6	ILE	3.2
36	BP	148	LEU	3.2
32	DI	122	GLU	3.1
1	CA	391	G	3.1
6	CD	204	ILE	3.1
4	CB	132	LYS	3.1
30	DG	3	LEU	3.1
11	AI	75	ASP	3.1
11	AI	101	PHE	3.1
27	DD	35	LYS	3.1
44	BX	92	LEU	3.1
24	CX	21	ASP	3.1
5	CC	150	LYS	3.1
39	DS	17	ARG	3.1
45	BY	41	GLY	3.1
4	CB	26	PRO	3.1
11	AI	110	GLU	3.1
47	D0	42	GLY	3.1
55	D8	23	VAL	3.1
1	AA	966	G	3.1
39	DS	30	ARG	3.1
35	DO	1	MET	3.1
1	AA	977	A	3.1
11	AI	51	ARG	3.1
24	CX	22	PRO	3.1
25	BA	2336	A	3.1
34	BN	101	TYR	3.1
5	CC	169	ALA	3.1
42	BV	68	LYS	3.1
53	B6	42	TRP	3.1
1	CA	43	C	3.1
9	AG	81	GLY	3.1
11	CI	120	ARG	3.1
25	BA	2798	C	3.1
45	BY	20	TYR	3.1
12	AJ	49	VAL	3.1
18	AP	17	TYR	3.1
18	AP	24	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
6	CD	200	GLU	3.1
37	DQ	37	LEU	3.1
15	AM	104	ARG	3.1
25	BA	529	A	3.1
25	DA	2117	A	3.1
45	BY	4	LYS	3.1
24	AX	60	GLN	3.1
25	DA	2160	G	3.1
39	BS	20	ARG	3.1
11	AI	29	ASN	3.1
13	AK	122	LYS	3.1
45	DY	4	LYS	3.1
1	CA	379	C	3.1
22	CT	22	ARG	3.1
16	CN	20	ALA	3.1
18	AP	33	ILE	3.1
25	DA	1093	G	3.1
37	BQ	38	GLU	3.1
37	BQ	106	VAL	3.1
40	DT	125	ARG	3.1
12	AJ	62	HIS	3.1
45	DY	68	HIS	3.1
55	D8	54	GLU	3.1
39	DS	28	VAL	3.1
12	CJ	60	ARG	3.1
53	B6	31	PRO	3.1
36	BP	108	LYS	3.0
42	BV	71	LEU	3.0
32	BI	15	VAL	3.0
36	BP	17	LYS	3.0
22	AT	69	GLY	3.0
1	CA	309	G	3.0
25	BA	1044	G	3.0
25	DA	615	G	3.0
37	DQ	141	GLN	3.0
25	DA	2136	C	3.0
53	D6	27	LYS	3.0
1	CA	105	G	3.0
22	CT	17	ARG	3.0
12	CJ	8	LEU	3.0
23	CU	11	GLY	3.0
24	AX	155	PHE	3.0

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Mol	Chain	Res	Type	RSRZ
37	BQ	30	GLY	3.0
25	BA	958	U	3.0
25	DA	1515	C	3.0
27	BD	168	ARG	3.0
33	BJ	63	LEU	3.0
41	BU	16	LYS	3.0
25	DA	2165	G	3.0
6	CD	207	TYR	3.0
22	CT	65	LYS	3.0
11	CI	128	ARG	3.0
18	CP	64	ALA	3.0
25	BA	614	U	3.0
1	AA	1030	C	3.0
5	CC	131	ARG	3.0
45	BY	38	ILE	3.0
11	AI	74	ILE	3.0
28	BE	76	ARG	3.0
32	BI	123	LEU	3.0
33	BJ	19	ARG	3.0
2	CZ	19	G	3.0
32	BI	3	VAL	3.0
1	CA	743	U	3.0
12	CJ	39	PRO	3.0
31	BH	170	ARG	3.0
38	BR	74	LYS	3.0
22	CT	8	ARG	3.0
36	DP	61	ARG	3.0
38	BR	70	LEU	3.0
46	BZ	76	LEU	3.0
15	AM	35	GLU	3.0
42	BV	84	LYS	3.0
18	AP	27	LYS	3.0
25	BA	1092	C	3.0
30	DG	115	ARG	3.0
49	B2	4	SER	3.0
5	AC	207	VAL	3.0
17	AO	68	ARG	3.0
37	DQ	10	ARG	3.0
25	BA	2318	G	3.0
1	CA	106	C	3.0
25	DA	2146	C	3.0
18	CP	70	ALA	3.0

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Mol	Chain	Res	Type	RSRZ
21	AS	40	ILE	3.0
55	B8	54	GLU	3.0
16	CN	31	ARG	3.0
45	DY	15	VAL	3.0
25	BA	1088	A	3.0
34	DN	106	LYS	3.0
39	BS	35	ILE	3.0
11	CI	14	VAL	2.9
36	BP	74	GLU	3.0
16	AN	30	ALA	2.9
37	BQ	66	ILE	2.9
38	DR	43	GLU	2.9
47	D0	62	LEU	2.9
37	BQ	65	PHE	2.9
1	CA	393	A	2.9
33	DJ	11	ALA	2.9
22	CT	64	ASP	2.9
45	DY	72	VAL	2.9
16	CN	36	PHE	2.9
18	AP	59	TRP	2.9
38	DR	21	TYR	2.9
47	D0	61	ALA	2.9
18	CP	39	TYR	2.9
53	B6	46	HIS	2.9
1	AA	993	G	2.9
1	AA	1366	C	2.9
33	DJ	7	VAL	2.9
18	AP	22	THR	2.9
45	DY	5	MET	2.9
24	CX	32	GLN	2.9
18	AP	31	LYS	2.9
27	BD	2	ALA	2.9
4	CB	137	ARG	2.9
15	AM	110	ARG	2.9
47	D0	74	ARG	2.9
49	D2	3	LEU	2.9
49	D2	16	LEU	2.9
1	CA	44	G	2.9
1	CA	1356	G	2.9
15	CM	5	ALA	2.9
25	BA	1641	A	2.9
28	BE	193	GLY	2.9

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Mol	Chain	Res	Type	RSRZ
36	BP	101	VAL	2.9
5	CC	199	LYS	2.9
27	DD	4	LYS	2.9
46	BZ	23	LYS	2.9
7	CE	81	GLU	2.9
11	AI	116	LYS	2.9
32	DI	67	ARG	2.9
10	AH	54	ASP	2.9
37	DQ	91	GLU	2.9
11	AI	47	LEU	2.9
16	CN	41	ARG	2.9
18	AP	12	LYS	2.9
32	BI	19	VAL	2.9
12	AJ	53	PRO	2.9
22	CT	71	THR	2.9
25	BA	2164	C	2.9
28	BE	5	LEU	2.9
22	CT	29	LYS	2.9
23	AU	22	ARG	2.9
37	DQ	101	ARG	2.9
41	BU	22	LYS	2.9
42	BV	74	LYS	2.9
12	AJ	57	LYS	2.9
24	CX	33	SER	2.9
32	DI	70	GLU	2.8
34	BN	100	GLY	2.8
38	DR	10	LEU	2.8
42	DV	73	SER	2.8
27	DD	34	VAL	2.8
34	BN	137	ARG	2.8
11	CI	118	LYS	2.8
39	DS	92	TYR	2.8
25	BA	615	G	2.8
25	DA	1559	G	2.8
25	DA	2122	U	2.8
25	DA	2179	C	2.8
13	CK	128	ALA	2.8
18	AP	21	VAL	2.8
22	AT	66	ALA	2.8
33	BJ	18	GLU	2.8
39	BS	54	LEU	2.8
15	CM	98	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
55	B8	11	LYS	2.8
55	D8	48	PHE	2.8
28	DE	76	ARG	2.8
1	AA	1324	A	2.8
25	DA	1098	A	2.8
10	CH	1	MET	2.8
11	AI	61	ALA	2.8
27	DD	2	ALA	2.8
37	DQ	65	PHE	2.8
45	DY	65	ALA	2.8
39	BS	57	LYS	2.8
42	BV	70	ILE	2.8
55	D8	7	HIS	2.8
9	CG	5	ARG	2.8
1	CA	82	U	2.8
49	D2	12	GLU	2.8
53	B6	48	VAL	2.8
37	DQ	59	ARG	2.8
42	DV	83	ARG	2.8
4	CB	101	MET	2.8
45	DY	38	ILE	2.8
22	AT	77	ALA	2.8
1	CA	104	G	2.8
18	AP	34	GLU	2.8
25	DA	1591	G	2.8
32	DI	35	LEU	2.8
38	BR	10	LEU	2.8
37	DQ	36	ALA	2.8
5	CC	12	LEU	2.8
21	AS	39	THR	2.8
1	CA	307	C	2.8
5	CC	201	TYR	2.8
25	DA	2178	C	2.8
11	CI	126	SER	2.8
34	DN	108	ILE	2.8
32	DI	84	GLY	2.8
28	DE	151	TYR	2.8
16	AN	11	LYS	2.8
11	CI	123	PRO	2.8
28	DE	75	VAL	2.8
30	BG	75	LYS	2.8
4	CB	12	GLU	2.8

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Mol	Chain	Res	Type	RSRZ
11	CI	111	ARG	2.8
21	CS	5	LEU	2.8
29	BF	181	LEU	2.8
29	DF	110	LEU	2.8
41	DU	12	ARG	2.8
1	CA	1150	U	2.8
36	BP	76	LYS	2.8
30	DG	19	LEU	2.8
36	BP	65	ARG	2.8
46	BZ	117	LEU	2.8
32	BI	101	LEU	2.8
47	D0	55	ARG	2.8
1	AA	86	U	2.8
1	CA	45	U	2.8
11	CI	115	GLY	2.8
28	BE	13	ARG	2.8
37	BQ	40	ALA	2.8
28	DE	160	TYR	2.8
39	BS	93	LYS	2.8
32	DI	140	LEU	2.8
37	DQ	115	MET	2.8
7	AE	25	ARG	2.8
24	AX	118	GLU	2.8
43	BW	2	GLU	2.8
53	B6	28	ARG	2.8
15	CM	101	GLN	2.7
1	AA	999	U	2.7
45	DY	28	LYS	2.7
4	CB	33	TYR	2.7
45	BY	66	PRO	2.7
25	BA	1396	U	2.7
47	B0	70	GLN	2.7
44	BX	31	HIS	2.7
36	BP	107	LYS	2.7
12	AJ	45	ARG	2.7
47	B0	72	ARG	2.7
4	CB	38	GLY	2.7
7	AE	14	ARG	2.7
12	AJ	56	HIS	2.7
32	BI	12	LEU	2.7
37	DQ	34	LEU	2.7
28	BE	149	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
37	BQ	67	ARG	2.7
1	CA	1040	U	2.7
29	DF	193	VAL	2.7
30	DG	31	VAL	2.7
5	CC	170	GLN	2.7
32	DI	95	LYS	2.7
24	CX	100	ASP	2.7
32	BI	43	ASN	2.7
16	CN	17	LYS	2.7
7	AE	29	GLY	2.7
7	CE	118	ILE	2.7
21	AS	9	VAL	2.7
21	AS	38	SER	2.7
27	BD	247	ALA	2.7
37	BQ	37	LEU	2.7
25	DA	2167	U	2.7
33	BJ	60	ARG	2.7
39	DS	91	PRO	2.7
28	BE	155	LYS	2.7
28	DE	5	LEU	2.7
11	CI	125	TYR	2.7
15	CM	96	LEU	2.7
16	AN	10	ALA	2.7
51	D4	49	GLU	2.7
1	AA	87	A	2.7
11	AI	112	LYS	2.7
32	BI	7	GLU	2.7
46	BZ	97	GLU	2.7
1	AA	229	U	2.7
25	DA	2125	G	2.7
18	AP	32	TYR	2.7
34	BN	106	LYS	2.7
9	CG	82	GLY	2.7
28	DE	53	PRO	2.7
18	CP	73	LEU	2.7
38	BR	65	LEU	2.7
53	D6	34	LEU	2.7
18	CP	54	GLU	2.7
25	BA	1406	U	2.7
46	DZ	82	ARG	2.7
4	CB	44	LEU	2.7
11	AI	81	ILE	2.7

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Mol	Chain	Res	Type	RSRZ
22	AT	74	LYS	2.7
11	AI	35	GLU	2.7
37	BQ	33	GLY	2.7
11	AI	104	ARG	2.7
15	AM	97	PRO	2.7
38	DR	102	GLU	2.7
28	DE	193	GLY	2.7
44	BX	8	ILE	2.7
46	DZ	70	LEU	2.7
5	CC	184	TYR	2.7
12	CJ	33	GLN	2.7
38	BR	72	ASP	2.7
25	DA	389	G	2.7
39	BS	102	ALA	2.7
39	BS	97	ARG	2.7
7	AE	13	ILE	2.7
33	BJ	59	ILE	2.7
21	AS	12	ASP	2.6
24	CX	44	VAL	2.6
16	AN	15	LYS	2.6
41	DU	20	LEU	2.6
1	CA	388	G	2.6
33	BJ	3	ASN	2.6
19	CQ	8	GLY	2.6
37	DQ	26	TYR	2.6
12	CJ	49	VAL	2.6
25	BA	1057	A	2.6
45	DY	67	LEU	2.6
30	DG	178	PHE	2.6
6	CD	4	TYR	2.6
9	AG	85	TYR	2.6
16	AN	57	ARG	2.6
11	CI	127	LYS	2.6
28	DE	96	PHE	2.6
39	BS	28	VAL	2.6
25	BA	2118	U	2.6
15	AM	88	ARG	2.6
36	BP	111	ARG	2.6
46	DZ	114	GLY	2.6
1	CA	331	G	2.6
25	DA	1089	G	2.6
28	DE	164	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
41	BU	17	ILE	2.6
11	AI	4	TYR	2.6
33	BJ	65	GLU	2.6
25	DA	1514	U	2.6
6	CD	60	GLU	2.6
22	CT	20	LEU	2.6
48	D1	32	LYS	2.6
31	DH	169	VAL	2.6
18	CP	23	ASP	2.6
5	CC	166	GLU	2.6
27	DD	262	ARG	2.6
24	AX	183	VAL	2.6
28	DE	198	VAL	2.6
38	DR	54	LEU	2.6
1	AA	1115	C	2.6
1	CA	1223	C	2.6
2	CZ	1	C	2.6
22	AT	73	HIS	2.6
40	DT	100	TYR	2.6
1	AA	1323	G	2.6
12	AJ	59	SER	2.6
12	AJ	73	ASP	2.6
13	CK	123	LYS	2.6
17	AO	57	LEU	2.6
18	CP	71	ARG	2.6
1	AA	136(B)	C	2.6
5	AC	171	GLY	2.6
32	BI	108	THR	2.6
36	DP	51	PHE	2.6
18	AP	55	ARG	2.6
30	DG	7	LEU	2.6
12	CJ	62	HIS	2.6
46	BZ	96	VAL	2.6
1	CA	394	G	2.6
27	DD	26	LYS	2.6
32	DI	6	LEU	2.6
55	B8	15	LYS	2.6
23	AU	4	GLY	2.6
33	BJ	57	THR	2.6
37	BQ	36	ALA	2.6
53	B6	41	PRO	2.6
11	AI	44	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
29	DF	44	ARG	2.6
22	CT	10	LEU	2.6
26	BB	87	G	2.6
1	CA	983	A	2.6
11	AI	7	THR	2.6
45	BY	43	ASN	2.6
1	CA	1452	C	2.6
22	CT	73	HIS	2.6
1	AA	103(C)	G	2.6
10	CH	133	LEU	2.6
11	AI	68	GLY	2.6
37	BQ	34	LEU	2.6
25	DA	1095	A	2.6
25	DA	2799	A	2.6
28	DE	14	ILE	2.6
30	DG	32	PRO	2.6
32	BI	127	VAL	2.6
11	AI	50	LEU	2.6
11	AI	62	TYR	2.6
11	CI	5	TYR	2.6
24	AX	152	LEU	2.6
29	DF	97	TYR	2.6
23	CU	13	ILE	2.6
37	BQ	90	VAL	2.6
37	DQ	112	GLU	2.6
1	CA	1049	U	2.6
10	CH	111	ILE	2.5
38	DR	29	LEU	2.5
21	CS	78	ARG	2.5
27	DD	247	ALA	2.5
5	CC	134	ILE	2.5
38	BR	71	GLN	2.5
36	DP	69	GLY	2.5
1	AA	728	A	2.5
1	AA	1325	C	2.5
25	BA	2294	C	2.5
28	DE	79	ARG	2.5
38	BR	69	ASP	2.5
16	AN	19	ARG	2.5
22	AT	29	LYS	2.5
37	BQ	130	LYS	2.5
45	BY	23	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
4	AB	12	GLU	2.5
27	DD	258	LYS	2.5
29	DF	186	ILE	2.5
29	DF	188	ARG	2.5
45	DY	87	LYS	2.5
21	AS	11	VAL	2.5
28	BE	159	HIS	2.5
47	D0	56	ASP	2.5
18	AP	30	GLY	2.5
18	AP	3	LYS	2.5
37	DQ	111	GLU	2.5
1	AA	79	G	2.5
16	CN	59	ALA	2.5
32	BI	54	GLN	2.5
1	AA	1041	A	2.5
37	DQ	64	ILE	2.5
29	DF	194	MET	2.5
11	CI	83	ARG	2.5
4	CB	31	TYR	2.5
34	DN	56	LEU	2.5
46	DZ	117	LEU	2.5
53	B6	34	LEU	2.5
36	DP	76	LYS	2.5
17	AO	63	ARG	2.5
40	BT	11	GLU	2.5
47	D0	45	PHE	2.5
28	DE	7	VAL	2.5
33	BJ	66	LEU	2.5
53	D6	39	TYR	2.5
6	AD	2	GLY	2.5
25	BA	2110	G	2.5
34	BN	139	LEU	2.5
34	DN	109	PRO	2.5
40	BT	50	ILE	2.5
49	D2	10	LEU	2.5
53	D6	23	THR	2.5
1	CA	1267	C	2.5
4	CB	43	ASP	2.5
1	CA	229	U	2.5
44	BX	33	LYS	2.5
34	DN	138	ARG	2.5
55	D8	43	GLN	2.5

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Mol	Chain	Res	Type	RSRZ
25	DA	2168	G	2.5
38	DR	22	ARG	2.5
6	CD	70	ILE	2.5
32	DI	66	GLU	2.5
38	BR	3	HIS	2.5
55	D8	34	TRP	2.5
1	AA	1039	C	2.5
1	AA	1235	U	2.5
27	DD	36	PRO	2.5
7	AE	30	ALA	2.5
9	AG	36	LYS	2.5
34	BN	141	LYS	2.5
7	AE	24	ARG	2.5
28	DE	194	GLY	2.5
40	DT	3	ARG	2.5
29	DF	148	LEU	2.5
18	AP	8	ARG	2.5
12	AJ	61	GLU	2.4
24	CX	68	PRO	2.4
45	DY	31	LEU	2.4
47	D0	43	THR	2.4
6	AD	63	LYS	2.4
45	DY	71	LYS	2.4
48	D1	25	LYS	2.4
4	CB	32	ILE	2.4
29	DF	28	ILE	2.4
25	DA	1094	U	2.4
16	CN	58	LYS	2.4
37	BQ	20	ALA	2.4
55	D8	10	ALA	2.4
12	CJ	37	PRO	2.4
16	CN	21	TYR	2.4
43	DW	24	ILE	2.4
45	BY	42	VAL	2.4
1	AA	978	A	2.4
45	BY	64	GLU	2.4
13	CK	122	LYS	2.4
27	DD	255	LYS	2.4
47	D0	19	LYS	2.4
4	CB	96	ARG	2.4
11	AI	128	ARG	2.4
25	BA	1387	C	2.4

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Mol	Chain	Res	Type	RSRZ
25	BA	1574	C	2.4
37	BQ	21	THR	2.4
18	CP	59	TRP	2.4
40	DT	114	LEU	2.4
24	CX	17	ALA	2.4
27	BD	233	HIS	2.4
28	BE	152	LYS	2.4
45	DY	16	ALA	2.4
10	AH	35	ILE	2.4
55	D8	21	LYS	2.4
17	AO	66	LEU	2.4
1	CA	974	A	2.4
30	DG	18	GLU	2.4
39	BS	19	LYS	2.4
55	B8	14	VAL	2.4
11	CI	67	GLY	2.4
19	AQ	6	LEU	2.4
47	D0	39	ARG	2.4
55	D8	32	LEU	2.4
22	AT	9	ASN	2.4
36	DP	74	GLU	2.4
49	D2	71	ASN	2.4
49	D2	72	ALA	2.4
22	AT	24	LEU	2.4
37	DQ	35	VAL	2.4
38	DR	100	LEU	2.4
15	AM	106	ASN	2.4
25	BA	1847	A	2.4
27	DD	5	LYS	2.4
25	DA	2121	G	2.4
47	B0	10	THR	2.4
15	CM	21	TYR	2.4
30	DG	24	GLY	2.4
45	DY	89	PHE	2.4
4	AB	133	LYS	2.4
32	BI	79	ILE	2.4
55	D8	16	ILE	2.4
6	AD	66	ARG	2.4
38	DR	3	HIS	2.4
11	AI	45	ALA	2.4
11	CI	13	ALA	2.4
37	DQ	95	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
34	BN	107	LYS	2.4
1	CA	386	C	2.4
24	CX	34	LEU	2.4
28	BE	111	ARG	2.4
32	BI	140	LEU	2.4
44	BX	60	ARG	2.4
47	D0	21	LEU	2.4
4	CB	19	HIS	2.4
7	CE	108	ALA	2.4
16	AN	29	ARG	2.4
21	AS	41	VAL	2.4
24	AX	153	GLY	2.4
29	DF	124	LEU	2.4
41	BU	18	LEU	2.4
29	DF	184	TYR	2.4
41	BU	19	LYS	2.4
33	DJ	12	THR	2.4
22	CT	69	GLY	2.4
25	DA	1079	C	2.4
39	DS	42	ASP	2.4
40	DT	99	LEU	2.4
25	BA	2149	G	2.4
47	B0	38	VAL	2.4
4	CB	13	ALA	2.4
25	DA	2169	A	2.4
18	AP	2	VAL	2.4
24	AX	186	THR	2.4
49	B2	1	MET	2.4
25	BA	2700	C	2.4
11	AI	78	LYS	2.4
15	AM	64	TRP	2.4
30	BG	176	LEU	2.4
24	CX	39	ALA	2.4
46	BZ	83	PRO	2.4
25	DA	1088	A	2.4
37	BQ	19	GLY	2.4
48	B1	10	LYS	2.4
16	CN	49	HIS	2.4
34	DN	98	TYR	2.4
40	DT	97	ALA	2.4
53	B6	20	ASN	2.4
1	CA	332	G	2.4

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Mol	Chain	Res	Type	RSRZ
25	BA	2159	G	2.4
5	AC	10	PHE	2.4
45	BY	83	THR	2.4
17	CO	51	HIS	2.4
11	AI	107	ARG	2.4
16	CN	56	VAL	2.4
1	AA	1357	A	2.4
25	BA	1075	C	2.3
17	CO	48	LYS	2.3
22	CT	27	LYS	2.3
28	DE	8	LYS	2.3
45	BY	28	LYS	2.3
45	BY	63	LYS	2.3
39	BS	98	VAL	2.3
24	AX	123	PHE	2.3
24	CX	98	PRO	2.3
25	BA	1590	U	2.3
28	BE	8	LYS	2.3
38	DR	40	LYS	2.3
21	CS	42	PRO	2.3
22	CT	16	HIS	2.3
36	BP	15	ARG	2.3
25	BA	2120	G	2.3
27	BD	26	LYS	2.3
11	AI	77	ILE	2.3
12	AJ	65	LEU	2.3
16	AN	41	ARG	2.3
1	CA	1252	A	2.3
39	DS	37	ALA	2.3
1	AA	102(C)	C	2.3
28	BE	7	VAL	2.3
37	BQ	102	VAL	2.3
1	AA	1003	G	2.3
4	CB	45	GLN	2.3
23	CU	4	GLY	2.3
25	DA	2149	G	2.3
45	BY	19	LYS	2.3
4	CB	42	ILE	2.3
30	BG	86	MET	2.3
6	CD	17	VAL	2.3
30	DG	27	ASN	2.3
33	BJ	58	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
36	DP	75	ILE	2.3
38	DR	65	LEU	2.3
34	DN	137	ARG	2.3
34	DN	96	THR	2.3
47	B0	57	PHE	2.3
22	CT	62	LEU	2.3
29	DF	154	VAL	2.3
46	DZ	83	PRO	2.3
1	CA	103	C	2.3
10	AH	85	ARG	2.3
49	D2	68	ARG	2.3
10	AH	3	THR	2.3
11	CI	116	LYS	2.3
15	AM	27	LYS	2.3
25	BA	1058	G	2.3
47	B0	22	GLY	2.3
18	CP	38	TYR	2.3
47	B0	43	THR	2.3
10	CH	134	ILE	2.3
30	DG	173	LEU	2.3
32	DI	116	LEU	2.3
53	D6	42	TRP	2.3
16	CN	25	VAL	2.3
38	DR	68	ARG	2.3
5	CC	206	GLU	2.3
15	AM	19	LEU	2.3
16	CN	34	TYR	2.3
22	CT	67	ALA	2.3
24	CX	5	LEU	2.3
12	CJ	70	ARG	2.3
24	CX	186	THR	2.3
30	DG	160	VAL	2.3
6	AD	70	ILE	2.3
38	BR	51	LEU	2.3
1	CA	90	C	2.3
4	CB	36	ARG	2.3
25	BA	1102	C	2.3
7	AE	12	LEU	2.3
32	DI	71	ILE	2.3
21	CS	76	PRO	2.3
25	BA	2150	U	2.3
25	BA	2689	U	2.3

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Mol	Chain	Res	Type	RSRZ
33	BJ	10	LEU	2.3
37	DQ	102	VAL	2.3
32	BI	17	GLN	2.3
16	AN	9	LYS	2.3
24	CX	4	LYS	2.3
30	DG	133	LEU	2.3
50	D3	34	GLU	2.3
28	DE	54	GLN	2.3
1	CA	308	C	2.3
48	B1	20	ARG	2.3
33	DJ	64	LYS	2.3
37	DQ	8	LYS	2.3
10	AH	59	LEU	2.3
6	CD	65	ARG	2.3
12	CJ	42	THR	2.3
28	BE	161	GLY	2.3
3	AV	12	A	2.3
11	AI	27	THR	2.3
11	AI	28	VAL	2.3
11	CI	121	ARG	2.3
24	AX	189	GLN	2.3
12	CJ	57	LYS	2.3
11	AI	85	LEU	2.3
24	AX	61	ALA	2.3
37	BQ	14	ARG	2.3
48	B1	19	GLN	2.3
50	B3	55	ARG	2.3
33	BJ	62	ALA	2.3
36	DP	62	LEU	2.3
11	CI	109	VAL	2.3
25	BA	2799	A	2.3
45	DY	64	GLU	2.3
7	AE	88	LYS	2.3
18	AP	7	ALA	2.3
38	DR	13	HIS	2.3
46	BZ	173	ALA	2.3
6	CD	80	GLU	2.3
12	AJ	50	ILE	2.2
25	BA	2321	G	2.2
18	CP	62	VAL	2.2
19	CQ	37	LYS	2.2
34	DN	93	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
37	BQ	98	LYS	2.2
34	DN	136	GLY	2.2
38	DR	97	VAL	2.2
37	DQ	29	PHE	2.2
45	DY	17	SER	2.2
25	BA	1045	A	2.2
45	DY	66	PRO	2.2
19	CQ	21	VAL	2.2
1	CA	221	C	2.2
2	AZ	36	U	2.2
41	DU	13	LYS	2.2
4	CB	35	GLU	2.2
11	AI	92	TYR	2.2
11	CI	87	GLN	2.2
22	AT	81	LYS	2.2
25	BA	2160	G	2.2
30	DG	159	VAL	2.2
27	BD	217	ARG	2.2
30	BG	72	ARG	2.2
37	BQ	92	GLY	2.2
1	CA	385	C	2.2
25	DA	1590	U	2.2
4	AB	122	PHE	2.2
15	CM	100	GLY	2.2
17	AO	54	ARG	2.2
28	DE	200	GLU	2.2
29	DF	156	LEU	2.2
31	BH	101	ARG	2.2
45	DY	36	ALA	2.2
54	B7	48	LYS	2.2
7	AE	23	GLY	2.2
17	AO	25	THR	2.2
28	BE	26	ILE	2.2
28	DE	10	GLY	2.2
2	AZ	62	C	2.2
6	CD	206	PHE	2.2
33	DJ	66	LEU	2.2
18	AP	66	PRO	2.2
53	D6	32	ASN	2.2
38	BR	44	LEU	2.2
45	DY	69	ALA	2.2
15	CM	4	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
25	BA	144(B)	A	2.2
1	AA	992	U	2.2
42	BV	72	VAL	2.2
30	BG	36	LYS	2.2
30	DG	168	GLU	2.2
39	DS	11	LYS	2.2
45	DY	86	ARG	2.2
46	DZ	190	GLU	2.2
31	BH	89	ILE	2.2
11	AI	122	ALA	2.2
15	AM	30	ALA	2.2
27	DD	167	GLY	2.2
28	DE	27	LEU	2.2
28	DE	171	GLU	2.2
37	BQ	80	GLU	2.2
44	DX	53	LYS	2.2
47	B0	71	ASP	2.2
1	CA	380	G	2.2
28	BE	150	VAL	2.2
47	D0	63	VAL	2.2
25	DA	1026	U	2.2
32	DI	128	LEU	2.2
42	BV	69	LYS	2.2
7	CE	83	GLU	2.2
24	AX	59	GLU	2.2
25	BA	2111	C	2.2
45	BY	29	GLU	2.2
18	CP	58	TYR	2.2
28	DE	26	ILE	2.2
47	B0	69	PHE	2.2
6	CD	47	ARG	2.2
11	CI	79	LEU	2.2
38	DR	17	ARG	2.2
43	DW	23	LEU	2.2
47	D0	59	LEU	2.2
12	CJ	53	PRO	2.2
25	BA	2801	A	2.2
25	DA	1384	A	2.2
4	AB	152	PHE	2.2
16	AN	6	LEU	2.2
21	CS	36	ARG	2.2
34	BN	140	PHE	2.2

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Mol	Chain	Res	Type	RSRZ
37	DQ	67	ARG	2.2
44	BX	43	VAL	2.2
44	DX	16	LYS	2.2
50	D3	55	ARG	2.2
38	DR	52	ILE	2.2
17	CO	47	LYS	2.2
25	DA	1091	G	2.2
38	DR	83	ILE	2.2
45	BY	32	PRO	2.2
45	BY	79	CYS	2.2
5	CC	207	VAL	2.2
25	DA	1082	U	2.2
25	DA	2895	U	2.2
37	BQ	35	VAL	2.2
39	BS	36	TYR	2.2
4	CB	27	LYS	2.2
18	AP	18	ARG	2.2
55	B8	61	LEU	2.2
1	CA	984	C	2.2
5	AC	206	GLU	2.2
11	CI	77	ILE	2.2
19	AQ	58	GLU	2.2
24	AX	72	GLU	2.2
31	DH	116	GLU	2.2
16	AN	20	ALA	2.2
12	AJ	6	ILE	2.2
13	AK	12	ARG	2.2
28	DE	155	LYS	2.2
19	AQ	59	ILE	2.2
22	CT	83	ARG	2.2
53	D6	17	LYS	2.2
37	DQ	97	VAL	2.2
1	CA	283	C	2.2
7	AE	83	GLU	2.2
17	CO	59	MET	2.2
38	DR	44	LEU	2.2
45	BY	39	VAL	2.2
1	AA	1186	G	2.2
3	AV	15	A	2.2
18	CP	41	PRO	2.2
25	BA	1516	U	2.2
43	BW	109	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
7	AE	20	GLN	2.2
15	AM	39	ILE	2.2
24	CX	65	LEU	2.2
41	DU	91	ASP	2.1
42	DV	68	LYS	2.1
22	AT	78	ALA	2.1
33	BJ	15	GLU	2.1
55	D8	45	GLY	2.1
4	CB	215	LEU	2.1
7	CE	89	ILE	2.1
17	AO	58	MET	2.1
19	CQ	36	ILE	2.1
28	DE	2	LYS	2.1
32	BI	30	LEU	2.1
45	BY	88	LYS	2.1
46	DZ	183	LEU	2.1
55	D8	6	THR	2.1
27	DD	217	ARG	2.1
1	AA	1223	C	2.1
25	BA	867	C	2.1
25	BA	2140	C	2.1
25	DA	2896	C	2.1
46	BZ	165	VAL	2.1
16	CN	39	LEU	2.1
1	AA	973	G	2.1
1	CA	251	G	2.1
4	CB	134	GLU	2.1
27	BD	5	LYS	2.1
30	DG	14	GLU	2.1
9	CG	79	ARG	2.1
18	CP	42	ARG	2.1
27	BD	244	ARG	2.1
28	BE	194	GLY	2.1
25	BA	2108	C	2.1
25	BA	2179	C	2.1
15	CM	65	LYS	2.1
30	DG	15	VAL	2.1
30	DG	137	GLU	2.1
24	AX	184	PRO	2.1
24	CX	20	SER	2.1
24	CX	151	ASP	2.1
35	DO	2	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
41	DU	39	LEU	2.1
53	B6	26	ASN	2.1
25	DA	7	G	2.1
45	BY	58	GLY	2.1
55	B8	12	LYS	2.1
22	CT	11	SER	2.1
55	B8	43	GLN	2.1
1	CA	1249	C	2.1
10	AH	52	ASP	2.1
11	AI	34	ASN	2.1
28	DE	159	HIS	2.1
40	DT	2	ASN	2.1
9	AG	35	LYS	2.1
16	CN	8	GLU	2.1
17	AO	26	GLU	2.1
19	AQ	24	GLU	2.1
16	CN	18	VAL	2.1
25	DA	1357	U	2.1
1	CA	1287	A	2.1
1	CA	1357	A	2.1
10	AH	9	MET	2.1
46	BZ	121	HIS	2.1
47	D0	71	ASP	2.1
4	CB	133	LYS	2.1
11	CI	47	LEU	2.1
24	CX	96	LEU	2.1
32	BI	16	GLY	2.1
16	AN	16	PHE	2.1
34	DN	91	GLU	2.1
1	CA	980	C	2.1
7	AE	22	GLY	2.1
7	CE	91	LEU	2.1
34	DN	94	ILE	2.1
50	D3	54	VAL	2.1
2	AZ	33	U	2.1
32	DI	82	ARG	2.1
37	DQ	25	ASP	2.1
38	DR	71	GLN	2.1
40	DT	51	ARG	2.1
4	CB	214	ILE	2.1
20	CR	31	LEU	2.1
28	DE	197	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
12	CJ	55	LYS	2.1
55	D8	49	VAL	2.1
10	CH	132	GLU	2.1
6	AD	74	GLN	2.1
37	DQ	39	PRO	2.1
38	DR	64	ARG	2.1
25	BA	2178	C	2.1
39	BS	87	PHE	2.1
27	BD	4	LYS	2.1
39	BS	59	LYS	2.1
45	DY	63	LYS	2.1
55	B8	8	LYS	2.1
1	CA	1450	U	2.1
4	CB	59	GLU	2.1
15	CM	30	ALA	2.1
26	DB	41	U	2.1
27	DD	92	ILE	2.1
36	DP	71	VAL	2.1
46	DZ	118	GLN	2.1
12	CJ	69	ASN	2.1
24	CX	92	LEU	2.1
46	BZ	99	TYR	2.1
4	AB	36	ARG	2.1
4	AB	101	MET	2.1
22	CT	59	ALA	2.1
25	DA	1099	G	2.1
37	DQ	54	MET	2.1
28	DE	104	VAL	2.1
50	D3	57	GLU	2.1
1	AA	995	C	2.1
1	AA	1404	C	2.1
29	DF	172	TRP	2.1
32	DI	114	LEU	2.1
10	AH	58	TYR	2.1
33	DJ	5	ARG	2.1
32	BI	6	LEU	2.1
11	CI	6	GLY	2.1
48	B1	71	TYR	2.1
12	CJ	4	ILE	2.1
28	DE	117	MET	2.1
1	AA	1367	C	2.1
28	DE	48	GLN	2.1

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Mol	Chain	Res	Type	RSRZ
28	DE	52	LEU	2.1
52	D5	25	LEU	2.1
1	CA	62	U	2.1
11	AI	76	ALA	2.1
37	BQ	137	TYR	2.1
55	B8	10	ALA	2.1
22	CT	55	ILE	2.1
47	B0	39	ARG	2.1
5	CC	203	PHE	2.1
49	B2	5	GLU	2.1
6	AD	135	LEU	2.1
25	BA	2117	A	2.1
6	AD	207	TYR	2.1
28	BE	160	TYR	2.1
25	BA	1091	G	2.1
33	DJ	60	ARG	2.1
36	BP	23	PRO	2.1
53	D6	31	PRO	2.1
2	AZ	16	C	2.1
25	BA	2701	C	2.1
39	BS	52	SER	2.1
7	CE	11	ILE	2.1
29	DF	22	ALA	2.1
8	CF	95	GLU	2.1
11	AI	67	GLY	2.1
32	BI	9	LEU	2.1
46	BZ	163	LEU	2.1
1	CA	968	A	2.0
22	CT	30	LYS	2.0
37	BQ	41	TRP	2.0
37	DQ	98	LYS	2.0
45	BY	87	LYS	2.0
7	CE	107	ARG	2.0
30	DG	16	ARG	2.0
38	BR	66	VAL	2.0
55	D8	22	VAL	2.0
27	DD	30	GLU	2.0
1	AA	1234	C	2.0
1	CA	369	C	2.0
15	AM	111	LYS	2.0
21	AS	35	SER	2.0
27	DD	166	GLN	2.0

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Mol	Chain	Res	Type	RSRZ
30	BG	84	LYS	2.0
8	CF	8	ILE	2.0
30	DG	37	VAL	2.0
32	DI	107	ILE	2.0
34	BN	75	VAL	2.0
6	CD	209	ARG	2.0
11	CI	107	ARG	2.0
29	DF	27	GLU	2.0
31	DH	167	GLU	2.0
25	BA	2320	A	2.0
25	DA	2119	A	2.0
29	DF	40	GLN	2.0
34	BN	104	GLY	2.0
11	AI	102	LEU	2.0
1	CA	375	U	2.0
1	CA	1235	U	2.0
7	CE	132	ALA	2.0
31	BH	161	GLY	2.0
53	D6	38	LYS	2.0
4	AB	130	ARG	2.0
11	CI	17	VAL	2.0
11	CI	33	PHE	2.0
29	DF	123	LEU	2.0
30	DG	95	ARG	2.0
30	DG	106	LEU	2.0
32	DI	12	LEU	2.0
36	BP	7	ARG	2.0
45	DY	32	PRO	2.0
5	CC	135	LYS	2.0
23	AU	25	LYS	2.0
28	DE	152	LYS	2.0
32	DI	41	GLU	2.0
12	AJ	33	GLN	2.0
34	BN	153	HIS	2.0
4	AB	118	LEU	2.0
11	AI	26	VAL	2.0
28	BE	107	THR	2.0
32	DI	119	PRO	2.0
1	AA	1356	G	2.0
25	DA	463	G	2.0
1	AA	307	C	2.0
12	CJ	54	PHE	2.0

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Mol	Chain	Res	Type	RSRZ
10	AH	53	VAL	2.0
36	BP	27	HIS	2.0
37	BQ	96	VAL	2.0
39	BS	48	LEU	2.0
9	AG	8	GLU	2.0
45	BY	61	ILE	2.0
45	DY	46	LYS	2.0
47	B0	23	VAL	2.0
17	CO	54	ARG	2.0
1	AA	1185	G	2.0
1	AA	1475	G	2.0
1	CA	1117	G	2.0
5	CC	8	ILE	2.0
12	AJ	63	PHE	2.0
16	CN	5	ALA	2.0
25	BA	99	U	2.0
40	DT	50	ILE	2.0
46	BZ	118	GLN	2.0
21	AS	15	LEU	2.0
40	BT	99	LEU	2.0
48	D1	26	ARG	2.0
21	AS	66	MET	2.0
24	CX	305	TYR	2.0
32	BI	21	VAL	2.0
37	DQ	83	MET	2.0
13	AK	120	ARG	2.0
17	AO	67	LEU	2.0
28	DE	149	ARG	2.0
39	DS	26	LEU	2.0
40	DT	106	SER	2.0
53	B6	9	LEU	2.0

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

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

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q < 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	CF	201	1/1	0.10	-	50,50,50,50	0
56	MG	DA	3371	1/1	0.12	-	33,33,33,33	0
56	MG	AA	1827	1/1	0.06	-	38,38,38,38	0
56	MG	CA	2004	1/1	0.14	-	45,45,45,45	0
56	MG	DA	3213	1/1	0.09	-	18,18,18,18	0
56	MG	AA	1750	1/1	0.11	-	50,50,50,50	0
56	MG	BA	3040	1/1	0.26	-	35,35,35,35	0
56	MG	DA	3176	1/1	0.17	-	46,46,46,46	0
56	MG	DA	3407	1/1	0.13	-	32,32,32,32	0
56	MG	BA	3019	1/1	0.19	-	5,5,5,5	0
56	MG	DA	3216	1/1	0.07	-	24,24,24,24	0
56	MG	BA	3222	1/1	0.07	-	13,13,13,13	0
56	MG	CA	1847	1/1	0.07	-	22,22,22,22	0
56	MG	CA	1966	1/1	0.30	-	41,41,41,41	0
56	MG	AA	1738	1/1	0.07	-	6,6,6,6	0
56	MG	DN	201	1/1	0.13	-	29,29,29,29	0
56	MG	AA	1802	1/1	0.14	-	56,56,56,56	0
56	MG	BA	3705	1/1	0.17	-	47,47,47,47	0
56	MG	DA	3121	1/1	0.08	-	24,24,24,24	0
56	MG	DA	3488	1/1	0.16	-	10,10,10,10	0
56	MG	DA	3011	1/1	0.25	-	17,17,17,17	0
56	MG	DA	3586	1/1	0.36	-	55,55,55,55	0
56	MG	DA	3034	1/1	0.06	-	9,9,9,9	0
56	MG	CA	1764	1/1	0.12	-	30,30,30,30	0
56	MG	CA	1852	1/1	0.07	-	43,43,43,43	0
56	MG	DA	3172	1/1	0.09	-	31,31,31,31	0
56	MG	BA	3284	1/1	0.06	-	12,12,12,12	0
56	MG	AA	1671	1/1	0.06	-	20,20,20,20	0
56	MG	BA	3378	1/1	0.09	-	28,28,28,28	0
56	MG	BA	3599	1/1	0.10	-	34,34,34,34	0
56	MG	BA	3708	1/1	0.26	-	60,60,60,60	0
56	MG	DA	3023	1/1	0.11	-	7,7,7,7	0
56	MG	BA	3539	1/1	0.14	-	77,77,77,77	0
56	MG	CL	201	1/1	0.07	-	61,61,61,61	0
56	MG	DA	3204	1/1	0.08	-	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3361	1/1	0.40	-	19,19,19,19	0
56	MG	DA	3536	1/1	0.11	-	35,35,35,35	0
56	MG	DA	3186	1/1	0.04	-	47,47,47,47	0
56	MG	CA	1829	1/1	0.22	-	35,35,35,35	0
56	MG	CA	1901	1/1	0.09	-	7,7,7,7	0
56	MG	BA	3137	1/1	0.06	-	47,47,47,47	0
56	MG	BA	3107	1/1	0.06	-	21,21,21,21	0
56	MG	CV	102	1/1	0.07	-	25,25,25,25	0
56	MG	DA	3283	1/1	0.12	-	36,36,36,36	0
56	MG	AA	1689	1/1	0.19	-	39,39,39,39	0
56	MG	DA	3752	1/1	0.11	-	55,55,55,55	0
56	MG	DA	3461	1/1	0.10	-	8,8,8,8	0
56	MG	DA	3499	1/1	0.10	-	25,25,25,25	0
56	MG	DA	3348	1/1	0.11	-	40,40,40,40	0
56	MG	BA	3244	1/1	0.10	-	34,34,34,34	0
56	MG	AA	1715	1/1	0.07	-	51,51,51,51	0
56	MG	DA	3472	1/1	0.26	-	39,39,39,39	0
56	MG	BA	3224	1/1	0.06	-	52,52,52,52	0
56	MG	AA	1653	1/1	0.12	-	44,44,44,44	0
56	MG	BA	3115	1/1	0.28	-	33,33,33,33	0
56	MG	DA	3198	1/1	0.55	-	51,51,51,51	0
56	MG	BA	3163	1/1	0.18	-	25,25,25,25	0
56	MG	DA	3500	1/1	0.04	-	13,13,13,13	0
56	MG	CA	1742	1/1	0.06	-	22,22,22,22	0
56	MG	CA	1797	1/1	0.06	-	60,60,60,60	0
56	MG	CA	1920	1/1	0.46	-	32,32,32,32	0
56	MG	BA	3113	1/1	0.11	-	10,10,10,10	0
56	MG	CA	1988	1/1	0.10	-	48,48,48,48	0
56	MG	AA	1895	1/1	0.15	-	50,50,50,50	0
56	MG	DA	3103	1/1	0.15	-	16,16,16,16	0
56	MG	CA	1668	1/1	0.14	-	55,55,55,55	0
56	MG	BA	3118	1/1	0.08	-	20,20,20,20	0
56	MG	AA	1800	1/1	0.14	-	49,49,49,49	0
56	MG	DA	3512	1/1	0.15	-	15,15,15,15	0
56	MG	DA	3350	1/1	0.08	-	24,24,24,24	0
56	MG	AY	101	1/1	0.13	-	26,26,26,26	0
56	MG	BA	3154	1/1	0.10	-	26,26,26,26	0
56	MG	DA	3462	1/1	0.08	-	24,24,24,24	0
56	MG	DA	3693	1/1	0.16	-	30,30,30,30	0
56	MG	AA	1655	1/1	0.06	-	26,26,26,26	0
56	MG	BA	3121	1/1	0.10	-	40,40,40,40	0
56	MG	BA	3652	1/1	0.09	-	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3457	1/1	0.06	-	24,24,24,24	0
56	MG	CZ	110	1/1	0.04	-	33,33,33,33	0
56	MG	DA	3706	1/1	0.31	-	42,42,42,42	0
56	MG	DA	3487	1/1	0.10	-	48,48,48,48	0
56	MG	DA	3298	1/1	0.09	-	0,0,0,0	0
56	MG	DA	3241	1/1	0.11	-	12,12,12,12	0
56	MG	D7	101	1/1	0.11	-	22,22,22,22	0
56	MG	BA	3781	1/1	0.29	-	54,54,54,54	0
56	MG	BA	3270	1/1	0.09	-	8,8,8,8	0
56	MG	DA	3534	1/1	0.06	-	26,26,26,26	0
56	MG	CA	1840	1/1	0.11	-	54,54,54,54	0
56	MG	DA	3376	1/1	0.09	-	35,35,35,35	0
56	MG	BA	3766	1/1	0.22	-	44,44,44,44	0
56	MG	DA	3411	1/1	0.07	-	26,26,26,26	0
56	MG	AA	1658	1/1	0.23	-	19,19,19,19	0
56	MG	BA	3476	1/1	0.31	-	39,39,39,39	0
56	MG	BA	3242	1/1	0.06	-	22,22,22,22	0
56	MG	CY	101	1/1	0.10	-	12,12,12,12	0
56	MG	CA	1995	1/1	0.18	-	47,47,47,47	0
56	MG	BA	3408	1/1	0.07	-	12,12,12,12	0
56	MG	DA	3321	1/1	0.07	-	28,28,28,28	0
56	MG	BA	3528	1/1	0.06	-	9,9,9,9	0
56	MG	DA	3419	1/1	0.10	-	33,33,33,33	0
56	MG	BO	202	1/1	0.08	-	29,29,29,29	0
56	MG	CZ	118	1/1	0.37	-	69,69,69,69	0
56	MG	BA	3729	1/1	0.06	-	43,43,43,43	0
56	MG	CA	2005	1/1	0.15	-	58,58,58,58	0
56	MG	CY	109	1/1	0.18	-	68,68,68,68	0
56	MG	DA	3546	1/1	0.43	-	82,82,82,82	0
56	MG	DX	101	1/1	0.09	-	50,50,50,50	0
56	MG	AA	1726	1/1	0.09	-	44,44,44,44	0
56	MG	AA	1644	1/1	0.07	-	31,31,31,31	0
56	MG	BA	3101	1/1	0.06	-	0,0,0,0	0
56	MG	DB	206	1/1	0.06	-	39,39,39,39	0
56	MG	DA	3492	1/1	0.11	-	37,37,37,37	0
56	MG	BA	3524	1/1	0.06	-	36,36,36,36	0
56	MG	DA	3323	1/1	0.09	-	8,8,8,8	0
56	MG	BA	3711	1/1	0.17	-	28,28,28,28	0
57	ZN	AN	101	1/1	0.03	-	68,68,68,68	0
56	MG	BA	3571	1/1	0.09	-	40,40,40,40	0
56	MG	DA	3274	1/1	0.11	-	6,6,6,6	0
56	MG	AA	1822	1/1	0.19	-	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1886	1/1	0.30	-	39,39,39,39	0
56	MG	CA	1639	1/1	0.08	-	28,28,28,28	0
56	MG	DA	3424	1/1	0.07	-	22,22,22,22	0
56	MG	BA	3442	1/1	0.16	-	26,26,26,26	0
56	MG	AA	1792	1/1	0.06	-	58,58,58,58	0
56	MG	BA	3083	1/1	0.04	-	9,9,9,9	0
56	MG	BA	3742	1/1	0.25	-	46,46,46,46	0
56	MG	BA	3216	1/1	0.20	-	33,33,33,33	0
56	MG	AX	402	1/1	0.22	-	29,29,29,29	0
56	MG	DA	3388	1/1	0.06	-	3,3,3,3	0
56	MG	DA	3609	1/1	0.33	-	62,62,62,62	0
56	MG	AA	1614	1/1	0.06	-	4,4,4,4	0
56	MG	AA	1613	1/1	0.11	-	20,20,20,20	0
56	MG	CA	1679	1/1	0.23	-	40,40,40,40	0
56	MG	BA	3310	1/1	0.23	-	23,23,23,23	0
56	MG	BA	3226	1/1	0.17	-	24,24,24,24	0
56	MG	CA	1662	1/1	0.12	-	12,12,12,12	0
56	MG	CA	1944	1/1	0.18	-	42,42,42,42	0
56	MG	DA	3180	1/1	0.06	-	22,22,22,22	0
56	MG	BA	3779	1/1	0.16	-	47,47,47,47	0
56	MG	CA	1747	1/1	0.09	-	31,31,31,31	0
56	MG	DA	3527	1/1	0.07	-	49,49,49,49	0
56	MG	AC	301	1/1	0.10	-	41,41,41,41	0
56	MG	BA	3437	1/1	0.12	-	26,26,26,26	0
56	MG	DB	225	1/1	0.07	-	34,34,34,34	0
56	MG	AA	1909	1/1	0.05	-	40,40,40,40	0
56	MG	CA	1615	1/1	0.20	-	55,55,55,55	0
56	MG	CA	1674	1/1	0.06	-	63,63,63,63	0
56	MG	CA	1915	1/1	0.23	-	56,56,56,56	0
56	MG	DZ	304	1/1	0.06	-	31,31,31,31	0
56	MG	CA	1934	1/1	0.09	-	56,56,56,56	0
56	MG	CA	1713	1/1	0.06	-	21,21,21,21	0
56	MG	CY	104	1/1	0.04	-	20,20,20,20	0
56	MG	AA	1864	1/1	0.10	-	36,36,36,36	0
56	MG	BA	3357	1/1	0.07	-	4,4,4,4	0
56	MG	BA	3758	1/1	0.16	-	24,24,24,24	0
56	MG	AA	1900	1/1	0.09	-	44,44,44,44	0
56	MG	AA	1844	1/1	0.23	-	38,38,38,38	0
56	MG	DP	206	1/1	0.21	-	33,33,33,33	0
56	MG	CY	111	1/1	0.18	-	39,39,39,39	0
56	MG	BA	3320	1/1	0.18	-	2,2,2,2	0
56	MG	BF	301	1/1	0.15	-	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	DA	3145	1/1	0.14	-	30,30,30,30	0
56	MG	BA	3084	1/1	0.03	-	1,1,1,1	0
56	MG	BA	3482	1/1	0.07	-	11,11,11,11	0
56	MG	DA	3440	1/1	0.57	-	71,71,71,71	0
56	MG	BA	3439	1/1	0.06	-	7,7,7,7	0
56	MG	DA	3578	1/1	0.07	-	11,11,11,11	0
56	MG	BA	3256	1/1	0.06	-	13,13,13,13	0
56	MG	DA	3049	1/1	0.09	-	11,11,11,11	0
56	MG	CA	1921	1/1	0.32	-	57,57,57,57	0
56	MG	DA	3612	1/1	0.09	-	41,41,41,41	0
56	MG	AA	1805	1/1	0.30	-	53,53,53,53	0
56	MG	CA	1962	1/1	0.42	-	41,41,41,41	0
56	MG	DA	3161	1/1	0.13	-	1,1,1,1	0
56	MG	BA	3285	1/1	0.09	-	40,40,40,40	0
56	MG	CA	1643	1/1	0.08	-	35,35,35,35	0
56	MG	CA	1872	1/1	0.14	-	24,24,24,24	0
56	MG	BA	3493	1/1	0.07	-	17,17,17,17	0
56	MG	BA	3027	1/1	0.08	-	20,20,20,20	0
56	MG	CC	302	1/1	0.10	-	56,56,56,56	0
56	MG	DA	3363	1/1	0.13	-	36,36,36,36	0
56	MG	AY	111	1/1	0.10	-	34,34,34,34	0
56	MG	BA	3139	1/1	0.04	-	33,33,33,33	0
56	MG	DA	3646	1/1	0.11	-	55,55,55,55	0
56	MG	BB	210	1/1	0.17	-	62,62,62,62	0
56	MG	BA	3737	1/1	0.24	-	22,22,22,22	0
56	MG	AA	1799	1/1	0.40	-	49,49,49,49	0
56	MG	DA	3248	1/1	0.08	-	19,19,19,19	0
56	MG	BA	3540	1/1	0.04	-	23,23,23,23	0
56	MG	AA	1718	1/1	0.05	-	27,27,27,27	0
56	MG	BA	3406	1/1	0.10	-	42,42,42,42	0
56	MG	AD	304	1/1	0.21	-	50,50,50,50	0
56	MG	BI	203	1/1	0.15	-	40,40,40,40	0
56	MG	DA	3425	1/1	0.35	-	43,43,43,43	0
56	MG	DH	201	1/1	0.10	-	46,46,46,46	0
56	MG	BA	3443	1/1	0.11	-	29,29,29,29	0
56	MG	DA	3576	1/1	0.10	-	18,18,18,18	0
56	MG	AQ	201	1/1	0.48	-	47,47,47,47	0
56	MG	BA	3341	1/1	0.07	-	26,26,26,26	0
56	MG	BA	3069	1/1	0.08	-	11,11,11,11	0
56	MG	CA	1636	1/1	0.09	-	40,40,40,40	0
56	MG	BA	3346	1/1	0.12	-	18,18,18,18	0
56	MG	BA	3194	1/1	0.07	-	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1841	1/1	0.06	-	63,63,63,63	0
56	MG	CA	1811	1/1	0.08	-	43,43,43,43	0
56	MG	BA	3068	1/1	0.21	-	14,14,14,14	0
56	MG	CA	1943	1/1	0.59	-	48,48,48,48	0
56	MG	DA	3015	1/1	0.12	-	11,11,11,11	0
56	MG	BA	3276	1/1	0.05	-	0,0,0,0	0
56	MG	AA	1664	1/1	0.06	-	6,6,6,6	0
56	MG	CA	1900	1/1	0.15	-	56,56,56,56	0
56	MG	DA	3641	1/1	0.06	-	13,13,13,13	0
56	MG	DA	3426	1/1	0.05	-	34,34,34,34	0
56	MG	BA	3532	1/1	0.12	-	56,56,56,56	0
56	MG	BA	3017	1/1	0.19	-	18,18,18,18	0
56	MG	AA	1705	1/1	0.05	-	29,29,29,29	0
56	MG	BA	3422	1/1	0.25	-	24,24,24,24	0
56	MG	DA	3351	1/1	0.13	-	38,38,38,38	0
56	MG	AA	1765	1/1	0.13	-	35,35,35,35	0
56	MG	BA	3503	1/1	0.11	-	29,29,29,29	0
56	MG	DA	3108	1/1	0.16	-	1,1,1,1	0
56	MG	DP	205	1/1	0.14	-	42,42,42,42	0
56	MG	AA	1854	1/1	0.16	-	44,44,44,44	0
56	MG	DA	3270	1/1	0.05	-	35,35,35,35	0
56	MG	DA	3290	1/1	0.12	-	25,25,25,25	0
56	MG	AA	1690	1/1	0.10	-	47,47,47,47	0
56	MG	AA	1652	1/1	0.10	-	17,17,17,17	0
56	MG	BA	3634	1/1	0.07	-	18,18,18,18	0
56	MG	BA	3654	1/1	0.13	-	40,40,40,40	0
56	MG	DA	3160	1/1	0.05	-	35,35,35,35	0
56	MG	D3	101	1/1	0.13	-	43,43,43,43	0
56	MG	AA	1619	1/1	0.13	-	37,37,37,37	0
56	MG	DA	3406	1/1	0.10	-	33,33,33,33	0
56	MG	AA	1768	1/1	0.07	-	32,32,32,32	0
56	MG	BA	3123	1/1	0.06	-	34,34,34,34	0
56	MG	BB	201	1/1	0.09	-	35,35,35,35	0
56	MG	CA	1957	1/1	0.06	-	28,28,28,28	0
56	MG	DA	3459	1/1	0.11	-	22,22,22,22	0
56	MG	BA	3094	1/1	0.09	-	23,23,23,23	0
56	MG	DA	3173	1/1	0.10	-	31,31,31,31	0
56	MG	CA	1698	1/1	0.11	-	28,28,28,28	0
56	MG	BA	3047	1/1	0.08	-	17,17,17,17	0
56	MG	BB	224	1/1	0.17	-	25,25,25,25	0
56	MG	BA	3043	1/1	0.09	-	30,30,30,30	0
56	MG	BA	3380	1/1	0.34	-	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3657	1/1	0.23	-	27,27,27,27	0
56	MG	BA	3803	1/1	0.38	-	55,55,55,55	0
56	MG	BA	3325	1/1	0.05	-	5,5,5,5	0
56	MG	BA	3213	1/1	0.13	-	33,33,33,33	0
56	MG	DA	3113	1/1	0.12	-	13,13,13,13	0
56	MG	DA	3634	1/1	0.15	-	58,58,58,58	0
56	MG	BA	3608	1/1	0.07	-	25,25,25,25	0
56	MG	DA	3031	1/1	0.08	-	21,21,21,21	0
56	MG	AA	1888	1/1	0.13	-	53,53,53,53	0
56	MG	AA	1774	1/1	0.14	-	27,27,27,27	0
56	MG	DA	3682	1/1	0.07	-	10,10,10,10	0
56	MG	BA	3372	1/1	0.15	-	38,38,38,38	0
56	MG	DA	3237	1/1	0.14	-	31,31,31,31	0
56	MG	DA	3256	1/1	0.12	-	37,37,37,37	0
56	MG	BA	3184	1/1	0.14	-	64,64,64,64	0
56	MG	DA	3670	1/1	0.15	-	59,59,59,59	0
56	MG	CA	1634	1/1	0.06	-	41,41,41,41	0
56	MG	AA	1647	1/1	0.12	-	44,44,44,44	0
56	MG	AA	1678	1/1	0.07	-	43,43,43,43	0
56	MG	BA	3339	1/1	0.09	-	34,34,34,34	0
56	MG	AA	1789	1/1	0.10	-	33,33,33,33	0
56	MG	DA	3620	1/1	0.09	-	49,49,49,49	0
56	MG	DA	3151	1/1	0.15	-	58,58,58,58	0
56	MG	BA	3667	1/1	0.07	-	63,63,63,63	0
56	MG	CA	1768	1/1	0.11	-	39,39,39,39	0
56	MG	DA	3163	1/1	0.06	-	21,21,21,21	0
56	MG	CA	1761	1/1	0.28	-	45,45,45,45	0
56	MG	DA	3513	1/1	0.07	-	41,41,41,41	0
56	MG	BA	3267	1/1	0.09	-	21,21,21,21	0
56	MG	BA	3395	1/1	0.26	-	34,34,34,34	0
56	MG	BA	3783	1/1	0.14	-	29,29,29,29	0
56	MG	CA	1833	1/1	0.08	-	37,37,37,37	0
56	MG	DA	3266	1/1	0.04	-	31,31,31,31	0
56	MG	CA	1652	1/1	0.18	-	40,40,40,40	0
56	MG	BA	3393	1/1	0.08	-	32,32,32,32	0
56	MG	DA	3014	1/1	0.04	-	9,9,9,9	0
56	MG	DZ	301	1/1	0.06	-	27,27,27,27	0
56	MG	DA	3319	1/1	0.06	-	18,18,18,18	0
56	MG	DA	3381	1/1	0.17	-	36,36,36,36	0
56	MG	AA	1685	1/1	0.18	-	30,30,30,30	0
56	MG	DG	201	1/1	0.12	-	34,34,34,34	0
56	MG	BA	3225	1/1	0.08	-	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1716	1/1	0.11	-	42,42,42,42	0
56	MG	CA	2011	1/1	0.09	-	28,28,28,28	0
56	MG	BA	3531	1/1	0.11	-	16,16,16,16	0
56	MG	AA	1902	1/1	0.10	-	42,42,42,42	0
56	MG	DA	3744	1/1	0.15	-	62,62,62,62	0
56	MG	CA	1964	1/1	0.23	-	39,39,39,39	0
56	MG	AA	1812	1/1	0.16	-	33,33,33,33	0
56	MG	BA	3064	1/1	0.06	-	21,21,21,21	0
56	MG	DA	3644	1/1	0.06	-	5,5,5,5	0
56	MG	CA	1795	1/1	0.10	-	42,42,42,42	0
56	MG	CX	404	1/1	0.14	-	34,34,34,34	0
56	MG	BA	3182	1/1	0.08	-	22,22,22,22	0
56	MG	BA	3756	1/1	0.13	-	52,52,52,52	0
56	MG	BA	3420	1/1	0.08	-	7,7,7,7	0
56	MG	AA	1695	1/1	0.07	-	33,33,33,33	0
56	MG	DA	3739	1/1	0.07	-	20,20,20,20	0
56	MG	AA	1807	1/1	0.08	-	22,22,22,22	0
56	MG	DA	3072	1/1	0.08	-	29,29,29,29	0
56	MG	BA	3601	1/1	0.07	-	33,33,33,33	0
56	MG	BA	3158	1/1	0.05	-	44,44,44,44	0
56	MG	CA	1709	1/1	0.08	-	39,39,39,39	0
56	MG	DA	3521	1/1	0.10	-	7,7,7,7	0
56	MG	BA	3520	1/1	0.08	-	7,7,7,7	0
56	MG	CA	1707	1/1	0.10	-	48,48,48,48	0
56	MG	DA	3077	1/1	0.04	-	7,7,7,7	0
56	MG	CZ	106	1/1	0.05	-	19,19,19,19	0
56	MG	DA	3554	1/1	0.11	-	71,71,71,71	0
56	MG	BA	3512	1/1	0.09	-	16,16,16,16	0
56	MG	BA	3658	1/1	0.23	-	56,56,56,56	0
56	MG	AX	405	1/1	0.08	-	58,58,58,58	0
56	MG	BA	3192	1/1	0.09	-	20,20,20,20	0
56	MG	CZ	116	1/1	0.16	-	81,81,81,81	0
56	MG	CA	1687	1/1	0.04	-	19,19,19,19	0
56	MG	DA	3041	1/1	0.07	-	12,12,12,12	0
56	MG	CY	114	1/1	0.06	-	16,16,16,16	0
56	MG	BA	3207	1/1	0.08	-	31,31,31,31	0
56	MG	CY	110	1/1	0.06	-	17,17,17,17	0
56	MG	DA	3712	1/1	0.15	-	61,61,61,61	0
56	MG	BA	3218	1/1	0.09	-	20,20,20,20	0
56	MG	DA	3497	1/1	0.10	-	47,47,47,47	0
56	MG	CA	1753	1/1	0.07	-	23,23,23,23	0
56	MG	DA	3219	1/1	0.06	-	12,12,12,12	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1791	1/1	0.09	-	30,30,30,30	0
56	MG	BA	3162	1/1	0.16	-	41,41,41,41	0
56	MG	BA	3409	1/1	0.05	-	22,22,22,22	0
56	MG	BA	3195	1/1	0.21	-	46,46,46,46	0
56	MG	CA	1649	1/1	0.17	-	16,16,16,16	0
56	MG	BA	3593	1/1	0.49	-	55,55,55,55	0
56	MG	BA	3327	1/1	0.09	-	43,43,43,43	0
57	ZN	CD	301	1/1	0.20	-	70,70,70,70	0
56	MG	DA	3311	1/1	0.06	-	15,15,15,15	0
56	MG	DA	3696	1/1	0.12	-	76,76,76,76	0
56	MG	DA	3728	1/1	0.34	-	33,33,33,33	0
56	MG	DA	3486	1/1	0.09	-	35,35,35,35	0
56	MG	DA	3713	1/1	0.06	-	27,27,27,27	0
56	MG	DB	201	1/1	0.09	-	14,14,14,14	0
56	MG	DP	204	1/1	0.15	-	3,3,3,3	0
56	MG	BA	3641	1/1	0.07	-	47,47,47,47	0
56	MG	DA	3455	1/1	0.20	-	35,35,35,35	0
56	MG	CA	1766	1/1	0.03	-	26,26,26,26	0
56	MG	CA	1613	1/1	0.09	-	17,17,17,17	0
56	MG	DA	3558	1/1	0.12	-	30,30,30,30	0
56	MG	DA	3212	1/1	0.14	-	34,34,34,34	0
56	MG	BA	3353	1/1	0.08	-	40,40,40,40	0
56	MG	DA	3465	1/1	0.18	-	20,20,20,20	0
56	MG	BA	3792	1/1	0.06	-	42,42,42,42	0
56	MG	BP	201	1/1	0.11	-	34,34,34,34	0
56	MG	BA	3648	1/1	0.11	-	4,4,4,4	0
56	MG	CA	1738	1/1	0.19	-	20,20,20,20	0
56	MG	BA	3343	1/1	0.12	-	32,32,32,32	0
56	MG	BA	3577	1/1	0.06	-	17,17,17,17	0
56	MG	CA	1704	1/1	0.31	-	31,31,31,31	0
56	MG	CA	1932	1/1	0.13	-	54,54,54,54	0
56	MG	BA	3314	1/1	0.05	-	10,10,10,10	0
56	MG	DA	3364	1/1	0.12	-	43,43,43,43	0
56	MG	BA	3239	1/1	0.15	-	22,22,22,22	0
56	MG	DA	3436	1/1	0.13	-	7,7,7,7	0
56	MG	AA	1605	1/1	0.06	-	15,15,15,15	0
56	MG	CA	1865	1/1	0.06	-	12,12,12,12	0
56	MG	BA	3551	1/1	0.21	-	47,47,47,47	0
56	MG	DA	3660	1/1	0.17	-	44,44,44,44	0
56	MG	DA	3053	1/1	0.13	-	46,46,46,46	0
56	MG	BA	3660	1/1	0.14	-	38,38,38,38	0
56	MG	AA	1604	1/1	0.10	-	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3489	1/1	0.07	-	24,24,24,24	0
56	MG	DA	3727	1/1	0.24	-	27,27,27,27	0
56	MG	CA	1874	1/1	0.13	-	52,52,52,52	0
56	MG	BA	3662	1/1	0.40	-	40,40,40,40	0
56	MG	BA	3321	1/1	0.13	-	51,51,51,51	0
56	MG	DA	3605	1/1	0.23	-	36,36,36,36	0
56	MG	BA	3291	1/1	0.08	-	19,19,19,19	0
56	MG	BB	202	1/1	0.05	-	34,34,34,34	0
56	MG	DA	3012	1/1	0.09	-	16,16,16,16	0
56	MG	DA	3385	1/1	0.16	-	56,56,56,56	0
56	MG	DA	3565	1/1	0.17	-	36,36,36,36	0
56	MG	BA	3221	1/1	0.07	-	21,21,21,21	0
56	MG	AA	1803	1/1	0.15	-	30,30,30,30	0
56	MG	BA	3055	1/1	0.12	-	27,27,27,27	0
56	MG	D8	101	1/1	0.11	-	20,20,20,20	0
56	MG	BA	3543	1/1	0.12	-	19,19,19,19	0
56	MG	DA	3033	1/1	0.15	-	10,10,10,10	0
56	MG	BA	3231	1/1	0.07	-	32,32,32,32	0
56	MG	DB	211	1/1	0.06	-	15,15,15,15	0
56	MG	CA	1655	1/1	0.12	-	24,24,24,24	0
56	MG	BA	3389	1/1	0.08	-	33,33,33,33	0
56	MG	DA	3621	1/1	0.12	-	51,51,51,51	0
56	MG	CA	1917	1/1	0.17	-	70,70,70,70	0
56	MG	AA	1706	1/1	0.05	-	26,26,26,26	0
56	MG	CA	1711	1/1	0.12	-	23,23,23,23	0
56	MG	CA	1624	1/1	0.30	-	54,54,54,54	0
56	MG	BA	3266	1/1	0.09	-	10,10,10,10	0
56	MG	DA	3123	1/1	0.04	-	1,1,1,1	0
56	MG	BB	226	1/1	0.14	-	59,59,59,59	0
56	MG	BA	3425	1/1	0.06	-	48,48,48,48	0
56	MG	DA	3202	1/1	0.04	-	32,32,32,32	0
56	MG	CA	1814	1/1	0.16	-	31,31,31,31	0
56	MG	BA	3458	1/1	0.06	-	6,6,6,6	0
56	MG	BA	3332	1/1	0.14	-	9,9,9,9	0
56	MG	DA	3616	1/1	0.08	-	10,10,10,10	0
56	MG	DA	3339	1/1	0.18	-	47,47,47,47	0
56	MG	DA	3342	1/1	0.07	-	12,12,12,12	0
56	MG	AA	1748	1/1	0.09	-	54,54,54,54	0
56	MG	BA	3253	1/1	0.11	-	44,44,44,44	0
56	MG	BA	3714	1/1	0.20	-	61,61,61,61	0
56	MG	DA	3289	1/1	0.10	-	31,31,31,31	0
56	MG	DA	3474	1/1	0.34	-	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1928	1/1	0.05	-	17,17,17,17	0
56	MG	CA	1635	1/1	0.37	-	39,39,39,39	0
56	MG	CA	1656	1/1	0.11	-	48,48,48,48	0
56	MG	DA	3036	1/1	0.06	-	13,13,13,13	0
56	MG	AA	1813	1/1	0.04	-	23,23,23,23	0
56	MG	DA	3427	1/1	0.11	-	7,7,7,7	0
56	MG	BB	208	1/1	0.07	-	18,18,18,18	0
56	MG	DA	3055	1/1	0.11	-	26,26,26,26	0
56	MG	CA	1725	1/1	0.04	-	26,26,26,26	0
56	MG	DA	3137	1/1	0.07	-	20,20,20,20	0
56	MG	DA	3405	1/1	0.04	-	57,57,57,57	0
56	MG	AA	1607	1/1	0.15	-	8,8,8,8	0
56	MG	DA	3683	1/1	0.13	-	89,89,89,89	0
56	MG	CA	1688	1/1	0.07	-	26,26,26,26	0
56	MG	DA	3714	1/1	0.08	-	28,28,28,28	0
56	MG	DA	3635	1/1	0.06	-	47,47,47,47	0
56	MG	CA	1801	1/1	0.05	-	30,30,30,30	0
56	MG	DA	3733	1/1	0.07	-	19,19,19,19	0
56	MG	CA	1614	1/1	0.21	-	39,39,39,39	0
56	MG	BA	3497	1/1	0.04	-	2,2,2,2	0
56	MG	AC	302	1/1	0.21	-	57,57,57,57	0
56	MG	CA	1686	1/1	0.25	-	29,29,29,29	0
56	MG	AA	1795	1/1	0.13	-	65,65,65,65	0
56	MG	DA	3100	1/1	0.12	-	3,3,3,3	0
56	MG	DA	3481	1/1	0.10	-	31,31,31,31	0
56	MG	D2	102	1/1	0.43	-	49,49,49,49	0
56	MG	CA	1798	1/1	0.06	-	51,51,51,51	0
56	MG	CA	1946	1/1	0.34	-	41,41,41,41	0
56	MG	AA	1843	1/1	0.08	-	28,28,28,28	0
56	MG	BA	3077	1/1	0.04	-	8,8,8,8	0
56	MG	DA	3169	1/1	0.13	-	42,42,42,42	0
56	MG	BA	3136	1/1	0.04	-	32,32,32,32	0
56	MG	DA	3229	1/1	0.05	-	1,1,1,1	0
56	MG	BA	3032	1/1	0.15	-	11,11,11,11	0
56	MG	BA	3197	1/1	0.13	-	46,46,46,46	0
56	MG	AA	1656	1/1	0.10	-	41,41,41,41	0
56	MG	BA	3707	1/1	0.23	-	31,31,31,31	0
56	MG	CA	1684	1/1	0.08	-	44,44,44,44	0
56	MG	BA	3538	1/1	0.07	-	10,10,10,10	0
56	MG	BA	3024	1/1	0.07	-	37,37,37,37	0
56	MG	BA	3278	1/1	0.13	-	37,37,37,37	0
56	MG	DA	3069	1/1	0.15	-	15,15,15,15	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3454	1/1	0.18	-	26,26,26,26	0
56	MG	CZ	113	1/1	0.07	-	64,64,64,64	0
56	MG	BA	3671	1/1	0.13	-	57,57,57,57	0
56	MG	DA	3096	1/1	0.06	-	22,22,22,22	0
56	MG	CA	1723	1/1	0.11	-	33,33,33,33	0
56	MG	BA	3302	1/1	0.08	-	21,21,21,21	0
56	MG	BA	3056	1/1	0.06	-	1,1,1,1	0
56	MG	DA	3528	1/1	0.13	-	14,14,14,14	0
56	MG	CA	1975	1/1	0.10	-	32,32,32,32	0
56	MG	AA	1859	1/1	0.12	-	29,29,29,29	0
56	MG	BA	3679	1/1	0.14	-	26,26,26,26	0
56	MG	BA	3663	1/1	0.29	-	32,32,32,32	0
56	MG	DA	3309	1/1	0.06	-	30,30,30,30	0
56	MG	BA	3501	1/1	0.06	-	60,60,60,60	0
56	MG	BA	3351	1/1	0.08	-	39,39,39,39	0
56	MG	CA	1650	1/1	0.15	-	49,49,49,49	0
56	MG	BV	201	1/1	0.14	-	21,21,21,21	0
56	MG	DA	3117	1/1	0.06	-	24,24,24,24	0
56	MG	DA	3579	1/1	0.09	-	24,24,24,24	0
56	MG	BA	3258	1/1	0.08	-	30,30,30,30	0
56	MG	DA	3537	1/1	0.17	-	19,19,19,19	0
56	MG	BA	3795	1/1	0.07	-	35,35,35,35	0
56	MG	DA	3233	1/1	0.13	-	5,5,5,5	0
56	MG	BA	3396	1/1	0.16	-	57,57,57,57	0
56	MG	AA	1729	1/1	0.03	-	12,12,12,12	0
56	MG	DA	3380	1/1	0.05	-	26,26,26,26	0
56	MG	DA	3046	1/1	0.05	-	10,10,10,10	0
56	MG	DA	3418	1/1	0.11	-	54,54,54,54	0
56	MG	CA	1818	1/1	0.11	-	64,64,64,64	0
56	MG	DA	3614	1/1	0.09	-	55,55,55,55	0
56	MG	DA	3479	1/1	0.09	-	44,44,44,44	0
56	MG	CA	1882	1/1	0.27	-	35,35,35,35	0
56	MG	DA	3132	1/1	0.15	-	11,11,11,11	0
56	MG	DA	3328	1/1	0.09	-	10,10,10,10	0
56	MG	DA	3209	1/1	0.12	-	55,55,55,55	0
56	MG	AA	1877	1/1	0.25	-	32,32,32,32	0
56	MG	CA	1641	1/1	0.04	-	14,14,14,14	0
56	MG	DA	3167	1/1	0.11	-	23,23,23,23	0
56	MG	BB	215	1/1	0.06	-	47,47,47,47	0
56	MG	BA	3655	1/1	0.22	-	47,47,47,47	0
56	MG	DA	3566	1/1	0.05	-	15,15,15,15	0
56	MG	CA	1933	1/1	0.09	-	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3562	1/1	0.05	-	17,17,17,17	0
56	MG	CA	1939	1/1	0.11	-	55,55,55,55	0
56	MG	BA	3299	1/1	0.08	-	44,44,44,44	0
56	MG	BA	3416	1/1	0.04	-	15,15,15,15	0
56	MG	DA	3504	1/1	0.10	-	39,39,39,39	0
56	MG	DA	3450	1/1	0.21	-	29,29,29,29	0
56	MG	DA	3050	1/1	0.11	-	11,11,11,11	0
56	MG	BA	3246	1/1	0.40	-	41,41,41,41	0
56	MG	AA	1675	1/1	0.21	-	47,47,47,47	0
56	MG	D4	103	1/1	0.16	-	40,40,40,40	0
56	MG	DA	3596	1/1	0.06	-	41,41,41,41	0
56	MG	BA	3681	1/1	0.29	-	62,62,62,62	0
56	MG	DA	3543	1/1	0.07	-	20,20,20,20	0
56	MG	BA	3725	1/1	0.33	-	52,52,52,52	0
56	MG	DA	3505	1/1	0.20	-	30,30,30,30	0
56	MG	DA	3743	1/1	0.10	-	43,43,43,43	0
56	MG	CA	1767	1/1	0.08	-	22,22,22,22	0
56	MG	DA	3086	1/1	0.05	-	42,42,42,42	0
56	MG	CV	104	1/1	0.23	-	54,54,54,54	0
56	MG	AA	1700	1/1	0.21	-	46,46,46,46	0
56	MG	BA	3575	1/1	0.07	-	52,52,52,52	0
56	MG	BA	3619	1/1	0.12	-	32,32,32,32	0
56	MG	AA	1674	1/1	0.34	-	74,74,74,74	0
56	MG	DA	3430	1/1	0.14	-	56,56,56,56	0
56	MG	DA	3116	1/1	0.11	-	41,41,41,41	0
56	MG	AA	1872	1/1	0.08	-	19,19,19,19	0
56	MG	BA	3466	1/1	0.14	-	22,22,22,22	0
56	MG	DA	3251	1/1	0.21	-	16,16,16,16	0
56	MG	AA	1602	1/1	0.15	-	23,23,23,23	0
56	MG	DA	3352	1/1	0.06	-	15,15,15,15	0
56	MG	CA	1757	1/1	0.10	-	27,27,27,27	0
56	MG	BA	3546	1/1	0.06	-	17,17,17,17	0
56	MG	DA	3756	1/1	0.07	-	53,53,53,53	0
56	MG	CA	1912	1/1	0.06	-	45,45,45,45	0
56	MG	BY	201	1/1	0.25	-	36,36,36,36	0
56	MG	DA	3690	1/1	0.16	-	41,41,41,41	0
56	MG	CA	2013	1/1	0.09	-	7,7,7,7	0
56	MG	DA	3099	1/1	0.08	-	23,23,23,23	0
56	MG	BA	3434	1/1	0.26	-	45,45,45,45	0
56	MG	DA	3720	1/1	0.14	-	45,45,45,45	0
56	MG	BA	3612	1/1	0.05	-	31,31,31,31	0
56	MG	BA	3769	1/1	0.06	-	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3066	1/1	0.11	-	37,37,37,37	0
56	MG	DA	3421	1/1	0.14	-	26,26,26,26	0
56	MG	BA	3733	1/1	0.44	-	43,43,43,43	0
56	MG	BA	3204	1/1	0.12	-	41,41,41,41	0
56	MG	DA	3230	1/1	0.07	-	19,19,19,19	0
56	MG	DA	3751	1/1	0.20	-	48,48,48,48	0
56	MG	DA	3716	1/1	0.20	-	54,54,54,54	0
56	MG	BA	3368	1/1	0.15	-	22,22,22,22	0
56	MG	AL	202	1/1	0.10	-	46,46,46,46	0
56	MG	CA	1991	1/1	0.20	-	57,57,57,57	0
56	MG	DA	3284	1/1	0.08	-	7,7,7,7	0
56	MG	AA	1828	1/1	0.30	-	47,47,47,47	0
56	MG	DA	3102	1/1	0.04	-	5,5,5,5	0
56	MG	AG	201	1/1	0.08	-	23,23,23,23	0
56	MG	BA	3388	1/1	0.16	-	46,46,46,46	0
56	MG	AA	1887	1/1	0.15	-	18,18,18,18	0
56	MG	DA	3140	1/1	0.09	-	18,18,18,18	0
56	MG	AA	1663	1/1	0.10	-	35,35,35,35	0
56	MG	BA	3491	1/1	0.10	-	31,31,31,31	0
56	MG	BA	3764	1/1	0.27	-	36,36,36,36	0
56	MG	BA	3317	1/1	0.09	-	25,25,25,25	0
56	MG	BA	3700	1/1	0.24	-	67,67,67,67	0
56	MG	DA	3146	1/1	0.09	-	20,20,20,20	0
56	MG	BA	3564	1/1	0.10	-	47,47,47,47	0
56	MG	AY	121	1/1	0.04	-	30,30,30,30	0
56	MG	CA	1965	1/1	0.05	-	54,54,54,54	0
56	MG	DA	3345	1/1	0.07	-	24,24,24,24	0
56	MG	AA	1657	1/1	0.07	-	37,37,37,37	0
56	MG	BA	3785	1/1	0.15	-	47,47,47,47	0
56	MG	B2	102	1/1	0.22	-	31,31,31,31	0
56	MG	CA	1780	1/1	0.09	-	15,15,15,15	0
56	MG	AA	1781	1/1	0.12	-	55,55,55,55	0
56	MG	CZ	114	1/1	0.09	-	46,46,46,46	0
56	MG	BA	3498	1/1	0.09	-	19,19,19,19	0
56	MG	BA	3249	1/1	0.20	-	41,41,41,41	0
56	MG	BA	3251	1/1	0.14	-	43,43,43,43	0
56	MG	BA	3111	1/1	0.16	-	10,10,10,10	0
56	MG	BA	3692	1/1	0.20	-	41,41,41,41	0
56	MG	DA	3595	1/1	0.07	-	17,17,17,17	0
56	MG	BA	3174	1/1	0.09	-	28,28,28,28	0
56	MG	AA	1632	1/1	0.06	-	5,5,5,5	0
56	MG	DA	3104	1/1	0.11	-	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3796	1/1	0.09	-	27,27,27,27	0
56	MG	DA	3619	1/1	0.09	-	23,23,23,23	0
56	MG	BA	3472	1/1	0.26	-	44,44,44,44	0
56	MG	CA	1827	1/1	0.14	-	48,48,48,48	0
56	MG	DA	3414	1/1	0.24	-	43,43,43,43	0
56	MG	DA	3187	1/1	0.08	-	14,14,14,14	0
56	MG	DB	220	1/1	0.07	-	23,23,23,23	0
56	MG	DA	3379	1/1	0.54	-	51,51,51,51	0
56	MG	BA	3547	1/1	0.06	-	26,26,26,26	0
56	MG	BA	3308	1/1	0.11	-	9,9,9,9	0
56	MG	BA	3078	1/1	0.07	-	22,22,22,22	0
56	MG	CA	1696	1/1	0.09	-	54,54,54,54	0
56	MG	CA	1903	1/1	0.23	-	31,31,31,31	0
56	MG	BA	3323	1/1	0.13	-	40,40,40,40	0
56	MG	BA	3440	1/1	0.24	-	15,15,15,15	0
56	MG	DA	3109	1/1	0.06	-	19,19,19,19	0
56	MG	CA	2001	1/1	0.14	-	36,36,36,36	0
56	MG	DA	3602	1/1	0.08	-	32,32,32,32	0
56	MG	BA	3661	1/1	0.14	-	67,67,67,67	0
56	MG	CX	406	1/1	0.51	-	71,71,71,71	0
56	MG	BA	3397	1/1	0.07	-	45,45,45,45	0
56	MG	BA	3800	1/1	0.42	-	32,32,32,32	0
56	MG	BA	3342	1/1	0.08	-	36,36,36,36	0
56	MG	CA	1887	1/1	0.20	-	40,40,40,40	0
56	MG	AA	1857	1/1	0.10	-	41,41,41,41	0
56	MG	CA	1842	1/1	0.07	-	36,36,36,36	0
56	MG	AA	1782	1/1	0.07	-	21,21,21,21	0
56	MG	CA	1926	1/1	0.11	-	61,61,61,61	0
56	MG	DA	3432	1/1	0.14	-	51,51,51,51	0
56	MG	BA	3672	1/1	0.10	-	45,45,45,45	0
56	MG	BA	3463	1/1	0.06	-	27,27,27,27	0
56	MG	CA	1777	1/1	0.05	-	34,34,34,34	0
56	MG	DA	3433	1/1	0.21	-	21,21,21,21	0
56	MG	CA	1774	1/1	0.06	-	31,31,31,31	0
56	MG	DA	3154	1/1	0.31	-	38,38,38,38	0
56	MG	BA	3465	1/1	0.50	-	37,37,37,37	0
56	MG	DA	3356	1/1	0.15	-	38,38,38,38	0
56	MG	BG	203	1/1	0.19	-	54,54,54,54	0
56	MG	BA	3106	1/1	0.07	-	26,26,26,26	0
56	MG	DA	3239	1/1	0.06	-	12,12,12,12	0
56	MG	BA	3358	1/1	0.08	-	44,44,44,44	0
56	MG	CA	2014	1/1	0.42	-	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3237	1/1	0.13	-	28,28,28,28	0
56	MG	CA	1919	1/1	0.34	-	64,64,64,64	0
56	MG	BA	3304	1/1	0.17	-	42,42,42,42	0
56	MG	BA	3772	1/1	0.22	-	57,57,57,57	0
56	MG	CA	1783	1/1	0.13	-	32,32,32,32	0
56	MG	CA	1875	1/1	0.19	-	19,19,19,19	0
56	MG	DA	3545	1/1	0.06	-	50,50,50,50	0
56	MG	DA	3502	1/1	0.04	-	13,13,13,13	0
56	MG	DA	3295	1/1	0.15	-	37,37,37,37	0
56	MG	BA	3168	1/1	0.06	-	4,4,4,4	0
56	MG	BB	213	1/1	0.09	-	35,35,35,35	0
56	MG	AA	1723	1/1	0.07	-	29,29,29,29	0
56	MG	BA	3536	1/1	0.07	-	34,34,34,34	0
56	MG	DA	3603	1/1	0.09	-	32,32,32,32	0
56	MG	CA	1960	1/1	0.13	-	26,26,26,26	0
56	MG	BA	3176	1/1	0.09	-	3,3,3,3	0
56	MG	DA	3157	1/1	0.09	-	30,30,30,30	0
56	MG	CA	1796	1/1	0.05	-	27,27,27,27	0
56	MG	DA	3240	1/1	0.06	-	21,21,21,21	0
56	MG	AA	1884	1/1	0.57	-	55,55,55,55	0
56	MG	DA	3378	1/1	0.14	-	17,17,17,17	0
56	MG	AA	1899	1/1	0.36	-	42,42,42,42	0
56	MG	BA	3802	1/1	0.19	-	54,54,54,54	0
56	MG	AA	1771	1/1	0.19	-	62,62,62,62	0
56	MG	AA	1639	1/1	0.08	-	25,25,25,25	0
56	MG	DA	3277	1/1	0.15	-	0,0,0,0	0
56	MG	DW	203	1/1	0.11	-	7,7,7,7	0
56	MG	BA	3541	1/1	0.12	-	1,1,1,1	0
56	MG	DA	3726	1/1	0.09	-	34,34,34,34	0
56	MG	AO	103	1/1	0.28	-	43,43,43,43	0
56	MG	BA	3379	1/1	0.07	-	25,25,25,25	0
56	MG	CA	1911	1/1	0.10	-	62,62,62,62	0
56	MG	BG	202	1/1	0.07	-	26,26,26,26	0
56	MG	BO	203	1/1	0.08	-	19,19,19,19	0
56	MG	CA	1680	1/1	0.17	-	37,37,37,37	0
56	MG	DA	3431	1/1	0.16	-	29,29,29,29	0
56	MG	DA	3560	1/1	0.07	-	8,8,8,8	0
56	MG	DA	3588	1/1	0.08	-	14,14,14,14	0
56	MG	BI	202	1/1	0.10	-	29,29,29,29	0
56	MG	BA	3580	1/1	0.12	-	19,19,19,19	0
56	MG	AA	1628	1/1	0.06	-	34,34,34,34	0
56	MG	BA	3675	1/1	0.08	-	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3506	1/1	0.07	-	10,10,10,10	0
56	MG	BA	3712	1/1	0.32	-	37,37,37,37	0
56	MG	CA	1884	1/1	0.07	-	39,39,39,39	0
56	MG	DA	3040	1/1	0.08	-	10,10,10,10	0
56	MG	CA	1726	1/1	0.05	-	32,32,32,32	0
56	MG	CA	1654	1/1	0.12	-	23,23,23,23	0
56	MG	BA	3592	1/1	0.15	-	58,58,58,58	0
56	MG	BA	3034	1/1	0.04	-	17,17,17,17	0
56	MG	CA	1923	1/1	0.07	-	28,28,28,28	0
56	MG	DA	3673	1/1	0.53	-	65,65,65,65	0
56	MG	DA	3538	1/1	0.09	-	34,34,34,34	0
56	MG	BB	207	1/1	0.04	-	28,28,28,28	0
56	MG	BB	214	1/1	0.05	-	29,29,29,29	0
56	MG	DA	3584	1/1	0.07	-	35,35,35,35	0
56	MG	DA	3179	1/1	0.07	-	50,50,50,50	0
56	MG	CY	120	1/1	0.13	-	29,29,29,29	0
56	MG	DA	3253	1/1	0.35	-	48,48,48,48	0
56	MG	BA	3375	1/1	0.12	-	14,14,14,14	0
56	MG	BA	3530	1/1	0.10	-	35,35,35,35	0
56	MG	AA	1720	1/1	0.10	-	33,33,33,33	0
56	MG	BA	3079	1/1	0.21	-	29,29,29,29	0
56	MG	AA	1779	1/1	0.24	-	51,51,51,51	0
56	MG	DA	3708	1/1	0.30	-	60,60,60,60	0
56	MG	CA	1976	1/1	0.16	-	32,32,32,32	0
56	MG	BA	3135	1/1	0.06	-	13,13,13,13	0
56	MG	DA	3393	1/1	0.16	-	37,37,37,37	0
56	MG	DA	3120	1/1	0.20	-	23,23,23,23	0
56	MG	BD	301	1/1	0.05	-	2,2,2,2	0
56	MG	CA	1800	1/1	0.24	-	30,30,30,30	0
56	MG	DA	3734	1/1	0.06	-	60,60,60,60	0
56	MG	AA	1716	1/1	0.07	-	35,35,35,35	0
56	MG	BA	3780	1/1	0.13	-	56,56,56,56	0
56	MG	CC	306	1/1	0.40	-	52,52,52,52	0
56	MG	DA	3324	1/1	0.14	-	11,11,11,11	0
56	MG	CA	1775	1/1	0.14	-	30,30,30,30	0
56	MG	AA	1753	1/1	0.24	-	31,31,31,31	0
56	MG	BA	3583	1/1	0.07	-	24,24,24,24	0
56	MG	BA	3741	1/1	0.08	-	28,28,28,28	0
56	MG	BA	3673	1/1	0.26	-	46,46,46,46	0
56	MG	AA	1769	1/1	0.06	-	47,47,47,47	0
56	MG	BA	3578	1/1	0.10	-	19,19,19,19	0
56	MG	BA	3095	1/1	0.12	-	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3735	1/1	0.08	-	29,29,29,29	0
56	MG	AA	1889	1/1	0.08	-	20,20,20,20	0
56	MG	BA	3012	1/1	0.09	-	36,36,36,36	0
56	MG	CA	1720	1/1	0.07	-	51,51,51,51	0
56	MG	CP	101	1/1	0.26	-	57,57,57,57	0
56	MG	BA	3028	1/1	0.18	-	10,10,10,10	0
56	MG	BA	3609	1/1	0.15	-	10,10,10,10	0
56	MG	DA	3214	1/1	0.10	-	46,46,46,46	0
56	MG	BA	3326	1/1	0.13	-	46,46,46,46	0
56	MG	AA	1850	1/1	0.20	-	23,23,23,23	0
56	MG	AA	1815	1/1	0.23	-	24,24,24,24	0
56	MG	DB	218	1/1	0.10	-	46,46,46,46	0
56	MG	DD	301	1/1	0.06	-	0,0,0,0	0
56	MG	BH	201	1/1	0.05	-	15,15,15,15	0
56	MG	CX	407	1/1	0.35	-	70,70,70,70	0
56	MG	CA	1755	1/1	0.05	-	31,31,31,31	0
56	MG	BA	3061	1/1	0.06	-	26,26,26,26	0
56	MG	BA	3462	1/1	0.12	-	39,39,39,39	0
56	MG	BA	3054	1/1	0.06	-	6,6,6,6	0
56	MG	CA	1706	1/1	0.09	-	16,16,16,16	0
56	MG	DA	3190	1/1	0.23	-	32,32,32,32	0
56	MG	CA	1904	1/1	0.08	-	42,42,42,42	0
56	MG	BA	3572	1/1	0.19	-	72,72,72,72	0
56	MG	BB	220	1/1	0.12	-	60,60,60,60	0
56	MG	AA	1650	1/1	0.17	-	50,50,50,50	0
56	MG	CA	1748	1/1	0.16	-	60,60,60,60	0
56	MG	DA	3648	1/1	0.06	-	42,42,42,42	0
56	MG	DA	3272	1/1	0.10	-	0,0,0,0	0
56	MG	AA	1903	1/1	0.15	-	39,39,39,39	0
56	MG	BA	3617	1/1	0.07	-	32,32,32,32	0
56	MG	BA	3400	1/1	0.30	-	35,35,35,35	0
56	MG	DA	3601	1/1	0.10	-	45,45,45,45	0
56	MG	CA	1601	1/1	0.07	-	54,54,54,54	0
56	MG	DA	3640	1/1	0.04	-	40,40,40,40	0
56	MG	DA	3296	1/1	0.07	-	4,4,4,4	0
56	MG	BA	3656	1/1	0.42	-	52,52,52,52	0
56	MG	DA	3076	1/1	0.09	-	51,51,51,51	0
56	MG	AA	1758	1/1	0.10	-	47,47,47,47	0
56	MG	BA	3743	1/1	0.10	-	34,34,34,34	0
56	MG	CA	1758	1/1	0.05	-	37,37,37,37	0
56	MG	CA	1953	1/1	0.06	-	18,18,18,18	0
56	MG	DA	3149	1/1	0.24	-	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AX	404	1/1	0.12	-	68,68,68,68	0
56	MG	BA	3090	1/1	0.05	-	56,56,56,56	0
56	MG	DA	3009	1/1	0.04	-	8,8,8,8	0
56	MG	AA	1820	1/1	0.05	-	23,23,23,23	0
56	MG	AA	1746	1/1	0.19	-	14,14,14,14	0
56	MG	BA	3387	1/1	0.27	-	49,49,49,49	0
56	MG	CZ	108	1/1	0.08	-	49,49,49,49	0
56	MG	DA	3337	1/1	0.04	-	23,23,23,23	0
56	MG	BA	3322	1/1	0.09	-	33,33,33,33	0
56	MG	DA	3639	1/1	0.13	-	13,13,13,13	0
56	MG	CA	1828	1/1	0.08	-	2,2,2,2	0
56	MG	DA	3699	1/1	0.20	-	38,38,38,38	0
56	MG	AA	1776	1/1	0.04	-	11,11,11,11	0
56	MG	BB	223	1/1	0.04	-	52,52,52,52	0
56	MG	DP	203	1/1	0.09	-	43,43,43,43	0
56	MG	BA	3129	1/1	0.15	-	34,34,34,34	0
56	MG	AA	1612	1/1	0.10	-	14,14,14,14	0
56	MG	BA	3306	1/1	0.05	-	36,36,36,36	0
56	MG	BA	3697	1/1	0.14	-	40,40,40,40	0
56	MG	DB	209	1/1	0.05	-	43,43,43,43	0
56	MG	BA	3778	1/1	0.10	-	33,33,33,33	0
56	MG	DA	3677	1/1	0.30	-	27,27,27,27	0
56	MG	CA	1729	1/1	0.18	-	15,15,15,15	0
56	MG	BA	3521	1/1	0.07	-	21,21,21,21	0
56	MG	CA	1958	1/1	0.14	-	51,51,51,51	0
56	MG	BA	3545	1/1	0.07	-	25,25,25,25	0
56	MG	CA	1941	1/1	0.20	-	34,34,34,34	0
56	MG	DA	3365	1/1	0.11	-	8,8,8,8	0
56	MG	DA	3730	1/1	0.09	-	33,33,33,33	0
56	MG	AA	1763	1/1	0.09	-	30,30,30,30	0
56	MG	BA	3245	1/1	0.10	-	29,29,29,29	0
56	MG	CA	1630	1/1	0.05	-	36,36,36,36	0
56	MG	DA	3261	1/1	0.06	-	33,33,33,33	0
56	MG	CA	1981	1/1	0.14	-	77,77,77,77	0
56	MG	DA	3517	1/1	0.07	-	48,48,48,48	0
56	MG	CA	1861	1/1	0.07	-	64,64,64,64	0
56	MG	DA	3058	1/1	0.07	-	15,15,15,15	0
56	MG	CA	1951	1/1	0.06	-	42,42,42,42	0
56	MG	AA	1630	1/1	0.08	-	58,58,58,58	0
56	MG	BA	3717	1/1	0.08	-	40,40,40,40	0
56	MG	CA	1607	1/1	0.08	-	38,38,38,38	0
56	MG	AA	1767	1/1	0.15	-	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3299	1/1	0.07	-	1,1,1,1	0
56	MG	DA	3420	1/1	0.38	-	45,45,45,45	0
56	MG	AA	1747	1/1	0.12	-	40,40,40,40	0
56	MG	DA	3659	1/1	0.58	-	66,66,66,66	0
56	MG	AA	1901	1/1	0.13	-	43,43,43,43	0
56	MG	DA	3177	1/1	0.22	-	3,3,3,3	0
56	MG	CA	1835	1/1	0.12	-	46,46,46,46	0
56	MG	BA	3738	1/1	0.20	-	44,44,44,44	0
56	MG	BA	3215	1/1	0.09	-	28,28,28,28	0
56	MG	DA	3182	1/1	0.11	-	23,23,23,23	0
56	MG	BA	3112	1/1	0.06	-	26,26,26,26	0
56	MG	BI	201	1/1	0.20	-	29,29,29,29	0
56	MG	DA	3477	1/1	0.08	-	32,32,32,32	0
56	MG	DA	3626	1/1	0.07	-	46,46,46,46	0
56	MG	CA	1927	1/1	0.18	-	37,37,37,37	0
56	MG	AA	1823	1/1	0.17	-	32,32,32,32	0
56	MG	DA	3231	1/1	0.06	-	3,3,3,3	0
56	MG	DA	3382	1/1	0.05	-	39,39,39,39	0
56	MG	BA	3787	1/1	0.07	-	11,11,11,11	0
56	MG	DA	3147	1/1	0.05	-	18,18,18,18	0
56	MG	AA	1710	1/1	0.04	-	1,1,1,1	0
56	MG	BA	3460	1/1	0.10	-	10,10,10,10	0
56	MG	DA	3197	1/1	0.09	-	31,31,31,31	0
56	MG	BA	3359	1/1	0.14	-	21,21,21,21	0
56	MG	BA	3385	1/1	0.08	-	18,18,18,18	0
56	MG	BA	3203	1/1	0.19	-	27,27,27,27	0
56	MG	DA	3334	1/1	0.08	-	8,8,8,8	0
56	MG	AY	120	1/1	0.10	-	47,47,47,47	0
56	MG	DA	3753	1/1	0.28	-	32,32,32,32	0
56	MG	DA	3166	1/1	0.12	-	44,44,44,44	0
56	MG	AA	1897	1/1	0.07	-	13,13,13,13	0
56	MG	DA	3575	1/1	0.15	-	53,53,53,53	0
56	MG	CA	1776	1/1	0.06	-	17,17,17,17	0
56	MG	BA	3510	1/1	0.13	-	39,39,39,39	0
56	MG	BA	3292	1/1	0.12	-	10,10,10,10	0
56	MG	DA	3315	1/1	0.10	-	39,39,39,39	0
56	MG	BA	3099	1/1	0.03	-	1,1,1,1	0
56	MG	CA	1694	1/1	0.10	-	39,39,39,39	0
56	MG	AZ	104	1/1	0.05	-	45,45,45,45	0
56	MG	BA	3744	1/1	0.21	-	21,21,21,21	0
56	MG	DA	3016	1/1	0.12	-	3,3,3,3	0
56	MG	BA	3424	1/1	0.06	-	17,17,17,17	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3382	1/1	0.16	-	33,33,33,33	0
56	MG	DA	3676	1/1	0.20	-	25,25,25,25	0
56	MG	CA	1813	1/1	0.09	-	41,41,41,41	0
56	MG	BA	3622	1/1	0.05	-	32,32,32,32	0
56	MG	BA	3051	1/1	0.14	-	16,16,16,16	0
56	MG	BA	3444	1/1	0.08	-	33,33,33,33	0
56	MG	CA	1890	1/1	0.05	-	37,37,37,37	0
56	MG	BA	3767	1/1	0.06	-	20,20,20,20	0
56	MG	DH	202	1/1	0.20	-	64,64,64,64	0
56	MG	CA	1620	1/1	0.14	-	38,38,38,38	0
56	MG	BA	3037	1/1	0.10	-	8,8,8,8	0
56	MG	DB	219	1/1	0.10	-	55,55,55,55	0
56	MG	DA	3259	1/1	0.15	-	24,24,24,24	0
56	MG	AA	1627	1/1	0.05	-	29,29,29,29	0
56	MG	DA	3043	1/1	0.06	-	25,25,25,25	0
56	MG	BA	3669	1/1	0.26	-	33,33,33,33	0
56	MG	BA	3518	1/1	0.06	-	9,9,9,9	0
56	MG	AA	1754	1/1	0.07	-	21,21,21,21	0
56	MG	BA	3257	1/1	0.07	-	18,18,18,18	0
56	MG	DA	3300	1/1	0.06	-	16,16,16,16	0
56	MG	AD	303	1/1	0.06	-	17,17,17,17	0
56	MG	DB	210	1/1	0.10	-	44,44,44,44	0
56	MG	BA	3525	1/1	0.03	-	8,8,8,8	0
56	MG	DA	3482	1/1	0.18	-	42,42,42,42	0
56	MG	DA	3758	1/1	0.33	-	63,63,63,63	0
56	MG	DA	3658	1/1	0.43	-	61,61,61,61	0
56	MG	CA	1785	1/1	0.07	-	9,9,9,9	0
56	MG	DA	3582	1/1	0.10	-	27,27,27,27	0
56	MG	BA	3331	1/1	0.05	-	10,10,10,10	0
56	MG	BA	3398	1/1	0.12	-	16,16,16,16	0
56	MG	CA	1817	1/1	0.10	-	19,19,19,19	0
56	MG	DA	3395	1/1	0.18	-	34,34,34,34	0
56	MG	DA	3705	1/1	0.21	-	39,39,39,39	0
56	MG	DA	3467	1/1	0.30	-	58,58,58,58	0
56	MG	DA	3466	1/1	0.18	-	47,47,47,47	0
56	MG	BA	3534	1/1	0.11	-	24,24,24,24	0
56	MG	CA	1604	1/1	0.07	-	37,37,37,37	0
56	MG	DA	3598	1/1	0.05	-	9,9,9,9	0
56	MG	DA	3373	1/1	0.06	-	41,41,41,41	0
56	MG	BA	3556	1/1	0.08	-	7,7,7,7	0
56	MG	DA	3398	1/1	0.14	-	26,26,26,26	0
56	MG	BE	301	1/1	0.24	-	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CZ	119	1/1	0.09	-	55,55,55,55	0
56	MG	DA	3287	1/1	0.12	-	62,62,62,62	0
56	MG	DA	3664	1/1	0.22	-	39,39,39,39	0
56	MG	BA	3573	1/1	0.10	-	30,30,30,30	0
56	MG	DA	3741	1/1	0.17	-	25,25,25,25	0
56	MG	CA	1984	1/1	0.10	-	54,54,54,54	0
56	MG	BJ	201	1/1	0.15	-	59,59,59,59	0
56	MG	BA	3603	1/1	0.09	-	26,26,26,26	0
56	MG	DA	3062	1/1	0.06	-	31,31,31,31	0
56	MG	DA	3516	1/1	0.17	-	62,62,62,62	0
56	MG	AA	1783	1/1	0.24	-	50,50,50,50	0
56	MG	AA	1883	1/1	0.18	-	21,21,21,21	0
56	MG	DA	3225	1/1	0.07	-	27,27,27,27	0
56	MG	DA	3360	1/1	0.13	-	29,29,29,29	0
56	MG	BA	3492	1/1	0.12	-	47,47,47,47	0
56	MG	BA	3223	1/1	0.10	-	9,9,9,9	0
56	MG	AA	1670	1/1	0.04	-	22,22,22,22	0
56	MG	BA	3167	1/1	0.11	-	34,34,34,34	0
56	MG	CA	1653	1/1	0.14	-	49,49,49,49	0
56	MG	CA	1657	1/1	0.06	-	42,42,42,42	0
56	MG	DA	3322	1/1	0.23	-	46,46,46,46	0
56	MG	DA	3555	1/1	0.10	-	24,24,24,24	0
56	MG	BA	3089	1/1	0.10	-	17,17,17,17	0
56	MG	AZ	101	1/1	0.13	-	42,42,42,42	0
56	MG	CV	101	1/1	0.04	-	37,37,37,37	0
56	MG	BA	3287	1/1	0.06	-	27,27,27,27	0
56	MG	CZ	102	1/1	0.09	-	67,67,67,67	0
56	MG	BA	3415	1/1	0.14	-	52,52,52,52	0
56	MG	CA	1644	1/1	0.06	-	6,6,6,6	0
56	MG	CA	1667	1/1	0.05	-	21,21,21,21	0
56	MG	DA	3702	1/1	0.12	-	42,42,42,42	0
56	MG	CA	1769	1/1	0.11	-	56,56,56,56	0
56	MG	BA	3515	1/1	0.10	-	9,9,9,9	0
56	MG	CA	1922	1/1	0.09	-	33,33,33,33	0
56	MG	BA	3036	1/1	0.11	-	32,32,32,32	0
56	MG	DA	3485	1/1	0.23	-	10,10,10,10	0
56	MG	CA	1942	1/1	0.21	-	41,41,41,41	0
56	MG	AA	1660	1/1	0.06	-	19,19,19,19	0
56	MG	DA	3518	1/1	0.07	-	13,13,13,13	0
56	MG	AA	1851	1/1	0.10	-	50,50,50,50	0
56	MG	BA	3446	1/1	0.10	-	39,39,39,39	0
56	MG	BA	3430	1/1	0.17	-	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1856	1/1	0.49	-	78,78,78,78	0
56	MG	DA	3453	1/1	0.08	-	23,23,23,23	0
56	MG	CA	1727	1/1	0.07	-	55,55,55,55	0
56	MG	BA	3075	1/1	0.15	-	11,11,11,11	0
56	MG	DA	3551	1/1	0.09	-	17,17,17,17	0
56	MG	DA	3346	1/1	0.06	-	3,3,3,3	0
56	MG	CC	304	1/1	0.59	-	93,93,93,93	0
56	MG	BA	3098	1/1	0.05	-	28,28,28,28	0
56	MG	DA	3691	1/1	0.14	-	50,50,50,50	0
56	MG	BA	3347	1/1	0.18	-	19,19,19,19	0
56	MG	BA	3026	1/1	0.08	-	0,0,0,0	0
56	MG	BA	3535	1/1	0.10	-	43,43,43,43	0
56	MG	AY	125	1/1	0.10	-	51,51,51,51	0
56	MG	AA	1603	1/1	0.10	-	30,30,30,30	0
56	MG	BA	3238	1/1	0.08	-	14,14,14,14	0
56	MG	AA	1610	1/1	0.25	-	23,23,23,23	0
56	MG	DA	3540	1/1	0.19	-	0,0,0,0	0
56	MG	DA	3124	1/1	0.06	-	27,27,27,27	0
56	MG	CA	2010	1/1	0.17	-	35,35,35,35	0
56	MG	AA	1649	1/1	0.09	-	41,41,41,41	0
56	MG	CA	2008	1/1	0.55	-	53,53,53,53	0
56	MG	AD	306	1/1	0.05	-	38,38,38,38	0
56	MG	AA	1772	1/1	0.07	-	17,17,17,17	0
56	MG	BA	3561	1/1	0.05	-	30,30,30,30	0
56	MG	DA	3030	1/1	0.06	-	17,17,17,17	0
56	MG	AA	1693	1/1	0.13	-	45,45,45,45	0
56	MG	AA	1879	1/1	0.10	-	58,58,58,58	0
56	MG	DA	3271	1/1	0.12	-	17,17,17,17	0
56	MG	BA	3751	1/1	0.15	-	53,53,53,53	0
56	MG	BA	3280	1/1	0.11	-	26,26,26,26	0
56	MG	BA	3450	1/1	0.06	-	43,43,43,43	0
56	MG	AA	1756	1/1	0.13	-	38,38,38,38	0
56	MG	DP	202	1/1	0.16	-	44,44,44,44	0
56	MG	DA	3669	1/1	0.11	-	7,7,7,7	0
56	MG	BA	3651	1/1	0.12	-	34,34,34,34	0
56	MG	DA	3568	1/1	0.11	-	44,44,44,44	0
56	MG	DB	221	1/1	0.07	-	49,49,49,49	0
56	MG	BA	3274	1/1	0.06	-	6,6,6,6	0
56	MG	BA	3268	1/1	0.08	-	6,6,6,6	0
56	MG	AY	117	1/1	0.08	-	32,32,32,32	0
56	MG	AO	102	1/1	0.18	-	36,36,36,36	0
56	MG	DA	3192	1/1	0.10	-	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3025	1/1	0.19	-	24,24,24,24	0
56	MG	CA	1967	1/1	0.17	-	60,60,60,60	0
56	MG	DW	201	1/1	0.13	-	54,54,54,54	0
56	MG	BA	3103	1/1	0.13	-	35,35,35,35	0
56	MG	BA	3563	1/1	0.15	-	55,55,55,55	0
56	MG	AA	1622	1/1	0.10	-	24,24,24,24	0
56	MG	DB	228	1/1	0.09	-	46,46,46,46	0
56	MG	BA	3481	1/1	0.36	-	45,45,45,45	0
56	MG	DA	3228	1/1	0.08	-	12,12,12,12	0
56	MG	DA	3599	1/1	0.07	-	39,39,39,39	0
56	MG	BA	3252	1/1	0.22	-	7,7,7,7	0
56	MG	BA	3178	1/1	0.08	-	39,39,39,39	0
56	MG	AY	103	1/1	0.12	-	53,53,53,53	0
56	MG	DA	3088	1/1	0.08	-	19,19,19,19	0
56	MG	CA	1949	1/1	0.06	-	37,37,37,37	0
56	MG	DA	3280	1/1	0.05	-	3,3,3,3	0
56	MG	AA	1814	1/1	0.09	-	17,17,17,17	0
56	MG	DA	3007	1/1	0.12	-	24,24,24,24	0
56	MG	BA	3620	1/1	0.17	-	49,49,49,49	0
56	MG	DA	3563	1/1	0.06	-	8,8,8,8	0
56	MG	CA	1851	1/1	0.05	-	34,34,34,34	0
56	MG	AA	1744	1/1	0.04	-	30,30,30,30	0
56	MG	AA	1662	1/1	0.10	-	48,48,48,48	0
56	MG	DA	3174	1/1	0.14	-	33,33,33,33	0
56	MG	CA	1754	1/1	0.18	-	59,59,59,59	0
56	MG	BA	3110	1/1	0.24	-	35,35,35,35	0
56	MG	AZ	103	1/1	0.06	-	34,34,34,34	0
56	MG	CY	119	1/1	0.15	-	35,35,35,35	0
56	MG	CA	1736	1/1	0.08	-	52,52,52,52	0
56	MG	BA	3230	1/1	0.07	-	0,0,0,0	0
56	MG	BA	3405	1/1	0.07	-	20,20,20,20	0
56	MG	BA	3793	1/1	0.05	-	31,31,31,31	0
56	MG	DA	3503	1/1	0.09	-	24,24,24,24	0
56	MG	BA	3007	1/1	0.10	-	34,34,34,34	0
56	MG	BA	3286	1/1	0.11	-	1,1,1,1	0
56	MG	BA	3373	1/1	0.07	-	24,24,24,24	0
56	MG	AA	1881	1/1	0.14	-	76,76,76,76	0
56	MG	AA	1611	1/1	0.05	-	6,6,6,6	0
56	MG	DA	3556	1/1	0.10	-	20,20,20,20	0
56	MG	DA	3697	1/1	0.12	-	36,36,36,36	0
56	MG	DA	3366	1/1	0.11	-	21,21,21,21	0
56	MG	AB	302	1/1	0.08	-	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3408	1/1	0.11	-	31,31,31,31	0
56	MG	DA	3571	1/1	0.12	-	26,26,26,26	0
56	MG	DB	208	1/1	0.05	-	39,39,39,39	0
56	MG	AA	1801	1/1	0.04	-	21,21,21,21	0
56	MG	CA	1632	1/1	0.06	-	24,24,24,24	0
56	MG	BA	3132	1/1	0.08	-	21,21,21,21	0
56	MG	AA	1806	1/1	0.28	-	34,34,34,34	0
56	MG	CA	1782	1/1	0.04	-	19,19,19,19	0
56	MG	DA	3592	1/1	0.24	-	47,47,47,47	0
56	MG	BA	3685	1/1	0.27	-	37,37,37,37	0
56	MG	DA	3755	1/1	0.21	-	39,39,39,39	0
56	MG	DA	3235	1/1	0.06	-	0,0,0,0	0
56	MG	BA	3597	1/1	0.41	-	40,40,40,40	0
56	MG	DA	3434	1/1	0.10	-	29,29,29,29	0
56	MG	BA	3544	1/1	0.21	-	38,38,38,38	0
56	MG	AA	1686	1/1	0.09	-	37,37,37,37	0
56	MG	AD	309	1/1	0.18	-	36,36,36,36	0
56	MG	AA	1790	1/1	0.22	-	32,32,32,32	0
56	MG	AA	1775	1/1	0.17	-	74,74,74,74	0
56	MG	BA	3500	1/1	0.05	-	16,16,16,16	0
56	MG	BA	3591	1/1	0.28	-	50,50,50,50	0
56	MG	DA	3130	1/1	0.06	-	20,20,20,20	0
56	MG	DA	3115	1/1	0.20	-	5,5,5,5	0
56	MG	BA	3473	1/1	0.05	-	35,35,35,35	0
56	MG	CA	1878	1/1	0.10	-	31,31,31,31	0
56	MG	AD	308	1/1	0.04	-	42,42,42,42	0
56	MG	DA	3549	1/1	0.08	-	13,13,13,13	0
56	MG	CA	1791	1/1	0.10	-	43,43,43,43	0
56	MG	CA	1857	1/1	0.16	-	33,33,33,33	0
56	MG	DA	3211	1/1	0.08	-	23,23,23,23	0
56	MG	BA	3116	1/1	0.04	-	68,68,68,68	0
56	MG	BA	3265	1/1	0.09	-	0,0,0,0	0
56	MG	AY	110	1/1	0.14	-	53,53,53,53	0
56	MG	AZ	105	1/1	0.09	-	44,44,44,44	0
56	MG	CA	1968	1/1	0.21	-	25,25,25,25	0
56	MG	CA	1850	1/1	0.07	-	20,20,20,20	0
56	MG	BA	3533	1/1	0.10	-	37,37,37,37	0
56	MG	DA	3083	1/1	0.16	-	24,24,24,24	0
56	MG	DP	201	1/1	0.07	-	45,45,45,45	0
56	MG	BB	222	1/1	0.12	-	39,39,39,39	0
56	MG	CA	1740	1/1	0.10	-	8,8,8,8	0
56	MG	DA	3106	1/1	0.10	-	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3303	1/1	0.06	-	12,12,12,12	0
56	MG	BA	3328	1/1	0.04	-	2,2,2,2	0
56	MG	DA	3347	1/1	0.12	-	10,10,10,10	0
56	MG	DA	3657	1/1	0.20	-	38,38,38,38	0
56	MG	DA	3026	1/1	0.05	-	16,16,16,16	0
56	MG	BA	3001	1/1	0.07	-	26,26,26,26	0
56	MG	CA	1888	1/1	0.08	-	51,51,51,51	0
56	MG	CA	1938	1/1	0.19	-	48,48,48,48	0
56	MG	BA	3721	1/1	0.09	-	34,34,34,34	0
56	MG	BA	3369	1/1	0.13	-	48,48,48,48	0
56	MG	BA	3562	1/1	0.08	-	29,29,29,29	0
56	MG	BA	3067	1/1	0.07	-	27,27,27,27	0
56	MG	D4	101	1/1	0.03	-	23,23,23,23	0
56	MG	AA	1858	1/1	0.06	-	15,15,15,15	0
56	MG	BR	202	1/1	0.66	-	61,61,61,61	0
56	MG	AA	1667	1/1	0.19	-	38,38,38,38	0
56	MG	BA	3455	1/1	0.23	-	46,46,46,46	0
56	MG	BA	3045	1/1	0.10	-	40,40,40,40	0
56	MG	BA	3507	1/1	0.10	-	29,29,29,29	0
56	MG	CA	1605	1/1	0.13	-	27,27,27,27	0
56	MG	BA	3475	1/1	0.15	-	15,15,15,15	0
56	MG	DA	3444	1/1	0.18	-	11,11,11,11	0
56	MG	BA	3035	1/1	0.07	-	38,38,38,38	0
56	MG	AY	107	1/1	0.07	-	18,18,18,18	0
56	MG	BA	3414	1/1	0.11	-	24,24,24,24	0
56	MG	BA	3177	1/1	0.07	-	0,0,0,0	0
56	MG	DA	3475	1/1	0.10	-	34,34,34,34	0
56	MG	AA	1829	1/1	0.31	-	68,68,68,68	0
56	MG	BA	3179	1/1	0.09	-	26,26,26,26	0
56	MG	CA	1974	1/1	0.17	-	54,54,54,54	0
56	MG	DA	3170	1/1	0.08	-	8,8,8,8	0
56	MG	CH	201	1/1	0.37	-	51,51,51,51	0
56	MG	DA	3613	1/1	0.14	-	26,26,26,26	0
56	MG	CA	1963	1/1	0.28	-	35,35,35,35	0
56	MG	AA	1728	1/1	0.07	-	14,14,14,14	0
56	MG	DA	3389	1/1	0.12	-	55,55,55,55	0
56	MG	CA	1681	1/1	0.13	-	43,43,43,43	0
56	MG	CV	103	1/1	0.19	-	29,29,29,29	0
56	MG	CA	1786	1/1	0.17	-	19,19,19,19	0
56	MG	DA	3471	1/1	0.08	-	18,18,18,18	0
56	MG	DA	3153	1/1	0.08	-	10,10,10,10	0
56	MG	DA	3250	1/1	0.14	-	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3392	1/1	0.10	-	4,4,4,4	0
56	MG	BA	3467	1/1	0.17	-	35,35,35,35	0
56	MG	DA	3643	1/1	0.04	-	28,28,28,28	0
56	MG	DA	3678	1/1	0.09	-	20,20,20,20	0
56	MG	DA	3205	1/1	0.15	-	24,24,24,24	0
56	MG	DA	3074	1/1	0.09	-	19,19,19,19	0
56	MG	BA	3273	1/1	0.13	-	17,17,17,17	0
56	MG	DI	202	1/1	0.05	-	18,18,18,18	0
56	MG	CA	1677	1/1	0.09	-	27,27,27,27	0
56	MG	CA	1743	1/1	0.20	-	30,30,30,30	0
56	MG	CA	1772	1/1	0.18	-	40,40,40,40	0
56	MG	BA	3699	1/1	0.38	-	35,35,35,35	0
56	MG	BA	3143	1/1	0.08	-	40,40,40,40	0
56	MG	BA	3220	1/1	0.18	-	55,55,55,55	0
56	MG	BA	3723	1/1	0.30	-	18,18,18,18	0
56	MG	DA	3060	1/1	0.08	-	19,19,19,19	0
56	MG	DA	3573	1/1	0.11	-	25,25,25,25	0
56	MG	DA	3628	1/1	0.16	-	38,38,38,38	0
56	MG	BA	3010	1/1	0.12	-	2,2,2,2	0
56	MG	CZ	112	1/1	0.07	-	36,36,36,36	0
56	MG	CA	1877	1/1	0.28	-	60,60,60,60	0
56	MG	BA	3114	1/1	0.29	-	47,47,47,47	0
56	MG	BA	3050	1/1	0.11	-	4,4,4,4	0
56	MG	CA	1898	1/1	0.09	-	14,14,14,14	0
56	MG	BA	3633	1/1	0.13	-	20,20,20,20	0
56	MG	CA	1663	1/1	0.06	-	8,8,8,8	0
56	MG	BA	3806	1/1	0.18	-	54,54,54,54	0
56	MG	B7	102	1/1	0.05	-	13,13,13,13	0
56	MG	BA	3352	1/1	0.18	-	36,36,36,36	0
56	MG	BU	201	1/1	0.24	-	35,35,35,35	0
57	ZN	CN	101	1/1	0.04	-	82,82,82,82	0
56	MG	BA	3642	1/1	0.23	-	68,68,68,68	0
56	MG	AA	1777	1/1	0.23	-	36,36,36,36	0
56	MG	DA	3247	1/1	0.05	-	21,21,21,21	0
56	MG	BT	202	1/1	0.14	-	42,42,42,42	0
56	MG	DA	3754	1/1	0.14	-	59,59,59,59	0
56	MG	CA	1812	1/1	0.10	-	51,51,51,51	0
56	MG	DA	3649	1/1	0.07	-	19,19,19,19	0
56	MG	AA	1721	1/1	0.03	-	0,0,0,0	0
56	MG	BA	3196	1/1	0.09	-	44,44,44,44	0
56	MG	BG	201	1/1	0.10	-	47,47,47,47	0
56	MG	BA	3647	1/1	0.31	-	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1864	1/1	0.11	-	40,40,40,40	0
56	MG	BA	3470	1/1	0.14	-	51,51,51,51	0
56	MG	CA	1907	1/1	0.10	-	31,31,31,31	0
56	MG	BA	3759	1/1	0.22	-	41,41,41,41	0
56	MG	AA	1665	1/1	0.05	-	6,6,6,6	0
56	MG	DA	3439	1/1	0.25	-	17,17,17,17	0
56	MG	BA	3006	1/1	0.06	-	9,9,9,9	0
56	MG	CI	201	1/1	0.09	-	45,45,45,45	0
56	MG	BA	3131	1/1	0.06	-	30,30,30,30	0
56	MG	BA	3124	1/1	0.10	-	33,33,33,33	0
56	MG	D5	101	1/1	0.07	-	2,2,2,2	0
56	MG	DA	3416	1/1	0.10	-	26,26,26,26	0
56	MG	AA	1766	1/1	0.16	-	18,18,18,18	0
56	MG	CA	1905	1/1	0.32	-	64,64,64,64	0
56	MG	BA	3303	1/1	0.06	-	22,22,22,22	0
56	MG	CA	1638	1/1	0.16	-	26,26,26,26	0
56	MG	BA	3569	1/1	0.05	-	0,0,0,0	0
56	MG	DA	3210	1/1	0.04	-	27,27,27,27	0
56	MG	BA	3039	1/1	0.13	-	33,33,33,33	0
56	MG	BA	3183	1/1	0.04	-	15,15,15,15	0
56	MG	DA	3557	1/1	0.08	-	13,13,13,13	0
56	MG	CA	1626	1/1	0.10	-	52,52,52,52	0
56	MG	BA	3130	1/1	0.12	-	36,36,36,36	0
56	MG	DA	3692	1/1	0.22	-	46,46,46,46	0
56	MG	DA	3224	1/1	0.04	-	9,9,9,9	0
56	MG	D4	102	1/1	0.24	-	40,40,40,40	0
56	MG	BA	3635	1/1	0.21	-	32,32,32,32	0
56	MG	DA	3044	1/1	0.17	-	5,5,5,5	0
56	MG	BA	3570	1/1	0.15	-	21,21,21,21	0
56	MG	AL	201	1/1	0.07	-	29,29,29,29	0
56	MG	DA	3567	1/1	0.14	-	74,74,74,74	0
56	MG	DA	3306	1/1	0.07	-	15,15,15,15	0
56	MG	BA	3272	1/1	0.06	-	15,15,15,15	0
56	MG	BA	3371	1/1	0.20	-	29,29,29,29	0
56	MG	BA	3774	1/1	0.10	-	44,44,44,44	0
56	MG	BA	3403	1/1	0.14	-	41,41,41,41	0
56	MG	BA	3614	1/1	0.04	-	32,32,32,32	0
56	MG	DA	3152	1/1	0.09	-	28,28,28,28	0
56	MG	BA	3782	1/1	0.06	-	19,19,19,19	0
56	MG	DA	3391	1/1	0.12	-	17,17,17,17	0
56	MG	AA	1821	1/1	0.13	-	27,27,27,27	0
56	MG	DA	3390	1/1	0.18	-	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3468	1/1	0.07	-	30,30,30,30	0
56	MG	AY	102	1/1	0.09	-	32,32,32,32	0
56	MG	CA	1660	1/1	0.07	-	10,10,10,10	0
56	MG	BQ	203	1/1	0.26	-	43,43,43,43	0
56	MG	CA	1821	1/1	0.11	-	22,22,22,22	0
56	MG	DA	3607	1/1	0.13	-	44,44,44,44	0
56	MG	CA	1702	1/1	0.13	-	56,56,56,56	0
56	MG	BA	3271	1/1	0.04	-	0,0,0,0	0
56	MG	CA	1891	1/1	0.06	-	30,30,30,30	0
56	MG	BA	3625	1/1	0.05	-	25,25,25,25	0
56	MG	DB	203	1/1	0.04	-	21,21,21,21	0
56	MG	BA	3555	1/1	0.11	-	54,54,54,54	0
56	MG	DA	3569	1/1	0.17	-	39,39,39,39	0
56	MG	BA	3421	1/1	0.17	-	45,45,45,45	0
56	MG	DA	3374	1/1	0.11	-	24,24,24,24	0
56	MG	CA	1810	1/1	0.08	-	28,28,28,28	0
56	MG	CY	117	1/1	0.13	-	23,23,23,23	0
56	MG	BA	3703	1/1	0.11	-	29,29,29,29	0
56	MG	BA	3011	1/1	0.31	-	33,33,33,33	0
56	MG	DA	3236	1/1	0.30	-	14,14,14,14	0
56	MG	BA	3427	1/1	0.16	-	10,10,10,10	0
56	MG	CA	1838	1/1	0.10	-	28,28,28,28	0
56	MG	DA	3331	1/1	0.07	-	0,0,0,0	0
56	MG	AD	302	1/1	0.07	-	13,13,13,13	0
56	MG	CA	1908	1/1	0.04	-	5,5,5,5	0
56	MG	BA	3315	1/1	0.12	-	64,64,64,64	0
56	MG	BA	3649	1/1	0.15	-	29,29,29,29	0
56	MG	CX	403	1/1	0.09	-	48,48,48,48	0
56	MG	BW	202	1/1	0.19	-	33,33,33,33	0
56	MG	AA	1730	1/1	0.14	-	12,12,12,12	0
56	MG	BA	3709	1/1	0.14	-	31,31,31,31	0
56	MG	AA	1826	1/1	0.05	-	35,35,35,35	0
56	MG	BA	3730	1/1	0.14	-	40,40,40,40	0
56	MG	AA	1745	1/1	0.16	-	62,62,62,62	0
56	MG	DA	3039	1/1	0.09	-	17,17,17,17	0
56	MG	BA	3594	1/1	0.12	-	46,46,46,46	0
56	MG	DQ	201	1/1	0.09	-	53,53,53,53	0
56	MG	CA	1760	1/1	0.07	-	59,59,59,59	0
56	MG	BA	3295	1/1	0.07	-	1,1,1,1	0
56	MG	CA	1633	1/1	0.13	-	12,12,12,12	0
56	MG	DA	3718	1/1	0.23	-	60,60,60,60	0
56	MG	CA	1937	1/1	0.20	-	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3359	1/1	0.12	-	19,19,19,19	0
56	MG	AA	1717	1/1	0.16	-	28,28,28,28	0
56	MG	DA	3684	1/1	0.26	-	50,50,50,50	0
56	MG	DA	3307	1/1	0.08	-	47,47,47,47	0
56	MG	DA	3221	1/1	0.16	-	11,11,11,11	0
56	MG	CA	1950	1/1	0.20	-	67,67,67,67	0
56	MG	AA	1638	1/1	0.10	-	22,22,22,22	0
56	MG	BA	3169	1/1	0.04	-	26,26,26,26	0
56	MG	CA	1973	1/1	0.21	-	37,37,37,37	0
56	MG	DA	3206	1/1	0.20	-	20,20,20,20	0
56	MG	CK	202	1/1	0.09	-	40,40,40,40	0
56	MG	BA	3604	1/1	0.23	-	36,36,36,36	0
56	MG	BA	3568	1/1	0.07	-	13,13,13,13	0
56	MG	AA	1873	1/1	0.08	-	36,36,36,36	0
56	MG	DA	3445	1/1	0.08	-	31,31,31,31	0
56	MG	DA	3159	1/1	0.09	-	52,52,52,52	0
56	MG	DA	3698	1/1	0.28	-	73,73,73,73	0
56	MG	DA	3003	1/1	0.24	-	33,33,33,33	0
56	MG	CA	1930	1/1	0.30	-	57,57,57,57	0
56	MG	CA	2000	1/1	0.15	-	45,45,45,45	0
56	MG	DA	3725	1/1	0.16	-	44,44,44,44	0
56	MG	BA	3155	1/1	0.15	-	15,15,15,15	0
56	MG	BA	3148	1/1	0.07	-	17,17,17,17	0
56	MG	DA	3590	1/1	0.09	-	37,37,37,37	0
56	MG	CA	1910	1/1	0.07	-	15,15,15,15	0
56	MG	BA	3489	1/1	0.06	-	46,46,46,46	0
56	MG	BA	3330	1/1	0.10	-	45,45,45,45	0
56	MG	BA	3435	1/1	0.12	-	43,43,43,43	0
56	MG	BA	3574	1/1	0.10	-	35,35,35,35	0
56	MG	DA	3469	1/1	0.10	-	19,19,19,19	0
56	MG	CA	1866	1/1	0.13	-	22,22,22,22	0
56	MG	BA	3706	1/1	0.10	-	38,38,38,38	0
56	MG	CA	1669	1/1	0.10	-	52,52,52,52	0
56	MG	AA	1816	1/1	0.07	-	23,23,23,23	0
56	MG	AC	305	1/1	0.36	-	45,45,45,45	0
56	MG	DA	3735	1/1	0.33	-	51,51,51,51	0
56	MG	BA	3190	1/1	0.20	-	36,36,36,36	0
56	MG	CA	1671	1/1	0.13	-	40,40,40,40	0
56	MG	AA	1847	1/1	0.24	-	46,46,46,46	0
56	MG	BB	209	1/1	0.05	-	26,26,26,26	0
56	MG	DA	3249	1/1	0.09	-	32,32,32,32	0
56	MG	CA	1980	1/1	0.19	-	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3305	1/1	0.07	-	5,5,5,5	0
56	MG	BA	3630	1/1	0.07	-	41,41,41,41	0
56	MG	DA	3110	1/1	0.14	-	43,43,43,43	0
56	MG	BA	3063	1/1	0.04	-	0,0,0,0	0
56	MG	DA	3314	1/1	0.07	-	25,25,25,25	0
56	MG	AA	1835	1/1	0.12	-	17,17,17,17	0
56	MG	AA	1786	1/1	0.31	-	76,76,76,76	0
56	MG	BA	3208	1/1	0.05	-	27,27,27,27	0
56	MG	CA	1826	1/1	0.15	-	65,65,65,65	0
56	MG	BA	3598	1/1	0.09	-	33,33,33,33	0
56	MG	AA	1626	1/1	0.04	-	47,47,47,47	0
56	MG	CA	1762	1/1	0.06	-	30,30,30,30	0
56	MG	BA	3436	1/1	0.10	-	1,1,1,1	0
56	MG	CA	1759	1/1	0.08	-	25,25,25,25	0
56	MG	CA	1897	1/1	0.15	-	23,23,23,23	0
56	MG	CA	1916	1/1	0.15	-	62,62,62,62	0
56	MG	BA	3678	1/1	0.18	-	42,42,42,42	0
56	MG	DA	3301	1/1	0.06	-	31,31,31,31	0
56	MG	CA	1790	1/1	0.08	-	38,38,38,38	0
56	MG	CA	1733	1/1	0.23	-	52,52,52,52	0
56	MG	BA	3122	1/1	0.09	-	50,50,50,50	0
56	MG	BA	3198	1/1	0.07	-	21,21,21,21	0
56	MG	CA	1802	1/1	0.14	-	31,31,31,31	0
56	MG	CA	1956	1/1	0.10	-	57,57,57,57	0
56	MG	BA	3768	1/1	0.35	-	46,46,46,46	0
56	MG	BA	3350	1/1	0.10	-	32,32,32,32	0
56	MG	BA	3355	1/1	0.13	-	35,35,35,35	0
56	MG	CO	101	1/1	0.05	-	25,25,25,25	0
56	MG	DA	3254	1/1	0.17	-	35,35,35,35	0
56	MG	CA	1699	1/1	0.10	-	45,45,45,45	0
56	MG	DA	3217	1/1	0.07	-	20,20,20,20	0
56	MG	CA	1815	1/1	0.07	-	12,12,12,12	0
56	MG	DA	3288	1/1	0.07	-	12,12,12,12	0
56	MG	AA	1837	1/1	0.09	-	54,54,54,54	0
56	MG	BA	3365	1/1	0.32	-	40,40,40,40	0
56	MG	DA	3067	1/1	0.09	-	17,17,17,17	0
56	MG	AI	201	1/1	0.28	-	57,57,57,57	0
56	MG	BA	3527	1/1	0.14	-	37,37,37,37	0
56	MG	AY	123	1/1	0.11	-	42,42,42,42	0
56	MG	CA	1893	1/1	0.19	-	23,23,23,23	0
56	MG	AA	1699	1/1	0.10	-	35,35,35,35	0
56	MG	BA	3329	1/1	0.09	-	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3777	1/1	0.07	-	40,40,40,40	0
56	MG	DA	3332	1/1	0.06	-	50,50,50,50	0
56	MG	BA	3552	1/1	0.08	-	12,12,12,12	0
56	MG	CA	1894	1/1	0.07	-	19,19,19,19	0
56	MG	BA	3297	1/1	0.35	-	50,50,50,50	0
56	MG	DA	3447	1/1	0.10	-	36,36,36,36	0
56	MG	BA	3392	1/1	0.06	-	27,27,27,27	0
56	MG	AA	1761	1/1	0.05	-	26,26,26,26	0
56	MG	DA	3704	1/1	0.09	-	34,34,34,34	0
56	MG	DA	3082	1/1	0.07	-	19,19,19,19	0
56	MG	DA	3686	1/1	0.09	-	30,30,30,30	0
56	MG	DA	3312	1/1	0.11	-	24,24,24,24	0
56	MG	AA	1631	1/1	0.23	-	58,58,58,58	0
56	MG	AA	1742	1/1	0.06	-	17,17,17,17	0
56	MG	DA	3090	1/1	0.14	-	12,12,12,12	0
56	MG	AA	1694	1/1	0.15	-	45,45,45,45	0
56	MG	DA	3710	1/1	0.07	-	21,21,21,21	0
56	MG	DA	3080	1/1	0.11	-	23,23,23,23	0
56	MG	CC	305	1/1	0.35	-	46,46,46,46	0
56	MG	AD	307	1/1	0.19	-	32,32,32,32	0
56	MG	BA	3600	1/1	0.08	-	13,13,13,13	0
56	MG	DA	3368	1/1	0.09	-	29,29,29,29	0
56	MG	CA	1876	1/1	0.13	-	22,22,22,22	0
56	MG	BA	3441	1/1	0.08	-	28,28,28,28	0
56	MG	DA	3747	1/1	0.09	-	23,23,23,23	0
56	MG	DA	3215	1/1	0.07	-	41,41,41,41	0
56	MG	CA	1610	1/1	0.10	-	24,24,24,24	0
56	MG	BA	3336	1/1	0.06	-	38,38,38,38	0
56	MG	BA	3217	1/1	0.12	-	0,0,0,0	0
56	MG	BA	3070	1/1	0.12	-	32,32,32,32	0
56	MG	CA	1881	1/1	0.25	-	47,47,47,47	0
56	MG	DA	3199	1/1	0.08	-	12,12,12,12	0
56	MG	DA	3148	1/1	0.11	-	50,50,50,50	0
56	MG	DA	3150	1/1	0.05	-	1,1,1,1	0
56	MG	DA	3111	1/1	0.07	-	6,6,6,6	0
56	MG	CA	1952	1/1	0.13	-	37,37,37,37	0
56	MG	BA	3025	1/1	0.07	-	13,13,13,13	0
56	MG	DA	3079	1/1	0.08	-	12,12,12,12	0
56	MG	DA	3667	1/1	0.32	-	38,38,38,38	0
56	MG	DA	3181	1/1	0.10	-	26,26,26,26	0
56	MG	BA	3149	1/1	0.10	-	38,38,38,38	0
56	MG	DA	3051	1/1	0.05	-	11,11,11,11	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1832	1/1	0.14	-	49,49,49,49	0
56	MG	DA	3533	1/1	0.05	-	12,12,12,12	0
56	MG	CA	1969	1/1	0.05	-	43,43,43,43	0
56	MG	BA	3734	1/1	0.06	-	32,32,32,32	0
56	MG	AA	1762	1/1	0.14	-	52,52,52,52	0
56	MG	DA	3655	1/1	0.19	-	41,41,41,41	0
56	MG	AZ	102	1/1	0.20	-	60,60,60,60	0
56	MG	AA	1876	1/1	0.19	-	57,57,57,57	0
56	MG	BA	3210	1/1	0.11	-	31,31,31,31	0
56	MG	BA	3745	1/1	0.11	-	39,39,39,39	0
56	MG	DA	3112	1/1	0.17	-	21,21,21,21	0
56	MG	CA	1628	1/1	0.09	-	23,23,23,23	0
56	MG	AA	1764	1/1	0.29	-	61,61,61,61	0
56	MG	DA	3738	1/1	0.15	-	58,58,58,58	0
56	MG	DA	3724	1/1	0.55	-	62,62,62,62	0
56	MG	CA	1781	1/1	0.23	-	57,57,57,57	0
56	MG	DA	3680	1/1	0.11	-	6,6,6,6	0
56	MG	BA	3008	1/1	0.17	-	5,5,5,5	0
56	MG	BA	3214	1/1	0.12	-	62,62,62,62	0
56	MG	CA	1741	1/1	0.08	-	28,28,28,28	0
56	MG	BA	3513	1/1	0.07	-	24,24,24,24	0
56	MG	CA	1640	1/1	0.20	-	56,56,56,56	0
56	MG	CA	1737	1/1	0.08	-	58,58,58,58	0
56	MG	BA	3193	1/1	0.04	-	2,2,2,2	0
56	MG	DA	3387	1/1	0.07	-	13,13,13,13	0
56	MG	AA	1817	1/1	0.27	-	39,39,39,39	0
56	MG	BA	3319	1/1	0.33	-	35,35,35,35	0
56	MG	DA	3092	1/1	0.19	-	32,32,32,32	0
56	MG	CA	1870	1/1	0.08	-	25,25,25,25	0
56	MG	BA	3189	1/1	0.08	-	48,48,48,48	0
56	MG	BA	3495	1/1	0.06	-	10,10,10,10	0
56	MG	DA	3523	1/1	0.20	-	44,44,44,44	0
56	MG	CA	1853	1/1	0.07	-	50,50,50,50	0
56	MG	BA	3356	1/1	0.05	-	29,29,29,29	0
56	MG	BA	3516	1/1	0.05	-	25,25,25,25	0
56	MG	BA	3298	1/1	0.06	-	5,5,5,5	0
56	MG	BA	3366	1/1	0.08	-	10,10,10,10	0
56	MG	DB	216	1/1	0.08	-	35,35,35,35	0
56	MG	CY	113	1/1	0.34	-	39,39,39,39	0
56	MG	AA	1785	1/1	0.07	-	27,27,27,27	0
56	MG	DA	3183	1/1	0.15	-	12,12,12,12	0
56	MG	CA	1617	1/1	0.05	-	11,11,11,11	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3442	1/1	0.07	-	32,32,32,32	0
56	MG	BA	3005	1/1	0.07	-	2,2,2,2	0
56	MG	BA	3428	1/1	0.07	-	17,17,17,17	0
56	MG	DA	3317	1/1	0.07	-	1,1,1,1	0
56	MG	BA	3715	1/1	0.06	-	42,42,42,42	0
56	MG	DA	3580	1/1	0.08	-	21,21,21,21	0
56	MG	DA	3338	1/1	0.08	-	25,25,25,25	0
56	MG	DA	3006	1/1	0.21	-	27,27,27,27	0
56	MG	DA	3042	1/1	0.07	-	7,7,7,7	0
56	MG	DA	3114	1/1	0.25	-	27,27,27,27	0
56	MG	DF	301	1/1	0.19	-	45,45,45,45	0
56	MG	DA	3460	1/1	0.07	-	41,41,41,41	0
56	MG	AZ	106	1/1	0.05	-	37,37,37,37	0
56	MG	DA	3048	1/1	0.08	-	20,20,20,20	0
56	MG	BA	3281	1/1	0.10	-	7,7,7,7	0
56	MG	DA	3452	1/1	0.09	-	25,25,25,25	0
56	MG	BA	3701	1/1	0.11	-	24,24,24,24	0
56	MG	BA	3582	1/1	0.20	-	53,53,53,53	0
56	MG	BA	3526	1/1	0.06	-	4,4,4,4	0
56	MG	BA	3494	1/1	0.09	-	25,25,25,25	0
56	MG	DA	3437	1/1	0.16	-	41,41,41,41	0
56	MG	B2	103	1/1	0.18	-	38,38,38,38	0
56	MG	CA	1673	1/1	0.08	-	48,48,48,48	0
56	MG	DA	3404	1/1	0.13	-	32,32,32,32	0
56	MG	DA	3196	1/1	0.08	-	12,12,12,12	0
56	MG	CA	1868	1/1	0.10	-	54,54,54,54	0
56	MG	DA	3305	1/1	0.12	-	29,29,29,29	0
56	MG	DA	3448	1/1	0.11	-	36,36,36,36	0
56	MG	CA	1883	1/1	0.15	-	41,41,41,41	0
56	MG	BA	3340	1/1	0.10	-	49,49,49,49	0
56	MG	BA	3260	1/1	0.11	-	35,35,35,35	0
56	MG	DA	3719	1/1	0.11	-	47,47,47,47	0
56	MG	CA	2007	1/1	0.19	-	60,60,60,60	0
56	MG	DA	3354	1/1	0.27	-	43,43,43,43	0
56	MG	CA	1773	1/1	0.18	-	35,35,35,35	0
56	MG	BA	3478	1/1	0.07	-	10,10,10,10	0
56	MG	CA	1730	1/1	0.24	-	45,45,45,45	0
56	MG	CA	1846	1/1	0.10	-	69,69,69,69	0
56	MG	DA	3119	1/1	0.09	-	10,10,10,10	0
56	MG	DA	3384	1/1	0.20	-	20,20,20,20	0
56	MG	BN	202	1/1	0.14	-	49,49,49,49	0
56	MG	AA	1618	1/1	0.14	-	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1712	1/1	0.07	-	26,26,26,26	0
56	MG	BA	3275	1/1	0.11	-	12,12,12,12	0
56	MG	BA	3013	1/1	0.15	-	0,0,0,0	0
56	MG	DA	3021	1/1	0.17	-	2,2,2,2	0
56	MG	DA	3711	1/1	0.08	-	49,49,49,49	0
56	MG	BA	3102	1/1	0.09	-	22,22,22,22	0
56	MG	BA	3502	1/1	0.07	-	38,38,38,38	0
56	MG	BA	3716	1/1	0.09	-	28,28,28,28	0
56	MG	CA	1661	1/1	0.07	-	47,47,47,47	0
56	MG	DA	3285	1/1	0.08	-	15,15,15,15	0
56	MG	BA	3313	1/1	0.05	-	25,25,25,25	0
56	MG	AA	1818	1/1	0.09	-	33,33,33,33	0
56	MG	BA	3504	1/1	0.06	-	12,12,12,12	0
56	MG	DA	3610	1/1	0.24	-	29,29,29,29	0
56	MG	AA	1609	1/1	0.06	-	28,28,28,28	0
56	MG	AA	1749	1/1	0.06	-	32,32,32,32	0
56	MG	AA	1880	1/1	0.21	-	8,8,8,8	0
56	MG	BB	203	1/1	0.06	-	22,22,22,22	0
56	MG	BA	3595	1/1	0.09	-	61,61,61,61	0
56	MG	CA	1844	1/1	0.08	-	26,26,26,26	0
56	MG	DA	3541	1/1	0.11	-	53,53,53,53	0
56	MG	DA	3330	1/1	0.10	-	36,36,36,36	0
56	MG	DA	3685	1/1	0.09	-	20,20,20,20	0
56	MG	BQ	201	1/1	0.34	-	38,38,38,38	0
56	MG	CA	1918	1/1	0.20	-	44,44,44,44	0
56	MG	AA	1830	1/1	0.08	-	35,35,35,35	0
56	MG	DA	3525	1/1	0.10	-	31,31,31,31	0
56	MG	DA	3723	1/1	0.10	-	28,28,28,28	0
56	MG	BA	3611	1/1	0.07	-	11,11,11,11	0
56	MG	BA	3360	1/1	0.06	-	17,17,17,17	0
56	MG	BA	3234	1/1	0.09	-	25,25,25,25	0
56	MG	DA	3476	1/1	0.14	-	37,37,37,37	0
56	MG	BA	3761	1/1	0.14	-	15,15,15,15	0
56	MG	AA	1703	1/1	0.14	-	36,36,36,36	0
56	MG	DA	3244	1/1	0.13	-	57,57,57,57	0
56	MG	BA	3049	1/1	0.06	-	17,17,17,17	0
56	MG	DA	3184	1/1	0.15	-	22,22,22,22	0
56	MG	DA	3631	1/1	0.12	-	26,26,26,26	0
56	MG	CY	116	1/1	0.07	-	19,19,19,19	0
56	MG	BA	3537	1/1	0.05	-	17,17,17,17	0
56	MG	DZ	303	1/1	0.09	-	32,32,32,32	0
56	MG	AA	1773	1/1	0.08	-	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3765	1/1	0.14	-	36,36,36,36	0
56	MG	DA	3629	1/1	0.12	-	22,22,22,22	0
56	MG	CA	1602	1/1	0.19	-	15,15,15,15	0
56	MG	DA	3035	1/1	0.11	-	6,6,6,6	0
56	MG	BA	3031	1/1	0.08	-	11,11,11,11	0
56	MG	BA	3636	1/1	0.17	-	47,47,47,47	0
56	MG	CA	1744	1/1	0.06	-	48,48,48,48	0
56	MG	DA	3269	1/1	0.06	-	31,31,31,31	0
56	MG	DA	3510	1/1	0.19	-	38,38,38,38	0
56	MG	DA	3362	1/1	0.35	-	43,43,43,43	0
56	MG	BA	3086	1/1	0.07	-	23,23,23,23	0
56	MG	BA	3559	1/1	0.06	-	15,15,15,15	0
56	MG	AY	115	1/1	0.08	-	18,18,18,18	0
56	MG	CZ	109	1/1	0.15	-	51,51,51,51	0
56	MG	DA	3320	1/1	0.09	-	19,19,19,19	0
56	MG	DA	3097	1/1	0.07	-	5,5,5,5	0
56	MG	BA	3567	1/1	0.07	-	11,11,11,11	0
56	MG	DA	3054	1/1	0.10	-	2,2,2,2	0
56	MG	AA	1885	1/1	0.12	-	33,33,33,33	0
56	MG	CA	1728	1/1	0.12	-	28,28,28,28	0
56	MG	BA	3687	1/1	0.07	-	19,19,19,19	0
56	MG	DA	3589	1/1	0.26	-	19,19,19,19	0
56	MG	BA	3542	1/1	0.08	-	13,13,13,13	0
56	MG	BA	3718	1/1	0.10	-	33,33,33,33	0
56	MG	BA	3727	1/1	0.24	-	36,36,36,36	0
56	MG	BA	3333	1/1	0.08	-	19,19,19,19	0
56	MG	BA	3200	1/1	0.07	-	20,20,20,20	0
56	MG	BA	3753	1/1	0.21	-	28,28,28,28	0
56	MG	DA	3454	1/1	0.11	-	12,12,12,12	0
56	MG	DA	3511	1/1	0.13	-	7,7,7,7	0
56	MG	BA	3229	1/1	0.08	-	27,27,27,27	0
56	MG	BA	3390	1/1	0.05	-	33,33,33,33	0
56	MG	BA	3638	1/1	0.21	-	38,38,38,38	0
56	MG	BA	3293	1/1	0.11	-	34,34,34,34	0
56	MG	BA	3105	1/1	0.07	-	36,36,36,36	0
56	MG	DA	3203	1/1	0.10	-	38,38,38,38	0
56	MG	BA	3092	1/1	0.15	-	40,40,40,40	0
56	MG	AA	1724	1/1	0.11	-	26,26,26,26	0
56	MG	CA	1708	1/1	0.10	-	17,17,17,17	0
56	MG	BA	3307	1/1	0.08	-	26,26,26,26	0
56	MG	AA	1892	1/1	0.10	-	48,48,48,48	0
56	MG	CA	1794	1/1	0.05	-	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3252	1/1	0.09	-	16,16,16,16	0
56	MG	DA	3666	1/1	0.12	-	23,23,23,23	0
56	MG	BA	3585	1/1	0.12	-	20,20,20,20	0
56	MG	CA	1637	1/1	0.08	-	21,21,21,21	0
56	MG	DA	3278	1/1	0.06	-	11,11,11,11	0
56	MG	AA	1797	1/1	0.05	-	30,30,30,30	0
56	MG	BF	304	1/1	0.14	-	40,40,40,40	0
56	MG	AA	1615	1/1	0.12	-	8,8,8,8	0
56	MG	AX	406	1/1	0.28	-	36,36,36,36	0
56	MG	DA	3457	1/1	0.14	-	23,23,23,23	0
56	MG	DA	3679	1/1	0.52	-	62,62,62,62	0
56	MG	BA	3181	1/1	0.19	-	51,51,51,51	0
56	MG	BA	3587	1/1	0.12	-	41,41,41,41	0
56	MG	DA	3276	1/1	0.12	-	29,29,29,29	0
56	MG	BA	3613	1/1	0.08	-	45,45,45,45	0
56	MG	BA	3452	1/1	0.05	-	18,18,18,18	0
56	MG	DA	3200	1/1	0.22	-	43,43,43,43	0
56	MG	CA	1924	1/1	0.30	-	45,45,45,45	0
56	MG	BA	3690	1/1	0.15	-	38,38,38,38	0
56	MG	AA	1759	1/1	0.04	-	6,6,6,6	0
56	MG	BA	3261	1/1	0.05	-	36,36,36,36	0
56	MG	DA	3268	1/1	0.15	-	48,48,48,48	0
56	MG	DA	3587	1/1	0.12	-	42,42,42,42	0
56	MG	AF	201	1/1	0.09	-	30,30,30,30	0
56	MG	BA	3566	1/1	0.09	-	45,45,45,45	0
56	MG	AA	1875	1/1	0.06	-	16,16,16,16	0
56	MG	AA	1825	1/1	0.09	-	28,28,28,28	0
56	MG	CZ	117	1/1	0.12	-	34,34,34,34	0
56	MG	AA	1683	1/1	0.06	-	39,39,39,39	0
56	MG	DA	3294	1/1	0.08	-	29,29,29,29	0
56	MG	DA	3032	1/1	0.13	-	0,0,0,0	0
56	MG	DA	3494	1/1	0.08	-	5,5,5,5	0
56	MG	DA	3333	1/1	0.04	-	4,4,4,4	0
56	MG	BA	3134	1/1	0.22	-	61,61,61,61	0
56	MG	CC	301	1/1	0.12	-	48,48,48,48	0
56	MG	DA	3672	1/1	0.09	-	29,29,29,29	0
56	MG	CA	1751	1/1	0.10	-	19,19,19,19	0
56	MG	BA	3791	1/1	0.06	-	54,54,54,54	0
56	MG	BA	3029	1/1	0.06	-	1,1,1,1	0
56	MG	AA	1620	1/1	0.08	-	35,35,35,35	0
56	MG	DA	3208	1/1	0.32	-	42,42,42,42	0
56	MG	BA	3093	1/1	0.10	-	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1793	1/1	0.05	-	9,9,9,9	0
56	MG	DA	3600	1/1	0.08	-	17,17,17,17	0
56	MG	AA	1636	1/1	0.16	-	64,64,64,64	0
56	MG	BZ	301	1/1	0.18	-	21,21,21,21	0
56	MG	BA	3485	1/1	0.05	-	12,12,12,12	0
56	MG	BA	3074	1/1	0.06	-	24,24,24,24	0
56	MG	BA	3141	1/1	0.03	-	39,39,39,39	0
56	MG	AA	1681	1/1	0.03	-	49,49,49,49	0
56	MG	DA	3377	1/1	0.07	-	21,21,21,21	0
56	MG	BA	3722	1/1	0.10	-	16,16,16,16	0
56	MG	CA	1979	1/1	0.18	-	59,59,59,59	0
56	MG	BA	3754	1/1	0.17	-	70,70,70,70	0
56	MG	BA	3644	1/1	0.05	-	32,32,32,32	0
56	MG	CA	1683	1/1	0.15	-	16,16,16,16	0
56	MG	BA	3565	1/1	0.06	-	24,24,24,24	0
56	MG	BA	3363	1/1	0.11	-	24,24,24,24	0
56	MG	AY	112	1/1	0.14	-	39,39,39,39	0
56	MG	CA	1830	1/1	0.08	-	36,36,36,36	0
56	MG	CA	1992	1/1	0.15	-	47,47,47,47	0
56	MG	CA	1839	1/1	0.09	-	31,31,31,31	0
56	MG	BA	3402	1/1	0.06	-	39,39,39,39	0
56	MG	BA	3018	1/1	0.05	-	2,2,2,2	0
56	MG	DA	3028	1/1	0.11	-	34,34,34,34	0
56	MG	CY	107	1/1	0.10	-	38,38,38,38	0
56	MG	BA	3300	1/1	0.10	-	20,20,20,20	0
56	MG	BA	3109	1/1	0.20	-	25,25,25,25	0
56	MG	DA	3559	1/1	0.46	-	44,44,44,44	0
56	MG	BA	3091	1/1	0.18	-	39,39,39,39	0
56	MG	CA	1809	1/1	0.13	-	57,57,57,57	0
56	MG	CZ	104	1/1	0.08	-	42,42,42,42	0
56	MG	DA	3617	1/1	0.12	-	47,47,47,47	0
56	MG	BA	3684	1/1	0.26	-	46,46,46,46	0
56	MG	DI	201	1/1	0.05	-	18,18,18,18	0
56	MG	DA	3722	1/1	0.20	-	54,54,54,54	0
56	MG	AA	1862	1/1	0.19	-	44,44,44,44	0
56	MG	BA	3773	1/1	0.22	-	44,44,44,44	0
56	MG	DB	207	1/1	0.06	-	37,37,37,37	0
56	MG	BA	3586	1/1	0.19	-	34,34,34,34	0
56	MG	DB	226	1/1	0.20	-	51,51,51,51	0
56	MG	BA	3399	1/1	0.14	-	17,17,17,17	0
56	MG	DA	3647	1/1	0.09	-	19,19,19,19	0
56	MG	DH	204	1/1	0.13	-	11,11,11,11	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3265	1/1	0.07	-	25,25,25,25	0
56	MG	CA	1982	1/1	0.59	-	63,63,63,63	0
56	MG	DA	3349	1/1	0.12	-	44,44,44,44	0
56	MG	CA	1804	1/1	0.07	-	32,32,32,32	0
56	MG	BA	3789	1/1	0.14	-	35,35,35,35	0
56	MG	BA	3704	1/1	0.10	-	42,42,42,42	0
56	MG	CB	302	1/1	0.34	-	48,48,48,48	0
56	MG	DA	3095	1/1	0.12	-	24,24,24,24	0
56	MG	BA	3250	1/1	0.10	-	39,39,39,39	0
56	MG	BA	3289	1/1	0.21	-	46,46,46,46	0
56	MG	BA	3646	1/1	0.10	-	12,12,12,12	0
56	MG	BA	3449	1/1	0.11	-	31,31,31,31	0
56	MG	CA	1816	1/1	0.27	-	48,48,48,48	0
56	MG	AA	1755	1/1	0.03	-	29,29,29,29	0
56	MG	AA	1871	1/1	0.14	-	35,35,35,35	0
56	MG	BA	3150	1/1	0.09	-	35,35,35,35	0
56	MG	BA	3616	1/1	0.11	-	2,2,2,2	0
56	MG	BA	3255	1/1	0.07	-	43,43,43,43	0
56	MG	BA	3279	1/1	0.10	-	39,39,39,39	0
56	MG	BA	3014	1/1	0.10	-	11,11,11,11	0
56	MG	AA	1894	1/1	0.34	-	38,38,38,38	0
56	MG	DA	3126	1/1	0.07	-	37,37,37,37	0
56	MG	BA	3763	1/1	0.16	-	55,55,55,55	0
56	MG	CA	1860	1/1	0.19	-	31,31,31,31	0
56	MG	CA	1843	1/1	0.05	-	21,21,21,21	0
56	MG	AA	1727	1/1	0.05	-	44,44,44,44	0
56	MG	BA	3693	1/1	0.09	-	51,51,51,51	0
56	MG	CA	1659	1/1	0.10	-	44,44,44,44	0
56	MG	AA	1878	1/1	0.27	-	37,37,37,37	0
56	MG	CA	1629	1/1	0.13	-	8,8,8,8	0
56	MG	DA	3375	1/1	0.15	-	42,42,42,42	0
56	MG	BN	201	1/1	0.06	-	20,20,20,20	0
56	MG	AY	124	1/1	0.13	-	21,21,21,21	0
56	MG	BA	3009	1/1	0.11	-	0,0,0,0	0
56	MG	BA	3464	1/1	0.10	-	30,30,30,30	0
56	MG	AA	1893	1/1	0.06	-	40,40,40,40	0
56	MG	AA	1865	1/1	0.27	-	32,32,32,32	0
56	MG	CA	1722	1/1	0.15	-	36,36,36,36	0
56	MG	DW	202	1/1	0.14	-	36,36,36,36	0
56	MG	BA	3682	1/1	0.12	-	25,25,25,25	0
56	MG	DB	213	1/1	0.04	-	20,20,20,20	0
56	MG	AA	1867	1/1	0.34	-	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CX	401	1/1	0.07	-	13,13,13,13	0
56	MG	BA	3062	1/1	0.11	-	24,24,24,24	0
56	MG	BA	3770	1/1	0.09	-	30,30,30,30	0
56	MG	BA	3677	1/1	0.27	-	63,63,63,63	0
56	MG	DA	3591	1/1	0.09	-	26,26,26,26	0
56	MG	BA	3631	1/1	0.10	-	34,34,34,34	0
56	MG	CA	1693	1/1	0.07	-	10,10,10,10	0
56	MG	DA	3700	1/1	0.11	-	10,10,10,10	0
56	MG	CA	1719	1/1	0.11	-	58,58,58,58	0
56	MG	DA	3615	1/1	0.13	-	40,40,40,40	0
56	MG	BA	3404	1/1	0.07	-	43,43,43,43	0
56	MG	BA	3058	1/1	0.07	-	39,39,39,39	0
56	MG	CA	1896	1/1	0.08	-	31,31,31,31	0
56	MG	AY	106	1/1	0.05	-	32,32,32,32	0
56	MG	BA	3786	1/1	0.08	-	56,56,56,56	0
56	MG	DA	3008	1/1	0.18	-	9,9,9,9	0
56	MG	CA	1631	1/1	0.15	-	27,27,27,27	0
56	MG	DA	3127	1/1	0.09	-	71,71,71,71	0
56	MG	CY	115	1/1	0.06	-	38,38,38,38	0
56	MG	DA	3412	1/1	0.20	-	50,50,50,50	0
56	MG	CA	1832	1/1	0.25	-	38,38,38,38	0
56	MG	CA	1665	1/1	0.07	-	26,26,26,26	0
56	MG	BA	3731	1/1	0.06	-	45,45,45,45	0
56	MG	BA	3383	1/1	0.10	-	29,29,29,29	0
56	MG	DA	3304	1/1	0.05	-	10,10,10,10	0
56	MG	DA	3175	1/1	0.08	-	32,32,32,32	0
56	MG	CZ	103	1/1	0.04	-	51,51,51,51	0
56	MG	DA	3061	1/1	0.07	-	4,4,4,4	0
56	MG	CA	1906	1/1	0.16	-	24,24,24,24	0
56	MG	CA	1845	1/1	0.04	-	21,21,21,21	0
56	MG	AA	1687	1/1	0.06	-	11,11,11,11	0
56	MG	DA	3633	1/1	0.10	-	19,19,19,19	0
56	MG	DA	3358	1/1	0.08	-	17,17,17,17	0
56	MG	DA	3397	1/1	0.05	-	19,19,19,19	0
56	MG	DA	3687	1/1	0.10	-	21,21,21,21	0
56	MG	BA	3309	1/1	0.06	-	25,25,25,25	0
56	MG	AB	301	1/1	0.07	-	44,44,44,44	0
56	MG	CO	102	1/1	0.09	-	73,73,73,73	0
56	MG	DA	3344	1/1	0.08	-	32,32,32,32	0
56	MG	BA	3749	1/1	0.12	-	30,30,30,30	0
56	MG	BA	3227	1/1	0.14	-	36,36,36,36	0
56	MG	BA	3048	1/1	0.10	-	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3399	1/1	0.44	-	36,36,36,36	0
56	MG	CA	1848	1/1	0.24	-	41,41,41,41	0
56	MG	AA	1659	1/1	0.06	-	33,33,33,33	0
56	MG	BA	3394	1/1	0.19	-	17,17,17,17	0
56	MG	BA	3698	1/1	0.11	-	57,57,57,57	0
56	MG	DA	3386	1/1	0.09	-	27,27,27,27	0
56	MG	BA	3548	1/1	0.25	-	39,39,39,39	0
56	MG	AA	1645	1/1	0.04	-	31,31,31,31	0
56	MG	DA	3085	1/1	0.08	-	35,35,35,35	0
56	MG	DA	3091	1/1	0.06	-	8,8,8,8	0
56	MG	DA	3694	1/1	0.06	-	46,46,46,46	0
56	MG	BA	3020	1/1	0.07	-	2,2,2,2	0
56	MG	CA	1718	1/1	0.10	-	38,38,38,38	0
56	MG	CA	1859	1/1	0.05	-	22,22,22,22	0
56	MG	CK	201	1/1	0.05	-	51,51,51,51	0
56	MG	CA	1808	1/1	0.07	-	13,13,13,13	0
56	MG	DA	3394	1/1	0.10	-	38,38,38,38	0
56	MG	CA	1695	1/1	0.14	-	59,59,59,59	0
56	MG	CA	1959	1/1	0.10	-	3,3,3,3	0
56	MG	BA	3511	1/1	0.10	-	26,26,26,26	0
56	MG	CA	1803	1/1	0.10	-	6,6,6,6	0
56	MG	CY	108	1/1	0.07	-	22,22,22,22	0
56	MG	BA	3065	1/1	0.05	-	18,18,18,18	0
56	MG	AY	108	1/1	0.15	-	33,33,33,33	0
56	MG	DA	3674	1/1	0.08	-	4,4,4,4	0
56	MG	BA	3126	1/1	0.08	-	37,37,37,37	0
56	MG	CA	1789	1/1	0.52	-	53,53,53,53	0
56	MG	AA	1679	1/1	0.10	-	32,32,32,32	0
56	MG	CA	1823	1/1	0.05	-	40,40,40,40	0
56	MG	AA	1868	1/1	0.14	-	41,41,41,41	0
56	MG	DA	3370	1/1	0.09	-	23,23,23,23	0
56	MG	DA	3642	1/1	0.11	-	26,26,26,26	0
56	MG	CA	1651	1/1	0.11	-	54,54,54,54	0
56	MG	DA	3066	1/1	0.11	-	47,47,47,47	0
56	MG	AV	101	1/1	0.11	-	49,49,49,49	0
56	MG	BA	3108	1/1	0.10	-	24,24,24,24	0
56	MG	AA	1839	1/1	0.07	-	39,39,39,39	0
56	MG	DA	3327	1/1	0.08	-	13,13,13,13	0
56	MG	AA	1640	1/1	0.17	-	35,35,35,35	0
56	MG	CA	1871	1/1	0.10	-	34,34,34,34	0
56	MG	DA	3396	1/1	0.05	-	21,21,21,21	0
56	MG	BA	3680	1/1	0.09	-	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1763	1/1	0.09	-	19,19,19,19	0
56	MG	BA	3202	1/1	0.09	-	46,46,46,46	0
56	MG	DA	3313	1/1	0.16	-	42,42,42,42	0
56	MG	DA	3624	1/1	0.14	-	39,39,39,39	0
56	MG	CX	402	1/1	0.16	-	38,38,38,38	0
56	MG	AA	1707	1/1	0.07	-	26,26,26,26	0
56	MG	DA	3242	1/1	0.07	-	24,24,24,24	0
56	MG	DA	3336	1/1	0.09	-	38,38,38,38	0
56	MG	DH	203	1/1	0.04	-	19,19,19,19	0
56	MG	DA	3255	1/1	0.07	-	19,19,19,19	0
56	MG	DA	3191	1/1	0.07	-	48,48,48,48	0
56	MG	BA	3775	1/1	0.50	-	49,49,49,49	0
56	MG	AY	104	1/1	0.09	-	38,38,38,38	0
56	MG	AA	1891	1/1	0.11	-	68,68,68,68	0
56	MG	BA	3432	1/1	0.20	-	53,53,53,53	0
56	MG	CA	1627	1/1	0.07	-	29,29,29,29	0
56	MG	AA	1696	1/1	0.08	-	27,27,27,27	0
56	MG	BA	3626	1/1	0.12	-	29,29,29,29	0
56	MG	AA	1709	1/1	0.10	-	15,15,15,15	0
56	MG	DA	3218	1/1	0.21	-	46,46,46,46	0
56	MG	AY	122	1/1	0.04	-	17,17,17,17	0
56	MG	DA	3749	1/1	0.14	-	34,34,34,34	0
56	MG	DA	3139	1/1	0.10	-	47,47,47,47	0
56	MG	DA	3142	1/1	0.09	-	24,24,24,24	0
56	MG	DA	3740	1/1	0.10	-	27,27,27,27	0
56	MG	DA	3522	1/1	0.06	-	33,33,33,33	0
56	MG	AA	1804	1/1	0.15	-	18,18,18,18	0
56	MG	CA	1648	1/1	0.10	-	28,28,28,28	0
56	MG	DA	3495	1/1	0.10	-	13,13,13,13	0
56	MG	DA	3594	1/1	0.17	-	83,83,83,83	0
56	MG	DA	3281	1/1	0.05	-	4,4,4,4	0
56	MG	DA	3422	1/1	0.09	-	22,22,22,22	0
56	MG	BA	3748	1/1	0.20	-	45,45,45,45	0
56	MG	DA	3748	1/1	0.19	-	50,50,50,50	0
56	MG	DA	3531	1/1	0.04	-	39,39,39,39	0
56	MG	CA	1745	1/1	0.12	-	42,42,42,42	0
56	MG	DA	3435	1/1	0.13	-	41,41,41,41	0
56	MG	BA	3557	1/1	0.49	-	59,59,59,59	0
56	MG	DA	3484	1/1	0.25	-	6,6,6,6	0
56	MG	AA	1757	1/1	0.11	-	26,26,26,26	0
56	MG	AA	1752	1/1	0.06	-	13,13,13,13	0
56	MG	AA	1642	1/1	0.10	-	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3622	1/1	0.08	-	34,34,34,34	0
56	MG	DA	3029	1/1	0.11	-	25,25,25,25	0
56	MG	DA	3057	1/1	0.12	-	31,31,31,31	0
56	MG	CY	103	1/1	0.06	-	49,49,49,49	0
56	MG	DA	3264	1/1	0.10	-	29,29,29,29	0
56	MG	DA	3746	1/1	0.37	-	43,43,43,43	0
56	MG	DA	3570	1/1	0.07	-	36,36,36,36	0
56	MG	DA	3004	1/1	0.51	-	42,42,42,42	0
56	MG	CA	1721	1/1	0.11	-	45,45,45,45	0
56	MG	BA	3205	1/1	0.13	-	21,21,21,21	0
56	MG	BA	3691	1/1	0.12	-	44,44,44,44	0
56	MG	BA	3324	1/1	0.20	-	33,33,33,33	0
56	MG	BA	3797	1/1	0.15	-	18,18,18,18	0
56	MG	DA	3293	1/1	0.06	-	10,10,10,10	0
56	MG	DA	3498	1/1	0.07	-	59,59,59,59	0
56	MG	AI	202	1/1	0.15	-	17,17,17,17	0
56	MG	BA	3138	1/1	0.08	-	34,34,34,34	0
56	MG	CZ	101	1/1	0.09	-	61,61,61,61	0
56	MG	CA	1831	1/1	0.18	-	66,66,66,66	0
56	MG	BA	3367	1/1	0.15	-	24,24,24,24	0
56	MG	BA	3160	1/1	0.06	-	23,23,23,23	0
56	MG	DA	3656	1/1	0.20	-	35,35,35,35	0
56	MG	BA	3164	1/1	0.25	-	51,51,51,51	0
56	MG	BA	3517	1/1	0.18	-	40,40,40,40	0
56	MG	DA	3258	1/1	0.09	-	39,39,39,39	0
56	MG	AA	1810	1/1	0.05	-	24,24,24,24	0
56	MG	DA	3721	1/1	0.07	-	11,11,11,11	0
56	MG	DA	3519	1/1	0.06	-	6,6,6,6	0
56	MG	CD	302	1/1	0.04	-	41,41,41,41	0
56	MG	AY	119	1/1	0.11	-	22,22,22,22	0
56	MG	AA	1834	1/1	0.24	-	36,36,36,36	0
56	MG	DA	3372	1/1	0.12	-	30,30,30,30	0
56	MG	CA	1692	1/1	0.06	-	6,6,6,6	0
56	MG	CA	1806	1/1	0.08	-	36,36,36,36	0
56	MG	DA	3002	1/1	0.31	-	45,45,45,45	0
56	MG	DA	3383	1/1	0.06	-	10,10,10,10	0
56	MG	BA	3376	1/1	0.15	-	35,35,35,35	0
56	MG	BA	3188	1/1	0.06	-	3,3,3,3	0
56	MG	CA	1994	1/1	0.12	-	58,58,58,58	0
56	MG	CA	1676	1/1	0.09	-	25,25,25,25	0
56	MG	DA	3632	1/1	0.09	-	32,32,32,32	0
56	MG	AA	1780	1/1	0.07	-	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3386	1/1	0.10	-	38,38,38,38	0
56	MG	DA	3668	1/1	0.13	-	42,42,42,42	0
56	MG	AA	1677	1/1	0.07	-	49,49,49,49	0
56	MG	BA	3750	1/1	0.14	-	24,24,24,24	0
56	MG	AA	1907	1/1	0.10	-	54,54,54,54	0
56	MG	CA	1977	1/1	0.32	-	31,31,31,31	0
56	MG	BA	3401	1/1	0.04	-	44,44,44,44	0
56	MG	DO	202	1/1	0.09	-	14,14,14,14	0
56	MG	AA	1624	1/1	0.09	-	26,26,26,26	0
56	MG	DA	3514	1/1	0.06	-	44,44,44,44	0
56	MG	AA	1684	1/1	0.20	-	27,27,27,27	0
56	MG	BA	3125	1/1	0.05	-	23,23,23,23	0
56	MG	CA	1978	1/1	0.10	-	35,35,35,35	0
56	MG	BA	3509	1/1	0.09	-	33,33,33,33	0
56	MG	BA	3632	1/1	0.09	-	50,50,50,50	0
56	MG	BA	3073	1/1	0.08	-	23,23,23,23	0
56	MG	DA	3059	1/1	0.14	-	27,27,27,27	0
56	MG	CA	1822	1/1	0.06	-	26,26,26,26	0
56	MG	AA	1841	1/1	0.04	-	24,24,24,24	0
56	MG	DA	3024	1/1	0.07	-	12,12,12,12	0
56	MG	AP	101	1/1	0.11	-	32,32,32,32	0
56	MG	DB	215	1/1	0.04	-	47,47,47,47	0
56	MG	BA	3433	1/1	0.05	-	40,40,40,40	0
56	MG	DA	3463	1/1	0.12	-	37,37,37,37	0
56	MG	CA	1955	1/1	0.17	-	29,29,29,29	0
56	MG	CA	1724	1/1	0.16	-	56,56,56,56	0
56	MG	DA	3585	1/1	0.12	-	31,31,31,31	0
56	MG	BA	3480	1/1	0.24	-	23,23,23,23	0
56	MG	DB	205	1/1	0.11	-	60,60,60,60	0
56	MG	DA	3707	1/1	0.07	-	45,45,45,45	0
56	MG	DA	3329	1/1	0.14	-	42,42,42,42	0
56	MG	DA	3441	1/1	0.38	-	41,41,41,41	0
56	MG	DA	3618	1/1	0.10	-	47,47,47,47	0
56	MG	CA	1929	1/1	0.07	-	48,48,48,48	0
56	MG	DA	3098	1/1	0.04	-	1,1,1,1	0
56	MG	BA	3087	1/1	0.04	-	30,30,30,30	0
56	MG	AA	1713	1/1	0.06	-	43,43,43,43	0
56	MG	DA	3501	1/1	0.27	-	47,47,47,47	0
56	MG	BA	3505	1/1	0.04	-	1,1,1,1	0
56	MG	DA	3369	1/1	0.03	-	7,7,7,7	0
56	MG	AA	1794	1/1	0.14	-	13,13,13,13	0
56	MG	DA	3275	1/1	0.23	-	2,2,2,2	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3021	1/1	0.04	-	11,11,11,11	0
56	MG	DA	3530	1/1	0.24	-	51,51,51,51	0
56	MG	CA	1666	1/1	0.17	-	50,50,50,50	0
56	MG	CA	1799	1/1	0.06	-	14,14,14,14	0
56	MG	AA	1691	1/1	0.23	-	52,52,52,52	0
56	MG	DA	3162	1/1	0.18	-	33,33,33,33	0
56	MG	BA	3637	1/1	0.05	-	14,14,14,14	0
56	MG	BA	3627	1/1	0.10	-	49,49,49,49	0
56	MG	BA	3185	1/1	0.05	-	5,5,5,5	0
56	MG	DA	3234	1/1	0.17	-	8,8,8,8	0
56	MG	BA	3133	1/1	0.19	-	48,48,48,48	0
56	MG	CA	1854	1/1	0.12	-	43,43,43,43	0
56	MG	BA	3713	1/1	0.12	-	28,28,28,28	0
56	MG	BA	3219	1/1	0.07	-	14,14,14,14	0
56	MG	BA	3560	1/1	0.16	-	27,27,27,27	0
56	MG	DA	3073	1/1	0.06	-	34,34,34,34	0
56	MG	BO	201	1/1	0.08	-	17,17,17,17	0
56	MG	DA	3367	1/1	0.07	-	60,60,60,60	0
56	MG	DA	3550	1/1	0.25	-	35,35,35,35	0
56	MG	BA	3418	1/1	0.05	-	34,34,34,34	0
56	MG	BA	3211	1/1	0.08	-	27,27,27,27	0
56	MG	DA	3750	1/1	0.15	-	47,47,47,47	0
56	MG	AA	1669	1/1	0.06	-	40,40,40,40	0
56	MG	BA	3413	1/1	0.06	-	62,62,62,62	0
56	MG	BA	3171	1/1	0.14	-	30,30,30,30	0
56	MG	DA	3650	1/1	0.25	-	63,63,63,63	0
56	MG	DA	3665	1/1	0.10	-	35,35,35,35	0
56	MG	AA	1833	1/1	0.12	-	52,52,52,52	0
56	MG	BA	3522	1/1	0.09	-	0,0,0,0	0
56	MG	BA	3362	1/1	0.09	-	60,60,60,60	0
56	MG	DA	3745	1/1	0.13	-	39,39,39,39	0
56	MG	AA	1882	1/1	0.20	-	30,30,30,30	0
56	MG	BA	3277	1/1	0.10	-	54,54,54,54	0
56	MG	AA	1736	1/1	0.09	-	50,50,50,50	0
56	MG	AA	1849	1/1	0.07	-	40,40,40,40	0
56	MG	BA	3374	1/1	0.09	-	25,25,25,25	0
56	MG	BA	3448	1/1	0.18	-	45,45,45,45	0
56	MG	BA	3438	1/1	0.16	-	52,52,52,52	0
56	MG	AA	1623	1/1	0.08	-	7,7,7,7	0
56	MG	DA	3757	1/1	0.25	-	43,43,43,43	0
56	MG	AA	1651	1/1	0.15	-	53,53,53,53	0
56	MG	DA	3429	1/1	0.26	-	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3514	1/1	0.04	-	29,29,29,29	0
56	MG	CA	1899	1/1	0.11	-	49,49,49,49	0
56	MG	BA	3199	1/1	0.07	-	31,31,31,31	0
56	MG	DB	204	1/1	0.04	-	48,48,48,48	0
56	MG	AA	1870	1/1	0.22	-	28,28,28,28	0
56	MG	BA	3639	1/1	0.70	-	54,54,54,54	0
56	MG	BB	206	1/1	0.11	-	65,65,65,65	0
56	MG	AY	109	1/1	0.07	-	63,63,63,63	0
56	MG	BA	3053	1/1	0.07	-	50,50,50,50	0
56	MG	CA	1999	1/1	0.20	-	31,31,31,31	0
56	MG	DA	3131	1/1	0.12	-	16,16,16,16	0
56	MG	CA	2003	1/1	0.28	-	18,18,18,18	0
56	MG	DA	3201	1/1	0.06	-	45,45,45,45	0
56	MG	AA	1634	1/1	0.06	-	32,32,32,32	0
56	MG	CA	1670	1/1	0.27	-	31,31,31,31	0
56	MG	BA	3235	1/1	0.07	-	21,21,21,21	0
56	MG	CA	1889	1/1	0.19	-	31,31,31,31	0
56	MG	BA	3003	1/1	0.13	-	44,44,44,44	0
56	MG	CA	1616	1/1	0.09	-	54,54,54,54	0
56	MG	CX	408	1/1	0.21	-	44,44,44,44	0
56	MG	AA	1648	1/1	0.12	-	26,26,26,26	0
56	MG	CA	1678	1/1	0.15	-	65,65,65,65	0
56	MG	BA	3426	1/1	0.46	-	56,56,56,56	0
56	MG	DA	3552	1/1	0.07	-	16,16,16,16	0
56	MG	BA	3004	1/1	0.08	-	57,57,57,57	0
56	MG	BA	3081	1/1	0.03	-	0,0,0,0	0
56	MG	AA	1621	1/1	0.07	-	15,15,15,15	0
56	MG	BA	3142	1/1	0.07	-	40,40,40,40	0
56	MG	CZ	107	1/1	0.04	-	36,36,36,36	0
56	MG	BA	3607	1/1	0.13	-	23,23,23,23	0
56	MG	BA	3228	1/1	0.08	-	0,0,0,0	0
56	MG	BA	3628	1/1	0.07	-	24,24,24,24	0
56	MG	AH	201	1/1	0.08	-	24,24,24,24	0
56	MG	DA	3715	1/1	0.16	-	50,50,50,50	0
56	MG	DA	3193	1/1	0.11	-	17,17,17,17	0
56	MG	DA	3572	1/1	0.08	-	36,36,36,36	0
56	MG	DA	3577	1/1	0.07	-	42,42,42,42	0
56	MG	DA	3507	1/1	0.05	-	0,0,0,0	0
56	MG	AA	1697	1/1	0.09	-	1,1,1,1	0
56	MG	BA	3166	1/1	0.10	-	28,28,28,28	0
56	MG	CA	1873	1/1	0.14	-	62,62,62,62	0
56	MG	BA	3615	1/1	0.17	-	3,3,3,3	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3297	1/1	0.05	-	34,34,34,34	0
56	MG	BA	3755	1/1	0.15	-	64,64,64,64	0
56	MG	BA	3262	1/1	0.07	-	31,31,31,31	0
56	MG	DA	3654	1/1	0.19	-	41,41,41,41	0
56	MG	AA	1666	1/1	0.21	-	34,34,34,34	0
56	MG	BA	3469	1/1	0.04	-	28,28,28,28	0
56	MG	BA	3499	1/1	0.09	-	18,18,18,18	0
56	MG	BA	3120	1/1	0.05	-	1,1,1,1	0
56	MG	BA	3085	1/1	0.16	-	37,37,37,37	0
56	MG	DA	3136	1/1	0.10	-	11,11,11,11	0
56	MG	AA	1842	1/1	0.09	-	49,49,49,49	0
56	MG	AA	1793	1/1	0.05	-	30,30,30,30	0
56	MG	BA	3694	1/1	0.12	-	50,50,50,50	0
56	MG	BA	3082	1/1	0.14	-	48,48,48,48	0
56	MG	CA	1837	1/1	0.10	-	45,45,45,45	0
56	MG	AA	1735	1/1	0.09	-	24,24,24,24	0
56	MG	DA	3282	1/1	0.03	-	20,20,20,20	0
56	MG	CA	1820	1/1	0.13	-	55,55,55,55	0
56	MG	CA	1867	1/1	0.08	-	33,33,33,33	0
56	MG	BA	3290	1/1	0.07	-	12,12,12,12	0
56	MG	CA	1849	1/1	0.19	-	32,32,32,32	0
56	MG	CA	1619	1/1	0.24	-	66,66,66,66	0
56	MG	BA	3411	1/1	0.21	-	20,20,20,20	0
56	MG	BA	3233	1/1	0.18	-	35,35,35,35	0
56	MG	BA	3337	1/1	0.06	-	28,28,28,28	0
56	MG	BB	216	1/1	0.07	-	51,51,51,51	0
56	MG	AA	1869	1/1	0.23	-	33,33,33,33	0
56	MG	BA	3170	1/1	0.07	-	18,18,18,18	0
56	MG	AA	1617	1/1	0.06	-	0,0,0,0	0
56	MG	BB	221	1/1	0.15	-	37,37,37,37	0
56	MG	BA	3488	1/1	0.17	-	26,26,26,26	0
56	MG	BA	3187	1/1	0.14	-	65,65,65,65	0
56	MG	DA	3490	1/1	0.04	-	5,5,5,5	0
56	MG	DA	3458	1/1	0.14	-	44,44,44,44	0
56	MG	DA	3018	1/1	0.10	-	3,3,3,3	0
56	MG	CA	1735	1/1	0.09	-	20,20,20,20	0
56	MG	BB	204	1/1	0.08	-	46,46,46,46	0
56	MG	CA	1732	1/1	0.17	-	38,38,38,38	0
56	MG	AC	304	1/1	0.29	-	55,55,55,55	0
56	MG	BA	3746	1/1	0.40	-	65,65,65,65	0
56	MG	BA	3429	1/1	0.09	-	5,5,5,5	0
56	MG	BA	3431	1/1	0.08	-	11,11,11,11	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3209	1/1	0.11	-	31,31,31,31	0
56	MG	DA	3078	1/1	0.17	-	15,15,15,15	0
56	MG	AA	1711	1/1	0.07	-	17,17,17,17	0
56	MG	AA	1673	1/1	0.07	-	21,21,21,21	0
56	MG	DA	3428	1/1	0.09	-	61,61,61,61	0
56	MG	AA	1682	1/1	0.09	-	51,51,51,51	0
56	MG	BA	3471	1/1	0.06	-	17,17,17,17	0
56	MG	DA	3529	1/1	0.07	-	7,7,7,7	0
56	MG	BA	3100	1/1	0.06	-	42,42,42,42	0
56	MG	DZ	302	1/1	0.06	-	24,24,24,24	0
56	MG	AX	403	1/1	0.08	-	73,73,73,73	0
56	MG	DA	3627	1/1	0.15	-	24,24,24,24	0
56	MG	DA	3227	1/1	0.17	-	37,37,37,37	0
56	MG	BA	3381	1/1	0.09	-	2,2,2,2	0
56	MG	AA	1637	1/1	0.19	-	32,32,32,32	0
56	MG	CA	1935	1/1	0.13	-	49,49,49,49	0
56	MG	BA	3269	1/1	0.10	-	37,37,37,37	0
56	MG	DA	3185	1/1	0.25	-	44,44,44,44	0
56	MG	AA	1866	1/1	0.14	-	13,13,13,13	0
56	MG	BA	3157	1/1	0.10	-	8,8,8,8	0
56	MG	AA	1852	1/1	0.11	-	45,45,45,45	0
56	MG	BA	3417	1/1	0.10	-	25,25,25,25	0
56	MG	BA	3590	1/1	0.09	-	27,27,27,27	0
56	MG	BT	201	1/1	0.10	-	23,23,23,23	0
56	MG	DA	3438	1/1	0.19	-	24,24,24,24	0
56	MG	DB	202	1/1	0.07	-	59,59,59,59	0
56	MG	BA	3057	1/1	0.14	-	3,3,3,3	0
56	MG	CA	1646	1/1	0.43	-	45,45,45,45	0
56	MG	CA	2002	1/1	0.21	-	39,39,39,39	0
56	MG	BB	205	1/1	0.17	-	36,36,36,36	0
56	MG	CA	1998	1/1	0.15	-	48,48,48,48	0
56	MG	DA	3238	1/1	0.16	-	2,2,2,2	0
56	MG	BA	3335	1/1	0.06	-	4,4,4,4	0
56	MG	DA	3662	1/1	0.10	-	24,24,24,24	0
56	MG	DA	3689	1/1	0.22	-	45,45,45,45	0
56	MG	CC	307	1/1	0.09	-	27,27,27,27	0
56	MG	DA	3574	1/1	0.09	-	45,45,45,45	0
56	MG	CA	1712	1/1	0.31	-	18,18,18,18	0
56	MG	AA	1635	1/1	0.10	-	30,30,30,30	0
56	MG	BA	3794	1/1	0.21	-	12,12,12,12	0
56	MG	DA	3564	1/1	0.03	-	7,7,7,7	0
56	MG	AA	1737	1/1	0.07	-	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1954	1/1	0.06	-	22,22,22,22	0
56	MG	BA	3151	1/1	0.24	-	52,52,52,52	0
56	MG	DA	3449	1/1	0.07	-	16,16,16,16	0
56	MG	DR	201	1/1	0.12	-	32,32,32,32	0
56	MG	BA	3254	1/1	0.14	-	31,31,31,31	0
56	MG	BA	3668	1/1	0.11	-	50,50,50,50	0
56	MG	BA	3377	1/1	0.07	-	4,4,4,4	0
56	MG	AA	1808	1/1	0.07	-	23,23,23,23	0
56	MG	BB	219	1/1	0.23	-	52,52,52,52	0
56	MG	BA	3659	1/1	0.06	-	37,37,37,37	0
56	MG	CA	1691	1/1	0.09	-	15,15,15,15	0
56	MG	BA	3015	1/1	0.09	-	16,16,16,16	0
56	MG	DA	3653	1/1	0.09	-	55,55,55,55	0
56	MG	BA	3236	1/1	0.11	-	6,6,6,6	0
56	MG	CA	1986	1/1	0.13	-	23,23,23,23	0
56	MG	AA	1661	1/1	0.08	-	28,28,28,28	0
56	MG	BA	3686	1/1	0.10	-	30,30,30,30	0
56	MG	DA	3195	1/1	0.13	-	28,28,28,28	0
56	MG	DA	3056	1/1	0.23	-	25,25,25,25	0
57	ZN	AD	301	1/1	0.18	-	46,46,46,46	0
56	MG	BA	3728	1/1	0.16	-	28,28,28,28	0
56	MG	CA	1609	1/1	0.08	-	60,60,60,60	0
56	MG	AY	116	1/1	0.25	-	51,51,51,51	0
56	MG	CA	1880	1/1	0.09	-	51,51,51,51	0
56	MG	CA	1703	1/1	0.13	-	34,34,34,34	0
56	MG	BA	3645	1/1	0.08	-	25,25,25,25	0
56	MG	BA	3602	1/1	0.07	-	42,42,42,42	0
56	MG	AA	1704	1/1	0.09	-	18,18,18,18	0
56	MG	BA	3487	1/1	0.07	-	16,16,16,16	0
56	MG	BA	3720	1/1	0.05	-	30,30,30,30	0
56	MG	DA	3286	1/1	0.05	-	6,6,6,6	0
56	MG	DA	3604	1/1	0.12	-	43,43,43,43	0
56	MG	DA	3731	1/1	0.15	-	60,60,60,60	0
56	MG	CA	1948	1/1	0.28	-	43,43,43,43	0
56	MG	CA	1642	1/1	0.13	-	29,29,29,29	0
56	MG	BA	3288	1/1	0.16	-	8,8,8,8	0
56	MG	AA	1725	1/1	0.11	-	23,23,23,23	0
56	MG	BA	3621	1/1	0.06	-	57,57,57,57	0
56	MG	BA	3653	1/1	0.08	-	38,38,38,38	0
56	MG	DA	3737	1/1	0.14	-	56,56,56,56	0
56	MG	DA	3709	1/1	0.13	-	24,24,24,24	0
56	MG	AA	1688	1/1	0.08	-	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3001	1/1	0.16	-	37,37,37,37	0
56	MG	AA	1906	1/1	0.11	-	26,26,26,26	0
56	MG	CA	1739	1/1	0.08	-	39,39,39,39	0
56	MG	DA	3341	1/1	0.12	-	31,31,31,31	0
56	MG	DA	3638	1/1	0.13	-	37,37,37,37	0
56	MG	CX	409	1/1	0.28	-	33,33,33,33	0
56	MG	DA	3464	1/1	0.14	-	26,26,26,26	0
56	MG	AA	1824	1/1	0.11	-	78,78,78,78	0
56	MG	BA	3576	1/1	0.13	-	33,33,33,33	0
56	MG	BA	3674	1/1	0.08	-	52,52,52,52	0
56	MG	BA	3391	1/1	0.10	-	46,46,46,46	0
56	MG	DA	3353	1/1	0.07	-	0,0,0,0	0
56	MG	AA	1739	1/1	0.10	-	3,3,3,3	0
56	MG	BA	3145	1/1	0.07	-	36,36,36,36	0
56	MG	DA	3637	1/1	0.34	-	66,66,66,66	0
56	MG	BA	3553	1/1	0.14	-	24,24,24,24	0
56	MG	CA	1895	1/1	0.20	-	30,30,30,30	0
56	MG	DA	3292	1/1	0.06	-	8,8,8,8	0
56	MG	AA	1853	1/1	0.06	-	12,12,12,12	0
56	MG	DA	3532	1/1	0.11	-	65,65,65,65	0
56	MG	DA	3168	1/1	0.06	-	49,49,49,49	0
56	MG	DA	3063	1/1	0.04	-	0,0,0,0	0
56	MG	AA	1740	1/1	0.11	-	53,53,53,53	0
56	MG	AA	1860	1/1	0.05	-	11,11,11,11	0
56	MG	CA	1971	1/1	0.24	-	49,49,49,49	0
56	MG	DA	3232	1/1	0.10	-	6,6,6,6	0
56	MG	CA	1625	1/1	0.16	-	60,60,60,60	0
56	MG	DA	3065	1/1	0.05	-	0,0,0,0	0
56	MG	AY	113	1/1	0.10	-	41,41,41,41	0
56	MG	BA	3201	1/1	0.07	-	22,22,22,22	0
56	MG	AD	305	1/1	0.11	-	52,52,52,52	0
56	MG	CA	1869	1/1	0.06	-	32,32,32,32	0
56	MG	AA	1641	1/1	0.05	-	8,8,8,8	0
56	MG	BA	3096	1/1	0.15	-	16,16,16,16	0
56	MG	BA	3740	1/1	0.09	-	22,22,22,22	0
56	MG	BA	3052	1/1	0.15	-	0,0,0,0	0
56	MG	AA	1751	1/1	0.06	-	20,20,20,20	0
56	MG	DA	3156	1/1	0.07	-	14,14,14,14	0
56	MG	BA	3752	1/1	0.24	-	30,30,30,30	0
56	MG	BA	3665	1/1	0.23	-	46,46,46,46	0
56	MG	DA	3022	1/1	0.06	-	19,19,19,19	0
56	MG	AY	105	1/1	0.25	-	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BB	225	1/1	0.08	-	50,50,50,50	0
56	MG	DA	3105	1/1	0.09	-	12,12,12,12	0
56	MG	BA	3301	1/1	0.09	-	15,15,15,15	0
56	MG	BA	3689	1/1	0.10	-	44,44,44,44	0
56	MG	BA	3412	1/1	0.09	-	22,22,22,22	0
56	MG	DA	3084	1/1	0.23	-	26,26,26,26	0
56	MG	BA	3191	1/1	0.12	-	41,41,41,41	0
56	MG	CA	1749	1/1	0.10	-	41,41,41,41	0
56	MG	BA	3459	1/1	0.17	-	40,40,40,40	0
56	MG	BA	3798	1/1	0.06	-	38,38,38,38	0
56	MG	BA	3296	1/1	0.07	-	20,20,20,20	0
56	MG	BA	3624	1/1	0.17	-	82,82,82,82	0
56	MG	AA	1863	1/1	0.12	-	37,37,37,37	0
56	MG	BA	3771	1/1	0.13	-	45,45,45,45	0
56	MG	DA	3071	1/1	0.09	-	31,31,31,31	0
56	MG	AA	1714	1/1	0.09	-	28,28,28,28	0
56	MG	CA	1990	1/1	0.19	-	56,56,56,56	0
56	MG	CA	1892	1/1	0.12	-	5,5,5,5	0
56	MG	CZ	105	1/1	0.07	-	16,16,16,16	0
56	MG	DA	3158	1/1	0.14	-	15,15,15,15	0
56	MG	DA	3401	1/1	0.08	-	1,1,1,1	0
56	MG	AA	1732	1/1	0.17	-	35,35,35,35	0
56	MG	AA	1788	1/1	0.06	-	12,12,12,12	0
56	MG	BA	3348	1/1	0.09	-	9,9,9,9	0
56	MG	BR	203	1/1	0.73	-	49,49,49,49	0
56	MG	AA	1798	1/1	0.08	-	32,32,32,32	0
56	MG	DA	3623	1/1	0.08	-	39,39,39,39	0
56	MG	CA	1836	1/1	0.12	-	14,14,14,14	0
56	MG	DA	3118	1/1	0.06	-	26,26,26,26	0
56	MG	CY	118	1/1	0.08	-	56,56,56,56	0
56	MG	BA	3474	1/1	0.27	-	48,48,48,48	0
56	MG	DA	3410	1/1	0.07	-	17,17,17,17	0
56	MG	DA	3302	1/1	0.19	-	31,31,31,31	0
56	MG	BA	3804	1/1	0.10	-	29,29,29,29	0
56	MG	DB	224	1/1	0.25	-	41,41,41,41	0
56	MG	BA	3643	1/1	0.07	-	23,23,23,23	0
56	MG	BA	3451	1/1	0.12	-	51,51,51,51	0
56	MG	DA	3335	1/1	0.05	-	7,7,7,7	0
56	MG	BA	3558	1/1	0.20	-	54,54,54,54	0
56	MG	CA	1985	1/1	0.07	-	52,52,52,52	0
56	MG	CA	1914	1/1	0.10	-	29,29,29,29	0
56	MG	AA	1608	1/1	0.22	-	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1961	1/1	0.09	-	27,27,27,27	0
56	MG	BA	3022	1/1	0.05	-	2,2,2,2	0
56	MG	BA	3144	1/1	0.17	-	34,34,34,34	0
56	MG	DA	3611	1/1	0.19	-	21,21,21,21	0
56	MG	BA	3354	1/1	0.08	-	19,19,19,19	0
56	MG	BA	3666	1/1	0.13	-	51,51,51,51	0
56	MG	CA	1879	1/1	0.17	-	28,28,28,28	0
56	MG	CA	1672	1/1	0.09	-	33,33,33,33	0
56	MG	DA	3260	1/1	0.04	-	15,15,15,15	0
56	MG	DA	3508	1/1	0.12	-	16,16,16,16	0
56	MG	DA	3267	1/1	0.13	-	40,40,40,40	0
56	MG	AA	1836	1/1	0.13	-	45,45,45,45	0
56	MG	CX	405	1/1	0.18	-	49,49,49,49	0
56	MG	DA	3509	1/1	0.10	-	33,33,33,33	0
56	MG	AA	1646	1/1	0.20	-	21,21,21,21	0
56	MG	BF	302	1/1	0.09	-	13,13,13,13	0
56	MG	CA	1788	1/1	0.11	-	40,40,40,40	0
56	MG	AA	1680	1/1	0.12	-	26,26,26,26	0
56	MG	BA	3688	1/1	0.04	-	38,38,38,38	0
56	MG	CA	1885	1/1	0.08	-	72,72,72,72	0
56	MG	B5	101	1/1	0.05	-	18,18,18,18	0
56	MG	BA	3456	1/1	0.17	-	35,35,35,35	0
56	MG	BA	3147	1/1	0.10	-	53,53,53,53	0
56	MG	BA	3259	1/1	0.09	-	27,27,27,27	0
56	MG	DA	3013	1/1	0.17	-	23,23,23,23	0
56	MG	BA	3640	1/1	0.13	-	34,34,34,34	0
56	MG	BA	3128	1/1	0.08	-	38,38,38,38	0
56	MG	DA	3143	1/1	0.13	-	31,31,31,31	0
56	MG	CA	1902	1/1	0.08	-	50,50,50,50	0
56	MG	DA	3446	1/1	0.10	-	20,20,20,20	0
56	MG	AA	1702	1/1	0.13	-	40,40,40,40	0
56	MG	AA	1676	1/1	0.45	-	49,49,49,49	0
56	MG	DA	3645	1/1	0.06	-	20,20,20,20	0
56	MG	DA	3403	1/1	0.36	-	42,42,42,42	0
56	MG	CA	1862	1/1	0.13	-	71,71,71,71	0
56	MG	BA	3156	1/1	0.10	-	48,48,48,48	0
56	MG	DA	3340	1/1	0.13	-	33,33,33,33	0
56	MG	BD	302	1/1	0.26	-	2,2,2,2	0
56	MG	BA	3349	1/1	0.05	-	42,42,42,42	0
56	MG	CA	1987	1/1	0.36	-	58,58,58,58	0
56	MG	BA	3710	1/1	0.11	-	13,13,13,13	0
56	MG	BA	3629	1/1	0.14	-	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	D2	101	1/1	0.10	-	58,58,58,58	0
56	MG	BA	3206	1/1	0.09	-	37,37,37,37	0
56	MG	BA	3719	1/1	0.22	-	51,51,51,51	0
56	MG	BW	201	1/1	0.13	-	23,23,23,23	0
56	MG	BA	3695	1/1	0.08	-	50,50,50,50	0
56	MG	CA	1606	1/1	0.13	-	27,27,27,27	0
56	MG	AA	1787	1/1	0.08	-	36,36,36,36	0
56	MG	DA	3675	1/1	0.37	-	55,55,55,55	0
56	MG	BA	3282	1/1	0.07	-	6,6,6,6	0
56	MG	DA	3561	1/1	0.23	-	19,19,19,19	0
56	MG	CA	1997	1/1	0.20	-	24,24,24,24	0
56	MG	AA	1910	1/1	0.26	-	32,32,32,32	0
56	MG	CA	1658	1/1	0.16	-	37,37,37,37	0
56	MG	AA	1741	1/1	0.22	-	32,32,32,32	0
56	MG	BA	3623	1/1	0.14	-	43,43,43,43	0
56	MG	BA	3650	1/1	0.10	-	33,33,33,33	0
56	MG	DA	3636	1/1	0.12	-	46,46,46,46	0
56	MG	CA	1913	1/1	0.17	-	41,41,41,41	0
56	MG	DA	3128	1/1	0.15	-	46,46,46,46	0
56	MG	AH	202	1/1	0.05	-	41,41,41,41	0
56	MG	DA	3045	1/1	0.04	-	7,7,7,7	0
56	MG	CA	1805	1/1	0.07	-	9,9,9,9	0
56	MG	CA	1714	1/1	0.09	-	13,13,13,13	0
56	MG	BA	3316	1/1	0.09	-	12,12,12,12	0
56	MG	CA	1682	1/1	0.10	-	46,46,46,46	0
56	MG	CA	1909	1/1	0.23	-	33,33,33,33	0
56	MG	CA	1807	1/1	0.13	-	14,14,14,14	0
56	MG	BA	3606	1/1	0.29	-	54,54,54,54	0
56	MG	DA	3451	1/1	0.07	-	5,5,5,5	0
56	MG	BR	201	1/1	0.23	-	24,24,24,24	0
56	MG	DA	3246	1/1	0.09	-	15,15,15,15	0
56	MG	BA	3030	1/1	0.15	-	26,26,26,26	0
56	MG	BA	3461	1/1	0.06	-	23,23,23,23	0
56	MG	DB	223	1/1	0.11	-	53,53,53,53	0
56	MG	DA	3701	1/1	0.11	-	27,27,27,27	0
56	MG	DA	3257	1/1	0.18	-	32,32,32,32	0
56	MG	CY	105	1/1	0.08	-	58,58,58,58	0
56	MG	BA	3175	1/1	0.06	-	12,12,12,12	0
56	MG	CA	1779	1/1	0.08	-	14,14,14,14	0
56	MG	CY	102	1/1	0.07	-	11,11,11,11	0
56	MG	DB	214	1/1	0.17	-	34,34,34,34	0
56	MG	AA	1811	1/1	0.07	-	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3046	1/1	0.04	-	20,20,20,20	0
56	MG	DA	3539	1/1	0.06	-	3,3,3,3	0
56	MG	BF	303	1/1	0.21	-	37,37,37,37	0
56	MG	DA	3491	1/1	0.08	-	44,44,44,44	0
56	MG	DA	3107	1/1	0.06	-	16,16,16,16	0
56	MG	CA	1710	1/1	0.06	-	29,29,29,29	0
56	MG	CA	1675	1/1	0.10	-	26,26,26,26	0
56	MG	AA	1722	1/1	0.07	-	35,35,35,35	0
56	MG	BA	3212	1/1	0.09	-	17,17,17,17	0
56	MG	CA	1603	1/1	0.06	-	41,41,41,41	0
56	MG	DA	3222	1/1	0.06	-	2,2,2,2	0
56	MG	DA	3010	1/1	0.12	-	2,2,2,2	0
56	MG	BA	3483	1/1	0.10	-	29,29,29,29	0
56	MG	BA	3676	1/1	0.11	-	20,20,20,20	0
56	MG	BA	3248	1/1	0.08	-	42,42,42,42	0
56	MG	B7	101	1/1	0.07	-	24,24,24,24	0
56	MG	BA	3702	1/1	0.31	-	47,47,47,47	0
56	MG	DA	3413	1/1	0.11	-	28,28,28,28	0
56	MG	DA	3496	1/1	0.14	-	18,18,18,18	0
56	MG	BA	3799	1/1	0.09	-	34,34,34,34	0
56	MG	AA	1733	1/1	0.07	-	24,24,24,24	0
56	MG	AA	1846	1/1	0.18	-	55,55,55,55	0
56	MG	DA	3047	1/1	0.05	-	10,10,10,10	0
56	MG	BA	3453	1/1	0.29	-	43,43,43,43	0
56	MG	DA	3005	1/1	0.07	-	1,1,1,1	0
56	MG	BA	3618	1/1	0.06	-	10,10,10,10	0
56	MG	BA	3529	1/1	0.10	-	32,32,32,32	0
56	MG	BA	3519	1/1	0.14	-	38,38,38,38	0
56	MG	BA	3344	1/1	0.15	-	42,42,42,42	0
56	MG	CA	1623	1/1	0.07	-	22,22,22,22	0
56	MG	DA	3037	1/1	0.09	-	57,57,57,57	0
56	MG	CA	1717	1/1	0.06	-	32,32,32,32	0
56	MG	DA	3742	1/1	0.15	-	2,2,2,2	0
56	MG	DA	3141	1/1	0.06	-	9,9,9,9	0
56	MG	CY	121	1/1	0.07	-	0,0,0,0	0
56	MG	DA	3480	1/1	0.20	-	46,46,46,46	0
56	MG	DA	3717	1/1	0.09	-	24,24,24,24	0
56	MG	DA	3020	1/1	0.26	-	9,9,9,9	0
56	MG	DA	3732	1/1	0.08	-	29,29,29,29	0
56	MG	CA	1778	1/1	0.11	-	34,34,34,34	0
56	MG	AF	202	1/1	0.08	-	58,58,58,58	0
56	MG	BA	3294	1/1	0.04	-	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3526	1/1	0.08	-	12,12,12,12	0
56	MG	DA	3652	1/1	0.10	-	45,45,45,45	0
56	MG	CA	1612	1/1	0.09	-	30,30,30,30	0
56	MG	CC	303	1/1	0.21	-	22,22,22,22	0
56	MG	DA	3165	1/1	0.10	-	8,8,8,8	0
56	MG	BA	3801	1/1	0.12	-	45,45,45,45	0
56	MG	AA	1654	1/1	0.46	-	80,80,80,80	0
56	MG	AA	1770	1/1	0.11	-	42,42,42,42	0
56	MG	DA	3443	1/1	0.15	-	25,25,25,25	0
56	MG	DA	3535	1/1	0.09	-	42,42,42,42	0
56	MG	DA	3070	1/1	0.07	-	20,20,20,20	0
56	MG	BA	3071	1/1	0.06	-	34,34,34,34	0
56	MG	AY	118	1/1	0.20	-	45,45,45,45	0
56	MG	DA	3688	1/1	0.20	-	63,63,63,63	0
56	MG	DA	3400	1/1	0.11	-	19,19,19,19	0
56	MG	DV	201	1/1	0.09	-	61,61,61,61	0
56	MG	CA	1618	1/1	0.08	-	27,27,27,27	0
56	MG	BA	3243	1/1	0.11	-	14,14,14,14	0
56	MG	CA	1770	1/1	0.13	-	30,30,30,30	0
56	MG	BA	3165	1/1	0.06	-	8,8,8,8	0
56	MG	BA	3550	1/1	0.04	-	13,13,13,13	0
56	MG	BA	3739	1/1	0.09	-	37,37,37,37	0
56	MG	B1	101	1/1	0.07	-	28,28,28,28	0
56	MG	CA	1647	1/1	0.04	-	25,25,25,25	0
56	MG	CA	1608	1/1	0.04	-	27,27,27,27	0
56	MG	CA	1989	1/1	0.08	-	33,33,33,33	0
56	MG	DA	3415	1/1	0.14	-	27,27,27,27	0
56	MG	BB	218	1/1	0.16	-	51,51,51,51	0
56	MG	CA	1645	1/1	0.09	-	45,45,45,45	0
56	MG	BA	3447	1/1	0.05	-	16,16,16,16	0
56	MG	AA	1845	1/1	0.29	-	48,48,48,48	0
56	MG	DA	3243	1/1	0.07	-	41,41,41,41	0
56	MG	DA	3129	1/1	0.07	-	32,32,32,32	0
56	MG	DA	3456	1/1	0.11	-	37,37,37,37	0
56	MG	BA	3726	1/1	0.07	-	66,66,66,66	0
56	MG	BA	3784	1/1	0.17	-	36,36,36,36	0
56	MG	CA	1787	1/1	0.12	-	19,19,19,19	0
56	MG	B7	103	1/1	0.12	-	47,47,47,47	0
56	MG	BA	3172	1/1	0.08	-	63,63,63,63	0
56	MG	DB	212	1/1	0.17	-	45,45,45,45	0
56	MG	DA	3651	1/1	0.22	-	21,21,21,21	0
56	MG	DA	3125	1/1	0.18	-	15,15,15,15	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3478	1/1	0.12	-	18,18,18,18	0
56	MG	BA	3080	1/1	0.04	-	19,19,19,19	0
56	MG	DA	3729	1/1	0.23	-	50,50,50,50	0
56	MG	CA	1925	1/1	0.08	-	45,45,45,45	0
56	MG	DA	3093	1/1	0.17	-	23,23,23,23	0
56	MG	AA	1734	1/1	0.08	-	21,21,21,21	0
56	MG	DA	3094	1/1	0.16	-	13,13,13,13	0
56	MG	CY	106	1/1	0.15	-	35,35,35,35	0
56	MG	DA	3134	1/1	0.11	-	61,61,61,61	0
56	MG	DA	3262	1/1	0.12	-	20,20,20,20	0
56	MG	DA	3223	1/1	0.07	-	26,26,26,26	0
56	MG	DA	3038	1/1	0.10	-	14,14,14,14	0
56	MG	CA	2009	1/1	0.28	-	41,41,41,41	0
56	MG	DA	3355	1/1	0.21	-	39,39,39,39	0
56	MG	DA	3318	1/1	0.08	-	21,21,21,21	0
56	MG	BA	3484	1/1	0.16	-	23,23,23,23	0
56	MG	BA	3410	1/1	0.16	-	37,37,37,37	0
56	MG	AO	101	1/1	0.08	-	30,30,30,30	0
56	MG	BA	3033	1/1	0.12	-	24,24,24,24	0
56	MG	DA	3583	1/1	0.26	-	43,43,43,43	0
56	MG	AA	1719	1/1	0.06	-	28,28,28,28	0
56	MG	DA	3220	1/1	0.07	-	22,22,22,22	0
56	MG	BB	217	1/1	0.05	-	63,63,63,63	0
56	MG	CA	1622	1/1	0.08	-	24,24,24,24	0
56	MG	DA	3581	1/1	0.07	-	16,16,16,16	0
56	MG	DA	3470	1/1	0.10	-	47,47,47,47	0
56	MG	DA	3189	1/1	0.10	-	40,40,40,40	0
56	MG	AA	1778	1/1	0.39	-	50,50,50,50	0
56	MG	BF	305	1/1	0.07	-	27,27,27,27	0
56	MG	BA	3581	1/1	0.21	-	39,39,39,39	0
56	MG	DA	3308	1/1	0.12	-	36,36,36,36	0
56	MG	CA	1940	1/1	0.07	-	35,35,35,35	0
56	MG	BA	3364	1/1	0.10	-	60,60,60,60	0
56	MG	AK	201	1/1	0.08	-	66,66,66,66	0
56	MG	CA	1734	1/1	0.06	-	42,42,42,42	0
56	MG	DA	3310	1/1	0.12	-	34,34,34,34	0
56	MG	BA	3407	1/1	0.04	-	15,15,15,15	0
56	MG	BA	3041	1/1	0.07	-	25,25,25,25	0
56	MG	AA	1898	1/1	0.20	-	27,27,27,27	0
56	MG	CA	1886	1/1	0.57	-	62,62,62,62	0
56	MG	AA	1819	1/1	0.07	-	1,1,1,1	0
56	MG	DT	201	1/1	0.07	-	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3593	1/1	0.51	-	28,28,28,28	0
56	MG	BA	3361	1/1	0.08	-	33,33,33,33	0
56	MG	DA	3245	1/1	0.09	-	5,5,5,5	0
56	MG	DA	3144	1/1	0.18	-	11,11,11,11	0
56	MG	BA	3097	1/1	0.09	-	16,16,16,16	0
56	MG	AA	1629	1/1	0.30	-	59,59,59,59	0
56	MG	CE	201	1/1	0.13	-	70,70,70,70	0
56	MG	BA	3263	1/1	0.16	-	0,0,0,0	0
56	MG	DA	3164	1/1	0.11	-	13,13,13,13	0
56	MG	AA	1904	1/1	0.11	-	47,47,47,47	0
56	MG	AA	1668	1/1	0.08	-	14,14,14,14	0
56	MG	BA	3605	1/1	0.14	-	41,41,41,41	0
56	MG	BA	3445	1/1	0.17	-	45,45,45,45	0
56	MG	DA	3606	1/1	0.12	-	54,54,54,54	0
56	MG	BA	3589	1/1	0.08	-	62,62,62,62	0
56	MG	BA	3042	1/1	0.07	-	12,12,12,12	0
56	MG	DA	3138	1/1	0.26	-	52,52,52,52	0
56	MG	CD	303	1/1	0.13	-	21,21,21,21	0
56	MG	BA	3146	1/1	0.05	-	22,22,22,22	0
56	MG	BA	3724	1/1	0.06	-	32,32,32,32	0
56	MG	BA	3468	1/1	0.04	-	1,1,1,1	0
56	MG	CZ	111	1/1	0.09	-	49,49,49,49	0
56	MG	CA	1945	1/1	0.18	-	18,18,18,18	0
56	MG	BA	3384	1/1	0.10	-	1,1,1,1	0
56	MG	AC	303	1/1	0.12	-	51,51,51,51	0
56	MG	BA	3696	1/1	0.22	-	37,37,37,37	0
56	MG	DA	3226	1/1	0.15	-	21,21,21,21	0
56	MG	BH	202	1/1	0.10	-	34,34,34,34	0
56	MG	AE	201	1/1	0.24	-	60,60,60,60	0
56	MG	BA	3584	1/1	0.12	-	46,46,46,46	0
56	MG	DA	3417	1/1	0.05	-	53,53,53,53	0
56	MG	DA	3553	1/1	0.05	-	6,6,6,6	0
56	MG	BA	3232	1/1	0.08	-	25,25,25,25	0
56	MG	DA	3473	1/1	0.21	-	55,55,55,55	0
56	MG	BA	3104	1/1	0.07	-	15,15,15,15	0
56	MG	AA	1874	1/1	0.16	-	10,10,10,10	0
56	MG	CA	1705	1/1	0.10	-	31,31,31,31	0
56	MG	BA	3338	1/1	0.08	-	27,27,27,27	0
56	MG	AA	1831	1/1	0.17	-	44,44,44,44	0
56	MG	B2	101	1/1	0.22	-	32,32,32,32	0
56	MG	BA	3554	1/1	0.16	-	19,19,19,19	0
56	MG	CA	2012	1/1	0.12	-	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1643	1/1	0.07	-	24,24,24,24	0
56	MG	BA	3776	1/1	0.04	-	6,6,6,6	0
56	MG	DA	3087	1/1	0.07	-	27,27,27,27	0
56	MG	AA	1672	1/1	0.06	-	46,46,46,46	0
56	MG	AA	1840	1/1	0.12	-	49,49,49,49	0
56	MG	AA	1908	1/1	0.05	-	13,13,13,13	0
56	MG	DA	3671	1/1	0.12	-	6,6,6,6	0
56	MG	BA	3152	1/1	0.10	-	7,7,7,7	0
56	MG	BA	3072	1/1	0.10	-	26,26,26,26	0
56	MG	DA	3019	1/1	0.05	-	5,5,5,5	0
56	MG	CZ	115	1/1	0.12	-	40,40,40,40	0
56	MG	BA	3508	1/1	0.11	-	5,5,5,5	0
56	MG	BA	3670	1/1	0.10	-	29,29,29,29	0
56	MG	CA	1834	1/1	0.09	-	61,61,61,61	0
56	MG	BA	3023	1/1	0.14	-	2,2,2,2	0
56	MG	BA	3423	1/1	0.08	-	22,22,22,22	0
56	MG	BA	3180	1/1	0.07	-	8,8,8,8	0
56	MG	DA	3542	1/1	0.20	-	48,48,48,48	0
56	MG	BA	3370	1/1	0.24	-	24,24,24,24	0
56	MG	AA	1616	1/1	0.12	-	7,7,7,7	0
56	MG	AA	1760	1/1	0.09	-	24,24,24,24	0
56	MG	DA	3188	1/1	0.12	-	9,9,9,9	0
56	MG	BA	3549	1/1	0.07	-	40,40,40,40	0
56	MG	CA	1611	1/1	0.13	-	40,40,40,40	0
56	MG	DA	3409	1/1	0.08	-	24,24,24,24	0
56	MG	AX	401	1/1	0.24	-	55,55,55,55	0
56	MG	BB	211	1/1	0.03	-	16,16,16,16	0
56	MG	BA	3044	1/1	0.22	-	18,18,18,18	0
56	MG	CA	1996	1/1	0.12	-	41,41,41,41	0
56	MG	DA	3279	1/1	0.08	-	20,20,20,20	0
56	MG	AA	1796	1/1	0.11	-	15,15,15,15	0
56	MG	BA	3016	1/1	0.10	-	0,0,0,0	0
56	MG	DA	3194	1/1	0.09	-	42,42,42,42	0
56	MG	BA	3312	1/1	0.07	-	7,7,7,7	0
56	MG	CA	1947	1/1	0.16	-	44,44,44,44	0
56	MG	CI	202	1/1	0.34	-	52,52,52,52	0
56	MG	BA	3477	1/1	0.09	-	31,31,31,31	0
56	MG	CY	112	1/1	0.07	-	20,20,20,20	0
56	MG	BA	3345	1/1	0.10	-	37,37,37,37	0
56	MG	BA	3186	1/1	0.12	-	28,28,28,28	0
56	MG	DO	201	1/1	0.21	-	23,23,23,23	0
56	MG	AA	1625	1/1	0.17	-	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3596	1/1	0.03	-	8,8,8,8	0
56	MG	AA	1855	1/1	0.06	-	23,23,23,23	0
56	MG	BA	3059	1/1	0.06	-	11,11,11,11	0
56	MG	BA	3790	1/1	0.11	-	75,75,75,75	0
56	MG	B1	102	1/1	0.17	-	24,24,24,24	0
56	MG	DA	3402	1/1	0.10	-	19,19,19,19	0
56	MG	CA	1792	1/1	0.06	-	16,16,16,16	0
56	MG	CA	1863	1/1	0.17	-	33,33,33,33	0
56	MG	CA	1858	1/1	0.08	-	66,66,66,66	0
56	MG	AC	306	1/1	0.06	-	21,21,21,21	0
56	MG	BA	3486	1/1	0.06	-	41,41,41,41	0
56	MG	DA	3027	1/1	0.11	-	22,22,22,22	0
56	MG	CA	1756	1/1	0.15	-	32,32,32,32	0
56	MG	CA	1752	1/1	0.04	-	24,24,24,24	0
56	MG	BB	212	1/1	0.10	-	50,50,50,50	0
56	MG	BA	3490	1/1	0.07	-	22,22,22,22	0
56	MG	DA	3681	1/1	0.45	-	28,28,28,28	0
56	MG	AA	1890	1/1	0.14	-	39,39,39,39	0
56	MG	DA	3736	1/1	0.09	-	64,64,64,64	0
56	MG	DA	3122	1/1	0.09	-	46,46,46,46	0
56	MG	DA	3273	1/1	0.08	-	0,0,0,0	0
56	MG	BA	3579	1/1	0.12	-	41,41,41,41	0
56	MG	DA	3661	1/1	0.23	-	80,80,80,80	0
56	MG	BA	3610	1/1	0.13	-	34,34,34,34	0
56	MG	DA	3135	1/1	0.11	-	25,25,25,25	0
56	MG	CG	201	1/1	0.15	-	52,52,52,52	0
56	MG	BA	3088	1/1	0.13	-	10,10,10,10	0
56	MG	AA	1838	1/1	0.08	-	39,39,39,39	0
56	MG	CA	1993	1/1	0.18	-	48,48,48,48	0
56	MG	DA	3663	1/1	0.14	-	19,19,19,19	0
56	MG	CA	1771	1/1	0.13	-	47,47,47,47	0
56	MG	CA	1731	1/1	0.13	-	30,30,30,30	0
56	MG	AA	1743	1/1	0.07	-	33,33,33,33	0
56	MG	BA	3240	1/1	0.05	-	10,10,10,10	0
56	MG	BA	3173	1/1	0.06	-	12,12,12,12	0
56	MG	DA	3326	1/1	0.11	-	27,27,27,27	0
56	MG	BA	3119	1/1	0.17	-	39,39,39,39	0
56	MG	DA	3357	1/1	0.12	-	14,14,14,14	0
56	MG	DB	227	1/1	0.16	-	53,53,53,53	0
56	MG	AA	1633	1/1	0.08	-	49,49,49,49	0
56	MG	DB	217	1/1	0.07	-	24,24,24,24	0
56	MG	CA	1819	1/1	0.18	-	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1861	1/1	0.18	-	60,60,60,60	0
56	MG	DA	3515	1/1	0.12	-	5,5,5,5	0
56	MG	AA	1601	1/1	0.19	-	18,18,18,18	0
56	MG	BA	3334	1/1	0.17	-	23,23,23,23	0
56	MG	DA	3068	1/1	0.03	-	0,0,0,0	0
56	MG	CA	1685	1/1	0.08	-	6,6,6,6	0
56	MG	BA	3479	1/1	0.10	-	45,45,45,45	0
56	MG	BA	3588	1/1	0.04	-	22,22,22,22	0
56	MG	BA	3161	1/1	0.07	-	25,25,25,25	0
56	MG	CA	1931	1/1	0.35	-	59,59,59,59	0
56	MG	AM	201	1/1	0.30	-	54,54,54,54	0
56	MG	AA	1856	1/1	0.04	-	49,49,49,49	0
56	MG	CA	1825	1/1	0.12	-	26,26,26,26	0
56	MG	DA	3155	1/1	0.16	-	35,35,35,35	0
56	MG	DA	3178	1/1	0.11	-	47,47,47,47	0
56	MG	AA	1848	1/1	0.05	-	45,45,45,45	0
56	MG	DA	3075	1/1	0.14	-	8,8,8,8	0
56	MG	BA	3140	1/1	0.14	-	22,22,22,22	0
56	MG	DA	3520	1/1	0.11	-	63,63,63,63	0
56	MG	BA	3311	1/1	0.10	-	43,43,43,43	0
56	MG	CA	1936	1/1	0.09	-	63,63,63,63	0
56	MG	D7	102	1/1	0.11	-	28,28,28,28	0
56	MG	BA	3060	1/1	0.07	-	7,7,7,7	0
56	MG	DA	3064	1/1	0.04	-	11,11,11,11	0
56	MG	BA	3496	1/1	0.10	-	39,39,39,39	0
56	MG	DA	3171	1/1	0.12	-	52,52,52,52	0
56	MG	AA	1809	1/1	0.07	-	54,54,54,54	0
56	MG	DA	3483	1/1	0.15	-	19,19,19,19	0
56	MG	CA	1700	1/1	0.05	-	14,14,14,14	0
56	MG	BA	3788	1/1	0.15	-	49,49,49,49	0
56	MG	CA	1983	1/1	0.33	-	50,50,50,50	0
56	MG	DA	3625	1/1	0.09	-	28,28,28,28	0
56	MG	AA	1692	1/1	0.17	-	45,45,45,45	0
56	MG	DA	3695	1/1	0.15	-	52,52,52,52	0
56	MG	BA	3664	1/1	0.07	-	41,41,41,41	0
56	MG	BA	3762	1/1	0.42	-	35,35,35,35	0
56	MG	BA	3264	1/1	0.11	-	11,11,11,11	0
56	MG	BA	3153	1/1	0.09	-	60,60,60,60	0
56	MG	CA	1664	1/1	0.07	-	41,41,41,41	0
56	MG	CA	2006	1/1	0.12	-	41,41,41,41	0
56	MG	BA	3038	1/1	0.08	-	37,37,37,37	0
56	MG	AA	1708	1/1	0.07	-	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3101	1/1	0.12	-	33,33,33,33	0
56	MG	AA	1701	1/1	0.09	-	17,17,17,17	0
56	MG	AA	1698	1/1	0.13	-	27,27,27,27	0
56	MG	DA	3493	1/1	0.12	-	30,30,30,30	0
56	MG	CA	1715	1/1	0.09	-	39,39,39,39	0
56	MG	BQ	202	1/1	0.24	-	45,45,45,45	0
56	MG	DA	3052	1/1	0.13	-	38,38,38,38	0
56	MG	BA	3683	1/1	0.14	-	18,18,18,18	0
56	MG	AA	1606	1/1	0.05	-	0,0,0,0	0
56	MG	BA	3747	1/1	0.18	-	63,63,63,63	0
56	MG	AY	114	1/1	0.07	-	20,20,20,20	0
56	MG	BA	3757	1/1	0.25	-	45,45,45,45	0
56	MG	DA	3207	1/1	0.06	-	20,20,20,20	0
56	MG	DA	3548	1/1	0.08	-	26,26,26,26	0
56	MG	CA	1765	1/1	0.04	-	38,38,38,38	0
56	MG	AA	1731	1/1	0.15	-	48,48,48,48	0
56	MG	BA	3002	1/1	0.05	-	20,20,20,20	0
56	MG	DA	3133	1/1	0.08	-	21,21,21,21	0
56	MG	DA	3081	1/1	0.24	-	47,47,47,47	0
56	MG	DA	3524	1/1	0.04	-	27,27,27,27	0
56	MG	BA	3241	1/1	0.07	-	19,19,19,19	0
56	MG	BA	3732	1/1	0.32	-	41,41,41,41	0
56	MG	CB	301	1/1	0.12	-	11,11,11,11	0
56	MG	DA	3630	1/1	0.07	-	21,21,21,21	0
56	MG	BA	3247	1/1	0.12	-	39,39,39,39	0
56	MG	DA	3263	1/1	0.17	-	22,22,22,22	0
56	MG	CA	1824	1/1	0.08	-	31,31,31,31	0
56	MG	DA	3089	1/1	0.12	-	30,30,30,30	0
56	MG	BA	3523	1/1	0.06	-	0,0,0,0	0
56	MG	DA	3291	1/1	0.20	-	6,6,6,6	0
56	MG	CA	1855	1/1	0.12	-	37,37,37,37	0
56	MG	DA	3608	1/1	0.14	-	36,36,36,36	0
56	MG	BA	3283	1/1	0.06	-	4,4,4,4	0
56	MG	DA	3547	1/1	0.09	-	48,48,48,48	0
56	MG	BA	3760	1/1	0.05	-	40,40,40,40	0
56	MG	BA	3419	1/1	0.08	-	29,29,29,29	0
56	MG	DA	3506	1/1	0.09	-	6,6,6,6	0
56	MG	BA	3318	1/1	0.09	-	39,39,39,39	0
56	MG	AA	1905	1/1	0.18	-	40,40,40,40	0
56	MG	CA	1746	1/1	0.06	-	30,30,30,30	0
56	MG	BA	3736	1/1	0.12	-	39,39,39,39	0
56	MG	CA	1784	1/1	0.13	-	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AJ	201	1/1	0.07	-	36,36,36,36	0
56	MG	DA	3316	1/1	0.26	-	31,31,31,31	0
56	MG	AA	1896	1/1	0.28	-	57,57,57,57	0
56	MG	DA	3544	1/1	0.09	-	31,31,31,31	0
56	MG	BA	3117	1/1	0.12	-	33,33,33,33	0
56	MG	CA	1697	1/1	0.07	-	10,10,10,10	0
56	MG	DA	3325	1/1	0.13	-	34,34,34,34	0
56	MG	CJ	201	1/1	0.31	-	33,33,33,33	0
56	MG	CA	1621	1/1	0.09	-	34,34,34,34	0
56	MG	DA	3017	1/1	0.14	-	4,4,4,4	0
56	MG	CA	1701	1/1	0.08	-	40,40,40,40	0
56	MG	BA	3805	1/1	0.24	-	39,39,39,39	0
56	MG	CA	1689	1/1	0.14	-	59,59,59,59	0
56	MG	CA	1690	1/1	0.12	-	30,30,30,30	0
56	MG	DA	3423	1/1	0.17	-	39,39,39,39	0
56	MG	BA	3159	1/1	0.08	-	18,18,18,18	0
56	MG	CA	1970	1/1	0.14	-	63,63,63,63	0
56	MG	DA	3703	1/1	0.29	-	38,38,38,38	0
56	MG	BA	3076	1/1	0.08	-	26,26,26,26	0
56	MG	DA	3343	1/1	0.10	-	35,35,35,35	0
56	MG	CA	1750	1/1	0.10	-	35,35,35,35	0
56	MG	DA	3597	1/1	0.22	-	40,40,40,40	0
56	MG	AA	1784	1/1	0.08	-	22,22,22,22	0
56	MG	DB	222	1/1	0.13	-	59,59,59,59	0
56	MG	CA	1972	1/1	0.32	-	33,33,33,33	0
56	MG	BA	3127	1/1	0.06	-	38,38,38,38	0

6.5 Other polymers ⓘ

There are no such residues in this entry.