



Full wwPDB X-ray Structure Validation Report ⓘ

Jun 16, 2014 – 07:43 PM BST

PDB ID : 4V67
Title : Crystal structure of a translation termination complex formed with release factor RF2.
Authors : Korostelev, A.; Asahara, H.; Lancaster, L.; Laurberg, M.; Hirschi, A.; Noller, H.F.
Deposited on : 2008-10-27
Resolution : 3.00 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>

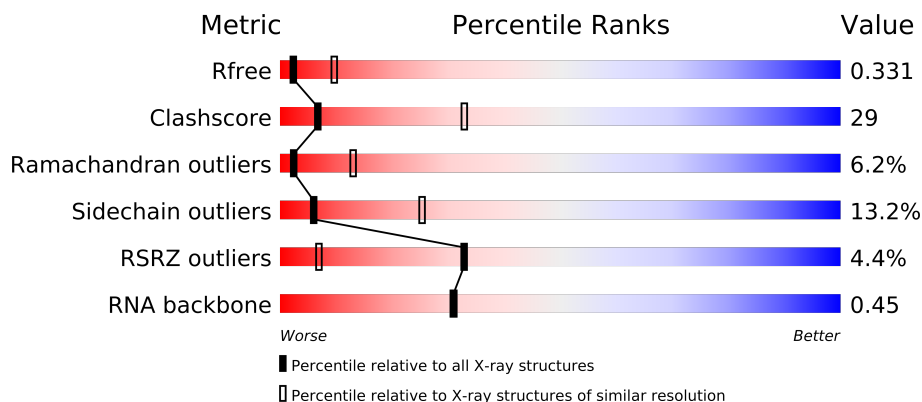
The following versions of software and data (see [references](#)) were used in the production of this report:

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 3.00 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	1216 (3.00-3.00)
Clashscore	79885	1594 (3.00-3.00)
Ramachandran outliers	78287	1537 (3.00-3.00)
Sidechain outliers	78261	1540 (3.00-3.00)
RSRZ outliers	66119	1217 (3.00-3.00)
RNA backbone	1838	1070 (3.50-2.50)

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	
5	CC	239	

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Mol	Chain	Length	Quality of chain
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	378	
24	CX	378	
25	BA	2894	
25	DA	2894	
26	BB	124	
26	DB	124	

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Mol	Chain	Length	Quality of chain
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	BK	147	
33	DK	147	
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	
47	D0	85	

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Mol	Chain	Length	Quality of chain
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 301148 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	10	Total	C	N	O	P	0	0	0
			214	98	44	63	9			
3	CV	10	Total	C	N	O	P	0	0	0
			214	98	44	63	9			

- 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	114	Total	C	N	O	S	0	0	0
			842	522	159	158	3			
13	CK	114	Total	C	N	O	S	0	0	0
			842	522	159	158	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AL	122	Total	C	N	O	S	0	0	0
			956	603	193	159	1			
14	CL	122	Total	C	N	O	S	0	0	0
			956	603	193	159	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 Bacterial peptide chain release factor 2 (RF-2).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	362	Total	C	N	O	S	0	0	0
			2876	1794	518	556	8			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	CX	362	Total	C	N	O	S	0	0	0
			2876	1794	518	556	8			

- 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			

- 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			
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 L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BK	147	Total	C	N	O	S	0	0	0
			1088	692	191	199	6			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	DK	147	Total	C	N	O	S	0	0	0
			1088	692	191	199	6			

- 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 48 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BN	1	MET	-	INSERTION	UNP Q72IN1
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
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	1	MET	-	INSERTION	UNP Q72IN1
DN	2	VAL	-	INSERTION	UNP Q72IN1
DN	3	LYS	-	INSERTION	UNP Q72IN1
DN	4	SER	-	INSERTION	UNP Q72IN1

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Chain	Residue	Modelled	Actual	Comment	Reference
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			
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	134	Total	C	N	O	S	0	0	0
			1064	680	201	178	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	DQ	134	Total	C	N	O	S	0	0	0
			1064	680	201	178	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	187	Total	C	N	O	S	0	0	0
			1482	945	264	271	2			
46	DZ	187	Total	C	N	O	S	0	0	0
			1482	945	264	271	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	62	Total	C	N	O	S	0	0	0
			520	325	102	91	2			
49	D2	62	Total	C	N	O	S	0	0	0
			520	325	102	91	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 54 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B4	1	MET	-	INSERTION	UNP Q72JR0
B4	2	PRO	-	INSERTION	UNP Q72JR0
B4	3	LEU	-	INSERTION	UNP Q72JR0
B4	4	GLY	-	INSERTION	UNP Q72JR0
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

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Chain	Residue	Modelled	Actual	Comment	Reference
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	1	MET	-	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
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

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Chain	Residue	Modelled	Actual	Comment	Reference
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	CZ	14	Total	Mg	0	0
			14	14		
56	B4	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	BA	923	Total 923	Mg 923	0	0
56	AK	7	Total 7	Mg 7	0	0
56	DQ	2	Total 2	Mg 2	0	0
56	AB	7	Total 7	Mg 7	0	0
56	DF	1	Total 1	Mg 1	0	0
56	B8	4	Total 4	Mg 4	0	0
56	BE	6	Total 6	Mg 6	0	0
56	DU	1	Total 1	Mg 1	0	0
56	D8	1	Total 1	Mg 1	0	0
56	B1	7	Total 7	Mg 7	0	0
56	DY	1	Total 1	Mg 1	0	0
56	AN	1	Total 1	Mg 1	0	0
56	BP	2	Total 2	Mg 2	0	0
56	AX	14	Total 14	Mg 14	0	0
56	DN	1	Total 1	Mg 1	0	0
56	BI	6	Total 6	Mg 6	0	0
56	CY	14	Total 14	Mg 14	0	0
56	CH	2	Total 2	Mg 2	0	0
56	CA	222	Total 222	Mg 222	0	0
56	B5	2	Total 2	Mg 2	0	0
56	BB	35	Total 35	Mg 35	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AJ	1	Total 1	Mg 1	0	0
56	BT	1	Total 1	Mg 1	0	0
56	DO	2	Total 2	Mg 2	0	0
56	AE	8	Total 8	Mg 8	0	0
56	DG	2	Total 2	Mg 2	0	0
56	CF	5	Total 5	Mg 5	0	0
56	DT	1	Total 1	Mg 1	0	0
56	BF	6	Total 6	Mg 6	0	0
56	AV	3	Total 3	Mg 3	0	0
56	BX	2	Total 2	Mg 2	0	0
56	DA	491	Total 491	Mg 491	0	0
56	B2	3	Total 3	Mg 3	0	0
56	AA	428	Total 428	Mg 428	0	0
56	BQ	6	Total 6	Mg 6	0	0
56	CQ	1	Total 1	Mg 1	0	0
56	D6	1	Total 1	Mg 1	0	0
56	AR	1	Total 1	Mg 1	0	0
56	B6	2	Total 2	Mg 2	0	0
56	DI	1	Total 1	Mg 1	0	0
56	AM	3	Total 3	Mg 3	0	0
56	BU	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	DR	1	Total 1	Mg 1	0	0
56	CC	1	Total 1	Mg 1	0	0
56	AD	3	Total 3	Mg 3	0	0
56	BN	4	Total 4	Mg 4	0	0
56	CT	1	Total 1	Mg 1	0	0
56	CG	2	Total 2	Mg 2	0	0
56	BG	2	Total 2	Mg 2	0	0
56	AI	1	Total 1	Mg 1	0	0
56	BY	3	Total 3	Mg 3	0	0
56	DE	1	Total 1	Mg 1	0	0
56	BR	2	Total 2	Mg 2	0	0
56	AZ	15	Total 15	Mg 15	0	0
56	BK	3	Total 3	Mg 3	0	0
56	DP	1	Total 1	Mg 1	0	0
56	DD	9	Total 9	Mg 9	0	0
56	AL	4	Total 4	Mg 4	0	0
56	BV	3	Total 3	Mg 3	0	0
56	AG	2	Total 2	Mg 2	0	0
56	BO	5	Total 5	Mg 5	0	0
56	AQ	1	Total 1	Mg 1	0	0
56	D1	2	Total 2	Mg 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AH	2	Total 2	Mg 2	0	0
56	BZ	1	Total 1	Mg 1	0	0
56	CO	1	Total 1	Mg 1	0	0
56	AC	4	Total 4	Mg 4	0	0
56	BS	3	Total 3	Mg 3	0	0
56	DB	12	Total 12	Mg 12	0	0
56	CS	1	Total 1	Mg 1	0	0
56	CB	2	Total 2	Mg 2	0	0
56	BD	7	Total 7	Mg 7	0	0
56	AT	2	Total 2	Mg 2	0	0
56	CL	1	Total 1	Mg 1	0	0
56	B0	3	Total 3	Mg 3	0	0
56	AO	2	Total 2	Mg 2	0	0
56	BW	2	Total 2	Mg 2	0	0
56	AY	26	Total 26	Mg 26	0	0
56	CK	3	Total 3	Mg 3	0	0
56	AF	2	Total 2	Mg 2	0	0
56	BH	4	Total 4	Mg 4	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

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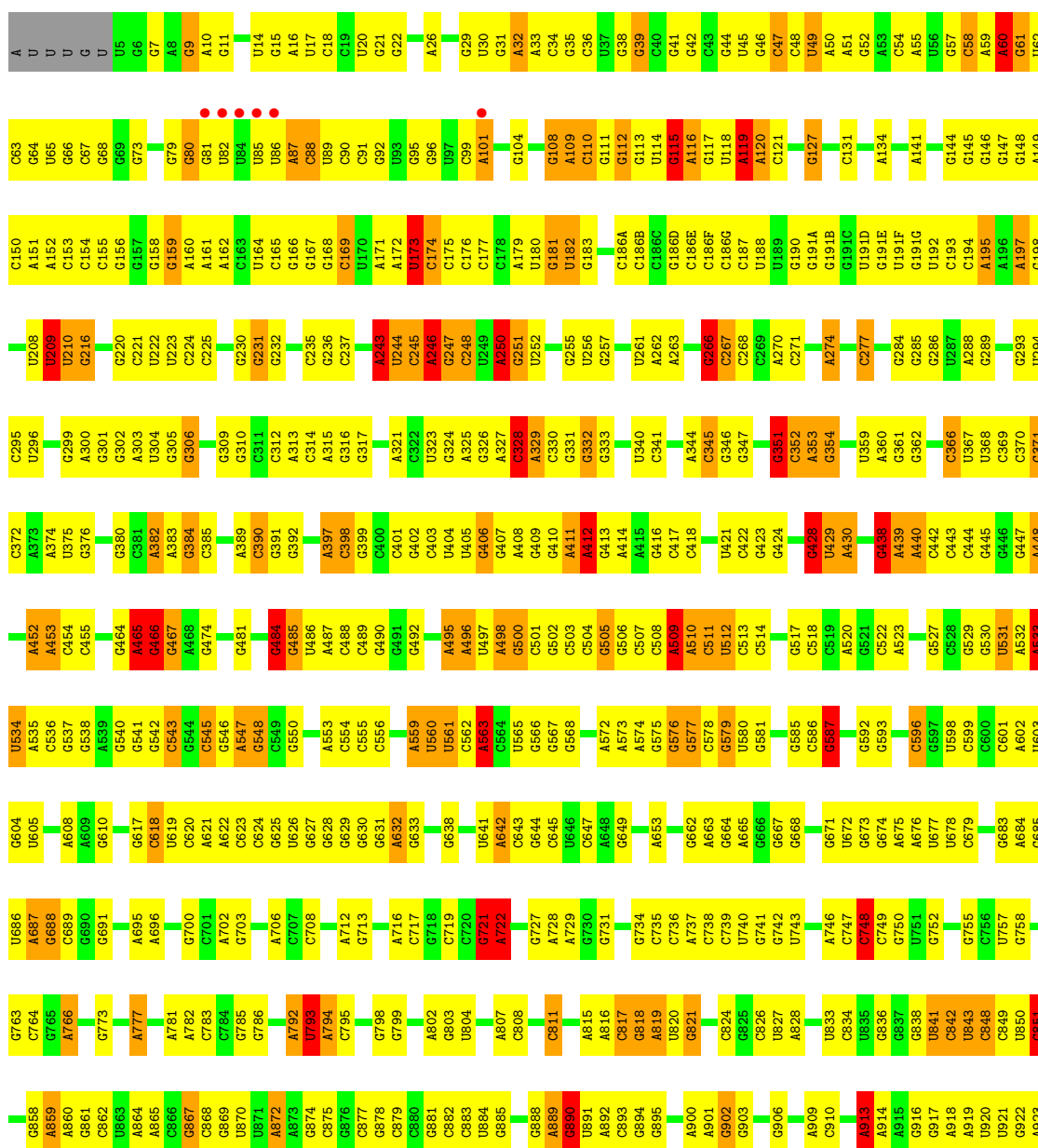
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	AD	1	Total 1	Zn 1	0	0
57	CD	1	Total 1	Zn 1	0	0
57	AN	1	Total 1	Zn 1	0	0

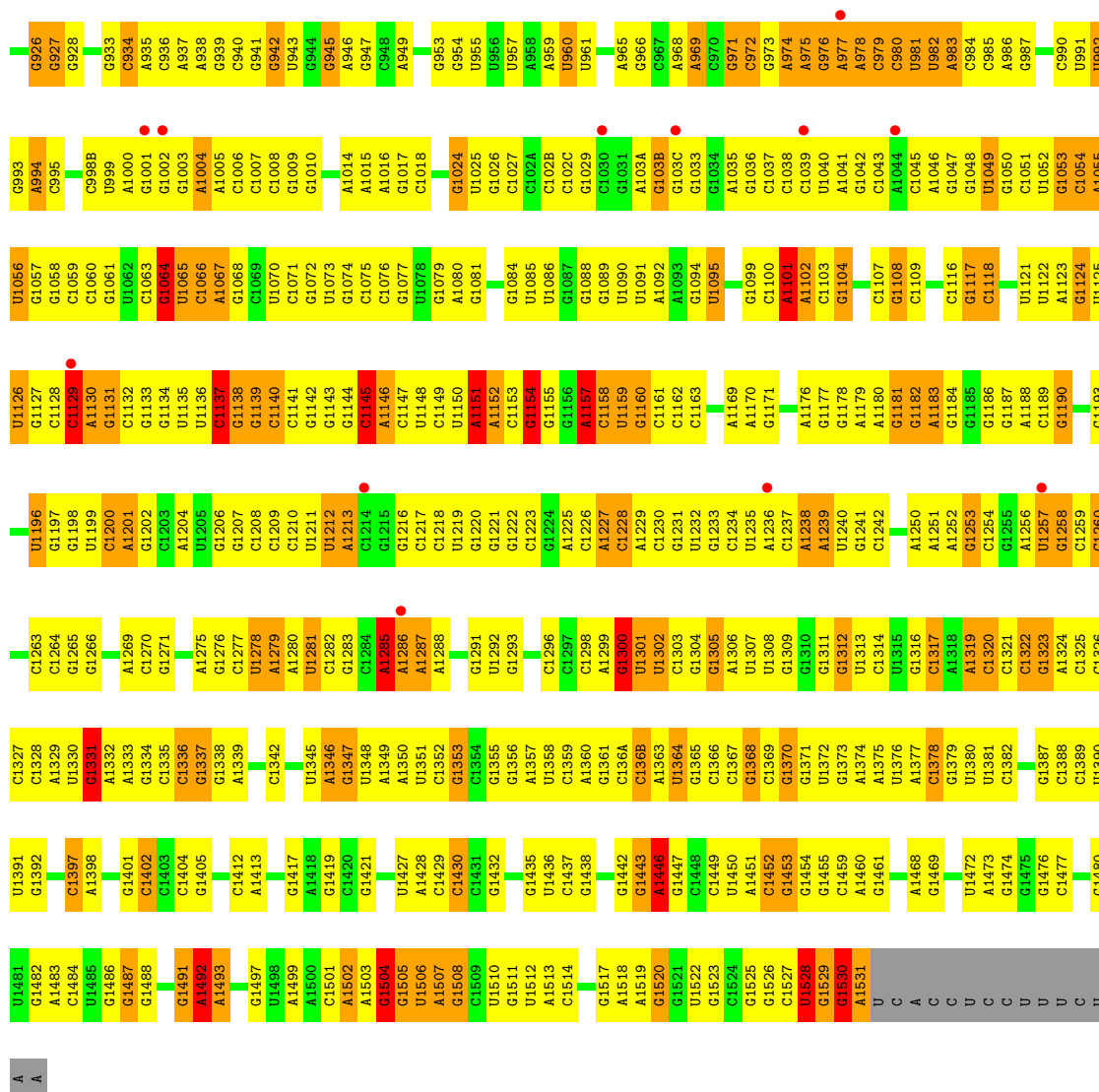
3 Residue-property plots

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

• Molecule 1: 16S rRNA

Chain AA: 



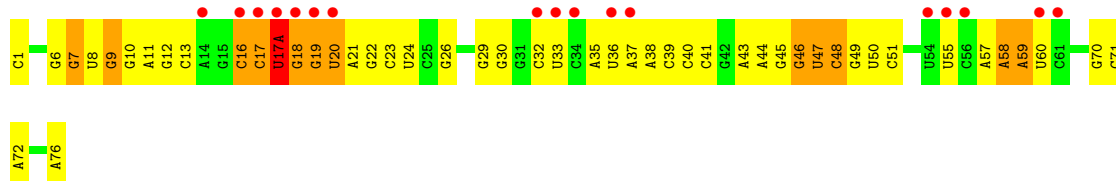


C1452	C1453	G1454	G1455	G1456	G1460	G1461	G1462	C1463	G1464		A1468	G1469		U1472	A1473	G1474	G1475	G1476	C1477	G1480	U1481	G1482	A1483	C1484	U1485	G1486	G1487	G1488		G1491	G1492	G1493	U1494	G1495	G1496	G1497	G1498	A1499	A1500	C1501	A1502	A1503	G1504	U1505	A1506	A1507	G1508	G1509	U1510	G1511	U1512	A1513	C1514		G1517	A1518	A1519	G1520	G1521	U1522	G1523																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
G1373	A1374	U1375	A1376	U1377	G1378	G1379	U1380	U1381	C1382		G1387	C1388	G1389	U1390	U1391	G1392	U1393		C1397	A1398		G1401	G1402	G1403	C1404	G1405	U1406		C1409		C1412	A1413		G1417	U1418	G1419	C1420	A1500	G1421	G1422	G1423		U1427	U1506	A1507	C1430	G1431	U1432		G1435	U1436		G1442	G1443	A1446	G1447	C1448	G1449	U1450	A1451																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
G1312	G1313		G1316	G1317	G1318	A1319	C1320	C1321	C1322	G1323	A1324	C1325	U1326	C1327	U1328	A1329	U1330	G1331	A1332	C1333	G1334	C1335	C1336	G1337	C1338	G1339		C1342	G1343	C1344	U1345	A1346	G1347	U1348	A1349	U1350	U1351	C1352	G1353	C1354	G1355	G1356	A1357	U1358	C1359	A1360	G1361	C1362	G1363	U1364	G1365	C1366	G1367	A1368	C1369	G1370	U1371	U1372																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
A1245		A1250	A1251	A1252	G1253	G1254	G1255	C1256	U1257	G1258	G1259	C1260	U1261	G1262	C1263	U1264	G1265		A1268	C1269	G1270	U1271	G1272	C1273	G1274	C1275			G1281	U1282	U1283	G1284	A1285	A1286	U1287	A1288		G1291	U1292	G1293		C1296	G1297	C1298	C1299	G1300	U1301	U1302	C1303	G1304	G1305	C1306	U1307	U1308	G1309	G1310	G1311	G1312	G1313	G1314																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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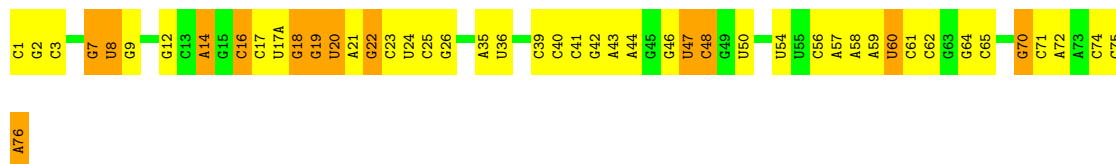
- Molecule 2: P AND E-SITE TRNA(FMET)

Chain AZ:



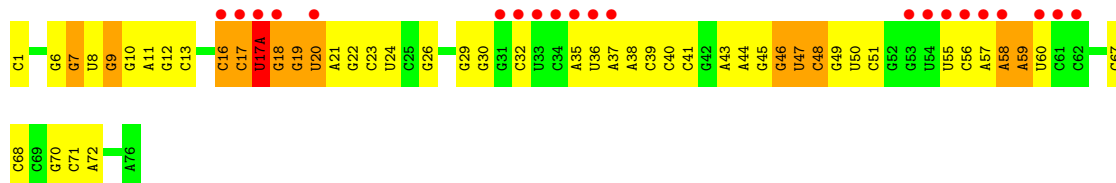
- Molecule 2: P AND E-SITE TRNA(FMET)

Chain AY:



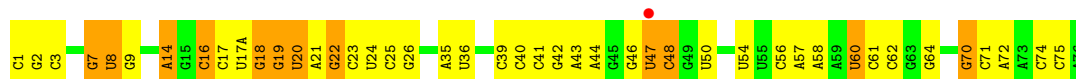
- Molecule 2: P AND E-SITE TRNA(FMET)

Chain CZ:



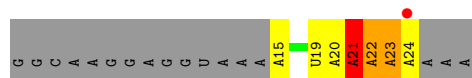
- Molecule 2: P AND E-SITE TRNA(FMET)

Chain CY:



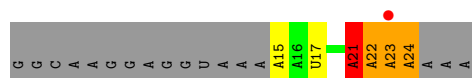
- Molecule 3: MRNA

Chain AV:



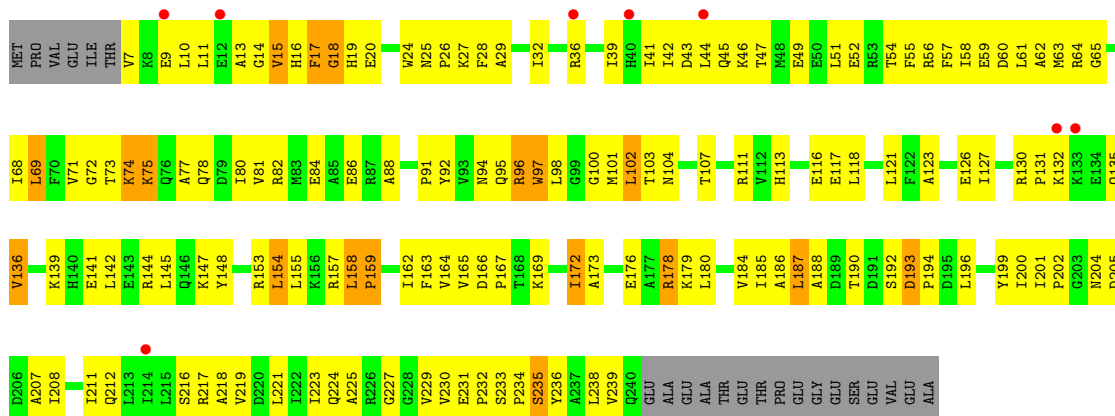
- Molecule 3: MRNA

Chain CV:



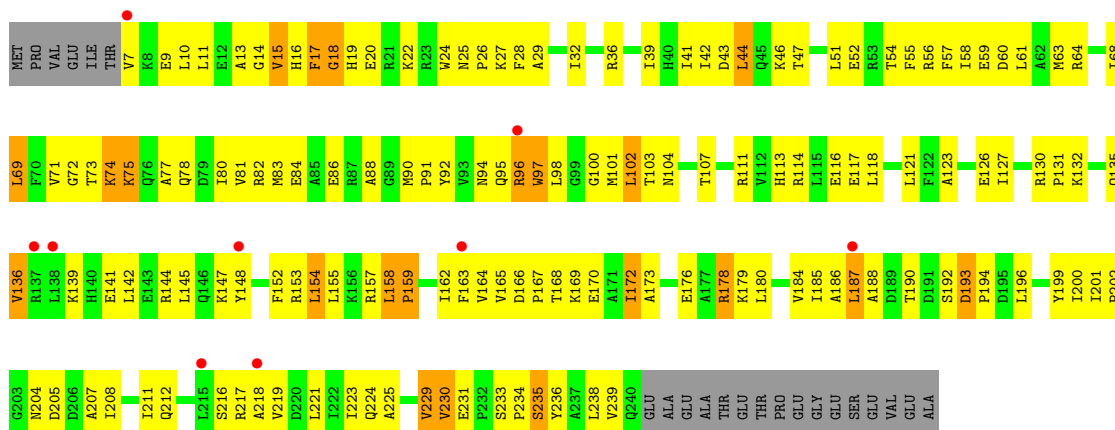
- Molecule 4: 30S ribosomal protein S2

Chain AB:



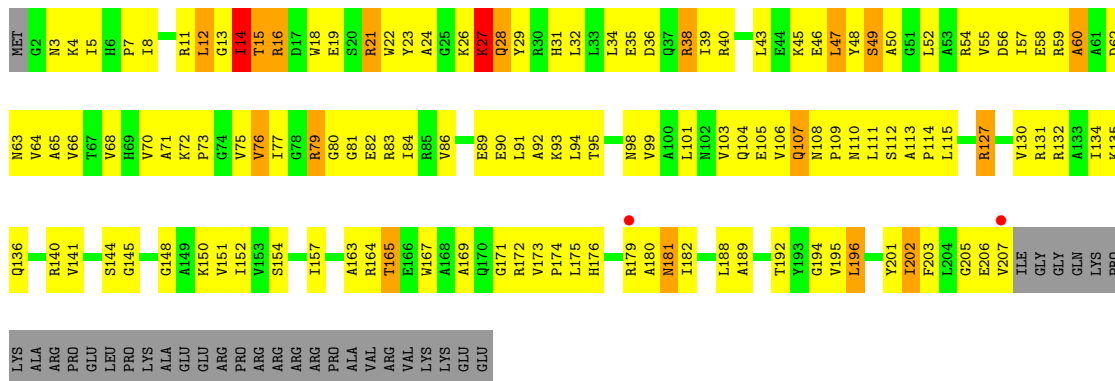
- Molecule 4: 30S ribosomal protein S2

Chain CB:



- Molecule 5: 30S ribosomal protein S3

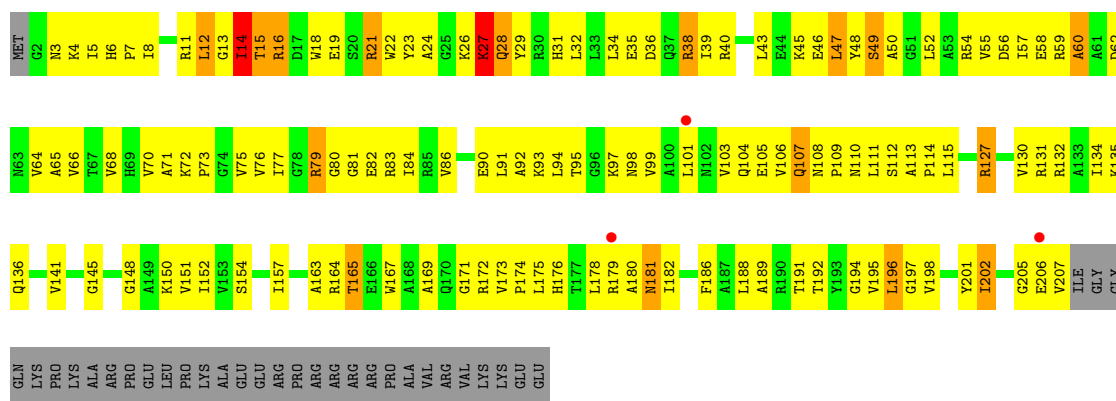
Chain AC:



- Molecule 5: 30S ribosomal protein S3

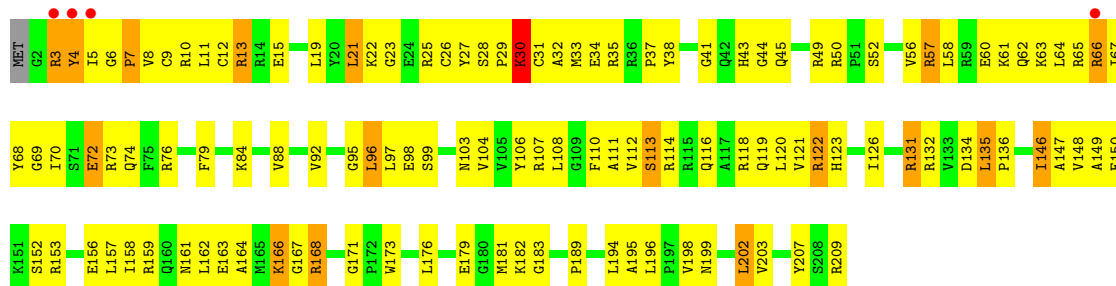
Chain CC:





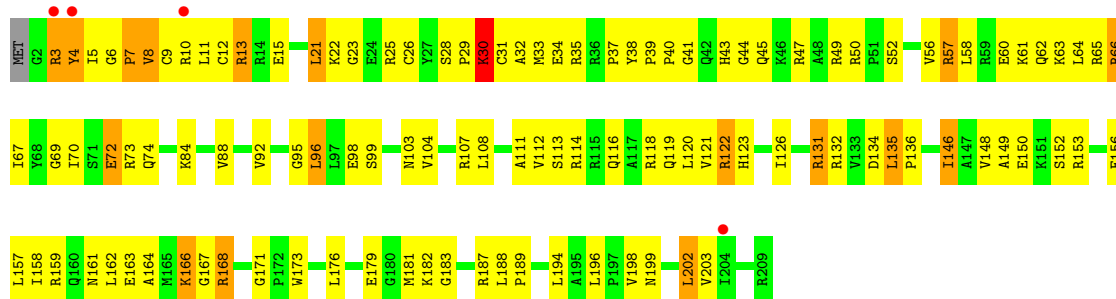
• Molecule 6: 30S ribosomal protein S4

Chain AD:



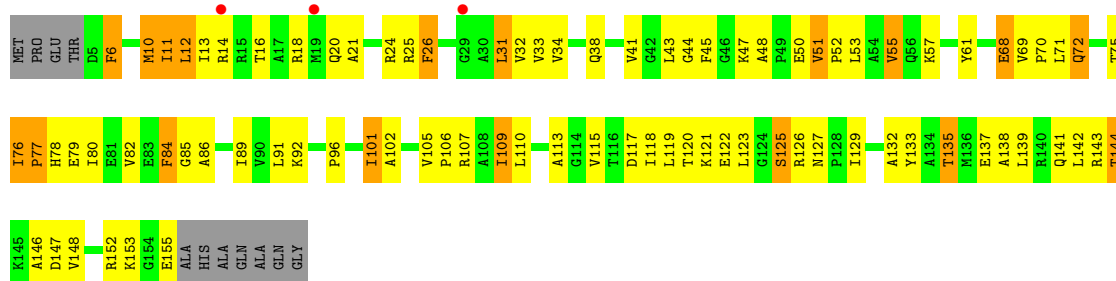
• Molecule 6: 30S ribosomal protein S4

Chain CD:



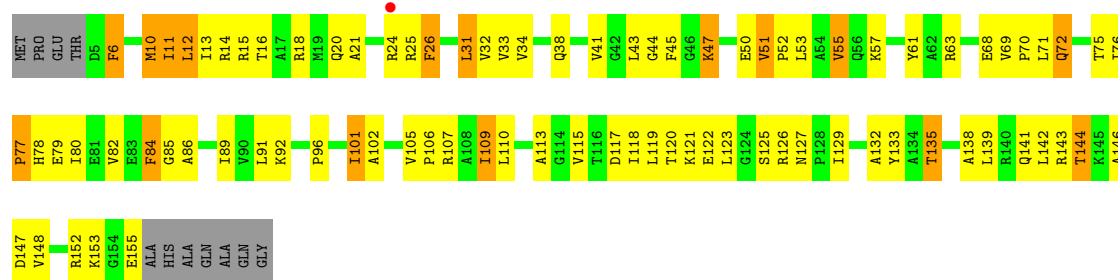
• Molecule 7: 30S ribosomal protein S5

Chain AE:



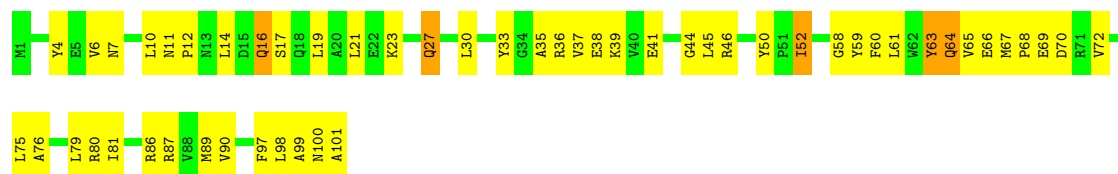
• Molecule 7: 30S ribosomal protein S5

Chain CE: 



- Molecule 8: 30S ribosomal protein S6

Chain AF: 



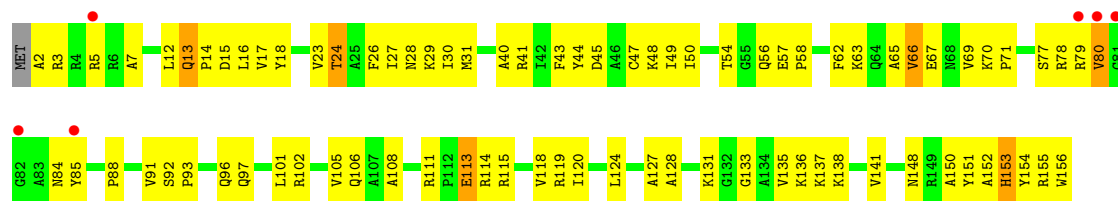
- Molecule 8: 30S ribosomal protein S6

Chain CF: 



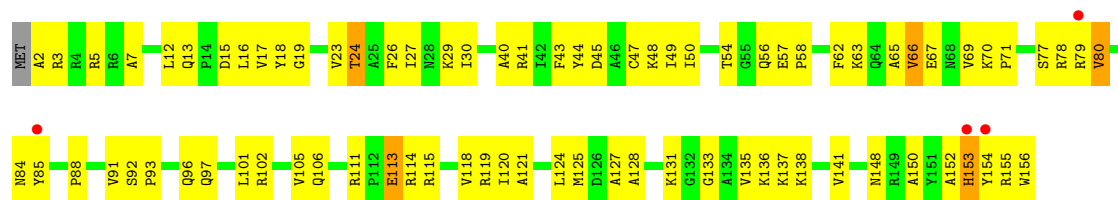
- Molecule 9: 30S ribosomal protein S7

Chain AG: 



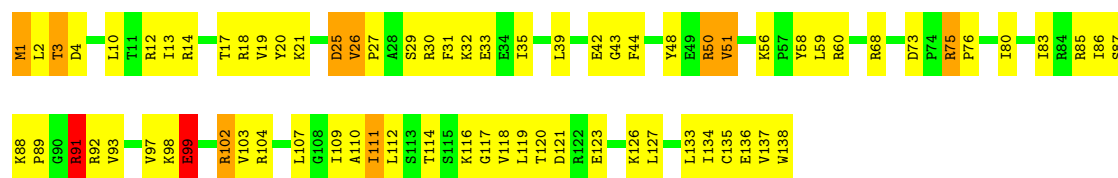
- Molecule 9: 30S ribosomal protein S7

Chain CG: 



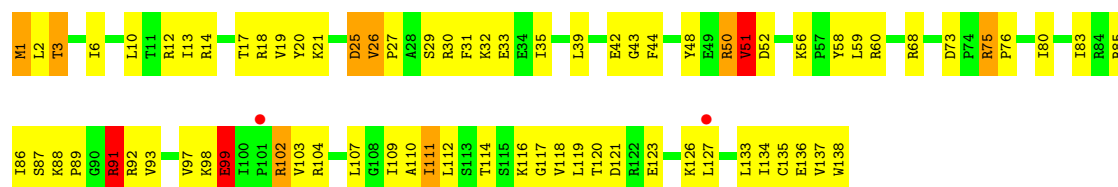
- Molecule 10: 30S ribosomal protein S8

Chain AH:



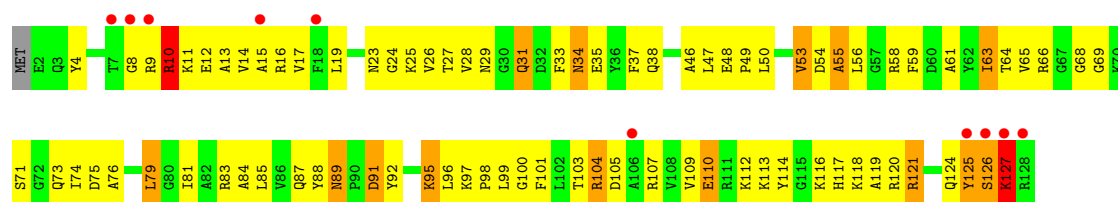
- Molecule 10: 30S ribosomal protein S8

Chain CH:



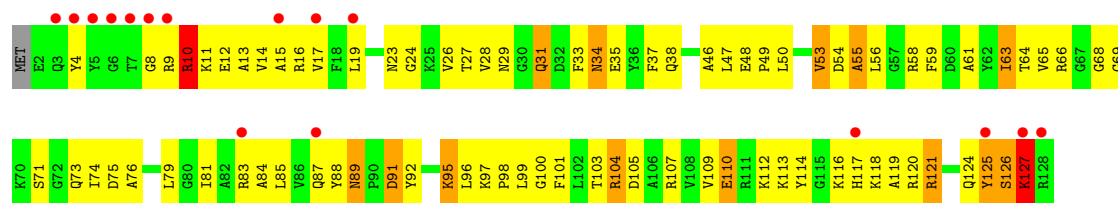
- Molecule 11: 30S ribosomal protein S9

Chain AI:



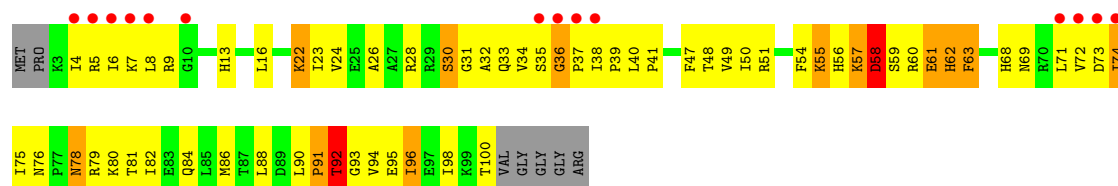
- Molecule 11: 30S ribosomal protein S9

Chain CI:



- Molecule 12: 30S ribosomal protein S10

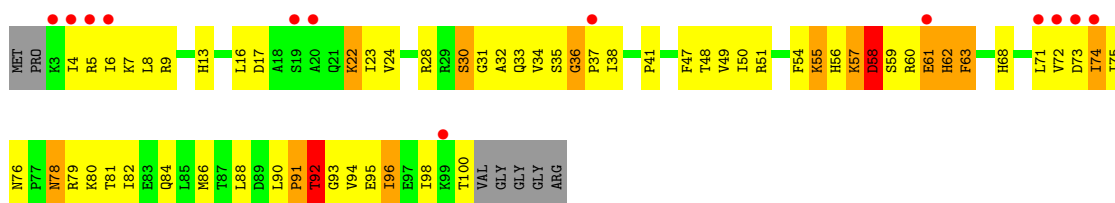
Chain AJ:



- Molecule 12: 30S ribosomal protein S10

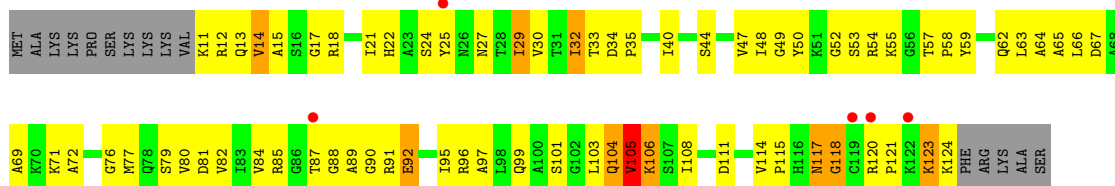
Chain CJ:





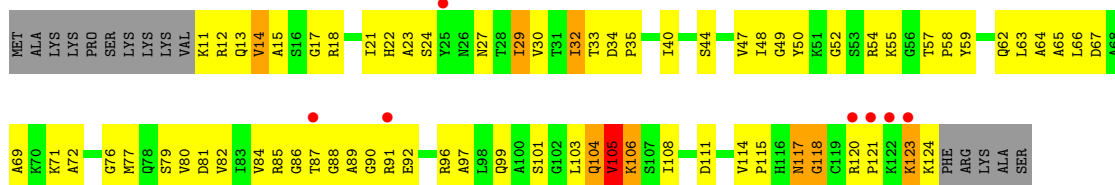
• Molecule 13: 30S ribosomal protein S11

Chain AK:



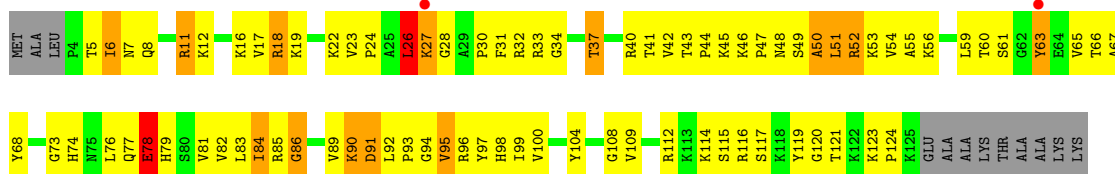
• Molecule 13: 30S ribosomal protein S11

Chain CK:



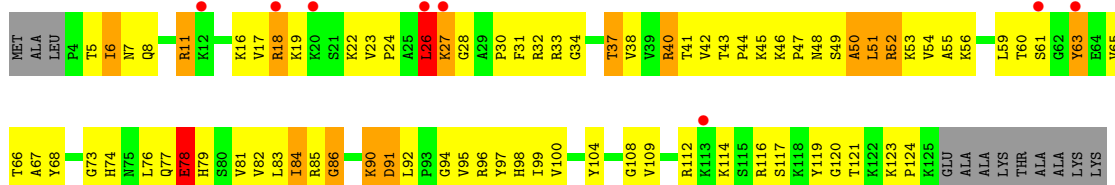
• Molecule 14: 30S ribosomal protein S12

Chain AL:



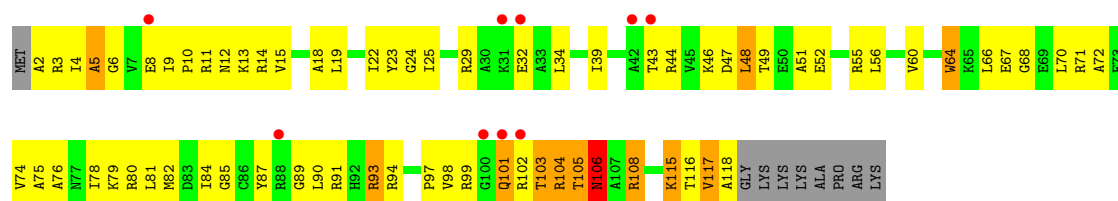
• Molecule 14: 30S ribosomal protein S12

Chain CL:



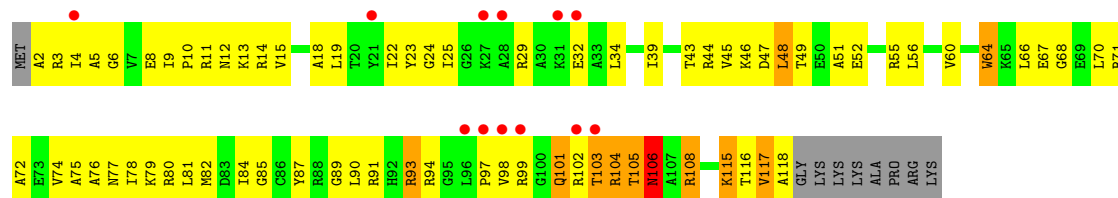
• Molecule 15: 30S ribosomal protein S13

Chain AM:



• Molecule 15: 30S ribosomal protein S13

Chain CM:



• Molecule 16: 30S ribosomal protein S14

Chain AN:



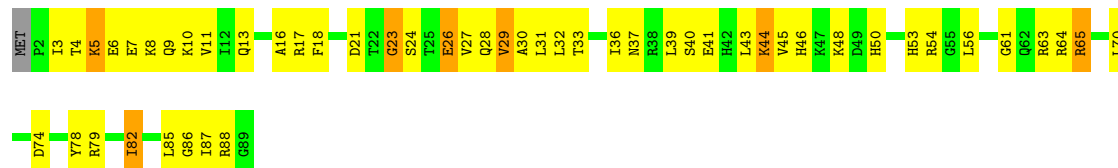
• Molecule 16: 30S ribosomal protein S14

Chain CN:



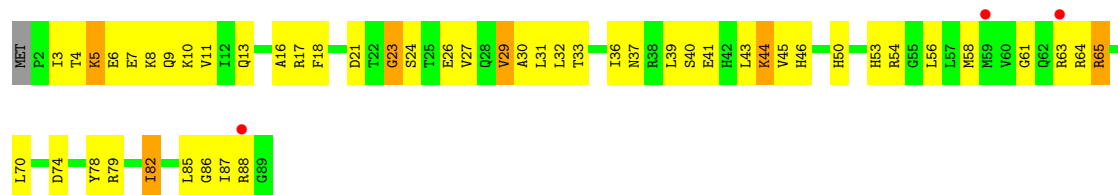
• Molecule 17: 30S ribosomal protein S15

Chain AO:



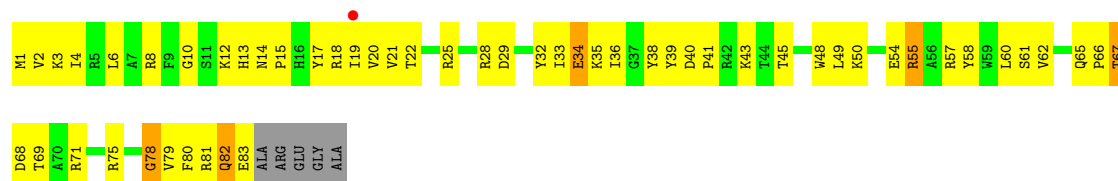
• Molecule 17: 30S ribosomal protein S15

Chain CO:



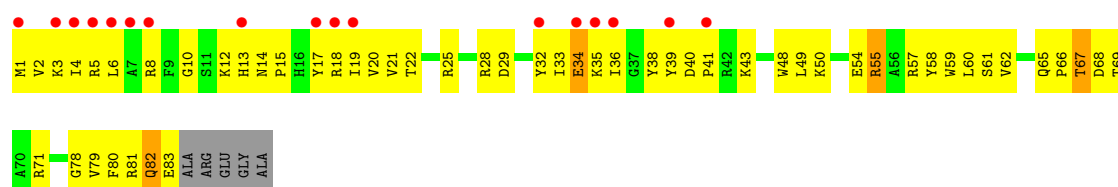
• Molecule 18: 30S ribosomal protein S16

Chain AP:



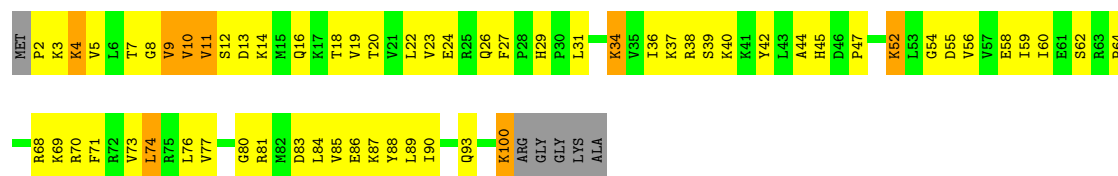
- Molecule 18: 30S ribosomal protein S16

Chain CP:



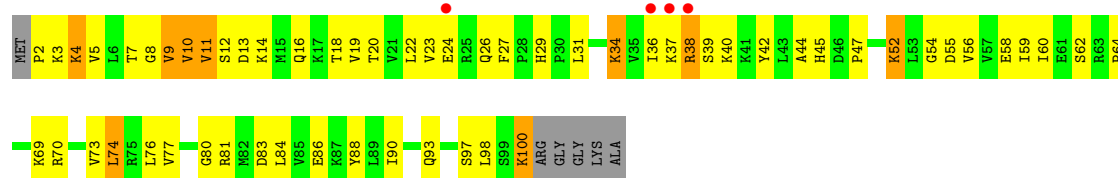
- Molecule 19: 30S ribosomal protein S17

Chain AQ:



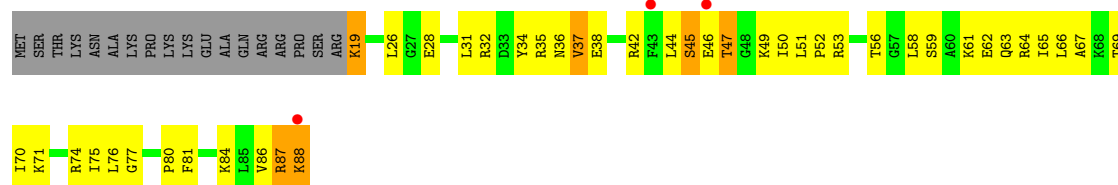
- Molecule 19: 30S ribosomal protein S17

Chain CQ:



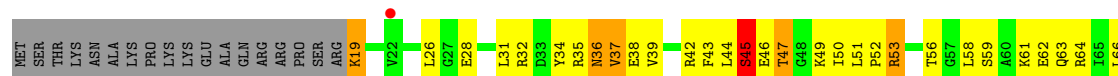
- Molecule 20: 30S ribosomal protein S18

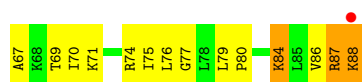
Chain AR:



- Molecule 20: 30S ribosomal protein S18

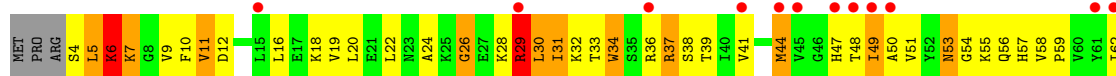
Chain CR:





- Molecule 21: 30S ribosomal protein S19

Chain AS:



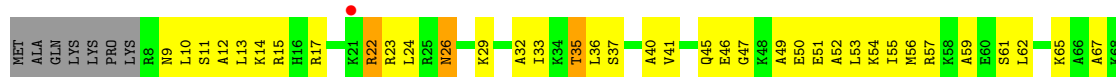
- Molecule 21: 30S ribosomal protein S19

Chain CS:



- Molecule 22: 30S ribosomal protein S20

Chain AT:



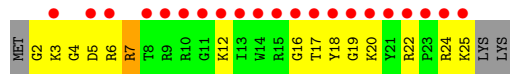
- Molecule 22: 30S ribosomal protein S20

Chain CT:



- Molecule 23: 30S ribosomal protein Thx

Chain AU:



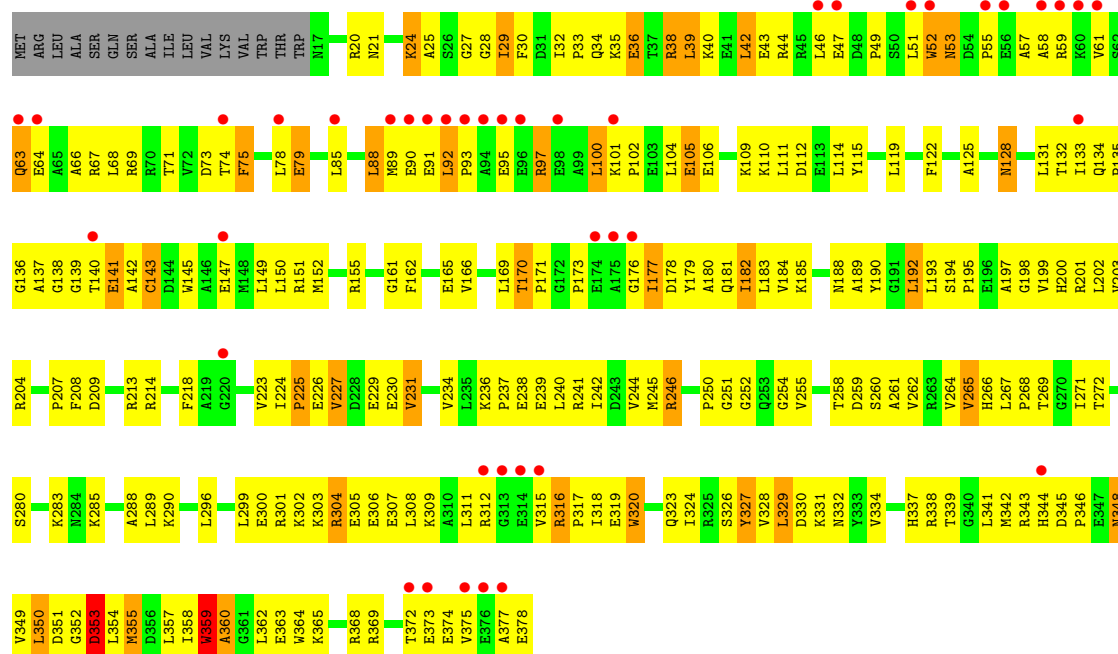
- Molecule 23: 30S ribosomal protein Thx

Chain CU: 



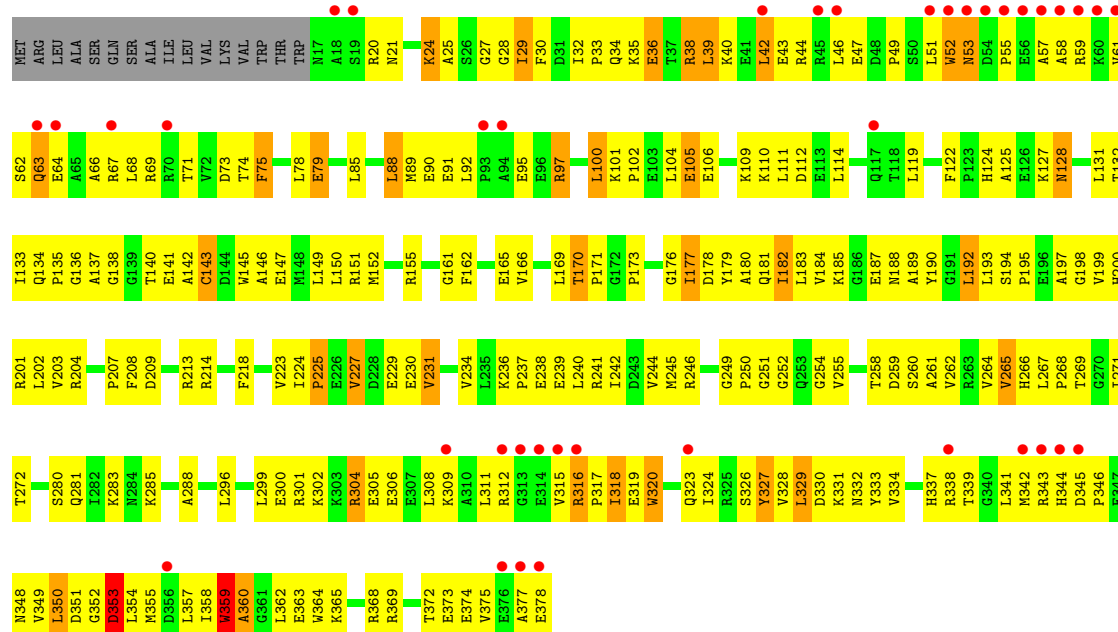
- Molecule 24: Bacterial peptide chain release factor 2 (RF-2)

Chain AX: 



- Molecule 24: Bacterial peptide chain release factor 2 (RF-2)

Chain CX: 



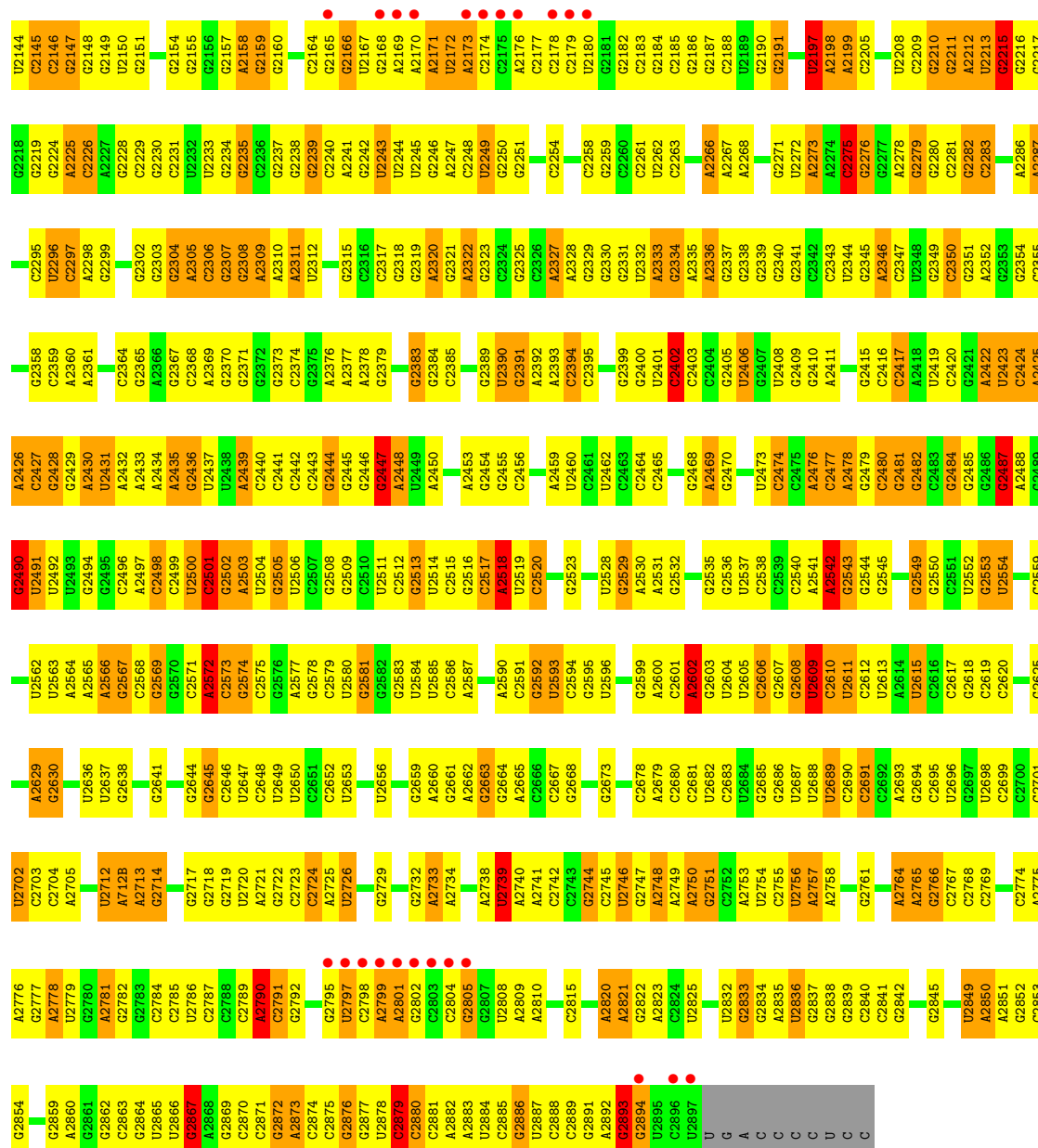
● Molecule 25: 23S RRNA

Chain BA:



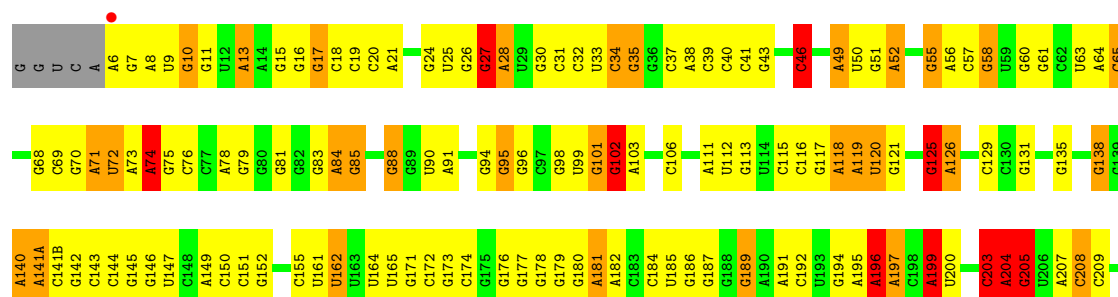
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A64	C65	G68	C71B	G68	C69	G70	A71	U72	A73	C150	C75	C77	A78	A79	G80	G81	G82	G83	A84	G85	A88	G89	U90	A91	G94	G95	G96	U99	C101	C102	A103	C106	A111	U112	C115	C116	G117	A118	A119	U120	G121	G122	G125	A126	C130	G131	G135	G138	C139									
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C217	A218	G219	G220	A221	A222	A228	A229	U230	A230	C231	C232	A233	C234	U235	C236	U239	A241	G242	G245	C246	G247	G248	C249	G250	A251	G252	A262	C263	C264	U185	A265	G266	U269	C270E	C270F	U270G	C270H	G270K	C270L	U270M	U270N	G270O	G270P	C270Q	C270R	G270S	G270T	G270U	C270V	G270W	G270X	G270Y						
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C967	G968	U969	G972	A973	G974A	C974B	G975	A976	C977	G978	G979	A980	A981	A983	G987	A988	G989	A990	G993	A996	G997	C998	U999	G1003	C1004	C1006	A1009	A1010	G1011	U1012	C1013	C1018	U1019	A1020	C1021	G1022	U1023	G1024	G1025	U1026	A1027	A1028	A1029	U1033	G1034	U1035	G1036	G1042										





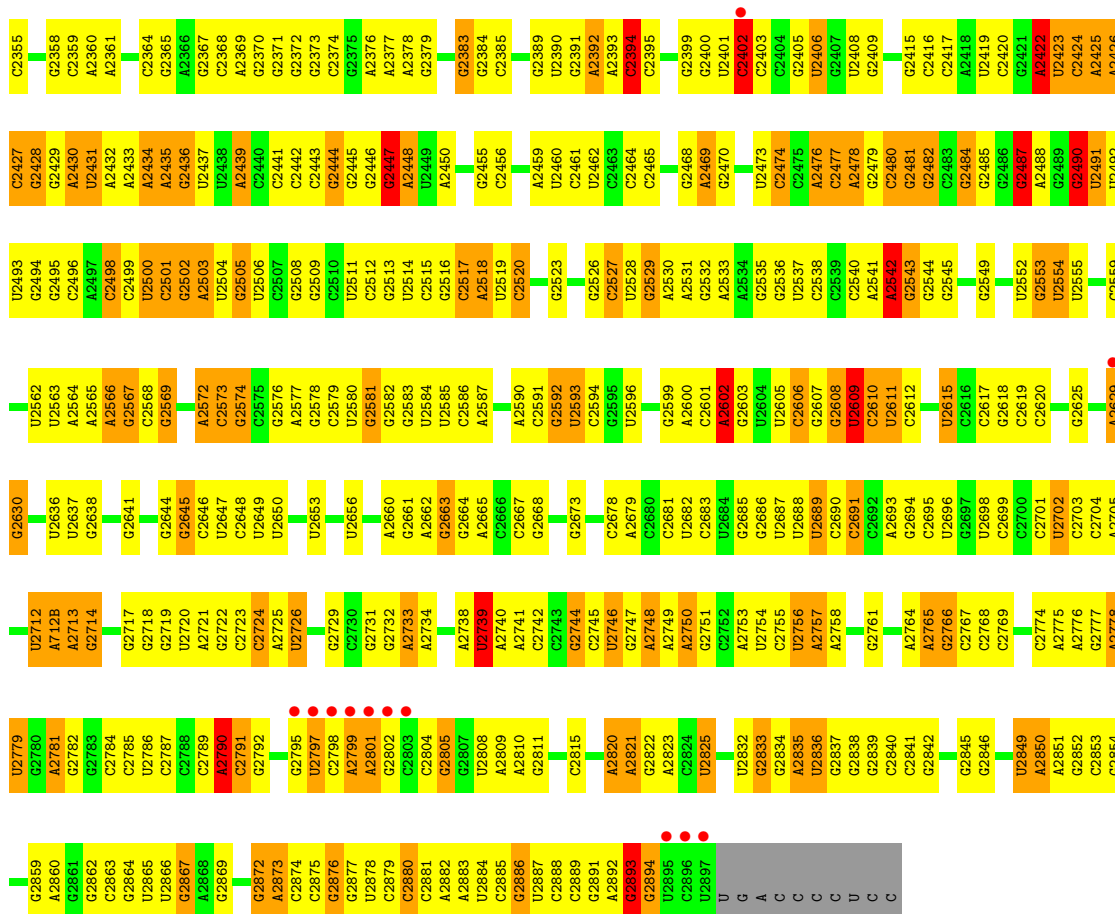
Molecule 25: 23S RRNA

Chain DA:



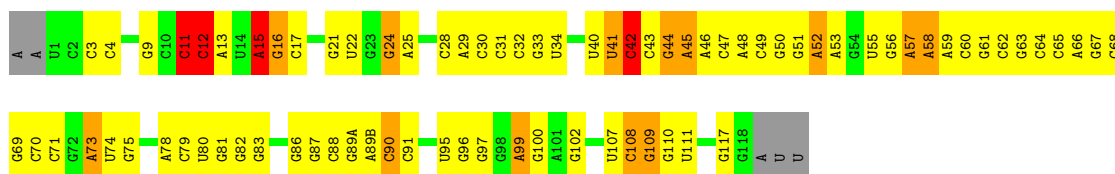


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G1387	G1388	G1389			A1392	C1393	C1394	U1395	A1396	U1397	C1398	C1399	G1400			U1405	C1406	C1407	C1408			C1411	A1412																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										



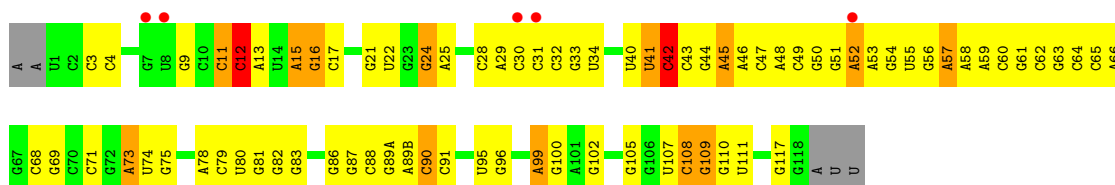
- Molecule 26: 5S rRNA

Chain BB:



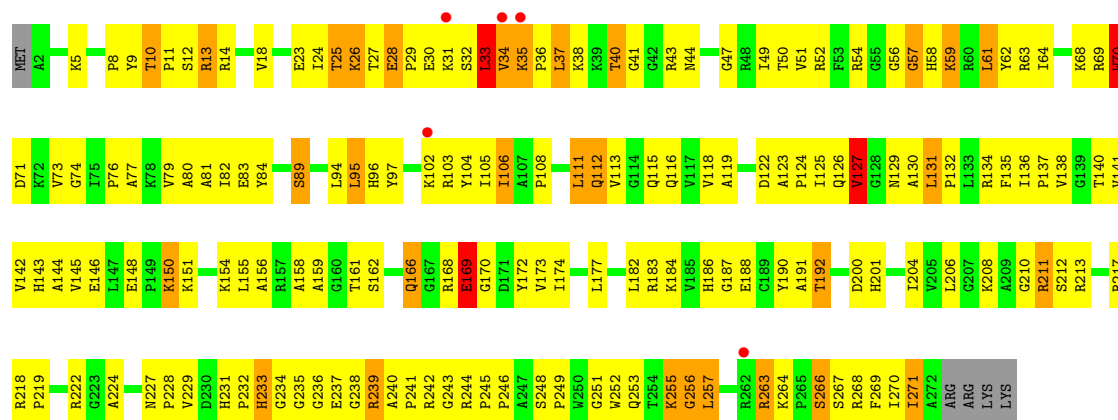
- Molecule 26: 5S rRNA

Chain DB:



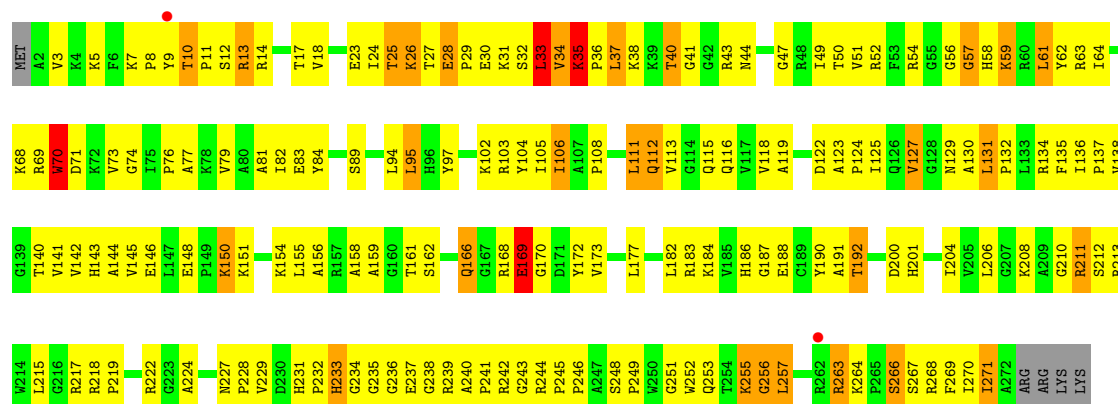
- Molecule 27: 50S ribosomal protein L2

Chain BD:



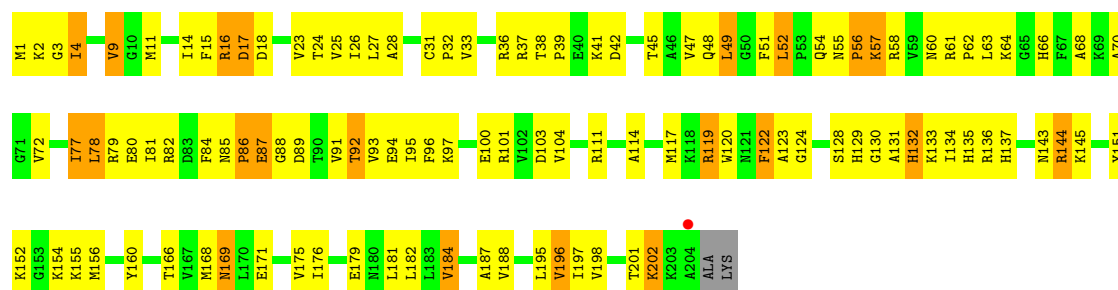
• Molecule 27: 50S ribosomal protein L2

Chain DD:



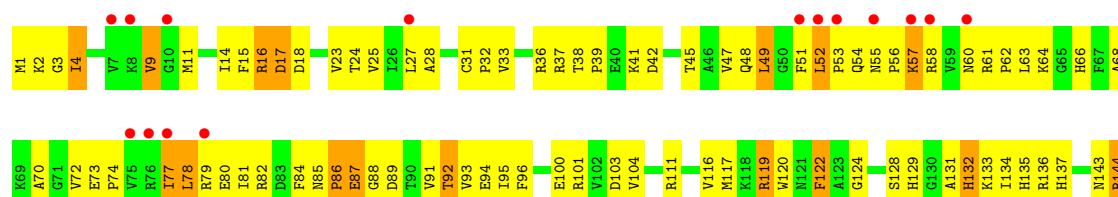
• Molecule 28: 50S ribosomal protein L3

Chain BE:



• Molecule 28: 50S ribosomal protein L3

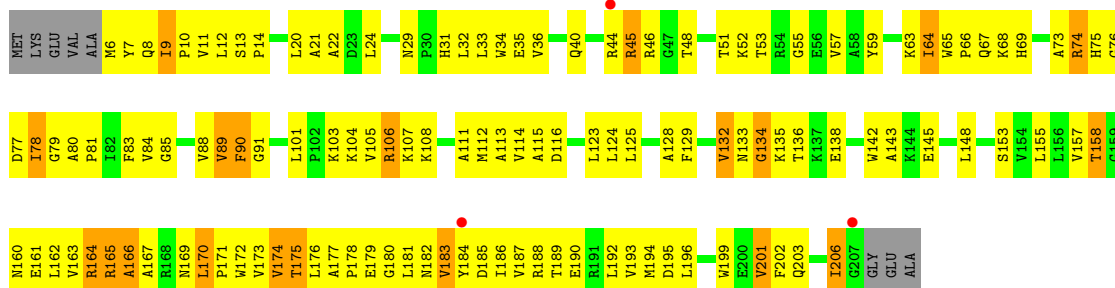
Chain DE:





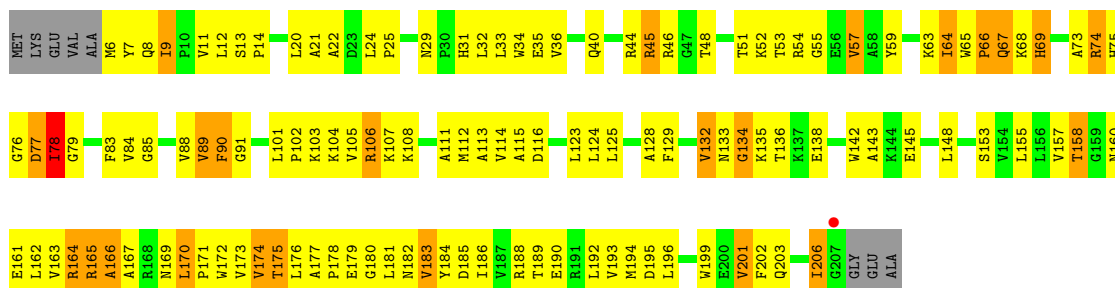
• Molecule 29: 50S ribosomal protein L4

Chain BF:



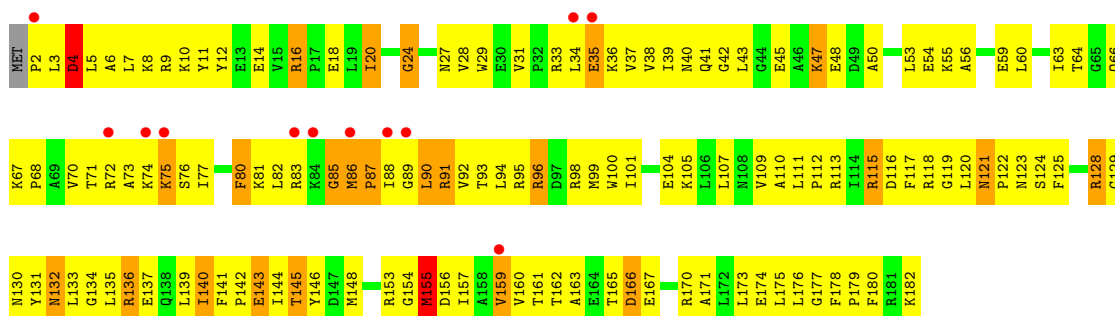
• Molecule 29: 50S ribosomal protein L4

Chain DF:



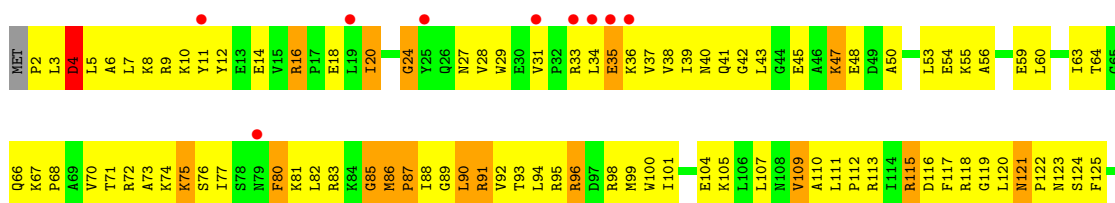
• Molecule 30: 50S ribosomal protein L5

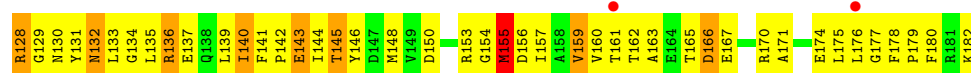
Chain BG:



• Molecule 30: 50S ribosomal protein L5

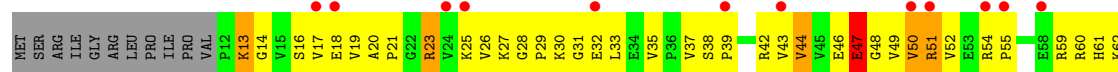
Chain DG:





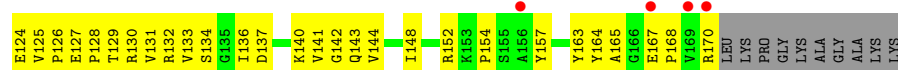
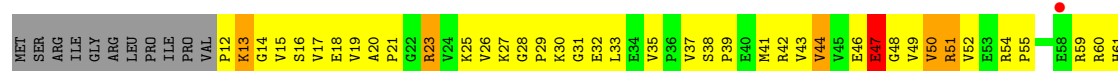
• Molecule 31: 50S ribosomal protein L6

Chain BH:



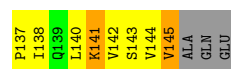
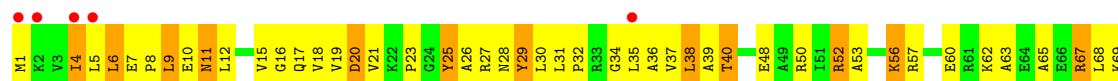
• Molecule 31: 50S ribosomal protein L6

Chain DH:



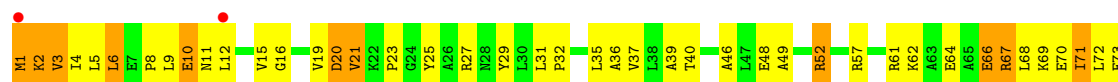
• Molecule 32: 50S ribosomal protein L9

Chain BI:



• Molecule 32: 50S ribosomal protein L9

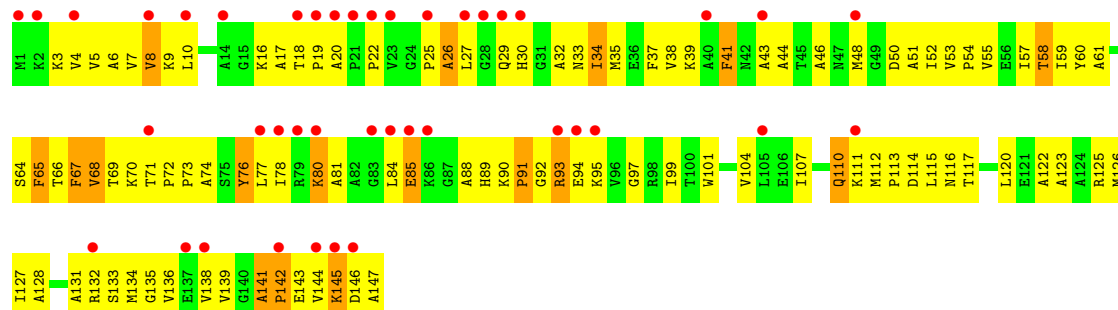
Chain DI:





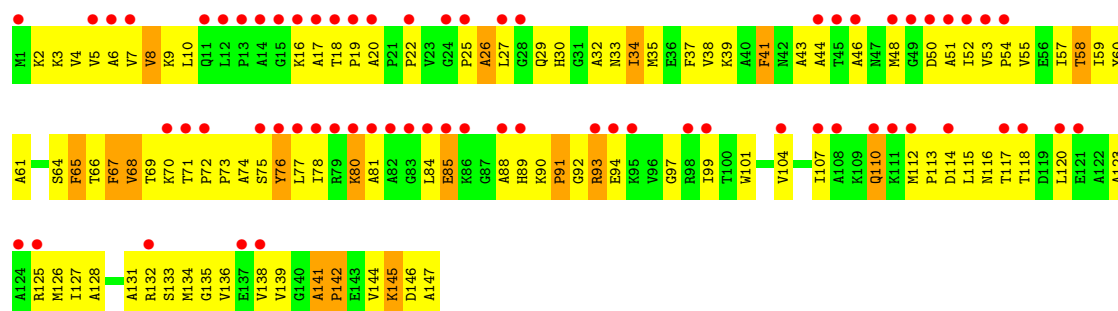
• Molecule 33: 50S ribosomal protein L11

Chain BK:



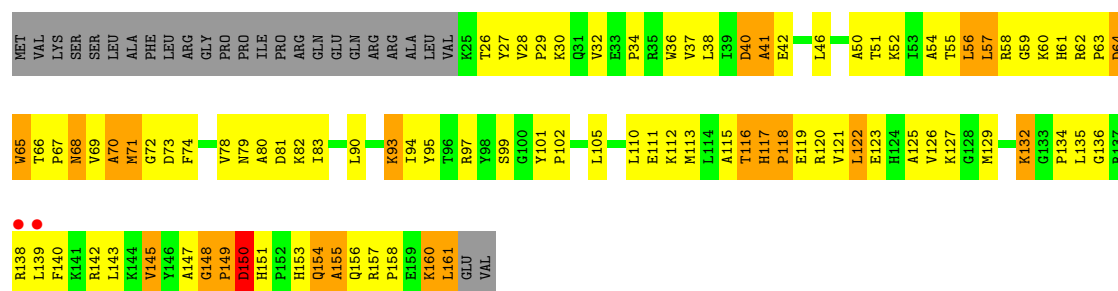
• Molecule 33: 50S ribosomal protein L11

Chain DK:



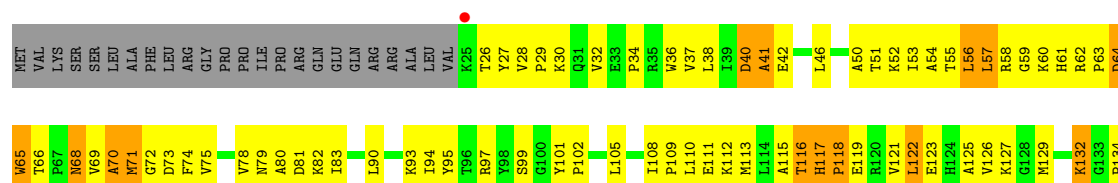
• Molecule 34: 50S ribosomal protein L13

Chain BN:



• Molecule 34: 50S ribosomal protein L13

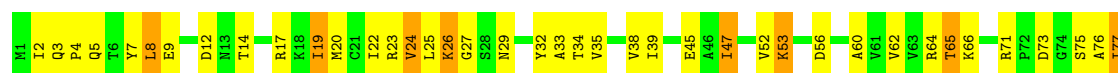
Chain DN:





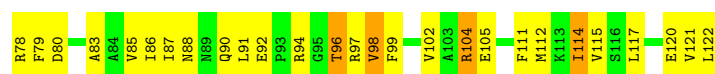
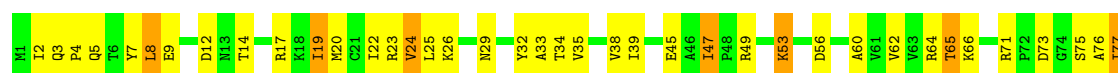
- Molecule 35: 50S ribosomal protein L14

Chain BO:



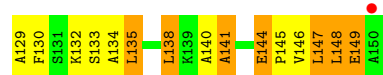
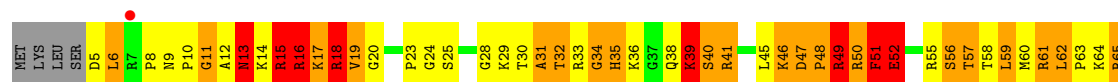
- Molecule 35: 50S ribosomal protein L14

Chain DO:



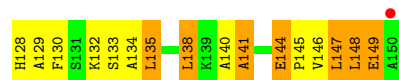
- Molecule 36: 50S ribosomal protein L15

Chain BP:



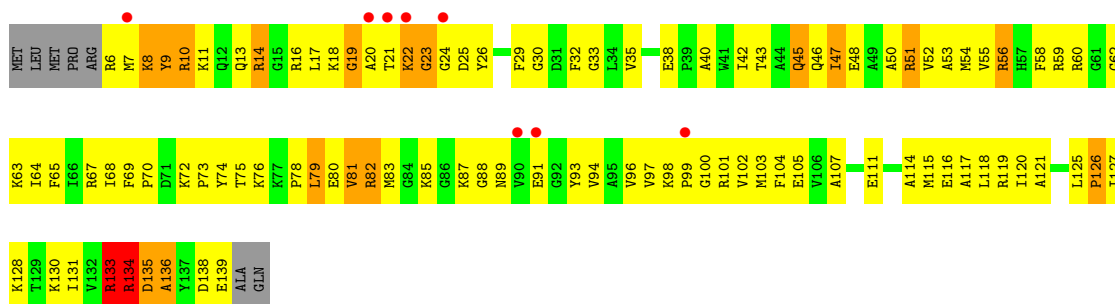
- Molecule 36: 50S ribosomal protein L15

Chain DP:



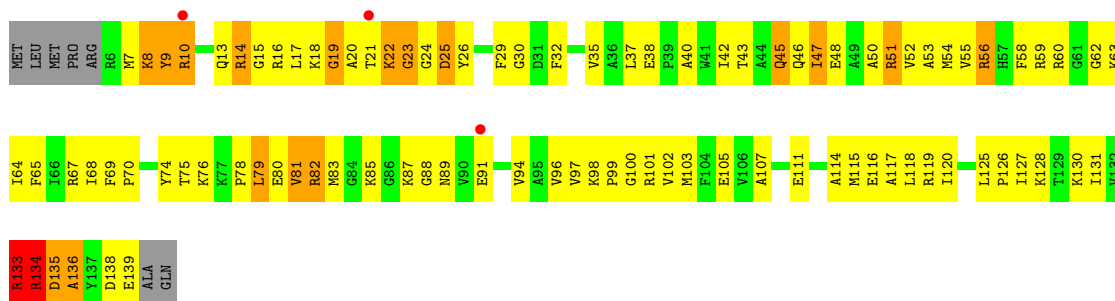
- Molecule 37: 50S ribosomal protein L16

Chain BQ:



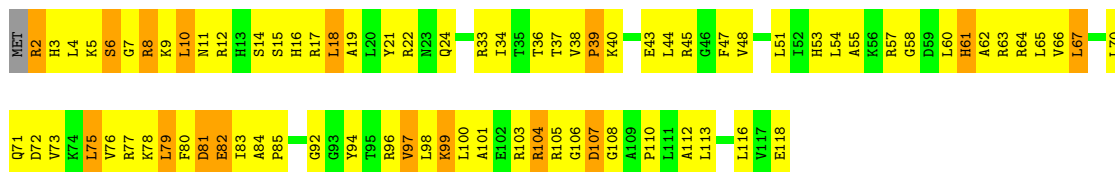
- Molecule 37: 50S ribosomal protein L16

Chain DQ:



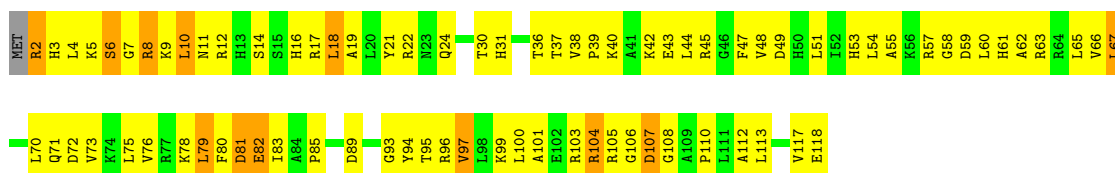
- Molecule 38: 50S ribosomal protein L17

Chain BR:



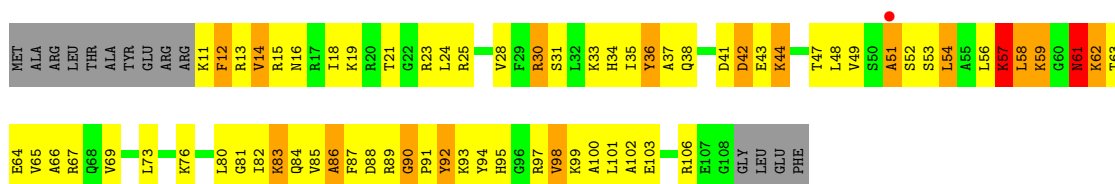
- Molecule 38: 50S ribosomal protein L17

Chain DR:



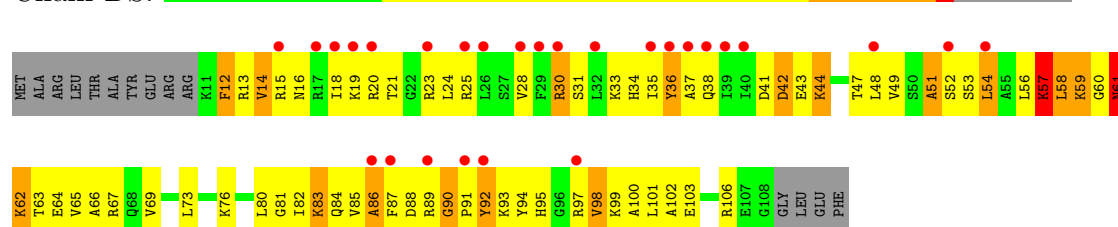
- Molecule 39: 50S ribosomal protein L18

Chain BS:



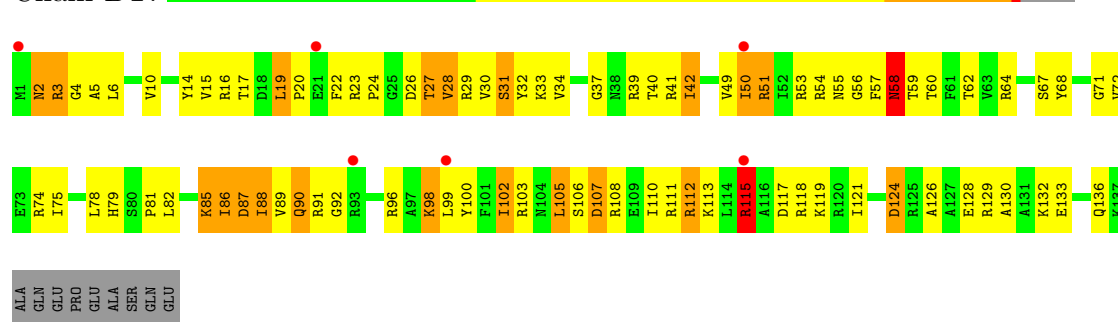
- Molecule 39: 50S ribosomal protein L18

Chain DS:



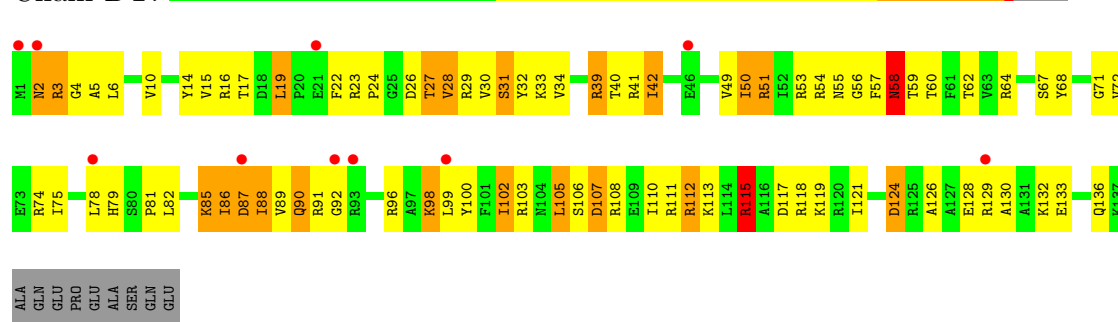
- Molecule 40: 50S ribosomal protein L19

Chain BT:



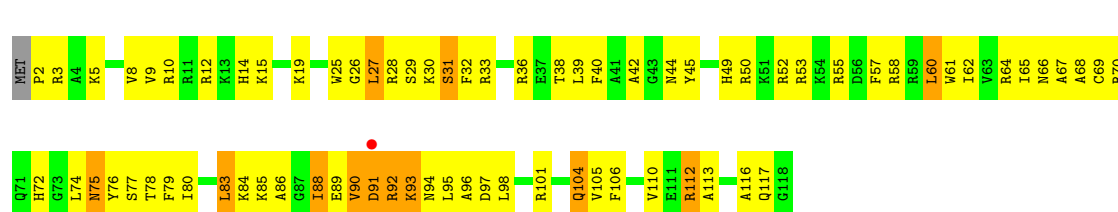
- Molecule 40: 50S ribosomal protein L19

Chain DT:



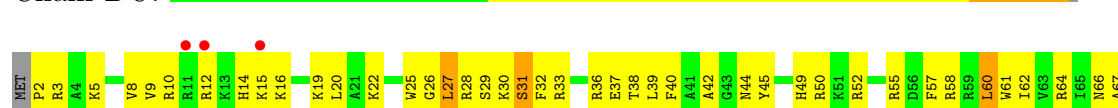
- Molecule 41: 50S ribosomal protein L20

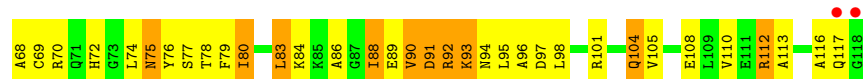
Chain BU:



- Molecule 41: 50S ribosomal protein L20

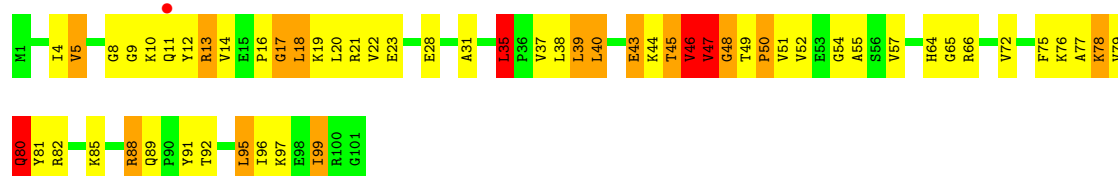
Chain DU:





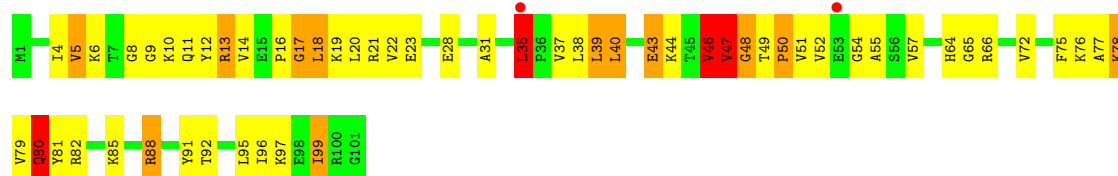
• Molecule 42: 50S ribosomal protein L21

Chain BV:



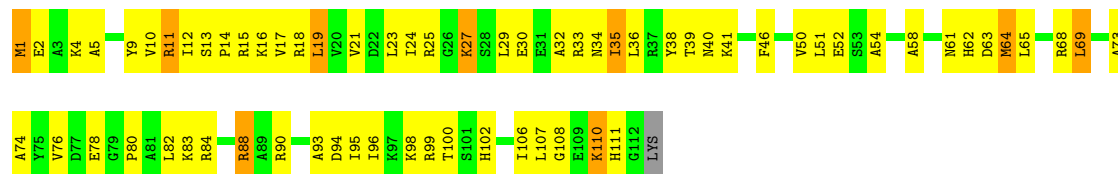
• Molecule 42: 50S ribosomal protein L21

Chain DV:



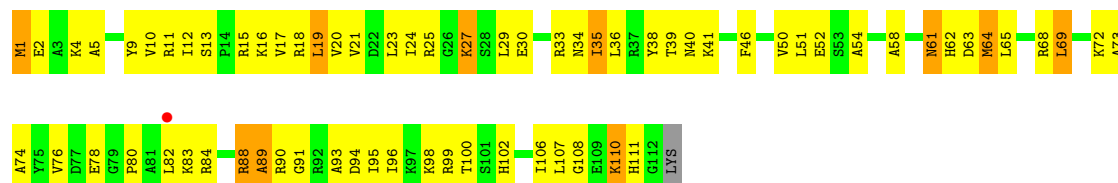
• Molecule 43: 50S ribosomal protein L22

Chain BW:



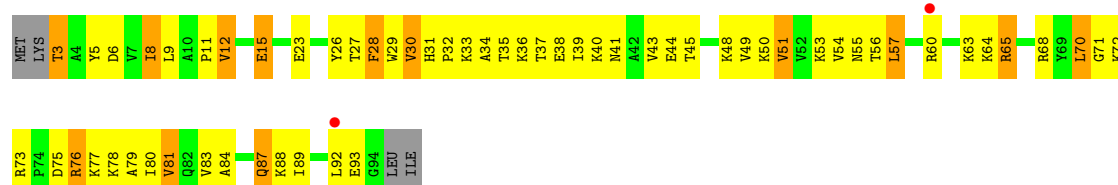
• Molecule 43: 50S ribosomal protein L22

Chain DW:

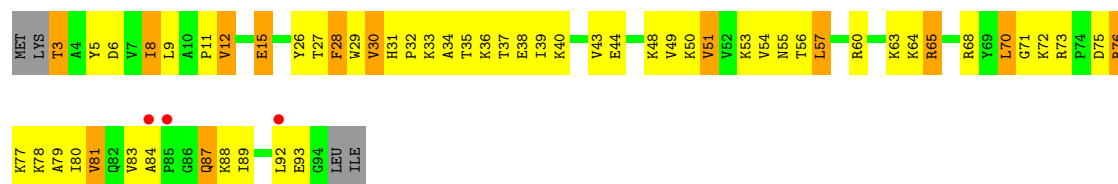


• Molecule 44: 50S ribosomal protein L23

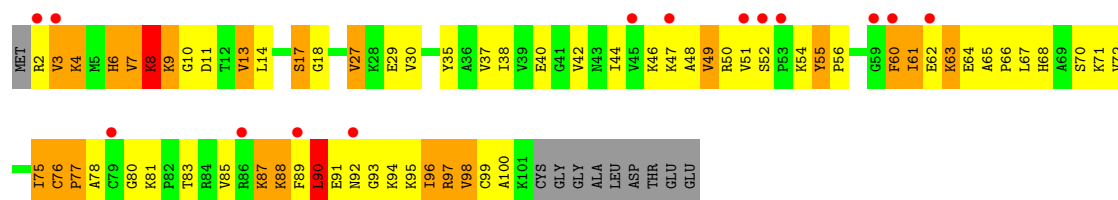
Chain BX:



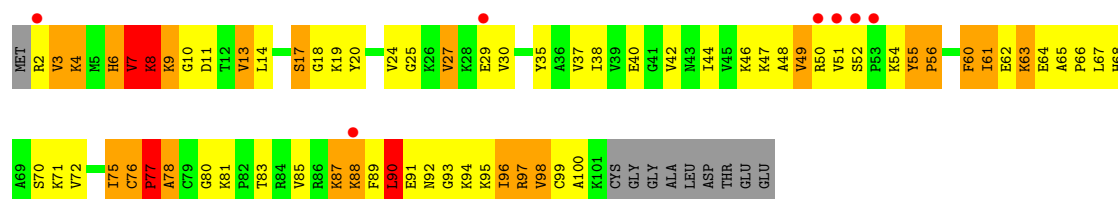
- Molecule 44: 50S ribosomal protein L23

Chain DX: 

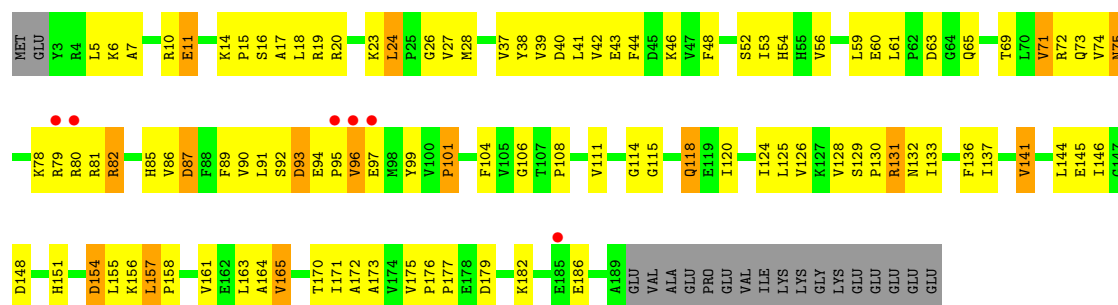
- Molecule 45: 50S ribosomal protein L24

Chain BY: 

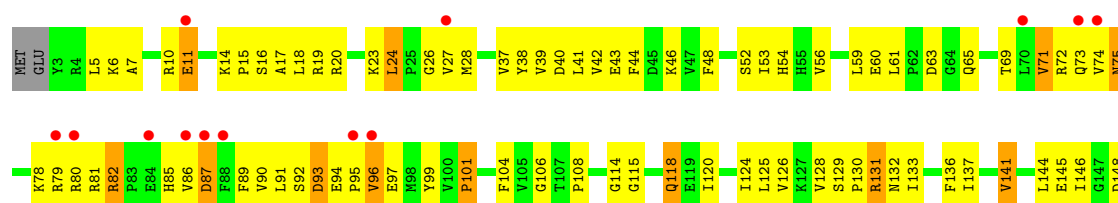
- Molecule 45: 50S ribosomal protein L24

Chain DY: 

- Molecule 46: 50S ribosomal protein L25

Chain BZ: 

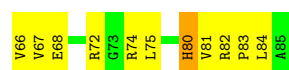
- Molecule 46: 50S ribosomal protein L25

Chain DZ: 



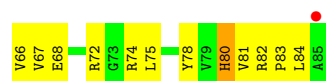
• Molecule 47: 50S ribosomal protein L27

Chain B0:



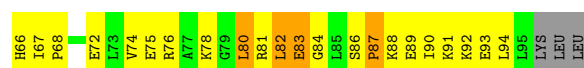
• Molecule 47: 50S ribosomal protein L27

Chain D0:



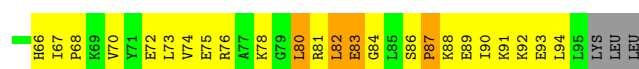
• Molecule 48: 50S ribosomal protein L28

Chain B1:



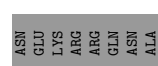
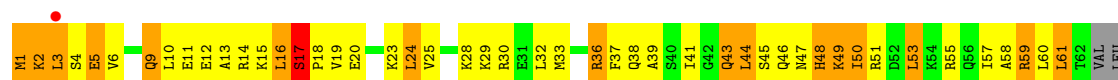
• Molecule 48: 50S ribosomal protein L28

Chain D1:



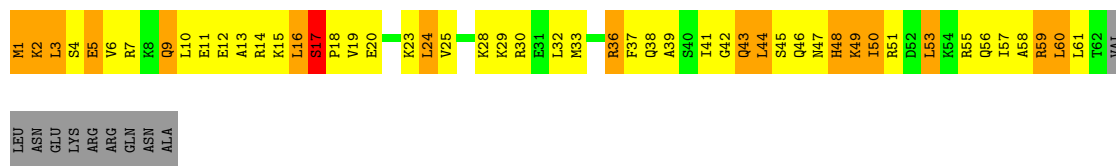
• Molecule 49: 50S ribosomal protein L29

Chain B2:



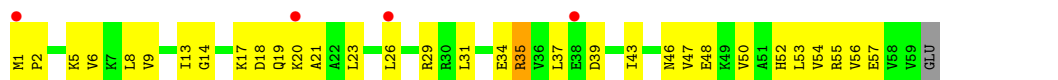
• Molecule 49: 50S ribosomal protein L29

Chain D2:



- Molecule 50: 50S ribosomal protein L30

Chain B3:



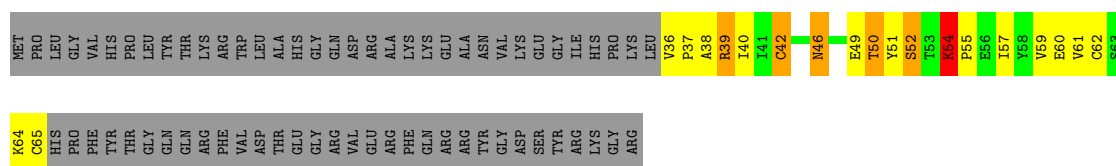
- Molecule 50: 50S ribosomal protein L30

Chain D3:



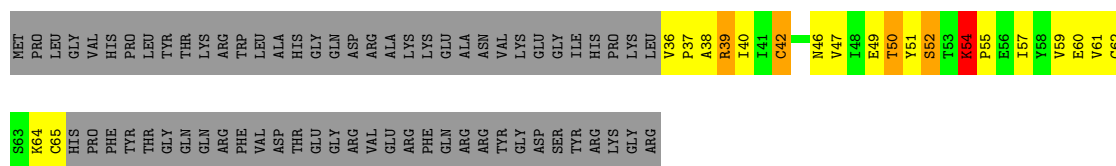
- Molecule 51: 50S ribosomal protein L31

Chain B4:



- Molecule 51: 50S ribosomal protein L31

Chain D4:



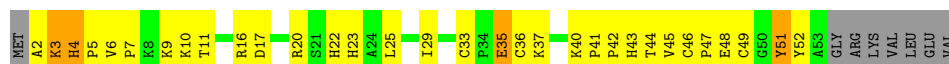
- Molecule 52: 50S ribosomal protein L32

Chain B5:



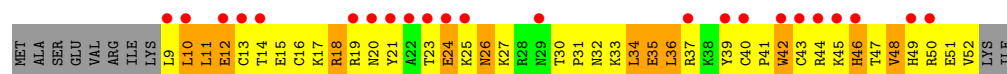
- Molecule 52: 50S ribosomal protein L32

Chain D5:



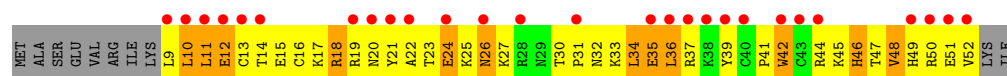
- Molecule 53: 50S ribosomal protein L33

Chain B6: 



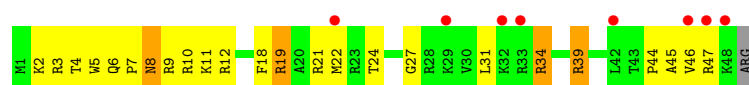
- Molecule 53: 50S ribosomal protein L33

Chain D6: 



- Molecule 54: 50S ribosomal protein L34

Chain B7: 



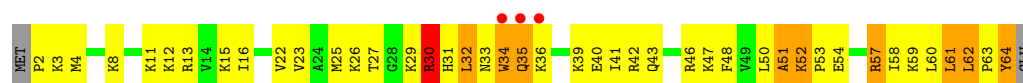
- Molecule 54: 50S ribosomal protein L34

Chain D7: 



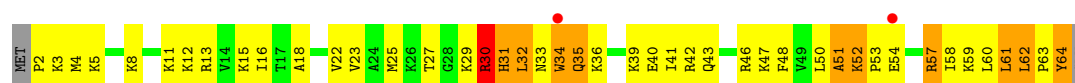
- Molecule 55: 50S ribosomal protein L35

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	211.24Å 456.78Å 618.71Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.95 – 3.00 50.99 – 2.99	Depositor EDS
% Data completeness (in resolution range)	97.3 (49.95-3.00) 97.2 (50.99-2.99)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.31 (at 3.01Å)	Xtriage
Refinement program	PHENIX (phenix.refine)	Depositor
R, R_{free}	0.280 , 0.316 0.299 , 0.331	Depositor DCC
R_{free} test set	8188 reflections (0.71%)	DCC
Wilson B-factor (Å ²)	56.2	Xtriage
Anisotropy	0.291	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.18 , 11.2	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.43$, $\langle L^2 \rangle = 0.25$	Xtriage
Outliers	0 of 1158087 reflections	Xtriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	301148	wwPDB-VP
Average B, all atoms (Å ²)	95.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.24% 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	0.56	1/36194 (0.0%)	1.11	109/56493 (0.2%)
1	CA	0.55	1/36194 (0.0%)	1.10	110/56493 (0.2%)
2	AY	0.54	0/1832	1.03	2/2855 (0.1%)
2	AZ	0.46	0/1832	0.95	1/2855 (0.0%)
2	CY	0.54	0/1832	1.03	2/2855 (0.1%)
2	CZ	0.45	0/1832	0.94	1/2855 (0.0%)
3	AV	0.66	0/241	1.33	2/374 (0.5%)
3	CV	0.64	0/241	1.30	1/374 (0.3%)
4	AB	0.27	0/1935	0.46	0/2609
4	CB	0.27	0/1935	0.47	0/2609
5	AC	0.27	0/1636	0.46	0/2205
5	CC	0.28	0/1636	0.46	0/2205
6	AD	0.32	0/1733	0.50	0/2318
6	CD	0.30	0/1733	0.49	0/2318
7	AE	0.30	0/1171	0.50	0/1576
7	CE	0.29	0/1171	0.50	0/1576
8	AF	0.30	0/856	0.49	0/1154
8	CF	0.30	0/856	0.49	0/1154
9	AG	0.30	0/1276	0.47	0/1709
9	CG	0.28	0/1276	0.46	0/1709
10	AH	0.31	0/1136	0.52	0/1527
10	CH	0.29	0/1136	0.50	0/1527
11	AI	0.26	0/1029	0.45	0/1378
11	CI	0.26	0/1029	0.45	0/1378
12	AJ	0.29	0/807	0.49	0/1085
12	CJ	0.27	0/807	0.48	0/1085
13	AK	0.31	0/856	0.51	0/1157
13	CK	0.38	0/856	0.53	0/1157
14	AL	0.36	0/972	0.58	0/1301
14	CL	0.33	0/972	0.57	0/1301
15	AM	0.26	0/943	0.49	0/1265
15	CM	0.25	0/943	0.49	0/1265

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	AN	0.28	0/501	0.47	0/664
16	CN	0.30	0/501	0.47	0/664
17	AO	0.33	0/745	0.48	0/992
17	CO	0.32	0/745	0.48	0/992
18	AP	0.33	0/716	0.50	0/963
18	CP	0.27	0/716	0.47	0/963
19	AQ	0.32	0/836	0.50	0/1117
19	CQ	0.30	0/836	0.48	0/1117
20	AR	0.32	0/579	0.49	0/768
20	CR	0.32	0/579	0.50	0/768
21	AS	0.25	0/642	0.46	0/865
21	CS	0.25	0/642	0.46	0/865
22	AT	0.30	0/764	0.48	0/1006
22	CT	0.27	0/764	0.47	0/1006
23	AU	0.24	0/212	0.47	0/277
23	CU	0.25	0/212	0.45	0/277
24	AX	0.30	0/2926	0.49	0/3953
24	CX	0.27	0/2926	0.48	0/3953
25	BA	0.65	0/69437	1.22	337/108401 (0.3%)
25	DA	0.66	2/69437 (0.0%)	1.22	323/108401 (0.3%)
26	BB	0.53	0/2853	1.12	10/4451 (0.2%)
26	DB	0.52	0/2853	1.11	8/4451 (0.2%)
27	BD	0.46	0/2154	0.67	1/2905 (0.0%)
27	DD	0.47	0/2154	0.67	1/2905 (0.0%)
28	BE	0.35	0/1596	0.58	0/2153
28	DE	0.34	0/1596	0.57	0/2153
29	BF	0.37	0/1621	0.57	0/2194
29	DF	0.38	0/1621	0.57	0/2194
30	BG	0.28	0/1500	0.50	0/2017
30	DG	0.27	0/1500	0.49	0/2017
31	BH	0.26	0/1245	0.48	0/1682
31	DH	0.28	0/1245	0.49	0/1682
32	BI	0.31	0/1147	0.53	0/1552
32	DI	0.32	0/1147	0.55	0/1552
33	BK	0.24	0/1108	0.45	0/1500
33	DK	0.24	0/1108	0.45	0/1500
34	BN	0.32	0/1123	0.55	0/1515
34	DN	0.33	0/1123	0.55	0/1515
35	BO	0.38	0/942	0.56	0/1268
35	DO	0.35	0/942	0.55	0/1268
36	BP	0.38	0/1131	0.71	1/1504 (0.1%)
36	DP	0.40	0/1131	0.72	2/1504 (0.1%)
37	BQ	0.38	0/1084	0.60	0/1449

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
37	DQ	0.36	0/1084	0.59	0/1449
38	BR	0.38	0/974	0.59	0/1302
38	DR	0.36	0/974	0.57	0/1302
39	BS	0.28	0/778	0.50	0/1036
39	DS	0.26	0/778	0.48	0/1036
40	BT	0.37	0/1157	0.53	0/1544
40	DT	0.32	0/1157	0.51	0/1544
41	BU	0.37	0/982	0.53	0/1306
41	DU	0.42	0/982	0.54	0/1306
42	BV	0.35	0/790	0.57	0/1057
42	DV	0.37	0/790	0.59	0/1057
43	BW	0.36	0/901	0.56	0/1209
43	DW	0.37	0/901	0.56	0/1209
44	BX	0.40	0/739	0.55	0/993
44	DX	0.42	0/739	0.56	0/993
45	BY	0.33	0/788	0.57	0/1051
45	DY	0.39	0/788	0.59	0/1051
46	BZ	0.28	0/1514	0.50	0/2056
46	DZ	0.28	0/1514	0.49	0/2056
47	B0	0.34	0/613	0.54	0/816
47	D0	0.32	0/613	0.54	0/816
48	B1	0.44	0/701	0.71	1/932 (0.1%)
48	D1	0.42	0/701	0.70	1/932 (0.1%)
49	B2	0.37	0/522	0.62	0/690
49	D2	0.40	0/522	0.63	0/690
50	B3	0.30	0/472	0.48	0/634
50	D3	0.31	0/472	0.49	0/634
51	B4	0.28	0/228	0.52	0/309
51	D4	0.26	0/228	0.52	0/309
52	B5	0.32	0/418	0.55	0/567
52	D5	0.33	0/418	0.58	0/567
53	B6	0.30	0/387	0.51	0/518
53	D6	0.29	0/387	0.50	0/518
54	B7	0.41	0/426	0.58	0/561
54	D7	0.44	0/426	0.64	0/561
55	B8	0.46	0/515	0.66	0/679
55	D8	0.42	0/515	0.65	0/679
All	All	0.55	4/324432 (0.0%)	1.04	913/484634 (0.2%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
27	BD	0	1
27	DD	0	1
36	BP	0	3
36	DP	0	3
All	All	0	8

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	DA	74	A	C3'-O3'	5.67	1.50	1.42
25	DA	2447	G	C3'-O3'	5.48	1.49	1.42
1	AA	1064	G	C3'-O3'	5.40	1.49	1.42
1	CA	115	G	C3'-O3'	5.06	1.49	1.42

All (913) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1913	A	C1'-O4'-C4'	-12.89	99.59	109.90
25	DA	1559	G	C1'-O4'-C4'	-12.85	99.62	109.90
25	DA	945	A	C1'-O4'-C4'	-12.85	99.62	109.90
25	BA	1559	G	C1'-O4'-C4'	-12.81	99.65	109.90
25	DA	1786	A	C1'-O4'-C4'	-12.74	99.70	109.90
25	BA	1379	A	C3'-C2'-C1'	-11.68	92.16	101.50
25	BA	945	A	C1'-O4'-C4'	-11.55	100.66	109.90
25	DA	1913	A	C1'-O4'-C4'	-11.53	100.68	109.90
25	DA	1379	A	C3'-C2'-C1'	-11.08	92.64	101.50
25	BA	1559	G	O4'-C1'-N9	11.02	117.02	108.20
25	BA	1913	A	O4'-C1'-N9	11.01	117.01	108.20
25	BA	1786	A	C1'-O4'-C4'	-11.01	101.09	109.90
25	DA	1913	A	O4'-C1'-N9	10.71	116.76	108.20
25	BA	1698	A	C3'-C2'-C1'	-10.42	93.16	101.50
25	DA	2609	U	C1'-O4'-C4'	-10.38	101.60	109.90
25	DA	1559	G	O4'-C1'-N9	10.36	116.49	108.20
25	DA	2447	G	P-O3'-C3'	10.32	132.08	119.70
25	BA	603	A	C1'-O4'-C4'	-10.27	101.69	109.90
25	BA	2609	U	C1'-O4'-C4'	-10.13	101.80	109.90
25	DA	1698	A	C3'-C2'-C1'	-10.01	93.49	101.50
25	BA	1542	G	P-O3'-C3'	10.00	131.70	119.70
25	BA	2447	G	P-O3'-C3'	9.96	131.65	119.70
25	BA	1300	U	P-O3'-C3'	9.93	131.62	119.70
25	DA	676	A	C1'-O4'-C4'	-9.92	101.96	109.90
25	DA	603	A	C1'-O4'-C4'	-9.85	102.02	109.90
25	BA	2346	A	C3'-C2'-C1'	-9.83	93.64	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1542	G	P-O3'-C3'	9.62	131.25	119.70
1	AA	328	C	C1'-O4'-C4'	-9.53	102.27	109.90
25	DA	74	A	P-O3'-C3'	9.49	131.09	119.70
25	BA	802	A	O4'-C1'-N9	-9.46	100.63	108.20
25	DA	363(G)	A	P-O3'-C3'	9.45	131.04	119.70
25	BA	1608	A	C1'-O4'-C4'	-9.39	102.38	109.90
25	DA	1022	G	P-O3'-C3'	9.37	130.94	119.70
1	CA	1492	A	C3'-C2'-C1'	-9.32	94.04	101.50
25	BA	74	A	P-O3'-C3'	9.29	130.85	119.70
25	BA	2346	A	C1'-O4'-C4'	-9.28	102.47	109.90
1	CA	1151	A	C1'-O4'-C4'	-9.25	102.50	109.90
25	DA	2275	C	P-O3'-C3'	9.20	130.74	119.70
25	DA	2346	A	C3'-C2'-C1'	-9.19	94.15	101.50
25	BA	2275	C	P-O3'-C3'	9.17	130.70	119.70
25	DA	1608	A	C1'-O4'-C4'	-9.16	102.57	109.90
25	DA	2346	A	C1'-O4'-C4'	-9.15	102.58	109.90
25	BA	676	A	C1'-O4'-C4'	-9.11	102.61	109.90
25	BA	363(G)	A	P-O3'-C3'	9.10	130.62	119.70
25	BA	933	A	O4'-C1'-N9	9.04	115.44	108.20
25	DA	1060	U	P-O3'-C3'	8.98	130.48	119.70
25	BA	1060	U	P-O3'-C3'	8.95	130.44	119.70
1	AA	1492	A	C3'-C2'-C1'	-8.93	94.36	101.50
25	DA	271(C)	G	P-O3'-C3'	8.90	130.38	119.70
1	AA	1151	A	C1'-O4'-C4'	-8.88	102.80	109.90
25	BA	271(C)	G	P-O3'-C3'	8.84	130.31	119.70
25	BA	1786	A	C3'-C2'-C1'	-8.82	94.44	101.50
25	DA	1460	A	C1'-O4'-C4'	-8.81	102.85	109.90
25	DA	1365	A	C4'-C3'-C2'	-8.81	93.79	102.60
25	DA	802	A	O4'-C1'-N9	-8.80	101.16	108.20
25	DA	1545	A	C1'-O4'-C4'	-8.79	102.87	109.90
25	DA	1300	U	P-O3'-C3'	8.76	130.21	119.70
1	CA	115	G	P-O3'-C3'	8.75	130.21	119.70
1	AA	173	U	P-O3'-C3'	8.75	130.19	119.70
25	DA	1427	A	P-O3'-C3'	8.74	130.19	119.70
25	BA	945	A	O4'-C1'-N9	8.73	115.19	108.20
25	DA	1698	A	O4'-C1'-N9	8.73	115.19	108.20
25	DA	199	A	C1'-O4'-C4'	-8.73	102.92	109.90
25	DA	670	A	O4'-C1'-N9	-8.73	101.22	108.20
1	CA	328	C	C1'-O4'-C4'	-8.70	102.94	109.90
25	DA	2593	U	N3-C4-C5	-8.70	109.38	114.60
25	DA	945	A	O4'-C1'-N9	8.69	115.15	108.20
25	BA	859	G	C3'-C2'-C1'	-8.65	94.58	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2061	G	N9-C1'-C2'	-8.64	102.50	112.00
1	CA	173	U	P-O3'-C3'	8.63	130.06	119.70
25	BA	1204	A	C3'-C2'-C1'	-8.61	94.61	101.50
25	DA	1913	A	C3'-C2'-C1'	-8.59	94.63	101.50
25	BA	1022	G	P-O3'-C3'	8.55	129.96	119.70
25	BA	1698	A	O4'-C1'-N9	8.55	115.04	108.20
25	BA	2689	U	P-O3'-C3'	8.54	129.95	119.70
25	DA	859	G	C3'-C2'-C1'	-8.54	94.67	101.50
25	DA	1204	A	C3'-C2'-C1'	-8.53	94.68	101.50
25	DA	775	G	P-O3'-C3'	8.47	129.87	119.70
1	AA	115	G	P-O3'-C3'	8.44	129.82	119.70
1	AA	328	C	P-O3'-C3'	8.44	129.82	119.70
25	BA	1427	A	P-O3'-C3'	8.43	129.82	119.70
1	AA	1064	G	P-O3'-C3'	8.37	129.74	119.70
25	DA	1131	G	P-O3'-C3'	8.36	129.73	119.70
25	BA	1460	A	C1'-O4'-C4'	-8.36	103.21	109.90
25	DA	1570	A	O4'-C1'-N9	-8.34	101.53	108.20
25	DA	2092	U	P-O3'-C3'	8.31	129.67	119.70
25	BA	512	G	C1'-O4'-C4'	-8.31	103.25	109.90
1	AA	1049	U	P-O3'-C3'	8.29	129.64	119.70
1	CA	328	C	P-O3'-C3'	8.28	129.64	119.70
1	CA	913	A	P-O3'-C3'	8.27	129.62	119.70
25	BA	1379	A	C1'-O4'-C4'	-8.27	103.29	109.90
25	DA	845	G	O4'-C1'-N9	8.25	114.80	108.20
25	BA	2593	U	N3-C4-C5	-8.22	109.67	114.60
1	AA	509	A	C3'-C2'-C1'	-8.21	94.93	101.50
25	BA	2061	G	N9-C1'-C2'	-8.19	102.99	112.00
25	BA	265	A	C3'-C2'-C1'	-8.19	94.95	101.50
1	CA	1064	G	P-O3'-C3'	8.19	129.53	119.70
25	BA	775	G	P-O3'-C3'	8.14	129.47	119.70
25	BA	2517	C	O4'-C1'-N1	8.06	114.65	108.20
25	DA	974(B)	C	C3'-C2'-C1'	-8.06	95.05	101.50
25	BA	1545	A	C1'-O4'-C4'	-8.01	103.49	109.90
25	DA	189	G	O4'-C1'-N9	-8.00	101.80	108.20
25	DA	1385	G	P-O3'-C3'	7.99	129.29	119.70
1	AA	412	A	C1'-O4'-C4'	-7.99	103.51	109.90
25	DA	807	U	C4'-C3'-C2'	-7.99	94.61	102.60
25	BA	717	G	O4'-C1'-N9	7.97	114.57	108.20
1	CA	412	A	C1'-O4'-C4'	-7.96	103.53	109.90
25	BA	974(B)	C	C3'-C2'-C1'	-7.93	95.16	101.50
25	DA	933	A	O4'-C1'-N9	7.93	114.54	108.20
25	BA	481	G	P-O3'-C3'	7.92	129.21	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	214	G	C1'-O4'-C4'	-7.92	103.57	109.90
1	AA	60	A	P-O3'-C3'	7.87	129.14	119.70
1	CA	1049	U	P-O3'-C3'	7.85	129.12	119.70
1	CA	1502	A	P-O3'-C3'	7.84	129.11	119.70
1	CA	509	A	C3'-C2'-C1'	-7.83	95.24	101.50
25	DA	2517	C	O4'-C1'-N1	7.82	114.46	108.20
25	BA	845	G	O4'-C1'-N9	7.80	114.44	108.20
1	AA	971	G	C1'-O4'-C4'	-7.78	103.68	109.90
25	DA	242	G	C3'-C2'-C1'	-7.75	95.30	101.50
25	BA	1913	A	C3'-C2'-C1'	-7.73	95.31	101.50
1	AA	484	G	P-O3'-C3'	7.71	128.95	119.70
25	BA	670	A	O4'-C1'-N9	-7.69	102.05	108.20
25	DA	512	G	O4'-C1'-N9	7.68	114.35	108.20
25	DA	1786	A	C3'-C2'-C1'	-7.68	95.35	101.50
25	BA	1698	A	C1'-O4'-C4'	-7.68	103.76	109.90
25	BA	2685	G	C5-C6-N1	-7.67	107.67	111.50
25	DA	512	G	P-O3'-C3'	7.67	128.90	119.70
25	DA	214	G	O4'-C1'-N9	7.66	114.33	108.20
25	DA	512	G	C1'-O4'-C4'	-7.66	103.77	109.90
25	DA	1379	A	C1'-O4'-C4'	-7.63	103.80	109.90
1	AA	1504	G	P-O3'-C3'	7.61	128.83	119.70
25	DA	481	G	P-O3'-C3'	7.61	128.83	119.70
25	DA	1913	A	O4'-C1'-C2'	-7.60	98.20	105.80
1	CA	1504	G	P-O3'-C3'	7.59	128.81	119.70
25	BA	1131	G	P-O3'-C3'	7.59	128.81	119.70
1	AA	793	U	C1'-O4'-C4'	-7.58	103.84	109.90
1	CA	1528	U	P-O3'-C3'	7.57	128.79	119.70
1	AA	1502	A	P-O3'-C3'	7.56	128.78	119.70
1	AA	913	A	P-O3'-C3'	7.56	128.77	119.70
1	CA	971	G	C1'-O4'-C4'	-7.56	103.86	109.90
25	BA	676	A	O4'-C1'-N9	7.54	114.23	108.20
25	DA	1698	A	C1'-O4'-C4'	-7.53	103.88	109.90
3	CV	21	A	P-O3'-C3'	7.49	128.69	119.70
25	BA	199	A	C1'-O4'-C4'	-7.49	103.91	109.90
1	AA	428	G	P-O3'-C3'	7.48	128.68	119.70
25	DA	1108	U	P-O3'-C3'	-7.42	110.80	119.70
1	AA	266	G	P-O3'-C3'	7.41	128.59	119.70
1	CA	366	C	P-O3'-C3'	7.40	128.58	119.70
1	AA	250	A	P-O3'-C3'	7.37	128.55	119.70
25	DA	1786	A	O4'-C1'-C2'	-7.37	98.43	105.80
1	CA	793	U	C1'-O4'-C4'	-7.35	104.02	109.90
25	DA	1379	A	O4'-C1'-C2'	-7.35	98.45	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1559	G	C3'-C2'-C1'	-7.34	95.62	101.50
1	CA	890	G	C3'-C2'-C1'	-7.33	95.64	101.50
25	BA	1365	A	C4'-C3'-C2'	-7.32	95.28	102.60
25	DA	1617	C	C3'-C2'-C1'	-7.32	95.65	101.50
25	BA	1913	A	O4'-C1'-C2'	-7.29	98.51	105.80
25	DA	1545	A	C5'-C4'-O4'	7.29	117.85	109.10
25	BA	101	G	C3'-C2'-C1'	-7.28	95.68	101.50
25	BA	242	G	C3'-C2'-C1'	-7.26	95.69	101.50
25	DA	1559	G	C3'-C2'-C1'	-7.25	95.70	101.50
25	BA	1937	A	P-O3'-C3'	7.25	128.40	119.70
1	AA	108	G	C4'-C3'-C2'	-7.24	95.36	102.60
25	DA	2494	G	C4'-C3'-C2'	-7.24	95.36	102.60
1	CA	60	A	P-O3'-C3'	7.24	128.38	119.70
25	DA	805	G	O4'-C1'-N9	7.24	113.99	108.20
25	DA	685	A	C1'-O4'-C4'	-7.22	104.12	109.90
25	BA	2490	G	P-O3'-C3'	7.22	128.36	119.70
25	DA	101	G	C3'-C2'-C1'	-7.21	95.73	101.50
25	BA	807	U	C4'-C3'-C2'	-7.21	95.39	102.60
1	CA	108	G	C4'-C3'-C2'	-7.19	95.41	102.60
25	BA	1609	A	C4'-C3'-C2'	-7.19	95.41	102.60
1	AA	438	G	P-O3'-C3'	7.19	128.32	119.70
25	BA	1385	G	P-O3'-C3'	7.19	128.32	119.70
25	BA	1545	A	C5'-C4'-O4'	7.18	117.71	109.10
25	BA	1332	G	N3-C4-N9	-7.15	121.71	126.00
25	DA	933	A	O4'-C4'-C3'	-7.13	96.87	104.00
25	BA	532	A	C1'-O4'-C4'	-7.13	104.20	109.90
1	AA	748	C	P-O3'-C3'	7.12	128.25	119.70
25	DA	332	A	P-O3'-C3'	7.12	128.25	119.70
25	DA	474	G	P-O3'-C3'	7.12	128.24	119.70
25	DA	760	G	C4'-C3'-C2'	-7.12	95.48	102.60
1	AA	1522	U	C4'-C3'-C2'	-7.11	95.49	102.60
25	DA	1937	A	P-O3'-C3'	7.11	128.23	119.70
1	CA	250	A	P-O3'-C3'	7.11	128.23	119.70
1	CA	484	G	P-O3'-C3'	7.10	128.22	119.70
25	BA	1332	G	N3-C4-C5	7.08	132.14	128.60
25	DA	1902	C	O4'-C1'-N1	-7.08	102.54	108.20
25	BA	1617	C	C3'-C2'-C1'	-7.07	95.84	101.50
25	DA	265	A	C3'-C2'-C1'	-7.05	95.86	101.50
25	DA	692	C	C4'-C3'-C2'	-7.05	95.55	102.60
25	BA	214	G	O4'-C1'-N9	7.03	113.83	108.20
25	DA	2593	U	N3-C4-O4	7.03	124.32	119.40
25	BA	2061	G	N1-C6-O6	7.02	124.11	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1365	A	C1'-O4'-C4'	-7.00	104.30	109.90
25	DA	717	G	O4'-C1'-N9	7.00	113.80	108.20
25	BA	685	A	C1'-O4'-C4'	-6.98	104.31	109.90
27	DD	41	GLY	N-CA-C	6.98	130.55	113.10
25	BA	2790	A	C4'-C3'-C2'	-6.97	95.63	102.60
25	DA	1253	A	C1'-O4'-C4'	-6.97	104.33	109.90
1	AA	1528	U	P-O3'-C3'	6.95	128.04	119.70
25	BA	979	G	N1-C6-O6	6.95	124.07	119.90
1	CA	748	C	P-O3'-C3'	6.95	128.04	119.70
25	DA	2790	A	C4'-C3'-C2'	-6.93	95.67	102.60
25	BA	1907	G	C4'-C3'-C2'	-6.92	95.67	102.60
3	AV	21	A	P-O3'-C3'	6.92	128.00	119.70
1	AA	890	G	C3'-C2'-C1'	-6.91	95.97	101.50
25	DA	1332	G	N3-C4-C5	6.91	132.05	128.60
1	AA	872	A	C1'-O4'-C4'	-6.89	104.39	109.90
25	DA	1365	A	C1'-O4'-C4'	-6.89	104.39	109.90
25	BA	1962	C	N1-C2-O2	6.88	123.03	118.90
1	CA	559	A	C1'-O4'-C4'	-6.88	104.39	109.90
25	DA	2689	U	P-O3'-C3'	6.88	127.96	119.70
25	DA	2346	A	O4'-C1'-N9	6.87	113.69	108.20
1	CA	428	G	P-O3'-C3'	6.86	127.93	119.70
25	DA	1332	G	N3-C4-N9	-6.85	121.89	126.00
26	BB	42	C	O4'-C1'-N1	6.83	113.67	108.20
25	DA	265	A	C1'-O4'-C4'	-6.83	104.44	109.90
25	BA	2739	U	O4'-C1'-N1	6.82	113.66	108.20
26	DB	42	C	C1'-O4'-C4'	-6.81	104.45	109.90
25	DA	1962	C	P-O3'-C3'	6.80	127.87	119.70
25	DA	793	A	O4'-C1'-N9	-6.80	102.76	108.20
1	CA	879	C	C4'-C3'-C2'	-6.78	95.82	102.60
25	BA	474	G	P-O3'-C3'	6.78	127.83	119.70
25	BA	332	A	P-O3'-C3'	6.77	127.83	119.70
25	BA	783	A	O4'-C1'-N9	6.77	113.61	108.20
25	BA	1050	A	O3'-P-O5'	-6.76	91.15	104.00
1	CA	1257	U	C1'-O4'-C4'	-6.76	104.49	109.90
25	DA	1609	A	C4'-C3'-C2'	-6.76	95.84	102.60
25	DA	1493	C	N1-C1'-C2'	6.75	122.78	114.00
1	AA	366	C	P-O3'-C3'	6.75	127.80	119.70
1	AA	1257	U	C1'-O4'-C4'	-6.75	104.50	109.90
25	BA	1126	A	P-O3'-C3'	6.75	127.80	119.70
25	BA	298	G	N1-C6-O6	6.74	123.94	119.90
25	BA	1325	G	C1'-O4'-C4'	-6.73	104.51	109.90
1	CA	1522	U	C4'-C3'-C2'	-6.73	95.87	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	196	A	C1'-O4'-C4'	-6.72	104.52	109.90
25	BA	933	A	C4'-C3'-C2'	-6.72	95.88	102.60
1	CA	466	G	C3'-C2'-C1'	-6.69	96.15	101.50
25	BA	2311	A	C1'-O4'-C4'	-6.68	104.55	109.90
2	CY	70	G	C3'-C2'-C1'	-6.67	96.16	101.50
1	CA	351	G	P-O3'-C3'	6.67	127.70	119.70
25	BA	760	G	C4'-C3'-C2'	-6.67	95.93	102.60
1	CA	799	G	C4'-C3'-C2'	-6.67	95.93	102.60
25	DA	1804	C	N1-C1'-C2'	-6.67	104.67	112.00
25	BA	1614	A	O5'-P-OP2	-6.64	99.72	105.70
25	BA	1804	C	N1-C1'-C2'	-6.64	104.70	112.00
1	AA	466	G	C3'-C2'-C1'	-6.64	96.19	101.50
25	BA	2346	A	O4'-C1'-N9	6.63	113.51	108.20
1	CA	1285	A	P-O3'-C3'	6.63	127.66	119.70
25	BA	692	C	C4'-C3'-C2'	-6.63	95.97	102.60
1	CA	872	A	C1'-O4'-C4'	-6.62	104.60	109.90
1	CA	1101	A	P-O3'-C3'	6.61	127.63	119.70
25	DA	717	G	C4'-C3'-C2'	-6.60	96.00	102.60
25	DA	2542	A	P-O3'-C3'	6.60	127.62	119.70
25	DA	214	G	C1'-O4'-C4'	-6.60	104.62	109.90
1	CA	1502	A	C1'-O4'-C4'	-6.60	104.62	109.90
25	DA	933	A	C4'-C3'-C2'	-6.60	96.00	102.60
25	BA	2593	U	O4'-C1'-N1	6.58	113.47	108.20
1	AA	559	A	C1'-O4'-C4'	-6.58	104.63	109.90
27	BD	41	GLY	N-CA-C	6.58	129.55	113.10
25	BA	1253	A	C1'-O4'-C4'	-6.58	104.64	109.90
25	DA	2028	U	N3-C4-C5	-6.58	110.66	114.60
25	DA	1616	A	O4'-C1'-N9	6.56	113.45	108.20
25	DA	2586	C	P-O3'-C3'	-6.56	111.82	119.70
25	BA	2724	C	O4'-C4'-C3'	-6.55	97.45	104.00
25	DA	945	A	C3'-C2'-C1'	-6.55	96.26	101.50
26	DB	42	C	O4'-C1'-N1	6.54	113.43	108.20
25	BA	512	G	P-O3'-C3'	6.54	127.54	119.70
25	BA	933	A	C1'-O4'-C4'	-6.53	104.67	109.90
25	DA	352	G	P-O3'-C3'	6.53	127.53	119.70
1	AA	1101	A	P-O3'-C3'	6.53	127.53	119.70
25	DA	1954	G	O4'-C1'-N9	-6.52	102.98	108.20
25	DA	203	C	C4'-C3'-C2'	-6.52	96.08	102.60
1	CA	438	G	P-O3'-C3'	6.52	127.52	119.70
25	DA	2593	U	C6-N1-C2	-6.51	117.09	121.00
25	BA	46	C	C4'-C3'-C2'	-6.51	96.09	102.60
25	BA	783	A	C3'-C2'-C1'	-6.50	96.30	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2490	G	P-O3'-C3'	6.49	127.49	119.70
25	DA	405	U	C3'-C2'-C1'	-6.49	96.31	101.50
1	CA	274	A	O4'-C1'-N9	6.49	113.39	108.20
25	BA	945	A	C3'-C2'-C1'	-6.48	96.31	101.50
25	BA	265	A	C1'-O4'-C4'	-6.48	104.72	109.90
1	AA	1285	A	P-O3'-C3'	6.47	127.46	119.70
25	DA	1899	G	C3'-C2'-C1'	6.46	106.67	101.50
25	BA	1996	C	P-O3'-C3'	6.45	127.44	119.70
25	DA	2333	A	P-O3'-C3'	6.45	127.44	119.70
25	DA	1543	A	C3'-C2'-C1'	-6.45	96.34	101.50
25	DA	2739	U	O4'-C1'-N1	6.45	113.36	108.20
25	DA	2428	G	P-O3'-C3'	6.45	127.44	119.70
1	CA	266	G	P-O3'-C3'	6.44	127.43	119.70
25	DA	196	A	C1'-O4'-C4'	-6.44	104.75	109.90
25	BA	2542	A	P-O3'-C3'	6.44	127.43	119.70
25	BA	1899	G	C3'-C2'-C1'	6.44	106.65	101.50
25	DA	1266	G	O4'-C1'-N9	-6.43	103.05	108.20
1	CA	1129	C	P-O3'-C3'	6.43	127.42	119.70
25	DA	1603	A	P-O3'-C3'	6.43	127.42	119.70
25	DA	125	G	O4'-C1'-N9	-6.43	103.06	108.20
25	DA	1996	C	P-O3'-C3'	6.43	127.42	119.70
1	CA	872	A	O4'-C1'-N9	6.43	113.34	108.20
25	DA	783	A	O4'-C1'-N9	6.43	113.34	108.20
25	BA	479	A	P-O3'-C3'	6.42	127.40	119.70
25	BA	1286	A	C1'-O4'-C4'	-6.42	104.77	109.90
1	AA	108	G	C1'-O4'-C4'	-6.42	104.77	109.90
25	BA	2581	G	O4'-C1'-N9	6.41	113.33	108.20
25	DA	783	A	N9-C1'-C2'	-6.39	104.97	112.00
1	AA	618	C	C1'-O4'-C4'	-6.38	104.79	109.90
25	BA	2445	G	C4'-C3'-C2'	-6.38	96.22	102.60
25	DA	2500	U	C4'-C3'-C2'	-6.38	96.22	102.60
25	BA	1478	G	C4'-C3'-C2'	-6.38	96.22	102.60
25	DA	317	G	C4'-C3'-C2'	-6.38	96.22	102.60
25	DA	845	G	C1'-O4'-C4'	-6.38	104.80	109.90
25	BA	1984	G	C4'-C3'-C2'	-6.38	96.22	102.60
1	AA	1502	A	C1'-O4'-C4'	-6.37	104.81	109.90
25	BA	1902	C	O4'-C1'-N1	-6.37	103.11	108.20
25	DA	603	A	C3'-C2'-C1'	-6.36	96.41	101.50
25	DA	791	C	C1'-O4'-C4'	-6.36	104.82	109.90
25	BA	974(B)	C	C1'-O4'-C4'	-6.35	104.82	109.90
1	CA	246	A	P-O3'-C3'	6.34	127.31	119.70
25	BA	1786	A	O4'-C1'-C2'	-6.34	99.46	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1800	C	C1'-O4'-C4'	-6.34	104.83	109.90
25	DA	1543	A	O4'-C1'-C2'	-6.33	99.47	105.80
1	CA	1300	G	P-O3'-C3'	6.32	127.29	119.70
25	DA	1264	G	P-O3'-C3'	6.32	127.28	119.70
25	DA	213	A	C4'-C3'-C2'	-6.31	96.29	102.60
25	BA	2494	G	C4'-C3'-C2'	-6.31	96.29	102.60
25	BA	809	G	C4'-C3'-C2'	-6.31	96.29	102.60
25	DA	2569	G	C4'-C3'-C2'	-6.31	96.29	102.60
1	AA	1472	U	C4'-C3'-C2'	-6.29	96.31	102.60
1	AA	851	G	C4'-C3'-C2'	-6.29	96.31	102.60
25	DA	2791	C	P-O3'-C3'	6.29	127.24	119.70
1	AA	1129	C	P-O3'-C3'	6.28	127.24	119.70
25	DA	221	A	P-O3'-C3'	6.28	127.24	119.70
25	DA	676	A	O4'-C1'-N9	6.28	113.22	108.20
25	DA	2559	C	C4'-C3'-C2'	-6.27	96.33	102.60
25	BA	805	G	O4'-C1'-N9	6.27	113.21	108.20
1	CA	793	U	O4'-C1'-N1	6.27	113.21	108.20
25	BA	1493	C	N1-C1'-C2'	6.26	122.14	114.00
25	BA	1543	A	C3'-C2'-C1'	-6.26	96.49	101.50
1	AA	879	C	C4'-C3'-C2'	-6.26	96.34	102.60
25	DA	990	A	P-O3'-C3'	6.25	127.20	119.70
25	BA	2595	G	C4'-C3'-C2'	-6.25	96.35	102.60
1	CA	618	C	C1'-O4'-C4'	-6.25	104.90	109.90
25	BA	2586	C	P-O3'-C3'	-6.25	112.20	119.70
25	DA	1790	C	C6-N1-C2	6.24	122.80	120.30
25	DA	462	C	P-O3'-C3'	-6.23	112.22	119.70
25	DA	532	A	C1'-O4'-C4'	-6.23	104.92	109.90
25	DA	1204	A	C1'-O4'-C4'	-6.21	104.93	109.90
25	DA	559	G	P-O3'-C3'	-6.21	112.25	119.70
25	BA	2791	C	P-O3'-C3'	6.21	127.15	119.70
25	BA	405	U	C3'-C2'-C1'	-6.20	96.54	101.50
25	DA	1763	G	P-O3'-C3'	6.20	127.14	119.70
25	BA	1763	G	P-O3'-C3'	6.20	127.14	119.70
25	BA	383	U	C1'-O4'-C4'	-6.19	104.95	109.90
25	BA	1570	A	O4'-C1'-N9	-6.19	103.25	108.20
25	DA	717	G	C1'-O4'-C4'	-6.18	104.95	109.90
25	DA	1984	G	C4'-C3'-C2'	-6.18	96.42	102.60
1	CA	108	G	O4'-C1'-N9	6.18	113.14	108.20
25	BA	203	C	C4'-C3'-C2'	-6.17	96.42	102.60
25	BA	1954	G	O4'-C1'-N9	-6.17	103.26	108.20
1	AA	1331	G	C3'-C2'-C1'	6.17	106.44	101.50
1	CA	786	G	C4'-C3'-C2'	-6.17	96.43	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1033	U	C1'-O4'-C4'	-6.16	104.98	109.90
25	BA	1266	G	C3'-C2'-C1'	-6.16	96.58	101.50
25	DA	1975	G	C4'-C3'-C2'	-6.16	96.44	102.60
1	AA	799	G	C4'-C3'-C2'	-6.15	96.45	102.60
25	BA	1975	G	C4'-C3'-C2'	-6.14	96.45	102.60
25	DA	933	A	C1'-O4'-C4'	-6.14	104.99	109.90
25	DA	1126	A	P-O3'-C3'	6.12	127.05	119.70
1	CA	1472	U	C4'-C3'-C2'	-6.12	96.48	102.60
25	DA	1558	A	P-O3'-C3'	6.12	127.04	119.70
1	AA	115	G	O4'-C1'-N9	-6.11	103.31	108.20
25	DA	1907	G	C4'-C3'-C2'	-6.11	96.49	102.60
26	BB	42	C	C1'-O4'-C4'	-6.11	105.01	109.90
25	BA	859	G	C4'-C3'-C2'	-6.11	96.49	102.60
25	BA	1204	A	O4'-C1'-N9	6.11	113.08	108.20
25	BA	1603	A	P-O3'-C3'	6.10	127.02	119.70
25	BA	1577	C	C4'-C3'-C2'	-6.09	96.51	102.60
25	DA	825	C	C4'-C3'-C2'	-6.08	96.52	102.60
25	DA	1266	G	C3'-C2'-C1'	-6.08	96.64	101.50
25	DA	1395	A	C1'-O4'-C4'	-6.08	105.04	109.90
1	AA	687	A	P-O3'-C3'	6.08	126.99	119.70
1	CA	1159	U	C1'-O4'-C4'	-6.07	105.04	109.90
25	BA	2593	U	N3-C4-O4	6.07	123.65	119.40
25	BA	1962	C	P-O3'-C3'	6.07	126.98	119.70
25	BA	1558	A	P-O3'-C3'	6.06	126.97	119.70
25	DA	302	C	C1'-O4'-C4'	-6.05	105.06	109.90
25	DA	2061	G	N1-C6-O6	6.05	123.53	119.90
25	DA	1647	G	O4'-C1'-N9	-6.05	103.36	108.20
25	BA	125	G	O4'-C1'-N9	-6.05	103.36	108.20
2	AY	70	G	C3'-C2'-C1'	-6.04	96.66	101.50
25	DA	2790	A	C3'-C2'-C1'	-6.04	96.67	101.50
25	DA	807	U	P-O3'-C3'	6.04	126.95	119.70
25	DA	882	G	C3'-C2'-C1'	-6.04	96.67	101.50
25	BA	1108	U	P-O3'-C3'	6.04	126.94	119.70
25	BA	1694	C	C3'-C2'-C1'	-6.04	96.67	101.50
25	BA	2447	G	N1-C6-O6	6.04	123.52	119.90
25	DA	1962	C	C3'-C2'-C1'	6.04	106.33	101.50
1	CA	773	G	C4'-C3'-C2'	-6.03	96.57	102.60
25	BA	317	G	C4'-C3'-C2'	-6.03	96.57	102.60
25	BA	1288	U	O4'-C1'-N1	6.03	113.02	108.20
25	DA	450	G	C5-C6-N1	-6.02	108.49	111.50
25	DA	1460	A	O4'-C1'-N9	6.02	113.01	108.20
25	BA	1936	A	C4'-C3'-C2'	-6.01	96.59	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	851	G	C4'-C3'-C2'	-6.01	96.59	102.60
25	DA	945	A	N1-C6-N6	6.00	122.20	118.60
25	BA	1395	A	C1'-O4'-C4'	-6.00	105.10	109.90
25	BA	404	C	C3'-C2'-C1'	-5.99	96.71	101.50
25	DA	479	A	P-O3'-C3'	5.99	126.88	119.70
25	DA	2581	G	O4'-C1'-N9	5.99	112.99	108.20
25	DA	2593	U	O4'-C1'-N1	5.98	112.99	108.20
1	CA	1331	G	C3'-C2'-C1'	5.98	106.28	101.50
25	BA	1969	A	P-O3'-C3'	5.98	126.87	119.70
25	BA	717	G	C4'-C3'-C2'	-5.97	96.63	102.60
2	AY	1	C	C3'-C2'-C1'	-5.96	96.73	101.50
25	DA	807	U	C3'-C2'-C1'	-5.96	96.73	101.50
25	DA	1033	U	C1'-O4'-C4'	-5.96	105.13	109.90
1	AA	872	A	O4'-C1'-N9	5.95	112.96	108.20
1	AA	1159	U	C1'-O4'-C4'	-5.95	105.14	109.90
25	BA	989	G	O4'-C1'-N9	5.95	112.96	108.20
1	CA	1257	U	O4'-C1'-N1	5.95	112.96	108.20
1	CA	1446	A	C3'-C2'-C1'	-5.95	96.74	101.50
25	DA	974(B)	C	C1'-O4'-C4'	-5.95	105.14	109.90
25	BA	1460	A	O4'-C1'-N9	5.94	112.96	108.20
25	BA	310	A	C3'-C2'-C1'	5.94	106.25	101.50
1	CA	729	A	C4'-C3'-C2'	-5.94	96.66	102.60
25	BA	2402	C	C1'-O4'-C4'	-5.94	105.15	109.90
25	DA	764	A	C1'-O4'-C4'	-5.93	105.15	109.90
25	DA	2805	G	C3'-C2'-C1'	-5.93	96.76	101.50
25	BA	1779	U	C1'-O4'-C4'	-5.92	105.16	109.90
25	BA	204	A	C1'-O4'-C4'	-5.92	105.16	109.90
1	CA	115	G	O4'-C1'-N9	-5.91	103.47	108.20
25	DA	974(B)	C	O4'-C1'-N1	5.91	112.93	108.20
25	BA	577	G	O4'-C1'-N9	-5.91	103.48	108.20
25	BA	1772	G	C4'-C3'-C2'	-5.91	96.69	102.60
25	BA	2500	U	C4'-C3'-C2'	-5.90	96.70	102.60
25	DA	1833	U	C4'-C3'-C2'	-5.90	96.70	102.60
25	DA	2587	A	P-O3'-C3'	5.90	126.78	119.70
25	BA	528	A	C3'-C2'-C1'	-5.89	96.78	101.50
25	BA	882	G	C3'-C2'-C1'	-5.89	96.79	101.50
25	DA	686	G	O4'-C1'-N9	5.89	112.92	108.20
1	AA	1446	A	C3'-C2'-C1'	-5.88	96.80	101.50
25	DA	989	G	O4'-C1'-N9	5.88	112.90	108.20
25	BA	2033	A	C3'-C2'-C1'	-5.88	96.80	101.50
1	CA	1002	G	C3'-C2'-C1'	-5.88	96.80	101.50
25	BA	302	C	C1'-O4'-C4'	-5.88	105.20	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2790	A	C3'-C2'-C1'	-5.87	96.81	101.50
1	AA	286	G	O4'-C1'-N9	-5.87	103.51	108.20
25	DA	1215	G	N9-C1'-C2'	-5.87	105.55	112.00
1	AA	1257	U	O4'-C1'-N1	5.86	112.89	108.20
1	AA	1300	G	P-O3'-C3'	5.86	126.73	119.70
25	BA	603	A	C3'-C2'-C1'	-5.85	96.82	101.50
25	BA	2569	G	C4'-C3'-C2'	-5.85	96.75	102.60
25	DA	2402	C	C1'-O4'-C4'	-5.85	105.22	109.90
25	BA	462	C	P-O3'-C3'	-5.85	112.68	119.70
25	DA	204	A	C1'-O4'-C4'	-5.85	105.22	109.90
25	BA	606	U	C4'-C3'-C2'	-5.84	96.76	102.60
25	BA	974(B)	C	O4'-C1'-N1	5.84	112.87	108.20
1	AA	274	A	O4'-C1'-N9	5.83	112.87	108.20
25	BA	746	A	O4'-C1'-N9	5.83	112.87	108.20
1	CA	1154	G	C4'-C3'-C2'	-5.83	96.77	102.60
25	BA	1543	A	O4'-C1'-C2'	-5.83	99.97	105.80
48	B1	35	THR	N-CA-C	5.82	126.73	111.00
25	DA	1325	G	C1'-O4'-C4'	-5.82	105.24	109.90
25	DA	208	C	C4'-C3'-C2'	-5.82	96.78	102.60
1	AA	1002	G	C3'-C2'-C1'	-5.82	96.85	101.50
1	AA	103(B)	G	C3'-C2'-C1'	-5.82	96.85	101.50
1	AA	793	U	O4'-C1'-N1	5.82	112.85	108.20
1	CA	103(B)	G	C3'-C2'-C1'	-5.81	96.85	101.50
25	BA	213	A	C4'-C3'-C2'	-5.81	96.79	102.60
25	BA	2559	C	C4'-C3'-C2'	-5.81	96.79	102.60
1	CA	1201	A	P-O3'-C3'	5.81	126.67	119.70
25	BA	2333	A	P-O3'-C3'	5.80	126.66	119.70
25	BA	651	G	C4'-C3'-C2'	-5.80	96.80	102.60
25	BA	2028	U	N3-C4-C5	-5.79	111.12	114.60
25	BA	990	A	P-O3'-C3'	5.79	126.65	119.70
25	BA	512	G	O4'-C1'-N9	5.79	112.83	108.20
25	BA	783	A	N1-C6-N6	5.78	122.07	118.60
25	DA	1962	C	N1-C2-O2	5.78	122.37	118.90
25	BA	1781	C	C1'-O4'-C4'	-5.78	105.27	109.90
25	DA	383	U	C1'-O4'-C4'	-5.78	105.28	109.90
1	AA	729	A	C4'-C3'-C2'	-5.77	96.83	102.60
25	DA	1478	G	C4'-C3'-C2'	-5.76	96.84	102.60
25	BA	49	A	C3'-C2'-C1'	-5.76	96.89	101.50
1	AA	773	G	C4'-C3'-C2'	-5.76	96.84	102.60
1	CA	412	A	O4'-C1'-N9	5.76	112.81	108.20
25	BA	807	U	P-O3'-C3'	5.75	126.60	119.70
25	DA	2311	A	C1'-O4'-C4'	-5.75	105.30	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	971	G	O4'-C1'-N9	5.75	112.80	108.20
25	BA	1288	U	C1'-O4'-C4'	-5.75	105.30	109.90
25	BA	2587	A	P-O3'-C3'	5.75	126.59	119.70
25	DA	1077	A	C3'-C2'-C1'	-5.74	96.91	101.50
25	BA	1913	A	N9-C1'-C2'	5.74	121.46	114.00
25	DA	1379	A	N9-C1'-C2'	5.74	121.46	114.00
1	AA	209	U	C3'-C2'-C1'	5.73	106.08	101.50
25	BA	933	A	O4'-C4'-C3'	-5.72	98.28	104.00
1	AA	783	C	C6-N1-C2	5.72	122.59	120.30
25	BA	1786	A	N1-C6-N6	5.72	122.03	118.60
25	BA	1332	G	C2-N3-C4	-5.71	109.04	111.90
25	BA	1781	C	C3'-C2'-C1'	-5.71	96.93	101.50
25	BA	2685	G	C4'-C3'-C2'	-5.71	96.89	102.60
25	DA	2392	A	C1'-O4'-C4'	-5.71	105.33	109.90
25	BA	2523	G	C4'-C3'-C2'	-5.71	96.89	102.60
25	DA	2445	G	C4'-C3'-C2'	-5.71	96.89	102.60
25	DA	2867	G	O4'-C1'-N9	5.71	112.77	108.20
25	BA	2276	G	C4'-C3'-C2'	-5.70	96.90	102.60
25	DA	1939	U	O4'-C1'-N1	-5.70	103.64	108.20
25	BA	559	G	P-O3'-C3'	-5.70	112.86	119.70
26	BB	42	C	C4'-C3'-C2'	-5.70	96.90	102.60
26	DB	117	G	C3'-C2'-C1'	-5.70	96.94	101.50
25	DA	27	G	C3'-C2'-C1'	5.70	106.06	101.50
25	DA	859	G	C4'-C3'-C2'	-5.70	96.90	102.60
1	AA	412	A	O4'-C1'-N9	5.69	112.75	108.20
25	BA	2606	C	C3'-C2'-C1'	-5.69	96.95	101.50
25	DA	1258	C	C6-N1-C2	5.69	122.58	120.30
25	BA	203	C	C3'-C2'-C1'	-5.69	96.95	101.50
1	CA	1145	C	P-O3'-C3'	5.69	126.53	119.70
25	DA	429	A	O4'-C1'-N9	-5.68	103.66	108.20
25	BA	1077	A	C3'-C2'-C1'	-5.67	96.96	101.50
25	DA	971	C	C4'-C3'-C2'	-5.67	96.93	102.60
25	DA	2724	C	C1'-O4'-C4'	-5.67	105.37	109.90
25	BA	1204	A	C1'-O4'-C4'	-5.66	105.37	109.90
25	BA	1301	A	P-O3'-C3'	5.66	126.49	119.70
25	DA	1781	C	C3'-C2'-C1'	-5.66	96.97	101.50
25	DA	129	C	C6-N1-C2	5.66	122.56	120.30
25	DA	1966	A	C3'-C2'-C1'	-5.65	96.98	101.50
1	CA	721	G	P-O3'-C3'	5.65	126.48	119.70
25	BA	673	C	C4'-C3'-C2'	-5.65	96.95	102.60
25	BA	2805	G	C3'-C2'-C1'	-5.65	96.98	101.50
25	DA	746	A	C1'-O4'-C4'	-5.65	105.38	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	783	A	C3'-C2'-C1'	-5.65	96.98	101.50
1	CA	243	A	P-O3'-C3'	5.64	126.47	119.70
25	DA	2791	C	O4'-C1'-N1	5.64	112.72	108.20
1	AA	1145	C	P-O3'-C3'	5.64	126.47	119.70
1	CA	209	U	C3'-C2'-C1'	5.64	106.01	101.50
1	AA	1201	A	P-O3'-C3'	5.64	126.47	119.70
1	AA	351	G	P-O3'-C3'	5.64	126.47	119.70
25	BA	1493	C	C2-N1-C1'	5.64	125.00	118.80
1	CA	1157	A	P-O3'-C3'	5.63	126.46	119.70
25	DA	65	C	P-O3'-C3'	-5.63	112.94	119.70
1	CA	121	C	N1-C2-O2	5.63	122.28	118.90
25	DA	830	G	O4'-C1'-N9	-5.63	103.70	108.20
25	DA	2346	A	N9-C1'-C2'	5.63	121.31	114.00
25	DA	2602	A	C1'-O4'-C4'	-5.63	105.40	109.90
25	BA	352	G	P-O3'-C3'	5.62	126.45	119.70
25	BA	240	G	O4'-C1'-N9	-5.62	103.70	108.20
25	BA	221	A	P-O3'-C3'	5.62	126.44	119.70
25	BA	2791	C	O4'-C1'-N1	5.62	112.69	108.20
1	CA	687	A	P-O3'-C3'	5.61	126.44	119.70
25	DA	1936	A	C4'-C3'-C2'	-5.61	96.99	102.60
25	DA	1934	C	N1-C1'-C2'	-5.61	105.83	112.00
25	DA	1729	A	C1'-O4'-C4'	-5.60	105.42	109.90
1	AA	700	G	C4'-C3'-C2'	-5.60	97.00	102.60
1	AA	277	C	O4'-C1'-N1	5.60	112.68	108.20
25	DA	307	G	C4'-C3'-C2'	-5.60	97.00	102.60
1	AA	722	A	C3'-C2'-C1'	5.59	105.98	101.50
1	AA	1154	G	C4'-C3'-C2'	-5.59	97.00	102.60
2	CY	1	C	C3'-C2'-C1'	-5.59	97.03	101.50
1	AA	786	G	C4'-C3'-C2'	-5.59	97.01	102.60
25	DA	528	A	C3'-C2'-C1'	-5.58	97.03	101.50
1	AA	533	A	C3'-C2'-C1'	5.58	105.97	101.50
25	DA	1288	U	C1'-O4'-C4'	-5.58	105.43	109.90
25	BA	197	A	P-O3'-C3'	5.58	126.39	119.70
25	BA	1654	A	C4'-C3'-C2'	-5.58	97.02	102.60
25	BA	1899	G	C2-N3-C4	-5.58	109.11	111.90
25	BA	1800	C	C1'-O4'-C4'	-5.58	105.44	109.90
25	DA	1962	C	C2-N1-C1'	5.58	124.93	118.80
25	DA	676	A	O4'-C4'-C3'	-5.57	98.43	104.00
25	DA	1577	C	C4'-C3'-C2'	-5.57	97.03	102.60
25	BA	2480	C	C1'-O4'-C4'	-5.56	105.45	109.90
25	DA	595	C	C6-N1-C2	5.56	122.52	120.30
25	BA	2447	G	C5-C6-N1	-5.55	108.72	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1204	A	O4'-C1'-N9	5.55	112.64	108.20
25	BA	825	C	C4'-C3'-C2'	-5.55	97.05	102.60
25	BA	2039	C	C4'-C3'-C2'	-5.55	97.05	102.60
25	DA	2254	C	C4'-C3'-C2'	-5.55	97.05	102.60
25	BA	2645	G	C3'-C2'-C1'	5.54	105.94	101.50
25	DA	2685	G	C4'-C3'-C2'	-5.54	97.06	102.60
25	BA	2032	G	C5-N7-C8	-5.54	101.53	104.30
25	BA	2391	G	C1'-O4'-C4'	-5.54	105.47	109.90
25	BA	2602	A	C1'-O4'-C4'	-5.54	105.47	109.90
25	DA	1365	A	C5'-C4'-O4'	5.54	115.75	109.10
25	BA	2035	G	C1'-O4'-C4'	-5.54	105.47	109.90
25	DA	1558	A	C1'-O4'-C4'	-5.53	105.47	109.90
1	CA	722	A	C3'-C2'-C1'	5.53	105.92	101.50
48	D1	35	THR	N-CA-C	5.53	125.93	111.00
1	CA	649	G	O4'-C1'-N9	5.53	112.62	108.20
25	BA	1378	A	P-O3'-C3'	5.52	126.33	119.70
25	BA	2028	U	N3-C4-O4	5.52	123.26	119.40
1	CA	971	G	O4'-C1'-N9	5.52	112.62	108.20
25	DA	283	A	P-O3'-C3'	5.52	126.32	119.70
25	BA	1309	G	N9-C1'-C2'	-5.51	105.93	112.00
25	BA	189	G	O4'-C1'-N9	-5.51	103.79	108.20
25	DA	1288	U	O4'-C1'-N1	5.51	112.61	108.20
25	DA	2523	G	C4'-C3'-C2'	-5.51	97.09	102.60
26	DB	42	C	C4'-C3'-C2'	-5.51	97.09	102.60
25	BA	2417	C	O4'-C4'-C3'	-5.50	98.50	104.00
1	AA	1211	U	C1'-O4'-C4'	-5.50	105.50	109.90
1	CA	87	A	P-O3'-C3'	5.50	126.30	119.70
25	BA	972	G	O4'-C1'-N9	-5.49	103.81	108.20
25	BA	1743	G	C4'-C3'-C2'	-5.49	97.11	102.60
25	DA	2422	A	P-O3'-C3'	5.49	126.29	119.70
25	BA	979	G	C6-C5-N7	-5.49	127.11	130.40
25	BA	1558	A	C1'-O4'-C4'	-5.49	105.51	109.90
25	BA	1598	C	C5'-C4'-C3'	-5.48	107.23	116.00
25	DA	2035	G	C1'-O4'-C4'	-5.48	105.52	109.90
25	DA	2685	G	C5-C6-N1	-5.48	108.76	111.50
25	BA	1930	G	C3'-C2'-C1'	-5.48	97.12	101.50
1	CA	371	G	C4'-C3'-C2'	-5.48	97.12	102.60
25	DA	2592	G	C4'-C3'-C2'	-5.47	97.13	102.60
25	BA	565	C	C4'-C3'-C2'	-5.47	97.13	102.60
25	BA	1578	U	C4'-C3'-C2'	-5.47	97.13	102.60
25	DA	671	C	P-O3'-C3'	-5.46	113.15	119.70
25	DA	1341	U	C3'-C2'-C1'	-5.46	97.13	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	791	C	C1'-O4'-C4'	-5.46	105.53	109.90
25	DA	95	G	C4'-C3'-C2'	-5.46	97.14	102.60
25	DA	102	G	C3'-C2'-C1'	5.46	105.86	101.50
25	BA	1349	A	O4'-C1'-N9	5.45	112.56	108.20
25	BA	1433	U	N1-C1'-C2'	-5.45	106.00	112.00
25	BA	820	A	C4'-C3'-C2'	-5.45	97.15	102.60
1	CA	495	A	C3'-C2'-C1'	-5.45	97.14	101.50
25	BA	1786	A	N9-C1'-C2'	5.45	121.09	114.00
1	CA	880	C	C6-N1-C2	5.45	122.48	120.30
1	AA	1137	C	C3'-C2'-C1'	5.45	105.86	101.50
25	BA	1241	A	C1'-O4'-C4'	-5.45	105.54	109.90
1	CA	274	A	C1'-O4'-C4'	-5.44	105.55	109.90
1	CA	159	G	C4'-C3'-C2'	-5.44	97.16	102.60
25	DA	1913	A	N9-C1'-C2'	5.44	121.08	114.00
25	BA	717	G	C1'-O4'-C4'	-5.44	105.55	109.90
25	BA	1618	A	C4'-C3'-C2'	-5.44	97.16	102.60
25	BA	1816	G	O4'-C1'-N9	5.43	112.55	108.20
25	BA	119	A	C1'-O4'-C4'	-5.43	105.56	109.90
25	BA	2346	A	N9-C1'-C2'	5.43	121.06	114.00
1	AA	159	G	C4'-C3'-C2'	-5.42	97.18	102.60
25	DA	2039	C	P-O3'-C3'	5.42	126.21	119.70
25	DA	407	G	C4'-C3'-C2'	-5.42	97.18	102.60
1	AA	587	G	C3'-C2'-C1'	5.42	105.83	101.50
25	BA	1379	A	O4'-C1'-C2'	-5.42	100.38	105.80
1	AA	119	A	P-O3'-C3'	5.41	126.20	119.70
25	BA	1379	A	O4'-C1'-N9	5.41	112.53	108.20
25	DA	205	G	C3'-C2'-C1'	-5.41	97.17	101.50
25	BA	298	G	C5-C6-O6	-5.41	125.35	128.60
25	DA	1129	A	C1'-O4'-C4'	-5.41	105.57	109.90
25	DA	2487	G	C4'-C3'-C2'	-5.41	97.19	102.60
1	AA	563	A	C1'-O4'-C4'	-5.41	105.57	109.90
25	BA	457	A	P-O3'-C3'	-5.41	113.21	119.70
25	DA	2282	G	P-O3'-C3'	5.41	126.19	119.70
25	BA	205	G	C3'-C2'-C1'	-5.40	97.18	101.50
1	AA	1504	G	C5'-C4'-O4'	-5.40	102.62	109.10
25	BA	1775	U	N1-C1'-C2'	-5.40	106.06	112.00
1	CA	108	G	C1'-O4'-C4'	-5.39	105.58	109.90
25	BA	1264	G	P-O3'-C3'	5.39	126.17	119.70
1	CA	1137	C	C3'-C2'-C1'	5.39	105.81	101.50
25	DA	270(M)	U	C3'-C2'-C1'	5.39	105.81	101.50
25	DA	1779	U	C1'-O4'-C4'	-5.39	105.59	109.90
25	DA	2746	U	C3'-C2'-C1'	-5.38	97.19	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	834	C	C4'-C3'-C2'	-5.38	97.22	102.60
25	BA	2593	U	C6-N1-C2	-5.38	117.77	121.00
25	DA	1301	A	P-O3'-C3'	5.38	126.15	119.70
1	AA	1492	A	C4'-C3'-C2'	-5.38	97.22	102.60
1	CA	119	A	P-O3'-C3'	5.38	126.15	119.70
1	CA	7	G	C1'-O4'-C4'	-5.37	105.61	109.90
25	DA	1332	G	C2-N3-C4	-5.37	109.22	111.90
1	AA	1157	A	P-O3'-C3'	5.36	126.14	119.70
25	BA	642	G	C4'-C3'-C2'	-5.36	97.24	102.60
25	BA	845	G	C1'-O4'-C4'	-5.36	105.61	109.90
25	BA	1294	U	C4'-C3'-C2'	-5.36	97.24	102.60
25	DA	1786	A	N9-C1'-C2'	5.36	120.97	114.00
25	DA	310	A	C3'-C2'-C1'	5.36	105.79	101.50
25	BA	2673	G	C4'-C3'-C2'	-5.36	97.24	102.60
1	AA	112	G	C4'-C3'-C2'	-5.36	97.25	102.60
1	AA	777	A	C4'-C3'-C2'	-5.36	97.24	102.60
1	CA	563	A	C1'-O4'-C4'	-5.35	105.62	109.90
25	DA	2039	C	C4'-C3'-C2'	-5.35	97.25	102.60
25	DA	1776	G	O4'-C1'-N9	-5.35	103.92	108.20
25	BA	1729	A	C1'-O4'-C4'	-5.34	105.63	109.90
25	BA	2444	G	P-O5'-C5'	-5.34	112.35	120.90
25	BA	407	G	C4'-C3'-C2'	-5.34	97.26	102.60
25	BA	1258	C	O4'-C1'-N1	-5.34	103.93	108.20
26	BB	24	G	C3'-C2'-C1'	5.34	105.77	101.50
25	DA	389	G	C5-C6-O6	-5.34	125.40	128.60
25	DA	1743	G	C4'-C3'-C2'	-5.34	97.26	102.60
36	DP	28	GLY	N-CA-C	-5.33	99.76	113.10
1	CA	299	G	C4-C5-N7	-5.33	108.67	110.80
25	DA	786	C	C5-C6-N1	-5.33	118.33	121.00
25	DA	2028	U	N3-C4-O4	5.33	123.13	119.40
1	AA	246	A	P-O3'-C3'	5.33	126.09	119.70
25	DA	751	A	P-O3'-C3'	-5.33	113.31	119.70
1	CA	1530	G	O4'-C1'-N9	5.33	112.46	108.20
25	DA	827	U	O5'-P-OP2	-5.33	100.91	105.70
25	DA	2011	U	P-O3'-C3'	-5.33	113.31	119.70
1	AA	1054	C	O4'-C1'-N1	5.32	112.46	108.20
1	AA	345	C	C4'-C3'-C2'	-5.32	97.28	102.60
1	CA	299	G	C5-C6-N1	-5.32	108.84	111.50
1	CA	721	G	C3'-C2'-C1'	5.32	105.75	101.50
25	BA	1613	G	C4'-C3'-C2'	-5.32	97.28	102.60
1	CA	587	G	C3'-C2'-C1'	5.31	105.75	101.50
1	CA	1347	G	C1'-O4'-C4'	-5.31	105.65	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	465	A	C3'-C2'-C1'	5.31	105.75	101.50
25	BA	1827	C	C4'-C3'-C2'	-5.31	97.29	102.60
26	BB	11	C	C4'-C3'-C2'	-5.31	97.29	102.60
25	DA	2606	C	C3'-C2'-C1'	-5.31	97.25	101.50
2	AZ	17(A)	U	P-O3'-C3'	5.30	126.07	119.70
36	BP	28	GLY	N-CA-C	-5.30	99.84	113.10
25	BA	102	G	C3'-C2'-C1'	5.30	105.74	101.50
25	DA	1003	G	C4'-C3'-C2'	-5.30	97.30	102.60
25	DA	2673	G	C4'-C3'-C2'	-5.30	97.30	102.60
25	BA	1838	C	C1'-O4'-C4'	-5.30	105.66	109.90
25	DA	2426	A	P-O3'-C3'	5.30	126.06	119.70
25	DA	1332	G	P-O3'-C3'	-5.30	113.34	119.70
25	DA	2500	U	P-O3'-C3'	5.30	126.06	119.70
25	BA	1419	A	C1'-O4'-C4'	-5.29	105.66	109.90
25	DA	1325	G	O4'-C1'-N9	5.29	112.44	108.20
25	BA	283	A	P-O3'-C3'	5.29	126.05	119.70
25	DA	947	G	C4'-C3'-C2'	-5.29	97.31	102.60
25	DA	1899	G	C2-N3-C4	-5.29	109.25	111.90
26	DB	12	C	C3'-C2'-C1'	5.29	105.73	101.50
1	AA	111	G	N3-C4-N9	-5.29	122.83	126.00
25	DA	2022	U	C3'-C2'-C1'	-5.29	97.27	101.50
1	AA	543	C	C3'-C2'-C1'	-5.29	97.27	101.50
25	BA	793	A	C4'-C3'-C2'	5.29	107.89	102.60
25	DA	2372	G	O4'-C1'-N9	5.29	112.43	108.20
1	CA	700	G	C4'-C3'-C2'	-5.29	97.31	102.60
25	DA	2645	G	C3'-C2'-C1'	5.29	105.73	101.50
25	BA	323	G	P-O3'-C3'	5.28	126.04	119.70
25	DA	974(B)	C	O4'-C1'-C2'	-5.28	100.52	105.80
25	BA	783	A	N9-C1'-C2'	-5.28	106.19	112.00
25	DA	1827	C	C4'-C3'-C2'	-5.28	97.32	102.60
25	BA	2572	A	O4'-C1'-N9	-5.27	103.98	108.20
1	AA	649	G	O4'-C1'-N9	5.27	112.42	108.20
1	AA	495	A	C3'-C2'-C1'	-5.27	97.29	101.50
26	BB	117	G	C3'-C2'-C1'	-5.27	97.29	101.50
25	BA	987	G	O4'-C1'-N9	5.26	112.41	108.20
25	DA	404	C	C3'-C2'-C1'	-5.26	97.29	101.50
1	CA	277	C	O4'-C1'-N1	5.26	112.41	108.20
25	BA	2428	G	P-O3'-C3'	5.26	126.01	119.70
25	DA	1069	A	C1'-O4'-C4'	-5.25	105.70	109.90
1	AA	87	A	P-O3'-C3'	5.25	126.00	119.70
26	BB	12	C	C3'-C2'-C1'	5.25	105.70	101.50
25	DA	1787	A	O4'-C1'-N9	-5.25	104.00	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1213	A	C3'-C2'-C1'	5.25	105.70	101.50
25	DA	783	A	N1-C6-N6	5.25	121.75	118.60
25	DA	809	G	C4'-C3'-C2'	-5.24	97.36	102.60
25	DA	391	G	O4'-C1'-N9	-5.24	104.01	108.20
25	DA	1362	C	C4'-C3'-C2'	-5.24	97.36	102.60
25	BA	208	C	C4'-C3'-C2'	-5.24	97.36	102.60
25	BA	1069	A	C1'-O4'-C4'	-5.23	105.71	109.90
1	AA	243	A	P-O3'-C3'	5.23	125.98	119.70
1	CA	345	C	C4'-C3'-C2'	-5.23	97.37	102.60
25	DA	203	C	P-O5'-C5'	-5.23	112.53	120.90
25	BA	2867	G	O4'-C1'-N9	5.23	112.38	108.20
25	DA	932	G	C1'-O4'-C4'	-5.23	105.72	109.90
25	BA	1365	A	C5'-C4'-O4'	5.23	115.37	109.10
25	BA	1151	G	C4'-C3'-C2'	-5.22	97.38	102.60
25	BA	1772	G	O4'-C1'-N9	5.22	112.38	108.20
25	DA	567	A	O4'-C1'-N9	-5.22	104.02	108.20
1	AA	191(B)	G	C4'-C3'-C2'	-5.22	97.38	102.60
1	AA	992	U	C3'-C2'-C1'	5.22	105.68	101.50
1	AA	248	C	C4'-C3'-C2'	-5.21	97.39	102.60
1	AA	1018	C	C3'-C2'-C1'	-5.21	97.33	101.50
3	AV	20	A	N9-C1'-C2'	-5.21	106.26	112.00
25	BA	1880	C	C3'-C2'-C1'	-5.21	97.33	101.50
25	BA	2613	U	C3'-C2'-C1'	-5.21	97.33	101.50
1	CA	1211	U	C1'-O4'-C4'	-5.21	105.73	109.90
25	BA	318	C	O4'-C1'-N1	5.21	112.37	108.20
25	DA	1930	G	C3'-C2'-C1'	-5.21	97.33	101.50
1	AA	328	C	O4'-C1'-N1	5.21	112.37	108.20
25	BA	2184	G	C3'-C2'-C1'	-5.21	97.33	101.50
25	BA	2191	G	C3'-C2'-C1'	-5.21	97.33	101.50
25	BA	2746	U	C3'-C2'-C1'	-5.21	97.33	101.50
25	DA	801	G	O4'-C1'-N9	-5.21	104.03	108.20
25	BA	1962	C	C3'-C2'-C1'	5.21	105.66	101.50
25	BA	1419	A	O4'-C1'-N9	5.20	112.36	108.20
1	AA	1129	C	O4'-C1'-N1	5.20	112.36	108.20
25	DA	727	A	O4'-C1'-N9	-5.20	104.04	108.20
25	DA	2893	G	C3'-C2'-C1'	5.20	105.66	101.50
25	DA	1761	C	O4'-C1'-N1	5.20	112.36	108.20
25	BA	71	A	O4'-C1'-N9	-5.20	104.04	108.20
25	BA	1385	G	C1'-O4'-C4'	-5.20	105.74	109.90
1	CA	785	G	C4'-C3'-C2'	-5.20	97.40	102.60
25	DA	1286	A	C1'-O4'-C4'	-5.20	105.74	109.90
1	CA	191(B)	G	C4'-C3'-C2'	-5.19	97.41	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	58	A	C4'-C3'-C2'	-5.19	97.41	102.60
25	DA	1786	A	N1-C6-N6	5.19	121.71	118.60
25	BA	2592	G	C4'-C3'-C2'	-5.18	97.42	102.60
1	CA	533	A	P-O3'-C3'	5.18	125.92	119.70
25	DA	1151	G	C4'-C3'-C2'	-5.18	97.42	102.60
1	AA	1530	G	O4'-C1'-N9	5.18	112.34	108.20
25	DA	247	G	C1'-O4'-C4'	-5.18	105.75	109.90
26	DB	11	C	C4'-C3'-C2'	-5.18	97.42	102.60
25	DA	27	G	C5'-C4'-O4'	-5.18	102.89	109.10
25	DA	1346	G	P-O3'-C3'	-5.18	113.49	119.70
25	DA	1772	G	C4'-C3'-C2'	-5.18	97.42	102.60
1	AA	371	G	C4'-C3'-C2'	-5.17	97.42	102.60
25	BA	979	G	C5-C6-O6	-5.17	125.50	128.60
25	DA	746	A	O4'-C1'-N9	5.17	112.34	108.20
25	DA	2191	G	C3'-C2'-C1'	-5.17	97.36	101.50
25	DA	781	A	O4'-C1'-N9	-5.17	104.06	108.20
25	BA	1571	A	C4'-C3'-C2'	-5.17	97.43	102.60
25	BA	2447	G	C3'-C2'-C1'	5.16	105.63	101.50
25	DA	635	C	C4'-C3'-C2'	-5.16	97.44	102.60
25	BA	379	G	C4'-C3'-C2'	-5.16	97.44	102.60
25	DA	2444	G	P-O5'-C5'	-5.16	112.64	120.90
25	BA	880	G	C4'-C3'-C2'	-5.16	97.44	102.60
1	CA	789	U	C4'-C3'-C2'	-5.16	97.44	102.60
1	AA	934	C	C1'-O4'-C4'	-5.16	105.77	109.90
25	BA	2751	G	C3'-C2'-C1'	-5.16	97.38	101.50
25	BA	1788	C	C4'-C3'-C2'	-5.16	97.44	102.60
25	BA	1934	C	N1-C1'-C2'	-5.15	106.33	112.00
25	BA	2390	U	P-O3'-C3'	-5.15	113.52	119.70
1	CA	112	G	C4'-C3'-C2'	-5.15	97.45	102.60
25	BA	1701	A	N9-C1'-C2'	-5.15	106.33	112.00
1	AA	1213	A	C3'-C2'-C1'	5.15	105.62	101.50
25	BA	2592	G	O5'-P-OP2	-5.15	101.06	105.70
25	BA	1341	U	C3'-C2'-C1'	-5.15	97.38	101.50
25	DA	1598	C	C5'-C4'-C3'	-5.15	107.76	116.00
25	BA	27	G	C5'-C4'-O4'	-5.14	102.93	109.10
25	BA	2879	C	P-O3'-C3'	5.14	125.87	119.70
25	BA	2073	C	C4'-C3'-C2'	-5.14	97.46	102.60
1	CA	280	C	C3'-C2'-C1'	-5.14	97.39	101.50
25	DA	101	G	C4'-C3'-C2'	-5.14	97.46	102.60
25	DA	2500	U	O4'-C1'-N1	5.14	112.31	108.20
25	BA	2085	C	C4'-C3'-C2'	-5.13	97.47	102.60
25	DA	2394	C	C3'-C2'-C1'	5.13	105.61	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1569	A	P-O3'-C3'	-5.13	113.54	119.70
25	BA	2501	C	C3'-C2'-C1'	5.13	105.60	101.50
25	BA	2215	G	P-O3'-C3'	-5.13	113.55	119.70
25	DA	938	G	C4'-C3'-C2'	-5.13	97.47	102.60
2	CZ	17(A)	U	P-O3'-C3'	5.13	125.85	119.70
1	CA	1346	A	C3'-C2'-C1'	-5.12	97.40	101.50
25	DA	1493	C	C2-N1-C1'	5.12	124.44	118.80
1	CA	543	C	C4'-C3'-C2'	-5.12	97.48	102.60
1	CA	806	C	C4'-C3'-C2'	-5.12	97.48	102.60
25	BA	665	C	P-O3'-C3'	-5.12	113.56	119.70
1	CA	810	C	C4'-C3'-C2'	-5.12	97.48	102.60
25	DA	834	C	C4'-C3'-C2'	-5.12	97.48	102.60
25	DA	1816	G	O4'-C1'-N9	5.12	112.29	108.20
1	AA	108	G	C5'-C4'-O4'	5.12	115.24	109.10
25	BA	458	G	C3'-C2'-C1'	-5.12	97.41	101.50
1	AA	7	G	C1'-O4'-C4'	-5.11	105.81	109.90
25	DA	1500	G	O4'-C1'-N9	-5.11	104.11	108.20
1	AA	533	A	P-O3'-C3'	5.11	125.83	119.70
1	AA	1067	A	C3'-C2'-C1'	5.11	105.59	101.50
25	DA	904	C	O4'-C1'-N1	5.11	112.29	108.20
25	BA	1761	C	O4'-C1'-N1	5.10	112.28	108.20
25	DA	209	C	C6-N1-C2	5.10	122.34	120.30
25	DA	793	A	C4'-C3'-C2'	5.10	107.70	102.60
25	DA	2061	G	OP2-P-O3'	5.10	116.42	105.20
25	DA	2779	U	C3'-C2'-C1'	-5.10	97.42	101.50
25	BA	2487	G	C4'-C3'-C2'	-5.10	97.50	102.60
36	DP	53	GLY	N-CA-C	-5.10	100.36	113.10
25	DA	2527	C	C4'-C3'-C2'	-5.09	97.51	102.60
25	DA	2225	A	O4'-C1'-N9	-5.09	104.13	108.20
25	DA	1319	G	C4'-C3'-C2'	-5.09	97.51	102.60
25	DA	1616	A	C5'-C4'-C3'	-5.09	107.86	116.00
25	BA	980	A	C3'-C2'-C1'	5.09	105.57	101.50
25	DA	323	G	P-O3'-C3'	5.08	125.80	119.70
25	DA	1920	C	O4'-C1'-N1	-5.08	104.13	108.20
1	AA	721	G	P-O3'-C3'	5.08	125.80	119.70
25	BA	131	G	C4'-C3'-C2'	-5.08	97.52	102.60
1	CA	1492	A	C4'-C3'-C2'	-5.08	97.52	102.60
25	DA	2447	G	N1-C6-O6	5.08	122.95	119.90
25	BA	614	U	C3'-C2'-C1'	5.07	105.56	101.50
25	BA	1948	G	C4'-C3'-C2'	-5.07	97.53	102.60
25	BA	307	G	C4'-C3'-C2'	-5.07	97.53	102.60
1	AA	1491	G	P-O3'-C3'	5.07	125.78	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	727	G	O4'-C1'-N9	-5.07	104.15	108.20
25	BA	1833	U	C4'-C3'-C2'	-5.06	97.54	102.60
25	BA	204	A	C3'-C2'-C1'	-5.06	97.45	101.50
25	BA	1266	G	O4'-C1'-N9	-5.06	104.15	108.20
26	BB	67	G	C4'-C3'-C2'	-5.06	97.54	102.60
25	DA	1351	C	P-O3'-C3'	5.06	125.77	119.70
1	AA	1497	G	C4'-C3'-C2'	-5.06	97.54	102.60
1	AA	721	G	C3'-C2'-C1'	5.05	105.54	101.50
25	BA	695	G	N9-C1'-C2'	-5.05	106.44	112.00
25	BA	2022	U	O4'-C1'-C2'	-5.05	100.75	105.80
1	CA	1189	C	C1'-O4'-C4'	-5.05	105.86	109.90
25	DA	616	A	P-O3'-C3'	5.05	125.77	119.70
25	DA	783	A	C5-N7-C8	-5.05	101.37	103.90
25	BA	131	G	O4'-C4'-C3'	-5.05	98.95	104.00
25	BA	270(M)	U	C3'-C2'-C1'	5.05	105.54	101.50
25	BA	616	A	P-O3'-C3'	5.05	125.75	119.70
25	BA	1085	A	C3'-C2'-C1'	5.04	105.54	101.50
1	CA	1054	C	O4'-C1'-N1	5.04	112.24	108.20
25	BA	140	A	C1'-O4'-C4'	-5.04	105.87	109.90
1	CA	1048	G	C4'-C3'-C2'	-5.04	97.56	102.60
25	DA	179	G	N1-C6-O6	5.04	122.92	119.90
25	BA	1128	A	O4'-C1'-N9	-5.04	104.17	108.20
25	BA	2411	A	C3'-C2'-C1'	-5.04	97.47	101.50
25	BA	14	A	O4'-C1'-N9	-5.04	104.17	108.20
26	DB	24	G	C3'-C2'-C1'	5.04	105.53	101.50
25	BA	1332	G	P-O3'-C3'	-5.03	113.66	119.70
25	BA	2518	A	N1-C6-N6	5.03	121.62	118.60
1	CA	697	U	C4'-C3'-C2'	-5.03	97.57	102.60
25	DA	46	C	C4'-C3'-C2'	-5.03	97.57	102.60
1	CA	992	U	C3'-C2'-C1'	5.03	105.52	101.50
25	DA	2480	C	C1'-O4'-C4'	-5.03	105.88	109.90
25	BA	391	G	O4'-C1'-N9	-5.02	104.18	108.20
1	CA	1189	C	C4'-C3'-C2'	-5.02	97.58	102.60
26	DB	12	C	P-O3'-C3'	5.02	125.72	119.70
25	BA	2893	G	C3'-C2'-C1'	5.02	105.51	101.50
25	DA	61	G	O4'-C1'-N9	-5.02	104.19	108.20
25	BA	405	U	C4'-C3'-C2'	-5.01	97.59	102.60
25	BA	2011	U	P-O3'-C3'	-5.01	113.68	119.70
25	DA	1176	G	C3'-C2'-C1'	5.01	105.51	101.50
25	BA	1647	G	O4'-C1'-N9	-5.01	104.19	108.20
25	BA	2197	U	C1'-O4'-C4'	-5.01	105.89	109.90
25	BA	2254	C	C4'-C3'-C2'	-5.01	97.59	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1494	A	O4'-C1'-N9	5.01	112.21	108.20
26	BB	15	A	C1'-O4'-C4'	-5.01	105.89	109.90
25	BA	302	C	O4'-C1'-N1	5.00	112.20	108.20
1	CA	1406	U	C4'-C3'-C2'	-5.00	97.60	102.60
25	DA	1913	A	C5'-C4'-O4'	5.00	115.10	109.10

There are no chirality outliers.

All (8) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
27	BD	40	THR	Peptide
36	BP	51	PHE	Peptide
36	BP	52	GLU	Peptide
36	BP	9	ASN	Peptide
27	DD	40	THR	Peptide
36	DP	51	PHE	Peptide
36	DP	52	GLU	Peptide
36	DP	9	ASN	Peptide

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	1066	0
1	CA	32332	0	16318	1109	0
2	AY	1640	0	837	39	0
2	AZ	1640	0	837	49	0
2	CY	1640	0	837	33	0
2	CZ	1640	0	837	48	0
3	AV	214	0	110	6	0
3	CV	214	0	110	4	0
4	AB	1900	0	1951	159	0
4	CB	1900	0	1951	160	0
5	AC	1612	0	1677	125	0
5	CC	1612	0	1677	129	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	AD	1703	0	1763	112	0
6	CD	1703	0	1763	105	0
7	AE	1155	0	1213	91	0
7	CE	1155	0	1213	84	0
8	AF	843	0	857	49	0
8	CF	843	0	857	48	0
9	AG	1257	0	1296	81	0
9	CG	1257	0	1296	79	0
10	AH	1116	0	1177	77	0
10	CH	1116	0	1177	80	0
11	AI	1011	0	1043	104	0
11	CI	1011	0	1043	106	0
12	AJ	794	0	840	102	0
12	CJ	794	0	840	97	0
13	AK	842	0	859	72	0
13	CK	842	0	859	74	0
14	AL	956	0	1046	112	0
14	CL	956	0	1046	109	0
15	AM	933	0	992	97	0
15	CM	933	0	992	108	0
16	AN	492	0	531	36	0
16	CN	492	0	532	41	0
17	AO	734	0	771	50	0
17	CO	734	0	771	51	0
18	AP	700	0	720	52	0
18	CP	700	0	720	59	0
19	AQ	823	0	893	54	0
19	CQ	823	0	893	52	0
20	AR	574	0	644	53	0
20	CR	574	0	644	51	0
21	AS	629	0	652	77	0
21	CS	629	0	652	76	0
22	AT	762	0	859	68	0
22	CT	762	0	859	64	0
23	AU	208	0	221	12	0
23	CU	208	0	221	12	0
24	AX	2876	0	2867	244	0
24	CX	2876	0	2867	242	0
25	BA	61997	0	31250	2146	0
25	DA	61997	0	31250	2152	1
26	BB	2551	0	1295	95	0
26	DB	2551	0	1295	93	1

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
27	BD	2104	0	2182	225	0
27	DD	2104	0	2182	228	0
28	BE	1563	0	1629	138	0
28	DE	1563	0	1629	129	0
29	BF	1586	0	1632	141	0
29	DF	1586	0	1632	144	0
30	BG	1475	0	1537	154	0
30	DG	1475	0	1537	151	0
31	BH	1222	0	1282	112	0
31	DH	1222	0	1282	114	0
32	BI	1132	0	1220	104	0
32	DI	1132	0	1220	91	0
33	BK	1088	0	1138	107	0
33	DK	1088	0	1138	107	0
34	BN	1096	0	1168	96	0
34	DN	1096	0	1168	93	0
35	BO	932	0	994	64	0
35	DO	932	0	994	61	0
36	BP	1114	0	1187	226	0
36	DP	1114	0	1187	229	0
37	BQ	1064	0	1114	141	0
37	DQ	1064	0	1114	129	0
38	BR	960	0	1021	106	0
38	DR	960	0	1021	101	0
39	BS	770	0	832	96	0
39	DS	770	0	832	98	0
40	BT	1143	0	1211	100	0
40	DT	1143	0	1211	98	0
41	BU	964	0	1022	92	0
41	DU	964	0	1022	102	0
42	BV	779	0	852	77	0
42	DV	779	0	852	78	0
43	BW	890	0	951	68	0
43	DW	890	0	951	70	0
44	BX	725	0	778	69	0
44	DX	725	0	778	71	0
45	BY	775	0	870	106	0
45	DY	775	0	870	110	0
46	BZ	1482	0	1507	106	0
46	DZ	1482	0	1507	106	0
47	B0	605	0	628	45	0
47	D0	605	0	628	49	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
48	B1	694	0	764	92	0
48	D1	694	0	764	91	0
49	B2	520	0	575	76	0
49	D2	520	0	575	77	0
50	B3	467	0	523	29	0
50	D3	467	0	523	29	0
51	B4	225	0	225	19	0
51	D4	225	0	225	22	0
52	B5	404	0	420	54	0
52	D5	404	0	420	53	0
53	B6	380	0	391	55	0
53	D6	380	0	391	56	0
54	B7	418	0	467	36	0
54	D7	418	0	467	38	0
55	B8	507	0	576	68	0
55	D8	507	0	576	79	0
56	AA	428	0	0	0	0
56	AB	7	0	0	0	0
56	AC	4	0	0	0	0
56	AD	3	0	0	0	0
56	AE	8	0	0	0	0
56	AF	2	0	0	0	0
56	AG	2	0	0	0	0
56	AH	2	0	0	0	0
56	AI	1	0	0	0	0
56	AJ	1	0	0	0	0
56	AK	7	0	0	0	0
56	AL	4	0	0	0	0
56	AM	3	0	0	0	0
56	AN	1	0	0	0	0
56	AO	2	0	0	0	0
56	AQ	1	0	0	0	0
56	AR	1	0	0	0	0
56	AT	2	0	0	0	0
56	AV	3	0	0	0	0
56	AX	14	0	0	0	0
56	AY	26	0	0	0	0
56	AZ	15	0	0	0	0
56	B0	3	0	0	0	0
56	B1	7	0	0	0	0
56	B2	3	0	0	0	0
56	B4	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	B5	2	0	0	0	0
56	B6	2	0	0	0	0
56	B8	4	0	0	0	0
56	BA	923	0	0	0	0
56	BB	35	0	0	0	0
56	BD	7	0	0	0	0
56	BE	6	0	0	0	0
56	BF	6	0	0	0	0
56	BG	2	0	0	0	0
56	BH	4	0	0	0	0
56	BI	6	0	0	0	0
56	BK	3	0	0	0	0
56	BN	4	0	0	0	0
56	BO	5	0	0	0	0
56	BP	2	0	0	0	0
56	BQ	6	0	0	0	0
56	BR	2	0	0	0	0
56	BS	3	0	0	0	0
56	BT	1	0	0	0	0
56	BU	1	0	0	0	0
56	BV	3	0	0	0	0
56	BW	2	0	0	0	0
56	BX	2	0	0	0	0
56	BY	3	0	0	0	0
56	BZ	1	0	0	0	0
56	CA	222	0	0	0	0
56	CB	2	0	0	0	0
56	CC	1	0	0	0	0
56	CF	5	0	0	0	0
56	CG	2	0	0	0	0
56	CH	2	0	0	0	0
56	CK	3	0	0	0	0
56	CL	1	0	0	0	0
56	CO	1	0	0	0	0
56	CQ	1	0	0	0	0
56	CS	1	0	0	0	0
56	CT	1	0	0	0	0
56	CY	14	0	0	0	0
56	CZ	14	0	0	0	0
56	D1	2	0	0	0	0
56	D6	1	0	0	0	0
56	D8	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	DA	491	0	0	0	0
56	DB	12	0	0	0	0
56	DD	9	0	0	0	0
56	DE	1	0	0	0	0
56	DF	1	0	0	0	0
56	DG	2	0	0	0	0
56	DI	1	0	0	0	0
56	DN	1	0	0	0	0
56	DO	2	0	0	0	0
56	DP	1	0	0	0	0
56	DQ	2	0	0	0	0
56	DR	1	0	0	0	0
56	DT	1	0	0	0	0
56	DU	1	0	0	0	0
56	DY	1	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	301148	0	204431	14693	1

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 29.

All (14693) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B8:57:ARG:HB2	55:B8:57:ARG:HH11	1.11	1.16
48:B1:11:ARG:HB3	48:B1:12:PRO:HD2	1.14	1.13
48:D1:11:ARG:HB3	48:D1:12:PRO:HD2	1.18	1.12
36:BP:23:PRO:HD2	36:BP:33:ARG:NH2	1.67	1.09
25:BA:2630:G:H1'	25:BA:2894:G:H1'	1.35	1.09
36:DP:23:PRO:HD2	36:DP:33:ARG:NH2	1.68	1.08
1:CA:86:U:H2'	1:CA:87:A:H8	1.11	1.08
37:BQ:82:ARG:HG2	37:BQ:82:ARG:HH11	1.15	1.08
25:DA:1190:G:H5'	36:DP:35:HIS:HA	1.36	1.08
1:AA:86:U:H2'	1:AA:87:A:H8	1.09	1.07
37:DQ:82:ARG:HG2	37:DQ:82:ARG:HH11	1.19	1.07
36:DP:50:ARG:HB3	55:D8:60:LEU:HD11	1.33	1.07
42:BV:39:LEU:HB3	42:BV:47:VAL:HG21	1.33	1.06
55:D8:57:ARG:NH1	55:D8:57:ARG:HB2	1.68	1.06
41:BU:92:ARG:HD2	41:BU:94:ASN:HB3	1.38	1.05
49:B2:32:LEU:HB2	49:B2:53:LEU:HD13	1.38	1.05

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DV:39:LEU:HB3	42:DV:47:VAL:HG21	1.37	1.05
25:DA:2630:G:H1'	25:DA:2894:G:H1'	1.37	1.05
11:CI:4:TYR:HB2	11:CI:19:LEU:HB2	1.39	1.05
49:B2:16:LEU:HB2	49:B2:20:GLU:HG2	1.39	1.05
55:D8:57:ARG:HH11	55:D8:57:ARG:HB2	1.08	1.04
49:D2:32:LEU:HB2	49:D2:53:LEU:HD13	1.37	1.04
22:AT:26:ASN:HB3	22:AT:71:THR:HG23	1.37	1.04
41:BU:90:VAL:HG22	41:BU:91:ASP:H	1.21	1.04
22:CT:26:ASN:HB3	22:CT:71:THR:HG23	1.36	1.04
27:DD:25:THR:CG2	27:DD:82:ILE:H	1.71	1.04
5:AC:79:ARG:HB2	13:CK:96:ARG:HH22	1.21	1.03
10:CH:102:ARG:N	10:CH:102:ARG:HE	1.55	1.03
24:AX:122:PHE:HB2	24:AX:125:ALA:HB2	1.38	1.03
55:B8:57:ARG:HB2	55:B8:57:ARG:NH1	1.70	1.03
49:D2:16:LEU:HB2	49:D2:20:GLU:HG2	1.40	1.02
10:AH:102:ARG:N	10:AH:102:ARG:HE	1.56	1.02
27:BD:25:THR:CG2	27:BD:82:ILE:H	1.72	1.02
37:BQ:23:GLY:HA3	37:BQ:98:LYS:HB2	1.41	1.02
41:DU:90:VAL:HG22	41:DU:91:ASP:H	1.22	1.02
25:BA:1190:G:H5'	36:BP:35:HIS:HA	1.40	1.02
48:D1:27:GLU:CB	48:D1:33:LYS:HG3	1.90	1.01
10:CH:50:ARG:HG2	10:CH:50:ARG:HH11	1.23	1.01
36:BP:50:ARG:HB3	55:B8:60:LEU:HD11	1.38	1.01
34:DN:65:TRP:HA	34:DN:71:MET:HE1	1.38	1.01
25:BA:774:A:H2	25:BA:787:U:HO2'	1.05	1.01
15:CM:67:GLU:HG3	15:CM:68:GLY:H	1.25	1.01
24:CX:122:PHE:HB2	24:CX:125:ALA:HB2	1.41	1.01
11:AI:4:TYR:HB2	11:AI:19:LEU:HB2	1.41	1.00
5:AC:14:ILE:HG12	5:AC:15:THR:H	1.27	1.00
25:DA:2306:C:H4'	30:DG:136:ARG:HH22	1.27	1.00
25:BA:675:A:H4'	29:BF:67:GLN:NE2	1.76	1.00
17:CO:87:ILE:HG22	17:CO:88:ARG:H	1.27	1.00
24:AX:88:LEU:HB2	24:AX:100:LEU:HD13	1.43	1.00
5:CC:14:ILE:HG12	5:CC:15:THR:N	1.77	1.00
10:AH:50:ARG:HG2	10:AH:50:ARG:HH11	1.24	0.99
1:AA:922:G:H4'	7:AE:20:GLN:HA	1.45	0.99
25:BA:2287:A:H62	25:BA:2344:U:H3	1.08	0.99
29:DF:67:GLN:O	29:DF:67:GLN:HG3	1.58	0.99
32:BI:27:ARG:HG2	32:BI:27:ARG:HH11	1.24	0.99
15:AM:67:GLU:HG3	15:AM:68:GLY:H	1.23	0.99
25:DA:1009:A:H5'	25:DA:1009:A:H8	1.26	0.99
29:DF:45:ARG:HH11	29:DF:45:ARG:HG2	1.28	0.99

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BN:65:TRP:HA	34:BN:71:MET:HE1	1.45	0.99
25:BA:2784:C:H1'	28:BE:37:ARG:HH12	1.28	0.99
5:CC:14:ILE:HG12	5:CC:15:THR:H	1.25	0.99
25:DA:675:A:H4'	29:DF:67:GLN:NE2	1.78	0.99
24:CX:338:ARG:HB3	24:CX:369:ARG:HH22	1.28	0.99
48:B1:27:GLU:CB	48:B1:33:LYS:HG3	1.93	0.98
17:AO:87:ILE:HG22	17:AO:88:ARG:H	1.27	0.98
54:D7:34:ARG:HG3	54:D7:34:ARG:HH11	1.26	0.98
24:AX:338:ARG:HB3	24:AX:369:ARG:HH22	1.28	0.98
29:BF:45:ARG:HH11	29:BF:45:ARG:HG2	1.23	0.98
25:BA:2306:C:H4'	30:BG:136:ARG:HH22	1.26	0.98
26:BB:51:G:H21	26:BB:52:A:H62	1.10	0.98
41:DU:92:ARG:HD2	41:DU:94:ASN:HB3	1.40	0.98
49:B2:14:ARG:HA	49:B2:17:SER:HB2	1.46	0.98
7:AE:50:GLU:HG3	7:AE:52:PRO:HD2	1.45	0.98
48:D1:27:GLU:HB2	48:D1:33:LYS:HG3	1.43	0.98
4:CB:185:ILE:HG22	4:CB:199:TYR:HB2	1.43	0.98
27:DD:33:LEU:HD23	27:DD:33:LEU:H	1.26	0.98
37:BQ:43:THR:HB	37:BQ:45:GLN:HE21	1.29	0.97
12:CJ:9:ARG:HH21	12:CJ:95:GLU:HG2	1.28	0.97
36:DP:64:LYS:HB2	55:D8:25:MET:HG3	1.43	0.97
27:BD:25:THR:HG22	27:BD:82:ILE:H	1.30	0.97
25:BA:1019:U:H3	25:BA:114(B):A:H62	1.12	0.97
54:B7:19:ARG:HH11	54:B7:19:ARG:HG3	1.29	0.97
27:DD:25:THR:HG22	27:DD:82:ILE:H	1.28	0.97
12:AJ:9:ARG:HH21	12:AJ:95:GLU:HG2	1.28	0.97
25:BA:1009:A:H5'	25:BA:1009:A:H8	1.25	0.97
25:BA:675:A:H4'	29:BF:67:GLN:HE22	1.30	0.97
41:DU:36:ARG:HG2	41:DU:40:PHE:CE1	2.00	0.97
25:DA:2681:C:H5	25:DA:2725:A:H62	1.11	0.96
36:BP:64:LYS:HB2	55:B8:25:MET:HG3	1.43	0.96
36:BP:50:ARG:HG2	36:BP:51:PHE:N	1.77	0.96
5:AC:14:ILE:HG12	5:AC:15:THR:N	1.78	0.96
41:DU:36:ARG:HG2	41:DU:40:PHE:HE1	1.31	0.96
25:BA:310:A:O2'	25:BA:311:A:H2'	1.65	0.96
24:CX:88:LEU:HB2	24:CX:100:LEU:HD13	1.44	0.96
39:DS:24:LEU:HD12	39:DS:84:GLN:HB3	1.47	0.96
27:BD:33:LEU:H	27:BD:33:LEU:HD23	1.31	0.96
29:BF:67:GLN:HG3	29:BF:67:GLN:O	1.62	0.96
25:DA:675:A:H4'	29:DF:67:GLN:HE22	1.30	0.96
39:BS:24:LEU:HD12	39:BS:84:GLN:HB3	1.44	0.96
37:DQ:134:ARG:HH21	46:DZ:81:ARG:HH22	1.14	0.96

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DI:5:LEU:HA	32:DI:36:ALA:HA	1.44	0.96
48:B1:27:GLU:HB2	48:B1:33:LYS:HG3	1.48	0.96
40:BT:102:ILE:HB	40:BT:110:ILE:HD11	1.46	0.96
25:BA:1019:U:H3	25:BA:114(B):A:N6	1.62	0.95
44:BX:11:PRO:HA	44:BX:28:PHE:HB3	1.48	0.95
25:DA:1019:U:H3	25:DA:114(B):A:N6	1.64	0.95
25:DA:2287:A:N6	25:DA:2344:U:H3	1.64	0.95
27:BD:144:ALA:HB3	27:BD:192:THR:HG21	1.48	0.95
22:CT:40:ALA:HB2	22:CT:55:ILE:HG22	1.48	0.95
37:DQ:23:GLY:HA3	37:DQ:98:LYS:HB2	1.44	0.95
4:AB:185:ILE:HG22	4:AB:199:TYR:HB2	1.46	0.95
25:DA:310:A:O2'	25:DA:311:A:H2'	1.67	0.95
24:CX:39:LEU:HB2	24:CX:68:LEU:HD21	1.49	0.95
25:BA:2287:A:N6	25:BA:2344:U:H3	1.64	0.95
30:BG:91:ARG:HB3	30:BG:91:ARG:HH11	1.31	0.95
1:AA:86:U:H2'	1:AA:87:A:C8	2.01	0.95
25:DA:651:G:H2'	25:DA:652:U:H5''	1.48	0.94
1:CA:1056:U:H5''	5:CC:163:ALA:HB2	1.49	0.94
7:CE:50:GLU:HG3	7:CE:52:PRO:HD2	1.46	0.94
49:D2:14:ARG:HA	49:D2:17:SER:HB2	1.48	0.94
22:AT:40:ALA:HB2	22:AT:55:ILE:HG22	1.48	0.94
26:DB:51:G:H21	26:DB:52:A:H62	1.11	0.94
54:D7:19:ARG:HH11	54:D7:19:ARG:HG3	1.27	0.94
31:DH:16:SER:HB2	31:DH:27:LYS:HB2	1.49	0.94
42:BV:39:LEU:HD12	42:BV:47:VAL:HG11	1.50	0.94
1:AA:1182:G:H4'	1:AA:1183:A:H5''	1.50	0.94
29:BF:6:MET:HG2	29:BF:7:TYR:HD1	1.33	0.94
39:BS:85:VAL:HG11	39:BS:106:ARG:HH21	1.31	0.94
1:CA:922:G:H4'	7:CE:20:GLN:HA	1.46	0.94
36:DP:50:ARG:HG2	36:DP:51:PHE:N	1.82	0.93
25:BA:273(G):C:H3'	25:BA:274:G:H5''	1.48	0.93
25:DA:1902:C:H1'	27:DD:244:ARG:HD3	1.48	0.93
25:DA:2784:C:H1'	28:DE:37:ARG:HH12	1.33	0.93
37:DQ:43:THR:HB	37:DQ:45:GLN:HE21	1.27	0.93
25:DA:2394:C:H2'	25:DA:2395:C:H6	1.32	0.93
28:BE:201:THR:HG22	28:BE:202:LYS:H	1.33	0.93
25:BA:2394:C:H2'	25:BA:2395:C:H6	1.33	0.93
24:AX:29:ILE:O	24:AX:33:PRO:HD2	1.67	0.93
40:DT:124:ASP:O	40:DT:128:GLU:HB2	1.68	0.93
40:DT:26:ASP:HB2	40:DT:91:ARG:HA	1.50	0.93
47:B0:34:GLY:HA2	47:B0:61:ALA:O	1.68	0.93
27:DD:144:ALA:HB3	27:DD:192:THR:HG21	1.47	0.93

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:273(G):C:H3'	25:DA:274:G:H5''	1.50	0.93
41:BU:36:ARG:HG2	41:BU:40:PHE:CE1	2.04	0.93
39:DS:85:VAL:HG11	39:DS:106:ARG:HH21	1.33	0.93
52:D5:40:LYS:HE2	52:D5:46:CYS:HB3	1.49	0.93
25:BA:528:A:H8	25:BA:528:A:H3'	1.33	0.93
25:DA:405:U:H5''	25:DA:405:U:O2	1.70	0.92
15:AM:78:ILE:HG22	15:AM:93:ARG:HH12	1.32	0.92
30:DG:91:ARG:HB3	30:DG:91:ARG:HH11	1.33	0.92
24:AX:39:LEU:HB2	24:AX:68:LEU:HD21	1.48	0.92
36:BP:23:PRO:HD2	36:BP:33:ARG:CZ	1.98	0.92
15:CM:78:ILE:HG22	15:CM:93:ARG:HH12	1.32	0.92
25:BA:2681:C:H5	25:BA:2725:A:H62	1.09	0.92
25:DA:2287:A:H62	25:DA:2344:U:H3	1.10	0.92
1:CA:955:U:H1'	1:CA:1227:A:H61	1.35	0.92
24:CX:29:ILE:O	24:CX:33:PRO:HD2	1.68	0.92
36:DP:23:PRO:HD2	36:DP:33:ARG:CZ	1.98	0.92
25:DA:1110:G:HO2'	25:DA:1111:A:H8	0.96	0.92
22:CT:71:THR:HG22	22:CT:72:LEU:H	1.34	0.92
1:CA:1182:G:H4'	1:CA:1183:A:H5''	1.51	0.92
1:AA:955:U:H1'	1:AA:1227:A:H61	1.34	0.92
36:BP:49:ARG:HG3	36:BP:49:ARG:HH11	1.33	0.92
31:BH:16:SER:HB2	31:BH:27:LYS:HB2	1.49	0.92
25:DA:1126:A:H4'	25:DA:1127:A:O5'	1.67	0.92
41:BU:36:ARG:HG2	41:BU:40:PHE:HE1	1.35	0.92
46:DZ:125:LEU:HD22	46:DZ:164:ALA:HB3	1.52	0.91
1:AA:1505:G:H4'	1:AA:1506:U:H5'	1.49	0.91
8:CF:97:PHE:HD2	20:CR:31:LEU:HD21	1.34	0.91
52:B5:40:LYS:HE2	52:B5:46:CYS:HB3	1.53	0.91
25:BA:2015:A:H1'	52:B5:2:ALA:HA	1.52	0.91
25:DA:1019:U:H3	25:DA:114(B):A:H62	1.14	0.91
1:AA:250:A:H4'	1:AA:251:G:O5'	1.70	0.91
8:AF:97:PHE:HD2	20:AR:31:LEU:HD21	1.34	0.91
52:D5:40:LYS:HZ1	52:D5:46:CYS:H	1.17	0.91
45:BY:7:VAL:HB	45:BY:8:LYS:NZ	1.85	0.91
42:DV:39:LEU:HD12	42:DV:47:VAL:HG11	1.51	0.91
45:DY:7:VAL:HB	45:DY:8:LYS:NZ	1.84	0.91
25:DA:528:A:H8	25:DA:528:A:H3'	1.35	0.91
29:DF:6:MET:HG2	29:DF:7:TYR:HD1	1.33	0.91
1:CA:1060:C:H5''	12:CJ:51:ARG:HG2	1.51	0.91
21:AS:50:ALA:HB1	21:AS:57:HIS:HB3	1.53	0.91
21:CS:6:LYS:HG2	21:CS:7:LYS:HD3	1.52	0.91
25:DA:9:U:H2'	25:DA:2629:A:H62	1.34	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:651:G:H2'	25:BA:652:U:H5''	1.49	0.90
1:CA:250:A:H4'	1:CA:251:G:O5'	1.71	0.90
48:B1:11:ARG:HB3	48:B1:12:PRO:CD	2.00	0.90
12:AJ:80:LYS:HE3	1:CA:1163:C:H5'	1.53	0.90
32:BI:82:ARG:HB3	32:BI:89:TYR:HD2	1.35	0.90
21:AS:6:LYS:HG2	21:AS:7:LYS:HD3	1.53	0.90
1:CA:1505:G:H4'	1:CA:1506:U:H5'	1.51	0.90
25:BA:1899:G:N2	25:BA:1902:C:N4	2.20	0.90
32:DI:68:LEU:HA	32:DI:71:ILE:HG23	1.51	0.90
25:DA:1496:A:H8	25:DA:1577:C:HO2'	0.94	0.90
1:CA:920:U:H2'	1:CA:921:U:C6	2.06	0.90
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.06	0.90
25:DA:1175:U:H2'	25:DA:1176:G:C5	2.07	0.90
39:BS:24:LEU:O	39:BS:86:ALA:HB3	1.72	0.90
36:BP:62:LEU:N	36:BP:62:LEU:HD13	1.87	0.90
25:BA:1902:C:H1'	27:BD:244:ARG:HD3	1.52	0.90
44:DX:11:PRO:HA	44:DX:28:PHE:HB3	1.52	0.90
40:BT:26:ASP:HB2	40:BT:91:ARG:HA	1.52	0.90
10:AH:102:ARG:HE	10:AH:102:ARG:H	0.90	0.90
1:AA:1056:U:H5''	5:AC:163:ALA:HB2	1.51	0.90
1:CA:86:U:H2'	1:CA:87:A:C8	2.04	0.89
26:BB:51:G:H21	26:BB:52:A:N6	1.69	0.89
44:DX:80:ILE:HG13	44:DX:80:ILE:O	1.68	0.89
25:DA:2542:A:N3	25:DA:2542:A:H5''	1.87	0.89
25:BA:9:U:H2'	25:BA:2629:A:H62	1.34	0.89
25:DA:2275:C:H5'	25:DA:2275:C:H6	1.36	0.89
36:BP:23:PRO:HB2	36:BP:33:ARG:CD	2.02	0.89
25:BA:1126:A:H4'	25:BA:1127:A:O5'	1.69	0.89
24:AX:25:ALA:HA	24:AX:78:LEU:HD21	1.52	0.89
1:AA:920:U:H2'	1:AA:921:U:C6	2.06	0.89
1:CA:33:A:H2'	1:CA:34:C:C6	2.07	0.89
36:BP:128:HIS:HA	36:BP:147:LEU:HB3	1.55	0.89
24:AX:132:THR:HG22	24:AX:181:GLN:HG3	1.54	0.89
19:AQ:59:ILE:HG22	19:AQ:73:VAL:HA	1.55	0.89
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.36	0.89
25:BA:780:G:H21	25:BA:783:A:N6	1.71	0.89
37:BQ:134:ARG:HH21	46:BZ:81:ARG:HH22	1.15	0.89
28:DE:91:VAL:HB	28:DE:95:ILE:HD11	1.55	0.89
47:D0:34:GLY:HA2	47:D0:61:ALA:O	1.71	0.89
25:BA:2518:A:C8	25:BA:2518:A:H5'	2.08	0.89
22:AT:71:THR:HG22	22:AT:72:LEU:H	1.35	0.89
40:BT:124:ASP:O	40:BT:128:GLU:HB2	1.71	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:287:C:H2'	25:DA:288:C:H6	1.35	0.89
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.07	0.89
25:DA:780:G:H21	25:DA:783:A:H62	0.94	0.89
25:BA:1175:U:H2'	25:BA:1176:G:C5	2.07	0.89
1:AA:1060:C:H5''	12:AJ:51:ARG:HG2	1.53	0.88
25:DA:106:C:H1'	45:DY:2:ARG:HE	1.38	0.88
25:BA:1496:A:H8	25:BA:1577:C:HO2'	0.91	0.88
26:DB:51:G:H21	26:DB:52:A:N6	1.70	0.88
24:AX:242:ILE:HG12	24:AX:264:VAL:HG12	1.56	0.88
25:BA:2893:G:H4'	25:BA:2894:G:C8	2.09	0.88
29:DF:164:ARG:HG3	29:DF:175:THR:OG1	1.74	0.88
7:CE:78:HIS:HE1	7:CE:143:ARG:H	1.18	0.88
17:AO:45:VAL:HG23	17:AO:46:HIS:ND1	1.88	0.88
25:DA:2212:A:H4'	25:DA:2213:U:H5	1.38	0.88
25:BA:528:A:C8	25:BA:528:A:H3'	2.08	0.88
25:BA:2275:C:H5'	25:BA:2275:C:H6	1.38	0.88
24:CX:242:ILE:HG12	24:CX:264:VAL:HG12	1.55	0.88
32:DI:11:ASN:HB3	32:DI:12:LEU:HD22	1.56	0.88
25:BA:405:U:H5''	25:BA:405:U:O2	1.73	0.88
48:D1:11:ARG:HB3	48:D1:12:PRO:CD	2.04	0.88
36:DP:62:LEU:N	36:DP:62:LEU:HD13	1.88	0.88
25:BA:780:G:H21	25:BA:783:A:H62	0.92	0.88
40:DT:102:ILE:HB	40:DT:110:ILE:HD11	1.53	0.88
27:DD:28:GLU:HB3	27:DD:29:PRO:HD3	1.55	0.88
1:AA:1342:C:H4'	11:AI:125:TYR:HB3	1.55	0.88
14:CL:74:HIS:HD2	14:CL:76:LEU:H	1.19	0.88
44:BX:12:VAL:HG12	44:BX:28:PHE:HA	1.55	0.87
25:DA:2068:U:H3	25:DA:2430:A:H2	0.88	0.87
29:BF:184:TYR:O	29:BF:188:ARG:HG3	1.74	0.87
21:CS:29:ARG:HB2	21:CS:48:THR:H	1.38	0.87
46:BZ:125:LEU:HD22	46:BZ:164:ALA:HB3	1.54	0.87
11:CI:55:ALA:HB2	11:CI:58:ARG:HH21	1.38	0.87
1:CA:1342:C:H4'	11:CI:125:TYR:HB3	1.56	0.87
1:AA:328:C:O2	1:AA:328:C:H2'	1.74	0.87
54:B7:34:ARG:HG3	54:B7:34:ARG:HH11	1.37	0.87
25:DA:2893:G:H4'	25:DA:2894:G:C8	2.09	0.87
30:BG:113:ARG:HD2	30:BG:140:ILE:HA	1.57	0.87
46:DZ:39:VAL:HG21	46:DZ:44:PHE:HB2	1.55	0.87
36:BP:17:LYS:HB3	36:BP:19:VAL:HG22	1.56	0.87
30:DG:60:LEU:HD22	30:DG:63:ILE:HD11	1.57	0.87
4:CB:69:LEU:HD22	4:CB:91:PRO:HB2	1.56	0.87
24:CX:25:ALA:HA	24:CX:78:LEU:HD21	1.53	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CQ:59:ILE:HG22	19:CQ:73:VAL:HA	1.56	0.87
25:BA:1658:C:OP1	28:BE:132:HIS:ND1	2.07	0.87
25:BA:1110:G:HO2'	25:BA:1111:A:H8	0.91	0.87
25:BA:1316:U:H2'	25:BA:1317:A:H8	1.39	0.87
28:DE:201:THR:HG22	28:DE:202:LYS:H	1.37	0.87
11:CI:4:TYR:CE2	11:CI:88:TYR:HB3	2.10	0.87
25:DA:1899:G:N2	25:DA:1902:C:N4	2.21	0.87
11:AI:55:ALA:HB2	11:AI:58:ARG:HH21	1.40	0.87
18:CP:43:LYS:HA	18:CP:48:TRP:HB3	1.56	0.87
1:CA:1347:G:N2	1:CA:1373:G:H2'	1.90	0.87
21:CS:50:ALA:HB1	21:CS:57:HIS:HB3	1.53	0.87
14:AL:74:HIS:HD2	14:AL:76:LEU:H	1.22	0.87
36:DP:23:PRO:HB2	36:DP:33:ARG:CD	2.04	0.87
25:DA:1427:A:H4'	25:DA:1428:C:O5'	1.75	0.87
36:DP:128:HIS:HA	36:DP:147:LEU:HB3	1.53	0.87
25:DA:528:A:C8	25:DA:528:A:H3'	2.09	0.87
36:DP:17:LYS:HB3	36:DP:19:VAL:HG22	1.57	0.87
37:DQ:30:GLY:HA2	37:DQ:107:ALA:HB2	1.56	0.87
11:CI:16:ARG:HB2	11:CI:64:THR:HB	1.56	0.87
10:CH:102:ARG:H	10:CH:102:ARG:HE	0.90	0.86
10:AH:102:ARG:NE	10:AH:102:ARG:H	1.73	0.86
7:AE:78:HIS:HE1	7:AE:143:ARG:H	1.18	0.86
25:BA:363(C):G:H2'	25:BA:363(D):G:H8	1.39	0.86
4:AB:69:LEU:HD22	4:AB:91:PRO:HB2	1.57	0.86
25:DA:203:C:H3'	25:DA:203:C:C6	2.10	0.86
36:BP:65:ARG:HH21	55:B8:15:LYS:HB2	1.40	0.86
17:CO:45:VAL:HG23	17:CO:46:HIS:ND1	1.90	0.86
14:CL:5:THR:H	14:CL:8:GLN:HE21	1.22	0.86
24:CX:245:MET:HG3	24:CX:261:ALA:HB3	1.57	0.86
1:AA:80:G:H2'	1:AA:81:G:C8	2.10	0.86
1:AA:88:C:H2'	1:AA:89:U:C6	2.10	0.86
25:BA:2415:G:O3'	36:BP:66:GLY:HA3	1.76	0.86
24:CX:47:GLU:O	33:DK:29:GLN:HB3	1.73	0.86
1:CA:1305:G:H22	1:CA:1331:G:H2'	1.37	0.86
25:BA:1678:G:O5'	25:BA:1678:G:H8	1.58	0.86
24:CX:132:THR:HG22	24:CX:181:GLN:HG3	1.57	0.86
21:AS:29:ARG:HB2	21:AS:48:THR:H	1.38	0.86
8:AF:87:ARG:CG	8:AF:87:ARG:HH11	1.87	0.86
25:DA:620:G:H4'	25:DA:621:A:H5''	1.57	0.86
25:BA:106:C:H1'	45:BY:2:ARG:HE	1.40	0.86
29:DF:184:TYR:O	29:DF:188:ARG:HG3	1.76	0.86
46:BZ:39:VAL:HG21	46:BZ:44:PHE:HB2	1.55	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BF:32:LEU:HD11	29:BF:105:VAL:HG13	1.57	0.86
25:DA:907:U:H4'	37:DQ:101:ARG:HH22	1.41	0.86
25:BA:2068:U:H3	25:BA:2430:A:H2	0.90	0.86
25:DA:1678:G:N2	25:DA:1989:G:H22	1.74	0.86
24:AX:245:MET:HG3	24:AX:261:ALA:HB3	1.54	0.86
25:BA:2212:A:H4'	25:BA:2213:U:H5	1.40	0.86
11:AI:16:ARG:HB2	11:AI:64:THR:HB	1.58	0.86
25:DA:2015:A:H1'	52:D5:2:ALA:HA	1.55	0.86
37:BQ:30:GLY:HA2	37:BQ:107:ALA:HB2	1.56	0.86
2:CZ:37:A:H2'	2:CZ:38:A:H8	1.40	0.86
25:BA:2125:G:H21	25:BA:2173:A:H62	1.23	0.86
28:BE:91:VAL:HB	28:BE:95:ILE:HD11	1.57	0.86
1:AA:596:C:H6	1:AA:596:C:H5'	1.40	0.86
11:AI:4:TYR:CE2	11:AI:88:TYR:HB3	2.10	0.85
25:DA:989:G:N7	50:D3:13:ILE:HD11	1.91	0.85
25:DA:363(C):G:H2'	25:DA:363(D):G:H8	1.41	0.85
18:AP:43:LYS:HA	18:AP:48:TRP:HB3	1.57	0.85
25:BA:795:C:H2'	25:BA:796:C:H6	1.41	0.85
36:DP:49:ARG:HH11	36:DP:49:ARG:HG3	1.40	0.85
25:DA:1009:A:H5'	25:DA:1009:A:C8	2.11	0.85
30:BG:60:LEU:HD22	30:BG:63:ILE:HD11	1.57	0.85
1:AA:826:C:H2'	1:AA:827:U:C6	2.11	0.85
33:BK:34:ILE:HA	33:BK:37:PHE:HB2	1.57	0.85
2:AZ:37:A:H2'	2:AZ:38:A:H8	1.41	0.85
27:DD:35:LYS:O	27:DD:64:ILE:HG13	1.75	0.85
25:BA:620:G:H4'	25:BA:621:A:H5''	1.56	0.85
23:AU:6:ARG:HH21	23:AU:7:ARG:HH21	1.24	0.85
6:CD:22:LYS:HB2	6:CD:26:CYS:SG	2.16	0.85
1:CA:979:C:H3'	1:CA:980:C:H5''	1.58	0.85
21:CS:31:ILE:HG23	21:CS:49:ILE:HG23	1.57	0.85
25:DA:774:A:H2	25:DA:787:U:HO2'	1.24	0.85
36:DP:18:ARG:HB3	36:DP:18:ARG:NH1	1.91	0.85
25:BA:287:C:H2'	25:BA:288:C:H6	1.40	0.85
25:BA:989:G:N7	50:B3:13:ILE:HD11	1.91	0.85
4:AB:63:MET:HG2	4:AB:225:ALA:HB1	1.58	0.85
25:DA:1105:U:H2'	25:DA:1106:G:C8	2.11	0.85
20:CR:70:ILE:O	20:CR:74:ARG:HG3	1.77	0.85
1:CA:80:G:H2'	1:CA:81:G:C8	2.11	0.85
25:BA:1678:G:N2	25:BA:1989:G:H22	1.74	0.85
25:BA:1543:A:H8	25:BA:1543:A:H3'	1.41	0.85
23:CU:6:ARG:HH21	23:CU:7:ARG:HH21	1.24	0.85
25:DA:2518:A:H5'	25:DA:2518:A:C8	2.12	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AM:10:PRO:HB2	15:AM:18:ALA:HB1	1.59	0.85
30:DG:86:MET:SD	30:DG:87:PRO:HD3	2.17	0.85
33:DK:54:PRO:HD3	33:DK:72:PRO:HA	1.57	0.85
25:BA:907:U:H4'	37:BQ:101:ARG:HH22	1.42	0.85
44:BX:80:ILE:HG13	44:BX:80:ILE:O	1.74	0.85
10:CH:102:ARG:H	10:CH:102:ARG:NE	1.73	0.85
44:DX:12:VAL:HG12	44:DX:28:PHE:HA	1.57	0.85
25:DA:203:C:H6	25:DA:203:C:H3'	1.40	0.85
4:AB:55:PHE:HE1	4:AB:218:ALA:HA	1.42	0.85
22:CT:50:GLU:HG3	22:CT:51:GLU:H	1.42	0.85
1:AA:33:A:H2'	1:AA:34:C:C6	2.12	0.84
16:CN:45:ARG:O	16:CN:49:HIS:HD2	1.58	0.84
1:CA:88:C:H2'	1:CA:89:U:C6	2.10	0.84
1:CA:1226:C:H2'	15:CM:103:THR:HB	1.59	0.84
22:CT:50:GLU:HA	22:CT:100:ILE:HD13	1.59	0.84
49:D2:50:ILE:HD12	49:D2:51:ARG:H	1.41	0.84
10:CH:114:THR:HG22	10:CH:117:GLY:O	1.77	0.84
30:BG:86:MET:SD	30:BG:87:PRO:HD3	2.16	0.84
49:D2:17:SER:HB3	49:D2:18:PRO:HD3	1.59	0.84
25:DA:1059:G:H1'	33:DK:115:LEU:HG	1.58	0.84
14:CL:31:PHE:HB3	14:CL:83:LEU:HD11	1.60	0.84
20:AR:70:ILE:O	20:AR:74:ARG:HG3	1.77	0.84
27:BD:28:GLU:HB3	27:BD:29:PRO:HD3	1.56	0.84
25:BA:2092:U:H4'	25:BA:2093:G:O5'	1.74	0.84
48:B1:13:ILE:HD11	48:B1:15:ALA:HB3	1.60	0.84
27:BD:142:VAL:HG21	27:BD:191:ALA:HB1	1.59	0.84
25:DA:780:G:H21	25:DA:783:A:N6	1.73	0.84
30:DG:113:ARG:HD2	30:DG:140:ILE:HA	1.57	0.84
6:AD:63:LYS:HD2	6:AD:198:VAL:HG12	1.57	0.84
36:DP:65:ARG:HH21	55:D8:15:LYS:HB2	1.42	0.84
33:BK:54:PRO:HD3	33:BK:72:PRO:HA	1.57	0.84
1:CA:596:C:H6	1:CA:596:C:H5'	1.41	0.84
5:CC:58:GLU:HB2	5:CC:65:ALA:HB3	1.58	0.84
25:DA:1543:A:H3'	25:DA:1543:A:H8	1.42	0.84
6:CD:63:LYS:HD2	6:CD:198:VAL:HG12	1.60	0.84
33:DK:34:ILE:HA	33:DK:37:PHE:HB2	1.58	0.84
1:CA:328:C:H2'	1:CA:328:C:O2	1.76	0.84
25:BA:2542:A:H5''	25:BA:2542:A:N3	1.91	0.84
6:AD:22:LYS:HB2	6:AD:26:CYS:SG	2.17	0.84
1:AA:979:C:H3'	1:AA:980:C:H5''	1.57	0.84
39:DS:24:LEU:O	39:DS:86:ALA:HB3	1.77	0.84
11:CI:114:TYR:HE1	12:CJ:60:ARG:H	1.25	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AI:114:TYR:HE1	12:AJ:60:ARG:H	1.24	0.84
38:DR:10:LEU:HD22	38:DR:17:ARG:HD2	1.59	0.84
25:DA:2394:C:H2'	25:DA:2395:C:C6	2.13	0.84
25:BA:1899:G:H21	25:BA:1902:C:N4	1.75	0.84
1:CA:1432:G:OP1	40:DT:107:ASP:HB2	1.78	0.84
25:BA:1543:A:C8	25:BA:1543:A:H3'	2.13	0.84
38:DR:10:LEU:HB2	38:DR:17:ARG:HD3	1.60	0.84
49:B2:2:LYS:H	49:B2:2:LYS:HZ2	1.26	0.84
24:AX:251:GLY:HA3	24:AX:255:VAL:HB	1.59	0.84
4:CB:36:ARG:HD3	4:CB:41:ILE:HD12	1.57	0.84
36:BP:101:VAL:HA	36:BP:105:LEU:O	1.77	0.84
14:AL:31:PHE:HB3	14:AL:83:LEU:HD11	1.59	0.84
25:BA:203:C:C6	25:BA:203:C:H3'	2.13	0.84
10:AH:13:ILE:O	10:AH:17:THR:HG23	1.77	0.84
1:CA:134:A:H61	18:CP:25:ARG:HH12	1.22	0.84
12:AJ:32:ALA:HB2	12:AJ:76:ASN:HB2	1.60	0.84
25:DA:1543:A:H3'	25:DA:1543:A:C8	2.13	0.84
25:DA:1316:U:H2'	25:DA:1317:A:H8	1.41	0.84
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.13	0.84
25:BA:2394:C:H2'	25:BA:2395:C:C6	2.13	0.83
15:CM:10:PRO:HB2	15:CM:18:ALA:HB1	1.60	0.83
24:AX:201:ARG:HB2	24:AX:323:GLN:HG2	1.60	0.83
4:CB:18:GLY:H	4:CB:42:ILE:HG22	1.43	0.83
25:DA:2167:U:H2'	25:DA:2168:G:C8	2.12	0.83
25:BA:1427:A:H4'	25:BA:1428:C:O5'	1.77	0.83
55:B8:61:LEU:O	55:B8:63:PRO:HD2	1.78	0.83
25:BA:1009:A:H5'	25:BA:1009:A:C8	2.11	0.83
12:AJ:75:ILE:HG13	12:AJ:76:ASN:H	1.44	0.83
25:BA:1105:U:H2'	25:BA:1106:G:C8	2.12	0.83
29:BF:164:ARG:HG3	29:BF:175:THR:OG1	1.78	0.83
24:CX:251:GLY:HA3	24:CX:255:VAL:HB	1.58	0.83
25:BA:203:C:H6	25:BA:203:C:H3'	1.44	0.83
8:CF:87:ARG:CG	8:CF:87:ARG:HH11	1.90	0.83
4:AB:36:ARG:HD3	4:AB:41:ILE:HD12	1.60	0.83
25:DA:2593:U:H2'	25:DA:2594:C:H6	1.42	0.83
6:CD:146:ILE:HD12	6:CD:146:ILE:H	1.44	0.83
37:BQ:82:ARG:NH1	37:BQ:82:ARG:HG2	1.92	0.83
30:BG:7:LEU:HB2	30:BG:104:GLU:HG2	1.61	0.83
15:AM:39:ILE:HG13	15:AM:56:LEU:HD21	1.60	0.83
36:BP:18:ARG:HB3	36:BP:18:ARG:NH1	1.94	0.83
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.14	0.83
16:AN:45:ARG:O	16:AN:49:HIS:HD2	1.61	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BP:16:ARG:NH1	36:BP:18:ARG:HG3	1.94	0.83
8:AF:87:ARG:HH11	8:AF:87:ARG:HG2	1.43	0.83
1:AA:1347:G:N2	1:AA:1373:G:H2'	1.92	0.83
12:CJ:75:ILE:HG13	12:CJ:76:ASN:H	1.43	0.83
5:AC:58:GLU:HB2	5:AC:65:ALA:HB3	1.60	0.83
55:D8:61:LEU:O	55:D8:63:PRO:HD2	1.79	0.83
25:BA:1871:A:H2'	25:BA:1872:A:C8	2.13	0.83
39:DS:12:PHE:H	39:DS:12:PHE:HD2	1.27	0.83
31:BH:127:GLU:HG2	31:BH:128:PRO:HD2	1.61	0.83
1:CA:826:C:H2'	1:CA:827:U:C6	2.13	0.83
48:D1:13:ILE:HD11	48:D1:15:ALA:HB3	1.60	0.83
22:AT:50:GLU:HA	22:AT:100:ILE:HD13	1.60	0.83
10:CH:13:ILE:O	10:CH:17:THR:HG23	1.79	0.83
27:DD:186:HIS:HD2	27:DD:188:GLU:H	1.26	0.82
48:D1:86:SER:HB3	48:D1:89:GLU:HB2	1.61	0.82
4:CB:63:MET:HG2	4:CB:225:ALA:HB1	1.58	0.82
12:CJ:6:ILE:HG22	12:CJ:98:ILE:HG12	1.61	0.82
21:AS:31:ILE:HG23	21:AS:49:ILE:HG23	1.59	0.82
7:CE:101:ILE:HD11	7:CE:119:LEU:HD23	1.61	0.82
12:AJ:6:ILE:HG22	12:AJ:98:ILE:HG12	1.61	0.82
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.44	0.82
30:DG:81:LYS:O	30:DG:82:LEU:HD23	1.78	0.82
31:DH:127:GLU:HG2	31:DH:128:PRO:HD2	1.61	0.82
22:AT:50:GLU:HG3	22:AT:51:GLU:H	1.43	0.82
10:AH:114:THR:HG22	10:AH:117:GLY:O	1.78	0.82
38:BR:103:ARG:HH12	38:BR:110:PRO:HD3	1.44	0.82
32:BI:65:ALA:HB1	32:BI:136:VAL:HG11	1.61	0.82
25:BA:1579:A:H8	25:BA:1579:A:H5'	1.42	0.82
25:BA:2518:A:H8	25:BA:2518:A:H5'	1.42	0.82
49:B2:17:SER:HB3	49:B2:18:PRO:HD3	1.61	0.82
25:BA:780:G:N2	25:BA:783:A:H62	1.75	0.82
1:CA:447:G:H2'	1:CA:485:G:N2	1.95	0.82
1:AA:134:A:H61	18:AP:25:ARG:HH12	1.25	0.82
36:BP:23:PRO:HB2	36:BP:33:ARG:CG	2.09	0.82
25:BA:832:G:OP1	36:BP:40:SER:HB3	1.78	0.82
25:DA:2115:G:H1'	25:DA:2171:A:H61	1.44	0.82
25:DA:795:C:H2'	25:DA:796:C:H6	1.41	0.82
48:B1:86:SER:HB3	48:B1:89:GLU:HB2	1.62	0.82
36:DP:101:VAL:HA	36:DP:105:LEU:O	1.78	0.82
25:DA:2125:G:H21	25:DA:2173:A:H62	1.22	0.82
49:D2:2:LYS:HZ2	49:D2:2:LYS:H	1.27	0.82
38:DR:103:ARG:HH12	38:DR:110:PRO:HD3	1.45	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1658:C:OP1	28:DE:132:HIS:ND1	2.11	0.82
27:BD:25:THR:HG21	27:BD:81:ALA:HA	1.61	0.82
37:DQ:22:LYS:HZ3	37:DQ:22:LYS:HA	1.43	0.82
43:BW:15:ARG:NH2	52:B5:20:ARG:HH12	1.78	0.82
29:DF:132:VAL:HG23	29:DF:133:ASN:H	1.45	0.82
40:BT:132:LYS:HB3	40:BT:136:GLN:HE21	1.42	0.82
15:CM:39:ILE:HG13	15:CM:56:LEU:HD21	1.62	0.82
48:B1:11:ARG:CB	48:B1:12:PRO:HD2	2.04	0.82
25:DA:2068:U:N3	25:DA:2430:A:H2	1.74	0.82
25:BA:1105:U:H2'	25:BA:1106:G:H8	1.44	0.82
1:CA:530:G:H22	1:CA:1492:A:H61	1.27	0.82
24:CX:324:ILE:HG23	24:CX:338:ARG:HD2	1.61	0.81
25:BA:2167:U:H2'	25:BA:2168:G:C8	2.14	0.81
12:CJ:32:ALA:HB2	12:CJ:76:ASN:HB2	1.60	0.81
45:DY:90:LEU:HG	45:DY:91:GLU:H	1.45	0.81
21:CS:47:HIS:H	21:CS:62:ILE:HG22	1.45	0.81
25:DA:1871:A:H2'	25:DA:1872:A:C8	2.14	0.81
43:DW:68:ARG:HB2	43:DW:110:LYS:CB	2.10	0.81
25:BA:1842:G:H2'	25:BA:1843:C:C6	2.14	0.81
14:AL:5:THR:H	14:AL:8:GLN:HE21	1.23	0.81
47:B0:51:VAL:HG21	47:B0:80:HIS:HA	1.62	0.81
47:B0:53:MET:HB3	47:B0:59:LEU:HD23	1.63	0.81
9:CG:12:LEU:HD23	9:CG:12:LEU:H	1.45	0.81
1:AA:447:G:H2'	1:AA:485:G:N2	1.94	0.81
36:DP:23:PRO:HB2	36:DP:33:ARG:CG	2.08	0.81
49:B2:6:VAL:O	49:B2:9:GLN:HG3	1.80	0.81
25:DA:2415:G:O3'	36:DP:66:GLY:HA3	1.81	0.81
30:DG:55:LYS:O	30:DG:59:GLU:HB2	1.80	0.81
52:D5:20:ARG:HA	52:D5:23:HIS:HD2	1.45	0.81
1:CA:579:G:H5'	1:CA:728:A:H1'	1.61	0.81
25:BA:2327:A:H2'	25:BA:2328:A:C8	2.14	0.81
27:DD:25:THR:HG21	27:DD:81:ALA:HA	1.61	0.81
1:AA:1226:C:H2'	15:AM:103:THR:HB	1.61	0.81
30:BG:55:LYS:O	30:BG:59:GLU:HB2	1.80	0.81
18:CP:18:ARG:HD3	18:CP:35:LYS:HD2	1.61	0.81
25:DA:1899:G:H21	25:DA:1902:C:N4	1.77	0.81
9:AG:152:ALA:O	9:AG:155:ARG:HG3	1.80	0.81
25:BA:197:A:H5'	25:BA:197:A:H8	1.44	0.81
1:CA:114:U:H2'	1:CA:115:G:C8	2.15	0.81
38:BR:10:LEU:HD22	38:BR:17:ARG:HD2	1.63	0.81
25:DA:1210:A:H4'	25:DA:1211:U:O5'	1.80	0.81
25:BA:2115:G:H1'	25:BA:2171:A:H61	1.44	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1105:U:H2'	25:DA:1106:G:H8	1.43	0.81
52:B5:20:ARG:HA	52:B5:23:HIS:HD2	1.44	0.81
29:DF:32:LEU:HD11	29:DF:105:VAL:HG13	1.63	0.81
9:CG:152:ALA:O	9:CG:155:ARG:HG3	1.81	0.81
25:BA:2720:U:H2'	25:BA:2721:A:H8	1.46	0.81
4:AB:54:THR:HG21	4:AB:201:ILE:HD11	1.61	0.81
4:CB:55:PHE:HE1	4:CB:218:ALA:HA	1.42	0.81
1:AA:114:U:H2'	1:AA:115:G:C8	2.14	0.81
1:CA:382:A:H2'	1:CA:383:A:C8	2.16	0.81
47:D0:51:VAL:HG21	47:D0:80:HIS:HA	1.61	0.81
9:AG:57:GLU:H	9:AG:57:GLU:CD	1.84	0.81
22:CT:56:MET:HG3	22:CT:88:VAL:HG21	1.63	0.81
30:DG:128:ARG:HE	30:DG:129:GLY:H	1.29	0.81
25:BA:273(G):C:H3'	25:BA:274:G:C5'	2.10	0.81
38:BR:10:LEU:HB2	38:BR:17:ARG:HD3	1.61	0.81
1:CA:1333:A:H2'	1:CA:1334:G:O4'	1.80	0.81
24:CX:201:ARG:HB2	24:CX:323:GLN:HG2	1.63	0.81
27:BD:206:LEU:HD22	27:BD:211:ARG:HG2	1.63	0.81
25:DA:1678:G:O5'	25:DA:1678:G:H8	1.63	0.81
30:BG:47:LYS:HG3	30:BG:82:LEU:HD21	1.63	0.81
1:CA:244:U:H5'	1:CA:244:U:H6	1.45	0.81
25:DA:1062:G:H2'	25:DA:1063:G:H8	1.46	0.81
7:CE:43:LEU:HD11	7:CE:132:ALA:HB1	1.63	0.81
37:BQ:38:GLU:HB2	37:BQ:127:ILE:HG23	1.63	0.81
30:DG:7:LEU:HB2	30:DG:104:GLU:HG2	1.61	0.81
32:BI:92:VAL:HG13	32:BI:120:ILE:HB	1.62	0.81
43:DW:15:ARG:NH2	52:D5:20:ARG:HH12	1.77	0.80
4:AB:18:GLY:H	4:AB:42:ILE:HG22	1.44	0.80
1:AA:382:A:H2'	1:AA:383:A:C8	2.15	0.80
25:DA:2579:C:O2'	28:DE:131:ALA:HB2	1.80	0.80
40:DT:132:LYS:HB3	40:DT:136:GLN:HE21	1.43	0.80
4:AB:91:PRO:HA	4:AB:154:LEU:HD11	1.63	0.80
25:BA:1748:G:H2'	25:BA:1749:A:H8	1.45	0.80
27:BD:186:HIS:HD2	27:BD:188:GLU:H	1.25	0.80
37:BQ:10:ARG:HA	37:BQ:10:ARG:HE	1.45	0.80
25:DA:1579:A:H5'	25:DA:1579:A:H8	1.46	0.80
36:DP:23:PRO:HB2	36:DP:33:ARG:HG3	1.62	0.80
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.16	0.80
4:CB:163:PHE:HD1	4:CB:185:ILE:HG13	1.47	0.80
1:AA:579:G:H5'	1:AA:728:A:H1'	1.63	0.80
1:AA:1333:A:H2'	1:AA:1334:G:O4'	1.82	0.80
30:BG:4:ASP:HB2	30:BG:9:ARG:HH21	1.46	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BS:12:PHE:H	39:BS:12:PHE:HD2	1.25	0.80
5:AC:70:VAL:HG12	5:AC:72:LYS:H	1.46	0.80
29:BF:63:LYS:HA	29:BF:76:GLY:O	1.82	0.80
36:DP:16:ARG:NH1	36:DP:18:ARG:HG3	1.96	0.80
7:AE:11:ILE:HD11	7:AE:33:VAL:HG23	1.63	0.80
1:AA:1285:A:H4'	1:AA:1286:A:O5'	1.81	0.80
25:DA:832:G:OP1	36:DP:40:SER:HB3	1.81	0.80
7:AE:101:ILE:HD11	7:AE:119:LEU:HD23	1.62	0.80
27:BD:144:ALA:HB3	27:BD:192:THR:CG2	2.12	0.80
27:DD:142:VAL:HG21	27:DD:191:ALA:HB1	1.62	0.80
29:BF:132:VAL:HG23	29:BF:133:ASN:H	1.45	0.80
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.16	0.80
36:DP:148:LEU:HD13	36:DP:148:LEU:H	1.46	0.80
4:AB:24:TRP:CZ3	4:AB:26:PRO:HA	2.17	0.80
36:BP:6:LEU:HB2	36:BP:8:PRO:HD2	1.64	0.80
4:CB:24:TRP:CZ3	4:CB:26:PRO:HA	2.17	0.80
6:AD:146:ILE:HD12	6:AD:146:ILE:H	1.46	0.80
32:DI:120:ILE:HG21	32:DI:126:TYR:HE1	1.46	0.80
28:DE:33:VAL:HG12	28:DE:89:ASP:O	1.81	0.80
4:CB:54:THR:HG21	4:CB:201:ILE:HD11	1.63	0.80
41:BU:50:ARG:HH22	42:BV:72:VAL:HG12	1.46	0.80
25:BA:2422:A:H4'	25:BA:2423:U:OP1	1.80	0.80
25:DA:380:U:O2'	48:D1:20:ARG:HB3	1.82	0.80
25:BA:2039:C:H2'	25:BA:2040:C:H6	1.47	0.80
5:AC:105:GLU:HG2	5:AC:106:VAL:H	1.47	0.80
6:CD:166:LYS:O	6:CD:166:LYS:HD2	1.81	0.80
25:DA:1499:C:H2'	25:DA:1500:G:H8	1.45	0.80
49:D2:6:VAL:O	49:D2:9:GLN:HG3	1.82	0.80
36:BP:148:LEU:H	36:BP:148:LEU:HD13	1.47	0.80
1:CA:737:A:H2'	1:CA:738:C:C6	2.17	0.80
55:D8:52:LYS:HE3	55:D8:52:LYS:HA	1.64	0.80
36:BP:23:PRO:HB2	36:BP:33:ARG:HG3	1.64	0.79
32:BI:27:ARG:CG	32:BI:27:ARG:HH11	1.95	0.79
26:BB:51:G:N2	26:BB:52:A:H62	1.80	0.79
25:BA:652:U:H6	25:BA:652:U:H5'	1.46	0.79
28:DE:48:GLN:HE22	28:DE:66:HIS:HE1	1.30	0.79
47:B0:27:GLU:HG3	47:B0:68:GLU:HA	1.63	0.79
25:BA:1210:A:H4'	25:BA:1211:U:O5'	1.79	0.79
25:BA:670:A:H4'	25:BA:671:C:H5''	1.64	0.79
25:DA:780:G:N2	25:DA:783:A:H62	1.77	0.79
11:AI:28:VAL:HG22	11:AI:63:ILE:HD13	1.64	0.79
8:CF:87:ARG:HG2	8:CF:87:ARG:HH11	1.45	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:848:G:C4	25:BA:933:A:H8	2.01	0.79
55:D8:32:LEU:HD23	55:D8:33:ASN:H	1.48	0.79
26:BB:66:A:H61	26:BB:107:U:H2'	1.46	0.79
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.17	0.79
25:BA:1062:G:H2'	25:BA:1063:G:H8	1.46	0.79
41:DU:50:ARG:HH22	42:DV:72:VAL:HG12	1.45	0.79
27:DD:144:ALA:HB3	27:DD:192:THR:CG2	2.11	0.79
7:AE:43:LEU:HD11	7:AE:132:ALA:HB1	1.62	0.79
30:BG:16:ARG:HG2	30:BG:16:ARG:HH11	1.45	0.79
25:DA:2250:G:C6	37:DQ:82:ARG:HD2	2.17	0.79
27:BD:35:LYS:O	27:BD:64:ILE:HG13	1.83	0.79
29:DF:9:ILE:HD13	29:DF:9:ILE:H	1.46	0.79
1:CA:974:A:H8	1:CA:974:A:OP1	1.65	0.79
25:DA:1332:G:H4'	25:DA:1333:C:OP2	1.81	0.79
25:DA:2720:U:H2'	25:DA:2721:A:H8	1.46	0.79
25:BA:2210:G:H21	25:BA:2211:G:C5'	1.94	0.79
11:CI:28:VAL:HG22	11:CI:63:ILE:HD13	1.64	0.79
49:B2:50:ILE:HD12	49:B2:51:ARG:H	1.47	0.79
44:DX:35:THR:HG22	44:DX:37:THR:H	1.48	0.79
25:DA:2562:U:H1'	35:DO:23:ARG:NH1	1.98	0.79
37:BQ:75:THR:HA	37:BQ:88:GLY:CA	2.13	0.79
25:DA:2422:A:H4'	25:DA:2423:U:OP1	1.80	0.79
24:CX:21:ASN:O	24:CX:24:LYS:HG3	1.83	0.79
37:DQ:82:ARG:HH11	37:DQ:82:ARG:CG	1.95	0.79
55:D8:50:LEU:HB2	55:D8:54:GLU:HG3	1.65	0.79
15:CM:49:THR:HG22	15:CM:51:ALA:H	1.48	0.79
25:BA:1499:C:H2'	25:BA:1500:G:H8	1.48	0.79
12:CJ:30:SER:HB2	12:CJ:80:LYS:HE2	1.65	0.79
25:BA:2781:A:H5'	25:BA:2782:G:H5'	1.65	0.79
25:BA:773:U:C4'	27:BD:47:GLY:HA3	2.13	0.79
4:AB:163:PHE:HD1	4:AB:185:ILE:HG13	1.48	0.79
45:DY:17:SER:HB2	45:DY:71:LYS:HD2	1.64	0.79
12:CJ:49:VAL:O	12:CJ:60:ARG:HB2	1.81	0.79
15:AM:49:THR:HG22	15:AM:51:ALA:H	1.45	0.79
32:BI:68:LEU:HB3	32:BI:72:LEU:HD23	1.65	0.79
36:DP:61:ARG:HH11	55:D8:13:ARG:HD2	1.48	0.79
25:DA:2553:G:H5''	25:DA:2554:U:OP2	1.83	0.79
1:AA:1346:A:H5'	11:AI:120:ARG:HH12	1.48	0.79
6:AD:57:ARG:HG3	6:AD:202:LEU:HD13	1.65	0.79
9:CG:57:GLU:CD	9:CG:57:GLU:H	1.83	0.79
9:AG:12:LEU:H	9:AG:12:LEU:HD23	1.47	0.79
45:BY:7:VAL:HB	45:BY:8:LYS:HZ2	1.46	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:523:A:N6	14:AL:52:ARG:HH12	1.81	0.79
4:AB:84:GLU:HB3	4:AB:219:VAL:HG21	1.65	0.79
25:DA:2039:C:H2'	25:DA:2040:C:H6	1.47	0.79
45:DY:7:VAL:HB	45:DY:8:LYS:HZ2	1.46	0.79
7:CE:11:ILE:HD11	7:CE:33:VAL:HG23	1.64	0.79
1:CA:1285:A:H4'	1:CA:1286:A:O5'	1.82	0.79
43:BW:68:ARG:HB2	43:BW:110:LYS:CB	2.11	0.79
49:D2:13:ALA:O	49:D2:17:SER:HA	1.82	0.78
24:AX:324:ILE:HG23	24:AX:338:ARG:HD2	1.63	0.78
24:CX:85:LEU:HA	24:CX:100:LEU:HD11	1.65	0.78
44:DX:55:ASN:HB2	44:DX:80:ILE:HG12	1.64	0.78
39:DS:58:LEU:HD12	39:DS:58:LEU:H	1.48	0.78
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.18	0.78
1:AA:186(A):C:H5'	22:AT:78:ALA:HB1	1.65	0.78
43:DW:19:LEU:HB3	52:D5:25:LEU:HD11	1.65	0.78
18:AP:82:GLN:N	18:AP:82:GLN:HE21	1.80	0.78
52:B5:40:LYS:HZ1	52:B5:46:CYS:H	1.32	0.78
22:AT:57:ARG:HD2	22:AT:102:GLY:HA2	1.65	0.78
25:DA:2327:A:H2'	25:DA:2328:A:C8	2.17	0.78
25:DA:2359:C:H2'	25:DA:2360:A:C8	2.17	0.78
9:CG:54:THR:OG1	9:CG:56:GLN:HG2	1.83	0.78
25:DA:848:G:C4	25:DA:933:A:H8	2.01	0.78
25:DA:270(O):G:O2'	25:DA:270(P):U:H5''	1.83	0.78
25:BA:1050:A:H2'	25:BA:1051:G:C8	2.19	0.78
46:DZ:53:ILE:HA	46:DZ:71:VAL:HG23	1.65	0.78
30:DG:16:ARG:HG2	30:DG:16:ARG:HH11	1.47	0.78
37:DQ:82:ARG:HG2	37:DQ:82:ARG:NH1	1.94	0.78
29:BF:9:ILE:H	29:BF:9:ILE:HD13	1.48	0.78
16:AN:27:CYS:SG	16:AN:29:ARG:HB2	2.23	0.78
4:CB:91:PRO:HA	4:CB:154:LEU:HD11	1.64	0.78
46:BZ:53:ILE:HA	46:BZ:71:VAL:HG23	1.65	0.78
1:AA:60:A:H4'	1:AA:61:G:O5'	1.83	0.78
49:B2:14:ARG:HA	49:B2:17:SER:CB	2.13	0.78
14:AL:56:LYS:HG2	14:AL:66:THR:HG22	1.66	0.78
21:AS:47:HIS:H	21:AS:62:ILE:HG22	1.45	0.78
1:CA:186(A):C:H5'	22:CT:78:ALA:HB1	1.66	0.78
50:D3:6:VAL:HG12	50:D3:56:VAL:HG22	1.64	0.78
49:B2:13:ALA:O	49:B2:17:SER:HA	1.83	0.78
29:DF:63:LYS:HA	29:DF:76:GLY:O	1.83	0.78
44:BX:63:LYS:NZ	44:BX:72:LYS:HB3	1.98	0.78
44:BX:35:THR:O	44:BX:39:ILE:HG12	1.83	0.78
24:AX:190:TYR:CE1	24:AX:225:PRO:HD3	2.18	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CD:57:ARG:HG3	6:CD:202:LEU:HD13	1.65	0.78
12:AJ:30:SER:HB2	12:AJ:80:LYS:HE2	1.66	0.78
43:DW:68:ARG:HB2	43:DW:110:LYS:HB3	1.66	0.78
37:DQ:38:GLU:HB2	37:DQ:127:ILE:HG23	1.66	0.78
24:AX:312:ARG:O	24:AX:316:ARG:HB2	1.82	0.78
25:DA:1748:G:H2'	25:DA:1749:A:H8	1.46	0.78
19:AQ:8:GLY:HA3	19:AQ:23:VAL:HG12	1.65	0.78
44:BX:35:THR:HG22	44:BX:37:THR:H	1.49	0.78
25:BA:2562:U:H1'	35:BO:23:ARG:NH1	1.99	0.78
28:BE:33:VAL:HG12	28:BE:89:ASP:O	1.82	0.78
41:BU:75:ASN:H	41:BU:75:ASN:ND2	1.79	0.78
15:AM:84:ILE:HG13	21:AS:74:PHE:HE1	1.48	0.78
55:B8:50:LEU:HB2	55:B8:54:GLU:HG3	1.65	0.78
25:DA:1174:A:H3'	25:DA:1175:U:H5''	1.66	0.78
37:BQ:22:LYS:NZ	37:BQ:22:LYS:HA	1.98	0.78
1:CA:9:G:H5'	7:CE:122:GLU:OE2	1.84	0.78
25:BA:2426:A:H3'	25:BA:2427:C:C5'	2.14	0.78
32:DI:48:GLU:O	32:DI:52:ARG:HD2	1.84	0.78
50:B3:6:VAL:HG12	50:B3:56:VAL:HG22	1.65	0.78
25:DA:636:G:OP1	36:DP:132:LYS:HD3	1.84	0.78
5:AC:79:ARG:HB2	13:CK:96:ARG:NH2	1.98	0.78
5:CC:91:LEU:HD22	5:CC:99:VAL:HG11	1.66	0.78
25:DA:1021:A:H62	25:DA:1141:U:H3	1.32	0.78
4:CB:69:LEU:HD23	4:CB:159:PRO:HG3	1.65	0.78
25:BA:2593:U:H2'	25:BA:2594:C:H6	1.49	0.78
25:BA:389:G:O6	36:BP:71:VAL:HG23	1.84	0.78
28:BE:48:GLN:HE22	28:BE:66:HIS:HE1	1.32	0.78
31:DH:86:GLU:HA	31:DH:132:ARG:NE	1.99	0.78
25:DA:773:U:C4'	27:DD:47:GLY:HA3	2.13	0.78
37:BQ:82:ARG:CG	37:BQ:82:ARG:HH11	1.94	0.78
26:DB:51:G:N2	26:DB:52:A:H62	1.82	0.78
4:AB:69:LEU:HD23	4:AB:159:PRO:HG3	1.65	0.78
1:CA:1492:A:C6	24:CX:320:TRP:CH2	2.71	0.78
25:DA:1842:G:H2'	25:DA:1843:C:C6	2.19	0.78
24:CX:312:ARG:O	24:CX:316:ARG:HB2	1.82	0.78
1:CA:1346:A:H5'	11:CI:120:ARG:HH12	1.48	0.78
18:CP:82:GLN:HE21	18:CP:82:GLN:N	1.82	0.78
47:D0:27:GLU:HG3	47:D0:68:GLU:HA	1.64	0.78
41:BU:89:GLU:HG2	42:BV:50:PRO:HB3	1.65	0.77
24:AX:21:ASN:O	24:AX:24:LYS:HG3	1.84	0.77
25:BA:679:C:H2'	25:BA:680:G:C8	2.19	0.77
5:CC:105:GLU:HG2	5:CC:106:VAL:H	1.47	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2068:U:N3	25:BA:2430:A:H2	1.76	0.77
25:DA:1405:U:H2'	25:DA:1406:U:C6	2.19	0.77
53:B6:34:LEU:HD13	53:B6:34:LEU:H	1.48	0.77
39:DS:49:VAL:HG13	39:DS:76:LYS:HE3	1.66	0.77
25:BA:2553:G:H5''	25:BA:2554:U:OP2	1.84	0.77
27:BD:255:LYS:H	27:BD:255:LYS:HD2	1.49	0.77
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.47	0.77
32:BI:5:LEU:HD23	32:BI:5:LEU:H	1.50	0.77
28:BE:28:ALA:HB3	28:BE:93:VAL:HG12	1.64	0.77
37:DQ:75:THR:HA	37:DQ:88:GLY:CA	2.13	0.77
28:DE:28:ALA:HB3	28:DE:93:VAL:HG12	1.64	0.77
25:DA:197:A:H8	25:DA:197:A:H5'	1.46	0.77
36:BP:61:ARG:HH11	55:B8:13:ARG:HD2	1.49	0.77
25:BA:1088:A:N6	33:BK:133:SER:HB2	2.00	0.77
25:DA:2712:U:H1'	25:DA:712(B):A:C8	2.19	0.77
39:BS:49:VAL:HG13	39:BS:76:LYS:HE3	1.66	0.77
37:DQ:65:PHE:HB2	37:DQ:105:GLU:HB2	1.67	0.77
31:BH:23:ARG:H	31:BH:23:ARG:HD3	1.50	0.77
5:CC:70:VAL:HG12	5:CC:72:LYS:H	1.46	0.77
13:AK:79:SER:HA	13:AK:104:GLN:HB3	1.66	0.77
27:DD:25:THR:HG21	27:DD:81:ALA:CA	2.14	0.77
27:BD:33:LEU:O	27:BD:35:LYS:N	2.17	0.77
19:CQ:8:GLY:HA3	19:CQ:23:VAL:HG12	1.65	0.77
25:BA:270(O):G:O2'	25:BA:270(P):U:H5''	1.84	0.77
30:BG:128:ARG:HE	30:BG:129:GLY:H	1.33	0.77
25:DA:83:G:N1	25:DA:102:G:H2'	2.00	0.77
25:DA:2781:A:H5'	25:DA:2782:G:H5'	1.67	0.77
31:DH:23:ARG:HD3	31:DH:23:ARG:H	1.50	0.77
42:DV:77:ALA:O	42:DV:79:VAL:HG23	1.84	0.77
14:CL:46:LYS:HB3	14:CL:47:PRO:HD3	1.66	0.77
48:B1:13:ILE:HD11	48:B1:15:ALA:CB	2.14	0.77
24:AX:85:LEU:HA	24:AX:100:LEU:HD11	1.65	0.77
25:BA:1021:A:H62	25:BA:1141:U:H3	1.29	0.77
53:D6:34:LEU:H	53:D6:34:LEU:HD13	1.49	0.77
25:DA:273(G):C:H3'	25:DA:274:G:C5'	2.14	0.77
1:AA:1228:C:H4'	15:AM:116:THR:O	1.84	0.77
37:DQ:24:GLY:HA2	37:DQ:101:ARG:HA	1.66	0.77
52:D5:20:ARG:HA	52:D5:23:HIS:CD2	2.20	0.77
1:AA:530:G:H22	1:AA:1492:A:H61	1.30	0.77
1:CA:359:U:H2'	1:CA:360:A:C8	2.18	0.77
45:BY:90:LEU:HG	45:BY:91:GLU:H	1.49	0.77
47:D0:23:VAL:HA	47:D0:38:VAL:HG22	1.67	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DH:70:THR:HG22	31:DH:74:ASN:HD21	1.49	0.77
1:CA:353:A:H5'	1:CA:353:A:H8	1.50	0.77
15:AM:11:ARG:HB3	15:AM:12:ASN:HD22	1.49	0.77
30:DG:47:LYS:HG3	30:DG:82:LEU:HD21	1.66	0.77
25:BA:197:A:C8	25:BA:197:A:H5'	2.19	0.77
1:AA:244:U:H6	1:AA:244:U:H5'	1.49	0.77
13:CK:79:SER:HA	13:CK:104:GLN:HB3	1.66	0.77
25:BA:662:G:OP1	36:BP:18:ARG:HD2	1.85	0.77
22:CT:57:ARG:HD2	22:CT:102:GLY:HA2	1.65	0.77
30:BG:81:LYS:O	30:BG:82:LEU:HD23	1.84	0.77
24:CX:190:TYR:CE1	24:CX:225:PRO:HD3	2.19	0.77
1:CA:60:A:H4'	1:CA:61:G:O5'	1.82	0.77
39:DS:14:VAL:O	39:DS:18:ILE:HG12	1.85	0.77
39:BS:56:LEU:HD23	39:BS:58:LEU:HD11	1.66	0.77
29:BF:178:PRO:HB2	29:BF:201:VAL:HG11	1.67	0.77
43:BW:9:TYR:H	43:BW:102:HIS:HD2	1.32	0.77
4:CB:84:GLU:HB3	4:CB:219:VAL:HG21	1.67	0.77
25:DA:670:A:H4'	25:DA:671:C:H5''	1.67	0.77
49:D2:14:ARG:HA	49:D2:17:SER:CB	2.14	0.77
27:DD:33:LEU:O	27:DD:35:LYS:N	2.18	0.77
25:BA:276:A:H2'	25:BA:277:C:C4	2.20	0.77
25:BA:1542:G:H1'	25:BA:1543:A:C5	2.20	0.77
25:BA:2426:A:H3'	25:BA:2427:C:H5''	1.67	0.77
15:CM:84:ILE:HG13	21:CS:74:PHE:HE1	1.49	0.77
31:BH:70:THR:HG22	31:BH:74:ASN:HD21	1.48	0.77
36:BP:114:ILE:HD12	36:BP:114:ILE:N	2.00	0.77
27:DD:69:ARG:O	27:DD:70:TRP:HB3	1.85	0.76
54:D7:19:ARG:CG	54:D7:19:ARG:HH11	1.98	0.76
11:AI:114:TYR:CD1	12:AJ:60:ARG:HG2	2.19	0.76
12:AJ:49:VAL:O	12:AJ:60:ARG:HB2	1.85	0.76
1:AA:382:A:H2'	1:AA:383:A:H8	1.50	0.76
1:AA:464:G:O6	1:AA:466:G:H5''	1.85	0.76
28:DE:117:MET:HG2	28:DE:136:ARG:NH2	2.00	0.76
31:BH:13:LYS:HE2	31:BH:14:GLY:H	1.49	0.76
47:D0:53:MET:HB3	47:D0:59:LEU:HD23	1.65	0.76
48:D1:13:ILE:HD11	48:D1:15:ALA:CB	2.13	0.76
55:B8:32:LEU:HD23	55:B8:33:ASN:H	1.48	0.76
30:BG:124:SER:HB2	30:BG:131:TYR:CE1	2.19	0.76
1:AA:192:U:H2'	1:AA:193:C:H6	1.48	0.76
1:CA:192:U:H2'	1:CA:193:C:H6	1.50	0.76
31:BH:86:GLU:HA	31:BH:132:ARG:NE	2.00	0.76
40:DT:129:ARG:HA	40:DT:132:LYS:HD2	1.67	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1128:C:H4'	11:AI:16:ARG:HH12	1.48	0.76
25:BA:2378:A:O2'	39:BS:21:THR:HG21	1.84	0.76
1:CA:721:G:H4'	1:CA:722:A:O5'	1.85	0.76
36:DP:6:LEU:HB2	36:DP:8:PRO:HD2	1.66	0.76
55:B8:52:LYS:HE3	55:B8:52:LYS:HA	1.66	0.76
25:BA:1941:C:H6	25:BA:1941:C:H5'	1.51	0.76
33:BK:128:ALA:O	33:BK:132:ARG:HG3	1.85	0.76
39:BS:34:HIS:CG	39:BS:54:LEU:HG	2.20	0.76
25:DA:652:U:H6	25:DA:652:U:H5'	1.49	0.76
29:BF:22:ALA:HB1	29:BF:24:LEU:HD13	1.66	0.76
12:AJ:75:ILE:HG13	12:AJ:76:ASN:N	2.00	0.76
25:BA:1045:A:H61	25:BA:1111:A:H2'	1.51	0.76
15:CM:11:ARG:HB3	15:CM:12:ASN:HD22	1.50	0.76
37:BQ:65:PHE:HB2	37:BQ:105:GLU:HB2	1.67	0.76
25:BA:2585:U:H2'	25:BA:2585:U:O2	1.84	0.76
48:D1:12:PRO:O	48:D1:14:VAL:HG23	1.86	0.76
48:B1:32:LYS:HG2	48:B1:33:LYS:H	1.50	0.76
1:CA:920:U:H2'	1:CA:921:U:H6	1.49	0.76
25:DA:2518:A:H5'	25:DA:2518:A:H8	1.48	0.76
1:CA:1015:A:H2'	1:CA:1016:A:H8	1.50	0.76
1:AA:737:A:H2'	1:AA:738:C:C6	2.19	0.76
17:CO:39:LEU:HD12	17:CO:56:LEU:HB2	1.67	0.76
41:DU:75:ASN:H	41:DU:75:ASN:ND2	1.82	0.76
30:DG:4:ASP:HB2	30:DG:9:ARG:HH21	1.49	0.76
31:DH:51:ARG:HG2	31:DH:52:VAL:H	1.49	0.76
9:AG:54:THR:OG1	9:AG:56:GLN:HG2	1.85	0.76
5:CC:79:ARG:HD3	5:CC:79:ARG:N	1.99	0.76
24:AX:147:GLU:HB2	24:AX:151:ARG:NH2	2.01	0.76
25:BA:1405:U:H2'	25:BA:1406:U:C6	2.21	0.76
25:DA:2426:A:H3'	25:DA:2427:C:C5'	2.15	0.76
5:AC:79:ARG:HD3	5:AC:79:ARG:N	2.01	0.76
27:BD:25:THR:HG21	27:BD:81:ALA:CA	2.16	0.76
30:DG:60:LEU:O	30:DG:64:THR:HG22	1.86	0.76
11:AI:125:TYR:HD2	11:AI:126:SER:H	1.31	0.76
25:DA:1209:G:H21	25:DA:1210:A:H62	1.31	0.76
41:BU:95:LEU:HD13	42:BV:4:ILE:HD12	1.67	0.76
25:BA:2359:C:H2'	25:BA:2360:A:C8	2.20	0.76
25:DA:1309:G:H4'	54:D7:7:PRO:HB2	1.67	0.76
27:DD:255:LYS:HD2	27:DD:255:LYS:H	1.51	0.76
1:AA:974:A:H8	1:AA:974:A:OP1	1.68	0.76
7:CE:78:HIS:CE1	7:CE:143:ARG:H	2.04	0.76
48:B1:51:VAL:HG21	48:B1:74:VAL:HG21	1.68	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:75:THR:HA	37:BQ:88:GLY:HA3	1.67	0.76
25:BA:1080:C:H1'	33:BK:126:MET:CG	2.16	0.76
33:DK:128:ALA:O	33:DK:132:ARG:HG3	1.85	0.76
44:BX:50:LYS:H	44:BX:87:GLN:HE22	1.32	0.76
2:CZ:47:U:H5'	2:CZ:48:C:H5'	1.68	0.76
46:BZ:104:PHE:HB3	46:BZ:141:VAL:HG11	1.68	0.76
26:DB:66:A:H61	26:DB:107:U:H2'	1.51	0.76
25:DA:2593:U:H2'	25:DA:2594:C:C6	2.20	0.76
46:BZ:108:PRO:HB3	46:BZ:144:LEU:HB2	1.68	0.76
54:D7:8:ASN:C	54:D7:8:ASN:HD22	1.89	0.76
9:AG:97:GLN:HG3	9:AG:101:LEU:HD11	1.67	0.76
45:DY:81:LYS:HZ2	45:DY:98:VAL:HG12	1.50	0.76
25:DA:2798:C:H5	25:DA:2799:A:C6	2.04	0.76
25:BA:1332:G:H4'	25:BA:1333:C:OP2	1.85	0.76
25:DA:1216:G:N2	25:DA:1234:U:H1'	2.01	0.76
30:BG:60:LEU:O	30:BG:64:THR:HG22	1.85	0.76
25:DA:1826:G:H2'	25:DA:1827:C:H6	1.50	0.76
1:CA:949:A:H1'	1:CA:1364:U:H3	1.51	0.76
1:CA:1126:U:H2'	1:CA:1127:G:C8	2.21	0.76
5:AC:91:LEU:HD22	5:AC:99:VAL:HG11	1.66	0.76
27:DD:206:LEU:HD22	27:DD:211:ARG:HG2	1.65	0.76
15:AM:5:ALA:HB3	15:AM:8:GLU:HB2	1.67	0.76
25:DA:2502:G:H5'	25:DA:2503:A:H5''	1.67	0.76
1:CA:1128:C:H4'	11:CI:16:ARG:HH12	1.50	0.75
33:BK:72:PRO:HB2	33:BK:76:TYR:CD2	2.21	0.75
1:AA:1347:G:C8	11:AI:107:ARG:HB3	2.21	0.75
52:B5:20:ARG:HA	52:B5:23:HIS:CD2	2.20	0.75
40:BT:129:ARG:HA	40:BT:132:LYS:HD2	1.68	0.75
32:DI:120:ILE:HG21	32:DI:126:TYR:CE1	2.21	0.75
24:AX:240:LEU:HD23	24:AX:240:LEU:H	1.51	0.75
44:DX:63:LYS:NZ	44:DX:72:LYS:HB3	2.01	0.75
1:CA:1347:G:C8	11:CI:107:ARG:HB3	2.21	0.75
24:CX:246:ARG:HD2	24:CX:259:ASP:HB3	1.68	0.75
31:DH:13:LYS:HE2	31:DH:14:GLY:H	1.50	0.75
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.21	0.75
36:BP:50:ARG:CG	36:BP:51:PHE:N	2.50	0.75
12:AJ:57:LYS:O	12:AJ:58:ASP:HB3	1.87	0.75
25:BA:363(C):G:H2'	25:BA:363(D):G:C8	2.20	0.75
37:BQ:24:GLY:HA2	37:BQ:101:ARG:HA	1.69	0.75
25:BA:2798:C:H5	25:BA:2799:A:C6	2.04	0.75
25:BA:919:G:H5'	26:BB:81:G:H1'	1.67	0.75
25:BA:380:U:O2'	48:B1:20:ARG:HB3	1.87	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:636:G:OP1	36:BP:132:LYS:HD3	1.86	0.75
2:AZ:44:A:H2'	2:AZ:45:G:C8	2.22	0.75
45:BY:17:SER:HB2	45:BY:71:LYS:HD2	1.66	0.75
34:DN:157:ARG:N	34:DN:158:PRO:HD3	2.02	0.75
25:BA:83:G:N1	25:BA:102:G:H2'	2.01	0.75
24:CX:147:GLU:HB2	24:CX:151:ARG:NH2	2.01	0.75
25:DA:2886:G:H2'	25:DA:2887:U:H6	1.52	0.75
25:DA:679:C:H2'	25:DA:680:G:C8	2.21	0.75
28:BE:117:MET:HG2	28:BE:136:ARG:NH2	2.02	0.75
25:BA:942:G:H5'	36:BP:35:HIS:HB2	1.68	0.75
48:D1:32:LYS:HG2	48:D1:33:LYS:H	1.51	0.75
11:CI:114:TYR:CD1	12:CJ:60:ARG:HG2	2.21	0.75
24:AX:358:ILE:HA	24:AX:362:LEU:HD23	1.69	0.75
39:BS:58:LEU:H	39:BS:58:LEU:HD12	1.51	0.75
34:DN:112:LYS:O	34:DN:116:THR:HG22	1.86	0.75
30:BG:28:VAL:O	30:BG:31:VAL:HG12	1.86	0.75
25:DA:2585:U:O2	25:DA:2585:U:H2'	1.86	0.75
36:BP:49:ARG:CG	36:BP:49:ARG:HH11	1.98	0.75
39:BS:85:VAL:HG11	39:BS:106:ARG:NH2	2.01	0.75
37:DQ:22:LYS:HA	37:DQ:22:LYS:NZ	2.00	0.75
39:BS:49:VAL:HG12	39:BS:73:LEU:HD23	1.69	0.75
25:BA:2579:C:O2'	28:BE:131:ALA:HB2	1.86	0.75
46:BZ:52:SER:OG	46:BZ:54:HIS:HD2	1.70	0.75
24:AX:35:LYS:HD3	24:AX:71:THR:HG22	1.67	0.75
25:DA:2210:G:H21	25:DA:2211:G:C5'	1.99	0.75
5:AC:86:VAL:O	5:AC:90:GLU:HG2	1.87	0.75
25:DA:1045:A:H61	25:DA:1111:A:H2'	1.51	0.75
39:BS:51:ALA:HB3	39:BS:73:LEU:HG	1.68	0.75
25:DA:389:G:O6	36:DP:71:VAL:HG23	1.86	0.75
25:DA:603:A:C2	25:DA:655:A:C6	2.74	0.75
32:DI:101:LEU:HD23	32:DI:109:ILE:HD12	1.69	0.75
1:AA:920:U:H2'	1:AA:921:U:H6	1.49	0.75
24:AX:251:GLY:HA2	25:BA:2602:A:C8	2.22	0.75
24:CX:138:GLY:HA3	24:CX:142:ALA:HB2	1.69	0.75
9:CG:97:GLN:HG3	9:CG:101:LEU:HD11	1.69	0.75
44:DX:8:ILE:H	44:DX:8:ILE:HD12	1.50	0.75
32:BI:11:ASN:HB3	32:BI:12:LEU:HD22	1.68	0.75
2:CY:23:C:H2'	2:CY:24:U:H6	1.52	0.75
24:AX:338:ARG:HB3	24:AX:369:ARG:NH2	2.02	0.75
24:AX:246:ARG:HD2	24:AX:259:ASP:HB3	1.68	0.75
4:AB:19:HIS:CD2	4:AB:20:GLU:HG2	2.21	0.75
5:CC:86:VAL:O	5:CC:90:GLU:HG2	1.87	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:601:C:H2'	1:CA:602:A:H8	1.52	0.75
25:BA:27:G:O2'	25:BA:28:A:H8	1.68	0.75
24:AX:138:GLY:HA3	24:AX:142:ALA:HB2	1.69	0.75
30:BG:71:THR:HG22	30:BG:89:GLY:O	1.86	0.75
25:BA:2886:G:H2'	25:BA:2887:U:H6	1.50	0.75
25:BA:1587:A:H2'	25:BA:1588:C:C6	2.22	0.75
41:DU:27:LEU:HD23	41:DU:31:SER:HB3	1.69	0.75
18:AP:18:ARG:HD3	18:AP:35:LYS:HD2	1.67	0.75
27:BD:112:GLN:O	27:BD:115:GLN:HG3	1.87	0.75
14:CL:56:LYS:HG2	14:CL:66:THR:HG22	1.67	0.75
27:BD:25:THR:HG21	27:BD:82:ILE:H	1.52	0.74
16:CN:27:CYS:SG	16:CN:29:ARG:HB2	2.27	0.74
28:DE:2:LYS:HD3	28:DE:95:ILE:HG22	1.69	0.74
25:DA:1542:G:H1'	25:DA:1543:A:C5	2.21	0.74
30:DG:96:ARG:O	30:DG:99:MET:HG2	1.87	0.74
25:DA:1336:A:H2'	25:DA:1337:G:C8	2.21	0.74
2:AZ:39:C:H4'	13:AK:54:ARG:HH21	1.52	0.74
1:AA:949:A:H1'	1:AA:1364:U:H3	1.51	0.74
32:BI:77:LEU:HD11	32:BI:101:LEU:HB2	1.68	0.74
31:DH:101:ARG:HE	31:DH:101:ARG:H	1.33	0.74
1:AA:17:U:H2'	1:AA:18:C:C6	2.21	0.74
29:BF:202:PHE:CE1	29:BF:206:ILE:HD11	2.22	0.74
54:D7:34:ARG:HG3	54:D7:34:ARG:NH1	1.90	0.74
25:DA:1316:U:H2'	25:DA:1317:A:C8	2.22	0.74
4:CB:19:HIS:CD2	4:CB:20:GLU:HG2	2.22	0.74
25:DA:2111:C:H42	25:DA:2148:G:N2	1.85	0.74
1:CA:1492:A:C5	24:CX:320:TRP:CH2	2.76	0.74
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.52	0.74
25:BA:2563:U:O2	25:BA:2565:A:H8	1.70	0.74
1:AA:192:U:H2'	1:AA:193:C:C6	2.22	0.74
25:BA:637:A:O5'	36:BP:116:GLY:HA2	1.87	0.74
25:DA:27:G:O2'	25:DA:28:A:H8	1.70	0.74
46:DZ:10:ARG:HH21	46:DZ:26:GLY:H	1.33	0.74
1:AA:9:G:H5'	7:AE:122:GLU:OE2	1.86	0.74
25:BA:1309:G:H4'	54:B7:7:PRO:HB2	1.68	0.74
25:DA:34:C:H2'	25:DA:35:G:H5'	1.69	0.74
25:BA:1301:A:H4'	25:BA:1302:A:OP1	1.85	0.74
41:DU:89:GLU:HG2	42:DV:50:PRO:HB3	1.69	0.74
15:AM:25:ILE:HD11	15:AM:66:LEU:HD13	1.68	0.74
39:DS:34:HIS:CG	39:DS:54:LEU:HG	2.22	0.74
25:DA:1046:A:H3'	25:DA:1047:G:H5''	1.68	0.74
1:CA:523:A:N6	14:CL:52:ARG:HH12	1.83	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CZ:44:A:H2'	2:CZ:45:G:C8	2.22	0.74
44:DX:50:LYS:H	44:DX:87:GLN:HE22	1.34	0.74
52:D5:4:HIS:HB2	52:D5:5:PRO:HD3	1.69	0.74
24:CX:240:LEU:HD23	24:CX:240:LEU:H	1.51	0.74
25:BA:2836:U:C4	25:BA:2883:A:N6	2.54	0.74
25:BA:2250:G:C6	37:BQ:82:ARG:HD2	2.21	0.74
25:BA:1174:A:H3'	25:BA:1175:U:H5''	1.67	0.74
25:BA:1316:U:H2'	25:BA:1317:A:C8	2.21	0.74
25:DA:363(C):G:H2'	25:DA:363(D):G:C8	2.22	0.74
6:AD:62:GLN:HE22	6:AD:65:ARG:NH1	1.86	0.74
25:DA:2645:G:H3'	25:DA:2646:C:H5'	1.70	0.74
25:BA:603:A:C2	25:BA:655:A:C6	2.75	0.74
5:AC:46:GLU:O	5:AC:47:LEU:HB2	1.86	0.74
43:BW:4:LYS:HG2	43:BW:106:ILE:HG22	1.68	0.74
25:DA:2296:U:H4'	25:DA:2297:C:OP1	1.86	0.74
15:CM:82:MET:HB2	15:CM:93:ARG:CZ	2.17	0.74
37:BQ:24:GLY:HA2	37:BQ:101:ARG:N	2.01	0.74
43:BW:68:ARG:HB2	43:BW:110:LYS:HB3	1.68	0.74
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.87	0.74
25:DA:2426:A:H3'	25:DA:2427:C:H5''	1.67	0.74
37:DQ:20:ALA:HB2	37:DQ:99:PRO:HD2	1.69	0.74
1:CA:17:U:H2'	1:CA:18:C:C6	2.22	0.74
47:B0:23:VAL:HA	47:B0:38:VAL:HG22	1.68	0.74
30:DG:71:THR:HG22	30:DG:89:GLY:O	1.87	0.74
36:BP:38:GLN:HG3	36:BP:39:LYS:H	1.51	0.74
31:BH:37:VAL:HG11	31:BH:72:ILE:HD11	1.70	0.74
1:CA:89:U:H2'	1:CA:90:C:H6	1.53	0.74
26:BB:86:G:H2'	26:BB:87:G:C8	2.22	0.74
33:DK:115:LEU:HD21	33:DK:126:MET:HE1	1.68	0.74
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.21	0.74
25:DA:27:G:HO2'	25:DA:28:A:H8	1.36	0.74
54:B7:8:ASN:HD22	54:B7:8:ASN:C	1.91	0.74
28:BE:151:TYR:HB3	34:BN:102:PRO:HG3	1.69	0.74
35:DO:17:ARG:HG2	35:DO:47:ILE:HD13	1.70	0.74
27:DD:70:TRP:CH2	27:DD:150:LYS:HA	2.23	0.74
40:DT:26:ASP:CB	40:DT:91:ARG:HA	2.17	0.74
36:BP:65:ARG:HH21	55:B8:15:LYS:CB	2.01	0.74
44:BX:55:ASN:HB2	44:BX:80:ILE:HG12	1.68	0.74
27:BD:24:ILE:HD11	27:BD:84:TYR:HB2	1.67	0.74
25:DA:1101:U:H2'	25:DA:1102:C:C6	2.21	0.74
43:DW:9:TYR:H	43:DW:102:HIS:HD2	1.33	0.74
25:BA:2712:U:H1'	25:BA:712(B):A:C8	2.23	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2378:A:O2'	39:DS:21:THR:HG21	1.87	0.74
5:CC:46:GLU:O	5:CC:47:LEU:HB2	1.86	0.74
31:BH:168:PRO:HG2	31:BH:170:ARG:HD3	1.69	0.74
36:BP:50:ARG:HG2	36:BP:51:PHE:H	1.48	0.74
27:BD:70:TRP:CD1	27:BD:70:TRP:C	2.60	0.74
25:BA:2125:G:N2	25:BA:2173:A:H62	1.86	0.74
1:AA:1015:A:H2'	1:AA:1016:A:H8	1.50	0.74
25:BA:2720:U:H2'	25:BA:2721:A:C8	2.22	0.74
28:DE:48:GLN:HE22	28:DE:66:HIS:CE1	2.05	0.74
37:DQ:75:THR:HA	37:DQ:88:GLY:HA3	1.68	0.74
25:DA:1188:U:O2'	25:DA:1189:A:H5'	1.88	0.74
25:BA:1101:U:H2'	25:BA:1102:C:C6	2.21	0.74
37:BQ:20:ALA:HB2	37:BQ:99:PRO:HD2	1.69	0.74
26:DB:86:G:H2'	26:DB:87:G:C8	2.21	0.74
1:CA:716:A:H1'	13:CK:118:GLY:HA2	1.69	0.74
49:D2:47:ASN:O	49:D2:49:LYS:N	2.21	0.74
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.23	0.74
43:BW:19:LEU:HB3	52:B5:25:LEU:HD11	1.69	0.74
1:CA:464:G:O6	1:CA:466:G:H5''	1.86	0.74
22:AT:56:MET:HG3	22:AT:88:VAL:HG21	1.68	0.74
25:DA:1829:A:H5''	25:DA:1830:C:OP2	1.88	0.74
25:DA:197:A:H5'	25:DA:197:A:C8	2.23	0.74
39:DS:85:VAL:HG11	39:DS:106:ARG:NH2	2.03	0.74
25:DA:276:A:H2'	25:DA:277:C:C4	2.23	0.74
1:CA:1228:C:H4'	15:CM:116:THR:O	1.88	0.74
36:DP:65:ARG:HH21	55:D8:15:LYS:CB	2.00	0.74
12:CJ:75:ILE:HG13	12:CJ:76:ASN:N	2.00	0.74
21:CS:63:THR:HG22	21:CS:66:MET:HE3	1.70	0.74
34:BN:112:LYS:O	34:BN:116:THR:HG22	1.87	0.74
24:AX:301:ARG:NH2	24:AX:304:ARG:HG2	2.03	0.74
32:BI:4:ILE:HD12	32:BI:17:GLN:O	1.87	0.74
46:DZ:108:PRO:HB3	46:DZ:144:LEU:HB2	1.68	0.74
25:BA:1829:A:H5''	25:BA:1830:C:OP2	1.86	0.74
25:BA:1046:A:H3'	25:BA:1047:G:H5''	1.70	0.73
36:BP:71:VAL:HB	36:BP:72:PRO:HD3	1.69	0.73
2:CY:23:C:H2'	2:CY:24:U:C6	2.23	0.73
39:BS:14:VAL:O	39:BS:18:ILE:HG12	1.88	0.73
25:DA:2468:G:O2'	25:DA:2469:A:H5'	1.88	0.73
29:DF:178:PRO:HB2	29:DF:201:VAL:HG11	1.68	0.73
36:DP:80:TYR:CD1	36:DP:111:ARG:HB3	2.22	0.73
25:BA:1981:A:H5''	25:BA:1982:C:OP2	1.86	0.73
2:AZ:47:U:H5'	2:AZ:48:C:H5'	1.68	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1971:A:C4	27:DD:241:PRO:HG3	2.22	0.73
25:BA:1542:G:H5'	25:BA:1542:G:N3	2.03	0.73
33:DK:72:PRO:HB2	33:DK:76:TYR:CD2	2.22	0.73
25:BA:2462:U:H1'	25:BA:2491:U:O4	1.88	0.73
1:AA:601:C:H2'	1:AA:602:A:H8	1.53	0.73
25:DA:1587:A:H2'	25:DA:1588:C:C6	2.22	0.73
36:DP:45:LEU:HD23	36:DP:46:LYS:N	2.04	0.73
54:B7:19:ARG:HH11	54:B7:19:ARG:CG	2.00	0.73
27:BD:70:TRP:CH2	27:BD:150:LYS:HA	2.22	0.73
30:BG:91:ARG:NH1	30:BG:91:ARG:HB3	2.03	0.73
25:DA:2275:C:H5'	25:DA:2275:C:C6	2.23	0.73
41:DU:27:LEU:CD2	41:DU:31:SER:HB3	2.18	0.73
6:AD:149:ALA:O	6:AD:153:ARG:HG3	1.88	0.73
37:DQ:10:ARG:HE	37:DQ:10:ARG:HA	1.51	0.73
24:AX:209:ASP:OD1	24:AX:213:ARG:HG2	1.89	0.73
41:DU:95:LEU:HD13	42:DV:4:ILE:HD12	1.69	0.73
25:DA:2462:U:H1'	25:DA:2491:U:O4	1.89	0.73
25:BA:1216:G:N2	25:BA:1234:U:H1'	2.03	0.73
32:DI:123:LEU:HD23	32:DI:124:GLY:N	2.04	0.73
25:BA:96:G:H4'	49:B2:48:HIS:CD2	2.23	0.73
36:DP:62:LEU:O	36:DP:62:LEU:HD22	1.88	0.73
7:AE:78:HIS:CE1	7:AE:143:ARG:H	2.04	0.73
48:D1:51:VAL:HG21	48:D1:74:VAL:HG21	1.70	0.73
32:BI:53:ALA:O	32:BI:57:ARG:HB2	1.88	0.73
45:DY:81:LYS:HB3	45:DY:97:ARG:HB3	1.68	0.73
26:DB:75:G:H1'	46:DZ:27:VAL:HG21	1.70	0.73
29:DF:202:PHE:CE1	29:DF:206:ILE:HD11	2.23	0.73
1:AA:353:A:H5'	1:AA:353:A:H8	1.51	0.73
25:BA:2645:G:H3'	25:BA:2646:C:H5'	1.69	0.73
25:BA:2564:A:C2	25:BA:2647:U:H4'	2.24	0.73
33:DK:112:MET:N	33:DK:113:PRO:HD2	2.03	0.73
27:DD:70:TRP:CD1	27:DD:70:TRP:C	2.61	0.73
48:D1:86:SER:O	48:D1:90:ILE:HG12	1.87	0.73
45:DY:81:LYS:NZ	45:DY:98:VAL:HG12	2.03	0.73
25:BA:2853:C:H2'	25:BA:2854:G:C8	2.24	0.73
25:DA:910:A:C5	37:DQ:13:GLN:HG3	2.24	0.73
37:DQ:9:TYR:O	37:DQ:9:TYR:HD2	1.71	0.73
42:BV:77:ALA:O	42:BV:79:VAL:HG23	1.87	0.73
41:BU:90:VAL:HG22	41:BU:91:ASP:N	2.02	0.73
25:BA:2275:C:H5'	25:BA:2275:C:C6	2.23	0.73
6:CD:196:LEU:HB3	6:CD:198:VAL:HG22	1.70	0.73
25:DA:2720:U:H2'	25:DA:2721:A:C8	2.22	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DG:28:VAL:O	30:DG:31:VAL:HG12	1.88	0.73
1:CA:677:U:H3	1:CA:713:G:H22	1.36	0.73
25:BA:49:A:H5''	25:BA:51:G:O4'	1.88	0.73
45:DY:75:ILE:HA	45:DY:80:GLY:HA2	1.70	0.73
24:AX:27:GLY:HA2	24:AX:30:PHE:CE2	2.24	0.73
25:BA:591:C:O2	55:B8:2:PRO:HA	1.89	0.73
31:BH:101:ARG:H	31:BH:101:ARG:HE	1.37	0.73
25:BA:1336:A:H2'	25:BA:1337:G:C8	2.24	0.73
27:DD:25:THR:HG21	27:DD:82:ILE:H	1.51	0.73
15:AM:82:MET:HB2	15:AM:93:ARG:CZ	2.18	0.73
1:CA:33:A:H2'	1:CA:34:C:H6	1.50	0.73
25:DA:782:A:H5'	25:DA:783:A:C2	2.23	0.73
1:AA:1127:G:N2	1:AA:1146:A:H62	1.86	0.73
1:CA:530:G:N2	1:CA:1492:A:H61	1.86	0.73
24:AX:190:TYR:HE1	24:AX:224:ILE:HA	1.53	0.73
46:BZ:151:HIS:HA	46:BZ:170:THR:HA	1.70	0.73
1:AA:716:A:H1'	13:AK:118:GLY:HA2	1.71	0.73
25:DA:2331:G:H4'	47:D0:43:THR:H	1.54	0.73
34:BN:157:ARG:N	34:BN:158:PRO:HD3	2.04	0.73
1:AA:1356:G:H2'	1:AA:1357:A:H8	1.53	0.73
1:CA:1127:G:N2	1:CA:1146:A:H62	1.87	0.73
39:DS:51:ALA:HB3	39:DS:73:LEU:HG	1.69	0.73
5:CC:72:LYS:HG2	5:CC:75:VAL:HG23	1.71	0.73
31:BH:51:ARG:HG2	31:BH:52:VAL:H	1.53	0.73
25:DA:1511:A:H2'	25:DA:1512:G:O4'	1.88	0.73
9:AG:133:GLY:HA2	9:AG:136:LYS:HD2	1.69	0.73
24:CX:35:LYS:HD3	24:CX:71:THR:HG22	1.69	0.73
12:CJ:57:LYS:O	12:CJ:58:ASP:HB3	1.87	0.73
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.23	0.73
37:DQ:24:GLY:HA2	37:DQ:101:ARG:N	2.03	0.73
25:DA:2125:G:N2	25:DA:2173:A:H62	1.85	0.73
44:DX:34:ALA:HA	44:DX:38:GLU:OE2	1.88	0.73
7:CE:57:LYS:O	7:CE:61:TYR:HD2	1.71	0.73
33:BK:112:MET:N	33:BK:113:PRO:HD2	2.04	0.73
30:DG:72:ARG:HB3	30:DG:85:GLY:O	1.89	0.73
44:BX:8:ILE:H	44:BX:8:ILE:HD12	1.54	0.73
28:DE:36:ARG:HH21	28:DE:88:GLY:HA2	1.52	0.73
53:D6:24:GLU:CD	53:D6:25:LYS:H	1.93	0.73
45:DY:4:LYS:H	45:DY:4:LYS:HD3	1.54	0.73
25:BA:83:G:H1	25:BA:102:G:H2'	1.54	0.73
30:DG:124:SER:HB2	30:DG:131:TYR:CE1	2.23	0.73
27:DD:108:PRO:HG2	27:DD:111:LEU:HG	1.71	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:47:ILE:HG22	37:BQ:48:GLU:N	2.03	0.73
14:AL:109:VAL:CG2	14:AL:119:TYR:HB3	2.18	0.73
1:AA:986:A:H1'	21:AS:54:GLY:O	1.87	0.73
33:DK:110:GLN:HE21	33:DK:110:GLN:HA	1.54	0.73
25:DA:2243:U:H2'	25:DA:2244:U:H6	1.54	0.73
24:CX:27:GLY:HA2	24:CX:30:PHE:CE2	2.24	0.73
29:DF:167:ALA:HB1	29:DF:173:VAL:HG11	1.71	0.73
48:D1:11:ARG:CB	48:D1:12:PRO:HD2	2.08	0.72
36:BP:45:LEU:HD23	36:BP:46:LYS:N	2.04	0.72
30:BG:41:GLN:HG2	30:BG:155:MET:HB3	1.71	0.72
52:D5:40:LYS:NZ	52:D5:46:CYS:H	1.85	0.72
4:CB:24:TRP:HZ3	4:CB:26:PRO:HA	1.53	0.72
25:DA:1499:C:H2'	25:DA:1500:G:C8	2.24	0.72
28:BE:131:ALA:O	28:BE:133:LYS:N	2.20	0.72
44:BX:60:ARG:NH2	54:B7:47:ARG:HH11	1.86	0.72
29:DF:111:ALA:HB2	29:DF:206:ILE:HD13	1.71	0.72
25:DA:302:C:H2'	25:DA:303:U:H6	1.54	0.72
25:BA:1533:C:H2'	25:BA:1534:G:O4'	1.89	0.72
29:BF:29:ASN:HB3	29:BF:112:MET:HE1	1.71	0.72
24:CX:209:ASP:OD1	24:CX:213:ARG:HG2	1.89	0.72
1:CA:1260:C:H6	1:CA:1260:C:H3'	1.54	0.72
36:BP:125:VAL:O	36:BP:145:PRO:HD2	1.89	0.72
39:BS:25:ARG:HG2	39:BS:88:ASP:HB2	1.69	0.72
46:BZ:10:ARG:HH21	46:BZ:26:GLY:H	1.35	0.72
32:DI:27:ARG:HG2	32:DI:27:ARG:HH11	1.54	0.72
30:BG:39:ILE:HG22	30:BG:40:ASN:H	1.54	0.72
25:BA:2111:C:H42	25:BA:2148:G:N2	1.86	0.72
4:AB:29:ALA:HA	4:AB:32:ILE:HD13	1.72	0.72
30:BG:139:LEU:HA	30:BG:144:ILE:HG21	1.71	0.72
11:CI:9:ARG:HG2	11:CI:14:VAL:HG13	1.70	0.72
2:AZ:17:C:H3'	2:AZ:17(A):U:H3'	1.71	0.72
33:BK:110:GLN:HA	33:BK:110:GLN:HE21	1.54	0.72
17:CO:33:THR:HA	17:CO:63:ARG:HH11	1.54	0.72
30:DG:39:ILE:HG22	30:DG:40:ASN:H	1.55	0.72
39:DS:56:LEU:HD23	39:DS:58:LEU:HD11	1.71	0.72
25:DA:83:G:H1	25:DA:102:G:H2'	1.53	0.72
6:AD:62:GLN:HE22	6:AD:65:ARG:HH11	1.35	0.72
25:DA:2491:U:H5'	25:DA:2491:U:H6	1.54	0.72
27:DD:112:GLN:O	27:DD:115:GLN:HG3	1.88	0.72
46:DZ:151:HIS:HA	46:DZ:170:THR:HA	1.72	0.72
26:BB:75:G:H1'	46:BZ:27:VAL:HG21	1.71	0.72
45:BY:75:ILE:HA	45:BY:80:GLY:HA2	1.69	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CM:5:ALA:HB3	15:CM:8:GLU:HB2	1.71	0.72
6:AD:166:LYS:HD2	6:AD:166:LYS:O	1.88	0.72
1:AA:89:U:H2'	1:AA:90:C:H6	1.53	0.72
27:BD:25:THR:HG23	27:BD:25:THR:O	1.87	0.72
25:BA:1173:G:H2'	25:BA:1175:U:H5'	1.71	0.72
32:BI:72:LEU:HD12	32:BI:140:LEU:HD13	1.71	0.72
24:CX:190:TYR:HE1	24:CX:224:ILE:HA	1.53	0.72
46:DZ:104:PHE:HB3	46:DZ:141:VAL:HG11	1.71	0.72
1:CA:986:A:H1'	21:CS:54:GLY:O	1.90	0.72
7:AE:57:LYS:O	7:AE:61:TYR:HD2	1.72	0.72
25:BA:2729:G:H1'	28:BE:187:ALA:HB2	1.71	0.72
25:BA:1778:U:H2'	25:BA:1784:A:N6	2.04	0.72
49:D2:9:GLN:HA	49:D2:12:GLU:HB3	1.72	0.72
27:DD:31:LYS:HG3	27:DD:33:LEU:HG	1.72	0.72
29:DF:22:ALA:HB1	29:DF:24:LEU:HD13	1.71	0.72
37:BQ:10:ARG:NE	37:BQ:10:ARG:HA	2.03	0.72
44:DX:35:THR:O	44:DX:39:ILE:HG12	1.88	0.72
25:DA:848:G:H2'	25:DA:849:A:C8	2.25	0.72
45:BY:50:ARG:HD3	45:BY:51:VAL:N	2.04	0.72
1:AA:359:U:H2'	1:AA:360:A:C8	2.24	0.72
46:BZ:115:GLY:HA2	46:BZ:177:PRO:HG3	1.70	0.72
25:BA:2331:G:H4'	47:B0:43:THR:H	1.54	0.72
35:BO:17:ARG:HG2	35:BO:47:ILE:HD13	1.72	0.72
25:DA:807:U:OP2	36:DP:39:LYS:HG3	1.89	0.72
49:B2:47:ASN:O	49:B2:49:LYS:N	2.22	0.72
25:DA:1047:G:H5'	25:DA:1047:G:C8	2.23	0.72
32:DI:109:ILE:HB	32:DI:130:TYR:CZ	2.24	0.72
25:BA:1599:C:OP1	44:BX:36:LYS:HG3	1.89	0.72
49:D2:1:MET:SD	49:D2:1:MET:O	2.47	0.72
25:BA:1209:G:H21	25:BA:1210:A:H62	1.35	0.72
25:BA:1076:C:H1'	33:BK:91:PRO:HD2	1.71	0.72
25:BA:1188:U:O2'	25:BA:1189:A:H5'	1.89	0.72
39:DS:25:ARG:HG2	39:DS:88:ASP:HB2	1.71	0.72
6:AD:30:LYS:C	6:AD:32:ALA:H	1.90	0.72
21:CS:53:ASN:HD22	21:CS:55:LYS:H	1.38	0.72
37:BQ:9:TYR:HD2	37:BQ:9:TYR:O	1.72	0.72
25:DA:1929:G:H4'	25:DA:1930:G:OP1	1.89	0.72
1:CA:1442:G:N7	1:CA:1446:A:H2	1.88	0.72
1:AA:721:G:H4'	1:AA:722:A:O5'	1.87	0.72
1:CA:192:U:H2'	1:CA:193:C:C6	2.23	0.72
25:BA:2853:C:H2'	25:BA:2854:G:H8	1.53	0.72
25:DA:221:A:H4'	25:DA:222:A:O5'	1.89	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DD:12:SER:HB2	27:DD:208:LYS:HB3	1.72	0.72
30:BG:72:ARG:HB3	30:BG:85:GLY:O	1.90	0.72
38:BR:67:LEU:HD23	38:BR:76:VAL:HG11	1.69	0.72
28:DE:151:TYR:HB3	34:DN:102:PRO:HG3	1.69	0.72
41:BU:83:LEU:HB3	41:BU:88:ILE:HG13	1.71	0.72
25:BA:2212:A:H1'	25:BA:2215:G:C4	2.25	0.72
25:BA:679:C:H2'	25:BA:680:G:H8	1.53	0.72
6:AD:28:SER:HB3	6:AD:29:PRO:HD2	1.71	0.72
25:DA:1973:G:H2'	25:DA:1974:C:H6	1.55	0.72
4:CB:60:ASP:O	4:CB:64:ARG:HG2	1.88	0.72
43:DW:4:LYS:HG2	43:DW:106:ILE:HG22	1.70	0.72
45:BY:81:LYS:NZ	45:BY:98:VAL:HG12	2.05	0.72
2:AY:23:C:H2'	2:AY:24:U:H6	1.54	0.72
13:CK:57:THR:HG22	13:CK:59:TYR:H	1.54	0.72
25:BA:221:A:H4'	25:BA:222:A:O5'	1.89	0.72
25:BA:1177:A:H2'	25:BA:1178:C:O4'	1.89	0.72
45:BY:4:LYS:H	45:BY:4:LYS:HD3	1.52	0.72
26:DB:89(A):G:H2'	26:DB:89(B):A:C8	2.25	0.72
31:DH:168:PRO:HG2	31:DH:170:ARG:HD3	1.72	0.72
24:CX:301:ARG:NH2	24:CX:304:ARG:HG2	2.05	0.72
25:DA:1533:C:H2'	25:DA:1534:G:O4'	1.90	0.72
20:CR:56:THR:HB	20:CR:58:LEU:HD13	1.70	0.72
18:CP:20:VAL:HG21	18:CP:32:TYR:CG	2.25	0.72
15:CM:25:ILE:HD11	15:CM:66:LEU:HD13	1.70	0.72
25:BA:1047:G:C8	25:BA:1047:G:H5'	2.24	0.72
1:AA:1126:U:H2'	1:AA:1127:G:C8	2.23	0.72
2:CZ:37:A:H2'	2:CZ:38:A:C8	2.25	0.72
37:BQ:22:LYS:HA	37:BQ:22:LYS:HZ3	1.53	0.72
6:AD:64:LEU:HD13	6:AD:198:VAL:HG21	1.72	0.72
22:AT:53:LEU:HD13	22:AT:102:GLY:HA3	1.72	0.72
45:BY:81:LYS:HB3	45:BY:97:ARG:HB3	1.70	0.72
25:BA:2572:A:H62	28:BE:145:LYS:HG3	1.54	0.72
25:DA:2729:G:H1'	28:DE:187:ALA:HB2	1.70	0.72
25:BA:302:C:H2'	25:BA:303:U:H6	1.55	0.72
1:AA:1442:G:N7	1:AA:1446:A:H2	1.86	0.72
25:BA:2784:C:H1'	28:BE:37:ARG:NH1	2.03	0.71
53:D6:11:LEU:HD13	53:D6:12:GLU:N	2.05	0.71
37:DQ:24:GLY:HA2	37:DQ:101:ARG:CA	2.20	0.71
22:CT:82:SER:O	22:CT:86:ARG:HB3	1.90	0.71
28:BE:48:GLN:HE22	28:BE:66:HIS:CE1	2.08	0.71
1:AA:1260:C:H6	1:AA:1260:C:H3'	1.55	0.71
42:BV:99:ILE:H	42:BV:99:ILE:HD13	1.56	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BP:80:TYR:CD1	36:BP:111:ARG:HB3	2.24	0.71
25:BA:586:A:H5'	29:BF:89:VAL:HG21	1.72	0.71
19:CQ:9:VAL:HG13	19:CQ:56:VAL:HG22	1.72	0.71
27:DD:132:PRO:HD3	27:DD:190:TYR:CE2	2.25	0.71
45:DY:50:ARG:HD3	45:DY:51:VAL:N	2.05	0.71
25:BA:1937:A:O2'	25:BA:1938:A:H5'	1.90	0.71
6:CD:28:SER:HB3	6:CD:29:PRO:HD2	1.72	0.71
25:BA:2468:G:O2'	25:BA:2469:A:H5'	1.90	0.71
27:BD:31:LYS:HG3	27:BD:33:LEU:HG	1.72	0.71
25:BA:782:A:H5'	25:BA:783:A:C2	2.25	0.71
1:CA:826:C:H4'	10:CH:12:ARG:HD3	1.70	0.71
38:BR:8:ARG:HG2	38:BR:9:LYS:H	1.55	0.71
55:B8:39:LYS:O	55:B8:43:GLN:HG3	1.89	0.71
41:DU:91:ASP:OD1	41:DU:96:ALA:HB2	1.90	0.71
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.26	0.71
4:AB:24:TRP:HZ3	4:AB:26:PRO:HA	1.53	0.71
1:CA:580:U:H2'	1:CA:581:G:O4'	1.90	0.71
25:BA:2593:U:H2'	25:BA:2594:C:C6	2.24	0.71
39:DS:49:VAL:HG12	39:DS:73:LEU:HD23	1.72	0.71
36:BP:94:GLU:HG3	36:BP:124:LYS:HB3	1.72	0.71
8:AF:11:ASN:O	8:AF:14:LEU:HD22	1.91	0.71
25:BA:2537:U:H2'	25:BA:2538:C:C6	2.26	0.71
42:DV:99:ILE:H	42:DV:99:ILE:HD13	1.55	0.71
25:DA:637:A:O5'	36:DP:116:GLY:HA2	1.89	0.71
25:DA:2853:C:H2'	25:DA:2854:G:H8	1.55	0.71
25:DA:591:C:O2	55:D8:2:PRO:HA	1.90	0.71
22:CT:26:ASN:HB3	22:CT:71:THR:CG2	2.19	0.71
27:DD:25:THR:O	27:DD:25:THR:HG23	1.90	0.71
24:CX:49:PRO:HG3	33:DK:29:GLN:HB2	1.72	0.71
53:B6:24:GLU:CD	53:B6:25:LYS:H	1.93	0.71
24:CX:195:PRO:HB2	24:CX:362:LEU:HB3	1.72	0.71
24:CX:358:ILE:HA	24:CX:362:LEU:HD23	1.72	0.71
8:CF:11:ASN:O	8:CF:14:LEU:HD22	1.90	0.71
25:BA:2296:U:H4'	25:BA:2297:C:OP1	1.89	0.71
10:AH:89:PRO:HA	10:AH:92:ARG:HH11	1.55	0.71
10:CH:86:ILE:HG21	10:CH:133:LEU:HD13	1.72	0.71
41:BU:92:ARG:HD2	41:BU:94:ASN:CB	2.19	0.71
25:DA:2286:A:H2'	53:D6:32:ASN:HD21	1.54	0.71
25:DA:1173:G:H2'	25:DA:1175:U:H5'	1.71	0.71
25:DA:1177:A:H2'	25:DA:1178:C:O4'	1.91	0.71
5:AC:24:ALA:HB1	5:AC:28:GLN:HB2	1.72	0.71
28:BE:47:VAL:HG21	28:BE:86:PRO:HD2	1.72	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:79:ARG:O	36:DP:111:ARG:HB2	1.90	0.71
29:DF:29:ASN:HB3	29:DF:112:MET:HE1	1.70	0.71
31:BH:55:PRO:HG2	31:BH:61:HIS:CD2	2.26	0.71
33:DK:93:ARG:HD2	33:DK:93:ARG:H	1.56	0.71
25:DA:1314:C:H6	25:DA:1314:C:H5'	1.54	0.71
25:BA:1028:A:H1'	25:BA:2487:G:H5'	1.73	0.71
12:AJ:49:VAL:HG23	16:AN:41:ARG:HB2	1.72	0.71
37:BQ:24:GLY:HA2	37:BQ:101:ARG:CA	2.21	0.71
1:CA:382:A:H2'	1:CA:383:A:H8	1.51	0.71
43:BW:73:ALA:HB3	43:BW:106:ILE:HD11	1.71	0.71
2:AY:23:C:H2'	2:AY:24:U:C6	2.24	0.71
1:CA:1381:U:H5	1:CA:1382:C:C4	2.08	0.71
6:CD:149:ALA:O	6:CD:153:ARG:HG3	1.91	0.71
38:DR:67:LEU:HD23	38:DR:76:VAL:HG11	1.72	0.71
25:BA:2286:A:H2'	53:B6:32:ASN:HD21	1.56	0.71
28:DE:201:THR:HG22	28:DE:202:LYS:N	2.06	0.71
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.56	0.71
1:AA:530:G:N2	1:AA:1492:A:H61	1.88	0.71
36:DP:71:VAL:HB	36:DP:72:PRO:HD3	1.70	0.71
52:B5:4:HIS:HB2	52:B5:5:PRO:HD3	1.73	0.71
25:BA:34:C:H2'	25:BA:35:G:H5'	1.71	0.71
43:DW:13:SER:HB3	43:DW:16:LYS:HD2	1.72	0.71
30:DG:41:GLN:HG2	30:DG:155:MET:HB3	1.72	0.71
1:AA:580:U:H2'	1:AA:581:G:O4'	1.91	0.71
25:DA:2563:U:O2	25:DA:2565:A:H8	1.73	0.71
2:CZ:43:A:H2'	2:CZ:44:A:C8	2.26	0.71
25:DA:2864:G:OP1	40:DT:119:LYS:HD2	1.91	0.71
11:AI:9:ARG:HG2	11:AI:14:VAL:HG13	1.73	0.71
1:AA:1381:U:H5	1:AA:1382:C:C4	2.09	0.71
10:AH:126:LYS:HB3	10:AH:127:LEU:HD22	1.72	0.71
9:CG:133:GLY:HA2	9:CG:136:LYS:HD2	1.72	0.71
29:BF:167:ALA:HB1	29:BF:173:VAL:HG11	1.73	0.71
20:CR:19:LYS:HA	20:CR:19:LYS:HE3	1.73	0.71
25:DA:1771:C:HO2'	25:DA:1786:A:H8	1.39	0.71
6:CD:62:GLN:HE22	6:CD:65:ARG:NH1	1.88	0.71
36:DP:49:ARG:HH11	36:DP:49:ARG:CG	2.03	0.71
12:AJ:8:LEU:HG	12:AJ:96:ILE:HG22	1.71	0.71
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.25	0.71
25:DA:2853:C:H2'	25:DA:2854:G:C8	2.26	0.71
25:DA:919:G:H5'	26:DB:81:G:H1'	1.73	0.71
13:AK:21:ILE:HA	13:AK:30:VAL:HG12	1.73	0.71
25:DA:2564:A:C2	25:DA:2647:U:H4'	2.25	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:150:C:H2'	25:BA:151:C:C6	2.26	0.71
27:BD:118:VAL:HG22	27:BD:119:ALA:H	1.55	0.71
2:CZ:17:C:H3'	2:CZ:17(A):U:H3'	1.70	0.71
25:BA:587:C:C5	36:BP:33:ARG:HD3	2.25	0.71
25:BA:2287:A:N6	25:BA:2344:U:N3	2.39	0.71
17:AO:87:ILE:HG22	17:AO:88:ARG:N	2.04	0.71
40:BT:26:ASP:CB	40:BT:91:ARG:HA	2.19	0.71
1:AA:1332:A:H2'	1:AA:1333:A:C8	2.26	0.71
27:BD:108:PRO:HG2	27:BD:111:LEU:HG	1.72	0.71
37:DQ:10:ARG:HA	37:DQ:10:ARG:NE	2.06	0.71
11:AI:79:LEU:HD13	11:AI:83:ARG:HD2	1.73	0.71
28:BE:24:THR:HG23	28:BE:184:VAL:HG23	1.73	0.71
30:DG:139:LEU:HA	30:DG:144:ILE:HG21	1.71	0.71
27:BD:12:SER:HB2	27:BD:208:LYS:HB3	1.73	0.71
42:BV:39:LEU:HB3	42:BV:47:VAL:CG2	2.15	0.70
24:CX:338:ARG:HB3	24:CX:369:ARG:NH2	2.03	0.70
25:DA:2580:U:H5'	28:DE:131:ALA:HB2	1.72	0.70
1:CA:359:U:H2'	1:CA:360:A:H8	1.53	0.70
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.56	0.70
27:DD:24:ILE:HD11	27:DD:84:TYR:HB2	1.72	0.70
36:DP:88:LEU:HD11	36:DP:95:VAL:HG11	1.71	0.70
17:AO:33:THR:HA	17:AO:63:ARG:HH11	1.56	0.70
25:BA:195:A:OP1	36:BP:46:LYS:HE2	1.92	0.70
28:BE:201:THR:HG22	28:BE:202:LYS:N	2.05	0.70
25:DA:1028:A:H1'	25:DA:2487:G:H5'	1.73	0.70
36:BP:146:VAL:HG22	36:BP:147:LEU:H	1.56	0.70
1:CA:579:G:H4'	17:CO:54:ARG:HH21	1.55	0.70
30:BG:96:ARG:O	30:BG:99:MET:HG2	1.91	0.70
1:CA:736:C:H2'	1:CA:737:A:C8	2.26	0.70
1:CA:1101:A:H4'	1:CA:1102:A:O5'	1.91	0.70
25:DA:1937:A:O2'	25:DA:1938:A:H5'	1.92	0.70
25:DA:18:C:H2'	25:DA:19:C:H6	1.56	0.70
25:DA:1941:C:H6	25:DA:1941:C:H5'	1.54	0.70
19:CQ:86:GLU:O	19:CQ:90:ILE:HG12	1.91	0.70
41:DU:83:LEU:HB3	41:DU:88:ILE:HG13	1.73	0.70
27:DD:35:LYS:HB2	27:DD:36:PRO:HD3	1.73	0.70
24:AX:128:ASN:HA	24:AX:189:ALA:HB3	1.73	0.70
2:AZ:37:A:H2'	2:AZ:38:A:C8	2.26	0.70
22:CT:53:LEU:HD13	22:CT:102:GLY:HA3	1.73	0.70
1:CA:826:C:H2'	1:CA:827:U:H6	1.56	0.70
45:BY:76:CYS:SG	45:BY:77:PRO:HD2	2.31	0.70
28:BE:36:ARG:HH21	28:BE:88:GLY:HA2	1.54	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BI:52:ARG:HG3	32:BI:52:ARG:HH11	1.53	0.70
1:CA:1493:A:C6	25:DA:1913:A:C8	2.79	0.70
31:DH:55:PRO:HG2	31:DH:61:HIS:CD2	2.26	0.70
17:AO:39:LEU:HD12	17:AO:56:LEU:HB2	1.72	0.70
8:AF:37:VAL:HA	8:AF:65:VAL:HG12	1.72	0.70
28:BE:37:ARG:O	28:BE:45:THR:HA	1.91	0.70
27:DD:238:GLY:O	27:DD:239:ARG:C	2.29	0.70
1:CA:1231:G:H2'	1:CA:1232:U:H6	1.56	0.70
1:AA:1231:G:H2'	1:AA:1232:U:H6	1.55	0.70
1:CA:1356:G:H2'	1:CA:1357:A:H8	1.53	0.70
25:BA:9:U:H2'	25:BA:2629:A:N6	2.07	0.70
49:B2:1:MET:SD	49:B2:1:MET:O	2.48	0.70
36:DP:58:THR:C	36:DP:60:MET:H	1.92	0.70
22:AT:82:SER:O	22:AT:86:ARG:HB3	1.92	0.70
44:BX:34:ALA:HA	44:BX:38:GLU:OE2	1.90	0.70
1:AA:192:U:O4'	22:AT:103:GLY:HA2	1.92	0.70
45:DY:96:ILE:HG12	45:DY:99:CYS:H	1.56	0.70
25:BA:910:A:C5	37:BQ:13:GLN:HG3	2.26	0.70
1:CA:1152:A:H5'	12:CJ:13:HIS:CD2	2.26	0.70
34:BN:148:GLY:HA3	34:BN:149:PRO:O	1.91	0.70
41:BU:27:LEU:CD2	41:BU:31:SER:HB3	2.22	0.70
1:AA:677:U:H3	1:AA:713:G:H22	1.37	0.70
37:DQ:47:ILE:HG22	37:DQ:48:GLU:N	2.06	0.70
25:BA:2502:G:H5'	25:BA:2503:A:H5''	1.73	0.70
25:BA:1511:A:H2'	25:BA:1512:G:O4'	1.91	0.70
29:BF:40:GLN:HE22	29:BF:182:ASN:HB2	1.57	0.70
4:AB:187:LEU:HD22	4:AB:205:ASP:HB3	1.74	0.70
10:CH:89:PRO:HA	10:CH:92:ARG:HH11	1.57	0.70
49:D2:2:LYS:HA	49:D2:5:GLU:OE2	1.92	0.70
44:DX:60:ARG:NH2	54:D7:47:ARG:HH11	1.90	0.70
25:DA:586:A:H5'	29:DF:89:VAL:HG21	1.73	0.70
2:CZ:50:U:H2'	2:CZ:51:C:C6	2.26	0.70
36:DP:50:ARG:HG2	36:DP:51:PHE:H	1.53	0.70
52:B5:40:LYS:NZ	52:B5:46:CYS:H	1.90	0.70
25:DA:1599:C:OP1	44:DX:36:LYS:HG3	1.91	0.70
32:BI:91:SER:OG	32:BI:119:PRO:HB2	1.92	0.70
42:BV:52:VAL:HG11	42:BV:55:ALA:HB3	1.73	0.70
29:DF:45:ARG:HH11	29:DF:45:ARG:CG	2.03	0.70
48:B1:27:GLU:HB3	48:B1:33:LYS:HG3	1.73	0.70
27:BD:69:ARG:O	27:BD:70:TRP:HB3	1.90	0.70
45:DY:8:LYS:HD2	45:DY:8:LYS:C	2.11	0.70
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.26	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BF:185:ASP:HA	29:BF:188:ARG:HD3	1.73	0.70
36:DP:16:ARG:HE	36:DP:16:ARG:C	1.95	0.70
25:DA:203:C:C3'	25:DA:203:C:C6	2.74	0.70
29:BF:181:LEU:HD22	29:BF:186:ILE:HD11	1.74	0.70
38:DR:8:ARG:HG2	38:DR:9:LYS:H	1.55	0.70
25:BA:848:G:H2'	25:BA:849:A:C8	2.26	0.70
2:AZ:43:A:H2'	2:AZ:44:A:C8	2.27	0.70
25:DA:2243:U:H2'	25:DA:2244:U:C6	2.27	0.70
25:DA:1932:A:H2'	25:DA:1933:G:O4'	1.92	0.70
19:AQ:9:VAL:HG13	19:AQ:56:VAL:HG22	1.72	0.70
25:BA:2864:G:OP1	40:BT:119:LYS:HD2	1.92	0.70
25:DA:2001:A:H2'	25:DA:2002:G:C8	2.27	0.70
25:DA:2028:U:H2'	25:DA:2029:G:C8	2.27	0.70
1:CA:922:G:H2'	1:CA:923:A:C8	2.27	0.70
25:DA:1047:G:H8	25:DA:1047:G:H5'	1.57	0.70
24:CX:128:ASN:HA	24:CX:189:ALA:HB3	1.72	0.70
1:CA:192:U:O4'	22:CT:103:GLY:HA2	1.91	0.70
25:BA:2491:U:H6	25:BA:2491:U:H5'	1.56	0.70
2:AZ:50:U:H2'	2:AZ:51:C:C6	2.26	0.70
20:AR:56:THR:HB	20:AR:58:LEU:HD13	1.73	0.70
11:CI:79:LEU:HD13	11:CI:83:ARG:HD2	1.74	0.70
27:DD:10:THR:O	27:DD:13:ARG:HB3	1.92	0.70
48:B1:12:PRO:O	48:B1:14:VAL:HG23	1.92	0.70
5:CC:24:ALA:HB1	5:CC:28:GLN:HB2	1.72	0.70
54:D7:34:ARG:HH11	54:D7:34:ARG:CG	2.01	0.70
11:CI:125:TYR:HD2	11:CI:126:SER:H	1.36	0.70
1:AA:33:A:H2'	1:AA:34:C:H6	1.55	0.70
10:CH:114:THR:HG23	10:CH:116:LYS:H	1.56	0.70
48:B1:86:SER:O	48:B1:90:ILE:HG12	1.91	0.70
25:BA:1748:G:H2'	25:BA:1749:A:C8	2.27	0.70
28:DE:119:ARG:HG2	28:DE:160:TYR:HB2	1.74	0.70
53:B6:11:LEU:HB3	53:B6:24:GLU:HB3	1.72	0.70
31:DH:50:VAL:O	31:DH:51:ARG:HB2	1.91	0.70
1:AA:370:C:H2'	1:AA:371:G:C8	2.27	0.70
25:DA:2836:U:C4	25:DA:2883:A:N6	2.60	0.70
10:AH:86:ILE:HG21	10:AH:133:LEU:HD13	1.71	0.70
16:AN:6:LEU:HD22	16:AN:23:ARG:HH22	1.56	0.70
42:BV:35:LEU:HB2	42:BV:57:VAL:HG13	1.71	0.70
25:BA:2744:G:H21	31:BH:143:GLN:HE22	1.39	0.70
34:DN:148:GLY:HA3	34:DN:149:PRO:O	1.92	0.70
50:B3:19:GLN:HE22	50:B3:52:HIS:HE1	1.38	0.70
25:DA:49:A:H5''	25:DA:51:G:O4'	1.92	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1971:A:C2	27:DD:241:PRO:HD3	2.27	0.70
25:DA:287:C:H2'	25:DA:288:C:C6	2.24	0.70
25:DA:2212:A:H1'	25:DA:2215:G:C4	2.27	0.70
33:BK:93:ARG:HD2	33:BK:93:ARG:H	1.55	0.70
36:BP:88:LEU:HD11	36:BP:95:VAL:HG11	1.73	0.70
1:AA:1363:A:H4'	1:AA:1364:U:H5''	1.74	0.70
25:DA:860:U:H5	25:DA:917:A:N7	1.90	0.70
25:DA:1981:A:H5''	25:DA:1982:C:OP2	1.92	0.70
14:AL:46:LYS:HB3	14:AL:47:PRO:HD3	1.72	0.70
26:BB:55:U:H4'	30:BG:27:ASN:HD21	1.57	0.70
4:AB:75:LYS:HA	4:AB:78:GLN:HG3	1.74	0.70
25:BA:144:C:H2'	25:BA:145:G:C8	2.27	0.70
28:DE:24:THR:HG23	28:DE:184:VAL:HG23	1.73	0.70
25:DA:942:G:H5'	36:DP:35:HIS:HB2	1.72	0.69
41:DU:88:ILE:HB	41:DU:90:VAL:HG12	1.74	0.69
4:CB:187:LEU:HD22	4:CB:205:ASP:HB3	1.74	0.69
24:AX:195:PRO:HB2	24:AX:362:LEU:HB3	1.74	0.69
4:CB:88:ALA:HB2	4:CB:219:VAL:HG13	1.74	0.69
45:DY:98:VAL:HG13	45:DY:99:CYS:SG	2.32	0.69
25:BA:2799:A:H2'	25:BA:2801:A:C8	2.26	0.69
25:BA:1005:C:H2'	25:BA:1006:C:C6	2.27	0.69
25:BA:1936:A:H3'	25:BA:1936:A:OP1	1.91	0.69
25:DA:1301:A:H4'	25:DA:1302:A:OP1	1.91	0.69
12:CJ:49:VAL:HG23	16:CN:41:ARG:HB2	1.71	0.69
28:BE:2:LYS:HD3	28:BE:95:ILE:HG22	1.72	0.69
25:DA:2579:C:O2'	28:DE:131:ALA:CB	2.39	0.69
25:DA:2377:A:H2'	25:DA:2378:A:C8	2.28	0.69
43:DW:73:ALA:HB3	43:DW:106:ILE:HD11	1.74	0.69
29:DF:89:VAL:HG12	29:DF:90:PHE:H	1.56	0.69
36:DP:114:ILE:HD12	36:DP:114:ILE:N	2.07	0.69
25:BA:546:C:H3'	25:BA:547:A:C8	2.27	0.69
13:AK:57:THR:HG22	13:AK:59:TYR:H	1.57	0.69
25:DA:587:C:C5	36:DP:33:ARG:HD3	2.27	0.69
37:BQ:16:ARG:HH21	37:BQ:18:LYS:HE3	1.56	0.69
36:BP:51:PHE:O	36:BP:52:GLU:HB2	1.92	0.69
12:CJ:61:GLU:HG2	12:CJ:63:PHE:CZ	2.27	0.69
25:DA:784:A:C5	27:DD:229:VAL:HG21	2.27	0.69
36:DP:146:VAL:HG22	36:DP:147:LEU:H	1.56	0.69
1:AA:826:C:H4'	10:AH:12:ARG:HD3	1.73	0.69
1:AA:826:C:H2'	1:AA:827:U:H6	1.54	0.69
25:DA:679:C:H2'	25:DA:680:G:H8	1.55	0.69
37:DQ:16:ARG:HH21	37:DQ:18:LYS:HE3	1.57	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CD:30:LYS:C	6:CD:32:ALA:H	1.94	0.69
25:DA:150:C:H2'	25:DA:151:C:C6	2.27	0.69
25:BA:860:U:H5	25:BA:917:A:N7	1.90	0.69
18:AP:20:VAL:HG21	18:AP:32:TYR:CG	2.26	0.69
31:BH:77:LYS:HD3	31:BH:77:LYS:O	1.93	0.69
25:DA:96:G:H4'	49:D2:48:HIS:CD2	2.28	0.69
15:CM:67:GLU:CG	15:CM:68:GLY:H	2.00	0.69
12:CJ:8:LEU:HG	12:CJ:96:ILE:HG22	1.73	0.69
1:AA:1228:C:H2'	1:AA:1229:A:C8	2.28	0.69
25:BA:1971:A:H5''	25:BA:1971:A:H8	1.55	0.69
45:BY:2:ARG:HA	45:BY:4:LYS:HZ3	1.58	0.69
10:CH:26:VAL:HG13	10:CH:59:LEU:HB2	1.74	0.69
36:BP:58:THR:C	36:BP:60:MET:H	1.93	0.69
1:AA:736:C:H2'	1:AA:737:A:C8	2.27	0.69
25:BA:150:C:H2'	25:BA:151:C:H6	1.58	0.69
15:CM:76:ALA:HA	15:CM:79:LYS:HE2	1.74	0.69
42:BV:28:GLU:HB2	42:BV:31:ALA:HB2	1.73	0.69
40:BT:58:ASN:C	40:BT:58:ASN:HD22	1.95	0.69
55:D8:39:LYS:O	55:D8:43:GLN:HG3	1.92	0.69
36:DP:50:ARG:CG	36:DP:51:PHE:N	2.53	0.69
17:CO:87:ILE:HG22	17:CO:88:ARG:N	2.04	0.69
37:BQ:43:THR:HA	37:BQ:94:VAL:HG12	1.73	0.69
24:CX:92:LEU:HB3	24:CX:97:ARG:HB2	1.74	0.69
22:CT:40:ALA:HB2	22:CT:55:ILE:CG2	2.21	0.69
25:DA:2784:C:H1'	28:DE:37:ARG:NH1	2.07	0.69
20:CR:31:LEU:HD23	20:CR:31:LEU:H	1.58	0.69
12:AJ:78:ASN:HD22	12:AJ:81:THR:CG2	2.05	0.69
28:DE:47:VAL:HG21	28:DE:86:PRO:HD2	1.72	0.69
2:AZ:43:A:H2'	2:AZ:44:A:H8	1.58	0.69
25:BA:2712:U:OP1	25:BA:2714:G:H4'	1.92	0.69
46:BZ:10:ARG:HG2	46:BZ:11:GLU:N	2.08	0.69
6:CD:162:LEU:HD13	6:CD:181:MET:HG2	1.73	0.69
25:DA:498:G:O2'	45:DY:47:LYS:HD3	1.92	0.69
25:DA:2599:G:C8	27:DD:237:GLU:HG3	2.27	0.69
25:BA:2243:U:H2'	25:BA:2244:U:C6	2.28	0.69
2:AY:40:C:H2'	2:AY:41:C:H6	1.57	0.69
28:BE:9:VAL:HG22	28:BE:25:VAL:HB	1.73	0.69
49:B2:9:GLN:HA	49:B2:12:GLU:HB3	1.72	0.69
1:AA:922:G:H2'	1:AA:923:A:C8	2.28	0.69
25:DA:1827:C:H2'	25:DA:1828:G:H5'	1.73	0.69
1:CA:1228:C:H2'	1:CA:1229:A:C8	2.28	0.69
25:BA:1902:C:O2'	27:BD:244:ARG:HB2	1.92	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1174:A:H3'	25:DA:1175:U:C5'	2.23	0.69
37:BQ:134:ARG:HG3	37:BQ:134:ARG:O	1.93	0.69
36:DP:14:LYS:O	36:DP:15:ARG:HB2	1.93	0.69
24:CX:49:PRO:HD3	33:DK:29:GLN:HB2	1.75	0.69
6:AD:196:LEU:HB3	6:AD:198:VAL:HG22	1.73	0.69
5:AC:72:LYS:HG2	5:AC:75:VAL:HG23	1.73	0.69
1:AA:523:A:H61	14:AL:91:ASP:HB2	1.55	0.69
25:DA:603:A:N1	25:DA:655:A:C5	2.60	0.69
1:AA:222:U:H2'	1:AA:223:U:C6	2.27	0.69
46:DZ:115:GLY:HA2	46:DZ:177:PRO:HG3	1.74	0.69
1:CA:512:U:H2'	1:CA:513:C:H6	1.58	0.69
36:BP:50:ARG:CG	36:BP:51:PHE:H	2.05	0.69
53:D6:30:THR:O	53:D6:32:ASN:N	2.25	0.69
25:BA:1971:A:C4	27:BD:241:PRO:HG3	2.27	0.69
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.26	0.69
4:CB:17:PHE:H	4:CB:17:PHE:HD2	1.39	0.69
4:CB:29:ALA:HA	4:CB:32:ILE:HD13	1.73	0.69
2:AZ:44:A:H2'	2:AZ:45:G:H8	1.58	0.69
31:BH:50:VAL:O	31:BH:51:ARG:HB2	1.93	0.69
1:AA:1446:A:N1	40:BT:118:ARG:CZ	2.56	0.69
8:CF:37:VAL:HA	8:CF:65:VAL:HG12	1.73	0.69
25:DA:2197:U:O2'	25:DA:2198:A:H2'	1.92	0.69
25:DA:1005:C:H2'	25:DA:1006:C:C6	2.27	0.69
42:DV:18:LEU:HD22	42:DV:19:LYS:O	1.93	0.69
1:CA:89:U:H2'	1:CA:90:C:C6	2.27	0.69
1:AA:89:U:H2'	1:AA:90:C:C6	2.27	0.69
41:BU:91:ASP:OD1	41:BU:96:ALA:HB2	1.92	0.69
1:AA:1323:G:H2'	1:AA:1324:A:H8	1.58	0.69
34:BN:66:THR:H	34:BN:71:MET:HE3	1.58	0.69
25:DA:631:A:H2'	25:DA:632:A:O4'	1.93	0.69
27:BD:35:LYS:HB2	27:BD:36:PRO:HD3	1.75	0.69
53:D6:11:LEU:HB3	53:D6:24:GLU:HB3	1.74	0.69
29:DF:185:ASP:HA	29:DF:188:ARG:HD3	1.75	0.69
25:DA:2111:C:H42	25:DA:2148:G:H21	1.40	0.69
28:DE:131:ALA:O	28:DE:133:LYS:N	2.24	0.69
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.58	0.69
5:CC:71:ALA:HA	5:CC:106:VAL:HB	1.75	0.69
53:B6:11:LEU:HD13	53:B6:12:GLU:N	2.08	0.69
43:BW:9:TYR:H	43:BW:102:HIS:CD2	2.11	0.69
1:CA:523:A:H61	14:CL:91:ASP:HB2	1.58	0.69
25:DA:1509:A:H4'	25:DA:1510:A:C4	2.28	0.69
39:DS:90:GLY:O	39:DS:92:TYR:N	2.25	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DH:37:VAL:HG11	31:DH:72:ILE:HD11	1.74	0.69
4:AB:60:ASP:O	4:AB:64:ARG:HG2	1.92	0.69
29:DF:64:ILE:HG23	29:DF:65:TRP:CD1	2.27	0.69
46:DZ:52:SER:OG	46:DZ:54:HIS:HD2	1.75	0.69
4:AB:17:PHE:H	4:AB:17:PHE:HD2	1.39	0.69
25:BA:1614:A:N1	43:BW:93:ALA:HB2	2.07	0.69
24:CX:145:TRP:HZ3	24:CX:200:HIS:O	1.76	0.69
29:DF:51:THR:HB	29:DF:88:VAL:HG11	1.75	0.69
25:BA:2134:A:C2	25:BA:2159:G:H1'	2.28	0.69
33:BK:9:LYS:O	33:BK:10:LEU:HD13	1.93	0.69
29:BF:103:LYS:HA	29:BF:106:ARG:HG3	1.75	0.69
25:BA:2415:G:H4'	36:BP:67:MET:N	2.08	0.69
30:DG:68:PRO:HB2	30:DG:90:LEU:HD11	1.75	0.69
24:CX:32:ILE:HG22	24:CX:36:GLU:OE2	1.93	0.69
32:BI:82:ARG:HB3	32:BI:89:TYR:CD2	2.25	0.69
27:BD:238:GLY:O	27:BD:239:ARG:C	2.31	0.69
25:BA:1871:A:H2'	25:BA:1872:A:H8	1.57	0.69
24:AX:67:ARG:O	24:AX:71:THR:HG23	1.93	0.69
25:BA:2886:G:H2'	25:BA:2887:U:C6	2.26	0.69
43:DW:9:TYR:H	43:DW:102:HIS:CD2	2.11	0.69
24:CX:67:ARG:O	24:CX:71:THR:HG23	1.93	0.69
41:DU:112:ARG:NH1	42:DV:46:VAL:HG21	2.08	0.69
21:AS:53:ASN:HD22	21:AS:55:LYS:H	1.38	0.69
25:DA:909:A:H2'	25:DA:912:C:H5	1.58	0.69
26:BB:89(A):G:H2'	26:BB:89(B):A:C8	2.26	0.69
25:DA:839:U:H2'	25:DA:840:C:C6	2.28	0.69
31:DH:77:LYS:HD3	31:DH:77:LYS:O	1.93	0.69
46:BZ:118:GLN:HE21	46:BZ:118:GLN:HA	1.57	0.69
25:DA:2287:A:N6	25:DA:2344:U:N3	2.40	0.69
25:DA:528:A:C3'	25:DA:528:A:C8	2.76	0.69
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.27	0.69
33:DK:65:PHE:CE1	33:DK:67:PHE:HB3	2.28	0.69
6:CD:64:LEU:HD13	6:CD:198:VAL:HG21	1.75	0.69
25:BA:2543:G:H2'	25:BA:2544:G:C8	2.28	0.69
38:DR:8:ARG:NH2	38:DR:21:TYR:HE1	1.91	0.69
25:DA:1607:C:H4'	25:DA:1608:A:O5'	1.93	0.69
25:BA:1588:C:H2'	25:BA:1589:C:H6	1.58	0.69
16:CN:6:LEU:HD22	16:CN:23:ARG:HH22	1.58	0.69
1:CA:1511:G:H2'	1:CA:1512:U:O4'	1.92	0.69
25:BA:2028:U:H2'	25:BA:2029:G:C8	2.28	0.69
25:BA:498:G:O2'	45:BY:47:LYS:HD3	1.92	0.69
22:AT:26:ASN:HB3	22:AT:71:THR:CG2	2.18	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AT:71:THR:HG22	22:AT:72:LEU:N	2.08	0.68
5:CC:22:TRP:CH2	5:CC:32:LEU:HB2	2.28	0.68
36:BP:16:ARG:C	36:BP:16:ARG:HE	1.97	0.68
25:BA:1544:C:OP1	25:BA:1544:C:H6	1.76	0.68
28:DE:132:HIS:CD2	28:DE:135:HIS:CE1	2.81	0.68
25:DA:1748:G:H2'	25:DA:1749:A:C8	2.28	0.68
25:DA:1406:U:H2'	25:DA:1407:C:C6	2.29	0.68
29:BF:111:ALA:HB2	29:BF:206:ILE:HD13	1.73	0.68
25:BA:603:A:N1	25:BA:655:A:C5	2.61	0.68
19:AQ:7:THR:HG22	19:AQ:58:GLU:HG2	1.75	0.68
42:DV:35:LEU:HB2	42:DV:57:VAL:HG13	1.75	0.68
25:BA:2777:G:H4'	25:BA:2778:A:H5'	1.75	0.68
28:DE:101:ARG:HD3	28:DE:169:ASN:HD21	1.56	0.68
19:CQ:7:THR:HG22	19:CQ:58:GLU:HG2	1.74	0.68
25:DA:2876:G:H5'	40:DT:3:ARG:HA	1.74	0.68
40:DT:58:ASN:C	40:DT:58:ASN:HD22	1.97	0.68
25:BA:2197:U:O2'	25:BA:2198:A:H2'	1.93	0.68
11:AI:17:VAL:HG11	11:AI:81:ILE:HA	1.75	0.68
54:B7:34:ARG:NH1	54:B7:34:ARG:HG3	1.99	0.68
1:CA:668:G:O2'	17:CO:46:HIS:HD2	1.76	0.68
1:AA:1492:A:C5	24:AX:320:TRP:CH2	2.81	0.68
25:BA:1080:C:H1'	33:BK:126:MET:HG2	1.74	0.68
6:AD:162:LEU:HD13	6:AD:181:MET:HG2	1.76	0.68
6:AD:30:LYS:HA	6:AD:34:GLU:HB3	1.76	0.68
1:CA:246:A:H4'	1:CA:247:G:OP1	1.92	0.68
1:AA:555:C:H2'	1:AA:556:C:C6	2.29	0.68
4:AB:204:ASN:HD21	4:AB:207:ALA:HB3	1.57	0.68
36:DP:94:GLU:HG3	36:DP:124:LYS:HB3	1.73	0.68
24:AX:374:GLU:HA	24:AX:378:GLU:HB3	1.75	0.68
50:B3:8:LEU:HD22	50:B3:31:LEU:HD12	1.75	0.68
53:B6:30:THR:O	53:B6:32:ASN:N	2.26	0.68
30:BG:68:PRO:HB2	30:BG:90:LEU:HD11	1.74	0.68
24:AX:32:ILE:O	24:AX:36:GLU:HB2	1.92	0.68
36:BP:112:LEU:HD23	36:BP:113:LYS:N	2.09	0.68
12:AJ:48:THR:HA	12:AJ:62:HIS:HB3	1.76	0.68
25:BA:1110:G:O2'	25:BA:1111:A:H8	1.72	0.68
25:BA:1104:C:H2'	25:BA:1105:U:C6	2.28	0.68
32:BI:63:ALA:O	32:BI:67:ARG:HD2	1.93	0.68
28:DE:132:HIS:CD2	28:DE:135:HIS:NE2	2.61	0.68
25:DA:2798:C:H5''	25:DA:2799:A:OP2	1.94	0.68
2:CZ:26:G:H1	2:CZ:44:A:H61	1.40	0.68
36:BP:79:ARG:O	36:BP:111:ARG:HB2	1.92	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1503:U:H2'	25:DA:1504:C:C6	2.28	0.68
1:AA:939:G:H5''	9:AG:102:ARG:NH2	2.09	0.68
32:DI:4:ILE:HG23	32:DI:37:VAL:HB	1.75	0.68
30:DG:132:ASN:HD22	30:DG:132:ASN:N	1.91	0.68
25:BA:2893:G:H4'	25:BA:2894:G:H8	1.56	0.68
22:CT:71:THR:HG22	22:CT:72:LEU:N	2.08	0.68
48:B1:27:GLU:HG3	48:B1:33:LYS:NZ	2.09	0.68
53:D6:11:LEU:HD13	53:D6:12:GLU:H	1.57	0.68
22:AT:40:ALA:HB2	22:AT:55:ILE:CG2	2.21	0.68
25:BA:2681:C:H5	25:BA:2725:A:N6	1.90	0.68
12:AJ:61:GLU:HG2	12:AJ:63:PHE:CZ	2.28	0.68
25:BA:1496:A:H8	25:BA:1577:C:O2'	1.71	0.68
20:AR:66:LEU:HD11	20:AR:70:ILE:HD11	1.75	0.68
14:AL:65:VAL:HG11	14:AL:97:TYR:CE1	2.29	0.68
47:D0:53:MET:HE3	47:D0:57:PHE:HA	1.75	0.68
45:DY:76:CYS:SG	45:DY:77:PRO:HD2	2.34	0.68
25:DA:1973:G:H2'	25:DA:1974:C:C6	2.29	0.68
17:CO:44:LYS:HA	17:CO:44:LYS:HE3	1.76	0.68
53:D6:20:ASN:ND2	53:D6:21:TYR:H	1.91	0.68
25:BA:1503:U:H2'	25:BA:1504:C:C6	2.28	0.68
42:DV:28:GLU:HB2	42:DV:31:ALA:HB2	1.74	0.68
25:BA:78:A:H2'	25:BA:79:G:C8	2.28	0.68
1:AA:407:G:H4'	6:AD:116:GLN:HA	1.75	0.68
25:DA:1936:A:OP1	25:DA:1936:A:H3'	1.94	0.68
28:BE:111:ARG:HG2	38:BR:2:ARG:NH2	2.09	0.68
28:BE:119:ARG:HG2	28:BE:160:TYR:HB2	1.74	0.68
25:DA:628:G:H2'	25:DA:629:G:H8	1.57	0.68
30:DG:91:ARG:HB3	30:DG:91:ARG:NH1	2.06	0.68
45:DY:8:LYS:HD2	45:DY:8:LYS:O	1.93	0.68
25:DA:662:G:OP1	36:DP:18:ARG:HD2	1.93	0.68
25:BA:2169:A:H2'	25:BA:2170:A:C8	2.29	0.68
25:BA:807:U:OP2	36:BP:39:LYS:HG3	1.93	0.68
45:BY:96:ILE:HG12	45:BY:99:CYS:H	1.59	0.68
30:BG:132:ASN:N	30:BG:132:ASN:HD22	1.91	0.68
36:BP:23:PRO:CB	36:BP:33:ARG:HG3	2.23	0.68
25:BA:587:C:H2'	36:BP:33:ARG:NH2	2.09	0.68
5:CC:22:TRP:HB3	5:CC:59:ARG:H	1.59	0.68
27:DD:31:LYS:O	27:DD:35:LYS:HB2	1.94	0.68
25:DA:1095:A:N6	33:DK:29:GLN:HE22	1.91	0.68
25:DA:1542:G:H5'	25:DA:1542:G:N3	2.08	0.68
5:AC:36:ASP:OD1	5:AC:57:ILE:HG21	1.92	0.68
46:BZ:7:ALA:HB2	46:BZ:59:LEU:HD22	1.76	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DN:40:ASP:CG	34:DN:41:ALA:H	1.97	0.68
25:DA:144:C:H2'	25:DA:145:G:C8	2.28	0.68
36:DP:30:THR:HG22	36:DP:31:ALA:N	2.09	0.68
25:BA:2303:G:H2'	25:BA:2304:G:H5''	1.75	0.68
29:DF:103:LYS:HA	29:DF:106:ARG:HG3	1.76	0.68
25:BA:1314:C:H5'	25:BA:1314:C:H6	1.56	0.68
2:CY:20:U:H3'	2:CY:21:A:H5'	1.76	0.68
50:D3:8:LEU:HD22	50:D3:31:LEU:HD12	1.74	0.68
37:DQ:81:VAL:HG12	37:DQ:82:ARG:N	2.08	0.68
41:BU:88:ILE:HB	41:BU:90:VAL:HG12	1.74	0.68
24:AX:92:LEU:HB3	24:AX:97:ARG:HB2	1.74	0.68
25:DA:1104:C:H2'	25:DA:1105:U:C6	2.29	0.68
10:AH:114:THR:HG23	10:AH:116:LYS:H	1.57	0.68
5:AC:71:ALA:HA	5:AC:106:VAL:HB	1.74	0.68
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.59	0.68
27:BD:132:PRO:HD3	27:BD:190:TYR:CE2	2.28	0.68
29:DF:192:LEU:HD23	29:DF:193:VAL:N	2.07	0.68
25:DA:1614:A:N1	43:DW:93:ALA:HB2	2.08	0.68
25:DA:17:G:H4'	41:DU:25:TRP:CZ3	2.28	0.68
20:AR:19:LYS:HE3	20:AR:19:LYS:HA	1.74	0.68
25:DA:863:A:O2'	25:DA:864:G:H5'	1.93	0.68
25:DA:1190:G:H4'	36:DP:35:HIS:HB3	1.76	0.68
36:DP:38:GLN:HG3	36:DP:39:LYS:H	1.58	0.68
42:DV:39:LEU:HB3	42:DV:47:VAL:CG2	2.20	0.68
41:DU:90:VAL:HG22	41:DU:91:ASP:N	2.03	0.68
28:DE:37:ARG:O	28:DE:45:THR:HA	1.94	0.68
24:AX:32:ILE:HG22	24:AX:36:GLU:OE2	1.92	0.68
52:D5:40:LYS:HD3	52:D5:44:THR:O	1.93	0.68
8:CF:99:ALA:HB2	20:CR:31:LEU:HD22	1.74	0.68
8:AF:99:ALA:HB2	20:AR:31:LEU:HD22	1.75	0.68
1:CA:974:A:OP1	16:CN:31:ARG:HD3	1.94	0.68
1:CA:244:U:H5'	1:CA:244:U:C6	2.28	0.68
4:AB:219:VAL:O	4:AB:223:ILE:HG12	1.93	0.68
53:B6:11:LEU:HD13	53:B6:12:GLU:H	1.59	0.68
30:DG:3:LEU:O	30:DG:4:ASP:HB3	1.94	0.68
14:CL:65:VAL:HG11	14:CL:97:TYR:CE1	2.28	0.68
32:DI:3:VAL:HG12	32:DI:37:VAL:O	1.94	0.68
30:DG:132:ASN:ND2	30:DG:132:ASN:N	2.41	0.68
1:AA:191(G):G:C4	22:AT:105:SER:HB3	2.29	0.68
15:AM:76:ALA:HA	15:AM:79:LYS:HE2	1.75	0.68
27:BD:10:THR:O	27:BD:13:ARG:HB3	1.94	0.68
25:BA:839:U:H2'	25:BA:840:C:C6	2.28	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:191(G):G:C4	22:CT:105:SER:HB3	2.29	0.68
45:BY:29:GLU:HB3	45:BY:38:ILE:HD11	1.76	0.68
25:BA:1973:G:H2'	25:BA:1974:C:H6	1.57	0.68
25:DA:1568:G:H5''	27:DD:61:LEU:HD22	1.76	0.68
1:CA:222:U:H2'	1:CA:223:U:C6	2.28	0.68
37:DQ:134:ARG:HG3	37:DQ:134:ARG:O	1.93	0.68
25:DA:2287:A:C8	25:DA:2287:A:H5''	2.29	0.68
20:AR:31:LEU:H	20:AR:31:LEU:HD23	1.58	0.68
25:BA:1174:A:H3'	25:BA:1175:U:C5'	2.23	0.68
25:BA:1678:G:H22	25:BA:1989:G:H22	1.41	0.68
25:BA:330:A:H2	25:BA:1210:A:H2'	1.58	0.68
28:DE:4:ILE:HG12	28:DE:28:ALA:HB1	1.76	0.68
36:BP:88:LEU:HD11	36:BP:95:VAL:HG21	1.76	0.68
31:BH:125:VAL:HG22	31:BH:131:VAL:HG22	1.76	0.68
25:DA:2799:A:H2'	25:DA:2801:A:C8	2.28	0.68
1:CA:523:A:H61	14:CL:52:ARG:HH12	1.41	0.68
25:DA:1510:A:H2'	25:DA:1511:A:C8	2.29	0.68
33:BK:65:PHE:CE1	33:BK:67:PHE:HB3	2.28	0.68
9:CG:62:PHE:HA	9:CG:124:LEU:HD22	1.75	0.68
25:BA:2176:A:H2'	25:BA:2177:C:C6	2.29	0.68
38:DR:55:ALA:HA	38:DR:80:PHE:CE1	2.29	0.68
29:BF:14:PRO:HD3	29:BF:128:ALA:HB2	1.76	0.68
25:BA:2346:A:C2	25:BA:2383:G:C2	2.82	0.68
25:BA:676:A:H2	25:BA:802:A:H61	1.42	0.68
25:BA:631:A:H2'	25:BA:632:A:O4'	1.93	0.68
1:CA:1142:G:H2'	1:CA:1143:G:O4'	1.94	0.68
1:CA:134:A:H61	18:CP:25:ARG:NH1	1.92	0.68
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.28	0.68
31:BH:20:ALA:HB1	31:BH:21:PRO:HD2	1.75	0.68
6:CD:62:GLN:HE22	6:CD:65:ARG:HH11	1.38	0.68
25:BA:2243:U:H2'	25:BA:2244:U:H6	1.57	0.68
25:BA:2001:A:H2'	25:BA:2002:G:C8	2.29	0.68
25:BA:674:G:H1'	29:BF:74:ARG:HD3	1.76	0.68
25:DA:2176:A:H2'	25:DA:2177:C:C6	2.29	0.68
1:CA:939:G:H5''	9:CG:102:ARG:NH2	2.09	0.68
41:BU:112:ARG:NH1	42:BV:46:VAL:HG21	2.09	0.68
48:B1:67:ILE:N	48:B1:68:PRO:HD2	2.09	0.68
25:BA:2259:G:C2	25:BA:2282:G:N1	2.63	0.68
49:D2:39:ALA:HA	49:D2:45:SER:OG	1.94	0.68
25:DA:1902:C:O2'	27:DD:244:ARG:HB2	1.95	0.67
1:CA:954:G:H2'	1:CA:955:U:C6	2.28	0.67
28:BE:132:HIS:CD2	28:BE:135:HIS:CE1	2.82	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:B2:2:LYS:HA	49:B2:5:GLU:OE2	1.94	0.67
47:B0:53:MET:HE3	47:B0:57:PHE:HA	1.76	0.67
1:AA:579:G:H4'	17:AO:54:ARG:HH21	1.57	0.67
25:BA:1499:C:H2'	25:BA:1500:G:C8	2.28	0.67
31:DH:20:ALA:HB1	31:DH:21:PRO:HD2	1.74	0.67
31:DH:51:ARG:HG2	31:DH:52:VAL:N	2.06	0.67
24:CX:176:GLY:O	24:CX:177:ILE:HB	1.94	0.67
25:DA:2886:G:H2'	25:DA:2887:U:C6	2.27	0.67
25:DA:2134:A:C2	25:DA:2159:G:H1'	2.29	0.67
37:DQ:43:THR:HA	37:DQ:94:VAL:HG12	1.75	0.67
52:B5:40:LYS:HD3	52:B5:44:THR:O	1.94	0.67
14:CL:74:HIS:CD2	14:CL:76:LEU:H	2.08	0.67
25:DA:2169:A:H2'	25:DA:2170:A:C8	2.29	0.67
38:BR:8:ARG:NH2	38:BR:21:TYR:HE1	1.92	0.67
1:CA:1332:A:H2'	1:CA:1333:A:C8	2.28	0.67
46:DZ:7:ALA:HB2	46:DZ:59:LEU:HD22	1.76	0.67
1:AA:1446:A:N1	40:BT:118:ARG:NE	2.42	0.67
9:AG:79:ARG:HE	9:AG:84:ASN:HB2	1.58	0.67
38:BR:55:ALA:HA	38:BR:80:PHE:CE1	2.29	0.67
4:CB:204:ASN:HD21	4:CB:207:ALA:HB3	1.59	0.67
36:BP:30:THR:HG22	36:BP:31:ALA:N	2.09	0.67
47:D0:63:VAL:HG23	47:D0:64:ASP:O	1.94	0.67
1:CA:407:G:H4'	6:CD:116:GLN:HA	1.74	0.67
7:CE:50:GLU:HB3	7:CE:53:LEU:HB2	1.77	0.67
1:CA:1363:A:H4'	1:CA:1364:U:H5''	1.75	0.67
25:BA:2111:C:H42	25:BA:2148:G:H21	1.41	0.67
25:BA:2721:A:H1'	25:BA:2873:A:O2'	1.94	0.67
4:CB:28:PHE:CD1	4:CB:190:THR:HA	2.30	0.67
28:DE:48:GLN:NE2	28:DE:66:HIS:HE1	1.92	0.67
4:CB:219:VAL:O	4:CB:223:ILE:HG12	1.94	0.67
2:CZ:43:A:H2'	2:CZ:44:A:H8	1.57	0.67
42:BV:18:LEU:HD22	42:BV:19:LYS:O	1.94	0.67
2:AY:20:U:H3'	2:AY:21:A:H5'	1.75	0.67
36:DP:125:VAL:O	36:DP:145:PRO:HD2	1.95	0.67
4:AB:95:GLN:HG3	4:AB:147:LYS:O	1.95	0.67
42:DV:38:LEU:HD23	42:DV:39:LEU:N	2.10	0.67
42:DV:38:LEU:O	42:DV:52:VAL:HG12	1.93	0.67
25:DA:2893:G:H4'	25:DA:2894:G:H8	1.55	0.67
5:CC:36:ASP:OD1	5:CC:57:ILE:HG21	1.94	0.67
45:BY:8:LYS:HD2	45:BY:8:LYS:C	2.15	0.67
25:BA:1826:G:H2'	25:BA:1827:C:H6	1.59	0.67
33:DK:9:LYS:O	33:DK:10:LEU:HD13	1.95	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:203:C:C3'	25:BA:203:C:C6	2.77	0.67
25:DA:795:C:H2'	25:DA:796:C:C6	2.27	0.67
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.57	0.67
52:D5:4:HIS:CB	52:D5:5:PRO:HD3	2.24	0.67
25:BA:1510:A:H2'	25:BA:1511:A:C8	2.29	0.67
1:AA:246:A:H4'	1:AA:247:G:OP1	1.94	0.67
34:DN:52:LYS:O	34:DN:56:LEU:HD13	1.94	0.67
25:DA:2745:C:O2'	31:DH:142:GLY:HA3	1.95	0.67
9:CG:79:ARG:HE	9:CG:84:ASN:HB2	1.59	0.67
1:AA:1124:G:H5''	12:AJ:35:SER:HB2	1.76	0.67
25:DA:529:A:H62	25:DA:2041:U:H3	1.43	0.67
21:AS:16:LEU:H	21:AS:16:LEU:HD12	1.60	0.67
1:CA:1323:G:H2'	1:CA:1324:A:H8	1.58	0.67
48:B1:31:GLY:O	48:B1:32:LYS:HB2	1.94	0.67
39:DS:24:LEU:CD1	39:DS:84:GLN:HB3	2.24	0.67
24:CX:32:ILE:O	24:CX:36:GLU:HB2	1.93	0.67
25:BA:795:C:H2'	25:BA:796:C:C6	2.27	0.67
5:AC:32:LEU:O	5:AC:36:ASP:HB2	1.94	0.67
5:AC:59:ARG:HG2	5:AC:64:VAL:HG22	1.76	0.67
1:AA:1492:A:C6	24:AX:320:TRP:CH2	2.82	0.67
25:DA:1588:C:H2'	25:DA:1589:C:H6	1.60	0.67
39:BS:90:GLY:O	39:BS:92:TYR:N	2.27	0.67
45:BY:98:VAL:HG13	45:BY:99:CYS:SG	2.34	0.67
18:CP:34:GLU:OE2	18:CP:55:ARG:HD3	1.94	0.67
50:B3:19:GLN:HE22	50:B3:52:HIS:CE1	2.12	0.67
33:BK:53:VAL:HG23	33:BK:70:LYS:O	1.95	0.67
25:BA:2578:G:H4'	25:BA:2578:G:OP2	1.92	0.67
1:AA:512:U:H2'	1:AA:513:C:H6	1.59	0.67
17:AO:44:LYS:HA	17:AO:44:LYS:HE3	1.76	0.67
4:CB:75:LYS:HA	4:CB:78:GLN:HG3	1.75	0.67
25:DA:686:G:H8	54:D7:6:GLN:O	1.77	0.67
5:CC:32:LEU:O	5:CC:36:ASP:HB2	1.95	0.67
15:AM:23:TYR:CE1	15:AM:71:ARG:HB2	2.28	0.67
25:BA:1019:U:N3	25:BA:114(B):A:N6	2.42	0.67
27:BD:31:LYS:HD3	27:BD:94:LEU:HD11	1.76	0.67
29:DF:34:TRP:CZ2	36:DP:12:ALA:HB2	2.29	0.67
25:DA:1544:C:H3'	25:DA:1545:A:H5'	1.77	0.67
5:AC:36:ASP:HA	5:AC:39:ILE:HD12	1.77	0.67
30:BG:3:LEU:O	30:BG:4:ASP:HB3	1.94	0.67
32:DI:92:VAL:HG13	32:DI:120:ILE:HB	1.77	0.67
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.76	0.67
10:CH:87:SER:HA	10:CH:93:VAL:HG23	1.77	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:88:LEU:HD11	36:DP:95:VAL:HG21	1.76	0.67
25:DA:18:C:H2'	25:DA:19:C:C6	2.30	0.67
16:CN:6:LEU:HD22	16:CN:23:ARG:NH2	2.10	0.67
20:AR:47:THR:HB	20:AR:49:LYS:HG2	1.76	0.67
46:DZ:118:GLN:HA	46:DZ:118:GLN:HE21	1.58	0.67
25:DA:2744:G:H21	31:DH:143:GLN:HE22	1.40	0.67
32:BI:69:LYS:HD2	32:BI:138:ILE:HG23	1.75	0.67
25:DA:546:C:H3'	25:DA:547:A:C8	2.28	0.67
30:DG:77:ILE:HG22	30:DG:80:PHE:H	1.58	0.67
36:DP:23:PRO:CB	36:DP:33:ARG:HG3	2.24	0.67
4:AB:104:ASN:OD1	4:AB:107:THR:HB	1.94	0.67
24:AX:218:PHE:CD1	24:AX:320:TRP:HB2	2.30	0.67
25:DA:2795:G:H21	25:DA:2801:A:H62	1.43	0.67
25:DA:2887:U:H2'	25:DA:2888:C:H6	1.60	0.67
27:BD:111:LEU:HD22	27:BD:115:GLN:OE1	1.95	0.67
2:CZ:44:A:H2'	2:CZ:45:G:H8	1.58	0.67
21:AS:16:LEU:O	21:AS:20:LEU:HG	1.94	0.67
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.29	0.67
30:BG:121:ASN:HD22	30:BG:123:ASN:H	1.43	0.67
14:CL:109:VAL:CG2	14:CL:119:TYR:HB3	2.24	0.67
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.30	0.67
53:B6:20:ASN:ND2	53:B6:21:TYR:H	1.91	0.67
25:BA:644:A:C2	25:BA:2369:A:H1'	2.29	0.67
9:AG:63:LYS:O	9:AG:66:VAL:HG12	1.94	0.67
42:BV:38:LEU:O	42:BV:52:VAL:HG12	1.95	0.67
25:DA:1494:A:H2'	25:DA:1494:A:N3	2.09	0.67
25:BA:784:A:C5	27:BD:229:VAL:HG21	2.30	0.67
25:DA:2721:A:H1'	25:DA:2873:A:O2'	1.95	0.67
28:BE:4:ILE:HG12	28:BE:28:ALA:HB1	1.75	0.67
39:BS:57:LYS:HD2	39:BS:58:LEU:N	2.10	0.67
15:CM:80:ARG:O	15:CM:84:ILE:HG22	1.94	0.67
25:BA:2798:C:H5''	25:BA:2799:A:OP2	1.95	0.67
52:B5:4:HIS:CB	52:B5:5:PRO:HD3	2.25	0.67
25:BA:18:C:H2'	25:BA:19:C:H6	1.59	0.67
4:CB:95:GLN:HG3	4:CB:147:LYS:O	1.95	0.67
24:AX:145:TRP:HZ3	24:AX:200:HIS:O	1.77	0.67
25:BA:2036:C:H6	25:BA:2036:C:H5'	1.59	0.67
42:DV:14:VAL:HG13	42:DV:96:ILE:HG13	1.75	0.67
25:DA:809:G:C2'	25:DA:810:U:H5'	2.24	0.67
32:BI:123:LEU:HD21	32:BI:145:VAL:HA	1.77	0.67
48:D1:19:GLN:HG2	48:D1:41:ARG:HB2	1.77	0.67
35:BO:24:VAL:HA	35:BO:39:ILE:HG22	1.77	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:78:A:H2'	25:DA:79:G:C8	2.30	0.67
25:DA:2307:G:H3'	25:DA:2308:G:C8	2.29	0.67
5:CC:59:ARG:HG2	5:CC:64:VAL:HG22	1.76	0.67
1:AA:1398:A:H8	1:AA:1398:A:H5''	1.60	0.67
27:DD:31:LYS:HD3	27:DD:94:LEU:HD11	1.75	0.67
36:BP:62:LEU:CD1	36:BP:62:LEU:N	2.58	0.67
12:CJ:48:THR:HA	12:CJ:62:HIS:HB3	1.77	0.67
49:D2:50:ILE:HD12	49:D2:51:ARG:N	2.08	0.67
5:AC:22:TRP:CH2	5:AC:32:LEU:HB2	2.30	0.67
5:AC:22:TRP:HB3	5:AC:59:ARG:H	1.60	0.67
40:BT:132:LYS:O	40:BT:136:GLN:HG3	1.95	0.67
25:DA:1871:A:H2'	25:DA:1872:A:H8	1.57	0.67
4:AB:88:ALA:HB2	4:AB:219:VAL:HG13	1.75	0.67
13:CK:59:TYR:CE1	13:CK:63:LEU:HD21	2.29	0.67
32:BI:8:PRO:O	32:BI:9:LEU:HD23	1.95	0.67
1:CA:370:C:H2'	1:CA:371:G:C8	2.29	0.67
14:CL:81:VAL:HG13	14:CL:104:TYR:HB3	1.77	0.67
29:BF:45:ARG:HH11	29:BF:45:ARG:CG	2.00	0.67
25:DA:1971:A:H5''	25:DA:1971:A:H8	1.59	0.67
40:DT:132:LYS:O	40:DT:136:GLN:HG3	1.95	0.67
1:CA:976:G:H5''	1:CA:1358:U:O2'	1.94	0.67
28:DE:103:ASP:OD1	28:DE:201:THR:HG23	1.94	0.67
25:BA:2579:C:O2'	28:BE:131:ALA:CB	2.43	0.67
31:BH:42:ARG:O	31:BH:52:VAL:HA	1.94	0.67
1:AA:1152:A:H5'	12:AJ:13:HIS:CD2	2.30	0.67
42:BV:14:VAL:HG13	42:BV:96:ILE:HG13	1.76	0.67
25:BA:1276:A:H1'	38:BR:16:HIS:HE1	1.59	0.67
55:D8:53:PRO:C	55:D8:57:ARG:HH22	1.98	0.66
25:DA:2712:U:OP1	25:DA:2714:G:H4'	1.95	0.66
2:AZ:26:G:H1	2:AZ:44:A:H61	1.41	0.66
27:BD:131:LEU:HA	27:BD:190:TYR:CE2	2.30	0.66
48:D1:67:ILE:N	48:D1:68:PRO:HD2	2.09	0.66
1:AA:191(E):G:H2'	1:AA:191(F):U:C6	2.30	0.66
45:DY:29:GLU:HB3	45:DY:38:ILE:HD11	1.77	0.66
2:CY:40:C:H2'	2:CY:41:C:H6	1.59	0.66
21:CS:16:LEU:O	21:CS:20:LEU:HG	1.95	0.66
25:BA:587:C:C6	25:BA:671:C:H1'	2.30	0.66
36:DP:50:ARG:CG	36:DP:51:PHE:H	2.09	0.66
42:DV:52:VAL:HG11	42:DV:55:ALA:HB3	1.77	0.66
49:B2:11:GLU:HA	49:B2:14:ARG:HG3	1.77	0.66
25:BA:2287:A:C8	25:BA:2287:A:H5''	2.30	0.66
7:AE:50:GLU:HB3	7:AE:53:LEU:HB2	1.75	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1398:A:H5''	1:CA:1398:A:H8	1.59	0.66
11:CI:17:VAL:HG11	11:CI:81:ILE:HA	1.76	0.66
11:CI:46:ALA:HB2	11:CI:74:ILE:HG23	1.76	0.66
25:BA:1827:C:H2'	25:BA:1828:G:H5'	1.78	0.66
25:BA:1047:G:H8	25:BA:1047:G:H5'	1.57	0.66
25:DA:1678:G:H22	25:DA:1989:G:H22	1.44	0.66
25:BA:2114:A:H3'	25:BA:2115:G:C8	2.31	0.66
20:CR:66:LEU:HD11	20:CR:70:ILE:HD11	1.77	0.66
15:AM:80:ARG:O	15:AM:84:ILE:HG22	1.94	0.66
27:DD:111:LEU:HD22	27:DD:115:GLN:OE1	1.95	0.66
1:AA:555:C:H2'	1:AA:556:C:H6	1.58	0.66
25:DA:2744:G:H21	31:DH:143:GLN:NE2	1.93	0.66
9:AG:113:GLU:H	9:AG:113:GLU:CD	1.98	0.66
53:B6:44:ARG:O	53:B6:45:LYS:HG2	1.95	0.66
26:DB:55:U:H4'	30:DG:27:ASN:HD21	1.58	0.66
8:CF:50:TYR:CE1	20:CR:77:GLY:HA2	2.30	0.66
1:CA:990:C:H2'	1:CA:991:U:O4'	1.95	0.66
1:CA:555:C:H2'	1:CA:556:C:C6	2.30	0.66
29:DF:14:PRO:HD3	29:DF:128:ALA:HB2	1.76	0.66
1:AA:990:C:H2'	1:AA:991:U:O4'	1.94	0.66
36:DP:48:PRO:O	36:DP:49:ARG:C	2.33	0.66
25:BA:528:A:C8	25:BA:528:A:C3'	2.75	0.66
25:DA:2543:G:H2'	25:DA:2544:G:C8	2.30	0.66
36:DP:112:LEU:HD23	36:DP:113:LYS:N	2.11	0.66
25:BA:2377:A:H2'	25:BA:2378:A:C8	2.30	0.66
16:AN:6:LEU:HD22	16:AN:23:ARG:NH2	2.09	0.66
25:BA:861:A:H2'	25:BA:862:G:H5'	1.78	0.66
34:BN:40:ASP:CG	34:BN:41:ALA:H	1.98	0.66
9:CG:45:ASP:O	9:CG:49:ILE:HG12	1.96	0.66
30:BG:77:ILE:HG22	30:BG:80:PHE:H	1.59	0.66
1:CA:1124:G:H5''	12:CJ:35:SER:HB2	1.77	0.66
34:DN:80:ALA:O	34:DN:83:ILE:HG13	1.95	0.66
13:CK:21:ILE:HA	13:CK:30:VAL:HG12	1.77	0.66
32:DI:69:LYS:O	32:DI:73:GLU:HB2	1.94	0.66
25:DA:38:A:H2'	25:DA:39:C:C6	2.30	0.66
9:AG:62:PHE:HA	9:AG:124:LEU:HD22	1.76	0.66
25:BA:1526:G:H2'	25:BA:1527:G:C8	2.31	0.66
28:BE:132:HIS:CD2	28:BE:135:HIS:NE2	2.63	0.66
25:BA:1544:C:H3'	25:BA:1545:A:H5'	1.76	0.66
1:CA:644:G:H5'	10:CH:92:ARG:NH2	2.10	0.66
24:CX:218:PHE:CD1	24:CX:320:TRP:HB2	2.30	0.66
1:CA:737:A:H2'	1:CA:738:C:H6	1.61	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:10:ARG:NH2	46:DZ:26:GLY:H	1.93	0.66
46:DZ:108:PRO:HG3	46:DZ:141:VAL:HG22	1.77	0.66
1:CA:1493:A:C5	25:DA:1913:A:C5	2.83	0.66
25:DA:674:G:H1'	29:DF:74:ARG:HD3	1.76	0.66
25:DA:2875:C:O2'	40:DT:5:ALA:HB3	1.94	0.66
28:DE:9:VAL:HG22	28:DE:25:VAL:HB	1.76	0.66
25:DA:1276:A:H1'	38:DR:16:HIS:HE1	1.59	0.66
1:AA:1511:G:H2'	1:AA:1512:U:O4'	1.94	0.66
1:AA:1486:G:H2'	1:AA:1487:G:O4'	1.96	0.66
25:BA:2599:G:C8	27:BD:237:GLU:HG3	2.29	0.66
25:BA:779:U:OP1	27:BD:49:ILE:HG13	1.96	0.66
24:CX:360:ALA:O	24:CX:364:TRP:HB2	1.95	0.66
30:BG:40:ASN:O	30:BG:155:MET:HB2	1.96	0.66
1:AA:1142:G:H2'	1:AA:1143:G:O4'	1.95	0.66
4:CB:104:ASN:OD1	4:CB:107:THR:HB	1.94	0.66
1:AA:1104:G:H5'	4:AB:111:ARG:HD2	1.76	0.66
1:AA:67:C:H2'	1:AA:68:G:C8	2.30	0.66
24:AX:360:ALA:O	24:AX:364:TRP:HB2	1.95	0.66
32:BI:109:ILE:N	32:BI:109:ILE:HD13	2.10	0.66
25:DA:2233:U:H2'	25:DA:2234:G:C8	2.31	0.66
29:BF:192:LEU:HD23	29:BF:193:VAL:N	2.10	0.66
25:BA:2892:A:H2'	25:BA:2893:G:H5'	1.77	0.66
25:DA:195:A:OP1	36:DP:46:LYS:HE2	1.95	0.66
5:AC:79:ARG:HG3	13:CK:96:ARG:HH12	1.61	0.66
30:DG:40:ASN:O	30:DG:155:MET:HB2	1.94	0.66
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.11	0.66
11:AI:114:TYR:HE1	12:AJ:60:ARG:N	1.94	0.66
45:DY:2:ARG:HA	45:DY:4:LYS:HZ3	1.60	0.66
14:AL:74:HIS:CD2	14:AL:76:LEU:H	2.11	0.66
31:BH:51:ARG:HG2	31:BH:52:VAL:N	2.11	0.66
1:AA:1442:G:N7	1:AA:1446:A:C2	2.63	0.66
29:BF:170:LEU:HD12	29:BF:171:PRO:HD2	1.77	0.66
46:DZ:118:GLN:NE2	46:DZ:118:GLN:HA	2.11	0.66
1:CA:555:C:H2'	1:CA:556:C:H6	1.60	0.66
27:DD:118:VAL:HG22	27:DD:119:ALA:H	1.60	0.66
25:DA:1766:U:H2'	25:DA:1767:C:H6	1.60	0.66
25:DA:579:G:H2'	25:DA:580:C:C6	2.30	0.66
47:B0:31:VAL:HG22	47:B0:65:GLY:O	1.96	0.66
48:D1:23:LYS:HB3	48:D1:37:ILE:HG13	1.76	0.66
1:CA:67:C:H2'	1:CA:68:G:C8	2.30	0.66
10:AH:102:ARG:N	10:AH:102:ARG:NE	2.39	0.66
25:DA:1826:G:H2'	25:DA:1827:C:C6	2.31	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CM:89:GLY:O	15:CM:93:ARG:HD2	1.96	0.66
25:DA:1544:C:H6	25:DA:1544:C:OP1	1.78	0.66
12:CJ:78:ASN:HD22	12:CJ:81:THR:CG2	2.09	0.66
7:CE:110:LEU:HD13	7:CE:118:ILE:HD13	1.77	0.66
43:DW:68:ARG:HB2	43:DW:110:LYS:HB2	1.77	0.66
46:BZ:108:PRO:HG3	46:BZ:141:VAL:HG22	1.77	0.66
39:BS:42:ASP:O	39:BS:44:LYS:HD2	1.95	0.66
25:DA:150:C:H2'	25:DA:151:C:H6	1.59	0.66
46:BZ:118:GLN:NE2	46:BZ:118:GLN:HA	2.11	0.66
25:BA:78:A:H2'	25:BA:79:G:H8	1.60	0.66
35:DO:24:VAL:HA	35:DO:39:ILE:HG22	1.77	0.66
25:DA:2084:C:H2'	25:DA:2085:C:H6	1.61	0.66
34:BN:80:ALA:O	34:BN:83:ILE:HG13	1.95	0.66
10:CH:73:ASP:HB3	10:CH:75:ARG:HG2	1.78	0.66
17:CO:16:ALA:HB1	17:CO:21:ASP:HB3	1.77	0.66
48:B1:14:VAL:O	48:B1:14:VAL:HG12	1.95	0.66
1:AA:1227:A:H2'	1:AA:1227:A:N3	2.10	0.66
11:CI:26:VAL:HG13	11:CI:63:ILE:HD11	1.78	0.66
44:DX:28:PHE:CD1	44:DX:28:PHE:N	2.61	0.66
37:BQ:42:ILE:HD11	37:BQ:127:ILE:HD11	1.77	0.66
1:CA:1104:G:H5'	4:CB:111:ARG:HD2	1.78	0.66
25:BA:2210:G:H3'	25:BA:2210:G:N3	2.11	0.66
46:DZ:10:ARG:HG2	46:DZ:11:GLU:N	2.09	0.66
25:BA:2744:G:H21	31:BH:143:GLN:NE2	1.93	0.66
25:DA:17:G:H4'	41:DU:25:TRP:CH2	2.31	0.66
25:BA:909:A:H2'	25:BA:912:C:H5	1.58	0.66
48:B1:23:LYS:HB3	48:B1:37:ILE:HG13	1.77	0.66
6:CD:11:LEU:HD13	6:CD:66:ARG:HG2	1.78	0.66
30:DG:121:ASN:HD22	30:DG:123:ASN:H	1.44	0.66
17:CO:3:ILE:H	17:CO:3:ILE:HD12	1.61	0.66
25:DA:2415:G:H4'	36:DP:67:MET:N	2.10	0.66
25:DA:1899:G:N2	25:DA:1902:C:H42	1.94	0.66
28:BE:103:ASP:OD1	28:BE:201:THR:HG23	1.96	0.66
1:AA:976:G:H5''	1:AA:1358:U:O2'	1.95	0.66
4:AB:69:LEU:HB3	4:AB:162:ILE:HG22	1.78	0.66
1:AA:134:A:H61	18:AP:25:ARG:NH1	1.94	0.66
43:BW:68:ARG:HB2	43:BW:110:LYS:HB2	1.76	0.66
39:DS:57:LYS:HD2	39:DS:58:LEU:N	2.10	0.66
31:DH:125:VAL:HG22	31:DH:131:VAL:HG22	1.76	0.66
53:B6:11:LEU:HD21	53:B6:51:GLU:HG3	1.78	0.66
24:AX:176:GLY:O	24:AX:177:ILE:HB	1.94	0.66
1:CA:1442:G:N7	1:CA:1446:A:C2	2.64	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AB:77:ALA:HB2	4:AB:211:ILE:HD13	1.78	0.66
18:AP:22:THR:HG22	18:AP:32:TYR:HA	1.78	0.66
4:CB:77:ALA:HB2	4:CB:211:ILE:HD13	1.77	0.66
25:DA:444:C:OP2	41:DU:2:PRO:HD3	1.95	0.66
22:AT:37:SER:O	22:AT:41:VAL:HG22	1.95	0.66
25:DA:2777:G:H4'	25:DA:2778:A:H5'	1.77	0.66
1:CA:942:G:H21	11:CI:124:GLN:HE22	1.43	0.66
25:BA:2086:U:H2'	25:BA:2087:G:C8	2.31	0.66
25:DA:1853:A:H2'	25:DA:1854:A:C8	2.31	0.66
25:DA:9:U:H2'	25:DA:2629:A:N6	2.07	0.66
36:BP:105:LEU:O	36:BP:106:LEU:HB2	1.95	0.66
36:BP:148:LEU:CD2	36:BP:149:GLU:H	2.09	0.66
36:BP:16:ARG:NE	36:BP:16:ARG:O	2.29	0.66
33:DK:115:LEU:HD22	33:DK:117:THR:H	1.61	0.66
1:AA:314:C:O2'	1:AA:315:A:H5'	1.96	0.66
1:CA:738:C:H2'	1:CA:739:C:H6	1.61	0.66
25:BA:1509:A:H4'	25:BA:1510:A:C4	2.31	0.66
25:DA:1778:U:H2'	25:DA:1784:A:N6	2.10	0.66
9:CG:63:LYS:O	9:CG:66:VAL:HG12	1.94	0.66
48:B1:41:ARG:HD3	48:B1:43:TYR:CE2	2.30	0.66
11:AI:48:GLU:N	11:AI:49:PRO:HD2	2.12	0.66
12:AJ:48:THR:HG22	12:AJ:62:HIS:ND1	2.11	0.65
36:DP:16:ARG:NH2	36:DP:18:ARG:H	1.94	0.65
49:D2:2:LYS:HZ2	49:D2:2:LYS:N	1.92	0.65
4:CB:97:TRP:CE2	4:CB:101:MET:HG3	2.31	0.65
54:B7:9:ARG:HE	54:B7:47:ARG:HB2	1.61	0.65
25:DA:2056:G:H2'	25:DA:2056:G:N3	2.10	0.65
27:BD:24:ILE:CD1	27:BD:84:TYR:HB2	2.26	0.65
25:DA:910:A:N7	37:DQ:13:GLN:HG3	2.11	0.65
27:DD:131:LEU:HA	27:DD:190:TYR:CE2	2.32	0.65
41:BU:112:ARG:HG3	42:BV:46:VAL:HG11	1.78	0.65
37:DQ:63:LYS:HD2	46:DZ:175:VAL:HG21	1.79	0.65
25:DA:1360:A:H5''	25:DA:1361:G:OP2	1.95	0.65
25:DA:2399:G:H1	25:DA:2417:C:H42	1.45	0.65
49:B2:39:ALA:HA	49:B2:45:SER:OG	1.96	0.65
25:DA:2572:A:H62	28:DE:145:LYS:HG3	1.61	0.65
1:CA:1486:G:H2'	1:CA:1487:G:O4'	1.96	0.65
35:BO:25:LEU:HB2	35:BO:38:VAL:HG23	1.78	0.65
25:BA:2455:G:H2'	25:BA:2456:C:C6	2.32	0.65
48:D1:27:GLU:HB3	48:D1:33:LYS:HG3	1.75	0.65
15:CM:23:TYR:CE1	15:CM:71:ARG:HB2	2.31	0.65
39:DS:33:LYS:O	39:DS:54:LEU:HD21	1.96	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CM:82:MET:HA	15:CM:93:ARG:HD3	1.77	0.65
1:CA:1227:A:N3	1:CA:1227:A:H2'	2.10	0.65
11:AI:114:TYR:HD1	12:AJ:60:ARG:HG2	1.61	0.65
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.31	0.65
25:BA:1530:G:H1	25:BA:1542:G:H22	1.42	0.65
55:D8:52:LYS:N	55:D8:52:LYS:HD2	2.11	0.65
38:DR:4:LEU:O	38:DR:4:LEU:HD13	1.94	0.65
1:AA:523:A:H61	14:AL:52:ARG:HH12	1.43	0.65
1:AA:244:U:H5'	1:AA:244:U:C6	2.30	0.65
31:DH:42:ARG:O	31:DH:52:VAL:HA	1.96	0.65
4:CB:144:ARG:HA	4:CB:147:LYS:HB3	1.77	0.65
21:CS:16:LEU:HD12	21:CS:16:LEU:H	1.60	0.65
47:D0:31:VAL:HG22	47:D0:65:GLY:O	1.96	0.65
33:DK:99:ILE:HG13	33:DK:138:VAL:HG12	1.78	0.65
28:DE:57:LYS:HD2	28:DE:58:ARG:N	2.11	0.65
24:AX:342:MET:O	24:AX:343:ARG:HG3	1.97	0.65
48:B1:82:LEU:O	48:B1:83:GLU:HB2	1.97	0.65
25:DA:2681:C:H5	25:DA:2725:A:N6	1.91	0.65
30:DG:39:ILE:HA	30:DG:157:ILE:HG22	1.79	0.65
11:AI:46:ALA:HB2	11:AI:74:ILE:HG23	1.77	0.65
4:AB:32:ILE:HD11	4:AB:190:THR:HG22	1.77	0.65
25:BA:1607:C:H4'	25:BA:1608:A:O5'	1.97	0.65
48:D1:41:ARG:HD3	48:D1:43:TYR:CE2	2.32	0.65
48:B1:19:GLN:HG2	48:B1:41:ARG:HB2	1.77	0.65
2:CZ:22:G:H2'	2:CZ:23:C:H6	1.62	0.65
46:BZ:158:PRO:HG2	46:BZ:161:VAL:HG21	1.78	0.65
26:DB:56:G:H4'	26:DB:57:A:O5'	1.97	0.65
34:BN:52:LYS:O	34:BN:56:LEU:HD13	1.95	0.65
39:BS:24:LEU:CD1	39:BS:84:GLN:HB3	2.22	0.65
40:DT:24:PRO:HA	40:DT:49:VAL:HG13	1.77	0.65
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.11	0.65
36:DP:105:LEU:O	36:DP:106:LEU:HB2	1.96	0.65
25:DA:2114:A:H3'	25:DA:2115:G:C8	2.30	0.65
41:BU:50:ARG:NH2	42:BV:72:VAL:HG12	2.11	0.65
26:BB:80:U:C2	26:BB:81:G:N2	2.64	0.65
27:DD:106:ILE:O	27:DD:108:PRO:HD3	1.95	0.65
25:BA:144:C:H2'	25:BA:145:G:H8	1.59	0.65
18:AP:34:GLU:OE2	18:AP:55:ARG:HD3	1.95	0.65
1:AA:223:U:H2'	1:AA:224:C:C6	2.31	0.65
25:DA:809:G:H2'	25:DA:810:U:H5'	1.79	0.65
25:DA:2086:U:H2'	25:DA:2087:G:C8	2.31	0.65
2:AZ:22:G:H2'	2:AZ:23:C:H6	1.62	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:319:C:H2'	25:DA:320:A:C8	2.32	0.65
45:DY:10:GLY:HA2	45:DY:27:VAL:HG22	1.78	0.65
25:BA:2876:G:H5'	40:BT:3:ARG:HA	1.77	0.65
33:BK:18:THR:HB	33:BK:19:PRO:HD2	1.79	0.65
50:D3:19:GLN:HE22	50:D3:52:HIS:HE1	1.45	0.65
2:CZ:39:C:H4'	13:CK:54:ARG:HH21	1.61	0.65
35:BO:88:ASN:ND2	35:BO:90:GLN:HB2	2.12	0.65
25:DA:1472:A:H61	25:DA:1521:G:H1'	1.61	0.65
34:DN:160:LYS:HE2	34:DN:160:LYS:HA	1.78	0.65
19:AQ:86:GLU:O	19:AQ:90:ILE:HG12	1.96	0.65
15:AM:91:ARG:HH11	21:AS:81:ARG:HH12	1.44	0.65
47:B0:63:VAL:HG23	47:B0:64:ASP:O	1.97	0.65
49:D2:19:VAL:HG12	49:D2:23:LYS:HE3	1.79	0.65
6:CD:189:PRO:HB2	6:CD:194:LEU:HD21	1.79	0.65
25:BA:1766:U:H2'	25:BA:1767:C:H6	1.60	0.65
48:D1:14:VAL:O	48:D1:14:VAL:HG12	1.96	0.65
48:D1:45:ASN:HD22	48:D1:46:LEU:N	1.95	0.65
24:AX:85:LEU:HD13	24:AX:104:LEU:HG	1.78	0.65
39:BS:33:LYS:O	39:BS:54:LEU:HD21	1.97	0.65
36:DP:62:LEU:CD1	36:DP:62:LEU:N	2.59	0.65
15:AM:82:MET:HA	15:AM:93:ARG:HD3	1.78	0.65
25:BA:1971:A:C2	27:BD:241:PRO:HD3	2.31	0.65
25:DA:1060:U:H4'	25:DA:1061:U:H2'	1.79	0.65
45:DY:90:LEU:HG	45:DY:91:GLU:N	2.12	0.65
25:BA:2056:G:H2'	25:BA:2056:G:N3	2.11	0.65
1:CA:223:U:H2'	1:CA:224:C:C6	2.32	0.65
4:AB:144:ARG:HA	4:AB:147:LYS:HB3	1.78	0.65
25:DA:2346:A:C2	25:DA:2383:G:C2	2.84	0.65
25:BA:1809:A:H2'	25:BA:1810:A:C8	2.32	0.65
7:AE:96:PRO:HA	7:AE:117:ASP:OD2	1.96	0.65
21:AS:70:LYS:H	21:AS:73:GLU:HG3	1.61	0.65
21:CS:70:LYS:H	21:CS:73:GLU:HG3	1.60	0.65
23:CU:24:ARG:HG3	23:CU:25:LYS:H	1.61	0.65
25:BA:1115:G:H2'	25:BA:1116:C:C6	2.32	0.65
25:BA:2610:C:H5'	25:BA:2610:C:H6	1.62	0.65
48:D1:45:ASN:HD22	48:D1:46:LEU:H	1.45	0.65
25:BA:587:C:H2'	36:BP:33:ARG:CZ	2.26	0.65
36:DP:23:PRO:CD	36:DP:33:ARG:CZ	2.75	0.65
25:DA:1191:G:OP1	36:DP:35:HIS:CD2	2.49	0.65
48:D1:31:GLY:O	48:D1:32:LYS:HB2	1.95	0.65
27:BD:246:PRO:HD2	27:BD:255:LYS:HE2	1.78	0.65
25:BA:1494:A:N3	25:BA:1494:A:H2'	2.10	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:18:ARG:HH11	36:DP:18:ARG:HB3	1.61	0.65
33:DK:53:VAL:HG23	33:DK:70:LYS:O	1.96	0.65
4:AB:28:PHE:CD1	4:AB:190:THR:HA	2.32	0.65
29:DF:40:GLN:HE22	29:DF:182:ASN:HB2	1.60	0.65
28:DE:111:ARG:HG2	38:DR:2:ARG:NH2	2.11	0.65
25:DA:2262:U:H2'	25:DA:2263:C:H6	1.61	0.65
37:DQ:42:ILE:HD11	37:DQ:127:ILE:HD11	1.78	0.65
55:B8:32:LEU:HD23	55:B8:33:ASN:N	2.12	0.65
27:BD:30:GLU:HG3	27:BD:63:ARG:CZ	2.27	0.65
41:BU:27:LEU:HD23	41:BU:31:SER:HB3	1.77	0.65
17:CO:40:SER:HG	25:DA:715:G:H21	1.41	0.65
48:D1:19:GLN:HE21	48:D1:41:ARG:HE	1.44	0.65
25:DA:2071:A:H2'	25:DA:2072:G:H8	1.60	0.65
25:BA:84:A:H5'	45:BY:9:LYS:HB3	1.79	0.65
22:AT:49:ALA:HA	22:AT:52:ALA:HB3	1.78	0.65
9:CG:113:GLU:CD	9:CG:113:GLU:H	2.00	0.65
10:CH:126:LYS:HB3	10:CH:127:LEU:HD22	1.77	0.65
28:BE:57:LYS:HD2	28:BE:58:ARG:N	2.11	0.65
1:AA:1349:A:H2'	1:AA:1350:A:C8	2.32	0.65
25:BA:276:A:H2'	25:BA:277:C:C5	2.32	0.65
1:CA:1157:A:H4'	1:CA:1158:C:O5'	1.97	0.65
49:B2:1:MET:HB3	49:B2:2:LYS:NZ	2.12	0.65
25:DA:2115:G:H21	25:DA:2172:U:H3	1.45	0.65
1:CA:579:G:H2'	1:CA:580:U:C6	2.32	0.65
25:DA:1062:G:H2'	25:DA:1063:G:C8	2.31	0.65
25:DA:2262:U:H2'	25:DA:2263:C:C6	2.32	0.65
1:CA:601:C:H2'	1:CA:602:A:C8	2.31	0.65
1:AA:991:U:H2'	1:AA:1212:U:O2	1.97	0.65
25:BA:17:G:H4'	41:BU:25:TRP:CZ3	2.30	0.65
24:CX:374:GLU:HA	24:CX:378:GLU:HB3	1.77	0.65
25:BA:184:C:H2'	25:BA:185:U:C6	2.31	0.65
18:AP:8:ARG:HB3	18:AP:28:ARG:HH12	1.62	0.65
25:DA:1346:G:N2	25:DA:1600:C:O2	2.27	0.65
20:CR:47:THR:HB	20:CR:49:LYS:HG2	1.78	0.65
25:BA:529:A:H62	25:BA:2041:U:H3	1.44	0.65
25:BA:2233:U:H2'	25:BA:2234:G:C8	2.32	0.65
25:DA:207:A:H2'	25:DA:208:C:O4'	1.96	0.65
25:BA:1178:C:H2'	25:BA:1179:C:H6	1.62	0.65
25:BA:2580:U:H5'	28:BE:131:ALA:HB2	1.77	0.65
25:BA:27:G:O2'	25:BA:28:A:C8	2.45	0.65
1:AA:601:C:H2'	1:AA:602:A:C8	2.32	0.65
1:AA:359:U:H2'	1:AA:360:A:H8	1.60	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AD:33:MET:SD	6:AD:37:PRO:HA	2.36	0.65
41:DU:112:ARG:HG3	42:DV:46:VAL:HG11	1.79	0.65
1:CA:191(E):G:H2'	1:CA:191(F):U:C6	2.32	0.65
29:BF:64:ILE:HG23	29:BF:65:TRP:CD1	2.31	0.65
17:CO:5:LYS:HD3	17:CO:5:LYS:N	2.12	0.65
26:DB:91:C:OP1	37:DQ:19:GLY:HA2	1.97	0.65
1:CA:1281:U:H3'	1:CA:1282:C:C6	2.32	0.65
25:DA:1809:A:H2'	25:DA:1810:A:C8	2.32	0.65
9:AG:45:ASP:O	9:AG:49:ILE:HG12	1.97	0.65
24:CX:342:MET:O	24:CX:343:ARG:HG3	1.97	0.65
25:DA:1035:U:H5''	31:DH:59:ARG:HG2	1.78	0.65
36:DP:51:PHE:O	36:DP:52:GLU:HB2	1.95	0.65
22:AT:69:GLY:O	22:AT:73:HIS:CD2	2.50	0.65
25:BA:2307:G:H3'	25:BA:2308:G:C8	2.32	0.65
54:D7:19:ARG:HG3	54:D7:19:ARG:NH1	2.05	0.65
32:BI:68:LEU:HB3	32:BI:72:LEU:CD2	2.27	0.65
25:DA:330:A:H2	25:DA:1210:A:H2'	1.61	0.65
55:D8:32:LEU:HD23	55:D8:33:ASN:N	2.11	0.65
25:BA:1077:A:O2'	33:BK:91:PRO:HB2	1.96	0.65
41:DU:50:ARG:NH2	42:DV:72:VAL:HG12	2.12	0.65
30:BG:16:ARG:CG	30:BG:16:ARG:HH11	2.10	0.65
31:DH:70:THR:HG22	31:DH:74:ASN:ND2	2.11	0.65
31:BH:70:THR:HG22	31:BH:74:ASN:ND2	2.11	0.65
25:BA:2887:U:H2'	25:BA:2888:C:H6	1.61	0.65
9:AG:65:ALA:HB3	9:AG:124:LEU:HD23	1.79	0.65
26:DB:31:C:H4'	30:DG:29:TRP:CH2	2.30	0.65
10:AH:87:SER:HA	10:AH:93:VAL:HG23	1.78	0.65
18:CP:57:ARG:HA	18:CP:60:LEU:HD12	1.78	0.65
35:DO:104:ARG:HH11	35:DO:104:ARG:HB3	1.62	0.65
25:DA:55:G:H2'	25:DA:56:A:H8	1.61	0.65
15:AM:67:GLU:CG	15:AM:68:GLY:H	1.98	0.65
25:BA:276:A:C4	25:BA:277:C:N4	2.65	0.65
1:AA:974:A:OP1	16:AN:31:ARG:HD3	1.96	0.65
33:DK:57:ILE:HG23	33:DK:65:PHE:HD1	1.62	0.65
25:DA:1870:C:H2'	25:DA:1871:A:O4'	1.97	0.65
54:D7:9:ARG:HE	54:D7:47:ARG:HB2	1.60	0.65
33:BK:115:LEU:HD22	33:BK:117:THR:H	1.61	0.65
25:BA:1568:G:H5''	27:BD:61:LEU:HD22	1.79	0.65
1:CA:1220:G:O3'	21:CS:36:ARG:HD3	1.98	0.65
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.32	0.65
25:DA:644:A:C2	25:DA:2369:A:H1'	2.31	0.65
38:DR:38:VAL:HB	38:DR:39:PRO:HD3	1.79	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1053:G:N7	1:CA:1200:C:H5''	2.12	0.65
36:BP:47:ASP:OD1	36:BP:50:ARG:HD3	1.96	0.64
34:DN:66:THR:H	34:DN:71:MET:HE3	1.61	0.64
26:BB:31:C:H4'	30:BG:29:TRP:CH2	2.32	0.64
41:DU:92:ARG:HD2	41:DU:94:ASN:CB	2.20	0.64
53:D6:32:ASN:H	53:D6:33:LYS:NZ	1.95	0.64
45:BY:8:LYS:O	45:BY:8:LYS:HD2	1.97	0.64
11:CI:48:GLU:N	11:CI:49:PRO:HD2	2.12	0.64
36:BP:16:ARG:NH2	36:BP:18:ARG:H	1.95	0.64
1:AA:1157:A:H4'	1:AA:1158:C:O5'	1.97	0.64
38:BR:4:LEU:O	38:BR:4:LEU:HD13	1.96	0.64
27:BD:106:ILE:O	27:BD:108:PRO:HD3	1.96	0.64
1:AA:644:G:H5'	10:AH:92:ARG:NH2	2.12	0.64
33:BK:57:ILE:HG23	33:BK:65:PHE:HD1	1.62	0.64
26:DB:57:A:OP2	26:DB:57:A:H3'	1.96	0.64
25:DA:2340:G:H2'	25:DA:2341:G:H8	1.61	0.64
29:BF:51:THR:HB	29:BF:88:VAL:HG11	1.77	0.64
35:BO:97:ARG:HA	35:BO:117:LEU:HD22	1.78	0.64
22:CT:49:ALA:HA	22:CT:52:ALA:HB3	1.78	0.64
17:AO:5:LYS:HD3	17:AO:5:LYS:N	2.11	0.64
42:BV:43:GLU:HA	42:BV:43:GLU:OE2	1.97	0.64
10:CH:50:ARG:HG2	10:CH:50:ARG:NH1	2.01	0.64
39:DS:34:HIS:HB3	39:DS:36:TYR:CE1	2.32	0.64
36:DP:148:LEU:CD2	36:DP:149:GLU:H	2.09	0.64
45:BY:2:ARG:HA	45:BY:4:LYS:NZ	2.13	0.64
1:AA:579:G:H2'	1:AA:580:U:C6	2.32	0.64
14:AL:23:VAL:HG12	14:AL:23:VAL:O	1.97	0.64
14:CL:23:VAL:O	14:CL:23:VAL:HG12	1.96	0.64
25:DA:1589:C:H2'	25:DA:1590:U:H6	1.62	0.64
14:AL:109:VAL:HG21	14:AL:119:TYR:HB3	1.77	0.64
32:DI:6:LEU:H	32:DI:6:LEU:HD23	1.61	0.64
25:BA:871:U:H4'	37:BQ:69:PHE:CE2	2.33	0.64
24:CX:85:LEU:HD13	24:CX:104:LEU:HG	1.79	0.64
15:AM:89:GLY:O	15:AM:93:ARG:HD2	1.97	0.64
1:AA:954:G:H2'	1:AA:955:U:C6	2.32	0.64
1:AA:668:G:O2'	17:AO:46:HIS:HD2	1.80	0.64
1:CA:1149:C:H2'	1:CA:1150:U:C6	2.31	0.64
32:DI:116:LEU:HD11	32:DI:120:ILE:HD11	1.79	0.64
4:AB:97:TRP:CE2	4:AB:101:MET:HG3	2.32	0.64
28:BE:48:GLN:NE2	28:BE:66:HIS:HE1	1.94	0.64
24:AX:218:PHE:CE1	24:AX:320:TRP:HB2	2.32	0.64
25:DA:27:G:O2'	25:DA:28:A:C8	2.49	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BZ:10:ARG:NH2	46:BZ:26:GLY:H	1.95	0.64
25:BA:18:C:H2'	25:BA:19:C:C6	2.32	0.64
32:BI:144:VAL:O	32:BI:145:VAL:HG13	1.98	0.64
7:CE:96:PRO:HA	7:CE:117:ASP:OD2	1.96	0.64
1:AA:685:G:OP1	13:AK:11:LYS:HG3	1.97	0.64
25:DA:2036:C:H6	25:DA:2036:C:H5'	1.61	0.64
42:BV:38:LEU:HD23	42:BV:39:LEU:N	2.13	0.64
39:BS:34:HIS:HB3	39:BS:36:TYR:CE1	2.32	0.64
1:AA:1220:G:O3'	21:AS:36:ARG:HD3	1.98	0.64
26:DB:95:U:H2'	26:DB:96:G:C8	2.33	0.64
25:DA:480:A:OP2	45:DY:46:LYS:HE2	1.96	0.64
1:CA:428:G:H4'	1:CA:429:U:O5'	1.97	0.64
27:DD:224:ALA:HA	27:DD:233:HIS:O	1.97	0.64
45:BY:10:GLY:HA2	45:BY:27:VAL:HG22	1.78	0.64
10:CH:10:LEU:HD22	10:CH:83:ILE:HD11	1.79	0.64
25:DA:2892:A:H2'	25:DA:2893:G:H5'	1.79	0.64
10:CH:102:ARG:N	10:CH:102:ARG:NE	2.38	0.64
26:BB:91:C:OP1	37:BQ:19:GLY:HA2	1.96	0.64
25:DA:871:U:H4'	37:DQ:69:PHE:CE2	2.33	0.64
36:BP:62:LEU:HD22	36:BP:62:LEU:O	1.97	0.64
27:BD:253:GLN:HB2	27:BD:257:LEU:HD12	1.80	0.64
4:CB:69:LEU:HB3	4:CB:162:ILE:HG22	1.79	0.64
36:DP:16:ARG:O	36:DP:16:ARG:NE	2.30	0.64
55:B8:8:LYS:O	55:B8:12:LYS:HG3	1.97	0.64
10:CH:12:ARG:HH12	10:CH:26:VAL:HA	1.62	0.64
25:DA:795:C:H6	25:DA:795:C:O5'	1.80	0.64
25:DA:2419:U:C5'	55:D8:33:ASN:HD21	2.10	0.64
25:DA:2723:C:H5''	38:DR:2:ARG:HH12	1.61	0.64
36:DP:58:THR:O	36:DP:60:MET:N	2.31	0.64
5:CC:75:VAL:O	5:CC:83:ARG:HG2	1.97	0.64
25:DA:1509:A:H4'	25:DA:1510:A:N9	2.12	0.64
29:DF:170:LEU:HD12	29:DF:171:PRO:HD2	1.78	0.64
18:CP:22:THR:HG22	18:CP:32:TYR:HA	1.78	0.64
29:DF:89:VAL:HG12	29:DF:90:PHE:N	2.11	0.64
10:AH:73:ASP:HB3	10:AH:75:ARG:HG2	1.78	0.64
18:CP:8:ARG:HB3	18:CP:28:ARG:HH12	1.63	0.64
25:DA:2303:G:H2'	25:DA:2304:G:H5''	1.78	0.64
25:DA:779:U:OP1	27:DD:49:ILE:HG13	1.98	0.64
41:BU:92:ARG:HG2	42:BV:11:GLN:HB2	1.79	0.64
36:BP:17:LYS:C	36:BP:19:VAL:H	2.00	0.64
11:AI:58:ARG:HG2	11:AI:58:ARG:O	1.96	0.64
46:BZ:53:ILE:HG22	46:BZ:71:VAL:O	1.98	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:140:A:C8	25:BA:1408:C:O2'	2.50	0.64
25:BA:480:A:OP2	45:BY:46:LYS:HE2	1.98	0.64
9:AG:69:VAL:HG22	9:AG:135:VAL:HG22	1.80	0.64
13:CK:91:ARG:HH12	20:CR:88:LYS:HD2	1.62	0.64
23:AU:24:ARG:HG3	23:AU:25:LYS:H	1.61	0.64
8:AF:50:TYR:CE1	20:AR:77:GLY:HA2	2.32	0.64
53:D6:44:ARG:O	53:D6:45:LYS:HG2	1.98	0.64
4:CB:43:ASP:OD2	4:CB:46:LYS:HB2	1.98	0.64
25:DA:1762:A:H8	25:DA:1762:A:O5'	1.81	0.64
25:BA:1993:U:H5''	28:BE:128:SER:HB2	1.79	0.64
48:B1:45:ASN:HD22	48:B1:46:LEU:N	1.96	0.64
36:BP:48:PRO:O	36:BP:49:ARG:C	2.36	0.64
27:BD:31:LYS:O	27:BD:35:LYS:HB2	1.97	0.64
1:CA:1342:C:H4'	11:CI:125:TYR:CB	2.28	0.64
25:BA:2592:G:H2'	25:BA:2593:U:H5'	1.79	0.64
32:BI:5:LEU:HA	32:BI:36:ALA:HA	1.79	0.64
25:DA:781:A:H2	25:DA:1776:G:N3	1.95	0.64
1:CA:643:C:H5'	10:CH:31:PHE:CD1	2.33	0.64
25:DA:2455:G:H2'	25:DA:2456:C:C6	2.33	0.64
33:BK:99:ILE:HG13	33:BK:138:VAL:HG12	1.79	0.64
36:DP:47:ASP:OD1	36:DP:50:ARG:HD3	1.98	0.64
25:BA:310:A:P	45:BY:18:GLY:HA2	2.37	0.64
15:CM:115:LYS:O	15:CM:117:VAL:HG23	1.97	0.64
40:DT:50:ILE:HD11	40:DT:102:ILE:HG12	1.79	0.64
25:BA:27:G:N2	25:BA:512:G:O2'	2.31	0.64
25:DA:1589:C:H2'	25:DA:1590:U:C6	2.33	0.64
13:AK:59:TYR:CE1	13:AK:63:LEU:HD21	2.32	0.64
46:DZ:158:PRO:HG2	46:DZ:161:VAL:HG21	1.80	0.64
25:DA:422:A:H2'	25:DA:423:A:C8	2.33	0.64
25:BA:2399:G:H1	25:BA:2417:C:H42	1.43	0.64
36:BP:92:GLU:HG2	36:BP:93:GLY:H	1.63	0.64
33:DK:18:THR:HB	33:DK:19:PRO:HD2	1.78	0.64
25:DA:298:G:O5'	25:DA:298:G:H8	1.81	0.64
7:CE:16:THR:O	7:CE:26:PHE:HB3	1.98	0.64
25:DA:861:A:H2'	25:DA:862:G:H5'	1.80	0.64
24:AX:125:ALA:O	24:AX:188:ASN:HA	1.98	0.64
26:BB:57:A:OP2	26:BB:57:A:H3'	1.97	0.64
25:BA:2393:A:O2'	25:BA:2394:C:H5'	1.98	0.64
36:BP:14:LYS:O	36:BP:15:ARG:HB2	1.96	0.64
29:DF:181:LEU:HD22	29:DF:186:ILE:HD11	1.80	0.64
25:BA:2210:G:N2	25:BA:2211:G:H5'	2.13	0.64
25:BA:1081:U:H5'	33:BK:122:ALA:HB1	1.80	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:55:ASN:H	40:BT:59:THR:HB	1.62	0.64
25:BA:1999:C:H5''	25:BA:2723:C:O2'	1.98	0.64
53:B6:20:ASN:CG	53:B6:21:TYR:H	2.01	0.64
9:AG:65:ALA:HB2	9:AG:124:LEU:O	1.98	0.64
50:D3:52:HIS:CD2	50:D3:52:HIS:H	2.16	0.64
1:CA:1338:G:H2'	1:CA:1339:A:C8	2.33	0.64
9:AG:93:PRO:HA	9:AG:96:GLN:HE21	1.62	0.64
14:AL:81:VAL:HG13	14:AL:104:TYR:HB3	1.78	0.64
31:DH:102:ALA:HB2	31:DH:117:PRO:HG3	1.80	0.64
1:AA:620:C:H2'	1:AA:621:A:O4'	1.98	0.64
49:B2:17:SER:HB3	49:B2:18:PRO:CD	2.28	0.64
15:CM:68:GLY:HA3	30:DG:116:ASP:OD2	1.98	0.64
1:AA:1342:C:H4'	11:AI:125:TYR:CB	2.27	0.64
25:BA:2115:G:H21	25:BA:2172:U:H3	1.45	0.64
49:B2:2:LYS:N	49:B2:2:LYS:HZ2	1.93	0.64
25:DA:2592:G:H2'	25:DA:2593:U:H5'	1.80	0.64
48:B1:57:GLU:O	48:B1:58:ILE:HB	1.98	0.64
38:BR:10:LEU:HD12	38:BR:10:LEU:O	1.98	0.64
25:BA:1589:C:H2'	25:BA:1590:U:C6	2.32	0.64
6:CD:33:MET:SD	6:CD:37:PRO:HA	2.38	0.64
25:BA:643:A:C2	25:BA:644:A:C4	2.86	0.64
25:BA:1766:U:H2'	25:BA:1767:C:C6	2.33	0.64
35:DO:25:LEU:HB2	35:DO:38:VAL:HG23	1.79	0.64
6:AD:11:LEU:HD13	6:AD:66:ARG:HG2	1.79	0.64
12:AJ:92:THR:HG23	12:AJ:93:GLY:H	1.63	0.64
42:DV:43:GLU:HA	42:DV:43:GLU:OE2	1.97	0.64
8:CF:27:GLN:HA	8:CF:30:LEU:HD12	1.79	0.64
28:BE:101:ARG:HD3	28:BE:169:ASN:HD21	1.62	0.64
4:CB:121:LEU:HD21	4:CB:126:GLU:HB3	1.78	0.64
11:AI:4:TYR:CD2	11:AI:88:TYR:HB3	2.33	0.63
55:D8:34:TRP:CD1	55:D8:35:GLN:N	2.66	0.63
12:AJ:48:THR:HA	12:AJ:62:HIS:CB	2.28	0.63
36:DP:97:PRO:HA	36:DP:112:LEU:HD12	1.80	0.63
37:DQ:22:LYS:HD3	37:DQ:22:LYS:O	1.98	0.63
32:BI:76:THR:HG22	32:BI:141:LYS:CB	2.27	0.63
25:BA:1796:U:H4'	27:BD:256:GLY:H	1.63	0.63
25:BA:1062:G:H2'	25:BA:1063:G:C8	2.31	0.63
25:DA:140:A:C8	25:DA:1408:C:O2'	2.51	0.63
22:CT:13:LEU:H	22:CT:13:LEU:HD22	1.63	0.63
25:DA:2210:G:H3'	25:DA:2210:G:N3	2.13	0.63
38:DR:67:LEU:CD2	38:DR:76:VAL:HG11	2.28	0.63
46:DZ:54:HIS:HB3	46:DZ:101:PRO:HD3	1.79	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1060:U:H4'	25:BA:1061:U:H2'	1.78	0.63
25:DA:414:C:H2'	25:DA:415:A:C8	2.32	0.63
1:CA:629:G:H2'	1:CA:630:G:C8	2.33	0.63
1:AA:942:G:H21	11:AI:124:GLN:HE22	1.46	0.63
27:BD:201:HIS:O	27:BD:204:ILE:HG13	1.98	0.63
25:BA:1516:U:H2'	25:BA:1517:G:C8	2.33	0.63
25:DA:587:C:C6	25:DA:671:C:H1'	2.33	0.63
25:DA:587:C:H2'	36:DP:33:ARG:NH2	2.12	0.63
49:D2:11:GLU:HA	49:D2:14:ARG:HG3	1.80	0.63
25:BA:2394:C:OP1	36:BP:63:PRO:HD2	1.98	0.63
40:DT:27:THR:HG23	40:DT:90:GLN:HB3	1.79	0.63
1:CA:1321:C:H3'	1:CA:1322:C:H5''	1.80	0.63
31:DH:86:GLU:O	31:DH:87:LEU:HG	1.97	0.63
25:BA:1589:C:H2'	25:BA:1590:U:H6	1.62	0.63
34:BN:122:LEU:O	34:BN:126:VAL:HG23	1.98	0.63
24:CX:229:GLU:HG3	24:CX:230:GLU:H	1.63	0.63
9:AG:70:LYS:N	9:AG:138:LYS:HD2	2.13	0.63
25:BA:2473:U:O2	25:BA:2473:U:H2'	1.98	0.63
25:DA:1526:G:H2'	25:DA:1527:G:C8	2.33	0.63
25:BA:2071:A:H2'	25:BA:2072:G:H8	1.62	0.63
1:CA:1378:C:H5	1:CA:1379:G:C8	2.16	0.63
37:BQ:63:LYS:HD2	46:BZ:175:VAL:HG21	1.80	0.63
1:AA:811:C:H4'	1:AA:900:A:N6	2.14	0.63
10:AH:50:ARG:HG2	10:AH:50:ARG:NH1	2.03	0.63
44:BX:28:PHE:N	44:BX:28:PHE:CD1	2.65	0.63
11:CI:58:ARG:HG2	11:CI:58:ARG:O	1.98	0.63
1:CA:1307:U:H2'	1:CA:1308:U:H6	1.63	0.63
25:BA:2212:A:H4'	25:BA:2213:U:C5	2.30	0.63
25:DA:1056:G:H4'	25:DA:1086:A:C8	2.33	0.63
25:DA:1530:G:H1	25:DA:1542:G:H22	1.43	0.63
34:DN:122:LEU:O	34:DN:126:VAL:HG23	1.98	0.63
25:BA:781:A:H2	25:BA:1776:G:N3	1.96	0.63
1:CA:991:U:H2'	1:CA:1212:U:O2	1.99	0.63
25:BA:352:G:H4'	25:BA:353:G:N7	2.13	0.63
25:BA:903:C:H2'	25:BA:904:C:C6	2.33	0.63
25:DA:2476:A:H2'	25:DA:2477:C:H5''	1.80	0.63
25:DA:2578:G:H4'	25:DA:2578:G:OP2	1.98	0.63
25:BA:519:U:H4'	43:BW:25:ARG:NH2	2.13	0.63
1:CA:663:A:H2'	1:CA:664:G:O4'	1.99	0.63
10:AH:20:TYR:CE1	10:AH:76:PRO:HG2	2.34	0.63
25:DA:2439:A:C5'	25:DA:2439:A:C8	2.81	0.63
27:BD:143:HIS:O	27:BD:192:THR:HG22	1.98	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DD:246:PRO:HD2	27:DD:255:LYS:HE2	1.79	0.63
34:DN:151:HIS:HE1	34:DN:157:ARG:NE	1.96	0.63
34:BN:151:HIS:HE1	34:BN:157:ARG:NE	1.97	0.63
34:BN:36:TRP:HB2	34:BN:156:GLN:HB2	1.79	0.63
11:AI:26:VAL:HG13	11:AI:63:ILE:HD11	1.81	0.63
25:BA:1543:A:C8	25:BA:1543:A:C3'	2.81	0.63
4:AB:27:LYS:HE3	4:AB:193:ASP:HA	1.81	0.63
30:BG:4:ASP:HB2	30:BG:9:ARG:NH2	2.13	0.63
7:AE:110:LEU:HD13	7:AE:118:ILE:HD13	1.80	0.63
31:BH:86:GLU:O	31:BH:87:LEU:HG	1.98	0.63
14:CL:86:GLY:HA2	14:CL:97:TYR:HA	1.79	0.63
25:BA:590:A:H2'	25:BA:591:C:C6	2.33	0.63
19:AQ:80:GLY:O	19:AQ:81:ARG:HG2	1.97	0.63
36:DP:94:GLU:OE2	36:DP:124:LYS:HD3	1.97	0.63
32:BI:8:PRO:HD3	32:BI:15:VAL:CG2	2.27	0.63
46:DZ:23:LYS:HD3	46:DZ:40:ASP:HA	1.79	0.63
25:DA:409:C:O2'	25:DA:410:G:H5'	1.98	0.63
25:BA:579:G:H2'	25:BA:580:C:C6	2.33	0.63
4:CB:102:LEU:HD12	4:CB:102:LEU:H	1.64	0.63
35:BO:3:GLN:HB2	35:BO:4:PRO:HD2	1.80	0.63
25:BA:1191:G:OP1	36:BP:35:HIS:CD2	2.51	0.63
11:CI:4:TYR:HB2	11:CI:19:LEU:CB	2.24	0.63
10:CH:50:ARG:CG	10:CH:50:ARG:HH11	2.04	0.63
17:AO:87:ILE:CG2	17:AO:88:ARG:H	2.09	0.63
26:BB:32:C:H1'	26:BB:52:A:N1	2.14	0.63
11:AI:24:GLY:O	11:AI:26:VAL:HG23	1.98	0.63
25:DA:2212:A:H4'	25:DA:2213:U:C5	2.28	0.63
19:CQ:44:ALA:HB1	19:CQ:73:VAL:HG22	1.81	0.63
25:BA:1677:A:H2'	25:BA:1678:G:C8	2.34	0.63
25:BA:2115:G:H1'	25:BA:2171:A:N6	2.14	0.63
36:DP:59:LEU:O	36:DP:59:LEU:HD23	1.98	0.63
46:DZ:53:ILE:HG22	46:DZ:71:VAL:O	1.98	0.63
25:DA:1796:U:H4'	27:DD:256:GLY:H	1.62	0.63
25:BA:1406:U:H2'	25:BA:1407:C:C6	2.32	0.63
25:BA:2795:G:H21	25:BA:2801:A:H62	1.44	0.63
46:BZ:54:HIS:HB3	46:BZ:101:PRO:HD3	1.79	0.63
30:BG:132:ASN:ND2	30:BG:132:ASN:N	2.42	0.63
15:CM:91:ARG:HH11	21:CS:81:ARG:HH12	1.45	0.63
25:BA:2879:C:H4'	25:BA:2880:C:OP1	1.98	0.63
34:DN:42:GLU:HB3	34:DN:82:LYS:HB2	1.81	0.63
17:AO:16:ALA:HB1	17:AO:21:ASP:HB3	1.78	0.63
25:BA:2084:C:H2'	25:BA:2085:C:H6	1.63	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CC:36:ASP:HA	5:CC:39:ILE:HD12	1.79	0.63
41:DU:92:ARG:HG2	42:DV:11:GLN:HB2	1.79	0.63
53:D6:11:LEU:HD21	53:D6:51:GLU:HG3	1.80	0.63
25:DA:125:G:H5'	54:D7:19:ARG:HG3	1.79	0.63
12:AJ:32:ALA:CB	12:AJ:76:ASN:HB2	2.28	0.63
25:BA:1827:C:H5'	25:BA:1971:A:H4'	1.81	0.63
40:BT:121:ILE:O	40:BT:124:ASP:HB2	1.98	0.63
25:BA:2147:G:H2'	25:BA:2148:G:O4'	1.99	0.63
1:CA:983:A:H3'	1:CA:983:A:N3	2.14	0.63
27:BD:186:HIS:CD2	27:BD:188:GLU:H	2.14	0.63
25:DA:773:U:H4'	27:DD:47:GLY:HA3	1.80	0.63
38:BR:67:LEU:CD2	38:BR:76:VAL:HG11	2.28	0.63
53:D6:20:ASN:CG	53:D6:21:TYR:H	2.02	0.63
9:CG:65:ALA:HB2	9:CG:124:LEU:O	1.98	0.63
25:BA:2875:C:O2'	40:BT:5:ALA:HB3	1.99	0.63
34:BN:135:LEU:HD23	34:BN:136:GLY:N	2.13	0.63
55:B8:23:VAL:HG11	55:B8:47:LYS:HE2	1.79	0.63
25:BA:55:G:H2'	25:BA:56:A:H8	1.63	0.63
34:BN:160:LYS:HE2	34:BN:160:LYS:HA	1.80	0.63
53:B6:15:GLU:OE1	53:B6:18:ARG:NH1	2.32	0.63
34:DN:135:LEU:HD23	34:DN:136:GLY:N	2.13	0.63
25:BA:863:A:O2'	25:BA:864:G:H5'	1.99	0.63
32:BI:35:LEU:HD23	32:BI:35:LEU:N	2.12	0.63
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.14	0.63
25:DA:1115:G:H2'	25:DA:1116:C:C6	2.33	0.63
41:DU:69:CYS:SG	41:DU:79:PHE:HB2	2.39	0.63
15:AM:67:GLU:HG3	15:AM:68:GLY:N	2.06	0.63
25:DA:1496:A:H8	25:DA:1577:C:O2'	1.72	0.63
25:DA:1178:C:H2'	25:DA:1179:C:H6	1.63	0.63
36:BP:97:PRO:HA	36:BP:112:LEU:HD12	1.79	0.63
25:BA:1495:A:H2'	25:BA:1496:A:N3	2.14	0.63
1:CA:1128:C:H1'	1:CA:1146:A:H61	1.62	0.63
32:BI:75:LEU:O	32:BI:141:LYS:HE3	1.98	0.63
28:DE:47:VAL:HG21	28:DE:86:PRO:CD	2.28	0.63
25:BA:330:A:C2	25:BA:1210:A:H2'	2.33	0.63
14:CL:49:SER:O	14:CL:50:ALA:HB2	1.99	0.63
1:AA:223:U:H2'	1:AA:224:C:H6	1.63	0.63
25:DA:84:A:H5'	45:DY:9:LYS:HB3	1.79	0.63
1:AA:1452:C:H1'	1:AA:1453:G:C2	2.34	0.63
25:BA:2745:C:O2'	31:BH:142:GLY:HA3	1.98	0.63
25:DA:2695:C:H2'	25:DA:2696:U:H6	1.64	0.63
25:DA:1639:U:H4'	25:DA:2699:C:H4'	1.81	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DD:148:GLU:HB2	27:DD:151:LYS:HD2	1.81	0.63
8:AF:7:ASN:HD21	20:AR:34:TYR:HE1	1.46	0.63
48:D1:13:ILE:O	48:D1:14:VAL:HB	1.97	0.63
25:BA:1190:G:H4'	36:BP:35:HIS:HB3	1.81	0.63
24:CX:32:ILE:HG12	24:CX:75:PHE:CD1	2.34	0.63
36:DP:17:LYS:C	36:DP:19:VAL:H	2.02	0.63
36:BP:6:LEU:HD12	36:BP:8:PRO:HG2	1.80	0.63
36:BP:58:THR:O	36:BP:60:MET:N	2.31	0.63
46:DZ:10:ARG:HG2	46:DZ:11:GLU:H	1.64	0.63
26:DB:9:G:H5'	39:DS:25:ARG:HH22	1.64	0.63
35:DO:24:VAL:HG23	35:DO:33:ALA:HB2	1.80	0.63
1:AA:375:U:H4'	18:AP:17:TYR:CE2	2.34	0.63
27:DD:56:GLY:O	27:DD:57:GLY:O	2.17	0.63
25:DA:2354:G:H2'	25:DA:2355:C:C6	2.33	0.63
24:CX:66:ALA:O	24:CX:69:ARG:HG2	1.98	0.63
44:BX:26:TYR:HB3	44:BX:92:LEU:HD12	1.80	0.63
25:BA:409:C:O2'	25:BA:410:G:H5'	1.99	0.63
48:D1:18:ILE:HG12	48:D1:18:ILE:O	1.99	0.63
15:CM:44:ARG:HB2	15:CM:46:LYS:HG2	1.80	0.63
24:AX:66:ALA:O	24:AX:69:ARG:HG2	1.99	0.63
25:BA:483:A:H4'	45:BY:49:VAL:HG22	1.81	0.63
27:BD:25:THR:O	27:BD:26:LYS:C	2.37	0.63
26:BB:56:G:H4'	26:BB:57:A:O5'	1.98	0.63
26:DB:32:C:H1'	26:DB:52:A:N1	2.14	0.63
25:DA:2394:C:OP1	36:DP:63:PRO:HD2	1.99	0.63
36:BP:62:LEU:HD13	36:BP:62:LEU:H	1.63	0.63
15:AM:115:LYS:O	15:AM:117:VAL:HG23	1.99	0.63
21:AS:49:ILE:HD12	21:AS:49:ILE:H	1.64	0.63
47:B0:53:MET:HE1	47:B0:57:PHE:HD1	1.64	0.63
31:DH:23:ARG:HD3	31:DH:23:ARG:N	2.13	0.63
25:BA:1336:A:H2'	25:BA:1337:G:H8	1.64	0.63
45:BY:81:LYS:HD3	45:BY:97:ARG:HB3	1.81	0.63
9:CG:65:ALA:HB3	9:CG:124:LEU:HD23	1.80	0.63
25:BA:1766:U:O2'	25:BA:1767:C:H5'	1.98	0.63
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.34	0.63
48:D1:82:LEU:O	48:D1:83:GLU:HB2	1.97	0.63
25:BA:646:A:N3	25:BA:646:A:H5'	2.13	0.63
9:CG:70:LYS:N	9:CG:138:LYS:HD2	2.14	0.63
37:BQ:14:ARG:HG2	37:BQ:14:ARG:HH11	1.64	0.63
39:DS:42:ASP:O	39:DS:44:LYS:HD2	1.99	0.63
25:DA:1839:G:C8	25:DA:1839:G:H5'	2.34	0.63
39:DS:52:SER:O	39:DS:69:VAL:HG23	1.98	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1472:A:H61	25:BA:1521:G:H1'	1.63	0.63
43:DW:29:LEU:HG	43:DW:33:ARG:HE	1.64	0.63
1:AA:428:G:H4'	1:AA:429:U:O5'	1.99	0.63
48:B1:13:ILE:O	48:B1:14:VAL:HB	1.99	0.62
48:B1:45:ASN:HD22	48:B1:46:LEU:H	1.44	0.62
48:B1:44:PRO:O	48:B1:46:LEU:HB2	1.99	0.62
24:AX:32:ILE:HG12	24:AX:75:PHE:CD1	2.34	0.62
12:CJ:50:ILE:HA	12:CJ:60:ARG:HB2	1.80	0.62
1:AA:982:U:H4'	1:AA:983:A:O5'	1.99	0.62
49:D2:1:MET:HB3	49:D2:2:LYS:NZ	2.14	0.62
49:B2:50:ILE:HD12	49:B2:51:ARG:N	2.14	0.62
28:BE:47:VAL:HG21	28:BE:86:PRO:CD	2.27	0.62
25:BA:2419:U:C5'	55:B8:33:ASN:HD21	2.11	0.62
25:BA:1973:G:H2'	25:BA:1974:C:C6	2.32	0.62
1:CA:407:G:H2'	1:CA:408:A:C8	2.34	0.62
10:AH:109:ILE:HG12	10:AH:110:ALA:N	2.13	0.62
28:DE:96:PHE:HA	28:DE:100:GLU:OE1	1.98	0.62
1:CA:438:G:H4'	1:CA:439:A:OP1	1.99	0.62
9:CG:69:VAL:HG22	9:CG:135:VAL:HG22	1.81	0.62
39:BS:66:ALA:O	39:BS:69:VAL:HG12	1.99	0.62
8:AF:27:GLN:HA	8:AF:30:LEU:HD12	1.80	0.62
31:DH:96:ALA:HB1	31:DH:103:LEU:HD21	1.81	0.62
1:CA:1095:U:H5''	1:CA:1109:C:O2	1.98	0.62
1:AA:889:A:H4'	1:AA:890:G:OP1	1.99	0.62
43:BW:29:LEU:HG	43:BW:33:ARG:HE	1.63	0.62
28:DE:120:TRP:CD2	28:DE:155:LYS:HD3	2.34	0.62
48:D1:30:VAL:O	48:D1:30:VAL:HG12	1.99	0.62
25:BA:653:C:H6	25:BA:653:C:C5'	2.12	0.62
25:BA:1794:U:H2'	25:BA:1795:C:C6	2.34	0.62
48:D1:27:GLU:HG3	48:D1:33:LYS:NZ	2.14	0.62
25:DA:1021:A:H8	25:DA:1022:G:H5''	1.64	0.62
40:BT:24:PRO:HA	40:BT:49:VAL:HG13	1.80	0.62
25:BA:910:A:N7	37:BQ:13:GLN:HG3	2.13	0.62
25:DA:2875:C:H4'	40:DT:5:ALA:HB2	1.80	0.62
25:DA:78:A:H2'	25:DA:79:G:H8	1.64	0.62
25:DA:2259:G:C2	25:DA:2282:G:N1	2.66	0.62
20:AR:51:LEU:HD23	20:AR:52:PRO:HD2	1.82	0.62
34:BN:42:GLU:HB3	34:BN:82:LYS:HB2	1.80	0.62
6:AD:108:LEU:HD21	6:AD:183:GLY:HA3	1.81	0.62
1:AA:309:G:H1'	1:AA:608:A:C2	2.34	0.62
4:CB:27:LYS:HE3	4:CB:193:ASP:HA	1.79	0.62
32:BI:87:LYS:HD3	32:BI:121:LYS:HE3	1.80	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1833:U:H2'	25:DA:1834:U:H6	1.64	0.62
17:AO:3:ILE:H	17:AO:3:ILE:HD12	1.63	0.62
25:BA:1771:C:HO2'	25:BA:1786:A:H8	1.45	0.62
11:CI:4:TYR:CD2	11:CI:88:TYR:HB3	2.33	0.62
27:DD:25:THR:CG2	27:DD:82:ILE:N	2.55	0.62
41:DU:58:ARG:O	41:DU:62:ILE:HG12	1.99	0.62
36:BP:18:ARG:HH11	36:BP:18:ARG:HB3	1.64	0.62
24:CX:49:PRO:CD	33:DK:29:GLN:HB2	2.28	0.62
25:BA:1056:G:H4'	25:BA:1086:A:C8	2.35	0.62
24:CX:218:PHE:CE1	24:CX:320:TRP:HB2	2.33	0.62
25:DA:1336:A:H2'	25:DA:1337:G:H8	1.63	0.62
26:BB:9:G:P	39:BS:15:ARG:HH12	2.22	0.62
33:BK:8:VAL:HG22	33:BK:10:LEU:HD21	1.82	0.62
25:DA:144:C:H2'	25:DA:145:G:H8	1.62	0.62
1:CA:186(D):G:H1	1:CA:191(D):U:H3	1.47	0.62
4:CB:118:LEU:HB3	4:CB:142:LEU:HD12	1.80	0.62
1:CA:1349:A:H2'	1:CA:1350:A:C8	2.34	0.62
4:AB:118:LEU:HB3	4:AB:142:LEU:HD12	1.81	0.62
1:CA:902:G:H2'	1:CA:903:G:H8	1.64	0.62
25:DA:1598:C:H5''	25:DA:1598:C:C6	2.34	0.62
2:AZ:1:C:H42	2:AZ:72:A:H61	1.47	0.62
43:DW:10:VAL:HG12	43:DW:12:ILE:HG22	1.81	0.62
55:D8:23:VAL:HG11	55:D8:47:LYS:HE2	1.80	0.62
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.34	0.62
25:DA:1154:G:O5'	25:DA:1154:G:H8	1.83	0.62
11:CI:97:LYS:HB3	11:CI:98:PRO:HD3	1.81	0.62
12:CJ:94:VAL:HG12	12:CJ:95:GLU:N	2.15	0.62
25:BA:1021:A:H8	25:BA:1022:G:H5''	1.63	0.62
25:DA:1019:U:N3	25:DA:114(B):A:N6	2.44	0.62
12:AJ:50:ILE:HA	12:AJ:60:ARG:HB2	1.82	0.62
4:CB:32:ILE:HD11	4:CB:190:THR:HG22	1.80	0.62
25:BA:773:U:H4'	27:BD:47:GLY:HA3	1.82	0.62
25:DA:34:C:C2'	25:DA:35:G:H5'	2.29	0.62
6:CD:30:LYS:HA	6:CD:34:GLU:HB3	1.81	0.62
38:DR:61:HIS:CE1	38:DR:65:LEU:HD11	2.35	0.62
1:AA:1116:C:H2'	1:AA:1117:G:H5''	1.82	0.62
1:AA:502:G:OP1	14:AL:117:SER:HB3	1.99	0.62
48:B1:19:GLN:HE21	48:B1:41:ARG:HE	1.45	0.62
13:CK:50:TYR:HB3	13:CK:54:ARG:HB2	1.81	0.62
25:BA:17:G:H4'	41:BU:25:TRP:CH2	2.34	0.62
25:BA:516:C:O2'	25:BA:1262:A:H5'	1.99	0.62
39:BS:64:GLU:HA	39:BS:67:ARG:NE	2.15	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1935:G:H1'	25:DA:1964:G:N2	2.15	0.62
6:AD:189:PRO:HB2	6:AD:194:LEU:HD21	1.79	0.62
1:AA:1095:U:H5''	1:AA:1109:C:O2	1.99	0.62
1:AA:731:G:OP1	1:AA:766:A:H1'	2.00	0.62
35:DO:76:ALA:HB3	40:DT:75:ILE:HD13	1.81	0.62
2:CZ:71:C:H4'	25:DA:1851:U:H4'	1.81	0.62
19:AQ:12:SER:HB3	19:AQ:20:THR:HB	1.79	0.62
24:AX:43:GLU:OE2	24:AX:44:ARG:HG3	2.00	0.62
25:DA:653:C:H6	25:DA:653:C:C5'	2.12	0.62
6:CD:108:LEU:HD21	6:CD:183:GLY:HA3	1.81	0.62
25:DA:2064:C:H2'	25:DA:2065:C:C6	2.34	0.62
25:BA:1598:C:C6	25:BA:1598:C:H5''	2.34	0.62
10:CH:50:ARG:H	10:CH:50:ARG:HD2	1.65	0.62
25:BA:628:G:H2'	25:BA:629:G:H8	1.62	0.62
45:DY:7:VAL:HG12	45:DY:8:LYS:H	1.64	0.62
25:DA:2015:A:C1'	52:D5:2:ALA:HA	2.29	0.62
1:AA:983:A:H3'	1:AA:983:A:N3	2.14	0.62
25:BA:1059:G:O2'	33:BK:111:LYS:HE3	1.99	0.62
12:CJ:32:ALA:CB	12:CJ:76:ASN:HB2	2.27	0.62
43:BW:13:SER:HB3	43:BW:16:LYS:HD2	1.80	0.62
14:AL:49:SER:O	14:AL:50:ALA:HB2	1.99	0.62
44:BX:30:VAL:HG11	44:BX:39:ILE:HD12	1.80	0.62
31:BH:23:ARG:N	31:BH:23:ARG:HD3	2.14	0.62
31:DH:101:ARG:NE	31:DH:101:ARG:H	1.98	0.62
31:BH:35:VAL:O	31:BH:37:VAL:HG13	1.99	0.62
46:BZ:10:ARG:HG2	46:BZ:11:GLU:H	1.64	0.62
1:AA:1349:A:H2'	1:AA:1350:A:H8	1.65	0.62
53:B6:39:TYR:HB3	53:B6:49:HIS:CE1	2.34	0.62
19:CQ:27:PHE:CZ	19:CQ:36:ILE:HD11	2.35	0.62
51:D4:37:PRO:HA	51:D4:50:THR:O	2.00	0.62
25:BA:536:A:H2'	25:BA:537:C:C6	2.35	0.62
25:BA:1264:G:O5'	25:BA:1264:G:H8	1.82	0.62
1:AA:1281:U:H3'	1:AA:1282:C:C6	2.34	0.62
25:BA:207:A:H2'	25:BA:208:C:O4'	1.99	0.62
1:CA:620:C:H2'	1:CA:621:A:O4'	2.00	0.62
25:DA:707:G:H2'	25:DA:708:C:O4'	2.00	0.62
25:DA:1993:U:H5''	28:DE:128:SER:HB2	1.81	0.62
43:BW:10:VAL:HG12	43:BW:12:ILE:HG22	1.81	0.62
31:DH:97:ARG:HD3	31:DH:104:GLU:OE2	2.00	0.62
27:DD:37:LEU:HD12	27:DD:38:LYS:N	2.15	0.62
1:AA:629:G:H2'	1:AA:630:G:C8	2.34	0.62
27:DD:31:LYS:O	27:DD:36:PRO:HD3	2.00	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BD:33:LEU:H	27:BD:33:LEU:CD2	2.08	0.62
40:BT:102:ILE:HB	40:BT:110:ILE:CD1	2.25	0.62
25:DA:1018:C:H2'	25:DA:1019:U:H6	1.64	0.62
25:DA:2420:C:O5'	25:DA:2420:C:H6	1.83	0.62
29:BF:34:TRP:CZ2	36:BP:12:ALA:HB2	2.34	0.62
1:CA:1179:A:H2'	1:CA:1180:A:O4'	1.99	0.62
37:BQ:22:LYS:HD3	37:BQ:22:LYS:O	2.00	0.62
1:AA:313:A:H2'	1:AA:314:C:H6	1.65	0.62
30:DG:128:ARG:HE	30:DG:129:GLY:N	1.95	0.62
45:DY:81:LYS:CB	45:DY:97:ARG:HB3	2.30	0.62
19:CQ:5:VAL:HG22	19:CQ:60:ILE:HG13	1.81	0.62
27:DD:30:GLU:HG3	27:DD:63:ARG:CZ	2.30	0.62
2:AZ:8:U:O2	2:AZ:21:A:H2	1.83	0.62
25:BA:2476:A:H2'	25:BA:2477:C:H5''	1.81	0.62
25:DA:2804:C:H2'	25:DA:2805:G:C8	2.35	0.62
1:CA:164:U:H2'	1:CA:165:C:C6	2.35	0.62
25:DA:352:G:H4'	25:DA:353:G:N7	2.14	0.62
25:DA:1357:U:H2'	25:DA:1358:G:O4'	2.00	0.62
27:DD:158:ALA:HB3	27:DD:161:THR:HG21	1.81	0.62
1:AA:794:A:H2'	1:AA:795:C:C6	2.34	0.62
36:DP:29:LYS:N	36:DP:29:LYS:HD2	2.13	0.62
25:DA:587:C:H2'	36:DP:33:ARG:CZ	2.29	0.62
53:B6:32:ASN:H	53:B6:33:LYS:NZ	1.97	0.62
45:DY:17:SER:CB	45:DY:71:LYS:HD2	2.29	0.62
25:DA:2393:A:H5''	36:DP:62:LEU:HB3	1.81	0.62
46:DZ:125:LEU:HD22	46:DZ:164:ALA:CB	2.27	0.62
25:DA:1495:A:H2'	25:DA:1496:A:N3	2.15	0.62
40:BT:27:THR:HG23	40:BT:90:GLN:HB3	1.81	0.62
36:BP:101:VAL:HB	36:BP:106:LEU:HB3	1.80	0.62
1:AA:1305:G:N2	1:AA:1331:G:H2'	2.13	0.62
14:CL:5:THR:HG23	14:CL:8:GLN:HE21	1.64	0.62
10:AH:12:ARG:HH12	10:AH:26:VAL:HA	1.65	0.62
25:BA:1054:A:H2'	25:BA:1055:G:C8	2.34	0.62
32:BI:68:LEU:HA	32:BI:71:ILE:HG23	1.79	0.62
22:AT:13:LEU:H	22:AT:13:LEU:HD22	1.64	0.62
1:AA:735:C:H2'	1:AA:736:C:H6	1.65	0.62
1:AA:735:C:H5'	20:AR:71:LYS:HD3	1.82	0.62
14:CL:65:VAL:HG11	14:CL:97:TYR:CD1	2.35	0.62
25:BA:655:A:C2'	25:BA:656:G:H5'	2.30	0.62
38:BR:61:HIS:CE1	38:BR:65:LEU:HD11	2.34	0.62
25:BA:1509:A:H4'	25:BA:1510:A:N9	2.15	0.62
19:AQ:81:ARG:HD3	19:AQ:84:LEU:HD11	1.81	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2864:G:H2'	25:BA:2865:U:O4'	2.00	0.62
1:AA:179:A:H2'	1:AA:180:U:H6	1.65	0.62
1:AA:45:U:H2'	1:AA:46:G:C8	2.35	0.62
1:CA:1530:G:H2'	1:CA:1531:A:C8	2.35	0.62
31:BH:102:ALA:HB2	31:BH:117:PRO:HG3	1.81	0.62
35:DO:88:ASN:ND2	35:DO:90:GLN:HB2	2.14	0.62
25:BA:2150:U:H2'	25:BA:2151:G:H8	1.64	0.62
46:BZ:23:LYS:HD3	46:BZ:40:ASP:HA	1.81	0.62
1:AA:171:A:H2'	1:AA:172:A:C8	2.34	0.62
12:CJ:92:THR:HG23	12:CJ:93:GLY:H	1.64	0.62
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.35	0.62
49:D2:17:SER:HB3	49:D2:18:PRO:CD	2.26	0.62
29:DF:6:MET:HG2	29:DF:7:TYR:CD1	2.25	0.62
16:CN:45:ARG:O	16:CN:49:HIS:CD2	2.48	0.62
12:CJ:32:ALA:HB1	12:CJ:75:ILE:HG13	1.82	0.62
24:AX:195:PRO:CB	24:AX:362:LEU:HB3	2.30	0.62
1:AA:738:C:H2'	1:AA:739:C:H6	1.64	0.62
25:BA:1588:C:H2'	25:BA:1589:C:C6	2.34	0.62
25:DA:27:G:H1'	25:DA:513:A:H62	1.64	0.62
24:AX:229:GLU:HG3	24:AX:230:GLU:H	1.64	0.62
27:BD:10:THR:HG23	27:BD:13:ARG:HG2	1.82	0.62
2:CZ:8:U:O2	2:CZ:21:A:H2	1.83	0.62
34:BN:51:THR:N	34:BN:129:MET:HE1	2.15	0.62
27:BD:148:GLU:HB2	27:BD:151:LYS:HD2	1.80	0.62
49:D2:24:LEU:HD13	49:D2:60:LEU:HD11	1.82	0.62
40:DT:112:ARG:O	40:DT:112:ARG:HD3	2.00	0.62
31:DH:54:ARG:HB3	31:DH:65:HIS:HD2	1.64	0.62
25:DA:184:C:H2'	25:DA:185:U:C6	2.33	0.62
25:BA:414:C:H2'	25:BA:415:A:C8	2.34	0.62
1:AA:262:A:H4'	22:AT:75:ASN:HD21	1.65	0.62
1:AA:80:G:N2	1:AA:90:C:H1'	2.15	0.62
41:BU:69:CYS:SG	41:BU:79:PHE:HB2	2.40	0.62
27:DD:25:THR:O	27:DD:26:LYS:C	2.38	0.62
5:CC:58:GLU:HB2	5:CC:65:ALA:CB	2.29	0.62
25:BA:1018:C:H2'	25:BA:1019:U:H6	1.65	0.62
25:BA:1021:A:H2'	25:BA:1023:U:H5'	1.81	0.62
15:AM:90:LEU:HA	15:AM:93:ARG:HB2	1.82	0.62
11:CI:114:TYR:HE1	12:CJ:60:ARG:N	1.94	0.62
40:DT:105:LEU:HD23	40:DT:107:ASP:OD1	2.00	0.62
21:CS:47:HIS:H	21:CS:62:ILE:CG2	2.12	0.62
4:AB:19:HIS:HD2	4:AB:20:GLU:HG2	1.65	0.62
25:DA:2562:U:H1'	35:DO:23:ARG:HH12	1.63	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CX:195:PRO:CB	24:CX:362:LEU:HB3	2.29	0.62
55:B8:52:LYS:N	55:B8:52:LYS:HD2	2.14	0.62
25:BA:27:G:H1'	25:BA:513:A:H62	1.65	0.62
2:AY:47:U:H3'	2:AY:48:C:H5'	1.82	0.62
25:DA:1794:U:H2'	25:DA:1795:C:C6	2.35	0.62
25:BA:1360:A:H5''	25:BA:1361:G:OP2	1.99	0.62
25:BA:373:U:H2'	25:BA:374:A:H8	1.65	0.62
30:DG:38:VAL:HG22	30:DG:93:THR:HG23	1.82	0.62
25:DA:2103:C:H2'	25:DA:2104:G:C8	2.35	0.62
1:AA:965:A:C2	1:AA:969:A:C2	2.88	0.62
25:BA:71:A:C2	44:BX:31:HIS:HE1	2.18	0.62
10:CH:91:ARG:CG	10:CH:91:ARG:HH11	2.13	0.62
22:CT:69:GLY:O	22:CT:73:HIS:CD2	2.52	0.62
25:BA:593:G:O2'	55:B8:62:LEU:HD13	2.00	0.62
30:BG:39:ILE:HA	30:BG:157:ILE:HG22	1.81	0.62
24:CX:251:GLY:HA2	25:DA:2602:A:C8	2.35	0.62
1:CA:579:G:H2'	1:CA:580:U:H6	1.65	0.62
25:BA:2262:U:H2'	25:BA:2263:C:C6	2.35	0.62
1:CA:894:G:H2'	1:CA:895:G:H8	1.64	0.62
21:AS:47:HIS:H	21:AS:62:ILE:CG2	2.12	0.62
25:DA:2427:C:H5'	25:DA:2427:C:H6	1.64	0.62
25:BA:34:C:C2'	25:BA:35:G:H5'	2.29	0.62
25:BA:2723:C:H5''	38:BR:2:ARG:HH12	1.65	0.62
25:BA:863:A:H2'	25:BA:864:G:C8	2.35	0.62
20:CR:44:LEU:HD21	20:CR:80:PRO:HD2	1.82	0.62
18:AP:57:ARG:HA	18:AP:60:LEU:HD12	1.81	0.62
24:AX:47:GLU:O	33:BK:29:GLN:HB3	1.99	0.62
4:AB:43:ASP:OD2	4:AB:46:LYS:HB2	1.99	0.62
36:DP:92:GLU:HG2	36:DP:93:GLY:H	1.64	0.62
9:AG:15:ASP:OD1	9:AG:18:TYR:HB2	2.00	0.62
25:BA:495:G:O2'	43:BW:62:HIS:HE1	1.83	0.62
1:CA:1499:A:H1'	1:CA:1520:G:OP1	2.00	0.62
1:CA:1051:C:H2'	1:CA:1052:U:C6	2.35	0.62
34:DN:37:VAL:HG12	34:DN:38:LEU:H	1.65	0.62
36:DP:45:LEU:HD23	36:DP:46:LYS:H	1.65	0.61
36:BP:45:LEU:HD23	36:BP:46:LYS:H	1.64	0.61
8:CF:97:PHE:CD2	20:CR:31:LEU:HD21	2.26	0.61
32:DI:74:ASN:O	32:DI:75:LEU:HB2	1.99	0.61
1:AA:673:G:H2'	1:AA:674:G:C8	2.35	0.61
25:DA:1054:A:H2'	25:DA:1055:G:C8	2.35	0.61
5:AC:75:VAL:O	5:AC:83:ARG:HG2	2.00	0.61
1:CA:735:C:H5'	20:CR:71:LYS:HD3	1.82	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CL:23:VAL:HG13	14:CL:97:TYR:CE2	2.35	0.61
26:BB:9:G:H5'	39:BS:25:ARG:HH22	1.65	0.61
25:DA:319:C:H2'	25:DA:320:A:H8	1.64	0.61
1:CA:1378:C:C5	1:CA:1379:G:C8	2.88	0.61
39:DS:64:GLU:HA	39:DS:67:ARG:NE	2.14	0.61
2:CZ:1:C:H42	2:CZ:72:A:H61	1.46	0.61
52:D5:36:CYS:SG	52:D5:37:LYS:N	2.73	0.61
7:AE:16:THR:O	7:AE:26:PHE:HB3	1.99	0.61
25:BA:1932:A:H2'	25:BA:1933:G:O4'	2.00	0.61
10:CH:109:ILE:HG12	10:CH:110:ALA:N	2.15	0.61
25:DA:903:C:H2'	25:DA:904:C:C6	2.35	0.61
11:AI:97:LYS:HB3	11:AI:98:PRO:HD3	1.81	0.61
25:BA:2064:C:H2'	25:BA:2065:C:C6	2.35	0.61
24:AX:38:ARG:NH1	24:AX:42:LEU:HD23	2.15	0.61
36:BP:29:LYS:HD2	36:BP:29:LYS:N	2.15	0.61
1:CA:498:A:H4'	1:CA:500:G:OP1	1.99	0.61
55:B8:53:PRO:C	55:B8:57:ARG:HH22	2.04	0.61
37:BQ:81:VAL:HG12	37:BQ:82:ARG:N	2.14	0.61
25:DA:251:A:C5	25:DA:252:G:H1'	2.35	0.61
41:BU:58:ARG:O	41:BU:62:ILE:HG12	2.00	0.61
25:BA:125:G:H5"	54:B7:19:ARG:HG3	1.81	0.61
53:D6:35:GLU:HB3	53:D6:51:GLU:HB2	1.81	0.61
25:DA:2287:A:H8	25:DA:2287:A:H5"	1.64	0.61
36:DP:62:LEU:H	36:DP:62:LEU:HD13	1.64	0.61
15:CM:82:MET:HB2	15:CM:93:ARG:NH1	2.15	0.61
25:BA:1870:C:H2'	25:BA:1871:A:O4'	1.98	0.61
25:BA:2262:U:H2'	25:BA:2263:C:H6	1.65	0.61
1:AA:313:A:H2'	1:AA:314:C:C6	2.34	0.61
30:DG:16:ARG:CG	30:DG:16:ARG:HH11	2.12	0.61
15:AM:84:ILE:HG13	21:AS:74:PHE:CE1	2.32	0.61
19:CQ:24:GLU:HG2	19:CQ:39:SER:HB3	1.82	0.61
31:BH:37:VAL:HB	31:BH:68:THR:HG22	1.81	0.61
25:DA:2864:G:H2'	25:DA:2865:U:O4'	2.00	0.61
40:DT:55:ASN:H	40:DT:59:THR:HB	1.64	0.61
28:DE:9:VAL:HG13	28:DE:25:VAL:O	1.99	0.61
1:AA:453:A:H2'	1:AA:454:C:C6	2.35	0.61
4:CB:236:TYR:O	4:CB:239:VAL:HB	2.00	0.61
13:AK:91:ARG:HH12	20:AR:88:LYS:HD2	1.65	0.61
34:DN:90:LEU:HD12	34:DN:90:LEU:H	1.66	0.61
4:AB:121:LEU:HD21	4:AB:126:GLU:HB3	1.81	0.61
29:BF:155:LEU:HA	29:BF:174:VAL:HG23	1.82	0.61
25:BA:1437:C:H2'	25:BA:1438:U:C6	2.35	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CO:82:ILE:HD11	17:CO:87:ILE:O	2.01	0.61
25:DA:1826:G:H4'	27:DD:242:ARG:NH2	2.15	0.61
11:CI:114:TYR:HD1	12:CJ:60:ARG:HG2	1.64	0.61
25:BA:2212:A:H1'	25:BA:2215:G:C5	2.35	0.61
25:BA:2115:G:O5'	25:BA:2115:G:H8	1.84	0.61
36:DP:65:ARG:HB2	55:D8:12:LYS:O	2.00	0.61
38:DR:10:LEU:O	38:DR:10:LEU:HD12	2.00	0.61
25:DA:2147:G:H2'	25:DA:2148:G:O4'	1.99	0.61
1:AA:1179:A:H2'	1:AA:1180:A:O4'	1.99	0.61
25:DA:1344:G:H4'	25:DA:1384:A:N7	2.15	0.61
45:BY:90:LEU:HG	45:BY:91:GLU:N	2.15	0.61
36:DP:6:LEU:HD12	36:DP:8:PRO:HG2	1.82	0.61
45:BY:47:LYS:HA	45:BY:60:PHE:CE2	2.35	0.61
1:AA:1124:G:C5'	12:AJ:35:SER:HB2	2.31	0.61
25:BA:707:G:H2'	25:BA:708:C:O4'	2.01	0.61
1:CA:685:G:OP1	13:CK:11:LYS:HG3	1.99	0.61
25:BA:2443:C:H2'	25:BA:2444:G:H8	1.64	0.61
25:DA:536:A:H2'	25:DA:537:C:C6	2.36	0.61
32:DI:2:LYS:HG3	32:DI:20:ASP:OD2	1.98	0.61
15:AM:99:ARG:HB2	15:AM:101:GLN:HE21	1.65	0.61
1:AA:403:C:O2'	1:AA:404:U:H5'	2.00	0.61
1:AA:622:A:H5''	1:AA:623:C:OP2	2.00	0.61
4:AB:102:LEU:H	4:AB:102:LEU:HD12	1.64	0.61
25:BA:2439:A:C5'	25:BA:2439:A:C8	2.83	0.61
50:B3:5:LYS:HB3	50:B3:57:GLU:HB2	1.81	0.61
1:CA:145:G:H2'	1:CA:146:G:H8	1.65	0.61
22:AT:72:LEU:HD22	22:AT:73:HIS:N	2.15	0.61
25:DA:2415:G:H4'	36:DP:67:MET:H	1.65	0.61
25:BA:2415:G:H4'	36:BP:67:MET:H	1.64	0.61
25:BA:598:G:H5'	36:BP:15:ARG:HB3	1.81	0.61
25:BA:287:C:H2'	25:BA:288:C:C6	2.29	0.61
25:DA:1188:U:C2'	25:DA:1189:A:H5'	2.30	0.61
34:DN:121:VAL:HG23	34:DN:122:LEU:N	2.15	0.61
26:DB:9:G:P	39:DS:15:ARG:HH12	2.23	0.61
25:DA:2884:U:OP2	52:D5:43:HIS:HE1	1.83	0.61
25:BA:2133:G:H2'	25:BA:2157:G:H22	1.63	0.61
25:DA:558:G:OP1	34:DN:134:PRO:HD2	2.01	0.61
7:CE:148:VAL:HG21	10:CH:107:LEU:HD22	1.81	0.61
25:DA:363(G):A:O2'	25:DA:364:C:OP2	2.12	0.61
25:BA:319:C:H2'	25:BA:320:A:C8	2.35	0.61
26:DB:50:G:OP2	39:DS:62:LYS:HD2	1.99	0.61
25:BA:2393:A:H5''	36:BP:62:LEU:HB3	1.83	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CB:154:LEU:HD13	4:CB:155:LEU:H	1.66	0.61
24:CX:246:ARG:HA	24:CX:259:ASP:HA	1.82	0.61
24:AX:246:ARG:HA	24:AX:259:ASP:HA	1.83	0.61
1:CA:328:C:C2'	1:CA:328:C:O2	2.49	0.61
26:BB:65:C:O2'	26:BB:66:A:H5'	2.01	0.61
11:CI:113:LYS:HG2	11:CI:119:ALA:HA	1.83	0.61
25:BA:2852:G:H2'	25:BA:2853:C:C6	2.36	0.61
39:DS:92:TYR:HB2	39:DS:98:VAL:HG11	1.81	0.61
25:DA:2852:G:H2'	25:DA:2853:C:C6	2.36	0.61
25:DA:1766:U:H2'	25:DA:1767:C:C6	2.34	0.61
24:CX:38:ARG:NH1	24:CX:42:LEU:HD23	2.15	0.61
25:BA:2748:A:H2'	25:BA:2749:A:C8	2.34	0.61
34:BN:90:LEU:HD12	34:BN:90:LEU:H	1.65	0.61
38:BR:38:VAL:HB	38:BR:39:PRO:HD3	1.81	0.61
1:AA:1053:G:N7	1:AA:1200:C:H5''	2.15	0.61
29:DF:155:LEU:HA	29:DF:174:VAL:HG23	1.81	0.61
25:BA:1035:U:H5''	31:BH:59:ARG:HG2	1.81	0.61
32:DI:118:LYS:H	32:DI:118:LYS:HD3	1.65	0.61
1:AA:164:U:H2'	1:AA:165:C:C6	2.35	0.61
53:B6:36:LEU:HD13	53:B6:50:ARG:NH2	2.16	0.61
36:BP:23:PRO:CD	36:BP:33:ARG:CZ	2.76	0.61
40:BT:50:ILE:HD11	40:BT:102:ILE:HG12	1.81	0.61
12:CJ:48:THR:HG22	12:CJ:62:HIS:ND1	2.15	0.61
44:DX:53:LYS:HE3	44:DX:55:ASN:HD21	1.65	0.61
25:DA:81:G:N3	45:DY:2:ARG:NH2	2.49	0.61
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.64	0.61
2:AZ:36:U:H2'	2:AZ:37:A:O4'	2.01	0.61
25:DA:1076:C:H1'	33:DK:91:PRO:HD2	1.80	0.61
53:B6:35:GLU:HB3	53:B6:51:GLU:HB2	1.83	0.61
42:BV:79:VAL:O	42:BV:79:VAL:HG12	2.00	0.61
25:BA:49:A:H4'	25:BA:50:U:H5''	1.83	0.61
25:BA:2103:C:H2'	25:BA:2104:G:C8	2.36	0.61
25:DA:1072:C:N4	25:DA:1093:G:H1	1.97	0.61
1:CA:179:A:H2'	1:CA:180:U:H6	1.64	0.61
25:BA:298:G:H8	25:BA:298:G:O5'	1.84	0.61
25:BA:2317:C:H2'	25:BA:2318:G:O4'	2.01	0.61
1:CA:45:U:H2'	1:CA:46:G:C8	2.36	0.61
25:DA:1732:A:H2'	25:DA:1733:G:C8	2.35	0.61
25:DA:1375:C:H2'	25:DA:1376:C:H6	1.66	0.61
1:CA:80:G:N2	1:CA:90:C:H1'	2.15	0.61
34:DN:69:VAL:O	34:DN:70:ALA:HB3	2.00	0.61
29:BF:45:ARG:HG2	29:BF:45:ARG:NH1	2.04	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BY:17:SER:CB	45:BY:71:LYS:HD2	2.30	0.61
32:DI:5:LEU:H	32:DI:5:LEU:HD23	1.64	0.61
31:DH:17:VAL:O	31:DH:18:GLU:HG3	2.01	0.61
15:CM:90:LEU:HA	15:CM:93:ARG:HB2	1.82	0.61
12:CJ:48:THR:HA	12:CJ:62:HIS:CB	2.30	0.61
12:AJ:32:ALA:HB1	12:AJ:75:ILE:HG13	1.82	0.61
15:CM:99:ARG:HB2	15:CM:101:GLN:HE21	1.65	0.61
8:CF:87:ARG:CG	8:CF:87:ARG:NH1	2.56	0.61
2:AZ:71:C:H4'	25:BA:1851:U:H4'	1.83	0.61
30:BG:107:LEU:HD22	30:BG:178:PHE:HA	1.82	0.61
1:AA:1004:A:H2'	1:AA:1005:A:O4'	2.01	0.61
25:DA:2879:C:H4'	25:DA:2880:C:OP1	1.99	0.61
25:DA:2649:U:H2'	25:DA:2650:U:C6	2.36	0.61
1:AA:818:G:H3'	1:AA:819:A:H5''	1.82	0.61
1:CA:706:A:H4'	13:CK:29:ILE:HD11	1.81	0.61
53:D6:15:GLU:OE1	53:D6:18:ARG:NH1	2.34	0.61
46:BZ:126:VAL:HG12	46:BZ:163:LEU:HA	1.82	0.61
25:DA:646:A:H5'	25:DA:646:A:N3	2.15	0.61
1:CA:1004:A:C8	1:CA:1026:G:C6	2.89	0.61
24:AX:51:LEU:HD21	24:AX:61:VAL:HG21	1.82	0.61
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.16	0.61
18:CP:13:HIS:C	18:CP:15:PRO:HD3	2.21	0.61
25:BA:422:A:H2'	25:BA:423:A:C8	2.36	0.61
25:DA:2610:C:H6	25:DA:2610:C:H5'	1.64	0.61
25:BA:1019:U:HO2'	25:BA:1021:A:H2	1.49	0.61
21:AS:28:LYS:HE2	21:AS:29:ARG:NH1	2.16	0.61
2:CZ:35:A:H2'	2:CZ:36:U:C5	2.36	0.61
25:BA:2567:G:H2'	25:BA:2568:C:C6	2.36	0.61
24:CX:190:TYR:CD1	24:CX:225:PRO:HD3	2.35	0.61
25:BA:1829:A:H3'	25:BA:1830:C:H6	1.65	0.61
1:CA:1117:G:H4'	11:CI:104:ARG:HH21	1.65	0.61
50:B3:8:LEU:HA	50:B3:54:VAL:HG12	1.83	0.61
1:CA:223:U:H2'	1:CA:224:C:H6	1.65	0.61
25:DA:2133:G:H2'	25:DA:2157:G:H22	1.64	0.61
25:DA:580:C:H2'	25:DA:581:C:H6	1.65	0.61
40:BT:6:LEU:O	40:BT:10:VAL:HG23	2.01	0.61
25:BA:1072:C:N4	25:BA:1093:G:H1	1.98	0.61
25:DA:2179:C:H2'	25:DA:2180:U:C6	2.36	0.61
51:B4:37:PRO:HA	51:B4:50:THR:O	2.01	0.61
25:BA:38:A:H2'	25:BA:39:C:C6	2.36	0.61
1:AA:663:A:H2'	1:AA:664:G:O4'	2.01	0.61
25:BA:2127:G:H2'	25:BA:2128:C:C6	2.36	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BK:4:VAL:HG12	33:BK:5:VAL:H	1.66	0.61
40:BT:33:LYS:HB2	40:BT:82:LEU:HD23	1.82	0.61
25:DA:2150:U:H2'	25:DA:2151:G:H8	1.65	0.61
35:BO:7:TYR:HE1	35:BO:20:MET:HE3	1.65	0.61
48:B1:13:ILE:HG13	48:B1:15:ALA:H	1.66	0.61
25:DA:1971:A:C5	27:DD:241:PRO:HG3	2.36	0.61
21:CS:49:ILE:HD12	21:CS:49:ILE:H	1.65	0.61
4:CB:154:LEU:HD13	4:CB:155:LEU:N	2.16	0.61
4:AB:154:LEU:HD13	4:AB:155:LEU:N	2.16	0.61
25:DA:1677:A:H2'	25:DA:1678:G:C8	2.35	0.61
2:CZ:35:A:H2'	2:CZ:36:U:C6	2.36	0.61
1:AA:737:A:H2'	1:AA:738:C:H6	1.63	0.61
47:B0:23:VAL:HB	47:B0:26:TYR:HE2	1.66	0.61
36:BP:94:GLU:OE2	36:BP:124:LYS:HD3	2.01	0.61
31:DH:37:VAL:HB	31:DH:68:THR:HG22	1.82	0.61
25:DA:643:A:C2	25:DA:644:A:C4	2.89	0.61
25:DA:653:C:H6	25:DA:653:C:H5''	1.66	0.61
1:AA:818:G:C3'	1:AA:819:A:H5''	2.31	0.61
1:CA:309:G:H1'	1:CA:608:A:C2	2.35	0.61
28:BE:120:TRP:CD2	28:BE:155:LYS:HD3	2.35	0.61
25:BA:1556:C:H2'	25:BA:1557:C:C6	2.35	0.61
1:CA:1452:C:H1'	1:CA:1453:G:C2	2.36	0.61
1:CA:545:C:H5''	6:CD:72:GLU:HG3	1.83	0.61
1:AA:1206:G:H4'	5:AC:192:THR:O	2.01	0.61
47:D0:11:LYS:HB2	47:D0:14:ARG:HH22	1.66	0.61
1:AA:706:A:H4'	13:AK:29:ILE:HD11	1.82	0.61
25:BA:1839:G:C8	25:BA:1839:G:H5'	2.36	0.61
24:CX:359:TRP:O	24:CX:363:GLU:HB3	2.00	0.61
28:BE:96:PHE:HA	28:BE:100:GLU:OE1	2.00	0.61
25:DA:2306:C:H5'	25:DA:2307:G:N7	2.16	0.61
21:CS:50:ALA:HA	21:CS:58:VAL:O	2.01	0.61
1:CA:982:U:H4'	1:CA:983:A:O5'	2.00	0.61
25:DA:1543:A:C8	25:DA:1543:A:C3'	2.82	0.61
25:BA:1087:G:N2	25:BA:1103:A:H1'	2.16	0.61
12:CJ:81:THR:HA	12:CJ:84:GLN:HB3	1.81	0.61
25:DA:330:A:C2	25:DA:1210:A:H2'	2.36	0.61
55:B8:34:TRP:CD1	55:B8:35:GLN:N	2.68	0.61
19:CQ:80:GLY:O	19:CQ:81:ARG:HG2	2.00	0.61
25:DA:547:A:H2'	25:DA:548:A:C8	2.35	0.61
1:CA:1124:G:C5'	12:CJ:35:SER:HB2	2.31	0.61
1:AA:1004:A:C8	1:AA:1026:G:C6	2.89	0.61
1:CA:1004:A:H2'	1:CA:1005:A:O4'	2.01	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:54:MET:HB3	37:BQ:64:ILE:HD13	1.82	0.61
31:BH:94:TYR:HD2	31:BH:107:VAL:HG12	1.65	0.61
25:DA:1483:G:H2'	25:DA:1484:G:H8	1.66	0.61
25:DA:2505:G:H8	25:DA:2505:G:H5'	1.66	0.61
25:DA:639:U:H2'	25:DA:640:C:C6	2.36	0.61
44:BX:9:LEU:O	49:B2:36:ARG:HD3	2.00	0.61
25:BA:2179:C:H2'	25:BA:2180:U:C6	2.36	0.61
25:DA:628:G:H2'	25:DA:629:G:C8	2.36	0.60
27:BD:150:LYS:HE3	27:BD:150:LYS:HA	1.83	0.60
39:DS:34:HIS:HB3	39:DS:36:TYR:HE1	1.66	0.60
25:DA:276:A:C4	25:DA:277:C:N4	2.69	0.60
45:BY:7:VAL:HG12	45:BY:8:LYS:H	1.64	0.60
29:BF:32:LEU:O	29:BF:36:VAL:HG23	2.01	0.60
25:DA:2115:G:O5'	25:DA:2115:G:H8	1.83	0.60
25:BA:1843:C:H2'	25:BA:1844:C:C6	2.36	0.60
41:DU:75:ASN:HD22	41:DU:78:THR:HB	1.66	0.60
45:DY:47:LYS:HA	45:DY:60:PHE:CE2	2.35	0.60
21:AS:16:LEU:HA	21:AS:19:VAL:HG12	1.82	0.60
1:CA:375:U:H4'	18:CP:17:TYR:CE2	2.36	0.60
28:DE:120:TRP:CE3	28:DE:155:LYS:HD3	2.36	0.60
7:AE:148:VAL:HG21	10:AH:107:LEU:HD22	1.81	0.60
19:AQ:29:HIS:HE1	19:AQ:31:LEU:HB3	1.66	0.60
27:BD:224:ALA:HA	27:BD:233:HIS:O	2.01	0.60
31:BH:96:ALA:HB1	31:BH:103:LEU:HD21	1.82	0.60
6:AD:70:ILE:HD11	6:AD:74:GLN:OE1	2.01	0.60
31:BH:54:ARG:HB3	31:BH:65:HIS:HD2	1.65	0.60
4:AB:236:TYR:O	4:AB:239:VAL:HB	2.00	0.60
53:D6:36:LEU:HD13	53:D6:50:ARG:NH2	2.15	0.60
27:BD:158:ALA:HB3	27:BD:161:THR:HG21	1.83	0.60
46:BZ:72:ARG:HG2	46:BZ:89:PHE:HB2	1.83	0.60
25:DA:2748:A:H2'	25:DA:2749:A:C8	2.35	0.60
19:AQ:27:PHE:CZ	19:AQ:36:ILE:HD11	2.36	0.60
25:BA:2190:G:H2'	25:BA:2191:G:H8	1.65	0.60
25:DA:675:A:H5'	29:DF:63:LYS:NZ	2.16	0.60
41:BU:44:ASN:HD21	42:BV:75:PHE:HB3	1.66	0.60
25:DA:2567:G:H2'	25:DA:2568:C:C6	2.36	0.60
25:DA:2212:A:H1'	25:DA:2215:G:C5	2.36	0.60
30:DG:82:LEU:HD22	30:DG:87:PRO:HG3	1.82	0.60
46:BZ:48:PHE:CE2	46:BZ:52:SER:HA	2.36	0.60
2:AZ:47:U:H5'	2:AZ:48:C:C5'	2.31	0.60
37:DQ:9:TYR:CD2	37:DQ:9:TYR:O	2.53	0.60
13:AK:21:ILE:N	13:AK:21:ILE:HD12	2.17	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1503:U:H2'	25:BA:1504:C:H6	1.66	0.60
25:DA:2572:A:C8	28:DE:144:ARG:HB3	2.36	0.60
25:BA:2875:C:H4'	40:BT:5:ALA:HB2	1.82	0.60
34:DN:160:LYS:HE2	34:DN:160:LYS:CA	2.31	0.60
53:B6:15:GLU:OE2	53:B6:18:ARG:CZ	2.48	0.60
24:AX:49:PRO:HG3	33:BK:29:GLN:HB2	1.83	0.60
2:CY:47:U:H3'	2:CY:48:C:H5'	1.82	0.60
25:BA:46:C:OP2	25:BA:215:G:H2'	2.01	0.60
1:AA:145:G:H2'	1:AA:146:G:H8	1.65	0.60
35:DO:97:ARG:HA	35:DO:117:LEU:HD22	1.81	0.60
25:BA:1142:U:H3'	25:BA:1142:U:H6	1.66	0.60
27:BD:166:GLN:HA	27:BD:166:GLN:HE21	1.67	0.60
26:DB:40:U:H3'	26:DB:41:U:C5'	2.31	0.60
13:CK:104:GLN:HA	13:CK:104:GLN:HE21	1.66	0.60
26:BB:90:C:OP2	37:BQ:16:ARG:HD2	2.01	0.60
17:CO:82:ILE:HG12	17:CO:87:ILE:HB	1.83	0.60
26:BB:50:G:OP2	39:BS:62:LYS:HD2	2.01	0.60
53:D6:25:LYS:HD2	55:D8:34:TRP:CZ3	2.37	0.60
11:CI:24:GLY:O	11:CI:26:VAL:HG23	2.01	0.60
34:DN:36:TRP:HB2	34:DN:156:GLN:HB2	1.83	0.60
21:AS:63:THR:N	21:AS:66:MET:HE3	2.16	0.60
25:BA:2562:U:H1'	35:BO:23:ARG:HH12	1.65	0.60
37:DQ:75:THR:HA	37:DQ:88:GLY:HA2	1.82	0.60
26:BB:95:U:H2'	26:BB:96:G:C8	2.36	0.60
1:AA:1381:U:C5	1:AA:1382:C:C4	2.89	0.60
50:B3:52:HIS:CD2	50:B3:52:HIS:H	2.18	0.60
25:DA:2074:U:H2'	25:DA:2075:U:C6	2.36	0.60
25:BA:1357:U:H2'	25:BA:1358:G:O4'	2.01	0.60
1:AA:1378:C:H5	1:AA:1379:G:C8	2.19	0.60
1:CA:262:A:H4'	22:CT:75:ASN:HD21	1.65	0.60
25:BA:1929:G:H4'	25:BA:1930:G:OP1	2.00	0.60
49:B2:19:VAL:HG12	49:B2:23:LYS:HE3	1.82	0.60
14:AL:7:ASN:ND2	19:AQ:34:LYS:HE2	2.16	0.60
31:BH:97:ARG:HD3	31:BH:104:GLU:OE2	2.00	0.60
38:BR:81:ASP:O	38:BR:82:GLU:HB2	2.02	0.60
15:AM:4:ILE:C	15:AM:6:GLY:H	2.05	0.60
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.37	0.60
25:DA:2127:G:H2'	25:DA:2128:C:C6	2.37	0.60
44:DX:9:LEU:O	49:D2:36:ARG:HD3	2.00	0.60
27:DD:253:GLN:HB2	27:DD:257:LEU:HD12	1.83	0.60
25:BA:2015:A:C1'	52:B5:2:ALA:HA	2.27	0.60
45:DY:2:ARG:HA	45:DY:4:LYS:NZ	2.15	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CQ:59:ILE:O	19:CQ:59:ILE:HD12	2.00	0.60
33:DK:8:VAL:HG22	33:DK:10:LEU:HD21	1.83	0.60
30:BG:82:LEU:HD22	30:BG:87:PRO:HG3	1.82	0.60
55:D8:8:LYS:O	55:D8:12:LYS:HG3	2.01	0.60
1:CA:878:G:H5'	10:CH:89:PRO:HG2	1.82	0.60
19:AQ:24:GLU:HG2	19:AQ:39:SER:HB3	1.82	0.60
47:D0:53:MET:HE1	47:D0:57:PHE:HD1	1.66	0.60
1:CA:1260:C:C6	1:CA:1260:C:H3'	2.37	0.60
1:CA:1116:C:H2'	1:CA:1117:G:H5''	1.81	0.60
1:CA:1070:U:H2'	1:CA:1071:C:C6	2.36	0.60
27:DD:10:THR:HG23	27:DD:13:ARG:HG2	1.83	0.60
25:BA:547:A:H2'	25:BA:548:A:C8	2.35	0.60
28:BE:9:VAL:HG13	28:BE:25:VAL:O	2.01	0.60
17:CO:40:SER:OG	25:DA:715:G:N2	2.29	0.60
1:AA:407:G:H2'	1:AA:408:A:C8	2.35	0.60
25:BA:1689:A:H62	25:BA:1698:A:H2	1.48	0.60
1:AA:168:G:H2'	1:AA:169:C:H5''	1.84	0.60
1:CA:618:C:N3	1:CA:622:A:N6	2.50	0.60
50:D3:5:LYS:HB3	50:D3:57:GLU:HB2	1.83	0.60
25:BA:2389:G:H5''	25:BA:2390:U:H5'	1.83	0.60
5:AC:182:ILE:HA	5:AC:202:ILE:O	2.01	0.60
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.36	0.60
25:DA:2615:U:C2	52:D5:7:PRO:HA	2.36	0.60
16:CN:12:ARG:HG2	16:CN:14:PRO:HD3	1.83	0.60
46:DZ:72:ARG:HG2	46:DZ:89:PHE:HB2	1.82	0.60
1:CA:403:C:O2'	1:CA:404:U:H5'	2.02	0.60
43:DW:24:ILE:O	43:DW:27:LYS:HB2	2.01	0.60
15:CM:4:ILE:C	15:CM:6:GLY:H	2.05	0.60
37:BQ:16:ARG:NH2	37:BQ:18:LYS:HE3	2.16	0.60
27:DD:31:LYS:HB3	27:DD:35:LYS:HD3	1.82	0.60
40:DT:121:ILE:O	40:DT:124:ASP:HB2	2.01	0.60
36:DP:101:VAL:HB	36:DP:106:LEU:HB3	1.83	0.60
33:DK:115:LEU:HD23	33:DK:116:ASN:H	1.67	0.60
1:CA:717:C:H5''	1:CA:717:C:H6	1.66	0.60
10:CH:12:ARG:NH1	10:CH:26:VAL:HA	2.16	0.60
4:CB:187:LEU:HA	4:CB:201:ILE:HB	1.82	0.60
11:AI:113:LYS:HG2	11:AI:119:ALA:HA	1.84	0.60
47:D0:23:VAL:HB	47:D0:26:TYR:HE2	1.66	0.60
54:D7:5:TRP:NE1	54:D7:7:PRO:HG3	2.16	0.60
2:CZ:47:U:H5'	2:CZ:48:C:C5'	2.30	0.60
26:DB:65:C:O2'	26:DB:66:A:H5'	2.00	0.60
25:DA:2210:G:N2	25:DA:2211:G:H5'	2.17	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2572:A:C8	28:BE:144:ARG:HB3	2.37	0.60
25:DA:589:C:H2'	25:DA:590:A:C8	2.36	0.60
1:CA:1381:U:C5	1:CA:1382:C:C4	2.88	0.60
1:CA:512:U:H2'	1:CA:513:C:C6	2.36	0.60
38:DR:63:ARG:HA	38:DR:80:PHE:CZ	2.37	0.60
38:BR:63:ARG:HA	38:BR:80:PHE:CZ	2.37	0.60
9:CG:93:PRO:HA	9:CG:96:GLN:HE21	1.65	0.60
10:AH:103:VAL:HG21	10:AH:109:ILE:O	2.02	0.60
1:CA:818:G:C3'	1:CA:819:A:H5''	2.31	0.60
24:CX:43:GLU:OE2	24:CX:44:ARG:HG3	2.00	0.60
32:DI:66:GLU:O	32:DI:70:GLU:HG2	2.01	0.60
7:CE:84:PHE:O	7:CE:86:ALA:N	2.35	0.60
25:BA:2695:C:H2'	25:BA:2696:U:H6	1.67	0.60
25:BA:2649:U:H2'	25:BA:2650:U:C6	2.37	0.60
25:BA:251:A:C5	25:BA:252:G:H1'	2.36	0.60
24:CX:125:ALA:O	24:CX:188:ASN:HA	2.01	0.60
25:DA:675:A:H5'	29:DF:63:LYS:HZ3	1.66	0.60
27:BD:31:LYS:HB3	27:BD:35:LYS:HD3	1.83	0.60
32:DI:71:ILE:HG13	32:DI:72:LEU:N	2.17	0.60
45:BY:4:LYS:N	45:BY:4:LYS:HD3	2.17	0.60
2:CZ:36:U:H2'	2:CZ:37:A:O4'	2.01	0.60
11:CI:112:LYS:HA	11:CI:119:ALA:HB2	1.83	0.60
25:BA:2378:A:C2'	39:BS:21:THR:HG21	2.31	0.60
19:CQ:81:ARG:HD3	19:CQ:84:LEU:HD11	1.83	0.60
25:BA:1314:C:C6	25:BA:1314:C:H5'	2.36	0.60
1:AA:186(D):G:H1	1:AA:191(D):U:H3	1.47	0.60
21:CS:16:LEU:HA	21:CS:19:VAL:HG12	1.83	0.60
8:CF:50:TYR:CZ	20:CR:77:GLY:HA2	2.37	0.60
39:BS:52:SER:O	39:BS:69:VAL:HG23	2.00	0.60
53:D6:39:TYR:HB3	53:D6:49:HIS:CE1	2.36	0.60
27:BD:166:GLN:CA	27:BD:166:GLN:HE21	2.15	0.60
25:DA:676:A:H2	25:DA:802:A:H61	1.48	0.60
37:DQ:14:ARG:HH11	37:DQ:14:ARG:HG2	1.66	0.60
22:CT:72:LEU:HD22	22:CT:73:HIS:N	2.16	0.60
12:AJ:94:VAL:HG12	12:AJ:95:GLU:N	2.16	0.60
1:CA:1130:A:H3'	1:CA:1130:A:OP2	2.02	0.60
2:AZ:35:A:H2'	2:AZ:36:U:C6	2.37	0.60
25:DA:593:G:O2'	55:D8:62:LEU:HD13	2.02	0.60
5:CC:105:GLU:CG	5:CC:106:VAL:H	2.15	0.60
25:DA:655:A:C2'	25:DA:656:G:H5'	2.31	0.60
25:BA:943:U:OP2	36:BP:38:GLN:CD	2.40	0.60
1:AA:1442:G:C8	1:AA:1442:G:H3'	2.36	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BH:55:PRO:HG2	31:BH:61:HIS:NE2	2.17	0.60
26:DB:80:U:C2	26:DB:81:G:N2	2.68	0.60
25:DA:2574:G:O2'	28:DE:143:ASN:HB3	2.01	0.60
24:CX:341:LEU:HD21	24:CX:357:LEU:HD12	1.83	0.60
28:BE:120:TRP:CE3	28:BE:155:LYS:HD3	2.36	0.60
25:DA:2078:C:O2'	25:DA:2079:U:H5'	2.01	0.60
24:AX:202:LEU:HD21	24:AX:329:LEU:HD21	1.83	0.60
25:BA:2804:C:H2'	25:BA:2805:G:C8	2.36	0.60
51:D4:39:ARG:HB2	51:D4:55:PRO:O	2.00	0.60
25:DA:2473:U:O2	25:DA:2473:U:H2'	2.00	0.60
25:BA:1483:G:H2'	25:BA:1484:G:H8	1.67	0.60
15:AM:44:ARG:HB2	15:AM:46:LYS:HG2	1.82	0.60
25:DA:373:U:H2'	25:DA:374:A:H8	1.66	0.60
1:CA:731:G:OP1	1:CA:766:A:H1'	2.02	0.60
2:AZ:11:A:H8	2:AZ:11:A:O5'	1.84	0.60
25:BA:2287:A:H8	25:BA:2287:A:H5''	1.64	0.60
25:BA:2306:C:H5'	25:BA:2307:G:N7	2.17	0.60
41:DU:49:HIS:HA	41:DU:52:ARG:HB2	1.84	0.60
53:D6:27:LYS:HB3	53:D6:30:THR:OG1	2.02	0.60
27:DD:143:HIS:O	27:DD:192:THR:HG22	2.01	0.60
36:DP:15:ARG:CZ	36:DP:15:ARG:HA	2.32	0.60
4:AB:154:LEU:HD13	4:AB:155:LEU:H	1.67	0.60
25:BA:330:A:HO2'	25:BA:331:A:H8	1.48	0.60
15:CM:84:ILE:HG13	21:CS:74:PHE:CE1	2.33	0.60
25:DA:2378:A:C2'	39:DS:21:THR:HG21	2.31	0.60
1:CA:1220:G:H21	21:CS:54:GLY:CA	2.15	0.60
1:AA:49:U:H3	1:AA:362:G:H1'	1.66	0.60
1:CA:501:C:H2'	1:CA:502:G:C8	2.37	0.60
32:BI:8:PRO:HD3	32:BI:15:VAL:HG22	1.83	0.60
25:BA:1525:G:H2'	25:BA:1526:G:H8	1.67	0.60
25:DA:557:U:H2'	25:DA:558:G:H8	1.67	0.60
25:BA:2443:C:O2'	25:BA:2444:G:H5'	2.01	0.60
53:D6:15:GLU:OE2	53:D6:18:ARG:CZ	2.49	0.60
13:AK:29:ILE:HG22	13:AK:44:SER:HB2	1.82	0.60
1:AA:643:C:H5'	10:AH:31:PHE:CD1	2.37	0.60
46:DZ:126:VAL:HG12	46:DZ:163:LEU:HA	1.84	0.60
24:CX:51:LEU:HD21	24:CX:61:VAL:HG21	1.82	0.60
51:D4:40:ILE:HA	51:D4:57:ILE:HB	1.84	0.60
30:DG:37:VAL:O	30:DG:94:LEU:HD23	2.02	0.60
25:DA:2298:A:H2'	25:DA:2299:G:O4'	2.01	0.60
5:CC:21:ARG:NH1	5:CC:21:ARG:HB2	2.16	0.60
24:AX:359:TRP:O	24:AX:363:GLU:HB3	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1853:A:H2'	25:BA:1854:A:C8	2.35	0.60
40:BT:112:ARG:O	40:BT:112:ARG:HD3	2.01	0.60
2:CZ:11:A:O5'	2:CZ:11:A:H8	1.84	0.60
25:BA:1762:A:H8	25:BA:1762:A:O5'	1.83	0.60
31:DH:126:PRO:HG2	31:DH:130:ARG:HB2	1.83	0.60
10:AH:50:ARG:HD2	10:AH:50:ARG:H	1.66	0.60
27:DD:33:LEU:H	27:DD:33:LEU:CD2	2.03	0.60
25:BA:1899:G:N2	25:BA:1902:C:H42	1.95	0.60
1:CA:1128:C:H1'	1:CA:1146:A:N6	2.17	0.60
13:AK:104:GLN:HA	13:AK:104:GLN:HE21	1.65	0.60
42:DV:79:VAL:O	42:DV:79:VAL:HG12	2.02	0.60
27:DD:105:ILE:HG13	27:DD:106:ILE:HD12	1.84	0.60
29:BF:89:VAL:HG12	29:BF:90:PHE:H	1.67	0.60
25:DA:2577:A:H5''	25:DA:2578:G:H5'	1.84	0.60
25:BA:653:C:H5''	25:BA:653:C:H6	1.67	0.60
25:DA:2317:C:H2'	25:DA:2318:G:O4'	2.00	0.60
25:BA:2478:A:H3'	25:BA:2479:G:H8	1.67	0.60
35:BO:76:ALA:HB3	40:BT:75:ILE:HD13	1.83	0.60
41:BU:113:ALA:O	41:BU:117:GLN:HB2	2.01	0.60
37:BQ:111:GLU:O	37:BQ:115:MET:HG2	2.02	0.60
1:CA:453:A:H2'	1:CA:454:C:C6	2.35	0.60
25:DA:719:C:H2'	25:DA:720:C:H6	1.67	0.60
24:CX:32:ILE:HB	24:CX:33:PRO:CD	2.32	0.60
21:AS:6:LYS:HG2	21:AS:7:LYS:CD	2.30	0.60
45:BY:4:LYS:H	45:BY:4:LYS:CD	2.14	0.60
14:AL:24:PRO:C	14:AL:26:LEU:H	2.04	0.60
4:CB:19:HIS:HD2	4:CB:20:GLU:HG2	1.66	0.60
21:CS:63:THR:HG22	21:CS:66:MET:CE	2.31	0.60
25:BA:2420:C:O5'	25:BA:2420:C:H6	1.84	0.60
54:D7:8:ASN:ND2	54:D7:11:LYS:H	1.99	0.60
25:BA:2798:C:C5	25:BA:2799:A:C6	2.89	0.60
45:BY:81:LYS:HZ2	45:BY:98:VAL:HG12	1.65	0.60
25:DA:1314:C:C6	25:DA:1314:C:H5'	2.34	0.60
26:DB:95:U:H2'	26:DB:96:G:H8	1.66	0.60
1:CA:1151:A:HO2'	1:CA:1152:A:H8	1.48	0.60
44:BX:43:VAL:HG11	44:BX:81:VAL:HG11	1.84	0.60
25:BA:1556:C:H2'	25:BA:1557:C:H6	1.66	0.60
25:DA:2443:C:O2'	25:DA:2444:G:H5'	2.01	0.60
25:DA:608:A:H2'	25:DA:609(A):A:C8	2.36	0.60
1:CA:171:A:H2'	1:CA:172:A:C8	2.36	0.60
20:CR:51:LEU:HD23	20:CR:52:PRO:HD2	1.83	0.60
1:CA:295:C:H2'	1:CA:296:U:C6	2.37	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1218:C:O2'	25:BA:1219:G:H5'	2.02	0.60
25:BA:2321:G:H2'	25:BA:2321:G:N3	2.17	0.60
48:B1:46:LEU:HD21	48:B1:61:ARG:HG3	1.84	0.59
48:D1:46:LEU:HD21	48:D1:61:ARG:HG3	1.84	0.59
36:DP:23:PRO:HB2	36:DP:33:ARG:HD2	1.84	0.59
1:CA:1327:C:OP1	23:CU:20:LYS:HB3	2.02	0.59
1:CA:1330:U:O3'	15:CM:23:TYR:HE2	1.85	0.59
25:DA:1021:A:H2'	25:DA:1023:U:H5'	1.84	0.59
25:DA:2393:A:O2'	25:DA:2394:C:H5'	2.02	0.59
1:AA:328:C:H4'	1:AA:329:A:H5'	1.84	0.59
15:AM:49:THR:HG22	15:AM:51:ALA:N	2.16	0.59
39:BS:56:LEU:HG	39:BS:57:LYS:HE3	1.83	0.59
5:CC:79:ARG:H	5:CC:79:ARG:HD3	1.67	0.59
24:AX:177:ILE:O	24:AX:177:ILE:HG23	2.02	0.59
1:AA:1220:G:H21	21:AS:54:GLY:CA	2.15	0.59
27:DD:131:LEU:HG	27:DD:136:ILE:HD11	1.83	0.59
25:DA:483:A:H4'	45:DY:49:VAL:HG22	1.83	0.59
11:AI:79:LEU:O	11:AI:83:ARG:HG3	2.02	0.59
27:DD:24:ILE:CD1	27:DD:84:TYR:HB2	2.32	0.59
25:DA:151:C:O2'	25:DA:152:G:H5'	2.01	0.59
1:AA:939:G:H5''	9:AG:102:ARG:HH22	1.67	0.59
4:CB:144:ARG:HA	4:CB:147:LYS:CB	2.32	0.59
25:DA:1766:U:O2'	25:DA:1767:C:H5'	2.01	0.59
1:CA:1038:C:H2'	1:CA:1039:C:C6	2.37	0.59
25:DA:2443:C:H2'	25:DA:2444:G:H8	1.66	0.59
27:BD:89:SER:HB2	27:BD:159:ALA:HB2	1.84	0.59
25:BA:809:G:C2'	25:BA:810:U:H5'	2.32	0.59
2:CZ:29:G:H1	2:CZ:41:C:H42	1.50	0.59
25:BA:1833:U:H2'	25:BA:1834:U:H6	1.66	0.59
25:DA:172:C:H2'	25:DA:173:G:H8	1.67	0.59
13:CK:32:ILE:HG13	13:CK:72:ALA:HB2	1.82	0.59
36:DP:115:LEU:HA	36:DP:134:ALA:HB2	1.84	0.59
48:D1:13:ILE:HG13	48:D1:15:ALA:H	1.66	0.59
15:CM:67:GLU:HG3	15:CM:68:GLY:N	2.08	0.59
1:AA:1327:C:OP1	23:AU:20:LYS:HB3	2.01	0.59
17:AO:82:ILE:HG12	17:AO:87:ILE:HB	1.84	0.59
37:DQ:134:ARG:NH2	46:DZ:81:ARG:HH22	1.93	0.59
38:DR:101:ALA:HB2	52:D5:44:THR:HB	1.83	0.59
54:B7:34:ARG:CG	54:B7:34:ARG:HH11	2.08	0.59
38:DR:10:LEU:HD22	38:DR:17:ARG:CD	2.31	0.59
49:B2:1:MET:SD	49:B2:1:MET:C	2.80	0.59
1:AA:1347:G:OP2	11:AI:107:ARG:HG2	2.03	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D2:1:MET:C	49:D2:1:MET:SD	2.80	0.59
36:BP:59:LEU:HD23	36:BP:59:LEU:O	2.02	0.59
41:BU:75:ASN:HD22	41:BU:78:THR:HB	1.65	0.59
33:BK:115:LEU:HD23	33:BK:116:ASN:H	1.66	0.59
31:BH:50:VAL:HG12	31:BH:51:ARG:H	1.66	0.59
25:DA:590:A:H2'	25:DA:591:C:C6	2.37	0.59
31:DH:55:PRO:HG2	31:DH:61:HIS:NE2	2.17	0.59
50:D3:8:LEU:HA	50:D3:54:VAL:HG12	1.83	0.59
25:DA:1276:A:H5''	25:DA:1276:A:H8	1.67	0.59
1:CA:180:U:H2'	1:CA:181:G:H5'	1.84	0.59
24:CX:202:LEU:HD21	24:CX:329:LEU:HD21	1.84	0.59
25:DA:495:G:O2'	43:DW:62:HIS:HE1	1.84	0.59
25:DA:2190:G:H2'	25:DA:2191:G:H8	1.67	0.59
34:DN:123:GLU:HG2	34:DN:145:VAL:HG21	1.84	0.59
20:AR:44:LEU:HD21	20:AR:80:PRO:HD2	1.84	0.59
35:DO:71:ARG:NH2	35:DO:77:ILE:HG21	2.16	0.59
51:B4:39:ARG:HB2	51:B4:55:PRO:O	2.02	0.59
1:CA:103(A):A:H3'	1:CA:103(B):G:C8	2.37	0.59
25:DA:2050:C:H2'	25:DA:2051:A:C8	2.37	0.59
48:D1:44:PRO:O	48:D1:46:LEU:HB2	2.01	0.59
32:DI:130:TYR:O	32:DI:132:PRO:HD3	2.01	0.59
24:CX:49:PRO:CG	33:DK:29:GLN:HB2	2.31	0.59
10:AH:26:VAL:HG13	10:AH:59:LEU:HB2	1.83	0.59
21:AS:62:ILE:HD12	21:AS:66:MET:SD	2.42	0.59
31:DH:50:VAL:HG12	31:DH:51:ARG:H	1.67	0.59
1:AA:1364:U:O2'	1:AA:1365:G:H5'	2.02	0.59
37:BQ:20:ALA:HB2	37:BQ:99:PRO:CD	2.32	0.59
25:BA:1538:G:H2'	25:BA:1539:G:H8	1.67	0.59
46:DZ:151:HIS:CD2	46:DZ:170:THR:HG22	2.37	0.59
11:CI:79:LEU:O	11:CI:83:ARG:HG3	2.02	0.59
25:DA:1503:U:H2'	25:DA:1504:C:H6	1.66	0.59
25:BA:2259:G:N2	25:BA:2282:G:C2	2.70	0.59
25:BA:1071:G:O2'	25:BA:1089:G:H2'	2.02	0.59
29:DF:31:HIS:HB2	36:DP:13:ASN:HB3	1.85	0.59
2:AZ:29:G:H1	2:AZ:41:C:H42	1.49	0.59
25:BA:1635:G:H2'	25:BA:1636:C:C6	2.37	0.59
1:AA:906:G:O5'	1:AA:906:G:H8	1.85	0.59
27:DD:166:GLN:HE21	27:DD:166:GLN:HA	1.67	0.59
12:CJ:4:ILE:HG22	12:CJ:74:ILE:HD11	1.84	0.59
27:BD:192:THR:O	27:BD:192:THR:HG23	2.02	0.59
1:CA:1358:U:H3'	1:CA:1359:C:C6	2.37	0.59
19:AQ:44:ALA:HB1	19:AQ:73:VAL:HG22	1.84	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AJ:51:ARG:HB2	12:AJ:59:SER:O	2.02	0.59
25:BA:1658:C:OP1	28:BE:132:HIS:O	2.20	0.59
25:DA:1087:G:N2	25:DA:1103:A:H1'	2.18	0.59
25:BA:151:C:O2'	25:BA:152:G:H5'	2.02	0.59
32:BI:52:ARG:CG	32:BI:52:ARG:HH11	2.15	0.59
2:CZ:22:G:H2'	2:CZ:23:C:C6	2.37	0.59
27:BD:158:ALA:HB3	27:BD:161:THR:CG2	2.33	0.59
46:DZ:120:ILE:HG12	46:DZ:172:ALA:HA	1.84	0.59
46:BZ:6:LYS:HD2	46:BZ:60:GLU:O	2.03	0.59
25:DA:1516:U:O2'	25:DA:1517:G:H5'	2.03	0.59
25:BA:1732:A:H2'	25:BA:1733:G:C8	2.37	0.59
1:CA:1291:G:H4'	11:CI:38:GLN:O	2.03	0.59
13:AK:32:ILE:HG13	13:AK:72:ALA:HB2	1.84	0.59
25:BA:2340:G:H2'	25:BA:2341:G:H8	1.67	0.59
25:DA:1992:G:H8	25:DA:1992:G:OP1	1.86	0.59
25:DA:1190:G:H5'	36:DP:35:HIS:CA	2.23	0.59
49:D2:47:ASN:HD22	49:D2:47:ASN:N	1.97	0.59
17:CO:87:ILE:CG2	17:CO:88:ARG:H	2.09	0.59
27:DD:252:TRP:HE3	27:DD:253:GLN:O	1.85	0.59
30:DG:39:ILE:HG21	30:DG:60:LEU:HD21	1.83	0.59
1:AA:1231:G:C4	1:AA:1232:U:C5	2.91	0.59
12:AJ:81:THR:HA	12:AJ:84:GLN:HB3	1.84	0.59
27:BD:242:ARG:CD	27:BD:242:ARG:H	2.15	0.59
25:BA:795:C:H6	25:BA:795:C:O5'	1.85	0.59
1:CA:49:U:H3	1:CA:362:G:H1'	1.67	0.59
25:BA:50:U:H4'	25:BA:51:G:OP2	2.03	0.59
24:CX:145:TRP:O	24:CX:149:LEU:HD12	2.01	0.59
34:DN:51:THR:N	34:DN:129:MET:HE1	2.18	0.59
22:AT:90:GLN:HA	22:AT:93:GLU:HB3	1.84	0.59
1:CA:585:G:H4'	14:CL:7:ASN:HD21	1.67	0.59
25:BA:686:G:H8	54:B7:6:GLN:O	1.84	0.59
37:DQ:54:MET:HB3	37:DQ:64:ILE:HD13	1.82	0.59
1:CA:965:A:C2	1:CA:969:A:C2	2.91	0.59
25:DA:71:A:C2	44:DX:31:HIS:HE1	2.20	0.59
33:DK:4:VAL:HG12	33:DK:5:VAL:H	1.66	0.59
27:BD:56:GLY:O	27:BD:57:GLY:O	2.19	0.59
41:BU:55:ARG:HA	41:BU:58:ARG:HD2	1.83	0.59
10:AH:50:ARG:CG	10:AH:50:ARG:HH11	2.04	0.59
38:BR:101:ALA:HB2	52:B5:44:THR:HB	1.84	0.59
27:BD:244:ARG:HG3	27:BD:245:PRO:HG3	1.84	0.59
1:AA:979:C:H3'	1:AA:980:C:C5'	2.30	0.59
43:BW:82:LEU:HD11	43:BW:84:ARG:NH2	2.16	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.37	0.59
44:DX:63:LYS:HD2	44:DX:72:LYS:CB	2.33	0.59
13:AK:50:TYR:HB3	13:AK:54:ARG:HB2	1.85	0.59
44:DX:50:LYS:H	44:DX:87:GLN:NE2	2.01	0.59
1:AA:1196:U:O4	24:AX:213:ARG:HA	2.03	0.59
25:BA:2644:G:H2'	25:BA:2645:G:C8	2.38	0.59
39:BS:92:TYR:HB2	39:BS:98:VAL:HG11	1.84	0.59
25:DA:50:U:H4'	25:DA:51:G:OP2	2.03	0.59
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.37	0.59
25:BA:537:C:H2'	25:BA:539:G:C8	2.38	0.59
25:DA:1516:U:H2'	25:DA:1517:G:C8	2.36	0.59
4:CB:131:PRO:O	4:CB:135:GLN:HG3	2.02	0.59
44:DX:26:TYR:HB3	44:DX:92:LEU:HD12	1.84	0.59
46:DZ:16:SER:HB2	46:DZ:20:ARG:NH1	2.17	0.59
50:D3:1:MET:HB3	50:D3:2:PRO:HD2	1.85	0.59
25:BA:270(G):U:H2'	25:BA:270(H):C:C6	2.37	0.59
1:AA:691:G:O6	13:AK:52:GLY:HA2	2.03	0.59
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.37	0.59
46:DZ:6:LYS:HD2	46:DZ:60:GLU:O	2.03	0.59
1:CA:1206:G:H4'	5:CC:192:THR:O	2.03	0.59
1:CA:859:A:H2'	1:CA:860:A:O4'	2.02	0.59
2:AY:35:A:H2'	2:AY:36:U:C6	2.36	0.59
34:BN:69:VAL:O	34:BN:70:ALA:HB3	2.03	0.59
12:AJ:4:ILE:HG22	12:AJ:74:ILE:HD11	1.84	0.59
27:DD:243:GLY:O	27:DD:244:ARG:HB3	2.02	0.59
24:AX:32:ILE:HB	24:AX:33:PRO:CD	2.32	0.59
40:DT:88:ILE:HD12	40:DT:90:GLN:H	1.68	0.59
27:DD:130:ALA:HA	27:DD:192:THR:HA	1.85	0.59
30:DG:60:LEU:O	30:DG:63:ILE:HG12	2.02	0.59
27:BD:252:TRP:HE3	27:BD:253:GLN:O	1.86	0.59
11:AI:63:ILE:H	11:AI:63:ILE:HD12	1.68	0.59
21:CS:28:LYS:HE2	21:CS:29:ARG:NH1	2.17	0.59
1:CA:1305:G:N2	1:CA:1331:G:H2'	2.13	0.59
33:DK:77:LEU:HD23	33:DK:107:ILE:HG13	1.85	0.59
12:CJ:32:ALA:H	12:CJ:78:ASN:HD21	1.51	0.59
32:BI:67:ARG:O	32:BI:71:ILE:HG22	2.03	0.59
25:BA:2013:A:H4'	43:BW:96:ILE:HD12	1.83	0.59
43:DW:68:ARG:O	43:DW:110:LYS:HB2	2.03	0.59
1:AA:579:G:H2'	1:AA:580:U:H6	1.65	0.59
11:AI:112:LYS:HA	11:AI:119:ALA:HB2	1.83	0.59
25:DA:1843:C:H2'	25:DA:1844:C:C6	2.37	0.59
30:DG:4:ASP:HB2	30:DG:9:ARG:NH2	2.15	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2768:C:H4'	34:BN:112:LYS:NZ	2.17	0.59
25:DA:1588:C:H2'	25:DA:1589:C:C6	2.37	0.59
25:BA:1188:U:C2'	25:BA:1189:A:H5'	2.33	0.59
46:BZ:151:HIS:CD2	46:BZ:170:THR:HG22	2.37	0.59
31:DH:35:VAL:O	31:DH:37:VAL:HG13	2.03	0.59
27:BD:235:GLY:O	27:BD:237:GLU:N	2.35	0.59
50:D3:19:GLN:HE22	50:D3:52:HIS:CE1	2.20	0.59
1:CA:168:G:H2'	1:CA:169:C:H5''	1.85	0.59
1:AA:103(A):A:H3'	1:AA:103(B):G:C8	2.37	0.59
1:AA:1493:A:H1'	24:AX:137:ALA:HA	1.85	0.59
25:DA:828:U:H4'	25:DA:831:G:N1	2.17	0.59
5:CC:182:ILE:HA	5:CC:202:ILE:O	2.02	0.59
46:DZ:74:VAL:HG22	46:DZ:86:VAL:HG13	1.84	0.59
25:DA:1673:U:O2'	25:DA:1674:G:H5'	2.03	0.59
1:AA:1427:U:H2'	1:AA:1428:A:C8	2.36	0.59
1:AA:81:G:OP2	1:AA:82:U:C5	2.55	0.59
55:D8:51:ALA:O	55:D8:54:GLU:HB2	2.03	0.59
1:AA:1330:U:O3'	15:AM:23:TYR:HE2	1.85	0.59
39:BS:34:HIS:HB3	39:BS:36:TYR:HE1	1.66	0.59
25:DA:1019:U:HO2'	25:DA:1021:A:H2	1.49	0.59
25:DA:276:A:H2'	25:DA:277:C:C5	2.37	0.59
36:BP:65:ARG:HB2	55:B8:12:LYS:O	2.03	0.59
25:DA:2115:G:H1'	25:DA:2171:A:N6	2.14	0.59
48:D1:57:GLU:O	48:D1:58:ILE:HB	2.02	0.59
47:B0:53:MET:CE	47:B0:57:PHE:HD1	2.15	0.59
4:CB:51:LEU:HD22	4:CB:55:PHE:HE2	1.66	0.59
53:B6:11:LEU:HD21	53:B6:51:GLU:CG	2.32	0.59
25:DA:2887:U:H2'	25:DA:2888:C:C6	2.37	0.59
25:DA:2376:A:H1'	39:DS:94:TYR:CZ	2.38	0.59
27:DD:131:LEU:HA	27:DD:190:TYR:CD2	2.37	0.59
46:DZ:48:PHE:CE2	46:DZ:52:SER:HA	2.38	0.59
1:AA:512:U:H2'	1:AA:513:C:C6	2.37	0.59
25:DA:2071:A:H2'	25:DA:2072:G:C8	2.37	0.59
25:BA:2071:A:H2'	25:BA:2072:G:C8	2.38	0.59
1:AA:618:C:N3	1:AA:622:A:N6	2.51	0.59
25:BA:2074:U:H2'	25:BA:2075:U:C6	2.38	0.59
25:DA:1620:G:O2'	54:D7:2:LYS:HG2	2.02	0.59
49:B2:24:LEU:HD13	49:B2:60:LEU:HD11	1.83	0.59
28:DE:3:GLY:HA3	28:DE:81:ILE:HG21	1.85	0.59
25:BA:481:G:HO2'	25:BA:482:A:P	2.26	0.59
44:DX:65:ARG:N	44:DX:65:ARG:HE	2.01	0.59
22:CT:37:SER:O	22:CT:41:VAL:HG22	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CH:20:TYR:CE1	10:CH:76:PRO:HG2	2.38	0.59
9:CG:15:ASP:OD1	9:CG:18:TYR:HB2	2.03	0.59
25:DA:1080:C:H2'	25:DA:1081:U:C6	2.38	0.59
36:DP:50:ARG:HB3	55:D8:60:LEU:CD1	2.23	0.59
41:DU:55:ARG:HA	41:DU:58:ARG:HD2	1.84	0.59
7:AE:52:PRO:O	7:AE:55:VAL:HG23	2.03	0.59
31:BH:17:VAL:O	31:BH:18:GLU:HG3	2.02	0.59
36:BP:15:ARG:HA	36:BP:15:ARG:CZ	2.33	0.59
4:CB:162:ILE:CD1	4:CB:184:VAL:HA	2.33	0.59
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.38	0.59
2:AZ:35:A:H2'	2:AZ:36:U:C5	2.37	0.59
6:CD:103:ASN:OD1	6:CD:114:ARG:NH2	2.35	0.59
5:AC:40:ARG:NH2	5:AC:55:VAL:HG13	2.18	0.59
7:AE:84:PHE:CE1	7:AE:133:TYR:HB3	2.37	0.59
7:AE:84:PHE:O	7:AE:86:ALA:N	2.36	0.59
25:DA:1999:C:H5''	25:DA:2723:C:O2'	2.02	0.59
37:BQ:75:THR:HA	37:BQ:88:GLY:HA2	1.84	0.59
45:DY:81:LYS:HD3	45:DY:97:ARG:HB3	1.85	0.59
25:DA:512:G:HO2'	25:DA:513:A:P	2.26	0.59
45:BY:81:LYS:CB	45:BY:97:ARG:HB3	2.31	0.59
25:DA:1536:A:H5''	25:DA:1537:C:OP2	2.03	0.59
1:CA:376:G:OP2	18:CP:67:THR:HG21	2.02	0.59
44:BX:26:TYR:OH	44:BX:88:LYS:HB2	2.02	0.59
25:DA:1731:G:HO2'	25:DA:1732:A:H8	1.49	0.59
13:CK:29:ILE:HG22	13:CK:44:SER:HB2	1.84	0.59
1:AA:585:G:H4'	14:AL:7:ASN:HD21	1.67	0.59
5:AC:132:ARG:HG3	5:AC:136:GLN:HE21	1.67	0.59
25:BA:1154:G:O5'	25:BA:1154:G:H8	1.86	0.59
25:DA:884:C:H6	25:DA:884:C:O5'	1.86	0.59
25:BA:85:G:H5''	25:BA:85:G:H8	1.66	0.59
25:DA:1218:C:O2'	25:DA:1219:G:H5'	2.02	0.59
52:D5:40:LYS:HG2	52:D5:46:CYS:HB3	1.85	0.59
25:DA:1110:G:O2'	25:DA:1111:A:H8	1.75	0.59
25:BA:1826:G:H2'	25:BA:1827:C:C6	2.36	0.59
51:B4:40:ILE:HA	51:B4:57:ILE:HB	1.84	0.59
46:BZ:39:VAL:CG2	46:BZ:44:PHE:HB2	2.31	0.59
1:AA:116:A:H61	1:AA:313:A:H1'	1.68	0.59
14:AL:65:VAL:HG11	14:AL:97:TYR:CD1	2.37	0.59
24:AX:190:TYR:CD1	24:AX:225:PRO:HD3	2.37	0.59
44:BX:60:ARG:HH21	54:B7:47:ARG:HH11	1.51	0.59
5:AC:43:LEU:O	5:AC:47:LEU:HB3	2.02	0.59
1:CA:1196:U:O4	24:CX:213:ARG:HA	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2013:A:H4'	43:DW:96:ILE:HD12	1.84	0.59
14:CL:109:VAL:HG21	14:CL:119:TYR:HB3	1.85	0.59
2:AZ:22:G:H2'	2:AZ:23:C:C6	2.38	0.59
1:AA:180:U:H2'	1:AA:181:G:H5'	1.83	0.59
1:AA:1378:C:C5	1:AA:1379:G:C8	2.91	0.59
47:B0:11:LYS:HB2	47:B0:14:ARG:HH22	1.68	0.59
1:AA:1291:G:H4'	11:AI:38:GLN:O	2.03	0.59
27:BD:37:LEU:HD12	27:BD:38:LYS:N	2.18	0.59
10:AH:10:LEU:HD22	10:AH:83:ILE:HD11	1.85	0.59
1:AA:1058:G:H2'	1:AA:1059:C:O4'	2.03	0.59
25:DA:605:C:H1'	25:DA:657:U:O2'	2.02	0.59
25:DA:929:G:H8	25:DA:929:G:O5'	1.86	0.59
1:CA:785:G:N2	1:CA:798:G:C4	2.71	0.59
25:DA:1952:A:C2	35:DO:22:ILE:HD12	2.38	0.59
1:CA:324:G:N2	1:CA:326:G:H3'	2.17	0.59
35:DO:7:TYR:HE1	35:DO:20:MET:HE3	1.66	0.59
36:DP:41:ARG:CA	36:DP:41:ARG:HE	2.16	0.58
1:CA:1324:A:H2'	1:CA:1325:C:H6	1.67	0.58
25:BA:1021:A:C8	25:BA:1021:A:H3'	2.37	0.58
12:CJ:51:ARG:HB2	12:CJ:59:SER:O	2.03	0.58
1:AA:1305:G:H22	1:AA:1331:G:C2'	2.13	0.58
18:CP:43:LYS:HE3	18:CP:48:TRP:CE3	2.38	0.58
7:AE:78:HIS:HE1	7:AE:143:ARG:N	1.97	0.58
4:AB:162:ILE:CD1	4:AB:184:VAL:HA	2.33	0.58
21:AS:30:LEU:HA	21:AS:48:THR:O	2.03	0.58
1:AA:1130:A:OP2	1:AA:1130:A:H3'	2.02	0.58
6:AD:103:ASN:OD1	6:AD:114:ARG:NH2	2.35	0.58
25:BA:2781:A:C5'	25:BA:2782:G:H5'	2.33	0.58
14:AL:37:THR:HG22	14:AL:56:LYS:HB2	1.84	0.58
33:BK:8:VAL:O	33:BK:57:ILE:HB	2.03	0.58
27:BD:131:LEU:HA	27:BD:190:TYR:CD2	2.38	0.58
42:BV:17:GLY:O	42:BV:18:LEU:HB3	2.03	0.58
25:DA:1276:A:H5''	25:DA:1276:A:C8	2.38	0.58
45:BY:10:GLY:HA2	45:BY:27:VAL:CG2	2.32	0.58
25:BA:297:C:N4	25:BA:298:G:C2	2.72	0.58
22:CT:90:GLN:HA	22:CT:93:GLU:HB3	1.84	0.58
5:CC:132:ARG:HG3	5:CC:136:GLN:HE21	1.68	0.58
25:DA:1098:A:H2'	25:DA:1099:G:O4'	2.03	0.58
8:CF:45:LEU:HD12	8:CF:59:TYR:HD1	1.68	0.58
1:CA:340:U:H2'	1:CA:341:C:C6	2.38	0.58
29:BF:123:LEU:HD12	29:BF:124:LEU:H	1.67	0.58
25:BA:605:C:H1'	25:BA:657:U:O2'	2.02	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BH:126:PRO:HG2	31:BH:130:ARG:HB2	1.84	0.58
1:CA:314:C:O2'	1:CA:315:A:H5'	2.02	0.58
28:BE:27:LEU:O	28:BE:27:LEU:HD23	2.02	0.58
49:B2:9:GLN:CA	49:B2:12:GLU:HB3	2.33	0.58
24:AX:92:LEU:HB2	24:AX:97:ARG:HE	1.68	0.58
1:AA:1326:C:H2'	1:AA:1327:C:C6	2.38	0.58
30:BG:60:LEU:O	30:BG:63:ILE:HG12	2.02	0.58
7:CE:52:PRO:O	7:CE:55:VAL:HG23	2.03	0.58
30:DG:39:ILE:HG22	30:DG:40:ASN:N	2.18	0.58
21:AS:50:ALA:HA	21:AS:58:VAL:O	2.02	0.58
32:DI:12:LEU:HD21	32:DI:25:TYR:HE1	1.68	0.58
30:BG:113:ARG:HD2	30:BG:140:ILE:CA	2.31	0.58
1:CA:1347:G:OP2	11:CI:107:ARG:HG2	2.02	0.58
15:CM:2:ALA:C	15:CM:9:ILE:HG23	2.24	0.58
5:AC:19:GLU:HA	5:AC:54:ARG:HH12	1.68	0.58
37:BQ:75:THR:HG21	37:BQ:85:LYS:HE3	1.85	0.58
28:BE:131:ALA:HB3	28:BE:134:ILE:HD11	1.86	0.58
25:DA:27:G:N2	25:DA:512:G:O2'	2.36	0.58
32:DI:27:ARG:CG	32:DI:27:ARG:HH11	2.15	0.58
1:CA:1117:G:H4'	11:CI:104:ARG:NH2	2.18	0.58
1:AA:1443:G:H4'	1:AA:1446:A:OP2	2.02	0.58
30:BG:121:ASN:ND2	30:BG:123:ASN:H	2.00	0.58
25:BA:56:A:C2	25:BA:57:C:C2	2.92	0.58
35:DO:96:THR:OG1	35:DO:97:ARG:N	2.35	0.58
34:BN:123:GLU:HG2	34:BN:145:VAL:HG21	1.85	0.58
35:BO:71:ARG:NH2	35:BO:77:ILE:HG21	2.17	0.58
25:DA:1437:C:H2'	25:DA:1438:U:C6	2.38	0.58
2:CY:74:C:O2'	2:CY:75:C:H5'	2.01	0.58
25:BA:828:U:H4'	25:BA:831:G:N1	2.18	0.58
1:CA:397:A:H5'	1:CA:398:C:OP1	2.03	0.58
34:DN:154:GLN:NE2	34:DN:155:ALA:HB3	2.18	0.58
25:BA:884:C:O5'	25:BA:884:C:H6	1.85	0.58
1:AA:256:U:H2'	1:AA:257:G:C8	2.37	0.58
25:BA:444:C:OP2	41:BU:2:PRO:HD3	2.03	0.58
49:B2:9:GLN:C	49:B2:12:GLU:HB3	2.23	0.58
5:CC:40:ARG:NH2	5:CC:55:VAL:HG13	2.18	0.58
25:DA:627:A:OP1	25:DA:627:A:H2'	2.04	0.58
16:CN:24:CYS:CB	16:CN:27:CYS:SG	2.91	0.58
27:DD:242:ARG:H	27:DD:242:ARG:CD	2.16	0.58
27:DD:192:THR:HG23	27:DD:192:THR:O	2.03	0.58
21:CS:6:LYS:HG2	21:CS:7:LYS:CD	2.29	0.58
1:AA:1055:A:H5"	1:AA:1056:U:OP2	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1331:G:OP1	1:AA:1331:G:H4'	2.03	0.58
4:AB:187:LEU:HA	4:AB:201:ILE:HB	1.84	0.58
1:CA:673:G:H2'	1:CA:674:G:C8	2.38	0.58
5:AC:16:ARG:HD2	5:AC:54:ARG:HH21	1.67	0.58
21:CS:62:ILE:HD12	21:CS:66:MET:SD	2.43	0.58
1:AA:186(A):C:C5'	22:AT:78:ALA:HB1	2.34	0.58
14:AL:23:VAL:HG13	14:AL:97:TYR:CE2	2.38	0.58
37:DQ:75:THR:HG21	37:DQ:85:LYS:HE3	1.84	0.58
24:CX:177:ILE:HG23	24:CX:177:ILE:O	2.03	0.58
25:BA:1309:G:O2'	25:BA:1310:G:H5'	2.02	0.58
25:BA:2836:U:C5	25:BA:2883:A:N6	2.71	0.58
25:BA:1536:A:H5''	25:BA:1537:C:OP2	2.03	0.58
25:DA:1538:G:H2'	25:DA:1539:G:H8	1.68	0.58
42:BV:28:GLU:HB2	42:BV:31:ALA:CB	2.33	0.58
1:CA:439:A:H8	1:CA:439:A:H5''	1.69	0.58
1:CA:811:C:H4'	1:CA:900:A:N6	2.18	0.58
25:BA:2439:A:H5'	25:BA:2439:A:C8	2.39	0.58
7:CE:84:PHE:CE1	7:CE:133:TYR:HB3	2.38	0.58
25:DA:71:A:H4'	25:DA:72:U:H5''	1.84	0.58
36:BP:115:LEU:HA	36:BP:134:ALA:HB2	1.83	0.58
44:DX:5:TYR:CE1	49:D2:30:ARG:HB2	2.38	0.58
25:BA:1291:C:H2'	25:BA:1292:U:C6	2.38	0.58
26:BB:40:U:H3'	26:BB:41:U:C5'	2.32	0.58
50:B3:1:MET:HB3	50:B3:2:PRO:HD2	1.85	0.58
25:DA:1142:U:H3'	25:DA:1142:U:H6	1.66	0.58
25:BA:1425:G:H2'	25:BA:1426:G:C8	2.39	0.58
32:DI:5:LEU:HD12	32:DI:9:LEU:HD12	1.84	0.58
52:D5:40:LYS:HE2	52:D5:46:CYS:CB	2.29	0.58
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.38	0.58
25:DA:857:C:H4'	47:D0:23:VAL:HG21	1.85	0.58
25:DA:2795:G:N2	25:DA:2801:A:H62	2.01	0.58
14:CL:61:SER:O	14:CL:63:TYR:HD1	1.86	0.58
26:DB:90:C:OP2	37:DQ:16:ARG:HD2	2.02	0.58
25:DA:1829:A:H3'	25:DA:1830:C:H6	1.67	0.58
28:DE:36:ARG:NH2	28:DE:88:GLY:HA2	2.17	0.58
1:AA:1260:C:C6	1:AA:1260:C:H3'	2.38	0.58
25:BA:2063:C:O2	25:BA:2450:A:N1	2.37	0.58
33:BK:67:PHE:CD1	33:BK:67:PHE:N	2.71	0.58
25:DA:516:C:O2'	25:DA:1262:A:H5'	2.02	0.58
45:DY:10:GLY:HA2	45:DY:27:VAL:CG2	2.33	0.58
25:BA:2399:G:H2'	25:BA:2400:G:O4'	2.03	0.58
25:BA:558:G:OP1	34:BN:134:PRO:HD2	2.04	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:172:C:H2'	25:BA:173:G:H8	1.67	0.58
25:DA:1689:A:H62	25:DA:1698:A:H2	1.51	0.58
1:AA:166:G:H2'	1:AA:167:G:H8	1.68	0.58
37:BQ:78:PRO:O	37:BQ:79:LEU:HB2	2.03	0.58
1:AA:444:C:H2'	1:AA:445:G:H8	1.69	0.58
30:DG:107:LEU:HD22	30:DG:178:PHE:HA	1.84	0.58
25:BA:2081:C:O2'	25:BA:2082:A:H5'	2.04	0.58
44:BX:5:TYR:CE1	49:B2:30:ARG:HB2	2.38	0.58
35:BO:8:LEU:HB2	35:BO:19:ILE:CD1	2.34	0.58
1:CA:486:U:H2'	1:CA:487:A:H8	1.68	0.58
25:DA:2611:U:H5'	25:DA:2611:U:H6	1.67	0.58
25:BA:307:G:H8	25:BA:307:G:O5'	1.86	0.58
43:BW:1:MET:HG2	43:BW:64:MET:CE	2.32	0.58
6:CD:4:TYR:O	6:CD:6:GLY:N	2.37	0.58
26:DB:63:G:H2'	26:DB:64:C:C6	2.38	0.58
27:DD:31:LYS:HG3	27:DD:33:LEU:CG	2.33	0.58
27:DD:35:LYS:CB	27:DD:36:PRO:HD3	2.34	0.58
12:CJ:4:ILE:CG2	12:CJ:74:ILE:HD11	2.33	0.58
15:AM:82:MET:HB2	15:AM:93:ARG:NH1	2.17	0.58
43:BW:38:TYR:HE1	52:B5:41:PRO:HD3	1.69	0.58
25:BA:295:G:H4'	45:BY:2:ARG:NH1	2.17	0.58
25:BA:1544:C:C3'	25:BA:1545:A:H5'	2.33	0.58
36:DP:65:ARG:NH2	55:D8:15:LYS:HB2	2.16	0.58
25:BA:1790:C:H2'	25:BA:1791:A:C5	2.38	0.58
25:DA:1309:G:O2'	25:DA:1310:G:H5'	2.03	0.58
37:DQ:20:ALA:HB2	37:DQ:99:PRO:CD	2.33	0.58
25:DA:863:A:H2'	25:DA:864:G:C8	2.37	0.58
25:DA:546:C:H3'	25:DA:547:A:H8	1.68	0.58
25:BA:1516:U:O2'	25:BA:1517:G:H5'	2.04	0.58
25:BA:580:C:H2'	25:BA:581:C:H6	1.68	0.58
25:DA:2695:C:H2'	25:DA:2696:U:C6	2.38	0.58
25:DA:708:C:H42	25:DA:723:G:H1	1.51	0.58
1:AA:1256:A:H2	1:AA:1277:C:C6	2.22	0.58
2:CY:35:A:H2'	2:CY:36:U:C6	2.38	0.58
2:AY:74:C:O2'	2:AY:75:C:H5'	2.04	0.58
1:CA:1256:A:H2	1:CA:1277:C:C6	2.21	0.58
1:AA:486:U:H2'	1:AA:487:A:H8	1.69	0.58
1:AA:1404:C:H2'	1:AA:1405:G:C8	2.39	0.58
7:AE:31:LEU:HD23	7:AE:44:GLY:O	2.03	0.58
1:AA:324:G:N2	1:AA:326:G:H3'	2.18	0.58
25:DA:2573:C:H3'	25:DA:2573:C:OP1	2.03	0.58
25:BA:2505:G:H8	25:BA:2505:G:H5'	1.69	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:81:ASP:O	38:DR:82:GLU:HB2	2.04	0.58
52:B5:36:CYS:SG	52:B5:37:LYS:N	2.77	0.58
1:CA:81:G:OP2	1:CA:82:U:C5	2.56	0.58
1:CA:1326:C:H2'	1:CA:1327:C:C6	2.38	0.58
5:CC:16:ARG:HD2	5:CC:54:ARG:HH21	1.68	0.58
1:AA:922:G:H4'	7:AE:20:GLN:CA	2.28	0.58
32:BI:27:ARG:NH1	32:BI:27:ARG:CG	2.61	0.58
12:AJ:4:ILE:CG2	12:AJ:74:ILE:HD11	2.34	0.58
40:BT:105:LEU:HD23	40:BT:107:ASP:OD1	2.02	0.58
45:DY:4:LYS:H	45:DY:4:LYS:CD	2.16	0.58
46:DZ:39:VAL:CG2	46:DZ:44:PHE:HB2	2.30	0.58
36:DP:113:LYS:HG3	36:DP:129:ALA:O	2.03	0.58
25:DA:1056:G:N2	25:DA:1104:C:H42	2.02	0.58
33:DK:77:LEU:O	33:DK:80:LYS:HB3	2.02	0.58
4:AB:51:LEU:HD23	4:AB:201:ILE:HD12	1.83	0.58
26:BB:65:C:H2'	26:BB:108:C:H41	1.68	0.58
42:DV:72:VAL:HG23	42:DV:85:LYS:HB2	1.85	0.58
25:BA:1080:C:H2'	25:BA:1081:U:C6	2.38	0.58
5:CC:43:LEU:O	5:CC:47:LEU:HB3	2.03	0.58
3:AV:21:A:H2'	24:AX:214:ARG:O	2.04	0.58
1:CA:1442:G:H3'	1:CA:1442:G:C8	2.37	0.58
16:AN:6:LEU:CD2	16:AN:23:ARG:HH22	2.16	0.58
1:CA:411:A:H3'	1:CA:411:A:C8	2.39	0.58
6:AD:43:HIS:O	6:AD:45:GLN:N	2.36	0.58
32:BI:130:TYR:HE2	32:BI:132:PRO:HG3	1.69	0.58
30:DG:121:ASN:ND2	30:DG:123:ASN:H	2.02	0.58
6:AD:11:LEU:C	6:AD:13:ARG:N	2.55	0.58
25:BA:1263:U:H2'	25:BA:1264:G:C8	2.39	0.58
1:AA:1307:U:H2'	1:AA:1308:U:H6	1.67	0.58
24:CX:62:SER:OG	25:DA:1067:A:H1'	2.03	0.58
25:DA:1326:U:O2'	25:DA:1327:C:H5'	2.04	0.58
26:BB:63:G:H2'	26:BB:64:C:C6	2.38	0.58
4:CB:15:VAL:C	4:CB:16:HIS:CG	2.77	0.58
25:DA:1418:G:H8	25:DA:1418:G:O5'	1.86	0.58
1:AA:340:U:H2'	1:AA:341:C:C6	2.38	0.58
33:BK:131:ALA:HA	33:BK:134:MET:HG2	1.85	0.58
25:DA:46:C:OP2	25:DA:215:G:H2'	2.04	0.58
36:DP:41:ARG:HE	36:DP:41:ARG:HA	1.67	0.58
1:AA:1309:G:C6	1:AA:1329:A:C2	2.91	0.58
41:DU:52:ARG:HD3	41:DU:55:ARG:HD2	1.85	0.58
27:DD:244:ARG:HG3	27:DD:245:PRO:HG3	1.85	0.58
1:CA:1231:G:C4	1:CA:1232:U:C5	2.92	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AM:103:THR:C	15:AM:105:THR:H	2.06	0.58
36:BP:113:LYS:HG3	36:BP:129:ALA:O	2.03	0.58
1:CA:1331:G:OP1	1:CA:1331:G:H4'	2.03	0.58
29:DF:32:LEU:O	29:DF:36:VAL:HG23	2.04	0.58
53:B6:34:LEU:O	53:B6:35:GLU:HB2	2.03	0.58
44:BX:50:LYS:H	44:BX:87:GLN:NE2	2.00	0.58
25:DA:2798:C:C5	25:DA:2799:A:C6	2.89	0.58
44:DX:63:LYS:HD2	44:DX:72:LYS:HB3	1.85	0.58
25:BA:637:A:H5''	36:BP:117:GLU:HG3	1.84	0.58
1:AA:545:C:H5''	6:AD:72:GLU:HG3	1.85	0.58
1:CA:1077:G:N2	1:CA:1080:A:OP2	2.33	0.58
1:AA:1117:G:H4'	11:AI:104:ARG:HH21	1.68	0.58
4:AB:144:ARG:HA	4:AB:147:LYS:CB	2.33	0.58
24:AX:341:LEU:HD21	24:AX:357:LEU:HD12	1.85	0.58
25:DA:2439:A:H5'	25:DA:2439:A:C8	2.38	0.58
1:AA:1038:C:H2'	1:AA:1039:C:C6	2.38	0.58
1:AA:663:A:H5''	20:AR:61:LYS:HZ3	1.67	0.58
44:DX:26:TYR:OH	44:DX:88:LYS:HB2	2.03	0.58
1:AA:109:A:H4'	1:AA:110:C:OP2	2.04	0.58
27:BD:145:VAL:HG12	27:BD:146:GLU:O	2.04	0.58
33:DK:131:ALA:HA	33:DK:134:MET:HG2	1.85	0.58
25:DA:519:U:H4'	43:DW:25:ARG:NH2	2.18	0.58
6:CD:7:PRO:HB2	6:CD:10:ARG:HD2	1.86	0.58
25:BA:1926:U:O2	25:BA:1928:A:C8	2.56	0.58
1:AA:498:A:H4'	1:AA:500:G:OP1	2.02	0.58
25:DA:1264:G:O5'	25:DA:1264:G:H8	1.86	0.58
5:CC:175:LEU:O	5:CC:175:LEU:HD23	2.03	0.58
16:AN:16:PHE:HB2	16:AN:18:VAL:HG23	1.84	0.58
25:DA:1556:C:H2'	25:DA:1557:C:C6	2.39	0.58
25:BA:2519:U:H4'	25:BA:2520:C:OP1	2.04	0.58
40:DT:33:LYS:HB2	40:DT:82:LEU:HD23	1.85	0.58
4:CB:208:ILE:H	4:CB:208:ILE:HD12	1.69	0.58
1:AA:438:G:H4'	1:AA:439:A:OP1	2.04	0.58
19:CQ:12:SER:HB3	19:CQ:20:THR:HB	1.84	0.58
1:CA:794:A:H2'	1:CA:795:C:C6	2.38	0.58
55:B8:22:VAL:HB	55:B8:54:GLU:HG2	1.86	0.58
27:DD:150:LYS:HA	27:DD:150:LYS:HE3	1.85	0.58
12:CJ:7:LYS:O	12:CJ:8:LEU:HD12	2.04	0.58
27:BD:94:LEU:HD23	27:BD:95:LEU:N	2.19	0.58
37:DQ:134:ARG:HH21	46:DZ:81:ARG:NH2	1.94	0.58
37:DQ:23:GLY:CA	37:DQ:98:LYS:HB2	2.27	0.58
36:BP:65:ARG:NH2	55:B8:15:LYS:CB	2.67	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1658:C:OP1	28:DE:132:HIS:O	2.22	0.58
14:AL:86:GLY:HA2	14:AL:97:TYR:HA	1.84	0.58
25:BA:2592:G:C2'	25:BA:2593:U:H5'	2.34	0.58
1:AA:353:A:H5'	1:AA:353:A:C8	2.38	0.58
37:BQ:48:GLU:O	37:BQ:52:VAL:HG12	2.04	0.58
25:BA:674:G:C1'	29:BF:74:ARG:HD3	2.34	0.58
5:AC:21:ARG:HB2	5:AC:21:ARG:NH1	2.18	0.58
25:BA:639:U:H2'	25:BA:640:C:C6	2.38	0.58
25:DA:1425:G:H2'	25:DA:1426:G:C8	2.39	0.58
25:DA:2092:U:C5	25:DA:2226:C:OP2	2.56	0.58
25:DA:1569:A:C6	25:DA:1570:A:C6	2.92	0.58
25:BA:2691:C:H5'	25:BA:2691:C:H6	1.67	0.58
25:DA:270(G):U:H2'	25:DA:270(H):C:C6	2.38	0.58
25:BA:642:G:H3'	25:BA:642:G:C8	2.39	0.58
25:BA:929:G:H8	25:BA:929:G:O5'	1.86	0.58
46:BZ:74:VAL:HG22	46:BZ:86:VAL:HG13	1.86	0.58
25:BA:1346:G:N2	25:BA:1600:C:O2	2.31	0.58
25:DA:943:U:OP2	36:DP:38:GLN:CD	2.42	0.58
49:B2:16:LEU:HB2	49:B2:20:GLU:CG	2.25	0.58
15:AM:66:LEU:HA	15:AM:70:LEU:HB2	1.86	0.58
29:DF:45:ARG:NH1	29:DF:45:ARG:HG2	2.08	0.58
41:BU:64:ARG:O	41:BU:67:ALA:HB3	2.04	0.58
30:BG:41:GLN:HG2	30:BG:155:MET:CB	2.33	0.58
25:BA:1826:G:H4'	27:BD:242:ARG:NH2	2.18	0.58
4:CB:68:ILE:O	4:CB:91:PRO:HD2	2.03	0.58
1:CA:977:A:O2'	1:CA:978:A:H5'	2.04	0.58
38:DR:10:LEU:CB	38:DR:17:ARG:HD3	2.34	0.58
25:BA:773:U:C5'	27:BD:47:GLY:HA3	2.34	0.58
53:B6:25:LYS:HD2	55:B8:34:TRP:CZ3	2.38	0.58
25:BA:1344:G:H4'	25:BA:1384:A:N7	2.19	0.58
54:B7:5:TRP:NE1	54:B7:7:PRO:HG3	2.18	0.58
25:BA:1098:A:H2'	25:BA:1099:G:O4'	2.03	0.58
37:BQ:9:TYR:CD2	37:BQ:9:TYR:O	2.54	0.58
28:BE:11:MET:CB	28:BE:24:THR:HA	2.33	0.58
42:DV:17:GLY:O	42:DV:18:LEU:HB3	2.03	0.58
25:DA:639:U:H2'	25:DA:640:C:H6	1.68	0.58
25:BA:2695:C:H2'	25:BA:2696:U:C6	2.39	0.58
25:BA:315:G:H2'	25:BA:316:C:O4'	2.04	0.58
5:AC:175:LEU:HD23	5:AC:175:LEU:O	2.03	0.58
25:BA:2046:G:H1'	52:B5:22:HIS:CE1	2.39	0.58
8:CF:7:ASN:HD21	20:CR:34:TYR:HE1	1.50	0.58
1:AA:532:A:H5''	1:AA:532:A:H8	1.69	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CF:76:ALA:O	8:CF:80:ARG:HG2	2.04	0.58
36:BP:138:LEU:HD21	36:BP:144:GLU:HB3	1.85	0.58
25:DA:1071:G:O2'	25:DA:1089:G:H2'	2.02	0.58
10:AH:91:ARG:HH11	10:AH:91:ARG:CG	2.17	0.58
25:BA:1889:A:H2'	25:BA:1890:A:O4'	2.04	0.58
41:DU:44:ASN:HD21	42:DV:75:PHE:HB3	1.69	0.58
35:BO:53:LYS:H	35:BO:53:LYS:HD2	1.69	0.58
25:DA:943:U:OP1	36:DP:38:GLN:HB3	2.04	0.58
42:DV:39:LEU:CD1	42:DV:47:VAL:HG11	2.30	0.58
5:CC:36:ASP:O	5:CC:40:ARG:HG3	2.04	0.58
24:CX:92:LEU:HB2	24:CX:97:ARG:HE	1.69	0.58
30:BG:39:ILE:HG22	30:BG:40:ASN:N	2.18	0.58
36:BP:65:ARG:NH2	55:B8:15:LYS:HB2	2.14	0.58
1:AA:717:C:H6	1:AA:717:C:H5''	1.69	0.58
1:CA:979:C:H3'	1:CA:980:C:C5'	2.32	0.58
4:AB:55:PHE:HA	4:AB:58:ILE:HG13	1.86	0.58
36:DP:65:ARG:NH2	55:D8:15:LYS:CB	2.67	0.58
25:DA:1542:G:H4'	25:DA:1543:A:O5'	2.04	0.58
4:CB:55:PHE:CE1	4:CB:218:ALA:HA	2.32	0.58
5:AC:105:GLU:CG	5:AC:106:VAL:H	2.14	0.58
8:CF:69:GLU:O	8:CF:72:VAL:HG12	2.04	0.58
1:AA:1104:G:H4'	4:AB:111:ARG:NH1	2.18	0.58
25:BA:2427:C:H5'	25:BA:2427:C:H6	1.68	0.58
25:BA:2420:C:OP1	55:B8:34:TRP:HA	2.04	0.58
25:BA:1941:C:C6	25:BA:1941:C:H5'	2.35	0.58
25:BA:1081:U:H4'	33:BK:117:THR:HG23	1.86	0.58
44:BX:83:VAL:HG12	44:BX:87:GLN:HG3	1.86	0.58
54:B7:8:ASN:ND2	54:B7:11:LYS:H	2.01	0.58
25:BA:911:A:H2'	37:BQ:9:TYR:OH	2.04	0.58
25:DA:478:A:C6	25:DA:480:A:C6	2.92	0.58
25:DA:2129:C:H2'	25:DA:2130:U:H6	1.69	0.58
21:CS:11:VAL:HG23	21:CS:38:SER:HB2	1.84	0.58
11:AI:95:LYS:O	11:AI:99:LEU:HD23	2.04	0.58
25:BA:2150:U:H2'	25:BA:2151:G:C8	2.39	0.58
14:CL:7:ASN:ND2	19:CQ:34:LYS:HE2	2.19	0.58
1:AA:103(A):A:H3'	1:AA:103(B):G:H8	1.69	0.58
1:AA:1239:A:C4	1:AA:1298:C:N4	2.72	0.58
1:CA:1058:G:H2'	1:CA:1059:C:O4'	2.03	0.58
5:AC:113:ALA:HB3	5:AC:114:PRO:HD3	1.86	0.58
1:CA:532:A:H8	1:CA:532:A:H5''	1.69	0.58
34:BN:37:VAL:HG12	34:BN:38:LEU:H	1.69	0.58
25:BA:234:C:H2'	25:BA:235:U:H6	1.69	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DB:59:A:H2'	26:DB:60:C:O4'	2.04	0.58
28:BE:3:GLY:HA3	28:BE:81:ILE:HG21	1.85	0.58
1:CA:624:C:O3'	18:CP:10:GLY:HA2	2.04	0.58
5:CC:57:ILE:HD13	5:CC:66:VAL:HA	1.86	0.57
25:DA:1827:C:H5'	25:DA:1971:A:H4'	1.85	0.57
12:AJ:31:GLY:HA3	12:AJ:78:ASN:ND2	2.19	0.57
25:DA:2544:G:H2'	25:DA:2545:G:H8	1.68	0.57
19:AQ:59:ILE:O	19:AQ:59:ILE:HD12	2.04	0.57
1:AA:1358:U:H3'	1:AA:1359:C:C6	2.39	0.57
1:CA:1126:U:H2'	1:CA:1127:G:H8	1.67	0.57
1:AA:673:G:H5''	8:AF:87:ARG:NH1	2.19	0.57
16:AN:45:ARG:O	16:AN:49:HIS:CD2	2.50	0.57
5:AC:57:ILE:HD13	5:AC:66:VAL:HA	1.86	0.57
25:BA:1579:A:C8	25:BA:1579:A:H5'	2.32	0.57
25:BA:119:A:H4'	25:BA:120:U:H5'	1.86	0.57
37:BQ:47:ILE:HD11	37:BQ:68:ILE:HG13	1.86	0.57
11:CI:10:ARG:HG3	11:CI:75:ASP:HB3	1.86	0.57
25:DA:476:G:N2	25:DA:478:A:H3'	2.19	0.57
25:DA:135:G:H1	25:DA:144:C:H42	1.51	0.57
38:DR:78:LYS:O	38:DR:83:ILE:HG12	2.02	0.57
1:AA:902:G:H2'	1:AA:903:G:H8	1.68	0.57
1:CA:818:G:H3'	1:CA:819:A:H5''	1.85	0.57
7:AE:70:PRO:HB3	7:AE:144:THR:HG22	1.85	0.57
4:AB:235:SER:HA	4:AB:238:LEU:HD12	1.86	0.57
43:DW:25:ARG:NH2	43:DW:74:ALA:O	2.37	0.57
32:DI:144:VAL:O	32:DI:145:VAL:HG13	2.03	0.57
43:DW:40:ASN:O	43:DW:41:LYS:HG2	2.04	0.57
6:CD:70:ILE:HD11	6:CD:74:GLN:OE1	2.04	0.57
41:DU:113:ALA:O	41:DU:117:GLN:HB2	2.03	0.57
24:CX:106:GLU:O	24:CX:110:LYS:HG3	2.04	0.57
27:DD:227:ASN:HB3	27:DD:228:PRO:HD2	1.86	0.57
25:DA:2478:A:H3'	25:DA:2479:G:H8	1.69	0.57
25:DA:270(R):C:H2'	25:DA:270(S):G:O4'	2.04	0.57
29:BF:31:HIS:HB2	36:BP:13:ASN:HB3	1.86	0.57
42:BV:39:LEU:CD1	42:BV:47:VAL:HG11	2.28	0.57
41:BU:49:HIS:HA	41:BU:52:ARG:HB2	1.86	0.57
49:D2:14:ARG:HG2	49:D2:17:SER:OG	2.04	0.57
25:BA:627:A:H2'	25:BA:627:A:OP1	2.04	0.57
24:CX:245:MET:HG3	24:CX:261:ALA:CB	2.32	0.57
29:BF:40:GLN:NE2	29:BF:182:ASN:HB2	2.19	0.57
25:BA:2544:G:H2'	25:BA:2545:G:H8	1.68	0.57
25:DA:2125:G:H21	25:DA:2173:A:N6	1.98	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D2:2:LYS:H	49:D2:2:LYS:NZ	2.01	0.57
25:DA:1579:A:C8	25:DA:1579:A:H5'	2.35	0.57
42:BV:72:VAL:HG23	42:BV:85:LYS:HB2	1.86	0.57
25:DA:2419:U:O4	55:D8:30:ARG:NH1	2.37	0.57
45:DY:96:ILE:HG13	45:DY:98:VAL:H	1.69	0.57
14:CL:24:PRO:C	14:CL:26:LEU:H	2.06	0.57
14:CL:37:THR:HG22	14:CL:56:LYS:HB2	1.85	0.57
25:BA:589:C:H2'	25:BA:590:A:C8	2.38	0.57
25:DA:637:A:H5''	36:DP:117:GLU:HG3	1.87	0.57
11:AI:10:ARG:HG3	11:AI:75:ASP:HB3	1.86	0.57
40:BT:56:GLY:O	40:BT:59:THR:HG22	2.04	0.57
42:BV:14:VAL:CG1	42:BV:96:ILE:HG13	2.34	0.57
6:CD:11:LEU:C	6:CD:13:ARG:N	2.55	0.57
1:AA:1004:A:C2	1:AA:1025:U:H1'	2.39	0.57
27:DD:166:GLN:HE21	27:DD:166:GLN:CA	2.16	0.57
45:BY:95:LYS:HG2	45:BY:100:ALA:HA	1.86	0.57
43:DW:1:MET:HG2	43:DW:64:MET:CE	2.33	0.57
25:BA:2354:G:H2'	25:BA:2355:C:C6	2.40	0.57
32:DI:46:ALA:O	32:DI:49:ALA:HB3	2.04	0.57
6:AD:49:ARG:NH2	6:AD:50:ARG:HG2	2.19	0.57
1:CA:444:C:H2'	1:CA:445:G:H8	1.69	0.57
47:B0:82:ARG:O	47:B0:82:ARG:HG3	2.04	0.57
25:BA:1992:G:OP1	25:BA:1992:G:H8	1.87	0.57
48:B1:30:VAL:O	48:B1:30:VAL:HG12	2.04	0.57
24:AX:106:GLU:O	24:AX:110:LYS:HG3	2.04	0.57
34:BN:59:GLY:O	34:BN:61:HIS:N	2.37	0.57
1:AA:1530:G:H2'	1:AA:1531:A:C8	2.38	0.57
45:BY:42:VAL:CG1	45:BY:65:ALA:HB3	2.34	0.57
36:BP:35:HIS:O	36:BP:36:LYS:HG2	2.04	0.57
27:BD:25:THR:HG21	27:BD:82:ILE:N	2.19	0.57
12:AJ:78:ASN:HD22	12:AJ:81:THR:HG23	1.68	0.57
32:DI:71:ILE:HG13	32:DI:72:LEU:HD13	1.86	0.57
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.19	0.57
45:DY:4:LYS:HD3	45:DY:4:LYS:N	2.19	0.57
25:BA:1495:A:H2'	25:BA:1496:A:C2	2.40	0.57
21:CS:30:LEU:HA	21:CS:48:THR:O	2.04	0.57
36:DP:81:GLN:NE2	36:DP:106:LEU:HA	2.19	0.57
24:CX:182:ILE:HG12	24:CX:183:LEU:N	2.18	0.57
29:BF:36:VAL:CG1	29:BF:183:VAL:HG21	2.34	0.57
1:AA:1128:C:H1'	1:AA:1146:A:N6	2.19	0.57
25:BA:2114:A:O2'	25:BA:2168:G:H5'	2.05	0.57
10:AH:12:ARG:NH1	10:AH:26:VAL:HA	2.19	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1542:G:H4'	25:DA:1543:A:C5'	2.34	0.57
1:CA:1075:C:H5''	4:CB:179:LYS:NZ	2.20	0.57
7:AE:43:LEU:CD1	7:AE:132:ALA:HB1	2.33	0.57
25:DA:1344:G:H4'	25:DA:1384:A:C5	2.38	0.57
47:D0:53:MET:CE	47:D0:57:PHE:HD1	2.18	0.57
31:DH:13:LYS:CE	31:DH:14:GLY:H	2.17	0.57
24:AX:35:LYS:HD3	24:AX:71:THR:CG2	2.33	0.57
24:AX:138:GLY:CA	24:AX:142:ALA:HB2	2.34	0.57
25:BA:857:C:H4'	47:B0:23:VAL:HG21	1.86	0.57
55:B8:2:PRO:O	55:B8:3:LYS:HB3	2.04	0.57
45:BY:96:ILE:HG13	45:BY:98:VAL:H	1.69	0.57
25:BA:2320:A:H2'	25:BA:2320:A:N3	2.18	0.57
25:DA:674:G:C1'	29:DF:74:ARG:HD3	2.34	0.57
53:D6:42:TRP:HA	53:D6:42:TRP:CE3	2.39	0.57
34:BN:160:LYS:CA	34:BN:160:LYS:HE2	2.34	0.57
53:B6:39:TYR:HB3	53:B6:49:HIS:ND1	2.19	0.57
25:BA:1349:A:N6	25:BA:1598:C:N4	2.52	0.57
1:CA:1004:A:C2	1:CA:1025:U:H1'	2.40	0.57
37:BQ:54:MET:HG3	37:BQ:117:ALA:HB1	1.85	0.57
25:DA:1790:C:H2'	25:DA:1791:A:C5	2.39	0.57
1:AA:892:A:H2'	1:AA:893:C:C6	2.40	0.57
12:AJ:55:LYS:O	12:AJ:56:HIS:CG	2.57	0.57
5:CC:152:ILE:HD11	5:CC:167:TRP:CD1	2.39	0.57
14:AL:108:GLY:HA3	14:AL:120:GLY:O	2.04	0.57
27:DD:145:VAL:HG12	27:DD:146:GLU:O	2.05	0.57
25:BA:1686:C:H42	25:BA:1702:G:H1	1.52	0.57
36:DP:138:LEU:HD21	36:DP:144:GLU:HB3	1.85	0.57
40:BT:51:ARG:HG3	40:BT:98:LYS:HG3	1.86	0.57
10:CH:19:VAL:CG2	10:CH:21:LYS:HG2	2.33	0.57
1:CA:889:A:H4'	1:CA:890:G:OP1	2.04	0.57
25:DA:1021:A:H3'	25:DA:1021:A:C8	2.39	0.57
30:BG:39:ILE:HG21	30:BG:60:LEU:HD21	1.86	0.57
20:CR:32:ARG:HA	20:CR:69:THR:HG21	1.86	0.57
25:BA:1678:G:N2	25:BA:1989:G:N2	2.51	0.57
30:DG:109:VAL:O	30:DG:113:ARG:HG2	2.05	0.57
25:DA:1544:C:C3'	25:DA:1545:A:H5'	2.34	0.57
5:AC:58:GLU:HB2	5:AC:65:ALA:CB	2.33	0.57
32:DI:52:ARG:HG2	32:DI:52:ARG:HH11	1.68	0.57
24:CX:35:LYS:HD3	24:CX:71:THR:CG2	2.34	0.57
38:BR:72:ASP:HB3	38:BR:75:LEU:HB2	1.87	0.57
9:CG:154:TYR:O	9:CG:156:TRP:HD1	1.87	0.57
25:DA:1301:A:C8	25:DA:1303:G:C8	2.92	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AG:154:TYR:O	9:AG:156:TRP:HD1	1.88	0.57
27:DD:235:GLY:O	27:DD:237:GLU:N	2.38	0.57
40:DT:6:LEU:O	40:DT:10:VAL:HG23	2.04	0.57
25:BA:2840:C:H4'	38:BR:53:HIS:CD2	2.39	0.57
24:CX:202:LEU:HD22	24:CX:327:TYR:O	2.03	0.57
44:DX:43:VAL:HG11	44:DX:81:VAL:HG11	1.86	0.57
1:CA:116:A:H61	1:CA:313:A:H1'	1.68	0.57
25:DA:1814:G:H4'	27:DD:51:VAL:HG21	1.87	0.57
25:BA:719:C:H2'	25:BA:720:C:H6	1.67	0.57
8:CF:10:LEU:HD13	8:CF:61:LEU:HD13	1.86	0.57
1:AA:295:C:H2'	1:AA:296:U:C6	2.39	0.57
35:DO:3:GLN:HB2	35:DO:4:PRO:HD2	1.85	0.57
46:BZ:120:ILE:HG12	46:BZ:172:ALA:HA	1.85	0.57
25:BA:1639:U:H4'	25:BA:2699:C:H4'	1.86	0.57
18:AP:13:HIS:C	18:AP:15:PRO:HD3	2.25	0.57
25:DA:2023:G:H5'	25:DA:2617:C:H4'	1.86	0.57
27:DD:201:HIS:O	27:DD:204:ILE:HG13	2.04	0.57
25:DA:1291:C:H2'	25:DA:1292:U:C6	2.39	0.57
35:BO:104:ARG:HB3	35:BO:104:ARG:HH11	1.68	0.57
25:BA:1392:A:O5'	25:BA:1392:A:H8	1.88	0.57
31:BH:29:PRO:HD2	31:BH:79:VAL:O	2.05	0.57
36:BP:41:ARG:HA	36:BP:41:ARG:HE	1.68	0.57
15:CM:66:LEU:HA	15:CM:70:LEU:HB2	1.86	0.57
25:DA:2307:G:H3'	25:DA:2308:G:H8	1.70	0.57
21:CS:29:ARG:HD3	21:CS:48:THR:HB	1.86	0.57
25:BA:1056:G:N2	25:BA:1104:C:H42	2.03	0.57
25:BA:2720:U:O4	25:BA:2872:G:C6	2.58	0.57
4:AB:100:GLY:CA	4:AB:104:ASN:H	2.18	0.57
27:BD:105:ILE:HG13	27:BD:106:ILE:HD12	1.86	0.57
14:CL:50:ALA:O	14:CL:52:ARG:HD2	2.04	0.57
21:AS:11:VAL:HG23	21:AS:38:SER:HB2	1.86	0.57
53:B6:42:TRP:HA	53:B6:42:TRP:CE3	2.38	0.57
42:DV:14:VAL:CG1	42:DV:96:ILE:HG13	2.34	0.57
7:CE:70:PRO:HB3	7:CE:144:THR:HG22	1.87	0.57
1:CA:109:A:H4'	1:CA:110:C:OP2	2.04	0.57
25:DA:138:G:N2	44:DX:44:GLU:OE1	2.37	0.57
8:AF:76:ALA:O	8:AF:80:ARG:HG2	2.04	0.57
14:CL:85:ARG:HB2	14:CL:100:VAL:CG2	2.35	0.57
25:DA:234:C:H2'	25:DA:235:U:H6	1.68	0.57
46:BZ:63:ASP:HB2	46:BZ:65:GLN:HG3	1.86	0.57
31:DH:94:TYR:HD2	31:DH:107:VAL:HG12	1.69	0.57
38:DR:66:VAL:HG13	38:DR:70:LEU:HD12	1.86	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2321:G:H2'	25:DA:2321:G:N3	2.19	0.57
1:CA:610:G:H2'	1:CA:610:G:N3	2.20	0.57
43:DW:95:ILE:O	43:DW:95:ILE:HG13	2.03	0.57
25:BA:1312:U:H4'	25:BA:1313:U:O5'	2.05	0.57
4:AB:15:VAL:C	4:AB:16:HIS:CG	2.77	0.57
34:BN:66:THR:N	34:BN:71:MET:HE3	2.19	0.57
25:BA:1020:A:H4'	25:BA:1021:A:O5'	2.03	0.57
1:CA:1056:U:C5'	5:CC:163:ALA:HB2	2.30	0.57
25:DA:1827:C:C2'	25:DA:1828:G:H5'	2.35	0.57
1:CA:1228:C:P	15:CM:108:ARG:HH22	2.27	0.57
15:CM:103:THR:C	15:CM:105:THR:H	2.06	0.57
28:DE:92:THR:O	28:DE:95:ILE:HG13	2.05	0.57
25:DA:907:U:H4'	37:DQ:101:ARG:NH2	2.18	0.57
24:AX:245:MET:HG3	24:AX:261:ALA:CB	2.30	0.57
33:BK:77:LEU:HD23	33:BK:107:ILE:HG13	1.85	0.57
7:CE:31:LEU:HD23	7:CE:44:GLY:O	2.04	0.57
1:AA:1075:C:H5''	4:AB:179:LYS:NZ	2.19	0.57
25:BA:2795:G:N2	25:BA:2801:A:H62	2.02	0.57
25:BA:2801:A:O5'	25:BA:2801:A:H8	1.87	0.57
37:DQ:16:ARG:NH2	37:DQ:18:LYS:HE3	2.18	0.57
34:BN:121:VAL:HG23	34:BN:122:LEU:N	2.19	0.57
39:DS:93:LYS:O	39:DS:98:VAL:HG21	2.05	0.57
55:D8:2:PRO:O	55:D8:3:LYS:HB3	2.04	0.57
4:AB:147:LYS:HG2	4:AB:147:LYS:O	2.04	0.57
8:AF:50:TYR:CZ	20:AR:77:GLY:HA2	2.38	0.57
25:DA:2246:G:H2'	25:DA:2247:A:C8	2.40	0.57
25:DA:1434:A:H61	25:DA:1558:A:N6	2.01	0.57
9:CG:44:TYR:O	9:CG:48:LYS:HG2	2.04	0.57
1:AA:1007:C:H2'	1:AA:1008:C:C6	2.39	0.57
29:BF:129:PHE:HA	29:BF:142:TRP:NE1	2.19	0.57
34:DN:59:GLY:O	34:DN:61:HIS:N	2.37	0.57
25:DA:518:G:H4'	43:DW:18:ARG:NH1	2.19	0.57
1:AA:1046:A:H3'	1:AA:1047:G:H8	1.70	0.57
46:BZ:157:LEU:H	46:BZ:157:LEU:HD12	1.70	0.57
28:BE:176:ILE:N	28:BE:176:ILE:HD12	2.20	0.57
25:DA:1686:C:H42	25:DA:1702:G:H1	1.52	0.57
55:D8:22:VAL:HB	55:D8:54:GLU:HG2	1.86	0.57
1:AA:1329:A:OP1	15:AM:29:ARG:HG3	2.05	0.57
41:BU:44:ASN:ND2	42:BV:75:PHE:HB3	2.19	0.57
4:AB:68:ILE:O	4:AB:91:PRO:HD2	2.05	0.57
8:AF:87:ARG:CG	8:AF:87:ARG:NH1	2.53	0.57
25:DA:774:A:H2	25:DA:787:U:O2'	1.86	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:848:G:C4	25:DA:933:A:C8	2.90	0.57
14:AL:61:SER:O	14:AL:63:TYR:HD1	1.86	0.57
44:BX:63:LYS:HD2	44:BX:72:LYS:CB	2.34	0.57
25:BA:270(O):G:P	32:BI:57:ARG:HH22	2.27	0.57
30:BG:128:ARG:HE	30:BG:129:GLY:N	2.00	0.57
28:BE:36:ARG:NH2	28:BE:88:GLY:HA2	2.19	0.57
25:BA:546:C:H2'	25:BA:547:A:O4'	2.05	0.57
25:DA:2197:U:HO2'	25:DA:2198:A:H2'	1.70	0.57
25:DA:839:U:H2'	25:DA:840:C:H6	1.69	0.57
29:DF:129:PHE:HA	29:DF:142:TRP:NE1	2.19	0.57
35:BO:96:THR:OG1	35:BO:97:ARG:N	2.37	0.57
1:AA:686:U:O4	1:AA:703:G:H1'	2.04	0.57
34:BN:135:LEU:HA	34:BN:138:ARG:HB2	1.87	0.57
34:DN:135:LEU:HD23	34:DN:136:GLY:H	1.68	0.57
9:CG:71:PRO:HA	9:CG:138:LYS:HE3	1.86	0.57
1:CA:103(A):A:H3'	1:CA:103(B):G:H8	1.69	0.57
43:BW:40:ASN:O	43:BW:41:LYS:HG2	2.05	0.57
34:DN:62:ARG:NH2	34:DN:64:ASP:HB2	2.20	0.57
25:DA:85:G:H5''	25:DA:85:G:H8	1.68	0.57
25:DA:70:G:HO2'	25:DA:113:G:HO2'	1.52	0.57
25:DA:642:G:C8	25:DA:642:G:H3'	2.40	0.57
55:B8:51:ALA:O	55:B8:54:GLU:HB2	2.05	0.57
25:BA:675:A:H5'	29:BF:63:LYS:HZ3	1.69	0.57
25:BA:1023:U:H2'	25:BA:1024:G:H5'	1.86	0.57
12:AJ:7:LYS:O	12:AJ:8:LEU:HD12	2.05	0.57
40:DT:26:ASP:HB3	40:DT:92:GLY:H	1.69	0.57
1:CA:955:U:H1'	1:CA:1227:A:N6	2.15	0.57
32:DI:68:LEU:HA	32:DI:71:ILE:CG2	2.31	0.57
18:AP:43:LYS:HE3	18:AP:48:TRP:CE3	2.39	0.57
15:AM:2:ALA:C	15:AM:9:ILE:HG23	2.25	0.57
25:DA:1061:U:N3	33:DK:9:LYS:HB3	2.20	0.57
15:CM:10:PRO:O	15:CM:11:ARG:HG3	2.05	0.57
33:DK:33:ASN:HB3	33:DK:37:PHE:CE1	2.40	0.57
55:D8:61:LEU:O	55:D8:63:PRO:CD	2.53	0.57
38:BR:21:TYR:OH	38:BR:43:GLU:HG2	2.04	0.57
25:BA:848:G:C4	25:BA:933:A:C8	2.89	0.57
14:AL:59:LEU:HD21	14:AL:65:VAL:HG23	1.86	0.57
26:DB:65:C:H2'	26:DB:108:C:H41	1.69	0.57
54:D7:8:ASN:ND2	54:D7:8:ASN:C	2.58	0.57
25:DA:2468:G:H22	25:DA:2481:G:H2'	1.69	0.57
39:BS:42:ASP:C	39:BS:44:LYS:H	2.08	0.57
1:CA:1443:G:H4'	1:CA:1446:A:OP2	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DE:11:MET:CB	28:DE:24:THR:HA	2.35	0.57
21:AS:53:ASN:ND2	21:AS:55:LYS:H	2.03	0.57
31:BH:84:SER:HB3	31:BH:134:SER:HA	1.87	0.57
1:CA:1046:A:H3'	1:CA:1047:G:H8	1.70	0.57
25:BA:2615:U:C2	52:B5:7:PRO:HA	2.40	0.57
28:BE:104:VAL:HG22	28:BE:198:VAL:HG22	1.86	0.57
6:CD:119:GLN:HG3	6:CD:123:HIS:CD2	2.40	0.57
25:BA:1374:G:H2'	25:BA:1375:C:H6	1.68	0.57
4:CB:165:VAL:HG23	4:CB:166:ASP:N	2.19	0.57
35:DO:53:LYS:HD2	35:DO:53:LYS:H	1.69	0.57
25:BA:1935:G:H1'	25:BA:1964:G:N2	2.20	0.57
1:AA:785:G:N2	1:AA:798:G:C4	2.72	0.57
5:AC:107:GLN:CD	5:AC:107:GLN:H	2.07	0.57
46:DZ:94:GLU:CD	46:DZ:94:GLU:H	2.08	0.57
24:AX:207:PRO:HG2	24:AX:208:PHE:CE1	2.39	0.57
25:BA:996:A:C6	25:BA:1160:G:N1	2.72	0.57
1:CA:1329:A:OP1	15:CM:29:ARG:HG3	2.05	0.57
25:DA:2305:A:H3'	25:DA:2306:C:H5''	1.87	0.57
1:AA:1324:A:H2'	1:AA:1325:C:H6	1.69	0.57
25:DA:629:G:H2'	25:DA:630:G:H8	1.70	0.57
25:DA:651:G:C2'	25:DA:652:U:H5''	2.29	0.57
39:DS:36:TYR:N	39:DS:36:TYR:CD1	2.73	0.57
4:CB:55:PHE:HA	4:CB:58:ILE:HG13	1.87	0.57
44:DX:34:ALA:HB1	44:DX:39:ILE:HD11	1.87	0.57
21:AS:63:THR:HG22	21:AS:66:MET:CE	2.35	0.57
24:AX:301:ARG:HH21	24:AX:304:ARG:HG2	1.68	0.57
39:BS:41:ASP:OD2	39:BS:44:LYS:HE2	2.05	0.57
24:CX:199:VAL:HG12	24:CX:200:HIS:N	2.20	0.57
19:AQ:5:VAL:HG22	19:AQ:60:ILE:HG13	1.87	0.57
42:DV:28:GLU:HB2	42:DV:31:ALA:CB	2.34	0.57
1:AA:501:C:H2'	1:AA:502:G:C8	2.40	0.57
25:DA:2399:G:H2'	25:DA:2400:G:O4'	2.04	0.57
25:BA:955:C:OP2	37:BQ:14:ARG:HD2	2.05	0.57
1:CA:1349:A:H2'	1:CA:1350:A:H8	1.68	0.57
25:BA:1833:U:H2'	25:BA:1834:U:C6	2.39	0.57
25:DA:69:C:O2'	25:DA:70:G:H5'	2.05	0.57
45:BY:54:LYS:O	45:BY:55:TYR:HB2	2.05	0.57
25:BA:270(R):C:H2'	25:BA:270(S):G:O4'	2.05	0.57
38:BR:57:ARG:HG2	38:BR:58:GLY:H	1.70	0.57
25:DA:1632:A:C5	25:DA:1633:G:C6	2.92	0.57
6:CD:49:ARG:NH2	6:CD:50:ARG:HG2	2.19	0.57
15:AM:102:ARG:NE	15:AM:102:ARG:HA	2.19	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CX:254:GLY:O	24:CX:258:THR:HB	2.05	0.57
24:AX:109:LYS:O	24:AX:112:ASP:HB3	2.05	0.57
16:CN:16:PHE:HB2	16:CN:18:VAL:HG23	1.86	0.57
49:D2:41:ILE:HD11	49:D2:44:LEU:HB2	1.86	0.57
27:DD:25:THR:HG21	27:DD:82:ILE:N	2.17	0.57
27:BD:25:THR:O	27:BD:27:THR:HG22	2.05	0.57
36:BP:41:ARG:NH1	36:BP:45:LEU:HD12	2.19	0.57
27:DD:94:LEU:HD23	27:DD:95:LEU:N	2.19	0.57
25:BA:628:G:H2'	25:BA:629:G:C8	2.40	0.57
27:BD:130:ALA:HA	27:BD:192:THR:HA	1.85	0.57
29:BF:6:MET:HG2	29:BF:7:TYR:CD1	2.25	0.57
11:CI:63:ILE:HD12	11:CI:63:ILE:H	1.69	0.57
25:BA:1542:G:H4'	25:BA:1543:A:O5'	2.05	0.57
15:AM:9:ILE:HG21	15:AM:11:ARG:NH2	2.20	0.57
5:AC:36:ASP:O	5:AC:40:ARG:HG3	2.04	0.57
48:B1:90:ILE:O	48:B1:94:LEU:N	2.37	0.57
28:DE:131:ALA:HB3	28:DE:134:ILE:HD11	1.87	0.57
25:BA:2210:G:N2	25:BA:2211:G:C5'	2.67	0.57
25:BA:568:U:O4	42:BV:78:LYS:NZ	2.33	0.57
25:DA:2729:G:H1'	28:DE:187:ALA:CB	2.34	0.57
1:CA:939:G:H5''	9:CG:102:ARG:HH22	1.67	0.57
53:B6:20:ASN:CG	53:B6:21:TYR:N	2.59	0.57
30:DG:170:ARG:HH22	30:DG:182:LYS:HA	1.70	0.57
25:DA:56:A:C2	25:DA:57:C:C2	2.93	0.57
41:DU:44:ASN:ND2	42:DV:75:PHE:HB3	2.20	0.57
1:CA:1048:G:OP1	16:CN:4:LYS:HB2	2.05	0.57
26:DB:12:C:O2'	47:D0:74:ARG:CG	2.53	0.57
19:CQ:29:HIS:HE1	19:CQ:31:LEU:HB3	1.69	0.57
1:AA:1499:A:H1'	1:AA:1520:G:OP1	2.05	0.57
46:DZ:42:VAL:O	46:DZ:46:LYS:HG3	2.05	0.57
1:CA:306:G:H8	1:CA:306:G:H5'	1.69	0.57
15:CM:102:ARG:HA	15:CM:102:ARG:NE	2.20	0.57
1:CA:548:G:H5''	1:CA:548:G:H8	1.70	0.57
25:BA:608:A:H2'	25:BA:609(A):A:C8	2.40	0.57
13:CK:69:ALA:HB1	13:CK:103:LEU:CD2	2.35	0.57
25:BA:2496:C:OP1	37:BQ:81:VAL:HG13	2.05	0.56
41:BU:69:CYS:HG	41:BU:79:PHE:CB	2.18	0.56
36:BP:41:ARG:CA	36:BP:41:ARG:HE	2.18	0.56
25:DA:996:A:H4'	41:DU:92:ARG:CZ	2.35	0.56
25:BA:651:G:C2'	25:BA:652:U:H5''	2.29	0.56
27:DD:142:VAL:HG22	27:DD:143:HIS:N	2.20	0.56
25:BA:1494:A:HO2'	25:BA:1495:A:P	2.28	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CE:78:HIS:HE1	7:CE:143:ARG:N	1.97	0.56
25:BA:1542:G:H4'	25:BA:1543:A:C5'	2.35	0.56
44:BX:53:LYS:HE3	44:BX:55:ASN:HD21	1.70	0.56
1:AA:977:A:O2'	1:AA:978:A:H5'	2.04	0.56
14:AL:5:THR:HG23	14:AL:8:GLN:HE21	1.70	0.56
4:CB:51:LEU:HD23	4:CB:201:ILE:HD12	1.87	0.56
25:DA:2644:G:H2'	25:DA:2645:G:C8	2.40	0.56
21:CS:53:ASN:ND2	21:CS:55:LYS:H	2.03	0.56
9:CG:26:PHE:CD2	9:CG:62:PHE:HE1	2.23	0.56
25:DA:2131:G:C8	25:DA:2133:G:H1'	2.40	0.56
2:AY:46:G:H5''	2:AY:47:U:OP2	2.05	0.56
25:BA:1434:A:H61	25:BA:1558:A:N6	2.03	0.56
1:CA:232:G:H1'	1:CA:262:A:N1	2.19	0.56
25:DA:955:C:OP2	37:DQ:14:ARG:HD2	2.04	0.56
25:BA:1374:G:H2'	25:BA:1375:C:C6	2.39	0.56
1:CA:1063:C:H3'	1:CA:1064:G:H2'	1.87	0.56
45:DY:54:LYS:O	45:DY:55:TYR:HB2	2.05	0.56
1:AA:859:A:H2'	1:AA:860:A:O4'	2.04	0.56
6:AD:119:GLN:HG3	6:AD:123:HIS:CD2	2.40	0.56
31:DH:67:LEU:HD11	31:DH:71:LEU:HD13	1.87	0.56
1:CA:906:G:H8	1:CA:906:G:O5'	1.87	0.56
8:AF:10:LEU:HD13	8:AF:61:LEU:HD13	1.86	0.56
5:AC:79:ARG:H	5:AC:79:ARG:HD3	1.69	0.56
53:B6:27:LYS:HB3	53:B6:30:THR:OG1	2.04	0.56
39:BS:36:TYR:N	39:BS:36:TYR:CD1	2.73	0.56
25:DA:2403:C:N3	25:DA:2415:G:C2	2.73	0.56
27:BD:71:ASP:N	27:BD:71:ASP:OD2	2.38	0.56
25:DA:310:A:P	45:DY:18:GLY:HA2	2.45	0.56
25:DA:274:G:H2'	25:DA:275:G:O4'	2.05	0.56
1:CA:1306:A:N6	1:CA:1331:G:H1'	2.20	0.56
21:AS:28:LYS:HE2	21:AS:29:ARG:HH12	1.69	0.56
33:DK:32:ALA:HB1	33:DK:34:ILE:HG23	1.87	0.56
25:BA:309:G:N3	25:BA:329:G:O2'	2.38	0.56
31:DH:85:LYS:O	31:DH:132:ARG:HA	2.05	0.56
1:CA:192:U:C1'	22:CT:103:GLY:HA2	2.35	0.56
25:DA:2320:A:N3	25:DA:2320:A:H2'	2.20	0.56
25:DA:2378:A:H2'	39:DS:21:THR:HG21	1.87	0.56
6:AD:158:ILE:HG22	6:AD:162:LEU:HD12	1.87	0.56
25:DA:2491:U:C5'	25:DA:2491:U:H6	2.18	0.56
1:CA:1493:A:C4	25:DA:1913:A:C5	2.93	0.56
25:BA:135:G:H1	25:BA:144:C:H42	1.51	0.56
16:CN:6:LEU:CD2	16:CN:23:ARG:HH22	2.18	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BI:8:PRO:C	32:BI:9:LEU:HD23	2.26	0.56
11:AI:49:PRO:O	11:AI:53:VAL:HG22	2.05	0.56
25:DA:1525:G:H2'	25:DA:1526:G:H8	1.70	0.56
34:DN:135:LEU:HA	34:DN:138:ARG:HB2	1.86	0.56
39:DS:66:ALA:O	39:DS:69:VAL:HG12	2.05	0.56
25:BA:319:C:H2'	25:BA:320:A:H8	1.68	0.56
37:DQ:54:MET:HG3	37:DQ:117:ALA:HB1	1.87	0.56
1:AA:439:A:H8	1:AA:439:A:H5''	1.69	0.56
24:AX:254:GLY:O	24:AX:258:THR:HB	2.05	0.56
1:CA:1007:C:H2'	1:CA:1008:C:C6	2.40	0.56
25:DA:218:A:O2'	25:DA:219:G:H5'	2.05	0.56
1:CA:82:U:O2	1:CA:86:U:H5	1.87	0.56
25:DA:2496:C:OP1	37:DQ:81:VAL:HG13	2.05	0.56
25:BA:996:A:H4'	41:BU:92:ARG:CZ	2.34	0.56
5:CC:19:GLU:HA	5:CC:54:ARG:HH12	1.69	0.56
25:BA:629:G:H2'	25:BA:630:G:H8	1.69	0.56
53:D6:11:LEU:HD21	53:D6:51:GLU:CG	2.35	0.56
15:AM:78:ILE:HG22	15:AM:93:ARG:NH1	2.13	0.56
52:B5:40:LYS:HG2	52:B5:46:CYS:HB3	1.86	0.56
11:CI:95:LYS:O	11:CI:99:LEU:HD23	2.04	0.56
25:DA:7:G:H2'	25:DA:8:A:C8	2.40	0.56
36:BP:97:PRO:O	36:BP:101:VAL:HG12	2.05	0.56
25:BA:1174:A:O5'	25:BA:1175:U:H5''	2.06	0.56
30:BG:109:VAL:O	30:BG:113:ARG:HG2	2.04	0.56
18:CP:43:LYS:HG3	18:CP:48:TRP:CD2	2.40	0.56
1:CA:979:C:C3'	1:CA:980:C:H5''	2.33	0.56
33:DK:8:VAL:O	33:DK:57:ILE:HB	2.04	0.56
30:DG:110:ALA:HB1	30:DG:140:ILE:HD13	1.87	0.56
1:CA:328:C:H4'	1:CA:329:A:H5'	1.86	0.56
27:DD:186:HIS:CD2	27:DD:188:GLU:H	2.15	0.56
48:D1:90:ILE:O	48:D1:94:LEU:N	2.38	0.56
25:DA:1077:A:H61	25:DA:1088:A:H5''	1.70	0.56
5:AC:50:ALA:HB2	5:AC:75:VAL:HB	1.88	0.56
1:AA:1348:U:H4'	11:AI:120:ARG:HD2	1.87	0.56
1:CA:353:A:H5'	1:CA:353:A:C8	2.36	0.56
39:BS:57:LYS:HZ2	39:BS:58:LEU:HD11	1.71	0.56
31:BH:13:LYS:CE	31:BH:14:GLY:H	2.17	0.56
25:BA:2887:U:H2'	25:BA:2888:C:C6	2.38	0.56
31:BH:101:ARG:H	31:BH:101:ARG:NE	2.01	0.56
25:BA:2729:G:H1'	28:BE:187:ALA:CB	2.33	0.56
42:BV:99:ILE:N	42:BV:99:ILE:HD13	2.19	0.56
25:DA:1941:C:C6	25:DA:1941:C:H5'	2.38	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1493:A:H1'	25:DA:1913:A:C2	2.41	0.56
1:AA:370:C:H2'	1:AA:371:G:H8	1.68	0.56
29:DF:65:TRP:CH2	29:DF:75:HIS:HD2	2.22	0.56
50:D3:8:LEU:CD1	50:D3:23:LEU:HD22	2.36	0.56
24:AX:145:TRP:CD2	24:AX:149:LEU:HD11	2.39	0.56
1:AA:1151:A:O2'	1:AA:1152:A:C8	2.58	0.56
13:CK:21:ILE:HD12	13:CK:21:ILE:N	2.20	0.56
27:DD:43:ARG:HB2	27:DD:49:ILE:HA	1.86	0.56
25:BA:2084:C:H2'	25:BA:2085:C:C6	2.41	0.56
1:AA:376:G:OP2	18:AP:67:THR:HG21	2.05	0.56
39:DS:61:ASN:HB3	39:DS:64:GLU:HB2	1.86	0.56
10:CH:103:VAL:HG21	10:CH:109:ILE:O	2.05	0.56
4:CB:235:SER:HA	4:CB:238:LEU:HD12	1.87	0.56
4:AB:235:SER:O	4:AB:239:VAL:HG23	2.06	0.56
44:DX:65:ARG:HB3	44:DX:70:LEU:HD23	1.88	0.56
25:BA:2246:G:H2'	25:BA:2247:A:C8	2.40	0.56
25:BA:1312:U:O2	25:BA:1603:A:C2	2.58	0.56
14:CL:108:GLY:HA3	14:CL:120:GLY:O	2.04	0.56
46:DZ:128:VAL:HG23	46:DZ:132:ASN:HB2	1.87	0.56
1:CA:166:G:H2'	1:CA:167:G:H8	1.68	0.56
13:CK:15:ALA:HA	13:CK:76:GLY:O	2.05	0.56
1:AA:397:A:H5'	1:AA:398:C:OP1	2.03	0.56
25:DA:2389:G:H5''	25:DA:2390:U:H5'	1.87	0.56
1:AA:101:A:H5''	1:AA:101:A:H8	1.70	0.56
25:BA:2512:C:H4'	28:BE:122:PHE:CE2	2.41	0.56
30:BG:38:VAL:HG22	30:BG:93:THR:HG23	1.86	0.56
24:AX:63:GLN:HE22	24:AX:64:GLU:HG2	1.70	0.56
1:AA:266:G:H5''	1:AA:268:C:H41	1.70	0.56
35:BO:112:MET:HA	35:BO:115:VAL:HG22	1.87	0.56
1:CA:517:G:H2'	1:CA:531:U:C5	2.39	0.56
7:AE:10:MET:HG3	7:AE:13:ILE:HD11	1.88	0.56
25:BA:2683:C:P	40:BT:53:ARG:HH22	2.28	0.56
1:CA:141:A:H1'	1:CA:182:U:O2	2.04	0.56
46:BZ:16:SER:HB2	46:BZ:20:ARG:NH1	2.20	0.56
22:CT:71:THR:CG2	22:CT:72:LEU:H	2.06	0.56
20:AR:32:ARG:HA	20:AR:69:THR:HG21	1.86	0.56
1:CA:1367:C:H5'	12:CJ:60:ARG:NH1	2.20	0.56
21:AS:29:ARG:HD3	21:AS:48:THR:HB	1.85	0.56
18:AP:43:LYS:HG3	18:AP:48:TRP:CD2	2.40	0.56
5:AC:34:LEU:O	5:AC:38:ARG:HG2	2.05	0.56
1:CA:1492:A:C6	24:CX:320:TRP:HH2	2.22	0.56
47:B0:37:LEU:HD22	47:B0:67:VAL:HG21	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:58:THR:C	36:DP:61:ARG:HE	2.09	0.56
25:DA:1796:U:O2'	25:DA:1797:C:H5'	2.06	0.56
13:CK:57:THR:HG22	13:CK:59:TYR:N	2.20	0.56
42:DV:99:ILE:HD13	42:DV:99:ILE:N	2.20	0.56
41:DU:25:TRP:C	41:DU:25:TRP:CD1	2.78	0.56
24:CX:207:PRO:HG2	24:CX:208:PHE:CE1	2.39	0.56
11:CI:47:LEU:HG	11:CI:50:LEU:HD12	1.88	0.56
25:BA:1252:G:C2	25:BA:1253:A:C2	2.94	0.56
12:CJ:55:LYS:O	12:CJ:56:HIS:CG	2.57	0.56
7:AE:71:LEU:HD21	7:AE:115:VAL:HG22	1.87	0.56
19:CQ:52:LYS:H	19:CQ:52:LYS:HD2	1.71	0.56
24:CX:269:THR:OG1	24:CX:271:ILE:HG22	2.06	0.56
21:CS:79:THR:O	21:CS:80:TYR:CB	2.53	0.56
25:BA:1878:G:H2'	25:BA:1879:C:C6	2.40	0.56
25:DA:309:G:N3	25:DA:329:G:O2'	2.39	0.56
11:AI:4:TYR:HB2	11:AI:19:LEU:CB	2.26	0.56
5:CC:91:LEU:CD1	5:CC:101:LEU:HD21	2.36	0.56
25:DA:1009:A:C8	25:DA:1009:A:C5'	2.87	0.56
25:BA:1009:A:C5'	25:BA:1009:A:C8	2.88	0.56
25:DA:1020:A:H4'	25:DA:1021:A:O5'	2.06	0.56
37:BQ:134:ARG:NH2	46:BZ:81:ARG:HH22	1.94	0.56
18:CP:43:LYS:HG3	18:CP:48:TRP:CG	2.41	0.56
4:AB:59:GLU:O	4:AB:63:MET:HG3	2.05	0.56
14:AL:82:VAL:HG22	14:AL:83:LEU:N	2.21	0.56
40:BT:132:LYS:HB3	40:BT:136:GLN:NE2	2.17	0.56
45:BY:75:ILE:HG12	45:BY:80:GLY:N	2.20	0.56
28:BE:11:MET:HB3	28:BE:24:THR:HA	1.87	0.56
1:CA:1493:A:H2'	1:CA:1493:A:N3	2.21	0.56
17:AO:39:LEU:O	17:AO:43:LEU:HG	2.06	0.56
6:CD:43:HIS:O	6:CD:45:GLN:N	2.38	0.56
24:CX:145:TRP:CD2	24:CX:149:LEU:HD11	2.41	0.56
1:CA:409:G:H2'	1:CA:410:G:O4'	2.05	0.56
25:DA:558:G:OP1	34:DN:135:LEU:HD22	2.06	0.56
4:CB:25:ASN:HB3	4:CB:27:LYS:HG2	1.88	0.56
25:BA:809:G:H2'	25:BA:810:U:H5'	1.87	0.56
34:DN:62:ARG:CZ	34:DN:64:ASP:HB2	2.36	0.56
26:DB:78:A:H2'	26:DB:79:C:O4'	2.06	0.56
28:BE:195:LEU:HD23	28:BE:195:LEU:C	2.26	0.56
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.41	0.56
5:AC:164:ARG:HG2	5:AC:165:THR:H	1.70	0.56
7:CE:71:LEU:HD21	7:CE:115:VAL:HG22	1.87	0.56
37:DQ:60:ARG:H	46:DZ:179:ASP:HB2	1.71	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BI:1:MET:O	32:BI:20:ASP:HA	2.05	0.56
25:DA:429:A:C2	25:DA:430:G:C2	2.93	0.56
25:DA:506:G:H5'	25:DA:509:C:O2	2.06	0.56
24:AX:170:THR:CG2	24:AX:179:TYR:HB3	2.36	0.56
19:AQ:11:VAL:HG21	19:AQ:88:TYR:CD2	2.41	0.56
4:AB:224:GLN:OE1	4:AB:229:VAL:HG21	2.05	0.56
30:DG:166:ASP:OD1	30:DG:166:ASP:N	2.39	0.56
5:CC:113:ALA:HB3	5:CC:114:PRO:HD3	1.87	0.56
41:BU:52:ARG:HD3	41:BU:55:ARG:HD2	1.88	0.56
36:BP:47:ASP:HB3	36:BP:48:PRO:CA	2.36	0.56
34:DN:63:PRO:O	41:DU:64:ARG:HD2	2.06	0.56
25:DA:996:A:C6	25:DA:1160:G:N1	2.73	0.56
25:BA:1971:A:C5	27:BD:241:PRO:HG3	2.41	0.56
1:CA:975:A:C8	1:CA:1357:A:H2	2.24	0.56
1:AA:1305:G:OP1	23:AU:2:GLY:HA3	2.06	0.56
1:AA:973:G:H8	1:AA:973:G:O5'	1.89	0.56
36:DP:97:PRO:O	36:DP:101:VAL:HG12	2.05	0.56
33:DK:57:ILE:HD12	33:DK:65:PHE:CD1	2.41	0.56
36:DP:58:THR:C	36:DP:60:MET:N	2.59	0.56
46:BZ:106:GLY:O	46:BZ:108:PRO:HD3	2.06	0.56
54:B7:8:ASN:C	54:B7:8:ASN:ND2	2.59	0.56
29:DF:177:ALA:HB1	29:DF:178:PRO:HD2	1.87	0.56
25:DA:315:G:H2'	25:DA:316:C:O4'	2.06	0.56
1:AA:1117:G:H4'	11:AI:104:ARG:NH2	2.21	0.56
25:BA:546:C:H3'	25:BA:547:A:H8	1.67	0.56
32:DI:4:ILE:HD11	32:DI:16:GLY:HA2	1.87	0.56
30:BG:170:ARG:HH22	30:BG:182:LYS:HA	1.71	0.56
4:CB:147:LYS:HG2	4:CB:147:LYS:O	2.06	0.56
21:CS:44:MET:HA	21:CS:44:MET:CE	2.36	0.56
25:DA:37:C:H2'	25:DA:38:A:C8	2.40	0.56
25:DA:1833:U:H2'	25:DA:1834:U:C6	2.40	0.56
27:DD:158:ALA:HB3	27:DD:161:THR:CG2	2.34	0.56
25:DA:2150:U:H2'	25:DA:2151:G:C8	2.40	0.56
26:BB:12:C:O2'	47:B0:74:ARG:CG	2.53	0.56
19:CQ:45:HIS:CD2	19:CQ:47:PRO:HD3	2.41	0.56
25:BA:396:G:O4'	48:B1:18:ILE:HD12	2.05	0.56
46:BZ:94:GLU:CD	46:BZ:94:GLU:H	2.08	0.56
26:BB:59:A:H2'	26:BB:60:C:O4'	2.05	0.56
25:DA:606:U:H4'	25:DA:658:C:H4'	1.86	0.56
40:DT:51:ARG:HG3	40:DT:98:LYS:HG3	1.87	0.56
29:DF:160:ASN:OD1	29:DF:162:LEU:HB2	2.06	0.56
10:AH:39:LEU:O	10:AH:44:PHE:HB2	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:23:GLY:CA	37:BQ:98:LYS:HB2	2.27	0.56
8:AF:97:PHE:CD2	20:AR:31:LEU:HD21	2.26	0.56
12:CJ:61:GLU:HG3	12:CJ:62:HIS:N	2.21	0.56
16:AN:24:CYS:CB	16:AN:27:CYS:SG	2.93	0.56
11:AI:125:TYR:CD2	11:AI:126:SER:N	2.71	0.56
33:BK:77:LEU:O	33:BK:80:LYS:HB3	2.05	0.56
1:CA:673:G:H5'	8:CF:87:ARG:NH1	2.21	0.56
10:AH:118:VAL:O	10:AH:119:LEU:HD23	2.05	0.56
1:CA:1348:U:H4'	11:CI:120:ARG:HD2	1.87	0.56
44:DX:63:LYS:HZ3	44:DX:72:LYS:HB3	1.71	0.56
25:BA:2537:U:H2'	25:BA:2538:C:H6	1.70	0.56
32:BI:52:ARG:HD3	32:BI:52:ARG:H	1.71	0.56
18:AP:20:VAL:HG22	18:AP:21:VAL:N	2.20	0.56
53:D6:20:ASN:CG	53:D6:21:TYR:N	2.59	0.56
1:CA:370:C:H2'	1:CA:371:G:H8	1.71	0.56
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.87	0.56
1:AA:1152:A:O2'	1:AA:1153:C:H5'	2.06	0.56
1:CA:313:A:H2'	1:CA:314:C:C6	2.40	0.56
30:DG:171:ALA:O	30:DG:175:LEU:HG	2.05	0.56
25:BA:1620:G:O2'	54:B7:2:LYS:HG2	2.05	0.56
33:BK:3:LYS:HE3	33:BK:61:ALA:CB	2.36	0.56
25:BA:116:C:O2'	25:BA:117:G:H5'	2.06	0.56
25:BA:1952:A:C2	35:BO:22:ILE:HD12	2.41	0.56
25:BA:1952:A:C5	35:BO:22:ILE:HD11	2.41	0.56
25:BA:1682:G:H2'	25:BA:1683:C:C6	2.41	0.56
1:CA:345:C:OP2	40:DT:39:ARG:NH2	2.39	0.56
25:BA:1418:G:H8	25:BA:1418:G:O5'	1.87	0.56
40:DT:53:ARG:HG2	40:DT:53:ARG:O	2.05	0.56
25:DA:116:C:O2'	25:DA:117:G:H5'	2.05	0.56
55:D8:50:LEU:O	55:D8:51:ALA:HB3	2.06	0.56
5:CC:34:LEU:O	5:CC:38:ARG:HG2	2.05	0.56
25:DA:629:G:H2'	25:DA:630:G:C8	2.41	0.56
24:CX:88:LEU:HD22	24:CX:88:LEU:H	1.71	0.56
27:BD:35:LYS:CB	27:BD:36:PRO:HD3	2.36	0.56
25:DA:1828:G:OP2	27:DD:239:ARG:NH1	2.38	0.56
12:AJ:32:ALA:H	12:AJ:78:ASN:HD21	1.53	0.56
32:DI:107:ILE:HD12	32:DI:108:THR:N	2.21	0.56
1:AA:1127:G:N2	1:AA:1146:A:N6	2.52	0.56
28:BE:92:THR:O	28:BE:95:ILE:HG13	2.06	0.56
25:DA:1055:G:H2'	25:DA:1056:G:O4'	2.06	0.56
15:AM:10:PRO:O	15:AM:11:ARG:HG3	2.06	0.56
25:DA:2119:A:C6	25:DA:2171:A:C2	2.94	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:744:G:OP1	28:DE:132:HIS:HB3	2.04	0.56
1:CA:1346:A:N6	1:CA:1374:A:H3'	2.21	0.56
1:AA:894:G:H2'	1:AA:895:G:H8	1.71	0.56
1:AA:192:U:C1'	22:AT:103:GLY:HA2	2.36	0.56
24:CX:138:GLY:CA	24:CX:142:ALA:HB2	2.36	0.56
31:DH:101:ARG:N	31:DH:101:ARG:HE	2.02	0.56
29:BF:29:ASN:H	29:BF:112:MET:CE	2.19	0.56
25:BA:1060:U:C4'	25:BA:1061:U:H2'	2.35	0.56
29:BF:65:TRP:CH2	29:BF:75:HIS:HD2	2.23	0.56
25:DA:2159:G:N2	25:DA:2160:G:H1'	2.21	0.56
27:BD:43:ARG:HB2	27:BD:49:ILE:HA	1.87	0.56
25:DA:2084:C:H2'	25:DA:2085:C:C6	2.39	0.56
47:D0:82:ARG:O	47:D0:82:ARG:HG3	2.05	0.56
21:AS:79:THR:O	21:AS:80:TYR:CB	2.53	0.56
25:BA:2609:U:H4'	25:BA:2610:C:OP1	2.05	0.56
1:CA:1281:U:H3'	1:CA:1282:C:H6	1.70	0.56
1:AA:232:G:H1'	1:AA:262:A:N1	2.21	0.56
4:CB:235:SER:O	4:CB:239:VAL:HG23	2.06	0.56
10:AH:30:ARG:O	10:AH:33:GLU:HB2	2.06	0.56
46:BZ:5:LEU:HD23	46:BZ:6:LYS:N	2.21	0.56
45:BY:42:VAL:HG12	45:BY:65:ALA:HB3	1.88	0.56
44:DX:57:LEU:HD12	44:DX:78:LYS:O	2.05	0.56
32:BI:29:TYR:O	32:BI:32:PRO:HD2	2.05	0.56
46:DZ:15:PRO:O	46:DZ:19:ARG:HG3	2.06	0.56
31:BH:119:GLU:O	31:BH:121:ILE:HD12	2.05	0.56
25:DA:1465:G:C2	25:DA:1466:G:C8	2.93	0.56
13:AK:67:ASP:OD1	13:AK:71:LYS:HE3	2.05	0.56
49:B2:41:ILE:HD11	49:B2:44:LEU:HB2	1.85	0.56
30:BG:166:ASP:N	30:BG:166:ASP:OD1	2.38	0.56
1:CA:1313:U:H5	21:CS:4:SER:HB2	1.71	0.56
20:AR:35:ARG:O	20:AR:37:VAL:N	2.37	0.56
16:CN:24:CYS:HB3	16:CN:29:ARG:H	1.71	0.56
52:B5:40:LYS:HE2	52:B5:46:CYS:CB	2.32	0.56
33:BK:32:ALA:HB1	33:BK:34:ILE:HG23	1.88	0.56
1:CA:977:A:H1'	1:CA:982:U:O4	2.06	0.56
25:DA:1060:U:C4'	25:DA:1061:U:H2'	2.36	0.56
25:DA:2115:G:H5'	25:DA:2167:U:H5'	1.88	0.56
25:BA:2821:A:OP2	38:BR:5:LYS:NZ	2.37	0.56
47:D0:49:LYS:N	47:D0:80:HIS:HB3	2.21	0.56
43:BW:68:ARG:O	43:BW:110:LYS:HB2	2.04	0.56
39:DS:56:LEU:HG	39:DS:57:LYS:HE3	1.87	0.56
39:DS:57:LYS:HD2	39:DS:58:LEU:HD12	1.88	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:27:G:N2	25:BA:512:G:HO2'	2.03	0.56
25:BA:2884:U:OP2	52:B5:43:HIS:HE1	1.88	0.56
43:BW:4:LYS:HG2	43:BW:106:ILE:CG2	2.36	0.56
1:CA:973:G:H8	1:CA:973:G:O5'	1.89	0.56
39:BS:89:ARG:O	39:BS:90:GLY:O	2.23	0.56
25:BA:2481:G:HO2'	25:BA:2482:G:P	2.29	0.56
38:DR:63:ARG:HA	38:DR:80:PHE:HZ	1.71	0.56
34:BN:135:LEU:HD23	34:BN:136:GLY:H	1.71	0.56
25:BA:2749:A:H3'	25:BA:2750:A:H2'	1.86	0.56
35:DO:77:ILE:HD13	35:DO:78:ARG:N	2.21	0.56
32:BI:31:LEU:HD11	32:BI:38:LEU:H	1.71	0.56
18:CP:39:TYR:CZ	18:CP:41:PRO:HA	2.41	0.56
25:DA:811:U:O2	25:DA:1250:G:H2'	2.06	0.56
25:DA:271(C):G:H4'	25:DA:271(D):U:C5'	2.36	0.56
25:DA:30:G:H2'	25:DA:31:C:C6	2.41	0.56
25:BA:1113:U:H2'	25:BA:1114:G:C8	2.41	0.56
25:BA:2701:C:H2'	25:BA:2702:U:H2'	1.88	0.56
37:BQ:60:ARG:H	46:BZ:179:ASP:HB2	1.70	0.56
25:BA:893:C:H2'	25:BA:894:C:H6	1.71	0.56
1:CA:99:C:H2'	1:CA:101:A:C8	2.41	0.56
5:AC:152:ILE:HD11	5:AC:167:TRP:CD1	2.41	0.56
25:DA:2704:C:H2'	25:DA:2705:A:H8	1.71	0.56
49:D2:6:VAL:HA	49:D2:9:GLN:NE2	2.21	0.56
41:DU:62:ILE:HD12	41:DU:76:TYR:CZ	2.41	0.56
39:BS:24:LEU:HD12	39:BS:84:GLN:CB	2.29	0.56
53:D6:34:LEU:O	53:D6:35:GLU:HB2	2.04	0.56
1:CA:1055:A:H5''	1:CA:1056:U:OP2	2.05	0.56
1:CA:1364:U:O2'	1:CA:1365:G:H5'	2.06	0.56
24:AX:182:ILE:HG12	24:AX:183:LEU:N	2.19	0.56
25:DA:598:G:H5'	36:DP:15:ARG:HB3	1.86	0.56
1:CA:1127:G:N2	1:CA:1146:A:N6	2.52	0.56
10:AH:26:VAL:C	10:AH:58:TYR:HD2	2.10	0.56
10:CH:118:VAL:O	10:CH:119:LEU:HD23	2.06	0.56
29:DF:40:GLN:NE2	29:DF:182:ASN:HB2	2.21	0.56
1:CA:1104:G:H4'	4:CB:111:ARG:NH1	2.20	0.56
44:BX:63:LYS:HD2	44:BX:72:LYS:HB3	1.88	0.56
29:BF:179:GLU:H	29:BF:179:GLU:CD	2.10	0.56
31:BH:85:LYS:O	31:BH:132:ARG:HA	2.05	0.56
25:DA:2801:A:O5'	25:DA:2801:A:H8	1.87	0.56
25:BA:1331:A:O2'	25:BA:1332:G:H8	1.87	0.56
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.37	0.56
5:CC:43:LEU:HD22	5:CC:47:LEU:HD22	1.88	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:203:GLN:HA	29:DF:206:ILE:O	2.05	0.56
25:DA:875:G:H2'	25:DA:876:C:O4'	2.06	0.56
55:B8:39:LYS:HE2	55:B8:43:GLN:HE22	1.71	0.56
1:AA:878:G:H5'	10:AH:89:PRO:HG2	1.86	0.56
25:BA:2251:G:C8	25:BA:2450:A:H4'	2.41	0.56
25:BA:2159:G:N2	25:BA:2160:G:H1'	2.21	0.56
1:AA:411:A:H3'	1:AA:411:A:H8	1.70	0.56
1:CA:186(E):C:H2'	1:CA:186(F):C:C6	2.41	0.56
1:CA:411:A:H3'	1:CA:411:A:H8	1.69	0.56
1:AA:510:A:H5''	1:AA:511:C:OP2	2.05	0.56
35:BO:24:VAL:HG23	35:BO:33:ALA:HB2	1.87	0.56
1:AA:180:U:C2'	1:AA:181:G:H5'	2.36	0.56
38:BR:100:LEU:H	38:BR:112:ALA:HA	1.69	0.56
2:CY:46:G:H5''	2:CY:47:U:OP2	2.05	0.56
8:AF:60:PHE:C	8:AF:61:LEU:HD12	2.27	0.56
46:BZ:42:VAL:O	46:BZ:46:LYS:HG3	2.06	0.56
25:BA:1814:G:H4'	27:BD:51:VAL:HG21	1.88	0.56
1:CA:266:G:H5'	1:CA:266:G:C8	2.40	0.56
40:BT:31:SER:OG	40:BT:85:LYS:HE2	2.07	0.56
26:DB:15:A:H1'	26:DB:109:G:N7	2.20	0.56
25:DA:1272:A:OP2	25:DA:1647:G:OP1	2.24	0.56
25:BA:2606:C:H2'	25:BA:2607:G:H5'	1.88	0.56
5:CC:107:GLN:CD	5:CC:107:GLN:H	2.08	0.56
32:DI:99:GLU:HG2	32:DI:99:GLU:O	2.06	0.56
25:DA:533:G:H5''	25:DA:533:G:H8	1.70	0.56
30:BG:37:VAL:O	30:BG:94:LEU:HD23	2.05	0.56
40:DT:67:SER:OG	40:DT:68:TYR:HD2	1.89	0.56
25:BA:941:A:O2'	36:BP:35:HIS:CD2	2.59	0.55
1:AA:82:U:O2	1:AA:86:U:H5	1.89	0.55
25:BA:2305:A:H3'	25:BA:2306:C:H5''	1.87	0.55
27:BD:31:LYS:HG3	27:BD:33:LEU:CG	2.35	0.55
30:BG:154:GLY:O	30:BG:155:MET:HB3	2.06	0.55
30:DG:41:GLN:HG2	30:DG:155:MET:CB	2.35	0.55
8:CF:97:PHE:O	20:CR:31:LEU:HD23	2.06	0.55
16:AN:24:CYS:HB3	16:AN:29:ARG:H	1.71	0.55
25:BA:2543:G:H8	25:BA:2543:G:H5'	1.70	0.55
1:CA:736:C:H2'	1:CA:737:A:H8	1.71	0.55
25:BA:1077:A:H61	25:BA:1088:A:H5''	1.70	0.55
14:AL:50:ALA:O	14:AL:52:ARG:HD2	2.06	0.55
24:CX:147:GLU:O	24:CX:151:ARG:HD2	2.05	0.55
32:BI:77:LEU:HD21	32:BI:101:LEU:HA	1.86	0.55
39:BS:13:ARG:HG3	39:BS:14:VAL:H	1.70	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:7:ALA:HB3	46:DZ:61:LEU:HD23	1.88	0.55
46:BZ:7:ALA:HB3	46:BZ:61:LEU:HD23	1.86	0.55
19:AQ:9:VAL:CG1	19:AQ:56:VAL:HG22	2.35	0.55
50:B3:50:VAL:O	50:B3:54:VAL:HG22	2.05	0.55
38:BR:63:ARG:HA	38:BR:80:PHE:HZ	1.71	0.55
6:AD:13:ARG:HG2	6:AD:38:TYR:O	2.06	0.55
25:DA:558:G:P	34:DN:134:PRO:HD2	2.47	0.55
53:D6:39:TYR:HB3	53:D6:49:HIS:ND1	2.20	0.55
14:AL:6:ILE:HD12	14:AL:6:ILE:N	2.21	0.55
37:BQ:60:ARG:HA	46:BZ:179:ASP:CB	2.36	0.55
2:AZ:32:C:H4'	9:AG:77:SER:OG	2.05	0.55
25:DA:2046:G:H1'	52:D5:22:HIS:CE1	2.40	0.55
6:AD:111:ALA:HA	6:AD:161:ASN:HD22	1.71	0.55
24:CX:109:LYS:O	24:CX:112:ASP:HB3	2.07	0.55
29:BF:143:ALA:HB1	29:BF:148:LEU:HB2	1.88	0.55
32:BI:117:GLU:HG3	32:BI:118:LYS:H	1.69	0.55
6:AD:4:TYR:O	6:AD:6:GLY:N	2.38	0.55
25:DA:2352:A:C2	47:D0:33:ALA:O	2.59	0.55
43:BW:80:PRO:O	43:BW:100:THR:HG22	2.06	0.55
35:DO:8:LEU:HB2	35:DO:19:ILE:CD1	2.36	0.55
36:BP:23:PRO:HB2	36:BP:33:ARG:HD2	1.84	0.55
1:CA:1309:G:C6	1:CA:1329:A:C2	2.94	0.55
1:CA:1325:C:H4'	23:CU:17:THR:HG21	1.89	0.55
24:AX:97:ARG:O	24:AX:101:LYS:HG2	2.07	0.55
24:AX:324:ILE:CG2	24:AX:338:ARG:HD2	2.34	0.55
12:AJ:4:ILE:HG23	12:AJ:98:ILE:HG23	1.88	0.55
34:DN:157:ARG:N	34:DN:158:PRO:CD	2.70	0.55
40:DT:102:ILE:HB	40:DT:110:ILE:CD1	2.31	0.55
24:CX:46:LEU:HD22	33:DK:25:PRO:HG3	1.88	0.55
23:AU:6:ARG:HH21	23:AU:7:ARG:NH2	2.00	0.55
38:BR:10:LEU:HD22	38:BR:17:ARG:CD	2.33	0.55
25:BA:2822:G:O6	38:BR:4:LEU:HD12	2.06	0.55
1:AA:1240:U:H4'	1:AA:1241:G:OP2	2.05	0.55
1:CA:1072:G:H2'	1:CA:1073:U:H6	1.69	0.55
4:CB:100:GLY:CA	4:CB:104:ASN:H	2.19	0.55
31:DH:20:ALA:HB1	31:DH:21:PRO:CD	2.37	0.55
29:DF:64:ILE:HG23	29:DF:65:TRP:CG	2.41	0.55
28:DE:101:ARG:CZ	28:DE:171:GLU:HB3	2.36	0.55
38:BR:78:LYS:O	38:BR:83:ILE:HG12	2.07	0.55
1:AA:186(E):C:H2'	1:AA:186(F):C:C6	2.41	0.55
35:DO:24:VAL:CG2	35:DO:33:ALA:HB2	2.35	0.55
25:DA:2259:G:N2	25:DA:2282:G:C2	2.74	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:180:U:C2'	1:CA:181:G:H5'	2.36	0.55
1:AA:741:G:H2'	1:AA:742:G:O4'	2.06	0.55
1:AA:1493:A:H2'	1:AA:1493:A:N3	2.20	0.55
25:BA:506:G:H5'	25:BA:509:C:O2	2.05	0.55
25:BA:1345:C:O2'	25:BA:1346:G:H5'	2.06	0.55
40:BT:53:ARG:O	40:BT:53:ARG:HG2	2.05	0.55
1:AA:1063:C:H3'	1:AA:1064:G:H2'	1.88	0.55
25:DA:441:U:O2	29:DF:46:ARG:NH2	2.39	0.55
36:BP:70:GLN:HA	36:BP:70:GLN:OE1	2.05	0.55
32:BI:6:LEU:HD11	32:BI:34:GLY:O	2.06	0.55
28:BE:15:PHE:CD1	40:BT:81:PRO:HD2	2.42	0.55
33:BK:55:VAL:HG22	33:BK:69:THR:HA	1.89	0.55
43:BW:24:ILE:O	43:BW:27:LYS:HB2	2.05	0.55
9:AG:44:TYR:O	9:AG:48:LYS:HG2	2.07	0.55
36:DP:70:GLN:HA	36:DP:70:GLN:OE1	2.06	0.55
34:BN:62:ARG:NH2	34:BN:64:ASP:HB2	2.20	0.55
36:DP:49:ARG:HD2	55:D8:59:LYS:HB3	1.89	0.55
36:DP:49:ARG:NH1	36:DP:49:ARG:HG3	2.18	0.55
41:DU:83:LEU:H	41:DU:83:LEU:HD12	1.70	0.55
26:BB:57:A:N3	30:BG:29:TRP:HB3	2.20	0.55
12:CJ:4:ILE:HG23	12:CJ:98:ILE:HG23	1.87	0.55
25:BA:629:G:H2'	25:BA:630:G:C8	2.42	0.55
43:DW:38:TYR:HE1	52:D5:41:PRO:HD3	1.70	0.55
30:DG:60:LEU:HD12	30:DG:68:PRO:HB3	1.88	0.55
8:AF:97:PHE:O	20:AR:31:LEU:HD23	2.06	0.55
25:DA:528:A:C2	25:DA:2043:C:H4'	2.40	0.55
27:BD:243:GLY:O	27:BD:244:ARG:HB3	2.07	0.55
25:DA:1495:A:H2'	25:DA:1496:A:C2	2.41	0.55
33:BK:33:ASN:HB3	33:BK:37:PHE:CE1	2.41	0.55
15:AM:34:LEU:HD22	15:AM:39:ILE:HB	1.88	0.55
4:CB:59:GLU:O	4:CB:63:MET:HG3	2.06	0.55
32:BI:127:VAL:HA	32:BI:140:LEU:O	2.06	0.55
25:BA:2822:G:H2'	25:BA:2823:A:H5''	1.88	0.55
25:DA:2721:A:O2'	25:DA:2722:G:H5'	2.06	0.55
37:DQ:40:ALA:HB3	37:DQ:127:ILE:HD11	1.87	0.55
25:DA:773:U:C5'	27:DD:47:GLY:HA3	2.36	0.55
1:AA:243:A:H4'	1:AA:244:U:O5'	2.06	0.55
39:BS:57:LYS:HD2	39:BS:58:LEU:HD12	1.89	0.55
33:BK:57:ILE:HD12	33:BK:65:PHE:CD1	2.41	0.55
1:AA:409:G:H2'	1:AA:410:G:O4'	2.06	0.55
24:AX:199:VAL:HG12	24:AX:200:HIS:N	2.21	0.55
1:CA:741:G:H2'	1:CA:742:G:O4'	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2258:C:H4'	25:DA:2259:G:OP2	2.06	0.55
6:AD:176:LEU:HD12	6:AD:182:LYS:O	2.06	0.55
2:CZ:70:G:O2'	2:CZ:71:C:H5'	2.07	0.55
35:DO:88:ASN:HB3	35:DO:92:GLU:H	1.71	0.55
24:AX:202:LEU:HD22	24:AX:327:TYR:O	2.06	0.55
44:DX:57:LEU:HD12	44:DX:57:LEU:N	2.20	0.55
27:BD:227:ASN:HB3	27:BD:228:PRO:HD2	1.87	0.55
29:BF:160:ASN:OD1	29:BF:162:LEU:HB2	2.06	0.55
30:BG:171:ALA:O	30:BG:175:LEU:HG	2.06	0.55
42:DV:66:ARG:O	42:DV:91:TYR:HE2	1.89	0.55
14:CL:54:VAL:HG12	14:CL:55:ALA:N	2.21	0.55
38:BR:66:VAL:HG13	38:BR:70:LEU:HD12	1.88	0.55
24:AX:269:THR:OG1	24:AX:271:ILE:HG22	2.06	0.55
37:BQ:138:ASP:O	37:BQ:139:GLU:HB2	2.07	0.55
1:AA:1313:U:H5	21:AS:4:SER:HB2	1.71	0.55
38:DR:57:ARG:HG2	38:DR:58:GLY:H	1.70	0.55
19:CQ:11:VAL:HG21	19:CQ:88:TYR:CD2	2.41	0.55
47:D0:21:LEU:H	47:D0:21:LEU:HD12	1.71	0.55
13:CK:67:ASP:OD1	13:CK:71:LYS:HE3	2.07	0.55
49:D2:32:LEU:HB2	49:D2:53:LEU:CD1	2.25	0.55
1:AA:1432:G:OP1	40:BT:107:ASP:HB2	2.06	0.55
24:CX:28:GLY:O	24:CX:32:ILE:HG13	2.07	0.55
32:DI:1:MET:HG3	32:DI:23:PRO:HG3	1.88	0.55
21:CS:28:LYS:HE2	21:CS:29:ARG:HH12	1.70	0.55
1:CA:1305:G:OP1	23:CU:2:GLY:HA3	2.06	0.55
28:DE:47:VAL:HG12	28:DE:49:LEU:HD22	1.88	0.55
36:BP:58:THR:C	36:BP:61:ARG:HE	2.09	0.55
24:AX:147:GLU:O	24:AX:151:ARG:HD2	2.06	0.55
3:AV:19:U:O4	24:AX:141:GLU:HB2	2.05	0.55
25:DA:1829:A:H3'	25:DA:1830:C:C6	2.41	0.55
46:DZ:106:GLY:O	46:DZ:108:PRO:HD3	2.06	0.55
1:AA:411:A:H3'	1:AA:411:A:C8	2.41	0.55
6:CD:13:ARG:HG2	6:CD:38:TYR:O	2.07	0.55
25:DA:2354:G:H2'	25:DA:2355:C:H6	1.72	0.55
25:DA:1794:U:H2'	25:DA:1795:C:H6	1.71	0.55
15:AM:14:ARG:HG2	15:AM:44:ARG:CZ	2.36	0.55
43:DW:1:MET:O	43:DW:64:MET:HE1	2.07	0.55
14:AL:16:LYS:HD3	14:AL:17:VAL:N	2.20	0.55
1:CA:256:U:H2'	1:CA:257:G:C8	2.41	0.55
30:DG:33:ARG:HB2	30:DG:162:THR:CG2	2.37	0.55
29:DF:53:THR:C	29:DF:55:GLY:H	2.09	0.55
4:CB:10:LEU:HA	4:CB:13:ALA:HB3	1.89	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:67:SER:OG	40:BT:68:TYR:HD2	1.89	0.55
25:DA:2691:C:H6	25:DA:2691:C:H5'	1.71	0.55
25:DA:1804:C:H6	25:DA:1804:C:O5'	1.89	0.55
31:DH:84:SER:HB3	31:DH:134:SER:HA	1.88	0.55
33:DK:3:LYS:HE3	33:DK:61:ALA:CB	2.36	0.55
1:AA:87:A:H5''	1:AA:88:C:OP2	2.07	0.55
13:CK:99:GLN:OE1	13:CK:105:VAL:HG11	2.06	0.55
49:D2:17:SER:O	49:D2:18:PRO:C	2.45	0.55
41:DU:90:VAL:O	41:DU:91:ASP:C	2.45	0.55
12:AJ:6:ILE:CD1	12:AJ:23:ILE:HG21	2.36	0.55
5:AC:91:LEU:CD1	5:AC:101:LEU:HD21	2.36	0.55
25:BA:2820:A:O3'	38:BR:5:LYS:HE3	2.06	0.55
36:BP:58:THR:C	36:BP:60:MET:N	2.60	0.55
25:DA:2563:U:O2	25:DA:2565:A:C8	2.59	0.55
1:AA:1102:A:H2'	1:AA:1103:C:C6	2.42	0.55
36:BP:114:ILE:HD12	36:BP:114:ILE:H	1.68	0.55
25:BA:1344:G:H4'	25:BA:1384:A:C5	2.41	0.55
25:BA:1332:G:N2	25:BA:1610:A:C8	2.75	0.55
37:DQ:7:MET:C	37:DQ:8:LYS:HG3	2.27	0.55
17:CO:33:THR:HG23	17:CO:63:ARG:NH1	2.22	0.55
24:CX:301:ARG:HH21	24:CX:304:ARG:HG2	1.70	0.55
28:DE:11:MET:HB3	28:DE:24:THR:HA	1.88	0.55
25:BA:2131:G:C8	25:BA:2133:G:H1'	2.41	0.55
27:BD:10:THR:HG23	27:BD:13:ARG:CB	2.36	0.55
1:CA:186(B):C:O2'	22:CT:89:ARG:HD2	2.06	0.55
25:BA:558:G:OP1	34:BN:135:LEU:HD22	2.06	0.55
25:BA:173:G:H2'	25:BA:174:C:C6	2.41	0.55
25:DA:1557:C:H5''	25:DA:1558:A:OP2	2.07	0.55
32:DI:29:TYR:O	32:DI:32:PRO:HD2	2.06	0.55
17:AO:7:GLU:O	17:AO:11:VAL:HG23	2.07	0.55
35:DO:112:MET:HA	35:DO:115:VAL:HG22	1.88	0.55
25:BA:518:G:H4'	43:BW:18:ARG:NH1	2.21	0.55
6:CD:111:ALA:HA	6:CD:161:ASN:HD22	1.70	0.55
8:AF:45:LEU:HD12	8:AF:59:TYR:HD1	1.71	0.55
26:DB:88:C:H6	26:DB:88:C:O5'	1.90	0.55
25:DA:1113:U:H2'	25:DA:1114:G:C8	2.41	0.55
55:D8:57:ARG:CB	55:D8:57:ARG:HH11	1.99	0.55
24:AX:88:LEU:HD22	24:AX:88:LEU:H	1.72	0.55
28:BE:39:PRO:HD3	28:BE:45:THR:HG23	1.88	0.55
11:CI:49:PRO:O	11:CI:53:VAL:HG22	2.07	0.55
25:DA:1174:A:O5'	25:DA:1175:U:H5''	2.06	0.55
25:BA:1045:A:N6	25:BA:1111:A:H2'	2.20	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:34:TRP:CE2	36:DP:12:ALA:HB2	2.41	0.55
25:DA:2592:G:C2'	25:DA:2593:U:H5'	2.37	0.55
7:CE:91:LEU:HD23	7:CE:120:THR:HG22	1.88	0.55
9:AG:12:LEU:H	9:AG:12:LEU:CD2	2.19	0.55
28:BE:4:ILE:CG1	28:BE:28:ALA:HB1	2.36	0.55
13:AK:99:GLN:OE1	13:AK:105:VAL:HG11	2.07	0.55
5:AC:43:LEU:HD22	5:AC:47:LEU:HD22	1.89	0.55
25:BA:1829:A:H3'	25:BA:1830:C:C6	2.41	0.55
25:BA:875:G:H2'	25:BA:876:C:O4'	2.07	0.55
38:BR:11:ASN:OD1	38:BR:12:ARG:N	2.33	0.55
32:BI:130:TYR:CE2	32:BI:132:PRO:HG3	2.42	0.55
25:DA:322:A:C5	25:DA:340:A:C2	2.95	0.55
9:AG:71:PRO:HA	9:AG:138:LYS:HE3	1.87	0.55
25:DA:1374:G:H2'	25:DA:1375:C:H6	1.72	0.55
4:CB:135:GLN:O	4:CB:139:LYS:HG2	2.07	0.55
1:CA:1057:G:H1'	5:CC:195:VAL:HG11	1.88	0.55
46:DZ:92:SER:HB2	46:DZ:94:GLU:OE2	2.06	0.55
2:AY:61:C:H2'	2:AY:62:C:C6	2.42	0.55
40:DT:31:SER:OG	40:DT:85:LYS:HE2	2.07	0.55
25:DA:1889:A:H2'	25:DA:1890:A:O4'	2.06	0.55
25:DA:2251:G:C8	25:DA:2450:A:H4'	2.41	0.55
27:DD:267:SER:O	27:DD:270:ILE:HG13	2.07	0.55
1:CA:1265:G:C2	1:CA:1271:G:C2	2.95	0.55
25:BA:1272:A:OP2	25:BA:1647:G:OP1	2.25	0.55
5:CC:164:ARG:HG2	5:CC:165:THR:H	1.71	0.55
1:AA:610:G:N3	1:AA:610:G:H2'	2.22	0.55
25:BA:533:G:H8	25:BA:533:G:H5''	1.72	0.55
49:D2:48:HIS:O	49:D2:49:LYS:C	2.44	0.55
5:CC:19:GLU:HB3	5:CC:40:ARG:HH22	1.71	0.55
34:BN:63:PRO:O	41:BU:64:ARG:HD2	2.07	0.55
28:BE:201:THR:CG2	28:BE:202:LYS:H	2.14	0.55
25:BA:528:A:C2	25:BA:2043:C:H4'	2.42	0.55
37:BQ:134:ARG:O	37:BQ:135:ASP:C	2.45	0.55
1:AA:1367:C:H5'	12:AJ:60:ARG:NH1	2.21	0.55
25:BA:1540:G:H2'	25:BA:1541:U:O4'	2.06	0.55
30:DG:113:ARG:HD2	30:DG:140:ILE:CA	2.33	0.55
33:BK:76:TYR:HD2	33:BK:77:LEU:HD12	1.71	0.55
38:DR:10:LEU:HD13	38:DR:17:ARG:NE	2.22	0.55
25:DA:796:C:H2'	25:DA:797:C:C6	2.41	0.55
32:DI:92:VAL:CG1	32:DI:120:ILE:HB	2.36	0.55
44:DX:30:VAL:HG11	44:DX:39:ILE:HD12	1.88	0.55
25:DA:2781:A:C5'	25:DA:2782:G:H5'	2.35	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CP:20:VAL:HG22	18:CP:21:VAL:N	2.22	0.55
25:DA:119:A:H4'	25:DA:120:U:H5'	1.89	0.55
2:AY:40:C:H2'	2:AY:41:C:C6	2.41	0.55
50:D3:8:LEU:HD11	50:D3:23:LEU:HD22	1.89	0.55
25:BA:839:U:H2'	25:BA:840:C:H6	1.72	0.55
24:AX:145:TRP:O	24:AX:149:LEU:HD12	2.06	0.55
1:CA:370:C:C2	1:CA:392:G:C2	2.95	0.55
25:DA:516:C:HO2'	25:DA:1262:A:H5'	1.71	0.55
25:BA:322:A:C5	25:BA:340:A:C2	2.95	0.55
25:DA:2749:A:H3'	25:DA:2750:A:H2'	1.88	0.55
25:BA:1375:C:H2'	25:BA:1376:C:H6	1.70	0.55
25:BA:176:G:O2'	25:BA:177:G:H5'	2.06	0.55
25:DA:2081:C:O2'	25:DA:2082:A:H5'	2.05	0.55
27:BD:168:ARG:HG3	27:BD:173:VAL:HG23	1.89	0.55
25:BA:2078:C:O2'	25:BA:2079:U:H5'	2.07	0.55
31:DH:119:GLU:O	31:DH:121:ILE:HD12	2.06	0.55
36:DP:35:HIS:O	36:DP:36:LYS:HG2	2.06	0.55
49:B2:15:LYS:C	49:B2:16:LEU:HD22	2.26	0.55
25:DA:2420:C:OP1	55:D8:34:TRP:HA	2.07	0.55
27:DD:124:PRO:O	27:DD:129:ASN:ND2	2.39	0.55
30:DG:154:GLY:O	30:DG:155:MET:HB3	2.07	0.55
1:CA:949:A:H1'	1:CA:1364:U:N3	2.22	0.55
1:AA:1056:U:C5'	5:AC:163:ALA:HB2	2.32	0.55
46:BZ:125:LEU:HD22	46:BZ:164:ALA:CB	2.31	0.55
25:BA:2173:A:H3'	25:BA:2174:C:C6	2.42	0.55
25:DA:1541:U:H3'	25:DA:1542:G:H3'	1.88	0.55
25:DA:2114:A:O2'	25:DA:2168:G:H5'	2.07	0.55
9:CG:12:LEU:CD2	9:CG:12:LEU:H	2.18	0.55
1:CA:186(A):C:C5'	22:CT:78:ALA:HB1	2.36	0.55
25:BA:390:A:C6	36:BP:71:VAL:HG21	2.41	0.55
39:DS:13:ARG:HG3	39:DS:14:VAL:H	1.71	0.55
25:DA:2795:G:H21	25:DA:2801:A:N6	2.05	0.55
25:BA:2884:U:H2'	25:BA:2885:C:O4'	2.07	0.55
25:DA:480:A:H1'	45:DY:44:ILE:HG21	1.89	0.55
35:BO:4:PRO:O	35:BO:5:GLN:HB2	2.05	0.55
15:CM:14:ARG:HG2	15:CM:44:ARG:CZ	2.37	0.55
25:DA:722:A:H2'	25:DA:723:G:C8	2.42	0.55
25:BA:71:A:H4'	25:BA:72:U:H5''	1.89	0.55
25:DA:2749:A:H4'	31:DH:62:LYS:HB3	1.88	0.55
36:DP:138:LEU:HD11	36:DP:144:GLU:HB3	1.88	0.55
1:AA:1265:G:C2	1:AA:1271:G:C2	2.95	0.55
1:AA:141:A:H1'	1:AA:182:U:O2	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2006:C:H2'	25:BA:2007:C:H6	1.71	0.55
28:DE:38:THR:O	28:DE:42:ASP:HB2	2.06	0.55
25:BA:1569:A:H2'	25:BA:1570:A:C8	2.42	0.55
25:DA:1312:U:O2	25:DA:1603:A:C2	2.60	0.55
6:CD:134:ASP:OD2	6:CD:135:LEU:HD13	2.05	0.55
1:CA:351:G:H4'	1:CA:352:C:OP1	2.07	0.55
1:CA:173:U:H5''	1:CA:197:A:O4'	2.07	0.55
14:CL:16:LYS:HD3	14:CL:17:VAL:N	2.22	0.55
49:B2:28:LYS:HB3	49:B2:57:ILE:HD13	1.87	0.55
25:BA:2050:C:H2'	25:BA:2051:A:C8	2.41	0.55
1:CA:1239:A:C4	1:CA:1298:C:N4	2.75	0.55
16:AN:39:LEU:HB3	16:AN:43:CYS:SG	2.47	0.55
46:DZ:63:ASP:HB2	46:DZ:65:GLN:HG3	1.87	0.55
25:BA:2704:C:H2'	25:BA:2705:A:H8	1.72	0.55
42:BV:66:ARG:O	42:BV:91:TYR:HE2	1.88	0.55
55:D8:16:ILE:HD11	55:D8:58:ILE:HD13	1.88	0.55
27:BD:71:ASP:CG	27:BD:103:ARG:HH22	2.10	0.55
1:AA:955:U:H1'	1:AA:1227:A:N6	2.14	0.55
11:CI:37:PHE:CE2	11:CI:74:ILE:HD11	2.42	0.55
36:BP:81:GLN:NE2	36:BP:106:LEU:HA	2.21	0.55
24:AX:128:ASN:OD1	24:AX:128:ASN:N	2.40	0.55
25:BA:598:G:H2'	25:BA:599:G:O4'	2.07	0.55
4:CB:157:ARG:O	4:CB:158:LEU:HB2	2.07	0.55
37:DQ:26:TYR:O	37:DQ:67:ARG:NH1	2.40	0.55
25:BA:1055:G:H2'	25:BA:1056:G:O4'	2.05	0.55
12:CJ:31:GLY:HA3	12:CJ:78:ASN:ND2	2.21	0.55
25:BA:2419:U:O4	55:B8:30:ARG:NH1	2.40	0.55
29:BF:203:GLN:HA	29:BF:206:ILE:O	2.07	0.55
25:BA:2468:G:H22	25:BA:2481:G:H2'	1.71	0.55
6:CD:158:ILE:HG22	6:CD:162:LEU:HD12	1.89	0.55
1:CA:1151:A:O2'	1:CA:1152:A:C8	2.58	0.55
25:BA:2259:G:N2	25:BA:2282:G:N1	2.55	0.55
25:DA:2134:A:H62	25:DA:2157:G:H1'	1.72	0.55
25:BA:2577:A:H5''	25:BA:2578:G:H5'	1.89	0.55
27:DD:76:PRO:HB2	27:DD:116:GLN:HE21	1.72	0.55
26:DB:57:A:N3	30:DG:29:TRP:HB3	2.22	0.55
25:DA:1472:A:N6	25:DA:1521:G:H1'	2.21	0.55
6:CD:189:PRO:HB2	6:CD:194:LEU:CD2	2.37	0.55
39:BS:61:ASN:HB3	39:BS:64:GLU:HB2	1.88	0.55
25:BA:1771:C:O2'	25:BA:1786:A:H8	1.89	0.55
1:AA:398:C:O2'	1:AA:399:G:H5'	2.07	0.55
37:DQ:60:ARG:HA	46:DZ:179:ASP:CB	2.36	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BN:62:ARG:CZ	34:BN:64:ASP:HB2	2.36	0.55
24:AX:305:GLU:O	24:AX:309:LYS:HG2	2.06	0.55
28:DE:104:VAL:HG22	28:DE:198:VAL:HG22	1.89	0.55
25:BA:1465:G:C2	25:BA:1466:G:C8	2.95	0.55
34:BN:154:GLN:NE2	34:BN:155:ALA:HB3	2.22	0.55
25:DA:2447:G:C6	25:DA:2501:C:C2	2.95	0.55
29:DF:78:ILE:HD12	29:DF:78:ILE:H	1.72	0.55
6:AD:134:ASP:OD2	6:AD:135:LEU:HD13	2.07	0.55
4:AB:165:VAL:HG23	4:AB:166:ASP:N	2.21	0.55
36:DP:64:LYS:HB2	55:D8:25:MET:CG	2.29	0.55
24:CX:97:ARG:O	24:CX:101:LYS:HG2	2.07	0.55
27:BD:31:LYS:O	27:BD:36:PRO:HD3	2.07	0.55
24:AX:28:GLY:O	24:AX:32:ILE:HG13	2.06	0.55
15:CM:78:ILE:HG22	15:CM:93:ARG:NH1	2.13	0.55
1:CA:1221:G:OP1	1:CA:1320:C:N4	2.40	0.55
25:DA:295:G:H4'	45:DY:2:ARG:NH1	2.22	0.55
25:BA:1541:U:H3'	25:BA:1542:G:H3'	1.89	0.55
20:AR:50:ILE:HD11	20:AR:74:ARG:NH1	2.22	0.55
15:CM:9:ILE:HG21	15:CM:11:ARG:NH2	2.21	0.55
5:AC:16:ARG:HH11	5:AC:16:ARG:HB2	1.71	0.55
5:AC:19:GLU:HB3	5:AC:40:ARG:HH22	1.71	0.55
1:CA:1492:A:N6	24:CX:320:TRP:CH2	2.75	0.55
14:AL:59:LEU:CD2	14:AL:65:VAL:HG23	2.37	0.55
28:DE:4:ILE:CG1	28:DE:28:ALA:HB1	2.37	0.55
25:DA:568:U:O4	42:DV:78:LYS:NZ	2.34	0.55
25:DA:972:G:H3'	25:DA:973:A:H2'	1.89	0.55
25:DA:2061:G:H5''	25:DA:2503:A:C2	2.42	0.55
25:BA:2312:U:H4'	30:BG:71:THR:HG23	1.88	0.55
1:CA:523:A:N1	14:CL:91:ASP:HB2	2.22	0.55
25:BA:781:A:C8	27:BD:219:PRO:HG3	2.42	0.55
22:AT:89:ARG:NH2	22:AT:104:LEU:HB3	2.22	0.55
6:CD:176:LEU:HD12	6:CD:182:LYS:O	2.07	0.55
1:CA:1450:U:H1'	1:CA:1454:G:N2	2.22	0.55
36:BP:138:LEU:HD11	36:BP:144:GLU:HB3	1.89	0.55
1:AA:1048:G:OP1	16:AN:4:LYS:HB2	2.06	0.55
46:BZ:92:SER:HB2	46:BZ:94:GLU:OE2	2.07	0.55
7:AE:77:PRO:HD2	7:AE:142:LEU:HD22	1.89	0.55
7:CE:77:PRO:HD2	7:CE:142:LEU:HD22	1.88	0.55
45:DY:95:LYS:HG2	45:DY:100:ALA:HA	1.88	0.55
28:DE:15:PHE:CD1	40:DT:81:PRO:HD2	2.42	0.55
14:AL:85:ARG:HB2	14:AL:100:VAL:CG2	2.37	0.55
25:BA:855:G:H2'	25:BA:856:C:H6	1.70	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BB:78:A:H2'	26:BB:79:C:O4'	2.07	0.55
1:AA:1501:C:N4	1:AA:1504:G:C2	2.75	0.55
37:DQ:78:PRO:O	37:DQ:79:LEU:HB2	2.07	0.55
4:AB:208:ILE:H	4:AB:208:ILE:HD12	1.70	0.55
5:AC:148:GLY:HA3	5:AC:172:ARG:O	2.07	0.55
7:AE:80:ILE:HD11	7:AE:138:ALA:HB1	1.89	0.55
42:BV:52:VAL:HG22	42:BV:54:GLY:H	1.72	0.54
49:B2:32:LEU:HB2	49:B2:53:LEU:CD1	2.25	0.54
5:CC:16:ARG:HB2	5:CC:16:ARG:HH11	1.71	0.54
5:CC:28:GLN:O	5:CC:32:LEU:HG	2.07	0.54
5:CC:91:LEU:HD12	5:CC:101:LEU:HD21	1.89	0.54
4:AB:157:ARG:O	4:AB:158:LEU:HB2	2.06	0.54
25:BA:1678:G:O5'	25:BA:1678:G:C8	2.50	0.54
15:CM:3:ARG:HD3	51:D4:60:GLU:CD	2.27	0.54
1:AA:977:A:H1'	1:AA:982:U:O4	2.06	0.54
25:DA:2115:G:H21	25:DA:2171:A:H2	1.55	0.54
25:BA:1057:A:H2'	25:BA:1058:G:H8	1.73	0.54
12:CJ:78:ASN:O	12:CJ:82:ILE:HG12	2.07	0.54
43:DW:15:ARG:CZ	52:D5:20:ARG:HH12	2.20	0.54
1:CA:1103:C:H2'	1:CA:1104:G:O4'	2.06	0.54
4:CB:172:ILE:HD12	4:CB:173:ALA:H	1.73	0.54
37:BQ:74:TYR:O	37:BQ:89:ASN:N	2.34	0.54
25:BA:2883:A:H3'	25:BA:2884:U:H5'	1.88	0.54
37:DQ:20:ALA:HB1	37:DQ:99:PRO:O	2.07	0.54
25:DA:2312:U:H4'	30:DG:71:THR:HG23	1.87	0.54
25:BA:1098:A:H3'	25:BA:1099:G:H8	1.72	0.54
36:DP:91:PHE:CE2	36:DP:95:VAL:HG12	2.42	0.54
25:DA:909:A:H2'	25:DA:912:C:C5	2.42	0.54
25:DA:322:A:OP2	29:DF:169:ASN:HB2	2.07	0.54
25:DA:2340:G:H2'	25:DA:2341:G:C8	2.41	0.54
25:DA:297:C:H5''	45:DY:85:VAL:HG21	1.89	0.54
34:BN:64:ASP:OD1	34:BN:64:ASP:N	2.39	0.54
25:DA:1312:U:H4'	25:DA:1313:U:O5'	2.07	0.54
44:BX:65:ARG:HE	44:BX:65:ARG:N	2.05	0.54
22:AT:29:LYS:O	22:AT:33:ILE:HG12	2.07	0.54
31:DH:29:PRO:HD2	31:DH:79:VAL:O	2.08	0.54
1:CA:877:C:O2'	10:CH:3:THR:HG21	2.07	0.54
25:DA:1575:C:C2	25:DA:1576:U:C6	2.96	0.54
13:AK:84:VAL:O	13:AK:85:ARG:HG3	2.06	0.54
30:BG:33:ARG:HB2	30:BG:162:THR:CG2	2.37	0.54
26:BB:88:C:H6	26:BB:88:C:O5'	1.89	0.54
4:CB:224:GLN:OE1	4:CB:229:VAL:HG21	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BU:62:ILE:HD12	41:BU:76:TYR:CZ	2.42	0.54
25:BA:675:A:H5'	29:BF:63:LYS:NZ	2.22	0.54
25:DA:534:U:H5'	41:DU:42:ALA:HB1	1.89	0.54
30:BG:134:GLY:HA2	30:BG:156:ASP:HB3	1.89	0.54
25:BA:2115:G:H21	25:BA:2171:A:H2	1.55	0.54
25:BA:1843:C:H2'	25:BA:1844:C:H6	1.72	0.54
25:BA:2821:A:OP2	25:BA:2822:G:OP2	2.25	0.54
8:AF:69:GLU:O	8:AF:72:VAL:HG12	2.06	0.54
17:CO:39:LEU:CD1	17:CO:56:LEU:HB2	2.35	0.54
25:BA:1081:U:H5'	33:BK:122:ALA:CB	2.37	0.54
1:CA:523:A:N6	14:CL:52:ARG:NH1	2.54	0.54
14:AL:109:VAL:HG23	14:AL:119:TYR:HB3	1.87	0.54
25:DA:781:A:C8	27:DD:219:PRO:HG3	2.42	0.54
28:BE:24:THR:CG2	28:BE:184:VAL:HG23	2.37	0.54
40:DT:54:ARG:HA	40:DT:59:THR:OG1	2.08	0.54
9:AG:26:PHE:CD2	9:AG:62:PHE:HE1	2.25	0.54
39:DS:42:ASP:C	39:DS:44:LYS:H	2.10	0.54
25:BA:1598:C:H5''	25:BA:1598:C:H6	1.72	0.54
25:BA:536:A:H2'	25:BA:537:C:H6	1.72	0.54
25:DA:537:C:H2'	25:DA:539:G:C8	2.42	0.54
31:BH:105:LEU:HD12	31:BH:105:LEU:H	1.72	0.54
25:DA:2753:A:O2'	25:DA:2754:U:H5'	2.06	0.54
14:CL:6:ILE:HD12	14:CL:7:ASN:H	1.71	0.54
25:DA:1291:C:H2'	25:DA:1292:U:H6	1.72	0.54
31:DH:84:SER:HA	31:DH:133:VAL:O	2.06	0.54
33:DK:71:THR:HG23	33:DK:114:ASP:OD2	2.07	0.54
1:CA:686:U:O4	1:CA:703:G:H1'	2.07	0.54
25:DA:976:C:H5'	25:DA:1156:A:N6	2.23	0.54
1:CA:59:A:H1'	1:CA:354:G:N2	2.22	0.54
25:BA:2129:C:H2'	25:BA:2130:U:H6	1.71	0.54
24:CX:305:GLU:O	24:CX:309:LYS:HG2	2.07	0.54
46:BZ:15:PRO:O	46:BZ:19:ARG:HG3	2.07	0.54
32:DI:91:SER:OG	32:DI:119:PRO:HB2	2.08	0.54
25:DA:2306:C:H4'	30:DG:136:ARG:NH2	2.10	0.54
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.41	0.54
17:AO:82:ILE:HD11	17:AO:87:ILE:O	2.07	0.54
25:BA:274:G:H2'	25:BA:275:G:O4'	2.07	0.54
19:AQ:45:HIS:CD2	19:AQ:47:PRO:HD3	2.42	0.54
36:BP:18:ARG:CZ	36:BP:18:ARG:HB3	2.36	0.54
25:DA:598:G:H2'	25:DA:599:G:O4'	2.08	0.54
25:BA:1990:C:H2'	25:BA:1991:U:C6	2.42	0.54
25:BA:2114:A:H3'	25:BA:2115:G:N7	2.23	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2119:A:C6	25:BA:2171:A:C2	2.95	0.54
25:BA:1541:U:H3'	25:BA:1542:G:O3'	2.08	0.54
43:BW:15:ARG:CZ	52:B5:20:ARG:HH12	2.19	0.54
15:CM:34:LEU:HD22	15:CM:39:ILE:HB	1.89	0.54
47:D0:51:VAL:CG2	47:D0:80:HIS:HA	2.35	0.54
28:BE:47:VAL:HG12	28:BE:49:LEU:HD22	1.89	0.54
14:CL:22:LYS:O	14:CL:96:ARG:HD2	2.07	0.54
45:BY:50:ARG:HD3	45:BY:51:VAL:H	1.72	0.54
43:DW:82:LEU:HD11	43:DW:84:ARG:NH2	2.22	0.54
25:BA:2436:G:C5	25:BA:2437:U:C5	2.95	0.54
28:DE:101:ARG:NH2	28:DE:171:GLU:HB3	2.22	0.54
25:DA:546:C:H2'	25:DA:547:A:O4'	2.06	0.54
40:BT:3:ARG:HB2	40:BT:6:LEU:HB3	1.89	0.54
25:BA:1794:U:H2'	25:BA:1795:C:H6	1.71	0.54
32:BI:87:LYS:NZ	32:BI:87:LYS:HB2	2.22	0.54
1:AA:965:A:C2	1:AA:969:A:N1	2.76	0.54
25:BA:37:C:H2'	25:BA:38:A:C8	2.42	0.54
51:D4:38:ALA:HA	51:D4:55:PRO:HB3	1.89	0.54
25:DA:1952:A:C5	35:DO:22:ILE:HD11	2.41	0.54
26:DB:12:C:O2'	47:D0:74:ARG:HG3	2.07	0.54
1:AA:99:C:H2'	1:AA:101:A:C8	2.42	0.54
25:BA:2405:G:HO2'	25:BA:2406:U:P	2.31	0.54
1:AA:1450:U:H1'	1:AA:1454:G:N2	2.23	0.54
43:DW:69:LEU:HA	43:DW:108:GLY:O	2.08	0.54
30:BG:177:GLY:O	30:BG:179:PRO:HD3	2.07	0.54
46:BZ:128:VAL:HG23	46:BZ:132:ASN:HB2	1.89	0.54
29:DF:143:ALA:HB1	29:DF:148:LEU:HB2	1.90	0.54
25:DA:1392:A:O5'	25:DA:1392:A:H8	1.90	0.54
47:B0:21:LEU:H	47:B0:21:LEU:HD12	1.72	0.54
25:DA:2405:G:HO2'	25:DA:2406:U:P	2.31	0.54
42:BV:49:THR:O	42:BV:50:PRO:C	2.46	0.54
49:B2:6:VAL:HA	49:B2:9:GLN:NE2	2.22	0.54
26:BB:56:G:H4'	26:BB:57:A:H8	1.72	0.54
39:BS:34:HIS:ND1	39:BS:54:LEU:HG	2.22	0.54
53:D6:11:LEU:HD11	53:D6:51:GLU:HG3	1.90	0.54
25:DA:1824:G:O2'	25:DA:1825:A:H5'	2.07	0.54
1:AA:1228:C:P	15:AM:108:ARG:HH22	2.30	0.54
25:BA:1494:A:O2'	25:BA:1495:A:C5'	2.56	0.54
1:CA:1305:G:H22	1:CA:1331:G:C2'	2.14	0.54
25:BA:2125:G:H21	25:BA:2173:A:N6	1.99	0.54
15:CM:49:THR:HG22	15:CM:51:ALA:N	2.17	0.54
37:BQ:40:ALA:HB3	37:BQ:127:ILE:HD11	1.88	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AL:22:LYS:O	14:AL:96:ARG:HD2	2.07	0.54
24:AX:224:ILE:HG13	24:AX:225:PRO:HD2	1.88	0.54
15:AM:84:ILE:HG23	15:AM:85:GLY:N	2.22	0.54
25:BA:1405:U:H2'	25:BA:1406:U:H6	1.72	0.54
25:BA:2376:A:H1'	39:BS:94:TYR:CZ	2.43	0.54
25:BA:2574:G:O2'	28:BE:143:ASN:HB3	2.08	0.54
19:CQ:9:VAL:CG1	19:CQ:56:VAL:HG22	2.36	0.54
1:CA:1493:A:C8	25:DA:1913:A:C6	2.95	0.54
28:DE:24:THR:CG2	28:DE:184:VAL:HG23	2.37	0.54
1:CA:502:G:OP1	14:CL:117:SER:HB3	2.07	0.54
50:B3:8:LEU:CD1	50:B3:23:LEU:HD22	2.38	0.54
29:BF:64:ILE:HG23	29:BF:65:TRP:CG	2.43	0.54
25:BA:537:C:H2'	25:BA:539:G:H8	1.73	0.54
25:BA:85:G:H5''	25:BA:85:G:C8	2.42	0.54
25:DA:1633:G:O5'	25:DA:1633:G:H8	1.90	0.54
26:BB:12:C:O2'	47:B0:74:ARG:HG3	2.07	0.54
25:DA:2063:C:O2	25:DA:2450:A:N1	2.40	0.54
44:BX:65:ARG:HB3	44:BX:70:LEU:HD23	1.89	0.54
35:BO:111:PHE:HB3	35:BO:114:ILE:HG12	1.89	0.54
1:AA:1000:A:H2'	1:AA:1001:G:C8	2.42	0.54
25:DA:2459:A:H5''	25:DA:2460:U:OP2	2.07	0.54
25:BA:1477:A:H2'	25:BA:1478:G:O4'	2.08	0.54
33:BK:71:THR:HG23	33:BK:114:ASP:OD2	2.07	0.54
1:CA:316:G:H2'	1:CA:317:G:H8	1.73	0.54
1:CA:1507:A:C2	1:CA:1508:G:C4	2.95	0.54
1:AA:80:G:H2'	1:AA:81:G:H8	1.72	0.54
27:DD:25:THR:HG22	27:DD:82:ILE:N	2.11	0.54
27:DD:25:THR:O	27:DD:27:THR:HG22	2.06	0.54
24:CX:91:GLU:O	24:CX:92:LEU:HB2	2.08	0.54
45:DY:42:VAL:CG1	45:DY:65:ALA:HB3	2.37	0.54
1:CA:957:U:H3	1:CA:960:U:H5''	1.72	0.54
25:DA:2543:G:N2	25:DA:2765:A:C8	2.76	0.54
36:BP:148:LEU:O	36:BP:149:GLU:HB2	2.07	0.54
11:AI:28:VAL:HG13	11:AI:63:ILE:HB	1.89	0.54
1:AA:1145:C:H4'	1:AA:1146:A:O5'	2.07	0.54
33:DK:76:TYR:HD2	33:DK:77:LEU:HD12	1.72	0.54
25:DA:1541:U:H3'	25:DA:1542:G:O3'	2.07	0.54
25:DA:2593:U:C2	25:DA:2594:C:C5	2.94	0.54
1:CA:244:U:C6	1:CA:894:G:N2	2.75	0.54
25:DA:1332:G:N2	25:DA:1610:A:C8	2.76	0.54
25:DA:142:G:H2'	25:DA:143:C:H6	1.73	0.54
25:BA:142:G:H4'	44:BX:35:THR:HG21	1.90	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:40:C:H2'	25:DA:41:C:H6	1.72	0.54
25:DA:320:A:H2'	29:DF:136:THR:HG21	1.90	0.54
1:CA:1349:A:O2'	1:CA:1350:A:H5'	2.08	0.54
2:AZ:70:G:O2'	2:AZ:71:C:H5'	2.07	0.54
13:CK:22:HIS:HB3	13:CK:29:ILE:HG12	1.90	0.54
25:BA:1356:G:C6	25:BA:1357:U:C4	2.95	0.54
25:DA:173:G:H2'	25:DA:174:C:C6	2.43	0.54
25:DA:1098:A:H3'	25:DA:1099:G:H8	1.72	0.54
25:DA:521:G:H2'	25:DA:522:G:H8	1.72	0.54
7:AE:10:MET:HA	7:AE:32:VAL:HA	1.90	0.54
1:CA:255:G:H2'	1:CA:256:U:C6	2.42	0.54
32:DI:83:ALA:HA	32:DI:89:TYR:H	1.72	0.54
25:BA:1632:A:C5	25:BA:1633:G:C6	2.96	0.54
1:AA:624:C:O3'	18:AP:10:GLY:HA2	2.07	0.54
25:DA:819:A:H2'	25:DA:820:A:H5'	1.89	0.54
13:AK:12:ARG:HG2	13:AK:13:GLN:H	1.73	0.54
22:AT:67:ALA:HA	22:AT:72:LEU:O	2.08	0.54
24:CX:324:ILE:CG2	24:CX:338:ARG:HD2	2.33	0.54
12:CJ:6:ILE:CD1	12:CJ:23:ILE:HG21	2.38	0.54
53:D6:24:GLU:OE1	53:D6:24:GLU:HA	2.07	0.54
25:DA:1494:A:HO2'	25:DA:1495:A:P	2.31	0.54
1:AA:975:A:C8	1:AA:1357:A:H2	2.25	0.54
1:CA:1240:U:H4'	1:CA:1241:G:OP2	2.08	0.54
25:BA:2115:G:H5'	25:BA:2167:U:H5'	1.88	0.54
20:AR:66:LEU:CD1	20:AR:70:ILE:HD11	2.38	0.54
22:AT:50:GLU:HG3	22:AT:51:GLU:N	2.20	0.54
7:CE:105:VAL:HB	7:CE:106:PRO:CD	2.37	0.54
1:AA:112:G:C2	1:AA:113:G:C8	2.96	0.54
1:CA:243:A:H4'	1:CA:244:U:O5'	2.07	0.54
1:AA:1238:A:C2	1:AA:1241:G:N3	2.76	0.54
26:BB:65:C:H2'	26:BB:108:C:N4	2.22	0.54
25:DA:1331:A:O2'	25:DA:1332:G:H8	1.89	0.54
25:DA:2688:U:H5	25:DA:2720:U:OP2	1.89	0.54
5:CC:73:PRO:O	5:CC:76:VAL:HG22	2.08	0.54
1:AA:17:U:H2'	1:AA:18:C:H6	1.71	0.54
25:BA:972:G:H3'	25:BA:973:A:H2'	1.89	0.54
31:BH:44:VAL:HB	31:BH:51:ARG:HB3	1.89	0.54
25:DA:875:G:H4'	46:DZ:170:THR:HG21	1.90	0.54
34:BN:149:PRO:HG2	34:BN:150:ASP:OD1	2.07	0.54
25:BA:2303:G:C2'	25:BA:2304:G:H5''	2.37	0.54
1:CA:222:U:H2'	1:CA:223:U:H6	1.72	0.54
25:BA:1115:G:H2'	25:BA:1116:C:H6	1.71	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:71:A:H2	44:BX:31:HIS:HE1	1.54	0.54
1:AA:706:A:C4'	13:AK:29:ILE:HD11	2.38	0.54
1:CA:622:A:H5''	1:CA:623:C:OP2	2.06	0.54
46:DZ:128:VAL:CG2	46:DZ:132:ASN:HB2	2.37	0.54
25:BA:1569:A:C6	25:BA:1570:A:C6	2.95	0.54
1:CA:1501:C:N4	1:CA:1504:G:C2	2.75	0.54
1:CA:284:G:H2'	1:CA:285:G:H8	1.73	0.54
7:CE:82:VAL:HG21	7:CE:138:ALA:HA	1.90	0.54
16:AN:12:ARG:HG2	16:AN:14:PRO:HD3	1.90	0.54
28:DE:124:GLY:HA2	28:DE:137:HIS:O	2.08	0.54
28:BE:38:THR:O	28:BE:42:ASP:HB2	2.07	0.54
35:DO:105:GLU:N	35:DO:105:GLU:OE1	2.41	0.54
18:AP:39:TYR:CZ	18:AP:41:PRO:HA	2.43	0.54
1:AA:81:G:N7	1:AA:82:U:C4	2.76	0.54
30:DG:115:ARG:HD2	30:DG:115:ARG:N	2.23	0.54
24:AX:101:LYS:HB2	24:AX:102:PRO:HD3	1.89	0.54
24:AX:91:GLU:O	24:AX:92:LEU:HB2	2.07	0.54
1:AA:1327:C:H2'	1:AA:1328:C:H6	1.72	0.54
12:CJ:96:ILE:H	12:CJ:96:ILE:HD13	1.72	0.54
39:DS:84:GLN:HG3	39:DS:86:ALA:H	1.72	0.54
14:CL:5:THR:HG23	14:CL:8:GLN:NE2	2.22	0.54
1:CA:1306:A:H61	1:CA:1331:G:H1'	1.73	0.54
25:BA:81:G:N3	45:BY:2:ARG:NH2	2.55	0.54
1:AA:1126:U:H2'	1:AA:1127:G:H8	1.69	0.54
18:AP:43:LYS:HG3	18:AP:48:TRP:CG	2.43	0.54
48:B1:90:ILE:HG22	48:B1:94:LEU:HD12	1.88	0.54
48:D1:21:ARG:NH2	48:D1:39:LYS:HE3	2.22	0.54
1:CA:1102:A:H2'	1:CA:1103:C:C6	2.43	0.54
4:AB:88:ALA:HB2	4:AB:219:VAL:CG1	2.37	0.54
24:AX:218:PHE:CZ	24:AX:320:TRP:HE3	2.25	0.54
25:DA:603:A:C6	25:DA:655:A:C4	2.95	0.54
29:DF:179:GLU:CD	29:DF:179:GLU:H	2.10	0.54
1:AA:957:U:H3	1:AA:960:U:H5''	1.73	0.54
25:DA:1972:A:H2'	25:DA:1973:G:C8	2.43	0.54
29:BF:89:VAL:HG12	29:BF:90:PHE:N	2.22	0.54
29:DF:29:ASN:H	29:DF:112:MET:CE	2.21	0.54
25:DA:49:A:H4'	25:DA:50:U:H5''	1.88	0.54
25:DA:52:A:H8	25:DA:52:A:O5'	1.91	0.54
28:DE:11:MET:HB2	28:DE:23:VAL:O	2.08	0.54
27:BD:131:LEU:N	27:BD:131:LEU:HD23	2.23	0.54
1:CA:186(D):G:C6	1:CA:191(E):G:N1	2.75	0.54
34:DN:160:LYS:HE2	34:DN:161:LEU:H	1.73	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:100:LEU:H	38:DR:112:ALA:HA	1.72	0.54
10:AH:19:VAL:CG2	10:AH:21:LYS:HG2	2.37	0.54
25:BA:2298:A:H2'	25:BA:2299:G:O4'	2.07	0.54
1:CA:1057:G:C4	1:CA:1204:A:C2	2.95	0.54
30:DG:161:THR:HG22	30:DG:162:THR:H	1.72	0.54
1:AA:824:C:H1'	10:AH:1:MET:HE2	1.89	0.54
25:BA:441:U:O2	29:BF:46:ARG:NH2	2.41	0.54
51:B4:36:VAL:O	51:B4:51:TYR:HA	2.08	0.54
24:CX:63:GLN:HE22	24:CX:64:GLU:HG2	1.72	0.54
10:CH:39:LEU:O	10:CH:44:PHE:HB2	2.08	0.54
4:AB:200:ILE:HG22	4:AB:202:PRO:HD3	1.89	0.54
20:CR:35:ARG:O	20:CR:37:VAL:N	2.38	0.54
25:BA:1501:C:H2'	25:BA:1502:C:C6	2.43	0.54
1:AA:603:U:H2'	1:AA:604:G:H8	1.71	0.54
4:AB:135:GLN:O	4:AB:139:LYS:HG2	2.07	0.54
1:CA:691:G:O6	13:CK:52:GLY:HA2	2.08	0.54
29:BF:195:ASP:OD1	29:BF:196:LEU:N	2.41	0.54
49:D2:9:GLN:CA	49:D2:12:GLU:HB3	2.36	0.54
27:BD:25:THR:CG2	27:BD:82:ILE:N	2.57	0.54
55:B8:61:LEU:O	55:B8:63:PRO:CD	2.52	0.54
10:AH:50:ARG:CG	10:AH:50:ARG:NH1	2.67	0.54
25:DA:1152:C:H2'	25:DA:1153:C:H6	1.73	0.54
25:BA:2307:G:H3'	25:BA:2308:G:H8	1.72	0.54
25:BA:2403:C:N3	25:BA:2415:G:C2	2.76	0.54
24:CX:101:LYS:HB2	24:CX:102:PRO:HD3	1.89	0.54
25:DA:274:G:H3'	25:DA:274:G:H8	1.72	0.54
8:AF:97:PHE:HB2	20:AR:32:ARG:HD2	1.89	0.54
12:CJ:62:HIS:O	12:CJ:62:HIS:HD2	1.91	0.54
1:CA:32:A:H2'	1:CA:33:A:C8	2.43	0.54
25:BA:744:G:OP1	28:BE:132:HIS:HB3	2.07	0.54
1:CA:1147:C:O2	11:CI:16:ARG:NH2	2.41	0.54
25:DA:1678:G:O5'	25:DA:1678:G:C8	2.54	0.54
25:DA:1540:G:H2'	25:DA:1541:U:O4'	2.08	0.54
10:CH:26:VAL:C	10:CH:58:TYR:HD2	2.11	0.54
25:DA:2688:U:C5	25:DA:2720:U:OP2	2.61	0.54
8:AF:33:TYR:CD1	8:AF:75:LEU:HA	2.43	0.54
26:DB:65:C:H2'	26:DB:108:C:N4	2.22	0.54
25:DA:2768:C:H4'	34:DN:112:LYS:NZ	2.22	0.54
6:AD:25:ARG:HA	6:AD:28:SER:OG	2.08	0.54
25:BA:151:C:H2'	25:BA:152:G:C8	2.42	0.54
40:BT:3:ARG:HD2	40:BT:6:LEU:HD23	1.90	0.54
43:DW:29:LEU:HD12	43:DW:29:LEU:O	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1298:C:N4	9:CG:114:ARG:HD3	2.23	0.54
30:BG:161:THR:HG22	30:BG:162:THR:H	1.72	0.54
32:DI:83:ALA:HB1	32:DI:88:ILE:HA	1.89	0.54
25:DA:2165:G:N3	25:DA:2165:G:H2'	2.21	0.54
12:AJ:47:PHE:CE1	16:AN:37:PHE:HE2	2.26	0.54
1:CA:194:C:H2'	1:CA:195:A:H5''	1.90	0.54
45:BY:88:LYS:HE2	45:BY:93:GLY:N	2.22	0.54
25:DA:1379:A:OP1	25:DA:1379:A:H2'	2.07	0.54
28:DE:176:ILE:HD12	28:DE:176:ILE:N	2.23	0.54
1:AA:517:G:H2'	1:AA:531:U:C5	2.41	0.54
48:D1:46:LEU:HD23	48:D1:47:GLN:N	2.23	0.54
36:DP:41:ARG:NH1	36:DP:45:LEU:HD12	2.22	0.54
15:AM:23:TYR:HE1	15:AM:71:ARG:HB2	1.71	0.54
25:DA:528:A:H2	25:DA:2043:C:H4'	1.73	0.54
27:DD:28:GLU:HB3	27:DD:29:PRO:CD	2.35	0.54
25:DA:2334:G:H4'	25:DA:2335:A:OP2	2.07	0.54
1:CA:530:G:N2	1:CA:1492:A:N6	2.56	0.54
47:B0:49:LYS:N	47:B0:80:HIS:HB3	2.22	0.54
7:AE:91:LEU:HD23	7:AE:120:THR:HG22	1.89	0.54
43:BW:110:LYS:O	43:BW:111:HIS:HB3	2.08	0.54
1:AA:61:G:H2'	1:AA:62:U:O4'	2.08	0.54
1:CA:464:G:N2	1:CA:467:G:N7	2.56	0.54
27:DD:131:LEU:HD23	27:DD:131:LEU:N	2.22	0.54
16:AN:3:ARG:HA	16:AN:6:LEU:HB2	1.90	0.54
34:DN:40:ASP:CG	34:DN:41:ALA:N	2.59	0.54
10:CH:30:ARG:O	10:CH:33:GLU:HB2	2.06	0.54
43:BW:30:GLU:HA	43:BW:33:ARG:HD2	1.90	0.54
53:D6:18:ARG:HG2	53:D6:19:ARG:H	1.73	0.54
19:AQ:29:HIS:CE1	19:AQ:31:LEU:HB3	2.43	0.54
46:DZ:5:LEU:HD23	46:DZ:6:LYS:N	2.22	0.54
1:AA:1057:G:H1'	5:AC:195:VAL:HG11	1.89	0.54
4:CB:11:LEU:HD13	4:CB:217:ARG:HH22	1.73	0.54
31:BH:28:GLY:HA3	31:BH:79:VAL:HB	1.88	0.54
7:AE:13:ILE:HG22	7:AE:13:ILE:O	2.08	0.54
1:CA:101:A:H8	1:CA:101:A:H5''	1.73	0.54
25:BA:856:C:H2'	25:BA:856:C:O2	2.07	0.54
25:BA:365(A):C:O2'	25:BA:366(B):C:H5'	2.08	0.54
1:AA:351:G:H4'	1:AA:352:C:OP1	2.06	0.54
49:D2:28:LYS:HB3	49:D2:57:ILE:HD13	1.90	0.54
14:AL:33:ARG:CG	14:AL:34:GLY:N	2.70	0.54
25:DA:176:G:O2'	25:DA:177:G:H5'	2.08	0.54
5:AC:7:PRO:O	5:AC:11:ARG:HG2	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:173:U:H5''	1:AA:197:A:O4'	2.07	0.54
28:BE:124:GLY:HA2	28:BE:137:HIS:O	2.08	0.54
1:AA:1325:C:H4'	23:AU:17:THR:HG21	1.89	0.54
27:BD:31:LYS:HD3	27:BD:94:LEU:CD1	2.37	0.54
32:DI:8:PRO:O	32:DI:9:LEU:HD23	2.07	0.54
52:D5:40:LYS:CE	52:D5:46:CYS:HB3	2.32	0.54
8:CF:97:PHE:HB2	20:CR:32:ARG:HD2	1.89	0.54
25:DA:2542:A:H8	25:DA:2544:G:O6	1.91	0.54
23:CU:6:ARG:HH21	23:CU:7:ARG:NH2	2.01	0.54
33:DK:67:PHE:CD1	33:DK:67:PHE:N	2.71	0.54
4:AB:25:ASN:HB3	4:AB:27:LYS:HG2	1.89	0.54
30:DG:135:LEU:HD23	30:DG:140:ILE:HD11	1.90	0.54
38:DR:8:ARG:HH21	38:DR:21:TYR:HE1	1.55	0.54
25:BA:1796:U:O2'	25:BA:1797:C:H5'	2.08	0.54
7:CE:43:LEU:CD1	7:CE:132:ALA:HB1	2.34	0.54
1:AA:1103:C:H2'	1:AA:1104:G:O4'	2.06	0.54
32:DI:52:ARG:CG	32:DI:52:ARG:HH11	2.21	0.54
37:BQ:7:MET:C	37:BQ:8:LYS:HG3	2.29	0.54
6:CD:25:ARG:HA	6:CD:28:SER:OG	2.08	0.54
25:DA:2851:A:H2'	25:DA:2852:G:C8	2.43	0.54
25:DA:588:U:H1'	29:DF:90:PHE:HB3	1.89	0.54
25:DA:1771:C:O2'	25:DA:1786:A:H8	1.90	0.54
25:BA:151:C:H2'	25:BA:152:G:H8	1.73	0.54
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.89	0.54
25:DA:2884:U:H2'	25:DA:2885:C:O4'	2.08	0.54
25:BA:2131:G:H5'	25:BA:2133:G:O5'	2.07	0.54
53:D6:14:THR:HA	53:D6:20:ASN:O	2.08	0.54
1:AA:186(B):C:O2'	22:AT:89:ARG:HD2	2.07	0.54
25:DA:2572:A:C8	28:DE:144:ARG:CB	2.91	0.54
17:CO:5:LYS:HA	17:CO:8:LYS:HB2	1.90	0.54
25:DA:270(F):G:C6	25:DA:270(G):U:C4	2.96	0.54
45:BY:42:VAL:O	45:BY:64:GLU:HA	2.08	0.54
34:DN:64:ASP:N	34:DN:64:ASP:OD1	2.38	0.54
1:AA:1507:A:C2	1:AA:1508:G:C4	2.96	0.54
25:DA:2164:C:H2'	25:DA:2165:G:H8	1.73	0.54
25:DA:1878:G:H2'	25:DA:1879:C:C6	2.43	0.54
29:BF:78:ILE:HD12	29:BF:78:ILE:H	1.73	0.54
25:BA:271(C):G:H4'	25:BA:271(D):U:C5'	2.38	0.54
1:AA:64:G:H4'	1:AA:65:U:H5''	1.90	0.54
1:CA:1375:A:H2'	1:CA:1376:U:O4'	2.08	0.54
29:DF:123:LEU:HD12	29:DF:124:LEU:H	1.73	0.54
6:AD:131:ARG:N	6:AD:131:ARG:HD3	2.23	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1967:C:H2'	25:BA:1968:G:H5'	1.90	0.54
1:CA:1133:G:H2'	1:CA:1134:G:H8	1.73	0.54
48:B1:80:LEU:HD22	48:B1:81:ARG:H	1.72	0.54
1:AA:625:G:C6	1:AA:626:U:C4	2.96	0.54
36:DP:47:ASP:HB3	36:DP:48:PRO:CA	2.38	0.53
27:BD:25:THR:HG22	27:BD:82:ILE:N	2.13	0.53
25:DA:1825:A:H2'	25:DA:1826:G:C8	2.43	0.53
30:BG:110:ALA:HB1	30:BG:140:ILE:HD13	1.89	0.53
25:DA:989:G:C5	50:D3:13:ILE:HD11	2.43	0.53
4:AB:55:PHE:CE1	4:AB:218:ALA:HA	2.33	0.53
25:BA:2092:U:C5	25:BA:2226:C:OP2	2.62	0.53
25:BA:2542:A:H8	25:BA:2544:G:O6	1.90	0.53
1:CA:530:G:H22	1:CA:1492:A:N6	2.01	0.53
1:AA:484:G:H4'	1:AA:485:G:O5'	2.07	0.53
25:DA:1332:G:N2	25:DA:1609:A:O2'	2.38	0.53
25:DA:2822:G:H2'	25:DA:2823:A:H5''	1.89	0.53
25:DA:142:G:H4'	44:DX:35:THR:HG21	1.89	0.53
24:AX:315:VAL:HG22	24:AX:317:PRO:HD3	1.90	0.53
19:AQ:22:LEU:HD11	19:AQ:39:SER:HB2	1.90	0.53
36:DP:132:LYS:HD3	36:DP:132:LYS:H	1.72	0.53
5:CC:50:ALA:HB2	5:CC:75:VAL:HB	1.89	0.53
31:DH:44:VAL:HB	31:DH:51:ARG:HB3	1.90	0.53
48:B1:21:ARG:NH2	48:B1:39:LYS:HE3	2.23	0.53
1:AA:949:A:H1'	1:AA:1364:U:N3	2.21	0.53
28:BE:24:THR:HG21	28:BE:188:VAL:CG1	2.38	0.53
53:D6:13:CYS:O	53:D6:21:TYR:HA	2.08	0.53
25:DA:2129:C:H2'	25:DA:2130:U:C6	2.43	0.53
26:DB:56:G:H4'	26:DB:57:A:H8	1.73	0.53
35:DO:104:ARG:NH1	35:DO:104:ARG:HB3	2.23	0.53
43:BW:25:ARG:NH2	43:BW:74:ALA:O	2.41	0.53
39:DS:67:ARG:HH11	39:DS:67:ARG:HG2	1.73	0.53
31:BH:84:SER:HA	31:BH:133:VAL:O	2.08	0.53
9:AG:24:THR:HA	9:AG:27:ILE:HG12	1.89	0.53
25:BA:297:C:H5''	45:BY:85:VAL:HG21	1.90	0.53
25:DA:1374:G:H2'	25:DA:1375:C:C6	2.43	0.53
1:AA:818:G:H3'	1:AA:819:A:C5'	2.37	0.53
25:DA:2609:U:H4'	25:DA:2610:C:OP1	2.08	0.53
1:CA:987:G:H1	1:CA:1218:C:H42	1.56	0.53
1:CA:487:A:H2'	1:CA:488:C:O4'	2.08	0.53
35:BO:53:LYS:N	35:BO:53:LYS:HD2	2.23	0.53
37:DQ:60:ARG:HA	46:DZ:179:ASP:HB3	1.90	0.53
25:DA:2459:A:H2'	25:DA:2459:A:N3	2.22	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AD:7:PRO:HB2	6:AD:10:ARG:HD2	1.88	0.53
25:DA:2512:C:H4'	28:DE:122:PHE:CE2	2.43	0.53
25:DA:2747:G:O6	25:DA:2755:C:H5''	2.08	0.53
25:DA:1635:G:H2'	25:DA:1636:C:C6	2.43	0.53
22:AT:76:ALA:O	22:AT:80:ARG:HG2	2.08	0.53
25:BA:2164:C:H2'	25:BA:2165:G:H8	1.73	0.53
6:CD:131:ARG:HD3	6:CD:131:ARG:N	2.23	0.53
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.43	0.53
25:BA:138:G:N2	44:BX:44:GLU:OE1	2.41	0.53
25:DA:805:G:H4'	25:DA:806:C:OP2	2.09	0.53
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.44	0.53
1:AA:1329:A:H5'	15:AM:29:ARG:HE	1.73	0.53
12:AJ:96:ILE:HD13	12:AJ:96:ILE:H	1.73	0.53
45:DY:42:VAL:O	45:DY:64:GLU:HA	2.08	0.53
45:DY:42:VAL:HG12	45:DY:65:ALA:HB3	1.90	0.53
15:AM:104:ARG:O	15:AM:105:THR:HG23	2.08	0.53
27:BD:246:PRO:CD	27:BD:255:LYS:HE2	2.38	0.53
25:DA:289:A:H2'	25:DA:290:G:O4'	2.08	0.53
5:AC:91:LEU:HD12	5:AC:101:LEU:HD21	1.89	0.53
1:CA:484:G:H4'	1:CA:485:G:O5'	2.07	0.53
25:DA:1332:G:C4'	25:DA:1333:C:OP2	2.54	0.53
44:BX:63:LYS:HZ3	44:BX:72:LYS:HB3	1.72	0.53
53:B6:24:GLU:HA	53:B6:24:GLU:OE1	2.08	0.53
39:DS:51:ALA:HB2	39:DS:76:LYS:HE2	1.90	0.53
24:CX:224:ILE:HG13	24:CX:225:PRO:HD2	1.90	0.53
25:BA:512:G:HO2'	25:BA:513:A:P	2.31	0.53
44:DX:83:VAL:HG12	44:DX:87:GLN:HG3	1.89	0.53
43:DW:4:LYS:HG2	43:DW:106:ILE:CG2	2.38	0.53
43:DW:84:ARG:O	43:DW:96:ILE:N	2.41	0.53
25:DA:2883:A:H3'	25:DA:2884:U:H5'	1.90	0.53
25:DA:151:C:H2'	25:DA:152:G:C8	2.43	0.53
25:BA:478:A:C6	25:BA:480:A:C6	2.97	0.53
25:DA:2572:A:N7	28:DE:144:ARG:HB3	2.23	0.53
47:D0:37:LEU:HD22	47:D0:67:VAL:HG21	1.88	0.53
25:DA:1519:G:C5	25:DA:1520:U:C5	2.96	0.53
6:AD:189:PRO:HB2	6:AD:194:LEU:CD2	2.38	0.53
1:CA:818:G:H3'	1:CA:819:A:C5'	2.37	0.53
1:CA:1004:A:H5''	1:CA:1004:A:N3	2.22	0.53
24:CX:52:TRP:CZ2	25:DA:1067:A:H2	2.26	0.53
1:AA:1057:G:C4	1:AA:1204:A:C2	2.96	0.53
1:CA:112:G:C2	1:CA:113:G:C8	2.96	0.53
25:DA:1569:A:H2'	25:DA:1570:A:C8	2.42	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:266:G:H5'	1:AA:266:G:C8	2.43	0.53
25:DA:481:G:HO2'	25:DA:482:A:P	2.30	0.53
30:BG:161:THR:HG22	30:BG:162:THR:N	2.23	0.53
11:AI:47:LEU:HG	11:AI:50:LEU:HD12	1.88	0.53
35:BO:35:VAL:HA	35:BO:62:VAL:HG12	1.89	0.53
33:DK:44:ALA:O	33:DK:48:MET:HG3	2.09	0.53
30:DG:36:LYS:HB3	30:DG:160:VAL:HB	1.90	0.53
51:D4:36:VAL:O	51:D4:51:TYR:HA	2.08	0.53
31:BH:67:LEU:HD11	31:BH:71:LEU:HD13	1.89	0.53
25:BA:69:C:O2'	25:BA:70:G:H5'	2.08	0.53
1:CA:867:G:O2'	1:CA:868:C:H5'	2.09	0.53
13:AK:15:ALA:HA	13:AK:76:GLY:O	2.07	0.53
1:AA:537:G:H5''	14:AL:112:ARG:NH2	2.23	0.53
37:DQ:138:ASP:O	37:DQ:139:GLU:HB2	2.08	0.53
42:DV:49:THR:O	42:DV:50:PRO:C	2.46	0.53
42:DV:52:VAL:HG22	42:DV:54:GLY:H	1.71	0.53
49:D2:15:LYS:C	49:D2:16:LEU:HD22	2.28	0.53
25:BA:195:A:H4'	25:BA:251:A:O2'	2.08	0.53
30:BG:60:LEU:HD12	30:BG:68:PRO:HB3	1.90	0.53
25:BA:528:A:H2	25:BA:2043:C:H4'	1.73	0.53
34:BN:157:ARG:N	34:BN:158:PRO:CD	2.71	0.53
1:AA:328:C:O2	1:AA:328:C:C2'	2.47	0.53
32:BI:76:THR:HG22	32:BI:141:LYS:HB2	1.90	0.53
32:BI:72:LEU:HD12	32:BI:140:LEU:CD1	2.38	0.53
38:BR:10:LEU:HD13	38:BR:17:ARG:NE	2.23	0.53
7:CE:31:LEU:HG	7:CE:45:PHE:HD1	1.73	0.53
9:CG:57:GLU:N	9:CG:57:GLU:CD	2.59	0.53
39:DS:58:LEU:HD12	39:DS:58:LEU:N	2.21	0.53
29:BF:177:ALA:HB1	29:BF:178:PRO:HD2	1.89	0.53
4:CB:88:ALA:HB2	4:CB:219:VAL:CG1	2.38	0.53
1:AA:1221:G:OP1	1:AA:1320:C:N4	2.41	0.53
10:AH:89:PRO:HA	10:AH:92:ARG:NH1	2.22	0.53
33:DK:90:LYS:HE2	33:DK:93:ARG:HD3	1.90	0.53
34:DN:149:PRO:HG2	34:DN:150:ASP:OD1	2.08	0.53
31:DH:72:ILE:O	31:DH:75:ALA:HB3	2.09	0.53
25:BA:562:U:O2	25:BA:572:A:C4	2.62	0.53
40:DT:56:GLY:O	40:DT:59:THR:HG22	2.09	0.53
2:AY:20:U:H3'	2:AY:21:A:C5'	2.38	0.53
25:DA:1598:C:H6	25:DA:1598:C:H5''	1.71	0.53
25:BA:722:A:H2'	25:BA:723:G:C8	2.43	0.53
25:BA:2756:U:H4'	25:BA:2757:A:OP1	2.08	0.53
25:DA:1375:C:O2'	25:DA:1376:C:H5'	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CL:6:ILE:N	14:CL:6:ILE:HD12	2.23	0.53
29:DF:160:ASN:OD1	29:DF:163:VAL:HG23	2.09	0.53
25:DA:2683:C:P	40:DT:53:ARG:HH22	2.30	0.53
1:CA:316:G:H2'	1:CA:317:G:C8	2.43	0.53
25:DA:1379:A:H4'	25:DA:1380:G:OP2	2.09	0.53
33:DK:88:ALA:HB3	33:DK:135:GLY:HA3	1.90	0.53
25:BA:363(G):A:O2'	25:BA:364:C:OP2	2.16	0.53
28:DE:195:LEU:C	28:DE:195:LEU:HD23	2.29	0.53
1:CA:1000:A:H2'	1:CA:1001:G:C8	2.42	0.53
25:BA:2611:U:H5'	25:BA:2611:U:H6	1.73	0.53
33:DK:55:VAL:HG22	33:DK:69:THR:HA	1.89	0.53
41:BU:91:ASP:CG	41:BU:96:ALA:HB2	2.29	0.53
22:CT:67:ALA:HA	22:CT:72:LEU:O	2.09	0.53
41:DU:69:CYS:HG	41:DU:79:PHE:CB	2.21	0.53
27:DD:71:ASP:CG	27:DD:103:ARG:HH22	2.12	0.53
39:BS:84:GLN:HG3	39:BS:86:ALA:H	1.73	0.53
32:DI:5:LEU:HB2	32:DI:35:LEU:O	2.08	0.53
15:CM:104:ARG:O	15:CM:105:THR:HG23	2.09	0.53
25:BA:1827:C:C2'	25:BA:1828:G:H5'	2.38	0.53
11:AI:74:ILE:H	11:AI:74:ILE:HD12	1.73	0.53
14:CL:82:VAL:HG21	14:CL:99:ILE:CG1	2.39	0.53
7:AE:6:PHE:HB2	7:AE:34:VAL:HG13	1.90	0.53
25:DA:2821:A:OP2	38:DR:5:LYS:NZ	2.42	0.53
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.43	0.53
34:DN:118:PRO:O	34:DN:121:VAL:HG22	2.09	0.53
25:DA:655:A:H3'	25:DA:655:A:H8	1.74	0.53
37:BQ:20:ALA:HB1	37:BQ:99:PRO:O	2.07	0.53
25:BA:2851:A:H2'	25:BA:2852:G:C8	2.43	0.53
25:BA:52:A:H8	25:BA:52:A:O5'	1.91	0.53
29:DF:89:VAL:O	29:DF:91:GLY:N	2.41	0.53
37:DQ:48:GLU:O	37:DQ:52:VAL:HG12	2.09	0.53
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.43	0.53
25:BA:574:C:H1'	25:BA:2055:C:C6	2.42	0.53
19:AQ:60:ILE:HG23	19:AQ:62:SER:OG	2.08	0.53
25:DA:2840:C:H4'	38:DR:53:HIS:CD2	2.43	0.53
40:DT:3:ARG:HD2	40:DT:6:LEU:HD23	1.91	0.53
35:BO:88:ASN:HB3	35:BO:92:GLU:H	1.73	0.53
25:BA:2399:G:H1	25:BA:2417:C:N4	2.06	0.53
25:BA:557:U:H2'	25:BA:558:G:H8	1.72	0.53
34:BN:160:LYS:HE2	34:BN:161:LEU:H	1.74	0.53
34:DN:68:ASN:HD22	34:DN:68:ASN:N	2.03	0.53
31:DH:105:LEU:H	31:DH:105:LEU:HD12	1.74	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1349:A:N6	25:BA:1598:C:H42	2.06	0.53
25:BA:322:A:OP2	29:BF:169:ASN:HB2	2.08	0.53
26:BB:46:A:H2'	26:BB:47:C:C6	2.42	0.53
50:B3:2:PRO:O	50:B3:39:ASP:HB2	2.08	0.53
4:CB:7:VAL:O	4:CB:11:LEU:HG	2.08	0.53
14:CL:85:ARG:HB2	14:CL:100:VAL:HG23	1.90	0.53
13:CK:69:ALA:HB1	13:CK:103:LEU:HD23	1.89	0.53
48:B1:18:ILE:HG12	48:B1:18:ILE:O	2.06	0.53
35:DO:2:ILE:HD12	35:DO:2:ILE:N	2.24	0.53
46:BZ:128:VAL:CG2	46:BZ:132:ASN:HB2	2.38	0.53
4:AB:131:PRO:O	4:AB:135:GLN:HG3	2.07	0.53
1:CA:603:U:H2'	1:CA:604:G:H8	1.73	0.53
1:CA:892:A:H2'	1:CA:893:C:C6	2.42	0.53
25:BA:1090:U:H2'	25:BA:1091:G:C8	2.44	0.53
1:AA:843:U:H3'	1:AA:848:C:H5'	1.90	0.53
33:BK:38:VAL:O	33:BK:38:VAL:HG12	2.09	0.53
1:CA:916:G:H2'	1:CA:917:G:H8	1.73	0.53
22:CT:29:LYS:O	22:CT:33:ILE:HG12	2.09	0.53
25:DA:735:A:H2'	25:DA:736:C:O4'	2.08	0.53
14:CL:33:ARG:O	14:CL:60:THR:HG23	2.09	0.53
49:B2:58:ALA:O	49:B2:61:LEU:HB2	2.09	0.53
27:DD:168:ARG:HG3	27:DD:173:VAL:HG23	1.90	0.53
13:CK:114:VAL:HG23	13:CK:115:PRO:HD2	1.91	0.53
19:AQ:52:LYS:HD2	19:AQ:52:LYS:H	1.74	0.53
7:AE:72:GLN:O	7:AE:75:THR:HG22	2.09	0.53
25:BA:2787:C:H4'	28:BE:62:PRO:HB3	1.91	0.53
25:DA:2701:C:H2'	25:DA:2702:U:H2'	1.90	0.53
36:BP:33:ARG:O	36:BP:34:GLY:O	2.27	0.53
49:D2:16:LEU:HB2	49:D2:20:GLU:CG	2.28	0.53
27:BD:142:VAL:HG23	27:BD:192:THR:C	2.29	0.53
25:BA:274:G:H3'	25:BA:274:G:H8	1.73	0.53
40:DT:28:VAL:HA	40:DT:89:VAL:HG13	1.89	0.53
45:BY:13:VAL:HG11	45:BY:72:VAL:HB	1.90	0.53
12:AJ:78:ASN:O	12:AJ:82:ILE:HG12	2.09	0.53
25:BA:1029:A:O5'	25:BA:1029:A:H8	1.92	0.53
12:AJ:61:GLU:HG3	12:AJ:62:HIS:N	2.23	0.53
29:BF:161:GLU:O	29:BF:165:ARG:HG2	2.08	0.53
38:BR:10:LEU:CB	38:BR:17:ARG:HD3	2.34	0.53
8:CF:67:MET:HE1	8:CF:72:VAL:HA	1.91	0.53
8:CF:6:VAL:HG22	8:CF:90:VAL:HG22	1.88	0.53
53:B6:11:LEU:HD11	53:B6:51:GLU:HG3	1.90	0.53
36:BP:91:PHE:CE2	36:BP:95:VAL:HG12	2.43	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2378:A:H2'	39:BS:21:THR:HG21	1.89	0.53
25:BA:1309:G:H3'	54:B7:9:ARG:HH12	1.74	0.53
1:AA:1320:C:O2'	1:AA:1321:C:H5'	2.08	0.53
15:CM:15:VAL:O	15:CM:19:LEU:HD22	2.09	0.53
38:BR:73:VAL:O	38:BR:76:VAL:HG22	2.07	0.53
28:BE:11:MET:HB2	28:BE:23:VAL:O	2.08	0.53
25:DA:2131:G:H5'	25:DA:2133:G:O5'	2.07	0.53
25:DA:2035:G:H4'	25:DA:2036:C:OP2	2.08	0.53
46:DZ:157:LEU:HD12	46:DZ:157:LEU:H	1.72	0.53
25:DA:415:A:H2'	25:DA:416:C:C6	2.44	0.53
34:BN:68:ASN:HD22	34:BN:68:ASN:N	2.06	0.53
1:CA:706:A:C4'	13:CK:29:ILE:HD11	2.38	0.53
25:DA:1217:C:C4	25:DA:1218:C:C5	2.96	0.53
25:BA:1291:C:H2'	25:BA:1292:U:H6	1.72	0.53
14:CL:116:ARG:HB3	14:CL:121:THR:HB	1.91	0.53
17:CO:7:GLU:O	17:CO:11:VAL:HG23	2.07	0.53
25:DA:1501:C:H2'	25:DA:1502:C:C6	2.44	0.53
25:DA:893:C:H2'	25:DA:894:C:H6	1.73	0.53
25:BA:819:A:H2'	25:BA:820:A:H5'	1.90	0.53
1:AA:102(B):C:H6	1:AA:102(B):C:O5'	1.92	0.53
36:BP:85:LEU:HD12	36:BP:86:LYS:N	2.23	0.53
1:AA:877:C:O2'	10:AH:3:THR:HG21	2.09	0.53
25:BA:811:U:O2	25:BA:1250:G:H2'	2.07	0.53
49:B2:14:ARG:HG2	49:B2:17:SER:OG	2.07	0.53
34:BN:63:PRO:HB3	41:BU:68:ALA:HB2	1.90	0.53
27:DD:31:LYS:HD3	27:DD:94:LEU:CD1	2.37	0.53
1:CA:922:G:H4'	7:CE:20:GLN:CA	2.31	0.53
11:CI:92:TYR:O	11:CI:96:LEU:HD13	2.09	0.53
21:CS:29:ARG:HH11	21:CS:30:LEU:H	1.57	0.53
24:CX:128:ASN:HD22	24:CX:185:LYS:HA	1.74	0.53
30:BG:82:LEU:HD22	30:BG:87:PRO:CG	2.38	0.53
4:CB:20:GLU:O	4:CB:39:ILE:HG23	2.09	0.53
13:AK:96:ARG:O	13:AK:99:GLN:HG2	2.09	0.53
25:BA:2419:U:H5''	55:B8:33:ASN:HD21	1.73	0.53
25:BA:2795:G:H21	25:BA:2801:A:N6	2.06	0.53
15:CM:8:GLU:OE1	15:CM:22:ILE:HG23	2.09	0.53
6:AD:30:LYS:C	6:AD:32:ALA:N	2.59	0.53
36:BP:80:TYR:HA	36:BP:111:ARG:HB2	1.89	0.53
45:DY:50:ARG:HD3	45:DY:51:VAL:H	1.73	0.53
1:AA:370:C:C2	1:AA:392:G:C2	2.96	0.53
29:BF:101:LEU:O	29:BF:106:ARG:HD3	2.08	0.53
25:DA:40:C:H2'	25:DA:41:C:C6	2.44	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1639:U:C2'	25:DA:1640:C:H5''	2.39	0.53
1:AA:1281:U:H3'	1:AA:1282:C:H6	1.72	0.53
25:BA:1438:U:O2'	25:BA:1439:A:H5'	2.09	0.53
1:AA:1308:U:OP1	15:AM:98:VAL:HG23	2.08	0.53
25:BA:1557:C:H5''	25:BA:1558:A:OP2	2.09	0.53
49:D2:36:ARG:CB	49:D2:36:ARG:HH11	2.22	0.53
46:BZ:5:LEU:HD23	46:BZ:5:LEU:C	2.29	0.53
1:AA:987:G:H1	1:AA:1218:C:H42	1.56	0.53
25:BA:396:G:O4'	48:B1:18:ILE:CD1	2.56	0.53
25:BA:2165:G:H2'	25:BA:2165:G:N3	2.23	0.53
33:DK:88:ALA:CB	33:DK:135:GLY:HA3	2.38	0.53
1:AA:194:C:H2'	1:AA:195:A:H5''	1.90	0.53
25:DA:2733:A:H2'	25:DA:2734:A:O4'	2.09	0.53
25:DA:1990:C:H2'	25:DA:1991:U:C6	2.43	0.53
1:CA:64:G:H4'	1:CA:65:U:H5''	1.91	0.53
47:B0:72:ARG:O	47:B0:75:LEU:HB2	2.08	0.53
5:AC:135:LYS:HD3	5:AC:135:LYS:O	2.08	0.53
1:AA:548:G:H5''	1:AA:548:G:H8	1.73	0.53
19:AQ:100:LYS:N	19:AQ:100:LYS:HD2	2.24	0.53
25:BA:1730:U:H2'	25:BA:1730:U:O2	2.08	0.53
4:CB:169:LYS:NZ	4:CB:169:LYS:HB3	2.23	0.53
25:DA:1730:U:O2	25:DA:1730:U:H2'	2.07	0.53
28:BE:1:MET:O	28:BE:84:PHE:HB2	2.09	0.53
33:BK:88:ALA:CB	33:BK:135:GLY:HA3	2.38	0.53
25:BA:2459:A:H2'	25:BA:2459:A:N3	2.23	0.53
22:AT:14:LYS:HA	22:AT:17:ARG:HH21	1.73	0.53
48:B1:46:LEU:HD23	48:B1:47:GLN:N	2.23	0.53
25:BA:126:A:H8	25:BA:126:A:H5''	1.73	0.53
1:AA:1182:G:H4'	1:AA:1183:A:C5'	2.32	0.53
27:DD:242:ARG:N	27:DD:242:ARG:CD	2.72	0.53
20:CR:66:LEU:CD1	20:CR:70:ILE:HD11	2.39	0.53
25:DA:2114:A:H3'	25:DA:2115:G:N7	2.22	0.53
5:AC:35:GLU:O	5:AC:38:ARG:HG3	2.09	0.53
4:AB:172:ILE:HD12	4:AB:173:ALA:H	1.72	0.53
44:BX:63:LYS:HZ2	44:BX:72:LYS:HB3	1.73	0.53
1:AA:1365:G:C5	1:AA:1366:C:C5	2.97	0.53
24:CX:229:GLU:HG3	24:CX:230:GLU:N	2.24	0.53
38:DR:73:VAL:O	38:DR:76:VAL:HG22	2.09	0.53
25:BA:2862:G:H2'	25:BA:2863:C:H6	1.74	0.53
25:BA:1614:A:H8	25:BA:1614:A:O5'	1.92	0.53
25:BA:498:G:C2	25:BA:499:U:C5	2.97	0.53
34:DN:40:ASP:O	34:DN:41:ALA:HB2	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AS:44:MET:CE	21:AS:44:MET:HA	2.39	0.53
24:AX:341:LEU:HD12	24:AX:342:MET:H	1.73	0.53
1:AA:389:A:H2'	1:AA:390:C:H5'	1.91	0.53
1:AA:794:A:H2'	1:AA:795:C:H6	1.73	0.53
25:BA:1142:U:H3'	25:BA:1142:U:C6	2.44	0.53
24:CX:52:TRP:CE3	24:CX:58:ALA:HB3	2.44	0.53
1:AA:532:A:OP1	24:AX:331:LYS:HE2	2.09	0.53
35:DO:53:LYS:N	35:DO:53:LYS:HD2	2.23	0.53
40:BT:53:ARG:HD3	40:BT:60:THR:OG1	2.09	0.53
42:DV:21:ARG:NH2	42:DV:91:TYR:CZ	2.76	0.53
44:BX:57:LEU:HD12	44:BX:78:LYS:O	2.09	0.53
25:BA:735:A:H2'	25:BA:736:C:O4'	2.08	0.53
41:BU:86:ALA:HB2	41:BU:116:ALA:HB3	1.91	0.53
1:CA:631:G:O3'	1:CA:632:A:H8	1.91	0.53
33:BK:44:ALA:O	33:BK:48:MET:HG3	2.09	0.53
22:AT:61:SER:O	22:AT:65:LYS:HG3	2.09	0.53
1:AA:209:U:H4'	1:AA:216:G:C2	2.44	0.53
24:CX:170:THR:CG2	24:CX:179:TYR:HB3	2.38	0.53
4:AB:10:LEU:HA	4:AB:13:ALA:HB3	1.90	0.53
10:CH:50:ARG:CG	10:CH:50:ARG:NH1	2.67	0.53
34:DN:65:TRP:CA	34:DN:71:MET:HE1	2.26	0.53
1:CA:1323:G:H4'	1:CA:136(B):C:C2	2.44	0.53
30:DG:136:ARG:O	30:DG:137:GLU:C	2.48	0.53
39:DS:102:ALA:O	39:DS:106:ARG:HG3	2.09	0.53
39:DS:35:ILE:O	39:DS:53:SER:HB3	2.09	0.53
12:AJ:32:ALA:HB1	12:AJ:75:ILE:CG1	2.39	0.53
25:DA:2567:G:H2'	25:DA:2568:C:H6	1.72	0.53
24:AX:128:ASN:HD22	24:AX:185:LYS:HA	1.74	0.53
30:BG:135:LEU:HD23	30:BG:140:ILE:HD11	1.90	0.53
25:BA:1046:A:H3'	25:BA:1047:G:C5'	2.38	0.53
21:AS:29:ARG:HD2	21:AS:30:LEU:N	2.23	0.53
25:BA:2115:G:N2	25:BA:2172:U:H3	2.06	0.53
25:BA:2688:U:C5	25:BA:2720:U:OP2	2.62	0.53
1:CA:894:G:H2'	1:CA:895:G:C8	2.43	0.53
33:BK:90:LYS:HE2	33:BK:93:ARG:HD3	1.90	0.53
33:BK:93:ARG:HG2	33:BK:94:GLU:N	2.24	0.53
37:DQ:74:TYR:O	37:DQ:89:ASN:N	2.35	0.53
25:BA:603:A:C6	25:BA:655:A:C4	2.97	0.53
25:DA:911:A:H2'	37:DQ:9:TYR:OH	2.09	0.53
43:DW:82:LEU:HB3	43:DW:98:LYS:O	2.09	0.53
27:BD:54:ARG:O	27:BD:218:ARG:HG3	2.08	0.53
25:BA:2134:A:N1	25:BA:2159:G:H1'	2.24	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BB:89(B):A:H8	26:BB:89(B):A:O5'	1.92	0.53
25:DA:866:A:N6	25:DA:914:C:C4	2.77	0.53
29:BF:74:ARG:O	29:BF:75:HIS:CG	2.62	0.53
38:BR:12:ARG:HG3	38:BR:12:ARG:HH11	1.74	0.53
34:BN:40:ASP:CG	34:BN:41:ALA:N	2.60	0.53
25:DA:1275:A:N7	38:DR:16:HIS:HB2	2.24	0.53
27:DD:74:GLY:O	27:DD:76:PRO:HD3	2.08	0.53
25:BA:184:C:H2'	25:BA:185:U:H6	1.73	0.53
1:CA:642:A:H2'	1:CA:643:C:C6	2.44	0.53
25:BA:1516:U:H2'	25:BA:1517:G:H8	1.73	0.53
25:BA:506:G:H4'	25:BA:507:A:H5'	1.90	0.53
1:AA:487:A:H2'	1:AA:488:C:O4'	2.07	0.53
25:DA:1556:C:H2'	25:DA:1557:C:H6	1.73	0.53
1:AA:1007:C:H2'	1:AA:1008:C:H6	1.73	0.53
46:DZ:93:ASP:HA	46:DZ:130:PRO:HG2	1.91	0.53
26:DB:78:A:C2	26:DB:99:A:C4	2.97	0.53
40:DT:100:TYR:HD2	40:DT:103:ARG:NH2	2.07	0.53
37:BQ:60:ARG:HA	46:BZ:179:ASP:HB3	1.90	0.53
31:DH:30:LYS:HB2	31:DH:79:VAL:HG12	1.89	0.53
1:AA:1455:G:H2'	1:AA:1459:C:C6	2.44	0.53
52:D5:33:CYS:HB2	52:D5:35:GLU:OE1	2.09	0.53
31:DH:26:VAL:HG11	31:DH:76:VAL:HA	1.90	0.53
25:DA:2006:C:H2'	25:DA:2007:C:H6	1.73	0.53
5:CC:150:LYS:HG3	5:CC:169:ALA:HB2	1.91	0.53
24:AX:234:VAL:HG11	24:AX:296:LEU:HD21	1.91	0.53
1:AA:316:G:H2'	1:AA:317:G:C8	2.44	0.53
25:DA:1258:C:O4'	29:DF:84:VAL:HG11	2.08	0.53
25:DA:360:G:H2'	25:DA:361:G:O4'	2.09	0.53
7:CE:10:MET:HG3	7:CE:13:ILE:HD11	1.89	0.53
17:CO:74:ASP:C	17:CO:74:ASP:OD2	2.47	0.53
25:BA:2892:A:C2'	25:BA:2893:G:H5'	2.38	0.53
1:CA:81:G:OP2	1:CA:82:U:H5	1.92	0.53
1:AA:81:G:OP2	1:AA:82:U:H5	1.92	0.53
36:DP:47:ASP:HB2	36:DP:51:PHE:HB2	1.91	0.53
41:DU:91:ASP:CG	41:DU:96:ALA:HB2	2.28	0.53
15:CM:67:GLU:CG	15:CM:68:GLY:N	2.71	0.53
27:DD:191:ALA:O	27:DD:192:THR:HB	2.09	0.53
1:AA:1230:C:H2'	1:AA:1231:G:C8	2.44	0.53
11:AI:33:PHE:C	11:AI:35:GLU:H	2.13	0.53
1:CA:1432:G:H8	1:CA:1432:G:O5'	1.92	0.53
29:BF:34:TRP:CE2	36:BP:12:ALA:HB2	2.44	0.53
25:DA:203:C:H6	25:DA:203:C:C3'	2.13	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1238:A:C2	1:CA:1241:G:N3	2.77	0.53
21:AS:29:ARG:HH11	21:AS:30:LEU:H	1.55	0.53
25:BA:989:G:C5	50:B3:13:ILE:HD11	2.43	0.53
14:CL:82:VAL:HG21	14:CL:99:ILE:HG13	1.90	0.53
15:CM:3:ARG:NH1	30:DG:113:ARG:HD3	2.23	0.53
25:BA:2543:G:N2	25:BA:2765:A:C8	2.77	0.53
24:CX:218:PHE:CZ	24:CX:320:TRP:HE3	2.26	0.53
19:CQ:8:GLY:CA	19:CQ:23:VAL:HG12	2.38	0.53
25:BA:141(A):A:C8	25:BA:1408:C:H1'	2.43	0.53
34:DN:116:THR:OG1	34:DN:117:HIS:N	2.42	0.53
25:DA:390:A:C6	36:DP:71:VAL:HG21	2.44	0.53
1:CA:523:A:N6	14:CL:91:ASP:HB2	2.24	0.53
36:DP:80:TYR:HA	36:DP:111:ARG:HB2	1.89	0.53
45:DY:75:ILE:HG12	45:DY:80:GLY:N	2.23	0.53
25:BA:2572:A:N7	28:BE:144:ARG:HB3	2.24	0.53
25:BA:2134:A:H62	25:BA:2157:G:H1'	1.73	0.53
27:BD:10:THR:HG23	27:BD:13:ARG:HB3	1.91	0.53
22:CT:89:ARG:NH2	22:CT:104:LEU:HB3	2.24	0.53
9:CG:30:ILE:HD12	9:CG:120:ILE:CD1	2.39	0.53
25:DA:2537:U:H2'	25:DA:2538:C:H6	1.74	0.53
50:D3:2:PRO:O	50:D3:39:ASP:HB2	2.09	0.53
30:DG:161:THR:HG22	30:DG:162:THR:N	2.23	0.53
30:DG:161:THR:HG22	30:DG:163:ALA:H	1.74	0.53
31:DH:28:GLY:HA3	31:DH:79:VAL:HB	1.90	0.53
1:CA:151:A:H2'	1:CA:152:A:O4'	2.09	0.53
26:BB:15:A:H1'	26:BB:109:G:N7	2.23	0.53
29:DF:195:ASP:OD1	29:DF:196:LEU:N	2.42	0.53
25:BA:1654:A:OP2	38:BR:3:HIS:CD2	2.62	0.53
19:CQ:3:LYS:O	19:CQ:4:LYS:C	2.48	0.53
2:CZ:32:C:H4'	9:CG:77:SER:OG	2.08	0.53
38:DR:104:ARG:HB3	38:DR:107:ASP:OD2	2.09	0.53
55:D8:29:LYS:HG2	55:D8:29:LYS:O	2.08	0.53
25:BA:521:G:H2'	25:BA:522:G:H8	1.74	0.53
26:BB:87:G:O5'	26:BB:87:G:H8	1.92	0.53
25:BA:2784:C:H6	25:BA:2784:C:O5'	1.91	0.53
37:DQ:134:ARG:O	37:DQ:135:ASP:C	2.46	0.53
52:D5:40:LYS:NZ	52:D5:46:CYS:N	2.56	0.53
40:BT:28:VAL:HA	40:BT:89:VAL:HG13	1.89	0.53
1:AA:32:A:H2'	1:AA:33:A:C8	2.44	0.53
25:DA:2173:A:H3'	25:DA:2174:C:C6	2.43	0.53
1:AA:1178:G:N2	1:AA:1180:A:H3'	2.24	0.53
48:D1:58:ILE:O	48:D1:58:ILE:HG23	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2688:U:H5	25:BA:2720:U:OP2	1.92	0.53
25:BA:1490:A:H4'	25:BA:1491:G:OP2	2.09	0.53
1:AA:464:G:N2	1:AA:467:G:N7	2.57	0.53
25:BA:655:A:H2'	25:BA:656:G:H5'	1.91	0.53
26:DB:87:G:O5'	26:DB:87:G:H8	1.92	0.53
25:BA:875:G:H4'	46:BZ:170:THR:HG21	1.91	0.53
25:DA:480:A:H2	25:DA:499:U:O2	1.92	0.53
25:DA:864:G:C6	25:DA:865:C:N4	2.77	0.53
38:DR:11:ASN:OD1	38:DR:12:ARG:N	2.33	0.53
25:BA:912:C:H2'	25:BA:912:C:O2	2.08	0.53
25:BA:558:G:P	34:BN:134:PRO:HD2	2.49	0.53
53:B6:15:GLU:OE1	53:B6:18:ARG:HD2	2.08	0.53
25:BA:864:G:C6	25:BA:865:C:N4	2.77	0.53
38:BR:45:ARG:HD3	38:BR:97:VAL:HG21	1.89	0.53
49:B2:36:ARG:HH11	49:B2:36:ARG:CB	2.21	0.53
26:DB:46:A:H2'	26:DB:47:C:C6	2.44	0.53
8:CF:61:LEU:HB3	8:CF:63:TYR:HE2	1.73	0.53
4:AB:11:LEU:HD13	4:AB:217:ARG:HH22	1.74	0.53
25:BA:2023:G:H5'	25:BA:2617:C:H4'	1.90	0.53
27:DD:89:SER:HB2	27:DD:159:ALA:HB2	1.90	0.53
40:DT:16:ARG:H	40:DT:79:HIS:CD2	2.27	0.53
25:DA:2484:G:C2	25:DA:2485:G:C8	2.97	0.53
1:CA:864:A:H2'	1:CA:865:A:C8	2.44	0.53
1:AA:306:G:H5'	1:AA:306:G:H8	1.73	0.53
25:BA:976:C:H5'	25:BA:1156:A:N6	2.24	0.53
1:CA:538:G:OP2	14:CL:114:LYS:HB2	2.09	0.53
25:DA:941:A:H2'	25:DA:942:G:C8	2.44	0.52
41:BU:57:PHE:O	41:BU:58:ARG:C	2.47	0.52
39:BS:35:ILE:O	39:BS:53:SER:HB3	2.10	0.52
27:DD:71:ASP:N	27:DD:71:ASP:OD2	2.42	0.52
27:DD:246:PRO:CD	27:DD:255:LYS:HE2	2.39	0.52
15:CM:78:ILE:HA	15:CM:81:LEU:HD12	1.91	0.52
52:B5:40:LYS:HZ3	52:B5:45:VAL:HA	1.74	0.52
40:BT:26:ASP:HB3	40:BT:92:GLY:H	1.72	0.52
25:BA:7:G:H2'	25:BA:8:A:C8	2.44	0.52
1:AA:1306:A:H61	1:AA:1331:G:H1'	1.73	0.52
1:AA:1127:G:H1'	1:AA:1148:U:H3	1.75	0.52
25:BA:2542:A:C8	25:BA:2544:G:O6	2.62	0.52
38:DR:21:TYR:OH	38:DR:43:GLU:HG2	2.08	0.52
25:DA:1209:G:N2	25:DA:1210:A:H62	2.05	0.52
25:BA:2687:U:C4	25:BA:2688:U:C5	2.97	0.52
1:AA:112:G:C2	1:AA:330:C:N4	2.77	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AB:18:GLY:H	4:AB:42:ILE:CG2	2.20	0.52
1:CA:735:C:O2'	1:CA:736:C:H5'	2.09	0.52
25:BA:919:G:C5'	26:BB:81:G:H1'	2.39	0.52
37:DQ:55:VAL:CG2	37:DQ:56:ARG:N	2.72	0.52
25:DA:498:G:C2	25:DA:499:U:C5	2.97	0.52
21:AS:53:ASN:C	21:AS:53:ASN:HD22	2.12	0.52
25:BA:1275:A:N7	38:BR:16:HIS:HB2	2.23	0.52
25:BA:909:A:H2'	25:BA:912:C:C5	2.41	0.52
11:AI:53:VAL:HG12	11:AI:95:LYS:NZ	2.25	0.52
11:AI:92:TYR:O	11:AI:96:LEU:HD13	2.08	0.52
17:AO:5:LYS:HA	17:AO:8:LYS:HB2	1.92	0.52
1:CA:179:A:H2'	1:CA:180:U:C6	2.44	0.52
30:BG:107:LEU:HD11	30:BG:178:PHE:CE1	2.44	0.52
25:BA:1639:U:C2'	25:BA:1640:C:H5''	2.38	0.52
26:DB:15:A:H1'	26:DB:109:G:C5	2.44	0.52
14:AL:16:LYS:HD3	14:AL:17:VAL:HG22	1.90	0.52
32:DI:83:ALA:CB	32:DI:88:ILE:HA	2.39	0.52
25:DA:768:G:C6	25:DA:769:G:C5	2.96	0.52
7:CE:10:MET:HA	7:CE:32:VAL:HA	1.90	0.52
1:CA:537:G:H5''	14:CL:112:ARG:NH2	2.24	0.52
27:BD:134:ARG:HB2	27:BD:135:PHE:CD1	2.44	0.52
30:BG:50:ALA:HA	30:BG:53:LEU:HB3	1.90	0.52
48:D1:87:PRO:HG2	48:D1:88:LYS:H	1.74	0.52
40:BT:16:ARG:H	40:BT:79:HIS:CD2	2.27	0.52
25:BA:1283:G:H2'	25:BA:1285:G:OP2	2.09	0.52
25:BA:1379:A:OP1	25:BA:1379:A:H2'	2.09	0.52
25:BA:1198:U:H2'	25:BA:1199:U:H6	1.74	0.52
1:CA:824:C:H1'	10:CH:1:MET:HE2	1.90	0.52
1:CA:1121:U:H6	1:CA:1121:U:O5'	1.92	0.52
25:BA:455:C:N3	25:BA:472:A:H2'	2.24	0.52
13:AK:69:ALA:HB1	13:AK:103:LEU:CD2	2.39	0.52
25:DA:2756:U:H4'	25:DA:2757:A:OP1	2.08	0.52
1:CA:843:U:H3'	1:CA:848:C:H5'	1.91	0.52
42:BV:64:HIS:CG	42:BV:92:THR:HG22	2.45	0.52
1:CA:1269:A:H5'	23:CU:19:GLY:HA2	1.90	0.52
25:BA:2733:A:H2'	25:BA:2734:A:O4'	2.10	0.52
25:BA:429:A:C2	25:BA:430:G:C2	2.97	0.52
32:DI:93:THR:HG23	32:DI:96:ASP:OD2	2.09	0.52
1:CA:81:G:N7	1:CA:82:U:C4	2.77	0.52
1:AA:81:G:N7	1:AA:82:U:N3	2.58	0.52
34:DN:66:THR:N	34:DN:71:MET:HE3	2.24	0.52
25:BA:126:A:C8	25:BA:126:A:H5''	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DD:142:VAL:HG23	27:DD:192:THR:C	2.30	0.52
25:DA:1045:A:N6	25:DA:1111:A:H2'	2.21	0.52
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.74	0.52
25:BA:1174:A:N3	25:BA:1174:A:H2'	2.24	0.52
25:DA:1061:U:C4	33:DK:9:LYS:HB3	2.44	0.52
22:CT:57:ARG:HH12	22:CT:100:ILE:CG2	2.22	0.52
30:DG:134:GLY:HA2	30:DG:156:ASP:HB3	1.91	0.52
14:AL:31:PHE:CB	14:AL:83:LEU:HD11	2.37	0.52
25:DA:2114:A:C5	25:DA:2115:G:C6	2.97	0.52
48:D1:51:VAL:O	48:D1:58:ILE:HG22	2.09	0.52
5:AC:73:PRO:O	5:AC:76:VAL:HG22	2.10	0.52
25:BA:2392:A:H2	25:BA:2424:C:H42	1.55	0.52
25:BA:2040:C:O2	25:BA:2040:C:H2'	2.08	0.52
26:BB:66:A:C2	26:BB:108:C:C2	2.98	0.52
39:BS:51:ALA:HB2	39:BS:76:LYS:HE2	1.92	0.52
10:CH:112:LEU:HA	10:CH:134:ILE:HG12	1.89	0.52
52:B5:3:LYS:O	52:B5:4:HIS:C	2.48	0.52
25:DA:912:C:H2'	25:DA:912:C:O2	2.10	0.52
25:BA:1972:A:H2'	25:BA:1973:G:C8	2.45	0.52
25:DA:1276:A:C1'	38:DR:16:HIS:HE1	2.21	0.52
47:D0:66:VAL:O	47:D0:81:VAL:HA	2.09	0.52
15:CM:91:ARG:HH21	15:CM:97:PRO:HG2	1.74	0.52
25:BA:2753:A:O2'	25:BA:2754:U:H5'	2.09	0.52
25:DA:71:A:OP1	25:DA:72:U:H2'	2.08	0.52
1:AA:255:G:H2'	1:AA:256:U:C6	2.44	0.52
1:AA:495:A:H4'	1:AA:496:A:OP1	2.08	0.52
27:DD:204:ILE:O	27:DD:204:ILE:HD12	2.09	0.52
25:DA:85:G:H5''	25:DA:85:G:C8	2.45	0.52
8:AF:61:LEU:HB3	8:AF:63:TYR:HE2	1.74	0.52
1:CA:1007:C:H2'	1:CA:1008:C:H6	1.73	0.52
14:AL:33:ARG:HG3	14:AL:34:GLY:N	2.24	0.52
1:AA:316:G:H2'	1:AA:317:G:H8	1.75	0.52
27:BD:134:ARG:HG3	27:BD:187:GLY:O	2.08	0.52
40:BT:16:ARG:HB2	40:BT:19:LEU:HD11	1.91	0.52
25:DA:1283:G:N2	25:DA:1285:G:H3'	2.23	0.52
37:DQ:111:GLU:O	37:DQ:115:MET:HG2	2.09	0.52
25:DA:1926:U:O2	25:DA:1928:A:C8	2.62	0.52
25:DA:1477:A:H2'	25:DA:1478:G:O4'	2.09	0.52
34:DN:63:PRO:HB3	41:DU:68:ALA:HB2	1.90	0.52
15:CM:23:TYR:HE1	15:CM:71:ARG:HB2	1.74	0.52
25:DA:1023:U:H2'	25:DA:1024:G:H5'	1.90	0.52
7:CE:51:VAL:O	7:CE:55:VAL:HG22	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BF:24:LEU:HD23	29:BF:115:ALA:HA	1.92	0.52
25:DA:1494:A:O2'	25:DA:1495:A:C5'	2.58	0.52
25:BA:780:G:N2	25:BA:783:A:N6	2.45	0.52
29:DF:161:GLU:O	29:DF:165:ARG:HG2	2.09	0.52
21:CS:30:LEU:HG	21:CS:31:ILE:N	2.23	0.52
24:CX:128:ASN:N	24:CX:128:ASN:OD1	2.40	0.52
10:CH:89:PRO:HA	10:CH:92:ARG:NH1	2.24	0.52
8:CF:52:ILE:HD11	8:CF:87:ARG:NE	2.24	0.52
12:CJ:78:ASN:HD22	12:CJ:81:THR:HG23	1.73	0.52
29:DF:132:VAL:O	29:DF:133:ASN:C	2.47	0.52
25:DA:1406:U:H2'	25:DA:1407:C:H6	1.75	0.52
31:BH:20:ALA:HB1	31:BH:21:PRO:CD	2.38	0.52
25:DA:1309:G:H3'	54:D7:9:ARG:HH12	1.74	0.52
26:BB:95:U:H2'	26:BB:96:G:H8	1.71	0.52
25:BA:27:G:H1'	25:BA:513:A:N6	2.23	0.52
29:BF:202:PHE:CZ	29:BF:206:ILE:HD11	2.44	0.52
25:DA:27:G:H1'	25:DA:513:A:N6	2.25	0.52
44:BX:60:ARG:NH2	54:B7:47:ARG:NH1	2.57	0.52
7:AE:57:LYS:O	7:AE:61:TYR:CD2	2.59	0.52
1:AA:47:C:O2	1:AA:49:U:C5	2.63	0.52
29:BF:89:VAL:C	29:BF:91:GLY:H	2.12	0.52
25:DA:2836:U:C5	25:DA:2883:A:N6	2.77	0.52
16:CN:3:ARG:HA	16:CN:6:LEU:HB2	1.90	0.52
25:BA:2035:G:H4'	25:BA:2036:C:OP2	2.10	0.52
25:BA:1276:A:C8	25:BA:1276:A:H5''	2.44	0.52
19:AQ:90:ILE:O	19:AQ:93:GLN:HB2	2.10	0.52
28:BE:101:ARG:CZ	28:BE:171:GLU:HB3	2.39	0.52
17:AO:18:PHE:CE2	17:AO:21:ASP:HB2	2.44	0.52
39:DS:41:ASP:OD2	39:DS:44:LYS:HE2	2.09	0.52
25:BA:1472:A:N6	25:BA:1521:G:H1'	2.23	0.52
31:BH:103:LEU:HD22	31:BH:105:LEU:HG	1.91	0.52
25:BA:1635:G:H2'	25:BA:1636:C:H6	1.73	0.52
46:DZ:5:LEU:C	46:DZ:5:LEU:HD23	2.30	0.52
25:DA:520:G:H2'	25:DA:521:G:H8	1.73	0.52
43:BW:18:ARG:NH1	43:BW:76:VAL:O	2.41	0.52
1:AA:59:A:H1'	1:AA:354:G:N2	2.24	0.52
1:AA:849:C:O2'	1:AA:850:U:H5'	2.09	0.52
31:BH:46:GLU:HB2	31:BH:49:VAL:HG23	1.91	0.52
28:DE:1:MET:O	28:DE:84:PHE:HB2	2.09	0.52
1:CA:1176:A:H2'	1:CA:1177:G:O4'	2.09	0.52
13:CK:12:ARG:HG2	13:CK:13:GLN:H	1.74	0.52
36:BP:89:ALA:HB1	36:BP:121:LYS:HD3	1.91	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BO:98:VAL:HG23	35:BO:99:PHE:N	2.23	0.52
55:B8:16:ILE:HD11	55:B8:58:ILE:HD13	1.90	0.52
35:DO:80:ASP:OD2	40:DT:71:GLY:HA3	2.10	0.52
41:DU:15:LYS:O	41:DU:19:LYS:HG3	2.09	0.52
31:DH:66:GLY:O	31:DH:69:ARG:HB3	2.10	0.52
24:CX:326:SER:OG	24:CX:337:HIS:HE1	1.93	0.52
33:DK:38:VAL:HG12	33:DK:38:VAL:O	2.10	0.52
28:DE:27:LEU:HD23	28:DE:27:LEU:O	2.09	0.52
25:BA:2573:C:OP1	25:BA:2573:C:H3'	2.09	0.52
43:BW:95:ILE:O	43:BW:95:ILE:HG13	2.09	0.52
25:DA:2240:C:O2'	25:DA:2241:A:H5'	2.10	0.52
41:DU:64:ARG:O	41:DU:67:ALA:HB3	2.09	0.52
39:BS:102:ALA:O	39:BS:106:ARG:HG3	2.10	0.52
25:BA:245:G:O6	55:B8:8:LYS:HE3	2.10	0.52
29:DF:36:VAL:CG1	29:DF:183:VAL:HG21	2.39	0.52
25:BA:2334:G:C2	39:BS:12:PHE:CE1	2.98	0.52
7:AE:105:VAL:HB	7:AE:106:PRO:CD	2.39	0.52
36:BP:58:THR:C	36:BP:61:ARG:NE	2.63	0.52
25:DA:1405:U:H2'	25:DA:1406:U:H6	1.68	0.52
25:DA:1188:U:H4'	42:DV:79:VAL:CG1	2.39	0.52
17:CO:39:LEU:O	17:CO:43:LEU:HG	2.10	0.52
1:CA:465:A:O2'	1:CA:466:G:H2'	2.09	0.52
34:BN:118:PRO:O	34:BN:121:VAL:HG22	2.10	0.52
31:BH:101:ARG:N	31:BH:101:ARG:HE	2.04	0.52
19:CQ:54:GLY:O	19:CQ:81:ARG:HB2	2.10	0.52
38:DR:72:ASP:O	38:DR:76:VAL:HG13	2.09	0.52
10:AH:112:LEU:HA	10:AH:134:ILE:HG12	1.90	0.52
25:DA:151:C:H2'	25:DA:152:G:H8	1.73	0.52
40:DT:3:ARG:HB2	40:DT:6:LEU:HB3	1.90	0.52
29:BF:135:LYS:HB3	29:BF:138:GLU:HG3	1.91	0.52
37:DQ:54:MET:HB3	37:DQ:64:ILE:CD1	2.39	0.52
25:BA:639:U:H2'	25:BA:640:C:H6	1.73	0.52
25:DA:506:G:H4'	25:DA:507:A:H5'	1.91	0.52
31:DH:30:LYS:HE2	31:DH:81:GLU:O	2.08	0.52
8:CF:101:ALA:HA	20:CR:28:GLU:HG3	1.90	0.52
21:CS:22:LEU:O	21:CS:26:GLY:HA2	2.10	0.52
43:DW:80:PRO:O	43:DW:100:THR:HG22	2.09	0.52
1:AA:841:U:O2'	1:AA:842:C:H5''	2.10	0.52
38:BR:104:ARG:HB3	38:BR:107:ASP:OD2	2.09	0.52
1:CA:209:U:H4'	1:CA:216:G:C2	2.43	0.52
5:CC:7:PRO:O	5:CC:11:ARG:HG2	2.08	0.52
7:AE:41:VAL:CG2	7:AE:113:ALA:HA	2.39	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:105:ARG:HG2	38:DR:106:GLY:N	2.24	0.52
1:CA:1135:U:H6	1:CA:1135:U:O5'	1.93	0.52
1:CA:144:G:H8	1:CA:144:G:O5'	1.92	0.52
1:CA:15:G:H4'	7:CE:24:ARG:NH1	2.24	0.52
48:B1:87:PRO:HG2	48:B1:88:LYS:H	1.74	0.52
25:DA:2607:G:H2'	25:DA:2608:G:O4'	2.09	0.52
25:DA:1591:G:H2'	25:DA:1592:C:C6	2.44	0.52
1:AA:631:G:O3'	1:AA:632:A:H8	1.92	0.52
49:D2:48:HIS:HE1	49:D2:49:LYS:NZ	2.06	0.52
30:BG:64:THR:HG23	30:BG:66:GLN:H	1.75	0.52
25:DA:2542:A:C8	25:DA:2544:G:O6	2.62	0.52
1:CA:1178:G:N2	1:CA:1180:A:H3'	2.24	0.52
29:BF:181:LEU:CD2	29:BF:186:ILE:HD11	2.38	0.52
1:AA:1147:C:O2	11:AI:16:ARG:NH2	2.41	0.52
4:AB:55:PHE:HA	4:AB:58:ILE:CG1	2.39	0.52
14:CL:82:VAL:HG22	14:CL:83:LEU:N	2.24	0.52
25:DA:1544:C:C6	25:DA:1544:C:OP1	2.62	0.52
25:DA:2115:G:N2	25:DA:2172:U:H3	2.06	0.52
1:AA:1346:A:N6	1:AA:1374:A:H3'	2.22	0.52
4:AB:100:GLY:O	4:AB:101:MET:C	2.47	0.52
1:AA:530:G:H22	1:AA:1492:A:N6	2.03	0.52
3:AV:19:U:C2	24:AX:139:GLY:HA3	2.45	0.52
14:CL:52:ARG:NH1	14:CL:91:ASP:OD2	2.42	0.52
25:BA:1188:U:H4'	42:BV:79:VAL:HG13	1.92	0.52
25:BA:476:G:N2	25:BA:478:A:H3'	2.24	0.52
9:CG:47:CYS:O	9:CG:50:ILE:HB	2.09	0.52
14:CL:109:VAL:HG23	14:CL:119:TYR:HB3	1.91	0.52
1:CA:369:C:O2'	1:CA:370:C:H5'	2.09	0.52
13:CK:21:ILE:CD1	13:CK:82:VAL:HG13	2.40	0.52
43:DW:30:GLU:HA	43:DW:33:ARG:HD2	1.91	0.52
29:BF:123:LEU:HD12	29:BF:124:LEU:N	2.23	0.52
4:AB:7:VAL:O	4:AB:11:LEU:HG	2.09	0.52
25:BA:1633:G:O5'	25:BA:1633:G:H8	1.92	0.52
6:AD:167:GLY:O	6:AD:168:ARG:C	2.47	0.52
25:BA:30:G:H2'	25:BA:31:C:C6	2.44	0.52
1:AA:1397:C:OP2	3:AV:23:A:N6	2.42	0.52
1:AA:867:G:O2'	1:AA:868:C:H5'	2.09	0.52
25:DA:2660:A:H2'	25:DA:2661:G:O4'	2.10	0.52
17:AO:29:VAL:HG12	17:AO:30:ALA:N	2.25	0.52
1:CA:102(B):C:O5'	1:CA:102(B):C:H6	1.92	0.52
29:DF:135:LYS:HB3	29:DF:138:GLU:HG3	1.92	0.52
41:BU:90:VAL:O	41:BU:91:ASP:C	2.47	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DU:57:PHE:O	41:DU:58:ARG:C	2.48	0.52
40:DT:23:ARG:HB2	40:DT:24:PRO:HD2	1.91	0.52
1:CA:1320:C:O2'	1:CA:1321:C:H5'	2.09	0.52
25:BA:1824:G:O2'	25:BA:1825:A:H5'	2.09	0.52
27:BD:242:ARG:CD	27:BD:242:ARG:N	2.72	0.52
25:DA:1174:A:H2'	25:DA:1174:A:N3	2.24	0.52
25:DA:2543:G:H5'	25:DA:2543:G:H8	1.73	0.52
1:CA:1127:G:H1'	1:CA:1148:U:H3	1.74	0.52
29:BF:40:GLN:O	29:BF:44:ARG:HG2	2.09	0.52
25:BA:2173:A:H2'	25:BA:2174:C:O4'	2.10	0.52
10:CH:25:ASP:HA	10:CH:59:LEU:O	2.10	0.52
48:D1:90:ILE:HG22	48:D1:94:LEU:HD12	1.90	0.52
47:B0:66:VAL:O	47:B0:81:VAL:HA	2.09	0.52
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.44	0.52
1:CA:735:C:H2'	1:CA:736:C:H6	1.73	0.52
1:AA:735:C:O2'	1:AA:736:C:H5'	2.09	0.52
44:DX:60:ARG:HH21	54:D7:47:ARG:HH11	1.54	0.52
15:AM:8:GLU:OE1	15:AM:22:ILE:HG23	2.10	0.52
25:BA:2795:G:H3'	25:BA:2797:U:H5''	1.92	0.52
33:DK:93:ARG:HG2	33:DK:94:GLU:N	2.25	0.52
25:BA:1506:C:H2'	25:BA:1508:A:C8	2.45	0.52
34:BN:40:ASP:O	34:BN:41:ALA:HB2	2.10	0.52
9:AG:47:CYS:O	9:AG:50:ILE:HB	2.09	0.52
24:CX:341:LEU:HD12	24:CX:342:MET:H	1.73	0.52
38:DR:45:ARG:HD3	38:DR:97:VAL:HG21	1.91	0.52
1:CA:663:A:H5''	20:CR:61:LYS:HZ3	1.73	0.52
25:BA:71:A:OP1	25:BA:72:U:H2'	2.08	0.52
1:AA:1004:A:N3	1:AA:1004:A:H5''	2.24	0.52
25:BA:1434:A:H61	25:BA:1558:A:H62	1.56	0.52
1:CA:1206:G:C6	1:CA:1207:G:C5	2.98	0.52
25:DA:1952:A:C5	35:DO:22:ILE:CD1	2.93	0.52
7:AE:31:LEU:HG	7:AE:45:PHE:HD1	1.73	0.52
5:AC:107:GLN:NE2	5:AC:107:GLN:H	2.07	0.52
47:D0:72:ARG:O	47:D0:75:LEU:HB2	2.09	0.52
37:BQ:26:TYR:O	37:BQ:67:ARG:NH1	2.43	0.52
1:CA:160:A:H2'	1:CA:161:A:O4'	2.09	0.52
33:DK:141:ALA:HB3	33:DK:142:PRO:HD3	1.92	0.52
1:AA:574:A:N3	1:AA:883:C:H1'	2.24	0.52
30:DG:43:LEU:C	30:DG:45:GLU:H	2.13	0.52
25:DA:614:U:H4'	25:DA:615:G:H5''	1.91	0.52
22:CT:14:LYS:HA	22:CT:17:ARG:HH21	1.74	0.52
27:DD:134:ARG:HB2	27:DD:135:PHE:CD1	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CB:200:ILE:HG22	4:CB:202:PRO:HD3	1.91	0.52
36:DP:89:ALA:HB1	36:DP:121:LYS:HD3	1.90	0.52
46:BZ:14:LYS:O	46:BZ:18:LEU:HD13	2.10	0.52
25:BA:1804:C:H6	25:BA:1804:C:O5'	1.91	0.52
43:DW:21:VAL:C	43:DW:23:LEU:H	2.12	0.52
25:BA:2306:C:H4'	30:BG:136:ARG:NH2	2.09	0.52
12:CJ:38:ILE:HD12	12:CJ:71:LEU:HG	1.92	0.52
39:DS:34:HIS:ND1	39:DS:54:LEU:HG	2.24	0.52
25:DA:1971:A:N3	27:DD:241:PRO:HD3	2.25	0.52
1:CA:1365:G:C5	1:CA:1366:C:C5	2.98	0.52
1:AA:1149:C:H2'	1:AA:1150:U:H6	1.74	0.52
25:BA:796:C:H2'	25:BA:797:C:C6	2.44	0.52
25:DA:774:A:HO2'	25:DA:775:G:H8	1.56	0.52
25:BA:289:A:H2'	25:BA:290:G:O4'	2.10	0.52
25:DA:245:G:O6	55:D8:8:LYS:HE3	2.10	0.52
14:AL:82:VAL:HG21	14:AL:99:ILE:HG13	1.90	0.52
25:DA:2172:U:H5'	25:DA:2173:A:OP2	2.10	0.52
22:AT:57:ARG:HH12	22:AT:100:ILE:CG2	2.21	0.52
48:B1:51:VAL:O	48:B1:58:ILE:HG22	2.10	0.52
38:DR:103:ARG:NH1	38:DR:110:PRO:HD3	2.21	0.52
1:AA:1300:G:O2'	1:AA:1301:U:P	2.68	0.52
30:BG:98:ARG:O	30:BG:101:ILE:HG12	2.10	0.52
8:CF:33:TYR:CD1	8:CF:75:LEU:HA	2.45	0.52
25:BA:2210:G:H21	25:BA:2211:G:C4'	2.21	0.52
15:CM:84:ILE:HG23	15:CM:85:GLY:N	2.24	0.52
31:BH:86:GLU:OE1	31:BH:164:TYR:HA	2.10	0.52
25:BA:480:A:H2	25:BA:499:U:O2	1.92	0.52
34:DN:41:ALA:HB3	34:DN:78:VAL:O	2.09	0.52
50:D3:8:LEU:HD23	50:D3:9:VAL:N	2.25	0.52
34:DN:51:THR:HG22	34:DN:52:LYS:N	2.24	0.52
25:DA:2536:G:C6	25:DA:2537:U:C4	2.97	0.52
1:AA:1349:A:O2'	1:AA:1350:A:H5'	2.09	0.52
25:BA:530:G:C5	25:BA:2022:U:H5''	2.44	0.52
15:CM:87:TYR:O	15:CM:91:ARG:HG2	2.10	0.52
53:B6:18:ARG:HG2	53:B6:19:ARG:H	1.75	0.52
25:BA:1519:G:C5	25:BA:1520:U:C5	2.98	0.52
25:DA:2065:C:O2'	25:DA:2066:C:H5'	2.08	0.52
25:BA:2208:U:O4'	27:BD:151:LYS:HE2	2.10	0.52
1:AA:262:A:C6	1:AA:263:A:C6	2.98	0.52
24:AX:52:TRP:CE3	24:AX:58:ALA:HB3	2.45	0.52
33:BK:6:ALA:HB3	33:BK:59:ILE:HD12	1.91	0.52
25:BA:2693:A:H2'	25:BA:2694:G:H8	1.75	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CG:24:THR:HA	9:CG:27:ILE:HG12	1.91	0.52
25:DA:2519:U:H4'	25:DA:2520:C:OP1	2.10	0.52
31:BH:66:GLY:O	31:BH:69:ARG:HB3	2.10	0.52
27:DD:54:ARG:O	27:DD:218:ARG:HG3	2.09	0.52
24:AX:326:SER:OG	24:AX:337:HIS:HE1	1.92	0.52
25:BA:2531:A:H5''	31:BH:157:TYR:CE2	2.44	0.52
25:BA:1078:U:H6	25:BA:1078:U:H5''	1.75	0.52
1:AA:144:G:H8	1:AA:144:G:O5'	1.93	0.52
48:D1:9:GLY:O	48:D1:13:ILE:HG21	2.10	0.52
25:DA:675:A:OP1	29:DF:63:LYS:NZ	2.42	0.52
7:AE:51:VAL:O	7:AE:55:VAL:HG22	2.09	0.52
25:DA:1022:G:O2'	25:DA:1023:U:OP2	2.24	0.52
45:DY:17:SER:OG	45:DY:18:GLY:N	2.41	0.52
11:CI:33:PHE:C	11:CI:35:GLU:H	2.13	0.52
40:BT:88:ILE:HD12	40:BT:90:GLN:H	1.75	0.52
25:DA:81:G:H21	45:DY:2:ARG:NH2	2.08	0.52
4:CB:91:PRO:CA	4:CB:154:LEU:HD11	2.39	0.52
36:DP:148:LEU:O	36:DP:149:GLU:HB2	2.07	0.52
24:CX:128:ASN:ND2	24:CX:185:LYS:HA	2.25	0.52
14:AL:82:VAL:HG21	14:AL:99:ILE:CG1	2.40	0.52
49:D2:3:LEU:O	49:D2:4:SER:C	2.48	0.52
31:DH:86:GLU:OE1	31:DH:164:TYR:HA	2.09	0.52
30:BG:111:LEU:HB2	30:BG:112:PRO:HD3	1.92	0.52
8:AF:67:MET:HE1	8:AF:72:VAL:HA	1.92	0.52
25:BA:943:U:OP2	36:BP:38:GLN:OE1	2.28	0.52
30:BG:73:ALA:O	30:BG:85:GLY:HA2	2.09	0.52
17:AO:33:THR:HG23	17:AO:63:ARG:NH1	2.25	0.52
40:DT:2:ASN:O	40:DT:3:ARG:HB3	2.10	0.52
4:CB:77:ALA:O	4:CB:81:VAL:HG23	2.09	0.52
25:DA:1252:G:C2	25:DA:1253:A:C2	2.98	0.52
39:BS:67:ARG:HG2	39:BS:67:ARG:HH11	1.74	0.52
33:BK:60:TYR:HB2	33:BK:64:SER:HB3	1.92	0.52
37:BQ:54:MET:HB3	37:BQ:64:ILE:CD1	2.40	0.52
51:B4:38:ALA:HA	51:B4:55:PRO:HB3	1.91	0.52
25:BA:270(F):G:C6	25:BA:270(G):U:C4	2.98	0.52
46:BZ:86:VAL:HG12	46:BZ:87:ASP:N	2.25	0.52
40:BT:100:TYR:HD2	40:BT:103:ARG:NH2	2.08	0.52
49:D2:38:GLN:O	49:D2:41:ILE:HG13	2.10	0.52
1:CA:1006:C:H2'	1:CA:1007:C:C6	2.45	0.52
25:DA:697:C:H2'	25:DA:698:C:C6	2.45	0.52
25:DA:1505:C:H2'	25:DA:1506:C:H6	1.75	0.52
25:BA:2484:G:C2	25:BA:2485:G:C8	2.97	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1455:G:H2'	1:CA:1459:C:C6	2.45	0.52
25:BA:1575:C:C2	25:BA:1576:U:C6	2.98	0.52
25:DA:1090:U:H2'	25:DA:1091:G:C8	2.45	0.52
1:AA:1133:G:H2'	1:AA:1134:G:H8	1.74	0.52
25:BA:997:G:N3	25:BA:997:G:H2'	2.25	0.52
19:AQ:40:LYS:HD3	19:AQ:42:TYR:CZ	2.44	0.52
25:BA:616:A:H4'	25:BA:617:G:OP1	2.10	0.52
1:CA:1327:C:H2'	1:CA:1328:C:H6	1.75	0.52
5:CC:14:ILE:CG1	5:CC:15:THR:N	2.63	0.52
40:BT:106:SER:C	40:BT:107:ASP:OD1	2.48	0.52
27:BD:191:ALA:O	27:BD:192:THR:HB	2.09	0.52
30:BG:92:VAL:HG13	30:BG:92:VAL:O	2.09	0.52
28:DE:39:PRO:HD3	28:DE:45:THR:HG23	1.92	0.52
25:DA:1027:A:C2	25:DA:2488:A:H5'	2.45	0.52
1:CA:1145:C:H4'	1:CA:1146:A:O5'	2.09	0.52
25:DA:1057:A:H2'	25:DA:1058:G:H8	1.74	0.52
25:BA:2517:C:C6	25:BA:2542:A:C2	2.98	0.52
11:AI:105:ASP:OD2	11:AI:107:ARG:HD3	2.10	0.52
5:AC:28:GLN:O	5:AC:32:LEU:HG	2.09	0.52
10:AH:118:VAL:C	10:AH:119:LEU:HD23	2.30	0.52
32:BI:76:THR:HG22	32:BI:141:LYS:HB3	1.92	0.52
32:BI:60:GLU:O	32:BI:63:ALA:HB3	2.10	0.52
21:CS:63:THR:N	21:CS:66:MET:HE3	2.25	0.52
25:BA:773:U:H5'	27:BD:47:GLY:HA3	1.91	0.52
25:DA:2040:C:H2'	25:DA:2040:C:O2	2.09	0.52
25:DA:1843:C:H2'	25:DA:1844:C:H6	1.74	0.52
37:DQ:88:GLY:C	37:DQ:89:ASN:OD1	2.49	0.52
24:CX:190:TYR:CE1	24:CX:224:ILE:HA	2.41	0.52
25:BA:464:U:C2	25:BA:788:A:C6	2.98	0.52
24:AX:229:GLU:HG3	24:AX:230:GLU:N	2.24	0.52
25:DA:2481:G:HO2'	25:DA:2482:G:P	2.33	0.52
25:DA:1510:A:H2'	25:DA:1511:A:H8	1.75	0.52
46:BZ:27:VAL:HG12	46:BZ:28:MET:N	2.24	0.52
29:DF:89:VAL:CG1	29:DF:90:PHE:H	2.19	0.52
27:BD:76:PRO:HB2	27:BD:116:GLN:HE21	1.75	0.52
27:BD:74:GLY:O	27:BD:76:PRO:HD3	2.09	0.52
42:BV:35:LEU:HB2	42:BV:57:VAL:CG1	2.39	0.52
25:BA:861:A:H2'	25:BA:862:G:C5'	2.39	0.52
50:B3:8:LEU:HD11	50:B3:23:LEU:HD22	1.91	0.52
2:CY:20:U:H3'	2:CY:21:A:C5'	2.40	0.52
1:CA:939:G:H2'	1:CA:940:C:C6	2.44	0.52
2:AY:47:U:H3'	2:AY:48:C:C5'	2.39	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BG:121:ASN:HD22	30:BG:122:PRO:N	2.08	0.52
34:BN:41:ALA:HB3	34:BN:78:VAL:O	2.09	0.52
25:BA:863:A:H2'	25:BA:864:G:H8	1.74	0.52
25:BA:2745:C:H2'	25:BA:2746:U:C6	2.45	0.52
1:AA:375:U:C4	1:AA:376:G:N7	2.78	0.52
4:AB:121:LEU:HD22	4:AB:127:ILE:HD11	1.92	0.52
1:AA:1004:A:H61	1:AA:1025:U:H4'	1.74	0.52
20:CR:45:SER:HB3	20:CR:51:LEU:HG	1.90	0.52
25:BA:481:G:H1'	25:BA:506:G:N2	2.25	0.52
25:DA:1142:U:H3'	25:DA:1142:U:C6	2.44	0.52
49:B2:38:GLN:O	49:B2:41:ILE:HG13	2.10	0.52
5:CC:107:GLN:NE2	5:CC:107:GLN:H	2.08	0.52
30:BG:161:THR:HG22	30:BG:163:ALA:H	1.74	0.52
25:BA:1283:G:N2	25:BA:1285:G:H3'	2.25	0.52
25:DA:1161:C:H1'	42:DV:8:GLY:O	2.09	0.52
7:CE:72:GLN:O	7:CE:75:THR:HG22	2.10	0.52
31:BH:108:GLY:HA3	31:BH:152:ARG:NH2	2.25	0.52
29:DF:107:LYS:O	29:DF:108:LYS:C	2.49	0.52
26:DB:68:C:H2'	26:DB:69:G:H8	1.75	0.52
4:CB:164:VAL:HB	4:CB:186:ALA:HB2	1.92	0.52
1:CA:1417:G:C6	1:CA:1482:G:C6	2.98	0.52
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.45	0.52
25:DA:456:C:O5'	25:DA:456:C:H2'	2.09	0.52
25:BA:2894:G:O5'	25:BA:2894:G:H8	1.93	0.52
25:BA:630:G:N2	25:BA:632:A:H3'	2.25	0.52
25:DA:1046:A:H5''	25:DA:1047:G:C8	2.45	0.52
29:DF:24:LEU:HD23	29:DF:115:ALA:HA	1.91	0.52
25:BA:1028:A:H2'	25:BA:1029:A:C8	2.44	0.52
11:AI:37:PHE:CE2	11:AI:74:ILE:HD11	2.44	0.52
21:CS:29:ARG:HD2	21:CS:30:LEU:N	2.24	0.52
38:BR:103:ARG:NH1	38:BR:110:PRO:HD3	2.21	0.52
38:BR:8:ARG:HD3	38:BR:10:LEU:HD23	1.91	0.52
4:CB:55:PHE:HA	4:CB:58:ILE:CG1	2.40	0.52
32:DI:120:ILE:HD12	32:DI:120:ILE:H	1.75	0.52
24:AX:194:SER:HB3	24:AX:195:PRO:HD3	1.92	0.52
24:CX:194:SER:HB3	24:CX:195:PRO:HD3	1.92	0.52
25:BA:2815:C:O2'	52:B5:43:HIS:HD2	1.93	0.52
25:BA:655:A:H3'	25:BA:655:A:H8	1.75	0.52
1:AA:1321:C:H3'	1:AA:1322:C:C5'	2.40	0.52
45:BY:96:ILE:CG1	45:BY:99:CYS:H	2.23	0.52
38:DR:72:ASP:HB3	38:DR:75:LEU:HB2	1.90	0.52
36:DP:85:LEU:HD12	36:DP:86:LYS:N	2.25	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:2:ASN:O	40:BT:3:ARG:HB3	2.10	0.52
1:CA:1004:A:H61	1:CA:1025:U:H4'	1.75	0.52
5:AC:195:VAL:CG1	5:AC:196:LEU:N	2.73	0.52
35:BO:77:ILE:HD13	35:BO:78:ARG:N	2.25	0.52
35:BO:8:LEU:HB2	35:BO:19:ILE:HD11	1.92	0.52
35:BO:2:ILE:HD12	35:BO:2:ILE:N	2.24	0.52
12:CJ:55:LYS:HD2	12:CJ:55:LYS:O	2.09	0.52
1:CA:255:G:H2'	1:CA:256:U:H6	1.75	0.52
7:CE:80:ILE:HD11	7:CE:138:ALA:HB1	1.91	0.52
25:BA:1379:A:H4'	25:BA:1380:G:OP2	2.09	0.52
27:DD:58:HIS:O	27:DD:59:LYS:C	2.49	0.52
25:DA:1165:U:H2'	25:DA:1166:C:C6	2.44	0.52
22:CT:61:SER:O	22:CT:65:LYS:HG3	2.10	0.52
2:CY:61:C:H2'	2:CY:62:C:C6	2.44	0.52
1:CA:1160:G:C6	1:CA:1181:G:O6	2.63	0.52
25:BA:606:U:H4'	25:BA:658:C:H4'	1.91	0.52
1:CA:1123:A:H4'	12:CJ:36:GLY:HA3	1.91	0.52
18:AP:12:LYS:C	18:AP:14:ASN:H	2.13	0.52
1:CA:384:G:H2'	1:CA:385:C:C6	2.45	0.52
25:DA:2892:A:C2'	25:DA:2893:G:H5'	2.39	0.51
41:BU:83:LEU:HD12	41:BU:83:LEU:H	1.74	0.51
25:BA:1824:G:OP1	27:BD:52:ARG:HD3	2.09	0.51
25:BA:1027:A:C2	25:BA:2488:A:H5'	2.45	0.51
51:B4:40:ILE:HG13	51:B4:57:ILE:HG21	1.92	0.51
36:DP:18:ARG:HB3	36:DP:18:ARG:CZ	2.36	0.51
25:BA:2114:A:C5	25:BA:2115:G:C6	2.97	0.51
25:BA:2173:A:OP2	25:BA:2173:A:H8	1.92	0.51
12:CJ:32:ALA:HB1	12:CJ:75:ILE:CG1	2.39	0.51
5:AC:16:ARG:NH1	5:AC:16:ARG:HB2	2.25	0.51
47:B0:53:MET:HE1	47:B0:57:PHE:CD1	2.44	0.51
24:AX:316:ARG:N	24:AX:317:PRO:HD3	2.25	0.51
19:AQ:8:GLY:CA	19:AQ:23:VAL:HG12	2.36	0.51
25:BA:2563:U:O2	25:BA:2565:A:C8	2.57	0.51
1:CA:523:A:H61	14:CL:52:ARG:NH1	2.08	0.51
34:BN:116:THR:OG1	34:BN:117:HIS:N	2.41	0.51
25:DA:2436:G:C5	25:DA:2437:U:C5	2.98	0.51
39:DS:89:ARG:O	39:DS:90:GLY:O	2.27	0.51
45:BY:81:LYS:HB3	45:BY:97:ARG:CB	2.39	0.51
6:CD:29:PRO:O	6:CD:30:LYS:HB3	2.09	0.51
25:BA:1512:G:C5	25:BA:1513:C:C5	2.98	0.51
28:DE:24:THR:HG21	28:DE:188:VAL:CG1	2.39	0.51
25:DA:530:G:C5	25:DA:2022:U:H5''	2.45	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:B6:13:CYS:O	53:B6:21:TYR:HA	2.10	0.51
4:AB:127:ILE:O	4:AB:127:ILE:HG22	2.10	0.51
25:BA:1839:G:H5'	25:BA:1839:G:H8	1.75	0.51
1:AA:151:A:H2'	1:AA:152:A:O4'	2.10	0.51
30:BG:143:GLU:O	51:B4:54:LYS:NZ	2.43	0.51
5:AC:195:VAL:HG12	5:AC:196:LEU:N	2.24	0.51
30:DG:107:LEU:HD11	30:DG:178:PHE:CE1	2.45	0.51
1:CA:792:A:N3	1:CA:794:A:C5	2.78	0.51
1:AA:1298:C:N4	9:AG:114:ARG:HD3	2.25	0.51
12:AJ:55:LYS:HD2	12:AJ:55:LYS:O	2.10	0.51
31:BH:30:LYS:HE2	31:BH:81:GLU:O	2.10	0.51
25:BA:1603:A:H5'	25:BA:1603:A:H8	1.75	0.51
32:BI:31:LEU:HD11	32:BI:38:LEU:N	2.25	0.51
2:AY:61:C:H2'	2:AY:62:C:H6	1.75	0.51
26:BB:78:A:C2	26:BB:99:A:C4	2.97	0.51
44:BX:57:LEU:N	44:BX:57:LEU:HD12	2.26	0.51
40:DT:16:ARG:HB2	40:DT:19:LEU:HD11	1.91	0.51
25:DA:2606:C:H2'	25:DA:2607:G:H5'	1.92	0.51
4:AB:178:ARG:NH2	10:AH:68:ARG:NH2	2.57	0.51
41:DU:86:ALA:HB2	41:DU:116:ALA:HB3	1.91	0.51
27:DD:264:LYS:HG2	27:DD:266:SER:HB3	1.92	0.51
25:DA:754:C:H2'	25:DA:755:C:C6	2.44	0.51
25:BA:2352:A:C2	47:B0:33:ALA:O	2.63	0.51
25:BA:592:G:O2'	55:B8:4:MET:HG3	2.10	0.51
6:AD:60:GLU:OE2	6:AD:199:ASN:HB3	2.10	0.51
2:CY:56:C:H1'	30:DG:76:SER:HB3	1.90	0.51
25:DA:1198:U:H2'	25:DA:1199:U:H6	1.74	0.51
4:CB:113:HIS:O	4:CB:117:GLU:HG3	2.09	0.51
24:AX:280:SER:HB3	24:AX:283:LYS:HB2	1.91	0.51
9:CG:17:VAL:O	9:CG:17:VAL:HG12	2.10	0.51
4:AB:169:LYS:NZ	4:AB:169:LYS:HB3	2.26	0.51
1:AA:1160:G:C6	1:AA:1181:G:O6	2.62	0.51
33:BK:141:ALA:HB3	33:BK:142:PRO:HD3	1.91	0.51
22:CT:76:ALA:O	22:CT:80:ARG:HG2	2.10	0.51
40:DT:132:LYS:HB3	40:DT:136:GLN:NE2	2.18	0.51
1:CA:959:A:H2	1:CA:1221:G:N3	2.08	0.51
34:DN:156:GLN:C	34:DN:158:PRO:HD3	2.30	0.51
25:BA:1899:G:N2	25:BA:1902:C:H41	2.07	0.51
23:AU:2:GLY:C	23:AU:4:GLY:H	2.13	0.51
11:AI:29:ASN:OD1	11:AI:64:THR:HA	2.11	0.51
30:DG:82:LEU:HD22	30:DG:87:PRO:CG	2.39	0.51
33:BK:54:PRO:HD3	33:BK:72:PRO:CA	2.37	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2688:U:O2	25:DA:2688:U:H3'	2.10	0.51
44:BX:34:ALA:HB1	44:BX:39:ILE:HD11	1.92	0.51
1:AA:530:G:N2	1:AA:1492:A:N6	2.58	0.51
25:BA:10:G:H21	25:BA:2801:A:H5''	1.75	0.51
1:CA:678:U:H2'	1:CA:679:C:C6	2.45	0.51
7:CE:57:LYS:O	7:CE:61:TYR:CD2	2.58	0.51
38:DR:53:HIS:HD2	38:DR:94:TYR:OH	1.93	0.51
4:CB:95:GLN:HA	4:CB:96:ARG:NH2	2.25	0.51
35:BO:24:VAL:CG2	35:BO:33:ALA:HB2	2.40	0.51
25:BA:1276:A:C1'	38:BR:16:HIS:HE1	2.22	0.51
2:CY:40:C:H2'	2:CY:41:C:C6	2.42	0.51
34:BN:51:THR:HG22	34:BN:52:LYS:N	2.23	0.51
41:BU:25:TRP:C	41:BU:25:TRP:CD1	2.82	0.51
25:DA:861:A:H2'	25:DA:862:G:C5'	2.39	0.51
25:BA:866:A:N6	25:BA:914:C:C4	2.78	0.51
31:DH:103:LEU:HD22	31:DH:105:LEU:HG	1.92	0.51
25:DA:2281:C:O2'	25:DA:2282:G:H5'	2.10	0.51
1:AA:1006:C:H2'	1:AA:1007:C:C6	2.46	0.51
43:BW:18:ARG:HG3	43:BW:76:VAL:CG1	2.40	0.51
33:BK:88:ALA:HB3	33:BK:135:GLY:HA3	1.91	0.51
1:AA:881:G:P	14:AL:11:ARG:HH22	2.34	0.51
1:AA:284:G:H2'	1:AA:285:G:H8	1.75	0.51
1:CA:520:A:C2	1:CA:536:C:H1'	2.46	0.51
25:BA:1904:G:H2'	25:BA:1905:C:O4'	2.10	0.51
5:CC:148:GLY:HA3	5:CC:172:ARG:O	2.10	0.51
41:BU:15:LYS:O	41:BU:19:LYS:HG3	2.11	0.51
1:CA:147:G:C2	1:CA:176:C:N3	2.77	0.51
30:BG:11:TYR:HB2	30:BG:176:LEU:HD21	1.92	0.51
30:DG:50:ALA:HA	30:DG:53:LEU:HB3	1.91	0.51
14:AL:54:VAL:HG12	14:AL:55:ALA:N	2.25	0.51
6:CD:167:GLY:O	6:CD:168:ARG:C	2.48	0.51
5:CC:135:LYS:O	5:CC:135:LYS:HD3	2.10	0.51
25:BA:1897:G:H2'	25:BA:1898:U:O4'	2.10	0.51
38:BR:18:LEU:HD13	38:BR:19:ALA:N	2.24	0.51
48:B1:11:ARG:HE	48:B1:61:ARG:H	1.59	0.51
49:D2:9:GLN:C	49:D2:12:GLU:HB3	2.31	0.51
5:CC:31:HIS:O	5:CC:35:GLU:HG2	2.10	0.51
15:AM:71:ARG:HA	15:AM:74:VAL:HG23	1.91	0.51
27:BD:31:LYS:CD	27:BD:94:LEU:HD11	2.40	0.51
1:CA:1230:C:H2'	1:CA:1231:G:C8	2.45	0.51
25:DA:780:G:N2	25:DA:783:A:N6	2.46	0.51
12:AJ:62:HIS:O	12:AJ:62:HIS:HD2	1.93	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AS:30:LEU:HG	21:AS:31:ILE:N	2.23	0.51
25:DA:2014:A:O5'	25:DA:2014:A:H8	1.94	0.51
25:BA:2093:G:C6	25:BA:2225:A:C8	2.98	0.51
25:BA:197:A:H61	25:BA:2431:U:H5'	1.75	0.51
25:DA:846:C:C2	25:DA:847:U:H5	2.28	0.51
30:DG:98:ARG:O	30:DG:101:ILE:HG12	2.10	0.51
52:D5:3:LYS:O	52:D5:4:HIS:C	2.48	0.51
9:AG:133:GLY:O	9:AG:137:LYS:HG3	2.10	0.51
21:CS:53:ASN:C	21:CS:53:ASN:HD22	2.13	0.51
1:AA:1442:G:C8	1:AA:1442:G:C3'	2.92	0.51
11:AI:79:LEU:CD1	11:AI:83:ARG:HD2	2.40	0.51
36:DP:88:LEU:HD22	36:DP:114:ILE:HG21	1.93	0.51
1:AA:407:G:H2'	1:AA:408:A:H8	1.74	0.51
4:AB:95:GLN:HA	4:AB:96:ARG:NH2	2.25	0.51
1:CA:1108:G:H5'	5:CC:176:HIS:CD2	2.45	0.51
25:DA:1356:G:C6	25:DA:1357:U:C4	2.98	0.51
10:CH:91:ARG:HG2	10:CH:91:ARG:HH11	1.73	0.51
14:AL:6:ILE:HD12	14:AL:7:ASN:H	1.74	0.51
25:DA:71:A:H2	44:DX:31:HIS:HE1	1.58	0.51
25:DA:212:G:O2'	25:DA:213:A:H5'	2.09	0.51
35:DO:4:PRO:O	35:DO:5:GLN:HB2	2.10	0.51
1:CA:266:G:H5''	1:CA:268:C:H41	1.75	0.51
29:BF:160:ASN:OD1	29:BF:163:VAL:HG23	2.11	0.51
1:CA:1405:G:H21	1:CA:1518:A:H1'	1.75	0.51
25:DA:280:C:C2	25:DA:361:G:C2	2.98	0.51
25:BA:1165:U:H2'	25:BA:1166:C:C6	2.46	0.51
1:AA:1123:A:H4'	12:AJ:36:GLY:HA3	1.91	0.51
1:AA:1269:A:H5'	23:AU:19:GLY:HA2	1.92	0.51
25:DA:1411:C:H2'	25:DA:1412:A:C8	2.46	0.51
25:DA:455:C:N3	25:DA:472:A:H2'	2.25	0.51
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.46	0.51
1:CA:841:U:O2'	1:CA:842:C:H5''	2.09	0.51
24:AX:368:ARG:O	24:AX:372:THR:HG22	2.10	0.51
40:DT:78:LEU:O	40:DT:78:LEU:HD13	2.11	0.51
8:AF:4:TYR:O	8:AF:64:GLN:HA	2.10	0.51
17:CO:29:VAL:HG12	17:CO:30:ALA:N	2.25	0.51
30:BG:43:LEU:C	30:BG:45:GLU:H	2.13	0.51
42:BV:52:VAL:CG1	42:BV:55:ALA:HB3	2.39	0.51
49:B2:47:ASN:HD22	49:B2:47:ASN:N	2.07	0.51
41:BU:90:VAL:CG2	41:BU:91:ASP:H	2.04	0.51
26:BB:56:G:H4'	26:BB:57:A:C8	2.45	0.51
27:DD:31:LYS:HE2	27:DD:102:LYS:HD3	1.93	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:310:A:HO2'	25:DA:311:A:H2'	1.74	0.51
11:CI:53:VAL:HG12	11:CI:95:LYS:NZ	2.25	0.51
25:BA:662:G:P	36:BP:18:ARG:HD2	2.50	0.51
25:DA:1678:G:N2	25:DA:1989:G:N2	2.51	0.51
4:AB:167:PRO:HD3	4:AB:187:LEU:O	2.10	0.51
7:CE:101:ILE:HG12	7:CE:118:ILE:O	2.11	0.51
25:DA:796:C:H2'	25:DA:797:C:H6	1.74	0.51
14:AL:5:THR:OG1	14:AL:8:GLN:HG3	2.10	0.51
1:AA:1332:A:H2'	1:AA:1333:A:H8	1.72	0.51
25:DA:2822:G:O6	38:DR:4:LEU:HD12	2.10	0.51
1:AA:523:A:N6	14:AL:91:ASP:HB2	2.23	0.51
29:BF:89:VAL:O	29:BF:91:GLY:N	2.42	0.51
25:DA:573:G:N2	25:DA:2029:G:N2	2.58	0.51
18:AP:22:THR:HA	18:AP:33:ILE:HG12	1.91	0.51
38:DR:53:HIS:HB2	38:DR:94:TYR:HE1	1.76	0.51
1:AA:939:G:H2'	1:AA:940:C:C6	2.44	0.51
38:BR:80:PHE:O	38:BR:85:PRO:HD3	2.11	0.51
25:BA:643:A:OP1	53:B6:42:TRP:NE1	2.42	0.51
38:BR:53:HIS:HB2	38:BR:94:TYR:HE1	1.76	0.51
25:BA:483:A:H4'	45:BY:49:VAL:CG2	2.40	0.51
25:BA:2718:G:H2'	25:BA:2719:G:C8	2.46	0.51
7:CE:6:PHE:HB2	7:CE:34:VAL:HG13	1.91	0.51
8:CF:4:TYR:O	8:CF:64:GLN:HA	2.10	0.51
7:CE:41:VAL:CG2	7:CE:113:ALA:HA	2.40	0.51
31:BH:26:VAL:HG11	31:BH:76:VAL:HA	1.92	0.51
1:AA:864:A:H2'	1:AA:865:A:C8	2.45	0.51
25:BA:394:A:O2'	25:BA:395:U:H5'	2.10	0.51
32:DI:133:HIS:ND1	32:DI:134:PRO:HD2	2.25	0.51
35:BO:105:GLU:OE1	35:BO:105:GLU:N	2.43	0.51
45:BY:30:VAL:HG13	45:BY:37:VAL:HG12	1.93	0.51
16:CN:39:LEU:HB3	16:CN:43:CYS:SG	2.50	0.51
8:AF:68:PRO:HB2	8:AF:70:ASP:OD1	2.10	0.51
25:BA:1161:C:H1'	42:BV:8:GLY:O	2.10	0.51
36:DP:40:SER:O	36:DP:41:ARG:NE	2.44	0.51
36:DP:51:PHE:HB3	36:DP:52:GLU:HG2	1.93	0.51
41:BU:66:ASN:HB2	41:BU:76:TYR:HB2	1.92	0.51
49:B2:17:SER:O	49:B2:18:PRO:C	2.49	0.51
22:AT:23:ARG:NH1	22:AT:24:LEU:HD22	2.26	0.51
22:CT:72:LEU:HD11	22:CT:77:ALA:HA	1.92	0.51
25:BA:2286:A:C8	25:BA:2287:A:N6	2.78	0.51
25:DA:1825:A:H2'	25:DA:1826:G:H8	1.75	0.51
21:CS:49:ILE:N	21:CS:49:ILE:HD12	2.26	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1300:G:O2'	1:CA:1301:U:P	2.69	0.51
25:BA:2542:A:H4'	25:BA:2542:A:OP1	2.10	0.51
32:BI:126:TYR:H	32:BI:142:VAL:HG23	1.74	0.51
7:AE:118:ILE:HG12	7:AE:120:THR:CG2	2.41	0.51
26:DB:66:A:C2	26:DB:108:C:C2	2.98	0.51
45:DY:81:LYS:HB3	45:DY:97:ARG:CB	2.38	0.51
14:CL:49:SER:O	14:CL:50:ALA:CB	2.58	0.51
25:BA:943:U:OP1	36:BP:38:GLN:HB3	2.10	0.51
25:BA:2491:U:H6	25:BA:2491:U:C5'	2.20	0.51
1:CA:973:G:OP1	12:CJ:57:LYS:NZ	2.42	0.51
38:BR:72:ASP:O	38:BR:76:VAL:HG13	2.11	0.51
26:DB:89(B):A:H8	26:DB:89(B):A:O5'	1.93	0.51
13:AK:21:ILE:CD1	13:AK:82:VAL:HG13	2.41	0.51
19:CQ:90:ILE:O	19:CQ:93:GLN:HB2	2.11	0.51
1:CA:1493:A:C4	25:DA:1913:A:C4	2.98	0.51
1:AA:222:U:H2'	1:AA:223:U:H6	1.71	0.51
4:AB:17:PHE:HD2	4:AB:17:PHE:N	2.08	0.51
25:DA:840:C:H2'	25:DA:841:A:C8	2.46	0.51
25:BA:573:G:O2'	25:BA:574:C:H3'	2.10	0.51
27:BD:131:LEU:HG	27:BD:136:ILE:HD11	1.91	0.51
45:BY:11:ASP:O	45:BY:27:VAL:HG13	2.11	0.51
20:AR:45:SER:HB3	20:AR:51:LEU:HG	1.92	0.51
32:BI:87:LYS:CG	32:BI:88:ILE:N	2.73	0.51
19:CQ:26:GLN:O	19:CQ:27:PHE:HB3	2.11	0.51
25:DA:536:A:H2'	25:DA:537:C:H6	1.74	0.51
25:DA:1374:G:C6	25:DA:1375:C:C4	2.99	0.51
1:AA:836:G:C6	1:AA:851:G:C6	2.99	0.51
4:AB:212:GLN:HG3	4:AB:235:SER:HB2	1.93	0.51
1:CA:965:A:C2	1:CA:969:A:N1	2.79	0.51
6:AD:50:ARG:HA	6:AD:50:ARG:HH11	1.74	0.51
25:BA:1682:G:C6	25:BA:1683:C:C4	2.98	0.51
1:AA:538:G:OP2	14:AL:114:LYS:HB2	2.10	0.51
19:AQ:3:LYS:O	19:AQ:4:LYS:C	2.49	0.51
25:DA:895:U:H2'	25:DA:897:C:H5	1.75	0.51
1:AA:763:G:H2'	1:AA:764:C:H6	1.76	0.51
1:AA:15:G:H4'	7:AE:24:ARG:NH1	2.26	0.51
36:DP:108:LYS:C	36:DP:110:TYR:N	2.64	0.51
1:CA:1397:C:OP2	3:CV:23:A:N6	2.44	0.51
1:CA:505:G:C6	1:CA:535:A:C2	2.99	0.51
25:DA:1682:G:H2'	25:DA:1683:C:C6	2.46	0.51
1:CA:82:U:H2'	1:CA:85:U:C5	2.45	0.51
1:AA:82:U:H2'	1:AA:85:U:C5	2.46	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BU:61:TRP:CZ3	41:BU:94:ASN:HB2	2.46	0.51
25:BA:1152:C:H2'	25:BA:1153:C:H6	1.74	0.51
24:CX:85:LEU:O	24:CX:89:MET:HB3	2.10	0.51
45:DY:71:LYS:HB2	45:DY:71:LYS:NZ	2.25	0.51
45:DY:6:HIS:HB3	45:DY:35:TYR:HE2	1.76	0.51
11:CI:28:VAL:HG13	11:CI:63:ILE:HB	1.92	0.51
25:BA:1825:A:H2'	25:BA:1826:G:C8	2.45	0.51
1:AA:1305:G:O2'	1:AA:1331:G:N2	2.44	0.51
37:DQ:35:VAL:HG12	37:DQ:130:LYS:O	2.10	0.51
4:AB:51:LEU:HD22	4:AB:55:PHE:HE2	1.74	0.51
22:CT:50:GLU:HG3	22:CT:51:GLU:N	2.19	0.51
25:BA:2567:G:H2'	25:BA:2568:C:H6	1.74	0.51
25:DA:2173:A:H2'	25:DA:2174:C:O4'	2.10	0.51
25:BA:1057:A:H2'	25:BA:1058:G:C8	2.45	0.51
22:AT:100:ILE:O	22:AT:102:GLY:N	2.36	0.51
19:CQ:22:LEU:HD11	19:CQ:39:SER:HB2	1.91	0.51
36:BP:132:LYS:HD3	36:BP:132:LYS:H	1.74	0.51
25:DA:2210:G:N2	25:DA:2211:G:C5'	2.72	0.51
2:AZ:39:C:O2'	13:AK:54:ARG:NH2	2.43	0.51
25:BA:1301:A:C8	25:BA:1303:G:C8	2.98	0.51
39:BS:93:LYS:O	39:BS:98:VAL:HG21	2.11	0.51
27:DD:131:LEU:HB2	27:DD:132:PRO:HD2	1.90	0.51
25:DA:483:A:O3'	45:DY:49:VAL:HG22	2.11	0.51
37:BQ:55:VAL:CG2	37:BQ:56:ARG:N	2.74	0.51
31:DH:55:PRO:HG2	31:DH:61:HIS:HE2	1.75	0.51
10:AH:85:ARG:HA	10:AH:135:CYS:HB3	1.92	0.51
53:B6:42:TRP:HA	53:B6:42:TRP:HE3	1.75	0.51
24:AX:145:TRP:CE2	24:AX:149:LEU:HD11	2.46	0.51
25:DA:1349:A:N6	25:DA:1598:C:N4	2.58	0.51
1:AA:404:U:H2'	1:AA:405:U:C6	2.46	0.51
25:BA:40:C:H2'	25:BA:41:C:C6	2.46	0.51
1:CA:398:C:O2'	1:CA:399:G:H5'	2.10	0.51
25:BA:1952:A:C5	35:BO:22:ILE:CD1	2.94	0.51
40:DT:53:ARG:HD3	40:DT:60:THR:OG1	2.11	0.51
25:DA:1603:A:C8	25:DA:1603:A:H5'	2.45	0.51
6:CD:134:ASP:O	6:CD:136:PRO:HD3	2.11	0.51
25:BA:180:G:H5''	25:BA:181:A:OP1	2.11	0.51
46:BZ:93:ASP:HA	46:BZ:130:PRO:HG2	1.91	0.51
17:AO:74:ASP:OD2	17:AO:74:ASP:C	2.49	0.51
44:BX:15:GLU:CD	44:BX:15:GLU:H	2.12	0.51
48:B1:9:GLY:O	48:B1:13:ILE:HG21	2.11	0.51
25:DA:943:U:OP2	36:DP:38:GLN:OE1	2.29	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CJ:96:ILE:N	12:CJ:96:ILE:HD13	2.25	0.51
25:BA:126:A:C5	54:B7:18:PHE:CD1	2.99	0.51
25:DA:1046:A:H3'	25:DA:1047:G:C5'	2.37	0.51
10:AH:25:ASP:OD1	10:AH:60:ARG:HD3	2.10	0.51
25:BA:1544:C:H3'	25:BA:1545:A:C5'	2.40	0.51
25:BA:907:U:H4'	37:BQ:101:ARG:NH2	2.20	0.51
15:CM:49:THR:HB	15:CM:52:GLU:CG	2.40	0.51
47:B0:56:ASP:CG	47:B0:58:THR:HG1	2.14	0.51
1:AA:114:U:H2'	1:AA:115:G:H8	1.73	0.51
7:AE:101:ILE:HG12	7:AE:118:ILE:O	2.11	0.51
25:DA:2419:U:H5''	55:D8:33:ASN:HD21	1.73	0.51
11:AI:119:ALA:O	11:AI:120:ARG:HG3	2.11	0.51
25:BA:142:G:H2'	25:BA:143:C:H6	1.75	0.51
25:DA:464:U:H4'	54:D7:5:TRP:CZ3	2.46	0.51
14:CL:41:THR:HA	14:CL:52:ARG:O	2.11	0.51
42:BV:78:LYS:HG3	42:BV:79:VAL:HG23	1.92	0.51
1:CA:1152:A:O2'	1:CA:1153:C:H5'	2.10	0.51
4:AB:77:ALA:O	4:AB:81:VAL:HG23	2.11	0.51
25:BA:1005:C:H2'	25:BA:1006:C:H6	1.74	0.51
13:AK:57:THR:HG22	13:AK:59:TYR:N	2.24	0.51
25:BA:480:A:H1'	45:BY:44:ILE:HG21	1.92	0.51
25:DA:16:G:O2'	25:DA:17:G:H5'	2.10	0.51
25:DA:2134:A:N1	25:DA:2159:G:H1'	2.25	0.51
30:DG:121:ASN:HD22	30:DG:122:PRO:N	2.08	0.51
2:AZ:23:C:H2'	2:AZ:24:U:C6	2.46	0.51
40:DT:75:ILE:HD12	40:DT:75:ILE:N	2.25	0.51
1:AA:576:G:H3'	1:AA:577:G:H5''	1.92	0.51
25:DA:2389:G:H5''	25:DA:2390:U:O4'	2.11	0.51
42:BV:21:ARG:NH2	42:BV:91:TYR:CZ	2.78	0.51
7:CE:12:LEU:C	7:CE:13:ILE:HD12	2.31	0.51
25:DA:1805:U:O2	27:DD:50:THR:HB	2.11	0.51
36:BP:108:LYS:C	36:BP:110:TYR:N	2.63	0.51
1:AA:384:G:H2'	1:AA:385:C:C6	2.45	0.51
1:CA:1084:G:C5	1:CA:1085:U:C4	2.99	0.51
25:BA:846:C:C2	25:BA:847:U:H5	2.29	0.51
48:D1:40:ARG:HD3	48:D1:40:ARG:C	2.31	0.51
24:CX:152:MET:SD	24:CX:350:LEU:HD12	2.50	0.51
1:CA:509:A:C8	1:CA:509:A:H3'	2.45	0.51
1:CA:236:G:C6	1:CA:237:C:C4	2.99	0.51
25:DA:195:A:H4'	25:DA:251:A:O2'	2.11	0.51
36:BP:47:ASP:HB2	36:BP:51:PHE:HB2	1.93	0.51
30:BG:115:ARG:HD2	30:BG:115:ARG:N	2.26	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BD:142:VAL:HG22	27:BD:143:HIS:N	2.26	0.51
27:DD:246:PRO:HB2	27:DD:255:LYS:HG3	1.93	0.51
21:CS:6:LYS:HD3	21:CS:7:LYS:HE3	1.92	0.51
25:DA:286:C:H2'	25:DA:287:C:C6	2.46	0.51
1:CA:1308:U:OP1	15:CM:98:VAL:HG23	2.10	0.51
25:BA:2172:U:H5'	25:BA:2173:A:OP2	2.10	0.51
33:DK:57:ILE:HG23	33:DK:65:PHE:CD1	2.44	0.51
25:BA:2721:A:O2'	25:BA:2722:G:H5'	2.11	0.51
1:AA:312:C:N4	1:AA:313:A:N6	2.59	0.51
1:AA:523:A:N6	14:AL:52:ARG:NH1	2.54	0.51
33:BK:115:LEU:HD11	33:BK:126:MET:HE2	1.91	0.51
6:AD:62:GLN:HA	6:AD:62:GLN:NE2	2.26	0.51
25:BA:2767:C:H2'	25:BA:2768:C:H6	1.76	0.51
30:DG:73:ALA:O	30:DG:85:GLY:HA2	2.11	0.51
11:CI:10:ARG:HD2	11:CI:11:LYS:HG3	1.93	0.51
1:AA:412:A:N3	6:AD:35:ARG:NH2	2.59	0.51
25:DA:781:A:C2	25:DA:1776:G:N3	2.78	0.51
45:BY:81:LYS:HZ3	45:BY:98:VAL:HG12	1.74	0.51
21:AS:11:VAL:HG22	21:AS:16:LEU:HD11	1.93	0.51
25:DA:581:C:H2'	25:DA:582:G:C8	2.46	0.51
40:BT:3:ARG:O	40:BT:6:LEU:N	2.44	0.51
10:AH:73:ASP:C	10:AH:75:ARG:H	2.14	0.51
25:BA:902:C:H2'	25:BA:903:C:H6	1.76	0.51
1:AA:179:A:H2'	1:AA:180:U:C6	2.44	0.51
25:BA:2749:A:H4'	31:BH:62:LYS:HB3	1.91	0.51
25:DA:1483:G:H2'	25:DA:1484:G:C8	2.46	0.51
25:DA:1434:A:H61	25:DA:1558:A:H62	1.56	0.51
13:AK:69:ALA:HB1	13:AK:103:LEU:HD23	1.92	0.51
1:CA:147:G:H1	1:CA:175:C:H42	1.59	0.51
9:AG:115:ARG:O	9:AG:118:VAL:HG22	2.11	0.51
30:DG:177:GLY:O	30:DG:179:PRO:HD3	2.10	0.51
38:BR:37:THR:OG1	38:BR:40:LYS:HE2	2.11	0.51
25:DA:265:A:C6	25:DA:428:A:C4	2.98	0.51
35:DO:98:VAL:HG23	35:DO:99:PHE:N	2.26	0.51
6:CD:122:ARG:HD3	6:CD:122:ARG:O	2.10	0.51
25:BA:247:G:H4'	25:BA:386:G:C5	2.46	0.51
25:BA:895:U:H2'	25:BA:897:C:H5	1.75	0.51
21:AS:22:LEU:O	21:AS:26:GLY:HA2	2.10	0.51
5:AC:150:LYS:HG3	5:AC:169:ALA:HB2	1.91	0.51
48:D1:13:ILE:O	48:D1:14:VAL:CB	2.57	0.51
1:CA:87:A:H5''	1:CA:88:C:OP2	2.11	0.51
30:BG:136:ARG:O	30:BG:137:GLU:C	2.47	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1019:U:O2'	25:BA:1021:A:H2	1.94	0.51
25:DA:126:A:C8	25:DA:126:A:H5''	2.46	0.51
30:DG:64:THR:HG23	30:DG:66:GLN:H	1.75	0.51
25:DA:1029:A:H8	25:DA:1029:A:O5'	1.93	0.51
1:CA:949:A:C2	1:CA:1233:G:N3	2.79	0.51
25:DA:2517:C:C6	25:DA:2542:A:C2	2.98	0.51
24:AX:131:LEU:HB3	24:AX:182:ILE:HG23	1.93	0.51
1:AA:1148:U:H5	1:AA:1149:C:C4	2.29	0.51
9:AG:57:GLU:CD	9:AG:57:GLU:N	2.59	0.51
6:CD:164:ALA:O	6:CD:166:LYS:HE3	2.11	0.51
39:DS:58:LEU:CD1	39:DS:58:LEU:H	2.20	0.51
21:AS:63:THR:HG22	21:AS:66:MET:HE3	1.93	0.51
27:BD:111:LEU:HD22	27:BD:115:GLN:CD	2.31	0.51
1:AA:949:A:C2	1:AA:1233:G:N3	2.79	0.51
25:BA:464:U:H4'	54:B7:5:TRP:CZ3	2.46	0.51
25:BA:2572:A:C8	28:BE:144:ARG:CB	2.93	0.51
25:BA:2536:G:C6	25:BA:2537:U:C4	2.98	0.51
9:AG:150:ALA:O	13:AK:57:THR:HG21	2.11	0.51
18:AP:20:VAL:HG23	18:AP:34:GLU:O	2.11	0.51
25:DA:864:G:C4	25:DA:865:C:C5	2.99	0.51
25:DA:2018:G:C6	25:DA:2019:A:C6	2.99	0.51
25:DA:2400:G:N2	25:DA:2417:C:C2	2.79	0.51
26:DB:56:G:H4'	26:DB:57:A:C8	2.46	0.51
38:BR:53:HIS:HD2	38:BR:94:TYR:OH	1.94	0.51
39:DS:42:ASP:O	39:DS:43:GLU:HB3	2.11	0.51
24:CX:52:TRP:O	24:CX:52:TRP:HE3	1.93	0.51
1:AA:1405:G:H21	1:AA:1518:A:H1'	1.76	0.51
1:AA:368:U:N3	32:DI:89:TYR:HB3	2.26	0.51
23:AU:18:TYR:O	23:AU:22:ARG:HB3	2.11	0.51
13:AK:18:ARG:HB2	13:AK:33:THR:CG2	2.41	0.51
25:DA:2787:C:H4'	28:DE:62:PRO:HB3	1.91	0.51
9:AG:88:PRO:HG3	9:AG:148:ASN:O	2.11	0.51
35:DO:35:VAL:HA	35:DO:62:VAL:HG12	1.93	0.51
52:B5:33:CYS:HB2	52:B5:35:GLU:OE1	2.10	0.51
25:BA:2637:U:H5''	28:BE:82:ARG:HH21	1.75	0.51
6:AD:95:GLY:O	6:AD:99:SER:HB2	2.11	0.51
25:BA:614:U:H4'	25:BA:615:G:H5''	1.93	0.51
1:CA:574:A:N3	1:CA:883:C:H1'	2.25	0.51
1:CA:81:G:N7	1:CA:82:U:N3	2.59	0.51
25:DA:941:A:O2'	36:DP:35:HIS:CD2	2.64	0.51
49:B2:48:HIS:HE1	49:B2:49:LYS:NZ	2.08	0.51
12:AJ:38:ILE:HD12	12:AJ:71:LEU:HG	1.92	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BY:8:LYS:HG2	45:BY:13:VAL:CG2	2.41	0.51
32:BI:83:ALA:HA	32:BI:89:TYR:H	1.75	0.51
40:BT:23:ARG:HB2	40:BT:24:PRO:HD2	1.92	0.51
34:BN:156:GLN:C	34:BN:158:PRO:HD3	2.31	0.51
24:AX:128:ASN:ND2	24:AX:185:LYS:HA	2.25	0.51
1:CA:1147:C:O5'	1:CA:1147:C:H6	1.94	0.51
29:BF:36:VAL:HG12	29:BF:183:VAL:HG21	1.92	0.51
32:BI:120:ILE:H	32:BI:120:ILE:HD12	1.76	0.51
4:AB:18:GLY:N	4:AB:42:ILE:HG22	2.22	0.51
25:DA:380:U:H4'	48:D1:21:ARG:O	2.11	0.51
25:BA:1077:A:H61	25:BA:1088:A:C5'	2.23	0.51
14:AL:49:SER:O	14:AL:50:ALA:CB	2.59	0.51
25:DA:773:U:H4'	27:DD:47:GLY:CA	2.40	0.51
11:CI:112:LYS:HE3	11:CI:116:LYS:O	2.10	0.51
1:CA:61:G:H2'	1:CA:62:U:O4'	2.11	0.51
36:BP:88:LEU:HD22	36:BP:114:ILE:HG21	1.93	0.51
25:DA:464:U:C2	25:DA:788:A:C6	3.00	0.51
1:CA:17:U:O4'	1:CA:1080:A:H1'	2.11	0.51
46:DZ:108:PRO:CG	46:DZ:141:VAL:HG22	2.40	0.51
25:DA:1510:A:H2'	25:DA:1511:A:O4'	2.11	0.51
25:DA:2862:G:H2'	25:DA:2863:C:H6	1.74	0.51
25:BA:781:A:C2	25:BA:1776:G:N3	2.79	0.51
50:D3:50:VAL:O	50:D3:54:VAL:HG22	2.10	0.51
38:DR:80:PHE:O	38:DR:85:PRO:HD3	2.11	0.51
24:AX:145:TRP:HH2	24:AX:200:HIS:HB3	1.75	0.51
34:DN:161:LEU:HD23	34:DN:161:LEU:N	2.26	0.51
53:D6:42:TRP:HA	53:D6:42:TRP:HE3	1.76	0.51
25:DA:1839:G:H8	25:DA:1839:G:H5'	1.76	0.51
34:DN:90:LEU:O	34:DN:111:GLU:HG3	2.11	0.51
13:AK:22:HIS:HB3	13:AK:29:ILE:HG12	1.91	0.51
31:BH:105:LEU:HD12	31:BH:105:LEU:N	2.26	0.51
2:CY:47:U:H3'	2:CY:48:C:C5'	2.40	0.51
46:DZ:86:VAL:HG12	46:DZ:87:ASP:N	2.25	0.51
1:CA:486:U:H2'	1:CA:487:A:C8	2.46	0.51
31:DH:107:VAL:HG23	31:DH:109:PHE:HD1	1.76	0.51
1:AA:38:G:C2	1:AA:397:A:C2	2.98	0.51
25:BA:2606:C:C2'	25:BA:2607:G:H5'	2.41	0.51
31:DH:121:ILE:HD11	31:DH:140:LYS:HB3	1.93	0.51
1:CA:1176:A:H2'	1:CA:1177:G:C8	2.46	0.51
8:CF:68:PRO:HB2	8:CF:70:ASP:OD1	2.10	0.51
9:CG:115:ARG:O	9:CG:118:VAL:HG22	2.10	0.51
36:DP:96:THR:HG23	36:DP:99:LEU:HD22	1.93	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DG:111:LEU:HB2	30:DG:112:PRO:HD3	1.91	0.51
14:AL:78:GLU:O	14:AL:79:HIS:CG	2.64	0.51
28:BE:78:LEU:HD23	28:BE:78:LEU:N	2.26	0.51
1:AA:160:A:H2'	1:AA:161:A:O4'	2.10	0.51
25:BA:2373:G:H2'	25:BA:2374:C:C6	2.46	0.51
24:AX:100:LEU:O	24:AX:100:LEU:HG	2.11	0.50
12:AJ:94:VAL:CG1	12:AJ:95:GLU:N	2.74	0.50
15:AM:78:ILE:HA	15:AM:81:LEU:HD12	1.92	0.50
1:CA:1230:C:H2'	1:CA:1231:G:H8	1.76	0.50
37:BQ:24:GLY:HA2	37:BQ:100:GLY:C	2.31	0.50
25:BA:2199:A:C8	25:BA:2205:C:C5	3.00	0.50
38:DR:8:ARG:HD3	38:DR:10:LEU:HD23	1.93	0.50
10:CH:25:ASP:OD1	10:CH:60:ARG:HD3	2.10	0.50
43:BW:84:ARG:O	43:BW:96:ILE:N	2.44	0.50
25:BA:2334:G:H4'	25:BA:2335:A:OP2	2.12	0.50
24:CX:315:VAL:HG22	24:CX:317:PRO:HD3	1.92	0.50
25:BA:1332:G:N2	25:BA:1609:A:O2'	2.38	0.50
25:DA:2210:G:H21	25:DA:2211:G:C4'	2.24	0.50
25:DA:2481:G:O2'	25:DA:2482:G:P	2.69	0.50
29:DF:29:ASN:H	29:DF:112:MET:HE3	1.76	0.50
11:CI:79:LEU:CD1	11:CI:83:ARG:HD2	2.40	0.50
9:AG:30:ILE:HD12	9:AG:120:ILE:CD1	2.41	0.50
9:AG:47:CYS:HB3	9:AG:58:PRO:HG3	1.93	0.50
25:DA:581:C:H2'	25:DA:582:G:H8	1.75	0.50
2:CZ:23:C:H2'	2:CZ:24:U:C6	2.47	0.50
45:DY:11:ASP:O	45:DY:27:VAL:HG13	2.11	0.50
25:DA:297:C:N4	25:DA:298:G:C2	2.79	0.50
25:BA:2298:A:N6	25:BA:2318:G:H2'	2.26	0.50
25:DA:2749:A:H1'	31:DH:63:SER:OG	2.10	0.50
19:AQ:26:GLN:HB3	19:AQ:37:LYS:HG2	1.93	0.50
51:D4:40:ILE:HG13	51:D4:57:ILE:HG21	1.93	0.50
25:DA:1263:U:H2'	25:DA:1264:G:C8	2.45	0.50
25:BA:1603:A:H5'	25:BA:1603:A:C8	2.46	0.50
52:B5:6:VAL:HG13	52:B5:7:PRO:HD2	1.91	0.50
4:CB:72:GLY:HA2	4:CB:165:VAL:HG22	1.93	0.50
14:CL:16:LYS:HD3	14:CL:17:VAL:HG22	1.93	0.50
14:CL:33:ARG:CG	14:CL:34:GLY:N	2.73	0.50
25:BA:768:G:C6	25:BA:769:G:C5	2.99	0.50
1:CA:174:C:H2'	1:CA:175:C:C6	2.46	0.50
1:CA:1085:U:H3'	1:CA:1086:U:C5	2.46	0.50
25:DA:1690:A:H2'	25:DA:1691:C:O4'	2.11	0.50
25:BA:1258:C:O4'	29:BF:84:VAL:HG11	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AX:152:MET:SD	24:AX:350:LEU:HD12	2.51	0.50
25:BA:1132:A:OP1	34:BN:105:LEU:HD23	2.10	0.50
30:DG:143:GLU:O	51:D4:54:LYS:NZ	2.45	0.50
50:B3:53:LEU:N	50:B3:53:LEU:HD12	2.26	0.50
25:BA:2185:C:H6	25:BA:2185:C:O5'	1.94	0.50
1:AA:1135:U:O5'	1:AA:1135:U:H6	1.94	0.50
1:CA:506:G:C6	1:CA:507:C:C4	2.99	0.50
5:CC:35:GLU:O	5:CC:38:ARG:HG3	2.10	0.50
29:BF:9:ILE:HG12	29:BF:20:LEU:HB2	1.93	0.50
11:CI:55:ALA:HB1	11:CI:59:PHE:CD1	2.46	0.50
1:CA:1305:G:N2	1:CA:1331:G:C2'	2.74	0.50
25:BA:2115:G:C6	25:BA:2117:A:H3'	2.47	0.50
25:DA:1055:G:HO2'	25:DA:1085:A:H2	1.59	0.50
20:CR:50:ILE:HD11	20:CR:74:ARG:NH1	2.26	0.50
20:AR:66:LEU:O	20:AR:70:ILE:HG12	2.12	0.50
25:BA:2199:A:H4'	32:BI:28:ASN:OD1	2.11	0.50
10:CH:88:LYS:HB3	10:CH:89:PRO:HD2	1.94	0.50
5:AC:27:LYS:HG3	5:AC:28:GLN:HG2	1.93	0.50
7:CE:101:ILE:CD1	7:CE:119:LEU:HD23	2.38	0.50
43:DW:110:LYS:O	43:DW:111:HIS:HB3	2.11	0.50
47:B0:51:VAL:CG2	47:B0:80:HIS:HA	2.36	0.50
30:BG:96:ARG:HG3	30:BG:98:ARG:H	1.76	0.50
36:DP:58:THR:C	36:DP:61:ARG:NE	2.64	0.50
25:DA:773:U:H5'	27:DD:47:GLY:HA3	1.92	0.50
24:CX:316:ARG:N	24:CX:317:PRO:HD3	2.25	0.50
25:BA:2888:C:H2'	25:BA:2889:C:H6	1.76	0.50
14:CL:37:THR:HG22	14:CL:56:LYS:O	2.11	0.50
24:CX:229:GLU:CG	24:CX:230:GLU:H	2.24	0.50
25:BA:2572:A:OP1	25:BA:2574:G:H4'	2.11	0.50
25:DA:483:A:H4'	45:DY:49:VAL:CG2	2.40	0.50
25:DA:2815:C:O2'	52:D5:43:HIS:HD2	1.95	0.50
19:CQ:7:THR:CG2	19:CQ:58:GLU:HG2	2.40	0.50
27:BD:131:LEU:HB2	27:BD:132:PRO:HD2	1.93	0.50
38:DR:55:ALA:CB	38:DR:79:LEU:HD22	2.42	0.50
25:DA:2019:A:H2'	25:DA:2020:A:O5'	2.11	0.50
25:DA:189:G:H2'	25:DA:205:G:N2	2.26	0.50
1:AA:1003:G:H2'	1:AA:1004:A:H5'	1.93	0.50
25:BA:212:G:O2'	25:BA:213:A:H5'	2.10	0.50
51:D4:40:ILE:HG22	51:D4:40:ILE:O	2.11	0.50
1:CA:38:G:C2	1:CA:397:A:C2	2.98	0.50
27:DD:228:PRO:HD3	27:DD:234:GLY:O	2.11	0.50
44:DX:40:LYS:O	44:DX:44:GLU:HB2	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:69:C:H2'	25:DA:70:G:C8	2.46	0.50
25:BA:1252:G:O4'	41:BU:33:ARG:HD2	2.10	0.50
25:BA:2006:C:H2'	25:BA:2007:C:C6	2.45	0.50
27:DD:134:ARG:HG3	27:DD:187:GLY:O	2.11	0.50
31:DH:108:GLY:HA3	31:DH:152:ARG:NH2	2.25	0.50
25:DA:2531:A:H5''	31:DH:157:TYR:CE2	2.47	0.50
19:CQ:40:LYS:HD3	19:CQ:42:TYR:CZ	2.47	0.50
38:BR:48:VAL:O	38:BR:51:LEU:HB2	2.11	0.50
40:BT:41:ARG:NH2	40:BT:42:ILE:HD12	2.26	0.50
25:BA:754:C:H2'	25:BA:755:C:C6	2.46	0.50
25:BA:2240:C:O2'	25:BA:2241:A:H5'	2.10	0.50
14:AL:116:ARG:HD2	14:AL:121:THR:HG22	1.93	0.50
25:DA:1654:A:OP2	38:DR:3:HIS:CD2	2.64	0.50
25:DA:1078:U:H5''	25:DA:1078:U:H6	1.76	0.50
27:DD:25:THR:HG21	27:DD:81:ALA:CB	2.40	0.50
37:BQ:70:PRO:HA	37:BQ:94:VAL:O	2.11	0.50
12:AJ:9:ARG:NH2	12:AJ:95:GLU:HG2	2.12	0.50
25:BA:1152:C:H4'	41:BU:77:SER:HA	1.93	0.50
25:DA:126:A:H8	25:DA:126:A:H5''	1.76	0.50
1:CA:1287:A:H5'	1:CA:1287:A:H8	1.76	0.50
46:BZ:81:ARG:O	46:BZ:82:ARG:HB2	2.10	0.50
8:AF:87:ARG:NH1	8:AF:87:ARG:HG3	2.26	0.50
25:DA:1056:G:H5''	25:DA:1057:A:O4'	2.12	0.50
25:DA:1057:A:H2'	25:DA:1058:G:C8	2.46	0.50
14:CL:31:PHE:CB	14:CL:83:LEU:HD11	2.37	0.50
5:AC:58:GLU:O	5:AC:64:VAL:HA	2.11	0.50
29:DF:181:LEU:CD2	29:DF:186:ILE:HD11	2.42	0.50
30:DG:6:ALA:O	30:DG:10:LYS:HG3	2.12	0.50
5:AC:77:ILE:C	5:AC:83:ARG:HB3	2.32	0.50
25:DA:1491:G:O2'	25:DA:1492:G:H5'	2.11	0.50
44:DX:34:ALA:HB1	44:DX:39:ILE:CD1	2.42	0.50
39:DS:57:LYS:HZ2	39:DS:58:LEU:HD11	1.76	0.50
15:AM:84:ILE:HG23	15:AM:85:GLY:H	1.77	0.50
25:BA:2851:A:C6	25:BA:2852:G:C6	3.00	0.50
25:BA:303:U:C2	25:BA:304:G:C8	3.00	0.50
25:BA:548:A:H2'	25:BA:549:G:O4'	2.11	0.50
25:BA:2029:G:C4	25:BA:2031:A:OP2	2.64	0.50
40:DT:3:ARG:O	40:DT:6:LEU:N	2.44	0.50
9:CG:30:ILE:HD12	9:CG:120:ILE:HD13	1.94	0.50
1:CA:1281:U:H4'	1:CA:1282:C:OP2	2.12	0.50
25:BA:55:G:H1	25:BA:115:C:H42	1.59	0.50
1:CA:495:A:H4'	1:CA:496:A:OP1	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:818:G:C2'	1:CA:819:A:H5''	2.41	0.50
24:AX:52:TRP:HE3	24:AX:52:TRP:O	1.94	0.50
25:BA:40:C:H2'	25:BA:41:C:H6	1.75	0.50
25:BA:2340:G:H2'	25:BA:2341:G:C8	2.47	0.50
19:CQ:29:HIS:CE1	19:CQ:31:LEU:HB3	2.46	0.50
25:DA:481:G:H1'	25:DA:506:G:N2	2.26	0.50
32:BI:6:LEU:HD21	32:BI:37:VAL:HG23	1.93	0.50
10:CH:80:ILE:N	10:CH:80:ILE:HD12	2.27	0.50
25:BA:1444:G:H2'	25:BA:1445:C:C5	2.47	0.50
25:BA:2747:G:O6	25:BA:2755:C:H5''	2.11	0.50
33:BK:22:PRO:C	33:BK:25:PRO:HD2	2.31	0.50
25:BA:360:G:H2'	25:BA:361:G:O4'	2.12	0.50
28:DE:166:THR:HG22	28:DE:168:MET:HE3	1.93	0.50
35:DO:12:ASP:OD1	35:DO:85:VAL:HG13	2.11	0.50
1:CA:1483:A:H5''	1:CA:1484:C:OP2	2.12	0.50
25:BA:1591:G:H2'	25:BA:1592:C:C6	2.46	0.50
32:DI:87:LYS:HB2	32:DI:87:LYS:NZ	2.27	0.50
32:BI:18:VAL:HG12	32:BI:18:VAL:O	2.11	0.50
40:DT:115:ARG:H	40:DT:115:ARG:HD3	1.76	0.50
25:BA:269:U:O2	25:BA:269:U:H2'	2.11	0.50
25:DA:269:U:H2'	25:DA:269:U:O2	2.11	0.50
27:BD:271:ILE:N	27:BD:271:ILE:HD12	2.26	0.50
1:CA:1409:C:H4'	25:DA:1915:U:O4	2.11	0.50
27:BD:58:HIS:O	27:BD:59:LYS:C	2.48	0.50
49:B2:48:HIS:O	49:B2:49:LYS:C	2.48	0.50
30:BG:133:LEU:HD21	30:BG:157:ILE:HG13	1.94	0.50
25:BA:1178:C:H2'	25:BA:1179:C:C6	2.46	0.50
11:CI:125:TYR:CD2	11:CI:126:SER:N	2.74	0.50
1:CA:1347:G:H8	11:CI:107:ARG:HB3	1.73	0.50
25:DA:661:C:H4'	36:DP:18:ARG:HG2	1.93	0.50
25:DA:2335:A:C8	25:DA:2337:G:C5	3.00	0.50
43:BW:82:LEU:HB3	43:BW:98:LYS:O	2.12	0.50
1:AA:581:G:O6	1:AA:758:G:C8	2.64	0.50
29:BF:132:VAL:O	29:BF:133:ASN:C	2.50	0.50
25:DA:2795:G:H3'	25:DA:2797:U:H5''	1.92	0.50
2:CZ:26:G:H1	2:CZ:44:A:N6	2.09	0.50
52:D5:3:LYS:O	52:D5:4:HIS:O	2.30	0.50
25:BA:1099:G:C6	25:BA:1100:C:N4	2.80	0.50
24:AX:229:GLU:CG	24:AX:230:GLU:H	2.24	0.50
45:DY:50:ARG:HD2	45:DY:52:SER:O	2.12	0.50
6:CD:25:ARG:HH12	6:CD:30:LYS:HG3	1.76	0.50
25:DA:919:G:C5'	26:DB:81:G:H1'	2.41	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CX:199:VAL:HG12	24:CX:200:HIS:H	1.77	0.50
30:BG:121:ASN:C	30:BG:121:ASN:HD22	2.14	0.50
25:DA:2399:G:H1	25:DA:2417:C:N4	2.07	0.50
24:AX:334:VAL:HG22	24:AX:343:ARG:HB2	1.93	0.50
25:DA:2108:C:H2'	25:DA:2109:U:H6	1.75	0.50
1:CA:112:G:C2	1:CA:330:C:N4	2.79	0.50
1:CA:792:A:C4	1:CA:794:A:C6	3.00	0.50
6:CD:50:ARG:HA	6:CD:50:ARG:HH11	1.76	0.50
1:CA:1316:G:O3'	16:CN:18:VAL:HG22	2.12	0.50
25:BA:520:G:H2'	25:BA:521:G:H8	1.76	0.50
25:DA:2241:A:O2'	25:DA:2242:G:H5'	2.12	0.50
25:DA:1506:C:H2'	25:DA:1508:A:C8	2.46	0.50
30:DG:50:ALA:O	30:DG:54:GLU:HG3	2.12	0.50
13:AK:33:THR:HA	13:AK:40:ILE:HG12	1.94	0.50
1:AA:1473:A:O2'	1:AA:1474:G:H5'	2.12	0.50
25:BA:2859:G:C6	25:BA:2860:A:N6	2.80	0.50
1:CA:918:A:H2'	1:CA:919:A:C8	2.46	0.50
25:BA:2877:G:H2'	25:BA:2878:U:C6	2.47	0.50
37:BQ:35:VAL:HG12	37:BQ:130:LYS:O	2.11	0.50
25:DA:649:G:O5'	25:DA:649:G:H8	1.94	0.50
1:AA:505:G:C6	1:AA:535:A:C2	2.99	0.50
47:D0:52:GLY:H	47:D0:62:LEU:HD21	1.76	0.50
48:B1:40:ARG:C	48:B1:40:ARG:HD3	2.32	0.50
25:DA:470:A:C5'	25:DA:470:A:H8	2.24	0.50
18:CP:12:LYS:C	18:CP:14:ASN:H	2.15	0.50
25:DA:763:G:O2'	25:DA:764:A:H3'	2.11	0.50
24:CX:368:ARG:O	24:CX:372:THR:HG22	2.12	0.50
25:DA:2154:G:H2'	25:DA:2155:G:H8	1.77	0.50
1:AA:916:G:H2'	1:AA:917:G:H8	1.76	0.50
48:B1:13:ILE:O	48:B1:14:VAL:CB	2.59	0.50
24:AX:85:LEU:O	24:AX:89:MET:HB3	2.11	0.50
1:AA:1323:G:H4'	1:AA:136(B):C:C2	2.46	0.50
4:AB:164:VAL:HB	4:AB:186:ALA:HB2	1.93	0.50
26:DB:28:C:H2'	26:DB:29:A:H8	1.77	0.50
42:BV:81:TYR:C	42:BV:82:ARG:HD2	2.32	0.50
29:DF:9:ILE:HG12	29:DF:20:LEU:HB2	1.93	0.50
12:AJ:51:ARG:HB2	12:AJ:60:ARG:HA	1.94	0.50
30:BG:110:ALA:HA	30:BG:140:ILE:O	2.12	0.50
21:CS:47:HIS:N	21:CS:62:ILE:HG22	2.22	0.50
25:DA:1077:A:H61	25:DA:1088:A:C5'	2.24	0.50
1:AA:736:C:H2'	1:AA:737:A:H8	1.73	0.50
45:DY:96:ILE:CG1	45:DY:99:CYS:H	2.22	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BS:42:ASP:O	39:BS:43:GLU:HB3	2.12	0.50
36:DP:30:THR:CG2	36:DP:31:ALA:N	2.74	0.50
25:DA:2134:A:N6	25:DA:2157:G:H1'	2.27	0.50
25:BA:1276:A:H5''	25:BA:1276:A:H8	1.76	0.50
25:DA:451:C:H4'	29:DF:52:LYS:NZ	2.26	0.50
25:BA:2018:G:C6	25:BA:2019:A:C6	2.98	0.50
4:CB:127:ILE:O	4:CB:127:ILE:HG22	2.11	0.50
25:BA:320:A:H2'	29:BF:136:THR:HG21	1.92	0.50
33:BK:4:VAL:HG12	33:BK:5:VAL:N	2.26	0.50
1:AA:145:G:H2'	1:AA:146:G:C8	2.46	0.50
5:CC:21:ARG:HH11	5:CC:21:ARG:HB2	1.77	0.50
33:DK:4:VAL:HG12	33:DK:5:VAL:N	2.26	0.50
31:BH:121:ILE:HD11	31:BH:140:LYS:HB3	1.94	0.50
6:AD:111:ALA:HA	6:AD:161:ASN:ND2	2.27	0.50
1:CA:691:G:O6	13:CK:55:LYS:NZ	2.44	0.50
30:BG:53:LEU:CD1	30:BG:88:ILE:HG12	2.42	0.50
33:BK:16:LYS:O	33:BK:17:ALA:HB2	2.11	0.50
45:DY:83:THR:CG2	45:DY:94:LYS:HB2	2.42	0.50
4:CB:178:ARG:NH2	10:CH:68:ARG:NH2	2.60	0.50
1:CA:1473:A:O2'	1:CA:1474:G:H5'	2.12	0.50
25:DA:2199:A:C8	25:DA:2205:C:C5	3.00	0.50
1:AA:1040:U:O2'	1:AA:1041:A:H5'	2.11	0.50
10:AH:14:ARG:O	10:AH:18:ARG:HD3	2.12	0.50
25:BA:1690:A:H2'	25:BA:1691:C:O4'	2.11	0.50
25:DA:250:G:O2'	25:DA:251:A:H5'	2.11	0.50
49:D2:47:ASN:ND2	49:D2:47:ASN:N	2.60	0.50
22:AT:26:ASN:ND2	22:AT:26:ASN:H	2.09	0.50
36:BP:51:PHE:O	36:BP:52:GLU:CB	2.59	0.50
5:CC:35:GLU:O	5:CC:39:ILE:HG13	2.12	0.50
12:CJ:5:ARG:HG2	12:CJ:71:LEU:HD11	1.94	0.50
25:DA:627:A:H4'	25:DA:628:G:OP1	2.12	0.50
42:DV:76:LYS:HB2	42:DV:81:TYR:HD1	1.76	0.50
1:AA:1228:C:H2'	1:AA:1229:A:H8	1.74	0.50
25:DA:1028:A:H2'	25:DA:1029:A:C8	2.46	0.50
11:CI:74:ILE:H	11:CI:74:ILE:HD12	1.75	0.50
16:AN:24:CYS:HB3	16:AN:29:ARG:N	2.27	0.50
25:BA:1046:A:H5''	25:BA:1047:G:C8	2.47	0.50
11:CI:105:ASP:OD2	11:CI:107:ARG:HD3	2.11	0.50
8:AF:52:ILE:HD11	8:AF:87:ARG:NE	2.26	0.50
49:D2:50:ILE:CD1	49:D2:51:ARG:N	2.72	0.50
25:DA:2173:A:OP2	25:DA:2173:A:H8	1.94	0.50
49:D2:1:MET:HB3	49:D2:2:LYS:HZ2	1.76	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CC:77:ILE:C	5:CC:83:ARG:HB3	2.32	0.50
15:AM:15:VAL:O	15:AM:19:LEU:HD22	2.11	0.50
30:BG:31:VAL:HG13	30:BG:31:VAL:O	2.10	0.50
25:DA:26:G:C2	25:DA:27:G:N2	2.80	0.50
41:DU:95:LEU:O	41:DU:98:LEU:HG	2.12	0.50
45:BY:81:LYS:HZ3	45:BY:97:ARG:HH11	1.59	0.50
20:CR:56:THR:CB	20:CR:58:LEU:HD13	2.41	0.50
27:DD:125:ILE:HG12	27:DD:137:PRO:HD3	1.94	0.50
50:B3:8:LEU:HD23	50:B3:9:VAL:N	2.27	0.50
15:AM:87:TYR:O	15:AM:91:ARG:HG2	2.11	0.50
25:BA:864:G:C4	25:BA:865:C:C5	3.00	0.50
25:BA:864:G:H2'	25:BA:865:C:H6	1.76	0.50
25:BA:320:A:H4'	25:BA:322:A:N7	2.26	0.50
1:CA:404:U:H2'	1:CA:405:U:C6	2.46	0.50
33:DK:59:ILE:HA	33:DK:64:SER:O	2.12	0.50
33:DK:6:ALA:HB3	33:DK:59:ILE:HD12	1.92	0.50
1:AA:109:A:C6	1:AA:326:G:C6	3.00	0.50
1:CA:517:G:HO2'	1:CA:531:U:H5	1.59	0.50
49:B2:43:GLN:O	49:B2:44:LEU:HG	2.11	0.50
25:DA:2062:A:O2'	25:DA:2063:C:H5'	2.11	0.50
7:AE:82:VAL:HG21	7:AE:138:ALA:HA	1.93	0.50
25:DA:892:G:H2'	25:DA:893:C:C6	2.47	0.50
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.46	0.50
6:AD:156:GLU:O	6:AD:159:ARG:HB2	2.11	0.50
41:DU:72:HIS:CD2	41:DU:110:VAL:HG21	2.47	0.50
24:CX:234:VAL:HG11	24:CX:296:LEU:HD21	1.93	0.50
49:D2:58:ALA:O	49:D2:61:LEU:HB2	2.11	0.50
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.46	0.50
25:DA:2373:G:H2'	25:DA:2374:C:C6	2.46	0.50
36:DP:55:ARG:CG	36:DP:56:SER:N	2.74	0.50
12:CJ:47:PHE:CE1	16:CN:37:PHE:HE2	2.29	0.50
1:CA:836:G:C6	1:CA:851:G:C6	2.99	0.50
43:BW:21:VAL:C	43:BW:23:LEU:H	2.15	0.50
25:DA:1916:A:H2'	25:DA:1917:U:O4'	2.12	0.50
27:DD:271:ILE:N	27:DD:271:ILE:HD12	2.26	0.50
44:DX:15:GLU:CD	44:DX:15:GLU:H	2.14	0.50
25:DA:988:A:H8	25:DA:988:A:O5'	1.95	0.50
14:AL:53:LYS:N	14:AL:53:LYS:HD2	2.26	0.50
28:BE:61:ARG:C	28:BE:63:LEU:H	2.15	0.50
1:AA:1176:A:H2'	1:AA:1177:G:O4'	2.11	0.50
48:B1:11:ARG:HG3	48:B1:61:ARG:C	2.32	0.50
36:BP:50:ARG:CD	36:BP:51:PHE:H	2.25	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:B6:9:LEU:HD22	53:B6:26:ASN:HB3	1.94	0.50
25:DA:2403:C:C4	25:DA:2415:G:C2	3.00	0.50
25:DA:2784:C:H6	25:DA:2784:C:O5'	1.94	0.50
25:DA:275:G:O6	25:DA:363(A):G:C2	2.65	0.50
25:BA:1971:A:H5''	25:BA:1971:A:C8	2.42	0.50
25:DA:2543:G:C2	25:DA:2765:A:C8	3.00	0.50
25:BA:661:C:H4'	36:BP:16:ARG:HD2	1.93	0.50
36:DP:112:LEU:H	36:DP:128:HIS:CD2	2.30	0.50
36:DP:15:ARG:HH12	36:DP:17:LYS:HD2	1.77	0.50
25:DA:1544:C:H3'	25:DA:1545:A:C5'	2.40	0.50
32:BI:105:HIS:HB2	32:BI:107:ILE:HG22	1.94	0.50
48:B1:58:ILE:HG23	48:B1:58:ILE:O	2.12	0.50
25:BA:2335:A:C8	25:BA:2337:G:C5	2.99	0.50
1:AA:523:A:H61	14:AL:52:ARG:NH1	2.10	0.50
47:D0:42:GLY:HA2	47:D0:57:PHE:CD2	2.47	0.50
8:AF:6:VAL:HG22	8:AF:90:VAL:HG22	1.94	0.50
25:DA:10:G:H21	25:DA:2801:A:H5''	1.75	0.50
25:DA:655:A:C8	25:DA:655:A:H3'	2.46	0.50
46:DZ:27:VAL:HG12	46:DZ:28:MET:N	2.27	0.50
25:BA:2850:A:C8	25:BA:2869:G:O4'	2.64	0.50
25:BA:118:A:N3	25:BA:178:G:H1'	2.26	0.50
25:DA:2862:G:C4	25:DA:2863:C:C5	2.99	0.50
11:AI:10:ARG:HA	11:AI:104:ARG:HH11	1.76	0.50
37:DQ:47:ILE:HD11	37:DQ:68:ILE:HG13	1.94	0.50
55:D8:39:LYS:HE2	55:D8:43:GLN:HE22	1.77	0.50
1:AA:186(D):G:C6	1:AA:191(E):G:N1	2.80	0.50
25:DA:422:A:C2	25:DA:423:A:C4	3.00	0.50
25:DA:1115:G:H2'	25:DA:1116:C:H6	1.73	0.50
1:CA:1296:C:O3'	15:CM:13:LYS:HE3	2.12	0.50
1:CA:262:A:C6	1:CA:263:A:C6	3.00	0.50
25:BA:1217:C:C4	25:BA:1218:C:C5	2.99	0.50
1:AA:486:U:H2'	1:AA:487:A:C8	2.47	0.50
1:AA:439:A:H2'	1:AA:440:A:H5'	1.93	0.50
1:AA:1298:C:H4'	1:AA:1299:A:O4'	2.12	0.50
25:DA:69:C:H2'	25:DA:70:G:H8	1.77	0.50
25:DA:1283:G:H2'	25:DA:1285:G:OP2	2.12	0.50
39:BS:48:LEU:N	39:BS:48:LEU:HD12	2.27	0.50
25:BA:833:U:H2'	25:BA:834:C:C6	2.46	0.50
35:DO:111:PHE:HB3	35:DO:114:ILE:HG12	1.92	0.50
1:CA:833:U:H2'	1:CA:834:C:C6	2.47	0.50
33:BK:7:VAL:HA	33:BK:58:THR:HA	1.94	0.50
13:CK:84:VAL:O	13:CK:85:ARG:HG3	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DY:14:LEU:C	45:DY:14:LEU:HD23	2.32	0.50
40:DT:22:PHE:CG	40:DT:22:PHE:O	2.65	0.50
25:BA:1066:U:O2	25:BA:1069:A:C8	2.65	0.50
24:CX:345:ASP:N	24:CX:346:PRO:HD3	2.27	0.50
55:B8:50:LEU:O	55:B8:51:ALA:HB3	2.12	0.50
55:B8:57:ARG:CB	55:B8:57:ARG:HH11	2.02	0.50
42:DV:52:VAL:CG1	42:DV:55:ALA:HB3	2.42	0.50
49:D2:12:GLU:C	49:D2:14:ARG:H	2.14	0.50
5:CC:16:ARG:NH1	5:CC:16:ARG:HB2	2.25	0.50
25:DA:2286:A:C8	25:DA:2287:A:N6	2.80	0.50
24:CX:32:ILE:HG12	24:CX:75:PHE:CG	2.47	0.50
1:CA:926:G:H2'	1:CA:1505:G:N3	2.27	0.50
25:DA:1175:U:H4'	25:DA:1175:U:OP1	2.12	0.50
21:AS:49:ILE:HD12	21:AS:49:ILE:N	2.25	0.50
25:BA:1544:C:OP1	25:BA:1544:C:C6	2.61	0.50
4:CB:18:GLY:H	4:CB:42:ILE:CG2	2.20	0.50
4:CB:167:PRO:HD3	4:CB:187:LEU:O	2.11	0.50
1:AA:382:A:C2	1:AA:383:A:C4	3.00	0.50
1:AA:1072:G:H2'	1:AA:1073:U:H6	1.70	0.50
24:CX:190:TYR:CE1	24:CX:225:PRO:CD	2.94	0.50
39:BS:58:LEU:N	39:BS:58:LEU:HD12	2.23	0.50
25:DA:27:G:N2	25:DA:512:G:HO2'	2.10	0.50
1:CA:529:G:H22	14:CL:50:ALA:HB2	1.76	0.50
52:D5:4:HIS:CB	52:D5:5:PRO:CD	2.90	0.50
1:AA:359:U:O2'	1:AA:360:A:H5'	2.12	0.50
6:AD:29:PRO:O	6:AD:30:LYS:HB3	2.12	0.50
25:BA:588:U:H1'	29:BF:90:PHE:HB3	1.94	0.50
25:BA:2281:C:O2'	25:BA:2282:G:H5'	2.11	0.50
17:AO:5:LYS:HD3	17:AO:5:LYS:H	1.77	0.50
53:B6:15:GLU:OE1	53:B6:41:PRO:HB3	2.12	0.50
43:BW:29:LEU:O	43:BW:29:LEU:HD12	2.12	0.50
1:AA:1108:G:H5'	5:AC:176:HIS:CD2	2.47	0.50
25:BA:708:C:H42	25:BA:723:G:H1	1.58	0.50
33:BK:59:ILE:HA	33:BK:64:SER:O	2.11	0.50
25:BA:214:G:O2'	25:BA:215:G:O4'	2.29	0.50
49:D2:36:ARG:NH1	49:D2:36:ARG:HB3	2.27	0.50
25:DA:2298:A:N6	25:DA:2318:G:H2'	2.26	0.50
25:DA:2446:G:C2	25:DA:2501:C:C5	3.00	0.50
25:DA:2006:C:H2'	25:DA:2007:C:C6	2.47	0.50
25:BA:1628:G:H2'	25:BA:1629:U:C6	2.47	0.50
33:DK:104:VAL:HG13	33:DK:127:ILE:HB	1.93	0.50
25:BA:24:G:C6	25:BA:25:U:C4	2.99	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1375:A:H2'	1:AA:1376:U:O4'	2.11	0.50
25:DA:1231:G:H2'	25:DA:1232:G:C8	2.47	0.50
26:BB:28:C:H2'	26:BB:29:A:H8	1.76	0.50
25:DA:161:U:H3'	25:DA:162:U:H5''	1.94	0.50
19:CQ:100:LYS:N	19:CQ:100:LYS:HD2	2.26	0.50
25:BA:887:A:H2'	25:BA:888:C:O5'	2.12	0.50
25:DA:855:G:H2'	25:DA:856:C:H6	1.75	0.50
36:DP:50:ARG:HD3	36:DP:51:PHE:H	1.77	0.50
49:B2:12:GLU:C	49:B2:14:ARG:H	2.15	0.50
55:B8:11:LYS:HD2	55:B8:64:TYR:CE2	2.47	0.50
36:BP:51:PHE:HB3	36:BP:52:GLU:HG2	1.94	0.50
1:CA:1325:C:O2'	1:CA:1326:C:H5'	2.12	0.50
39:DS:34:HIS:HA	39:DS:54:LEU:CD2	2.41	0.50
52:B5:40:LYS:NZ	52:B5:46:CYS:N	2.60	0.50
1:CA:1162:C:H2'	1:CA:1163:C:C6	2.47	0.50
27:BD:246:PRO:HB2	27:BD:255:LYS:HG3	1.93	0.50
34:BN:36:TRP:CE3	34:BN:74:PHE:HB3	2.47	0.50
1:AA:1367:C:O2'	12:AJ:48:THR:HG21	2.12	0.50
40:DT:106:SER:C	40:DT:107:ASP:OD1	2.49	0.50
40:DT:99:LEU:O	40:DT:102:ILE:HG23	2.12	0.50
1:CA:1149:C:H2'	1:CA:1150:U:H6	1.74	0.50
49:B2:3:LEU:O	49:B2:4:SER:C	2.50	0.50
25:DA:2115:G:C6	25:DA:2117:A:H3'	2.47	0.50
25:BA:1055:G:HO2'	25:BA:1085:A:H2	1.60	0.50
22:AT:100:ILE:CG2	22:AT:101:GLY:N	2.75	0.50
49:D2:1:MET:SD	49:D2:5:GLU:OE2	2.70	0.50
25:DA:330:A:HO2'	25:DA:331:A:H8	1.58	0.50
38:DR:4:LEU:C	38:DR:6:SER:N	2.65	0.50
25:DA:1796:U:H2'	25:DA:1797:C:C6	2.46	0.50
39:DS:37:ALA:HB3	39:DS:73:LEU:HD11	1.93	0.50
36:BP:88:LEU:CD1	36:BP:95:VAL:HG11	2.41	0.50
25:BA:140:A:H8	25:BA:1408:C:O2'	1.95	0.50
25:DA:655:A:H2'	25:DA:656:G:H5'	1.93	0.50
25:DA:27:G:O2'	25:DA:28:A:P	2.69	0.50
25:BA:655:A:H3'	25:BA:655:A:C8	2.47	0.50
25:DA:951:C:O2'	25:DA:952:G:H5'	2.12	0.50
25:DA:302:C:H2'	25:DA:303:U:C6	2.41	0.50
25:DA:303:U:C2	25:DA:304:G:C8	2.99	0.50
39:BS:16:ASN:HA	39:BS:19:LYS:HD2	1.94	0.50
11:AI:10:ARG:HD2	11:AI:11:LYS:HG3	1.93	0.50
11:AI:10:ARG:O	11:AI:13:ALA:HB3	2.12	0.50
29:DF:65:TRP:CZ2	29:DF:75:HIS:HD2	2.30	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2134:A:H1'	25:BA:2159:G:N2	2.27	0.50
31:DH:83:TYR:HB2	31:DH:141:VAL:HG21	1.94	0.50
19:CQ:60:ILE:HG23	19:CQ:62:SER:OG	2.12	0.50
9:CG:47:CYS:HB3	9:CG:58:PRO:HG3	1.93	0.50
34:DN:125:ALA:O	34:DN:129:MET:HG3	2.12	0.50
25:DA:809:G:O2'	25:DA:810:U:H5'	2.12	0.50
1:CA:429:U:H4'	1:CA:430:A:O5'	2.10	0.50
28:BE:101:ARG:NH2	28:BE:171:GLU:HB3	2.26	0.50
4:CB:141:GLU:C	4:CB:145:LEU:HD23	2.32	0.50
25:DA:1793:C:H2'	25:DA:1794:U:H6	1.77	0.50
25:DA:902:C:H2'	25:DA:903:C:H6	1.77	0.50
29:BF:153:SER:OG	29:BF:190:GLU:HG3	2.12	0.50
13:AK:44:SER:OG	13:AK:47:VAL:HG23	2.11	0.50
25:DA:1438:U:O2'	25:DA:1439:A:H5'	2.12	0.50
25:DA:2371:G:O2'	53:D6:46:HIS:HD2	1.95	0.50
49:D2:43:GLN:O	49:D2:44:LEU:HG	2.12	0.50
25:BA:892:G:H2'	25:BA:893:C:C6	2.46	0.50
25:BA:893:C:H2'	25:BA:894:C:C6	2.47	0.50
14:AL:33:ARG:O	14:AL:60:THR:HG23	2.11	0.50
1:CA:865:A:O5'	1:CA:865:A:H8	1.94	0.50
28:DE:168:MET:HE2	28:DE:168:MET:HA	1.93	0.50
25:BA:2660:A:H2'	25:BA:2661:G:O4'	2.11	0.50
17:CO:70:LEU:HG	17:CO:78:TYR:HB2	1.93	0.50
1:CA:913:A:OP2	14:CL:90:LYS:NZ	2.43	0.50
41:BU:29:SER:OG	41:BU:30:LYS:HE3	2.12	0.50
46:BZ:145:GLU:HG3	46:BZ:146:ILE:H	1.77	0.50
40:BT:22:PHE:O	40:BT:22:PHE:CG	2.64	0.50
11:AI:127:LYS:O	11:AI:127:LYS:HG2	2.11	0.50
25:DA:1205:U:H4'	25:DA:1206:G:OP2	2.12	0.50
34:BN:57:LEU:O	34:BN:72:GLY:HA3	2.11	0.50
48:D1:11:ARG:HG3	48:D1:61:ARG:C	2.31	0.49
12:CJ:94:VAL:CG1	12:CJ:95:GLU:N	2.74	0.49
39:DS:23:ARG:O	39:DS:84:GLN:HG2	2.11	0.49
27:BD:144:ALA:CB	27:BD:192:THR:HG21	2.33	0.49
39:DS:35:ILE:C	39:DS:36:TYR:CD1	2.85	0.49
52:B5:40:LYS:CE	52:B5:46:CYS:HB3	2.34	0.49
36:BP:148:LEU:HD23	36:BP:149:GLU:H	1.77	0.49
25:BA:1176:G:C8	25:BA:1177:A:C5	3.00	0.49
1:AA:1287:A:H8	1:AA:1287:A:H5'	1.77	0.49
11:AI:63:ILE:N	11:AI:63:ILE:HD12	2.27	0.49
1:AA:979:C:C3'	1:AA:980:C:H5''	2.34	0.49
25:BA:1053:C:H2'	25:BA:1054:A:C8	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CD:146:ILE:HD12	6:CD:146:ILE:N	2.21	0.49
14:AL:5:THR:HG23	14:AL:8:GLN:NE2	2.27	0.49
14:AL:41:THR:HA	14:AL:52:ARG:O	2.12	0.49
25:DA:2039:C:H2'	25:DA:2040:C:C6	2.38	0.49
24:AX:190:TYR:CE1	24:AX:224:ILE:HA	2.41	0.49
9:AG:97:GLN:HG3	9:AG:101:LEU:CD1	2.38	0.49
33:BK:112:MET:N	33:BK:113:PRO:CD	2.74	0.49
1:AA:959:A:H2	1:AA:1221:G:N3	2.10	0.49
10:CH:85:ARG:HA	10:CH:135:CYS:HB3	1.94	0.49
28:BE:24:THR:HG21	28:BE:188:VAL:HG12	1.94	0.49
25:BA:2841:C:H2'	25:BA:2842:G:H8	1.77	0.49
25:DA:1519:G:C6	25:DA:1520:U:C4	2.99	0.49
25:DA:2303:G:C2'	25:DA:2304:G:H5''	2.42	0.49
25:DA:2302:G:C6	25:DA:2315:G:C6	3.00	0.49
25:BA:1437:C:H2'	25:BA:1438:U:H6	1.77	0.49
1:CA:313:A:H2'	1:CA:314:C:H6	1.74	0.49
43:BW:1:MET:O	43:BW:64:MET:HE1	2.12	0.49
25:BA:2050:C:H1'	28:BE:156:MET:CE	2.42	0.49
24:AX:239:GLU:O	24:AX:267:LEU:HD12	2.12	0.49
13:CK:12:ARG:HB3	13:CK:12:ARG:CZ	2.42	0.49
1:AA:865:A:H8	1:AA:865:A:O5'	1.95	0.49
25:BA:534:U:H5'	41:BU:42:ALA:HB1	1.92	0.49
46:DZ:14:LYS:O	46:DZ:18:LEU:HD13	2.11	0.49
25:DA:887:A:H2'	25:DA:888:C:O5'	2.12	0.49
1:AA:300:A:C8	1:AA:300:A:H3'	2.46	0.49
48:D1:80:LEU:HD22	48:D1:81:ARG:H	1.77	0.49
7:CE:121:LYS:HG2	7:CE:123:LEU:HD12	1.94	0.49
27:BD:264:LYS:HG2	27:BD:266:SER:HB3	1.93	0.49
45:DY:68:HIS:CE1	45:DY:70:SER:HB2	2.47	0.49
4:CB:52:GLU:HG2	4:CB:56:ARG:HE	1.77	0.49
1:CA:763:G:H2'	1:CA:764:C:H6	1.77	0.49
1:CA:443:C:C2	1:CA:492:G:C2	3.00	0.49
39:BS:101:LEU:HD13	39:BS:101:LEU:O	2.12	0.49
19:AQ:13:ASP:OD1	19:AQ:13:ASP:N	2.45	0.49
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.47	0.49
14:CL:77:GLN:O	14:CL:79:HIS:N	2.45	0.49
41:DU:92:ARG:O	41:DU:94:ASN:N	2.45	0.49
25:BA:274:G:C8	25:BA:274:G:H3'	2.47	0.49
30:DG:92:VAL:HG13	30:DG:92:VAL:O	2.11	0.49
25:DA:1173:G:HO2'	25:DA:1175:U:H5	1.60	0.49
1:AA:973:G:OP1	12:AJ:57:LYS:NZ	2.46	0.49
36:DP:148:LEU:HD22	36:DP:149:GLU:H	1.78	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:796:C:H2'	25:BA:797:C:H6	1.77	0.49
30:DG:105:LYS:O	30:DG:109:VAL:HB	2.11	0.49
25:DA:2821:A:OP2	25:DA:2822:G:OP2	2.30	0.49
29:BF:29:ASN:H	29:BF:112:MET:HE3	1.76	0.49
45:BY:81:LYS:HZ3	45:BY:98:VAL:CG1	2.25	0.49
13:CK:59:TYR:O	13:CK:62:GLN:HB3	2.12	0.49
29:DF:89:VAL:C	29:DF:91:GLY:H	2.15	0.49
11:AI:8:GLY:HA3	11:AI:76:ALA:O	2.12	0.49
1:CA:1493:A:C2	25:DA:1913:A:O4'	2.65	0.49
25:DA:118:A:N3	25:DA:178:G:H1'	2.27	0.49
9:AG:153:HIS:CE1	13:AK:57:THR:HG23	2.47	0.49
45:DY:61:ILE:HG22	45:DY:63:LYS:H	1.77	0.49
25:DA:863:A:H2'	25:DA:864:G:H8	1.77	0.49
27:BD:10:THR:HG23	27:BD:13:ARG:CG	2.41	0.49
36:BP:30:THR:CG2	36:BP:31:ALA:N	2.73	0.49
53:B6:14:THR:HA	53:B6:20:ASN:O	2.11	0.49
24:AX:145:TRP:CH2	24:AX:200:HIS:HB3	2.47	0.49
29:DF:136:THR:HG22	29:DF:166:ALA:O	2.12	0.49
25:DA:1520:U:O2'	25:DA:1521:G:H5'	2.13	0.49
25:DA:396:G:O4'	48:D1:18:ILE:HD12	2.11	0.49
25:DA:2259:G:N2	25:DA:2282:G:N1	2.60	0.49
25:DA:1358:G:O2'	25:DA:1359:A:H5''	2.12	0.49
25:DA:2103:C:H2'	25:DA:2104:G:H8	1.74	0.49
4:CB:212:GLN:HG3	4:CB:235:SER:HB2	1.93	0.49
26:DB:40:U:H3'	26:DB:41:U:H5''	1.94	0.49
25:BA:161:U:H3'	25:BA:162:U:H5''	1.93	0.49
35:DO:8:LEU:HB2	35:DO:19:ILE:HD11	1.93	0.49
25:BA:2129:C:H2'	25:BA:2130:U:C6	2.46	0.49
25:BA:2459:A:H5''	25:BA:2460:U:OP2	2.12	0.49
25:BA:1916:A:H2'	25:BA:1917:U:O4'	2.12	0.49
25:BA:1386:C:H2'	25:BA:1387:C:C6	2.46	0.49
24:AX:161:GLY:O	24:AX:162:PHE:HD1	1.95	0.49
31:BH:19:VAL:HG13	31:BH:43:VAL:HG21	1.93	0.49
39:DS:101:LEU:HD13	39:DS:101:LEU:C	2.33	0.49
25:DA:11:G:H8	25:DA:11:G:O5'	1.95	0.49
25:BA:898:C:H2'	25:BA:899:A:O4'	2.13	0.49
1:AA:1084:G:C5	1:AA:1085:U:C4	3.00	0.49
25:BA:996:A:N6	25:BA:1160:G:C6	2.79	0.49
41:BU:92:ARG:O	41:BU:94:ASN:N	2.45	0.49
25:DA:2894:G:H8	25:DA:2894:G:O5'	1.95	0.49
22:AT:72:LEU:HD11	22:AT:77:ALA:HA	1.94	0.49
15:CM:71:ARG:HA	15:CM:74:VAL:HG23	1.94	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BS:35:ILE:C	39:BS:36:TYR:CD1	2.85	0.49
39:BS:34:HIS:HA	39:BS:54:LEU:CD2	2.43	0.49
41:DU:61:TRP:CZ3	41:DU:94:ASN:HB2	2.48	0.49
12:AJ:5:ARG:HG2	12:AJ:71:LEU:HD11	1.94	0.49
12:AJ:74:ILE:HD13	12:AJ:74:ILE:H	1.77	0.49
45:BY:17:SER:OG	45:BY:18:GLY:N	2.45	0.49
23:CU:2:GLY:C	23:CU:4:GLY:H	2.16	0.49
33:DK:66:THR:HG22	33:DK:68:VAL:HG22	1.95	0.49
30:BG:7:LEU:HA	30:BG:10:LYS:HD2	1.95	0.49
52:B5:16:ARG:HG3	52:B5:20:ARG:HE	1.78	0.49
15:CM:49:THR:HB	15:CM:52:GLU:HG3	1.93	0.49
25:DA:1490:A:H4'	25:DA:1491:G:OP2	2.12	0.49
1:AA:1346:A:H5'	11:AI:120:ARG:NH1	2.23	0.49
21:AS:47:HIS:N	21:AS:62:ILE:HG22	2.22	0.49
25:BA:390:A:N6	36:BP:71:VAL:CG2	2.75	0.49
26:DB:66:A:C6	26:DB:107:U:C2	3.00	0.49
33:DK:112:MET:N	33:DK:113:PRO:CD	2.74	0.49
45:BY:81:LYS:HD3	45:BY:97:ARG:CD	2.42	0.49
25:BA:2134:A:N6	25:BA:2157:G:H1'	2.28	0.49
25:BA:1505:C:H2'	25:BA:1506:C:H6	1.77	0.49
9:AG:65:ALA:HB1	9:AG:127:ALA:HB3	1.93	0.49
1:AA:792:A:N3	1:AA:794:A:C5	2.80	0.49
1:AA:1208:C:H2'	1:AA:1209:C:C6	2.46	0.49
19:AQ:26:GLN:O	19:AQ:27:PHE:HB3	2.11	0.49
25:BA:161:U:H1'	25:BA:171:G:N1	2.27	0.49
8:CF:60:PHE:C	8:CF:61:LEU:HD12	2.33	0.49
25:DA:1820:U:O2	27:DD:201:HIS:HB3	2.13	0.49
31:DH:92:ILE:HD12	31:DH:92:ILE:N	2.28	0.49
25:DA:1444:G:H2'	25:DA:1445:C:C5	2.47	0.49
25:BA:2607:G:H2'	25:BA:2608:G:O4'	2.13	0.49
1:CA:1504:G:OP1	1:CA:1507:A:H4'	2.13	0.49
10:CH:35:ILE:O	10:CH:39:LEU:HB2	2.13	0.49
1:AA:102(B):C:N4	1:AA:102(C):C:H41	2.11	0.49
7:CE:13:ILE:O	7:CE:13:ILE:HG22	2.11	0.49
26:BB:15:A:H1'	26:BB:109:G:C5	2.47	0.49
40:BT:16:ARG:H	40:BT:79:HIS:HD2	1.60	0.49
25:DA:2693:A:H2'	25:DA:2694:G:H8	1.77	0.49
33:DK:144:VAL:O	33:DK:145:LYS:HB3	2.12	0.49
37:BQ:119:ARG:HH21	37:BQ:120:ILE:HD11	1.78	0.49
11:AI:84:ALA:O	11:AI:87:GLN:HB3	2.13	0.49
25:DA:1398:C:O5'	25:DA:1398:C:H6	1.95	0.49
31:BH:83:TYR:HB2	31:BH:141:VAL:HG21	1.93	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:219:G:O2'	25:BA:220:G:H5'	2.12	0.49
25:BA:1190:G:H5'	36:BP:35:HIS:CA	2.28	0.49
36:DP:33:ARG:O	36:DP:34:GLY:O	2.29	0.49
42:DV:39:LEU:O	42:DV:40:LEU:HB2	2.13	0.49
36:BP:40:SER:O	36:BP:41:ARG:NE	2.42	0.49
1:CA:1329:A:H5'	15:CM:29:ARG:HE	1.77	0.49
24:CX:100:LEU:CD2	24:CX:101:LYS:HE3	2.43	0.49
1:AA:1432:G:O5'	1:AA:1432:G:H8	1.94	0.49
16:CN:24:CYS:HB2	16:CN:40:CYS:HB3	1.94	0.49
1:AA:1227:A:O3'	15:AM:115:LYS:HE3	2.12	0.49
12:AJ:78:ASN:HD22	12:AJ:81:THR:HG21	1.77	0.49
25:DA:1495:A:O2'	25:DA:1496:A:H5'	2.12	0.49
37:BQ:134:ARG:HH21	46:BZ:81:ARG:NH2	1.96	0.49
11:AI:71:SER:HA	11:AI:74:ILE:HD13	1.95	0.49
25:BA:286:C:H2'	25:BA:287:C:C6	2.47	0.49
10:CH:118:VAL:C	10:CH:119:LEU:HD23	2.32	0.49
49:B2:1:MET:SD	49:B2:5:GLU:OE2	2.70	0.49
32:BI:62:LYS:O	32:BI:65:ALA:HB3	2.13	0.49
1:CA:581:G:O6	1:CA:758:G:C8	2.66	0.49
25:DA:1490:A:H8	25:DA:1490:A:O5'	1.95	0.49
25:DA:2720:U:O4	25:DA:2872:G:C6	2.65	0.49
1:AA:529:G:H22	14:AL:50:ALA:HB2	1.76	0.49
14:AL:52:ARG:HG2	14:AL:92:LEU:HD11	1.94	0.49
44:BX:63:LYS:HD2	44:BX:72:LYS:HA	1.95	0.49
25:BA:390:A:N6	36:BP:71:VAL:HG21	2.28	0.49
11:CI:119:ALA:O	11:CI:120:ARG:HG3	2.12	0.49
1:AA:465:A:O2'	1:AA:466:G:H2'	2.12	0.49
17:CO:39:LEU:HD12	17:CO:56:LEU:HD13	1.94	0.49
46:BZ:108:PRO:CG	46:BZ:141:VAL:HG22	2.40	0.49
26:BB:81:G:H5'	26:BB:82:G:OP2	2.12	0.49
25:DA:603:A:N1	25:DA:655:A:C4	2.80	0.49
14:CL:59:LEU:HD21	14:CL:65:VAL:HG23	1.94	0.49
29:DF:199:TRP:CZ3	29:DF:203:GLN:HG3	2.47	0.49
17:AO:39:LEU:HD12	17:AO:56:LEU:HD13	1.92	0.49
25:DA:572:A:H5''	25:DA:573:G:OP2	2.12	0.49
25:DA:2134:A:H1'	25:DA:2159:G:N2	2.27	0.49
25:DA:686:G:H4'	25:DA:687:C:OP2	2.13	0.49
1:AA:186(D):G:H2'	1:AA:186(E):C:C6	2.47	0.49
45:DY:29:GLU:CB	45:DY:38:ILE:HD11	2.41	0.49
21:CS:11:VAL:HG22	21:CS:16:LEU:HD11	1.95	0.49
24:CX:339:THR:OG1	24:CX:341:LEU:HB3	2.12	0.49
25:BA:1517:G:H2'	25:BA:1518:C:C6	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DN:37:VAL:HG12	34:DN:38:LEU:N	2.27	0.49
25:BA:2103:C:H2'	25:BA:2104:G:H8	1.76	0.49
53:D6:15:GLU:OE1	53:D6:41:PRO:HB3	2.11	0.49
26:DB:43:C:C5	26:DB:45:A:N6	2.81	0.49
43:DW:18:ARG:HG3	43:DW:76:VAL:CG1	2.41	0.49
43:DW:18:ARG:NH1	43:DW:76:VAL:O	2.45	0.49
24:AX:63:GLN:NE2	24:AX:64:GLU:HG2	2.27	0.49
6:CD:111:ALA:HA	6:CD:161:ASN:ND2	2.26	0.49
1:CA:1298:C:H4'	1:CA:1299:A:O4'	2.12	0.49
7:CE:139:LEU:HA	7:CE:142:LEU:HD12	1.94	0.49
25:BA:2787:C:C4'	28:BE:62:PRO:HB3	2.42	0.49
25:DA:697:C:H2'	25:DA:698:C:H6	1.77	0.49
26:DB:16:G:C6	26:DB:69:G:C2	3.00	0.49
30:DG:53:LEU:CD1	30:DG:88:ILE:HG12	2.42	0.49
25:DA:856:C:H2'	25:DA:856:C:O2	2.11	0.49
25:BA:1661:G:C6	25:BA:2000:G:C6	2.99	0.49
25:BA:1547:C:H2'	25:BA:1548:C:C6	2.48	0.49
54:D7:12:ARG:NH2	54:D7:44:PRO:HB3	2.28	0.49
25:DA:1897:G:H2'	25:DA:1898:U:O4'	2.13	0.49
26:BB:48:A:H2'	26:BB:49:C:C6	2.47	0.49
25:BA:663:G:C6	25:BA:664:C:C4	3.00	0.49
25:BA:1231:G:H2'	25:BA:1232:G:C8	2.47	0.49
39:DS:47:THR:C	39:DS:48:LEU:HD12	2.33	0.49
2:AZ:12:G:H2'	2:AZ:13:C:C6	2.47	0.49
40:BT:78:LEU:O	40:BT:78:LEU:HD13	2.12	0.49
25:DA:307:G:H8	25:DA:307:G:O5'	1.95	0.49
25:DA:2185:C:H6	25:DA:2185:C:O5'	1.95	0.49
25:DA:997:G:N3	25:DA:997:G:H2'	2.27	0.49
25:BA:1419:A:O2'	25:BA:1420:U:H5''	2.12	0.49
29:BF:53:THR:C	29:BF:55:GLY:H	2.15	0.49
27:BD:124:PRO:O	27:BD:129:ASN:ND2	2.45	0.49
41:DU:69:CYS:SG	41:DU:79:PHE:CB	3.01	0.49
36:BP:50:ARG:HD3	36:BP:51:PHE:H	1.77	0.49
25:DA:561:G:H1'	41:DU:45:TYR:CE2	2.48	0.49
27:DD:31:LYS:CD	27:DD:94:LEU:HD11	2.40	0.49
25:BA:275:G:N2	25:BA:276:A:C6	2.80	0.49
25:DA:1902:C:H1'	27:DD:244:ARG:CD	2.33	0.49
27:DD:242:ARG:HD3	27:DD:242:ARG:H	1.78	0.49
25:DA:274:G:H3'	25:DA:274:G:C8	2.46	0.49
1:CA:1228:C:H2'	1:CA:1229:A:H8	1.74	0.49
1:CA:1367:C:O2'	12:CJ:48:THR:HG21	2.13	0.49
10:AH:25:ASP:HA	10:AH:59:LEU:O	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BK:72:PRO:HB2	33:BK:76:TYR:CE2	2.47	0.49
49:B2:2:LYS:NZ	49:B2:2:LYS:H	2.04	0.49
14:AL:24:PRO:C	14:AL:26:LEU:N	2.65	0.49
48:B1:90:ILE:O	48:B1:91:LYS:C	2.51	0.49
25:DA:2565:A:H5''	25:DA:2566:A:OP2	2.12	0.49
25:BA:773:U:H4'	27:BD:47:GLY:CA	2.42	0.49
25:DA:1188:U:H4'	42:DV:79:VAL:HG13	1.93	0.49
25:DA:1309:G:C2'	25:DA:1310:G:H5'	2.43	0.49
2:CY:23:C:C2	2:CY:24:U:C5	3.00	0.49
25:DA:2376:A:N6	39:DS:89:ARG:HD3	2.27	0.49
39:DS:16:ASN:HA	39:DS:19:LYS:HD2	1.95	0.49
25:BA:2481:G:O2'	25:BA:2482:G:P	2.70	0.49
25:BA:2062:A:O2'	25:BA:2063:C:H5'	2.12	0.49
25:BA:1510:A:H2'	25:BA:1511:A:O4'	2.11	0.49
27:DD:10:THR:HG23	27:DD:13:ARG:CB	2.43	0.49
33:BK:57:ILE:HG23	33:BK:65:PHE:CD1	2.45	0.49
25:BA:573:G:N2	25:BA:2029:G:N2	2.61	0.49
1:CA:411:A:C3'	1:CA:411:A:C8	2.96	0.49
8:AF:89:MET:HE1	20:AR:75:ILE:HB	1.94	0.49
33:DK:18:THR:HB	33:DK:19:PRO:CD	2.42	0.49
25:BA:580:C:H2'	25:BA:581:C:C6	2.48	0.49
4:AB:141:GLU:C	4:AB:145:LEU:HD23	2.33	0.49
4:AB:121:LEU:HD22	4:AB:127:ILE:CD1	2.43	0.49
25:DA:1374:G:C5	25:DA:1375:C:C5	3.01	0.49
13:CK:44:SER:OG	13:CK:47:VAL:HG23	2.13	0.49
53:D6:15:GLU:OE1	53:D6:18:ARG:HD2	2.12	0.49
1:CA:617:G:C2	1:CA:618:C:C5	3.00	0.49
33:DK:60:TYR:HB2	33:DK:64:SER:HB3	1.92	0.49
1:CA:169:C:H6	1:CA:169:C:C5'	2.25	0.49
25:DA:829:A:N7	25:DA:2247:A:O2'	2.43	0.49
25:BA:481:G:H1'	25:BA:506:G:H21	1.77	0.49
25:DA:1099:G:C6	25:DA:1100:C:N4	2.80	0.49
1:AA:325:A:C6	1:AA:326:G:C2	2.99	0.49
25:DA:522:G:H2'	25:DA:523:C:C6	2.48	0.49
27:DD:145:VAL:HB	27:DD:155:LEU:HB2	1.94	0.49
25:DA:234:C:H2'	25:DA:235:U:C6	2.46	0.49
29:BF:129:PHE:HA	29:BF:142:TRP:HE1	1.76	0.49
46:DZ:43:GLU:HA	46:DZ:46:LYS:HE2	1.95	0.49
1:AA:509:A:H3'	1:AA:509:A:C8	2.47	0.49
37:BQ:67:ARG:HB2	37:BQ:102:VAL:O	2.12	0.49
48:D1:25:LYS:HB3	48:D1:34:THR:O	2.12	0.49
36:BP:55:ARG:CG	36:BP:56:SER:N	2.75	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:500:G:N2	25:DA:502:A:H3'	2.27	0.49
25:DA:1661:G:C6	25:DA:2000:G:C6	3.01	0.49
31:DH:19:VAL:HG13	31:DH:43:VAL:HG21	1.95	0.49
25:BA:2446:G:C2	25:BA:2501:C:C5	3.01	0.49
33:DK:16:LYS:O	33:DK:17:ALA:HB2	2.11	0.49
4:AB:113:HIS:O	4:AB:117:GLU:HG3	2.12	0.49
46:BZ:136:PHE:C	46:BZ:137:ILE:HD12	2.33	0.49
37:DQ:119:ARG:HH21	37:DQ:120:ILE:HD11	1.77	0.49
25:DA:1386:C:H2'	25:DA:1387:C:C6	2.48	0.49
1:AA:1526:G:O2'	1:AA:1527:C:H5'	2.12	0.49
25:DA:1939:U:H3'	25:DA:1940:U:C5'	2.43	0.49
13:CK:96:ARG:O	13:CK:99:GLN:HG2	2.13	0.49
37:BQ:16:ARG:HG2	37:BQ:17:LEU:H	1.78	0.49
5:CC:27:LYS:HG3	5:CC:28:GLN:HG2	1.94	0.49
25:DA:996:A:C6	25:DA:1160:G:C2	3.01	0.49
12:CJ:7:LYS:C	12:CJ:8:LEU:HD12	2.33	0.49
24:CX:100:LEU:O	24:CX:100:LEU:HG	2.11	0.49
30:BG:91:ARG:HG2	30:BG:92:VAL:N	2.27	0.49
25:DA:1826:G:H4'	27:DD:242:ARG:CZ	2.43	0.49
25:DA:1176:G:C8	25:DA:1177:A:C5	3.01	0.49
40:BT:26:ASP:O	40:BT:49:VAL:HG12	2.13	0.49
25:BA:1175:U:OP1	25:BA:1175:U:H4'	2.12	0.49
15:AM:49:THR:HB	15:AM:52:GLU:CG	2.42	0.49
27:DD:186:HIS:CD2	27:DD:188:GLU:HB2	2.48	0.49
38:BR:8:ARG:HH21	38:BR:21:TYR:HE1	1.59	0.49
25:BA:2822:G:H8	25:BA:2822:G:O5'	1.95	0.49
7:AE:106:PRO:O	7:AE:110:LEU:HG	2.12	0.49
25:DA:143:C:H4'	44:DX:38:GLU:OE1	2.12	0.49
25:DA:1384:A:N3	25:DA:1405:U:H1'	2.28	0.49
25:DA:141(A):A:C8	25:DA:1408:C:H1'	2.48	0.49
47:D0:53:MET:HE1	47:D0:57:PHE:CD1	2.47	0.49
25:DA:1337:G:H2'	25:DA:1338:G:H8	1.77	0.49
29:BF:199:TRP:CZ3	29:BF:203:GLN:HG3	2.46	0.49
6:AD:28:SER:HB3	6:AD:29:PRO:CD	2.42	0.49
1:AA:1260:C:C3'	1:AA:1260:C:C6	2.95	0.49
9:CG:133:GLY:O	9:CG:137:LYS:HG3	2.13	0.49
29:BF:65:TRP:CZ2	29:BF:75:HIS:HD2	2.30	0.49
25:DA:2176:A:C6	25:DA:2177:C:N4	2.80	0.49
25:BA:2258:C:H4'	25:BA:2259:G:OP2	2.11	0.49
25:DA:1252:G:O4'	41:DU:33:ARG:HD2	2.13	0.49
26:DB:31:C:O2	26:DB:53:A:N6	2.45	0.49
1:CA:1281:U:H5'	1:CA:1282:C:H5	1.77	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:396:G:O4'	48:D1:18:ILE:CD1	2.61	0.49
1:AA:429:U:H4'	1:AA:430:A:O5'	2.13	0.49
31:DH:105:LEU:N	31:DH:105:LEU:HD12	2.28	0.49
31:BH:30:LYS:HB2	31:BH:79:VAL:HG12	1.93	0.49
1:CA:625:G:C6	1:CA:626:U:C4	3.01	0.49
31:DH:118:PRO:HG2	31:DH:121:ILE:HB	1.95	0.49
4:AB:72:GLY:HA2	4:AB:165:VAL:HG22	1.93	0.49
35:BO:34:THR:HG23	35:BO:35:VAL:N	2.27	0.49
14:AL:78:GLU:O	14:AL:79:HIS:CD2	2.65	0.49
14:AL:116:ARG:HB3	14:AL:121:THR:HB	1.95	0.49
39:BS:47:THR:C	39:BS:48:LEU:HD12	2.33	0.49
24:CX:280:SER:HB3	24:CX:283:LYS:HB2	1.95	0.49
25:BA:2663:G:C6	25:BA:2664:G:C5	3.00	0.49
25:BA:317:G:N2	25:BA:318:C:H1'	2.27	0.49
25:BA:727:A:O2'	25:BA:728:G:H5'	2.13	0.49
1:AA:746:A:C2'	1:AA:747:C:H5'	2.43	0.49
22:CT:12:ALA:O	22:CT:15:ARG:HB2	2.12	0.49
2:CZ:9:G:C5	2:CZ:46:G:N1	2.81	0.49
25:DA:592:G:O2'	55:D8:4:MET:HG3	2.12	0.49
25:DA:1486:A:H2'	25:DA:1487:G:H8	1.78	0.49
13:AK:114:VAL:HG23	13:AK:115:PRO:HD2	1.94	0.49
25:DA:2859:G:C6	25:DA:2860:A:N6	2.81	0.49
1:AA:236:G:C6	1:AA:237:C:C4	3.01	0.49
11:CI:127:LYS:O	11:CI:127:LYS:HG2	2.13	0.49
33:DK:7:VAL:HA	33:DK:58:THR:HA	1.95	0.49
1:AA:802:A:H2'	1:AA:803:G:O4'	2.12	0.49
25:BA:1893:C:H2'	25:BA:1894:C:O4'	2.13	0.49
4:CB:132:LYS:O	4:CB:136:VAL:HG23	2.12	0.49
25:BA:996:A:C6	25:BA:1160:G:C2	3.01	0.49
5:CC:58:GLU:O	5:CC:64:VAL:HA	2.12	0.49
25:BA:2286:A:H4'	25:BA:2287:A:O4'	2.12	0.49
1:CA:960:U:O2	1:CA:960:U:H2'	2.12	0.49
40:DT:64:ARG:HD3	40:DT:102:ILE:HD11	1.94	0.49
11:CI:29:ASN:OD1	11:CI:64:THR:HA	2.13	0.49
33:DK:72:PRO:HB2	33:DK:76:TYR:CE2	2.47	0.49
33:BK:52:ILE:HB	33:BK:73:PRO:HD2	1.93	0.49
47:B0:42:GLY:HA2	47:B0:57:PHE:CD2	2.48	0.49
1:CA:114:U:H2'	1:CA:115:G:H8	1.75	0.49
25:BA:2688:U:H3'	25:BA:2688:U:O2	2.13	0.49
37:BQ:38:GLU:HB2	37:BQ:127:ILE:CG2	2.38	0.49
5:AC:105:GLU:HG2	5:AC:106:VAL:N	2.24	0.49
25:DA:140:A:H8	25:DA:1408:C:O2'	1.96	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:60:A:C4'	1:CA:61:G:O5'	2.57	0.49
2:CZ:20:U:H5	2:CZ:59:A:N1	2.10	0.49
34:DN:46:LEU:HD12	34:DN:122:LEU:HD23	1.94	0.49
18:CP:22:THR:HA	18:CP:33:ILE:HG12	1.94	0.49
1:AA:369:C:O2'	1:AA:370:C:H5'	2.12	0.49
9:CG:65:ALA:HB1	9:CG:127:ALA:HB3	1.93	0.49
30:DG:121:ASN:HD22	30:DG:121:ASN:C	2.16	0.49
40:BT:3:ARG:O	40:BT:5:ALA:N	2.45	0.49
25:DA:557:U:H2'	25:DA:558:G:C8	2.48	0.49
39:DS:61:ASN:HD22	39:DS:61:ASN:C	2.16	0.49
39:BS:61:ASN:HD22	39:BS:61:ASN:C	2.15	0.49
39:BS:65:VAL:O	39:BS:69:VAL:HG12	2.13	0.49
25:BA:189:G:H2'	25:BA:205:G:N2	2.27	0.49
1:CA:577:G:O2'	1:CA:578:C:H5'	2.12	0.49
26:BB:40:U:H3'	26:BB:41:U:H5'	1.94	0.49
25:BA:234:C:H2'	25:BA:235:U:C6	2.48	0.49
25:DA:1603:A:H8	25:DA:1603:A:H5'	1.78	0.49
1:CA:210:U:H4'	1:CA:216:G:C8	2.48	0.49
31:DH:154:PRO:HB3	31:DH:163:TYR:CE2	2.47	0.49
25:BA:2774:C:H2'	25:BA:2775:A:O4'	2.13	0.49
38:BR:105:ARG:HG2	38:BR:106:GLY:N	2.26	0.49
23:CU:18:TYR:O	23:CU:22:ARG:HB3	2.12	0.49
1:AA:1121:U:O5'	1:AA:1121:U:H6	1.95	0.49
45:BY:83:THR:CG2	45:BY:94:LYS:HB2	2.43	0.49
25:BA:64:A:H2'	25:BA:65:C:H6	1.77	0.49
26:BB:61:G:C6	26:BB:62:C:C4	3.00	0.49
25:DA:570:G:H2'	25:DA:2030:A:C6	2.48	0.49
30:BG:165:THR:HB	30:BG:167:GLU:OE1	2.13	0.49
25:DA:64:A:H2'	25:DA:65:C:H6	1.76	0.49
8:AF:101:ALA:HA	20:AR:28:GLU:HG3	1.93	0.49
1:AA:147:G:C2	1:AA:176:C:N3	2.81	0.49
48:D1:13:ILE:HD11	48:D1:15:ALA:HB2	1.93	0.49
25:DA:2789:C:H6	25:DA:2789:C:O5'	1.95	0.49
12:AJ:96:ILE:HD13	12:AJ:96:ILE:N	2.27	0.49
45:BY:71:LYS:NZ	45:BY:71:LYS:HB2	2.28	0.49
54:D7:18:PHE:CE2	54:D7:22:MET:HG3	2.48	0.49
25:DA:275:G:N2	25:DA:276:A:C6	2.80	0.49
1:CA:1320:C:C2	21:CS:72:GLY:HA3	2.48	0.49
34:DN:36:TRP:CE3	34:DN:74:PHE:HB3	2.47	0.49
25:DA:1496:A:C8	25:DA:1577:C:O2'	2.55	0.49
25:DA:1496:A:C8	25:DA:1498:C:N3	2.80	0.49
36:BP:147:LEU:HD13	36:BP:149:GLU:HA	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:783:A:H3'	25:BA:783:A:C8	2.47	0.49
24:CX:131:LEU:HB3	24:CX:182:ILE:HG23	1.94	0.49
33:DK:52:ILE:HB	33:DK:73:PRO:HD2	1.94	0.49
25:DA:2111:C:H6	25:DA:2145:C:C2	2.30	0.49
15:CM:52:GLU:O	15:CM:56:LEU:HD23	2.13	0.49
15:CM:56:LEU:O	15:CM:60:VAL:HG23	2.12	0.49
47:B0:81:VAL:O	47:B0:83:PRO:HD3	2.13	0.49
5:AC:48:TYR:C	5:AC:50:ALA:H	2.16	0.49
25:DA:2820:A:O3'	38:DR:5:LYS:HE3	2.12	0.49
13:AK:99:GLN:C	13:AK:101:SER:H	2.16	0.49
30:DG:96:ARG:HG3	30:DG:98:ARG:H	1.77	0.49
25:BA:28:A:N6	25:BA:512:G:H1'	2.28	0.49
42:BV:78:LYS:HG3	42:BV:79:VAL:CG2	2.43	0.49
27:DD:111:LEU:HA	27:DD:115:GLN:OE1	2.13	0.49
21:CS:53:ASN:HD21	21:CS:56:GLN:H	1.60	0.49
18:CP:20:VAL:HG21	18:CP:32:TYR:CB	2.43	0.49
26:DB:81:G:O6	26:DB:95:U:O2	2.30	0.49
25:BA:729:G:C5	27:BD:208:LYS:HB2	2.48	0.49
25:DA:1981:A:H8	25:DA:1981:A:H3'	1.77	0.49
18:AP:20:VAL:HG21	18:AP:32:TYR:CB	2.43	0.49
18:AP:33:ILE:O	18:AP:34:GLU:HB2	2.13	0.49
29:DF:74:ARG:O	29:DF:75:HIS:CG	2.66	0.49
25:BA:2122:U:H2'	25:BA:2123:G:C8	2.48	0.49
1:CA:407:G:H2'	1:CA:408:A:H8	1.73	0.49
9:AG:111:ARG:HB2	9:AG:119:ARG:HD2	1.93	0.49
32:BI:109:ILE:HB	32:BI:130:TYR:CE1	2.48	0.49
15:AM:91:ARG:HH21	15:AM:97:PRO:HG2	1.78	0.49
25:BA:55:G:O2'	25:BA:56:A:H5'	2.13	0.49
39:BS:61:ASN:H	39:BS:65:VAL:HG23	1.78	0.49
1:CA:145:G:H2'	1:CA:146:G:C8	2.46	0.49
1:AA:169:C:C5'	1:AA:169:C:H6	2.26	0.49
25:DA:1439:A:C2	25:DA:1553:A:C4	3.00	0.49
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.48	0.49
25:BA:2105:C:H2'	25:BA:2106:G:O4'	2.13	0.49
25:BA:649:G:O5'	25:BA:649:G:H8	1.96	0.49
1:AA:118:U:H3'	1:AA:288:A:H61	1.78	0.49
25:DA:24:G:C6	25:DA:25:U:C4	3.01	0.49
42:DV:64:HIS:CG	42:DV:92:THR:HG22	2.48	0.49
25:BA:1411:C:H2'	25:BA:1412:A:C8	2.48	0.49
25:DA:1270:C:H5''	25:DA:1271:G:H5'	1.94	0.49
1:CA:746:A:C2'	1:CA:747:C:H5'	2.42	0.49
25:BA:1205:U:H4'	25:BA:1206:G:OP2	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1092:A:H8	1:AA:1092:A:O5'	1.95	0.49
25:BA:456:C:H2'	25:BA:456:C:O5'	2.12	0.49
28:DE:78:LEU:N	28:DE:78:LEU:HD23	2.27	0.49
1:CA:748:C:OP2	1:CA:748:C:C6	2.66	0.49
25:DA:2766:G:N3	25:DA:2766:G:H2'	2.27	0.49
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.48	0.49
1:AA:913:A:OP2	14:AL:90:LYS:NZ	2.46	0.49
25:DA:492:A:H2'	25:DA:493:G:O4'	2.13	0.49
2:AZ:9:G:C5	2:AZ:46:G:N1	2.80	0.49
25:BA:451:C:H4'	29:BF:52:LYS:NZ	2.28	0.49
55:D8:16:ILE:CD1	55:D8:58:ILE:HD13	2.43	0.49
36:BP:49:ARG:HD2	55:B8:59:LYS:HB3	1.94	0.49
41:DU:66:ASN:HB2	41:DU:76:TYR:HB2	1.93	0.49
27:BD:68:LYS:HB2	27:BD:70:TRP:CZ3	2.48	0.49
27:BD:68:LYS:O	27:BD:69:ARG:C	2.51	0.49
7:CE:51:VAL:HB	7:CE:52:PRO:HD3	1.95	0.49
39:DS:34:HIS:O	39:DS:97:ARG:NH2	2.46	0.49
16:CN:24:CYS:HB3	16:CN:29:ARG:N	2.28	0.49
27:DD:255:LYS:CD	27:DD:255:LYS:H	2.20	0.49
24:AX:32:ILE:HG12	24:AX:75:PHE:CG	2.47	0.49
27:DD:144:ALA:CB	27:DD:192:THR:HG21	2.33	0.49
45:DY:8:LYS:HG2	45:DY:13:VAL:CG2	2.43	0.49
25:BA:1658:C:OP1	28:BE:132:HIS:CE1	2.66	0.49
11:AI:55:ALA:HB1	11:AI:59:PHE:CD1	2.47	0.49
1:AA:1147:C:H6	1:AA:1147:C:O5'	1.95	0.49
14:CL:31:PHE:HB3	14:CL:83:LEU:CD1	2.37	0.49
25:BA:2516:G:C6	25:BA:2517:C:N4	2.80	0.49
25:DA:2144:U:H2'	25:DA:2146:C:C5	2.48	0.49
52:D5:16:ARG:NH1	52:D5:17:ASP:OD1	2.45	0.49
1:CA:757:U:H2'	1:CA:758:G:O4'	2.13	0.49
30:DG:7:LEU:HA	30:DG:10:LYS:HD2	1.95	0.49
25:BA:2392:A:C8	36:BP:60:MET:HG2	2.47	0.49
37:BQ:88:GLY:C	37:BQ:89:ASN:OD1	2.50	0.49
1:CA:47:C:O2	1:CA:49:U:C5	2.65	0.49
1:AA:738:C:H5''	8:AF:69:GLU:HB2	1.95	0.49
25:BA:1332:G:C4'	25:BA:1333:C:OP2	2.59	0.49
25:BA:27:G:O2'	25:BA:28:A:P	2.71	0.49
14:CL:22:LYS:O	14:CL:23:VAL:HG23	2.13	0.49
6:AD:25:ARG:HH12	6:AD:30:LYS:HG3	1.77	0.49
45:BY:81:LYS:HE2	45:BY:97:ARG:HH11	1.78	0.49
19:CQ:9:VAL:HG11	19:CQ:84:LEU:HD12	1.95	0.49
43:DW:83:LYS:O	43:DW:84:ARG:HD3	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2862:G:C4	25:BA:2863:C:C5	3.01	0.49
25:DA:1005:C:H2'	25:DA:1006:C:H6	1.72	0.49
42:DV:35:LEU:HB2	42:DV:57:VAL:CG1	2.41	0.49
1:AA:503:C:OP2	14:AL:115:SER:OG	2.25	0.49
32:DI:69:LYS:O	32:DI:73:GLU:CB	2.61	0.49
25:DA:580:C:H2'	25:DA:581:C:C6	2.47	0.49
17:CO:5:LYS:H	17:CO:5:LYS:HD3	1.78	0.49
24:CX:334:VAL:HG22	24:CX:343:ARG:HB2	1.95	0.49
25:BA:2069:G:C2	25:BA:2070:G:C8	3.01	0.49
25:BA:57:C:H2'	25:BA:58:G:O4'	2.13	0.49
25:BA:415:A:H2'	25:BA:416:C:C6	2.47	0.49
25:BA:2389:G:H5''	25:BA:2390:U:O4'	2.12	0.49
29:DF:53:THR:C	29:DF:55:GLY:N	2.66	0.49
7:AE:139:LEU:HA	7:AE:142:LEU:HD12	1.94	0.49
14:AL:85:ARG:HB2	14:AL:100:VAL:HG23	1.92	0.49
24:AX:368:ARG:O	24:AX:368:ARG:HD2	2.13	0.49
39:BS:101:LEU:C	39:BS:101:LEU:HD13	2.33	0.49
1:AA:1085:U:H3'	1:AA:1086:U:C5	2.47	0.49
1:AA:174:C:H2'	1:AA:175:C:C6	2.47	0.49
25:DA:2540:C:H2'	25:DA:2541:A:O4'	2.12	0.49
25:DA:1429:G:H2'	25:DA:1430:C:C6	2.48	0.49
25:BA:1800:C:OP2	27:BD:183:ARG:NH2	2.46	0.49
19:CQ:64:PRO:HA	19:CQ:70:ARG:HG3	1.95	0.49
1:AA:1523:G:OP1	13:AK:123:LYS:HE2	2.13	0.49
25:DA:2726:U:O4'	25:DA:2726:U:O2	2.30	0.49
25:BA:2108:C:H2'	25:BA:2109:U:H6	1.77	0.49
1:CA:417:C:H2'	1:CA:418:C:C6	2.47	0.49
25:BA:611:C:H2'	25:BA:612:G:O4'	2.13	0.49
25:DA:806:C:H6	25:DA:806:C:O5'	1.95	0.49
22:CT:26:ASN:ND2	22:CT:26:ASN:H	2.10	0.49
39:DS:34:HIS:HD1	39:DS:36:TYR:HH	1.60	0.49
36:DP:62:LEU:C	36:DP:62:LEU:HD22	2.33	0.49
30:DG:133:LEU:HD21	30:DG:157:ILE:HG13	1.95	0.49
1:CA:1287:A:H2'	1:CA:1288:A:C8	2.48	0.49
32:DI:101:LEU:HG	32:DI:107:ILE:HG23	1.95	0.49
28:BE:132:HIS:HA	28:BE:135:HIS:CE1	2.47	0.49
33:DK:22:PRO:C	33:DK:25:PRO:HD2	2.33	0.49
24:AX:245:MET:C	24:AX:259:ASP:HB2	2.34	0.49
25:BA:2111:C:H6	25:BA:2145:C:C2	2.31	0.49
20:CR:66:LEU:O	20:CR:70:ILE:HG12	2.13	0.49
25:BA:1544:C:C2'	25:BA:1545:A:H5'	2.43	0.49
15:CM:3:ARG:N	15:CM:9:ILE:HG23	2.28	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DG:110:ALA:HA	30:DG:140:ILE:O	2.13	0.49
25:BA:1209:G:N2	25:BA:1210:A:H62	2.09	0.49
4:CB:100:GLY:O	4:CB:101:MET:C	2.51	0.49
25:DA:142:G:H2'	25:DA:143:C:C6	2.48	0.49
1:AA:1074:G:C2	1:AA:1102:A:C2	3.01	0.49
25:DA:973:A:OP2	42:DV:78:LYS:NZ	2.45	0.49
42:DV:79:VAL:O	42:DV:80:GLN:C	2.51	0.49
27:BD:111:LEU:HA	27:BD:115:GLN:OE1	2.12	0.49
31:DH:101:ARG:NE	31:DH:101:ARG:N	2.60	0.49
34:BN:46:LEU:HD12	34:BN:122:LEU:HD23	1.94	0.49
30:DG:125:PHE:CE2	30:DG:131:TYR:HB2	2.48	0.49
1:CA:1260:C:C3'	1:CA:1260:C:C6	2.94	0.49
10:AH:88:LYS:HB3	10:AH:89:PRO:HD2	1.94	0.49
36:DP:114:ILE:H	36:DP:114:ILE:HD12	1.76	0.49
1:CA:1493:A:C2	25:DA:1913:A:C4	3.01	0.49
1:CA:375:U:C4	1:CA:376:G:N7	2.80	0.49
7:CE:144:THR:O	7:CE:148:VAL:HG23	2.13	0.49
25:DA:2108:C:H2'	25:DA:2109:U:C6	2.48	0.49
1:AA:256:U:H2'	1:AA:257:G:O4'	2.13	0.49
53:D6:46:HIS:O	53:D6:47:THR:HG23	2.12	0.49
1:AA:20:U:H2'	1:AA:21:G:O4'	2.13	0.49
30:DG:165:THR:HB	30:DG:167:GLU:OE1	2.12	0.49
46:DZ:154:ASP:O	46:DZ:155:LEU:HG	2.12	0.49
43:BW:78:GLU:OE2	43:BW:99:ARG:HD3	2.13	0.49
25:DA:2228:G:O5'	25:DA:2228:G:H8	1.96	0.49
25:DA:1324:G:H1'	25:DA:1616:A:N6	2.28	0.49
13:CK:17:GLY:HA3	13:CK:77:MET:SD	2.52	0.49
25:DA:1709:U:H2'	25:DA:1710:C:C6	2.48	0.49
25:BA:1863:G:H2'	25:BA:1864:U:O4'	2.13	0.49
1:AA:443:C:C2	1:AA:492:G:C2	3.01	0.49
27:BD:25:THR:HG21	27:BD:81:ALA:CB	2.42	0.48
36:BP:49:ARG:NH1	36:BP:49:ARG:HG3	2.13	0.48
34:DN:66:THR:H	34:DN:71:MET:CE	2.24	0.48
39:BS:34:HIS:O	39:BS:97:ARG:NH2	2.46	0.48
42:DV:81:TYR:C	42:DV:82:ARG:HD2	2.33	0.48
37:DQ:134:ARG:CG	37:DQ:134:ARG:O	2.60	0.48
1:CA:1321:C:H3'	1:CA:1322:C:C5'	2.43	0.48
11:CI:95:LYS:O	11:CI:96:LEU:HD12	2.13	0.48
21:AS:6:LYS:HD3	21:AS:7:LYS:HE3	1.94	0.48
36:BP:148:LEU:HD22	36:BP:149:GLU:H	1.77	0.48
19:AQ:10:VAL:CG1	19:AQ:19:VAL:HB	2.43	0.48
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.47	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1541:U:H3'	25:BA:1542:G:C3'	2.43	0.48
25:DA:1544:C:C2'	25:DA:1545:A:H5'	2.43	0.48
29:BF:164:ARG:O	29:BF:165:ARG:C	2.51	0.48
24:CX:252:GLY:HA2	25:DA:2584:U:O2'	2.13	0.48
15:AM:51:ALA:O	15:AM:55:ARG:HB2	2.12	0.48
15:AM:52:GLU:O	15:AM:56:LEU:HD23	2.12	0.48
1:CA:1492:A:C5	24:CX:320:TRP:CZ2	3.01	0.48
25:DA:2822:G:O5'	25:DA:2822:G:H8	1.95	0.48
44:DX:35:THR:H	44:DX:38:GLU:HG2	1.78	0.48
6:CD:60:GLU:OE2	6:CD:199:ASN:HB3	2.12	0.48
39:BS:37:ALA:HB3	39:BS:73:LEU:HD11	1.95	0.48
36:BP:114:ILE:CD1	36:BP:114:ILE:H	2.24	0.48
14:CL:44:PRO:HA	14:CL:92:LEU:HD23	1.95	0.48
37:DQ:16:ARG:HG2	37:DQ:17:LEU:H	1.78	0.48
2:AZ:20:U:H5	2:AZ:59:A:N1	2.11	0.48
29:DF:202:PHE:CZ	29:DF:206:ILE:HD11	2.47	0.48
19:AQ:54:GLY:O	19:AQ:81:ARG:HB2	2.13	0.48
40:BT:55:ASN:O	40:BT:57:PHE:O	2.31	0.48
1:CA:501:C:H2'	1:CA:502:G:H8	1.77	0.48
33:BK:66:THR:HG22	33:BK:68:VAL:HG22	1.94	0.48
19:AQ:7:THR:CG2	19:AQ:58:GLU:HG2	2.43	0.48
1:AA:511:C:HO2'	1:AA:512:U:H6	1.60	0.48
4:CB:75:LYS:O	4:CB:75:LYS:HD3	2.12	0.48
25:BA:1525:G:C4	25:BA:1526:G:C8	3.01	0.48
11:AI:95:LYS:O	11:AI:96:LEU:HD12	2.13	0.48
34:BN:125:ALA:O	34:BN:129:MET:HG3	2.13	0.48
25:BA:2041:U:O2'	25:BA:2042:A:H5'	2.12	0.48
25:DA:1639:U:H2'	25:DA:1640:C:H5''	1.94	0.48
25:DA:2208:U:O4'	27:DD:151:LYS:HE2	2.13	0.48
1:AA:793:U:C5'	1:AA:794:A:H5''	2.43	0.48
25:DA:537:C:H2'	25:DA:539:G:H8	1.78	0.48
25:BA:296:C:O2'	25:BA:297:C:H5'	2.12	0.48
1:CA:766:A:C5	1:CA:814:A:C2	3.01	0.48
25:DA:1952:A:C6	35:DO:22:ILE:HD12	2.47	0.48
43:BW:1:MET:HG2	43:BW:64:MET:HE1	1.93	0.48
45:BY:42:VAL:CG2	45:BY:67:LEU:HD13	2.42	0.48
1:CA:155:C:H2'	1:CA:156:G:H8	1.78	0.48
22:AT:14:LYS:CA	22:AT:17:ARG:HH21	2.26	0.48
40:DT:16:ARG:H	40:DT:79:HIS:HD2	1.60	0.48
1:AA:867:G:H2'	1:AA:868:C:H6	1.78	0.48
25:BA:218:A:O2'	25:BA:219:G:H5'	2.13	0.48
25:DA:699:A:H2'	25:DA:700:G:O4'	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:265:A:H1'	25:BA:266:G:O4'	2.13	0.48
30:DG:11:TYR:HB2	30:DG:176:LEU:HD21	1.95	0.48
4:AB:176:GLU:O	4:AB:180:LEU:HG	2.13	0.48
25:BA:1270:C:H5''	25:BA:1271:G:H5'	1.95	0.48
25:DA:611:C:H2'	25:DA:612:G:O4'	2.13	0.48
25:BA:1665:A:H2'	25:BA:1666:G:O4'	2.13	0.48
5:CC:173:VAL:N	5:CC:174:PRO:HD3	2.28	0.48
30:BG:145:THR:OG1	30:BG:148:MET:HB2	2.12	0.48
1:CA:300:A:C8	1:CA:300:A:H3'	2.48	0.48
25:BA:122:G:N2	25:BA:130:C:C2	2.81	0.48
25:DA:2774:C:H2'	25:DA:2775:A:O4'	2.13	0.48
1:CA:592:G:H1	1:CA:647:C:H42	1.60	0.48
4:AB:132:LYS:O	4:AB:136:VAL:HG23	2.12	0.48
26:BB:73:A:C2	26:BB:74:U:H1'	2.48	0.48
25:DA:247:G:H4'	25:DA:386:G:C5	2.48	0.48
6:AD:122:ARG:HD3	6:AD:122:ARG:O	2.13	0.48
6:AD:21:LEU:HD12	6:AD:21:LEU:H	1.78	0.48
1:CA:1092:A:O5'	1:CA:1092:A:H8	1.96	0.48
25:BA:2540:C:H2'	25:BA:2541:A:O4'	2.12	0.48
2:CZ:12:G:H2'	2:CZ:13:C:C6	2.48	0.48
25:BA:1615:C:C6	25:BA:1617:C:C5	3.01	0.48
42:BV:49:THR:O	42:BV:51:VAL:N	2.45	0.48
48:D1:27:GLU:HG3	48:D1:33:LYS:HZ1	1.78	0.48
15:CM:29:ARG:HD3	15:CM:64:TRP:CH2	2.48	0.48
54:B7:18:PHE:CD2	54:B7:18:PHE:C	2.86	0.48
54:B7:19:ARG:NH1	54:B7:19:ARG:HG3	2.06	0.48
7:CE:20:GLN:O	7:CE:21:ALA:C	2.51	0.48
40:DT:89:VAL:O	40:DT:90:GLN:HB2	2.13	0.48
1:CA:1372:U:H5''	11:CI:71:SER:HB3	1.95	0.48
25:DA:2213:U:H6	25:DA:2213:U:O5'	1.96	0.48
25:DA:2579:C:H4'	28:DE:134:ILE:HG12	1.95	0.48
1:AA:757:U:H2'	1:AA:758:G:O4'	2.12	0.48
25:BA:2334:G:C4	39:BS:12:PHE:CZ	3.02	0.48
26:BB:16:G:C6	26:BB:69:G:C2	3.01	0.48
30:BG:125:PHE:CE2	30:BG:131:TYR:HB2	2.48	0.48
25:BA:1081:U:O2'	33:BK:117:THR:HA	2.13	0.48
25:DA:2502:G:H5'	25:DA:2503:A:C5'	2.40	0.48
11:AI:11:LYS:C	11:AI:13:ALA:H	2.17	0.48
25:DA:2029:G:C4	25:DA:2031:A:OP2	2.66	0.48
4:AB:17:PHE:CD2	4:AB:17:PHE:N	2.78	0.48
25:BA:2134:A:C8	25:BA:2158:A:C2	3.01	0.48
25:BA:2176:A:C6	25:BA:2177:C:N4	2.81	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:582:G:H2'	25:DA:583:G:C8	2.47	0.48
17:CO:18:PHE:CE2	17:CO:21:ASP:HB2	2.48	0.48
24:AX:339:THR:OG1	24:AX:341:LEU:HB3	2.13	0.48
6:AD:11:LEU:O	6:AD:12:CYS:C	2.52	0.48
39:DS:61:ASN:H	39:DS:65:VAL:HG23	1.77	0.48
19:CQ:26:GLN:HB3	19:CQ:37:LYS:HG2	1.95	0.48
1:CA:576:G:H3'	1:CA:577:G:H5''	1.94	0.48
1:CA:1003:G:H2'	1:CA:1004:A:H5'	1.94	0.48
31:BH:107:VAL:HG23	31:BH:109:PHE:HD1	1.79	0.48
1:AA:642:A:H2'	1:AA:643:C:C6	2.48	0.48
9:CG:23:VAL:HG13	9:CG:43:PHE:CE2	2.48	0.48
31:DH:92:ILE:HG22	31:DH:93:GLY:N	2.27	0.48
1:AA:101:A:H5''	1:AA:101:A:C8	2.48	0.48
25:DA:2704:C:H2'	25:DA:2705:A:C8	2.48	0.48
30:BG:50:ALA:O	30:BG:54:GLU:HG3	2.12	0.48
1:CA:849:C:O2'	1:CA:850:U:H5'	2.12	0.48
36:DP:123:LEU:HD23	36:DP:123:LEU:O	2.14	0.48
1:AA:918:A:H2'	1:AA:919:A:C8	2.47	0.48
33:BK:104:VAL:HG13	33:BK:127:ILE:HB	1.93	0.48
27:BD:140:THR:HG22	27:BD:141:VAL:O	2.12	0.48
30:DG:174:GLU:HG2	30:DG:180:PHE:CD1	2.48	0.48
1:AA:750:G:N3	17:AO:23:GLY:HA3	2.28	0.48
27:BD:267:SER:O	27:BD:270:ILE:HG13	2.13	0.48
25:BA:868:U:C4	25:BA:869:G:N7	2.81	0.48
41:BU:72:HIS:CD2	41:BU:110:VAL:HG21	2.48	0.48
25:BA:1799:G:C8	27:BD:177:LEU:HD12	2.49	0.48
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.47	0.48
12:AJ:7:LYS:O	12:AJ:96:ILE:HA	2.14	0.48
39:DS:102:ALA:O	39:DS:103:GLU:C	2.51	0.48
25:DA:1018:C:H2'	25:DA:1019:U:C6	2.48	0.48
25:DA:1024:G:H3'	25:DA:1025:G:H5''	1.94	0.48
1:CA:1320:C:H2'	1:CA:1321:C:O4'	2.12	0.48
25:DA:1497:U:O2'	25:DA:1498:C:H5'	2.14	0.48
1:AA:1372:U:H5''	11:AI:71:SER:HB3	1.95	0.48
25:BA:662:G:H5'	36:BP:18:ARG:HA	1.96	0.48
36:DP:148:LEU:HD23	36:DP:149:GLU:H	1.76	0.48
14:CL:32:ARG:H	14:CL:84:ILE:HG22	1.78	0.48
30:BG:7:LEU:HB2	30:BG:104:GLU:CG	2.40	0.48
44:DX:60:ARG:NH2	54:D7:47:ARG:NH1	2.60	0.48
2:AZ:26:G:H1	2:AZ:44:A:N6	2.09	0.48
42:BV:79:VAL:O	42:BV:80:GLN:C	2.51	0.48
6:CD:9:CYS:HB3	6:CD:32:ALA:CB	2.43	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2012:G:O3'	43:DW:96:ILE:HD11	2.13	0.48
36:DP:114:ILE:HD13	36:DP:130:PHE:CD1	2.48	0.48
25:DA:2122:U:H2'	25:DA:2123:G:C8	2.48	0.48
46:DZ:118:GLN:N	46:DZ:173:ALA:O	2.43	0.48
24:AX:199:VAL:HG12	24:AX:200:HIS:H	1.77	0.48
25:BA:2599:G:N7	27:BD:237:GLU:HG3	2.28	0.48
10:CH:73:ASP:C	10:CH:75:ARG:H	2.15	0.48
2:AZ:21:A:HO2'	2:AZ:22:G:H8	1.61	0.48
25:DA:1525:G:C4	25:DA:1526:G:C8	3.01	0.48
39:DS:66:ALA:O	39:DS:67:ARG:C	2.52	0.48
1:AA:662:G:H2'	1:AA:663:A:C8	2.49	0.48
25:BA:1375:C:O2'	25:BA:1376:C:H5'	2.14	0.48
13:AK:12:ARG:HB3	13:AK:12:ARG:CZ	2.42	0.48
25:DA:1682:G:C6	25:DA:1683:C:C4	3.02	0.48
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.49	0.48
35:BO:14:THR:HG21	35:BO:86:ILE:HD13	1.95	0.48
25:BA:738:G:H3'	25:BA:739:G:C8	2.48	0.48
25:BA:561:G:H1'	41:BU:45:TYR:CE2	2.49	0.48
30:BG:36:LYS:HB3	30:BG:160:VAL:HB	1.95	0.48
2:AY:16:C:O2	2:AY:60:U:H4'	2.13	0.48
46:BZ:154:ASP:O	46:BZ:155:LEU:HG	2.13	0.48
25:BA:2766:G:N3	25:BA:2766:G:H2'	2.27	0.48
33:BK:144:VAL:O	33:BK:145:LYS:HB3	2.12	0.48
36:BP:23:PRO:HB2	36:BP:33:ARG:NE	2.28	0.48
1:CA:80:G:H2'	1:CA:81:G:H8	1.73	0.48
29:BF:45:ARG:CG	29:BF:45:ARG:NH1	2.66	0.48
12:CJ:74:ILE:H	12:CJ:74:ILE:HD13	1.77	0.48
54:B7:18:PHE:CE2	54:B7:22:MET:HG3	2.48	0.48
45:DY:42:VAL:CG2	45:DY:67:LEU:HD13	2.44	0.48
25:DA:1027:A:N6	25:DA:1126:A:C4	2.82	0.48
25:DA:2516:G:C6	25:DA:2517:C:N4	2.81	0.48
37:BQ:134:ARG:CG	37:BQ:134:ARG:O	2.61	0.48
25:BA:661:C:H4'	36:BP:18:ARG:HG2	1.94	0.48
25:DA:661:C:H4'	36:DP:16:ARG:HD2	1.96	0.48
1:CA:1305:G:O2'	1:CA:1331:G:N2	2.47	0.48
4:AB:59:GLU:HB2	4:AB:221:LEU:HD11	1.95	0.48
25:DA:1053:C:H2'	25:DA:1054:A:C8	2.48	0.48
1:CA:719:C:C2	20:CR:50:ILE:HG12	2.48	0.48
37:BQ:22:LYS:O	37:BQ:24:GLY:N	2.46	0.48
22:CT:100:ILE:CG2	22:CT:101:GLY:N	2.76	0.48
25:BA:1056:G:H5''	25:BA:1057:A:O4'	2.13	0.48
1:AA:1347:G:H8	11:AI:107:ARG:HB3	1.74	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:B1:53:VAL:HG12	48:B1:53:VAL:O	2.13	0.48
25:BA:2422:A:C4	25:BA:2424:C:C5	3.02	0.48
30:BG:16:ARG:NH1	30:BG:16:ARG:CG	2.71	0.48
14:AL:52:ARG:NH1	14:AL:91:ASP:OD2	2.47	0.48
53:B6:34:LEU:CD1	53:B6:34:LEU:H	2.24	0.48
44:BX:50:LYS:HD3	44:BX:51:VAL:N	2.28	0.48
25:BA:380:U:H4'	48:B1:21:ARG:O	2.13	0.48
25:BA:805:G:H4'	25:BA:806:C:OP2	2.13	0.48
1:CA:465:A:H8	1:CA:465:A:O5'	1.97	0.48
1:CA:510:A:H5''	1:CA:511:C:OP2	2.13	0.48
1:CA:407:G:C6	1:CA:408:A:N6	2.81	0.48
25:BA:2083:G:C5	25:BA:2084:C:C4	3.02	0.48
1:AA:1452:C:H1'	1:AA:1453:G:N1	2.29	0.48
25:DA:231:C:O2'	25:DA:232:G:H5'	2.13	0.48
1:AA:1005:A:H4'	1:AA:1037:C:H1'	1.96	0.48
1:AA:818:G:C2'	1:AA:819:A:H5''	2.44	0.48
35:BO:7:TYR:CE1	35:BO:20:MET:HE3	2.46	0.48
46:BZ:43:GLU:HA	46:BZ:46:LYS:HE2	1.95	0.48
47:D0:72:ARG:NH2	47:D0:75:LEU:HD13	2.28	0.48
2:CY:61:C:H2'	2:CY:62:C:H6	1.78	0.48
25:DA:161:U:H3'	25:DA:162:U:C5'	2.43	0.48
39:DS:101:LEU:O	39:DS:101:LEU:HD13	2.13	0.48
1:AA:190:G:H4'	1:AA:191(A):G:OP2	2.14	0.48
1:AA:833:U:H2'	1:AA:834:C:C6	2.48	0.48
25:BA:504:U:O2	25:BA:504:U:O4'	2.30	0.48
19:CQ:13:ASP:N	19:CQ:13:ASP:OD1	2.47	0.48
50:D3:53:LEU:N	50:D3:53:LEU:HD12	2.28	0.48
1:AA:748:C:C6	1:AA:748:C:OP2	2.66	0.48
22:AT:71:THR:CG2	22:AT:72:LEU:H	2.06	0.48
36:BP:50:ARG:O	36:BP:51:PHE:C	2.50	0.48
5:CC:15:THR:HG21	5:CC:181:ASN:HA	1.96	0.48
1:AA:1328:C:H2'	1:AA:1329:A:C8	2.48	0.48
12:CJ:9:ARG:NH2	12:CJ:95:GLU:HG2	2.11	0.48
25:BA:1022:G:C6	25:BA:1140:C:C4	3.02	0.48
25:BA:1024:G:H3'	25:BA:1025:G:H5''	1.95	0.48
32:DI:5:LEU:H	32:DI:5:LEU:CD2	2.26	0.48
25:DA:1019:U:O2'	25:DA:1021:A:H2	1.97	0.48
25:BA:275:G:O6	25:BA:363(A):G:C2	2.66	0.48
25:DA:2393:A:C5'	36:DP:62:LEU:HB3	2.44	0.48
11:CI:63:ILE:HD12	11:CI:63:ILE:N	2.28	0.48
1:AA:1305:G:N2	1:AA:1331:G:C2'	2.74	0.48
12:AJ:48:THR:HG22	12:AJ:62:HIS:CB	2.44	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1127:G:H1'	1:CA:1148:U:O2	2.14	0.48
25:DA:1095:A:H62	33:DK:29:GLN:HE22	1.61	0.48
25:BA:2212:A:N3	25:BA:2215:G:N2	2.62	0.48
33:DK:8:VAL:HG13	33:DK:57:ILE:HB	1.96	0.48
14:CL:84:ILE:HA	14:CL:84:ILE:HD12	1.65	0.48
25:BA:203:C:H6	25:BA:203:C:C3'	2.17	0.48
30:BG:6:ALA:O	30:BG:10:LYS:HG3	2.13	0.48
32:BI:75:LEU:HD21	32:BI:105:HIS:NE2	2.28	0.48
48:B1:51:VAL:HG22	48:B1:52:ARG:N	2.29	0.48
25:DA:517:C:OP1	52:D5:16:ARG:NH2	2.46	0.48
25:BA:1490:A:O5'	25:BA:1490:A:H8	1.97	0.48
1:AA:523:A:N1	14:AL:91:ASP:HB2	2.28	0.48
26:BB:81:G:O6	26:BB:95:U:O2	2.31	0.48
14:CL:59:LEU:CD2	14:CL:65:VAL:HG23	2.43	0.48
25:BA:603:A:N1	25:BA:655:A:C4	2.82	0.48
25:DA:2296:U:O2	25:DA:2333:A:N3	2.47	0.48
25:BA:1188:U:H4'	42:BV:79:VAL:CG1	2.44	0.48
30:DG:120:LEU:HB3	30:DG:131:TYR:OH	2.13	0.48
25:DA:2863:C:O2'	25:DA:2864:G:H5'	2.12	0.48
52:B5:3:LYS:O	52:B5:4:HIS:O	2.31	0.48
11:AI:9:ARG:HB2	11:AI:104:ARG:HD3	1.96	0.48
25:DA:2815:C:O2'	52:D5:42:PRO:HB2	2.12	0.48
13:AK:59:TYR:O	13:AK:62:GLN:HB3	2.13	0.48
42:BV:28:GLU:OE1	42:BV:31:ALA:HB2	2.13	0.48
25:BA:2244:U:O2'	25:BA:2245:U:H5'	2.14	0.48
25:BA:2777:G:H3'	25:BA:2777:G:H8	1.79	0.48
15:AM:72:ALA:O	15:AM:75:ALA:HB3	2.13	0.48
25:BA:902:C:H2'	25:BA:903:C:C6	2.48	0.48
35:BO:4:PRO:O	35:BO:5:GLN:CB	2.62	0.48
49:B2:36:ARG:NH1	49:B2:36:ARG:HB3	2.28	0.48
25:BA:1359:A:C8	25:BA:1372:U:O4	2.67	0.48
35:DO:22:ILE:HA	35:DO:22:ILE:HD13	1.72	0.48
1:CA:325:A:C6	1:CA:326:G:C2	3.01	0.48
5:AC:175:LEU:HD11	5:AC:201:TYR:HE2	1.78	0.48
28:BE:195:LEU:HD23	28:BE:196:VAL:N	2.28	0.48
29:DF:134:GLY:H	29:DF:162:LEU:HD22	1.79	0.48
1:CA:197:A:N6	1:CA:221:C:H5'	2.27	0.48
25:BA:855:G:H2'	25:BA:856:C:C6	2.49	0.48
1:CA:15:G:H4'	7:CE:24:ARG:HH12	1.78	0.48
25:DA:164:U:H2'	25:DA:165:U:C6	2.49	0.48
39:DS:48:LEU:N	39:DS:48:LEU:HD12	2.28	0.48
25:BA:1709:U:H2'	25:BA:1710:C:C6	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CI:84:ALA:O	11:CI:87:GLN:HB3	2.14	0.48
33:BK:35:MET:O	33:BK:39:LYS:HD3	2.13	0.48
25:BA:398:G:H2'	25:BA:399:G:C8	2.49	0.48
25:BA:948:G:O2'	25:BA:949:C:H5'	2.13	0.48
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.48	0.48
55:B8:29:LYS:HG2	55:B8:29:LYS:O	2.12	0.48
33:BK:97:GLY:O	33:BK:136:VAL:HG23	2.14	0.48
10:CH:14:ARG:O	10:CH:18:ARG:HD3	2.13	0.48
41:DU:104:GLN:OE1	41:DU:105:VAL:N	2.40	0.48
25:BA:310:A:HO2'	25:BA:311:A:H2'	1.72	0.48
27:BD:35:LYS:HG2	27:BD:104:TYR:CE2	2.49	0.48
46:DZ:81:ARG:O	46:DZ:82:ARG:HB2	2.12	0.48
21:AS:5:LEU:HD13	21:AS:6:LYS:N	2.28	0.48
25:BA:783:A:C3'	25:BA:783:A:C8	2.97	0.48
19:CQ:10:VAL:HG23	19:CQ:55:ASP:O	2.12	0.48
1:CA:1179:A:O2'	11:CI:103:THR:HG23	2.14	0.48
30:BG:47:LYS:HE3	30:BG:48:GLU:HA	1.95	0.48
6:CD:63:LYS:O	6:CD:67:ILE:HG13	2.13	0.48
38:DR:9:LYS:C	38:DR:10:LEU:HG	2.33	0.48
48:D1:90:ILE:O	48:D1:91:LYS:C	2.51	0.48
4:CB:59:GLU:HB2	4:CB:221:LEU:HD11	1.95	0.48
7:CE:102:ALA:H	7:CE:107:ARG:HH21	1.61	0.48
5:AC:104:GLN:CD	5:AC:105:GLU:H	2.16	0.48
14:CL:24:PRO:C	14:CL:26:LEU:N	2.67	0.48
25:DA:1509:A:H4'	25:DA:1510:A:C8	2.48	0.48
1:AA:1320:C:H2'	1:AA:1321:C:O4'	2.13	0.48
29:DF:170:LEU:HG	29:DF:172:TRP:NE1	2.29	0.48
25:BA:840:C:H2'	25:BA:841:A:C8	2.48	0.48
25:BA:2280:G:C2	25:BA:2281:C:C6	3.01	0.48
25:DA:2018:G:C6	25:DA:2019:A:C5	3.01	0.48
1:AA:503:C:O2	1:AA:510:A:H2	1.97	0.48
29:DF:13:SER:HA	29:DF:128:ALA:HB2	1.95	0.48
25:DA:1248:G:OP1	41:DU:2:PRO:HD2	2.13	0.48
1:CA:942:G:N2	11:CI:124:GLN:HE22	2.10	0.48
2:AZ:7:G:H4'	2:AZ:8:U:OP2	2.12	0.48
9:CG:111:ARG:HB2	9:CG:119:ARG:HD2	1.96	0.48
25:BA:557:U:O2	34:BN:68:ASN:HB2	2.13	0.48
39:BS:66:ALA:O	39:BS:67:ARG:C	2.51	0.48
55:D8:23:VAL:HA	55:D8:48:PHE:O	2.13	0.48
25:DA:1793:C:H2'	25:DA:1794:U:C6	2.48	0.48
52:D5:36:CYS:HB2	52:D5:48:GLU:O	2.13	0.48
25:BA:213:A:C2'	25:BA:214:G:H5'	2.44	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2473:U:H2'	25:DA:2474:C:H5'	1.95	0.48
25:DA:374:A:C2	25:DA:401:A:C4	3.02	0.48
25:BA:161:U:H3'	25:BA:162:U:C5'	2.43	0.48
1:CA:793:U:H3'	1:CA:794:A:C5'	2.43	0.48
25:BA:2046:G:H1'	52:B5:22:HIS:HE1	1.79	0.48
29:BF:158:THR:HG21	29:BF:163:VAL:HB	1.95	0.48
4:AB:47:THR:HA	4:AB:202:PRO:HG2	1.96	0.48
1:CA:194:C:C2'	1:CA:195:A:H5''	2.43	0.48
25:BA:68:G:N2	25:BA:74:A:C4	2.81	0.48
25:DA:893:C:H2'	25:DA:894:C:C6	2.49	0.48
1:AA:194:C:C2'	1:AA:195:A:H5''	2.44	0.48
13:CK:33:THR:HA	13:CK:40:ILE:HG12	1.96	0.48
5:CC:171:GLY:O	5:CC:173:VAL:HG23	2.14	0.48
5:AC:173:VAL:N	5:AC:174:PRO:HD3	2.27	0.48
5:CC:92:ALA:C	5:CC:94:LEU:H	2.17	0.48
1:CA:1275:A:H2'	1:CA:1276:G:O4'	2.14	0.48
25:DA:2833:G:O2'	25:DA:2834:G:H5'	2.13	0.48
36:BP:96:THR:HG23	36:BP:99:LEU:HD22	1.93	0.48
31:BH:136:ILE:HD12	31:BH:137:ASP:N	2.28	0.48
38:DR:48:VAL:O	38:DR:51:LEU:HB2	2.13	0.48
25:BA:2154:G:H2'	25:BA:2155:G:H8	1.78	0.48
40:BT:115:ARG:HD3	40:BT:115:ARG:H	1.78	0.48
24:AX:92:LEU:HA	24:AX:93:PRO:HD3	1.72	0.48
27:DD:68:LYS:O	27:DD:69:ARG:C	2.50	0.48
27:DD:70:TRP:CD1	27:DD:71:ASP:N	2.82	0.48
12:AJ:6:ILE:HG22	12:AJ:98:ILE:CG1	2.39	0.48
39:BS:102:ALA:O	39:BS:103:GLU:C	2.51	0.48
45:DY:17:SER:HA	45:DY:71:LYS:HD2	1.95	0.48
25:BA:1826:G:H4'	27:BD:242:ARG:CZ	2.44	0.48
27:BD:242:ARG:C	27:BD:244:ARG:H	2.17	0.48
25:DA:784:A:C6	27:DD:229:VAL:HG21	2.48	0.48
25:BA:1530:G:H2'	25:BA:1531:C:C6	2.48	0.48
27:BD:28:GLU:HB3	27:BD:29:PRO:CD	2.36	0.48
25:DA:1541:U:H3'	25:DA:1542:G:C3'	2.43	0.48
55:D8:11:LYS:HD2	55:D8:64:TYR:CE2	2.48	0.48
52:D5:16:ARG:HG3	52:D5:20:ARG:HE	1.79	0.48
1:AA:894:G:H2'	1:AA:895:G:C8	2.49	0.48
1:AA:465:A:O5'	1:AA:465:A:H8	1.97	0.48
25:BA:2579:C:H4'	28:BE:134:ILE:HG12	1.96	0.48
25:DA:2244:U:O2'	25:DA:2245:U:H5'	2.14	0.48
25:BA:860:U:C5	25:BA:917:A:N7	2.78	0.48
24:CX:145:TRP:CH2	24:CX:200:HIS:HB3	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2572:A:OP1	25:DA:2574:G:H4'	2.13	0.48
2:CZ:7:G:H4'	2:CZ:8:U:OP2	2.13	0.48
25:DA:296:C:O2'	25:DA:297:C:H5'	2.13	0.48
25:DA:2190:G:H2'	25:DA:2191:G:C8	2.49	0.48
1:AA:255:G:H1'	19:AQ:16:GLN:NE2	2.27	0.48
26:BB:43:C:C5	26:BB:45:A:N6	2.82	0.48
1:AA:438:G:O5'	1:AA:438:G:H8	1.97	0.48
5:CC:195:VAL:CG1	5:CC:196:LEU:N	2.76	0.48
25:DA:481:G:H1'	25:DA:506:G:H21	1.78	0.48
27:DD:267:SER:O	27:DD:269:PHE:N	2.47	0.48
25:BA:1464:C:H2'	25:BA:1465:G:C8	2.49	0.48
1:AA:210:U:H4'	1:AA:216:G:C8	2.48	0.48
32:DI:62:LYS:HA	32:DI:133:HIS:HD2	1.78	0.48
24:CX:161:GLY:O	24:CX:162:PHE:HD1	1.97	0.48
6:CD:3:ARG:HE	6:CD:118:ARG:HD3	1.78	0.48
25:DA:1967:C:H2'	25:DA:1968:G:H5'	1.94	0.48
34:BN:81:ASP:N	34:BN:81:ASP:OD1	2.47	0.48
44:BX:89:ILE:O	44:BX:93:GLU:HG2	2.14	0.48
25:BA:460:A:H2'	25:BA:461:C:O4'	2.14	0.48
1:AA:1417:G:C6	1:AA:1482:G:C6	3.02	0.48
25:DA:1615:C:C6	25:DA:1617:C:C5	3.02	0.48
31:BH:154:PRO:HB3	31:BH:163:TYR:CE2	2.49	0.48
50:B3:17:LYS:O	50:B3:20:LYS:HB2	2.13	0.48
25:BA:1398:C:O5'	25:BA:1398:C:H6	1.96	0.48
1:CA:563:A:C8	1:CA:567:G:O4'	2.67	0.48
1:AA:520:A:C2	1:AA:536:C:H1'	2.49	0.48
45:BY:14:LEU:C	45:BY:14:LEU:HD23	2.34	0.48
50:D3:17:LYS:HD3	50:D3:18:ASP:N	2.29	0.48
49:D2:17:SER:O	49:D2:20:GLU:N	2.47	0.48
27:BD:27:THR:HG23	27:BD:27:THR:O	2.13	0.48
25:BA:774:A:HO2'	25:BA:775:G:H8	1.62	0.48
24:AX:100:LEU:CD2	24:AX:101:LYS:HE3	2.44	0.48
24:AX:92:LEU:HB3	24:AX:97:ARG:CB	2.42	0.48
1:AA:923:A:OP1	7:AE:21:ALA:HB2	2.13	0.48
12:AJ:7:LYS:C	12:AJ:8:LEU:HD12	2.33	0.48
37:DQ:32:PHE:CD2	37:DQ:133:ARG:HA	2.49	0.48
53:D6:32:ASN:H	53:D6:33:LYS:HZ2	1.62	0.48
1:CA:954:G:H2'	1:CA:955:U:H6	1.79	0.48
45:DY:13:VAL:HG11	45:DY:72:VAL:HB	1.95	0.48
27:BD:255:LYS:O	27:BD:255:LYS:HD3	2.13	0.48
32:DI:105:HIS:HB2	32:DI:107:ILE:HG22	1.95	0.48
33:DK:54:PRO:HD3	33:DK:72:PRO:CA	2.36	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1052:C:H2'	25:BA:1053:C:C5	2.48	0.48
30:BG:16:ARG:HB2	30:BG:16:ARG:CZ	2.44	0.48
1:AA:1075:C:H5''	4:AB:179:LYS:HZ1	1.78	0.48
14:AL:37:THR:HG22	14:AL:56:LYS:O	2.13	0.48
44:BX:35:THR:H	44:BX:38:GLU:HG2	1.78	0.48
5:CC:104:GLN:CD	5:CC:105:GLU:H	2.17	0.48
53:B6:24:GLU:O	53:B6:25:LYS:HG3	2.14	0.48
8:AF:35:ALA:HA	8:AF:67:MET:HB3	1.96	0.48
41:DU:74:LEU:HD23	41:DU:74:LEU:N	2.28	0.48
54:D7:5:TRP:HE1	54:D7:7:PRO:HG3	1.76	0.48
25:BA:806:C:O5'	25:BA:806:C:H6	1.95	0.48
3:AV:21:A:H4'	3:AV:22:A:OP1	2.14	0.48
11:CI:10:ARG:HA	11:CI:104:ARG:HH11	1.77	0.48
40:BT:54:ARG:HA	40:BT:59:THR:OG1	2.13	0.48
25:DA:2599:G:N7	27:DD:237:GLU:HG3	2.27	0.48
24:CX:145:TRP:CE2	24:CX:149:LEU:HD11	2.49	0.48
29:BF:13:SER:HA	29:BF:128:ALA:HB2	1.96	0.48
1:CA:819:A:H4'	1:CA:820:U:OP2	2.12	0.48
1:AA:577:G:H2'	1:AA:578:C:H6	1.79	0.48
25:BA:214:G:H21	25:BA:216:A:H1'	1.79	0.48
46:DZ:86:VAL:HG12	46:DZ:87:ASP:H	1.78	0.48
25:BA:481:G:O2'	25:BA:482:A:P	2.72	0.48
25:DA:270(Q):C:OP1	25:DA:270(Q):C:H3'	2.13	0.48
49:D2:41:ILE:HD12	49:D2:41:ILE:O	2.14	0.48
29:DF:158:THR:HG21	29:DF:163:VAL:HB	1.96	0.48
29:BF:59:TYR:CE1	29:BF:85:GLY:O	2.67	0.48
1:AA:848:C:H2'	1:AA:849:C:O4'	2.14	0.48
25:BA:522:G:H2'	25:BA:523:C:C6	2.49	0.48
1:CA:102(B):C:N4	1:CA:102(C):C:H41	2.12	0.48
22:CT:14:LYS:CA	22:CT:17:ARG:HH21	2.27	0.48
13:AK:17:GLY:C	13:AK:18:ARG:HG3	2.34	0.48
25:DA:2787:C:C4'	28:DE:62:PRO:HB3	2.43	0.48
24:CX:368:ARG:HD2	24:CX:368:ARG:O	2.14	0.48
38:BR:24:GLN:NE2	38:BR:36:THR:HG21	2.29	0.48
25:BA:2833:G:O2'	25:BA:2834:G:H5'	2.13	0.48
25:BA:2667:C:H2'	25:BA:2668:G:O4'	2.13	0.48
29:DF:59:TYR:HE1	29:DF:85:GLY:O	1.97	0.48
25:DA:342:G:H2'	25:DA:343:C:H6	1.79	0.48
1:CA:304:U:H2'	1:CA:305:G:C8	2.49	0.48
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.48	0.48
35:DO:60:ALA:HA	35:DO:87:ILE:HG12	1.95	0.48
25:BA:648:G:O4'	25:BA:2351:G:H5''	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1065:U:OP2	1:CA:1190:G:N2	2.47	0.48
25:DA:2105:C:H2'	25:DA:2106:G:O4'	2.13	0.48
1:CA:770:C:O2'	1:CA:771:G:H5'	2.13	0.48
37:DQ:80:GLU:HA	37:DQ:80:GLU:OE2	2.14	0.48
30:DG:145:THR:OG1	30:DG:148:MET:HB2	2.13	0.48
24:AX:203:VAL:HB	24:AX:328:VAL:HG13	1.96	0.48
17:AO:70:LEU:HG	17:AO:78:TYR:HB2	1.96	0.48
48:D1:11:ARG:HE	48:D1:61:ARG:H	1.60	0.48
36:DP:50:ARG:O	36:DP:51:PHE:C	2.52	0.48
41:BU:69:CYS:HG	41:BU:79:PHE:HB2	1.75	0.48
1:CA:1329:A:H2'	1:CA:1330:U:O4'	2.13	0.48
25:BA:2307:G:O5'	25:BA:2307:G:H8	1.97	0.48
39:BS:31:SER:HB3	39:BS:34:HIS:HB2	1.96	0.48
25:BA:278:A:H61	25:BA:362:U:H3	1.62	0.48
12:CJ:51:ARG:HB2	12:CJ:60:ARG:HA	1.95	0.48
19:AQ:10:VAL:HG23	19:AQ:55:ASP:O	2.14	0.48
36:BP:17:LYS:C	36:BP:19:VAL:N	2.66	0.48
1:AA:1127:G:H1'	1:AA:1148:U:O2	2.14	0.48
14:AL:83:LEU:HD13	14:AL:84:ILE:N	2.29	0.48
25:DA:2334:G:C2	39:DS:12:PHE:CE1	3.02	0.48
32:BI:68:LEU:HA	32:BI:71:ILE:CG2	2.42	0.48
1:AA:579:G:C4	1:AA:580:U:C5	3.02	0.48
1:AA:1236:A:H2'	1:AA:1237:C:C6	2.49	0.48
28:DE:33:VAL:HG23	28:DE:47:VAL:HG13	1.96	0.48
36:BP:57:THR:HB	36:BP:58:THR:H	1.46	0.48
26:BB:68:C:H2'	26:BB:69:G:H8	1.77	0.48
22:AT:10:LEU:O	22:AT:13:LEU:HD22	2.14	0.48
5:CC:48:TYR:C	5:CC:50:ALA:H	2.16	0.48
13:AK:79:SER:OG	13:AK:106:LYS:HD2	2.14	0.48
25:BA:2815:C:O2'	52:B5:43:HIS:CD2	2.66	0.48
1:CA:17:U:H2'	1:CA:18:C:H6	1.75	0.48
25:BA:1337:G:H2'	25:BA:1338:G:H8	1.78	0.48
45:BY:81:LYS:HE2	45:BY:97:ARG:HD2	1.96	0.48
25:DA:1538:G:H2'	25:DA:1539:G:C8	2.47	0.48
25:DA:1537:C:H2'	25:DA:1538:G:O4'	2.13	0.48
2:CZ:17:C:C6	2:CZ:17(A):U:H2'	2.49	0.48
36:DP:88:LEU:CD1	36:DP:95:VAL:HG11	2.39	0.48
21:AS:53:ASN:HD21	21:AS:56:GLN:H	1.61	0.48
45:BY:61:ILE:HG22	45:BY:63:LYS:H	1.77	0.48
38:DR:53:HIS:HB2	38:DR:94:TYR:CE1	2.49	0.48
1:AA:411:A:C3'	1:AA:411:A:C8	2.97	0.48
27:BD:125:ILE:HG12	27:BD:137:PRO:HD3	1.95	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2745:C:H2'	25:DA:2746:U:C6	2.49	0.48
25:DA:583:G:P	41:DU:10:ARG:HH11	2.37	0.48
21:CS:39:THR:OG1	21:CS:70:LYS:HE2	2.13	0.48
38:DR:38:VAL:HG22	38:DR:112:ALA:HB2	1.95	0.48
33:BK:60:TYR:HD2	33:BK:64:SER:HB3	1.79	0.48
1:CA:1451:A:C8	1:CA:1453:G:O6	2.67	0.48
25:BA:2190:G:H2'	25:BA:2191:G:C8	2.47	0.48
5:CC:175:LEU:HD11	5:CC:201:TYR:HE2	1.78	0.48
1:CA:793:U:C5'	1:CA:794:A:H5''	2.44	0.48
21:CS:80:TYR:O	21:CS:80:TYR:CG	2.67	0.48
1:CA:626:U:H5''	18:CP:38:TYR:CD2	2.49	0.48
25:BA:1272:A:O2'	25:BA:1273:U:H5'	2.14	0.48
1:CA:59:A:H3'	1:CA:331:G:H22	1.79	0.48
13:AK:80:VAL:HG13	13:AK:103:LEU:HD12	1.96	0.48
25:DA:161:U:H1'	25:DA:171:G:N1	2.28	0.48
24:AX:161:GLY:C	24:AX:162:PHE:HD1	2.18	0.48
54:B7:21:ARG:O	54:B7:27:GLY:HA3	2.14	0.48
25:DA:2877:G:H2'	25:DA:2878:U:C6	2.49	0.48
38:DR:18:LEU:HD13	38:DR:19:ALA:N	2.29	0.48
35:BO:60:ALA:HA	35:BO:87:ILE:HG12	1.96	0.48
38:DR:24:GLN:NE2	38:DR:36:THR:HG21	2.29	0.48
6:CD:150:GLU:C	6:CD:152:SER:H	2.17	0.48
25:DA:2667:C:H2'	25:DA:2668:G:O4'	2.13	0.48
38:BR:118:GLU:HA	38:BR:118:GLU:OE1	2.13	0.48
25:DA:833:U:H2'	25:DA:834:C:C6	2.49	0.48
9:AG:41:ARG:HH11	9:AG:41:ARG:HB3	1.78	0.48
25:BA:988:A:H8	25:BA:988:A:O5'	1.96	0.48
25:BA:944:G:H2'	25:BA:944:G:N3	2.28	0.48
5:CC:188:LEU:HD22	5:CC:188:LEU:H	1.79	0.48
34:BN:30:LYS:HA	34:BN:30:LYS:HD3	1.70	0.48
49:B2:6:VAL:O	49:B2:10:LEU:HG	2.13	0.48
1:CA:1328:C:H2'	1:CA:1329:A:C8	2.49	0.48
5:CC:28:GLN:HE21	5:CC:28:GLN:HA	1.79	0.48
7:AE:51:VAL:HB	7:AE:52:PRO:HD3	1.95	0.48
25:BA:274:G:C2	25:BA:275:G:N2	2.81	0.48
21:CS:5:LEU:HD13	21:CS:6:LYS:N	2.28	0.48
25:DA:1178:C:H2'	25:DA:1179:C:C6	2.46	0.48
24:AX:184:VAL:HG11	24:AX:193:LEU:HD11	1.96	0.48
37:BQ:32:PHE:CD2	37:BQ:133:ARG:HA	2.49	0.48
12:AJ:48:THR:HG22	12:AJ:62:HIS:CG	2.49	0.48
51:B4:40:ILE:HG22	51:B4:40:ILE:O	2.12	0.48
1:CA:668:G:O2'	17:CO:46:HIS:CD2	2.63	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DG:82:LEU:HD13	30:DG:87:PRO:HG2	1.96	0.48
5:AC:35:GLU:O	5:AC:39:ILE:HG13	2.14	0.48
25:DA:330:A:O2'	25:DA:331:A:H8	1.96	0.48
29:DF:40:GLN:O	29:DF:44:ARG:HG2	2.14	0.48
5:AC:70:VAL:HG12	5:AC:72:LYS:N	2.24	0.48
8:CF:35:ALA:HA	8:CF:67:MET:HB3	1.96	0.48
25:DA:2795:G:H3'	25:DA:2797:U:C5'	2.44	0.48
27:DD:206:LEU:HD23	27:DD:206:LEU:HA	1.68	0.48
1:CA:14:U:O2	1:CA:17:U:H5	1.96	0.48
25:BA:1773:A:C5	25:BA:1829:A:H1'	2.49	0.48
25:DA:1512:G:C5	25:DA:1513:C:C5	3.01	0.48
25:BA:2376:A:N6	39:BS:89:ARG:HD3	2.28	0.48
26:DB:81:G:H5'	26:DB:82:G:OP2	2.14	0.48
1:AA:407:G:C6	1:AA:408:A:N6	2.82	0.48
33:BK:18:THR:HB	33:BK:19:PRO:CD	2.42	0.48
25:BA:2399:G:O5'	25:BA:2399:G:H8	1.97	0.48
44:BX:31:HIS:CD2	44:BX:33:LYS:H	2.31	0.48
1:AA:817:C:H1'	1:AA:819:A:H5'	1.96	0.48
7:AE:144:THR:O	7:AE:148:VAL:HG23	2.14	0.48
14:AL:6:ILE:HD12	14:AL:6:ILE:H	1.78	0.48
22:CT:61:SER:OG	22:CT:65:LYS:HD2	2.14	0.48
1:CA:175:C:O2'	1:CA:176:C:H5'	2.14	0.48
25:BA:1164:G:H2'	25:BA:1165:U:O4'	2.14	0.48
32:DI:133:HIS:C	32:DI:135:GLU:H	2.18	0.48
1:CA:235:C:H2'	1:CA:236:G:C8	2.49	0.48
38:BR:96:ARG:HH22	38:BR:118:GLU:H	1.62	0.48
25:DA:648:G:O4'	25:DA:2351:G:H5''	2.14	0.48
25:DA:1419:A:O2'	25:DA:1420:U:H5''	2.14	0.48
1:AA:1296:C:O3'	15:AM:13:LYS:HE3	2.13	0.48
42:DV:22:VAL:HG12	42:DV:23:GLU:N	2.29	0.48
25:DA:262:A:H2'	25:DA:263:C:O4'	2.14	0.48
25:DA:1904:G:H2'	25:DA:1905:C:O4'	2.14	0.48
25:DA:1547:C:H2'	25:DA:1548:C:C6	2.49	0.48
38:DR:37:THR:OG1	38:DR:40:LYS:HE2	2.14	0.48
7:CE:153:LYS:HE3	7:CE:155:GLU:HB2	1.96	0.48
1:CA:565:U:H3'	1:CA:566:G:H2'	1.96	0.48
25:DA:1197:G:H5'	25:DA:1227:G:O2'	2.14	0.48
25:BA:1328:G:H2'	25:BA:1330:C:C5	2.49	0.48
32:DI:10:GLU:N	32:DI:10:GLU:OE1	2.47	0.48
34:BN:94:ILE:O	34:BN:94:ILE:HD12	2.13	0.48
43:BW:69:LEU:HA	43:BW:108:GLY:O	2.12	0.48
25:DA:199:A:C2	25:DA:2434:A:C2	3.02	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:250:G:O2'	25:BA:251:A:H5'	2.14	0.47
25:DA:996:A:N6	25:DA:1160:G:C6	2.81	0.47
30:DG:91:ARG:HG2	30:DG:92:VAL:N	2.28	0.47
1:CA:1227:A:O3'	15:CM:115:LYS:HE3	2.13	0.47
1:CA:1182:G:H4'	1:CA:1183:A:C5'	2.33	0.47
1:AA:1231:G:C5	1:AA:1232:U:C5	3.02	0.47
29:DF:164:ARG:O	29:DF:165:ARG:C	2.52	0.47
15:AM:2:ALA:N	15:AM:11:ARG:HE	2.12	0.47
4:AB:167:PRO:HG3	4:AB:188:ALA:HB2	1.94	0.47
25:DA:1530:G:H2'	25:DA:1531:C:C6	2.49	0.47
24:AX:252:GLY:O	24:AX:255:VAL:HG12	2.13	0.47
7:CE:118:ILE:HG12	7:CE:120:THR:CG2	2.44	0.47
29:DF:182:ASN:O	29:DF:186:ILE:HG12	2.14	0.47
4:AB:100:GLY:HA2	4:AB:104:ASN:H	1.79	0.47
39:DS:49:VAL:HG13	39:DS:76:LYS:HB2	1.96	0.47
37:DQ:65:PHE:CD2	37:DQ:105:GLU:HB2	2.49	0.47
47:D0:56:ASP:O	47:D0:57:PHE:HB2	2.14	0.47
24:AX:176:GLY:O	24:AX:177:ILE:CB	2.61	0.47
41:BU:95:LEU:O	41:BU:98:LEU:HG	2.14	0.47
45:DY:97:ARG:O	45:DY:97:ARG:HG2	2.14	0.47
25:BA:858:U:O2	25:BA:2268:A:H2'	2.13	0.47
25:DA:2888:C:H2'	25:DA:2889:C:H6	1.78	0.47
25:DA:26:G:H1'	25:DA:515:A:H61	1.78	0.47
25:DA:2312:U:O2'	30:DG:71:THR:HG21	2.14	0.47
46:DZ:141:VAL:HG13	46:DZ:141:VAL:O	2.14	0.47
26:DB:73:A:C2	26:DB:74:U:H1'	2.49	0.47
2:AY:23:C:C2	2:AY:24:U:C5	3.02	0.47
18:CP:20:VAL:HG23	18:CP:34:GLU:O	2.14	0.47
24:CX:145:TRP:HH2	24:CX:200:HIS:HB3	1.79	0.47
17:CO:44:LYS:NZ	25:DA:715:G:H22	2.12	0.47
25:DA:864:G:H2'	25:DA:865:C:H6	1.78	0.47
45:BY:29:GLU:CB	45:BY:38:ILE:HD11	2.42	0.47
25:DA:2134:A:C8	25:DA:2158:A:C2	3.02	0.47
38:BR:79:LEU:HD23	38:BR:83:ILE:HB	1.95	0.47
34:DN:50:ALA:C	34:DN:129:MET:HE1	2.33	0.47
24:AX:145:TRP:CZ3	24:AX:200:HIS:O	2.64	0.47
42:BV:96:ILE:HG22	42:BV:97:LYS:N	2.28	0.47
25:BA:2018:G:C6	25:BA:2019:A:C5	3.02	0.47
25:DA:57:C:H2'	25:DA:58:G:O4'	2.13	0.47
25:DA:643:A:OP1	53:D6:42:TRP:NE1	2.46	0.47
10:AH:73:ASP:HB3	10:AH:75:ARG:CG	2.44	0.47
25:DA:2439:A:C8	25:DA:2439:A:H5''	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:557:U:O2	34:DN:68:ASN:HB2	2.14	0.47
29:BF:136:THR:HG22	29:BF:166:ALA:O	2.14	0.47
2:AZ:11:A:C8	2:AZ:11:A:O5'	2.67	0.47
35:BO:104:ARG:HB3	35:BO:104:ARG:NH1	2.29	0.47
1:CA:1502:A:O2'	1:CA:1503:A:O5'	2.28	0.47
24:CX:63:GLN:NE2	24:CX:64:GLU:HG2	2.28	0.47
13:CK:27:ASN:OD1	13:CK:55:LYS:HB3	2.14	0.47
14:CL:116:ARG:HD2	14:CL:121:THR:HG22	1.96	0.47
25:DA:2606:C:C2'	25:DA:2607:G:H5'	2.44	0.47
1:CA:235:C:H2'	1:CA:236:G:H8	1.77	0.47
35:DO:34:THR:HG23	35:DO:35:VAL:N	2.29	0.47
38:BR:47:PHE:O	38:BR:51:LEU:HD12	2.13	0.47
1:AA:1375:A:C5	1:AA:1376:U:C4	3.02	0.47
25:DA:886:C:H4'	25:DA:886:C:OP1	2.14	0.47
25:DA:2228:G:C5	25:DA:2229:C:C4	3.02	0.47
29:DF:59:TYR:CE1	29:DF:85:GLY:O	2.67	0.47
18:AP:71:ARG:HH11	18:AP:71:ARG:HG3	1.79	0.47
35:BO:12:ASP:OD1	35:BO:85:VAL:HG13	2.14	0.47
27:DD:140:THR:HG22	27:DD:141:VAL:O	2.14	0.47
25:DA:813:U:H2'	25:DA:814:C:C6	2.48	0.47
29:DF:77:ASP:O	29:DF:79:GLY:N	2.47	0.47
25:BA:1956:U:H1'	25:BA:2552:U:OP1	2.13	0.47
24:CX:239:GLU:O	24:CX:267:LEU:HD12	2.13	0.47
46:DZ:136:PHE:C	46:DZ:137:ILE:HD12	2.34	0.47
30:BG:174:GLU:HG2	30:BG:180:PHE:CD1	2.49	0.47
25:BA:969:U:O3'	50:B3:14:GLY:HA2	2.14	0.47
25:DA:2408:U:H2'	25:DA:2409:G:H8	1.77	0.47
48:B1:46:LEU:C	48:B1:46:LEU:HD23	2.34	0.47
25:DA:630:G:N2	25:DA:632:A:H3'	2.28	0.47
12:AJ:6:ILE:O	12:AJ:71:LEU:HD12	2.14	0.47
1:AA:1505:G:C8	1:AA:1505:G:C5'	2.97	0.47
16:AN:24:CYS:HB2	16:AN:40:CYS:HB3	1.96	0.47
36:BP:112:LEU:H	36:BP:128:HIS:CD2	2.32	0.47
19:CQ:10:VAL:CG1	19:CQ:19:VAL:HB	2.44	0.47
36:DP:17:LYS:C	36:DP:19:VAL:N	2.67	0.47
1:CA:1307:U:H2'	1:CA:1308:U:C6	2.46	0.47
29:BF:182:ASN:O	29:BF:186:ILE:HG12	2.14	0.47
1:AA:1128:C:H4'	11:AI:16:ARG:NH1	2.24	0.47
25:BA:290:G:C5	25:BA:291:C:C5	3.02	0.47
10:CH:114:THR:HG21	10:CH:119:LEU:HD11	1.96	0.47
28:DE:132:HIS:HA	28:DE:135:HIS:CE1	2.49	0.47
25:BA:2261:C:O2'	25:BA:2262:U:H5'	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:382:A:C2	1:CA:383:A:C4	3.02	0.47
36:BP:6:LEU:HD12	36:BP:8:PRO:CG	2.45	0.47
1:CA:1074:G:C2	1:CA:1102:A:C2	3.02	0.47
4:AB:97:TRP:CD2	4:AB:101:MET:HG3	2.49	0.47
19:CQ:22:LEU:CD1	19:CQ:39:SER:HB2	2.44	0.47
42:DV:78:LYS:HG3	42:DV:79:VAL:CG2	2.44	0.47
28:BE:117:MET:HG2	28:BE:136:ARG:CZ	2.44	0.47
25:BA:2815:C:O2'	52:B5:42:PRO:HB2	2.13	0.47
31:BH:72:ILE:O	31:BH:75:ALA:HB3	2.13	0.47
1:AA:1320:C:C2	21:AS:72:GLY:HA3	2.48	0.47
11:CI:10:ARG:O	11:CI:13:ALA:HB3	2.14	0.47
18:CP:33:ILE:O	18:CP:34:GLU:HB2	2.14	0.47
13:AK:21:ILE:HG13	13:AK:30:VAL:HG12	1.96	0.47
1:CA:1152:A:H4'	12:CJ:13:HIS:CD2	2.49	0.47
25:BA:1510:A:H2'	25:BA:1511:A:H8	1.75	0.47
4:AB:75:LYS:HD3	4:AB:75:LYS:O	2.14	0.47
15:CM:72:ALA:O	15:CM:75:ALA:HB3	2.14	0.47
45:DY:46:LYS:HG2	45:DY:48:ALA:CB	2.44	0.47
40:DT:3:ARG:O	40:DT:5:ALA:N	2.47	0.47
38:BR:53:HIS:HB2	38:BR:94:TYR:CE1	2.49	0.47
21:AS:80:TYR:O	21:AS:80:TYR:CG	2.66	0.47
9:CG:111:ARG:HB3	9:CG:113:GLU:OE2	2.14	0.47
55:B8:23:VAL:HA	55:B8:48:PHE:O	2.13	0.47
34:BN:161:LEU:N	34:BN:161:LEU:HD23	2.28	0.47
1:AA:1451:A:C8	1:AA:1453:G:O6	2.67	0.47
1:CA:439:A:H2'	1:CA:440:A:H5'	1.95	0.47
40:DT:74:ARG:C	40:DT:75:ILE:HD12	2.33	0.47
1:AA:1003:G:N2	1:AA:1038:C:C2	2.82	0.47
1:AA:1004:A:N1	1:AA:1025:U:H1'	2.29	0.47
1:CA:1003:G:N2	1:CA:1038:C:C2	2.82	0.47
40:BT:75:ILE:N	40:BT:75:ILE:HD12	2.29	0.47
25:DA:2050:C:H1'	28:DE:156:MET:CE	2.44	0.47
25:DA:214:G:O2'	25:DA:215:G:O4'	2.32	0.47
1:AA:1316:G:O3'	16:AN:18:VAL:HG22	2.14	0.47
25:BA:2717:G:C6	25:BA:2718:G:C5	3.02	0.47
5:CC:195:VAL:HG12	5:CC:196:LEU:N	2.28	0.47
7:AE:12:LEU:HD22	7:AE:12:LEU:C	2.34	0.47
29:BF:59:TYR:HE1	29:BF:85:GLY:O	1.97	0.47
25:BA:69:C:H2'	25:BA:70:G:H8	1.79	0.47
25:BA:1690:A:H3'	25:BA:1691:C:H6	1.79	0.47
25:BA:2447:G:C6	25:BA:2501:C:C2	3.02	0.47
25:BA:2663:G:C6	25:BA:2664:G:C4	3.02	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:265:A:C6	25:BA:428:A:C4	3.02	0.47
25:DA:1615:C:C5	25:DA:1617:C:C4	3.02	0.47
54:D7:21:ARG:HB3	54:D7:31:LEU:CD2	2.45	0.47
4:AB:52:GLU:HG2	4:AB:56:ARG:HE	1.78	0.47
4:CB:176:GLU:O	4:CB:180:LEU:HG	2.14	0.47
25:BA:1399:C:O2'	25:BA:1400:G:H5'	2.13	0.47
34:DN:95:TYR:CE2	34:DN:113:MET:HG3	2.48	0.47
25:DA:460:A:H2'	25:DA:461:C:O4'	2.14	0.47
1:AA:95:G:H2'	1:AA:96:G:O4'	2.14	0.47
25:BA:327:G:H2'	25:BA:328:U:C6	2.49	0.47
46:DZ:156:LYS:O	46:DZ:156:LYS:HG2	2.14	0.47
25:BA:2453:A:O2'	25:BA:2454:G:H5'	2.14	0.47
48:D1:56:GLN:HA	48:D1:56:GLN:HE21	1.79	0.47
36:DP:51:PHE:O	36:DP:52:GLU:CB	2.60	0.47
55:D8:22:VAL:O	55:D8:50:LEU:HD12	2.13	0.47
5:AC:82:GLU:O	5:AC:86:VAL:HG13	2.14	0.47
27:BD:70:TRP:CD1	27:BD:71:ASP:N	2.82	0.47
27:BD:142:VAL:CG2	27:BD:191:ALA:HB1	2.36	0.47
1:CA:923:A:H8	1:CA:923:A:O5'	1.96	0.47
25:DA:1824:G:OP1	27:DD:52:ARG:HD3	2.15	0.47
45:DY:6:HIS:HD2	45:DY:35:TYR:CD2	2.32	0.47
25:BA:1828:G:OP2	27:BD:239:ARG:NH1	2.47	0.47
36:DP:147:LEU:HD13	36:DP:149:GLU:HA	1.95	0.47
1:CA:1148:U:H5	1:CA:1149:C:C4	2.32	0.47
30:BG:82:LEU:HD13	30:BG:87:PRO:HG2	1.97	0.47
25:DA:2148:G:O2'	25:DA:2149:G:H5'	2.14	0.47
15:AM:49:THR:HB	15:AM:52:GLU:HG3	1.95	0.47
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.15	0.47
48:B1:53:VAL:HG11	48:B1:90:ILE:HG21	1.95	0.47
15:CM:51:ALA:O	15:CM:55:ARG:HB2	2.14	0.47
7:AE:102:ALA:H	7:AE:107:ARG:HH21	1.61	0.47
11:AI:110:GLU:OE2	11:AI:119:ALA:HB1	2.14	0.47
1:CA:1253:G:N1	1:CA:1285:A:N6	2.63	0.47
11:CI:110:GLU:OE2	11:CI:119:ALA:HB1	2.14	0.47
22:CT:10:LEU:O	22:CT:13:LEU:HD22	2.13	0.47
24:CX:176:GLY:O	24:CX:177:ILE:CB	2.62	0.47
25:BA:1311:G:H2'	54:B7:47:ARG:NH2	2.29	0.47
54:B7:5:TRP:HE1	54:B7:7:PRO:HG3	1.79	0.47
52:B5:42:PRO:HB2	52:B5:43:HIS:CD2	2.49	0.47
26:DB:86:G:H2'	26:DB:87:G:H8	1.77	0.47
45:BY:50:ARG:HD2	45:BY:52:SER:O	2.14	0.47
6:AD:25:ARG:NH1	6:AD:30:LYS:HG3	2.29	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AI:65:VAL:HG21	11:AI:73:GLN:HB3	1.96	0.47
6:CD:62:GLN:NE2	6:CD:62:GLN:HA	2.30	0.47
1:CA:1493:A:C2	25:DA:1913:A:N9	2.82	0.47
25:BA:2503:A:H4'	25:BA:2504:U:OP1	2.14	0.47
25:BA:1936:A:C3'	25:BA:1936:A:OP1	2.62	0.47
33:BK:8:VAL:HG22	33:BK:10:LEU:CD2	2.43	0.47
19:AQ:58:GLU:HB2	19:AQ:74:LEU:HB3	1.96	0.47
42:DV:28:GLU:OE1	42:DV:31:ALA:HB2	2.15	0.47
41:DU:28:ARG:HG2	41:DU:38:THR:OG1	2.14	0.47
29:DF:129:PHE:HA	29:DF:142:TRP:HE1	1.77	0.47
32:BI:130:TYR:HD2	32:BI:132:PRO:HD3	1.79	0.47
25:DA:2070:G:C2	25:DA:2442:C:C2	3.03	0.47
25:BA:2401:U:O2'	25:BA:2402:C:H5''	2.14	0.47
4:CB:121:LEU:HD22	4:CB:127:ILE:HD11	1.97	0.47
2:AZ:71:C:H2'	2:AZ:72:A:C8	2.50	0.47
25:DA:902:C:H2'	25:DA:903:C:C6	2.49	0.47
15:AM:98:VAL:HB	15:AM:99:ARG:HH11	1.80	0.47
1:AA:1379:G:O6	9:AG:2:ALA:HB3	2.15	0.47
25:BA:270(G):U:H2'	25:BA:270(H):C:H6	1.77	0.47
25:DA:828:U:C5	25:DA:829:A:N6	2.82	0.47
9:CG:15:ASP:HA	9:CG:24:THR:HG23	1.95	0.47
1:CA:109:A:C6	1:CA:326:G:C6	3.02	0.47
10:AH:91:ARG:HG2	10:AH:91:ARG:HH11	1.77	0.47
25:DA:68:G:N2	25:DA:74:A:C4	2.82	0.47
27:BD:228:PRO:HD3	27:BD:234:GLY:O	2.14	0.47
36:BP:86:LYS:HG3	36:BP:87:ASP:N	2.29	0.47
21:AS:18:LYS:O	21:AS:22:LEU:HD23	2.13	0.47
13:AK:17:GLY:HA3	13:AK:77:MET:SD	2.55	0.47
1:CA:882:C:O2'	1:CA:883:C:H5'	2.13	0.47
13:CK:34:ASP:HB3	13:CK:40:ILE:HD11	1.96	0.47
1:AA:1275:A:H2'	1:AA:1276:G:O4'	2.14	0.47
25:BA:355:G:H2'	25:BA:356:G:H8	1.79	0.47
1:AA:1476:G:H2'	1:AA:1477:C:C6	2.49	0.47
25:DA:1131:G:OP2	25:DA:2515:C:H4'	2.14	0.47
25:DA:1066:U:O2	25:DA:1069:A:C8	2.67	0.47
33:BK:26:ALA:O	33:BK:30:HIS:ND1	2.46	0.47
24:CX:302:LYS:O	24:CX:306:GLU:N	2.47	0.47
45:DY:92:ASN:OD1	45:DY:93:GLY:N	2.47	0.47
24:AX:345:ASP:N	24:AX:346:PRO:HD3	2.29	0.47
31:DH:46:GLU:HB2	31:DH:49:VAL:HG23	1.96	0.47
25:BA:2044:C:H2'	25:BA:2045:C:H6	1.79	0.47
28:BE:166:THR:HG22	28:BE:168:MET:HE3	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:394:A:O2'	25:DA:395:U:H5'	2.13	0.47
25:BA:962:G:H2'	25:BA:963:U:O4'	2.14	0.47
26:DB:61:G:C6	26:DB:62:C:C4	3.03	0.47
36:BP:50:ARG:HB3	55:B8:60:LEU:CD1	2.27	0.47
53:D6:24:GLU:O	53:D6:25:LYS:HG3	2.14	0.47
45:BY:6:HIS:HB3	45:BY:35:TYR:HE2	1.80	0.47
45:DY:30:VAL:HG13	45:DY:37:VAL:HG12	1.96	0.47
1:CA:1357:A:C5	1:CA:1358:U:C4	3.03	0.47
36:DP:100:LEU:HD23	36:DP:112:LEU:HD11	1.97	0.47
24:CX:184:VAL:HG11	24:CX:193:LEU:HD11	1.95	0.47
37:DQ:24:GLY:HA2	37:DQ:100:GLY:C	2.34	0.47
14:AL:32:ARG:H	14:AL:84:ILE:HG22	1.79	0.47
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.14	0.47
29:DF:132:VAL:HG23	29:DF:133:ASN:N	2.23	0.47
4:CB:187:LEU:HD23	4:CB:188:ALA:H	1.80	0.47
25:DA:1063:G:H5''	33:DK:75:SER:HB3	1.97	0.47
7:AE:118:ILE:HG12	7:AE:120:THR:HG23	1.94	0.47
25:BA:329:G:H4'	25:BA:330:A:OP2	2.14	0.47
25:BA:1062:G:N7	25:BA:1088:A:H2'	2.28	0.47
25:BA:1491:G:C6	25:BA:1500:G:C2	3.02	0.47
1:AA:523:A:H61	14:AL:91:ASP:CB	2.26	0.47
25:BA:26:G:H1'	25:BA:515:A:H61	1.79	0.47
32:BI:77:LEU:HD11	32:BI:101:LEU:CB	2.41	0.47
25:DA:28:A:N6	25:DA:512:G:H1'	2.28	0.47
6:AD:61:LYS:HB2	6:AD:203:VAL:HG22	1.96	0.47
1:CA:412:A:N3	6:CD:35:ARG:NH2	2.61	0.47
6:CD:25:ARG:NH1	6:CD:30:LYS:HG3	2.29	0.47
33:BK:8:VAL:HG13	33:BK:57:ILE:HB	1.95	0.47
16:CN:3:ARG:CA	16:CN:6:LEU:HB2	2.44	0.47
25:DA:529:A:H4'	25:DA:530:G:O5'	2.14	0.47
47:D0:81:VAL:O	47:D0:83:PRO:HD3	2.14	0.47
25:DA:1527:G:H5''	25:DA:1528:A:OP1	2.14	0.47
17:AO:18:PHE:CD2	17:AO:21:ASP:HB2	2.50	0.47
25:BA:646:A:H2'	25:BA:647:G:O4'	2.15	0.47
1:AA:179:A:O2'	1:AA:180:U:H5'	2.14	0.47
25:BA:373:U:H2'	25:BA:374:A:C8	2.47	0.47
1:CA:179:A:O2'	1:CA:180:U:H5'	2.13	0.47
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.50	0.47
46:DZ:24:LEU:HD21	46:DZ:86:VAL:CG2	2.44	0.47
1:AA:255:G:H2'	1:AA:256:U:H6	1.78	0.47
1:AA:155:C:H2'	1:AA:156:G:H8	1.78	0.47
52:B5:37:LYS:O	52:B5:37:LYS:HG2	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1952:A:C6	35:BO:22:ILE:HD12	2.50	0.47
31:BH:118:PRO:HG2	31:BH:121:ILE:HB	1.96	0.47
49:B2:41:ILE:O	49:B2:41:ILE:HD12	2.14	0.47
14:AL:16:LYS:HD3	14:AL:17:VAL:H	1.77	0.47
42:BV:65:GLY:O	42:BV:91:TYR:CD2	2.67	0.47
25:BA:2511:U:H4'	28:BE:124:GLY:O	2.14	0.47
1:CA:1121:U:H2'	1:CA:1122:U:C6	2.49	0.47
25:DA:764:A:N3	27:DD:213:ARG:NH1	2.62	0.47
1:CA:833:U:H2'	1:CA:834:C:H6	1.80	0.47
1:CA:748:C:OP2	1:CA:748:C:H6	1.97	0.47
5:CC:188:LEU:N	5:CC:188:LEU:HD22	2.29	0.47
25:DA:1322:A:C5	25:DA:1323:U:C5	3.03	0.47
25:BA:813:U:H2'	25:BA:814:C:C6	2.50	0.47
38:BR:54:LEU:HG	38:BR:62:ALA:HB1	1.96	0.47
47:B0:52:GLY:H	47:B0:62:LEU:HD21	1.78	0.47
25:DA:181:A:H2'	25:DA:182:A:C8	2.50	0.47
33:DK:26:ALA:O	33:DK:30:HIS:ND1	2.46	0.47
25:BA:2619:C:O2'	25:BA:2620:C:H5'	2.14	0.47
1:CA:586:C:O2'	1:CA:587:G:H5'	2.14	0.47
9:CG:41:ARG:HB3	9:CG:41:ARG:HH11	1.79	0.47
9:AG:17:VAL:O	9:AG:17:VAL:HG12	2.13	0.47
25:BA:2187:G:C6	25:BA:2188:C:C4	3.02	0.47
2:AY:7:G:H3'	2:AY:8:U:C5'	2.45	0.47
5:AC:92:ALA:C	5:AC:94:LEU:H	2.17	0.47
49:D2:12:GLU:C	49:D2:14:ARG:N	2.68	0.47
5:AC:15:THR:HG21	5:AC:181:ASN:HA	1.96	0.47
27:BD:150:LYS:HE3	27:BD:150:LYS:CA	2.44	0.47
39:BS:23:ARG:O	39:BS:84:GLN:HG2	2.14	0.47
40:DT:27:THR:CG2	40:DT:90:GLN:HB3	2.44	0.47
11:CI:99:LEU:HD22	11:CI:99:LEU:N	2.29	0.47
21:CS:6:LYS:HD2	21:CS:6:LYS:N	2.29	0.47
24:AX:262:VAL:HG11	24:AX:285:LYS:HA	1.97	0.47
24:CX:245:MET:C	24:CX:259:ASP:HB2	2.34	0.47
15:CM:99:ARG:N	15:CM:99:ARG:HD2	2.29	0.47
25:BA:2213:U:H6	25:BA:2213:U:O5'	1.97	0.47
33:DK:8:VAL:HG22	33:DK:10:LEU:CD2	2.44	0.47
25:DA:1544:C:C3'	25:DA:1545:A:C5'	2.93	0.47
24:CX:252:GLY:O	24:CX:255:VAL:HG12	2.14	0.47
48:D1:51:VAL:HG22	48:D1:52:ARG:N	2.29	0.47
32:BI:63:ALA:C	32:BI:65:ALA:H	2.18	0.47
25:DA:1062:G:N7	25:DA:1088:A:H2'	2.29	0.47
27:BD:186:HIS:CD2	27:BD:188:GLU:HB2	2.50	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AE:102:ALA:HB2	7:AE:120:THR:OG1	2.13	0.47
25:BA:1493:C:N4	25:BA:2210:G:H1'	2.28	0.47
24:AX:190:TYR:CE1	24:AX:225:PRO:CD	2.95	0.47
1:AA:1492:A:C6	24:AX:320:TRP:HH2	2.32	0.47
39:BS:58:LEU:H	39:BS:58:LEU:CD1	2.22	0.47
1:AA:671:G:H1	1:AA:735:C:H42	1.63	0.47
14:CL:44:PRO:HG2	14:CL:50:ALA:N	2.29	0.47
36:BP:126:VAL:HG22	36:BP:145:PRO:HG2	1.95	0.47
25:DA:573:G:O2'	25:DA:574:C:H3'	2.14	0.47
42:BV:5:VAL:HG21	42:BV:35:LEU:HG	1.97	0.47
1:CA:511:C:HO2'	1:CA:512:U:H6	1.61	0.47
25:BA:2134:A:C2	25:BA:2135:A:C8	3.03	0.47
15:AM:94:ARG:HH11	21:AS:81:ARG:NE	2.12	0.47
15:CM:87:TYR:CE2	15:CM:91:ARG:HD3	2.50	0.47
4:CB:27:LYS:HG3	4:CB:194:PRO:HD2	1.97	0.47
1:CA:817:C:H1'	1:CA:819:A:H5'	1.97	0.47
34:BN:90:LEU:O	34:BN:111:GLU:HG3	2.13	0.47
1:CA:1219:U:HO2'	21:CS:34:TRP:HD1	1.59	0.47
21:CS:33:THR:HG23	21:CS:51:VAL:HA	1.97	0.47
1:CA:1292:U:H2'	1:CA:1293:G:H8	1.79	0.47
33:DK:60:TYR:HD2	33:DK:64:SER:HB3	1.79	0.47
46:DZ:128:VAL:HG22	46:DZ:129:SER:N	2.30	0.47
25:DA:1464:C:H2'	25:DA:1465:G:C8	2.50	0.47
25:BA:2637:U:C4	25:BA:2638:G:C6	3.02	0.47
25:BA:1450:C:H2'	25:BA:1451:C:C6	2.50	0.47
25:BA:270(X):G:H2'	25:BA:270(Y):G:O4'	2.15	0.47
46:DZ:75:ASN:H	46:DZ:75:ASN:HD22	1.61	0.47
25:DA:930:U:O2	25:DA:930:U:O4'	2.33	0.47
8:CF:23:LYS:HB3	8:CF:23:LYS:HE2	1.58	0.47
25:BA:11:G:H8	25:BA:11:G:O5'	1.96	0.47
22:CT:46:GLU:O	22:CT:46:GLU:HG2	2.14	0.47
6:CD:21:LEU:H	6:CD:21:LEU:HD12	1.78	0.47
49:D2:49:LYS:O	49:D2:53:LEU:HB2	2.15	0.47
15:CM:29:ARG:HD3	15:CM:64:TRP:CZ2	2.49	0.47
25:BA:1009:A:H1'	25:BA:1153:C:O2'	2.14	0.47
25:DA:2286:A:H8	25:DA:2287:A:N6	2.12	0.47
45:DY:17:SER:CA	45:DY:71:LYS:HD2	2.45	0.47
24:AX:39:LEU:HB2	24:AX:68:LEU:CD2	2.34	0.47
24:CX:29:ILE:HA	24:CX:32:ILE:HG13	1.97	0.47
1:AA:926:G:H2'	1:AA:1505:G:N3	2.29	0.47
27:BD:242:ARG:H	27:BD:242:ARG:HD3	1.78	0.47
44:DX:80:ILE:CG1	44:DX:80:ILE:O	2.53	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DF:34:TRP:HB2	36:DP:10:PRO:O	2.15	0.47
1:CA:1128:C:H4'	11:CI:16:ARG:NH1	2.25	0.47
2:CZ:56:C:C6	25:DA:2169:A:H1'	2.49	0.47
5:AC:28:GLN:HE21	5:AC:28:GLN:HA	1.78	0.47
7:CE:106:PRO:O	7:CE:110:LEU:HG	2.14	0.47
10:AH:114:THR:HG21	10:AH:119:LEU:HD11	1.97	0.47
24:CX:218:PHE:CD2	24:CX:320:TRP:HA	2.50	0.47
25:BA:1796:U:H2'	25:BA:1797:C:C6	2.49	0.47
38:BR:4:LEU:C	38:BR:6:SER:N	2.67	0.47
1:CA:1074:G:C2	1:CA:1075:C:C2	3.02	0.47
11:AI:118:LYS:O	11:AI:119:ALA:HB3	2.13	0.47
44:BX:30:VAL:HG21	44:BX:79:ALA:HB3	1.95	0.47
25:DA:1234:U:O2	25:DA:1234:U:H2'	2.14	0.47
45:BY:97:ARG:O	45:BY:97:ARG:HG2	2.15	0.47
28:DE:24:THR:HG21	28:DE:188:VAL:HG12	1.96	0.47
25:BA:2245:U:O2	25:BA:2435:A:C8	2.68	0.47
25:BA:2498:C:OP2	25:BA:2499:C:OP2	2.32	0.47
1:AA:1152:A:H4'	12:AJ:13:HIS:CD2	2.49	0.47
25:DA:580:C:C2	25:DA:581:C:C5	3.03	0.47
6:CD:11:LEU:C	6:CD:13:ARG:H	2.17	0.47
25:DA:2777:G:H3'	25:DA:2777:G:H8	1.79	0.47
24:CX:339:THR:HG22	24:CX:365:LYS:HG3	1.97	0.47
20:CR:44:LEU:CD2	20:CR:80:PRO:HD2	2.43	0.47
7:CE:69:VAL:HA	7:CE:70:PRO:HD2	1.74	0.47
31:BH:92:ILE:HG22	31:BH:93:GLY:N	2.29	0.47
25:BA:1358:G:O2'	25:BA:1359:A:H5''	2.15	0.47
24:AX:355:MET:O	24:AX:359:TRP:HB2	2.15	0.47
1:AA:59:A:H3'	1:AA:331:G:H22	1.80	0.47
1:AA:197:A:N6	1:AA:221:C:H5'	2.30	0.47
25:BA:69:C:H2'	25:BA:70:G:C8	2.49	0.47
1:AA:102(C):C:H2'	1:AA:1029:G:C8	2.50	0.47
1:AA:1121:U:H2'	1:AA:1122:U:C6	2.50	0.47
5:AC:171:GLY:O	5:AC:173:VAL:HG23	2.15	0.47
50:D3:17:LYS:O	50:D3:20:LYS:HB2	2.14	0.47
35:BO:87:ILE:HD12	35:BO:91:LEU:CD1	2.45	0.47
10:CH:29:SER:HB3	10:CH:32:LYS:HE3	1.97	0.47
25:DA:2619:C:O2'	25:DA:2620:C:H5'	2.14	0.47
1:CA:1526:G:O2'	1:CA:1527:C:H5'	2.14	0.47
25:BA:2228:G:C5	25:BA:2229:C:C4	3.03	0.47
5:AC:109:PRO:HA	5:AC:115:LEU:HD12	1.96	0.47
25:DA:1963:U:O2	25:DA:1963:U:H2'	2.13	0.47
22:AT:46:GLU:O	22:AT:46:GLU:HG2	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CJ:22:LYS:O	12:CJ:22:LYS:HD2	2.14	0.47
55:B8:22:VAL:O	55:B8:50:LEU:HD12	2.15	0.47
1:CA:86:U:O2'	1:CA:87:A:H5'	2.15	0.47
25:DA:806:C:P	36:DP:39:LYS:HD2	2.55	0.47
13:CK:79:SER:OG	13:CK:106:LYS:HD2	2.14	0.47
36:BP:47:ASP:HB3	36:BP:48:PRO:C	2.35	0.47
1:CA:1311:G:N2	1:CA:1327:C:C2	2.82	0.47
1:AA:1329:A:H2'	1:AA:1330:U:O4'	2.14	0.47
1:AA:1325:C:O2'	1:AA:1326:C:H5'	2.15	0.47
26:BB:30:C:C5	26:BB:31:C:C5	3.03	0.47
4:CB:163:PHE:CD1	4:CB:185:ILE:HG13	2.38	0.47
27:DD:68:LYS:HB2	27:DD:70:TRP:CZ3	2.49	0.47
27:DD:34:VAL:O	27:DD:34:VAL:HG13	2.15	0.47
37:BQ:43:THR:OG1	37:BQ:45:GLN:HG2	2.14	0.47
27:BD:102:LYS:C	27:BD:103:ARG:HG2	2.35	0.47
37:DQ:134:ARG:HA	37:DQ:134:ARG:HE	1.79	0.47
32:DI:5:LEU:CD1	32:DI:9:LEU:HD12	2.45	0.47
40:BT:99:LEU:O	40:BT:102:ILE:HG23	2.14	0.47
25:DA:2286:A:H4'	25:DA:2287:A:O4'	2.15	0.47
26:BB:42:C:C4	30:BG:91:ARG:NH2	2.78	0.47
29:BF:7:TYR:O	29:BF:21:ALA:HA	2.15	0.47
25:DA:274:G:C3'	25:DA:274:G:C8	2.97	0.47
1:CA:1231:G:C5	1:CA:1232:U:C5	3.03	0.47
1:AA:1227:A:H2	1:AA:1228:C:H1'	1.79	0.47
31:BH:17:VAL:HG12	31:BH:18:GLU:N	2.29	0.47
25:BA:2014:A:H2'	25:BA:2015:A:C8	2.50	0.47
40:BT:89:VAL:O	40:BT:90:GLN:HB2	2.14	0.47
25:DA:2275:C:C5'	25:DA:2275:C:C6	2.95	0.47
36:BP:105:LEU:HD12	36:BP:105:LEU:N	2.29	0.47
1:AA:974:A:OP2	16:AN:41:ARG:NH1	2.47	0.47
25:DA:2212:A:N3	25:DA:2215:G:N2	2.63	0.47
6:AD:63:LYS:O	6:AD:67:ILE:HG13	2.14	0.47
33:BK:80:LYS:O	33:BK:80:LYS:HG2	2.14	0.47
25:BA:2543:G:C2	25:BA:2765:A:C8	3.02	0.47
25:DA:2590:A:C2	25:DA:2605:U:C2	3.03	0.47
1:AA:1157:A:C6	1:AA:1180:A:C6	3.03	0.47
5:AC:31:HIS:O	5:AC:35:GLU:HG2	2.15	0.47
25:DA:1062:G:N2	33:DK:133:SER:HB3	2.29	0.47
4:AB:20:GLU:O	4:AB:39:ILE:HG23	2.15	0.47
29:BF:132:VAL:HG23	29:BF:133:ASN:N	2.24	0.47
25:BA:2211:G:H3'	25:BA:2211:G:N3	2.29	0.47
11:AI:112:LYS:HE3	11:AI:116:LYS:O	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:529:G:O6	14:AL:48:ASN:ND2	2.47	0.47
1:AA:60:A:C4'	1:AA:61:G:O5'	2.58	0.47
31:DH:86:GLU:HA	31:DH:132:ARG:CD	2.44	0.47
36:BP:88:LEU:HD22	36:BP:114:ILE:CG2	2.45	0.47
44:DX:63:LYS:HD2	44:DX:72:LYS:HA	1.97	0.47
25:DA:2211:G:N3	25:DA:2211:G:H3'	2.29	0.47
27:BD:106:ILE:HD12	27:BD:106:ILE:O	2.14	0.47
29:BF:107:LYS:O	29:BF:108:LYS:C	2.51	0.47
25:BA:1308:A:H2'	25:BA:1309:G:O4'	2.15	0.47
1:CA:529:G:O6	14:CL:48:ASN:ND2	2.47	0.47
25:BA:1981:A:H3'	25:BA:1981:A:H8	1.79	0.47
25:BA:1538:G:H2'	25:BA:1539:G:C8	2.47	0.47
1:AA:49:U:C2	1:AA:361:G:N2	2.83	0.47
25:DA:2862:G:C5	25:DA:2863:C:C5	3.03	0.47
9:CG:80:VAL:HG21	9:CG:85:TYR:CE1	2.50	0.47
18:CP:55:ARG:O	18:CP:58:TYR:HB3	2.15	0.47
1:CA:1493:A:H1'	25:DA:1913:A:N1	2.30	0.47
11:CI:79:LEU:HD23	11:CI:101:PHE:O	2.14	0.47
19:CQ:58:GLU:HB2	19:CQ:74:LEU:HB3	1.96	0.47
25:DA:2134:A:C2	25:DA:2135:A:C8	3.02	0.47
25:DA:545:G:HO2'	25:DA:547:A:H62	1.63	0.47
25:DA:548:A:H2'	25:DA:549:G:O4'	2.14	0.47
42:DV:96:ILE:HG22	42:DV:97:LYS:N	2.29	0.47
13:CK:21:ILE:HG13	13:CK:30:VAL:HG12	1.96	0.47
32:BI:130:TYR:CD2	32:BI:131:LYS:N	2.83	0.47
34:BN:50:ALA:C	34:BN:129:MET:HE1	2.34	0.47
18:CP:6:LEU:HB3	18:CP:17:TYR:CD2	2.50	0.47
25:BA:1676:A:C2	25:BA:1993:U:H5'	2.49	0.47
35:BO:3:GLN:CB	35:BO:4:PRO:HD2	2.45	0.47
25:DA:2698:U:H2'	25:DA:2699:C:C6	2.49	0.47
25:BA:72:U:O4	25:BA:112:U:H4'	2.15	0.47
15:AM:99:ARG:N	15:AM:99:ARG:HD2	2.29	0.47
1:AA:617:G:C2	1:AA:618:C:C5	3.02	0.47
1:AA:820:U:H4'	1:AA:821:G:OP2	2.15	0.47
1:AA:1206:G:C6	1:AA:1207:G:C5	3.03	0.47
25:BA:1142:U:C3'	25:BA:1142:U:C6	2.97	0.47
1:AA:937:A:C2	1:AA:1379:G:C6	3.02	0.47
29:DF:31:HIS:NE2	29:DF:35:GLU:HG3	2.29	0.47
25:DA:1516:U:H2'	25:DA:1517:G:H8	1.76	0.47
1:AA:691:G:O6	13:AK:55:LYS:NZ	2.48	0.47
25:DA:2248:C:H2'	25:DA:2249:U:O4'	2.14	0.47
25:DA:1142:U:C3'	25:DA:1142:U:C6	2.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:307:G:C8	25:BA:307:G:H3'	2.50	0.47
25:DA:216:A:C8	25:DA:432:A:C6	3.03	0.47
35:BO:53:LYS:HD2	35:BO:56:ASP:OD1	2.15	0.47
34:BN:37:VAL:HG12	34:BN:38:LEU:N	2.30	0.47
25:DA:1292:U:H2'	25:DA:1293:C:C6	2.50	0.47
29:BF:134:GLY:H	29:BF:162:LEU:HD22	1.79	0.47
25:BA:1654:A:P	38:BR:3:HIS:H	2.37	0.47
1:CA:160:A:H1'	1:CA:344:A:C5	2.50	0.47
4:CB:47:THR:HA	4:CB:202:PRO:HG2	1.96	0.47
25:DA:1164:G:H2'	25:DA:1165:U:O4'	2.14	0.47
1:CA:1085:U:H3'	1:CA:1086:U:C6	2.49	0.47
25:DA:265:A:H1'	25:DA:266:G:O4'	2.15	0.47
13:AK:34:ASP:HB3	13:AK:40:ILE:HD11	1.97	0.47
25:DA:1690:A:H3'	25:DA:1691:C:H6	1.80	0.47
25:DA:1654:A:P	38:DR:3:HIS:H	2.37	0.47
14:CL:78:GLU:O	14:CL:79:HIS:CG	2.67	0.47
1:AA:1085:U:H3'	1:AA:1086:U:C6	2.49	0.47
13:CK:18:ARG:HB2	13:CK:33:THR:CG2	2.44	0.47
13:CK:17:GLY:C	13:CK:18:ARG:HG3	2.35	0.47
24:CX:161:GLY:C	24:CX:162:PHE:HD1	2.18	0.47
45:BY:68:HIS:CE1	45:BY:70:SER:HB2	2.50	0.47
28:BE:168:MET:HE2	28:BE:168:MET:HA	1.97	0.47
25:BA:699:A:H2'	25:BA:700:G:O4'	2.14	0.47
24:CX:53:ASN:HD22	24:CX:53:ASN:HA	1.55	0.47
14:CL:68:TYR:HB3	14:CL:98:HIS:CD2	2.49	0.47
19:AQ:64:PRO:HA	19:AQ:70:ARG:HG3	1.97	0.47
1:AA:1387:G:C6	1:AA:1388:C:N4	2.83	0.47
1:CA:627:G:O2'	1:CA:628:G:H5'	2.15	0.47
25:DA:2216:G:H2'	25:DA:2217:G:H8	1.78	0.47
28:BE:97:LYS:HE2	28:BE:97:LYS:HB3	1.77	0.47
5:AC:188:LEU:HD22	5:AC:188:LEU:N	2.30	0.47
37:BQ:80:GLU:HA	37:BQ:80:GLU:OE2	2.15	0.47
5:AC:188:LEU:H	5:AC:188:LEU:HD22	1.79	0.47
25:BA:2740:A:N6	25:BA:2764:A:C8	2.83	0.47
1:AA:1154:G:C2	1:AA:1155:G:C8	3.02	0.47
25:BA:1354:A:H2'	25:BA:1355:G:O4'	2.15	0.47
25:BA:2271:G:OP1	47:B0:18:ALA:HB1	2.15	0.47
25:DA:1893:C:H2'	25:DA:1894:C:O4'	2.15	0.47
28:DE:61:ARG:C	28:DE:63:LEU:H	2.16	0.47
6:CD:92:VAL:O	6:CD:96:LEU:HD23	2.15	0.47
25:BA:2302:G:C6	25:BA:2315:G:C6	3.02	0.47
41:BU:28:ARG:HG2	41:BU:38:THR:OG1	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:D4:46:ASN:HB2	51:D4:64:LYS:HB2	1.97	0.47
1:AA:946:A:H2'	1:AA:947:G:C8	2.50	0.47
25:BA:1939:U:H3'	25:BA:1940:U:C5'	2.44	0.47
4:AB:62:ALA:O	4:AB:65:GLY:N	2.45	0.47
1:AA:861:G:H2'	1:AA:862:C:H6	1.80	0.47
25:DA:270(V):C:H2'	25:DA:270(W):G:H8	1.80	0.47
17:AO:36:ILE:HG22	17:AO:37:ASN:HD22	1.80	0.47
25:BA:951:C:O2'	25:BA:952:G:H5'	2.14	0.47
17:CO:37:ASN:N	17:CO:37:ASN:HD22	2.12	0.47
1:CA:80:G:H22	1:CA:90:C:H1'	1.78	0.47
25:DA:197:A:H61	25:DA:2431:U:H5'	1.79	0.47
22:AT:69:GLY:O	22:AT:73:HIS:HD2	1.97	0.47
13:CK:99:GLN:C	13:CK:101:SER:H	2.17	0.47
5:CC:19:GLU:O	5:CC:56:ASP:HA	2.14	0.47
1:AA:923:A:O5'	1:AA:923:A:H8	1.98	0.47
25:BA:114(B):A:O2'	25:BA:1143:A:H3'	2.13	0.47
27:BD:31:LYS:HE2	27:BD:102:LYS:HD3	1.96	0.47
40:BT:102:ILE:CB	40:BT:110:ILE:HD11	2.33	0.47
25:DA:114(B):A:C4	25:DA:1144:G:N7	2.82	0.47
53:D6:12:GLU:HG2	53:D6:52:VAL:O	2.14	0.47
53:D6:9:LEU:HD22	53:D6:26:ASN:HB3	1.97	0.47
25:BA:274:G:C8	25:BA:274:G:C3'	2.98	0.47
15:CM:117:VAL:O	15:CM:118:ALA:HB2	2.15	0.47
25:BA:2014:A:H8	25:BA:2014:A:O5'	1.98	0.47
25:DA:2542:A:OP1	25:DA:2542:A:H4'	2.13	0.47
25:BA:1027:A:N6	25:BA:1126:A:C4	2.82	0.47
28:BE:132:HIS:CG	28:BE:135:HIS:NE2	2.83	0.47
25:DA:662:G:H5'	36:DP:18:ARG:HA	1.96	0.47
25:BA:2144:U:H2'	25:BA:2146:C:C5	2.50	0.47
30:DG:47:LYS:HE3	30:DG:48:GLU:HA	1.95	0.47
14:CL:82:VAL:CG2	14:CL:99:ILE:HG13	2.45	0.47
25:DA:1530:G:H1	25:DA:1542:G:N2	2.12	0.47
1:CA:1332:A:H2'	1:CA:1333:A:H8	1.75	0.47
4:CB:97:TRP:CD2	4:CB:101:MET:HG3	2.48	0.47
25:BA:2565:A:H5''	25:BA:2566:A:OP2	2.15	0.47
25:DA:26:G:H8	25:DA:26:G:O5'	1.98	0.47
54:B7:46:VAL:CG1	54:B7:47:ARG:N	2.77	0.47
43:BW:73:ALA:O	43:BW:106:ILE:HG12	2.15	0.47
25:DA:2330:G:H2'	25:DA:2331:G:O4'	2.15	0.47
25:DA:1509:A:O3'	25:DA:1510:A:C8	2.68	0.47
8:CF:12:PRO:HD3	8:CF:58:GLY:HA2	1.97	0.47
25:DA:919:G:H2'	25:DA:920:G:C8	2.50	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CZ:17:C:C5	2:CZ:17(A):U:H2'	2.50	0.47
25:BA:2863:C:O2'	25:BA:2864:G:H5'	2.14	0.47
10:AH:134:ILE:HG22	10:AH:135:CYS:SG	2.54	0.47
33:BK:57:ILE:HD13	33:BK:67:PHE:HA	1.97	0.47
36:DP:25:SER:O	36:DP:30:THR:HG23	2.15	0.47
29:DF:101:LEU:O	29:DF:106:ARG:NH1	2.38	0.47
25:DA:864:G:N2	25:DA:913:U:C2	2.83	0.47
4:CB:95:GLN:HB3	4:CB:148:TYR:HD1	1.80	0.47
9:CG:113:GLU:HG2	9:CG:119:ARG:HG2	1.96	0.47
25:DA:1345:C:O2'	25:DA:1346:G:H5'	2.14	0.47
38:DR:100:LEU:CD2	38:DR:113:LEU:HB2	2.45	0.47
25:DA:646:A:H2'	25:DA:647:G:O4'	2.14	0.47
1:CA:1452:C:H1'	1:CA:1453:G:N1	2.30	0.47
52:D5:6:VAL:HG13	52:D5:7:PRO:HD2	1.97	0.47
25:DA:1632:A:N7	25:DA:1633:G:O6	2.48	0.47
48:B1:18:ILE:HD13	48:B1:18:ILE:H	1.79	0.47
7:CE:139:LEU:C	7:CE:141:GLN:H	2.18	0.47
46:BZ:128:VAL:HG22	46:BZ:129:SER:N	2.29	0.47
1:AA:626:U:H5''	18:AP:38:TYR:CD2	2.50	0.47
1:CA:632:A:H2'	1:CA:633:G:O4'	2.15	0.47
25:BA:1615:C:C5	25:BA:1617:C:C4	3.01	0.47
25:BA:869:G:H2'	25:BA:870:A:H8	1.80	0.47
1:AA:833:U:H2'	1:AA:834:C:H6	1.79	0.47
25:BA:2653:U:H3	25:BA:2667:C:H42	1.63	0.47
25:DA:1132:A:OP1	34:DN:105:LEU:HD23	2.15	0.47
25:BA:262:A:H2'	25:BA:263:C:O4'	2.15	0.47
34:BN:95:TYR:CE2	34:BN:113:MET:HG3	2.50	0.47
22:AT:45:GLN:C	22:AT:47:GLY:H	2.18	0.47
28:BE:152:LYS:O	34:BN:101:TYR:CD2	2.67	0.47
4:AB:57:PHE:O	4:AB:61:LEU:HB2	2.14	0.47
1:CA:560:U:O2'	1:CA:561:U:OP2	2.25	0.47
28:DE:152:LYS:O	34:DN:101:TYR:CD2	2.68	0.47
48:B1:56:GLN:HA	48:B1:56:GLN:HE21	1.79	0.47
25:BA:2636:U:H4'	28:BE:80:GLU:OE1	2.15	0.47
25:BA:1429:G:H2'	25:BA:1430:C:C6	2.50	0.47
25:BA:2809:A:C2	25:BA:2892:A:N3	2.82	0.47
1:CA:82:U:H1'	1:CA:86:U:O4	2.15	0.47
1:CA:82:U:H2'	1:CA:85:U:H5	1.80	0.47
42:DV:47:VAL:O	42:DV:48:GLY:C	2.53	0.47
36:BP:64:LYS:HB2	55:B8:25:MET:CG	2.29	0.47
45:BY:17:SER:HA	45:BY:71:LYS:HD2	1.97	0.47
32:DI:5:LEU:HD12	32:DI:9:LEU:CD1	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:D7:18:PHE:CD2	54:D7:18:PHE:C	2.88	0.47
1:AA:1231:G:H2'	1:AA:1232:U:C6	2.44	0.47
12:CJ:48:THR:HG22	12:CJ:62:HIS:CB	2.45	0.47
25:DA:8:A:C2	25:DA:9:U:C2	3.02	0.47
40:BT:27:THR:CG2	40:BT:90:GLN:HB3	2.44	0.47
25:BA:8:A:C2	25:BA:9:U:C2	3.03	0.47
25:BA:1497:U:O2'	25:BA:1498:C:H5'	2.15	0.47
24:CX:182:ILE:CG1	24:CX:183:LEU:N	2.77	0.47
4:AB:28:PHE:HD1	4:AB:32:ILE:HD11	1.80	0.47
33:BK:52:ILE:O	33:BK:73:PRO:HD3	2.15	0.47
1:CA:671:G:H1	1:CA:735:C:H42	1.62	0.47
4:AB:98:LEU:HB2	4:AB:101:MET:CE	2.45	0.47
5:CC:70:VAL:HG21	5:CC:76:VAL:HG11	1.97	0.47
24:CX:124:HIS:HB3	24:CX:127:LYS:HE3	1.96	0.47
5:CC:82:GLU:O	5:CC:86:VAL:HG13	2.14	0.47
46:BZ:141:VAL:HG13	46:BZ:141:VAL:O	2.15	0.47
25:BA:2795:G:H3'	25:BA:2797:U:C5'	2.45	0.47
25:DA:2767:C:H2'	25:DA:2768:C:H6	1.79	0.47
46:BZ:52:SER:OG	46:BZ:54:HIS:CD2	2.60	0.47
25:DA:390:A:N6	36:DP:71:VAL:HG21	2.30	0.47
25:BA:973:A:OP2	42:BV:78:LYS:NZ	2.47	0.47
2:AZ:17:C:C6	2:AZ:17(A):U:H2'	2.50	0.47
9:CG:153:HIS:CE1	13:CK:57:THR:HG23	2.50	0.47
9:CG:131:LYS:O	9:CG:136:LYS:HE3	2.15	0.47
40:BT:58:ASN:C	40:BT:58:ASN:ND2	2.67	0.47
25:BA:1060:U:H4'	25:BA:1061:U:H6	1.80	0.47
29:DF:101:LEU:O	29:DF:106:ARG:HD3	2.14	0.47
11:AI:99:LEU:HD22	11:AI:99:LEU:N	2.30	0.47
9:AG:93:PRO:HA	9:AG:96:GLN:NE2	2.30	0.47
53:B6:40:CYS:HA	53:B6:41:PRO:HD2	1.83	0.47
25:DA:2280:G:C2	25:DA:2281:C:C6	3.02	0.47
9:AG:15:ASP:HA	9:AG:24:THR:HG23	1.96	0.47
25:BA:1439:A:C2	25:BA:1553:A:C4	3.02	0.47
46:DZ:16:SER:O	46:DZ:20:ARG:HD2	2.14	0.47
25:BA:1248:G:OP1	41:BU:2:PRO:HD2	2.14	0.47
1:AA:154:C:H2'	1:AA:155:C:C6	2.49	0.47
1:AA:1046:A:H3'	1:AA:1047:G:C8	2.49	0.47
1:CA:1046:A:H3'	1:CA:1047:G:C8	2.49	0.47
7:AE:10:MET:HB3	7:AE:32:VAL:HG22	1.97	0.47
10:AH:35:ILE:O	10:AH:39:LEU:HB2	2.14	0.47
25:DA:271(C):G:H4'	25:DA:271(D):U:H5'	1.97	0.47
25:DA:2046:G:H1'	52:D5:22:HIS:HE1	1.80	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AT:61:SER:OG	22:AT:65:LYS:HD2	2.15	0.47
21:CS:18:LYS:O	21:CS:22:LEU:HD23	2.15	0.47
1:AA:632:A:H2'	1:AA:633:G:O4'	2.15	0.47
25:DA:649:G:H2'	25:DA:650:C:O4'	2.15	0.47
1:AA:748:C:H6	1:AA:748:C:OP2	1.98	0.47
41:DU:14:HIS:HA	41:DU:32:PHE:CE1	2.50	0.47
25:BA:570:G:H2'	25:BA:2030:A:C6	2.50	0.47
1:CA:127:G:HO2'	19:CQ:2:PRO:N	2.12	0.47
2:CZ:55:U:C2	2:CZ:57:A:OP2	2.68	0.47
40:BT:32:TYR:O	40:BT:34:VAL:HG23	2.15	0.47
30:DG:117:PHE:CZ	30:DG:119:GLY:HA2	2.50	0.47
4:CB:57:PHE:O	4:CB:61:LEU:HB2	2.14	0.47
24:AX:290:LYS:HD3	24:AX:290:LYS:HA	1.64	0.47
48:B1:78:LYS:HD3	48:B1:78:LYS:HA	1.73	0.47
1:CA:401:C:H3'	1:CA:401:C:C6	2.50	0.47
12:AJ:22:LYS:O	12:AJ:22:LYS:HD2	2.15	0.47
2:AY:2:G:H2'	2:AY:3:C:C6	2.50	0.47
5:CC:64:VAL:HB	5:CC:98:ASN:O	2.15	0.47
25:BA:2286:A:H8	25:BA:2287:A:N6	2.12	0.47
24:AX:29:ILE:HA	24:AX:32:ILE:HG13	1.96	0.47
1:CA:1222:G:H5''	21:CS:78:ARG:HE	1.80	0.47
36:BP:100:LEU:HD23	36:BP:112:LEU:HD11	1.96	0.47
24:AX:182:ILE:CG1	24:AX:183:LEU:N	2.77	0.47
1:AA:328:C:H4'	1:AA:329:A:C5'	2.45	0.47
36:DP:105:LEU:HD12	36:DP:105:LEU:N	2.30	0.47
14:CL:5:THR:OG1	14:CL:8:GLN:HG3	2.14	0.47
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.50	0.47
25:BA:192:C:N4	25:BA:203:C:H1'	2.29	0.47
12:CJ:78:ASN:HD22	12:CJ:81:THR:HG21	1.79	0.47
30:BG:96:ARG:HG3	30:BG:98:ARG:HG2	1.97	0.47
19:AQ:22:LEU:CD1	19:AQ:39:SER:HB2	2.45	0.47
31:BH:86:GLU:HA	31:BH:132:ARG:CD	2.44	0.47
25:DA:1308:A:H2'	25:DA:1309:G:O4'	2.15	0.47
25:BA:2579:C:HO2'	28:BE:131:ALA:HB2	1.78	0.47
25:DA:1493:C:N4	25:DA:2210:G:H1'	2.30	0.47
14:CL:26:LEU:C	14:CL:28:GLY:N	2.68	0.47
25:DA:512:G:O2'	25:DA:513:A:P	2.73	0.47
42:BV:80:GLN:NE2	42:BV:80:GLN:O	2.48	0.47
1:AA:957:U:O2	1:AA:959:A:C8	2.68	0.47
46:BZ:10:ARG:NH2	46:BZ:26:GLY:O	2.48	0.47
32:DI:27:ARG:NH1	32:DI:27:ARG:CG	2.77	0.47
11:CI:10:ARG:NH1	11:CI:75:ASP:OD2	2.48	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1151:A:OP1	12:CJ:41:PRO:HA	2.15	0.47
25:DA:2815:C:O2'	52:D5:43:HIS:CD2	2.68	0.47
41:DU:26:GLY:C	41:DU:28:ARG:H	2.18	0.47
25:DA:55:G:H1	25:DA:115:C:H42	1.63	0.47
1:AA:1281:U:H5'	1:AA:1282:C:H5	1.79	0.47
1:CA:1464:G:OP1	40:DT:108:ARG:HD2	2.15	0.47
52:D5:37:LYS:HG2	52:D5:37:LYS:O	2.15	0.47
1:AA:1036:G:H2'	1:AA:1037:C:C6	2.50	0.47
1:CA:1038:C:H2'	1:CA:1039:C:H6	1.79	0.47
25:BA:2283:C:C5	25:BA:2389:G:H2'	2.50	0.47
1:CA:793:U:H5'	1:CA:794:A:H5''	1.97	0.47
5:AC:21:ARG:HB2	5:AC:21:ARG:HH11	1.80	0.47
30:BG:37:VAL:HG22	30:BG:159:VAL:HB	1.97	0.47
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.50	0.47
25:DA:735:A:H3'	25:DA:736:C:H6	1.80	0.47
1:CA:848:C:H2'	1:CA:849:C:O4'	2.15	0.47
25:DA:897:C:O2	25:DA:897:C:H2'	2.15	0.47
25:DA:164:U:C2	25:DA:165:U:C5	3.03	0.47
39:DS:38:GLN:HB3	39:DS:47:THR:CG2	2.45	0.47
1:AA:176:C:H2'	1:AA:177:C:C6	2.50	0.47
17:CO:36:ILE:HG22	17:CO:37:ASN:HD22	1.80	0.47
33:DK:74:ALA:O	33:DK:78:ILE:HD13	2.15	0.47
25:BA:2741:A:H2'	25:BA:2742:C:O4'	2.14	0.47
22:CT:23:ARG:NH1	22:CT:24:LEU:HD22	2.29	0.47
25:BA:1214:A:H61	25:BA:1235:G:H1'	1.80	0.47
46:BZ:156:LYS:HG2	46:BZ:156:LYS:O	2.14	0.47
7:AE:76:ILE:HA	7:AE:76:ILE:HD12	1.67	0.47
46:BZ:75:ASN:HD22	46:BZ:75:ASN:H	1.62	0.47
1:AA:261:U:C5	22:AT:79:ARG:NH1	2.83	0.47
25:DA:1863:G:H2'	25:DA:1864:U:O4'	2.14	0.47
22:AT:12:ALA:O	22:AT:15:ARG:HB2	2.15	0.47
1:AA:82:U:O2'	1:AA:85:U:H5	1.98	0.46
42:BV:38:LEU:C	42:BV:39:LEU:HD13	2.36	0.46
42:BV:39:LEU:O	42:BV:40:LEU:HB2	2.14	0.46
27:DD:255:LYS:HD2	27:DD:255:LYS:N	2.27	0.46
36:BP:62:LEU:C	36:BP:62:LEU:HD22	2.35	0.46
25:DA:1027:A:C6	25:DA:1126:A:C4	3.03	0.46
20:AR:59:SER:HB3	20:AR:62:GLU:CD	2.34	0.46
28:DE:201:THR:CG2	28:DE:202:LYS:H	2.17	0.46
1:CA:1157:A:C6	1:CA:1180:A:C6	3.03	0.46
24:CX:183:LEU:HD22	24:CX:185:LYS:HG3	1.97	0.46
25:BA:1544:C:C3'	25:BA:1545:A:C5'	2.93	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AM:3:ARG:N	15:AM:9:ILE:HG23	2.30	0.46
33:DK:72:PRO:HA	33:DK:73:PRO:HD3	1.82	0.46
30:DG:110:ALA:HB1	30:DG:140:ILE:CD1	2.45	0.46
4:CB:17:PHE:N	4:CB:17:PHE:HD2	2.08	0.46
25:DA:2114:A:C3'	25:DA:2115:G:C8	2.98	0.46
15:AM:56:LEU:O	15:AM:60:VAL:HG23	2.14	0.46
5:AC:19:GLU:O	5:AC:56:ASP:HA	2.15	0.46
29:DF:36:VAL:HG12	29:DF:183:VAL:HG21	1.96	0.46
25:BA:2722:G:H5''	25:BA:2820:A:C2	2.50	0.46
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.51	0.46
4:CB:100:GLY:HA2	4:CB:103:THR:HB	1.97	0.46
4:AB:100:GLY:HA2	4:AB:103:THR:HB	1.96	0.46
31:DH:88:LEU:HD23	31:DH:164:TYR:O	2.16	0.46
31:DH:21:PRO:HD2	31:DH:23:ARG:NH2	2.31	0.46
24:CX:190:TYR:CE1	24:CX:223:VAL:HG12	2.50	0.46
1:AA:735:C:H2'	1:AA:736:C:C6	2.45	0.46
1:AA:17:U:O4'	1:AA:1080:A:H1'	2.15	0.46
25:BA:1309:G:C2'	25:BA:1310:G:H5'	2.46	0.46
26:DB:75:G:H1'	46:DZ:27:VAL:CG2	2.43	0.46
37:DQ:8:LYS:O	37:DQ:9:TYR:HB3	2.15	0.46
25:DA:2850:A:C8	25:DA:2869:G:O4'	2.68	0.46
52:D5:42:PRO:HB2	52:D5:43:HIS:CD2	2.51	0.46
18:AP:4:ILE:HA	18:AP:20:VAL:O	2.16	0.46
16:CN:21:TYR:OH	16:CN:23:ARG:NH2	2.48	0.46
26:DB:30:C:C5	26:DB:31:C:C5	3.03	0.46
1:CA:1338:G:C6	1:CA:1339:A:C6	3.02	0.46
1:CA:1379:G:C6	1:CA:1380:U:C4	3.03	0.46
25:DA:2279:G:N2	25:DA:2280:G:H1'	2.30	0.46
29:DF:153:SER:OG	29:DF:190:GLU:HG3	2.14	0.46
24:AX:58:ALA:HA	24:AX:61:VAL:HB	1.97	0.46
25:BA:216:A:C8	25:BA:432:A:C6	3.03	0.46
5:CC:18:TRP:HE3	5:CC:18:TRP:H	1.63	0.46
2:CZ:11:A:C8	2:CZ:11:A:O5'	2.67	0.46
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.50	0.46
35:DO:7:TYR:CE1	35:DO:20:MET:HE3	2.47	0.46
26:BB:40:U:H1'	26:BB:45:A:H61	1.80	0.46
25:BA:164:U:H2'	25:BA:165:U:C6	2.50	0.46
27:BD:145:VAL:HB	27:BD:155:LEU:HB2	1.97	0.46
1:AA:439:A:C4	1:AA:496:A:C2	3.02	0.46
7:AE:12:LEU:C	7:AE:13:ILE:HD12	2.36	0.46
46:BZ:16:SER:O	46:BZ:20:ARG:HD2	2.15	0.46
30:BG:2:PRO:HB3	51:B4:51:TYR:CE1	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CL:33:ARG:HG3	14:CL:34:GLY:N	2.29	0.46
32:DI:93:THR:O	32:DI:97:ILE:HG12	2.16	0.46
55:B8:16:ILE:CD1	55:B8:58:ILE:HD13	2.45	0.46
53:B6:46:HIS:O	53:B6:47:THR:HG23	2.15	0.46
1:AA:235:C:H2'	1:AA:236:G:C8	2.50	0.46
25:DA:239:U:O2'	25:DA:240:G:H5'	2.15	0.46
4:AB:233:SER:HB2	4:AB:234:PRO:HD2	1.97	0.46
25:DA:2187:G:C6	25:DA:2188:C:C4	3.03	0.46
25:DA:898:C:H2'	25:DA:899:A:O4'	2.15	0.46
25:DA:1340:U:H4'	25:DA:1341:U:OP2	2.16	0.46
1:AA:506:G:C6	1:AA:507:C:C4	3.03	0.46
11:CI:8:GLY:HA3	11:CI:76:ALA:O	2.14	0.46
25:BA:2789:C:H6	25:BA:2789:C:O5'	1.98	0.46
2:CY:16:C:O2	2:CY:60:U:H4'	2.15	0.46
26:DB:102:G:H21	46:DZ:73:GLN:NE2	2.13	0.46
6:CD:52:SER:O	6:CD:56:VAL:HG23	2.14	0.46
25:DA:2809:A:C2	25:DA:2892:A:N3	2.83	0.46
34:DN:58:ARG:HB3	34:DN:65:TRP:CZ3	2.50	0.46
25:BA:675:A:C4'	29:BF:67:GLN:NE2	2.65	0.46
7:AE:20:GLN:O	7:AE:21:ALA:C	2.51	0.46
1:AA:1309:G:C2	1:AA:1329:A:N3	2.83	0.46
27:BD:34:VAL:C	27:BD:35:LYS:HD2	2.36	0.46
25:BA:274:G:C8	25:BA:274:G:OP1	2.68	0.46
42:BV:76:LYS:HB2	42:BV:81:TYR:HD1	1.80	0.46
29:DF:24:LEU:HD21	29:DF:114:VAL:HG12	1.97	0.46
11:CI:26:VAL:HG12	11:CI:33:PHE:HB2	1.97	0.46
25:DA:2517:C:H42	25:DA:2567:G:H1	1.64	0.46
37:BQ:134:ARG:HE	37:BQ:134:ARG:HA	1.80	0.46
30:BG:105:LYS:O	30:BG:109:VAL:HB	2.16	0.46
24:CX:131:LEU:HD23	24:CX:132:THR:N	2.31	0.46
37:DQ:67:ARG:HB2	37:DQ:102:VAL:O	2.14	0.46
37:BQ:127:ILE:HG22	37:BQ:128:LYS:N	2.31	0.46
6:AD:104:VAL:HG11	6:AD:146:ILE:HG12	1.96	0.46
25:DA:2419:U:O4	55:D8:30:ARG:CZ	2.63	0.46
53:B6:12:GLU:HG2	53:B6:52:VAL:O	2.15	0.46
24:CX:224:ILE:HD12	24:CX:308:LEU:HD21	1.98	0.46
31:DH:51:ARG:CG	31:DH:52:VAL:H	2.22	0.46
46:DZ:26:GLY:HA2	46:DZ:85:HIS:CD2	2.50	0.46
6:AD:62:GLN:HE21	6:AD:62:GLN:HA	1.81	0.46
27:DD:79:VAL:CG2	27:DD:115:GLN:HB2	2.45	0.46
25:DA:2245:U:O2	25:DA:2435:A:C8	2.68	0.46
25:BA:1537:C:H2'	25:BA:1538:G:O4'	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CI:9:ARG:HB2	11:CI:104:ARG:HD3	1.97	0.46
1:AA:1443:G:H3'	1:AA:1446:A:H5''	1.97	0.46
6:CD:30:LYS:C	6:CD:32:ALA:N	2.62	0.46
6:CD:31:CYS:C	6:CD:33:MET:H	2.18	0.46
25:DA:2647:U:H2'	25:DA:2648:C:C6	2.50	0.46
32:BI:52:ARG:CG	32:BI:52:ARG:NH1	2.77	0.46
1:CA:1154:G:C2	1:CA:1155:G:C8	3.04	0.46
19:AQ:9:VAL:HG11	19:AQ:84:LEU:HD12	1.97	0.46
26:BB:83:G:H4'	50:B3:52:HIS:CG	2.50	0.46
13:AK:63:LEU:HD23	13:AK:63:LEU:N	2.30	0.46
1:CA:186(D):G:H2'	1:CA:186(E):C:C6	2.51	0.46
25:DA:2159:G:H8	25:DA:2159:G:O5'	1.98	0.46
25:DA:2085:C:O2'	25:DA:2086:U:H5'	2.15	0.46
21:AS:39:THR:OG1	21:AS:70:LYS:HE2	2.14	0.46
1:CA:642:A:H5''	10:CH:30:ARG:NH2	2.31	0.46
1:AA:941:G:N2	1:AA:942:G:H1'	2.30	0.46
25:BA:1519:G:C6	25:BA:1520:U:C4	3.02	0.46
38:BR:100:LEU:CD2	38:BR:113:LEU:HB2	2.45	0.46
25:BA:422:A:C2	25:BA:423:A:C4	3.03	0.46
25:BA:2179:C:H2'	25:BA:2180:U:H6	1.81	0.46
25:DA:2016:U:H1'	52:D5:6:VAL:CG1	2.46	0.46
25:DA:2077:A:C4	25:DA:2078:C:C5	3.03	0.46
25:BA:1483:G:H2'	25:BA:1484:G:C8	2.47	0.46
1:CA:1206:G:O6	1:CA:1207:G:C6	2.69	0.46
25:BA:1292:U:H2'	25:BA:1293:C:C6	2.50	0.46
25:BA:235:U:C2	25:BA:236:C:C5	3.03	0.46
46:BZ:120:ILE:H	46:BZ:172:ALA:HA	1.81	0.46
1:AA:882:C:O2'	1:AA:883:C:H5'	2.14	0.46
1:CA:838:G:H2'	1:CA:841:U:H5'	1.98	0.46
25:BA:1131:G:OP2	25:BA:2515:C:H4'	2.15	0.46
1:AA:235:C:H2'	1:AA:236:G:H8	1.80	0.46
26:BB:21:G:H2'	26:BB:22:U:O4'	2.15	0.46
25:BA:1329:U:O2'	25:BA:1330:C:H5'	2.14	0.46
17:CO:50:HIS:O	17:CO:53:HIS:HB3	2.15	0.46
17:CO:61:GLY:O	17:CO:65:ARG:HD3	2.15	0.46
48:B1:16:ASN:HB3	48:B1:17:SER:H	1.43	0.46
25:BA:1197:G:H5'	25:BA:1227:G:O2'	2.14	0.46
25:BA:43:G:H1'	25:BA:438:G:N2	2.30	0.46
42:BV:22:VAL:HG12	42:BV:23:GLU:N	2.30	0.46
33:DK:35:MET:O	33:DK:39:LYS:HD3	2.14	0.46
25:BA:1882:C:H2'	25:BA:1883:G:O4'	2.15	0.46
25:DA:2662:A:H8	25:DA:2662:A:O5'	1.99	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B8:50:LEU:CB	55:B8:54:GLU:HG3	2.41	0.46
48:B1:13:ILE:HA	48:B1:66:HIS:ND1	2.30	0.46
36:DP:50:ARG:CB	55:D8:60:LEU:HD11	2.24	0.46
49:B2:48:HIS:HE1	49:B2:49:LYS:HZ3	1.63	0.46
42:DV:38:LEU:C	42:DV:39:LEU:HD13	2.35	0.46
41:DU:79:PHE:O	41:DU:83:LEU:HD12	2.15	0.46
25:DA:2307:G:O5'	25:DA:2307:G:H8	1.99	0.46
1:CA:957:U:O2	1:CA:959:A:C8	2.69	0.46
12:AJ:84:GLN:O	12:AJ:88:LEU:HB2	2.16	0.46
1:AA:1358:U:H3'	1:AA:1359:C:H6	1.80	0.46
30:DG:74:LYS:O	30:DG:75:LYS:O	2.33	0.46
33:DK:66:THR:HG22	33:DK:68:VAL:CG2	2.45	0.46
1:AA:719:C:C2	20:AR:50:ILE:HG12	2.50	0.46
14:AL:30:PRO:O	14:AL:31:PHE:CD2	2.69	0.46
25:DA:2168:G:N2	25:DA:2170:A:H3'	2.30	0.46
48:B1:57:GLU:O	48:B1:58:ILE:CB	2.64	0.46
52:D5:16:ARG:HG2	52:D5:17:ASP:N	2.30	0.46
38:BR:9:LYS:C	38:BR:10:LEU:HG	2.34	0.46
4:CB:51:LEU:HD22	4:CB:55:PHE:CE2	2.47	0.46
1:AA:1301:U:H3'	1:AA:1302:U:H5''	1.96	0.46
30:DG:16:ARG:NH1	30:DG:16:ARG:CG	2.74	0.46
11:CI:118:LYS:O	11:CI:119:ALA:HB3	2.15	0.46
30:DG:5:LEU:HD12	30:DG:101:ILE:HG22	1.98	0.46
41:BU:98:LEU:O	41:BU:101:ARG:O	2.33	0.46
25:BA:2312:U:O2'	30:BG:71:THR:HG21	2.14	0.46
27:BD:79:VAL:O	27:BD:113:VAL:HG13	2.15	0.46
37:DQ:16:ARG:CG	37:DQ:17:LEU:H	2.28	0.46
6:AD:153:ARG:HG2	6:AD:181:MET:HE3	1.97	0.46
25:BA:118:A:H5'	25:BA:119:A:H8	1.80	0.46
1:AA:1222:G:H5''	21:AS:78:ARG:HE	1.81	0.46
11:CI:11:LYS:C	11:CI:13:ALA:H	2.16	0.46
2:AZ:16:C:H5''	2:AZ:17:C:OP2	2.15	0.46
25:BA:2330:G:H2'	25:BA:2331:G:O4'	2.15	0.46
10:AH:123:GLU:HA	10:AH:126:LYS:HB2	1.96	0.46
33:BK:66:THR:HG22	33:BK:68:VAL:CG2	2.45	0.46
46:BZ:118:GLN:N	46:BZ:173:ALA:O	2.44	0.46
42:DV:5:VAL:HG21	42:DV:35:LEU:HG	1.97	0.46
9:CG:65:ALA:HA	9:CG:128:ALA:N	2.30	0.46
25:DA:2134:A:C8	25:DA:2158:A:N1	2.83	0.46
1:AA:1170:A:O5'	1:AA:1170:A:H8	1.98	0.46
10:CH:123:GLU:HA	10:CH:126:LYS:HB2	1.98	0.46
1:CA:389:A:H2'	1:CA:390:C:H5'	1.96	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AD:11:LEU:C	6:AD:13:ARG:H	2.17	0.46
25:BA:2084:C:C2	25:BA:2085:C:C5	3.04	0.46
39:DS:65:VAL:O	39:DS:69:VAL:HG12	2.14	0.46
25:BA:1731:G:O2'	25:BA:1732:A:P	2.73	0.46
46:DZ:17:ALA:O	46:DZ:20:ARG:HB2	2.15	0.46
13:AK:27:ASN:OD1	13:AK:55:LYS:HB3	2.15	0.46
25:BA:2246:G:H2'	25:BA:2247:A:H8	1.80	0.46
25:BA:2248:C:H2'	25:BA:2249:U:O4'	2.15	0.46
10:AH:91:ARG:CG	10:AH:91:ARG:NH1	2.78	0.46
29:BF:31:HIS:NE2	29:BF:35:GLU:HG3	2.30	0.46
31:DH:107:VAL:HG23	31:DH:109:PHE:CD1	2.49	0.46
45:DY:88:LYS:HE2	45:DY:93:GLY:N	2.30	0.46
25:DA:325:G:N2	25:DA:326:G:C4	2.84	0.46
25:DA:1799:G:C8	27:DD:177:LEU:HD12	2.51	0.46
1:CA:261:U:C5	22:CT:79:ARG:NH1	2.83	0.46
25:DA:1665:A:H2'	25:DA:1666:G:O4'	2.15	0.46
10:AH:97:VAL:C	10:AH:99:GLU:H	2.18	0.46
25:DA:2637:U:H5''	28:DE:82:ARG:HH21	1.80	0.46
1:AA:683:G:C2	1:AA:708:C:N3	2.84	0.46
25:BA:2053:G:O2'	25:BA:2054:A:H5'	2.16	0.46
17:AO:50:HIS:O	17:AO:53:HIS:HB3	2.16	0.46
43:DW:89:ALA:O	43:DW:91:GLY:N	2.48	0.46
46:DZ:145:GLU:HG3	46:DZ:146:ILE:H	1.80	0.46
48:D1:13:ILE:HA	48:D1:66:HIS:ND1	2.30	0.46
49:B2:49:LYS:O	49:B2:53:LEU:HB2	2.16	0.46
41:BU:83:LEU:CB	41:BU:88:ILE:HG13	2.43	0.46
37:BQ:16:ARG:CG	37:BQ:17:LEU:H	2.29	0.46
27:DD:35:LYS:HG2	27:DD:104:TYR:CE2	2.50	0.46
27:DD:34:VAL:C	27:DD:35:LYS:HD2	2.36	0.46
25:BA:310:A:OP1	45:BY:17:SER:O	2.32	0.46
39:DS:24:LEU:HD12	39:DS:84:GLN:CB	2.32	0.46
25:DA:1021:A:C3'	25:DA:1021:A:C8	2.98	0.46
1:CA:923:A:OP1	7:CE:21:ALA:HB2	2.15	0.46
1:CA:1368:G:O2'	1:CA:1369:C:H5'	2.16	0.46
25:BA:1902:C:H5''	27:BD:246:PRO:HD3	1.97	0.46
1:AA:668:G:O2'	17:AO:46:HIS:CD2	2.65	0.46
1:CA:1236:A:O2'	1:CA:1304:G:H4'	2.15	0.46
24:AX:245:MET:O	24:AX:261:ALA:HB3	2.15	0.46
33:DK:57:ILE:HD12	33:DK:65:PHE:HD1	1.80	0.46
25:BA:2092:U:C4'	25:BA:2093:G:O5'	2.55	0.46
7:CE:91:LEU:HD23	7:CE:120:THR:CG2	2.45	0.46
1:CA:738:C:H5''	8:CF:69:GLU:HB2	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BB:16:G:H2'	26:BB:17:C:H6	1.81	0.46
37:BQ:76:LYS:N	37:BQ:88:GLY:HA2	2.31	0.46
25:BA:143:C:H4'	44:BX:38:GLU:OE1	2.15	0.46
39:BS:49:VAL:HG13	39:BS:76:LYS:HB2	1.98	0.46
25:DA:1311:G:H2'	54:D7:47:ARG:NH2	2.30	0.46
25:BA:919:G:H2'	25:BA:920:G:C8	2.50	0.46
31:BH:101:ARG:N	31:BH:101:ARG:NE	2.62	0.46
27:DD:111:LEU:HD22	27:DD:115:GLN:CD	2.35	0.46
1:CA:1443:G:H3'	1:CA:1446:A:H5''	1.97	0.46
18:CP:21:VAL:HG22	18:CP:34:GLU:O	2.16	0.46
11:AI:79:LEU:HD23	11:AI:101:PHE:O	2.15	0.46
1:CA:1493:A:C6	25:DA:1913:A:N7	2.83	0.46
19:AQ:81:ARG:HD3	19:AQ:84:LEU:CD1	2.44	0.46
25:BA:2134:A:C8	25:BA:2158:A:N1	2.83	0.46
25:BA:2159:G:H8	25:BA:2159:G:O5'	1.98	0.46
6:AD:112:VAL:HG12	6:AD:116:GLN:OE1	2.15	0.46
25:DA:2134:A:H2	25:DA:2159:G:HO2'	1.63	0.46
15:CM:91:ARG:HB3	15:CM:97:PRO:O	2.15	0.46
48:D1:18:ILE:H	48:D1:18:ILE:HD13	1.79	0.46
37:BQ:14:ARG:HG2	37:BQ:14:ARG:NH1	2.29	0.46
20:AR:44:LEU:CD2	20:AR:80:PRO:HD2	2.45	0.46
44:DX:31:HIS:CD2	44:DX:33:LYS:H	2.33	0.46
44:DX:89:ILE:O	44:DX:93:GLU:HG2	2.16	0.46
1:AA:500:G:O5'	1:AA:500:G:H8	1.98	0.46
25:BA:2698:U:H2'	25:BA:2699:C:C6	2.51	0.46
25:DA:481:G:O2'	25:DA:482:A:P	2.73	0.46
1:CA:256:U:H2'	1:CA:257:G:O4'	2.15	0.46
32:DI:83:ALA:HB2	32:DI:88:ILE:HD13	1.97	0.46
1:CA:20:U:H2'	1:CA:21:G:O4'	2.15	0.46
25:BA:897:C:H2'	25:BA:897:C:O2	2.15	0.46
25:BA:2638:G:P	28:BE:82:ARG:HH22	2.38	0.46
1:AA:565:U:H3'	1:AA:566:G:H2'	1.96	0.46
25:DA:570:G:H2'	25:DA:2030:A:C5	2.51	0.46
17:AO:37:ASN:HD22	17:AO:37:ASN:N	2.13	0.46
25:DA:406:G:C6	25:DA:407:G:C5	3.04	0.46
26:DB:48:A:H2'	26:DB:49:C:C6	2.50	0.46
6:AD:150:GLU:C	6:AD:152:SER:H	2.19	0.46
25:DA:2528:U:C6	25:DA:2530:A:C8	3.03	0.46
7:AE:146:ALA:O	7:AE:147:ASP:C	2.54	0.46
1:AA:1065:U:OP2	1:AA:1190:G:N2	2.49	0.46
25:DA:2636:U:H4'	28:DE:80:GLU:OE1	2.15	0.46
1:AA:563:A:C8	1:AA:567:G:O4'	2.69	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CF:36:ARG:HH21	8:CF:66:GLU:CD	2.19	0.46
1:CA:1188:A:H2'	1:CA:1189:C:O4'	2.16	0.46
1:AA:586:C:O2'	1:AA:587:G:H5'	2.16	0.46
1:CA:117:G:H2'	1:CA:118:U:C6	2.50	0.46
25:DA:459:U:OP2	25:DA:469:G:N1	2.41	0.46
38:BR:116:LEU:HA	38:BR:116:LEU:HD23	1.76	0.46
36:DP:50:ARG:CD	36:DP:51:PHE:H	2.27	0.46
12:CJ:7:LYS:O	12:CJ:96:ILE:HA	2.15	0.46
24:CX:92:LEU:HB3	24:CX:97:ARG:CB	2.43	0.46
39:DS:31:SER:HB3	39:DS:34:HIS:HB2	1.98	0.46
25:DA:1028:A:N6	25:DA:1125:G:H2'	2.30	0.46
20:AR:59:SER:HB3	20:AR:62:GLU:CG	2.46	0.46
21:AS:6:LYS:HD2	21:AS:6:LYS:N	2.30	0.46
25:DA:1052:C:H2'	25:DA:1053:C:C5	2.50	0.46
25:DA:1060:U:H4'	25:DA:1061:U:O5'	2.15	0.46
14:CL:83:LEU:HD13	14:CL:84:ILE:N	2.31	0.46
25:BA:2199:A:H3'	25:BA:2205:C:C6	2.51	0.46
15:CM:3:ARG:HD3	51:D4:60:GLU:OE1	2.16	0.46
49:B2:1:MET:HB3	49:B2:2:LYS:HZ2	1.79	0.46
7:AE:101:ILE:CD1	7:AE:119:LEU:HD23	2.39	0.46
26:BB:66:A:C6	26:BB:107:U:C2	3.04	0.46
25:BA:1491:G:N2	25:BA:1499:C:O2	2.48	0.46
14:CL:45:LYS:HB3	14:CL:46:LYS:H	1.46	0.46
30:BG:120:LEU:HB3	30:BG:131:TYR:OH	2.16	0.46
25:BA:1384:A:N3	25:BA:1405:U:H1'	2.29	0.46
27:BD:79:VAL:CG2	27:BD:115:GLN:HB2	2.45	0.46
44:DX:50:LYS:HD3	44:DX:51:VAL:N	2.31	0.46
1:CA:16:A:C2'	1:CA:17:U:H5'	2.45	0.46
24:AX:230:GLU:HB3	24:AX:304:ARG:HH11	1.80	0.46
46:BZ:26:GLY:HA2	46:BZ:85:HIS:CD2	2.50	0.46
2:CZ:16:C:H5'	2:CZ:17:C:OP2	2.16	0.46
25:DA:1567:A:C8	27:DD:84:TYR:CE2	3.04	0.46
20:AR:56:THR:CB	20:AR:58:LEU:HD13	2.42	0.46
9:AG:80:VAL:HG21	9:AG:85:TYR:CE1	2.51	0.46
18:AP:55:ARG:O	18:AP:58:TYR:HB3	2.15	0.46
25:BA:2122:U:H2'	25:BA:2123:G:H8	1.80	0.46
25:BA:644:A:H2	25:BA:2369:A:H1'	1.80	0.46
9:AG:111:ARG:HB3	9:AG:113:GLU:OE2	2.15	0.46
1:AA:811:C:C4'	1:AA:900:A:H61	2.29	0.46
4:AB:142:LEU:HA	4:AB:145:LEU:HB2	1.98	0.46
25:BA:374:A:C2	25:BA:401:A:C4	3.02	0.46
25:BA:39:C:H2'	25:BA:40:C:C6	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:13:ASN:ND2	36:DP:13:ASN:O	2.49	0.46
25:DA:213:A:C2'	25:DA:214:G:H5'	2.46	0.46
25:BA:235:U:H2'	25:BA:236:C:C6	2.51	0.46
43:DW:58:ALA:HB1	43:DW:64:MET:HG3	1.97	0.46
18:CP:39:TYR:HB2	18:CP:49:LEU:HD13	1.98	0.46
8:AF:44:GLY:HA2	8:AF:59:TYR:CE1	2.51	0.46
14:CL:16:LYS:HD3	14:CL:17:VAL:H	1.80	0.46
25:DA:1479:G:N3	25:DA:1479:G:H2'	2.31	0.46
46:BZ:145:GLU:HG3	46:BZ:146:ILE:N	2.30	0.46
14:CL:78:GLU:O	14:CL:79:HIS:CD2	2.68	0.46
1:AA:442:C:H42	1:AA:492:G:H1	1.63	0.46
25:DA:868:U:C4	25:DA:869:G:N7	2.84	0.46
21:AS:33:THR:HG23	21:AS:51:VAL:HA	1.97	0.46
25:DA:1882:C:H2'	25:DA:1883:G:O4'	2.15	0.46
9:CG:105:VAL:O	9:CG:106:GLN:C	2.54	0.46
1:AA:66:G:C6	1:AA:104:G:C2	3.04	0.46
42:BV:9:GLY:O	42:BV:10:LYS:HG3	2.15	0.46
6:CD:156:GLU:O	6:CD:159:ARG:HB2	2.15	0.46
18:CP:71:ARG:HH11	18:CP:71:ARG:HG3	1.80	0.46
26:DB:21:G:H2'	26:DB:22:U:O4'	2.14	0.46
25:DA:2309:A:H2'	25:DA:2310:A:C8	2.50	0.46
1:AA:888:G:H4'	1:AA:1488:G:O2'	2.15	0.46
43:BW:51:LEU:C	43:BW:51:LEU:HD13	2.36	0.46
1:CA:1118:C:H5'	1:CA:1118:C:H6	1.81	0.46
46:DZ:91:LEU:HD11	46:DZ:96:VAL:HG11	1.97	0.46
1:AA:80:G:H22	1:AA:90:C:H1'	1.79	0.46
42:DV:49:THR:O	42:DV:51:VAL:N	2.48	0.46
49:D2:6:VAL:O	49:D2:10:LEU:HG	2.16	0.46
25:DA:1152:C:H4'	41:DU:77:SER:HA	1.98	0.46
25:BA:1021:A:C3'	25:BA:1021:A:C8	2.97	0.46
25:DA:310:A:OP1	45:DY:17:SER:O	2.34	0.46
27:DD:238:GLY:O	27:DD:240:ALA:N	2.48	0.46
25:BA:2393:A:C2'	25:BA:2394:C:H5'	2.46	0.46
20:CR:31:LEU:H	20:CR:31:LEU:CD2	2.27	0.46
32:DI:130:TYR:CD2	32:DI:132:PRO:HG3	2.51	0.46
25:BA:1027:A:C6	25:BA:1126:A:C4	3.04	0.46
37:BQ:134:ARG:O	37:BQ:136:ALA:N	2.48	0.46
25:BA:1495:A:O2'	25:BA:1496:A:H5'	2.15	0.46
33:DK:52:ILE:O	33:DK:73:PRO:HD3	2.15	0.46
25:DA:1542:G:C8	25:DA:1543:A:C6	3.04	0.46
14:AL:26:LEU:C	14:AL:28:GLY:N	2.69	0.46
25:DA:2334:G:C4	39:DS:12:PHE:CZ	3.03	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:B1:59:THR:O	48:B1:91:LYS:HE3	2.15	0.46
25:BA:2872:G:C2	25:BA:2873:A:N6	2.84	0.46
14:AL:92:LEU:HA	14:AL:93:PRO:HD3	1.80	0.46
4:AB:98:LEU:O	4:AB:101:MET:HG2	2.15	0.46
25:DA:2360:A:H8	25:DA:2360:A:O5'	1.98	0.46
25:DA:270(N):U:O4'	25:DA:270(O):G:C6	2.69	0.46
14:AL:65:VAL:HG12	14:AL:66:THR:N	2.31	0.46
42:DV:78:LYS:HG3	42:DV:79:VAL:HG23	1.97	0.46
1:CA:60:A:P	1:CA:60:A:H8	2.38	0.46
36:DP:6:LEU:HD12	36:DP:8:PRO:CG	2.45	0.46
26:DB:66:A:N6	26:DB:107:U:C2	2.84	0.46
45:DY:81:LYS:CG	45:DY:97:ARG:HB3	2.44	0.46
25:BA:2798:C:OP2	25:BA:2799:A:N7	2.49	0.46
14:CL:96:ARG:C	14:CL:97:TYR:CD1	2.89	0.46
46:DZ:28:MET:HE3	46:DZ:61:LEU:HD21	1.97	0.46
25:BA:972:G:OP2	25:BA:974(A):G:H5''	2.16	0.46
6:AD:9:CYS:HB3	6:AD:32:ALA:CB	2.45	0.46
25:BA:2574:G:O2'	25:BA:2575:C:H5'	2.15	0.46
10:AH:86:ILE:HG12	10:AH:135:CYS:HA	1.98	0.46
16:AN:21:TYR:OH	16:AN:23:ARG:NH2	2.48	0.46
25:BA:2761:G:H1'	31:BH:143:GLN:NE2	2.31	0.46
1:AA:410:G:H5''	1:AA:411:A:OP1	2.16	0.46
2:CY:19:G:N2	2:CY:57:A:H1'	2.31	0.46
2:AY:20:U:H5'	2:AY:21:A:OP2	2.16	0.46
1:AA:501:C:H2'	1:AA:502:G:H8	1.81	0.46
1:AA:191(E):G:H2'	1:AA:191(F):U:H6	1.78	0.46
2:CZ:21:A:HO2'	2:CZ:22:G:H8	1.59	0.46
25:BA:582:G:H2'	25:BA:583:G:C8	2.50	0.46
39:DS:64:GLU:HA	39:DS:67:ARG:HE	1.80	0.46
1:CA:575:G:H4'	1:CA:576:G:O5'	2.15	0.46
1:CA:1004:A:N1	1:CA:1025:U:H1'	2.30	0.46
1:CA:1005:A:H4'	1:CA:1037:C:H1'	1.96	0.46
25:DA:2078:C:H2'	25:DA:2079:U:C6	2.50	0.46
25:DA:1517:G:H2'	25:DA:1518:C:C6	2.50	0.46
25:BA:2081:C:C2'	25:BA:2082:A:H5'	2.46	0.46
25:DA:1424:G:H2'	25:DA:1425:G:O4'	2.16	0.46
25:DA:270(G):U:H2'	25:DA:270(H):C:H6	1.77	0.46
46:BZ:24:LEU:HD21	46:BZ:86:VAL:CG2	2.46	0.46
25:BA:1312:U:C2	25:BA:1603:A:C2	3.04	0.46
4:AB:11:LEU:O	4:AB:16:HIS:CE1	2.68	0.46
1:CA:1316:G:N1	1:CA:1319:A:OP2	2.47	0.46
30:DG:2:PRO:HB3	51:D4:51:TYR:CE1	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DT:16:ARG:HD3	40:DT:16:ARG:HA	1.63	0.46
25:BA:2371:G:O2'	53:B6:46:HIS:HD2	1.98	0.46
25:BA:1131:G:H4'	25:BA:1132:A:OP1	2.15	0.46
25:DA:2343:C:HO2'	25:DA:2373:G:HO2'	1.64	0.46
1:AA:147:G:H1	1:AA:175:C:H42	1.62	0.46
42:DV:22:VAL:CG1	42:DV:23:GLU:N	2.79	0.46
31:DH:47:GLU:OE1	31:DH:48:GLY:N	2.46	0.46
40:BT:34:VAL:O	40:BT:40:THR:HA	2.15	0.46
35:BO:64:ARG:HB2	35:BO:83:ALA:HB3	1.98	0.46
24:AX:136:GLY:HA3	24:AX:319:GLU:OE2	2.16	0.46
25:DA:2741:A:H2'	25:DA:2742:C:O4'	2.16	0.46
1:AA:678:U:H2'	1:AA:679:C:C6	2.50	0.46
48:B1:25:LYS:HB3	48:B1:34:THR:O	2.16	0.46
29:DF:116:ASP:OD2	36:DP:5:ASP:HB3	2.15	0.46
20:CR:59:SER:HB3	20:CR:62:GLU:CD	2.36	0.46
25:DA:365(A):C:O2'	25:DA:366(B):C:H5'	2.15	0.46
25:BA:1322:A:C5	25:BA:1323:U:C5	3.04	0.46
25:DA:398:G:H2'	25:DA:399:G:C8	2.51	0.46
1:CA:946:A:H2'	1:CA:947:G:C8	2.50	0.46
18:AP:50:LYS:HD3	18:AP:50:LYS:C	2.36	0.46
27:DD:183:ARG:HG2	27:DD:184:LYS:O	2.16	0.46
25:DA:1957:C:H2'	25:DA:1958:C:H6	1.81	0.46
25:BA:2403:C:C4	25:BA:2415:G:C2	3.03	0.46
40:DT:88:ILE:HD12	40:DT:90:GLN:N	2.30	0.46
25:DA:274:G:C2	25:DA:275:G:N2	2.84	0.46
1:AA:1229:A:H2'	1:AA:1230:C:C6	2.51	0.46
20:AR:31:LEU:H	20:AR:31:LEU:CD2	2.27	0.46
29:DF:7:TYR:O	29:DF:21:ALA:HA	2.16	0.46
1:CA:1355:G:C6	1:CA:1368:G:C6	3.04	0.46
25:DA:8:A:C2	25:DA:9:U:O2	2.68	0.46
16:AN:27:CYS:SG	16:AN:40:CYS:SG	3.14	0.46
25:BA:1825:A:H2'	25:BA:1826:G:H8	1.81	0.46
25:BA:1176:G:H2'	25:BA:1177:A:O4'	2.16	0.46
24:AX:242:ILE:CD1	24:AX:285:LYS:HE3	2.46	0.46
36:BP:15:ARG:HH12	36:BP:17:LYS:HD2	1.81	0.46
4:CB:158:LEU:HD23	4:CB:159:PRO:HD2	1.97	0.46
4:CB:162:ILE:HD12	4:CB:162:ILE:O	2.16	0.46
4:AB:158:LEU:HD23	4:AB:159:PRO:HD2	1.98	0.46
25:DA:1060:U:H4'	25:DA:1061:U:H6	1.81	0.46
33:DK:57:ILE:HD13	33:DK:67:PHE:HA	1.97	0.46
14:CL:30:PRO:O	14:CL:31:PHE:CD2	2.69	0.46
25:BA:1052:C:H2'	25:BA:1053:C:C6	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CE:109:ILE:HG22	7:CE:110:LEU:HD23	1.97	0.46
25:BA:517:C:OP1	52:B5:16:ARG:NH2	2.48	0.46
25:BA:2820:A:O4'	38:BR:5:LYS:HG3	2.15	0.46
25:DA:2687:U:C4	25:DA:2688:U:C5	3.04	0.46
49:B2:50:ILE:CD1	49:B2:51:ARG:N	2.79	0.46
36:DP:58:THR:O	36:DP:61:ARG:HG3	2.16	0.46
37:DQ:127:ILE:HG22	37:DQ:128:LYS:N	2.30	0.46
31:BH:21:PRO:HD2	31:BH:23:ARG:NH2	2.31	0.46
5:CC:76:VAL:HG21	5:CC:103:VAL:HG21	1.97	0.46
25:BA:1332:G:N2	25:BA:1610:A:H8	2.14	0.46
27:DD:206:LEU:CD2	27:DD:211:ARG:HG2	2.40	0.46
34:DN:118:PRO:HD2	34:DN:119:GLU:OE1	2.15	0.46
14:CL:52:ARG:HG2	14:CL:92:LEU:HD11	1.97	0.46
27:DD:106:ILE:HD12	27:DD:106:ILE:O	2.15	0.46
25:BA:910:A:H2'	25:BA:911:A:C8	2.50	0.46
6:CD:28:SER:HB3	6:CD:29:PRO:CD	2.43	0.46
29:BF:170:LEU:HG	29:BF:172:TRP:NE1	2.30	0.46
25:DA:1567:A:C4	27:DD:84:TYR:CD2	3.04	0.46
27:DD:10:THR:HG23	27:DD:13:ARG:CG	2.45	0.46
27:DD:10:THR:HG23	27:DD:13:ARG:HB3	1.98	0.46
18:AP:21:VAL:HG22	18:AP:34:GLU:O	2.16	0.46
1:CA:503:C:O2	1:CA:510:A:H2	1.98	0.46
1:CA:981:U:H5'	16:CN:21:TYR:CE1	2.51	0.46
19:CQ:60:ILE:HB	19:CQ:74:LEU:HD23	1.97	0.46
27:BD:136:ILE:HD12	27:BD:136:ILE:N	2.30	0.46
25:DA:2041:U:O2'	25:DA:2042:A:H5'	2.15	0.46
6:CD:11:LEU:O	6:CD:12:CYS:C	2.52	0.46
24:AX:339:THR:HG22	24:AX:365:LYS:HG3	1.97	0.46
25:DA:322:A:H3'	29:DF:169:ASN:HD21	1.80	0.46
17:AO:5:LYS:HE2	17:AO:6:GLU:HB2	1.98	0.46
25:BA:483:A:O3'	45:BY:49:VAL:HG22	2.16	0.46
1:AA:1338:G:C6	1:AA:1339:A:C6	3.04	0.46
9:CG:93:PRO:HA	9:CG:96:GLN:NE2	2.31	0.46
32:BI:87:LYS:HG3	32:BI:88:ILE:H	1.80	0.46
1:AA:1281:U:H4'	1:AA:1282:C:OP2	2.16	0.46
25:DA:1676:A:C2	25:DA:1993:U:H5'	2.51	0.46
1:AA:792:A:C4	1:AA:794:A:C6	3.03	0.46
25:DA:1729:A:C5	25:DA:1731:G:C6	3.03	0.46
25:BA:1729:A:C5	25:BA:1731:G:C6	3.03	0.46
25:BA:165:U:C2	25:BA:171:G:C8	3.03	0.46
38:DR:81:ASP:N	38:DR:81:ASP:OD2	2.49	0.46
4:CB:11:LEU:O	4:CB:16:HIS:CE1	2.68	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CB:11:LEU:HD12	4:CB:217:ARG:HH12	1.81	0.46
1:CA:255:G:H1'	19:CQ:16:GLN:NE2	2.30	0.46
29:DF:78:ILE:CD1	29:DF:78:ILE:H	2.25	0.46
22:AT:32:ALA:HA	22:AT:35:THR:OG1	2.16	0.46
1:AA:542:G:H5'	6:AD:41:GLY:HA3	1.98	0.46
27:DD:58:HIS:O	27:DD:59:LYS:O	2.33	0.46
25:DA:1198:U:O5'	25:DA:1198:U:H6	1.99	0.46
25:BA:1419:A:C8	25:BA:1421:G:C6	3.04	0.46
25:BA:2108:C:H2'	25:BA:2109:U:C6	2.50	0.46
1:CA:417:C:H2'	1:CA:418:C:H6	1.81	0.46
31:DH:46:GLU:HB3	31:DH:47:GLU:OE2	2.16	0.46
21:AS:33:THR:OG1	21:AS:34:TRP:N	2.49	0.46
40:DT:34:VAL:O	40:DT:40:THR:HA	2.15	0.46
4:CB:233:SER:HB2	4:CB:234:PRO:HD2	1.97	0.46
25:DA:2718:G:H2'	25:DA:2719:G:C8	2.51	0.46
38:DR:96:ARG:HH22	38:DR:118:GLU:H	1.62	0.46
1:AA:1483:A:H5''	1:AA:1484:C:OP2	2.15	0.46
20:CR:26:LEU:HD21	20:CR:42:ARG:HD2	1.97	0.46
25:DA:1816:G:N7	27:DD:62:TYR:CE1	2.84	0.46
18:AP:19:ILE:HG22	18:AP:36:ILE:HG13	1.98	0.46
25:BA:1673:U:O2'	25:BA:1674:G:H5'	2.15	0.46
25:BA:1326:U:O2'	25:BA:1327:C:H5'	2.16	0.46
1:CA:95:G:H2'	1:CA:96:G:O4'	2.15	0.46
55:D8:50:LEU:O	55:D8:51:ALA:CB	2.63	0.46
41:BU:66:ASN:O	41:BU:70:ARG:HB2	2.16	0.46
41:BU:92:ARG:O	41:BU:93:LYS:C	2.54	0.46
37:DQ:134:ARG:O	37:DQ:136:ALA:N	2.49	0.46
25:BA:2393:A:C5'	36:BP:62:LEU:HB3	2.46	0.46
12:CJ:62:HIS:O	12:CJ:62:HIS:CD2	2.68	0.46
19:AQ:19:VAL:CG2	19:AQ:44:ALA:HB3	2.46	0.46
11:AI:26:VAL:HG12	11:AI:33:PHE:HB2	1.97	0.46
24:CX:242:ILE:CD1	24:CX:285:LYS:HE3	2.46	0.46
48:D1:53:VAL:HG11	48:D1:90:ILE:HG21	1.97	0.46
25:BA:1566:A:OP1	27:BD:211:ARG:NH1	2.47	0.46
25:BA:1076:C:H4'	33:BK:90:LYS:HB3	1.98	0.46
45:DY:81:LYS:HD3	45:DY:97:ARG:CD	2.45	0.46
31:DH:13:LYS:HE2	31:DH:14:GLY:N	2.26	0.46
24:CX:147:GLU:N	24:CX:177:ILE:HG21	2.31	0.46
25:DA:2461:C:H2'	25:DA:2462:U:C6	2.51	0.46
37:DQ:8:LYS:HB2	37:DQ:9:TYR:H	1.63	0.46
25:DA:1511:A:H2'	25:DA:1512:G:C8	2.51	0.46
45:BY:81:LYS:CD	45:BY:97:ARG:HB3	2.46	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:B5:4:HIS:CB	52:B5:5:PRO:CD	2.91	0.46
17:AO:39:LEU:CD1	17:AO:56:LEU:HB2	2.41	0.46
25:BA:1509:A:H4'	25:BA:1510:A:C8	2.50	0.46
25:DA:574:C:H1'	25:DA:2055:C:C6	2.51	0.46
1:AA:981:U:H5'	16:AN:21:TYR:CE1	2.50	0.46
36:DP:126:VAL:HG22	36:DP:145:PRO:HG2	1.98	0.46
9:AG:65:ALA:HA	9:AG:128:ALA:N	2.31	0.46
34:DN:160:LYS:HE2	34:DN:161:LEU:N	2.31	0.46
25:DA:2476:A:N3	25:DA:2476:A:H3'	2.31	0.46
1:AA:45:U:H2'	1:AA:46:G:H8	1.77	0.46
10:CH:42:GLU:HG3	10:CH:109:ILE:HD12	1.97	0.46
1:CA:500:G:O5'	1:CA:500:G:H8	1.99	0.46
1:CA:987:G:H1	1:CA:1218:C:N4	2.13	0.46
24:AX:355:MET:HA	24:AX:359:TRP:CZ3	2.51	0.46
40:BT:108:ARG:O	40:BT:112:ARG:HG3	2.16	0.46
25:DA:2246:G:H2'	25:DA:2247:A:H8	1.80	0.46
25:BA:2718:G:H2'	25:BA:2719:G:H8	1.80	0.46
46:BZ:86:VAL:HG12	46:BZ:87:ASP:H	1.79	0.46
25:BA:2354:G:H2'	25:BA:2355:C:H6	1.79	0.46
40:BT:98:LYS:HB3	40:BT:100:TYR:CE1	2.51	0.46
1:CA:154:C:H2'	1:CA:155:C:C6	2.51	0.46
10:AH:80:ILE:HD12	10:AH:80:ILE:N	2.31	0.46
25:DA:1635:G:H2'	25:DA:1636:C:H6	1.81	0.46
25:BA:1090:U:H2'	25:BA:1091:G:H8	1.80	0.46
1:AA:838:G:H2'	1:AA:841:U:H5'	1.98	0.46
25:DA:1163:G:O2'	25:DA:1164:G:H5'	2.16	0.46
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.51	0.46
25:BA:886:C:H4'	25:BA:886:C:OP1	2.16	0.46
1:AA:175:C:O2'	1:AA:176:C:H5'	2.16	0.46
20:CR:87:ARG:C	20:CR:87:ARG:HD2	2.36	0.46
11:CI:66:ARG:HD3	11:CI:66:ARG:HA	1.53	0.46
25:DA:355:G:H2'	25:DA:356:G:H8	1.81	0.46
9:CG:121:ALA:O	9:CG:125:MET:HG3	2.16	0.46
1:CA:1387:G:H2'	1:CA:1388:C:C6	2.51	0.46
1:AA:417:C:H2'	1:AA:418:C:C6	2.50	0.46
9:CG:88:PRO:HG3	9:CG:148:ASN:O	2.16	0.46
31:DH:136:ILE:HD12	31:DH:137:ASP:N	2.30	0.46
10:CH:97:VAL:C	10:CH:99:GLU:H	2.19	0.46
25:DA:663:G:C6	25:DA:664:C:C4	3.04	0.46
36:DP:47:ASP:HB3	36:DP:48:PRO:C	2.36	0.46
25:BA:953:A:OP2	37:BQ:16:ARG:NH2	2.49	0.46
5:AC:12:LEU:C	5:AC:14:ILE:H	2.20	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:B1:27:GLU:HG3	48:B1:33:LYS:HZ2	1.78	0.46
27:DD:102:LYS:C	27:DD:103:ARG:HG2	2.36	0.46
27:DD:69:ARG:O	27:DD:70:TRP:CB	2.61	0.46
11:CI:71:SER:HA	11:CI:74:ILE:HD13	1.98	0.46
12:AJ:80:LYS:HE3	1:CA:1163:C:C5'	2.36	0.46
25:DA:1494:A:O2'	25:DA:1495:A:O5'	2.33	0.46
1:CA:1303:C:H2'	1:CA:1304:G:H5'	1.98	0.46
4:AB:27:LYS:HG3	4:AB:194:PRO:HD2	1.97	0.46
25:BA:191:A:H2'	25:BA:192:C:C6	2.51	0.46
25:BA:1058:G:H2'	25:BA:1059:G:C8	2.51	0.46
47:B0:56:ASP:O	47:B0:57:PHE:HB2	2.16	0.46
4:CB:28:PHE:HD1	4:CB:32:ILE:HD11	1.80	0.46
5:AC:70:VAL:HG21	5:AC:76:VAL:HG11	1.98	0.46
5:AC:76:VAL:HG21	5:AC:103:VAL:HG21	1.98	0.46
6:CD:163:GLU:HG3	6:CD:164:ALA:N	2.31	0.46
8:CF:67:MET:SD	8:CF:75:LEU:HD13	2.56	0.46
25:BA:142:G:H2'	25:BA:143:C:C6	2.50	0.46
55:B8:32:LEU:HG	55:B8:36:LYS:HD2	1.98	0.46
25:BA:1608:A:HO2'	25:BA:1610:A:P	2.37	0.46
15:AM:8:GLU:CD	15:AM:22:ILE:HA	2.36	0.46
25:BA:512:G:O2'	25:BA:513:A:P	2.74	0.46
6:AD:30:LYS:HG2	6:AD:30:LYS:O	2.16	0.46
55:B8:39:LYS:HG2	55:B8:43:GLN:NE2	2.31	0.46
19:AQ:60:ILE:HB	19:AQ:74:LEU:HD23	1.98	0.46
25:BA:2777:G:C8	25:BA:2777:G:H3'	2.51	0.46
32:BI:123:LEU:HD23	32:BI:124:GLY:N	2.31	0.46
10:CH:73:ASP:HB3	10:CH:75:ARG:CG	2.44	0.46
25:DA:2776:A:H4'	25:DA:2778:A:OP1	2.16	0.46
26:DB:83:G:H4'	50:D3:52:HIS:CG	2.50	0.46
25:DA:391:G:C6	25:DA:392:C:C4	3.03	0.46
15:CM:94:ARG:HH11	21:CS:81:ARG:NE	2.13	0.46
25:BA:1264:G:H5'	52:B5:11:THR:OG1	2.16	0.46
1:AA:792:A:H1'	1:AA:794:A:N7	2.31	0.46
1:CA:1036:G:H2'	1:CA:1037:C:C6	2.51	0.46
25:DA:2615:U:N1	52:D5:7:PRO:HA	2.31	0.46
1:CA:103(C):G:H2'	1:CA:1033:G:C8	2.51	0.46
43:DW:1:MET:HG3	43:DW:2:GLU:N	2.31	0.46
25:BA:1639:U:H2'	25:BA:1640:C:H5''	1.97	0.46
35:BO:112:MET:HA	35:BO:115:VAL:CG2	2.46	0.46
1:AA:1064:G:O4'	1:AA:1066:C:C6	2.69	0.46
1:AA:55:A:C2	32:DI:89:TYR:CG	3.04	0.46
1:CA:1504:G:OP2	1:CA:1504:G:H3'	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:768:G:O2'	25:DA:1379:A:N6	2.49	0.46
1:AA:517:G:HO2'	1:AA:531:U:H5	1.63	0.46
51:D4:51:TYR:O	51:D4:52:SER:HB3	2.16	0.46
25:DA:1257:C:H4'	29:DF:83:PHE:CE2	2.51	0.46
25:DA:280:C:N3	25:DA:361:G:C2	2.84	0.46
25:BA:768:G:O2'	25:BA:1379:A:N6	2.46	0.46
25:BA:1163:G:O2'	25:BA:1164:G:H5'	2.16	0.46
1:AA:1476:G:O2'	1:AA:1477:C:H5'	2.16	0.46
25:BA:2228:G:OP2	27:BD:263:ARG:NH1	2.44	0.46
25:DA:2530:A:O2'	25:DA:2532:G:OP2	2.23	0.46
18:CP:68:ASP:O	18:CP:71:ARG:HB2	2.16	0.46
39:DS:82:ILE:HG22	39:DS:83:LYS:N	2.31	0.46
20:AR:26:LEU:HD21	20:AR:42:ARG:HD2	1.98	0.46
30:DG:20:ILE:O	30:DG:24:GLY:CA	2.64	0.46
6:AD:195:ALA:O	8:CF:16:GLN:HG3	2.16	0.46
8:AF:98:LEU:HD12	8:AF:98:LEU:N	2.31	0.46
24:AX:166:VAL:HG13	24:AX:166:VAL:O	2.16	0.46
25:DA:76:C:O2'	49:D2:59:ARG:HA	2.15	0.46
27:BD:122:ASP:OD2	27:BD:123:ALA:N	2.49	0.46
22:CT:83:ARG:O	22:CT:87:LYS:HB2	2.16	0.46
1:CA:881:G:P	14:CL:11:ARG:HH22	2.39	0.46
36:BP:33:ARG:C	36:BP:34:GLY:O	2.52	0.46
1:AA:82:U:H1'	1:AA:86:U:O4	2.15	0.46
25:DA:2893:G:H5''	25:DA:2894:G:C5'	2.46	0.46
37:BQ:18:LYS:O	37:BQ:19:GLY:O	2.34	0.46
5:CC:12:LEU:C	5:CC:14:ILE:H	2.19	0.46
1:AA:1311:G:N2	1:AA:1327:C:C2	2.84	0.46
15:AM:24:GLY:HA3	15:AM:70:LEU:HD13	1.98	0.46
44:BX:11:PRO:HG3	49:B2:37:PHE:CD2	2.51	0.46
25:DA:125:G:H5''	54:D7:19:ARG:CG	2.46	0.46
28:DE:92:THR:C	28:DE:94:GLU:N	2.70	0.46
24:CX:74:THR:O	24:CX:78:LEU:HB3	2.15	0.46
36:DP:16:ARG:O	36:DP:17:LYS:C	2.54	0.46
4:AB:91:PRO:CA	4:AB:154:LEU:HD11	2.39	0.46
25:BA:2148:G:O2'	25:BA:2149:G:H5'	2.15	0.46
25:DA:1055:G:H3'	25:DA:1056:G:H8	1.81	0.46
25:DA:2119:A:N1	25:DA:2171:A:N3	2.64	0.46
6:CD:104:VAL:HG11	6:CD:146:ILE:HG12	1.97	0.46
21:CS:62:ILE:HG13	21:CS:63:THR:N	2.31	0.46
4:AB:97:TRP:CH2	4:AB:173:ALA:HA	2.51	0.46
22:AT:9:ASN:O	22:AT:10:LEU:C	2.54	0.46
25:BA:2562:U:H2'	25:BA:2563:U:H5'	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AX:24:LYS:HE3	24:AX:111:LEU:HG	1.98	0.46
53:B6:23:THR:HB	55:B8:35:GLN:HA	1.98	0.46
37:BQ:65:PHE:CD2	37:BQ:105:GLU:HB2	2.51	0.46
26:DB:66:A:H61	26:DB:107:U:C2'	2.27	0.46
45:DY:81:LYS:HZ3	45:DY:97:ARG:HH11	1.62	0.46
46:DZ:10:ARG:NH2	46:DZ:26:GLY:O	2.49	0.46
7:AE:121:LYS:HG2	7:AE:123:LEU:HD12	1.96	0.46
39:DS:15:ARG:NH2	39:DS:25:ARG:HH11	2.14	0.46
45:BY:81:LYS:CG	45:BY:97:ARG:HB3	2.45	0.46
2:AZ:50:U:H2'	2:AZ:51:C:H6	1.76	0.46
40:BT:57:PHE:CG	40:BT:58:ASN:N	2.83	0.46
42:DV:18:LEU:HD13	42:DV:18:LEU:O	2.16	0.46
9:CG:26:PHE:O	9:CG:30:ILE:HG12	2.15	0.46
36:BP:25:SER:O	36:BP:30:THR:HG23	2.16	0.46
25:BA:1527:G:H5''	25:BA:1528:A:OP1	2.15	0.46
27:DD:76:PRO:HA	27:DD:118:VAL:HG23	1.97	0.46
25:BA:582:G:C6	25:BA:583:G:C6	3.04	0.46
18:AP:6:LEU:HB3	18:AP:17:TYR:CD2	2.51	0.46
15:CM:47:ASP:O	15:CM:48:LEU:HB3	2.17	0.46
43:BW:32:ALA:O	43:BW:33:ARG:C	2.55	0.46
2:CZ:71:C:H2'	2:CZ:72:A:C8	2.51	0.46
25:DA:900:A:C4	25:DA:901:A:C8	3.03	0.46
1:AA:1307:U:H2'	1:AA:1308:U:C6	2.49	0.46
26:DB:40:U:H1'	26:DB:45:A:H61	1.81	0.46
25:DA:373:U:H2'	25:DA:374:A:C8	2.48	0.46
1:AA:987:G:H1	1:AA:1218:C:N4	2.13	0.46
1:CA:112:G:H1	1:CA:315:A:H61	1.64	0.46
25:BA:642:G:C8	25:BA:642:G:C3'	2.99	0.46
43:DW:1:MET:HG2	43:DW:64:MET:HE3	1.97	0.46
24:AX:170:THR:HA	24:AX:171:PRO:HD2	1.77	0.46
25:DA:1272:A:O2'	25:DA:1273:U:H5'	2.16	0.46
32:BI:117:GLU:HG3	32:BI:118:LYS:HD3	1.98	0.46
27:BD:231:HIS:CG	27:BD:232:PRO:HD2	2.51	0.46
32:DI:29:TYR:C	32:DI:32:PRO:HD2	2.36	0.46
25:BA:271(C):G:H4'	25:BA:271(D):U:H5'	1.98	0.46
25:DA:1501:C:H2'	25:DA:1502:C:H6	1.81	0.46
40:DT:19:LEU:HG	40:DT:19:LEU:H	1.40	0.46
1:CA:176:C:H2'	1:CA:177:C:C6	2.50	0.46
1:AA:15:G:H4'	7:AE:24:ARG:HH12	1.81	0.46
14:AL:77:GLN:O	14:AL:79:HIS:N	2.47	0.46
25:BA:280:C:C2	25:BA:361:G:C2	3.03	0.46
25:DA:327:G:H2'	25:DA:328:U:C6	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:398:G:H2'	25:BA:399:G:H8	1.81	0.46
25:DA:270(U):G:C6	25:DA:270(V):C:C4	3.04	0.46
25:DA:1238:G:O2'	25:DA:1239:G:H5'	2.16	0.46
25:DA:1329:U:H5''	25:DA:1330:C:H5	1.80	0.46
41:DU:29:SER:OG	41:DU:30:LYS:HE3	2.15	0.46
37:BQ:118:LEU:HD23	37:BQ:118:LEU:HA	1.80	0.46
25:BA:2528:U:C6	25:BA:2530:A:C8	3.04	0.46
45:BY:87:LYS:HA	45:BY:92:ASN:HA	1.98	0.46
32:DI:64:GLU:O	32:DI:67:ARG:HB2	2.16	0.46
25:DA:2271:G:OP1	47:D0:18:ALA:HB1	2.16	0.46
3:CV:21:A:H4'	3:CV:22:A:OP1	2.16	0.46
7:CE:18:ARG:HE	7:CE:25:ARG:HB2	1.80	0.46
28:BE:31:CYS:HA	28:BE:32:PRO:HD3	1.80	0.46
8:AF:23:LYS:HB3	8:AF:23:LYS:HE2	1.58	0.46
1:CA:750:G:N3	17:CO:23:GLY:HA3	2.31	0.46
1:CA:695:A:H2'	1:CA:696:A:C8	2.51	0.46
25:BA:342:G:H2'	25:BA:343:C:H6	1.79	0.46
25:BA:593:G:C6	25:BA:594:U:C4	3.04	0.45
31:DH:18:GLU:HB2	31:DH:25:LYS:HB2	1.99	0.45
27:DD:242:ARG:C	27:DD:244:ARG:H	2.19	0.45
40:DT:26:ASP:O	40:DT:49:VAL:HG12	2.16	0.45
1:CA:1227:A:H2	1:CA:1228:C:H1'	1.80	0.45
1:CA:1229:A:H2'	1:CA:1230:C:C6	2.51	0.45
1:CA:250:A:C4'	1:CA:251:G:O5'	2.56	0.45
21:AS:5:LEU:HD13	21:AS:6:LYS:H	1.81	0.45
32:DI:72:LEU:HD11	32:DI:107:ILE:HG12	1.97	0.45
25:DA:783:A:C3'	25:DA:783:A:C8	2.98	0.45
25:BA:1173:G:HO2'	25:BA:1175:U:H5	1.62	0.45
1:AA:1355:G:C6	1:AA:1368:G:C6	3.03	0.45
40:DT:110:ILE:HG22	40:DT:111:ARG:HH11	1.82	0.45
30:BG:110:ALA:HB1	30:BG:140:ILE:CD1	2.46	0.45
4:CB:162:ILE:HD12	4:CB:184:VAL:HA	1.98	0.45
4:AB:162:ILE:HD12	4:AB:184:VAL:HA	1.97	0.45
25:DA:1052:C:H2'	25:DA:1053:C:C6	2.51	0.45
25:DA:1058:G:H2'	25:DA:1059:G:C8	2.51	0.45
37:BQ:22:LYS:HZ2	37:BQ:22:LYS:C	2.19	0.45
15:CM:2:ALA:N	15:CM:11:ARG:HE	2.14	0.45
8:CF:87:ARG:HG3	8:CF:87:ARG:NH1	2.30	0.45
25:DA:1210:A:H5''	25:DA:1210:A:C8	2.51	0.45
14:AL:44:PRO:HB3	14:AL:91:ASP:OD2	2.16	0.45
25:DA:390:A:N6	36:DP:71:VAL:CG2	2.79	0.45
14:CL:26:LEU:O	14:CL:28:GLY:N	2.49	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BS:13:ARG:HG3	39:BS:14:VAL:N	2.31	0.45
1:AA:960:U:O2	1:AA:960:U:H2'	2.15	0.45
2:AZ:17:C:C5	2:AZ:17(A):U:H2'	2.51	0.45
35:BO:17:ARG:HD3	35:BO:17:ARG:HA	1.57	0.45
6:CD:30:LYS:HG2	6:CD:30:LYS:O	2.16	0.45
10:CH:111:ILE:HD11	10:CH:135:CYS:SG	2.56	0.45
25:DA:2841:C:H2'	25:DA:2842:G:H8	1.79	0.45
29:DF:157:VAL:HA	29:DF:176:LEU:O	2.16	0.45
25:DA:1614:A:H8	25:DA:1614:A:O5'	1.98	0.45
45:BY:29:GLU:HB3	45:BY:38:ILE:CD1	2.46	0.45
25:DA:2122:U:H2'	25:DA:2123:G:H8	1.81	0.45
27:BD:204:ILE:HD12	27:BD:204:ILE:O	2.16	0.45
1:CA:662:G:H2'	1:CA:663:A:C8	2.51	0.45
1:CA:662:G:H1	1:CA:743:U:H3	1.64	0.45
17:AO:21:ASP:OD1	17:AO:24:SER:CB	2.64	0.45
1:AA:793:U:H3'	1:AA:794:A:C5'	2.46	0.45
53:D6:36:LEU:HD13	53:D6:50:ARG:CZ	2.47	0.45
46:DZ:120:ILE:H	46:DZ:172:ALA:HA	1.81	0.45
25:DA:1437:C:H2'	25:DA:1438:U:H6	1.80	0.45
1:CA:542:G:OP1	6:CD:10:ARG:NH2	2.49	0.45
41:DU:44:ASN:HD21	42:DV:75:PHE:N	2.14	0.45
44:DX:29:TRP:CZ3	44:DX:78:LYS:HB2	2.51	0.45
6:CD:121:VAL:O	6:CD:134:ASP:HA	2.15	0.45
30:BG:33:ARG:HB2	30:BG:162:THR:HG21	1.98	0.45
30:DG:53:LEU:HD13	30:DG:88:ILE:HG12	1.98	0.45
35:DO:87:ILE:HD12	35:DO:91:LEU:CD1	2.46	0.45
25:DA:2653:U:H3	25:DA:2667:C:H42	1.62	0.45
25:BA:2271:G:H5'	47:B0:20:ARG:HG2	1.98	0.45
25:DA:1800:C:OP2	27:DD:183:ARG:NH2	2.49	0.45
38:DR:118:GLU:HA	38:DR:118:GLU:OE1	2.15	0.45
1:AA:1360:A:O2'	1:AA:1361:G:H5'	2.16	0.45
5:CC:13:GLY:HA3	16:CN:57:ARG:NH2	2.30	0.45
25:BA:443:A:H1'	25:BA:1201:C:O4'	2.15	0.45
27:BD:77:ALA:HB2	27:BD:97:TYR:CD2	2.52	0.45
6:AD:163:GLU:HG3	6:AD:164:ALA:N	2.30	0.45
27:DD:77:ALA:HB2	27:DD:97:TYR:CD2	2.51	0.45
11:CI:27:THR:HG23	11:CI:31:GLN:O	2.15	0.45
25:DA:616:A:H4'	25:DA:617:G:OP1	2.15	0.45
24:AX:155:ARG:HD3	24:AX:351:ASP:OD2	2.14	0.45
25:BA:2408:U:H2'	25:BA:2409:G:H8	1.80	0.45
25:BA:1957:C:H2'	25:BA:1958:C:H6	1.80	0.45
25:DA:1919:A:H5''	25:DA:1920:C:OP2	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CX:166:VAL:HG13	24:CX:166:VAL:O	2.16	0.45
25:BA:1448:G:N2	25:BA:149(B):A:N6	2.64	0.45
1:AA:86:U:O2'	1:AA:87:A:H5'	2.15	0.45
42:DV:39:LEU:HD12	42:DV:51:VAL:HA	1.97	0.45
49:B2:17:SER:O	49:B2:20:GLU:N	2.49	0.45
41:BU:69:CYS:SG	41:BU:79:PHE:CB	3.05	0.45
5:CC:27:LYS:CG	5:CC:28:GLN:HG2	2.46	0.45
15:AM:29:ARG:HD3	15:AM:64:TRP:CZ2	2.51	0.45
25:BA:627:A:H4'	25:BA:628:G:OP1	2.16	0.45
25:DA:114(B):A:O2'	25:DA:1143:A:H3'	2.16	0.45
16:CN:27:CYS:SG	16:CN:40:CYS:SG	3.14	0.45
31:DH:17:VAL:HG12	31:DH:18:GLU:N	2.31	0.45
29:BF:9:ILE:HD12	29:BF:22:ALA:HB2	1.98	0.45
45:BY:6:HIS:HD2	45:BY:35:TYR:CD2	2.35	0.45
25:DA:1176:G:H2'	25:DA:1177:A:O4'	2.17	0.45
1:CA:1301:U:H3'	1:CA:1302:U:H5''	1.98	0.45
29:BF:180:GLY:O	29:BF:181:LEU:C	2.54	0.45
24:AX:244:VAL:HG12	24:AX:245:MET:H	1.82	0.45
25:DA:1056:G:N2	25:DA:1104:C:N4	2.64	0.45
25:BA:1542:G:C8	25:BA:1543:A:C6	3.04	0.45
33:DK:80:LYS:O	33:DK:80:LYS:HG2	2.14	0.45
14:CL:67:ALA:CB	14:CL:84:ILE:HD11	2.47	0.45
33:BK:72:PRO:HA	33:BK:73:PRO:HD3	1.82	0.45
1:AA:1179:A:O2'	11:AI:103:THR:HG23	2.16	0.45
7:CE:118:ILE:HG12	7:CE:120:THR:HG23	1.97	0.45
25:DA:1658:C:OP1	28:DE:132:HIS:CE1	2.69	0.45
1:CA:579:G:C4	1:CA:580:U:C5	3.05	0.45
25:DA:1491:G:C6	25:DA:1500:G:C2	3.03	0.45
55:D8:32:LEU:HG	55:D8:36:LYS:HD2	1.97	0.45
28:DE:119:ARG:CG	28:DE:160:TYR:HB2	2.45	0.45
25:BA:2210:G:H21	25:BA:2211:G:H4'	1.79	0.45
1:AA:1073:U:O2	4:AB:104:ASN:ND2	2.49	0.45
22:CT:9:ASN:O	22:CT:10:LEU:C	2.55	0.45
54:D7:46:VAL:CG1	54:D7:47:ARG:N	2.79	0.45
1:CA:523:A:H61	14:CL:91:ASP:CB	2.27	0.45
14:CL:43:THR:HA	14:CL:44:PRO:HD3	1.72	0.45
27:BD:61:LEU:HA	27:BD:61:LEU:HD13	1.66	0.45
27:DD:131:LEU:HG	27:DD:136:ILE:CD1	2.46	0.45
25:DA:2850:A:C2	38:DR:61:HIS:CD2	3.03	0.45
25:BA:1775:U:C2'	25:BA:1776:G:O5'	2.65	0.45
18:AP:3:LYS:O	18:AP:21:VAL:HA	2.16	0.45
45:DY:62:GLU:O	45:DY:63:LYS:O	2.35	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AD:23:GLY:HA2	6:AD:112:VAL:HG22	1.99	0.45
25:DA:39:C:H2'	25:DA:40:C:C6	2.51	0.45
9:AG:26:PHE:O	9:AG:30:ILE:HG12	2.17	0.45
9:AG:58:PRO:O	9:AG:62:PHE:N	2.49	0.45
25:BA:1447:G:N2	25:BA:1528:A:C2	2.84	0.45
25:DA:1986:A:H2'	25:DA:1987:G:H8	1.81	0.45
25:DA:2083:G:C5	25:DA:2084:C:C4	3.05	0.45
1:CA:942:G:H2'	1:CA:943:U:C6	2.51	0.45
11:AI:85:LEU:O	11:AI:89:ASN:HB2	2.15	0.45
15:AM:87:TYR:CE2	15:AM:91:ARG:HD3	2.52	0.45
1:CA:937:A:C2	1:CA:1379:G:C6	3.05	0.45
1:CA:575:G:C6	1:CA:821:G:N7	2.84	0.45
24:AX:38:ARG:HH12	24:AX:42:LEU:HD23	1.81	0.45
1:CA:1035:A:H2'	1:CA:1036:G:C8	2.52	0.45
31:BH:94:TYR:CD2	31:BH:107:VAL:HG12	2.47	0.45
1:AA:937:A:C2	1:AA:1379:G:O6	2.69	0.45
52:B5:36:CYS:HB2	52:B5:48:GLU:O	2.16	0.45
25:BA:2016:U:H1'	52:B5:6:VAL:CG1	2.46	0.45
42:DV:65:GLY:O	42:DV:91:TYR:CD2	2.69	0.45
29:DF:53:THR:O	29:DF:55:GLY:N	2.50	0.45
1:CA:1375:A:C5	1:CA:1376:U:C4	3.04	0.45
24:CX:170:THR:HA	24:CX:171:PRO:HD2	1.77	0.45
24:AX:241:ARG:HB3	24:AX:265:VAL:HG13	1.98	0.45
31:BH:46:GLU:HB3	31:BH:47:GLU:OE2	2.17	0.45
1:CA:1176:A:C6	1:CA:1177:G:C6	3.04	0.45
1:CA:102(C):C:H2'	1:CA:1029:G:C8	2.50	0.45
4:CB:113:HIS:HA	4:CB:116:GLU:HG2	1.98	0.45
25:DA:165:U:C2	25:DA:171:G:C8	3.04	0.45
25:DA:1430:C:H2'	25:DA:1431:U:C6	2.51	0.45
2:AZ:55:U:C2	2:AZ:57:A:OP2	2.69	0.45
1:AA:41:G:H2'	1:AA:42:G:C8	2.51	0.45
7:AE:153:LYS:HE3	7:AE:155:GLU:HB2	1.97	0.45
25:DA:1625:C:H2'	25:DA:1626:G:O4'	2.16	0.45
17:AO:9:GLN:O	17:AO:13:GLN:HG2	2.16	0.45
5:AC:52:LEU:HD13	5:AC:68:VAL:HG13	1.98	0.45
25:DA:1450:C:H2'	25:DA:1451:C:C6	2.52	0.45
25:DA:2678:C:H2'	25:DA:2679:A:O4'	2.16	0.45
25:BA:2726:U:O4'	25:BA:2726:U:O2	2.34	0.45
37:BQ:58:PHE:O	37:BQ:58:PHE:HD1	2.00	0.45
25:BA:239:U:O2'	25:BA:240:G:H5'	2.16	0.45
18:CP:80:PHE:N	18:CP:80:PHE:CD1	2.84	0.45
25:BA:2364:C:H2'	25:BA:2365:G:H5'	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DN:27:TYR:CZ	34:DN:29:PRO:HA	2.52	0.45
42:BV:39:LEU:HD12	42:BV:51:VAL:HA	1.98	0.45
42:DV:38:LEU:O	42:DV:39:LEU:HD13	2.16	0.45
27:DD:27:THR:HG23	27:DD:27:THR:O	2.17	0.45
26:BB:51:G:N2	26:BB:52:A:N6	2.50	0.45
26:BB:57:A:N3	30:BG:29:TRP:CB	2.80	0.45
37:BQ:69:PHE:CD1	37:BQ:70:PRO:HD2	2.52	0.45
25:BA:1022:G:O2'	25:BA:1023:U:OP2	2.24	0.45
12:AJ:24:VAL:CG1	12:AJ:28:ARG:HD2	2.47	0.45
25:DA:1022:G:C6	25:DA:1140:C:C4	3.04	0.45
25:DA:274:G:H2'	25:DA:275:G:C1'	2.46	0.45
24:CX:75:PHE:O	24:CX:79:GLU:HB2	2.16	0.45
1:AA:1505:G:C8	1:AA:1505:G:H5''	2.51	0.45
29:DF:9:ILE:HD12	29:DF:22:ALA:HB2	1.98	0.45
1:CA:1371:G:H5''	11:CI:69:GLY:H	1.82	0.45
1:CA:1505:G:C5'	1:CA:1505:G:C8	3.00	0.45
24:AX:128:ASN:HB3	24:AX:184:VAL:O	2.15	0.45
28:DE:2:LYS:CD	28:DE:95:ILE:HG22	2.43	0.45
25:BA:2275:C:C6	25:BA:2275:C:C5'	2.97	0.45
29:BF:184:TYR:CD2	29:BF:188:ARG:HD2	2.51	0.45
24:CX:246:ARG:HB2	25:DA:2555:U:O2	2.16	0.45
1:CA:1336:C:O4'	1:CA:1337:G:C2	2.69	0.45
25:DA:2014:A:H2'	25:DA:2015:A:C8	2.52	0.45
14:AL:82:VAL:CG2	14:AL:99:ILE:HG13	2.46	0.45
10:CH:12:ARG:HH12	10:CH:27:PRO:HD3	1.80	0.45
7:CE:102:ALA:HB2	7:CE:120:THR:OG1	2.16	0.45
30:BG:139:LEU:C	30:BG:141:PHE:H	2.19	0.45
25:DA:1208:C:C4	25:DA:1209:G:N7	2.84	0.45
25:DA:1332:G:N2	25:DA:1610:A:H8	2.14	0.45
14:AL:43:THR:HA	14:AL:44:PRO:HD3	1.72	0.45
14:AL:44:PRO:HA	14:AL:92:LEU:HD23	1.97	0.45
1:AA:61:G:OP2	22:AT:10:LEU:HD13	2.16	0.45
53:B6:25:LYS:HD2	55:B8:34:TRP:CH2	2.51	0.45
2:CZ:48:C:N3	2:CZ:59:A:C8	2.84	0.45
25:DA:1315:C:H42	25:DA:1337:G:H1	1.65	0.45
1:AA:14:U:O2	1:AA:17:U:H5	1.98	0.45
36:BP:125:VAL:O	36:BP:125:VAL:HG13	2.17	0.45
45:BY:81:LYS:NZ	45:BY:98:VAL:CG1	2.78	0.45
13:CK:48:ILE:HD11	13:CK:64:ALA:HA	1.99	0.45
27:DD:136:ILE:N	27:DD:136:ILE:HD12	2.31	0.45
6:CD:31:CYS:O	6:CD:32:ALA:HB3	2.16	0.45
28:BE:9:VAL:CG2	28:BE:25:VAL:HB	2.45	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1060:U:H4'	25:BA:1061:U:O5'	2.16	0.45
33:BK:57:ILE:HD12	33:BK:65:PHE:HD1	1.80	0.45
28:BE:111:ARG:C	38:BR:2:ARG:HG3	2.37	0.45
38:BR:63:ARG:HG3	38:BR:80:PHE:CE2	2.50	0.45
6:CD:23:GLY:HA2	6:CD:112:VAL:HG22	1.98	0.45
1:CA:29:G:N2	1:CA:555:C:C2	2.84	0.45
25:DA:2401:U:O2'	25:DA:2402:C:H5''	2.16	0.45
28:DE:58:ARG:C	28:DE:60:ASN:H	2.18	0.45
25:DA:2069:G:C2	25:DA:2070:G:C8	3.05	0.45
25:DA:416:C:H2'	25:DA:417:C:O4'	2.17	0.45
25:BA:581:C:H2'	25:BA:582:G:C8	2.51	0.45
10:AH:103:VAL:CG2	10:AH:110:ALA:HB2	2.46	0.45
32:BI:88:ILE:O	32:BI:121:LYS:NZ	2.48	0.45
1:CA:1350:A:H2'	1:CA:1351:U:O4'	2.16	0.45
25:DA:1731:G:O2'	25:DA:1732:A:P	2.75	0.45
1:AA:1038:C:H2'	1:AA:1039:C:H6	1.79	0.45
25:DA:2016:U:H1'	52:D5:6:VAL:HG13	1.99	0.45
15:AM:46:LYS:HG3	15:AM:47:ASP:N	2.31	0.45
44:DX:65:ARG:O	44:DX:65:ARG:HG2	2.16	0.45
1:AA:1291:G:H2'	1:AA:1292:U:C6	2.51	0.45
37:BQ:78:PRO:C	37:BQ:79:LEU:HD12	2.37	0.45
43:BW:1:MET:HG3	43:BW:2:GLU:O	2.16	0.45
1:CA:1057:G:C5	1:CA:1204:A:C2	3.04	0.45
25:DA:270(Q):C:O2'	25:DA:270(R):C:P	2.75	0.45
1:AA:1047:G:C2'	1:AA:1048:G:H5'	2.47	0.45
24:AX:207:PRO:HG2	24:AX:208:PHE:CD1	2.52	0.45
13:CK:80:VAL:HG13	13:CK:103:LEU:HD12	1.98	0.45
30:DG:33:ARG:HB2	30:DG:162:THR:HG23	1.99	0.45
7:AE:80:ILE:HG13	7:AE:80:ILE:O	2.15	0.45
30:BG:53:LEU:HD13	30:BG:88:ILE:HG12	1.98	0.45
29:BF:53:THR:C	29:BF:55:GLY:N	2.70	0.45
1:AA:176:C:H2'	1:AA:177:C:H6	1.82	0.45
13:CK:88:GLY:C	13:CK:90:GLY:H	2.19	0.45
1:CA:1216:G:O2'	1:CA:1217:C:H5'	2.16	0.45
13:AK:108:ILE:O	20:AR:87:ARG:HA	2.16	0.45
1:AA:304:U:H2'	1:AA:305:G:C8	2.51	0.45
44:DX:75:ASP:C	44:DX:76:ARG:HG3	2.36	0.45
1:CA:1476:G:H2'	1:CA:1477:C:C6	2.51	0.45
1:AA:198:G:C6	1:AA:220:G:C2	3.04	0.45
13:AK:88:GLY:C	13:AK:90:GLY:H	2.20	0.45
5:AC:13:GLY:HA3	16:AN:57:ARG:NH2	2.32	0.45
25:BA:1401:G:H2'	25:BA:1402:C:C6	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CL:53:LYS:N	14:CL:53:LYS:HD2	2.32	0.45
33:BK:74:ALA:O	33:BK:78:ILE:HD13	2.16	0.45
48:B1:13:ILE:HD13	48:B1:63:ALA:HB3	1.97	0.45
25:DA:2230:G:H2'	25:DA:2231:C:C6	2.51	0.45
42:BV:47:VAL:O	42:BV:48:GLY:C	2.53	0.45
15:AM:66:LEU:N	15:AM:66:LEU:HD23	2.31	0.45
34:BN:66:THR:O	34:BN:69:VAL:HG12	2.16	0.45
12:CJ:24:VAL:HG13	12:CJ:28:ARG:HD2	1.99	0.45
45:BY:17:SER:CA	45:BY:71:LYS:HD2	2.47	0.45
52:D5:40:LYS:HZ3	52:D5:45:VAL:HA	1.80	0.45
40:BT:28:VAL:CG2	40:BT:29:ARG:N	2.80	0.45
19:CQ:19:VAL:CG2	19:CQ:44:ALA:HB3	2.46	0.45
1:CA:1127:G:N2	1:CA:1144:G:H22	2.14	0.45
37:DQ:25:ASP:HB3	37:DQ:26:TYR:H	1.57	0.45
25:BA:2119:A:N1	25:BA:2171:A:N3	2.64	0.45
15:AM:3:ARG:HD3	51:B4:60:GLU:CD	2.37	0.45
32:BI:141:LYS:HB2	32:BI:141:LYS:HE3	1.88	0.45
4:CB:100:GLY:HA2	4:CB:104:ASN:H	1.80	0.45
25:DA:2820:A:O4'	38:DR:5:LYS:HG3	2.16	0.45
25:DA:2723:C:C5'	38:DR:2:ARG:HH12	2.29	0.45
36:DP:59:LEU:HA	36:DP:61:ARG:CZ	2.47	0.45
14:AL:44:PRO:HG2	14:AL:50:ALA:N	2.31	0.45
25:DA:932:G:H4'	25:DA:933:A:O5'	2.16	0.45
24:AX:135:PRO:HD2	24:AX:178:ASP:O	2.16	0.45
15:AM:15:VAL:HG13	15:AM:43:THR:O	2.17	0.45
36:DP:71:VAL:CB	36:DP:72:PRO:HD3	2.45	0.45
25:DA:1337:G:H2'	25:DA:1338:G:C8	2.51	0.45
25:DA:1773:A:C5	25:DA:1829:A:H1'	2.51	0.45
6:AD:30:LYS:CB	6:AD:35:ARG:HD2	2.47	0.45
18:CP:4:ILE:HA	18:CP:20:VAL:O	2.16	0.45
36:DP:88:LEU:HD22	36:DP:114:ILE:CG2	2.46	0.45
1:CA:1493:A:H1'	24:CX:137:ALA:HA	1.99	0.45
42:DV:35:LEU:HB3	42:DV:37:VAL:HG23	1.98	0.45
25:DA:2157:G:H8	25:DA:2157:G:O5'	1.99	0.45
11:AI:99:LEU:H	11:AI:99:LEU:HD22	1.81	0.45
25:DA:2399:G:O5'	25:DA:2399:G:H8	1.99	0.45
25:BA:2019:A:H2'	25:BA:2020:A:O5'	2.17	0.45
25:DA:2439:A:H8	25:DA:2439:A:H5"	1.80	0.45
48:D1:83:GLU:HG2	48:D1:84:GLY:H	1.80	0.45
1:AA:1308:U:H5"	15:AM:98:VAL:CG2	2.47	0.45
38:BR:81:ASP:N	38:BR:81:ASP:OD2	2.49	0.45
1:AA:325:A:N6	1:AA:326:G:N1	2.65	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:792:A:H1'	1:CA:794:A:N7	2.30	0.45
36:BP:138:LEU:HD11	36:BP:144:GLU:HG2	1.99	0.45
1:AA:1528:U:O2'	1:AA:1530:G:H5'	2.16	0.45
26:DB:99:A:C6	26:DB:100:G:C5	3.04	0.45
35:DO:8:LEU:CD2	35:DO:8:LEU:N	2.80	0.45
25:BA:855:G:C5	25:BA:856:C:C5	3.04	0.45
1:AA:160:A:H1'	1:AA:344:A:C5	2.52	0.45
25:BA:1628:G:H2'	25:BA:1629:U:H6	1.81	0.45
25:BA:1547:C:H2'	25:BA:1548:C:H6	1.81	0.45
25:BA:1395:A:C6	25:BA:1398:C:C2	3.04	0.45
51:B4:46:ASN:HB2	51:B4:64:LYS:HB2	1.97	0.45
29:BF:116:ASP:OD2	36:BP:5:ASP:HB3	2.15	0.45
1:AA:1250:A:OP1	11:AI:66:ARG:HD2	2.16	0.45
34:DN:57:LEU:O	34:DN:72:GLY:HA3	2.17	0.45
25:DA:2838:G:C6	25:DA:2839:G:C5	3.05	0.45
25:DA:1354:A:C8	25:DA:1355:G:C8	3.04	0.45
1:CA:41:G:H2'	1:CA:42:G:C8	2.52	0.45
22:CT:36:LEU:HB3	22:CT:59:ALA:HB2	1.98	0.45
47:D0:25:ARG:HG3	47:D0:29:GLN:NE2	2.32	0.45
24:CX:203:VAL:HB	24:CX:328:VAL:HG13	1.98	0.45
25:BA:2713:A:OP1	38:BR:14:SER:HB3	2.16	0.45
48:D1:46:LEU:HD23	48:D1:46:LEU:C	2.37	0.45
1:CA:82:U:O2'	1:CA:85:U:H5	1.99	0.45
55:B8:62:LEU:O	55:B8:63:PRO:C	2.52	0.45
30:DG:115:ARG:NH2	30:DG:136:ARG:HB2	2.31	0.45
25:BA:675:A:C4'	29:BF:67:GLN:HE22	2.15	0.45
48:B1:27:GLU:OE1	48:B1:33:LYS:HE3	2.17	0.45
12:CJ:34:VAL:HG22	12:CJ:74:ILE:HG22	1.97	0.45
27:BD:34:VAL:O	27:BD:34:VAL:HG13	2.16	0.45
27:DD:142:VAL:CG2	27:DD:191:ALA:HB1	2.40	0.45
20:AR:59:SER:HB3	20:AR:62:GLU:HG3	1.99	0.45
25:BA:1494:A:O2'	25:BA:1495:A:O5'	2.32	0.45
25:BA:1496:A:C8	25:BA:1498:C:N3	2.84	0.45
24:CX:245:MET:O	24:CX:261:ALA:HB3	2.17	0.45
1:CA:978:A:H5'	1:CA:979:C:OP2	2.16	0.45
1:CA:980:C:H1'	16:CN:19:ARG:HA	1.99	0.45
22:CT:50:GLU:CA	22:CT:100:ILE:HD13	2.39	0.45
25:DA:2144:U:H3'	25:DA:2144:U:H6	1.81	0.45
25:DA:2126:A:C2	25:DA:2173:A:C5	3.05	0.45
25:BA:1055:G:H3'	25:BA:1056:G:H8	1.80	0.45
25:BA:1104:C:H2'	25:BA:1105:U:H6	1.78	0.45
1:CA:672:U:H2'	1:CA:673:G:C8	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CJ:84:GLN:O	12:CJ:88:LEU:HB2	2.15	0.45
52:B5:16:ARG:HG2	52:B5:17:ASP:N	2.32	0.45
1:AA:314:C:HO2'	1:AA:315:A:H5'	1.82	0.45
55:D8:30:ARG:HD3	55:D8:30:ARG:O	2.16	0.45
7:AE:84:PHE:CD2	7:AE:84:PHE:C	2.90	0.45
19:AQ:22:LEU:HD12	19:AQ:23:VAL:N	2.32	0.45
28:DE:117:MET:HG2	28:DE:136:ARG:CZ	2.47	0.45
25:DA:465:G:C6	25:DA:466:A:N6	2.84	0.45
25:BA:1234:U:H2'	25:BA:1234:U:O2	2.15	0.45
1:AA:52:G:C6	1:AA:360:A:C2	3.05	0.45
25:BA:2320:A:C2	25:BA:2333:A:C8	3.04	0.45
25:DA:476:G:H22	25:DA:478:A:H3'	1.82	0.45
25:BA:16:G:O2'	25:BA:17:G:H5'	2.15	0.45
20:AR:75:ILE:C	20:AR:77:GLY:H	2.18	0.45
25:BA:2084:C:C2	25:BA:2085:C:H5	2.34	0.45
25:DA:1349:A:N6	25:DA:1598:C:H42	2.14	0.45
1:CA:577:G:H2'	1:CA:578:C:H6	1.81	0.45
25:BA:2749:A:H1'	31:BH:63:SER:OG	2.17	0.45
1:AA:1004:A:N7	1:AA:1026:G:C5	2.84	0.45
1:AA:663:A:O2'	1:AA:664:G:H5'	2.16	0.45
1:AA:103(C):G:H2'	1:AA:1033:G:C8	2.51	0.45
1:CA:312:C:N4	1:CA:313:A:N6	2.64	0.45
26:BB:40:U:H1'	26:BB:45:A:N6	2.31	0.45
50:B3:1:MET:CB	50:B3:2:PRO:HD2	2.46	0.45
25:DA:235:U:H2'	25:DA:236:C:C6	2.52	0.45
9:CG:40:ALA:O	9:CG:44:TYR:CD1	2.70	0.45
42:DV:20:LEU:HD12	42:DV:21:ARG:N	2.31	0.45
25:BA:441:U:H2'	25:BA:442:G:C8	2.51	0.45
51:B4:51:TYR:O	51:B4:52:SER:HB3	2.17	0.45
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.52	0.45
48:B1:80:LEU:CD2	48:B1:81:ARG:H	2.30	0.45
1:CA:148:G:C2	1:CA:175:C:N3	2.84	0.45
46:BZ:93:ASP:CA	46:BZ:130:PRO:HG2	2.47	0.45
25:BA:834:C:H1'	25:BA:2358:G:N3	2.31	0.45
25:BA:64:A:C4	25:BA:65:C:C6	3.05	0.45
25:BA:1278:A:OP1	38:BR:36:THR:HG22	2.17	0.45
25:DA:834:C:H1'	25:DA:2358:G:N3	2.30	0.45
25:BA:1329:U:H5''	25:BA:1330:C:H5	1.80	0.45
2:AY:2:G:H2'	2:AY:3:C:H6	1.82	0.45
39:DS:81:GLY:C	39:DS:82:ILE:HG12	2.37	0.45
1:CA:807:A:H2'	1:CA:808:C:O4'	2.15	0.45
5:CC:52:LEU:HD13	5:CC:68:VAL:HG13	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1628:G:H2'	25:DA:1629:U:C6	2.51	0.45
1:CA:35:G:C2	1:CA:550:G:C2	3.04	0.45
24:CX:136:GLY:HA3	24:CX:319:GLU:OE2	2.17	0.45
1:AA:592:G:H1	1:AA:647:C:H42	1.63	0.45
34:BN:27:TYR:CZ	34:BN:29:PRO:HA	2.51	0.45
32:BI:94:ALA:HA	32:BI:97:ILE:HB	1.99	0.45
42:DV:9:GLY:O	42:DV:10:LYS:HG3	2.16	0.45
46:DZ:131:ARG:H	46:DZ:131:ARG:HD3	1.82	0.45
25:DA:970:C:O5'	25:DA:970:C:H6	1.99	0.45
40:DT:96:ARG:HB2	40:DT:96:ARG:NH1	2.30	0.45
8:CF:98:LEU:HD12	8:CF:98:LEU:N	2.31	0.45
1:CA:1040:U:O2'	1:CA:1041:A:H5'	2.15	0.45
43:DW:35:ILE:O	43:DW:36:LEU:C	2.55	0.45
49:B2:12:GLU:C	49:B2:14:ARG:N	2.69	0.45
24:CX:198:GLY:HA3	24:CX:324:ILE:HG13	1.98	0.45
25:BA:1024:G:OP2	25:BA:1025:G:H3'	2.16	0.45
27:DD:255:LYS:HD3	27:DD:255:LYS:O	2.16	0.45
1:CA:974:A:OP2	16:CN:41:ARG:NH1	2.50	0.45
25:BA:8:A:C2	25:BA:9:U:O2	2.69	0.45
25:BA:784:A:C6	27:BD:229:VAL:HG21	2.51	0.45
4:AB:188:ALA:HB1	4:AB:192:SER:CB	2.46	0.45
38:BR:103:ARG:NH1	38:BR:108:GLY:O	2.50	0.45
38:BR:9:LYS:O	38:BR:10:LEU:CB	2.64	0.45
38:BR:9:LYS:O	38:BR:10:LEU:HB3	2.16	0.45
37:BQ:127:ILE:HG22	37:BQ:128:LYS:O	2.16	0.45
55:D8:52:LYS:N	55:D8:52:LYS:CD	2.79	0.45
25:BA:932:G:H4'	25:BA:933:A:O5'	2.17	0.45
24:AX:358:ILE:O	24:AX:362:LEU:HB2	2.17	0.45
25:BA:2785:C:H2'	25:BA:2786:U:O4'	2.17	0.45
1:AA:244:U:C6	1:AA:894:G:N2	2.85	0.45
25:BA:2419:U:O4	55:B8:30:ARG:CZ	2.65	0.45
14:CL:65:VAL:HG12	14:CL:66:THR:N	2.31	0.45
37:DQ:7:MET:O	37:DQ:8:LYS:HG3	2.17	0.45
30:DG:31:VAL:HG13	30:DG:31:VAL:O	2.16	0.45
25:DA:2331:G:H2'	25:DA:2332:U:O4'	2.16	0.45
1:AA:186(B):C:N4	1:AA:191(G):G:N1	2.64	0.45
1:CA:224:C:H2'	1:CA:225:C:C6	2.52	0.45
6:CD:116:GLN:NE2	6:CD:157:LEU:HD21	2.32	0.45
17:CO:18:PHE:CD2	17:CO:21:ASP:HB2	2.52	0.45
25:DA:2070:G:H2'	25:DA:2071:A:O4'	2.16	0.45
28:BE:58:ARG:C	28:BE:60:ASN:H	2.19	0.45
25:BA:2476:A:N3	25:BA:2476:A:H3'	2.32	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1528:U:O2'	1:CA:1530:G:H5'	2.16	0.45
40:DT:108:ARG:O	40:DT:112:ARG:HG3	2.17	0.45
9:AG:23:VAL:HG13	9:AG:43:PHE:CE2	2.52	0.45
25:DA:901:A:C6	25:DA:902:C:C4	3.05	0.45
1:CA:1004:A:N7	1:CA:1026:G:C5	2.84	0.45
31:BH:107:VAL:HG23	31:BH:109:PHE:CD1	2.51	0.45
31:BH:94:TYR:CD1	31:BH:94:TYR:N	2.77	0.45
25:DA:1517:G:H2'	25:DA:1518:C:O4'	2.17	0.45
33:DK:4:VAL:HA	33:DK:60:TYR:HD1	1.82	0.45
25:BA:2615:U:N1	52:B5:7:PRO:HA	2.32	0.45
32:BI:1:MET:HB2	32:BI:21:VAL:O	2.16	0.45
25:BA:1682:G:C5	25:BA:1683:C:C4	3.04	0.45
5:AC:151:VAL:O	5:AC:152:ILE:HG13	2.16	0.45
25:BA:2405:G:OP1	36:BP:77:ARG:NH2	2.50	0.45
25:BA:1501:C:H2'	25:BA:1502:C:H6	1.80	0.45
1:CA:867:G:H2'	1:CA:868:C:H6	1.80	0.45
25:DA:1257:C:H4'	29:DF:83:PHE:CD2	2.51	0.45
1:CA:160:A:H1'	1:CA:344:A:N7	2.31	0.45
38:BR:37:THR:OG1	38:BR:40:LYS:HG3	2.16	0.45
27:BD:267:SER:O	27:BD:269:PHE:N	2.50	0.45
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.51	0.45
41:BU:26:GLY:C	41:BU:28:ARG:H	2.20	0.45
1:CA:118:U:H3'	1:CA:288:A:H61	1.82	0.45
1:AA:1250:A:H4'	11:AI:68:GLY:N	2.32	0.45
25:DA:1627:G:C2	25:DA:1628:G:C8	3.05	0.45
33:DK:97:GLY:O	33:DK:136:VAL:HG23	2.17	0.45
25:BA:270(D):C:H2'	25:BA:270(E):C:H6	1.81	0.45
11:AI:117:HIS:HB2	11:AI:121:ARG:HD2	1.98	0.45
25:BA:1281:G:C6	25:BA:1282:U:C4	3.04	0.45
25:BA:1831:G:C5	25:BA:1832:C:C5	3.05	0.45
25:BA:740:U:C2	25:BA:758:C:H1'	2.52	0.45
25:BA:764:A:N3	27:BD:213:ARG:NH1	2.64	0.45
2:AY:25:C:H2'	2:AY:26:G:O4'	2.16	0.45
24:AX:53:ASN:O	24:AX:55:PRO:HD3	2.16	0.45
25:DA:974(B):C:OP2	25:DA:974(B):C:H4'	2.15	0.45
25:DA:282:A:H2'	25:DA:282:A:N3	2.31	0.45
10:AH:29:SER:HB3	10:AH:32:LYS:HE3	1.98	0.45
1:CA:323:U:O3'	22:CT:22:ARG:HG2	2.17	0.45
25:BA:2230:G:H2'	25:BA:2231:C:C6	2.51	0.45
29:BF:67:GLN:CG	29:BF:67:GLN:O	2.44	0.45
41:DU:76:TYR:OH	41:DU:93:LYS:HE2	2.16	0.45
7:AE:50:GLU:CB	7:AE:53:LEU:HD12	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AJ:34:VAL:HG22	12:AJ:74:ILE:HG22	1.98	0.45
53:D6:25:LYS:HD2	55:D8:34:TRP:CH2	2.51	0.45
25:DA:652:U:H5'	25:DA:652:U:C6	2.40	0.45
34:BN:34:PRO:HB3	34:BN:74:PHE:CE1	2.52	0.45
25:DA:290:G:C5	25:DA:291:C:C5	3.05	0.45
24:CX:244:VAL:HG12	24:CX:245:MET:H	1.81	0.45
15:CM:101:GLN:H	15:CM:101:GLN:HG3	1.55	0.45
25:BA:2111:C:H1'	25:BA:2118:U:H1'	1.99	0.45
4:AB:167:PRO:HG3	4:AB:188:ALA:CB	2.47	0.45
4:AB:188:ALA:HB1	4:AB:192:SER:OG	2.16	0.45
22:CT:57:ARG:HH12	22:CT:100:ILE:HG22	1.81	0.45
1:AA:983:A:C3'	1:AA:983:A:N3	2.80	0.45
14:AL:67:ALA:CB	14:AL:84:ILE:HD11	2.46	0.45
48:D1:90:ILE:O	48:D1:94:LEU:HB2	2.16	0.45
52:B5:16:ARG:NH1	52:B5:17:ASP:OD1	2.50	0.45
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.17	0.45
1:AA:1253:G:H2'	1:AA:1254:C:C6	2.52	0.45
24:CX:24:LYS:HE3	24:CX:111:LEU:HG	1.99	0.45
37:DQ:74:TYR:CD2	37:DQ:91:GLU:HB2	2.52	0.45
39:DS:13:ARG:HG3	39:DS:14:VAL:N	2.32	0.45
8:AF:67:MET:SD	8:AF:75:LEU:HD13	2.57	0.45
24:AX:135:PRO:HB3	24:AX:143:CYS:HA	1.98	0.45
27:BD:108:PRO:HG2	27:BD:111:LEU:CG	2.44	0.45
6:AD:61:LYS:HD3	6:AD:62:GLN:N	2.31	0.45
1:CA:16:A:O2'	1:CA:17:U:H5'	2.17	0.45
25:BA:1567:A:C8	27:BD:84:TYR:CE2	3.04	0.45
2:AZ:48:C:N3	2:AZ:59:A:C8	2.84	0.45
21:CS:36:ARG:HA	21:CS:71:LEU:HB2	1.99	0.45
37:BQ:8:LYS:O	37:BQ:9:TYR:HB3	2.16	0.45
25:BA:2862:G:C5	25:BA:2863:C:C5	3.05	0.45
25:DA:118:A:H5'	25:DA:119:A:H8	1.80	0.45
21:AS:16:LEU:O	21:AS:19:VAL:HG12	2.16	0.45
1:AA:502:G:C6	1:AA:503:C:C4	3.04	0.45
30:BG:122:PRO:HB3	30:BG:170:ARG:HH12	1.82	0.45
1:AA:1151:A:OP1	12:AJ:41:PRO:HA	2.17	0.45
38:DR:12:ARG:HH11	38:DR:12:ARG:HG3	1.81	0.45
25:DA:581:C:OP1	41:DU:33:ARG:HG3	2.17	0.45
1:AA:390:C:O3'	18:AP:28:ARG:NH2	2.50	0.45
25:DA:414:C:H2'	25:DA:415:A:H8	1.82	0.45
25:BA:900:A:C4	25:BA:901:A:C8	3.04	0.45
25:BA:826:U:H2'	25:BA:828:U:O4'	2.16	0.45
25:BA:161:U:H1'	25:BA:171:G:C2	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:520:G:H2'	25:DA:521:G:C8	2.50	0.45
25:BA:718:A:H3'	25:BA:719:C:C6	2.52	0.45
25:BA:1374:G:C5	25:BA:1375:C:C5	3.04	0.45
37:DQ:59:ARG:HG3	37:DQ:60:ARG:NH1	2.32	0.45
25:BA:1683:C:H2'	25:BA:1684:C:C6	2.52	0.45
37:DQ:78:PRO:C	37:DQ:79:LEU:HD12	2.37	0.45
26:DB:16:G:H2'	26:DB:17:C:H6	1.82	0.45
1:AA:245:C:C2	1:AA:284:G:C2	3.05	0.45
6:CD:150:GLU:C	6:CD:152:SER:N	2.70	0.45
24:CX:241:ARG:HB2	24:CX:267:LEU:HD11	1.99	0.45
1:CA:41:G:H2'	1:CA:42:G:H8	1.82	0.45
25:DA:317:G:N2	25:DA:318:C:H1'	2.32	0.45
2:AY:71:C:H2'	2:AY:72:A:O4'	2.17	0.45
35:BO:120:GLU:OE2	35:BO:122:LEU:HD21	2.17	0.45
30:BG:117:PHE:CZ	30:BG:119:GLY:HA2	2.51	0.45
43:DW:88:ARG:NH1	43:DW:94:ASP:OD1	2.50	0.45
1:CA:1389:C:H2'	1:CA:1390:U:O4'	2.16	0.45
38:DR:54:LEU:HG	38:DR:62:ALA:HB1	1.98	0.45
25:DA:504:U:O4'	25:DA:504:U:O2	2.34	0.45
40:DT:87:ASP:OD1	40:DT:87:ASP:N	2.50	0.45
27:BD:174:ILE:N	27:BD:174:ILE:HD12	2.32	0.45
25:BA:1340:U:H4'	25:BA:1341:U:OP2	2.16	0.45
31:BH:32:GLU:C	31:BH:33:LEU:HG	2.36	0.45
36:DP:33:ARG:C	36:DP:34:GLY:O	2.55	0.45
1:AA:81:G:C5	1:AA:82:U:C2	3.05	0.45
42:DV:47:VAL:O	42:DV:49:THR:O	2.35	0.45
1:CA:1323:G:H4'	1:CA:136(B):C:N3	2.31	0.45
24:CX:122:PHE:HB2	24:CX:125:ALA:CB	2.29	0.45
25:BA:2305:A:H4'	25:BA:2305:A:OP1	2.17	0.45
27:DD:150:LYS:HE3	27:DD:150:LYS:CA	2.46	0.45
27:DD:31:LYS:HG3	27:DD:33:LEU:CD2	2.47	0.45
53:D6:23:THR:HB	55:D8:35:GLN:HA	1.98	0.45
25:DA:1902:C:H5''	27:DD:246:PRO:HD3	1.98	0.45
25:DA:278:A:H61	25:DA:362:U:H3	1.64	0.45
15:AM:117:VAL:O	15:AM:118:ALA:HB2	2.17	0.45
25:DA:8:A:H2'	25:DA:9:U:O4'	2.17	0.45
34:DN:34:PRO:HB3	34:DN:74:PHE:CE1	2.52	0.45
25:BA:1971:A:N3	27:BD:241:PRO:HD3	2.32	0.45
44:DX:11:PRO:HG3	49:D2:37:PHE:CD2	2.52	0.45
19:AQ:45:HIS:O	19:AQ:73:VAL:HG23	2.17	0.45
25:BA:2126:A:C2	25:BA:2173:A:C5	3.04	0.45
25:BA:1056:G:N2	25:BA:1104:C:N4	2.65	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:380:U:O2'	25:DA:381:G:H5'	2.16	0.45
25:BA:1076:C:C2	25:BA:1077:A:H1'	2.52	0.45
1:AA:1074:G:N3	1:AA:1102:A:C2	2.85	0.45
25:DA:2261:C:O2'	25:DA:2262:U:H5'	2.16	0.45
25:BA:2426:A:H2'	25:BA:2426:A:O5'	2.16	0.45
25:BA:2391:G:C6	25:BA:2427:C:H1'	2.51	0.45
55:B8:30:ARG:O	55:B8:30:ARG:HD3	2.17	0.45
8:AF:72:VAL:CG2	8:AF:90:VAL:HG11	2.47	0.45
9:CG:97:GLN:HG3	9:CG:101:LEU:CD1	2.41	0.45
30:DG:71:THR:HG22	30:DG:89:GLY:C	2.37	0.45
25:BA:806:C:P	36:BP:39:LYS:HD2	2.57	0.45
39:BS:88:ASP:O	39:BS:90:GLY:N	2.50	0.45
45:BY:76:CYS:CB	45:BY:77:PRO:HD2	2.47	0.45
1:CA:1442:G:C3'	1:CA:1442:G:C8	2.94	0.45
25:DA:2851:A:C6	25:DA:2852:G:C6	3.04	0.45
16:AN:3:ARG:CA	16:AN:6:LEU:HB2	2.46	0.45
13:AK:48:ILE:HD11	13:AK:64:ALA:HA	1.98	0.45
13:AK:48:ILE:HG21	13:AK:63:LEU:HD12	1.98	0.45
38:DR:53:HIS:CD2	38:DR:94:TYR:OH	2.69	0.45
40:DT:55:ASN:O	40:DT:57:PHE:O	2.35	0.45
1:AA:408:A:O2'	1:AA:409:G:H5'	2.17	0.45
27:BD:131:LEU:HB2	27:BD:132:PRO:CD	2.47	0.45
25:DA:2761:G:H1'	31:DH:143:GLN:NE2	2.32	0.45
9:AG:30:ILE:HD12	9:AG:120:ILE:HD13	1.99	0.45
11:AI:85:LEU:HD11	11:AI:96:LEU:HD21	1.99	0.45
48:B1:83:GLU:HG2	48:B1:84:GLY:H	1.82	0.45
25:BA:581:C:H2'	25:BA:582:G:H8	1.80	0.45
15:CM:46:LYS:HG3	15:CM:47:ASP:N	2.32	0.45
1:AA:793:U:H5'	1:AA:794:A:H5''	1.98	0.45
25:BA:2298:A:H61	25:BA:2318:G:H2'	1.82	0.45
1:CA:295:C:H2'	1:CA:296:U:H6	1.80	0.45
1:CA:1292:U:H6	1:CA:1292:U:O5'	2.00	0.45
25:BA:2074:U:N3	25:BA:2075:U:C4	2.84	0.45
1:AA:1292:U:O5'	1:AA:1292:U:H6	1.99	0.45
26:BB:46:A:C5	26:BB:47:C:C4	3.04	0.45
1:CA:794:A:H2'	1:CA:795:C:H6	1.79	0.45
43:DW:1:MET:HG2	43:DW:64:MET:HE1	1.98	0.45
25:BA:1374:G:C6	25:BA:1375:C:C4	3.05	0.45
28:BE:15:PHE:N	28:BE:15:PHE:CD2	2.85	0.45
30:DG:33:ARG:HB2	30:DG:162:THR:HG21	1.99	0.45
25:BA:68:G:H2'	25:BA:69:C:C6	2.52	0.45
1:AA:1375:A:H4'	9:AG:29:LYS:NZ	2.31	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:746:A:H2'	1:CA:747:C:H5'	1.99	0.45
25:DA:869:G:N2	25:DA:908:C:O2	2.50	0.45
43:DW:46:PHE:O	43:DW:50:VAL:HG12	2.17	0.45
12:CJ:37:PRO:HA	12:CJ:72:VAL:CG2	2.47	0.45
7:AE:18:ARG:HE	7:AE:25:ARG:HB2	1.82	0.45
25:BA:2033:A:H4'	25:BA:2034:U:OP1	2.17	0.45
25:DA:740:U:C2	25:DA:758:C:H1'	2.52	0.45
35:DO:64:ARG:HB2	35:DO:83:ALA:HB3	1.98	0.45
25:DA:149(B):A:H2'	25:DA:1449:G:O4'	2.17	0.45
53:B6:16:CYS:HB2	53:B6:48:VAL:HG23	1.98	0.45
6:AD:52:SER:O	6:AD:56:VAL:HG23	2.16	0.45
1:CA:933:G:OP2	9:CG:3:ARG:HB3	2.16	0.45
25:DA:944:G:H2'	25:DA:944:G:N3	2.31	0.45
25:DA:885:C:O5'	25:DA:885:C:H6	2.00	0.45
25:BA:1186:G:H8	25:BA:1186:G:O5'	2.00	0.45
25:BA:1914:C:O4'	25:BA:1914:C:O2	2.35	0.45
43:DW:61:ASN:HA	43:DW:61:ASN:HD22	1.59	0.45
25:BA:282:A:H2'	25:BA:282:A:N3	2.31	0.45
4:CB:44:LEU:H	4:CB:44:LEU:HG	1.32	0.45
39:DS:59:LYS:HB2	39:DS:60:GLY:H	1.59	0.45
25:DA:664:C:H4'	25:DA:941:A:OP1	2.17	0.45
5:AC:79:ARG:CG	13:CK:96:ARG:HH12	2.27	0.45
25:BA:802:A:H2'	25:BA:803:U:C6	2.52	0.45
24:AX:92:LEU:CB	24:AX:97:ARG:HE	2.30	0.45
17:AO:79:ARG:O	17:AO:82:ILE:HG22	2.17	0.45
36:DP:64:LYS:C	36:DP:66:GLY:H	2.19	0.45
12:AJ:37:PRO:HA	12:AJ:72:VAL:CG2	2.46	0.45
24:CX:92:LEU:CB	24:CX:97:ARG:HE	2.30	0.45
40:BT:64:ARG:HD3	40:BT:102:ILE:HD11	1.98	0.45
26:DB:28:C:H2'	26:DB:29:A:C8	2.52	0.45
25:BA:276:A:H2'	25:BA:277:C:C6	2.51	0.45
37:DQ:70:PRO:HA	37:DQ:94:VAL:O	2.17	0.45
27:DD:142:VAL:HG23	27:DD:192:THR:O	2.17	0.45
1:AA:1505:G:H8	1:AA:1505:G:H5''	1.82	0.45
24:AX:74:THR:O	24:AX:78:LEU:HB3	2.17	0.45
25:DA:783:A:H3'	25:DA:783:A:C8	2.51	0.45
1:AA:1367:C:N3	1:AA:1368:G:N7	2.65	0.45
30:BG:74:LYS:O	30:BG:75:LYS:O	2.34	0.45
1:AA:978:A:H5'	1:AA:979:C:OP2	2.17	0.45
22:AT:100:ILE:HG22	22:AT:101:GLY:N	2.32	0.45
43:DW:110:LYS:HG3	43:DW:111:HIS:ND1	2.31	0.45
28:DE:87:GLU:CD	28:DE:87:GLU:C	2.76	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AX:190:TYR:CE1	24:AX:223:VAL:HG12	2.51	0.45
4:CB:86:GLU:C	4:CB:88:ALA:H	2.20	0.45
24:AX:237:PRO:O	24:AX:240:LEU:HD23	2.17	0.45
25:DA:603:A:C2	25:DA:655:A:C5	3.04	0.45
25:BA:26:G:O5'	25:BA:26:G:H8	2.00	0.45
14:CL:23:VAL:HG13	14:CL:97:TYR:HE2	1.79	0.45
35:DO:17:ARG:HA	35:DO:17:ARG:HD3	1.56	0.45
35:DO:17:ARG:CG	35:DO:47:ILE:HD13	2.43	0.45
25:BA:1567:A:C4	27:BD:84:TYR:CD2	3.04	0.45
25:DA:953:A:OP2	37:DQ:16:ARG:NH2	2.50	0.45
6:AD:30:LYS:CG	6:AD:30:LYS:O	2.64	0.45
42:BV:16:PRO:HA	42:BV:99:ILE:HD12	1.99	0.45
25:BA:2320:A:C2'	25:BA:2320:A:N3	2.80	0.45
6:CD:153:ARG:HG2	6:CD:181:MET:HE3	1.99	0.45
25:DA:920:G:H2'	25:DA:921:G:H8	1.81	0.45
4:AB:77:ALA:HA	4:AB:80:ILE:HD12	1.98	0.45
18:AP:21:VAL:HG23	18:AP:33:ILE:HB	1.99	0.45
32:DI:4:ILE:HG23	32:DI:4:ILE:O	2.17	0.45
29:DF:192:LEU:HD21	29:DF:194:MET:SD	2.57	0.45
38:DR:79:LEU:HD23	38:DR:83:ILE:HB	1.99	0.45
6:CD:112:VAL:HG12	6:CD:116:GLN:NE2	2.32	0.45
4:AB:95:GLN:HB3	4:AB:148:TYR:HD1	1.81	0.45
25:DA:2234:G:H2'	25:DA:2235:G:O4'	2.17	0.45
26:DB:31:C:H4'	30:DG:29:TRP:HH2	1.81	0.45
17:CO:5:LYS:HE2	17:CO:6:GLU:HB2	1.98	0.45
25:BA:1820:U:O2	27:BD:201:HIS:HB3	2.16	0.45
4:CB:102:LEU:HD12	4:CB:102:LEU:N	2.30	0.45
9:CG:70:LYS:CG	9:CG:96:GLN:HB3	2.47	0.45
39:BS:61:ASN:ND2	39:BS:61:ASN:O	2.50	0.45
25:BA:2439:A:H5''	25:BA:2439:A:C8	2.52	0.45
1:AA:1035:A:H2'	1:AA:1036:G:C8	2.52	0.45
1:CA:1004:A:C2'	1:CA:1036:G:H22	2.30	0.45
1:AA:1207:G:C6	1:AA:1208:C:C4	3.05	0.45
31:BH:92:ILE:HD12	31:BH:92:ILE:N	2.31	0.45
24:CX:202:LEU:HD13	24:CX:202:LEU:C	2.38	0.45
25:BA:270(V):C:H2'	25:BA:270(W):G:H8	1.80	0.45
1:AA:1292:U:H2'	1:AA:1293:G:H8	1.81	0.45
43:BW:1:MET:HG3	43:BW:2:GLU:N	2.30	0.45
1:AA:488:C:H6	1:AA:488:C:O5'	2.00	0.45
25:DA:1569:A:N1	25:DA:1570:A:C2	2.85	0.45
46:DZ:93:ASP:CA	46:DZ:130:PRO:HG2	2.46	0.45
40:DT:98:LYS:HB3	40:DT:100:TYR:CE1	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CP:39:TYR:HB2	18:CP:49:LEU:CD1	2.47	0.45
1:CA:1501:C:N3	1:CA:1504:G:C6	2.85	0.45
47:B0:72:ARG:NH2	47:B0:75:LEU:HD13	2.31	0.45
44:BX:15:GLU:OE1	44:BX:15:GLU:N	2.50	0.45
1:CA:506:G:C5	1:CA:507:C:C5	3.05	0.45
48:D1:25:LYS:CB	48:D1:34:THR:O	2.64	0.45
1:AA:127:G:HO2'	19:AQ:2:PRO:N	2.14	0.45
25:BA:2838:G:C6	25:BA:2839:G:C5	3.05	0.45
40:DT:41:ARG:O	40:DT:42:ILE:HG23	2.17	0.45
37:BQ:50:ALA:O	37:BQ:53:ALA:HB3	2.17	0.45
36:BP:140:ALA:O	36:BP:141:ALA:HB2	2.17	0.45
37:DQ:50:ALA:O	37:DQ:53:ALA:HB3	2.16	0.45
25:DA:738:G:H3'	25:DA:739:G:C8	2.52	0.45
1:CA:683:G:C2	1:CA:708:C:N3	2.85	0.45
25:BA:1963:U:H2'	25:BA:1963:U:O2	2.16	0.45
25:BA:1787:A:N3	25:BA:1787:A:H2'	2.31	0.45
36:DP:140:ALA:O	36:DP:141:ALA:HB2	2.16	0.45
28:BE:51:PHE:O	28:BE:52:LEU:HB2	2.17	0.45
25:BA:941:A:H2'	25:BA:942:G:C8	2.52	0.45
42:BV:38:LEU:O	42:BV:39:LEU:HD13	2.17	0.45
25:DA:2809:A:H2'	25:DA:2810:A:C8	2.52	0.45
49:B2:11:GLU:O	49:B2:14:ARG:HB2	2.17	0.45
5:CC:23:TYR:CD2	5:CC:24:ALA:N	2.85	0.45
25:DA:1152:C:H2'	25:DA:1153:C:C6	2.52	0.45
25:BA:1018:C:H2'	25:BA:1019:U:C6	2.50	0.45
4:AB:185:ILE:CG2	4:AB:199:TYR:HB2	2.34	0.45
30:BG:40:ASN:HA	30:BG:91:ARG:HA	1.98	0.45
25:DA:1971:A:C8	25:DA:1971:A:H5''	2.45	0.45
11:CI:85:LEU:O	11:CI:89:ASN:HB2	2.17	0.45
11:CI:99:LEU:HD22	11:CI:99:LEU:H	1.81	0.45
12:CJ:48:THR:HG22	12:CJ:62:HIS:CG	2.52	0.45
25:DA:1495:A:N3	25:DA:1496:A:C2	2.85	0.45
1:CA:1358:U:H3'	1:CA:1359:C:H6	1.80	0.45
25:DA:2543:G:C6	25:DA:2544:G:C6	3.05	0.45
25:BA:8:A:H2'	25:BA:9:U:O4'	2.16	0.45
36:BP:146:VAL:HG22	36:BP:147:LEU:N	2.29	0.45
24:AX:128:ASN:HD22	24:AX:185:LYS:HG2	1.82	0.45
4:AB:25:ASN:HB3	4:AB:27:LYS:CG	2.47	0.45
5:AC:64:VAL:HB	5:AC:98:ASN:O	2.17	0.45
25:DA:1209:G:H21	25:DA:1210:A:N6	2.08	0.45
25:DA:1076:C:H2'	25:DA:1077:A:O4'	2.16	0.45
30:BG:4:ASP:O	30:BG:5:LEU:HG	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1253:G:N1	1:AA:1285:A:N6	2.65	0.45
36:BP:59:LEU:HA	36:BP:61:ARG:CZ	2.47	0.45
24:CX:190:TYR:O	24:CX:194:SER:N	2.46	0.45
55:B8:52:LYS:N	55:B8:52:LYS:CD	2.80	0.45
25:BA:1407:C:H2'	25:BA:1408:C:C6	2.51	0.45
24:CX:143:CYS:HB2	24:CX:177:ILE:O	2.16	0.45
30:BG:71:THR:HG22	30:BG:89:GLY:C	2.37	0.45
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.52	0.45
25:BA:1568:G:P	27:BD:63:ARG:HH22	2.40	0.45
43:DW:73:ALA:O	43:DW:106:ILE:HG12	2.17	0.45
25:DA:2011:U:OP2	43:DW:16:LYS:HE3	2.17	0.45
31:BH:77:LYS:C	31:BH:77:LYS:HD3	2.37	0.45
55:D8:43:GLN:O	55:D8:46:ARG:HG2	2.17	0.45
1:AA:224:C:H2'	1:AA:225:C:C6	2.52	0.45
25:BA:572:A:H5''	25:BA:573:G:OP2	2.17	0.45
25:BA:2776:A:H4'	25:BA:2778:A:OP1	2.17	0.45
48:D1:19:GLN:HE21	48:D1:41:ARG:NE	2.12	0.45
9:AG:113:GLU:HG2	9:AG:119:ARG:HG2	1.97	0.45
4:CB:121:LEU:HD22	4:CB:127:ILE:CD1	2.47	0.45
1:AA:942:G:H2'	1:AA:943:U:C6	2.52	0.45
25:BA:55:G:H2'	25:BA:56:A:C8	2.50	0.45
39:BS:64:GLU:HA	39:BS:67:ARG:HE	1.81	0.45
1:AA:1206:G:H5'	5:AC:194:GLY:HA2	1.98	0.45
1:CA:622:A:C8	1:CA:623:C:C6	3.05	0.45
24:CX:58:ALA:HA	24:CX:61:VAL:HB	1.99	0.45
14:CL:6:ILE:H	14:CL:6:ILE:CD1	2.30	0.45
1:AA:1057:G:C6	1:AA:1058:G:C4	3.05	0.45
8:CF:44:GLY:HA2	8:CF:59:TYR:CE1	2.52	0.45
1:AA:155:C:H2'	1:AA:156:G:C8	2.52	0.45
1:AA:73:G:C2	1:AA:99:C:O2	2.69	0.45
24:CX:207:PRO:HG2	24:CX:208:PHE:CD1	2.52	0.45
40:DT:67:SER:HG	40:DT:68:TYR:HD2	1.65	0.45
25:BA:2704:C:H2'	25:BA:2705:A:C8	2.49	0.45
44:BX:40:LYS:O	44:BX:44:GLU:HB2	2.16	0.45
1:CA:1269:A:H2	1:CA:1312:G:H21	1.65	0.45
36:BP:123:LEU:O	36:BP:123:LEU:HD23	2.17	0.45
28:BE:61:ARG:C	28:BE:63:LEU:N	2.70	0.45
1:CA:442:C:H42	1:CA:492:G:H1	1.65	0.45
33:BK:143:GLU:HB3	33:BK:144:VAL:H	1.64	0.45
25:DA:1419:A:C8	25:DA:1421:G:C6	3.05	0.45
1:CA:1387:G:C6	1:CA:1388:C:N4	2.85	0.45
31:BH:32:GLU:HG2	31:BH:33:LEU:N	2.32	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1816:G:N7	27:BD:62:TYR:CE1	2.86	0.45
28:DE:52:LEU:HA	28:DE:53:PRO:HD2	1.75	0.45
1:AA:560:U:O2'	1:AA:561:U:OP2	2.25	0.45
25:DA:2272:U:H5''	25:DA:2273:A:OP1	2.16	0.45
25:DA:998:C:H2'	25:DA:999:U:O4'	2.16	0.45
28:BE:16:ARG:O	28:BE:18:ASP:N	2.50	0.45
25:BA:325:G:N2	25:BA:326:G:C4	2.85	0.45
32:DI:57:ARG:HB3	32:DI:61:ARG:HH21	1.81	0.45
15:CM:106:ASN:OD1	15:CM:106:ASN:N	2.49	0.45
26:DB:71:C:H2'	26:DB:71:C:O2	2.17	0.45
24:CX:155:ARG:HD3	24:CX:351:ASP:OD2	2.17	0.45
34:DN:94:ILE:HD12	34:DN:94:ILE:O	2.17	0.45
1:AA:533:A:O2'	1:AA:534:U:H5''	2.17	0.45
11:AI:27:THR:HG23	11:AI:31:GLN:O	2.16	0.45
2:CY:25:C:H2'	2:CY:26:G:O4'	2.17	0.45
48:B1:13:ILE:HD11	48:B1:15:ALA:HB2	1.95	0.44
25:BA:2496:C:O2'	25:BA:2497:A:H5'	2.16	0.44
15:CM:24:GLY:HA3	15:CM:70:LEU:HD13	1.98	0.44
24:AX:88:LEU:HB2	24:AX:100:LEU:CD1	2.32	0.44
25:DA:1009:A:H1'	25:DA:1153:C:O2'	2.17	0.44
41:DU:92:ARG:O	41:DU:93:LYS:C	2.56	0.44
12:AJ:16:LEU:CD2	12:AJ:94:VAL:HG13	2.47	0.44
39:DS:100:ALA:HA	39:DS:103:GLU:HB3	2.00	0.44
32:DI:8:PRO:HD3	32:DI:15:VAL:HG22	1.98	0.44
7:CE:50:GLU:CB	7:CE:53:LEU:HD12	2.47	0.44
37:DQ:43:THR:OG1	37:DQ:45:GLN:HG2	2.16	0.44
15:CM:103:THR:C	15:CM:105:THR:N	2.70	0.44
36:BP:105:LEU:O	36:BP:106:LEU:CB	2.62	0.44
11:CI:58:ARG:HE	11:CI:58:ARG:HB3	1.62	0.44
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.16	0.44
1:AA:1127:G:N2	1:AA:1144:G:H22	2.16	0.44
25:BA:2114:A:C3'	25:BA:2115:G:C8	2.99	0.44
25:BA:2119:A:C6	25:BA:2171:A:N3	2.85	0.44
1:CA:983:A:N3	1:CA:983:A:C3'	2.80	0.44
25:DA:2115:G:N2	25:DA:2171:A:H2	2.15	0.44
4:CB:188:ALA:HB1	4:CB:192:SER:CB	2.47	0.44
28:DE:49:LEU:HD13	28:DE:49:LEU:HA	1.80	0.44
4:CB:98:LEU:O	4:CB:101:MET:HG2	2.17	0.44
4:CB:97:TRP:CH2	4:CB:173:ALA:HA	2.52	0.44
25:DA:2723:C:H5''	38:DR:2:ARG:NH1	2.29	0.44
24:CX:24:LYS:HB2	24:CX:114:LEU:HD23	1.99	0.44
1:CA:1253:G:H2'	1:CA:1254:C:C6	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BE:86:PRO:HB2	28:BE:87:GLU:H	1.62	0.44
15:CM:84:ILE:HG23	15:CM:85:GLY:H	1.82	0.44
30:DG:4:ASP:O	30:DG:5:LEU:HG	2.16	0.44
25:BA:2360:A:O5'	25:BA:2360:A:H8	2.00	0.44
44:BX:84:ALA:HB3	44:BX:87:GLN:NE2	2.32	0.44
24:AX:301:ARG:NE	24:AX:301:ARG:HA	2.32	0.44
13:CK:48:ILE:HG21	13:CK:63:LEU:HD12	1.99	0.44
13:CK:63:LEU:N	13:CK:63:LEU:HD23	2.32	0.44
18:CP:3:LYS:O	18:CP:21:VAL:HA	2.17	0.44
17:AO:33:THR:HG21	17:AO:85:LEU:HB3	1.98	0.44
25:DA:2031:A:C6	25:DA:2498:C:H1'	2.52	0.44
16:AN:3:ARG:HA	16:AN:6:LEU:HD12	1.97	0.44
25:BA:861:A:C2'	25:BA:862:G:H5'	2.46	0.44
15:AM:75:ALA:O	15:AM:79:LYS:HG3	2.17	0.44
25:DA:2019:A:C2'	25:DA:2020:A:O5'	2.65	0.44
25:DA:2020:A:C5	25:DA:2022:U:C5	3.05	0.44
28:BE:55:ASN:C	28:BE:57:LYS:H	2.20	0.44
39:DS:61:ASN:O	39:DS:63:THR:N	2.50	0.44
25:DA:2074:U:N3	25:DA:2075:U:C4	2.85	0.44
33:DK:4:VAL:HG22	33:DK:60:TYR:HE1	1.81	0.44
1:CA:1206:G:H5'	5:CC:194:GLY:HA2	1.98	0.44
25:BA:2247:A:H2'	25:BA:2248:C:H6	1.82	0.44
27:DD:231:HIS:CG	27:DD:232:PRO:HD2	2.52	0.44
43:DW:1:MET:HG3	43:DW:2:GLU:O	2.17	0.44
1:CA:1064:G:O4'	1:CA:1066:C:C6	2.70	0.44
1:CA:266:G:O2'	1:CA:267:C:OP2	2.34	0.44
7:CE:139:LEU:HA	7:CE:142:LEU:CD1	2.46	0.44
28:DE:14:ILE:HD12	28:DE:15:PHE:N	2.32	0.44
28:DE:195:LEU:HD23	28:DE:196:VAL:N	2.32	0.44
6:CD:122:ARG:HD3	6:CD:122:ARG:C	2.37	0.44
39:BS:38:GLN:HB3	39:BS:47:THR:CG2	2.47	0.44
26:BB:28:C:H2'	26:BB:29:A:C8	2.52	0.44
30:BG:130:ASN:OD1	30:BG:160:VAL:HG13	2.16	0.44
5:CC:93:LYS:O	5:CC:94:LEU:HD23	2.16	0.44
25:BA:2228:G:H8	25:BA:2228:G:O5'	1.99	0.44
24:CX:53:ASN:O	24:CX:55:PRO:HD3	2.16	0.44
25:DA:869:G:H2'	25:DA:870:A:H8	1.82	0.44
25:BA:149(B):A:H2'	25:BA:1449:G:O4'	2.17	0.44
25:DA:2837:G:C5	25:DA:2838:G:N7	2.85	0.44
25:BA:998:C:H2'	25:BA:999:U:O4'	2.17	0.44
1:CA:149:A:H2'	1:CA:150:C:C6	2.52	0.44
34:BN:139:LEU:O	34:BN:142:ARG:HB2	2.16	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DX:3:THR:HA	44:DX:6:ASP:OD2	2.16	0.44
25:BA:1922:G:H2'	25:BA:1923:U:O4'	2.17	0.44
21:AS:64:GLU:HG3	21:AS:65:ASN:N	2.32	0.44
2:CZ:58:A:H1'	2:CZ:60:U:C5	2.51	0.44
1:CA:964:A:OP1	1:CA:1199:U:OP1	2.36	0.44
24:AX:353:ASP:O	24:AX:354:LEU:HD23	2.17	0.44
25:DA:2641:G:H5''	34:DN:99:SER:HB3	1.99	0.44
25:DA:752:A:OP1	54:D7:3:ARG:NH2	2.50	0.44
1:CA:1421:G:C2	1:CA:1480:G:C2	3.05	0.44
28:DE:182:LEU:HA	28:DE:182:LEU:HD12	1.73	0.44
11:AI:56:LEU:HD23	11:AI:56:LEU:O	2.16	0.44
25:DA:1956:U:H1'	25:DA:2552:U:OP1	2.18	0.44
25:BA:941:A:O3'	36:BP:35:HIS:CG	2.71	0.44
1:AA:82:U:H2'	1:AA:85:U:H5	1.81	0.44
42:BV:47:VAL:O	42:BV:49:THR:O	2.35	0.44
1:AA:1398:A:H5''	1:AA:1398:A:C8	2.48	0.44
34:BN:58:ARG:HB3	34:BN:65:TRP:CZ3	2.52	0.44
25:BA:652:U:C6	25:BA:652:U:H5'	2.37	0.44
30:BG:63:ILE:HG13	30:BG:64:THR:N	2.32	0.44
1:CA:1505:G:C5'	1:CA:1506:U:OP1	2.66	0.44
27:BD:222:ARG:HH12	27:BD:239:ARG:NH2	2.15	0.44
1:AA:1370:G:C2	1:AA:1371:G:C8	3.06	0.44
25:BA:1495:A:N3	25:BA:1496:A:C2	2.85	0.44
28:DE:201:THR:C	28:DE:202:LYS:HD2	2.38	0.44
1:CA:1130:A:C2	1:CA:1146:A:C4	3.06	0.44
37:DQ:22:LYS:O	37:DQ:24:GLY:N	2.49	0.44
25:DA:2119:A:C6	25:DA:2171:A:N3	2.85	0.44
49:D2:2:LYS:O	49:D2:3:LEU:C	2.55	0.44
25:BA:1491:G:O2'	25:BA:1492:G:H5'	2.17	0.44
24:AX:24:LYS:HB2	24:AX:114:LEU:HD23	1.99	0.44
53:B6:37:ARG:HD2	53:B6:37:ARG:N	2.32	0.44
25:DA:2795:G:H1'	25:DA:2802:G:N2	2.32	0.44
27:BD:108:PRO:CG	27:BD:111:LEU:HG	2.45	0.44
2:AZ:30:G:H1	2:AZ:40:C:H42	1.64	0.44
27:DD:108:PRO:HG2	27:DD:111:LEU:CG	2.44	0.44
27:DD:79:VAL:O	27:DD:113:VAL:HG13	2.18	0.44
1:AA:985:C:C2	1:AA:1221:G:C2	3.04	0.44
39:BS:44:LYS:NZ	39:BS:44:LYS:HB3	2.33	0.44
15:CM:8:GLU:CD	15:CM:22:ILE:HA	2.37	0.44
6:AD:31:CYS:O	6:AD:31:CYS:SG	2.75	0.44
20:CR:19:LYS:HE3	20:CR:19:LYS:CA	2.43	0.44
2:CZ:50:U:H2'	2:CZ:51:C:H6	1.77	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DD:9:TYR:CD2	27:DD:10:THR:HG22	2.52	0.44
18:AP:58:TYR:O	18:AP:61:SER:N	2.50	0.44
1:CA:410:G:H5''	1:CA:411:A:OP1	2.17	0.44
25:DA:2777:G:C8	25:DA:2777:G:H3'	2.52	0.44
38:BR:53:HIS:CD2	38:BR:94:TYR:OH	2.70	0.44
1:AA:900:A:H2'	1:AA:901:A:C8	2.52	0.44
39:DS:44:LYS:HB3	39:DS:44:LYS:NZ	2.31	0.44
1:CA:438:G:O5'	1:CA:438:G:H8	2.00	0.44
31:BH:102:ALA:HB1	31:BH:115:VAL:O	2.18	0.44
10:CH:103:VAL:CG2	10:CH:110:ALA:HB2	2.46	0.44
1:CA:1037:C:H2'	1:CA:1038:C:C6	2.52	0.44
1:AA:168:G:C2'	1:AA:169:C:H5''	2.47	0.44
21:CS:33:THR:OG1	21:CS:34:TRP:N	2.50	0.44
37:DQ:14:ARG:NH1	37:DQ:14:ARG:HG2	2.31	0.44
15:AM:46:LYS:HG3	15:AM:47:ASP:H	1.82	0.44
24:AX:355:MET:HA	24:AX:359:TRP:CE3	2.51	0.44
50:D3:1:MET:CB	50:D3:2:PRO:HD2	2.46	0.44
25:DA:2247:A:H2'	25:DA:2248:C:H6	1.81	0.44
25:BA:270(Q):C:OP1	25:BA:270(Q):C:H3'	2.17	0.44
25:DA:219:G:O2'	25:DA:220:G:H5'	2.17	0.44
46:BZ:17:ALA:O	46:BZ:20:ARG:HB2	2.17	0.44
6:AD:121:VAL:O	6:AD:134:ASP:HA	2.17	0.44
7:AE:80:ILE:CD1	7:AE:138:ALA:HB1	2.46	0.44
25:DA:2459:A:C5	25:DA:2460:U:C5	3.05	0.44
29:DF:123:LEU:HD12	29:DF:124:LEU:N	2.31	0.44
13:CK:114:VAL:CG2	13:CK:115:PRO:HD2	2.47	0.44
25:BA:1257:C:H4'	29:BF:83:PHE:CD2	2.52	0.44
1:AA:1162:C:H2'	1:AA:1163:C:H6	1.82	0.44
25:BA:398:G:O2'	25:BA:399:G:H5'	2.17	0.44
35:DO:91:LEU:HD13	35:DO:91:LEU:HA	1.82	0.44
25:DA:2638:G:P	28:DE:82:ARG:HH22	2.40	0.44
46:DZ:145:GLU:HG3	46:DZ:146:ILE:N	2.32	0.44
25:DA:2881:C:O3'	38:DR:96:ARG:HG3	2.17	0.44
1:CA:1250:A:OP1	11:CI:66:ARG:HD2	2.17	0.44
1:CA:35:G:H8	1:CA:35:G:O5'	2.00	0.44
40:DT:41:ARG:NH2	40:DT:42:ILE:HD12	2.32	0.44
25:BA:697:C:H2'	25:BA:698:C:C6	2.52	0.44
25:DA:1214:A:H61	25:DA:1235:G:H1'	1.81	0.44
25:DA:2044:C:H2'	25:DA:2045:C:H6	1.82	0.44
1:CA:533:A:O2'	1:CA:534:U:H5''	2.18	0.44
41:BU:14:HIS:HA	41:BU:32:PHE:CE1	2.51	0.44
25:DA:1432:C:H2'	25:DA:1433:U:O4'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1919:A:H5''	25:BA:1920:C:OP2	2.17	0.44
25:BA:500:G:N2	25:BA:502:A:H3'	2.32	0.44
25:DA:2663:G:C6	25:DA:2664:G:C5	3.04	0.44
25:DA:1399:C:O2'	25:DA:1400:G:H5'	2.17	0.44
6:AD:3:ARG:HE	6:AD:118:ARG:HD3	1.82	0.44
21:CS:64:GLU:HG3	21:CS:65:ASN:N	2.32	0.44
25:BA:76:C:O2'	49:B2:59:ARG:HA	2.17	0.44
43:DW:34:ASN:HD22	43:DW:34:ASN:HA	1.59	0.44
32:BI:56:LYS:HB3	32:BI:56:LYS:HE3	1.83	0.44
2:CY:70:G:O5'	2:CY:70:G:H8	2.00	0.44
12:AJ:79:ARG:HA	12:AJ:79:ARG:HD3	1.75	0.44
48:B1:11:ARG:HD2	48:B1:60:PHE:HA	1.99	0.44
25:BA:2809:A:H2'	25:BA:2810:A:C8	2.53	0.44
25:BA:94:G:C2	25:BA:95:G:C4	3.05	0.44
25:BA:2307:G:C6	25:BA:2308:G:N1	2.86	0.44
25:BA:114(B):A:C4	25:BA:1144:G:N7	2.86	0.44
25:BA:1144:G:H2'	25:BA:1145:C:C6	2.53	0.44
41:DU:39:LEU:O	41:DU:40:PHE:C	2.54	0.44
36:BP:64:LYS:C	36:BP:66:GLY:H	2.21	0.44
24:AX:75:PHE:O	24:AX:79:GLU:HB2	2.17	0.44
21:CS:6:LYS:HD2	21:CS:7:LYS:H	1.81	0.44
36:BP:17:LYS:HB3	36:BP:19:VAL:CG2	2.38	0.44
25:BA:1045:A:H5''	25:BA:1047:G:O4'	2.18	0.44
25:DA:662:G:P	36:DP:18:ARG:HD2	2.57	0.44
25:BA:2144:U:H6	25:BA:2144:U:H3'	1.81	0.44
20:CR:50:ILE:HD12	20:CR:70:ILE:HG21	1.99	0.44
33:DK:73:PRO:O	33:DK:77:LEU:HD12	2.17	0.44
38:DR:9:LYS:O	38:DR:10:LEU:CB	2.65	0.44
14:AL:26:LEU:O	14:AL:28:GLY:N	2.51	0.44
5:AC:27:LYS:CG	5:AC:28:GLN:HG2	2.46	0.44
25:BA:2011:U:H2'	25:BA:2012:G:H5'	1.99	0.44
30:DG:55:LYS:HG3	30:DG:153:ARG:HH21	1.82	0.44
25:BA:2262:U:H4'	25:BA:2328:A:C2	2.52	0.44
4:CB:167:PRO:HG3	4:CB:188:ALA:HB2	2.00	0.44
30:BG:5:LEU:HD12	30:BG:101:ILE:HG22	1.99	0.44
25:DA:1608:A:HO2'	25:DA:1610:A:P	2.38	0.44
1:CA:359:U:O2'	1:CA:360:A:H5'	2.17	0.44
15:AM:19:LEU:O	15:AM:22:ILE:HG12	2.17	0.44
34:DN:117:HIS:HA	34:DN:118:PRO:HD3	1.69	0.44
25:DA:910:A:C6	25:DA:911:A:C6	3.05	0.44
37:BQ:68:ILE:HG23	37:BQ:103:MET:HA	1.99	0.44
25:DA:875:G:C4'	46:DZ:170:THR:HG21	2.48	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:910:A:C6	25:BA:911:A:C6	3.06	0.44
9:CG:78:ARG:NH1	9:CG:154:TYR:HB3	2.32	0.44
45:DY:51:VAL:HG13	45:DY:52:SER:N	2.33	0.44
11:AI:11:LYS:O	11:AI:12:GLU:HB2	2.17	0.44
32:BI:48:GLU:O	32:BI:52:ARG:HD3	2.17	0.44
55:D8:39:LYS:HA	55:D8:42:ARG:NH2	2.33	0.44
25:BA:2157:G:H8	25:BA:2157:G:O5'	2.00	0.44
6:AD:112:VAL:HG12	6:AD:116:GLN:NE2	2.32	0.44
28:BE:111:ARG:HG2	38:BR:2:ARG:CZ	2.47	0.44
9:CG:58:PRO:O	9:CG:62:PHE:N	2.48	0.44
6:CD:113:SER:HB3	6:CD:116:GLN:HB3	1.99	0.44
28:BE:55:ASN:O	28:BE:57:LYS:N	2.50	0.44
25:BA:1676:A:O5'	25:BA:1676:A:H8	2.00	0.44
46:DZ:157:LEU:HA	46:DZ:158:PRO:HD2	1.77	0.44
46:DZ:23:LYS:HB3	46:DZ:38:TYR:HD1	1.82	0.44
15:CM:46:LYS:HG3	15:CM:47:ASP:H	1.82	0.44
1:CA:902:G:H2'	1:CA:903:G:C8	2.49	0.44
2:CZ:1:C:N4	2:CZ:72:A:H61	2.13	0.44
10:CH:110:ALA:HB3	10:CH:121:ASP:HB3	1.99	0.44
25:DA:230:U:O2'	25:DA:231:C:H5'	2.17	0.44
25:DA:1733:G:H2'	25:DA:1734:C:O4'	2.18	0.44
44:DX:26:TYR:O	44:DX:81:VAL:N	2.50	0.44
25:DA:1952:A:C6	25:DA:1953:A:N1	2.86	0.44
31:DH:67:LEU:O	31:DH:71:LEU:HB2	2.18	0.44
1:CA:155:C:H2'	1:CA:156:G:C8	2.52	0.44
13:AK:66:LEU:O	13:AK:67:ASP:C	2.55	0.44
1:CA:101:A:C8	1:CA:101:A:H5''	2.50	0.44
42:DV:66:ARG:HB3	42:DV:88:ARG:NH1	2.31	0.44
40:DT:14:TYR:N	40:DT:14:TYR:CD1	2.86	0.44
1:CA:15:G:O4'	7:CE:24:ARG:NH2	2.49	0.44
30:DG:111:LEU:N	30:DG:112:PRO:CD	2.80	0.44
25:BA:64:A:C5	25:BA:65:C:C5	3.05	0.44
1:AA:117:G:H2'	1:AA:118:U:C6	2.52	0.44
25:DA:2663:G:C6	25:DA:2664:G:C4	3.06	0.44
17:CO:9:GLN:O	17:CO:13:GLN:HG2	2.18	0.44
25:DA:1885:A:H2'	25:DA:1886:C:O4'	2.18	0.44
54:B7:12:ARG:NH2	54:B7:44:PRO:HB3	2.32	0.44
5:CC:110:ASN:O	5:CC:141:VAL:HG22	2.17	0.44
25:DA:43:G:H1'	25:DA:438:G:N2	2.33	0.44
1:CA:909:A:H2'	1:CA:910:C:O4'	2.17	0.44
39:DS:28:VAL:HG21	39:DS:87:PHE:CZ	2.53	0.44
4:AB:73:THR:HA	4:AB:94:ASN:O	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AT:83:ARG:O	22:AT:87:LYS:HB2	2.17	0.44
29:BF:157:VAL:HA	29:BF:176:LEU:O	2.17	0.44
25:DA:688:U:H6	25:DA:688:U:O5'	2.00	0.44
24:CX:192:LEU:HD13	24:CX:192:LEU:HA	1.79	0.44
32:DI:19:VAL:HG13	32:DI:19:VAL:O	2.16	0.44
1:AA:1118:C:H5'	1:AA:1118:C:H6	1.82	0.44
25:DA:1186:G:O5'	25:DA:1186:G:H8	2.00	0.44
25:BA:2272:U:H5''	25:BA:2273:A:OP1	2.18	0.44
2:AY:18:G:C4	2:AY:58:A:C2	3.06	0.44
5:AC:93:LYS:O	5:AC:94:LEU:HD23	2.17	0.44
24:AX:88:LEU:O	24:AX:100:LEU:HD22	2.17	0.44
25:BA:125:G:H4'	25:BA:126:A:OP2	2.16	0.44
40:BT:110:ILE:HG22	40:BT:111:ARG:HH11	1.83	0.44
37:DQ:45:GLN:H	37:DQ:45:GLN:CD	2.21	0.44
25:DA:277:C:C5	25:DA:278:A:C8	3.05	0.44
11:CI:17:VAL:HG22	11:CI:63:ILE:HG23	2.00	0.44
21:CS:5:LEU:HD13	21:CS:6:LYS:H	1.82	0.44
25:DA:288:C:O2'	25:DA:289:A:H5'	2.18	0.44
1:AA:972:C:H4'	12:AJ:57:LYS:HG3	2.00	0.44
36:DP:105:LEU:O	36:DP:106:LEU:CB	2.63	0.44
25:DA:191:A:H2'	25:DA:192:C:C6	2.52	0.44
25:BA:81:G:H21	45:BY:2:ARG:NH2	2.16	0.44
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.17	0.44
18:AP:43:LYS:HE3	18:AP:48:TRP:CZ3	2.52	0.44
25:BA:1545:A:C6	25:BA:1546:A:C2	3.04	0.44
6:AD:98:GLU:OE1	6:AD:107:ARG:NE	2.50	0.44
43:BW:11:ARG:NH1	43:BW:98:LYS:HD3	2.32	0.44
45:DY:89:PHE:N	45:DY:89:PHE:CD1	2.85	0.44
1:AA:448:A:P	1:AA:485:G:H22	2.41	0.44
29:DF:113:ALA:HB1	29:DF:186:ILE:HG21	1.99	0.44
25:BA:2821:A:C2	25:BA:2822:G:C4	3.05	0.44
6:AD:146:ILE:HD12	6:AD:146:ILE:N	2.22	0.44
28:DE:111:ARG:HB2	28:DE:160:TYR:O	2.18	0.44
14:AL:41:THR:OG1	14:AL:51:LEU:HB2	2.18	0.44
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.17	0.44
25:DA:2262:U:H4'	25:DA:2328:A:C2	2.53	0.44
25:BA:2590:A:H2'	25:BA:2591:C:H6	1.83	0.44
25:DA:2781:A:H8	25:DA:2781:A:H5''	1.83	0.44
25:DA:2210:G:H21	25:DA:2211:G:H4'	1.81	0.44
44:DX:84:ALA:HB3	44:DX:87:GLN:NE2	2.32	0.44
25:BA:603:A:C2	25:BA:655:A:C5	3.05	0.44
25:DA:2320:A:C2	25:DA:2333:A:C8	3.05	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BS:15:ARG:NH2	39:BS:25:ARG:HH11	2.15	0.44
25:BA:2331:G:H2'	25:BA:2332:U:O4'	2.17	0.44
27:DD:131:LEU:HB2	27:DD:132:PRO:CD	2.47	0.44
8:CF:11:ASN:HA	8:CF:12:PRO:HD2	1.85	0.44
40:BT:117:ASP:C	40:BT:119:LYS:N	2.70	0.44
10:AH:111:ILE:HD11	10:AH:135:CYS:SG	2.58	0.44
40:DT:58:ASN:ND2	40:DT:58:ASN:C	2.69	0.44
25:DA:2018:G:OP1	52:D5:9:LYS:HE2	2.17	0.44
30:BG:121:ASN:HA	30:BG:122:PRO:HD2	1.81	0.44
25:BA:2070:G:C2	25:BA:2442:C:C2	3.05	0.44
25:BA:901:A:C6	25:BA:902:C:C4	3.06	0.44
30:BG:173:LEU:O	30:BG:178:PHE:HB2	2.17	0.44
25:BA:1555:G:C6	25:BA:1556:C:C4	3.06	0.44
24:CX:355:MET:O	24:CX:359:TRP:HB2	2.17	0.44
14:CL:6:ILE:HD12	14:CL:6:ILE:H	1.80	0.44
25:BA:270(Q):C:O2'	25:BA:270(R):C:P	2.75	0.44
25:DA:2703:C:C2	25:DA:2704:C:C5	3.06	0.44
25:BA:2704:C:H2'	25:BA:2705:A:O4'	2.17	0.44
6:AD:134:ASP:O	6:AD:136:PRO:HD3	2.18	0.44
7:AE:139:LEU:HA	7:AE:142:LEU:CD1	2.48	0.44
1:CA:176:C:H2'	1:CA:177:C:H6	1.83	0.44
1:AA:1476:G:H2'	1:AA:1477:C:H6	1.83	0.44
25:BA:763:G:O2'	25:BA:764:A:H3'	2.18	0.44
7:AE:89:ILE:HD13	7:AE:135:THR:HG23	2.00	0.44
1:AA:35:G:O5'	1:AA:35:G:H8	2.00	0.44
1:AA:553:A:H2'	1:AA:554:C:C6	2.52	0.44
39:DS:95:HIS:O	39:DS:99:LYS:HB3	2.18	0.44
2:AZ:58:A:H1'	2:AZ:60:U:C5	2.52	0.44
30:BG:116:ASP:O	30:BG:118:ARG:HD2	2.17	0.44
49:D2:25:VAL:O	49:D2:29:LYS:HG2	2.17	0.44
2:CY:50:U:H3	2:CY:64:G:H1	1.66	0.44
25:BA:934:G:H2'	25:BA:935:C:H6	1.83	0.44
28:DE:16:ARG:O	28:DE:18:ASP:N	2.51	0.44
39:BS:95:HIS:O	39:BS:99:LYS:HB3	2.18	0.44
46:BZ:91:LEU:HD11	46:BZ:96:VAL:HG11	1.98	0.44
8:AF:38:GLU:O	8:AF:39:LYS:C	2.54	0.44
31:DH:98:LEU:HD22	31:DH:124:GLU:HA	1.99	0.44
25:DA:2600:A:O2'	25:DA:2601:C:H5'	2.17	0.44
5:CC:205:GLY:O	5:CC:206:GLU:HB2	2.18	0.44
25:BA:15:G:H1	25:BA:525:U:H3	1.65	0.44
25:DA:95:G:H4'	49:D2:46:GLN:HB3	2.00	0.44
27:DD:32:SER:O	27:DD:33:LEU:O	2.35	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:64:LYS:HD2	55:D8:25:MET:SD	2.57	0.44
12:AJ:24:VAL:HG13	12:AJ:28:ARG:HD2	1.98	0.44
30:BG:133:LEU:N	30:BG:133:LEU:HD23	2.32	0.44
1:CA:985:C:C2	1:CA:1221:G:C2	3.05	0.44
15:AM:103:THR:C	15:AM:105:THR:N	2.71	0.44
25:BA:747:U:O2	25:BA:2014:A:H1'	2.18	0.44
20:AR:62:GLU:O	20:AR:65:ILE:HG12	2.18	0.44
11:CI:85:LEU:HD11	11:CI:96:LEU:HD21	1.99	0.44
1:AA:973:G:H3'	1:AA:974:A:H5''	1.98	0.44
24:AX:242:ILE:CG1	24:AX:264:VAL:HG12	2.38	0.44
25:DA:598:G:C5'	36:DP:15:ARG:HB3	2.48	0.44
10:AH:48:TYR:HA	10:AH:60:ARG:O	2.18	0.44
4:AB:187:LEU:HD23	4:AB:188:ALA:H	1.81	0.44
48:B1:90:ILE:O	48:B1:94:LEU:HB2	2.17	0.44
48:B1:90:ILE:CG2	48:B1:94:LEU:HD12	2.47	0.44
25:BA:1210:A:H5''	25:BA:1210:A:C8	2.53	0.44
25:DA:2392:A:C8	36:DP:60:MET:HG2	2.52	0.44
1:CA:49:U:C2	1:CA:361:G:N2	2.86	0.44
1:CA:192:U:H1'	22:CT:103:GLY:HA2	1.99	0.44
30:DG:96:ARG:HG3	30:DG:98:ARG:HG2	1.98	0.44
25:BA:875:G:C4'	46:BZ:170:THR:HG21	2.48	0.44
25:DA:1510:A:H8	25:DA:1510:A:OP2	2.01	0.44
29:DF:170:LEU:HA	29:DF:170:LEU:HD12	1.75	0.44
45:DY:51:VAL:HG13	45:DY:52:SER:H	1.81	0.44
6:CD:30:LYS:CB	6:CD:35:ARG:HD2	2.46	0.44
10:CH:86:ILE:HG12	10:CH:135:CYS:HA	1.99	0.44
32:BI:86:THR:O	32:BI:123:LEU:HB2	2.18	0.44
8:CF:89:MET:HE1	20:CR:75:ILE:HB	1.99	0.44
25:DA:1986:A:H2'	25:DA:1987:G:C8	2.52	0.44
10:CH:75:ARG:NH1	10:CH:75:ARG:HB3	2.32	0.44
30:DG:122:PRO:HB3	30:DG:170:ARG:HH12	1.83	0.44
1:AA:389:A:H2'	1:AA:390:C:C5'	2.47	0.44
25:BA:1517:G:H2'	25:BA:1518:C:O4'	2.17	0.44
25:BA:2473:U:H2'	25:BA:2474:C:H5'	1.99	0.44
25:BA:56:A:N1	25:BA:57:C:C2	2.86	0.44
25:BA:866:A:N3	25:BA:866:A:H2'	2.32	0.44
10:AH:42:GLU:HG3	10:AH:109:ILE:HD12	1.99	0.44
39:BS:66:ALA:O	39:BS:69:VAL:CG1	2.64	0.44
27:DD:37:LEU:HD12	27:DD:38:LYS:H	1.81	0.44
1:AA:452:A:C2	1:AA:453:A:C4	3.06	0.44
25:BA:2439:A:H5''	25:BA:2439:A:H8	1.82	0.44
38:BR:38:VAL:HG22	38:BR:112:ALA:HB2	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1004:A:C2'	1:AA:1036:G:H22	2.29	0.44
24:CX:355:MET:HA	24:CX:359:TRP:CZ3	2.52	0.44
31:DH:94:TYR:CD2	31:DH:107:VAL:HG12	2.51	0.44
47:B0:74:ARG:HG2	47:B0:74:ARG:H	1.61	0.44
25:DA:2704:C:H2'	25:DA:2705:A:O4'	2.17	0.44
28:BE:14:ILE:HD12	28:BE:15:PHE:N	2.33	0.44
42:BV:20:LEU:HD12	42:BV:21:ARG:N	2.32	0.44
24:AX:241:ARG:HB2	24:AX:267:LEU:HD11	1.99	0.44
7:AE:41:VAL:HG22	7:AE:113:ALA:HA	2.00	0.44
39:DS:38:GLN:HB3	39:DS:47:THR:HG23	1.99	0.44
25:BA:1864:U:OP1	25:BA:2410:G:O2'	2.34	0.44
2:CY:7:G:H3'	2:CY:8:U:C5'	2.46	0.44
54:B7:21:ARG:HB3	54:B7:31:LEU:CD2	2.47	0.44
1:AA:41:G:H2'	1:AA:42:G:H8	1.82	0.44
14:CL:123:LYS:HD2	14:CL:124:PRO:HD2	1.99	0.44
1:AA:1186:G:N2	1:AA:1187:G:H1'	2.33	0.44
35:BO:118:ALA:HA	35:BO:119:PRO:HD2	1.77	0.44
25:BA:1805:U:O2	27:BD:50:THR:HB	2.17	0.44
41:BU:8:VAL:HG11	41:BU:12:ARG:NE	2.33	0.44
33:DK:146:ASP:CG	33:DK:147:ALA:H	2.21	0.44
46:DZ:182:LYS:O	46:DZ:186:GLU:HG3	2.17	0.44
26:BB:102:G:H21	46:BZ:73:GLN:NE2	2.16	0.44
25:DA:20:C:H2'	25:DA:21:A:C8	2.52	0.44
25:BA:1486:A:H2'	25:BA:1487:G:H8	1.81	0.44
25:DA:1459:G:O2'	25:DA:1461:G:H5'	2.18	0.44
25:DA:2790:A:C8	25:DA:2790:A:H3'	2.52	0.44
29:DF:125:LEU:N	29:DF:125:LEU:HD23	2.33	0.44
17:AO:31:LEU:HA	17:AO:31:LEU:HD12	1.76	0.44
15:AM:106:ASN:OD1	15:AM:106:ASN:N	2.50	0.44
41:DU:22:LYS:HD3	41:DU:22:LYS:HA	1.74	0.44
40:BT:96:ARG:HB2	40:BT:96:ARG:NH1	2.31	0.44
25:BA:1961:C:O2'	25:BA:1962:C:H5'	2.17	0.44
33:BK:146:ASP:CG	33:BK:147:ALA:H	2.21	0.44
6:AD:92:VAL:O	6:AD:96:LEU:HD23	2.17	0.44
25:DA:942:G:H8	25:DA:942:G:O5'	2.00	0.44
25:DA:2495:G:C6	25:DA:2496:C:C4	3.06	0.44
39:BS:100:ALA:HA	39:BS:103:GLU:HB3	2.00	0.44
40:BT:50:ILE:HD12	40:BT:50:ILE:HA	1.78	0.44
1:CA:1370:G:C2	1:CA:1371:G:C8	3.06	0.44
11:CI:53:VAL:O	11:CI:54:ASP:HB2	2.17	0.44
25:BA:8:A:H5''	34:BN:74:PHE:HZ	1.82	0.44
36:BP:101:VAL:HG23	36:BP:107:LYS:HA	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BP:12:ALA:O	36:BP:14:LYS:N	2.51	0.44
25:BA:598:G:C5'	36:BP:15:ARG:HB3	2.46	0.44
25:BA:2168:G:N2	25:BA:2170:A:H3'	2.32	0.44
22:CT:100:ILE:HG22	22:CT:101:GLY:N	2.32	0.44
25:BA:2516:G:C6	25:BA:2517:C:C4	3.06	0.44
1:AA:980:C:H1'	16:AN:19:ARG:HA	1.99	0.44
14:AL:30:PRO:HB2	14:AL:31:PHE:CD1	2.53	0.44
14:AL:99:ILE:HD12	14:AL:99:ILE:HA	1.86	0.44
1:CA:989:C:HO2'	1:CA:1017:G:HO2'	1.66	0.44
12:CJ:30:SER:OG	12:CJ:81:THR:HG22	2.18	0.44
5:AC:77:ILE:HA	5:AC:84:ILE:HB	2.00	0.44
25:BA:1208:C:C4	25:BA:1209:G:N7	2.85	0.44
25:BA:1210:A:HO2'	25:BA:1211:U:P	2.39	0.44
1:CA:1074:G:C4	1:CA:1102:A:C2	3.06	0.44
25:DA:2392:A:H2	25:DA:2424:C:H42	1.64	0.44
1:AA:1072:G:C5	1:AA:1073:U:C4	3.05	0.44
1:AA:1074:G:C2	1:AA:1075:C:C2	3.06	0.44
25:DA:2361:A:OP1	55:D8:27:THR:OG1	2.36	0.44
21:AS:63:THR:HG22	21:AS:66:MET:HE2	2.00	0.44
25:BA:2593:U:C2	25:BA:2594:C:C5	3.05	0.44
24:CX:135:PRO:HB3	24:CX:143:CYS:HA	1.98	0.44
34:DN:121:VAL:CG2	34:DN:122:LEU:N	2.79	0.44
27:BD:112:GLN:CD	27:BD:112:GLN:H	2.21	0.44
14:CL:51:LEU:H	14:CL:51:LEU:HG	1.50	0.44
24:CX:237:PRO:O	24:CX:240:LEU:HD23	2.18	0.44
52:B5:3:LYS:HA	52:B5:3:LYS:HD2	1.73	0.44
11:AI:10:ARG:NH1	11:AI:75:ASP:OD2	2.51	0.44
41:DU:25:TRP:CD1	41:DU:26:GLY:N	2.86	0.44
25:DA:1568:G:P	27:DD:63:ARG:HH22	2.41	0.44
9:CG:47:CYS:HA	9:CG:58:PRO:HB3	1.99	0.44
25:DA:1139:G:OP1	34:DN:125:ALA:HA	2.17	0.44
25:DA:1275:A:C5	38:DR:16:HIS:ND1	2.85	0.44
25:DA:322:A:H3'	29:DF:169:ASN:ND2	2.32	0.44
25:DA:1346:G:C2	25:DA:1601:G:C2	3.05	0.44
13:CK:91:ARG:NH1	20:CR:88:LYS:HD2	2.31	0.44
25:DA:392:C:H5''	25:DA:409:C:H5''	2.00	0.44
25:BA:391:G:C6	25:BA:411:G:N2	2.86	0.44
39:DS:61:ASN:O	39:DS:61:ASN:ND2	2.51	0.44
1:CA:1528:U:O2'	1:CA:1529:G:H3'	2.17	0.44
1:CA:45:U:H2'	1:CA:46:G:H8	1.79	0.44
1:AA:575:G:C6	1:AA:821:G:N7	2.85	0.44
53:D6:15:GLU:HA	53:D6:49:HIS:CD2	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:642:A:H5''	10:AH:30:ARG:NH2	2.32	0.44
25:BA:1424:G:H2'	25:BA:1425:G:O4'	2.18	0.44
25:BA:172:C:H2'	25:BA:173:G:C8	2.51	0.44
25:BA:2081:C:C5	25:BA:2237:G:N2	2.86	0.44
25:DA:521:G:H2'	25:DA:522:G:C8	2.51	0.44
1:CA:542:G:H5'	6:CD:41:GLY:HA3	2.00	0.44
1:CA:1057:G:H5''	5:CC:154:SER:O	2.18	0.44
25:DA:234:C:C2	25:DA:235:U:C5	3.06	0.44
26:BB:99:A:C6	26:BB:100:G:C5	3.06	0.44
1:AA:1504:G:OP1	1:AA:1507:A:H4'	2.17	0.44
13:AK:12:ARG:HB3	13:AK:12:ARG:NH1	2.33	0.44
1:AA:1269:A:H2	1:AA:1312:G:H21	1.64	0.44
25:DA:2199:A:H3'	25:DA:2205:C:C6	2.53	0.44
1:AA:1176:A:C6	1:AA:1177:G:C6	3.05	0.44
25:DA:855:G:C5	25:DA:856:C:C5	3.05	0.44
25:DA:307:G:H3'	25:DA:307:G:C8	2.52	0.44
1:AA:781:A:C5	1:AA:802:A:C2	3.06	0.44
38:DR:47:PHE:O	38:DR:51:LEU:HD12	2.17	0.44
1:CA:1250:A:H4'	11:CI:68:GLY:N	2.33	0.44
25:DA:2271:G:H5'	47:D0:20:ARG:HG2	1.98	0.44
28:DE:51:PHE:O	28:DE:52:LEU:HB2	2.18	0.44
25:BA:732:C:C2'	25:BA:733:G:H5'	2.47	0.44
31:DH:32:GLU:C	31:DH:33:LEU:HG	2.38	0.44
25:BA:470:A:H8	25:BA:470:A:C5'	2.30	0.44
10:CH:104:ARG:NH1	10:CH:138:TRP:CZ3	2.85	0.44
25:DA:712:G:H2'	25:DA:713:G:O4'	2.18	0.44
25:DA:1267:U:H2'	25:DA:1267:U:O2	2.18	0.44
33:BK:43:ALA:HA	33:BK:46:ALA:HB2	2.00	0.44
25:DA:186:G:O2'	25:DA:187:G:H5'	2.18	0.44
31:BH:98:LEU:HD22	31:BH:124:GLU:HA	1.99	0.44
34:DN:127:LYS:HB2	34:DN:140:PHE:CE1	2.53	0.44
25:BA:372:G:N2	25:BA:400:G:H2'	2.32	0.44
20:AR:46:GLU:OE2	20:AR:46:GLU:HA	2.18	0.44
34:BN:79:ASN:HA	34:BN:79:ASN:HD22	1.57	0.44
1:CA:598:U:H2'	1:CA:599:C:C6	2.53	0.44
19:AQ:83:ASP:N	19:AQ:83:ASP:OD1	2.51	0.44
34:DN:81:ASP:OD1	34:DN:81:ASP:N	2.49	0.44
48:B1:11:ARG:HB2	48:B1:13:ILE:HG22	2.00	0.44
1:CA:81:G:C5	1:CA:82:U:C2	3.06	0.44
41:BU:91:ASP:OD2	41:BU:96:ALA:HB2	2.18	0.44
22:CT:69:GLY:O	22:CT:73:HIS:HD2	2.00	0.44
5:AC:79:ARG:HG2	5:AC:82:GLU:OE1	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AC:79:ARG:CB	13:CK:96:ARG:HH12	2.31	0.44
27:DD:70:TRP:O	27:DD:73:VAL:HG22	2.18	0.44
12:CJ:6:ILE:O	12:CJ:71:LEU:HD12	2.17	0.44
53:D6:9:LEU:HD23	53:D6:10:LEU:O	2.18	0.44
1:CA:922:G:N3	1:CA:1398:A:H2	2.16	0.44
41:BU:39:LEU:O	41:BU:40:PHE:C	2.54	0.44
30:DG:40:ASN:HA	30:DG:91:ARG:HA	2.00	0.44
29:DF:9:ILE:HG12	29:DF:9:ILE:O	2.17	0.44
24:AX:183:LEU:HD22	24:AX:185:LYS:HG3	2.00	0.44
18:CP:43:LYS:HE3	18:CP:48:TRP:CZ3	2.52	0.44
36:DP:18:ARG:O	36:DP:20:GLY:N	2.50	0.44
1:CA:1308:U:H5'	15:CM:98:VAL:CG2	2.47	0.44
15:CM:98:VAL:HB	15:CM:99:ARG:HH11	1.82	0.44
45:BY:2:ARG:C	45:BY:4:LYS:H	2.21	0.44
29:BF:113:ALA:HB1	29:BF:186:ILE:HG21	2.00	0.44
1:AA:596:C:C6	1:AA:596:C:H5'	2.33	0.44
28:DE:132:HIS:CG	28:DE:135:HIS:NE2	2.86	0.44
25:BA:2011:U:OP2	43:BW:16:LYS:HE3	2.17	0.44
30:BG:55:LYS:HG3	30:BG:153:ARG:HH21	1.82	0.44
1:AA:1300:G:O2'	1:AA:1303:C:N4	2.51	0.44
7:AE:91:LEU:HD22	7:AE:118:ILE:HD11	2.00	0.44
25:BA:2422:A:C6	25:BA:2424:C:N4	2.85	0.44
1:CA:1074:G:N3	1:CA:1102:A:C2	2.86	0.44
25:DA:2328:A:H2'	25:DA:2329:G:C8	2.52	0.44
30:DG:16:ARG:HB2	30:DG:16:ARG:CZ	2.48	0.44
1:AA:60:A:P	1:AA:60:A:H8	2.41	0.44
41:BU:74:LEU:N	41:BU:74:LEU:HD23	2.33	0.44
5:CC:77:ILE:HA	5:CC:84:ILE:HB	1.99	0.44
24:AX:147:GLU:N	24:AX:177:ILE:HG21	2.32	0.44
44:BX:50:LYS:N	44:BX:87:GLN:HE22	2.07	0.44
25:DA:2798:C:OP2	25:DA:2799:A:N7	2.50	0.44
25:BA:27:G:H22	25:BA:512:G:C2'	2.30	0.44
1:AA:601:C:C2	1:AA:638:G:N2	2.86	0.44
25:BA:2469:A:O2'	37:BQ:56:ARG:HG2	2.18	0.44
9:CG:137:LYS:O	9:CG:141:VAL:HG23	2.18	0.44
1:CA:1493:A:N1	25:DA:1913:A:C8	2.85	0.44
25:BA:2177:C:H2'	25:BA:2178:C:O4'	2.18	0.44
38:BR:12:ARG:HB3	38:BR:16:HIS:CD2	2.52	0.44
21:CS:16:LEU:O	21:CS:19:VAL:HG12	2.17	0.44
28:DE:55:ASN:C	28:DE:57:LYS:H	2.21	0.44
15:AM:91:ARG:HB3	15:AM:97:PRO:O	2.17	0.44
25:BA:1986:A:H2'	25:BA:1987:G:C8	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CO:5:LYS:HD3	17:CO:6:GLU:H	1.82	0.44
34:BN:160:LYS:HE2	34:BN:161:LEU:N	2.33	0.44
1:AA:429:U:H1'	1:AA:430:A:H5''	2.00	0.44
25:BA:322:A:O4'	25:BA:340:A:H1'	2.18	0.44
1:AA:815:A:H4'	1:AA:817:C:C4	2.53	0.44
25:DA:2108:C:O2	25:DA:2182:G:C2	2.71	0.44
25:DA:2298:A:H61	25:DA:2318:G:H2'	1.82	0.44
1:CA:38:G:N1	1:CA:397:A:C2	2.86	0.44
25:BA:1346:G:C2	25:BA:1601:G:C2	3.06	0.44
25:DA:68:G:H2'	25:DA:69:C:C6	2.53	0.44
4:CB:165:VAL:HG23	4:CB:166:ASP:H	1.82	0.44
25:BA:270(L):C:C2'	25:BA:270(M):U:H5''	2.48	0.44
46:BZ:16:SER:HB2	46:BZ:20:ARG:HH12	1.83	0.44
21:CS:79:THR:O	21:CS:80:TYR:HB3	2.17	0.44
24:AX:170:THR:HG21	24:AX:179:TYR:HB3	2.00	0.44
25:BA:1113:U:H2'	25:BA:1114:G:H8	1.82	0.44
13:AK:85:ARG:HG2	13:AK:111:ASP:O	2.18	0.44
25:DA:957:A:N6	25:DA:2459:A:C8	2.86	0.44
7:CE:41:VAL:HG22	7:CE:113:ALA:HA	2.00	0.44
4:AB:113:HIS:HA	4:AB:116:GLU:HG2	2.00	0.44
25:DA:2832:U:C2	25:DA:2834:G:C2	3.05	0.44
25:DA:2349:G:C6	25:DA:2350:C:C5	3.06	0.44
25:DA:2349:G:C6	25:DA:2350:C:C6	3.06	0.44
25:BA:969:U:H4'	50:B3:14:GLY:O	2.17	0.44
8:AF:39:LYS:HE2	8:AF:41:GLU:OE2	2.18	0.44
30:DG:8:LYS:O	30:DG:12:TYR:HD1	2.01	0.44
25:DA:121:G:N2	25:DA:131:G:C4	2.86	0.44
25:BA:1798:U:C4	25:BA:1819:A:C2	3.06	0.44
5:CC:130:VAL:HG12	5:CC:134:ILE:HD11	1.99	0.44
25:BA:2216:G:H2'	25:BA:2217:G:H8	1.83	0.44
25:BA:2310:A:H8	25:BA:2310:A:O5'	2.01	0.44
27:BD:170:GLY:C	27:BD:172:TYR:H	2.21	0.44
25:DA:270(X):G:H2'	25:DA:270(Y):G:O4'	2.17	0.44
17:AO:28:GLN:O	17:AO:32:LEU:HG	2.18	0.44
28:BE:179:GLU:HB2	28:BE:181:LEU:HD21	2.00	0.44
2:CY:39:C:H6	2:CY:39:C:O5'	2.01	0.44
25:DA:990:A:H5'	25:DA:990:A:H8	1.83	0.44
45:DY:3:VAL:HG12	45:DY:3:VAL:O	2.18	0.44
1:AA:807:A:H2'	1:AA:808:C:O4'	2.18	0.44
1:CA:230:G:H2'	1:CA:231:G:O4'	2.17	0.44
48:B1:11:ARG:NE	48:B1:61:ARG:H	2.16	0.44
36:DP:24:GLY:N	36:DP:33:ARG:NH1	2.66	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:95:G:H4'	49:B2:46:GLN:HB3	1.98	0.44
34:DN:66:THR:O	34:DN:69:VAL:HG12	2.16	0.44
1:CA:1309:G:C2	1:CA:1329:A:N3	2.86	0.44
1:AA:1323:G:H4'	1:AA:136(B):C:N3	2.33	0.44
15:AM:29:ARG:HD3	15:AM:64:TRP:CH2	2.53	0.44
12:CJ:6:ILE:HD12	12:CJ:23:ILE:HD13	2.00	0.44
12:CJ:96:ILE:HG12	12:CJ:96:ILE:O	2.17	0.44
25:DA:632:A:C6	25:DA:633:A:C6	3.04	0.44
25:BA:2415:G:C5	25:BA:2416:C:C4	3.05	0.44
40:BT:110:ILE:HD12	40:BT:110:ILE:HA	1.75	0.44
25:DA:125:G:H4'	25:DA:126:A:OP2	2.17	0.44
25:BA:274:G:H2'	25:BA:275:G:C1'	2.48	0.44
1:CA:949:A:N1	1:CA:1233:G:C4	2.85	0.44
12:AJ:33:GLN:O	12:AJ:75:ILE:HG12	2.18	0.44
1:CA:1162:C:H2'	1:CA:1163:C:H6	1.82	0.44
27:BD:222:ARG:HH12	27:BD:239:ARG:CZ	2.31	0.44
27:BD:255:LYS:N	27:BD:255:LYS:HD2	2.26	0.44
1:CA:975:A:H4'	1:CA:976:G:O5'	2.18	0.44
1:AA:1371:G:C6	1:AA:1372:U:C4	3.05	0.44
24:CX:128:ASN:HB3	24:CX:184:VAL:O	2.18	0.44
1:AA:1127:G:H21	1:AA:1146:A:N6	2.16	0.44
25:BA:2115:G:H4'	25:BA:2166:G:H2'	1.99	0.44
4:CB:17:PHE:N	4:CB:17:PHE:CD2	2.78	0.44
30:BG:7:LEU:HD22	30:BG:100:TRP:HE3	1.83	0.44
12:CJ:30:SER:HA	12:CJ:80:LYS:NZ	2.33	0.44
12:CJ:33:GLN:O	12:CJ:75:ILE:HG12	2.18	0.44
55:D8:62:LEU:O	55:D8:63:PRO:C	2.52	0.44
22:AT:57:ARG:HH12	22:AT:100:ILE:HG22	1.81	0.44
32:BI:75:LEU:HD21	32:BI:105:HIS:CE1	2.52	0.44
17:CO:54:ARG:O	17:CO:58:MET:HG3	2.17	0.44
29:DF:180:GLY:O	29:DF:181:LEU:C	2.56	0.44
4:CB:190:THR:C	4:CB:192:SER:H	2.21	0.44
25:DA:1076:C:C2	25:DA:1077:A:H1'	2.53	0.44
1:AA:1303:C:H2'	1:AA:1304:G:H5'	1.99	0.44
25:DA:2821:A:C2	25:DA:2822:G:C4	3.06	0.44
43:BW:110:LYS:HG3	43:BW:111:HIS:ND1	2.33	0.44
50:D3:34:GLU:O	50:D3:35:ARG:HB2	2.16	0.44
41:DU:74:LEU:HD12	41:DU:78:THR:HG22	1.99	0.44
25:BA:2795:G:H1'	25:BA:2802:G:N2	2.33	0.44
25:BA:919:G:H22	25:BA:2268:A:H3'	1.83	0.44
6:AD:148:VAL:HG11	6:AD:158:ILE:HG21	2.00	0.44
27:DD:108:PRO:CG	27:DD:111:LEU:HG	2.44	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:729:G:C5	27:DD:208:LYS:HB2	2.52	0.44
25:DA:1831:G:C5	25:DA:1832:C:C5	3.06	0.44
18:CP:58:TYR:O	18:CP:61:SER:HB3	2.18	0.44
19:CQ:81:ARG:HD3	19:CQ:84:LEU:CD1	2.47	0.44
6:CD:30:LYS:CG	6:CD:30:LYS:O	2.65	0.44
29:DF:89:VAL:CG1	29:DF:90:PHE:N	2.76	0.44
36:DP:114:ILE:CD1	36:DP:114:ILE:N	2.74	0.44
25:BA:2061:G:C2	25:BA:2063:C:C4	3.06	0.44
25:DA:51:G:N3	25:DA:119:A:C2	2.86	0.44
33:BK:68:VAL:HB	33:BK:70:LYS:HE2	2.00	0.44
29:DF:157:VAL:HB	29:DF:194:MET:HB3	2.00	0.44
38:DR:55:ALA:HB3	38:DR:79:LEU:HD22	2.00	0.44
25:DA:2177:C:H2'	25:DA:2178:C:O4'	2.17	0.44
38:BR:55:ALA:CB	38:BR:79:LEU:HD22	2.48	0.44
1:CA:941:G:N2	1:CA:942:G:H1'	2.33	0.44
18:AP:28:ARG:HG2	18:AP:29:ASP:OD1	2.17	0.44
1:CA:1004:A:N6	1:CA:1025:U:H4'	2.33	0.44
25:DA:2505:G:H2'	25:DA:2576:G:O6	2.18	0.44
31:BH:54:ARG:HB3	31:BH:65:HIS:CD2	2.50	0.44
26:DB:46:A:C5	26:DB:47:C:C4	3.06	0.44
1:CA:168:G:C2'	1:CA:169:C:H5''	2.48	0.44
25:DA:826:U:H2'	25:DA:828:U:O4'	2.18	0.44
25:BA:2717:G:C5	25:BA:2718:G:N7	2.85	0.44
6:AD:50:ARG:HA	6:AD:50:ARG:NH1	2.33	0.44
1:AA:891:U:O2'	1:AA:892:A:H5'	2.18	0.44
25:DA:2283:C:C5	25:DA:2389:G:H2'	2.53	0.44
28:BE:77:ILE:HG21	28:BE:195:LEU:CD1	2.48	0.44
1:CA:1313:U:C5	21:CS:4:SER:HB2	2.53	0.44
35:DO:2:ILE:HG12	35:DO:8:LEU:HD11	1.99	0.44
27:DD:267:SER:C	27:DD:269:PHE:H	2.21	0.44
46:DZ:63:ASP:C	46:DZ:65:GLN:H	2.20	0.44
36:BP:121:LYS:C	36:BP:123:LEU:H	2.21	0.44
1:AA:763:G:H2'	1:AA:764:C:C6	2.53	0.44
1:AA:20:U:C2	1:AA:916:G:N2	2.86	0.44
1:AA:746:A:O2'	1:AA:747:C:H5'	2.18	0.44
25:BA:328:U:H4'	45:BY:68:HIS:CD2	2.53	0.44
25:DA:404:C:C2	25:DA:406:G:C5	3.06	0.44
1:CA:946:A:H2'	1:CA:947:G:H8	1.82	0.44
1:CA:1423:G:OP1	35:DO:49:ARG:NH2	2.51	0.44
46:BZ:56:VAL:HG21	46:BZ:133:ILE:HD13	1.98	0.44
6:CD:95:GLY:O	6:CD:99:SER:HB2	2.18	0.44
25:DA:2738:A:N1	25:DA:2739:U:C2	2.86	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:270(L):C:C2'	25:DA:270(M):U:H5''	2.48	0.44
31:BH:144:VAL:O	31:BH:148:ILE:HG12	2.18	0.44
25:DA:1655:A:C2	25:DA:1656:C:H1'	2.53	0.44
48:D1:9:GLY:O	48:D1:13:ILE:CG2	2.66	0.44
25:BA:587:C:C2'	36:BP:33:ARG:NH2	2.81	0.44
1:AA:323:U:O3'	22:AT:22:ARG:HG2	2.18	0.44
49:D2:9:GLN:HA	49:D2:12:GLU:CB	2.46	0.44
24:AX:92:LEU:HD22	24:AX:97:ARG:CZ	2.48	0.44
41:DU:66:ASN:O	41:DU:70:ARG:HB2	2.18	0.44
12:CJ:5:ARG:HD3	12:CJ:7:LYS:HE2	2.00	0.44
25:BA:1021:A:C8	25:BA:1022:G:H5''	2.50	0.44
41:DU:40:PHE:HE2	42:DV:82:ARG:HG2	1.83	0.44
40:DT:88:ILE:HD12	40:DT:89:VAL:N	2.33	0.44
25:BA:2115:G:N2	25:BA:2171:A:H2	2.16	0.44
25:DA:2518:A:C5'	25:DA:2518:A:C8	2.95	0.44
7:CE:91:LEU:HD22	7:CE:118:ILE:HD11	1.99	0.44
25:BA:2012:G:O3'	43:BW:96:ILE:HD11	2.18	0.44
47:B0:66:VAL:HG12	47:B0:67:VAL:N	2.33	0.44
4:CB:167:PRO:HG2	4:CB:168:THR:H	1.83	0.44
4:CB:32:ILE:N	4:CB:32:ILE:HD12	2.33	0.44
4:AB:18:GLY:O	4:AB:19:HIS:HB2	2.18	0.44
25:BA:2334:G:C2	39:BS:12:PHE:HE1	2.34	0.44
25:DA:2785:C:H2'	25:DA:2786:U:O4'	2.17	0.44
25:BA:1076:C:H2'	25:BA:1077:A:O4'	2.17	0.44
44:BX:34:ALA:HB1	44:BX:39:ILE:CD1	2.47	0.44
31:DH:87:LEU:HB2	31:DH:131:VAL:O	2.18	0.44
8:AF:75:LEU:O	8:AF:79:LEU:HG	2.18	0.44
27:BD:79:VAL:HG11	27:BD:111:LEU:CD1	2.48	0.44
25:BA:637:A:P	36:BP:133:SER:HG	2.41	0.44
25:BA:464:U:H2'	25:BA:465:G:O4'	2.18	0.44
37:DQ:16:ARG:C	37:DQ:17:LEU:HD23	2.38	0.44
25:DA:2491:U:H5'	25:DA:2491:U:C6	2.44	0.44
11:CI:65:VAL:HG21	11:CI:73:GLN:HB3	1.98	0.44
6:AD:31:CYS:C	6:AD:33:MET:H	2.22	0.44
25:BA:911:A:C6	37:BQ:9:TYR:HE2	2.36	0.44
55:B8:43:GLN:O	55:B8:46:ARG:HG2	2.18	0.44
25:BA:2296:U:O2	25:BA:2333:A:N3	2.50	0.44
1:CA:502:G:C6	1:CA:503:C:C4	3.06	0.44
25:BA:2134:A:H2	25:BA:2159:G:HO2'	1.62	0.44
1:CA:224:C:H2'	1:CA:225:C:H6	1.83	0.44
25:DA:2131:G:O5'	25:DA:2131:G:H8	2.01	0.44
38:BR:77:ARG:O	38:BR:78:LYS:C	2.57	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BF:192:LEU:HD21	29:BF:194:MET:SD	2.58	0.44
1:CA:664:G:N2	1:CA:742:G:C2	2.86	0.44
4:CB:142:LEU:HA	4:CB:145:LEU:HB2	2.00	0.44
31:DH:54:ARG:HB3	31:DH:65:HIS:CD2	2.50	0.44
1:AA:1005:A:N6	1:AA:1024:G:O2'	2.51	0.44
25:DA:2179:C:H2'	25:DA:2180:U:H6	1.80	0.44
33:BK:4:VAL:HG22	33:BK:60:TYR:HE1	1.82	0.44
33:BK:4:VAL:HA	33:BK:60:TYR:HD1	1.83	0.44
25:DA:1067:A:H2'	25:DA:1068:G:C8	2.53	0.44
25:DA:1098:A:C8	25:DA:1099:G:C8	3.06	0.44
25:DA:2224:G:H4'	25:DA:2226:C:C2	2.53	0.44
4:AB:11:LEU:HD12	4:AB:217:ARG:HH12	1.82	0.44
25:DA:70:G:C2'	25:DA:113:G:HO2'	2.30	0.44
7:AE:10:MET:HG3	7:AE:13:ILE:CD1	2.47	0.44
28:BE:14:ILE:HB	40:BT:14:TYR:CE2	2.52	0.44
13:CK:66:LEU:O	13:CK:67:ASP:C	2.57	0.44
25:DA:1113:U:H2'	25:DA:1114:G:H8	1.82	0.44
26:BB:79:C:O5'	26:BB:79:C:H6	2.01	0.44
13:CK:12:ARG:HB3	13:CK:12:ARG:NH1	2.32	0.44
25:DA:1782:C:H2'	25:DA:2608:G:O2'	2.18	0.44
1:CA:1088:G:C6	1:CA:1089:G:N7	2.85	0.44
1:CA:1482:G:O5'	1:CA:1482:G:H8	2.00	0.44
40:BT:41:ARG:O	40:BT:42:ILE:HG23	2.17	0.44
24:CX:266:HIS:NE2	24:CX:296:LEU:HD21	2.33	0.44
30:BG:146:TYR:C	30:BG:148:MET:H	2.21	0.44
1:CA:592:G:H2'	1:CA:593:G:H8	1.82	0.44
25:BA:561:G:H1'	41:BU:45:TYR:HE2	1.82	0.44
42:BV:22:VAL:CG1	42:BV:23:GLU:N	2.80	0.44
25:DA:2637:U:C4	25:DA:2638:G:C6	3.05	0.44
1:CA:807:A:H2'	1:CA:808:C:C6	2.53	0.44
25:DA:372:G:N2	25:DA:400:G:H2'	2.32	0.44
25:BA:469:G:C6	54:B7:39:ARG:NH2	2.86	0.44
25:BA:1095:A:H2'	25:BA:1096:A:H8	1.83	0.44
25:BA:2583:G:H2'	25:BA:2584:U:O4'	2.17	0.44
25:BA:2678:C:H2'	25:BA:2679:A:O4'	2.18	0.44
25:DA:939:G:C4	25:DA:940:G:C8	3.05	0.44
1:CA:1460:A:H2'	1:CA:1461:G:O4'	2.18	0.44
44:DX:64:LYS:HE2	44:DX:73:ARG:NE	2.33	0.44
25:BA:1858:G:H1'	25:BA:1884:A:N6	2.33	0.44
25:BA:859:G:O5'	25:BA:859:G:H2'	2.18	0.44
25:DA:2508:G:C4	25:DA:2509:G:C8	3.05	0.44
1:CA:1042:G:C2	1:CA:1043:C:C2	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:99:TYR:HA	46:DZ:124:ILE:O	2.18	0.44
48:D1:11:ARG:HB2	48:D1:13:ILE:HG22	1.99	0.43
25:DA:94:G:C2	25:DA:95:G:C4	3.06	0.43
22:AT:22:ARG:O	22:AT:23:ARG:C	2.56	0.43
37:BQ:16:ARG:C	37:BQ:17:LEU:HD23	2.38	0.43
29:DF:66:PRO:O	29:DF:67:GLN:HG2	2.18	0.43
26:BB:30:C:H4'	26:BB:58:A:H2	1.83	0.43
26:BB:31:C:H4'	30:BG:29:TRP:HH2	1.83	0.43
37:BQ:43:THR:OG1	37:BQ:46:GLN:HG3	2.17	0.43
12:CJ:24:VAL:CG1	12:CJ:28:ARG:HD2	2.48	0.43
36:DP:64:LYS:O	36:DP:66:GLY:N	2.45	0.43
30:BG:68:PRO:HB2	30:BG:90:LEU:CD1	2.46	0.43
16:CN:24:CYS:HB3	16:CN:27:CYS:SG	2.57	0.43
40:DT:28:VAL:CG2	40:DT:29:ARG:N	2.81	0.43
30:DG:68:PRO:HB2	30:DG:90:LEU:CD1	2.46	0.43
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.17	0.43
12:CJ:49:VAL:HG22	12:CJ:50:ILE:N	2.34	0.43
1:CA:1300:G:HO2'	1:CA:1301:U:P	2.41	0.43
4:AB:32:ILE:HD12	4:AB:32:ILE:N	2.33	0.43
14:CL:27:LYS:HE2	14:CL:32:ARG:HH12	1.83	0.43
25:BA:2543:G:C6	25:BA:2544:G:C6	3.06	0.43
38:DR:8:ARG:HG2	38:DR:9:LYS:N	2.29	0.43
25:DA:2111:C:H1'	25:DA:2118:U:H1'	1.99	0.43
25:DA:2119:A:N6	25:DA:2170:A:C6	2.85	0.43
25:DA:2167:U:H1'	25:DA:2171:A:N6	2.32	0.43
25:DA:593:G:C6	25:DA:594:U:C4	3.06	0.43
10:CH:48:TYR:HA	10:CH:60:ARG:O	2.18	0.43
48:D1:90:ILE:CG2	48:D1:94:LEU:HD12	2.48	0.43
25:BA:2722:G:O2'	38:BR:5:LYS:HB2	2.18	0.43
27:BD:206:LEU:CD2	27:BD:211:ARG:HG2	2.38	0.43
7:CE:129:ILE:O	7:CE:132:ALA:HB3	2.18	0.43
32:DI:125:GLU:HA	32:DI:143:SER:HA	2.00	0.43
1:CA:1072:G:C5	1:CA:1073:U:C4	3.05	0.43
1:CA:1104:G:H5'	4:CB:111:ARG:CD	2.48	0.43
25:DA:142:G:C5	25:DA:143:C:C5	3.07	0.43
4:AB:86:GLU:C	4:AB:88:ALA:H	2.21	0.43
1:AA:1102:A:C6	1:AA:1103:C:N4	2.86	0.43
21:AS:62:ILE:HG13	21:AS:63:THR:N	2.33	0.43
37:DQ:87:LYS:O	37:DQ:89:ASN:OD1	2.36	0.43
19:CQ:22:LEU:HD12	19:CQ:23:VAL:N	2.32	0.43
1:CA:52:G:C6	1:CA:360:A:C2	3.06	0.43
24:CX:358:ILE:O	24:CX:362:LEU:HB2	2.16	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BP:88:LEU:HD11	36:BP:95:VAL:CG1	2.46	0.43
25:DA:2391:G:C6	25:DA:2427:C:H1'	2.53	0.43
25:BA:1080:C:O3'	33:BK:122:ALA:HB1	2.18	0.43
24:CX:135:PRO:HD2	24:CX:178:ASP:O	2.18	0.43
54:B7:45:ALA:O	54:B7:46:VAL:HG23	2.18	0.43
25:DA:2469:A:O2'	37:DQ:56:ARG:HG2	2.18	0.43
1:CA:1220:G:H21	21:CS:54:GLY:HA2	1.82	0.43
45:BY:51:VAL:HG13	45:BY:52:SER:H	1.81	0.43
18:CP:20:VAL:CG2	18:CP:32:TYR:HB2	2.48	0.43
8:AF:12:PRO:HD3	8:AF:58:GLY:HA2	2.00	0.43
6:CD:61:LYS:HD3	6:CD:62:GLN:N	2.33	0.43
36:DP:130:PHE:HB2	36:DP:135:LEU:HD23	1.99	0.43
25:BA:1512:G:C6	25:BA:1513:C:C4	3.05	0.43
25:DA:178:G:H8	25:DA:178:G:O5'	2.01	0.43
1:AA:224:C:H2'	1:AA:225:C:H6	1.83	0.43
25:BA:575:A:OP2	25:BA:2055:C:N4	2.45	0.43
40:DT:57:PHE:CG	40:DT:58:ASN:N	2.85	0.43
1:CA:186(B):C:N4	1:CA:191(G):G:N1	2.66	0.43
25:BA:2259:G:C2	25:BA:2282:G:C6	3.06	0.43
25:DA:2129:C:H2'	25:DA:2130:U:O4'	2.18	0.43
38:BR:60:LEU:HA	38:BR:63:ARG:HB2	2.00	0.43
21:AS:79:THR:O	21:AS:80:TYR:HB3	2.18	0.43
25:DA:55:G:H2'	25:DA:56:A:C8	2.48	0.43
29:BF:51:THR:CB	29:BF:88:VAL:HG11	2.47	0.43
1:CA:439:A:C4	1:CA:496:A:C2	3.05	0.43
43:BW:29:LEU:CG	43:BW:33:ARG:HE	2.30	0.43
1:AA:1108:G:C5	1:AA:1109:C:C5	3.06	0.43
25:DA:1359:A:C8	25:DA:1372:U:O4	2.71	0.43
9:AG:23:VAL:O	9:AG:27:ILE:HG12	2.17	0.43
1:AA:664:G:N2	1:AA:742:G:C2	2.86	0.43
9:CG:23:VAL:O	9:CG:27:ILE:HG12	2.18	0.43
25:BA:829:A:N7	25:BA:2247:A:O2'	2.43	0.43
1:CA:1057:G:C6	1:CA:1058:G:C4	3.06	0.43
28:BE:77:ILE:HD13	28:BE:195:LEU:CD1	2.48	0.43
1:CA:345:C:P	40:DT:39:ARG:HH22	2.41	0.43
28:BE:14:ILE:HD12	28:BE:14:ILE:C	2.39	0.43
25:DA:1378:A:O2'	25:DA:1379:A:H3'	2.17	0.43
14:AL:33:ARG:HG3	14:AL:34:GLY:H	1.82	0.43
48:B1:80:LEU:HD22	48:B1:81:ARG:N	2.33	0.43
25:DA:1683:C:H2'	25:DA:1684:C:C6	2.53	0.43
1:AA:160:A:H1'	1:AA:344:A:N7	2.33	0.43
54:D7:21:ARG:O	54:D7:27:GLY:HA3	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DE:61:ARG:C	28:DE:63:LEU:N	2.71	0.43
1:AA:862:C:O4'	1:AA:874:G:H4'	2.17	0.43
45:BY:87:LYS:H	45:BY:87:LYS:HG2	1.54	0.43
1:CA:41:G:C6	1:CA:402:G:C6	3.06	0.43
32:BI:112:LYS:O	32:BI:114:LEU:N	2.44	0.43
1:AA:149:A:H2'	1:AA:150:C:C6	2.52	0.43
1:CA:39:G:O6	1:CA:547:A:H2'	2.18	0.43
27:BD:8:PRO:HB3	27:BD:14:ARG:CB	2.48	0.43
7:CE:146:ALA:O	7:CE:147:ASP:C	2.56	0.43
1:CA:927:G:H2'	1:CA:928:G:O4'	2.18	0.43
25:DA:1277:G:H2'	25:DA:1278:A:O4'	2.18	0.43
48:D1:16:ASN:HB3	48:D1:17:SER:H	1.47	0.43
29:BF:11:VAL:HG12	29:BF:12:LEU:N	2.32	0.43
35:DO:14:THR:HG21	35:DO:86:ILE:HD13	1.99	0.43
22:CT:45:GLN:C	22:CT:47:GLY:H	2.20	0.43
25:BA:406:G:C6	25:BA:407:G:C5	3.05	0.43
25:BA:1044:G:O4'	25:BA:1048:A:H1'	2.19	0.43
25:BA:1693:U:O4	25:BA:1977:A:C5	2.71	0.43
1:CA:888:G:H4'	1:CA:1488:G:O2'	2.18	0.43
25:BA:670:A:H4'	25:BA:671:C:C5'	2.42	0.43
36:BP:32:THR:O	36:BP:33:ARG:HB3	2.18	0.43
27:BD:27:THR:HG21	27:BD:83:GLU:HG2	2.00	0.43
48:D1:32:LYS:HG2	48:D1:33:LYS:N	2.28	0.43
55:B8:62:LEU:C	55:B8:64:TYR:N	2.69	0.43
24:AX:92:LEU:HD23	24:AX:97:ARG:H	1.82	0.43
15:AM:23:TYR:O	15:AM:66:LEU:HB2	2.18	0.43
30:BG:115:ARG:NH2	30:BG:136:ARG:HB2	2.33	0.43
12:CJ:16:LEU:CD2	12:CJ:94:VAL:HG13	2.47	0.43
12:AJ:6:ILE:HD12	12:AJ:23:ILE:HD13	1.99	0.43
25:BA:2415:G:H4'	36:BP:66:GLY:CA	2.48	0.43
40:BT:106:SER:HA	40:BT:110:ILE:HB	1.99	0.43
30:DG:63:ILE:HG13	30:DG:64:THR:N	2.33	0.43
1:CA:250:A:O4'	1:CA:252:U:C6	2.71	0.43
44:DX:11:PRO:HG3	49:D2:37:PHE:CE2	2.53	0.43
1:AA:1060:C:C5'	12:AJ:51:ARG:HG2	2.37	0.43
29:BF:113:ALA:HB2	29:BF:183:VAL:HG12	2.00	0.43
1:AA:1141:C:C2	1:AA:1142:G:C8	3.06	0.43
25:DA:1104:C:H2'	25:DA:1105:U:H6	1.78	0.43
20:CR:63:GLN:O	20:CR:66:LEU:HB3	2.18	0.43
33:DK:68:VAL:HB	33:DK:70:LYS:HE2	1.99	0.43
22:CT:100:ILE:O	22:CT:102:GLY:N	2.38	0.43
30:BG:74:LYS:HA	30:BG:74:LYS:HD2	1.80	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AR:50:ILE:HD12	20:AR:70:ILE:HG21	2.00	0.43
33:BK:73:PRO:O	33:BK:77:LEU:HD12	2.18	0.43
5:AC:23:TYR:CD2	5:AC:24:ALA:N	2.86	0.43
5:AC:59:ARG:HA	5:AC:63:ASN:O	2.17	0.43
43:BW:96:ILE:O	43:BW:96:ILE:HG23	2.17	0.43
25:BA:1791:A:O3'	27:BD:206:LEU:HB2	2.19	0.43
25:DA:2722:G:H5''	25:DA:2820:A:C2	2.53	0.43
53:B6:11:LEU:HA	53:B6:11:LEU:HD22	1.81	0.43
45:BY:89:PHE:N	45:BY:89:PHE:CD1	2.85	0.43
1:AA:192:U:H1'	22:AT:103:GLY:HA2	2.00	0.43
30:DG:96:ARG:HD2	30:DG:98:ARG:HG2	2.00	0.43
1:CA:601:C:C2	1:CA:638:G:N2	2.86	0.43
14:CL:59:LEU:HB2	14:CL:63:TYR:HB2	2.01	0.43
25:DA:2243:U:O2'	25:DA:2244:U:H5'	2.19	0.43
11:CI:14:VAL:O	11:CI:65:VAL:HA	2.19	0.43
15:CM:19:LEU:O	15:CM:22:ILE:HG12	2.18	0.43
24:CX:301:ARG:NE	24:CX:301:ARG:HA	2.32	0.43
25:DA:483:A:H3'	25:DA:484:C:H6	1.83	0.43
25:BA:1511:A:H2'	25:BA:1512:G:C8	2.52	0.43
25:DA:2498:C:OP2	25:DA:2499:C:OP2	2.36	0.43
9:AG:153:HIS:CD2	9:AG:154:TYR:CZ	3.05	0.43
18:AP:20:VAL:CG2	18:AP:32:TYR:HB2	2.48	0.43
45:DY:46:LYS:HG2	45:DY:48:ALA:HB3	2.00	0.43
25:BA:2131:G:O5'	25:BA:2131:G:H8	2.01	0.43
45:BY:46:LYS:HG2	45:BY:48:ALA:CB	2.49	0.43
6:AD:113:SER:HB3	6:AD:116:GLN:HB3	2.00	0.43
6:AD:116:GLN:NE2	6:AD:157:LEU:HD21	2.33	0.43
25:BA:2279:G:N2	25:BA:2280:G:H1'	2.33	0.43
17:CO:21:ASP:OD1	17:CO:24:SER:CB	2.66	0.43
25:BA:1517:G:H2'	25:BA:1518:C:H6	1.84	0.43
1:AA:811:C:H4'	1:AA:900:A:H61	1.83	0.43
25:BA:557:U:H2'	25:BA:558:G:C8	2.52	0.43
44:BX:26:TYR:O	44:BX:81:VAL:N	2.50	0.43
4:CB:25:ASN:HB3	4:CB:27:LYS:CG	2.47	0.43
32:DI:2:LYS:N	32:DI:2:LYS:CD	2.81	0.43
25:BA:319:C:O2'	25:BA:320:A:H5'	2.18	0.43
46:DZ:72:ARG:HD3	46:DZ:72:ARG:HA	1.78	0.43
1:AA:156:G:C2	1:AA:166:G:C2	3.06	0.43
5:CC:152:ILE:HG22	5:CC:152:ILE:O	2.18	0.43
26:DB:79:C:H6	26:DB:79:C:O5'	2.02	0.43
1:AA:1501:C:N3	1:AA:1504:G:C6	2.86	0.43
1:CA:891:U:O2'	1:CA:892:A:H5'	2.17	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:520:G:H2'	25:BA:521:G:C8	2.52	0.43
25:BA:445:C:O2'	25:BA:446:G:H5'	2.17	0.43
36:DP:55:ARG:HG2	36:DP:56:SER:H	1.83	0.43
46:BZ:145:GLU:HB3	46:BZ:148:ASP:OD2	2.19	0.43
1:CA:763:G:H2'	1:CA:764:C:C6	2.53	0.43
25:BA:649:G:H2'	25:BA:650:C:O4'	2.17	0.43
25:DA:492:A:C2'	25:DA:493:G:H5'	2.48	0.43
11:AI:66:ARG:HD3	11:AI:66:ARG:HA	1.54	0.43
27:BD:210:GLY:O	27:BD:213:ARG:N	2.51	0.43
43:DW:51:LEU:C	43:DW:51:LEU:HD13	2.39	0.43
25:BA:1813:G:H1'	27:BD:50:THR:OG1	2.18	0.43
22:CT:94:ALA:O	22:CT:95:ALA:HB3	2.18	0.43
39:BS:28:VAL:HG21	39:BS:87:PHE:CZ	2.52	0.43
1:AA:1198:G:H2'	1:AA:1199:U:O4'	2.18	0.43
47:B0:25:ARG:HG3	47:B0:29:GLN:NE2	2.32	0.43
25:DA:937:U:H2'	25:DA:938:G:O4'	2.19	0.43
1:CA:553:A:H2'	1:CA:554:C:C6	2.52	0.43
25:BA:750:A:H2'	25:BA:751:A:H5''	1.99	0.43
1:CA:861:G:H2'	1:CA:862:C:H6	1.82	0.43
22:CT:32:ALA:HA	22:CT:35:THR:OG1	2.17	0.43
24:CX:119:LEU:C	24:CX:119:LEU:HD23	2.39	0.43
4:AB:74:LYS:NZ	4:AB:74:LYS:HB3	2.33	0.43
21:AS:12:ASP:OD1	21:AS:37:ARG:HD2	2.19	0.43
36:BP:49:ARG:NH1	36:BP:49:ARG:CG	2.68	0.43
34:DN:69:VAL:O	34:DN:70:ALA:CB	2.63	0.43
23:CU:12:LYS:HB3	23:CU:17:THR:O	2.19	0.43
30:DG:116:ASP:O	30:DG:118:ARG:HD2	2.18	0.43
11:AI:19:LEU:HD23	11:AI:61:ALA:HB2	2.00	0.43
1:CA:1231:G:H2'	1:CA:1232:U:C6	2.45	0.43
25:DA:8:A:H5''	34:DN:74:PHE:HZ	1.83	0.43
21:AS:6:LYS:HD2	21:AS:7:LYS:H	1.83	0.43
32:DI:75:LEU:HD11	32:DI:105:HIS:CE1	2.53	0.43
1:AA:1368:G:O2'	1:AA:1369:C:H5'	2.19	0.43
40:DT:106:SER:HA	40:DT:110:ILE:HB	2.01	0.43
1:CA:1130:A:N7	1:CA:1131:G:N7	2.66	0.43
1:CA:1237:C:H5''	1:CA:1238:A:O4'	2.19	0.43
29:DF:184:TYR:CD2	29:DF:188:ARG:HD2	2.53	0.43
25:BA:1530:G:H1	25:BA:1542:G:N2	2.11	0.43
14:CL:30:PRO:O	14:CL:31:PHE:CG	2.71	0.43
14:AL:26:LEU:C	14:AL:28:GLY:H	2.21	0.43
1:CA:448:A:P	1:CA:485:G:H22	2.41	0.43
38:DR:103:ARG:NH1	38:DR:108:GLY:O	2.52	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:199:A:N3	25:BA:2433:A:C2	2.87	0.43
25:BA:2432:A:C6	25:BA:2433:A:C6	3.06	0.43
1:AA:1237:C:O4'	1:AA:1334:G:N2	2.51	0.43
2:AZ:76:A:C2	25:BA:2422:A:C6	3.06	0.43
48:D1:21:ARG:HB3	48:D1:39:LYS:HA	2.00	0.43
1:AA:1074:G:C4	1:AA:1102:A:C2	3.05	0.43
1:AA:186(A):C:O3'	22:AT:82:SER:HB2	2.19	0.43
14:AL:23:VAL:HG13	14:AL:97:TYR:HE2	1.83	0.43
24:AX:224:ILE:HD12	24:AX:308:LEU:HD21	1.99	0.43
25:DA:1405:U:C2	25:DA:1406:U:C5	3.06	0.43
36:BP:114:ILE:HD13	36:BP:130:PHE:CD1	2.53	0.43
45:DY:81:LYS:HE2	45:DY:97:ARG:HD2	2.00	0.43
25:BA:380:U:O2'	25:BA:381:G:H5'	2.17	0.43
9:AG:131:LYS:O	9:AG:136:LYS:HE3	2.18	0.43
45:BY:51:VAL:HG13	45:BY:52:SER:N	2.33	0.43
28:BE:144:ARG:HB3	28:BE:145:LYS:H	1.58	0.43
55:B8:41:ILE:HD12	55:B8:42:ARG:N	2.34	0.43
29:DF:51:THR:CB	29:DF:88:VAL:HG11	2.47	0.43
25:DA:2134:A:N3	25:DA:2135:A:C8	2.86	0.43
45:DY:29:GLU:HB3	45:DY:38:ILE:CD1	2.47	0.43
13:CK:21:ILE:HD13	13:CK:82:VAL:HG13	2.00	0.43
48:B1:83:GLU:CG	48:B1:84:GLY:H	2.31	0.43
32:DI:6:LEU:HD23	32:DI:6:LEU:N	2.32	0.43
48:D1:83:GLU:CG	48:D1:84:GLY:H	2.31	0.43
25:BA:1474:C:H42	25:BA:1519:G:H1	1.67	0.43
2:AZ:1:C:N4	2:AZ:72:A:H61	2.15	0.43
20:AR:88:LYS:OXT	20:AR:88:LYS:HG3	2.19	0.43
25:DA:2748:A:C6	25:DA:2749:A:C6	3.07	0.43
1:AA:1379:G:C6	1:AA:1380:U:C4	3.06	0.43
51:D4:38:ALA:O	51:D4:49:GLU:HG2	2.19	0.43
1:CA:103(B):G:H2'	1:CA:103(C):G:O4'	2.18	0.43
1:AA:38:G:N1	1:AA:397:A:C2	2.86	0.43
9:AG:40:ALA:O	9:AG:44:TYR:CD1	2.72	0.43
6:CD:121:VAL:HA	6:CD:126:ILE:HG12	1.99	0.43
1:AA:1504:G:H3'	1:AA:1504:G:OP2	2.18	0.43
25:DA:1591:G:H2'	25:DA:1592:C:H6	1.84	0.43
25:BA:1257:C:H4'	29:BF:83:PHE:CE2	2.53	0.43
25:BA:1591:G:H2'	25:BA:1592:C:H6	1.84	0.43
25:DA:180:G:H5''	25:DA:181:A:OP1	2.18	0.43
5:AC:108:ASN:HA	5:AC:109:PRO:HD2	1.80	0.43
1:AA:946:A:C2	1:AA:947:G:C5	3.07	0.43
25:DA:398:G:H2'	25:DA:399:G:H8	1.83	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1328:G:H2'	25:DA:1330:C:C5	2.53	0.43
45:BY:87:LYS:HB3	45:BY:87:LYS:HE2	1.53	0.43
20:AR:87:ARG:HD2	20:AR:87:ARG:C	2.38	0.43
31:DH:32:GLU:HG2	31:DH:33:LEU:N	2.33	0.43
25:DA:1265:A:O4'	25:DA:1267:U:C6	2.72	0.43
22:AT:36:LEU:HB3	22:AT:59:ALA:HB2	2.00	0.43
1:CA:998(B):C:H2'	1:CA:999:U:O4'	2.18	0.43
25:DA:934:G:H2'	25:DA:935:C:H6	1.83	0.43
34:DN:108:ILE:HA	34:DN:109:PRO:HD2	1.88	0.43
25:DA:2713:A:OP1	38:DR:14:SER:HB3	2.18	0.43
25:DA:750:A:H2'	25:DA:751:A:H5''	2.01	0.43
30:BG:20:ILE:O	30:BG:24:GLY:CA	2.67	0.43
44:DX:32:PRO:HA	44:DX:77:LYS:HB2	1.99	0.43
25:DA:270(D):C:H2'	25:DA:270(E):C:H6	1.84	0.43
27:DD:248:SER:HB2	27:DD:249:PRO:HD2	2.00	0.43
35:BO:26:LYS:HB3	35:BO:27:GLY:H	1.54	0.43
25:DA:60:G:N7	25:DA:63:U:C6	2.86	0.43
25:BA:2662:A:O5'	25:BA:2662:A:H8	2.01	0.43
18:CP:50:LYS:HD3	18:CP:50:LYS:C	2.39	0.43
9:CG:67:GLU:HA	9:CG:67:GLU:OE1	2.18	0.43
26:DB:3:C:H2'	26:DB:4:C:C6	2.53	0.43
25:DA:945:A:C4	25:DA:2448:A:C2	3.07	0.43
25:DA:1585:C:O2'	25:DA:1586:A:H5'	2.18	0.43
5:CC:109:PRO:C	5:CC:111:LEU:H	2.21	0.43
25:BA:1067:A:H2'	25:BA:1068:G:C8	2.54	0.43
25:DA:1959:G:C6	25:DA:1960:A:C5	3.07	0.43
25:BA:1695:G:N2	25:BA:1696:G:C8	2.86	0.43
25:BA:587:C:C5	25:BA:671:C:H1'	2.52	0.43
26:BB:86:G:H2'	26:BB:87:G:H8	1.77	0.43
36:BP:47:ASP:HB3	36:BP:48:PRO:HA	2.00	0.43
15:CM:23:TYR:O	15:CM:66:LEU:HB2	2.18	0.43
17:CO:79:ARG:O	17:CO:82:ILE:HG22	2.18	0.43
34:BN:66:THR:H	34:BN:71:MET:CE	2.28	0.43
34:BN:69:VAL:O	34:BN:70:ALA:CB	2.66	0.43
24:AX:198:GLY:HA3	24:AX:324:ILE:HG13	1.99	0.43
41:DU:76:TYR:OH	41:DU:93:LYS:CE	2.66	0.43
41:DU:92:ARG:CZ	42:DV:11:GLN:H	2.31	0.43
37:BQ:45:GLN:H	37:BQ:45:GLN:CD	2.21	0.43
24:CX:88:LEU:O	24:CX:100:LEU:HD22	2.19	0.43
24:CX:102:PRO:O	24:CX:105:GLU:HG3	2.18	0.43
25:DA:1144:G:H2'	25:DA:1145:C:C6	2.53	0.43
37:BQ:133:ARG:O	37:BQ:134:ARG:HB2	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CX:262:VAL:HG11	24:CX:285:LYS:HA	2.01	0.43
29:BF:34:TRP:HB2	36:BP:10:PRO:O	2.19	0.43
25:BA:245:G:C4	25:BA:246:C:C5	3.06	0.43
1:AA:1130:A:N7	1:AA:1131:G:N7	2.66	0.43
6:AD:98:GLU:O	6:AD:103:ASN:ND2	2.52	0.43
1:CA:328:C:H4'	1:CA:329:A:C5'	2.48	0.43
48:D1:53:VAL:O	48:D1:53:VAL:HG12	2.17	0.43
32:BI:73:GLU:O	32:BI:141:LYS:HE2	2.18	0.43
49:D2:1:MET:CE	49:D2:4:SER:HB2	2.48	0.43
1:AA:112:G:H1	1:AA:315:A:H61	1.66	0.43
32:BI:120:ILE:HG21	32:BI:126:TYR:HE1	1.83	0.43
1:AA:1300:G:H1'	1:AA:1301:U:H5	1.83	0.43
28:DE:111:ARG:C	38:DR:2:ARG:HG3	2.38	0.43
25:BA:956:G:OP1	37:BQ:85:LYS:HG3	2.19	0.43
37:DQ:127:ILE:HG22	37:DQ:128:LYS:O	2.19	0.43
37:DQ:76:LYS:N	37:DQ:88:GLY:HA2	2.33	0.43
25:DA:1566:A:OP1	27:DD:211:ARG:NH1	2.51	0.43
25:DA:26:G:N1	25:DA:27:G:N2	2.66	0.43
25:DA:952:G:P	37:DQ:16:ARG:HH22	2.42	0.43
1:CA:675:A:H2'	1:CA:676:A:C8	2.53	0.43
46:DZ:104:PHE:CE1	46:DZ:171:ILE:HG22	2.54	0.43
24:AX:214:ARG:HG2	24:AX:330:ASP:OD2	2.19	0.43
25:BA:1337:G:H2'	25:BA:1338:G:C8	2.53	0.43
9:CG:150:ALA:O	13:CK:57:THR:HG21	2.18	0.43
9:CG:154:TYR:O	9:CG:156:TRP:CD1	2.70	0.43
8:AF:14:LEU:HD21	8:AF:19:LEU:HD12	2.00	0.43
25:DA:919:G:H22	25:DA:2268:A:H3'	1.84	0.43
25:BA:1775:U:H2'	25:BA:1776:G:O5'	2.18	0.43
9:AG:78:ARG:NH1	9:AG:154:TYR:HB3	2.33	0.43
16:CN:3:ARG:HA	16:CN:6:LEU:HD12	2.00	0.43
25:BA:2031:A:C6	25:BA:2498:C:H1'	2.54	0.43
45:BY:62:GLU:O	45:BY:63:LYS:O	2.35	0.43
42:DV:35:LEU:C	42:DV:37:VAL:N	2.71	0.43
2:CY:19:G:C2	2:CY:57:A:N3	2.87	0.43
38:DR:63:ARG:HG3	38:DR:80:PHE:CE2	2.54	0.43
47:D0:66:VAL:HG12	47:D0:67:VAL:N	2.33	0.43
2:CZ:39:C:H2'	2:CZ:40:C:C6	2.54	0.43
2:CZ:30:G:H1	2:CZ:40:C:H42	1.65	0.43
25:BA:1986:A:H2'	25:BA:1987:G:H8	1.83	0.43
25:DA:1036:G:OP1	31:DH:59:ARG:HB2	2.18	0.43
25:DA:531:C:O2	25:DA:563:G:H1'	2.18	0.43
25:DA:2577:A:C5'	25:DA:2578:G:H5'	2.47	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:AO:21:ASP:OD1	17:AO:24:SER:HB3	2.17	0.43
25:BA:1520:U:O2'	25:BA:1521:G:H5'	2.19	0.43
43:DW:29:LEU:CG	43:DW:33:ARG:HE	2.30	0.43
25:DA:1348:G:C3'	25:DA:1349:A:H5''	2.49	0.43
6:CD:108:LEU:HG	6:CD:176:LEU:HD13	2.01	0.43
25:BA:111:A:H2'	25:BA:112:U:O4'	2.19	0.43
1:AA:577:G:O2'	1:AA:578:C:H5'	2.17	0.43
1:AA:664:G:H22	1:AA:741:G:H1	1.67	0.43
28:BE:120:TRP:CD1	28:BE:155:LYS:HB3	2.54	0.43
27:DD:166:GLN:HA	27:DD:166:GLN:NE2	2.32	0.43
1:CA:1291:G:H2'	1:CA:1292:U:C6	2.53	0.43
25:BA:828:U:O2	25:BA:828:U:H3'	2.18	0.43
2:AY:75:C:H2'	2:AY:76:A:O4'	2.18	0.43
5:CC:189:ALA:HB3	5:CC:196:LEU:HB3	2.00	0.43
27:DD:232:PRO:O	27:DD:234:GLY:N	2.51	0.43
32:BI:26:ALA:O	32:BI:31:LEU:HB2	2.19	0.43
25:DA:2511:U:H4'	28:DE:124:GLY:O	2.18	0.43
27:BD:58:HIS:O	27:BD:59:LYS:O	2.36	0.43
1:AA:300:A:C8	1:AA:300:A:C3'	3.01	0.43
54:D7:21:ARG:HB3	54:D7:31:LEU:HD21	2.01	0.43
25:BA:327:G:H2'	25:BA:328:U:H6	1.84	0.43
31:DH:46:GLU:HB2	31:DH:49:VAL:CG2	2.49	0.43
32:BI:112:LYS:C	32:BI:114:LEU:H	2.20	0.43
5:CC:130:VAL:HG11	5:CC:157:ILE:HG23	2.00	0.43
25:DA:60:G:C8	25:DA:63:U:C5	3.07	0.43
18:AP:65:GLN:HA	18:AP:66:PRO:HD3	1.73	0.43
24:CX:281:GLN:HE21	25:DA:2493:U:C4'	2.31	0.43
1:AA:1188:A:H2'	1:AA:1189:C:O4'	2.19	0.43
27:DD:170:GLY:C	27:DD:172:TYR:H	2.22	0.43
2:CY:2:G:H2'	2:CY:3:C:C6	2.54	0.43
25:BA:1459:G:O2'	25:BA:1461:G:H5'	2.18	0.43
25:BA:384:U:O2'	25:BA:385:C:H5'	2.18	0.43
25:DA:1351:C:C2	25:DA:1381:G:C2	3.06	0.43
25:BA:577:G:C6	25:BA:578:A:N6	2.86	0.43
25:BA:492:A:H2'	25:BA:493:G:O4'	2.18	0.43
14:AL:68:TYR:HB3	14:AL:98:HIS:CD2	2.53	0.43
1:AA:695:A:H2'	1:AA:696:A:C8	2.54	0.43
25:BA:2600:A:O2'	25:BA:2601:C:H5'	2.18	0.43
25:BA:231:C:O2'	25:BA:232:G:H5'	2.17	0.43
37:DQ:118:LEU:HA	37:DQ:118:LEU:HD23	1.79	0.43
1:CA:858:G:H5''	1:CA:858:G:C8	2.53	0.43
24:AX:46:LEU:HD23	24:AX:46:LEU:O	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:885:C:H6	25:BA:885:C:O5'	2.01	0.43
18:AP:80:PHE:CD1	18:AP:80:PHE:N	2.85	0.43
25:BA:2790:A:C8	25:BA:2790:A:H3'	2.53	0.43
25:DA:2053:G:O2'	25:DA:2054:A:H5'	2.17	0.43
4:CB:73:THR:HA	4:CB:94:ASN:O	2.18	0.43
37:DQ:81:VAL:HG12	37:DQ:82:ARG:CB	2.48	0.43
55:D8:50:LEU:CB	55:D8:54:GLU:HG3	2.41	0.43
53:B6:9:LEU:HD23	53:B6:10:LEU:O	2.19	0.43
4:CB:71:VAL:HG22	4:CB:163:PHE:O	2.19	0.43
25:DA:1024:G:OP2	25:DA:1025:G:H3'	2.18	0.43
25:DA:651:G:C5'	55:D8:18:ALA:HB3	2.49	0.43
31:DH:18:GLU:OE2	31:DH:27:LYS:HE3	2.19	0.43
42:BV:82:ARG:HD2	42:BV:82:ARG:N	2.33	0.43
20:AR:31:LEU:HD11	20:AR:65:ILE:HD11	2.00	0.43
1:CA:1288:A:H1'	1:CA:1352:C:O2'	2.18	0.43
27:BD:253:GLN:OE1	27:BD:255:LYS:HE3	2.17	0.43
44:DX:36:LYS:HG2	44:DX:56:THR:HG23	2.00	0.43
1:AA:1371:G:H5''	11:AI:69:GLY:H	1.83	0.43
29:BF:184:TYR:CE2	29:BF:188:ARG:HD2	2.54	0.43
1:CA:1131:G:H1	1:CA:1143:G:H21	1.65	0.43
1:AA:1131:G:H1	1:AA:1143:G:H21	1.66	0.43
33:DK:57:ILE:HA	33:DK:66:THR:O	2.18	0.43
4:AB:190:THR:C	4:AB:192:SER:H	2.22	0.43
25:BA:2224:G:H4'	25:BA:2226:C:C2	2.53	0.43
51:D4:60:GLU:H	51:D4:60:GLU:CD	2.22	0.43
38:DR:9:LYS:O	38:DR:10:LEU:HB3	2.18	0.43
14:AL:30:PRO:O	14:AL:31:PHE:CG	2.71	0.43
25:DA:2117:A:O2'	25:DA:2118:U:C5	2.71	0.43
1:AA:1014:A:C2'	1:AA:1015:A:C8	2.98	0.43
22:AT:50:GLU:CA	22:AT:100:ILE:HD13	2.40	0.43
28:DE:85:ASN:HA	28:DE:86:PRO:HD2	1.86	0.43
1:CA:738:C:H6	1:CA:738:C:O5'	2.02	0.43
44:DX:30:VAL:HG21	44:DX:79:ALA:HB3	2.01	0.43
28:BE:33:VAL:HG23	28:BE:47:VAL:HG13	2.00	0.43
25:DA:729:G:H2'	25:DA:1775:U:H1'	2.00	0.43
42:DV:16:PRO:HA	42:DV:99:ILE:HD12	2.00	0.43
30:DG:139:LEU:C	30:DG:141:PHE:H	2.21	0.43
25:BA:729:G:H2'	25:BA:1775:U:H1'	2.00	0.43
14:AL:45:LYS:HB3	14:AL:46:LYS:H	1.43	0.43
25:DA:2845:G:OP1	40:DT:56:GLY:N	2.43	0.43
2:CY:20:U:H5'	2:CY:21:A:OP2	2.19	0.43
1:AA:247:G:C2	1:AA:248:C:C6	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AS:11:VAL:CG2	21:AS:16:LEU:HD11	2.49	0.43
4:CB:77:ALA:HA	4:CB:80:ILE:HD12	1.99	0.43
28:DE:55:ASN:O	28:DE:57:LYS:N	2.51	0.43
53:B6:15:GLU:OE2	53:B6:18:ARG:NE	2.52	0.43
25:BA:2745:C:H2'	25:BA:2746:U:H6	1.83	0.43
25:BA:483:A:H3'	25:BA:484:C:H6	1.84	0.43
25:BA:1034:G:C6	25:BA:1035:U:C4	3.07	0.43
1:CA:1005:A:N6	1:CA:1024:G:O2'	2.51	0.43
26:DB:40:U:H1'	26:DB:45:A:N6	2.33	0.43
25:BA:2389:G:H5''	25:BA:2390:U:C5'	2.48	0.43
1:CA:814:A:N7	1:CA:816:A:C4	2.87	0.43
5:CC:18:TRP:HB2	5:CC:21:ARG:HB3	2.00	0.43
5:AC:18:TRP:HB2	5:AC:21:ARG:HB3	2.01	0.43
25:BA:234:C:C2	25:BA:235:U:C5	3.06	0.43
1:AA:266:G:O2'	1:AA:267:C:OP2	2.33	0.43
25:BA:1705:G:C6	25:BA:1706:U:C4	3.07	0.43
25:DA:441:U:H2'	25:DA:442:G:C8	2.53	0.43
49:D2:56:GLN:O	49:D2:57:ILE:C	2.56	0.43
25:BA:2459:A:C5	25:BA:2460:U:C5	3.07	0.43
7:CE:12:LEU:C	7:CE:12:LEU:HD22	2.38	0.43
25:BA:1378:A:O2'	25:BA:1379:A:H5''	2.18	0.43
25:BA:181:A:H2'	25:BA:182:A:C8	2.53	0.43
1:AA:300:A:H1'	1:AA:565:U:O2	2.19	0.43
50:D3:17:LYS:NZ	50:D3:21:ALA:HB2	2.34	0.43
25:BA:2350:C:H2'	25:BA:2351:G:O4'	2.18	0.43
25:DA:2044:C:C2	25:DA:2625:G:C2	3.07	0.43
45:DY:24:VAL:HG12	45:DY:25:GLY:N	2.33	0.43
31:BH:106:THR:HG22	31:BH:112:PRO:HB3	2.01	0.43
35:DO:102:VAL:HG23	35:DO:121:VAL:HG22	2.00	0.43
1:CA:1360:A:O2'	1:CA:1361:G:H5'	2.19	0.43
25:DA:1094:U:H1'	25:DA:1097:U:C5	2.53	0.43
25:BA:1949:G:C6	25:BA:1950:G:C6	3.07	0.43
25:BA:413:C:O5'	25:BA:413:C:H6	2.01	0.43
25:BA:974(B):C:OP2	25:BA:974(B):C:H4'	2.19	0.43
24:AX:119:LEU:C	24:AX:119:LEU:HD23	2.39	0.43
25:DA:1787:A:N3	25:DA:1787:A:H2'	2.33	0.43
24:AX:289:LEU:HD23	24:AX:289:LEU:HA	1.84	0.43
1:AA:627:G:O2'	1:AA:628:G:H5'	2.18	0.43
8:CF:38:GLU:O	8:CF:39:LYS:C	2.57	0.43
55:B8:22:VAL:HB	55:B8:50:LEU:CD1	2.48	0.43
48:B1:13:ILE:C	48:B1:13:ILE:HD12	2.39	0.43
27:DD:27:THR:HG21	27:DD:83:GLU:HG2	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DN:66:THR:N	34:DN:71:MET:CE	2.80	0.43
34:BN:63:PRO:C	34:BN:65:TRP:H	2.21	0.43
17:AO:79:ARG:HA	17:AO:79:ARG:HD2	1.91	0.43
42:DV:82:ARG:HD2	42:DV:82:ARG:N	2.34	0.43
24:CX:92:LEU:HD23	24:CX:97:ARG:H	1.83	0.43
25:DA:1020:A:H2'	31:DH:60:ARG:HH22	1.83	0.43
29:BF:7:TYR:O	29:BF:9:ILE:HD13	2.19	0.43
25:BA:277:C:C5	25:BA:278:A:C8	3.06	0.43
1:CA:1300:G:H1'	1:CA:1301:U:H5	1.83	0.43
1:CA:1237:C:H2'	1:CA:1336:C:H5	1.84	0.43
25:BA:2173:A:H3'	25:BA:2174:C:H6	1.84	0.43
20:AR:74:ARG:HH21	20:AR:81:PHE:HA	1.83	0.43
25:DA:2115:G:H4'	25:DA:2166:G:H2'	1.99	0.43
25:BA:1056:G:C2'	25:BA:1103:A:H61	2.32	0.43
48:D1:59:THR:O	48:D1:91:LYS:HE3	2.19	0.43
21:CS:47:HIS:O	21:CS:62:ILE:HG22	2.19	0.43
33:BK:93:ARG:HG2	33:BK:94:GLU:H	1.83	0.43
7:AE:129:ILE:O	7:AE:132:ALA:HB3	2.19	0.43
36:DP:58:THR:O	36:DP:61:ARG:NE	2.52	0.43
36:BP:130:PHE:HB2	36:BP:135:LEU:HD23	1.99	0.43
25:BA:1406:U:H2'	25:BA:1407:C:H6	1.82	0.43
45:DY:81:LYS:NZ	45:DY:98:VAL:CG1	2.77	0.43
14:CL:26:LEU:C	14:CL:28:GLY:H	2.20	0.43
1:AA:949:A:N1	1:AA:1233:G:C4	2.87	0.43
37:DQ:55:VAL:HG23	37:DQ:56:ARG:N	2.33	0.43
25:DA:2490:G:H4'	25:DA:2491:U:OP1	2.18	0.43
31:BH:51:ARG:CG	31:BH:52:VAL:H	2.27	0.43
21:AS:36:ARG:HA	21:AS:71:LEU:HB2	2.00	0.43
17:CO:33:THR:HG21	17:CO:85:LEU:HB3	2.00	0.43
6:AD:9:CYS:SG	6:AD:31:CYS:O	2.77	0.43
33:DK:93:ARG:HG2	33:DK:94:GLU:H	1.83	0.43
25:DA:2011:U:H2'	25:DA:2012:G:H5'	2.00	0.43
29:BF:167:ALA:O	29:BF:170:LEU:HB2	2.18	0.43
27:BD:118:VAL:HG22	27:BD:119:ALA:N	2.29	0.43
25:DA:840:C:H2'	25:DA:841:A:H8	1.83	0.43
25:BA:2777:G:C8	25:BA:2777:G:C3'	3.01	0.43
27:BD:9:TYR:CD2	27:BD:10:THR:HG22	2.54	0.43
1:CA:191(E):G:H2'	1:CA:191(F):U:H6	1.81	0.43
9:AG:47:CYS:HA	9:AG:58:PRO:HB3	1.99	0.43
25:DA:2400:G:H2'	25:DA:2401:U:C6	2.53	0.43
1:AA:1350:A:H2'	1:AA:1351:U:O4'	2.18	0.43
25:DA:1447:G:N2	25:DA:1528:A:C2	2.86	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2070:G:H2'	25:BA:2071:A:O4'	2.19	0.43
25:BA:1793:C:H2'	25:BA:1794:U:C6	2.54	0.43
7:AE:69:VAL:HA	7:AE:70:PRO:HD2	1.77	0.43
30:DG:37:VAL:HG22	30:DG:159:VAL:HB	1.99	0.43
25:BA:481:G:C4	25:BA:507:A:C2	3.06	0.43
35:BO:8:LEU:HB2	35:BO:19:ILE:HD13	2.00	0.43
25:DA:235:U:C2	25:DA:236:C:C5	3.07	0.43
25:BA:2512:C:H5''	25:BA:2513:G:OP2	2.17	0.43
43:DW:69:LEU:N	43:DW:69:LEU:HD12	2.33	0.43
30:DG:130:ASN:OD1	30:DG:160:VAL:HG13	2.18	0.43
31:BH:46:GLU:HB2	31:BH:49:VAL:CG2	2.48	0.43
36:DP:121:LYS:C	36:DP:123:LEU:H	2.21	0.43
13:AK:18:ARG:HB2	13:AK:33:THR:HG22	2.01	0.43
25:BA:1443:G:O2'	25:BA:1444:G:H5'	2.19	0.43
1:AA:875:C:O2'	10:AH:14:ARG:NH1	2.52	0.43
25:BA:2663:G:C4	25:BA:2664:G:C8	3.06	0.43
24:CX:241:ARG:HB3	24:CX:265:VAL:HG13	1.99	0.43
25:BA:1354:A:C8	25:BA:1355:G:C8	3.06	0.43
31:DH:31:GLY:O	31:DH:32:GLU:HB2	2.18	0.43
5:CC:112:SER:O	5:CC:115:LEU:HB2	2.18	0.43
1:AA:1099:G:H2'	1:AA:1100:C:O4'	2.19	0.43
27:DD:8:PRO:HB3	27:DD:14:ARG:CB	2.47	0.43
48:D1:70:VAL:O	48:D1:73:LEU:HB2	2.19	0.43
25:DA:443:A:H1'	25:DA:1201:C:O4'	2.18	0.43
25:BA:2508:G:C4	25:BA:2509:G:C8	3.07	0.43
25:BA:2239:G:H5'	27:BD:251:GLY:HA3	2.00	0.43
46:DZ:56:VAL:HG21	46:DZ:133:ILE:HD13	2.01	0.43
1:CA:104:G:C6	1:CA:105:G:N7	2.87	0.43
7:AE:68:GLU:H	7:AE:68:GLU:HG3	1.52	0.43
9:AG:67:GLU:HA	9:AG:67:GLU:OE1	2.18	0.43
2:AY:70:G:O5'	2:AY:70:G:H8	2.02	0.43
18:CP:19:ILE:HG22	18:CP:36:ILE:HG13	2.00	0.43
28:DE:179:GLU:HB2	28:DE:181:LEU:HD21	2.00	0.43
25:BA:2893:G:H5''	25:BA:2894:G:C5'	2.48	0.43
25:DA:670:A:H4'	25:DA:671:C:OP1	2.18	0.43
25:BA:1011:G:OP1	41:BU:76:TYR:N	2.51	0.43
49:B2:46:GLN:HB2	49:B2:49:LYS:NZ	2.34	0.43
40:BT:106:SER:O	40:BT:107:ASP:HB3	2.19	0.43
25:DA:1021:A:C8	25:DA:1022:G:H5''	2.51	0.43
24:CX:39:LEU:HB2	24:CX:68:LEU:CD2	2.34	0.43
1:AA:250:A:O4'	1:AA:252:U:C6	2.71	0.43
40:BT:49:VAL:HG13	40:BT:49:VAL:O	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:287:C:C2	25:DA:288:C:C5	3.06	0.43
11:AI:17:VAL:HG22	11:AI:63:ILE:HG23	2.00	0.43
17:AO:45:VAL:HG23	17:AO:46:HIS:CE1	2.52	0.43
25:BA:288:C:O2'	25:BA:289:A:H5'	2.19	0.43
33:DK:53:VAL:HA	33:DK:54:PRO:HD3	1.84	0.43
22:CT:100:ILE:HD12	22:CT:100:ILE:N	2.34	0.43
14:CL:30:PRO:HB2	14:CL:31:PHE:CD1	2.54	0.43
15:CM:3:ARG:HG2	15:CM:9:ILE:CD1	2.48	0.43
6:AD:67:ILE:HG22	6:AD:114:ARG:NH1	2.34	0.43
29:BF:164:ARG:HG3	29:BF:175:THR:HG1	1.78	0.43
38:BR:103:ARG:HG2	38:BR:103:ARG:HH11	1.82	0.43
30:DG:7:LEU:HB2	30:DG:104:GLU:CG	2.41	0.43
8:CF:72:VAL:CG2	8:CF:90:VAL:HG11	2.47	0.43
4:CB:98:LEU:HB2	4:CB:101:MET:CE	2.48	0.43
37:BQ:87:LYS:O	37:BQ:89:ASN:OD1	2.36	0.43
25:BA:2426:A:C3'	25:BA:2427:C:H5''	2.44	0.43
24:AX:134:GLN:HA	24:AX:135:PRO:HD2	1.85	0.43
6:AD:61:LYS:HE3	6:AD:207:TYR:OH	2.19	0.43
34:BN:118:PRO:C	34:BN:120:ARG:N	2.71	0.43
34:BN:121:VAL:CG2	34:BN:122:LEU:N	2.82	0.43
25:BA:2850:A:C2	25:BA:2851:A:C4	3.07	0.43
45:DY:76:CYS:CB	45:DY:77:PRO:HD2	2.48	0.43
1:CA:972:C:H4'	12:CJ:57:LYS:HG3	2.00	0.43
6:AD:31:CYS:O	6:AD:32:ALA:HB3	2.19	0.43
25:DA:637:A:P	36:DP:133:SER:HG	2.42	0.43
25:DA:1981:A:C8	25:DA:1981:A:C3'	3.01	0.43
25:BA:2845:G:OP1	40:BT:56:GLY:N	2.45	0.43
25:BA:2134:A:N3	25:BA:2135:A:C8	2.87	0.43
50:B3:54:VAL:O	50:B3:55:ARG:HD3	2.18	0.43
25:BA:2121:G:H1	25:BA:2177:C:H42	1.66	0.43
48:D1:67:ILE:N	48:D1:68:PRO:CD	2.78	0.43
25:DA:2777:G:C8	25:DA:2777:G:C3'	3.02	0.43
25:BA:2400:G:N2	25:BA:2417:C:C2	2.86	0.43
25:BA:537:C:H4'	34:BN:28:VAL:HG21	2.01	0.43
25:DA:352:G:HO2'	25:DA:353:G:P	2.42	0.43
4:AB:102:LEU:N	4:AB:102:LEU:HD12	2.30	0.43
38:BR:97:VAL:HA	38:BR:113:LEU:O	2.18	0.43
24:CX:355:MET:HA	24:CX:359:TRP:CE3	2.54	0.43
25:DA:2073:C:C2'	25:DA:2074:U:H5'	2.49	0.43
51:D4:38:ALA:O	51:D4:49:GLU:HA	2.19	0.43
51:D4:42:CYS:HB3	51:D4:59:VAL:O	2.18	0.43
51:B4:38:ALA:O	51:B4:49:GLU:HG2	2.17	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:B0:11:LYS:HB2	47:B0:14:ARG:NH2	2.33	0.43
26:BB:45:A:H5'	26:BB:46:A:OP2	2.18	0.43
25:BA:164:U:C2	25:BA:165:U:C5	3.05	0.43
25:DA:1555:G:C6	25:DA:1556:C:C4	3.07	0.43
1:CA:532:A:OP1	24:CX:331:LYS:HE2	2.19	0.43
1:CA:1048:G:P	16:CN:4:LYS:HB2	2.59	0.43
35:DO:53:LYS:HD2	35:DO:56:ASP:OD1	2.17	0.43
25:BA:565:C:H4'	25:BA:1253:A:N6	2.34	0.43
14:AL:17:VAL:HG23	14:AL:18:ARG:N	2.34	0.43
43:BW:17:VAL:HG23	43:BW:18:ARG:N	2.33	0.43
25:DA:1378:A:O2'	25:DA:1379:A:H5''	2.19	0.43
25:DA:1478:G:C2	25:DA:1479:G:C8	3.06	0.43
25:BA:2514:U:H2'	25:BA:2515:C:C6	2.54	0.43
1:CA:416:G:C6	1:CA:417:C:N3	2.86	0.43
2:CY:7:G:H3'	2:CY:8:U:H5'	2.01	0.43
25:DA:2350:C:H2'	25:DA:2351:G:O4'	2.18	0.43
24:CX:239:GLU:O	24:CX:268:PRO:HD3	2.19	0.43
2:AY:7:G:H3'	2:AY:8:U:H5'	2.00	0.43
16:CN:57:ARG:HG2	16:CN:58:LYS:N	2.34	0.43
17:AO:9:GLN:O	17:AO:10:LYS:C	2.57	0.43
1:CA:1198:G:H2'	1:CA:1199:U:O4'	2.18	0.43
37:DQ:114:ALA:O	37:DQ:118:LEU:HB2	2.19	0.43
1:CA:515:G:H2'	1:CA:516:U:O4'	2.19	0.43
1:CA:525:C:N4	1:CA:526:C:N4	2.67	0.43
1:AA:1389:C:H2'	1:AA:1390:U:O4'	2.19	0.43
25:BA:1289:C:O2'	25:BA:1290:C:H5'	2.19	0.43
53:D6:16:CYS:HB2	53:D6:48:VAL:HG23	2.00	0.43
2:CY:71:C:H2'	2:CY:72:A:O4'	2.18	0.43
26:BB:3:C:H2'	26:BB:4:C:C6	2.54	0.43
30:DG:150:ASP:OD1	30:DG:150:ASP:N	2.51	0.43
36:BP:119:GLU:HA	36:BP:119:GLU:OE1	2.19	0.43
37:DQ:51:ARG:HH11	37:DQ:51:ARG:HG3	1.83	0.43
27:BD:27:THR:CG2	27:BD:83:GLU:HG2	2.48	0.43
37:BQ:19:GLY:O	37:BQ:98:LYS:HE2	2.19	0.43
41:DU:83:LEU:CB	41:DU:88:ILE:HG13	2.46	0.43
25:BA:194:G:H2'	25:BA:195:A:O4'	2.19	0.43
15:CM:66:LEU:HD23	15:CM:66:LEU:N	2.33	0.43
53:B6:26:ASN:O	53:B6:27:LYS:HG2	2.19	0.43
27:DD:102:LYS:O	27:DD:103:ARG:HG2	2.19	0.43
25:BA:126:A:O5'	54:B7:19:ARG:HG2	2.19	0.43
24:CX:92:LEU:HD22	24:CX:97:ARG:CZ	2.49	0.43
53:D6:11:LEU:HA	53:D6:11:LEU:HD22	1.78	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AN:41:ARG:O	16:AN:44:LEU:HG	2.18	0.43
25:DA:1095:A:H2'	25:DA:1096:A:H8	1.83	0.43
15:CM:99:ARG:HB2	15:CM:101:GLN:NE2	2.33	0.43
24:CX:128:ASN:HD22	24:CX:185:LYS:HG2	1.82	0.43
1:AA:1148:U:C5	1:AA:1149:C:C4	3.06	0.43
25:BA:2167:U:H1'	25:BA:2171:A:N6	2.33	0.43
30:DG:134:GLY:C	30:DG:135:LEU:HD12	2.39	0.43
38:DR:10:LEU:HB2	38:DR:17:ARG:CD	2.40	0.43
36:BP:58:THR:O	36:BP:61:ARG:NE	2.51	0.43
1:CA:1075:C:H5''	4:CB:179:LYS:HZ1	1.84	0.43
24:AX:358:ILE:HA	24:AX:362:LEU:HB2	2.01	0.43
25:BA:2562:U:C2'	25:BA:2563:U:H5'	2.49	0.43
5:CC:73:PRO:O	5:CC:77:ILE:HG13	2.19	0.43
24:CX:358:ILE:HA	24:CX:362:LEU:HB2	2.01	0.43
31:BH:87:LEU:HA	31:BH:87:LEU:HD23	1.85	0.43
54:D7:45:ALA:O	54:D7:46:VAL:HG23	2.19	0.43
24:CX:146:ALA:HB3	24:CX:177:ILE:HG23	2.01	0.43
25:BA:27:G:H22	25:BA:512:G:HO2'	1.66	0.43
25:DA:34:C:H2'	25:DA:34:C:H6	1.71	0.43
25:DA:1512:G:C6	25:DA:1513:C:C4	3.06	0.43
6:CD:30:LYS:HB2	6:CD:35:ARG:HD2	2.01	0.43
37:BQ:55:VAL:HG23	37:BQ:56:ARG:N	2.34	0.43
25:DA:2852:G:H2'	25:DA:2853:C:H6	1.82	0.43
6:CD:61:LYS:HB2	6:CD:203:VAL:HG22	2.00	0.43
36:DP:86:LYS:HG3	36:DP:87:ASP:N	2.32	0.43
25:BA:1509:A:O3'	25:BA:1510:A:C8	2.71	0.43
25:BA:2131:G:C8	25:BA:2131:G:OP2	2.72	0.43
33:BK:57:ILE:HA	33:BK:66:THR:O	2.18	0.43
1:CA:939:G:H1	1:CA:1344:C:H42	1.67	0.43
25:DA:2131:G:C8	25:DA:2131:G:OP2	2.72	0.43
25:DA:1854:A:H8	25:DA:1854:A:O5'	2.01	0.43
24:AX:365:LYS:HA	24:AX:365:LYS:HD3	1.88	0.43
24:CX:373:GLU:O	24:CX:378:GLU:HB3	2.19	0.43
9:AG:92:SER:O	9:AG:96:GLN:HG3	2.19	0.43
25:BA:2083:G:C6	25:BA:2084:C:C4	3.07	0.43
43:DW:52:GLU:O	43:DW:54:ALA:N	2.52	0.43
25:BA:414:C:H2'	25:BA:415:A:H8	1.84	0.43
1:AA:1209:C:O2'	1:AA:1210:C:H5'	2.19	0.43
15:AM:4:ILE:C	15:AM:6:GLY:N	2.71	0.43
49:D2:33:MET:HA	49:D2:36:ARG:HG2	2.00	0.43
25:BA:1729:A:C2	25:BA:1731:G:C8	3.07	0.43
25:BA:1731:G:O2'	25:BA:1732:A:H8	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CG:15:ASP:OD2	9:CG:16:LEU:N	2.51	0.43
1:AA:1057:G:C5	1:AA:1204:A:C2	3.06	0.43
5:AC:189:ALA:HB3	5:AC:196:LEU:HB3	2.01	0.43
1:AA:445:G:C6	1:AA:490:G:C6	3.07	0.43
25:DA:1352:U:O2	25:DA:1570:A:H2	2.01	0.43
12:AJ:55:LYS:H	12:AJ:55:LYS:HG3	1.68	0.43
25:DA:642:G:C3'	25:DA:642:G:C8	3.00	0.43
1:CA:1047:G:C2'	1:CA:1048:G:H5'	2.49	0.43
1:AA:368:U:OP1	32:DI:91:SER:HB3	2.19	0.43
25:BA:1632:A:N7	25:BA:1633:G:O6	2.51	0.43
45:BY:88:LYS:HZ1	45:BY:93:GLY:HA3	1.84	0.43
28:BE:1:MET:O	28:BE:84:PHE:CG	2.71	0.43
24:CX:170:THR:HG21	24:CX:179:TYR:HB3	2.01	0.43
24:AX:239:GLU:O	24:AX:268:PRO:HD3	2.19	0.43
7:CE:10:MET:HB3	7:CE:32:VAL:HG22	2.00	0.43
1:CA:540:G:C6	1:CA:541:G:C5	3.07	0.43
25:DA:161:U:H1'	25:DA:171:G:C2	2.53	0.43
34:BN:54:ALA:HA	34:BN:57:LEU:HD23	2.00	0.43
36:BP:55:ARG:HG2	36:BP:56:SER:H	1.84	0.43
1:CA:299:G:H2'	1:CA:300:A:C8	2.53	0.43
45:DY:87:LYS:HA	45:DY:92:ASN:HA	2.00	0.43
25:BA:263:C:H2'	25:BA:264:C:O4'	2.19	0.43
25:BA:570:G:H2'	25:BA:2030:A:C5	2.53	0.43
6:AD:150:GLU:C	6:AD:152:SER:N	2.72	0.43
25:DA:398:G:O2'	25:DA:399:G:H5'	2.19	0.43
13:CK:108:ILE:O	20:CR:87:ARG:HA	2.18	0.43
25:BA:2528:U:O2'	25:BA:2529:G:H3'	2.18	0.43
37:BQ:58:PHE:CD1	37:BQ:58:PHE:O	2.72	0.43
2:AY:12:G:H1'	25:BA:1923:U:O2'	2.18	0.43
25:BA:2309:A:H2'	25:BA:2310:A:C8	2.53	0.43
31:BH:111:HIS:HA	31:BH:112:PRO:HD2	1.89	0.43
1:AA:540:G:C6	1:AA:541:G:C5	3.07	0.43
1:CA:423:G:H2'	1:CA:424:G:O4'	2.18	0.43
44:BX:64:LYS:HE2	44:BX:73:ARG:NE	2.34	0.43
25:BA:821:A:O2'	25:BA:945:A:H5'	2.18	0.43
28:DE:64:LYS:HZ2	28:DE:74:PRO:HG3	1.83	0.43
32:BI:78:THR:O	32:BI:80:PRO:HD3	2.18	0.43
1:AA:598:U:H2'	1:AA:599:C:C6	2.53	0.43
39:BS:81:GLY:C	39:BS:82:ILE:HG12	2.39	0.43
21:AS:32:LYS:H	21:AS:32:LYS:HG2	1.59	0.43
25:DA:141(B):C:O5'	25:DA:141(B):C:H6	2.01	0.43
21:CS:32:LYS:HG2	21:CS:32:LYS:H	1.61	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:791:C:H4'	25:BA:792:G:OP1	2.18	0.43
1:AA:401:C:C6	1:AA:401:C:H3'	2.53	0.43
19:CQ:83:ASP:N	19:CQ:83:ASP:OD1	2.51	0.43
25:DA:1858:G:H1'	25:DA:1884:A:N6	2.33	0.43
5:AC:140:ARG:O	5:AC:144:SER:HB2	2.19	0.43
9:AG:105:VAL:O	9:AG:106:GLN:C	2.57	0.43
46:BZ:182:LYS:O	46:BZ:186:GLU:HG3	2.18	0.43
27:BD:25:THR:CG2	27:BD:25:THR:O	2.60	0.43
5:AC:12:LEU:HA	5:AC:12:LEU:HD22	1.88	0.43
29:DF:67:GLN:O	29:DF:67:GLN:CG	2.41	0.43
1:AA:136(A):C:C2'	1:AA:136(B):C:H5''	2.49	0.43
25:BA:2307:G:C6	25:BA:2308:G:C6	3.06	0.43
41:DU:62:ILE:CD1	41:DU:93:LYS:HG2	2.48	0.43
39:BS:85:VAL:O	39:BS:86:ALA:C	2.57	0.43
44:BX:11:PRO:HG3	49:B2:37:PHE:CE2	2.53	0.43
25:DA:1046:A:H8	25:DA:1046:A:OP1	2.02	0.43
1:AA:953:G:C6	1:AA:954:G:C5	3.06	0.43
31:BH:18:GLU:HB2	31:BH:25:LYS:HB2	1.99	0.43
45:BY:13:VAL:CG1	45:BY:72:VAL:HB	2.48	0.43
1:CA:1371:G:C6	1:CA:1372:U:C4	3.07	0.43
25:BA:6:A:O2'	25:BA:7:G:H5'	2.19	0.43
32:DI:1:MET:HB2	32:DI:21:VAL:O	2.19	0.43
1:CA:1141:C:C2	1:CA:1142:G:C8	3.06	0.43
15:CM:98:VAL:HB	15:CM:99:ARG:NH1	2.34	0.43
25:BA:2113:U:H2'	25:BA:2114:A:O4'	2.18	0.43
10:AH:26:VAL:HG23	10:AH:27:PRO:HD2	2.00	0.43
25:BA:2517:C:H42	25:BA:2567:G:H1	1.67	0.43
25:DA:2590:A:H2'	25:DA:2591:C:H6	1.83	0.43
1:AA:1157:A:C6	1:AA:1180:A:C5	3.07	0.43
9:AG:155:ARG:CZ	9:AG:155:ARG:HB2	2.48	0.43
7:AE:91:LEU:HD23	7:AE:120:THR:CG2	2.49	0.43
25:DA:2422:A:C4	25:DA:2424:C:C5	3.06	0.43
1:AA:1104:G:H5'	4:AB:111:ARG:CD	2.46	0.43
24:AX:225:PRO:HB2	24:AX:226:GLU:H	1.57	0.43
25:BA:2591:C:H2'	25:BA:2592:G:C8	2.54	0.43
25:BA:270(N):U:O4'	25:BA:270(O):G:C6	2.72	0.43
37:BQ:65:PHE:HB2	37:BQ:105:GLU:CB	2.44	0.43
45:DY:75:ILE:HD13	45:DY:76:CYS:N	2.33	0.43
1:AA:1220:G:H21	21:AS:54:GLY:HA2	1.84	0.43
6:AD:29:PRO:HD2	6:AD:30:LYS:HZ1	1.84	0.43
24:CX:230:GLU:HB3	24:CX:304:ARG:HH11	1.82	0.43
18:CP:21:VAL:HG23	18:CP:33:ILE:HB	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2574:G:N3	28:BE:143:ASN:ND2	2.67	0.43
8:AF:14:LEU:O	8:AF:14:LEU:HD23	2.18	0.43
25:DA:860:U:C5	25:DA:917:A:N7	2.77	0.43
25:BA:545:G:HO2'	25:BA:547:A:H62	1.63	0.43
25:DA:2123:G:H2'	25:DA:2124:G:H8	1.83	0.43
25:BA:1275:A:C5	38:BR:16:HIS:ND1	2.87	0.43
20:CR:75:ILE:C	20:CR:77:GLY:H	2.22	0.43
25:BA:1525:G:H2'	25:BA:1526:G:C8	2.50	0.43
26:DB:30:C:H4'	26:DB:58:A:H2	1.84	0.43
9:CG:113:GLU:CG	9:CG:119:ARG:HG2	2.49	0.43
1:CA:1170:A:O5'	1:CA:1170:A:H8	2.01	0.43
1:AA:942:G:N2	11:AI:124:GLN:HE22	2.13	0.43
1:CA:1351:U:H6	1:CA:1351:U:O5'	2.01	0.43
6:AD:194:LEU:N	6:AD:194:LEU:HD22	2.33	0.43
15:AM:98:VAL:HB	15:AM:99:ARG:NH1	2.33	0.43
1:AA:1004:A:N6	1:AA:1025:U:H4'	2.33	0.43
1:CA:1039:C:O5'	1:CA:1039:C:H6	2.02	0.43
25:DA:2077:A:H2'	25:DA:2078:C:H6	1.83	0.43
1:AA:691:G:C6	13:AK:52:GLY:HA2	2.54	0.43
1:AA:444:C:O2'	1:AA:445:G:H5'	2.19	0.43
43:BW:58:ALA:HB1	43:BW:64:MET:HG3	2.00	0.43
43:DW:58:ALA:O	43:DW:64:MET:HG3	2.19	0.43
1:AA:293:G:C6	1:AA:294:U:C4	3.07	0.43
25:DA:1465:G:N3	25:DA:1466:G:C8	2.87	0.43
13:AK:12:ARG:O	13:AK:14:VAL:HG22	2.19	0.43
10:CH:44:PHE:O	10:CH:80:ILE:HD11	2.19	0.43
28:DE:77:ILE:HG21	28:DE:195:LEU:CD1	2.48	0.43
25:BA:430:G:H5''	25:BA:431:U:OP2	2.18	0.43
55:B8:16:ILE:O	55:B8:16:ILE:HG23	2.19	0.43
25:DA:1783:A:H5'	25:DA:2608:G:H4'	2.01	0.43
36:DP:99:LEU:N	36:DP:99:LEU:CD1	2.82	0.43
1:CA:919:A:H8	1:CA:919:A:O5'	2.02	0.43
39:BS:38:GLN:HB3	39:BS:47:THR:HG23	2.00	0.43
25:BA:663:G:C5	25:BA:664:C:C5	3.07	0.43
30:DG:146:TYR:C	30:DG:148:MET:H	2.22	0.43
1:AA:872:A:C2	1:AA:874:G:C6	3.07	0.43
25:DA:407:G:H2'	25:DA:408:G:H8	1.83	0.43
20:CR:59:SER:HB3	20:CR:62:GLU:CG	2.49	0.43
1:CA:946:A:C2	1:CA:947:G:C5	3.06	0.43
25:DA:20:C:H2'	25:DA:21:A:H8	1.84	0.43
1:CA:872:A:C2	1:CA:874:G:C6	3.07	0.43
25:DA:60:G:C5	25:DA:63:U:C5	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CC:109:PRO:HA	5:CC:115:LEU:HD12	1.99	0.43
39:BS:82:ILE:HG22	39:BS:83:LYS:N	2.34	0.43
25:DA:962:G:H2'	25:DA:963:U:O4'	2.18	0.43
33:BK:120:LEU:HA	33:BK:123:ALA:HB3	2.01	0.43
25:BA:20:C:H2'	25:BA:21:A:C8	2.53	0.43
1:CA:781:A:C5	1:CA:802:A:C2	3.07	0.43
49:B2:25:VAL:O	49:B2:29:LYS:HG2	2.19	0.43
25:DA:1551:C:C5	25:DA:1552:G:N7	2.87	0.43
25:BA:2017:U:O2	52:B5:10:LYS:HB2	2.19	0.43
40:BT:87:ASP:OD1	40:BT:87:ASP:N	2.52	0.43
24:CX:375:VAL:O	24:CX:375:VAL:HG22	2.19	0.43
1:CA:455:C:H6	1:CA:455:C:O5'	2.02	0.43
37:DQ:58:PHE:HD1	37:DQ:58:PHE:O	2.01	0.43
38:DR:44:LEU:HD13	38:DR:44:LEU:C	2.38	0.43
1:AA:1336:C:O4'	1:AA:1337:G:C2	2.72	0.43
25:DA:199:A:N3	25:DA:2433:A:C2	2.87	0.43
5:CC:180:ALA:O	5:CC:181:ASN:O	2.36	0.43
41:DU:62:ILE:HD12	41:DU:76:TYR:CE1	2.54	0.43
54:D7:19:ARG:CG	54:D7:19:ARG:NH1	2.68	0.43
1:AA:1226:C:N4	15:AM:104:ARG:HD2	2.34	0.43
45:BY:6:HIS:HB2	45:BY:7:VAL:H	1.59	0.43
1:CA:974:A:C8	1:CA:974:A:OP1	2.57	0.43
25:BA:1496:A:C8	25:BA:1577:C:O2'	2.54	0.43
32:DI:12:LEU:HD11	32:DI:21:VAL:HG11	2.00	0.43
32:DI:1:MET:HG3	32:DI:23:PRO:CG	2.49	0.43
4:AB:162:ILE:O	4:AB:162:ILE:HD12	2.19	0.43
24:CX:46:LEU:HD23	24:CX:46:LEU:O	2.18	0.43
33:DK:115:LEU:HD23	33:DK:116:ASN:N	2.33	0.43
20:CR:67:ALA:HA	20:CR:70:ILE:HG12	2.01	0.43
33:DK:57:ILE:HG23	33:DK:65:PHE:HB2	2.00	0.43
4:AB:51:LEU:HD22	4:AB:55:PHE:CE2	2.54	0.43
30:BG:86:MET:N	30:BG:87:PRO:CD	2.82	0.43
25:BA:2219:G:H2'	25:BA:2224:G:H5'	2.01	0.43
6:CD:67:ILE:HG22	6:CD:114:ARG:NH1	2.33	0.43
37:BQ:76:LYS:H	37:BQ:88:GLY:HA2	1.82	0.43
25:DA:2422:A:C6	25:DA:2424:C:N4	2.87	0.43
1:AA:522:C:O2'	1:AA:523:A:H5'	2.19	0.43
14:AL:22:LYS:O	14:AL:23:VAL:HG23	2.18	0.43
28:BE:87:GLU:CD	28:BE:87:GLU:C	2.77	0.43
11:CI:113:LYS:H	11:CI:119:ALA:HA	1.84	0.43
25:DA:1407:C:H2'	25:DA:1408:C:C6	2.53	0.43
31:BH:88:LEU:HD23	31:BH:164:TYR:O	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2886:G:C4	25:BA:2887:U:C5	3.07	0.43
41:DU:98:LEU:O	41:DU:101:ARG:O	2.37	0.43
1:AA:1320:C:N4	21:AS:36:ARG:HG3	2.34	0.43
15:CM:15:VAL:HG13	15:CM:43:THR:O	2.19	0.43
1:CA:1446:A:N1	40:DT:118:ARG:NE	2.66	0.43
18:CP:21:VAL:HG11	18:CP:59:TRP:CG	2.54	0.43
30:DG:144:ILE:HA	30:DG:144:ILE:HD13	1.77	0.43
27:BD:218:ARG:HB3	27:BD:219:PRO:HD2	2.00	0.43
18:AP:58:TYR:O	18:AP:61:SER:HB3	2.18	0.43
27:BD:125:ILE:HD11	27:BD:131:LEU:HD11	2.00	0.43
41:DU:26:GLY:C	41:DU:28:ARG:N	2.72	0.43
45:BY:38:ILE:HG23	45:BY:66:PRO:HA	2.00	0.43
21:AS:11:VAL:HA	21:AS:38:SER:HB2	2.01	0.43
25:DA:582:G:C6	25:DA:583:G:C6	3.07	0.43
11:AI:53:VAL:O	11:AI:54:ASP:HB2	2.19	0.43
6:CD:173:TRP:HB2	6:CD:187:ARG:O	2.19	0.43
18:CP:57:ARG:HG2	18:CP:79:VAL:HG13	2.01	0.43
25:DA:55:G:O2'	25:DA:56:A:H5'	2.19	0.43
10:AH:75:ARG:HB3	10:AH:75:ARG:NH1	2.34	0.43
25:BA:352:G:O2'	25:BA:353:G:P	2.77	0.43
39:BS:61:ASN:O	39:BS:63:THR:N	2.52	0.43
31:BH:102:ALA:CB	31:BH:117:PRO:HG3	2.48	0.43
25:DA:184:C:H2'	25:DA:185:U:H6	1.78	0.43
18:AP:57:ARG:HG2	18:AP:79:VAL:HG13	2.00	0.43
52:D5:47:PRO:O	52:D5:48:GLU:CB	2.67	0.43
13:AK:91:ARG:NH1	20:AR:88:LYS:HD2	2.32	0.43
1:CA:1004:A:H2'	1:CA:1036:G:H22	1.84	0.43
26:DB:41:U:N3	30:DG:70:VAL:HG23	2.34	0.43
27:BD:89:SER:HB2	27:BD:159:ALA:CB	2.48	0.43
25:DA:1952:A:C6	35:DO:22:ILE:CD1	3.01	0.43
31:DH:94:TYR:N	31:DH:94:TYR:CD1	2.78	0.43
25:BA:2016:U:H1'	52:B5:6:VAL:HG13	2.01	0.43
37:BQ:60:ARG:N	46:BZ:179:ASP:HB2	2.34	0.43
32:DI:31:LEU:HB3	32:DI:32:PRO:HD3	2.01	0.43
42:BV:66:ARG:HB3	42:BV:88:ARG:NH1	2.34	0.43
30:BG:33:ARG:HB2	30:BG:162:THR:HG23	2.00	0.43
25:BA:2758:A:C4	31:BH:67:LEU:HD21	2.53	0.43
25:BA:2241:A:O2'	25:BA:2242:G:H5'	2.18	0.43
25:DA:855:G:H2'	25:DA:856:C:C6	2.53	0.43
27:BD:183:ARG:HG2	27:BD:184:LYS:O	2.18	0.43
19:CQ:69:LYS:C	19:CQ:70:ARG:HD2	2.39	0.43
1:AA:1482:G:O5'	1:AA:1482:G:H8	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1395:A:O2'	25:BA:1396:U:H5'	2.18	0.43
24:AX:203:VAL:O	24:AX:204:ARG:HB3	2.19	0.43
25:BA:1819:A:O4'	25:BA:1821:A:C5	2.71	0.43
28:DE:73:GLU:HA	28:DE:74:PRO:HD2	1.89	0.43
25:DA:1042:G:C6	25:DA:1043:C:C4	3.07	0.43
25:DA:1692:U:H2'	25:DA:1694:C:C5	2.54	0.43
40:DT:130:ALA:O	40:DT:133:GLU:HB2	2.19	0.43
6:AD:76:ARG:O	6:AD:79:PHE:HB3	2.19	0.43
25:DA:347:A:O5'	25:DA:347:A:H8	2.01	0.43
25:DA:15:G:H1	25:DA:525:U:H3	1.67	0.43
1:CA:270:A:H2'	1:CA:271:C:C6	2.54	0.43
25:DA:1306:C:C2	25:DA:1623:G:C2	3.07	0.43
13:AK:65:ALA:HB3	13:AK:97:ALA:CB	2.49	0.43
4:CB:74:LYS:HB3	4:CB:74:LYS:HZ2	1.83	0.43
4:CB:74:LYS:HB3	4:CB:74:LYS:NZ	2.34	0.43
2:AY:54:U:H6	2:AY:54:U:O5'	2.02	0.43
48:D1:78:LYS:HD3	48:D1:78:LYS:HA	1.73	0.43
34:DN:79:ASN:HA	34:DN:79:ASN:HD22	1.54	0.43
11:AI:91:ASP:N	11:AI:91:ASP:OD1	2.51	0.43
38:BR:98:LEU:HA	38:BR:98:LEU:HD23	1.73	0.43
17:AO:61:GLY:O	17:AO:65:ARG:HD3	2.19	0.43
31:DH:144:VAL:O	31:DH:148:ILE:HG12	2.18	0.43
25:DA:2338:G:C2	25:DA:2339:G:N7	2.87	0.43
25:BA:2738:A:N1	25:BA:2739:U:C2	2.87	0.43
25:BA:1432:C:H2'	25:BA:1433:U:O4'	2.19	0.43
48:B1:9:GLY:O	48:B1:13:ILE:CG2	2.67	0.42
48:D1:13:ILE:HD12	48:D1:13:ILE:C	2.39	0.42
36:DP:47:ASP:HB3	36:DP:48:PRO:HA	2.00	0.42
41:BU:62:ILE:CD1	41:BU:93:LYS:HG2	2.49	0.42
49:B2:9:GLN:HA	49:B2:12:GLU:CB	2.43	0.42
41:BU:90:VAL:HG13	41:BU:91:ASP:N	2.33	0.42
37:BQ:16:ARG:O	37:BQ:17:LEU:HD23	2.19	0.42
25:DA:632:A:N3	25:DA:2403:C:H1'	2.34	0.42
25:BA:628:G:H4'	25:BA:651:G:O2'	2.19	0.42
37:DQ:133:ARG:O	37:DQ:134:ARG:HB2	2.19	0.42
29:BF:24:LEU:HD21	29:BF:114:VAL:HG12	2.00	0.42
27:DD:142:VAL:CG2	27:DD:143:HIS:N	2.81	0.42
45:DY:6:HIS:HB2	45:DY:7:VAL:H	1.62	0.42
1:CA:1505:G:H5''	1:CA:1505:G:C8	2.54	0.42
40:DT:64:ARG:HH11	40:DT:102:ILE:HD11	1.84	0.42
25:BA:1046:A:OP1	25:BA:1046:A:H8	2.02	0.42
25:DA:203:C:H6	25:DA:203:C:O5'	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BY:4:LYS:N	45:BY:4:LYS:CD	2.81	0.42
25:BA:2117:A:O2'	25:BA:2118:U:C5	2.71	0.42
18:AP:40:ASP:HB3	18:AP:48:TRP:HA	2.01	0.42
23:AU:6:ARG:O	23:AU:7:ARG:HB2	2.19	0.42
15:CM:3:ARG:HG2	15:CM:9:ILE:HD13	2.01	0.42
14:AL:31:PHE:HB3	14:AL:83:LEU:CD1	2.37	0.42
25:DA:2114:A:H2'	25:DA:2115:G:C8	2.54	0.42
49:D2:2:LYS:O	49:D2:5:GLU:OE1	2.37	0.42
43:BW:83:LYS:O	43:BW:84:ARG:HD3	2.19	0.42
38:BR:7:GLY:O	38:BR:8:ARG:CB	2.66	0.42
21:AS:47:HIS:O	21:AS:62:ILE:HG22	2.19	0.42
44:BX:35:THR:H	44:BX:38:GLU:CG	2.32	0.42
24:CX:224:ILE:CD1	24:CX:308:LEU:HD21	2.49	0.42
25:BA:141(A):A:H1'	25:BA:1408:C:O4'	2.19	0.42
1:CA:600:C:H2'	1:CA:601:C:C6	2.54	0.42
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.54	0.42
45:DY:77:PRO:O	45:DY:78:ALA:HB2	2.19	0.42
8:CF:14:LEU:HD21	8:CF:19:LEU:HD12	2.00	0.42
25:DA:1981:A:C8	25:DA:1981:A:H3'	2.54	0.42
33:BK:57:ILE:HG23	33:BK:65:PHE:HB2	2.01	0.42
25:BA:475:U:H2'	25:BA:476:G:O4'	2.19	0.42
50:D3:54:VAL:O	50:D3:55:ARG:HD3	2.19	0.42
2:AY:19:G:N2	2:AY:57:A:H1'	2.32	0.42
2:AY:19:G:H4'	2:AY:20:U:OP2	2.20	0.42
21:CS:11:VAL:CG2	21:CS:16:LEU:HD11	2.49	0.42
6:CD:173:TRP:CD2	6:CD:189:PRO:HB3	2.54	0.42
25:BA:2018:G:OP1	52:B5:9:LYS:HE2	2.19	0.42
17:AO:5:LYS:HD3	17:AO:6:GLU:H	1.83	0.42
25:DA:1116:C:C2	25:DA:1117:G:C8	3.07	0.42
39:DS:61:ASN:H	39:DS:65:VAL:CG2	2.31	0.42
10:AH:110:ALA:HB3	10:AH:121:ASP:HB3	2.00	0.42
6:AD:173:TRP:CD2	6:AD:189:PRO:HB3	2.54	0.42
24:CX:38:ARG:HH12	24:CX:42:LEU:HD23	1.81	0.42
53:B6:36:LEU:HD13	53:B6:50:ARG:CZ	2.48	0.42
24:AX:51:LEU:O	24:AX:51:LEU:HD22	2.19	0.42
1:AA:663:A:H5''	20:AR:61:LYS:NZ	2.34	0.42
1:AA:169:C:H6	1:AA:169:C:H5'	1.84	0.42
24:CX:51:LEU:HD22	24:CX:51:LEU:O	2.18	0.42
40:BT:74:ARG:C	40:BT:75:ILE:HD12	2.39	0.42
25:DA:111:A:H2'	25:DA:112:U:O4'	2.20	0.42
35:BO:8:LEU:N	35:BO:8:LEU:CD2	2.82	0.42
1:CA:488:C:O5'	1:CA:488:C:H6	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:489:C:C2	1:CA:490:G:C8	3.07	0.42
25:BA:1602:U:H3'	25:BA:1603:A:C5'	2.49	0.42
33:BK:3:LYS:HE3	33:BK:61:ALA:HB2	2.01	0.42
32:BI:29:TYR:C	32:BI:32:PRO:HD2	2.39	0.42
32:BI:6:LEU:O	32:BI:7:GLU:HB2	2.19	0.42
33:DK:3:LYS:HE3	33:DK:61:ALA:HB2	2.02	0.42
25:DA:1312:U:C2	25:DA:1603:A:C2	3.07	0.42
1:AA:1088:G:C6	1:AA:1089:G:N7	2.87	0.42
7:CE:80:ILE:HG13	7:CE:80:ILE:O	2.18	0.42
10:CH:80:ILE:H	10:CH:80:ILE:HD12	1.82	0.42
44:BX:29:TRP:CZ3	44:BX:78:LYS:HB2	2.54	0.42
25:BA:735:A:H3'	25:BA:736:C:H6	1.84	0.42
25:BA:1198:U:H6	25:BA:1198:U:O5'	2.01	0.42
25:DA:1505:C:H2'	25:DA:1506:C:C6	2.53	0.42
1:AA:1133:G:H2'	1:AA:1134:G:C8	2.52	0.42
38:BR:18:LEU:HD11	38:BR:22:ARG:CZ	2.49	0.42
25:DA:1682:G:C5	25:DA:1683:C:C4	3.07	0.42
13:AK:34:ASP:HB2	13:AK:35:PRO:CD	2.49	0.42
25:BA:2656:U:C5	25:BA:2664:G:N2	2.87	0.42
25:DA:64:A:O2'	44:DX:71:GLY:HA3	2.18	0.42
25:BA:2832:U:C2	25:BA:2834:G:C2	3.06	0.42
18:AP:68:ASP:O	18:AP:71:ARG:HB2	2.18	0.42
25:DA:1131:G:H4'	25:DA:1132:A:OP1	2.18	0.42
48:B1:25:LYS:CB	48:B1:34:THR:O	2.67	0.42
40:DT:32:TYR:O	40:DT:34:VAL:HG23	2.19	0.42
25:BA:342:G:N3	25:BA:343:C:C6	2.86	0.42
34:DN:139:LEU:O	34:DN:142:ARG:HB2	2.19	0.42
24:AX:53:ASN:HA	24:AX:53:ASN:HD22	1.56	0.42
25:BA:2837:G:C5	25:BA:2838:G:N7	2.87	0.42
25:BA:993:G:H1'	42:BV:89:GLN:OE1	2.19	0.42
25:DA:785:G:C6	25:DA:786:C:C4	3.06	0.42
25:BA:1306:C:C2	25:BA:1623:G:C2	3.07	0.42
1:CA:1258:G:H2'	1:CA:1259:C:H6	1.84	0.42
25:DA:1514:U:H2'	25:DA:1515:C:C6	2.54	0.42
29:BF:80:ALA:HA	29:BF:81:PRO:HD2	1.85	0.42
30:DG:35:GLU:O	30:DG:95:ARG:HG2	2.18	0.42
43:DW:78:GLU:OE2	43:DW:99:ARG:HD3	2.19	0.42
1:AA:675:A:H2'	1:AA:676:A:C8	2.54	0.42
21:CS:12:ASP:OD1	21:CS:37:ARG:HD2	2.19	0.42
25:BA:937:U:H2'	25:BA:938:G:O4'	2.19	0.42
19:CQ:76:LEU:HG	19:CQ:77:VAL:N	2.34	0.42
22:AT:81:LYS:O	22:AT:85:MET:HG2	2.18	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1922:G:H2'	25:DA:1923:U:O4'	2.18	0.42
41:BU:104:GLN:OE1	41:BU:105:VAL:N	2.40	0.42
25:BA:2183:C:H6	25:BA:2183:C:O5'	2.02	0.42
25:DA:2891:G:O5'	25:DA:2891:G:H8	2.02	0.42
1:CA:1449:C:H6	1:CA:1449:C:O5'	2.02	0.42
46:BZ:131:ARG:H	46:BZ:131:ARG:HD3	1.83	0.42
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.54	0.42
25:DA:733:G:C8	25:DA:761:A:N6	2.87	0.42
25:BA:2367:G:O2'	25:BA:2368:C:H5'	2.19	0.42
48:D1:44:PRO:O	48:D1:44:PRO:HG2	2.19	0.42
1:CA:86:U:H6	1:CA:86:U:O5'	2.02	0.42
24:AX:188:ASN:O	24:AX:192:LEU:HD23	2.19	0.42
48:D1:27:GLU:OE1	48:D1:33:LYS:HE3	2.19	0.42
15:CM:66:LEU:HA	15:CM:70:LEU:HD12	2.01	0.42
1:AA:922:G:N3	1:AA:1398:A:H2	2.17	0.42
26:BB:31:C:O2	26:BB:53:A:N6	2.51	0.42
26:BB:32:C:C4	26:BB:33:G:N7	2.87	0.42
36:BP:64:LYS:O	36:BP:66:GLY:N	2.41	0.42
30:BG:133:LEU:CD2	30:BG:157:ILE:HG13	2.49	0.42
40:DT:49:VAL:O	40:DT:49:VAL:HG13	2.19	0.42
41:BU:40:PHE:CD2	42:BV:75:PHE:CD2	3.08	0.42
41:BU:40:PHE:HE2	42:BV:82:ARG:HG2	1.83	0.42
1:CA:953:G:C6	1:CA:954:G:C5	3.07	0.42
12:AJ:30:SER:OG	12:AJ:81:THR:HG22	2.19	0.42
19:AQ:18:THR:HG22	19:AQ:19:VAL:N	2.34	0.42
25:DA:289:A:C4	25:DA:290:G:C8	3.07	0.42
11:AI:74:ILE:N	11:AI:74:ILE:HD12	2.33	0.42
1:AA:327:A:HO2'	1:AA:329:A:H8	1.67	0.42
4:CB:162:ILE:HD11	4:CB:184:VAL:HG22	2.01	0.42
37:DQ:130:LYS:HD3	37:DQ:131:ILE:N	2.34	0.42
25:BA:2212:A:N3	25:BA:2215:G:C2	2.87	0.42
44:BX:36:LYS:HZ1	44:BX:55:ASN:HA	1.84	0.42
14:AL:82:VAL:CG2	14:AL:83:LEU:N	2.82	0.42
7:CE:110:LEU:CD1	7:CE:118:ILE:HD13	2.47	0.42
49:D2:2:LYS:HA	49:D2:5:GLU:CD	2.39	0.42
1:CA:186(A):C:O3'	22:CT:82:SER:HB2	2.19	0.42
24:AX:194:SER:CB	24:AX:195:PRO:HD3	2.49	0.42
25:BA:2590:A:C2	25:BA:2605:U:C2	3.07	0.42
5:CC:105:GLU:HG2	5:CC:106:VAL:N	2.24	0.42
53:B6:34:LEU:HD23	53:B6:37:ARG:HH12	1.84	0.42
42:DV:80:GLN:NE2	42:DV:80:GLN:O	2.51	0.42
30:BG:111:LEU:HD13	30:BG:120:LEU:HD21	2.00	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:6:LEU:HD12	36:DP:8:PRO:HD2	2.01	0.42
2:CZ:19:G:H4'	2:CZ:20:U:OP2	2.19	0.42
45:DY:81:LYS:HE2	45:DY:97:ARG:HH11	1.83	0.42
25:BA:1324:G:H1'	25:BA:1616:A:N6	2.34	0.42
25:BA:1311:G:C2	44:BX:60:ARG:NH1	2.79	0.42
1:CA:17:U:H1'	1:CA:1080:A:N3	2.34	0.42
22:AT:56:MET:HG2	22:AT:84:LEU:CD1	2.49	0.42
25:BA:2767:C:H2'	25:BA:2768:C:C6	2.54	0.42
25:BA:1981:A:C8	25:BA:1981:A:C3'	3.02	0.42
2:AZ:19:G:H4'	2:AZ:20:U:OP2	2.19	0.42
27:DD:106:ILE:O	27:DD:108:PRO:CD	2.63	0.42
39:DS:88:ASP:O	39:DS:90:GLY:N	2.51	0.42
9:CG:85:TYR:CE1	9:CG:154:TYR:CE1	3.07	0.42
13:CK:57:THR:HG23	13:CK:58:PRO:HD2	2.00	0.42
25:DA:920:G:H2'	25:DA:921:G:C8	2.54	0.42
1:AA:667:G:C2	1:AA:740:U:O2	2.73	0.42
1:AA:712:A:H2'	1:AA:713:G:O4'	2.19	0.42
25:BA:2502:G:H5'	25:BA:2503:A:C5'	2.44	0.42
9:AG:85:TYR:CE1	9:AG:154:TYR:CE1	3.07	0.42
1:CA:504:C:O4'	1:CA:510:A:C2	2.72	0.42
1:AA:29:G:N2	1:AA:555:C:C2	2.87	0.42
25:BA:2123:G:H2'	25:BA:2124:G:H8	1.83	0.42
38:DR:60:LEU:HA	38:DR:63:ARG:HB2	2.01	0.42
21:AS:41:VAL:HB	21:AS:44:MET:HB2	2.01	0.42
25:DA:1474:C:H42	25:DA:1519:G:H1	1.66	0.42
1:CA:664:G:H22	1:CA:741:G:H1	1.67	0.42
8:AF:7:ASN:ND2	20:AR:34:TYR:HE1	2.12	0.42
15:CM:45:VAL:O	15:CM:48:LEU:HD22	2.19	0.42
28:DE:120:TRP:CD1	28:DE:155:LYS:HB3	2.54	0.42
25:BA:298:G:O5'	25:BA:298:G:C8	2.69	0.42
25:DA:1732:A:H2'	25:DA:1733:G:H8	1.80	0.42
1:AA:1037:C:H2'	1:AA:1038:C:C6	2.54	0.42
37:BQ:51:ARG:O	37:BQ:54:MET:N	2.52	0.42
26:DB:45:A:H5'	26:DB:46:A:OP2	2.19	0.42
24:CX:40:LYS:HA	24:CX:43:GLU:HG3	2.00	0.42
25:BA:1729:A:C5	25:BA:1731:G:C5	3.07	0.42
25:DA:828:U:H3'	25:DA:828:U:O2	2.19	0.42
1:AA:1316:G:N1	1:AA:1319:A:OP2	2.46	0.42
25:BA:2717:G:C6	25:BA:2718:G:N7	2.87	0.42
16:CN:15:LYS:HB3	16:CN:16:PHE:CD2	2.54	0.42
10:AH:44:PHE:O	10:AH:80:ILE:HD11	2.19	0.42
25:BA:1952:A:C6	35:BO:22:ILE:CD1	3.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:14:TYR:CD1	40:BT:14:TYR:N	2.87	0.42
22:AT:32:ALA:O	22:AT:33:ILE:C	2.58	0.42
1:CA:245:C:C2	1:CA:284:G:C2	3.07	0.42
1:CA:688:G:H2'	1:CA:689:C:H6	1.84	0.42
32:DI:97:ILE:O	32:DI:100:ALA:HB3	2.19	0.42
32:DI:98:ALA:C	32:DI:100:ALA:H	2.23	0.42
25:DA:456:C:C2'	25:DA:456:C:O5'	2.67	0.42
16:CN:43:CYS:HA	16:CN:46:GLU:OE2	2.19	0.42
25:BA:1421:G:O5'	25:BA:1421:G:H8	2.01	0.42
50:B3:17:LYS:HD3	50:B3:18:ASP:N	2.34	0.42
50:B3:17:LYS:NZ	50:B3:21:ALA:HB2	2.34	0.42
1:CA:401:C:C6	1:CA:401:C:C3'	3.02	0.42
1:CA:288:A:H2'	1:CA:289:G:H4'	2.01	0.42
25:DA:2881:C:H2'	25:DA:2882:A:O4'	2.20	0.42
25:BA:2530:A:O2'	25:BA:2532:G:OP2	2.23	0.42
1:CA:35:G:C6	1:CA:36:C:N4	2.87	0.42
32:BI:97:ILE:HG21	32:BI:114:LEU:HD11	2.02	0.42
25:DA:1448:G:N2	25:DA:149(B):A:N6	2.66	0.42
26:DB:3:C:H2'	26:DB:4:C:H6	1.84	0.42
25:DA:337:C:H2'	25:DA:338:G:O4'	2.19	0.42
7:CE:152:ARG:HG2	10:CH:43:GLY:HA3	2.01	0.42
7:CE:89:ILE:HD13	7:CE:135:THR:HG23	2.01	0.42
25:DA:2740:A:N6	25:DA:2764:A:C8	2.87	0.42
25:BA:2266:A:H4'	25:BA:2267:A:C2	2.54	0.42
9:AG:28:ASN:O	9:AG:31:MET:HB3	2.20	0.42
37:BQ:6:ARG:HB2	37:BQ:6:ARG:HE	1.60	0.42
29:DF:69:HIS:CD2	29:DF:69:HIS:N	2.87	0.42
30:BG:35:GLU:O	30:BG:95:ARG:HG2	2.19	0.42
6:CD:98:GLU:OE1	6:CD:107:ARG:NE	2.52	0.42
1:CA:790:A:C6	1:CA:791:G:C6	3.07	0.42
1:CA:82:U:C2'	1:CA:85:U:H5	2.32	0.42
1:AA:79:G:N2	1:AA:80:G:C4	2.87	0.42
49:D2:48:HIS:HE1	49:D2:49:LYS:HZ3	1.67	0.42
41:DU:90:VAL:CG2	41:DU:91:ASP:H	2.05	0.42
25:BA:675:A:N6	25:BA:676:A:N6	2.67	0.42
12:CJ:38:ILE:HD12	12:CJ:71:LEU:CG	2.50	0.42
12:AJ:38:ILE:HD12	12:AJ:71:LEU:CG	2.49	0.42
25:DA:278:A:H3'	25:DA:279:C:C6	2.55	0.42
1:CA:959:A:C2	1:CA:1222:G:O4'	2.72	0.42
1:AA:954:G:H2'	1:AA:955:U:H6	1.83	0.42
12:AJ:30:SER:HA	12:AJ:80:LYS:NZ	2.34	0.42
40:BT:88:ILE:HD12	40:BT:90:GLN:N	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2544:G:H8	25:DA:2544:G:O5'	2.02	0.42
24:AX:264:VAL:HG22	24:AX:288:ALA:HB1	2.01	0.42
1:AA:672:U:H2'	1:AA:673:G:C8	2.54	0.42
25:BA:2114:A:H2'	25:BA:2115:G:C8	2.54	0.42
25:BA:2119:A:N6	25:BA:2170:A:C6	2.87	0.42
4:AB:25:ASN:HA	4:AB:26:PRO:HD2	1.88	0.42
14:AL:84:ILE:HD12	14:AL:84:ILE:HA	1.63	0.42
25:DA:2113:U:H2'	25:DA:2114:A:O4'	2.19	0.42
38:BR:103:ARG:HH12	38:BR:110:PRO:CD	2.25	0.42
25:DA:2722:G:H2'	25:DA:2723:C:C6	2.54	0.42
28:DE:111:ARG:HG2	38:DR:2:ARG:CZ	2.49	0.42
25:BA:680:G:C4	25:BA:798:G:N2	2.88	0.42
24:AX:240:LEU:CD2	24:AX:240:LEU:H	2.26	0.42
27:BD:111:LEU:HD22	27:BD:111:LEU:HA	1.81	0.42
14:CL:37:THR:CG2	14:CL:56:LYS:HB2	2.49	0.42
54:B7:46:VAL:HG12	54:B7:47:ARG:N	2.33	0.42
25:BA:1098:A:C8	25:BA:1099:G:C8	3.08	0.42
29:DF:167:ALA:O	29:DF:170:LEU:HB2	2.19	0.42
25:BA:1535:U:H3'	25:BA:1536:A:C8	2.54	0.42
9:CG:153:HIS:CD2	9:CG:154:TYR:CZ	3.07	0.42
25:DA:1534:G:C2	25:DA:1536:A:OP2	2.73	0.42
29:BF:89:VAL:CG1	29:BF:90:PHE:H	2.28	0.42
27:DD:125:ILE:HD11	27:DD:131:LEU:HD11	2.01	0.42
42:BV:35:LEU:C	42:BV:37:VAL:N	2.70	0.42
45:DY:60:PHE:O	45:DY:61:ILE:C	2.57	0.42
32:DI:4:ILE:CD1	32:DI:16:GLY:HA2	2.49	0.42
20:AR:19:LYS:CA	20:AR:19:LYS:HE3	2.44	0.42
21:AS:10:PHE:O	21:AS:11:VAL:HB	2.19	0.42
25:DA:322:A:O4'	25:DA:340:A:H1'	2.19	0.42
13:CK:54:ARG:HG2	13:CK:54:ARG:H	1.58	0.42
35:BO:113:LYS:O	35:BO:117:LEU:HD12	2.19	0.42
25:DA:1839:G:C8	25:DA:1839:G:C5'	3.00	0.42
25:BA:1264:G:O5'	25:BA:1264:G:C8	2.68	0.42
25:BA:2748:A:C6	25:BA:2749:A:C6	3.07	0.42
53:B6:36:LEU:HD13	53:B6:50:ARG:HH22	1.85	0.42
25:DA:1374:G:C4	25:DA:1375:C:C5	3.07	0.42
1:AA:575:G:H4'	1:AA:576:G:O5'	2.18	0.42
1:CA:262:A:H2'	1:CA:263:A:C8	2.54	0.42
24:AX:202:LEU:C	24:AX:202:LEU:HD13	2.39	0.42
25:BA:2478:A:H3'	25:BA:2479:G:C8	2.51	0.42
46:DZ:16:SER:HB2	46:DZ:20:ARG:HH12	1.82	0.42
1:AA:103(A):A:H2'	1:AA:103(B):G:O4'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:828:U:C5	25:BA:829:A:N6	2.87	0.42
34:BN:38:LEU:HD13	34:BN:38:LEU:C	2.39	0.42
1:AA:1528:U:O2'	1:AA:1529:G:H3'	2.20	0.42
34:DN:61:HIS:CE1	34:DN:73:ASP:OD2	2.72	0.42
49:D2:42:GLY:O	49:D2:44:LEU:N	2.53	0.42
31:DH:67:LEU:CD1	31:DH:71:LEU:HD13	2.50	0.42
25:DA:1443:G:O2'	25:DA:1444:G:H5'	2.18	0.42
1:CA:689:C:H2'	1:CA:690:G:O4'	2.19	0.42
25:BA:1091:G:C2	25:BA:1092:C:C2	3.08	0.42
1:CA:1088:G:C5	1:CA:1089:G:N7	2.88	0.42
1:CA:174:C:H2'	1:CA:175:C:H6	1.84	0.42
1:AA:148:G:C2	1:AA:175:C:N3	2.87	0.42
5:CC:92:ALA:C	5:CC:94:LEU:N	2.73	0.42
25:DA:342:G:N3	25:DA:343:C:C6	2.88	0.42
19:AQ:69:LYS:C	19:AQ:70:ARG:HD2	2.40	0.42
51:D4:46:ASN:HB2	51:D4:64:LYS:CB	2.50	0.42
4:CB:83:MET:CE	4:CB:234:PRO:HG2	2.50	0.42
49:D2:55:ARG:O	49:D2:59:ARG:HG2	2.19	0.42
28:BE:32:PRO:HB2	28:BE:72:VAL:HG11	2.01	0.42
25:DA:2656:U:C5	25:DA:2664:G:N2	2.87	0.42
2:AY:64:G:H2'	2:AY:65:C:C6	2.54	0.42
33:DK:43:ALA:HA	33:DK:46:ALA:HB2	2.00	0.42
25:DA:1605:C:H2'	25:DA:1606:G:O4'	2.19	0.42
35:BO:80:ASP:OD2	40:BT:71:GLY:HA3	2.19	0.42
25:BA:752:A:OP1	54:B7:3:ARG:NH2	2.52	0.42
6:CD:39:PRO:HA	6:CD:40:PRO:HD3	1.80	0.42
46:BZ:99:TYR:HA	46:BZ:124:ILE:O	2.18	0.42
25:BA:681:G:H2'	25:BA:682:G:O4'	2.19	0.42
25:DA:471:A:O5'	25:DA:471:A:H8	2.01	0.42
25:DA:2322:A:H2'	25:DA:2323:G:O4'	2.19	0.42
1:AA:998(B):C:H2'	1:AA:999:U:O4'	2.19	0.42
2:CY:18:G:C4	2:CY:58:A:C2	3.07	0.42
13:CK:120:ARG:HA	13:CK:121:PRO:HD3	1.83	0.42
1:AA:423:G:H2'	1:AA:424:G:O4'	2.19	0.42
36:BP:23:PRO:HD2	36:BP:33:ARG:HH21	1.71	0.42
36:BP:33:ARG:O	36:BP:36:LYS:HG3	2.19	0.42
49:B2:13:ALA:O	49:B2:17:SER:CA	2.62	0.42
13:CK:105:VAL:O	13:CK:106:LYS:C	2.57	0.42
24:AX:92:LEU:HB3	24:AX:97:ARG:CG	2.50	0.42
1:AA:1329:A:H5'	15:AM:29:ARG:NE	2.34	0.42
41:BU:60:LEU:O	41:BU:64:ARG:HG2	2.19	0.42
4:AB:163:PHE:CD1	4:AB:185:ILE:HG13	2.39	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:126:A:C5	54:D7:18:PHE:CD1	3.07	0.42
1:CA:956:U:C2'	1:CA:957:U:H5'	2.50	0.42
11:CI:85:LEU:HD12	11:CI:85:LEU:C	2.39	0.42
1:CA:1505:G:H5'	1:CA:1506:U:OP1	2.19	0.42
25:BA:1028:A:N6	25:BA:1125:G:H2'	2.34	0.42
28:DE:92:THR:C	28:DE:94:GLU:H	2.22	0.42
1:AA:1367:C:C4	1:AA:1368:G:N7	2.88	0.42
36:DP:12:ALA:O	36:DP:14:LYS:N	2.51	0.42
25:BA:2544:G:O5'	25:BA:2544:G:H8	2.01	0.42
7:CE:43:LEU:HD23	7:CE:44:GLY:N	2.34	0.42
25:BA:2426:A:H3'	25:BA:2427:C:H5'	1.99	0.42
5:CC:79:ARG:HG2	5:CC:82:GLU:OE1	2.20	0.42
30:BG:31:VAL:CG1	30:BG:31:VAL:O	2.67	0.42
1:AA:545:C:OP2	6:AD:62:GLN:OE1	2.37	0.42
25:BA:2850:A:C2	38:BR:61:HIS:CD2	3.07	0.42
6:CD:148:VAL:HG11	6:CD:158:ILE:HG21	2.00	0.42
25:BA:1504:C:O2'	25:BA:1505:C:H5'	2.18	0.42
25:BA:2723:C:H5''	38:BR:2:ARG:NH1	2.32	0.42
25:BA:1314:C:C2	25:BA:1339:G:N2	2.87	0.42
42:BV:18:LEU:HD13	42:BV:18:LEU:O	2.19	0.42
45:DY:38:ILE:HG23	45:DY:66:PRO:HA	2.00	0.42
2:CZ:8:U:O2	2:CZ:21:A:C2	2.68	0.42
1:AA:902:G:H2'	1:AA:903:G:C8	2.52	0.42
39:BS:61:ASN:H	39:BS:65:VAL:CG2	2.31	0.42
6:CD:108:LEU:HD12	6:CD:108:LEU:HA	1.87	0.42
25:BA:1731:G:HO2'	25:BA:1732:A:P	2.41	0.42
1:AA:103(B):G:H2'	1:AA:103(C):G:O4'	2.19	0.42
1:CA:325:A:N6	1:CA:326:G:N1	2.67	0.42
25:DA:214:G:H21	25:DA:216:A:H1'	1.84	0.42
46:BZ:63:ASP:C	46:BZ:65:GLN:H	2.21	0.42
4:AB:7:VAL:C	4:AB:9:GLU:H	2.23	0.42
4:AB:7:VAL:C	4:AB:9:GLU:N	2.71	0.42
25:DA:430:G:H5''	25:DA:431:U:OP2	2.20	0.42
25:DA:481:G:HO2'	25:DA:507:A:H61	1.67	0.42
46:BZ:94:GLU:HB2	46:BZ:95:PRO:HD2	2.01	0.42
37:BQ:60:ARG:HA	46:BZ:179:ASP:HB2	2.01	0.42
1:CA:1503:A:O2'	1:CA:1504:G:O5'	2.35	0.42
7:CE:80:ILE:CD1	7:CE:138:ALA:HB1	2.48	0.42
1:CA:690:G:C6	1:CA:691:G:N1	2.87	0.42
1:CA:538:G:N2	1:CA:539:A:H1'	2.34	0.42
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.53	0.42
28:DE:1:MET:O	28:DE:84:PHE:CG	2.72	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CK:12:ARG:O	13:CK:14:VAL:HG22	2.20	0.42
36:DP:89:ALA:O	36:DP:90:ARG:C	2.58	0.42
1:AA:15:G:O4'	7:AE:24:ARG:NH2	2.53	0.42
1:CA:509:A:H2	1:CA:543:C:O2	2.03	0.42
1:AA:1375:A:H2'	1:AA:1376:U:C6	2.54	0.42
1:AA:299:G:H2'	1:AA:300:A:C8	2.54	0.42
25:DA:1395:A:O2'	25:DA:1396:U:H5'	2.19	0.42
1:AA:803:G:H8	1:AA:803:G:O5'	2.01	0.42
1:CA:746:A:O2'	1:CA:747:C:H5'	2.20	0.42
25:BA:1277:G:H2'	25:BA:1278:A:O4'	2.20	0.42
25:DA:1547:C:H2'	25:DA:1548:C:H6	1.85	0.42
1:AA:946:A:H2'	1:AA:947:G:H8	1.83	0.42
25:DA:2532:G:C6	25:DA:2533:A:C6	3.07	0.42
1:CA:1476:G:O2'	1:CA:1477:C:H5'	2.20	0.42
38:BR:14:SER:OG	38:BR:15:SER:N	2.51	0.42
25:BA:407:G:H2'	25:BA:408:G:H8	1.83	0.42
24:CX:281:GLN:NE2	25:DA:2493:U:O4'	2.53	0.42
25:BA:945:A:C4	25:BA:2448:A:C2	3.07	0.42
1:CA:802:A:H2'	1:CA:803:G:O4'	2.18	0.42
10:AH:104:ARG:HD3	10:AH:138:TRP:CE3	2.54	0.42
4:AB:231:GLU:HA	4:AB:232:PRO:HD3	1.93	0.42
25:DA:2367:G:O2'	25:DA:2368:C:H5'	2.19	0.42
48:D1:92:LYS:HG3	48:D1:93:GLU:N	2.34	0.42
24:CX:214:ARG:HG2	24:CX:330:ASP:OD2	2.19	0.42
1:CA:1099:G:H2'	1:CA:1100:C:O4'	2.20	0.42
16:AN:25:VAL:HG23	16:AN:38:GLY:O	2.20	0.42
1:AA:230:G:H2'	1:AA:231:G:O4'	2.19	0.42
20:CR:84:LYS:H	20:CR:84:LYS:HG2	1.71	0.42
38:BR:34:ILE:HA	38:BR:34:ILE:HD13	1.93	0.42
1:AA:909:A:H2'	1:AA:910:C:O4'	2.20	0.42
25:BA:2230:G:H1'	48:B1:45:ASN:CB	2.50	0.42
25:DA:194:G:H2'	25:DA:195:A:O4'	2.18	0.42
1:CA:1330:U:O3'	15:CM:23:TYR:CE2	2.70	0.42
25:DA:1152:C:H5''	41:DU:80:ILE:CG2	2.50	0.42
26:BB:33:G:C2	26:BB:50:G:C2	3.07	0.42
25:BA:1020:A:H2'	31:BH:60:ARG:HH22	1.84	0.42
12:AJ:5:ARG:HA	12:AJ:73:ASP:OD1	2.18	0.42
25:BA:310:A:H2'	25:BA:312:G:N7	2.34	0.42
39:DS:85:VAL:O	39:DS:86:ALA:C	2.58	0.42
26:DB:42:C:C4	30:DG:91:ARG:NH2	2.80	0.42
1:CA:1226:C:N4	15:CM:104:ARG:HD2	2.34	0.42
24:CX:32:ILE:O	24:CX:36:GLU:N	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1174:A:H3'	25:DA:1175:U:C4'	2.49	0.42
1:CA:32:A:C2	1:CA:33:A:C4	3.07	0.42
32:DI:1:MET:CG	32:DI:23:PRO:HG3	2.49	0.42
28:BE:130:GLY:C	28:BE:132:HIS:H	2.23	0.42
36:DP:15:ARG:NE	36:DP:15:ARG:HA	2.33	0.42
25:DA:192:C:N4	25:DA:203:C:H1'	2.34	0.42
25:BA:1990:C:N3	25:BA:1991:U:C4	2.87	0.42
10:AH:56:LYS:HB2	10:AH:58:TYR:CE1	2.54	0.42
25:BA:1540:G:C2	25:BA:1541:U:H1'	2.55	0.42
1:AA:977:A:C8	1:AA:1223:C:N3	2.87	0.42
1:CA:134:A:N6	18:CP:25:ARG:NH1	2.64	0.42
25:DA:2591:C:H2'	25:DA:2592:G:C8	2.55	0.42
5:AC:22:TRP:HB2	5:AC:23:TYR:H	1.62	0.42
25:DA:2335:A:O2'	25:DA:2336:A:H5''	2.20	0.42
22:AT:100:ILE:HD12	22:AT:100:ILE:N	2.34	0.42
48:D1:57:GLU:O	48:D1:58:ILE:CB	2.67	0.42
7:CE:33:VAL:HG21	7:CE:109:ILE:HD13	2.00	0.42
43:BW:84:ARG:HB2	43:BW:96:ILE:HG22	2.02	0.42
25:BA:1842:G:N3	25:BA:1901:A:C2	2.87	0.42
1:CA:1102:A:C6	1:CA:1103:C:N4	2.88	0.42
25:DA:1998:G:H2'	25:DA:1999:C:O4'	2.19	0.42
25:DA:972:G:OP2	25:DA:974(A):G:H5''	2.18	0.42
45:BY:89:PHE:N	45:BY:90:LEU:HD23	2.35	0.42
1:CA:740:U:O3'	17:CO:39:LEU:HD23	2.19	0.42
25:DA:2210:G:H21	25:DA:2211:G:H5'	1.69	0.42
25:DA:655:A:C8	25:DA:655:A:C3'	3.01	0.42
14:CL:24:PRO:HG2	14:CL:97:TYR:OH	2.20	0.42
2:AZ:39:C:H2'	2:AZ:40:C:C6	2.54	0.42
25:BA:973:A:O4'	25:BA:1188:U:C6	2.72	0.42
25:BA:120:U:C2	25:BA:149:A:C6	3.07	0.42
27:DD:112:GLN:H	27:DD:112:GLN:CD	2.22	0.42
1:CA:1260:C:H4'	1:CA:1283:G:O2'	2.20	0.42
45:BY:75:ILE:HD13	45:BY:76:CYS:N	2.33	0.42
25:DA:588:U:H2'	25:DA:589:C:C6	2.54	0.42
25:BA:2061:G:H5''	25:BA:2503:A:C2	2.54	0.42
25:DA:562:U:O2	25:DA:572:A:C4	2.73	0.42
25:BA:1061:U:C4	33:BK:9:LYS:HB3	2.55	0.42
25:DA:2840:C:H2'	25:DA:2841:C:C6	2.55	0.42
28:BE:119:ARG:CG	28:BE:160:TYR:HB2	2.48	0.42
6:CD:112:VAL:HG12	6:CD:116:GLN:OE1	2.18	0.42
25:BA:643:A:N1	25:BA:644:A:C4	2.87	0.42
1:CA:370:C:N3	1:CA:392:G:C2	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DB:31:C:H1'	26:DB:53:A:H61	1.85	0.42
34:BN:56:LEU:N	34:BN:56:LEU:CD1	2.82	0.42
45:BY:27:VAL:O	45:BY:27:VAL:CG2	2.67	0.42
1:CA:390:C:H2'	1:CA:391:G:C8	2.55	0.42
1:CA:390:C:O3'	18:CP:28:ARG:NH2	2.53	0.42
25:DA:2302:G:O2'	25:DA:2303:G:H5'	2.18	0.42
31:DH:102:ALA:HB1	31:DH:115:VAL:O	2.19	0.42
25:DA:723:G:C6	25:DA:724:U:C4	3.07	0.42
25:DA:2835:A:C6	25:DA:2879:C:C6	3.08	0.42
1:AA:819:A:H4'	1:AA:820:U:OP2	2.17	0.42
25:DA:2505:G:C8	25:DA:2505:G:C3'	3.02	0.42
25:DA:802:A:H2'	25:DA:803:U:C6	2.54	0.42
25:BA:270(Q):C:O2'	25:BA:270(R):C:C6	2.65	0.42
26:BB:12:C:O2'	47:B0:74:ARG:HG2	2.19	0.42
25:DA:2081:C:C2'	25:DA:2082:A:H5'	2.49	0.42
1:AA:352:C:H4'	1:AA:354:G:OP1	2.19	0.42
25:DA:1257:C:O2'	29:DF:84:VAL:HG12	2.19	0.42
13:CK:85:ARG:HG2	13:CK:111:ASP:O	2.20	0.42
25:DA:64:A:C4	25:DA:65:C:C6	3.08	0.42
43:BW:69:LEU:HD12	43:BW:69:LEU:N	2.34	0.42
1:AA:270:A:H2'	1:AA:271:C:C6	2.54	0.42
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.20	0.42
33:DK:84:LEU:HB3	33:DK:85:GLU:H	1.72	0.42
44:BX:75:ASP:C	44:BX:76:ARG:HG3	2.38	0.42
25:DA:244:A:C2	25:DA:255:A:C4	3.07	0.42
35:DO:79:PHE:CD2	40:DT:72:VAL:HG22	2.54	0.42
25:BA:1769:G:C6	25:BA:1984:G:C6	3.08	0.42
30:BG:8:LYS:O	30:BG:12:TYR:HD1	2.02	0.42
25:BA:2825:U:O5'	25:BA:2825:U:H6	2.02	0.42
37:BQ:116:GLU:OE1	37:BQ:116:GLU:HA	2.19	0.42
1:CA:198:G:C6	1:CA:220:G:C2	3.08	0.42
1:CA:91:C:H2'	1:CA:92:G:C8	2.55	0.42
25:DA:2230:G:H1'	48:D1:45:ASN:CB	2.50	0.42
55:D8:16:ILE:HG23	55:D8:16:ILE:O	2.18	0.42
25:DA:2892:A:N7	25:DA:2893:G:C5	2.87	0.42
13:CK:65:ALA:HB3	13:CK:97:ALA:CB	2.50	0.42
1:AA:1330:U:O3'	15:AM:23:TYR:CE2	2.70	0.42
25:DA:560:C:H4'	41:DU:52:ARG:NH2	2.34	0.42
26:DB:33:G:C2	26:DB:50:G:C2	3.08	0.42
21:AS:58:VAL:HG23	21:AS:58:VAL:O	2.20	0.42
32:DI:77:LEU:HB2	32:DI:142:VAL:HG12	2.02	0.42
1:AA:1357:A:C5	1:AA:1358:U:C4	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1174:A:H3'	25:BA:1175:U:C4'	2.48	0.42
40:DT:106:SER:O	40:DT:107:ASP:HB3	2.19	0.42
21:CS:31:ILE:CG2	21:CS:49:ILE:HG23	2.38	0.42
51:B4:42:CYS:HB3	51:B4:59:VAL:O	2.19	0.42
29:BF:183:VAL:O	29:BF:187:VAL:HG23	2.19	0.42
15:AM:3:ARG:HG2	15:AM:9:ILE:CD1	2.50	0.42
51:B4:60:GLU:H	51:B4:60:GLU:CD	2.22	0.42
44:BX:54:VAL:C	44:BX:55:ASN:HD22	2.22	0.42
4:AB:51:LEU:CD2	4:AB:201:ILE:HD12	2.48	0.42
36:DP:65:ARG:NH2	55:D8:15:LYS:HB3	2.34	0.42
5:AC:59:ARG:O	5:AC:60:ALA:HB2	2.20	0.42
25:DA:330:A:O2'	25:DA:331:A:C8	2.71	0.42
25:DA:1490:A:C5'	25:DA:1490:A:H8	2.32	0.42
25:DA:270(P):U:C6	25:DA:270(P):U:O5'	2.72	0.42
41:DU:75:ASN:N	41:DU:75:ASN:ND2	2.57	0.42
25:BA:919:G:H2'	25:BA:920:G:H8	1.85	0.42
24:CX:177:ILE:HD11	24:CX:180:ALA:CB	2.50	0.42
25:BA:655:A:C3'	25:BA:655:A:C8	3.02	0.42
42:DV:4:ILE:HD13	42:DV:13:ARG:HB3	2.01	0.42
25:BA:2646:C:OP2	25:BA:2732:G:O2'	2.33	0.42
9:AG:137:LYS:O	9:AG:141:VAL:HG23	2.18	0.42
46:BZ:28:MET:HE3	46:BZ:37:VAL:HG11	2.01	0.42
7:AE:57:LYS:HB3	7:AE:57:LYS:HE2	1.81	0.42
13:AK:21:ILE:HD13	13:AK:82:VAL:HG13	2.02	0.42
25:BA:2867:G:OP2	40:BT:119:LYS:NZ	2.43	0.42
27:BD:136:ILE:HD12	27:BD:136:ILE:H	1.84	0.42
29:DF:128:ALA:O	29:DF:142:TRP:NE1	2.42	0.42
22:AT:49:ALA:HB2	22:AT:92:LEU:HD22	2.00	0.42
1:CA:1379:G:C6	1:CA:1380:U:O4	2.72	0.42
9:CG:91:VAL:HG12	9:CG:96:GLN:HG2	2.02	0.42
1:AA:309:G:H2'	1:AA:310:G:H8	1.84	0.42
25:DA:723:G:C5	25:DA:724:U:C5	3.08	0.42
9:AG:27:ILE:HD13	9:AG:27:ILE:N	2.34	0.42
15:CM:4:ILE:C	15:CM:6:GLY:N	2.71	0.42
1:CA:103(A):A:H2'	1:CA:103(B):G:O4'	2.20	0.42
25:BA:2247:A:O2'	25:BA:2248:C:H5'	2.20	0.42
1:AA:489:C:C2	1:AA:490:G:C8	3.08	0.42
4:CB:11:LEU:CD1	4:CB:217:ARG:HH12	2.32	0.42
28:BE:122:PHE:HB3	28:BE:123:ALA:H	1.63	0.42
19:CQ:45:HIS:HD2	19:CQ:47:PRO:HD3	1.82	0.42
1:AA:182:U:H2'	1:AA:183:G:O4'	2.19	0.42
25:DA:1602:U:H3'	25:DA:1603:A:C5'	2.50	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AN:43:CYS:HA	16:AN:46:GLU:OE2	2.19	0.42
1:CA:284:G:H2'	1:CA:285:G:C8	2.52	0.42
1:AA:542:G:OP1	6:AD:10:ARG:NH2	2.50	0.42
40:BT:16:ARG:HD3	40:BT:16:ARG:HA	1.63	0.42
25:BA:1284:A:O2'	25:BA:1285:G:H5'	2.20	0.42
1:CA:1268:A:H2'	1:CA:1269:A:C8	2.55	0.42
1:AA:284:G:H2'	1:AA:285:G:C8	2.53	0.42
17:CO:29:VAL:O	17:CO:30:ALA:C	2.57	0.42
1:AA:236:G:C5	1:AA:237:C:C5	3.07	0.42
38:DR:48:VAL:O	38:DR:51:LEU:N	2.52	0.42
25:DA:2528:U:O2'	25:DA:2529:G:H3'	2.20	0.42
25:DA:377:C:H2'	25:DA:378:C:H6	1.85	0.42
25:DA:354:G:C4	25:DA:355:G:C8	3.07	0.42
24:CX:328:VAL:HB	24:CX:333:TYR:CE2	2.55	0.42
40:DT:96:ARG:CZ	40:DT:96:ARG:HB2	2.50	0.42
25:DA:966:G:C6	25:DA:967:C:N4	2.87	0.42
25:DA:1693:U:O4	25:DA:1977:A:C5	2.72	0.42
35:BO:79:PHE:CD2	40:BT:72:VAL:HG22	2.54	0.42
25:BA:1094:U:H1'	25:BA:1097:U:C5	2.54	0.42
43:BW:88:ARG:NH1	43:BW:94:ASP:OD1	2.51	0.42
1:AA:91:C:H2'	1:AA:92:G:C8	2.54	0.42
11:CI:117:HIS:HB2	11:CI:121:ARG:HD2	2.00	0.42
16:CN:53:LEU:HD23	16:CN:53:LEU:HA	1.90	0.42
20:CR:46:GLU:HA	20:CR:46:GLU:OE2	2.20	0.42
36:DP:75:ILE:HD12	36:DP:75:ILE:H	1.85	0.42
25:BA:1042:G:C6	25:BA:1043:C:C4	3.08	0.42
25:BA:2361:A:OP1	55:B8:27:THR:OG1	2.37	0.42
41:DU:8:VAL:HG11	41:DU:12:ARG:NE	2.35	0.42
25:BA:2892:A:N7	25:BA:2893:G:C5	2.88	0.42
49:B2:47:ASN:ND2	49:B2:47:ASN:N	2.68	0.42
25:DA:2789:C:O4'	25:DA:2892:A:H2	2.03	0.42
23:CU:12:LYS:O	23:CU:16:GLY:N	2.53	0.42
23:AU:12:LYS:O	23:AU:16:GLY:N	2.52	0.42
12:CJ:34:VAL:CG2	12:CJ:74:ILE:HG22	2.49	0.42
25:BA:1023:U:C2'	25:BA:1024:G:H5'	2.48	0.42
29:BF:9:ILE:O	29:BF:9:ILE:HG12	2.19	0.42
11:CI:35:GLU:C	11:CI:37:PHE:H	2.23	0.42
12:AJ:26:ALA:HB1	12:AJ:84:GLN:HG2	2.02	0.42
25:DA:2516:G:C6	25:DA:2517:C:C4	3.08	0.42
12:AJ:49:VAL:HG22	12:AJ:50:ILE:N	2.35	0.42
12:AJ:62:HIS:O	12:AJ:62:HIS:CD2	2.71	0.42
30:BG:134:GLY:C	30:BG:135:LEU:HD12	2.39	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BP:16:ARG:O	36:BP:17:LYS:C	2.58	0.42
4:CB:152:PHE:CE2	4:CB:155:LEU:HD23	2.54	0.42
1:CA:1148:U:C5	1:CA:1149:C:C4	3.08	0.42
30:DG:86:MET:N	30:DG:87:PRO:CD	2.82	0.42
25:BA:2093:G:H2'	25:BA:2094:G:H8	1.84	0.42
25:DA:1543:A:C5	25:DA:1545:A:O4'	2.73	0.42
25:DA:1545:A:C6	25:DA:1546:A:C2	3.07	0.42
38:BR:10:LEU:HB2	38:BR:17:ARG:CD	2.42	0.42
32:BI:120:ILE:HG21	32:BI:126:TYR:CE1	2.54	0.42
6:CD:166:LYS:H	6:CD:166:LYS:HG3	1.64	0.42
37:BQ:75:THR:HG22	37:BQ:88:GLY:HA3	2.02	0.42
14:AL:96:ARG:C	14:AL:97:TYR:CD1	2.92	0.42
44:BX:63:LYS:HD2	44:BX:72:LYS:CA	2.50	0.42
1:CA:1346:A:H5'	11:CI:120:ARG:NH1	2.23	0.42
47:D0:56:ASP:CG	47:D0:58:THR:HG1	2.21	0.42
1:AA:738:C:H2'	1:AA:739:C:C6	2.50	0.42
54:D7:8:ASN:ND2	54:D7:10:ARG:H	2.18	0.42
25:BA:1609:A:C6	25:BA:1616:A:C5	3.08	0.42
25:BA:27:G:H22	25:BA:512:G:H2'	1.85	0.42
14:CL:41:THR:OG1	14:CL:51:LEU:HB2	2.20	0.42
1:CA:678:U:H4'	1:CA:778:G:OP1	2.20	0.42
25:BA:302:C:H2'	25:BA:303:U:C6	2.43	0.42
45:DY:49:VAL:HB	45:DY:50:ARG:H	1.73	0.42
11:AI:14:VAL:O	11:AI:65:VAL:HA	2.20	0.42
40:BT:117:ASP:O	40:BT:119:LYS:N	2.52	0.42
45:BY:60:PHE:O	45:BY:61:ILE:C	2.58	0.42
9:AG:65:ALA:CB	9:AG:124:LEU:HD23	2.47	0.42
24:AX:334:VAL:HG11	24:AX:349:VAL:HG21	2.01	0.42
25:DA:320:A:H4'	25:DA:322:A:N7	2.34	0.42
25:BA:2840:C:O2'	25:BA:2841:C:H5'	2.20	0.42
25:BA:529:A:H4'	25:BA:530:G:O5'	2.18	0.42
18:CP:28:ARG:HG2	18:CP:29:ASP:OD1	2.20	0.42
1:CA:818:G:C3'	1:CA:819:A:C5'	2.97	0.42
25:BA:416:C:H2'	25:BA:417:C:O4'	2.19	0.42
24:AX:49:PRO:HD3	33:BK:29:GLN:HB2	2.02	0.42
1:AA:622:A:C8	1:AA:623:C:C6	3.07	0.42
45:BY:85:VAL:O	45:BY:85:VAL:HG23	2.20	0.42
1:CA:1453:G:N2	1:CA:1454:G:C4	2.88	0.42
27:BD:166:GLN:HA	27:BD:166:GLN:NE2	2.33	0.42
15:AM:47:ASP:O	15:AM:48:LEU:HB3	2.19	0.42
31:DH:126:PRO:HG2	31:DH:130:ARG:CB	2.49	0.42
25:DA:719:C:H6	25:DA:719:C:O5'	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1731:G:O2'	25:BA:1732:A:O5'	2.36	0.42
44:DX:26:TYR:CE1	44:DX:89:ILE:HG12	2.55	0.42
36:BP:115:LEU:C	36:BP:115:LEU:HD12	2.39	0.42
52:B5:47:PRO:O	52:B5:48:GLU:CB	2.68	0.42
25:DA:2092:U:H4'	25:DA:2093:G:O5'	2.20	0.42
6:CD:70:ILE:HA	6:CD:70:ILE:HD12	1.84	0.42
1:AA:294:U:N3	1:AA:295:C:C5	2.88	0.42
46:DZ:94:GLU:O	46:DZ:130:PRO:HD3	2.19	0.42
25:BA:1782:C:H2'	25:BA:2608:G:O2'	2.20	0.42
25:DA:2081:C:C5	25:DA:2237:G:N2	2.88	0.42
6:AD:121:VAL:HA	6:AD:126:ILE:HG12	2.01	0.42
6:AD:120:LEU:HB3	6:AD:126:ILE:HD11	2.02	0.42
4:AB:165:VAL:HG23	4:AB:166:ASP:H	1.84	0.42
28:DE:14:ILE:HB	40:DT:14:TYR:CE2	2.54	0.42
36:BP:85:LEU:C	36:BP:85:LEU:HD12	2.40	0.42
13:AK:80:VAL:CG1	13:AK:103:LEU:HD12	2.49	0.42
31:BH:108:GLY:HA3	31:BH:152:ARG:HH21	1.84	0.42
22:CT:63:ILE:HD13	22:CT:80:ARG:HB2	2.01	0.42
1:AA:803:G:H2'	1:AA:804:U:O4'	2.20	0.42
1:CA:592:G:H2'	1:CA:593:G:C8	2.55	0.42
2:CY:14:A:C6	2:CY:22:G:C5	3.08	0.42
1:CA:875:C:O2'	10:CH:14:ARG:NH1	2.49	0.42
5:AC:112:SER:O	5:AC:115:LEU:HB2	2.20	0.42
24:AX:136:GLY:C	25:BA:1913:A:H2	2.23	0.42
25:BA:342:G:C2	25:BA:343:C:C5	3.08	0.42
24:CX:318:ILE:HG22	24:CX:319:GLU:N	2.34	0.42
1:AA:807:A:H2'	1:AA:808:C:C6	2.55	0.42
18:CP:19:ILE:HG22	18:CP:36:ILE:CG1	2.50	0.42
24:AX:302:LYS:O	24:AX:306:GLU:N	2.48	0.42
46:DZ:78:LYS:O	46:DZ:79:ARG:CB	2.67	0.42
25:BA:531:C:O2	25:BA:563:G:H1'	2.20	0.42
25:DA:2849:U:HO2'	25:DA:2866:U:H5	1.63	0.42
25:DA:1727:U:H2'	25:DA:1728:G:O4'	2.19	0.42
1:CA:293:G:C6	1:CA:294:U:C4	3.07	0.42
12:AJ:90:LEU:N	12:AJ:91:PRO:HD3	2.34	0.42
50:B3:34:GLU:O	50:B3:35:ARG:HB2	2.18	0.42
25:BA:1238:G:O2'	25:BA:1239:G:H5'	2.19	0.42
25:DA:859:G:O5'	25:DA:859:G:H2'	2.20	0.42
25:BA:2500:U:C6	25:BA:2500:U:C3'	3.02	0.42
2:AY:43:A:H2'	2:AY:44:A:C8	2.54	0.42
40:BT:130:ALA:O	40:BT:133:GLU:HB2	2.20	0.42
16:CN:25:VAL:HG23	16:CN:38:GLY:O	2.18	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AE:125:SER:OG	7:AE:126:ARG:N	2.53	0.42
25:BA:785:G:C6	25:BA:786:C:C4	3.06	0.42
55:D8:57:ARG:CZ	55:D8:57:ARG:HB2	2.45	0.42
37:BQ:23:GLY:CA	37:BQ:98:LYS:HD3	2.50	0.42
1:CA:136(A):C:H2'	1:CA:136(B):C:H5''	2.02	0.42
25:DA:2307:G:C6	25:DA:2308:G:N1	2.87	0.42
12:AJ:96:ILE:O	12:AJ:96:ILE:HG12	2.18	0.42
25:BA:632:A:C2	25:BA:2403:C:H1'	2.54	0.42
27:BD:70:TRP:O	27:BD:73:VAL:HG22	2.20	0.42
53:D6:11:LEU:HB2	53:D6:26:ASN:H	1.85	0.42
25:DA:312:G:H2'	25:DA:312:G:N3	2.34	0.42
37:DQ:43:THR:OG1	37:DQ:46:GLN:HG3	2.20	0.42
30:DG:66:GLN:HG2	30:DG:67:LYS:H	1.84	0.42
45:DY:6:HIS:HB3	45:DY:35:TYR:CE2	2.54	0.42
1:CA:1061:G:OP1	12:CJ:59:SER:HB2	2.19	0.42
1:CA:976:G:H8	1:CA:1358:U:O2'	2.02	0.42
1:CA:976:G:P	16:CN:32:SER:H	2.42	0.42
40:BT:27:THR:C	40:BT:28:VAL:HG12	2.39	0.42
40:BT:88:ILE:HG21	40:BT:91:ARG:HH21	1.85	0.42
25:DA:203:C:H2'	25:DA:204:A:OP1	2.20	0.42
1:CA:1300:G:O2'	1:CA:1303:C:N4	2.53	0.42
15:AM:11:ARG:HB3	15:AM:12:ASN:ND2	2.26	0.42
37:BQ:22:LYS:NZ	37:BQ:22:LYS:CA	2.75	0.42
25:DA:245:G:C4	25:DA:246:C:C5	3.08	0.42
25:DA:2167:U:H2'	25:DA:2168:G:N7	2.35	0.42
1:CA:674:G:N2	1:CA:717:C:O2	2.52	0.42
11:AI:103:THR:HG22	11:AI:105:ASP:H	1.85	0.42
32:BI:75:LEU:HD12	32:BI:76:THR:H	1.85	0.42
25:BA:2688:U:H1'	25:BA:2721:A:H61	1.83	0.42
8:CF:75:LEU:O	8:CF:79:LEU:HG	2.19	0.42
14:AL:89:VAL:HG12	14:AL:91:ASP:H	1.84	0.42
24:AX:224:ILE:CD1	24:AX:308:LEU:HD21	2.50	0.42
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.35	0.42
24:AX:218:PHE:CD2	24:AX:320:TRP:HA	2.54	0.42
1:CA:360:A:H2'	1:CA:361:G:C8	2.54	0.42
31:BH:13:LYS:HE2	31:BH:14:GLY:N	2.25	0.42
25:BA:920:G:H2'	25:BA:921:G:H8	1.84	0.42
29:BF:107:LYS:HB3	29:BF:206:ILE:HG21	2.02	0.42
25:BA:2645:G:H4'	25:BA:2646:C:OP2	2.20	0.42
25:BA:2647:U:H2'	25:BA:2648:C:C6	2.55	0.42
25:BA:1536:A:O5'	25:BA:1536:A:H8	2.03	0.42
11:CI:11:LYS:O	11:CI:12:GLU:HB2	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DS:30:ARG:HG3	39:DS:92:TYR:CE2	2.55	0.42
25:BA:860:U:O2'	25:BA:861:A:H5'	2.20	0.42
46:DZ:176:PRO:HA	46:DZ:177:PRO:HD3	1.72	0.42
25:DA:2846:G:OP2	40:DT:54:ARG:HB2	2.20	0.42
25:DA:2121:G:H1	25:DA:2177:C:H42	1.68	0.42
34:DN:56:LEU:N	34:DN:56:LEU:CD1	2.82	0.42
32:BI:15:VAL:HG12	32:BI:16:GLY:N	2.35	0.42
9:AG:70:LYS:CG	9:AG:96:GLN:HB3	2.49	0.42
1:CA:406:G:C4	1:CA:495:A:C5	3.08	0.42
25:BA:72:U:C4	25:BA:112:U:H4'	2.55	0.42
25:DA:903:C:H2'	25:DA:904:C:H6	1.83	0.42
1:CA:1003:G:H8	1:CA:1003:G:O5'	2.03	0.42
25:DA:1099:G:C4	25:DA:1100:C:C5	3.08	0.42
26:BB:41:U:N3	30:BG:70:VAL:HG23	2.34	0.42
43:BW:58:ALA:O	43:BW:64:MET:HG3	2.19	0.42
25:DA:1789:A:H2'	25:DA:1790:C:C6	2.55	0.42
31:DH:93:GLY:O	31:DH:94:TYR:C	2.58	0.42
25:BA:1373:A:H2'	25:BA:1374:G:O4'	2.20	0.42
6:CD:50:ARG:NH1	6:CD:50:ARG:HA	2.34	0.42
1:CA:266:G:C8	1:CA:266:G:C3'	3.03	0.42
35:DO:19:ILE:HG12	35:DO:19:ILE:O	2.20	0.42
1:CA:316:G:C2	1:CA:317:G:N7	2.88	0.42
1:AA:604:G:C5	1:AA:605:U:C5	3.07	0.42
24:AX:266:HIS:CE1	24:AX:268:PRO:HB2	2.55	0.42
35:DO:66:LYS:HD3	35:DO:80:ASP:O	2.20	0.42
25:DA:1091:G:C2	25:DA:1092:C:C2	3.07	0.42
1:AA:1270:C:O2'	1:AA:1314:C:H5'	2.20	0.42
41:DU:72:HIS:CB	41:DU:110:VAL:HG11	2.50	0.42
25:BA:727:A:C6	25:BA:728:G:C6	3.07	0.42
25:BA:64:A:O2'	44:BX:71:GLY:HA3	2.19	0.42
2:AY:14:A:C6	2:AY:22:G:C5	3.07	0.42
5:AC:109:PRO:C	5:AC:111:LEU:H	2.23	0.42
1:AA:945:G:C2	1:AA:946:A:C8	3.08	0.42
25:BA:492:A:C2'	25:BA:493:G:H5'	2.50	0.42
25:BA:1070:A:C2	25:BA:1097:U:O2'	2.70	0.42
25:BA:531:C:N3	25:BA:563:G:C8	2.88	0.42
25:DA:693:C:H2'	25:DA:694:U:C6	2.55	0.42
1:AA:1460:A:H2'	1:AA:1461:G:O4'	2.18	0.42
34:DN:53:ILE:HG23	34:DN:75:VAL:HG11	2.02	0.42
46:BZ:69:THR:HG22	46:BZ:90:VAL:HG22	2.01	0.42
1:CA:1186:G:N2	1:CA:1187:G:H1'	2.35	0.42
1:CA:186(G):C:H2'	1:CA:187:C:O4'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AC:130:VAL:HG11	5:AC:157:ILE:HG23	2.00	0.42
25:BA:939:G:C4	25:BA:940:G:C8	3.08	0.42
1:AA:1216:G:O2'	1:AA:1217:C:H5'	2.20	0.42
25:DA:384:U:O2'	25:DA:385:C:H5'	2.18	0.42
1:AA:455:C:H6	1:AA:455:C:O5'	2.02	0.42
25:BA:1221:C:H6	25:BA:1221:C:H5'	1.85	0.42
29:DF:11:VAL:HG12	29:DF:12:LEU:N	2.35	0.42
36:DP:32:THR:O	36:DP:33:ARG:HB3	2.20	0.42
25:DA:941:A:O3'	36:DP:35:HIS:CG	2.73	0.42
1:AA:82:U:C2'	1:AA:85:U:H5	2.32	0.42
49:D2:46:GLN:HB2	49:D2:49:LYS:HE2	2.02	0.42
34:DN:58:ARG:HB3	34:DN:65:TRP:HZ3	1.84	0.42
5:CC:59:ARG:NH2	5:CC:97:LYS:HE2	2.35	0.42
7:AE:50:GLU:HB3	7:AE:53:LEU:HD12	2.02	0.42
27:DD:32:SER:C	27:DD:33:LEU:O	2.58	0.42
4:AB:71:VAL:HG22	4:AB:163:PHE:O	2.19	0.42
27:DD:242:ARG:N	27:DD:242:ARG:HD2	2.34	0.42
27:DD:244:ARG:HA	27:DD:245:PRO:HA	1.75	0.42
16:AN:27:CYS:SG	16:AN:29:ARG:CB	3.02	0.42
25:BA:2518:A:C8	25:BA:2518:A:C5'	2.91	0.42
25:BA:1657:C:O2'	25:BA:1658:C:H5'	2.19	0.42
18:CP:40:ASP:HB3	18:CP:48:TRP:HA	2.01	0.42
11:CI:103:THR:HG22	11:CI:105:ASP:H	1.84	0.42
37:DQ:24:GLY:O	37:DQ:25:ASP:CG	2.58	0.42
24:AX:259:ASP:O	24:AX:259:ASP:OD1	2.38	0.42
30:DG:74:LYS:HA	30:DG:74:LYS:HD2	1.82	0.42
33:DK:80:LYS:HE2	33:DK:81:ALA:N	2.34	0.42
25:DA:1542:G:C8	25:DA:1543:A:N1	2.88	0.42
25:DA:1542:G:H1'	25:DA:1543:A:C6	2.55	0.42
6:CD:15:GLU:HG2	6:CD:63:LYS:HG3	2.02	0.42
5:AC:66:VAL:HB	5:AC:101:LEU:HD23	2.01	0.42
10:CH:51:VAL:HB	10:CH:52:ASP:H	1.66	0.42
30:BG:5:LEU:CD1	30:BG:101:ILE:HG22	2.50	0.42
30:BG:5:LEU:HA	30:BG:5:LEU:HD23	1.79	0.42
37:DQ:37:LEU:HB2	37:DQ:128:LYS:O	2.20	0.42
31:DH:51:ARG:CG	31:DH:52:VAL:N	2.77	0.42
25:DA:464:U:H2'	25:DA:465:G:O4'	2.20	0.42
24:AX:236:LYS:HA	24:AX:237:PRO:HD3	1.93	0.42
1:CA:464:G:N2	1:CA:467:G:C8	2.88	0.42
46:BZ:59:LEU:HD23	46:BZ:59:LEU:HA	1.78	0.42
6:AD:30:LYS:HB2	6:AD:35:ARG:HD2	2.02	0.42
55:D8:2:PRO:O	55:D8:3:LYS:CB	2.66	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CH:134:ILE:HG22	10:CH:135:CYS:SG	2.60	0.42
11:AI:15:ALA:HA	11:AI:65:VAL:HA	2.02	0.42
25:DA:917:A:N6	25:DA:918:A:C2	2.88	0.42
27:BD:11:PRO:O	27:BD:12:SER:C	2.59	0.42
36:DP:114:ILE:H	36:DP:114:ILE:CD1	2.29	0.42
1:CA:1153:C:H2'	1:CA:1154:G:H8	1.83	0.42
1:AA:370:C:N3	1:AA:392:G:C2	2.88	0.42
26:BB:83:G:H5'	50:B3:52:HIS:NE2	2.35	0.42
4:AB:75:LYS:C	4:AB:77:ALA:H	2.22	0.42
25:BA:2197:U:HO2'	25:BA:2198:A:H2'	1.81	0.42
38:BR:84:ALA:HB3	38:BR:85:PRO:HD3	2.01	0.42
25:BA:2842:G:C6	25:BA:2876:G:C6	3.07	0.42
1:CA:643:C:O5'	1:CA:643:C:H6	2.03	0.42
1:CA:1379:G:O6	9:CG:2:ALA:HB3	2.19	0.42
25:BA:352:G:O2'	25:BA:353:G:O5'	2.35	0.42
25:BA:391:G:C6	25:BA:392:C:C4	3.08	0.42
1:CA:1108:G:N3	1:CA:1108:G:H2'	2.35	0.42
25:DA:708:C:N4	25:DA:723:G:H1	2.16	0.42
46:BZ:23:LYS:HB3	46:BZ:38:TYR:HD1	1.85	0.42
1:CA:1051:C:H2'	1:CA:1052:U:H6	1.81	0.42
25:DA:537:C:H4'	34:DN:28:VAL:HG21	2.01	0.42
25:DA:1733:G:C5	25:DA:1734:C:C5	3.08	0.42
1:CA:309:G:H2'	1:CA:310:G:H8	1.83	0.42
7:CE:84:PHE:CD2	7:CE:84:PHE:C	2.93	0.42
25:BA:809:G:O2'	25:BA:810:U:H5'	2.20	0.42
25:DA:270(S):G:C2'	25:DA:270(T):G:H5'	2.49	0.42
36:BP:13:ASN:ND2	36:BP:13:ASN:O	2.53	0.42
19:CQ:29:HIS:ND1	19:CQ:31:LEU:N	2.61	0.42
25:BA:1252:G:N3	25:BA:1253:A:C2	2.88	0.42
25:BA:1878:G:H2'	25:BA:1879:C:H6	1.83	0.42
1:CA:73:G:C2	1:CA:99:C:O2	2.72	0.42
25:DA:33:U:O2'	25:DA:446:G:N2	2.50	0.42
1:AA:848:C:H3'	1:AA:848:C:C6	2.55	0.42
7:CE:10:MET:HG3	7:CE:13:ILE:CD1	2.49	0.42
25:DA:1090:U:H2'	25:DA:1091:G:H8	1.82	0.42
14:AL:77:GLN:C	14:AL:79:HIS:H	2.23	0.42
25:BA:2370:G:H2'	25:BA:2371:G:O4'	2.20	0.42
44:DX:15:GLU:OE1	44:DX:15:GLU:N	2.52	0.42
25:DA:886:C:H2'	25:DA:887:A:H1'	2.02	0.42
25:BA:2108:C:O2	25:BA:2182:G:C2	2.72	0.42
13:CK:34:ASP:OD2	13:CK:34:ASP:C	2.57	0.42
25:BA:947:G:H2'	25:BA:948:G:C8	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:354:G:C6	25:DA:355:G:C5	3.07	0.42
7:AE:89:ILE:CD1	7:AE:135:THR:HG23	2.49	0.42
10:CH:104:ARG:HD3	10:CH:138:TRP:CE3	2.55	0.42
1:CA:858:G:O6	1:CA:869:G:C8	2.72	0.42
38:DR:93:GLY:C	38:DR:95:THR:H	2.23	0.42
29:BF:77:ASP:O	29:BF:79:GLY:N	2.53	0.42
1:AA:927:G:H2'	1:AA:928:G:O4'	2.19	0.42
1:AA:933:G:OP2	9:AG:3:ARG:HB3	2.20	0.42
25:DA:577:G:C6	25:DA:578:A:N6	2.87	0.42
35:DO:120:GLU:OE2	35:DO:122:LEU:HD21	2.20	0.42
1:AA:1042:G:C2	1:AA:1043:C:C2	3.08	0.42
43:BW:35:ILE:O	43:BW:36:LEU:C	2.58	0.42
25:DA:2076:U:C5	25:DA:2596:U:O2	2.72	0.42
17:CO:31:LEU:HA	17:CO:31:LEU:HD12	1.73	0.42
13:AK:25:TYR:CD1	13:AK:25:TYR:N	2.88	0.42
25:BA:1885:A:H2'	25:BA:1886:C:O4'	2.20	0.42
16:AN:13:THR:HG22	16:AN:13:THR:O	2.19	0.42
25:BA:1479:G:N3	25:BA:1479:G:H2'	2.34	0.42
24:AX:348:ASN:HA	24:AX:348:ASN:HD22	1.60	0.42
54:D7:37:LYS:O	54:D7:37:LYS:HG2	2.20	0.42
24:AX:375:VAL:HG22	24:AX:375:VAL:O	2.20	0.42
25:BA:1605:C:H2'	25:BA:1606:G:O4'	2.20	0.42
8:AF:36:ARG:HH21	8:AF:66:GLU:CD	2.23	0.42
1:AA:86:U:H6	1:AA:86:U:O5'	2.02	0.42
36:DP:41:ARG:NE	36:DP:41:ARG:CA	2.82	0.42
41:DU:83:LEU:HB3	41:DU:88:ILE:CG1	2.48	0.42
1:CA:1325:C:H2'	1:CA:1326:C:C6	2.54	0.42
5:CC:59:ARG:O	5:CC:60:ALA:HB2	2.20	0.42
1:AA:136(A):C:H2'	1:AA:136(B):C:H5''	2.02	0.42
41:DU:92:ARG:NH2	42:DV:11:GLN:H	2.18	0.42
12:AJ:28:ARG:HG3	12:AJ:34:VAL:HB	2.02	0.42
25:BA:1152:C:H2'	25:BA:1153:C:C6	2.53	0.42
25:DA:310:A:H2'	25:DA:312:G:N7	2.33	0.42
27:DD:238:GLY:O	27:DD:240:ALA:HB2	2.20	0.42
27:DD:129:ASN:O	27:DD:192:THR:HA	2.20	0.42
25:DA:276:A:H2'	25:DA:277:C:N3	2.35	0.42
30:DG:154:GLY:O	30:DG:155:MET:CB	2.68	0.42
1:CA:955:U:H2'	1:CA:956:U:H6	1.85	0.42
25:BA:783:A:C8	25:BA:784:A:H4'	2.55	0.42
1:AA:975:A:H4'	1:AA:976:G:O5'	2.19	0.42
21:CS:28:LYS:HB2	21:CS:29:ARG:H	1.52	0.42
36:BP:15:ARG:HA	36:BP:15:ARG:NE	2.35	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1304:G:C6	1:CA:1305:G:N1	2.88	0.42
28:BE:92:THR:C	28:BE:94:GLU:N	2.72	0.42
10:AH:60:ARG:HG3	10:AH:60:ARG:HH11	1.84	0.42
1:CA:977:A:C8	1:CA:1223:C:N3	2.88	0.42
10:CH:114:THR:HG23	10:CH:116:LYS:N	2.29	0.42
15:CM:11:ARG:HB3	15:CM:12:ASN:ND2	2.27	0.42
5:AC:8:ILE:HG23	5:AC:16:ARG:HG2	2.02	0.42
25:DA:2334:G:C2	39:DS:12:PHE:HE1	2.38	0.42
9:CG:155:ARG:CZ	9:CG:155:ARG:HB2	2.49	0.42
26:BB:44:G:OP1	30:BG:96:ARG:NH2	2.53	0.42
25:BA:2335:A:O2'	25:BA:2336:A:H5''	2.19	0.42
1:CA:735:C:H2'	1:CA:736:C:C6	2.53	0.42
26:BB:66:A:H61	26:BB:107:U:C2'	2.24	0.42
24:AX:312:ARG:HB3	24:AX:316:ARG:HG3	2.01	0.42
25:DA:973:A:O4'	25:DA:1188:U:C6	2.73	0.42
31:DH:50:VAL:O	31:DH:51:ARG:CB	2.64	0.42
25:BA:2888:C:H2'	25:BA:2889:C:C6	2.54	0.42
25:BA:1100:C:C4	25:BA:1101:U:C5	3.08	0.42
29:DF:199:TRP:O	29:DF:202:PHE:HB3	2.20	0.42
25:BA:2852:G:H2'	25:BA:2853:C:H6	1.83	0.42
1:CA:677:U:C4	1:CA:678:U:C4	3.08	0.42
25:DA:1775:U:H2'	25:DA:1776:G:O5'	2.19	0.42
25:DA:2850:A:C2	25:DA:2851:A:C4	3.08	0.42
25:DA:2564:A:N3	25:DA:2647:U:H4'	2.35	0.42
1:CA:1493:A:C8	25:DA:1913:A:N6	2.88	0.42
25:BA:1936:A:C5'	25:BA:1936:A:N3	2.82	0.42
31:DH:77:LYS:HB3	31:DH:83:TYR:OH	2.20	0.42
2:AY:19:G:C2	2:AY:57:A:N3	2.88	0.42
1:AA:513:C:H2'	1:AA:514:C:C6	2.55	0.42
45:DY:27:VAL:CG2	45:DY:27:VAL:O	2.67	0.42
15:AM:94:ARG:NH2	21:AS:80:TYR:CE2	2.87	0.42
1:CA:390:C:H4'	18:CP:28:ARG:HH21	1.85	0.42
45:DY:85:VAL:HG23	45:DY:85:VAL:O	2.20	0.42
9:AG:70:LYS:HA	9:AG:71:PRO:HD2	1.85	0.42
1:AA:901:A:C5	1:AA:902:G:H1'	2.55	0.42
40:DT:112:ARG:H	40:DT:112:ARG:HG3	1.72	0.42
25:BA:1036:G:OP1	31:BH:59:ARG:HB2	2.20	0.42
25:DA:2835:A:C5	25:DA:2879:C:C5	3.08	0.42
37:BQ:51:ARG:HG3	37:BQ:51:ARG:HH11	1.85	0.42
53:D6:36:LEU:HD13	53:D6:50:ARG:HH22	1.85	0.42
46:BZ:72:ARG:HD3	46:BZ:72:ARG:HA	1.79	0.42
1:AA:152:A:C8	1:AA:153:C:C5	3.07	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:72:U:O4	25:DA:112:U:H4'	2.19	0.42
25:BA:1248:G:C4	41:BU:3:ARG:HG3	2.55	0.42
25:BA:1291:C:O2'	25:BA:1292:U:H5'	2.20	0.42
4:CB:7:VAL:C	4:CB:9:GLU:N	2.72	0.42
1:AA:1316:G:H2'	1:AA:1317:C:H5''	2.02	0.42
25:DA:1558:A:H1'	25:DA:1559:G:O5'	2.20	0.42
35:DO:4:PRO:O	35:DO:5:GLN:CB	2.67	0.42
26:DB:12:C:O2'	47:D0:74:ARG:HG2	2.20	0.42
1:CA:156:G:C2	1:CA:166:G:C2	3.08	0.42
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.54	0.42
37:BQ:59:ARG:HG3	37:BQ:60:ARG:NH1	2.35	0.42
4:AB:72:GLY:HA2	4:AB:165:VAL:CG2	2.50	0.42
7:AE:139:LEU:C	7:AE:141:GLN:H	2.23	0.42
1:AA:1504:G:H3'	1:AA:1504:G:P	2.60	0.42
25:BA:2129:C:H2'	25:BA:2130:U:O4'	2.20	0.42
29:BF:78:ILE:CD1	29:BF:78:ILE:H	2.28	0.42
1:CA:1375:A:H4'	9:CG:29:LYS:NZ	2.35	0.42
25:BA:33:U:O2'	25:BA:446:G:N2	2.52	0.42
37:BQ:67:ARG:HD3	37:BQ:102:VAL:HB	2.01	0.42
1:CA:506:G:C5	1:CA:507:C:C4	3.08	0.42
1:AA:781:A:H5'	1:AA:782:A:OP2	2.20	0.42
25:BA:2186:G:O2'	25:BA:2187:G:H5'	2.20	0.42
1:AA:416:G:C6	1:AA:417:C:N3	2.87	0.42
1:AA:592:G:H2'	1:AA:593:G:H8	1.85	0.42
32:BI:110:ASP:HA	32:BI:111:PRO:HD2	1.89	0.42
28:BE:181:LEU:HD22	28:BE:181:LEU:N	2.34	0.42
52:B5:49:CYS:HB2	52:B5:50:GLY:H	1.70	0.42
1:AA:39:G:O6	1:AA:547:A:H2'	2.20	0.42
1:CA:1244:C:H2'	1:CA:1245:A:H8	1.85	0.42
24:AX:133:ILE:HD12	24:AX:150:LEU:HA	2.02	0.42
37:BQ:33:GLY:HA2	37:BQ:104:PHE:O	2.20	0.42
1:AA:1009:G:H2'	1:AA:1010:G:C8	2.55	0.42
25:DA:2731:G:C6	25:DA:2732:G:C6	3.08	0.42
25:DA:344:G:O2'	25:DA:345:A:H5'	2.20	0.42
28:DE:32:PRO:HB2	28:DE:72:VAL:HG11	2.01	0.42
1:AA:858:G:O6	1:AA:869:G:C8	2.73	0.42
46:BZ:78:LYS:O	46:BZ:79:ARG:CB	2.68	0.42
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.20	0.42
37:BQ:73:PRO:HA	37:BQ:93:TYR:CD2	2.55	0.42
5:AC:205:GLY:O	5:AC:206:GLU:HB2	2.19	0.42
31:DH:106:THR:HG22	31:DH:112:PRO:HB3	2.01	0.42
1:AA:1139:G:H4'	1:AA:1140:C:OP1	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2239:G:H5'	27:DD:251:GLY:HA3	2.02	0.42
32:DI:78:THR:C	32:DI:79:ILE:HD13	2.41	0.42
38:BR:44:LEU:HD13	38:BR:44:LEU:C	2.40	0.42
5:AC:110:ASN:O	5:AC:141:VAL:HG22	2.20	0.42
44:BX:41:ASN:O	44:BX:45:THR:HG23	2.20	0.42
25:BA:693:C:H2'	25:BA:694:U:C6	2.55	0.42
36:BP:33:ARG:O	36:BP:34:GLY:C	2.58	0.41
36:DP:23:PRO:HB2	36:DP:33:ARG:NE	2.34	0.41
11:CI:19:LEU:HD23	11:CI:61:ALA:HB2	2.01	0.41
37:BQ:18:LYS:O	37:BQ:19:GLY:C	2.59	0.41
30:DG:137:GLU:H	30:DG:137:GLU:HG3	1.58	0.41
5:CC:66:VAL:HB	5:CC:101:LEU:HD23	2.01	0.41
34:BN:69:VAL:HG13	34:BN:70:ALA:N	2.34	0.41
26:BB:31:C:H2'	26:BB:31:C:O2	2.19	0.41
25:DA:534:U:O2'	41:DU:49:HIS:CD2	2.73	0.41
41:DU:52:ARG:O	41:DU:55:ARG:N	2.53	0.41
12:AJ:5:ARG:HD3	12:AJ:7:LYS:HE2	2.01	0.41
40:BT:107:ASP:O	40:BT:110:ILE:HG22	2.20	0.41
53:D6:34:LEU:H	53:D6:34:LEU:CD1	2.25	0.41
25:BA:276:A:H2'	25:BA:277:C:C2	2.55	0.41
27:DD:253:GLN:OE1	27:DD:255:LYS:HE3	2.19	0.41
27:BD:242:ARG:HD2	27:BD:242:ARG:N	2.35	0.41
1:AA:1288:A:H1'	1:AA:1352:C:O2'	2.20	0.41
11:CI:55:ALA:HB2	11:CI:58:ARG:NH2	2.21	0.41
1:AA:1130:A:C2	1:AA:1146:A:C4	3.08	0.41
25:BA:2171:A:C2	25:BA:2172:U:N3	2.88	0.41
25:BA:1542:G:H1'	25:BA:1543:A:C6	2.55	0.41
49:B2:2:LYS:O	49:B2:5:GLU:OE1	2.38	0.41
25:DA:2173:A:H3'	25:DA:2174:C:H6	1.85	0.41
25:BA:1843:C:O2'	27:BD:256:GLY:O	2.31	0.41
4:CB:187:LEU:HD23	4:CB:201:ILE:O	2.20	0.41
7:AE:92:LYS:HB2	7:AE:119:LEU:HB2	2.02	0.41
5:AC:105:GLU:CG	5:AC:106:VAL:N	2.82	0.41
4:CB:172:ILE:H	4:CB:172:ILE:HG13	1.54	0.41
31:DH:164:TYR:HB3	31:DH:165:ALA:H	1.62	0.41
37:DQ:88:GLY:O	37:DQ:89:ASN:CB	2.68	0.41
24:CX:194:SER:CB	24:CX:195:PRO:HD3	2.50	0.41
30:DG:5:LEU:CD1	30:DG:101:ILE:HG22	2.50	0.41
25:BA:2564:A:N3	25:BA:2647:U:H4'	2.35	0.41
46:BZ:28:MET:HE3	46:BZ:61:LEU:HD21	2.02	0.41
40:DT:117:ASP:C	40:DT:119:LYS:N	2.73	0.41
25:DA:1536:A:O5'	25:DA:1536:A:H8	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DD:125:ILE:HG22	27:DD:125:ILE:O	2.19	0.41
8:CF:14:LEU:HD23	8:CF:14:LEU:O	2.18	0.41
10:CH:86:ILE:HG22	10:CH:93:VAL:HG21	2.02	0.41
25:DA:858:U:O2	25:DA:2268:A:H2'	2.20	0.41
1:CA:1493:A:N3	25:DA:1913:A:C4	2.88	0.41
1:AA:740:U:O3'	17:AO:39:LEU:HD23	2.19	0.41
15:CM:75:ALA:O	15:CM:79:LYS:HG3	2.20	0.41
29:BF:101:LEU:O	29:BF:106:ARG:NH1	2.39	0.41
28:BE:114:ALA:HB2	28:BE:160:TYR:HB3	2.01	0.41
25:BA:2280:G:C5	25:BA:2281:C:C5	3.08	0.41
42:BV:95:LEU:HD22	42:BV:96:ILE:O	2.20	0.41
25:BA:1276:A:H1'	38:BR:16:HIS:CE1	2.46	0.41
34:BN:41:ALA:CB	34:BN:78:VAL:O	2.68	0.41
25:DA:579:G:C2	25:DA:1262:A:C4	3.08	0.41
17:CO:21:ASP:OD1	17:CO:24:SER:HB3	2.20	0.41
26:DB:83:G:H5'	50:D3:52:HIS:NE2	2.35	0.41
28:BE:56:PRO:HB3	28:BE:64:LYS:HZ1	1.85	0.41
25:BA:2234:G:H2'	25:BA:2235:G:O4'	2.20	0.41
25:BA:864:G:H2'	25:BA:865:C:C6	2.53	0.41
25:DA:1839:G:H8	25:DA:1839:G:C5'	2.33	0.41
43:DW:33:ARG:NH1	43:DW:52:GLU:OE1	2.53	0.41
1:CA:812:C:OP1	1:CA:903:G:H1'	2.20	0.41
25:BA:1347:G:C5	25:BA:1348:G:N7	2.88	0.41
1:CA:820:U:H4'	1:CA:821:G:OP2	2.20	0.41
29:BF:153:SER:HB2	29:BF:189:THR:HG22	2.02	0.41
32:DI:2:LYS:HB2	32:DI:39:ALA:HB3	2.02	0.41
1:AA:618:C:H3'	1:AA:619:U:H5''	2.02	0.41
29:DF:153:SER:HB2	29:DF:189:THR:HG22	2.02	0.41
1:AA:1004:A:H2'	1:AA:1036:G:H22	1.84	0.41
25:DA:2073:C:O2'	25:DA:2074:U:H5'	2.20	0.41
25:DA:955:C:C2'	25:DA:956:G:H5'	2.50	0.41
25:DA:718:A:H3'	25:DA:719:C:C6	2.55	0.41
25:DA:719:C:H2'	25:DA:720:C:C6	2.52	0.41
25:DA:2247:A:O2'	25:DA:2248:C:H5'	2.19	0.41
1:AA:1057:G:H5''	5:AC:154:SER:O	2.19	0.41
35:BO:2:ILE:HG12	35:BO:8:LEU:HD11	2.02	0.41
25:DA:2092:U:C4	25:DA:2226:C:OP2	2.73	0.41
25:BA:1352:U:O2	25:BA:1570:A:H2	2.02	0.41
28:DE:14:ILE:HD12	28:DE:14:ILE:C	2.40	0.41
1:CA:147:G:N2	1:CA:176:C:C2	2.88	0.41
36:DP:99:LEU:H	36:DP:99:LEU:CD1	2.32	0.41
27:DD:210:GLY:O	27:DD:213:ARG:N	2.53	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BN:57:LEU:HA	34:BN:57:LEU:HD13	1.92	0.41
31:DH:90:LYS:HG2	31:DH:163:TYR:CD1	2.55	0.41
36:BP:99:LEU:N	36:BP:99:LEU:CD1	2.83	0.41
18:AP:19:ILE:HG22	18:AP:36:ILE:CG1	2.50	0.41
1:AA:1360:A:H2'	1:AA:1361:G:C8	2.55	0.41
49:B2:55:ARG:O	49:B2:59:ARG:HG2	2.20	0.41
1:AA:35:G:C6	1:AA:36:C:N4	2.88	0.41
1:CA:781:A:H5'	1:CA:782:A:OP2	2.19	0.41
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.55	0.41
25:BA:1139:G:H5''	34:BN:93:LYS:NZ	2.35	0.41
19:AQ:85:VAL:HG12	19:AQ:89:LEU:HD12	2.01	0.41
12:AJ:40:LEU:HB2	12:AJ:69:ASN:HB2	2.01	0.41
1:CA:651:C:O2'	1:CA:652:U:H5'	2.20	0.41
25:BA:2057:A:H2'	25:BA:2058:A:O4'	2.20	0.41
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.54	0.41
33:DK:2:LYS:HE3	33:DK:2:LYS:HA	2.02	0.41
25:DA:2811:G:O5'	25:DA:2811:G:H8	2.02	0.41
41:DU:84:LYS:HD3	41:DU:84:LYS:HA	1.84	0.41
25:BA:705:A:C2	25:BA:706:A:C4	3.08	0.41
25:BA:2464:C:H2'	25:BA:2465:C:O4'	2.20	0.41
48:B1:13:ILE:HG13	48:B1:14:VAL:N	2.35	0.41
48:D1:10:LYS:HD2	48:D1:11:ARG:NH1	2.35	0.41
41:BU:92:ARG:H	42:BV:11:GLN:NE2	2.18	0.41
49:D2:11:GLU:O	49:D2:14:ARG:HB2	2.21	0.41
41:DU:91:ASP:OD2	41:DU:96:ALA:N	2.53	0.41
36:BP:46:LYS:HB3	36:BP:52:GLU:HG3	2.02	0.41
1:CA:136(A):C:C2'	1:CA:136(B):C:H5''	2.50	0.41
15:AM:23:TYR:HB3	15:AM:67:GLU:HA	2.01	0.41
41:DU:92:ARG:H	42:DV:11:GLN:NE2	2.18	0.41
25:BA:1019:U:H2'	25:BA:1021:A:C2	2.56	0.41
12:AJ:38:ILE:HA	12:AJ:39:PRO:HD2	1.88	0.41
27:BD:32:SER:O	27:BD:33:LEU:O	2.38	0.41
30:DG:56:ALA:O	30:DG:60:LEU:HB2	2.20	0.41
25:DA:783:A:C8	25:DA:784:A:H4'	2.55	0.41
11:CI:55:ALA:HB1	11:CI:59:PHE:HD1	1.84	0.41
36:DP:10:PRO:O	36:DP:11:GLY:C	2.58	0.41
25:BA:363(D):G:H2'	25:BA:363(E):G:H8	1.85	0.41
4:AB:155:LEU:HD21	4:AB:159:PRO:HD3	2.02	0.41
55:D8:62:LEU:C	55:D8:64:TYR:N	2.69	0.41
10:CH:56:LYS:HB2	10:CH:58:TYR:CE1	2.55	0.41
1:CA:738:C:H2'	1:CA:739:C:C6	2.47	0.41
1:CA:1073:U:O2	4:CB:104:ASN:ND2	2.52	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2688:U:H1'	25:DA:2721:A:H61	1.85	0.41
25:DA:2688:U:O2	25:DA:2688:U:C3'	2.68	0.41
44:DX:35:THR:H	44:DX:38:GLU:CG	2.33	0.41
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.35	0.41
36:BP:71:VAL:CB	36:BP:72:PRO:HD3	2.44	0.41
25:DA:1843:C:O2'	27:DD:256:GLY:O	2.26	0.41
25:DA:2712:U:H1'	25:DA:712(B):A:N7	2.34	0.41
5:CC:70:VAL:HG12	5:CC:72:LYS:N	2.24	0.41
36:BP:88:LEU:HD11	36:BP:95:VAL:CG2	2.49	0.41
25:DA:2426:A:O5'	25:DA:2426:A:H2'	2.20	0.41
44:DX:63:LYS:HD2	44:DX:72:LYS:CA	2.51	0.41
25:BA:465:G:C6	25:BA:466:A:N6	2.88	0.41
25:BA:1099:G:C4	25:BA:1100:C:C5	3.08	0.41
1:AA:360:A:H2'	1:AA:361:G:C8	2.55	0.41
25:DA:1535:U:H3'	25:DA:1536:A:C8	2.55	0.41
2:CZ:17(A):U:O2'	2:CZ:18:G:P	2.78	0.41
16:AN:6:LEU:HD22	16:AN:23:ARG:CZ	2.50	0.41
18:AP:20:VAL:HG21	18:AP:32:TYR:HB2	2.02	0.41
24:CX:145:TRP:CZ3	24:CX:200:HIS:O	2.64	0.41
25:BA:498:G:O2'	25:BA:499:U:H5'	2.20	0.41
34:DN:41:ALA:CB	34:DN:78:VAL:O	2.68	0.41
25:DA:135:G:H1	25:DA:144:C:N4	2.16	0.41
36:DP:30:THR:HG22	36:DP:31:ALA:H	1.83	0.41
50:D3:23:LEU:HD23	50:D3:28:LEU:HD13	2.02	0.41
25:DA:2574:G:N3	28:DE:143:ASN:ND2	2.68	0.41
25:DA:319:C:O2'	25:DA:320:A:H5'	2.21	0.41
55:B8:26:LYS:HD3	55:B8:48:PHE:CE2	2.55	0.41
1:AA:375:U:N3	1:AA:376:G:N7	2.68	0.41
6:AD:108:LEU:HG	6:AD:176:LEU:HD13	2.02	0.41
20:CR:79:LEU:HA	20:CR:80:PRO:HD3	1.88	0.41
52:D5:47:PRO:O	52:D5:48:GLU:HB3	2.20	0.41
25:BA:2065:C:O2'	25:BA:2066:C:H5'	2.20	0.41
26:DB:45:A:H2'	26:DB:45:A:N3	2.34	0.41
31:BH:126:PRO:HG2	31:BH:130:ARG:CB	2.50	0.41
25:BA:307:G:C3'	25:BA:307:G:C8	3.03	0.41
45:BY:42:VAL:HG21	45:BY:67:LEU:HD13	2.02	0.41
4:AB:11:LEU:CD1	4:AB:217:ARG:HH12	2.33	0.41
16:CN:15:LYS:HD2	16:CN:16:PHE:CE2	2.55	0.41
25:BA:2703:C:C2	25:BA:2704:C:C5	3.07	0.41
25:DA:32:C:O2'	25:DA:33:U:H5'	2.20	0.41
14:CL:33:ARG:HG3	14:CL:34:GLY:H	1.86	0.41
1:CA:152:A:C8	1:CA:153:C:C5	3.08	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:32:C:O2'	25:BA:33:U:H5'	2.20	0.41
7:CE:6:PHE:HD1	7:CE:63:ARG:HH11	1.67	0.41
25:DA:266:G:C6	25:DA:267:C:C4	3.08	0.41
25:BA:2652:C:H2'	25:BA:2653:U:O4'	2.21	0.41
19:AQ:70:ARG:O	19:AQ:71:PHE:CD2	2.73	0.41
8:CF:16:GLN:H	8:CF:16:GLN:CD	2.23	0.41
16:AN:57:ARG:HG2	16:AN:58:LYS:N	2.35	0.41
34:DN:57:LEU:O	34:DN:139:LEU:HD22	2.20	0.41
31:BH:31:GLY:O	31:BH:32:GLU:HB2	2.20	0.41
17:CO:9:GLN:O	17:CO:10:LYS:C	2.57	0.41
40:BT:96:ARG:HB2	40:BT:96:ARG:CZ	2.50	0.41
25:DA:270(L):C:H2'	25:DA:270(M):U:H5''	2.02	0.41
24:CX:281:GLN:NE2	25:DA:2493:U:C4'	2.84	0.41
1:CA:66:G:C6	1:CA:104:G:C2	3.08	0.41
37:DQ:58:PHE:CD1	37:DQ:58:PHE:O	2.74	0.41
25:DA:2338:G:C2	25:DA:2339:G:C8	3.08	0.41
1:CA:1401:G:C6	1:CA:1402:C:C2	3.08	0.41
1:AA:998(B):C:H6	1:AA:998(B):C:O5'	2.03	0.41
1:AA:186(G):C:H2'	1:AA:187:C:O4'	2.19	0.41
25:BA:1170:G:C6	25:BA:1171:G:N7	2.89	0.41
2:CY:42:G:C4	2:CY:43:A:C8	3.08	0.41
25:BA:1727:U:H2'	25:BA:1728:G:O4'	2.20	0.41
25:DA:2364:C:H2'	25:DA:2365:G:H5'	2.01	0.41
25:DA:2183:C:H6	25:DA:2183:C:O5'	2.02	0.41
1:AA:1421:G:C2	1:AA:1480:G:C2	3.07	0.41
37:BQ:125:LEU:HA	37:BQ:126:PRO:HD2	1.81	0.41
1:AA:302:G:C6	1:AA:303:A:C5	3.09	0.41
1:CA:1009:G:H2'	1:CA:1010:G:C8	2.55	0.41
25:BA:2338:G:C2	25:BA:2339:G:N7	2.88	0.41
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.20	0.41
12:CJ:79:ARG:HD3	12:CJ:79:ARG:HA	1.76	0.41
1:AA:162:A:H8	1:AA:162:A:O5'	2.03	0.41
41:BU:85:LYS:O	41:BU:85:LYS:HD3	2.21	0.41
45:BY:3:VAL:HG12	45:BY:3:VAL:O	2.20	0.41
2:CY:54:U:H6	2:CY:54:U:O5'	2.02	0.41
36:BP:74:GLU:HA	36:BP:74:GLU:OE2	2.20	0.41
1:AA:1258:G:H2'	1:AA:1259:C:H6	1.85	0.41
1:AA:10:A:H2'	1:AA:11:G:H8	1.85	0.41
43:BW:52:GLU:O	43:BW:54:ALA:N	2.53	0.41
25:BA:1692:U:H2'	25:BA:1694:C:C5	2.54	0.41
12:CJ:90:LEU:N	12:CJ:91:PRO:HD3	2.35	0.41
25:DA:777:A:H2'	25:DA:778:G:O4'	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:D1:13:ILE:HD13	48:D1:63:ALA:HB3	2.01	0.41
25:DA:663:G:C5	25:DA:664:C:C5	3.08	0.41
25:DA:2789:C:O4'	25:DA:2892:A:C2	2.73	0.41
36:BP:40:SER:C	36:BP:41:ARG:HE	2.23	0.41
25:DA:2307:G:C6	25:DA:2308:G:C6	3.08	0.41
12:CJ:5:ARG:HA	12:CJ:73:ASP:OD1	2.19	0.41
25:DA:2415:G:C5	25:DA:2416:C:C4	3.08	0.41
27:BD:102:LYS:O	27:BD:103:ARG:HG2	2.20	0.41
53:D6:26:ASN:O	53:D6:27:LYS:HG2	2.20	0.41
25:BA:276:A:H2'	25:BA:277:C:N3	2.34	0.41
27:DD:222:ARG:HH12	27:DD:239:ARG:CZ	2.33	0.41
30:DG:133:LEU:HD23	30:DG:133:LEU:N	2.35	0.41
52:B5:41:PRO:O	52:B5:44:THR:OG1	2.37	0.41
4:CB:157:ARG:HD3	4:CB:157:ARG:HA	1.89	0.41
24:CX:184:VAL:HG21	24:CX:193:LEU:HD12	2.01	0.41
14:AL:27:LYS:HE2	14:AL:32:ARG:HH12	1.85	0.41
14:AL:30:PRO:C	14:AL:31:PHE:CG	2.94	0.41
55:D8:11:LYS:NZ	55:D8:11:LYS:HB3	2.36	0.41
7:AE:132:ALA:O	7:AE:133:TYR:C	2.59	0.41
25:BA:2781:A:H8	25:BA:2781:A:H5''	1.83	0.41
24:AX:190:TYR:O	24:AX:194:SER:N	2.47	0.41
35:BO:23:ARG:HD2	35:BO:23:ARG:HA	1.84	0.41
41:BU:74:LEU:HD12	41:BU:78:THR:HG22	2.03	0.41
30:BG:111:LEU:N	30:BG:112:PRO:CD	2.83	0.41
31:BH:87:LEU:HB2	31:BH:131:VAL:O	2.20	0.41
30:DG:99:MET:HG3	30:DG:100:TRP:N	2.36	0.41
25:DA:2503:A:H4'	25:DA:2504:U:OP1	2.20	0.41
13:AK:53:SER:O	13:AK:54:ARG:C	2.58	0.41
44:DX:50:LYS:N	44:DX:87:GLN:HE22	2.09	0.41
25:DA:1773:A:H2'	25:DA:1774:C:H5'	2.01	0.41
34:BN:118:PRO:HD2	34:BN:119:GLU:OE1	2.20	0.41
25:BA:1981:A:H3'	25:BA:1981:A:C8	2.56	0.41
25:BA:51:G:N3	25:BA:119:A:C2	2.88	0.41
11:CI:15:ALA:HA	11:CI:65:VAL:HA	2.02	0.41
39:DS:15:ARG:O	39:DS:19:LYS:HG3	2.20	0.41
6:CD:34:GLU:OE2	6:CD:34:GLU:HA	2.20	0.41
27:BD:76:PRO:HA	27:BD:118:VAL:HG23	2.02	0.41
42:BV:35:LEU:HB3	42:BV:37:VAL:HG23	2.03	0.41
25:DA:475:U:H2'	25:DA:476:G:O4'	2.20	0.41
25:DA:1005:C:H2'	25:DA:1006:C:C5	2.55	0.41
29:BF:103:LYS:O	29:BF:104:LYS:C	2.59	0.41
25:DA:2842:G:C6	25:DA:2876:G:C6	3.08	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:864:G:H2'	25:DA:865:C:C6	2.55	0.41
1:AA:504:C:O4'	1:AA:510:A:C2	2.72	0.41
27:DD:118:VAL:HG22	27:DD:119:ALA:N	2.32	0.41
11:AI:85:LEU:C	11:AI:85:LEU:HD12	2.41	0.41
1:CA:1485:U:O2'	1:CA:1486:G:H5'	2.20	0.41
35:BO:25:LEU:HD23	35:BO:25:LEU:HA	1.88	0.41
47:D0:65:GLY:HA3	47:D0:83:PRO:HA	2.03	0.41
6:CD:194:LEU:N	6:CD:194:LEU:HD22	2.35	0.41
22:CT:49:ALA:HB2	22:CT:92:LEU:HD22	2.01	0.41
25:DA:531:C:N3	25:DA:563:G:C8	2.88	0.41
25:BA:1993:U:H4'	28:BE:128:SER:CB	2.50	0.41
24:AX:40:LYS:HA	24:AX:43:GLU:HG3	2.01	0.41
9:AG:15:ASP:OD2	9:AG:16:LEU:N	2.52	0.41
34:DN:38:LEU:C	34:DN:38:LEU:HD13	2.40	0.41
25:BA:322:A:C6	25:BA:340:A:N1	2.88	0.41
25:DA:1731:G:O2'	25:DA:1732:A:O5'	2.38	0.41
25:BA:1733:G:C5	25:BA:1734:C:C5	3.08	0.41
1:CA:169:C:H6	1:CA:169:C:H5'	1.85	0.41
25:DA:1081:U:H4'	33:DK:118:THR:H	1.84	0.41
5:CC:175:LEU:CD1	5:CC:201:TYR:HE2	2.33	0.41
4:AB:15:VAL:HG23	4:AB:16:HIS:CE1	2.54	0.41
14:CL:17:VAL:HG23	14:CL:18:ARG:N	2.35	0.41
49:D2:28:LYS:HB3	49:D2:57:ILE:CD1	2.50	0.41
28:DE:116:VAL:HG22	28:DE:122:PHE:CG	2.55	0.41
1:AA:538:G:OP1	14:AL:112:ARG:HG3	2.21	0.41
1:CA:916:G:H2'	1:CA:917:G:C8	2.54	0.41
27:DD:168:ARG:O	27:DD:169:GLU:HB2	2.19	0.41
40:BT:19:LEU:HA	40:BT:20:PRO:HD3	1.61	0.41
43:DW:21:VAL:C	43:DW:23:LEU:N	2.72	0.41
43:DW:21:VAL:O	43:DW:23:LEU:N	2.53	0.41
25:DA:328:U:H4'	45:DY:68:HIS:CD2	2.55	0.41
25:BA:1227:G:H5''	25:BA:1227:G:H8	1.86	0.41
1:CA:117:G:H2'	1:CA:118:U:H6	1.85	0.41
46:DZ:91:LEU:HA	46:DZ:91:LEU:HD23	1.65	0.41
1:AA:41:G:C6	1:AA:402:G:C6	3.08	0.41
25:BA:697:C:H2'	25:BA:698:C:H6	1.85	0.41
1:AA:35:G:C2	1:AA:550:G:C2	3.09	0.41
26:BB:3:C:H2'	26:BB:4:C:H6	1.85	0.41
25:DA:2353:G:O6	25:DA:2365:G:C2	2.73	0.41
25:DA:1961:C:O2'	25:DA:1962:C:H5'	2.20	0.41
25:DA:1044:G:O4'	25:DA:1048:A:H1'	2.20	0.41
1:CA:1462:G:H2'	1:CA:1463:C:O4'	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BK:84:LEU:HB3	33:BK:85:GLU:H	1.73	0.41
1:CA:935:A:H2'	1:CA:936:C:C6	2.55	0.41
25:DA:2825:U:H6	25:DA:2825:U:O5'	2.02	0.41
47:D0:46:LYS:HB3	47:D0:47:PRO:HD2	2.01	0.41
47:D0:46:LYS:O	47:D0:47:PRO:O	2.38	0.41
48:B1:44:PRO:HG2	48:B1:44:PRO:O	2.20	0.41
25:BA:2090:G:H21	48:B1:45:ASN:ND2	2.18	0.41
48:D1:14:VAL:O	48:D1:14:VAL:CG1	2.67	0.41
25:DA:196:A:C4	25:DA:805:G:C6	3.07	0.41
36:DP:49:ARG:NH1	36:DP:49:ARG:CG	2.72	0.41
41:BU:65:ILE:O	41:BU:69:CYS:HB3	2.19	0.41
5:AC:92:ALA:C	5:AC:94:LEU:N	2.73	0.41
34:DN:63:PRO:C	34:DN:65:TRP:H	2.23	0.41
24:AX:85:LEU:HD11	24:AX:89:MET:HE3	2.02	0.41
1:AA:1325:C:H2'	1:AA:1326:C:C6	2.55	0.41
23:AU:12:LYS:HB3	23:AU:17:THR:O	2.20	0.41
53:D6:34:LEU:HD23	53:D6:37:ARG:HH12	1.84	0.41
45:DY:20:TYR:CE1	45:DY:42:VAL:HA	2.55	0.41
29:BF:9:ILE:HA	29:BF:10:PRO:HD2	1.94	0.41
25:BA:276:A:C5	25:BA:277:C:N4	2.88	0.41
28:BE:201:THR:C	28:BE:202:LYS:HD2	2.40	0.41
24:AX:32:ILE:O	24:AX:36:GLU:N	2.53	0.41
52:D5:41:PRO:O	52:D5:44:THR:OG1	2.38	0.41
1:AA:1061:G:OP1	12:AJ:59:SER:HB2	2.20	0.41
45:DY:2:ARG:C	45:DY:4:LYS:H	2.22	0.41
36:DP:81:GLN:HE22	36:DP:106:LEU:HA	1.82	0.41
1:CA:1127:G:H21	1:CA:1146:A:N6	2.17	0.41
28:BE:2:LYS:CD	28:BE:95:ILE:HG22	2.45	0.41
44:BX:36:LYS:HG2	44:BX:56:THR:HG23	2.02	0.41
43:BW:13:SER:HA	43:BW:14:PRO:HD3	1.85	0.41
43:BW:14:PRO:O	43:BW:15:ARG:C	2.58	0.41
43:DW:65:LEU:HB2	43:DW:68:ARG:HG2	2.02	0.41
47:B0:36:ILE:HD13	47:B0:58:THR:HG21	2.02	0.41
47:B0:36:ILE:HG22	47:B0:37:LEU:N	2.35	0.41
29:DF:181:LEU:HD23	29:DF:181:LEU:HA	1.62	0.41
1:AA:112:G:C2'	1:AA:113:G:H5'	2.50	0.41
30:BG:96:ARG:HD2	30:BG:98:ARG:HG2	2.02	0.41
25:BA:2425:A:H5"	25:BA:2427:C:O4'	2.19	0.41
13:AK:105:VAL:O	13:AK:106:LYS:C	2.57	0.41
24:CX:127:LYS:HD2	24:CX:225:PRO:HB2	2.02	0.41
1:AA:738:C:H6	1:AA:738:C:O5'	2.03	0.41
46:BZ:104:PHE:CE1	46:BZ:171:ILE:HG22	2.55	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1331:A:O2'	25:BA:1332:G:H5''	2.20	0.41
25:BA:512:G:O2'	25:BA:513:A:OP2	2.32	0.41
14:CL:44:PRO:HB3	14:CL:91:ASP:OD2	2.20	0.41
29:DF:178:PRO:HG2	29:DF:179:GLU:CD	2.41	0.41
41:DU:95:LEU:C	41:DU:97:ASP:H	2.22	0.41
2:AZ:17(A):U:O2'	2:AZ:18:G:P	2.79	0.41
1:AA:47:C:O2	1:AA:49:U:C4	2.73	0.41
25:BA:303:U:O2	25:BA:304:G:C8	2.73	0.41
25:DA:2852:G:C6	25:DA:2853:C:N4	2.89	0.41
33:DK:89:HIS:HB2	33:DK:94:GLU:OE2	2.21	0.41
11:AI:104:ARG:HD2	11:AI:104:ARG:O	2.20	0.41
12:CJ:13:HIS:O	12:CJ:17:ASP:HB2	2.20	0.41
25:DA:865:C:H4'	25:DA:866:A:OP1	2.20	0.41
25:DA:2130:U:O2'	25:DA:2158:A:N1	2.53	0.41
1:AA:511:C:H1'	6:AD:43:HIS:HE2	1.85	0.41
42:DV:14:VAL:CG1	42:DV:96:ILE:HG21	2.50	0.41
38:DR:12:ARG:HB3	38:DR:16:HIS:CD2	2.55	0.41
1:AA:685:G:O2'	1:AA:686:U:H5'	2.21	0.41
1:CA:429:U:H1'	1:CA:430:A:H5''	2.02	0.41
1:CA:375:U:O2'	18:CP:28:ARG:HD2	2.20	0.41
25:DA:2303:G:N1	25:DA:2314:C:C4	2.88	0.41
1:CA:937:A:C2	1:CA:1379:G:O6	2.73	0.41
53:B6:15:GLU:HA	53:B6:49:HIS:CD2	2.55	0.41
25:BA:864:G:N2	25:BA:913:U:C2	2.89	0.41
1:AA:1107:C:H2'	1:AA:1108:G:O5'	2.20	0.41
31:BH:117:PRO:HA	31:BH:123:PHE:CZ	2.55	0.41
25:BA:2694:G:C6	25:BA:2695:C:C4	3.08	0.41
1:AA:643:C:O5'	1:AA:643:C:H6	2.03	0.41
24:CX:52:TRP:HZ2	25:DA:1067:A:H2	1.68	0.41
33:DK:4:VAL:HG22	33:DK:60:TYR:CE1	2.55	0.41
25:BA:884:C:O5'	25:BA:884:C:C6	2.71	0.41
36:DP:138:LEU:HD11	36:DP:144:GLU:HG2	2.01	0.41
45:DY:55:TYR:HA	45:DY:56:PRO:HD3	1.88	0.41
24:AX:258:THR:HG22	24:AX:260:SER:OG	2.20	0.41
25:BA:1465:G:N3	25:BA:1466:G:C8	2.88	0.41
1:AA:542:G:C2	1:AA:543:C:C5	3.08	0.41
35:BO:35:VAL:HG13	35:BO:65:THR:CG2	2.50	0.41
24:AX:266:HIS:NE2	24:AX:296:LEU:HD21	2.35	0.41
32:DI:98:ALA:C	32:DI:100:ALA:N	2.74	0.41
5:CC:6:HIS:HA	5:CC:7:PRO:HD2	1.93	0.41
25:BA:1257:C:O2'	29:BF:84:VAL:HG12	2.19	0.41
24:CX:234:VAL:C	24:CX:236:LYS:H	2.23	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:354:G:C4	25:BA:355:G:C8	3.08	0.41
1:AA:506:G:C5	1:AA:507:C:C5	3.09	0.41
44:DX:75:ASP:O	44:DX:76:ARG:HG3	2.20	0.41
24:CX:203:VAL:O	24:CX:204:ARG:HB3	2.20	0.41
25:DA:270(K):G:H2'	25:DA:270(L):C:O4'	2.19	0.41
5:AC:130:VAL:HG12	5:AC:134:ILE:HD11	2.01	0.41
39:DS:20:ARG:NH1	47:D0:47:PRO:HG2	2.35	0.41
24:AX:303:LYS:O	24:AX:307:GLU:HG3	2.20	0.41
18:AP:75:ARG:C	18:AP:78:GLY:H	2.24	0.41
1:AA:474:G:H5'	18:AP:81:ARG:HG3	2.02	0.41
25:DA:2048:G:C6	25:DA:2049:G:C5	3.08	0.41
7:CE:126:ARG:O	7:CE:127:ASN:C	2.59	0.41
20:CR:36:ASN:ND2	20:CR:39:VAL:HG21	2.36	0.41
27:DD:122:ASP:OD2	27:DD:123:ALA:N	2.53	0.41
25:DA:2464:C:H2'	25:DA:2465:C:O4'	2.20	0.41
1:AA:119:A:H5'	1:AA:120:A:C4	2.56	0.41
1:CA:63:C:H4'	1:CA:380:G:H4'	2.02	0.41
25:BA:777:A:N3	25:BA:778:G:C8	2.88	0.41
25:DA:2033:A:H4'	25:DA:2034:U:OP1	2.20	0.41
25:DA:604:G:H8	25:DA:604:G:H5''	1.85	0.41
11:CI:56:LEU:HD23	11:CI:56:LEU:O	2.19	0.41
36:DP:74:GLU:OE2	36:DP:74:GLU:HA	2.21	0.41
25:BA:2891:G:H8	25:BA:2891:G:O5'	2.03	0.41
1:AA:1437:C:H2'	1:AA:1438:G:C8	2.55	0.41
25:BA:1130:U:C2	25:BA:2025:C:H5''	2.55	0.41
1:CA:1523:G:OP1	13:CK:123:LYS:HE2	2.20	0.41
36:DP:33:ARG:O	36:DP:34:GLY:C	2.58	0.41
25:BA:2250:G:C4	37:BQ:82:ARG:HG3	2.56	0.41
41:BU:52:ARG:O	41:BU:55:ARG:N	2.54	0.41
55:B8:59:LYS:HA	55:B8:62:LEU:HD11	2.01	0.41
5:CC:35:GLU:O	5:CC:36:ASP:C	2.58	0.41
53:B6:32:ASN:H	53:B6:33:LYS:HZ2	1.64	0.41
26:BB:52:A:O2'	26:BB:53:A:H5'	2.21	0.41
26:BB:57:A:OP2	26:BB:58:A:OP2	2.39	0.41
39:BS:62:LYS:HB3	39:BS:97:ARG:NE	2.35	0.41
41:DU:45:TYR:O	41:DU:49:HIS:CD2	2.73	0.41
12:CJ:28:ARG:HG3	12:CJ:34:VAL:HB	2.01	0.41
26:DB:32:C:C4	26:DB:33:G:N7	2.89	0.41
15:CM:82:MET:CA	15:CM:93:ARG:HD3	2.48	0.41
1:CA:1229:A:C2	1:CA:1230:C:C4	3.09	0.41
11:CI:48:GLU:N	11:CI:49:PRO:CD	2.82	0.41
25:DA:6:A:O2'	25:DA:7:G:H5'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1175:U:H2'	25:DA:1176:G:C4	2.52	0.41
40:BT:88:ILE:HD12	40:BT:89:VAL:N	2.36	0.41
25:DA:2544:G:H2'	25:DA:2545:G:C8	2.53	0.41
1:AA:976:G:P	16:AN:32:SER:H	2.44	0.41
36:DP:101:VAL:HG23	36:DP:107:LYS:HA	2.02	0.41
36:DP:148:LEU:HD13	36:DP:148:LEU:N	2.26	0.41
1:CA:1130:A:N3	1:CA:1146:A:C2	2.88	0.41
37:DQ:35:VAL:HG23	37:DQ:100:GLY:O	2.21	0.41
1:AA:1148:U:C5	1:AA:1149:C:C2	3.09	0.41
25:DA:2015:A:N3	52:D5:2:ALA:N	2.69	0.41
25:DA:1056:G:C2'	25:DA:1103:A:H61	2.32	0.41
4:AB:51:LEU:HA	4:AB:54:THR:HB	2.03	0.41
33:BK:73:PRO:O	33:BK:76:TYR:HB3	2.20	0.41
25:DA:2115:G:H2'	25:DA:2116:G:N7	2.35	0.41
25:DA:2171:A:C2	25:DA:2172:U:N3	2.88	0.41
10:CH:51:VAL:HG21	10:CH:60:ARG:HG2	2.03	0.41
48:B1:58:ILE:HD11	48:B1:91:LYS:CB	2.50	0.41
25:BA:1842:G:C2	25:BA:1901:A:C2	3.09	0.41
25:DA:1208:C:C2	25:DA:1209:G:C8	3.08	0.41
29:DF:113:ALA:HB2	29:DF:183:VAL:HG12	2.01	0.41
24:AX:147:GLU:OE2	24:AX:176:GLY:N	2.53	0.41
25:BA:1080:C:H1'	33:BK:126:MET:HG3	1.99	0.41
46:BZ:108:PRO:HD2	46:BZ:111:VAL:HG21	2.03	0.41
25:DA:2886:G:C4	25:DA:2887:U:C5	3.08	0.41
37:DQ:16:ARG:O	37:DQ:17:LEU:HD23	2.21	0.41
27:DD:79:VAL:HG21	27:DD:115:GLN:HB2	2.03	0.41
46:BZ:176:PRO:HA	46:BZ:177:PRO:HD3	1.74	0.41
26:DB:9:G:OP1	39:DS:15:ARG:NH1	2.54	0.41
18:CP:58:TYR:O	18:CP:61:SER:N	2.54	0.41
55:B8:39:LYS:HA	55:B8:42:ARG:NH2	2.35	0.41
25:DA:1314:C:C2	25:DA:1339:G:N2	2.88	0.41
25:BA:1510:A:H8	25:BA:1510:A:OP2	2.03	0.41
25:DA:51:G:O2'	25:DA:119:A:N1	2.43	0.41
25:DA:118:A:H1'	25:DA:178:G:O4'	2.21	0.41
55:D8:39:LYS:HG2	55:D8:43:GLN:NE2	2.35	0.41
36:DP:125:VAL:O	36:DP:125:VAL:HG13	2.20	0.41
25:DA:579:G:H2'	25:DA:580:C:H6	1.82	0.41
26:DB:83:G:H4'	50:D3:52:HIS:CD2	2.56	0.41
9:AG:91:VAL:HG12	9:AG:96:GLN:HG2	2.03	0.41
1:CA:1378:C:C5	1:CA:1379:G:N9	2.89	0.41
9:CG:70:LYS:HG2	9:CG:96:GLN:HB3	2.02	0.41
25:BA:1348:G:C3'	25:BA:1349:A:H5''	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AG:24:THR:CA	9:AG:27:ILE:HG12	2.49	0.41
29:DF:155:LEU:HB2	29:DF:189:THR:OG1	2.20	0.41
25:DA:1729:A:C5	25:DA:1731:G:C5	3.08	0.41
25:DA:1373:A:H2'	25:DA:1374:G:O4'	2.21	0.41
25:DA:2505:G:H8	25:DA:2505:G:C5'	2.31	0.41
24:AX:115:TYR:CE1	24:AX:359:TRP:CD1	3.08	0.41
1:CA:112:G:C2'	1:CA:113:G:H5'	2.49	0.41
4:CB:15:VAL:HG23	4:CB:16:HIS:CE1	2.56	0.41
4:CB:7:VAL:C	4:CB:9:GLU:H	2.23	0.41
43:DW:17:VAL:HG23	43:DW:18:ARG:N	2.36	0.41
25:BA:270(K):G:H2'	25:BA:270(L):C:O4'	2.21	0.41
1:CA:1316:G:H2'	1:CA:1317:C:H5''	2.02	0.41
25:DA:2758:A:C4	31:DH:67:LEU:HD21	2.56	0.41
25:DA:2389:G:H5''	25:DA:2390:U:C5'	2.51	0.41
47:D0:21:LEU:N	47:D0:21:LEU:HD12	2.35	0.41
6:CD:120:LEU:HB3	6:CD:126:ILE:HD11	2.02	0.41
13:CK:52:GLY:N	13:CK:55:LYS:HE3	2.36	0.41
1:CA:538:G:OP1	14:CL:112:ARG:HG3	2.20	0.41
25:DA:1284:A:O2'	25:DA:1285:G:H5'	2.20	0.41
1:CA:519:C:H2'	1:CA:520:A:C8	2.56	0.41
25:DA:470:A:C8	25:DA:470:A:C5'	3.02	0.41
25:DA:1395:A:C6	25:DA:1398:C:C2	3.09	0.41
25:BA:43:G:H2'	25:BA:44:A:C8	2.55	0.41
46:DZ:145:GLU:HB3	46:DZ:148:ASP:OD2	2.21	0.41
1:AA:198:G:C5	1:AA:220:G:C2	3.08	0.41
2:AY:58:A:H4'	2:AY:59:A:OP1	2.21	0.41
46:BZ:91:LEU:HA	46:BZ:91:LEU:HD23	1.66	0.41
17:AO:64:ARG:O	17:AO:65:ARG:C	2.59	0.41
25:BA:1162:G:N3	42:BV:89:GLN:NE2	2.68	0.41
7:AE:126:ARG:O	7:AE:127:ASN:C	2.58	0.41
5:AC:206:GLU:HG2	5:AC:207:VAL:H	1.85	0.41
1:CA:10:A:H2'	1:CA:11:G:H8	1.84	0.41
1:CA:1272:G:C4	1:CA:1273:G:C8	3.09	0.41
13:CK:23:ALA:O	13:CK:86:GLY:HA3	2.21	0.41
25:BA:2322:A:H2'	25:BA:2323:G:O4'	2.21	0.41
9:AG:13:GLN:HA	9:AG:14:PRO:HD3	1.80	0.41
32:BI:133:HIS:HA	32:BI:134:PRO:HD3	1.68	0.41
6:AD:110:PHE:CE2	6:AD:147:ALA:HA	2.55	0.41
2:AY:39:C:H6	2:AY:39:C:O5'	2.03	0.41
11:CI:91:ASP:N	11:CI:91:ASP:OD1	2.52	0.41
8:AF:16:GLN:H	8:AF:16:GLN:CD	2.24	0.41
32:BI:70:GLU:HA	32:BI:70:GLU:OE1	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B3:43:ILE:O	50:B3:47:VAL:HG23	2.21	0.41
44:BX:3:THR:HA	44:BX:6:ASP:OD2	2.21	0.41
25:BA:1523:U:H2'	25:BA:1524:G:C8	2.56	0.41
35:BO:102:VAL:HG23	35:BO:121:VAL:HG22	2.02	0.41
25:DA:664:C:P	36:DP:21:ARG:HH11	2.43	0.41
1:AA:85:U:H6	1:AA:85:U:H3'	1.85	0.41
37:DQ:81:VAL:O	37:DQ:82:ARG:CZ	2.69	0.41
25:DA:194:G:N2	25:DA:251:A:C2	2.88	0.41
55:D8:57:ARG:O	55:D8:58:ILE:C	2.59	0.41
24:AX:102:PRO:O	24:AX:105:GLU:HG3	2.19	0.41
5:CC:8:ILE:HG23	5:CC:16:ARG:HG2	2.03	0.41
53:B6:27:LYS:HA	53:B6:27:LYS:HD3	1.90	0.41
34:BN:69:VAL:HG13	34:BN:71:MET:HG3	2.02	0.41
26:BB:31:C:H1'	26:BB:53:A:H61	1.85	0.41
25:DA:1159:U:O2'	25:DA:1160:G:H5'	2.20	0.41
25:DA:632:A:C2	25:DA:2403:C:H1'	2.55	0.41
25:DA:2415:G:H2'	25:DA:2416:C:C6	2.55	0.41
53:D6:27:LYS:HA	53:D6:27:LYS:HD3	1.93	0.41
12:AJ:82:ILE:HD13	12:AJ:82:ILE:N	2.34	0.41
25:BA:1824:G:C2'	25:BA:1825:A:H5'	2.50	0.41
25:DA:2212:A:N3	25:DA:2215:G:C2	2.89	0.41
24:CX:264:VAL:HG22	24:CX:288:ALA:HB1	2.02	0.41
19:CQ:18:THR:HG22	19:CQ:19:VAL:N	2.36	0.41
11:AI:55:ALA:HB1	11:AI:59:PHE:HD1	1.85	0.41
24:CX:165:GLU:HB2	24:CX:183:LEU:HB3	2.03	0.41
37:DQ:67:ARG:HD3	37:DQ:102:VAL:HB	2.02	0.41
25:DA:906:G:H4'	37:DQ:67:ARG:HH21	1.85	0.41
1:AA:1129:C:O2'	1:AA:1130:A:OP2	2.38	0.41
44:BX:55:ASN:HD22	44:BX:55:ASN:N	2.16	0.41
38:DR:7:GLY:O	38:DR:8:ARG:CB	2.68	0.41
25:BA:1053:C:H2'	25:BA:1054:A:H8	1.85	0.41
25:BA:2278:A:OP1	37:BQ:10:ARG:HD3	2.20	0.41
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.54	0.41
36:BP:60:MET:HE2	36:BP:60:MET:HB3	1.99	0.41
1:CA:1075:C:O2'	1:CA:1076:C:H5'	2.21	0.41
36:DP:58:THR:O	36:DP:58:THR:HG22	2.20	0.41
14:AL:37:THR:CG2	14:AL:56:LYS:HB2	2.50	0.41
14:AL:59:LEU:HB2	14:AL:63:TYR:HB2	2.02	0.41
37:DQ:75:THR:HG22	37:DQ:88:GLY:HA3	2.03	0.41
44:DX:50:LYS:N	44:DX:87:GLN:NE2	2.66	0.41
31:BH:37:VAL:HB	31:BH:68:THR:CG2	2.48	0.41
46:DZ:28:MET:HE3	46:DZ:37:VAL:HG11	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DK:120:LEU:HA	33:DK:123:ALA:HB3	2.02	0.41
39:BS:15:ARG:O	39:BS:19:LYS:HG3	2.20	0.41
39:BS:25:ARG:HD3	39:BS:88:ASP:OD1	2.21	0.41
25:BA:2571:C:H5''	25:BA:2572:A:H5'	2.02	0.41
36:DP:88:LEU:HD11	36:DP:95:VAL:CG2	2.48	0.41
15:CM:76:ALA:CA	15:CM:79:LYS:HE2	2.47	0.41
6:AD:112:VAL:HG12	6:AD:116:GLN:CD	2.41	0.41
1:CA:191(D):U:O2'	1:CA:191(E):G:H5'	2.21	0.41
25:DA:2084:C:C2	25:DA:2085:C:C5	3.08	0.41
25:DA:2777:G:O5'	25:DA:2777:G:C8	2.74	0.41
20:CR:88:LYS:OXT	20:CR:88:LYS:HG3	2.21	0.41
25:DA:223:A:C2	25:DA:422:A:C8	3.09	0.41
25:BA:580:C:C2	25:BA:581:C:C5	3.08	0.41
25:DA:1993:U:H4'	28:DE:128:SER:CB	2.51	0.41
1:CA:815:A:H4'	1:CA:817:C:C4	2.55	0.41
1:AA:662:G:O2'	1:AA:836:G:H5'	2.21	0.41
31:BH:93:GLY:O	31:BH:94:TYR:C	2.59	0.41
24:CX:57:ALA:O	24:CX:61:VAL:HG23	2.20	0.41
1:AA:1427:U:H2'	1:AA:1428:A:H8	1.84	0.41
25:BA:2505:G:H8	25:BA:2505:G:C5'	2.32	0.41
25:DA:2370:G:H2'	25:DA:2371:G:O4'	2.20	0.41
1:CA:182:U:H2'	1:CA:183:G:O4'	2.20	0.41
37:DQ:60:ARG:HA	46:DZ:179:ASP:HB2	2.01	0.41
25:DA:481:G:C4	25:DA:507:A:C2	3.08	0.41
26:DB:15:A:H1'	26:DB:109:G:C8	2.56	0.41
1:AA:1313:U:C5	21:AS:4:SER:HB2	2.53	0.41
7:AE:137:GLU:O	7:AE:141:GLN:HG3	2.21	0.41
46:BZ:128:VAL:CG2	46:BZ:129:SER:N	2.83	0.41
1:AA:625:G:C5	1:AA:626:U:C5	3.09	0.41
25:BA:819:A:C2'	25:BA:820:A:H5'	2.51	0.41
10:AH:3:THR:HB	10:AH:4:ASP:H	1.73	0.41
25:BA:1378:A:O2'	25:BA:1379:A:H3'	2.21	0.41
32:DI:94:ALA:O	32:DI:97:ILE:N	2.54	0.41
7:AE:41:VAL:HG21	7:AE:113:ALA:HA	2.02	0.41
14:AL:11:ARG:O	14:AL:12:LYS:C	2.59	0.41
37:BQ:130:LYS:HD3	37:BQ:131:ILE:N	2.35	0.41
25:BA:886:C:H2'	25:BA:887:A:H1'	2.01	0.41
1:CA:300:A:C8	1:CA:300:A:C3'	3.03	0.41
25:BA:869:G:O2'	25:BA:870:A:H5'	2.21	0.41
25:BA:2044:C:C2	25:BA:2625:G:C2	3.08	0.41
5:AC:109:PRO:HB3	5:AC:115:LEU:HD13	2.02	0.41
25:BA:1912:A:O2'	25:BA:1913:A:H5'	2.19	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AE:153:LYS:HG3	7:AE:155:GLU:H	1.86	0.41
1:CA:1476:G:H2'	1:CA:1477:C:H6	1.84	0.41
5:CC:109:PRO:HB3	5:CC:115:LEU:HD13	2.02	0.41
2:AY:42:G:C4	2:AY:43:A:C8	3.08	0.41
25:BA:2338:G:C2	25:BA:2339:G:C8	3.08	0.41
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.56	0.41
25:BA:1625:C:H2'	25:BA:1626:G:O4'	2.20	0.41
27:BD:80:ALA:HB2	27:BD:96:HIS:CD2	2.55	0.41
25:DA:2266:A:H4'	25:DA:2267:A:C2	2.55	0.41
27:BD:248:SER:HB2	27:BD:249:PRO:HD2	2.01	0.41
34:BN:127:LYS:HB2	34:BN:140:PHE:CE1	2.55	0.41
25:BA:2849:U:H1'	25:BA:2866:U:C6	2.56	0.41
25:BA:1655:A:C2	25:BA:1656:C:H1'	2.56	0.41
25:BA:2870:C:H2'	25:BA:2871:C:O4'	2.21	0.41
1:CA:190:G:H4'	1:CA:191(A):G:OP2	2.20	0.41
1:CA:1112:C:C2	5:CC:178:LEU:HB2	2.56	0.41
46:DZ:69:THR:HG22	46:DZ:90:VAL:HG22	2.01	0.41
4:AB:82:ARG:HG3	4:AB:92:TYR:OH	2.21	0.41
28:BE:26:ILE:HB	28:BE:182:LEU:HB3	2.02	0.41
25:DA:1001:A:H2'	25:DA:1002:G:O4'	2.21	0.41
50:D3:43:ILE:HA	50:D3:43:ILE:HD13	1.86	0.41
47:B0:60:PHE:N	47:B0:60:PHE:CD2	2.88	0.41
26:BB:71:C:H2'	26:BB:71:C:O2	2.21	0.41
25:BA:2549:G:O2'	25:BA:2550:G:H5'	2.21	0.41
1:AA:1263:C:O2'	1:AA:1264:C:H5'	2.20	0.41
6:AD:68:TYR:CE2	6:AD:97:LEU:HB3	2.56	0.41
27:BD:126:GLN:O	27:BD:127:VAL:C	2.59	0.41
50:B3:26:LEU:HD21	50:B3:46:ASN:HB2	2.03	0.41
48:D1:11:ARG:HD2	48:D1:60:PHE:HA	2.02	0.41
36:DP:46:LYS:HB3	36:DP:52:GLU:HG3	2.03	0.41
27:DD:27:THR:CG2	27:DD:83:GLU:HG2	2.51	0.41
5:AC:90:GLU:O	5:AC:94:LEU:HG	2.21	0.41
41:DU:60:LEU:O	41:DU:64:ARG:HG2	2.21	0.41
15:CM:23:TYR:HB3	15:CM:67:GLU:HA	2.02	0.41
15:CM:74:VAL:HA	15:CM:77:ASN:HB2	2.03	0.41
12:AJ:34:VAL:CG2	12:AJ:74:ILE:HG22	2.51	0.41
42:DV:76:LYS:HB2	42:DV:81:TYR:CD1	2.55	0.41
4:AB:71:VAL:HG23	4:AB:164:VAL:HA	2.03	0.41
29:BF:9:ILE:CG1	29:BF:20:LEU:HB2	2.50	0.41
45:DY:8:LYS:HE2	45:DY:37:VAL:HG11	2.02	0.41
1:CA:1505:G:H5''	1:CA:1505:G:H8	1.85	0.41
11:AI:35:GLU:C	11:AI:37:PHE:H	2.24	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AM:3:ARG:HG2	15:AM:9:ILE:HG12	2.02	0.41
4:AB:193:ASP:HA	4:AB:194:PRO:HD2	1.91	0.41
49:B2:1:MET:CE	49:B2:4:SER:HB2	2.50	0.41
32:BI:136:VAL:N	32:BI:137:PRO:HD3	2.35	0.41
48:B1:92:LYS:C	48:B1:94:LEU:H	2.24	0.41
45:DY:89:PHE:N	45:DY:90:LEU:HD23	2.36	0.41
25:BA:2688:U:H1'	25:BA:2721:A:N6	2.35	0.41
25:BA:1789:A:H2'	25:BA:1790:C:C6	2.56	0.41
36:BP:58:THR:O	36:BP:58:THR:HG22	2.21	0.41
37:BQ:74:TYR:CD2	37:BQ:91:GLU:HB2	2.55	0.41
50:D3:6:VAL:HG22	50:D3:35:ARG:O	2.21	0.41
6:CD:202:LEU:HD22	6:CD:202:LEU:HA	1.79	0.41
28:BE:49:LEU:HA	28:BE:49:LEU:HD13	1.83	0.41
25:BA:270(P):U:O5'	25:BA:270(P):U:C6	2.73	0.41
1:CA:61:G:OP2	22:CT:10:LEU:HD13	2.21	0.41
24:AX:177:ILE:HD11	24:AX:180:ALA:CB	2.51	0.41
25:BA:1405:U:C2	25:BA:1406:U:C5	3.08	0.41
44:BX:50:LYS:N	44:BX:87:GLN:NE2	2.65	0.41
25:DA:911:A:C6	37:DQ:9:TYR:HE2	2.38	0.41
25:DA:2435:A:H2'	25:DA:2436:G:O5'	2.20	0.41
26:BB:75:G:H1'	46:BZ:27:VAL:CG2	2.45	0.41
35:BO:17:ARG:CG	35:BO:47:ILE:HD13	2.45	0.41
8:AF:11:ASN:HA	8:AF:12:PRO:HD2	1.86	0.41
52:B5:3:LYS:HB3	52:B5:4:HIS:H	1.68	0.41
11:AI:8:GLY:HA2	11:AI:79:LEU:HD12	2.03	0.41
25:DA:1565:C:C2	25:DA:1567:A:C8	3.08	0.41
25:DA:2815:C:H5'	52:D5:29:ILE:HG13	2.02	0.41
25:BA:135:G:H1	25:BA:144:C:N4	2.17	0.41
45:DY:46:LYS:C	45:DY:48:ALA:N	2.73	0.41
25:BA:498:G:HO2'	45:BY:47:LYS:HD3	1.85	0.41
25:BA:1505:C:H2'	25:BA:1506:C:C6	2.56	0.41
25:DA:1936:A:N3	25:DA:1936:A:C5'	2.84	0.41
25:BA:1998:G:H2'	25:BA:1999:C:O4'	2.21	0.41
42:BV:45:THR:O	42:BV:46:VAL:C	2.59	0.41
2:AY:21:A:N6	2:AY:46:G:H2'	2.36	0.41
21:CS:41:VAL:HB	21:CS:44:MET:HB2	2.03	0.41
21:CS:19:VAL:HG21	21:CS:44:MET:HG3	2.02	0.41
25:DA:1275:A:C4	38:DR:16:HIS:ND1	2.89	0.41
41:DU:33:ARG:O	41:DU:37:GLU:HG3	2.21	0.41
26:DB:57:A:N3	30:DG:29:TRP:CB	2.83	0.41
38:BR:92:GLY:HA2	38:BR:94:TYR:CZ	2.55	0.41
19:AQ:86:GLU:O	19:AQ:87:LYS:C	2.59	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:38:VAL:CG1	38:DR:42:LYS:HE3	2.51	0.41
25:BA:392:C:H5''	25:BA:409:C:H5''	2.03	0.41
15:CM:13:LYS:O	15:CM:14:ARG:C	2.58	0.41
1:AA:662:G:H1	1:AA:743:U:H3	1.66	0.41
1:AA:937:A:C5	1:AA:938:A:N7	2.89	0.41
9:CG:15:ASP:O	9:CG:19:GLY:HA2	2.20	0.41
9:CG:27:ILE:N	9:CG:27:ILE:HD13	2.36	0.41
25:DA:1952:A:N1	35:DO:22:ILE:HD12	2.35	0.41
26:BB:45:A:N3	26:BB:45:A:H2'	2.34	0.41
1:AA:156:G:C6	1:AA:166:G:C6	3.09	0.41
16:AN:4:LYS:O	16:AN:7:ILE:HG13	2.20	0.41
46:DZ:128:VAL:CG2	46:DZ:129:SER:N	2.83	0.41
1:AA:44:G:N2	1:AA:399:G:C4	2.88	0.41
25:DA:271(C):G:H4'	25:DA:271(D):U:O5'	2.21	0.41
25:BA:2406:U:O4	36:BP:70:GLN:HB3	2.19	0.41
49:B2:28:LYS:HB3	49:B2:57:ILE:CD1	2.50	0.41
25:BA:1465:G:C4	25:BA:1466:G:C8	3.08	0.41
48:B1:80:LEU:HA	48:B1:80:LEU:HD23	1.78	0.41
1:CA:604:G:C5	1:CA:605:U:C5	3.08	0.41
21:CS:17:GLU:HG2	21:CS:18:LYS:N	2.36	0.41
25:DA:1592:C:H2'	25:DA:1593:G:C8	2.56	0.41
47:D0:75:LEU:HD23	47:D0:75:LEU:HA	1.91	0.41
7:CE:41:VAL:HG21	7:CE:113:ALA:HA	2.02	0.41
25:BA:898:C:C2	25:BA:899:A:C8	3.09	0.41
25:DA:2228:G:OP2	27:DD:263:ARG:NH1	2.47	0.41
13:CK:34:ASP:HB2	13:CK:35:PRO:CD	2.50	0.41
1:AA:442:C:N4	1:AA:492:G:H1	2.18	0.41
6:AD:122:ARG:HD3	6:AD:122:ARG:C	2.40	0.41
30:DG:174:GLU:HG2	30:DG:180:PHE:HD1	1.85	0.41
51:B4:46:ASN:HB2	51:B4:64:LYS:CB	2.50	0.41
32:BI:111:PRO:HG2	32:BI:112:LYS:HG3	2.03	0.41
12:CJ:37:PRO:HA	12:CJ:72:VAL:HG22	2.03	0.41
25:BA:76:C:O5'	25:BA:76:C:H6	2.03	0.41
25:DA:830:G:C4	25:DA:2448:A:C6	3.08	0.41
28:DE:181:LEU:HD22	28:DE:181:LEU:N	2.35	0.41
1:AA:935:A:H2'	1:AA:936:C:C6	2.55	0.41
31:DH:38:SER:HA	31:DH:39:PRO:HD3	1.77	0.41
25:DA:710:G:H2'	25:DA:711:G:C8	2.56	0.41
25:BA:60:G:C5	25:BA:63:U:C5	3.08	0.41
3:CV:24:A:C2	7:CE:15:ARG:NH1	2.88	0.41
33:BK:95:LYS:HB3	33:BK:95:LYS:HE2	1.79	0.41
1:AA:1449:C:H6	1:AA:1449:C:O5'	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:688:U:O5'	25:BA:688:U:H6	2.04	0.41
25:DA:1949:G:C6	25:DA:1950:G:C6	3.09	0.41
25:DA:308:G:O2'	45:DY:19:LYS:HE3	2.20	0.41
1:CA:1234:C:O2'	1:CA:1235:U:H5'	2.20	0.41
25:BA:95:G:C5'	49:B2:46:GLN:HB3	2.50	0.41
36:BP:41:ARG:CA	36:BP:41:ARG:NE	2.83	0.41
36:BP:41:ARG:HA	36:BP:41:ARG:NE	2.35	0.41
5:CC:12:LEU:HD22	5:CC:12:LEU:HA	1.86	0.41
5:CC:19:GLU:HA	5:CC:54:ARG:NH1	2.35	0.41
34:BN:66:THR:N	34:BN:71:MET:CE	2.84	0.41
34:BN:66:THR:HA	34:BN:67:PRO:HD2	1.89	0.41
12:CJ:6:ILE:HG22	12:CJ:98:ILE:CG1	2.40	0.41
25:BA:312:G:H2'	25:BA:312:G:N3	2.36	0.41
30:BG:66:GLN:HG2	30:BG:67:LYS:H	1.85	0.41
25:DA:276:A:H2'	25:DA:277:C:C2	2.56	0.41
31:BH:18:GLU:OE2	31:BH:27:LYS:HE3	2.20	0.41
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.55	0.41
11:CI:46:ALA:O	11:CI:49:PRO:HD2	2.21	0.41
27:BD:244:ARG:HA	27:BD:245:PRO:HA	1.76	0.41
44:DX:55:ASN:HD22	44:DX:55:ASN:N	2.17	0.41
25:BA:1175:U:H2'	25:BA:1176:G:C4	2.52	0.41
4:AB:162:ILE:HD11	4:AB:184:VAL:HA	2.02	0.41
1:AA:596:C:H6	1:AA:596:C:C5'	2.22	0.41
1:CA:983:A:H5''	1:CA:983:A:N3	2.35	0.41
30:DG:83:ARG:HG3	30:DG:86:MET:SD	2.60	0.41
33:BK:80:LYS:HE2	33:BK:81:ALA:N	2.35	0.41
10:CH:88:LYS:O	10:CH:92:ARG:HD2	2.21	0.41
49:B2:2:LYS:O	49:B2:3:LEU:C	2.59	0.41
48:D1:86:SER:CB	48:D1:89:GLU:HB2	2.41	0.41
25:DA:1062:G:H21	33:DK:133:SER:HB3	1.86	0.41
37:BQ:10:ARG:HB3	37:BQ:11:LYS:H	1.56	0.41
1:AA:1237:C:H5''	1:AA:1238:A:O4'	2.20	0.41
25:DA:2872:G:C2	25:DA:2873:A:N6	2.88	0.41
1:CA:49:U:N3	1:CA:362:G:H1'	2.34	0.41
25:DA:2426:A:C3'	25:DA:2427:C:H5''	2.45	0.41
45:DY:81:LYS:CD	45:DY:97:ARG:HB3	2.49	0.41
1:AA:16:A:C2'	1:AA:17:U:H5'	2.51	0.41
25:BA:1309:G:H3'	54:B7:9:ARG:NH1	2.36	0.41
25:DA:2056:G:N2	52:D5:4:HIS:O	2.54	0.41
25:BA:2712:U:O2'	25:BA:712(B):A:P	2.79	0.41
33:DK:112:MET:HE3	33:DK:120:LEU:HD12	2.02	0.41
39:BS:30:ARG:HG3	39:BS:92:TYR:CE2	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AD:166:LYS:H	6:AD:166:LYS:HG3	1.66	0.41
24:CX:229:GLU:CG	24:CX:230:GLU:N	2.83	0.41
18:CP:20:VAL:HG21	18:CP:32:TYR:CD2	2.56	0.41
18:CP:20:VAL:HG21	18:CP:32:TYR:HB2	2.03	0.41
42:BV:99:ILE:H	42:BV:99:ILE:CD1	2.27	0.41
36:DP:85:LEU:HA	36:DP:88:LEU:HB3	2.03	0.41
26:BB:83:G:H4'	50:B3:52:HIS:CD2	2.55	0.41
25:DA:2158:A:H4'	25:DA:2159:G:O5'	2.19	0.41
1:CA:408:A:O2'	1:CA:409:G:H5'	2.21	0.41
21:CS:16:LEU:O	21:CS:20:LEU:N	2.54	0.41
2:AZ:8:U:O2	2:AZ:21:A:C2	2.68	0.41
1:CA:901:A:C5	1:CA:902:G:H1'	2.55	0.41
1:CA:900:A:H2'	1:CA:901:A:C8	2.56	0.41
25:BA:189:G:H1'	25:BA:207:A:N6	2.36	0.41
25:DA:1731:G:O2'	25:DA:1732:A:H8	2.01	0.41
47:D0:12:ASN:N	47:D0:14:ARG:HH21	2.18	0.41
24:AX:355:MET:O	24:AX:359:TRP:CE3	2.74	0.41
36:DP:115:LEU:HD12	36:DP:115:LEU:C	2.40	0.41
25:BA:1374:G:C4	25:BA:1375:C:C5	3.09	0.41
46:DZ:94:GLU:HB2	46:DZ:95:PRO:HD2	2.02	0.41
47:D0:74:ARG:HG2	47:D0:74:ARG:H	1.60	0.41
46:DZ:179:ASP:OD2	46:DZ:179:ASP:C	2.59	0.41
29:BF:59:TYR:HB3	29:BF:78:ILE:HD13	2.01	0.41
25:DA:735:A:H3'	25:DA:736:C:C6	2.56	0.41
25:BA:957:A:N6	25:BA:2459:A:C8	2.89	0.41
31:BH:47:GLU:OE1	31:BH:48:GLY:N	2.47	0.41
25:BA:280:C:H2'	25:BA:281:G:H8	1.86	0.41
25:DA:887:A:C2'	25:DA:888:C:O5'	2.69	0.41
1:AA:746:A:H2'	1:AA:747:C:H5'	2.01	0.41
41:BU:106:PHE:O	41:BU:110:VAL:HG23	2.21	0.41
38:DR:37:THR:OG1	38:DR:40:LYS:HG3	2.19	0.41
25:DA:2514:U:H2'	25:DA:2515:C:C6	2.56	0.41
25:DA:238:C:H2'	25:DA:239:U:O4'	2.21	0.41
25:DA:378:C:O2	25:DA:378:C:H2'	2.21	0.41
25:DA:1354:A:H2'	25:DA:1355:G:O4'	2.21	0.41
10:AH:104:ARG:NH1	10:AH:138:TRP:CZ3	2.89	0.41
25:DA:777:A:N3	25:DA:778:G:C8	2.88	0.41
25:BA:2295:C:OP2	39:BS:11:LYS:HE3	2.21	0.41
4:CB:82:ARG:HG3	4:CB:92:TYR:OH	2.20	0.41
50:D3:46:ASN:C	50:D3:48:GLU:N	2.73	0.41
25:BA:1267:U:O2	25:BA:1267:U:H2'	2.20	0.41
25:DA:1523:U:H2'	25:DA:1524:G:C8	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:30:THR:HG22	38:DR:31:HIS:CE1	2.55	0.41
25:DA:727:A:C6	25:DA:728:G:C6	3.08	0.41
25:DA:1281:G:C6	25:DA:1282:U:C4	3.09	0.41
41:DU:16:LYS:O	41:DU:20:LEU:HD23	2.20	0.41
17:AO:48:LYS:HA	17:AO:48:LYS:HE2	2.02	0.41
34:DN:30:LYS:HD3	34:DN:30:LYS:HA	1.66	0.41
34:BN:132:LYS:H	34:BN:132:LYS:HD3	1.86	0.41
29:BF:125:LEU:HD23	29:BF:125:LEU:N	2.35	0.41
16:CN:13:THR:HG22	16:CN:13:THR:O	2.20	0.41
24:CX:249:GLY:HA3	24:CX:250:PRO:HD2	1.81	0.41
1:AA:26:A:O2'	6:AD:209:ARG:NH2	2.54	0.41
26:DB:110:G:H2'	26:DB:111:U:O4'	2.21	0.41
1:CA:85:U:H6	1:CA:85:U:H3'	1.85	0.41
25:DA:2432:A:C6	25:DA:2433:A:C6	3.08	0.41
55:D8:54:GLU:HA	55:D8:57:ARG:HH12	1.86	0.41
49:D2:46:GLN:HB2	49:D2:49:LYS:NZ	2.35	0.41
13:CK:97:ALA:C	13:CK:99:GLN:H	2.25	0.41
27:DD:33:LEU:HD11	27:DD:102:LYS:HD2	2.02	0.41
12:AJ:37:PRO:HA	12:AJ:72:VAL:HG22	2.02	0.41
25:BA:2415:G:C4	25:BA:2416:C:C5	3.09	0.41
24:CX:92:LEU:HB3	24:CX:97:ARG:CG	2.50	0.41
27:BD:31:LYS:HG3	27:BD:33:LEU:CD2	2.51	0.41
27:BD:32:SER:C	27:BD:33:LEU:O	2.59	0.41
39:DS:24:LEU:CG	39:DS:84:GLN:HB3	2.51	0.41
53:D6:24:GLU:CD	53:D6:25:LYS:N	2.70	0.41
25:DA:651:G:H4'	55:D8:18:ALA:HB3	2.03	0.41
25:DA:126:A:O5'	54:D7:19:ARG:HG2	2.20	0.41
29:BF:7:TYR:HA	29:BF:22:ALA:H	1.86	0.41
25:BA:278:A:H3'	25:BA:279:C:C6	2.56	0.41
27:DD:222:ARG:HH12	27:DD:239:ARG:NH2	2.19	0.41
25:DA:276:A:H2'	25:DA:277:C:C6	2.55	0.41
25:DA:274:G:OP1	25:DA:274:G:C8	2.74	0.41
45:DY:13:VAL:CG1	45:DY:72:VAL:HB	2.51	0.41
29:DF:9:ILE:CG1	29:DF:20:LEU:HB2	2.51	0.41
1:CA:1367:C:N3	1:CA:1368:G:N7	2.69	0.41
16:CN:41:ARG:O	16:CN:44:LEU:HG	2.21	0.41
25:DA:1178:C:C2	25:DA:1179:C:C5	3.09	0.41
44:DX:54:VAL:C	44:DX:55:ASN:HD22	2.24	0.41
1:AA:976:G:H8	1:AA:1358:U:O2'	2.04	0.41
25:BA:1178:C:C2	25:BA:1179:C:C5	3.09	0.41
24:CX:264:VAL:HG23	24:CX:264:VAL:O	2.21	0.41
32:DI:12:LEU:N	32:DI:12:LEU:HD22	2.36	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CB:69:LEU:HD23	4:CB:155:LEU:HD22	2.01	0.41
4:CB:69:LEU:HD23	4:CB:159:PRO:CG	2.43	0.41
4:AB:69:LEU:HD23	4:AB:155:LEU:HD22	2.03	0.41
36:BP:65:ARG:NH2	55:B8:15:LYS:HB3	2.36	0.41
25:BA:1989:G:C5	25:BA:1990:C:C5	3.09	0.41
4:AB:59:GLU:CB	4:AB:221:LEU:HD11	2.50	0.41
25:DA:1059:G:C1'	33:DK:115:LEU:HG	2.41	0.41
25:BA:1543:A:C5	25:BA:1545:A:O4'	2.74	0.41
30:DG:75:LYS:O	30:DG:83:ARG:O	2.39	0.41
4:AB:187:LEU:HD23	4:AB:201:ILE:O	2.20	0.41
1:CA:644:G:N2	1:CA:645:C:H1'	2.35	0.41
15:CM:3:ARG:HG2	15:CM:9:ILE:HG12	2.02	0.41
4:CB:42:ILE:HD12	4:CB:42:ILE:HA	1.89	0.41
22:AT:57:ARG:HH12	22:AT:100:ILE:HG21	1.86	0.41
4:CB:59:GLU:CB	4:CB:221:LEU:HD11	2.51	0.41
47:B0:53:MET:HB3	47:B0:59:LEU:CD2	2.44	0.41
25:DA:1210:A:H5''	25:DA:1210:A:H8	1.85	0.41
29:DF:102:PRO:HB2	29:DF:105:VAL:HG23	2.03	0.41
28:DE:86:PRO:HB2	28:DE:87:GLU:H	1.62	0.41
25:DA:1491:G:N2	25:DA:1499:C:O2	2.52	0.41
55:D8:52:LYS:HA	55:D8:52:LYS:CE	2.40	0.41
25:DA:2785:C:O2'	28:DE:66:HIS:CD2	2.74	0.41
55:D8:31:HIS:O	55:D8:32:LEU:C	2.59	0.41
7:AE:84:PHE:C	7:AE:84:PHE:HD2	2.24	0.41
4:AB:223:ILE:O	4:AB:227:GLY:N	2.54	0.41
43:BW:65:LEU:HB2	43:BW:68:ARG:HG2	2.03	0.41
1:AA:1071:C:O2'	1:AA:1072:G:H5'	2.21	0.41
37:DQ:38:GLU:HB2	37:DQ:127:ILE:CG2	2.43	0.41
37:DQ:125:LEU:C	37:DQ:127:ILE:H	2.25	0.41
37:DQ:65:PHE:HD2	37:DQ:105:GLU:HB2	1.85	0.41
29:BF:178:PRO:HG2	29:BF:179:GLU:CD	2.41	0.41
47:D0:36:ILE:HD13	47:D0:58:THR:HG21	2.03	0.41
24:AX:177:ILE:HD11	24:AX:180:ALA:HB2	2.03	0.41
33:BK:115:LEU:HD23	33:BK:116:ASN:N	2.32	0.41
24:AX:139:GLY:O	24:AX:142:ALA:N	2.53	0.41
25:DA:2320:A:N3	25:DA:2320:A:C2'	2.82	0.41
25:BA:2490:G:H4'	25:BA:2491:U:OP1	2.21	0.41
1:AA:959:A:C2	1:AA:1222:G:O4'	2.74	0.41
25:BA:1534:G:C2	25:BA:1536:A:OP2	2.74	0.41
27:DD:11:PRO:O	27:DD:12:SER:C	2.58	0.41
43:DW:96:ILE:HG23	43:DW:96:ILE:O	2.20	0.41
32:BI:52:ARG:H	32:BI:52:ARG:CD	2.32	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CJ:13:HIS:HB3	12:CJ:68:HIS:CE1	2.56	0.41
10:AH:111:ILE:HG12	10:AH:111:ILE:H	1.47	0.41
9:AG:151:TYR:HA	9:AG:153:HIS:CE1	2.56	0.41
55:D8:41:ILE:HD12	55:D8:42:ARG:N	2.35	0.41
25:BA:2435:A:H2'	25:BA:2436:G:O5'	2.20	0.41
1:CA:511:C:H1'	6:CD:43:HIS:HE2	1.85	0.41
16:CN:10:ALA:HB2	16:CN:23:ARG:HH21	1.86	0.41
25:DA:1936:A:C3'	25:DA:1936:A:OP1	2.67	0.41
28:BE:111:ARG:HB2	28:BE:160:TYR:O	2.21	0.41
29:DF:103:LYS:O	29:DF:104:LYS:C	2.59	0.41
25:BA:1974:C:H2'	25:BA:1974:C:O2	2.20	0.41
48:B1:67:ILE:N	48:B1:68:PRO:CD	2.79	0.41
38:BR:60:LEU:O	38:BR:64:ARG:HG3	2.20	0.41
21:AS:16:LEU:CA	21:AS:19:VAL:HG12	2.50	0.41
17:AO:40:SER:O	17:AO:44:LYS:HD2	2.19	0.41
4:CB:75:LYS:C	4:CB:77:ALA:H	2.23	0.41
21:CS:10:PHE:O	21:CS:11:VAL:HB	2.20	0.41
21:CS:11:VAL:HA	21:CS:38:SER:HB2	2.02	0.41
27:BD:43:ARG:CB	27:BD:49:ILE:HA	2.49	0.41
25:DA:2083:G:C6	25:DA:2084:C:C4	3.09	0.41
25:DA:2083:G:C6	25:DA:2084:C:N3	2.88	0.41
47:D0:82:ARG:HA	47:D0:83:PRO:HD2	1.89	0.41
25:BA:1116:C:C2	25:BA:1117:G:C8	3.08	0.41
38:DR:97:VAL:HA	38:DR:113:LEU:O	2.21	0.41
1:AA:685:G:N2	1:AA:686:U:C4	2.89	0.41
25:DA:531:C:C5	25:DA:2035:G:C2	3.09	0.41
1:CA:373:A:H2'	1:CA:374:A:H8	1.86	0.41
25:BA:1515:C:H2'	25:BA:1516:U:H6	1.85	0.41
25:BA:1514:U:H2'	25:BA:1515:C:C6	2.56	0.41
25:DA:1525:G:H2'	25:DA:1526:G:C8	2.53	0.41
1:CA:1108:G:C5	1:CA:1109:C:C5	3.09	0.41
25:BA:1793:C:H2'	25:BA:1794:U:H6	1.84	0.41
1:CA:406:G:H1'	1:CA:495:A:N1	2.36	0.41
1:CA:1107:C:C4	1:CA:1108:G:C8	3.09	0.41
1:CA:815:A:C2	1:CA:1529:G:C4	3.09	0.41
29:BF:155:LEU:HB2	29:BF:189:THR:OG1	2.21	0.41
29:BF:135:LYS:O	29:BF:136:THR:C	2.59	0.41
1:AA:1003:G:O5'	1:AA:1003:G:H8	2.03	0.41
46:BZ:163:LEU:HD12	46:BZ:165:VAL:CG2	2.51	0.41
24:AX:57:ALA:O	24:AX:61:VAL:HG23	2.21	0.41
33:BK:4:VAL:HG22	33:BK:60:TYR:CE1	2.56	0.41
25:DA:2109:U:H3	25:DA:2180:U:H3	1.69	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CX:355:MET:O	24:CX:359:TRP:CE3	2.74	0.41
25:BA:2283:C:C5	25:BA:2389:G:C4	3.08	0.41
5:AC:182:ILE:HG12	5:AC:203:PHE:HD1	1.86	0.41
1:CA:766:A:C4	1:CA:814:A:C2	3.09	0.41
36:DP:115:LEU:HA	36:DP:134:ALA:CB	2.51	0.41
25:BA:270(F):G:N1	25:BA:270(W):G:C6	2.89	0.41
9:CG:24:THR:CA	9:CG:27:ILE:HG12	2.51	0.41
36:BP:115:LEU:HA	36:BP:134:ALA:CB	2.50	0.41
25:BA:161:U:O2	25:BA:165:U:O4	2.39	0.41
25:BA:307:G:C8	25:BA:307:G:O5'	2.71	0.41
25:DA:2478:A:H3'	25:DA:2479:G:C8	2.53	0.41
25:DA:270(Q):C:O2'	25:DA:270(R):C:C6	2.65	0.41
1:AA:892:A:H2'	1:AA:893:C:H6	1.82	0.41
25:BA:718:A:H3'	25:BA:719:C:H6	1.85	0.41
15:AM:102:ARG:HA	15:AM:102:ARG:HE	1.84	0.41
25:BA:270(K):G:H1	25:BA:270(Q):C:H42	1.68	0.41
13:CK:80:VAL:CG1	13:CK:103:LEU:HD12	2.51	0.41
8:AF:63:TYR:N	8:AF:63:TYR:CD2	2.89	0.41
25:DA:1465:G:C4	25:DA:1466:G:C8	3.08	0.41
30:BG:94:LEU:N	30:BG:94:LEU:HD23	2.35	0.41
27:BD:232:PRO:O	27:BD:234:GLY:N	2.51	0.41
31:DH:123:PHE:HB3	31:DH:133:VAL:HG22	2.03	0.41
25:DA:2501:C:H2'	25:DA:2501:C:H6	1.55	0.41
18:AP:39:TYR:HB2	18:AP:49:LEU:HD13	2.02	0.41
1:AA:542:G:C2	1:AA:543:C:C4	3.08	0.41
33:DK:38:VAL:HA	33:DK:41:PHE:HB3	2.03	0.41
1:CA:1088:G:C4	1:CA:1089:G:C8	3.08	0.41
38:BR:18:LEU:HD22	38:BR:18:LEU:C	2.41	0.41
8:AF:64:GLN:HB3	8:AF:64:GLN:HE21	1.59	0.41
1:AA:1266:G:N2	1:AA:1270:C:N3	2.69	0.41
1:CA:236:G:C5	1:CA:237:C:C5	3.09	0.41
1:CA:509:A:C8	1:CA:509:A:C3'	3.04	0.41
38:BR:47:PHE:O	38:BR:51:LEU:CD1	2.68	0.41
48:D1:80:LEU:HA	48:D1:80:LEU:HD23	1.80	0.41
37:DQ:116:GLU:O	37:DQ:120:ILE:HG12	2.21	0.41
33:BK:104:VAL:CG1	33:BK:127:ILE:HB	2.51	0.41
41:DU:105:VAL:O	41:DU:108:GLU:HB2	2.21	0.41
1:CA:1392:G:O2'	1:CA:1393:U:H5'	2.20	0.41
31:BH:90:LYS:HG2	31:BH:163:TYR:CD1	2.55	0.41
7:CE:153:LYS:HG3	7:CE:155:GLU:H	1.86	0.41
25:BA:1389:G:C2	25:BA:1399:C:O2	2.74	0.41
48:D1:55:GLY:C	48:D1:56:GLN:HG2	2.42	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BZ:75:ASN:N	46:BZ:75:ASN:ND2	2.69	0.41
26:DB:102:G:H21	46:DZ:73:GLN:HE22	1.67	0.41
25:BA:2053:G:C2'	25:BA:2054:A:H5'	2.51	0.41
25:DA:2718:G:H2'	25:DA:2719:G:H8	1.85	0.41
37:BQ:114:ALA:O	37:BQ:118:LEU:HB2	2.21	0.41
5:CC:206:GLU:HG2	5:CC:207:VAL:H	1.86	0.41
25:BA:733:G:C8	25:BA:761:A:N6	2.89	0.41
25:BA:459:U:OP2	25:BA:469:G:N1	2.43	0.41
1:CA:927:G:O2'	1:CA:928:G:H5'	2.21	0.41
25:BA:404:C:C2	25:BA:406:G:C5	3.09	0.41
5:CC:108:ASN:HA	5:CC:109:PRO:HD2	1.80	0.41
25:DA:821:A:O2'	25:DA:945:A:H5'	2.20	0.41
25:DA:2338:G:N3	25:DA:2339:G:C8	2.89	0.41
44:BX:32:PRO:HA	44:BX:77:LYS:HB2	2.03	0.41
18:CP:1:MET:HG2	18:CP:2:VAL:O	2.20	0.41
25:BA:2641:G:H5''	34:BN:99:SER:HB3	2.02	0.41
25:BA:1551:C:C5	25:BA:1552:G:N7	2.89	0.41
47:B0:46:LYS:O	47:B0:47:PRO:O	2.39	0.41
25:DA:1170:G:C6	25:DA:1171:G:N7	2.89	0.41
5:CC:186:PHE:HD1	5:CC:198:VAL:O	2.04	0.41
1:CA:119:A:H5'	1:CA:120:A:C4	2.56	0.41
36:BP:75:ILE:H	36:BP:75:ILE:HD12	1.85	0.41
25:BA:930:U:O4'	25:BA:930:U:O2	2.36	0.41
43:BW:34:ASN:HD22	43:BW:34:ASN:HA	1.58	0.41
25:DA:654:U:H6	25:DA:654:U:H5''	1.86	0.41
25:BA:349:G:H2'	25:BA:350:U:O4'	2.21	0.41
31:DH:12:PRO:HA	31:DH:15:VAL:HG11	2.02	0.41
25:BA:1817:G:H2'	25:BA:1818:U:H5'	2.03	0.41
18:CP:65:GLN:HA	18:CP:66:PRO:HD3	1.74	0.41
24:CX:133:ILE:HD12	24:CX:150:LEU:HA	2.02	0.41
2:CZ:67:C:H2'	2:CZ:68:C:C6	2.55	0.41
41:BU:84:LYS:HD3	41:BU:84:LYS:HA	1.87	0.41
22:CT:38:LYS:HE2	22:CT:38:LYS:HB3	1.84	0.41
18:AP:1:MET:HG2	18:AP:2:VAL:O	2.21	0.41
13:AK:92:GLU:O	13:AK:95:ILE:HB	2.20	0.41
25:BA:942:G:H8	25:BA:942:G:O5'	2.04	0.41
37:BQ:81:VAL:O	37:BQ:82:ARG:CZ	2.70	0.41
25:DA:195:A:N7	25:DA:197:A:OP1	2.53	0.41
36:DP:38:GLN:HG3	36:DP:41:ARG:HG3	2.03	0.41
22:AT:26:ASN:CB	22:AT:71:THR:HG23	2.28	0.41
27:DD:25:THR:O	27:DD:25:THR:CG2	2.62	0.41
11:AI:88:TYR:O	11:AI:88:TYR:HD2	2.04	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:632:A:N3	25:BA:2403:C:H1'	2.36	0.41
40:BT:106:SER:O	40:BT:107:ASP:CB	2.69	0.41
53:D6:37:ARG:HD2	53:D6:37:ARG:N	2.35	0.41
52:D5:40:LYS:HE3	52:D5:49:CYS:SG	2.61	0.41
25:DA:1045:A:H5''	25:DA:1047:G:O4'	2.21	0.41
29:DF:7:TYR:O	29:DF:9:ILE:HD13	2.20	0.41
25:BA:780:G:C2	25:BA:783:A:N6	2.88	0.41
25:BA:661:C:O3'	36:BP:18:ARG:HG2	2.20	0.41
17:CO:45:VAL:HG23	17:CO:46:HIS:CE1	2.53	0.41
24:CX:244:VAL:HG12	24:CX:245:MET:N	2.36	0.41
29:DF:184:TYR:CE2	29:DF:188:ARG:HD2	2.56	0.41
24:AX:244:VAL:HG12	24:AX:245:MET:N	2.36	0.41
20:CR:50:ILE:CD1	20:CR:70:ILE:HG21	2.51	0.41
25:BA:1544:C:H2'	25:BA:1545:A:H5'	2.03	0.41
23:CU:6:ARG:O	23:CU:7:ARG:HB2	2.21	0.41
6:AD:15:GLU:HG2	6:AD:63:LYS:HG3	2.02	0.41
25:DA:2115:G:O2'	25:DA:2166:G:C2	2.74	0.41
30:BG:59:GLU:HG2	30:BG:144:ILE:HD11	2.03	0.41
4:CB:188:ALA:HB1	4:CB:192:SER:OG	2.20	0.41
1:AA:112:G:H2'	1:AA:113:G:H5'	2.03	0.41
37:BQ:42:ILE:HD11	37:BQ:127:ILE:CD1	2.49	0.41
1:AA:1236:A:O2'	1:AA:1304:G:H4'	2.20	0.41
7:AE:109:ILE:HG22	7:AE:110:LEU:HD23	2.03	0.41
6:CD:166:LYS:C	6:CD:166:LYS:HD2	2.41	0.41
26:BB:69:G:N2	26:BB:70:C:H1'	2.36	0.41
1:AA:1075:C:O2'	1:AA:1076:C:H5'	2.21	0.41
41:BU:75:ASN:H	41:BU:75:ASN:HD22	1.63	0.41
42:BV:4:ILE:HD13	42:BV:13:ARG:HB3	2.03	0.41
46:BZ:144:LEU:N	46:BZ:144:LEU:HD22	2.36	0.41
54:D7:8:ASN:ND2	54:D7:10:ARG:N	2.69	0.41
26:BB:96:G:C4	26:BB:97:G:C8	3.08	0.41
24:CX:134:GLN:HA	24:CX:135:PRO:HD2	1.84	0.41
28:BE:117:MET:HG2	28:BE:136:ARG:HH22	1.83	0.41
25:BA:26:G:C2	25:BA:27:G:N2	2.89	0.41
1:AA:17:U:H1'	1:AA:1080:A:N3	2.35	0.41
29:BF:199:TRP:O	29:BF:202:PHE:HB3	2.21	0.41
34:BN:117:HIS:HA	34:BN:118:PRO:HD3	1.70	0.41
26:DB:74:U:H2'	26:DB:75:G:O4'	2.21	0.41
1:AA:716:A:N3	13:AK:118:GLY:HA2	2.35	0.41
1:AA:1221:G:C4	1:AA:1222:G:C8	3.09	0.41
1:AA:360:A:C6	1:AA:361:G:C6	3.09	0.41
55:B8:39:LYS:HE2	55:B8:43:GLN:NE2	2.33	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:919:G:H2'	25:DA:920:G:H8	1.84	0.41
36:DP:114:ILE:CD1	36:DP:130:PHE:CD1	3.03	0.41
16:CN:6:LEU:HD22	16:CN:23:ARG:CZ	2.50	0.41
25:BA:2498:C:OP2	25:BA:2498:C:H3'	2.21	0.41
25:BA:2776:A:C6	25:BA:2778:A:C6	3.08	0.41
24:AX:373:GLU:O	24:AX:378:GLU:HB3	2.21	0.41
9:CG:65:ALA:CB	9:CG:124:LEU:HD23	2.48	0.41
25:BA:2121:G:H2'	25:BA:2122:U:C6	2.56	0.41
25:DA:1248:G:C4	41:DU:3:ARG:HG3	2.55	0.41
26:DB:54:G:H21	30:DG:29:TRP:HZ2	1.66	0.41
28:BE:55:ASN:HA	28:BE:56:PRO:HD3	1.96	0.41
25:DA:189:G:H1'	25:DA:207:A:N6	2.36	0.41
25:DA:1034:G:C6	25:DA:1035:U:C4	3.09	0.41
1:CA:376:G:OP1	18:CP:5:ARG:HB2	2.20	0.41
25:BA:579:G:C2	25:BA:1262:A:C4	3.09	0.41
25:BA:865:C:H4'	25:BA:866:A:OP1	2.21	0.41
1:CA:811:C:C4'	1:CA:900:A:H61	2.34	0.41
25:DA:228:A:H2'	25:DA:230:U:O4'	2.21	0.41
25:BA:2748:A:C4	25:BA:2757:A:C6	3.09	0.41
25:BA:2749:A:H2'	25:BA:2750:A:C8	2.56	0.41
25:BA:1839:G:C5'	25:BA:1839:G:C8	3.04	0.41
25:DA:173:G:C6	25:DA:174:C:N4	2.88	0.41
25:DA:519:U:O2'	25:DA:520:G:H5'	2.21	0.41
8:CF:7:ASN:ND2	20:CR:34:TYR:HE1	2.15	0.41
1:CA:1057:G:H4'	5:CC:197:GLY:N	2.36	0.41
1:CA:444:C:H2'	1:CA:445:G:C8	2.54	0.41
25:BA:1603:A:C5	25:BA:1604:C:C5	3.09	0.41
25:BA:2683:C:P	40:BT:53:ARG:NH2	2.94	0.41
26:BB:11:C:H3'	26:BB:12:C:H6	1.85	0.41
27:BD:227:ASN:O	27:BD:228:PRO:C	2.58	0.41
1:AA:1088:G:C4	1:AA:1089:G:C8	3.10	0.41
1:CA:1504:G:P	1:CA:1504:G:H3'	2.61	0.41
1:CA:20:U:C2	1:CA:916:G:N2	2.88	0.41
1:CA:848:C:C6	1:CA:848:C:H3'	2.55	0.41
25:BA:280:C:N3	25:BA:361:G:C2	2.89	0.41
1:CA:836:G:H2'	1:CA:837:G:H8	1.85	0.41
43:BW:21:VAL:C	43:BW:23:LEU:N	2.75	0.41
1:CA:442:C:N4	1:CA:492:G:H1	2.19	0.41
25:BA:1385:G:C4	25:BA:1386:C:C5	3.09	0.41
41:BU:72:HIS:CB	41:BU:110:VAL:HG11	2.51	0.41
43:DW:89:ALA:C	43:DW:91:GLY:H	2.24	0.41
38:DR:117:VAL:HG22	38:DR:118:GLU:N	2.36	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:20:C:H2'	25:BA:21:A:H8	1.85	0.41
2:AY:50:U:H3	2:AY:64:G:H1	1.69	0.41
31:DH:38:SER:HB2	31:DH:41:MET:CG	2.51	0.41
32:BI:25:TYR:CD1	32:BI:30:LEU:HD11	2.56	0.41
25:BA:710:G:H2'	25:BA:711:G:C8	2.56	0.41
25:BA:1900:A:N1	25:BA:1970:A:C6	2.89	0.41
25:DA:146:G:H2'	25:DA:147:U:O4'	2.21	0.41
25:DA:510:C:C2'	25:DA:511:U:H5'	2.51	0.41
28:DE:68:ALA:C	28:DE:70:ALA:H	2.24	0.41
1:AA:688:G:H2'	1:AA:689:C:H6	1.86	0.41
1:CA:1498:U:C5	3:CV:17:U:H5'	2.56	0.41
14:AL:123:LYS:HD2	14:AL:124:PRO:HD2	2.02	0.41
25:DA:2500:U:C6	25:DA:2500:U:C3'	3.03	0.41
25:BA:604:G:H5''	25:BA:604:G:H8	1.86	0.41
25:DA:497:A:H8	25:DA:497:A:O5'	2.04	0.41
52:B5:52:TYR:CD1	52:B5:52:TYR:N	2.89	0.41
25:BA:977:G:O6	25:BA:987:G:C6	2.74	0.41
25:DA:1914:C:O4'	25:DA:1914:C:O2	2.38	0.41
41:BU:5:LYS:HB3	41:BU:5:LYS:NZ	2.36	0.41
1:AA:994:A:C2	1:AA:995:C:C5	3.09	0.41
25:BA:980:A:C6	25:BA:981:A:N1	2.89	0.41
19:CQ:97:SER:O	19:CQ:98:LEU:HD23	2.21	0.41
35:BO:52:VAL:HG22	35:BO:94:ARG:NH1	2.36	0.41
25:BA:704:G:N2	25:BA:726:G:C4	2.89	0.41
1:AA:332:G:C4	1:AA:333:G:C8	3.09	0.41
55:B8:54:GLU:HA	55:B8:57:ARG:HH12	1.86	0.40
25:BA:2090:G:H21	48:B1:45:ASN:HD21	1.69	0.40
25:DA:587:C:C5	25:DA:671:C:H1'	2.56	0.40
49:D2:47:ASN:HD22	49:D2:47:ASN:H	1.65	0.40
25:DA:2305:A:H4'	25:DA:2305:A:OP1	2.21	0.40
5:CC:22:TRP:CZ3	5:CC:32:LEU:HD12	2.56	0.40
25:DA:561:G:H1'	41:DU:45:TYR:HE2	1.84	0.40
12:CJ:8:LEU:HA	12:CJ:95:GLU:O	2.21	0.40
45:DY:18:GLY:C	45:DY:20:TYR:H	2.23	0.40
30:BG:56:ALA:O	30:BG:60:LEU:HB2	2.21	0.40
40:DT:26:ASP:HB2	40:DT:90:GLN:O	2.21	0.40
1:AA:1228:C:O3'	15:AM:116:THR:HA	2.21	0.40
21:AS:58:VAL:HA	21:AS:59:PRO:HD2	1.88	0.40
27:BD:238:GLY:O	27:BD:240:ALA:HB2	2.21	0.40
24:AX:184:VAL:HG21	24:AX:193:LEU:HD12	2.02	0.40
1:AA:974:A:OP1	1:AA:974:A:C8	2.59	0.40
4:CB:90:MET:HA	4:CB:91:PRO:HD3	1.94	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:CS:58:VAL:HG23	21:CS:58:VAL:O	2.21	0.40
25:BA:245:G:C5	25:BA:246:C:C5	3.10	0.40
25:DA:1095:A:N6	33:DK:29:GLN:NE2	2.65	0.40
29:BF:181:LEU:HD23	29:BF:181:LEU:HA	1.64	0.40
20:AR:50:ILE:CD1	20:AR:70:ILE:HG21	2.51	0.40
25:BA:2205:C:H42	25:BA:2219:G:H1	1.68	0.40
25:DA:796:C:C2	25:DA:797:C:C5	3.08	0.40
1:AA:113:G:C6	1:AA:114:U:C4	3.09	0.40
1:AA:1300:G:HO2'	1:AA:1301:U:C5'	2.34	0.40
11:AI:113:LYS:H	11:AI:119:ALA:HA	1.85	0.40
25:DA:2360:A:H2'	25:DA:2361:A:O4'	2.21	0.40
5:CC:105:GLU:CG	5:CC:106:VAL:N	2.83	0.40
25:BA:1081:U:C4'	33:BK:117:THR:HG23	2.50	0.40
25:BA:920:G:H2'	25:BA:921:G:C8	2.56	0.40
25:DA:2278:A:OP1	37:DQ:10:ARG:HD3	2.20	0.40
1:CA:712:A:H2'	1:CA:713:G:O4'	2.20	0.40
25:DA:303:U:O2	25:DA:304:G:C8	2.74	0.40
1:AA:644:G:N2	1:AA:645:C:H1'	2.36	0.40
10:CH:111:ILE:HG12	10:CH:111:ILE:H	1.48	0.40
25:DA:1301:A:N3	25:DA:1301:A:H2'	2.36	0.40
13:AK:57:THR:HG23	13:AK:58:PRO:HD2	2.03	0.40
25:BA:860:U:O4'	25:BA:860:U:O2	2.37	0.40
1:CA:513:C:H2'	1:CA:514:C:C6	2.55	0.40
25:BA:2158:A:H4'	25:BA:2159:G:O5'	2.20	0.40
42:DV:6:LYS:HG2	42:DV:37:VAL:HB	2.03	0.40
25:BA:840:C:H2'	25:BA:841:A:H8	1.85	0.40
25:BA:1256:G:O2'	29:BF:75:HIS:HE1	2.04	0.40
46:DZ:118:GLN:NE2	46:DZ:118:GLN:CA	2.83	0.40
9:AG:108:ALA:O	9:AG:111:ARG:HB2	2.22	0.40
9:AG:113:GLU:CG	9:AG:119:ARG:HG2	2.51	0.40
48:B1:19:GLN:HE21	48:B1:41:ARG:NE	2.15	0.40
1:AA:702:A:H3'	1:AA:703:G:C5'	2.51	0.40
25:DA:563:G:N3	25:DA:563:G:H2'	2.37	0.40
25:BA:2400:G:H2'	25:BA:2401:U:C6	2.56	0.40
6:AD:12:CYS:HA	6:AD:19:LEU:HD12	2.03	0.40
1:CA:937:A:C5	1:CA:938:A:N7	2.88	0.40
25:BA:901:A:C5	25:BA:902:C:C4	3.09	0.40
25:BA:583:G:P	41:BU:10:ARG:HH11	2.43	0.40
20:AR:51:LEU:CD2	20:AR:52:PRO:HD2	2.49	0.40
25:DA:1347:G:C5	25:DA:1348:G:N7	2.89	0.40
25:DA:901:A:C5	25:DA:902:C:C4	3.09	0.40
25:BA:322:A:H3'	29:BF:169:ASN:HD21	1.86	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:B2:33:MET:HA	49:B2:36:ARG:HG2	2.02	0.40
51:D4:39:ARG:HH21	51:D4:47:VAL:HG12	1.86	0.40
46:DZ:163:LEU:HD12	46:DZ:165:VAL:CG2	2.51	0.40
51:D4:40:ILE:HG23	51:D4:59:VAL:CG2	2.51	0.40
5:CC:18:TRP:CD1	16:CN:54:PRO:HA	2.57	0.40
1:AA:406:G:C4	1:AA:495:A:C5	3.09	0.40
1:CA:444:C:O2'	1:CA:445:G:H5'	2.20	0.40
1:CA:445:G:C6	1:CA:490:G:C6	3.09	0.40
5:CC:151:VAL:O	5:CC:152:ILE:HG13	2.21	0.40
24:CX:258:THR:HG22	24:CX:260:SER:OG	2.21	0.40
32:BI:1:MET:HG3	32:BI:23:PRO:HA	2.03	0.40
35:BO:22:ILE:HD13	35:BO:22:ILE:HA	1.68	0.40
18:CP:38:TYR:O	18:CP:49:LEU:HD12	2.21	0.40
1:CA:266:G:H3'	1:CA:266:G:H8	1.86	0.40
35:DO:112:MET:HA	35:DO:115:VAL:CG2	2.50	0.40
25:BA:2078:C:H2'	25:BA:2079:U:C6	2.56	0.40
1:CA:1345:U:C2	1:CA:1377:A:C6	3.09	0.40
4:AB:178:ARG:HD3	4:AB:178:ARG:HA	1.81	0.40
4:CB:114:ARG:HA	4:CB:117:GLU:CD	2.41	0.40
25:DA:266:G:C6	25:DA:267:C:C5	3.09	0.40
35:DO:35:VAL:HG13	35:DO:65:THR:CG2	2.51	0.40
25:DA:649:G:H2'	25:DA:650:C:C6	2.56	0.40
33:DK:104:VAL:CG1	33:DK:127:ILE:HB	2.51	0.40
1:AA:1345:U:C2	1:AA:1377:A:C6	3.09	0.40
25:DA:2693:A:H2'	25:DA:2694:G:C8	2.56	0.40
25:BA:728:G:C4	25:BA:730:C:C5	3.09	0.40
25:DA:64:A:C5	25:DA:65:C:C5	3.09	0.40
1:AA:919:A:H8	1:AA:919:A:O5'	2.04	0.40
38:DR:48:VAL:O	38:DR:49:ASP:C	2.60	0.40
1:CA:771:G:H2'	1:CA:772:U:C6	2.56	0.40
25:BA:1388:G:H2'	25:BA:1389:G:H8	1.85	0.40
25:DA:356:G:H2'	25:DA:357:A:C8	2.56	0.40
1:AA:417:C:H2'	1:AA:418:C:H6	1.85	0.40
37:BQ:50:ALA:HB1	37:BQ:121:ALA:HB1	2.02	0.40
25:DA:1389:G:C2	25:DA:1399:C:O2	2.74	0.40
25:BA:2209:C:C2	25:BA:2216:G:C2	3.09	0.40
4:CB:73:THR:HG23	4:CB:170:GLU:HG2	2.03	0.40
1:CA:1360:A:H2'	1:CA:1361:G:C8	2.56	0.40
25:DA:347:A:H2'	25:DA:348:G:C8	2.57	0.40
35:BO:66:LYS:HD3	35:BO:80:ASP:O	2.21	0.40
1:AA:858:G:H5''	1:AA:858:G:C8	2.56	0.40
37:BQ:72:LYS:HA	37:BQ:73:PRO:HD3	1.94	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CY:43:A:H2'	2:CY:44:A:C8	2.56	0.40
25:BA:60:G:N7	25:BA:63:U:C6	2.89	0.40
25:BA:1265:A:O4'	25:BA:1267:U:C6	2.73	0.40
25:DA:2526:G:H2'	25:DA:2527:C:O4'	2.21	0.40
4:CB:230:VAL:HB	4:CB:231:GLU:H	1.65	0.40
1:AA:277:C:H5'	19:AQ:68:ARG:NH1	2.36	0.40
4:AB:45:GLN:O	4:AB:49:GLU:HG3	2.22	0.40
24:AX:250:PRO:HD3	25:BA:2604:U:OP2	2.20	0.40
1:CA:474:G:H5'	18:CP:81:ARG:HG3	2.03	0.40
25:DA:242:G:N7	55:D8:5:LYS:HG2	2.35	0.40
47:D0:78:TYR:N	47:D0:78:TYR:CD1	2.89	0.40
25:DA:413:C:H6	25:DA:413:C:O5'	2.04	0.40
1:CA:162:A:H8	1:CA:162:A:O5'	2.04	0.40
34:DN:132:LYS:H	34:DN:132:LYS:HD3	1.85	0.40
28:BE:68:ALA:C	28:BE:70:ALA:H	2.24	0.40
55:B8:50:LEU:O	55:B8:51:ALA:CB	2.69	0.40
36:BP:24:GLY:N	36:BP:33:ARG:NH1	2.69	0.40
36:DP:23:PRO:HD2	36:DP:33:ARG:HH21	1.70	0.40
1:CA:79:G:N2	1:CA:80:G:C4	2.89	0.40
36:DP:41:ARG:NE	36:DP:41:ARG:HA	2.35	0.40
49:D2:47:ASN:O	49:D2:48:HIS:C	2.60	0.40
22:AT:72:LEU:HD22	22:AT:73:HIS:H	1.86	0.40
24:AX:122:PHE:HB2	24:AX:125:ALA:CB	2.28	0.40
1:CA:1329:A:H5'	15:CM:29:ARG:NE	2.36	0.40
25:DA:2305:A:H2'	30:DG:136:ARG:CZ	2.51	0.40
25:DA:2306:C:H5'	25:DA:2307:G:C8	2.56	0.40
34:BN:66:THR:HB	34:BN:69:VAL:HG12	2.03	0.40
12:CJ:4:ILE:HG23	12:CJ:98:ILE:CG2	2.51	0.40
25:DA:1023:U:C2'	25:DA:1024:G:H5'	2.52	0.40
39:DS:62:LYS:HB3	39:DS:97:ARG:NE	2.36	0.40
25:DA:1899:G:N2	25:DA:1902:C:H41	2.11	0.40
37:DQ:69:PHE:CD1	37:DQ:70:PRO:HD2	2.56	0.40
40:DT:27:THR:C	40:DT:28:VAL:HG12	2.41	0.40
1:CA:1221:G:C4	1:CA:1222:G:C8	3.09	0.40
29:DF:9:ILE:HD11	29:DF:21:ALA:N	2.37	0.40
29:DF:24:LEU:HA	29:DF:25:PRO:HD3	1.84	0.40
1:CA:1371:G:H5''	11:CI:69:GLY:N	2.36	0.40
27:BD:238:GLY:O	27:BD:240:ALA:N	2.54	0.40
51:B4:57:ILE:HG22	51:B4:59:VAL:HG23	2.03	0.40
30:BG:113:ARG:HH21	51:B4:59:VAL:HG22	1.86	0.40
36:BP:10:PRO:O	36:BP:11:GLY:C	2.59	0.40
1:CA:1157:A:C6	1:CA:1180:A:C5	3.08	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:660:G:C6	25:DA:661:C:C4	3.09	0.40
1:AA:674:G:N2	1:AA:717:C:O2	2.54	0.40
25:BA:2115:G:H2'	25:BA:2116:G:N7	2.35	0.40
30:BG:83:ARG:HG3	30:BG:86:MET:SD	2.61	0.40
20:AR:50:ILE:HD11	20:AR:74:ARG:HH11	1.84	0.40
25:DA:245:G:C5	25:DA:246:C:C5	3.09	0.40
4:CB:17:PHE:O	4:CB:18:GLY:O	2.39	0.40
4:CB:18:GLY:O	4:CB:19:HIS:HB2	2.20	0.40
12:CJ:30:SER:O	12:CJ:80:LYS:HD3	2.20	0.40
5:AC:35:GLU:O	5:AC:36:ASP:C	2.58	0.40
55:D8:61:LEU:O	55:D8:62:LEU:HB2	2.21	0.40
49:D2:3:LEU:HD23	49:D2:7:ARG:HB2	2.02	0.40
25:BA:2328:A:H2'	25:BA:2329:G:C8	2.56	0.40
4:CB:167:PRO:HG3	4:CB:188:ALA:CB	2.51	0.40
25:BA:1208:C:O2'	25:BA:1209:G:H5'	2.21	0.40
42:DV:72:VAL:CG2	42:DV:85:LYS:HB2	2.49	0.40
14:AL:92:LEU:HB2	14:AL:95:VAL:HG21	2.03	0.40
6:CD:60:GLU:HG2	6:CD:202:LEU:CB	2.51	0.40
25:BA:2785:C:O2'	28:BE:66:HIS:CD2	2.74	0.40
25:BA:1315:C:H42	25:BA:1337:G:H1	1.69	0.40
6:AD:34:GLU:OE2	6:AD:34:GLU:HA	2.21	0.40
25:DA:781:A:C2	25:DA:1776:G:H2'	2.57	0.40
37:DQ:68:ILE:HG23	37:DQ:103:MET:HA	2.03	0.40
6:AD:106:TYR:HE1	6:AD:112:VAL:O	2.04	0.40
25:BA:2723:C:C5'	38:BR:2:ARG:HH12	2.32	0.40
25:DA:2121:G:H2'	25:DA:2122:U:C6	2.56	0.40
1:AA:390:C:H2'	1:AA:391:G:C8	2.55	0.40
25:DA:2293:C:C2	25:DA:2340:G:N2	2.89	0.40
1:CA:428:G:C4'	1:CA:429:U:O5'	2.66	0.40
18:CP:6:LEU:HG	18:CP:17:TYR:HB3	2.03	0.40
13:CK:11:LYS:O	13:CK:11:LYS:HG2	2.20	0.40
25:BA:37:C:O2'	25:BA:38:A:H5'	2.22	0.40
33:BK:60:TYR:CD2	33:BK:64:SER:HB3	2.56	0.40
25:BA:828:U:C3'	25:BA:828:U:O2	2.70	0.40
25:BA:171:G:H2'	25:BA:172:C:C6	2.56	0.40
1:CA:1256:A:H2	1:CA:1277:C:C5	2.39	0.40
1:AA:325:A:N6	1:AA:326:G:C2	2.89	0.40
34:BN:61:HIS:CE1	34:BN:73:ASP:OD2	2.74	0.40
25:BA:719:C:H2'	25:BA:720:C:C6	2.51	0.40
1:CA:156:G:C6	1:CA:166:G:C6	3.09	0.40
46:BZ:179:ASP:OD2	46:BZ:179:ASP:C	2.59	0.40
43:BW:76:VAL:O	43:BW:76:VAL:HG13	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2077:A:C4	25:BA:2078:C:C5	3.10	0.40
18:AP:39:TYR:HB2	18:AP:49:LEU:CD1	2.50	0.40
10:CH:35:ILE:H	10:CH:35:ILE:HG12	1.65	0.40
28:DE:77:ILE:HD13	28:DE:195:LEU:CD1	2.51	0.40
33:BK:38:VAL:HA	33:BK:41:PHE:HB3	2.03	0.40
44:BX:57:LEU:HD11	44:BX:78:LYS:HD2	2.03	0.40
25:DA:280:C:H2'	25:DA:281:G:H8	1.87	0.40
17:AO:29:VAL:O	17:AO:30:ALA:C	2.60	0.40
17:CO:29:VAL:O	17:CO:32:LEU:N	2.53	0.40
40:BT:41:ARG:HH22	40:BT:42:ILE:HD12	1.86	0.40
25:BA:2877:G:H2'	25:BA:2878:U:H6	1.86	0.40
25:DA:2205:C:H42	25:DA:2219:G:H1	1.69	0.40
17:CO:70:LEU:CD2	17:CO:78:TYR:HA	2.51	0.40
14:CL:77:GLN:C	14:CL:79:HIS:H	2.23	0.40
24:AX:345:ASP:OD2	24:AX:345:ASP:N	2.54	0.40
46:DZ:75:ASN:ND2	46:DZ:75:ASN:N	2.68	0.40
25:DA:2618:G:C6	25:DA:2619:C:C4	3.09	0.40
25:BA:1214:A:H2'	25:BA:1215:G:O4'	2.21	0.40
25:DA:2186:G:O2'	25:DA:2187:G:H5'	2.20	0.40
17:CO:64:ARG:O	17:CO:65:ARG:C	2.60	0.40
1:CA:932:C:C5	9:CG:3:ARG:HD3	2.57	0.40
25:BA:733:G:O6	25:BA:761:A:C8	2.74	0.40
5:CC:157:ILE:HG12	5:CC:157:ILE:H	1.65	0.40
25:BA:830:G:C4	25:BA:2448:A:C6	3.10	0.40
28:DE:31:CYS:HA	28:DE:32:PRO:HD3	1.81	0.40
31:DH:111:HIS:HA	31:DH:112:PRO:HD2	1.89	0.40
25:BA:2338:G:N3	25:BA:2339:G:C8	2.89	0.40
25:BA:977:G:C6	25:BA:987:G:C6	3.09	0.40
1:CA:1263:C:O2'	1:CA:1264:C:H5'	2.21	0.40
25:BA:1414:G:C5	25:BA:1415:U:C5	3.10	0.40
26:BB:110:G:H2'	26:BB:111:U:O4'	2.21	0.40
47:B0:10:THR:OG1	47:B0:10:THR:O	2.37	0.40
27:DD:215:LEU:HA	27:DD:215:LEU:HD23	1.83	0.40
36:DP:119:GLU:OE1	36:DP:119:GLU:HA	2.21	0.40
1:CA:780:A:C2	1:CA:801:U:C5	3.09	0.40
7:AE:152:ARG:HG2	10:AH:43:GLY:HA3	2.02	0.40
2:AY:56:C:H1'	30:BG:76:SER:HB3	2.03	0.40
25:BA:670:A:H4'	25:BA:671:C:OP1	2.21	0.40
37:DQ:81:VAL:HG12	37:DQ:82:ARG:HB2	2.02	0.40
49:B2:46:GLN:HB2	49:B2:49:LYS:HE2	2.04	0.40
25:BA:61:G:C5	49:B2:47:ASN:OD1	2.74	0.40
41:BU:79:PHE:O	41:BU:83:LEU:HD12	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:802:A:H5'	25:BA:802:A:H8	1.86	0.40
5:CC:34:LEU:CD2	5:CC:38:ARG:HE	2.34	0.40
48:B1:32:LYS:HG2	48:B1:33:LYS:N	2.27	0.40
12:CJ:4:ILE:HB	12:CJ:74:ILE:HG12	2.04	0.40
12:AJ:4:ILE:HA	12:AJ:4:ILE:HD13	1.84	0.40
12:AJ:8:LEU:HA	12:AJ:95:GLU:O	2.21	0.40
25:DA:114(B):A:C4	25:DA:1144:G:C8	3.09	0.40
53:D6:32:ASN:N	53:D6:33:LYS:NZ	2.66	0.40
27:BD:142:VAL:HG23	27:BD:192:THR:O	2.21	0.40
36:DP:62:LEU:C	36:DP:62:LEU:CD2	2.89	0.40
40:DT:128:GLU:HG2	40:DT:132:LYS:NZ	2.37	0.40
32:DI:77:LEU:HG	32:DI:101:LEU:HD13	2.03	0.40
44:DX:36:LYS:HZ1	44:DX:55:ASN:HA	1.86	0.40
36:BP:17:LYS:O	36:BP:19:VAL:N	2.54	0.40
1:CA:1130:A:C2	1:CA:1146:A:C5	3.09	0.40
33:DK:25:PRO:O	33:DK:29:GLN:HG2	2.22	0.40
10:AH:12:ARG:HH12	10:AH:27:PRO:HD3	1.85	0.40
6:CD:8:VAL:HG23	6:CD:22:LYS:HE2	2.03	0.40
25:DA:684:G:C2	25:DA:774:A:C2	3.10	0.40
4:AB:28:PHE:HA	4:AB:194:PRO:HG3	2.03	0.40
30:BG:75:LYS:O	30:BG:83:ARG:O	2.39	0.40
48:D1:51:VAL:HG22	48:D1:52:ARG:H	1.85	0.40
48:D1:58:ILE:HD11	48:D1:91:LYS:CB	2.51	0.40
25:DA:2562:U:H2'	25:DA:2563:U:H5'	2.04	0.40
37:BQ:88:GLY:O	37:BQ:89:ASN:CB	2.69	0.40
25:DA:270(N):U:OP1	25:DA:270(N):U:H4'	2.21	0.40
39:DS:37:ALA:CB	39:DS:73:LEU:HD11	2.51	0.40
25:BA:2359:C:H2'	25:BA:2360:A:H8	1.79	0.40
25:DA:1311:G:C2	44:DX:60:ARG:NH1	2.81	0.40
25:BA:28:A:H61	25:BA:512:G:H1'	1.86	0.40
14:CL:59:LEU:HD22	14:CL:59:LEU:N	2.37	0.40
1:AA:9:G:OP2	7:AE:121:LYS:HG3	2.21	0.40
44:DX:87:GLN:HG2	44:DX:87:GLN:H	1.61	0.40
25:BA:2836:U:C4	25:BA:2883:A:C6	3.10	0.40
25:BA:1567:A:O2'	27:BD:63:ARG:NH2	2.54	0.40
46:DZ:144:LEU:HD22	46:DZ:144:LEU:N	2.35	0.40
25:BA:48:G:H5'	25:BA:49:A:OP1	2.21	0.40
11:CI:104:ARG:HD2	11:CI:104:ARG:O	2.21	0.40
1:CA:1443:G:N2	40:DT:119:LYS:HB2	2.36	0.40
43:DW:72:LYS:O	43:DW:73:ALA:HB2	2.21	0.40
25:BA:2032:G:O2'	28:BE:145:LYS:HE2	2.21	0.40
25:BA:2056:G:N2	52:B5:4:HIS:O	2.54	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:83:VAL:O	36:DP:114:ILE:HA	2.21	0.40
25:BA:1936:A:H5'	25:BA:1936:A:H2'	1.86	0.40
25:DA:479:A:H4'	25:DA:480:A:O5'	2.20	0.40
53:D6:13:CYS:HB2	53:D6:22:ALA:HB3	2.02	0.40
28:BE:111:ARG:HA	38:BR:2:ARG:NE	2.36	0.40
41:DU:26:GLY:O	41:DU:28:ARG:N	2.54	0.40
25:DA:37:C:H4'	25:DA:451:C:OP1	2.21	0.40
9:AG:50:ILE:HG21	9:AG:58:PRO:CA	2.51	0.40
28:DE:144:ARG:HB3	28:DE:145:LYS:H	1.58	0.40
25:DA:322:A:C6	25:DA:340:A:N1	2.89	0.40
10:AH:19:VAL:O	10:AH:20:TYR:HB2	2.22	0.40
19:CQ:37:LYS:C	19:CQ:38:ARG:HD2	2.41	0.40
24:AX:49:PRO:CG	33:BK:29:GLN:HB2	2.48	0.40
7:AE:26:PHE:CD1	7:AE:26:PHE:N	2.89	0.40
25:BA:2298:A:H61	25:BA:2318:G:C2'	2.34	0.40
25:DA:1729:A:C2	25:DA:1731:G:C8	3.08	0.40
1:AA:815:A:H4'	1:AA:817:C:C5	2.56	0.40
51:D4:39:ARG:NH2	51:D4:47:VAL:HG12	2.37	0.40
25:BA:1854:A:H8	25:BA:1854:A:O5'	2.04	0.40
20:CR:43:PHE:C	20:CR:51:LEU:HD12	2.41	0.40
25:BA:2505:G:C8	25:BA:2505:G:C3'	3.04	0.40
15:CM:102:ARG:HE	15:CM:102:ARG:HA	1.85	0.40
1:AA:266:G:C8	1:AA:266:G:C3'	3.05	0.40
24:AX:170:THR:HG23	24:AX:179:TYR:HB3	2.03	0.40
26:BB:11:C:H3'	26:BB:12:C:C6	2.56	0.40
13:AK:67:ASP:O	13:AK:71:LYS:HG3	2.22	0.40
1:AA:1269:A:H2'	1:AA:1270:C:O4'	2.21	0.40
13:AK:34:ASP:OD2	13:AK:34:ASP:C	2.59	0.40
25:BA:2637:U:H5''	28:BE:82:ARG:NH2	2.35	0.40
36:DP:99:LEU:HD12	36:DP:99:LEU:N	2.36	0.40
30:DG:111:LEU:N	30:DG:112:PRO:HD2	2.36	0.40
25:BA:753:C:O2'	25:BA:754:C:H5'	2.22	0.40
25:BA:280:C:H2'	25:BA:281:G:C8	2.57	0.40
24:CX:345:ASP:O	24:CX:349:VAL:HG23	2.22	0.40
45:DY:68:HIS:HE1	45:DY:70:SER:HB2	1.85	0.40
34:BN:81:ASP:OD1	34:BN:147:ALA:HB1	2.20	0.40
25:BA:2349:G:C6	25:BA:2350:C:C5	3.09	0.40
38:DR:18:LEU:HD11	38:DR:22:ARG:CZ	2.50	0.40
35:BO:91:LEU:HA	35:BO:91:LEU:HD13	1.83	0.40
25:BA:2881:C:H2'	25:BA:2882:A:O4'	2.21	0.40
25:DA:1957:C:H2'	25:DA:1958:C:C6	2.57	0.40
43:DW:50:VAL:O	43:DW:51:LEU:C	2.60	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AX:352:GLY:O	24:AX:354:LEU:N	2.54	0.40
25:BA:1805:U:H2'	25:BA:1805:U:O2	2.21	0.40
25:DA:2508:G:C5	25:DA:2509:G:N7	2.89	0.40
1:AA:119:A:P	1:AA:119:A:H3'	2.61	0.40
6:AD:27:TYR:OH	8:CF:15:ASP:OD1	2.38	0.40
25:DA:1229:G:C6	25:DA:1230:C:C4	3.10	0.40
25:DA:1798:U:C4	25:DA:1819:A:C2	3.09	0.40
1:AA:158:G:H2'	1:AA:159:G:H5'	2.02	0.40
1:AA:63:C:H4'	1:AA:380:G:H4'	2.02	0.40
25:DA:977:G:O6	25:DA:987:G:C6	2.75	0.40
27:DD:3:VAL:CG1	27:DD:17:THR:HB	2.52	0.40
31:BH:167:GLU:HG3	31:BH:167:GLU:H	1.55	0.40
38:DR:89:ASP:N	38:DR:89:ASP:OD1	2.54	0.40
38:BR:33:ARG:HD2	38:BR:33:ARG:N	2.37	0.40
39:BS:59:LYS:HB2	39:BS:59:LYS:HE3	1.92	0.40
47:D0:10:THR:OG1	47:D0:10:THR:O	2.39	0.40
20:CR:53:ARG:HG2	20:CR:53:ARG:NH1	2.36	0.40
24:CX:352:GLY:O	24:CX:354:LEU:N	2.54	0.40
24:CX:353:ASP:O	24:CX:354:LEU:HD23	2.22	0.40
31:BH:38:SER:HA	31:BH:39:PRO:HD3	1.78	0.40
25:DA:2230:G:H2'	25:DA:2231:C:H6	1.86	0.40
55:D8:53:PRO:CB	55:D8:57:ARG:NH2	2.85	0.40
25:BA:996:A:C6	25:BA:1160:G:C6	3.10	0.40
49:B2:17:SER:CB	49:B2:18:PRO:HD3	2.43	0.40
22:AT:23:ARG:HA	22:AT:26:ASN:ND2	2.37	0.40
5:AC:180:ALA:O	5:AC:181:ASN:O	2.39	0.40
15:AM:71:ARG:HA	15:AM:74:VAL:CG2	2.50	0.40
12:AJ:71:LEU:HD12	12:AJ:72:VAL:H	1.87	0.40
25:DA:1021:A:H8	25:DA:1022:G:C5'	2.33	0.40
1:CA:1226:C:H4'	1:CA:1227:A:OP1	2.21	0.40
45:BY:6:HIS:HB3	45:BY:35:TYR:CE2	2.56	0.40
24:AX:165:GLU:HB2	24:AX:183:LEU:HB3	2.03	0.40
1:AA:1367:C:C2	1:AA:1368:G:C8	3.09	0.40
24:CX:259:ASP:O	24:CX:259:ASP:OD1	2.39	0.40
1:CA:1306:A:H2'	1:CA:1307:U:C6	2.56	0.40
28:BE:92:THR:C	28:BE:94:GLU:H	2.25	0.40
25:BA:287:C:C2	25:BA:288:C:C5	3.09	0.40
37:BQ:24:GLY:CA	37:BQ:101:ARG:HA	2.46	0.40
20:AR:63:GLN:O	20:AR:66:LEU:HB3	2.21	0.40
20:AR:67:ALA:HA	20:AR:70:ILE:HG12	2.03	0.40
25:BA:2199:A:H3'	25:BA:2205:C:H6	1.86	0.40
25:DA:1540:G:C2	25:DA:1541:U:H1'	2.56	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AL:26:LEU:HD13	14:AL:27:LYS:N	2.36	0.40
25:DA:2583:G:H2'	25:DA:2584:U:O4'	2.21	0.40
30:BG:7:LEU:HD22	30:BG:100:TRP:CE3	2.57	0.40
7:CE:92:LYS:HB2	7:CE:119:LEU:HB2	2.03	0.40
32:BI:68:LEU:HD22	32:BI:107:ILE:HD13	2.04	0.40
48:B1:57:GLU:HB3	48:B1:58:ILE:H	1.69	0.40
48:B1:92:LYS:HG3	48:B1:93:GLU:N	2.36	0.40
25:DA:1658:C:O5'	25:DA:1658:C:H6	2.05	0.40
24:CX:218:PHE:CG	24:CX:320:TRP:HB2	2.56	0.40
25:DA:607:U:OP1	29:DF:102:PRO:HA	2.22	0.40
7:AE:33:VAL:HG12	7:AE:34:VAL:N	2.36	0.40
32:DI:125:GLU:O	32:DI:126:TYR:CD2	2.75	0.40
26:BB:66:A:N6	26:BB:107:U:C2	2.88	0.40
33:BK:89:HIS:HB2	33:BK:94:GLU:OE2	2.20	0.40
28:BE:85:ASN:HA	28:BE:86:PRO:HD2	1.86	0.40
25:BA:140:A:H8	25:BA:1408:C:HO2'	1.52	0.40
25:DA:2425:A:H5''	25:DA:2427:C:O4'	2.22	0.40
25:BA:2795:G:H1'	25:BA:2802:G:C2	2.57	0.40
25:DA:2888:C:H2'	25:DA:2889:C:C6	2.56	0.40
14:CL:40:ARG:CD	14:CL:41:THR:H	2.34	0.40
25:DA:2645:G:H4'	25:DA:2646:C:OP2	2.21	0.40
54:B7:8:ASN:ND2	54:B7:10:ARG:H	2.20	0.40
25:BA:2712:U:H1'	25:BA:712(B):A:N7	2.36	0.40
1:CA:675:A:N1	1:CA:716:A:C2	2.90	0.40
1:AA:1196:U:C2	3:AV:22:A:C2	3.10	0.40
1:AA:1260:C:H4'	1:AA:1283:G:O2'	2.21	0.40
21:AS:16:LEU:H	21:AS:16:LEU:CD1	2.32	0.40
6:CD:188:LEU:HA	6:CD:189:PRO:HD2	1.94	0.40
25:BA:2020:A:C5	25:BA:2022:U:C5	3.09	0.40
53:B6:18:ARG:NH1	53:B6:43:CYS:O	2.55	0.40
9:CG:92:SER:O	9:CG:96:GLN:HG3	2.21	0.40
25:DA:2259:G:C2	25:DA:2282:G:C6	3.09	0.40
49:B2:36:ARG:NH1	49:B2:36:ARG:CB	2.84	0.40
19:AQ:29:HIS:ND1	19:AQ:31:LEU:N	2.60	0.40
25:BA:1731:G:HO2'	25:BA:1732:A:C5'	2.35	0.40
33:DK:60:TYR:CD2	33:DK:64:SER:HB3	2.56	0.40
37:BQ:78:PRO:O	37:BQ:79:LEU:CB	2.67	0.40
43:BW:1:MET:HG2	43:BW:64:MET:HE3	2.02	0.40
25:DA:1264:G:H5'	52:D5:11:THR:OG1	2.21	0.40
25:DA:1434:A:H2'	25:DA:1435:G:C8	2.57	0.40
27:DD:228:PRO:N	27:DD:234:GLY:O	2.54	0.40
1:CA:166:G:H2'	1:CA:167:G:C8	2.52	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:B1:18:ILE:HD11	48:B1:42:GLN:HB2	2.03	0.40
32:BI:31:LEU:HB3	32:BI:32:PRO:HD3	2.04	0.40
32:BI:38:LEU:HD12	32:BI:39:ALA:N	2.36	0.40
5:AC:152:ILE:HG12	5:AC:167:TRP:HA	2.04	0.40
35:DO:8:LEU:HB2	35:DO:19:ILE:HD13	2.03	0.40
25:DA:1889:A:C6	25:DA:1890:A:C6	3.10	0.40
1:CA:1375:A:H2'	1:CA:1376:U:C6	2.55	0.40
1:AA:316:G:C2	1:AA:317:G:N7	2.89	0.40
25:DA:1258:C:C1'	29:DF:84:VAL:HG11	2.51	0.40
1:CA:539:A:C6	1:CA:540:G:C6	3.10	0.40
25:BA:906:G:H4'	37:BQ:67:ARG:HH21	1.86	0.40
25:BA:394:A:C6	25:BA:395:U:C4	3.09	0.40
29:DF:57:VAL:HG13	29:DF:59:TYR:H	1.86	0.40
25:DA:343:C:O2	25:DA:343:C:H2'	2.21	0.40
38:DR:18:LEU:O	38:DR:18:LEU:HD22	2.22	0.40
30:BG:174:GLU:HG2	30:BG:180:PHE:HD1	1.86	0.40
25:DA:2717:G:C6	25:DA:2718:G:C5	3.09	0.40
25:BA:342:G:C2	25:BA:343:C:C6	3.09	0.40
25:BA:2364:C:C2'	25:BA:2365:G:H5'	2.50	0.40
34:DN:54:ALA:HA	34:DN:57:LEU:HD23	2.02	0.40
25:DA:2663:G:H2'	25:DA:2664:G:H5'	2.03	0.40
32:BI:56:LYS:HD2	32:BI:56:LYS:C	2.42	0.40
25:BA:1754:C:P	40:BT:96:ARG:HH12	2.45	0.40
25:DA:13:A:C5	25:DA:525:U:C4	3.09	0.40
13:AK:65:ALA:CB	13:AK:97:ALA:HB3	2.51	0.40
25:DA:2183:C:H2'	25:DA:2184:G:H8	1.86	0.40
19:AQ:76:LEU:HG	19:AQ:77:VAL:N	2.36	0.40
1:AA:57:G:H2'	1:AA:58:C:O4'	2.21	0.40
1:CA:1213:A:C5	1:CA:1215:G:C4	3.10	0.40
25:BA:2076:U:C5	25:BA:2596:U:O2	2.75	0.40
25:DA:2026:C:C2	25:DA:2027:G:C8	3.09	0.40
13:AK:120:ARG:HA	13:AK:121:PRO:HD3	1.79	0.40
25:BA:2659:G:OP1	31:BH:158:HIS:HE1	2.04	0.40
27:DD:7:LYS:HE2	27:DD:7:LYS:HB2	1.86	0.40
25:BA:654:U:H6	25:BA:654:U:H5''	1.84	0.40
4:CB:22:LYS:HA	4:CB:22:LYS:HD3	1.93	0.40
17:AO:26:GLU:HG2	17:AO:26:GLU:H	1.56	0.40
43:BW:46:PHE:O	43:BW:50:VAL:HG12	2.21	0.40
25:DA:2057:A:H2'	25:DA:2058:A:O4'	2.21	0.40
25:BA:344:G:O2'	25:BA:345:A:H5'	2.22	0.40
48:B1:10:LYS:HD2	48:B1:11:ARG:NH1	2.36	0.40
48:D1:13:ILE:HG13	48:D1:15:ALA:N	2.34	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:D1:11:ARG:NE	48:D1:61:ARG:H	2.20	0.40
25:DA:196:A:P	36:DP:51:PHE:CZ	3.15	0.40
41:BU:52:ARG:O	41:BU:53:ARG:C	2.58	0.40
41:BU:62:ILE:HD12	41:BU:76:TYR:CE1	2.57	0.40
36:BP:51:PHE:HA	36:BP:51:PHE:HD1	1.80	0.40
34:DN:66:THR:HB	34:DN:69:VAL:HG12	2.03	0.40
24:AX:100:LEU:O	24:AX:104:LEU:HD23	2.22	0.40
5:CC:15:THR:HG22	5:CC:16:ARG:N	2.37	0.40
7:AE:48:ALA:C	7:AE:50:GLU:H	2.24	0.40
12:CJ:4:ILE:HB	12:CJ:74:ILE:CG1	2.52	0.40
25:BA:2415:G:H2'	25:BA:2416:C:C6	2.56	0.40
30:BG:154:GLY:O	30:BG:155:MET:CB	2.68	0.40
26:DB:29:A:OP2	39:DS:31:SER:OG	2.39	0.40
25:DA:1901:A:C2	25:DA:1902:C:C5	3.09	0.40
24:AX:131:LEU:HD23	24:AX:132:THR:N	2.35	0.40
36:BP:18:ARG:O	36:BP:20:GLY:N	2.53	0.40
36:DP:146:VAL:HG22	36:DP:147:LEU:N	2.29	0.40
1:CA:1127:G:H1'	1:CA:1148:U:C2	2.57	0.40
25:DA:747:U:O2	25:DA:2014:A:H1'	2.22	0.40
25:BA:2115:G:H2'	25:BA:2172:U:O4	2.21	0.40
25:DA:363(D):G:H2'	25:DA:363(E):G:H8	1.86	0.40
25:DA:1054:A:H2'	25:DA:1055:G:H8	1.83	0.40
15:CM:9:ILE:HG21	15:CM:11:ARG:HH21	1.85	0.40
38:DR:103:ARG:HG2	38:DR:103:ARG:HH11	1.86	0.40
5:AC:72:LYS:HA	5:AC:73:PRO:HD2	1.91	0.40
36:BP:58:THR:O	36:BP:61:ARG:HG3	2.21	0.40
1:CA:1075:C:H5''	4:CB:179:LYS:HZ2	1.87	0.40
25:DA:2361:A:H5'	55:D8:27:THR:OG1	2.22	0.40
25:DA:847:U:HO2'	25:DA:848:G:P	2.45	0.40
24:AX:143:CYS:HB2	24:AX:177:ILE:O	2.21	0.40
26:DB:66:A:C4	26:DB:108:C:C4	3.10	0.40
25:DA:2795:G:H1'	25:DA:2802:G:C2	2.57	0.40
25:BA:2798:C:H5	25:BA:2799:A:N6	2.18	0.40
24:CX:177:ILE:HD11	24:CX:180:ALA:HB2	2.02	0.40
25:BA:511:U:C5	25:BA:512:G:C5	3.09	0.40
14:CL:37:THR:CG2	14:CL:38:VAL:N	2.84	0.40
1:AA:546:G:OP2	6:AD:72:GLU:HB2	2.21	0.40
25:BA:2768:C:H4'	34:BN:112:LYS:HZ2	1.84	0.40
25:BA:118:A:H1'	25:BA:178:G:O4'	2.20	0.40
39:BS:25:ARG:NH2	39:BS:42:ASP:OD2	2.54	0.40
37:BQ:7:MET:O	37:BQ:8:LYS:HG3	2.21	0.40
25:DA:2862:G:C5	25:DA:2863:C:H5	2.39	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CH:6:ILE:HG21	10:CH:85:ARG:NH1	2.36	0.40
25:DA:120:U:C2	25:DA:149:A:C6	3.10	0.40
9:AG:154:TYR:O	9:AG:156:TRP:CD1	2.71	0.40
25:BA:574:C:H1'	25:BA:2055:C:C5	2.56	0.40
2:CY:19:G:H4'	2:CY:20:U:OP2	2.22	0.40
1:CA:191(F):U:O2	22:CT:105:SER:HB2	2.22	0.40
9:CG:50:ILE:HG21	9:CG:58:PRO:CA	2.52	0.40
38:DR:60:LEU:O	38:DR:63:ARG:HB3	2.22	0.40
2:AZ:33:U:O3'	9:AG:79:ARG:NH2	2.55	0.40
21:AS:19:VAL:HG21	21:AS:44:MET:HG3	2.03	0.40
25:DA:547:A:H3'	25:DA:548:A:C8	2.56	0.40
32:BI:8:PRO:CD	32:BI:15:VAL:HG22	2.51	0.40
12:AJ:13:HIS:HB3	12:AJ:68:HIS:CE1	2.56	0.40
25:DA:2084:C:C2	25:DA:2085:C:H5	2.40	0.40
1:AA:1351:U:O5'	1:AA:1351:U:H6	2.05	0.40
25:BA:2019:A:N7	52:B5:9:LYS:NZ	2.68	0.40
25:DA:56:A:N1	25:DA:57:C:C2	2.89	0.40
1:AA:684:A:N6	1:AA:685:G:C6	2.90	0.40
31:DH:116:GLU:HA	31:DH:117:PRO:HD3	1.88	0.40
1:CA:663:A:O2'	1:CA:664:G:H5'	2.21	0.40
1:AA:374:A:C6	1:AA:375:U:C4	3.10	0.40
1:AA:375:U:C2	1:AA:376:G:C8	3.09	0.40
34:BN:42:GLU:HB3	34:BN:82:LYS:CB	2.49	0.40
31:BH:123:PHE:HB3	31:BH:133:VAL:HG22	2.04	0.40
1:AA:1004:A:N1	1:AA:1025:U:C1'	2.85	0.40
51:D4:40:ILE:N	51:D4:40:ILE:HD12	2.36	0.40
51:B4:54:LYS:HA	51:B4:55:PRO:HD3	1.82	0.40
47:B0:12:ASN:N	47:B0:14:ARG:HH21	2.19	0.40
25:BA:2247:A:H2'	25:BA:2248:C:C6	2.56	0.40
43:DW:17:VAL:O	43:DW:20:VAL:N	2.55	0.40
1:CA:1428:A:C6	1:CA:1429:C:C4	3.10	0.40
38:DR:58:GLY:O	38:DR:59:ASP:C	2.60	0.40
27:BD:168:ARG:O	27:BD:169:GLU:HB2	2.21	0.40
1:AA:509:A:H2	1:AA:543:C:O2	2.04	0.40
25:BA:1164:G:C6	25:BA:1165:U:C4	3.10	0.40
38:BR:48:VAL:O	38:BR:51:LEU:N	2.53	0.40
47:D0:50:ASN:C	47:D0:62:LEU:HG	2.42	0.40
1:AA:1161:C:O2'	1:AA:1162:C:H5'	2.21	0.40
24:CX:162:PHE:HZ	24:CX:187:GLU:O	2.05	0.40
25:BA:2881:C:O3'	38:BR:96:ARG:HG3	2.21	0.40
25:BA:2618:G:C6	25:BA:2619:C:C4	3.10	0.40
25:DA:2209:C:C2	25:DA:2216:G:C2	3.10	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:683:G:C6	1:CA:684:A:C6	3.09	0.40
25:BA:470:A:H2'	25:BA:471:A:C8	2.57	0.40
1:CA:862:C:O4'	1:CA:874:G:H4'	2.22	0.40
25:BA:230:U:O2'	25:BA:231:C:H5'	2.22	0.40
35:DO:102:VAL:CG2	35:DO:121:VAL:HG22	2.51	0.40
1:CA:91:C:H2'	1:CA:92:G:O4'	2.22	0.40
1:CA:119:A:P	1:CA:119:A:H3'	2.61	0.40
25:DA:242:G:C8	55:D8:5:LYS:HG2	2.57	0.40
1:AA:1278:U:O5'	1:AA:1279:A:H5'	2.22	0.40
25:DA:299:A:C6	25:DA:300:A:N1	2.90	0.40
25:DA:2017:U:O2	52:D5:10:LYS:HB2	2.20	0.40
25:BA:121:G:N2	25:BA:131:G:C4	2.90	0.40
25:BA:596:G:H2'	25:BA:597:U:O4'	2.21	0.40
7:CE:47:LYS:HB2	7:CE:47:LYS:HE3	1.88	0.40
25:DA:88:G:H2'	25:DA:88:G:N3	2.35	0.40
1:AA:1027:C:H6	1:AA:1027:C:O5'	2.04	0.40
38:BR:99:LYS:HB3	38:BR:99:LYS:NZ	2.36	0.40
25:BA:966:G:C6	25:BA:967:C:N4	2.89	0.40
1:CA:1139:G:H4'	1:CA:1140:C:OP1	2.21	0.40

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

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1411:C:O3'	26:DB:53:A:O2'[1_655]	2.14	0.06

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%)	175 (75%)	47 (20%)	10 (4%)	4	23
4	CB	232/256 (91%)	174 (75%)	48 (21%)	10 (4%)	4	23
5	AC	204/239 (85%)	138 (68%)	51 (25%)	15 (7%)	2	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	CC	204/239 (85%)	138 (68%)	52 (26%)	14 (7%)	2	9
6	AD	206/209 (99%)	166 (81%)	30 (15%)	10 (5%)	3	20
6	CD	206/209 (99%)	169 (82%)	26 (13%)	11 (5%)	3	18
7	AE	149/162 (92%)	117 (78%)	26 (17%)	6 (4%)	5	25
7	CE	149/162 (92%)	117 (78%)	26 (17%)	6 (4%)	5	25
8	AF	99/101 (98%)	87 (88%)	11 (11%)	1 (1%)	22	70
8	CF	99/101 (98%)	87 (88%)	11 (11%)	1 (1%)	22	70
9	AG	153/156 (98%)	124 (81%)	28 (18%)	1 (1%)	30	78
9	CG	153/156 (98%)	125 (82%)	27 (18%)	1 (1%)	30	78
10	AH	136/138 (99%)	112 (82%)	18 (13%)	6 (4%)	4	22
10	CH	136/138 (99%)	112 (82%)	18 (13%)	6 (4%)	4	22
11	AI	125/128 (98%)	93 (74%)	22 (18%)	10 (8%)	1	7
11	CI	125/128 (98%)	93 (74%)	23 (18%)	9 (7%)	2	8
12	AJ	96/105 (91%)	76 (79%)	14 (15%)	6 (6%)	2	12
12	CJ	96/105 (91%)	77 (80%)	13 (14%)	6 (6%)	2	12
13	AK	112/129 (87%)	94 (84%)	12 (11%)	6 (5%)	3	17
13	CK	112/129 (87%)	94 (84%)	12 (11%)	6 (5%)	3	17
14	AL	120/134 (90%)	87 (72%)	22 (18%)	11 (9%)	1	5
14	CL	120/134 (90%)	87 (72%)	22 (18%)	11 (9%)	1	5
15	AM	115/126 (91%)	91 (79%)	19 (16%)	5 (4%)	4	23
15	CM	115/126 (91%)	91 (79%)	20 (17%)	4 (4%)	6	30
16	AN	58/61 (95%)	46 (79%)	11 (19%)	1 (2%)	14	54
16	CN	58/61 (95%)	46 (79%)	11 (19%)	1 (2%)	14	54
17	AO	86/89 (97%)	70 (81%)	13 (15%)	3 (4%)	6	30
17	CO	86/89 (97%)	69 (80%)	14 (16%)	3 (4%)	6	30
18	AP	81/88 (92%)	59 (73%)	19 (24%)	3 (4%)	5	28
18	CP	81/88 (92%)	60 (74%)	18 (22%)	3 (4%)	5	28
19	AQ	97/105 (92%)	79 (81%)	16 (16%)	2 (2%)	11	47
19	CQ	97/105 (92%)	79 (81%)	16 (16%)	2 (2%)	11	47
20	AR	68/88 (77%)	45 (66%)	18 (26%)	5 (7%)	2	8
20	CR	68/88 (77%)	46 (68%)	17 (25%)	5 (7%)	2	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
21	AS	76/93 (82%)	50 (66%)	18 (24%)	8 (10%)	1	3
21	CS	76/93 (82%)	50 (66%)	18 (24%)	8 (10%)	1	3
22	AT	97/106 (92%)	72 (74%)	17 (18%)	8 (8%)	1	6
22	CT	97/106 (92%)	72 (74%)	18 (19%)	7 (7%)	2	8
23	AU	22/27 (82%)	12 (54%)	8 (36%)	2 (9%)	1	5
23	CU	22/27 (82%)	12 (54%)	8 (36%)	2 (9%)	1	5
24	AX	360/378 (95%)	288 (80%)	57 (16%)	15 (4%)	4	24
24	CX	360/378 (95%)	288 (80%)	58 (16%)	14 (4%)	5	26
27	BD	269/276 (98%)	208 (77%)	41 (15%)	20 (7%)	2	8
27	DD	269/276 (98%)	204 (76%)	46 (17%)	19 (7%)	2	9
28	BE	202/206 (98%)	157 (78%)	37 (18%)	8 (4%)	5	25
28	DE	202/206 (98%)	157 (78%)	37 (18%)	8 (4%)	5	25
29	BF	200/210 (95%)	162 (81%)	28 (14%)	10 (5%)	3	19
29	DF	200/210 (95%)	162 (81%)	26 (13%)	12 (6%)	2	14
30	BG	179/182 (98%)	128 (72%)	39 (22%)	12 (7%)	2	10
30	DG	179/182 (98%)	127 (71%)	39 (22%)	13 (7%)	2	8
31	BH	157/180 (87%)	120 (76%)	30 (19%)	7 (4%)	4	22
31	DH	157/180 (87%)	121 (77%)	28 (18%)	8 (5%)	3	18
32	BI	143/148 (97%)	107 (75%)	29 (20%)	7 (5%)	3	20
32	DI	143/148 (97%)	121 (85%)	19 (13%)	3 (2%)	11	47
33	BK	145/147 (99%)	101 (70%)	35 (24%)	9 (6%)	2	13
33	DK	145/147 (99%)	101 (70%)	35 (24%)	9 (6%)	2	13
34	BN	135/163 (83%)	103 (76%)	17 (13%)	15 (11%)	1	3
34	DN	135/163 (83%)	101 (75%)	19 (14%)	15 (11%)	1	3
35	BO	120/122 (98%)	102 (85%)	14 (12%)	4 (3%)	6	32
35	DO	120/122 (98%)	101 (84%)	15 (12%)	4 (3%)	6	32
36	BP	144/150 (96%)	86 (60%)	35 (24%)	23 (16%)	0	1
36	DP	144/150 (96%)	88 (61%)	34 (24%)	22 (15%)	0	1
37	BQ	132/141 (94%)	96 (73%)	22 (17%)	14 (11%)	1	3
37	DQ	132/141 (94%)	93 (70%)	24 (18%)	15 (11%)	1	3
38	BR	115/118 (98%)	89 (77%)	19 (16%)	7 (6%)	2	14

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
38	DR	115/118 (98%)	91 (79%)	19 (16%)	5 (4%)	4	23
39	BS	96/112 (86%)	56 (58%)	29 (30%)	11 (12%)	1	3
39	DS	96/112 (86%)	56 (58%)	29 (30%)	11 (12%)	1	3
40	BT	135/146 (92%)	91 (67%)	30 (22%)	14 (10%)	1	4
40	DT	135/146 (92%)	91 (67%)	31 (23%)	13 (10%)	1	4
41	BU	115/118 (98%)	92 (80%)	19 (16%)	4 (4%)	6	30
41	DU	115/118 (98%)	91 (79%)	19 (16%)	5 (4%)	4	23
42	BV	99/101 (98%)	74 (75%)	15 (15%)	10 (10%)	1	4
42	DV	99/101 (98%)	74 (75%)	15 (15%)	10 (10%)	1	4
43	BW	110/113 (97%)	88 (80%)	18 (16%)	4 (4%)	5	29
43	DW	110/113 (97%)	87 (79%)	18 (16%)	5 (4%)	4	22
44	BX	90/96 (94%)	73 (81%)	15 (17%)	2 (2%)	10	45
44	DX	90/96 (94%)	73 (81%)	15 (17%)	2 (2%)	10	45
45	BY	98/110 (89%)	64 (65%)	18 (18%)	16 (16%)	0	1
45	DY	98/110 (89%)	65 (66%)	17 (17%)	16 (16%)	0	1
46	BZ	185/206 (90%)	146 (79%)	31 (17%)	8 (4%)	4	23
46	DZ	185/206 (90%)	145 (78%)	32 (17%)	8 (4%)	4	23
47	B0	74/85 (87%)	61 (82%)	10 (14%)	3 (4%)	4	24
47	D0	74/85 (87%)	61 (82%)	10 (14%)	3 (4%)	4	24
48	B1	86/98 (88%)	59 (69%)	16 (19%)	11 (13%)	0	2
48	D1	86/98 (88%)	59 (69%)	16 (19%)	11 (13%)	0	2
49	B2	60/72 (83%)	43 (72%)	12 (20%)	5 (8%)	1	6
49	D2	60/72 (83%)	44 (73%)	11 (18%)	5 (8%)	1	6
50	B3	57/60 (95%)	50 (88%)	5 (9%)	2 (4%)	6	30
50	D3	57/60 (95%)	50 (88%)	5 (9%)	2 (4%)	6	30
51	B4	28/97 (29%)	18 (64%)	6 (21%)	4 (14%)	0	1
51	D4	28/97 (29%)	18 (64%)	6 (21%)	4 (14%)	0	1
52	B5	50/60 (83%)	40 (80%)	7 (14%)	3 (6%)	2	14
52	D5	50/60 (83%)	40 (80%)	7 (14%)	3 (6%)	2	14
53	B6	42/54 (78%)	27 (64%)	10 (24%)	5 (12%)	1	2
53	D6	42/54 (78%)	27 (64%)	10 (24%)	5 (12%)	1	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
54	B7	46/49 (94%)	43 (94%)	3 (6%)	0	100	100
54	D7	46/49 (94%)	42 (91%)	4 (9%)	0	100	100
55	B8	61/65 (94%)	42 (69%)	12 (20%)	7 (12%)	1	3
55	D8	61/65 (94%)	42 (69%)	12 (20%)	7 (12%)	1	3
All	All	12130/13206 (92%)	9225 (76%)	2153 (18%)	752 (6%)	2	13

All (752) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	AC	45	LYS
5	AC	47	LEU
6	AD	5	ILE
6	AD	44	GLY
7	AE	85	GLY
12	AJ	30	SER
12	AJ	58	ASP
13	AK	106	LYS
14	AL	50	ALA
15	AM	101	GLN
20	AR	86	VAL
21	AS	80	TYR
22	AT	99	LEU
23	AU	7	ARG
24	AX	177	ILE
24	AX	225	PRO
24	AX	318	ILE
24	AX	359	TRP
27	BD	13	ARG
27	BD	33	LEU
27	BD	34	VAL
27	BD	57	GLY
27	BD	59	LYS
27	BD	70	TRP
27	BD	192	THR
27	BD	236	GLY
28	BE	122	PHE
28	BE	132	HIS
29	BF	73	ALA
29	BF	89	VAL
30	BG	4	ASP
30	BG	75	LYS

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Mol	Chain	Res	Type
30	BG	87	PRO
31	BH	47	GLU
33	BK	20	ALA
34	BN	40	ASP
34	BN	149	PRO
36	BP	46	LYS
36	BP	47	ASP
36	BP	49	ARG
36	BP	52	GLU
36	BP	59	LEU
36	BP	141	ALA
36	BP	149	GLU
37	BQ	21	THR
37	BQ	134	ARG
37	BQ	135	ASP
37	BQ	136	ALA
38	BR	6	SER
38	BR	82	GLU
39	BS	59	LYS
39	BS	62	LYS
39	BS	91	PRO
40	BT	2	ASN
40	BT	3	ARG
40	BT	107	ASP
41	BU	90	VAL
45	BY	8	LYS
45	BY	63	LYS
45	BY	77	PRO
45	BY	78	ALA
45	BY	96	ILE
46	BZ	101	PRO
46	BZ	141	VAL
47	B0	12	ASN
47	B0	47	PRO
48	B1	11	ARG
48	B1	58	ILE
48	B1	83	GLU
49	B2	44	LEU
49	B2	48	HIS
50	B3	29	ARG
52	B5	4	HIS
52	B5	35	GLU

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Mol	Chain	Res	Type
53	B6	26	ASN
53	B6	31	PRO
55	B8	35	GLN
55	B8	51	ALA
55	B8	62	LEU
5	CC	45	LYS
5	CC	47	LEU
5	CC	181	ASN
6	CD	5	ILE
6	CD	44	GLY
7	CE	85	GLY
12	CJ	30	SER
12	CJ	58	ASP
13	CK	106	LYS
14	CL	50	ALA
15	CM	101	GLN
20	CR	86	VAL
21	CS	80	TYR
22	CT	99	LEU
23	CU	7	ARG
24	CX	177	ILE
24	CX	225	PRO
24	CX	231	VAL
24	CX	318	ILE
24	CX	359	TRP
27	DD	13	ARG
27	DD	33	LEU
27	DD	34	VAL
27	DD	57	GLY
27	DD	59	LYS
27	DD	192	THR
27	DD	236	GLY
28	DE	122	PHE
28	DE	132	HIS
29	DF	73	ALA
29	DF	89	VAL
30	DG	4	ASP
30	DG	75	LYS
30	DG	87	PRO
31	DH	47	GLU
33	DK	20	ALA
34	DN	40	ASP

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Mol	Chain	Res	Type
34	DN	149	PRO
36	DP	15	ARG
36	DP	46	LYS
36	DP	47	ASP
36	DP	49	ARG
36	DP	52	GLU
36	DP	59	LEU
36	DP	141	ALA
36	DP	149	GLU
37	DQ	21	THR
37	DQ	134	ARG
37	DQ	136	ALA
38	DR	6	SER
38	DR	82	GLU
39	DS	59	LYS
39	DS	62	LYS
39	DS	91	PRO
40	DT	2	ASN
40	DT	3	ARG
40	DT	107	ASP
41	DU	90	VAL
45	DY	8	LYS
45	DY	63	LYS
45	DY	77	PRO
45	DY	78	ALA
46	DZ	101	PRO
46	DZ	141	VAL
47	D0	12	ASN
47	D0	47	PRO
48	D1	11	ARG
48	D1	58	ILE
48	D1	83	GLU
49	D2	44	LEU
49	D2	48	HIS
50	D3	29	ARG
52	D5	4	HIS
52	D5	35	GLU
53	D6	26	ASN
53	D6	31	PRO
55	D8	35	GLN
55	D8	51	ALA
55	D8	62	LEU

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Mol	Chain	Res	Type
4	AB	18	GLY
4	AB	235	SER
5	AC	4	LYS
5	AC	60	ALA
5	AC	81	GLY
5	AC	181	ASN
6	AD	3	ARG
6	AD	7	PRO
6	AD	30	LYS
6	AD	88	VAL
6	AD	168	ARG
6	AD	171	GLY
7	AE	38	GLN
9	AG	7	ALA
10	AH	2	LEU
11	AI	100	GLY
11	AI	127	LYS
12	AJ	92	THR
13	AK	117	ASN
13	AK	118	GLY
14	AL	94	GLY
18	AP	78	GLY
20	AR	36	ASN
21	AS	11	VAL
21	AS	24	ALA
21	AS	26	GLY
21	AS	31	ILE
24	AX	173	PRO
24	AX	197	ALA
24	AX	231	VAL
24	AX	353	ASP
24	AX	360	ALA
24	AX	377	ALA
27	BD	26	LYS
27	BD	169	GLU
27	BD	256	GLY
28	BE	17	ASP
28	BE	86	PRO
28	BE	129	HIS
28	BE	144	ARG
29	BF	66	PRO
30	BG	24	GLY

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Mol	Chain	Res	Type
30	BG	142	PRO
30	BG	155	MET
31	BH	107	VAL
32	BI	82	ARG
32	BI	84	GLY
33	BK	26	ALA
34	BN	26	THR
34	BN	41	ALA
34	BN	60	LYS
34	BN	93	LYS
34	BN	148	GLY
34	BN	150	ASP
35	BO	29	ASN
35	BO	96	THR
36	BP	11	GLY
36	BP	15	ARG
36	BP	16	ARG
36	BP	17	LYS
36	BP	18	ARG
36	BP	19	VAL
36	BP	34	GLY
36	BP	39	LYS
36	BP	56	SER
36	BP	90	ARG
36	BP	106	LEU
37	BQ	10	ARG
37	BQ	19	GLY
37	BQ	23	GLY
37	BQ	62	GLY
37	BQ	79	LEU
38	BR	10	LEU
38	BR	107	ASP
39	BS	57	LYS
39	BS	58	LEU
39	BS	61	ASN
39	BS	86	ALA
39	BS	90	GLY
40	BT	124	ASP
41	BU	9	VAL
42	BV	48	GLY
42	BV	78	LYS
44	BX	87	GLN

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Mol	Chain	Res	Type
45	BY	3	VAL
45	BY	7	VAL
45	BY	49	VAL
46	BZ	80	ARG
46	BZ	93	ASP
48	B1	14	VAL
48	B1	16	ASN
48	B1	32	LYS
51	B4	61	VAL
52	B5	51	TYR
53	B6	18	ARG
53	B6	35	GLU
55	B8	30	ARG
55	B8	34	TRP
4	CB	14	GLY
4	CB	18	GLY
4	CB	235	SER
5	CC	4	LYS
5	CC	60	ALA
5	CC	81	GLY
6	CD	3	ARG
6	CD	7	PRO
6	CD	88	VAL
6	CD	168	ARG
6	CD	171	GLY
7	CE	38	GLN
9	CG	7	ALA
10	CH	2	LEU
11	CI	100	GLY
11	CI	127	LYS
12	CJ	92	THR
13	CK	117	ASN
13	CK	118	GLY
14	CL	94	GLY
18	CP	78	GLY
21	CS	11	VAL
21	CS	24	ALA
21	CS	26	GLY
21	CS	31	ILE
24	CX	173	PRO
24	CX	197	ALA
24	CX	353	ASP

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Mol	Chain	Res	Type
24	CX	360	ALA
24	CX	377	ALA
27	DD	26	LYS
27	DD	70	TRP
27	DD	169	GLU
27	DD	256	GLY
28	DE	17	ASP
28	DE	86	PRO
28	DE	129	HIS
28	DE	144	ARG
30	DG	24	GLY
30	DG	142	PRO
30	DG	155	MET
32	DI	84	GLY
33	DK	26	ALA
34	DN	26	THR
34	DN	41	ALA
34	DN	60	LYS
34	DN	93	LYS
34	DN	148	GLY
34	DN	150	ASP
35	DO	29	ASN
35	DO	96	THR
36	DP	11	GLY
36	DP	16	ARG
36	DP	17	LYS
36	DP	18	ARG
36	DP	19	VAL
36	DP	34	GLY
36	DP	39	LYS
36	DP	56	SER
36	DP	106	LEU
37	DQ	10	ARG
37	DQ	19	GLY
37	DQ	62	GLY
37	DQ	79	LEU
37	DQ	135	ASP
38	DR	10	LEU
38	DR	107	ASP
39	DS	57	LYS
39	DS	58	LEU
39	DS	61	ASN

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Mol	Chain	Res	Type
39	DS	86	ALA
39	DS	90	GLY
40	DT	115	ARG
41	DU	9	VAL
42	DV	48	GLY
42	DV	78	LYS
43	DW	90	ARG
44	DX	87	GLN
45	DY	3	VAL
45	DY	7	VAL
45	DY	49	VAL
45	DY	96	ILE
46	DZ	80	ARG
46	DZ	93	ASP
48	D1	14	VAL
48	D1	16	ASN
48	D1	32	LYS
49	D2	17	SER
52	D5	51	TYR
53	D6	18	ARG
53	D6	35	GLU
55	D8	30	ARG
55	D8	34	TRP
51	D4	61	VAL
4	AB	14	GLY
4	AB	136	VAL
4	AB	216	SER
5	AC	15	THR
5	AC	26	LYS
5	AC	27	LYS
5	AC	80	GLY
5	AC	127	ARG
6	AD	69	GLY
7	AE	6	PHE
7	AE	77	PRO
10	AH	99	GLU
11	AI	31	GLN
11	AI	34	ASN
11	AI	89	ASN
12	AJ	36	GLY
12	AJ	57	LYS
13	AK	105	VAL

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Mol	Chain	Res	Type
14	AL	11	ARG
14	AL	26	LEU
14	AL	27	LYS
18	AP	34	GLU
20	AR	45	SER
21	AS	6	LYS
21	AS	29	ARG
22	AT	98	PRO
24	AX	95	GLU
24	AX	332	ASN
27	BD	25	THR
27	BD	35	LYS
29	BF	48	THR
29	BF	68	LYS
29	BF	90	PHE
30	BG	14	GLU
30	BG	85	GLY
30	BG	136	ARG
32	BI	11	ASN
32	BI	29	TYR
32	BI	117	GLU
33	BK	51	ALA
33	BK	141	ALA
33	BK	145	LYS
34	BN	116	THR
35	BO	26	LYS
35	BO	94	ARG
36	BP	13	ASN
37	BQ	25	ASP
37	BQ	51	ARG
39	BS	51	ALA
40	BT	113	LYS
40	BT	115	ARG
41	BU	91	ASP
43	BW	63	ASP
43	BW	90	ARG
45	BY	17	SER
45	BY	40	GLU
45	BY	88	LYS
48	B1	31	GLY
49	B2	3	LEU
49	B2	17	SER

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Mol	Chain	Res	Type
49	B2	43	GLN
51	B4	52	SER
55	B8	31	HIS
4	CB	123	ALA
4	CB	136	VAL
4	CB	216	SER
5	CC	14	ILE
5	CC	15	THR
5	CC	26	LYS
5	CC	27	LYS
5	CC	49	SER
5	CC	80	GLY
5	CC	127	ARG
6	CD	30	LYS
6	CD	69	GLY
7	CE	77	PRO
10	CH	91	ARG
10	CH	99	GLU
11	CI	10	ARG
11	CI	31	GLN
11	CI	34	ASN
12	CJ	57	LYS
13	CK	105	VAL
14	CL	11	ARG
14	CL	26	LEU
14	CL	27	LYS
14	CL	78	GLU
17	CO	86	GLY
18	CP	34	GLU
20	CR	36	ASN
20	CR	45	SER
21	CS	6	LYS
21	CS	29	ARG
22	CT	98	PRO
23	CU	3	LYS
24	CX	332	ASN
27	DD	25	THR
27	DD	35	LYS
27	DD	44	ASN
27	DD	233	HIS
29	DF	48	THR
29	DF	66	PRO

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Mol	Chain	Res	Type
29	DF	68	LYS
29	DF	90	PHE
30	DG	14	GLU
30	DG	85	GLY
30	DG	136	ARG
31	DH	51	ARG
31	DH	107	VAL
32	DI	75	LEU
33	DK	141	ALA
33	DK	145	LYS
35	DO	26	LYS
35	DO	94	ARG
36	DP	13	ASN
36	DP	31	ALA
36	DP	90	ARG
37	DQ	23	GLY
37	DQ	25	ASP
37	DQ	51	ARG
39	DS	51	ALA
39	DS	83	LYS
40	DT	90	GLN
40	DT	124	ASP
41	DU	91	ASP
42	DV	50	PRO
43	DW	5	ALA
43	DW	63	ASP
43	DW	89	ALA
45	DY	17	SER
45	DY	40	GLU
45	DY	88	LYS
48	D1	31	GLY
49	D2	3	LEU
49	D2	43	GLN
55	D8	31	HIS
51	D4	52	SER
4	AB	123	ALA
5	AC	14	ILE
6	AD	84	LYS
10	AH	91	ARG
11	AI	10	ARG
11	AI	55	ALA
12	AJ	91	PRO

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Mol	Chain	Res	Type
14	AL	18	ARG
14	AL	63	TYR
14	AL	78	GLU
15	AM	104	ARG
15	AM	106	ASN
15	AM	117	VAL
17	AO	23	GLY
17	AO	86	GLY
19	AQ	4	LYS
22	AT	97	ALA
22	AT	101	GLY
23	AU	3	LYS
24	AX	320	TRP
27	BD	162	SER
27	BD	233	HIS
28	BE	52	LEU
29	BF	74	ARG
29	BF	166	ALA
31	BH	51	ARG
31	BH	108	GLY
32	BI	113	ARG
34	BN	32	VAL
36	BP	31	ALA
37	BQ	133	ARG
39	BS	42	ASP
39	BS	83	LYS
40	BT	4	GLY
40	BT	39	ARG
40	BT	58	ASN
40	BT	90	GLN
40	BT	126	ALA
42	BV	40	LEU
42	BV	50	PRO
42	BV	80	GLN
43	BW	5	ALA
44	BX	48	LYS
45	BY	55	TYR
45	BY	90	LEU
46	BZ	11	GLU
47	B0	20	ARG
48	B1	13	ILE
48	B1	87	PRO

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Mol	Chain	Res	Type
50	B3	35	ARG
55	B8	40	GLU
6	CD	84	LYS
7	CE	6	PHE
7	CE	125	SER
10	CH	3	THR
11	CI	55	ALA
11	CI	89	ASN
12	CJ	36	GLY
12	CJ	91	PRO
14	CL	18	ARG
14	CL	63	TYR
15	CM	104	ARG
15	CM	117	VAL
17	CO	23	GLY
19	CQ	4	LYS
19	CQ	34	LYS
20	CR	64	ARG
22	CT	97	ALA
24	CX	95	GLU
24	CX	320	TRP
27	DD	162	SER
28	DE	52	LEU
29	DF	54	ARG
29	DF	74	ARG
29	DF	166	ALA
30	DG	96	ARG
31	DH	108	GLY
33	DK	51	ALA
34	DN	32	VAL
34	DN	116	THR
37	DQ	133	ARG
40	DT	39	ARG
40	DT	113	LYS
42	DV	40	LEU
42	DV	80	GLN
45	DY	55	TYR
45	DY	90	LEU
46	DZ	11	GLU
47	D0	20	ARG
48	D1	13	ILE
48	D1	87	PRO

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Mol	Chain	Res	Type
55	D8	40	GLU
4	AB	130	ARG
4	AB	158	LEU
4	AB	230	VAL
5	AC	49	SER
7	AE	125	SER
10	AH	3	THR
10	AH	98	LYS
11	AI	25	LYS
11	AI	126	SER
13	AK	89	ALA
15	AM	5	ALA
18	AP	54	GLU
19	AQ	34	LYS
22	AT	11	SER
22	AT	95	ALA
27	BD	44	ASN
27	BD	239	ARG
27	BD	268	ARG
30	BG	96	ARG
32	BI	40	THR
33	BK	91	PRO
33	BK	142	PRO
34	BN	115	ALA
34	BN	118	PRO
34	BN	153	HIS
34	BN	155	ALA
36	BP	65	ARG
36	BP	122	PRO
38	BR	8	ARG
40	BT	86	ILE
41	BU	93	LYS
42	BV	44	LYS
45	BY	98	VAL
51	B4	50	THR
51	B4	54	LYS
53	B6	46	HIS
4	CB	130	ARG
4	CB	158	LEU
4	CB	230	VAL
6	CD	47	ARG
8	CF	81	ILE

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Mol	Chain	Res	Type
11	CI	126	SER
13	CK	89	ALA
15	CM	106	ASN
16	CN	16	PHE
18	CP	54	GLU
22	CT	71	THR
22	CT	95	ALA
22	CT	101	GLY
27	DD	156	ALA
27	DD	268	ARG
33	DK	91	PRO
33	DK	142	PRO
34	DN	118	PRO
34	DN	153	HIS
34	DN	155	ALA
38	DR	8	ARG
39	DS	42	ASP
40	DT	4	GLY
40	DT	58	ASN
40	DT	86	ILE
40	DT	126	ALA
41	DU	5	LYS
41	DU	93	LYS
42	DV	44	LYS
44	DX	48	LYS
45	DY	98	VAL
50	D3	35	ARG
53	D6	46	HIS
51	D4	50	THR
51	D4	54	LYS
4	AB	159	PRO
5	AC	89	GLU
5	AC	145	GLY
14	AL	86	GLY
16	AN	16	PHE
20	AR	64	ARG
22	AT	71	THR
27	BD	156	ALA
29	BF	134	GLY
34	BN	70	ALA
38	BR	61	HIS
45	BY	56	PRO

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Mol	Chain	Res	Type
46	BZ	82	ARG
46	BZ	114	GLY
46	BZ	165	VAL
48	B1	53	VAL
4	CB	159	PRO
5	CC	145	GLY
7	CE	109	ILE
10	CH	98	LYS
29	DF	78	ILE
32	DI	134	PRO
34	DN	70	ALA
34	DN	115	ALA
36	DP	122	PRO
42	DV	17	GLY
43	DW	35	ILE
45	DY	56	PRO
45	DY	61	ILE
46	DZ	114	GLY
46	DZ	165	VAL
48	D1	53	VAL
7	AE	109	ILE
8	AF	81	ILE
13	AK	49	GLY
14	AL	95	VAL
20	AR	37	VAL
30	BG	42	GLY
31	BH	92	ILE
37	BQ	126	PRO
40	BT	42	ILE
42	BV	17	GLY
42	BV	35	LEU
45	BY	61	ILE
11	CI	53	VAL
13	CK	49	GLY
14	CL	73	GLY
14	CL	95	VAL
22	CT	100	ILE
29	DF	134	GLY
30	DG	42	GLY
31	DH	92	ILE
40	DT	42	ILE
42	DV	35	LEU

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Mol	Chain	Res	Type
48	D1	9	GLY
10	AH	51	VAL
11	AI	53	VAL
28	BE	56	PRO
30	BG	140	ILE
31	BH	44	VAL
43	BW	35	ILE
48	B1	9	GLY
10	CH	51	VAL
14	CL	86	GLY
17	CO	29	VAL
20	CR	37	VAL
21	CS	9	VAL
28	DE	56	PRO
30	DG	140	ILE
31	DH	50	VAL
37	DQ	126	PRO
42	DV	47	VAL
46	DZ	82	ARG
17	AO	29	VAL
22	AT	100	ILE
31	BH	50	VAL
33	BK	34	ILE
42	BV	46	VAL
42	BV	47	VAL
27	DD	127	VAL
31	DH	44	VAL
37	DQ	15	GLY
42	DV	46	VAL
14	AL	73	GLY
21	AS	9	VAL
24	AX	227	VAL
27	BD	127	VAL
29	BF	132	VAL
38	BR	39	PRO
40	BT	37	GLY
29	DF	132	VAL
30	DG	109	VAL
33	DK	34	ILE
37	DQ	81	VAL
24	AX	92	LEU
33	BK	92	GLY

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Mol	Chain	Res	Type
37	BQ	81	VAL
24	CX	227	VAL
31	DH	117	PRO
33	DK	92	GLY
36	DP	48	PRO
36	BP	48	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%)	186 (92%)	16 (8%)	18	54
4	CB	202/220 (92%)	185 (92%)	17 (8%)	16	51
5	AC	160/188 (85%)	138 (86%)	22 (14%)	5	24
5	CC	160/188 (85%)	138 (86%)	22 (14%)	5	24
6	AD	180/181 (99%)	160 (89%)	20 (11%)	9	34
6	CD	180/181 (99%)	161 (89%)	19 (11%)	10	36
7	AE	116/123 (94%)	99 (85%)	17 (15%)	4	21
7	CE	116/123 (94%)	99 (85%)	17 (15%)	4	21
8	AF	90/90 (100%)	80 (89%)	10 (11%)	9	34
8	CF	90/90 (100%)	81 (90%)	9 (10%)	11	39
9	AG	126/127 (99%)	119 (94%)	7 (6%)	30	72
9	CG	126/127 (99%)	119 (94%)	7 (6%)	30	72
10	AH	119/119 (100%)	106 (89%)	13 (11%)	9	35
10	CH	119/119 (100%)	106 (89%)	13 (11%)	9	35
11	AI	98/99 (99%)	85 (87%)	13 (13%)	6	25
11	CI	98/99 (99%)	86 (88%)	12 (12%)	7	29
12	AJ	88/92 (96%)	75 (85%)	13 (15%)	4	21
12	CJ	88/92 (96%)	75 (85%)	13 (15%)	4	21
13	AK	86/99 (87%)	74 (86%)	12 (14%)	5	23
13	CK	86/99 (87%)	74 (86%)	12 (14%)	5	23

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
14	AL	103/110 (94%)	91 (88%)	12 (12%)	8	31
14	CL	103/110 (94%)	91 (88%)	12 (12%)	8	31
15	AM	94/101 (93%)	85 (90%)	9 (10%)	12	43
15	CM	94/101 (93%)	85 (90%)	9 (10%)	12	43
16	AN	49/50 (98%)	44 (90%)	5 (10%)	11	38
16	CN	49/50 (98%)	44 (90%)	5 (10%)	11	38
17	AO	79/80 (99%)	70 (89%)	9 (11%)	8	33
17	CO	79/80 (99%)	70 (89%)	9 (11%)	8	33
18	AP	72/74 (97%)	65 (90%)	7 (10%)	12	42
18	CP	72/74 (97%)	66 (92%)	6 (8%)	16	52
19	AQ	94/97 (97%)	86 (92%)	8 (8%)	15	51
19	CQ	94/97 (97%)	86 (92%)	8 (8%)	15	51
20	AR	61/77 (79%)	53 (87%)	8 (13%)	6	25
20	CR	61/77 (79%)	52 (85%)	9 (15%)	4	21
21	AS	69/80 (86%)	58 (84%)	11 (16%)	4	17
21	CS	69/80 (86%)	58 (84%)	11 (16%)	4	17
22	AT	76/82 (93%)	67 (88%)	9 (12%)	8	30
22	CT	76/82 (93%)	68 (90%)	8 (10%)	10	37
23	AU	19/22 (86%)	18 (95%)	1 (5%)	32	74
23	CU	19/22 (86%)	18 (95%)	1 (5%)	32	74
24	AX	305/319 (96%)	258 (85%)	47 (15%)	4	19
24	CX	305/319 (96%)	260 (85%)	45 (15%)	4	21
27	BD	213/218 (98%)	181 (85%)	32 (15%)	4	20
27	DD	213/218 (98%)	181 (85%)	32 (15%)	4	20
28	BE	165/166 (99%)	144 (87%)	21 (13%)	6	27
28	DE	165/166 (99%)	144 (87%)	21 (13%)	6	27
29	BF	161/166 (97%)	142 (88%)	19 (12%)	8	30
29	DF	161/166 (97%)	140 (87%)	21 (13%)	6	26
30	BG	155/156 (99%)	135 (87%)	20 (13%)	6	26
30	DG	155/156 (99%)	135 (87%)	20 (13%)	6	26
31	BH	132/148 (89%)	115 (87%)	17 (13%)	6	26

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
31	DH	132/148 (89%)	115 (87%)	17 (13%)	6	26
32	BI	122/124 (98%)	101 (83%)	21 (17%)	3	14
32	DI	122/124 (98%)	103 (84%)	19 (16%)	4	18
33	BK	111/111 (100%)	95 (86%)	16 (14%)	5	22
33	DK	111/111 (100%)	95 (86%)	16 (14%)	5	22
34	BN	116/139 (84%)	98 (84%)	18 (16%)	4	19
34	DN	116/139 (84%)	98 (84%)	18 (16%)	4	19
35	BO	100/100 (100%)	86 (86%)	14 (14%)	5	23
35	DO	100/100 (100%)	85 (85%)	15 (15%)	4	20
36	BP	112/116 (97%)	80 (71%)	32 (29%)	0	3
36	DP	112/116 (97%)	79 (70%)	33 (30%)	0	2
37	BQ	105/111 (95%)	91 (87%)	14 (13%)	6	25
37	DQ	105/111 (95%)	91 (87%)	14 (13%)	6	25
38	BR	100/101 (99%)	90 (90%)	10 (10%)	11	39
38	DR	100/101 (99%)	91 (91%)	9 (9%)	14	47
39	BS	77/88 (88%)	66 (86%)	11 (14%)	5	22
39	DS	77/88 (88%)	66 (86%)	11 (14%)	5	22
40	BT	121/128 (94%)	101 (84%)	20 (16%)	3	16
40	DT	121/128 (94%)	101 (84%)	20 (16%)	3	16
41	BU	93/94 (99%)	82 (88%)	11 (12%)	8	30
41	DU	93/94 (99%)	83 (89%)	10 (11%)	9	35
42	BV	82/82 (100%)	68 (83%)	14 (17%)	3	15
42	DV	82/82 (100%)	69 (84%)	13 (16%)	4	17
43	BW	91/92 (99%)	80 (88%)	11 (12%)	7	29
43	DW	91/92 (99%)	80 (88%)	11 (12%)	7	29
44	BX	74/78 (95%)	58 (78%)	16 (22%)	1	8
44	DX	74/78 (95%)	59 (80%)	15 (20%)	2	9
45	BY	84/91 (92%)	72 (86%)	12 (14%)	5	22
45	DY	84/91 (92%)	70 (83%)	14 (17%)	3	16
46	BZ	162/179 (90%)	151 (93%)	11 (7%)	22	63
46	DZ	162/179 (90%)	150 (93%)	12 (7%)	20	58

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
47	B0	61/67 (91%)	53 (87%)	8 (13%)	6	25
47	D0	61/67 (91%)	53 (87%)	8 (13%)	6	25
48	B1	73/83 (88%)	58 (80%)	15 (20%)	2	9
48	D1	73/83 (88%)	57 (78%)	16 (22%)	1	7
49	B2	58/67 (87%)	45 (78%)	13 (22%)	1	7
49	D2	58/67 (87%)	45 (78%)	13 (22%)	1	7
50	B3	51/52 (98%)	49 (96%)	2 (4%)	43	85
50	D3	51/52 (98%)	49 (96%)	2 (4%)	43	85
51	B4	27/84 (32%)	21 (78%)	6 (22%)	1	7
51	D4	27/84 (32%)	22 (82%)	5 (18%)	2	13
52	B5	45/52 (86%)	41 (91%)	4 (9%)	14	48
52	D5	45/52 (86%)	42 (93%)	3 (7%)	23	64
53	B6	43/52 (83%)	34 (79%)	9 (21%)	1	8
53	D6	43/52 (83%)	34 (79%)	9 (21%)	1	8
54	B7	41/42 (98%)	35 (85%)	6 (15%)	5	21
54	D7	41/42 (98%)	35 (85%)	6 (15%)	5	21
55	B8	53/55 (96%)	47 (89%)	6 (11%)	9	33
55	D8	53/55 (96%)	47 (89%)	6 (11%)	9	33
All	All	10228/10944 (94%)	8877 (87%)	1351 (13%)	6	25

All (1351) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	AB	15	VAL
4	AB	17	PHE
4	AB	44	LEU
4	AB	69	LEU
4	AB	74	LYS
4	AB	75	LYS
4	AB	96	ARG
4	AB	97	TRP
4	AB	102	LEU
4	AB	153	ARG
4	AB	154	LEU
4	AB	172	ILE
4	AB	178	ARG

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Mol	Chain	Res	Type
4	AB	187	LEU
4	AB	193	ASP
4	AB	196	LEU
5	AC	3	ASN
5	AC	5	ILE
5	AC	12	LEU
5	AC	14	ILE
5	AC	16	ARG
5	AC	21	ARG
5	AC	27	LYS
5	AC	28	GLN
5	AC	29	TYR
5	AC	38	ARG
5	AC	49	SER
5	AC	62	ASP
5	AC	76	VAL
5	AC	79	ARG
5	AC	95	THR
5	AC	107	GLN
5	AC	127	ARG
5	AC	131	ARG
5	AC	165	THR
5	AC	179	ARG
5	AC	196	LEU
5	AC	202	ILE
6	AD	4	TYR
6	AD	8	VAL
6	AD	13	ARG
6	AD	21	LEU
6	AD	30	LYS
6	AD	57	ARG
6	AD	58	LEU
6	AD	66	ARG
6	AD	72	GLU
6	AD	73	ARG
6	AD	96	LEU
6	AD	113	SER
6	AD	122	ARG
6	AD	131	ARG
6	AD	132	ARG
6	AD	135	LEU
6	AD	146	ILE

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Mol	Chain	Res	Type
6	AD	166	LYS
6	AD	179	GLU
6	AD	202	LEU
7	AE	10	MET
7	AE	11	ILE
7	AE	12	LEU
7	AE	14	ARG
7	AE	26	PHE
7	AE	31	LEU
7	AE	47	LYS
7	AE	51	VAL
7	AE	55	VAL
7	AE	68	GLU
7	AE	72	GLN
7	AE	76	ILE
7	AE	79	GLU
7	AE	84	PHE
7	AE	101	ILE
7	AE	135	THR
7	AE	144	THR
8	AF	16	GLN
8	AF	17	SER
8	AF	21	LEU
8	AF	27	GLN
8	AF	46	ARG
8	AF	52	ILE
8	AF	63	TYR
8	AF	64	GLN
8	AF	86	ARG
8	AF	100	ASN
9	AG	5	ARG
9	AG	13	GLN
9	AG	24	THR
9	AG	66	VAL
9	AG	80	VAL
9	AG	113	GLU
9	AG	153	HIS
10	AH	1	MET
10	AH	25	ASP
10	AH	26	VAL
10	AH	50	ARG
10	AH	51	VAL

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Mol	Chain	Res	Type
10	AH	75	ARG
10	AH	91	ARG
10	AH	99	GLU
10	AH	102	ARG
10	AH	111	ILE
10	AH	120	THR
10	AH	136	GLU
10	AH	137	VAL
11	AI	10	ARG
11	AI	23	ASN
11	AI	34	ASN
11	AI	63	ILE
11	AI	79	LEU
11	AI	91	ASP
11	AI	95	LYS
11	AI	104	ARG
11	AI	109	VAL
11	AI	110	GLU
11	AI	121	ARG
11	AI	125	TYR
11	AI	127	LYS
12	AJ	22	LYS
12	AJ	54	PHE
12	AJ	55	LYS
12	AJ	58	ASP
12	AJ	61	GLU
12	AJ	62	HIS
12	AJ	63	PHE
12	AJ	74	ILE
12	AJ	78	ASN
12	AJ	86	MET
12	AJ	92	THR
12	AJ	96	ILE
12	AJ	100	THR
13	AK	14	VAL
13	AK	24	SER
13	AK	29	ILE
13	AK	32	ILE
13	AK	81	ASP
13	AK	87	THR
13	AK	92	GLU
13	AK	104	GLN

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Mol	Chain	Res	Type
13	AK	105	VAL
13	AK	117	ASN
13	AK	123	LYS
13	AK	124	LYS
14	AL	6	ILE
14	AL	19	LYS
14	AL	26	LEU
14	AL	37	THR
14	AL	40	ARG
14	AL	42	VAL
14	AL	51	LEU
14	AL	52	ARG
14	AL	78	GLU
14	AL	84	ILE
14	AL	90	LYS
14	AL	91	ASP
15	AM	32	GLU
15	AM	48	LEU
15	AM	64	TRP
15	AM	93	ARG
15	AM	103	THR
15	AM	105	THR
15	AM	106	ASN
15	AM	108	ARG
15	AM	115	LYS
16	AN	6	LEU
16	AN	8	GLU
16	AN	16	PHE
16	AN	18	VAL
16	AN	44	LEU
17	AO	4	THR
17	AO	5	LYS
17	AO	17	ARG
17	AO	26	GLU
17	AO	27	VAL
17	AO	41	GLU
17	AO	44	LYS
17	AO	65	ARG
17	AO	82	ILE
18	AP	45	THR
18	AP	55	ARG
18	AP	62	VAL

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Mol	Chain	Res	Type
18	AP	67	THR
18	AP	69	THR
18	AP	82	GLN
18	AP	83	GLU
19	AQ	9	VAL
19	AQ	10	VAL
19	AQ	11	VAL
19	AQ	14	LYS
19	AQ	38	ARG
19	AQ	52	LYS
19	AQ	74	LEU
19	AQ	100	LYS
20	AR	19	LYS
20	AR	38	GLU
20	AR	47	THR
20	AR	53	ARG
20	AR	76	LEU
20	AR	84	LYS
20	AR	87	ARG
20	AR	88	LYS
21	AS	5	LEU
21	AS	6	LYS
21	AS	7	LYS
21	AS	29	ARG
21	AS	30	LEU
21	AS	34	TRP
21	AS	37	ARG
21	AS	44	MET
21	AS	49	ILE
21	AS	53	ASN
21	AS	71	LEU
22	AT	22	ARG
22	AT	26	ASN
22	AT	35	THR
22	AT	54	LYS
22	AT	62	LEU
22	AT	72	LEU
22	AT	75	ASN
22	AT	82	SER
22	AT	84	LEU
23	AU	5	ASP
24	AX	20	ARG

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Mol	Chain	Res	Type
24	AX	24	LYS
24	AX	29	ILE
24	AX	34	GLN
24	AX	36	GLU
24	AX	38	ARG
24	AX	39	LEU
24	AX	42	LEU
24	AX	52	TRP
24	AX	53	ASN
24	AX	59	ARG
24	AX	63	GLN
24	AX	73	ASP
24	AX	75	PHE
24	AX	79	GLU
24	AX	88	LEU
24	AX	90	GLU
24	AX	97	ARG
24	AX	100	LEU
24	AX	105	GLU
24	AX	128	ASN
24	AX	140	THR
24	AX	141	GLU
24	AX	143	CYS
24	AX	169	LEU
24	AX	170	THR
24	AX	182	ILE
24	AX	192	LEU
24	AX	227	VAL
24	AX	231	VAL
24	AX	238	GLU
24	AX	246	ARG
24	AX	265	VAL
24	AX	272	THR
24	AX	299	LEU
24	AX	300	GLU
24	AX	304	ARG
24	AX	311	LEU
24	AX	316	ARG
24	AX	327	TYR
24	AX	329	LEU
24	AX	344	HIS
24	AX	348	ASN

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Mol	Chain	Res	Type
24	AX	350	LEU
24	AX	353	ASP
24	AX	355	MET
24	AX	359	TRP
27	BD	5	LYS
27	BD	10	THR
27	BD	18	VAL
27	BD	23	GLU
27	BD	28	GLU
27	BD	33	LEU
27	BD	37	LEU
27	BD	40	THR
27	BD	61	LEU
27	BD	70	TRP
27	BD	89	SER
27	BD	95	LEU
27	BD	106	ILE
27	BD	111	LEU
27	BD	112	GLN
27	BD	127	VAL
27	BD	131	LEU
27	BD	138	VAL
27	BD	150	LYS
27	BD	154	LYS
27	BD	166	GLN
27	BD	169	GLU
27	BD	182	LEU
27	BD	200	ASP
27	BD	211	ARG
27	BD	212	SER
27	BD	217	ARG
27	BD	255	LYS
27	BD	257	LEU
27	BD	263	ARG
27	BD	266	SER
27	BD	271	ILE
28	BE	4	ILE
28	BE	9	VAL
28	BE	16	ARG
28	BE	17	ASP
28	BE	41	LYS
28	BE	49	LEU

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Mol	Chain	Res	Type
28	BE	54	GLN
28	BE	57	LYS
28	BE	77	ILE
28	BE	78	LEU
28	BE	79	ARG
28	BE	87	GLU
28	BE	92	THR
28	BE	119	ARG
28	BE	154	LYS
28	BE	169	ASN
28	BE	175	VAL
28	BE	184	VAL
28	BE	196	VAL
28	BE	197	ILE
28	BE	202	LYS
29	BF	8	GLN
29	BF	9	ILE
29	BF	33	LEU
29	BF	45	ARG
29	BF	57	VAL
29	BF	64	ILE
29	BF	69	HIS
29	BF	78	ILE
29	BF	106	ARG
29	BF	145	GLU
29	BF	158	THR
29	BF	164	ARG
29	BF	165	ARG
29	BF	170	LEU
29	BF	174	VAL
29	BF	175	THR
29	BF	183	VAL
29	BF	201	VAL
29	BF	206	ILE
30	BG	4	ASP
30	BG	16	ARG
30	BG	18	GLU
30	BG	20	ILE
30	BG	34	LEU
30	BG	35	GLU
30	BG	47	LYS
30	BG	80	PHE

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Mol	Chain	Res	Type
30	BG	86	MET
30	BG	90	LEU
30	BG	91	ARG
30	BG	115	ARG
30	BG	121	ASN
30	BG	128	ARG
30	BG	132	ASN
30	BG	143	GLU
30	BG	145	THR
30	BG	155	MET
30	BG	159	VAL
30	BG	166	ASP
31	BH	13	LYS
31	BH	23	ARG
31	BH	47	GLU
31	BH	68	THR
31	BH	77	LYS
31	BH	79	VAL
31	BH	86	GLU
31	BH	101	ARG
31	BH	103	LEU
31	BH	104	GLU
31	BH	105	LEU
31	BH	107	VAL
31	BH	110	SER
31	BH	116	GLU
31	BH	123	PHE
31	BH	129	THR
31	BH	167	GLU
32	BI	4	ILE
32	BI	6	LEU
32	BI	9	LEU
32	BI	10	GLU
32	BI	19	VAL
32	BI	20	ASP
32	BI	25	TYR
32	BI	38	LEU
32	BI	40	THR
32	BI	50	ARG
32	BI	52	ARG
32	BI	56	LYS
32	BI	67	ARG

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Mol	Chain	Res	Type
32	BI	71	ILE
32	BI	92	VAL
32	BI	107	ILE
32	BI	109	ILE
32	BI	118	LYS
32	BI	141	LYS
32	BI	143	SER
32	BI	145	VAL
33	BK	8	VAL
33	BK	27	LEU
33	BK	41	PHE
33	BK	50	ASP
33	BK	58	THR
33	BK	65	PHE
33	BK	67	PHE
33	BK	68	VAL
33	BK	76	TYR
33	BK	80	LYS
33	BK	85	GLU
33	BK	93	ARG
33	BK	101	TRP
33	BK	110	GLN
33	BK	125	ARG
33	BK	139	VAL
34	BN	55	THR
34	BN	56	LEU
34	BN	57	LEU
34	BN	64	ASP
34	BN	65	TRP
34	BN	68	ASN
34	BN	71	MET
34	BN	97	ARG
34	BN	110	LEU
34	BN	117	HIS
34	BN	122	LEU
34	BN	132	LYS
34	BN	143	LEU
34	BN	145	VAL
34	BN	150	ASP
34	BN	154	GLN
34	BN	160	LYS
34	BN	161	LEU

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Mol	Chain	Res	Type
35	BO	8	LEU
35	BO	9	GLU
35	BO	19	ILE
35	BO	24	VAL
35	BO	32	TYR
35	BO	45	GLU
35	BO	47	ILE
35	BO	53	LYS
35	BO	65	THR
35	BO	73	ASP
35	BO	75	SER
35	BO	77	ILE
35	BO	104	ARG
35	BO	114	ILE
36	BP	6	LEU
36	BP	13	ASN
36	BP	15	ARG
36	BP	16	ARG
36	BP	18	ARG
36	BP	32	THR
36	BP	35	HIS
36	BP	39	LYS
36	BP	40	SER
36	BP	41	ARG
36	BP	49	ARG
36	BP	50	ARG
36	BP	51	PHE
36	BP	57	THR
36	BP	61	ARG
36	BP	62	LEU
36	BP	67	MET
36	BP	70	GLN
36	BP	75	ILE
36	BP	83	VAL
36	BP	86	LYS
36	BP	96	THR
36	BP	100	LEU
36	BP	106	LEU
36	BP	114	ILE
36	BP	117	GLU
36	BP	123	LEU
36	BP	135	LEU

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Mol	Chain	Res	Type
36	BP	138	LEU
36	BP	144	GLU
36	BP	147	LEU
36	BP	148	LEU
37	BQ	8	LYS
37	BQ	9	TYR
37	BQ	14	ARG
37	BQ	22	LYS
37	BQ	29	PHE
37	BQ	45	GLN
37	BQ	47	ILE
37	BQ	56	ARG
37	BQ	82	ARG
37	BQ	83	MET
37	BQ	96	VAL
37	BQ	97	VAL
37	BQ	133	ARG
37	BQ	134	ARG
38	BR	2	ARG
38	BR	18	LEU
38	BR	67	LEU
38	BR	71	GLN
38	BR	75	LEU
38	BR	79	LEU
38	BR	81	ASP
38	BR	97	VAL
38	BR	99	LYS
38	BR	104	ARG
39	BS	12	PHE
39	BS	14	VAL
39	BS	30	ARG
39	BS	36	TYR
39	BS	44	LYS
39	BS	54	LEU
39	BS	57	LYS
39	BS	61	ASN
39	BS	80	LEU
39	BS	92	TYR
39	BS	98	VAL
40	BT	15	VAL
40	BT	17	THR
40	BT	19	LEU

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Mol	Chain	Res	Type
40	BT	27	THR
40	BT	28	VAL
40	BT	30	VAL
40	BT	31	SER
40	BT	50	ILE
40	BT	51	ARG
40	BT	58	ASN
40	BT	62	THR
40	BT	85	LYS
40	BT	86	ILE
40	BT	87	ASP
40	BT	88	ILE
40	BT	98	LYS
40	BT	102	ILE
40	BT	105	LEU
40	BT	112	ARG
40	BT	115	ARG
41	BU	27	LEU
41	BU	31	SER
41	BU	60	LEU
41	BU	75	ASN
41	BU	80	ILE
41	BU	83	LEU
41	BU	88	ILE
41	BU	92	ARG
41	BU	97	ASP
41	BU	104	GLN
41	BU	112	ARG
42	BV	5	VAL
42	BV	12	TYR
42	BV	13	ARG
42	BV	18	LEU
42	BV	35	LEU
42	BV	39	LEU
42	BV	43	GLU
42	BV	45	THR
42	BV	46	VAL
42	BV	47	VAL
42	BV	80	GLN
42	BV	88	ARG
42	BV	95	LEU
42	BV	99	ILE

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Mol	Chain	Res	Type
43	BW	1	MET
43	BW	11	ARG
43	BW	19	LEU
43	BW	27	LYS
43	BW	39	THR
43	BW	61	ASN
43	BW	64	MET
43	BW	69	LEU
43	BW	88	ARG
43	BW	107	LEU
43	BW	110	LYS
44	BX	3	THR
44	BX	8	ILE
44	BX	12	VAL
44	BX	15	GLU
44	BX	23	GLU
44	BX	27	THR
44	BX	28	PHE
44	BX	30	VAL
44	BX	49	VAL
44	BX	51	VAL
44	BX	57	LEU
44	BX	65	ARG
44	BX	68	ARG
44	BX	70	LEU
44	BX	76	ARG
44	BX	81	VAL
45	BY	4	LYS
45	BY	6	HIS
45	BY	8	LYS
45	BY	9	LYS
45	BY	13	VAL
45	BY	27	VAL
45	BY	60	PHE
45	BY	75	ILE
45	BY	76	CYS
45	BY	87	LYS
45	BY	90	LEU
45	BY	97	ARG
46	BZ	24	LEU
46	BZ	41	LEU
46	BZ	71	VAL

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Mol	Chain	Res	Type
46	BZ	75	ASN
46	BZ	87	ASP
46	BZ	96	VAL
46	BZ	97	GLU
46	BZ	118	GLN
46	BZ	131	ARG
46	BZ	154	ASP
46	BZ	157	LEU
47	B0	11	LYS
47	B0	17	GLN
47	B0	21	LEU
47	B0	25	ARG
47	B0	32	ARG
47	B0	64	ASP
47	B0	80	HIS
47	B0	84	LEU
48	B1	13	ILE
48	B1	17	SER
48	B1	18	ILE
48	B1	21	ARG
48	B1	27	GLU
48	B1	40	ARG
48	B1	45	ASN
48	B1	56	GLN
48	B1	59	THR
48	B1	61	ARG
48	B1	72	GLU
48	B1	75	GLU
48	B1	76	ARG
48	B1	80	LEU
48	B1	82	LEU
49	B2	1	MET
49	B2	2	LYS
49	B2	5	GLU
49	B2	9	GLN
49	B2	16	LEU
49	B2	17	SER
49	B2	24	LEU
49	B2	36	ARG
49	B2	49	LYS
49	B2	50	ILE
49	B2	53	LEU

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Mol	Chain	Res	Type
49	B2	59	ARG
49	B2	61	LEU
50	B3	37	LEU
50	B3	48	GLU
51	B4	39	ARG
51	B4	42	CYS
51	B4	46	ASN
51	B4	54	LYS
51	B4	62	CYS
51	B4	65	CYS
52	B5	3	LYS
52	B5	33	CYS
52	B5	51	TYR
52	B5	52	TYR
53	B6	10	LEU
53	B6	11	LEU
53	B6	12	GLU
53	B6	17	LYS
53	B6	24	GLU
53	B6	34	LEU
53	B6	36	LEU
53	B6	42	TRP
53	B6	48	VAL
54	B7	4	THR
54	B7	8	ASN
54	B7	19	ARG
54	B7	24	THR
54	B7	34	ARG
54	B7	39	ARG
55	B8	30	ARG
55	B8	32	LEU
55	B8	52	LYS
55	B8	57	ARG
55	B8	61	LEU
55	B8	64	TYR
4	CB	15	VAL
4	CB	17	PHE
4	CB	44	LEU
4	CB	69	LEU
4	CB	74	LYS
4	CB	75	LYS
4	CB	96	ARG

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Mol	Chain	Res	Type
4	CB	97	TRP
4	CB	102	LEU
4	CB	153	ARG
4	CB	154	LEU
4	CB	172	ILE
4	CB	178	ARG
4	CB	187	LEU
4	CB	193	ASP
4	CB	196	LEU
4	CB	229	VAL
5	CC	3	ASN
5	CC	5	ILE
5	CC	12	LEU
5	CC	14	ILE
5	CC	16	ARG
5	CC	21	ARG
5	CC	27	LYS
5	CC	28	GLN
5	CC	29	TYR
5	CC	38	ARG
5	CC	49	SER
5	CC	62	ASP
5	CC	79	ARG
5	CC	95	THR
5	CC	107	GLN
5	CC	127	ARG
5	CC	131	ARG
5	CC	165	THR
5	CC	179	ARG
5	CC	191	THR
5	CC	196	LEU
5	CC	202	ILE
6	CD	4	TYR
6	CD	8	VAL
6	CD	13	ARG
6	CD	21	LEU
6	CD	30	LYS
6	CD	57	ARG
6	CD	58	LEU
6	CD	66	ARG
6	CD	72	GLU
6	CD	73	ARG

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Mol	Chain	Res	Type
6	CD	96	LEU
6	CD	122	ARG
6	CD	131	ARG
6	CD	132	ARG
6	CD	135	LEU
6	CD	146	ILE
6	CD	166	LYS
6	CD	179	GLU
6	CD	202	LEU
7	CE	10	MET
7	CE	11	ILE
7	CE	12	LEU
7	CE	14	ARG
7	CE	26	PHE
7	CE	31	LEU
7	CE	47	LYS
7	CE	51	VAL
7	CE	55	VAL
7	CE	68	GLU
7	CE	72	GLN
7	CE	76	ILE
7	CE	79	GLU
7	CE	84	PHE
7	CE	101	ILE
7	CE	135	THR
7	CE	144	THR
8	CF	16	GLN
8	CF	17	SER
8	CF	21	LEU
8	CF	27	GLN
8	CF	46	ARG
8	CF	52	ILE
8	CF	64	GLN
8	CF	86	ARG
8	CF	100	ASN
9	CG	5	ARG
9	CG	13	GLN
9	CG	24	THR
9	CG	66	VAL
9	CG	80	VAL
9	CG	113	GLU
9	CG	153	HIS

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Mol	Chain	Res	Type
10	CH	1	MET
10	CH	25	ASP
10	CH	26	VAL
10	CH	50	ARG
10	CH	51	VAL
10	CH	75	ARG
10	CH	91	ARG
10	CH	99	GLU
10	CH	102	ARG
10	CH	111	ILE
10	CH	120	THR
10	CH	136	GLU
10	CH	137	VAL
11	CI	10	ARG
11	CI	23	ASN
11	CI	34	ASN
11	CI	63	ILE
11	CI	91	ASP
11	CI	95	LYS
11	CI	104	ARG
11	CI	109	VAL
11	CI	110	GLU
11	CI	121	ARG
11	CI	125	TYR
11	CI	127	LYS
12	CJ	22	LYS
12	CJ	54	PHE
12	CJ	55	LYS
12	CJ	58	ASP
12	CJ	61	GLU
12	CJ	62	HIS
12	CJ	63	PHE
12	CJ	74	ILE
12	CJ	78	ASN
12	CJ	86	MET
12	CJ	92	THR
12	CJ	96	ILE
12	CJ	100	THR
13	CK	14	VAL
13	CK	24	SER
13	CK	29	ILE
13	CK	32	ILE

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Mol	Chain	Res	Type
13	CK	81	ASP
13	CK	87	THR
13	CK	92	GLU
13	CK	104	GLN
13	CK	105	VAL
13	CK	117	ASN
13	CK	123	LYS
13	CK	124	LYS
14	CL	6	ILE
14	CL	19	LYS
14	CL	26	LEU
14	CL	37	THR
14	CL	40	ARG
14	CL	42	VAL
14	CL	51	LEU
14	CL	52	ARG
14	CL	78	GLU
14	CL	84	ILE
14	CL	90	LYS
14	CL	91	ASP
15	CM	32	GLU
15	CM	48	LEU
15	CM	64	TRP
15	CM	93	ARG
15	CM	103	THR
15	CM	105	THR
15	CM	106	ASN
15	CM	108	ARG
15	CM	115	LYS
16	CN	6	LEU
16	CN	8	GLU
16	CN	16	PHE
16	CN	18	VAL
16	CN	44	LEU
17	CO	4	THR
17	CO	5	LYS
17	CO	17	ARG
17	CO	26	GLU
17	CO	27	VAL
17	CO	41	GLU
17	CO	44	LYS
17	CO	65	ARG

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Mol	Chain	Res	Type
17	CO	82	ILE
18	CP	55	ARG
18	CP	62	VAL
18	CP	67	THR
18	CP	69	THR
18	CP	82	GLN
18	CP	83	GLU
19	CQ	9	VAL
19	CQ	10	VAL
19	CQ	11	VAL
19	CQ	14	LYS
19	CQ	38	ARG
19	CQ	52	LYS
19	CQ	74	LEU
19	CQ	100	LYS
20	CR	19	LYS
20	CR	38	GLU
20	CR	45	SER
20	CR	47	THR
20	CR	53	ARG
20	CR	76	LEU
20	CR	84	LYS
20	CR	87	ARG
20	CR	88	LYS
21	CS	5	LEU
21	CS	6	LYS
21	CS	7	LYS
21	CS	29	ARG
21	CS	30	LEU
21	CS	34	TRP
21	CS	37	ARG
21	CS	44	MET
21	CS	49	ILE
21	CS	53	ASN
21	CS	71	LEU
22	CT	22	ARG
22	CT	26	ASN
22	CT	54	LYS
22	CT	62	LEU
22	CT	72	LEU
22	CT	75	ASN
22	CT	82	SER

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Mol	Chain	Res	Type
22	CT	84	LEU
23	CU	5	ASP
24	CX	20	ARG
24	CX	24	LYS
24	CX	29	ILE
24	CX	34	GLN
24	CX	36	GLU
24	CX	38	ARG
24	CX	39	LEU
24	CX	42	LEU
24	CX	52	TRP
24	CX	53	ASN
24	CX	59	ARG
24	CX	63	GLN
24	CX	73	ASP
24	CX	75	PHE
24	CX	79	GLU
24	CX	88	LEU
24	CX	90	GLU
24	CX	97	ARG
24	CX	100	LEU
24	CX	105	GLU
24	CX	128	ASN
24	CX	140	THR
24	CX	141	GLU
24	CX	143	CYS
24	CX	169	LEU
24	CX	170	THR
24	CX	182	ILE
24	CX	192	LEU
24	CX	227	VAL
24	CX	231	VAL
24	CX	238	GLU
24	CX	265	VAL
24	CX	272	THR
24	CX	299	LEU
24	CX	300	GLU
24	CX	304	ARG
24	CX	311	LEU
24	CX	316	ARG
24	CX	327	TYR
24	CX	329	LEU

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Mol	Chain	Res	Type
24	CX	344	HIS
24	CX	348	ASN
24	CX	350	LEU
24	CX	353	ASP
24	CX	359	TRP
27	DD	5	LYS
27	DD	10	THR
27	DD	18	VAL
27	DD	23	GLU
27	DD	28	GLU
27	DD	33	LEU
27	DD	35	LYS
27	DD	37	LEU
27	DD	40	THR
27	DD	61	LEU
27	DD	70	TRP
27	DD	95	LEU
27	DD	106	ILE
27	DD	111	LEU
27	DD	112	GLN
27	DD	127	VAL
27	DD	131	LEU
27	DD	138	VAL
27	DD	150	LYS
27	DD	154	LYS
27	DD	166	GLN
27	DD	169	GLU
27	DD	182	LEU
27	DD	200	ASP
27	DD	211	ARG
27	DD	212	SER
27	DD	217	ARG
27	DD	255	LYS
27	DD	257	LEU
27	DD	263	ARG
27	DD	266	SER
27	DD	271	ILE
28	DE	4	ILE
28	DE	9	VAL
28	DE	16	ARG
28	DE	17	ASP
28	DE	41	LYS

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Mol	Chain	Res	Type
28	DE	49	LEU
28	DE	54	GLN
28	DE	57	LYS
28	DE	77	ILE
28	DE	78	LEU
28	DE	79	ARG
28	DE	87	GLU
28	DE	92	THR
28	DE	119	ARG
28	DE	154	LYS
28	DE	169	ASN
28	DE	175	VAL
28	DE	184	VAL
28	DE	196	VAL
28	DE	197	ILE
28	DE	202	LYS
29	DF	8	GLN
29	DF	9	ILE
29	DF	33	LEU
29	DF	45	ARG
29	DF	57	VAL
29	DF	64	ILE
29	DF	67	GLN
29	DF	69	HIS
29	DF	77	ASP
29	DF	78	ILE
29	DF	106	ARG
29	DF	145	GLU
29	DF	158	THR
29	DF	164	ARG
29	DF	165	ARG
29	DF	170	LEU
29	DF	174	VAL
29	DF	175	THR
29	DF	183	VAL
29	DF	201	VAL
29	DF	206	ILE
30	DG	4	ASP
30	DG	16	ARG
30	DG	18	GLU
30	DG	20	ILE
30	DG	34	LEU

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Mol	Chain	Res	Type
30	DG	35	GLU
30	DG	47	LYS
30	DG	80	PHE
30	DG	86	MET
30	DG	90	LEU
30	DG	91	ARG
30	DG	115	ARG
30	DG	121	ASN
30	DG	128	ARG
30	DG	132	ASN
30	DG	143	GLU
30	DG	145	THR
30	DG	155	MET
30	DG	159	VAL
30	DG	166	ASP
31	DH	13	LYS
31	DH	23	ARG
31	DH	47	GLU
31	DH	68	THR
31	DH	77	LYS
31	DH	79	VAL
31	DH	86	GLU
31	DH	101	ARG
31	DH	103	LEU
31	DH	104	GLU
31	DH	105	LEU
31	DH	107	VAL
31	DH	110	SER
31	DH	116	GLU
31	DH	123	PHE
31	DH	129	THR
31	DH	167	GLU
32	DI	1	MET
32	DI	2	LYS
32	DI	3	VAL
32	DI	6	LEU
32	DI	10	GLU
32	DI	20	ASP
32	DI	21	VAL
32	DI	40	THR
32	DI	52	ARG
32	DI	66	GLU

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Mol	Chain	Res	Type
32	DI	67	ARG
32	DI	71	ILE
32	DI	93	THR
32	DI	107	ILE
32	DI	109	ILE
32	DI	118	LYS
32	DI	133	HIS
32	DI	141	LYS
32	DI	145	VAL
33	DK	8	VAL
33	DK	27	LEU
33	DK	41	PHE
33	DK	50	ASP
33	DK	58	THR
33	DK	65	PHE
33	DK	67	PHE
33	DK	68	VAL
33	DK	76	TYR
33	DK	80	LYS
33	DK	85	GLU
33	DK	93	ARG
33	DK	101	TRP
33	DK	110	GLN
33	DK	125	ARG
33	DK	139	VAL
34	DN	55	THR
34	DN	56	LEU
34	DN	57	LEU
34	DN	64	ASP
34	DN	65	TRP
34	DN	68	ASN
34	DN	71	MET
34	DN	97	ARG
34	DN	110	LEU
34	DN	117	HIS
34	DN	122	LEU
34	DN	132	LYS
34	DN	143	LEU
34	DN	145	VAL
34	DN	150	ASP
34	DN	154	GLN
34	DN	160	LYS

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Mol	Chain	Res	Type
34	DN	161	LEU
35	DO	8	LEU
35	DO	9	GLU
35	DO	19	ILE
35	DO	24	VAL
35	DO	32	TYR
35	DO	45	GLU
35	DO	47	ILE
35	DO	53	LYS
35	DO	65	THR
35	DO	73	ASP
35	DO	75	SER
35	DO	77	ILE
35	DO	98	VAL
35	DO	104	ARG
35	DO	114	ILE
36	DP	6	LEU
36	DP	13	ASN
36	DP	15	ARG
36	DP	16	ARG
36	DP	18	ARG
36	DP	32	THR
36	DP	35	HIS
36	DP	39	LYS
36	DP	40	SER
36	DP	41	ARG
36	DP	42	SER
36	DP	49	ARG
36	DP	50	ARG
36	DP	51	PHE
36	DP	57	THR
36	DP	61	ARG
36	DP	62	LEU
36	DP	67	MET
36	DP	70	GLN
36	DP	75	ILE
36	DP	83	VAL
36	DP	86	LYS
36	DP	96	THR
36	DP	100	LEU
36	DP	106	LEU
36	DP	114	ILE

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Mol	Chain	Res	Type
36	DP	117	GLU
36	DP	123	LEU
36	DP	135	LEU
36	DP	138	LEU
36	DP	144	GLU
36	DP	147	LEU
36	DP	148	LEU
37	DQ	8	LYS
37	DQ	9	TYR
37	DQ	14	ARG
37	DQ	22	LYS
37	DQ	29	PHE
37	DQ	45	GLN
37	DQ	47	ILE
37	DQ	56	ARG
37	DQ	82	ARG
37	DQ	83	MET
37	DQ	96	VAL
37	DQ	97	VAL
37	DQ	133	ARG
37	DQ	134	ARG
38	DR	2	ARG
38	DR	18	LEU
38	DR	67	LEU
38	DR	71	GLN
38	DR	79	LEU
38	DR	81	ASP
38	DR	97	VAL
38	DR	99	LYS
38	DR	104	ARG
39	DS	12	PHE
39	DS	14	VAL
39	DS	30	ARG
39	DS	36	TYR
39	DS	44	LYS
39	DS	54	LEU
39	DS	57	LYS
39	DS	61	ASN
39	DS	80	LEU
39	DS	92	TYR
39	DS	98	VAL
40	DT	15	VAL

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Mol	Chain	Res	Type
40	DT	17	THR
40	DT	19	LEU
40	DT	27	THR
40	DT	28	VAL
40	DT	30	VAL
40	DT	31	SER
40	DT	50	ILE
40	DT	51	ARG
40	DT	58	ASN
40	DT	62	THR
40	DT	85	LYS
40	DT	86	ILE
40	DT	87	ASP
40	DT	88	ILE
40	DT	98	LYS
40	DT	102	ILE
40	DT	105	LEU
40	DT	112	ARG
40	DT	115	ARG
41	DU	27	LEU
41	DU	31	SER
41	DU	60	LEU
41	DU	75	ASN
41	DU	80	ILE
41	DU	83	LEU
41	DU	88	ILE
41	DU	92	ARG
41	DU	104	GLN
41	DU	112	ARG
42	DV	5	VAL
42	DV	12	TYR
42	DV	13	ARG
42	DV	18	LEU
42	DV	35	LEU
42	DV	39	LEU
42	DV	43	GLU
42	DV	46	VAL
42	DV	47	VAL
42	DV	80	GLN
42	DV	88	ARG
42	DV	95	LEU
42	DV	99	ILE

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Mol	Chain	Res	Type
43	DW	1	MET
43	DW	11	ARG
43	DW	19	LEU
43	DW	27	LYS
43	DW	39	THR
43	DW	61	ASN
43	DW	64	MET
43	DW	69	LEU
43	DW	88	ARG
43	DW	107	LEU
43	DW	110	LYS
44	DX	3	THR
44	DX	8	ILE
44	DX	12	VAL
44	DX	15	GLU
44	DX	27	THR
44	DX	28	PHE
44	DX	30	VAL
44	DX	49	VAL
44	DX	51	VAL
44	DX	57	LEU
44	DX	65	ARG
44	DX	68	ARG
44	DX	70	LEU
44	DX	76	ARG
44	DX	81	VAL
45	DY	4	LYS
45	DY	6	HIS
45	DY	7	VAL
45	DY	8	LYS
45	DY	9	LYS
45	DY	13	VAL
45	DY	27	VAL
45	DY	60	PHE
45	DY	75	ILE
45	DY	76	CYS
45	DY	77	PRO
45	DY	87	LYS
45	DY	90	LEU
45	DY	97	ARG
46	DZ	24	LEU
46	DZ	41	LEU

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Mol	Chain	Res	Type
46	DZ	71	VAL
46	DZ	75	ASN
46	DZ	87	ASP
46	DZ	96	VAL
46	DZ	97	GLU
46	DZ	118	GLN
46	DZ	131	ARG
46	DZ	154	ASP
46	DZ	157	LEU
46	DZ	175	VAL
47	D0	11	LYS
47	D0	17	GLN
47	D0	21	LEU
47	D0	25	ARG
47	D0	32	ARG
47	D0	64	ASP
47	D0	80	HIS
47	D0	84	LEU
48	D1	13	ILE
48	D1	17	SER
48	D1	18	ILE
48	D1	21	ARG
48	D1	27	GLU
48	D1	40	ARG
48	D1	45	ASN
48	D1	56	GLN
48	D1	59	THR
48	D1	61	ARG
48	D1	62	VAL
48	D1	72	GLU
48	D1	75	GLU
48	D1	76	ARG
48	D1	80	LEU
48	D1	82	LEU
49	D2	1	MET
49	D2	2	LYS
49	D2	5	GLU
49	D2	9	GLN
49	D2	16	LEU
49	D2	17	SER
49	D2	24	LEU
49	D2	36	ARG

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Mol	Chain	Res	Type
49	D2	49	LYS
49	D2	50	ILE
49	D2	53	LEU
49	D2	59	ARG
49	D2	60	LEU
50	D3	37	LEU
50	D3	48	GLU
52	D5	3	LYS
52	D5	51	TYR
52	D5	52	TYR
53	D6	10	LEU
53	D6	11	LEU
53	D6	12	GLU
53	D6	17	LYS
53	D6	24	GLU
53	D6	34	LEU
53	D6	36	LEU
53	D6	42	TRP
53	D6	48	VAL
54	D7	4	THR
54	D7	8	ASN
54	D7	19	ARG
54	D7	24	THR
54	D7	34	ARG
54	D7	39	ARG
55	D8	30	ARG
55	D8	32	LEU
55	D8	52	LYS
55	D8	57	ARG
55	D8	61	LEU
55	D8	64	TYR
51	D4	39	ARG
51	D4	42	CYS
51	D4	54	LYS
51	D4	62	CYS
51	D4	65	CYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (287) such sidechains are listed below:

Mol	Chain	Res	Type
4	AB	40	HIS
4	AB	146	GLN

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Mol	Chain	Res	Type
4	AB	204	ASN
5	AC	6	HIS
5	AC	28	GLN
5	AC	69	HIS
5	AC	107	GLN
5	AC	136	GLN
5	AC	176	HIS
6	AD	62	GLN
6	AD	77	ASN
7	AE	73	ASN
7	AE	78	HIS
8	AF	27	GLN
8	AF	32	ASN
8	AF	64	GLN
8	AF	73	ASN
8	AF	100	ASN
9	AG	13	GLN
9	AG	86	GLN
9	AG	96	GLN
9	AG	153	HIS
11	AI	124	GLN
12	AJ	13	HIS
12	AJ	62	HIS
12	AJ	78	ASN
13	AK	26	ASN
13	AK	104	GLN
13	AK	117	ASN
14	AL	7	ASN
14	AL	8	GLN
14	AL	74	HIS
14	AL	79	HIS
15	AM	12	ASN
15	AM	101	GLN
16	AN	49	HIS
17	AO	9	GLN
17	AO	37	ASN
17	AO	46	HIS
18	AP	82	GLN
19	AQ	16	GLN
21	AS	53	ASN
21	AS	69	HIS
22	AT	26	ASN

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Mol	Chain	Res	Type
22	AT	75	ASN
24	AX	17	ASN
24	AX	53	ASN
24	AX	63	GLN
24	AX	160	GLN
24	AX	181	GLN
24	AX	188	ASN
24	AX	281	GLN
24	AX	337	HIS
24	AX	348	ASN
27	BD	116	GLN
27	BD	126	GLN
27	BD	164	GLN
27	BD	166	GLN
27	BD	186	HIS
27	BD	198	ASN
28	BE	48	GLN
28	BE	66	HIS
28	BE	169	ASN
28	BE	192	ASN
29	BF	67	GLN
29	BF	69	HIS
29	BF	75	HIS
29	BF	169	ASN
30	BG	27	ASN
30	BG	40	ASN
30	BG	121	ASN
30	BG	132	ASN
31	BH	65	HIS
31	BH	74	ASN
31	BH	143	GLN
31	BH	147	ASN
31	BH	158	HIS
32	BI	11	ASN
32	BI	104	GLN
33	BK	33	ASN
33	BK	110	GLN
34	BN	68	ASN
34	BN	79	ASN
34	BN	117	HIS
34	BN	151	HIS
34	BN	154	GLN

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Mol	Chain	Res	Type
35	BO	5	GLN
36	BP	13	ASN
36	BP	35	HIS
36	BP	128	HIS
37	BQ	13	GLN
37	BQ	45	GLN
38	BR	3	HIS
38	BR	13	HIS
38	BR	16	HIS
38	BR	53	HIS
38	BR	71	GLN
38	BR	91	GLN
39	BS	61	ASN
40	BT	58	ASN
40	BT	79	HIS
40	BT	90	GLN
40	BT	136	GLN
41	BU	44	ASN
41	BU	49	HIS
41	BU	71	GLN
41	BU	72	HIS
41	BU	75	ASN
42	BV	11	GLN
43	BW	34	ASN
43	BW	57	ASN
43	BW	61	ASN
43	BW	62	HIS
43	BW	102	HIS
44	BX	31	HIS
44	BX	41	ASN
44	BX	55	ASN
44	BX	87	GLN
45	BY	6	HIS
46	BZ	54	HIS
46	BZ	73	GLN
46	BZ	75	ASN
46	BZ	118	GLN
47	B0	29	GLN
47	B0	70	GLN
48	B1	19	GLN
48	B1	45	ASN
48	B1	56	GLN

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Mol	Chain	Res	Type
49	B2	9	GLN
50	B3	19	GLN
50	B3	46	ASN
50	B3	52	HIS
51	B4	46	ASN
52	B5	22	HIS
52	B5	23	HIS
52	B5	43	HIS
53	B6	20	ASN
53	B6	29	ASN
53	B6	32	ASN
53	B6	46	HIS
54	B7	8	ASN
55	B8	33	ASN
55	B8	43	GLN
4	CB	40	HIS
4	CB	146	GLN
4	CB	204	ASN
5	CC	6	HIS
5	CC	28	GLN
5	CC	69	HIS
5	CC	107	GLN
5	CC	136	GLN
5	CC	176	HIS
6	CD	62	GLN
6	CD	77	ASN
6	CD	161	ASN
7	CE	73	ASN
7	CE	78	HIS
8	CF	27	GLN
8	CF	32	ASN
8	CF	64	GLN
8	CF	73	ASN
8	CF	100	ASN
9	CG	13	GLN
9	CG	96	GLN
9	CG	153	HIS
11	CI	124	GLN
12	CJ	13	HIS
12	CJ	62	HIS
12	CJ	78	ASN
13	CK	26	ASN

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Mol	Chain	Res	Type
13	CK	104	GLN
13	CK	117	ASN
14	CL	7	ASN
14	CL	8	GLN
14	CL	74	HIS
14	CL	79	HIS
15	CM	12	ASN
15	CM	101	GLN
16	CN	49	HIS
17	CO	9	GLN
17	CO	37	ASN
17	CO	46	HIS
18	CP	82	GLN
19	CQ	16	GLN
21	CS	53	ASN
21	CS	69	HIS
22	CT	26	ASN
22	CT	75	ASN
24	CX	17	ASN
24	CX	53	ASN
24	CX	63	GLN
24	CX	160	GLN
24	CX	181	GLN
24	CX	188	ASN
24	CX	281	GLN
24	CX	337	HIS
24	CX	348	ASN
27	DD	116	GLN
27	DD	126	GLN
27	DD	164	GLN
27	DD	166	GLN
27	DD	186	HIS
27	DD	198	ASN
28	DE	48	GLN
28	DE	66	HIS
28	DE	169	ASN
28	DE	192	ASN
29	DF	67	GLN
29	DF	69	HIS
29	DF	75	HIS
29	DF	169	ASN
30	DG	27	ASN

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Mol	Chain	Res	Type
30	DG	40	ASN
30	DG	58	GLN
30	DG	121	ASN
30	DG	132	ASN
31	DH	65	HIS
31	DH	74	ASN
31	DH	143	GLN
31	DH	147	ASN
31	DH	158	HIS
33	DK	29	GLN
33	DK	33	ASN
33	DK	110	GLN
34	DN	61	HIS
34	DN	68	ASN
34	DN	79	ASN
34	DN	117	HIS
34	DN	151	HIS
34	DN	154	GLN
35	DO	5	GLN
36	DP	13	ASN
36	DP	35	HIS
36	DP	128	HIS
37	DQ	13	GLN
37	DQ	45	GLN
38	DR	3	HIS
38	DR	13	HIS
38	DR	16	HIS
38	DR	53	HIS
38	DR	71	GLN
38	DR	91	GLN
39	DS	61	ASN
40	DT	58	ASN
40	DT	79	HIS
40	DT	90	GLN
40	DT	136	GLN
41	DU	44	ASN
41	DU	49	HIS
41	DU	71	GLN
41	DU	72	HIS
41	DU	75	ASN
42	DV	11	GLN
43	DW	34	ASN

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Mol	Chain	Res	Type
43	DW	57	ASN
43	DW	61	ASN
43	DW	62	HIS
43	DW	102	HIS
44	DX	31	HIS
44	DX	41	ASN
44	DX	55	ASN
44	DX	87	GLN
45	DY	6	HIS
46	DZ	54	HIS
46	DZ	73	GLN
46	DZ	75	ASN
46	DZ	118	GLN
47	D0	29	GLN
47	D0	70	GLN
48	D1	19	GLN
48	D1	45	ASN
48	D1	56	GLN
49	D2	9	GLN
49	D2	48	HIS
50	D3	19	GLN
50	D3	46	ASN
50	D3	52	HIS
52	D5	22	HIS
52	D5	23	HIS
52	D5	43	HIS
53	D6	20	ASN
53	D6	29	ASN
53	D6	32	ASN
53	D6	46	HIS
54	D7	8	ASN
55	D8	43	GLN
51	D4	46	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1525 (98%)	287 (19%)	107 (7%)
1	CA	1503/1525 (98%)	282 (18%)	106 (7%)
2	AY	76/77 (98%)	15 (19%)	6 (7%)
2	AZ	76/77 (98%)	15 (19%)	5 (6%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
2	CY	76/77 (98%)	14 (18%)	6 (7%)
2	CZ	76/77 (98%)	15 (19%)	5 (6%)
25	BA	2878/2894 (99%)	589 (20%)	178 (6%)
25	DA	2878/2894 (99%)	594 (20%)	173 (6%)
26	BB	118/124 (95%)	17 (14%)	6 (5%)
26	DB	118/124 (95%)	18 (15%)	6 (5%)
3	AV	10/27 (37%)	3 (30%)	3 (30%)
3	CV	10/27 (37%)	3 (30%)	3 (30%)
All	All	9322/9448 (98%)	1852 (19%)	604 (6%)

All (1852) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	22	G
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	49	U
1	AA	51	A
1	AA	54	C
1	AA	58	C
1	AA	60	A
1	AA	61	G
1	AA	80	G
1	AA	88	C
1	AA	101	A
1	AA	109	A
1	AA	110	C
1	AA	115	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	127	G
1	AA	131	C
1	AA	169	C
1	AA	173	U
1	AA	174	C
1	AA	181	G
1	AA	182	U

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Mol	Chain	Res	Type
1	AA	188	U
1	AA	195	A
1	AA	197	A
1	AA	209	U
1	AA	210	U
1	AA	216	G
1	AA	231	G
1	AA	244	U
1	AA	245	C
1	AA	246	A
1	AA	247	G
1	AA	250	A
1	AA	251	G
1	AA	266	G
1	AA	267	C
1	AA	274	A
1	AA	289	G
1	AA	301	G
1	AA	306	G
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	345	C
1	AA	346	G
1	AA	347	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	382	A
1	AA	384	G
1	AA	390	C
1	AA	397	A
1	AA	398	C
1	AA	406	G
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	422	C

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Mol	Chain	Res	Type
1	AA	429	U
1	AA	430	A
1	AA	439	A
1	AA	440	A
1	AA	452	A
1	AA	453	A
1	AA	465	A
1	AA	467	G
1	AA	484	G
1	AA	485	G
1	AA	496	A
1	AA	497	U
1	AA	500	G
1	AA	505	G
1	AA	508	C
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	512	U
1	AA	518	C
1	AA	527	G
1	AA	531	U
1	AA	533	A
1	AA	534	U
1	AA	545	C
1	AA	547	A
1	AA	548	G
1	AA	559	A
1	AA	560	U
1	AA	561	U
1	AA	562	C
1	AA	563	A
1	AA	568	G
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	577	G
1	AA	579	G
1	AA	596	C
1	AA	632	A
1	AA	642	A
1	AA	653	A

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Mol	Chain	Res	Type
1	AA	665	A
1	AA	687	A
1	AA	688	G
1	AA	721	G
1	AA	722	A
1	AA	734	G
1	AA	748	C
1	AA	749	C
1	AA	752	G
1	AA	755	G
1	AA	766	A
1	AA	777	A
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	811	C
1	AA	816	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	821	G
1	AA	828	A
1	AA	841	U
1	AA	842	C
1	AA	843	U
1	AA	848	C
1	AA	851	G
1	AA	859	A
1	AA	867	G
1	AA	884	U
1	AA	885	G
1	AA	889	A
1	AA	890	G
1	AA	902	G
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	942	G
1	AA	945	G
1	AA	960	U
1	AA	961	U

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Mol	Chain	Res	Type
1	AA	966	G
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	979	C
1	AA	980	C
1	AA	981	U
1	AA	982	U
1	AA	983	A
1	AA	984	C
1	AA	992	U
1	AA	993	G
1	AA	994	A
1	AA	1004	A
1	AA	1024	G
1	AA	1045	C
1	AA	1050	G
1	AA	1053	G
1	AA	1054	C
1	AA	1055	A
1	AA	1056	U
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1081	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1102	A
1	AA	1104	G
1	AA	1108	G
1	AA	1117	G
1	AA	1118	C
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1129	C

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Mol	Chain	Res	Type
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
1	AA	1146	A
1	AA	1151	A
1	AA	1152	A
1	AA	1154	G
1	AA	1158	C
1	AA	1159	U
1	AA	1160	G
1	AA	1171	G
1	AA	1181	G
1	AA	1182	G
1	AA	1183	A
1	AA	1184	G
1	AA	1190	G
1	AA	1193	G
1	AA	1196	U
1	AA	1197	G
1	AA	1200	C
1	AA	1201	A
1	AA	1202	G
1	AA	1212	U
1	AA	1213	A
1	AA	1227	A
1	AA	1228	C
1	AA	1238	A
1	AA	1239	A
1	AA	1253	G
1	AA	1257	U
1	AA	1258	G
1	AA	1260	C
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A
1	AA	1281	U
1	AA	1285	A
1	AA	1286	A

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Mol	Chain	Res	Type
1	AA	1287	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1305	G
1	AA	1312	G
1	AA	1317	C
1	AA	1319	A
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1335	C
1	AA	1336	C
1	AA	1337	G
1	AA	1346	A
1	AA	1347	G
1	AA	1353	G
1	AA	136(B)	C
1	AA	1364	U
1	AA	1368	G
1	AA	1370	G
1	AA	1378	C
1	AA	1402	C
1	AA	1419	G
1	AA	1430	C
1	AA	1443	G
1	AA	1446	A
1	AA	1447	G
1	AA	1452	C
1	AA	1453	G
1	AA	1487	G
1	AA	1492	A
1	AA	1493	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	1519	A

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Mol	Chain	Res	Type
1	AA	1520	G
1	AA	1525	G
1	AA	1528	U
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
2	AZ	6	G
2	AZ	9	G
2	AZ	10	G
2	AZ	16	C
2	AZ	17	C
2	AZ	17(A)	U
2	AZ	18	G
2	AZ	19	G
2	AZ	20	U
2	AZ	46	G
2	AZ	47	U
2	AZ	48	C
2	AZ	49	G
2	AZ	58	A
2	AZ	59	A
3	AV	22	A
3	AV	23	A
3	AV	24	A
2	AY	7	G
2	AY	8	U
2	AY	9	G
2	AY	14	A
2	AY	16	C
2	AY	17	C
2	AY	17(A)	U
2	AY	18	G
2	AY	19	G
2	AY	20	U
2	AY	22	G
2	AY	47	U
2	AY	48	C
2	AY	60	U
2	AY	76	A
25	BA	10	G
25	BA	13	A
25	BA	17	G

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Mol	Chain	Res	Type
25	BA	27	G
25	BA	28	A
25	BA	34	C
25	BA	35	G
25	BA	46	C
25	BA	49	A
25	BA	52	A
25	BA	55	G
25	BA	58	G
25	BA	71	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	91	A
25	BA	99	U
25	BA	101	G
25	BA	102	G
25	BA	103	A
25	BA	118	A
25	BA	119	A
25	BA	120	U
25	BA	126	A
25	BA	138	G
25	BA	140	A
25	BA	141(A)	A
25	BA	155	C
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	214	G
25	BA	215	G
25	BA	216	A
25	BA	221	A

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Mol	Chain	Res	Type
25	BA	222	A
25	BA	228	A
25	BA	229	A
25	BA	230	U
25	BA	245	G
25	BA	248	G
25	BA	250	G
25	BA	252	G
25	BA	266	G
25	BA	270(M)	U
25	BA	270(N)	U
25	BA	270(O)	G
25	BA	270(P)	U
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	277	C
25	BA	278	A
25	BA	279	C
25	BA	284	U
25	BA	299	A
25	BA	302	C
25	BA	323	G
25	BA	324	A
25	BA	329	G
25	BA	330	A
25	BA	333	G
25	BA	342	G
25	BA	346	A
25	BA	352	G
25	BA	353	G
25	BA	364	C
25	BA	372	G
25	BA	386	G
25	BA	387	U
25	BA	396	G
25	BA	400	G
25	BA	405	U
25	BA	406	G

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Mol	Chain	Res	Type
25	BA	407	G
25	BA	411	G
25	BA	412	A
25	BA	413	C
25	BA	442	G
25	BA	444	C
25	BA	454	A
25	BA	455	C
25	BA	457	A
25	BA	470	A
25	BA	471	A
25	BA	474	G
25	BA	475	U
25	BA	479	A
25	BA	480	A
25	BA	481	G
25	BA	482	A
25	BA	496	G
25	BA	504	U
25	BA	505	A
25	BA	507	A
25	BA	508	G
25	BA	509	C
25	BA	512	G
25	BA	513	A
25	BA	530	G
25	BA	531	C
25	BA	532	A
25	BA	533	G
25	BA	547	A
25	BA	556	G
25	BA	563	G
25	BA	573	G
25	BA	575	A
25	BA	593	G
25	BA	599	G
25	BA	603	A
25	BA	604	G
25	BA	609(B)	G
25	BA	615	G
25	BA	617	G
25	BA	620	G

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Mol	Chain	Res	Type
25	BA	621	A
25	BA	627	A
25	BA	628	G
25	BA	634	C
25	BA	637	A
25	BA	645	C
25	BA	646	A
25	BA	652	U
25	BA	653	C
25	BA	654	U
25	BA	655	A
25	BA	656	G
25	BA	657	U
25	BA	664	C
25	BA	668	G
25	BA	671	C
25	BA	682	G
25	BA	685	A
25	BA	686	G
25	BA	730	C
25	BA	738	G
25	BA	746	A
25	BA	747	U
25	BA	764	A
25	BA	765	G
25	BA	776	G
25	BA	782	A
25	BA	784	A
25	BA	785	G
25	BA	787	U
25	BA	792	G
25	BA	793	A
25	BA	802	A
25	BA	805	G
25	BA	808	G
25	BA	812	C
25	BA	819	A
25	BA	821	A
25	BA	827	U
25	BA	828	U
25	BA	831	G
25	BA	845	G

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Mol	Chain	Res	Type
25	BA	846	C
25	BA	847	U
25	BA	856	C
25	BA	859	G
25	BA	862	G
25	BA	879	G
25	BA	886	C
25	BA	887	A
25	BA	890	A
25	BA	896	A
25	BA	897	C
25	BA	907	U
25	BA	910	A
25	BA	915	C
25	BA	917	A
25	BA	919	G
25	BA	926	A
25	BA	932	G
25	BA	933	A
25	BA	941	A
25	BA	942	G
25	BA	945	A
25	BA	946	G
25	BA	956	G
25	BA	959	A
25	BA	961	C
25	BA	972	G
25	BA	974(A)	G
25	BA	974(B)	C
25	BA	975	G
25	BA	983	A
25	BA	990	A
25	BA	996	A
25	BA	997	G
25	BA	999	U
25	BA	1003	G
25	BA	1009	A
25	BA	1010	A
25	BA	1011	G
25	BA	1012	U
25	BA	1013	C
25	BA	1022	G

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Mol	Chain	Res	Type
25	BA	1023	U
25	BA	1025	G
25	BA	1026	U
25	BA	1046	A
25	BA	1047	G
25	BA	1048	A
25	BA	1049	C
25	BA	1060	U
25	BA	1061	U
25	BA	1069	A
25	BA	1070	A
25	BA	1071	G
25	BA	1072	C
25	BA	1074	G
25	BA	1078	U
25	BA	1079	C
25	BA	1088	A
25	BA	1090	U
25	BA	1100	C
25	BA	1110	G
25	BA	1112	G
25	BA	1127	A
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	114(B)	A
25	BA	1144	G
25	BA	1155	A
25	BA	1175	U
25	BA	1176	G
25	BA	1190	G
25	BA	1195	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	1227	G

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Mol	Chain	Res	Type
25	BA	1244	G
25	BA	1248	G
25	BA	1250	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	1273	U
25	BA	1274	A
25	BA	1286	A
25	BA	1287	A
25	BA	1288	U
25	BA	1289	C
25	BA	1300	U
25	BA	1301	A
25	BA	1302	A
25	BA	1306	C
25	BA	1311	G
25	BA	1313	U
25	BA	1314	C
25	BA	1329	U
25	BA	1330	C
25	BA	1332	G
25	BA	1345	C
25	BA	1349	A
25	BA	1352	U
25	BA	1359	A
25	BA	1360	A
25	BA	1378	A
25	BA	1379	A
25	BA	1380	G
25	BA	1384	A
25	BA	1385	G
25	BA	1386	C
25	BA	1394	U
25	BA	1396	U
25	BA	1397	U
25	BA	1416	G
25	BA	1420	U
25	BA	1421	G

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Mol	Chain	Res	Type
25	BA	1427	A
25	BA	1428	C
25	BA	144(B)	A
25	BA	1451	C
25	BA	1453	A
25	BA	1454	U
25	BA	1458	C
25	BA	1460	A
25	BA	1461	G
25	BA	1467	C
25	BA	1479	G
25	BA	1483	G
25	BA	1490	A
25	BA	1493	C
25	BA	1494	A
25	BA	1495	A
25	BA	1496	A
25	BA	1497	U
25	BA	1498	C
25	BA	1509	A
25	BA	1510	A
25	BA	1535	U
25	BA	1538	G
25	BA	1542	G
25	BA	1543	A
25	BA	1544	C
25	BA	1545	A
25	BA	1554	A
25	BA	1558	A
25	BA	1559	G
25	BA	1566	A
25	BA	1569	A
25	BA	1579	A
25	BA	1585	C
25	BA	1603	A
25	BA	1609	A
25	BA	1610	A
25	BA	1617	C
25	BA	1618	A
25	BA	1633	G
25	BA	1640	C
25	BA	1648	C

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Mol	Chain	Res	Type
25	BA	1668	A
25	BA	1669	A
25	BA	1674	G
25	BA	1678	G
25	BA	1696	G
25	BA	1698	A
25	BA	1699	G
25	BA	1729	A
25	BA	1730	U
25	BA	1731	G
25	BA	1732	A
25	BA	1750	G
25	BA	1762	A
25	BA	1763	G
25	BA	1764	G
25	BA	1773	A
25	BA	1776	G
25	BA	1784	A
25	BA	1791	A
25	BA	1800	C
25	BA	1801	G
25	BA	1802	A
25	BA	1811	G
25	BA	1816	G
25	BA	1829	A
25	BA	1833	U
25	BA	1839	G
25	BA	1840	G
25	BA	1847	A
25	BA	1848	A
25	BA	1878	G
25	BA	1889	A
25	BA	1900	A
25	BA	1902	C
25	BA	1903	G
25	BA	1906	G
25	BA	1913	A
25	BA	1914	C
25	BA	1919	A
25	BA	1929	G
25	BA	1930	G
25	BA	1936	A

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Mol	Chain	Res	Type
25	BA	1937	A
25	BA	1938	A
25	BA	1939	U
25	BA	1940	U
25	BA	1941	C
25	BA	1942	C
25	BA	1945	G
25	BA	1955	U
25	BA	1963	U
25	BA	1967	C
25	BA	1970	A
25	BA	1971	A
25	BA	1972	A
25	BA	1980	G
25	BA	1982	C
25	BA	1991	U
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	2036	C
25	BA	2043	C
25	BA	2051	A
25	BA	2052	G
25	BA	2055	C
25	BA	2056	G
25	BA	2060	A
25	BA	2061	G
25	BA	2062	A
25	BA	2063	C
25	BA	2069	G
25	BA	2078	C
25	BA	2083	G
25	BA	2093	G
25	BA	2108	C
25	BA	2118	U
25	BA	2119	A
25	BA	2120	G
25	BA	2126	A

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Mol	Chain	Res	Type
25	BA	2127	G
25	BA	2131	G
25	BA	2133	G
25	BA	2145	C
25	BA	2146	C
25	BA	2147	G
25	BA	2158	A
25	BA	2159	G
25	BA	2166	G
25	BA	2171	A
25	BA	2173	A
25	BA	2198	A
25	BA	2199	A
25	BA	2210	G
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	2235	G
25	BA	2238	G
25	BA	2239	G
25	BA	2243	U
25	BA	2273	A
25	BA	2275	C
25	BA	2276	G
25	BA	2279	G
25	BA	2283	C
25	BA	2287	A
25	BA	2297	C
25	BA	2304	G
25	BA	2305	A
25	BA	2306	C
25	BA	2307	G
25	BA	2308	G
25	BA	2309	A
25	BA	2311	A
25	BA	2319	G
25	BA	2320	A
25	BA	2322	A
25	BA	2325	G

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Mol	Chain	Res	Type
25	BA	2327	A
25	BA	2334	G
25	BA	2336	A
25	BA	2343	C
25	BA	2345	G
25	BA	2347	C
25	BA	2350	C
25	BA	2379	G
25	BA	2383	G
25	BA	2384	G
25	BA	2385	C
25	BA	2394	C
25	BA	2402	C
25	BA	2406	U
25	BA	2423	U
25	BA	2424	C
25	BA	2425	A
25	BA	2427	C
25	BA	2428	G
25	BA	2429	G
25	BA	2430	A
25	BA	2431	U
25	BA	2434	A
25	BA	2435	A
25	BA	2436	G
25	BA	2439	A
25	BA	2440	C
25	BA	2441	C
25	BA	2447	G
25	BA	2448	A
25	BA	2469	A
25	BA	2470	G
25	BA	2474	C
25	BA	2476	A
25	BA	2477	C
25	BA	2478	A
25	BA	2480	C
25	BA	2482	G
25	BA	2484	G
25	BA	2487	G
25	BA	2491	U
25	BA	2492	U

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Mol	Chain	Res	Type
25	BA	2498	C
25	BA	2501	C
25	BA	2502	G
25	BA	2503	A
25	BA	2505	G
25	BA	2506	U
25	BA	2513	G
25	BA	2518	A
25	BA	2520	C
25	BA	2529	G
25	BA	2535	G
25	BA	2542	A
25	BA	2543	G
25	BA	2549	G
25	BA	2553	G
25	BA	2554	U
25	BA	2566	A
25	BA	2567	G
25	BA	2569	G
25	BA	2572	A
25	BA	2573	C
25	BA	2574	G
25	BA	2602	A
25	BA	2603	G
25	BA	2608	G
25	BA	2609	U
25	BA	2610	C
25	BA	2611	U
25	BA	2612	C
25	BA	2615	U
25	BA	2629	A
25	BA	2630	G
25	BA	2663	G
25	BA	2665	A
25	BA	2680	C
25	BA	2682	U
25	BA	2686	G
25	BA	2690	C
25	BA	2691	C
25	BA	2702	U
25	BA	2712	U
25	BA	712(B)	A

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Mol	Chain	Res	Type
25	BA	2713	A
25	BA	2714	G
25	BA	2724	C
25	BA	2726	U
25	BA	2733	A
25	BA	2739	U
25	BA	2744	G
25	BA	2748	A
25	BA	2751	G
25	BA	2757	A
25	BA	2764	A
25	BA	2765	A
25	BA	2766	G
25	BA	2769	C
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	2799	A
25	BA	2801	A
25	BA	2808	U
25	BA	2820	A
25	BA	2821	A
25	BA	2833	G
25	BA	2835	A
25	BA	2836	U
25	BA	2849	U
25	BA	2850	A
25	BA	2867	G
25	BA	2872	G
25	BA	2873	A
25	BA	2874	C
25	BA	2876	G
25	BA	2880	C
25	BA	2886	G
25	BA	2893	G
25	BA	2894	G
26	BB	12	C
26	BB	13	A

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Mol	Chain	Res	Type
26	BB	15	A
26	BB	16	G
26	BB	24	G
26	BB	25	A
26	BB	41	U
26	BB	42	C
26	BB	44	G
26	BB	45	A
26	BB	52	A
26	BB	57	A
26	BB	73	A
26	BB	90	C
26	BB	99	A
26	BB	108	C
26	BB	109	G
1	CA	9	G
1	CA	22	G
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	49	U
1	CA	51	A
1	CA	54	C
1	CA	58	C
1	CA	60	A
1	CA	61	G
1	CA	80	G
1	CA	88	C
1	CA	101	A
1	CA	109	A
1	CA	115	G
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	127	G
1	CA	131	C
1	CA	169	C
1	CA	173	U
1	CA	174	C
1	CA	181	G

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Mol	Chain	Res	Type
1	CA	182	U
1	CA	188	U
1	CA	195	A
1	CA	197	A
1	CA	209	U
1	CA	210	U
1	CA	216	G
1	CA	231	G
1	CA	244	U
1	CA	245	C
1	CA	246	A
1	CA	247	G
1	CA	250	A
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	274	A
1	CA	289	G
1	CA	301	G
1	CA	306	G
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	332	G
1	CA	345	C
1	CA	346	G
1	CA	347	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	367	U
1	CA	372	C
1	CA	382	A
1	CA	384	G
1	CA	390	C
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	414	A

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Mol	Chain	Res	Type
1	CA	422	C
1	CA	429	U
1	CA	430	A
1	CA	439	A
1	CA	440	A
1	CA	452	A
1	CA	453	A
1	CA	465	A
1	CA	467	G
1	CA	484	G
1	CA	485	G
1	CA	496	A
1	CA	497	U
1	CA	500	G
1	CA	505	G
1	CA	508	C
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	512	U
1	CA	518	C
1	CA	527	G
1	CA	531	U
1	CA	533	A
1	CA	534	U
1	CA	545	C
1	CA	547	A
1	CA	548	G
1	CA	559	A
1	CA	560	U
1	CA	561	U
1	CA	562	C
1	CA	563	A
1	CA	568	G
1	CA	572	A
1	CA	573	A
1	CA	576	G
1	CA	577	G
1	CA	579	G
1	CA	596	C
1	CA	632	A
1	CA	642	A

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Mol	Chain	Res	Type
1	CA	653	A
1	CA	665	A
1	CA	687	A
1	CA	688	G
1	CA	721	G
1	CA	722	A
1	CA	734	G
1	CA	748	C
1	CA	749	C
1	CA	752	G
1	CA	755	G
1	CA	766	A
1	CA	777	A
1	CA	792	A
1	CA	793	U
1	CA	794	A
1	CA	811	C
1	CA	816	A
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	828	A
1	CA	841	U
1	CA	842	C
1	CA	843	U
1	CA	848	C
1	CA	851	G
1	CA	859	A
1	CA	867	G
1	CA	884	U
1	CA	885	G
1	CA	889	A
1	CA	890	G
1	CA	902	G
1	CA	914	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	942	G
1	CA	945	G
1	CA	960	U
1	CA	961	U

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Mol	Chain	Res	Type
1	CA	966	G
1	CA	968	A
1	CA	969	A
1	CA	971	G
1	CA	972	C
1	CA	974	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	981	U
1	CA	982	U
1	CA	983	A
1	CA	984	C
1	CA	992	U
1	CA	993	G
1	CA	994	A
1	CA	1004	A
1	CA	1024	G
1	CA	1045	C
1	CA	1050	G
1	CA	1053	G
1	CA	1054	C
1	CA	1055	A
1	CA	1056	U
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1081	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1102	A
1	CA	1104	G
1	CA	1108	G
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

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Mol	Chain	Res	Type
1	CA	1131	G
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1140	C
1	CA	1146	A
1	CA	1151	A
1	CA	1152	A
1	CA	1154	G
1	CA	1158	C
1	CA	1159	U
1	CA	1160	G
1	CA	1171	G
1	CA	1181	G
1	CA	1182	G
1	CA	1183	A
1	CA	1184	G
1	CA	1190	G
1	CA	1193	G
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1201	A
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1227	A
1	CA	1228	C
1	CA	1238	A
1	CA	1239	A
1	CA	1253	G
1	CA	1257	U
1	CA	1258	G
1	CA	1260	C
1	CA	1278	U
1	CA	1279	A
1	CA	1280	A
1	CA	1281	U
1	CA	1285	A
1	CA	1286	A
1	CA	1287	A
1	CA	1300	G

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Mol	Chain	Res	Type
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G
1	CA	1312	G
1	CA	1317	C
1	CA	1319	A
1	CA	1320	C
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1335	C
1	CA	1336	C
1	CA	1346	A
1	CA	1347	G
1	CA	1353	G
1	CA	136(B)	C
1	CA	1364	U
1	CA	1365	G
1	CA	1370	G
1	CA	1378	C
1	CA	1402	C
1	CA	1419	G
1	CA	1430	C
1	CA	1443	G
1	CA	1446	A
1	CA	1447	G
1	CA	1452	C
1	CA	1453	G
1	CA	1487	G
1	CA	1492	A
1	CA	1493	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	1519	A
1	CA	1520	G
1	CA	1525	G
1	CA	1528	U

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Mol	Chain	Res	Type
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
2	CZ	6	G
2	CZ	9	G
2	CZ	10	G
2	CZ	16	C
2	CZ	17	C
2	CZ	17(A)	U
2	CZ	18	G
2	CZ	19	G
2	CZ	20	U
2	CZ	46	G
2	CZ	47	U
2	CZ	48	C
2	CZ	49	G
2	CZ	58	A
2	CZ	59	A
3	CV	22	A
3	CV	23	A
3	CV	24	A
2	CY	7	G
2	CY	8	U
2	CY	9	G
2	CY	14	A
2	CY	16	C
2	CY	17	C
2	CY	17(A)	U
2	CY	18	G
2	CY	19	G
2	CY	20	U
2	CY	22	G
2	CY	47	U
2	CY	48	C
2	CY	60	U
25	DA	10	G
25	DA	13	A
25	DA	17	G
25	DA	27	G
25	DA	28	A
25	DA	34	C
25	DA	35	G

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Mol	Chain	Res	Type
25	DA	46	C
25	DA	49	A
25	DA	52	A
25	DA	55	G
25	DA	58	G
25	DA	71	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	91	A
25	DA	98	G
25	DA	99	U
25	DA	101	G
25	DA	102	G
25	DA	103	A
25	DA	118	A
25	DA	119	A
25	DA	120	U
25	DA	126	A
25	DA	138	G
25	DA	140	A
25	DA	141(A)	A
25	DA	155	C
25	DA	162	U
25	DA	181	A
25	DA	196	A
25	DA	197	A
25	DA	199	A
25	DA	200	U
25	DA	204	A
25	DA	205	G
25	DA	214	G
25	DA	215	G
25	DA	216	A
25	DA	221	A
25	DA	222	A
25	DA	228	A
25	DA	229	A

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Mol	Chain	Res	Type
25	DA	230	U
25	DA	245	G
25	DA	248	G
25	DA	250	G
25	DA	252	G
25	DA	266	G
25	DA	270(M)	U
25	DA	270(N)	U
25	DA	270(O)	G
25	DA	270(P)	U
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	277	C
25	DA	278	A
25	DA	279	C
25	DA	284	U
25	DA	299	A
25	DA	302	C
25	DA	321	G
25	DA	323	G
25	DA	324	A
25	DA	329	G
25	DA	330	A
25	DA	333	G
25	DA	334	C
25	DA	342	G
25	DA	346	A
25	DA	352	G
25	DA	353	G
25	DA	364	C
25	DA	372	G
25	DA	386	G
25	DA	387	U
25	DA	396	G
25	DA	400	G
25	DA	405	U
25	DA	406	G
25	DA	407	G

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Mol	Chain	Res	Type
25	DA	411	G
25	DA	412	A
25	DA	413	C
25	DA	442	G
25	DA	444	C
25	DA	455	C
25	DA	457	A
25	DA	470	A
25	DA	471	A
25	DA	475	U
25	DA	479	A
25	DA	480	A
25	DA	481	G
25	DA	482	A
25	DA	496	G
25	DA	504	U
25	DA	505	A
25	DA	507	A
25	DA	508	G
25	DA	509	C
25	DA	512	G
25	DA	513	A
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G
25	DA	547	A
25	DA	556	G
25	DA	563	G
25	DA	573	G
25	DA	575	A
25	DA	593	G
25	DA	599	G
25	DA	603	A
25	DA	604	G
25	DA	609(B)	G
25	DA	615	G
25	DA	616	A
25	DA	617	G
25	DA	620	G
25	DA	621	A
25	DA	627	A

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Mol	Chain	Res	Type
25	DA	628	G
25	DA	634	C
25	DA	637	A
25	DA	645	C
25	DA	646	A
25	DA	652	U
25	DA	653	C
25	DA	654	U
25	DA	655	A
25	DA	656	G
25	DA	657	U
25	DA	668	G
25	DA	671	C
25	DA	682	G
25	DA	685	A
25	DA	686	G
25	DA	730	C
25	DA	738	G
25	DA	746	A
25	DA	747	U
25	DA	764	A
25	DA	765	G
25	DA	776	G
25	DA	782	A
25	DA	784	A
25	DA	785	G
25	DA	787	U
25	DA	792	G
25	DA	793	A
25	DA	802	A
25	DA	805	G
25	DA	808	G
25	DA	812	C
25	DA	819	A
25	DA	821	A
25	DA	827	U
25	DA	828	U
25	DA	831	G
25	DA	845	G
25	DA	846	C
25	DA	847	U
25	DA	856	C

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Mol	Chain	Res	Type
25	DA	859	G
25	DA	860	U
25	DA	862	G
25	DA	879	G
25	DA	886	C
25	DA	887	A
25	DA	890	A
25	DA	896	A
25	DA	897	C
25	DA	907	U
25	DA	910	A
25	DA	915	C
25	DA	917	A
25	DA	919	G
25	DA	926	A
25	DA	932	G
25	DA	933	A
25	DA	941	A
25	DA	942	G
25	DA	945	A
25	DA	946	G
25	DA	956	G
25	DA	959	A
25	DA	961	C
25	DA	968	G
25	DA	972	G
25	DA	974(A)	G
25	DA	974(B)	C
25	DA	975	G
25	DA	983	A
25	DA	990	A
25	DA	996	A
25	DA	997	G
25	DA	999	U
25	DA	1003	G
25	DA	1009	A
25	DA	1010	A
25	DA	1011	G
25	DA	1012	U
25	DA	1013	C
25	DA	1022	G
25	DA	1023	U

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Mol	Chain	Res	Type
25	DA	1025	G
25	DA	1026	U
25	DA	1046	A
25	DA	1047	G
25	DA	1048	A
25	DA	1049	C
25	DA	1060	U
25	DA	1061	U
25	DA	1069	A
25	DA	1070	A
25	DA	1071	G
25	DA	1072	C
25	DA	1074	G
25	DA	1078	U
25	DA	1079	C
25	DA	1088	A
25	DA	1090	U
25	DA	1100	C
25	DA	1110	G
25	DA	1112	G
25	DA	1127	A
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	114(B)	A
25	DA	1144	G
25	DA	1155	A
25	DA	1175	U
25	DA	1176	G
25	DA	1190	G
25	DA	1195	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	1227	G

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Mol	Chain	Res	Type
25	DA	1244	G
25	DA	1248	G
25	DA	1250	G
25	DA	1253	A
25	DA	1254	A
25	DA	1256	G
25	DA	1257	C
25	DA	1265	A
25	DA	1271	G
25	DA	1272	A
25	DA	1273	U
25	DA	1274	A
25	DA	1286	A
25	DA	1287	A
25	DA	1288	U
25	DA	1289	C
25	DA	1300	U
25	DA	1301	A
25	DA	1302	A
25	DA	1306	C
25	DA	1311	G
25	DA	1313	U
25	DA	1314	C
25	DA	1329	U
25	DA	1330	C
25	DA	1332	G
25	DA	1345	C
25	DA	1349	A
25	DA	1352	U
25	DA	1359	A
25	DA	1360	A
25	DA	1378	A
25	DA	1379	A
25	DA	1380	G
25	DA	1384	A
25	DA	1385	G
25	DA	1386	C
25	DA	1392	A
25	DA	1394	U
25	DA	1396	U
25	DA	1416	G
25	DA	1420	U

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Mol	Chain	Res	Type
25	DA	1421	G
25	DA	1427	A
25	DA	1428	C
25	DA	144(B)	A
25	DA	1451	C
25	DA	1453	A
25	DA	1454	U
25	DA	1458	C
25	DA	1460	A
25	DA	1461	G
25	DA	1467	C
25	DA	1479	G
25	DA	1483	G
25	DA	1490	A
25	DA	1493	C
25	DA	1494	A
25	DA	1495	A
25	DA	1496	A
25	DA	1497	U
25	DA	1498	C
25	DA	1509	A
25	DA	1510	A
25	DA	1535	U
25	DA	1538	G
25	DA	1542	G
25	DA	1543	A
25	DA	1544	C
25	DA	1545	A
25	DA	1554	A
25	DA	1558	A
25	DA	1559	G
25	DA	1566	A
25	DA	1569	A
25	DA	1579	A
25	DA	1585	C
25	DA	1603	A
25	DA	1609	A
25	DA	1610	A
25	DA	1617	C
25	DA	1618	A
25	DA	1640	C
25	DA	1648	C

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Mol	Chain	Res	Type
25	DA	1668	A
25	DA	1669	A
25	DA	1674	G
25	DA	1678	G
25	DA	1696	G
25	DA	1698	A
25	DA	1699	G
25	DA	1729	A
25	DA	1730	U
25	DA	1731	G
25	DA	1732	A
25	DA	1750	G
25	DA	1762	A
25	DA	1763	G
25	DA	1764	G
25	DA	1773	A
25	DA	1776	G
25	DA	1784	A
25	DA	1791	A
25	DA	1800	C
25	DA	1801	G
25	DA	1802	A
25	DA	1811	G
25	DA	1816	G
25	DA	1829	A
25	DA	1833	U
25	DA	1839	G
25	DA	1840	G
25	DA	1847	A
25	DA	1848	A
25	DA	1878	G
25	DA	1889	A
25	DA	1899	G
25	DA	1900	A
25	DA	1902	C
25	DA	1903	G
25	DA	1906	G
25	DA	1913	A
25	DA	1914	C
25	DA	1919	A
25	DA	1929	G
25	DA	1930	G

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Mol	Chain	Res	Type
25	DA	1936	A
25	DA	1937	A
25	DA	1938	A
25	DA	1939	U
25	DA	1940	U
25	DA	1941	C
25	DA	1942	C
25	DA	1945	G
25	DA	1955	U
25	DA	1963	U
25	DA	1967	C
25	DA	1970	A
25	DA	1971	A
25	DA	1972	A
25	DA	1982	C
25	DA	1991	U
25	DA	1992	G
25	DA	1997	G
25	DA	2020	A
25	DA	2023	G
25	DA	2031	A
25	DA	2033	A
25	DA	2036	C
25	DA	2037	G
25	DA	2043	C
25	DA	2051	A
25	DA	2052	G
25	DA	2055	C
25	DA	2056	G
25	DA	2060	A
25	DA	2061	G
25	DA	2062	A
25	DA	2063	C
25	DA	2069	G
25	DA	2078	C
25	DA	2083	G
25	DA	2093	G
25	DA	2108	C
25	DA	2118	U
25	DA	2119	A
25	DA	2120	G
25	DA	2126	A

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Mol	Chain	Res	Type
25	DA	2127	G
25	DA	2131	G
25	DA	2133	G
25	DA	2145	C
25	DA	2146	C
25	DA	2147	G
25	DA	2158	A
25	DA	2159	G
25	DA	2166	G
25	DA	2171	A
25	DA	2173	A
25	DA	2198	A
25	DA	2199	A
25	DA	2210	G
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	2235	G
25	DA	2238	G
25	DA	2239	G
25	DA	2243	U
25	DA	2251	G
25	DA	2268	A
25	DA	2273	A
25	DA	2275	C
25	DA	2276	G
25	DA	2279	G
25	DA	2283	C
25	DA	2287	A
25	DA	2297	C
25	DA	2304	G
25	DA	2305	A
25	DA	2306	C
25	DA	2307	G
25	DA	2308	G
25	DA	2309	A
25	DA	2311	A
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	2327	A
25	DA	2334	G
25	DA	2336	A
25	DA	2343	C
25	DA	2345	G
25	DA	2347	C
25	DA	2350	C
25	DA	2379	G
25	DA	2383	G
25	DA	2384	G
25	DA	2385	C
25	DA	2394	C
25	DA	2402	C
25	DA	2406	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	2434	A
25	DA	2435	A
25	DA	2436	G
25	DA	2439	A
25	DA	2441	C
25	DA	2447	G
25	DA	2448	A
25	DA	2469	A
25	DA	2470	G
25	DA	2474	C
25	DA	2476	A
25	DA	2477	C
25	DA	2478	A
25	DA	2480	C
25	DA	2482	G
25	DA	2484	G
25	DA	2487	G
25	DA	2491	U

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Mol	Chain	Res	Type
25	DA	2492	U
25	DA	2498	C
25	DA	2501	C
25	DA	2502	G
25	DA	2503	A
25	DA	2505	G
25	DA	2506	U
25	DA	2513	G
25	DA	2518	A
25	DA	2520	C
25	DA	2529	G
25	DA	2535	G
25	DA	2542	A
25	DA	2543	G
25	DA	2549	G
25	DA	2553	G
25	DA	2554	U
25	DA	2566	A
25	DA	2567	G
25	DA	2569	G
25	DA	2572	A
25	DA	2573	C
25	DA	2574	G
25	DA	2582	G
25	DA	2602	A
25	DA	2603	G
25	DA	2608	G
25	DA	2609	U
25	DA	2610	C
25	DA	2611	U
25	DA	2612	C
25	DA	2615	U
25	DA	2629	A
25	DA	2630	G
25	DA	2663	G
25	DA	2665	A
25	DA	2682	U
25	DA	2686	G
25	DA	2690	C
25	DA	2691	C
25	DA	2702	U
25	DA	2712	U

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Mol	Chain	Res	Type
25	DA	712(B)	A
25	DA	2713	A
25	DA	2714	G
25	DA	2724	C
25	DA	2726	U
25	DA	2733	A
25	DA	2739	U
25	DA	2744	G
25	DA	2748	A
25	DA	2751	G
25	DA	2757	A
25	DA	2765	A
25	DA	2766	G
25	DA	2769	C
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	2799	A
25	DA	2801	A
25	DA	2808	U
25	DA	2820	A
25	DA	2821	A
25	DA	2825	U
25	DA	2833	G
25	DA	2835	A
25	DA	2836	U
25	DA	2849	U
25	DA	2850	A
25	DA	2867	G
25	DA	2872	G
25	DA	2873	A
25	DA	2874	C
25	DA	2876	G
25	DA	2880	C
25	DA	2886	G
25	DA	2893	G
25	DA	2894	G
26	DB	12	C

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Mol	Chain	Res	Type
26	DB	13	A
26	DB	15	A
26	DB	16	G
26	DB	24	G
26	DB	25	A
26	DB	41	U
26	DB	42	C
26	DB	44	G
26	DB	45	A
26	DB	52	A
26	DB	57	A
26	DB	73	A
26	DB	90	C
26	DB	99	A
26	DB	105	G
26	DB	108	C
26	DB	109	G

All (604) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	30	U
1	AA	48	C
1	AA	49	U
1	AA	50	A
1	AA	60	A
1	AA	108	G
1	AA	109	A
1	AA	115	G
1	AA	119	A
1	AA	121	C
1	AA	173	U
1	AA	181	G
1	AA	208	U
1	AA	210	U
1	AA	243	A
1	AA	244	U
1	AA	246	A
1	AA	250	A
1	AA	266	G
1	AA	274	A
1	AA	306	G

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Mol	Chain	Res	Type
1	AA	328	C
1	AA	329	A
1	AA	345	C
1	AA	351	G
1	AA	353	A
1	AA	366	C
1	AA	412	A
1	AA	413	G
1	AA	421	U
1	AA	428	G
1	AA	429	U
1	AA	438	G
1	AA	448	A
1	AA	465	A
1	AA	466	G
1	AA	481	G
1	AA	484	G
1	AA	496	A
1	AA	498	A
1	AA	509	A
1	AA	511	C
1	AA	533	A
1	AA	547	A
1	AA	559	A
1	AA	560	U
1	AA	561	U
1	AA	562	C
1	AA	587	G
1	AA	641	U
1	AA	687	A
1	AA	721	G
1	AA	748	C
1	AA	793	U
1	AA	817	C
1	AA	870	U
1	AA	884	U
1	AA	889	A
1	AA	913	A
1	AA	971	G
1	AA	975	A
1	AA	978	A
1	AA	982	U

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Mol	Chain	Res	Type
1	AA	983	A
1	AA	992	U
1	AA	1049	U
1	AA	1053	G
1	AA	1054	C
1	AA	1064	G
1	AA	1066	C
1	AA	1067	A
1	AA	1094	G
1	AA	1101	A
1	AA	1126	U
1	AA	1129	C
1	AA	1137	C
1	AA	1139	G
1	AA	1145	C
1	AA	1151	A
1	AA	1157	A
1	AA	1159	U
1	AA	1181	G
1	AA	1196	U
1	AA	1200	C
1	AA	1201	A
1	AA	1239	A
1	AA	1280	A
1	AA	1281	U
1	AA	1285	A
1	AA	1300	G
1	AA	1305	G
1	AA	1319	A
1	AA	1335	C
1	AA	1397	C
1	AA	1443	G
1	AA	1446	A
1	AA	1452	C
1	AA	1491	G
1	AA	1492	A
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1528	U

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Mol	Chain	Res	Type
1	AA	1529	G
1	AA	1530	G
2	AZ	7	G
2	AZ	16	C
2	AZ	17(A)	U
2	AZ	18	G
2	AZ	48	C
3	AV	15	A
3	AV	21	A
3	AV	23	A
2	AY	9	G
2	AY	16	C
2	AY	17	C
2	AY	17(A)	U
2	AY	19	G
2	AY	60	U
25	BA	27	G
25	BA	52	A
25	BA	74	A
25	BA	84	A
25	BA	90	U
25	BA	99	U
25	BA	101	G
25	BA	102	G
25	BA	119	A
25	BA	120	U
25	BA	125	G
25	BA	126	A
25	BA	196	A
25	BA	199	A
25	BA	203	C
25	BA	221	A
25	BA	270(N)	U
25	BA	270(O)	G
25	BA	271(A)	U
25	BA	271(C)	G
25	BA	278	A
25	BA	283	A
25	BA	321	G
25	BA	323	G
25	BA	332	A
25	BA	333	G

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Mol	Chain	Res	Type
25	BA	352	G
25	BA	363(G)	A
25	BA	405	U
25	BA	457	A
25	BA	470	A
25	BA	474	G
25	BA	479	A
25	BA	481	G
25	BA	503	A
25	BA	504	U
25	BA	512	G
25	BA	529	A
25	BA	532	A
25	BA	547	A
25	BA	603	A
25	BA	614	U
25	BA	616	A
25	BA	620	G
25	BA	627	A
25	BA	652	U
25	BA	653	C
25	BA	685	A
25	BA	746	A
25	BA	764	A
25	BA	775	G
25	BA	776	G
25	BA	790	C
25	BA	827	U
25	BA	846	C
25	BA	858	U
25	BA	859	G
25	BA	930	U
25	BA	932	G
25	BA	933	A
25	BA	945	A
25	BA	974(A)	G
25	BA	989	G
25	BA	1009	A
25	BA	1022	G
25	BA	1025	G
25	BA	1026	U
25	BA	1033	U

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Mol	Chain	Res	Type
25	BA	1047	G
25	BA	1048	A
25	BA	1060	U
25	BA	1069	A
25	BA	1070	A
25	BA	1071	G
25	BA	1087	G
25	BA	1126	A
25	BA	1131	G
25	BA	1176	G
25	BA	1210	A
25	BA	1220	A
25	BA	1247	A
25	BA	1252	G
25	BA	1253	A
25	BA	1266	G
25	BA	1273	U
25	BA	1286	A
25	BA	1288	U
25	BA	1300	U
25	BA	1301	A
25	BA	1365	A
25	BA	1378	A
25	BA	1384	A
25	BA	1385	G
25	BA	1396	U
25	BA	1427	A
25	BA	1451	C
25	BA	1458	C
25	BA	1459	G
25	BA	1460	A
25	BA	1493	C
25	BA	1494	A
25	BA	1542	G
25	BA	1544	C
25	BA	1545	A
25	BA	1558	A
25	BA	1559	G
25	BA	1579	A
25	BA	1602	U
25	BA	1607	C
25	BA	1608	A

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Mol	Chain	Res	Type
25	BA	1609	A
25	BA	1617	C
25	BA	1635	G
25	BA	1729	A
25	BA	1784	A
25	BA	1786	A
25	BA	1800	C
25	BA	1816	G
25	BA	1839	G
25	BA	1899	G
25	BA	1913	A
25	BA	1929	G
25	BA	1936	A
25	BA	1937	A
25	BA	1939	U
25	BA	1941	C
25	BA	1962	C
25	BA	1996	C
25	BA	2014	A
25	BA	2031	A
25	BA	2036	C
25	BA	2062	A
25	BA	2092	U
25	BA	2111	C
25	BA	2126	A
25	BA	2145	C
25	BA	2158	A
25	BA	2172	U
25	BA	2197	U
25	BA	2211	G
25	BA	2225	A
25	BA	2249	U
25	BA	2266	A
25	BA	2275	C
25	BA	2282	G
25	BA	2296	U
25	BA	2311	A
25	BA	2384	G
25	BA	2394	C
25	BA	2422	A
25	BA	2423	U
25	BA	2426	A

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Mol	Chain	Res	Type
25	BA	2427	C
25	BA	2439	A
25	BA	2447	G
25	BA	2481	G
25	BA	2490	G
25	BA	2491	U
25	BA	2502	G
25	BA	2518	A
25	BA	2573	C
25	BA	2581	G
25	BA	2602	A
25	BA	2609	U
25	BA	2611	U
25	BA	2629	A
25	BA	2689	U
25	BA	2690	C
25	BA	2750	A
25	BA	2756	U
25	BA	2781	A
25	BA	2791	C
25	BA	2835	A
25	BA	2849	U
25	BA	2867	G
25	BA	2873	A
25	BA	2879	C
25	BA	2893	G
26	BB	11	C
26	BB	12	C
26	BB	15	A
26	BB	24	G
26	BB	34	U
26	BB	44	G
1	CA	30	U
1	CA	48	C
1	CA	49	U
1	CA	50	A
1	CA	60	A
1	CA	108	G
1	CA	109	A
1	CA	115	G
1	CA	119	A
1	CA	173	U

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Mol	Chain	Res	Type
1	CA	181	G
1	CA	208	U
1	CA	210	U
1	CA	243	A
1	CA	244	U
1	CA	246	A
1	CA	250	A
1	CA	266	G
1	CA	274	A
1	CA	306	G
1	CA	328	C
1	CA	329	A
1	CA	345	C
1	CA	351	G
1	CA	353	A
1	CA	366	C
1	CA	412	A
1	CA	413	G
1	CA	421	U
1	CA	428	G
1	CA	429	U
1	CA	438	G
1	CA	465	A
1	CA	466	G
1	CA	481	G
1	CA	484	G
1	CA	496	A
1	CA	498	A
1	CA	509	A
1	CA	511	C
1	CA	533	A
1	CA	547	A
1	CA	559	A
1	CA	560	U
1	CA	561	U
1	CA	562	C
1	CA	587	G
1	CA	595	G
1	CA	641	U
1	CA	687	A
1	CA	721	G
1	CA	733	A

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Mol	Chain	Res	Type
1	CA	748	C
1	CA	793	U
1	CA	817	C
1	CA	870	U
1	CA	884	U
1	CA	889	A
1	CA	913	A
1	CA	971	G
1	CA	975	A
1	CA	978	A
1	CA	982	U
1	CA	983	A
1	CA	992	U
1	CA	1049	U
1	CA	1053	G
1	CA	1064	G
1	CA	1066	C
1	CA	1067	A
1	CA	1094	G
1	CA	1101	A
1	CA	1126	U
1	CA	1129	C
1	CA	1137	C
1	CA	1139	G
1	CA	1145	C
1	CA	1151	A
1	CA	1157	A
1	CA	1159	U
1	CA	1181	G
1	CA	1196	U
1	CA	1200	C
1	CA	1201	A
1	CA	1280	A
1	CA	1281	U
1	CA	1285	A
1	CA	1287	A
1	CA	1300	G
1	CA	1305	G
1	CA	1319	A
1	CA	1335	C
1	CA	1347	G
1	CA	1397	C

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Mol	Chain	Res	Type
1	CA	1443	G
1	CA	1446	A
1	CA	1452	C
1	CA	1491	G
1	CA	1492	A
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1506	U
1	CA	1528	U
1	CA	1529	G
1	CA	1530	G
2	CZ	7	G
2	CZ	16	C
2	CZ	17(A)	U
2	CZ	18	G
2	CZ	48	C
3	CV	15	A
3	CV	21	A
3	CV	23	A
2	CY	9	G
2	CY	16	C
2	CY	17	C
2	CY	17(A)	U
2	CY	19	G
2	CY	60	U
25	DA	27	G
25	DA	74	A
25	DA	84	A
25	DA	90	U
25	DA	99	U
25	DA	101	G
25	DA	102	G
25	DA	119	A
25	DA	120	U
25	DA	125	G
25	DA	126	A
25	DA	196	A
25	DA	199	A
25	DA	203	C
25	DA	221	A
25	DA	270(N)	U

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Mol	Chain	Res	Type
25	DA	270(O)	G
25	DA	271(A)	U
25	DA	271(C)	G
25	DA	278	A
25	DA	283	A
25	DA	321	G
25	DA	323	G
25	DA	332	A
25	DA	333	G
25	DA	352	G
25	DA	363(G)	A
25	DA	405	U
25	DA	457	A
25	DA	470	A
25	DA	474	G
25	DA	479	A
25	DA	481	G
25	DA	503	A
25	DA	504	U
25	DA	512	G
25	DA	529	A
25	DA	532	A
25	DA	547	A
25	DA	603	A
25	DA	614	U
25	DA	616	A
25	DA	620	G
25	DA	627	A
25	DA	652	U
25	DA	653	C
25	DA	685	A
25	DA	746	A
25	DA	764	A
25	DA	775	G
25	DA	776	G
25	DA	827	U
25	DA	846	C
25	DA	858	U
25	DA	859	G
25	DA	930	U
25	DA	932	G
25	DA	933	A

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Mol	Chain	Res	Type
25	DA	945	A
25	DA	974(A)	G
25	DA	989	G
25	DA	1009	A
25	DA	1022	G
25	DA	1025	G
25	DA	1026	U
25	DA	1033	U
25	DA	1047	G
25	DA	1048	A
25	DA	1060	U
25	DA	1069	A
25	DA	1070	A
25	DA	1071	G
25	DA	1087	G
25	DA	1126	A
25	DA	1131	G
25	DA	1176	G
25	DA	1210	A
25	DA	1220	A
25	DA	1247	A
25	DA	1252	G
25	DA	1253	A
25	DA	1266	G
25	DA	1273	U
25	DA	1286	A
25	DA	1288	U
25	DA	1300	U
25	DA	1301	A
25	DA	1314	C
25	DA	1365	A
25	DA	1378	A
25	DA	1384	A
25	DA	1385	G
25	DA	1396	U
25	DA	1427	A
25	DA	1451	C
25	DA	1458	C
25	DA	1459	G
25	DA	1460	A
25	DA	1493	C
25	DA	1494	A

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Mol	Chain	Res	Type
25	DA	1542	G
25	DA	1544	C
25	DA	1545	A
25	DA	1558	A
25	DA	1559	G
25	DA	1602	U
25	DA	1607	C
25	DA	1608	A
25	DA	1609	A
25	DA	1617	C
25	DA	1635	G
25	DA	1729	A
25	DA	1784	A
25	DA	1786	A
25	DA	1800	C
25	DA	1816	G
25	DA	1839	G
25	DA	1899	G
25	DA	1913	A
25	DA	1929	G
25	DA	1936	A
25	DA	1937	A
25	DA	1939	U
25	DA	1941	C
25	DA	1962	C
25	DA	1996	C
25	DA	2014	A
25	DA	2031	A
25	DA	2036	C
25	DA	2062	A
25	DA	2092	U
25	DA	2111	C
25	DA	2126	A
25	DA	2145	C
25	DA	2158	A
25	DA	2172	U
25	DA	2197	U
25	DA	2211	G
25	DA	2225	A
25	DA	2249	U
25	DA	2266	A
25	DA	2282	G

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Mol	Chain	Res	Type
25	DA	2296	U
25	DA	2311	A
25	DA	2384	G
25	DA	2394	C
25	DA	2422	A
25	DA	2423	U
25	DA	2427	C
25	DA	2439	A
25	DA	2447	G
25	DA	2481	G
25	DA	2490	G
25	DA	2491	U
25	DA	2502	G
25	DA	2518	A
25	DA	2573	C
25	DA	2581	G
25	DA	2602	A
25	DA	2609	U
25	DA	2611	U
25	DA	2629	A
25	DA	2689	U
25	DA	2690	C
25	DA	2750	A
25	DA	2756	U
25	DA	2781	A
25	DA	2791	C
25	DA	2835	A
25	DA	2849	U
25	DA	2867	G
25	DA	2873	A
25	DA	2893	G
26	DB	11	C
26	DB	12	C
26	DB	15	A
26	DB	24	G
26	DB	34	U
26	DB	44	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 2392 ligands modelled in this entry, 2392 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%)	-0.43	18 (1%) 75 20	35, 78, 175, 261	0
1	CA	1504/1525 (98%)	-0.21	25 (1%) 67 15	34, 99, 199, 271	0
2	AY	77/77 (100%)	-0.60	0 100 100	60, 90, 124, 194	0
2	AZ	77/77 (100%)	0.99	17 (22%) 1 1	146, 211, 242, 260	0
2	CY	77/77 (100%)	-0.46	1 (1%) 74 19	59, 91, 127, 196	0
2	CZ	77/77 (100%)	1.46	21 (27%) 1 0	175, 231, 266, 276	0
3	AV	10/27 (37%)	0.20	1 (10%) 8 2	62, 77, 118, 184	0
3	CV	10/27 (37%)	0.53	1 (10%) 8 2	63, 104, 143, 196	0
4	AB	234/256 (91%)	0.18	8 (3%) 43 8	85, 126, 167, 194	0
4	CB	234/256 (91%)	0.26	9 (3%) 38 7	91, 127, 174, 204	0
5	AC	206/239 (86%)	0.02	2 (0%) 79 22	86, 121, 159, 183	0
5	CC	206/239 (86%)	0.11	3 (1%) 70 16	87, 126, 164, 178	0
6	AD	208/209 (99%)	0.09	4 (1%) 64 13	50, 79, 127, 164	0
6	CD	208/209 (99%)	0.34	4 (1%) 64 13	81, 115, 151, 184	0
7	AE	151/162 (93%)	0.03	3 (1%) 62 12	65, 90, 130, 192	0
7	CE	151/162 (93%)	0.06	1 (0%) 84 28	71, 100, 145, 173	0
8	AF	101/101 (100%)	-0.02	0 100 100	69, 98, 137, 176	0
8	CF	101/101 (100%)	-0.06	0 100 100	64, 94, 131, 149	0
9	AG	155/156 (99%)	0.05	6 (3%) 37 7	82, 113, 154, 172	0
9	CG	155/156 (99%)	0.14	4 (2%) 53 10	87, 125, 158, 181	0
10	AH	138/138 (100%)	0.03	0 100 100	64, 90, 135, 146	0
10	CH	138/138 (100%)	0.15	2 (1%) 72 18	80, 107, 145, 171	0
11	AI	127/128 (99%)	0.51	10 (7%) 13 3	90, 134, 168, 182	0
11	CI	127/128 (99%)	0.81	16 (12%) 4 1	105, 140, 173, 227	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
12	AJ	98/105 (93%)	0.70	14 (14%) 3 1	87, 125, 166, 184	0
12	CJ	98/105 (93%)	0.67	13 (13%) 4 1	106, 144, 175, 186	0
13	AK	114/129 (88%)	0.02	5 (4%) 33 7	59, 88, 123, 160	0
13	CK	114/129 (88%)	0.23	7 (6%) 21 5	64, 91, 135, 175	0
14	AL	122/134 (91%)	-0.03	2 (1%) 68 16	47, 67, 114, 144	0
14	CL	122/134 (91%)	0.26	8 (6%) 18 4	57, 89, 131, 185	0
15	AM	117/126 (92%)	0.32	9 (7%) 13 3	93, 122, 159, 171	0
15	CM	117/126 (92%)	0.56	12 (10%) 7 2	98, 143, 172, 188	0
16	AN	60/61 (98%)	0.43	5 (8%) 11 3	75, 109, 141, 193	0
16	CN	60/61 (98%)	0.50	5 (8%) 11 3	80, 113, 158, 175	0
17	AO	88/89 (98%)	0.05	0 100 100	57, 90, 123, 145	0
17	CO	88/89 (98%)	0.11	3 (3%) 43 8	60, 91, 130, 145	0
18	AP	83/88 (94%)	0.48	1 (1%) 75 20	58, 75, 119, 184	0
18	CP	83/88 (94%)	1.18	17 (20%) 1 1	90, 123, 155, 202	0
19	AQ	99/105 (94%)	-0.13	0 100 100	56, 79, 118, 142	0
19	CQ	99/105 (94%)	0.43	4 (4%) 36 7	76, 105, 140, 159	0
20	AR	70/88 (79%)	0.46	3 (4%) 34 7	68, 103, 147, 165	0
20	CR	70/88 (79%)	0.57	2 (2%) 49 9	64, 87, 139, 147	0
21	AS	78/93 (83%)	1.22	16 (20%) 1 1	98, 136, 170, 193	0
21	CS	78/93 (83%)	0.72	10 (12%) 4 1	114, 150, 184, 205	0
22	AT	99/106 (93%)	0.30	4 (4%) 36 7	51, 84, 138, 166	0
22	CT	99/106 (93%)	0.83	12 (12%) 5 1	87, 117, 160, 184	0
23	AU	24/27 (88%)	3.23	21 (87%) 0 0	93, 122, 162, 191	0
23	CU	24/27 (88%)	4.65	24 (100%) 0 0	100, 137, 178, 187	0
24	AX	362/378 (95%)	0.52	42 (11%) 5 2	61, 129, 207, 244	0
24	CX	362/378 (95%)	0.76	39 (10%) 6 2	94, 150, 244, 273	0
25	BA	2879/2894 (99%)	-0.43	51 (1%) 65 14	14, 64, 186, 278	0
25	DA	2879/2894 (99%)	-0.35	71 (2%) 54 11	10, 67, 204, 287	0
26	BB	119/124 (95%)	-0.34	0 100 100	69, 100, 144, 222	0
26	DB	119/124 (95%)	0.19	5 (4%) 35 7	87, 147, 205, 258	0
27	BD	271/276 (98%)	0.00	5 (1%) 65 14	27, 51, 99, 162	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
27	DD	271/276 (98%)	-0.02	2 (0%) 84 28	26, 51, 92, 146	0
28	BE	204/206 (99%)	-0.04	1 (0%) 88 36	36, 69, 126, 159	0
28	DE	204/206 (99%)	0.32	19 (9%) 9 2	45, 85, 137, 186	0
29	BF	202/210 (96%)	-0.09	3 (1%) 70 16	38, 71, 131, 153	0
29	DF	202/210 (96%)	0.06	1 (0%) 88 36	34, 66, 124, 190	0
30	BG	181/182 (99%)	0.39	12 (6%) 18 4	88, 121, 164, 179	0
30	DG	181/182 (99%)	0.48	11 (6%) 21 5	113, 153, 182, 206	0
31	BH	159/180 (88%)	0.50	15 (9%) 9 2	97, 139, 185, 202	0
31	DH	159/180 (88%)	0.19	8 (5%) 28 6	79, 111, 154, 174	0
32	BI	145/148 (97%)	0.25	6 (4%) 35 7	54, 106, 147, 198	0
32	DI	145/148 (97%)	0.02	2 (1%) 72 18	58, 94, 129, 147	0
33	BK	147/147 (100%)	1.51	41 (27%) 1 0	177, 205, 225, 240	0
33	DK	147/147 (100%)	2.49	67 (45%) 1 0	207, 236, 257, 274	0
34	BN	137/163 (84%)	0.25	2 (1%) 70 16	55, 87, 131, 153	0
34	DN	137/163 (84%)	0.05	3 (2%) 59 12	59, 80, 130, 164	0
35	BO	122/122 (100%)	-0.29	0 100 100	32, 61, 101, 118	0
35	DO	122/122 (100%)	-0.27	0 100 100	47, 72, 108, 129	0
36	BP	146/150 (97%)	0.35	6 (4%) 35 7	35, 89, 148, 203	0
36	DP	146/150 (97%)	0.24	5 (3%) 43 8	21, 93, 146, 183	0
37	BQ	134/141 (95%)	0.27	8 (5%) 21 5	44, 79, 136, 188	0
37	DQ	134/141 (95%)	0.18	3 (2%) 59 12	56, 91, 148, 192	0
38	BR	117/118 (99%)	-0.12	0 100 100	31, 63, 114, 165	0
38	DR	117/118 (99%)	0.08	0 100 100	48, 73, 130, 148	0
39	BS	98/112 (87%)	0.29	1 (1%) 79 22	66, 105, 140, 169	0
39	DS	98/112 (87%)	1.27	27 (27%) 1 0	106, 144, 177, 218	0
40	BT	137/146 (93%)	0.40	6 (4%) 33 7	41, 76, 136, 156	0
40	DT	137/146 (93%)	0.61	10 (7%) 15 3	66, 100, 155, 189	0
41	BU	117/118 (99%)	0.24	1 (0%) 81 24	45, 78, 124, 159	0
41	DU	117/118 (99%)	0.51	5 (4%) 34 7	39, 68, 120, 194	0
42	BV	101/101 (100%)	0.20	1 (0%) 79 22	63, 99, 144, 220	0
42	DV	101/101 (100%)	0.22	2 (1%) 62 12	46, 91, 143, 206	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
43	BW	112/113 (99%)	-0.11	0 100 100	39, 64, 111, 163	0
43	DW	112/113 (99%)	0.16	1 (0%) 81 24	31, 61, 119, 155	0
44	BX	92/96 (95%)	0.15	2 (2%) 59 12	50, 79, 122, 149	0
44	DX	92/96 (95%)	0.36	3 (3%) 44 8	38, 65, 114, 150	0
45	BY	100/110 (90%)	0.91	14 (14%) 3 1	75, 112, 179, 200	0
45	DY	100/110 (90%)	0.64	7 (7%) 16 4	53, 86, 160, 186	0
46	BZ	187/206 (90%)	0.24	6 (3%) 45 9	83, 119, 156, 196	0
46	DZ	187/206 (90%)	0.52	13 (6%) 16 4	107, 139, 176, 201	0
47	B0	76/85 (89%)	-0.06	0 100 100	56, 78, 115, 150	0
47	D0	76/85 (89%)	0.05	1 (1%) 74 19	73, 99, 139, 160	0
48	B1	88/98 (89%)	0.02	1 (1%) 77 21	31, 66, 119, 177	0
48	D1	88/98 (89%)	0.10	1 (1%) 77 21	34, 68, 143, 172	0
49	B2	62/72 (86%)	0.01	1 (1%) 68 16	55, 90, 131, 165	0
49	D2	62/72 (86%)	-0.07	0 100 100	37, 75, 147, 177	0
50	B3	59/60 (98%)	0.53	4 (6%) 17 4	65, 85, 145, 166	0
50	D3	59/60 (98%)	0.17	1 (1%) 67 15	57, 83, 129, 170	0
51	B4	30/97 (30%)	-0.10	0 100 100	101, 135, 178, 183	0
51	D4	30/97 (30%)	0.13	0 100 100	115, 149, 178, 183	0
52	B5	52/60 (86%)	0.18	2 (3%) 38 7	49, 79, 147, 166	0
52	D5	52/60 (86%)	-0.20	0 100 100	42, 80, 147, 167	0
53	B6	44/54 (81%)	2.51	23 (52%) 0 0	106, 136, 175, 224	0
53	D6	44/54 (81%)	2.54	27 (61%) 0 0	111, 140, 175, 192	0
54	B7	48/49 (97%)	0.96	8 (16%) 2 1	38, 57, 119, 143	0
54	D7	48/49 (97%)	0.73	6 (12%) 5 1	31, 44, 96, 161	0
55	B8	63/65 (96%)	0.30	3 (4%) 29 6	42, 59, 117, 156	0
55	D8	63/65 (96%)	0.39	2 (3%) 45 9	48, 72, 133, 168	0
All	All	21662/22654 (95%)	0.05	960 (4%) 33 7	10, 90, 190, 287	0

All (960) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	AA	84	U	14.8
2	CZ	56	C	12.6

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Mol	Chain	Res	Type	RSRZ
25	DA	2169	A	12.0
2	CZ	17(A)	U	11.8
2	AZ	17(A)	U	11.0
2	AZ	17	C	10.9
29	DF	207	GLY	10.6
23	CU	24	ARG	10.1
53	B6	13	CYS	10.0
2	CZ	17	C	9.9
2	CZ	33	U	9.8
1	AA	85	U	9.7
52	B5	53	ALA	9.1
24	CX	57	ALA	8.4
2	CZ	34	C	8.4
33	DK	76	TYR	8.3
33	DK	79	ARG	8.2
11	CI	8	GLY	8.2
1	AA	81	G	8.0
33	DK	16	LYS	7.8
1	CA	81	G	7.8
23	CU	18	TYR	7.7
24	CX	45	ARG	7.6
24	CX	60	LYS	7.5
33	DK	15	GLY	7.5
53	B6	23	THR	7.5
33	DK	54	PRO	7.4
24	CX	93	PRO	7.3
46	DZ	70	LEU	7.3
33	DK	17	ALA	7.2
24	AX	90	GLU	7.2
1	CA	84	U	7.2
23	CU	23	PRO	7.2
2	AZ	34	C	7.1
53	B6	24	GLU	7.1
33	BK	77	LEU	7.0
25	BA	1084	A	6.8
1	CA	87	A	6.8
11	CI	7	THR	6.8
33	DK	13	PRO	6.8
24	CX	56	GLU	6.7
2	CZ	55	U	6.7
25	BA	2116	G	6.6
25	DA	2112	G	6.6

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Mol	Chain	Res	Type	RSRZ
33	DK	83	GLY	6.6
25	DA	2122	U	6.5
2	CZ	61	C	6.4
23	CU	17	THR	6.3
33	DK	14	ALA	6.3
25	DA	1067	A	6.3
45	BY	47	LYS	6.3
1	CA	82	U	6.2
23	CU	22	ARG	6.2
54	B7	47	ARG	6.2
33	BK	22	PRO	6.2
53	D6	13	CYS	6.2
21	AS	44	MET	6.2
33	DK	112	MET	6.2
16	CN	2	ALA	6.2
25	BA	2121	G	6.2
4	AB	36	ARG	6.1
21	CS	81	ARG	6.1
25	DA	2113	U	6.1
45	BY	53	PRO	6.1
33	DK	48	MET	6.0
24	CX	55	PRO	6.0
25	BA	2798	C	6.0
37	BQ	21	THR	5.9
33	DK	53	VAL	5.9
40	DT	1	MET	5.8
23	CU	25	LYS	5.8
24	AX	89	MET	5.8
31	BH	55	PRO	5.8
33	DK	107	ILE	5.7
33	DK	120	LEU	5.7
24	CX	59	ARG	5.7
25	DA	2798	C	5.7
25	DA	2132	U	5.6
33	DK	84	LEU	5.6
33	DK	82	ALA	5.6
9	AG	81	GLY	5.6
1	CA	1002	G	5.6
39	DS	30	ARG	5.5
33	DK	52	ILE	5.5
33	DK	85	GLU	5.5
40	DT	2	ASN	5.5

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Mol	Chain	Res	Type	RSRZ
12	AJ	72	VAL	5.5
23	AU	21	TYR	5.5
31	BH	25	LYS	5.5
24	CX	53	ASN	5.5
25	DA	2896	C	5.5
12	AJ	6	ILE	5.5
24	CX	70	ARG	5.4
25	DA	508	G	5.4
53	B6	42	TRP	5.4
53	D6	39	TYR	5.4
25	DA	2799	A	5.4
25	DA	2116	G	5.4
41	DU	118	GLY	5.4
25	BA	2175	C	5.3
23	CU	21	TYR	5.3
53	D6	21	TYR	5.3
24	CX	51	LEU	5.2
1	AA	86	U	5.2
24	CX	54	ASP	5.2
12	CJ	5	ARG	5.2
33	DK	94	GLU	5.2
33	DK	49	GLY	5.2
23	AU	15	ARG	5.2
23	AU	18	TYR	5.2
11	AI	8	GLY	5.2
25	DA	2801	A	5.1
5	CC	101	LEU	5.1
12	CJ	73	ASP	5.1
33	DK	50	ASP	5.1
53	D6	37	ARG	5.1
2	CZ	57	A	5.1
39	DS	92	TYR	5.1
54	D7	47	ARG	5.0
31	DH	169	VAL	5.0
25	BA	2797	U	5.0
2	AZ	36	U	5.0
53	D6	50	ARG	5.0
33	DK	78	ILE	5.0
25	DA	2120	G	5.0
5	CC	179	ARG	5.0
18	CP	8	ARG	5.0
23	CU	12	LYS	4.9

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Mol	Chain	Res	Type	RSRZ
30	DG	34	LEU	4.9
31	DH	116	GLU	4.9
33	DK	1	MET	4.9
25	DA	1026	U	4.9
36	BP	110	TYR	4.9
11	CI	6	GLY	4.9
1	CA	91	C	4.9
2	CZ	54	U	4.9
2	CZ	18	G	4.9
50	D3	1	MET	4.9
25	DA	2168	G	4.8
12	AJ	5	ARG	4.8
24	AX	312	ARG	4.8
24	AX	93	PRO	4.8
53	D6	51	GLU	4.8
31	DH	170	ARG	4.8
25	DA	276	A	4.8
33	BK	21	PRO	4.8
33	DK	18	THR	4.8
1	CA	85	U	4.8
23	AU	16	GLY	4.8
25	DA	2797	U	4.8
2	CZ	35	A	4.7
53	B6	22	ALA	4.7
45	BY	59	GLY	4.7
25	DA	2897	U	4.7
30	DG	33	ARG	4.7
23	CU	6	ARG	4.7
45	DY	53	PRO	4.7
24	AX	91	GLU	4.6
18	CP	17	TYR	4.6
23	CU	15	ARG	4.6
33	DK	46	ALA	4.6
2	AZ	33	U	4.6
33	DK	132	ARG	4.6
25	BA	271(D)	U	4.6
33	DK	6	ALA	4.6
33	BK	27	LEU	4.5
33	DK	111	LYS	4.5
11	CI	3	GLN	4.5
25	DA	2179	C	4.5
11	CI	5	TYR	4.5

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Mol	Chain	Res	Type	RSRZ
39	DS	87	PHE	4.5
13	AK	119	CYS	4.5
53	D6	19	ARG	4.5
26	DB	7	G	4.5
23	CU	16	GLY	4.5
33	DK	110	GLN	4.5
15	CM	27	LYS	4.5
53	B6	39	TYR	4.4
31	BH	18	GLU	4.4
53	D6	49	HIS	4.4
33	BK	85	GLU	4.4
21	AS	71	LEU	4.4
23	CU	5	ASP	4.4
54	D7	48	LYS	4.4
2	AZ	20	U	4.3
33	BK	79	ARG	4.3
33	BK	80	LYS	4.3
4	AB	12	GLU	4.3
25	DA	2180	U	4.3
18	CP	1	MET	4.3
11	AI	128	ARG	4.3
23	CU	19	GLY	4.3
30	BG	75	LYS	4.3
33	BK	40	ALA	4.3
33	DK	51	ALA	4.3
53	B6	44	ARG	4.3
25	DA	271(D)	U	4.2
33	DK	24	GLY	4.2
53	D6	10	LEU	4.2
1	CA	1224	G	4.2
1	CA	90	C	4.2
23	AU	12	LYS	4.2
16	AN	14	PRO	4.1
46	BZ	80	ARG	4.1
25	DA	2121	G	4.1
20	CR	88	LYS	4.1
53	D6	22	ALA	4.1
53	B6	14	THR	4.1
25	DA	362	U	4.1
24	CX	61	VAL	4.1
2	CZ	62	C	4.0
45	BY	79	CYS	4.0

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Mol	Chain	Res	Type	RSRZ
23	AU	6	ARG	4.0
23	AU	13	ILE	4.0
28	DE	7	VAL	4.0
26	DB	8	U	4.0
25	BA	2120	G	4.0
21	CS	78	ARG	4.0
33	DK	95	LYS	4.0
24	CX	67	ARG	4.0
15	CM	102	ARG	4.0
53	B6	21	TYR	4.0
16	CN	14	PRO	4.0
4	AB	132	LYS	4.0
28	DE	52	LEU	4.0
21	AS	49	ILE	4.0
24	AX	313	GLY	4.0
30	DG	35	GLU	4.0
25	DA	6	A	3.9
39	DS	89	ARG	3.9
23	AU	14	TRP	3.9
33	DK	118	THR	3.9
14	AL	27	LYS	3.9
21	AS	47	HIS	3.9
24	CX	58	ALA	3.9
23	CU	3	LYS	3.9
21	AS	81	ARG	3.9
54	B7	48	LYS	3.9
23	AU	11	GLY	3.9
24	AX	376	GLU	3.9
23	CU	10	ARG	3.9
28	DE	57	LYS	3.9
2	AZ	61	C	3.9
22	CT	51	GLU	3.9
45	DY	51	VAL	3.9
24	CX	377	ALA	3.9
33	BK	84	LEU	3.9
53	D6	42	TRP	3.8
24	AX	58	ALA	3.8
36	DP	107	LYS	3.8
18	CP	35	LYS	3.8
33	DK	117	THR	3.8
18	CP	13	HIS	3.8
15	AM	101	GLN	3.8

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Mol	Chain	Res	Type	RSRZ
31	BH	43	VAL	3.8
36	DP	110	TYR	3.8
9	CG	79	ARG	3.8
2	CZ	36	U	3.8
24	AX	314	GLU	3.7
53	D6	12	GLU	3.7
33	BK	18	THR	3.7
25	DA	1103	A	3.7
21	AS	36	ARG	3.7
6	CD	4	TYR	3.7
25	DA	2178	C	3.7
40	DT	93	ARG	3.7
25	BA	1536	A	3.7
39	DS	25	ARG	3.7
39	DS	19	LYS	3.7
53	D6	35	GLU	3.7
33	BK	78	ILE	3.6
22	CT	98	PRO	3.6
45	DY	50	ARG	3.6
15	AM	102	ARG	3.6
25	BA	1083	U	3.6
25	DA	2118	U	3.6
33	BK	23	VAL	3.6
49	B2	3	LEU	3.6
1	CA	80	G	3.6
12	CJ	72	VAL	3.6
11	CI	4	TYR	3.6
12	AJ	7	LYS	3.6
46	DZ	96	VAL	3.6
30	DG	25	TYR	3.6
25	DA	2895	U	3.6
25	DA	2170	A	3.6
25	BA	1535	U	3.6
24	CX	313	GLY	3.6
25	BA	2896	C	3.6
33	DK	45	THR	3.6
24	CX	46	LEU	3.6
53	D6	14	THR	3.6
23	AU	9	ARG	3.5
28	DE	204	ALA	3.5
33	DK	125	ARG	3.5
24	CX	376	GLU	3.5

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Mol	Chain	Res	Type	RSRZ
25	BA	1082	U	3.5
7	AE	29	GLY	3.5
23	CU	14	TRP	3.5
1	CA	88	C	3.5
12	CJ	74	ILE	3.5
25	DA	2803	C	3.5
33	DK	71	THR	3.5
25	DA	614	U	3.5
25	DA	2152	G	3.5
11	CI	128	ARG	3.5
33	DK	12	LEU	3.5
53	B6	9	LEU	3.5
25	BA	2799	A	3.5
53	D6	9	LEU	3.5
25	BA	2123	G	3.5
24	CX	309	LYS	3.5
25	BA	2804	C	3.5
25	DA	1033	U	3.5
33	BK	83	GLY	3.5
16	AN	17	LYS	3.5
33	DK	70	LYS	3.5
33	DK	25	PRO	3.5
12	AJ	8	LEU	3.5
39	DS	15	ARG	3.5
1	AA	82	U	3.4
18	CP	6	LEU	3.4
25	DA	2167	U	3.4
54	B7	33	ARG	3.4
14	CL	27	LYS	3.4
54	B7	46	VAL	3.4
25	BA	615	G	3.4
50	B3	38	GLU	3.4
24	AX	372	THR	3.4
25	DA	2629	A	3.4
6	CD	3	ARG	3.4
18	CP	34	GLU	3.4
32	BI	85	GLU	3.4
22	CT	106	ALA	3.4
22	CT	104	LEU	3.4
21	AS	41	VAL	3.4
1	AA	1286	A	3.4
39	DS	28	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
23	CU	11	GLY	3.4
33	DK	89	HIS	3.4
2	CZ	32	C	3.4
25	DA	2402	C	3.4
24	AX	92	LEU	3.3
24	CX	312	ARG	3.3
39	DS	97	ARG	3.3
53	B6	50	ARG	3.3
22	AT	103	GLY	3.3
28	DE	60	ASN	3.3
53	B6	25	LYS	3.3
33	BK	71	THR	3.3
16	AN	8	GLU	3.3
28	DE	193	GLY	3.3
4	AB	133	LYS	3.3
25	DA	2136	C	3.3
25	DA	1066	U	3.3
24	CX	42	LEU	3.3
12	AJ	71	LEU	3.3
24	AX	59	ARG	3.3
25	DA	1065	U	3.3
45	DY	2	ARG	3.3
9	AG	80	VAL	3.3
24	AX	101	LYS	3.3
37	DQ	91	GLU	3.3
25	DA	2114	A	3.3
9	AG	5	ARG	3.2
25	BA	2179	C	3.2
13	CK	91	ARG	3.2
33	DK	81	ALA	3.2
28	DE	8	LYS	3.2
41	DU	117	GLN	3.2
39	DS	35	ILE	3.2
23	CU	8	THR	3.2
11	AI	15	ALA	3.2
23	CU	2	GLY	3.2
32	DI	12	LEU	3.2
33	DK	75	SER	3.2
25	DA	1104	C	3.2
33	DK	28	GLY	3.2
46	DZ	74	VAL	3.2
46	BZ	79	ARG	3.2

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Mol	Chain	Res	Type	RSRZ
23	AU	22	ARG	3.2
30	BG	84	LYS	3.2
14	AL	63	TYR	3.2
31	BH	32	GLU	3.2
2	AZ	32	C	3.2
16	CN	19	ARG	3.2
28	DE	195	LEU	3.2
33	DK	77	LEU	3.2
54	B7	42	LEU	3.2
25	DA	1535	U	3.2
33	BK	145	LYS	3.2
53	B6	49	HIS	3.2
23	AU	24	ARG	3.1
28	DE	79	ARG	3.1
24	CX	316	ARG	3.1
2	AZ	16	C	3.1
2	CZ	16	C	3.1
23	CU	4	GLY	3.1
24	AX	64	GLU	3.1
11	CI	127	LYS	3.1
27	BD	35	LYS	3.1
13	AK	25	TYR	3.1
17	CO	63	ARG	3.1
46	DZ	73	GLN	3.1
25	DA	2111	C	3.1
24	CX	52	TRP	3.1
24	AX	56	GLU	3.1
53	B6	12	GLU	3.1
25	DA	2115	G	3.1
39	DS	26	LEU	3.1
16	CN	12	ARG	3.1
25	DA	2795	G	3.1
37	BQ	24	GLY	3.1
24	CX	344	HIS	3.1
12	AJ	73	ASP	3.1
2	AZ	18	G	3.1
14	CL	18	ARG	3.1
24	AX	63	GLN	3.1
24	CX	343	ARG	3.1
41	DU	12	ARG	3.1
54	D7	46	VAL	3.1
36	DP	150	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
23	CU	20	LYS	3.1
1	CA	136(B)	C	3.1
4	CB	148	TYR	3.1
11	AI	127	LYS	3.0
1	CA	92	G	3.0
23	CU	9	ARG	3.0
39	DS	32	LEU	3.0
1	CA	950	U	3.0
24	CX	338	ARG	3.0
25	BA	2178	C	3.0
25	BA	2119	A	3.0
45	BY	45	VAL	3.0
33	BK	1	MET	3.0
39	DS	37	ALA	3.0
15	CM	32	GLU	3.0
25	BA	2174	C	3.0
37	BQ	91	GLU	3.0
46	DZ	88	PHE	3.0
23	AU	10	ARG	3.0
1	AA	1001	G	3.0
25	DA	2151	G	3.0
9	CG	85	TYR	3.0
41	DU	15	LYS	3.0
23	AU	5	ASP	3.0
18	CP	18	ARG	3.0
33	BK	14	ALA	3.0
37	DQ	21	THR	3.0
34	DN	153	HIS	3.0
15	CM	96	LEU	3.0
21	CS	29	ARG	3.0
30	BG	72	ARG	3.0
24	CX	315	VAL	3.0
1	AA	1002	G	3.0
24	AX	78	LEU	3.0
33	DK	5	VAL	3.0
45	BY	60	PHE	3.0
30	BG	34	LEU	2.9
33	BK	25	PRO	2.9
33	DK	114	ASP	2.9
24	AX	344	HIS	2.9
31	BH	170	ARG	2.9
25	BA	896	A	2.9

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Mol	Chain	Res	Type	RSRZ
45	BY	52	SER	2.9
33	DK	19	PRO	2.9
46	BZ	97	GLU	2.9
18	CP	32	TYR	2.9
46	DZ	80	ARG	2.9
53	D6	40	CYS	2.9
25	DA	1082	U	2.9
24	AX	51	LEU	2.9
24	AX	220	GLY	2.9
25	DA	2117	A	2.9
21	AS	15	LEU	2.9
28	DE	53	PRO	2.9
53	D6	11	LEU	2.9
11	AI	7	THR	2.9
18	CP	36	ILE	2.9
21	CS	37	ARG	2.9
52	B5	52	TYR	2.9
25	BA	2125	G	2.9
6	AD	66	ARG	2.9
25	DA	1084	A	2.9
28	DE	58	ARG	2.9
33	DK	20	ALA	2.9
40	BT	115	ARG	2.9
27	BD	34	VAL	2.9
44	DX	92	LEU	2.9
25	DA	2110	G	2.9
39	DS	36	TYR	2.9
1	CA	1286	A	2.9
39	DS	40	ILE	2.9
33	BK	86	LYS	2.9
1	AA	1129	C	2.9
22	CT	84	LEU	2.9
25	DA	1083	U	2.9
33	BK	142	PRO	2.9
30	BG	83	ARG	2.9
13	CK	121	PRO	2.9
11	CI	15	ALA	2.9
39	DS	38	GLN	2.9
12	AJ	36	GLY	2.8
25	BA	1026	U	2.8
6	AD	3	ARG	2.8
15	CM	21	TYR	2.8

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Mol	Chain	Res	Type	RSRZ
27	BD	31	LYS	2.8
15	CM	97	PRO	2.8
22	CT	59	ALA	2.8
46	DZ	27	VAL	2.8
33	BK	93	ARG	2.8
21	AS	66	MET	2.8
46	DZ	95	PRO	2.8
43	DW	82	LEU	2.8
30	BG	74	LYS	2.8
33	DK	86	LYS	2.8
9	AG	79	ARG	2.8
28	DE	76	ARG	2.8
24	AX	55	PRO	2.8
53	B6	29	ASN	2.8
12	CJ	99	LYS	2.8
22	CT	58	LYS	2.8
53	B6	40	CYS	2.8
6	AD	4	TYR	2.8
39	DS	29	PHE	2.8
24	AX	95	GLU	2.8
24	AX	133	ILE	2.8
4	CB	218	ALA	2.8
24	AX	373	GLU	2.8
25	DA	1130	U	2.8
45	DY	88	LYS	2.8
39	DS	48	LEU	2.8
26	DB	30	C	2.8
31	DH	111	HIS	2.8
45	DY	52	SER	2.8
28	DE	55	ASN	2.8
53	D6	28	ARG	2.8
25	BA	2169	A	2.8
12	CJ	61	GLU	2.8
24	AX	60	LYS	2.7
12	AJ	10	GLY	2.7
30	BG	2	PRO	2.7
9	AG	82	GLY	2.7
4	AB	214	ILE	2.7
33	DK	93	ARG	2.7
53	B6	43	CYS	2.7
12	AJ	35	SER	2.7
20	AR	88	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
19	CQ	36	ILE	2.7
23	AU	17	THR	2.7
7	CE	24	ARG	2.7
15	CM	99	ARG	2.7
13	CK	120	ARG	2.7
25	BA	2176	A	2.7
45	BY	2	ARG	2.7
2	CZ	31	G	2.7
45	BY	92	ASN	2.7
47	D0	85	ALA	2.7
23	CU	7	ARG	2.7
12	CJ	6	ILE	2.7
46	DZ	86	VAL	2.7
1	CA	1003	G	2.7
25	BA	2110	G	2.7
25	DA	275	G	2.7
39	DS	54	LEU	2.7
28	DE	10	GLY	2.7
53	D6	52	VAL	2.7
33	DK	80	LYS	2.7
33	DK	124	ALA	2.7
50	B3	20	LYS	2.7
1	CA	43	C	2.7
4	CB	137	ARG	2.7
15	AM	43	THR	2.7
24	AX	94	ALA	2.7
30	DG	161	THR	2.7
53	B6	20	ASN	2.7
16	AN	15	LYS	2.7
18	CP	7	ALA	2.7
11	CI	83	ARG	2.6
32	DI	1	MET	2.6
21	AS	62	ILE	2.6
45	BY	86	ARG	2.6
21	CS	56	GLN	2.6
33	BK	95	LYS	2.6
13	CK	87	THR	2.6
15	AM	42	ALA	2.6
32	BI	1	MET	2.6
40	DT	21	GLU	2.6
33	DK	11	GLN	2.6
32	BI	4	ILE	2.6

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Mol	Chain	Res	Type	RSRZ
33	DK	44	ALA	2.6
25	DA	277	C	2.6
33	DK	98	ARG	2.6
53	D6	43	CYS	2.6
54	B7	29	LYS	2.6
4	CB	215	LEU	2.6
11	CI	9	ARG	2.6
13	AK	87	THR	2.6
17	CO	88	ARG	2.6
53	D6	26	ASN	2.6
39	DS	20	ARG	2.6
16	AN	13	THR	2.6
4	CB	187	LEU	2.6
24	AX	315	VAL	2.6
24	CX	94	ALA	2.6
26	DB	31	C	2.6
40	DT	99	LEU	2.6
31	DH	167	GLU	2.6
25	BA	2115	G	2.6
33	BK	137	GLU	2.6
40	BT	21	GLU	2.6
30	DG	19	LEU	2.6
25	BA	2801	A	2.6
45	BY	62	GLU	2.6
21	AS	29	ARG	2.6
4	CB	7	VAL	2.5
31	DH	58	GLU	2.5
11	CI	19	LEU	2.5
24	CX	117	GLN	2.5
12	AJ	74	ILE	2.5
15	CM	98	VAL	2.5
39	DS	23	ARG	2.5
22	CT	85	MET	2.5
27	DD	262	ARG	2.5
45	BY	89	PHE	2.5
1	AA	101	A	2.5
3	CV	23	A	2.5
33	BK	28	GLY	2.5
30	BG	86	MET	2.5
34	DN	138	ARG	2.5
44	DX	84	ALA	2.5
10	CH	101	PRO	2.5

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Mol	Chain	Res	Type	RSRZ
31	BH	54	ARG	2.5
53	B6	37	ARG	2.5
53	B6	45	LYS	2.5
24	AX	46	LEU	2.5
25	BA	1205	U	2.5
25	BA	2135	A	2.5
25	DA	1102	C	2.5
33	BK	48	MET	2.5
11	CI	117	HIS	2.5
18	AP	19	ILE	2.5
25	BA	2165	G	2.5
25	BA	2136	C	2.5
1	CA	86	U	2.5
12	CJ	71	LEU	2.5
21	CS	35	SER	2.5
25	DA	1536	A	2.5
15	AM	31	LYS	2.5
19	CQ	37	LYS	2.5
24	AX	98	GLU	2.5
23	AU	25	LYS	2.5
15	AM	88	ARG	2.5
21	CS	36	ARG	2.5
39	DS	17	ARG	2.5
24	AX	74	THR	2.5
53	D6	36	LEU	2.5
1	CA	1257	U	2.5
30	DG	36	LYS	2.5
2	CZ	58	A	2.5
31	BH	111	HIS	2.5
36	DP	106	LEU	2.5
39	DS	91	PRO	2.5
40	DT	78	LEU	2.5
1	CA	1001	G	2.5
21	AS	70	LYS	2.5
25	BA	508	G	2.5
25	DA	1087	G	2.5
2	AZ	55	U	2.5
41	DU	11	ARG	2.5
9	AG	85	TYR	2.4
24	AX	174	GLU	2.4
33	BK	4	VAL	2.4
36	BP	105	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
25	DA	1091	G	2.4
31	BH	169	VAL	2.4
5	CC	206	GLU	2.4
1	AA	1257	U	2.4
25	BA	2805	G	2.4
23	AU	8	THR	2.4
44	BX	92	LEU	2.4
46	BZ	95	PRO	2.4
50	B3	1	MET	2.4
10	CH	127	LEU	2.4
33	DK	22	PRO	2.4
1	AA	1044	A	2.4
1	AA	1039	C	2.4
11	AI	126	SER	2.4
33	BK	144	VAL	2.4
33	DK	27	LEU	2.4
15	AM	8	GLU	2.4
20	AR	43	PHE	2.4
32	BI	2	LYS	2.4
33	BK	20	ALA	2.4
33	DK	138	VAL	2.4
34	DN	25	LYS	2.4
2	AZ	56	C	2.4
12	CJ	37	PRO	2.4
13	CK	122	LYS	2.4
53	B6	10	LEU	2.4
2	AZ	54	U	2.4
2	CZ	60	U	2.4
1	CA	79	G	2.4
50	B3	26	LEU	2.4
23	CU	13	ILE	2.4
24	CX	64	GLU	2.4
2	AZ	37	A	2.4
25	BA	2132	U	2.4
25	DA	2802	G	2.4
28	BE	204	ALA	2.4
23	AU	23	PRO	2.4
44	BX	60	ARG	2.4
2	CZ	37	A	2.4
14	CL	113	LYS	2.4
2	CZ	20	U	2.4
25	BA	2170	A	2.4

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Mol	Chain	Res	Type	RSRZ
53	B6	46	HIS	2.4
4	CB	96	ARG	2.4
36	BP	150	ALA	2.4
37	BQ	99	PRO	2.4
15	CM	31	LYS	2.4
21	CS	70	LYS	2.4
12	CJ	20	ALA	2.4
21	AS	45	VAL	2.4
21	AS	48	THR	2.3
33	BK	8	VAL	2.3
7	AE	14	ARG	2.3
33	DK	137	GLU	2.3
25	BA	1087	G	2.3
25	DA	363(A)	G	2.3
2	AZ	60	U	2.3
25	DA	1105	U	2.3
33	BK	19	PRO	2.3
54	D7	24	THR	2.3
6	CD	10	ARG	2.3
12	CJ	4	ILE	2.3
34	BN	138	ARG	2.3
28	DE	51	PHE	2.3
30	BG	35	GLU	2.3
25	BA	2173	A	2.3
24	AX	375	VAL	2.3
9	CG	154	TYR	2.3
2	CZ	53	G	2.3
18	CP	3	LYS	2.3
32	BI	35	LEU	2.3
1	CA	89	U	2.3
11	AI	106	ALA	2.3
25	BA	2180	U	2.3
31	BH	39	PRO	2.3
13	CK	25	TYR	2.3
1	AA	977	A	2.3
14	CL	26	LEU	2.3
34	BN	139	LEU	2.3
30	DG	79	ASN	2.3
42	DV	35	LEU	2.3
24	AX	61	VAL	2.3
24	AX	147	GLU	2.3
21	AS	50	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
25	DA	1032	A	2.3
48	D1	27	GLU	2.3
25	DA	2145	C	2.3
33	BK	94	GLU	2.3
24	CX	356	ASP	2.3
39	DS	52	SER	2.3
25	BA	2168	G	2.3
25	BA	2894	G	2.3
21	CS	71	LEU	2.3
31	BH	24	VAL	2.3
24	AX	140	THR	2.3
12	CJ	3	LYS	2.3
54	B7	22	MET	2.3
22	CT	60	GLU	2.3
37	BQ	20	ALA	2.3
46	DZ	87	ASP	2.3
27	BD	102	LYS	2.3
12	CJ	19	SER	2.3
24	CX	19	SER	2.3
46	DZ	79	ARG	2.3
33	BK	138	VAL	2.3
46	DZ	11	GLU	2.3
15	CM	103	THR	2.3
33	BK	30	HIS	2.3
55	B8	35	GLN	2.3
18	CP	4	ILE	2.3
15	AM	32	GLU	2.3
28	DE	77	ILE	2.3
33	BK	132	ARG	2.3
25	DA	270(M)	U	2.3
31	DH	156	ALA	2.3
33	BK	43	ALA	2.3
53	D6	24	GLU	2.3
25	DA	2133	G	2.3
33	DK	88	ALA	2.3
1	AA	1214	C	2.3
30	BG	89	GLY	2.3
31	BH	50	VAL	2.3
39	DS	86	ALA	2.3
24	CX	378	GLU	2.3
28	DE	194	GLY	2.2
30	DG	176	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
33	BK	146	ASP	2.2
24	AX	52	TRP	2.2
29	BF	44	ARG	2.2
36	BP	7	ARG	2.2
40	BT	93	ARG	2.2
45	BY	51	VAL	2.2
24	AX	85	LEU	2.2
33	BK	10	LEU	2.2
40	DT	92	GLY	2.2
22	AT	104	LEU	2.2
24	CX	18	ALA	2.2
54	D7	23	ARG	2.2
15	CM	4	ILE	2.2
45	BY	3	VAL	2.2
53	B6	19	ARG	2.2
1	CA	1352	C	2.2
33	BK	111	LYS	2.2
42	DV	53	GLU	2.2
40	DT	87	ASP	2.2
33	DK	121	GLU	2.2
1	AA	1030	C	2.2
4	AB	40	HIS	2.2
11	AI	125	TYR	2.2
25	DA	2123	G	2.2
36	BP	107	LYS	2.2
7	AE	19	MET	2.2
12	AJ	37	PRO	2.2
18	CP	19	ILE	2.2
23	AU	20	LYS	2.2
31	BH	58	GLU	2.2
53	D6	38	LYS	2.2
24	CX	342	MET	2.2
19	CQ	24	GLU	2.2
12	AJ	4	ILE	2.2
24	CX	314	GLU	2.2
31	BH	51	ARG	2.2
25	DA	2137	C	2.2
30	BG	159	VAL	2.2
15	CM	28	ALA	2.2
5	AC	179	ARG	2.2
25	BA	2124	G	2.2
25	BA	2795	G	2.2

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Mol	Chain	Res	Type	RSRZ
20	CR	22	VAL	2.2
40	BT	99	LEU	2.2
25	BA	1537	C	2.2
11	CI	87	GLN	2.2
15	AM	100	GLY	2.2
13	CK	123	LYS	2.2
33	BK	105	LEU	2.2
25	BA	101	G	2.2
26	DB	52	A	2.2
9	CG	153	HIS	2.2
18	CP	39	TYR	2.2
16	CN	9	LYS	2.2
22	AT	21	LYS	2.2
32	BI	5	LEU	2.2
22	CT	63	ILE	2.2
37	BQ	90	VAL	2.2
24	CX	345	ASP	2.2
25	BA	2897	U	2.2
24	AX	96	GLU	2.1
46	BZ	185	GLU	2.1
24	CX	63	GLN	2.1
33	BK	29	GLN	2.1
39	DS	18	ILE	2.1
25	BA	2122	U	2.1
1	AA	103(C)	G	2.1
25	DA	1069	A	2.1
25	DA	2144	U	2.1
25	DA	2159	G	2.1
11	CI	125	TYR	2.1
40	BT	50	ILE	2.1
55	B8	34	TRP	2.1
33	DK	7	VAL	2.1
23	AU	19	GLY	2.1
40	DT	46	GLU	2.1
29	BF	184	TYR	2.1
44	DX	85	PRO	2.1
24	AX	47	GLU	2.1
29	BF	207	GLY	2.1
24	AX	377	ALA	2.1
46	BZ	96	VAL	2.1
53	D6	44	ARG	2.1
21	AS	61	TYR	2.1

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Mol	Chain	Res	Type	RSRZ
2	AZ	14	A	2.1
42	BV	11	GLN	2.1
4	CB	138	LEU	2.1
28	DE	75	VAL	2.1
18	CP	41	PRO	2.1
30	BG	88	ILE	2.1
3	AV	24	A	2.1
54	D7	22	MET	2.1
19	CQ	38	ARG	2.1
11	CI	17	VAL	2.1
14	CL	63	TYR	2.1
55	B8	36	LYS	2.1
14	CL	61	SER	2.1
11	AI	9	ARG	2.1
17	CO	59	MET	2.1
40	BT	1	MET	2.1
40	DT	129	ARG	2.1
24	CX	323	GLN	2.1
53	D6	20	ASN	2.1
20	AR	46	GLU	2.1
33	DK	104	VAL	2.1
4	AB	44	LEU	2.1
25	DA	2135	A	2.1
54	B7	32	LYS	2.1
46	DZ	84	GLU	2.1
2	CY	47	U	2.1
33	BK	2	LYS	2.1
41	BU	91	ASP	2.1
30	DG	11	TYR	2.1
33	DK	108	ALA	2.1
13	AK	120	ARG	2.1
53	D6	31	PRO	2.1
6	AD	5	ILE	2.1
30	DG	31	VAL	2.1
45	DY	29	GLU	2.1
27	BD	262	ARG	2.1
31	DH	103	LEU	2.1
1	AA	1236	A	2.0
24	AX	175	ALA	2.0
28	DE	27	LEU	2.0
33	DK	72	PRO	2.0
48	B1	27	GLU	2.0

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Mol	Chain	Res	Type	RSRZ
11	AI	18	PHE	2.0
25	BA	614	U	2.0
37	BQ	7	MET	2.0
55	D8	34	TRP	2.0
18	CP	5	ARG	2.0
4	AB	9	GLU	2.0
31	BH	17	VAL	2.0
2	AZ	19	G	2.0
1	CA	136(A)	C	2.0
14	CL	20	LYS	2.0
6	CD	204	ILE	2.0
5	AC	207	VAL	2.0
21	CS	15	LEU	2.0
36	DP	111	ARG	2.0
37	DQ	10	ARG	2.0
1	CA	1398	A	2.0
23	AU	3	LYS	2.0
24	AX	176	GLY	2.0
39	BS	51	ALA	2.0
36	BP	100	LEU	2.0
14	CL	12	LYS	2.0
25	BA	2802	G	2.0
25	BA	2803	C	2.0
33	DK	99	ILE	2.0
22	AT	102	GLY	2.0
27	DD	9	TYR	2.0
39	DS	39	ILE	2.0
55	D8	54	GLU	2.0
12	AJ	38	ILE	2.0
13	AK	122	LYS	2.0
22	CT	50	GLU	2.0
37	BQ	22	LYS	2.0
22	CT	79	ARG	2.0
4	CB	163	PHE	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	AA	2027	1/1	0.11	-	27,27,27,27	0
56	MG	BA	3912	1/1	0.11	-	26,26,26,26	0
56	MG	BA	3169	1/1	0.16	-	67,67,67,67	0
56	MG	AB	307	1/1	0.07	-	45,45,45,45	0
56	MG	AA	1701	1/1	0.10	-	29,29,29,29	0
56	MG	DA	3318	1/1	0.39	-	45,45,45,45	0
56	MG	AA	1957	1/1	0.10	-	61,61,61,61	0
56	MG	AA	1797	1/1	0.37	-	21,21,21,21	0
56	MG	BA	3351	1/1	0.11	-	22,22,22,22	0
56	MG	DA	3149	1/1	0.25	-	3,3,3,3	0
56	MG	BA	3894	1/1	0.07	-	70,70,70,70	0
56	MG	DA	3331	1/1	0.17	-	23,23,23,23	0
56	MG	BA	3195	1/1	0.24	-	47,47,47,47	0
56	MG	BA	3867	1/1	0.30	-	50,50,50,50	0
56	MG	DA	3059	1/1	0.22	-	3,3,3,3	0
56	MG	AA	1691	1/1	0.16	-	37,37,37,37	0
56	MG	BA	3453	1/1	0.28	-	57,57,57,57	0
56	MG	BA	3356	1/1	0.24	-	54,54,54,54	0
56	MG	BA	3211	1/1	0.11	-	80,80,80,80	0
56	MG	CA	1809	1/1	0.33	-	3,3,3,3	0
56	MG	AC	301	1/1	0.19	-	75,75,75,75	0
56	MG	AA	1649	1/1	0.17	-	37,37,37,37	0
56	MG	AA	1792	1/1	0.11	-	63,63,63,63	0
56	MG	DA	3110	1/1	0.06	-	48,48,48,48	0
56	MG	BA	3768	1/1	0.14	-	31,31,31,31	0
56	MG	BA	3574	1/1	0.37	-	74,74,74,74	0
56	MG	CA	1761	1/1	0.10	-	30,30,30,30	0
56	MG	AA	1718	1/1	0.13	-	79,79,79,79	0
56	MG	BA	3875	1/1	0.12	-	27,27,27,27	0
56	MG	AA	1866	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	BA	3899	1/1	0.99	-	73,73,73,73	0
56	MG	B1	104	1/1	0.11	-	38,38,38,38	0
56	MG	BA	3576	1/1	0.19	-	43,43,43,43	0
56	MG	AY	116	1/1	0.26	-	40,40,40,40	0
56	MG	DA	3375	1/1	0.11	-	88,88,88,88	0
56	MG	DA	3021	1/1	0.17	-	4,4,4,4	0
56	MG	B5	102	1/1	0.10	-	49,49,49,49	0
56	MG	BA	3690	1/1	0.29	-	80,80,80,80	0
56	MG	BQ	203	1/1	0.17	-	46,46,46,46	0
56	MG	AA	1705	1/1	0.37	-	50,50,50,50	0
56	MG	CA	1815	1/1	0.25	-	63,63,63,63	0
56	MG	CA	1650	1/1	0.46	-	73,73,73,73	0
56	MG	AA	1735	1/1	0.11	-	44,44,44,44	0
56	MG	BA	3317	1/1	0.07	-	48,48,48,48	0
56	MG	DA	3437	1/1	0.54	-	3,3,3,3	0
56	MG	AA	1721	1/1	0.15	-	44,44,44,44	0
56	MG	BA	3003	1/1	0.10	-	36,36,36,36	0
56	MG	DA	3179	1/1	0.51	-	3,3,3,3	0
56	MG	BA	3799	1/1	0.12	-	29,29,29,29	0
56	MG	DB	212	1/1	0.22	-	3,3,3,3	0
56	MG	BA	3147	1/1	0.31	-	52,52,52,52	0
56	MG	DA	3477	1/1	0.21	-	3,3,3,3	0
56	MG	BA	3569	1/1	0.17	-	40,40,40,40	0
56	MG	BA	3257	1/1	0.16	-	28,28,28,28	0
56	MG	BA	3728	1/1	0.21	-	34,34,34,34	0
56	MG	CA	1678	1/1	0.21	-	49,49,49,49	0
56	MG	BA	3423	1/1	0.15	-	21,21,21,21	0
56	MG	DA	3259	1/1	0.22	-	4,4,4,4	0
56	MG	BA	3603	1/1	0.19	-	47,47,47,47	0
56	MG	BA	3161	1/1	0.42	-	103,103,103,103	0
56	MG	BA	3425	1/1	0.26	-	48,48,48,48	0
56	MG	CA	1794	1/1	0.20	-	35,35,35,35	0
56	MG	BA	3725	1/1	0.12	-	23,23,23,23	0
56	MG	DA	3109	1/1	0.26	-	3,3,3,3	0
56	MG	DA	3470	1/1	0.21	-	4,4,4,4	0
56	MG	DA	3442	1/1	0.27	-	3,3,3,3	0
56	MG	DA	3399	1/1	0.29	-	58,58,58,58	0
56	MG	DA	3488	1/1	0.21	-	3,3,3,3	0
56	MG	AA	1761	1/1	0.15	-	39,39,39,39	0
56	MG	BA	3923	1/1	0.33	-	57,57,57,57	0
56	MG	BA	3463	1/1	0.12	-	38,38,38,38	0
56	MG	AA	1606	1/1	0.15	-	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	BA	3836	1/1	0.26	-	20,20,20,20	0
56	MG	AA	1968	1/1	0.24	-	35,35,35,35	0
56	MG	BA	3052	1/1	0.17	-	71,71,71,71	0
56	MG	AA	1935	1/1	0.10	-	53,53,53,53	0
56	MG	BA	3319	1/1	0.07	-	44,44,44,44	0
56	MG	DA	3350	1/1	0.16	-	63,63,63,63	0
56	MG	BA	3645	1/1	0.16	-	30,30,30,30	0
56	MG	DA	3256	1/1	0.10	-	6,6,6,6	0
56	MG	BA	3464	1/1	0.17	-	75,75,75,75	0
56	MG	BA	3088	1/1	0.27	-	63,63,63,63	0
56	MG	DA	3142	1/1	0.42	-	3,3,3,3	0
56	MG	BA	3712	1/1	0.46	-	77,77,77,77	0
56	MG	AA	1777	1/1	0.23	-	53,53,53,53	0
56	MG	AA	1720	1/1	0.18	-	36,36,36,36	0
56	MG	BA	3021	1/1	0.40	-	37,37,37,37	0
56	MG	BA	3880	1/1	0.18	-	63,63,63,63	0
56	MG	BB	216	1/1	0.25	-	46,46,46,46	0
56	MG	BA	3379	1/1	0.29	-	115,115,115,115	0
56	MG	DA	3378	1/1	0.26	-	3,3,3,3	0
56	MG	BA	3013	1/1	1.09	-	103,103,103,103	0
56	MG	BA	3517	1/1	0.11	-	46,46,46,46	0
56	MG	CH	201	1/1	0.40	-	58,58,58,58	0
56	MG	BA	3391	1/1	0.11	-	51,51,51,51	0
56	MG	CA	1638	1/1	0.24	-	3,3,3,3	0
56	MG	DA	3261	1/1	0.27	-	3,3,3,3	0
56	MG	BA	3108	1/1	0.18	-	55,55,55,55	0
56	MG	BA	3660	1/1	0.25	-	12,12,12,12	0
56	MG	AA	1765	1/1	0.33	-	11,11,11,11	0
56	MG	BA	3911	1/1	0.05	-	22,22,22,22	0
56	MG	BA	3043	1/1	0.18	-	58,58,58,58	0
56	MG	AA	1943	1/1	0.24	-	56,56,56,56	0
56	MG	CL	201	1/1	0.25	-	67,67,67,67	0
56	MG	AA	1834	1/1	0.11	-	43,43,43,43	0
56	MG	DA	3121	1/1	0.23	-	41,41,41,41	0
56	MG	BA	3580	1/1	0.18	-	54,54,54,54	0
56	MG	BA	3279	1/1	0.23	-	39,39,39,39	0
56	MG	BA	3483	1/1	0.35	-	47,47,47,47	0
56	MG	AA	1629	1/1	0.11	-	32,32,32,32	0
56	MG	DA	3327	1/1	0.27	-	4,4,4,4	0
56	MG	BA	3702	1/1	0.08	-	83,83,83,83	0
56	MG	BA	3429	1/1	0.19	-	51,51,51,51	0
56	MG	BA	3593	1/1	0.49	-	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	AA	2000	1/1	0.14	-	46,46,46,46	0
56	MG	DA	3367	1/1	0.11	-	59,59,59,59	0
56	MG	BA	3264	1/1	0.24	-	60,60,60,60	0
56	MG	BA	3870	1/1	0.25	-	47,47,47,47	0
56	MG	AA	1913	1/1	0.09	-	54,54,54,54	0
56	MG	AL	204	1/1	0.07	-	43,43,43,43	0
56	MG	BA	3283	1/1	0.47	-	63,63,63,63	0
56	MG	DA	3062	1/1	0.29	-	4,4,4,4	0
56	MG	BA	3333	1/1	0.10	-	55,55,55,55	0
56	MG	BA	3535	1/1	0.24	-	62,62,62,62	0
56	MG	BA	3122	1/1	0.16	-	56,56,56,56	0
56	MG	BA	3862	1/1	0.10	-	85,85,85,85	0
56	MG	B1	106	1/1	0.20	-	56,56,56,56	0
56	MG	AA	1832	1/1	0.25	-	33,33,33,33	0
56	MG	BA	3184	1/1	0.12	-	45,45,45,45	0
56	MG	CA	1661	1/1	0.22	-	3,3,3,3	0
56	MG	DA	3146	1/1	0.29	-	3,3,3,3	0
56	MG	BA	3326	1/1	0.13	-	45,45,45,45	0
56	MG	AA	1927	1/1	0.24	-	29,29,29,29	0
56	MG	DA	3435	1/1	0.16	-	4,4,4,4	0
56	MG	AA	1995	1/1	0.14	-	44,44,44,44	0
56	MG	AB	302	1/1	0.12	-	50,50,50,50	0
56	MG	BA	3446	1/1	0.34	-	58,58,58,58	0
56	MG	AA	1754	1/1	0.16	-	70,70,70,70	0
56	MG	BA	3049	1/1	0.24	-	56,56,56,56	0
56	MG	BA	3514	1/1	0.33	-	53,53,53,53	0
56	MG	DA	3232	1/1	0.07	-	37,37,37,37	0
56	MG	AA	1851	1/1	0.42	-	69,69,69,69	0
56	MG	B0	101	1/1	0.43	-	63,63,63,63	0
56	MG	DA	3453	1/1	0.45	-	3,3,3,3	0
56	MG	BA	3887	1/1	0.20	-	66,66,66,66	0
56	MG	BA	3732	1/1	0.56	-	68,68,68,68	0
56	MG	DA	3483	1/1	0.20	-	4,4,4,4	0
56	MG	CA	1780	1/1	0.09	-	51,51,51,51	0
56	MG	AA	1601	1/1	0.22	-	37,37,37,37	0
56	MG	DA	3090	1/1	0.27	-	3,3,3,3	0
56	MG	BA	3030	1/1	0.17	-	36,36,36,36	0
56	MG	AA	1915	1/1	0.13	-	109,109,109,109	0
56	MG	AA	1934	1/1	0.35	-	65,65,65,65	0
56	MG	DA	3050	1/1	0.37	-	3,3,3,3	0
56	MG	DN	201	1/1	0.57	-	3,3,3,3	0
56	MG	DA	3035	1/1	0.40	-	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	AH	202	1/1	0.28	-	51,51,51,51	0
56	MG	BB	206	1/1	0.12	-	51,51,51,51	0
56	MG	AA	1811	1/1	0.25	-	37,37,37,37	0
56	MG	AA	1862	1/1	0.15	-	41,41,41,41	0
56	MG	AA	1624	1/1	0.13	-	43,43,43,43	0
56	MG	AY	126	1/1	0.34	-	68,68,68,68	0
56	MG	BA	3636	1/1	0.15	-	31,31,31,31	0
56	MG	CA	1677	1/1	0.17	-	103,103,103,103	0
56	MG	BA	3782	1/1	0.14	-	21,21,21,21	0
56	MG	AA	1871	1/1	0.27	-	68,68,68,68	0
56	MG	BA	3842	1/1	0.19	-	16,16,16,16	0
56	MG	BA	3865	1/1	0.56	-	37,37,37,37	0
56	MG	BA	3302	1/1	0.30	-	47,47,47,47	0
56	MG	AA	1677	1/1	0.12	-	74,74,74,74	0
56	MG	BA	3189	1/1	0.15	-	96,96,96,96	0
56	MG	DA	3273	1/1	0.28	-	3,3,3,3	0
56	MG	DA	3214	1/1	0.30	-	4,4,4,4	0
56	MG	CA	1730	1/1	0.28	-	4,4,4,4	0
56	MG	BA	3220	1/1	0.19	-	13,13,13,13	0
56	MG	BA	3917	1/1	0.11	-	51,51,51,51	0
56	MG	BA	3699	1/1	0.05	-	79,79,79,79	0
56	MG	AA	1666	1/1	0.12	-	61,61,61,61	0
56	MG	AA	1887	1/1	0.14	-	31,31,31,31	0
56	MG	DA	3393	1/1	0.05	-	47,47,47,47	0
56	MG	AA	1789	1/1	0.18	-	77,77,77,77	0
56	MG	BK	201	1/1	0.38	-	60,60,60,60	0
56	MG	BA	3048	1/1	0.55	-	58,58,58,58	0
56	MG	DA	3368	1/1	0.21	-	3,3,3,3	0
56	MG	AL	201	1/1	0.19	-	28,28,28,28	0
56	MG	DA	3027	1/1	0.15	-	6,6,6,6	0
56	MG	BA	3407	1/1	0.42	-	56,56,56,56	0
56	MG	BA	3901	1/1	0.40	-	62,62,62,62	0
56	MG	DA	3423	1/1	0.47	-	28,28,28,28	0
56	MG	AA	1634	1/1	0.11	-	43,43,43,43	0
56	MG	CA	1790	1/1	0.23	-	57,57,57,57	0
56	MG	CA	1656	1/1	0.18	-	5,5,5,5	0
56	MG	DA	3407	1/1	0.26	-	3,3,3,3	0
56	MG	BA	3364	1/1	0.45	-	40,40,40,40	0
56	MG	BA	3753	1/1	0.45	-	65,65,65,65	0
56	MG	DA	3298	1/1	0.19	-	9,9,9,9	0
56	MG	BA	3539	1/1	0.18	-	12,12,12,12	0
56	MG	BA	3542	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	AA	1739	1/1	0.34	-	55,55,55,55	0
56	MG	DA	3103	1/1	0.26	-	62,62,62,62	0
56	MG	BA	3618	1/1	0.10	-	19,19,19,19	0
56	MG	DA	3416	1/1	0.22	-	3,3,3,3	0
56	MG	CA	1754	1/1	0.20	-	3,3,3,3	0
56	MG	BB	213	1/1	0.20	-	53,53,53,53	0
56	MG	CA	1822	1/1	0.33	-	3,3,3,3	0
56	MG	BA	3309	1/1	0.22	-	17,17,17,17	0
56	MG	AX	413	1/1	0.35	-	32,32,32,32	0
56	MG	AA	1651	1/1	0.26	-	106,106,106,106	0
56	MG	CA	1674	1/1	0.39	-	57,57,57,57	0
56	MG	DA	3386	1/1	0.20	-	3,3,3,3	0
56	MG	CA	1784	1/1	0.26	-	3,3,3,3	0
56	MG	BA	3888	1/1	0.23	-	53,53,53,53	0
56	MG	AE	207	1/1	0.12	-	38,38,38,38	0
56	MG	BA	3525	1/1	0.12	-	77,77,77,77	0
56	MG	BE	301	1/1	0.08	-	55,55,55,55	0
56	MG	BA	3811	1/1	0.37	-	52,52,52,52	0
56	MG	BA	3864	1/1	0.32	-	78,78,78,78	0
56	MG	CA	1723	1/1	0.35	-	67,67,67,67	0
56	MG	BA	3530	1/1	0.15	-	60,60,60,60	0
56	MG	BA	3852	1/1	0.21	-	35,35,35,35	0
56	MG	BA	3729	1/1	0.23	-	38,38,38,38	0
56	MG	DA	3289	1/1	0.29	-	59,59,59,59	0
56	MG	BI	201	1/1	0.13	-	78,78,78,78	0
56	MG	BA	3222	1/1	0.36	-	39,39,39,39	0
56	MG	DA	3390	1/1	0.15	-	73,73,73,73	0
56	MG	AA	1948	1/1	0.13	-	56,56,56,56	0
56	MG	DA	3078	1/1	0.29	-	4,4,4,4	0
56	MG	AA	1687	1/1	0.10	-	47,47,47,47	0
56	MG	DA	3200	1/1	0.41	-	3,3,3,3	0
56	MG	B2	102	1/1	0.30	-	62,62,62,62	0
56	MG	AA	1710	1/1	0.31	-	40,40,40,40	0
56	MG	BA	3694	1/1	0.13	-	77,77,77,77	0
56	MG	BA	3420	1/1	0.26	-	19,19,19,19	0
56	MG	CA	1719	1/1	0.22	-	60,60,60,60	0
56	MG	DA	3025	1/1	0.27	-	3,3,3,3	0
56	MG	BA	3345	1/1	0.15	-	42,42,42,42	0
56	MG	AA	1676	1/1	0.13	-	66,66,66,66	0
56	MG	BA	3620	1/1	0.19	-	53,53,53,53	0
56	MG	BA	3262	1/1	0.23	-	7,7,7,7	0
56	MG	BA	3209	1/1	0.30	-	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3056	1/1	0.21	-	66,66,66,66	0
56	MG	BB	212	1/1	0.11	-	82,82,82,82	0
56	MG	DA	3267	1/1	0.16	-	3,3,3,3	0
56	MG	BA	3839	1/1	0.50	-	60,60,60,60	0
56	MG	DA	3034	1/1	0.11	-	6,6,6,6	0
56	MG	DA	3241	1/1	0.14	-	73,73,73,73	0
56	MG	DA	3408	1/1	0.25	-	4,4,4,4	0
56	MG	BA	3903	1/1	0.21	-	71,71,71,71	0
56	MG	AA	1697	1/1	0.21	-	48,48,48,48	0
56	MG	AA	1790	1/1	0.14	-	97,97,97,97	0
56	MG	BA	3545	1/1	0.16	-	23,23,23,23	0
56	MG	DA	3343	1/1	0.30	-	3,3,3,3	0
56	MG	DA	3148	1/1	0.19	-	4,4,4,4	0
56	MG	BA	3152	1/1	0.51	-	49,49,49,49	0
56	MG	BA	3914	1/1	0.14	-	47,47,47,47	0
56	MG	AA	1633	1/1	0.18	-	77,77,77,77	0
56	MG	AA	1708	1/1	0.31	-	33,33,33,33	0
56	MG	B6	102	1/1	0.10	-	57,57,57,57	0
56	MG	DA	3254	1/1	0.12	-	42,42,42,42	0
56	MG	AA	2002	1/1	0.17	-	47,47,47,47	0
56	MG	DA	3135	1/1	0.21	-	3,3,3,3	0
56	MG	DA	3160	1/1	0.34	-	3,3,3,3	0
56	MG	AA	1608	1/1	0.12	-	43,43,43,43	0
56	MG	AA	1846	1/1	0.38	-	68,68,68,68	0
56	MG	CS	101	1/1	0.25	-	3,3,3,3	0
56	MG	DA	3438	1/1	0.20	-	6,6,6,6	0
56	MG	BA	3451	1/1	0.17	-	13,13,13,13	0
56	MG	DA	3263	1/1	0.20	-	4,4,4,4	0
57	ZN	CD	5001	1/1	0.23	-	63,63,63,63	0
56	MG	CY	109	1/1	0.24	-	3,3,3,3	0
56	MG	DA	3485	1/1	0.11	-	4,4,4,4	0
56	MG	AA	1920	1/1	0.23	-	26,26,26,26	0
56	MG	BA	3489	1/1	0.14	-	32,32,32,32	0
56	MG	DA	3197	1/1	0.18	-	3,3,3,3	0
56	MG	DA	3068	1/1	0.22	-	4,4,4,4	0
56	MG	BA	3469	1/1	0.22	-	46,46,46,46	0
56	MG	B0	103	1/1	0.14	-	30,30,30,30	0
56	MG	AA	1817	1/1	0.26	-	29,29,29,29	0
56	MG	CA	1604	1/1	0.27	-	3,3,3,3	0
56	MG	BA	3720	1/1	0.16	-	28,28,28,28	0
56	MG	DA	3244	1/1	0.07	-	5,5,5,5	0
56	MG	CF	201	1/1	0.15	-	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	DA	3225	1/1	0.16	-	4,4,4,4	0
56	MG	DA	3037	1/1	0.25	-	4,4,4,4	0
56	MG	DA	3335	1/1	0.60	-	3,3,3,3	0
56	MG	AA	1766	1/1	0.39	-	33,33,33,33	0
56	MG	AY	101	1/1	0.28	-	68,68,68,68	0
56	MG	BA	3710	1/1	0.20	-	52,52,52,52	0
56	MG	DA	3246	1/1	0.22	-	3,3,3,3	0
56	MG	AA	1833	1/1	0.10	-	60,60,60,60	0
56	MG	DA	3356	1/1	0.07	-	56,56,56,56	0
56	MG	DA	3264	1/1	0.18	-	4,4,4,4	0
56	MG	B5	101	1/1	0.34	-	63,63,63,63	0
56	MG	DA	3326	1/1	0.15	-	4,4,4,4	0
56	MG	CA	1709	1/1	0.12	-	55,55,55,55	0
56	MG	AO	101	1/1	0.12	-	33,33,33,33	0
56	MG	BB	214	1/1	0.17	-	55,55,55,55	0
56	MG	DD	5002	1/1	0.14	-	33,33,33,33	0
56	MG	BA	3400	1/1	0.12	-	101,101,101,101	0
56	MG	BA	3528	1/1	0.36	-	60,60,60,60	0
56	MG	AA	2021	1/1	0.09	-	43,43,43,43	0
56	MG	BA	3116	1/1	0.23	-	44,44,44,44	0
56	MG	BA	3227	1/1	0.14	-	46,46,46,46	0
56	MG	BH	202	1/1	0.18	-	56,56,56,56	0
56	MG	AE	201	1/1	0.10	-	52,52,52,52	0
56	MG	DA	3340	1/1	0.13	-	5,5,5,5	0
56	MG	AX	410	1/1	0.09	-	73,73,73,73	0
56	MG	BA	3671	1/1	0.16	-	57,57,57,57	0
56	MG	CA	1760	1/1	0.14	-	18,18,18,18	0
56	MG	DA	3237	1/1	0.16	-	51,51,51,51	0
56	MG	BA	3245	1/1	0.15	-	39,39,39,39	0
56	MG	DA	3093	1/1	0.29	-	3,3,3,3	0
56	MG	BA	3008	1/1	0.23	-	38,38,38,38	0
56	MG	DA	3253	1/1	0.22	-	3,3,3,3	0
56	MG	AE	206	1/1	0.07	-	57,57,57,57	0
56	MG	DA	3222	1/1	0.11	-	41,41,41,41	0
56	MG	BA	3381	1/1	0.22	-	48,48,48,48	0
56	MG	AA	1611	1/1	0.34	-	48,48,48,48	0
56	MG	DA	3143	1/1	0.23	-	3,3,3,3	0
56	MG	AA	1853	1/1	0.14	-	24,24,24,24	0
56	MG	DA	3063	1/1	0.25	-	3,3,3,3	0
56	MG	BA	3772	1/1	0.11	-	48,48,48,48	0
56	MG	DA	3220	1/1	0.31	-	21,21,21,21	0
56	MG	BA	3703	1/1	0.17	-	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	DA	3141	1/1	0.10	-	4,4,4,4	0
56	MG	DA	3323	1/1	0.48	-	3,3,3,3	0
56	MG	DA	3336	1/1	0.16	-	25,25,25,25	0
56	MG	DA	3391	1/1	0.12	-	35,35,35,35	0
56	MG	BA	3774	1/1	0.27	-	42,42,42,42	0
56	MG	BA	3182	1/1	0.17	-	20,20,20,20	0
56	MG	AQ	201	1/1	0.09	-	52,52,52,52	0
56	MG	AY	110	1/1	0.14	-	31,31,31,31	0
56	MG	DA	3202	1/1	0.37	-	3,3,3,3	0
56	MG	BA	3509	1/1	0.22	-	34,34,34,34	0
56	MG	AA	1966	1/1	0.12	-	29,29,29,29	0
56	MG	DA	3051	1/1	0.28	-	3,3,3,3	0
56	MG	BA	3737	1/1	0.15	-	50,50,50,50	0
56	MG	AA	2022	1/1	0.11	-	35,35,35,35	0
56	MG	BA	3784	1/1	0.16	-	33,33,33,33	0
56	MG	AA	1796	1/1	0.14	-	60,60,60,60	0
56	MG	DA	3107	1/1	0.10	-	30,30,30,30	0
56	MG	CA	1734	1/1	0.12	-	29,29,29,29	0
56	MG	BA	3354	1/1	0.35	-	59,59,59,59	0
56	MG	AA	2013	1/1	0.33	-	40,40,40,40	0
56	MG	AA	1999	1/1	0.08	-	47,47,47,47	0
56	MG	DA	3250	1/1	0.22	-	3,3,3,3	0
56	MG	BA	3444	1/1	0.19	-	42,42,42,42	0
56	MG	BA	3718	1/1	0.23	-	51,51,51,51	0
56	MG	AA	1656	1/1	0.17	-	47,47,47,47	0
56	MG	DA	3047	1/1	0.20	-	3,3,3,3	0
56	MG	AA	1682	1/1	0.14	-	40,40,40,40	0
56	MG	AA	1827	1/1	0.25	-	44,44,44,44	0
56	MG	BA	3149	1/1	0.19	-	29,29,29,29	0
56	MG	BA	3005	1/1	0.27	-	51,51,51,51	0
56	MG	BA	3304	1/1	0.30	-	25,25,25,25	0
56	MG	DA	3040	1/1	0.26	-	3,3,3,3	0
56	MG	BA	3878	1/1	0.22	-	44,44,44,44	0
56	MG	BA	3293	1/1	0.13	-	7,7,7,7	0
56	MG	DA	3440	1/1	0.12	-	4,4,4,4	0
56	MG	AK	205	1/1	0.40	-	61,61,61,61	0
56	MG	BA	3234	1/1	0.24	-	55,55,55,55	0
56	MG	BA	3286	1/1	0.24	-	17,17,17,17	0
56	MG	CA	1776	1/1	0.23	-	3,3,3,3	0
56	MG	AA	1703	1/1	0.10	-	48,48,48,48	0
56	MG	BA	3075	1/1	0.41	-	29,29,29,29	0
56	MG	DA	3321	1/1	0.28	-	4,4,4,4	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BG	201	1/1	0.23	-	64,64,64,64	0
56	MG	BA	3743	1/1	0.30	-	64,64,64,64	0
56	MG	CY	104	1/1	0.09	-	78,78,78,78	0
56	MG	BA	3808	1/1	0.20	-	18,18,18,18	0
56	MG	BA	3077	1/1	0.23	-	59,59,59,59	0
56	MG	BA	3616	1/1	0.09	-	12,12,12,12	0
56	MG	AA	1788	1/1	0.42	-	66,66,66,66	0
56	MG	CA	1689	1/1	0.37	-	81,81,81,81	0
56	MG	DA	3465	1/1	0.22	-	3,3,3,3	0
56	MG	BA	3759	1/1	0.23	-	47,47,47,47	0
56	MG	AA	1830	1/1	0.12	-	55,55,55,55	0
56	MG	CA	1669	1/1	0.52	-	79,79,79,79	0
56	MG	AA	1845	1/1	0.09	-	29,29,29,29	0
56	MG	BA	3573	1/1	0.18	-	62,62,62,62	0
56	MG	CA	1630	1/1	0.48	-	3,3,3,3	0
56	MG	BA	3450	1/1	0.18	-	24,24,24,24	0
56	MG	BA	3533	1/1	0.12	-	2,2,2,2	0
56	MG	DA	3168	1/1	0.20	-	4,4,4,4	0
56	MG	BA	3270	1/1	0.22	-	64,64,64,64	0
56	MG	BA	3508	1/1	0.17	-	33,33,33,33	0
56	MG	BA	3817	1/1	0.30	-	30,30,30,30	0
56	MG	DA	3086	1/1	0.29	-	3,3,3,3	0
56	MG	AA	1908	1/1	0.27	-	85,85,85,85	0
56	MG	CA	1785	1/1	0.27	-	83,83,83,83	0
56	MG	CA	1692	1/1	0.23	-	34,34,34,34	0
56	MG	AV	5502	1/1	0.55	-	89,89,89,89	0
56	MG	AA	1625	1/1	0.21	-	44,44,44,44	0
56	MG	DA	3461	1/1	0.16	-	4,4,4,4	0
56	MG	BA	3675	1/1	0.20	-	43,43,43,43	0
56	MG	DA	3042	1/1	0.04	-	69,69,69,69	0
56	MG	BA	3552	1/1	0.07	-	15,15,15,15	0
56	MG	DA	3056	1/1	0.17	-	63,63,63,63	0
56	MG	AA	1764	1/1	0.45	-	72,72,72,72	0
56	MG	AY	104	1/1	0.08	-	64,64,64,64	0
56	MG	CA	1820	1/1	0.18	-	43,43,43,43	0
56	MG	DA	3462	1/1	0.25	-	3,3,3,3	0
56	MG	BA	3180	1/1	0.08	-	36,36,36,36	0
56	MG	DA	3424	1/1	0.36	-	14,14,14,14	0
56	MG	BB	226	1/1	0.24	-	72,72,72,72	0
56	MG	CA	1698	1/1	0.21	-	37,37,37,37	0
56	MG	DA	3441	1/1	0.22	-	4,4,4,4	0
56	MG	AZ	103	1/1	0.10	-	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3019	1/1	0.24	-	3,3,3,3	0
56	MG	DA	3379	1/1	0.28	-	3,3,3,3	0
56	MG	BA	3401	1/1	0.29	-	86,86,86,86	0
56	MG	DA	3344	1/1	0.33	-	25,25,25,25	0
56	MG	BA	3874	1/1	0.74	-	103,103,103,103	0
56	MG	AA	1919	1/1	0.15	-	88,88,88,88	0
56	MG	BA	3773	1/1	0.15	-	25,25,25,25	0
56	MG	BA	3783	1/1	0.14	-	27,27,27,27	0
56	MG	BA	3607	1/1	0.20	-	40,40,40,40	0
56	MG	BA	3124	1/1	0.29	-	56,56,56,56	0
56	MG	AZ	113	1/1	0.08	-	60,60,60,60	0
56	MG	DA	3171	1/1	0.16	-	3,3,3,3	0
56	MG	DA	3097	1/1	0.15	-	4,4,4,4	0
56	MG	BA	3704	1/1	0.14	-	88,88,88,88	0
56	MG	AA	1970	1/1	0.15	-	52,52,52,52	0
56	MG	DA	3270	1/1	0.22	-	4,4,4,4	0
56	MG	CA	1612	1/1	0.15	-	3,3,3,3	0
56	MG	BA	3410	1/1	0.14	-	67,67,67,67	0
56	MG	BB	210	1/1	0.25	-	72,72,72,72	0
56	MG	DA	3333	1/1	0.30	-	4,4,4,4	0
56	MG	CZ	110	1/1	0.26	-	68,68,68,68	0
56	MG	AA	1652	1/1	0.29	-	63,63,63,63	0
56	MG	BA	3064	1/1	0.12	-	57,57,57,57	0
56	MG	BA	3538	1/1	0.41	-	30,30,30,30	0
56	MG	AE	204	1/1	0.09	-	51,51,51,51	0
56	MG	DA	3071	1/1	0.27	-	3,3,3,3	0
56	MG	BA	3416	1/1	0.35	-	55,55,55,55	0
56	MG	DA	3245	1/1	0.15	-	41,41,41,41	0
56	MG	BA	3419	1/1	0.22	-	50,50,50,50	0
56	MG	BA	3233	1/1	0.38	-	70,70,70,70	0
56	MG	AA	1856	1/1	0.46	-	49,49,49,49	0
56	MG	AA	1690	1/1	0.10	-	19,19,19,19	0
56	MG	BA	3029	1/1	0.32	-	59,59,59,59	0
56	MG	CA	1633	1/1	0.28	-	3,3,3,3	0
56	MG	BB	202	1/1	0.06	-	50,50,50,50	0
56	MG	AA	1989	1/1	0.28	-	81,81,81,81	0
56	MG	BA	3691	1/1	0.13	-	73,73,73,73	0
56	MG	BA	3267	1/1	0.27	-	21,21,21,21	0
56	MG	BA	3624	1/1	0.16	-	89,89,89,89	0
56	MG	CA	1769	1/1	0.23	-	77,77,77,77	0
56	MG	CA	1736	1/1	0.32	-	3,3,3,3	0
56	MG	CZ	113	1/1	0.37	-	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	BE	305	1/1	0.11	-	22,22,22,22	0
56	MG	BA	3781	1/1	0.25	-	85,85,85,85	0
56	MG	BA	3853	1/1	0.31	-	25,25,25,25	0
56	MG	BA	3430	1/1	0.11	-	45,45,45,45	0
56	MG	AA	1685	1/1	0.14	-	28,28,28,28	0
56	MG	BA	3516	1/1	0.18	-	43,43,43,43	0
56	MG	BA	3861	1/1	0.26	-	65,65,65,65	0
56	MG	AA	2014	1/1	0.19	-	21,21,21,21	0
56	MG	DA	3067	1/1	0.16	-	17,17,17,17	0
56	MG	DA	3328	1/1	0.19	-	23,23,23,23	0
56	MG	CA	1804	1/1	0.16	-	4,4,4,4	0
56	MG	BA	3863	1/1	0.22	-	62,62,62,62	0
56	MG	AA	1904	1/1	0.53	-	77,77,77,77	0
56	MG	B1	101	1/1	0.23	-	31,31,31,31	0
56	MG	AA	1932	1/1	0.10	-	64,64,64,64	0
56	MG	BA	3086	1/1	0.12	-	23,23,23,23	0
56	MG	BA	3421	1/1	0.27	-	45,45,45,45	0
56	MG	BA	3664	1/1	0.34	-	23,23,23,23	0
56	MG	BA	3382	1/1	0.09	-	75,75,75,75	0
56	MG	AA	1991	1/1	0.20	-	84,84,84,84	0
56	MG	BA	3389	1/1	0.81	-	75,75,75,75	0
56	MG	AB	304	1/1	0.13	-	73,73,73,73	0
56	MG	CA	1715	1/1	0.22	-	40,40,40,40	0
56	MG	BA	3910	1/1	0.24	-	40,40,40,40	0
56	MG	AA	1678	1/1	0.46	-	92,92,92,92	0
56	MG	BA	3908	1/1	0.22	-	26,26,26,26	0
56	MG	BA	3305	1/1	0.12	-	18,18,18,18	0
56	MG	CA	1788	1/1	0.28	-	94,94,94,94	0
56	MG	BA	3709	1/1	0.26	-	70,70,70,70	0
56	MG	AA	1770	1/1	0.35	-	52,52,52,52	0
56	MG	BA	3591	1/1	0.14	-	29,29,29,29	0
56	MG	DA	3311	1/1	0.21	-	72,72,72,72	0
56	MG	CF	202	1/1	0.23	-	51,51,51,51	0
56	MG	DA	3045	1/1	0.28	-	3,3,3,3	0
56	MG	AA	1807	1/1	0.12	-	36,36,36,36	0
56	MG	CA	1710	1/1	0.22	-	46,46,46,46	0
56	MG	AA	1990	1/1	0.12	-	63,63,63,63	0
56	MG	DA	3456	1/1	0.19	-	5,5,5,5	0
56	MG	AA	1638	1/1	0.57	-	72,72,72,72	0
56	MG	BA	3099	1/1	0.30	-	29,29,29,29	0
56	MG	AA	1967	1/1	0.09	-	28,28,28,28	0
56	MG	BA	3438	1/1	0.21	-	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	CT	201	1/1	0.29	-	3,3,3,3	0
56	MG	AA	1744	1/1	0.21	-	74,74,74,74	0
56	MG	DA	3426	1/1	0.18	-	5,5,5,5	0
56	MG	BB	228	1/1	0.41	-	63,63,63,63	0
56	MG	AA	1953	1/1	0.17	-	87,87,87,87	0
56	MG	DA	3188	1/1	0.22	-	3,3,3,3	0
56	MG	BA	3244	1/1	0.41	-	31,31,31,31	0
56	MG	CA	1748	1/1	0.25	-	3,3,3,3	0
56	MG	BA	3727	1/1	0.24	-	44,44,44,44	0
56	MG	BA	3479	1/1	0.20	-	30,30,30,30	0
56	MG	BA	3362	1/1	0.67	-	68,68,68,68	0
56	MG	BA	3541	1/1	0.15	-	30,30,30,30	0
56	MG	DA	3348	1/1	0.13	-	60,60,60,60	0
56	MG	CA	1814	1/1	0.15	-	66,66,66,66	0
56	MG	BA	3053	1/1	0.25	-	78,78,78,78	0
56	MG	BQ	201	1/1	0.35	-	45,45,45,45	0
56	MG	BA	3918	1/1	0.47	-	63,63,63,63	0
56	MG	DD	5001	1/1	0.12	-	33,33,33,33	0
56	MG	BA	3805	1/1	0.17	-	40,40,40,40	0
56	MG	BA	3682	1/1	0.12	-	20,20,20,20	0
56	MG	BA	3553	1/1	0.10	-	12,12,12,12	0
56	MG	AY	112	1/1	0.18	-	38,38,38,38	0
56	MG	AA	1931	1/1	0.19	-	31,31,31,31	0
56	MG	DA	3474	1/1	0.20	-	3,3,3,3	0
56	MG	BA	3522	1/1	0.05	-	36,36,36,36	0
56	MG	AC	304	1/1	0.20	-	72,72,72,72	0
56	MG	CY	113	1/1	0.18	-	27,27,27,27	0
56	MG	AY	125	1/1	0.49	-	36,36,36,36	0
56	MG	BA	3744	1/1	0.07	-	72,72,72,72	0
56	MG	BA	3387	1/1	0.11	-	56,56,56,56	0
56	MG	DA	3249	1/1	0.12	-	6,6,6,6	0
56	MG	BA	3653	1/1	0.51	-	61,61,61,61	0
56	MG	CA	1697	1/1	0.23	-	52,52,52,52	0
56	MG	BA	3677	1/1	0.15	-	30,30,30,30	0
56	MG	B8	104	1/1	0.31	-	49,49,49,49	0
56	MG	DA	3341	1/1	0.36	-	3,3,3,3	0
56	MG	DA	3490	1/1	0.27	-	3,3,3,3	0
56	MG	BA	3770	1/1	0.14	-	30,30,30,30	0
56	MG	DA	3208	1/1	0.26	-	4,4,4,4	0
56	MG	AA	1945	1/1	0.12	-	34,34,34,34	0
56	MG	DA	3429	1/1	0.39	-	3,3,3,3	0
56	MG	BA	3373	1/1	0.23	-	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3317	1/1	0.41	-	43,43,43,43	0
56	MG	BQ	202	1/1	0.12	-	18,18,18,18	0
56	MG	BA	3121	1/1	0.08	-	61,61,61,61	0
56	MG	CA	1724	1/1	0.15	-	36,36,36,36	0
56	MG	DA	3010	1/1	0.21	-	3,3,3,3	0
56	MG	CA	1796	1/1	0.18	-	77,77,77,77	0
56	MG	BA	3324	1/1	0.21	-	50,50,50,50	0
56	MG	BA	3726	1/1	0.07	-	25,25,25,25	0
56	MG	BA	3497	1/1	0.17	-	68,68,68,68	0
56	MG	CA	1676	1/1	0.70	-	42,42,42,42	0
56	MG	BA	3316	1/1	0.08	-	35,35,35,35	0
56	MG	BA	3166	1/1	0.33	-	63,63,63,63	0
56	MG	DY	201	1/1	0.12	-	3,3,3,3	0
56	MG	AA	2004	1/1	0.49	-	51,51,51,51	0
56	MG	CA	1646	1/1	0.26	-	3,3,3,3	0
56	MG	BA	3641	1/1	0.27	-	63,63,63,63	0
56	MG	BA	3396	1/1	0.29	-	42,42,42,42	0
56	MG	DA	3290	1/1	0.38	-	64,64,64,64	0
56	MG	CA	1695	1/1	0.19	-	59,59,59,59	0
56	MG	BN	201	1/1	0.16	-	70,70,70,70	0
56	MG	BA	3437	1/1	0.58	-	117,117,117,117	0
56	MG	BA	3656	1/1	0.26	-	16,16,16,16	0
56	MG	BA	3445	1/1	0.19	-	63,63,63,63	0
56	MG	AA	2017	1/1	0.25	-	47,47,47,47	0
56	MG	AA	1980	1/1	0.10	-	38,38,38,38	0
56	MG	AA	1973	1/1	0.17	-	56,56,56,56	0
56	MG	BA	3259	1/1	0.10	-	44,44,44,44	0
56	MG	DA	3398	1/1	0.49	-	55,55,55,55	0
56	MG	BA	3685	1/1	0.17	-	54,54,54,54	0
56	MG	BA	3798	1/1	0.23	-	54,54,54,54	0
56	MG	CA	1645	1/1	0.14	-	6,6,6,6	0
56	MG	BF	305	1/1	0.13	-	63,63,63,63	0
56	MG	DG	201	1/1	0.18	-	3,3,3,3	0
56	MG	BA	3705	1/1	0.23	-	42,42,42,42	0
56	MG	BA	3650	1/1	0.10	-	5,5,5,5	0
56	MG	BA	3016	1/1	0.08	-	50,50,50,50	0
56	MG	BD	5005	1/1	0.20	-	10,10,10,10	0
56	MG	DA	3172	1/1	0.23	-	3,3,3,3	0
56	MG	DA	3276	1/1	0.22	-	4,4,4,4	0
56	MG	DO	201	1/1	0.29	-	3,3,3,3	0
56	MG	AA	1659	1/1	0.18	-	49,49,49,49	0
56	MG	BA	3776	1/1	0.22	-	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	BA	3915	1/1	0.24	-	41,41,41,41	0
56	MG	BA	3107	1/1	0.10	-	49,49,49,49	0
56	MG	DA	3325	1/1	0.32	-	3,3,3,3	0
56	MG	AA	1746	1/1	0.24	-	39,39,39,39	0
56	MG	AA	2020	1/1	0.12	-	74,74,74,74	0
56	MG	BA	3435	1/1	0.13	-	32,32,32,32	0
56	MG	AA	1965	1/1	0.31	-	54,54,54,54	0
56	MG	BA	3260	1/1	0.26	-	75,75,75,75	0
56	MG	AA	1825	1/1	0.28	-	31,31,31,31	0
56	MG	D1	102	1/1	0.27	-	53,53,53,53	0
56	MG	AA	1660	1/1	0.08	-	77,77,77,77	0
56	MG	BA	3736	1/1	0.27	-	26,26,26,26	0
56	MG	DA	3454	1/1	0.14	-	45,45,45,45	0
56	MG	BA	3069	1/1	0.20	-	65,65,65,65	0
56	MG	CA	1798	1/1	0.38	-	3,3,3,3	0
56	MG	BA	3399	1/1	0.11	-	73,73,73,73	0
56	MG	CF	204	1/1	0.32	-	3,3,3,3	0
56	MG	AA	1801	1/1	0.08	-	55,55,55,55	0
56	MG	AA	1647	1/1	0.29	-	64,64,64,64	0
56	MG	CA	1759	1/1	0.25	-	48,48,48,48	0
56	MG	DD	5009	1/1	0.29	-	29,29,29,29	0
56	MG	AA	1679	1/1	0.41	-	51,51,51,51	0
56	MG	BA	3455	1/1	0.10	-	26,26,26,26	0
56	MG	CA	1664	1/1	0.15	-	3,3,3,3	0
56	MG	BA	3120	1/1	0.32	-	53,53,53,53	0
56	MG	BA	3132	1/1	0.17	-	40,40,40,40	0
56	MG	BA	3510	1/1	0.22	-	61,61,61,61	0
56	MG	BA	3713	1/1	0.21	-	33,33,33,33	0
56	MG	BA	3015	1/1	0.30	-	60,60,60,60	0
56	MG	BA	3619	1/1	0.18	-	42,42,42,42	0
56	MG	BA	3742	1/1	0.13	-	70,70,70,70	0
56	MG	CY	105	1/1	0.15	-	52,52,52,52	0
56	MG	AA	1809	1/1	0.23	-	90,90,90,90	0
56	MG	BA	3328	1/1	0.08	-	38,38,38,38	0
56	MG	BA	3084	1/1	0.55	-	62,62,62,62	0
56	MG	BA	3081	1/1	0.29	-	31,31,31,31	0
56	MG	BA	3138	1/1	0.17	-	27,27,27,27	0
56	MG	AY	118	1/1	0.12	-	83,83,83,83	0
56	MG	BA	3274	1/1	0.14	-	21,21,21,21	0
56	MG	BA	3224	1/1	0.07	-	32,32,32,32	0
56	MG	BA	3544	1/1	0.36	-	72,72,72,72	0
56	MG	DA	3028	1/1	0.23	-	4,4,4,4	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	0.55	-	78,78,78,78	0
56	MG	DA	3380	1/1	0.26	-	64,64,64,64	0
56	MG	AA	1978	1/1	0.19	-	35,35,35,35	0
56	MG	BA	3589	1/1	0.09	-	29,29,29,29	0
56	MG	DA	3475	1/1	0.13	-	3,3,3,3	0
56	MG	CA	1609	1/1	0.27	-	3,3,3,3	0
56	MG	BB	201	1/1	0.29	-	59,59,59,59	0
56	MG	BA	3551	1/1	0.23	-	19,19,19,19	0
56	MG	DA	3377	1/1	0.11	-	43,43,43,43	0
56	MG	BA	3427	1/1	0.16	-	34,34,34,34	0
56	MG	BA	3198	1/1	0.50	-	76,76,76,76	0
56	MG	CA	1752	1/1	0.30	-	3,3,3,3	0
56	MG	BA	3826	1/1	0.12	-	28,28,28,28	0
56	MG	AA	1895	1/1	0.12	-	52,52,52,52	0
56	MG	AA	1673	1/1	0.11	-	64,64,64,64	0
56	MG	BA	3070	1/1	0.25	-	37,37,37,37	0
56	MG	CA	1667	1/1	0.16	-	58,58,58,58	0
56	MG	CA	1706	1/1	0.28	-	62,62,62,62	0
56	MG	AA	1709	1/1	0.17	-	54,54,54,54	0
56	MG	BA	3820	1/1	0.24	-	59,59,59,59	0
56	MG	BA	3904	1/1	0.46	-	53,53,53,53	0
56	MG	BA	3599	1/1	0.51	-	50,50,50,50	0
56	MG	DA	3425	1/1	0.15	-	5,5,5,5	0
56	MG	CA	1683	1/1	0.16	-	61,61,61,61	0
56	MG	BA	3348	1/1	0.18	-	37,37,37,37	0
56	MG	DA	3359	1/1	0.10	-	42,42,42,42	0
56	MG	CA	1620	1/1	0.17	-	4,4,4,4	0
56	MG	BA	3882	1/1	0.20	-	42,42,42,42	0
56	MG	DA	3073	1/1	0.14	-	6,6,6,6	0
56	MG	AA	1918	1/1	0.05	-	58,58,58,58	0
56	MG	AA	1602	1/1	0.47	-	74,74,74,74	0
56	MG	BA	3885	1/1	0.13	-	67,67,67,67	0
56	MG	BA	3488	1/1	0.24	-	52,52,52,52	0
56	MG	AT	202	1/1	0.08	-	58,58,58,58	0
56	MG	AA	2001	1/1	0.15	-	29,29,29,29	0
56	MG	AA	1829	1/1	0.23	-	43,43,43,43	0
56	MG	BA	3897	1/1	0.22	-	48,48,48,48	0
56	MG	AX	408	1/1	0.10	-	57,57,57,57	0
56	MG	BA	3604	1/1	0.48	-	50,50,50,50	0
56	MG	DA	3369	1/1	0.14	-	43,43,43,43	0
56	MG	CA	1688	1/1	0.30	-	54,54,54,54	0
56	MG	BA	3409	1/1	0.12	-	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3560	1/1	0.32	-	52,52,52,52	0
56	MG	AA	1616	1/1	0.27	-	47,47,47,47	0
56	MG	DA	3221	1/1	0.38	-	52,52,52,52	0
56	MG	BA	3511	1/1	0.10	-	43,43,43,43	0
56	MG	AA	1778	1/1	0.22	-	37,37,37,37	0
56	MG	AA	1614	1/1	0.37	-	49,49,49,49	0
56	MG	AA	1655	1/1	0.13	-	61,61,61,61	0
56	MG	DA	3422	1/1	0.18	-	2,2,2,2	0
56	MG	DA	3402	1/1	0.15	-	32,32,32,32	0
56	MG	AA	1874	1/1	0.20	-	44,44,44,44	0
56	MG	DA	3268	1/1	0.11	-	4,4,4,4	0
56	MG	BA	3027	1/1	0.47	-	86,86,86,86	0
56	MG	CA	1631	1/1	0.21	-	3,3,3,3	0
56	MG	AA	1802	1/1	0.15	-	39,39,39,39	0
56	MG	AA	1897	1/1	0.36	-	62,62,62,62	0
56	MG	AA	1818	1/1	0.58	-	74,74,74,74	0
56	MG	DB	208	1/1	0.14	-	3,3,3,3	0
56	MG	BA	3701	1/1	0.10	-	58,58,58,58	0
56	MG	DA	3023	1/1	0.23	-	3,3,3,3	0
56	MG	DA	3159	1/1	0.29	-	3,3,3,3	0
56	MG	BA	3082	1/1	0.26	-	56,56,56,56	0
56	MG	BA	3502	1/1	0.13	-	61,61,61,61	0
56	MG	CA	1606	1/1	0.32	-	3,3,3,3	0
56	MG	BA	3349	1/1	0.17	-	46,46,46,46	0
56	MG	BA	3683	1/1	0.34	-	63,63,63,63	0
56	MG	DA	3466	1/1	0.23	-	3,3,3,3	0
56	MG	DA	3471	1/1	0.19	-	4,4,4,4	0
56	MG	DD	5003	1/1	0.22	-	65,65,65,65	0
56	MG	AA	1745	1/1	0.05	-	75,75,75,75	0
56	MG	CA	1684	1/1	0.18	-	74,74,74,74	0
56	MG	AA	1627	1/1	0.12	-	29,29,29,29	0
56	MG	BA	3004	1/1	0.12	-	27,27,27,27	0
56	MG	BH	203	1/1	0.09	-	56,56,56,56	0
56	MG	AZ	101	1/1	0.12	-	63,63,63,63	0
56	MG	DA	3088	1/1	0.15	-	4,4,4,4	0
56	MG	BA	3403	1/1	0.41	-	98,98,98,98	0
56	MG	BA	3343	1/1	0.71	-	70,70,70,70	0
56	MG	CA	1771	1/1	0.33	-	80,80,80,80	0
56	MG	AA	1981	1/1	0.14	-	52,52,52,52	0
56	MG	DA	3436	1/1	0.20	-	4,4,4,4	0
56	MG	BA	3248	1/1	0.31	-	43,43,43,43	0
56	MG	BA	3639	1/1	0.22	-	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	3055	1/1	0.26	-	3,3,3,3	0
56	MG	DA	3032	1/1	0.07	-	6,6,6,6	0
56	MG	BA	3256	1/1	0.43	-	60,60,60,60	0
56	MG	BA	3232	1/1	0.10	-	58,58,58,58	0
56	MG	DA	3428	1/1	0.38	-	3,3,3,3	0
56	MG	DA	3396	1/1	0.19	-	66,66,66,66	0
56	MG	BB	205	1/1	0.51	-	100,100,100,100	0
56	MG	AA	1924	1/1	0.24	-	58,58,58,58	0
56	MG	BA	3023	1/1	0.22	-	44,44,44,44	0
56	MG	BR	201	1/1	0.12	-	34,34,34,34	0
56	MG	AX	412	1/1	0.17	-	56,56,56,56	0
56	MG	BA	3602	1/1	0.28	-	43,43,43,43	0
56	MG	BA	3765	1/1	0.44	-	60,60,60,60	0
56	MG	DA	3349	1/1	0.17	-	29,29,29,29	0
56	MG	DA	3299	1/1	0.18	-	50,50,50,50	0
56	MG	BA	3297	1/1	0.24	-	45,45,45,45	0
56	MG	AA	1688	1/1	0.08	-	68,68,68,68	0
56	MG	BA	3472	1/1	0.13	-	10,10,10,10	0
56	MG	AJ	201	1/1	0.10	-	49,49,49,49	0
56	MG	BA	3336	1/1	0.10	-	45,45,45,45	0
56	MG	BA	3357	1/1	0.16	-	31,31,31,31	0
56	MG	DA	3133	1/1	0.14	-	19,19,19,19	0
56	MG	DA	3016	1/1	0.15	-	3,3,3,3	0
56	MG	CA	1708	1/1	0.17	-	36,36,36,36	0
56	MG	DA	3193	1/1	0.16	-	7,7,7,7	0
56	MG	BB	223	1/1	0.10	-	27,27,27,27	0
56	MG	AA	1613	1/1	0.23	-	45,45,45,45	0
56	MG	DA	3227	1/1	0.32	-	3,3,3,3	0
56	MG	AA	1619	1/1	0.54	-	62,62,62,62	0
56	MG	BA	3298	1/1	0.28	-	30,30,30,30	0
56	MG	DA	3491	1/1	0.32	-	3,3,3,3	0
56	MG	AA	1835	1/1	0.23	-	37,37,37,37	0
56	MG	AA	2006	1/1	0.16	-	53,53,53,53	0
56	MG	DA	3002	1/1	0.32	-	3,3,3,3	0
56	MG	AA	1632	1/1	0.12	-	35,35,35,35	0
56	MG	CA	1756	1/1	0.21	-	3,3,3,3	0
56	MG	BA	3193	1/1	0.49	-	83,83,83,83	0
56	MG	DA	3203	1/1	0.30	-	15,15,15,15	0
56	MG	BA	3659	1/1	0.19	-	43,43,43,43	0
56	MG	B8	103	1/1	0.17	-	61,61,61,61	0
56	MG	BA	3543	1/1	0.24	-	38,38,38,38	0
56	MG	BB	235	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	CA	1764	1/1	0.27	-	3,3,3,3	0
56	MG	AX	407	1/1	0.65	-	60,60,60,60	0
56	MG	AA	1628	1/1	0.19	-	51,51,51,51	0
56	MG	AA	1670	1/1	0.21	-	67,67,67,67	0
56	MG	BA	3470	1/1	0.35	-	77,77,77,77	0
56	MG	BA	3167	1/1	0.40	-	22,22,22,22	0
56	MG	DA	3260	1/1	0.36	-	3,3,3,3	0
56	MG	BA	3572	1/1	0.16	-	34,34,34,34	0
56	MG	CA	1647	1/1	0.20	-	3,3,3,3	0
56	MG	BA	3284	1/1	0.18	-	15,15,15,15	0
56	MG	AA	1621	1/1	0.14	-	25,25,25,25	0
56	MG	DA	3224	1/1	0.13	-	5,5,5,5	0
56	MG	DA	3337	1/1	0.16	-	4,4,4,4	0
56	MG	BA	3457	1/1	0.28	-	11,11,11,11	0
56	MG	CA	1807	1/1	0.35	-	3,3,3,3	0
56	MG	BD	5007	1/1	0.23	-	55,55,55,55	0
56	MG	BA	3819	1/1	0.43	-	34,34,34,34	0
56	MG	AB	303	1/1	0.12	-	40,40,40,40	0
56	MG	AA	1992	1/1	0.18	-	77,77,77,77	0
56	MG	BQ	205	1/1	0.29	-	57,57,57,57	0
56	MG	BA	3350	1/1	0.24	-	31,31,31,31	0
56	MG	CA	1654	1/1	0.21	-	28,28,28,28	0
56	MG	CA	1601	1/1	0.26	-	3,3,3,3	0
56	MG	CA	1634	1/1	0.11	-	6,6,6,6	0
56	MG	BA	3059	1/1	0.10	-	74,74,74,74	0
56	MG	BA	3582	1/1	0.05	-	55,55,55,55	0
56	MG	DA	3482	1/1	0.20	-	4,4,4,4	0
56	MG	AA	1892	1/1	0.25	-	30,30,30,30	0
56	MG	AA	1642	1/1	0.15	-	57,57,57,57	0
56	MG	DA	3206	1/1	0.15	-	5,5,5,5	0
56	MG	DA	3147	1/1	0.32	-	3,3,3,3	0
56	MG	BA	3155	1/1	0.37	-	46,46,46,46	0
56	MG	DA	3312	1/1	0.14	-	46,46,46,46	0
56	MG	BA	3635	1/1	0.07	-	37,37,37,37	0
56	MG	BA	3890	1/1	0.17	-	25,25,25,25	0
56	MG	CZ	106	1/1	0.21	-	82,82,82,82	0
56	MG	DA	3320	1/1	0.59	-	82,82,82,82	0
56	MG	BA	3322	1/1	0.18	-	40,40,40,40	0
56	MG	BA	3434	1/1	0.23	-	68,68,68,68	0
56	MG	CA	1743	1/1	0.09	-	52,52,52,52	0
56	MG	DA	3218	1/1	0.13	-	4,4,4,4	0
56	MG	CA	1789	1/1	0.34	-	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	AX	404	1/1	0.45	-	92,92,92,92	0
56	MG	AZ	111	1/1	0.20	-	71,71,71,71	0
56	MG	CA	1773	1/1	0.13	-	66,66,66,66	0
56	MG	BU	201	1/1	0.33	-	83,83,83,83	0
56	MG	AA	1798	1/1	0.13	-	25,25,25,25	0
56	MG	CA	1626	1/1	0.50	-	3,3,3,3	0
56	MG	BA	3480	1/1	0.21	-	43,43,43,43	0
56	MG	DA	3211	1/1	0.23	-	4,4,4,4	0
56	MG	CY	101	1/1	0.25	-	3,3,3,3	0
56	MG	DA	3444	1/1	0.35	-	3,3,3,3	0
56	MG	DA	3266	1/1	0.25	-	3,3,3,3	0
56	MG	DA	3433	1/1	0.24	-	3,3,3,3	0
56	MG	BA	3824	1/1	0.15	-	17,17,17,17	0
56	MG	BA	3251	1/1	0.11	-	41,41,41,41	0
56	MG	BA	3441	1/1	0.55	-	70,70,70,70	0
56	MG	DA	3427	1/1	0.54	-	3,3,3,3	0
56	MG	AK	201	1/1	0.53	-	76,76,76,76	0
56	MG	DA	3286	1/1	0.22	-	33,33,33,33	0
56	MG	AA	1810	1/1	0.51	-	64,64,64,64	0
56	MG	BA	3253	1/1	0.35	-	71,71,71,71	0
56	MG	BA	3595	1/1	0.21	-	62,62,62,62	0
56	MG	BA	3339	1/1	0.36	-	66,66,66,66	0
56	MG	BA	3412	1/1	0.18	-	64,64,64,64	0
56	MG	DT	201	1/1	0.31	-	3,3,3,3	0
56	MG	AY	103	1/1	0.09	-	87,87,87,87	0
56	MG	AA	1933	1/1	0.14	-	75,75,75,75	0
56	MG	AD	5003	1/1	0.07	-	42,42,42,42	0
56	MG	BA	3563	1/1	0.13	-	57,57,57,57	0
56	MG	AA	1956	1/1	0.25	-	58,58,58,58	0
56	MG	BA	3201	1/1	0.23	-	67,67,67,67	0
56	MG	BA	3178	1/1	0.20	-	51,51,51,51	0
56	MG	DA	3363	1/1	0.36	-	3,3,3,3	0
56	MG	CA	1741	1/1	0.27	-	50,50,50,50	0
56	MG	BA	3308	1/1	0.12	-	8,8,8,8	0
56	MG	AA	1645	1/1	0.21	-	42,42,42,42	0
56	MG	CA	1746	1/1	0.16	-	57,57,57,57	0
56	MG	AA	1724	1/1	0.09	-	35,35,35,35	0
56	MG	BA	3040	1/1	0.30	-	97,97,97,97	0
56	MG	BA	3140	1/1	0.22	-	33,33,33,33	0
56	MG	DA	3066	1/1	0.18	-	43,43,43,43	0
56	MG	DA	3014	1/1	0.33	-	3,3,3,3	0
56	MG	DA	3072	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	AZ	107	1/1	0.08	-	78,78,78,78	0
56	MG	DA	3046	1/1	0.22	-	4,4,4,4	0
56	MG	DA	3196	1/1	0.26	-	4,4,4,4	0
56	MG	CY	106	1/1	0.30	-	66,66,66,66	0
56	MG	BA	3418	1/1	0.63	-	54,54,54,54	0
56	MG	AA	1942	1/1	0.16	-	34,34,34,34	0
56	MG	BA	3504	1/1	0.09	-	34,34,34,34	0
56	MG	B6	101	1/1	0.11	-	44,44,44,44	0
56	MG	BA	3816	1/1	0.18	-	38,38,38,38	0
56	MG	BA	3487	1/1	0.18	-	26,26,26,26	0
56	MG	AO	102	1/1	0.25	-	48,48,48,48	0
56	MG	BA	3700	1/1	0.14	-	72,72,72,72	0
56	MG	DA	3102	1/1	0.33	-	74,74,74,74	0
56	MG	CA	1727	1/1	0.11	-	53,53,53,53	0
56	MG	CA	1793	1/1	0.43	-	3,3,3,3	0
56	MG	AY	121	1/1	0.13	-	41,41,41,41	0
56	MG	CA	1675	1/1	0.30	-	65,65,65,65	0
56	MG	CA	1713	1/1	0.60	-	80,80,80,80	0
56	MG	CA	1610	1/1	0.18	-	4,4,4,4	0
56	MG	BA	3314	1/1	0.23	-	22,22,22,22	0
56	MG	CA	1619	1/1	0.24	-	4,4,4,4	0
56	MG	DA	3389	1/1	0.16	-	70,70,70,70	0
56	MG	BA	3035	1/1	0.32	-	51,51,51,51	0
56	MG	AA	1786	1/1	0.18	-	61,61,61,61	0
56	MG	BA	3162	1/1	0.29	-	58,58,58,58	0
56	MG	CY	114	1/1	0.34	-	39,39,39,39	0
56	MG	BA	3337	1/1	0.22	-	69,69,69,69	0
56	MG	BA	3500	1/1	0.10	-	21,21,21,21	0
56	MG	BA	3767	1/1	0.16	-	31,31,31,31	0
56	MG	AA	1643	1/1	0.34	-	50,50,50,50	0
56	MG	BA	3719	1/1	0.23	-	37,37,37,37	0
56	MG	AB	305	1/1	0.18	-	56,56,56,56	0
56	MG	DA	3406	1/1	0.14	-	5,5,5,5	0
56	MG	DA	3265	1/1	0.19	-	3,3,3,3	0
56	MG	BA	3689	1/1	0.24	-	80,80,80,80	0
56	MG	CA	1628	1/1	0.19	-	4,4,4,4	0
56	MG	AA	1623	1/1	0.42	-	74,74,74,74	0
56	MG	DA	3163	1/1	0.22	-	3,3,3,3	0
56	MG	BA	3512	1/1	0.09	-	62,62,62,62	0
56	MG	BA	3252	1/1	0.11	-	80,80,80,80	0
56	MG	BA	3229	1/1	0.21	-	47,47,47,47	0
56	MG	BA	3892	1/1	0.17	-	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	1719	1/1	0.12	-	13,13,13,13	0
56	MG	AA	1750	1/1	0.14	-	97,97,97,97	0
56	MG	DA	3397	1/1	0.26	-	24,24,24,24	0
56	MG	DA	3004	1/1	0.40	-	3,3,3,3	0
56	MG	DA	3421	1/1	0.10	-	35,35,35,35	0
56	MG	BA	3507	1/1	0.20	-	82,82,82,82	0
56	MG	BF	304	1/1	0.31	-	65,65,65,65	0
56	MG	DD	5005	1/1	0.48	-	51,51,51,51	0
56	MG	AA	1890	1/1	0.17	-	21,21,21,21	0
56	MG	DA	3295	1/1	0.20	-	33,33,33,33	0
56	MG	BA	3039	1/1	0.46	-	67,67,67,67	0
56	MG	CA	1787	1/1	0.11	-	57,57,57,57	0
56	MG	BA	3128	1/1	0.24	-	60,60,60,60	0
56	MG	AA	1713	1/1	0.28	-	39,39,39,39	0
56	MG	AA	1658	1/1	0.15	-	29,29,29,29	0
56	MG	DA	3449	1/1	0.18	-	53,53,53,53	0
56	MG	BA	3678	1/1	0.41	-	37,37,37,37	0
56	MG	BA	3126	1/1	0.10	-	46,46,46,46	0
56	MG	DA	3414	1/1	0.12	-	5,5,5,5	0
56	MG	DA	3099	1/1	0.26	-	3,3,3,3	0
56	MG	CA	1704	1/1	0.35	-	63,63,63,63	0
56	MG	DA	3217	1/1	0.09	-	58,58,58,58	0
56	MG	CA	1652	1/1	0.62	-	44,44,44,44	0
56	MG	DA	3452	1/1	0.25	-	38,38,38,38	0
56	MG	AA	1639	1/1	0.23	-	59,59,59,59	0
56	MG	BA	3477	1/1	0.13	-	53,53,53,53	0
56	MG	CA	1802	1/1	0.27	-	3,3,3,3	0
56	MG	AA	1706	1/1	0.11	-	36,36,36,36	0
56	MG	CA	1806	1/1	0.29	-	3,3,3,3	0
56	MG	BA	3426	1/1	0.28	-	20,20,20,20	0
56	MG	AA	1737	1/1	0.27	-	36,36,36,36	0
56	MG	BA	3311	1/1	0.25	-	44,44,44,44	0
56	MG	BA	3018	1/1	0.20	-	40,40,40,40	0
56	MG	CA	1725	1/1	0.05	-	54,54,54,54	0
56	MG	AA	1609	1/1	0.16	-	58,58,58,58	0
56	MG	DA	3210	1/1	0.34	-	3,3,3,3	0
56	MG	CY	112	1/1	0.25	-	3,3,3,3	0
56	MG	BA	3026	1/1	0.16	-	33,33,33,33	0
56	MG	DA	3353	1/1	0.06	-	61,61,61,61	0
56	MG	B1	107	1/1	0.12	-	56,56,56,56	0
56	MG	BA	3814	1/1	0.49	-	47,47,47,47	0
56	MG	AA	1663	1/1	0.12	-	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	3281	1/1	0.32	-	63,63,63,63	0
56	MG	CK	201	1/1	0.25	-	70,70,70,70	0
56	MG	AA	2012	1/1	0.30	-	55,55,55,55	0
56	MG	DD	5007	1/1	0.29	-	11,11,11,11	0
56	MG	BA	3643	1/1	0.37	-	68,68,68,68	0
56	MG	BA	3024	1/1	0.32	-	87,87,87,87	0
56	MG	CA	1672	1/1	0.34	-	3,3,3,3	0
56	MG	BA	3526	1/1	0.21	-	49,49,49,49	0
56	MG	DR	201	1/1	0.27	-	3,3,3,3	0
56	MG	AA	1824	1/1	0.55	-	34,34,34,34	0
56	MG	AA	1665	1/1	0.10	-	38,38,38,38	0
56	MG	AA	1618	1/1	0.15	-	50,50,50,50	0
56	MG	DA	3309	1/1	0.18	-	4,4,4,4	0
56	MG	BA	3830	1/1	0.13	-	12,12,12,12	0
56	MG	DA	3118	1/1	0.29	-	6,6,6,6	0
56	MG	BA	3666	1/1	0.13	-	46,46,46,46	0
56	MG	AA	1949	1/1	0.17	-	90,90,90,90	0
56	MG	DA	3345	1/1	0.59	-	3,3,3,3	0
56	MG	BA	3378	1/1	0.10	-	32,32,32,32	0
56	MG	BA	3447	1/1	0.26	-	31,31,31,31	0
57	ZN	AN	101	1/1	0.11	-	82,82,82,82	0
56	MG	BW	202	1/1	0.18	-	38,38,38,38	0
56	MG	DA	3385	1/1	0.20	-	51,51,51,51	0
56	MG	BA	3037	1/1	0.23	-	61,61,61,61	0
56	MG	AA	1972	1/1	0.14	-	43,43,43,43	0
56	MG	BA	3125	1/1	0.07	-	26,26,26,26	0
56	MG	BA	3657	1/1	0.53	-	56,56,56,56	0
56	MG	BA	3686	1/1	0.35	-	49,49,49,49	0
56	MG	DA	3092	1/1	0.24	-	4,4,4,4	0
56	MG	BA	3471	1/1	0.41	-	50,50,50,50	0
56	MG	DA	3087	1/1	0.30	-	3,3,3,3	0
56	MG	AR	101	1/1	0.08	-	32,32,32,32	0
56	MG	AA	1987	1/1	0.08	-	40,40,40,40	0
56	MG	DA	3382	1/1	0.06	-	42,42,42,42	0
56	MG	BA	3621	1/1	0.15	-	50,50,50,50	0
56	MG	AA	1939	1/1	0.45	-	47,47,47,47	0
56	MG	BA	3263	1/1	0.57	-	47,47,47,47	0
56	MG	AA	1635	1/1	0.12	-	52,52,52,52	0
56	MG	BA	3687	1/1	0.22	-	59,59,59,59	0
56	MG	DA	3005	1/1	0.16	-	3,3,3,3	0
56	MG	BA	3714	1/1	0.30	-	60,60,60,60	0
56	MG	AA	1795	1/1	0.19	-	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	218	1/1	0.13	-	78,78,78,78	0
56	MG	BA	3762	1/1	0.17	-	28,28,28,28	0
56	MG	BA	3170	1/1	0.35	-	80,80,80,80	0
56	MG	AA	1738	1/1	0.21	-	47,47,47,47	0
56	MG	CA	1670	1/1	0.25	-	43,43,43,43	0
56	MG	CZ	108	1/1	0.18	-	69,69,69,69	0
56	MG	AA	1714	1/1	0.13	-	79,79,79,79	0
56	MG	AA	1727	1/1	0.36	-	59,59,59,59	0
56	MG	BA	3019	1/1	0.16	-	55,55,55,55	0
56	MG	DA	3293	1/1	0.34	-	61,61,61,61	0
56	MG	BA	3625	1/1	0.20	-	43,43,43,43	0
56	MG	DA	3394	1/1	0.25	-	53,53,53,53	0
56	MG	BA	3913	1/1	0.16	-	45,45,45,45	0
56	MG	DA	3124	1/1	0.13	-	14,14,14,14	0
56	MG	AA	1894	1/1	0.18	-	35,35,35,35	0
56	MG	AB	306	1/1	0.25	-	56,56,56,56	0
56	MG	CZ	105	1/1	0.05	-	74,74,74,74	0
56	MG	BA	3883	1/1	0.15	-	67,67,67,67	0
56	MG	BA	3282	1/1	0.13	-	34,34,34,34	0
56	MG	BA	3877	1/1	0.28	-	76,76,76,76	0
56	MG	AA	1781	1/1	0.24	-	28,28,28,28	0
56	MG	CA	1792	1/1	0.44	-	3,3,3,3	0
56	MG	DA	3430	1/1	0.15	-	6,6,6,6	0
56	MG	DA	3262	1/1	0.32	-	3,3,3,3	0
56	MG	DA	3478	1/1	0.36	-	3,3,3,3	0
56	MG	BX	101	1/1	0.13	-	67,67,67,67	0
56	MG	BA	3916	1/1	0.24	-	59,59,59,59	0
56	MG	DA	3292	1/1	0.25	-	74,74,74,74	0
56	MG	BA	3327	1/1	0.26	-	64,64,64,64	0
56	MG	BA	3587	1/1	0.13	-	40,40,40,40	0
56	MG	CA	1644	1/1	0.28	-	3,3,3,3	0
56	MG	AA	1702	1/1	0.40	-	48,48,48,48	0
56	MG	CY	110	1/1	0.13	-	90,90,90,90	0
56	MG	AA	1782	1/1	0.33	-	24,24,24,24	0
56	MG	CA	1720	1/1	0.11	-	27,27,27,27	0
56	MG	DA	3162	1/1	0.22	-	3,3,3,3	0
56	MG	AA	1768	1/1	0.36	-	37,37,37,37	0
56	MG	AA	1865	1/1	0.13	-	73,73,73,73	0
56	MG	CC	301	1/1	0.33	-	3,3,3,3	0
56	MG	AA	1615	1/1	0.08	-	4,4,4,4	0
56	MG	AA	1929	1/1	0.20	-	71,71,71,71	0
56	MG	AA	1836	1/1	0.35	-	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	AA	1867	1/1	0.20	-	51,51,51,51	0
56	MG	DB	206	1/1	0.13	-	4,4,4,4	0
56	MG	BA	3684	1/1	0.20	-	50,50,50,50	0
56	MG	DA	3176	1/1	0.27	-	4,4,4,4	0
56	MG	AA	1996	1/1	0.24	-	56,56,56,56	0
56	MG	BA	3637	1/1	0.40	-	61,61,61,61	0
56	MG	AA	1662	1/1	0.25	-	45,45,45,45	0
56	MG	BA	3640	1/1	0.12	-	24,24,24,24	0
56	MG	DA	3316	1/1	0.13	-	4,4,4,4	0
56	MG	BA	3672	1/1	0.06	-	18,18,18,18	0
56	MG	DA	3294	1/1	0.65	-	63,63,63,63	0
56	MG	DA	3330	1/1	0.22	-	5,5,5,5	0
56	MG	BA	3571	1/1	0.19	-	39,39,39,39	0
56	MG	BE	304	1/1	0.12	-	79,79,79,79	0
56	MG	BA	3879	1/1	0.35	-	46,46,46,46	0
56	MG	CA	1641	1/1	0.27	-	3,3,3,3	0
56	MG	DA	3347	1/1	0.10	-	35,35,35,35	0
56	MG	DA	3212	1/1	0.12	-	5,5,5,5	0
56	MG	BA	3374	1/1	0.37	-	85,85,85,85	0
56	MG	BA	3363	1/1	0.23	-	42,42,42,42	0
56	MG	CA	1621	1/1	0.29	-	3,3,3,3	0
56	MG	AA	1979	1/1	0.29	-	58,58,58,58	0
56	MG	BT	201	1/1	0.49	-	81,81,81,81	0
56	MG	AA	1812	1/1	0.23	-	65,65,65,65	0
56	MG	AA	1982	1/1	0.35	-	51,51,51,51	0
56	MG	BA	3841	1/1	0.15	-	31,31,31,31	0
56	MG	AA	1821	1/1	0.29	-	90,90,90,90	0
56	MG	BA	3089	1/1	0.34	-	69,69,69,69	0
56	MG	AA	1742	1/1	0.11	-	67,67,67,67	0
56	MG	AZ	102	1/1	0.13	-	71,71,71,71	0
56	MG	CA	1690	1/1	0.17	-	54,54,54,54	0
56	MG	CA	1671	1/1	0.15	-	63,63,63,63	0
56	MG	BA	3758	1/1	0.54	-	94,94,94,94	0
56	MG	BA	3627	1/1	0.15	-	22,22,22,22	0
56	MG	DD	5006	1/1	0.19	-	47,47,47,47	0
56	MG	BA	3315	1/1	0.18	-	28,28,28,28	0
56	MG	AA	1784	1/1	0.33	-	25,25,25,25	0
56	MG	DA	3362	1/1	0.16	-	82,82,82,82	0
56	MG	CA	1699	1/1	0.16	-	8,8,8,8	0
56	MG	CA	1635	1/1	0.16	-	4,4,4,4	0
56	MG	BA	3051	1/1	0.09	-	44,44,44,44	0
56	MG	BA	3661	1/1	0.44	-	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3365	1/1	0.20	-	3,3,3,3	0
56	MG	BA	3654	1/1	0.18	-	12,12,12,12	0
56	MG	BA	3134	1/1	0.18	-	23,23,23,23	0
56	MG	AA	1751	1/1	0.27	-	61,61,61,61	0
56	MG	AA	1843	1/1	0.10	-	41,41,41,41	0
56	MG	DA	3153	1/1	0.22	-	5,5,5,5	0
56	MG	AA	1872	1/1	0.18	-	59,59,59,59	0
56	MG	CA	1735	1/1	0.22	-	31,31,31,31	0
56	MG	BA	3537	1/1	0.13	-	38,38,38,38	0
56	MG	BA	3630	1/1	0.15	-	47,47,47,47	0
56	MG	BA	3748	1/1	0.20	-	35,35,35,35	0
56	MG	DA	3145	1/1	0.18	-	4,4,4,4	0
56	MG	BA	3034	1/1	0.14	-	43,43,43,43	0
56	MG	BA	3215	1/1	0.14	-	27,27,27,27	0
56	MG	BA	3823	1/1	0.20	-	14,14,14,14	0
56	MG	CA	1666	1/1	0.22	-	3,3,3,3	0
56	MG	BA	3190	1/1	0.41	-	77,77,77,77	0
56	MG	AE	205	1/1	0.13	-	65,65,65,65	0
56	MG	DA	3108	1/1	0.36	-	59,59,59,59	0
56	MG	BA	3292	1/1	0.87	-	36,36,36,36	0
56	MG	AA	1951	1/1	0.26	-	59,59,59,59	0
56	MG	BA	3221	1/1	0.50	-	33,33,33,33	0
56	MG	CA	1722	1/1	0.21	-	49,49,49,49	0
56	MG	BB	222	1/1	0.19	-	39,39,39,39	0
56	MG	AA	1696	1/1	0.26	-	59,59,59,59	0
56	MG	CA	1691	1/1	0.17	-	45,45,45,45	0
56	MG	AY	115	1/1	0.15	-	65,65,65,65	0
56	MG	BB	208	1/1	0.14	-	63,63,63,63	0
56	MG	DA	3026	1/1	0.30	-	3,3,3,3	0
56	MG	BV	202	1/1	0.70	-	38,38,38,38	0
56	MG	AA	1819	1/1	0.17	-	76,76,76,76	0
56	MG	AF	202	1/1	0.11	-	41,41,41,41	0
56	MG	BA	3886	1/1	0.16	-	69,69,69,69	0
56	MG	BA	3181	1/1	0.24	-	23,23,23,23	0
56	MG	AA	1794	1/1	0.15	-	19,19,19,19	0
56	MG	DA	3271	1/1	0.23	-	3,3,3,3	0
56	MG	BA	3529	1/1	0.34	-	64,64,64,64	0
56	MG	AA	1823	1/1	0.25	-	47,47,47,47	0
56	MG	BA	3119	1/1	0.26	-	54,54,54,54	0
56	MG	DA	3226	1/1	0.11	-	4,4,4,4	0
56	MG	BB	215	1/1	0.10	-	103,103,103,103	0
56	MG	DF	301	1/1	0.40	-	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	3460	1/1	0.07	-	6,6,6,6	0
56	MG	BA	3681	1/1	0.78	-	59,59,59,59	0
56	MG	AA	1986	1/1	0.28	-	52,52,52,52	0
56	MG	BB	230	1/1	0.41	-	50,50,50,50	0
56	MG	AE	208	1/1	0.12	-	42,42,42,42	0
56	MG	DA	3443	1/1	0.27	-	3,3,3,3	0
56	MG	BA	3554	1/1	0.26	-	7,7,7,7	0
56	MG	BP	201	1/1	0.41	-	68,68,68,68	0
56	MG	AA	2003	1/1	0.16	-	54,54,54,54	0
56	MG	CA	1622	1/1	0.23	-	3,3,3,3	0
56	MG	DA	3077	1/1	0.11	-	5,5,5,5	0
56	MG	AB	301	1/1	0.12	-	62,62,62,62	0
56	MG	AA	1716	1/1	0.11	-	24,24,24,24	0
56	MG	CA	1623	1/1	0.37	-	4,4,4,4	0
56	MG	AA	1700	1/1	0.25	-	45,45,45,45	0
56	MG	DA	3463	1/1	0.12	-	4,4,4,4	0
56	MG	AA	1661	1/1	0.14	-	66,66,66,66	0
56	MG	DA	3029	1/1	0.18	-	4,4,4,4	0
56	MG	BA	3058	1/1	0.08	-	67,67,67,67	0
56	MG	BA	3596	1/1	0.15	-	13,13,13,13	0
56	MG	DA	3119	1/1	0.19	-	58,58,58,58	0
56	MG	BA	3153	1/1	0.32	-	41,41,41,41	0
56	MG	CA	1745	1/1	0.21	-	36,36,36,36	0
56	MG	BE	303	1/1	0.09	-	53,53,53,53	0
56	MG	DA	3310	1/1	0.21	-	57,57,57,57	0
56	MG	AX	406	1/1	0.21	-	48,48,48,48	0
56	MG	BA	3721	1/1	0.36	-	34,34,34,34	0
56	MG	BA	3527	1/1	0.15	-	38,38,38,38	0
56	MG	BA	3096	1/1	0.08	-	60,60,60,60	0
56	MG	BA	3218	1/1	0.39	-	25,25,25,25	0
56	MG	DA	3183	1/1	0.21	-	3,3,3,3	0
56	MG	BA	3895	1/1	0.25	-	51,51,51,51	0
56	MG	DA	3319	1/1	0.18	-	43,43,43,43	0
56	MG	AA	1868	1/1	0.22	-	38,38,38,38	0
56	MG	BA	3585	1/1	0.17	-	35,35,35,35	0
56	MG	DA	3255	1/1	0.18	-	12,12,12,12	0
56	MG	BA	3276	1/1	0.33	-	52,52,52,52	0
56	MG	BI	206	1/1	0.18	-	67,67,67,67	0
56	MG	CF	205	1/1	0.15	-	57,57,57,57	0
56	MG	BA	3662	1/1	0.36	-	35,35,35,35	0
56	MG	BA	3505	1/1	0.14	-	92,92,92,92	0
56	MG	BA	3301	1/1	0.19	-	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1983	1/1	0.48	-	67,67,67,67	0
56	MG	BA	3095	1/1	0.17	-	40,40,40,40	0
56	MG	BA	3546	1/1	0.18	-	40,40,40,40	0
56	MG	BA	3212	1/1	0.08	-	29,29,29,29	0
56	MG	CA	1642	1/1	0.50	-	3,3,3,3	0
56	MG	BA	3652	1/1	0.20	-	28,28,28,28	0
56	MG	DA	3243	1/1	0.18	-	4,4,4,4	0
56	MG	DA	3400	1/1	0.14	-	52,52,52,52	0
56	MG	BA	3577	1/1	0.15	-	60,60,60,60	0
56	MG	AA	1667	1/1	0.27	-	70,70,70,70	0
56	MG	BA	3310	1/1	0.65	-	73,73,73,73	0
56	MG	DA	3201	1/1	0.12	-	6,6,6,6	0
56	MG	DA	3075	1/1	0.12	-	4,4,4,4	0
56	MG	CA	1673	1/1	0.17	-	49,49,49,49	0
56	MG	AY	117	1/1	0.16	-	68,68,68,68	0
56	MG	BA	3289	1/1	0.15	-	31,31,31,31	0
56	MG	BA	3532	1/1	0.26	-	55,55,55,55	0
56	MG	AA	1930	1/1	0.05	-	59,59,59,59	0
56	MG	BA	3462	1/1	0.14	-	35,35,35,35	0
56	MG	BA	3306	1/1	0.46	-	52,52,52,52	0
56	MG	BA	3397	1/1	0.13	-	52,52,52,52	0
56	MG	BA	3741	1/1	0.11	-	52,52,52,52	0
56	MG	AZ	105	1/1	0.08	-	78,78,78,78	0
56	MG	AA	1808	1/1	0.14	-	46,46,46,46	0
56	MG	BA	3242	1/1	0.20	-	23,23,23,23	0
56	MG	DA	3126	1/1	0.65	-	66,66,66,66	0
56	MG	AA	1963	1/1	0.18	-	56,56,56,56	0
56	MG	AA	1799	1/1	0.10	-	31,31,31,31	0
56	MG	BA	3241	1/1	0.27	-	48,48,48,48	0
56	MG	AY	124	1/1	0.37	-	51,51,51,51	0
56	MG	BA	3290	1/1	0.15	-	15,15,15,15	0
56	MG	BA	3605	1/1	0.26	-	12,12,12,12	0
56	MG	AA	1648	1/1	0.31	-	87,87,87,87	0
56	MG	BA	3405	1/1	0.21	-	44,44,44,44	0
56	MG	DA	3151	1/1	0.17	-	4,4,4,4	0
56	MG	BA	3833	1/1	0.22	-	9,9,9,9	0
56	MG	BA	3871	1/1	0.76	-	65,65,65,65	0
56	MG	AE	203	1/1	0.35	-	72,72,72,72	0
56	MG	BA	3847	1/1	0.40	-	62,62,62,62	0
56	MG	BA	3439	1/1	0.20	-	18,18,18,18	0
56	MG	BB	227	1/1	0.34	-	54,54,54,54	0
56	MG	BA	3171	1/1	0.38	-	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3302	1/1	0.13	-	44,44,44,44	0
56	MG	BA	3708	1/1	0.17	-	28,28,28,28	0
56	MG	DA	3006	1/1	0.31	-	3,3,3,3	0
56	MG	AH	201	1/1	0.16	-	27,27,27,27	0
56	MG	BA	3258	1/1	0.20	-	50,50,50,50	0
56	MG	AA	1852	1/1	0.16	-	18,18,18,18	0
56	MG	AA	1610	1/1	0.19	-	65,65,65,65	0
56	MG	AZ	108	1/1	0.06	-	60,60,60,60	0
56	MG	AA	1889	1/1	0.56	-	30,30,30,30	0
56	MG	CA	1643	1/1	0.17	-	3,3,3,3	0
56	MG	BA	3104	1/1	0.12	-	67,67,67,67	0
56	MG	AD	5004	1/1	0.26	-	48,48,48,48	0
56	MG	CZ	107	1/1	0.21	-	57,57,57,57	0
56	MG	CA	1774	1/1	0.42	-	82,82,82,82	0
56	MG	BA	3715	1/1	0.17	-	28,28,28,28	0
56	MG	DA	3228	1/1	0.11	-	4,4,4,4	0
56	MG	DA	3284	1/1	0.07	-	8,8,8,8	0
56	MG	AA	1998	1/1	0.20	-	57,57,57,57	0
56	MG	BA	3567	1/1	0.20	-	23,23,23,23	0
56	MG	CA	1737	1/1	0.12	-	35,35,35,35	0
56	MG	CA	1732	1/1	0.30	-	63,63,63,63	0
56	MG	AA	1858	1/1	0.11	-	72,72,72,72	0
56	MG	BB	225	1/1	0.20	-	48,48,48,48	0
56	MG	CZ	112	1/1	0.17	-	63,63,63,63	0
56	MG	DA	3084	1/1	0.30	-	3,3,3,3	0
56	MG	AA	1909	1/1	0.16	-	55,55,55,55	0
56	MG	DA	3300	1/1	0.34	-	78,78,78,78	0
56	MG	BA	3002	1/1	0.28	-	47,47,47,47	0
56	MG	BA	3531	1/1	0.15	-	12,12,12,12	0
56	MG	BA	3164	1/1	0.72	-	35,35,35,35	0
56	MG	AA	1780	1/1	0.16	-	24,24,24,24	0
56	MG	BA	3191	1/1	0.06	-	26,26,26,26	0
56	MG	DA	3352	1/1	0.30	-	3,3,3,3	0
56	MG	BA	3629	1/1	0.21	-	50,50,50,50	0
56	MG	BA	3730	1/1	0.52	-	86,86,86,86	0
56	MG	AA	1758	1/1	0.22	-	22,22,22,22	0
56	MG	AA	1975	1/1	0.32	-	66,66,66,66	0
56	MG	BA	3032	1/1	0.10	-	30,30,30,30	0
56	MG	BA	3465	1/1	0.27	-	59,59,59,59	0
56	MG	DA	3455	1/1	0.15	-	27,27,27,27	0
56	MG	AA	1722	1/1	0.08	-	34,34,34,34	0
56	MG	BA	3613	1/1	0.09	-	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	BG	202	1/1	0.14	-	63,63,63,63	0
56	MG	BA	3481	1/1	0.72	-	65,65,65,65	0
56	MG	BA	3072	1/1	0.32	-	61,61,61,61	0
56	MG	BY	202	1/1	0.20	-	42,42,42,42	0
56	MG	BA	3432	1/1	0.12	-	52,52,52,52	0
56	MG	DA	3112	1/1	0.13	-	26,26,26,26	0
56	MG	DD	5004	1/1	0.14	-	42,42,42,42	0
56	MG	CA	1629	1/1	0.17	-	4,4,4,4	0
56	MG	AA	1922	1/1	0.43	-	46,46,46,46	0
56	MG	DA	3388	1/1	0.12	-	19,19,19,19	0
56	MG	BA	3688	1/1	0.12	-	74,74,74,74	0
56	MG	CA	1821	1/1	0.21	-	29,29,29,29	0
56	MG	AA	1816	1/1	0.32	-	55,55,55,55	0
56	MG	BA	3390	1/1	0.09	-	67,67,67,67	0
56	MG	BA	3787	1/1	0.16	-	47,47,47,47	0
56	MG	CB	302	1/1	0.16	-	3,3,3,3	0
56	MG	DA	3420	1/1	0.17	-	4,4,4,4	0
56	MG	AA	1672	1/1	0.32	-	69,69,69,69	0
56	MG	AA	1684	1/1	0.35	-	61,61,61,61	0
56	MG	DA	3122	1/1	0.25	-	4,4,4,4	0
56	MG	BA	3376	1/1	0.15	-	39,39,39,39	0
56	MG	BA	3168	1/1	0.46	-	52,52,52,52	0
56	MG	DA	3070	1/1	0.22	-	4,4,4,4	0
56	MG	BA	3194	1/1	0.10	-	36,36,36,36	0
56	MG	DU	201	1/1	0.34	-	3,3,3,3	0
56	MG	AA	1775	1/1	0.15	-	27,27,27,27	0
56	MG	BA	3240	1/1	0.48	-	40,40,40,40	0
56	MG	DA	3458	1/1	0.15	-	6,6,6,6	0
56	MG	BA	3558	1/1	0.20	-	10,10,10,10	0
56	MG	AK	202	1/1	0.14	-	95,95,95,95	0
56	MG	BA	3801	1/1	0.18	-	51,51,51,51	0
56	MG	DA	3305	1/1	0.14	-	23,23,23,23	0
56	MG	AL	202	1/1	0.09	-	34,34,34,34	0
56	MG	DA	3012	1/1	0.27	-	3,3,3,3	0
56	MG	AA	1937	1/1	0.23	-	61,61,61,61	0
56	MG	DA	3297	1/1	1.12	-	89,89,89,89	0
56	MG	DA	3164	1/1	0.13	-	4,4,4,4	0
56	MG	AA	1888	1/1	0.35	-	39,39,39,39	0
56	MG	BA	3740	1/1	0.33	-	53,53,53,53	0
56	MG	BA	3615	1/1	0.16	-	56,56,56,56	0
56	MG	BA	3359	1/1	0.84	-	70,70,70,70	0
56	MG	DA	3048	1/1	0.23	-	4,4,4,4	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3030	1/1	0.15	-	4,4,4,4	0
56	MG	AA	1842	1/1	0.58	-	75,75,75,75	0
56	MG	BA	3499	1/1	0.11	-	57,57,57,57	0
56	MG	BA	3127	1/1	0.09	-	22,22,22,22	0
56	MG	DA	3338	1/1	0.26	-	3,3,3,3	0
56	MG	DA	3123	1/1	0.12	-	5,5,5,5	0
56	MG	BA	3388	1/1	0.09	-	61,61,61,61	0
56	MG	DA	3280	1/1	0.31	-	34,34,34,34	0
56	MG	AG	201	1/1	0.14	-	72,72,72,72	0
56	MG	BA	3061	1/1	0.10	-	76,76,76,76	0
56	MG	BA	3398	1/1	0.09	-	56,56,56,56	0
56	MG	CA	1779	1/1	0.36	-	76,76,76,76	0
56	MG	BA	3146	1/1	0.17	-	33,33,33,33	0
56	MG	CA	1731	1/1	0.22	-	3,3,3,3	0
56	MG	BZ	301	1/1	0.16	-	81,81,81,81	0
56	MG	BA	3829	1/1	0.19	-	40,40,40,40	0
56	MG	BO	202	1/1	0.13	-	54,54,54,54	0
56	MG	BA	3411	1/1	0.17	-	51,51,51,51	0
56	MG	DA	3085	1/1	0.25	-	3,3,3,3	0
56	MG	AA	1641	1/1	0.13	-	27,27,27,27	0
56	MG	AA	1622	1/1	0.32	-	72,72,72,72	0
56	MG	BA	3103	1/1	0.35	-	78,78,78,78	0
56	MG	CA	1812	1/1	0.09	-	36,36,36,36	0
56	MG	DA	3439	1/1	0.23	-	4,4,4,4	0
56	MG	DA	3098	1/1	0.28	-	3,3,3,3	0
56	MG	AY	114	1/1	0.21	-	48,48,48,48	0
56	MG	DA	3074	1/1	0.39	-	3,3,3,3	0
56	MG	BA	3780	1/1	0.28	-	32,32,32,32	0
56	MG	AA	1884	1/1	0.17	-	26,26,26,26	0
56	MG	BA	3044	1/1	0.21	-	49,49,49,49	0
56	MG	DA	3128	1/1	0.19	-	12,12,12,12	0
56	MG	AA	1605	1/1	0.32	-	88,88,88,88	0
56	MG	CA	1817	1/1	0.14	-	22,22,22,22	0
56	MG	AA	1848	1/1	0.32	-	56,56,56,56	0
56	MG	DA	3060	1/1	0.14	-	4,4,4,4	0
56	MG	DA	3373	1/1	0.27	-	92,92,92,92	0
56	MG	DA	3017	1/1	0.10	-	3,3,3,3	0
56	MG	BA	3268	1/1	0.27	-	45,45,45,45	0
56	MG	BB	224	1/1	0.20	-	65,65,65,65	0
56	MG	BA	3338	1/1	0.45	-	56,56,56,56	0
56	MG	CA	1712	1/1	0.25	-	39,39,39,39	0
56	MG	BA	3101	1/1	0.23	-	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3494	1/1	0.14	-	44,44,44,44	0
56	MG	DA	3476	1/1	0.17	-	3,3,3,3	0
56	MG	BA	3778	1/1	0.19	-	63,63,63,63	0
56	MG	AA	1946	1/1	0.11	-	59,59,59,59	0
56	MG	BA	3845	1/1	0.45	-	68,68,68,68	0
56	MG	BB	232	1/1	0.15	-	58,58,58,58	0
56	MG	AX	411	1/1	0.61	-	75,75,75,75	0
56	MG	CZ	103	1/1	0.08	-	42,42,42,42	0
56	MG	CA	1668	1/1	0.39	-	3,3,3,3	0
56	MG	DA	3177	1/1	0.40	-	3,3,3,3	0
56	MG	BA	3320	1/1	0.46	-	84,84,84,84	0
56	MG	CA	1744	1/1	0.10	-	36,36,36,36	0
56	MG	CA	1701	1/1	0.16	-	13,13,13,13	0
56	MG	BA	3046	1/1	0.14	-	38,38,38,38	0
56	MG	BA	3810	1/1	0.25	-	12,12,12,12	0
56	MG	DA	3287	1/1	0.30	-	10,10,10,10	0
56	MG	DA	3024	1/1	0.15	-	3,3,3,3	0
56	MG	AA	1620	1/1	0.25	-	56,56,56,56	0
56	MG	BA	3588	1/1	0.09	-	24,24,24,24	0
56	MG	AA	1839	1/1	0.08	-	18,18,18,18	0
56	MG	DA	3190	1/1	0.20	-	4,4,4,4	0
56	MG	DA	3049	1/1	0.15	-	5,5,5,5	0
56	MG	CA	1810	1/1	0.64	-	59,59,59,59	0
56	MG	CA	1795	1/1	0.14	-	54,54,54,54	0
56	MG	AA	1878	1/1	0.29	-	67,67,67,67	0
56	MG	BA	3342	1/1	0.17	-	20,20,20,20	0
56	MG	BA	3617	1/1	0.21	-	66,66,66,66	0
56	MG	BA	3361	1/1	0.27	-	16,16,16,16	0
56	MG	BA	3634	1/1	0.50	-	33,33,33,33	0
56	MG	AA	1675	1/1	0.22	-	58,58,58,58	0
56	MG	BA	3144	1/1	0.41	-	45,45,45,45	0
56	MG	BA	3436	1/1	0.35	-	47,47,47,47	0
56	MG	AA	1928	1/1	0.16	-	52,52,52,52	0
56	MG	BA	3851	1/1	0.21	-	17,17,17,17	0
56	MG	CA	1679	1/1	0.86	-	90,90,90,90	0
56	MG	BB	229	1/1	0.26	-	33,33,33,33	0
56	MG	CA	1819	1/1	0.12	-	36,36,36,36	0
56	MG	B4	102	1/1	0.21	-	31,31,31,31	0
56	MG	BA	3422	1/1	0.45	-	59,59,59,59	0
56	MG	BA	3791	1/1	0.37	-	63,63,63,63	0
56	MG	DA	3346	1/1	0.31	-	56,56,56,56	0
56	MG	BA	3859	1/1	0.23	-	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3278	1/1	0.24	-	60,60,60,60	0
56	MG	BY	201	1/1	0.10	-	68,68,68,68	0
56	MG	DA	3219	1/1	0.34	-	3,3,3,3	0
56	MG	BA	3920	1/1	0.23	-	54,54,54,54	0
56	MG	BA	3503	1/1	0.07	-	41,41,41,41	0
56	MG	DA	3106	1/1	0.15	-	46,46,46,46	0
56	MG	AA	1800	1/1	0.13	-	54,54,54,54	0
56	MG	DA	3223	1/1	0.29	-	4,4,4,4	0
56	MG	DA	3307	1/1	0.15	-	39,39,39,39	0
56	MG	CA	1639	1/1	0.22	-	3,3,3,3	0
56	MG	BA	3097	1/1	0.16	-	54,54,54,54	0
56	MG	BA	3243	1/1	0.11	-	26,26,26,26	0
56	MG	AY	108	1/1	0.08	-	59,59,59,59	0
56	MG	BA	3747	1/1	0.39	-	64,64,64,64	0
56	MG	CA	1608	1/1	0.22	-	3,3,3,3	0
56	MG	BA	3549	1/1	0.31	-	27,27,27,27	0
56	MG	DB	204	1/1	0.23	-	3,3,3,3	0
56	MG	DA	3018	1/1	0.22	-	3,3,3,3	0
56	MG	BA	3321	1/1	0.16	-	40,40,40,40	0
56	MG	BI	203	1/1	0.14	-	53,53,53,53	0
56	MG	BA	3106	1/1	0.10	-	68,68,68,68	0
56	MG	BA	3033	1/1	0.22	-	38,38,38,38	0
56	MG	BA	3022	1/1	0.16	-	61,61,61,61	0
56	MG	DA	3129	1/1	0.34	-	57,57,57,57	0
56	MG	BA	3679	1/1	0.18	-	5,5,5,5	0
56	MG	AA	1906	1/1	0.12	-	57,57,57,57	0
56	MG	AA	1917	1/1	0.06	-	52,52,52,52	0
56	MG	AA	1630	1/1	0.30	-	65,65,65,65	0
56	MG	CA	1714	1/1	0.30	-	62,62,62,62	0
56	MG	BA	3583	1/1	0.11	-	71,71,71,71	0
56	MG	AA	1776	1/1	0.15	-	30,30,30,30	0
56	MG	BA	3751	1/1	0.37	-	53,53,53,53	0
56	MG	BA	3815	1/1	0.28	-	28,28,28,28	0
56	MG	CA	1663	1/1	0.24	-	3,3,3,3	0
56	MG	BA	3080	1/1	0.18	-	29,29,29,29	0
56	MG	BA	3792	1/1	0.32	-	85,85,85,85	0
56	MG	BA	3670	1/1	0.27	-	37,37,37,37	0
56	MG	BA	3074	1/1	0.13	-	26,26,26,26	0
56	MG	AA	1755	1/1	0.22	-	47,47,47,47	0
56	MG	DA	3288	1/1	0.18	-	33,33,33,33	0
56	MG	AA	1752	1/1	0.16	-	66,66,66,66	0
56	MG	BA	3711	1/1	0.25	-	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1962	1/1	0.55	-	48,48,48,48	0
56	MG	BA	3111	1/1	0.23	-	35,35,35,35	0
56	MG	BA	3647	1/1	0.16	-	48,48,48,48	0
56	MG	CY	111	1/1	0.26	-	60,60,60,60	0
56	MG	CA	1648	1/1	0.20	-	33,33,33,33	0
56	MG	AK	203	1/1	0.11	-	49,49,49,49	0
56	MG	AY	107	1/1	0.10	-	67,67,67,67	0
56	MG	BA	3889	1/1	0.17	-	44,44,44,44	0
56	MG	DA	3095	1/1	0.24	-	3,3,3,3	0
56	MG	BA	3214	1/1	0.32	-	19,19,19,19	0
56	MG	BH	201	1/1	0.05	-	54,54,54,54	0
56	MG	CA	1717	1/1	0.16	-	21,21,21,21	0
56	MG	BA	3261	1/1	0.18	-	14,14,14,14	0
56	MG	AA	1950	1/1	0.09	-	73,73,73,73	0
56	MG	AA	1974	1/1	0.23	-	48,48,48,48	0
56	MG	BA	3323	1/1	0.26	-	57,57,57,57	0
56	MG	DA	3450	1/1	0.22	-	12,12,12,12	0
56	MG	BA	3598	1/1	0.42	-	73,73,73,73	0
56	MG	CA	1747	1/1	0.48	-	3,3,3,3	0
56	MG	BA	3856	1/1	0.10	-	36,36,36,36	0
56	MG	DA	3374	1/1	0.25	-	3,3,3,3	0
56	MG	BA	3763	1/1	0.13	-	52,52,52,52	0
56	MG	BA	3633	1/1	0.15	-	36,36,36,36	0
56	MG	DA	3313	1/1	0.38	-	69,69,69,69	0
56	MG	BA	3628	1/1	0.15	-	71,71,71,71	0
56	MG	CA	1808	1/1	0.53	-	3,3,3,3	0
56	MG	DA	3234	1/1	0.18	-	3,3,3,3	0
56	MG	BA	3789	1/1	0.09	-	36,36,36,36	0
56	MG	BA	3157	1/1	0.46	-	55,55,55,55	0
56	MG	BA	3231	1/1	0.20	-	63,63,63,63	0
56	MG	BA	3377	1/1	0.10	-	73,73,73,73	0
56	MG	AA	1787	1/1	0.29	-	54,54,54,54	0
56	MG	AA	1783	1/1	0.46	-	28,28,28,28	0
56	MG	DA	3154	1/1	0.23	-	3,3,3,3	0
56	MG	AA	2010	1/1	0.20	-	33,33,33,33	0
56	MG	DA	3489	1/1	0.19	-	4,4,4,4	0
56	MG	D1	101	1/1	0.33	-	3,3,3,3	0
56	MG	BA	3716	1/1	0.13	-	24,24,24,24	0
56	MG	BA	3137	1/1	0.12	-	19,19,19,19	0
56	MG	DA	3140	1/1	0.20	-	3,3,3,3	0
56	MG	AA	1740	1/1	0.23	-	30,30,30,30	0
56	MG	CA	1611	1/1	0.25	-	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	CG	202	1/1	0.16	-	82,82,82,82	0
56	MG	AA	1607	1/1	0.17	-	62,62,62,62	0
56	MG	AA	1936	1/1	0.24	-	97,97,97,97	0
56	MG	AA	1748	1/1	0.08	-	41,41,41,41	0
56	MG	AA	1640	1/1	0.22	-	36,36,36,36	0
56	MG	BA	3347	1/1	0.09	-	43,43,43,43	0
56	MG	AX	405	1/1	0.08	-	74,74,74,74	0
56	MG	BA	3461	1/1	0.21	-	69,69,69,69	0
56	MG	CH	202	1/1	0.14	-	59,59,59,59	0
56	MG	BA	3565	1/1	0.28	-	50,50,50,50	0
56	MG	DA	3136	1/1	0.16	-	8,8,8,8	0
56	MG	DA	3308	1/1	0.19	-	46,46,46,46	0
56	MG	AA	1840	1/1	0.28	-	26,26,26,26	0
56	MG	CQ	201	1/1	0.37	-	3,3,3,3	0
56	MG	BA	3738	1/1	0.55	-	57,57,57,57	0
56	MG	BA	3825	1/1	0.23	-	45,45,45,45	0
56	MG	BA	3680	1/1	0.16	-	60,60,60,60	0
56	MG	DA	3252	1/1	0.38	-	23,23,23,23	0
56	MG	BA	3697	1/1	0.45	-	72,72,72,72	0
56	MG	BA	3518	1/1	0.26	-	58,58,58,58	0
56	MG	CK	202	1/1	0.20	-	91,91,91,91	0
56	MG	AF	201	1/1	0.18	-	87,87,87,87	0
56	MG	BA	3760	1/1	0.36	-	49,49,49,49	0
56	MG	BA	3614	1/1	0.23	-	56,56,56,56	0
56	MG	BA	3402	1/1	0.12	-	49,49,49,49	0
56	MG	BA	3506	1/1	0.21	-	59,59,59,59	0
56	MG	AA	1911	1/1	0.10	-	63,63,63,63	0
56	MG	BA	3287	1/1	0.22	-	27,27,27,27	0
56	MG	BA	3746	1/1	0.48	-	71,71,71,71	0
56	MG	AY	102	1/1	0.10	-	58,58,58,58	0
56	MG	AD	5002	1/1	0.14	-	64,64,64,64	0
56	MG	BF	303	1/1	0.88	-	50,50,50,50	0
56	MG	BA	3367	1/1	0.26	-	53,53,53,53	0
56	MG	CA	1603	1/1	0.20	-	4,4,4,4	0
56	MG	BA	3547	1/1	0.18	-	16,16,16,16	0
56	MG	AA	2008	1/1	0.16	-	49,49,49,49	0
56	MG	BA	3898	1/1	0.31	-	38,38,38,38	0
56	MG	BA	3922	1/1	0.10	-	56,56,56,56	0
56	MG	CA	1775	1/1	0.41	-	91,91,91,91	0
56	MG	BA	3564	1/1	0.21	-	54,54,54,54	0
56	MG	AM	203	1/1	0.30	-	47,47,47,47	0
56	MG	BA	3281	1/1	0.16	-	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1681	1/1	0.21	-	3,3,3,3	0
56	MG	BA	3142	1/1	0.16	-	24,24,24,24	0
56	MG	BA	3891	1/1	0.26	-	58,58,58,58	0
56	MG	AA	1903	1/1	0.49	-	54,54,54,54	0
56	MG	AA	1612	1/1	0.36	-	68,68,68,68	0
56	MG	CA	1659	1/1	0.20	-	3,3,3,3	0
56	MG	BA	3586	1/1	0.08	-	18,18,18,18	0
56	MG	BA	3296	1/1	0.39	-	68,68,68,68	0
56	MG	CA	1660	1/1	0.14	-	5,5,5,5	0
56	MG	DA	3387	1/1	0.14	-	77,77,77,77	0
56	MG	DA	3165	1/1	0.20	-	4,4,4,4	0
56	MG	BA	3163	1/1	0.30	-	91,91,91,91	0
56	MG	AA	1847	1/1	0.22	-	30,30,30,30	0
56	MG	AA	1964	1/1	0.45	-	79,79,79,79	0
56	MG	BA	3028	1/1	0.30	-	39,39,39,39	0
56	MG	BA	3524	1/1	0.09	-	44,44,44,44	0
56	MG	AA	1877	1/1	0.22	-	24,24,24,24	0
56	MG	BA	3649	1/1	0.27	-	30,30,30,30	0
56	MG	BA	3449	1/1	0.41	-	73,73,73,73	0
56	MG	BA	3876	1/1	0.37	-	88,88,88,88	0
56	MG	BA	3667	1/1	0.43	-	48,48,48,48	0
56	MG	BA	3139	1/1	0.40	-	59,59,59,59	0
56	MG	BA	3902	1/1	0.29	-	66,66,66,66	0
56	MG	DA	3447	1/1	0.31	-	15,15,15,15	0
56	MG	DA	3412	1/1	0.25	-	3,3,3,3	0
56	MG	BA	3485	1/1	0.19	-	71,71,71,71	0
56	MG	AA	1955	1/1	0.57	-	82,82,82,82	0
56	MG	BA	3466	1/1	0.27	-	67,67,67,67	0
56	MG	AA	1653	1/1	0.34	-	95,95,95,95	0
56	MG	BA	3696	1/1	0.24	-	69,69,69,69	0
56	MG	CA	1693	1/1	0.22	-	58,58,58,58	0
56	MG	AA	2007	1/1	0.23	-	23,23,23,23	0
56	MG	AA	1896	1/1	0.18	-	26,26,26,26	0
56	MG	AA	1844	1/1	0.75	-	101,101,101,101	0
56	MG	DQ	202	1/1	0.23	-	3,3,3,3	0
56	MG	BA	3100	1/1	0.25	-	57,57,57,57	0
56	MG	BA	3493	1/1	0.07	-	50,50,50,50	0
56	MG	AA	1891	1/1	0.10	-	61,61,61,61	0
56	MG	AA	1769	1/1	0.47	-	87,87,87,87	0
56	MG	AA	1757	1/1	0.15	-	60,60,60,60	0
56	MG	BA	3271	1/1	0.16	-	57,57,57,57	0
56	MG	BA	3869	1/1	0.12	-	7,7,7,7	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AZ	112	1/1	0.09	-	46,46,46,46	0
56	MG	DA	3134	1/1	0.41	-	21,21,21,21	0
56	MG	DA	3209	1/1	0.35	-	3,3,3,3	0
56	MG	DA	3329	1/1	0.16	-	10,10,10,10	0
56	MG	DA	3357	1/1	0.25	-	3,3,3,3	0
56	MG	CZ	102	1/1	0.06	-	51,51,51,51	0
56	MG	BA	3288	1/1	0.18	-	43,43,43,43	0
56	MG	DA	3351	1/1	0.26	-	40,40,40,40	0
56	MG	DA	3279	1/1	0.37	-	30,30,30,30	0
57	ZN	AD	5001	1/1	0.23	-	41,41,41,41	0
56	MG	CA	1624	1/1	0.19	-	3,3,3,3	0
56	MG	AA	1985	1/1	0.19	-	52,52,52,52	0
56	MG	BY	203	1/1	0.19	-	58,58,58,58	0
56	MG	AZ	115	1/1	0.09	-	39,39,39,39	0
56	MG	BA	3145	1/1	0.16	-	22,22,22,22	0
56	MG	AZ	106	1/1	0.36	-	93,93,93,93	0
56	MG	AX	402	1/1	0.08	-	42,42,42,42	0
56	MG	DA	3113	1/1	0.17	-	85,85,85,85	0
56	MG	BA	3668	1/1	0.14	-	33,33,33,33	0
56	MG	AA	1882	1/1	0.35	-	53,53,53,53	0
56	MG	BA	3366	1/1	0.08	-	24,24,24,24	0
56	MG	DA	3417	1/1	0.21	-	4,4,4,4	0
56	MG	CA	1762	1/1	0.27	-	69,69,69,69	0
56	MG	DA	3274	1/1	0.36	-	3,3,3,3	0
56	MG	BA	3312	1/1	0.24	-	36,36,36,36	0
56	MG	BA	3255	1/1	0.17	-	72,72,72,72	0
56	MG	BA	3610	1/1	0.16	-	38,38,38,38	0
56	MG	BA	3779	1/1	0.09	-	22,22,22,22	0
56	MG	DA	3251	1/1	0.26	-	51,51,51,51	0
56	MG	CA	1739	1/1	0.34	-	3,3,3,3	0
56	MG	BA	3519	1/1	0.14	-	82,82,82,82	0
56	MG	BA	3752	1/1	0.82	-	71,71,71,71	0
56	MG	BA	3501	1/1	0.12	-	58,58,58,58	0
56	MG	DA	3003	1/1	0.20	-	4,4,4,4	0
56	MG	AA	1826	1/1	0.12	-	46,46,46,46	0
56	MG	AA	2024	1/1	0.19	-	53,53,53,53	0
56	MG	BA	3467	1/1	0.40	-	21,21,21,21	0
56	MG	BA	3010	1/1	0.57	-	72,72,72,72	0
56	MG	AA	1910	1/1	0.12	-	88,88,88,88	0
56	MG	CA	1627	1/1	0.30	-	3,3,3,3	0
56	MG	BD	5006	1/1	0.13	-	11,11,11,11	0
56	MG	BA	3114	1/1	0.15	-	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3185	1/1	0.15	-	8,8,8,8	0
56	MG	CA	1640	1/1	0.21	-	4,4,4,4	0
56	MG	BA	3094	1/1	0.09	-	76,76,76,76	0
56	MG	DA	3383	1/1	0.70	-	71,71,71,71	0
56	MG	BP	202	1/1	0.12	-	24,24,24,24	0
56	MG	DA	3101	1/1	0.69	-	64,64,64,64	0
56	MG	BA	3900	1/1	0.18	-	51,51,51,51	0
56	MG	AA	1944	1/1	0.10	-	48,48,48,48	0
56	MG	CA	1782	1/1	0.16	-	3,3,3,3	0
56	MG	BO	201	1/1	0.27	-	62,62,62,62	0
56	MG	DA	3459	1/1	0.34	-	4,4,4,4	0
56	MG	DA	3015	1/1	0.08	-	6,6,6,6	0
56	MG	BA	3331	1/1	0.09	-	74,74,74,74	0
56	MG	CA	1751	1/1	0.24	-	3,3,3,3	0
56	MG	BA	3386	1/1	0.24	-	79,79,79,79	0
56	MG	DA	3392	1/1	0.24	-	38,38,38,38	0
56	MG	CA	1753	1/1	0.18	-	3,3,3,3	0
56	MG	BA	3775	1/1	0.10	-	36,36,36,36	0
56	MG	CA	1625	1/1	0.29	-	3,3,3,3	0
56	MG	BA	3448	1/1	0.26	-	21,21,21,21	0
56	MG	BA	3250	1/1	0.22	-	81,81,81,81	0
56	MG	DA	3189	1/1	0.16	-	5,5,5,5	0
56	MG	B8	102	1/1	0.26	-	57,57,57,57	0
56	MG	BA	3148	1/1	0.33	-	35,35,35,35	0
56	MG	AN	102	1/1	0.16	-	57,57,57,57	0
56	MG	BA	3318	1/1	0.08	-	25,25,25,25	0
56	MG	DA	3487	1/1	0.28	-	3,3,3,3	0
56	MG	BA	3496	1/1	0.14	-	63,63,63,63	0
56	MG	DA	3364	1/1	0.22	-	3,3,3,3	0
56	MG	DA	3175	1/1	0.29	-	3,3,3,3	0
56	MG	BA	3091	1/1	0.14	-	37,37,37,37	0
56	MG	BA	3490	1/1	0.17	-	75,75,75,75	0
56	MG	DA	3178	1/1	0.18	-	4,4,4,4	0
56	MG	AY	123	1/1	0.29	-	42,42,42,42	0
56	MG	AA	1692	1/1	0.20	-	79,79,79,79	0
56	MG	BA	3165	1/1	0.28	-	21,21,21,21	0
56	MG	BA	3031	1/1	0.40	-	74,74,74,74	0
56	MG	CA	1694	1/1	0.10	-	60,60,60,60	0
56	MG	BA	3724	1/1	0.14	-	29,29,29,29	0
56	MG	AA	1759	1/1	0.27	-	15,15,15,15	0
56	MG	BA	3380	1/1	0.09	-	43,43,43,43	0
56	MG	DA	3235	1/1	0.09	-	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3828	1/1	0.34	-	46,46,46,46	0
56	MG	AY	113	1/1	0.78	-	89,89,89,89	0
56	MG	CA	1799	1/1	0.10	-	5,5,5,5	0
56	MG	BA	3213	1/1	0.23	-	43,43,43,43	0
56	MG	AA	1736	1/1	0.11	-	63,63,63,63	0
56	MG	BA	3247	1/1	0.35	-	42,42,42,42	0
56	MG	AX	401	1/1	0.12	-	74,74,74,74	0
56	MG	CA	1682	1/1	0.16	-	52,52,52,52	0
56	MG	BA	3187	1/1	0.33	-	54,54,54,54	0
56	MG	DA	3150	1/1	0.14	-	4,4,4,4	0
56	MG	DA	3115	1/1	0.12	-	62,62,62,62	0
56	MG	BA	3173	1/1	0.20	-	80,80,80,80	0
56	MG	BA	3001	1/1	0.18	-	38,38,38,38	0
56	MG	BA	3428	1/1	0.49	-	86,86,86,86	0
56	MG	BA	3237	1/1	0.11	-	28,28,28,28	0
56	MG	AA	1864	1/1	0.09	-	71,71,71,71	0
56	MG	DA	3082	1/1	0.38	-	3,3,3,3	0
56	MG	AA	1969	1/1	0.10	-	46,46,46,46	0
56	MG	BA	3850	1/1	0.34	-	54,54,54,54	0
56	MG	BA	3206	1/1	0.12	-	35,35,35,35	0
56	MG	BA	3006	1/1	0.16	-	11,11,11,11	0
56	MG	DA	3041	1/1	0.07	-	52,52,52,52	0
56	MG	BA	3893	1/1	0.04	-	62,62,62,62	0
56	MG	BA	3896	1/1	0.12	-	58,58,58,58	0
56	MG	AA	1854	1/1	0.11	-	39,39,39,39	0
56	MG	BA	3722	1/1	0.79	-	66,66,66,66	0
56	MG	BN	203	1/1	0.27	-	72,72,72,72	0
56	MG	BA	3118	1/1	0.16	-	23,23,23,23	0
56	MG	DA	3434	1/1	0.16	-	3,3,3,3	0
56	MG	DA	3054	1/1	0.13	-	5,5,5,5	0
56	MG	BA	3788	1/1	0.18	-	69,69,69,69	0
56	MG	DA	3480	1/1	0.23	-	3,3,3,3	0
56	MG	CY	107	1/1	0.29	-	60,60,60,60	0
56	MG	DA	3451	1/1	0.49	-	23,23,23,23	0
56	MG	DA	3152	1/1	0.14	-	5,5,5,5	0
56	MG	AA	2016	1/1	0.30	-	43,43,43,43	0
56	MG	DA	3238	1/1	0.15	-	62,62,62,62	0
56	MG	BA	3020	1/1	0.42	-	73,73,73,73	0
56	MG	DA	3137	1/1	0.56	-	3,3,3,3	0
56	MG	BA	3609	1/1	0.32	-	39,39,39,39	0
56	MG	DA	3116	1/1	0.08	-	3,3,3,3	0
56	MG	AA	1923	1/1	0.30	-	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3369	1/1	0.07	-	60,60,60,60	0
56	MG	BA	3745	1/1	0.76	-	70,70,70,70	0
56	MG	AA	1938	1/1	0.37	-	58,58,58,58	0
56	MG	DA	3213	1/1	0.12	-	4,4,4,4	0
56	MG	AT	201	1/1	0.19	-	57,57,57,57	0
56	MG	BA	3417	1/1	0.14	-	8,8,8,8	0
56	MG	BA	3590	1/1	0.22	-	32,32,32,32	0
56	MG	AA	1731	1/1	0.12	-	17,17,17,17	0
56	MG	DA	3303	1/1	0.10	-	10,10,10,10	0
56	MG	CA	1781	1/1	0.21	-	59,59,59,59	0
56	MG	BD	5001	1/1	0.22	-	61,61,61,61	0
56	MG	BA	3238	1/1	0.16	-	20,20,20,20	0
56	MG	AA	1733	1/1	0.21	-	38,38,38,38	0
56	MG	BA	3057	1/1	0.17	-	80,80,80,80	0
56	MG	BA	3313	1/1	0.07	-	33,33,33,33	0
56	MG	BA	3840	1/1	0.32	-	56,56,56,56	0
56	MG	BB	233	1/1	0.08	-	48,48,48,48	0
56	MG	BA	3199	1/1	0.26	-	65,65,65,65	0
56	MG	BA	3513	1/1	0.15	-	28,28,28,28	0
56	MG	AA	1626	1/1	0.28	-	20,20,20,20	0
56	MG	BA	3570	1/1	0.21	-	62,62,62,62	0
56	MG	DA	3448	1/1	0.20	-	21,21,21,21	0
56	MG	BA	3807	1/1	0.24	-	37,37,37,37	0
56	MG	BA	3655	1/1	0.16	-	38,38,38,38	0
56	MG	BA	3228	1/1	0.15	-	31,31,31,31	0
56	MG	DA	3185	1/1	0.22	-	4,4,4,4	0
56	MG	BA	3358	1/1	0.16	-	17,17,17,17	0
56	MG	BB	209	1/1	0.19	-	63,63,63,63	0
56	MG	AA	1831	1/1	0.13	-	68,68,68,68	0
56	MG	BA	3200	1/1	0.56	-	76,76,76,76	0
56	MG	BA	3346	1/1	0.25	-	65,65,65,65	0
56	MG	BA	3592	1/1	0.18	-	47,47,47,47	0
56	MG	CA	1616	1/1	0.09	-	5,5,5,5	0
56	MG	BA	3757	1/1	0.63	-	76,76,76,76	0
56	MG	CZ	114	1/1	0.13	-	36,36,36,36	0
56	MG	AA	1644	1/1	0.19	-	54,54,54,54	0
56	MG	BA	3766	1/1	0.20	-	31,31,31,31	0
56	MG	AA	1617	1/1	0.12	-	48,48,48,48	0
56	MG	AY	122	1/1	0.16	-	58,58,58,58	0
56	MG	BA	3372	1/1	0.06	-	37,37,37,37	0
56	MG	CF	203	1/1	0.24	-	51,51,51,51	0
56	MG	DA	3376	1/1	0.10	-	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3223	1/1	0.13	-	36,36,36,36	0
56	MG	BA	3482	1/1	0.33	-	63,63,63,63	0
56	MG	DA	3381	1/1	0.25	-	3,3,3,3	0
56	MG	BA	3123	1/1	0.08	-	55,55,55,55	0
56	MG	BB	207	1/1	0.28	-	84,84,84,84	0
56	MG	BA	3698	1/1	0.19	-	94,94,94,94	0
56	MG	DA	3096	1/1	0.33	-	3,3,3,3	0
56	MG	CA	1801	1/1	0.23	-	3,3,3,3	0
56	MG	AA	1773	1/1	0.15	-	46,46,46,46	0
56	MG	BA	3790	1/1	0.21	-	86,86,86,86	0
56	MG	DA	3199	1/1	0.22	-	59,59,59,59	0
56	MG	BA	3415	1/1	0.21	-	65,65,65,65	0
56	MG	CA	1653	1/1	0.21	-	62,62,62,62	0
56	MG	DA	3446	1/1	0.38	-	3,3,3,3	0
56	MG	BA	3837	1/1	0.82	-	71,71,71,71	0
56	MG	DA	3038	1/1	0.23	-	4,4,4,4	0
56	MG	BA	3299	1/1	0.13	-	9,9,9,9	0
56	MG	BB	231	1/1	0.27	-	54,54,54,54	0
56	MG	BA	3866	1/1	0.19	-	25,25,25,25	0
56	MG	DA	3354	1/1	0.07	-	43,43,43,43	0
56	MG	AA	1863	1/1	0.19	-	57,57,57,57	0
56	MG	AA	1729	1/1	0.33	-	60,60,60,60	0
56	MG	CA	1618	1/1	0.22	-	4,4,4,4	0
56	MG	BA	3265	1/1	0.23	-	42,42,42,42	0
56	MG	BA	3556	1/1	0.32	-	45,45,45,45	0
56	MG	DA	3013	1/1	0.24	-	3,3,3,3	0
56	MG	BA	3651	1/1	0.30	-	37,37,37,37	0
56	MG	BA	3092	1/1	0.41	-	73,73,73,73	0
56	MG	BA	3756	1/1	0.37	-	49,49,49,49	0
56	MG	BA	3921	1/1	0.26	-	53,53,53,53	0
56	MG	BA	3047	1/1	0.20	-	54,54,54,54	0
56	MG	DA	3468	1/1	0.42	-	3,3,3,3	0
56	MG	AA	1693	1/1	0.27	-	79,79,79,79	0
56	MG	BA	3105	1/1	0.36	-	30,30,30,30	0
56	MG	DA	3304	1/1	0.36	-	76,76,76,76	0
56	MG	AA	2028	1/1	0.09	-	65,65,65,65	0
56	MG	BA	3038	1/1	0.16	-	41,41,41,41	0
56	MG	BR	202	1/1	0.27	-	89,89,89,89	0
56	MG	BA	3135	1/1	0.23	-	43,43,43,43	0
56	MG	BA	3370	1/1	0.05	-	46,46,46,46	0
56	MG	AX	403	1/1	0.09	-	68,68,68,68	0
56	MG	CA	1811	1/1	0.42	-	79,79,79,79	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	0.04	-	47,47,47,47	0
56	MG	BV	201	1/1	0.10	-	53,53,53,53	0
56	MG	AA	1756	1/1	0.30	-	41,41,41,41	0
56	MG	DA	3431	1/1	0.20	-	3,3,3,3	0
56	MG	BS	203	1/1	0.14	-	52,52,52,52	0
56	MG	B2	101	1/1	0.23	-	76,76,76,76	0
56	MG	BI	202	1/1	0.07	-	53,53,53,53	0
56	MG	BA	3050	1/1	0.16	-	44,44,44,44	0
56	MG	BA	3273	1/1	0.35	-	74,74,74,74	0
56	MG	DA	3138	1/1	0.42	-	3,3,3,3	0
56	MG	CA	1651	1/1	0.21	-	28,28,28,28	0
56	MG	CA	1818	1/1	0.31	-	59,59,59,59	0
56	MG	B4	101	1/1	0.10	-	29,29,29,29	0
56	MG	AA	1886	1/1	0.18	-	50,50,50,50	0
56	MG	DB	202	1/1	0.24	-	3,3,3,3	0
56	MG	CA	1636	1/1	0.32	-	3,3,3,3	0
56	MG	DA	3167	1/1	0.12	-	6,6,6,6	0
56	MG	BA	3012	1/1	0.22	-	75,75,75,75	0
56	MG	AA	1650	1/1	0.14	-	45,45,45,45	0
56	MG	DA	3215	1/1	0.16	-	4,4,4,4	0
56	MG	DA	3334	1/1	0.42	-	3,3,3,3	0
56	MG	BA	3834	1/1	0.31	-	12,12,12,12	0
56	MG	BA	3623	1/1	0.18	-	103,103,103,103	0
56	MG	BA	3154	1/1	0.14	-	41,41,41,41	0
56	MG	BA	3809	1/1	0.12	-	13,13,13,13	0
56	MG	DA	3157	1/1	0.37	-	3,3,3,3	0
56	MG	BA	3846	1/1	0.17	-	55,55,55,55	0
56	MG	BA	3205	1/1	0.61	-	55,55,55,55	0
56	MG	BA	3600	1/1	0.46	-	47,47,47,47	0
56	MG	DA	3464	1/1	0.33	-	3,3,3,3	0
56	MG	BA	3731	1/1	0.28	-	53,53,53,53	0
56	MG	BA	3130	1/1	0.20	-	32,32,32,32	0
56	MG	BA	3365	1/1	0.38	-	53,53,53,53	0
56	MG	AX	414	1/1	0.38	-	97,97,97,97	0
56	MG	AA	1907	1/1	0.28	-	76,76,76,76	0
56	MG	BA	3919	1/1	0.24	-	49,49,49,49	0
56	MG	AA	1717	1/1	0.25	-	75,75,75,75	0
56	MG	BA	3459	1/1	0.21	-	18,18,18,18	0
56	MG	BA	3498	1/1	0.25	-	45,45,45,45	0
56	MG	BA	3093	1/1	0.72	-	80,80,80,80	0
56	MG	CA	1777	1/1	0.28	-	4,4,4,4	0
56	MG	AA	1637	1/1	0.08	-	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3750	1/1	0.17	-	45,45,45,45	0
56	MG	BA	3669	1/1	0.42	-	52,52,52,52	0
56	MG	BA	3041	1/1	0.39	-	98,98,98,98	0
56	MG	DP	201	1/1	0.34	-	3,3,3,3	0
56	MG	BA	3495	1/1	0.10	-	48,48,48,48	0
56	MG	DA	3139	1/1	0.39	-	3,3,3,3	0
56	MG	AA	1822	1/1	0.24	-	40,40,40,40	0
56	MG	CA	1721	1/1	0.30	-	49,49,49,49	0
56	MG	AA	1603	1/1	0.25	-	91,91,91,91	0
56	MG	BA	3676	1/1	0.17	-	44,44,44,44	0
56	MG	DA	3432	1/1	0.29	-	3,3,3,3	0
56	MG	BA	3385	1/1	0.12	-	63,63,63,63	0
56	MG	DA	3091	1/1	0.45	-	3,3,3,3	0
56	MG	DA	3182	1/1	0.28	-	3,3,3,3	0
56	MG	AA	1876	1/1	0.18	-	69,69,69,69	0
56	MG	AA	1883	1/1	0.23	-	42,42,42,42	0
56	MG	CA	1740	1/1	0.21	-	41,41,41,41	0
56	MG	DA	3131	1/1	0.36	-	31,31,31,31	0
56	MG	DA	3269	1/1	0.16	-	3,3,3,3	0
56	MG	DB	203	1/1	0.25	-	3,3,3,3	0
56	MG	BA	3291	1/1	0.15	-	9,9,9,9	0
56	MG	BA	3473	1/1	0.14	-	31,31,31,31	0
56	MG	DA	3275	1/1	0.27	-	4,4,4,4	0
56	MG	DA	3247	1/1	0.25	-	3,3,3,3	0
56	MG	DA	3105	1/1	0.22	-	55,55,55,55	0
56	MG	AA	1712	1/1	0.16	-	35,35,35,35	0
56	MG	DA	3277	1/1	0.30	-	3,3,3,3	0
56	MG	AA	1747	1/1	0.15	-	41,41,41,41	0
56	MG	BA	3179	1/1	0.13	-	32,32,32,32	0
56	MG	DA	3404	1/1	0.17	-	5,5,5,5	0
56	MG	AA	1772	1/1	0.35	-	40,40,40,40	0
56	MG	BO	205	1/1	0.32	-	86,86,86,86	0
56	MG	DB	209	1/1	0.32	-	3,3,3,3	0
56	MG	BA	3838	1/1	0.12	-	29,29,29,29	0
56	MG	BA	3172	1/1	0.25	-	54,54,54,54	0
56	MG	AA	1686	1/1	0.21	-	43,43,43,43	0
56	MG	DA	3158	1/1	0.31	-	3,3,3,3	0
56	MG	BA	3764	1/1	0.19	-	45,45,45,45	0
56	MG	BB	234	1/1	0.09	-	23,23,23,23	0
56	MG	CA	1768	1/1	0.19	-	46,46,46,46	0
56	MG	DA	3230	1/1	0.21	-	58,58,58,58	0
56	MG	CA	1718	1/1	0.19	-	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3052	1/1	0.24	-	3,3,3,3	0
56	MG	DA	3192	1/1	0.34	-	3,3,3,3	0
56	MG	BA	3534	1/1	0.29	-	61,61,61,61	0
56	MG	DA	3282	1/1	0.36	-	72,72,72,72	0
56	MG	AA	1898	1/1	0.13	-	27,27,27,27	0
56	MG	DA	3403	1/1	0.23	-	64,64,64,64	0
56	MG	DA	3360	1/1	0.33	-	56,56,56,56	0
56	MG	DA	3285	1/1	0.12	-	4,4,4,4	0
56	MG	BA	3375	1/1	0.14	-	76,76,76,76	0
56	MG	BA	3761	1/1	0.17	-	29,29,29,29	0
56	MG	DA	3418	1/1	0.26	-	3,3,3,3	0
56	MG	AY	120	1/1	0.08	-	40,40,40,40	0
56	MG	DA	3022	1/1	0.21	-	3,3,3,3	0
56	MG	BA	3045	1/1	0.40	-	56,56,56,56	0
56	MG	BA	3857	1/1	0.27	-	71,71,71,71	0
56	MG	AA	1762	1/1	0.17	-	43,43,43,43	0
56	MG	CA	1765	1/1	0.27	-	3,3,3,3	0
56	MG	BB	211	1/1	0.14	-	81,81,81,81	0
56	MG	AA	1959	1/1	0.11	-	54,54,54,54	0
56	MG	BH	204	1/1	0.12	-	77,77,77,77	0
56	MG	CA	1763	1/1	1.25	-	77,77,77,77	0
56	MG	BA	3383	1/1	0.17	-	53,53,53,53	0
56	MG	BA	3249	1/1	0.17	-	58,58,58,58	0
56	MG	BA	3303	1/1	0.22	-	12,12,12,12	0
56	MG	AA	2026	1/1	0.12	-	26,26,26,26	0
56	MG	BA	3278	1/1	0.27	-	67,67,67,67	0
56	MG	BA	3523	1/1	0.08	-	62,62,62,62	0
56	MG	DA	3195	1/1	0.41	-	3,3,3,3	0
56	MG	BA	3151	1/1	0.08	-	31,31,31,31	0
56	MG	BA	3458	1/1	0.34	-	50,50,50,50	0
56	MG	BA	3521	1/1	0.33	-	45,45,45,45	0
56	MG	BN	202	1/1	0.20	-	46,46,46,46	0
56	MG	CA	1632	1/1	0.46	-	3,3,3,3	0
56	MG	CY	102	1/1	0.29	-	3,3,3,3	0
56	MG	DA	3191	1/1	0.25	-	4,4,4,4	0
56	MG	CA	1738	1/1	0.34	-	64,64,64,64	0
56	MG	DA	3144	1/1	0.21	-	4,4,4,4	0
56	MG	AI	201	1/1	0.33	-	59,59,59,59	0
56	MG	DA	3216	1/1	0.29	-	3,3,3,3	0
56	MG	DA	3166	1/1	0.25	-	3,3,3,3	0
56	MG	BA	3806	1/1	0.44	-	29,29,29,29	0
56	MG	BA	3174	1/1	0.16	-	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	B1	105	1/1	0.32	-	87,87,87,87	0
56	MG	AK	207	1/1	0.07	-	65,65,65,65	0
56	MG	DA	3314	1/1	0.39	-	70,70,70,70	0
56	MG	DA	3342	1/1	0.16	-	7,7,7,7	0
56	MG	BX	102	1/1	0.19	-	25,25,25,25	0
56	MG	AM	201	1/1	0.21	-	86,86,86,86	0
56	MG	CG	201	1/1	0.14	-	70,70,70,70	0
56	MG	AA	2015	1/1	0.09	-	40,40,40,40	0
56	MG	BA	3226	1/1	0.16	-	43,43,43,43	0
56	MG	CA	1805	1/1	0.21	-	3,3,3,3	0
56	MG	AY	106	1/1	0.14	-	58,58,58,58	0
56	MG	AA	1997	1/1	0.30	-	56,56,56,56	0
56	MG	BA	3371	1/1	0.18	-	53,53,53,53	0
56	MG	DA	3411	1/1	0.18	-	3,3,3,3	0
56	MG	BD	5002	1/1	0.17	-	82,82,82,82	0
56	MG	BA	3454	1/1	0.32	-	63,63,63,63	0
56	MG	CA	1696	1/1	0.29	-	60,60,60,60	0
56	MG	BA	3076	1/1	0.45	-	51,51,51,51	0
56	MG	BA	3474	1/1	0.50	-	73,73,73,73	0
56	MG	CA	1726	1/1	0.06	-	37,37,37,37	0
56	MG	CA	1657	1/1	0.18	-	3,3,3,3	0
56	MG	AA	1838	1/1	0.28	-	18,18,18,18	0
56	MG	AA	1771	1/1	0.24	-	45,45,45,45	0
56	MG	BA	3341	1/1	0.35	-	70,70,70,70	0
56	MG	BA	3821	1/1	0.13	-	22,22,22,22	0
56	MG	BA	3208	1/1	0.08	-	86,86,86,86	0
56	MG	BA	3561	1/1	0.28	-	75,75,75,75	0
56	MG	DI	201	1/1	0.11	-	38,38,38,38	0
56	MG	DA	3187	1/1	0.33	-	3,3,3,3	0
56	MG	BA	3827	1/1	0.17	-	48,48,48,48	0
56	MG	AA	1711	1/1	0.48	-	58,58,58,58	0
56	MG	BA	3559	1/1	0.14	-	31,31,31,31	0
56	MG	AA	1828	1/1	0.30	-	69,69,69,69	0
56	MG	AA	1669	1/1	0.15	-	58,58,58,58	0
56	MG	DA	3315	1/1	0.34	-	62,62,62,62	0
56	MG	DA	3229	1/1	0.20	-	3,3,3,3	0
56	MG	BA	3754	1/1	0.40	-	44,44,44,44	0
56	MG	CA	1662	1/1	0.14	-	4,4,4,4	0
56	MG	AA	1814	1/1	0.15	-	47,47,47,47	0
56	MG	BA	3536	1/1	0.29	-	70,70,70,70	0
56	MG	CO	101	1/1	0.18	-	33,33,33,33	0
56	MG	BW	201	1/1	0.40	-	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AV	5501	1/1	0.15	-	28,28,28,28	0
56	MG	BA	3131	1/1	0.46	-	72,72,72,72	0
56	MG	BA	3217	1/1	0.17	-	12,12,12,12	0
56	MG	BO	204	1/1	0.28	-	50,50,50,50	0
56	MG	BA	3246	1/1	0.30	-	60,60,60,60	0
56	MG	AA	1763	1/1	0.13	-	41,41,41,41	0
56	MG	DA	3242	1/1	0.31	-	3,3,3,3	0
56	MG	DA	3205	1/1	0.30	-	38,38,38,38	0
56	MG	CA	1700	1/1	0.08	-	12,12,12,12	0
56	MG	CA	1749	1/1	0.25	-	3,3,3,3	0
56	MG	BA	3141	1/1	0.13	-	68,68,68,68	0
56	MG	BA	3907	1/1	0.39	-	27,27,27,27	0
56	MG	BB	221	1/1	0.50	-	65,65,65,65	0
56	MG	BA	3597	1/1	0.57	-	48,48,48,48	0
56	MG	BA	3334	1/1	0.06	-	77,77,77,77	0
56	MG	AM	202	1/1	0.09	-	58,58,58,58	0
56	MG	BA	3408	1/1	0.23	-	50,50,50,50	0
56	MG	DA	3057	1/1	0.27	-	3,3,3,3	0
56	MG	DA	3061	1/1	0.25	-	4,4,4,4	0
56	MG	CZ	109	1/1	0.10	-	95,95,95,95	0
56	MG	DA	3169	1/1	0.28	-	3,3,3,3	0
56	MG	B8	101	1/1	0.27	-	30,30,30,30	0
56	MG	AX	409	1/1	0.18	-	47,47,47,47	0
56	MG	BV	203	1/1	0.05	-	52,52,52,52	0
56	MG	CA	1637	1/1	0.15	-	4,4,4,4	0
56	MG	DA	3240	1/1	0.19	-	3,3,3,3	0
56	MG	AA	1726	1/1	0.14	-	53,53,53,53	0
56	MG	CA	1686	1/1	0.32	-	48,48,48,48	0
56	MG	DA	3355	1/1	0.09	-	56,56,56,56	0
56	MG	BA	3579	1/1	0.12	-	69,69,69,69	0
56	MG	DA	3180	1/1	0.39	-	3,3,3,3	0
56	MG	DA	3198	1/1	0.42	-	4,4,4,4	0
56	MG	AE	202	1/1	0.17	-	64,64,64,64	0
56	MG	BA	3083	1/1	0.29	-	71,71,71,71	0
56	MG	DA	3401	1/1	0.20	-	39,39,39,39	0
56	MG	AA	2019	1/1	0.17	-	70,70,70,70	0
56	MG	BA	3872	1/1	0.17	-	54,54,54,54	0
56	MG	BA	3777	1/1	0.15	-	32,32,32,32	0
56	MG	AA	1837	1/1	0.14	-	17,17,17,17	0
56	MG	CA	1800	1/1	0.39	-	3,3,3,3	0
56	MG	BA	3491	1/1	0.28	-	38,38,38,38	0
56	MG	BA	3160	1/1	0.20	-	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3113	1/1	0.23	-	85,85,85,85	0
56	MG	DA	3069	1/1	0.37	-	3,3,3,3	0
56	MG	BA	3203	1/1	0.13	-	39,39,39,39	0
56	MG	AA	1695	1/1	0.13	-	52,52,52,52	0
56	MG	BA	3352	1/1	0.10	-	17,17,17,17	0
56	MG	BA	3638	1/1	0.25	-	48,48,48,48	0
56	MG	DA	3130	1/1	0.26	-	3,3,3,3	0
56	MG	DG	202	1/1	0.07	-	59,59,59,59	0
56	MG	DA	3079	1/1	0.36	-	3,3,3,3	0
56	MG	CA	1816	1/1	0.56	-	61,61,61,61	0
56	MG	DA	3007	1/1	0.08	-	25,25,25,25	0
56	MG	CZ	104	1/1	0.24	-	3,3,3,3	0
56	MG	BA	3143	1/1	0.66	-	64,64,64,64	0
56	MG	BA	3515	1/1	0.17	-	68,68,68,68	0
56	MG	BA	3183	1/1	0.15	-	57,57,57,57	0
56	MG	AA	1916	1/1	0.05	-	63,63,63,63	0
56	MG	BF	301	1/1	0.13	-	63,63,63,63	0
56	MG	DA	3114	1/1	0.23	-	83,83,83,83	0
56	MG	AA	1860	1/1	0.14	-	58,58,58,58	0
56	MG	BA	3803	1/1	0.11	-	32,32,32,32	0
56	MG	BA	3606	1/1	0.58	-	52,52,52,52	0
56	MG	DE	301	1/1	0.10	-	5,5,5,5	0
56	MG	BA	3906	1/1	0.21	-	67,67,67,67	0
56	MG	AA	1926	1/1	0.08	-	30,30,30,30	0
56	MG	BA	3832	1/1	0.23	-	28,28,28,28	0
56	MG	CA	1733	1/1	0.21	-	3,3,3,3	0
56	MG	AA	1707	1/1	0.13	-	37,37,37,37	0
56	MG	BA	3129	1/1	0.23	-	48,48,48,48	0
56	MG	BA	3844	1/1	0.14	-	36,36,36,36	0
56	MG	BA	3117	1/1	0.53	-	63,63,63,63	0
56	MG	BA	3769	1/1	0.10	-	28,28,28,28	0
56	MG	AA	1680	1/1	0.46	-	51,51,51,51	0
56	MG	BA	3440	1/1	0.17	-	73,73,73,73	0
56	MG	AA	1805	1/1	0.08	-	22,22,22,22	0
56	MG	BA	3818	1/1	0.60	-	71,71,71,71	0
56	MG	BA	3475	1/1	0.10	-	22,22,22,22	0
56	MG	DA	3301	1/1	0.25	-	42,42,42,42	0
56	MG	BA	3601	1/1	0.16	-	30,30,30,30	0
56	MG	DA	3409	1/1	0.28	-	3,3,3,3	0
56	MG	BK	202	1/1	0.09	-	83,83,83,83	0
56	MG	AA	1671	1/1	0.22	-	59,59,59,59	0
56	MG	DA	3473	1/1	0.16	-	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	3181	1/1	0.36	-	3,3,3,3	0
56	MG	BA	3098	1/1	0.16	-	27,27,27,27	0
56	MG	BA	3066	1/1	0.10	-	67,67,67,67	0
56	MG	BA	3693	1/1	0.14	-	62,62,62,62	0
56	MG	AA	1732	1/1	0.15	-	21,21,21,21	0
56	MG	BA	3692	1/1	0.42	-	52,52,52,52	0
56	MG	DA	3174	1/1	0.18	-	3,3,3,3	0
56	MG	BB	204	1/1	0.09	-	51,51,51,51	0
56	MG	DA	3081	1/1	0.17	-	4,4,4,4	0
56	MG	CA	1742	1/1	0.22	-	54,54,54,54	0
56	MG	AZ	104	1/1	0.11	-	61,61,61,61	0
56	MG	BA	3196	1/1	0.40	-	50,50,50,50	0
56	MG	AA	1604	1/1	0.15	-	43,43,43,43	0
56	MG	BA	3285	1/1	0.15	-	48,48,48,48	0
56	MG	BA	3854	1/1	0.47	-	60,60,60,60	0
56	MG	BA	3158	1/1	0.11	-	42,42,42,42	0
56	MG	AA	1767	1/1	0.16	-	45,45,45,45	0
56	MG	BA	3294	1/1	0.28	-	4,4,4,4	0
56	MG	BA	3216	1/1	0.19	-	54,54,54,54	0
56	MG	AV	5500	1/1	0.20	-	71,71,71,71	0
56	MG	DA	3173	1/1	0.19	-	3,3,3,3	0
56	MG	BI	204	1/1	0.25	-	32,32,32,32	0
56	MG	AA	1694	1/1	0.15	-	52,52,52,52	0
56	MG	BA	3071	1/1	0.18	-	35,35,35,35	0
56	MG	AA	1977	1/1	0.36	-	64,64,64,64	0
56	MG	BA	3460	1/1	0.92	-	75,75,75,75	0
56	MG	DA	3127	1/1	0.30	-	3,3,3,3	0
56	MG	BA	3612	1/1	0.10	-	9,9,9,9	0
56	MG	BA	3329	1/1	0.09	-	79,79,79,79	0
56	MG	CA	1766	1/1	0.12	-	64,64,64,64	0
56	MG	DA	3089	1/1	0.15	-	4,4,4,4	0
56	MG	DA	3258	1/1	0.10	-	6,6,6,6	0
56	MG	CZ	101	1/1	0.11	-	72,72,72,72	0
56	MG	AA	1899	1/1	0.36	-	59,59,59,59	0
56	MG	D8	101	1/1	0.31	-	3,3,3,3	0
56	MG	BA	3734	1/1	0.25	-	59,59,59,59	0
56	MG	BA	3017	1/1	0.15	-	52,52,52,52	0
56	MG	BA	3665	1/1	0.10	-	24,24,24,24	0
56	MG	AL	203	1/1	0.08	-	43,43,43,43	0
56	MG	AA	1901	1/1	0.21	-	88,88,88,88	0
56	MG	AA	1704	1/1	0.18	-	48,48,48,48	0
56	MG	BA	3802	1/1	0.12	-	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1984	1/1	0.28	-	39,39,39,39	0
56	MG	AA	1857	1/1	0.25	-	43,43,43,43	0
56	MG	CA	1605	1/1	0.40	-	3,3,3,3	0
56	MG	BA	3025	1/1	0.16	-	58,58,58,58	0
56	MG	AY	111	1/1	0.19	-	60,60,60,60	0
56	MG	BA	3566	1/1	0.11	-	43,43,43,43	0
56	MG	BA	3822	1/1	0.33	-	34,34,34,34	0
56	MG	AA	1815	1/1	0.32	-	43,43,43,43	0
56	MG	BA	3239	1/1	0.46	-	69,69,69,69	0
56	MG	BA	3442	1/1	0.14	-	46,46,46,46	0
56	MG	CA	1711	1/1	0.88	-	57,57,57,57	0
56	MG	BA	3186	1/1	0.11	-	67,67,67,67	0
56	MG	AY	119	1/1	0.10	-	50,50,50,50	0
56	MG	AA	1715	1/1	0.27	-	50,50,50,50	0
56	MG	DA	3064	1/1	0.22	-	4,4,4,4	0
56	MG	BF	306	1/1	0.17	-	47,47,47,47	0
56	MG	BA	3060	1/1	0.06	-	83,83,83,83	0
56	MG	BA	3793	1/1	0.14	-	54,54,54,54	0
56	MG	BA	3394	1/1	0.21	-	41,41,41,41	0
56	MG	BA	3384	1/1	0.19	-	60,60,60,60	0
56	MG	BA	3188	1/1	0.07	-	53,53,53,53	0
56	MG	DA	3011	1/1	0.20	-	3,3,3,3	0
56	MG	CA	1703	1/1	0.10	-	29,29,29,29	0
56	MG	DA	3020	1/1	0.27	-	3,3,3,3	0
56	MG	AA	1954	1/1	0.42	-	74,74,74,74	0
56	MG	BA	3036	1/1	0.21	-	88,88,88,88	0
56	MG	AA	1753	1/1	0.17	-	62,62,62,62	0
56	MG	BA	3368	1/1	0.26	-	63,63,63,63	0
56	MG	BK	203	1/1	0.16	-	72,72,72,72	0
56	MG	DA	3231	1/1	0.17	-	72,72,72,72	0
56	MG	BA	3009	1/1	0.61	-	59,59,59,59	0
56	MG	BB	220	1/1	0.42	-	84,84,84,84	0
56	MG	AA	1881	1/1	0.48	-	98,98,98,98	0
56	MG	BA	3843	1/1	0.19	-	60,60,60,60	0
56	MG	B1	103	1/1	0.08	-	37,37,37,37	0
56	MG	BA	3492	1/1	0.09	-	48,48,48,48	0
56	MG	CA	1665	1/1	0.26	-	3,3,3,3	0
56	MG	AA	1849	1/1	0.15	-	10,10,10,10	0
56	MG	DA	3484	1/1	0.31	-	3,3,3,3	0
56	MG	BA	3848	1/1	0.19	-	61,61,61,61	0
56	MG	BA	3608	1/1	0.21	-	40,40,40,40	0
56	MG	BA	3868	1/1	0.12	-	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	3236	1/1	0.09	-	53,53,53,53	0
56	MG	DA	3125	1/1	0.21	-	28,28,28,28	0
56	MG	AA	2018	1/1	0.21	-	23,23,23,23	0
56	MG	DA	3008	1/1	0.23	-	4,4,4,4	0
56	MG	BA	3540	1/1	0.29	-	65,65,65,65	0
56	MG	AA	1699	1/1	0.23	-	61,61,61,61	0
56	MG	BA	3646	1/1	0.17	-	47,47,47,47	0
56	MG	DA	3036	1/1	0.21	-	5,5,5,5	0
56	MG	AA	1734	1/1	0.20	-	27,27,27,27	0
56	MG	BA	3468	1/1	0.39	-	22,22,22,22	0
56	MG	AA	1813	1/1	0.27	-	67,67,67,67	0
56	MG	DA	3410	1/1	0.18	-	3,3,3,3	0
56	MG	BA	3804	1/1	0.16	-	44,44,44,44	0
56	MG	AA	1636	1/1	0.08	-	67,67,67,67	0
56	MG	BA	3219	1/1	0.14	-	17,17,17,17	0
56	MG	BA	3065	1/1	0.14	-	78,78,78,78	0
56	MG	AA	2023	1/1	0.11	-	33,33,33,33	0
56	MG	BA	3584	1/1	0.22	-	54,54,54,54	0
56	MG	BA	3102	1/1	0.32	-	89,89,89,89	0
56	MG	BA	3325	1/1	0.13	-	66,66,66,66	0
56	MG	BA	3785	1/1	0.20	-	25,25,25,25	0
56	MG	BA	3813	1/1	0.10	-	15,15,15,15	0
56	MG	AA	1912	1/1	0.18	-	62,62,62,62	0
56	MG	BA	3581	1/1	0.12	-	69,69,69,69	0
56	MG	AA	1803	1/1	0.18	-	55,55,55,55	0
56	MG	DA	3472	1/1	0.27	-	4,4,4,4	0
56	MG	CA	1614	1/1	0.23	-	3,3,3,3	0
56	MG	BA	3063	1/1	0.04	-	86,86,86,86	0
56	MG	AA	1730	1/1	0.24	-	72,72,72,72	0
56	MG	AA	1925	1/1	0.09	-	43,43,43,43	0
56	MG	BB	203	1/1	0.06	-	51,51,51,51	0
56	MG	BA	3632	1/1	0.17	-	51,51,51,51	0
56	MG	AZ	110	1/1	0.12	-	69,69,69,69	0
56	MG	AA	1988	1/1	0.14	-	65,65,65,65	0
56	MG	BA	3393	1/1	0.25	-	61,61,61,61	0
56	MG	AA	1804	1/1	0.46	-	56,56,56,56	0
56	MG	DA	3445	1/1	0.22	-	4,4,4,4	0
56	MG	DA	3058	1/1	0.18	-	3,3,3,3	0
56	MG	BA	3133	1/1	0.31	-	53,53,53,53	0
56	MG	AA	1914	1/1	0.23	-	70,70,70,70	0
56	MG	BA	3340	1/1	0.49	-	73,73,73,73	0
56	MG	DB	201	1/1	0.28	-	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	BA	3881	1/1	0.43	-	68,68,68,68	0
56	MG	AA	1859	1/1	0.14	-	76,76,76,76	0
56	MG	DA	3415	1/1	0.20	-	4,4,4,4	0
56	MG	AA	1961	1/1	0.26	-	61,61,61,61	0
56	MG	DA	3324	1/1	0.47	-	3,3,3,3	0
56	MG	BA	3159	1/1	0.17	-	61,61,61,61	0
56	MG	B0	102	1/1	0.20	-	37,37,37,37	0
56	MG	BA	3272	1/1	0.18	-	54,54,54,54	0
56	MG	BA	3204	1/1	0.09	-	34,34,34,34	0
56	MG	DB	207	1/1	0.16	-	4,4,4,4	0
56	MG	CA	1716	1/1	0.20	-	58,58,58,58	0
56	MG	AA	1741	1/1	0.15	-	60,60,60,60	0
56	MG	AA	2005	1/1	0.20	-	49,49,49,49	0
56	MG	CB	301	1/1	0.13	-	39,39,39,39	0
56	MG	BS	201	1/1	0.17	-	46,46,46,46	0
56	MG	DA	3296	1/1	0.56	-	46,46,46,46	0
56	MG	CA	1680	1/1	0.23	-	34,34,34,34	0
56	MG	BA	3707	1/1	0.54	-	77,77,77,77	0
56	MG	BA	3626	1/1	0.16	-	62,62,62,62	0
56	MG	BA	3087	1/1	0.27	-	24,24,24,24	0
56	MG	BN	204	1/1	0.10	-	43,43,43,43	0
56	MG	CY	108	1/1	0.09	-	60,60,60,60	0
56	MG	CK	203	1/1	0.08	-	85,85,85,85	0
56	MG	DQ	201	1/1	0.20	-	4,4,4,4	0
56	MG	BA	3835	1/1	0.14	-	8,8,8,8	0
56	MG	CA	1803	1/1	0.26	-	3,3,3,3	0
56	MG	BA	3849	1/1	0.34	-	52,52,52,52	0
56	MG	DA	3479	1/1	0.24	-	3,3,3,3	0
56	MG	BA	3673	1/1	0.24	-	19,19,19,19	0
56	MG	CA	1783	1/1	0.30	-	65,65,65,65	0
56	MG	DA	3366	1/1	0.19	-	86,86,86,86	0
56	MG	CA	1702	1/1	0.12	-	24,24,24,24	0
56	MG	AA	1873	1/1	0.31	-	77,77,77,77	0
56	MG	BA	3755	1/1	0.23	-	58,58,58,58	0
56	MG	AA	1728	1/1	0.36	-	46,46,46,46	0
56	MG	AA	1779	1/1	0.59	-	34,34,34,34	0
56	MG	CZ	111	1/1	0.31	-	3,3,3,3	0
56	MG	DA	3457	1/1	0.24	-	4,4,4,4	0
56	MG	AA	1875	1/1	0.53	-	83,83,83,83	0
56	MG	BA	3578	1/1	0.09	-	48,48,48,48	0
56	MG	AA	1993	1/1	0.23	-	46,46,46,46	0
56	MG	BA	3674	1/1	0.19	-	12,12,12,12	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	DA	3370	1/1	0.17	-	71,71,71,71	0
56	MG	DA	3044	1/1	0.17	-	3,3,3,3	0
56	MG	BA	3794	1/1	0.13	-	65,65,65,65	0
56	MG	BA	3452	1/1	0.12	-	44,44,44,44	0
56	MG	BA	3395	1/1	0.18	-	22,22,22,22	0
56	MG	DA	3372	1/1	0.30	-	3,3,3,3	0
56	MG	B2	103	1/1	0.35	-	36,36,36,36	0
56	MG	BA	3079	1/1	0.30	-	51,51,51,51	0
56	MG	AA	1631	1/1	0.18	-	39,39,39,39	0
56	MG	BA	3796	1/1	0.16	-	30,30,30,30	0
56	MG	AA	1947	1/1	0.13	-	45,45,45,45	0
56	MG	BA	3424	1/1	0.41	-	55,55,55,55	0
56	MG	BA	3658	1/1	0.10	-	36,36,36,36	0
56	MG	BA	3392	1/1	0.11	-	52,52,52,52	0
56	MG	BA	3575	1/1	0.12	-	53,53,53,53	0
56	MG	CA	1770	1/1	0.11	-	54,54,54,54	0
56	MG	DA	3083	1/1	0.20	-	3,3,3,3	0
56	MG	AA	1668	1/1	0.08	-	46,46,46,46	0
56	MG	DA	3272	1/1	0.31	-	3,3,3,3	0
56	MG	AA	1681	1/1	0.09	-	27,27,27,27	0
56	MG	AA	1880	1/1	0.08	-	40,40,40,40	0
56	MG	DA	3283	1/1	0.81	-	70,70,70,70	0
56	MG	CA	1772	1/1	0.21	-	3,3,3,3	0
56	MG	BA	3360	1/1	0.25	-	65,65,65,65	0
56	MG	BA	3909	1/1	0.16	-	39,39,39,39	0
56	MG	DD	5008	1/1	0.14	-	13,13,13,13	0
56	MG	AY	109	1/1	0.15	-	47,47,47,47	0
56	MG	BA	3192	1/1	0.20	-	50,50,50,50	0
56	MG	BA	3090	1/1	0.09	-	43,43,43,43	0
56	MG	AZ	114	1/1	0.11	-	60,60,60,60	0
56	MG	BA	3443	1/1	0.16	-	71,71,71,71	0
56	MG	AC	302	1/1	0.50	-	88,88,88,88	0
56	MG	AA	1879	1/1	0.17	-	49,49,49,49	0
56	MG	CA	1602	1/1	0.09	-	5,5,5,5	0
56	MG	DA	3009	1/1	0.30	-	3,3,3,3	0
56	MG	AA	1785	1/1	0.40	-	70,70,70,70	0
56	MG	AA	1683	1/1	0.10	-	74,74,74,74	0
56	MG	BO	203	1/1	0.23	-	55,55,55,55	0
56	MG	AA	1646	1/1	0.17	-	38,38,38,38	0
56	MG	BA	3156	1/1	0.49	-	53,53,53,53	0
56	MG	B1	102	1/1	0.07	-	9,9,9,9	0
56	MG	BA	3431	1/1	0.15	-	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3520	1/1	0.13	-	61,61,61,61	0
56	MG	AA	1952	1/1	0.14	-	83,83,83,83	0
56	MG	BA	3266	1/1	0.32	-	24,24,24,24	0
56	MG	BA	3175	1/1	0.19	-	69,69,69,69	0
56	MG	BA	3433	1/1	0.29	-	67,67,67,67	0
56	MG	AA	1664	1/1	0.21	-	73,73,73,73	0
56	MG	BA	3054	1/1	0.27	-	63,63,63,63	0
56	MG	BA	3067	1/1	0.06	-	48,48,48,48	0
56	MG	AA	1793	1/1	0.40	-	82,82,82,82	0
56	MG	CA	1797	1/1	0.35	-	28,28,28,28	0
56	MG	DA	3039	1/1	0.19	-	4,4,4,4	0
56	MG	CA	1687	1/1	0.32	-	46,46,46,46	0
56	MG	DA	3384	1/1	0.27	-	3,3,3,3	0
56	MG	AA	1791	1/1	0.09	-	81,81,81,81	0
56	MG	DA	3306	1/1	0.22	-	3,3,3,3	0
56	MG	CA	1615	1/1	0.25	-	3,3,3,3	0
56	MG	AZ	109	1/1	0.12	-	79,79,79,79	0
56	MG	CA	1813	1/1	0.13	-	64,64,64,64	0
56	MG	BA	3007	1/1	0.41	-	20,20,20,20	0
56	MG	BA	3478	1/1	0.17	-	52,52,52,52	0
56	MG	BA	3800	1/1	0.46	-	74,74,74,74	0
56	MG	DA	3339	1/1	0.25	-	6,6,6,6	0
56	MG	BA	3210	1/1	0.10	-	69,69,69,69	0
56	MG	BA	3831	1/1	0.25	-	34,34,34,34	0
56	MG	AA	1806	1/1	0.33	-	27,27,27,27	0
56	MG	DB	211	1/1	0.25	-	3,3,3,3	0
56	MG	BA	3735	1/1	0.11	-	29,29,29,29	0
56	MG	CA	1617	1/1	0.11	-	4,4,4,4	0
56	MG	CA	1705	1/1	0.61	-	60,60,60,60	0
56	MG	DA	3132	1/1	0.48	-	65,65,65,65	0
56	MG	AY	105	1/1	0.08	-	39,39,39,39	0
56	MG	BA	3136	1/1	0.18	-	45,45,45,45	0
56	MG	AA	1869	1/1	0.18	-	47,47,47,47	0
56	MG	AA	1893	1/1	0.25	-	52,52,52,52	0
56	MG	BA	3277	1/1	0.19	-	57,57,57,57	0
56	MG	BA	3404	1/1	0.13	-	11,11,11,11	0
56	MG	DA	3043	1/1	0.19	-	3,3,3,3	0
56	MG	BA	3797	1/1	0.21	-	52,52,52,52	0
56	MG	BA	3611	1/1	0.21	-	8,8,8,8	0
56	MG	BA	3786	1/1	0.36	-	18,18,18,18	0
56	MG	BA	3085	1/1	0.19	-	29,29,29,29	0
56	MG	BA	3406	1/1	0.29	-	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BE	302	1/1	0.49	-	67,67,67,67	0
56	MG	AA	1976	1/1	0.15	-	70,70,70,70	0
56	MG	CA	1685	1/1	0.31	-	68,68,68,68	0
56	MG	CA	1750	1/1	0.15	-	4,4,4,4	0
56	MG	DA	3094	1/1	0.37	-	3,3,3,3	0
56	MG	DA	3184	1/1	0.23	-	3,3,3,3	0
56	MG	AA	1971	1/1	0.31	-	57,57,57,57	0
56	MG	BA	3344	1/1	0.40	-	47,47,47,47	0
56	MG	DA	3170	1/1	0.25	-	3,3,3,3	0
56	MG	DA	3120	1/1	0.37	-	28,28,28,28	0
56	MG	CA	1791	1/1	0.48	-	54,54,54,54	0
56	MG	DA	3467	1/1	0.15	-	3,3,3,3	0
56	MG	AA	1698	1/1	0.32	-	53,53,53,53	0
56	MG	DA	3257	1/1	0.28	-	3,3,3,3	0
56	MG	DA	3186	1/1	0.11	-	4,4,4,4	0
56	MG	BE	306	1/1	0.13	-	71,71,71,71	0
56	MG	CA	1767	1/1	0.11	-	64,64,64,64	0
56	MG	AA	2011	1/1	0.29	-	75,75,75,75	0
56	MG	BA	3236	1/1	0.15	-	35,35,35,35	0
56	MG	BA	3717	1/1	0.14	-	67,67,67,67	0
56	MG	BA	3295	1/1	0.22	-	22,22,22,22	0
56	MG	BA	3011	1/1	0.17	-	47,47,47,47	0
56	MG	BA	3663	1/1	0.43	-	50,50,50,50	0
56	MG	DA	3111	1/1	0.26	-	3,3,3,3	0
56	MG	AA	1674	1/1	0.10	-	52,52,52,52	0
56	MG	AA	2025	1/1	0.25	-	58,58,58,58	0
56	MG	BA	3112	1/1	0.16	-	40,40,40,40	0
56	MG	DA	3405	1/1	0.11	-	4,4,4,4	0
56	MG	DA	3161	1/1	0.34	-	3,3,3,3	0
56	MG	BA	3269	1/1	0.10	-	31,31,31,31	0
56	MG	CA	1607	1/1	0.21	-	3,3,3,3	0
56	MG	BA	3197	1/1	0.28	-	85,85,85,85	0
56	MG	BA	3176	1/1	0.46	-	66,66,66,66	0
56	MG	DA	3033	1/1	0.15	-	4,4,4,4	0
56	MG	AK	204	1/1	0.10	-	82,82,82,82	0
56	MG	BA	3548	1/1	0.14	-	36,36,36,36	0
56	MG	CA	1649	1/1	0.09	-	35,35,35,35	0
56	MG	BA	3335	1/1	0.14	-	52,52,52,52	0
56	MG	CA	1758	1/1	0.17	-	78,78,78,78	0
56	MG	DA	3291	1/1	0.23	-	44,44,44,44	0
56	MG	AK	206	1/1	0.24	-	69,69,69,69	0
56	MG	AA	1921	1/1	0.12	-	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3280	1/1	0.17	-	29,29,29,29	0
56	MG	BB	217	1/1	0.29	-	74,74,74,74	0
56	MG	BA	3275	1/1	0.26	-	46,46,46,46	0
56	MG	DA	3001	1/1	0.09	-	55,55,55,55	0
56	MG	BF	302	1/1	0.21	-	59,59,59,59	0
56	MG	AA	1994	1/1	0.30	-	52,52,52,52	0
56	MG	BA	3230	1/1	0.10	-	60,60,60,60	0
56	MG	BA	3860	1/1	0.08	-	62,62,62,62	0
56	MG	AA	1905	1/1	0.14	-	50,50,50,50	0
56	MG	BA	3723	1/1	0.15	-	7,7,7,7	0
56	MG	DA	3395	1/1	0.31	-	41,41,41,41	0
56	MG	AG	202	1/1	0.11	-	56,56,56,56	0
56	MG	BA	3414	1/1	0.18	-	23,23,23,23	0
56	MG	DA	3065	1/1	0.15	-	45,45,45,45	0
56	MG	BA	3207	1/1	0.14	-	73,73,73,73	0
56	MG	AC	303	1/1	0.09	-	56,56,56,56	0
56	MG	AA	1743	1/1	0.11	-	63,63,63,63	0
56	MG	BA	3307	1/1	0.14	-	34,34,34,34	0
56	MG	DA	3332	1/1	0.21	-	33,33,33,33	0
56	MG	DA	3239	1/1	0.08	-	78,78,78,78	0
56	MG	DA	3080	1/1	0.27	-	3,3,3,3	0
56	MG	DA	3486	1/1	0.38	-	3,3,3,3	0
56	MG	BA	3225	1/1	0.10	-	27,27,27,27	0
56	MG	DB	210	1/1	0.21	-	3,3,3,3	0
56	MG	BA	3068	1/1	0.23	-	50,50,50,50	0
56	MG	BA	3042	1/1	0.50	-	74,74,74,74	0
56	MG	DA	3031	1/1	0.42	-	3,3,3,3	0
56	MG	BA	3073	1/1	0.45	-	57,57,57,57	0
56	MG	CA	1658	1/1	0.26	-	3,3,3,3	0
56	MG	DA	3248	1/1	0.16	-	3,3,3,3	0
56	MG	BA	3631	1/1	0.30	-	67,67,67,67	0
56	MG	BA	3062	1/1	0.12	-	56,56,56,56	0
56	MG	AA	1774	1/1	0.14	-	39,39,39,39	0
56	MG	BA	3300	1/1	0.46	-	61,61,61,61	0
56	MG	BA	3550	1/1	0.31	-	42,42,42,42	0
56	MG	DA	3076	1/1	0.18	-	3,3,3,3	0
56	MG	BA	3353	1/1	0.28	-	37,37,37,37	0
56	MG	AA	1689	1/1	0.13	-	55,55,55,55	0
56	MG	DA	3204	1/1	0.35	-	43,43,43,43	0
56	MG	BA	3706	1/1	0.17	-	45,45,45,45	0
56	MG	AA	2009	1/1	0.33	-	47,47,47,47	0
56	MG	BA	3110	1/1	0.09	-	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	CA	1655	1/1	0.34	-	38,38,38,38	0
56	MG	BA	3202	1/1	0.39	-	57,57,57,57	0
56	MG	AA	1960	1/1	0.31	-	53,53,53,53	0
56	MG	AA	1654	1/1	0.12	-	75,75,75,75	0
56	MG	DA	3322	1/1	0.29	-	3,3,3,3	0
56	MG	DA	3104	1/1	0.35	-	21,21,21,21	0
56	MG	AA	1760	1/1	0.09	-	8,8,8,8	0
56	MG	AA	1841	1/1	0.24	-	8,8,8,8	0
56	MG	CA	1786	1/1	0.27	-	67,67,67,67	0
56	MG	BA	3733	1/1	0.28	-	38,38,38,38	0
56	MG	AA	1870	1/1	0.24	-	85,85,85,85	0
56	MG	AA	1820	1/1	0.15	-	46,46,46,46	0
56	MG	CA	1757	1/1	0.29	-	66,66,66,66	0
56	MG	DA	3469	1/1	0.36	-	3,3,3,3	0
56	MG	BA	3858	1/1	0.28	-	60,60,60,60	0
56	MG	BA	3749	1/1	0.55	-	53,53,53,53	0
56	MG	DA	3194	1/1	0.18	-	3,3,3,3	0
56	MG	DA	3233	1/1	0.15	-	43,43,43,43	0
56	MG	BA	3812	1/1	0.18	-	40,40,40,40	0
56	MG	BA	3150	1/1	0.16	-	41,41,41,41	0
56	MG	DA	3419	1/1	0.30	-	3,3,3,3	0
56	MG	BA	3622	1/1	0.09	-	60,60,60,60	0
56	MG	CA	1729	1/1	0.33	-	36,36,36,36	0
56	MG	BA	3235	1/1	0.14	-	47,47,47,47	0
56	MG	DA	3155	1/1	0.19	-	4,4,4,4	0
56	MG	BA	3484	1/1	0.17	-	47,47,47,47	0
56	MG	AA	1958	1/1	0.86	-	87,87,87,87	0
56	MG	BA	3905	1/1	0.31	-	65,65,65,65	0
56	MG	BA	3855	1/1	0.15	-	49,49,49,49	0
56	MG	DB	205	1/1	0.27	-	3,3,3,3	0
56	MG	AA	1940	1/1	0.36	-	53,53,53,53	0
56	MG	AA	1855	1/1	0.19	-	21,21,21,21	0
56	MG	DA	3413	1/1	0.20	-	3,3,3,3	0
56	MG	BQ	204	1/1	0.13	-	80,80,80,80	0
56	MG	BA	3795	1/1	0.30	-	84,84,84,84	0
56	MG	BA	3644	1/1	0.23	-	26,26,26,26	0
56	MG	CA	1755	1/1	0.22	-	4,4,4,4	0
56	MG	AA	1902	1/1	0.51	-	61,61,61,61	0
56	MG	DA	3371	1/1	0.07	-	56,56,56,56	0
56	MG	BQ	206	1/1	0.07	-	13,13,13,13	0
56	MG	BA	3476	1/1	0.08	-	18,18,18,18	0
56	MG	CA	1778	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	DO	202	1/1	0.10	-	4,4,4,4	0
56	MG	AA	1725	1/1	0.35	-	56,56,56,56	0
56	MG	BA	3562	1/1	0.09	-	28,28,28,28	0
56	MG	BA	3568	1/1	0.16	-	33,33,33,33	0
56	MG	BA	3456	1/1	0.16	-	24,24,24,24	0
56	MG	BA	3771	1/1	0.34	-	72,72,72,72	0
56	MG	AA	1723	1/1	0.27	-	76,76,76,76	0
56	MG	BI	205	1/1	0.12	-	45,45,45,45	0
56	MG	DA	3481	1/1	0.19	-	4,4,4,4	0
56	MG	AA	1657	1/1	0.09	-	45,45,45,45	0
56	MG	BB	219	1/1	0.24	-	41,41,41,41	0
56	MG	BA	3330	1/1	0.12	-	55,55,55,55	0
56	MG	BA	3014	1/1	0.44	-	65,65,65,65	0
56	MG	BA	3109	1/1	0.17	-	70,70,70,70	0
56	MG	BA	3078	1/1	0.16	-	51,51,51,51	0
56	MG	BA	3873	1/1	0.39	-	44,44,44,44	0
56	MG	CA	1707	1/1	0.12	-	36,36,36,36	0
56	MG	BD	5004	1/1	0.14	-	50,50,50,50	0
56	MG	AA	1850	1/1	0.11	-	38,38,38,38	0
56	MG	AA	1885	1/1	0.30	-	58,58,58,58	0
56	MG	DA	3117	1/1	0.14	-	28,28,28,28	0
56	MG	AA	1941	1/1	0.28	-	42,42,42,42	0
56	MG	BS	202	1/1	0.07	-	42,42,42,42	0
56	MG	BA	3557	1/1	0.27	-	29,29,29,29	0
56	MG	DA	3358	1/1	0.11	-	54,54,54,54	0
56	MG	BA	3648	1/1	0.20	-	48,48,48,48	0
57	ZN	CN	101	1/1	0.16	-	100,100,100,100	0
56	MG	CY	103	1/1	0.10	-	31,31,31,31	0
56	MG	BD	5003	1/1	0.14	-	57,57,57,57	0
56	MG	BA	3355	1/1	0.08	-	33,33,33,33	0
56	MG	DA	3156	1/1	0.39	-	3,3,3,3	0
56	MG	DA	3207	1/1	0.62	-	50,50,50,50	0
56	MG	CA	1728	1/1	0.14	-	57,57,57,57	0
56	MG	AA	1900	1/1	0.34	-	39,39,39,39	0
56	MG	BA	3594	1/1	0.22	-	12,12,12,12	0
56	MG	BA	3055	1/1	0.21	-	73,73,73,73	0
56	MG	BA	3695	1/1	0.16	-	70,70,70,70	0
56	MG	DA	3100	1/1	0.17	-	4,4,4,4	0
56	MG	BA	3884	1/1	0.28	-	80,80,80,80	0
56	MG	BA	3555	1/1	0.20	-	7,7,7,7	0
56	MG	BA	3642	1/1	0.16	-	67,67,67,67	0
56	MG	BA	3486	1/1	0.16	-	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	CA	1613	1/1	0.17	-	3,3,3,3	0
56	MG	BA	3332	1/1	0.10	-	90,90,90,90	0
56	MG	BA	3177	1/1	0.11	-	40,40,40,40	0
56	MG	BA	3413	1/1	0.07	-	43,43,43,43	0
56	MG	AA	1749	1/1	0.14	-	68,68,68,68	0
56	MG	DA	3053	1/1	0.16	-	4,4,4,4	0
56	MG	BA	3254	1/1	0.22	-	79,79,79,79	0
56	MG	BA	3739	1/1	0.23	-	23,23,23,23	0
56	MG	D6	101	1/1	0.15	-	43,43,43,43	0
56	MG	BA	3115	1/1	0.10	-	61,61,61,61	0

6.5 Other polymers ⓘ

There are no such residues in this entry.