



Full wwPDB X-ray Structure Validation Report

Jun 17, 2014 – 02:32 AM BST

PDB ID : 4V6G
Title : Initiation complex of 70S ribosome with two tRNAs and mRNA.
Authors : Jenner, L.B.; Yusupova, G.; Yusupov, M.
Deposited on : 2009-07-10
Resolution : 3.50 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>

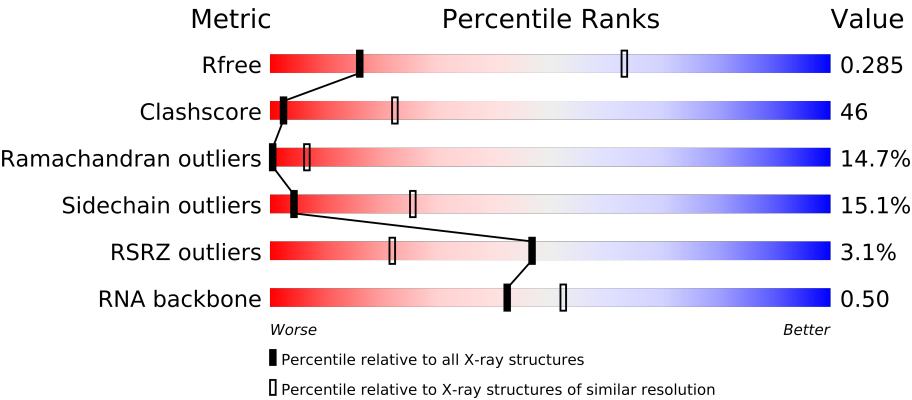
The following versions of software and data (see [references](#)) were used in the production of this report:

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 3.50 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	1243 (3.70-3.30)
Clashscore	79885	1039 (3.66-3.34)
Ramachandran outliers	78287	1000 (3.66-3.34)
Sidechain outliers	78261	1000 (3.66-3.34)
RSRZ outliers	66119	1243 (3.70-3.30)
RNA backbone	1838	1007 (4.22-2.76)

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	1517	<div><div></div><div><div></div><div></div><div></div><div></div></div></div>
1	CA	1517	<div><div></div><div><div></div><div></div><div></div><div></div></div></div>
2	AE	256	<div><div></div><div><div></div><div></div><div></div><div></div></div></div>
2	CE	256	<div><div></div><div><div></div><div></div><div></div><div></div></div></div>
3	AF	239	<div><div></div><div><div></div><div></div><div></div><div></div></div></div>
3	CF	239	<div><div></div><div><div></div><div></div><div></div><div></div></div></div>
4	AG	209	<div><div></div><div><div></div><div></div><div></div><div></div></div></div>
4	CG	209	<div><div></div><div><div></div><div></div><div></div><div></div></div></div>
5	AH	162	<div><div></div><div><div></div><div></div><div></div><div></div></div></div>
5	CH	162	<div><div></div><div><div></div><div></div><div></div><div></div></div></div>
6	AI	101	<div><div></div><div><div></div><div></div><div></div><div></div></div></div>
6	CI	101	<div><div></div><div><div></div><div></div><div></div><div></div></div></div>

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Mol	Chain	Length	Quality of chain
7	AJ	156	
7	CJ	156	
8	AK	138	
8	CK	138	
9	AL	128	
9	CL	128	
10	AM	105	
10	CM	105	
11	AN	129	
11	CN	129	
12	AO	132	
12	CO	132	
13	AP	126	
13	CP	126	
14	AQ	61	
14	CQ	61	
15	AR	89	
15	CR	89	
16	AS	88	
16	CS	88	
17	AT	105	
17	CT	105	
18	AU	88	
18	CU	88	
19	AV	93	
19	CV	93	
20	AW	106	
20	CW	106	
21	AX	27	
21	CX	27	
22	AC	77	
22	AD	77	
22	CC	77	
22	CD	77	
23	A1	25	
23	C1	25	
24	BA	2885	
25	BB	122	
26	BD	276	
26	DD	276	
27	BE	206	
27	DE	206	

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Mol	Chain	Length	Quality of chain
28	BF	210	
28	DF	210	
29	BG	182	
29	DG	182	
30	BH	180	
30	DH	180	
31	BK	148	
31	DK	148	
32	BM	140	
32	DM	140	
33	BN	122	
33	DN	122	
34	BO	150	
34	DO	150	
35	BP	141	
35	DP	141	
36	B0	118	
36	D0	118	
37	BQ	112	
37	DQ	112	
38	BR	146	
38	DR	146	
39	B1	118	
39	D1	118	
40	B2	101	
40	D2	101	
41	BS	113	
41	DS	113	
42	BT	96	
42	DT	96	
43	BU	110	
43	DU	110	
44	BV	206	
44	DV	206	
45	B3	85	
45	D3	85	
46	BZ	98	
46	DZ	98	
47	BW	72	
47	DW	72	
48	BX	60	
48	DX	60	

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Mol	Chain	Length	Quality of chain
49	B4	71	
49	D4	71	
50	B5	60	
50	D5	60	
51	B6	54	
51	D6	54	
52	B7	49	
52	D7	49	
53	B8	65	
53	D8	65	
54	DA	2898	
55	DB	120	

2 Entry composition

There are 61 unique types of molecules in this entry. The entry contains 298428 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 (E.COLI NUMBERING).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1517	Total	C	N	O	P	0	0	0
			32600	14510	6032	10541	1517			
1	CA	1515	Total	C	N	O	P	0	0	0
			32554	14491	6025	10524	1514			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AA	1542	G	U	CONFLICT	GB M26923.1
CA	1542	G	U	CONFLICT	GB M26923.1

- Molecule 2 is a protein called 30S RIBOSOMAL PROTEIN S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AE	236	Total	C	N	O	S	0	0	0
			1915	1223	343	344	5			
2	CE	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			

- Molecule 3 is a protein called 30S RIBOSOMAL PROTEIN S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AF	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			
3	CF	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			

- Molecule 4 is a protein called 30S RIBOSOMAL PROTEIN S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	CG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 5 is a protein called 30S RIBOSOMAL PROTEIN S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AH	154	Total	C	N	O	S	0	0	0
			1178	743	221	210	4			
5	CH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 6 is a protein called 30S RIBOSOMAL PROTEIN S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	CI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 7 is a protein called 30S RIBOSOMAL PROTEIN S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	CJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 8 is a protein called 30S RIBOSOMAL PROTEIN S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	CK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 9 is a protein called 30S RIBOSOMAL PROTEIN S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AL	128	Total	C	N	O	S	0	0	0
			1018	644	198	175	1			
9	CL	127	Total	C	N	O	S	0	0	0
			1010	639	197	174				

- Molecule 10 is a protein called 30S RIBOSOMAL PROTEIN S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AM	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			
10	CM	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

- Molecule 11 is a protein called 30S RIBOSOMAL PROTEIN S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AN	121	Total	C	N	O	S	0	0	0
			901	560	171	167	3			
11	CN	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 12 is a protein called 30S RIBOSOMAL PROTEIN S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			
12	CO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			

- Molecule 13 is a protein called 30S RIBOSOMAL PROTEIN S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AP	118	Total	C	N	O	S	0	0	0
			937	579	193	163	2			
13	CP	121	Total	C	N	O	S	0	0	0
			964	597	199	166	2			

- Molecule 14 is a protein called 30S RIBOSOMAL PROTEIN S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AQ	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	CQ	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 15 is a protein called 30S RIBOSOMAL PROTEIN S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	CR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 16 is a protein called 30S RIBOSOMAL PROTEIN S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
16	CS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 17 is a protein called 30S RIBOSOMAL PROTEIN S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AT	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
17	CT	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			

- Molecule 18 is a protein called 30S RIBOSOMAL PROTEIN S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AU	71	Total	C	N	O	0	0	0
			585	373	116	96			
18	CU	70	Total	C	N	O	0	0	0
			574	367	112	95			

- Molecule 19 is a protein called 30S RIBOSOMAL PROTEIN S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AV	82	Total	C	N	O	S	0	0	0
			656	419	121	114	2			
19	CV	84	Total	C	N	O	S	0	0	0
			674	430	126	116	2			

- Molecule 20 is a protein called 30S RIBOSOMAL PROTEIN S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	CW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 21 is a protein called 30S RIBOSOMAL PROTEIN THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AX	25	Total	C	N	O	0	0	0
			217	134	52	31			
21	CX	25	Total	C	N	O	0	0	0
			217	134	52	31			

- Molecule 22 is a RNA chain called TRNA FMET (UNMODIFIED BASES).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AC	77	Total	C	N	O	P	0	0	0
			1640	732	298	534	76			
22	AD	77	Total	C	N	O	P	0	0	0
			1640	732	298	534	76			
22	CC	77	Total	C	N	O	P	0	0	0
			1640	732	298	534	76			
22	CD	77	Total	C	N	O	P	0	0	0
			1640	732	298	534	76			

- Molecule 23 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	A1	23	Total	C	N	O	P	0	0	0
			502	227	107	146	22			
23	C1	23	Total	C	N	O	P	0	0	0
			502	227	107	146	22			

- Molecule 24 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BA	2885	Total	C	N	O	P	0	0	0
			62134	27656	11622	19972	2884			

There are 19 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BA	?	-	U	DELETION	GB AP008226.1
BA	?	-	U	DELETION	GB AP008226.1

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Chain	Residue	Modelled	Actual	Comment	Reference
BA	?	-	G	DELETION	GB AP008226.1
BA	?	-	C	DELETION	GB AP008226.1
BA	?	-	G	DELETION	GB AP008226.1
BA	?	-	G	DELETION	GB AP008226.1
BA	?	-	G	DELETION	GB AP008226.1
BA	?	-	C	DELETION	GB AP008226.1
BA	?	-	C	DELETION	GB AP008226.1
BA	?	-	G	DELETION	GB AP008226.1
BA	?	-	C	DELETION	GB AP008226.1
BA	?	-	C	DELETION	GB AP008226.1
BA	?	-	G	DELETION	GB AP008226.1
BA	?	-	G	DELETION	GB AP008226.1
BA	?	-	C	DELETION	GB AP008226.1
BA	?	-	C	DELETION	GB AP008226.1
BA	654T	A	C	CONFLICT	GB AP008226.1
BA	1058	U	G	CONFLICT	GB AP008226.1
BA	1080	A	C	CONFLICT	GB AP008226.1

- Molecule 25 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BB	120	Total	C	N	O	P	0	0	0
			2572	1146	476	831	119			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BB	1M	A	-	INSERTION	GB X01554.1

- Molecule 26 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			
26	DD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			

- Molecule 27 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	DE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 28 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BF	208	Total	C	N	O	S	0	0	0
			1627	1037	304	283	3			
28	DF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			

- Molecule 29 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			
29	DG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

- Molecule 30 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			
30	DH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			

- Molecule 31 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BK	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			
31	DK	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 32 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
32	DM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 33 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BN	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
33	DN	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 34 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BO	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			
34	DO	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			

- Molecule 35 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BP	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
35	DP	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 36 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	B0	117	Total	C	N	O		0	0	0
			960	599	202	159				
36	D0	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 37 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
37	BQ	111	Total	C	N	O	0	0	0
			882	556	176	150			
37	DQ	111	Total	C	N	O	0	0	0
			882	556	176	150			

- Molecule 38 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BR	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			
38	DR	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

- Molecule 39 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	B1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
39	D1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 40 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	B2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
40	D2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 41 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BS	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			
41	DS	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			

- Molecule 42 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	BT	92	Total	C	N	O	0	0	0
			725	471	131	123			
42	DT	92	Total	C	N	O	0	0	0
			725	471	131	123			

- Molecule 43 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BU	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	DU	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			

- Molecule 44 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BV	176	Total	C	N	O	S	0	0	0
			1404	897	252	252	3			
44	DV	172	Total	C	N	O	S	0	0	0
			1378	879	248	248	3			

- Molecule 45 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	B3	80	Total	C	N	O	S	0	0	0
			629	389	132	107	1			
45	D3	77	Total	C	N	O	S	0	0	0
			611	378	129	103	1			

- Molecule 46 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BZ	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			
46	DZ	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			

- Molecule 47 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BW	69	Total	C	N	O	S	0	0	0
			581	358	118	104	1			
47	DW	69	Total	C	N	O	S	0	0	0
			581	358	118	104	1			

- Molecule 48 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	BX	59	Total	C	N	O	0	0	0
			469	298	90	81			
48	DX	59	Total	C	N	O	0	0	0
			469	298	90	81			

- Molecule 49 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B4	71	Total	C	N	O	S	0	0	0
			581	364	108	104	5			
49	D4	71	Total	C	N	O	S	0	0	0
			581	364	108	104	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
50	D5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 51 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B6	48	Total	C	N	O	S	0	0	0
			417	259	86	68	4			
51	D6	49	Total	C	N	O	S	0	0	0
			424	264	87	69	4			

- Molecule 52 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B7	49	Total	C	N	O	S	0	0	0
			430	263	108	57	2			
52	D7	49	Total	C	N	O	S	0	0	0
			430	263	108	57	2			

- Molecule 53 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B8	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			
53	D8	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 54 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	DA	2886	Total	C	N	O	P	0	0	0
			62151	27664	11620	19982	2885			

There are 10 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
DA	161	U	-	INSERTION	GB AP008226.1
DA	654A	A	G	CONFLICT	GB AP008226.1
DA	?	-	G	DELETION	GB AP008226.1
DA	?	-	G	DELETION	GB AP008226.1
DA	?	-	C	DELETION	GB AP008226.1
DA	?	-	A	DELETION	GB AP008226.1
DA	654L	G	C	CONFLICT	GB AP008226.1
DA	654T	A	C	CONFLICT	GB AP008226.1
DA	1058	U	G	CONFLICT	GB AP008226.1
DA	1080	A	C	CONFLICT	GB AP008226.1

- Molecule 55 is a RNA chain called 5S ribosomal RNA.

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

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AP	1	Total	Mg	0	0
			1	1		
56	CR	1	Total	Mg	0	0
			1	1		
56	B4	1	Total	Mg	0	0
			1	1		
56	BA	683	Total	Mg	0	0
			683	683		
56	AK	1	Total	Mg	0	0
			1	1		
56	CH	2	Total	Mg	0	0
			2	2		
56	DF	1	Total	Mg	0	0
			1	1		
56	B8	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	BE	7	Total 7	Mg 7	0	0
56	AW	4	Total 4	Mg 4	0	0
56	DU	6	Total 6	Mg 6	0	0
56	B1	1	Total 1	Mg 1	0	0
56	C1	1	Total 1	Mg 1	0	0
56	CD	26	Total 26	Mg 26	0	0
56	DZ	2	Total 2	Mg 2	0	0
56	AX	1	Total 1	Mg 1	0	0
56	D6	2	Total 2	Mg 2	0	0
56	AS	2	Total 2	Mg 2	0	0
56	CA	383	Total 383	Mg 383	0	0
56	B5	1	Total 1	Mg 1	0	0
56	BB	26	Total 26	Mg 26	0	0
56	AJ	1	Total 1	Mg 1	0	0
56	BT	2	Total 2	Mg 2	0	0
56	CC	13	Total 13	Mg 13	0	0
56	DB	29	Total 29	Mg 29	0	0
56	D3	4	Total 4	Mg 4	0	0
56	BF	2	Total 2	Mg 2	0	0
56	DR	2	Total 2	Mg 2	0	0
56	DA	905	Total 905	Mg 905	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AA	439	Total 439	Mg 439	0	0
56	BQ	1	Total 1	Mg 1	0	0
56	CQ	3	Total 3	Mg 3	0	0
56	D7	1	Total 1	Mg 1	0	0
56	CX	3	Total 3	Mg 3	0	0
56	B6	1	Total 1	Mg 1	0	0
56	CG	1	Total 1	Mg 1	0	0
56	BU	5	Total 5	Mg 5	0	0
56	A1	2	Total 2	Mg 2	0	0
56	AD	3	Total 3	Mg 3	0	0
56	DD	3	Total 3	Mg 3	0	0
56	CT	1	Total 1	Mg 1	0	0
56	DH	4	Total 4	Mg 4	0	0
56	D0	5	Total 5	Mg 5	0	0
56	BG	1	Total 1	Mg 1	0	0
56	AI	1	Total 1	Mg 1	0	0
56	DS	1	Total 1	Mg 1	0	0
56	DE	3	Total 3	Mg 3	0	0
56	B3	2	Total 2	Mg 2	0	0
56	BR	2	Total 2	Mg 2	0	0
56	CP	4	Total 4	Mg 4	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	BK	1	Total 1	Mg 1	0	0
56	DW	2	Total 2	Mg 2	0	0
56	D2	1	Total 1	Mg 1	0	0
56	AL	2	Total 2	Mg 2	0	0
56	CM	1	Total 1	Mg 1	0	0
56	BO	1	Total 1	Mg 1	0	0
56	AQ	1	Total 1	Mg 1	0	0
56	D1	6	Total 6	Mg 6	0	0
56	AH	2	Total 2	Mg 2	0	0
56	BZ	1	Total 1	Mg 1	0	0
56	DO	5	Total 5	Mg 5	0	0
56	AC	8	Total 8	Mg 8	0	0
56	CW	5	Total 5	Mg 5	0	0
56	DG	3	Total 3	Mg 3	0	0
56	D5	1	Total 1	Mg 1	0	0
56	BD	2	Total 2	Mg 2	0	0
56	AT	2	Total 2	Mg 2	0	0
56	DT	2	Total 2	Mg 2	0	0
56	B0	2	Total 2	Mg 2	0	0
56	AO	1	Total 1	Mg 1	0	0
56	BW	1	Total 1	Mg 1	0	0

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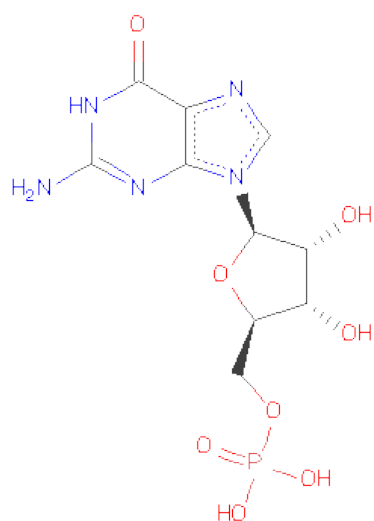
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	CS	2	Total	Mg	0	0
			2	2		
56	CK	2	Total	Mg	0	0
			2	2		
56	CL	1	Total	Mg	0	0
			1	1		
56	BH	1	Total	Mg	0	0
			1	1		

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

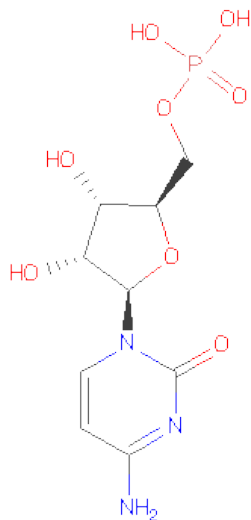
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	CQ	1	Total	Zn	0	0
			1	1		
57	AG	1	Total	Zn	0	0
			1	1		
57	AA	2	Total	Zn	0	0
			2	2		
57	AQ	1	Total	Zn	0	0
			1	1		
57	CG	1	Total	Zn	0	0
			1	1		

- Molecule 58 is GUANOSINE-5'-MONOPHOSPHATE (three-letter code: G) (formula: C₁₀H₁₄N₅O₈P).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
58	CA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	CA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	CA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	CP	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	CC	1	Total 20	C 10	N 5	O 5		0	0
58	CC	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	CC	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DA	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DP	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DP	1	Total 23	C 10	N 5	O 7	P 1	0	0
58	DP	1	Total 23	C 10	N 5	O 7	P 1	0	0

- Molecule 59 is CYTIDINE-5'-MONOPHOSPHATE (three-letter code: C) (formula: $C_9H_{14}N_3O_8P$).



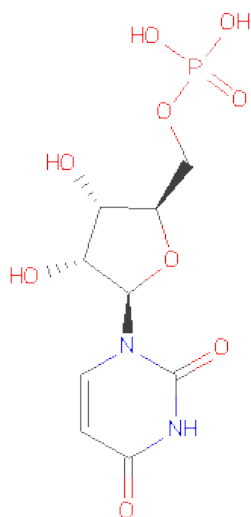
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
59	CA	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	CA	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	CO	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	CP	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	CP	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	CP	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	CC	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	CC	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	CC	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	DA	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	DA	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	DA	1	Total	C	N	O	P	0	0
			20	9	3	7	1		

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
59	DA	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	DA	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	DA	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	DA	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	DA	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	DA	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	DP	1	Total	C	N	O	P	0	0
			20	9	3	7	1		
59	DP	1	Total	C	N	O	P	0	0
			20	9	3	7	1		

- Molecule 60 is URIDINE-5'-MONOPHOSPHATE (three-letter code: U) (formula: $C_9H_{13}N_2O_9P$).



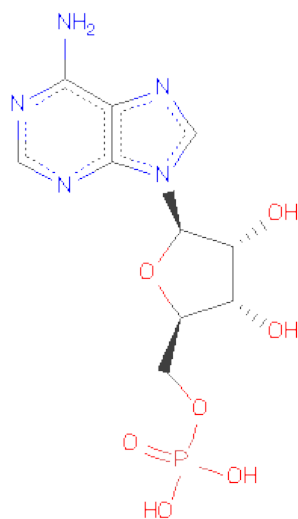
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
60	CA	1	Total	C	N	O	P	0	0
			20	9	2	8	1		
60	C1	1	Total	C	N	O	P	0	0
			20	9	2	8	1		

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
60	DA	1	Total	C	N	O	P	0	0
			20	9	2	8	1		
60	DA	1	Total	C	N	O	P	0	0
			20	9	2	8	1		
60	DA	1	Total	C	N	O	P	0	0
			20	9	2	8	1		
60	DA	1	Total	C	N	O	P	0	0
			20	9	2	8	1		
60	DA	1	Total	C	N	O	P	0	0
			20	9	2	8	1		
60	DA	1	Total	C	N	O	P	0	0
			20	9	2	8	1		
60	DP	1	Total	C	N	O	P	0	0
			20	9	2	8	1		

- Molecule 61 is ADENOSINE-5'-MONOPHOSPHATE (three-letter code: A) (formula: $C_{10}H_{14}N_5O_7P$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
61	CA	1	Total	C	N	O	P	0	0
			22	10	5	6	1		
61	CC	1	Total	C	N	O	P	0	0
			22	10	5	6	1		

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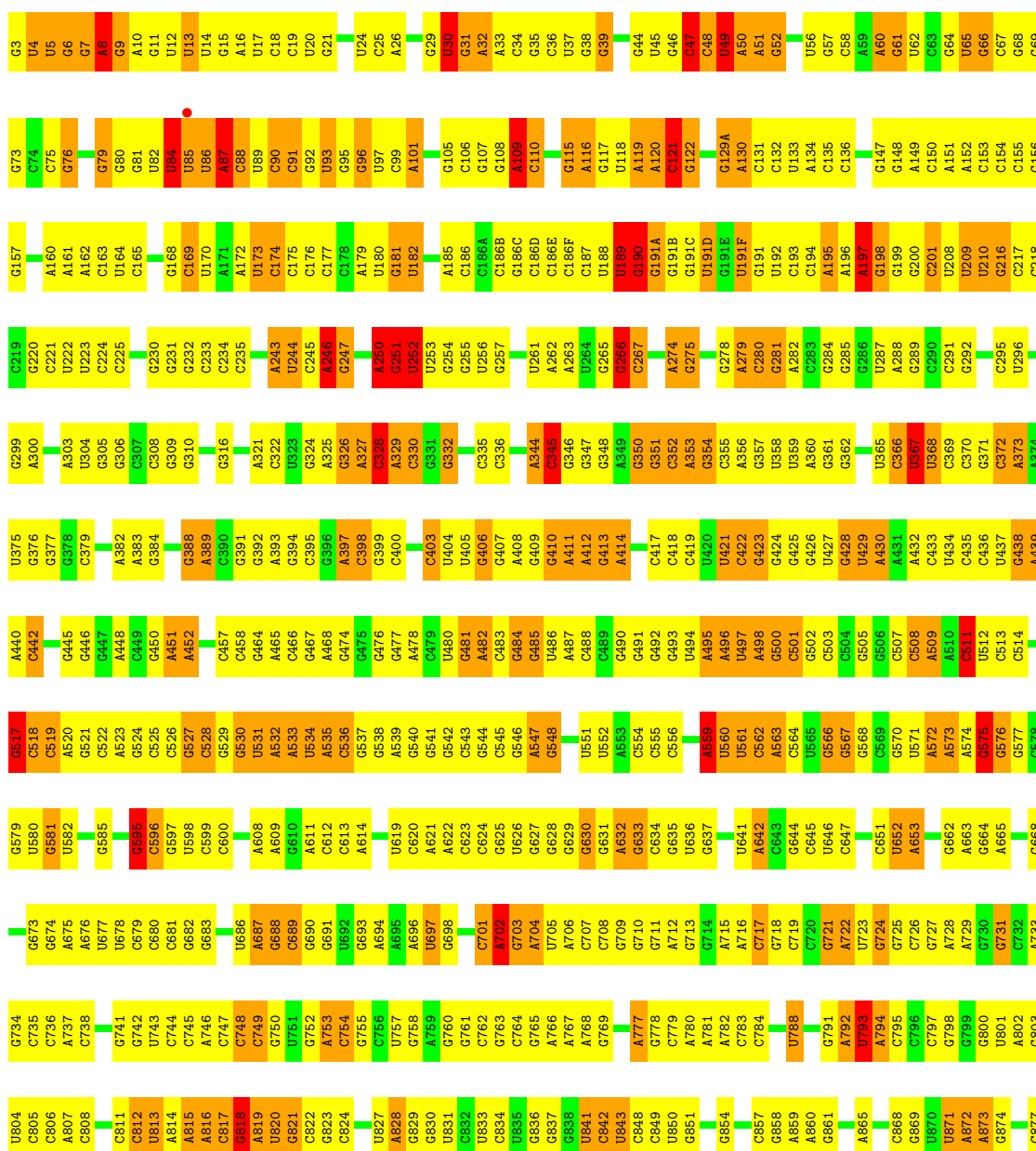
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
61	C1	1	Total 22	C 10	N 5	O 6	P 1	0	0
61	C1	1	Total 22	C 10	N 5	O 6	P 1	0	0
61	DA	1	Total 22	C 10	N 5	O 6	P 1	0	0
61	DA	1	Total 22	C 10	N 5	O 6	P 1	0	0
61	DA	1	Total 22	C 10	N 5	O 6	P 1	0	0
61	DA	1	Total 22	C 10	N 5	O 6	P 1	0	0
61	DA	1	Total 22	C 10	N 5	O 6	P 1	0	0
61	DA	1	Total 22	C 10	N 5	O 6	P 1	0	0
61	DA	1	Total 22	C 10	N 5	O 6	P 1	0	0

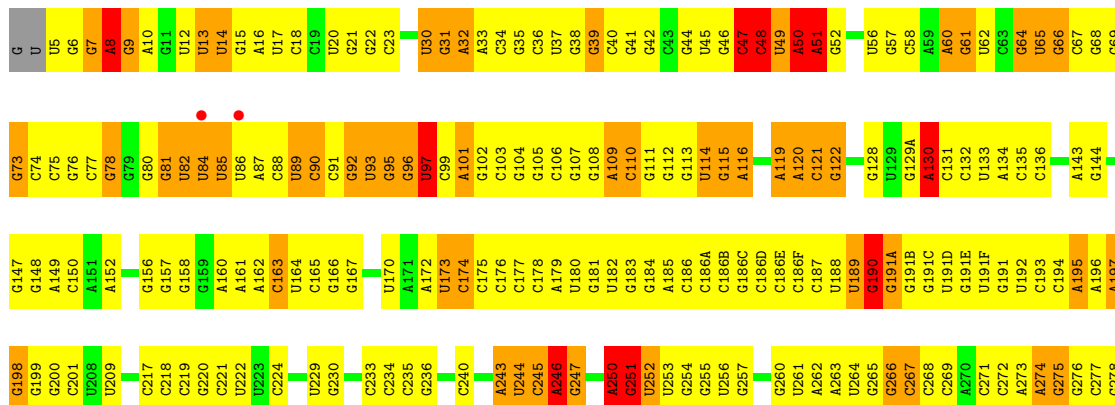
3 Residue-property plots

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.

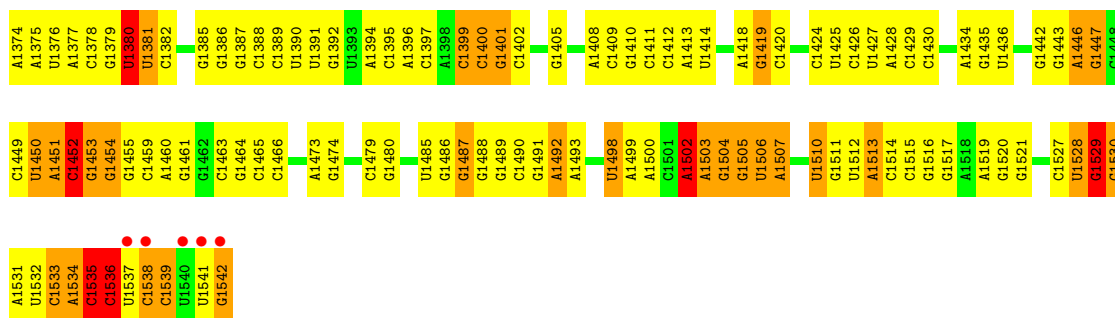
• Molecule 1: 16S rRNA (E.COLI NUMBERING)

Chain AA:



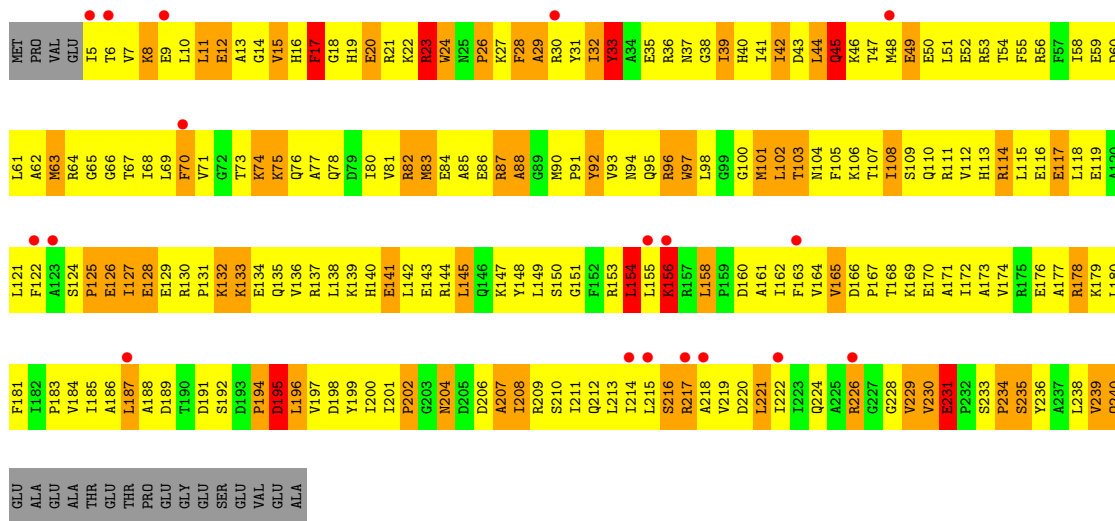






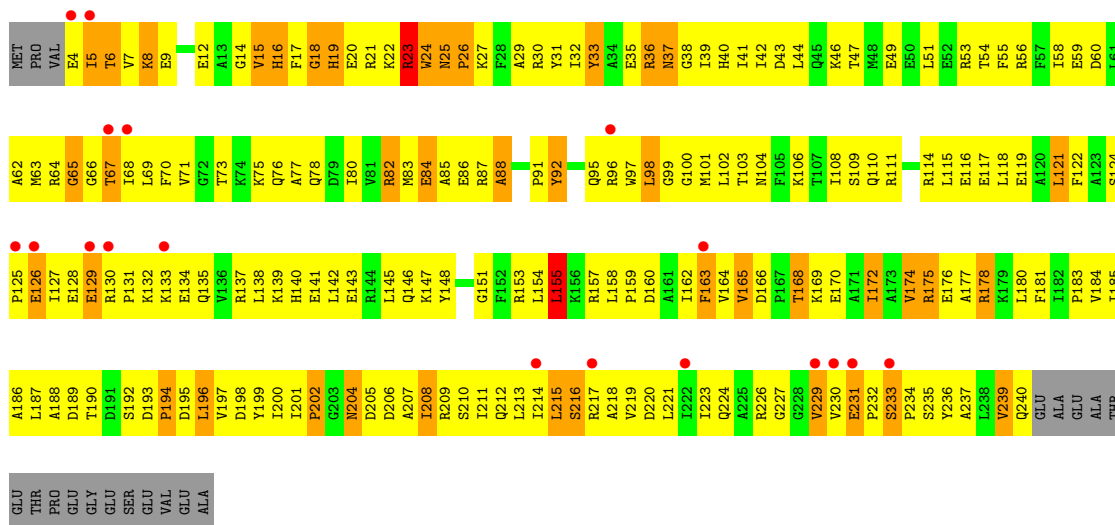
• Molecule 2: 30S RIBOSOMAL PROTEIN S2

Chain AE:



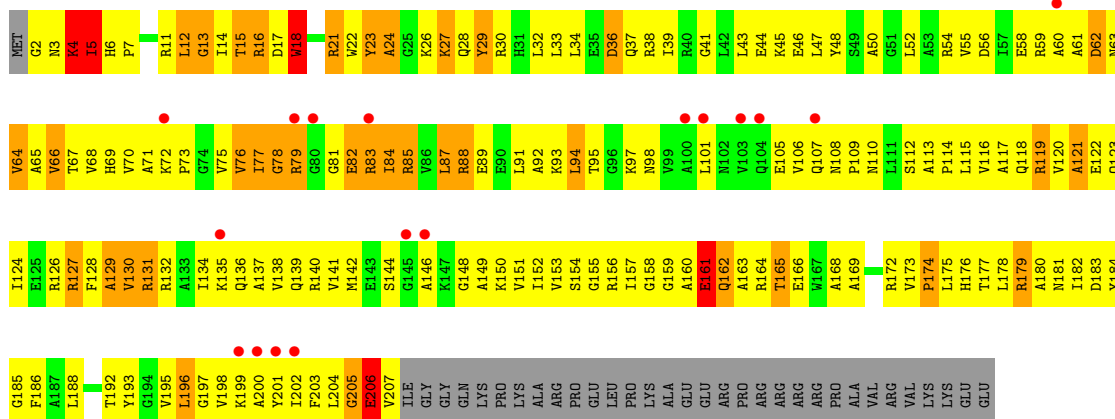
• Molecule 2: 30S RIBOSOMAL PROTEIN S2

Chain CE:



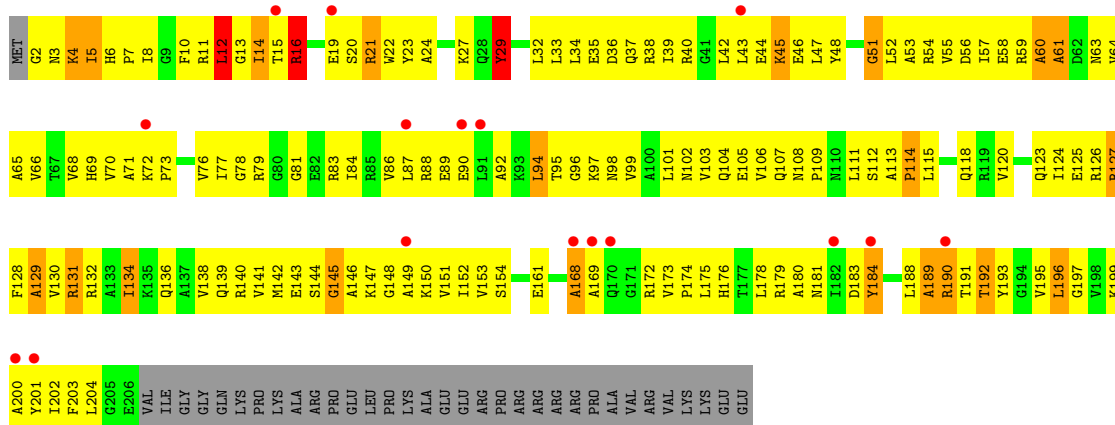
• Molecule 3: 30S RIBOSOMAL PROTEIN S3

Chain AF:



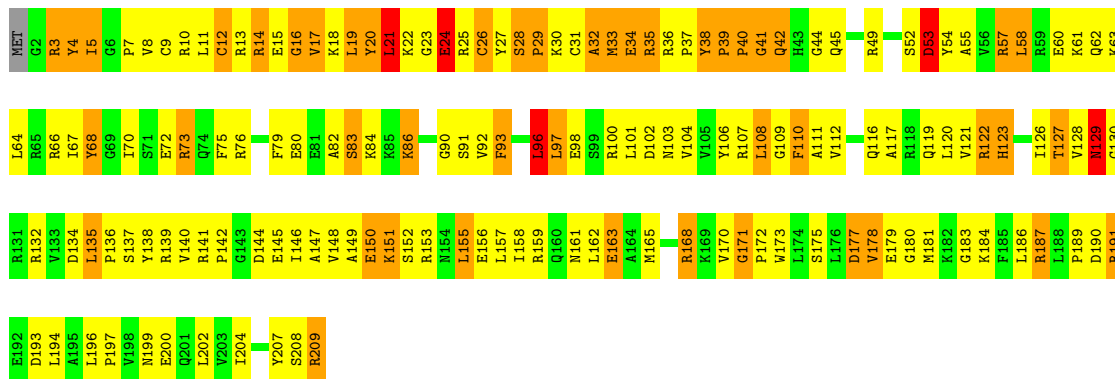
• Molecule 3: 30S RIBOSOMAL PROTEIN S3

Chain CF:



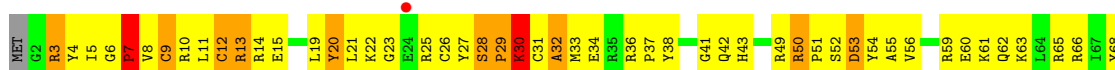
• Molecule 4: 30S RIBOSOMAL PROTEIN S4

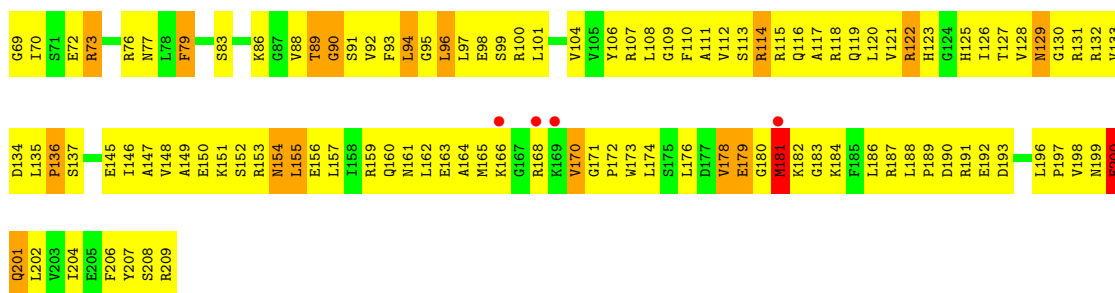
Chain AG:



• Molecule 4: 30S RIBOSOMAL PROTEIN S4

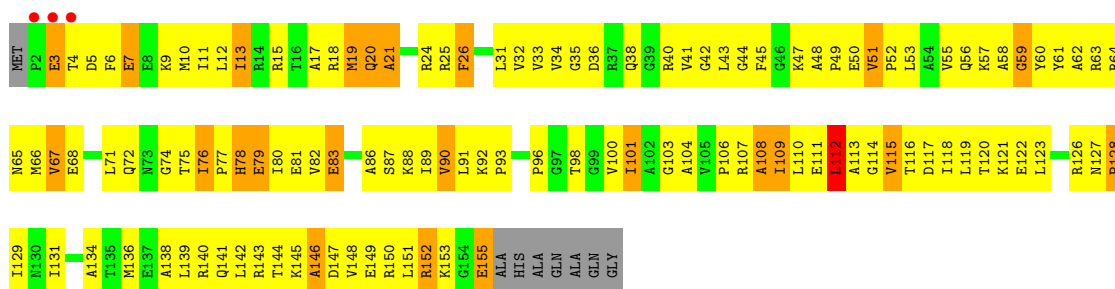
Chain CG:





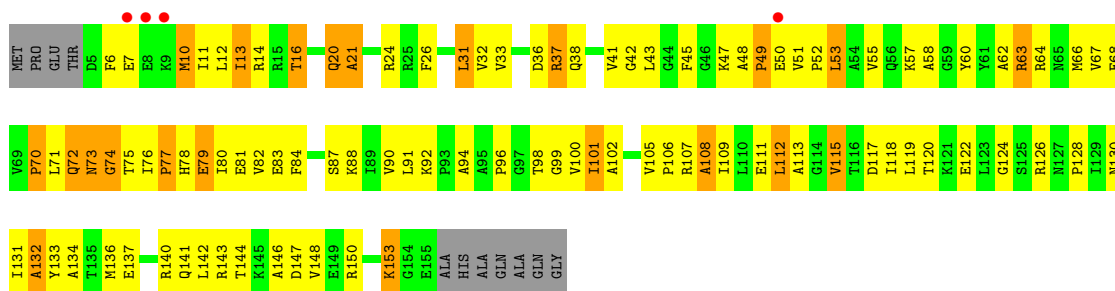
• Molecule 5: 30S RIBOSOMAL PROTEIN S5

Chain AH:



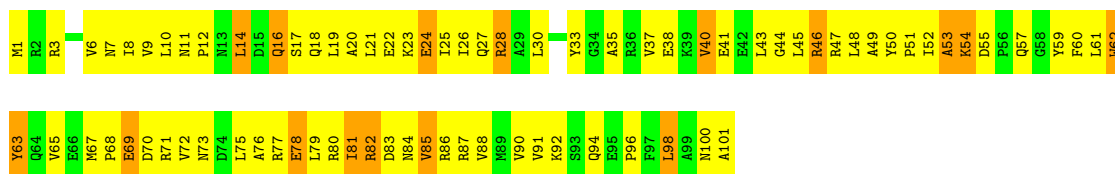
• Molecule 5: 30S RIBOSOMAL PROTEIN S5

Chain CH:



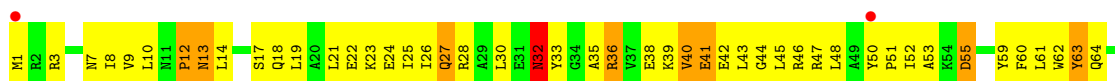
• Molecule 6: 30S RIBOSOMAL PROTEIN S6

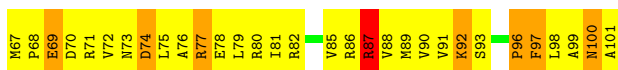
Chain AI:



• Molecule 6: 30S RIBOSOMAL PROTEIN S6

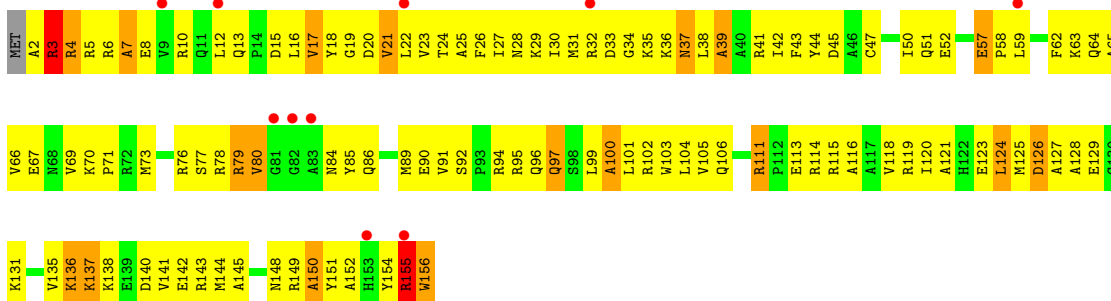
Chain CI:





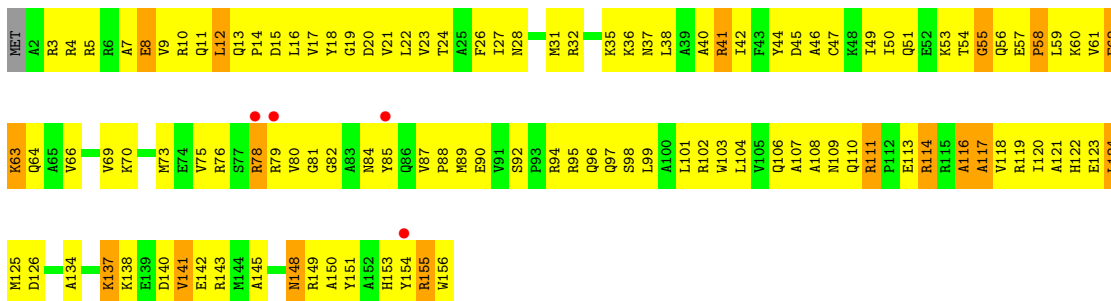
● Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain AJ:



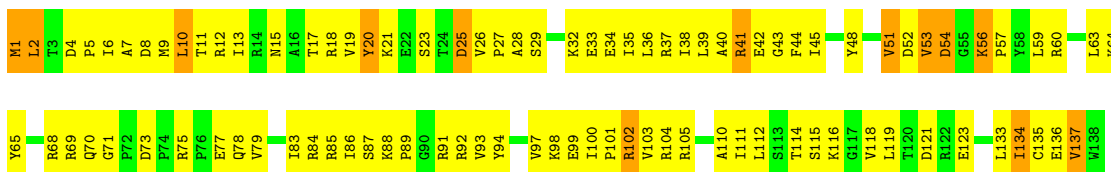
● Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain CJ: 



● Molecule 8: 30S RIBOSOMAL PROTEIN S8

Chain AK: 



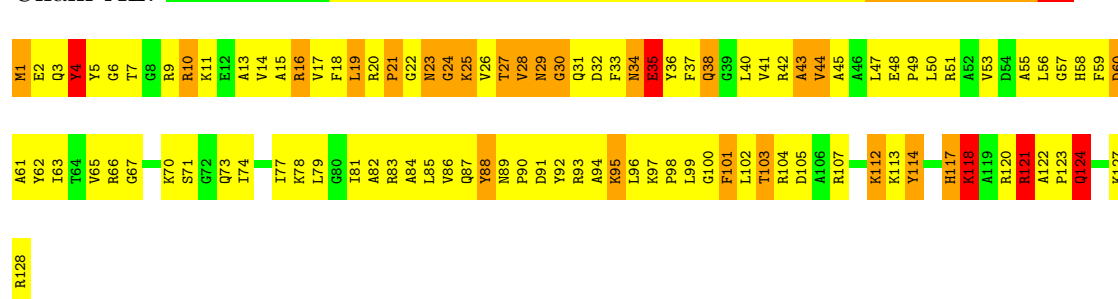
- Molecule 8: 30S RIBOSOMAL PROTEIN S8

Chain CK:



- Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain AL:



- Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain CL:



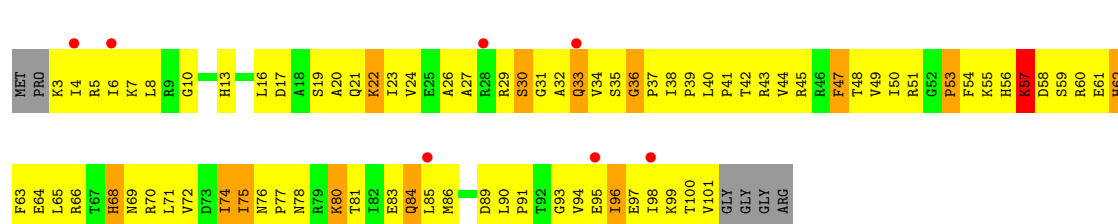
- Molecule 10: 30S RIBOSOMAL PROTEIN S10

Chain AM:



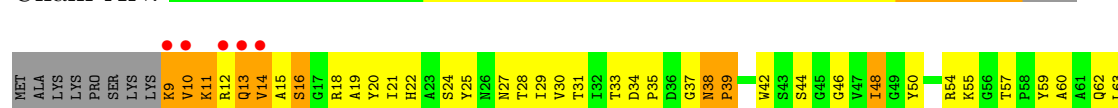
- Molecule 10: 30S RIBOSOMAL PROTEIN S10

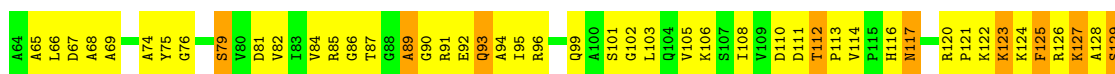
Chain CM:



- Molecule 11: 30S RIBOSOMAL PROTEIN S11

Chain AN:





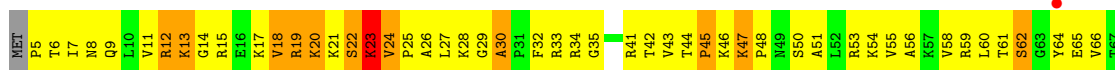
- Molecule 11: 30S RIBOSOMAL PROTEIN S11

Chain CN: 



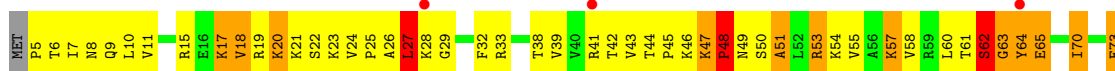
● Molecule 12: 30S RIBOSOMAL PROTEIN S12

Chain AO:



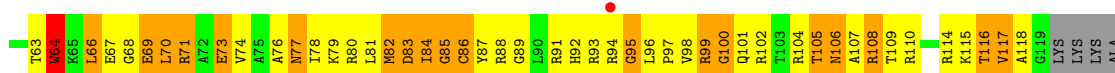
● Molecule 12: 30S RIBOSOMAL PROTEIN S12

Chain CO:



• Molecule 13: 30S RIBOSOMAL PROTEIN S13

Chain AP:



• Molecule 13: 30S RIBOSOMAL PROTEIN S13

Chain CP:



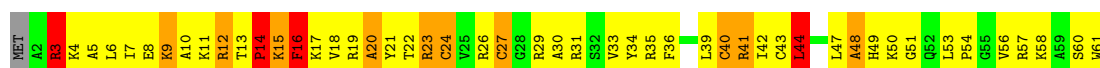
• Molecule 14: 30S RIBOSOMAL PROTEIN S14

Chain AQ:



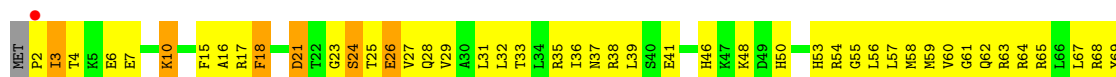
• Molecule 14: 30S RIBOSOMAL PROTEIN S14

Chain CQ:



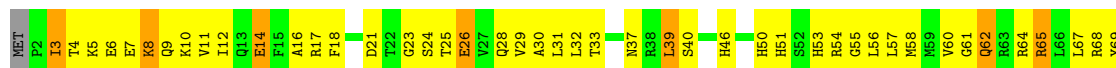
• Molecule 15: 30S RIBOSOMAL PROTEIN S15

Chain AR:



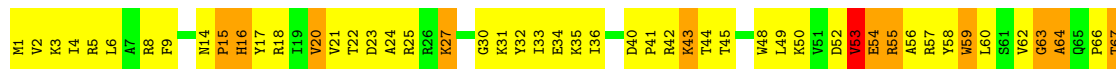
• Molecule 15: 30S RIBOSOMAL PROTEIN S15

Chain CR:



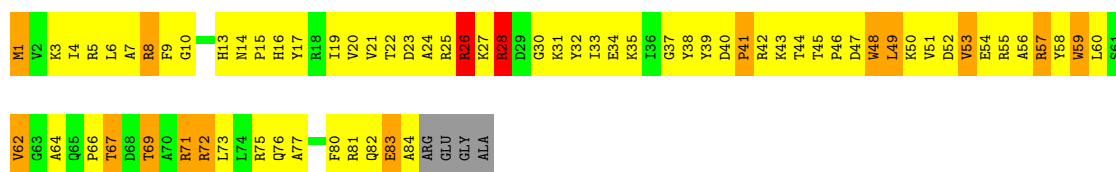
• Molecule 16: 30S RIBOSOMAL PROTEIN S16

Chain AS:



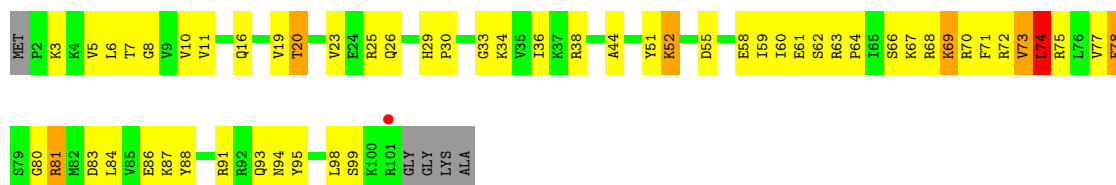
• Molecule 16: 30S RIBOSOMAL PROTEIN S16

Chain CS:



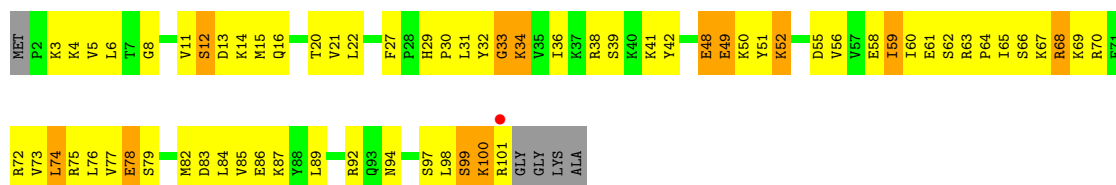
• Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain AT:



• Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain CT:



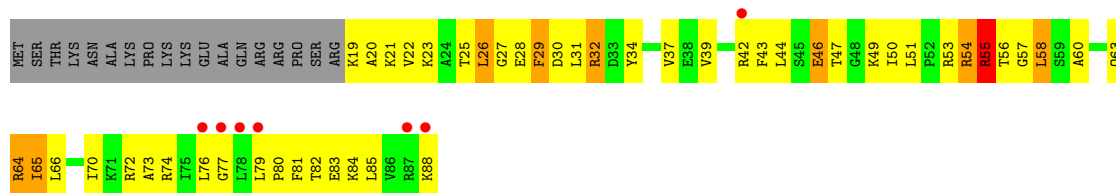
• Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain AU:



• Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain CU:



• Molecule 19: 30S RIBOSOMAL PROTEIN S19

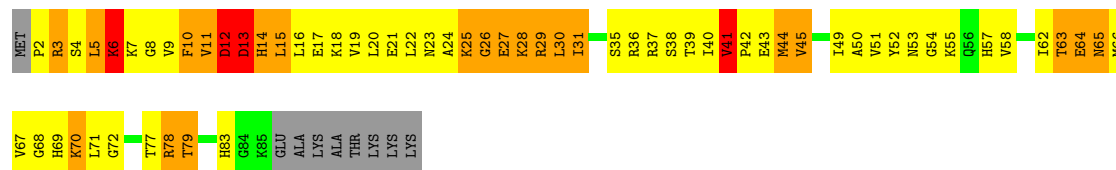
Chain AV:





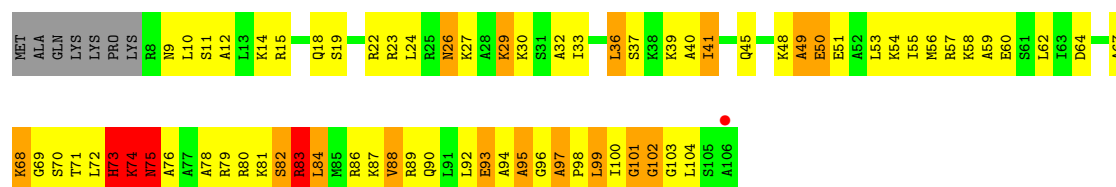
• Molecule 19: 30S RIBOSOMAL PROTEIN S19

Chain CV:



• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain AW:



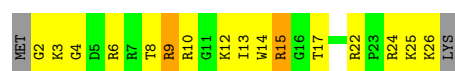
• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain CW:



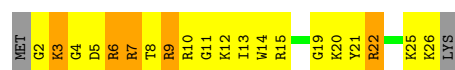
• Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain AX:



• Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain CX:



• Molecule 22: TRNA FMET (UNMODIFIED BASES)

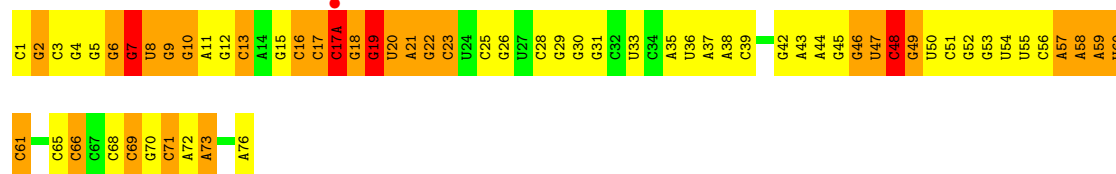
Chain AC:





- Molecule 22: TRNA FMET (UNMODIFIED BASES)

Chain AD:



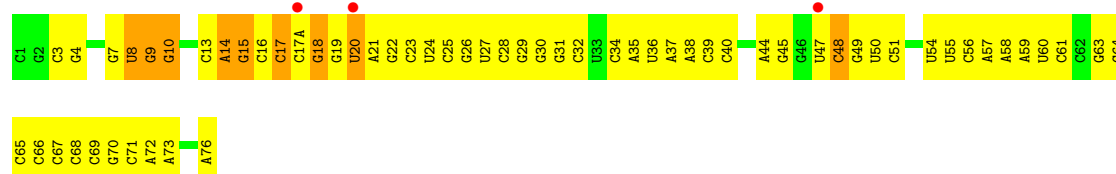
- Molecule 22: TRNA FMET (UNMODIFIED BASES)

Chain CC:



- Molecule 22: TRNA FMET (UNMODIFIED BASES)

Chain CD:



- Molecule 23: MRNA

Chain A1:



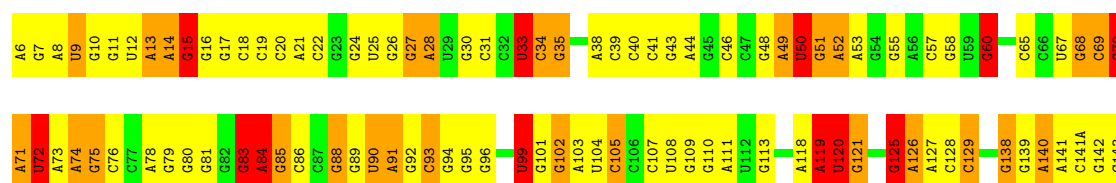
- Molecule 23: MRNA

Chain C1:



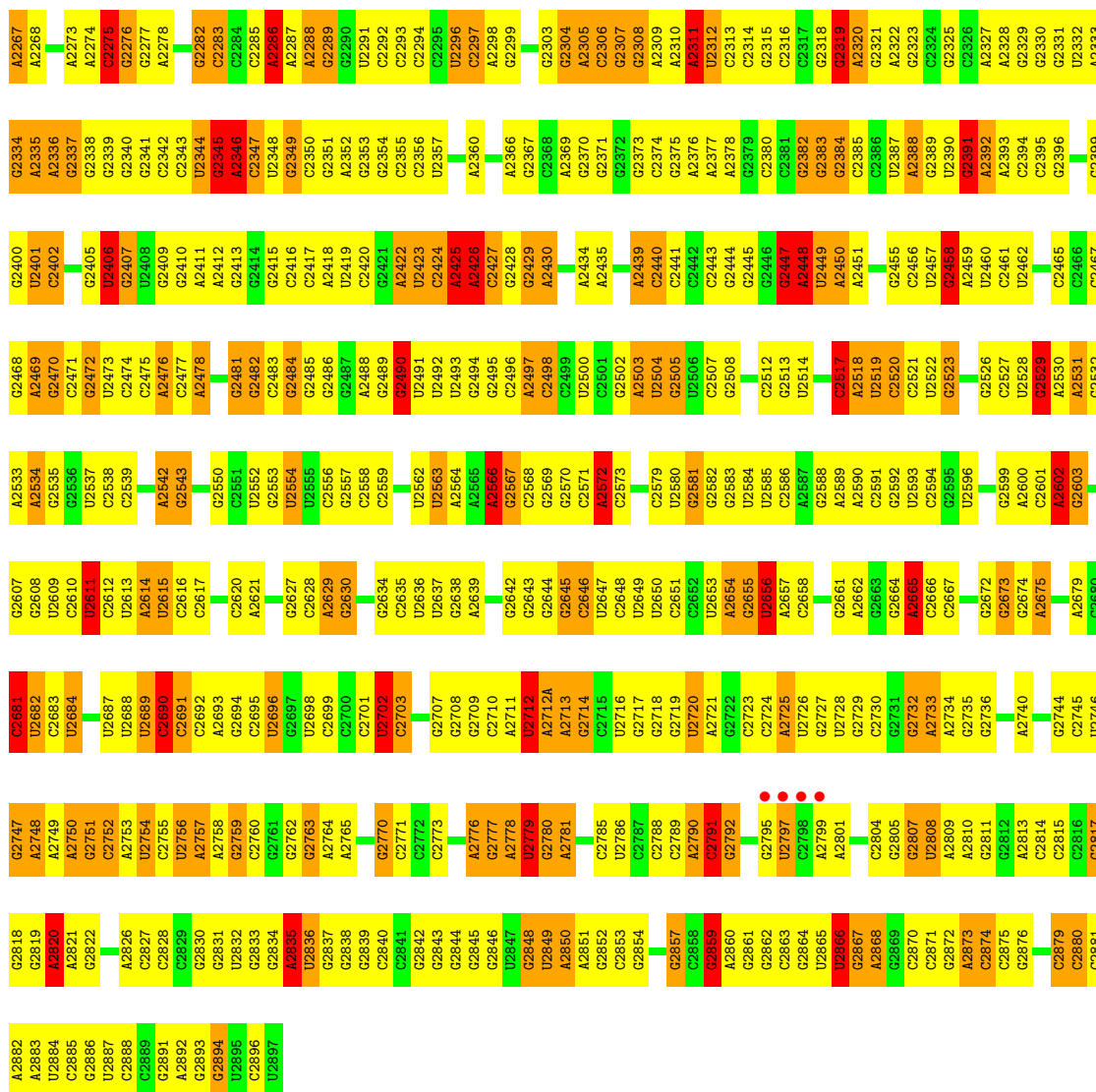
- Molecule 24: 23S ribosomal RNA

Chain BA:



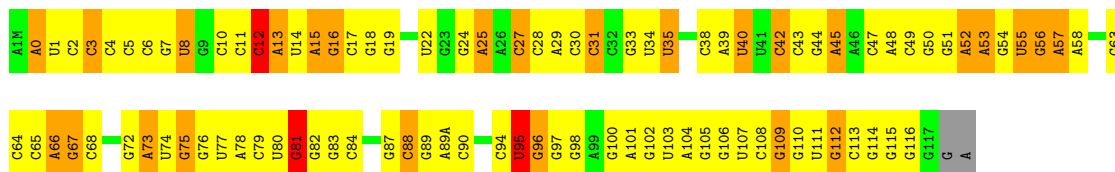
U1141	C1075	G1011	G739	C816	G672	G549	G474	A402	C328	U270Z	U230	A149
U1142	C1076	U1012	G746	C817	C673	G550	U475	U403	A330	U270Z	C231	C150
A1143	A1077	U1013	A746	C818	C674	G551	G476	U404	A331	C271B	A233	C151
G1144	A1080	G1014	A747	A819	A675	U564	A477	U405	A332	G271B	G234	G152
G1145	U1081	G1015	A751	A820	A676	U565	A478	U406	A333	U271C	U235	G153
U1082	U1082	G1016	A752	U822	A677	U567	A479	G407	C334	G271	G236	G154
U1083	U1083	G1017	A753	C823	C678	U568	A480	G408	C335	G273A	C236	C155
A1084	A1084	G1018	C754	C824	C679	G569	G481	C409	U339	G273B	U239	U161
A1085	A1085	G1019	C755	A825	C680	G570	A482	G411	U339	C273B	G240	U162
C1146	U1086	A960	C756	C826	C681	C560	A483	G412	C343	C273C	G241	G171
C1147	A1087	G1020	C757	C827	G682	G561	A484	A412	C343	C273D	A241	G172
A1148	G1088	G1021	U757	U827	C683	U562	A485	C413	C344	U273E	G242	C172
G1089	U1089	U1022	U758	U828	G684	G563	C486	C414	C345	U273F	U243	G173
U1090	U1090	U1023	U762	A829	A685	G564	C487	A415	A346	G274	C174	C174
G1091	G1091	G1024	C763	C830	G686	C565	G488	C416	A347	G275	G247	G177
C1092	G1092	U1025	C764	C831	C687	U566	A492	U421	A348	G276	G248	G178
G1093	C1093	U1026	A764	C832	C688	U567	A493	A422	A349	C277	C249	G179
U1094	U1094	A1027	G769	U833	U688	U568	G493	A423	C353	C278	G250	G180
A1095	A1095	G1035	G770	C834	G690	U569	G500	G424	G354	C279	A251	G185
A1096	A1096	U1030	A774	A835	C691	G570	G500	G425	A357	A283	G252	U185
U1097	U1097	U1031	G775	C836	C692	C580	A501	G426	A358	C284	G253	G189
A1098	A1098	G1032	G776	C837	C693	G571	A502	U427	U358	C285	A255	A190
G1099	C974A	U1033	A777	C838	U694	G572	A503	A428	A359	C286	A256	A191
C1100	G975	G1034	G778	G845	G699	G573	U504	A429	G360	C288	A257	C192
U1101	C976	U1035	G779	C846	G700	G574	A505	G430	G361	C289	G258	A191
C1102	C977	G1036	A780	C847	G701	G575	G506	U431	U362	A289	G259	U193
U1103	A973	U1037	G781	U847	U702	C580	A507	U432	G363	C292	G260	G194
G1104	G974	G1038	G782	C848	U703	G581	A508	U433	A364	A300	G261	A195
U1105	C974A	U1039	A783	A849	G704	G582	C509	U434	A365	C301	A262	A196
C1106	G975	G1040	G784	C852	G705	G583	C510	C435	C366	C302	C263	A197
U1107	G976	U1041	G785	C853	G706	G584	U511	G440	G298	G298	C264	C198
G1109	C982	G1042	G786	C854	G707	G585	G512	U441	A299	A299	A265	A199
U1110	A983	U1043	G787	C855	U708	G586	A513	U442	A300	A300	G266	U200
C1111	A984	G1044	A788	C856	U709	A586	C517	G443	C367	C302	C267	A204
U1112	C985	U1045	G789	U858	G710	C587	G518	A443	C368	C303	U269	G205
G1113	G986	G1046	A790	U859	G711	U588	G519	A444	C369	U305	A270	U206
C1114	G987	U1047	C791	U860	G712	C589	U520	C445	G370	U306	A270A	A207
U1115	A988	U1048	G792	U861	G713	A590	G520	G446	A371	G307	A270B	C208
G1116	G989	A1050	G793	C862	U714	C591	U524	U447	G372	G308	C270C	C209
C1117	C990	G1051	G794	C863	G715	G592	U525	U448	U373	G309	C270D	C210
U1120	C991	U1052	C795	C864	G716	G593	A526	A449	U380	A310	G270E	A211
C1121	G992	G1053	C796	C865	A717	G601	C527	A454	U383	A311	U270F	G212
G1124	C993	U1054	C797	C866	C719	G602	A528	C455	U384	G312	C270G	A213
U1125	C994	U1055	G800	C867	C720	A603	A529	C456	C385	C313	C270H	G214
G1126	A996	G1056	A801	U868	G721	G604	G530	A457	G386	A314	G270I	G215
A1127	C997	U1060	C801	C869	A722	G605	C531	G458	U387	G315	G270J	A216
U1128	C998	G1061	A802	C870	G723	U606	A532	U459	G388	C316	C270K	G217
A1129	U999	G1062	A803	U871	U724	G607	G533	G463	C319	C319	U270L	A218
C1130	A1000	U1063	A804	C872	G725	A608	U534	U464	A390	A320	U270M	A221
U1131	U1001	U1064	G805	C873	G726	A609	C535	G465	G391	A321	U270N	A222
G1132	A1002	U1065	C806	U874	A727	G609A	A536	A466	C392	A322	G270P	A223
U1133	G1003	U1066	C807	C875	G728	C610	C537	G467	C393	G323	C270Q	G224
C1135	C1004	G1067	A807	C876	G729	C611	G539	G468	A394	A324	G270R	A225
U1136	U1005	U1068	U875	U877	C730	G612	G540	G469	U395	G325	G270S	G226
G1137	C1006	U1069	A878	U878	C730	U613	C541	A470	G396	G326	C270T	A227
U1138	G1007	U1070	C812	C879	A735	U614	C546	A471	G400	C270U	G270V	A228
C1139	C1008	U1071	U813	U880	C736	G615	A547	A472	A401	U328		
U1140	A1009	G1072	C814	G881	C737	G616	A548	G473				
G1141	C1140	G1073	C815	G882	G738	G617						





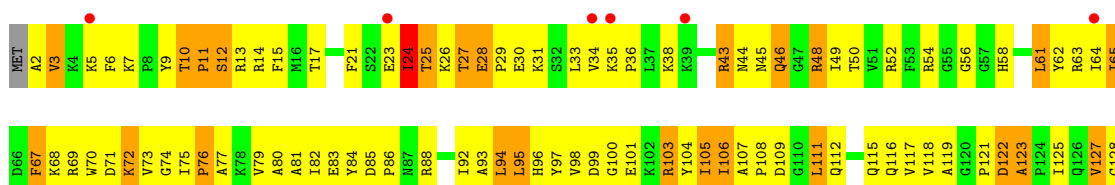
- Molecule 25: 5S ribosomal RNA

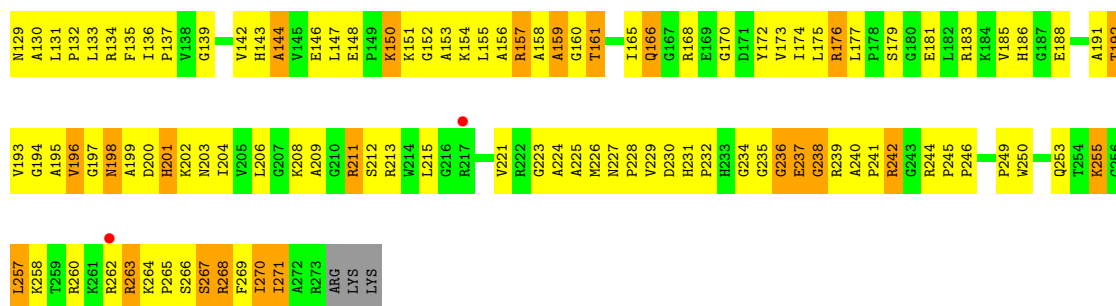
Chain BB:



- Molecule 26: 50S ribosomal protein L2

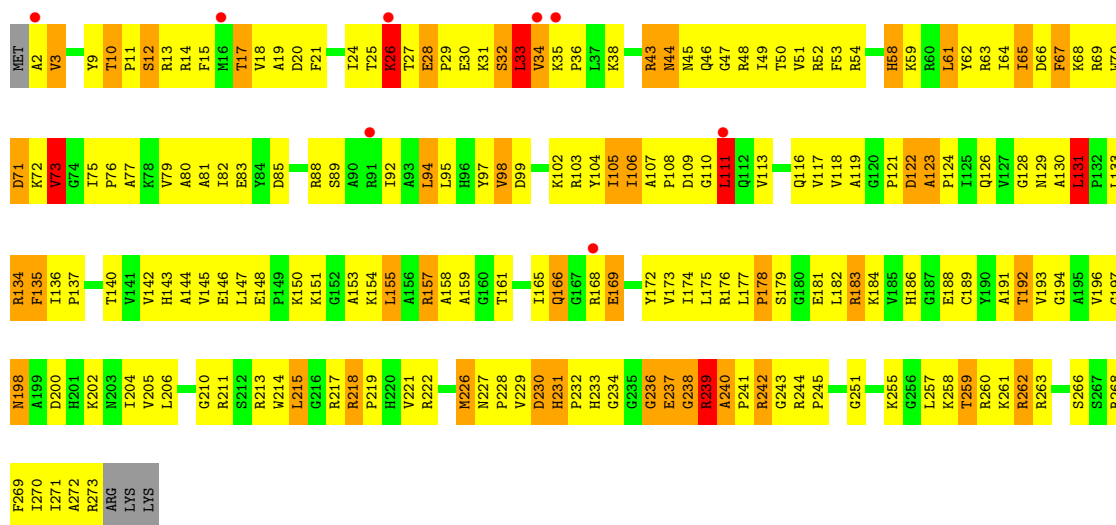
Chain BD:





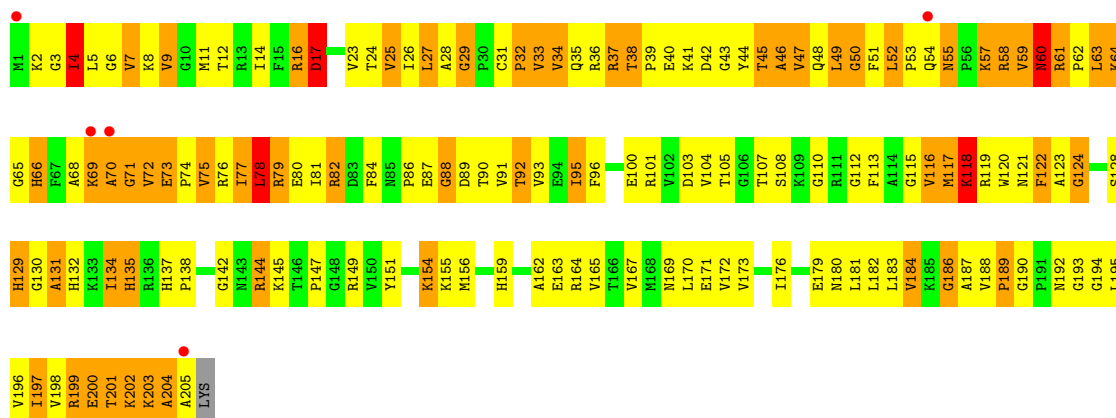
• Molecule 26: 50S ribosomal protein L2

Chain DD:



• Molecule 27: 50S ribosomal protein L3

Chain BE:



• Molecule 27: 50S ribosomal protein L3

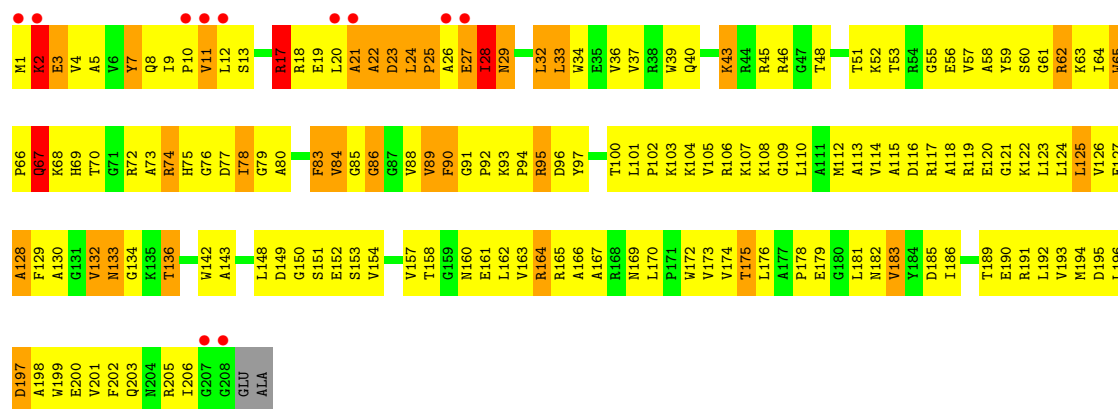
Chain DE:





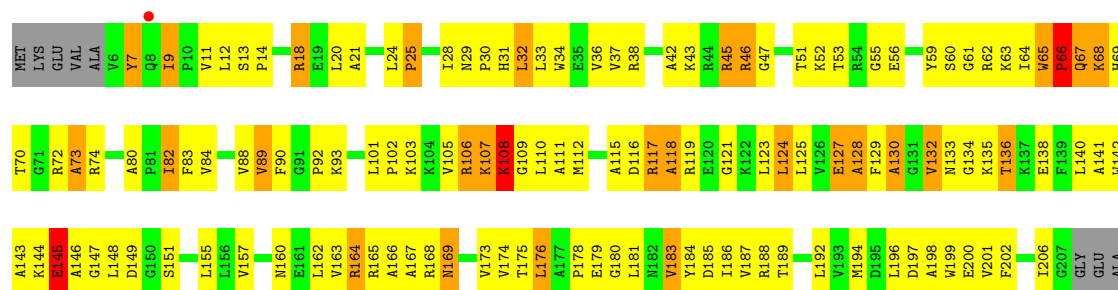
• Molecule 28: 50S ribosomal protein L4

Chain BF:



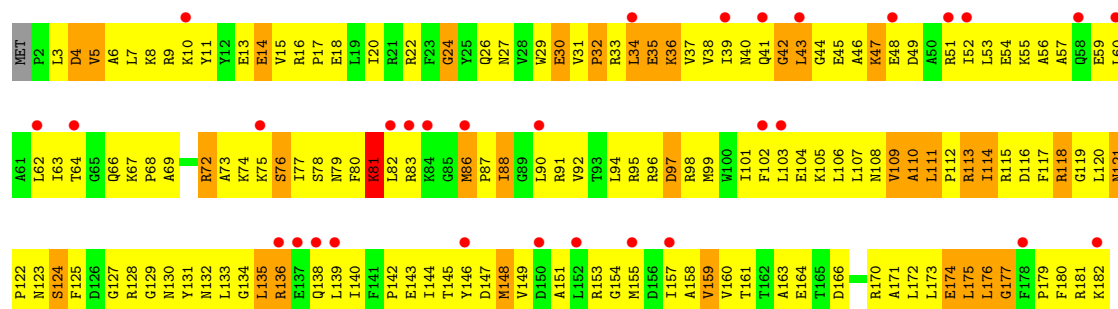
• Molecule 28: 50S ribosomal protein L4

Chain DF:



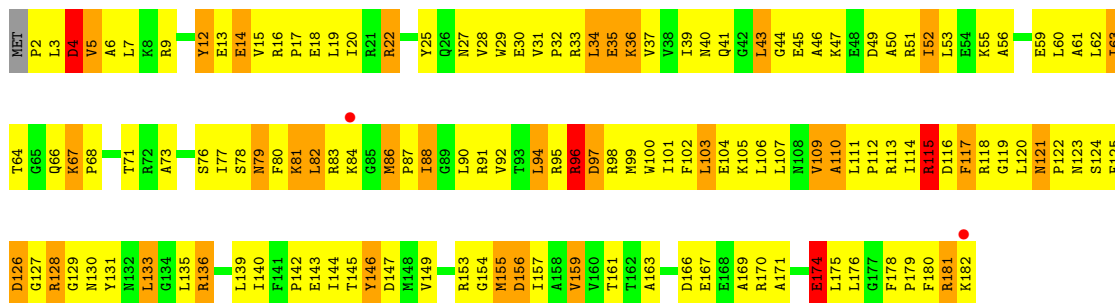
• Molecule 29: 50S ribosomal protein L5

Chain BG:



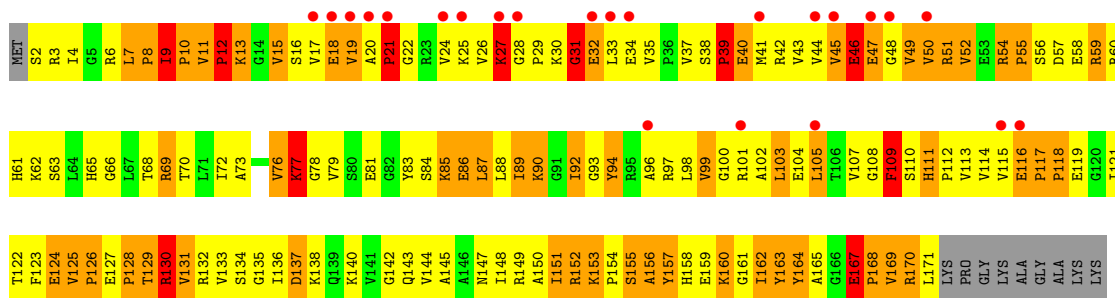
- Molecule 29: 50S ribosomal protein L5

Chain DG:



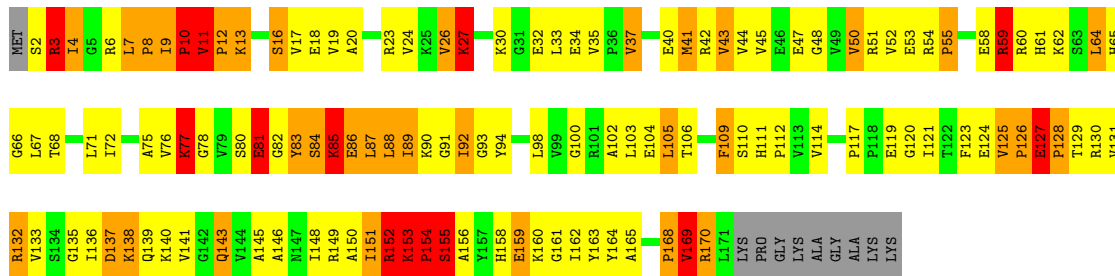
- Molecule 30: 50S ribosomal protein L6

Chain BH:



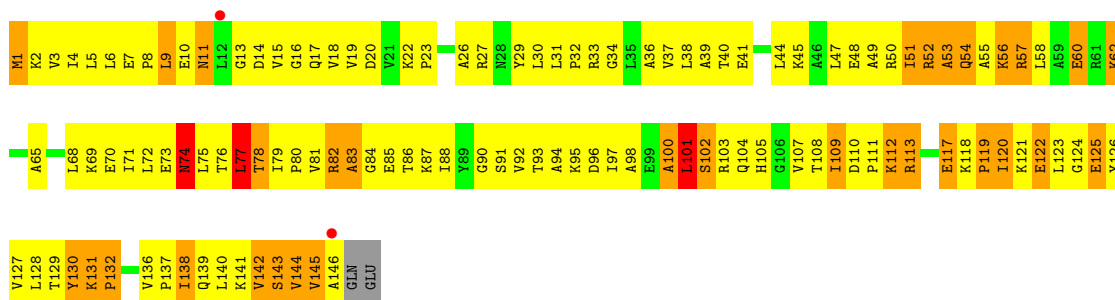
- Molecule 30: 50S ribosomal protein L6

Chain DH:

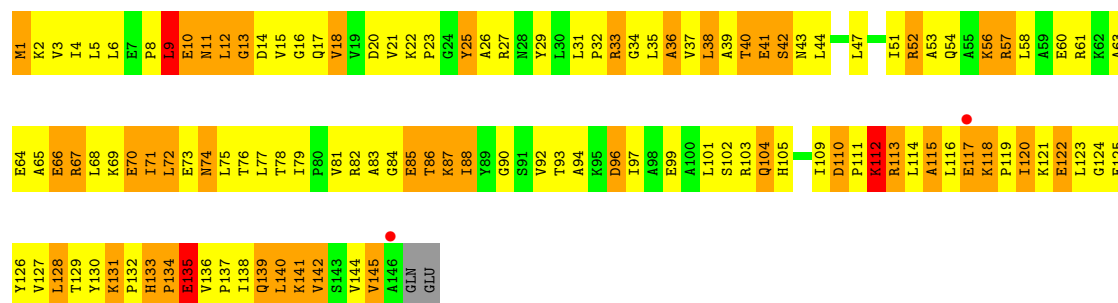


- Molecule 31: 50S ribosomal protein L9

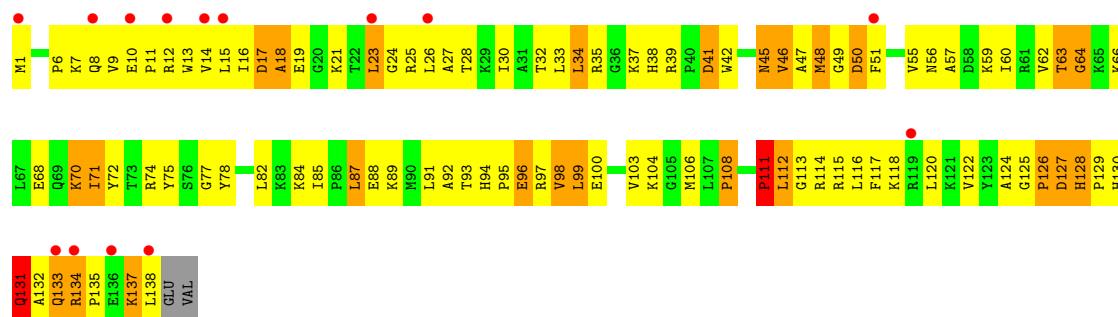
Chain BK:



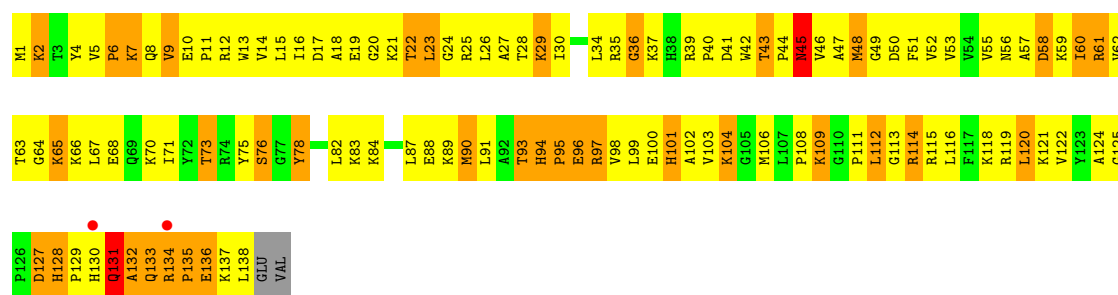
- Molecule 31: 50S ribosomal protein L9

Chain DK: 

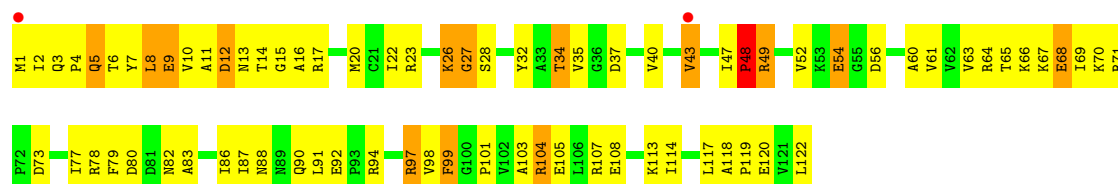
- Molecule 32: 50S ribosomal protein L13

Chain BM: 

- Molecule 32: 50S ribosomal protein L13

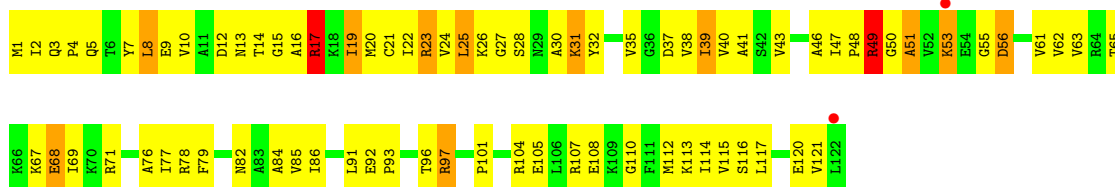
Chain DM: 

- Molecule 33: 50S ribosomal protein L14

Chain BN: 

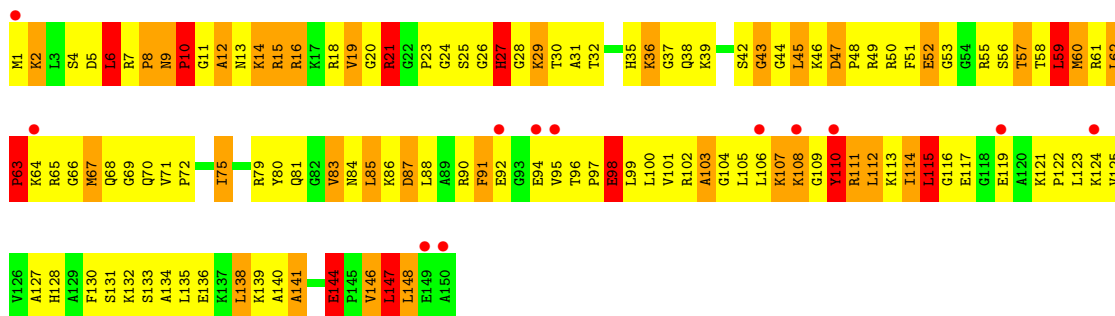
- Molecule 33: 50S ribosomal protein L14

Chain DN: 



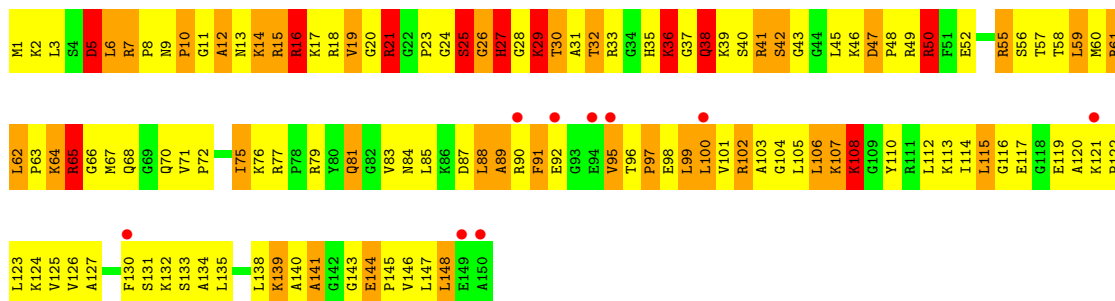
• Molecule 34: 50S ribosomal protein L15

Chain BO: 



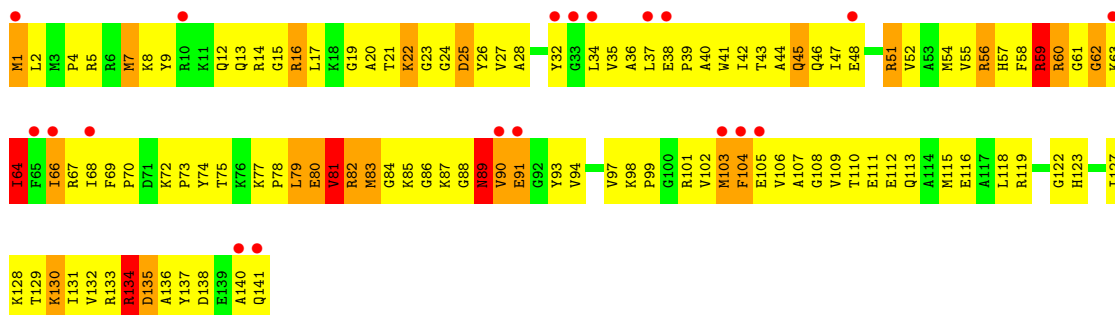
• Molecule 34: 50S ribosomal protein L15

Chain DO: 



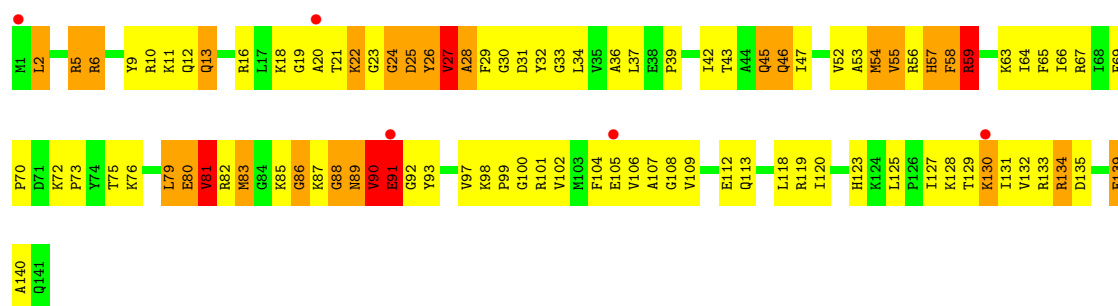
• Molecule 35: 50S ribosomal protein L16

Chain BP: 



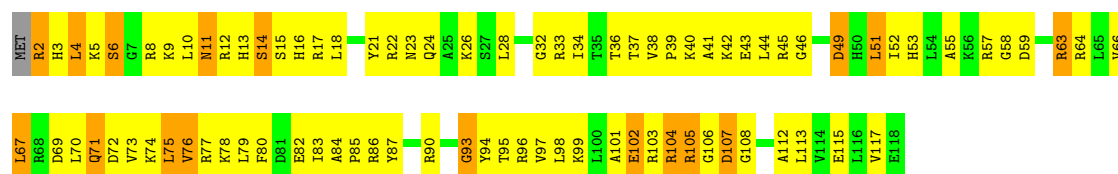
• Molecule 35: 50S ribosomal protein L16

Chain DP: 



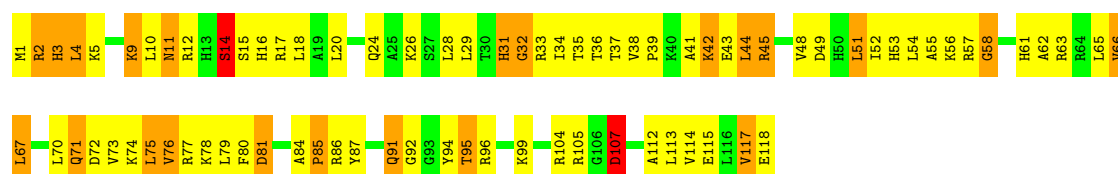
- Molecule 36: 50S ribosomal protein L17

Chain B0:



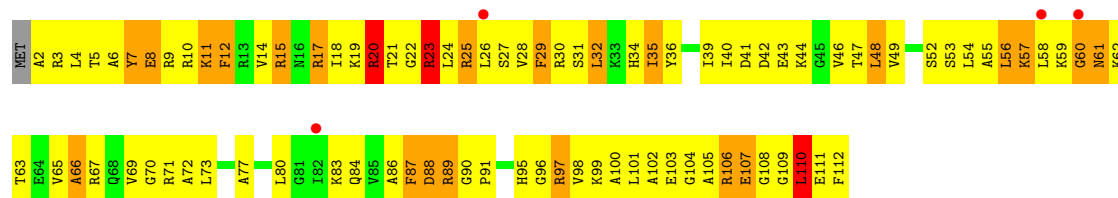
- Molecule 36: 50S ribosomal protein L17

Chain D0:



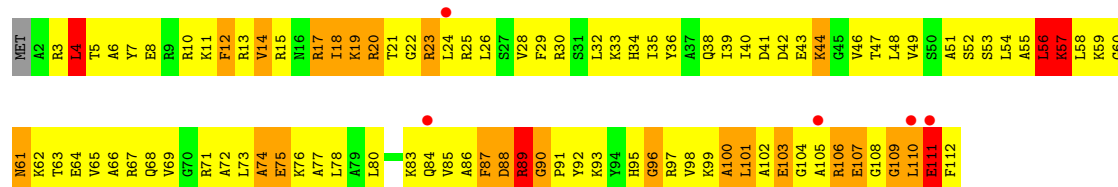
- Molecule 37: 50S ribosomal protein L18

Chain BQ:



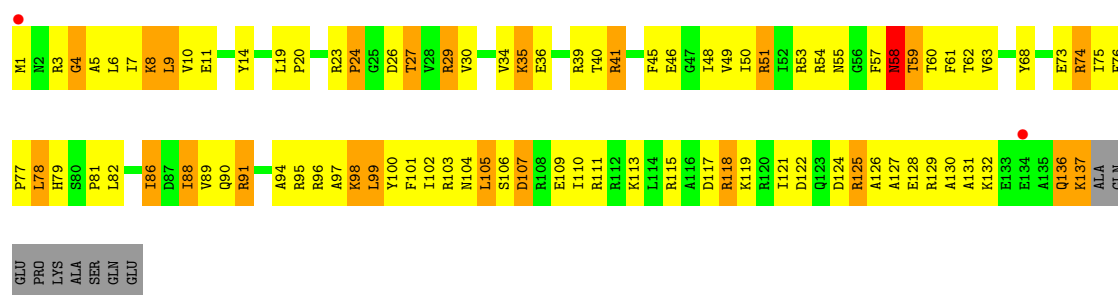
- Molecule 37: 50S ribosomal protein L18

Chain DQ:



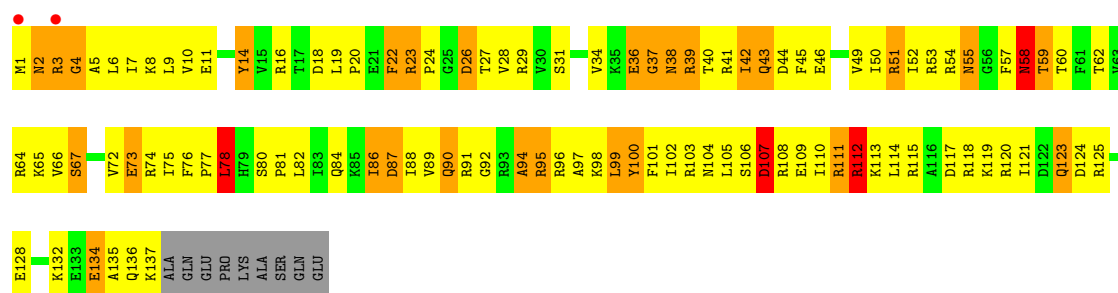
- Molecule 38: 50S ribosomal protein L19

Chain BR:



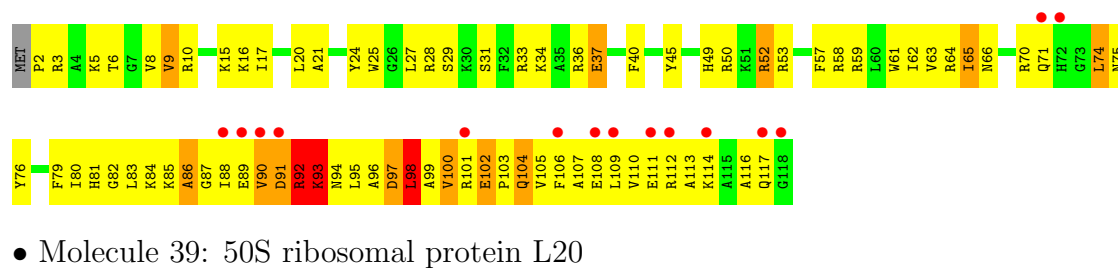
- Molecule 38: 50S ribosomal protein L19

Chain DR:



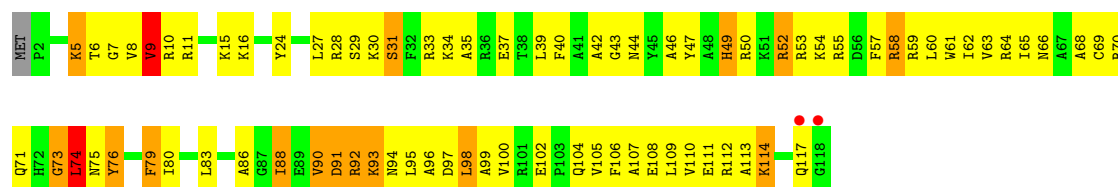
- Molecule 39: 50S ribosomal protein L20

Chain B1:



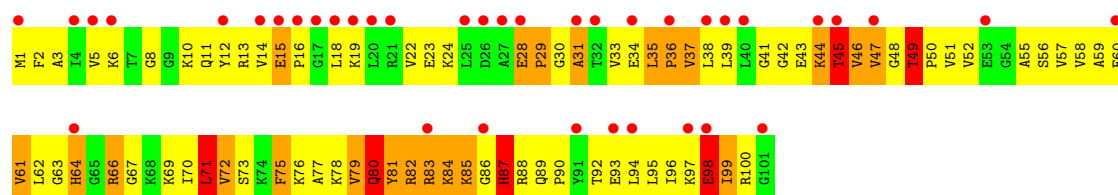
- Molecule 39: 50S ribosomal protein L20

Chain D1:



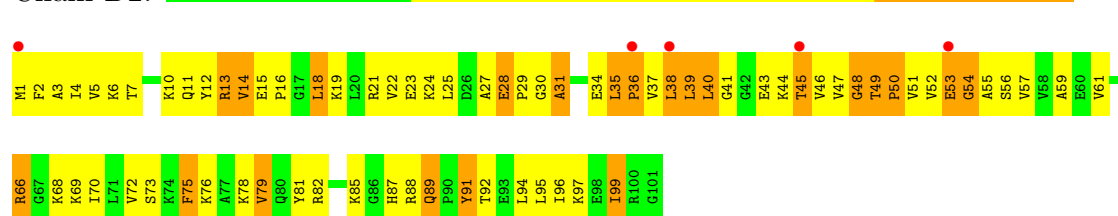
- Molecule 40: 50S ribosomal protein L21

Chain B2:



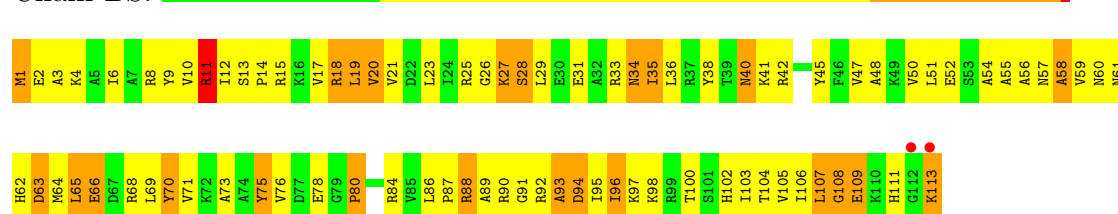
- Molecule 40: 50S ribosomal protein L21

Chain D2:



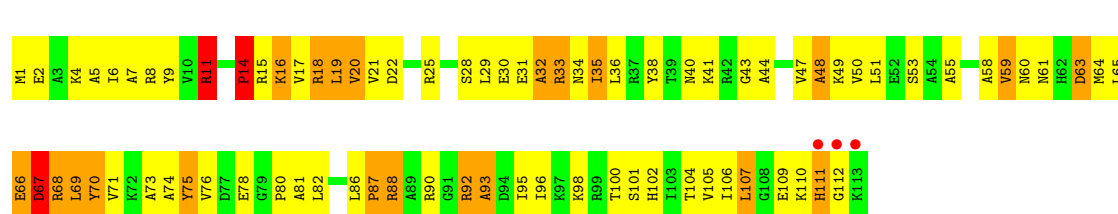
- Molecule 41: 50S ribosomal protein L22

Chain BS:



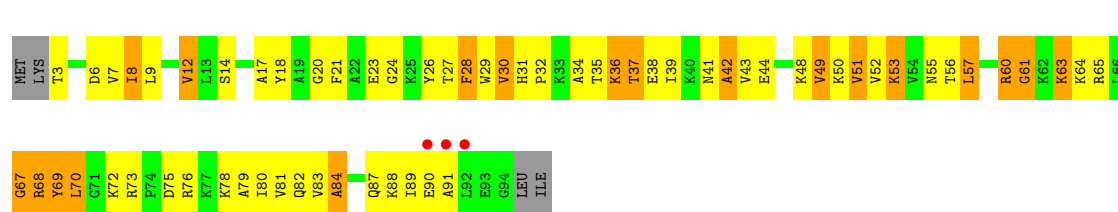
- Molecule 41: 50S ribosomal protein L22

Chain DS:



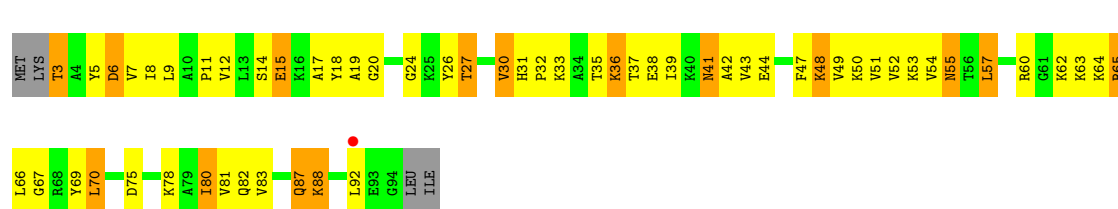
- Molecule 42: 50S ribosomal protein L23

Chain BT:



- Molecule 42: 50S ribosomal protein L23

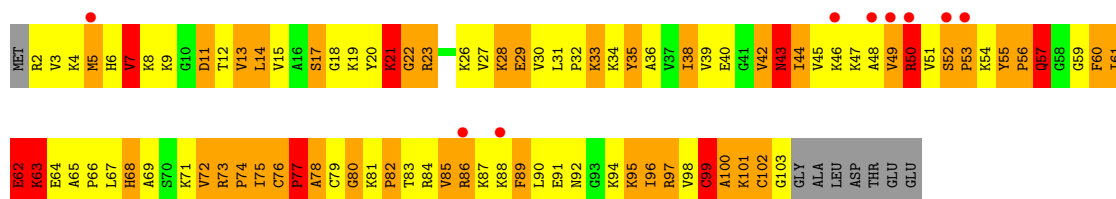
Chain DT:



- Molecule 43: 50S ribosomal protein L24

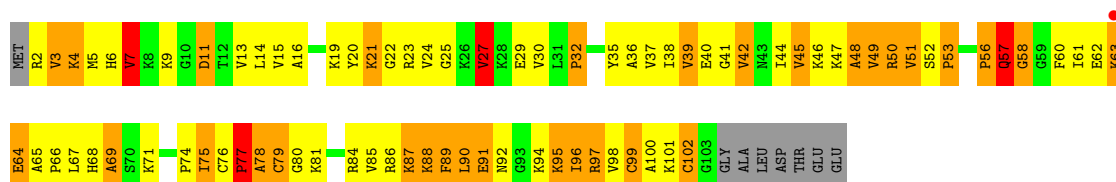
Chain BU:





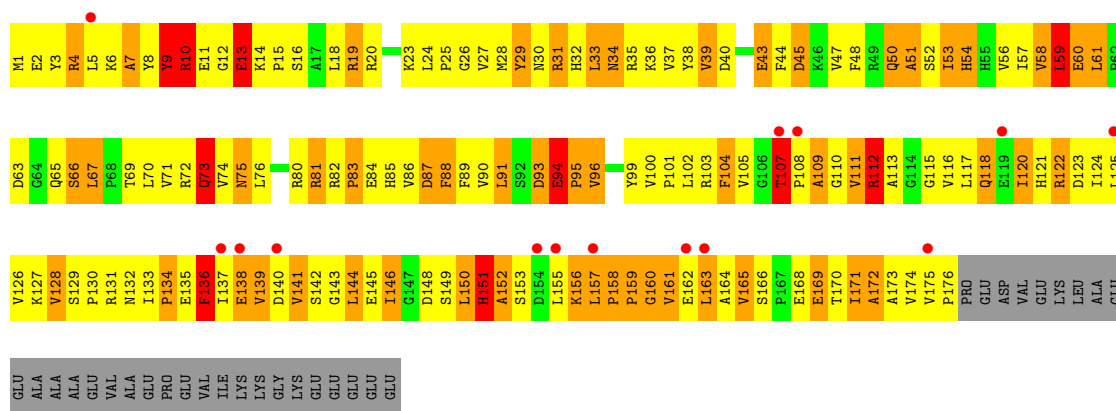
• Molecule 43: 50S ribosomal protein L24

Chain DU:



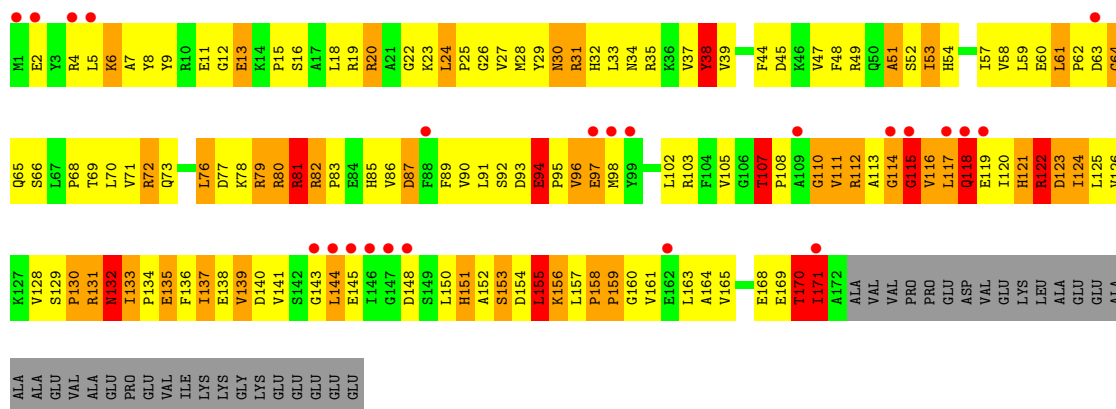
• Molecule 44: 50S ribosomal protein L25

Chain BV:



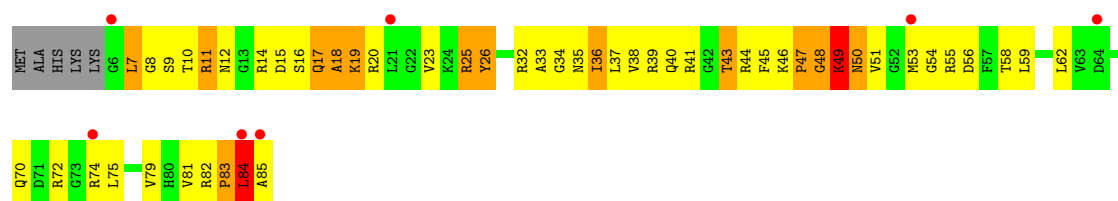
• Molecule 44: 50S ribosomal protein L25

Chain DV:



• Molecule 45: 50S ribosomal protein L27

Chain B3:



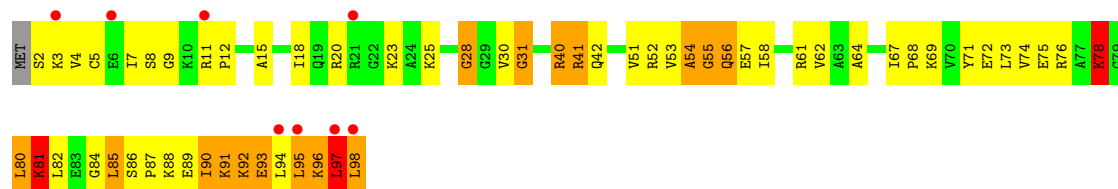
• Molecule 45: 50S ribosomal protein L27

Chain D3:



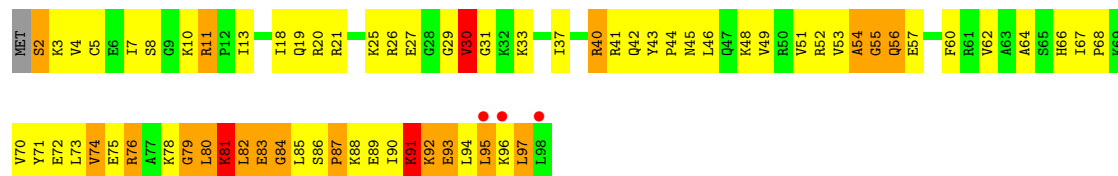
• Molecule 46: 50S ribosomal protein L28

Chain BZ:



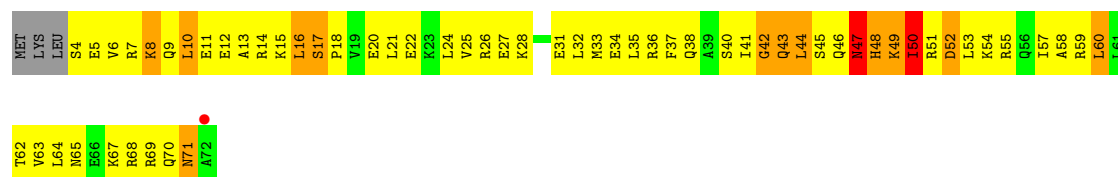
• Molecule 46: 50S ribosomal protein L28

Chain DZ:



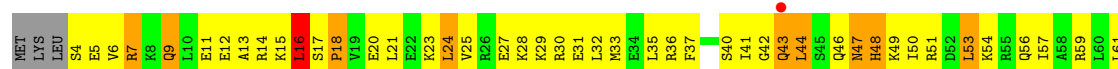
• Molecule 47: 50S ribosomal protein L29

Chain BW:



• Molecule 47: 50S ribosomal protein L29

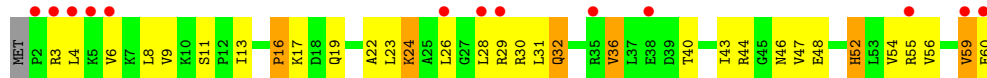
Chain DW:





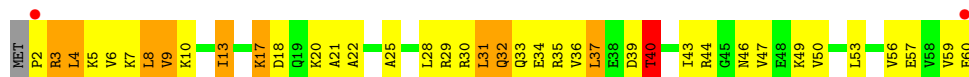
- Molecule 48: 50S ribosomal protein L30

Chain BX:



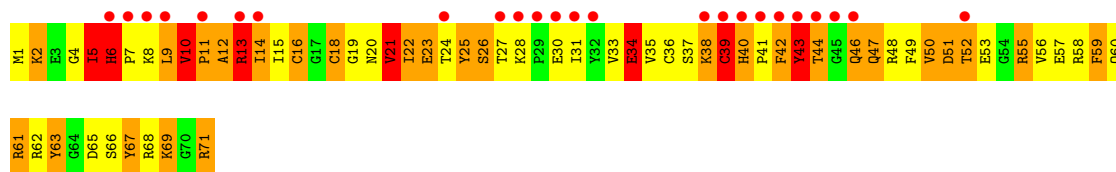
- Molecule 48: 50S ribosomal protein L30

Chain DX:



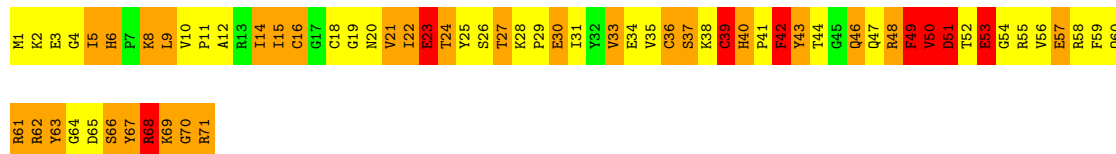
- Molecule 49: 50S ribosomal protein L31

Chain B4:



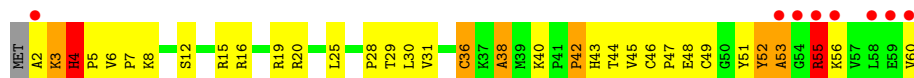
- Molecule 49: 50S ribosomal protein L31

Chain D4:



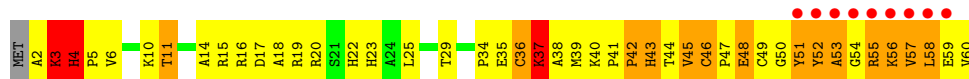
- Molecule 50: 50S ribosomal protein L32

Chain B5:



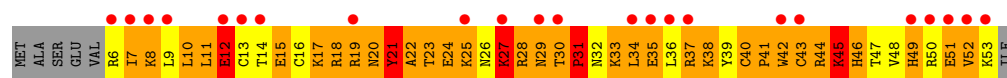
- Molecule 50: 50S ribosomal protein L32

Chain D5:



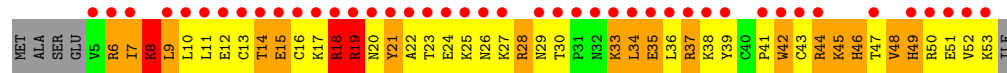
- Molecule 51: 50S ribosomal protein L33

Chain B6:



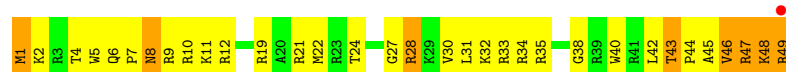
- Molecule 51: 50S ribosomal protein L33

Chain D6:



- Molecule 52: 50S ribosomal protein L34

Chain B7:



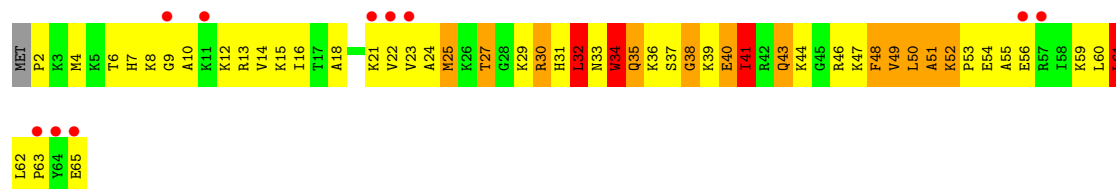
- Molecule 52: 50S ribosomal protein L34

Chain D7:



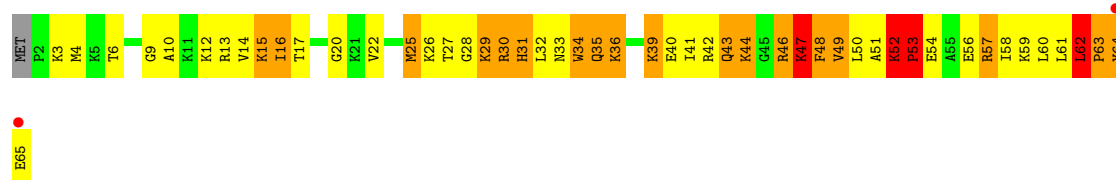
- Molecule 53: 50S ribosomal protein L35

Chain B8:



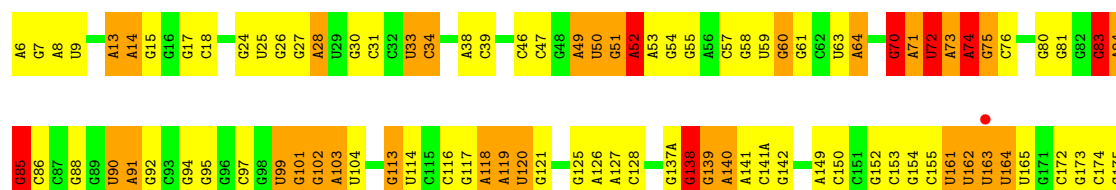
- Molecule 53: 50S ribosomal protein L35

Chain D8:



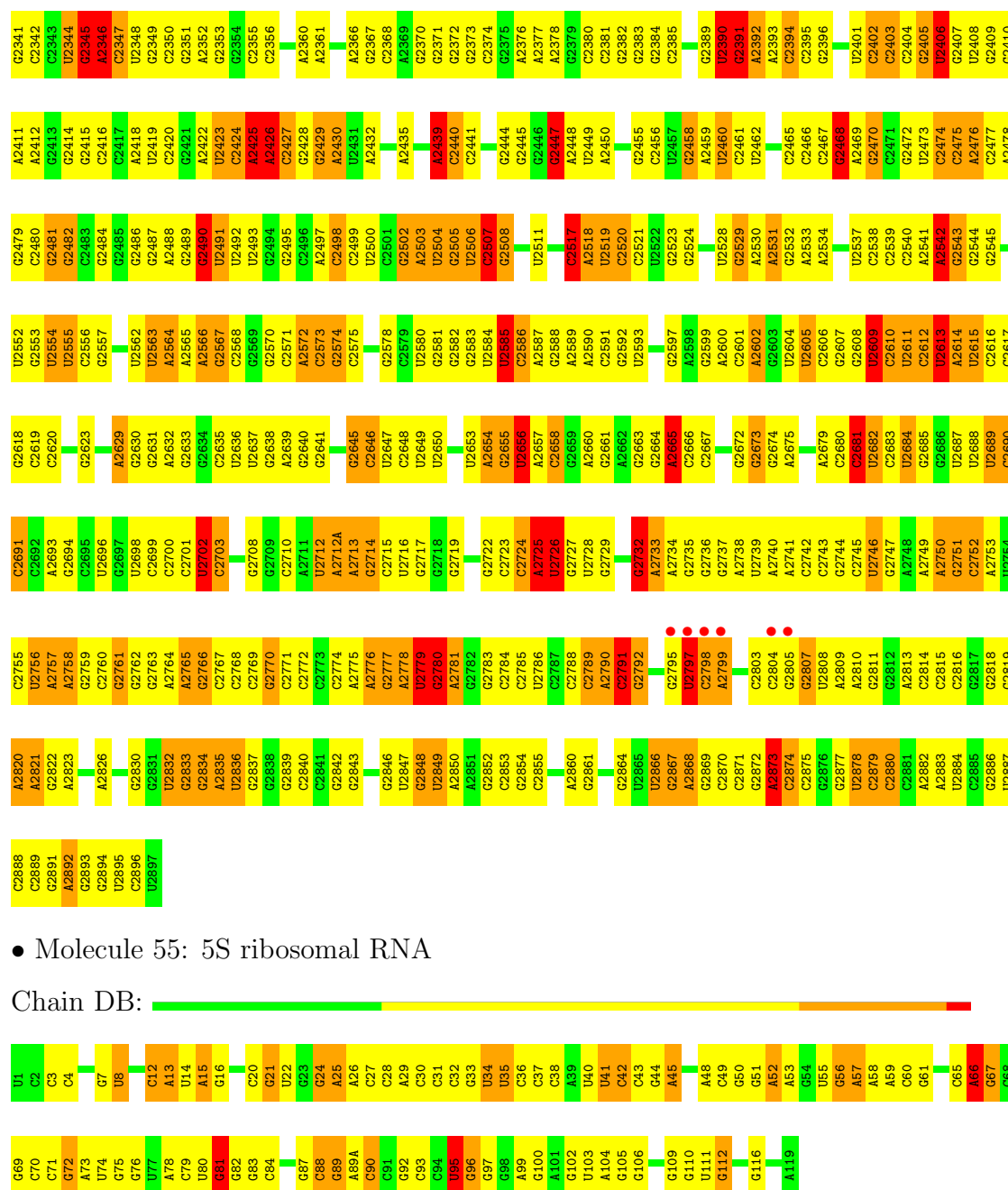
- Molecule 54: 23S ribosomal RNA

Chain DA:



U1167	G1092	A1027	C961	C985	U813	A751	A676	A631	U569	G500	U427	G356	G275	G240	G176
G1168	G1093	A1028	G962	C986	C814	A752	G680	C634	U570	A501	A428	A357	A276	A241	G177
G1169	A1094	A1029	U963	C988	C815	A753	G681	C635	A571	A502		A358	A277	G242	G178
G1170	A1095	G1030		C988	C816	C754	G682	C636	A572	U504	U434	G360	C277	U243	
G1171	A1096	U1033	G968	C899	C817	C755	G683	A637	A573	A505	C435	G361	C280	A244	A181
G1172	A1097	U1034	U969	C899	G818	C756	G684	A638	A574	G506	C436	G362	C281	G245	A182
A1174	A1098	G1034	C970	C992	A819	C756	G685	G638	C574	U507	G439	U362	G247	C246	C183
A1175	G1099	U1035	C971	C993	A820	U757	A686	U639	A575	A508	G440	G363	A282	G248	C184
G1176	C1100	G972	G972	C994	A821	C758	G687	C640	U576	G508	G441	A363A	A283	C249	U185
A1177	U1101	A973	A973	U895	U822	U759	C687	C641		G509	U441	G363B	U284	C250	G186
C1178	C1102	G1037	G974	A896	U827	G760	U688	G642	U579	C510	G442	G363C		G251	
C1180	A1103	G1038	C974A	C997	U828	U762	A689	A643	C580	U511	A443	G363D	C292	G252	G189
C1181	U1105	G1039	G975	C998	A829	G763	C691	A644	C581	G512	C444	U363E	U293	G253	C192
A1182	G1106	G1042	C976	A899	G830	A764	C692	A646	G582	A513	C445	A363F	U293	G254	U193
		G1043	G977	A900	G831	G765		G647	C583		A447	C365	C297		G194
		G1044	G978	A901	G832	G766	G696	G648	C584	C516	U448	C366	C298	A257	G195
		A1045	G979	C902	G836	U767	G697	G649	C585	C517		C367	A299		A196
		A1046		U905	G837	G768	C698	C650	C587	U519	C451	A371	A300	G260	A197
		A1047	C982	G908	C838	G769	A699	G651	U588	G520	G452	G372	G302	C263	C198
		A1048	A984		U839	G770	G700	C652	C589	G521	C453	U373	U303	C264	U199
		C1049	C985	A910	C844	U773	G701	A653	A590	U522	A454	A374	U304	A265	C201
		A1050	C986	A911	G702	U774	G702	A654	C591	C523	C455	C375	G304	G266	
		G1051	G987	C912	U703	G775	G703	A654A	C592	U524	C456	C376	U305	C267	
		C1052	G988	U913	G846	G776	G704	C654B	G593	U525	A457		U306		A204
		G1053	A988	C914	U847		A705	G	U594	A526	G458	U383	G307	G205	G205
		A1054	C989	C915	G848	A777		G	C596	C527		U384	G308	U206	
		G1055	A990	C916	G849	G778	U709	C	G596	U528	A460	U385	G309	C270C	A207
		A1056	C991	G916	A849	G779	G710	C	U597		G469	G386	A310	C208	
		A1057	C992	A917	C850	U779		C		G530	C462	U387	A311	G209	
		U1058	G993	A918	U851	G780		C		C531	G463	G388	G312	U270F	C210
		G994	C994	U922	G852	A781	U714	C	G602	A532		G389	G317	C270G	A211
		C995	C995	C923	C853	A782	G715	C	A603	U533	G467	A390	C318	G270J	G212
		A996	A996	C924	G854	A783	A716	G	G604	U534	G468	G391	C319	C270K	G213
		C997	C997	C925	C855	G784	G717	G	C605		G469	G392	C320	G215	
		G998	C998	C926	C856	G785	A718	G	U606				A320	G216	
		U999	A926	A926	C857	C786	C719	C	U607	C537	A470	U396	G321	U270L	G215
		A1000	G928	G928	U858	U787	C720	C	A608	G539	A471	U397	A322	U270M	A216
		A1001	G929	G929	C859	A788	C721	G654S	A609	G540	A472	G396	A323	G270N	G217
		G1002	U930	U930	U860	A789	A722	A654T	G609A	C541	G473	G397	G324	U270O	A218
		G1003	G931	G931	A861	C790	G723	A654U	C610		U475	U403	G327	G270P	G220
		C1004	G932	G932	G862	C791	U724	A654V	G611	C546	G476	C404	G327	G270Q	A221
		U1005	A933	A933	A863	G792	G725	A655	G612	U547	U476	U405	U328	G270R	A222
		C1006	C1006	C946	G864	A793	G726	G656	U613	A548	A479	G406	G329	G270S	G223
		G1007	C1007	A941	A727	G794	A727	U657	U614	U549	A480		A330	G270T	G224
		C1008	G942	G942	A866	C795	G728	C658	G615	G549	G481	C409	A331	C270U	A225
		A1009	U943	U943	C867	C796	G729	A659	A616	G550	G482	G410	A332	G270V	G226
		G1010	G944	G944	U868	C797	C730	G660	G617	G551	A483	G411	A333	G270W	
		C1011	A945	A945	G869	C797	G731	C661	G618	G552	C484	G412	C334	G270X	A227
		U1012	U946	U946	A870	A793	G726	G662	C618A	U553	C485	A413	C335	G270Y	A228
		C1013	G946	G946	U871	G801	G733	G663	G619	U554	C486	C414	C336	U270Z	A229
			G950	G950	U871	A802	A734	C664	G620	G556	C487	C415		C271A	U230
		C1018	C951	C951	C876	U803	A735	C665	A621	U557	G488	A416	G338	G271B	C231
		U1019	G952	G952	U877	A804	C736	G666	G622	U558	G489	C417	U339	U271C	G232
		A1020	A953	A953	A878	G805	C737	G667	G623	G559	G491	C418	G345	G271	A233
		G1021	A1021	A1021	G879	C806	G738	G669	G624		A492		A346	G273A	U235
		A1086	G1086	G1086	G880	U807	G739	A670	G695	U562			A347	C273B	C236
		G1087	U1022	A957	C881	G808	U740	C671	U626	G563	A497		A347	C273F	C237
		A1088	U1023	U958	G882	U811		G674	G628	C564	G498				C238
		G1089	G1025	A959	G883		A746			C565					
		U1090	U1026	A960	C884	C812	U747	A675		U566	U499			G274	U239
U1167	G1168	A1028	G962	C986	U813	A751	A676	A631	U569	G500	U427	G356	G275	G240	G176
G1169	A1094	A1029	U963	C988	C815	A752	G680	C634	U570	A501	A428	A357	A276	A241	G177
G1170	A1095	G1030		C988	C816	C754	G681	C635	A571	A502		A358	A277	G242	G178
G1171	A1096	U1033	G968	C899	C817	C755	G682	G636	A572	U504	U434	G360	C277	U243	
G1172	A1097	U1034	U969	C899	G818	C756	G683	A637	A573	A505	C435	G361	C280	A244	A181
A1174	A1098	G1034	C970	C992	A819	C756	G684	G638	A574	G506	C436	G362	C281	G245	A182
A1175	G1099	U1035	C971	C993	A820	U757	A686	U639	A575	U507	G439	U362	G247	C246	C183
G1176	C1100	G972	G972	C994	A821	C758	G687	C640	U576	G508	G440	G363	A282	G248	C184
A1177	U1101	A973	A973	U895	U822	U759	C687	C641		G509	U441	A363A	A283	C249	U185
C1178	C1102	G1037	G974	A896	U827	G760	U688	G642	U579	C510	G442	G363B	U284	C250	G186
C1180	A1103	G1038	C974A	C997	U828	U762	A689	A643	C580	U511	A443	G363D		G251	
C1181	U1105	G1039	G975	C998	A829	G763	C691	A644	C581	G512	C444	U363E	C292	G252	G189
A1182	G1106	G1042	C976	A899	G830	A764	C692	A646	G582	A513	C445	A363F	U293	G253	C192
		G1043	G977	A900	G831	G765		G647	C583		A447	C365	C297	G254	U193
		G1044	G978	A901	G832	G766	G696	G648	C584	C516	U448	C366	C298	A257	G194
		A1045	G979	C902	G836	U767	G697	G649	C585	C517		C367	A299		A196
		A1046		U905	G837	G768	C698	C650	C587	U519	C451	A371	A300	G260	A197
		A1047	C982	G908	C838	G769	A699	G651	U588	G520	G452	G372	G302	C263	C198
		A1048	A984		U839	G770	G700	C652	C589	G521	C453	U373	U303	C264	U199
		C1049	C985	A910	C844	U773	G701	A653	A590	U522	A454	A374	U304	A265	C201
		A1050	C986	A911	G702	U774	G702	A654	C591	C523	C455	C375	G304	G266	
		G1051	G987	C912	U703	G775	G703	A654A	C592	U524	C456	C376	U305	C267	
		C1052	G988	U913	G846	G776	G704	C654B	G593	U525	A457		U306		A204
		G1053	A988	C914	U847		A705	G	U594	A526	G458	U383	G307	G205	G205
		A1054	C989	C915	G848	A777		G	C596	C527		U384	G308	U206	
		G1055	A990	C916	G849	G778	U709	C	G596	U528	A460	U385	G309	C270C	A207
		A1056	C991	G916	A849	G779	G710	C	U597		G469	G386	A310	C208	
		A1057	C992	A917	C850	U779		C		G530	C462	U387	A311	G209	
		U1058	G993	A918	U851	G780		C		C531	G463	G388	G312	U270F	C210
		G994	C994	U922	G852	A781	U714	C	G602	A532		G389	G317	C270G	A211
		C995	C995	C923	C853	A782	G715	C	A603	U533	G467	A390	C318	G270J	G212
		A996	A996	C924	G854	A783	A716	G	G604	U534	G468	G391	C319	C270K	G213
		C997	C997	C925	C855	G784	G717	G	C605		G469	G392	C320	G215	
		G998	C998	C926	C856	G785	A718	G	U606				A320	G216	
		U999	A926	A926	C857	C786	C719	C	U607	C537	A470	U396	G321	U270L	G215
		A1000	G928	G928	U858	U787	C720	C	A608	G539	A471	U397	A322	U270M	A216
		A1001	G929	G929	C859	A788	C721	G654S	A609	G540	A472	G396	A323	G270N	G217
		G1002	U930	U930	U860	A78									

A1274	C2276	G2190	G2125	A1829	A1912	C1979	A2054	C2055	A1829	G1758	G1517	C1585	G1585	G1517	A1308	U1240
C2276	G2191	G2192	A2126	C1830	A1913	G1980	C2056	C1830	A1759	A1759	C1518	A1586	A1586	C1518	G1380	A1241
G2277	G2192	G2193	G2127	C1831	C1914	A1981	A2057	C1831	A1760	A1760	G1519	A1587	A1587	G1519	G1381	A1242
A2278	C2193	G2194	G2128	C1832	C1915	A1982	A2058	C1832	C1761	C1761	G1520	G1675	G1675	G1520	G1382	
G2279	A2278	G2194	U2130	U1834	A1917	C1983	A2059	U1834	A1762	A1762	G1521	A1589	A1589	G1521	C1383	A1246
	A2280	U2197	G2131	G1835	A1918	G1985	A2060	G1835	G1764	G1764	G1522	A1590	A1590	G1522	C1384	A1247
G2282	C2283	A2198	G2132	C1836	A1919	A1986	G2061	C1836			G1526	A1453	A1453	G1385	G1314	G1248
C2283	A2199	C2205	G2133	C1837			G2062	C1837	A1773	A1773	G1527	U1454	U1454	G1386	G1315	G1249
C2284	C2206	C2063	G2134	C1838	U1922	G1989	C2064	C1838	C1774	C1774	G1527	G1455	G1455	C1387	U1316	U1250
A2286	C2207	C2064	A2135	G1839	U1923	C1990	C2065	G1839	U1775	U1775	G1528	A1528	A1528	G1388	A1317	C1251
A2287	C2208	C2065	G2136	G1840	C1924	U1931	C2066	G1840	G1776	G1776	G1529	A1529	A1529	G1389	C1318	C1252
C2287	C2209	G1932	C2137	G1841	U1925	U1932	G2067	G1841	U1777	U1777	G1530	A1530	A1530	G1390	C1319	A1253
A2288	G2210	U1933	C2138	G1842	U1926	U1933	G2067	G1842	U1778	U1778	C1532	A1460	A1460	A1392	C1320	A1254
G2289	G2211	U1934	C2139	G1843	U1927	U1934	U2068	A1847	U1779	U1779	C1533	A1461	A1461	A1393	A1321	U1255
G2290	A2212	C2206	G2140	C1844	A1928	G1996	C2069	A1847	U1780	U1780	G1534	C1462	C1462	U1394	A1322	G1256
G2291	G2213	C2207	G2141	G1845	U1929	G1997	C2070	G1845	C1781	C1781	G1535	C1463	C1463	U1395	U1323	C1257
G2292	G2214	U1935	G2142	G1846	G1930	G1998	C2071	G1846	C1782	C1782	U1536	C1464	C1464	A1396	G1324	
G2293	G2215	C1999	G2143	U1851	U1931	C1999	U2074	U1851	A1783	A1783	C1537	C1465	C1465	U1397	U1325	
			U2144		A1932		U2075		A1784	A1784	G1538	C1466	C1466	U1398	U1326	G1261
			C2145		G1933		C2076		A1785	A1785	G1539	C1467	C1467		C1327	U1262
			C2146		G1934		C2077		A1786	A1786	U1540			C1403	U1263	U1263
			G2147		C1935		C2078		A1787	A1787	G1541	A1471	A1471	C1404	G1264	A1265
			C2148		A1936		C2079		A1788	A1788	U1542	A1472	A1472	C1405	A1331	A1266
			G2149		U1937		G2080		A1789	A1789	C1543	A1473	A1473	U1406	G1332	U1267
			U2150		A1938		A2082		C1790	C1790	U1544	C1474	C1474	C1407	A1268	
			G2151		U1939		G2083		A1791	A1791	C1545	C1475	C1475	C1408	A1269	
			C2152		U1940		U2084		A1792	A1792	A1546	G1476	G1476		C1270	
			G2153		C1941		C2085		U1794	U1794	C1546	A1477	A1477	C1411	G1338	U1271
			C2156		U1942		C2086		C1795	C1795	U1547	A1478	A1478	C1412	U1329	A1272
			G2157		U1943		U2087		C1796	C1796	C1548	G1479	G1479	C1413	U1330	A1273
			C2158		U1944		U2088		C1797	C1797	C1549	C1480	C1480		A1342	U1274
			G2159		U1945		C2089		C1798	C1798	C1550	U1482	U1482	G1416	G1343	A1275
			C2160		U1946		C2090		C1799	C1799	C1551	G1483	G1483	C1417	A1276	
			G2161		G1947		C2091		C1800	C1800	C1552	G1484	G1484	C1418	G1277	
			U2096		C1881		U2092		C1801	C1801	C1553	G1485	G1485	A1419	A1278	
			C2097		G1948		C2093		C1802	C1802	G1554	U1420	U1420	U1420	G1279	
			U2098		G1949		C2094		A1803	A1803	C1555	G1421	G1421	G1421	G1280	
			G2099		U1950		C2095		C1804	C1804	C1556	G1422	G1422	G1422	U1281	
			C2099		U1951		C2096		C1805	C1805	C1557	G1423	G1423	G1423	G1282	
			G2100		A1952		C2097		C1806	C1806	C1558	G1424	G1424	G1424	G1283	
			C2101		A1953		G2102		C1807	C1807	C1559	G1425	G1425	G1425	A1284	
			U2102		G1954		C2103		C1808	C1808	C1560	A1494	A1494	G1426	G1285	
			C2103		U1955		C2104		C1809	C1809	C1561	A1495	A1495	G1427	A1286	
			G2108		U1956		C2105		A1810	A1810	C1562	A1496	A1496	C1428	A1287	
			U2109		C1962		C2106		G1811	G1811	C1563	U1497	U1497	C1429	U1288	
			G2110		U1963		C2107		A1812	A1812	C1564	C1498	C1498	C1430	C1289	
			C2111		G1964		C2108		C1813	C1813	C1565			U1431	C1290	
			G2112		C1965		C2109		G1814	G1814	C1566	U1503	U1503	U1432	A1365	
			U2113		C1966		C2110		A1815	A1815	C1567	C1504	C1504	U1433	C1291	
			A2114		C1967		C2111		G1816	G1816	C1568	C1505	C1505	U1434	U1292	
			G2115		C1968		C2112		G1817	G1817	C1569	C1506	C1506	G1368	C1293	
			C2116		A1969		C2113		G1818	G1818	C1570	G1369	G1369	G1370	U1294	
			U2117		A1970		C2114		C1819	C1819	C1571	U1507	U1507	C1371		
			G2118		U1971		C2115		U1820	U1820	C1572	A1508	A1508	G1372	U1300	
			A2119		A1972		C2116		A1821	A1821	C1573	A1509	A1509	U1373	A1301	
			G2120		U1973		C2117		G1826	G1826	C1574	A1510	A1510	U1374	A1302	
			G2121		C1974		C2118		C1827	C1827	C1575	A1511	A1511	G1443	A1303	
			U2122		U1974		C2119		G1828	G1828	C1576	U1512	U1512	G1444		
			G2123		A1978		C2120				C1577				A1378	
			C2124				C2121				C1578					
			U2125				C2122				C1579					
			G2126				C2123				C1580					
			A2127				C2124				C1581					
			G2128				C2125				C1582					
			C2129				C2126				C1583					
			U2130				C2127				C1584					
			G2131				C2128				C1585					
			U2132				C2129				C1586					
			G2133				C2130				C1587					
			A2134				C2131				C1588					
			C2135				C2132				C1589					
			G2136				C2133				C1590					
			C2137				C2134				C1591					
			U2138				C2135				C1592					
			G2139				C2136				C1593					
			C2140				C2137				C1594					
			G2141				C2138				C1595					
			C2142				C2139				C1596					
			U2143				C2140				C1597					
			G2144				C2141				C1598					
			C2145				C2142				C1599					
			U2146				C2143				C1600					
			G2147				C2144				C1601					
			C2148				C2145				C1602					
			U2149				C2146				C1603					
			G2150				C2147				C1604					
			U2151				C2148				C1605					
			G2152				C2149				C1606					
			C2153				C2150				C1607					
			U2154				C2151				C1608					
			G2155				C2152				C1609					
			U2156				C2153				C1610					
			C2157				C2154				C1611					
			U2158				C2155				C1612					
			G2159				C2156				C1613					
			C2160				C2157				C1614					
			U2161				C2158				C1615					
			G2162				C2159				C1616					
			C2163				C2160				C1617					
			U2164				C2161				C1618					
			G2165				C2162				C1619					
			C2166				C2163				C1620					
			U2167				C2164				C1621					
			G2168				C2165				C1622					
			A2169				C2166				C1623					
			U2170				C2167				C1624					
			A2171				C2168				C1625					
			C2172				C2169				C1626					
			U2173				C2170				C1627					



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.46Å 452.18Å 626.12Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	300.00 – 3.50 226.09 – 3.00	Depositor EDS
% Data completeness (in resolution range)	96.7 (300.00-3.50) 100.0 (226.09-3.00)	Depositor EDS
R_{merge}	0.28	Depositor
R_{sym}	0.18	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.34 (at 3.01Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.213 , 0.252 0.282 , 0.285	Depositor DCC
R_{free} test set	12034 reflections (1.02%)	DCC
Wilson B-factor (Å ²)	71.7	Xtriage
Anisotropy	0.113	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.22 , 42.1	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.40$, $\langle L^2 \rangle = 0.22$	Xtriage
Outliers	0 of 1177589 reflections	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	298428	wwPDB-VP
Average B, all atoms (Å ²)	106.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.33% 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	0.46	1/36490 (0.0%)	0.80	49/56951 (0.1%)
1	CA	0.49	9/36439 (0.0%)	0.82	73/56872 (0.1%)
2	AE	0.34	0/1950	0.66	0/2630
2	CE	0.35	0/1959	0.64	0/2642
3	AF	0.36	0/1636	0.65	0/2205
3	CF	0.36	0/1629	0.60	0/2195
4	AG	0.44	0/1733	0.78	4/2318 (0.2%)
4	CG	0.41	0/1733	0.69	1/2318 (0.0%)
5	AH	0.40	0/1195	0.68	0/1609
5	CH	0.37	0/1171	0.66	0/1576
6	AI	0.38	0/856	0.67	0/1154
6	CI	0.42	0/856	0.67	0/1154
7	AJ	0.36	0/1276	0.66	0/1709
7	CJ	0.36	0/1276	0.60	0/1709
8	AK	0.35	0/1136	0.65	0/1527
8	CK	0.40	0/1136	0.69	0/1527
9	AL	0.35	0/1037	0.70	0/1389
9	CL	0.35	0/1029	0.67	0/1379
10	AM	0.34	0/814	0.65	0/1095
10	CM	0.35	0/814	0.61	0/1095
11	AN	0.38	0/916	0.72	0/1234
11	CN	0.39	0/900	0.67	0/1213
12	AO	0.42	0/991	0.74	0/1327
12	CO	0.45	0/991	1.00	4/1327 (0.3%)
13	AP	0.47	1/947 (0.1%)	0.72	0/1270
13	CP	0.34	0/974	0.66	0/1303
14	AQ	0.36	0/501	0.64	0/664
14	CQ	0.42	0/501	0.70	1/664 (0.2%)
15	AR	0.39	0/745	0.61	0/992
15	CR	0.39	0/745	0.66	0/992
16	AS	0.38	0/721	0.67	0/970
16	CS	0.36	0/721	0.67	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AT	0.38	0/847	0.67	0/1131
17	CT	0.37	0/847	0.68	0/1131
18	AU	0.40	0/590	0.68	0/782
18	CU	0.39	0/579	0.72	0/768
19	AV	0.37	0/670	0.68	0/901
19	CV	0.35	0/689	0.84	2/926 (0.2%)
20	AW	0.37	0/765	0.71	0/1007
20	CW	0.33	0/765	0.69	0/1007
21	AX	0.37	0/221	0.54	0/288
21	CX	0.36	0/221	0.63	0/288
22	AC	0.54	2/1832 (0.1%)	0.92	7/2855 (0.2%)
22	AD	0.48	2/1832 (0.1%)	0.91	6/2855 (0.2%)
22	CC	0.58	2/1832 (0.1%)	0.94	6/2855 (0.2%)
22	CD	0.45	2/1832 (0.1%)	0.87	5/2855 (0.2%)
23	A1	0.50	0/567	0.88	0/884
23	C1	0.46	0/567	0.83	2/884 (0.2%)
24	BA	0.59	15/69594 (0.0%)	0.89	199/108647 (0.2%)
25	BB	0.46	3/2877 (0.1%)	0.79	3/4488 (0.1%)
26	BD	0.48	0/2165	0.82	1/2919 (0.0%)
26	DD	0.61	2/2165 (0.1%)	0.89	3/2919 (0.1%)
27	BE	0.44	0/1601	0.81	2/2160 (0.1%)
27	DE	0.52	0/1601	0.91	2/2160 (0.1%)
28	BF	0.43	0/1662	0.76	0/2249
28	DF	0.49	0/1620	0.76	0/2194
29	BG	0.36	0/1499	0.64	0/2016
29	DG	0.39	0/1499	0.66	0/2016
30	BH	0.35	0/1332	0.75	1/1802 (0.1%)
30	DH	0.45	0/1332	0.85	4/1802 (0.2%)
31	BK	0.35	0/1151	0.77	0/1558
31	DK	0.41	0/1151	0.81	1/1558 (0.1%)
32	BM	0.39	0/1131	0.70	0/1525
32	DM	0.45	0/1131	0.77	1/1525 (0.1%)
33	BN	0.47	0/943	0.76	1/1269 (0.1%)
33	DN	0.53	0/943	0.71	0/1269
34	BO	0.44	0/1162	0.85	1/1544 (0.1%)
34	DO	0.49	0/1162	0.94	3/1544 (0.2%)
35	BP	0.41	0/1143	0.70	0/1527
35	DP	0.53	0/1143	0.89	3/1527 (0.2%)
36	B0	0.43	0/974	0.71	0/1302
36	D0	0.44	0/982	0.80	1/1312 (0.1%)
37	BQ	0.36	0/892	0.67	0/1187
37	DQ	0.45	0/892	0.82	1/1187 (0.1%)
38	BR	0.43	0/1155	0.73	0/1542

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DR	0.46	0/1155	0.73	2/1542 (0.1%)
39	B1	0.41	0/982	0.70	0/1306
39	D1	0.48	0/982	0.77	0/1306
40	B2	0.45	0/790	0.83	1/1057 (0.1%)
40	D2	0.46	0/790	0.82	0/1057
41	BS	0.47	0/911	0.71	0/1220
41	DS	0.45	0/911	0.75	0/1220
42	BT	0.49	0/739	0.71	0/993
42	DT	0.56	0/739	0.77	0/993
43	BU	0.50	0/798	0.85	1/1064 (0.1%)
43	DU	0.52	0/798	0.80	0/1064
44	BV	0.39	0/1435	0.77	1/1947 (0.1%)
44	DV	0.47	0/1408	0.77	1/1908 (0.1%)
45	B3	0.44	0/637	0.74	1/848 (0.1%)
45	D3	0.44	0/619	0.78	0/825
46	BZ	0.44	0/770	0.78	0/1022
46	DZ	0.49	0/770	0.85	1/1022 (0.1%)
47	BW	0.45	0/583	0.75	0/771
47	DW	0.50	0/583	0.83	1/771 (0.1%)
48	BX	0.37	0/474	0.68	0/635
48	DX	0.43	0/474	0.71	0/635
49	B4	0.43	0/594	0.81	0/795
49	D4	0.38	0/594	0.78	1/795 (0.1%)
50	B5	0.41	0/473	0.70	0/639
50	D5	0.51	0/473	0.74	0/639
51	B6	0.37	0/424	0.82	0/565
51	D6	0.42	0/431	0.76	0/575
52	B7	0.48	0/438	0.72	0/575
52	D7	0.56	0/438	0.76	0/575
53	B8	0.50	0/525	0.95	2/691 (0.3%)
53	D8	0.62	0/525	0.93	1/691 (0.1%)
54	DA	0.64	12/69611 (0.0%)	0.93	232/108670 (0.2%)
55	DB	0.56	3/2878 (0.1%)	0.84	6/4490 (0.1%)
All	All	0.53	54/320128 (0.0%)	0.84	638/479051 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	0	54

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	CA	0	53
22	AC	0	2
22	AD	0	2
22	CD	0	1
23	A1	0	3
23	C1	0	3
24	BA	0	136
25	BB	0	4
54	DA	0	153
55	DB	0	5
All	All	0	416

All (54) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	BA	654(R)	C	N1-C2	28.46	1.68	1.40
24	BA	654(R)	C	O5'-C5'	21.81	1.79	1.44
24	BA	654(R)	C	N3-C4	16.66	1.45	1.33
24	BA	654(R)	C	C2-N3	16.59	1.49	1.35
24	BA	654(R)	C	N1-C6	16.36	1.47	1.37
24	BA	654(R)	C	C4-C5	15.56	1.55	1.43
24	BA	654(R)	C	C5-C6	14.56	1.46	1.34
22	CD	17(A)	C	C4-N4	-11.55	1.23	1.33
22	CC	17(A)	C	C4-N4	-11.41	1.23	1.33
22	AD	17(A)	C	C4-N4	-11.38	1.23	1.33
22	AC	17(A)	C	C4-N4	-11.26	1.23	1.33
24	BA	654(R)	C	P-O5'	11.12	1.70	1.59
55	DB	95	U	C2-O2	9.62	1.31	1.22
1	CA	792	A	N7-C5	-9.36	1.33	1.39
55	DB	81	G	C6-N1	-8.71	1.33	1.39
26	DD	236	GLY	C-N	8.56	1.53	1.34
1	CA	792	A	N3-C4	-7.57	1.30	1.34
54	DA	1359	A	C5-C6	-7.38	1.34	1.41
22	AD	17(A)	C	N3-C4	7.32	1.39	1.33
24	BA	654(R)	C	C5'-C4'	7.25	1.60	1.51
13	AP	117	VAL	CA-CB	7.23	1.70	1.54
24	BA	1359	A	C6-N6	-6.86	1.28	1.33
22	AC	17(A)	C	N3-C4	6.79	1.38	1.33
1	CA	788	U	N3-C4	6.79	1.44	1.38
22	CD	17(A)	C	N3-C4	6.79	1.38	1.33
26	DD	239	ARG	CA-C	-6.75	1.35	1.52
54	DA	1372	U	C5-C6	-6.74	1.28	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	DA	2665	A	C6-N6	-6.60	1.28	1.33
22	CC	17(A)	C	N3-C4	6.56	1.38	1.33
55	DB	95	U	N1-C2	6.55	1.44	1.38
25	BB	95	U	C2-O2	6.44	1.28	1.22
24	BA	2665	A	C6-N6	-6.40	1.28	1.33
25	BB	81	G	C6-N1	-6.21	1.35	1.39
1	AA	788	U	N3-C4	6.11	1.44	1.38
54	DA	1929	G	C5-C6	-6.07	1.36	1.42
24	BA	383	U	N1-C2	6.05	1.44	1.38
24	BA	2490	G	N9-C4	5.94	1.42	1.38
54	DA	621	A	C6-N6	-5.92	1.29	1.33
25	BB	95	U	N1-C2	5.91	1.43	1.38
54	DA	1372	U	N3-C4	5.66	1.43	1.38
1	CA	792	A	P-O5'	-5.64	1.54	1.59
24	BA	1925	C	C4-N4	-5.61	1.28	1.33
24	BA	621	A	C6-N6	-5.57	1.29	1.33
54	DA	383	U	N1-C2	5.49	1.43	1.38
54	DA	1660	C	N1-C2	-5.46	1.34	1.40
1	CA	792	A	C5-C6	-5.42	1.36	1.41
54	DA	1359	A	C6-N6	-5.41	1.29	1.33
1	CA	97	U	N1-C2	5.41	1.43	1.38
54	DA	676	A	C5-C6	-5.37	1.36	1.41
1	CA	792	A	O5'-C5'	-5.32	1.34	1.42
54	DA	783	A	C5-C6	-5.18	1.36	1.41
54	DA	1359	A	C8-N7	-5.05	1.28	1.31
1	CA	677	U	N1-C2	5.03	1.43	1.38
1	CA	794	A	C2-N3	5.01	1.38	1.33

All (638) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	BA	945	A	C1'-O4'-C4'	-24.45	90.34	109.90
54	DA	1379	A	C1'-O4'-C4'	-24.15	90.58	109.90
54	DA	945	A	C1'-O4'-C4'	-23.55	91.06	109.90
54	DA	2286	A	C1'-O4'-C4'	-20.78	93.27	109.90
12	CO	47	LYS	C-N-CD	-20.50	75.50	120.60
54	DA	2311	A	C1'-O4'-C4'	-20.26	93.69	109.90
24	BA	654(R)	C	O4'-C1'-N1	-19.57	92.54	108.20
24	BA	2286	A	C1'-O4'-C4'	-19.29	94.47	109.90
22	CD	17(A)	C	N3-C4-C5	-18.24	114.60	121.90
22	AC	17(A)	C	N3-C4-C5	-18.10	114.66	121.90
22	AD	17(A)	C	N3-C4-C5	-18.08	114.67	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	CC	17(A)	C	N3-C4-C5	-17.84	114.76	121.90
54	DA	1379	A	O4'-C1'-N9	17.40	122.12	108.20
1	CA	792	A	O4'-C1'-N9	17.25	122.00	108.20
54	DA	2468	G	C1'-O4'-C4'	-16.55	96.66	109.90
24	BA	1379	A	C1'-O4'-C4'	-14.53	98.28	109.90
24	BA	945	A	N9-C1'-C2'	14.48	132.82	114.00
22	AD	17(A)	C	C2-N3-C4	14.47	127.14	119.90
22	CD	17(A)	C	C2-N3-C4	14.36	127.08	119.90
22	AC	17(A)	C	C2-N3-C4	14.10	126.95	119.90
1	CA	792	A	C1'-O4'-C4'	-13.94	98.75	109.90
22	CC	17(A)	C	C2-N3-C4	13.93	126.86	119.90
54	DA	2307	G	C1'-O4'-C4'	-13.91	98.77	109.90
54	DA	945	A	N9-C1'-C2'	13.29	131.28	114.00
54	DA	2286	A	N9-C1'-C2'	13.12	131.06	114.00
54	DA	2468	G	O4'-C1'-N9	12.90	118.52	108.20
24	BA	2092	U	C1'-O4'-C4'	-12.51	99.90	109.90
54	DA	945	A	O4'-C1'-N9	12.42	118.14	108.20
54	DA	2311	A	O4'-C1'-N9	11.97	117.78	108.20
44	BV	94	GLU	C-N-CD	-11.81	94.62	120.60
24	BA	2092	U	O4'-C1'-N1	11.57	117.46	108.20
24	BA	2286	A	N9-C1'-C2'	11.56	129.03	114.00
24	BA	2490	G	N9-C1'-C2'	11.29	128.68	114.00
24	BA	1925	C	N1-C1'-C2'	-11.27	99.35	114.00
1	CA	792	A	C4-C5-C6	11.20	122.60	117.00
54	DA	2311	A	N9-C1'-C2'	11.16	128.51	114.00
24	BA	1342	A	C1'-O4'-C4'	-11.13	101.00	109.90
1	CA	792	A	C6-C5-N7	-10.96	124.63	132.30
24	BA	2490	G	C4-N9-C1'	10.85	140.60	126.50
24	BA	654(R)	C	P-O5'-C5'	10.79	138.16	120.90
24	BA	654(R)	C	O4'-C1'-C2'	-10.77	95.03	105.80
1	CA	792	A	C4-N9-C1'	10.77	145.68	126.30
24	BA	1929	G	N9-C1'-C2'	10.73	127.95	114.00
54	DA	2468	G	C4-N9-C1'	10.38	140.00	126.50
54	DA	2307	G	O4'-C1'-N9	10.36	116.48	108.20
24	BA	945	A	O4'-C1'-N9	10.33	116.46	108.20
54	DA	1248	G	N9-C1'-C2'	10.25	127.33	114.00
1	AA	266	G	N9-C1'-C2'	10.18	127.24	114.00
27	DE	21	VAL	C-N-CD	-10.09	98.41	120.60
54	DA	607	U	C5-C4-O4	-10.07	119.86	125.90
24	BA	2490	G	C8-N9-C1'	-10.05	113.94	127.00
24	BA	2490	G	C1'-O4'-C4'	-10.04	101.87	109.90
54	DA	945	A	C3'-C2'-C1'	-10.01	93.49	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	DA	945	A	C4-N9-C1'	9.92	144.16	126.30
24	BA	1966	A	N9-C1'-C2'	9.73	126.65	114.00
1	CA	792	A	P-O3'-C3'	9.71	131.35	119.70
24	BA	1616	A	N9-C1'-C2'	9.54	126.41	114.00
26	BD	238	GLY	N-CA-C	-9.54	89.26	113.10
24	BA	1247	A	N9-C1'-C2'	9.41	126.23	114.00
24	BA	2092	U	C2-N1-C1'	9.39	128.97	117.70
1	CA	792	A	C8-N9-C4	-9.35	102.06	105.80
54	DA	945	A	C8-N9-C1'	-9.34	110.89	127.70
24	BA	2820	A	N9-C1'-C2'	9.30	126.09	114.00
54	DA	2791	C	N1-C1'-C2'	9.29	126.08	114.00
1	CA	792	A	N7-C8-N9	9.21	118.40	113.80
54	DA	72	U	N1-C1'-C2'	9.19	125.95	114.00
54	DA	1781	C	N1-C1'-C2'	9.19	125.95	114.00
1	CA	575	G	N9-C1'-C2'	9.12	125.86	114.00
24	BA	974(A)	C	N1-C1'-C2'	9.06	125.77	114.00
24	BA	2286	A	O4'-C1'-N9	9.00	115.40	108.20
54	DA	1359	A	C5-C6-N6	-8.93	116.55	123.70
24	BA	788	A	N9-C1'-C2'	8.93	125.60	114.00
24	BA	654(R)	C	C1'-O4'-C4'	-8.91	102.77	109.90
54	DA	2468	G	C8-N9-C1'	-8.90	115.42	127.00
54	DA	2609	U	N1-C1'-C2'	8.88	125.55	114.00
24	BA	2791	C	N1-C1'-C2'	8.87	125.53	114.00
1	CA	792	A	C8-N9-C1'	-8.85	111.76	127.70
12	CO	47	LYS	C-N-CA	8.79	158.93	122.00
24	BA	421	U	N1-C1'-C2'	8.77	125.40	114.00
1	CA	1003	G	N9-C1'-C2'	-8.73	102.39	112.00
35	DP	81	VAL	CB-CA-C	-8.67	94.93	111.40
54	DA	249	C	N1-C1'-C2'	8.64	125.23	114.00
54	DA	739	G	N9-C1'-C2'	8.55	125.12	114.00
54	DA	70	G	N9-C1'-C2'	8.53	125.09	114.00
24	BA	457	A	N9-C1'-C2'	8.51	125.06	114.00
44	DV	115	GLY	N-CA-C	8.47	134.27	113.10
1	CA	511	C	N1-C1'-C2'	8.39	124.90	114.00
24	BA	945	A	C3'-C2'-C1'	-8.37	94.80	101.50
1	AA	575	G	N9-C1'-C2'	8.37	124.88	114.00
54	DA	788	A	N9-C1'-C2'	8.24	124.71	114.00
22	CC	17(A)	C	C5-C4-N4	8.21	125.95	120.20
54	DA	2820	A	N9-C1'-C2'	8.17	124.63	114.00
1	AA	511	C	N1-C1'-C2'	8.15	124.60	114.00
22	AC	17(A)	C	C5-C4-N4	8.14	125.90	120.20
54	DA	457	A	N9-C1'-C2'	8.08	124.50	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	DA	2490	G	N9-C1'-C2'	8.08	124.50	114.00
24	BA	1372	U	C5-C4-O4	-8.06	121.06	125.90
22	CD	17(A)	C	C5-C4-N4	8.06	125.84	120.20
54	DA	2266	A	N9-C1'-C2'	8.06	124.48	114.00
54	DA	2426	A	N9-C1'-C2'	8.05	124.46	114.00
54	DA	434	U	N1-C1'-C2'	8.03	124.44	114.00
22	AD	17(A)	C	C5-C4-N4	8.01	125.81	120.20
54	DA	2345	G	N9-C1'-C2'	8.01	124.41	114.00
24	BA	1800	C	N1-C1'-C2'	8.00	124.39	114.00
24	BA	2458	G	N9-C1'-C2'	7.98	124.38	114.00
54	DA	2656	U	C5-C4-O4	-7.97	121.12	125.90
54	DA	199	A	N9-C1'-C2'	7.95	124.34	114.00
54	DA	2426	A	C2'-C3'-O3'	7.92	126.93	109.50
24	BA	1380	G	O4'-C1'-N9	-7.90	101.88	108.20
54	DA	1131	G	N9-C1'-C2'	7.90	124.26	114.00
24	BA	2835	A	N9-C1'-C2'	7.88	124.25	114.00
46	DZ	79	GLY	N-CA-C	-7.84	93.49	113.10
54	DA	1253	A	N9-C1'-C2'	7.84	124.19	114.00
24	BA	654(R)	C	N1-C2-N3	-7.83	113.72	119.20
54	DA	2286	A	O4'-C1'-N9	7.83	114.47	108.20
24	BA	2656	U	C5-C4-O4	-7.78	121.23	125.90
54	DA	1534	G	N9-C1'-C2'	-7.72	103.51	112.00
54	DA	508	G	N9-C1'-C2'	7.70	124.01	114.00
54	DA	1385	G	N9-C1'-C2'	7.68	123.99	114.00
54	DA	2311	A	C4-N9-C1'	7.68	140.13	126.30
54	DA	1359	A	N1-C6-N6	7.68	123.21	118.60
24	BA	1252	G	N9-C1'-C2'	7.67	123.97	114.00
24	BA	72	U	N1-C1'-C2'	7.66	123.96	114.00
24	BA	386	G	N9-C1'-C2'	7.66	123.96	114.00
1	CA	1502	A	N9-C1'-C2'	7.62	123.91	114.00
24	BA	1781	C	N1-C1'-C2'	7.62	123.91	114.00
22	AD	17(A)	C	N1-C2-O2	7.60	123.46	118.90
1	AA	794	A	C4-N9-C1'	7.58	139.95	126.30
54	DA	607	U	N3-C4-O4	-7.58	114.09	119.40
54	DA	1567	A	N9-C1'-C2'	7.56	123.83	114.00
54	DA	1992	G	C2'-C3'-O3'	7.56	126.14	109.50
24	BA	1359	A	C5-C6-N6	-7.55	117.66	123.70
54	DA	2665	A	C5-C6-N6	-7.54	117.67	123.70
54	DA	995	C	N1-C1'-C2'	7.54	123.80	114.00
1	AA	1124	G	N9-C1'-C2'	7.53	123.79	114.00
24	BA	2702	U	N1-C1'-C2'	7.52	123.77	114.00
24	BA	70	G	N9-C1'-C2'	7.51	123.76	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	702	A	N9-C1'-C2'	7.50	123.75	114.00
55	DB	95	U	N1-C2-O2	7.50	128.05	122.80
24	BA	1992	G	C2'-C3'-O3'	7.49	125.98	109.50
24	BA	1992	G	N9-C1'-C2'	7.49	123.74	114.00
24	BA	607	U	C5-C4-O4	-7.46	121.42	125.90
55	DB	81	G	C5-C6-O6	7.45	133.07	128.60
1	CA	792	A	N1-C2-N3	7.43	133.02	129.30
54	DA	2311	A	C3'-C2'-C1'	-7.43	95.55	101.50
24	BA	1266	G	N9-C1'-C2'	7.42	123.65	114.00
54	DA	776	G	N9-C1'-C2'	7.42	123.65	114.00
43	BU	23	ARG	N-CA-C	-7.40	91.03	111.00
1	CA	1064	G	N9-C1'-C2'	7.37	123.59	114.00
54	DA	2468	G	N9-C1'-C2'	7.37	123.58	114.00
54	DA	2780	G	N9-C1'-C2'	7.36	123.56	114.00
24	BA	782	A	C2'-C3'-O3'	-7.34	93.35	109.50
54	DA	1992	G	N9-C1'-C2'	7.34	123.54	114.00
24	BA	2250	G	N9-C1'-C2'	7.34	123.54	114.00
24	BA	654(R)	C	C2'-C3'-O3'	7.33	125.63	109.50
54	DA	529	A	N9-C1'-C2'	7.33	123.53	114.00
54	DA	421	U	N1-C1'-C2'	7.33	123.52	114.00
54	DA	1966	A	N9-C1'-C2'	7.32	123.52	114.00
1	AA	794	A	C8-N9-C1'	-7.31	114.53	127.70
54	DA	1329	U	N1-C1'-C2'	7.30	123.49	114.00
54	DA	1781	C	C2'-C3'-O3'	7.28	125.53	109.50
24	BA	527	C	N1-C1'-C2'	7.28	123.46	114.00
34	DO	59	LEU	N-CA-C	-7.27	91.36	111.00
24	BA	527	C	O4'-C1'-N1	7.25	114.00	108.20
24	BA	1652	A	C2'-C3'-O3'	7.19	125.32	109.50
54	DA	685	A	C2'-C3'-O3'	7.18	125.30	109.50
54	DA	1340	U	N1-C1'-C2'	7.18	123.33	114.00
54	DA	1372	U	C5-C4-O4	-7.17	121.60	125.90
25	BB	95	U	N1-C2-O2	7.17	127.82	122.80
22	AC	16	C	N1-C1'-C2'	7.16	123.31	114.00
1	AA	190	G	N9-C1'-C2'	7.15	123.30	114.00
24	BA	2092	U	C6-N1-C1'	-7.13	111.22	121.20
1	AA	889	A	N9-C1'-C2'	7.12	123.26	114.00
24	BA	2566	A	N9-C1'-C2'	7.12	123.26	114.00
24	BA	1379	A	O4'-C1'-N9	7.11	113.89	108.20
1	AA	8	A	N9-C1'-C2'	7.10	123.23	114.00
24	BA	603	A	N9-C1'-C2'	7.08	123.20	114.00
1	CA	518	C	N1-C1'-C2'	7.08	123.21	114.00
35	DP	81	VAL	N-CA-C	7.08	130.12	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	CD	17(A)	C	N1-C2-O2	7.08	123.15	118.90
24	BA	323	G	O4'-C1'-N9	7.08	113.86	108.20
1	AA	367	U	N1-C1'-C2'	7.06	123.18	114.00
54	DA	574	C	N1-C1'-C2'	7.06	123.18	114.00
54	DA	1252	G	N9-C1'-C2'	7.06	123.18	114.00
54	DA	215	G	N9-C1'-C2'	7.05	123.16	114.00
54	DA	1249	U	N1-C2-O2	-7.05	117.87	122.80
1	CA	702	A	N9-C1'-C2'	7.04	123.15	114.00
24	BA	1954	G	N9-C1'-C2'	7.03	123.14	114.00
24	BA	1786	A	N9-C1'-C2'	7.02	123.13	114.00
24	BA	1962	C	N1-C1'-C2'	7.01	123.11	114.00
1	AA	1498	U	N1-C1'-C2'	7.00	123.11	114.00
54	DA	458	G	N9-C1'-C2'	7.00	123.10	114.00
24	BA	1253	A	N9-C1'-C2'	7.00	123.10	114.00
54	DA	2447	G	N9-C1'-C2'	6.99	123.08	114.00
54	DA	945	A	N7-C8-N9	6.98	117.29	113.80
22	AC	17(A)	C	N1-C2-O2	6.97	123.08	118.90
24	BA	50	U	N1-C1'-C2'	6.91	122.99	114.00
24	BA	448	U	N1-C1'-C2'	6.91	122.98	114.00
24	BA	573	G	N9-C1'-C2'	6.90	122.97	114.00
24	BA	2665	A	C5-C6-N6	-6.90	118.18	123.70
54	DA	829	A	N9-C1'-C2'	6.90	122.97	114.00
54	DA	1247	A	N9-C1'-C2'	6.90	122.97	114.00
23	C1	9	G	O4'-C1'-N9	6.89	113.72	108.20
55	DB	81	G	N1-C6-O6	-6.89	115.77	119.90
54	DA	2391	G	N9-C1'-C2'	6.88	122.95	114.00
54	DA	2061	G	N9-C1'-C2'	6.87	122.93	114.00
54	DA	728	G	N9-C1'-C2'	6.86	122.92	114.00
54	DA	2311	A	C8-N9-C1'	-6.86	115.35	127.70
54	DA	2249	U	N1-C1'-C2'	6.86	122.91	114.00
54	DA	1197	G	C5-C6-O6	6.85	132.71	128.60
54	DA	2681	C	N1-C1'-C2'	6.85	122.91	114.00
24	BA	458	G	N9-C1'-C2'	6.84	122.89	114.00
1	CA	794	A	C4-N9-C1'	6.84	138.61	126.30
54	DA	974(A)	C	N1-C1'-C2'	6.83	122.87	114.00
4	AG	12	CYS	CA-CB-SG	6.82	126.28	114.00
1	AA	109	A	N9-C1'-C2'	6.81	122.86	114.00
54	DA	1082	U	N1-C1'-C2'	-6.81	104.50	112.00
24	BA	571	A	N9-C1'-C2'	6.81	122.85	114.00
1	AA	251	G	N9-C1'-C2'	6.80	122.83	114.00
24	BA	531	C	O4'-C1'-N1	6.76	113.61	108.20
1	CA	372	C	N1-C1'-C2'	6.75	122.78	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	7	G	N9-C1'-C2'	6.75	122.77	114.00
24	BA	301	G	N9-C1'-C2'	6.74	122.76	114.00
54	DA	621	A	C5-C6-N6	-6.74	118.31	123.70
1	AA	1201	A	N9-C1'-C2'	6.73	122.75	114.00
54	DA	1929	G	O4'-C1'-N9	-6.71	102.83	108.20
54	DA	1786	A	N9-C1'-C2'	6.71	122.72	114.00
24	BA	2448	A	N9-C1'-C2'	6.70	122.71	114.00
24	BA	1341	U	P-O3'-C3'	6.69	127.73	119.70
54	DA	301	G	N9-C1'-C2'	6.68	122.68	114.00
24	BA	120	U	N1-C1'-C2'	6.68	122.68	114.00
1	CA	872	A	N9-C1'-C2'	6.67	122.68	114.00
1	CA	889	A	N9-C1'-C2'	6.67	122.67	114.00
24	BA	2866	U	N1-C1'-C2'	6.67	122.67	114.00
54	DA	1312	U	N1-C1'-C2'	6.65	122.65	114.00
24	BA	249	C	O4'-C1'-N1	6.64	113.51	108.20
24	BA	242	G	N9-C1'-C2'	6.64	122.63	114.00
54	DA	1341	U	N1-C1'-C2'	6.64	122.63	114.00
54	DA	1615	C	N1-C1'-C2'	6.62	122.60	114.00
1	CA	792	A	C5-C6-N1	-6.61	114.40	117.70
24	BA	2249	U	N1-C1'-C2'	6.60	122.58	114.00
54	DA	2517	C	N1-C1'-C2'	6.60	122.58	114.00
1	CA	279	A	N9-C1'-C2'	6.60	122.57	114.00
54	DA	2031	A	N9-C1'-C2'	6.59	122.57	114.00
26	DD	131	LEU	CA-CB-CG	6.56	130.38	115.30
1	AA	7	G	O4'-C1'-N9	6.54	113.43	108.20
24	BA	1566	A	N9-C1'-C2'	6.54	122.50	114.00
1	CA	367	U	N1-C1'-C2'	6.54	122.50	114.00
54	DA	1667	G	N9-C1'-C2'	6.53	122.49	114.00
54	DA	801	G	N9-C1'-C2'	6.53	122.49	114.00
1	CA	794	A	C8-N9-C1'	-6.52	115.96	127.70
1	AA	1529	G	O4'-C1'-N9	6.52	113.42	108.20
24	BA	249	C	N1-C1'-C2'	6.52	122.47	114.00
54	DA	1800	C	N1-C1'-C2'	6.51	122.47	114.00
24	BA	2286	A	C4-N9-C1'	6.50	138.00	126.30
54	DA	2307	G	N9-C1'-C2'	6.49	122.44	114.00
22	AD	17(A)	C	N1-C2-N3	-6.49	114.66	119.20
54	DA	989	G	N9-C1'-C2'	6.47	122.41	114.00
24	BA	1698	A	N9-C1'-C2'	6.47	122.41	114.00
54	DA	728	G	C2'-C3'-O3'	6.47	124.05	113.70
12	CO	48	PRO	CA-N-CD	-6.45	102.47	111.50
24	BA	2656	U	N3-C4-O4	-6.44	114.89	119.40
54	DA	2656	U	N3-C4-O4	-6.44	114.89	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BO	115	LEU	CA-CB-CG	6.43	130.10	115.30
54	DA	527	C	N1-C1'-C2'	6.43	122.36	114.00
24	BA	371	A	N9-C1'-C2'	6.43	122.35	114.00
54	DA	323	G	O4'-C1'-N9	6.42	113.34	108.20
24	BA	811	U	N1-C1'-C2'	6.41	122.34	114.00
1	AA	47	C	O4'-C1'-N1	6.40	113.32	108.20
1	AA	717	C	N1-C1'-C2'	6.38	122.30	114.00
22	CC	17(A)	C	N1-C2-O2	6.38	122.73	118.90
24	BA	222	A	N9-C1'-C2'	6.38	122.29	114.00
1	CA	47	C	O4'-C1'-N1	6.37	113.30	108.20
24	BA	932	G	N9-C1'-C2'	6.36	122.27	114.00
54	DA	945	A	C5-N7-C8	-6.35	100.72	103.90
24	BA	913	U	N1-C1'-C2'	6.34	122.25	114.00
4	AG	21	LEU	CA-CB-CG	-6.34	100.72	115.30
24	BA	1681	G	N9-C1'-C2'	6.33	122.23	114.00
1	AA	818	G	N9-C1'-C2'	6.33	122.23	114.00
54	DA	448	U	N1-C1'-C2'	6.33	122.22	114.00
1	AA	595	G	N9-C1'-C2'	6.32	122.22	114.00
1	CA	872	A	O4'-C1'-N9	6.32	113.26	108.20
54	DA	2275	C	N1-C1'-C2'	6.32	122.21	114.00
24	BA	2490	G	O4'-C1'-N9	6.31	113.25	108.20
1	CA	993	G	N9-C1'-C2'	6.29	122.17	114.00
24	BA	2447	G	N9-C1'-C2'	6.26	122.14	114.00
54	DA	783	A	N9-C1'-C2'	-6.26	105.11	112.00
54	DA	2439	A	N9-C1'-C2'	6.25	122.13	114.00
24	BA	801	G	N9-C1'-C2'	6.25	122.12	114.00
24	BA	607	U	N3-C4-O4	-6.25	115.03	119.40
22	CD	17(A)	C	N1-C2-N3	-6.23	114.84	119.20
54	DA	1698	A	N9-C1'-C2'	6.22	122.08	114.00
54	DA	764	A	O4'-C1'-N9	6.21	113.17	108.20
54	DA	930	U	N1-C1'-C2'	6.21	122.07	114.00
24	BA	1585	C	N1-C1'-C2'	6.21	122.07	114.00
24	BA	2425	A	O4'-C1'-N9	6.20	113.16	108.20
54	DA	573	G	N9-C1'-C2'	6.19	122.05	114.00
22	CC	17(A)	C	N1-C2-N3	-6.19	114.87	119.20
22	AC	17(A)	C	N1-C2-N3	-6.17	114.88	119.20
24	BA	1325	G	O4'-C1'-N9	6.17	113.14	108.20
1	CA	1529	G	O4'-C1'-N9	6.17	113.14	108.20
54	DA	2797	U	N1-C1'-C2'	6.17	122.02	114.00
1	AA	266	G	C2'-C3'-O3'	6.17	123.57	113.70
1	CA	788	U	C2-N3-C4	-6.17	123.30	127.00
24	BA	2517	C	N1-C1'-C2'	6.16	122.01	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	BA	2859	G	C2'-C3'-O3'	6.16	123.56	113.70
54	DA	455	C	N1-C1'-C2'	6.15	121.99	114.00
24	BA	1311	G	N9-C1'-C2'	6.15	121.99	114.00
4	AG	96	LEU	CA-CB-CG	6.14	129.42	115.30
1	AA	1504	G	N9-C1'-C2'	6.14	121.98	114.00
54	DA	670	A	N9-C1'-C2'	6.13	121.97	114.00
54	DA	403	U	N1-C1'-C2'	6.12	121.95	114.00
24	BA	1131	G	N9-C1'-C2'	6.11	121.95	114.00
54	DA	1806	C	N1-C1'-C2'	-6.10	105.29	112.00
24	BA	2581	G	N9-C1'-C2'	6.09	121.92	114.00
24	BA	1397	U	N1-C1'-C2'	6.08	121.90	114.00
1	CA	246	A	N9-C1'-C2'	6.08	121.90	114.00
54	DA	2702	U	N1-C1'-C2'	6.07	121.89	114.00
54	DA	1272	A	O4'-C1'-N9	6.07	113.05	108.20
24	BA	1653	G	C2'-C3'-O3'	6.06	123.40	113.70
24	BA	531	C	C1'-O4'-C4'	-6.06	105.05	109.90
55	DB	95	U	N3-C4-O4	-6.06	115.16	119.40
1	CA	1067	A	N9-C1'-C2'	6.05	121.87	114.00
24	BA	1706	U	N1-C1'-C2'	6.05	121.86	114.00
36	D0	9	LYS	N-CA-C	-6.04	94.70	111.00
24	BA	2286	A	C8-N9-C1'	-6.04	116.84	127.70
54	DA	1451	C	N1-C1'-C2'	6.03	121.84	114.00
1	AA	49	U	N1-C1'-C2'	6.02	121.83	114.00
54	DA	1311	G	C2'-C3'-O3'	6.01	123.32	113.70
54	DA	1838	C	N1-C1'-C2'	6.01	121.82	114.00
54	DA	856	C	C2'-C3'-O3'	6.01	123.32	113.70
24	BA	1359	A	C6-N1-C2	-6.00	115.00	118.60
54	DA	1634	A	N9-C1'-C2'	6.00	121.80	114.00
24	BA	728	G	N9-C1'-C2'	5.99	121.78	114.00
24	BA	1618	A	N9-C1'-C2'	5.99	121.79	114.00
54	DA	2585	U	N1-C1'-C2'	5.99	121.78	114.00
24	BA	856	C	C2'-C3'-O3'	5.98	123.27	113.70
24	BA	2791	C	O4'-C1'-N1	5.98	112.99	108.20
24	BA	1565	C	N1-C1'-C2'	5.98	121.77	114.00
1	CA	1452	C	N1-C1'-C2'	5.97	121.76	114.00
1	AA	345	C	N1-C1'-C2'	5.97	121.76	114.00
24	BA	562	U	N1-C1'-C2'	5.96	121.75	114.00
54	DA	383	U	N1-C2-O2	5.96	126.97	122.80
54	DA	1082	U	C5-C4-O4	-5.96	122.32	125.90
1	CA	1124	G	N9-C1'-C2'	5.96	121.75	114.00
24	BA	1616	A	O4'-C1'-N9	5.95	112.96	108.20
1	CA	653	A	N9-C1'-C2'	5.95	121.73	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	BA	945	A	C8-N9-C1'	-5.94	117.01	127.70
24	BA	739	G	N9-C1'-C2'	5.93	121.71	114.00
54	DA	1359	A	C4-N9-C1'	5.93	136.97	126.30
24	BA	1554	A	N9-C1'-C2'	5.93	121.70	114.00
1	CA	13	U	N1-C1'-C2'	5.92	121.70	114.00
54	DA	913	U	N1-C1'-C2'	5.92	121.69	114.00
54	DA	2035	G	N9-C1'-C2'	5.91	121.69	114.00
22	AC	7	G	N9-C1'-C2'	5.89	121.66	114.00
24	BA	1828	G	N9-C1'-C2'	5.89	121.66	114.00
24	BA	2426	A	N9-C1'-C2'	5.89	121.65	114.00
54	DA	60	G	N9-C1'-C2'	5.87	121.63	114.00
24	BA	746	A	N9-C1'-C2'	5.86	121.62	114.00
24	BA	411	G	N9-C1'-C2'	5.86	121.61	114.00
1	CA	8	A	N9-C1'-C2'	5.86	121.61	114.00
1	CA	818	G	N9-C1'-C2'	5.86	121.61	114.00
24	BA	2092	U	N1-C1'-C2'	5.85	121.61	114.00
30	DH	125	VAL	C-N-CD	-5.85	107.73	120.60
24	BA	1925	C	C2-N3-C4	-5.85	116.97	119.90
1	CA	717	C	N1-C1'-C2'	5.84	121.60	114.00
27	DE	58	ARG	N-CA-C	-5.84	95.24	111.00
24	BA	60	G	N9-C1'-C2'	5.83	121.58	114.00
53	B8	41	ILE	N-CA-C	-5.83	95.25	111.00
25	BB	95	U	N3-C4-O4	-5.83	115.32	119.40
12	CO	119	LYS	N-CA-C	-5.82	95.28	111.00
54	DA	1950	G	O4'-C1'-N9	5.82	112.86	108.20
1	CA	890	G	OP2-P-O3'	5.82	117.99	105.20
54	DA	811	U	N1-C1'-C2'	5.81	121.56	114.00
54	DA	2286	A	C4-N9-C1'	5.81	136.76	126.30
54	DA	2346	A	N9-C1'-C2'	5.81	121.56	114.00
24	BA	1758	G	N9-C1'-C2'	5.81	121.55	114.00
24	BA	1325	G	C1'-O4'-C4'	-5.80	105.26	109.90
34	DO	26	GLY	N-CA-C	-5.80	98.59	113.10
1	CA	97	U	N1-C2-O2	5.80	126.86	122.80
24	BA	2425	A	N9-C1'-C2'	5.79	121.53	114.00
1	CA	792	A	N1-C6-N6	5.79	122.08	118.60
54	DA	2665	A	C6-N1-C2	-5.79	115.13	118.60
54	DA	1616	A	N9-C1'-C2'	5.78	121.52	114.00
24	BA	1944	U	N1-C1'-C2'	5.78	121.51	114.00
54	DA	1249	U	C2-N1-C1'	-5.78	110.76	117.70
54	DA	793	A	C4'-C3'-O3'	-5.76	97.30	109.40
1	CA	690	G	O4'-C1'-N9	5.76	112.81	108.20
47	DW	16	LEU	N-CA-C	-5.76	95.45	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	BA	1950	G	O4'-C1'-N9	5.75	112.80	108.20
1	CA	792	A	C5-N7-C8	-5.75	101.03	103.90
54	DA	1565	C	N1-C1'-C2'	5.74	121.47	114.00
24	BA	2391	G	C2'-C3'-O3'	5.74	122.88	113.70
24	BA	83	G	N9-C1'-C2'	5.73	121.45	114.00
1	AA	1498	U	C2'-C3'-O3'	5.73	122.87	113.70
54	DA	1250	G	N9-C1'-C2'	5.72	121.44	114.00
54	DA	1566	A	N9-C1'-C2'	5.72	121.44	114.00
54	DA	1781	C	OP2-P-O3'	5.72	117.78	105.20
54	DA	571	A	N9-C1'-C2'	5.72	121.43	114.00
54	DA	2726	U	N1-C1'-C2'	5.70	121.41	114.00
54	DA	1359	A	C6-C5-N7	-5.69	128.31	132.30
24	BA	2051	A	N9-C1'-C2'	5.69	121.39	114.00
19	CV	6	LYS	N-CA-C	-5.69	95.65	111.00
54	DA	2425	A	O4'-C1'-N9	5.69	112.75	108.20
24	BA	241	A	N9-C1'-C2'	5.68	121.39	114.00
24	BA	1699	G	N9-C1'-C2'	5.68	121.39	114.00
54	DA	1128	A	N9-C1'-C2'	5.68	121.38	114.00
1	CA	47	C	N1-C1'-C2'	5.68	121.38	114.00
54	DA	1828	G	N9-C1'-C2'	5.68	121.38	114.00
1	AA	1285	A	N9-C1'-C2'	5.67	121.38	114.00
1	CA	1535	C	N1-C1'-C2'	5.67	121.38	114.00
24	BA	383	U	N1-C2-O2	5.67	126.77	122.80
1	CA	1205	U	N1-C1'-C2'	-5.67	105.77	112.00
1	AA	517	G	N9-C1'-C2'	5.66	121.36	114.00
54	DA	196	A	N9-C1'-C2'	5.66	121.36	114.00
24	BA	531	C	N1-C1'-C2'	5.66	121.35	114.00
24	BA	1329	U	N1-C1'-C2'	5.65	121.35	114.00
54	DA	1947	C	C5'-C4'-C3'	-5.65	106.96	116.00
24	BA	2033	A	C2'-C3'-O3'	5.65	122.73	113.70
54	DA	685	A	N9-C1'-C2'	5.64	121.34	114.00
54	DA	1082	U	N3-C4-O4	-5.64	115.45	119.40
24	BA	1359	A	C5-C6-N1	5.64	120.52	117.70
24	BA	1940	U	O4'-C1'-N1	5.64	112.71	108.20
14	CQ	40	CYS	CA-CB-SG	5.64	124.15	114.00
24	BA	215	G	N9-C1'-C2'	5.63	121.32	114.00
54	DA	2278	A	C5'-C4'-C3'	5.63	125.01	116.00
54	DA	2468	G	N7-C8-N9	5.63	115.92	113.10
1	CA	50	A	N9-C1'-C2'	5.62	121.31	114.00
24	BA	242	G	OP2-P-O3'	5.62	117.57	105.20
54	DA	1379	A	N9-C1'-C2'	5.61	121.30	114.00
24	BA	637	A	N9-C1'-C2'	5.61	121.29	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	BA	621	A	C5-C6-N6	-5.61	119.21	123.70
1	AA	1064	G	N9-C1'-C2'	5.61	121.29	114.00
1	CA	1003	G	C3'-C2'-C1'	-5.60	97.02	101.50
1	CA	1502	A	O4'-C1'-N9	5.59	112.67	108.20
54	DA	447	A	N9-C1'-C2'	5.59	121.27	114.00
1	AA	1528	U	C2'-C3'-O3'	5.59	122.65	113.70
24	BA	2384	G	N9-C1'-C2'	5.59	121.27	114.00
54	DA	2732	G	N9-C1'-C2'	5.58	121.25	114.00
24	BA	1615	C	N1-C1'-C2'	5.58	121.25	114.00
54	DA	2320	A	N9-C1'-C2'	5.58	121.25	114.00
24	BA	2346	A	C1'-O4'-C4'	-5.57	105.44	109.90
24	BA	1380	G	C4'-C3'-C2'	-5.57	97.03	102.60
24	BA	446	G	N9-C1'-C2'	5.56	121.23	114.00
24	BA	1385	G	N9-C1'-C2'	5.56	121.23	114.00
49	D4	39	CYS	N-CA-C	-5.55	96.01	111.00
54	DA	620	G	N9-C1'-C2'	5.53	121.19	114.00
1	CA	794	A	C6-N1-C2	-5.53	115.28	118.60
32	DM	114	ARG	N-CA-C	-5.53	96.08	111.00
54	DA	332	A	N9-C1'-C2'	5.52	121.18	114.00
54	DA	616	A	N9-C1'-C2'	5.52	121.17	114.00
1	AA	328	C	N1-C1'-C2'	5.52	121.17	114.00
1	AA	7	G	C1'-O4'-C4'	-5.51	105.49	109.90
24	BA	323	G	C1'-O4'-C4'	-5.51	105.49	109.90
54	DA	562	U	OP2-P-O3'	5.51	117.32	105.20
54	DA	1372	U	C2-N3-C4	-5.51	123.69	127.00
54	DA	1372	U	O4'-C1'-N1	-5.50	103.80	108.20
54	DA	1359	A	C8-N9-C1'	-5.50	117.81	127.70
54	DA	1359	A	C4-C5-C6	5.50	119.75	117.00
54	DA	621	A	C6-N1-C2	-5.50	115.30	118.60
54	DA	1428	C	N1-C1'-C2'	5.50	121.14	114.00
54	DA	177	G	O4'-C1'-N9	5.49	112.59	108.20
54	DA	1938	A	O4'-C1'-N9	5.48	112.58	108.20
54	DA	2665	A	C5-C6-N1	5.47	120.44	117.70
54	DA	1342	A	N9-C1'-C2'	5.47	121.11	114.00
24	BA	791	C	O4'-C1'-N1	5.46	112.57	108.20
24	BA	1699	G	C2'-C3'-O3'	5.46	122.44	113.70
54	DA	1940	U	N1-C1'-C2'	5.46	121.09	114.00
53	B8	32	LEU	CA-CB-CG	5.46	127.85	115.30
40	B2	49	THR	C-N-CD	5.46	139.85	128.40
24	BA	1667	G	N9-C1'-C2'	5.45	121.09	114.00
54	DA	138	G	N9-C1'-C2'	5.45	121.08	114.00
54	DA	793	A	N9-C1'-C2'	5.45	121.08	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	DA	1980	G	OP1-P-O3'	5.44	117.17	105.20
54	DA	2439	A	C2'-C3'-O3'	5.44	122.41	113.70
26	DD	251	GLY	N-CA-C	5.44	126.70	113.10
54	DA	371	A	N9-C1'-C2'	5.44	121.07	114.00
1	CA	1036	G	N9-C1'-C2'	5.43	121.06	114.00
24	BA	2033	A	N9-C1'-C2'	5.43	121.06	114.00
54	DA	1980	G	N9-C1'-C2'	5.43	121.05	114.00
24	BA	1272	A	O4'-C1'-N9	5.42	112.54	108.20
30	DH	127	GLU	N-CA-C	-5.42	96.35	111.00
34	DO	25	SER	N-CA-C	-5.42	96.35	111.00
1	CA	1498	U	N1-C1'-C2'	5.42	121.04	114.00
54	DA	1372	U	C6-N1-C1'	-5.42	113.61	121.20
54	DA	2665	A	N1-C6-N6	5.42	121.85	118.60
1	AA	1137	C	C2'-C3'-O3'	5.42	122.37	113.70
4	CG	12	CYS	CA-CB-SG	5.42	123.75	114.00
24	BA	2656	U	N1-C1'-C2'	-5.41	106.05	112.00
54	DA	2346	A	O4'-C1'-N9	5.41	112.53	108.20
54	DA	2517	C	C2'-C3'-O3'	5.41	122.36	113.70
24	BA	2346	A	O4'-C1'-N9	5.40	112.52	108.20
54	DA	637	A	N9-C1'-C2'	5.40	121.02	114.00
54	DA	2613	U	O4'-C1'-N1	5.40	112.52	108.20
54	DA	1344	G	N9-C1'-C2'	5.39	121.01	114.00
54	DA	2336	A	N9-C1'-C2'	5.39	121.01	114.00
1	CA	1177	G	N9-C1'-C2'	5.39	121.00	114.00
31	DK	135	GLU	N-CA-C	5.38	125.53	111.00
1	CA	971	G	O4'-C1'-N9	5.38	112.50	108.20
26	DD	111	LEU	CA-CB-CG	5.37	127.65	115.30
1	AA	788	U	C2-N3-C4	-5.37	123.78	127.00
54	DA	2211	G	N9-C1'-C2'	5.37	120.97	114.00
1	AA	189	U	N1-C1'-C2'	5.36	120.97	114.00
1	CA	48	C	N1-C1'-C2'	5.36	120.96	114.00
54	DA	1025	G	N9-C1'-C2'	5.35	120.95	114.00
1	AA	84	U	N1-C1'-C2'	5.34	120.95	114.00
30	DH	100	GLY	N-CA-C	-5.34	99.75	113.10
24	BA	1940	U	C1'-O4'-C4'	-5.34	105.63	109.90
54	DA	775	G	C2'-C3'-O3'	-5.34	97.76	109.50
24	BA	2447	G	C2'-C3'-O3'	5.33	122.22	113.70
1	CA	788	U	C5-C4-O4	-5.33	122.70	125.90
54	DA	2311	A	N7-C8-N9	5.32	116.46	113.80
24	BA	2572	A	N9-C1'-C2'	5.32	120.91	114.00
1	CA	1364	U	N1-C1'-C2'	5.31	120.91	114.00
54	DA	1694	C	N1-C1'-C2'	5.31	120.90	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	559	A	N9-C1'-C2'	5.31	120.90	114.00
1	CA	328	C	N1-C1'-C2'	5.30	120.89	114.00
54	DA	1265	A	N9-C1'-C2'	5.30	120.89	114.00
24	BA	1320	C	N1-C1'-C2'	5.29	120.88	114.00
1	CA	1053	G	O4'-C1'-N9	5.28	112.42	108.20
1	CA	190	G	N9-C1'-C2'	5.28	120.86	114.00
1	CA	1528	U	C2'-C3'-O3'	5.28	122.14	113.70
54	DA	676	A	O4'-C1'-N9	5.27	112.42	108.20
24	BA	1359	A	N1-C6-N6	5.27	121.76	118.60
54	DA	1143	A	N9-C1'-C2'	5.27	120.86	114.00
54	DA	1416	G	O4'-C1'-N9	5.27	112.42	108.20
54	DA	1598	C	C5'-C4'-C3'	-5.27	107.56	116.00
24	BA	1937	A	N9-C1'-C2'	5.27	120.85	114.00
53	D8	36	LYS	N-CA-C	-5.27	96.77	111.00
24	BA	2665	A	C6-N1-C2	-5.27	115.44	118.60
24	BA	2681	C	N1-C1'-C2'	5.27	120.85	114.00
1	AA	1036	G	N9-C1'-C2'	5.26	120.84	114.00
1	AA	1299	A	N9-C1'-C2'	5.26	120.84	114.00
24	BA	323	G	N9-C1'-C2'	5.26	120.84	114.00
24	BA	2345	G	N9-C1'-C2'	5.25	120.83	114.00
54	DA	1980	G	C2'-C3'-O3'	5.25	122.10	113.70
54	DA	2238	G	N9-C1'-C2'	5.24	120.82	114.00
24	BA	1427	A	N9-C1'-C2'	5.24	120.81	114.00
54	DA	1249	U	C2-N3-C4	-5.23	123.86	127.00
24	BA	2602	A	N9-C1'-C2'	5.23	120.80	114.00
24	BA	2311	A	N9-C1'-C2'	5.23	120.80	114.00
1	CA	872	A	C1'-O4'-C4'	-5.23	105.72	109.90
24	BA	666	G	C5'-C4'-C3'	-5.23	107.63	116.00
35	DP	5	ARG	N-CA-C	-5.23	96.88	111.00
23	C1	9	G	C1'-O4'-C4'	-5.23	105.72	109.90
24	BA	2425	A	C1'-O4'-C4'	-5.22	105.72	109.90
54	DA	1372	U	C2-N1-C1'	5.22	123.96	117.70
54	DA	1954	G	N9-C1'-C2'	5.21	120.78	114.00
54	DA	803	U	C5'-C4'-O4'	-5.21	102.85	109.10
54	DA	1130	U	N1-C1'-C2'	5.21	120.78	114.00
24	BA	125	G	N9-C1'-C2'	5.21	120.77	114.00
27	BE	118	LYS	N-CA-C	-5.21	96.95	111.00
54	DA	2507	C	C5'-C4'-O4'	-5.20	102.86	109.10
1	AA	197	A	N9-C1'-C2'	5.20	120.76	114.00
37	DQ	110	LEU	CA-CB-CG	5.19	127.24	115.30
1	AA	960	U	N1-C1'-C2'	5.19	120.75	114.00
19	CV	79	THR	N-CA-C	-5.19	96.99	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	DA	479	A	N9-C1'-C2'	5.18	120.74	114.00
54	DA	1609	A	N9-C1'-C2'	5.18	120.74	114.00
24	BA	242	G	C5'-C4'-C3'	5.18	124.29	116.00
24	BA	15	G	N9-C1'-C2'	-5.18	106.30	112.00
54	DA	2557	G	C5'-C4'-C3'	-5.18	107.71	116.00
54	DA	2286	A	C3'-C2'-C1'	-5.18	97.36	101.50
54	DA	1220	A	N9-C1'-C2'	5.18	120.73	114.00
1	AA	130	A	N9-C1'-C2'	5.17	120.73	114.00
1	CA	388	G	N9-C1'-C2'	5.17	120.73	114.00
1	AA	934	C	N1-C1'-C2'	5.17	120.72	114.00
54	DA	196	A	O4'-C1'-N9	5.17	112.33	108.20
24	BA	2529	G	N9-C1'-C2'	5.17	120.72	114.00
54	DA	945	A	C4-C5-N7	5.16	113.28	110.70
24	BA	1925	C	O4'-C4'-C3'	-5.15	98.85	104.00
24	BA	329	G	N9-C1'-C2'	5.15	120.69	114.00
54	DA	1286	A	O4'-C1'-N9	5.15	112.32	108.20
1	AA	246	A	N9-C1'-C2'	5.14	120.69	114.00
54	DA	531	C	C2'-C3'-O3'	-5.14	98.19	109.50
33	BN	26	LYS	N-CA-C	-5.14	97.12	111.00
54	DA	532	A	C4'-C3'-O3'	-5.13	98.62	109.40
24	BA	1130	U	N1-C1'-C2'	5.13	120.67	114.00
25	BB	31	C	N1-C1'-C2'	5.13	120.67	114.00
45	B3	50	ASN	N-CA-C	-5.13	97.14	111.00
24	BA	1929	G	C4-N9-C1'	5.13	133.17	126.50
1	CA	412	A	N9-C1'-C2'	5.13	120.67	114.00
1	CA	690	G	C1'-O4'-C4'	-5.13	105.80	109.90
54	DA	1197	G	C6-N1-C2	5.12	128.17	125.10
24	BA	1128	A	N9-C1'-C2'	5.12	120.65	114.00
1	AA	121	C	N1-C1'-C2'	5.12	120.65	114.00
24	BA	1929	G	C8-N9-C1'	-5.11	120.36	127.00
54	DA	442	G	C2'-C3'-O3'	-5.11	98.26	109.50
1	CA	1054	C	N1-C1'-C2'	5.11	120.64	114.00
24	BA	2732	G	N9-C1'-C2'	5.11	120.64	114.00
1	CA	794	A	C5-C6-N6	-5.11	119.61	123.70
54	DA	1773	A	N9-C1'-C2'	-5.11	106.38	112.00
24	BA	603	A	O4'-C1'-N9	5.10	112.28	108.20
24	BA	2665	A	C5-C6-N1	5.10	120.25	117.70
1	CA	51	A	O4'-C1'-N9	5.10	112.28	108.20
54	DA	562	U	N1-C1'-C2'	5.10	120.63	114.00
54	DA	1325	G	N9-C1'-C2'	5.10	120.63	114.00
55	DB	81	G	N9-C1'-C2'	5.10	120.63	114.00
54	DA	1311	G	N9-C1'-C2'	5.10	120.63	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	DA	1668	A	O4'-C1'-N9	5.10	112.28	108.20
24	BA	2690	C	N1-C1'-C2'	5.10	120.62	114.00
24	BA	676	A	O4'-C1'-N9	5.09	112.28	108.20
55	DB	95	U	C2-N1-C1'	5.09	123.81	117.70
54	DA	1786	A	O4'-C1'-N9	5.09	112.27	108.20
38	DR	123	GLN	N-CA-C	-5.09	97.26	111.00
27	BE	70	ALA	N-CA-C	-5.09	97.26	111.00
1	CA	1336	C	N1-C1'-C2'	5.09	120.61	114.00
1	AA	793	U	N1-C1'-C2'	5.08	120.61	114.00
22	AD	48	C	N1-C1'-C2'	5.08	120.61	114.00
24	BA	1451	C	N1-C1'-C2'	5.08	120.61	114.00
54	DA	2286	A	C8-N9-C1'	-5.08	118.55	127.70
22	CC	16	C	N1-C1'-C2'	5.08	120.61	114.00
4	AG	12	CYS	N-CA-C	-5.08	97.30	111.00
54	DA	800	A	N9-C1'-C2'	5.07	120.59	114.00
24	BA	1385	G	O4'-C1'-N9	5.07	112.25	108.20
24	BA	119	A	N9-C1'-C2'	5.06	120.58	114.00
24	BA	2238	G	N9-C1'-C2'	5.06	120.58	114.00
24	BA	1807	G	N9-C1'-C2'	-5.06	106.44	112.00
54	DA	1359	A	C5-C6-N1	5.06	120.23	117.70
24	BA	671	C	C5'-C4'-O4'	-5.05	103.03	109.10
1	CA	733	A	N9-C1'-C2'	5.05	120.57	114.00
24	BA	249	C	C1'-O4'-C4'	-5.05	105.86	109.90
24	BA	1955	U	N1-C1'-C2'	5.05	120.57	114.00
38	DR	59	THR	N-CA-C	-5.05	97.36	111.00
54	DA	2468	G	C6-C5-N7	-5.03	127.38	130.40
54	DA	2725	A	N9-C1'-C2'	5.03	120.53	114.00
24	BA	1781	C	O4'-C1'-N1	5.03	112.22	108.20
54	DA	1944	U	O4'-C1'-N1	5.03	112.22	108.20
24	BA	311	A	N9-C1'-C2'	5.02	120.53	114.00
1	CA	73	G	N9-C1'-C2'	5.02	120.53	114.00
54	DA	323	G	C2'-C3'-O3'	-5.02	98.45	109.50
1	AA	250	A	N9-C1'-C2'	5.02	120.52	114.00
1	CA	1502	A	C1'-O4'-C4'	-5.01	105.89	109.90
54	DA	242	G	N9-C1'-C2'	5.01	120.52	114.00
54	DA	1427	A	N9-C1'-C2'	5.01	120.52	114.00
30	DH	127	GLU	C-N-CD	-5.01	109.58	120.60
1	AA	652	U	N1-C1'-C2'	5.00	120.51	114.00
30	BH	31	GLY	N-CA-C	5.00	125.60	113.10

There are no chirality outliers.

All (416) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
23	A1	11	U	Sidechain
23	A1	4	A	Sidechain
23	A1	9	G	Sidechain
1	AA	1001	G	Sidechain
1	AA	1006	C	Sidechain
1	AA	1036	G	Sidechain
1	AA	1039	C	Sidechain
1	AA	1040	U	Sidechain
1	AA	1049	U	Sidechain
1	AA	1053	G	Sidechain
1	AA	1064	G	Sidechain
1	AA	1067	A	Sidechain
1	AA	1122	U	Sidechain
1	AA	1124	G	Sidechain
1	AA	1128	C	Sidechain
1	AA	1143	G	Sidechain
1	AA	1159	U	Sidechain
1	AA	1201	A	Sidechain
1	AA	1205	U	Sidechain
1	AA	1247	U	Sidechain
1	AA	1285	A	Sidechain
1	AA	1537	U	Sidechain
1	AA	1540	U	Sidechain
1	AA	1541	U	Sidechain
1	AA	189	U	Sidechain
1	AA	190	G	Sidechain
1	AA	197	A	Sidechain
1	AA	250	A	Sidechain
1	AA	251	G	Sidechain
1	AA	252	U	Sidechain
1	AA	266	G	Sidechain
1	AA	30	U	Sidechain
1	AA	326	G	Sidechain
1	AA	345	C	Sidechain
1	AA	367	U	Sidechain
1	AA	403	C	Sidechain
1	AA	47	C	Sidechain
1	AA	49	U	Sidechain
1	AA	501	C	Sidechain
1	AA	51	A	Sidechain
1	AA	517	G	Sidechain
1	AA	527	G	Sidechain
1	AA	528	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	575	G	Sidechain
1	AA	689	C	Sidechain
1	AA	703	G	Sidechain
1	AA	788	U	Sidechain
1	AA	818	G	Sidechain
1	AA	82	U	Sidechain
1	AA	87	A	Sidechain
1	AA	880	C	Sidechain
1	AA	883	C	Sidechain
1	AA	921	U	Sidechain
1	AA	922	G	Sidechain
1	AA	923	A	Sidechain
1	AA	974	A	Sidechain
1	AA	999	U	Sidechain
22	AC	16	C	Sidechain
22	AC	7	G	Sidechain
22	AD	19	G	Sidechain
22	AD	7	G	Sidechain
24	BA	1025	G	Sidechain
24	BA	1026	U	Sidechain
24	BA	1082	U	Sidechain
24	BA	1153	C	Sidechain
24	BA	1204	A	Sidechain
24	BA	1215	G	Sidechain
24	BA	1247	A	Sidechain
24	BA	1249	U	Sidechain
24	BA	125	G	Sidechain
24	BA	1252	G	Sidechain
24	BA	1266	G	Sidechain
24	BA	1294	U	Sidechain
24	BA	1300	U	Sidechain
24	BA	1311	G	Sidechain
24	BA	1312	U	Sidechain
24	BA	1330	C	Sidechain
24	BA	1359	A	Sidechain
24	BA	1372	U	Sidechain
24	BA	1397	U	Sidechain
24	BA	1415	U	Sidechain
24	BA	1462	C	Sidechain
24	BA	1607	C	Sidechain
24	BA	1618	A	Sidechain
24	BA	1663	C	Sidechain

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Mol	Chain	Res	Type	Group
24	BA	1667	G	Sidechain
24	BA	1681	G	Sidechain
24	BA	1693	U	Sidechain
24	BA	1694	C	Sidechain
24	BA	1763	G	Sidechain
24	BA	1772	G	Sidechain
24	BA	1774	C	Sidechain
24	BA	1775	U	Sidechain
24	BA	1779	U	Sidechain
24	BA	1802	A	Sidechain
24	BA	1807	G	Sidechain
24	BA	1808	U	Sidechain
24	BA	1818	U	Sidechain
24	BA	1828	G	Sidechain
24	BA	1900	A	Sidechain
24	BA	1925	C	Sidechain
24	BA	1929	G	Sidechain
24	BA	1930	G	Sidechain
24	BA	1962	C	Sidechain
24	BA	1966	A	Sidechain
24	BA	1971	A	Sidechain
24	BA	1992	G	Sidechain
24	BA	200	U	Sidechain
24	BA	2019	A	Sidechain
24	BA	2022	U	Sidechain
24	BA	2031	A	Sidechain
24	BA	2032	G	Sidechain
24	BA	2034	U	Sidechain
24	BA	205	G	Sidechain
24	BA	2050	C	Sidechain
24	BA	2059	A	Sidechain
24	BA	2078	C	Sidechain
24	BA	2110	G	Sidechain
24	BA	2229	C	Sidechain
24	BA	2250	G	Sidechain
24	BA	226	G	Sidechain
24	BA	2262	U	Sidechain
24	BA	2275	C	Sidechain
24	BA	2278	A	Sidechain
24	BA	2304	G	Sidechain
24	BA	2311	A	Sidechain
24	BA	2319	G	Sidechain

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Mol	Chain	Res	Type	Group
24	BA	232	G	Sidechain
24	BA	2345	G	Sidechain
24	BA	2346	A	Sidechain
24	BA	2401	U	Sidechain
24	BA	2406	U	Sidechain
24	BA	2447	G	Sidechain
24	BA	2458	G	Sidechain
24	BA	250	G	Sidechain
24	BA	2542	A	Sidechain
24	BA	2563	U	Sidechain
24	BA	2596	U	Sidechain
24	BA	2611	U	Sidechain
24	BA	2656	U	Sidechain
24	BA	2684	U	Sidechain
24	BA	2696	U	Sidechain
24	BA	2702	U	Sidechain
24	BA	2712	U	Sidechain
24	BA	2720	U	Sidechain
24	BA	2725	A	Sidechain
24	BA	2747	G	Sidechain
24	BA	2779	U	Sidechain
24	BA	2789	C	Sidechain
24	BA	2791	C	Sidechain
24	BA	2817	G	Sidechain
24	BA	2835	A	Sidechain
24	BA	2857	G	Sidechain
24	BA	305	U	Sidechain
24	BA	307	G	Sidechain
24	BA	33	U	Sidechain
24	BA	370	G	Sidechain
24	BA	384	U	Sidechain
24	BA	385	C	Sidechain
24	BA	387	U	Sidechain
24	BA	403	U	Sidechain
24	BA	411	G	Sidechain
24	BA	434	U	Sidechain
24	BA	448	U	Sidechain
24	BA	463	G	Sidechain
24	BA	475	U	Sidechain
24	BA	500	G	Sidechain
24	BA	509	C	Sidechain
24	BA	524	U	Sidechain

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Mol	Chain	Res	Type	Group
24	BA	529	A	Sidechain
24	BA	562	U	Sidechain
24	BA	566	U	Sidechain
24	BA	607	U	Sidechain
24	BA	630	G	Sidechain
24	BA	654(R)	C	Sidechain
24	BA	666	G	Sidechain
24	BA	670	A	Sidechain
24	BA	683	C	Sidechain
24	BA	686	G	Sidechain
24	BA	70	G	Sidechain
24	BA	700	G	Sidechain
24	BA	72	U	Sidechain
24	BA	738	G	Sidechain
24	BA	757	U	Sidechain
24	BA	787	U	Sidechain
24	BA	788	A	Sidechain
24	BA	803	U	Sidechain
24	BA	811	U	Sidechain
24	BA	816	C	Sidechain
24	BA	826	U	Sidechain
24	BA	833	U	Sidechain
24	BA	84	A	Sidechain
24	BA	859	G	Sidechain
24	BA	913	U	Sidechain
24	BA	932	G	Sidechain
24	BA	956	G	Sidechain
24	BA	99	U	Sidechain
25	BB	12	C	Sidechain
25	BB	55	U	Sidechain
25	BB	81	G	Sidechain
25	BB	95	U	Sidechain
23	C1	11	U	Sidechain
23	C1	18	G	Sidechain
23	C1	9	G	Sidechain
1	CA	1003	G	Sidechain
1	CA	1020	U	Sidechain
1	CA	1036	G	Sidechain
1	CA	1040	U	Sidechain
1	CA	1064	G	Sidechain
1	CA	1067	A	Sidechain
1	CA	1077	G	Sidechain

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Mol	Chain	Res	Type	Group
1	CA	1129	C	Sidechain
1	CA	114	U	Sidechain
1	CA	1150	U	Sidechain
1	CA	1240	U	Sidechain
1	CA	130	A	Sidechain
1	CA	1301	U	Sidechain
1	CA	1313	U	Sidechain
1	CA	1336	C	Sidechain
1	CA	1364	U	Sidechain
1	CA	1380	U	Sidechain
1	CA	1502	A	Sidechain
1	CA	1510	U	Sidechain
1	CA	1512	U	Sidechain
1	CA	1513	A	Sidechain
1	CA	1536	C	Sidechain
1	CA	189	U	Sidechain
1	CA	250	A	Sidechain
1	CA	251	G	Sidechain
1	CA	281	G	Sidechain
1	CA	290	C	Sidechain
1	CA	342	C	Sidechain
1	CA	367	U	Sidechain
1	CA	388	G	Sidechain
1	CA	403	C	Sidechain
1	CA	501	C	Sidechain
1	CA	518	C	Sidechain
1	CA	556	C	Sidechain
1	CA	574	A	Sidechain
1	CA	575	G	Sidechain
1	CA	586	C	Sidechain
1	CA	652	U	Sidechain
1	CA	657	G	Sidechain
1	CA	686	U	Sidechain
1	CA	689	C	Sidechain
1	CA	702	A	Sidechain
1	CA	727	G	Sidechain
1	CA	760	G	Sidechain
1	CA	794	A	Sidechain
1	CA	82	U	Sidechain
1	CA	870	U	Sidechain
1	CA	873	A	Sidechain
1	CA	898	G	Sidechain

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Mol	Chain	Res	Type	Group
1	CA	93	U	Sidechain
1	CA	946	A	Sidechain
1	CA	97	U	Sidechain
1	CA	974	A	Sidechain
22	CD	24	U	Sidechain
54	DA	1012	U	Sidechain
54	DA	1025	G	Sidechain
54	DA	1058	U	Sidechain
54	DA	1076	C	Sidechain
54	DA	1082	U	Sidechain
54	DA	1086	A	Sidechain
54	DA	1128	A	Sidechain
54	DA	1131	G	Sidechain
54	DA	1156	A	Sidechain
54	DA	1204	A	Sidechain
54	DA	1220	A	Sidechain
54	DA	1240	U	Sidechain
54	DA	1247	A	Sidechain
54	DA	1249	U	Sidechain
54	DA	1294	U	Sidechain
54	DA	1300	U	Sidechain
54	DA	1312	U	Sidechain
54	DA	1323	U	Sidechain
54	DA	1330	C	Sidechain
54	DA	1340	U	Sidechain
54	DA	1349	A	Sidechain
54	DA	1352	U	Sidechain
54	DA	1360	A	Sidechain
54	DA	1363	C	Sidechain
54	DA	1372	U	Sidechain
54	DA	1397	U	Sidechain
54	DA	1450	C	Sidechain
54	DA	1451	C	Sidechain
54	DA	1534	G	Sidechain
54	DA	1537	C	Sidechain
54	DA	1543	A	Sidechain
54	DA	1558	A	Sidechain
54	DA	1564	C	Sidechain
54	DA	1566	A	Sidechain
54	DA	1567	A	Sidechain
54	DA	1619	G	Sidechain
54	DA	1623	G	Sidechain

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Mol	Chain	Res	Type	Group
54	DA	1647	G	Sidechain
54	DA	1654	A	Sidechain
54	DA	1664	A	Sidechain
54	DA	1667	G	Sidechain
54	DA	1693	U	Sidechain
54	DA	1694	C	Sidechain
54	DA	1699	G	Sidechain
54	DA	1773	A	Sidechain
54	DA	1774	C	Sidechain
54	DA	1775	U	Sidechain
54	DA	1779	U	Sidechain
54	DA	1781	C	Sidechain
54	DA	1788	C	Sidechain
54	DA	1802	A	Sidechain
54	DA	1807	G	Sidechain
54	DA	1808	U	Sidechain
54	DA	1834	U	Sidechain
54	DA	1898	U	Sidechain
54	DA	1902	C	Sidechain
54	DA	1925	C	Sidechain
54	DA	1929	G	Sidechain
54	DA	1934	C	Sidechain
54	DA	1936	A	Sidechain
54	DA	1964	G	Sidechain
54	DA	1968	G	Sidechain
54	DA	1992	G	Sidechain
54	DA	2009	G	Sidechain
54	DA	201	C	Sidechain
54	DA	2031	A	Sidechain
54	DA	2034	U	Sidechain
54	DA	2049	G	Sidechain
54	DA	2052	G	Sidechain
54	DA	2053	G	Sidechain
54	DA	2062	A	Sidechain
54	DA	2078	C	Sidechain
54	DA	2086	U	Sidechain
54	DA	222	A	Sidechain
54	DA	2266	A	Sidechain
54	DA	2283	C	Sidechain
54	DA	2336	A	Sidechain
54	DA	2345	G	Sidechain
54	DA	2390	U	Sidechain

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Mol	Chain	Res	Type	Group
54	DA	24	G	Sidechain
54	DA	2406	U	Sidechain
54	DA	2426	A	Sidechain
54	DA	2460	U	Sidechain
54	DA	2489	G	Sidechain
54	DA	249	C	Sidechain
54	DA	2511	U	Sidechain
54	DA	2521	C	Sidechain
54	DA	2542	A	Sidechain
54	DA	2545	G	Sidechain
54	DA	2555	U	Sidechain
54	DA	2563	U	Sidechain
54	DA	2564	A	Sidechain
54	DA	2582	G	Sidechain
54	DA	2587	A	Sidechain
54	DA	2597	G	Sidechain
54	DA	2605	U	Sidechain
54	DA	265	A	Sidechain
54	DA	2656	U	Sidechain
54	DA	2665	A	Sidechain
54	DA	2681	C	Sidechain
54	DA	2684	U	Sidechain
54	DA	2702	U	Sidechain
54	DA	2746	U	Sidechain
54	DA	2779	U	Sidechain
54	DA	2780	G	Sidechain
54	DA	2789	C	Sidechain
54	DA	2791	C	Sidechain
54	DA	28	A	Sidechain
54	DA	2873	A	Sidechain
54	DA	2878	U	Sidechain
54	DA	329	G	Sidechain
54	DA	362	U	Sidechain
54	DA	363(E)	U	Sidechain
54	DA	370	G	Sidechain
54	DA	385	C	Sidechain
54	DA	387	U	Sidechain
54	DA	427	U	Sidechain
54	DA	448	U	Sidechain
54	DA	463	G	Sidechain
54	DA	47	C	Sidechain
54	DA	473	G	Sidechain

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Mol	Chain	Res	Type	Group
54	DA	487	C	Sidechain
54	DA	497	A	Sidechain
54	DA	508	G	Sidechain
54	DA	511	U	Sidechain
54	DA	52	A	Sidechain
54	DA	566	U	Sidechain
54	DA	607	U	Sidechain
54	DA	616	A	Sidechain
54	DA	620	G	Sidechain
54	DA	621	A	Sidechain
54	DA	670	A	Sidechain
54	DA	675	A	Sidechain
54	DA	680	G	Sidechain
54	DA	683	C	Sidechain
54	DA	684	G	Sidechain
54	DA	70	G	Sidechain
54	DA	72	U	Sidechain
54	DA	733	G	Sidechain
54	DA	739	G	Sidechain
54	DA	74	A	Sidechain
54	DA	747	U	Sidechain
54	DA	778	G	Sidechain
54	DA	783	A	Sidechain
54	DA	788	A	Sidechain
54	DA	792	G	Sidechain
54	DA	83	G	Sidechain
54	DA	85	G	Sidechain
54	DA	859	G	Sidechain
54	DA	906	G	Sidechain
54	DA	913	U	Sidechain
54	DA	956	G	Sidechain
54	DA	995	C	Sidechain
55	DB	66	A	Sidechain
55	DB	72	G	Sidechain
55	DB	81	G	Sidechain
55	DB	90	C	Sidechain
55	DB	95	U	Sidechain

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	32600	0	16446	1806	2
1	CA	32554	0	16428	1768	16
2	AE	1915	0	1969	380	0
2	CE	1924	0	1975	293	0
3	AF	1612	0	1677	307	0
3	CF	1605	0	1668	219	0
4	AG	1703	0	1764	262	0
4	CG	1703	0	1763	241	0
5	AH	1178	0	1233	148	0
5	CH	1155	0	1213	135	0
6	AI	843	0	857	109	0
6	CI	843	0	857	101	0
7	AJ	1257	0	1296	178	0
7	CJ	1257	0	1296	156	0
8	AK	1116	0	1177	151	0
8	CK	1116	0	1177	151	0
9	AL	1018	0	1049	212	0
9	CL	1010	0	1037	161	0
10	AM	801	0	849	152	0
10	CM	801	0	849	149	0
11	AN	901	0	926	123	0
11	CN	885	0	904	108	0
12	AO	975	0	1062	135	0
12	CO	975	0	1062	111	0
13	AP	937	0	995	203	0
13	CP	964	0	1034	154	0
14	AQ	492	0	529	69	0
14	CQ	492	0	529	95	0
15	AR	734	0	771	102	0
15	CR	734	0	771	79	0
16	AS	705	0	725	75	0
16	CS	705	0	725	130	0
17	AT	834	0	904	64	0
17	CT	834	0	904	84	0
18	AU	585	0	657	99	0
18	CU	574	0	644	73	0
19	AV	656	0	678	168	0
19	CV	674	0	699	141	0
20	AW	763	0	861	84	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
20	CW	763	0	861	117	0
21	AX	217	0	234	35	0
21	CX	217	0	234	33	0
22	AC	1640	0	836	72	0
22	AD	1640	0	836	121	0
22	CC	1640	0	836	41	0
22	CD	1640	0	834	93	0
23	A1	502	0	253	40	0
23	C1	502	0	253	38	0
24	BA	62134	0	31302	3009	2
25	BB	2572	0	1305	184	0
26	BD	2115	0	2195	297	0
26	DD	2115	0	2195	344	0
27	BE	1568	0	1634	286	0
27	DE	1568	0	1634	286	0
28	BF	1627	0	1680	255	0
28	DF	1585	0	1632	189	0
29	BG	1474	0	1535	262	0
29	DG	1474	0	1535	209	0
30	BH	1307	0	1382	320	16
30	DH	1307	0	1382	232	0
31	BK	1136	0	1223	201	0
31	DK	1136	0	1223	206	0
32	BM	1104	0	1180	135	0
32	DM	1104	0	1180	200	0
33	BN	933	0	996	114	0
33	DN	933	0	996	128	0
34	BO	1145	0	1228	260	0
34	DO	1145	0	1228	262	0
35	BP	1122	0	1179	237	0
35	DP	1122	0	1179	153	0
36	B0	960	0	1021	123	0
36	D0	968	0	1033	117	0
37	BQ	882	0	943	162	0
37	DQ	882	0	943	167	0
38	BR	1141	0	1202	154	0
38	DR	1141	0	1202	160	0
39	B1	964	0	1022	163	0
39	D1	964	0	1022	131	0
40	B2	779	0	852	198	0
40	D2	779	0	851	136	0
41	BS	900	0	964	112	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
41	DS	900	0	964	105	0
42	BT	725	0	778	88	0
42	DT	725	0	778	75	0
43	BU	785	0	878	209	0
43	DU	785	0	878	162	0
44	BV	1404	0	1437	309	0
44	DV	1378	0	1407	234	0
45	B3	629	0	650	73	0
45	D3	611	0	631	61	0
46	BZ	763	0	848	104	0
46	DZ	763	0	848	141	0
47	BW	581	0	629	107	0
47	DW	581	0	629	85	0
48	BX	469	0	518	40	0
48	DX	469	0	518	43	0
49	B4	581	0	573	167	0
49	D4	581	0	574	164	0
50	B5	459	0	480	51	0
50	D5	459	0	480	79	0
51	B6	417	0	441	91	0
51	D6	424	0	450	99	0
52	B7	430	0	480	57	0
52	D7	430	0	480	50	0
53	B8	517	0	582	138	0
53	D8	517	0	582	112	0
54	DA	62151	0	31309	2761	0
55	DB	2573	0	1305	138	0
56	A1	2	0	0	0	0
56	AA	439	0	0	0	0
56	AC	8	0	0	0	0
56	AD	3	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	1	0	0	0	0
56	AL	2	0	0	0	0
56	AO	1	0	0	0	0
56	AP	1	0	0	0	0
56	AQ	1	0	0	0	0
56	AS	2	0	0	0	0
56	AT	2	0	0	0	0
56	AW	4	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	AX	1	0	0	0	0
56	B0	2	0	0	0	0
56	B1	1	0	0	0	0
56	B3	2	0	0	0	0
56	B4	1	0	0	0	0
56	B5	1	0	0	0	0
56	B6	1	0	0	0	0
56	B8	1	0	0	0	0
56	BA	683	0	0	0	0
56	BB	26	0	0	0	0
56	BD	2	0	0	0	0
56	BE	7	0	0	0	0
56	BF	2	0	0	0	0
56	BG	1	0	0	0	0
56	BH	1	0	0	0	0
56	BK	1	0	0	0	0
56	BO	1	0	0	0	0
56	BQ	1	0	0	0	0
56	BR	2	0	0	0	0
56	BT	2	0	0	0	0
56	BU	5	0	0	0	0
56	BW	1	0	0	0	0
56	BZ	1	0	0	0	0
56	C1	1	0	0	0	0
56	CA	383	0	0	0	0
56	CC	13	0	0	0	0
56	CD	26	0	0	0	0
56	CG	1	0	0	0	0
56	CH	2	0	0	0	0
56	CK	2	0	0	0	0
56	CL	1	0	0	0	0
56	CM	1	0	0	0	0
56	CP	4	0	0	0	0
56	CQ	3	0	0	0	0
56	CR	1	0	0	0	0
56	CS	2	0	0	0	0
56	CT	1	0	0	0	0
56	CW	5	0	0	0	0
56	CX	3	0	0	0	0
56	D0	5	0	0	0	0
56	D1	6	0	0	0	0
56	D2	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	D3	4	0	0	0	0
56	D5	1	0	0	0	0
56	D6	2	0	0	0	0
56	D7	1	0	0	0	0
56	DA	905	0	0	0	0
56	DB	29	0	0	0	0
56	DD	3	0	0	0	0
56	DE	3	0	0	0	0
56	DF	1	0	0	0	0
56	DG	3	0	0	0	0
56	DH	4	0	0	0	0
56	DO	5	0	0	0	0
56	DR	2	0	0	0	0
56	DS	1	0	0	0	0
56	DT	2	0	0	0	0
56	DU	6	0	0	0	0
56	DW	2	0	0	0	0
56	DZ	2	0	0	0	0
57	AA	2	0	0	0	0
57	AG	1	0	0	0	0
57	AQ	1	0	0	0	0
57	CG	1	0	0	0	0
57	CQ	1	0	0	0	0
58	CA	69	0	33	1	0
58	CC	66	0	34	2	0
58	CP	23	0	11	1	0
58	DA	276	0	132	26	0
58	DP	69	0	33	4	0
59	CA	40	0	22	4	0
59	CC	60	0	31	4	0
59	CO	20	0	11	2	0
59	CP	60	0	33	4	0
59	DA	200	0	111	21	0
59	DP	40	0	22	2	0
60	C1	20	0	10	0	0
60	CA	20	0	10	0	0
60	DA	160	0	80	15	0
60	DP	20	0	10	1	0
61	C1	44	0	22	3	0
61	CA	22	0	11	1	0
61	CC	22	0	11	3	0
61	DA	154	0	77	9	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	298428	0	200046	22779	18

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 46.

All (22779) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:127:GLU:CG	30:DH:128:PRO:HD3	1.36	1.52
24:BA:654(R):C:C5'	24:BA:654(R):C:C2	1.96	1.45
54:DA:1378:A:O2'	54:DA:1379:A:C5'	1.64	1.44
49:B4:12:ALA:CB	49:B4:23:GLU:O	1.68	1.41
24:BA:654(R):C:C5'	24:BA:654(R):C:C4	2.07	1.38
46:DZ:81:LYS:HA	46:DZ:81:LYS:NZ	1.43	1.34
24:BA:1899:G:N2	24:BA:1902:C:H41	1.27	1.31
24:BA:654(R):C:C5'	24:BA:654(R):C:C6	2.15	1.29
1:CA:73:G:N2	1:CA:74:C:H41	1.26	1.28
24:BA:654(R):C:P	24:BA:654(R):C:C4	2.25	1.27
24:BA:654(R):C:C5'	24:BA:654(R):C:O5'	1.79	1.27
1:CA:792:A:H2'	1:CA:794:A:N6	1.48	1.26
46:DZ:81:LYS:HE2	46:DZ:81:LYS:N	1.50	1.26
24:BA:654(R):C:N3	24:BA:654(R):C:C5'	1.99	1.26
1:CA:792:A:C2'	1:CA:794:A:H62	1.49	1.25
24:BA:1378:A:O2'	24:BA:1379:A:C5'	1.84	1.24
24:BA:654(R):C:N1	24:BA:654(R):C:C5'	1.88	1.24
24:BA:654(R):C:C5'	24:BA:654(R):C:C5	2.22	1.23
35:BP:77:LYS:NZ	35:BP:82:ARG:CB	2.02	1.22
35:BP:77:LYS:NZ	35:BP:82:ARG:HB2	1.52	1.22
30:DH:127:GLU:HG2	30:DH:128:PRO:CD	1.69	1.21
54:DA:1378:A:O2'	54:DA:1379:A:H5''	1.08	1.20
30:DH:127:GLU:CB	30:DH:128:PRO:HD3	1.69	1.20
11:AN:13:GLN:HB3	11:AN:75:TYR:O	1.37	1.20
24:BA:654(R):C:C5	24:BA:654(R):C:H5'	1.77	1.19
24:BA:1378:A:O2'	24:BA:1379:A:H5''	1.02	1.19
24:BA:2758:A:H2'	24:BA:2759:G:H5''	1.20	1.19
49:B4:10:VAL:CG1	49:B4:11:PRO:HD3	1.70	1.19
31:BK:79:ILE:N	31:BK:142:VAL:HG21	1.56	1.19
53:B8:23:VAL:HG13	53:B8:48:PHE:O	1.40	1.18
22:AD:70:G:H2'	22:AD:71:C:H5''	1.22	1.18
23:A1:8:A:H3'	23:A1:9:G:H5''	1.19	1.16
46:DZ:82:LEU:C	46:DZ:82:LEU:HD12	1.66	1.16
43:DU:76:CYS:HB3	43:DU:96:ILE:HD13	1.17	1.16
43:DU:95:LYS:HB3	43:DU:100:ALA:HA	1.20	1.16

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.00	1.16
1:CA:1007:C:H2'	1:CA:1008:C:H5''	1.20	1.16
1:AA:827:U:H3	1:AA:872:A:N6	1.43	1.15
1:AA:64:G:H4'	1:AA:65:U:H5''	1.28	1.15
12:AO:45:PRO:HG3	12:AO:50:SER:HA	1.29	1.15
49:B4:10:VAL:HG12	49:B4:11:PRO:CD	1.77	1.14
24:BA:1887:C:H2'	24:BA:1888:G:H5''	1.22	1.14
24:BA:1899:G:H22	24:BA:1902:C:N4	1.44	1.14
49:B4:12:ALA:HB2	49:B4:23:GLU:O	1.36	1.13
33:BN:88:ASN:HD21	33:BN:90:GLN:HB2	1.14	1.13
2:CE:101:MET:HA	2:CE:108:ILE:HG13	1.25	1.13
24:BA:2519:U:H4'	24:BA:2520:C:OP1	1.46	1.13
9:AL:16:ARG:HB2	9:AL:16:ARG:HH11	1.12	1.13
44:BV:95:PRO:O	44:BV:96:VAL:HG23	1.45	1.13
13:AP:9:ILE:HB	13:AP:10:PRO:CD	1.77	1.12
2:AE:133:LYS:HD2	2:AE:137:ARG:HH12	1.01	1.12
34:DO:50:ARG:HH21	34:DO:50:ARG:HB3	1.13	1.12
54:DA:1065:U:H3'	54:DA:1066:U:H5''	1.28	1.12
46:DZ:82:LEU:CD1	46:DZ:83:GLU:O	1.97	1.12
54:DA:1507:A:H3'	54:DA:1508:A:H5''	1.31	1.12
31:DK:92:VAL:HG13	31:DK:120:ILE:HG23	1.32	1.12
27:DE:179:GLU:HB3	27:DE:181:LEU:HD23	1.32	1.11
44:DV:152:ALA:HB2	44:DV:169:GLU:HB3	1.15	1.11
24:BA:2701:C:H3'	24:BA:2702:U:H5''	1.23	1.11
39:D1:8:VAL:HG23	39:D1:11:ARG:HH21	1.14	1.11
46:DZ:82:LEU:HD12	46:DZ:83:GLU:N	1.66	1.11
54:DA:1081:U:H3'	54:DA:1082:U:H4'	1.21	1.11
54:DA:1077:A:H3'	54:DA:1078:U:H5''	1.32	1.11
30:BH:12:PRO:HB3	30:BH:49:VAL:HB	1.30	1.11
30:BH:30:LYS:HD2	30:BH:79:VAL:HA	1.31	1.11
26:DD:44:ASN:HB2	26:DD:48:ARG:O	1.50	1.11
24:BA:1359:A:N6	24:BA:1373:A:C4	2.19	1.11
54:DA:1318:C:H2'	54:DA:1319:G:H5''	1.31	1.11
28:DF:101:LEU:HD12	28:DF:102:PRO:HD2	1.21	1.11
24:BA:1484:G:H2'	24:BA:1485:G:H5''	1.15	1.11
43:BU:15:VAL:HB	43:BU:22:GLY:HA2	1.26	1.11
30:BH:126:PRO:HB2	30:BH:127:GLU:CA	1.82	1.10
36:B0:37:THR:HG22	36:B0:39:PRO:HD2	1.11	1.10
7:AJ:113:GLU:HB2	7:AJ:119:ARG:HG2	1.31	1.10
30:DH:132:ARG:HB2	30:DH:132:ARG:HH11	1.10	1.10
54:DA:483:A:H4'	43:DU:49:VAL:HA	1.11	1.10
54:DA:2795:G:H3'	54:DA:2797:U:H5'	1.16	1.10

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BO:146:VAL:HG22	34:BO:147:LEU:HD13	1.33	1.10
49:B4:12:ALA:HB1	49:B4:23:GLU:O	1.47	1.10
24:BA:1826:G:H4'	26:BD:242:ARG:HH21	0.94	1.10
24:BA:877:U:H2'	24:BA:878:A:H5''	1.32	1.10
54:DA:1693:U:O2'	26:DD:14:ARG:NH2	1.82	1.10
40:B2:35:LEU:HD21	40:B2:57:VAL:HB	1.20	1.10
31:BK:82:ARG:HH21	1:CA:56:U:H4'	1.15	1.10
54:DA:277:C:H3'	54:DA:278:A:C5'	1.82	1.09
27:DE:50:GLY:HA2	27:DE:77:ILE:HA	1.31	1.09
54:DA:1049:C:H2'	54:DA:1050:A:H5''	1.34	1.09
1:CA:1226:C:H4'	1:CA:1227:A:OP1	1.50	1.09
49:B4:6:HIS:HB2	49:B4:7:PRO:HA	1.19	1.09
54:DA:2701:C:H3'	54:DA:2702:U:H5''	1.20	1.09
32:DM:134:ARG:H	32:DM:135:PRO:HD3	1.11	1.09
24:BA:33:U:H4'	24:BA:34:C:OP1	1.52	1.09
50:B5:4:HIS:HB3	50:B5:5:PRO:HD3	1.19	1.09
3:AF:21:ARG:HB3	3:AF:21:ARG:HH11	1.09	1.09
54:DA:888:C:H3'	54:DA:889:C:H4'	1.35	1.08
46:BZ:91:LYS:HA	46:BZ:91:LYS:HE3	1.19	1.08
15:CR:87:ILE:HG22	15:CR:88:ARG:H	1.18	1.08
29:BG:17:PRO:HA	29:BG:20:ILE:HG12	1.31	1.08
54:DA:1484:G:H2'	54:DA:1485:G:H5''	1.33	1.08
9:AL:28:VAL:HG22	9:AL:29:ASN:H	1.09	1.08
2:CE:80:ILE:HD11	2:CE:208:ILE:HG23	1.34	1.08
3:CF:15:THR:HG23	3:CF:181:ASN:HA	1.35	1.08
30:DH:152:ARG:HG3	30:DH:153:LYS:HE2	1.33	1.08
49:B4:12:ALA:HB1	49:B4:23:GLU:C	1.73	1.08
30:DH:86:GLU:HG3	30:DH:165:ALA:H	1.06	1.08
46:DZ:81:LYS:CA	46:DZ:81:LYS:HZ3	1.65	1.08
31:BK:79:ILE:H	31:BK:142:VAL:CG2	1.65	1.08
54:DA:1043:C:H2'	54:DA:1044:G:H5''	1.30	1.08
19:CV:41:VAL:HB	19:CV:42:PRO:HA	1.26	1.08
26:DD:131:LEU:HB2	26:DD:136:ILE:HD11	1.35	1.08
10:CM:6:ILE:HG22	10:CM:98:ILE:HG13	1.30	1.08
34:DO:126:VAL:HG12	34:DO:147:LEU:HD21	1.30	1.08
24:BA:1342:A:O2'	24:BA:1344:G:OP2	1.68	1.08
28:BF:18:ARG:HG2	28:BF:19:GLU:H	1.16	1.08
1:AA:696:A:H2'	1:AA:697:U:H5''	1.31	1.08
1:CA:1443:G:H3'	1:CA:1446:A:H5''	1.34	1.08
26:BD:255:LYS:HE3	26:BD:255:LYS:H	1.19	1.07
35:BP:77:LYS:NZ	35:BP:82:ARG:CA	2.16	1.07
54:DA:1057:A:H62	54:DA:1086:A:H2'	1.09	1.07

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1101:A:H4'	1:CA:1102:A:O5'	1.49	1.07
54:DA:518:G:H4'	41:DS:18:ARG:HH12	1.16	1.07
3:AF:82:GLU:HG3	3:AF:83:ARG:H	1.15	1.07
1:CA:1129:C:H4'	1:CA:1130:A:H5'	1.32	1.07
44:BV:94:GLU:HB2	44:BV:95:PRO:HD3	1.24	1.07
1:CA:1124:G:H3'	1:CA:1145:C:N4	1.68	1.07
2:AE:185:ILE:HG22	2:AE:199:TYR:HB2	1.15	1.07
24:BA:1056:G:H4'	24:BA:1086:A:H1'	1.30	1.07
41:BS:29:LEU:HD21	41:BS:33:ARG:HH21	1.18	1.07
13:AP:9:ILE:HB	13:AP:10:PRO:HD3	1.08	1.06
44:BV:94:GLU:CB	44:BV:95:PRO:HD3	1.85	1.06
1:AA:792:A:H2'	1:AA:794:A:H62	1.17	1.06
46:DZ:82:LEU:CD1	46:DZ:83:GLU:N	2.18	1.06
1:AA:1363:A:H4'	1:AA:1364:U:H5''	1.32	1.06
34:DO:59:LEU:HA	34:DO:61:ARG:NH2	1.69	1.06
28:BF:66:PRO:O	28:BF:67:GLN:HB3	1.54	1.06
30:BH:97:ARG:HB2	30:BH:104:GLU:HB2	1.31	1.06
54:DA:704:G:H2'	54:DA:726:G:H22	1.19	1.06
30:DH:153:LYS:HB3	30:DH:154:PRO:HD2	1.06	1.06
24:BA:2790:A:H2'	24:BA:2791:C:H5''	1.37	1.06
49:B4:61:ARG:HB3	49:B4:62:ARG:HH21	1.21	1.06
42:BT:57:LEU:HD21	42:BT:78:LYS:HB2	1.32	1.06
49:B4:10:VAL:CB	49:B4:11:PRO:CD	2.34	1.06
49:D4:71:ARG:HH11	49:D4:71:ARG:HG3	1.13	1.06
28:BF:132:VAL:HG22	28:BF:133:ASN:H	1.20	1.06
53:D8:52:LYS:H	53:D8:53:PRO:CD	1.69	1.06
27:DE:63:LEU:HD12	27:DE:64:LYS:H	1.18	1.06
54:DA:608:A:C4	54:DA:621:A:N6	2.23	1.06
22:AC:75:C:H3'	22:AC:76:A:H5''	1.34	1.06
35:BP:77:LYS:HZ1	35:BP:82:ARG:CB	1.63	1.06
1:AA:792:A:H2'	1:AA:794:A:N6	1.69	1.06
24:BA:1309:G:H3'	52:B7:9:ARG:NH1	1.71	1.06
1:CA:1399:C:H4'	1:CA:1400:C:O5'	1.53	1.06
50:B5:36:CYS:SG	50:B5:49:CYS:HB3	1.96	1.06
35:BP:77:LYS:NZ	35:BP:82:ARG:HA	1.71	1.05
54:DA:1179:C:H2'	54:DA:1180:C:H5''	1.31	1.05
54:DA:1728:G:H3'	54:DA:1729:A:H5''	1.33	1.05
49:B4:10:VAL:CG1	49:B4:11:PRO:CD	2.33	1.05
54:DA:277:C:H3'	54:DA:278:A:H5''	1.07	1.05
54:DA:2015:A:H1'	50:D5:2:ALA:HA	1.34	1.05
27:BE:47:VAL:HG12	27:BE:48:GLN:H	1.14	1.05
54:DA:603:A:H4'	54:DA:604:G:O5'	1.50	1.05

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DO:19:VAL:HG22	34:DO:20:GLY:H	1.15	1.05
24:BA:654(R):C:N3	24:BA:654(R):C:H5''	1.66	1.05
54:DA:1378:A:O2'	54:DA:1379:A:H5'	1.56	1.05
24:BA:2753:A:H2'	24:BA:2754:U:H5''	1.36	1.05
27:DE:21:VAL:HB	27:DE:22:PRO:HB3	1.37	1.05
26:BD:35:LYS:HG2	26:BD:64:ILE:N	1.72	1.05
13:CP:3:ARG:HA	13:CP:9:ILE:HG21	1.35	1.05
13:CP:88:ARG:HB3	13:CP:88:ARG:HH11	1.19	1.05
28:BF:3:GLU:HA	28:BF:24:LEU:HG	1.36	1.05
22:AC:20:U:H3'	22:AC:21:A:H5'	1.39	1.05
15:AR:87:ILE:HG22	15:AR:88:ARG:H	1.21	1.05
31:BK:142:VAL:HG22	31:BK:143:SER:H	1.15	1.05
24:BA:1784:A:H4'	24:BA:1785:A:O5'	1.49	1.05
35:BP:77:LYS:HZ1	35:BP:82:ARG:CA	1.67	1.04
1:AA:1325:C:H4'	21:AX:17:THR:HG21	1.36	1.04
31:BK:82:ARG:NH1	31:BK:146:ALA:HB2	1.71	1.04
26:BD:27:THR:HG21	26:BD:83:GLU:HG2	1.38	1.04
1:CA:792:A:H2'	1:CA:794:A:H62	0.90	1.04
44:DV:138:GLU:O	44:DV:156:LYS:HD3	1.56	1.04
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.58	1.04
40:B2:85:LYS:HG3	40:B2:87:HIS:N	1.71	1.04
40:D2:49:THR:HB	40:D2:50:PRO:HD2	1.39	1.04
24:BA:2348:U:H2'	24:BA:2349:G:H5''	1.39	1.04
24:BA:776:G:H4'	24:BA:777:A:O5'	1.52	1.04
11:CN:51:LYS:HA	11:CN:55:LYS:HD3	1.36	1.04
1:CA:1286:A:H5''	21:CX:26:LYS:HD2	1.36	1.04
13:AP:40:ASN:HD22	13:AP:43:THR:HG23	1.16	1.04
24:BA:2250:G:C6	35:BP:82:ARG:HD3	1.93	1.04
1:AA:792:A:C2'	1:AA:794:A:H62	1.70	1.04
1:CA:96:G:H2'	1:CA:97:U:H5'	1.33	1.04
44:BV:94:GLU:CB	44:BV:95:PRO:CD	2.36	1.04
19:CV:68:GLY:HA3	49:D4:68:ARG:HB2	1.38	1.04
51:B6:40:CYS:H	51:B6:41:PRO:HD2	1.20	1.04
11:CN:79:SER:HB2	11:CN:106:LYS:HD2	1.35	1.04
1:CA:1002:G:H2'	1:CA:1003:G:H8	1.19	1.04
12:AO:47:LYS:HB3	12:AO:48:PRO:CD	1.87	1.04
24:BA:1879:C:H2'	24:BA:1880:C:H5''	1.34	1.04
30:DH:127:GLU:CG	30:DH:128:PRO:CD	2.31	1.03
50:B5:4:HIS:HB3	50:B5:5:PRO:CD	1.88	1.03
4:AG:12:CYS:HB3	4:AG:32:ALA:HB2	1.40	1.03
8:CK:29:SER:HB3	8:CK:32:LYS:HG3	1.39	1.03
24:BA:1925:C:H3'	24:BA:1925:C:C6	1.93	1.03

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:B6:12:GLU:HA	51:B6:24:GLU:HB3	1.39	1.03
30:DH:127:GLU:CB	30:DH:128:PRO:CD	2.35	1.03
24:BA:2068:U:N3	24:BA:2430:A:H2	1.55	1.03
24:BA:1249:U:O2	24:BA:1249:U:H2'	1.57	1.03
39:D1:90:VAL:HG12	39:D1:91:ASP:H	1.18	1.03
37:DQ:106:ARG:HA	37:DQ:110:LEU:HD11	1.39	1.03
28:BF:89:VAL:HG12	28:BF:90:PHE:H	1.23	1.03
22:AD:56:C:H2'	22:AD:57:A:H5''	1.38	1.03
2:AE:178:ARG:HH12	8:AK:68:ARG:HH22	1.04	1.03
26:DD:35:LYS:HG2	26:DD:64:ILE:N	1.72	1.03
37:DQ:83:LYS:O	37:DQ:109:GLY:HA3	1.57	1.03
31:DK:4:ILE:HG12	31:DK:18:VAL:HG22	1.38	1.03
31:DK:78:THR:HG22	31:DK:141:LYS:HD2	1.41	1.03
54:DA:2790:A:H2'	54:DA:2791:C:H5''	1.37	1.03
54:DA:2893:G:H5''	54:DA:2894:G:H5'	1.35	1.03
33:DN:53:LYS:HD2	33:DN:53:LYS:H	1.23	1.03
44:BV:103:ARG:HG3	44:BV:105:VAL:H	1.22	1.03
24:BA:1434:A:H61	24:BA:1558:A:N6	1.57	1.03
22:AD:70:G:C2'	22:AD:71:C:H5''	1.89	1.02
43:BU:75:ILE:HG12	43:BU:80:GLY:H	1.24	1.02
1:CA:1003:G:H2'	1:CA:1004:A:H5'	1.39	1.02
54:DA:2760:C:H2'	54:DA:2761:G:H5''	1.41	1.02
5:AH:76:ILE:HG22	5:AH:77:PRO:HD2	1.36	1.02
2:CE:18:GLY:H	2:CE:42:ILE:HG22	1.21	1.02
1:CA:1322:C:O2'	1:CA:1323:G:H5'	1.59	1.02
5:CH:11:ILE:HD11	5:CH:31:LEU:HD12	1.38	1.02
1:CA:65:U:H5'	1:CA:66:G:OP1	1.59	1.02
2:CE:4:GLU:HG2	2:CE:5:ILE:H	1.19	1.02
35:DP:81:VAL:O	35:DP:82:ARG:CD	2.06	1.02
28:DF:67:GLN:O	28:DF:68:LYS:HB2	1.56	1.02
43:BU:95:LYS:HZ3	43:BU:95:LYS:HB2	1.18	1.02
44:BV:10:ARG:HG2	44:BV:36:LYS:HB3	1.40	1.02
24:BA:242:G:H5''	53:B8:62:LEU:HD13	1.40	1.02
35:DP:65:PHE:O	35:DP:66:ILE:HG12	1.59	1.02
19:AV:40:ILE:O	19:AV:41:VAL:HG22	1.57	1.02
44:BV:94:GLU:HB2	44:BV:95:PRO:CD	1.90	1.02
54:DA:1077:A:H3'	54:DA:1078:U:C5'	1.89	1.02
27:BE:60:ASN:C	27:BE:62:PRO:HD2	1.80	1.02
35:DP:12:GLN:HG2	35:DP:73:PRO:HD2	1.42	1.02
1:CA:73:G:N2	1:CA:74:C:N4	2.08	1.02
43:DU:97:ARG:HH21	43:DU:98:VAL:HB	1.25	1.02
28:DF:46:ARG:HH11	28:DF:46:ARG:HG2	1.20	1.02

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1899:G:N2	54:DA:1902:C:H41	1.58	1.02
24:BA:925:C:H2'	24:BA:926:A:H5''	1.39	1.02
33:BN:2:ILE:HD11	33:BN:82:ASN:HD22	1.24	1.02
1:CA:1053:G:H5'	1:CA:1054:C:H5'	1.41	1.01
1:AA:696:A:C2'	1:AA:697:U:H5''	1.89	1.01
45:B3:49:LYS:H	45:B3:49:LYS:HE2	1.18	1.01
24:BA:84:A:H5''	43:BU:8:LYS:HD2	1.41	1.01
1:CA:91:C:H2'	1:CA:92:G:H5''	1.41	1.01
2:AE:162:ILE:HD11	2:AE:184:VAL:HG22	1.41	1.01
2:AE:32:ILE:HD11	2:AE:40:HIS:HB3	1.43	1.01
40:B2:85:LYS:HG3	40:B2:87:HIS:H	1.21	1.01
13:CP:49:THR:HG22	13:CP:51:ALA:H	1.22	1.01
29:DG:13:GLU:O	29:DG:14:GLU:HB2	1.60	1.01
24:BA:2882:A:H5'	36:B0:96:ARG:HG3	1.42	1.01
39:B1:50:ARG:NH1	40:B2:72:VAL:HG11	1.75	1.01
31:BK:79:ILE:HB	31:BK:142:VAL:HG11	1.37	1.01
9:AL:28:VAL:HG21	9:AL:63:ILE:N	1.76	1.01
54:DA:483:A:H5'	43:DU:49:VAL:HG22	1.38	1.01
27:BE:95:ILE:HD12	27:BE:95:ILE:H	1.25	1.01
34:BO:47:ASP:HB3	34:BO:48:PRO:HA	1.42	1.01
54:DA:1458:C:H5''	54:DA:1459:G:H5'	1.39	1.01
26:BD:242:ARG:HD2	26:BD:242:ARG:H	1.23	1.01
19:CV:41:VAL:HB	19:CV:42:PRO:CA	1.91	1.01
54:DA:1142(A):A:O2'	54:DA:1143:A:H3'	1.58	1.01
36:D0:67:LEU:HD13	36:D0:76:VAL:HG21	1.39	1.01
3:AF:21:ARG:NH1	3:AF:21:ARG:HB3	1.73	1.00
24:BA:2287:A:H62	24:BA:2344:U:H3	1.08	1.00
24:BA:330:A:H2	24:BA:1210:A:H2'	1.26	1.00
35:DP:79:LEU:HD13	35:DP:80:GLU:OE1	1.61	1.00
24:BA:479:A:O2'	24:BA:481:G:H5''	1.60	1.00
24:BA:1899:G:N2	24:BA:1902:C:N4	2.05	1.00
24:BA:1484:G:C2'	24:BA:1485:G:H5''	1.90	1.00
27:BE:60:ASN:HD22	27:BE:63:LEU:HB2	1.26	1.00
54:DA:2760:C:C2'	54:DA:2761:G:H5''	1.91	1.00
32:DM:96:GLU:HG2	32:DM:97:ARG:H	1.26	1.00
40:B2:2:PHE:HB3	40:B2:42:GLY:HA2	1.41	1.00
28:DF:185:ASP:HA	28:DF:188:ARG:HD3	1.41	1.00
54:DA:776:G:H4'	54:DA:777:A:O5'	1.59	1.00
44:BV:103:ARG:HG3	44:BV:104:PHE:H	1.21	1.00
10:AM:48:THR:HA	10:AM:62:HIS:HB3	1.44	1.00
54:DA:1059:G:H3'	54:DA:1060:U:H5''	1.41	1.00
28:DF:67:GLN:O	28:DF:67:GLN:HG3	1.58	1.00

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2533:A:H2'	24:BA:2534:A:H5''	1.43	1.00
28:BF:125:LEU:H	28:BF:125:LEU:HD23	1.25	1.00
51:D6:7:ILE:HG13	51:D6:8:LYS:H	1.25	1.00
35:DP:80:GLU:O	35:DP:81:VAL:HG13	1.59	1.00
24:BA:265:A:O2'	24:BA:266:G:H4'	1.60	1.00
36:D0:54:LEU:HD23	36:D0:66:VAL:HG23	1.44	1.00
30:DH:153:LYS:HB3	30:DH:154:PRO:CD	1.92	1.00
24:BA:2893:G:H5'	24:BA:2894:G:H5'	1.40	1.00
37:DQ:26:LEU:HD12	37:DQ:39:ILE:HD11	1.40	1.00
27:DE:201:THR:HG22	27:DE:203:LYS:H	1.26	0.99
54:DA:1403:C:H5''	54:DA:1471:A:H1'	1.41	0.99
44:DV:152:ALA:CB	44:DV:169:GLU:HB3	1.92	0.99
30:BH:52:VAL:HG11	30:BH:69:ARG:HB2	1.41	0.99
41:BS:59:VAL:HG23	41:BS:65:LEU:H	1.25	0.99
54:DA:1359:A:H3'	54:DA:1359:A:C8	1.97	0.99
44:BV:118:GLN:HG3	44:BV:173:ALA:H	1.23	0.99
24:BA:1301:A:H2'	24:BA:1302:A:H3'	1.44	0.99
38:BR:74:ARG:HH11	38:BR:74:ARG:HB3	1.26	0.99
54:DA:1654:A:OP2	36:D0:2:ARG:HD2	1.62	0.99
34:DO:105:LEU:O	34:DO:106:LEU:HB2	1.60	0.99
2:AE:21:ARG:NH2	2:AE:38:GLY:HA3	1.77	0.99
24:BA:1826:G:H4'	26:BD:242:ARG:NH2	1.76	0.99
29:BG:67:LYS:HE2	49:B4:2:LYS:HG2	1.42	0.99
54:DA:1065:U:C3'	54:DA:1066:U:H5''	1.92	0.99
54:DA:2389:G:H5''	54:DA:2390:U:H5'	1.39	0.99
54:DA:1543:A:O2'	54:DA:1544:C:H3'	1.61	0.99
1:CA:1363:A:H1'	1:CA:1365:G:N7	1.76	0.99
47:DW:50:ILE:HD12	47:DW:51:ARG:N	1.76	0.99
54:DA:1169:G:H2'	54:DA:1170:G:H5''	1.45	0.99
34:DO:50:ARG:HH21	34:DO:50:ARG:CB	1.76	0.99
4:AG:29:PRO:HG2	4:AG:30:LYS:H	1.25	0.99
54:DA:1535:U:H3'	54:DA:1536:A:H5''	1.42	0.99
24:BA:2503:A:H4'	24:BA:2504:U:OP1	1.56	0.99
49:B4:10:VAL:HB	49:B4:11:PRO:HD2	1.45	0.98
26:BD:255:LYS:CE	26:BD:255:LYS:H	1.75	0.98
24:BA:2287:A:N6	24:BA:2344:U:H3	1.60	0.98
42:BT:8:ILE:HD11	42:BT:42:ALA:HB1	1.43	0.98
1:AA:168:G:H2'	1:AA:169:C:H5''	1.44	0.98
5:AH:101:ILE:H	5:AH:101:ILE:HD13	1.28	0.98
5:AH:88:LYS:HB3	5:AH:123:LEU:HB2	1.43	0.98
49:B4:11:PRO:O	49:B4:25:TYR:CD1	2.16	0.98
35:BP:81:VAL:HG12	35:BP:82:ARG:HH11	1.29	0.98

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CM:6:ILE:HD11	10:CM:72:VAL:HB	1.44	0.98
35:DP:81:VAL:O	35:DP:82:ARG:NE	1.94	0.98
8:CK:84:ARG:HH12	8:CK:86:ILE:HD13	1.28	0.98
54:DA:1065:U:H3'	54:DA:1066:U:C5'	1.94	0.98
44:BV:103:ARG:HB3	44:BV:139:VAL:N	1.79	0.98
18:AU:62:GLU:HA	18:AU:65:ILE:HD11	1.42	0.98
54:DA:1175:U:H4'	54:DA:1176:G:OP1	1.61	0.98
54:DA:2068:U:H3	54:DA:2430:A:H2	1.03	0.98
35:BP:20:ALA:HA	35:BP:99:PRO:HG2	1.46	0.98
38:DR:62:THR:HG22	38:DR:75:ILE:HG12	1.46	0.98
23:C1:9:G:H4'	23:C1:10:G:OP1	1.64	0.98
22:AC:58:A:H4'	22:AC:59:A:OP1	1.59	0.98
30:DH:86:GLU:HG3	30:DH:165:ALA:N	1.79	0.98
54:DA:2636:U:OP1	27:DE:79:ARG:HA	1.62	0.98
54:DA:1024:G:H3'	54:DA:1025:G:H5''	1.46	0.98
10:AM:4:ILE:HB	10:AM:74:ILE:HD11	1.45	0.98
54:DA:674:G:H1'	28:DF:74:ARG:HD3	1.44	0.98
24:BA:2529:G:H5'	24:BA:2530:A:H5''	1.46	0.97
54:DA:1484:G:C2'	54:DA:1485:G:H5''	1.93	0.97
40:B2:71:LEU:N	40:B2:86:GLY:HA3	1.79	0.97
41:BS:54:ALA:HB1	41:BS:107:LEU:HD21	1.42	0.97
47:DW:50:ILE:HD12	47:DW:51:ARG:H	1.24	0.97
48:BX:59:VAL:HG12	48:BX:60:GLU:H	1.25	0.97
11:AN:13:GLN:CB	11:AN:75:TYR:O	2.12	0.97
3:AF:44:GLU:HA	3:AF:52:LEU:HD11	1.41	0.97
35:DP:79:LEU:O	35:DP:79:LEU:HD13	1.63	0.97
1:AA:1321:C:H41	1:AA:1322:C:H41	1.00	0.97
7:CJ:78:ARG:HG3	7:CJ:79:ARG:H	1.24	0.97
51:D6:41:PRO:HG2	51:D6:45:LYS:H	1.29	0.97
1:AA:353:A:H5'	1:AA:353:A:H8	1.27	0.97
21:AX:15:ARG:HH11	21:AX:15:ARG:HB2	1.25	0.97
54:DA:27:G:H22	54:DA:512:G:H2'	1.27	0.97
38:BR:26:ASP:HB3	38:BR:91:ARG:HA	1.44	0.97
24:BA:2875:C:H4'	38:BR:5:ALA:HB2	1.46	0.97
26:DD:44:ASN:HB3	26:DD:49:ILE:HA	1.45	0.97
1:CA:1126:U:H1'	1:CA:1280:A:N7	1.79	0.97
54:DA:1178:C:H2'	54:DA:1179:C:C6	2.00	0.97
35:DP:79:LEU:O	35:DP:79:LEU:HD22	1.64	0.97
41:BS:14:PRO:HG2	41:BS:78:GLU:HG3	1.45	0.97
49:B4:10:VAL:HB	49:B4:11:PRO:CD	1.90	0.97
44:BV:157:LEU:HB3	44:BV:161:VAL:HG21	1.40	0.97
54:DA:676:A:H8	54:DA:2069:G:H21	1.01	0.97

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1475:G:H5'	54:DA:1475:G:H8	1.26	0.97
7:CJ:62:PHE:HA	7:CJ:124:LEU:HD21	1.47	0.97
24:BA:2791:C:H1'	24:BA:2792:G:N7	1.80	0.97
54:DA:1179:C:C2'	54:DA:1180:C:H5''	1.94	0.97
1:CA:1123:A:H4'	10:CM:36:GLY:HA3	1.45	0.97
24:BA:2285:C:H41	51:B6:25:LYS:HE2	1.29	0.97
37:DQ:83:LYS:NZ	37:DQ:109:GLY:HA2	1.78	0.97
54:DA:2729:G:H1'	27:DE:187:ALA:HB2	1.45	0.97
25:BB:6:C:HO2'	37:BQ:29:PHE:HE1	1.13	0.97
35:BP:77:LYS:HZ3	35:BP:82:ARG:CB	1.78	0.96
31:BK:78:THR:HB	31:BK:104:GLN:HE22	1.29	0.96
3:CF:16:ARG:HH11	3:CF:16:ARG:HB2	1.30	0.96
31:DK:38:LEU:H	31:DK:38:LEU:HD12	1.30	0.96
50:D5:58:LEU:HD13	50:D5:60:VAL:HG12	1.47	0.96
10:AM:51:ARG:H	10:AM:60:ARG:HB2	1.27	0.96
9:AL:82:ALA:HB1	9:AL:96:LEU:HD11	1.46	0.96
54:DA:2401:U:H2'	54:DA:2402:C:H5''	1.43	0.96
54:DA:1301:A:H2'	54:DA:1302:A:H3'	1.47	0.96
41:DS:86:LEU:HD12	41:DS:87:PRO:HD2	1.45	0.96
3:CF:181:ASN:HD21	3:CF:204:LEU:HD12	1.27	0.96
3:CF:19:GLU:HA	3:CF:54:ARG:HH12	1.29	0.96
38:BR:8:LYS:HB2	38:BR:8:LYS:NZ	1.78	0.96
31:DK:57:ARG:NH1	31:DK:57:ARG:HB2	1.80	0.96
4:CG:30:LYS:C	4:CG:32:ALA:H	1.62	0.96
24:BA:654(B):C:H2'	24:BA:654(C):G:H8	1.28	0.96
54:DA:1533:C:H2'	54:DA:1534:G:N7	1.80	0.96
40:B2:80:GLN:HE21	40:B2:80:GLN:N	1.63	0.96
54:DA:1076:C:H2'	54:DA:1077:A:H5''	1.47	0.96
4:AG:12:CYS:HB3	4:AG:32:ALA:CB	1.94	0.96
24:BA:1925:C:N4	24:BA:1926:U:N1	2.13	0.96
24:BA:1613:G:H1	24:BA:1617:C:H2'	1.29	0.96
2:CE:7:VAL:HG21	2:CE:217:ARG:HH11	1.31	0.96
10:CM:32:ALA:HB3	10:CM:76:ASN:HB2	1.47	0.96
58:DA:2903:G:H5'	58:DA:2904:G:OP2	1.66	0.96
54:DA:1046:A:H3'	54:DA:1046:A:N3	1.80	0.96
54:DA:899:A:HO2'	54:DA:900:A:H8	0.98	0.96
8:CK:23:SER:HA	8:CK:63:LEU:HD22	1.45	0.96
12:AO:126:LYS:HD3	12:AO:126:LYS:H	1.29	0.96
49:D4:56:VAL:HA	49:D4:60:GLN:HB2	1.43	0.96
4:AG:26:CYS:HA	4:AG:31:CYS:HB2	1.47	0.96
44:DV:120:ILE:HB	44:DV:171:ILE:HA	1.45	0.96
30:BH:126:PRO:HB2	30:BH:127:GLU:HA	1.44	0.96

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:B7:12:ARG:HD3	52:B7:46:VAL:HG21	1.43	0.96
24:BA:654(R):C:C2	24:BA:654(R):C:H5''	1.99	0.96
24:BA:2517:C:O2'	24:BA:2518:A:H3'	1.64	0.96
28:DF:101:LEU:HD12	28:DF:102:PRO:CD	1.96	0.96
35:BP:63:LYS:HD2	44:BV:175:VAL:HG21	1.48	0.96
50:D5:56:LYS:H	50:D5:56:LYS:HD2	1.30	0.96
29:DG:112:PRO:HB3	49:D4:37:SER:HB2	1.47	0.96
30:BH:123:PHE:HA	30:BH:133:VAL:HG22	1.48	0.96
1:CA:547:A:H4'	1:CA:548:G:O5'	1.63	0.96
3:CF:95:THR:HG22	3:CF:96:GLY:H	1.27	0.96
13:AP:81:LEU:HD12	13:AP:81:LEU:H	1.31	0.95
1:CA:1007:C:C2'	1:CA:1008:C:H5''	1.96	0.95
54:DA:1899:G:H21	54:DA:1902:C:N4	1.64	0.95
43:DU:84:ARG:HH12	43:DU:97:ARG:HB2	1.28	0.95
30:BH:11:VAL:HG23	30:BH:13:LYS:HG2	1.46	0.95
2:AE:29:ALA:C	2:AE:31:TYR:H	1.69	0.95
32:BM:111:PRO:HA	32:BM:114:ARG:NH1	1.80	0.95
49:B4:16:CYS:HB3	49:B4:19:GLY:H	1.25	0.95
39:B1:90:VAL:HG22	40:B2:39:LEU:HB3	1.45	0.95
3:CF:16:ARG:HD2	3:CF:54:ARG:HH21	1.28	0.95
27:DE:20:ALA:O	27:DE:21:VAL:HG22	1.64	0.95
54:DA:1301:A:C2'	54:DA:1302:A:H3'	1.95	0.95
54:DA:784:A:N7	26:DD:229:VAL:HG21	1.81	0.95
54:DA:277:C:C3'	54:DA:278:A:H5''	1.96	0.95
1:CA:96:G:H2'	1:CA:97:U:C5'	1.96	0.95
54:DA:2507:C:H5'	54:DA:2507:C:H6	1.27	0.95
1:AA:1321:C:N4	1:AA:1322:C:H41	1.63	0.95
55:DB:20:C:H2'	55:DB:21:G:H5''	1.47	0.95
24:BA:2758:A:C2'	24:BA:2759:G:H5''	1.96	0.95
30:BH:52:VAL:HG21	30:BH:69:ARG:HD3	1.48	0.95
54:DA:2131:G:H4'	54:DA:2132:U:H4'	1.45	0.95
2:AE:91:PRO:HG3	2:AE:154:LEU:HD21	1.46	0.95
54:DA:2712:U:HO2'	54:DA:2712(A):A:H8	0.97	0.95
13:CP:57:ARG:HB2	13:CP:57:ARG:HH11	1.32	0.95
4:CG:94:LEU:H	4:CG:94:LEU:HD12	1.28	0.95
46:DZ:81:LYS:N	46:DZ:81:LYS:CE	2.30	0.95
27:BE:36:ARG:NH2	27:BE:88:GLY:HA3	1.81	0.95
44:BV:91:LEU:HD23	44:BV:91:LEU:H	1.25	0.95
24:BA:2296:U:H4'	24:BA:2297:C:OP1	1.67	0.95
24:BA:1403:C:H5''	24:BA:1471:A:H1'	1.46	0.95
16:CS:4:ILE:HD11	16:CS:64:ALA:HB1	1.46	0.95
28:DF:103:LYS:HA	28:DF:106:ARG:HG3	1.48	0.95

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:B8:33:ASN:H	53:B8:36:LYS:HE3	1.30	0.95
26:DD:227:ASN:HB3	26:DD:228:PRO:HD2	1.44	0.95
40:B2:61:VAL:HG13	40:B2:62:LEU:H	1.26	0.95
55:DB:7:G:H3'	55:DB:8:U:H5''	1.49	0.95
27:DE:78:LEU:HG	27:DE:79:ARG:HE	1.31	0.95
30:DH:153:LYS:CB	30:DH:154:PRO:HD2	1.97	0.95
43:BU:89:PHE:HD1	43:BU:90:LEU:HD23	1.31	0.95
49:B4:6:HIS:HB2	49:B4:7:PRO:CA	1.96	0.94
34:DO:62:LEU:HD22	34:DO:62:LEU:N	1.82	0.94
40:D2:99:ILE:HD13	40:D2:99:ILE:H	1.32	0.94
24:BA:27:G:H22	24:BA:512:G:H2'	1.31	0.94
15:AR:39:LEU:HD12	15:AR:56:LEU:HD13	1.48	0.94
1:CA:77:C:H2'	1:CA:78:G:H5''	1.49	0.94
34:BO:59:LEU:HD22	34:BO:60:MET:N	1.81	0.94
55:DB:81:G:C2	55:DB:82:G:N7	2.34	0.94
49:B4:8:LYS:HA	49:B4:8:LYS:HE2	1.47	0.94
49:B4:12:ALA:HA	49:B4:24:THR:HB	1.47	0.94
46:DZ:81:LYS:CA	46:DZ:81:LYS:CE	2.45	0.94
54:DA:2469:A:H2	54:DA:2481:G:H21	1.13	0.94
6:CI:86:ARG:O	6:CI:87:ARG:HG2	1.66	0.94
1:CA:579:G:H5'	1:CA:728:A:H1'	1.49	0.94
47:DW:13:ALA:HA	47:DW:16:LEU:HD23	1.48	0.94
1:CA:939:G:H5''	7:CJ:102:ARG:HH22	1.28	0.94
47:BW:65:ASN:ND2	47:BW:69:ARG:HH21	1.64	0.94
10:CM:75:ILE:HG13	10:CM:76:ASN:H	1.31	0.94
24:BA:2392:A:H2	24:BA:2424:C:H42	1.11	0.94
40:D2:35:LEU:HD21	40:D2:57:VAL:HG22	1.47	0.94
40:B2:58:VAL:HB	40:B2:98:GLU:HB2	1.45	0.94
1:CA:820:U:H4'	1:CA:821:G:OP2	1.65	0.94
24:BA:1281:G:H8	24:BA:1281:G:H5'	1.32	0.94
1:CA:1504:G:OP2	1:CA:1504:G:H3'	1.67	0.94
1:CA:1002:G:H2'	1:CA:1003:G:C8	2.01	0.94
1:AA:1363:A:H1'	1:AA:1365:G:N7	1.81	0.94
34:BO:115:LEU:HD22	34:BO:116:GLY:H	1.32	0.94
2:CE:196:LEU:HD12	2:CE:197:VAL:HG23	1.45	0.94
47:DW:65:ASN:HD22	47:DW:69:ARG:HH22	1.07	0.94
24:BA:1826:G:C4'	26:BD:242:ARG:HH21	1.80	0.94
19:AV:67:VAL:HG13	19:AV:68:GLY:H	1.31	0.94
49:B4:40:HIS:H	49:B4:41:PRO:CD	1.81	0.94
54:DA:593:G:O2'	53:D8:61:LEU:HD13	1.66	0.94
54:DA:1069:A:H4'	54:DA:1070:A:H5''	1.50	0.94
44:DV:120:ILE:CD1	44:DV:169:GLU:HG3	1.98	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CP:121:LYS:HZ3	59:CP:203:C:H4'	1.28	0.94
54:DA:1543:A:H1'	54:DA:1545:A:H5''	1.47	0.94
34:BO:31:ALA:O	34:BO:32:THR:HG22	1.67	0.94
24:BA:1190:G:H5'	34:BO:32:THR:HA	1.49	0.94
1:CA:523:A:H61	12:CO:92:ASP:HB2	1.33	0.94
24:BA:270(B):A:H5'	24:BA:270(C):C:OP2	1.68	0.94
30:DH:77:LYS:HB3	30:DH:77:LYS:NZ	1.82	0.94
1:AA:827:U:H3	1:AA:872:A:H61	1.07	0.94
43:DU:51:VAL:HG13	43:DU:52:SER:H	1.31	0.94
3:CF:11:ARG:HB3	3:CF:15:THR:HB	1.48	0.94
24:BA:1344:G:H4'	24:BA:1384:A:N7	1.81	0.94
3:AF:75:VAL:HB	3:AF:83:ARG:HD3	1.50	0.94
37:BQ:19:LYS:O	37:BQ:20:ARG:HB3	1.68	0.94
51:D6:47:THR:HG22	51:D6:48:VAL:HG12	1.45	0.94
26:DD:28:GLU:HB2	26:DD:29:PRO:CD	1.98	0.94
24:BA:1033:U:H4'	24:BA:1034:G:OP1	1.66	0.94
54:DA:1379:A:O2'	54:DA:1380:G:OP1	1.86	0.93
24:BA:1359:A:N6	24:BA:1373:A:N3	2.16	0.93
30:DH:77:LYS:HB3	30:DH:77:LYS:HZ3	1.31	0.93
43:BU:52:SER:HA	43:BU:57:GLN:H	1.30	0.93
10:AM:40:LEU:HG	10:AM:41:PRO:HD2	1.50	0.93
36:B0:37:THR:CG2	36:B0:39:PRO:HD2	1.98	0.93
32:DM:134:ARG:H	32:DM:135:PRO:CD	1.81	0.93
3:CF:70:VAL:HG12	3:CF:72:LYS:H	1.34	0.93
43:BU:43:ASN:HB3	43:BU:64:GLU:HA	1.49	0.93
2:CE:8:LYS:H	2:CE:8:LYS:HD3	1.30	0.93
8:AK:12:ARG:HH12	8:AK:27:PRO:HD3	1.33	0.93
27:BE:3:GLY:HA3	27:BE:81:ILE:HD12	1.51	0.93
4:AG:12:CYS:HA	4:AG:21:LEU:CD2	1.97	0.93
1:CA:160:A:H1'	1:CA:344:A:N7	1.83	0.93
43:BU:27:VAL:HG12	43:BU:39:VAL:HG12	1.50	0.93
38:DR:11:GLU:CD	38:DR:11:GLU:H	1.71	0.93
54:DA:1928:A:C2'	54:DA:1929:G:H5'	1.97	0.93
24:BA:654(R):C:H5'	24:BA:654(R):C:C4	1.91	0.93
26:BD:44:ASN:HB3	26:BD:49:ILE:HA	1.48	0.93
30:DH:127:GLU:HB3	30:DH:128:PRO:CD	1.99	0.93
54:DA:1784:A:H4'	54:DA:1785:A:O5'	1.67	0.93
22:AD:72:A:H2'	22:AD:73:A:H5''	1.49	0.93
42:DT:57:LEU:CD1	42:DT:78:LYS:HB2	1.98	0.93
22:AD:68:C:H2'	22:AD:69:C:H5''	1.51	0.93
1:AA:168:G:C2'	1:AA:169:C:H5''	1.97	0.93
24:BA:1846:G:H5'	24:BA:1847:A:OP2	1.68	0.93

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CP:77:ASN:HA	49:D4:71:ARG:NH2	1.84	0.93
10:CM:8:LEU:HD11	10:CM:23:ILE:HD12	1.50	0.93
54:DA:1098:A:H2'	54:DA:1099:G:H5''	1.50	0.93
27:DE:14:ILE:HG12	27:DE:15:PHE:H	1.33	0.93
54:DA:1359:A:C3'	54:DA:1359:A:C8	2.52	0.93
24:BA:1948:G:H8	24:BA:1948:G:H5'	1.33	0.93
34:BO:62:LEU:HD11	53:B8:25:MET:HB2	1.51	0.92
28:BF:124:LEU:HD23	28:BF:191:ARG:HH22	1.34	0.92
24:BA:1301:A:C2'	24:BA:1302:A:H3'	2.00	0.92
36:D0:33:ARG:NH2	50:D5:55:ARG:HG2	1.84	0.92
6:CI:24:GLU:HA	6:CI:27:GLN:HG3	1.49	0.92
34:DO:65:ARG:HG3	34:DO:65:ARG:HH11	1.35	0.92
53:B8:49:VAL:O	53:B8:50:LEU:HG	1.69	0.92
13:AP:8:GLU:O	13:AP:10:PRO:HD2	1.69	0.92
50:B5:46:CYS:HB3	50:B5:49:CYS:SG	2.08	0.92
26:DD:108:PRO:HB3	26:DD:143:HIS:CE1	2.05	0.92
7:AJ:97:GLN:HE21	7:AJ:101:LEU:HD11	1.34	0.92
19:CV:40:ILE:HG12	19:CV:41:VAL:HG22	1.51	0.92
24:BA:2529:G:H5'	24:BA:2530:A:C5'	1.99	0.92
17:CT:4:LYS:HE3	17:CT:6:LEU:HD21	1.51	0.92
49:B4:10:VAL:HG12	49:B4:11:PRO:HD3	0.94	0.92
4:AG:26:CYS:SG	4:AG:32:ALA:HB2	2.09	0.92
37:DQ:59:LYS:HG2	37:DQ:60:GLY:H	1.31	0.92
1:CA:121:C:H41	1:CA:235:C:H3'	1.34	0.92
26:BD:206:LEU:HD22	26:BD:211:ARG:HG2	1.50	0.92
1:AA:1305:G:H22	1:AA:1331:G:C2'	1.82	0.92
1:AA:1321:C:H41	1:AA:1322:C:N4	1.68	0.92
24:BA:90:U:H2'	24:BA:90:U:O2	1.68	0.92
1:AA:954:G:H21	1:AA:1227:A:N6	1.65	0.92
44:DV:18:LEU:H	44:DV:18:LEU:HD12	1.33	0.92
1:AA:160:A:H1'	1:AA:344:A:N7	1.83	0.92
37:BQ:66:ALA:O	37:BQ:69:VAL:HG12	1.69	0.92
7:AJ:20:ASP:O	7:AJ:21:VAL:HG22	1.69	0.92
36:B0:37:THR:HG22	36:B0:39:PRO:CD	1.99	0.92
24:BA:1879:C:C2'	24:BA:1880:C:H5''	1.98	0.92
54:DA:2133:G:H21	54:DA:2158:A:N6	1.67	0.92
26:DD:108:PRO:HB3	26:DD:143:HIS:HE1	1.32	0.92
4:AG:196:LEU:H	4:AG:196:LEU:HD12	1.33	0.92
54:DA:2701:C:H3'	54:DA:2702:U:C5'	2.00	0.92
3:CF:20:SER:HB2	3:CF:40:ARG:HH22	1.33	0.92
5:CH:53:LEU:HD12	5:CH:53:LEU:H	1.34	0.92
31:DK:115:ALA:HB3	31:DK:128:LEU:HD11	1.50	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:B4:12:ALA:CA	49:B4:24:THR:HB	2.00	0.92
1:CA:792:A:O2'	1:CA:793:U:P	2.27	0.92
1:AA:1305:G:N2	1:AA:1331:G:H2'	1.85	0.92
49:B4:16:CYS:C	49:B4:18:CYS:H	1.69	0.92
54:DA:2795:G:H3'	54:DA:2797:U:C5'	1.99	0.92
15:CR:82:ILE:HD11	15:CR:88:ARG:HG3	1.51	0.92
4:AG:23:GLY:O	4:AG:24:GLU:HB2	1.67	0.92
1:AA:1505:G:H5'	1:AA:1506:U:OP1	1.68	0.92
1:AA:872:A:H4'	1:AA:873:A:OP1	1.67	0.92
54:DA:232:G:H4'	54:DA:233:A:OP1	1.69	0.92
54:DA:1434:A:H61	54:DA:1558:A:H62	1.10	0.92
2:AE:133:LYS:HD2	2:AE:137:ARG:NH1	1.84	0.91
3:AF:113:ALA:HB3	3:AF:114:PRO:HD3	1.52	0.91
8:CK:6:ILE:HB	8:CK:85:ARG:NH1	1.85	0.91
55:DB:7:G:C3'	55:DB:8:U:H5''	1.99	0.91
27:BE:151:TYR:HD2	27:BE:154:LYS:HZ2	1.09	0.91
17:AT:74:LEU:HD12	17:AT:75:ARG:HG3	1.52	0.91
44:BV:156:LYS:O	44:BV:157:LEU:HB2	1.67	0.91
1:CA:1320:C:N4	19:CV:36:ARG:HG3	1.84	0.91
7:CJ:15:ASP:HB3	7:CJ:20:ASP:H	1.31	0.91
1:AA:1342:C:H1'	9:AL:124:GLN:NE2	1.85	0.91
1:AA:954:G:H21	1:AA:1227:A:H62	0.97	0.91
26:DD:10:THR:HG23	26:DD:13:ARG:HB3	1.51	0.91
43:DU:30:VAL:HG22	43:DU:37:VAL:HG12	1.53	0.91
1:AA:92:G:H2'	1:AA:93:U:H5'	1.52	0.91
37:DQ:67:ARG:NH1	37:DQ:67:ARG:HB2	1.85	0.91
54:DA:51:G:H22	54:DA:120:U:H6	1.18	0.91
29:BG:111:LEU:HB2	29:BG:112:PRO:HD3	1.49	0.91
30:BH:45:VAL:HG22	30:BH:46:GLU:H	1.36	0.91
35:DP:34:LEU:HD11	35:DP:129:THR:HB	1.50	0.91
29:DG:37:VAL:HG22	29:DG:159:VAL:HA	1.52	0.91
54:DA:1928:A:H2'	54:DA:1929:G:H5'	1.51	0.91
11:CN:99:GLN:HG2	11:CN:105:VAL:HG21	1.53	0.91
1:AA:842:C:H4'	1:AA:843:U:OP1	1.70	0.91
24:BA:2873:A:H8	36:B0:6:SER:H	0.96	0.91
2:CE:33:TYR:HB2	2:CE:43:ASP:HB2	1.53	0.91
46:DZ:81:LYS:HA	46:DZ:81:LYS:CE	2.01	0.91
1:AA:1139:G:N2	1:AA:1143:G:H1	1.67	0.91
1:CA:1025:U:HO2'	1:CA:1026:G:H8	1.16	0.91
39:D1:92:ARG:O	39:D1:92:ARG:HG2	1.69	0.91
5:CH:101:ILE:HD11	5:CH:119:LEU:HD23	1.52	0.91
2:AE:82:ARG:HA	2:AE:92:TYR:CE1	2.06	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1899:G:H21	54:DA:1902:C:H41	0.94	0.91
4:AG:129:ASN:HD21	4:AG:145:GLU:H	1.15	0.91
54:DA:2287:A:H62	54:DA:2344:U:H3	1.01	0.91
42:BT:50:LYS:H	42:BT:87:GLN:HE22	1.02	0.91
4:CG:170:VAL:HG22	4:CG:171:GLY:H	1.34	0.91
46:DZ:80:LEU:O	46:DZ:81:LYS:HB2	1.71	0.91
24:BA:2701:C:H3'	24:BA:2702:U:C5'	2.01	0.91
30:BH:17:VAL:HG12	30:BH:18:GLU:H	1.34	0.91
54:DA:1022:G:H22	54:DA:1142(A):A:H2	1.11	0.91
34:BO:36:LYS:HB2	34:BO:36:LYS:NZ	1.86	0.91
54:DA:1434:A:H61	54:DA:1558:A:N6	1.68	0.91
20:CW:49:ALA:HB1	20:CW:99:LEU:HB2	1.51	0.91
1:AA:562:C:O2'	12:AO:15:ARG:HB3	1.70	0.91
34:DO:1:MET:HE2	34:DO:5:ASP:HB3	1.51	0.91
22:CD:56:C:H2'	22:CD:57:A:H8	1.35	0.91
43:BU:84:ARG:HH21	43:BU:97:ARG:HB2	1.33	0.91
6:AI:77:ARG:HB3	6:AI:77:ARG:NH1	1.84	0.91
39:B1:34:LYS:HE2	39:B1:34:LYS:HA	1.53	0.91
54:DA:1509:C:H3'	54:DA:1510:A:H5''	1.52	0.90
30:BH:7:LEU:HD11	30:BH:66:GLY:HA2	1.52	0.90
27:BE:36:ARG:HH21	27:BE:88:GLY:HA3	1.34	0.90
33:DN:2:ILE:HD11	33:DN:82:ASN:HD22	1.33	0.90
11:AN:13:GLN:HG3	11:AN:76:GLY:CA	2.00	0.90
24:BA:1887:C:C2'	24:BA:1888:G:H5''	1.99	0.90
54:DA:1178:C:H2'	54:DA:1179:C:H6	1.33	0.90
54:DA:1211:U:H4'	54:DA:1212:G:OP2	1.71	0.90
43:BU:28:LYS:HZ3	43:BU:29:GLU:H	1.13	0.90
3:AF:91:LEU:H	3:AF:91:LEU:HD12	1.37	0.90
13:AP:9:ILE:CB	13:AP:10:PRO:HD3	1.99	0.90
30:BH:9:ILE:HB	30:BH:10:PRO:HA	1.52	0.90
24:BA:1360:A:H5'	24:BA:1361:G:OP2	1.71	0.90
24:BA:242:G:O2'	24:BA:243:U:OP2	1.87	0.90
24:BA:270(U):C:H5	46:BZ:96:LYS:HZ2	1.12	0.90
54:DA:1826:G:H4'	26:DD:242:ARG:HH21	1.36	0.90
43:DU:38:ILE:HG22	43:DU:66:PRO:HA	1.54	0.90
54:DA:910:A:H62	35:DP:12:GLN:HA	1.34	0.90
8:CK:6:ILE:HD12	8:CK:6:ILE:H	1.34	0.90
28:BF:102:PRO:HB2	28:BF:105:VAL:HG23	1.52	0.90
24:BA:1729:A:HO2'	24:BA:1730:U:H6	0.96	0.90
21:AX:9:ARG:HH11	21:AX:13:ILE:HD12	1.37	0.90
34:DO:106:LEU:O	34:DO:107:LYS:HB2	1.71	0.90
26:DD:147:LEU:HD13	26:DD:155:LEU:HD11	1.51	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:27:LYS:HE2	3:AF:27:LYS:HA	1.53	0.90
40:D2:44:LYS:O	40:D2:46:VAL:HG12	1.72	0.90
26:DD:44:ASN:HD22	26:DD:44:ASN:H	1.19	0.90
13:CP:90:LEU:HA	13:CP:93:ARG:HD2	1.50	0.90
40:D2:24:LYS:HA	40:D2:92:THR:HG23	1.52	0.90
19:CV:42:PRO:HD3	49:D4:63:TYR:HE2	1.37	0.90
50:D5:3:LYS:HA	50:D5:3:LYS:HE3	1.54	0.90
1:AA:429:U:H4'	1:AA:430:A:O5'	1.69	0.90
4:AG:162:LEU:HD22	4:AG:178:VAL:HG13	1.52	0.90
24:BA:2176:A:H2'	24:BA:2177:C:C6	2.06	0.90
5:AH:56:GLN:HE21	5:AH:56:GLN:HA	1.37	0.90
1:CA:411:A:H62	1:CA:413:G:H21	1.14	0.90
24:BA:443:A:H1'	24:BA:1201:C:O4'	1.72	0.90
1:AA:697:U:H5'	1:AA:697:U:H6	1.36	0.90
26:BD:27:THR:HG22	26:BD:28:GLU:N	1.86	0.90
12:AO:47:LYS:HB3	12:AO:48:PRO:HD2	1.54	0.90
24:BA:2720:U:H3	24:BA:2873:A:H2	1.15	0.90
26:DD:183:ARG:HG2	26:DD:183:ARG:HH11	1.34	0.90
41:BS:36:LEU:HD13	41:BS:48:ALA:HA	1.51	0.90
4:AG:3:ARG:HH21	4:AG:3:ARG:HB3	1.36	0.90
24:BA:2311:A:H3'	24:BA:2312:U:C5	2.06	0.90
24:BA:1378:A:HO2'	24:BA:1379:A:H5''	1.08	0.90
54:DA:1318:C:C2'	54:DA:1319:G:H5''	2.00	0.90
2:AE:32:ILE:HG23	2:AE:33:TYR:H	1.36	0.90
26:BD:10:THR:HG23	26:BD:13:ARG:HB2	1.52	0.90
10:AM:6:ILE:HG22	10:AM:98:ILE:HG23	1.53	0.90
54:DA:302:C:H2'	54:DA:303:U:H6	1.35	0.90
19:AV:20:LEU:HA	19:AV:44:MET:HE1	1.54	0.90
22:AC:75:C:H3'	22:AC:76:A:C5'	2.01	0.90
51:B6:12:GLU:HB2	51:B6:22:ALA:HB3	1.54	0.90
37:BQ:106:ARG:HB2	37:BQ:106:ARG:HH11	1.35	0.90
1:AA:1343:G:H4'	9:AL:122:ALA:HB3	1.53	0.90
30:DH:4:ILE:HG13	30:DH:6:ARG:CZ	2.01	0.90
19:AV:64:GLU:OE1	49:B4:56:VAL:HB	1.72	0.89
33:BN:61:VAL:HG12	33:BN:87:ILE:HD11	1.54	0.89
26:BD:196:VAL:HG12	26:BD:197:GLY:H	1.36	0.89
1:AA:533:A:O2'	1:AA:534:U:H5'	1.71	0.89
54:DA:1838:C:N4	54:DA:1898:U:H2'	1.88	0.89
41:DS:65:LEU:HD12	41:DS:68:ARG:HH11	1.36	0.89
44:DV:107:THR:HB	44:DV:144:LEU:HB2	1.52	0.89
26:DD:69:ARG:HH21	26:DD:130:ALA:HB2	1.37	0.89
26:BD:44:ASN:CB	26:BD:49:ILE:HA	2.03	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CH:100:VAL:HG22	5:CH:118:ILE:HG22	1.52	0.89
54:DA:2304:G:H21	29:DG:156:ASP:CG	1.75	0.89
9:AL:27:THR:HB	9:AL:32:ASP:HA	1.53	0.89
19:CV:64:GLU:O	19:CV:67:VAL:HG23	1.73	0.89
1:AA:1375:A:H4'	7:AJ:29:LYS:NZ	1.86	0.89
47:DW:65:ASN:HB3	47:DW:69:ARG:HH12	1.34	0.89
24:BA:2458:G:H2'	24:BA:2490:G:O6	1.72	0.89
24:BA:2394:C:OP2	53:B8:30:ARG:HD3	1.70	0.89
47:DW:65:ASN:HD22	47:DW:69:ARG:NH2	1.70	0.89
24:BA:608:A:C4	24:BA:621:A:N6	2.40	0.89
55:DB:12:C:H2'	45:D3:74:ARG:HG3	1.54	0.89
59:DA:2923:C:N3	61:DA:2931:A:H1'	1.87	0.89
40:B2:35:LEU:HD23	40:B2:37:VAL:HG22	1.54	0.89
53:D8:52:LYS:H	53:D8:53:PRO:HD3	1.35	0.89
29:DG:116:ASP:O	29:DG:117:PHE:HB3	1.72	0.89
24:BA:1225:C:O3'	40:B2:85:LYS:HB2	1.73	0.89
2:CE:7:VAL:HG21	2:CE:217:ARG:NH1	1.87	0.89
47:BW:33:MET:HG2	47:BW:37:PHE:HE1	1.37	0.89
30:DH:26:VAL:HG13	30:DH:27:LYS:H	1.36	0.89
20:AW:26:ASN:HB2	20:AW:71:THR:HG23	1.55	0.89
34:DO:88:LEU:HD12	34:DO:95:VAL:HG11	1.52	0.89
24:BA:434:U:H4'	24:BA:435:C:OP1	1.70	0.89
27:BE:60:ASN:ND2	27:BE:63:LEU:HB2	1.86	0.89
1:AA:1055:A:O2'	3:AF:161:GLU:HG2	1.73	0.89
19:AV:36:ARG:NH1	19:AV:73:GLU:H	1.70	0.89
23:C1:12:A:H3'	23:C1:13:A:H5''	1.52	0.89
12:CO:6:THR:H	12:CO:9:GLN:HE21	1.14	0.89
53:D8:59:LYS:HB2	53:D8:59:LYS:NZ	1.88	0.89
30:BH:45:VAL:O	30:BH:46:GLU:HB2	1.70	0.89
24:BA:2791:C:H5'	24:BA:2792:G:OP1	1.73	0.89
27:DE:63:LEU:HD12	27:DE:64:LYS:N	1.88	0.89
4:AG:129:ASN:ND2	4:AG:145:GLU:H	1.69	0.89
28:BF:78:ILE:HA	28:BF:83:PHE:CD1	2.08	0.89
1:CA:452:A:H62	1:CA:480:U:H3	1.21	0.89
1:AA:1379:G:H5''	7:AJ:3:ARG:HE	1.37	0.89
24:BA:2864:G:OP1	38:BR:119:LYS:HD2	1.73	0.89
34:DO:58:THR:O	34:DO:61:ARG:NE	2.05	0.89
26:BD:35:LYS:NZ	26:BD:104:TYR:HB2	1.86	0.89
24:BA:2348:U:C2'	24:BA:2349:G:H5''	2.02	0.89
1:CA:1452:C:H4'	1:CA:1453:G:OP1	1.72	0.89
30:DH:10:PRO:HD2	30:DH:50:VAL:O	1.72	0.89
2:CE:126:GLU:HG3	2:CE:129:GLU:HG3	1.54	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AE:166:ASP:HB3	2:AE:169:LYS:HB2	1.52	0.89
54:DA:265:A:O2'	54:DA:266:G:H4'	1.72	0.89
1:AA:188:U:O2'	1:AA:189:U:H5'	1.71	0.89
2:CE:18:GLY:N	2:CE:42:ILE:HG22	1.86	0.89
54:DA:1899:G:N2	54:DA:1902:C:N4	2.19	0.89
54:DA:2210:G:H3'	54:DA:2211:G:C8	2.08	0.88
26:BD:155:LEU:HD23	26:BD:177:LEU:HD22	1.54	0.88
24:BA:1543:A:H1'	24:BA:1545:A:O4'	1.72	0.88
31:BK:79:ILE:H	31:BK:142:VAL:HG21	0.76	0.88
24:BA:1925:C:N4	24:BA:1926:U:C6	2.41	0.88
34:BO:57:THR:CG2	34:BO:60:MET:HB2	2.03	0.88
1:AA:559:A:H4'	1:AA:560:U:H5''	1.55	0.88
29:DG:88:ILE:O	29:DG:88:ILE:HD13	1.72	0.88
5:CH:71:LEU:O	5:CH:72:GLN:HG3	1.74	0.88
31:DK:75:LEU:HB3	31:DK:105:HIS:CE1	2.08	0.88
4:AG:19:LEU:HD12	4:AG:21:LEU:HD23	1.55	0.88
54:DA:803:U:H6	54:DA:803:U:H5'	1.39	0.88
31:BK:13:GLY:HA3	31:BK:17:GLN:NE2	1.88	0.88
54:DA:554:U:HO2'	54:DA:556:G:H8	1.20	0.88
1:AA:721:G:H4'	1:AA:722:A:O5'	1.73	0.88
43:DU:76:CYS:SG	43:DU:77:PRO:HD2	2.13	0.88
30:BH:9:ILE:HG12	30:BH:51:ARG:HA	1.53	0.88
1:CA:96:G:C2'	1:CA:97:U:H5'	2.03	0.88
40:B2:98:GLU:OE2	40:B2:100:ARG:HD3	1.73	0.88
2:CE:32:ILE:HD11	2:CE:40:HIS:HB3	1.52	0.88
1:CA:954:G:H4'	13:CP:121:LYS:HG3	1.55	0.88
37:DQ:106:ARG:NH1	37:DQ:106:ARG:HB2	1.88	0.88
32:DM:22:THR:HG22	32:DM:23:LEU:N	1.88	0.88
43:BU:91:GLU:HG3	43:BU:92:ASN:H	1.37	0.88
34:DO:64:LYS:O	34:DO:66:GLY:N	2.07	0.88
53:B8:8:LYS:HB3	53:B8:12:LYS:HE3	1.55	0.88
1:CA:243:A:H4'	1:CA:244:U:H5''	1.54	0.88
31:BK:47:LEU:HA	31:BK:50:ARG:NE	1.88	0.88
54:DA:1955:U:O2'	54:DA:1956:U:H5'	1.73	0.88
9:AL:16:ARG:O	9:AL:63:ILE:HG23	1.74	0.88
19:CV:68:GLY:HA3	49:D4:68:ARG:CB	2.03	0.88
5:AH:56:GLN:NE2	5:AH:56:GLN:HA	1.86	0.88
24:BA:955:C:H5'	24:BA:956:G:OP2	1.73	0.88
54:DA:1405:U:H2'	54:DA:1406:U:H6	1.39	0.88
1:AA:8:A:N6	4:AG:209:ARG:HB2	1.89	0.88
42:BT:50:LYS:N	42:BT:87:GLN:HE22	1.72	0.88
31:DK:144:VAL:O	31:DK:145:VAL:HG22	1.74	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2394:C:OP1	34:DO:63:PRO:HD2	1.72	0.88
24:BA:2250:G:C5	35:BP:82:ARG:HD3	2.09	0.88
9:AL:28:VAL:HG21	9:AL:63:ILE:H	1.35	0.88
2:CE:77:ALA:HB2	2:CE:211:ILE:HD13	1.53	0.88
54:DA:879:G:H1	54:DA:898:C:H42	1.14	0.88
24:BA:27:G:N2	24:BA:512:G:H2'	1.87	0.88
23:A1:22:A:H3'	23:A1:23:A:H5''	1.54	0.88
54:DA:780:G:H21	54:DA:783:A:H62	1.16	0.88
2:AE:11:LEU:H	2:AE:11:LEU:HD13	1.39	0.88
1:AA:448:A:H62	1:AA:486:U:H3	1.21	0.88
39:B1:104:GLN:NE2	39:B1:104:GLN:H	1.72	0.88
1:CA:197:A:H4'	1:CA:198:G:O5'	1.73	0.88
34:BO:55:ARG:HG2	34:BO:56:SER:H	1.38	0.88
54:DA:51:G:O2'	54:DA:119:A:N1	2.05	0.88
10:AM:8:LEU:HD22	10:AM:20:ALA:HB2	1.56	0.88
35:DP:64:ILE:HA	35:DP:106:VAL:HG12	1.54	0.88
4:AG:120:LEU:HB3	4:AG:126:ILE:HD11	1.54	0.88
28:DF:29:ASN:H	28:DF:112:MET:HE3	1.38	0.88
5:AH:51:VAL:HG23	5:AH:52:PRO:HD3	1.54	0.88
24:BA:654(R):C:N3	24:BA:654(R):C:OP2	2.03	0.88
54:DA:1061:U:H3'	54:DA:1062:G:H5''	1.55	0.88
27:DE:77:ILE:HD12	27:DE:78:LEU:N	1.89	0.88
21:CX:6:ARG:HE	21:CX:15:ARG:CZ	1.87	0.88
53:B8:32:LEU:HD23	53:B8:34:TRP:H	1.38	0.88
44:BV:111:VAL:O	44:BV:113:ALA:N	2.06	0.88
26:DD:27:THR:HG23	26:DD:28:GLU:H	1.38	0.88
7:AJ:76:ARG:HH11	7:AJ:78:ARG:HH12	1.21	0.88
45:D3:25:ARG:HD2	45:D3:29:GLN:NE2	1.90	0.88
26:DD:44:ASN:CB	26:DD:49:ILE:HA	2.04	0.87
39:B1:100:VAL:O	39:B1:101:ARG:HG2	1.74	0.87
24:BA:2805:G:H2'	24:BA:2807:G:C8	2.10	0.87
37:BQ:106:ARG:HA	37:BQ:110:LEU:HG	1.56	0.87
42:BT:8:ILE:HD12	42:BT:8:ILE:H	1.36	0.87
1:AA:1347:G:C8	9:AL:107:ARG:HB3	2.08	0.87
54:DA:1929:G:O5'	54:DA:1929:G:C8	2.27	0.87
20:CW:23:ARG:HA	20:CW:26:ASN:HD21	1.37	0.87
34:DO:49:ARG:HD2	53:D8:58:ILE:HG22	1.54	0.87
7:AJ:113:GLU:HB3	7:AJ:118:VAL:HG23	1.56	0.87
27:BE:52:LEU:O	27:BE:74:PRO:HA	1.72	0.87
1:AA:1226:C:H4'	1:AA:1227:A:OP1	1.72	0.87
40:B2:49:THR:HB	40:B2:50:PRO:HD3	1.54	0.87
1:AA:1182:G:H4'	1:AA:1183:A:OP2	1.72	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:943:U:OP2	34:BO:36:LYS:HG3	1.75	0.87
7:AJ:120:ILE:O	7:AJ:124:LEU:HB2	1.74	0.87
31:BK:3:VAL:HG12	31:BK:38:LEU:HA	1.53	0.87
4:CG:114:ARG:HH11	4:CG:114:ARG:HG3	1.39	0.87
46:DZ:82:LEU:HD11	46:DZ:83:GLU:O	1.75	0.87
19:CV:8:GLY:O	19:CV:9:VAL:HG22	1.75	0.87
33:BN:2:ILE:CD1	33:BN:82:ASN:HD22	1.88	0.87
5:CH:41:VAL:HG11	5:CH:113:ALA:HB2	1.54	0.87
54:DA:2189:U:H2'	54:DA:2190:G:H5''	1.56	0.87
1:CA:558:G:H2'	1:CA:559:A:H2	1.38	0.87
31:DK:9:LEU:O	31:DK:10:GLU:HG3	1.74	0.87
46:DZ:82:LEU:HD13	46:DZ:83:GLU:O	1.74	0.87
34:BO:146:VAL:HG22	34:BO:147:LEU:H	1.39	0.87
53:B8:62:LEU:HB2	53:B8:63:PRO:HD3	1.54	0.87
24:BA:1180:C:H2'	24:BA:1181:C:C6	2.08	0.87
54:DA:2439:A:H5'	54:DA:2439:A:C8	2.10	0.87
13:CP:97:PRO:HB2	13:CP:101:GLN:NE2	1.89	0.87
1:AA:1008:C:OP1	1:AA:1008:C:H4'	1.73	0.87
25:BB:24:G:H2'	25:BB:56:G:O6	1.74	0.87
36:B0:87:TYR:HE1	36:B0:117:VAL:HG13	1.38	0.87
54:DA:2147:G:H2'	54:DA:2148:G:O4'	1.74	0.87
26:DD:181:GLU:HA	26:DD:272:ALA:HB3	1.57	0.87
24:BA:2444:G:OP2	28:BF:68:LYS:HE3	1.75	0.87
4:AG:3:ARG:HB3	4:AG:3:ARG:NH2	1.89	0.87
44:DV:24:LEU:HD11	44:DV:86:VAL:HG23	1.57	0.87
43:BU:83:THR:HG22	43:BU:85:VAL:HG23	1.56	0.87
44:BV:111:VAL:HG11	44:BV:145:GLU:OE1	1.74	0.87
54:DA:1880:C:H6	54:DA:1880:C:H5'	1.40	0.87
48:BX:8:LEU:HD12	48:BX:31:LEU:HA	1.54	0.87
1:CA:1014:A:H4'	19:CV:14:HIS:NE2	1.90	0.87
11:CN:32:ILE:HD12	11:CN:72:ALA:HB2	1.56	0.87
10:CM:74:ILE:HD13	10:CM:74:ILE:H	1.38	0.87
24:BA:654(B):C:H2'	24:BA:654(C):G:C8	2.09	0.87
1:CA:73:G:C2	1:CA:74:C:N4	2.42	0.87
35:BP:77:LYS:CE	35:BP:82:ARG:HA	2.04	0.87
26:BD:27:THR:HG22	26:BD:28:GLU:H	1.40	0.87
54:DA:1021:A:C8	54:DA:1021:A:H3'	2.10	0.87
24:BA:2795:G:H3'	24:BA:2797:U:H5'	1.56	0.87
12:AO:70:ILE:HG12	12:AO:100:ILE:HD12	1.57	0.87
8:CK:51:VAL:HG21	8:CK:60:ARG:HG2	1.55	0.87
5:AH:36:ASP:OD1	5:AH:38:GLN:HB3	1.75	0.87
9:AL:27:THR:CB	9:AL:32:ASP:HA	2.03	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:60:ASN:O	27:BE:61:ARG:HB2	1.75	0.86
45:B3:49:LYS:N	45:B3:49:LYS:HE2	1.88	0.86
51:B6:52:VAL:HG22	51:B6:53:LYS:H	1.37	0.86
1:AA:690:G:H22	11:AN:55:LYS:NZ	1.72	0.86
19:CV:27:GLU:O	19:CV:28:LYS:HG2	1.74	0.86
18:AU:19:LYS:HD3	18:AU:19:LYS:N	1.90	0.86
34:DO:18:ARG:O	34:DO:19:VAL:HB	1.75	0.86
13:CP:4:ILE:H	13:CP:9:ILE:CG2	1.88	0.86
41:BS:65:LEU:HD13	41:BS:68:ARG:HD2	1.57	0.86
54:DA:1359:A:H3'	54:DA:1359:A:H8	1.40	0.86
1:AA:1443:G:H3'	1:AA:1446:A:H5''	1.56	0.86
54:DA:566:U:OP1	34:DO:29:LYS:HE2	1.75	0.86
1:CA:1314:C:H2'	1:CA:1315:U:C6	2.11	0.86
26:DD:35:LYS:HG2	26:DD:64:ILE:H	1.40	0.86
39:D1:92:ARG:HD2	40:D2:11:GLN:NE2	1.90	0.86
28:BF:127:GLU:HB2	28:BF:196:LEU:HD12	1.57	0.86
47:BW:46:GLN:H	47:BW:49:LYS:HZ1	1.22	0.86
47:BW:46:GLN:H	47:BW:49:LYS:NZ	1.72	0.86
31:DK:109:ILE:HB	31:DK:130:TYR:OH	1.75	0.86
6:AI:77:ARG:HB3	6:AI:77:ARG:HH11	1.37	0.86
29:DG:101:ILE:HG13	29:DG:102:PHE:N	1.86	0.86
1:CA:991:U:O2	1:CA:993:G:H8	1.59	0.86
2:CE:96:ARG:H	2:CE:96:ARG:HD2	1.38	0.86
24:BA:1019:U:HO2'	24:BA:1021:A:H2	1.15	0.86
43:BU:17:SER:HB2	43:BU:71:LYS:HD2	1.58	0.86
20:AW:58:LYS:O	20:AW:58:LYS:HD3	1.75	0.86
54:DA:1864:U:C3'	54:DA:1869:G:H5''	2.04	0.86
54:DA:141:A:H8	54:DA:1595:G:H21	1.16	0.86
30:BH:35:VAL:HG11	30:BH:72:ILE:HG12	1.54	0.86
46:BZ:91:LYS:HE3	46:BZ:91:LYS:CA	2.05	0.86
22:AC:18:G:H22	22:AC:57:A:H2'	1.39	0.86
40:D2:19:LYS:HD2	40:D2:95:LEU:HD23	1.55	0.86
32:BM:45:ASN:H	32:BM:45:ASN:HD22	1.23	0.86
29:DG:145:THR:HG23	49:D4:28:LYS:HZ1	1.38	0.86
10:CM:7:LYS:HB2	10:CM:97:GLU:HB2	1.57	0.86
1:AA:1129:C:H4'	1:AA:1130:A:H5'	1.57	0.86
30:BH:40:GLU:HG2	30:BH:41:MET:HE2	1.56	0.86
54:DA:2393:A:H4'	34:DO:61:ARG:O	1.75	0.86
25:BB:7:G:H3'	25:BB:8:U:H5''	1.57	0.86
34:BO:55:ARG:HG2	34:BO:56:SER:N	1.91	0.86
8:AK:12:ARG:NH1	8:AK:27:PRO:HD3	1.90	0.86
1:CA:188:U:H2'	1:CA:189:U:H5''	1.57	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1229:A:OP2	13:AP:114:ARG:HD3	1.76	0.86
8:AK:83:ILE:HB	8:AK:137:VAL:HG13	1.56	0.86
29:DG:161:THR:HG22	29:DG:163:ALA:H	1.39	0.86
5:AH:60:TYR:HB3	5:AH:64:ARG:HH21	1.39	0.86
46:BZ:91:LYS:HA	46:BZ:91:LYS:CE	2.01	0.86
44:DV:53:ILE:HG22	44:DV:71:VAL:O	1.76	0.86
54:DA:297:C:H5''	43:DU:85:VAL:HG21	1.56	0.86
1:AA:134:A:H61	16:AS:25:ARG:HH12	1.21	0.86
24:BA:1454:U:H4'	24:BA:1455:G:OP1	1.74	0.86
28:DF:7:TYR:HB3	28:DF:21:ALA:HB1	1.53	0.86
30:DH:127:GLU:HG2	30:DH:128:PRO:HD3	0.86	0.86
19:AV:39:THR:HG22	19:AV:40:ILE:H	1.39	0.86
19:AV:50:ALA:HB1	19:AV:57:HIS:HB3	1.55	0.86
1:CA:1285:A:H4'	1:CA:1286:A:O5'	1.74	0.86
1:AA:1022:G:H2'	1:AA:1023:G:H8	1.41	0.86
24:BA:195:A:OP1	34:BO:46:LYS:HE2	1.76	0.86
26:BD:35:LYS:HG2	26:BD:64:ILE:H	1.33	0.86
44:BV:111:VAL:HG12	44:BV:111:VAL:O	1.73	0.86
24:BA:2475:C:H5'	24:BA:2476:A:OP2	1.74	0.86
38:BR:3:ARG:HG2	38:BR:6:LEU:HB2	1.56	0.86
27:BE:154:LYS:HE3	27:BE:154:LYS:HA	1.57	0.86
1:AA:1036:G:H5'	1:AA:1037:C:H5	1.40	0.86
36:B0:87:TYR:CE1	36:B0:117:VAL:HG13	2.09	0.86
1:AA:376:G:H5''	16:AS:5:ARG:HD3	1.57	0.86
24:BA:2310:A:H62	29:BG:79:ASN:ND2	1.74	0.86
44:BV:120:ILE:HG23	44:BV:171:ILE:HG12	1.57	0.86
29:BG:56:ALA:HB2	29:BG:153:ARG:NE	1.91	0.86
1:AA:632:A:O2'	1:AA:633:G:OP2	1.94	0.86
28:BF:24:LEU:CD1	28:BF:25:PRO:HD2	2.05	0.86
24:BA:800:A:H4'	24:BA:801:G:O5'	1.72	0.86
11:AN:11:LYS:HE3	24:BA:2144:U:O4	1.74	0.86
38:BR:102:ILE:O	38:BR:106:SER:HB3	1.75	0.86
54:DA:2756:U:O2'	54:DA:2757:A:H5''	1.76	0.86
1:AA:872:A:O2'	1:AA:873:A:H3'	1.76	0.86
54:DA:1076:C:C2'	54:DA:1077:A:H5''	2.06	0.86
30:BH:124:GLU:O	30:BH:125:VAL:HG23	1.75	0.86
24:BA:1879:C:H2'	24:BA:1880:C:C5'	2.06	0.86
29:BG:75:LYS:HG3	29:BG:76:SER:H	1.41	0.86
24:BA:1464:C:O2'	24:BA:1528:A:H8	1.56	0.86
1:CA:1347:G:N2	1:CA:1373:G:H2'	1.91	0.86
54:DA:1280:G:H2'	54:DA:1281:G:H5''	1.56	0.86
4:AG:86:LYS:NZ	4:AG:86:LYS:HA	1.91	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:78:LEU:HD23	27:BE:78:LEU:N	1.91	0.85
54:DA:1884:A:H2'	54:DA:1885:A:H5''	1.56	0.85
46:BZ:87:PRO:HA	46:BZ:90:ILE:CG2	2.06	0.85
20:AW:100:ILE:H	20:AW:100:ILE:HD12	1.41	0.85
34:BO:75:ILE:H	34:BO:75:ILE:HD13	1.41	0.85
24:BA:2746:U:H4'	30:BH:138:LYS:HG3	1.55	0.85
15:AR:87:ILE:HG22	15:AR:88:ARG:N	1.90	0.85
38:BR:24:PRO:HA	38:BR:49:VAL:HG13	1.58	0.85
44:DV:5:LEU:HD11	44:DV:39:VAL:HB	1.56	0.85
35:DP:75:THR:HA	35:DP:88:GLY:O	1.76	0.85
54:DA:1288:U:O2'	54:DA:1647:G:N2	2.08	0.85
42:BT:63:LYS:H	42:BT:63:LYS:HD2	1.39	0.85
1:AA:537:G:H5''	12:AO:113:ARG:HH12	1.41	0.85
1:CA:1239:A:H62	1:CA:1299:A:N6	1.74	0.85
31:BK:78:THR:HB	31:BK:104:GLN:NE2	1.91	0.85
1:AA:827:U:N3	1:AA:872:A:N6	2.22	0.85
54:DA:1102:C:H2'	54:DA:1103:A:H5''	1.59	0.85
28:BF:4:VAL:HA	28:BF:19:GLU:HB3	1.58	0.85
24:BA:1085:A:H2'	24:BA:1086:A:C8	2.11	0.85
37:DQ:106:ARG:HH11	37:DQ:106:ARG:HB2	1.39	0.85
1:AA:327:A:H4'	1:AA:328:C:OP1	1.76	0.85
31:DK:67:ARG:HE	31:DK:68:LEU:H	1.20	0.85
24:BA:2562:U:H1'	33:BN:23:ARG:NH1	1.89	0.85
44:DV:72:ARG:HB2	44:DV:72:ARG:HH11	1.42	0.85
31:BK:142:VAL:HG22	31:BK:143:SER:N	1.91	0.85
54:DA:583:G:H5''	39:D1:10:ARG:HH12	1.42	0.85
54:DA:482:A:H4'	43:DU:47:LYS:HD2	1.58	0.85
43:DU:51:VAL:O	43:DU:56:PRO:HA	1.76	0.85
39:B1:95:LEU:C	39:B1:97:ASP:H	1.79	0.85
2:CE:67:THR:HG21	2:CE:155:LEU:HD21	1.57	0.85
22:AD:15:G:N2	22:AD:48:C:H42	1.75	0.85
20:CW:36:LEU:HD13	20:CW:39:LYS:HD3	1.57	0.85
54:DA:2503:A:H4'	54:DA:2504:U:OP1	1.73	0.85
37:BQ:106:ARG:HB3	37:BQ:110:LEU:HD21	1.56	0.85
24:BA:2061:G:OP1	28:BF:68:LYS:NZ	2.10	0.85
38:BR:26:ASP:CB	38:BR:91:ARG:HA	2.06	0.85
34:DO:75:ILE:H	34:DO:75:ILE:HD13	1.39	0.85
4:AG:129:ASN:HD21	4:AG:145:GLU:N	1.73	0.85
24:BA:2562:U:H1'	33:BN:23:ARG:HH12	1.40	0.85
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.12	0.85
24:BA:1697:G:H3'	24:BA:1698:A:H5''	1.58	0.85
1:AA:920:U:H2'	1:AA:921:U:C6	2.10	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:199:ARG:HB2	27:BE:199:ARG:HH11	1.41	0.85
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.11	0.85
54:DA:704:G:H2'	54:DA:726:G:N2	1.90	0.85
34:DO:101:VAL:HG23	34:DO:107:LYS:H	1.41	0.85
24:BA:925:C:C2'	24:BA:926:A:H5''	2.07	0.85
29:DG:67:LYS:HE2	49:D4:6:HIS:NE2	1.91	0.85
32:BM:39:ARG:HH21	32:BM:41:ASP:CB	1.88	0.85
24:BA:394:A:H5'	24:BA:395:U:OP2	1.76	0.85
30:BH:89:ILE:HD11	30:BH:129:THR:HB	1.58	0.85
28:BF:18:ARG:HG2	28:BF:19:GLU:N	1.92	0.85
28:BF:89:VAL:HG12	28:BF:90:PHE:N	1.90	0.85
38:DR:111:ARG:O	38:DR:112:ARG:HG3	1.76	0.85
5:CH:51:VAL:HB	5:CH:52:PRO:HD3	1.59	0.85
54:DA:50:U:H4'	54:DA:51:G:OP2	1.77	0.85
4:AG:108:LEU:HD21	4:AG:183:GLY:HA3	1.57	0.85
13:AP:54:VAL:HG22	13:AP:57:ARG:NH2	1.92	0.85
29:BG:95:ARG:HG3	29:BG:96:ARG:HG3	1.57	0.85
19:CV:41:VAL:HG13	19:CV:44:MET:HB2	1.57	0.85
24:BA:1929:G:H4'	24:BA:1930:G:OP1	1.76	0.85
15:CR:56:LEU:O	15:CR:60:VAL:HG23	1.75	0.85
30:DH:89:ILE:HD11	30:DH:129:THR:HB	1.58	0.85
31:BK:82:ARG:NH2	1:CA:56:U:H4'	1.92	0.85
54:DA:1049:C:H6	54:DA:1049:C:H5'	1.42	0.85
54:DA:1460:A:H4'	54:DA:1461:G:OP2	1.77	0.85
26:DD:28:GLU:HB2	26:DD:29:PRO:HD2	1.56	0.85
44:DV:59:LEU:O	44:DV:60:GLU:HG2	1.75	0.85
54:DA:1188:U:O2'	54:DA:1189:A:H5'	1.77	0.85
22:CD:26:G:H1	22:CD:44:A:H61	1.21	0.85
24:BA:2189:U:H2'	24:BA:2190:G:H5''	1.58	0.85
27:BE:116:VAL:O	27:BE:117:MET:HB3	1.74	0.85
54:DA:2519:U:H4'	54:DA:2520:C:OP1	1.74	0.85
28:DF:82:ILE:HG13	28:DF:82:ILE:O	1.73	0.85
1:CA:1152:A:H5''	10:CM:13:HIS:CD2	2.11	0.85
27:DE:81:ILE:O	27:DE:82:ARG:HB2	1.75	0.85
40:B2:69:LYS:HD3	40:B2:85:LYS:HD2	1.58	0.85
31:BK:2:LYS:HA	31:BK:20:ASP:HA	1.56	0.85
31:DK:88:ILE:HG12	31:DK:122:GLU:H	1.39	0.85
7:CJ:44:TYR:HA	7:CJ:47:CYS:SG	2.17	0.85
1:AA:701:C:H4'	1:AA:702:A:H5''	1.57	0.85
11:AN:13:GLN:HE21	11:AN:76:GLY:HA3	1.41	0.84
1:AA:1323:G:H2'	1:AA:1324:A:H8	1.40	0.84
24:BA:2753:A:C2'	24:BA:2754:U:H5''	2.06	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:D2:49:THR:HB	40:D2:50:PRO:CD	2.07	0.84
44:BV:103:ARG:CG	44:BV:104:PHE:H	1.90	0.84
54:DA:1169:G:C2'	54:DA:1170:G:H5''	2.06	0.84
24:BA:329:G:N7	43:BU:19:LYS:HG2	1.92	0.84
1:AA:56:U:H2'	1:AA:57:G:H8	1.41	0.84
15:CR:3:ILE:HD13	15:CR:3:ILE:H	1.40	0.84
33:DN:26:LYS:HB2	33:DN:30:ALA:HB2	1.59	0.84
19:AV:19:VAL:HG13	19:AV:44:MET:SD	2.16	0.84
9:AL:28:VAL:HG22	9:AL:29:ASN:N	1.91	0.84
54:DA:1301:A:O2'	54:DA:1302:A:H3'	1.78	0.84
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.12	0.84
54:DA:881:G:H3'	54:DA:882:G:H5''	1.57	0.84
54:DA:2044:C:H6	54:DA:2044:C:H5'	1.42	0.84
1:CA:792:A:O2'	1:CA:793:U:OP2	1.94	0.84
1:AA:1280:A:H5'	1:AA:1281:U:OP2	1.77	0.84
54:DA:1507:A:C3'	54:DA:1508:A:H5''	2.06	0.84
27:DE:95:ILE:H	27:DE:95:ILE:HD12	1.42	0.84
35:BP:141:GLN:HG2	44:BV:75:ASN:ND2	1.91	0.84
29:DG:98:ARG:HA	29:DG:101:ILE:HG12	1.59	0.84
1:CA:1346:A:N1	1:CA:1374:A:H5''	1.91	0.84
22:CD:54:U:H3	22:CD:58:A:H62	1.21	0.84
46:BZ:78:LYS:O	46:BZ:78:LYS:HD3	1.75	0.84
54:DA:2051:A:H61	54:DA:2614:A:H2'	1.41	0.84
7:AJ:115:ARG:O	7:AJ:118:VAL:HG22	1.78	0.84
54:DA:1033:U:H4'	54:DA:1034:G:OP1	1.75	0.84
50:D5:40:LYS:HZ1	50:D5:48:GLU:HB2	1.41	0.84
30:DH:54:ARG:NH1	30:DH:62:LYS:HG2	1.92	0.84
28:BF:18:ARG:NH2	28:BF:20:LEU:HD12	1.92	0.84
27:DE:61:ARG:O	27:DE:63:LEU:HG	1.77	0.84
26:BD:27:THR:CG2	26:BD:83:GLU:HG2	2.08	0.84
37:DQ:106:ARG:HA	37:DQ:110:LEU:CD1	2.08	0.84
34:DO:62:LEU:CD2	53:D8:25:MET:HB2	2.08	0.84
26:DD:17:THR:HG22	26:DD:205:VAL:H	1.41	0.84
28:DF:53:THR:HG23	28:DF:56:GLU:OE1	1.77	0.84
14:AQ:12:ARG:HG2	14:AQ:14:PRO:HD3	1.58	0.84
13:CP:14:ARG:H	13:CP:44:ARG:HD3	1.41	0.84
30:BH:26:VAL:HG13	30:BH:31:GLY:HA2	1.59	0.84
54:DA:518:G:H4'	41:DS:18:ARG:NH1	1.91	0.84
1:CA:235:C:H5'	17:CT:70:ARG:HG2	1.60	0.84
24:BA:2314:C:O2'	24:BA:2315:G:H5'	1.78	0.84
24:BA:388:G:H5'	46:BZ:25:LYS:HB2	1.59	0.84
28:BF:178:PRO:HG2	28:BF:179:GLU:OE2	1.77	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:B1:81:HIS:HD2	39:B1:117:GLN:HE21	1.24	0.84
26:BD:25:THR:HG21	26:BD:81:ALA:HB1	1.58	0.84
37:DQ:83:LYS:HG2	37:DQ:109:GLY:CA	2.07	0.84
1:AA:503:C:OP2	12:AO:116:SER:HB3	1.78	0.84
35:DP:30:GLY:HA2	35:DP:107:ALA:HB2	1.60	0.84
50:D5:40:LYS:HD3	50:D5:46:CYS:HB3	1.60	0.84
1:AA:939:G:H5''	7:AJ:102:ARG:NH2	1.92	0.84
45:B3:23:VAL:HA	45:B3:38:VAL:HG22	1.59	0.84
1:CA:872:A:O2'	1:CA:873:A:H3'	1.76	0.84
44:DV:108:PRO:HB2	44:DV:112:ARG:HB2	1.60	0.84
13:CP:121:LYS:NZ	59:CP:203:C:H4'	1.92	0.84
13:CP:23:TYR:HB3	13:CP:67:GLU:HG2	1.59	0.84
4:AG:17:VAL:HG11	4:AG:197:PRO:HB2	1.59	0.84
38:DR:3:ARG:HG3	38:DR:7:ILE:HG12	1.60	0.84
1:CA:351:G:H4'	1:CA:352:C:OP1	1.76	0.84
39:B1:16:LYS:O	39:B1:20:LEU:HD23	1.78	0.84
1:AA:60:A:H4'	1:AA:61:G:O5'	1.76	0.84
54:DA:1165:U:H2'	54:DA:1166:C:C6	2.12	0.84
54:DA:2656:U:H5	54:DA:2664:G:N2	1.76	0.84
54:DA:1496:A:H8	54:DA:1577:C:HO2'	0.86	0.84
54:DA:363(F):A:H4'	54:DA:364:C:O5'	1.78	0.84
27:BE:14:ILE:HD11	27:BE:173:VAL:HG11	1.60	0.84
10:AM:49:VAL:HG13	14:AQ:41:ARG:HB2	1.58	0.84
43:DU:57:GLN:NE2	43:DU:58:GLY:H	1.76	0.84
24:BA:2420:C:H41	53:B8:31:HIS:HB3	1.41	0.84
37:DQ:89:ARG:HD2	37:DQ:92:TYR:O	1.78	0.84
24:BA:362:U:H5'	24:BA:363:G:OP1	1.77	0.84
38:BR:96:ARG:NH1	38:BR:96:ARG:HB2	1.92	0.84
54:DA:1180:C:H2'	54:DA:1181:C:H5'	1.60	0.84
28:DF:32:LEU:HD13	28:DF:105:VAL:HG13	1.59	0.84
47:BW:65:ASN:HD22	47:BW:69:ARG:HH21	1.20	0.84
10:CM:4:ILE:HB	10:CM:74:ILE:HD11	1.60	0.84
50:D5:39:MET:O	50:D5:40:LYS:HG3	1.77	0.84
38:BR:62:THR:HG22	38:BR:75:ILE:HG12	1.60	0.84
24:BA:1496:A:H8	24:BA:1577:C:HO2'	0.84	0.84
28:BF:165:ARG:HH11	28:BF:165:ARG:HB3	1.40	0.84
38:BR:19:LEU:HD22	38:BR:86:ILE:HG22	1.60	0.84
46:DZ:92:LYS:HG3	46:DZ:96:LYS:HB2	1.57	0.83
24:BA:1484:G:H2'	24:BA:1485:G:C5'	2.05	0.83
3:CF:15:THR:CG2	3:CF:181:ASN:HA	2.08	0.83
10:CM:37:PRO:HA	10:CM:72:VAL:HG22	1.59	0.83
51:D6:27:LYS:NZ	51:D6:27:LYS:HB2	1.93	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:54:ALA:CB	41:BS:107:LEU:HD21	2.08	0.83
33:BN:113:LYS:O	33:BN:117:LEU:HD23	1.78	0.83
1:AA:713:G:H21	1:AA:777:A:C4'	1.91	0.83
5:AH:9:LYS:HB2	5:AH:112:LEU:HD11	1.60	0.83
19:AV:36:ARG:HH11	19:AV:73:GLU:H	1.24	0.83
40:B2:35:LEU:HD21	40:B2:57:VAL:CB	2.07	0.83
54:DA:1050:A:C8	54:DA:2751:G:H2'	2.14	0.83
2:AE:219:VAL:HA	2:AE:222:ILE:HD12	1.58	0.83
26:BD:25:THR:HG23	26:BD:26:LYS:N	1.91	0.83
31:DK:57:ARG:HH11	31:DK:57:ARG:HB2	1.42	0.83
31:DK:74:ASN:HD22	31:DK:74:ASN:H	1.25	0.83
1:AA:973:G:H3'	1:AA:974:A:H5''	1.60	0.83
33:BN:88:ASN:ND2	33:BN:90:GLN:HB2	1.93	0.83
54:DA:483:A:H4'	43:DU:49:VAL:CA	2.03	0.83
15:CR:82:ILE:HD11	15:CR:88:ARG:CG	2.07	0.83
26:BD:25:THR:HG22	26:BD:82:ILE:O	1.78	0.83
54:DA:1803:A:H4'	26:DD:259:THR:CG2	2.08	0.83
36:D0:117:VAL:HG22	36:D0:118:GLU:H	1.43	0.83
24:BA:2030:A:H4'	24:BA:2031:A:H8	1.43	0.83
2:CE:178:ARG:HH21	8:CK:74:PRO:HB3	1.41	0.83
11:AN:16:SER:HA	11:AN:79:SER:O	1.78	0.83
54:DA:479:A:H4'	54:DA:480:A:OP1	1.76	0.83
1:CA:1234:C:H4'	1:CA:1364:U:O2'	1.78	0.83
34:DO:126:VAL:HG22	34:DO:145:PRO:HG2	1.61	0.83
39:B1:50:ARG:HH11	40:B2:72:VAL:HG21	1.43	0.83
1:AA:187:C:H2'	1:AA:188:U:O4'	1.78	0.83
54:DA:1281:G:H5'	54:DA:1281:G:H8	1.43	0.83
30:DH:13:LYS:HA	30:DH:13:LYS:HE2	1.61	0.83
1:AA:1031:G:H21	1:AA:1032:A:H1'	1.42	0.83
14:CQ:12:ARG:C	14:CQ:14:PRO:HD2	1.98	0.83
14:CQ:21:TYR:HE2	14:CQ:23:ARG:HH21	1.24	0.83
10:CM:47:PHE:HE1	10:CM:63:PHE:HB2	1.40	0.83
14:CQ:8:GLU:OE2	14:CQ:11:LYS:HD2	1.78	0.83
1:AA:1041:A:H2'	1:AA:1042:G:H5''	1.61	0.83
39:B1:92:ARG:HH12	40:B2:11:GLN:N	1.75	0.83
38:BR:20:PRO:HD2	38:BR:86:ILE:HG23	1.60	0.83
1:AA:736:C:H2'	1:AA:737:A:H8	1.43	0.83
3:AF:131:ARG:HH12	3:AF:135:LYS:HE2	1.43	0.83
36:B0:24:GLN:NE2	36:B0:36:THR:HG21	1.93	0.83
31:BK:107:VAL:HG12	31:BK:108:THR:H	1.41	0.83
38:DR:53:ARG:O	38:DR:59:THR:HG23	1.78	0.83
9:AL:16:ARG:CB	9:AL:16:ARG:HH11	1.90	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:108:PRO:CG	44:DV:112:ARG:H	1.92	0.83
1:CA:1330:U:H3'	1:CA:1331:G:O4'	1.78	0.83
1:CA:1129:C:C4'	1:CA:1130:A:H5'	2.09	0.83
34:DO:59:LEU:HA	34:DO:61:ARG:HH21	1.44	0.83
37:BQ:67:ARG:HB2	37:BQ:67:ARG:NH1	1.93	0.83
1:AA:1342:C:H1'	9:AL:124:GLN:HE22	1.43	0.83
1:CA:1347:G:C8	9:CL:107:ARG:HB3	2.14	0.83
1:AA:753:A:H5''	1:AA:754:C:OP1	1.79	0.83
36:B0:51:LEU:HD21	36:B0:66:VAL:HG13	1.59	0.83
24:BA:93:C:H5'	24:BA:94:G:OP2	1.78	0.83
24:BA:2356:C:H4'	45:B3:20:ARG:HG3	1.60	0.83
54:DA:1030:G:OP2	35:DP:128:LYS:HE2	1.78	0.83
24:BA:2051:A:H61	24:BA:2614:A:H2'	1.42	0.83
1:AA:1274:G:N2	1:AA:1275:A:H62	1.75	0.83
24:BA:1899:G:H22	24:BA:1902:C:H41	0.83	0.83
11:AN:13:GLN:HG3	11:AN:76:GLY:HA3	1.60	0.83
34:BO:62:LEU:HD13	34:BO:62:LEU:C	1.99	0.83
4:AG:31:CYS:SG	4:AG:32:ALA:N	2.50	0.83
47:BW:50:ILE:HD13	47:BW:51:ARG:H	1.44	0.83
1:AA:819:A:H5''	1:AA:820:U:OP2	1.77	0.83
43:BU:38:ILE:HG22	43:BU:66:PRO:HA	1.60	0.83
1:CA:1014:A:H4'	19:CV:14:HIS:HE2	1.40	0.83
46:BZ:87:PRO:HA	46:BZ:90:ILE:HG22	1.61	0.83
28:BF:164:ARG:HG3	28:BF:175:THR:OG1	1.78	0.83
45:B3:40:GLN:HE22	45:B3:45:PHE:HB2	1.44	0.83
54:DA:1943:U:H4'	54:DA:1944:U:O5'	1.77	0.83
1:AA:1085:U:H4'	1:AA:1086:U:OP1	1.77	0.83
54:DA:2298:A:H62	54:DA:2318:G:H8	1.27	0.83
24:BA:2776:A:H4'	24:BA:2777:G:H5''	1.61	0.83
24:BA:2778:A:H5'	24:BA:2779:U:OP2	1.79	0.83
24:BA:1925:C:C6	24:BA:1925:C:C3'	2.58	0.83
54:DA:2133:G:H21	54:DA:2158:A:H62	1.25	0.83
1:CA:939:G:H5''	7:CJ:102:ARG:NH2	1.94	0.83
22:AD:72:A:C2'	22:AD:73:A:H5''	2.08	0.83
24:BA:1948:G:C8	24:BA:1948:G:H5'	2.14	0.83
27:DE:7:VAL:HG23	27:DE:8:LYS:H	1.44	0.83
24:BA:273(F):C:H3'	24:BA:274:G:H5''	1.60	0.83
32:DM:131:GLN:NE2	32:DM:132:ALA:H	1.75	0.83
22:AD:68:C:C2'	22:AD:69:C:H5''	2.08	0.83
43:DU:81:LYS:HD3	43:DU:97:ARG:HE	1.43	0.83
2:CE:204:ASN:ND2	2:CE:206:ASP:H	1.77	0.83
3:AF:87:LEU:HD22	3:AF:87:LEU:H	1.42	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CJ:78:ARG:HG3	7:CJ:79:ARG:N	1.93	0.83
54:DA:1236:G:H4'	54:DA:1237:A:OP1	1.77	0.83
1:AA:537:G:H5''	12:AO:113:ARG:NH1	1.93	0.83
33:BN:120:GLU:OE2	33:BN:122:LEU:HD21	1.78	0.83
54:DA:2311:A:H3'	54:DA:2312:U:H5	1.43	0.83
45:D3:35:ASN:N	45:D3:35:ASN:HD22	1.77	0.83
12:CO:38:THR:HG23	12:CO:39:VAL:HG23	1.60	0.83
22:CD:63:G:H2'	22:CD:64:G:H8	1.43	0.83
3:AF:16:ARG:NH2	3:AF:181:ASN:HA	1.94	0.82
24:BA:1236:G:H4'	24:BA:1237:A:OP1	1.79	0.82
1:CA:1363:A:H4'	1:CA:1364:U:H5''	1.58	0.82
54:DA:1026:U:H4'	54:DA:1027:A:OP1	1.77	0.82
53:B8:14:VAL:HG12	53:B8:15:LYS:H	1.44	0.82
26:BD:10:THR:HG23	26:BD:13:ARG:CB	2.09	0.82
44:BV:125:LEU:HG	44:BV:164:ALA:HB3	1.59	0.82
22:CD:20:U:C3'	22:CD:21:A:H5''	2.09	0.82
29:BG:104:GLU:HG2	49:B4:23:GLU:HG3	1.61	0.82
13:AP:31:LYS:HA	13:AP:34:LEU:HD21	1.61	0.82
49:B4:14:ILE:HD11	49:B4:33:VAL:HG23	1.60	0.82
24:BA:2746:U:H5''	30:BH:138:LYS:HE3	1.62	0.82
32:DM:133:GLN:HB2	32:DM:135:PRO:HD3	1.59	0.82
27:BE:35:GLN:H	27:BE:48:GLN:HE21	1.23	0.82
39:D1:88:ILE:HD13	39:D1:88:ILE:H	1.44	0.82
41:BS:59:VAL:HG23	41:BS:65:LEU:N	1.93	0.82
26:DD:25:THR:CG2	26:DD:82:ILE:H	1.93	0.82
1:AA:1025:U:H2'	1:AA:1026:G:O4'	1.79	0.82
1:AA:1000:A:H3'	1:AA:1001:G:H5''	1.59	0.82
38:DR:24:PRO:HA	38:DR:49:VAL:HG13	1.59	0.82
5:CH:81:GLU:HB3	5:CH:90:VAL:HG22	1.60	0.82
41:BS:86:LEU:HD12	41:BS:87:PRO:HD2	1.62	0.82
1:CA:968:A:H4'	1:CA:969:A:OP2	1.77	0.82
24:BA:2732:G:H3'	24:BA:2733:A:H5'	1.59	0.82
11:AN:96:ARG:HA	11:AN:99:GLN:HG3	1.58	0.82
19:CV:50:ALA:HB1	19:CV:57:HIS:HB3	1.60	0.82
28:BF:29:ASN:N	28:BF:112:MET:HE1	1.93	0.82
39:D1:64:ARG:HG2	39:D1:64:ARG:HH21	1.42	0.82
2:CE:193:ASP:OD2	2:CE:196:LEU:HG	1.78	0.82
1:CA:1152:A:H5''	10:CM:13:HIS:HD2	1.43	0.82
24:BA:1747:G:O2'	24:BA:1748:G:H5'	1.78	0.82
24:BA:205:G:O2'	24:BA:206:U:OP2	1.97	0.82
25:BB:66:A:H61	25:BB:107:U:H2'	1.43	0.82
24:BA:528:A:C2	24:BA:2042:A:H2'	2.14	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:153:LYS:HG2	30:DH:162:ILE:HG13	1.61	0.82
4:AG:12:CYS:HA	4:AG:21:LEU:HD22	1.61	0.82
4:AG:29:PRO:CG	4:AG:30:LYS:H	1.91	0.82
22:AD:54:U:H3	22:AD:58:A:N6	1.78	0.82
2:AE:178:ARG:HH21	8:AK:70:GLN:HA	1.42	0.82
54:DA:1021:A:H3'	54:DA:1021:A:H8	1.43	0.82
54:DA:1558:A:H4'	54:DA:1559:G:O5'	1.80	0.82
28:BF:161:GLU:HG2	28:BF:164:ARG:NH2	1.93	0.82
4:CG:96:LEU:H	4:CG:96:LEU:HD22	1.43	0.82
3:AF:172:ARG:HH21	3:AF:174:PRO:HG2	1.44	0.82
31:DK:79:ILE:HB	31:DK:142:VAL:HA	1.61	0.82
1:AA:8:A:H62	4:AG:209:ARG:HB2	1.42	0.82
1:CA:411:A:H62	1:CA:413:G:N2	1.78	0.82
24:BA:976:C:H5'	24:BA:1156:A:N6	1.93	0.82
49:B4:40:HIS:H	49:B4:41:PRO:HD2	1.43	0.82
2:CE:185:ILE:HG22	2:CE:199:TYR:HB2	1.61	0.82
27:DE:15:PHE:CE1	27:DE:20:ALA:HB2	2.14	0.82
22:AC:56:C:O2	29:BG:78:SER:HB2	1.79	0.82
54:DA:1280:G:C2'	54:DA:1281:G:H5''	2.09	0.82
2:AE:104:ASN:HD21	2:AE:107:THR:HB	1.43	0.82
35:BP:54:MET:HE1	35:BP:118:LEU:HD23	1.60	0.82
52:B7:47:ARG:HH11	52:B7:47:ARG:H	1.28	0.82
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.14	0.82
13:AP:15:VAL:HA	13:AP:45:VAL:HG22	1.61	0.82
1:CA:1224:G:O2'	1:CA:1225:A:OP1	1.97	0.82
26:DD:35:LYS:NZ	26:DD:104:TYR:HB2	1.93	0.82
1:CA:1443:G:H3'	1:CA:1446:A:C5'	2.09	0.82
27:BE:47:VAL:HG12	27:BE:48:GLN:N	1.94	0.82
1:CA:91:C:C2'	1:CA:92:G:H5''	2.09	0.82
32:DM:22:THR:HG22	32:DM:23:LEU:H	1.45	0.82
54:DA:2389:G:H5''	54:DA:2390:U:C5'	2.09	0.82
38:DR:102:ILE:HA	38:DR:105:LEU:HD21	1.62	0.82
42:BT:65:ARG:HB3	42:BT:70:LEU:HA	1.58	0.82
1:CA:486:U:H2'	1:CA:487:A:H8	1.43	0.82
30:DH:105:LEU:HD13	30:DH:105:LEU:H	1.42	0.82
52:D7:8:ASN:ND2	52:D7:11:LYS:H	1.78	0.82
37:BQ:61:ASN:O	37:BQ:65:VAL:HG23	1.80	0.82
1:AA:1322:C:O2'	1:AA:1323:G:H5'	1.80	0.82
54:DA:1102:C:C2'	54:DA:1103:A:H5''	2.10	0.82
49:D4:71:ARG:NH1	49:D4:71:ARG:HG3	1.90	0.82
54:DA:676:A:H2	54:DA:802:A:H61	1.25	0.82
43:BU:62:GLU:CD	43:BU:63:LYS:H	1.83	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D4:36:CYS:O	49:D4:39:CYS:HB2	1.80	0.82
29:DG:179:PRO:HG3	49:D4:38:LYS:NZ	1.95	0.82
47:DW:65:ASN:ND2	47:DW:69:ARG:HH22	1.78	0.82
54:DA:49:A:N7	54:DA:120:U:H5	1.76	0.82
1:AA:1036:G:H5'	1:AA:1037:C:C5	2.14	0.82
45:B3:18:ALA:O	45:B3:19:LYS:HG2	1.79	0.82
34:DO:39:LYS:HA	34:DO:45:LEU:CD1	2.10	0.82
54:DA:894:C:H2'	54:DA:895:U:H6	1.45	0.82
54:DA:2562:U:H1'	33:DN:23:ARG:NH1	1.94	0.82
17:CT:59:ILE:HG22	17:CT:73:VAL:HA	1.60	0.82
1:AA:1316:G:H4'	14:AQ:18:VAL:HG11	1.62	0.82
34:BO:98:GLU:HA	34:BO:101:VAL:HG12	1.60	0.82
2:CE:84:GLU:OE1	2:CE:216:SER:HA	1.80	0.82
2:AE:91:PRO:CG	2:AE:154:LEU:HD21	2.10	0.82
33:DN:14:THR:HG21	33:DN:86:ILE:HB	1.62	0.82
16:CS:4:ILE:CD1	16:CS:64:ALA:HB1	2.08	0.82
1:CA:192:U:H4'	20:CW:102:GLY:O	1.79	0.82
1:AA:56:U:H2'	1:AA:57:G:C8	2.15	0.82
54:DA:2311:A:H2'	54:DA:2312:U:C6	2.14	0.82
7:AJ:15:ASP:OD1	7:AJ:18:TYR:HB2	1.80	0.82
1:CA:963:G:H21	10:CM:55:LYS:HD3	1.44	0.82
28:BF:192:LEU:HD23	28:BF:193:VAL:N	1.94	0.82
37:DQ:88:ASP:O	37:DQ:89:ARG:HB3	1.78	0.82
29:BG:53:LEU:HD23	29:BG:53:LEU:O	1.78	0.82
24:BA:1428:C:N4	24:BA:1570:A:OP2	2.11	0.82
40:D2:89:GLN:HA	40:D2:89:GLN:HE21	1.44	0.82
11:CN:124:LYS:HD2	11:CN:125:PHE:HE1	1.45	0.82
24:BA:1328:G:H2'	24:BA:1330:C:C5	2.15	0.82
8:AK:5:PRO:O	8:AK:8:ASP:HB3	1.78	0.82
44:DV:94:GLU:HB2	44:DV:130:PRO:HD3	1.61	0.82
40:B2:5:VAL:HG23	40:B2:37:VAL:HG11	1.62	0.81
54:DA:1022:G:O2'	54:DA:1023:U:OP2	1.97	0.81
24:BA:265:A:O2'	24:BA:266:G:C4'	2.27	0.81
29:DG:67:LYS:HE2	49:D4:6:HIS:CE1	2.14	0.81
30:BH:132:ARG:O	30:BH:133:VAL:HG23	1.78	0.81
54:DA:2468:G:H2'	54:DA:2476:A:C2	2.15	0.81
37:DQ:19:LYS:O	37:DQ:20:ARG:HB3	1.80	0.81
2:CE:122:PHE:HD1	2:CE:139:LYS:HZ1	1.28	0.81
1:AA:1301:U:O2	1:AA:1301:U:H2'	1.80	0.81
18:AU:53:ARG:HH21	18:AU:59:SER:HA	1.44	0.81
27:DE:24:THR:HG21	27:DE:188:VAL:HG11	1.59	0.81
54:DA:2419:U:H5'	51:D6:23:THR:HG22	1.62	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1138:G:H21	32:DM:106:MET:CE	1.93	0.81
47:DW:16:LEU:HG	47:DW:16:LEU:O	1.78	0.81
31:BK:47:LEU:HD12	31:BK:50:ARG:HE	1.44	0.81
58:DA:2912:G:O2'	59:DA:2913:C:H5''	1.79	0.81
4:CG:108:LEU:HD11	4:CG:174:LEU:HD22	1.60	0.81
1:CA:1205:U:H1'	3:CF:195:VAL:CG2	2.10	0.81
49:B4:71:ARG:HB3	49:B4:71:ARG:HH11	1.44	0.81
24:BA:969:U:H2'	24:BA:970:C:C6	2.14	0.81
25:BB:81:G:O6	25:BB:96:G:C6	2.33	0.81
9:AL:1:MET:HB3	9:AL:20:ARG:HD3	1.61	0.81
10:CM:63:PHE:HD1	14:CQ:58:LYS:HA	1.43	0.81
54:DA:1568:G:OP1	26:DD:63:ARG:NH1	2.12	0.81
13:AP:40:ASN:ND2	13:AP:43:THR:HG23	1.95	0.81
25:BB:7:G:C3'	25:BB:8:U:H5''	2.10	0.81
24:BA:2392:A:H2	24:BA:2424:C:N4	1.77	0.81
30:DH:10:PRO:O	30:DH:11:VAL:HG13	1.80	0.81
40:D2:66:ARG:NH1	40:D2:88:ARG:HD3	1.94	0.81
24:BA:2485:G:H5''	35:BP:46:GLN:HE21	1.45	0.81
13:AP:73:GLU:HG3	49:B4:52:THR:HG21	1.62	0.81
54:DA:1454:U:O2'	54:DA:1455:G:N7	2.14	0.81
1:CA:1319:A:H5'	1:CA:1320:C:OP1	1.80	0.81
1:CA:957:U:H2'	1:CA:959:A:OP2	1.80	0.81
10:CM:6:ILE:O	10:CM:6:ILE:HD12	1.81	0.81
44:BV:28:MET:O	44:BV:34:ASN:HA	1.80	0.81
24:BA:27:G:H1'	24:BA:513:A:H62	1.45	0.81
1:AA:1206:G:H1'	3:AF:193:TYR:O	1.80	0.81
54:DA:1405:U:H2'	54:DA:1406:U:C6	2.14	0.81
35:DP:90:VAL:HG13	35:DP:91:GLU:N	1.95	0.81
32:BM:133:GLN:HG2	32:BM:135:PRO:HD3	1.59	0.81
1:CA:1176:A:H2'	1:CA:1177:G:H5'	1.63	0.81
54:DA:83:G:N2	54:DA:102:G:O2'	2.13	0.81
20:AW:10:LEU:HD22	20:AW:11:SER:H	1.46	0.81
35:BP:12:GLN:HG2	35:BP:73:PRO:HD2	1.63	0.81
24:BA:2394:C:OP1	34:BO:63:PRO:HD2	1.81	0.81
21:AX:15:ARG:HB2	21:AX:15:ARG:NH1	1.94	0.81
27:BE:58:ARG:HA	27:BE:58:ARG:NE	1.92	0.81
22:AD:56:C:C2'	22:AD:57:A:H5''	2.10	0.81
44:BV:103:ARG:H	44:BV:139:VAL:HG23	1.45	0.81
29:DG:47:LYS:HD3	29:DG:81:LYS:HB2	1.63	0.81
22:CD:20:U:H3'	22:CD:21:A:H5''	1.62	0.81
1:CA:812:C:O2'	1:CA:813:U:C6	2.32	0.81
40:B2:22:VAL:HG22	40:B2:23:GLU:H	1.46	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:11:ARG:HH21	3:AF:180:ALA:CB	1.93	0.81
3:AF:21:ARG:CB	3:AF:21:ARG:HH11	1.92	0.81
24:BA:1925:C:N4	24:BA:1926:U:C2	2.49	0.81
40:B2:80:GLN:HE21	40:B2:80:GLN:CA	1.93	0.81
27:DE:116:VAL:HG21	27:DE:122:PHE:CD2	2.16	0.81
54:DA:871:U:H2'	54:DA:871:U:O2	1.79	0.81
52:D7:48:LYS:HG2	52:D7:49:ARG:H	1.46	0.81
35:BP:77:LYS:HZ1	35:BP:82:ARG:HB2	1.18	0.81
54:DA:2810:A:O3'	27:DE:61:ARG:HG3	1.80	0.81
24:BA:1280:G:H2'	24:BA:1281:G:H5''	1.61	0.81
6:AI:69:GLU:O	6:AI:72:VAL:HG12	1.80	0.81
36:B0:51:LEU:CD2	36:B0:66:VAL:HG13	2.10	0.81
28:DF:155:LEU:HD13	28:DF:174:VAL:HG13	1.62	0.81
25:BB:48:A:H4'	37:BQ:95:HIS:HD2	1.46	0.81
13:AP:99:ARG:O	13:AP:101:GLN:HG3	1.80	0.81
27:DE:50:GLY:CA	27:DE:77:ILE:HA	2.10	0.81
32:DM:43:THR:HB	32:DM:46:VAL:HG12	1.63	0.81
1:AA:1374:A:O2'	7:AJ:28:ASN:HB3	1.79	0.81
54:DA:784:A:H5''	26:DD:227:ASN:HD21	1.45	0.81
24:BA:2795:G:H3'	24:BA:2797:U:C5'	2.11	0.81
32:DM:35:ARG:HG3	32:DM:37:LYS:HG3	1.63	0.81
1:AA:728:A:H2'	1:AA:729:A:C8	2.15	0.81
2:AE:124:SER:OG	2:AE:125:PRO:HD2	1.81	0.81
27:BE:201:THR:HG22	27:BE:202:LYS:H	1.45	0.81
9:AL:28:VAL:HG23	9:AL:62:TYR:CD1	2.15	0.81
34:BO:112:LEU:H	34:BO:128:HIS:CD2	1.99	0.81
24:BA:1405:U:H2'	24:BA:1406:U:C6	2.16	0.81
1:AA:1372:U:OP1	9:AL:71:SER:HB3	1.81	0.81
12:AO:55:VAL:HG13	12:AO:68:ALA:O	1.80	0.81
47:DW:43:GLN:O	47:DW:44:LEU:HG	1.81	0.81
21:AX:25:LYS:HG2	21:AX:26:LYS:HG2	1.62	0.81
33:BN:35:VAL:HG11	33:BN:103:ALA:HB3	1.62	0.81
26:BD:242:ARG:HD2	26:BD:242:ARG:N	1.94	0.81
54:DA:1057:A:N6	54:DA:1086:A:H2'	1.93	0.81
44:DV:137:ILE:HB	44:DV:156:LYS:HD2	1.62	0.81
54:DA:1043:C:C2'	54:DA:1044:G:H5''	2.09	0.81
24:BA:270(A):A:H5''	46:BZ:97:LEU:HD22	1.63	0.81
3:CF:113:ALA:HB3	3:CF:114:PRO:HD3	1.62	0.81
1:AA:696:A:H2'	1:AA:697:U:C5'	2.09	0.81
40:B2:71:LEU:H	40:B2:86:GLY:HA3	1.45	0.81
25:BB:2:C:H2'	25:BB:3:C:C6	2.15	0.81
53:D8:59:LYS:CB	53:D8:59:LYS:NZ	2.39	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:454:A:H4'	24:BA:455:C:OP2	1.81	0.80
1:CA:1124:G:H3'	1:CA:1145:C:H42	1.46	0.80
24:BA:2805:G:H2'	24:BA:2807:G:H8	1.44	0.80
30:DH:8:PRO:C	30:DH:9:ILE:HG12	2.00	0.80
32:BM:39:ARG:HH21	32:BM:41:ASP:HB2	1.45	0.80
24:BA:2523:G:H5'	24:BA:2523:G:H8	1.45	0.80
1:CA:797:C:OP1	11:CN:124:LYS:HE2	1.82	0.80
1:AA:1353:G:H2'	1:AA:1354:C:C6	2.17	0.80
1:CA:336:C:O2'	1:CA:337:C:H5'	1.81	0.80
54:DA:532:A:N7	54:DA:2021:C:H2'	1.95	0.80
26:BD:263:ARG:CB	26:BD:263:ARG:HH11	1.94	0.80
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.16	0.80
19:AV:42:PRO:O	19:AV:43:GLU:HB2	1.78	0.80
30:BH:30:LYS:HB3	30:BH:136:ILE:HG21	1.63	0.80
1:AA:1152:A:H5''	10:AM:13:HIS:HD2	1.44	0.80
55:DB:8:U:H5'	55:DB:8:U:H6	1.46	0.80
43:BU:28:LYS:NZ	43:BU:29:GLU:H	1.79	0.80
54:DA:1496:A:H8	54:DA:1577:C:O2'	1.63	0.80
24:BA:2580:U:H4'	27:BE:130:GLY:HA3	1.63	0.80
22:CC:9:G:H5'	22:CC:10:G:OP2	1.80	0.80
38:DR:39:ARG:HG2	38:DR:40:THR:H	1.46	0.80
43:DU:6:HIS:O	43:DU:7:VAL:HG13	1.81	0.80
54:DA:242:G:H5''	53:D8:62:LEU:HD22	1.61	0.80
1:CA:690:G:N2	11:CN:55:LYS:NZ	2.30	0.80
43:BU:43:ASN:CB	43:BU:64:GLU:HA	2.11	0.80
2:AE:8:LYS:HG3	2:AE:11:LEU:HD21	1.63	0.80
54:DA:2311:A:H3'	54:DA:2312:U:C5	2.16	0.80
54:DA:531:C:H5''	54:DA:532:A:O4'	1.81	0.80
1:CA:737:A:H2'	1:CA:738:C:H6	1.46	0.80
48:BX:6:VAL:HG13	48:BX:54:VAL:HG11	1.62	0.80
3:CF:52:LEU:H	3:CF:52:LEU:HD23	1.46	0.80
31:BK:143:SER:O	31:BK:144:VAL:HG23	1.82	0.80
43:DU:76:CYS:HB3	43:DU:96:ILE:CD1	2.07	0.80
9:AL:77:ILE:O	9:AL:81:ILE:HG12	1.81	0.80
2:AE:132:LYS:HD3	2:AE:135:GLN:NE2	1.96	0.80
30:BH:9:ILE:CB	30:BH:10:PRO:HA	2.10	0.80
24:BA:1209:G:H21	24:BA:1210:A:H62	1.28	0.80
24:BA:1614:A:H62	41:BS:93:ALA:HB2	1.47	0.80
24:BA:85:G:OP1	43:BU:30:VAL:HG21	1.81	0.80
37:BQ:30:ARG:HG2	37:BQ:30:ARG:HH11	1.46	0.80
42:BT:50:LYS:H	42:BT:87:GLN:NE2	1.78	0.80
54:DA:2439:A:H5'	54:DA:2439:A:H8	1.45	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1165:U:H2'	54:DA:1166:C:H6	1.46	0.80
36:B0:24:GLN:HE22	36:B0:36:THR:HG21	1.45	0.80
3:CF:47:LEU:HD11	3:CF:76:VAL:HG12	1.62	0.80
29:BG:51:ARG:O	29:BG:54:GLU:HB3	1.81	0.80
37:DQ:36:TYR:HD2	37:DQ:52:SER:HB3	1.46	0.80
26:DD:186:HIS:HD2	26:DD:188:GLU:H	1.29	0.80
19:AV:7:LYS:HE3	19:AV:8:GLY:H	1.45	0.80
30:BH:44:VAL:HG22	30:BH:51:ARG:HH11	1.47	0.80
24:BA:322:A:H5'	28:BF:169:ASN:ND2	1.95	0.80
26:BD:31:LYS:HG2	26:BD:34:VAL:HG12	1.63	0.80
15:AR:82:ILE:O	15:AR:82:ILE:HD13	1.82	0.80
24:BA:2245:U:H5'	24:BA:2246:G:H5'	1.63	0.80
3:CF:20:SER:HB2	3:CF:40:ARG:NH2	1.95	0.80
26:DD:27:THR:HG23	26:DD:28:GLU:N	1.96	0.80
29:BG:64:THR:HG23	29:BG:66:GLN:H	1.47	0.80
1:AA:1182:G:C5'	1:AA:1183:A:H5'	2.11	0.80
18:AU:19:LYS:HD3	18:AU:19:LYS:H	1.46	0.80
24:BA:171:G:H2'	24:BA:172:C:C6	2.17	0.80
24:BA:2681:C:O2	24:BA:2681:C:H2'	1.82	0.80
25:BB:38:C:O2	25:BB:48:A:H1'	1.81	0.80
23:A1:8:A:H3'	23:A1:9:G:C5'	2.08	0.80
24:BA:330:A:C2	24:BA:1210:A:H2'	2.15	0.80
34:BO:101:VAL:HG21	34:BO:108:LYS:H	1.47	0.80
1:CA:1318:A:H4'	19:CV:11:VAL:HG11	1.61	0.80
53:B8:32:LEU:HB2	53:B8:36:LYS:NZ	1.96	0.80
54:DA:1475:G:C8	54:DA:1475:G:H5'	2.15	0.80
49:D4:33:VAL:HG12	49:D4:34:GLU:H	1.44	0.80
2:CE:196:LEU:CD1	2:CE:197:VAL:HG23	2.10	0.80
5:CH:50:GLU:HB3	5:CH:53:LEU:HD13	1.61	0.80
46:BZ:75:GLU:O	46:BZ:76:ARG:HD3	1.80	0.80
54:DA:1454:U:H4'	54:DA:1455:G:OP1	1.81	0.80
2:AE:129:GLU:HB3	2:AE:130:ARG:NH1	1.97	0.80
27:DE:35:GLN:HG2	27:DE:37:ARG:HE	1.44	0.80
2:CE:212:GLN:CD	2:CE:235:SER:HB2	2.02	0.80
2:AE:17:PHE:HB3	2:AE:42:ILE:HG23	1.62	0.80
53:D8:52:LYS:N	53:D8:53:PRO:CD	2.43	0.80
35:DP:80:GLU:O	35:DP:81:VAL:CG1	2.30	0.80
27:BE:95:ILE:N	27:BE:95:ILE:HD12	1.97	0.80
8:CK:84:ARG:HG3	8:CK:84:ARG:HH11	1.45	0.80
29:BG:43:LEU:HD22	29:BG:90:LEU:HD23	1.61	0.80
24:BA:1188:U:C2'	24:BA:1189:A:H5'	2.11	0.80
35:BP:34:LEU:HD11	35:BP:129:THR:HB	1.63	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:659:U:H2'	1:CA:660:G:H8	1.46	0.80
54:DA:1354:A:OP1	26:DD:38:LYS:HE2	1.82	0.80
22:CD:50:U:H2'	22:CD:51:C:C6	2.17	0.80
1:AA:351:G:H4'	1:AA:352:C:OP1	1.81	0.80
33:DN:31:LYS:HG3	33:DN:32:TYR:CE2	2.17	0.80
31:BK:88:ILE:HG22	31:BK:90:GLY:H	1.45	0.80
3:AF:75:VAL:C	3:AF:83:ARG:HG2	2.02	0.80
50:D5:4:HIS:HB3	50:D5:5:PRO:CD	2.11	0.80
22:AD:58:A:O2'	22:AD:59:A:H3'	1.81	0.80
29:DG:61:ALA:HB2	29:DG:68:PRO:CD	2.12	0.80
54:DA:2712:U:OP1	54:DA:2714:G:H4'	1.81	0.80
25:BB:113:C:H4'	37:BQ:46:VAL:HG13	1.61	0.80
28:DF:198:ALA:HA	28:DF:201:VAL:HG12	1.62	0.80
54:DA:1093:G:H4'	30:DH:170:ARG:NH2	1.96	0.80
26:DD:121:PRO:HB3	26:DD:135:PHE:HE1	1.46	0.80
5:CH:126:ARG:HG3	5:CH:126:ARG:HH11	1.47	0.80
6:AI:23:LYS:O	6:AI:27:GLN:HG3	1.81	0.80
27:DE:3:GLY:O	27:DE:4:ILE:HB	1.81	0.80
43:BU:95:LYS:NZ	43:BU:95:LYS:HB2	1.97	0.80
1:CA:1003:G:C2'	1:CA:1004:A:H5'	2.12	0.80
24:BA:2378:A:H4'	37:BQ:23:ARG:NH1	1.96	0.80
4:CG:28:SER:HB3	4:CG:29:PRO:CD	2.12	0.80
31:BK:47:LEU:HA	31:BK:50:ARG:HE	1.46	0.80
54:DA:2656:U:O4	54:DA:2657:A:N7	2.14	0.80
2:AE:83:MET:HE3	2:AE:234:PRO:HD2	1.64	0.80
10:AM:27:ALA:HB2	10:AM:85:LEU:HD11	1.62	0.80
54:DA:2290:G:H8	54:DA:2290:G:H5'	1.47	0.80
35:BP:134:ARG:HH21	44:BV:122:ARG:HH12	1.28	0.80
33:BN:10:VAL:HG21	33:BN:16:ALA:O	1.82	0.80
1:CA:1542:G:O5'	18:CU:19:LYS:HD3	1.82	0.80
24:BA:890:A:H3'	24:BA:892:G:C8	2.16	0.80
54:DA:2296:U:H4'	54:DA:2297:C:OP1	1.80	0.80
54:DA:1378:A:H4'	54:DA:1379:A:OP1	1.82	0.80
9:AL:20:ARG:HG2	9:AL:20:ARG:HH11	1.47	0.80
54:DA:1084:A:H5'	54:DA:1085:A:OP2	1.80	0.80
26:DD:34:VAL:O	26:DD:34:VAL:HG13	1.81	0.80
2:AE:29:ALA:O	2:AE:32:ILE:HG22	1.82	0.80
37:DQ:106:ARG:CA	37:DQ:110:LEU:HD21	2.10	0.80
27:DE:201:THR:CG2	27:DE:203:LYS:HB3	2.12	0.80
24:BA:518:G:H4'	41:BS:18:ARG:HH11	1.46	0.80
16:CS:4:ILE:HG13	16:CS:21:VAL:HG12	1.64	0.80
26:DD:68:LYS:HB2	26:DD:70:TRP:CH2	2.17	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AD:22:G:H2'	22:AD:23:C:C6	2.16	0.80
16:CS:51:VAL:HG12	16:CS:52:ASP:H	1.46	0.80
7:CJ:111:ARG:HB3	7:CJ:111:ARG:HH11	1.46	0.80
31:DK:40:THR:O	31:DK:44:LEU:HB2	1.81	0.80
44:DV:158:PRO:HB3	44:DV:159:PRO:HD2	1.63	0.79
54:DA:1045:A:H4'	54:DA:1046:A:H5'	1.63	0.79
13:CP:4:ILE:H	13:CP:9:ILE:HG21	1.47	0.79
4:AG:26:CYS:HA	4:AG:31:CYS:CB	2.12	0.79
25:BB:8:U:H5'	25:BB:8:U:H6	1.47	0.79
43:BU:61:ILE:HG22	43:BU:62:GLU:N	1.97	0.79
1:CA:251:G:H4'	1:CA:252:U:O5'	1.81	0.79
1:CA:243:A:H4'	1:CA:244:U:C5'	2.11	0.79
54:DA:84:A:N6	54:DA:102:G:H1'	1.97	0.79
3:AF:62:ASP:HA	3:AF:97:LYS:HD2	1.64	0.79
9:CL:19:LEU:HD23	9:CL:61:ALA:HB2	1.63	0.79
8:CK:100:ILE:HB	8:CK:125:ARG:HH12	1.47	0.79
54:DA:484:C:H2'	54:DA:485:C:C6	2.17	0.79
27:DE:52:LEU:HB2	27:DE:75:VAL:HG23	1.62	0.79
2:CE:187:LEU:HA	2:CE:201:ILE:HB	1.65	0.79
54:DA:1181:C:H5'	54:DA:1181:C:H6	1.45	0.79
51:B6:40:CYS:N	51:B6:41:PRO:HD2	1.96	0.79
54:DA:1962:C:H4'	54:DA:1963:U:OP1	1.82	0.79
54:DA:2287:A:N6	54:DA:2344:U:H3	1.79	0.79
20:CW:50:GLU:HG3	20:CW:51:GLU:N	1.97	0.79
27:BE:199:ARG:NH1	27:BE:199:ARG:HB2	1.96	0.79
16:CS:51:VAL:HG12	16:CS:52:ASP:N	1.97	0.79
18:AU:85:LEU:O	18:AU:85:LEU:HD12	1.82	0.79
47:BW:17:SER:HA	47:BW:20:GLU:HG3	1.64	0.79
1:CA:795:C:H1'	1:CA:1506:U:C6	2.17	0.79
24:BA:1212:G:H1'	24:BA:1237:A:N6	1.98	0.79
30:DH:152:ARG:O	30:DH:153:LYS:HB2	1.80	0.79
2:CE:4:GLU:HG2	2:CE:5:ILE:N	1.95	0.79
54:DA:1359:A:H5'	54:DA:1359:A:C8	2.17	0.79
40:D2:99:ILE:HD13	40:D2:99:ILE:N	1.95	0.79
1:AA:689:C:H2'	1:AA:690:G:H5'	1.62	0.79
29:DG:77:ILE:HD13	29:DG:82:LEU:HD12	1.64	0.79
12:CO:48:PRO:HD2	12:CO:49:ASN:N	1.97	0.79
41:BS:12:ILE:HG13	41:BS:42:ARG:HH12	1.48	0.79
6:AI:98:LEU:HA	18:AU:30:ASP:HA	1.65	0.79
28:BF:154:VAL:HB	28:BF:173:VAL:HG22	1.64	0.79
54:DA:270(P):C:H2'	54:DA:270(Q):C:C6	2.17	0.79
1:AA:993:G:H5'	1:AA:994:A:OP2	1.83	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:141:A:C8	24:BA:1408:C:H1'	2.16	0.79
32:BM:131:GLN:HE21	32:BM:132:ALA:H	1.30	0.79
1:AA:1363:A:C4'	1:AA:1364:U:H5''	2.13	0.79
30:BH:44:VAL:HG22	30:BH:51:ARG:NH1	1.97	0.79
2:AE:178:ARG:HH12	8:AK:68:ARG:NH2	1.81	0.79
2:CE:18:GLY:H	2:CE:42:ILE:CG2	1.95	0.79
5:CH:10:MET:HB3	5:CH:32:VAL:HG22	1.63	0.79
38:DR:62:THR:CG2	38:DR:75:ILE:HG12	2.11	0.79
1:AA:329:A:H4'	1:AA:330:C:OP1	1.81	0.79
11:CN:32:ILE:CD1	11:CN:72:ALA:HB2	2.12	0.79
30:DH:169:VAL:HG22	30:DH:170:ARG:H	1.48	0.79
1:CA:890:G:HO2'	1:CA:906:G:H1	1.30	0.79
1:CA:890:G:O2'	1:CA:891:U:OP2	1.99	0.79
24:BA:2134:A:H62	24:BA:2157:G:H1'	1.45	0.79
54:DA:64:A:C4	42:DT:66:LEU:HD13	2.18	0.79
24:BA:1485:G:O2'	24:BA:1486:A:H5'	1.82	0.79
24:BA:443:A:H5''	24:BA:444:C:OP1	1.83	0.79
54:DA:483:A:H5''	43:DU:49:VAL:HG13	1.64	0.79
34:BO:97:PRO:O	34:BO:98:GLU:HG3	1.83	0.79
19:CV:5:LEU:HD11	49:D4:66:SER:HB2	1.62	0.79
54:DA:627:A:O2'	54:DA:628:G:C8	2.35	0.79
24:BA:796:C:H2'	24:BA:797:C:C6	2.18	0.79
35:DP:81:VAL:O	35:DP:82:ARG:CG	2.31	0.79
38:BR:3:ARG:O	38:BR:7:ILE:HG12	1.81	0.79
1:CA:250:A:H4'	1:CA:251:G:O5'	1.82	0.79
12:CO:6:THR:N	12:CO:9:GLN:HE21	1.80	0.79
11:AN:33:THR:HG22	11:AN:39:PRO:HA	1.63	0.79
34:DO:14:LYS:O	34:DO:16:ARG:HG2	1.83	0.79
30:DH:126:PRO:CG	30:DH:127:GLU:H	1.95	0.79
29:BG:17:PRO:HA	29:BG:20:ILE:CG1	2.12	0.79
3:AF:66:VAL:HG13	3:AF:101:LEU:HA	1.63	0.79
54:DA:1729:A:H2'	54:DA:1730:U:H5''	1.64	0.79
24:BA:99:U:H2'	24:BA:99:U:O2	1.81	0.79
20:CW:100:ILE:HG13	20:CW:102:GLY:H	1.48	0.79
39:D1:105:VAL:HG22	40:D2:44:LYS:HD2	1.65	0.79
1:AA:251:G:H4'	1:AA:252:U:O5'	1.82	0.79
1:AA:1037:C:H2'	1:AA:1038:C:C6	2.17	0.79
18:AU:22:VAL:HG22	18:AU:23:LYS:H	1.47	0.79
54:DA:1341:U:H2'	54:DA:1397:U:O2'	1.82	0.79
1:CA:827:U:H5'	1:CA:828:A:OP2	1.83	0.79
24:BA:671:C:O2'	24:BA:672:C:H5'	1.82	0.79
24:BA:71:A:H4'	24:BA:72:U:O5'	1.82	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:35:GLU:O	2:CE:36:ARG:HD3	1.82	0.79
1:CA:1316:G:N2	1:CA:1318:A:H3'	1.97	0.79
2:AE:69:LEU:HD23	2:AE:91:PRO:HB2	1.64	0.79
53:B8:32:LEU:HD23	53:B8:34:TRP:N	1.97	0.79
54:DA:2790:A:H2'	54:DA:2791:C:C5'	2.11	0.79
39:B1:50:ARG:HH12	40:B2:72:VAL:HG11	1.42	0.79
38:DR:102:ILE:HA	38:DR:105:LEU:CD2	2.13	0.79
54:DA:302:C:H2'	54:DA:303:U:C6	2.18	0.79
35:BP:134:ARG:HH21	44:BV:122:ARG:NH1	1.81	0.79
9:CL:15:ALA:HB2	9:CL:65:VAL:HG23	1.65	0.79
48:DX:56:VAL:HG12	48:DX:57:GLU:H	1.48	0.79
8:CK:20:TYR:HA	8:CK:65:TYR:CE2	2.18	0.79
31:BK:131:LYS:HB3	31:BK:132:PRO:HA	1.65	0.79
1:CA:134:A:H61	16:CS:25:ARG:NH1	1.79	0.79
1:CA:677:U:H2'	1:CA:678:U:C6	2.17	0.79
19:AV:62:ILE:HG23	19:AV:66:MET:HE1	1.64	0.79
43:BU:13:VAL:HG23	43:BU:73:ARG:O	1.83	0.79
43:BU:75:ILE:CG1	43:BU:80:GLY:H	1.96	0.79
54:DA:1111:A:O2'	54:DA:1112:G:H4'	1.81	0.79
30:DH:153:LYS:CG	30:DH:162:ILE:H	1.96	0.79
24:BA:2287:A:N6	24:BA:2344:U:N3	2.30	0.79
4:AG:22:LYS:HG3	4:AG:26:CYS:HB2	1.65	0.79
22:AD:7:G:H4'	22:AD:8:U:OP1	1.81	0.79
34:DO:65:ARG:HG3	34:DO:65:ARG:NH1	1.90	0.79
1:CA:1205:U:H1'	3:CF:195:VAL:HG23	1.63	0.79
9:AL:53:VAL:HG11	9:AL:85:LEU:HD22	1.64	0.79
34:BO:65:ARG:HG3	34:BO:65:ARG:HH11	1.46	0.79
46:DZ:11:ARG:NH1	46:DZ:11:ARG:HB3	1.98	0.79
54:DA:860:U:H5	54:DA:917:A:C2	2.01	0.79
44:DV:30:ASN:O	44:DV:32:HIS:N	2.16	0.79
31:DK:93:THR:HG22	31:DK:119:PRO:HB3	1.65	0.79
1:AA:980:C:H5'	1:AA:981:U:OP2	1.83	0.79
26:BD:255:LYS:N	26:BD:255:LYS:HE3	1.97	0.79
19:AV:36:ARG:NH1	19:AV:73:GLU:HB2	1.98	0.79
49:B4:16:CYS:HB3	49:B4:19:GLY:N	1.98	0.79
24:BA:1111:A:O2'	24:BA:1112:G:H4'	1.83	0.79
54:DA:503:A:O2'	54:DA:504:U:OP2	2.01	0.79
19:CV:41:VAL:HG12	19:CV:44:MET:N	1.98	0.79
3:AF:84:ILE:O	3:AF:88:ARG:HG2	1.82	0.79
1:CA:690:G:N2	11:CN:55:LYS:HZ1	1.81	0.79
2:AE:178:ARG:NH1	8:AK:68:ARG:HH22	1.81	0.79
33:DN:53:LYS:HD2	33:DN:53:LYS:N	1.96	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2061:G:H5''	24:BA:2503:A:C2	2.18	0.79
30:DH:26:VAL:HG13	30:DH:27:LYS:N	1.96	0.79
31:DK:11:ASN:O	31:DK:12:LEU:HB2	1.83	0.79
12:AO:55:VAL:HG12	12:AO:56:ALA:N	1.98	0.79
26:DD:17:THR:CG2	26:DD:205:VAL:H	1.96	0.79
18:CU:43:PHE:HE2	18:CU:58:LEU:HD11	1.47	0.79
33:BN:68:GLU:HB3	33:BN:78:ARG:HB2	1.62	0.79
24:BA:1534:G:N2	24:BA:1538:G:C6	2.51	0.79
14:CQ:39:LEU:HB3	14:CQ:43:CYS:HB2	1.63	0.79
44:BV:27:VAL:HG23	44:BV:36:LYS:HA	1.64	0.79
4:CG:28:SER:HB3	4:CG:29:PRO:HD2	1.65	0.79
24:BA:1799:G:H4'	24:BA:1800:C:O5'	1.81	0.79
1:AA:134:A:H61	16:AS:25:ARG:NH1	1.81	0.79
24:BA:2126:A:H4'	24:BA:2127:G:O5'	1.83	0.79
8:AK:6:ILE:HD12	8:AK:6:ILE:H	1.48	0.79
1:AA:1234:C:H4'	1:AA:1364:U:O2'	1.83	0.78
19:AV:16:LEU:HA	19:AV:19:VAL:HB	1.64	0.78
1:AA:64:G:H4'	1:AA:65:U:C5'	2.11	0.78
40:B2:35:LEU:O	40:B2:37:VAL:HG22	1.82	0.78
30:DH:150:ALA:O	30:DH:152:ARG:N	2.14	0.78
2:AE:55:PHE:HD1	2:AE:221:LEU:HD21	1.47	0.78
54:DA:2392:A:H2	54:DA:2424:C:H42	1.28	0.78
27:BE:70:ALA:O	27:BE:72:VAL:N	2.15	0.78
4:AG:21:LEU:CD1	4:AG:22:LYS:H	1.97	0.78
39:D1:90:VAL:HG12	39:D1:91:ASP:N	1.98	0.78
24:BA:586:A:H5'	28:BF:89:VAL:HG21	1.64	0.78
54:DA:389:G:H22	34:DO:72:PRO:CG	1.97	0.78
26:BD:43:ARG:HD3	26:BD:43:ARG:O	1.82	0.78
1:AA:267:C:OP1	17:AT:67:LYS:HB2	1.83	0.78
31:BK:38:LEU:HD12	31:BK:38:LEU:H	1.47	0.78
33:DN:97:ARG:H	33:DN:117:LEU:HD22	1.48	0.78
25:BB:81:G:N7	25:BB:96:G:C2	2.50	0.78
1:CA:1538:C:H3'	1:CA:1539:C:H5''	1.64	0.78
54:DA:1279:G:H4'	36:D0:31:HIS:HD2	1.46	0.78
3:CF:138:VAL:HG13	3:CF:149:ALA:HB1	1.64	0.78
12:CO:86:ARG:HB2	12:CO:101:VAL:HG22	1.62	0.78
36:B0:2:ARG:HG2	36:B0:2:ARG:HH11	1.47	0.78
24:BA:1069:A:H4'	24:BA:1070:A:H5''	1.65	0.78
43:DU:86:ARG:HB2	43:DU:95:LYS:HD2	1.64	0.78
1:AA:1364:U:H2'	1:AA:1364:U:O2	1.83	0.78
21:AX:9:ARG:HH21	21:AX:10:ARG:HH21	1.28	0.78
49:B4:20:ASN:O	49:B4:21:VAL:HG13	1.82	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AO:44:THR:HB	12:AO:45:PRO:HD2	1.65	0.78
44:BV:155:LEU:O	44:BV:156:LYS:HG2	1.83	0.78
3:AF:71:ALA:HB1	3:AF:109:PRO:HG3	1.64	0.78
1:CA:1037:C:H2'	1:CA:1038:C:H6	1.47	0.78
54:DA:2790:A:C2'	54:DA:2791:C:H5''	2.13	0.78
55:DB:20:C:C2'	55:DB:21:G:H5''	2.11	0.78
1:AA:406:G:H5''	4:AG:5:ILE:HG23	1.63	0.78
1:AA:134:A:N6	16:AS:25:ARG:HH12	1.80	0.78
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.19	0.78
18:CU:56:THR:HB	18:CU:58:LEU:CD1	2.13	0.78
9:CL:83:ARG:O	9:CL:86:VAL:HG12	1.84	0.78
24:BA:1251:C:H4'	24:BA:1252:G:OP1	1.83	0.78
41:BS:66:GLU:HA	41:BS:69:LEU:HG	1.65	0.78
54:DA:643:A:O2'	54:DA:644:A:H5'	1.83	0.78
24:BA:1885:A:H3'	24:BA:1886:C:H6	1.49	0.78
31:DK:2:LYS:CA	31:DK:20:ASP:HB3	2.13	0.78
54:DA:774:A:H2	54:DA:787:U:HO2'	1.27	0.78
34:BO:107:LYS:O	34:BO:109:GLY:N	2.16	0.78
49:D4:58:ARG:O	49:D4:63:TYR:HB2	1.84	0.78
1:AA:792:A:C1'	1:AA:794:A:H62	1.95	0.78
40:D2:47:VAL:HG13	40:D2:48:GLY:H	1.49	0.78
1:AA:411:A:N7	1:AA:413:G:N3	2.31	0.78
26:DD:27:THR:HG21	26:DD:83:GLU:HB3	1.63	0.78
13:AP:96:LEU:HB3	13:AP:97:PRO:HD2	1.65	0.78
1:AA:1399:C:H4'	1:AA:1400:C:O5'	1.82	0.78
40:B2:49:THR:HB	40:B2:50:PRO:CD	2.12	0.78
54:DA:702:G:H5'	54:DA:702:G:H8	1.49	0.78
1:AA:201:C:H3'	1:AA:209:U:C5	2.19	0.78
55:DB:15:A:H5'	55:DB:16:G:C8	2.18	0.78
32:BM:34:LEU:HD11	32:BM:120:LEU:HB2	1.64	0.78
2:AE:156:LYS:HA	2:AE:156:LYS:HE3	1.65	0.78
35:BP:81:VAL:HG12	35:BP:82:ARG:NH1	1.97	0.78
26:BD:35:LYS:HZ1	26:BD:65:ILE:HA	1.48	0.78
1:AA:531:U:H5'	1:AA:532:A:OP1	1.84	0.78
1:AA:250:A:H1'	1:AA:252:U:C5	2.19	0.78
54:DA:2189:U:C2'	54:DA:2190:G:H5''	2.13	0.78
34:DO:47:ASP:OD2	34:DO:49:ARG:HG2	1.82	0.78
26:DD:54:ARG:HG3	26:DD:54:ARG:NH1	1.98	0.78
1:CA:1314:C:OP1	19:CV:6:LYS:HE3	1.84	0.78
13:CP:3:ARG:CA	13:CP:9:ILE:HG21	2.13	0.78
37:BQ:15:ARG:NH1	37:BQ:25:ARG:HE	1.81	0.78
37:BQ:26:LEU:HB3	37:BQ:87:PHE:HA	1.64	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:B2:28:GLU:O	40:B2:61:VAL:HG21	1.84	0.78
1:CA:812:C:O2'	1:CA:813:U:H6	1.66	0.78
54:DA:270(P):C:H2'	54:DA:270(Q):C:H6	1.48	0.78
54:DA:1781:C:O2'	54:DA:1782:C:OP2	1.99	0.78
10:CM:16:LEU:HD23	10:CM:94:VAL:HG13	1.66	0.78
46:BZ:4:VAL:HG11	46:BZ:11:ARG:NH1	1.99	0.78
42:DT:70:LEU:HD23	42:DT:70:LEU:N	1.99	0.78
27:BE:61:ARG:C	27:BE:63:LEU:H	1.86	0.78
54:DA:803:U:H5'	54:DA:803:U:C6	2.19	0.78
24:BA:620:G:H4'	24:BA:621:A:H5''	1.64	0.78
1:AA:1022:G:H2'	1:AA:1023:G:C8	2.19	0.78
33:BN:23:ARG:HH11	33:BN:23:ARG:HG2	1.49	0.78
44:DV:28:MET:O	44:DV:34:ASN:HA	1.84	0.78
51:B6:33:LYS:HD2	51:B6:34:LEU:HD23	1.64	0.78
24:BA:360:G:H2'	24:BA:361:G:C8	2.19	0.78
1:AA:50:A:O2'	1:AA:52:G:C8	2.36	0.78
1:CA:1190:G:OP1	3:CF:5:ILE:HD12	1.83	0.78
29:DG:128:ARG:HG3	29:DG:128:ARG:HH21	1.49	0.78
24:BA:958:U:O2	25:BB:89(A):A:H4'	1.84	0.78
28:BF:53:THR:HG22	28:BF:56:GLU:CD	2.02	0.78
44:BV:155:LEU:O	44:BV:157:LEU:HD13	1.83	0.78
13:CP:88:ARG:CB	13:CP:88:ARG:HH11	1.96	0.78
1:AA:794:A:H2'	1:AA:795:C:C6	2.19	0.78
44:BV:74:VAL:HG13	44:BV:86:VAL:HG22	1.63	0.78
10:AM:99:LYS:HD3	10:AM:100:THR:H	1.47	0.78
24:BA:2467:C:H2'	24:BA:2468:G:O4'	1.83	0.78
1:CA:452:A:H4'	16:CS:72:ARG:NH2	1.98	0.78
1:AA:1031:G:H21	1:AA:1032:A:C1'	1.96	0.78
44:DV:130:PRO:HA	44:DV:133:ILE:HD11	1.65	0.78
6:AI:98:LEU:HD12	6:AI:101:ALA:HB2	1.64	0.78
24:BA:389:G:H22	34:BO:72:PRO:HD3	1.48	0.78
1:CA:17:U:H2'	1:CA:18:C:C6	2.18	0.78
24:BA:1757:U:H3	24:BA:1762:A:H2	1.31	0.78
54:DA:2208:U:O2'	26:DD:151:LYS:HG2	1.83	0.78
28:DF:145:GLU:O	28:DF:145:GLU:HG3	1.81	0.78
34:BO:50:ARG:HH11	34:BO:50:ARG:HG2	1.49	0.78
1:CA:73:G:H21	1:CA:74:C:H41	1.30	0.78
1:AA:1143:G:H2'	1:AA:1144:G:C8	2.18	0.78
50:B5:3:LYS:HG3	50:B5:4:HIS:H	1.48	0.78
51:B6:40:CYS:H	51:B6:41:PRO:CD	1.96	0.78
41:BS:54:ALA:HB1	41:BS:107:LEU:CD2	2.14	0.78
54:DA:674:G:C1'	28:DF:74:ARG:HD3	2.13	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1099:G:H8	54:DA:1099:G:H5'	1.46	0.78
1:AA:1442:G:O6	1:AA:1446:A:N6	2.15	0.78
45:B3:51:VAL:HG21	45:B3:79:VAL:O	1.84	0.78
26:DD:94:LEU:HD22	26:DD:95:LEU:N	1.98	0.78
27:DE:4:ILE:HD12	27:DE:28:ALA:HB1	1.66	0.78
22:CD:34:C:N4	23:C1:14:A:H61	1.81	0.78
54:DA:1138:G:H21	32:DM:106:MET:HE3	1.49	0.78
1:CA:523:A:N6	12:CO:92:ASP:HB2	1.99	0.78
24:BA:2315:G:H2'	24:BA:2316:C:C6	2.18	0.78
29:DG:97:ASP:H	29:DG:100:TRP:HD1	1.31	0.78
24:BA:1171:G:O2'	24:BA:1173:G:O5'	2.01	0.78
54:DA:2835:A:H4'	54:DA:2836:U:OP1	1.82	0.78
27:DE:137:HIS:HB3	27:DE:138:PRO:HD2	1.65	0.78
24:BA:1332:G:N2	24:BA:1610:A:H8	1.81	0.78
43:BU:96:ILE:HG22	43:BU:97:ARG:H	1.49	0.78
1:CA:1053:G:C5'	1:CA:1054:C:H5'	2.14	0.78
26:DD:34:VAL:HG21	26:DD:103:ARG:HA	1.66	0.78
3:AF:76:VAL:HG13	3:AF:84:ILE:HD11	1.66	0.78
33:DN:47:ILE:HD12	33:DN:48:PRO:HD2	1.66	0.78
34:BO:47:ASP:HB3	34:BO:48:PRO:CA	2.14	0.78
36:D0:74:LYS:O	36:D0:75:LEU:HB3	1.84	0.78
54:DA:1359:A:C3'	54:DA:1359:A:H8	1.94	0.78
55:DB:42:C:H4'	29:DG:67:LYS:HD3	1.65	0.78
24:BA:607:U:O4	24:BA:608:A:N7	2.17	0.78
24:BA:999:U:C2'	24:BA:1000:A:H5''	2.14	0.78
1:AA:95:G:C2'	1:AA:96:G:H5'	2.14	0.78
34:BO:64:LYS:HE3	53:B8:30:ARG:HH21	1.50	0.77
2:AE:135:GLN:O	2:AE:139:LYS:HB2	1.84	0.77
1:AA:792:A:O2'	1:AA:794:A:N7	2.18	0.77
37:BQ:100:ALA:HA	37:BQ:103:GLU:HG2	1.64	0.77
6:CI:24:GLU:HA	6:CI:27:GLN:CG	2.14	0.77
1:AA:1007:C:H3'	1:AA:1008:C:H5''	1.67	0.77
12:AO:87:GLY:HA2	12:AO:98:TYR:HA	1.66	0.77
39:D1:66:ASN:O	39:D1:70:ARG:HB2	1.84	0.77
46:BZ:81:LYS:O	46:BZ:81:LYS:HG2	1.84	0.77
44:BV:103:ARG:HB3	44:BV:139:VAL:H	1.46	0.77
54:DA:2159:G:H2'	54:DA:2160:G:H8	1.49	0.77
22:CD:56:C:H2'	22:CD:57:A:C8	2.19	0.77
13:CP:15:VAL:HG23	13:CP:43:THR:O	1.84	0.77
27:DE:24:THR:HG21	27:DE:188:VAL:CG1	2.13	0.77
1:AA:95:G:H2'	1:AA:96:G:H5'	1.64	0.77
2:CE:21:ARG:HG3	2:CE:38:GLY:C	2.05	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:328:C:HO2'	1:CA:329:A:P	2.07	0.77
1:AA:539:A:H2'	1:AA:540:G:C8	2.19	0.77
53:B8:25:MET:HE2	53:B8:25:MET:HA	1.66	0.77
9:AL:19:LEU:HB3	9:AL:59:PHE:HB3	1.65	0.77
30:BH:127:GLU:HG3	30:BH:128:PRO:HD2	1.67	0.77
30:DH:132:ARG:NH1	30:DH:132:ARG:HB2	1.95	0.77
22:AC:9:G:H5'	22:AC:10:G:OP2	1.84	0.77
54:DA:2308:G:H1	54:DA:2311:A:H2	1.28	0.77
29:DG:127:GLY:HA2	29:DG:166:ASP:CG	2.05	0.77
1:CA:329:A:H4'	1:CA:330:C:OP1	1.82	0.77
1:CA:517:G:O2'	1:CA:530:G:H4'	1.85	0.77
54:DA:1847:A:H5'	54:DA:1848:A:OP2	1.84	0.77
2:CE:239:VAL:HG12	2:CE:240:GLN:NE2	1.99	0.77
24:BA:2327:A:H2'	24:BA:2328:A:C8	2.18	0.77
29:BG:127:GLY:HA2	29:BG:166:ASP:HB3	1.66	0.77
24:BA:654(S):G:H2'	24:BA:654(T):A:C8	2.19	0.77
19:AV:41:VAL:HG23	19:AV:41:VAL:O	1.85	0.77
9:AL:2:GLU:HG3	9:AL:3:GLN:H	1.48	0.77
44:BV:95:PRO:O	44:BV:96:VAL:CG2	2.30	0.77
54:DA:784:A:H5''	26:DD:227:ASN:ND2	1.98	0.77
1:CA:1178:G:H5'	9:CL:93:ARG:HH21	1.50	0.77
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.18	0.77
32:DM:71:ILE:HG21	32:DM:84:LYS:HB3	1.65	0.77
11:AN:85:ARG:HG2	11:AN:111:ASP:O	1.84	0.77
9:AL:17:VAL:HG22	9:AL:63:ILE:HG12	1.67	0.77
1:CA:1199:U:H4'	10:CM:54:PHE:CZ	2.19	0.77
30:DH:152:ARG:HG3	30:DH:153:LYS:CE	2.14	0.77
34:DO:84:ASN:ND2	34:DO:116:GLY:HA3	1.99	0.77
2:AE:55:PHE:HA	2:AE:58:ILE:HG12	1.65	0.77
54:DA:1020:A:N1	54:DA:1141:U:H2'	2.00	0.77
35:BP:24:GLY:O	35:BP:102:VAL:HG22	1.85	0.77
26:DD:25:THR:HG22	26:DD:82:ILE:H	1.46	0.77
47:BW:48:HIS:O	47:BW:52:ASP:HB2	1.84	0.77
47:BW:49:LYS:HD2	47:BW:49:LYS:H	1.46	0.77
20:CW:89:ARG:HH21	20:CW:104:LEU:HD21	1.47	0.77
29:BG:56:ALA:HB2	29:BG:153:ARG:HE	1.49	0.77
46:BZ:90:ILE:O	46:BZ:90:ILE:HG23	1.85	0.77
24:BA:2127:G:H3'	24:BA:2128:C:H5''	1.65	0.77
54:DA:2134:A:H62	54:DA:2157:G:H1'	1.48	0.77
28:BF:34:TRP:HB2	34:BO:6:LEU:HD12	1.66	0.77
2:AE:15:VAL:HG22	2:AE:210:SER:HB2	1.65	0.77
28:DF:11:VAL:HB	28:DF:18:ARG:HG3	1.64	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BO:63:PRO:HB3	53:B8:13:ARG:HG2	1.65	0.77
34:BO:62:LEU:CD1	53:B8:25:MET:HB2	2.14	0.77
43:DU:79:CYS:SG	43:DU:80:GLY:N	2.57	0.77
9:AL:19:LEU:HD22	9:AL:59:PHE:HB2	1.66	0.77
43:BU:13:VAL:HG21	43:BU:72:VAL:HB	1.66	0.77
39:B1:92:ARG:HD2	39:B1:94:ASN:HB3	1.66	0.77
1:AA:923:A:OP1	5:AH:21:ALA:HB2	1.83	0.77
31:BK:5:LEU:HD13	31:BK:17:GLN:O	1.84	0.77
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.20	0.77
1:CA:1178:G:C5'	9:CL:93:ARG:HH21	1.97	0.77
24:BA:910:A:C5	35:BP:13:GLN:HG3	2.19	0.77
24:BA:2328:A:H2'	24:BA:2329:G:C8	2.19	0.77
46:DZ:13:ILE:HD11	46:DZ:42:GLN:OE1	1.84	0.77
1:CA:942:G:H21	9:CL:124:GLN:NE2	1.83	0.77
7:CJ:113:GLU:HB2	7:CJ:119:ARG:HG2	1.65	0.77
35:BP:38:GLU:HB2	35:BP:127:ILE:HG23	1.65	0.77
49:D4:22:ILE:O	49:D4:24:THR:HG23	1.84	0.77
53:D8:59:LYS:CB	53:D8:59:LYS:HZ3	1.96	0.77
24:BA:1209:G:O3'	24:BA:1212:G:H5'	1.85	0.77
3:AF:71:ALA:CB	3:AF:109:PRO:HG3	2.15	0.77
2:AE:92:TYR:CE2	2:AE:151:GLY:HA3	2.19	0.77
24:BA:1309:G:H3'	52:B7:9:ARG:HH12	1.47	0.77
51:B6:47:THR:HG22	51:B6:48:VAL:H	1.48	0.77
51:D6:15:GLU:CD	51:D6:41:PRO:HB3	2.04	0.77
24:BA:779:U:OP1	26:BD:49:ILE:HG23	1.85	0.77
1:CA:411:A:C5	1:CA:413:G:H1'	2.18	0.77
7:AJ:79:ARG:CG	7:AJ:80:VAL:H	1.98	0.77
28:DF:20:LEU:HD12	28:DF:21:ALA:H	1.49	0.77
54:DA:1280:G:H2'	54:DA:1281:G:C5'	2.13	0.77
24:BA:2583:G:C6	24:BA:2584:U:C5	2.73	0.77
4:CG:76:ARG:HD2	4:CG:207:TYR:CE2	2.20	0.77
9:CL:53:VAL:HB	9:CL:95:LYS:HE3	1.67	0.77
24:BA:887:A:H3'	24:BA:888:C:H5'	1.65	0.77
24:BA:2283:C:H5'	51:B6:8:LYS:HE3	1.65	0.77
22:AD:70:G:H2'	22:AD:71:C:C5'	2.11	0.77
9:AL:15:ALA:HB2	9:AL:65:VAL:HG23	1.65	0.77
44:DV:108:PRO:HG2	44:DV:112:ARG:H	1.49	0.77
30:BH:30:LYS:HB3	30:BH:136:ILE:CG2	2.14	0.77
34:DO:114:ILE:HD11	34:DO:130:PHE:CE1	2.19	0.77
41:DS:18:ARG:HG3	41:DS:76:VAL:CG1	2.15	0.77
24:BA:1084:A:H2'	24:BA:1085:A:C8	2.20	0.77
54:DA:27:G:N2	54:DA:512:G:H2'	2.00	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:30:LYS:C	4:CG:32:ALA:N	2.36	0.77
26:DD:25:THR:O	26:DD:27:THR:N	2.17	0.77
41:DS:65:LEU:CD1	41:DS:68:ARG:HH11	1.97	0.77
1:AA:328:C:O2	1:AA:328:C:H2'	1.83	0.77
1:AA:17:U:H2'	1:AA:18:C:C6	2.20	0.77
48:DX:35:ARG:HB3	48:DX:37:LEU:HD21	1.66	0.77
24:BA:946:G:O2'	24:BA:947:G:H5'	1.85	0.77
24:BA:1673:U:H2'	24:BA:1674:G:H5'	1.66	0.77
20:CW:13:LEU:HD12	20:CW:14:LYS:N	2.00	0.77
24:BA:1796:U:H2'	24:BA:1797:C:C6	2.20	0.77
1:AA:1351:U:H4'	7:AJ:33:ASP:OD2	1.85	0.77
22:AD:68:C:C3'	22:AD:69:C:H5''	2.15	0.77
26:DD:44:ASN:HD22	26:DD:44:ASN:N	1.79	0.77
19:CV:39:THR:HG22	19:CV:40:ILE:H	1.50	0.77
2:CE:84:GLU:HB3	2:CE:219:VAL:HG21	1.65	0.77
27:BE:48:GLN:HG2	27:BE:78:LEU:HD12	1.66	0.77
5:CH:11:ILE:CD1	5:CH:31:LEU:HD12	2.13	0.77
35:DP:20:ALA:CB	35:DP:99:PRO:HD2	2.14	0.77
28:DF:183:VAL:O	28:DF:187:VAL:HG23	1.85	0.77
26:DD:153:ALA:O	26:DD:154:LYS:HG3	1.85	0.77
1:CA:1014:A:H4'	19:CV:14:HIS:CD2	2.19	0.77
54:DA:1162:G:H21	40:D2:89:GLN:HE22	1.32	0.77
32:BM:30:ILE:O	32:BM:34:LEU:HD23	1.84	0.77
35:DP:119:ARG:HH11	35:DP:119:ARG:HG2	1.48	0.77
10:AM:54:PHE:C	10:AM:55:LYS:HG3	2.06	0.77
30:BH:9:ILE:HG23	30:BH:50:VAL:O	1.85	0.77
54:DA:608:A:C2	54:DA:621:A:N7	2.53	0.77
24:BA:2776:A:H4'	24:BA:2777:G:C5'	2.15	0.77
49:D4:1:MET:HB2	49:D4:6:HIS:NE2	2.00	0.77
37:DQ:60:GLY:O	37:DQ:61:ASN:HB3	1.84	0.77
43:BU:28:LYS:HZ3	43:BU:29:GLU:N	1.83	0.77
1:AA:1381:U:H1'	7:AJ:79:ARG:HH22	1.50	0.77
1:CA:328:C:H2'	1:CA:328:C:O2	1.84	0.77
4:AG:112:VAL:HG12	4:AG:116:GLN:OE1	1.85	0.77
47:DW:47:ASN:HD22	47:DW:47:ASN:H	1.33	0.77
54:DA:1992:G:O2'	54:DA:1993:U:OP2	2.02	0.77
1:AA:1211:U:H5'	1:AA:1212:U:OP1	1.84	0.77
49:B4:10:VAL:CB	49:B4:11:PRO:HD2	2.09	0.76
22:AD:5:G:H2'	22:AD:6:G:H5'	1.65	0.76
35:DP:20:ALA:HB1	35:DP:99:PRO:HB2	1.65	0.76
7:CJ:79:ARG:HH22	7:CJ:82:GLY:HA2	1.51	0.76
43:BU:87:LYS:HB3	43:BU:92:ASN:HB3	1.65	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AO:82:VAL:HG12	12:AO:83:VAL:H	1.50	0.76
44:BV:150:LEU:HG	44:BV:171:ILE:HG22	1.65	0.76
50:D5:40:LYS:CD	50:D5:46:CYS:HB3	2.15	0.76
24:BA:1496:A:H2'	24:BA:1498:C:C5	2.19	0.76
1:AA:1017:G:H2'	1:AA:1018:C:H6	1.50	0.76
54:DA:758:C:O2	54:DA:1981:A:H2	1.68	0.76
1:AA:723:U:H2'	1:AA:723:U:O2	1.85	0.76
8:AK:84:ARG:HH11	8:AK:84:ARG:HG2	1.51	0.76
23:A1:8:A:C3'	23:A1:9:G:H5''	2.08	0.76
7:AJ:113:GLU:HB3	7:AJ:118:VAL:CG2	2.15	0.76
54:DA:2633:G:H1'	27:DE:62:PRO:HG2	1.67	0.76
54:DA:1142(A):A:H4'	54:DA:1143:A:OP1	1.82	0.76
29:BG:76:SER:OG	29:BG:83:ARG:HA	1.85	0.76
29:BG:132:ASN:OD1	29:BG:158:ALA:HA	1.83	0.76
31:DK:40:THR:HG22	31:DK:41:GLU:H	1.49	0.76
6:AI:82:ARG:HB2	6:AI:85:VAL:HG22	1.66	0.76
24:BA:1024:G:H3'	24:BA:1025:G:H5''	1.66	0.76
7:AJ:69:VAL:HG22	7:AJ:135:VAL:HG22	1.67	0.76
54:DA:1888:G:H5'	54:DA:1889:A:OP1	1.84	0.76
43:DU:94:LYS:O	43:DU:101:LYS:HB3	1.85	0.76
3:AF:16:ARG:HH11	3:AF:16:ARG:N	1.84	0.76
30:DH:153:LYS:NZ	30:DH:153:LYS:HA	1.99	0.76
1:CA:923:A:H2'	1:CA:924:C:C6	2.20	0.76
26:BD:35:LYS:HD3	26:BD:63:ARG:HG3	1.65	0.76
5:AH:100:VAL:HG13	5:AH:118:ILE:HG22	1.66	0.76
6:CI:23:LYS:O	6:CI:27:GLN:HG2	1.84	0.76
1:AA:92:G:C2'	1:AA:93:U:H5'	2.13	0.76
29:DG:127:GLY:O	29:DG:128:ARG:HG2	1.85	0.76
27:DE:111:ARG:HE	27:DE:160:TYR:HE1	1.31	0.76
29:DG:142:PRO:HB2	49:D4:31:ILE:HD13	1.68	0.76
37:BQ:60:GLY:O	37:BQ:61:ASN:HB2	1.86	0.76
2:AE:132:LYS:HD3	2:AE:135:GLN:HE21	1.51	0.76
2:AE:135:GLN:HG3	2:AE:136:VAL:HG23	1.67	0.76
30:BH:30:LYS:HB2	30:BH:79:VAL:HG12	1.67	0.76
43:BU:15:VAL:CB	43:BU:22:GLY:HA2	2.13	0.76
34:DO:138:LEU:C	34:DO:140:ALA:H	1.85	0.76
28:BF:24:LEU:HD13	28:BF:25:PRO:HD2	1.65	0.76
37:DQ:106:ARG:HA	37:DQ:110:LEU:HD21	1.64	0.76
54:DA:49:A:N7	54:DA:120:U:C5	2.53	0.76
9:CL:113:LYS:HD2	9:CL:113:LYS:H	1.50	0.76
46:BZ:86:SER:N	46:BZ:87:PRO:CD	2.48	0.76
5:CH:42:GLY:HA3	5:CH:66:MET:HG2	1.68	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2166:G:O2'	24:BA:2167:U:H5''	1.84	0.76
24:BA:1339:G:H21	24:BA:1603:A:H1'	1.49	0.76
30:BH:104:GLU:OE2	30:BH:114:VAL:HA	1.85	0.76
5:CH:12:LEU:HD23	5:CH:13:ILE:N	2.00	0.76
35:DP:66:ILE:HG13	35:DP:67:ARG:N	2.00	0.76
24:BA:1613:G:N1	24:BA:1617:C:H2'	1.98	0.76
29:DG:61:ALA:HB2	29:DG:68:PRO:HD3	1.65	0.76
40:B2:58:VAL:HB	40:B2:98:GLU:CB	2.16	0.76
33:DN:104:ARG:HG2	33:DN:104:ARG:HH11	1.50	0.76
28:DF:29:ASN:H	28:DF:112:MET:CE	1.97	0.76
35:DP:90:VAL:HG13	35:DP:91:GLU:H	1.49	0.76
38:BR:96:ARG:HB2	38:BR:96:ARG:HH11	1.48	0.76
29:DG:76:SER:OG	29:DG:83:ARG:HA	1.85	0.76
54:DA:443:A:N7	28:DF:45:ARG:HD2	2.01	0.76
3:CF:59:ARG:HH22	3:CF:97:LYS:HE3	1.50	0.76
30:BH:92:ILE:HG22	30:BH:93:GLY:N	2.00	0.76
43:BU:6:HIS:O	43:BU:7:VAL:HG13	1.86	0.76
9:AL:17:VAL:HA	9:AL:63:ILE:HG13	1.68	0.76
2:CE:44:LEU:H	2:CE:44:LEU:HD12	1.49	0.76
32:DM:62:VAL:HG12	32:DM:66:LYS:HD2	1.65	0.76
38:DR:111:ARG:O	38:DR:113:LYS:N	2.17	0.76
4:CG:9:CYS:SG	4:CG:22:LYS:HD2	2.25	0.76
5:CH:53:LEU:H	5:CH:53:LEU:CD1	1.99	0.76
4:AG:3:ARG:NH1	4:AG:5:ILE:HD13	2.00	0.76
1:AA:13:U:H5'	1:AA:14:U:OP2	1.85	0.76
31:DK:40:THR:HG22	31:DK:41:GLU:OE1	1.84	0.76
54:DA:752:A:O2'	54:DA:753:C:OP2	2.02	0.76
54:DA:2733:A:H2'	54:DA:2734:A:O4'	1.86	0.76
54:DA:905:U:H2'	54:DA:906:G:H5''	1.67	0.76
43:DU:95:LYS:HB3	43:DU:100:ALA:CA	2.10	0.76
1:AA:1128:C:H3'	1:AA:1139:G:O6	1.86	0.76
30:BH:9:ILE:HB	30:BH:10:PRO:CA	2.15	0.76
34:DO:97:PRO:O	34:DO:98:GLU:HB3	1.83	0.76
24:BA:535:C:O2'	24:BA:536:A:H5'	1.86	0.76
4:AG:12:CYS:CB	4:AG:32:ALA:HB2	2.15	0.76
51:B6:10:LEU:HA	51:B6:24:GLU:OE1	1.85	0.76
54:DA:2067:G:O3'	54:DA:2068:U:H4'	1.85	0.76
1:AA:920:U:H2'	1:AA:921:U:H6	1.47	0.76
41:DS:73:ALA:HB3	41:DS:106:ILE:HG12	1.68	0.76
47:BW:22:GLU:O	47:BW:26:ARG:HG3	1.85	0.76
1:CA:1116:C:H2'	1:CA:1117:G:C5'	2.16	0.76
30:DH:125:VAL:HA	30:DH:126:PRO:HB3	1.68	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:100:ALA:HA	37:BQ:103:GLU:CG	2.15	0.76
16:CS:22:THR:HA	16:CS:33:ILE:HG12	1.66	0.76
34:DO:62:LEU:CD2	34:DO:62:LEU:N	2.46	0.76
51:D6:34:LEU:H	51:D6:34:LEU:HD13	1.50	0.76
47:BW:50:ILE:CD1	47:BW:51:ARG:H	1.99	0.76
1:AA:820:U:H4'	1:AA:821:G:OP2	1.86	0.76
10:AM:10:GLY:HA3	10:AM:16:LEU:HD21	1.67	0.76
44:BV:120:ILE:HG12	44:BV:121:HIS:N	2.01	0.76
25:BB:81:G:N2	25:BB:82:G:N7	2.33	0.76
24:BA:360:G:H2'	24:BA:361:G:H8	1.49	0.76
16:AS:49:LEU:HD12	16:AS:50:LYS:H	1.50	0.76
54:DA:175:G:O2'	54:DA:176:G:H5'	1.86	0.76
38:BR:90:GLN:HE21	38:BR:90:GLN:HA	1.50	0.76
33:BN:3:GLN:HB2	33:BN:4:PRO:HD2	1.68	0.76
1:AA:1333:A:C2	1:AA:1334:G:H1'	2.20	0.76
24:BA:13:A:O2'	24:BA:15:G:N7	2.18	0.76
46:DZ:86:SER:N	46:DZ:87:PRO:CD	2.48	0.76
31:BK:92:VAL:HG12	31:BK:97:ILE:CD1	2.16	0.76
43:DU:81:LYS:HD3	43:DU:97:ARG:NE	2.00	0.76
49:B4:14:ILE:HD11	49:B4:33:VAL:CG2	2.15	0.76
24:BA:1210:A:H4'	24:BA:1211:U:O5'	1.84	0.76
24:BA:877:U:H2'	24:BA:878:A:C5'	2.13	0.76
1:CA:1055:A:N6	1:CA:1200:C:N3	2.34	0.76
10:CM:38:ILE:HG12	10:CM:71:LEU:O	1.86	0.76
26:BD:35:LYS:HB3	26:BD:36:PRO:HA	1.68	0.76
18:AU:84:LYS:HA	18:AU:84:LYS:HE2	1.66	0.76
24:BA:2109:U:H2'	24:BA:2110:G:C8	2.20	0.76
1:CA:164:U:H2'	1:CA:165:C:C6	2.20	0.76
1:CA:404:U:H2'	1:CA:405:U:H6	1.51	0.76
49:B4:24:THR:HG22	49:B4:25:TYR:N	1.99	0.76
31:BK:142:VAL:CG2	31:BK:143:SER:H	1.96	0.76
28:DF:101:LEU:CD1	28:DF:102:PRO:HD2	2.11	0.76
39:B1:113:ALA:O	39:B1:117:GLN:HB2	1.86	0.76
54:DA:2698:U:H2'	54:DA:2699:C:C6	2.21	0.76
24:BA:1396:U:H2'	24:BA:1396:U:O2	1.83	0.76
51:B6:47:THR:HG22	51:B6:48:VAL:N	2.00	0.76
38:DR:50:ILE:HD12	38:DR:102:ILE:HD11	1.68	0.76
49:D4:34:GLU:HG3	49:D4:35:VAL:H	1.51	0.76
30:BH:88:LEU:HD13	30:BH:164:TYR:O	1.85	0.76
27:BE:197:ILE:HD11	27:BE:199:ARG:CZ	2.15	0.76
1:AA:1541:U:C6	1:AA:1541:U:H3'	2.21	0.76
5:CH:36:ASP:OD2	5:CH:38:GLN:HB2	1.86	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:457:C:H2'	1:AA:458:C:H6	1.50	0.76
24:BA:752:A:O2'	24:BA:753:C:OP2	2.03	0.76
26:DD:142:VAL:HG23	26:DD:193:VAL:HA	1.66	0.76
7:CJ:37:ASN:ND2	9:CL:40:LEU:HD23	2.00	0.76
1:AA:434:U:H2'	1:AA:435:C:C6	2.19	0.76
54:DA:1076:C:C3'	54:DA:1077:A:H5''	2.16	0.75
2:AE:29:ALA:C	2:AE:31:TYR:N	2.38	0.75
24:BA:1056:G:H4'	24:BA:1086:A:C1'	2.14	0.75
28:BF:66:PRO:O	28:BF:67:GLN:CB	2.34	0.75
27:DE:63:LEU:CD1	27:DE:65:GLY:H	1.99	0.75
54:DA:1026:U:O2'	54:DA:1027:A:H5''	1.86	0.75
54:DA:1300:U:H4'	54:DA:1301:A:O5'	1.86	0.75
30:BH:87:LEU:O	30:BH:131:VAL:HG13	1.86	0.75
55:DB:8:U:C5'	55:DB:8:U:H6	1.98	0.75
1:AA:1004:A:O2'	1:AA:1005:A:OP2	2.03	0.75
54:DA:1879:C:H2'	54:DA:1880:C:H5''	1.68	0.75
24:BA:2189:U:C2'	24:BA:2190:G:H5''	2.16	0.75
54:DA:2021:C:H5''	54:DA:2022:U:OP2	1.85	0.75
27:DE:36:ARG:HH21	27:DE:88:GLY:HA2	1.51	0.75
2:AE:67:THR:HG23	2:AE:160:ASP:H	1.52	0.75
16:CS:6:LEU:HB3	16:CS:17:TYR:HD2	1.50	0.75
1:CA:376:G:H5''	16:CS:5:ARG:HD2	1.67	0.75
1:CA:109:A:H4'	1:CA:110:C:OP2	1.85	0.75
24:BA:2173:A:C5	24:BA:2174:C:H1'	2.21	0.75
4:CG:153:ARG:NH1	4:CG:181:MET:HG3	2.00	0.75
24:BA:654(R):C:OP2	24:BA:654(R):C:C4	2.38	0.75
43:BU:20:TYR:O	43:BU:22:GLY:N	2.19	0.75
26:DD:69:ARG:HH21	26:DD:130:ALA:CB	1.99	0.75
24:BA:1341:U:H3'	24:BA:1397:U:O2	1.86	0.75
33:DN:47:ILE:CD1	33:DN:48:PRO:HD2	2.16	0.75
35:BP:141:GLN:HB3	44:BV:75:ASN:N	2.00	0.75
40:B2:70:ILE:HG22	40:B2:72:VAL:HG23	1.66	0.75
24:BA:1280:G:C2'	24:BA:1281:G:H5''	2.15	0.75
1:AA:129(A):G:O2'	1:AA:189:U:H5''	1.85	0.75
29:DG:101:ILE:HG13	29:DG:102:PHE:H	1.49	0.75
1:AA:376:G:C5'	16:AS:5:ARG:HD3	2.16	0.75
45:B3:53:MET:HB3	45:B3:59:LEU:HD23	1.65	0.75
18:AU:22:VAL:C	18:AU:24:ALA:H	1.87	0.75
27:DE:23:VAL:HG21	27:DE:183:LEU:HD23	1.68	0.75
31:BK:110:ASP:OD2	31:BK:113:ARG:HB2	1.86	0.75
54:DA:1846:G:H5'	54:DA:1847:A:OP2	1.86	0.75
2:CE:117:GLU:O	2:CE:121:LEU:HB2	1.86	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:B0:21:TYR:OH	36:B0:43:GLU:HG2	1.86	0.75
17:CT:41:LYS:NZ	17:CT:92:ARG:HH22	1.82	0.75
8:CK:5:PRO:O	8:CK:8:ASP:HB3	1.85	0.75
44:DV:76:LEU:H	44:DV:76:LEU:HD23	1.51	0.75
53:D8:59:LYS:HZ2	53:D8:59:LYS:HB2	1.49	0.75
54:DA:1057:A:O2'	54:DA:1058:U:H5'	1.85	0.75
54:DA:2638:G:HO2'	54:DA:2639:A:H8	1.34	0.75
43:DU:44:ILE:HG13	43:DU:45:VAL:N	2.00	0.75
54:DA:1173:G:N3	54:DA:1175:U:H5	1.84	0.75
24:BA:1225:C:O2'	40:B2:85:LYS:N	2.19	0.75
1:CA:1036:G:H3'	1:CA:1037:C:C6	2.20	0.75
24:BA:1880:C:H6	24:BA:1880:C:H5'	1.51	0.75
39:D1:88:ILE:HG22	39:D1:90:VAL:HG23	1.67	0.75
39:D1:92:ARG:HH11	39:D1:95:LEU:CD1	2.00	0.75
40:D2:52:VAL:HG21	40:D2:55:ALA:HB3	1.68	0.75
5:AH:91:LEU:HG	5:AH:120:THR:HG22	1.68	0.75
5:CH:11:ILE:HD11	5:CH:31:LEU:CD1	2.17	0.75
13:CP:49:THR:HG22	13:CP:51:ALA:N	2.01	0.75
25:BB:42:C:H4'	29:BG:67:LYS:HG3	1.68	0.75
54:DA:1187:G:H5''	40:D2:81:TYR:CE2	2.22	0.75
54:DA:686:G:O6	52:D7:12:ARG:HG3	1.87	0.75
1:AA:579:G:H5'	1:AA:728:A:H1'	1.67	0.75
1:CA:951:G:OP2	13:CP:102:ARG:NH2	2.20	0.75
1:CA:88:C:H3'	1:CA:89:U:C6	2.21	0.75
24:BA:704:G:H2'	24:BA:726:G:H22	1.51	0.75
13:AP:34:LEU:HA	13:AP:39:ILE:HG13	1.67	0.75
39:B1:66:ASN:ND2	39:B1:70:ARG:HE	1.84	0.75
14:CQ:22:THR:O	14:CQ:23:ARG:HB2	1.85	0.75
54:DA:608:A:C5	54:DA:621:A:N6	2.54	0.75
44:BV:118:GLN:HG3	44:BV:173:ALA:N	1.98	0.75
25:BB:116:G:H4'	37:BQ:54:LEU:HD12	1.68	0.75
9:AL:95:LYS:HD3	9:AL:96:LEU:N	2.02	0.75
34:DO:62:LEU:HD21	53:D8:25:MET:HB2	1.69	0.75
24:BA:270(L):U:H3	31:BK:50:ARG:NH1	1.84	0.75
32:BM:9:VAL:HG21	32:BM:39:ARG:HH12	1.50	0.75
32:BM:125:GLY:HA3	32:BM:126:PRO:O	1.86	0.75
29:DG:3:LEU:HD12	29:DG:4:ASP:H	1.52	0.75
2:AE:238:LEU:HD12	2:AE:239:VAL:N	2.02	0.75
41:BS:96:ILE:HD13	41:BS:97:LYS:N	2.01	0.75
24:BA:900:A:H3'	24:BA:901:A:H8	1.51	0.75
32:BM:104:LYS:HD2	32:BM:117:PHE:CD1	2.22	0.75
31:BK:48:GLU:HA	31:BK:51:ILE:HD12	1.66	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1032(B):G:H2'	1:AA:1033:G:O4'	1.86	0.75
1:CA:794:A:C2	1:CA:795:C:C4	2.74	0.75
43:DU:97:ARG:HH21	43:DU:98:VAL:CB	1.98	0.75
39:B1:92:ARG:O	39:B1:92:ARG:HG3	1.85	0.75
2:AE:91:PRO:HA	2:AE:154:LEU:HD11	1.69	0.75
24:BA:1086:A:H4'	24:BA:1103:A:H61	1.51	0.75
24:BA:2285:C:H41	51:B6:25:LYS:CE	2.00	0.75
10:CM:40:LEU:HB2	10:CM:69:ASN:HB3	1.65	0.75
4:AG:24:GLU:H	4:AG:27:TYR:HB2	1.49	0.75
28:DF:29:ASN:HB3	28:DF:112:MET:HE1	1.68	0.75
45:D3:35:ASN:H	45:D3:35:ASN:HD22	1.32	0.75
24:BA:171:G:H2'	24:BA:172:C:H6	1.51	0.75
24:BA:1534:G:N2	24:BA:1538:G:O6	2.19	0.75
54:DA:2537:U:H2'	54:DA:2538:C:C6	2.22	0.75
28:BF:40:GLN:HE22	28:BF:182:ASN:HB2	1.49	0.75
16:CS:43:LYS:HG2	16:CS:48:TRP:CE3	2.22	0.75
46:DZ:56:GLN:N	46:DZ:56:GLN:NE2	2.34	0.75
1:CA:382:A:H2'	1:CA:383:A:H8	1.51	0.75
25:BB:109:G:H2'	25:BB:110:G:H8	1.50	0.75
30:BH:33:LEU:HD21	30:BH:140:LYS:HE2	1.67	0.75
30:BH:126:PRO:HB2	30:BH:127:GLU:C	2.07	0.75
1:CA:1222:G:OP1	19:CV:77:THR:HG21	1.86	0.75
2:AE:187:LEU:HD11	2:AE:204:ASN:O	1.85	0.75
51:B6:44:ARG:O	51:B6:45:LYS:HG2	1.87	0.75
24:BA:2348:U:H2'	24:BA:2349:G:C5'	2.15	0.75
22:AC:18:G:N2	22:AC:57:A:H2'	2.02	0.75
36:D0:33:ARG:HH22	50:D5:55:ARG:HG2	1.50	0.75
54:DA:2401:U:C2'	54:DA:2402:C:H5''	2.17	0.75
42:DT:57:LEU:HD11	42:DT:78:LYS:HB2	1.68	0.75
7:CJ:23:VAL:HG12	7:CJ:27:ILE:HD11	1.69	0.75
11:AN:10:VAL:HG12	11:AN:11:LYS:HG2	1.67	0.75
50:D5:47:PRO:O	50:D5:48:GLU:HG3	1.86	0.75
35:BP:12:GLN:HE21	35:BP:73:PRO:HD3	1.52	0.75
18:CU:53:ARG:HH21	18:CU:60:ALA:N	1.84	0.75
1:CA:1064:G:H1'	1:CA:1066:C:C6	2.22	0.75
1:CA:537:G:H5''	12:CO:113:ARG:NH1	2.00	0.75
39:B1:8:VAL:HG23	39:B1:9:VAL:H	1.51	0.75
24:BA:860:U:O2'	24:BA:861:A:H5'	1.87	0.75
24:BA:654(C):G:N2	24:BA:654(R):C:N3	2.35	0.75
46:DZ:81:LYS:CA	46:DZ:81:LYS:NZ	2.31	0.75
19:CV:41:VAL:HG12	19:CV:44:MET:H	1.50	0.75
30:BH:108:GLY:HA3	30:BH:152:ARG:HH22	1.52	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:11:LEU:C	4:CG:13:ARG:N	2.36	0.75
40:B2:61:VAL:HG13	40:B2:62:LEU:N	2.01	0.75
40:D2:35:LEU:H	40:D2:35:LEU:HD22	1.51	0.75
44:DV:5:LEU:HD23	44:DV:47:VAL:HG21	1.68	0.75
1:AA:690:G:H22	11:AN:55:LYS:HZ3	1.31	0.75
24:BA:999:U:H2'	24:BA:1000:A:C5'	2.17	0.75
7:AJ:148:ASN:C	7:AJ:150:ALA:H	1.89	0.75
11:CN:48:ILE:HD11	11:CN:64:ALA:HA	1.67	0.75
4:AG:75:PHE:CE1	4:AG:93:PHE:HZ	2.05	0.75
20:CW:58:LYS:HE3	20:CW:62:LEU:HD11	1.69	0.75
25:BB:50:G:OP1	37:BQ:63:THR:HG23	1.86	0.75
46:DZ:80:LEU:O	46:DZ:81:LYS:CB	2.35	0.75
43:DU:90:LEU:HD22	43:DU:90:LEU:N	2.02	0.75
9:AL:18:PHE:HB2	9:AL:62:TYR:HB3	1.66	0.75
24:BA:1036:G:OP1	30:BH:59:ARG:HB2	1.86	0.75
24:BA:2420:C:OP1	53:B8:33:ASN:O	2.05	0.75
40:D2:51:VAL:HG12	40:D2:52:VAL:H	1.52	0.75
36:D0:73:VAL:O	36:D0:76:VAL:HG12	1.87	0.75
26:DD:146:GLU:HB2	26:DD:189:CYS:HB3	1.67	0.75
54:DA:265:A:N6	54:DA:427:U:O2'	2.19	0.75
11:CN:17:GLY:HA3	11:CN:77:MET:HE3	1.69	0.75
28:BF:178:PRO:HB2	28:BF:201:VAL:HG11	1.69	0.75
24:BA:1286:A:H2'	24:BA:1288:U:OP2	1.87	0.75
1:AA:1288:A:H2'	1:AA:1289:A:H8	1.51	0.75
24:BA:529:A:N3	24:BA:529:A:H2'	2.02	0.75
21:CX:10:ARG:HG2	21:CX:13:ILE:HD12	1.68	0.75
36:B0:106:GLY:O	36:B0:107:ASP:HB3	1.86	0.75
1:AA:704:A:H5'	1:AA:705:U:OP2	1.87	0.75
54:DA:559:G:H22	39:D1:49:HIS:CD2	2.03	0.75
51:B6:30:THR:HA	51:B6:31:PRO:O	1.86	0.75
43:DU:97:ARG:NH2	43:DU:98:VAL:HB	2.00	0.75
30:BH:18:GLU:HB2	30:BH:25:LYS:HB2	1.69	0.75
30:BH:7:LEU:HD13	30:BH:69:ARG:HB2	1.69	0.75
39:B1:92:ARG:O	39:B1:94:ASN:N	2.20	0.75
1:CA:1234:C:O2'	1:CA:1235:U:H5'	1.86	0.75
1:CA:1004:A:P	1:CA:1025:U:O4	2.45	0.75
34:DO:75:ILE:N	34:DO:75:ILE:HD13	2.00	0.75
20:CW:26:ASN:O	20:CW:30:LYS:HB2	1.85	0.75
28:DF:7:TYR:HB3	28:DF:21:ALA:CB	2.16	0.75
1:CA:659:U:H2'	1:CA:660:G:C8	2.22	0.75
34:BO:19:VAL:HG22	34:BO:20:GLY:H	1.50	0.75
2:AE:15:VAL:HG11	2:AE:213:LEU:HD13	1.68	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2389:G:H5''	24:BA:2390:U:H5'	1.69	0.75
40:B2:24:LYS:HA	40:B2:92:THR:OG1	1.87	0.75
54:DA:205:G:O2'	54:DA:206:U:OP2	2.03	0.75
30:BH:9:ILE:HG21	30:BH:48:GLY:O	1.86	0.74
1:CA:1362(A):C:H5'	1:CA:1363:A:O5'	1.86	0.74
27:DE:61:ARG:HB2	27:DE:62:PRO:HD3	1.69	0.74
23:C1:11:U:O2'	23:C1:12:A:OP1	2.05	0.74
4:AG:30:LYS:HB3	4:AG:35:ARG:NH1	2.02	0.74
38:DR:43:GLN:HG2	38:DR:44:ASP:N	1.99	0.74
1:CA:486:U:H2'	1:CA:487:A:C8	2.21	0.74
54:DA:894:C:H2'	54:DA:895:U:C6	2.22	0.74
17:CT:59:ILE:HD13	17:CT:59:ILE:H	1.50	0.74
1:CA:1182:G:H4'	1:CA:1183:A:H5''	1.68	0.74
47:BW:17:SER:HA	47:BW:20:GLU:CG	2.17	0.74
41:BS:75:TYR:CE2	41:BS:104:THR:HB	2.22	0.74
24:BA:999:U:O2'	24:BA:1000:A:H5''	1.87	0.74
1:CA:382:A:H2'	1:CA:383:A:C8	2.21	0.74
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.21	0.74
7:CJ:9:VAL:HG13	7:CJ:94:ARG:HE	1.52	0.74
15:AR:3:ILE:HG22	15:AR:38:ARG:HE	1.49	0.74
7:CJ:148:ASN:N	7:CJ:148:ASN:HD22	1.82	0.74
49:B4:12:ALA:CB	49:B4:24:THR:HB	2.18	0.74
9:AL:19:LEU:HA	9:AL:60:ASP:O	1.85	0.74
44:DV:103:ARG:HB2	44:DV:138:GLU:HA	1.69	0.74
43:BU:75:ILE:HD13	43:BU:76:CYS:N	2.02	0.74
54:DA:1266:G:O2'	54:DA:1267:U:OP2	2.02	0.74
23:C1:9:G:O2'	23:C1:10:G:H5''	1.87	0.74
51:B6:47:THR:HB	51:B6:49:HIS:CE1	2.23	0.74
24:BA:1257:C:H4'	28:BF:83:PHE:CE2	2.23	0.74
7:AJ:3:ARG:C	7:AJ:5:ARG:H	1.89	0.74
1:AA:1068:G:OP2	1:AA:1094:G:H5''	1.87	0.74
1:AA:989:C:H1'	1:AA:1016:A:H2	1.52	0.74
41:BS:1:MET:HE2	41:BS:2:GLU:H	1.50	0.74
1:CA:1028:C:C3'	1:CA:1028(A):C:H5''	2.17	0.74
38:DR:78:LEU:O	38:DR:78:LEU:HD13	1.87	0.74
10:AM:79:ARG:HD3	10:AM:79:ARG:H	1.52	0.74
44:BV:80:ARG:HB2	44:BV:82:ARG:HG2	1.67	0.74
13:AP:66:LEU:HA	13:AP:70:LEU:HD12	1.69	0.74
49:B4:16:CYS:C	49:B4:18:CYS:N	2.40	0.74
24:BA:1047:G:H2'	24:BA:1110:G:N2	2.02	0.74
1:CA:1321:C:H5''	1:CA:1322:C:H5''	1.69	0.74
30:DH:150:ALA:C	30:DH:152:ARG:H	1.88	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AD:6:G:O2'	22:AD:7:G:O5'	2.05	0.74
54:DA:2503:A:O2'	54:DA:2505:G:OP2	2.05	0.74
54:DA:1359:A:H8	54:DA:1359:A:C5'	2.00	0.74
24:BA:2478:A:C2	24:BA:2529:G:H2'	2.21	0.74
7:AJ:94:ARG:O	7:AJ:97:GLN:HB3	1.87	0.74
1:CA:267:C:OP2	17:CT:67:LYS:HD2	1.87	0.74
29:BG:37:VAL:HG13	29:BG:158:ALA:O	1.87	0.74
31:DK:67:ARG:CZ	31:DK:68:LEU:HB2	2.17	0.74
1:CA:1151:A:H1'	10:CM:39:PRO:HB2	1.67	0.74
24:BA:2050:C:H2'	24:BA:2051:A:O4'	1.87	0.74
1:AA:407:G:O2'	4:AG:116:GLN:HG3	1.86	0.74
1:CA:15:G:H4'	5:CH:24:ARG:NH1	2.01	0.74
1:AA:1296:C:H4'	1:AA:1302:U:O4	1.87	0.74
41:DS:40:ASN:O	41:DS:41:LYS:HG2	1.86	0.74
6:CI:32:ASN:HD22	6:CI:32:ASN:N	1.85	0.74
26:DD:54:ARG:HG3	26:DD:54:ARG:HH11	1.49	0.74
43:DU:51:VAL:HG13	43:DU:52:SER:N	2.03	0.74
31:BK:82:ARG:HH11	31:BK:146:ALA:HB2	1.52	0.74
19:CV:3:ARG:HG3	19:CV:4:SER:H	1.52	0.74
28:BF:7:TYR:HE1	28:BF:10:PRO:HG3	1.50	0.74
26:BD:35:LYS:HZ1	26:BD:104:TYR:HB2	1.51	0.74
15:AR:33:THR:HG23	15:AR:63:ARG:NH1	2.01	0.74
54:DA:2760:C:H2'	54:DA:2761:G:C5'	2.18	0.74
5:CH:10:MET:CB	5:CH:32:VAL:HG22	2.18	0.74
32:DM:96:GLU:HG2	32:DM:97:ARG:N	2.01	0.74
54:DA:1170:G:H8	54:DA:1170:G:H5'	1.52	0.74
4:AG:178:VAL:HG12	4:AG:179:GLU:H	1.52	0.74
5:CH:72:GLN:NE2	5:CH:144:THR:HG22	2.01	0.74
1:AA:1238:A:H62	1:AA:1301:U:H3	1.32	0.74
20:AW:10:LEU:HD22	20:AW:11:SER:N	2.02	0.74
18:AU:18:ARG:HB2	18:AU:18:ARG:CZ	2.16	0.74
35:BP:56:ARG:HH11	35:BP:56:ARG:HB2	1.50	0.74
54:DA:2458:G:H2'	54:DA:2490:G:O6	1.87	0.74
24:BA:288:C:H2'	24:BA:289:A:C8	2.21	0.74
24:BA:1963:U:H2'	24:BA:1963:U:O2	1.85	0.74
8:CK:91:ARG:HH11	8:CK:91:ARG:HG2	1.52	0.74
54:DA:1586:A:H3'	54:DA:1587:A:H8	1.51	0.74
54:DA:2065:C:H2'	54:DA:2066:C:H6	1.51	0.74
19:AV:40:ILE:HB	19:AV:67:VAL:O	1.87	0.74
3:CF:181:ASN:ND2	3:CF:204:LEU:HD12	1.99	0.74
26:DD:30:GLU:HG3	26:DD:63:ARG:CZ	2.17	0.74
1:CA:1124:G:H5"	1:CA:1145:C:H41	1.52	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1023:G:H3'	1:CA:1024:G:H5''	1.69	0.74
44:BV:107:THR:CB	44:BV:108:PRO:HD3	2.18	0.74
35:DP:79:LEU:CD2	35:DP:79:LEU:O	2.36	0.74
47:BW:47:ASN:O	47:BW:49:LYS:N	2.20	0.74
24:BA:622:G:O2'	24:BA:623:G:H5'	1.88	0.74
44:DV:60:GLU:HA	44:DV:66:SER:HA	1.69	0.74
31:DK:2:LYS:HA	31:DK:20:ASP:HB3	1.68	0.74
32:BM:95:PRO:O	32:BM:98:VAL:HG22	1.87	0.74
54:DA:2543:G:H21	54:DA:2646:C:H5''	1.52	0.74
48:DX:7:LYS:HB2	48:DX:34:GLU:HG2	1.69	0.74
54:DA:2176:A:H2'	54:DA:2177:C:C6	2.21	0.74
28:DF:129:PHE:HA	28:DF:142:TRP:NE1	2.01	0.74
46:DZ:26:ARG:HD2	46:DZ:26:ARG:O	1.86	0.74
14:AQ:23:ARG:HD2	14:AQ:28:GLY:O	1.87	0.74
54:DA:1062:G:H2'	54:DA:1063:G:H8	1.52	0.74
19:CV:42:PRO:HD3	49:D4:63:TYR:CE2	2.23	0.74
24:BA:8:A:H2'	24:BA:9:U:C6	2.22	0.74
20:CW:35:THR:O	20:CW:39:LYS:HG3	1.87	0.74
37:BQ:26:LEU:HD22	37:BQ:87:PHE:HD1	1.53	0.74
1:AA:1175:G:H2'	1:AA:1176:A:C8	2.22	0.74
7:AJ:10:ARG:HH11	7:AJ:10:ARG:HG2	1.50	0.74
54:DA:2507:C:C6	54:DA:2507:C:H5'	2.18	0.74
44:DV:7:ALA:HB2	44:DV:59:LEU:HD22	1.67	0.74
10:CM:27:ALA:HB1	10:CM:34:VAL:HG21	1.69	0.74
24:BA:51:G:O2'	24:BA:119:A:N1	2.19	0.74
54:DA:323:G:H2'	28:DF:169:ASN:ND2	2.03	0.74
38:BR:127:ALA:O	38:BR:131:ALA:HB2	1.88	0.74
20:AW:74:LYS:C	20:AW:76:ALA:H	1.89	0.74
39:D1:52:ARG:HH11	39:D1:52:ARG:HG2	1.51	0.74
29:BG:5:VAL:HG12	29:BG:6:ALA:H	1.53	0.74
11:AN:13:GLN:HG3	11:AN:76:GLY:C	2.08	0.74
11:AN:13:GLN:HG3	11:AN:75:TYR:O	1.87	0.74
31:BK:125:GLU:HA	31:BK:141:LYS:HB3	1.69	0.74
19:AV:48:THR:C	19:AV:49:ILE:HD12	2.08	0.74
39:D1:64:ARG:HH21	39:D1:64:ARG:CG	2.00	0.74
7:CJ:78:ARG:HH12	7:CJ:80:VAL:HG23	1.52	0.74
1:CA:429:U:H4'	1:CA:430:A:O5'	1.85	0.74
37:BQ:67:ARG:O	37:BQ:71:ARG:HG3	1.86	0.74
24:BA:1578:U:H2'	24:BA:1579:A:H5''	1.69	0.74
24:BA:2645:G:H4'	24:BA:2732:G:O2'	1.87	0.74
37:DQ:36:TYR:CD2	37:DQ:52:SER:HB3	2.23	0.74
16:CS:43:LYS:O	16:CS:45:THR:N	2.21	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1028:C:H2'	1:CA:1028(A):C:H5''	1.69	0.74
37:BQ:17:ARG:HG3	37:BQ:18:ILE:N	2.02	0.74
40:B2:35:LEU:HD23	40:B2:37:VAL:CG2	2.16	0.74
1:CA:1318:A:H4'	19:CV:11:VAL:CG1	2.18	0.74
2:AE:185:ILE:HG22	2:AE:199:TYR:CB	2.08	0.74
31:DK:3:VAL:HG12	31:DK:38:LEU:HA	1.69	0.74
5:CH:45:PHE:CE2	5:CH:47:LYS:HD2	2.22	0.74
24:BA:481:G:OP2	43:BU:47:LYS:HB2	1.87	0.74
49:D4:41:PRO:O	49:D4:42:PHE:HB3	1.87	0.74
1:CA:191:G:C4	20:CW:105:SER:HB3	2.23	0.74
1:AA:1007:C:H2'	1:AA:1008:C:O4'	1.87	0.74
1:AA:1001:G:OP1	1:AA:1001:G:H4'	1.86	0.74
1:CA:1537:U:H2'	1:CA:1538:C:C5	2.23	0.74
24:BA:2712:U:O2'	24:BA:2712(A):A:O5'	2.04	0.74
1:CA:1262:C:H2'	1:CA:1263:C:H6	1.51	0.74
38:DR:26:ASP:HB3	38:DR:91:ARG:HA	1.69	0.74
12:AO:22:SER:C	12:AO:24:VAL:H	1.91	0.74
54:DA:38:A:H2'	54:DA:39:C:C6	2.23	0.74
2:AE:194:PRO:HG2	2:AE:195:ASP:OD1	1.87	0.74
28:DF:136:THR:HG22	28:DF:166:ALA:O	1.87	0.74
31:DK:5:LEU:HD12	31:DK:5:LEU:H	1.51	0.74
48:DX:29:ARG:HB2	48:DX:29:ARG:HH11	1.52	0.74
2:CE:47:THR:O	2:CE:51:LEU:HG	1.87	0.74
1:AA:1256:A:H5'	1:AA:1257:U:OP1	1.88	0.74
44:DV:154:ASP:CG	44:DV:155:LEU:H	1.91	0.74
52:B7:8:ASN:HD22	52:B7:8:ASN:C	1.89	0.74
51:B6:10:LEU:O	51:B6:11:LEU:HB2	1.86	0.74
25:BB:75:G:N2	35:BP:141:GLN:OE1	2.21	0.74
4:CG:25:ARG:HH12	4:CG:30:LYS:HG3	1.52	0.74
10:CM:33:GLN:O	10:CM:75:ILE:HG12	1.87	0.74
54:DA:631:A:OP2	53:D8:46:ARG:NH2	2.20	0.74
48:BX:8:LEU:CD1	48:BX:31:LEU:HA	2.18	0.74
40:D2:15:GLU:O	40:D2:18:LEU:HB2	1.87	0.74
32:BM:120:LEU:HD21	32:BM:122:VAL:HG23	1.69	0.74
54:DA:205:G:O2'	54:DA:206:U:P	2.46	0.74
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.23	0.74
31:BK:56:LYS:HD2	31:BK:60:GLU:HB2	1.69	0.74
6:CI:19:LEU:HD23	6:CI:19:LEU:O	1.88	0.74
6:CI:91:VAL:HG13	18:CU:72:ARG:HH12	1.51	0.74
49:B4:10:VAL:CG1	49:B4:11:PRO:HD2	2.18	0.74
1:CA:794:A:H8	1:CA:794:A:H5'	1.51	0.74
2:CE:101:MET:CA	2:CE:108:ILE:HG13	2.11	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:80:ILE:HG13	42:BT:80:ILE:O	1.88	0.74
27:BE:35:GLN:HB2	27:BE:48:GLN:NE2	2.03	0.74
27:BE:37:ARG:HD3	27:BE:44:TYR:OH	1.87	0.74
24:BA:1784:A:H4'	24:BA:1785:A:C5'	2.17	0.74
32:DM:1:MET:HE1	39:D1:95:LEU:HD21	1.70	0.74
1:AA:818:G:H3'	1:AA:819:A:H5'	1.70	0.74
5:CH:72:GLN:HE21	5:CH:144:THR:HG22	1.53	0.74
24:BA:1328:G:H2'	24:BA:1330:C:C4	2.22	0.74
1:CA:1178:G:H5'	9:CL:93:ARG:NH2	2.02	0.74
1:CA:737:A:H2'	1:CA:738:C:C6	2.22	0.74
54:DA:2064:C:H2'	54:DA:2065:C:C6	2.23	0.74
27:BE:131:ALA:HB1	27:BE:135:HIS:HE1	1.52	0.74
54:DA:2273:A:O2'	54:DA:2274:A:H5'	1.87	0.74
24:BA:1869:G:H5'	24:BA:1870:C:OP2	1.88	0.74
27:BE:203:LYS:HD3	27:BE:204:ALA:N	2.03	0.74
24:BA:2250:G:N1	35:BP:82:ARG:HD3	2.01	0.73
31:BK:90:GLY:O	31:BK:121:LYS:HD2	1.87	0.73
9:AL:65:VAL:HG21	9:AL:73:GLN:HB3	1.68	0.73
30:BH:124:GLU:O	30:BH:125:VAL:CG2	2.35	0.73
34:BO:85:LEU:HA	34:BO:88:LEU:HB3	1.70	0.73
40:B2:5:VAL:HG23	40:B2:37:VAL:HG21	1.69	0.73
15:CR:87:ILE:HG22	15:CR:88:ARG:N	2.00	0.73
28:BF:63:LYS:HE2	28:BF:67:GLN:HB3	1.70	0.73
44:BV:53:ILE:HG22	44:BV:71:VAL:O	1.86	0.73
31:DK:67:ARG:NE	31:DK:68:LEU:H	1.86	0.73
22:CD:17:C:N4	22:CD:18:G:H5'	2.02	0.73
24:BA:1278:A:OP1	36:B0:36:THR:HG22	1.88	0.73
38:DR:54:ARG:HH11	38:DR:54:ARG:HG2	1.52	0.73
18:AU:22:VAL:HG11	18:AU:56:THR:HA	1.68	0.73
24:BA:13:A:H61	24:BA:525:U:H3'	1.53	0.73
44:DV:63:ASP:O	44:DV:65:GLN:HG2	1.88	0.73
13:CP:37:THR:HG21	13:CP:39:ILE:HD11	1.68	0.73
54:DA:345:A:H4'	54:DA:346:A:OP1	1.86	0.73
1:CA:466:C:H5''	1:CA:467:G:OP2	1.87	0.73
12:AO:79:GLU:HG3	12:AO:80:HIS:ND1	2.03	0.73
11:AN:13:GLN:CG	11:AN:75:TYR:O	2.36	0.73
22:AD:70:G:C3'	22:AD:71:C:H5''	2.17	0.73
9:AL:73:GLN:O	9:AL:77:ILE:HG13	1.87	0.73
27:DE:78:LEU:HG	27:DE:79:ARG:NE	2.03	0.73
30:DH:153:LYS:HG3	30:DH:161:GLY:CA	2.18	0.73
24:BA:1054:A:H2'	24:BA:1055:G:C8	2.23	0.73
1:CA:1451:A:H5''	1:CA:1452:C:O2	1.88	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1964:G:H4'	54:DA:1965:C:OP2	1.88	0.73
33:DN:26:LYS:HB2	33:DN:30:ALA:CB	2.18	0.73
24:BA:2522:U:H2'	24:BA:2523:G:H5''	1.70	0.73
25:BB:83:G:H5''	48:BX:52:HIS:CE1	2.24	0.73
24:BA:288:C:H2'	24:BA:289:A:H8	1.53	0.73
26:BD:131:LEU:HB2	26:BD:136:ILE:HD11	1.70	0.73
15:CR:70:LEU:O	15:CR:70:LEU:HD12	1.88	0.73
54:DA:70:G:H2'	54:DA:113:G:O2'	1.88	0.73
7:AJ:13:GLN:O	7:AJ:24:THR:HG21	1.88	0.73
54:DA:1378:A:C2'	54:DA:1379:A:H5''	2.17	0.73
49:B4:11:PRO:O	49:B4:25:TYR:HD1	1.68	0.73
24:BA:2015:A:H1'	50:B5:2:ALA:HA	1.67	0.73
26:DD:131:LEU:HB2	26:DD:136:ILE:CD1	2.17	0.73
24:BA:1926:U:H2'	24:BA:1928:A:OP2	1.88	0.73
25:BB:75:G:H5'	25:BB:75:G:H8	1.53	0.73
24:BA:1301:A:O2'	24:BA:1302:A:H3'	1.88	0.73
24:BA:2875:C:O2'	38:BR:5:ALA:HB3	1.89	0.73
29:BG:41:GLN:HB3	29:BG:43:LEU:HD13	1.71	0.73
1:CA:563:A:H1'	1:CA:566:G:O2'	1.88	0.73
22:CD:63:G:H2'	22:CD:64:G:C8	2.23	0.73
3:CF:134:ILE:HD11	3:CF:153:VAL:HG21	1.70	0.73
54:DA:2542:A:H5'	54:DA:2543:G:OP1	1.88	0.73
54:DA:229:A:H4'	54:DA:229:A:OP1	1.87	0.73
8:AK:40:ALA:HB2	8:AK:45:ILE:HG13	1.70	0.73
54:DA:1348:G:H2'	54:DA:1349:A:H5''	1.70	0.73
8:AK:88:LYS:HB3	8:AK:89:PRO:HD2	1.70	0.73
24:BA:2046:G:H2'	24:BA:2047:U:C6	2.22	0.73
18:AU:70:ILE:O	18:AU:74:ARG:HG3	1.88	0.73
24:BA:654(R):C:OP1	24:BA:654(R):C:C5	2.40	0.73
30:BH:7:LEU:HD13	30:BH:69:ARG:CB	2.18	0.73
30:BH:126:PRO:CB	30:BH:127:GLU:C	2.57	0.73
22:AD:17:C:H3'	22:AD:17(A):C:H5''	1.70	0.73
38:DR:102:ILE:HB	38:DR:110:ILE:CD1	2.19	0.73
38:BR:8:LYS:HZ2	38:BR:8:LYS:HB2	1.48	0.73
1:AA:1178:G:H5'	9:AL:93:ARG:HH21	1.52	0.73
54:DA:2469:A:O2'	35:DP:56:ARG:HG2	1.88	0.73
1:AA:250:A:H4'	1:AA:251:G:O5'	1.88	0.73
54:DA:322:A:H4'	54:DA:323:G:OP2	1.87	0.73
24:BA:1639:U:C2'	24:BA:1640:C:H5''	2.18	0.73
24:BA:1505:C:H6	24:BA:1505:C:H5'	1.54	0.73
24:BA:1822:G:H5'	24:BA:1822:G:H8	1.52	0.73
26:BD:201:HIS:O	26:BD:204:ILE:HG12	1.89	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:4:ILE:HG23	13:AP:5:ALA:H	1.53	0.73
1:AA:1281:U:O2'	1:AA:1282:C:OP1	2.06	0.73
53:D8:61:LEU:O	53:D8:62:LEU:HB2	1.88	0.73
54:DA:1728:G:H3'	54:DA:1729:A:C5'	2.15	0.73
54:DA:1024:G:C3'	54:DA:1025:G:H5''	2.18	0.73
24:BA:2533:A:C2'	24:BA:2534:A:H5''	2.18	0.73
2:CE:8:LYS:N	2:CE:8:LYS:HD3	2.03	0.73
54:DA:2712:U:H1'	54:DA:2712(A):A:N7	2.03	0.73
54:DA:1864:U:C2'	54:DA:1869:G:H5''	2.18	0.73
24:BA:2310:A:N6	29:BG:79:ASN:ND2	2.36	0.73
1:AA:1239:A:H62	1:AA:1299:A:N6	1.85	0.73
7:AJ:41:ARG:O	7:AJ:45:ASP:HB2	1.88	0.73
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.23	0.73
1:CA:792:A:C1'	1:CA:794:A:H62	2.00	0.73
34:BO:101:VAL:HA	34:BO:105:LEU:O	1.88	0.73
27:DE:77:ILE:HD12	27:DE:78:LEU:H	1.52	0.73
1:CA:689:C:C2'	1:CA:690:G:H5'	2.19	0.73
53:B8:32:LEU:HB2	53:B8:36:LYS:CE	2.17	0.73
35:DP:79:LEU:O	35:DP:79:LEU:CD1	2.35	0.73
24:BA:242:G:HO2'	24:BA:243:U:P	2.12	0.73
1:AA:1375:A:H4'	7:AJ:29:LYS:HZ3	1.49	0.73
54:DA:2159:G:H2'	54:DA:2160:G:C8	2.24	0.73
1:CA:411:A:N7	1:CA:413:G:N3	2.36	0.73
20:AW:23:ARG:O	20:AW:27:LYS:HB2	1.88	0.73
1:AA:736:C:H2'	1:AA:737:A:C8	2.22	0.73
24:BA:2614:A:H4'	24:BA:2615:U:OP1	1.87	0.73
2:AE:104:ASN:ND2	2:AE:107:THR:HB	2.03	0.73
47:BW:17:SER:OG	47:BW:18:PRO:HA	1.88	0.73
1:CA:437:U:H2'	1:CA:438:G:O4'	1.87	0.73
24:BA:530:G:C6	24:BA:2022:U:H5''	2.24	0.73
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.24	0.73
54:DA:637:A:H4'	54:DA:638:G:O5'	1.88	0.73
4:CG:146:ILE:N	4:CG:146:ILE:HD12	2.04	0.73
1:CA:135:C:H2'	1:CA:136:C:H5'	1.69	0.73
1:AA:1139:G:H21	1:AA:1143:G:H1	1.37	0.73
30:BH:20:ALA:HB2	30:BH:25:LYS:HE3	1.69	0.73
1:CA:1054:C:C4	59:CA:1605:C:H1'	2.24	0.73
54:DA:1266:G:HO2'	54:DA:1267:U:P	2.12	0.73
3:AF:108:ASN:HD21	3:AF:144:SER:HB2	1.53	0.73
50:B5:46:CYS:SG	50:B5:48:GLU:HG2	2.29	0.73
24:BA:2893:G:C5'	24:BA:2894:G:H5'	2.18	0.73
37:DQ:62:LYS:HB3	37:DQ:97:ARG:HD3	1.69	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CS:60:LEU:HA	16:CS:64:ALA:HB3	1.71	0.73
24:BA:2315:G:H2'	24:BA:2316:C:H6	1.52	0.73
8:CK:20:TYR:HD1	8:CK:65:TYR:CD2	2.07	0.73
24:BA:914:C:H2'	24:BA:915:C:H5'	1.71	0.73
1:AA:1279:A:H2	10:AM:43:ARG:HH22	1.34	0.73
26:DD:77:ALA:CB	26:DD:97:TYR:HA	2.18	0.73
44:BV:165:VAL:HG13	44:BV:166:SER:H	1.54	0.73
1:AA:547:A:H4'	1:AA:548:G:O5'	1.86	0.73
24:BA:654(R):C:H5''	24:BA:654(R):C:C4	2.11	0.73
30:BH:50:VAL:HG23	30:BH:51:ARG:HH22	1.54	0.73
27:BE:3:GLY:HA3	27:BE:81:ILE:CD1	2.19	0.73
5:AH:72:GLN:O	5:AH:75:THR:HG22	1.89	0.73
1:CA:1277:C:HO2'	1:CA:1279:A:H8	1.35	0.73
2:CE:115:LEU:HD13	2:CE:145:LEU:HB3	1.69	0.73
50:D5:40:LYS:CE	50:D5:46:CYS:HB3	2.19	0.73
54:DA:2319:G:N7	37:DQ:3:ARG:HB3	2.03	0.73
18:CU:56:THR:HB	18:CU:58:LEU:HD12	1.71	0.73
29:BG:55:LYS:HE3	29:BG:148:MET:HE2	1.69	0.73
7:AJ:50:ILE:HG13	7:AJ:58:PRO:HB3	1.70	0.73
40:B2:44:LYS:O	40:B2:46:VAL:N	2.22	0.73
45:B3:36:ILE:HD13	45:B3:36:ILE:O	1.88	0.73
23:C1:23:A:H5'	23:C1:23:A:N3	2.04	0.73
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.24	0.73
2:CE:75:LYS:HD3	2:CE:75:LYS:O	1.89	0.73
1:CA:690:G:H22	11:CN:55:LYS:NZ	1.83	0.73
54:DA:196:A:H2'	54:DA:805:G:O6	1.89	0.73
40:B2:80:GLN:NE2	40:B2:80:GLN:N	2.36	0.73
31:DK:131:LYS:HB3	31:DK:132:PRO:HA	1.70	0.73
24:BA:1022:G:O6	32:BM:66:LYS:HE2	1.89	0.73
22:CD:15:G:N2	22:CD:59:A:H1'	2.03	0.73
29:DG:7:LEU:HD21	29:DG:176:LEU:HD22	1.70	0.73
24:BA:2449:U:HO2'	24:BA:2450:A:H8	1.36	0.73
54:DA:1694:C:H1'	54:DA:1695:G:C2	2.24	0.73
24:BA:807:U:H2'	24:BA:808:G:H8	1.53	0.73
49:D4:29:PRO:O	49:D4:30:GLU:HB2	1.89	0.73
54:DA:993:G:OP1	39:D1:50:ARG:NH2	2.22	0.73
47:DW:29:LYS:HD3	47:DW:57:ILE:HD13	1.71	0.73
54:DA:270(T):G:H5''	46:DZ:97:LEU:HD22	1.68	0.73
1:AA:1322:C:H2'	1:AA:1322:C:O2	1.89	0.73
19:AV:67:VAL:HG11	49:B4:59:PHE:CD1	2.23	0.73
44:BV:157:LEU:HB3	44:BV:161:VAL:CG2	2.17	0.73
53:D8:16:ILE:HD11	53:D8:57:ARG:HG2	1.69	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:33:U:C4'	24:BA:34:C:OP1	2.36	0.73
54:DA:1043:C:N3	54:DA:1112:G:N2	2.35	0.73
2:AE:215:LEU:O	2:AE:219:VAL:HG12	1.89	0.73
1:AA:792:A:N9	1:AA:794:A:N6	2.36	0.73
5:AH:101:ILE:HD11	5:AH:119:LEU:HD23	1.70	0.73
55:DB:48:A:H2'	55:DB:49:C:C6	2.24	0.73
51:D6:13:CYS:HA	51:D6:50:ARG:O	1.89	0.73
2:AE:97:TRP:NE1	2:AE:101:MET:HG3	2.03	0.73
24:BA:2046:G:H2'	24:BA:2047:U:H6	1.54	0.73
4:AG:139:ARG:HG3	4:AG:139:ARG:HH11	1.54	0.73
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.24	0.73
24:BA:1165:U:H2'	24:BA:1166:C:C6	2.24	0.73
37:BQ:62:LYS:O	37:BQ:65:VAL:HB	1.89	0.72
1:CA:73:G:H2'	1:CA:74:C:C5	2.24	0.72
30:BH:124:GLU:O	30:BH:125:VAL:CB	2.37	0.72
34:BO:146:VAL:CG2	34:BO:147:LEU:HD13	2.17	0.72
24:BA:1151:G:H5''	39:B1:81:HIS:CE1	2.24	0.72
27:DE:55:ASN:C	27:DE:57:LYS:H	1.91	0.72
29:BG:20:ILE:O	29:BG:24:GLY:HA2	1.89	0.72
54:DA:1484:G:H2'	54:DA:1485:G:C5'	2.15	0.72
3:CF:13:GLY:HA3	14:CQ:57:ARG:NH2	2.04	0.72
30:DH:153:LYS:HA	30:DH:153:LYS:HZ3	1.52	0.72
52:B7:12:ARG:CD	52:B7:46:VAL:HG21	2.18	0.72
35:DP:20:ALA:HB3	44:DV:79:ARG:NH1	2.03	0.72
24:BA:2534:A:H5'	24:BA:2534:A:H8	1.53	0.72
24:BA:2665:A:O2'	24:BA:2666:C:H5'	1.89	0.72
27:DE:203:LYS:HD2	27:DE:203:LYS:O	1.88	0.72
36:D0:3:HIS:O	36:D0:5:LYS:N	2.22	0.72
43:BU:89:PHE:O	43:BU:90:LEU:HD22	1.89	0.72
10:AM:6:ILE:HG13	10:AM:6:ILE:O	1.86	0.72
29:DG:146:TYR:O	29:DG:149:VAL:HG22	1.89	0.72
1:AA:634:C:O2'	1:AA:635:G:H5'	1.89	0.72
3:CF:86:VAL:O	3:CF:89:GLU:HB3	1.88	0.72
2:AE:12:GLU:HB2	2:AE:213:LEU:HD11	1.69	0.72
2:AE:228:GLY:O	2:AE:230:VAL:HG23	1.89	0.72
1:AA:191(C):G:H3'	1:AA:191(D):U:H5''	1.71	0.72
59:CO:201:C:H6	59:CO:201:C:H5'	1.54	0.72
24:BA:858:U:O2'	24:BA:2268:A:C2'	2.37	0.72
33:BN:104:ARG:HH11	33:BN:104:ARG:HB3	1.54	0.72
30:DH:125:VAL:HG12	30:DH:126:PRO:HG3	1.71	0.72
44:BV:128:VAL:HG22	44:BV:129:SER:H	1.54	0.72
54:DA:1082:U:O4	54:DA:1083:U:H1'	1.90	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:52:SER:OG	43:DU:53:PRO:HD3	1.88	0.72
30:DH:153:LYS:HG2	30:DH:162:ILE:H	1.52	0.72
28:BF:20:LEU:HD23	28:BF:21:ALA:N	2.04	0.72
54:DA:2011:U:H2'	54:DA:2012:G:H5'	1.69	0.72
24:BA:2638:G:HO2'	24:BA:2639:A:H8	1.34	0.72
28:BF:61:GLY:HA2	28:BF:77:ASP:HB3	1.71	0.72
37:DQ:83:LYS:HZ2	37:DQ:109:GLY:HA2	1.53	0.72
37:DQ:83:LYS:HG2	37:DQ:109:GLY:N	2.04	0.72
35:DP:79:LEU:C	35:DP:79:LEU:HD22	2.07	0.72
44:BV:28:MET:HG3	44:BV:37:VAL:HG11	1.70	0.72
32:DM:58:ASP:H	32:DM:60:ILE:HD11	1.53	0.72
28:BF:5:ALA:HB1	28:BF:125:LEU:HD21	1.71	0.72
24:BA:511:U:H5''	24:BA:512:G:OP2	1.88	0.72
13:AP:94:ARG:HG3	13:AP:96:LEU:HG	1.70	0.72
1:AA:1502:A:H2	1:AA:1505:G:H1	1.35	0.72
20:CW:47:GLY:O	20:CW:49:ALA:N	2.19	0.72
29:BG:64:THR:OG1	29:BG:94:LEU:HD13	1.89	0.72
1:AA:1054:C:N4	23:A1:22:A:H61	1.86	0.72
38:BR:102:ILE:HD13	38:BR:110:ILE:HD11	1.71	0.72
1:CA:1346:A:C2	1:CA:1374:A:H5''	2.24	0.72
35:BP:108:GLY:HA3	44:BV:116:VAL:CG2	2.19	0.72
44:DV:9:TYR:HE2	44:DV:61:LEU:HD13	1.53	0.72
59:CC:107:C:H4'	58:DA:2908:G:OP1	1.87	0.72
53:B8:40:GLU:H	53:B8:43:GLN:HG3	1.54	0.72
54:DA:1464:C:HO2'	54:DA:1528:A:H8	1.34	0.72
48:BX:24:LYS:HA	48:BX:24:LYS:HE3	1.71	0.72
43:BU:4:LYS:HA	43:BU:4:LYS:HE2	1.69	0.72
26:DD:35:LYS:HZ1	26:DD:65:ILE:HA	1.52	0.72
53:D8:29:LYS:HD3	53:D8:44:LYS:HB2	1.71	0.72
28:BF:132:VAL:HG22	28:BF:133:ASN:N	2.02	0.72
26:BD:25:THR:HG21	26:BD:82:ILE:H	1.54	0.72
1:CA:1037:C:H2'	1:CA:1038:C:C6	2.24	0.72
24:BA:1249:U:C2'	24:BA:1249:U:O2	2.27	0.72
39:D1:98:LEU:HD23	39:D1:99:ALA:N	2.04	0.72
54:DA:2791:C:H1'	54:DA:2792:G:N7	2.04	0.72
1:AA:8:A:N7	4:AG:209:ARG:HA	2.04	0.72
30:BH:152:ARG:HG3	30:BH:153:LYS:HG2	1.71	0.72
50:D5:58:LEU:CD1	50:D5:60:VAL:HG12	2.19	0.72
16:CS:20:VAL:HG21	16:CS:32:TYR:CG	2.24	0.72
34:DO:88:LEU:C	34:DO:90:ARG:H	1.92	0.72
24:BA:1019:U:N3	24:BA:1142(A):A:N6	2.38	0.72
24:BA:328:U:H4'	43:BU:68:HIS:CD2	2.24	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DP:90:VAL:CG1	35:DP:91:GLU:H	2.02	0.72
54:DA:2656:U:C5	54:DA:2664:G:N2	2.56	0.72
3:AF:59:ARG:HG2	3:AF:64:VAL:HG12	1.71	0.72
1:CA:321:A:H2	1:CA:332:G:H22	1.36	0.72
54:DA:1228:G:OP2	39:D1:16:LYS:NZ	2.19	0.72
13:AP:83:ASP:CG	13:AP:84:ILE:H	1.93	0.72
1:AA:452:A:H62	1:AA:480:U:H3	1.35	0.72
24:BA:566:U:OP1	34:BO:29:LYS:HE2	1.89	0.72
24:BA:2537:U:H2'	24:BA:2538:C:C6	2.24	0.72
1:AA:81:G:N2	1:AA:89:U:H1'	2.04	0.72
13:AP:35:GLU:HG3	13:AP:36:LYS:N	2.04	0.72
54:DA:658:C:H2'	54:DA:659:C:C6	2.24	0.72
1:CA:503:C:OP2	12:CO:116:SER:HB3	1.87	0.72
9:AL:43:ALA:HA	9:AL:74:ILE:HD13	1.71	0.72
54:DA:2667:C:H1'	30:DH:109:PHE:HD2	1.55	0.72
30:DH:152:ARG:O	30:DH:153:LYS:HD2	1.90	0.72
34:DO:126:VAL:CG1	34:DO:147:LEU:HD21	2.17	0.72
37:DQ:26:LEU:HD23	37:DQ:26:LEU:O	1.90	0.72
40:B2:79:VAL:O	40:B2:80:GLN:HB2	1.89	0.72
54:DA:2712:U:C2'	54:DA:2712(A):A:O5'	2.38	0.72
7:AJ:97:GLN:NE2	7:AJ:101:LEU:HD11	2.04	0.72
24:BA:2176:A:H2'	24:BA:2177:C:H6	1.54	0.72
1:AA:560:U:O2'	1:AA:561:U:OP2	2.04	0.72
1:AA:1004:A:H8	1:AA:1004:A:O5'	1.73	0.72
1:AA:1004:A:H2'	1:AA:1025:U:O4	1.89	0.72
54:DA:1884:A:H2'	54:DA:1885:A:C5'	2.18	0.72
36:D0:117:VAL:HG22	36:D0:118:GLU:N	2.05	0.72
14:CQ:24:CYS:HB2	14:CQ:40:CYS:N	2.03	0.72
54:DA:702:G:H5'	54:DA:702:G:C8	2.24	0.72
6:AI:82:ARG:HB2	6:AI:85:VAL:CG2	2.19	0.72
5:AH:41:VAL:HG22	5:AH:113:ALA:HB2	1.70	0.72
38:BR:36:GLU:OE1	38:BR:41:ARG:HD2	1.89	0.72
32:DM:89:LYS:O	32:DM:93:THR:HG22	1.90	0.72
1:AA:968:A:H5''	1:AA:969:A:OP2	1.90	0.72
54:DA:654(V):A:O2'	54:DA:655:A:H5'	1.89	0.72
42:DT:41:ASN:N	42:DT:41:ASN:HD22	1.85	0.72
10:CM:3:LYS:HD2	10:CM:77:PRO:HD3	1.70	0.72
54:DA:612:G:N3	54:DA:613:U:O2	2.22	0.72
54:DA:1221:C:OP1	40:D2:68:LYS:HE2	1.89	0.72
31:BK:120:ILE:O	31:BK:121:LYS:HB2	1.88	0.72
1:AA:949:A:H1'	1:AA:1364:U:H3	1.55	0.72
33:BN:60:ALA:HA	33:BN:87:ILE:HG12	1.70	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:B1:95:LEU:C	39:B1:97:ASP:N	2.41	0.72
1:CA:1324:A:H4'	1:CA:1362:C:H4'	1.71	0.72
40:D2:39:LEU:O	40:D2:40:LEU:HD23	1.90	0.72
1:AA:353:A:H5'	1:AA:353:A:C8	2.17	0.72
54:DA:2506:U:O2'	54:DA:2507:C:C5'	2.36	0.72
53:B8:50:LEU:O	53:B8:51:ALA:HB2	1.89	0.72
31:DK:130:TYR:C	31:DK:131:LYS:HD2	2.10	0.72
16:CS:72:ARG:HD3	16:CS:72:ARG:C	2.10	0.72
30:DH:54:ARG:HH12	30:DH:62:LYS:HG2	1.54	0.72
48:DX:56:VAL:HG12	48:DX:57:GLU:N	2.04	0.72
24:BA:1332:G:N2	24:BA:1609:A:H2'	2.05	0.72
5:AH:71:LEU:HD11	5:AH:114:GLY:HA3	1.71	0.72
12:CO:126:LYS:HB2	12:CO:126:LYS:NZ	2.04	0.72
28:DF:124:LEU:HD12	28:DF:125:LEU:N	2.04	0.72
26:BD:172:TYR:HD1	26:BD:186:HIS:HA	1.54	0.72
36:B0:33:ARG:HG2	36:B0:115:GLU:HG3	1.71	0.72
8:CK:41:ARG:CB	8:CK:41:ARG:HH11	2.03	0.72
47:DW:27:GLU:N	47:DW:27:GLU:OE1	2.19	0.72
24:BA:654(R):C:C3'	24:BA:654(R):C:C2	2.72	0.72
54:DA:593:G:O3'	53:D8:61:LEU:HD22	1.89	0.72
1:CA:1533:C:H2'	1:CA:1533:C:O2	1.88	0.72
27:DE:14:ILE:HD11	38:DR:14:TYR:OH	1.90	0.72
10:AM:30:SER:OG	10:AM:81:THR:HG22	1.89	0.72
4:CG:91:SER:HA	4:CG:94:LEU:HD13	1.70	0.72
7:AJ:5:ARG:HH21	7:AJ:7:ALA:HA	1.53	0.72
54:DA:1885:A:H2'	54:DA:1886:C:O4'	1.89	0.72
2:CE:21:ARG:O	2:CE:23:ARG:HD3	1.90	0.72
1:AA:673:G:H2'	1:AA:674:G:C8	2.24	0.72
29:BG:103:LEU:O	29:BG:107:LEU:HG	1.89	0.72
54:DA:796:C:H2'	54:DA:797:C:C6	2.25	0.72
24:BA:270(F):U:H2'	24:BA:270(G):C:C6	2.25	0.72
24:BA:1098:A:H2'	24:BA:1099:G:H5''	1.72	0.72
6:CI:77:ARG:HH11	6:CI:77:ARG:HB2	1.53	0.72
27:BE:7:VAL:HG21	38:BR:1:MET:CE	2.19	0.72
48:BX:44:ARG:O	48:BX:48:GLU:HG3	1.89	0.72
10:AM:53:PRO:HA	14:AQ:42:ILE:CD1	2.20	0.72
13:AP:15:VAL:O	13:AP:19:LEU:HD23	1.89	0.72
30:BH:30:LYS:CD	30:BH:79:VAL:HA	2.15	0.72
34:BO:83:VAL:H	34:BO:115:LEU:HD12	1.54	0.72
3:CF:16:ARG:NH1	3:CF:16:ARG:HB2	2.04	0.72
38:DR:117:ASP:O	38:DR:121:ILE:HG13	1.89	0.72
2:AE:48:MET:HA	2:AE:51:LEU:HD12	1.71	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:747:U:N3	50:D5:2:ALA:N	2.36	0.72
37:DQ:83:LYS:C	37:DQ:109:GLY:HA3	2.10	0.72
28:DF:32:LEU:HD12	28:DF:32:LEU:O	1.90	0.72
24:BA:1947:C:C3'	24:BA:1948:G:H5''	2.20	0.72
20:CW:97:ALA:O	20:CW:99:LEU:HD13	1.89	0.72
31:BK:47:LEU:O	31:BK:50:ARG:HG2	1.90	0.72
1:AA:1036:G:H3'	1:AA:1037:C:C6	2.23	0.72
54:DA:1884:A:C2'	54:DA:1885:A:H5''	2.18	0.72
2:AE:97:TRP:CE2	2:AE:101:MET:HG3	2.25	0.72
12:CO:48:PRO:HD2	12:CO:49:ASN:H	1.52	0.72
28:DF:157:VAL:HB	28:DF:194:MET:HB3	1.70	0.72
1:CA:433:C:O2'	1:CA:434:U:H5'	1.90	0.72
54:DA:1673:U:C2'	54:DA:1674:G:H5'	2.20	0.72
31:BK:109:ILE:N	31:BK:109:ILE:HD13	2.04	0.72
24:BA:614:U:H5''	24:BA:615:G:OP1	1.90	0.72
30:DH:128:PRO:HD2	30:DH:129:THR:H	1.55	0.72
19:AV:11:VAL:HB	19:AV:16:LEU:HD11	1.72	0.72
9:AL:24:GLY:O	9:AL:26:VAL:HG13	1.90	0.72
9:AL:16:ARG:C	9:AL:63:ILE:HG23	2.09	0.72
15:CR:79:ARG:O	15:CR:82:ILE:HG22	1.89	0.72
34:DO:127:ALA:C	34:DO:147:LEU:HD23	2.10	0.72
28:BF:22:ALA:C	28:BF:24:LEU:H	1.93	0.72
27:DE:13:ARG:HA	27:DE:22:PRO:HA	1.71	0.72
27:DE:21:VAL:HB	27:DE:22:PRO:CB	2.18	0.72
27:DE:201:THR:HG22	27:DE:203:LYS:HB3	1.70	0.72
24:BA:1273:U:H5'	24:BA:1274:A:OP1	1.89	0.72
31:DK:133:HIS:CD2	31:DK:134:PRO:HD2	2.25	0.72
1:AA:1502:A:O2'	1:AA:1503:A:OP1	2.08	0.72
24:BA:620:G:H4'	24:BA:621:A:C5'	2.19	0.72
5:CH:76:ILE:HB	5:CH:77:PRO:HD2	1.72	0.72
54:DA:1164:G:H2'	54:DA:1165:U:C6	2.24	0.72
35:BP:54:MET:CE	35:BP:118:LEU:HD23	2.20	0.72
38:BR:55:ASN:H	38:BR:59:THR:CG2	2.03	0.72
45:D3:43:THR:O	45:D3:43:THR:HG23	1.90	0.72
35:BP:127:ILE:HG22	35:BP:128:LYS:H	1.54	0.72
36:D0:85:PRO:O	36:D0:87:TYR:N	2.22	0.72
24:BA:2094:G:OP1	31:BK:22:LYS:HD2	1.90	0.72
29:BG:129:GLY:O	29:BG:161:THR:HB	1.89	0.72
30:DH:30:LYS:HD2	30:DH:81:GLU:H	1.54	0.72
54:DA:273(F):C:H2'	54:DA:274:G:H5''	1.70	0.72
24:BA:674:G:O2'	28:BF:74:ARG:HG3	1.88	0.72
31:DK:27:ARG:HD3	46:DZ:71:TYR:HE1	1.55	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:70:TYR:HD2	41:DS:70:TYR:H	1.37	0.72
46:DZ:80:LEU:HB2	46:DZ:81:LYS:HE2	1.71	0.72
29:BG:112:PRO:HG2	49:B4:37:SER:OG	1.89	0.72
30:BH:18:GLU:CB	30:BH:25:LYS:HB2	2.19	0.72
27:DE:56:PRO:O	27:DE:57:LYS:HB2	1.89	0.72
42:BT:57:LEU:CD2	42:BT:78:LYS:HB2	2.17	0.72
26:BD:144:ALA:HB3	26:BD:192:THR:HG23	1.71	0.72
22:AD:17(A):C:H2'	22:AD:17(A):C:O2	1.89	0.72
22:AD:46:G:H1'	22:AD:47:U:C5	2.25	0.72
28:DF:32:LEU:HD12	28:DF:32:LEU:C	2.10	0.72
54:DA:1359:A:C4'	54:DA:1359:A:C8	2.72	0.72
38:BR:26:ASP:O	38:BR:49:VAL:HG12	1.90	0.72
24:BA:2311:A:H3'	24:BA:2312:U:H5	1.52	0.72
26:BD:159:ALA:H	26:BD:196:VAL:HG11	1.55	0.72
52:B7:47:ARG:HD3	52:B7:47:ARG:N	2.04	0.72
3:AF:59:ARG:CZ	3:AF:97:LYS:HZ1	2.02	0.72
54:DA:1668:A:N6	54:DA:1676:A:H61	1.87	0.72
53:D8:60:LEU:C	53:D8:63:PRO:HD2	2.10	0.72
46:DZ:3:LYS:HD3	46:DZ:43:TYR:HD2	1.52	0.72
1:CA:673:G:H2'	1:CA:674:G:C8	2.25	0.72
39:D1:34:LYS:HA	39:D1:34:LYS:HE2	1.70	0.72
14:AQ:44:LEU:O	14:AQ:44:LEU:HD12	1.90	0.72
4:CG:156:GLU:HG2	4:CG:160:GLN:HE21	1.53	0.72
2:AE:208:ILE:HA	2:AE:211:ILE:HD12	1.72	0.72
24:BA:2553:G:H3'	24:BA:2554:U:H5''	1.71	0.72
19:AV:61:TYR:C	19:AV:62:ILE:HD12	2.10	0.72
27:DE:197:ILE:HD11	27:DE:199:ARG:HH12	1.55	0.72
30:BH:126:PRO:CB	30:BH:127:GLU:CA	2.67	0.72
30:DH:132:ARG:CB	30:DH:132:ARG:HH11	1.97	0.72
54:DA:1728:G:H5'	54:DA:1729:A:OP2	1.90	0.72
27:BE:58:ARG:O	27:BE:60:ASN:N	2.22	0.72
44:BV:10:ARG:CG	44:BV:36:LYS:HB3	2.20	0.72
29:BG:67:LYS:HE2	49:B4:2:LYS:CG	2.17	0.72
8:CK:10:LEU:HD23	8:CK:10:LEU:N	2.04	0.72
34:BO:56:SER:O	34:BO:57:THR:HG22	1.89	0.72
54:DA:76:C:O2'	47:DW:62:THR:HG21	1.90	0.72
1:AA:563:A:H1'	1:AA:566:G:O2'	1.89	0.72
30:DH:26:VAL:CG1	30:DH:27:LYS:H	2.02	0.72
52:D7:10:ARG:O	52:D7:14:LYS:HB2	1.89	0.72
32:BM:134:ARG:O	32:BM:134:ARG:HG2	1.90	0.72
32:BM:55:VAL:HB	32:BM:126:PRO:HA	1.71	0.72
16:CS:45:THR:HG23	16:CS:46:PRO:HD2	1.70	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1066:C:H3'	1:AA:1067:A:C8	2.25	0.72
28:DF:9:ILE:HD11	28:DF:125:LEU:HG	1.70	0.72
9:AL:25:LYS:HD3	9:AL:25:LYS:H	1.55	0.72
42:BT:18:TYR:HA	42:BT:21:PHE:CD2	2.25	0.72
1:CA:652:U:O4	1:CA:752:G:H2'	1.90	0.72
54:DA:371:A:H1'	54:DA:373:U:C6	2.25	0.72
52:D7:5:TRP:NE1	52:D7:7:PRO:HG3	2.04	0.72
46:DZ:76:ARG:HG2	46:DZ:76:ARG:HH11	1.53	0.72
46:DZ:80:LEU:C	46:DZ:81:LYS:HE2	2.10	0.71
19:AV:17:GLU:O	19:AV:21:GLU:HG2	1.90	0.71
43:DU:57:GLN:HE21	43:DU:58:GLY:H	1.37	0.71
44:BV:26:GLY:HA2	44:BV:85:HIS:NE2	2.05	0.71
29:BG:81:LYS:N	29:BG:81:LYS:HD3	2.05	0.71
54:DA:879:G:H1	54:DA:898:C:N4	1.87	0.71
55:DB:40:U:H3	55:DB:43:C:H5''	1.55	0.71
54:DA:2506:U:O2	54:DA:2506:U:H2'	1.88	0.71
43:BU:91:GLU:HG3	43:BU:92:ASN:N	2.05	0.71
24:BA:2392:A:H8	34:BO:61:ARG:HD2	1.54	0.71
1:AA:566:G:H4'	1:AA:567:G:OP1	1.89	0.71
1:AA:689:C:C2'	1:AA:690:G:H5'	2.20	0.71
24:BA:2646:C:H2'	24:BA:2647:U:O4'	1.89	0.71
41:BS:12:ILE:HD13	41:BS:17:VAL:CG2	2.20	0.71
24:BA:848:G:H2'	24:BA:849:A:C8	2.24	0.71
50:B5:55:ARG:O	50:B5:56:LYS:HB2	1.90	0.71
20:CW:83:ARG:HA	20:CW:86:ARG:HB3	1.71	0.71
43:BU:75:ILE:HG12	43:BU:80:GLY:N	2.03	0.71
30:DH:84:SER:O	30:DH:85:LYS:HB2	1.89	0.71
19:CV:40:ILE:HG13	19:CV:44:MET:SD	2.30	0.71
10:CM:98:ILE:HD12	10:CM:98:ILE:H	1.55	0.71
50:D5:2:ALA:O	50:D5:3:LYS:HB2	1.88	0.71
44:BV:103:ARG:HG3	44:BV:104:PHE:N	2.01	0.71
25:BB:74:U:H2'	25:BB:75:G:C5'	2.21	0.71
24:BA:2657:A:O2'	30:BH:160:LYS:HE3	1.90	0.71
24:BA:1817:G:OP1	26:BD:88:ARG:NH2	2.23	0.71
47:DW:41:ILE:HD12	47:DW:41:ILE:C	2.10	0.71
33:DN:3:GLN:HB2	33:DN:4:PRO:HD2	1.72	0.71
54:DA:270(J):G:H2'	54:DA:270(K):C:O4'	1.89	0.71
5:AH:11:ILE:HG22	5:AH:12:LEU:N	2.04	0.71
1:AA:20:U:H2'	1:AA:21:G:O4'	1.89	0.71
24:BA:2518:A:H5''	24:BA:2519:U:OP2	1.89	0.71
53:D8:58:ILE:HD13	53:D8:61:LEU:HD11	1.72	0.71
54:DA:484:C:H2'	54:DA:485:C:H6	1.56	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BO:114:ILE:HD12	34:BO:125:VAL:HG21	1.71	0.71
24:BA:877:U:C2'	24:BA:878:A:H5''	2.15	0.71
25:BB:29:A:OP2	37:BQ:32:LEU:HG	1.89	0.71
10:CM:5:ARG:HG3	10:CM:71:LEU:HD11	1.72	0.71
39:D1:69:CYS:HB3	39:D1:106:PHE:HZ	1.55	0.71
54:DA:2761:G:H8	54:DA:2761:G:H5'	1.53	0.71
49:B4:2:LYS:HD3	49:B4:5:ILE:HG22	1.73	0.71
31:DK:73:GLU:HG3	31:DK:136:VAL:HG23	1.72	0.71
4:AG:24:GLU:HA	4:AG:24:GLU:OE1	1.90	0.71
37:DQ:67:ARG:O	37:DQ:71:ARG:HG3	1.90	0.71
29:BG:41:GLN:HE21	29:BG:60:LEU:HD12	1.53	0.71
24:BA:1464:C:HO2'	24:BA:1528:A:H8	0.76	0.71
20:CW:27:LYS:O	20:CW:30:LYS:HB3	1.89	0.71
1:CA:558:G:H2'	1:CA:559:A:C2	2.23	0.71
1:AA:1038:C:H2'	1:AA:1039:C:C6	2.25	0.71
54:DA:2119:A:N6	54:DA:2170:A:H62	1.88	0.71
38:BR:54:ARG:HA	38:BR:59:THR:HB	1.72	0.71
9:AL:48:GLU:HB3	9:AL:101:PHE:HE2	1.55	0.71
24:BA:1061:U:H4'	24:BA:1070:A:O2'	1.90	0.71
18:AU:84:LYS:CA	18:AU:84:LYS:HE2	2.19	0.71
53:D8:60:LEU:O	53:D8:63:PRO:HD2	1.90	0.71
20:CW:63:ILE:HG22	20:CW:77:ALA:HB1	1.73	0.71
1:CA:595:G:C6	1:CA:641:U:H2'	2.25	0.71
1:CA:498:A:O2'	1:CA:500:G:C8	2.43	0.71
16:AS:22:THR:HA	16:AS:33:ILE:HG12	1.72	0.71
29:BG:122:PRO:HA	29:BG:125:PHE:HE1	1.56	0.71
9:AL:28:VAL:CG2	9:AL:63:ILE:H	2.03	0.71
44:DV:138:GLU:C	44:DV:156:LYS:HD3	2.11	0.71
54:DA:2795:G:C3'	54:DA:2797:U:H5'	2.08	0.71
34:BO:79:ARG:O	34:BO:111:ARG:HB2	1.89	0.71
2:AE:32:ILE:HG23	2:AE:33:TYR:N	2.05	0.71
51:D6:28:ARG:HB3	51:D6:30:THR:H	1.55	0.71
1:CA:689:C:H2'	1:CA:690:G:H5'	1.72	0.71
44:BV:111:VAL:O	44:BV:111:VAL:CG1	2.38	0.71
37:BQ:10:ARG:NH2	37:BQ:91:PRO:HB2	2.04	0.71
2:CE:168:THR:HB	2:CE:192:SER:HB2	1.70	0.71
34:DO:85:LEU:HA	34:DO:88:LEU:HD22	1.71	0.71
5:AH:48:ALA:HB1	5:AH:49:PRO:HD2	1.73	0.71
54:DA:1093:G:H5'	30:DH:170:ARG:CZ	2.20	0.71
24:BA:999:U:H2'	24:BA:1000:A:H5''	1.69	0.71
1:CA:328:C:O2'	1:CA:329:A:OP2	2.06	0.71
40:B2:41:GLY:HA3	40:B2:46:VAL:HG21	1.72	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2032:G:O2'	27:DE:145:LYS:HD3	1.90	0.71
16:AS:15:PRO:HB3	16:AS:17:TYR:HE1	1.55	0.71
25:BB:43:C:H5'	49:B4:1:MET:N	2.05	0.71
24:BA:1790:C:O2'	26:BD:209:ALA:HB2	1.90	0.71
30:BH:17:VAL:HG12	30:BH:18:GLU:N	2.03	0.71
7:AJ:113:GLU:HB2	7:AJ:119:ARG:CG	2.16	0.71
34:BO:115:LEU:HB2	34:BO:131:SER:HB2	1.72	0.71
39:B1:98:LEU:C	39:B1:100:VAL:H	1.91	0.71
34:DO:58:THR:O	34:DO:61:ARG:CZ	2.38	0.71
24:BA:644:A:H4'	24:BA:645:C:H5	1.55	0.71
4:AG:36:ARG:HD2	4:AG:38:TYR:HE2	1.54	0.71
32:DM:1:MET:CE	39:D1:95:LEU:HD21	2.21	0.71
37:DQ:103:GLU:O	37:DQ:106:ARG:HG3	1.90	0.71
28:DF:185:ASP:OD1	28:DF:188:ARG:NH1	2.23	0.71
7:CJ:78:ARG:HH12	7:CJ:80:VAL:CG2	2.04	0.71
34:BO:57:THR:HG23	34:BO:60:MET:HB2	1.72	0.71
24:BA:1729:A:O2'	24:BA:1730:U:H6	1.71	0.71
24:BA:1541:U:H2'	24:BA:1542:G:O4'	1.91	0.71
29:BG:151:ALA:HB3	29:BG:153:ARG:NH1	2.06	0.71
38:DR:23:ARG:HB2	38:DR:24:PRO:HD2	1.71	0.71
2:AE:102:LEU:HD12	2:AE:102:LEU:N	2.04	0.71
54:DA:230:U:OP2	54:DA:230:U:H6	1.73	0.71
54:DA:2356:C:O3'	45:D3:20:ARG:HD3	1.91	0.71
1:AA:191(F):U:H6	1:AA:191(F):U:H5'	1.56	0.71
31:DK:99:GLU:HG2	31:DK:103:ARG:HH21	1.54	0.71
24:BA:662:G:H5'	34:BO:15:ARG:HA	1.72	0.71
18:AU:73:ALA:HB3	18:AU:79:LEU:HD12	1.72	0.71
24:BA:2341:G:H2'	24:BA:2342:C:H6	1.55	0.71
1:CA:853:G:O2'	1:CA:854:G:H5'	1.91	0.71
26:DD:263:ARG:HB2	26:DD:263:ARG:NH1	2.05	0.71
49:B4:22:ILE:HG12	49:B4:23:GLU:H	1.54	0.71
1:AA:1314:C:H2'	1:AA:1315:U:C6	2.25	0.71
54:DA:593:G:O2'	53:D8:61:LEU:CD1	2.38	0.71
27:DE:93:VAL:H	27:DE:95:ILE:HD12	1.54	0.71
44:DV:140:ASP:OD2	44:DV:156:LYS:N	2.24	0.71
30:BH:89:ILE:HD13	30:BH:90:LYS:H	1.55	0.71
54:DA:2015:A:C1'	50:D5:2:ALA:HA	2.18	0.71
37:DQ:83:LYS:HZ1	37:DQ:109:GLY:HA2	1.52	0.71
54:DA:805:G:H5'	54:DA:806:C:OP2	1.90	0.71
25:BB:116:G:H4'	37:BQ:54:LEU:CD1	2.20	0.71
29:BG:44:GLY:O	29:BG:47:LYS:HB2	1.90	0.71
1:CA:568:G:O6	12:CO:5:PRO:HD3	1.91	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2657:A:C4	54:DA:2665:A:N6	2.58	0.71
27:BE:16:ARG:HH11	27:BE:16:ARG:HG3	1.55	0.71
48:BX:52:HIS:CD2	48:BX:52:HIS:H	2.08	0.71
24:BA:2485:G:H5''	35:BP:46:GLN:NE2	2.06	0.71
1:CA:376:G:OP1	16:CS:5:ARG:HB2	1.90	0.71
2:CE:59:GLU:O	2:CE:62:ALA:HB3	1.90	0.71
24:BA:1750:G:O2'	24:BA:1751:C:H5'	1.90	0.71
42:DT:12:VAL:HG12	42:DT:27:THR:O	1.90	0.71
16:AS:54:GLU:CD	16:AS:54:GLU:H	1.94	0.71
5:AH:152:ARG:HG2	5:AH:152:ARG:HH11	1.55	0.71
31:BK:80:PRO:HA	31:BK:143:SER:HA	1.72	0.71
28:BF:3:GLU:O	28:BF:19:GLU:HB2	1.91	0.71
54:DA:2392:A:H8	34:DO:60:MET:HG3	1.56	0.71
4:AG:35:ARG:O	4:AG:37:PRO:HD3	1.90	0.71
24:BA:2657:A:C2	24:BA:2665:A:N7	2.58	0.71
12:AO:126:LYS:N	12:AO:126:LYS:HD3	2.05	0.71
27:BE:151:TYR:HD2	27:BE:154:LYS:NZ	1.87	0.71
2:CE:126:GLU:CG	2:CE:129:GLU:HG3	2.20	0.71
54:DA:780:G:H21	54:DA:783:A:N6	1.88	0.71
11:CN:124:LYS:HD2	11:CN:125:PHE:CE1	2.25	0.71
24:BA:2127:G:H2'	24:BA:2128:C:H4'	1.71	0.71
24:BA:871:U:O2	24:BA:871:U:H2'	1.91	0.71
54:DA:994:C:O2	40:D2:10:LYS:HE2	1.91	0.71
24:BA:1943:U:H4'	24:BA:1944:U:O5'	1.89	0.71
1:CA:84:U:HO2'	1:CA:85:U:H5	1.37	0.71
1:CA:788:U:H2'	1:CA:789:U:H5'	1.72	0.71
34:DO:49:ARG:HD2	53:D8:58:ILE:CG2	2.20	0.71
54:DA:1050:A:H8	54:DA:2751:G:H2'	1.53	0.71
1:CA:1313:U:OP1	19:CV:5:LEU:HB2	1.91	0.71
27:BE:66:HIS:C	27:BE:68:ALA:H	1.94	0.71
1:CA:686:U:H1'	11:CN:42:TRP:HE1	1.54	0.71
1:AA:1160:G:H1	1:AA:1177:G:H21	1.39	0.71
51:D6:36:LEU:HD13	51:D6:50:ARG:NH1	2.05	0.71
22:AD:72:A:C3'	22:AD:73:A:H5''	2.20	0.71
53:B8:49:VAL:O	53:B8:50:LEU:CG	2.39	0.71
24:BA:89:G:H3'	24:BA:90:U:H5''	1.71	0.71
13:AP:117:VAL:O	13:AP:118:ALA:HB3	1.89	0.71
1:AA:134:A:N6	16:AS:25:ARG:NH1	2.38	0.71
50:D5:40:LYS:HE2	50:D5:47:PRO:HD2	1.73	0.71
54:DA:2309:A:N7	54:DA:2310:A:C2	2.59	0.71
54:DA:2208:U:H1'	26:DD:151:LYS:HE2	1.72	0.71
1:AA:678:U:H2'	1:AA:679:C:C6	2.26	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AE:228:GLY:O	2:AE:230:VAL:N	2.24	0.71
41:DS:6:ILE:HG12	41:DS:104:THR:HG23	1.73	0.71
3:AF:4:LYS:O	3:AF:4:LYS:HD2	1.91	0.71
54:DA:1204:A:H2	54:DA:1241:A:N1	1.89	0.71
1:AA:1320:C:C2	19:AV:36:ARG:HD3	2.26	0.71
30:BH:32:GLU:HG2	30:BH:34:GLU:H	1.56	0.71
1:CA:1224:G:C6	1:CA:1322:C:H1'	2.26	0.71
2:AE:91:PRO:CB	2:AE:154:LEU:HD21	2.21	0.71
51:D6:29:ASN:OD1	51:D6:30:THR:HG22	1.91	0.71
26:BD:85:ASP:HB2	26:BD:92:ILE:HD13	1.73	0.71
30:BH:153:LYS:HB3	30:BH:161:GLY:HA2	1.73	0.71
2:CE:214:ILE:HA	2:CE:217:ARG:HH21	1.55	0.71
20:CW:57:ARG:HD3	20:CW:102:GLY:O	1.90	0.71
24:BA:621:A:H2'	24:BA:622:G:H5'	1.73	0.71
1:CA:991:U:O2	1:CA:993:G:C8	2.44	0.71
47:DW:7:ARG:HG3	47:DW:7:ARG:HH11	1.55	0.71
27:BE:200:GLU:HG2	27:BE:201:THR:N	2.05	0.71
3:CF:123:GLN:O	3:CF:128:PHE:HB2	1.91	0.71
24:BA:590:A:H2'	24:BA:591:C:C6	2.25	0.71
1:AA:1541:U:H6	1:AA:1541:U:H3'	1.55	0.71
2:AE:238:LEU:HD12	2:AE:239:VAL:H	1.55	0.71
24:BA:529:A:H5''	24:BA:530:G:OP1	1.91	0.71
6:CI:25:ILE:HD13	6:CI:28:ARG:NH1	2.05	0.71
2:CE:132:LYS:HA	2:CE:135:GLN:HB2	1.71	0.71
1:AA:731:G:OP1	1:AA:766:A:H1'	1.91	0.71
5:AH:80:ILE:HG22	8:AK:104:ARG:CZ	2.21	0.71
24:BA:2887:U:O2'	24:BA:2888:C:H5'	1.91	0.71
54:DA:2585:U:O2	54:DA:2585:U:H2'	1.90	0.71
15:CR:71:GLN:HB2	15:CR:78:TYR:CD1	2.25	0.71
29:BG:36:LYS:HE2	29:BG:95:ARG:NH2	2.06	0.71
24:BA:2759:G:H5'	24:BA:2759:G:H8	1.56	0.71
24:BA:1149:G:H2'	24:BA:1150:C:C6	2.26	0.71
2:CE:172:ILE:HD12	2:CE:172:ILE:H	1.56	0.71
3:AF:82:GLU:HG3	3:AF:83:ARG:N	2.00	0.71
1:CA:1504:G:O2'	1:CA:1505:G:OP2	2.09	0.71
54:DA:2015:A:N3	50:D5:2:ALA:N	2.39	0.71
26:BD:28:GLU:HB2	26:BD:29:PRO:HD3	1.71	0.71
43:BU:63:LYS:HA	43:BU:63:LYS:NZ	2.06	0.71
24:BA:2360:A:OP1	53:B8:50:LEU:HD23	1.90	0.71
1:AA:1205:U:H1'	3:AF:195:VAL:CG2	2.20	0.71
59:DA:2923:C:O2'	58:DA:2924:G:OP2	2.08	0.71
7:AJ:78:ARG:HH21	7:AJ:156:TRP:HZ2	1.38	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:811:U:O2	54:DA:1250:G:H3'	1.91	0.71
9:CL:62:TYR:C	9:CL:63:ILE:HD12	2.12	0.71
11:CN:48:ILE:HD12	11:CN:63:LEU:HB3	1.71	0.71
24:BA:458:G:H3'	52:B7:38:GLY:O	1.91	0.71
54:DA:2395:C:O2'	46:DZ:30:VAL:HG12	1.91	0.71
54:DA:592:G:H21	53:D8:4:MET:CE	2.04	0.71
7:AJ:113:GLU:CB	7:AJ:119:ARG:HG2	2.15	0.70
34:BO:104:GLY:C	34:BO:105:LEU:HD12	2.11	0.70
54:DA:518:G:C4'	41:DS:18:ARG:HH12	2.01	0.70
1:CA:1278:U:H5''	1:CA:1279:A:C8	2.26	0.70
9:AL:103:THR:HG22	9:AL:105:ASP:H	1.55	0.70
54:DA:2210:G:H3'	54:DA:2211:G:H8	1.55	0.70
32:BM:62:VAL:HG22	32:BM:66:LYS:HG3	1.73	0.70
1:AA:1218:C:H2'	1:AA:1219:U:C5	2.26	0.70
33:DN:113:LYS:HG2	33:DN:117:LEU:HD11	1.71	0.70
24:BA:1796:U:H2'	24:BA:1797:C:H6	1.54	0.70
16:AS:49:LEU:HD12	16:AS:50:LYS:N	2.05	0.70
1:CA:404:U:H2'	1:CA:405:U:C6	2.25	0.70
30:DH:80:SER:O	30:DH:81:GLU:HB2	1.89	0.70
1:AA:173:U:O2'	1:AA:174:C:OP1	2.08	0.70
26:DD:244:ARG:HB2	26:DD:245:PRO:HD2	1.71	0.70
30:DH:59:ARG:HG3	30:DH:59:ARG:HH11	1.56	0.70
54:DA:1060:U:O2	54:DA:1088:A:H1'	1.90	0.70
3:AF:84:ILE:H	3:AF:87:LEU:HD23	1.55	0.70
27:BE:32:PRO:HD2	27:BE:51:PHE:H	1.55	0.70
34:DO:20:GLY:HA2	34:DO:27:HIS:O	1.91	0.70
44:BV:145:GLU:OE2	44:BV:146:ILE:HG12	1.91	0.70
35:DP:134:ARG:CZ	44:DV:122:ARG:NH2	2.55	0.70
45:B3:49:LYS:O	45:B3:50:ASN:HB2	1.91	0.70
34:BO:36:LYS:HZ3	34:BO:36:LYS:HB2	1.52	0.70
45:D3:25:ARG:HD2	45:D3:29:GLN:HE22	1.55	0.70
20:CW:23:ARG:CA	20:CW:26:ASN:HD21	2.04	0.70
54:DA:881:G:C3'	54:DA:882:G:H5''	2.20	0.70
24:BA:386:G:O2'	24:BA:387:U:OP1	2.08	0.70
1:AA:752:G:H1'	1:AA:754:C:H41	1.56	0.70
24:BA:660:G:H21	34:BO:12:ALA:HB2	1.55	0.70
24:BA:639:U:H2'	24:BA:640:C:C6	2.26	0.70
5:CH:82:VAL:HG12	5:CH:83:GLU:N	2.06	0.70
3:CF:152:ILE:HB	3:CF:199:LYS:HB2	1.73	0.70
1:CA:1019:C:C2'	1:CA:1020:U:H5'	2.21	0.70
25:BB:40:U:H3	25:BB:43:C:H5''	1.56	0.70
46:DZ:80:LEU:C	46:DZ:81:LYS:HD2	2.12	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BO:62:LEU:HD22	34:BO:63:PRO:N	2.05	0.70
1:AA:1363:A:H4'	1:AA:1364:U:C5'	2.18	0.70
30:BH:70:THR:HA	30:BH:73:ALA:HB3	1.72	0.70
43:BU:35:TYR:CD1	43:BU:69:ALA:HB3	2.27	0.70
30:DH:86:GLU:CG	30:DH:165:ALA:H	1.94	0.70
54:DA:2635:C:OP1	27:DE:78:LEU:HD12	1.91	0.70
52:B7:45:ALA:O	52:B7:46:VAL:HG23	1.92	0.70
27:DE:14:ILE:HG12	27:DE:15:PHE:N	2.06	0.70
24:BA:1906:G:C5	24:BA:1929:G:N2	2.59	0.70
28:DF:66:PRO:O	28:DF:67:GLN:HB3	1.89	0.70
30:BH:108:GLY:HA3	30:BH:152:ARG:NH2	2.05	0.70
24:BA:2146:C:H5''	24:BA:2147:G:OP1	1.91	0.70
38:DR:57:PHE:C	38:DR:58:ASN:HD22	1.93	0.70
1:AA:1353:G:H2'	1:AA:1354:C:H6	1.54	0.70
41:BS:96:ILE:HD13	41:BS:96:ILE:C	2.12	0.70
41:BS:40:ASN:O	41:BS:41:LYS:HG2	1.91	0.70
51:B6:28:ARG:CZ	51:B6:30:THR:HG23	2.21	0.70
54:DA:229:A:O2'	54:DA:230:U:P	2.48	0.70
44:BV:165:VAL:HG22	44:BV:166:SER:N	2.05	0.70
54:DA:372:G:O2'	54:DA:373:U:P	2.48	0.70
54:DA:1503:U:H2'	54:DA:1504:C:C6	2.25	0.70
37:DQ:42:ASP:O	37:DQ:43:GLU:HB2	1.90	0.70
15:CR:65:ARG:HH11	15:CR:65:ARG:HB2	1.56	0.70
24:BA:1678:G:N2	24:BA:1989:G:H22	1.89	0.70
34:BO:64:LYS:HG3	53:B8:30:ARG:HH22	1.56	0.70
31:DK:92:VAL:HG13	31:DK:120:ILE:CG2	2.16	0.70
26:DD:43:ARG:HB3	26:DD:54:ARG:HB2	1.73	0.70
30:DH:103:LEU:HD12	30:DH:131:VAL:HG21	1.73	0.70
29:BG:173:LEU:HA	29:BG:176:LEU:HD12	1.74	0.70
2:CE:187:LEU:HD11	2:CE:204:ASN:O	1.91	0.70
24:BA:1384:A:N3	24:BA:1405:U:H1'	2.06	0.70
1:AA:1075:C:OP1	2:AE:179:LYS:HE2	1.91	0.70
13:CP:4:ILE:N	13:CP:9:ILE:HG21	2.06	0.70
39:D1:65:ILE:HG12	39:D1:96:ALA:HB1	1.73	0.70
1:CA:65:U:C5'	1:CA:66:G:OP1	2.39	0.70
54:DA:1359:A:C5'	54:DA:1359:A:C8	2.74	0.70
38:DR:41:ARG:NH2	38:DR:43:GLN:HB2	2.06	0.70
1:CA:236:G:H5''	17:CT:42:TYR:OH	1.91	0.70
47:BW:46:GLN:N	47:BW:49:LYS:HZ1	1.90	0.70
32:BM:133:GLN:O	32:BM:134:ARG:HB3	1.89	0.70
24:BA:1188:U:O2'	24:BA:1189:A:H5'	1.91	0.70
28:DF:178:PRO:HG2	28:DF:179:GLU:OE2	1.90	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CL:15:ALA:HA	9:CL:64:THR:O	1.91	0.70
27:BE:131:ALA:HB1	27:BE:135:HIS:CE1	2.27	0.70
4:AG:119:GLN:HG2	4:AG:123:HIS:CD2	2.27	0.70
1:CA:41:G:H2'	1:CA:42:G:H8	1.56	0.70
27:BE:11:MET:HE3	27:BE:186:GLY:HA2	1.72	0.70
6:CI:72:VAL:CG2	6:CI:90:VAL:HG11	2.20	0.70
12:CO:24:VAL:HG12	12:CO:24:VAL:O	1.91	0.70
24:BA:1255:U:H5''	24:BA:1256:G:H5''	1.71	0.70
30:DH:89:ILE:CD1	30:DH:129:THR:HB	2.20	0.70
31:BK:144:VAL:HG12	31:BK:145:VAL:HG22	1.73	0.70
1:CA:1007:C:H2'	1:CA:1008:C:C5'	2.11	0.70
27:DE:28:ALA:HB3	27:DE:93:VAL:HG22	1.72	0.70
28:DF:101:LEU:O	28:DF:106:ARG:NH1	2.23	0.70
1:CA:1314:C:H2'	1:CA:1315:U:H6	1.53	0.70
13:CP:121:LYS:HA	13:CP:121:LYS:HE2	1.71	0.70
2:AE:24:TRP:CZ3	2:AE:26:PRO:HA	2.26	0.70
51:B6:13:CYS:H	51:B6:22:ALA:CB	2.05	0.70
1:AA:3:G:H5''	1:AA:4:U:OP1	1.91	0.70
43:BU:11:ASP:O	43:BU:27:VAL:HG22	1.92	0.70
54:DA:27:G:H22	54:DA:512:G:C2'	2.04	0.70
26:BD:43:ARG:NH1	26:BD:49:ILE:HG22	2.07	0.70
5:AH:50:GLU:HG3	5:AH:52:PRO:HD2	1.72	0.70
38:BR:19:LEU:HD13	38:BR:86:ILE:HG21	1.71	0.70
40:D2:22:VAL:HG12	40:D2:23:GLU:N	2.06	0.70
28:DF:178:PRO:HB2	28:DF:201:VAL:HG11	1.73	0.70
24:BA:1324:G:O2'	24:BA:1616:A:C6	2.41	0.70
39:D1:66:ASN:HB2	39:D1:76:TYR:HB2	1.72	0.70
54:DA:95:G:H5'	47:DW:46:GLN:OE1	1.89	0.70
26:BD:134:ARG:HG3	26:BD:135:PHE:CE2	2.26	0.70
46:DZ:7:ILE:CD1	46:DZ:70:VAL:HG22	2.22	0.70
31:BK:92:VAL:HG12	31:BK:97:ILE:HD12	1.71	0.70
33:BN:91:LEU:HD22	33:BN:91:LEU:H	1.57	0.70
54:DA:2638:G:O2'	54:DA:2639:A:H8	1.74	0.70
30:DH:152:ARG:O	30:DH:153:LYS:CB	2.39	0.70
24:BA:1309:G:H4'	52:B7:7:PRO:HB2	1.72	0.70
35:DP:32:TYR:CD1	35:DP:133:ARG:HA	2.27	0.70
24:BA:84:A:C5'	43:BU:8:LYS:HD2	2.19	0.70
1:AA:1116:C:H2'	1:AA:1117:G:H5''	1.74	0.70
1:AA:818:G:H3'	1:AA:819:A:C5'	2.21	0.70
8:CK:49:GLU:HG3	8:CK:51:VAL:HG13	1.74	0.70
1:AA:998(A):C:H2'	1:AA:999:U:H5''	1.73	0.70
51:B6:30:THR:HA	51:B6:31:PRO:C	2.11	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DF:164:ARG:HG3	28:DF:175:THR:OG1	1.92	0.70
24:BA:2211:G:O2'	24:BA:2212:A:OP2	2.06	0.70
24:BA:104:U:H3'	24:BA:105:C:H6	1.57	0.70
7:CJ:97:GLN:HE21	7:CJ:101:LEU:HD11	1.55	0.70
24:BA:2020:A:P	39:B1:27:LEU:HD23	2.32	0.70
54:DA:1657:C:H2'	54:DA:1658:C:C6	2.27	0.70
1:AA:1267:C:O2	1:AA:1267:C:H2'	1.91	0.70
54:DA:2680:C:H5'	27:DE:189:PRO:HA	1.72	0.70
31:BK:75:LEU:HD22	31:BK:77:LEU:HD21	1.74	0.70
23:A1:8:A:H5'	23:A1:9:G:OP2	1.90	0.70
54:DA:1061:U:H4'	54:DA:1070:A:C1'	2.21	0.70
1:CA:1363:A:H4'	1:CA:1364:U:OP1	1.91	0.70
25:BB:57:A:H4'	29:BG:30:GLU:HG3	1.72	0.70
30:DH:154:PRO:HG2	30:DH:162:ILE:O	1.92	0.70
10:CM:6:ILE:HG13	10:CM:72:VAL:O	1.91	0.70
51:D6:25:LYS:HD2	53:D8:34:TRP:HZ2	1.56	0.70
51:B6:39:TYR:HB3	51:B6:41:PRO:HD2	1.72	0.70
54:DA:2791:C:O2	54:DA:2792:G:N7	2.24	0.70
35:BP:51:ARG:HG3	35:BP:52:VAL:N	2.06	0.70
27:BE:95:ILE:CD1	27:BE:95:ILE:H	2.03	0.70
24:BA:2467:C:H4'	35:BP:123:HIS:CD2	2.27	0.70
24:BA:2876:G:H1'	38:BR:3:ARG:NH1	2.07	0.70
15:AR:53:HIS:O	15:AR:56:LEU:HB3	1.91	0.70
1:CA:411:A:C4	1:CA:413:G:H1'	2.27	0.70
60:DA:2922:U:HO2'	59:DA:2923:C:H6	1.39	0.70
28:BF:83:PHE:O	28:BF:85:GLY:N	2.25	0.70
2:AE:164:VAL:HG12	2:AE:165:VAL:N	2.06	0.70
24:BA:1179:C:C3'	24:BA:1180:C:H5''	2.22	0.70
11:CN:17:GLY:HA3	11:CN:77:MET:CE	2.21	0.70
50:D5:40:LYS:HE2	50:D5:47:PRO:CD	2.21	0.70
54:DA:2319:G:H4'	54:DA:2320:A:OP1	1.91	0.70
25:BB:81:G:C2	25:BB:82:G:N7	2.60	0.70
24:BA:987:G:O2'	24:BA:1000:A:N3	2.25	0.70
1:CA:406:G:H5''	4:CG:5:ILE:HD13	1.71	0.70
15:CR:74:ASP:CG	15:CR:77:ARG:HG2	2.12	0.70
13:AP:76:ALA:HA	13:AP:79:LYS:HB2	1.72	0.70
4:CG:190:ASP:HB3	4:CG:193:ASP:OD1	1.91	0.70
10:CM:49:VAL:O	10:CM:60:ARG:HB3	1.90	0.70
8:AK:25:ASP:HA	8:AK:59:LEU:O	1.91	0.70
1:AA:946:A:H2'	1:AA:947:G:C8	2.26	0.70
24:BA:226:G:H1'	24:BA:228:A:H61	1.56	0.70
7:AJ:140:ASP:HA	7:AJ:143:ARG:HH11	1.57	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:439:A:OP2	1:CA:493:G:N1	2.23	0.70
41:DS:29:LEU:HD21	41:DS:33:ARG:CZ	2.22	0.70
54:DA:888:C:C3'	54:DA:889:C:H4'	2.19	0.70
24:BA:1266:G:O2'	24:BA:1267:U:OP2	2.09	0.70
2:CE:162:ILE:HD11	2:CE:184:VAL:HG13	1.74	0.70
15:AR:87:ILE:CG2	15:AR:88:ARG:H	1.97	0.70
1:AA:4:U:H2'	1:AA:4:U:O2	1.90	0.70
53:B8:16:ILE:HB	53:B8:65:GLU:OXT	1.92	0.70
54:DA:1021:A:C3'	54:DA:1021:A:C8	2.73	0.70
8:CK:87:SER:HB2	8:CK:93:VAL:HB	1.73	0.70
34:DO:64:LYS:C	34:DO:66:GLY:H	1.94	0.70
17:CT:4:LYS:CE	17:CT:6:LEU:HD21	2.21	0.70
42:BT:43:VAL:HG23	42:BT:51:VAL:HG21	1.73	0.70
24:BA:1180:C:H2'	24:BA:1181:C:H6	1.55	0.70
24:BA:389:G:H22	34:BO:72:PRO:CD	2.05	0.70
47:BW:26:ARG:HB3	47:BW:26:ARG:HH11	1.57	0.70
11:AN:29:ILE:HG22	11:AN:44:SER:HB2	1.72	0.70
1:AA:675:A:H1'	11:AN:116:HIS:CD2	2.27	0.70
54:DA:415:A:H2'	54:DA:416:C:C6	2.26	0.70
6:AI:37:VAL:HA	6:AI:65:VAL:HG12	1.72	0.70
54:DA:1699:G:O3'	54:DA:1700:A:H4'	1.91	0.70
2:AE:171:ALA:HA	2:AE:174:VAL:CG2	2.22	0.70
6:CI:60:PHE:C	6:CI:61:LEU:HD12	2.12	0.70
1:CA:1048:G:OP1	14:CQ:3:ARG:HB3	1.91	0.70
22:CC:61:C:O2'	22:CC:62:C:H5'	1.92	0.70
41:DS:1:MET:HE2	41:DS:2:GLU:H	1.55	0.70
31:DK:92:VAL:CG1	31:DK:120:ILE:HG23	2.18	0.70
24:BA:626:U:H3	34:BO:105:LEU:HG	1.57	0.70
13:CP:121:LYS:HE2	13:CP:121:LYS:CA	2.21	0.70
1:CA:1502:A:H2	1:CA:1505:G:H1	1.38	0.70
32:BM:112:LEU:HD23	32:BM:113:GLY:H	1.56	0.70
51:B6:15:GLU:HG2	51:B6:47:THR:HG21	1.74	0.70
1:CA:1023:G:C3'	1:CA:1024:G:H5''	2.22	0.70
24:BA:1928:A:C2'	24:BA:1929:G:H5'	2.22	0.70
40:D2:51:VAL:HG12	40:D2:52:VAL:N	2.06	0.70
40:B2:1:MET:N	40:B2:16:PRO:HD3	2.07	0.70
28:DF:185:ASP:HA	28:DF:188:ARG:CD	2.20	0.70
27:DE:103:ASP:OD1	27:DE:201:THR:HA	1.92	0.70
42:DT:57:LEU:HD11	42:DT:78:LYS:HD2	1.73	0.70
23:A1:24:A:H2'	23:A1:25:A:C8	2.27	0.70
29:DG:41:GLN:HE21	29:DG:60:LEU:HD12	1.56	0.70
54:DA:2127:G:N2	54:DA:2173:A:H1'	2.07	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:95:GLN:HE21	2:CE:147:LYS:HE2	1.56	0.70
43:BU:17:SER:CB	43:BU:71:LYS:HD2	2.21	0.70
7:AJ:18:TYR:HD2	7:AJ:59:LEU:HD13	1.57	0.70
54:DA:860:U:C5	54:DA:917:A:C2	2.79	0.70
55:DB:15:A:H5'	55:DB:16:G:H8	1.57	0.70
1:CA:375:U:H4'	16:CS:17:TYR:HE2	1.56	0.70
54:DA:2065:C:H2'	54:DA:2066:C:C6	2.26	0.70
7:AJ:47:CYS:O	7:AJ:50:ILE:HB	1.92	0.70
10:CM:49:VAL:CG2	14:CQ:41:ARG:HB2	2.21	0.70
39:B1:24:TYR:O	39:B1:29:SER:HB3	1.91	0.70
12:AO:111:LYS:O	12:AO:112:ASP:HB2	1.91	0.70
1:AA:152:A:N6	1:AA:170:U:C2	2.60	0.70
46:DZ:82:LEU:HD12	46:DZ:83:GLU:CA	2.21	0.70
31:BK:76:THR:H	31:BK:77:LEU:HD23	1.57	0.70
10:CM:38:ILE:HG13	10:CM:38:ILE:O	1.92	0.70
4:AG:68:TYR:CE2	4:AG:97:LEU:HD22	2.27	0.70
54:DA:1026:U:O2'	54:DA:1027:A:C5'	2.40	0.70
1:AA:742:G:OP2	15:AR:35:ARG:NH2	2.25	0.70
15:AR:54:ARG:NH1	15:AR:58:MET:HE1	2.06	0.70
20:CW:50:GLU:HG3	20:CW:51:GLU:H	1.54	0.70
24:BA:1639:U:O2'	24:BA:1640:C:H5''	1.92	0.70
3:AF:157:ILE:C	3:AF:159:GLY:H	1.95	0.70
1:CA:1291:G:H4'	9:CL:39:GLY:HA3	1.74	0.70
4:AG:175:SER:HB3	4:AG:186:LEU:HD21	1.72	0.70
24:BA:654:A:H2'	24:BA:654:A:N3	2.07	0.70
25:BB:90:C:OP1	35:BP:16:ARG:HG3	1.92	0.70
1:CA:1006:C:H2'	1:CA:1007:C:H6	1.57	0.69
44:BV:157:LEU:HB3	44:BV:161:VAL:HG11	1.72	0.69
54:DA:1083:U:O2'	54:DA:1085:A:H5'	1.93	0.69
54:DA:483:A:C5'	43:DU:49:VAL:HG22	2.20	0.69
1:CA:980:C:H5''	1:CA:981:U:C5	2.26	0.69
34:DO:83:VAL:CG1	34:DO:112:LEU:HD21	2.21	0.69
34:DO:114:ILE:HD13	34:DO:125:VAL:HG21	1.72	0.69
3:AF:71:ALA:O	3:AF:72:LYS:HD2	1.92	0.69
1:CA:93:U:H2'	1:CA:95:G:O4'	1.92	0.69
4:AG:12:CYS:SG	4:AG:21:LEU:HD22	2.31	0.69
10:AM:33:GLN:H	10:AM:75:ILE:HG12	1.56	0.69
54:DA:2131:G:C4'	54:DA:2132:U:H4'	2.19	0.69
34:BO:59:LEU:HD22	34:BO:60:MET:H	1.57	0.69
5:CH:78:HIS:CD2	8:CK:104:ARG:HG2	2.26	0.69
54:DA:2127:G:H21	54:DA:2173:A:H1'	1.56	0.69
26:BD:263:ARG:NH1	26:BD:263:ARG:HB2	2.06	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1116:C:H2'	1:CA:1117:G:H5'	1.73	0.69
20:AW:72:LEU:HD11	20:AW:80:ARG:HD3	1.72	0.69
35:BP:2:LEU:N	35:BP:2:LEU:HD12	2.07	0.69
33:DN:63:VAL:HG13	33:DN:84:ALA:HA	1.73	0.69
35:DP:43:THR:OG1	35:DP:46:GLN:HB2	1.91	0.69
1:AA:629:G:H2'	1:AA:630:G:C8	2.27	0.69
54:DA:2199:A:H5''	54:DA:2205:C:H5	1.57	0.69
28:BF:116:ASP:O	28:BF:120:GLU:HG3	1.92	0.69
43:BU:95:LYS:HB2	43:BU:100:ALA:HA	1.72	0.69
19:CV:51:VAL:O	19:CV:57:HIS:HA	1.92	0.69
26:DD:65:ILE:O	26:DD:65:ILE:HD13	1.91	0.69
2:AE:186:ALA:O	2:AE:201:ILE:HB	1.91	0.69
27:BE:48:GLN:CG	27:BE:78:LEU:HD12	2.22	0.69
24:BA:9:U:H5'	32:BM:115:ARG:HH22	1.55	0.69
1:CA:684:A:H2'	1:CA:685:G:H8	1.58	0.69
1:CA:1450:U:O2'	1:CA:1451:A:OP2	2.10	0.69
44:DV:121:HIS:O	44:DV:122:ARG:HB2	1.92	0.69
54:DA:897:C:O5'	54:DA:897:C:H6	1.74	0.69
12:AO:127:GLU:CD	12:AO:127:GLU:H	1.96	0.69
29:DG:131:TYR:O	29:DG:159:VAL:HG13	1.92	0.69
34:DO:64:LYS:HB2	53:D8:25:MET:CG	2.22	0.69
15:AR:64:ARG:HG2	15:AR:64:ARG:HH11	1.55	0.69
40:D2:41:GLY:HA3	40:D2:46:VAL:HG11	1.74	0.69
5:AH:57:LYS:HE2	5:AH:61:TYR:HE2	1.57	0.69
36:B0:73:VAL:O	36:B0:76:VAL:HG12	1.91	0.69
54:DA:2277:G:H2'	54:DA:2278:A:H5'	1.73	0.69
1:CA:377:G:O2'	1:CA:378:G:H5'	1.91	0.69
24:BA:49:A:H4'	24:BA:50:U:O5'	1.92	0.69
2:AE:194:PRO:O	2:AE:196:LEU:N	2.25	0.69
45:D3:27:GLU:HG3	45:D3:68:GLU:HA	1.72	0.69
1:AA:932:C:H4'	7:AJ:4:ARG:NH2	2.06	0.69
3:AF:138:VAL:HG22	3:AF:151:VAL:HG23	1.75	0.69
24:BA:500:G:N2	24:BA:502:A:H3'	2.07	0.69
37:DQ:54:LEU:O	37:DQ:54:LEU:HD13	1.91	0.69
24:BA:1853:A:H2'	24:BA:1854:A:C8	2.27	0.69
24:BA:2425:A:H4'	24:BA:2426:A:O5'	1.91	0.69
1:AA:1532:U:O2'	1:AA:1533:C:OP2	2.10	0.69
2:CE:101:MET:HA	2:CE:108:ILE:CG1	2.15	0.69
30:BH:7:LEU:HD22	30:BH:69:ARG:HG2	1.74	0.69
54:DA:1045:A:H4'	54:DA:1046:A:C5'	2.22	0.69
1:CA:1321:C:C5'	1:CA:1322:C:H5''	2.22	0.69
3:CF:16:ARG:HD2	3:CF:54:ARG:NH2	2.03	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:65:ILE:HD11	26:DD:67:PHE:CD1	2.27	0.69
2:AE:87:ARG:HD2	2:AE:87:ARG:O	1.92	0.69
1:AA:1152:A:H5''	10:AM:13:HIS:CD2	2.27	0.69
53:B8:49:VAL:HG12	53:B8:50:LEU:N	2.07	0.69
24:BA:2720:U:N3	24:BA:2873:A:H2	1.90	0.69
33:DN:8:LEU:HD22	33:DN:8:LEU:N	2.07	0.69
28:BF:114:VAL:HG21	28:BF:202:PHE:CE1	2.27	0.69
20:AW:100:ILE:H	20:AW:100:ILE:CD1	2.05	0.69
1:AA:752:G:H1'	1:AA:754:C:N4	2.06	0.69
35:BP:12:GLN:HE21	35:BP:73:PRO:CD	2.06	0.69
41:BS:6:ILE:HG12	41:BS:104:THR:HG23	1.72	0.69
1:AA:965:A:O2'	1:AA:966:G:H5'	1.92	0.69
1:AA:1059:C:O2	10:AM:53:PRO:HG3	1.92	0.69
3:AF:4:LYS:HZ2	3:AF:4:LYS:N	1.89	0.69
46:DZ:53:VAL:HG22	46:DZ:74:VAL:HG13	1.74	0.69
24:BA:2426:A:H4'	24:BA:2427:C:OP2	1.92	0.69
28:DF:65:TRP:HZ3	28:DF:73:ALA:O	1.74	0.69
55:DB:3:C:H2'	55:DB:4:C:H6	1.56	0.69
31:DK:6:LEU:HD13	31:DK:36:ALA:HA	1.74	0.69
1:AA:1262:C:H2'	1:AA:1263:C:H6	1.58	0.69
31:BK:141:LYS:O	31:BK:142:VAL:HB	1.91	0.69
10:AM:48:THR:HA	10:AM:62:HIS:CB	2.20	0.69
34:DO:50:ARG:NH2	34:DO:50:ARG:HB3	1.98	0.69
2:CE:162:ILE:O	2:CE:162:ILE:HG13	1.92	0.69
23:C1:9:G:O2'	23:C1:10:G:O4'	2.10	0.69
34:DO:19:VAL:HG22	34:DO:20:GLY:N	1.97	0.69
24:BA:644:A:H4'	24:BA:645:C:C5	2.27	0.69
4:AG:12:CYS:CB	4:AG:21:LEU:HD22	2.22	0.69
24:BA:2285:C:N4	51:B6:25:LYS:HE2	2.06	0.69
54:DA:2791:C:H4'	54:DA:2792:G:O5'	1.92	0.69
35:BP:141:GLN:HG2	44:BV:75:ASN:CG	2.12	0.69
8:CK:84:ARG:HH12	8:CK:86:ILE:CD1	2.02	0.69
22:AC:17(A):C:H4'	22:AC:18:G:OP1	1.91	0.69
24:BA:818:G:H5'	24:BA:819:A:OP1	1.92	0.69
24:BA:95:G:H4'	47:BW:46:GLN:HB3	1.75	0.69
26:DD:89:SER:HB2	26:DD:159:ALA:HB2	1.75	0.69
7:AJ:78:ARG:NH2	7:AJ:156:TRP:HZ2	1.91	0.69
34:DO:29:LYS:HD2	34:DO:30:THR:HG22	1.72	0.69
40:B2:22:VAL:HG22	40:B2:23:GLU:N	2.07	0.69
1:AA:350:G:H5'	1:AA:351:G:OP2	1.93	0.69
24:BA:1885:A:H5''	24:BA:1886:C:H5	1.58	0.69
2:CE:37:ASN:HD22	2:CE:37:ASN:N	1.88	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BR:89:VAL:HG23	38:BR:90:GLN:N	2.07	0.69
24:BA:1430:C:H2'	24:BA:1431:U:C6	2.27	0.69
31:BK:109:ILE:HD13	31:BK:109:ILE:H	1.57	0.69
54:DA:270(K):C:C2'	54:DA:270(L):U:H5''	2.22	0.69
16:AS:8:ARG:NH2	16:AS:15:PRO:HG3	2.07	0.69
46:DZ:7:ILE:HD12	46:DZ:70:VAL:HG22	1.74	0.69
6:AI:14:LEU:HD22	6:AI:18:GLN:HB2	1.74	0.69
1:AA:109:A:H2'	1:AA:326:G:H21	1.57	0.69
45:D3:11:ARG:NH1	45:D3:11:ARG:HG2	2.06	0.69
53:B8:38:GLY:O	53:B8:41:ILE:HG22	1.93	0.69
28:BF:150:GLY:HA2	28:BF:172:TRP:CE3	2.27	0.69
17:CT:52:LYS:HD2	17:CT:55:ASP:OD1	1.91	0.69
46:DZ:64:ALA:HA	46:DZ:67:ILE:HG13	1.75	0.69
1:AA:1171:G:H2'	1:AA:1172:C:H6	1.57	0.69
10:CM:48:THR:HA	10:CM:62:HIS:HB3	1.75	0.69
46:DZ:82:LEU:HD13	46:DZ:83:GLU:N	2.05	0.69
11:AN:15:ALA:HB2	11:AN:76:GLY:O	1.92	0.69
30:BH:22:GLY:C	30:BH:37:VAL:HB	2.12	0.69
43:DU:45:VAL:HG12	43:DU:60:PHE:CD1	2.27	0.69
40:B2:35:LEU:H	40:B2:35:LEU:HD22	1.57	0.69
14:CQ:6:LEU:O	14:CQ:6:LEU:HD23	1.92	0.69
49:B4:6:HIS:CB	49:B4:7:PRO:HA	2.12	0.69
30:DH:150:ALA:C	30:DH:152:ARG:N	2.44	0.69
30:DH:154:PRO:O	30:DH:155:SER:HB2	1.91	0.69
34:DO:61:ARG:H	34:DO:61:ARG:HD2	1.58	0.69
44:BV:104:PHE:CE2	44:BV:107:THR:HG22	2.27	0.69
29:DG:16:ARG:HH21	29:DG:31:VAL:CG1	2.05	0.69
1:CA:430:A:OP1	4:CG:9:CYS:HB2	1.92	0.69
1:AA:632:A:H3'	1:AA:632:A:OP2	1.92	0.69
54:DA:2566:A:O2'	54:DA:2567:G:OP2	2.09	0.69
40:D2:66:ARG:HH12	40:D2:88:ARG:NH1	1.90	0.69
47:DW:47:ASN:O	47:DW:49:LYS:N	2.25	0.69
24:BA:532:A:O2'	24:BA:533:G:P	2.49	0.69
8:AK:51:VAL:HG11	8:AK:60:ARG:HH11	1.56	0.69
24:BA:2074:U:H2'	24:BA:2075:U:C6	2.26	0.69
54:DA:1429:G:H2'	54:DA:1430:C:C6	2.27	0.69
6:CI:100:ASN:ND2	18:CU:23:LYS:HE3	2.08	0.69
54:DA:1742:C:H5'	54:DA:1743:G:OP2	1.93	0.69
24:BA:881:G:H2'	24:BA:881:G:N3	2.05	0.69
1:AA:750:G:N3	15:AR:23:GLY:HA3	2.06	0.69
30:DH:89:ILE:O	30:DH:89:ILE:HG12	1.92	0.69
13:AP:24:GLY:C	13:AP:25:ILE:HD12	2.13	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AV:36:ARG:O	19:AV:38:SER:N	2.26	0.69
3:CF:105:GLU:HG2	3:CF:106:VAL:H	1.58	0.69
24:BA:1084:A:H2'	24:BA:1085:A:H8	1.57	0.69
54:DA:1180:C:H2'	54:DA:1181:C:C5'	2.23	0.69
18:AU:62:GLU:HA	18:AU:65:ILE:CD1	2.20	0.69
1:AA:498:A:O2'	1:AA:500:G:C8	2.46	0.69
30:BH:102:ALA:HB1	30:BH:115:VAL:O	1.92	0.69
54:DA:2131:G:H4'	54:DA:2132:U:C4'	2.22	0.69
43:BU:50:ARG:CG	43:BU:53:PRO:HG3	2.23	0.69
24:BA:96:G:H4'	47:BW:48:HIS:CD2	2.27	0.69
31:BK:7:GLU:HB3	31:BK:9:LEU:HD22	1.75	0.69
24:BA:1697:G:H3'	24:BA:1698:A:C5'	2.21	0.69
22:CD:17:C:H41	22:CD:18:G:H5'	1.58	0.69
3:AF:131:ARG:NH1	3:AF:135:LYS:HE2	2.07	0.69
54:DA:2311:A:C2'	54:DA:2312:U:C6	2.76	0.69
24:BA:1339:G:N2	24:BA:1603:A:H1'	2.06	0.69
5:AH:74:GLY:O	5:AH:115:VAL:HA	1.93	0.69
29:BG:160:VAL:HG12	29:BG:161:THR:N	2.08	0.69
6:CI:67:MET:HB2	6:CI:68:PRO:HD2	1.75	0.69
2:AE:144:ARG:HG2	2:AE:148:TYR:HE2	1.57	0.69
22:AD:11:A:H2'	22:AD:12:G:O4'	1.93	0.69
16:CS:14:ASN:N	16:CS:15:PRO:HD3	2.07	0.69
32:DM:120:LEU:HD11	32:DM:122:VAL:HG23	1.74	0.69
24:BA:75:G:H4'	47:BW:55:ARG:NH2	2.07	0.69
47:BW:64:LEU:O	47:BW:64:LEU:HD23	1.92	0.69
49:B4:9:LEU:HG	49:B4:25:TYR:HB3	1.75	0.69
28:BF:21:ALA:C	28:BF:23:ASP:H	1.95	0.69
2:AE:68:ILE:O	2:AE:91:PRO:HD2	1.91	0.69
49:B4:61:ARG:CB	49:B4:62:ARG:HH21	2.03	0.69
29:DG:28:VAL:HG23	29:DG:29:TRP:CD1	2.28	0.69
43:BU:61:ILE:HG22	43:BU:62:GLU:H	1.56	0.69
10:AM:4:ILE:HA	10:AM:100:THR:HG22	1.72	0.69
48:BX:59:VAL:HG12	48:BX:60:GLU:N	2.04	0.69
26:BD:44:ASN:HB2	26:BD:48:ARG:O	1.92	0.69
24:BA:89:G:H3'	24:BA:90:U:C5'	2.21	0.69
4:AG:126:ILE:HG22	4:AG:127:THR:H	1.58	0.69
50:D5:40:LYS:HG2	50:D5:47:PRO:HD2	1.75	0.69
22:CD:68:C:H2'	22:CD:69:C:H6	1.57	0.69
48:BX:6:VAL:HG13	48:BX:54:VAL:CG1	2.23	0.69
31:BK:112:LYS:O	31:BK:113:ARG:HG2	1.92	0.69
9:AL:7:THR:O	9:AL:79:LEU:HD12	1.91	0.69
1:CA:1028:C:C2'	1:CA:1028(A):C:H5''	2.23	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:31:PHE:CE2	8:CK:35:ILE:HD11	2.27	0.69
1:CA:1336:C:H2'	1:CA:1336:C:O2	1.90	0.69
30:BH:110:SER:O	30:BH:111:HIS:HB2	1.93	0.69
54:DA:800:A:H4'	54:DA:801:G:O5'	1.93	0.69
54:DA:270(T):G:OP1	46:DZ:97:LEU:HD13	1.92	0.69
31:BK:77:LEU:HA	31:BK:140:LEU:HD12	1.75	0.69
54:DA:241:A:H4'	54:DA:242:G:O5'	1.93	0.69
54:DA:1084:A:N1	54:DA:1085:A:N6	2.40	0.69
30:BH:9:ILE:CG2	30:BH:10:PRO:HA	2.23	0.69
54:DA:1049:C:C2'	54:DA:1050:A:H5''	2.19	0.69
1:CA:1305:G:O2'	1:CA:1306:A:H8	1.76	0.69
28:BF:20:LEU:HB3	28:BF:199:TRP:HH2	1.58	0.69
1:AA:797:C:OP1	11:AN:124:LYS:HE2	1.93	0.69
1:CA:1443:G:C3'	1:CA:1446:A:H5''	2.19	0.69
1:CA:1139:G:H22	1:CA:1144:G:H1	1.38	0.69
2:AE:44:LEU:O	2:AE:47:THR:HB	1.92	0.69
28:BF:63:LYS:HE2	28:BF:66:PRO:O	1.92	0.69
27:BE:57:LYS:N	27:BE:57:LYS:HE2	2.08	0.69
32:DM:7:LYS:HD3	32:DM:9:VAL:HA	1.75	0.69
37:DQ:106:ARG:N	37:DQ:110:LEU:HD21	2.07	0.69
28:BF:51:THR:HB	28:BF:88:VAL:HG11	1.73	0.69
24:BA:2882:A:C5'	36:B0:96:ARG:HG3	2.22	0.69
36:D0:29:LEU:HD23	36:D0:79:LEU:HD12	1.75	0.69
55:DB:31:C:H41	37:DQ:32:LEU:HD13	1.58	0.69
30:BH:117:PRO:HB3	30:BH:123:PHE:CZ	2.28	0.69
16:CS:1:MET:O	16:CS:24:ALA:HB2	1.92	0.69
34:DO:62:LEU:HD23	53:D8:25:MET:HB2	1.74	0.69
43:BU:52:SER:H	43:BU:53:PRO:HD3	1.57	0.69
24:BA:448:U:O4	24:BA:583:G:H1'	1.92	0.69
1:AA:189:U:N3	17:AT:72:ARG:NH1	2.40	0.69
24:BA:387:U:H4'	24:BA:388:G:O5'	1.93	0.69
27:DE:7:VAL:HG23	27:DE:8:LYS:N	2.07	0.69
54:DA:928:G:O2'	48:DX:43:ILE:HD11	1.92	0.69
54:DA:2734:A:H5'	54:DA:2735:G:OP2	1.93	0.69
1:AA:1032(B):G:H3'	1:AA:1033:G:H5''	1.73	0.69
54:DA:1431:U:H2'	54:DA:1432:C:C6	2.28	0.69
26:DD:76:PRO:O	26:DD:98:VAL:HG23	1.91	0.69
32:DM:56:ASN:HD22	32:DM:125:GLY:C	1.96	0.69
54:DA:365:C:O2'	54:DA:366:C:H5'	1.92	0.69
54:DA:284:U:H2'	54:DA:285:C:C6	2.28	0.69
54:DA:1570:A:H2'	54:DA:1571:A:C8	2.27	0.69
4:AG:121:VAL:O	4:AG:134:ASP:HA	1.92	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1675:C:O2	27:BE:129:HIS:HA	1.93	0.69
29:DG:121:ASN:ND2	29:DG:123:ASN:H	1.89	0.69
38:BR:29:ARG:HG2	38:BR:46:GLU:HB2	1.75	0.69
54:DA:547:A:H2'	54:DA:548:A:C8	2.28	0.69
28:BF:160:ASN:OD1	28:BF:163:VAL:HG23	1.92	0.69
13:AP:44:ARG:HG3	13:AP:48:LEU:HD23	1.74	0.69
19:AV:44:MET:O	19:AV:47:HIS:HB2	1.93	0.69
39:D1:8:VAL:HG23	39:D1:11:ARG:NH2	1.99	0.69
30:BH:76:VAL:O	30:BH:79:VAL:HG22	1.93	0.69
27:DE:65:GLY:HA2	27:DE:70:ALA:CB	2.23	0.69
1:AA:428:G:H4'	1:AA:429:U:O5'	1.92	0.69
1:AA:664:G:H22	1:AA:741:G:H1	1.39	0.69
10:CM:75:ILE:HG13	10:CM:76:ASN:N	2.05	0.69
51:D6:14:THR:HG21	51:D6:19:ARG:HH21	1.58	0.69
54:DA:1558:A:O2'	54:DA:1559:G:OP2	2.11	0.69
1:CA:193:C:OP1	20:CW:57:ARG:HD2	1.93	0.69
9:CL:113:LYS:N	9:CL:113:LYS:HD2	2.07	0.69
26:DD:17:THR:HG22	26:DD:205:VAL:N	2.08	0.69
26:DD:17:THR:CG2	26:DD:204:ILE:HA	2.23	0.69
35:BP:134:ARG:O	35:BP:135:ASP:O	2.11	0.69
31:BK:131:LYS:HB3	31:BK:132:PRO:CA	2.21	0.69
7:CJ:155:ARG:N	7:CJ:155:ARG:HD3	2.07	0.69
32:DM:68:GLU:HG2	32:DM:88:GLU:OE1	1.92	0.69
24:BA:548:A:H2'	24:BA:549:G:H5'	1.75	0.69
1:AA:823:G:H2'	1:AA:824:C:C6	2.28	0.69
4:AG:150:GLU:HG2	4:AG:151:LYS:H	1.58	0.69
1:CA:644:G:H2'	1:CA:645:C:H5'	1.73	0.69
43:BU:33:LYS:HE2	43:BU:34:LYS:HG2	1.75	0.69
54:DA:2687:U:C4	54:DA:2688:U:C5	2.80	0.69
1:CA:795:C:O2'	1:CA:1506:U:H1'	1.93	0.69
1:AA:1268:A:H2'	1:AA:1269:A:C8	2.27	0.69
19:AV:36:ARG:NH1	19:AV:71:LEU:N	2.41	0.69
1:AA:517:G:O2'	1:AA:530:G:H4'	1.93	0.69
9:AL:74:ILE:HA	9:AL:77:ILE:HD12	1.75	0.69
34:BO:85:LEU:H	34:BO:85:LEU:HD23	1.56	0.69
2:CE:212:GLN:NE2	2:CE:216:SER:HB2	2.08	0.69
24:BA:1225:C:H4'	40:B2:85:LYS:HB2	1.75	0.69
1:AA:169:C:H6	1:AA:169:C:H5'	1.58	0.69
1:AA:1176:A:H2'	1:AA:1177:G:H5'	1.74	0.69
34:DO:62:LEU:HD22	34:DO:62:LEU:H	1.53	0.69
1:AA:1227:A:O3'	13:AP:115:LYS:HD2	1.93	0.69
54:DA:2346:A:O2'	54:DA:2347:C:OP2	2.10	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1200:C:H1'	1:AA:1204:A:N6	2.07	0.69
5:CH:78:HIS:HE1	5:CH:143:ARG:H	1.38	0.69
54:DA:2127:G:H3'	54:DA:2128:C:H5''	1.73	0.69
24:BA:1454:U:O2'	24:BA:1455:G:C8	2.46	0.69
33:BN:65:THR:O	33:BN:79:PHE:HB2	1.93	0.69
24:BA:587:C:O2'	24:BA:588:U:OP2	2.11	0.69
36:B0:33:ARG:HD2	50:B5:55:ARG:HD2	1.75	0.69
42:DT:12:VAL:HG11	42:DT:27:THR:OG1	1.93	0.69
46:BZ:56:GLN:NE2	46:BZ:56:GLN:N	2.40	0.69
1:AA:75:C:H2'	1:AA:76:G:O4'	1.93	0.69
24:BA:1217:C:OP2	39:B1:15:LYS:HE3	1.92	0.69
7:CJ:8:GLU:H	7:CJ:8:GLU:CD	1.96	0.69
1:AA:1528:U:O2'	1:AA:1529:G:O5'	2.11	0.69
24:BA:2183:C:H2'	24:BA:2184:G:H8	1.58	0.69
1:CA:792:A:C4	1:CA:794:A:N6	2.61	0.68
1:AA:1314:C:OP2	19:AV:6:LYS:HD2	1.93	0.68
19:AV:42:PRO:HG2	49:B4:63:TYR:HE2	1.57	0.68
24:BA:1212:G:H2'	24:BA:1236:G:H22	1.58	0.68
26:DD:35:LYS:HB3	26:DD:63:ARG:HA	1.75	0.68
54:DA:2392:A:C8	34:DO:60:MET:HG3	2.29	0.68
26:BD:93:ALA:HB3	26:BD:105:ILE:HG22	1.74	0.68
44:BV:103:ARG:CG	44:BV:104:PHE:N	2.54	0.68
44:DV:53:ILE:HG22	44:DV:71:VAL:HG13	1.75	0.68
10:AM:31:GLY:O	10:AM:32:ALA:HB2	1.92	0.68
51:D6:41:PRO:CG	51:D6:45:LYS:H	2.05	0.68
55:DB:28:C:OP2	37:DQ:33:LYS:HE3	1.92	0.68
1:AA:1397:C:H41	23:A1:22:A:H8	1.40	0.68
11:AN:9:LYS:HD3	11:AN:9:LYS:N	2.08	0.68
1:CA:1346:A:N6	7:CJ:10:ARG:HD2	2.07	0.68
1:CA:1297:C:O2'	7:CJ:114:ARG:NH2	2.26	0.68
54:DA:2614:A:H4'	54:DA:2615:U:OP1	1.93	0.68
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.28	0.68
45:B3:25:ARG:HG3	45:B3:25:ARG:HH11	1.58	0.68
24:BA:74:A:H4'	24:BA:75:G:O5'	1.92	0.68
20:CW:64:ASP:HA	20:CW:67:ALA:HB3	1.74	0.68
24:BA:1918:A:O2'	24:BA:1919:A:N7	2.26	0.68
29:DG:56:ALA:HB2	29:DG:153:ARG:HE	1.57	0.68
1:CA:1135:U:H4'	1:CA:1136:U:H5	1.58	0.68
15:AR:48:LYS:HE2	15:AR:48:LYS:HA	1.75	0.68
19:CV:31:ILE:HG23	19:CV:49:ILE:HA	1.75	0.68
20:AW:88:VAL:O	20:AW:92:LEU:HD23	1.93	0.68
29:BG:5:VAL:HG12	29:BG:6:ALA:N	2.07	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:74:C:H6	1:CA:74:C:O5'	1.76	0.68
4:AG:11:LEU:C	4:AG:13:ARG:N	2.44	0.68
39:D1:65:ILE:HD11	39:D1:93:LYS:HA	1.74	0.68
37:DQ:106:ARG:CA	37:DQ:110:LEU:HD11	2.19	0.68
54:DA:1449:A:H5'	54:DA:1449(A):G:OP2	1.93	0.68
29:BG:91:ARG:HD2	29:BG:92:VAL:N	2.08	0.68
24:BA:2861:G:O2'	24:BA:2862:G:H5'	1.94	0.68
38:BR:30:VAL:HG12	38:BR:86:ILE:HG13	1.75	0.68
4:CG:188:LEU:HD23	4:CG:189:PRO:HD2	1.74	0.68
1:CA:1205:U:H5'	3:CF:190:ARG:NH2	2.09	0.68
31:DK:5:LEU:HD12	31:DK:5:LEU:N	2.08	0.68
24:BA:1819:A:OP1	26:BD:161:THR:HG21	1.92	0.68
35:BP:108:GLY:HA3	44:BV:116:VAL:HG22	1.75	0.68
8:AK:37:ARG:HG3	8:AK:38:ILE:N	2.07	0.68
24:BA:2844:G:H3'	24:BA:2845:G:H8	1.58	0.68
10:AM:7:LYS:HE3	10:AM:71:LEU:HD13	1.75	0.68
54:DA:943:U:OP2	34:DO:36:LYS:CD	2.41	0.68
54:DA:2355:C:H4'	45:D3:36:ILE:HD11	1.75	0.68
1:CA:75:C:H2'	1:CA:76:G:O4'	1.92	0.68
43:BU:76:CYS:SG	43:BU:77:PRO:HD2	2.34	0.68
39:B1:66:ASN:HD21	39:B1:70:ARG:HE	1.42	0.68
13:CP:117:VAL:HG22	13:CP:118:ALA:H	1.59	0.68
29:BG:173:LEU:HD23	29:BG:176:LEU:HD12	1.73	0.68
32:DM:46:VAL:O	32:DM:47:ALA:HB3	1.92	0.68
37:BQ:10:ARG:C	37:BQ:12:PHE:H	1.97	0.68
30:BH:153:LYS:CB	30:BH:161:GLY:HA2	2.23	0.68
7:AJ:25:ALA:HA	7:AJ:28:ASN:ND2	2.08	0.68
4:CG:30:LYS:HA	4:CG:34:GLU:HB2	1.75	0.68
53:B8:14:VAL:HG11	53:B8:22:VAL:CG1	2.23	0.68
24:BA:90:U:C2'	24:BA:91:A:H5''	2.22	0.68
7:AJ:20:ASP:OD1	7:AJ:23:VAL:HB	1.93	0.68
4:CG:96:LEU:N	4:CG:96:LEU:HD22	2.08	0.68
24:BA:1314:C:OP1	24:BA:1332:G:H5'	1.93	0.68
1:AA:1032(B):G:C3'	1:AA:1033:G:H5''	2.23	0.68
40:B2:41:GLY:H	40:B2:46:VAL:HG13	1.58	0.68
4:AG:117:ALA:O	4:AG:121:VAL:HG23	1.93	0.68
1:CA:262:A:H2'	1:CA:263:A:C8	2.27	0.68
3:CF:107:GLN:CD	3:CF:107:GLN:H	1.97	0.68
14:AQ:26:ARG:HD3	14:AQ:43:CYS:HB3	1.75	0.68
43:DU:2:ARG:HH11	43:DU:2:ARG:HG2	1.57	0.68
44:BV:127:LYS:HB3	44:BV:162:GLU:HG3	1.74	0.68
17:AT:19:VAL:CG2	17:AT:44:ALA:HB3	2.23	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:666:G:H4'	34:DO:49:ARG:NH1	2.08	0.68
30:BH:54:ARG:HD3	30:BH:54:ARG:H	1.58	0.68
43:BU:13:VAL:HG23	43:BU:73:ARG:C	2.13	0.68
43:DU:61:ILE:CG2	43:DU:62:GLU:N	2.57	0.68
3:AF:87:LEU:HD22	3:AF:87:LEU:N	2.07	0.68
1:CA:1129:C:H5'	1:CA:1130:A:OP1	1.92	0.68
26:BD:34:VAL:O	26:BD:34:VAL:HG13	1.92	0.68
51:B6:23:THR:HG23	51:B6:24:GLU:H	1.58	0.68
8:CK:6:ILE:CD1	8:CK:6:ILE:H	2.06	0.68
1:CA:1256:A:H2	1:CA:1277:C:C6	2.12	0.68
43:BU:86:ARG:HG3	43:BU:88:LYS:HZ1	1.59	0.68
2:CE:126:GLU:O	2:CE:126:GLU:HG2	1.92	0.68
1:AA:1024:G:O2'	1:AA:1025:U:H5'	1.92	0.68
1:AA:652:U:O4	1:AA:752:G:H2'	1.93	0.68
24:BA:588:U:H2'	24:BA:589:C:C6	2.28	0.68
54:DA:905:U:C2'	54:DA:906:G:H5''	2.23	0.68
1:AA:457:C:H2'	1:AA:458:C:C6	2.29	0.68
44:BV:80:ARG:O	44:BV:81:ARG:HG3	1.92	0.68
27:BE:182:LEU:O	27:BE:183:LEU:HD12	1.92	0.68
15:AR:21:ASP:OD1	15:AR:24:SER:HB2	1.94	0.68
2:AE:144:ARG:HG2	2:AE:148:TYR:CE2	2.29	0.68
6:AI:1:MET:CE	6:AI:68:PRO:HD3	2.23	0.68
37:BQ:52:SER:H	37:BQ:55:ALA:HB3	1.59	0.68
54:DA:1845:G:OP1	26:DD:258:LYS:NZ	2.25	0.68
37:BQ:49:VAL:HG22	37:BQ:80:LEU:HD12	1.74	0.68
30:DH:126:PRO:HB2	30:DH:130:ARG:O	1.93	0.68
31:BK:125:GLU:HA	31:BK:141:LYS:CB	2.23	0.68
30:BH:49:VAL:HG22	30:BH:50:VAL:H	1.59	0.68
39:B1:92:ARG:O	39:B1:92:ARG:CG	2.42	0.68
46:BZ:93:GLU:O	46:BZ:98:LEU:HD21	1.93	0.68
44:BV:146:ILE:HD11	44:BV:174:VAL:O	1.93	0.68
53:B8:60:LEU:O	53:B8:61:LEU:HD12	1.93	0.68
54:DA:1543:A:H1'	54:DA:1545:A:C5'	2.21	0.68
38:DR:109:GLU:O	38:DR:113:LYS:HB2	1.94	0.68
24:BA:1281:G:C8	24:BA:1281:G:H5'	2.21	0.68
34:BO:35:HIS:O	34:BO:36:LYS:O	2.12	0.68
34:BO:36:LYS:HZ2	34:BO:36:LYS:HB2	1.59	0.68
54:DA:1799:G:H4'	54:DA:1800:C:O5'	1.93	0.68
1:AA:1380:U:H5''	1:AA:1381:U:OP1	1.93	0.68
40:D2:18:LEU:O	40:D2:95:LEU:HA	1.94	0.68
1:CA:1060:C:C5	3:CF:2:GLY:HA2	2.29	0.68
1:AA:653:A:H1'	8:AK:56:LYS:HE2	1.75	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1158:C:N3	1:CA:1160:G:N7	2.41	0.68
24:BA:6:A:H4'	32:BM:129:PRO:HB3	1.74	0.68
1:CA:321:A:H2'	1:CA:322:C:C6	2.29	0.68
53:B8:46:ARG:NH1	53:B8:46:ARG:HB2	2.09	0.68
1:CA:84:U:O2'	1:CA:85:U:H5	1.75	0.68
41:DS:29:LEU:HD21	41:DS:33:ARG:NE	2.09	0.68
1:AA:47:C:H4'	1:AA:48:C:O5'	1.93	0.68
1:AA:523:A:N1	12:AO:92:ASP:HB2	2.09	0.68
1:AA:1214:C:H5''	1:AA:1215:G:OP2	1.94	0.68
24:BA:315:G:H2'	24:BA:316:C:C6	2.29	0.68
10:CM:96:ILE:HD13	10:CM:96:ILE:N	2.09	0.68
47:BW:4:SER:HB2	47:BW:5:GLU:OE2	1.93	0.68
31:BK:120:ILE:HG22	31:BK:122:GLU:H	1.59	0.68
1:AA:1061:G:OP2	3:AF:3:ASN:ND2	2.27	0.68
24:BA:1047:G:H2'	24:BA:1110:G:C2	2.28	0.68
43:DU:48:ALA:O	43:DU:49:VAL:C	2.30	0.68
3:CF:147:LYS:O	3:CF:203:PHE:HB3	1.92	0.68
49:B4:61:ARG:HB3	49:B4:62:ARG:NH2	2.03	0.68
26:BD:92:ILE:HD12	26:BD:104:TYR:HD2	1.57	0.68
40:B2:84:LYS:O	40:B2:85:LYS:O	2.11	0.68
24:BA:1929:G:C4'	24:BA:1930:G:OP1	2.42	0.68
35:DP:79:LEU:CD1	35:DP:80:GLU:OE1	2.38	0.68
29:DG:112:PRO:CB	49:D4:37:SER:HB2	2.22	0.68
54:DA:2415:G:H2'	54:DA:2416:C:H6	1.59	0.68
27:DE:9:VAL:HB	27:DE:25:VAL:HG23	1.75	0.68
1:AA:936:C:H2'	1:AA:937:A:C8	2.29	0.68
43:DU:29:GLU:HB3	43:DU:38:ILE:HG12	1.74	0.68
1:AA:1198:G:H2'	1:AA:1199:U:C6	2.29	0.68
22:CD:9:G:H4'	22:CD:10:G:OP1	1.91	0.68
27:BE:117:MET:O	27:BE:118:LYS:HB2	1.94	0.68
33:BN:35:VAL:HG23	33:BN:65:THR:HG23	1.76	0.68
37:DQ:57:LYS:H	37:DQ:57:LYS:HD3	1.59	0.68
54:DA:774:A:H2	54:DA:787:U:O2'	1.76	0.68
1:AA:1067:A:O2'	1:AA:1068:G:P	2.51	0.68
1:AA:38:G:H4'	1:AA:547:A:N6	2.07	0.68
24:BA:1246:A:H5'	34:BO:15:ARG:HH22	1.58	0.68
27:BE:26:ILE:O	27:BE:27:LEU:HB3	1.93	0.68
46:DZ:74:VAL:HG12	46:DZ:74:VAL:O	1.93	0.68
8:AK:51:VAL:HG11	8:AK:60:ARG:NH1	2.07	0.68
43:BU:32:PRO:HG2	43:BU:33:LYS:H	1.59	0.68
54:DA:1011:G:OP1	39:D1:75:ASN:HB3	1.93	0.68
24:BA:835:A:OP1	53:B8:52:LYS:HG2	1.94	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:112:LEU:HA	8:CK:134:ILE:HG12	1.75	0.68
30:DH:126:PRO:CD	30:DH:127:GLU:H	2.07	0.68
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.08	0.68
1:AA:1060:C:H4'	10:AM:52:GLY:HA2	1.74	0.68
19:AV:12:ASP:O	19:AV:16:LEU:HD13	1.94	0.68
9:AL:38:GLN:C	9:AL:40:LEU:H	1.96	0.68
44:BV:159:PRO:HG2	44:BV:160:GLY:H	1.59	0.68
54:DA:1101:U:H2'	54:DA:1102:C:H6	1.57	0.68
44:DV:129:SER:HB3	44:DV:132:ASN:OD1	1.92	0.68
1:CA:1363:A:H1'	1:CA:1365:G:C8	2.28	0.68
13:CP:78:ILE:HG23	13:CP:92:HIS:ND1	2.09	0.68
37:DQ:100:ALA:HA	37:DQ:103:GLU:HG2	1.75	0.68
1:CA:143:A:H2	1:CA:220:G:H1	1.42	0.68
8:CK:6:ILE:HD12	8:CK:6:ILE:N	2.08	0.68
40:B2:79:VAL:C	40:B2:80:GLN:NE2	2.47	0.68
54:DA:2712:U:H1'	54:DA:2712(A):A:C8	2.27	0.68
30:DH:4:ILE:HG13	30:DH:6:ARG:NE	2.08	0.68
17:CT:59:ILE:N	17:CT:59:ILE:HD13	2.08	0.68
11:CN:124:LYS:HB3	11:CN:125:PHE:HD1	1.58	0.68
1:CA:464:G:O6	1:CA:466:C:H5'	1.94	0.68
54:DA:592:G:H21	53:D8:4:MET:HE1	1.57	0.68
54:DA:2355:C:C4'	45:D3:36:ILE:HD11	2.23	0.68
4:CG:198:VAL:HG12	4:CG:199:ASN:N	2.09	0.68
24:BA:2716:U:O2'	24:BA:2717:G:H5'	1.94	0.68
43:DU:40:GLU:HA	43:DU:64:GLU:OE1	1.94	0.68
27:DE:16:ARG:HG3	27:DE:16:ARG:O	1.93	0.68
24:BA:508:G:O2'	24:BA:509:C:OP1	2.10	0.68
43:BU:23:ARG:HG2	43:BU:23:ARG:HH11	1.57	0.68
54:DA:1762:A:H5''	54:DA:1763:G:OP2	1.94	0.68
54:DA:1786:A:O2'	54:DA:1938:A:N6	2.26	0.68
54:DA:865:C:H4'	54:DA:866:A:OP1	1.93	0.68
1:CA:794:A:C5'	1:CA:794:A:H8	2.06	0.68
10:AM:47:PHE:HE1	10:AM:63:PHE:HB2	1.58	0.68
19:AV:62:ILE:HA	19:AV:66:MET:HE1	1.74	0.68
10:CM:6:ILE:HG22	10:CM:98:ILE:CG1	2.16	0.68
24:BA:1344:G:H4'	24:BA:1384:A:C5	2.27	0.68
21:CX:6:ARG:HE	21:CX:15:ARG:NE	1.90	0.68
24:BA:2068:U:N3	24:BA:2430:A:C2	2.42	0.68
1:CA:179:A:H2'	1:CA:180:U:H6	1.57	0.68
35:DP:66:ILE:HG13	35:DP:67:ARG:H	1.58	0.68
24:BA:2444:G:OP2	28:BF:68:LYS:CE	2.41	0.68
38:DR:50:ILE:HG22	38:DR:62:THR:OG1	1.94	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AM:42:THR:HG23	10:AM:68:HIS:HA	1.76	0.68
12:AO:124:LYS:HZ2	12:AO:124:LYS:HB2	1.59	0.68
12:AO:124:LYS:HG3	12:AO:125:PRO:CD	2.24	0.68
1:AA:562:C:H4'	1:AA:563:A:O5'	1.94	0.68
1:AA:403:C:O2'	1:AA:404:U:H5'	1.94	0.68
1:AA:532:A:H61	3:AF:193:TYR:HB3	1.58	0.68
54:DA:265:A:O2'	54:DA:266:G:C4'	2.42	0.68
1:AA:1005:A:H5''	1:AA:1006:C:C5	2.29	0.68
20:AW:100:ILE:N	20:AW:100:ILE:HD12	2.08	0.68
54:DA:2665:A:O2'	54:DA:2666:C:H5'	1.92	0.68
24:BA:892:G:H2'	24:BA:893:C:O4'	1.94	0.68
54:DA:2336:A:H61	45:D3:43:THR:HG21	1.58	0.68
47:DW:23:LYS:O	47:DW:27:GLU:OE1	2.11	0.68
1:CA:630:G:H2'	1:CA:631:G:H4'	1.76	0.68
29:DG:171:ALA:O	29:DG:175:LEU:HG	1.93	0.68
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.28	0.68
18:AU:43:PHE:C	18:AU:51:LEU:HD12	2.14	0.68
24:BA:68:G:H3'	24:BA:69:C:H6	1.58	0.68
55:DB:25:A:C2	55:DB:26:A:H1'	2.29	0.68
1:CA:848:C:O5'	1:CA:848:C:H6	1.76	0.68
24:BA:2815:C:O2'	50:B5:43:HIS:HD2	1.77	0.68
1:AA:355:C:O4'	1:AA:388:G:O2'	2.08	0.68
1:AA:909:A:H2'	1:AA:910:C:O4'	1.94	0.68
13:AP:9:ILE:CB	13:AP:10:PRO:CD	2.56	0.68
1:CA:1055:A:H4'	3:CF:161:GLU:OE2	1.94	0.68
1:CA:1330:U:H5'	1:CA:1331:G:OP2	1.94	0.68
28:BF:29:ASN:HD21	28:BF:32:LEU:HB2	1.57	0.68
54:DA:1359:A:C4'	54:DA:1359:A:H8	2.06	0.68
7:CJ:138:LYS:HE2	7:CJ:142:GLU:OE2	1.94	0.68
30:DH:4:ILE:HG13	30:DH:6:ARG:NH1	2.09	0.68
31:DK:8:PRO:HG3	31:DK:14:ASP:HB2	1.76	0.68
44:DV:125:LEU:O	44:DV:164:ALA:HB3	1.94	0.68
54:DA:2657:A:C2	54:DA:2665:A:N7	2.61	0.68
8:CK:20:TYR:HE2	8:CK:75:ARG:HD2	1.59	0.68
4:CG:120:LEU:HD22	4:CG:125:HIS:HB2	1.74	0.68
24:BA:2267:A:H5''	24:BA:2268:A:H5'	1.76	0.68
2:AE:76:GLN:HE21	2:AE:76:GLN:HA	1.59	0.68
16:AS:21:VAL:HG21	16:AS:59:TRP:CD2	2.29	0.68
50:D5:20:ARG:HA	50:D5:23:HIS:ND1	2.09	0.68
42:BT:35:THR:H	42:BT:38:GLU:HG2	1.59	0.68
12:AO:20:LYS:HD3	12:AO:20:LYS:N	2.09	0.68
54:DA:1639:U:O2'	54:DA:1640:C:H5''	1.94	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:4:VAL:HG23	46:DZ:10:LYS:O	1.93	0.68
31:DK:21:VAL:HG22	31:DK:22:LYS:H	1.57	0.68
43:BU:94:LYS:NZ	43:BU:101:LYS:NZ	2.42	0.68
25:BB:34:U:O4	25:BB:44:G:H2'	1.93	0.68
1:AA:1129:C:C4'	1:AA:1130:A:H5'	2.23	0.68
54:DA:1068:G:O2'	54:DA:1096:A:N3	2.27	0.68
24:BA:997:G:C2'	24:BA:998:C:H5'	2.24	0.68
25:BB:31:C:H41	37:BQ:32:LEU:HD13	1.57	0.68
24:BA:1340:U:O2'	24:BA:1341:U:OP1	2.08	0.68
2:AE:162:ILE:HD11	2:AE:184:VAL:CG2	2.22	0.68
1:AA:794:A:C2	1:AA:795:C:C4	2.81	0.68
27:BE:89:ASP:O	27:BE:90:THR:HB	1.94	0.68
26:BD:27:THR:CG2	26:BD:28:GLU:H	2.00	0.68
4:AG:21:LEU:HD12	4:AG:22:LYS:H	1.59	0.68
4:AG:29:PRO:HG2	4:AG:30:LYS:N	2.03	0.68
24:BA:1906:G:C6	24:BA:1929:G:N2	2.61	0.68
54:DA:1019:U:HO2'	54:DA:1021:A:H2	1.42	0.68
7:CJ:79:ARG:NH2	7:CJ:82:GLY:HA2	2.09	0.68
1:AA:1160:G:N1	1:AA:1177:G:N2	2.41	0.68
4:CG:29:PRO:O	4:CG:30:LYS:HD3	1.94	0.68
16:CS:3:LYS:C	16:CS:4:ILE:HD12	2.14	0.68
30:DH:77:LYS:HG2	30:DH:77:LYS:O	1.94	0.68
44:DV:18:LEU:H	44:DV:18:LEU:CD1	2.06	0.68
31:DK:74:ASN:CG	31:DK:75:LEU:H	1.97	0.68
24:BA:270(L):U:H3	31:BK:50:ARG:HH11	1.40	0.68
40:B2:49:THR:CB	40:B2:50:PRO:HD3	2.23	0.68
1:AA:1182:G:H4'	1:AA:1183:A:H5'	1.76	0.68
1:CA:1239:A:H62	1:CA:1299:A:H62	1.41	0.68
52:D7:8:ASN:C	52:D7:8:ASN:HD22	1.98	0.68
34:DO:39:LYS:CA	34:DO:45:LEU:HD11	2.23	0.68
1:AA:1239:A:H62	1:AA:1299:A:H62	1.41	0.68
34:DO:15:ARG:O	34:DO:16:ARG:C	2.32	0.68
9:CL:48:GLU:N	9:CL:49:PRO:HD2	2.10	0.68
1:CA:753:A:O2'	1:CA:754:C:OP2	2.12	0.68
25:BB:15:A:H5'	25:BB:16:G:H8	1.58	0.68
47:DW:64:LEU:HD22	47:DW:68:ARG:HD2	1.76	0.68
24:BA:372:G:O2'	24:BA:373:U:OP2	2.11	0.68
54:DA:2580:U:H4'	27:DE:130:GLY:HA3	1.74	0.68
24:BA:774:A:H2	24:BA:787:U:HO2'	1.40	0.68
31:BK:68:LEU:HA	31:BK:71:ILE:HG22	1.76	0.68
26:BD:106:ILE:C	26:BD:106:ILE:HD13	2.15	0.68
49:D4:15:ILE:HD13	49:D4:15:ILE:N	2.09	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1348:G:H2'	24:BA:1349:A:C5'	2.24	0.68
30:DH:126:PRO:HG2	30:DH:127:GLU:H	1.59	0.67
1:CA:69:G:C2	1:CA:73:G:N7	2.62	0.67
53:B8:25:MET:O	53:B8:48:PHE:HE1	1.77	0.67
44:BV:93:ASP:O	44:BV:95:PRO:HD2	1.94	0.67
24:BA:1113:U:OP1	30:BH:3:ARG:HG2	1.93	0.67
1:CA:954:G:H21	1:CA:1227:A:H62	1.42	0.67
13:CP:90:LEU:CA	13:CP:93:ARG:HD2	2.23	0.67
26:DD:35:LYS:HZ1	26:DD:104:TYR:HB2	1.56	0.67
3:AF:75:VAL:CB	3:AF:83:ARG:HD3	2.24	0.67
35:DP:133:ARG:O	35:DP:134:ARG:HB2	1.94	0.67
39:B1:50:ARG:HG2	39:B1:53:ARG:NH2	2.09	0.67
54:DA:1458:C:H5''	54:DA:1459:G:C5'	2.19	0.67
28:BF:125:LEU:HB2	28:BF:196:LEU:HD23	1.76	0.67
55:DB:29:A:H2'	55:DB:30:C:C6	2.29	0.67
54:DA:1963:U:O2	54:DA:1963:U:H2'	1.94	0.67
1:AA:1182:G:H5''	1:AA:1183:A:H5'	1.76	0.67
31:DK:13:GLY:HA3	31:DK:17:GLN:OE1	1.93	0.67
34:BO:39:LYS:HG3	34:BO:45:LEU:HD23	1.75	0.67
35:DP:90:VAL:CG1	35:DP:91:GLU:N	2.57	0.67
3:CF:195:VAL:HG12	3:CF:196:LEU:N	2.07	0.67
35:BP:127:ILE:HG22	35:BP:128:LYS:N	2.07	0.67
20:CW:83:ARG:HA	20:CW:86:ARG:HD3	1.76	0.67
18:AU:79:LEU:HB3	18:AU:80:PRO:HD2	1.76	0.67
24:BA:1254:A:H5'	24:BA:1255:U:H5'	1.74	0.67
8:AK:35:ILE:O	8:AK:39:LEU:HB2	1.94	0.67
37:DQ:35:ILE:HD13	37:DQ:101:LEU:HD23	1.76	0.67
24:BA:483:A:H5''	43:BU:49:VAL:HG13	1.75	0.67
7:CJ:50:ILE:HB	7:CJ:58:PRO:HB3	1.75	0.67
43:DU:21:LYS:HG3	43:DU:22:GLY:N	2.09	0.67
37:BQ:48:LEU:N	37:BQ:48:LEU:HD12	2.10	0.67
54:DA:1507:A:H3'	54:DA:1508:A:C5'	2.19	0.67
54:DA:2636:U:OP2	27:DE:79:ARG:NH1	2.28	0.67
33:DN:14:THR:O	33:DN:51:ALA:HB3	1.94	0.67
54:DA:2250:G:C5	35:DP:82:ARG:HD2	2.29	0.67
35:DP:33:GLY:HA2	35:DP:105:GLU:HA	1.76	0.67
54:DA:1142(A):A:C2'	54:DA:1143:A:H3'	2.24	0.67
32:DM:96:GLU:CG	32:DM:97:ARG:H	2.00	0.67
38:DR:50:ILE:CD1	38:DR:102:ILE:HD11	2.25	0.67
44:BV:59:LEU:HD12	44:BV:60:GLU:N	2.09	0.67
34:DO:65:ARG:CG	34:DO:65:ARG:HH11	2.06	0.67
1:CA:565:U:H5''	1:CA:566:G:H3'	1.74	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2118:U:O4	24:BA:2148:G:H4'	1.94	0.67
35:DP:90:VAL:O	35:DP:92:GLY:N	2.25	0.67
1:CA:1064:G:H1'	1:CA:1066:C:C5	2.29	0.67
3:AF:152:ILE:HB	3:AF:199:LYS:HB2	1.76	0.67
3:AF:92:ALA:HA	3:AF:95:THR:HB	1.76	0.67
38:BR:82:LEU:HD12	38:BR:82:LEU:H	1.59	0.67
1:AA:627:G:O2'	1:AA:628:G:H5'	1.94	0.67
3:AF:180:ALA:O	3:AF:181:ASN:HB3	1.94	0.67
1:AA:1060:C:H5''	10:AM:51:ARG:HG2	1.75	0.67
24:BA:1116:C:H2'	24:BA:1117:G:H8	1.60	0.67
26:DD:44:ASN:ND2	26:DD:44:ASN:N	2.42	0.67
34:BO:85:LEU:HA	34:BO:88:LEU:CB	2.25	0.67
2:AE:163:PHE:HA	2:AE:185:ILE:HG13	1.75	0.67
35:DP:104:PHE:CE1	35:DP:125:LEU:HD11	2.29	0.67
7:CJ:120:ILE:O	7:CJ:124:LEU:HB2	1.95	0.67
55:DB:38:C:O2	55:DB:48:A:H1'	1.94	0.67
24:BA:27:G:H1'	24:BA:513:A:N6	2.10	0.67
55:DB:82:G:O2'	55:DB:83:G:H5'	1.94	0.67
24:BA:1731:G:N3	24:BA:1731:G:H3'	2.09	0.67
44:BV:149:SER:HA	44:BV:170:THR:HG23	1.76	0.67
1:AA:1041:A:C2'	1:AA:1042:G:H5''	2.24	0.67
54:DA:1332:G:N2	54:DA:1609:A:H2'	2.08	0.67
1:AA:1540:U:H2'	1:AA:1541:U:OP1	1.94	0.67
1:CA:112:G:H5'	1:CA:389:A:H4'	1.75	0.67
31:DK:99:GLU:CG	31:DK:103:ARG:HH21	2.07	0.67
8:AK:37:ARG:HG3	8:AK:38:ILE:HG13	1.76	0.67
1:CA:644:G:C2'	1:CA:645:C:H5'	2.24	0.67
43:DU:14:LEU:HD23	43:DU:15:VAL:N	2.10	0.67
9:AL:127:LYS:HG3	9:AL:128:ARG:NH1	2.08	0.67
6:CI:3:ARG:HB3	6:CI:93:SER:HB2	1.75	0.67
46:DZ:20:ARG:HG2	46:DZ:20:ARG:HH11	1.58	0.67
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.29	0.67
54:DA:1493:C:H4'	54:DA:1494:A:OP1	1.93	0.67
54:DA:1264:G:H5'	50:D5:11:THR:HG21	1.76	0.67
54:DA:2637:U:H2'	54:DA:2638:G:O4'	1.95	0.67
29:BG:32:PRO:CB	29:BG:172:LEU:HD22	2.25	0.67
3:AF:47:LEU:HD23	3:AF:52:LEU:HD13	1.76	0.67
1:CA:1534:A:HO2'	1:CA:1535:C:H5	1.42	0.67
27:DE:13:ARG:HH11	27:DE:13:ARG:CB	2.07	0.67
22:AC:20:U:C3'	22:AC:21:A:H5'	2.21	0.67
4:AG:22:LYS:CG	4:AG:26:CYS:HB2	2.25	0.67
51:B6:25:LYS:HE3	51:B6:27:LYS:HD3	1.74	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:B8:34:TRP:CD1	53:B8:35:GLN:N	2.62	0.67
35:DP:81:VAL:C	35:DP:82:ARG:HG2	2.15	0.67
28:DF:184:TYR:O	28:DF:188:ARG:HG3	1.94	0.67
54:DA:898:C:H3'	54:DA:899:A:H5'	1.76	0.67
2:AE:75:LYS:O	2:AE:75:LYS:HD3	1.94	0.67
54:DA:2111:C:H5	54:DA:2147:G:N2	1.91	0.67
54:DA:564:C:O2'	54:DA:565:C:H5'	1.93	0.67
54:DA:1869:G:H5'	54:DA:1869:G:H8	1.58	0.67
1:AA:376:G:H4'	16:AS:5:ARG:HD3	1.76	0.67
27:DE:116:VAL:O	27:DE:117:MET:HB3	1.94	0.67
24:BA:2166:G:O2'	24:BA:2167:U:H6	1.78	0.67
24:BA:1639:U:H2'	24:BA:1640:C:H5''	1.76	0.67
5:AH:152:ARG:NH1	5:AH:152:ARG:HG2	2.07	0.67
46:DZ:51:VAL:HG11	46:DZ:74:VAL:HG21	1.76	0.67
6:AI:1:MET:HE2	6:AI:68:PRO:HD3	1.76	0.67
1:CA:713:G:N2	1:CA:777:A:H1'	2.08	0.67
1:AA:977:A:O2'	1:AA:978:A:H5'	1.95	0.67
43:DU:49:VAL:O	43:DU:51:VAL:N	2.27	0.67
54:DA:2805:G:H2'	54:DA:2807:G:C8	2.29	0.67
22:AD:5:G:H2'	22:AD:6:G:C5'	2.24	0.67
24:BA:922:U:H2'	24:BA:923:C:C6	2.29	0.67
24:BA:2657:A:H2'	24:BA:2658:C:H5'	1.76	0.67
49:D4:33:VAL:HG12	49:D4:34:GLU:N	2.10	0.67
53:B8:14:VAL:HG12	53:B8:15:LYS:N	2.08	0.67
31:DK:115:ALA:HB3	31:DK:128:LEU:CD1	2.22	0.67
37:DQ:67:ARG:CZ	37:DQ:67:ARG:HB2	2.24	0.67
40:D2:25:LEU:H	40:D2:92:THR:HG21	1.60	0.67
12:AO:55:VAL:CG1	12:AO:56:ALA:N	2.58	0.67
24:BA:1140:C:H1'	24:BA:1143:A:C8	2.30	0.67
54:DA:141:A:H8	54:DA:1595:G:N2	1.91	0.67
2:CE:178:ARG:NH2	8:CK:68:ARG:HH22	1.90	0.67
4:CG:173:TRP:CD2	4:CG:189:PRO:HB3	2.30	0.67
37:DQ:52:SER:O	37:DQ:56:LEU:HD22	1.93	0.67
44:DV:27:VAL:HG22	44:DV:28:MET:N	2.10	0.67
24:BA:1681:G:OP2	24:BA:1681:G:H8	1.76	0.67
33:BN:4:PRO:O	33:BN:5:GLN:HB2	1.93	0.67
1:AA:1066:C:H3'	1:AA:1067:A:H8	1.57	0.67
1:AA:878:G:H5'	8:AK:89:PRO:HG2	1.75	0.67
11:CN:95:ILE:HD12	11:CN:108:ILE:HD13	1.77	0.67
16:CS:66:PRO:HG2	16:CS:71:ARG:NH1	2.09	0.67
8:CK:14:ARG:O	8:CK:18:ARG:HD3	1.94	0.67
22:AC:42:G:O2'	22:AC:43:A:H5'	1.94	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:107:THR:HA	27:BE:163:GLU:O	1.94	0.67
1:CA:291:C:O2'	1:CA:292:G:H5'	1.94	0.67
3:AF:36:ASP:HA	3:AF:39:ILE:HD12	1.76	0.67
54:DA:2150:U:H2'	54:DA:2151:G:C8	2.30	0.67
34:DO:26:GLY:O	34:DO:28:GLY:N	2.26	0.67
13:AP:22:ILE:HG23	13:AP:67:GLU:OE1	1.93	0.67
19:AV:29:ARG:HB2	19:AV:48:THR:OG1	1.94	0.67
43:BU:14:LEU:HG	43:BU:15:VAL:N	2.10	0.67
10:CM:54:PHE:CZ	10:CM:55:LYS:NZ	2.61	0.67
2:CE:165:VAL:HG23	2:CE:166:ASP:H	1.57	0.67
2:AE:212:GLN:O	2:AE:216:SER:HB2	1.95	0.67
4:AG:33:MET:O	4:AG:34:GLU:O	2.13	0.67
35:DP:104:PHE:HE1	35:DP:125:LEU:HD11	1.58	0.67
38:BR:26:ASP:HB3	38:BR:91:ARG:CA	2.23	0.67
49:D4:16:CYS:SG	49:D4:33:VAL:HB	2.35	0.67
51:D6:48:VAL:HG13	51:D6:49:HIS:H	1.60	0.67
1:CA:121:C:N4	1:CA:235:C:H3'	2.06	0.67
46:BZ:95:LEU:O	46:BZ:96:LYS:HB2	1.95	0.67
24:BA:1179:C:C2'	24:BA:1180:C:H5''	2.25	0.67
24:BA:1019:U:O2'	24:BA:1021:A:H2	1.75	0.67
54:DA:2654:A:H4'	54:DA:2655:G:OP1	1.93	0.67
25:BB:65:C:H41	25:BB:108:C:H2'	1.58	0.67
54:DA:1007:C:O3'	32:DM:108:PRO:HB3	1.94	0.67
25:BB:1:U:O2'	25:BB:2:C:H5'	1.95	0.67
24:BA:813:U:H2'	24:BA:814:C:C6	2.29	0.67
28:BF:34:TRP:CE3	34:BO:8:PRO:HB3	2.29	0.67
1:CA:1372:U:OP1	9:CL:71:SER:HB3	1.94	0.67
54:DA:1528:A:O2'	54:DA:1529:A:H5'	1.95	0.67
54:DA:1262:A:N3	50:D5:10:LYS:HE3	2.09	0.67
30:DH:88:LEU:H	30:DH:88:LEU:HD22	1.58	0.67
2:CE:71:VAL:CG2	2:CE:164:VAL:HG22	2.25	0.67
24:BA:2691:C:H5'	24:BA:2691:C:H6	1.58	0.67
27:DE:26:ILE:HD13	27:DE:27:LEU:N	2.10	0.67
34:BO:64:LYS:HG3	53:B8:30:ARG:NH2	2.09	0.67
13:AP:19:LEU:HD11	13:AP:56:LEU:HD11	1.77	0.67
9:AL:17:VAL:HG11	9:AL:81:ILE:HD13	1.75	0.67
24:BA:2756:U:O2'	24:BA:2757:A:H5''	1.94	0.67
43:BU:97:ARG:H	43:BU:97:ARG:HD3	1.60	0.67
1:CA:1139:G:H4'	1:CA:1140:C:O5'	1.94	0.67
2:AE:22:LYS:HA	2:AE:40:HIS:CE1	2.29	0.67
39:D1:90:VAL:O	39:D1:92:ARG:N	2.26	0.67
24:BA:83:G:O2'	24:BA:84:A:C8	2.48	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:108:ARG:HA	38:DR:111:ARG:CZ	2.24	0.67
1:AA:1418:A:H2	24:BA:1948:G:N3	1.93	0.67
42:BT:88:LYS:HE2	42:BT:90:GLU:OE2	1.95	0.67
40:D2:44:LYS:O	40:D2:46:VAL:N	2.28	0.67
31:BK:3:VAL:HA	31:BK:39:ALA:HB2	1.77	0.67
7:CJ:28:ASN:O	7:CJ:31:MET:HB3	1.95	0.67
46:BZ:85:LEU:HA	46:BZ:87:PRO:HD2	1.77	0.67
1:AA:754:C:H3'	1:AA:754:C:O2	1.94	0.67
2:AE:102:LEU:H	2:AE:102:LEU:HD12	1.59	0.67
54:DA:270(P):C:O2'	54:DA:270(Q):C:H5'	1.95	0.67
3:CF:150:LYS:HB3	3:CF:201:TYR:HB2	1.75	0.67
1:CA:405:U:H3'	1:CA:406:G:H5'	1.76	0.67
18:AU:50:ILE:HD12	18:AU:70:ILE:HD13	1.75	0.67
1:CA:606:G:H1	1:CA:631:G:H5'	1.60	0.67
24:BA:67:U:H2'	24:BA:68:G:C8	2.30	0.67
1:AA:598:U:H2'	1:AA:599:C:C6	2.30	0.67
54:DA:2474:C:H3'	54:DA:2475:C:H6	1.60	0.67
6:AI:28:ARG:NH1	6:AI:28:ARG:HA	2.08	0.67
33:DN:25:LEU:HB2	33:DN:38:VAL:HG13	1.74	0.67
9:CL:46:ALA:HA	9:CL:78:LYS:HB2	1.75	0.67
25:BB:45:A:N3	25:BB:45:A:H2'	2.10	0.67
1:AA:1305:G:HO2'	1:AA:1306:A:H8	1.43	0.67
29:BG:111:LEU:HD22	29:BG:120:LEU:HD21	1.75	0.67
30:BH:4:ILE:C	30:BH:6:ARG:H	1.97	0.67
2:AE:24:TRP:H	2:AE:24:TRP:HD1	1.41	0.67
27:DE:62:PRO:O	27:DE:64:LYS:N	2.28	0.67
22:AC:75:C:OP2	22:AC:76:A:H5'	1.94	0.67
50:D5:4:HIS:HB3	50:D5:5:PRO:HD3	1.75	0.67
1:CA:690:G:H2'	1:CA:691:G:O4'	1.94	0.67
35:DP:12:GLN:CG	35:DP:73:PRO:HD2	2.21	0.67
28:DF:46:ARG:HH11	28:DF:46:ARG:CG	2.04	0.67
16:CS:21:VAL:HG11	16:CS:59:TRP:CD1	2.30	0.67
54:DA:649:G:H2'	54:DA:650:C:C6	2.30	0.67
2:AE:7:VAL:HG13	2:AE:8:LYS:H	1.58	0.67
1:CA:187:C:H2'	1:CA:188:U:O4'	1.95	0.67
3:AF:29:TYR:OH	14:AQ:54:PRO:HD2	1.93	0.67
6:AI:45:LEU:HD11	6:AI:57:GLN:NE2	2.10	0.67
54:DA:1673:U:H2'	54:DA:1674:G:H5'	1.77	0.67
24:BA:2020:A:OP1	39:B1:27:LEU:HD23	1.95	0.67
31:BK:6:LEU:HA	31:BK:15:VAL:HG13	1.76	0.67
9:CL:33:PHE:CZ	9:CL:47:LEU:HD21	2.30	0.67
1:AA:179:A:H2'	1:AA:180:U:C6	2.30	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:46:LYS:HG3	13:AP:46:LYS:O	1.95	0.67
30:BH:38:SER:O	30:BH:40:GLU:N	2.28	0.67
30:BH:48:GLY:O	30:BH:49:VAL:HG12	1.94	0.67
34:BO:147:LEU:C	34:BO:148:LEU:HD23	2.16	0.67
10:CM:6:ILE:HD11	10:CM:72:VAL:CB	2.24	0.67
42:BT:55:ASN:HB2	42:BT:80:ILE:CG1	2.25	0.67
1:CA:923:A:H2'	1:CA:924:C:H6	1.58	0.67
24:BA:2780:G:OP2	32:BM:118:LYS:HE2	1.95	0.67
35:DP:80:GLU:OE2	35:DP:80:GLU:HA	1.94	0.67
55:DB:31:C:N4	37:DQ:32:LEU:HD13	2.09	0.67
54:DA:1929:G:H5''	54:DA:1930:G:OP1	1.94	0.67
1:CA:254:G:H21	17:CT:16:GLN:NE2	1.92	0.67
1:AA:328:C:O2'	1:AA:329:A:OP2	2.13	0.67
31:DK:13:GLY:HA3	31:DK:17:GLN:CD	2.15	0.67
33:DN:13:ASN:ND2	33:DN:96:THR:O	2.27	0.67
38:BR:19:LEU:HD22	38:BR:86:ILE:CG2	2.24	0.67
48:BX:47:VAL:HG11	48:BX:56:VAL:HG21	1.76	0.67
9:CL:28:VAL:HG13	9:CL:63:ILE:CG2	2.24	0.67
2:CE:164:VAL:HB	2:CE:186:ALA:CB	2.25	0.67
28:DF:34:TRP:HA	34:DO:6:LEU:HD12	1.77	0.67
4:AG:101:LEU:HB2	4:AG:138:TYR:HB3	1.75	0.67
17:AT:52:LYS:H	17:AT:52:LYS:HD2	1.59	0.67
24:BA:2439:A:H5'	24:BA:2439:A:C8	2.29	0.67
5:AH:145:LYS:HE2	5:AH:149:GLU:OE1	1.94	0.67
24:BA:492:A:H2'	24:BA:493:G:O4'	1.95	0.67
22:CD:28:C:H2'	22:CD:29:G:H8	1.60	0.67
24:BA:1142:U:O2	24:BA:1142:U:H2'	1.93	0.67
1:CA:1229:A:OP1	13:CP:116:THR:HG23	1.95	0.67
17:CT:56:VAL:HB	17:CT:78:GLU:HB3	1.76	0.67
24:BA:654(R):C:C2	24:BA:654(R):C:H3'	2.29	0.67
46:DZ:86:SER:N	46:DZ:87:PRO:HD2	2.10	0.67
1:CA:794:A:C8	1:CA:794:A:H5'	2.29	0.67
30:BH:58:GLU:O	30:BH:62:LYS:HG3	1.95	0.67
43:DU:60:PHE:O	43:DU:61:ILE:HD12	1.95	0.67
32:BM:112:LEU:HD23	32:BM:113:GLY:N	2.10	0.67
54:DA:2250:G:C6	35:DP:82:ARG:HD2	2.29	0.67
37:BQ:15:ARG:HH12	37:BQ:25:ARG:HE	1.42	0.67
43:BU:46:LYS:HD3	43:BU:63:LYS:HB3	1.77	0.67
51:D6:43:CYS:SG	51:D6:44:ARG:HD3	2.35	0.67
1:CA:77:C:H2'	1:CA:78:G:C5'	2.25	0.67
1:AA:815:A:H5''	1:AA:817:C:N4	2.09	0.67
29:BG:43:LEU:O	29:BG:88:ILE:HG12	1.95	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1381:U:H1'	7:AJ:79:ARG:HH12	1.59	0.67
10:CM:34:VAL:HG22	10:CM:74:ILE:HG22	1.77	0.67
1:CA:1241:G:H2'	1:CA:1242:C:H6	1.60	0.67
54:DA:2567:G:H2'	54:DA:2568:C:C6	2.30	0.67
27:BE:103:ASP:OD1	27:BE:201:THR:HG23	1.94	0.67
48:DX:29:ARG:HB2	48:DX:29:ARG:NH1	2.10	0.67
7:AJ:38:LEU:HD12	7:AJ:38:LEU:H	1.59	0.67
1:CA:440:A:H3'	1:CA:442:C:H6	1.58	0.67
41:DS:8:ARG:HD3	41:DS:102:HIS:CD2	2.30	0.67
24:BA:1665:A:H4'	33:BN:67:LYS:HB2	1.76	0.67
22:CD:37:A:O2'	22:CD:38:A:H5'	1.95	0.67
40:D2:53:GLU:O	40:D2:53:GLU:HG2	1.94	0.67
29:BG:118:ARG:HG2	29:BG:118:ARG:HH11	1.59	0.67
54:DA:2341:G:H2'	54:DA:2342:C:C6	2.30	0.67
46:DZ:83:GLU:HG2	46:DZ:84:GLY:N	2.09	0.66
19:AV:6:LYS:H	19:AV:6:LYS:HZ2	1.41	0.66
9:AL:26:VAL:O	9:AL:61:ALA:HB3	1.95	0.66
30:BH:125:VAL:CG1	30:BH:126:PRO:HG3	2.25	0.66
39:B1:65:ILE:HD11	39:B1:96:ALA:HB3	1.76	0.66
2:CE:215:LEU:O	2:CE:219:VAL:HG23	1.94	0.66
26:DD:35:LYS:CA	26:DD:64:ILE:HG22	2.25	0.66
34:DO:61:ARG:H	34:DO:61:ARG:CD	2.09	0.66
50:B5:40:LYS:HE3	50:B5:46:CYS:N	2.09	0.66
54:DA:1023:U:H2'	54:DA:1024:G:H5'	1.76	0.66
28:BF:125:LEU:H	28:BF:125:LEU:CD2	2.04	0.66
24:BA:1280:G:C3'	24:BA:1281:G:H5''	2.24	0.66
1:AA:954:G:H2'	1:AA:955:U:C6	2.30	0.66
26:DD:241:PRO:O	26:DD:243:GLY:N	2.29	0.66
24:BA:273(E):U:O2'	24:BA:273(F):C:H5'	1.94	0.66
18:AU:53:ARG:NH2	18:AU:59:SER:HA	2.10	0.66
40:B2:12:TYR:OH	40:B2:22:VAL:HG23	1.94	0.66
24:BA:2584:U:C6	24:BA:2585:U:C5	2.83	0.66
18:AU:18:ARG:NH1	18:AU:18:ARG:HB2	2.10	0.66
46:DZ:56:GLN:HE21	46:DZ:56:GLN:N	1.93	0.66
1:CA:788:U:C2'	1:CA:789:U:H5'	2.25	0.66
54:DA:586:A:H5'	28:DF:89:VAL:HG21	1.76	0.66
34:BO:62:LEU:O	34:BO:62:LEU:HD13	1.95	0.66
1:AA:973:G:C1'	10:AM:55:LYS:HG2	2.26	0.66
9:AL:20:ARG:O	9:AL:22:GLY:N	2.27	0.66
54:DA:1062:G:H2'	54:DA:1063:G:C8	2.30	0.66
1:CA:1222:G:P	19:CV:77:THR:HG21	2.35	0.66
24:BA:1344:G:H5'	24:BA:1384:A:N6	2.09	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:18:ARG:HG3	41:DS:76:VAL:HG13	1.77	0.66
24:BA:2777:G:H5''	24:BA:2778:A:OP1	1.95	0.66
51:B6:42:TRP:HD1	51:B6:44:ARG:HH11	1.43	0.66
31:DK:79:ILE:HG21	31:DK:142:VAL:HG12	1.77	0.66
29:DG:179:PRO:HG3	49:D4:38:LYS:HZ2	1.59	0.66
54:DA:784:A:C5	26:DD:229:VAL:HG21	2.31	0.66
20:CW:97:ALA:O	20:CW:99:LEU:N	2.27	0.66
1:AA:129(A):G:O2'	1:AA:189:U:H3'	1.96	0.66
7:AJ:78:ARG:NH2	7:AJ:156:TRP:CZ2	2.62	0.66
1:CA:562:C:O2'	12:CO:15:ARG:HD2	1.94	0.66
11:AN:10:VAL:O	11:AN:11:LYS:HB3	1.96	0.66
24:BA:1312:U:H4'	24:BA:1313:U:O5'	1.96	0.66
54:DA:1577:C:H2'	54:DA:1578:U:O4'	1.95	0.66
48:BX:23:LEU:HA	48:BX:26:LEU:HD12	1.77	0.66
27:BE:201:THR:C	27:BE:202:LYS:HD3	2.16	0.66
3:CF:73:PRO:O	3:CF:76:VAL:HG22	1.95	0.66
51:B6:34:LEU:O	51:B6:36:LEU:HG	1.95	0.66
7:AJ:38:LEU:O	7:AJ:42:ILE:HG13	1.96	0.66
24:BA:458:G:H5''	52:B7:38:GLY:O	1.94	0.66
54:DA:664:C:H4'	54:DA:941:A:OP1	1.96	0.66
1:CA:1327:C:OP1	21:CX:21:TYR:HD1	1.78	0.66
52:B7:19:ARG:HH11	52:B7:19:ARG:HG2	1.61	0.66
1:AA:1129:C:C5'	1:AA:1130:A:H5'	2.25	0.66
1:AA:1145:C:O2	1:AA:1145:C:H2'	1.95	0.66
27:DE:28:ALA:O	27:DE:93:VAL:HG23	1.96	0.66
24:BA:1043:C:H3'	24:BA:1044:G:H5''	1.76	0.66
27:BE:34:VAL:HG21	27:BE:78:LEU:HD13	1.75	0.66
13:CP:3:ARG:HD2	13:CP:9:ILE:HG12	1.77	0.66
1:AA:760:G:H2'	1:AA:761:G:H5'	1.77	0.66
51:B6:15:GLU:CG	51:B6:47:THR:HG21	2.25	0.66
39:D1:88:ILE:N	39:D1:88:ILE:HD13	2.10	0.66
35:DP:32:TYR:HD1	35:DP:133:ARG:HA	1.60	0.66
32:DM:57:ALA:HA	32:DM:60:ILE:HD11	1.78	0.66
50:D5:56:LYS:H	50:D5:56:LYS:CD	2.07	0.66
54:DA:1098:A:C2'	54:DA:1099:G:H5''	2.25	0.66
29:BG:60:LEU:HD21	29:BG:92:VAL:HG11	1.76	0.66
29:BG:68:PRO:HA	29:BG:92:VAL:HB	1.77	0.66
1:AA:1443:G:N7	38:BR:118:ARG:HB3	2.10	0.66
1:AA:325:A:OP2	20:AW:70:SER:HB2	1.95	0.66
8:CK:100:ILE:HB	8:CK:125:ARG:NH1	2.09	0.66
54:DA:1341:U:OP1	54:DA:1602:U:H2'	1.95	0.66
1:CA:373:A:O2'	1:CA:374:A:H5'	1.94	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:205:G:HO2'	54:DA:206:U:P	2.16	0.66
10:AM:53:PRO:HA	14:AQ:42:ILE:HD11	1.77	0.66
1:AA:173:U:H1'	1:AA:197:A:C2	2.30	0.66
54:DA:690:G:H2'	54:DA:691:C:C6	2.30	0.66
24:BA:1088:A:H4'	24:BA:1089:G:C8	2.30	0.66
24:BA:277:C:H3'	24:BA:278:A:H8	1.60	0.66
6:AI:30:LEU:HD23	6:AI:75:LEU:HD11	1.77	0.66
1:CA:1490:C:O2'	1:CA:1491:G:H5'	1.95	0.66
3:CF:140:ARG:CZ	3:CF:140:ARG:HB2	2.25	0.66
43:DU:75:ILE:HG12	43:DU:76:CYS:N	2.10	0.66
43:DU:89:PHE:C	43:DU:90:LEU:HD13	2.15	0.66
29:BG:181:ARG:HG2	29:BG:181:ARG:O	1.95	0.66
54:DA:481:G:H1'	54:DA:506:G:H21	1.58	0.66
24:BA:1151:G:H2'	24:BA:1152:C:H6	1.60	0.66
49:D4:71:ARG:CG	49:D4:71:ARG:HH11	1.98	0.66
32:DM:134:ARG:N	32:DM:135:PRO:HD3	1.97	0.66
34:DO:122:PRO:HA	34:DO:141:ALA:O	1.95	0.66
3:AF:87:LEU:CD2	3:AF:87:LEU:H	2.08	0.66
2:AE:187:LEU:HD13	2:AE:187:LEU:O	1.96	0.66
24:BA:1053:C:H2'	24:BA:1054:A:H5''	1.75	0.66
24:BA:796:C:H2'	24:BA:797:C:H6	1.61	0.66
1:CA:1453:G:H8	20:CW:39:LYS:HZ1	1.40	0.66
37:BQ:26:LEU:HD22	37:BQ:87:PHE:CD1	2.31	0.66
49:B4:2:LYS:H	49:B4:2:LYS:HD2	1.60	0.66
8:CK:84:ARG:HG3	8:CK:84:ARG:NH1	2.10	0.66
44:BV:91:LEU:CD2	44:BV:91:LEU:H	2.03	0.66
47:DW:65:ASN:HB3	47:DW:69:ARG:NH1	2.10	0.66
26:BD:196:VAL:HG12	26:BD:197:GLY:N	2.10	0.66
1:AA:1205:U:H1'	3:AF:195:VAL:HG21	1.78	0.66
1:CA:992:U:O2'	1:CA:993:G:OP2	2.14	0.66
26:DD:68:LYS:HB2	26:DD:70:TRP:CZ3	2.31	0.66
47:DW:47:ASN:H	47:DW:47:ASN:ND2	1.92	0.66
24:BA:858:U:O2'	24:BA:2268:A:H2'	1.95	0.66
3:AF:4:LYS:HZ2	3:AF:4:LYS:H	1.42	0.66
2:AE:171:ALA:HA	2:AE:174:VAL:HG23	1.77	0.66
45:D3:11:ARG:HH11	45:D3:11:ARG:HG2	1.59	0.66
54:DA:2474:C:H5''	54:DA:2475:C:C5	2.30	0.66
54:DA:1918:A:O2'	54:DA:1919:A:N7	2.29	0.66
24:BA:988:A:H3'	48:BX:11:SER:OG	1.95	0.66
23:C1:24:A:H8	23:C1:24:A:O5'	1.77	0.66
24:BA:1789:A:H2'	24:BA:1790:C:O4'	1.96	0.66
24:BA:2747:G:H21	24:BA:2757:A:H62	1.44	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DF:103:LYS:HA	28:DF:106:ARG:CG	2.21	0.66
43:BU:69:ALA:O	43:BU:72:VAL:HG22	1.96	0.66
39:B1:81:HIS:O	39:B1:84:LYS:HB3	1.95	0.66
54:DA:2011:U:C2'	54:DA:2012:G:H5'	2.24	0.66
52:B7:5:TRP:NE1	52:B7:7:PRO:HG3	2.09	0.66
39:B1:49:HIS:HA	39:B1:52:ARG:HB2	1.77	0.66
22:AD:18:G:H1'	22:AD:58:A:C2	2.31	0.66
32:DM:58:ASP:H	32:DM:60:ILE:CD1	2.09	0.66
18:AU:31:LEU:CD1	18:AU:65:ILE:HD13	2.24	0.66
58:DA:2903:G:O2'	58:DA:2920:G:H2'	1.96	0.66
34:DO:66:GLY:O	34:DO:67:MET:HB3	1.94	0.66
1:CA:160:A:H61	1:CA:347:G:H1'	1.61	0.66
1:AA:821:G:H2'	1:AA:822:C:C6	2.31	0.66
20:CW:89:ARG:NH2	20:CW:104:LEU:HD21	2.09	0.66
28:BF:101:LEU:HD12	28:BF:102:PRO:HD2	1.77	0.66
24:BA:2867:G:O2'	24:BA:2868:A:C8	2.48	0.66
24:BA:2168:G:N1	24:BA:2170:A:OP2	2.28	0.66
35:DP:88:GLY:C	35:DP:90:VAL:N	2.47	0.66
1:CA:873:A:H8	1:CA:873:A:O5'	1.78	0.66
35:BP:59:ARG:O	35:BP:60:ARG:HB2	1.95	0.66
26:DD:172:TYR:HB3	26:DD:184:LYS:HG2	1.77	0.66
26:DD:135:PHE:CD2	26:DD:135:PHE:N	2.62	0.66
24:BA:669:G:N3	24:BA:669:G:H2'	2.10	0.66
4:CG:52:SER:O	4:CG:56:VAL:HG23	1.96	0.66
54:DA:2552:U:O2	54:DA:2554:U:H5'	1.96	0.66
42:DT:11:PRO:HB3	42:DT:92:LEU:HD21	1.78	0.66
45:B3:43:THR:O	45:B3:43:THR:HG23	1.96	0.66
1:CA:838:G:H2'	1:CA:841:U:H5''	1.78	0.66
42:BT:67:GLY:O	42:BT:69:TYR:N	2.27	0.66
1:AA:421:U:H2'	1:AA:421:U:O2	1.95	0.66
7:CJ:141:VAL:O	7:CJ:141:VAL:HG12	1.95	0.66
54:DA:1812:A:O2'	26:DD:45:ASN:HB2	1.94	0.66
27:DE:174:ASP:CG	27:DE:175:VAL:H	1.98	0.66
18:CU:70:ILE:O	18:CU:74:ARG:HG3	1.95	0.66
3:AF:204:LEU:O	3:AF:205:GLY:O	2.13	0.66
44:BV:157:LEU:CB	44:BV:161:VAL:HG11	2.24	0.66
44:DV:112:ARG:NH2	44:DV:145:GLU:HA	2.10	0.66
30:BH:37:VAL:HG13	30:BH:39:PRO:HD3	1.78	0.66
43:BU:12:THR:HG22	43:BU:13:VAL:N	2.10	0.66
1:CA:1322:C:HO2'	1:CA:1323:G:H5'	1.60	0.66
13:CP:74:VAL:O	13:CP:78:ILE:HG13	1.96	0.66
13:CP:81:LEU:O	13:CP:84:ILE:HG22	1.95	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DO:81:GLN:NE2	34:DO:106:LEU:O	2.29	0.66
53:D8:30:ARG:O	53:D8:31:HIS:HB2	1.96	0.66
34:DO:61:ARG:NH2	53:D8:13:ARG:HD2	2.10	0.66
1:CA:95:G:H2'	1:CA:96:G:H5'	1.77	0.66
54:DA:2061:G:OP2	54:DA:2502:G:H5'	1.95	0.66
37:BQ:10:ARG:O	37:BQ:14:VAL:HG12	1.96	0.66
9:AL:96:LEU:HD23	9:AL:102:LEU:HD12	1.77	0.66
54:DA:1478:G:O2'	54:DA:1479:G:H5'	1.94	0.66
26:BD:260:ARG:NH1	26:BD:264:LYS:HD3	2.09	0.66
5:CH:75:THR:HG23	5:CH:76:ILE:N	2.11	0.66
1:AA:689:C:H2'	1:AA:690:G:C5'	2.26	0.66
55:DB:103:U:O3'	44:DV:72:ARG:HD3	1.96	0.66
50:D5:40:LYS:NZ	50:D5:48:GLU:HB2	2.10	0.66
54:DA:2312:U:O5'	54:DA:2312:U:H6	1.79	0.66
22:CD:72:A:O2'	22:CD:73:A:H5'	1.96	0.66
1:CA:1158:C:H4'	2:CE:133:LYS:NZ	2.10	0.66
25:BB:2:C:H2'	25:BB:3:C:H6	1.60	0.66
24:BA:141:A:H8	24:BA:1408:C:H1'	1.60	0.66
54:DA:905:U:C3'	54:DA:906:G:H5''	2.24	0.66
1:AA:1096:C:O2'	1:AA:1097:C:H5'	1.96	0.66
1:AA:878:G:C5'	8:AK:89:PRO:HG2	2.25	0.66
13:AP:79:LYS:HE3	13:AP:82:MET:HE2	1.78	0.66
54:DA:1668:A:H61	54:DA:1676:A:H61	1.42	0.66
7:CJ:69:VAL:HG12	7:CJ:69:VAL:O	1.95	0.66
31:BK:6:LEU:HD13	31:BK:36:ALA:HA	1.76	0.66
4:CG:52:SER:HB3	4:CG:55:ALA:HB2	1.77	0.66
31:DK:127:VAL:HA	31:DK:139:GLN:HA	1.76	0.66
10:CM:81:THR:C	10:CM:83:GLU:H	1.99	0.66
46:BZ:94:LEU:H	46:BZ:94:LEU:HD23	1.61	0.66
29:DG:136:ARG:O	29:DG:154:GLY:HA3	1.95	0.66
44:BV:137:ILE:CG2	44:BV:157:LEU:HD11	2.25	0.66
54:DA:2701:C:C3'	54:DA:2702:U:H5''	2.12	0.66
24:BA:153:C:P	46:BZ:88:LYS:HZ2	2.19	0.66
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.30	0.66
1:CA:1533:C:C2'	1:CA:1534:A:H5''	2.26	0.66
26:BD:24:ILE:O	26:BD:24:ILE:HG23	1.95	0.66
4:AG:17:VAL:HG11	4:AG:197:PRO:CB	2.25	0.66
53:B8:33:ASN:O	53:B8:34:TRP:HB3	1.94	0.66
37:DQ:107:GLU:H	37:DQ:110:LEU:HD11	1.60	0.66
24:BA:1434:A:H61	24:BA:1558:A:H62	1.38	0.66
35:DP:20:ALA:HB1	35:DP:99:PRO:HD2	1.77	0.66
24:BA:506:G:H4'	24:BA:507:A:O5'	1.96	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BF:126:VAL:O	28:BF:196:LEU:HG	1.95	0.66
44:BV:5:LEU:HD11	44:BV:39:VAL:CG1	2.25	0.66
54:DA:2404:C:H1'	34:DO:67:MET:HE1	1.76	0.66
2:AE:166:ASP:HB3	2:AE:169:LYS:CB	2.26	0.66
1:AA:1037:C:H2'	1:AA:1038:C:O4'	1.96	0.66
1:CA:1374:A:H2'	1:CA:1375:A:H5'	1.76	0.66
54:DA:2656:U:H5	54:DA:2664:G:H21	1.43	0.66
46:DZ:11:ARG:HH11	46:DZ:11:ARG:HB3	1.61	0.66
1:CA:16:A:O2'	1:CA:17:U:H5'	1.96	0.66
24:BA:1171:G:O2'	24:BA:1173:G:O4'	2.14	0.66
7:AJ:148:ASN:C	7:AJ:150:ALA:N	2.49	0.66
8:AK:40:ALA:HB2	8:AK:45:ILE:CG1	2.25	0.66
24:BA:1504:C:C2'	24:BA:1505:C:H5''	2.24	0.66
24:BA:807:U:H2'	24:BA:808:G:C8	2.30	0.66
1:AA:945:G:C2	1:AA:946:A:C8	2.84	0.66
42:BT:35:THR:HG22	42:BT:37:THR:H	1.60	0.66
54:DA:1689:A:H62	54:DA:1698:A:H2	1.42	0.66
24:BA:270(N):G:H1'	24:BA:270(P):C:O4'	1.96	0.66
24:BA:270(P):C:H2'	24:BA:270(Q):C:C6	2.30	0.66
24:BA:2820:A:O4'	36:B0:4:LEU:HD23	1.96	0.66
54:DA:153:C:P	46:DZ:88:LYS:HE2	2.36	0.66
46:DZ:80:LEU:HD23	46:DZ:80:LEU:N	2.10	0.66
1:AA:1532:U:O4	23:A1:9:G:H5'	1.96	0.66
43:DU:94:LYS:HE3	43:DU:101:LYS:NZ	2.11	0.66
19:AV:40:ILE:HG12	19:AV:69:HIS:O	1.96	0.66
30:BH:50:VAL:HG23	30:BH:51:ARG:NH2	2.11	0.66
43:BU:99:CYS:SG	43:BU:100:ALA:N	2.69	0.66
1:CA:688:G:H2'	1:CA:689:C:H6	1.59	0.66
4:AG:38:TYR:CD1	4:AG:45:GLN:HB3	2.30	0.66
39:D1:65:ILE:HG12	39:D1:96:ALA:CB	2.26	0.66
1:AA:168:G:H2'	1:AA:169:C:C5'	2.24	0.66
12:AO:126:LYS:CD	12:AO:126:LYS:H	2.07	0.66
1:AA:1381:U:H2'	1:AA:1382:C:H5'	1.78	0.66
7:AJ:155:ARG:HG2	7:AJ:155:ARG:HH11	1.59	0.66
31:BK:3:VAL:HB	31:BK:37:VAL:O	1.96	0.66
46:BZ:87:PRO:O	46:BZ:90:ILE:HG22	1.95	0.66
10:CM:39:PRO:HB3	10:CM:70:ARG:HH12	1.61	0.66
28:BF:195:ASP:OD1	28:BF:197:ASP:HB3	1.96	0.66
54:DA:83:G:H1	54:DA:102:G:H2'	1.60	0.66
54:DA:1332:G:H5''	54:DA:1333:C:OP2	1.95	0.66
27:DE:37:ARG:NE	27:DE:37:ARG:HA	2.11	0.66
54:DA:270(Q):C:H2'	54:DA:270(R):G:O4'	1.95	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2165:G:H2'	24:BA:2166:G:C2	2.31	0.66
47:BW:24:LEU:O	47:BW:24:LEU:HD23	1.96	0.66
19:CV:35:SER:O	19:CV:71:LEU:HD12	1.96	0.66
24:BA:1104:C:H2'	24:BA:1105:U:C6	2.31	0.66
32:BM:68:GLU:HG2	32:BM:88:GLU:OE1	1.96	0.66
30:DH:125:VAL:CG1	30:DH:126:PRO:HG3	2.25	0.66
44:DV:102:LEU:HD22	44:DV:156:LYS:NZ	2.11	0.66
1:CA:982:U:H4'	1:CA:983:A:O5'	1.94	0.66
2:AE:88:ALA:HB2	2:AE:219:VAL:CG2	2.24	0.66
1:CA:96:G:H5'	1:CA:96:G:H8	1.60	0.66
12:AO:47:LYS:HB3	12:AO:48:PRO:HD3	1.76	0.66
32:DM:45:ASN:HD22	32:DM:45:ASN:N	1.93	0.66
35:BP:64:ILE:HD13	35:BP:64:ILE:N	2.11	0.66
44:BV:118:GLN:CD	44:BV:174:VAL:H	1.98	0.66
43:BU:47:LYS:HG3	43:BU:60:PHE:HB3	1.78	0.66
15:AR:54:ARG:HH11	15:AR:58:MET:HE1	1.61	0.66
1:AA:1227:A:C4	13:AP:117:VAL:HG21	2.31	0.66
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.31	0.66
26:DD:183:ARG:HH11	26:DD:183:ARG:CG	2.07	0.66
24:BA:583:G:H5''	39:B1:10:ARG:NH1	2.11	0.66
31:BK:13:GLY:HA3	31:BK:17:GLN:HE22	1.60	0.66
38:BR:106:SER:HB2	38:BR:110:ILE:HD12	1.77	0.66
24:BA:2051:A:H2'	24:BA:2614:A:H61	1.59	0.66
54:DA:99:U:H4'	54:DA:101:G:H5''	1.76	0.66
8:CK:20:TYR:HA	8:CK:65:TYR:HE2	1.60	0.66
1:CA:1538:C:C3'	1:CA:1539:C:H5''	2.26	0.66
24:BA:2283:C:H5'	51:B6:8:LYS:CE	2.25	0.66
24:BA:2173:A:C6	24:BA:2174:C:H1'	2.31	0.66
43:DU:42:VAL:CG1	43:DU:65:ALA:HB3	2.25	0.66
34:BO:66:GLY:O	34:BO:67:MET:CB	2.44	0.66
1:AA:280:C:O2'	1:AA:281:G:OP1	2.13	0.66
24:BA:283:A:O2'	24:BA:284:U:OP1	2.14	0.66
8:AK:63:LEU:H	8:AK:63:LEU:HD22	1.61	0.66
22:CC:20:U:H2'	22:CC:20:U:O2	1.93	0.66
19:CV:15:LEU:O	19:CV:19:VAL:N	2.26	0.66
24:BA:593:G:H1'	53:B8:4:MET:HE1	1.78	0.66
26:BD:72:LYS:NZ	26:BD:72:LYS:HB3	2.10	0.66
22:AD:21:A:H4'	22:AD:21:A:OP1	1.95	0.66
2:AE:115:LEU:HD13	2:AE:145:LEU:HD12	1.77	0.66
13:AP:4:ILE:HG12	13:AP:5:ALA:N	2.10	0.66
1:AA:1127:G:N2	1:AA:1145:C:C2	2.64	0.66
30:BH:136:ILE:O	30:BH:137:ASP:HB2	1.95	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BH:137:ASP:HB2	30:BH:140:LYS:HE2	1.77	0.66
30:BH:124:GLU:O	30:BH:125:VAL:HB	1.95	0.66
43:DU:47:LYS:HG2	43:DU:60:PHE:CE1	2.31	0.66
34:BO:101:VAL:HG23	34:BO:107:LYS:N	2.11	0.66
1:CA:960:U:O2'	1:CA:961:U:OP2	2.12	0.66
1:CA:973:G:OP1	10:CM:57:LYS:NZ	2.28	0.66
2:CE:14:GLY:O	2:CE:15:VAL:HG13	1.96	0.66
3:AF:84:ILE:N	3:AF:87:LEU:HD23	2.11	0.66
51:B6:45:LYS:HG3	51:B6:46:HIS:O	1.96	0.66
4:AG:38:TYR:CE1	4:AG:45:GLN:HB3	2.31	0.66
37:DQ:106:ARG:HA	37:DQ:110:LEU:CD2	2.26	0.66
44:BV:118:GLN:CG	44:BV:173:ALA:H	2.04	0.66
37:DQ:88:ASP:OD2	37:DQ:90:GLY:N	2.28	0.66
4:CG:11:LEU:HD22	4:CG:66:ARG:HD3	1.78	0.66
55:DB:81:G:O6	55:DB:96:G:C6	2.50	0.66
13:AP:118:ALA:CB	22:AC:29:G:H5'	2.25	0.66
54:DA:1819:A:H4'	54:DA:1820:U:O5'	1.96	0.66
41:DS:65:LEU:HD12	41:DS:68:ARG:NH1	2.10	0.66
29:DG:145:THR:HG23	49:D4:28:LYS:NZ	2.11	0.66
1:AA:939:G:H5''	7:AJ:102:ARG:HH22	1.58	0.66
47:BW:13:ALA:HA	47:BW:16:LEU:HD11	1.77	0.66
1:AA:1296:C:H5'	1:AA:1297:C:OP2	1.96	0.66
1:AA:625:G:H2'	1:AA:626:U:C6	2.31	0.66
7:AJ:140:ASP:HA	7:AJ:143:ARG:NH1	2.11	0.66
35:BP:2:LEU:H	35:BP:2:LEU:HD12	1.59	0.66
54:DA:1431:U:H2'	54:DA:1432:C:H6	1.60	0.66
24:BA:277:C:H3'	24:BA:278:A:C8	2.31	0.66
54:DA:1917:U:H2'	54:DA:1918:A:O4'	1.96	0.66
24:BA:30:G:H2'	24:BA:31:C:C6	2.31	0.66
43:DU:35:TYR:CE1	43:DU:69:ALA:HB3	2.31	0.66
15:AR:17:ARG:HG3	15:AR:17:ARG:HH11	1.61	0.66
22:AC:1:C:O2	22:AC:1:C:H2'	1.95	0.66
2:CE:24:TRP:H	2:CE:24:TRP:HD1	1.43	0.66
54:DA:2691:C:H6	54:DA:2691:C:H5'	1.61	0.66
31:DK:125:GLU:HA	31:DK:125:GLU:OE1	1.96	0.66
4:AG:7:PRO:HB2	4:AG:10:ARG:HD2	1.77	0.66
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.11	0.65
9:AL:17:VAL:CG1	9:AL:81:ILE:HD13	2.27	0.65
54:DA:1061:U:H4'	54:DA:1070:A:O4'	1.95	0.65
30:BH:27:LYS:HE3	30:BH:27:LYS:C	2.16	0.65
30:DH:124:GLU:HB3	30:DH:132:ARG:HD2	1.77	0.65
39:B1:104:GLN:HG2	39:B1:105:VAL:H	1.60	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CV:64:GLU:CD	49:D4:55:ARG:HH22	2.00	0.65
54:DA:2700:C:O2'	54:DA:2701:C:H5'	1.96	0.65
46:BZ:91:LYS:O	46:BZ:93:GLU:N	2.29	0.65
1:CA:1124:G:C3'	1:CA:1145:C:N4	2.55	0.65
24:BA:2791:C:O2	24:BA:2792:G:N7	2.29	0.65
27:BE:31:CYS:SG	27:BE:51:PHE:HB2	2.35	0.65
26:BD:27:THR:C	26:BD:29:PRO:HD2	2.16	0.65
22:AC:20:U:H3'	22:AC:21:A:C5'	2.21	0.65
4:AG:12:CYS:CB	4:AG:32:ALA:CB	2.70	0.65
8:CK:29:SER:HB3	8:CK:32:LYS:CG	2.22	0.65
33:DN:86:ILE:HD12	33:DN:86:ILE:H	1.60	0.65
1:CA:173:U:H5''	1:CA:197:A:O4'	1.96	0.65
33:BN:2:ILE:CD1	33:BN:82:ASN:ND2	2.59	0.65
7:CJ:78:ARG:NH1	7:CJ:80:VAL:HG23	2.11	0.65
1:AA:1347:G:HO2'	1:AA:1373:G:H1	1.43	0.65
55:DB:8:U:H5'	55:DB:8:U:C6	2.29	0.65
1:AA:495:A:H4'	1:AA:496:A:O5'	1.95	0.65
7:AJ:79:ARG:HG3	7:AJ:79:ARG:HH11	1.61	0.65
26:BD:263:ARG:HB3	26:BD:263:ARG:HH11	1.60	0.65
12:CO:48:PRO:CD	12:CO:49:ASN:N	2.57	0.65
16:CS:45:THR:HG22	16:CS:47:ASP:H	1.60	0.65
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.32	0.65
24:BA:2341:G:H2'	24:BA:2342:C:C6	2.31	0.65
6:CI:41:GLU:O	6:CI:43:LEU:HD12	1.96	0.65
54:DA:1329:U:H5''	54:DA:1330:C:H5	1.60	0.65
15:AR:67:LEU:HD22	15:AR:78:TYR:HE1	1.60	0.65
54:DA:275:G:N2	54:DA:276:A:H62	1.93	0.65
24:BA:1416:G:H2'	24:BA:1417:C:C6	2.31	0.65
12:CO:26:ALA:O	12:CO:27:LEU:O	2.14	0.65
49:B4:22:ILE:O	49:B4:23:GLU:HB2	1.96	0.65
1:AA:1363:A:H2'	1:AA:1363:A:N3	2.11	0.65
13:AP:81:LEU:HD23	13:AP:86:CYS:SG	2.35	0.65
19:AV:36:ARG:HG3	19:AV:71:LEU:H	1.60	0.65
30:BH:26:VAL:O	30:BH:31:GLY:HA2	1.95	0.65
43:BU:80:GLY:O	43:BU:81:LYS:HG3	1.94	0.65
39:B1:104:GLN:HG2	39:B1:105:VAL:N	2.12	0.65
1:CA:1054:C:O2	1:CA:1054:C:H2'	1.96	0.65
1:CA:1225:A:H5''	1:CA:1226:C:OP2	1.96	0.65
41:BS:88:ARG:HH11	41:BS:88:ARG:HG2	1.61	0.65
54:DA:2864:G:OP1	38:DR:119:LYS:HD2	1.95	0.65
2:AE:69:LEU:O	2:AE:162:ILE:HA	1.95	0.65
27:DE:13:ARG:NH1	27:DE:21:VAL:HG12	2.11	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:B2:69:LYS:HD3	40:B2:85:LYS:CD	2.25	0.65
20:CW:36:LEU:HD12	20:CW:55:ILE:HG23	1.76	0.65
43:BU:40:GLU:OE2	43:BU:40:GLU:N	2.29	0.65
8:CK:10:LEU:HD23	8:CK:10:LEU:H	1.60	0.65
1:AA:1347:G:O2'	1:AA:1348:U:OP2	2.15	0.65
40:B2:30:GLY:N	40:B2:61:VAL:HG11	2.11	0.65
54:DA:1930:G:O2'	54:DA:1931:U:P	2.54	0.65
24:BA:2688:U:H1'	24:BA:2721:A:H61	1.60	0.65
42:BT:43:VAL:CG2	42:BT:51:VAL:HG21	2.25	0.65
26:DD:145:VAL:HG12	26:DD:146:GLU:O	1.95	0.65
34:DO:90:ARG:NE	34:DO:91:PHE:HD1	1.93	0.65
54:DA:2189:U:C3'	54:DA:2190:G:H5''	2.25	0.65
54:DA:1190:G:OP1	34:DO:30:THR:OG1	2.14	0.65
33:DN:113:LYS:O	33:DN:117:LEU:HD12	1.96	0.65
1:AA:1284:C:C2	1:AA:1285:A:N7	2.64	0.65
26:DD:121:PRO:HB3	26:DD:135:PHE:CE1	2.30	0.65
41:BS:12:ILE:HD13	41:BS:17:VAL:HG22	1.77	0.65
54:DA:1364:G:OP2	46:DZ:2:SER:O	2.14	0.65
8:AK:29:SER:HB3	8:AK:32:LYS:HD2	1.77	0.65
46:BZ:40:ARG:NH2	46:BZ:42:GLN:HG2	2.10	0.65
33:BN:9:GLU:H	33:BN:83:ALA:HA	1.60	0.65
24:BA:2103:C:H2'	24:BA:2104:G:C8	2.30	0.65
24:BA:2206:C:O2'	24:BA:2207:C:H5'	1.96	0.65
17:CT:27:PHE:CZ	17:CT:36:ILE:HD11	2.31	0.65
24:BA:769:G:O2'	24:BA:770:G:H5'	1.96	0.65
24:BA:991:C:O2'	24:BA:992:C:H5'	1.96	0.65
1:AA:1248:A:H2'	9:AL:70:LYS:HZ1	1.61	0.65
9:AL:19:LEU:HD23	9:AL:61:ALA:HA	1.77	0.65
43:BU:15:VAL:O	43:BU:22:GLY:HA3	1.95	0.65
1:CA:1322:C:H2'	1:CA:1322:C:O2	1.96	0.65
13:CP:65:LYS:HE2	49:D4:50:VAL:HG11	1.78	0.65
10:CM:38:ILE:HD11	10:CM:71:LEU:HB3	1.78	0.65
28:BF:29:ASN:ND2	28:BF:32:LEU:HB2	2.11	0.65
51:D6:7:ILE:C	51:D6:9:LEU:H	1.98	0.65
40:B2:69:LYS:CD	40:B2:85:LYS:HD2	2.26	0.65
4:AG:30:LYS:HB3	4:AG:30:LYS:HZ3	1.61	0.65
28:BF:118:ALA:HB2	28:BF:123:LEU:HD22	1.77	0.65
41:BS:59:VAL:HA	41:BS:64:MET:H	1.61	0.65
35:BP:19:GLY:O	35:BP:98:LYS:HD3	1.96	0.65
54:DA:2313:C:H5''	29:DG:91:ARG:HD3	1.79	0.65
29:BG:38:VAL:HG12	29:BG:158:ALA:HB3	1.78	0.65
24:BA:1179:C:H2'	24:BA:1180:C:H5''	1.78	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2127:G:H2'	54:DA:2128:C:O4'	1.97	0.65
1:AA:690:G:N2	11:AN:55:LYS:NZ	2.44	0.65
8:AK:10:LEU:HB3	8:AK:83:ILE:HD11	1.79	0.65
27:DE:36:ARG:HH11	27:DE:36:ARG:HB3	1.60	0.65
54:DA:1092:C:H6	54:DA:1092:C:H5'	1.59	0.65
44:DV:33:LEU:HD21	44:DV:35:ARG:HD2	1.77	0.65
24:BA:1332:G:N2	24:BA:1610:A:C8	2.64	0.65
9:CL:53:VAL:HG21	9:CL:92:TYR:CE1	2.32	0.65
40:B2:41:GLY:CA	40:B2:46:VAL:HG11	2.26	0.65
1:CA:498:A:H4'	1:CA:500:G:OP1	1.96	0.65
4:CG:52:SER:HB3	4:CG:55:ALA:CB	2.27	0.65
4:AG:128:VAL:O	4:AG:130:GLY:N	2.29	0.65
7:CJ:21:VAL:HG23	7:CJ:22:LEU:H	1.61	0.65
1:AA:115:G:O2'	1:AA:116:A:OP2	2.13	0.65
54:DA:445:C:O2'	54:DA:446:G:H5'	1.97	0.65
54:DA:2875:C:H4'	38:DR:5:ALA:HB2	1.78	0.65
33:DN:71:ARG:NH1	38:DR:74:ARG:HH21	1.94	0.65
32:BM:74:ARG:HH12	32:BM:85:ILE:HD12	1.61	0.65
24:BA:654(S):G:H2'	24:BA:654(T):A:H8	1.60	0.65
24:BA:2758:A:H2'	24:BA:2759:G:C5'	2.14	0.65
49:B4:37:SER:C	49:B4:39:CYS:H	1.99	0.65
24:BA:2519:U:C4'	24:BA:2520:C:OP1	2.36	0.65
30:BH:51:ARG:HG3	30:BH:51:ARG:HH11	1.61	0.65
19:CV:10:PHE:CG	19:CV:11:VAL:N	2.65	0.65
27:BE:64:LYS:HB2	27:BE:66:HIS:CD2	2.30	0.65
44:BV:9:TYR:O	44:BV:10:ARG:HB2	1.96	0.65
27:DE:101:ARG:CZ	27:DE:171:GLU:HB2	2.26	0.65
24:BA:90:U:O2'	24:BA:91:A:H8	1.79	0.65
31:DK:75:LEU:HB3	31:DK:105:HIS:HE1	1.60	0.65
31:DK:68:LEU:HA	31:DK:71:ILE:CG2	2.26	0.65
1:AA:1182:G:C4'	1:AA:1183:A:H5'	2.26	0.65
1:AA:1000:A:OP1	1:AA:1000:A:O4'	2.14	0.65
1:CA:1158:C:H2'	1:CA:1158:C:O2	1.95	0.65
30:DH:168:PRO:O	30:DH:169:VAL:HG12	1.96	0.65
24:BA:2129:C:H3'	24:BA:2130:U:C5'	2.26	0.65
24:BA:1252:G:N3	39:B1:33:ARG:HD2	2.11	0.65
24:BA:1820:U:H4'	24:BA:1821:A:OP2	1.95	0.65
10:CM:99:LYS:O	10:CM:100:THR:HG23	1.96	0.65
1:AA:191(F):U:H2'	1:AA:191:G:H5'	1.79	0.65
24:BA:2211:G:H2'	24:BA:2211:G:N3	2.12	0.65
24:BA:67:U:H2'	24:BA:68:G:H8	1.60	0.65
25:BB:15:A:H5'	25:BB:16:G:C8	2.31	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1997:G:O2'	24:BA:1998:G:H5'	1.97	0.65
1:AA:542:G:OP1	4:AG:10:ARG:NH2	2.30	0.65
1:CA:1267:C:O2	21:CX:20:LYS:HD2	1.96	0.65
2:AE:62:ALA:C	2:AE:64:ARG:H	1.99	0.65
54:DA:1709:U:H2'	54:DA:1710:C:C6	2.32	0.65
54:DA:2779:U:H1'	54:DA:2781:A:C5	2.30	0.65
4:AG:49:ARG:NE	4:AG:49:ARG:HA	2.12	0.65
42:DT:65:ARG:HD3	42:DT:65:ARG:N	2.12	0.65
17:CT:74:LEU:HD12	17:CT:75:ARG:HG2	1.76	0.65
1:AA:975:A:H2	14:AQ:34:TYR:HH	1.44	0.65
19:AV:49:ILE:H	19:AV:60:VAL:HG22	1.61	0.65
1:AA:518:C:H5'	1:AA:519:C:C6	2.32	0.65
1:CA:1305:G:N2	1:CA:1331:G:H2'	2.11	0.65
24:BA:2014:A:HO2'	50:B5:2:ALA:N	1.94	0.65
54:DA:2061:G:H5''	54:DA:2503:A:C2	2.32	0.65
36:D0:26:LYS:HE2	36:D0:70:LEU:O	1.95	0.65
24:BA:2665:A:C2	24:BA:2666:C:H5	2.14	0.65
54:DA:1372:U:H2'	54:DA:1373:A:H5'	1.78	0.65
24:BA:907:U:OP1	35:BP:24:GLY:HA2	1.95	0.65
1:AA:1158:C:O2	1:AA:1158:C:H2'	1.95	0.65
2:CE:7:VAL:HG22	2:CE:8:LYS:HD3	1.76	0.65
32:BM:111:PRO:HA	32:BM:114:ARG:HH12	1.57	0.65
54:DA:2133:G:N2	54:DA:2158:A:N6	2.42	0.65
54:DA:1929:G:H8	54:DA:1929:G:H3'	1.62	0.65
4:AG:146:ILE:N	4:AG:146:ILE:HD12	2.11	0.65
54:DA:1404:C:O2'	54:DA:1405:U:H5'	1.96	0.65
9:CL:112:LYS:HA	9:CL:119:ALA:HB2	1.77	0.65
54:DA:1188:U:C2'	54:DA:1189:A:H5'	2.27	0.65
54:DA:1946:U:H2'	54:DA:1947:C:H6	1.59	0.65
34:DO:39:LYS:HA	34:DO:45:LEU:HD13	1.79	0.65
47:DW:42:GLY:O	47:DW:44:LEU:N	2.30	0.65
9:AL:79:LEU:HD11	9:AL:83:ARG:CZ	2.26	0.65
26:DD:80:ALA:HB3	26:DD:94:LEU:CD1	2.25	0.65
24:BA:2712(A):A:H5''	24:BA:2713:A:OP2	1.95	0.65
20:CW:83:ARG:CA	20:CW:86:ARG:HB3	2.27	0.65
27:BE:23:VAL:HA	27:BE:184:VAL:O	1.96	0.65
54:DA:1639:U:C2'	54:DA:1640:C:H5''	2.25	0.65
11:CN:103:LEU:HD22	11:CN:103:LEU:H	1.62	0.65
15:AR:89:GLY:HA3	24:BA:716:A:OP1	1.97	0.65
26:BD:139:GLY:H	26:BD:165:ILE:HB	1.62	0.65
6:CI:96:PRO:HB3	18:CU:30:ASP:OD2	1.95	0.65
1:CA:1493:A:H2'	54:DA:1913:A:N1	2.09	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:335:C:H2'	1:AA:336:C:H6	1.61	0.65
54:DA:405:U:O2	54:DA:405:U:H2'	1.96	0.65
29:BG:146:TYR:O	29:BG:149:VAL:HG22	1.97	0.65
24:BA:1372:U:C5	24:BA:1373:A:N7	2.65	0.65
54:DA:2751:G:O5'	54:DA:2751:G:H8	1.80	0.65
1:CA:1228:C:OP1	13:CP:115:LYS:HE3	1.97	0.65
3:CF:70:VAL:HG12	3:CF:71:ALA:N	2.10	0.65
34:DO:113:LYS:HG2	34:DO:115:LEU:HD23	1.79	0.65
2:AE:177:ALA:C	2:AE:179:LYS:H	2.00	0.65
34:BO:57:THR:HG21	34:BO:60:MET:HB2	1.76	0.65
47:DW:69:ARG:HB2	47:DW:69:ARG:NH1	2.11	0.65
26:DD:27:THR:CG2	26:DD:28:GLU:H	2.08	0.65
38:DR:11:GLU:OE1	38:DR:11:GLU:N	2.27	0.65
1:CA:192:U:C4'	20:CW:103:GLY:HA2	2.27	0.65
44:DV:72:ARG:CB	44:DV:72:ARG:HH11	2.09	0.65
15:CR:8:LYS:O	15:CR:12:ILE:HG13	1.96	0.65
11:AN:110:ASP:HB3	18:AU:85:LEU:HD11	1.76	0.65
54:DA:860:U:C5	54:DA:917:A:H2	2.14	0.65
40:B2:44:LYS:C	40:B2:46:VAL:H	1.99	0.65
34:DO:6:LEU:O	34:DO:7:ARG:HG2	1.96	0.65
3:CF:101:LEU:HD23	3:CF:102:ASN:N	2.11	0.65
7:CJ:11:GLN:O	7:CJ:12:LEU:HD13	1.97	0.65
1:CA:625:G:H2'	1:CA:626:U:C6	2.30	0.65
24:BA:199:A:H4'	24:BA:200:U:OP1	1.95	0.65
4:AG:165:MET:CE	4:AG:168:ARG:HB2	2.27	0.65
1:CA:1385:G:O2'	1:CA:1386:G:H5'	1.97	0.65
3:AF:34:LEU:HD13	14:AQ:25:VAL:HG11	1.77	0.65
17:AT:81:ARG:CZ	17:AT:84:LEU:HD11	2.26	0.65
22:AD:66:C:H5'	22:AD:66:C:H6	1.60	0.65
24:BA:1074:G:H2'	24:BA:1075:C:C6	2.31	0.65
1:AA:1187:G:H21	14:AQ:60:SER:HB3	1.61	0.65
25:BB:44:G:N7	49:B4:1:MET:SD	2.70	0.65
11:AN:13:GLN:N	11:AN:13:GLN:OE1	2.30	0.65
43:DU:99:CYS:SG	43:DU:100:ALA:N	2.69	0.65
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.31	0.65
34:BO:80:TYR:CD1	34:BO:111:ARG:HB3	2.31	0.65
2:CE:67:THR:HG21	2:CE:155:LEU:CD2	2.27	0.65
2:CE:75:LYS:HA	2:CE:78:GLN:HE21	1.60	0.65
34:DO:97:PRO:HD3	34:DO:126:VAL:O	1.97	0.65
52:B7:8:ASN:HD22	52:B7:9:ARG:N	1.95	0.65
1:CA:923:A:OP1	5:CH:21:ALA:HB2	1.97	0.65
24:BA:1778:U:H2'	24:BA:1784:A:N6	2.12	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:17:PHE:HD2	2:CE:44:LEU:HD21	1.61	0.65
24:BA:242:G:H5''	53:B8:62:LEU:CD1	2.22	0.65
54:DA:1006:C:H1'	32:DM:106:MET:CE	2.26	0.65
30:BH:152:ARG:HE	30:BH:153:LYS:HD3	1.60	0.65
27:DE:201:THR:HG22	27:DE:203:LYS:N	2.07	0.65
54:DA:2723:C:H5''	36:D0:1:MET:HG2	1.78	0.65
29:BG:72:ARG:HG3	29:BG:72:ARG:HH11	1.59	0.65
38:BR:8:LYS:C	38:BR:10:VAL:H	1.99	0.65
2:CE:87:ARG:HH11	2:CE:223:ILE:CD1	2.09	0.65
2:CE:87:ARG:O	2:CE:87:ARG:HD2	1.95	0.65
44:BV:39:VAL:HG23	44:BV:40:ASP:N	2.11	0.65
27:DE:10:GLY:H	27:DE:25:VAL:HG23	1.59	0.65
3:AF:91:LEU:CD1	3:AF:91:LEU:H	2.07	0.65
55:DB:12:C:H4'	55:DB:13:A:H5''	1.79	0.65
24:BA:388:G:OP1	46:BZ:31:GLY:HA2	1.96	0.65
54:DA:1396:U:H5''	54:DA:1397:U:OP2	1.97	0.65
1:CA:321:A:N6	1:CA:328:C:O2'	2.30	0.65
7:AJ:32:ARG:O	7:AJ:33:ASP:HB2	1.95	0.65
44:BV:165:VAL:HG13	44:BV:166:SER:N	2.12	0.65
54:DA:2340:G:O2'	54:DA:2341:G:H5'	1.95	0.65
24:BA:1062:G:H2'	24:BA:1063:G:H8	1.62	0.65
54:DA:34:C:H5	54:DA:447:A:H61	1.45	0.65
32:BM:71:ILE:HD12	32:BM:71:ILE:H	1.62	0.65
11:AN:86:GLY:H	11:AN:112:THR:HG23	1.62	0.65
46:DZ:82:LEU:CD1	46:DZ:83:GLU:C	2.64	0.65
13:AP:56:LEU:O	13:AP:56:LEU:HD13	1.97	0.65
19:AV:45:VAL:O	19:AV:62:ILE:HB	1.96	0.65
1:AA:1131:G:O2'	1:AA:1132:C:H5'	1.97	0.65
10:AM:9:ARG:HG2	10:AM:69:ASN:OD1	1.96	0.65
54:DA:1053:C:H2'	54:DA:1054:A:H5''	1.79	0.65
1:CA:973:G:O4'	10:CM:55:LYS:HG2	1.96	0.65
1:CA:1223:C:P	19:CV:78:ARG:HH12	2.20	0.65
54:DA:1485:G:H8	54:DA:1485:G:H5'	1.61	0.65
2:AE:22:LYS:HA	2:AE:40:HIS:HE1	1.62	0.65
53:D8:52:LYS:O	53:D8:52:LYS:HG3	1.97	0.65
51:B6:15:GLU:CD	51:B6:44:ARG:HH12	2.00	0.65
30:BH:86:GLU:O	30:BH:132:ARG:HA	1.96	0.65
54:DA:389:G:H22	34:DO:72:PRO:HG2	1.61	0.65
24:BA:2391:G:O2'	24:BA:2392:A:OP2	2.11	0.65
47:BW:33:MET:HG2	47:BW:37:PHE:CE1	2.28	0.65
20:CW:44:ALA:HB2	20:CW:88:VAL:HG13	1.78	0.65
31:DK:67:ARG:HE	31:DK:68:LEU:N	1.93	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AI:72:VAL:HG13	6:AI:73:ASN:N	2.10	0.65
46:BZ:3:LYS:H	46:BZ:61:ARG:HH22	1.44	0.65
46:BZ:53:VAL:HB	46:BZ:58:ILE:HD12	1.79	0.65
44:BV:165:VAL:HG22	44:BV:166:SER:H	1.62	0.65
54:DA:270(K):C:O2'	54:DA:270(L):U:H5''	1.97	0.65
18:CU:73:ALA:HB3	18:CU:79:LEU:HD12	1.78	0.65
4:AG:49:ARG:HE	4:AG:49:ARG:HA	1.60	0.65
54:DA:13:A:O2'	54:DA:15:G:N7	2.30	0.65
8:AK:103:VAL:CG2	8:AK:110:ALA:HB2	2.27	0.65
32:BM:46:VAL:O	32:BM:47:ALA:HB3	1.97	0.65
38:DR:22:PHE:N	38:DR:22:PHE:CD2	2.63	0.65
54:DA:74:A:H5'	54:DA:75:G:O4'	1.96	0.65
54:DA:213:A:H2'	54:DA:214:G:O4'	1.95	0.65
24:BA:17:G:H4'	39:B1:25:TRP:CH2	2.32	0.65
30:DH:128:PRO:CD	30:DH:129:THR:H	2.09	0.65
37:BQ:59:LYS:HG2	37:BQ:60:GLY:H	1.59	0.65
19:AV:36:ARG:HH11	19:AV:71:LEU:C	2.00	0.65
1:AA:1305:G:OP2	21:AX:2:GLY:HA2	1.96	0.65
53:D8:56:GLU:N	53:D8:56:GLU:OE1	2.30	0.65
30:BH:136:ILE:HD12	30:BH:136:ILE:N	2.11	0.65
26:DD:44:ASN:HB3	26:DD:49:ILE:HG22	1.78	0.65
19:CV:3:ARG:CZ	19:CV:8:GLY:HA2	2.26	0.65
1:CA:1003:G:H21	1:CA:1005:A:P	2.20	0.65
54:DA:2068:U:N3	54:DA:2430:A:H2	1.85	0.65
35:BP:141:GLN:HB2	44:BV:73:GLN:HG2	1.77	0.65
37:BQ:99:LYS:O	37:BQ:103:GLU:HG2	1.97	0.65
13:CP:51:ALA:O	13:CP:55:ARG:HG3	1.97	0.65
38:BR:8:LYS:O	38:BR:10:VAL:N	2.30	0.65
1:AA:1346:A:C6	7:AJ:10:ARG:NH1	2.64	0.65
47:BW:38:GLN:HB3	47:BW:44:LEU:O	1.96	0.65
23:A1:13:A:N3	23:A1:13:A:H3'	2.11	0.65
4:AG:129:ASN:HD22	4:AG:129:ASN:H	1.45	0.65
28:BF:84:VAL:HG12	28:BF:85:GLY:N	2.11	0.65
1:CA:243:A:O2'	1:CA:244:U:OP2	2.15	0.65
54:DA:2126:A:O2'	54:DA:2127:G:H8	1.80	0.65
24:BA:1496:A:C8	24:BA:1577:C:O2'	2.44	0.65
24:BA:1496:A:H8	24:BA:1577:C:O2'	1.68	0.65
22:CD:67:C:O2'	22:CD:68:C:H5'	1.97	0.65
22:CD:7:G:H5''	22:CD:8:U:OP2	1.97	0.65
2:AE:172:ILE:H	2:AE:172:ILE:HD12	1.62	0.65
12:CO:48:PRO:CD	12:CO:49:ASN:H	2.10	0.65
24:BA:2328:A:H2'	24:BA:2329:G:H8	1.61	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:481:G:H4'	1:AA:482:A:OP1	1.97	0.65
25:BB:12:C:H4'	25:BB:13:A:OP1	1.97	0.65
2:CE:164:VAL:HB	2:CE:186:ALA:HB2	1.78	0.65
24:BA:791:C:H4'	24:BA:792:G:OP1	1.96	0.65
1:AA:1250:A:H4'	9:AL:67:GLY:HA2	1.78	0.65
44:DV:45:ASP:O	44:DV:49:ARG:HG2	1.97	0.65
24:BA:1827:C:O2'	24:BA:1828:G:H5'	1.97	0.65
10:AM:40:LEU:CG	10:AM:41:PRO:HD2	2.25	0.65
40:B2:59:ALA:HB2	40:B2:96:ILE:HD13	1.78	0.65
24:BA:1151:G:H2'	24:BA:1152:C:C6	2.32	0.65
46:BZ:91:LYS:C	46:BZ:93:GLU:H	1.99	0.65
34:DO:138:LEU:HD11	34:DO:144:GLU:HG3	1.79	0.65
27:BE:57:LYS:HE2	27:BE:57:LYS:H	1.62	0.65
39:D1:74:LEU:HD23	39:D1:114:LYS:HD3	1.78	0.65
32:DM:43:THR:HB	32:DM:46:VAL:CG1	2.27	0.65
1:CA:179:A:O2'	1:CA:180:U:H5'	1.96	0.65
54:DA:775:G:H4'	54:DA:776:G:O5'	1.97	0.65
18:AU:31:LEU:HD13	18:AU:65:ILE:HD13	1.79	0.65
54:DA:2372:G:H4'	51:D6:46:HIS:NE2	2.12	0.65
1:AA:1346:A:N6	7:AJ:10:ARG:HH12	1.95	0.65
4:CG:13:ARG:HH22	4:CG:36:ARG:NH2	1.94	0.65
16:CS:21:VAL:HG23	16:CS:33:ILE:HB	1.78	0.65
19:AV:83:HIS:O	19:AV:85:LYS:N	2.29	0.65
26:DD:237:GLU:N	26:DD:237:GLU:OE1	2.29	0.65
5:CH:41:VAL:HG12	5:CH:112:LEU:O	1.97	0.65
19:CV:21:GLU:O	19:CV:25:LYS:HB3	1.97	0.65
24:BA:329:G:C5	43:BU:19:LYS:HG2	2.32	0.65
54:DA:2277:G:OP1	35:DP:85:LYS:HB2	1.97	0.65
13:CP:13:LYS:HA	13:CP:44:ARG:HD2	1.77	0.65
16:CS:6:LEU:HD23	16:CS:17:TYR:CD2	2.32	0.65
12:CO:115:LYS:O	12:CO:117:ARG:HG3	1.96	0.65
27:BE:176:ILE:HB	27:BE:181:LEU:HB2	1.77	0.65
24:BA:67:U:C2	24:BA:68:G:C8	2.84	0.65
1:AA:598:U:H2'	1:AA:599:C:H6	1.60	0.65
15:AR:17:ARG:NH1	15:AR:77:ARG:NH1	2.45	0.65
6:CI:98:LEU:HB3	18:CU:30:ASP:HA	1.79	0.65
24:BA:1275:A:H4'	24:BA:1276:A:O5'	1.94	0.65
24:BA:2879:C:H4'	24:BA:2880:C:OP1	1.97	0.65
26:DD:176:ARG:HG2	26:DD:176:ARG:HH11	1.60	0.65
47:BW:15:LYS:HA	47:BW:67:LYS:HZ1	1.61	0.65
1:CA:1200:C:H4'	1:CA:1201:A:H5''	1.79	0.64
19:CV:65:ASN:HD22	19:CV:65:ASN:N	1.94	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AE:17:PHE:CG	2:AE:42:ILE:HG12	2.31	0.64
1:CA:1004:A:O5'	1:CA:1025:U:O4	2.16	0.64
27:BE:4:ILE:HD11	27:BE:96:PHE:HE2	1.61	0.64
36:D0:28:LEU:HD21	36:D0:114:VAL:HG12	1.79	0.64
55:DB:45:A:OP1	29:DG:96:ARG:HD2	1.98	0.64
24:BA:1729:A:N6	24:BA:1731:G:O6	2.31	0.64
54:DA:1879:C:C2'	54:DA:1880:C:H5''	2.27	0.64
19:CV:21:GLU:HG3	19:CV:22:LEU:N	2.11	0.64
1:CA:1348:U:N3	1:CA:1374:A:H2	1.94	0.64
34:BO:71:VAL:HG13	34:BO:72:PRO:HD3	1.80	0.64
4:CG:122:ARG:HD3	4:CG:122:ARG:O	1.97	0.64
15:CR:74:ASP:OD1	15:CR:77:ARG:N	2.30	0.64
26:DD:77:ALA:HB2	26:DD:97:TYR:HA	1.77	0.64
54:DA:1364:G:N7	46:DZ:2:SER:N	2.45	0.64
1:CA:498:A:O2'	1:CA:500:G:O5'	2.14	0.64
25:BB:15:A:H3'	25:BB:16:G:H5'	1.80	0.64
61:C1:103:A:O2'	54:DA:1913:A:N1	2.30	0.64
24:BA:357:A:H2'	24:BA:358:U:C6	2.31	0.64
35:DP:23:GLY:HA3	35:DP:101:ARG:NH1	2.12	0.64
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.32	0.64
1:AA:10:A:H2'	1:AA:11:G:H8	1.61	0.64
17:CT:11:VAL:HG23	17:CT:20:THR:HB	1.79	0.64
39:B1:59:ARG:O	39:B1:63:VAL:HG23	1.96	0.64
55:DB:55:U:H2'	55:DB:56:G:O4'	1.97	0.64
1:CA:1104:G:H4'	2:CE:111:ARG:NH1	2.12	0.64
1:AA:1129:C:C4	1:AA:1139:G:C2	2.85	0.64
54:DA:704:G:H1'	54:DA:727:A:N6	2.12	0.64
40:B2:35:LEU:HD13	40:B2:35:LEU:N	2.12	0.64
2:AE:47:THR:O	2:AE:51:LEU:HG	1.97	0.64
35:DP:81:VAL:O	35:DP:82:ARG:HG2	1.97	0.64
25:BB:75:G:H1	25:BB:102:G:N2	1.95	0.64
1:AA:1160:G:C6	1:AA:1177:G:N2	2.65	0.64
3:CF:34:LEU:HD21	3:CF:38:ARG:HD2	1.79	0.64
24:BA:1033:U:O2'	24:BA:1034:G:H5''	1.96	0.64
4:AG:196:LEU:H	4:AG:196:LEU:CD1	2.09	0.64
1:AA:321:A:O2'	1:AA:322:C:H5'	1.98	0.64
1:CA:451:A:N7	1:CA:481:G:C2	2.65	0.64
54:DA:2119:A:N6	54:DA:2170:A:N6	2.45	0.64
22:AD:19:G:C6	24:BA:2112:G:H1'	2.32	0.64
40:D2:76:LYS:HB2	40:D2:81:TYR:HB3	1.79	0.64
14:CQ:7:ILE:HG13	14:CQ:8:GLU:N	2.12	0.64
12:CO:39:VAL:HB	12:CO:57:LYS:HB2	1.79	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AN:95:ILE:HG23	11:AN:108:ILE:HD11	1.79	0.64
1:CA:335:C:H2'	1:CA:336:C:C6	2.31	0.64
54:DA:2336:A:H61	45:D3:43:THR:CG2	2.10	0.64
1:CA:859:A:H2'	1:CA:860:A:O4'	1.96	0.64
34:BO:65:ARG:HG3	34:BO:65:ARG:NH1	2.11	0.64
24:BA:565:C:H4'	24:BA:1253:A:N6	2.12	0.64
4:CG:61:LYS:HD2	4:CG:206:PHE:CE2	2.32	0.64
24:BA:863:A:O2'	24:BA:864:G:H5'	1.97	0.64
24:BA:1177:A:H5'	24:BA:1178:C:OP1	1.97	0.64
24:BA:2870:C:H2'	24:BA:2871:C:H5'	1.79	0.64
54:DA:470:A:H8	54:DA:470:A:H5'	1.62	0.64
1:AA:973:G:H1'	10:AM:55:LYS:CD	2.27	0.64
13:AP:81:LEU:HD12	13:AP:81:LEU:N	2.09	0.64
54:DA:1053:C:C3'	54:DA:1054:A:H5''	2.28	0.64
24:BA:1116:C:H2'	24:BA:1117:G:C8	2.32	0.64
34:BO:96:THR:O	34:BO:100:LEU:HD23	1.98	0.64
24:BA:997:G:OP1	39:B1:93:LYS:HD3	1.97	0.64
1:AA:797:C:O2'	1:AA:798:G:H5'	1.95	0.64
27:BE:78:LEU:CD2	27:BE:78:LEU:N	2.61	0.64
29:DG:114:ILE:CG2	29:DG:117:PHE:HB2	2.27	0.64
4:AG:29:PRO:CG	4:AG:30:LYS:N	2.58	0.64
37:DQ:78:LEU:HD11	37:DQ:107:GLU:O	1.98	0.64
54:DA:1126:A:H4'	54:DA:1127:A:O5'	1.97	0.64
25:BB:6:C:O2'	37:BQ:29:PHE:HE1	1.81	0.64
40:B2:78:LYS:O	40:B2:79:VAL:HG13	1.97	0.64
12:AO:117:ARG:NH2	12:AO:124:LYS:HA	2.12	0.64
47:BW:42:GLY:O	47:BW:44:LEU:N	2.30	0.64
5:CH:50:GLU:HG3	5:CH:52:PRO:HD2	1.79	0.64
10:AM:6:ILE:CG2	10:AM:98:ILE:HG23	2.27	0.64
5:CH:41:VAL:CG1	5:CH:113:ALA:HB2	2.25	0.64
54:DA:1879:C:H2'	54:DA:1880:C:C5'	2.27	0.64
29:DG:81:LYS:O	29:DG:82:LEU:HB2	1.96	0.64
30:DH:105:LEU:H	30:DH:105:LEU:CD1	2.09	0.64
24:BA:1999:C:H4'	24:BA:2723:C:O2	1.98	0.64
14:CQ:26:ARG:NE	14:CQ:47:LEU:HD21	2.13	0.64
54:DA:2517:C:C2	54:DA:2542:A:N6	2.64	0.64
15:CR:25:THR:HG21	15:CR:70:LEU:HB2	1.77	0.64
54:DA:2584:U:C6	54:DA:2585:U:N3	2.64	0.64
24:BA:1912:A:N6	24:BA:1918:A:H1'	2.13	0.64
1:CA:713:G:H21	1:CA:777:A:C1'	2.09	0.64
22:CD:28:C:H2'	22:CD:29:G:C8	2.32	0.64
54:DA:74:A:H4'	54:DA:75:G:O5'	1.98	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:67:C:H2'	1:AA:68:G:H8	1.61	0.64
41:DS:25:ARG:NH1	41:DS:25:ARG:HB2	2.11	0.64
41:DS:59:VAL:HG12	41:DS:60:ASN:N	2.11	0.64
54:DA:1791:A:N6	54:DA:1828:G:O2'	2.30	0.64
7:AJ:73:MET:HG2	7:AJ:90:GLU:HA	1.79	0.64
12:CO:21:LYS:HD2	12:CO:21:LYS:N	2.11	0.64
17:AT:78:GLU:O	17:AT:78:GLU:HG3	1.95	0.64
54:DA:2327:A:H2'	54:DA:2328:A:C8	2.32	0.64
30:DH:117:PRO:HB3	30:DH:123:PHE:CE1	2.33	0.64
1:AA:1320:C:H2'	1:AA:1321:C:H6	1.63	0.64
19:AV:67:VAL:HG21	49:B4:59:PHE:HB3	1.79	0.64
31:DK:120:ILE:HD11	31:DK:126:TYR:CZ	2.32	0.64
31:DK:77:LEU:HD11	31:DK:140:LEU:HD12	1.79	0.64
24:BA:1359:A:O2'	24:BA:1360:A:O5'	2.16	0.64
10:CM:54:PHE:C	10:CM:55:LYS:HG3	2.18	0.64
13:CP:23:TYR:CB	13:CP:67:GLU:HG2	2.25	0.64
34:DO:98:GLU:O	34:DO:101:VAL:HG12	1.98	0.64
2:AE:33:TYR:HB3	2:AE:41:ILE:O	1.97	0.64
54:DA:1173:G:H1'	54:DA:1175:U:C5	2.33	0.64
26:BD:117:VAL:HG22	26:BD:118:VAL:N	2.10	0.64
21:CX:25:LYS:HE2	21:CX:26:LYS:O	1.96	0.64
51:B6:9:LEU:HD13	51:B6:10:LEU:N	2.13	0.64
22:AD:50:U:H2'	22:AD:51:C:C6	2.33	0.64
43:BU:63:LYS:HZ2	43:BU:63:LYS:HA	1.61	0.64
49:D4:36:CYS:O	49:D4:37:SER:O	2.14	0.64
49:D4:37:SER:C	49:D4:39:CYS:H	1.98	0.64
30:BH:103:LEU:HD22	30:BH:123:PHE:CZ	2.32	0.64
54:DA:649:G:H2'	54:DA:650:C:H6	1.61	0.64
54:DA:1826:G:H4'	26:DD:242:ARG:NH2	2.10	0.64
54:DA:2161:C:H2'	54:DA:2162:G:H5'	1.79	0.64
48:BX:8:LEU:HD11	48:BX:31:LEU:HD12	1.80	0.64
11:CN:19:ALA:HA	11:CN:32:ILE:HG22	1.80	0.64
35:BP:43:THR:OG1	35:BP:46:GLN:HG3	1.96	0.64
47:DW:40:SER:C	47:DW:42:GLY:H	2.01	0.64
38:BR:55:ASN:H	38:BR:59:THR:HG22	1.60	0.64
8:CK:20:TYR:CE2	8:CK:75:ARG:HD2	2.32	0.64
2:AE:15:VAL:HG21	2:AE:209:ARG:C	2.18	0.64
1:AA:1017:G:H2'	1:AA:1018:C:C6	2.30	0.64
1:AA:1541:U:C6	1:AA:1541:U:C3'	2.80	0.64
1:AA:1033:G:H2'	1:AA:1034:G:C8	2.32	0.64
34:BO:14:LYS:O	34:BO:15:ARG:C	2.35	0.64
12:CO:25:PRO:C	12:CO:27:LEU:H	1.98	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:B1:25:TRP:O	39:B1:28:ARG:HB2	1.98	0.64
1:AA:1294:G:O2'	1:AA:1295:G:H5'	1.98	0.64
39:D1:102:GLU:HG3	40:D2:2:PHE:HE2	1.62	0.64
6:AI:7:ASN:C	6:AI:8:ILE:HD12	2.17	0.64
26:BD:146:GLU:HG2	26:BD:152:GLY:O	1.97	0.64
27:BE:108:SER:HB3	27:BE:165:VAL:HG21	1.77	0.64
34:BO:138:LEU:C	34:BO:140:ALA:H	2.01	0.64
24:BA:963:U:O2'	24:BA:964:C:H5'	1.97	0.64
32:BM:13:TRP:O	32:BM:14:VAL:HG23	1.97	0.64
19:AV:53:ASN:HB2	19:AV:77:THR:HG22	1.79	0.64
7:AJ:121:ALA:O	7:AJ:125:MET:HG3	1.97	0.64
22:AC:71:C:O2'	22:AC:72:A:H5'	1.97	0.64
8:CK:42:GLU:HG3	8:CK:109:ILE:HD12	1.80	0.64
1:CA:1112:C:H1'	3:CF:179:ARG:HH11	1.62	0.64
53:B8:48:PHE:N	53:B8:48:PHE:CD1	2.65	0.64
30:BH:7:LEU:HD13	30:BH:52:VAL:HG11	1.79	0.64
43:DU:56:PRO:HG2	43:DU:57:GLN:OE1	1.98	0.64
1:CA:684:A:H2'	1:CA:685:G:C8	2.31	0.64
53:B8:34:TRP:C	53:B8:36:LYS:H	1.98	0.64
1:AA:5:U:O2'	1:AA:6:G:OP2	2.13	0.64
24:BA:2443:C:H2'	24:BA:2444:G:H8	1.61	0.64
12:AO:124:LYS:NZ	12:AO:124:LYS:HB2	2.12	0.64
54:DA:2158:A:H5''	54:DA:2159:G:OP1	1.97	0.64
24:BA:805:G:H4'	24:BA:806:C:OP2	1.96	0.64
40:B2:60:GLU:OE2	40:B2:97:LYS:HD2	1.97	0.64
54:DA:1784:A:H4'	54:DA:1785:A:C5'	2.26	0.64
42:DT:57:LEU:HD12	42:DT:78:LYS:HB2	1.77	0.64
1:AA:843:U:H5'	1:AA:848:C:C6	2.32	0.64
54:DA:2347:C:OP1	51:D6:39:TYR:CE2	2.50	0.64
10:AM:6:ILE:HA	10:AM:97:GLU:O	1.97	0.64
50:D5:40:LYS:HD3	50:D5:46:CYS:CB	2.26	0.64
24:BA:273(F):C:H3'	24:BA:274:G:C5'	2.25	0.64
29:DG:82:LEU:HA	29:DG:86:MET:SD	2.38	0.64
31:DK:116:LEU:O	31:DK:118:LYS:N	2.29	0.64
24:BA:1885:A:H5''	24:BA:1886:C:C5	2.32	0.64
28:DF:11:VAL:HG12	28:DF:12:LEU:N	2.13	0.64
29:BG:55:LYS:O	29:BG:59:GLU:HB2	1.98	0.64
1:AA:482:A:N3	1:AA:482:A:H2'	2.11	0.64
28:DF:175:THR:O	28:DF:176:LEU:HB2	1.95	0.64
5:CH:83:GLU:HG2	5:CH:88:LYS:HG3	1.78	0.64
1:CA:1211:U:H5'	1:CA:1212:U:OP1	1.97	0.64
22:AC:66:C:H2'	22:AC:67:C:C6	2.31	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:51:ARG:HH11	30:DH:51:ARG:HG3	1.61	0.64
3:AF:126:ARG:C	3:AF:127:ARG:HD2	2.18	0.64
31:BK:76:THR:OG1	31:BK:140:LEU:HD13	1.97	0.64
53:B8:23:VAL:CG1	53:B8:47:LYS:HB3	2.28	0.64
13:AP:88:ARG:HG3	13:AP:98:VAL:CG1	2.28	0.64
9:AL:27:THR:OG1	9:AL:28:VAL:N	2.30	0.64
24:BA:1201:C:O2'	24:BA:1202:C:H5'	1.98	0.64
28:BF:46:ARG:HH11	28:BF:46:ARG:HG2	1.63	0.64
30:DH:3:ARG:HA	30:DH:3:ARG:NE	2.12	0.64
1:CA:983:A:HO2'	1:CA:1049:U:HO2'	1.46	0.64
49:D4:49:PHE:O	49:D4:50:VAL:HG23	1.97	0.64
25:BB:55:U:H2'	25:BB:56:G:O4'	1.98	0.64
33:DN:12:ASP:OD1	33:DN:14:THR:HG23	1.97	0.64
44:BV:10:ARG:HD3	44:BV:37:VAL:O	1.97	0.64
29:BG:67:LYS:HD3	49:B4:5:ILE:CG2	2.27	0.64
44:BV:59:LEU:HG	44:BV:60:GLU:H	1.61	0.64
1:CA:940:C:O2'	1:CA:941:G:H5'	1.97	0.64
54:DA:1965:C:H2'	54:DA:1966:A:H8	1.63	0.64
4:AG:24:GLU:H	4:AG:27:TYR:CB	2.11	0.64
24:BA:1542:G:H3'	24:BA:1543:A:H5''	1.79	0.64
1:AA:1005:A:O2'	1:AA:1037:C:H1'	1.98	0.64
54:DA:1871:A:H2'	54:DA:1872:A:C8	2.32	0.64
54:DA:1864:U:H2'	54:DA:1869:G:H5''	1.79	0.64
24:BA:194:G:C2'	24:BA:195:A:H5'	2.28	0.64
1:AA:57:G:H2'	1:AA:58:C:C6	2.33	0.64
1:AA:737:A:H2'	1:AA:738:C:C6	2.32	0.64
54:DA:871:U:C2'	54:DA:871:U:O2	2.45	0.64
1:AA:1288:A:H2'	1:AA:1289:A:C8	2.32	0.64
16:CS:51:VAL:HG21	16:CS:77:ALA:HB2	1.78	0.64
1:CA:328:C:H4'	1:CA:329:A:H5'	1.80	0.64
24:BA:2584:U:C5	24:BA:2585:U:C5	2.86	0.64
24:BA:864:G:H21	24:BA:866:A:H61	1.43	0.64
4:AG:90:GLY:O	4:AG:93:PHE:HB3	1.97	0.64
24:BA:1504:C:H2'	24:BA:1505:C:H5''	1.78	0.64
31:DK:99:GLU:HG2	31:DK:103:ARG:NH2	2.11	0.64
25:BB:12:C:H4'	25:BB:13:A:H5''	1.80	0.64
1:CA:715:A:H2'	1:CA:716:A:C8	2.33	0.64
37:BQ:28:VAL:HG11	37:BQ:98:VAL:HG12	1.78	0.64
30:DH:92:ILE:HD12	30:DH:92:ILE:H	1.63	0.64
13:AP:102:ARG:NH1	13:AP:105:THR:HG23	2.12	0.64
24:BA:2759:G:H5'	24:BA:2759:G:C8	2.33	0.64
43:DU:86:ARG:O	43:DU:92:ASN:HB2	1.97	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:34:LEU:CD1	13:AP:41:PRO:HB3	2.27	0.64
19:AV:6:LYS:HG2	19:AV:7:LYS:H	1.63	0.64
13:AP:3:ARG:O	49:B4:34:GLU:HG3	1.97	0.64
44:BV:94:GLU:HG3	44:BV:129:SER:HB3	1.80	0.64
30:BH:59:ARG:HG3	30:BH:59:ARG:HH11	1.62	0.64
30:BH:89:ILE:CD1	30:BH:90:LYS:H	2.10	0.64
32:DM:15:LEU:HD12	32:DM:136:GLU:HB2	1.79	0.64
46:BZ:97:LEU:HD12	46:BZ:98:LEU:H	1.62	0.64
26:BD:95:LEU:HD12	26:BD:103:ARG:O	1.97	0.64
40:B2:86:GLY:O	40:B2:87:HIS:O	2.16	0.64
1:CA:99:C:H2'	1:CA:101:A:C8	2.33	0.64
1:CA:1023:G:H2'	1:CA:1024:G:H5''	1.79	0.64
54:DA:2791:C:H5'	54:DA:2792:G:OP1	1.98	0.64
5:AH:90:VAL:O	5:AH:120:THR:HA	1.98	0.64
33:DN:7:TYR:CE1	33:DN:20:MET:HB2	2.32	0.64
1:CA:1158:C:H4'	2:CE:133:LYS:HZ1	1.61	0.64
28:DF:155:LEU:HD13	28:DF:174:VAL:CG1	2.27	0.64
8:CK:97:VAL:HG13	8:CK:98:LYS:N	2.13	0.64
24:BA:668:G:H2'	24:BA:670:A:H62	1.61	0.64
46:DZ:29:GLY:O	46:DZ:30:VAL:HG23	1.97	0.64
54:DA:2199:A:H3'	54:DA:2205:C:H6	1.63	0.64
45:D3:68:GLU:HG2	45:D3:80:HIS:HB2	1.79	0.64
40:D2:43:GLU:OE2	40:D2:43:GLU:HA	1.95	0.64
27:DE:69:LYS:O	27:DE:71:GLY:N	2.27	0.64
44:BV:100:VAL:O	44:BV:124:ILE:HG22	1.97	0.64
1:CA:1106:G:H5''	3:CF:172:ARG:HG2	1.79	0.64
26:BD:176:ARG:HG2	26:BD:176:ARG:HH11	1.62	0.64
20:AW:89:ARG:HB2	20:AW:104:LEU:HD21	1.80	0.64
19:AV:11:VAL:HB	19:AV:16:LEU:HD21	1.80	0.64
39:B1:110:VAL:HG12	39:B1:114:LYS:HD2	1.80	0.64
54:DA:889:C:H2'	54:DA:890:A:C4	2.33	0.64
2:CE:187:LEU:HD12	2:CE:205:ASP:HA	1.79	0.64
51:B6:42:TRP:CG	51:B6:43:CYS:N	2.65	0.64
4:AG:12:CYS:CA	4:AG:21:LEU:HD22	2.28	0.64
39:D1:92:ARG:O	39:D1:94:ASN:N	2.25	0.64
28:DF:46:ARG:HG2	28:DF:46:ARG:NH1	2.00	0.64
36:D0:2:ARG:HG2	36:D0:5:LYS:NZ	2.13	0.64
9:AL:9:ARG:O	9:AL:104:ARG:HG3	1.97	0.64
49:D4:35:VAL:O	49:D4:37:SER:N	2.26	0.64
24:BA:1948:G:H2'	24:BA:1949:G:H5'	1.79	0.64
24:BA:2867:G:O2'	24:BA:2868:A:H8	1.80	0.64
3:AF:23:TYR:N	3:AF:23:TYR:CD1	2.65	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:790:C:O2'	54:DA:791:C:OP1	2.15	0.64
10:CM:27:ALA:CB	10:CM:34:VAL:HG21	2.26	0.64
54:DA:2309:A:H2'	54:DA:2310:A:O4'	1.98	0.64
27:DE:104:VAL:HG11	27:DE:188:VAL:CG2	2.27	0.64
18:CU:43:PHE:CE2	18:CU:58:LEU:HD11	2.31	0.64
31:BK:130:TYR:O	31:BK:136:VAL:HG12	1.98	0.64
24:BA:813:U:H2'	24:BA:814:C:H6	1.62	0.64
24:BA:2329:G:H2'	24:BA:2330:G:C8	2.33	0.64
24:BA:2537:U:H2'	24:BA:2538:C:H6	1.60	0.64
6:AI:35:ALA:HA	6:AI:67:MET:HB3	1.79	0.64
2:CE:25:ASN:O	2:CE:27:LYS:N	2.28	0.64
1:AA:335:C:H2'	1:AA:336:C:C6	2.32	0.64
54:DA:404:C:H4'	54:DA:405:U:O5'	1.98	0.64
24:BA:723:G:H2'	24:BA:724:U:C6	2.32	0.64
2:CE:134:GLU:HA	2:CE:137:ARG:HB3	1.80	0.64
16:CS:58:TYR:O	16:CS:62:VAL:HG22	1.96	0.64
24:BA:2065:C:H2'	24:BA:2066:C:O4'	1.97	0.64
48:BX:9:VAL:HG12	48:BX:32:GLN:OE1	1.97	0.64
1:CA:1054:C:N4	59:CA:1605:C:H1'	2.13	0.64
1:CA:1305:G:O2'	1:CA:1306:A:C8	2.51	0.64
14:CQ:18:VAL:HG23	14:CQ:19:ARG:H	1.63	0.64
3:CF:181:ASN:ND2	3:CF:204:LEU:HB2	2.13	0.64
30:DH:148:ILE:O	30:DH:151:ILE:HG12	1.98	0.64
26:DD:122:ASP:CG	26:DD:123:ALA:H	2.00	0.64
54:DA:1173:G:N3	54:DA:1175:U:C5	2.65	0.64
54:DA:2014:A:O2'	50:D5:2:ALA:HB2	1.98	0.64
24:BA:1225:C:C3'	40:B2:85:LYS:HB2	2.28	0.64
35:DP:81:VAL:O	35:DP:82:ARG:HD3	1.98	0.64
44:BV:35:ARG:HH12	44:BV:61:LEU:HD21	1.61	0.64
35:DP:134:ARG:NE	44:DV:122:ARG:HH22	1.94	0.64
34:BO:47:ASP:OD2	34:BO:49:ARG:N	2.31	0.64
37:DQ:26:LEU:HD22	37:DQ:87:PHE:HD1	1.63	0.64
54:DA:2135:A:O2'	54:DA:2160:G:H4'	1.97	0.64
44:BV:5:LEU:HD13	44:BV:5:LEU:O	1.97	0.64
1:CA:579:G:C5'	1:CA:728:A:H1'	2.27	0.64
38:DR:11:GLU:N	38:DR:11:GLU:CD	2.47	0.64
24:BA:1847:A:H5'	24:BA:1848:A:OP2	1.98	0.64
54:DA:264:C:C2'	54:DA:265:A:H5''	2.28	0.64
24:BA:1528:A:N1	24:BA:1543:A:H2	1.96	0.64
7:AJ:76:ARG:NH1	7:AJ:78:ARG:HH12	1.93	0.64
3:CF:138:VAL:HG13	3:CF:149:ALA:CB	2.28	0.64
2:CE:21:ARG:HB2	2:CE:39:ILE:HA	1.80	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1116:C:C2'	1:CA:1117:G:H5''	2.27	0.64
1:CA:164:U:H2'	1:CA:165:C:C5	2.32	0.64
1:CA:1019:C:H2'	1:CA:1020:U:H5'	1.79	0.64
24:BA:68:G:H3'	24:BA:69:C:C6	2.33	0.64
24:BA:372:G:O2'	24:BA:373:U:P	2.56	0.64
34:BO:135:LEU:HD13	34:BO:135:LEU:O	1.97	0.64
1:AA:646:U:H2'	1:AA:647:C:C6	2.32	0.64
12:CO:18:VAL:HG23	12:CO:19:ARG:H	1.63	0.64
26:BD:168:ARG:HA	26:BD:173:VAL:HA	1.80	0.64
24:BA:1338:G:N3	24:BA:1393:A:H2	1.96	0.64
24:BA:390:A:H4'	24:BA:391:G:O5'	1.96	0.64
2:CE:158:LEU:O	2:CE:158:LEU:HD12	1.97	0.64
40:B2:82:ARG:HH11	40:B2:82:ARG:HG3	1.61	0.64
46:DZ:80:LEU:HD12	46:DZ:81:LYS:HE3	1.78	0.64
19:AV:38:SER:O	19:AV:70:LYS:HB3	1.98	0.64
4:AG:12:CYS:HB3	4:AG:32:ALA:HB1	1.80	0.64
40:D2:36:PRO:HA	40:D2:56:SER:OG	1.98	0.64
1:CA:64:G:H4'	1:CA:65:U:C5'	2.28	0.64
2:CE:8:LYS:H	2:CE:8:LYS:CD	2.09	0.64
1:AA:815:A:N6	1:AA:1509:C:H1'	2.12	0.64
26:DD:239:ARG:O	26:DD:240:ALA:HB2	1.97	0.64
1:CA:339:C:OP2	33:DN:97:ARG:NH1	2.31	0.64
54:DA:1803:A:O2'	26:DD:259:THR:HG21	1.97	0.64
54:DA:2317:C:H3'	54:DA:2318:G:H21	1.63	0.64
20:AW:9:ASN:O	20:AW:10:LEU:HB3	1.97	0.64
2:AE:119:GLU:OE1	2:AE:122:PHE:HB3	1.96	0.64
26:DD:135:PHE:HD2	26:DD:135:PHE:N	1.96	0.64
9:CL:28:VAL:HA	9:CL:63:ILE:HB	1.79	0.64
14:CQ:24:CYS:SG	14:CQ:27:CYS:N	2.69	0.64
9:CL:5:TYR:O	9:CL:84:ALA:HA	1.98	0.64
7:CJ:113:GLU:CG	7:CJ:119:ARG:HG2	2.28	0.64
1:CA:102:G:H2'	1:CA:103:C:H6	1.62	0.64
3:CF:58:GLU:O	3:CF:64:VAL:HA	1.98	0.64
53:B8:46:ARG:HH11	53:B8:46:ARG:HB2	1.62	0.64
24:BA:1062:G:H2'	24:BA:1063:G:C8	2.33	0.64
37:BQ:40:ILE:HG22	37:BQ:41:ASP:H	1.61	0.64
1:CA:166:G:O2'	1:CA:167:G:H5'	1.98	0.64
19:AV:28:LYS:O	19:AV:30:LEU:N	2.31	0.64
54:DA:2292:C:O2'	54:DA:2293:C:H5'	1.97	0.64
4:CG:165:MET:HE3	4:CG:165:MET:HA	1.79	0.64
1:AA:274:A:O2'	1:AA:275:G:O4'	2.16	0.64
25:BB:44:G:H1'	25:BB:47:C:H41	1.63	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:82:LEU:CD1	46:DZ:83:GLU:CA	2.76	0.63
13:AP:15:VAL:HA	13:AP:45:VAL:CG2	2.28	0.63
19:AV:36:ARG:HD2	19:AV:72:GLY:CA	2.29	0.63
1:CA:1319:A:H2'	1:CA:1323:G:N7	2.13	0.63
12:AO:46:LYS:HG2	12:AO:47:LYS:H	1.62	0.63
30:BH:152:ARG:O	30:BH:154:PRO:HD3	1.98	0.63
18:AU:62:GLU:O	18:AU:65:ILE:HD12	1.97	0.63
3:CF:95:THR:HG22	3:CF:96:GLY:N	2.07	0.63
54:DA:2506:U:O2'	54:DA:2507:C:H5''	1.98	0.63
53:D8:48:PHE:CD1	53:D8:48:PHE:N	2.66	0.63
33:DN:104:ARG:HG2	33:DN:104:ARG:NH1	2.14	0.63
5:CH:53:LEU:N	5:CH:53:LEU:HD12	2.09	0.63
1:AA:922:G:N3	1:AA:1398:A:H2	1.95	0.63
1:AA:1274:G:H22	1:AA:1275:A:H62	1.43	0.63
54:DA:2311:A:O2'	54:DA:2312:U:H5'	1.97	0.63
52:B7:47:ARG:HH11	52:B7:47:ARG:N	1.93	0.63
15:CR:8:LYS:NZ	15:CR:8:LYS:HB2	2.13	0.63
24:BA:1252:G:C1'	39:B1:33:ARG:HD3	2.28	0.63
4:CG:79:PHE:HD2	4:CG:79:PHE:C	1.99	0.63
28:DF:45:ARG:HH11	28:DF:45:ARG:CG	2.10	0.63
28:BF:110:LEU:HD23	28:BF:110:LEU:O	1.99	0.63
11:CN:48:ILE:HD11	11:CN:64:ALA:CA	2.28	0.63
27:BE:11:MET:SD	27:BE:24:THR:HG22	2.38	0.63
22:CC:58:A:O2'	22:CC:60:U:C6	2.50	0.63
25:BB:15:A:H3'	25:BB:16:G:C5'	2.27	0.63
24:BA:2579:C:H4'	27:BE:134:ILE:HD12	1.80	0.63
54:DA:2182:G:O2'	54:DA:2183:C:H5'	1.98	0.63
1:CA:748:C:O2'	1:CA:749:C:P	2.55	0.63
24:BA:1220:A:H5'	24:BA:1221:C:OP2	1.98	0.63
54:DA:2879:C:H4'	54:DA:2880:C:OP1	1.98	0.63
1:CA:880:C:OP1	12:CO:8:ASN:ND2	2.30	0.63
44:BV:15:PRO:HG2	44:BV:16:SER:H	1.63	0.63
46:DZ:91:LYS:HG3	46:DZ:92:LYS:H	1.63	0.63
29:BG:133:LEU:CD2	29:BG:157:ILE:HB	2.28	0.63
30:BH:45:VAL:HG22	30:BH:46:GLU:N	2.11	0.63
54:DA:2797:U:H5''	54:DA:2798:C:OP2	1.97	0.63
40:B2:37:VAL:HG23	40:B2:38:LEU:N	2.12	0.63
1:CA:1320:C:H42	19:CV:36:ARG:HG3	1.62	0.63
15:CR:87:ILE:CG2	15:CR:88:ARG:H	2.00	0.63
49:B4:61:ARG:O	49:B4:65:ASP:HB2	1.97	0.63
24:BA:2638:G:O2'	24:BA:2639:A:H8	1.80	0.63
27:BE:38:THR:HG22	27:BE:40:GLU:H	1.62	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AO:47:LYS:CB	12:AO:48:PRO:CD	2.72	0.63
4:AG:18:LYS:CG	4:AG:21:LEU:HD21	2.29	0.63
8:CK:28:ALA:HB3	8:CK:57:PRO:HB2	1.79	0.63
53:B8:32:LEU:HB2	53:B8:36:LYS:HE3	1.80	0.63
32:DM:39:ARG:HB3	32:DM:41:ASP:OD1	1.98	0.63
25:BB:103:U:O2'	44:BV:72:ARG:HD3	1.98	0.63
43:BU:87:LYS:HA	43:BU:92:ASN:HA	1.80	0.63
54:DA:2126:A:HO2'	54:DA:2127:G:H8	1.43	0.63
34:BO:50:ARG:NH1	34:BO:50:ARG:HG2	2.11	0.63
1:CA:1116:C:H2'	1:CA:1117:G:H5''	1.79	0.63
1:AA:458:C:H2'	1:AA:464:G:H8	1.63	0.63
24:BA:1164:G:H2'	24:BA:1165:U:C6	2.33	0.63
35:BP:16:ARG:CB	35:BP:16:ARG:HH11	2.10	0.63
24:BA:1996:C:H4'	24:BA:1997:G:O5'	1.98	0.63
24:BA:1416:G:H2'	24:BA:1417:C:C5	2.33	0.63
11:CN:12:ARG:HG2	11:CN:13:GLN:H	1.63	0.63
12:CO:62:SER:O	12:CO:64:TYR:HD1	1.82	0.63
24:BA:642:G:H21	24:BA:646:A:H2	1.41	0.63
1:CA:298:A:H2'	1:CA:299:G:C8	2.33	0.63
23:C1:5:A:H2'	23:C1:6:G:H8	1.63	0.63
1:CA:1189:C:OP1	10:CM:51:ARG:NH2	2.30	0.63
6:CI:50:TYR:CE1	18:CU:77:GLY:HA2	2.32	0.63
1:AA:1169:A:H2'	1:AA:1170:A:H8	1.62	0.63
11:CN:50:TYR:HH	11:CN:59:TYR:HE2	1.47	0.63
35:BP:82:ARG:HB3	35:BP:82:ARG:CZ	2.25	0.63
23:A1:7:G:C2'	23:A1:8:A:O5'	2.46	0.63
1:AA:1318:A:H4'	19:AV:10:PHE:CE2	2.33	0.63
9:AL:34:ASN:O	9:AL:36:TYR:N	2.32	0.63
24:BA:1209:G:N2	24:BA:1210:A:H62	1.97	0.63
54:DA:498:G:N3	43:DU:47:LYS:NZ	2.44	0.63
54:DA:1177:A:H4'	54:DA:1178:C:H5''	1.80	0.63
1:AA:4:U:H3	8:AK:105:ARG:CZ	2.10	0.63
35:DP:104:PHE:O	35:DP:105:GLU:HB3	1.98	0.63
27:BE:28:ALA:O	27:BE:93:VAL:HG22	1.98	0.63
30:BH:159:GLU:HG3	30:BH:170:ARG:HH12	1.63	0.63
27:DE:201:THR:HG21	27:DE:203:LYS:HB3	1.80	0.63
4:CG:22:LYS:HG3	4:CG:26:CYS:SG	2.38	0.63
1:CA:819:A:H4'	1:CA:820:U:OP2	1.97	0.63
1:CA:566:G:H4'	1:CA:567:G:OP1	1.97	0.63
1:AA:1007:C:H2'	1:AA:1008:C:C4'	2.27	0.63
24:BA:329:G:N7	43:BU:19:LYS:HE2	2.13	0.63
24:BA:2115:G:H1'	24:BA:2171:A:N1	2.12	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BZ:7:ILE:HG21	46:BZ:69:LYS:HG2	1.80	0.63
36:D0:117:VAL:O	36:D0:118:GLU:HB3	1.99	0.63
25:BB:81:G:C2	25:BB:82:G:C5	2.86	0.63
24:BA:2485:G:C5'	35:BP:46:GLN:HE21	2.11	0.63
54:DA:1331:A:H2'	54:DA:1333:C:H5	1.62	0.63
54:DA:1009:A:OP2	32:DM:37:LYS:NZ	2.32	0.63
37:BQ:46:VAL:HG12	37:BQ:47:THR:N	2.13	0.63
9:CL:62:TYR:O	9:CL:63:ILE:HD12	1.99	0.63
12:CO:86:ARG:HB2	12:CO:101:VAL:CG2	2.28	0.63
24:BA:2183:C:H2'	24:BA:2184:G:C8	2.32	0.63
6:CI:12:PRO:HG2	6:CI:13:ASN:H	1.62	0.63
24:BA:21:A:O2'	24:BA:22:C:H5'	1.99	0.63
31:BK:10:GLU:CD	31:BK:11:ASN:H	2.01	0.63
9:CL:97:LYS:HB3	9:CL:98:PRO:HD3	1.79	0.63
54:DA:524:U:H2'	54:DA:525:U:C6	2.34	0.63
1:AA:854:G:H3'	1:AA:871:U:O4	1.99	0.63
24:BA:414:C:O2'	24:BA:415:A:H5'	1.98	0.63
54:DA:192:C:H2'	54:DA:193:U:H5'	1.80	0.63
26:DD:18:VAL:HG12	26:DD:19:ALA:O	1.99	0.63
6:AI:17:SER:O	6:AI:20:ALA:HB3	1.98	0.63
24:BA:981:A:C8	24:BA:982:C:H5	2.16	0.63
22:AD:69:C:H2'	22:AD:70:G:O4'	1.99	0.63
13:AP:31:LYS:HA	13:AP:34:LEU:CD2	2.27	0.63
1:AA:1128:C:C4	1:AA:1139:G:C2	2.86	0.63
9:AL:28:VAL:CG2	9:AL:29:ASN:H	1.92	0.63
44:DV:120:ILE:HD13	44:DV:169:GLU:HG3	1.79	0.63
24:BA:331:A:O2'	24:BA:332:A:OP1	2.15	0.63
34:BO:101:VAL:HG23	34:BO:107:LYS:H	1.64	0.63
34:DO:106:LEU:O	34:DO:107:LYS:CB	2.46	0.63
26:BD:101:GLU:OE1	26:BD:103:ARG:HD3	1.98	0.63
26:BD:27:THR:O	26:BD:29:PRO:HD2	1.98	0.63
24:BA:1924:C:H2'	24:BA:1925:C:O4'	1.98	0.63
33:DN:86:ILE:N	33:DN:86:ILE:HD12	2.13	0.63
38:DR:111:ARG:C	38:DR:113:LYS:H	2.01	0.63
26:BD:43:ARG:HG2	26:BD:54:ARG:O	1.98	0.63
1:AA:1397:C:N4	23:A1:22:A:C8	2.67	0.63
41:DS:110:LYS:HG3	41:DS:111:HIS:ND1	2.13	0.63
20:CW:26:ASN:HB2	20:CW:71:THR:HG23	1.79	0.63
54:DA:2439:A:H8	54:DA:2439:A:C5'	2.12	0.63
54:DA:2747:G:O6	54:DA:2755:C:H5''	1.97	0.63
1:CA:1342:C:H4'	9:CL:125:TYR:HB3	1.80	0.63
38:BR:96:ARG:HG3	38:BR:97:ALA:H	1.63	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1285:A:O2'	1:AA:1286:A:H5''	1.98	0.63
24:BA:2130:U:O4'	24:BA:2134:A:H5'	1.98	0.63
46:BZ:80:LEU:H	46:BZ:80:LEU:HD13	1.64	0.63
46:BZ:81:LYS:CG	46:BZ:81:LYS:O	2.46	0.63
1:CA:112:G:H4'	1:CA:389:A:H5''	1.79	0.63
2:AE:238:LEU:CD1	2:AE:239:VAL:H	2.10	0.63
1:CA:468:A:H4'	16:CS:80:PHE:O	1.99	0.63
1:CA:652:U:H1'	1:CA:653:A:H2	1.64	0.63
24:BA:458:G:O2'	24:BA:459:U:OP2	2.16	0.63
25:BB:16:G:O2'	25:BB:17:C:H5'	1.98	0.63
24:BA:713:G:H2'	24:BA:714:U:H6	1.62	0.63
54:DA:1520:U:H2'	54:DA:1521:G:O4'	1.99	0.63
24:BA:2683:C:H2'	24:BA:2684:U:H6	1.63	0.63
4:CG:73:ARG:O	4:CG:77:ASN:ND2	2.32	0.63
22:AD:3:C:H2'	22:AD:4:G:H8	1.62	0.63
9:AL:16:ARG:HB2	9:AL:16:ARG:NH1	1.98	0.63
24:BA:312:G:H5'	24:BA:331:A:H2'	1.79	0.63
27:DE:50:GLY:HA3	27:DE:74:PRO:HG3	1.80	0.63
1:CA:1363:A:C4'	1:CA:1364:U:H5''	2.28	0.63
24:BA:1341:U:OP1	24:BA:1602:U:H2'	1.98	0.63
27:DE:14:ILE:CG1	27:DE:15:PHE:H	2.08	0.63
26:BD:118:VAL:HG22	26:BD:119:ALA:H	1.63	0.63
1:CA:690:G:H22	11:CN:55:LYS:HZ1	1.44	0.63
39:B1:50:ARG:HH11	40:B2:72:VAL:HG11	1.61	0.63
10:AM:4:ILE:HG12	10:AM:100:THR:CG2	2.28	0.63
1:CA:1279:A:H5''	1:CA:1280:A:OP1	1.99	0.63
1:AA:1375:A:H4'	7:AJ:29:LYS:HZ2	1.61	0.63
54:DA:648:G:O2'	54:DA:649:G:H5'	1.98	0.63
53:B8:49:VAL:HG12	53:B8:50:LEU:H	1.62	0.63
54:DA:2287:A:N1	54:DA:2346:A:H2	1.96	0.63
42:BT:50:LYS:HB2	42:BT:84:ALA:HB2	1.79	0.63
1:AA:495:A:H5'	1:AA:496:A:OP1	1.98	0.63
31:DK:74:ASN:OD1	31:DK:75:LEU:HD13	1.97	0.63
1:AA:687:A:O2'	1:AA:688:G:OP2	2.15	0.63
43:BU:19:LYS:HE3	43:BU:71:LYS:HZ1	1.63	0.63
5:CH:91:LEU:HA	5:CH:120:THR:HG22	1.81	0.63
1:CA:953:G:C5'	1:CA:965:A:H61	2.10	0.63
24:BA:954:G:H4'	35:BP:13:GLN:HE21	1.63	0.63
1:CA:539:A:H2'	1:CA:540:G:C8	2.33	0.63
1:AA:1256:A:N6	1:AA:1278:U:OP2	2.28	0.63
54:DA:1429:G:H2'	54:DA:1430:C:H6	1.62	0.63
5:AH:106:PRO:HA	5:AH:109:ILE:HD12	1.81	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BN:43:VAL:HG21	33:BN:56:ASP:HB2	1.79	0.63
1:CA:913:A:O2'	1:CA:914:A:OP2	2.13	0.63
42:DT:18:TYR:C	42:DT:20:GLY:H	2.02	0.63
54:DA:733:G:C8	54:DA:761:A:N6	2.67	0.63
24:BA:1964:G:H4'	24:BA:1965:C:OP2	1.98	0.63
8:AK:86:ILE:HD11	8:AK:136:GLU:HG2	1.80	0.63
44:DV:4:ARG:HG2	44:DV:4:ARG:HH11	1.64	0.63
24:BA:782:A:N7	26:BD:221:VAL:HG21	2.14	0.63
49:B4:24:THR:HG22	49:B4:25:TYR:H	1.63	0.63
13:AP:81:LEU:HB3	13:AP:89:GLY:HA3	1.79	0.63
53:D8:59:LYS:HB3	53:D8:59:LYS:HZ3	1.62	0.63
30:DH:86:GLU:O	30:DH:87:LEU:HB2	1.99	0.63
31:BK:82:ARG:HH11	31:BK:82:ARG:CG	2.11	0.63
24:BA:1265:A:H1'	24:BA:1267:U:C5	2.33	0.63
2:CE:155:LEU:HD12	2:CE:157:ARG:O	1.97	0.63
54:DA:1728:G:N1	54:DA:1730:U:OP2	2.32	0.63
1:AA:410:G:H4'	1:AA:411:A:OP1	1.98	0.63
54:DA:1141:U:OP2	32:DM:63:THR:CG2	2.47	0.63
35:BP:21:THR:HG21	35:BP:101:ARG:N	2.13	0.63
54:DA:2415:G:H2'	54:DA:2416:C:C6	2.33	0.63
55:DB:81:G:O6	55:DB:96:G:C5	2.52	0.63
1:CA:523:A:H61	12:CO:92:ASP:CB	2.08	0.63
5:CH:51:VAL:O	5:CH:55:VAL:HG23	1.99	0.63
1:AA:559:A:H4'	1:AA:560:U:C5'	2.27	0.63
3:AF:23:TYR:HD2	10:AM:10:GLY:HA2	1.64	0.63
10:CM:42:THR:HG23	10:CM:68:HIS:HA	1.80	0.63
32:DM:131:GLN:CD	32:DM:132:ALA:H	2.01	0.63
24:BA:1882:C:H5'	24:BA:1883:G:OP2	1.98	0.63
38:BR:90:GLN:NE2	38:BR:90:GLN:HA	2.14	0.63
25:BB:111:U:H2'	25:BB:112:G:C8	2.33	0.63
27:BE:24:THR:O	27:BE:25:VAL:HB	1.98	0.63
54:DA:283:A:H5''	54:DA:284:U:OP2	1.98	0.63
34:BO:66:GLY:O	34:BO:67:MET:HB2	1.97	0.63
54:DA:469:G:O6	52:D7:37:LYS:HE2	1.97	0.63
16:AS:40:ASP:HB3	16:AS:48:TRP:HB2	1.79	0.63
1:CA:640:A:O2'	8:CK:115:SER:HB3	1.99	0.63
26:DD:230:ASP:O	26:DD:231:HIS:HB2	1.98	0.63
24:BA:2086:U:H2'	24:BA:2087:G:C8	2.33	0.63
38:DR:60:THR:HG22	38:DR:77:PRO:HA	1.80	0.63
13:AP:19:LEU:H	13:AP:19:LEU:CD2	2.12	0.63
29:BG:139:LEU:HD12	29:BG:140:ILE:N	2.14	0.63
54:DA:1059:G:H3'	54:DA:1060:U:C5'	2.24	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2638:G:P	27:DE:82:ARG:HH22	2.21	0.63
1:CA:1226:C:C4'	1:CA:1227:A:OP1	2.40	0.63
26:DD:72:LYS:HG2	26:DD:103:ARG:NH2	2.13	0.63
34:DO:83:VAL:HG12	34:DO:112:LEU:HD21	1.81	0.63
1:AA:498:A:H4'	1:AA:500:G:OP1	1.99	0.63
3:CF:34:LEU:CD2	3:CF:38:ARG:HD2	2.29	0.63
34:DO:64:LYS:HB2	53:D8:25:MET:HG3	1.80	0.63
24:BA:196:A:H2'	24:BA:805:G:O6	1.97	0.63
4:AG:129:ASN:N	4:AG:129:ASN:HD22	1.94	0.63
24:BA:623:G:H2'	24:BA:624:C:H6	1.64	0.63
44:DV:5:LEU:O	44:DV:6:LYS:HB2	1.97	0.63
24:BA:2168:G:N3	24:BA:2168:G:H2'	2.13	0.63
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.62	0.63
31:DK:86:THR:O	31:DK:86:THR:HG22	1.99	0.63
22:CD:21:A:O2'	22:CD:22:G:C8	2.51	0.63
3:AF:63:ASN:O	3:AF:64:VAL:HG22	1.99	0.63
2:CE:236:TYR:CD2	2:CE:239:VAL:HG21	2.34	0.63
47:DW:46:GLN:OE1	47:DW:46:GLN:HA	1.98	0.63
4:CG:153:ARG:HD3	4:CG:181:MET:SD	2.39	0.63
24:BA:705:A:H62	24:BA:726:G:H1'	1.64	0.63
24:BA:2267:A:H5''	24:BA:2268:A:C5'	2.28	0.63
54:DA:1465:G:H5'	54:DA:1528:A:H1'	1.79	0.63
32:DM:87:LEU:O	32:DM:87:LEU:HD23	1.99	0.63
9:AL:127:LYS:HG3	9:AL:128:ARG:HH12	1.63	0.63
16:CS:66:PRO:HG2	16:CS:71:ARG:HH12	1.64	0.63
19:CV:15:LEU:O	19:CV:19:VAL:HG23	1.98	0.63
42:DT:49:VAL:HG13	42:DT:83:VAL:HG13	1.80	0.63
35:BP:110:THR:O	35:BP:112:GLU:N	2.31	0.63
37:DQ:22:GLY:O	37:DQ:23:ARG:O	2.17	0.63
6:AI:76:ALA:O	6:AI:80:ARG:HG3	1.98	0.63
28:DF:132:VAL:HG23	28:DF:133:ASN:N	2.14	0.63
24:BA:676:A:H8	24:BA:2069:G:H21	1.46	0.63
54:DA:836:G:H2'	54:DA:837:C:C6	2.33	0.63
24:BA:1095:A:N3	24:BA:1095:A:H2'	2.12	0.63
13:AP:28:ALA:C	13:AP:30:ALA:H	2.02	0.63
24:BA:2520:C:C6	24:BA:2567:G:H1'	2.34	0.63
54:DA:482:A:H4'	43:DU:47:LYS:CD	2.27	0.63
14:CQ:18:VAL:HG23	14:CQ:19:ARG:N	2.14	0.63
24:BA:2015:A:C1'	50:B5:2:ALA:HA	2.29	0.63
1:CA:1145:C:H5'	1:CA:1146:A:OP1	1.98	0.63
34:DO:114:ILE:HD11	34:DO:130:PHE:CD1	2.34	0.63
2:AE:41:ILE:N	2:AE:41:ILE:HD12	2.12	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:608:A:N9	54:DA:621:A:N6	2.47	0.63
15:AR:62:GLN:HA	15:AR:65:ARG:NH1	2.14	0.63
4:AG:25:ARG:HG2	4:AG:25:ARG:HH11	1.63	0.63
54:DA:1372:U:C2'	54:DA:1373:A:H5'	2.29	0.63
29:BG:67:LYS:HD3	49:B4:5:ILE:HG21	1.81	0.63
2:CE:214:ILE:HD13	2:CE:217:ARG:NH2	2.14	0.63
55:DB:45:A:H1'	29:DG:95:ARG:HH12	1.64	0.63
29:DG:68:PRO:HB2	29:DG:90:LEU:HD12	1.80	0.63
1:AA:1503:A:H61	23:A1:12:A:H61	1.47	0.63
24:BA:1729:A:C6	24:BA:1731:G:N7	2.67	0.63
7:AJ:155:ARG:O	7:AJ:156:TRP:HB3	1.99	0.63
54:DA:1870:C:H2'	54:DA:1871:A:O4'	1.99	0.63
1:CA:1348:U:H5	1:CA:1373:G:N2	1.96	0.63
14:AQ:12:ARG:O	14:AQ:14:PRO:HD3	1.98	0.63
18:AU:22:VAL:HG12	18:AU:55:ARG:O	1.98	0.63
27:DE:35:GLN:CG	27:DE:37:ARG:NE	2.62	0.63
24:BA:1681:G:O2'	24:BA:1762:A:O2'	2.08	0.63
54:DA:2734:A:N6	54:DA:2770:G:O2'	2.32	0.63
1:AA:191(F):U:C2'	1:AA:191:G:H5'	2.29	0.63
2:CE:60:ASP:HB3	2:CE:64:ARG:NH1	2.13	0.63
24:BA:633:A:H2'	24:BA:634:C:H5'	1.81	0.63
6:AI:61:LEU:O	6:AI:62:TRP:HB2	1.97	0.63
1:AA:67:C:H2'	1:AA:68:G:C8	2.34	0.63
24:BA:391:G:H2'	24:BA:392:C:H6	1.64	0.63
24:BA:1716:U:O2'	24:BA:1717:G:H5'	1.99	0.63
46:DZ:18:ILE:HG12	46:DZ:37:ILE:HG12	1.81	0.63
38:DR:16:ARG:HE	38:DR:19:LEU:HD21	1.62	0.63
32:DM:61:ARG:HA	32:DM:61:ARG:HE	1.63	0.63
28:BF:94:PRO:O	28:BF:95:ARG:HB3	1.99	0.63
54:DA:2866:U:O2'	54:DA:2867:G:OP2	2.17	0.63
1:CA:946:A:H2'	1:CA:947:G:C8	2.34	0.63
13:CP:36:LYS:HD3	13:CP:36:LYS:C	2.19	0.63
41:DS:74:ALA:O	41:DS:75:TYR:HB3	1.98	0.63
52:B7:28:ARG:HG3	52:B7:28:ARG:HH11	1.63	0.63
13:AP:81:LEU:CD1	13:AP:81:LEU:H	2.09	0.63
19:AV:27:GLU:HG2	19:AV:47:HIS:NE2	2.13	0.63
1:AA:827:U:H3	1:AA:872:A:H62	1.43	0.63
54:DA:1061:U:H3'	54:DA:1062:G:C5'	2.26	0.63
44:DV:103:ARG:CB	44:DV:138:GLU:HA	2.27	0.63
30:DH:153:LYS:HG3	30:DH:161:GLY:HA3	1.80	0.63
2:AE:154:LEU:HD22	2:AE:154:LEU:C	2.19	0.63
1:CA:1004:A:OP1	1:CA:1025:U:O4	2.17	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:B8:32:LEU:HB2	53:B8:36:LYS:HZ2	1.62	0.63
32:DM:7:LYS:HD2	32:DM:7:LYS:H	1.64	0.63
35:DP:20:ALA:HB1	35:DP:99:PRO:CB	2.29	0.63
4:CG:33:MET:HE2	4:CG:37:PRO:HA	1.80	0.63
29:DG:61:ALA:HB2	29:DG:68:PRO:HD2	1.81	0.63
24:BA:608:A:C5	24:BA:621:A:N6	2.66	0.63
1:AA:328:C:H4'	1:AA:329:A:H5'	1.81	0.63
2:CE:20:GLU:HB2	2:CE:190:THR:OG1	1.98	0.63
35:DP:30:GLY:HA3	35:DP:106:VAL:O	1.98	0.63
54:DA:2846:G:OP2	38:DR:54:ARG:HB2	1.98	0.63
38:DR:49:VAL:HG13	38:DR:49:VAL:O	1.99	0.63
47:DW:40:SER:C	47:DW:42:GLY:N	2.51	0.63
24:BA:669:G:H4'	24:BA:670:A:OP1	1.99	0.63
24:BA:670:A:H4'	24:BA:671:C:OP1	1.98	0.63
24:BA:1673:U:C2'	24:BA:1674:G:H5'	2.29	0.63
24:BA:705:A:N6	24:BA:726:G:H1'	2.14	0.63
47:BW:64:LEU:HD21	47:BW:68:ARG:CZ	2.29	0.63
2:AE:145:LEU:HD13	2:AE:149:LEU:HD12	1.79	0.63
24:BA:17:G:H4'	39:B1:25:TRP:CZ2	2.34	0.63
54:DA:2377:A:H2'	54:DA:2378:A:C8	2.34	0.63
32:BM:16:ILE:CD1	32:BM:137:LYS:HB2	2.29	0.63
18:AU:36:ASN:ND2	18:AU:39:VAL:HG21	2.13	0.63
54:DA:813:U:H2'	54:DA:814:C:C6	2.34	0.63
16:CS:8:ARG:HH11	16:CS:8:ARG:HG2	1.64	0.63
35:DP:10:ARG:O	35:DP:11:LYS:HB2	1.98	0.63
11:CN:58:PRO:HD3	11:CN:89:ALA:HB1	1.81	0.63
43:DU:87:LYS:O	43:DU:88:LYS:NZ	2.32	0.62
3:AF:11:ARG:HG2	3:AF:11:ARG:HH11	1.64	0.62
13:AP:34:LEU:HD13	13:AP:41:PRO:HB3	1.81	0.62
29:BG:116:ASP:O	29:BG:117:PHE:HB3	1.99	0.62
27:DE:4:ILE:CD1	27:DE:28:ALA:HB1	2.29	0.62
1:CA:973:G:H3'	1:CA:974:A:H5''	1.81	0.62
1:CA:983:A:H2	1:CA:984:C:C6	2.17	0.62
2:CE:66:GLY:O	2:CE:67:THR:HG23	2.00	0.62
34:DO:105:LEU:O	34:DO:106:LEU:CB	2.42	0.62
28:BF:28:ILE:HA	28:BF:112:MET:HE3	1.81	0.62
27:BE:36:ARG:NH2	27:BE:88:GLY:CA	2.60	0.62
27:DE:13:ARG:HH12	27:DE:21:VAL:HG12	1.64	0.62
26:BD:23:GLU:C	26:BD:25:THR:H	2.02	0.62
43:BU:43:ASN:HD22	43:BU:43:ASN:N	1.96	0.62
54:DA:898:C:C3'	54:DA:899:A:H5'	2.29	0.62
55:DB:40:U:N3	55:DB:43:C:H5''	2.14	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BH:102:ALA:HB2	30:BH:116:GLU:HA	1.81	0.62
24:BA:2429:G:O6	34:BO:61:ARG:NH2	2.32	0.62
31:DK:11:ASN:ND2	31:DK:12:LEU:HD13	2.14	0.62
29:BG:151:ALA:HB3	29:BG:153:ARG:HH11	1.61	0.62
24:BA:2144:U:H4'	24:BA:2145:C:OP1	1.98	0.62
1:CA:1348:U:C4	1:CA:1374:A:H2	2.16	0.62
9:CL:118:LYS:O	9:CL:119:ALA:HB3	1.99	0.62
54:DA:1281:G:C8	54:DA:1281:G:H5'	2.32	0.62
46:BZ:75:GLU:C	46:BZ:76:ARG:HD3	2.18	0.62
45:D3:35:ASN:H	45:D3:35:ASN:ND2	1.96	0.62
7:AJ:18:TYR:CD2	7:AJ:59:LEU:HD13	2.34	0.62
35:BP:38:GLU:O	35:BP:127:ILE:HD13	1.99	0.62
7:CJ:9:VAL:CG1	7:CJ:94:ARG:HE	2.12	0.62
2:AE:80:ILE:HG21	2:AE:208:ILE:HD12	1.81	0.62
28:BF:170:LEU:HD23	28:BF:172:TRP:HE1	1.64	0.62
9:CL:47:LEU:HD22	9:CL:47:LEU:N	2.14	0.62
54:DA:2378:A:O5'	54:DA:2378:A:H8	1.82	0.62
7:AJ:65:ALA:HB2	7:AJ:128:ALA:HB2	1.81	0.62
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.34	0.62
20:AW:40:ALA:HB2	20:AW:55:ILE:HG22	1.79	0.62
24:BA:654(R):C:C2	24:BA:654(R):C:C4'	2.78	0.62
13:AP:39:ILE:CD1	13:AP:56:LEU:HD23	2.29	0.62
54:DA:594:U:H5'	53:D8:61:LEU:HD21	1.81	0.62
44:DV:132:ASN:O	44:DV:134:PRO:HD3	1.99	0.62
1:CA:1443:G:N2	54:DA:2864:G:OP1	2.29	0.62
54:DA:2893:G:H5''	54:DA:2894:G:C5'	2.21	0.62
51:B6:14:THR:HG23	51:B6:15:GLU:N	2.14	0.62
44:BV:107:THR:HB	44:BV:108:PRO:HD3	1.79	0.62
35:BP:26:TYR:C	35:BP:28:ALA:H	2.02	0.62
1:CA:1256:A:H4'	1:CA:1258:G:C4	2.35	0.62
43:BU:89:PHE:C	43:BU:90:LEU:HD22	2.19	0.62
51:D6:13:CYS:HB2	51:D6:22:ALA:HB3	1.81	0.62
7:AJ:20:ASP:CG	7:AJ:23:VAL:HB	2.19	0.62
3:AF:91:LEU:N	3:AF:91:LEU:HD12	2.11	0.62
4:AG:86:LYS:HA	4:AG:86:LYS:HZ1	1.63	0.62
54:DA:1796:U:H2'	54:DA:1797:C:C6	2.34	0.62
54:DA:1331:A:H2'	54:DA:1333:C:C5	2.33	0.62
9:CL:17:VAL:HG21	9:CL:81:ILE:N	2.14	0.62
1:CA:384:G:H2'	1:CA:385:C:C6	2.34	0.62
44:DV:9:TYR:CE2	44:DV:61:LEU:HD13	2.32	0.62
5:AH:41:VAL:CG2	5:AH:113:ALA:HB2	2.28	0.62
1:AA:1058:G:H2'	1:AA:1059:C:O4'	1.98	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:D1:34:LYS:HA	39:D1:34:LYS:CE	2.29	0.62
54:DA:458:G:O2'	54:DA:459:U:OP2	2.17	0.62
11:CN:57:THR:HG22	11:CN:59:TYR:H	1.64	0.62
1:AA:246:A:O2'	1:AA:247:G:O5'	2.16	0.62
1:AA:913:A:H4'	1:AA:914:A:O5'	1.99	0.62
38:DR:96:ARG:HB2	38:DR:96:ARG:NH1	2.14	0.62
1:CA:1216:G:H5''	14:CQ:5:ALA:CB	2.29	0.62
1:CA:115:G:O2'	1:CA:116:A:OP2	2.18	0.62
44:BV:50:GLN:C	44:BV:50:GLN:HE21	2.03	0.62
42:DT:63:LYS:O	42:DT:64:LYS:HD2	1.98	0.62
1:CA:1301:U:H2'	1:CA:1301:U:O2	1.98	0.62
24:BA:1902:C:H2'	24:BA:1903:G:O5'	1.99	0.62
35:BP:77:LYS:HD3	35:BP:81:VAL:O	1.99	0.62
35:BP:82:ARG:NH1	35:BP:82:ARG:N	2.47	0.62
1:AA:1320:C:H2'	1:AA:1321:C:C6	2.34	0.62
13:AP:27:LYS:O	13:AP:30:ALA:HB3	1.99	0.62
24:BA:2748:A:C2	24:BA:2749:A:N7	2.66	0.62
39:B1:92:ARG:HH12	40:B2:11:GLN:H	1.46	0.62
1:CA:971:G:C5	1:CA:1365:G:H5'	2.34	0.62
2:AE:17:PHE:CB	2:AE:42:ILE:HG23	2.28	0.62
24:BA:1309:G:H3'	52:B7:9:ARG:HH11	1.60	0.62
1:CA:1502:A:H5''	1:CA:1503:A:OP2	1.99	0.62
28:BF:52:LYS:O	28:BF:88:VAL:HG12	1.99	0.62
1:AA:3:G:H4'	1:AA:4:U:C5'	2.29	0.62
5:AH:101:ILE:H	5:AH:101:ILE:CD1	2.08	0.62
25:BB:74:U:H2'	25:BB:75:G:H5''	1.81	0.62
24:BA:2656:U:C6	24:BA:2656:U:H3'	2.33	0.62
1:CA:430:A:O2'	1:CA:431:A:H5'	2.00	0.62
6:AI:16:GLN:HE21	4:CG:20:TYR:HE1	1.47	0.62
34:BO:60:MET:O	34:BO:61:ARG:HG2	1.99	0.62
1:CA:253:U:H2'	1:CA:254:G:H8	1.64	0.62
24:BA:88:G:H5'	24:BA:90:U:C5	2.34	0.62
11:CN:99:GLN:HG2	11:CN:105:VAL:CG2	2.28	0.62
24:BA:2687:U:C4	24:BA:2688:U:C5	2.87	0.62
4:AG:129:ASN:ND2	4:AG:145:GLU:N	2.38	0.62
24:BA:1728:G:N1	24:BA:1730:U:OP2	2.32	0.62
1:AA:328:C:O2'	1:AA:329:A:P	2.56	0.62
31:DK:65:ALA:HA	31:DK:67:ARG:HH21	1.62	0.62
28:DF:28:ILE:HD13	28:DF:30:PRO:HD3	1.80	0.62
7:AJ:155:ARG:HB2	7:AJ:155:ARG:CZ	2.28	0.62
54:DA:2882:A:OP1	36:D0:96:ARG:NH1	2.31	0.62
36:D0:63:ARG:NH1	36:D0:80:PHE:CD1	2.67	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:200:GLU:HG2	27:BE:201:THR:H	1.64	0.62
47:DW:41:ILE:HG12	47:DW:44:LEU:HD12	1.81	0.62
32:BM:128:HIS:HB2	32:BM:129:PRO:CD	2.29	0.62
54:DA:917:A:H2'	54:DA:918:A:H5'	1.80	0.62
8:AK:6:ILE:CG2	8:AK:85:ARG:HH12	2.13	0.62
32:BM:34:LEU:O	32:BM:49:GLY:HA3	1.98	0.62
2:AE:12:GLU:C	2:AE:14:GLY:H	2.02	0.62
38:BR:89:VAL:CG2	38:BR:90:GLN:N	2.62	0.62
28:DF:129:PHE:O	28:DF:130:ALA:HB3	1.99	0.62
40:B2:41:GLY:H	40:B2:46:VAL:CG1	2.12	0.62
40:B2:46:VAL:O	40:B2:46:VAL:HG22	1.99	0.62
29:BG:15:VAL:HG13	29:BG:175:LEU:HD12	1.81	0.62
16:AS:20:VAL:HG21	16:AS:32:TYR:HB3	1.81	0.62
25:BB:15:A:C3'	25:BB:16:G:H5'	2.29	0.62
38:DR:22:PHE:HD2	38:DR:22:PHE:N	1.97	0.62
1:CA:1164:G:O2'	1:CA:1165:C:H5'	1.99	0.62
24:BA:2037:G:H2'	24:BA:2038:G:C8	2.33	0.62
54:DA:2498:C:O2'	54:DA:2499:C:H5'	1.99	0.62
24:BA:1950:G:O6	24:BA:1954:G:H2'	1.98	0.62
24:BA:2526:G:H2'	24:BA:2527:C:O4'	1.99	0.62
26:BD:12:SER:HB2	26:BD:208:LYS:HB3	1.81	0.62
29:BG:3:LEU:HD12	29:BG:97:ASP:OD2	1.98	0.62
31:BK:120:ILE:HG22	31:BK:121:LYS:N	2.15	0.62
1:AA:1365:G:O2'	1:AA:1366:C:H5'	1.99	0.62
19:AV:11:VAL:HG13	19:AV:39:THR:H	1.64	0.62
2:AE:135:GLN:HG3	2:AE:136:VAL:N	2.14	0.62
2:AE:21:ARG:CZ	2:AE:38:GLY:HA3	2.29	0.62
1:CA:1260:C:OP1	1:CA:1284:C:H4'	1.98	0.62
1:CA:1287:A:H2	1:CA:1353:G:N3	1.97	0.62
53:B8:29:LYS:O	53:B8:31:HIS:N	2.32	0.62
28:DF:67:GLN:O	28:DF:67:GLN:CG	2.32	0.62
35:BP:141:GLN:NE2	44:BV:75:ASN:H	1.97	0.62
51:D6:44:ARG:O	51:D6:45:LYS:HB2	2.00	0.62
7:CJ:140:ASP:HA	7:CJ:143:ARG:NH1	2.14	0.62
54:DA:897:C:H5'	60:DA:2927:U:O2'	2.00	0.62
54:DA:1929:G:C3'	54:DA:1929:G:C8	2.82	0.62
54:DA:1799:G:H22	54:DA:1818:U:HO2'	1.47	0.62
29:BG:88:ILE:HG23	29:BG:88:ILE:O	1.99	0.62
24:BA:2113:U:H5''	24:BA:2114:A:O4'	1.99	0.62
30:DH:136:ILE:H	30:DH:136:ILE:HD12	1.64	0.62
13:AP:53:VAL:HG12	13:AP:57:ARG:HD3	1.79	0.62
22:CD:16:C:H4'	22:CD:60:U:H4'	1.80	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:65:ARG:CB	42:BT:70:LEU:HA	2.27	0.62
44:DV:94:GLU:HB2	44:DV:95:PRO:HA	1.80	0.62
32:BM:120:LEU:CD2	32:BM:122:VAL:HG23	2.30	0.62
24:BA:2413:G:H21	34:BO:70:GLN:HE22	1.45	0.62
35:BP:40:ALA:HB3	35:BP:127:ILE:HD11	1.81	0.62
24:BA:2584:U:C5	24:BA:2585:U:H5	2.17	0.62
24:BA:1819:A:O2'	24:BA:1820:U:OP2	2.18	0.62
11:CN:12:ARG:HG2	11:CN:13:GLN:N	2.14	0.62
7:AJ:111:ARG:HD2	7:AJ:123:GLU:OE1	2.00	0.62
22:AD:37:A:O2'	22:AD:38:A:H5'	1.99	0.62
8:AK:20:TYR:CE2	8:AK:75:ARG:HB3	2.34	0.62
29:DG:94:LEU:HD23	29:DG:94:LEU:H	1.64	0.62
32:DM:26:LEU:O	32:DM:30:ILE:HG13	1.99	0.62
46:DZ:91:LYS:HE3	46:DZ:91:LYS:HA	1.81	0.62
24:BA:2250:G:H2'	24:BA:2496:C:OP1	1.99	0.62
44:BV:137:ILE:HD13	44:BV:157:LEU:HD21	1.80	0.62
30:BH:124:GLU:N	30:BH:124:GLU:CD	2.53	0.62
54:DA:1111:A:O2'	54:DA:1112:G:C4'	2.48	0.62
2:AE:36:ARG:HH11	2:AE:36:ARG:HG3	1.64	0.62
22:CD:34:C:H41	23:C1:14:A:H61	1.47	0.62
40:D2:52:VAL:CG2	40:D2:55:ALA:HB3	2.28	0.62
25:BB:74:U:H2'	25:BB:75:G:H5'	1.80	0.62
37:BQ:100:ALA:CA	37:BQ:103:GLU:HG2	2.29	0.62
54:DA:1459:G:H2'	54:DA:1460:A:H5''	1.81	0.62
38:DR:108:ARG:O	38:DR:111:ARG:HG3	2.00	0.62
10:AM:86:MET:HG2	10:AM:87:THR:HG23	1.80	0.62
7:AJ:10:ARG:NH1	7:AJ:10:ARG:HG2	2.14	0.62
41:DS:86:LEU:HD12	41:DS:87:PRO:CD	2.23	0.62
4:CG:29:PRO:C	4:CG:30:LYS:HD3	2.19	0.62
30:BH:103:LEU:HD23	30:BH:115:VAL:HB	1.81	0.62
24:BA:829:A:H5'	24:BA:831:G:N7	2.15	0.62
34:BO:59:LEU:O	34:BO:61:ARG:HG3	1.98	0.62
34:BO:31:ALA:O	34:BO:32:THR:CG2	2.45	0.62
34:DO:1:MET:CE	34:DO:5:ASP:HB3	2.25	0.62
54:DA:1799:G:O2'	54:DA:1800:C:OP2	2.17	0.62
29:DG:41:GLN:NE2	29:DG:60:LEU:HD12	2.14	0.62
28:DF:107:LYS:O	28:DF:108:LYS:C	2.37	0.62
2:CE:115:LEU:CD2	2:CE:153:ARG:HD3	2.30	0.62
44:DV:97:GLU:HB3	44:DV:125:LEU:HD11	1.81	0.62
4:CG:96:LEU:CD2	4:CG:96:LEU:H	2.11	0.62
2:AE:121:LEU:O	2:AE:127:ILE:HG13	1.99	0.62
24:BA:412:A:N7	24:BA:2411:A:H2	1.98	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1237:C:H4'	1:AA:1334:G:N2	2.15	0.62
1:AA:89:U:H2'	1:AA:90:C:C6	2.35	0.62
10:CM:29:ARG:HG2	10:CM:29:ARG:O	2.00	0.62
54:DA:527:C:N3	54:DA:2779:U:H5'	2.13	0.62
54:DA:468:G:N7	52:D7:39:ARG:NH2	2.46	0.62
1:CA:746:A:O2'	1:CA:747:C:H5'	1.99	0.62
7:AJ:65:ALA:HA	7:AJ:128:ALA:HA	1.80	0.62
29:DG:94:LEU:HD23	29:DG:94:LEU:N	2.14	0.62
18:CU:82:THR:HG22	18:CU:83:GLU:N	2.15	0.62
6:AI:6:VAL:HG13	6:AI:90:VAL:HG22	1.80	0.62
1:CA:272:C:H2'	1:CA:273:A:H8	1.63	0.62
24:BA:654(R):C:O2'	24:BA:654(S):G:OP1	2.06	0.62
19:AV:11:VAL:CG1	19:AV:39:THR:H	2.11	0.62
24:BA:1212:G:H1'	24:BA:1237:A:H61	1.62	0.62
43:DU:48:ALA:HB2	43:DU:61:ILE:HD13	1.82	0.62
24:BA:627:A:O2'	24:BA:628:G:C8	2.52	0.62
14:CQ:23:ARG:NH1	14:CQ:30:ALA:HB2	2.14	0.62
29:BG:16:ARG:HH21	29:BG:31:VAL:HG11	1.63	0.62
2:AE:91:PRO:HB3	2:AE:154:LEU:HD21	1.81	0.62
54:DA:1173:G:H4'	54:DA:1174:A:N7	2.15	0.62
37:DQ:100:ALA:HA	37:DQ:103:GLU:CG	2.30	0.62
5:AH:78:HIS:HA	8:AK:105:ARG:HG3	1.80	0.62
24:BA:242:G:O2'	24:BA:243:U:P	2.57	0.62
24:BA:85:G:P	43:BU:30:VAL:HG21	2.39	0.62
7:AJ:25:ALA:HA	7:AJ:28:ASN:HD22	1.64	0.62
9:AL:105:ASP:OD2	9:AL:107:ARG:HD3	2.00	0.62
29:DG:112:PRO:HB3	49:D4:37:SER:CB	2.25	0.62
33:DN:104:ARG:CZ	38:DR:34:VAL:HG11	2.29	0.62
54:DA:1926:U:C4	54:DA:1929:G:O6	2.53	0.62
34:DO:65:ARG:HE	53:D8:15:LYS:HB2	1.65	0.62
4:CG:170:VAL:HG22	4:CG:171:GLY:N	2.12	0.62
24:BA:607:U:OP1	28:BF:102:PRO:HA	2.00	0.62
24:BA:2851:A:O5'	24:BA:2851:A:H8	1.81	0.62
1:AA:250:A:O2'	1:AA:251:G:OP2	2.15	0.62
31:BK:8:PRO:HA	31:BK:14:ASP:HA	1.81	0.62
12:AO:32:PHE:HE1	12:AO:86:ARG:HG3	1.64	0.62
18:AU:19:LYS:CD	18:AU:19:LYS:H	2.13	0.62
20:CW:14:LYS:HA	20:CW:17:ARG:NH1	2.14	0.62
1:AA:719:C:O2'	18:AU:49:LYS:HB3	1.99	0.62
46:DZ:76:ARG:HD2	46:DZ:76:ARG:H	1.64	0.62
27:BE:9:VAL:HG21	27:BE:25:VAL:HG12	1.80	0.62
8:AK:26:VAL:HG13	8:AK:59:LEU:HB2	1.81	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1171:G:H2'	1:AA:1172:C:C6	2.34	0.62
24:BA:884:C:OP1	24:BA:884:C:O4'	2.18	0.62
1:AA:287:U:O2'	1:AA:288:A:H5'	2.00	0.62
54:DA:557:U:H2'	54:DA:558:G:H8	1.65	0.62
1:CA:668:G:O2'	15:CR:46:HIS:HB3	2.00	0.62
1:AA:508:C:H5''	1:AA:509:A:OP1	2.00	0.62
8:CK:58:TYR:O	8:CK:59:LEU:HD23	2.00	0.62
54:DA:282:A:H2'	54:DA:282:A:N3	2.14	0.62
54:DA:55:G:N3	54:DA:127:A:H2	1.96	0.62
25:BB:39:A:N1	49:B4:1:MET:HB2	2.14	0.62
34:DO:50:ARG:NH2	34:DO:50:ARG:CB	2.57	0.62
30:BH:11:VAL:HG23	30:BH:13:LYS:CG	2.25	0.62
13:CP:69:GLU:O	13:CP:72:ALA:N	2.32	0.62
26:DD:35:LYS:HA	26:DD:64:ILE:HG22	1.81	0.62
2:AE:91:PRO:HG3	2:AE:154:LEU:CD2	2.25	0.62
27:BE:48:GLN:CD	27:BE:78:LEU:HD12	2.19	0.62
44:BV:35:ARG:HH12	44:BV:61:LEU:CD2	2.12	0.62
37:BQ:106:ARG:HA	37:BQ:110:LEU:CG	2.29	0.62
54:DA:1026:U:O2'	54:DA:1027:A:O5'	2.17	0.62
34:BO:59:LEU:CD2	34:BO:60:MET:N	2.60	0.62
1:CA:450:G:N7	1:CA:481:G:C6	2.68	0.62
24:BA:2277:G:OP1	35:BP:85:LYS:HB3	1.99	0.62
54:DA:1406:U:H2'	54:DA:1407:C:C6	2.35	0.62
9:CL:116:LYS:O	9:CL:118:LYS:N	2.33	0.62
20:AW:51:GLU:HA	20:AW:54:LYS:HE3	1.81	0.62
24:BA:2449:U:O2'	24:BA:2450:A:H8	1.82	0.62
24:BA:2165:G:H2'	24:BA:2166:G:N2	2.13	0.62
25:BB:109:G:H2'	25:BB:110:G:C8	2.34	0.62
6:AI:47:ARG:NH1	6:AI:47:ARG:HB3	2.13	0.62
4:AG:96:LEU:HD12	4:AG:139:ARG:CZ	2.29	0.62
24:BA:637:A:H4'	24:BA:638:G:O5'	1.99	0.62
8:CK:112:LEU:HD12	8:CK:112:LEU:O	1.98	0.62
24:BA:372:G:C2'	24:BA:373:U:OP2	2.48	0.62
26:BD:175:LEU:HD12	26:BD:185:VAL:HG21	1.82	0.62
29:DG:170:ARG:O	29:DG:174:GLU:HB2	1.99	0.62
54:DA:969:U:H2'	54:DA:970:C:C6	2.34	0.62
54:DA:2092:U:H4'	54:DA:2093:G:O5'	1.98	0.62
54:DA:163:U:H4'	54:DA:164:U:C5	2.34	0.62
1:AA:1123:A:H4'	10:AM:36:GLY:HA3	1.81	0.62
22:AD:42:G:H2'	22:AD:43:A:H8	1.65	0.62
1:AA:1091:U:H2'	1:AA:1093:A:OP2	1.99	0.62
49:B4:13:ARG:H	49:B4:24:THR:CB	2.12	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BB:44:G:H5''	25:BB:45:A:OP1	1.99	0.62
19:AV:40:ILE:O	19:AV:41:VAL:CG2	2.42	0.62
19:AV:62:ILE:HG23	19:AV:66:MET:CE	2.29	0.62
1:AA:1282:C:H2'	1:AA:1283:G:O4'	2.00	0.62
2:AE:135:GLN:HG3	2:AE:136:VAL:H	1.64	0.62
43:BU:98:VAL:O	43:BU:99:CYS:HB3	2.00	0.62
1:CA:1318:A:C4'	19:CV:11:VAL:HG11	2.30	0.62
19:CV:12:ASP:OD1	19:CV:37:ARG:HD2	2.00	0.62
19:CV:39:THR:HG22	19:CV:40:ILE:N	2.14	0.62
19:CV:5:LEU:HD11	49:D4:66:SER:CB	2.30	0.62
27:BE:80:GLU:O	27:BE:81:ILE:HB	2.00	0.62
53:B8:32:LEU:HG	53:B8:36:LYS:HG3	1.82	0.62
54:DA:1535:U:H2'	54:DA:1536:A:H8	1.65	0.62
4:CG:11:LEU:C	4:CG:13:ARG:H	2.00	0.62
47:DW:69:ARG:HB2	47:DW:69:ARG:CZ	2.30	0.62
26:DD:133:LEU:HD21	26:DD:191:ALA:CB	2.29	0.62
54:DA:882:G:H2'	54:DA:883:G:C8	2.35	0.62
44:DV:94:GLU:HB2	44:DV:130:PRO:CD	2.30	0.62
26:DD:134:ARG:HD3	26:DD:135:PHE:CE2	2.35	0.62
47:BW:17:SER:HB2	47:BW:18:PRO:C	2.19	0.62
54:DA:2199:A:H3'	54:DA:2205:C:C6	2.35	0.62
1:CA:9:G:H2'	1:CA:10:A:H8	1.65	0.62
47:DW:70:GLN:O	47:DW:71:ASN:HB2	2.00	0.62
1:AA:210:U:O2'	1:AA:216:G:C8	2.53	0.62
2:AE:180:LEU:O	2:AE:181:PHE:HB2	2.00	0.62
9:CL:23:ASN:ND2	9:CL:23:ASN:H	1.98	0.62
54:DA:654(A):A:N1	54:DA:654(T):A:N1	2.48	0.62
37:DQ:48:LEU:N	37:DQ:48:LEU:HD12	2.14	0.62
12:AO:23:LYS:N	12:AO:23:LYS:HD3	2.15	0.62
1:AA:619:U:N3	4:AG:135:LEU:HD11	2.14	0.62
29:BG:98:ARG:O	29:BG:101:ILE:HG13	2.00	0.62
11:AN:13:GLN:CD	11:AN:13:GLN:H	2.03	0.62
54:DA:242:G:H5''	53:D8:62:LEU:CD2	2.30	0.62
30:BH:3:ARG:HD3	30:BH:6:ARG:HE	1.64	0.62
40:B2:35:LEU:O	40:B2:37:VAL:N	2.33	0.62
1:CA:1053:G:O6	1:CA:1199:U:H2'	2.00	0.62
49:D4:61:ARG:O	49:D4:63:TYR:N	2.33	0.62
32:DM:133:GLN:O	32:DM:134:ARG:HB3	2.00	0.62
34:DO:108:LYS:H	34:DO:108:LYS:HD2	1.64	0.62
24:BA:1930:G:C2'	24:BA:1931:U:OP2	2.48	0.62
28:BF:89:VAL:CG1	28:BF:90:PHE:H	2.03	0.62
37:BQ:108:GLY:C	37:BQ:110:LEU:H	2.03	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AM:78:ASN:HD22	10:AM:81:THR:HG23	1.65	0.62
16:CS:4:ILE:HG13	16:CS:21:VAL:CG1	2.29	0.62
43:BU:89:PHE:CD1	43:BU:90:LEU:HD23	2.22	0.62
24:BA:830:G:H4'	24:BA:831:G:OP2	1.98	0.62
43:BU:54:LYS:HB3	43:BU:55:TYR:CE2	2.35	0.62
24:BA:90:U:O2'	24:BA:91:A:C8	2.53	0.62
5:CH:51:VAL:HB	5:CH:52:PRO:CD	2.30	0.62
33:DN:7:TYR:HE1	33:DN:20:MET:HE3	1.65	0.62
24:BA:621:A:H2'	24:BA:622:G:C5'	2.29	0.62
28:DF:28:ILE:HG22	28:DF:112:MET:HB3	1.80	0.62
24:BA:2171:A:H2'	24:BA:2172:U:H6	1.63	0.62
24:BA:1312:U:H3'	42:BT:63:LYS:NZ	2.15	0.62
27:BE:197:ILE:HD11	27:BE:199:ARG:NH2	2.14	0.62
24:BA:2030:A:H4'	24:BA:2031:A:C8	2.31	0.62
2:AE:97:TRP:HH2	2:AE:176:GLU:HG3	1.64	0.62
47:BW:17:SER:CB	47:BW:18:PRO:CA	2.77	0.62
9:AL:48:GLU:N	9:AL:49:PRO:HD2	2.15	0.62
14:CQ:53:LEU:HB3	14:CQ:56:VAL:HG21	1.80	0.62
2:CE:23:ARG:HD3	2:CE:23:ARG:H	1.64	0.62
29:DG:142:PRO:HB2	49:D4:31:ILE:CD1	2.30	0.62
7:AJ:148:ASN:O	7:AJ:150:ALA:N	2.32	0.62
1:CA:1028:C:H3'	1:CA:1028(A):C:H5''	1.81	0.62
8:AK:40:ALA:CB	8:AK:45:ILE:HG13	2.30	0.62
42:BT:18:TYR:HA	42:BT:21:PHE:CE2	2.35	0.62
28:BF:170:LEU:HD23	28:BF:172:TRP:NE1	2.15	0.62
24:BA:1348:G:H2'	24:BA:1349:A:H5''	1.80	0.62
24:BA:270(R):G:H2'	24:BA:270(S):G:H8	1.63	0.62
24:BA:648:G:H1'	24:BA:2351:G:OP1	1.99	0.62
8:CK:16:ALA:HB2	8:CK:24:THR:HG21	1.82	0.62
54:DA:839:U:H1'	54:DA:1191:G:H1'	1.81	0.62
36:B0:28:LEU:HD13	36:B0:28:LEU:O	2.00	0.62
9:AL:22:GLY:O	9:AL:24:GLY:N	2.32	0.62
9:AL:28:VAL:HB	9:AL:62:TYR:HA	1.82	0.62
9:AL:29:ASN:ND2	9:AL:30:GLY:H	1.97	0.62
54:DA:1056:G:H4'	54:DA:1057:A:C8	2.35	0.62
54:DA:1061:U:H4'	54:DA:1070:A:H1'	1.81	0.62
34:BO:101:VAL:HG13	34:BO:102:ARG:N	2.14	0.62
27:DE:51:PHE:O	27:DE:52:LEU:C	2.38	0.62
1:CA:1363:A:H2'	1:CA:1363:A:N3	2.14	0.62
1:CA:963:G:N3	10:CM:55:LYS:NZ	2.42	0.62
13:CP:66:LEU:HA	13:CP:70:LEU:HD23	1.81	0.62
34:DO:112:LEU:HD11	34:DO:114:ILE:HG23	1.80	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:123:GLN:O	3:AF:128:PHE:HB2	2.00	0.62
54:DA:2892:A:H2'	54:DA:2893:G:O4'	1.99	0.62
4:AG:21:LEU:HD12	4:AG:22:LYS:N	2.14	0.62
28:DF:32:LEU:CD1	28:DF:105:VAL:HG13	2.29	0.62
54:DA:1403:C:H5''	54:DA:1471:A:C1'	2.24	0.62
47:DW:17:SER:HB2	47:DW:18:PRO:CA	2.30	0.62
24:BA:943:U:OP2	34:BO:36:LYS:HE3	2.00	0.62
54:DA:51:G:N2	54:DA:120:U:H6	1.95	0.62
42:BT:26:TYR:OH	42:BT:88:LYS:HB2	1.99	0.62
38:BR:122:ASP:O	38:BR:126:ALA:HB2	1.99	0.62
38:BR:62:THR:CG2	38:BR:75:ILE:HG12	2.30	0.62
24:BA:274:G:O4'	24:BA:274:G:OP1	2.17	0.62
35:BP:43:THR:C	35:BP:45:GLN:H	2.03	0.62
32:BM:133:GLN:CG	32:BM:135:PRO:HD3	2.29	0.62
32:BM:126:PRO:O	32:BM:127:ASP:HB2	1.99	0.62
4:CG:79:PHE:CD2	4:CG:79:PHE:C	2.71	0.62
1:CA:537:G:H5''	12:CO:113:ARG:HH12	1.64	0.62
11:CN:54:ARG:NH2	22:CD:39:C:O3'	2.28	0.62
54:DA:1204:A:O2'	54:DA:1205:U:C5'	2.48	0.62
24:BA:1918:A:O2'	24:BA:1919:A:C8	2.53	0.62
8:AK:20:TYR:HE2	8:AK:75:ARG:HD2	1.65	0.62
1:AA:544:G:H2'	1:AA:545:C:C6	2.35	0.62
1:AA:748:C:H1'	1:AA:749:C:H5	1.63	0.62
3:CF:111:LEU:HD21	3:CF:144:SER:O	2.00	0.62
27:DE:131:ALA:HB1	27:DE:135:HIS:CE1	2.34	0.62
12:AO:6:THR:HG23	12:AO:9:GLN:HE21	1.65	0.62
2:CE:194:PRO:HG2	2:CE:195:ASP:H	1.64	0.62
33:BN:63:VAL:HG23	33:BN:64:ARG:HG3	1.82	0.62
10:AM:89:ASP:C	10:AM:90:LEU:HD12	2.19	0.62
46:DZ:87:PRO:O	46:DZ:88:LYS:C	2.37	0.61
11:AN:13:GLN:CA	11:AN:13:GLN:OE1	2.47	0.61
31:BK:77:LEU:CA	31:BK:140:LEU:HD12	2.30	0.61
30:BH:125:VAL:HG13	30:BH:126:PRO:CB	2.30	0.61
27:BE:81:ILE:HG21	27:BE:84:PHE:CD1	2.35	0.61
26:BD:28:GLU:HB2	26:BD:29:PRO:CD	2.30	0.61
4:AG:18:LYS:HG3	4:AG:21:LEU:HD21	1.81	0.61
24:BA:2420:C:OP1	53:B8:34:TRP:HB3	1.99	0.61
31:DK:124:GLY:H	31:DK:142:VAL:HG23	1.65	0.61
27:BE:92:THR:O	27:BE:95:ILE:HD11	1.99	0.61
16:CS:20:VAL:HG21	16:CS:32:TYR:CD2	2.35	0.61
38:DR:31:SER:HA	38:DR:44:ASP:OD2	2.00	0.61
13:AP:118:ALA:HA	22:AC:29:G:H5'	1.82	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:321:A:N6	1:AA:328:C:O2'	2.33	0.61
48:BX:8:LEU:HB2	48:BX:28:LEU:HD13	1.81	0.61
1:AA:690:G:H2'	1:AA:691:G:O4'	2.00	0.61
27:DE:104:VAL:HG11	27:DE:188:VAL:HG23	1.82	0.61
26:DD:70:TRP:CH2	26:DD:150:LYS:HA	2.35	0.61
16:CS:51:VAL:CG1	16:CS:52:ASP:H	2.11	0.61
24:BA:2133:G:HO2'	24:BA:2158:A:H2	1.48	0.61
32:BM:91:LEU:HA	32:BM:95:PRO:HB3	1.81	0.61
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.35	0.61
1:AA:1018:C:H2'	1:AA:1019:C:O4'	1.99	0.61
1:CA:1027:C:H2'	1:CA:1028:C:C5	2.35	0.61
24:BA:2046:G:H5'	50:B5:19:ARG:HG3	1.81	0.61
6:AI:45:LEU:HD23	6:AI:46:ARG:N	2.15	0.61
1:AA:90:C:H2'	1:AA:90:C:O2	1.98	0.61
26:BD:134:ARG:HG3	26:BD:135:PHE:CD2	2.34	0.61
6:CI:8:ILE:HD11	6:CI:79:LEU:HD13	1.81	0.61
24:BA:1059:G:H2'	24:BA:1060:U:C6	2.34	0.61
15:AR:74:ASP:OD2	15:AR:77:ARG:HG2	1.99	0.61
39:D1:102:GLU:HG3	40:D2:2:PHE:CE2	2.34	0.61
54:DA:8:A:H5''	32:DM:51:PHE:CZ	2.34	0.61
54:DA:696:G:O2'	54:DA:697:C:H5'	1.99	0.61
24:BA:2599:G:OP2	26:BD:236:GLY:N	2.28	0.61
42:BT:36:LYS:HG3	42:BT:56:THR:HG23	1.82	0.61
2:AE:188:ALA:HB1	2:AE:192:SER:HB2	1.82	0.61
46:DZ:73:LEU:C	46:DZ:75:GLU:H	2.03	0.61
17:CT:65:ILE:HD12	17:CT:65:ILE:N	2.15	0.61
3:CF:127:ARG:HH11	3:CF:127:ARG:HG2	1.64	0.61
1:AA:519:C:H2'	1:AA:520:A:H5'	1.81	0.61
9:AL:20:ARG:HG2	9:AL:20:ARG:NH1	2.14	0.61
44:DV:132:ASN:HB2	44:DV:160:GLY:HA3	1.82	0.61
24:BA:1045:A:O2'	24:BA:1046:A:H5'	2.00	0.61
34:BO:115:LEU:HD13	34:BO:116:GLY:N	2.14	0.61
13:CP:80:ARG:NH2	49:D4:70:GLY:HA3	2.15	0.61
24:BA:2808:U:H2'	24:BA:2809:A:H5'	1.82	0.61
44:BV:27:VAL:HA	44:BV:37:VAL:HG22	1.82	0.61
32:DM:62:VAL:CG1	32:DM:66:LYS:HD2	2.29	0.61
5:AH:20:GLN:NE2	5:AH:21:ALA:N	2.48	0.61
54:DA:51:G:N2	54:DA:120:U:C6	2.65	0.61
1:CA:280:C:C2	17:CT:38:ARG:HG3	2.35	0.61
26:DD:182:LEU:H	26:DD:272:ALA:HB3	1.63	0.61
35:DP:88:GLY:C	35:DP:90:VAL:H	2.02	0.61
42:BT:63:LYS:H	42:BT:63:LYS:CD	2.09	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DK:88:ILE:HG12	31:DK:122:GLU:N	2.13	0.61
54:DA:2319:G:N3	54:DA:2319:G:H2'	2.15	0.61
38:DR:24:PRO:O	38:DR:94:ALA:HB2	2.00	0.61
24:BA:2732:G:H3'	24:BA:2733:A:C5'	2.28	0.61
2:AE:172:ILE:N	2:AE:172:ILE:HD12	2.14	0.61
24:BA:2485:G:O2'	24:BA:2486:G:H5'	2.00	0.61
9:CL:65:VAL:HG21	9:CL:73:GLN:HB3	1.81	0.61
5:CH:42:GLY:HA2	5:CH:136:MET:HE1	1.82	0.61
41:DS:60:ASN:C	41:DS:61:ASN:HD22	2.03	0.61
54:DA:1791:A:OP2	54:DA:1791:A:H8	1.82	0.61
9:CL:59:PHE:HZ	9:CL:88:TYR:CE1	2.17	0.61
54:DA:1972:A:H2'	54:DA:1973:G:H8	1.66	0.61
55:DB:90:C:OP1	35:DP:16:ARG:HG2	1.99	0.61
1:CA:624:C:O3'	16:CS:10:GLY:HA2	1.99	0.61
1:AA:804:U:H5''	1:AA:805:C:OP2	2.00	0.61
54:DA:2672:G:H3'	54:DA:2673:G:H5''	1.82	0.61
40:B2:45:THR:C	40:B2:47:VAL:H	2.03	0.61
31:DK:33:ARG:HH11	31:DK:33:ARG:HG3	1.64	0.61
11:AN:87:THR:O	11:AN:87:THR:HG22	1.99	0.61
24:BA:894:C:H5'	24:BA:895:U:OP2	2.00	0.61
24:BA:347:A:O2'	24:BA:348:G:H5'	2.00	0.61
49:B4:63:TYR:CZ	49:B4:69:LYS:HE3	2.34	0.61
39:B1:66:ASN:O	39:B1:70:ARG:HG2	1.99	0.61
54:DA:2419:U:OP1	51:D6:23:THR:HG21	1.99	0.61
54:DA:747:U:C2	50:D5:2:ALA:HB3	2.35	0.61
11:CN:51:LYS:CA	11:CN:55:LYS:HD3	2.21	0.61
12:AO:46:LYS:HG2	12:AO:47:LYS:N	2.14	0.61
5:AH:139:LEU:HD23	5:AH:142:LEU:HD11	1.82	0.61
2:CE:17:PHE:CD2	2:CE:44:LEU:HD11	2.36	0.61
20:CW:34:LYS:O	20:CW:38:LYS:HB2	2.01	0.61
30:BH:159:GLU:HG3	30:BH:170:ARG:NH1	2.16	0.61
54:DA:26:G:C6	54:DA:27:G:N1	2.67	0.61
26:DD:227:ASN:CB	26:DD:228:PRO:HD2	2.24	0.61
24:BA:90:U:C2'	24:BA:90:U:O2	2.41	0.61
30:DH:6:ARG:HG3	30:DH:7:LEU:N	2.15	0.61
7:AJ:77:SER:O	7:AJ:78:ARG:HD2	2.00	0.61
3:CF:189:ALA:O	3:CF:191:THR:HG23	1.99	0.61
1:CA:1177:G:H2'	1:CA:1178:G:C2	2.35	0.61
35:BP:38:GLU:OE2	35:BP:128:LYS:HD3	2.00	0.61
24:BA:887:A:N3	24:BA:887:A:H2'	2.14	0.61
15:CR:74:ASP:OD1	15:CR:77:ARG:HG2	2.00	0.61
1:AA:451:A:H1'	1:AA:452:A:N7	2.15	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:372:G:C2'	54:DA:373:U:OP2	2.47	0.61
24:BA:953:A:OP2	35:BP:16:ARG:NH1	2.33	0.61
28:BF:160:ASN:CG	28:BF:163:VAL:HG23	2.21	0.61
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.35	0.61
1:AA:545:C:H5''	4:AG:72:GLU:HG2	1.81	0.61
2:AE:78:GLN:HG2	2:AE:94:ASN:HD21	1.65	0.61
24:BA:1620:G:O4'	52:B7:1:MET:N	2.32	0.61
5:AH:107:ARG:HG2	5:AH:108:ALA:N	2.14	0.61
36:B0:18:LEU:HD11	36:B0:22:ARG:HE	1.66	0.61
24:BA:1465:G:N2	24:BA:1466:G:H1'	2.15	0.61
1:CA:1067:A:HO2'	1:CA:1068:G:H8	1.48	0.61
35:DP:54:MET:O	35:DP:57:HIS:HB3	2.00	0.61
42:DT:15:GLU:OE1	42:DT:15:GLU:N	2.34	0.61
24:BA:208:C:H2'	24:BA:209:C:H6	1.65	0.61
35:DP:2:LEU:HD23	35:DP:2:LEU:H	1.65	0.61
1:CA:1039:C:H3'	1:CA:1040:U:H5''	1.82	0.61
39:B1:85:LYS:C	39:B1:87:GLY:H	2.03	0.61
53:B8:25:MET:O	53:B8:48:PHE:CE1	2.53	0.61
30:BH:59:ARG:C	30:BH:61:HIS:H	2.04	0.61
36:B0:38:VAL:HB	36:B0:39:PRO:HD3	1.83	0.61
34:BO:115:LEU:HD22	34:BO:116:GLY:N	2.10	0.61
25:BB:29:A:H2'	25:BB:30:C:O4'	1.99	0.61
51:D6:7:ILE:HG13	51:D6:8:LYS:N	2.06	0.61
53:D8:22:VAL:HG21	53:D8:53:PRO:HB2	1.82	0.61
54:DA:622:G:O2'	54:DA:623:G:H5'	2.00	0.61
24:BA:2287:A:O2'	24:BA:2288:A:H3'	2.00	0.61
44:BV:10:ARG:HG2	44:BV:10:ARG:HH11	1.63	0.61
37:BQ:23:ARG:HB3	37:BQ:86:ALA:HB2	1.82	0.61
1:AA:1176:A:N6	1:AA:1177:G:C6	2.68	0.61
40:B2:79:VAL:O	40:B2:80:GLN:CB	2.49	0.61
54:DA:2404:C:H1'	34:DO:67:MET:CE	2.30	0.61
24:BA:1033:U:O2'	24:BA:1034:G:C5'	2.48	0.61
24:BA:1946:U:H2'	24:BA:1947:C:H6	1.64	0.61
7:CJ:15:ASP:O	7:CJ:19:GLY:HA2	2.00	0.61
40:D2:46:VAL:HG13	40:D2:46:VAL:O	2.01	0.61
1:AA:1053:G:N7	1:AA:1200:C:H5''	2.14	0.61
55:DB:12:C:H4'	55:DB:13:A:C5'	2.30	0.61
54:DA:791:C:H4'	54:DA:792:G:OP1	1.99	0.61
24:BA:1022:G:O2'	24:BA:1023:U:OP2	2.17	0.61
30:DH:137:ASP:HB3	30:DH:140:LYS:HB2	1.81	0.61
24:BA:2497:A:H1'	24:BA:2498:C:H5	1.65	0.61
37:DQ:17:ARG:HG3	37:DQ:18:ILE:N	2.14	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1160:G:H1	1:CA:1177:G:N2	1.98	0.61
27:DE:35:GLN:HG2	27:DE:37:ARG:NE	2.14	0.61
1:AA:991:U:O2'	1:AA:992:U:H4'	2.01	0.61
24:BA:2159:G:H2'	24:BA:2160:G:C8	2.35	0.61
54:DA:774:A:C2	54:DA:787:U:O2'	2.52	0.61
49:D4:23:GLU:O	49:D4:25:TYR:N	2.33	0.61
10:AM:79:ARG:O	10:AM:83:GLU:HB2	2.01	0.61
9:AL:25:LYS:HB3	9:AL:57:GLY:HA3	1.83	0.61
1:AA:625:G:H2'	1:AA:626:U:H6	1.64	0.61
46:BZ:52:ARG:HD2	46:BZ:56:GLN:C	2.21	0.61
32:BM:70:LYS:HE2	32:BM:72:TYR:CE1	2.34	0.61
22:AD:65:C:H2'	22:AD:66:C:H5'	1.82	0.61
1:CA:1378:C:O2	7:CJ:76:ARG:NH1	2.34	0.61
37:DQ:49:VAL:HG22	37:DQ:80:LEU:HD12	1.82	0.61
24:BA:1772:G:N2	24:BA:1774:C:H5''	2.15	0.61
1:AA:163:C:H2'	1:AA:164:U:O4'	2.00	0.61
41:DS:5:ALA:O	41:DS:50:VAL:HG13	2.00	0.61
29:BG:122:PRO:HA	29:BG:125:PHE:CE1	2.35	0.61
1:AA:518:C:C5	1:AA:530:G:H5'	2.35	0.61
2:CE:108:ILE:O	2:CE:111:ARG:HB2	2.01	0.61
9:AL:28:VAL:HG11	9:AL:63:ILE:H	1.66	0.61
30:BH:49:VAL:HG22	30:BH:50:VAL:N	2.16	0.61
43:DU:44:ILE:HG13	43:DU:45:VAL:H	1.64	0.61
24:BA:464:U:H4'	52:B7:5:TRP:CZ3	2.35	0.61
52:B7:8:ASN:C	52:B7:8:ASN:ND2	2.53	0.61
1:CA:1534:A:O2'	1:CA:1535:C:H5	1.83	0.61
22:AD:54:U:N3	22:AD:58:A:N6	2.48	0.61
35:DP:66:ILE:CG1	35:DP:67:ARG:H	2.12	0.61
54:DA:1535:U:C3'	54:DA:1536:A:H5''	2.24	0.61
1:AA:1158:C:C2'	1:AA:1158:C:O2	2.48	0.61
4:CG:12:CYS:HB2	4:CG:31:CYS:O	2.00	0.61
26:DD:27:THR:O	26:DD:29:PRO:HD2	1.99	0.61
54:DA:222:A:H3'	54:DA:421:U:H5'	1.82	0.61
31:DK:71:ILE:HG12	31:DK:71:ILE:O	2.00	0.61
1:CA:562:C:O2'	12:CO:15:ARG:HB3	2.01	0.61
10:CM:34:VAL:CG2	10:CM:74:ILE:HG22	2.30	0.61
54:DA:1251:C:H4'	54:DA:1252:G:OP1	1.98	0.61
52:B7:47:ARG:NH1	52:B7:47:ARG:HB2	2.15	0.61
22:AD:22:G:H2'	22:AD:23:C:H6	1.62	0.61
1:AA:539:A:H2'	1:AA:540:G:H8	1.63	0.61
24:BA:2162:G:H4'	24:BA:2173:A:OP2	2.00	0.61
6:AI:49:ALA:HB3	18:AU:79:LEU:O	1.99	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:152:ILE:HG22	3:AF:152:ILE:O	1.99	0.61
1:AA:808:C:OP1	15:AR:48:LYS:HD2	2.00	0.61
27:BE:107:THR:O	27:BE:190:GLY:HA2	2.00	0.61
1:CA:838:G:C2'	1:CA:841:U:H5''	2.30	0.61
24:BA:709:U:H2'	24:BA:710:G:C8	2.35	0.61
44:BV:19:ARG:NH1	44:BV:84:GLU:O	2.32	0.61
24:BA:2395:C:H2'	24:BA:2396:G:O4'	2.00	0.61
3:AF:150:LYS:HB2	3:AF:169:ALA:CB	2.29	0.61
5:CH:131:ILE:O	5:CH:134:ALA:HB3	2.01	0.61
54:DA:924:C:H2'	54:DA:925:C:C6	2.35	0.61
26:BD:2:ALA:O	26:BD:3:VAL:HB	2.00	0.61
20:AW:82:SER:HB2	20:AW:86:ARG:HD2	1.82	0.61
35:BP:81:VAL:HA	35:BP:82:ARG:HH12	1.64	0.61
31:BK:100:ALA:O	31:BK:102:SER:N	2.34	0.61
31:DK:77:LEU:C	31:DK:77:LEU:HD12	2.21	0.61
27:DE:95:ILE:N	27:DE:95:ILE:HD12	2.15	0.61
30:BH:49:VAL:HG22	30:BH:50:VAL:HG12	1.81	0.61
30:DH:152:ARG:O	30:DH:153:LYS:CD	2.48	0.61
24:BA:1396:U:H5''	24:BA:1397:U:OP2	2.00	0.61
26:BD:142:VAL:HG21	26:BD:191:ALA:HB1	1.81	0.61
21:CX:15:ARG:HG2	21:CX:15:ARG:HH11	1.63	0.61
32:DM:7:LYS:CD	32:DM:9:VAL:H	2.13	0.61
35:BP:141:GLN:O	44:BV:75:ASN:HA	2.00	0.61
24:BA:84:A:H4'	24:BA:85:G:O5'	2.00	0.61
24:BA:265:A:N7	24:BA:428:A:C6	2.69	0.61
36:D0:44:LEU:HD22	36:D0:48:VAL:HG23	1.82	0.61
1:CA:818:G:H3'	1:CA:819:A:C5'	2.30	0.61
26:DD:25:THR:HG21	26:DD:81:ALA:CA	2.31	0.61
54:DA:1833:U:O2	54:DA:1969:A:H2	1.84	0.61
54:DA:1820:U:H4'	54:DA:1821:A:OP2	1.98	0.61
43:BU:21:LYS:HG3	43:BU:21:LYS:O	1.99	0.61
35:DP:86:GLY:C	35:DP:88:GLY:N	2.52	0.61
24:BA:1497:U:H5''	24:BA:1498:C:OP2	2.01	0.61
29:DG:77:ILE:HD13	29:DG:82:LEU:CD1	2.29	0.61
11:CN:121:PRO:HD2	11:CN:126:ARG:HD3	1.82	0.61
54:DA:1454:U:O2'	54:DA:1455:G:C8	2.51	0.61
9:CL:28:VAL:HG13	9:CL:63:ILE:HG22	1.83	0.61
44:DV:73:GLN:HB3	44:DV:87:ASP:OD1	2.01	0.61
36:B0:2:ARG:NH1	36:B0:2:ARG:HG2	2.12	0.61
29:DG:6:ALA:HB2	49:D4:23:GLU:OE2	1.99	0.61
1:CA:104:G:O2'	1:CA:105:G:H5'	2.01	0.61
1:AA:677:U:H2'	1:AA:678:U:C6	2.35	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CO:126:LYS:C	12:CO:128:ALA:H	2.04	0.61
24:BA:2340:G:O2'	24:BA:2341:G:H5'	1.99	0.61
6:CI:69:GLU:O	6:CI:72:VAL:HG12	2.01	0.61
1:CA:630:G:H2'	1:CA:631:G:C4'	2.29	0.61
22:AD:3:C:H2'	22:AD:4:G:C8	2.35	0.61
54:DA:688:U:H5'	54:DA:1780:A:C2	2.36	0.61
26:DD:2:ALA:HB3	26:DD:20:ASP:HB3	1.83	0.61
24:BA:687:C:H2'	24:BA:687:C:O2	2.00	0.61
1:AA:971:G:H2'	1:AA:1365:G:H4'	1.81	0.61
19:AV:15:LEU:O	19:AV:19:VAL:HG23	2.01	0.61
19:AV:36:ARG:HB2	19:AV:72:GLY:H	1.66	0.61
19:AV:36:ARG:NH1	19:AV:71:LEU:H	1.98	0.61
29:BG:133:LEU:HD21	29:BG:157:ILE:HB	1.83	0.61
1:CA:1006:C:H2'	1:CA:1007:C:C6	2.35	0.61
1:AA:1126:U:H5''	1:AA:1280:A:N7	2.16	0.61
24:BA:2751:G:OP1	30:BH:3:ARG:HA	1.99	0.61
43:BU:75:ILE:CG1	43:BU:80:GLY:N	2.61	0.61
24:BA:996:A:H4'	39:B1:92:ARG:NE	2.14	0.61
1:CA:1221:G:O3'	19:CV:77:THR:HG21	2.01	0.61
2:AE:32:ILE:HG12	2:AE:33:TYR:N	2.16	0.61
53:D8:29:LYS:HD3	53:D8:44:LYS:CB	2.30	0.61
28:BF:61:GLY:HA2	28:BF:77:ASP:CB	2.31	0.61
32:DM:96:GLU:O	32:DM:98:VAL:N	2.33	0.61
24:BA:428:A:N6	24:BA:429:A:C2	2.69	0.61
54:DA:1372:U:H5'	54:DA:1372:U:C6	2.35	0.61
24:BA:2875:C:C4'	38:BR:5:ALA:HB2	2.25	0.61
7:CJ:140:ASP:C	7:CJ:142:GLU:H	2.03	0.61
51:D6:18:ARG:HD2	51:D6:18:ARG:O	2.00	0.61
54:DA:1952:A:C5	33:DN:22:ILE:HD12	2.35	0.61
33:DN:8:LEU:HB2	33:DN:19:ILE:HD11	1.81	0.61
24:BA:434:U:C4'	24:BA:435:C:OP1	2.48	0.61
10:AM:96:ILE:HD13	10:AM:96:ILE:N	2.16	0.61
7:AJ:79:ARG:CG	7:AJ:80:VAL:N	2.63	0.61
31:DK:8:PRO:O	31:DK:9:LEU:HB3	1.99	0.61
54:DA:1803:A:H4'	26:DD:259:THR:HG21	1.81	0.61
31:BK:107:VAL:HG12	31:BK:108:THR:N	2.13	0.61
24:BA:1570:A:H2'	24:BA:1571:A:C8	2.36	0.61
54:DA:102:G:O2'	54:DA:103:A:OP2	2.18	0.61
47:DW:41:ILE:HD11	47:DW:44:LEU:HG	1.82	0.61
2:AE:127:ILE:HA	2:AE:130:ARG:HG2	1.81	0.61
1:AA:990:C:H2'	1:AA:991:U:C6	2.35	0.61
24:BA:2159:G:H2'	24:BA:2160:G:H8	1.65	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1537:C:O2'	24:BA:1538:G:O4'	2.19	0.61
24:BA:2355:C:H5'	45:B3:36:ILE:HD11	1.81	0.61
6:CI:77:ARG:NH1	6:CI:77:ARG:HB2	2.15	0.61
6:CI:10:LEU:HD13	6:CI:61:LEU:CD1	2.30	0.61
43:DU:19:LYS:O	43:DU:19:LYS:HG3	2.01	0.61
48:DX:5:LYS:HB2	48:DX:36:VAL:HG12	1.82	0.61
54:DA:161:U:H3'	54:DA:162:U:C5'	2.29	0.61
28:DF:119:ARG:HH11	28:DF:119:ARG:HG2	1.64	0.61
12:CO:85:ILE:HD11	12:CO:98:TYR:HB2	1.81	0.61
15:CR:68:ARG:O	15:CR:72:ARG:HB2	2.00	0.61
24:BA:2602:A:O2'	24:BA:2603:G:OP2	2.17	0.61
42:BT:60:ARG:O	42:BT:61:GLY:O	2.19	0.61
1:CA:692:U:H5	11:CN:26:ASN:HD21	1.47	0.61
4:CG:149:ALA:HB3	4:CG:152:SER:HB2	1.82	0.61
32:BM:89:LYS:O	32:BM:92:ALA:HB3	2.01	0.61
19:AV:36:ARG:CZ	19:AV:73:GLU:HB2	2.31	0.61
43:BU:36:ALA:HA	43:BU:69:ALA:H	1.65	0.61
43:BU:95:LYS:HZ2	43:BU:96:ILE:N	1.98	0.61
27:DE:52:LEU:HB3	27:DE:54:GLN:OE1	2.00	0.61
54:DA:1045:A:H5''	54:DA:1047:G:H1'	1.83	0.61
13:CP:117:VAL:HG22	13:CP:118:ALA:N	2.15	0.61
19:CV:41:VAL:CB	19:CV:42:PRO:CA	2.76	0.61
3:CF:13:GLY:HA3	14:CQ:57:ARG:CZ	2.31	0.61
26:DD:35:LYS:HE3	26:DD:64:ILE:C	2.21	0.61
51:D6:27:LYS:HB2	51:D6:27:LYS:HZ3	1.66	0.61
27:BE:63:LEU:O	27:BE:63:LEU:HD23	2.01	0.61
44:BV:107:THR:OG1	44:BV:108:PRO:HD3	2.00	0.61
44:BV:34:ASN:HD22	44:BV:34:ASN:N	1.99	0.61
44:BV:87:ASP:N	44:BV:87:ASP:OD2	2.34	0.61
54:DA:387:U:H4'	54:DA:388:G:O5'	2.00	0.61
55:DB:95:U:H3'	55:DB:95:U:C6	2.35	0.61
24:BA:1948:G:C2'	24:BA:1949:G:H5'	2.29	0.61
54:DA:1799:G:N2	54:DA:1818:U:O2'	2.34	0.61
26:DD:147:LEU:CD1	26:DD:155:LEU:HD11	2.26	0.61
13:CP:96:LEU:HB3	13:CP:97:PRO:HD2	1.83	0.61
54:DA:1187:G:H8	54:DA:1187:G:O5'	1.83	0.61
33:BN:98:VAL:HG12	33:BN:117:LEU:HB3	1.82	0.61
34:BO:19:VAL:HG13	34:BO:21:ARG:H	1.66	0.61
34:BO:71:VAL:CG1	34:BO:72:PRO:HD3	2.30	0.61
2:CE:21:ARG:HG3	2:CE:38:GLY:O	2.01	0.61
4:CG:106:TYR:HE1	4:CG:112:VAL:O	1.82	0.61
28:DF:164:ARG:HG2	28:DF:164:ARG:HH11	1.66	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:7:VAL:HG21	38:BR:1:MET:HE1	1.81	0.61
24:BA:458:G:O2'	24:BA:459:U:P	2.58	0.61
12:AO:19:ARG:HG2	12:AO:20:LYS:N	2.16	0.61
31:DK:21:VAL:HG22	31:DK:22:LYS:N	2.16	0.61
24:BA:277:C:H5''	24:BA:278:A:N7	2.16	0.61
8:AK:29:SER:HB3	8:AK:32:LYS:HB2	1.81	0.61
52:B7:28:ARG:HG3	52:B7:28:ARG:NH1	2.15	0.61
33:DN:78:ARG:HH21	38:DR:103:ARG:NH2	1.98	0.61
22:CC:17:C:H2'	22:CC:17(A):C:C5	2.36	0.61
24:BA:1937:A:O2'	24:BA:1938:A:P	2.59	0.61
41:BS:106:ILE:HG13	41:BS:106:ILE:O	2.00	0.61
41:DS:28:SER:O	41:DS:31:GLU:N	2.34	0.61
26:DD:137:PRO:HB2	26:DD:140:THR:HG23	1.81	0.61
24:BA:2150:U:H2'	24:BA:2151:G:H8	1.65	0.61
36:D0:38:VAL:HB	36:D0:39:PRO:HD3	1.81	0.61
1:AA:1028:C:O5'	1:AA:1028:C:H6	1.83	0.61
36:B0:44:LEU:HD13	36:B0:44:LEU:O	2.01	0.61
1:AA:426:G:H2'	1:AA:427:U:C6	2.36	0.61
14:AQ:3:ARG:O	14:AQ:7:ILE:HG23	2.01	0.61
30:BH:126:PRO:CB	30:BH:128:PRO:N	2.63	0.61
1:CA:963:G:N2	10:CM:55:LYS:HD3	2.15	0.61
19:CV:11:VAL:O	19:CV:12:ASP:HB2	2.00	0.61
49:D4:71:ARG:CG	49:D4:71:ARG:NH1	2.61	0.61
34:DO:96:THR:HG22	34:DO:126:VAL:HB	1.82	0.61
28:BF:4:VAL:HG22	28:BF:19:GLU:OE1	2.01	0.61
1:CA:1004:A:C2'	1:CA:1005:A:O5'	2.48	0.61
44:BV:103:ARG:N	44:BV:139:VAL:HG23	2.14	0.61
1:AA:4:U:O4	8:AK:105:ARG:HD3	2.00	0.61
35:DP:20:ALA:HB1	35:DP:99:PRO:CD	2.30	0.61
40:B2:1:MET:HG2	40:B2:2:PHE:N	2.16	0.61
54:DA:1359:A:H2'	54:DA:1360:A:H5'	1.82	0.61
10:AM:34:VAL:HG22	10:AM:74:ILE:HG22	1.81	0.61
51:D6:41:PRO:HD2	51:D6:46:HIS:N	2.16	0.61
8:CK:23:SER:HA	8:CK:63:LEU:CD2	2.24	0.61
13:AP:97:PRO:HA	13:AP:110:ARG:HD3	1.81	0.61
40:D2:41:GLY:H	40:D2:46:VAL:HG13	1.66	0.61
4:AG:178:VAL:HG12	4:AG:179:GLU:N	2.14	0.61
38:BR:117:ASP:O	38:BR:119:LYS:N	2.33	0.61
29:DG:44:GLY:HA2	29:DG:88:ILE:CG1	2.30	0.61
4:AG:127:THR:HG23	4:AG:147:ALA:HB3	1.82	0.61
44:BV:171:ILE:O	44:BV:172:ALA:CB	2.47	0.61
24:BA:1688:U:H1'	24:BA:1701:A:C6	2.36	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:713:G:N2	1:AA:777:A:C1'	2.64	0.61
58:DA:2912:G:C2'	59:DA:2913:C:H5''	2.30	0.61
27:DE:35:GLN:CG	27:DE:37:ARG:HE	2.10	0.61
42:DT:66:LEU:HD23	42:DT:66:LEU:O	2.01	0.61
1:AA:96:G:H2'	1:AA:97:U:O4'	2.00	0.61
4:CG:162:LEU:CD1	4:CG:181:MET:HB3	2.31	0.61
15:CR:61:GLY:C	15:CR:65:ARG:HH12	2.02	0.61
4:CG:196:LEU:N	4:CG:196:LEU:HD12	2.15	0.61
4:CG:196:LEU:C	4:CG:198:VAL:H	2.02	0.61
6:CI:98:LEU:HD12	6:CI:98:LEU:O	2.01	0.61
8:AK:103:VAL:HG21	8:AK:110:ALA:HB2	1.83	0.61
20:AW:36:LEU:HD12	20:AW:59:ALA:HB2	1.81	0.61
42:DT:14:SER:O	42:DT:17:ALA:N	2.34	0.61
1:CA:510:A:OP2	4:CG:49:ARG:NH2	2.33	0.61
24:BA:1469:A:H2'	24:BA:1470:G:H8	1.64	0.61
48:DX:59:VAL:HG12	48:DX:60:GLU:N	2.16	0.61
28:BF:143:ALA:HB1	28:BF:148:LEU:HB2	1.82	0.61
1:CA:564:C:H5'	17:CT:32:TYR:CD2	2.36	0.61
54:DA:451:C:H4'	28:DF:52:LYS:NZ	2.16	0.61
54:DA:2473:U:O2	54:DA:2473:U:H2'	1.99	0.61
33:DN:91:LEU:N	33:DN:91:LEU:HD22	2.16	0.61
9:CL:13:ALA:HB2	9:CL:67:GLY:O	2.00	0.61
46:DZ:81:LYS:HA	46:DZ:81:LYS:HZ3	0.69	0.61
13:AP:34:LEU:CA	13:AP:39:ILE:HG13	2.31	0.61
33:BN:91:LEU:HD22	33:BN:91:LEU:N	2.15	0.61
26:DD:54:ARG:HH11	26:DD:54:ARG:CG	2.14	0.61
54:DA:483:A:H3'	54:DA:484:C:H6	1.66	0.61
34:BO:128:HIS:O	34:BO:147:LEU:HB3	2.00	0.61
1:AA:1106:G:H5''	3:AF:172:ARG:HG2	1.83	0.61
27:BE:61:ARG:N	27:BE:62:PRO:HD2	2.15	0.61
13:CP:4:ILE:H	13:CP:9:ILE:HG22	1.62	0.61
4:AG:15:GLU:O	4:AG:16:GLY:C	2.37	0.61
35:BP:141:GLN:CG	44:BV:73:GLN:HG2	2.31	0.61
35:DP:66:ILE:CG1	35:DP:67:ARG:N	2.64	0.61
24:BA:2378:A:H4'	37:BQ:23:ARG:HH12	1.62	0.61
37:DQ:89:ARG:O	37:DQ:90:GLY:O	2.19	0.61
7:CJ:79:ARG:HH11	7:CJ:79:ARG:HG2	1.66	0.61
38:BR:8:LYS:HZ3	38:BR:8:LYS:HB2	1.63	0.61
4:AG:196:LEU:N	4:AG:196:LEU:HD12	2.12	0.61
26:DD:133:LEU:HD21	26:DD:191:ALA:HB2	1.82	0.61
24:BA:2305:A:C3'	24:BA:2306:C:H5''	2.30	0.61
8:CK:102:ARG:HH11	8:CK:105:ARG:NH2	1.99	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1003:G:H2'	1:AA:1004:A:H5'	1.83	0.61
54:DA:2168:G:C2	54:DA:2170:A:OP2	2.54	0.61
24:BA:310:A:OP1	43:BU:18:GLY:HA2	2.00	0.61
24:BA:2031:A:C6	24:BA:2498:C:H1'	2.35	0.61
24:BA:274:G:H2'	24:BA:275:G:O4'	2.00	0.61
22:CD:71:C:H2'	22:CD:72:A:C8	2.36	0.61
1:CA:1182:G:H4'	1:CA:1183:A:C5'	2.30	0.61
54:DA:84:A:H62	54:DA:102:G:H1'	1.65	0.61
24:BA:1188:U:H2'	24:BA:1189:A:H5'	1.82	0.61
1:CA:1542:G:HO3'	18:CU:19:LYS:N	1.98	0.61
54:DA:2208:U:C1'	26:DD:151:LYS:HE2	2.31	0.61
1:CA:401:C:H2'	1:CA:402:G:C8	2.35	0.61
54:DA:229:A:HO2'	54:DA:230:U:P	2.24	0.61
59:CC:105:C:O2'	60:DA:2932:U:O3'	2.19	0.61
54:DA:370:G:H4'	54:DA:371:A:OP2	2.01	0.61
34:BO:15:ARG:O	34:BO:16:ARG:C	2.39	0.61
26:DD:263:ARG:CB	26:DD:263:ARG:HH11	2.14	0.61
11:CN:78:GLN:O	11:CN:103:LEU:HA	2.01	0.61
27:DE:131:ALA:HB1	27:DE:135:HIS:HE1	1.65	0.61
41:DS:82:LEU:HB2	41:DS:98:LYS:HB2	1.82	0.61
6:CI:45:LEU:HD12	6:CI:59:TYR:HD1	1.66	0.61
18:CU:25:THR:O	18:CU:25:THR:HG22	2.00	0.61
19:CV:16:LEU:O	19:CV:20:LEU:HG	2.01	0.61
3:CF:141:VAL:O	3:CF:146:ALA:HB3	2.01	0.61
1:CA:667:G:H4'	15:CR:51:HIS:CE1	2.36	0.61
32:DM:17:ASP:O	32:DM:18:ALA:HB3	2.01	0.61
18:AU:28:GLU:O	18:AU:28:GLU:HG3	2.01	0.61
8:CK:118:VAL:C	8:CK:119:LEU:HD23	2.21	0.61
9:AL:18:PHE:O	9:AL:19:LEU:CB	2.49	0.60
26:DD:35:LYS:NZ	26:DD:65:ILE:HA	2.15	0.60
28:BF:27:GLU:O	28:BF:28:ILE:HG13	2.00	0.60
1:CA:1128:C:H5'	9:CL:16:ARG:NH2	2.16	0.60
34:DO:27:HIS:N	34:DO:27:HIS:ND1	2.49	0.60
1:CA:1004:A:H2'	1:CA:1005:A:O5'	2.01	0.60
22:AD:6:G:HO2'	22:AD:7:G:H8	1.49	0.60
5:CH:43:LEU:HD21	5:CH:132:ALA:HB1	1.82	0.60
44:BV:72:ARG:O	44:BV:73:GLN:HB2	1.99	0.60
53:B8:61:LEU:CD1	53:B8:62:LEU:H	2.14	0.60
43:BU:45:VAL:HA	43:BU:62:GLU:HA	1.83	0.60
35:BP:66:ILE:HG12	35:BP:67:ARG:N	2.16	0.60
4:CG:12:CYS:HA	4:CG:19:LEU:CD2	2.31	0.60
16:CS:20:VAL:HG22	16:CS:21:VAL:N	2.16	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:34:VAL:HG12	38:DR:36:GLU:HG2	1.83	0.60
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.66	0.60
5:CH:79:GLU:HB3	5:CH:92:LYS:HA	1.83	0.60
12:AO:82:VAL:HG12	12:AO:83:VAL:N	2.14	0.60
24:BA:1453:A:H5''	24:BA:1454:U:OP2	2.01	0.60
1:AA:16:A:O2'	1:AA:17:U:H5'	2.01	0.60
22:CD:60:U:H5''	22:CD:61:C:OP2	2.01	0.60
24:BA:1498:C:O4'	24:BA:1577:C:H4'	2.01	0.60
1:CA:953:G:H5'	1:CA:965:A:H61	1.66	0.60
54:DA:2563:U:H4'	33:DN:28:SER:HA	1.82	0.60
26:BD:263:ARG:CB	26:BD:263:ARG:NH1	2.61	0.60
47:BW:17:SER:HB2	47:BW:18:PRO:CA	2.31	0.60
47:BW:17:SER:CB	47:BW:21:LEU:H	2.14	0.60
38:BR:88:ILE:HD12	38:BR:89:VAL:N	2.16	0.60
15:CR:26:GLU:CD	15:CR:77:ARG:HH12	2.03	0.60
54:DA:1503:U:H2'	54:DA:1504:C:H6	1.65	0.60
3:CF:88:ARG:NH1	3:CF:101:LEU:H	1.99	0.60
8:AK:20:TYR:HD1	8:AK:65:TYR:CE2	2.19	0.60
10:AM:45:ARG:HB3	10:AM:65:LEU:HB3	1.83	0.60
54:DA:2275:C:O2'	35:DP:83:MET:HA	2.00	0.60
26:BD:115:GLN:HG2	26:BD:116:GLN:N	2.14	0.60
1:AA:1363:A:H4'	1:AA:1364:U:OP1	2.00	0.60
29:BG:120:LEU:O	29:BG:180:PHE:HA	2.01	0.60
54:DA:481:G:O2'	54:DA:482:A:OP2	2.15	0.60
39:B1:98:LEU:C	39:B1:100:VAL:N	2.52	0.60
27:DE:53:PRO:HG2	27:DE:54:GLN:NE2	2.16	0.60
26:DD:35:LYS:NZ	26:DD:64:ILE:O	2.32	0.60
10:CM:5:ARG:O	10:CM:98:ILE:HA	2.01	0.60
26:BD:35:LYS:HD3	26:BD:63:ARG:CG	2.31	0.60
4:AG:19:LEU:H	4:AG:19:LEU:HD12	1.66	0.60
24:BA:1434:A:N6	24:BA:1558:A:N6	2.40	0.60
32:DM:99:LEU:O	32:DM:103:VAL:HG23	2.02	0.60
43:BU:63:LYS:HZ1	43:BU:64:GLU:H	1.46	0.60
54:DA:1301:A:H2'	54:DA:1302:A:C3'	2.25	0.60
1:AA:501:C:OP1	12:AO:124:LYS:NZ	2.32	0.60
54:DA:389:G:O6	34:DO:70:GLN:HB3	2.00	0.60
54:DA:1930:G:O2'	54:DA:1931:U:OP2	2.18	0.60
17:CT:67:LYS:HA	17:CT:70:ARG:NH1	2.15	0.60
26:DD:237:GLU:CA	26:DD:237:GLU:OE1	2.48	0.60
29:BG:60:LEU:HD23	29:BG:60:LEU:O	2.01	0.60
29:BG:43:LEU:CD2	29:BG:90:LEU:HD23	2.31	0.60
13:CP:97:PRO:HB2	13:CP:101:GLN:HE22	1.65	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:49:GLU:O	8:CK:51:VAL:HG13	2.01	0.60
22:CD:67:C:H2'	22:CD:68:C:H6	1.66	0.60
1:CA:105:G:H2'	1:CA:106:C:C6	2.35	0.60
1:AA:674:G:H2'	1:AA:675:A:H8	1.66	0.60
1:AA:191(C):G:C3'	1:AA:191(D):U:H5''	2.31	0.60
16:AS:63:GLY:O	16:AS:64:ALA:HB2	1.99	0.60
2:CE:132:LYS:HA	2:CE:135:GLN:CD	2.22	0.60
55:DB:3:C:H2'	55:DB:4:C:C6	2.35	0.60
1:AA:1529:G:H5''	1:AA:1530:G:OP2	2.01	0.60
15:AR:17:ARG:NH1	15:AR:77:ARG:HH12	1.99	0.60
54:DA:33:U:O4	54:DA:446:G:O2'	2.17	0.60
54:DA:2533:A:H2'	54:DA:2534:A:O4'	2.00	0.60
26:BD:75:ILE:HG21	26:BD:99:ASP:HB2	1.82	0.60
1:AA:382:A:H2'	1:AA:383:A:C8	2.35	0.60
58:DP:202:G:O2'	60:DP:203:U:H5'	2.00	0.60
1:CA:1380:U:H5''	1:CA:1381:U:OP1	2.01	0.60
24:BA:2261:C:O2'	24:BA:2262:U:H5'	2.01	0.60
44:DV:124:ILE:HD11	44:DV:165:VAL:HG21	1.82	0.60
30:DH:44:VAL:O	30:DH:44:VAL:HG22	2.01	0.60
4:AG:98:GLU:HG3	4:AG:103:ASN:ND2	2.16	0.60
19:AV:61:TYR:HE2	19:AV:63:THR:OG1	1.83	0.60
19:AV:64:GLU:O	19:AV:66:MET:HG3	2.01	0.60
19:AV:7:LYS:HE3	19:AV:8:GLY:N	2.15	0.60
1:AA:1129:C:H5'	1:AA:1130:A:OP1	2.01	0.60
2:AE:140:HIS:O	2:AE:143:GLU:HB3	2.01	0.60
44:DV:158:PRO:CB	44:DV:159:PRO:HD2	2.29	0.60
30:BH:22:GLY:O	30:BH:37:VAL:HB	2.01	0.60
24:BA:1485:G:H5'	24:BA:1485:G:H8	1.67	0.60
24:BA:897:C:O2'	24:BA:898:C:H5'	2.01	0.60
54:DA:2285:C:H5	51:D6:27:LYS:HE2	1.66	0.60
28:BF:67:GLN:HG3	28:BF:67:GLN:O	1.99	0.60
27:DE:63:LEU:CD1	27:DE:64:LYS:H	2.04	0.60
39:D1:69:CYS:HB3	39:D1:106:PHE:CZ	2.36	0.60
2:CE:221:LEU:O	2:CE:221:LEU:HD13	2.02	0.60
8:CK:6:ILE:HB	8:CK:85:ARG:HH12	1.62	0.60
4:CG:90:GLY:CA	4:CG:204:ILE:HD11	2.31	0.60
24:BA:943:U:OP2	34:BO:36:LYS:CE	2.49	0.60
31:DK:133:HIS:HD2	31:DK:134:PRO:HD2	1.63	0.60
26:DD:147:LEU:HD13	26:DD:155:LEU:CD1	2.29	0.60
29:BG:91:ARG:C	29:BG:91:ARG:HD2	2.21	0.60
12:CO:5:PRO:HA	12:CO:9:GLN:NE2	2.16	0.60
28:DF:108:LYS:HZ3	28:DF:108:LYS:HA	1.64	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AO:55:VAL:CG1	12:AO:56:ALA:H	2.14	0.60
24:BA:1578:U:H2'	24:BA:1579:A:C5'	2.31	0.60
1:CA:968:A:C4'	1:CA:969:A:OP2	2.49	0.60
3:CF:47:LEU:O	3:CF:52:LEU:HD22	2.01	0.60
14:CQ:42:ILE:O	14:CQ:43:CYS:C	2.39	0.60
3:CF:130:VAL:O	3:CF:134:ILE:HG12	2.01	0.60
24:BA:1171:G:H4'	24:BA:1173:G:OP1	2.00	0.60
20:AW:72:LEU:HD23	20:AW:73:HIS:O	2.01	0.60
6:AI:22:GLU:HA	6:AI:22:GLU:OE2	2.01	0.60
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.36	0.60
54:DA:275:G:O2'	54:DA:276:A:O5'	2.14	0.60
50:D5:52:TYR:O	50:D5:53:ALA:HB3	2.01	0.60
4:CG:129:ASN:HA	4:CG:145:GLU:HB2	1.82	0.60
11:AN:103:LEU:N	11:AN:103:LEU:HD22	2.16	0.60
49:B4:46:GLN:CG	49:B4:47:GLN:N	2.64	0.60
24:BA:10:G:H2'	24:BA:11:G:H8	1.66	0.60
43:DU:101:LYS:HE3	43:DU:102:CYS:SG	2.40	0.60
24:BA:1047:G:C2'	24:BA:1110:G:N2	2.63	0.60
54:DA:1112:G:H2'	54:DA:1113:U:C6	2.35	0.60
3:CF:70:VAL:O	3:CF:106:VAL:HG23	2.01	0.60
24:BA:1405:U:H2'	24:BA:1406:U:H6	1.66	0.60
3:AF:119:ARG:HH22	3:AF:140:ARG:HD2	1.66	0.60
3:AF:141:VAL:O	3:AF:146:ALA:HB3	2.01	0.60
3:AF:82:GLU:CD	3:AF:87:LEU:HD21	2.21	0.60
26:BD:117:VAL:CG2	26:BD:118:VAL:N	2.63	0.60
1:CA:1003:G:N2	1:CA:1004:A:O3'	2.35	0.60
39:D1:88:ILE:CD1	39:D1:88:ILE:H	2.05	0.60
1:CA:38:G:C2	1:CA:397:A:C2	2.90	0.60
54:DA:2415:G:H4'	34:DO:67:MET:N	2.16	0.60
34:BO:52:GLU:HB2	34:BO:55:ARG:HB3	1.84	0.60
24:BA:1033:U:O2'	24:BA:1034:G:O5'	2.19	0.60
26:BD:267:SER:C	26:BD:269:PHE:H	2.05	0.60
31:DK:65:ALA:O	31:DK:67:ARG:N	2.34	0.60
5:AH:51:VAL:O	5:AH:55:VAL:HG23	2.01	0.60
24:BA:1005:C:H1'	24:BA:1143:A:C2	2.35	0.60
2:AE:121:LEU:HB3	2:AE:127:ILE:CG1	2.31	0.60
27:DE:37:ARG:CA	27:DE:37:ARG:NE	2.64	0.60
18:AU:85:LEU:C	18:AU:85:LEU:HD12	2.22	0.60
34:DO:13:ASN:O	34:DO:15:ARG:N	2.34	0.60
24:BA:1252:G:O4'	39:B1:33:ARG:HD3	2.01	0.60
32:BM:17:ASP:O	32:BM:18:ALA:HB2	2.00	0.60
1:CA:863:U:H2'	1:CA:865:A:OP2	2.02	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:376:G:C5'	16:CS:5:ARG:HD2	2.32	0.60
4:AG:79:PHE:O	4:AG:82:ALA:HB3	2.01	0.60
4:CG:146:ILE:HD12	4:CG:146:ILE:H	1.66	0.60
6:CI:61:LEU:HB3	6:CI:63:TYR:HE2	1.67	0.60
54:DA:943:U:OP2	34:DO:36:LYS:CG	2.49	0.60
37:DQ:99:LYS:O	37:DQ:102:ALA:N	2.34	0.60
1:AA:598:U:H4'	8:AK:94:TYR:CD2	2.35	0.60
32:BM:16:ILE:HD13	32:BM:137:LYS:HB2	1.82	0.60
54:DA:2784:C:H5''	27:DE:41:LYS:NZ	2.16	0.60
24:BA:2303:G:C2'	24:BA:2304:G:H5'	2.31	0.60
24:BA:574:C:H1'	24:BA:2055:C:C6	2.36	0.60
16:CS:40:ASP:OD2	16:CS:42:ARG:HB2	2.02	0.60
33:BN:22:ILE:HB	33:BN:40:VAL:O	2.01	0.60
29:BG:101:ILE:O	29:BG:105:LYS:HG3	2.01	0.60
46:DZ:80:LEU:O	46:DZ:81:LYS:HD2	2.01	0.60
44:DV:113:ALA:O	44:DV:115:GLY:N	2.34	0.60
44:DV:113:ALA:O	44:DV:114:GLY:C	2.40	0.60
30:BH:3:ARG:HD2	30:BH:3:ARG:O	2.00	0.60
30:BH:126:PRO:HB3	30:BH:128:PRO:N	2.16	0.60
19:CV:64:GLU:OE2	49:D4:55:ARG:NH2	2.31	0.60
26:DD:35:LYS:HG2	26:DD:64:ILE:CG2	2.31	0.60
28:BF:25:PRO:O	28:BF:26:ALA:HB3	2.02	0.60
1:CA:1101:A:C4'	1:CA:1102:A:O5'	2.36	0.60
13:CP:9:ILE:O	13:CP:9:ILE:HD12	2.01	0.60
40:B2:69:LYS:NZ	40:B2:85:LYS:NZ	2.50	0.60
35:BP:141:GLN:HG3	44:BV:73:GLN:HG2	1.84	0.60
29:DG:28:VAL:O	29:DG:31:VAL:HG12	2.01	0.60
32:DM:23:LEU:HD12	32:DM:99:LEU:HD23	1.82	0.60
51:D6:13:CYS:O	51:D6:21:TYR:HA	2.02	0.60
1:AA:1502:A:H2	1:AA:1505:G:N1	1.99	0.60
1:CA:192:U:H4'	20:CW:103:GLY:HA2	1.82	0.60
59:DA:2923:C:C4	61:DA:2931:A:H1'	2.35	0.60
54:DA:1864:U:H3'	54:DA:1869:G:H5''	1.83	0.60
1:AA:376:G:C4'	16:AS:5:ARG:HD3	2.31	0.60
1:AA:633:G:H2'	1:AA:634:C:C6	2.37	0.60
9:CL:111:ARG:HG2	9:CL:112:LYS:N	2.16	0.60
54:DA:2051:A:N6	54:DA:2614:A:H2'	2.14	0.60
7:CJ:113:GLU:CB	7:CJ:119:ARG:HG2	2.29	0.60
54:DA:443:A:C5	28:DF:45:ARG:HD2	2.36	0.60
9:CL:85:LEU:O	9:CL:85:LEU:HD12	2.02	0.60
20:AW:74:LYS:C	20:AW:76:ALA:N	2.54	0.60
13:CP:37:THR:CG2	13:CP:39:ILE:HD11	2.32	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:451:A:N6	1:AA:481:G:C8	2.69	0.60
24:BA:639:U:H2'	24:BA:640:C:H6	1.66	0.60
31:DK:35:LEU:O	31:DK:36:ALA:HB2	2.01	0.60
28:DF:34:TRP:CZ3	34:DO:8:PRO:HB3	2.36	0.60
8:AK:23:SER:HA	8:AK:63:LEU:CD2	2.31	0.60
54:DA:470:A:C5'	54:DA:470:A:H8	2.13	0.60
26:BD:235:GLY:C	26:BD:237:GLU:H	2.05	0.60
54:DA:173:G:H2'	54:DA:174:C:C6	2.37	0.60
1:AA:595:G:O2'	1:AA:596:C:OP2	2.17	0.60
41:DS:36:LEU:HD11	41:DS:47:VAL:HG12	1.83	0.60
24:BA:185:U:H4'	24:BA:218:A:H4'	1.82	0.60
24:BA:239:U:H2'	24:BA:240:G:O4'	2.01	0.60
25:BB:33:G:H2'	25:BB:34:U:O4'	2.02	0.60
1:AA:971:G:H5''	1:AA:972:C:H5''	1.83	0.60
49:B4:56:VAL:HG13	49:B4:57:GLU:HG3	1.84	0.60
29:BG:135:LEU:HD12	29:BG:135:LEU:N	2.17	0.60
1:AA:518:C:O2'	12:AO:50:SER:HB3	2.02	0.60
43:BU:72:VAL:HG23	43:BU:73:ARG:H	1.66	0.60
2:CE:69:LEU:O	2:CE:162:ILE:HA	2.02	0.60
26:DD:72:LYS:HE3	26:DD:75:ILE:HD12	1.82	0.60
2:AE:70:PHE:HE1	2:AE:90:MET:HB2	1.66	0.60
1:CA:1535:C:H2'	1:CA:1536:C:H5	1.67	0.60
35:DP:63:LYS:HE2	35:DP:65:PHE:CE1	2.37	0.60
10:AM:4:ILE:HB	10:AM:74:ILE:CD1	2.27	0.60
54:DA:2728:U:O2'	54:DA:2729:G:H5'	2.01	0.60
54:DA:2469:A:H2	54:DA:2481:G:N2	1.93	0.60
31:DK:114:LEU:O	31:DK:115:ALA:CB	2.49	0.60
1:CA:412:A:O2'	1:CA:413:G:OP2	2.20	0.60
1:AA:1024:G:H4'	1:AA:1025:U:OP1	2.00	0.60
54:DA:2111:C:C5	54:DA:2147:G:N2	2.70	0.60
54:DA:2148:G:O2'	54:DA:2149:G:H5'	2.01	0.60
2:CE:141:GLU:O	2:CE:145:LEU:HD23	2.01	0.60
54:DA:2656:U:O4	54:DA:2657:A:C5	2.54	0.60
54:DA:1497:U:H5'	54:DA:1498:C:OP2	2.02	0.60
24:BA:671:C:H5'	24:BA:671:C:H6	1.66	0.60
31:DK:116:LEU:O	31:DK:116:LEU:HG	2.00	0.60
1:CA:110:C:H2'	1:CA:111:G:O4'	2.01	0.60
24:BA:704:G:H1'	24:BA:727:A:N6	2.16	0.60
2:AE:236:TYR:C	2:AE:238:LEU:H	2.05	0.60
36:B0:104:ARG:HB3	36:B0:107:ASP:OD2	2.02	0.60
7:CJ:148:ASN:ND2	7:CJ:148:ASN:N	2.46	0.60
54:DA:1588:C:H2'	54:DA:1589:C:H6	1.67	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:7:VAL:HG21	38:BR:1:MET:HE3	1.82	0.60
46:DZ:3:LYS:HD3	46:DZ:43:TYR:CD2	2.35	0.60
54:DA:1204:A:H1'	54:DA:1206:G:C8	2.37	0.60
54:DA:1011:G:H4'	54:DA:1012:U:OP1	2.02	0.60
32:DM:16:ILE:O	32:DM:55:VAL:HG22	2.01	0.60
54:DA:719:C:O2'	54:DA:720:C:H5'	2.02	0.60
1:CA:49:U:O2	1:CA:362:G:H1'	2.00	0.60
42:DT:43:VAL:CG1	42:DT:51:VAL:HG21	2.31	0.60
31:DK:110:ASP:HB3	31:DK:112:LYS:N	2.16	0.60
25:BB:48:A:H2'	25:BB:49:C:C6	2.36	0.60
35:BP:77:LYS:HZ3	35:BP:82:ARG:HA	1.62	0.60
33:BN:86:ILE:C	33:BN:87:ILE:HD13	2.21	0.60
27:DE:93:VAL:N	27:DE:95:ILE:HD12	2.17	0.60
24:BA:2015:A:H5'	41:BS:92:ARG:HH21	1.66	0.60
2:AE:187:LEU:HA	2:AE:201:ILE:O	2.01	0.60
26:BD:35:LYS:HZ3	26:BD:104:TYR:HB2	1.66	0.60
39:D1:92:ARG:NH1	39:D1:95:LEU:CD1	2.65	0.60
54:DA:2761:G:H5'	54:DA:2761:G:C8	2.36	0.60
37:BQ:23:ARG:HH11	37:BQ:23:ARG:HG2	1.66	0.60
4:CG:90:GLY:HA2	4:CG:204:ILE:HD11	1.83	0.60
40:D2:99:ILE:CD1	40:D2:99:ILE:N	2.65	0.60
40:D2:35:LEU:HD23	40:D2:35:LEU:O	2.01	0.60
26:DD:25:THR:HG21	26:DD:81:ALA:HA	1.83	0.60
54:DA:232:G:OP2	54:DA:232:G:H8	1.84	0.60
1:CA:191:G:H1'	20:CW:105:SER:HB3	1.82	0.60
20:CW:104:LEU:HD12	20:CW:105:SER:H	1.66	0.60
1:AA:532:A:O2'	1:AA:533:A:OP1	2.19	0.60
1:AA:1379:G:H5'	7:AJ:3:ARG:HH21	1.66	0.60
5:CH:74:GLY:O	5:CH:115:VAL:HA	2.02	0.60
33:DN:97:ARG:N	33:DN:117:LEU:HD22	2.15	0.60
3:AF:129:ALA:HB3	3:AF:132:ARG:NE	2.16	0.60
24:BA:1278:A:H2'	24:BA:1279:G:C8	2.36	0.60
24:BA:892:G:H2'	24:BA:893:C:C1'	2.31	0.60
32:BM:129:PRO:O	32:BM:131:GLN:N	2.34	0.60
24:BA:2126:A:H5'	24:BA:2127:G:OP1	2.01	0.60
18:AU:82:THR:O	18:AU:84:LYS:HE3	2.01	0.60
26:BD:200:ASP:O	26:BD:203:ASN:N	2.25	0.60
28:DF:175:THR:O	28:DF:176:LEU:CB	2.49	0.60
2:CE:60:ASP:O	2:CE:64:ARG:HG2	2.01	0.60
27:BE:12:THR:O	27:BE:23:VAL:HG22	2.00	0.60
45:D3:7:LEU:HD22	45:D3:11:ARG:NH1	2.16	0.60
15:AR:23:GLY:O	15:AR:24:SER:O	2.19	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:371:G:O2'	1:AA:372:C:H5'	2.02	0.60
37:DQ:11:LYS:HB2	37:DQ:91:PRO:HD3	1.84	0.60
34:BO:92:GLU:OE1	34:BO:121:LYS:HB3	2.00	0.60
8:AK:17:THR:HB	8:AK:78:GLN:OE1	2.02	0.60
8:CK:39:LEU:O	8:CK:45:ILE:HG12	2.01	0.60
9:CL:96:LEU:HD23	9:CL:102:LEU:HD12	1.84	0.60
54:DA:1038:C:H2'	54:DA:1039:G:O4'	2.01	0.60
49:B4:12:ALA:HB1	49:B4:24:THR:HB	1.83	0.60
46:DZ:80:LEU:C	46:DZ:81:LYS:CD	2.69	0.60
1:AA:1145:C:O2'	1:AA:1146:A:N7	2.33	0.60
44:BV:94:GLU:HA	44:BV:130:PRO:HD3	1.83	0.60
54:DA:242:G:O2'	54:DA:243:U:OP2	2.18	0.60
27:DE:93:VAL:N	27:DE:95:ILE:CD1	2.65	0.60
40:B2:39:LEU:HD12	40:B2:39:LEU:N	2.17	0.60
1:CA:978:A:O2'	1:CA:1322:C:N3	2.34	0.60
54:DA:1266:G:O2'	54:DA:1267:U:P	2.59	0.60
3:AF:182:ILE:HA	3:AF:202:ILE:O	2.01	0.60
2:AE:200:ILE:H	2:AE:200:ILE:HD12	1.66	0.60
27:BE:68:ALA:C	27:BE:70:ALA:H	2.04	0.60
26:BD:27:THR:HG21	26:BD:83:GLU:CG	2.23	0.60
26:BD:35:LYS:HE3	26:BD:63:ARG:C	2.22	0.60
51:B6:41:PRO:O	51:B6:42:TRP:HB3	2.01	0.60
4:AG:22:LYS:HB2	4:AG:26:CYS:HB2	1.83	0.60
39:D1:90:VAL:CG1	39:D1:91:ASP:H	2.00	0.60
55:DB:29:A:H2'	55:DB:30:C:H6	1.66	0.60
31:DK:67:ARG:NE	31:DK:68:LEU:N	2.50	0.60
44:BV:121:HIS:HD2	44:BV:170:THR:O	1.85	0.60
54:DA:1286:A:O2'	54:DA:1288:U:OP2	2.15	0.60
48:BX:23:LEU:H	48:BX:23:LEU:HD12	1.65	0.60
36:D0:52:ILE:O	36:D0:55:ALA:HB3	2.01	0.60
24:BA:954:G:H4'	35:BP:13:GLN:NE2	2.17	0.60
54:DA:1332:G:H21	54:DA:1610:A:H8	1.50	0.60
1:CA:825:G:H2'	1:CA:826:C:H6	1.66	0.60
9:AL:53:VAL:HG23	9:AL:55:ALA:H	1.66	0.60
9:AL:99:LEU:HB3	9:AL:101:PHE:CE1	2.37	0.60
31:DK:2:LYS:HB3	31:DK:20:ASP:HB3	1.82	0.60
2:AE:12:GLU:O	2:AE:15:VAL:HG12	2.02	0.60
6:AI:21:LEU:O	6:AI:25:ILE:HG12	2.02	0.60
1:CA:383:A:H2'	1:CA:384:G:H5'	1.84	0.60
4:AG:75:PHE:CE1	4:AG:93:PHE:CZ	2.87	0.60
24:BA:2021:C:OP2	50:B5:15:ARG:NH2	2.35	0.60
1:CA:587:G:C2	1:CA:755:G:C6	2.89	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CI:1:MET:HA	6:CI:67:MET:O	2.02	0.60
1:AA:243:A:H4'	1:AA:244:U:H5''	1.84	0.60
1:CA:1250:A:H5'	9:CL:67:GLY:HA2	1.83	0.60
1:AA:191(A):G:O2'	1:AA:191(B):G:H5'	2.02	0.60
13:CP:40:ASN:HD21	13:CP:42:ALA:HB3	1.64	0.60
29:DG:50:ALA:O	29:DG:53:LEU:HB3	2.01	0.60
9:CL:3:GLN:HB3	9:CL:20:ARG:HG2	1.82	0.60
54:DA:363(C):G:O2'	54:DA:363(D):G:H5'	2.01	0.60
1:AA:1137:C:O2'	1:AA:1138:G:OP2	2.12	0.60
26:DD:166:GLN:HE21	26:DD:166:GLN:CA	2.14	0.60
46:BZ:41:ARG:HG3	46:BZ:41:ARG:HH11	1.67	0.60
6:CI:97:PHE:HD2	6:CI:97:PHE:C	2.05	0.60
5:AH:45:PHE:CE2	5:AH:47:LYS:HD2	2.36	0.60
1:CA:792:A:C2'	1:CA:794:A:N6	2.29	0.60
1:AA:974:A:OP2	14:AQ:41:ARG:NH1	2.31	0.60
24:BA:2752:C:H5'	24:BA:2753:A:OP2	2.02	0.60
30:BH:19:VAL:HG12	30:BH:19:VAL:O	2.00	0.60
24:BA:627:A:H4'	24:BA:628:G:OP1	2.00	0.60
39:B1:81:HIS:HD2	39:B1:117:GLN:NE2	1.98	0.60
26:DD:35:LYS:HD3	26:DD:63:ARG:CB	2.32	0.60
34:DO:79:ARG:HD3	34:DO:110:TYR:HE1	1.67	0.60
34:DO:121:LYS:HG3	34:DO:122:PRO:HD2	1.84	0.60
51:D6:27:LYS:HZ2	51:D6:27:LYS:HB2	1.65	0.60
1:AA:411:A:C5	1:AA:413:G:H1'	2.37	0.60
44:BV:54:HIS:NE2	44:BV:101:PRO:HB3	2.17	0.60
29:DG:9:ARG:HG2	29:DG:13:GLU:OE1	2.00	0.60
36:D0:75:LEU:HD13	36:D0:75:LEU:C	2.22	0.60
54:DA:1535:U:H3'	54:DA:1536:A:C5'	2.24	0.60
51:D6:41:PRO:HG2	51:D6:45:LYS:N	2.10	0.60
1:AA:1179:A:H5'	9:AL:102:LEU:HD22	1.84	0.60
54:DA:2415:G:O3'	34:DO:66:GLY:HA3	2.02	0.60
43:BU:28:LYS:O	43:BU:38:ILE:HG12	2.01	0.60
26:DD:236:GLY:C	26:DD:237:GLU:OE1	2.40	0.60
41:BS:36:LEU:HD13	41:BS:48:ALA:CA	2.29	0.60
1:CA:1152:A:O2'	1:CA:1153:C:H5'	2.02	0.60
22:CD:14:A:O4'	22:CD:14:A:OP1	2.20	0.60
1:AA:653:A:C1'	8:AK:56:LYS:HE2	2.31	0.60
54:DA:2035:G:H4'	54:DA:2036:C:OP2	2.01	0.60
54:DA:2267:A:H5''	54:DA:2268:A:H5'	1.82	0.60
14:CQ:44:LEU:HD12	14:CQ:48:ALA:HB2	1.84	0.60
1:CA:376:G:O2'	1:CA:377:G:H5'	2.01	0.60
2:CE:114:ARG:O	2:CE:117:GLU:HB2	2.02	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:B0:33:ARG:HG2	36:B0:115:GLU:OE2	2.01	0.60
54:DA:1678:G:N2	54:DA:1989:G:H22	2.00	0.60
27:BE:11:MET:HA	27:BE:24:THR:HA	1.84	0.60
54:DA:1657:C:H2'	54:DA:1658:C:H6	1.65	0.60
1:AA:1236:A:O2'	1:AA:1304:G:H4'	2.01	0.60
45:D3:7:LEU:HD23	45:D3:11:ARG:HG2	1.84	0.60
33:BN:1:MET:HE2	33:BN:67:LYS:HG2	1.83	0.60
40:D2:1:MET:CE	40:D2:43:GLU:HG2	2.32	0.60
1:CA:1301:U:H3'	1:CA:1302:U:H5'	1.83	0.60
6:CI:44:GLY:HA2	6:CI:59:TYR:CZ	2.37	0.60
54:DA:1517:G:H2'	54:DA:1518:C:C6	2.36	0.60
54:DA:2740:A:C6	54:DA:2764:A:C8	2.89	0.60
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.37	0.60
35:BP:77:LYS:HZ2	35:BP:82:ARG:HB2	1.64	0.60
1:AA:1329:A:P	13:AP:28:ALA:HB3	2.41	0.60
53:D8:56:GLU:O	53:D8:59:LYS:N	2.35	0.60
54:DA:1085:A:H3'	54:DA:1086:A:N7	2.16	0.60
24:BA:1359:A:O2'	24:BA:1360:A:P	2.59	0.60
34:DO:138:LEU:C	34:DO:140:ALA:N	2.55	0.60
54:DA:2392:A:H2	54:DA:2424:C:N4	1.99	0.60
30:BH:97:ARG:CB	30:BH:104:GLU:HB2	2.21	0.60
53:D8:53:PRO:CD	53:D8:54:GLU:H	2.15	0.60
53:D8:22:VAL:CG2	53:D8:53:PRO:HB2	2.32	0.60
24:BA:788:A:O2'	24:BA:789:A:OP2	2.19	0.60
1:AA:582:U:OP1	15:AR:68:ARG:NH2	2.28	0.60
40:B2:87:HIS:O	40:B2:87:HIS:ND1	2.35	0.60
4:AG:19:LEU:O	4:AG:21:LEU:N	2.35	0.60
44:BV:118:GLN:NE2	44:BV:174:VAL:HA	2.16	0.60
44:DV:48:PHE:HA	44:DV:51:ALA:HB3	1.84	0.60
24:BA:99:U:C2'	24:BA:99:U:O2	2.50	0.60
54:DA:1371:G:O2'	54:DA:1372:U:H5	1.83	0.60
38:DR:107:ASP:O	38:DR:110:ILE:HG22	2.02	0.60
40:B2:29:PRO:C	40:B2:61:VAL:HG11	2.22	0.60
24:BA:819:A:OP2	24:BA:1187:G:N2	2.35	0.60
1:AA:936:C:H2'	1:AA:937:A:H8	1.65	0.60
27:BE:179:GLU:HB3	27:BE:181:LEU:CD2	2.32	0.60
30:BH:109:PHE:O	30:BH:110:SER:HB3	2.01	0.60
24:BA:2331:G:O3'	45:B3:43:THR:HG22	2.02	0.60
1:CA:838:G:C6	1:CA:842:C:H1'	2.37	0.60
54:DA:2779:U:O2'	54:DA:2781:A:N7	2.33	0.60
24:BA:711:G:O2'	24:BA:712:G:H5'	2.02	0.60
3:CF:88:ARG:O	3:CF:99:VAL:HG21	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:648:G:O2'	24:BA:649:G:H5'	2.01	0.60
3:CF:127:ARG:HH11	3:CF:127:ARG:CG	2.15	0.60
1:CA:1067:A:H1'	1:CA:1068:G:O4'	2.02	0.60
8:AK:77:GLU:HG2	8:AK:78:GLN:N	2.16	0.60
5:CH:33:VAL:HG11	5:CH:109:ILE:HA	1.83	0.60
24:BA:2492:U:O2'	24:BA:2493:U:H5'	2.01	0.60
26:DD:21:PHE:HB3	26:DD:24:ILE:HG13	1.83	0.60
9:CL:9:ARG:CB	9:CL:14:VAL:HG22	2.32	0.60
36:B0:49:ASP:OD1	36:B0:95:THR:HG22	2.02	0.60
13:AP:98:VAL:O	13:AP:100:GLY:N	2.35	0.59
9:AL:6:GLY:HA3	9:AL:17:VAL:H	1.66	0.59
44:BV:137:ILE:HG21	44:BV:157:LEU:HD11	1.84	0.59
44:DV:154:ASP:O	44:DV:155:LEU:HD22	2.00	0.59
54:DA:481:G:H1'	54:DA:506:G:N2	2.16	0.59
1:CA:1357:A:H8	1:CA:1357:A:O5'	1.85	0.59
46:BZ:88:LYS:O	46:BZ:91:LYS:HB2	2.02	0.59
25:BB:30:C:H4'	25:BB:58:A:C2	2.36	0.59
54:DA:1815:A:H4'	54:DA:1816:G:O5'	2.01	0.59
26:DD:35:LYS:CG	26:DD:64:ILE:N	2.56	0.59
2:AE:21:ARG:HG2	2:AE:39:ILE:HG13	1.84	0.59
1:AA:792:A:C2'	1:AA:794:A:N7	2.65	0.59
24:BA:686:G:O6	52:B7:12:ARG:HG3	2.02	0.59
50:B5:40:LYS:HE3	50:B5:46:CYS:H	1.64	0.59
13:CP:3:ARG:HA	13:CP:9:ILE:CG2	2.21	0.59
11:CN:41:THR:HG21	11:CN:71:LYS:HB2	1.83	0.59
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.82	0.59
1:AA:429:U:H1'	1:AA:430:A:H5''	1.84	0.59
28:DF:63:LYS:HE2	28:DF:67:GLN:HB3	1.83	0.59
24:BA:922:U:H2'	24:BA:923:C:H6	1.67	0.59
30:BH:150:ALA:O	30:BH:152:ARG:N	2.35	0.59
22:AC:19:G:N3	22:AC:57:A:C2	2.70	0.59
54:DA:1474:C:C2'	54:DA:1475:G:H5''	2.31	0.59
29:DG:111:LEU:HB2	29:DG:112:PRO:HD3	1.82	0.59
24:BA:2688:U:H1'	24:BA:2721:A:N6	2.16	0.59
5:CH:72:GLN:O	5:CH:73:ASN:HB3	2.02	0.59
2:AE:5:ILE:HG13	2:AE:6:THR:H	1.67	0.59
54:DA:2163:C:H2'	54:DA:2164:C:H6	1.66	0.59
24:BA:1578:U:C2'	24:BA:1579:A:H5''	2.31	0.59
1:AA:1275:A:H2'	1:AA:1276:G:O4'	2.02	0.59
39:D1:76:TYR:CZ	39:D1:80:ILE:HG13	2.37	0.59
24:BA:1668:A:H2'	24:BA:1674:G:N7	2.17	0.59
54:DA:2771:C:H2'	54:DA:2772:C:C6	2.37	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1033:G:H2'	1:AA:1034:G:H8	1.66	0.59
8:AK:89:PRO:HA	8:AK:92:ARG:NH1	2.16	0.59
28:DF:123:LEU:HD12	28:DF:124:LEU:N	2.17	0.59
16:AS:63:GLY:O	16:AS:64:ALA:CB	2.50	0.59
31:DK:99:GLU:CD	31:DK:103:ARG:HH21	2.05	0.59
1:AA:197:A:N6	1:AA:221:C:H5'	2.17	0.59
6:AI:44:GLY:HA2	6:AI:59:TYR:CE1	2.36	0.59
1:CA:644:G:H4'	8:CK:92:ARG:HH21	1.66	0.59
17:CT:76:LEU:HD12	17:CT:77:VAL:H	1.66	0.59
27:DE:68:ALA:O	27:DE:69:LYS:HG3	2.02	0.59
31:DK:29:TYR:O	31:DK:33:ARG:HB2	2.02	0.59
24:BA:2298:A:C2	24:BA:2299:G:H1'	2.37	0.59
54:DA:390:A:H4'	54:DA:391:G:O5'	2.02	0.59
24:BA:2078:C:H1'	24:BA:2434:A:N3	2.17	0.59
11:AN:59:TYR:O	11:AN:62:GLN:HB3	2.01	0.59
43:DU:4:LYS:O	43:DU:5:MET:HB2	2.01	0.59
24:BA:345:A:O2'	24:BA:346:A:C8	2.55	0.59
1:AA:278:G:O4'	1:AA:282:A:H1'	2.02	0.59
24:BA:1378:A:H4'	24:BA:1379:A:OP1	2.01	0.59
1:AA:973:G:H1'	10:AM:55:LYS:HG2	1.82	0.59
1:AA:972:C:H4'	10:AM:57:LYS:HG3	1.84	0.59
29:BG:112:PRO:C	29:BG:114:ILE:H	2.03	0.59
24:BA:2542:A:H5'	24:BA:2543:G:OP1	2.01	0.59
9:AL:4:TYR:HB2	9:AL:18:PHE:O	2.02	0.59
24:BA:2748:A:N3	24:BA:2748:A:H3'	2.17	0.59
34:BO:95:VAL:HB	34:BO:100:LEU:HD21	1.83	0.59
14:CQ:19:ARG:O	14:CQ:20:ALA:C	2.40	0.59
34:DO:127:ALA:O	34:DO:147:LEU:HD23	2.02	0.59
3:AF:76:VAL:N	3:AF:83:ARG:HG2	2.16	0.59
24:BA:2790:A:H2'	24:BA:2791:C:C5'	2.24	0.59
54:DA:1175:U:C4'	54:DA:1176:G:OP1	2.43	0.59
24:BA:1784:A:C4'	24:BA:1785:A:O5'	2.39	0.59
51:B6:47:THR:CG2	51:B6:48:VAL:H	2.16	0.59
39:D1:58:ARG:HA	39:D1:61:TRP:CE3	2.37	0.59
39:D1:92:ARG:HD3	39:D1:94:ASN:HB3	1.82	0.59
39:D1:96:ALA:C	39:D1:98:LEU:H	2.04	0.59
31:DK:38:LEU:N	31:DK:38:LEU:HD12	2.11	0.59
35:BP:63:LYS:C	35:BP:64:ILE:HD13	2.22	0.59
54:DA:1019:U:H3	54:DA:1142(A):A:N6	2.00	0.59
54:DA:1372:U:H2'	54:DA:1373:A:C5'	2.32	0.59
10:CM:32:ALA:H	10:CM:78:ASN:HD21	1.49	0.59
40:D2:35:LEU:HB2	40:D2:37:VAL:HG23	1.85	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:118:ALA:CA	22:AC:29:G:H5'	2.32	0.59
7:CJ:23:VAL:HG12	7:CJ:27:ILE:CD1	2.32	0.59
24:BA:2873:A:H8	36:B0:6:SER:N	1.81	0.59
24:BA:623:G:H2'	24:BA:624:C:C6	2.37	0.59
55:DB:12:C:H4'	55:DB:13:A:OP1	2.01	0.59
19:CV:25:LYS:O	19:CV:26:GLY:O	2.20	0.59
44:BV:120:ILE:HG23	44:BV:171:ILE:CG1	2.32	0.59
35:DP:86:GLY:C	35:DP:88:GLY:H	2.03	0.59
1:CA:1177:G:H2'	1:CA:1178:G:N3	2.17	0.59
16:CS:51:VAL:CG1	16:CS:52:ASP:N	2.65	0.59
24:BA:863:A:H2'	24:BA:864:G:C8	2.37	0.59
48:DX:29:ARG:CB	48:DX:29:ARG:HH11	2.13	0.59
30:DH:30:LYS:CD	30:DH:81:GLU:H	2.15	0.59
42:BT:18:TYR:HD1	42:BT:21:PHE:HE2	1.48	0.59
27:BE:27:LEU:HA	27:BE:180:ASN:O	2.01	0.59
44:BV:124:ILE:HG13	44:BV:126:VAL:HG13	1.85	0.59
24:BA:651:G:H5''	53:B8:18:ALA:HB3	1.84	0.59
54:DA:2684:U:O2'	33:DN:68:GLU:HG3	2.02	0.59
18:CU:31:LEU:H	18:CU:31:LEU:HD23	1.67	0.59
24:BA:2839:G:H2'	24:BA:2840:C:H6	1.67	0.59
1:AA:828:A:H2'	1:AA:829:G:O4'	2.02	0.59
1:AA:310:G:H4'	16:AS:31:LYS:HD2	1.84	0.59
24:BA:1027:A:OP2	24:BA:1027:A:H8	1.85	0.59
12:CO:54:LYS:N	12:CO:54:LYS:CD	2.64	0.59
9:AL:56:LEU:H	9:AL:56:LEU:HD23	1.66	0.59
1:AA:1235:U:O2'	1:AA:1305:G:O5'	2.20	0.59
9:AL:66:ARG:HB3	9:AL:66:ARG:NH1	2.16	0.59
54:DA:1079:C:H6	54:DA:1079:C:H5'	1.66	0.59
34:BO:147:LEU:H	34:BO:147:LEU:HD13	1.67	0.59
27:DE:51:PHE:HD1	27:DE:52:LEU:HG	1.68	0.59
1:AA:697:U:H2'	1:AA:698:G:H5'	1.84	0.59
24:BA:2287:A:N6	24:BA:2344:U:C2	2.69	0.59
1:CA:1024:G:H2'	1:CA:1025:U:H5''	1.84	0.59
51:B6:23:THR:HG23	51:B6:24:GLU:N	2.16	0.59
32:DM:42:TRP:O	39:D1:64:ARG:NH2	2.35	0.59
22:AD:58:A:H1'	22:AD:60:U:C5	2.38	0.59
54:DA:1021:A:H8	54:DA:1022:G:H5''	1.66	0.59
54:DA:1006:C:H1'	32:DM:106:MET:HE3	1.82	0.59
35:BP:28:ALA:HB2	35:BP:67:ARG:NH1	2.17	0.59
1:AA:1155:G:C2'	1:AA:1156:G:H5'	2.32	0.59
1:CA:815:A:H4'	1:CA:816:A:OP2	2.03	0.59
31:DK:115:ALA:CB	31:DK:128:LEU:HD11	2.29	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:818:G:C3'	1:AA:819:A:C5'	2.80	0.59
20:CW:96:GLY:O	20:CW:97:ALA:HB3	2.02	0.59
30:DH:4:ILE:HD13	30:DH:4:ILE:N	2.18	0.59
2:CE:124:SER:HB2	2:CE:125:PRO:HD2	1.85	0.59
43:BU:19:LYS:HE3	43:BU:71:LYS:NZ	2.17	0.59
26:DD:172:TYR:CD1	26:DD:186:HIS:HA	2.37	0.59
24:BA:755:C:H2'	24:BA:756:C:C6	2.37	0.59
17:CT:92:ARG:HH11	17:CT:92:ARG:HG3	1.68	0.59
24:BA:864:G:H1'	24:BA:914:C:N4	2.18	0.59
20:CW:58:LYS:O	20:CW:62:LEU:HD12	2.02	0.59
14:AQ:23:ARG:NH1	14:AQ:30:ALA:HB2	2.16	0.59
27:BE:8:LYS:HG2	27:BE:192:ASN:HD22	1.67	0.59
6:CI:26:ILE:O	6:CI:30:LEU:HG	2.02	0.59
12:AO:19:ARG:HG2	12:AO:20:LYS:H	1.66	0.59
6:AI:33:TYR:OH	6:AI:78:GLU:HG3	2.02	0.59
54:DA:74:A:O2'	54:DA:75:G:OP2	2.19	0.59
32:DM:18:ALA:HB3	32:DM:55:VAL:O	2.03	0.59
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.68	0.59
44:DV:20:ARG:HD3	44:DV:20:ARG:O	2.02	0.59
37:BQ:60:GLY:O	37:BQ:61:ASN:CB	2.50	0.59
24:BA:1970:A:H5'	24:BA:1971:A:OP1	2.01	0.59
31:BK:79:ILE:CA	31:BK:142:VAL:HG21	2.30	0.59
1:AA:1321:C:N4	1:AA:1322:C:N4	2.37	0.59
1:AA:1364:U:H6	21:AX:14:TRP:HH2	1.51	0.59
1:CA:980:C:H5'	1:CA:981:U:OP2	2.02	0.59
2:CE:188:ALA:HB3	2:CE:200:ILE:HG23	1.84	0.59
54:DA:1181:C:O2'	54:DA:1182:A:H5'	2.01	0.59
24:BA:2628:C:H1'	24:BA:2781:A:H2'	1.83	0.59
39:D1:92:ARG:HH11	39:D1:95:LEU:HD12	1.67	0.59
35:DP:80:GLU:C	35:DP:81:VAL:HG13	2.22	0.59
44:BV:74:VAL:HG13	44:BV:86:VAL:CG2	2.30	0.59
54:DA:1142(A):A:C5	54:DA:1144:G:N7	2.71	0.59
28:BF:68:LYS:O	28:BF:69:HIS:HB2	2.03	0.59
38:DR:102:ILE:HB	38:DR:110:ILE:HD13	1.84	0.59
30:BH:117:PRO:HB3	30:BH:123:PHE:CE1	2.38	0.59
43:BU:50:ARG:HB3	43:BU:53:PRO:HG3	1.82	0.59
17:AT:75:ARG:NH1	17:AT:77:VAL:HA	2.18	0.59
34:DO:95:VAL:HG13	34:DO:100:LEU:HD21	1.83	0.59
22:CD:18:G:H4'	22:CD:60:U:O2	2.01	0.59
38:DR:57:PHE:CD2	38:DR:58:ASN:N	2.66	0.59
18:AU:22:VAL:O	18:AU:24:ALA:N	2.35	0.59
36:D0:92:GLY:H	36:D0:94:TYR:HE2	1.49	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:76:ARG:HD2	4:CG:207:TYR:HE2	1.66	0.59
26:BD:134:ARG:HE	26:BD:135:PHE:HE2	1.50	0.59
45:D3:51:VAL:HG23	45:D3:81:VAL:HG23	1.83	0.59
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.01	0.59
54:DA:275:G:H4'	54:DA:276:A:OP1	2.02	0.59
24:BA:2590:A:O2'	24:BA:2591:C:H5'	2.03	0.59
24:BA:1469:A:H2'	24:BA:1470:G:C8	2.37	0.59
7:CJ:85:TYR:HE1	7:CJ:154:TYR:CE1	2.21	0.59
1:AA:476:G:O2'	1:AA:477:G:H5'	2.01	0.59
34:DO:55:ARG:HD2	34:DO:56:SER:O	2.01	0.59
8:CK:12:ARG:HH12	8:CK:27:PRO:HD2	1.67	0.59
24:BA:2402:C:H6	24:BA:2402:C:H5''	1.68	0.59
30:DH:55:PRO:HG2	30:DH:61:HIS:CE1	2.37	0.59
24:BA:2240:C:O2'	24:BA:2241:A:H5'	2.02	0.59
1:CA:128:G:O2'	17:CT:3:LYS:NZ	2.36	0.59
26:DD:174:ILE:HD12	26:DD:174:ILE:N	2.16	0.59
1:CA:132:C:O2'	1:CA:133:U:H5'	2.02	0.59
24:BA:601:C:H4'	28:BF:104:LYS:NZ	2.17	0.59
31:BK:75:LEU:HD22	31:BK:77:LEU:CD2	2.33	0.59
43:DU:95:LYS:HD3	43:DU:95:LYS:H	1.67	0.59
43:DU:96:ILE:CD1	43:DU:98:VAL:HG12	2.32	0.59
1:AA:1330:U:H3'	1:AA:1331:G:O4'	2.02	0.59
13:AP:44:ARG:HG3	13:AP:48:LEU:CD2	2.33	0.59
54:DA:1057:A:N6	54:DA:1086:A:N3	2.51	0.59
24:BA:323:G:O2'	24:BA:1205:U:C2	2.56	0.59
26:DD:12:SER:C	26:DD:14:ARG:H	2.06	0.59
1:CA:1365:G:H2'	1:CA:1366:C:C6	2.37	0.59
54:DA:1483:G:H2'	54:DA:1484:G:C8	2.37	0.59
10:CM:98:ILE:HD12	10:CM:98:ILE:N	2.15	0.59
1:CA:1139:G:N2	1:CA:1143:G:O6	2.36	0.59
51:D6:25:LYS:HD2	53:D8:34:TRP:CZ2	2.36	0.59
54:DA:2250:G:C2	35:DP:82:ARG:HB3	2.37	0.59
54:DA:1019:U:O2'	54:DA:1021:A:H2	1.86	0.59
54:DA:1021:A:H2'	54:DA:1023:U:H5'	1.84	0.59
54:DA:1021:A:OP2	32:DM:65:LYS:NZ	2.34	0.59
32:DM:58:ASP:N	32:DM:60:ILE:HD11	2.16	0.59
36:D0:72:ASP:O	36:D0:76:VAL:HB	2.03	0.59
37:DQ:88:ASP:O	37:DQ:89:ARG:CB	2.49	0.59
30:BH:123:PHE:HA	30:BH:133:VAL:CG2	2.26	0.59
20:CW:84:LEU:O	20:CW:88:VAL:HG23	2.01	0.59
26:DD:177:LEU:HD11	26:DD:183:ARG:HB2	1.85	0.59
54:DA:571:A:H2'	40:D2:78:LYS:NZ	2.17	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1151:A:H2'	1:CA:1152:A:H8	1.65	0.59
2:AE:126:GLU:O	2:AE:128:GLU:N	2.36	0.59
1:AA:1194:U:H2'	1:AA:1195:C:H6	1.62	0.59
28:DF:11:VAL:HG11	28:DF:18:ARG:HE	1.67	0.59
1:AA:1541:U:H4'	18:AU:18:ARG:CZ	2.32	0.59
54:DA:975:G:H1'	54:DA:990:A:C2	2.38	0.59
8:CK:41:ARG:HH11	8:CK:41:ARG:HB3	1.66	0.59
27:BE:128:SER:OG	27:BE:129:HIS:N	2.36	0.59
20:AW:37:SER:O	20:AW:41:ILE:HG12	2.03	0.59
1:AA:388:G:O2'	1:AA:389:A:P	2.60	0.59
32:DM:78:TYR:CD1	32:DM:78:TYR:N	2.70	0.59
30:DH:159:GLU:O	30:DH:160:LYS:HG2	2.03	0.59
22:AD:35:A:H2'	22:AD:36:U:C6	2.38	0.59
54:DA:2847:U:OP1	38:DR:98:LYS:NZ	2.34	0.59
9:CL:66:ARG:HH11	9:CL:66:ARG:HG2	1.68	0.59
3:CF:60:ALA:O	3:CF:61:ALA:CB	2.50	0.59
24:BA:38:A:H2'	24:BA:39:C:C6	2.38	0.59
54:DA:2832:U:H4'	54:DA:2833:G:H5''	1.84	0.59
54:DA:2839:G:H2'	54:DA:2840:C:C6	2.37	0.59
24:BA:52:A:O2'	24:BA:53:A:H5'	2.02	0.59
24:BA:2322:A:H3'	24:BA:2323:G:H8	1.67	0.59
45:D3:55:ARG:HG3	45:D3:55:ARG:HH11	1.67	0.59
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.37	0.59
24:BA:2394:C:OP1	34:BO:63:PRO:CD	2.50	0.59
39:B1:108:GLU:O	39:B1:110:VAL:N	2.36	0.59
49:D4:48:ARG:NH1	49:D4:52:THR:H	2.01	0.59
29:BG:32:PRO:HB3	29:BG:172:LEU:HD22	1.84	0.59
24:BA:1101:U:H2'	24:BA:1102:C:H6	1.68	0.59
1:AA:792:A:O2'	1:AA:793:U:P	2.60	0.59
32:DM:6:PRO:HG3	32:DM:41:ASP:HB2	1.83	0.59
24:BA:99:U:H1'	24:BA:102:G:C2	2.37	0.59
29:DG:16:ARG:NH2	29:DG:31:VAL:HG11	2.17	0.59
53:B8:56:GLU:HA	53:B8:59:LYS:HE3	1.85	0.59
54:DA:1141:U:OP2	32:DM:63:THR:HG21	2.03	0.59
54:DA:1142(A):A:O2'	54:DA:1143:A:O5'	2.21	0.59
8:CK:86:ILE:HG22	8:CK:93:VAL:HG21	1.84	0.59
24:BA:2469:A:H5'	24:BA:2470:G:C8	2.37	0.59
7:CJ:66:VAL:O	7:CJ:70:LYS:HG3	2.02	0.59
1:AA:1347:G:N2	1:AA:1374:A:OP2	2.35	0.59
54:DA:2713:A:OP1	36:D0:14:SER:OG	2.20	0.59
20:CW:101:GLY:O	20:CW:103:GLY:N	2.34	0.59
29:BG:53:LEU:HG	29:BG:90:LEU:HD21	1.84	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:D2:18:LEU:HB3	40:D2:96:ILE:HG12	1.84	0.59
28:BF:178:PRO:HG2	28:BF:179:GLU:CD	2.23	0.59
1:AA:713:G:H21	1:AA:777:A:H4'	1.67	0.59
1:AA:1041:A:C3'	1:AA:1042:G:H5''	2.32	0.59
24:BA:1352:U:O2'	24:BA:1353:A:H5'	2.02	0.59
40:D2:66:ARG:HH12	40:D2:88:ARG:HH11	1.49	0.59
1:CA:1158:C:O2	1:CA:1158:C:C2'	2.51	0.59
27:DE:116:VAL:O	27:DE:117:MET:CB	2.49	0.59
49:D4:22:ILE:HG22	49:D4:23:GLU:N	2.18	0.59
9:AL:112:LYS:HG2	9:AL:118:LYS:HA	1.85	0.59
24:BA:13:A:H4'	24:BA:14:A:OP1	2.01	0.59
16:CS:43:LYS:HA	16:CS:48:TRP:HB2	1.84	0.59
24:BA:532:A:O2'	24:BA:533:G:OP2	2.21	0.59
15:AR:3:ILE:HD13	15:AR:3:ILE:H	1.67	0.59
1:CA:1027:C:H2'	1:CA:1028:C:C6	2.37	0.59
20:AW:67:ALA:HA	20:AW:73:HIS:HA	1.84	0.59
1:AA:199:G:O2'	1:AA:200:G:H5'	2.02	0.59
8:AK:33:GLU:O	8:AK:36:LEU:HB2	2.03	0.59
1:AA:115:G:H1'	1:AA:116:A:N7	2.18	0.59
24:BA:782:A:H4'	24:BA:783:A:O5'	2.00	0.59
49:B4:46:GLN:HG2	49:B4:47:GLN:N	2.17	0.59
9:CL:9:ARG:HB3	9:CL:14:VAL:HG13	1.84	0.59
24:BA:1027:A:N6	24:BA:1126:A:H1'	2.18	0.59
1:AA:366:C:O2'	1:AA:394:G:N2	2.35	0.59
34:BO:90:ARG:CG	34:BO:91:PHE:HD1	2.16	0.59
30:DH:82:GLY:O	30:DH:135:GLY:O	2.20	0.59
54:DA:1385:G:H5'	54:DA:1386:C:OP1	2.02	0.59
24:BA:2818:G:O2'	24:BA:2819:G:H5'	2.02	0.59
54:DA:951:C:O2'	54:DA:952:G:H5'	2.03	0.59
14:CQ:15:LYS:HD2	14:CQ:16:PHE:CZ	2.37	0.59
45:B3:72:ARG:NH2	45:B3:75:LEU:HD12	2.18	0.59
21:AX:9:ARG:O	21:AX:13:ILE:HG13	2.01	0.59
33:BN:87:ILE:CG2	33:BN:91:LEU:HA	2.33	0.59
27:DE:4:ILE:C	27:DE:5:LEU:HD23	2.23	0.59
24:BA:2745:C:H4'	30:BH:142:GLY:C	2.23	0.59
30:BH:19:VAL:O	30:BH:21:PRO:HD3	2.02	0.59
30:DH:124:GLU:HB3	30:DH:132:ARG:HG3	1.85	0.59
30:DH:86:GLU:O	30:DH:131:VAL:O	2.20	0.59
1:CA:57:G:H2'	1:CA:58:C:C6	2.37	0.59
19:CV:40:ILE:HD11	19:CV:62:ILE:HG21	1.85	0.59
24:BA:1085:A:H2'	24:BA:1086:A:H8	1.63	0.59
54:DA:1180:C:C2'	54:DA:1181:C:C5'	2.81	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:61:ARG:C	27:BE:63:LEU:N	2.55	0.59
1:CA:1002:G:C4	1:CA:1003:G:N7	2.71	0.59
53:B8:60:LEU:O	53:B8:63:PRO:HD2	2.03	0.59
43:BU:46:LYS:O	43:BU:60:PHE:HA	2.03	0.59
4:CG:22:LYS:O	4:CG:113:SER:HB3	2.03	0.59
33:DN:107:ARG:O	33:DN:112:MET:HE3	2.02	0.59
20:CW:104:LEU:HD12	20:CW:105:SER:N	2.18	0.59
24:BA:260:G:H1'	24:BA:621:A:C8	2.38	0.59
24:BA:2305:A:H3'	24:BA:2306:C:H5''	1.84	0.59
24:BA:448:U:O2'	28:BF:84:VAL:HG13	2.02	0.59
40:D2:15:GLU:HG3	40:D2:16:PRO:HD2	1.83	0.59
8:AK:28:ALA:HB2	8:AK:57:PRO:HB2	1.85	0.59
54:DA:2308:G:O2'	54:DA:2309:A:OP1	2.21	0.59
1:AA:1240:U:H5''	1:AA:1241:G:C8	2.37	0.59
4:CG:173:TRP:O	4:CG:186:LEU:HB2	2.02	0.59
15:CR:5:LYS:O	15:CR:8:LYS:HG2	2.02	0.59
24:BA:846:C:C4	24:BA:930:U:C5	2.90	0.59
1:AA:197:A:O2'	1:AA:198:G:P	2.60	0.59
8:AK:26:VAL:CG1	8:AK:59:LEU:HB2	2.33	0.59
54:DA:943:U:OP2	34:DO:36:LYS:NZ	2.36	0.59
8:AK:110:ALA:HB3	8:AK:121:ASP:HB3	1.85	0.59
27:BE:108:SER:O	27:BE:162:ALA:HA	2.01	0.59
42:DT:49:VAL:CG1	42:DT:83:VAL:HG13	2.32	0.59
35:BP:42:ILE:HD13	35:BP:97:VAL:CG2	2.32	0.59
1:CA:719:C:O2'	18:CU:49:LYS:HB3	2.03	0.59
2:AE:10:LEU:O	2:AE:10:LEU:HD13	2.02	0.59
1:AA:513:C:H2'	1:AA:514:C:H6	1.67	0.59
1:AA:368:U:H5'	1:AA:369:C:H5'	1.84	0.59
13:AP:88:ARG:HG3	13:AP:98:VAL:HG11	1.85	0.59
9:AL:40:LEU:HD22	9:AL:43:ALA:H	1.66	0.59
24:BA:2753:A:H2'	24:BA:2754:U:C5'	2.23	0.59
24:BA:2747:G:O6	24:BA:2755:C:H5''	2.03	0.59
30:BH:54:ARG:HD2	30:BH:65:HIS:CG	2.37	0.59
43:BU:95:LYS:HZ3	43:BU:100:ALA:HA	1.67	0.59
14:CQ:23:ARG:CZ	14:CQ:30:ALA:HB2	2.33	0.59
1:CA:1129:C:C5'	1:CA:1130:A:H5'	2.32	0.59
53:B8:33:ASN:N	53:B8:36:LYS:HE3	2.10	0.59
35:DP:81:VAL:HG23	35:DP:82:ARG:H	1.67	0.59
25:BB:75:G:C8	25:BB:75:G:H5'	2.37	0.59
40:B2:70:ILE:O	40:B2:72:VAL:HG23	2.03	0.59
54:DA:1142(A):A:C5	54:DA:1144:G:C5	2.91	0.59
31:DK:58:LEU:C	31:DK:60:GLU:H	2.04	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:B2:80:GLN:HE21	40:B2:80:GLN:HA	1.66	0.59
1:AA:502:G:H2'	1:AA:503:C:O4'	2.03	0.59
54:DA:2507:C:C5'	54:DA:2507:C:H6	2.08	0.59
26:DD:27:THR:CG2	26:DD:83:GLU:HB3	2.33	0.59
54:DA:1929:G:H4'	54:DA:1930:G:OP1	2.03	0.59
1:AA:1503:A:N1	23:A1:12:A:N1	2.50	0.59
54:DA:2742:C:O2'	54:DA:2743:C:H5'	2.02	0.59
10:CM:13:HIS:HB3	10:CM:68:HIS:CE1	2.37	0.59
46:BZ:78:LYS:C	46:BZ:78:LYS:HD3	2.22	0.59
54:DA:1579:A:H2'	54:DA:1580:A:O4'	2.03	0.59
27:BE:14:ILE:HD11	27:BE:173:VAL:CG1	2.30	0.59
54:DA:71:A:H2	42:DT:31:HIS:HE1	1.49	0.59
8:CK:41:ARG:HH11	8:CK:41:ARG:CG	2.16	0.59
35:BP:16:ARG:HB3	35:BP:16:ARG:HH11	1.67	0.59
24:BA:2831:G:O4'	24:BA:2883:A:C2	2.56	0.59
38:DR:66:VAL:HG12	38:DR:67:SER:H	1.67	0.59
12:CO:70:ILE:HD13	12:CO:77:LEU:HD12	1.83	0.59
9:AL:51:ARG:HH11	9:AL:51:ARG:HG3	1.68	0.59
1:AA:1049:U:O2'	1:AA:1050:G:OP2	2.16	0.59
30:DH:89:ILE:O	30:DH:91:GLY:N	2.35	0.59
19:AV:11:VAL:HG11	19:AV:41:VAL:HG12	1.83	0.59
49:B4:15:ILE:HD12	49:B4:15:ILE:N	2.18	0.59
44:BV:156:LYS:O	44:BV:157:LEU:CB	2.49	0.59
54:DA:483:A:C4'	43:DU:49:VAL:HA	2.07	0.59
39:B1:58:ARG:O	39:B1:62:ILE:HD12	2.01	0.59
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.16	0.59
1:CA:1221:G:OP1	19:CV:36:ARG:HD3	2.02	0.59
24:BA:1055:G:H2'	24:BA:1056:G:H5'	1.85	0.59
27:DE:61:ARG:HB2	27:DE:62:PRO:CD	2.33	0.59
1:CA:1023:G:C2'	1:CA:1024:G:H5''	2.33	0.59
45:B3:48:GLY:O	45:B3:49:LYS:O	2.21	0.59
29:BG:83:ARG:HB2	29:BG:86:MET:HE3	1.85	0.59
38:BR:3:ARG:HG2	38:BR:6:LEU:CB	2.31	0.59
38:BR:8:LYS:C	38:BR:10:VAL:N	2.55	0.59
49:D4:39:CYS:O	49:D4:40:HIS:HB2	2.03	0.59
1:CA:397:A:N6	1:CA:548:G:C5	2.71	0.59
1:AA:1379:G:H5''	7:AJ:3:ARG:NE	2.14	0.59
1:AA:189:U:H3	17:AT:72:ARG:HH12	1.47	0.59
17:AT:64:PRO:HA	17:AT:70:ARG:HG3	1.84	0.59
7:AJ:79:ARG:HG2	7:AJ:80:VAL:H	1.66	0.59
54:DA:2114:A:N3	54:DA:2114:A:H3'	2.18	0.59
22:AD:19:G:O6	24:BA:2112:G:H1'	2.03	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2758:A:C2	54:DA:2759:G:H1'	2.37	0.59
28:BF:165:ARG:HB3	28:BF:165:ARG:NH1	2.14	0.59
11:AN:96:ARG:HA	11:AN:99:GLN:CG	2.32	0.59
34:DO:39:LYS:CA	34:DO:45:LEU:CD1	2.80	0.59
54:DA:1093:G:C5'	30:DH:170:ARG:CZ	2.81	0.59
24:BA:2126:A:H1'	24:BA:2127:G:C8	2.37	0.59
54:DA:64:A:N9	42:DT:66:LEU:HD13	2.18	0.59
1:CA:1065:U:O2'	1:CA:1066:C:OP2	2.21	0.59
24:BA:861:A:N3	25:BB:79:C:O2'	2.35	0.59
54:DA:1204:A:O2'	54:DA:1205:U:H5''	2.03	0.59
24:BA:882:G:H2'	24:BA:883:G:O4'	2.03	0.59
1:CA:630:G:C2'	1:CA:631:G:H4'	2.32	0.59
47:DW:64:LEU:CD2	47:DW:68:ARG:HD2	2.33	0.59
49:D4:15:ILE:HG22	49:D4:19:GLY:O	2.03	0.59
1:CA:564:C:H5'	17:CT:32:TYR:CE2	2.38	0.59
6:CI:97:PHE:CD2	6:CI:97:PHE:C	2.76	0.59
24:BA:1467:C:C5	24:BA:1546:C:H2'	2.38	0.59
41:BS:57:ASN:O	41:BS:61:ASN:N	2.34	0.59
9:CL:114:TYR:O	9:CL:114:TYR:HD2	1.85	0.59
54:DA:1067:A:H2'	54:DA:1067:A:N3	2.17	0.59
41:DS:80:PRO:O	41:DS:100:THR:HG22	2.03	0.59
25:BB:44:G:H1'	25:BB:47:C:N4	2.18	0.59
1:AA:1310:G:H5'	13:AP:77:ASN:ND2	2.18	0.59
9:AL:27:THR:O	9:AL:61:ALA:O	2.21	0.59
3:CF:70:VAL:HG12	3:CF:72:LYS:N	2.10	0.59
34:DO:138:LEU:O	34:DO:140:ALA:N	2.33	0.59
54:DA:1180:C:C2'	54:DA:1181:C:H5'	2.32	0.59
40:D2:49:THR:CB	40:D2:50:PRO:HD2	2.25	0.59
4:AG:36:ARG:CD	4:AG:38:TYR:HE2	2.16	0.59
22:AD:15:G:N2	22:AD:48:C:N4	2.49	0.59
22:AD:47:U:O2'	22:AD:50:U:P	2.60	0.59
5:AH:76:ILE:CG2	5:AH:77:PRO:HD2	2.22	0.59
28:DF:63:LYS:HE2	28:DF:67:GLN:CB	2.32	0.59
37:BQ:15:ARG:O	37:BQ:19:LYS:HD3	2.02	0.59
30:BH:168:PRO:HG2	30:BH:169:VAL:H	1.68	0.59
10:AM:78:ASN:HD22	10:AM:81:THR:CG2	2.15	0.59
1:AA:1155:G:H2'	1:AA:1156:G:H5'	1.85	0.59
10:CM:31:GLY:HA3	10:CM:78:ASN:ND2	2.18	0.59
54:DA:1930:G:H2'	54:DA:1968:G:O6	2.02	0.59
1:AA:1226:C:C4'	1:AA:1227:A:OP1	2.48	0.59
31:DK:74:ASN:ND2	31:DK:74:ASN:H	1.97	0.59
11:CN:34:ASP:HB3	11:CN:40:ILE:HD11	1.83	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BZ:87:PRO:CA	46:BZ:90:ILE:HG22	2.31	0.59
35:BP:43:THR:HA	35:BP:94:VAL:HG12	1.84	0.59
48:BX:6:VAL:HG22	48:BX:56:VAL:HG22	1.83	0.59
27:DE:36:ARG:H	27:DE:37:ARG:HH21	1.49	0.59
12:CO:46:LYS:HG2	12:CO:47:LYS:H	1.67	0.59
5:CH:42:GLY:CA	5:CH:66:MET:HG2	2.33	0.59
1:AA:624:C:H2'	1:AA:625:G:H8	1.68	0.59
41:DS:1:MET:HA	41:DS:1:MET:HE3	1.85	0.59
24:BA:1416:G:HO2'	24:BA:1417:C:H6	1.47	0.59
11:CN:69:ALA:HB1	11:CN:103:LEU:HD21	1.85	0.59
30:DH:92:ILE:HG22	30:DH:93:GLY:N	2.18	0.59
44:BV:126:VAL:HG12	44:BV:163:LEU:HA	1.83	0.59
36:B0:18:LEU:HD11	36:B0:22:ARG:NE	2.18	0.59
26:DD:137:PRO:HB2	26:DD:140:THR:CG2	2.33	0.59
24:BA:932:G:H4'	24:BA:933:A:O5'	2.02	0.59
7:AJ:92:SER:O	7:AJ:96:GLN:HG3	2.02	0.59
1:CA:60:A:O2'	1:CA:61:G:P	2.61	0.59
2:AE:52:GLU:O	2:AE:56:ARG:HG3	2.02	0.59
54:DA:142:G:H1'	42:DT:37:THR:CG2	2.33	0.59
1:AA:620:C:H2'	1:AA:621:A:O4'	2.03	0.59
29:DG:126:ASP:OD1	29:DG:130:ASN:HB2	2.02	0.59
30:DH:126:PRO:CD	30:DH:127:GLU:N	2.65	0.58
24:BA:2702:U:OP1	24:BA:2702:U:O4'	2.19	0.58
26:DD:44:ASN:HB3	26:DD:49:ILE:CA	2.27	0.58
39:B1:58:ARG:HG2	39:B1:62:ILE:CD1	2.33	0.58
39:B1:66:ASN:HD21	39:B1:70:ARG:NE	2.01	0.58
54:DA:277:C:C3'	54:DA:278:A:C5'	2.69	0.58
1:CA:976:G:H2'	1:CA:1362:C:H42	1.67	0.58
23:C1:12:A:H5'	23:C1:13:A:OP2	2.03	0.58
51:B6:43:CYS:O	51:B6:44:ARG:HB3	2.02	0.58
53:B8:33:ASN:O	53:B8:34:TRP:CB	2.50	0.58
54:DA:1535:U:O2	54:DA:1536:A:H3'	2.03	0.58
24:BA:2061:G:H5''	24:BA:2503:A:N1	2.16	0.58
1:CA:1127:G:H21	1:CA:1147:C:N4	2.00	0.58
54:DA:1965:C:H2'	54:DA:1966:A:C8	2.38	0.58
1:AA:1227:A:N3	19:AV:83:HIS:HB3	2.18	0.58
42:BT:24:GLY:O	42:BT:83:VAL:HG12	2.03	0.58
30:DH:4:ILE:HG13	30:DH:6:ARG:CD	2.33	0.58
31:BK:1:MET:C	31:BK:20:ASP:HB2	2.24	0.58
32:BM:28:THR:HA	32:BM:106:MET:HE2	1.85	0.58
36:D0:63:ARG:HG3	36:D0:63:ARG:HH11	1.68	0.58
28:DF:174:VAL:O	28:DF:174:VAL:HG13	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1430:C:H2'	24:BA:1431:U:H6	1.67	0.58
2:CE:47:THR:HG22	2:CE:51:LEU:HG	1.85	0.58
6:AI:48:LEU:HG	6:AI:57:GLN:HA	1.84	0.58
5:AH:80:ILE:HG22	8:AK:104:ARG:NH1	2.18	0.58
10:CM:49:VAL:HG22	14:CQ:41:ARG:HB2	1.83	0.58
3:AF:157:ILE:O	3:AF:159:GLY:N	2.36	0.58
54:DA:1428:C:C5	54:DA:1569:A:H5''	2.38	0.58
11:CN:30:VAL:HG21	11:CN:65:ALA:HA	1.85	0.58
54:DA:2474:C:O2	54:DA:2474:C:H2'	2.03	0.58
24:BA:30:G:H2'	24:BA:31:C:H6	1.66	0.58
23:C1:5:A:H2'	23:C1:6:G:C8	2.38	0.58
54:DA:2378:A:H4'	37:DQ:23:ARG:NE	2.18	0.58
1:AA:216:G:H2'	1:AA:217:C:C6	2.38	0.58
1:AA:780:A:H2	1:AA:803:G:C6	2.21	0.58
1:CA:60:A:H4'	1:CA:61:G:O5'	2.03	0.58
28:BF:72:ARG:HB3	28:BF:72:ARG:HH11	1.67	0.58
26:BD:148:GLU:O	26:BD:151:LYS:HB2	2.03	0.58
24:BA:2859:G:C8	24:BA:2859:G:H3'	2.38	0.58
49:D4:3:GLU:HG3	49:D4:4:GLY:N	2.18	0.58
34:DO:37:GLY:HA2	34:DO:41:ARG:HE	1.68	0.58
24:BA:1872:A:H5'	24:BA:1878:G:OP2	2.02	0.58
10:AM:46:ARG:HG2	10:AM:64:GLU:HB3	1.85	0.58
5:CH:153:LYS:NZ	5:CH:153:LYS:HB2	2.18	0.58
24:BA:2650:U:H2'	24:BA:2651:C:H6	1.67	0.58
3:AF:120:VAL:C	3:AF:122:GLU:H	2.06	0.58
11:AN:13:GLN:NE2	11:AN:76:GLY:HA3	2.15	0.58
49:B4:14:ILE:HG13	49:B4:31:ILE:O	2.02	0.58
29:BG:106:LEU:O	29:BG:110:ALA:HB3	2.03	0.58
9:AL:27:THR:HB	9:AL:33:PHE:H	1.68	0.58
40:B2:35:LEU:N	40:B2:35:LEU:HD22	2.18	0.58
49:D4:63:TYR:C	49:D4:65:ASP:H	2.05	0.58
2:CE:212:GLN:NE2	2:CE:235:SER:HB2	2.18	0.58
1:AA:697:U:C5'	1:AA:697:U:H6	2.13	0.58
2:AE:219:VAL:HA	2:AE:222:ILE:CD1	2.31	0.58
2:AE:22:LYS:HD2	2:AE:22:LYS:N	2.18	0.58
24:BA:2778:A:C5'	24:BA:2779:U:OP2	2.51	0.58
22:AD:18:G:N2	22:AD:55:U:O2	2.33	0.58
5:AH:81:GLU:HB3	5:AH:90:VAL:HG13	1.84	0.58
29:DG:16:ARG:HB3	29:DG:17:PRO:CD	2.33	0.58
24:BA:2657:A:H2'	24:BA:2658:C:C5'	2.32	0.58
47:DW:32:LEU:HD11	47:DW:54:LYS:HG3	1.84	0.58
38:DR:102:ILE:HB	38:DR:110:ILE:HD11	1.84	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:12:CYS:HA	4:CG:19:LEU:HD23	1.85	0.58
4:CG:22:LYS:HD2	4:CG:26:CYS:SG	2.43	0.58
43:BU:89:PHE:HD1	43:BU:90:LEU:CD2	2.10	0.58
44:DV:18:LEU:N	44:DV:18:LEU:HD12	2.12	0.58
54:DA:221:A:O2'	54:DA:222:A:OP2	2.19	0.58
29:DG:64:THR:HG23	29:DG:66:GLN:H	1.67	0.58
12:AO:86:ARG:HB2	12:AO:101:VAL:CG2	2.33	0.58
50:D5:40:LYS:NZ	50:D5:46:CYS:HB3	2.18	0.58
24:BA:1251:C:O2'	24:BA:1252:G:H3'	2.03	0.58
24:BA:1332:G:H21	24:BA:1610:A:H8	1.48	0.58
1:AA:1010:G:N2	1:AA:1020:U:H1'	2.17	0.58
9:CL:40:LEU:HD11	9:CL:70:LYS:HG2	1.84	0.58
1:CA:474:G:H5'	16:CS:81:ARG:HG3	1.85	0.58
54:DA:70:G:H21	54:DA:71:A:H62	1.48	0.58
16:AS:21:VAL:HG12	16:AS:34:GLU:O	2.03	0.58
6:AI:67:MET:HB2	6:AI:68:PRO:HD2	1.85	0.58
41:DS:9:TYR:H	41:DS:102:HIS:CD2	2.20	0.58
41:DS:9:TYR:H	41:DS:102:HIS:HD2	1.48	0.58
23:C1:6:G:O2'	23:C1:7:G:H5'	2.03	0.58
33:BN:43:VAL:HB	33:BN:54:GLU:HA	1.85	0.58
1:CA:998:G:O2'	1:CA:998(A):C:H5'	2.03	0.58
24:BA:1367:A:H5'	24:BA:1368:G:OP2	2.03	0.58
7:AJ:100:ALA:O	7:AJ:104:LEU:HD23	2.03	0.58
24:BA:470:A:H2'	24:BA:471:A:O4'	2.04	0.58
54:DA:2167:U:H2'	54:DA:2167:U:O2	2.03	0.58
24:BA:2250:G:C2	35:BP:82:ARG:HD3	2.38	0.58
11:AN:13:GLN:CG	11:AN:76:GLY:O	2.52	0.58
1:AA:1305:G:O2'	1:AA:1306:A:H8	1.84	0.58
13:AP:80:ARG:HH12	49:B4:55:ARG:HH11	1.49	0.58
13:AP:9:ILE:HD13	13:AP:9:ILE:N	2.18	0.58
29:BG:112:PRO:HG2	49:B4:37:SER:CB	2.32	0.58
54:DA:1085:A:N3	54:DA:1086:A:H8	2.01	0.58
34:BO:115:LEU:CD2	34:BO:116:GLY:H	2.11	0.58
1:CA:1321:C:C4	1:CA:1322:C:C4	2.91	0.58
1:CA:963:G:H21	10:CM:55:LYS:CD	2.13	0.58
2:AE:87:ARG:NH2	2:AE:219:VAL:HG13	2.19	0.58
24:BA:9:U:C5'	32:BM:115:ARG:HH22	2.14	0.58
26:BD:24:ILE:CG2	26:BD:24:ILE:O	2.50	0.58
40:B2:69:LYS:HZ2	40:B2:85:LYS:HZ3	1.51	0.58
44:DV:52:SER:O	44:DV:53:ILE:HG13	2.03	0.58
36:D0:44:LEU:O	36:D0:48:VAL:HG23	2.02	0.58
54:DA:2507:C:H2'	54:DA:2508:G:O5'	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2712:U:O2'	54:DA:2712(A):A:P	2.61	0.58
26:DD:27:THR:CG2	26:DD:28:GLU:N	2.66	0.58
38:DR:36:GLU:HG3	38:DR:41:ARG:HD3	1.85	0.58
54:DA:1964:G:O2'	54:DA:1967:C:OP2	2.21	0.58
1:CA:266:G:N2	1:CA:269:C:C5	2.72	0.58
41:DS:66:GLU:O	41:DS:68:ARG:N	2.33	0.58
54:DA:2277:G:C2'	54:DA:2278:A:H5'	2.33	0.58
3:CF:77:ILE:O	3:CF:84:ILE:HG22	2.02	0.58
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.04	0.58
9:CL:79:LEU:O	9:CL:82:ALA:HB3	2.02	0.58
47:BW:24:LEU:HD22	47:BW:60:LEU:HD21	1.85	0.58
1:CA:376:G:C4'	16:CS:5:ARG:HD2	2.33	0.58
1:CA:376:G:OP2	16:CS:67:THR:HG21	2.03	0.58
45:D3:51:VAL:HG21	45:D3:79:VAL:O	2.03	0.58
54:DA:2687:U:C4	54:DA:2688:U:H5	2.21	0.58
43:BU:94:LYS:NZ	43:BU:101:LYS:HZ3	2.02	0.58
24:BA:2439:A:O2'	24:BA:2440:C:OP2	2.19	0.58
1:AA:280:C:H1'	17:AT:38:ARG:HD3	1.85	0.58
54:DA:528:A:H2	54:DA:2043:C:C5'	2.16	0.58
54:DA:2848:G:O2'	54:DA:2849:U:O5'	2.21	0.58
1:CA:1238:A:H62	1:CA:1301:U:H3	1.50	0.58
31:BK:127:VAL:HG22	31:BK:139:GLN:HG2	1.84	0.58
12:CO:82:VAL:HG23	12:CO:106:ASP:OD2	2.04	0.58
24:BA:1191:G:O2'	24:BA:1192:G:H5'	2.03	0.58
1:CA:723:U:O2	1:CA:723:U:H2'	2.03	0.58
12:AO:58:VAL:O	12:AO:65:GLU:HA	2.02	0.58
24:BA:1520:U:H2'	24:BA:1521:G:O4'	2.03	0.58
12:CO:45:PRO:HD3	12:CO:51:ALA:O	2.03	0.58
11:AN:13:GLN:HG2	11:AN:76:GLY:O	2.04	0.58
1:AA:1310:G:H5'	13:AP:77:ASN:HD21	1.68	0.58
19:AV:36:ARG:CZ	19:AV:70:LYS:HB2	2.32	0.58
19:AV:39:THR:HG22	19:AV:40:ILE:N	2.14	0.58
19:AV:9:VAL:HG11	49:B4:63:TYR:HD1	1.68	0.58
44:DV:144:LEU:HD21	44:DV:150:LEU:HD22	1.83	0.58
30:BH:69:ARG:HG3	30:BH:69:ARG:HH11	1.69	0.58
39:B1:104:GLN:O	39:B1:107:ALA:HB3	2.03	0.58
14:CQ:23:ARG:H	14:CQ:33:VAL:HG11	1.67	0.58
42:BT:14:SER:O	42:BT:17:ALA:HB3	2.02	0.58
1:AA:1100:C:OP2	2:AE:96:ARG:HD3	2.03	0.58
1:CA:1535:C:O2'	1:CA:1536:C:OP1	2.16	0.58
27:BE:35:GLN:HG3	27:BE:64:LYS:NZ	2.18	0.58
51:B6:14:THR:HG23	51:B6:15:GLU:H	1.67	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:B6:21:TYR:O	51:B6:22:ALA:HB2	2.03	0.58
24:BA:827:U:H2'	24:BA:2068:U:C2	2.39	0.58
32:DM:9:VAL:HG21	32:DM:48:MET:HB3	1.85	0.58
35:DP:66:ILE:HA	35:DP:104:PHE:HA	1.85	0.58
25:BB:8:U:C5'	25:BB:8:U:H6	2.16	0.58
36:D0:2:ARG:HG2	36:D0:5:LYS:HZ1	1.68	0.58
47:DW:51:ARG:HA	47:DW:54:LYS:HB2	1.86	0.58
54:DA:1534:G:O6	54:DA:1538:G:C2	2.56	0.58
29:BG:75:LYS:CG	29:BG:76:SER:H	2.15	0.58
30:BH:86:GLU:HG3	30:BH:164:TYR:C	2.23	0.58
54:DA:2712:U:O2'	54:DA:2712(A):A:O5'	2.20	0.58
47:DW:17:SER:CB	47:DW:18:PRO:HA	2.33	0.58
34:DO:65:ARG:HH21	53:D8:15:LYS:CB	2.17	0.58
10:AM:6:ILE:HG22	10:AM:98:ILE:CG2	2.30	0.58
1:AA:321:A:N7	1:AA:328:C:O2	2.35	0.58
38:BR:117:ASP:C	38:BR:119:LYS:H	2.06	0.58
1:CA:243:A:N6	1:CA:281:G:O2'	2.36	0.58
1:AA:1381:U:H1'	7:AJ:79:ARG:NH2	2.16	0.58
4:CG:114:ARG:NH1	4:CG:114:ARG:HG3	2.13	0.58
2:AE:129:GLU:HB3	2:AE:130:ARG:HH12	1.68	0.58
3:CF:149:ALA:O	3:CF:169:ALA:HA	2.02	0.58
24:BA:1324:G:H3'	24:BA:1325:G:H5'	1.85	0.58
46:BZ:53:VAL:O	46:BZ:54:ALA:C	2.42	0.58
1:CA:321:A:N7	1:CA:328:C:O2	2.36	0.58
24:BA:1024:G:C3'	24:BA:1025:G:H5''	2.33	0.58
24:BA:1025:G:N3	24:BA:1025:G:H2'	2.18	0.58
1:AA:434:U:H2'	1:AA:435:C:H6	1.65	0.58
17:CT:41:LYS:HZ1	17:CT:92:ARG:HH22	1.51	0.58
54:DA:71:A:H2	42:DT:31:HIS:CE1	2.21	0.58
24:BA:2355:C:H1'	45:B3:39:ARG:HH21	1.68	0.58
8:AK:44:PHE:HA	8:AK:79:VAL:HG11	1.86	0.58
24:BA:68:G:H2'	24:BA:68:G:N3	2.18	0.58
25:BB:17:C:H2'	25:BB:18:G:O4'	2.02	0.58
54:DA:405:U:H4'	54:DA:406:G:OP2	2.02	0.58
12:CO:18:VAL:O	12:CO:19:ARG:HB2	2.04	0.58
54:DA:2783:G:H2'	54:DA:2784:C:H6	1.69	0.58
26:DD:165:ILE:HA	26:DD:175:LEU:HD23	1.83	0.58
24:BA:580:C:H2'	24:BA:581:C:C6	2.39	0.58
1:CA:1310:G:O2'	1:CA:1311:G:H5'	2.03	0.58
54:DA:1583:A:H5'	54:DA:1585:C:H5	1.68	0.58
30:DH:126:PRO:CG	30:DH:127:GLU:N	2.65	0.58
1:AA:1310:G:OP1	13:AP:77:ASN:OD1	2.21	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:77:ASN:O	13:AP:80:ARG:HB2	2.04	0.58
49:B4:14:ILE:CG1	49:B4:15:ILE:N	2.66	0.58
30:DH:85:LYS:HA	30:DH:86:GLU:OE1	2.03	0.58
34:BO:101:VAL:CG1	34:BO:102:ARG:N	2.67	0.58
40:B2:6:LYS:H	40:B2:37:VAL:HG11	1.68	0.58
49:D4:65:ASP:O	49:D4:66:SER:CB	2.51	0.58
54:DA:627:A:H4'	54:DA:628:G:OP1	2.02	0.58
24:BA:2810:A:O3'	27:BE:61:ARG:HG3	2.02	0.58
24:BA:2349:G:H5'	24:BA:2349:G:H8	1.68	0.58
35:BP:32:TYR:HB2	35:BP:106:VAL:CG2	2.32	0.58
44:BV:141:VAL:HG12	44:BV:143:GLY:H	1.68	0.58
44:BV:53:ILE:HG22	44:BV:71:VAL:HG13	1.85	0.58
54:DA:1360:A:N6	54:DA:1372:U:O4	2.37	0.58
54:DA:1372:U:O2'	54:DA:1373:A:H5'	2.04	0.58
10:AM:32:ALA:HB1	10:AM:75:ILE:HG12	1.86	0.58
48:BX:3:ARG:HB3	48:BX:60:GLU:C	2.24	0.58
1:AA:1119:C:OP2	9:AL:9:ARG:NH2	2.37	0.58
31:DK:52:ARG:O	31:DK:56:LYS:HB3	2.03	0.58
55:DB:45:A:H1'	29:DG:95:ARG:NH1	2.18	0.58
24:BA:1187:G:O5'	24:BA:1187:G:H8	1.87	0.58
43:BU:52:SER:N	43:BU:53:PRO:HD3	2.17	0.58
54:DA:2287:A:N1	54:DA:2346:A:C2	2.71	0.58
26:BD:10:THR:C	26:BD:11:PRO:O	2.39	0.58
24:BA:582:G:H2'	24:BA:583:G:C8	2.38	0.58
3:AF:23:TYR:HD1	3:AF:23:TYR:N	2.01	0.58
24:BA:329:G:C6	43:BU:19:LYS:HG2	2.38	0.58
35:DP:90:VAL:C	35:DP:92:GLY:H	2.07	0.58
13:CP:19:LEU:H	13:CP:19:LEU:HD22	1.68	0.58
1:AA:712:A:O2'	1:AA:713:G:H5'	2.04	0.58
1:AA:998(A):C:C2'	1:AA:999:U:H5''	2.34	0.58
5:CH:102:ALA:HB2	5:CH:120:THR:OG1	2.03	0.58
54:DA:85:G:O2'	54:DA:86:C:H5'	2.03	0.58
32:BM:120:LEU:HD21	32:BM:122:VAL:CG2	2.32	0.58
24:BA:2585:U:O2'	24:BA:2586:C:H5'	2.03	0.58
30:BH:92:ILE:HG22	30:BH:93:GLY:H	1.68	0.58
16:CS:28:ARG:HG2	16:CS:28:ARG:HH11	1.68	0.58
1:AA:1015:A:H2'	1:AA:1016:A:H8	1.68	0.58
58:DA:2908:G:H4'	60:DA:2932:U:O2	2.03	0.58
1:CA:1019:C:H2'	1:CA:1020:U:C5'	2.33	0.58
28:DF:89:VAL:HG12	28:DF:90:PHE:N	2.18	0.58
27:BE:137:HIS:HB3	27:BE:138:PRO:HD2	1.86	0.58
42:DT:36:LYS:HE3	42:DT:54:VAL:O	2.04	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.38	0.58
33:BN:47:ILE:O	33:BN:48:PRO:O	2.22	0.58
10:AM:22:LYS:HD2	10:AM:26:ALA:HB2	1.85	0.58
15:CR:4:THR:HB	15:CR:6:GLU:OE2	2.02	0.58
39:B1:80:ILE:HG22	39:B1:80:ILE:O	2.03	0.58
7:AJ:137:LYS:O	7:AJ:141:VAL:HG23	2.04	0.58
25:BB:45:A:O4'	29:BG:95:ARG:NH1	2.36	0.58
24:BA:2250:G:C4	35:BP:82:ARG:HD3	2.38	0.58
3:AF:16:ARG:HH21	3:AF:181:ASN:HA	1.67	0.58
1:AA:1318:A:H4'	19:AV:10:PHE:CZ	2.39	0.58
19:AV:36:ARG:CG	19:AV:72:GLY:H	2.16	0.58
54:DA:1053:C:C2'	54:DA:1054:A:H5''	2.34	0.58
54:DA:583:G:H5''	39:D1:10:ARG:NH1	2.16	0.58
28:BF:153:SER:HB2	28:BF:189:THR:HA	1.84	0.58
27:DE:51:PHE:CD1	27:DE:52:LEU:HG	2.38	0.58
19:CV:68:GLY:CA	49:D4:68:ARG:CB	2.80	0.58
2:CE:80:ILE:HG21	2:CE:212:GLN:HA	1.85	0.58
3:AF:108:ASN:ND2	3:AF:144:SER:HB2	2.18	0.58
54:DA:2418:A:H2'	54:DA:2419:U:C6	2.38	0.58
1:CA:1002:G:C2'	1:CA:1003:G:H5'	2.34	0.58
40:D2:38:LEU:HD23	40:D2:39:LEU:N	2.19	0.58
5:AH:78:HIS:NE2	5:AH:142:LEU:HA	2.19	0.58
28:BF:5:ALA:HB1	28:BF:125:LEU:CD2	2.33	0.58
55:DB:95:U:C6	55:DB:95:U:C3'	2.87	0.58
35:DP:55:VAL:HG22	35:DP:56:ARG:N	2.18	0.58
7:CJ:102:ARG:HG2	7:CJ:106:GLN:NE2	2.19	0.58
54:DA:2344:U:OP1	51:D6:38:LYS:HD3	2.03	0.58
33:DN:40:VAL:HG12	33:DN:41:ALA:N	2.19	0.58
1:CA:1374:A:C2'	1:CA:1375:A:H5'	2.33	0.58
46:BZ:7:ILE:HD12	46:BZ:62:VAL:HG11	1.85	0.58
27:BE:120:TRP:CD1	27:BE:155:LYS:HB3	2.38	0.58
7:CJ:49:ILE:O	7:CJ:53:LYS:HB3	2.04	0.58
6:AI:69:GLU:CD	6:AI:69:GLU:H	2.07	0.58
1:AA:1071:C:H2'	1:AA:1072:G:H8	1.67	0.58
54:DA:84:A:H4'	54:DA:85:G:O5'	2.04	0.58
2:CE:37:ASN:C	2:CE:39:ILE:H	2.07	0.58
54:DA:2175:C:H3'	54:DA:2176:A:H5''	1.86	0.58
24:BA:2445:G:OP1	28:BF:74:ARG:NH2	2.35	0.58
54:DA:1204:A:C2	54:DA:1241:A:N1	2.70	0.58
4:CG:201:GLN:HA	4:CG:201:GLN:HE21	1.69	0.58
1:AA:9:G:H2'	1:AA:10:A:H8	1.68	0.58
1:CA:1214:C:H5''	1:CA:1215:G:OP2	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CC:17(A):C:H5''	22:CC:18:G:OP2	2.04	0.58
24:BA:1952:A:C5	33:BN:22:ILE:HD12	2.38	0.58
42:DT:53:LYS:HZ2	42:DT:55:ASN:HD21	1.51	0.58
24:BA:2569:G:O2'	24:BA:2570:G:H5'	2.03	0.58
54:DA:2877:G:H2'	54:DA:2878:U:O4'	2.03	0.58
4:CG:191:ARG:NH1	4:CG:200:GLU:OE1	2.37	0.58
50:D5:50:GLY:O	50:D5:51:TYR:HB2	2.03	0.58
54:DA:2842:G:O2'	54:DA:2843:G:H5'	2.02	0.58
5:CH:68:GLU:O	5:CH:68:GLU:HG3	2.03	0.58
24:BA:852:G:O2'	24:BA:853:G:H5'	2.03	0.58
16:CS:53:VAL:HG23	16:CS:54:GLU:N	2.18	0.58
1:CA:1009:G:O2'	1:CA:1010:G:H5'	2.04	0.58
7:AJ:12:LEU:HD12	7:AJ:12:LEU:H	1.68	0.58
13:CP:45:VAL:O	13:CP:45:VAL:HG22	2.02	0.58
52:B7:49:ARG:OXT	52:B7:49:ARG:HD3	2.04	0.58
36:B0:105:ARG:CG	36:B0:105:ARG:HH11	2.16	0.58
42:DT:7:VAL:O	42:DT:30:VAL:HG12	2.04	0.58
1:AA:176:C:H2'	1:AA:177:C:C6	2.38	0.58
37:BQ:59:LYS:HG2	37:BQ:60:GLY:N	2.19	0.58
43:DU:81:LYS:HD3	43:DU:97:ARG:CD	2.33	0.58
24:BA:1045:A:H1'	24:BA:1047:G:C4	2.38	0.58
24:BA:1045:A:OP1	24:BA:1045:A:H4'	2.03	0.58
34:BO:97:PRO:O	34:BO:99:LEU:N	2.29	0.58
54:DA:704:G:C2'	54:DA:726:G:N2	2.66	0.58
27:DE:78:LEU:HD23	27:DE:79:ARG:HD2	1.86	0.58
3:CF:181:ASN:HD22	3:CF:204:LEU:HB2	1.68	0.58
28:BF:4:VAL:HA	28:BF:19:GLU:CB	2.32	0.58
1:AA:697:U:C6	1:AA:697:U:H5'	2.28	0.58
3:AF:82:GLU:CG	3:AF:83:ARG:H	1.94	0.58
27:BE:65:GLY:O	27:BE:66:HIS:C	2.42	0.58
28:BF:61:GLY:CA	28:BF:77:ASP:HB3	2.33	0.58
24:BA:2286:A:H2	51:B6:25:LYS:O	1.86	0.58
32:DM:41:ASP:O	32:DM:48:MET:HE3	2.03	0.58
54:DA:195:A:OP1	34:DO:46:LYS:HE2	2.04	0.58
53:B8:6:THR:O	53:B8:7:HIS:HB3	2.04	0.58
24:BA:2294:C:P	37:BQ:89:ARG:HH22	2.27	0.58
8:CK:86:ILE:HG13	8:CK:133:LEU:HD22	1.84	0.58
4:CG:13:ARG:CD	4:CG:38:TYR:O	2.51	0.58
34:DO:71:VAL:HG13	34:DO:72:PRO:HD3	1.84	0.58
47:BW:49:LYS:O	47:BW:53:LEU:N	2.37	0.58
31:DK:133:HIS:HB2	31:DK:134:PRO:CD	2.34	0.58
29:BG:38:VAL:CG1	29:BG:158:ALA:HB3	2.33	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:196:LEU:HD23	3:AF:196:LEU:N	2.18	0.58
1:CA:244:U:O2'	1:CA:245:C:OP2	2.17	0.58
35:BP:89:ASN:C	35:BP:91:GLU:H	2.07	0.58
45:D3:29:GLN:O	45:D3:31:VAL:HG13	2.03	0.58
54:DA:2111:C:C2	54:DA:2118:U:O2'	2.55	0.58
54:DA:1872:A:H5'	54:DA:1878:G:OP2	2.04	0.58
54:DA:2311:A:C8	29:DG:82:LEU:HD11	2.38	0.58
52:D7:8:ASN:ND2	52:D7:8:ASN:C	2.56	0.58
18:AU:22:VAL:HG22	18:AU:23:LYS:N	2.19	0.58
34:DO:13:ASN:C	34:DO:15:ARG:N	2.54	0.58
14:CQ:44:LEU:HD12	14:CQ:44:LEU:C	2.24	0.58
8:AK:6:ILE:N	8:AK:6:ILE:HD12	2.17	0.58
12:AO:60:LEU:CD2	12:AO:66:VAL:HG22	2.34	0.58
54:DA:1348:G:C2'	54:DA:1349:A:H5''	2.34	0.58
38:BR:36:GLU:O	38:BR:36:GLU:HG3	2.02	0.58
31:BK:98:ALA:HA	31:BK:109:ILE:HD11	1.85	0.58
6:CI:62:TRP:C	6:CI:63:TYR:HD2	2.06	0.58
1:AA:629:G:H2'	1:AA:630:G:H8	1.67	0.58
16:CS:14:ASN:N	16:CS:15:PRO:CD	2.67	0.58
54:DA:397:G:OP2	46:DZ:10:LYS:NZ	2.29	0.58
24:BA:1392:A:N6	24:BA:1393:A:N6	2.50	0.58
4:CG:163:GLU:C	4:CG:165:MET:H	2.03	0.58
1:AA:1137:C:H4'	1:AA:1138:G:H5''	1.85	0.58
35:BP:104:PHE:N	35:BP:104:PHE:CD1	2.71	0.58
35:BP:41:TRP:C	35:BP:42:ILE:HD12	2.24	0.58
1:AA:513:C:H2'	1:AA:514:C:C6	2.38	0.58
27:DE:72:VAL:O	27:DE:73:GLU:O	2.21	0.58
38:BR:60:THR:HG22	38:BR:77:PRO:HA	1.84	0.58
28:DF:138:GLU:O	28:DF:141:ALA:HB3	2.03	0.58
1:AA:890:G:HO2'	1:AA:891:U:P	2.24	0.58
22:CC:65:C:O2'	22:CC:66:C:H5'	2.02	0.58
49:B4:50:VAL:HG12	49:B4:51:ASP:H	1.69	0.58
30:DH:117:PRO:HB3	30:DH:123:PHE:CD1	2.37	0.58
21:AX:2:GLY:C	21:AX:4:GLY:H	2.07	0.58
44:BV:93:ASP:O	44:BV:94:GLU:C	2.40	0.58
44:DV:154:ASP:O	44:DV:155:LEU:O	2.22	0.58
30:BH:17:VAL:HG11	30:BH:49:VAL:HG23	1.85	0.58
24:BA:33:U:O4	24:BA:446:G:O2'	2.16	0.58
1:CA:1365:G:H2'	1:CA:1366:C:H6	1.69	0.58
54:DA:2699:C:O2'	54:DA:2700:C:H5'	2.02	0.58
32:DM:13:TRP:O	32:DM:135:PRO:HD2	2.03	0.58
54:DA:1482:U:H5'	54:DA:1483:G:OP2	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:19:HIS:NE2	2:CE:206:ASP:HB2	2.18	0.58
24:BA:1054:A:H5'	24:BA:1054:A:H8	1.68	0.58
1:AA:581:G:OP1	15:AR:61:GLY:HA3	2.03	0.58
4:AG:26:CYS:SG	4:AG:32:ALA:N	2.76	0.58
44:BV:111:VAL:HG21	44:BV:145:GLU:CB	2.33	0.58
1:AA:3:G:H4'	1:AA:4:U:H5'	1.84	0.58
32:DM:63:THR:HG22	32:DM:66:LYS:HZ1	1.68	0.58
8:CK:84:ARG:NH1	8:CK:86:ILE:HD13	2.11	0.58
29:BG:75:LYS:O	29:BG:76:SER:CB	2.51	0.58
38:BR:5:ALA:O	38:BR:8:LYS:HB3	2.02	0.58
1:AA:1118:C:P	9:AL:104:ARG:HH11	2.26	0.58
34:DO:71:VAL:CG1	34:DO:72:PRO:HD3	2.33	0.58
24:BA:91:A:C2'	24:BA:92:G:H5'	2.33	0.58
54:DA:120:U:H1'	54:DA:149:A:C8	2.38	0.58
1:AA:532:A:O2'	1:AA:533:A:P	2.61	0.58
15:AR:69:TYR:O	15:AR:73:GLU:HG2	2.04	0.58
1:AA:1238:A:N7	1:AA:1301:U:O4	2.37	0.58
3:CF:189:ALA:HB3	3:CF:196:LEU:HB2	1.84	0.58
33:BN:69:ILE:HG22	33:BN:70:LYS:N	2.19	0.58
54:DA:859:G:O2'	54:DA:860:U:P	2.61	0.58
44:DV:27:VAL:HG22	44:DV:28:MET:H	1.68	0.58
44:DV:30:ASN:HB3	44:DV:89:PHE:HE2	1.68	0.58
32:BM:95:PRO:C	32:BM:97:ARG:H	2.07	0.58
51:B6:35:GLU:O	51:B6:36:LEU:HB2	2.04	0.58
1:CA:328:C:C2'	1:CA:328:C:O2	2.51	0.58
1:CA:107:G:C2'	1:CA:108:G:H5'	2.33	0.58
18:AU:71:LYS:O	18:AU:75:ILE:HG13	2.03	0.58
7:CJ:69:VAL:HG11	7:CJ:104:LEU:CD2	2.34	0.58
8:AK:25:ASP:N	8:AK:25:ASP:OD1	2.36	0.58
31:DK:47:LEU:O	31:DK:51:ILE:HG13	2.03	0.58
54:DA:989:G:C8	48:DX:13:ILE:HD11	2.39	0.58
35:DP:47:ILE:CD1	35:DP:70:PRO:HD3	2.34	0.58
24:BA:1029:A:H2'	24:BA:1030:G:O4'	2.04	0.58
20:AW:87:LYS:O	20:AW:90:GLN:N	2.37	0.58
4:AG:62:GLN:HB3	4:AG:66:ARG:HD2	1.85	0.58
46:DZ:81:LYS:HE2	46:DZ:81:LYS:CA	2.13	0.58
53:B8:23:VAL:HG12	53:B8:47:LYS:HB3	1.86	0.58
2:CE:111:ARG:HA	2:CE:111:ARG:NE	2.19	0.58
9:AL:37:PHE:CE2	9:AL:70:LYS:HG3	2.38	0.58
54:DA:242:G:C5'	53:D8:62:LEU:HD22	2.32	0.58
54:DA:2797:U:H2'	54:DA:2797:U:O2	2.04	0.58
26:DD:71:ASP:HB3	26:DD:103:ARG:HH22	1.68	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:113:ALA:HB3	3:AF:114:PRO:CD	2.31	0.58
35:BP:32:TYR:HB2	35:BP:106:VAL:HG22	1.86	0.58
24:BA:923:C:H2'	24:BA:924:C:C6	2.39	0.58
37:DQ:88:ASP:CG	37:DQ:90:GLY:H	2.06	0.58
3:CF:36:ASP:HB3	3:CF:40:ARG:HH12	1.68	0.58
47:DW:69:ARG:NH1	47:DW:69:ARG:CB	2.67	0.58
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.17	0.58
1:AA:815:A:O2'	1:AA:816:A:P	2.62	0.58
42:BT:26:TYR:O	42:BT:81:VAL:HG22	2.04	0.58
54:DA:1236:G:O2'	54:DA:1237:A:H8	1.85	0.58
2:AE:165:VAL:HG23	2:AE:166:ASP:N	2.19	0.58
54:DA:2126:A:O2'	54:DA:2127:G:OP2	2.22	0.58
2:CE:115:LEU:HD23	2:CE:153:ARG:HD3	1.85	0.58
2:CE:140:HIS:HA	2:CE:143:GLU:OE1	2.04	0.58
32:BM:28:THR:HA	32:BM:106:MET:CE	2.34	0.58
54:DA:2747:G:OP1	30:DH:138:LYS:NZ	2.36	0.58
34:BO:75:ILE:H	34:BO:75:ILE:CD1	2.05	0.58
54:DA:2530:A:H2'	54:DA:2531:A:H5'	1.86	0.58
28:BF:161:GLU:HG2	28:BF:164:ARG:HH22	1.67	0.58
32:DM:35:ARG:O	32:DM:37:LYS:N	2.37	0.58
3:CF:76:VAL:HG21	3:CF:103:VAL:CG1	2.34	0.58
47:BW:17:SER:CB	47:BW:18:PRO:HA	2.34	0.58
8:CK:19:VAL:O	8:CK:20:TYR:HB2	2.04	0.58
3:CF:33:LEU:O	3:CF:37:GLN:HG2	2.04	0.58
31:DK:2:LYS:CB	31:DK:20:ASP:HB3	2.34	0.58
1:AA:360:A:O2'	1:AA:361:G:H5'	2.04	0.58
24:BA:999:U:C2'	24:BA:1000:A:C5'	2.79	0.58
1:CA:403:C:O2'	1:CA:404:U:H5'	2.04	0.58
24:BA:859:G:O2'	24:BA:860:U:P	2.61	0.58
24:BA:1822:G:H5'	24:BA:1822:G:C8	2.36	0.58
49:D4:12:ALA:CB	49:D4:29:PRO:HA	2.33	0.58
26:BD:172:TYR:CD1	26:BD:186:HIS:HA	2.38	0.58
24:BA:104:U:H3'	24:BA:105:C:C6	2.39	0.58
31:DK:127:VAL:HG22	31:DK:139:GLN:HB3	1.84	0.58
54:DA:2776:A:H4'	54:DA:2777:G:H5''	1.86	0.58
1:CA:272:C:H2'	1:CA:273:A:C8	2.38	0.58
5:AH:45:PHE:HE2	5:AH:47:LYS:HD2	1.69	0.58
30:BH:105:LEU:HD12	30:BH:113:VAL:HB	1.85	0.58
47:DW:15:LYS:H	47:DW:67:LYS:CE	2.17	0.58
46:BZ:51:VAL:HG11	46:BZ:74:VAL:HG21	1.85	0.58
45:B3:14:ARG:O	45:B3:15:ASP:HB2	2.02	0.58
41:DS:95:ILE:HD12	41:DS:95:ILE:O	2.04	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CR:37:ASN:HD22	15:CR:37:ASN:N	2.01	0.58
54:DA:2887:U:H2'	54:DA:2888:C:C6	2.39	0.58
28:DF:160:ASN:OD1	28:DF:162:LEU:HB2	2.04	0.58
47:DW:21:LEU:O	47:DW:25:VAL:HG23	2.04	0.58
1:AA:1363:A:O2'	1:AA:1364:U:H5'	2.03	0.58
54:DA:582:G:H2'	54:DA:583:G:C8	2.39	0.58
43:DU:51:VAL:CG1	43:DU:52:SER:H	2.11	0.58
54:DA:1049:C:N3	54:DA:2751:G:O6	2.37	0.58
2:CE:97:TRP:HH2	2:CE:176:GLU:HB2	1.69	0.58
2:AE:177:ALA:O	2:AE:179:LYS:N	2.37	0.58
27:DE:63:LEU:HD13	27:DE:65:GLY:H	1.68	0.58
35:DP:134:ARG:NE	44:DV:122:ARG:NH2	2.52	0.58
54:DA:2376:A:N1	37:DQ:87:PHE:CD2	2.72	0.58
7:AJ:25:ALA:O	7:AJ:29:LYS:HG2	2.04	0.58
37:DQ:95:HIS:CG	37:DQ:96:GLY:H	2.21	0.58
15:AR:54:ARG:HG2	15:AR:58:MET:HE2	1.84	0.58
24:BA:1947:C:C2'	24:BA:1948:G:H5''	2.34	0.58
24:BA:1022:G:O2'	24:BA:1023:U:P	2.61	0.58
54:DA:1498:C:O4'	54:DA:1577:C:H4'	2.04	0.58
24:BA:2134:A:N6	24:BA:2157:G:H1'	2.17	0.58
1:CA:1190:G:P	3:CF:5:ILE:HG23	2.43	0.58
34:BO:50:ARG:HG3	34:BO:50:ARG:O	2.03	0.58
27:DE:111:ARG:NE	27:DE:160:TYR:HE1	2.01	0.58
1:CA:109:A:C4'	1:CA:110:C:OP2	2.52	0.58
6:CI:32:ASN:ND2	6:CI:32:ASN:N	2.52	0.58
1:AA:89:U:H2'	1:AA:90:C:H6	1.69	0.58
2:AE:76:GLN:NE2	2:AE:76:GLN:HA	2.19	0.58
42:DT:27:THR:HB	42:DT:80:ILE:HB	1.84	0.58
8:AK:34:GLU:OE1	8:AK:34:GLU:HA	2.04	0.58
22:CC:61:C:H2'	22:CC:62:C:H6	1.68	0.58
24:BA:74:A:C5'	24:BA:75:G:O4'	2.52	0.58
54:DA:865:C:C4'	54:DA:866:A:OP1	2.51	0.58
1:AA:748:C:O2'	1:AA:749:C:OP2	2.22	0.58
1:CA:1067:A:O2'	1:CA:1068:G:H8	1.86	0.58
12:CO:54:LYS:N	12:CO:54:LYS:HD2	2.18	0.58
61:DA:2905:A:O2'	58:DA:2906:G:H5'	2.03	0.58
1:CA:1118:C:H1'	1:CA:1179:A:C5	2.39	0.58
24:BA:2473:U:O2	24:BA:2473:U:H2'	2.03	0.58
38:BR:35:LYS:N	38:BR:35:LYS:HD2	2.19	0.58
1:AA:19:C:H5''	5:AH:86:ALA:HB3	1.85	0.58
24:BA:1153:C:H2'	24:BA:1154:G:O4'	2.04	0.58
26:BD:70:TRP:CH2	26:BD:150:LYS:HA	2.39	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DX:22:ALA:O	48:DX:25:ALA:HB3	2.04	0.58
49:B4:22:ILE:HG23	49:B4:23:GLU:N	2.19	0.57
54:DA:1085:A:H2'	54:DA:1086:A:C8	2.39	0.57
24:BA:1358:G:H1'	24:BA:1373:A:H61	1.69	0.57
43:BU:81:LYS:HD3	43:BU:97:ARG:NH1	2.19	0.57
43:BU:95:LYS:HZ3	43:BU:95:LYS:CB	2.05	0.57
1:CA:1305:G:OP1	21:CX:2:GLY:HA2	2.04	0.57
32:DM:14:VAL:HG12	32:DM:15:LEU:N	2.18	0.57
25:BB:28:C:H42	25:BB:56:G:H1	1.52	0.57
2:AE:154:LEU:HD22	2:AE:155:LEU:N	2.19	0.57
54:DA:2391:G:O2'	54:DA:2424:C:N4	2.37	0.57
27:DE:63:LEU:HD12	27:DE:65:GLY:H	1.69	0.57
1:CA:1534:A:C2'	1:CA:1535:C:H5	2.17	0.57
13:CP:4:ILE:HG22	13:CP:5:ALA:N	2.19	0.57
24:BA:2294:C:P	37:BQ:89:ARG:NH2	2.76	0.57
25:BB:7:G:H3'	25:BB:8:U:C5'	2.32	0.57
43:BU:40:GLU:N	43:BU:40:GLU:CD	2.57	0.57
43:BU:42:VAL:HG13	43:BU:65:ALA:HB3	1.85	0.57
37:DQ:26:LEU:HD12	37:DQ:39:ILE:CD1	2.23	0.57
10:AM:74:ILE:H	10:AM:74:ILE:HD13	1.67	0.57
1:AA:1118:C:H5'	1:AA:1118:C:H6	1.68	0.57
9:AL:10:ARG:HG2	9:AL:104:ARG:O	2.03	0.57
24:BA:2392:A:C8	34:BO:61:ARG:HD2	2.36	0.57
47:DW:16:LEU:O	47:DW:17:SER:HB3	2.04	0.57
37:BQ:67:ARG:CZ	37:BQ:67:ARG:HB2	2.34	0.57
1:AA:923:A:O2'	1:AA:1399:C:OP2	2.21	0.57
54:DA:1210:A:H4'	54:DA:1211:U:O5'	2.03	0.57
26:DD:242:ARG:N	26:DD:242:ARG:HD2	2.18	0.57
30:DH:4:ILE:HD13	30:DH:4:ILE:H	1.68	0.57
17:AT:67:LYS:O	17:AT:68:ARG:HB3	2.03	0.57
54:DA:2758:A:C4	30:DH:67:LEU:HD21	2.39	0.57
1:AA:17:U:H2'	1:AA:18:C:H6	1.68	0.57
30:DH:41:MET:HE1	30:DH:64:LEU:HB3	1.86	0.57
38:BR:50:ILE:O	38:BR:99:LEU:HD12	2.04	0.57
36:D0:117:VAL:CG2	36:D0:118:GLU:H	2.15	0.57
1:AA:998(A):C:H2'	1:AA:999:U:C5'	2.33	0.57
24:BA:1352:U:O2	24:BA:1570:A:H2	1.87	0.57
32:DM:114:ARG:O	32:DM:115:ARG:HB3	2.03	0.57
24:BA:812:C:H1'	24:BA:1250:G:N2	2.19	0.57
24:BA:2329:G:H2'	24:BA:2330:G:H8	1.67	0.57
51:B6:26:ASN:O	51:B6:28:ARG:N	2.36	0.57
54:DA:592:G:N2	53:D8:4:MET:HE1	2.18	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DQ:42:ASP:C	37:DQ:44:LYS:H	2.06	0.57
4:CG:196:LEU:O	4:CG:198:VAL:N	2.31	0.57
54:DA:527:C:N4	54:DA:2777:G:O2'	2.37	0.57
1:AA:509:A:H5''	4:AG:55:ALA:HB2	1.86	0.57
39:D1:24:TYR:HE1	39:D1:39:LEU:HD23	1.69	0.57
20:AW:96:GLY:O	20:AW:97:ALA:O	2.22	0.57
24:BA:902:C:H2'	24:BA:903:C:C6	2.39	0.57
54:DA:248:G:H5'	54:DA:250:G:N7	2.19	0.57
1:AA:884:U:H5'	1:AA:885:G:OP1	2.04	0.57
5:CH:140:ARG:HB2	5:CH:140:ARG:HH11	1.69	0.57
19:AV:67:VAL:HG13	19:AV:68:GLY:N	2.11	0.57
1:AA:518:C:H5	1:AA:530:G:H5'	1.68	0.57
44:BV:153:SER:C	44:BV:155:LEU:H	2.07	0.57
54:DA:1084:A:C2	54:DA:1085:A:N7	2.72	0.57
39:B1:102:GLU:O	39:B1:105:VAL:HG22	2.04	0.57
24:BA:995:C:O2'	24:BA:996:A:OP2	2.18	0.57
1:CA:954:G:H2'	1:CA:955:U:C6	2.39	0.57
13:CP:84:ILE:HG23	13:CP:85:GLY:N	2.17	0.57
42:BT:55:ASN:HB2	42:BT:80:ILE:HG13	1.85	0.57
28:BF:18:ARG:CG	28:BF:19:GLU:H	2.02	0.57
54:DA:1266:G:C5	41:DS:15:ARG:NH1	2.73	0.57
2:AE:23:ARG:HH11	2:AE:23:ARG:HG2	1.68	0.57
2:AE:70:PHE:HA	2:AE:163:PHE:O	2.05	0.57
53:B8:32:LEU:HD23	53:B8:36:LYS:HE3	1.85	0.57
44:BV:112:ARG:HD2	44:BV:113:ALA:N	2.18	0.57
54:DA:2067:G:H4'	54:DA:2068:U:OP2	2.04	0.57
54:DA:2723:C:OP1	36:D0:3:HIS:HD2	1.87	0.57
50:D5:60:VAL:OXT	50:D5:60:VAL:HG13	2.03	0.57
9:AL:89:ASN:N	9:AL:90:PRO:HD3	2.18	0.57
55:DB:21:G:H2'	55:DB:22:U:O4'	2.04	0.57
43:BU:50:ARG:HB3	43:BU:53:PRO:CG	2.34	0.57
1:CA:192:U:H2'	1:CA:193:C:H6	1.69	0.57
54:DA:1212:G:H2'	54:DA:1236:G:H22	1.69	0.57
54:DA:2599:G:OP2	26:DD:236:GLY:HA2	2.05	0.57
7:AJ:5:ARG:O	7:AJ:7:ALA:N	2.37	0.57
31:DK:11:ASN:O	31:DK:12:LEU:CB	2.51	0.57
1:AA:1004:A:C2'	1:AA:1025:U:O4	2.53	0.57
32:BM:45:ASN:N	32:BM:45:ASN:HD22	1.91	0.57
44:BV:150:LEU:CG	44:BV:171:ILE:HG22	2.33	0.57
24:BA:2681:C:O2	24:BA:2681:C:C2'	2.50	0.57
47:BW:13:ALA:HB1	47:BW:21:LEU:HD21	1.87	0.57
24:BA:389:G:H1	34:BO:70:GLN:HB3	1.69	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1116:C:C2'	1:CA:1117:G:C5'	2.82	0.57
24:BA:704:G:HO2'	24:BA:705:A:P	2.26	0.57
44:BV:165:VAL:HG21	44:BV:169:GLU:HG2	1.85	0.57
61:DA:2930:A:O2'	60:DA:2932:U:C6	2.57	0.57
54:DA:372:G:O2'	54:DA:373:U:OP2	2.21	0.57
8:AK:51:VAL:O	8:AK:52:ASP:HB2	2.02	0.57
47:BW:64:LEU:HD21	47:BW:68:ARG:NE	2.19	0.57
44:BV:127:LYS:HB3	44:BV:162:GLU:HB2	1.86	0.57
27:DE:6:GLY:HA3	27:DE:26:ILE:HD11	1.85	0.57
40:B2:83:ARG:HD2	40:B2:83:ARG:N	2.19	0.57
26:BD:79:VAL:HG21	26:BD:111:LEU:HD11	1.85	0.57
26:BD:227:ASN:HB3	26:BD:228:PRO:HD2	1.86	0.57
32:BM:96:GLU:O	32:BM:100:GLU:HG3	2.04	0.57
54:DA:1978:A:H2'	54:DA:1979:C:C6	2.40	0.57
29:DG:39:ILE:HG23	29:DG:155:MET:HG3	1.86	0.57
1:CA:621:A:H2'	1:CA:622:A:O4'	2.03	0.57
16:AS:58:TYR:C	16:AS:60:LEU:H	2.07	0.57
35:BP:78:PRO:O	35:BP:79:LEU:HG	2.04	0.57
54:DA:1789:A:H2'	54:DA:1790:C:O4'	2.04	0.57
6:CI:39:LYS:HD2	6:CI:64:GLN:NE2	2.19	0.57
1:CA:757:U:H2'	1:CA:758:G:O4'	2.03	0.57
16:CS:76:GLN:O	16:CS:76:GLN:HG2	2.05	0.57
24:BA:690:G:H2'	24:BA:691:C:C6	2.39	0.57
26:BD:84:TYR:HE2	26:BD:86:PRO:HB3	1.69	0.57
30:DH:127:GLU:HG2	30:DH:128:PRO:CG	2.33	0.57
46:DZ:86:SER:H	46:DZ:87:PRO:CD	2.16	0.57
24:BA:1791:A:N6	24:BA:1828:G:O2'	2.37	0.57
24:BA:2759:G:H2'	24:BA:2760:C:H5'	1.86	0.57
39:B1:98:LEU:O	39:B1:100:VAL:N	2.37	0.57
2:CE:12:GLU:O	2:CE:16:HIS:ND1	2.36	0.57
3:CF:105:GLU:HG2	3:CF:106:VAL:N	2.18	0.57
24:BA:1226:G:OP1	40:B2:85:LYS:HD3	2.03	0.57
24:BA:2347:C:H2'	24:BA:2348:U:H6	1.69	0.57
37:DQ:106:ARG:O	37:DQ:107:GLU:HB2	2.04	0.57
22:AD:50:U:H2'	22:AD:51:C:H6	1.69	0.57
25:BB:8:U:OP1	37:BQ:11:LYS:HD2	2.04	0.57
54:DA:1021:A:C8	54:DA:1022:G:H5''	2.39	0.57
37:DQ:26:LEU:CD2	37:DQ:87:PHE:HD1	2.17	0.57
41:BS:107:LEU:H	41:BS:107:LEU:HD22	1.68	0.57
54:DA:2506:U:O2'	54:DA:2507:C:H5'	2.02	0.57
54:DA:2712:U:H2'	54:DA:2712(A):A:O5'	2.02	0.57
2:AE:169:LYS:O	2:AE:169:LYS:HD3	2.03	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CH:111:GLU:C	5:CH:113:ALA:H	2.07	0.57
34:BO:75:ILE:N	34:BO:75:ILE:HD13	2.14	0.57
27:BE:197:ILE:C	27:BE:197:ILE:HD12	2.25	0.57
40:D2:78:LYS:O	40:D2:79:VAL:HB	2.03	0.57
54:DA:2518:A:H4'	54:DA:2519:U:OP1	2.02	0.57
54:DA:881:G:N3	58:DA:2909:G:O6	2.37	0.57
27:BE:16:ARG:HD2	27:BE:16:ARG:O	2.04	0.57
24:BA:2050:C:H1'	27:BE:156:MET:CE	2.33	0.57
18:AU:26:LEU:N	18:AU:26:LEU:HD12	2.18	0.57
27:DE:116:VAL:CG2	27:DE:122:PHE:CD2	2.86	0.57
1:AA:579:G:H2'	1:AA:580:U:C6	2.40	0.57
47:BW:17:SER:HB3	47:BW:21:LEU:H	1.67	0.57
9:CL:17:VAL:HG13	9:CL:81:ILE:HD13	1.85	0.57
10:CM:94:VAL:HG12	10:CM:95:GLU:N	2.19	0.57
24:BA:1802:A:H2'	24:BA:1803:A:C8	2.40	0.57
28:DF:192:LEU:HD21	28:DF:194:MET:CE	2.35	0.57
4:CG:156:GLU:O	4:CG:160:GLN:HG3	2.03	0.57
6:CI:99:ALA:O	6:CI:100:ASN:HB2	2.04	0.57
1:AA:597:G:H2'	1:AA:598:U:H5'	1.85	0.57
24:BA:592:G:H21	53:B8:4:MET:HE1	1.68	0.57
16:AS:40:ASP:HB3	16:AS:48:TRP:CB	2.33	0.57
12:CO:33:ARG:O	12:CO:85:ILE:HG22	2.03	0.57
27:DE:41:LYS:HE2	27:DE:41:LYS:HA	1.86	0.57
54:DA:319:C:O2'	54:DA:320:A:H5'	2.04	0.57
54:DA:869:G:O2'	54:DA:870:A:H5'	2.04	0.57
24:BA:1174:A:H3'	24:BA:1175:U:H4'	1.85	0.57
54:DA:2139:C:O2'	54:DA:2140:C:H5'	2.05	0.57
24:BA:1725:G:H5'	24:BA:1726:G:OP2	2.04	0.57
12:CO:83:VAL:HG22	12:CO:84:LEU:H	1.70	0.57
47:BW:10:LEU:HD13	47:BW:59:ARG:HD2	1.86	0.57
24:BA:2023:G:OP2	24:BA:2617:C:H4'	2.04	0.57
38:DR:82:LEU:N	38:DR:82:LEU:HD12	2.19	0.57
24:BA:1827:C:C2'	24:BA:1828:G:H5'	2.34	0.57
9:AL:18:PHE:O	9:AL:19:LEU:HB2	2.03	0.57
9:AL:32:ASP:C	9:AL:34:ASN:N	2.53	0.57
2:AE:143:GLU:O	2:AE:147:LYS:HD3	2.04	0.57
44:DV:152:ALA:HB2	44:DV:170:THR:H	1.69	0.57
39:B1:81:HIS:CD2	39:B1:117:GLN:HE21	2.14	0.57
39:B1:92:ARG:HB3	40:B2:11:GLN:NE2	2.19	0.57
30:DH:3:ARG:HA	30:DH:3:ARG:HE	1.69	0.57
1:CA:957:U:H1'	1:CA:960:U:C5	2.38	0.57
32:DM:14:VAL:HG12	32:DM:15:LEU:H	1.69	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CF:14:ILE:HG12	3:CF:15:THR:N	2.19	0.57
26:DD:35:LYS:HG2	26:DD:64:ILE:CA	2.34	0.57
27:BE:35:GLN:N	27:BE:48:GLN:HE21	2.00	0.57
1:CA:1002:G:H2'	1:CA:1003:G:H5'	1.86	0.57
39:D1:92:ARG:C	39:D1:94:ASN:H	2.06	0.57
54:DA:1533:C:H2'	54:DA:1534:G:C8	2.39	0.57
29:DG:107:LEU:HD11	29:DG:178:PHE:CE1	2.40	0.57
54:DA:2405:G:O2'	54:DA:2406:U:OP2	2.22	0.57
34:BO:36:LYS:CB	34:BO:36:LYS:NZ	2.57	0.57
13:AP:118:ALA:HB1	22:AC:29:G:H5'	1.84	0.57
31:DK:73:GLU:OE1	31:DK:137:PRO:HD2	2.04	0.57
4:AG:24:GLU:CA	4:AG:27:TYR:HB3	2.35	0.57
23:A1:13:A:N3	23:A1:13:A:O5'	2.37	0.57
54:DA:120:U:H1'	54:DA:149:A:N7	2.18	0.57
29:BG:60:LEU:O	29:BG:64:THR:HG22	2.04	0.57
24:BA:1257:C:H4'	28:BF:83:PHE:CD2	2.39	0.57
29:DG:63:ILE:HD11	29:DG:102:PHE:HE2	1.69	0.57
31:BK:7:GLU:HG3	31:BK:8:PRO:HD2	1.86	0.57
31:BK:4:ILE:HD11	31:BK:44:LEU:HD23	1.87	0.57
1:AA:376:G:H5''	16:AS:5:ARG:HB2	1.87	0.57
24:BA:2310:A:H62	29:BG:79:ASN:HD22	1.53	0.57
33:DN:96:THR:O	33:DN:97:ARG:HB3	2.04	0.57
54:DA:1946:U:C2	54:DA:1947:C:C5	2.92	0.57
24:BA:528:A:H2	24:BA:2043:C:H5'	1.69	0.57
25:BB:83:G:O2'	25:BB:84:C:H5'	2.05	0.57
24:BA:140:A:C8	24:BA:1408:C:O2'	2.56	0.57
31:BK:110:ASP:OD1	31:BK:130:TYR:CE1	2.58	0.57
32:BM:18:ALA:HB1	32:BM:57:ALA:HA	1.87	0.57
1:CA:865:A:C2	1:CA:918:A:H4'	2.39	0.57
24:BA:1608:A:O2'	24:BA:1610:A:P	2.62	0.57
6:AI:12:PRO:HG3	6:AI:57:GLN:O	2.05	0.57
10:CM:3:LYS:O	10:CM:100:THR:HG22	2.04	0.57
54:DA:1364:G:C8	46:DZ:2:SER:N	2.72	0.57
8:AK:9:MET:HG3	8:AK:26:VAL:HG21	1.86	0.57
24:BA:2425:A:H5''	24:BA:2426:A:H3'	1.86	0.57
17:AT:80:GLY:O	17:AT:81:ARG:HB2	2.05	0.57
17:AT:81:ARG:NH2	17:AT:84:LEU:HD11	2.20	0.57
48:DX:4:LEU:O	48:DX:36:VAL:HA	2.04	0.57
24:BA:2839:G:H2'	24:BA:2840:C:C6	2.39	0.57
24:BA:2299:G:N1	24:BA:2318:G:C8	2.73	0.57
27:BE:195:LEU:HD12	27:BE:196:VAL:H	1.69	0.57
2:CE:106:LYS:O	2:CE:110:GLN:HG3	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:130:VAL:O	3:AF:134:ILE:HG12	2.04	0.57
54:DA:2348:U:O4	54:DA:2382:G:C2	2.58	0.57
1:CA:1119:C:O2'	1:CA:1120:G:H5'	2.04	0.57
5:AH:144:THR:C	5:AH:146:ALA:N	2.57	0.57
54:DA:1391:U:H2'	54:DA:1393:A:OP2	2.05	0.57
4:AG:191:ARG:HG2	4:AG:191:ARG:HH11	1.68	0.57
24:BA:1962:C:OP2	24:BA:1962:C:H6	1.87	0.57
36:B0:23:ASN:HD22	36:B0:23:ASN:N	2.02	0.57
35:BP:81:VAL:CG1	35:BP:82:ARG:NH1	2.68	0.57
13:AP:67:GLU:O	13:AP:69:GLU:N	2.37	0.57
19:AV:19:VAL:HG12	19:AV:20:LEU:N	2.19	0.57
9:AL:40:LEU:HB3	9:AL:43:ALA:HB2	1.86	0.57
44:DV:154:ASP:O	44:DV:157:LEU:HD13	2.03	0.57
30:BH:44:VAL:CG2	30:BH:51:ARG:HH11	2.14	0.57
24:BA:1204:A:C2'	24:BA:1205:U:OP2	2.52	0.57
24:BA:1236:G:C4'	24:BA:1237:A:OP1	2.52	0.57
43:BU:15:VAL:O	43:BU:22:GLY:CA	2.52	0.57
1:CA:1234:C:C4'	1:CA:1364:U:O2'	2.53	0.57
24:BA:517:C:OP1	50:B5:16:ARG:NH2	2.37	0.57
2:CE:187:LEU:CD1	2:CE:205:ASP:HA	2.33	0.57
2:AE:200:ILE:HG22	2:AE:201:ILE:N	2.19	0.57
2:AE:17:PHE:HB3	2:AE:42:ILE:HG12	1.87	0.57
27:BE:60:ASN:O	27:BE:61:ARG:CB	2.51	0.57
27:BE:81:ILE:O	27:BE:82:ARG:CB	2.53	0.57
26:BD:142:VAL:HG23	26:BD:192:THR:C	2.25	0.57
26:BD:25:THR:CG2	26:BD:82:ILE:H	2.16	0.57
24:BA:1161:C:H1'	40:B2:8:GLY:O	2.04	0.57
24:BA:1925:C:H6	24:BA:1925:C:H3'	1.60	0.57
31:DK:4:ILE:HG12	31:DK:18:VAL:CG2	2.25	0.57
36:D0:79:LEU:HD23	36:D0:79:LEU:C	2.23	0.57
1:AA:1162:C:O2'	1:AA:1163:C:H5'	2.04	0.57
31:DK:52:ARG:HB3	31:DK:52:ARG:HH11	1.69	0.57
55:DB:42:C:N4	29:DG:91:ARG:HH21	2.03	0.57
55:DB:38:C:H42	55:DB:44:G:H1	1.51	0.57
40:B2:61:VAL:CG1	40:B2:62:LEU:H	2.09	0.57
53:D8:46:ARG:O	53:D8:47:LYS:HB3	2.03	0.57
24:BA:91:A:H2'	24:BA:92:G:O4'	2.04	0.57
37:DQ:67:ARG:CB	37:DQ:67:ARG:HH11	2.17	0.57
37:DQ:67:ARG:NH1	37:DQ:67:ARG:CB	2.64	0.57
20:CW:37:SER:HB3	20:CW:84:LEU:HD23	1.85	0.57
33:DN:20:MET:O	33:DN:41:ALA:HB1	2.04	0.57
1:AA:1203:C:O2'	1:AA:1204:A:H5'	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CH:78:HIS:HA	8:CK:105:ARG:HB2	1.86	0.57
5:CH:148:VAL:HG21	8:CK:107:LEU:HD13	1.86	0.57
7:AJ:76:ARG:HH11	7:AJ:78:ARG:NH1	1.97	0.57
54:DA:2173:A:H2'	54:DA:2174:C:O4'	2.05	0.57
24:BA:1021:A:C8	24:BA:1021:A:H3'	2.39	0.57
24:BA:1139:G:O2'	24:BA:1143:A:N6	2.28	0.57
1:CA:1347:G:H2'	1:CA:1348:U:OP2	2.04	0.57
1:AA:652:U:H1'	1:AA:653:A:H2	1.70	0.57
2:AE:107:THR:HA	2:AE:110:GLN:HG3	1.86	0.57
2:AE:121:LEU:HD13	2:AE:127:ILE:HD11	1.86	0.57
31:BK:131:LYS:HA	31:BK:132:PRO:O	2.05	0.57
1:CA:134:A:N6	16:CS:25:ARG:NH1	2.52	0.57
54:DA:2316:C:H1'	29:DG:128:ARG:HH22	1.69	0.57
1:AA:467:G:H21	16:AS:82:GLN:NE2	2.02	0.57
11:CN:29:ILE:HG13	11:CN:43:SER:O	2.04	0.57
1:AA:397:A:H5'	1:AA:398:C:OP1	2.05	0.57
31:DK:99:GLU:OE2	31:DK:103:ARG:NH2	2.36	0.57
11:CN:21:ILE:N	11:CN:21:ILE:HD12	2.20	0.57
19:CV:15:LEU:N	19:CV:15:LEU:HD23	2.19	0.57
27:DE:152:LYS:HG2	32:DM:78:TYR:CE1	2.39	0.57
31:DK:1:MET:HG3	31:DK:23:PRO:HB3	1.85	0.57
54:DA:165:U:H2'	54:DA:165:U:O2	2.03	0.57
3:AF:93:LYS:O	3:AF:94:LEU:HB3	2.04	0.57
1:CA:552:U:O2'	1:CA:553:A:H5'	2.04	0.57
22:AC:6:G:O2'	22:AC:7:G:H5'	2.05	0.57
22:CC:11:A:H4'	54:DA:1909:C:O2'	2.05	0.57
54:DA:2213:U:H1'	46:DZ:52:ARG:CZ	2.34	0.57
7:CJ:121:ALA:O	7:CJ:125:MET:N	2.37	0.57
54:DA:2030:A:H4'	54:DA:2031:A:H8	1.68	0.57
47:BW:7:ARG:NH1	47:BW:7:ARG:HB3	2.18	0.57
7:AJ:57:GLU:OE1	7:AJ:57:GLU:N	2.38	0.57
24:BA:1322:A:OP1	41:BS:11:ARG:HG3	2.05	0.57
31:BK:92:VAL:HG12	31:BK:97:ILE:HD11	1.86	0.57
13:AP:4:ILE:CD1	13:AP:19:LEU:HD13	2.34	0.57
13:AP:99:ARG:O	13:AP:100:GLY:C	2.43	0.57
33:BN:86:ILE:N	33:BN:86:ILE:HD12	2.19	0.57
34:BO:112:LEU:HD22	34:BO:113:LYS:N	2.20	0.57
13:CP:81:LEU:HB3	13:CP:89:GLY:CA	2.34	0.57
13:CP:77:ASN:HA	49:D4:71:ARG:CZ	2.34	0.57
2:CE:77:ALA:CB	2:CE:211:ILE:HG21	2.35	0.57
24:BA:2808:U:C2'	24:BA:2809:A:H5'	2.34	0.57
32:DM:7:LYS:HG2	32:DM:8:GLN:N	2.20	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AD:17(A):C:H5'	22:AD:18:G:OP2	2.05	0.57
22:AD:60:U:P	22:AD:61:C:H41	2.27	0.57
1:CA:195:A:H1'	1:CA:222:U:O2'	2.05	0.57
37:BQ:88:ASP:O	37:BQ:89:ARG:HB2	2.04	0.57
27:DE:203:LYS:HE3	27:DE:204:ALA:HB2	1.87	0.57
54:DA:1534:G:O6	54:DA:1538:G:N2	2.38	0.57
24:BA:2469:A:OP2	24:BA:2476:A:N3	2.37	0.57
1:AA:1346:A:O2'	1:AA:1347:G:OP2	2.22	0.57
49:D4:37:SER:HB3	49:D4:42:PHE:CE1	2.38	0.57
53:B8:50:LEU:O	53:B8:51:ALA:CB	2.52	0.57
1:AA:954:G:N2	1:AA:1227:A:H62	1.82	0.57
28:BF:78:ILE:HA	28:BF:83:PHE:CE1	2.40	0.57
38:BR:95:ARG:HG3	38:BR:95:ARG:HH11	1.70	0.57
54:DA:2744:G:O2'	54:DA:2745:C:H5'	2.04	0.57
1:CA:1542:G:H8	18:CU:19:LYS:HZ3	1.51	0.57
24:BA:890:A:H3'	24:BA:892:G:H8	1.65	0.57
3:AF:22:TRP:CB	3:AF:59:ARG:HB2	2.35	0.57
41:BS:10:VAL:O	41:BS:12:ILE:N	2.36	0.57
24:BA:1410:G:H2'	24:BA:1411:C:C6	2.40	0.57
31:BK:110:ASP:HB2	31:BK:113:ARG:HB2	1.87	0.57
33:BN:78:ARG:HH21	38:BR:103:ARG:HH21	1.52	0.57
1:CA:865:A:H5'	1:CA:1078:U:O4	2.04	0.57
2:AE:15:VAL:O	2:AE:15:VAL:HG22	2.03	0.57
24:BA:887:A:C3'	24:BA:888:C:H5'	2.34	0.57
24:BA:945:A:C4	24:BA:2448:A:C2	2.93	0.57
7:CJ:16:LEU:CD1	9:CL:45:ALA:HB2	2.34	0.57
24:BA:863:A:H2'	24:BA:864:G:H8	1.69	0.57
24:BA:2021:C:H5''	24:BA:2022:U:OP2	2.05	0.57
1:AA:88:C:H2'	1:AA:89:U:O4'	2.04	0.57
9:AL:25:LYS:HB3	9:AL:57:GLY:CA	2.35	0.57
54:DA:284:U:H2'	54:DA:285:C:H6	1.69	0.57
45:D3:36:ILE:O	45:D3:36:ILE:HD13	2.03	0.57
24:BA:1348:G:C2'	24:BA:1349:A:H5''	2.34	0.57
33:DN:71:ARG:HG3	33:DN:71:ARG:HH11	1.69	0.57
54:DA:529:A:N6	54:DA:2041:U:H3	2.03	0.57
29:DG:53:LEU:HD23	29:DG:53:LEU:C	2.25	0.57
34:BO:90:ARG:HG2	34:BO:91:PHE:HD1	1.69	0.57
26:BD:70:TRP:CD1	26:BD:70:TRP:C	2.78	0.57
1:AA:299:G:H2'	1:AA:300:A:C8	2.39	0.57
1:CA:731:G:OP1	1:CA:766:A:H1'	2.04	0.57
15:AR:81:LEU:HD11	15:AR:85:LEU:HD12	1.87	0.57
24:BA:107:C:H2'	24:BA:108:U:H6	1.70	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:399:G:H2'	1:AA:400:C:C6	2.39	0.57
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.39	0.57
24:BA:1401:G:H2'	24:BA:1402:C:O4'	2.04	0.57
24:BA:407:G:H2'	24:BA:408:G:H8	1.70	0.57
54:DA:2330:G:H2'	54:DA:2331:G:O4'	2.04	0.57
9:AL:6:GLY:HA3	9:AL:17:VAL:N	2.19	0.57
26:DD:69:ARG:C	26:DD:71:ASP:H	2.08	0.57
1:CA:1139:G:H5'	1:CA:1140:C:OP1	2.05	0.57
1:AA:791:G:C5	1:AA:792:A:N7	2.73	0.57
54:DA:803:U:C5'	54:DA:803:U:H6	2.15	0.57
25:BB:76:G:H5'	44:BV:10:ARG:NH2	2.19	0.57
37:BQ:15:ARG:HH11	37:BQ:15:ARG:HG3	1.69	0.57
32:DM:63:THR:HG22	32:DM:66:LYS:NZ	2.20	0.57
24:BA:482:A:N6	24:BA:506:G:H2'	2.20	0.57
49:D4:42:PHE:CG	49:D4:43:TYR:N	2.72	0.57
30:BH:86:GLU:O	30:BH:87:LEU:HG	2.04	0.57
26:DD:25:THR:HG21	26:DD:81:ALA:HB1	1.85	0.57
26:DD:25:THR:HG21	26:DD:82:ILE:H	1.70	0.57
47:BW:46:GLN:N	47:BW:49:LYS:NZ	2.47	0.57
54:DA:222:A:O2'	54:DA:223:A:P	2.63	0.57
54:DA:265:A:HO2'	54:DA:266:G:H4'	1.70	0.57
26:BD:262:ARG:O	26:BD:264:LYS:N	2.35	0.57
46:BZ:69:LYS:O	46:BZ:72:GLU:HB3	2.04	0.57
28:BF:179:GLU:H	28:BF:179:GLU:CD	2.07	0.57
1:AA:992:U:O4	1:AA:1044:A:N7	2.38	0.57
1:CA:17:U:H2'	1:CA:18:C:H6	1.67	0.57
54:DA:2646:C:H2'	54:DA:2647:U:O4'	2.05	0.57
38:BR:88:ILE:HD12	38:BR:88:ILE:C	2.25	0.57
24:BA:524:U:H2'	24:BA:525:U:C6	2.38	0.57
48:DX:31:LEU:O	48:DX:32:GLN:HB2	2.04	0.57
15:CR:26:GLU:CD	15:CR:77:ARG:NH1	2.58	0.57
31:DK:6:LEU:HD13	31:DK:36:ALA:CA	2.34	0.57
50:B5:29:THR:O	50:B5:30:LEU:HD23	2.04	0.57
24:BA:1667:G:OP2	24:BA:1667:G:H8	1.88	0.57
28:BF:93:LYS:HB3	28:BF:94:PRO:HD2	1.86	0.57
12:AO:23:LYS:HD3	12:AO:23:LYS:H	1.68	0.57
24:BA:601:C:O2	24:BA:605:C:H4'	2.04	0.57
24:BA:1192:G:O2'	24:BA:1193:G:H5'	2.05	0.57
24:BA:1196:C:O4'	24:BA:1227:A:C2	2.56	0.57
24:BA:562:U:O2'	24:BA:572:A:O4'	2.16	0.57
45:D3:14:ARG:O	45:D3:15:ASP:HB2	2.05	0.57
37:DQ:5:THR:HG23	37:DQ:8:GLU:OE2	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:111:HIS:CD2	41:BS:113:LYS:HE3	2.40	0.57
54:DA:1258:C:O4'	28:DF:84:VAL:HG11	2.04	0.57
36:D0:32:GLY:O	36:D0:115:GLU:HA	2.04	0.57
24:BA:729:G:H2'	24:BA:1775:U:O2	2.05	0.57
54:DA:2123:G:O2'	54:DA:2124:G:H5'	2.04	0.57
1:CA:113:G:H2'	1:CA:114:U:H6	1.69	0.57
10:AM:84:GLN:O	10:AM:88:LEU:HB3	2.05	0.57
1:AA:262:A:H2'	1:AA:263:A:C8	2.39	0.57
13:AP:52:GLU:HG2	13:AP:55:ARG:NH2	2.19	0.57
9:AL:26:VAL:HG21	9:AL:60:ASP:OD1	2.04	0.57
43:BU:95:LYS:HZ2	43:BU:96:ILE:C	2.08	0.57
54:DA:2635:C:H5''	27:DE:78:LEU:HA	1.86	0.57
1:CA:1233:G:H2'	1:CA:1234:C:C6	2.39	0.57
32:DM:133:GLN:O	32:DM:134:ARG:CB	2.53	0.57
2:AE:17:PHE:HB3	2:AE:42:ILE:CG2	2.32	0.57
54:DA:587:C:OP2	34:DO:21:ARG:NH2	2.38	0.57
26:BD:92:ILE:HA	26:BD:107:ALA:H	1.69	0.57
13:CP:49:THR:HB	13:CP:52:GLU:HG3	1.86	0.57
24:BA:2503:A:O2'	24:BA:2505:G:OP2	2.21	0.57
10:AM:99:LYS:HD3	10:AM:100:THR:N	2.18	0.57
1:CA:1126:U:C5	1:CA:1127:G:C4	2.92	0.57
50:D5:55:ARG:NH1	50:D5:58:LEU:HD11	2.19	0.57
24:BA:2296:U:C4'	24:BA:2297:C:OP1	2.49	0.57
34:DO:64:LYS:C	34:DO:66:GLY:N	2.56	0.57
43:BU:56:PRO:O	43:BU:57:GLN:HB2	2.04	0.57
47:BW:41:ILE:HD11	47:BW:44:LEU:HD12	1.85	0.57
45:D3:24:LYS:O	45:D3:25:ARG:HD3	2.05	0.57
24:BA:2168:G:N2	24:BA:2169:A:H3'	2.20	0.57
54:DA:2745:C:H1'	30:DH:143:GLN:HG2	1.87	0.57
5:AH:7:GLU:HG2	5:AH:112:LEU:HD22	1.87	0.57
2:AE:97:TRP:CH2	2:AE:173:ALA:HA	2.40	0.57
37:BQ:46:VAL:HG12	37:BQ:47:THR:H	1.69	0.57
31:DK:116:LEU:HD11	31:DK:119:PRO:HG3	1.85	0.57
24:BA:1324:G:H4'	24:BA:1616:A:C2	2.40	0.57
51:B6:8:LYS:HG2	51:B6:8:LYS:O	2.04	0.57
4:CG:100:ARG:HH22	4:CG:137:SER:HB3	1.70	0.57
39:B1:8:VAL:HG23	39:B1:9:VAL:N	2.18	0.57
39:D1:52:ARG:HG2	39:D1:52:ARG:NH1	2.17	0.57
24:BA:1165:U:H2'	24:BA:1166:C:H6	1.69	0.57
54:DA:1937:A:O2'	54:DA:1938:A:C5'	2.52	0.57
1:AA:388:G:O2'	1:AA:389:A:OP2	2.22	0.57
1:AA:243:A:H4'	1:AA:244:U:C5'	2.35	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AG:10:ARG:HG3	4:AG:10:ARG:HH11	1.70	0.57
17:CT:32:TYR:O	17:CT:34:LYS:N	2.37	0.57
5:CH:140:ARG:CB	5:CH:140:ARG:HH11	2.17	0.57
54:DA:2860:A:C8	54:DA:2861:G:H1'	2.40	0.57
1:AA:995:C:O5'	1:AA:995:C:H6	1.88	0.57
10:CM:64:GLU:OE2	10:CM:66:ARG:HD2	2.05	0.57
49:B4:12:ALA:HA	49:B4:24:THR:CB	2.30	0.57
31:BK:76:THR:N	31:BK:77:LEU:HD23	2.18	0.57
44:BV:128:VAL:HG13	44:BV:129:SER:N	2.20	0.57
44:DV:157:LEU:N	44:DV:158:PRO:HD3	2.20	0.57
30:BH:33:LEU:O	30:BH:34:GLU:HB3	2.04	0.57
30:BH:89:ILE:HG12	30:BH:90:LYS:N	2.20	0.57
1:CA:956:U:C2'	1:CA:957:U:H5'	2.34	0.57
13:CP:69:GLU:O	13:CP:71:ARG:N	2.38	0.57
3:CF:11:ARG:HH21	3:CF:180:ALA:HB3	1.70	0.57
26:DD:34:VAL:CG1	26:DD:34:VAL:O	2.51	0.57
26:DD:36:PRO:HB2	26:DD:61:LEU:HG	1.87	0.57
24:BA:1308:A:H2'	24:BA:1309:G:O4'	2.05	0.57
28:DF:32:LEU:HD13	28:DF:105:VAL:CG1	2.33	0.57
24:BA:2531:A:H4'	30:BH:157:TYR:CE2	2.40	0.57
54:DA:1537:C:H2'	54:DA:1538:G:C8	2.40	0.57
7:CJ:62:PHE:HA	7:CJ:124:LEU:CD2	2.27	0.57
4:CG:22:LYS:CD	4:CG:26:CYS:SG	2.93	0.57
55:DB:7:G:H3'	55:DB:8:U:C5'	2.31	0.57
24:BA:820:A:O2'	24:BA:821:A:H5'	2.05	0.57
54:DA:1962:C:O2'	54:DA:1964:G:OP2	2.22	0.57
1:AA:160:A:C1'	1:AA:344:A:N7	2.64	0.57
24:BA:2147:G:H2'	24:BA:2148:G:O4'	2.05	0.57
55:DB:72:G:N2	55:DB:103:U:C5	2.73	0.57
24:BA:1754:C:OP2	38:BR:113:LYS:HE3	2.05	0.57
44:DV:33:LEU:HG	44:DV:34:ASN:N	2.20	0.57
46:BZ:80:LEU:O	46:BZ:81:LYS:HB3	2.05	0.57
54:DA:738:G:H2'	54:DA:739:G:O4'	2.05	0.57
3:CF:57:ILE:HG23	3:CF:64:VAL:HG13	1.86	0.57
15:AR:38:ARG:HH11	15:AR:38:ARG:HG2	1.70	0.57
5:AH:41:VAL:O	5:AH:66:MET:HA	2.05	0.57
24:BA:1955:U:O2'	24:BA:1956:U:OP1	2.19	0.57
46:DZ:70:VAL:O	46:DZ:74:VAL:HG23	2.05	0.57
34:BO:138:LEU:HD12	34:BO:139:LYS:N	2.19	0.57
1:AA:748:C:H1'	1:AA:749:C:C5	2.40	0.57
2:CE:30:ARG:HH21	2:CE:194:PRO:CG	2.17	0.57
24:BA:38:A:N3	28:BF:48:THR:HB	2.20	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2650:U:H2'	24:BA:2651:C:C6	2.40	0.57
1:CA:1170:A:H2'	1:CA:1171:G:O4'	2.04	0.57
54:DA:746:A:C5	54:DA:2611:U:H5''	2.39	0.57
14:CQ:29:ARG:HG3	14:CQ:29:ARG:HH11	1.70	0.57
1:CA:597:G:H2'	1:CA:598:U:H5'	1.87	0.57
54:DA:471:A:O5'	54:DA:471:A:H8	1.88	0.57
12:AO:62:SER:HB2	12:AO:64:TYR:CD1	2.39	0.57
39:B1:86:ALA:O	39:B1:88:ILE:HG23	2.05	0.57
1:AA:636:U:H2'	1:AA:637:G:C8	2.40	0.57
23:A1:7:G:H2'	23:A1:8:A:O5'	2.05	0.57
43:DU:97:ARG:HG2	43:DU:97:ARG:O	2.05	0.57
30:BH:8:PRO:C	30:BH:9:ILE:HG13	2.24	0.57
24:BA:442:G:H4'	24:BA:443:A:OP1	2.04	0.57
54:DA:887:A:O2'	54:DA:889:C:H1'	2.05	0.57
34:DO:59:LEU:HA	34:DO:61:ARG:CZ	2.34	0.57
1:AA:412:A:O2'	1:AA:413:G:P	2.63	0.57
39:D1:79:PHE:CD2	39:D1:79:PHE:C	2.78	0.57
28:BF:51:THR:HG23	28:BF:92:PRO:HG2	1.86	0.57
44:BV:48:PHE:HE2	44:BV:71:VAL:HG11	1.70	0.57
37:BQ:105:ALA:HB3	37:BQ:112:PHE:HE2	1.70	0.57
54:DA:1372:U:C6	54:DA:1372:U:C5'	2.88	0.57
1:AA:1152:A:O2'	1:AA:1153:C:H5'	2.04	0.57
55:DB:30:C:OP2	37:DQ:32:LEU:HD11	2.05	0.57
44:BV:57:ILE:HD12	44:BV:57:ILE:N	2.20	0.57
16:CS:4:ILE:HA	16:CS:20:VAL:O	2.05	0.57
54:DA:650:C:OP1	53:D8:48:PHE:CZ	2.58	0.57
34:BO:36:LYS:HZ3	34:BO:36:LYS:CB	2.18	0.57
47:BW:50:ILE:N	47:BW:50:ILE:HD12	2.20	0.57
1:CA:1460:A:H2'	1:CA:1461:G:O4'	2.05	0.57
24:BA:1181:C:O2'	24:BA:1182:A:H5'	2.05	0.57
54:DA:1190:G:H5'	34:DO:32:THR:HA	1.86	0.57
24:BA:1022:G:O6	32:BM:66:LYS:CE	2.53	0.57
49:D4:27:THR:O	49:D4:28:LYS:HB3	2.03	0.57
14:CQ:13:THR:N	14:CQ:14:PRO:CD	2.68	0.57
54:DA:2311:A:H2'	54:DA:2312:U:C5	2.39	0.57
1:CA:658:G:O2'	1:CA:659:U:H5'	2.04	0.57
24:BA:587:C:OP2	34:BO:21:ARG:NH2	2.38	0.57
4:AG:112:VAL:HG12	4:AG:116:GLN:CD	2.24	0.57
7:CJ:37:ASN:HD21	9:CL:40:LEU:HD23	1.69	0.57
1:CA:376:G:H5''	16:CS:5:ARG:HB2	1.86	0.57
1:AA:1065:U:O2'	1:AA:1066:C:P	2.63	0.57
54:DA:71:A:C2	42:DT:31:HIS:HE1	2.23	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1821:A:H2'	24:BA:1822:G:H5'	1.86	0.57
47:DW:31:GLU:O	47:DW:35:LEU:HG	2.05	0.57
54:DA:658:C:H2'	54:DA:659:C:H6	1.70	0.57
1:CA:501:C:H2'	1:CA:502:G:H8	1.70	0.57
24:BA:476:G:H4'	24:BA:502:A:N1	2.20	0.57
22:AD:11:A:H2'	22:AD:12:G:C8	2.40	0.57
43:DU:21:LYS:HG3	43:DU:22:GLY:H	1.69	0.57
54:DA:2150:U:H2'	54:DA:2151:G:H8	1.70	0.57
1:CA:1326:C:H2'	1:CA:1327:C:H6	1.70	0.57
27:DE:102:VAL:HG13	27:DE:172:VAL:CG2	2.34	0.57
1:CA:914:A:O2'	1:CA:915:A:H5'	2.05	0.57
49:B4:66:SER:C	49:B4:68:ARG:H	2.09	0.57
54:DA:699:A:H2'	54:DA:700:G:O4'	2.05	0.57
36:D0:45:ARG:HA	36:D0:95:THR:HG21	1.87	0.57
37:DQ:72:ALA:O	37:DQ:76:LYS:HG3	2.04	0.57
24:BA:1973:G:H2'	24:BA:1974:C:C6	2.40	0.57
19:AV:61:TYR:CE2	19:AV:63:THR:OG1	2.58	0.56
49:B4:55:ARG:O	49:B4:59:PHE:HB2	2.05	0.56
30:DH:84:SER:O	30:DH:133:VAL:O	2.22	0.56
24:BA:997:G:H2'	24:BA:998:C:H5'	1.86	0.56
1:CA:1221:G:O3'	19:CV:77:THR:CG2	2.52	0.56
1:CA:1366:C:O2'	1:CA:1367:C:H5'	2.04	0.56
13:CP:82:MET:O	13:CP:84:ILE:N	2.38	0.56
19:CV:9:VAL:O	19:CV:9:VAL:HG23	2.04	0.56
24:BA:747:U:OP2	50:B5:3:LYS:HD2	2.05	0.56
29:BG:29:TRP:HB3	29:BG:33:ARG:NH1	2.20	0.56
26:DD:92:ILE:HD12	26:DD:104:TYR:CD2	2.39	0.56
42:BT:12:VAL:HG13	42:BT:27:THR:O	2.04	0.56
53:D8:33:ASN:O	53:D8:34:TRP:C	2.42	0.56
27:BE:62:PRO:C	27:BE:64:LYS:H	2.07	0.56
21:CX:7:ARG:O	21:CX:8:THR:HG23	2.05	0.56
39:D1:83:LEU:HD12	39:D1:113:ALA:HB2	1.86	0.56
44:BV:10:ARG:HG2	44:BV:10:ARG:NH1	2.20	0.56
35:BP:141:GLN:C	44:BV:75:ASN:HA	2.25	0.56
54:DA:1024:G:OP2	54:DA:1025:G:H3'	2.05	0.56
24:BA:2656:U:H5	24:BA:2664:G:H21	1.49	0.56
1:CA:429:U:O2'	1:CA:430:A:H5''	2.06	0.56
16:CS:21:VAL:HG22	16:CS:34:GLU:O	2.04	0.56
55:DB:80:U:O2'	55:DB:81:G:H5''	2.05	0.56
30:DH:77:LYS:CB	30:DH:77:LYS:HZ3	2.11	0.56
51:D6:14:THR:O	51:D6:49:HIS:HA	2.05	0.56
1:AA:982:U:H4'	1:AA:983:A:O5'	2.04	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AG:179:GLU:O	4:AG:181:MET:HG3	2.05	0.56
3:AF:161:GLU:CD	3:AF:162:GLN:N	2.59	0.56
3:AF:162:GLN:NE2	23:A1:24:A:O4'	2.37	0.56
31:DK:64:GLU:HG3	31:DK:67:ARG:NH2	2.20	0.56
8:CK:49:GLU:HG3	8:CK:51:VAL:CG1	2.35	0.56
24:BA:2119:A:N1	24:BA:2171:A:H1'	2.20	0.56
54:DA:894:C:O2'	54:DA:895:U:H5'	2.05	0.56
18:AU:22:VAL:C	18:AU:24:ALA:N	2.56	0.56
52:D7:48:LYS:HG2	52:D7:49:ARG:N	2.19	0.56
1:AA:728:A:H2'	1:AA:729:A:H8	1.67	0.56
32:BM:131:GLN:NE2	32:BM:132:ALA:H	2.02	0.56
1:CA:328:C:O2'	1:CA:329:A:P	2.60	0.56
54:DA:1992:G:N2	54:DA:1996:C:O2'	2.38	0.56
1:AA:474:G:OP2	16:AS:75:ARG:HD3	2.05	0.56
1:CA:375:U:H4'	16:CS:17:TYR:CE2	2.39	0.56
11:CN:54:ARG:HH12	22:CD:40:C:H5'	1.70	0.56
24:BA:1853:A:H2'	24:BA:1854:A:H8	1.70	0.56
11:CN:21:ILE:HG13	11:CN:30:VAL:HG12	1.86	0.56
16:CS:7:ALA:O	16:CS:9:PHE:CD2	2.58	0.56
24:BA:2840:C:H4'	36:B0:53:HIS:CD2	2.39	0.56
29:DG:39:ILE:CG2	29:DG:155:MET:HG3	2.35	0.56
1:CA:520:A:O2'	12:CO:73:GLU:HG2	2.05	0.56
34:BO:94:GLU:HG3	34:BO:124:LYS:HB3	1.86	0.56
28:BF:33:LEU:O	28:BF:37:VAL:HG23	2.04	0.56
29:BG:170:ARG:O	29:BG:174:GLU:HB2	2.05	0.56
22:CC:50:U:H2'	22:CC:51:C:C6	2.40	0.56
7:AJ:99:LEU:HD22	7:AJ:103:TRP:CZ2	2.40	0.56
4:CG:50:ARG:HD2	4:CG:50:ARG:O	2.05	0.56
38:BR:98:LYS:HA	38:BR:98:LYS:HE3	1.85	0.56
1:AA:724:G:O2'	1:AA:725:G:H5'	2.03	0.56
30:DH:125:VAL:HG12	30:DH:126:PRO:CG	2.34	0.56
24:BA:654(R):C:C4'	24:BA:654(R):C:C6	2.82	0.56
1:AA:1321:C:C5'	1:AA:1322:C:H5''	2.35	0.56
19:AV:47:HIS:O	19:AV:48:THR:HG23	2.04	0.56
9:AL:27:THR:O	9:AL:28:VAL:HB	2.05	0.56
24:BA:1043:C:C3'	24:BA:1044:G:H5''	2.36	0.56
43:BU:76:CYS:HB3	43:BU:96:ILE:HD11	1.86	0.56
34:BO:146:VAL:HG13	34:BO:147:LEU:N	2.20	0.56
40:B2:6:LYS:H	40:B2:37:VAL:CG1	2.18	0.56
26:DD:69:ARG:HD3	26:DD:105:ILE:HD11	1.87	0.56
1:CA:1075:C:H4'	1:CA:1101:A:N6	2.20	0.56
1:CA:1371:G:OP1	9:CL:11:LYS:HG2	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:93:U:H2'	1:CA:95:G:H5''	1.87	0.56
24:BA:1930:G:O2'	24:BA:1931:U:P	2.63	0.56
22:AD:15:G:H3'	22:AD:16:C:O4'	2.05	0.56
38:DR:105:LEU:C	38:DR:107:ASP:H	2.07	0.56
1:CA:1277:C:O2'	1:CA:1279:A:H8	1.88	0.56
37:BQ:30:ARG:NH1	37:BQ:30:ARG:HG2	2.15	0.56
37:DQ:32:LEU:O	37:DQ:62:LYS:HE2	2.05	0.56
54:DA:1236:G:HO2'	54:DA:1237:A:H8	1.53	0.56
24:BA:2458:G:H8	24:BA:2458:G:OP2	1.88	0.56
29:DG:60:LEU:O	29:DG:64:THR:HG22	2.05	0.56
31:BK:14:ASP:N	31:BK:17:GLN:OE1	2.33	0.56
1:CA:1460:A:H3'	1:CA:1461:G:H8	1.70	0.56
1:AA:1006:C:C4	1:AA:1007:C:N4	2.73	0.56
40:D2:76:LYS:O	40:D2:79:VAL:HG12	2.05	0.56
54:DA:2614:A:C4'	54:DA:2615:U:OP1	2.53	0.56
54:DA:1166:C:H2'	54:DA:1167:U:C6	2.40	0.56
27:BE:201:THR:O	27:BE:202:LYS:HD3	2.04	0.56
54:DA:530:G:H1'	54:DA:2021:C:O2'	2.04	0.56
3:AF:64:VAL:HG23	3:AF:64:VAL:O	2.05	0.56
2:AE:14:GLY:O	2:AE:209:ARG:NH2	2.38	0.56
48:DX:7:LYS:NZ	48:DX:32:GLN:HE21	2.03	0.56
12:AO:60:LEU:HD21	12:AO:66:VAL:HG22	1.86	0.56
24:BA:1504:C:H2'	24:BA:1505:C:C5'	2.35	0.56
1:AA:450:G:H5''	16:AS:41:PRO:O	2.05	0.56
24:BA:566:U:OP1	34:BO:29:LYS:CE	2.54	0.56
24:BA:2845:G:O2'	24:BA:2846:G:H5'	2.04	0.56
31:BK:15:VAL:HG12	31:BK:16:GLY:N	2.20	0.56
1:CA:1428:A:H2'	1:CA:1429:C:C6	2.40	0.56
54:DA:2136:C:H2'	54:DA:2137:C:H6	1.69	0.56
35:DP:37:LEU:HD21	35:DP:130:LYS:HE3	1.87	0.56
32:DM:82:LEU:HD12	32:DM:83:LYS:H	1.70	0.56
15:CR:53:HIS:CE1	15:CR:57:LEU:HD11	2.40	0.56
24:BA:1586:A:N7	24:BA:1587:A:H1'	2.20	0.56
24:BA:1585:C:O2'	24:BA:1586:A:OP1	2.19	0.56
26:DD:58:HIS:HD2	26:DD:59:LYS:O	1.89	0.56
38:DR:134:GLU:O	38:DR:135:ALA:HB3	2.05	0.56
24:BA:2557:G:H2'	24:BA:2558:C:C6	2.40	0.56
20:AW:64:ASP:OD1	20:AW:81:LYS:HE2	2.05	0.56
25:BB:34:U:H5''	25:BB:35:U:OP1	2.05	0.56
24:BA:1899:G:H21	24:BA:1902:C:H5	1.54	0.56
24:BA:2393:A:H4'	34:BO:62:LEU:N	2.20	0.56
1:AA:1532:U:O2'	1:AA:1533:C:P	2.62	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AX:9:ARG:C	21:AX:9:ARG:HD2	2.25	0.56
1:AA:65:U:H5''	1:AA:66:G:OP1	2.05	0.56
33:BN:88:ASN:ND2	33:BN:90:GLN:H	2.03	0.56
1:AA:1130:A:HO2'	9:AL:18:PHE:HE2	1.53	0.56
1:AA:1148:U:O2'	9:AL:14:VAL:HG11	2.04	0.56
44:BV:94:GLU:O	44:BV:95:PRO:C	2.43	0.56
31:BK:81:VAL:HG12	31:BK:82:ARG:H	1.70	0.56
1:CA:56:U:H2'	1:CA:57:G:C8	2.40	0.56
1:CA:57:G:H2'	1:CA:58:C:H6	1.70	0.56
54:DA:1042:G:N2	54:DA:1113:U:O2	2.39	0.56
54:DA:1046:A:C3'	54:DA:1046:A:N3	2.62	0.56
1:CA:976:G:H2'	1:CA:1362:C:N4	2.20	0.56
29:BG:4:ASP:O	29:BG:8:LYS:HD3	2.04	0.56
2:CE:80:ILE:CG2	2:CE:212:GLN:HA	2.35	0.56
3:CF:7:PRO:O	3:CF:11:ARG:HG2	2.05	0.56
3:CF:180:ALA:O	3:CF:181:ASN:HB3	2.06	0.56
2:AE:162:ILE:O	2:AE:162:ILE:HG13	2.05	0.56
24:BA:2790:A:C2'	24:BA:2791:C:H5''	2.26	0.56
24:BA:2786:U:H4'	27:BE:64:LYS:HA	1.87	0.56
26:BD:76:PRO:HA	26:BD:118:VAL:HG23	1.86	0.56
26:BD:142:VAL:HG22	26:BD:143:HIS:N	2.20	0.56
22:AC:20:U:O2	22:AC:20:U:H2'	2.03	0.56
51:B6:41:PRO:O	51:B6:42:TRP:CB	2.52	0.56
1:CA:688:G:H2'	1:CA:689:C:C6	2.40	0.56
21:CX:6:ARG:HH21	21:CX:15:ARG:HE	1.53	0.56
4:AG:26:CYS:SG	4:AG:32:ALA:CB	2.89	0.56
37:DQ:103:GLU:O	37:DQ:106:ARG:CG	2.53	0.56
1:CA:194:C:C2'	1:CA:195:A:H5''	2.35	0.56
4:CG:11:LEU:O	4:CG:13:ARG:N	2.37	0.56
34:BO:59:LEU:HD13	34:BO:60:MET:H	1.71	0.56
47:DW:17:SER:HB2	47:DW:18:PRO:HA	1.86	0.56
24:BA:820:A:H1'	24:BA:943:U:O2'	2.05	0.56
24:BA:90:U:O2'	24:BA:91:A:H5''	2.05	0.56
1:AA:954:G:N2	1:AA:1227:A:N6	2.47	0.56
54:DA:52:A:O2'	54:DA:53:A:H5'	2.06	0.56
24:BA:2720:U:H2'	24:BA:2721:A:H8	1.69	0.56
26:DD:236:GLY:O	26:DD:237:GLU:OE1	2.24	0.56
26:DD:183:ARG:HD2	26:DD:270:ILE:HG12	1.88	0.56
4:AG:162:LEU:HD13	4:AG:181:MET:HG2	1.88	0.56
29:BG:60:LEU:O	29:BG:63:ILE:HG12	2.05	0.56
10:AM:6:ILE:CD1	10:AM:23:ILE:HG21	2.36	0.56
1:AA:1203:C:H2'	1:AA:1204:A:C8	2.40	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:D3:74:ARG:C	45:D3:76:GLY:H	2.08	0.56
1:AA:328:C:O2	1:AA:328:C:C2'	2.50	0.56
54:DA:264:C:O2'	54:DA:265:A:H5''	2.05	0.56
1:AA:129(A):G:C6	1:AA:188:U:H4'	2.40	0.56
26:BD:67:PHE:CD2	26:BD:153:ALA:HB3	2.41	0.56
5:CH:78:HIS:CE1	5:CH:143:ARG:H	2.20	0.56
54:DA:2115:G:C2	54:DA:2164:C:OP2	2.58	0.56
44:DV:58:VAL:O	44:DV:60:GLU:N	2.36	0.56
11:CN:32:ILE:O	11:CN:40:ILE:HG12	2.04	0.56
43:BU:17:SER:OG	43:BU:18:GLY:N	2.38	0.56
9:CL:10:ARG:CD	9:CL:105:ASP:HB2	2.35	0.56
7:CJ:42:ILE:O	7:CJ:117:ALA:HB2	2.05	0.56
14:AQ:12:ARG:NH1	14:AQ:14:PRO:HD2	2.20	0.56
14:AQ:9:LYS:HA	14:AQ:12:ARG:HB3	1.87	0.56
54:DA:2018:G:H2'	54:DA:2019:A:C8	2.40	0.56
1:CA:890:G:O2'	1:CA:891:U:P	2.63	0.56
1:AA:465:A:N7	1:AA:467:G:N7	2.53	0.56
1:CA:89:U:H2'	1:CA:90:C:H6	1.70	0.56
7:CJ:148:ASN:C	7:CJ:150:ALA:H	2.08	0.56
1:AA:1067:A:O2'	1:AA:1068:G:C8	2.59	0.56
6:CI:91:VAL:CG1	18:CU:72:ARG:HH12	2.18	0.56
54:DA:637:A:HO2'	54:DA:638:G:P	2.29	0.56
45:B3:25:ARG:HG3	45:B3:25:ARG:NH1	2.21	0.56
54:DA:655:A:H2'	54:DA:656:G:H5'	1.86	0.56
33:DN:3:GLN:CB	33:DN:4:PRO:HD2	2.35	0.56
2:CE:60:ASP:HB3	2:CE:64:ARG:CZ	2.34	0.56
24:BA:871:U:O2	24:BA:871:U:C2'	2.51	0.56
1:AA:1190:G:OP2	3:AF:5:ILE:HG23	2.06	0.56
24:BA:1678:G:N2	24:BA:1989:G:N2	2.53	0.56
10:CM:49:VAL:HG21	14:CQ:41:ARG:HB2	1.87	0.56
1:CA:1203:C:OP1	14:CQ:3:ARG:HD2	2.06	0.56
49:D4:15:ILE:HG22	49:D4:20:ASN:HA	1.86	0.56
22:CD:37:A:H2'	22:CD:38:A:O4'	2.04	0.56
8:AK:29:SER:HB3	8:AK:32:LYS:CG	2.35	0.56
54:DA:2875:C:C4'	38:DR:5:ALA:HB2	2.35	0.56
54:DA:2779:U:H1'	54:DA:2781:A:C4	2.40	0.56
24:BA:2870:C:C2'	24:BA:2871:C:H5'	2.34	0.56
27:DE:69:LYS:C	27:DE:71:GLY:H	2.09	0.56
33:BN:43:VAL:CG2	33:BN:56:ASP:HB2	2.35	0.56
54:DA:653:A:H5''	54:DA:654:A:OP2	2.05	0.56
36:B0:44:LEU:HD13	36:B0:44:LEU:C	2.25	0.56
8:CK:38:ILE:HD12	8:CK:118:VAL:HG12	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:50:A:O2'	1:CA:51:A:P	2.63	0.56
42:DT:35:THR:HG22	42:DT:38:GLU:OE1	2.05	0.56
3:AF:120:VAL:O	3:AF:122:GLU:N	2.38	0.56
1:AA:31:G:O2'	1:AA:32:A:P	2.63	0.56
23:A1:10:G:H2'	23:A1:11:U:C6	2.40	0.56
24:BA:2001:A:H2'	24:BA:2002:G:C8	2.40	0.56
3:CF:90:GLU:O	3:CF:94:LEU:HG	2.05	0.56
54:DA:576:U:H6	54:DA:576:U:O5'	1.88	0.56
54:DA:185:U:H4'	54:DA:218:A:H4'	1.86	0.56
39:D1:104:GLN:OE1	39:D1:104:GLN:N	2.35	0.56
24:BA:19:C:H2'	24:BA:20:C:H6	1.69	0.56
7:CJ:18:TYR:HD2	7:CJ:59:LEU:HD22	1.70	0.56
55:DB:34:U:OP2	29:DG:2:PRO:HG2	2.05	0.56
53:D8:50:LEU:HD12	53:D8:51:ALA:H	1.70	0.56
4:CG:42:GLN:HG2	4:CG:42:GLN:O	2.05	0.56
5:AH:32:VAL:HG12	5:AH:33:VAL:N	2.21	0.56
31:DK:63:ALA:HA	31:DK:66:GLU:CD	2.25	0.56
24:BA:1694:C:O2'	24:BA:1695:G:OP2	2.17	0.56
39:D1:68:ALA:O	39:D1:71:GLN:HB2	2.04	0.56
46:DZ:89:GLU:O	46:DZ:93:GLU:HB2	2.04	0.56
1:AA:1062:U:H2'	1:AA:1063:C:C5	2.39	0.56
1:AA:1316:G:H2'	1:AA:1318:A:OP2	2.05	0.56
1:AA:1127:G:H4'	1:AA:1148:U:O2	2.06	0.56
9:AL:19:LEU:HD22	9:AL:59:PHE:CB	2.35	0.56
54:DA:594:U:H5'	53:D8:61:LEU:CD2	2.35	0.56
24:BA:2755:C:H4'	24:BA:2756:U:H5	1.69	0.56
24:BA:2748:A:N7	24:BA:2757:A:C6	2.73	0.56
49:D4:64:GLY:C	49:D4:66:SER:H	2.07	0.56
2:CE:102:LEU:HB3	2:CE:180:LEU:CD1	2.36	0.56
42:BT:12:VAL:HG13	42:BT:27:THR:HG23	1.86	0.56
54:DA:2891:G:H5'	54:DA:2892:A:P	2.45	0.56
1:CA:97:U:O4	1:CA:99:C:N4	2.37	0.56
4:AG:11:LEU:C	4:AG:13:ARG:H	2.09	0.56
4:AG:12:CYS:HA	4:AG:21:LEU:HD23	1.83	0.56
2:AE:178:ARG:NH2	8:AK:69:ARG:O	2.37	0.56
35:DP:79:LEU:O	35:DP:79:LEU:CG	2.52	0.56
30:BH:102:ALA:CA	30:BH:117:PRO:HD3	2.35	0.56
54:DA:1931:U:H5''	54:DA:1932:A:OP2	2.06	0.56
1:AA:1055:A:N6	1:AA:1200:C:N3	2.53	0.56
20:AW:26:ASN:HD22	20:AW:27:LYS:N	2.03	0.56
1:AA:189:U:O2	17:AT:63:ARG:NH1	2.38	0.56
24:BA:1142(A):A:C8	24:BA:1144:G:N7	2.73	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:60:A:N6	1:AA:110:C:N3	2.53	0.56
22:CD:67:C:H2'	22:CD:68:C:C6	2.40	0.56
52:D7:12:ARG:NH2	52:D7:44:PRO:HB3	2.21	0.56
32:DM:112:LEU:O	32:DM:114:ARG:O	2.23	0.56
29:DG:128:ARG:NH2	29:DG:128:ARG:HG3	2.17	0.56
24:BA:1171:G:OP2	24:BA:1171:G:H3'	2.04	0.56
18:AU:84:LYS:N	18:AU:84:LYS:HE2	2.20	0.56
2:CE:55:PHE:HA	2:CE:58:ILE:HB	1.88	0.56
28:DF:118:ALA:O	28:DF:121:GLY:N	2.33	0.56
54:DA:1668:A:H61	54:DA:1676:A:N6	2.04	0.56
16:AS:15:PRO:HB3	16:AS:17:TYR:CE1	2.38	0.56
1:AA:191(F):U:H2'	1:AA:191:G:C5'	2.35	0.56
34:BO:14:LYS:O	34:BO:16:ARG:N	2.38	0.56
15:CR:76:GLU:C	15:CR:78:TYR:H	2.08	0.56
1:AA:47:C:H5''	1:AA:48:C:OP1	2.06	0.56
54:DA:2474:C:H5''	54:DA:2475:C:H5	1.69	0.56
24:BA:278:A:H2'	24:BA:279:C:O5'	2.06	0.56
22:AC:1:C:O2	22:AC:1:C:C2'	2.53	0.56
54:DA:1712:C:H2'	54:DA:1716:U:O4'	2.05	0.56
54:DA:404:C:O2'	54:DA:405:U:OP2	2.21	0.56
1:CA:1300:G:O2'	1:CA:1301:U:P	2.63	0.56
26:DD:2:ALA:O	26:DD:3:VAL:HB	2.06	0.56
24:BA:12:U:O2	24:BA:12:U:H2'	2.04	0.56
6:CI:97:PHE:O	18:CU:31:LEU:HD23	2.04	0.56
5:AH:10:MET:HG3	5:AH:32:VAL:HG22	1.86	0.56
24:BA:352:G:O2'	24:BA:353:G:OP1	2.21	0.56
12:AO:11:VAL:HG21	17:AT:34:LYS:HD3	1.86	0.56
27:BE:112:GLY:O	27:BE:159:HIS:HA	2.06	0.56
27:DE:32:PRO:O	27:DE:34:VAL:HG13	2.06	0.56
24:BA:2192:G:C2'	24:BA:2193:G:H5''	2.34	0.56
55:DB:78:A:C2	55:DB:99:A:C4	2.93	0.56
43:DU:95:LYS:HE3	43:DU:95:LYS:O	2.06	0.56
1:AA:1305:G:N2	1:AA:1331:G:C2'	2.57	0.56
1:AA:971:G:N2	1:AA:1363:A:OP2	2.39	0.56
13:AP:13:LYS:O	13:AP:45:VAL:HG21	2.05	0.56
9:AL:28:VAL:CB	9:AL:63:ILE:H	2.19	0.56
24:BA:2753:A:C3'	24:BA:2754:U:H5''	2.35	0.56
54:DA:278:A:H2'	54:DA:279:C:H6	1.70	0.56
1:CA:971:G:H5''	1:CA:972:C:H5''	1.87	0.56
34:DO:115:LEU:HD12	34:DO:116:GLY:N	2.21	0.56
11:AN:124:LYS:HD2	11:AN:125:PHE:CE1	2.39	0.56
2:AE:55:PHE:HA	2:AE:58:ILE:CG1	2.32	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1503:A:O2'	1:CA:1504:G:P	2.64	0.56
26:BD:27:THR:O	26:BD:28:GLU:HB2	2.04	0.56
22:AD:60:U:O2'	22:AD:61:C:OP1	2.23	0.56
24:BA:2656:U:C6	24:BA:2656:U:C3'	2.88	0.56
54:DA:1360:A:N1	54:DA:1372:U:C4	2.74	0.56
1:CA:397:A:H5''	1:CA:397:A:N3	2.20	0.56
54:DA:2599:G:OP2	26:DD:236:GLY:CA	2.53	0.56
12:AO:55:VAL:HG12	12:AO:56:ALA:H	1.71	0.56
24:BA:329:G:N7	43:BU:19:LYS:CG	2.67	0.56
54:DA:270(B):A:H8	54:DA:270(C):C:C5	2.24	0.56
24:BA:1495:A:O2'	24:BA:1496:A:H5'	2.05	0.56
27:DE:183:LEU:N	27:DE:183:LEU:HD12	2.20	0.56
41:BS:21:VAL:HG22	41:BS:47:VAL:HG21	1.87	0.56
18:AU:32:ARG:O	18:AU:32:ARG:HG3	2.05	0.56
1:CA:16:A:C2'	1:CA:17:U:H5'	2.35	0.56
3:CF:59:ARG:HH12	3:CF:97:LYS:HE3	1.70	0.56
28:BF:110:LEU:HD11	28:BF:205:ARG:HH21	1.69	0.56
36:B0:107:ASP:OD2	36:B0:107:ASP:C	2.44	0.56
38:BR:129:ARG:C	38:BR:131:ALA:H	2.09	0.56
38:DR:26:ASP:CB	38:DR:91:ARG:HA	2.36	0.56
1:CA:1410:G:H2'	1:CA:1411:C:H6	1.69	0.56
5:CH:82:VAL:CG1	5:CH:83:GLU:N	2.68	0.56
6:AI:63:TYR:N	6:AI:63:TYR:HD2	2.04	0.56
6:AI:10:LEU:HD23	6:AI:84:ASN:O	2.04	0.56
54:DA:862:G:H2'	54:DA:863:A:O4'	2.05	0.56
9:CL:33:PHE:CE2	9:CL:47:LEU:HD21	2.40	0.56
54:DA:2867:G:C2'	54:DA:2868:A:OP2	2.54	0.56
26:BD:111:LEU:HD22	26:BD:115:GLN:HE22	1.70	0.56
47:BW:10:LEU:O	47:BW:14:ARG:HB2	2.05	0.56
15:AR:10:LYS:HE3	15:AR:10:LYS:HA	1.88	0.56
24:BA:2853:C:O2'	24:BA:2854:G:H5'	2.05	0.56
12:CO:111:LYS:O	12:CO:112:ASP:HB2	2.06	0.56
31:BK:29:TYR:HE1	31:BK:33:ARG:HE	1.54	0.56
1:AA:881:G:P	12:AO:12:ARG:HH22	2.29	0.56
24:BA:1412:A:H2'	24:BA:1413:G:H8	1.70	0.56
12:CO:79:GLU:HG2	12:CO:79:GLU:O	2.05	0.56
8:CK:77:GLU:HG2	8:CK:78:GLN:H	1.70	0.56
27:BE:105:THR:HG21	27:BE:164:ARG:NH1	2.20	0.56
35:BP:77:LYS:HZ3	35:BP:82:ARG:HB3	1.66	0.56
31:BK:87:LYS:HD2	1:CA:359:U:P	2.46	0.56
29:BG:131:TYR:O	29:BG:159:VAL:HG12	2.04	0.56
1:AA:1145:C:H5'	1:AA:1146:A:OP1	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:94:GLU:HB3	44:BV:95:PRO:HD3	1.85	0.56
19:CV:65:ASN:ND2	19:CV:65:ASN:N	2.52	0.56
10:CM:24:VAL:HG21	10:CM:37:PRO:HG3	1.86	0.56
10:CM:35:SER:O	10:CM:72:VAL:HG13	2.05	0.56
1:CA:1072:G:H2'	1:CA:1073:U:O4'	2.06	0.56
51:D6:11:LEU:HD23	51:D6:26:ASN:HB3	1.87	0.56
51:D6:6:ARG:O	51:D6:8:LYS:HD2	2.05	0.56
34:DO:59:LEU:HD23	34:DO:59:LEU:O	2.06	0.56
27:BE:38:THR:CG2	27:BE:40:GLU:H	2.18	0.56
27:BE:81:ILE:O	27:BE:82:ARG:HB3	2.06	0.56
35:BP:63:LYS:O	35:BP:64:ILE:C	2.44	0.56
24:BA:1558:A:O2'	24:BA:1559:G:P	2.64	0.56
28:BF:121:GLY:C	28:BF:122:LYS:HD3	2.26	0.56
49:D4:38:LYS:C	49:D4:40:HIS:N	2.52	0.56
10:CM:22:LYS:HD2	10:CM:22:LYS:C	2.25	0.56
13:AP:94:ARG:CG	13:AP:96:LEU:HG	2.35	0.56
10:AM:6:ILE:HG22	10:AM:98:ILE:HG13	1.87	0.56
60:DA:2922:U:O2'	59:DA:2923:C:H6	1.87	0.56
7:AJ:80:VAL:HG13	7:AJ:85:TYR:CE1	2.40	0.56
1:AA:1002:G:H5'	1:AA:1003:G:OP2	2.06	0.56
54:DA:2163:C:H2'	54:DA:2164:C:C6	2.40	0.56
11:CN:34:ASP:N	11:CN:40:ILE:HD11	2.21	0.56
1:AA:735:C:O2'	1:AA:736:C:H5'	2.06	0.56
24:BA:910:A:H62	35:BP:12:GLN:HA	1.70	0.56
28:DF:155:LEU:CD1	28:DF:174:VAL:HG13	2.32	0.56
47:DW:41:ILE:HD11	47:DW:44:LEU:CG	2.36	0.56
54:DA:859:G:C2'	54:DA:860:U:OP2	2.53	0.56
24:BA:999:U:H2'	24:BA:1000:A:H5'	1.87	0.56
4:CG:119:GLN:HG3	4:CG:123:HIS:CD2	2.40	0.56
6:AI:47:ARG:HH11	6:AI:47:ARG:CB	2.19	0.56
24:BA:1821:A:C2'	24:BA:1822:G:H5''	2.36	0.56
24:BA:1097:U:H2'	24:BA:1098:A:O4'	2.04	0.56
20:CW:82:SER:O	20:CW:86:ARG:HB2	2.05	0.56
24:BA:661:C:H1'	34:BO:12:ALA:HA	1.87	0.56
1:AA:947:G:O3'	13:AP:109:THR:OG1	2.24	0.56
15:AR:27:VAL:O	15:AR:31:LEU:HD13	2.06	0.56
54:DA:165:U:O2	54:DA:165:U:C2'	2.53	0.56
24:BA:2263:C:O2'	24:BA:2264:C:H5'	2.05	0.56
37:DQ:5:THR:OG1	37:DQ:7:TYR:HB3	2.06	0.56
54:DA:1858:G:H2'	54:DA:1883:G:H22	1.71	0.56
3:AF:18:TRP:HE3	3:AF:18:TRP:H	1.53	0.56
54:DA:357:A:O2'	54:DA:358:U:H5'	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BM:24:GLY:O	32:BM:27:ALA:HB3	2.05	0.56
54:DA:2487:G:O2'	54:DA:2488:A:H5'	2.06	0.56
22:AC:64:G:O2'	22:AC:65:C:H5'	2.05	0.56
54:DA:1071:G:H8	54:DA:1071:G:O5'	1.88	0.56
29:BG:144:ILE:HG22	29:BG:146:TYR:H	1.70	0.56
9:AL:66:ARG:HH11	9:AL:66:ARG:HB3	1.71	0.56
54:DA:1105:U:H2'	54:DA:1106:G:H8	1.71	0.56
24:BA:299:A:N1	24:BA:322:A:H2'	2.21	0.56
39:B1:105:VAL:HG23	39:B1:106:PHE:N	2.20	0.56
39:B1:97:ASP:O	39:B1:98:LEU:O	2.22	0.56
27:DE:74:PRO:HG2	27:DE:77:ILE:HG23	1.87	0.56
54:DA:1050:A:O2'	54:DA:2752:C:H1'	2.05	0.56
1:CA:1330:U:C3'	1:CA:1331:G:O4'	2.52	0.56
13:CP:89:GLY:O	13:CP:92:HIS:HB2	2.06	0.56
24:BA:559:G:H22	39:B1:49:HIS:CD2	2.24	0.56
27:BE:81:ILE:HG21	27:BE:84:PHE:HD1	1.71	0.56
15:AR:32:LEU:O	15:AR:36:ILE:HG13	2.06	0.56
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.41	0.56
44:DV:123:ASP:N	44:DV:123:ASP:OD2	2.39	0.56
54:DA:1005:C:O2'	32:DM:28:THR:HG21	2.06	0.56
8:CK:7:ALA:HB2	8:CK:85:ARG:HD3	1.87	0.56
1:CA:1126:U:H1'	1:CA:1280:A:C5	2.40	0.56
31:DK:52:ARG:HH11	31:DK:52:ARG:CB	2.19	0.56
54:DA:2506:U:O2	54:DA:2506:U:C2'	2.54	0.56
1:AA:983:A:N1	1:AA:1222:G:N2	2.48	0.56
54:DA:1212:G:O2'	54:DA:1236:G:N2	2.38	0.56
2:AE:165:VAL:HG23	2:AE:166:ASP:H	1.69	0.56
1:AA:267:C:P	17:AT:67:LYS:HB2	2.45	0.56
1:AA:16:A:N1	1:AA:919:A:H2	2.04	0.56
32:BM:39:ARG:HH21	32:BM:41:ASP:HB3	1.70	0.56
37:DQ:14:VAL:HG13	37:DQ:15:ARG:N	2.21	0.56
59:DA:2913:C:H5'	59:DA:2913:C:H6	1.70	0.56
3:CF:77:ILE:O	3:CF:83:ARG:HB3	2.05	0.56
27:DE:37:ARG:N	27:DE:37:ARG:NE	2.54	0.56
28:DF:197:ASP:O	28:DF:199:TRP:N	2.38	0.56
24:BA:2127:G:C2	24:BA:2128:C:H1'	2.41	0.56
24:BA:2447:G:O2'	24:BA:2448:A:OP2	2.18	0.56
1:AA:468:A:H2'	1:AA:474:G:H5'	1.87	0.56
1:AA:706:A:H4'	11:AN:29:ILE:HD11	1.88	0.56
13:CP:56:LEU:HD13	13:CP:60:VAL:HG23	1.86	0.56
1:AA:397:A:N7	1:AA:547:A:O2'	2.39	0.56
24:BA:1246:A:C5'	34:BO:15:ARG:HH22	2.18	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AG:119:GLN:HG2	4:AG:123:HIS:HD2	1.69	0.56
12:AO:90:VAL:O	12:AO:92:ASP:N	2.38	0.56
18:CU:85:LEU:HD23	18:CU:88:LYS:HD2	1.86	0.56
24:BA:2331:G:O2'	45:B3:43:THR:HG22	2.05	0.56
24:BA:270(P):C:H2'	24:BA:270(Q):C:H6	1.69	0.56
54:DA:1791:A:OP2	54:DA:1791:A:C8	2.59	0.56
4:CG:165:MET:CE	4:CG:165:MET:HA	2.36	0.56
54:DA:2849:U:O2	54:DA:2867:G:H1'	2.05	0.56
26:BD:112:GLN:O	26:BD:115:GLN:HB3	2.06	0.56
24:BA:1124:C:H2'	24:BA:1125:G:O4'	2.06	0.56
24:BA:19:C:H2'	24:BA:20:C:C6	2.39	0.56
32:DM:40:PRO:HB3	39:D1:68:ALA:HB2	1.86	0.56
24:BA:2387:U:H5'	24:BA:2388:A:OP2	2.06	0.56
24:BA:180:G:OP2	52:B7:32:LYS:HE2	2.06	0.56
1:CA:707:C:H2'	1:CA:708:C:H6	1.70	0.56
1:AA:107:G:C2'	1:AA:108:G:H5'	2.35	0.56
24:BA:839:U:H2'	24:BA:840:C:C6	2.40	0.56
1:AA:762:C:H2'	1:AA:763:G:H8	1.71	0.56
8:AK:118:VAL:O	8:AK:119:LEU:HD23	2.06	0.56
2:CE:169:LYS:O	2:CE:169:LYS:HD3	2.05	0.56
24:BA:2728:U:O2'	24:BA:2729:G:H5'	2.06	0.56
22:CC:31:G:H2'	22:CC:32:C:H6	1.71	0.56
34:BO:64:LYS:HE3	53:B8:30:ARG:NH2	2.17	0.56
13:AP:37:THR:HB	13:AP:39:ILE:HD11	1.88	0.56
19:AV:64:GLU:CG	19:AV:65:ASN:H	2.19	0.56
44:DV:120:ILE:HD11	44:DV:169:GLU:HG3	1.85	0.56
29:BG:4:ASP:OD1	29:BG:9:ARG:HD2	2.06	0.56
26:DD:35:LYS:CE	26:DD:104:TYR:HB2	2.35	0.56
2:AE:184:VAL:O	2:AE:198:ASP:HB2	2.06	0.56
54:DA:747:U:H6	54:DA:747:U:O5'	1.88	0.56
34:DO:19:VAL:CG2	34:DO:20:GLY:H	1.98	0.56
24:BA:2346:A:H1'	24:BA:2383:G:C8	2.41	0.56
44:DV:53:ILE:CG2	44:DV:71:VAL:HG13	2.36	0.56
27:BE:4:ILE:HD12	27:BE:28:ALA:CB	2.35	0.56
28:BF:68:LYS:O	28:BF:69:HIS:CB	2.54	0.56
1:AA:1346:A:O2'	1:AA:1347:G:P	2.64	0.56
1:AA:1347:G:C2'	1:AA:1348:U:OP2	2.54	0.56
9:AL:102:LEU:HD23	9:AL:103:THR:N	2.19	0.56
4:CG:25:ARG:NH1	4:CG:30:LYS:HG3	2.20	0.56
15:AR:64:ARG:HH11	15:AR:64:ARG:CG	2.19	0.56
51:D6:48:VAL:HG13	51:D6:49:HIS:N	2.20	0.56
13:AP:118:ALA:HB1	22:AC:28:C:O2'	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CJ:20:ASP:HB3	7:CJ:23:VAL:HG23	1.88	0.56
26:BD:159:ALA:N	26:BD:196:VAL:HG11	2.20	0.56
1:CA:992:U:H4'	1:CA:993:G:O5'	2.05	0.56
1:CA:188:U:C2'	1:CA:189:U:H5''	2.33	0.56
24:BA:2171:A:H2'	24:BA:2172:U:C6	2.41	0.56
20:AW:50:GLU:HG3	20:AW:51:GLU:N	2.21	0.56
55:DB:71:C:C2	55:DB:72:G:C8	2.94	0.56
38:BR:50:ILE:HA	38:BR:99:LEU:CD1	2.36	0.56
27:DE:195:LEU:HD12	27:DE:196:VAL:H	1.71	0.56
22:CD:68:C:H2'	22:CD:69:C:C6	2.39	0.56
1:CA:484:G:O2'	1:CA:485:G:OP2	2.23	0.56
1:AA:579:G:H2'	1:AA:580:U:H6	1.70	0.56
3:CF:77:ILE:C	3:CF:83:ARG:HB3	2.26	0.56
2:AE:121:LEU:HB3	2:AE:127:ILE:HD11	1.87	0.56
28:BF:34:TRP:CD2	34:BO:8:PRO:HB3	2.39	0.56
24:BA:616:A:O2'	24:BA:617:G:O4'	2.22	0.56
24:BA:270(E):G:H2'	24:BA:270(F):U:O4'	2.05	0.56
2:AE:207:ALA:O	2:AE:211:ILE:HG13	2.06	0.56
16:AS:22:THR:OG1	16:AS:23:ASP:N	2.38	0.56
32:DM:56:ASN:N	32:DM:125:GLY:O	2.35	0.56
11:CN:69:ALA:HB1	11:CN:103:LEU:CD2	2.35	0.56
24:BA:1667:G:OP2	24:BA:1667:G:O4'	2.24	0.56
54:DA:2182:G:H2'	54:DA:2183:C:H6	1.70	0.56
54:DA:654(S):G:C2	54:DA:654(T):A:C4	2.94	0.56
1:CA:508:C:H5''	1:CA:509:A:OP1	2.04	0.56
19:CV:17:GLU:HA	19:CV:20:LEU:HD12	1.86	0.56
54:DA:90:U:H4'	54:DA:91:A:O5'	2.04	0.56
1:CA:342:C:H2'	1:CA:343:U:O4'	2.04	0.56
52:D7:13:ALA:O	52:D7:17:GLY:HA3	2.05	0.56
1:AA:1201:A:O2'	1:AA:1202:G:OP2	2.23	0.56
3:AF:164:ARG:HG2	3:AF:165:THR:H	1.70	0.56
54:DA:930:U:O4'	54:DA:930:U:O2	2.23	0.56
31:DK:70:GLU:OE1	31:DK:70:GLU:HA	2.05	0.56
10:AM:28:ARG:HG3	10:AM:28:ARG:HH11	1.71	0.56
54:DA:2870:C:H5''	36:D0:65:LEU:HD21	1.88	0.56
24:BA:2735:G:H2'	24:BA:2736:G:H8	1.70	0.56
54:DA:1683:C:H2'	54:DA:1684:C:C6	2.40	0.56
31:BK:77:LEU:N	31:BK:77:LEU:HD23	2.20	0.56
13:AP:9:ILE:HD13	13:AP:9:ILE:H	1.70	0.56
21:AX:8:THR:O	21:AX:12:LYS:HB2	2.06	0.56
9:AL:33:PHE:HE2	9:AL:44:VAL:HA	1.70	0.56
54:DA:1316:U:H2'	54:DA:1317:A:H8	1.70	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:84:ARG:NH2	43:BU:97:ARG:HB2	2.14	0.56
39:B1:108:GLU:C	39:B1:110:VAL:N	2.59	0.56
1:CA:1320:C:C4	19:CV:36:ARG:HG3	2.41	0.56
49:D4:48:ARG:O	49:D4:50:VAL:N	2.38	0.56
2:CE:68:ILE:N	2:CE:68:ILE:HD12	2.21	0.56
1:AA:792:A:C8	1:AA:794:A:N6	2.74	0.56
26:BD:35:LYS:HD3	26:BD:63:ARG:CB	2.36	0.56
4:AG:33:MET:HE3	4:AG:37:PRO:HB3	1.88	0.56
1:CA:149:A:H4'	1:CA:1450:U:O4	2.06	0.56
30:BH:157:TYR:O	30:BH:170:ARG:HB3	2.06	0.56
54:DA:1372:U:H6	54:DA:1372:U:H5'	1.71	0.56
35:BP:35:VAL:HG13	35:BP:130:LYS:HB3	1.87	0.56
24:BA:2481:G:HO2'	24:BA:2482:G:P	2.28	0.56
7:CJ:62:PHE:O	7:CJ:66:VAL:HG23	2.06	0.56
2:CE:217:ARG:HA	2:CE:220:ASP:OD2	2.06	0.56
2:CE:7:VAL:HG22	2:CE:8:LYS:N	2.21	0.56
49:D4:41:PRO:O	49:D4:42:PHE:CB	2.53	0.56
29:DG:120:LEU:HB3	29:DG:131:TYR:OH	2.05	0.56
30:BH:102:ALA:HB2	30:BH:117:PRO:HD3	1.87	0.56
30:BH:131:VAL:CG2	30:BH:132:ARG:N	2.69	0.56
15:AR:56:LEU:HA	15:AR:59:MET:HE3	1.87	0.56
54:DA:1557:C:H5''	54:DA:1558:A:OP2	2.06	0.56
54:DA:1820:U:C2	26:DD:202:LYS:HB3	2.41	0.56
26:BD:155:LEU:N	26:BD:155:LEU:HD12	2.21	0.56
54:DA:2111:C:N3	54:DA:2118:U:O2'	2.38	0.56
54:DA:2168:G:H2'	54:DA:2168:G:N3	2.21	0.56
44:DV:5:LEU:C	44:DV:5:LEU:HD13	2.26	0.56
13:AP:108:ARG:NH2	13:AP:114:ARG:HG2	2.21	0.56
3:AF:129:ALA:HB3	3:AF:132:ARG:CZ	2.35	0.56
45:B3:40:GLN:NE2	45:B3:45:PHE:HB2	2.18	0.56
11:CN:125:PHE:HD1	11:CN:125:PHE:H	1.54	0.56
16:CS:47:ASP:C	16:CS:49:LEU:H	2.09	0.56
1:CA:1028(B):C:N4	1:CA:1029:G:H1'	2.21	0.56
24:BA:2712:U:O2'	24:BA:2712(A):A:H3'	2.05	0.56
53:B8:40:GLU:N	53:B8:43:GLN:HG3	2.19	0.56
1:AA:345:C:H5'	38:BR:41:ARG:NH2	2.20	0.56
24:BA:2844:G:H3'	24:BA:2845:G:C8	2.41	0.56
1:CA:606:G:H1	1:CA:631:G:C5'	2.18	0.56
24:BA:1348:G:H2'	24:BA:1349:A:H5'	1.88	0.56
10:CM:26:ALA:HA	10:CM:29:ARG:NH2	2.21	0.56
40:B2:82:ARG:NH1	40:B2:82:ARG:HG3	2.21	0.56
1:CA:1067:A:H4'	1:CA:1068:G:O5'	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CS:53:VAL:HG23	16:CS:54:GLU:H	1.70	0.56
54:DA:1684:C:O2'	54:DA:1685:C:H5'	2.05	0.56
54:DA:845:G:OP2	54:DA:845:G:H8	1.89	0.56
54:DA:2564:A:OP1	54:DA:2648:C:H4'	2.05	0.56
1:AA:487:A:H2'	1:AA:488:C:O4'	2.06	0.56
54:DA:210:C:OP2	52:D7:29:LYS:NZ	2.39	0.56
15:AR:75:PRO:O	15:AR:79:ARG:HG3	2.06	0.56
24:BA:857:C:H1'	45:B3:26:TYR:CE2	2.41	0.56
4:CG:110:PHE:CE2	4:CG:148:VAL:HG23	2.41	0.56
24:BA:613:U:O2	24:BA:613:U:O4'	2.22	0.56
35:BP:87:LYS:HE3	45:B3:7:LEU:CD1	2.36	0.56
8:CK:82:HIS:HD2	8:CK:83:ILE:N	2.03	0.56
11:AN:13:GLN:O	11:AN:14:VAL:HG13	2.05	0.56
1:AA:1129:C:H5'	1:AA:1130:A:H5'	1.88	0.56
24:BA:1359:A:H2'	24:BA:1360:A:O4'	2.06	0.56
30:BH:89:ILE:CD1	30:BH:129:THR:HB	2.33	0.56
39:B1:101:ARG:O	39:B1:102:GLU:HG2	2.06	0.56
39:B1:92:ARG:HH22	40:B2:10:LYS:HA	1.70	0.56
1:CA:1234:C:H1'	1:CA:1364:U:O2	2.05	0.56
13:CP:84:ILE:CG2	13:CP:85:GLY:N	2.68	0.56
25:BB:54:G:H21	29:BG:29:TRP:HZ2	1.52	0.56
54:DA:1485:G:O2'	54:DA:1486:A:H5'	2.06	0.56
3:CF:114:PRO:O	3:CF:118:GLN:HG3	2.06	0.56
1:CA:1533:C:O2'	1:CA:1534:A:H5''	2.05	0.56
1:CA:1535:C:C2'	1:CA:1536:C:OP1	2.54	0.56
26:BD:25:THR:HG23	26:BD:26:LYS:H	1.71	0.56
24:BA:1225:C:C4'	40:B2:85:LYS:HB2	2.36	0.56
24:BA:2287:A:H2	24:BA:2346:A:C2	2.24	0.56
4:AG:34:GLU:O	4:AG:35:ARG:HD3	2.06	0.56
1:AA:8:A:C6	4:AG:209:ARG:HB2	2.40	0.56
39:B1:50:ARG:HH11	40:B2:72:VAL:CG2	2.15	0.56
15:AR:55:GLY:O	15:AR:59:MET:HG3	2.06	0.56
34:BO:59:LEU:CD2	34:BO:60:MET:H	2.19	0.56
1:AA:1226:C:H5''	13:AP:96:LEU:HD11	1.88	0.56
13:AP:115:LYS:O	13:AP:116:THR:HB	2.06	0.56
1:AA:1502:A:N3	1:AA:1502:A:H2'	2.21	0.56
42:BT:44:GLU:HG2	42:BT:49:VAL:O	2.06	0.56
46:BZ:95:LEU:O	46:BZ:96:LYS:CB	2.54	0.56
24:BA:622:G:C2'	24:BA:623:G:H5'	2.36	0.56
39:D1:105:VAL:HA	40:D2:44:LYS:HE3	1.88	0.56
1:CA:453:A:H62	1:CA:479:C:N4	2.04	0.56
8:CK:102:ARG:NH1	8:CK:105:ARG:NH2	2.54	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2118:U:H5''	54:DA:2119:A:OP1	2.06	0.56
44:DV:44:PHE:CE2	44:DV:86:VAL:HG11	2.41	0.56
2:CE:96:ARG:H	2:CE:96:ARG:CD	2.16	0.56
24:BA:329:G:O6	43:BU:19:LYS:HG2	2.05	0.56
1:CA:1346:A:C5'	9:CL:120:ARG:HH12	2.19	0.56
24:BA:2051:A:H2'	24:BA:2614:A:N6	2.21	0.56
2:AE:102:LEU:O	2:AE:103:THR:C	2.42	0.56
47:DW:43:GLN:O	47:DW:44:LEU:CG	2.54	0.56
31:DK:41:GLU:CD	31:DK:42:SER:N	2.59	0.56
34:DO:15:ARG:O	34:DO:17:LYS:N	2.39	0.56
44:DV:27:VAL:HG12	44:DV:87:ASP:HB3	1.87	0.56
9:CL:17:VAL:CG1	9:CL:81:ILE:HD13	2.35	0.56
24:BA:1762:A:H4'	24:BA:1763:G:OP2	2.05	0.56
1:AA:723:U:C2'	1:AA:723:U:O2	2.54	0.56
24:BA:1820:U:C4	26:BD:160:GLY:HA3	2.40	0.56
24:BA:2094:G:P	31:BK:22:LYS:HD2	2.46	0.56
54:DA:415:A:H2'	54:DA:416:C:H6	1.70	0.56
24:BA:278:A:C2'	24:BA:279:C:O5'	2.54	0.56
54:DA:2553:G:H3'	54:DA:2554:U:H5''	1.87	0.56
24:BA:2336:A:H61	45:B3:43:THR:HG21	1.71	0.56
27:DE:174:ASP:CG	27:DE:175:VAL:N	2.58	0.56
2:AE:62:ALA:O	2:AE:64:ARG:N	2.39	0.56
47:BW:15:LYS:HE3	47:BW:67:LYS:HE2	1.88	0.56
5:AH:104:ALA:O	5:AH:107:ARG:HB3	2.06	0.56
10:AM:45:ARG:HD3	10:AM:65:LEU:HD23	1.86	0.56
1:CA:936:C:H2'	1:CA:937:A:O4'	2.06	0.56
1:CA:50:A:O2'	1:CA:52:G:C8	2.59	0.56
1:CA:113:G:H2'	1:CA:114:U:C6	2.41	0.56
10:CM:89:ASP:C	10:CM:90:LEU:HD12	2.25	0.56
41:BS:28:SER:OG	41:BS:31:GLU:HB3	2.04	0.56
24:BA:2409:G:H2'	24:BA:2410:G:O4'	2.07	0.56
1:AA:121:C:H5'	1:AA:122:G:OP1	2.05	0.56
24:BA:2319:G:H2'	24:BA:2319:G:N3	2.21	0.56
3:CF:63:ASN:HB3	3:CF:98:ASN:HD22	1.70	0.56
24:BA:2233:U:H2'	24:BA:2234:G:C8	2.41	0.56
17:CT:84:LEU:C	17:CT:86:GLU:H	2.08	0.56
3:AF:15:THR:HG23	3:AF:16:ARG:HH12	1.70	0.55
3:AF:178:LEU:O	3:AF:180:ALA:N	2.33	0.55
10:AM:50:ILE:HA	10:AM:60:ARG:HD3	1.87	0.55
19:AV:63:THR:O	19:AV:63:THR:HG22	2.06	0.55
1:AA:570:G:C6	1:AA:873:A:C2	2.93	0.55
44:DV:107:THR:CB	44:DV:144:LEU:HB2	2.32	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:84:ARG:HH21	43:BU:97:ARG:CB	2.12	0.55
43:BU:81:LYS:HD3	43:BU:97:ARG:CZ	2.35	0.55
54:DA:483:A:C5'	43:DU:49:VAL:HG13	2.35	0.55
43:DU:62:GLU:O	43:DU:63:LYS:O	2.24	0.55
19:CV:40:ILE:HG12	19:CV:41:VAL:N	2.20	0.55
46:BZ:91:LYS:C	46:BZ:93:GLU:N	2.59	0.55
28:BF:18:ARG:HH22	28:BF:20:LEU:HD12	1.67	0.55
28:BF:24:LEU:CB	28:BF:25:PRO:HD2	2.37	0.55
1:AA:792:A:H2'	1:AA:794:A:C6	2.37	0.55
24:BA:2634:G:O3'	27:BE:77:ILE:HG21	2.06	0.55
51:B6:47:THR:CG2	51:B6:48:VAL:N	2.69	0.55
11:CN:41:THR:HG21	11:CN:71:LYS:CB	2.36	0.55
21:CX:6:ARG:O	21:CX:8:THR:N	2.39	0.55
44:BV:104:PHE:CD2	44:BV:107:THR:HG22	2.41	0.55
1:CA:194:C:H2'	1:CA:195:A:H5''	1.87	0.55
35:DP:79:LEU:O	35:DP:80:GLU:CD	2.44	0.55
44:BV:48:PHE:CZ	44:BV:74:VAL:HG21	2.41	0.55
44:BV:53:ILE:CG2	44:BV:71:VAL:HG13	2.36	0.55
30:BH:156:ALA:HB3	30:BH:159:GLU:O	2.05	0.55
54:DA:1449(A):G:H2'	54:DA:1450:C:H6	1.70	0.55
35:BP:35:VAL:HG23	35:BP:101:ARG:O	2.07	0.55
4:CG:13:ARG:NH2	4:CG:36:ARG:NH2	2.53	0.55
53:B8:22:VAL:O	53:B8:49:VAL:HA	2.06	0.55
17:CT:6:LEU:O	17:CT:58:GLU:HA	2.05	0.55
41:DS:65:LEU:O	41:DS:66:GLU:C	2.43	0.55
5:CH:92:LYS:O	5:CH:118:ILE:HD12	2.06	0.55
54:DA:2439:A:C8	54:DA:2439:A:C5'	2.87	0.55
1:AA:1005:A:OP2	1:AA:1005:A:N3	2.38	0.55
1:CA:8:A:H1'	5:CH:102:ALA:C	2.26	0.55
44:DV:93:ASP:O	44:DV:94:GLU:CD	2.44	0.55
3:CF:188:LEU:O	3:CF:189:ALA:HB2	2.05	0.55
34:DO:14:LYS:O	34:DO:16:ARG:N	2.39	0.55
44:DV:33:LEU:HD12	44:DV:34:ASN:H	1.70	0.55
54:DA:2835:A:C4'	54:DA:2836:U:OP1	2.53	0.55
1:CA:373:A:H2'	1:CA:374:A:H8	1.71	0.55
1:AA:1067:A:O2'	1:AA:1068:G:OP2	2.24	0.55
1:AA:678:U:H2'	1:AA:679:C:H6	1.70	0.55
40:B2:41:GLY:C	40:B2:46:VAL:HG11	2.26	0.55
54:DA:991:C:H5'	54:DA:991:C:H6	1.70	0.55
28:BF:150:GLY:HA2	28:BF:172:TRP:CD2	2.41	0.55
24:BA:65:C:H4'	42:BT:69:TYR:CD1	2.41	0.55
41:DS:20:VAL:C	41:DS:22:ASP:N	2.59	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CO:58:VAL:O	12:CO:65:GLU:HA	2.06	0.55
32:BM:137:LYS:HA	32:BM:137:LYS:NZ	2.20	0.55
48:DX:59:VAL:CG1	48:DX:60:GLU:N	2.69	0.55
3:AF:120:VAL:C	3:AF:122:GLU:N	2.59	0.55
47:DW:15:LYS:H	47:DW:67:LYS:NZ	2.02	0.55
8:CK:128:GLY:O	8:CK:129:VAL:HG13	2.06	0.55
54:DA:2455:G:H2'	54:DA:2456:C:C6	2.41	0.55
1:CA:31:G:H2'	1:CA:48:C:N4	2.21	0.55
31:BK:58:LEU:O	31:BK:62:LYS:HB3	2.06	0.55
44:DV:38:TYR:O	44:DV:38:TYR:CG	2.59	0.55
29:DG:135:LEU:HD12	29:DG:135:LEU:N	2.21	0.55
54:DA:2423:U:O2	54:DA:2425:A:C2	2.59	0.55
29:BG:104:GLU:O	29:BG:108:ASN:HB2	2.06	0.55
43:DU:89:PHE:O	43:DU:90:LEU:HD13	2.05	0.55
27:DE:3:GLY:HA3	27:DE:81:ILE:HD12	1.88	0.55
24:BA:1359:A:C2	24:BA:1360:A:H1'	2.41	0.55
43:DU:48:ALA:H	43:DU:60:PHE:HA	1.71	0.55
25:BB:55:U:H1'	29:BG:29:TRP:HE1	1.71	0.55
24:BA:1085:A:H2'	24:BA:1086:A:N7	2.20	0.55
27:BE:38:THR:HG22	27:BE:41:LYS:N	2.21	0.55
27:BE:86:PRO:C	27:BE:88:GLY:H	2.09	0.55
27:DE:20:ALA:O	27:DE:21:VAL:CG2	2.48	0.55
24:BA:1225:C:H4'	40:B2:85:LYS:CB	2.37	0.55
1:CA:687:A:O2'	1:CA:688:G:OP2	2.22	0.55
1:CA:1259:C:N4	1:CA:1260:C:O2	2.39	0.55
39:B1:50:ARG:NH1	40:B2:72:VAL:CG1	2.58	0.55
40:B2:1:MET:H2	40:B2:16:PRO:HD3	1.69	0.55
38:DR:107:ASP:O	38:DR:111:ARG:NH1	2.39	0.55
1:CA:1255:G:O2'	1:CA:1258:G:H1'	2.05	0.55
5:CH:144:THR:O	5:CH:148:VAL:HG23	2.06	0.55
2:AE:7:VAL:HG13	2:AE:8:LYS:N	2.21	0.55
19:CV:18:LYS:O	19:CV:22:LEU:HD13	2.06	0.55
54:DA:1289:C:H2'	54:DA:1290:C:C6	2.41	0.55
28:BF:165:ARG:CB	28:BF:165:ARG:HH11	2.13	0.55
33:BN:101:PRO:HA	33:BN:120:GLU:O	2.06	0.55
27:DE:117:MET:HG3	27:DE:117:MET:O	2.06	0.55
54:DA:2019:A:H2'	54:DA:2020:A:O5'	2.06	0.55
2:AE:233:SER:OG	2:AE:234:PRO:HD2	2.06	0.55
1:CA:1541:U:OP1	18:CU:55:ARG:NH2	2.38	0.55
32:BM:98:VAL:HG23	32:BM:99:LEU:H	1.71	0.55
54:DA:1847:A:OP1	54:DA:1847:A:H8	1.88	0.55
24:BA:945:A:O2'	24:BA:946:G:H4'	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CS:48:TRP:O	16:CS:49:LEU:HB2	2.06	0.55
39:B1:6:THR:O	39:B1:9:VAL:HG23	2.07	0.55
1:AA:1067:A:O2'	1:AA:1068:G:H8	1.90	0.55
48:DX:8:LEU:HD22	48:DX:31:LEU:CD2	2.37	0.55
6:AI:52:ILE:HD13	6:AI:87:ARG:CZ	2.36	0.55
54:DA:1695:G:H2'	54:DA:1696:G:O4'	2.05	0.55
26:BD:186:HIS:HD2	26:BD:188:GLU:H	1.52	0.55
1:AA:1190:G:P	3:AF:5:ILE:HD12	2.46	0.55
27:BE:25:VAL:HG12	27:BE:26:ILE:N	2.21	0.55
14:CQ:41:ARG:HH11	14:CQ:41:ARG:HG2	1.71	0.55
6:CI:41:GLU:HG2	6:CI:43:LEU:HD11	1.89	0.55
41:DS:1:MET:C	41:DS:64:MET:HE1	2.26	0.55
24:BA:2184:G:O2'	24:BA:2185:C:H5'	2.06	0.55
25:BB:12:C:C4'	25:BB:13:A:OP1	2.53	0.55
24:BA:1059:G:H2'	24:BA:1060:U:C5	2.40	0.55
1:CA:628:G:O2'	1:CA:629:G:H5'	2.06	0.55
24:BA:723:G:H2'	24:BA:724:U:H6	1.69	0.55
1:AA:274:A:O2'	1:AA:275:G:C8	2.57	0.55
48:DX:4:LEU:HD21	48:DX:39:ASP:OD1	2.06	0.55
58:DP:201:G:O2'	58:DP:202:G:H5'	2.06	0.55
54:DA:1978:A:H2'	54:DA:1979:C:H6	1.72	0.55
9:CL:126:SER:O	9:CL:128:ARG:N	2.35	0.55
24:BA:2321:G:H2'	24:BA:2321:G:N3	2.20	0.55
32:DM:101:HIS:C	32:DM:101:HIS:CD2	2.79	0.55
36:B0:12:ARG:HG3	36:B0:12:ARG:HH11	1.70	0.55
29:DG:180:PHE:C	29:DG:182:LYS:H	2.09	0.55
20:CW:74:LYS:C	20:CW:76:ALA:H	2.10	0.55
54:DA:848:G:O6	54:DA:929:G:H2'	2.06	0.55
31:BK:26:ALA:HA	31:BK:30:LEU:HB2	1.87	0.55
54:DA:1159:U:O2'	54:DA:1160:G:H5'	2.05	0.55
24:BA:1389:G:H2'	24:BA:1390:U:O4'	2.06	0.55
54:DA:1830:C:O2'	54:DA:1831:G:H5'	2.05	0.55
24:BA:2258:C:H4'	24:BA:2259:G:OP2	2.05	0.55
46:BZ:20:ARG:HG2	46:BZ:20:ARG:HH11	1.71	0.55
36:D0:91:GLN:H	36:D0:91:GLN:NE2	2.03	0.55
43:BU:51:VAL:HG22	43:BU:51:VAL:O	2.07	0.55
27:BE:33:VAL:HG13	27:BE:33:VAL:O	2.06	0.55
24:BA:654(R):C:H3'	24:BA:654(R):C:O2	2.05	0.55
31:DK:126:TYR:O	31:DK:140:LEU:HD23	2.05	0.55
43:BU:72:VAL:HG23	43:BU:73:ARG:N	2.22	0.55
54:DA:507:A:H5''	54:DA:508:G:H5'	1.89	0.55
1:CA:960:U:C2'	1:CA:961:U:OP2	2.54	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BG:173:LEU:HD23	29:BG:176:LEU:CD1	2.36	0.55
3:CF:112:SER:OG	3:CF:115:LEU:HG	2.06	0.55
24:BA:1396:U:O2	24:BA:1396:U:C2'	2.54	0.55
3:AF:71:ALA:HA	3:AF:106:VAL:H	1.71	0.55
2:AE:61:LEU:HD23	2:AE:68:ILE:HG13	1.89	0.55
15:AR:87:ILE:CG2	15:AR:88:ARG:N	2.62	0.55
51:B6:25:LYS:CE	51:B6:27:LYS:HD3	2.36	0.55
39:D1:96:ALA:O	39:D1:100:VAL:HG23	2.05	0.55
39:D1:73:GLY:O	39:D1:74:LEU:HB3	2.07	0.55
54:DA:997:G:OP1	39:D1:93:LYS:HD3	2.07	0.55
39:D1:92:ARG:NH1	40:D2:11:GLN:HB2	2.22	0.55
28:BF:89:VAL:CG1	28:BF:90:PHE:N	2.63	0.55
24:BA:2654:A:O3'	24:BA:2655:G:H4'	2.05	0.55
54:DA:1449(A):G:H2'	54:DA:1450:C:C6	2.41	0.55
54:DA:1545:A:H2'	54:DA:1545(A):A:O4'	2.07	0.55
54:DA:1474:C:C3'	54:DA:1475:G:H5''	2.35	0.55
1:AA:1161:C:H2'	1:AA:1162:C:C6	2.42	0.55
1:AA:1372:U:H2'	1:AA:1373:G:C5'	2.37	0.55
4:CG:28:SER:CB	4:CG:29:PRO:CD	2.84	0.55
30:BH:86:GLU:OE2	30:BH:165:ALA:HB3	2.06	0.55
43:BU:48:ALA:O	43:BU:50:ARG:N	2.39	0.55
47:BW:44:LEU:O	47:BW:45:SER:HB2	2.06	0.55
33:DN:20:MET:HG2	33:DN:21:CYS:N	2.19	0.55
5:CH:7:GLU:HG2	5:CH:112:LEU:HD22	1.88	0.55
1:AA:1005:A:H3'	1:AA:1006:C:C6	2.41	0.55
8:CK:49:GLU:O	8:CK:51:VAL:N	2.39	0.55
34:DO:39:LYS:N	34:DO:45:LEU:HD11	2.21	0.55
3:CF:188:LEU:N	3:CF:188:LEU:HD22	2.21	0.55
44:DV:30:ASN:HB3	44:DV:89:PHE:CE2	2.40	0.55
26:DD:94:LEU:HD22	26:DD:95:LEU:H	1.69	0.55
48:DX:35:ARG:HB3	48:DX:37:LEU:CD2	2.37	0.55
24:BA:859:G:H2'	24:BA:916:G:O6	2.06	0.55
24:BA:858:U:HO2'	24:BA:2268:A:C2'	2.20	0.55
14:AQ:42:ILE:O	14:AQ:45:ARG:HB3	2.06	0.55
17:CT:50:LYS:HG3	17:CT:51:TYR:CE1	2.41	0.55
22:AD:11:A:O5'	22:AD:11:A:H8	1.89	0.55
24:BA:1089:G:H5''	24:BA:1090:U:OP1	2.07	0.55
1:AA:802:A:H3'	1:AA:803:G:H8	1.71	0.55
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.41	0.55
24:BA:2320:A:H1'	24:BA:2321:G:C6	2.41	0.55
61:CA:1607:A:H2'	61:DA:2919:A:C8	2.41	0.55
35:DP:25:ASP:N	35:DP:102:VAL:HG23	2.22	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CJ:73:MET:HG2	7:CJ:90:GLU:HA	1.88	0.55
2:AE:111:ARG:HH11	2:AE:111:ARG:HG2	1.71	0.55
24:BA:667:U:O2	53:B8:2:PRO:HD2	2.07	0.55
8:AK:112:LEU:HA	8:AK:134:ILE:HG12	1.89	0.55
1:AA:1537:U:O2	1:AA:1537:U:H2'	2.05	0.55
5:AH:68:GLU:HG3	5:AH:68:GLU:O	2.06	0.55
37:DQ:111:GLU:OE1	37:DQ:111:GLU:HA	2.07	0.55
5:CH:99:GLY:O	5:CH:117:ASP:HA	2.06	0.55
54:DA:1379:A:HO2'	54:DA:1380:G:P	2.21	0.55
26:BD:255:LYS:CE	26:BD:255:LYS:N	2.58	0.55
54:DA:581:C:O2'	54:DA:582:G:H5'	2.06	0.55
30:BH:54:ARG:CD	30:BH:54:ARG:H	2.19	0.55
24:BA:878:A:N6	24:BA:899:A:O2'	2.40	0.55
39:B1:92:ARG:HG2	40:B2:11:GLN:NE2	2.20	0.55
1:CA:983:A:O2'	1:CA:1049:U:O2'	2.18	0.55
1:CA:984:C:H2'	1:CA:985:C:H6	1.71	0.55
2:CE:204:ASN:HD22	2:CE:205:ASP:N	2.04	0.55
3:CF:45:LYS:HD2	3:CF:46:GLU:HG3	1.87	0.55
41:DS:14:PRO:HG2	41:DS:78:GLU:OE2	2.07	0.55
3:AF:182:ILE:HG23	3:AF:202:ILE:C	2.26	0.55
2:AE:61:LEU:HD12	2:AE:66:GLY:HA3	1.87	0.55
26:BD:21:PHE:HB3	26:BD:24:ILE:HB	1.87	0.55
24:BA:644:A:C2	24:BA:2369:A:H1'	2.42	0.55
1:CA:1024:G:H3'	1:CA:1024:G:N3	2.21	0.55
22:AD:16:C:H2'	22:AD:17:C:OP1	2.07	0.55
54:DA:803:U:H2'	54:DA:804:A:H5'	1.88	0.55
35:DP:12:GLN:OE1	35:DP:72:LYS:HD2	2.06	0.55
43:BU:27:VAL:HG12	43:BU:39:VAL:CG1	2.30	0.55
54:DA:1142(A):A:N7	54:DA:1144:G:C5	2.75	0.55
10:AM:4:ILE:HG12	10:AM:100:THR:HG22	1.87	0.55
20:CW:47:GLY:C	20:CW:49:ALA:H	2.08	0.55
20:CW:53:LEU:HA	20:CW:56:MET:HB3	1.87	0.55
3:AF:161:GLU:O	3:AF:162:GLN:CB	2.54	0.55
54:DA:2166:G:H2'	54:DA:2166:G:N3	2.22	0.55
44:DV:5:LEU:HB3	44:DV:59:LEU:HD23	1.88	0.55
24:BA:2795:G:C3'	24:BA:2797:U:C5'	2.83	0.55
1:AA:1031:G:N2	1:AA:1032:A:H1'	2.18	0.55
8:AK:28:ALA:CB	8:AK:57:PRO:HB2	2.37	0.55
1:AA:1274:G:N2	1:AA:1275:A:N6	2.51	0.55
54:DA:1945:G:H2'	54:DA:1946:U:C6	2.41	0.55
32:DM:131:GLN:CG	32:DM:132:ALA:N	2.68	0.55
2:AE:172:ILE:H	2:AE:172:ILE:CD1	2.19	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1286:A:N1	24:BA:1329:U:H2'	2.22	0.55
48:BX:52:HIS:CD2	48:BX:52:HIS:N	2.73	0.55
54:DA:1314:C:OP1	54:DA:1332:G:H5'	2.05	0.55
2:AE:127:ILE:HA	2:AE:130:ARG:CG	2.37	0.55
24:BA:973:A:H1'	24:BA:1188:U:C5	2.42	0.55
28:DF:198:ALA:CA	28:DF:201:VAL:HG12	2.35	0.55
18:CU:57:GLY:O	18:CU:58:LEU:C	2.44	0.55
31:DK:40:THR:HG22	31:DK:41:GLU:N	2.20	0.55
31:BK:110:ASP:OD2	31:BK:113:ARG:CB	2.53	0.55
14:CQ:44:LEU:CD1	14:CQ:48:ALA:HB2	2.36	0.55
9:CL:82:ALA:O	9:CL:86:VAL:HB	2.06	0.55
9:AL:112:LYS:HD3	9:AL:113:LYS:N	2.22	0.55
3:CF:59:ARG:NH2	3:CF:97:LYS:HE3	2.20	0.55
44:DV:76:LEU:N	44:DV:76:LEU:HD23	2.20	0.55
54:DA:2175:C:C3'	54:DA:2176:A:H5''	2.36	0.55
54:DA:345:A:C4'	54:DA:346:A:OP1	2.55	0.55
1:AA:677:U:H2'	1:AA:678:U:H6	1.71	0.55
1:AA:482:A:H5'	1:AA:483:C:OP2	2.06	0.55
8:AK:51:VAL:HG23	8:AK:52:ASP:N	2.22	0.55
54:DA:943:U:OP2	34:DO:36:LYS:HD3	2.05	0.55
24:BA:1348:G:O6	24:BA:1349:A:N6	2.39	0.55
24:BA:712:G:O2'	24:BA:713:G:H5'	2.07	0.55
5:AH:107:ARG:O	5:AH:108:ALA:C	2.44	0.55
20:AW:82:SER:O	20:AW:83:ARG:C	2.44	0.55
54:DA:172:C:H2'	54:DA:173:G:H8	1.72	0.55
36:B0:105:ARG:HD2	36:B0:105:ARG:O	2.06	0.55
54:DA:318:C:O2'	54:DA:319:C:H5'	2.06	0.55
12:CO:83:VAL:HG22	12:CO:84:LEU:N	2.21	0.55
1:AA:724:G:H3'	1:AA:724:G:OP2	2.06	0.55
1:CA:607:A:C2	16:CS:31:LYS:HB2	2.41	0.55
1:AA:857:C:H2'	1:AA:858:G:O4'	2.05	0.55
20:CW:94:ALA:O	20:CW:95:ALA:CB	2.54	0.55
28:DF:24:LEU:HB3	28:DF:115:ALA:HB2	1.87	0.55
1:CA:1479:C:H2'	1:CA:1480:G:H8	1.71	0.55
54:DA:97:C:H2'	54:DA:97:C:O2	2.07	0.55
11:AN:54:ARG:NH1	11:AN:54:ARG:HG3	2.20	0.55
54:DA:2528:U:O2'	54:DA:2529:G:H3'	2.07	0.55
24:BA:1902:C:H5'	26:BD:246:PRO:HD3	1.89	0.55
31:BK:75:LEU:O	31:BK:105:HIS:HE1	1.89	0.55
43:DU:91:GLU:HG3	43:DU:92:ASN:H	1.72	0.55
1:AA:1244:C:H2'	1:AA:1245:A:C8	2.41	0.55
9:AL:33:PHE:CE2	9:AL:44:VAL:HA	2.42	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:445:C:H2'	24:BA:446:G:O4'	2.06	0.55
43:BU:96:ILE:HG13	43:BU:100:ALA:O	2.06	0.55
43:BU:96:ILE:HG22	43:BU:97:ARG:HD3	1.88	0.55
34:BO:106:LEU:HD11	34:BO:112:LEU:HD23	1.88	0.55
39:B1:58:ARG:HA	39:B1:61:TRP:HE3	1.71	0.55
24:BA:996:A:H4'	39:B1:92:ARG:CZ	2.37	0.55
24:BA:996:A:H2'	24:BA:997:G:H8	1.72	0.55
54:DA:278:A:H2'	54:DA:279:C:C6	2.41	0.55
27:DE:53:PRO:O	27:DE:74:PRO:HA	2.07	0.55
3:CF:6:HIS:CD2	3:CF:7:PRO:HD2	2.41	0.55
3:AF:52:LEU:H	3:AF:52:LEU:HD23	1.71	0.55
1:CA:1128:C:H5'	9:CL:16:ARG:HH22	1.72	0.55
44:DV:54:HIS:HE1	44:DV:123:ASP:OD1	1.90	0.55
50:D5:55:ARG:HD3	50:D5:56:LYS:N	2.21	0.55
33:DN:19:ILE:O	33:DN:19:ILE:HD13	2.06	0.55
10:AM:98:ILE:N	10:AM:98:ILE:HD12	2.22	0.55
2:AE:71:VAL:O	2:AE:164:VAL:HG13	2.06	0.55
8:CK:102:ARG:NH1	8:CK:105:ARG:NH1	2.55	0.55
1:CA:559:A:H4'	1:CA:560:U:H5''	1.88	0.55
1:AA:1024:G:HO2'	1:AA:1025:U:H6	1.55	0.55
34:DO:31:ALA:O	34:DO:32:THR:HG23	2.05	0.55
20:AW:100:ILE:C	20:AW:102:GLY:H	2.09	0.55
54:DA:1288:U:H4'	54:DA:1289:C:OP2	2.06	0.55
1:CA:872:A:C8	1:CA:874:G:C8	2.95	0.55
1:CA:995:C:H5'	14:CQ:8:GLU:HG2	1.87	0.55
1:AA:997:U:H2'	1:AA:998:G:O4'	2.07	0.55
1:AA:998(A):C:C3'	1:AA:999:U:H5''	2.37	0.55
1:AA:737:A:H2'	1:AA:738:C:H6	1.70	0.55
3:AF:136:GLN:O	3:AF:139:GLN:N	2.38	0.55
11:AN:20:TYR:HB2	11:AN:31:THR:HG23	1.88	0.55
24:BA:616:A:O2'	24:BA:617:G:P	2.64	0.55
24:BA:119:A:O2'	24:BA:120:U:P	2.65	0.55
2:AE:196:LEU:HD12	2:AE:197:VAL:N	2.22	0.55
1:AA:1278:U:H5'	1:AA:1279:A:H5'	1.89	0.55
15:CR:24:SER:O	15:CR:28:GLN:HG3	2.06	0.55
29:BG:10:LYS:O	29:BG:15:VAL:HG23	2.06	0.55
1:CA:186:C:H5'	20:CW:78:ALA:HB1	1.89	0.55
18:AU:43:PHE:O	18:AU:51:LEU:HD12	2.05	0.55
54:DA:1639:U:H2'	54:DA:1640:C:H5''	1.88	0.55
27:DE:26:ILE:HD13	27:DE:26:ILE:C	2.26	0.55
1:AA:25:C:H2'	1:AA:26:A:H8	1.72	0.55
2:AE:78:GLN:HG2	2:AE:94:ASN:ND2	2.21	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1937:A:O2'	24:BA:1938:A:OP1	2.22	0.55
41:BS:4:LYS:HG2	41:BS:106:ILE:HG22	1.89	0.55
1:AA:382:A:O2'	1:AA:383:A:H5'	2.07	0.55
10:AM:44:VAL:HG12	10:AM:46:ARG:HG3	1.88	0.55
1:AA:890:G:O2'	1:AA:891:U:OP2	2.13	0.55
24:BA:902:C:H2'	24:BA:903:C:H6	1.70	0.55
1:CA:341:C:H2'	1:CA:342:C:C6	2.42	0.55
44:DV:37:VAL:O	44:DV:38:TYR:HB3	2.06	0.55
1:CA:511:C:O2'	1:CA:512:U:O5'	2.24	0.55
24:BA:2693:A:H2'	24:BA:2694:G:H8	1.72	0.55
2:CE:46:LYS:HA	2:CE:49:GLU:OE1	2.06	0.55
20:CW:43:LEU:HA	20:CW:46:GLU:HB3	1.89	0.55
43:DU:95:LYS:CB	43:DU:100:ALA:HA	2.13	0.55
43:DU:84:ARG:NH1	43:DU:97:ARG:HB2	2.11	0.55
19:AV:36:ARG:CB	19:AV:72:GLY:H	2.19	0.55
49:B4:37:SER:C	49:B4:39:CYS:N	2.59	0.55
34:DO:49:ARG:NE	53:D8:59:LYS:HG2	2.22	0.55
34:BO:144:GLU:CD	34:BO:144:GLU:O	2.45	0.55
34:BO:85:LEU:H	34:BO:85:LEU:CD2	2.19	0.55
1:CA:1139:G:N2	1:CA:1144:G:H1	2.03	0.55
2:AE:85:ALA:HB3	2:AE:92:TYR:CD1	2.42	0.55
24:BA:1930:G:H2'	24:BA:1931:U:OP2	2.07	0.55
37:BQ:86:ALA:O	37:BQ:87:PHE:HB3	2.06	0.55
24:BA:2532:G:H4'	24:BA:2657:A:C2	2.42	0.55
54:DA:1372:U:C4'	54:DA:1372:U:C6	2.90	0.55
38:BR:74:ARG:HH11	38:BR:74:ARG:CB	2.09	0.55
16:CS:59:TRP:CE3	16:CS:59:TRP:HA	2.42	0.55
15:AR:55:GLY:HA2	15:AR:58:MET:CE	2.36	0.55
54:DA:1238:G:O2'	54:DA:1239:G:H5'	2.07	0.55
31:BK:37:VAL:HG12	31:BK:38:LEU:N	2.22	0.55
49:D4:9:LEU:H	49:D4:27:THR:HG22	1.71	0.55
55:DB:72:G:N2	55:DB:103:U:H5	2.05	0.55
13:AP:50:GLU:OE2	13:AP:54:VAL:HG23	2.07	0.55
2:AE:103:THR:HG22	2:AE:104:ASN:N	2.21	0.55
11:CN:125:PHE:N	11:CN:125:PHE:CD1	2.73	0.55
44:DV:94:GLU:CB	44:DV:95:PRO:HA	2.37	0.55
54:DA:1608:A:H4'	54:DA:1609:A:OP1	2.07	0.55
18:CU:58:LEU:H	18:CU:58:LEU:HD12	1.72	0.55
54:DA:1888:G:N3	54:DA:1888:G:H5''	2.22	0.55
24:BA:13:A:C4'	24:BA:14:A:OP1	2.55	0.55
24:BA:865:C:H5'	24:BA:866:A:OP1	2.06	0.55
37:BQ:18:ILE:O	37:BQ:21:THR:HG23	2.05	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AI:86:ARG:O	6:AI:87:ARG:HG2	2.07	0.55
36:D0:84:ALA:HB3	36:D0:85:PRO:HD3	1.88	0.55
1:CA:754:C:H3'	1:CA:754:C:O2	2.07	0.55
1:CA:85:U:O5'	1:CA:85:U:C6	2.60	0.55
3:AF:4:LYS:HZ2	3:AF:4:LYS:C	2.10	0.55
27:BE:11:MET:O	27:BE:12:THR:HG23	2.06	0.55
7:AJ:136:LYS:O	7:AJ:140:ASP:HB2	2.06	0.55
25:BB:90:C:OP1	35:BP:16:ARG:CG	2.54	0.55
21:CX:21:TYR:O	21:CX:22:ARG:HB2	2.05	0.55
54:DA:529:A:H61	54:DA:2041:U:H3	1.55	0.55
41:DS:20:VAL:C	41:DS:22:ASP:H	2.10	0.55
41:DS:25:ARG:HH11	41:DS:25:ARG:CB	2.20	0.55
27:DE:67:PHE:O	27:DE:69:LYS:N	2.39	0.55
7:AJ:64:GLN:O	7:AJ:67:GLU:N	2.40	0.55
3:AF:150:LYS:HB2	3:AF:169:ALA:HB2	1.86	0.55
24:BA:2150:U:H2'	24:BA:2151:G:C8	2.42	0.55
54:DA:2832:U:H1'	54:DA:2834:G:C5	2.41	0.55
26:DD:221:VAL:HG22	26:DD:226:MET:HE2	1.88	0.55
30:BH:99:VAL:HG12	30:BH:100:GLY:N	2.22	0.55
40:D2:29:PRO:HA	40:D2:61:VAL:CG2	2.37	0.55
1:AA:377:G:OP1	16:AS:3:LYS:HD2	2.07	0.55
1:CA:22:G:H4'	1:CA:885:G:C8	2.42	0.55
6:CI:52:ILE:O	6:CI:53:ALA:HB3	2.07	0.55
4:CG:126:ILE:HG22	4:CG:127:THR:N	2.22	0.55
52:D7:19:ARG:HG2	52:D7:19:ARG:HH11	1.71	0.55
46:DZ:91:LYS:CG	46:DZ:92:LYS:H	2.15	0.55
24:BA:1379:A:HO2'	24:BA:1380:G:P	2.28	0.55
1:AA:1330:U:H4'	13:AP:23:TYR:CE2	2.42	0.55
13:AP:14:ARG:HD2	13:AP:42:ALA:HA	1.89	0.55
19:AV:9:VAL:CG1	49:B4:63:TYR:HD1	2.20	0.55
54:DA:1062:G:N7	54:DA:1088:A:H2'	2.22	0.55
27:DE:4:ILE:HD13	27:DE:5:LEU:H	1.71	0.55
39:D1:6:THR:O	39:D1:9:VAL:HG23	2.07	0.55
30:BH:26:VAL:HG13	30:BH:31:GLY:CA	2.33	0.55
30:BH:4:ILE:C	30:BH:6:ARG:N	2.60	0.55
26:DD:43:ARG:CB	26:DD:54:ARG:HB2	2.37	0.55
24:BA:1237:A:H4'	24:BA:1238:G:O5'	2.06	0.55
43:DU:61:ILE:HG23	43:DU:62:GLU:H	1.71	0.55
24:BA:878:A:OP1	24:BA:878:A:H4'	2.06	0.55
39:B1:90:VAL:O	39:B1:92:ARG:HB3	2.07	0.55
1:CA:1321:C:C4	1:CA:1322:C:N4	2.75	0.55
13:CP:80:ARG:O	13:CP:84:ILE:HB	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CV:67:VAL:HG11	49:D4:59:PHE:O	2.07	0.55
49:D4:48:ARG:HH12	49:D4:52:THR:HG22	1.71	0.55
29:BG:9:ARG:HG2	29:BG:9:ARG:HH11	1.72	0.55
3:CF:6:HIS:HB2	14:CQ:49:HIS:HD2	1.71	0.55
28:BF:27:GLU:C	28:BF:28:ILE:HG13	2.27	0.55
54:DA:1266:G:O2'	54:DA:2012:G:N1	2.39	0.55
2:AE:31:TYR:OH	2:AE:200:ILE:HG21	2.07	0.55
23:C1:10:G:C2'	23:C1:11:U:O5'	2.54	0.55
24:BA:2893:G:H5'	24:BA:2894:G:C5'	2.27	0.55
4:AG:18:LYS:HD3	4:AG:32:ALA:HB3	1.87	0.55
39:D1:58:ARG:O	39:D1:62:ILE:HG13	2.06	0.55
1:AA:4:U:H3	8:AK:105:ARG:NE	2.03	0.55
1:CA:197:A:N6	1:CA:221:C:C5'	2.70	0.55
54:DA:2059:A:O2'	28:DF:69:HIS:HD2	1.89	0.55
10:AM:31:GLY:O	10:AM:32:ALA:CB	2.55	0.55
54:DA:2370:G:H2'	54:DA:2371:G:C8	2.41	0.55
1:AA:1116:C:C2'	1:AA:1117:G:H5''	2.35	0.55
2:CE:214:ILE:HA	2:CE:217:ARG:NH2	2.22	0.55
37:BQ:69:VAL:O	37:BQ:72:ALA:HB3	2.07	0.55
5:AH:15:ARG:NH1	23:A1:25:A:C8	2.75	0.55
24:BA:1542:G:H3'	24:BA:1543:A:C5'	2.37	0.55
35:DP:64:ILE:HA	35:DP:106:VAL:CG1	2.33	0.55
40:B2:51:VAL:HG12	40:B2:52:VAL:N	2.21	0.55
10:CM:4:ILE:CB	10:CM:74:ILE:HD11	2.36	0.55
12:AO:84:LEU:HD22	12:AO:85:ILE:H	1.71	0.55
2:CE:142:LEU:C	2:CE:142:LEU:HD23	2.27	0.55
24:BA:2523:G:H5'	24:BA:2523:G:C8	2.36	0.55
48:BX:43:ILE:O	48:BX:47:VAL:HG23	2.07	0.55
1:CA:1537:U:H2'	1:CA:1538:C:H5	1.70	0.55
10:CM:16:LEU:O	10:CM:16:LEU:HD13	2.07	0.55
2:CE:41:ILE:HD12	2:CE:41:ILE:N	2.22	0.55
27:BE:204:ALA:O	27:BE:205:ALA:HB2	2.07	0.55
33:BN:104:ARG:HH12	33:BN:107:ARG:HH21	1.53	0.55
24:BA:846:C:H4'	24:BA:847:U:O5'	2.05	0.55
33:DN:4:PRO:O	33:DN:5:GLN:HB2	2.06	0.55
24:BA:478:A:N1	24:BA:500:G:H4'	2.21	0.55
1:AA:1263:C:H2'	1:AA:1264:C:C6	2.42	0.55
7:CJ:50:ILE:CB	7:CJ:58:PRO:HB3	2.37	0.55
11:CN:20:TYR:HB2	11:CN:31:THR:O	2.07	0.55
8:AK:29:SER:HB3	8:AK:32:LYS:CD	2.37	0.55
1:CA:946:A:H2'	1:CA:947:G:H8	1.71	0.55
54:DA:558:G:P	32:DM:111:PRO:HD2	2.47	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.41	0.55
24:BA:1952:A:C6	33:BN:22:ILE:HD12	2.42	0.55
9:CL:114:TYR:CD2	9:CL:114:TYR:O	2.58	0.55
1:AA:176:C:H2'	1:AA:177:C:H6	1.70	0.55
38:DR:29:ARG:HH11	38:DR:29:ARG:HB2	1.72	0.55
1:CA:274:A:H4'	1:CA:275:G:O5'	2.04	0.55
33:DN:79:PHE:HD2	38:DR:72:VAL:HG22	1.72	0.55
1:AA:1422:G:O2'	1:AA:1423:G:H5'	2.07	0.55
19:AV:36:ARG:HG3	19:AV:71:LEU:N	2.21	0.55
29:BG:142:PRO:C	49:B4:31:ILE:HD13	2.27	0.55
29:BG:142:PRO:O	49:B4:31:ILE:HG21	2.06	0.55
30:BH:17:VAL:O	30:BH:18:GLU:HG2	2.07	0.55
30:BH:26:VAL:C	30:BH:31:GLY:HA2	2.27	0.55
30:BH:22:GLY:HA2	30:BH:37:VAL:HB	1.87	0.55
30:BH:7:LEU:HD13	30:BH:69:ARG:HB3	1.89	0.55
3:AF:84:ILE:O	3:AF:88:ARG:N	2.33	0.55
2:AE:88:ALA:HB2	2:AE:219:VAL:HG23	1.89	0.55
54:DA:622:G:C2'	54:DA:623:G:H5'	2.37	0.55
1:CA:1260:C:O5'	1:CA:1284:C:H4'	2.07	0.55
1:CA:1261:A:H5'	1:CA:1284:C:OP1	2.06	0.55
1:CA:1002:G:N3	1:CA:1003:G:C8	2.75	0.55
32:DM:44:PRO:HG2	32:DM:45:ASN:H	1.71	0.55
37:BQ:102:ALA:C	37:BQ:104:GLY:N	2.58	0.55
54:DA:1360:A:C6	54:DA:1372:U:O4	2.59	0.55
24:BA:907:U:O2'	35:BP:101:ARG:NH2	2.33	0.55
1:AA:501:C:H2'	1:AA:502:G:C8	2.41	0.55
16:CS:21:VAL:O	16:CS:33:ILE:N	2.39	0.55
51:D6:42:TRP:CD1	51:D6:42:TRP:N	2.73	0.55
10:CM:19:SER:O	10:CM:23:ILE:HG13	2.07	0.55
53:B8:14:VAL:HG11	53:B8:22:VAL:HG13	1.88	0.55
1:CA:266:G:O2'	1:CA:267:C:OP2	2.24	0.55
34:DO:2:LYS:O	34:DO:5:ASP:HB2	2.06	0.55
29:BG:37:VAL:O	29:BG:94:LEU:HD23	2.06	0.55
55:DB:12:C:O2	45:D3:74:ARG:NH1	2.37	0.55
24:BA:1543:A:H1'	24:BA:1545:A:C1'	2.37	0.55
29:DG:41:GLN:HB3	29:DG:43:LEU:HD13	1.87	0.55
8:CK:102:ARG:HH11	8:CK:105:ARG:CZ	2.19	0.55
54:DA:1166:C:H2'	54:DA:1167:U:H6	1.72	0.55
22:CD:20:U:H3'	22:CD:21:A:C5'	2.33	0.55
24:BA:958:U:OP2	35:BP:14:ARG:NH1	2.40	0.55
24:BA:2406:U:N3	34:BO:72:PRO:HB2	2.22	0.55
1:CA:918:A:O2'	1:CA:919:A:H5'	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BF:34:TRP:CZ3	34:BO:8:PRO:HB3	2.41	0.55
12:AO:22:SER:O	12:AO:24:VAL:N	2.39	0.55
1:AA:676:A:H2'	1:AA:677:U:C6	2.42	0.55
54:DA:1205:U:H4'	54:DA:1206:G:OP2	2.06	0.55
5:AH:80:ILE:HD11	5:AH:138:ALA:HB1	1.89	0.55
24:BA:1678:G:H22	24:BA:1989:G:H22	1.54	0.55
54:DA:1263:U:O2'	50:D5:11:THR:HG23	2.06	0.55
54:DA:2778:A:H4'	54:DA:2779:U:OP2	2.05	0.55
24:BA:1992:G:O2'	24:BA:1993:U:OP2	2.22	0.55
13:AP:102:ARG:HH11	13:AP:105:THR:HG23	1.70	0.55
1:CA:508:C:H1'	1:CA:509:A:N7	2.22	0.55
24:BA:2262:U:O2'	24:BA:2263:C:H5'	2.05	0.55
1:AA:107:G:H2'	1:AA:108:G:H5'	1.89	0.55
1:CA:31:G:H4'	1:CA:32:A:OP1	2.06	0.55
35:DP:21:THR:O	35:DP:22:LYS:O	2.25	0.55
24:BA:270(I):G:H2'	24:BA:270(J):G:C8	2.42	0.55
37:BQ:5:THR:OG1	37:BQ:8:GLU:HG2	2.07	0.55
19:AV:25:LYS:HD2	19:AV:25:LYS:C	2.27	0.55
54:DA:1268:A:C2	54:DA:2013:A:C4	2.95	0.55
44:DV:22:GLY:C	44:DV:23:LYS:HD3	2.27	0.55
58:DA:2933:G:H8	58:DP:206:G:H2'	1.71	0.55
20:CW:10:LEU:HG	20:CW:12:ALA:H	1.70	0.55
47:BW:32:LEU:O	47:BW:35:LEU:HB2	2.06	0.55
32:DM:109:LYS:HD2	32:DM:109:LYS:N	2.22	0.55
38:DR:123:GLN:O	38:DR:125:ARG:N	2.40	0.55
24:BA:1515:C:H2'	24:BA:1516:U:H6	1.72	0.55
24:BA:1517:G:O2'	24:BA:1518:C:H5'	2.07	0.55
11:AN:128:ALA:O	11:AN:129:SER:HB2	2.06	0.55
54:DA:1056:G:N2	54:DA:1103:A:C8	2.75	0.55
40:B2:3:ALA:HB3	40:B2:14:VAL:HG23	1.89	0.55
40:B2:5:VAL:CG2	40:B2:37:VAL:HG21	2.36	0.55
54:DA:2635:C:H5'	27:DE:77:ILE:HD13	1.89	0.55
1:CA:1223:C:OP1	1:CA:1224:G:H3'	2.07	0.55
49:D4:51:ASP:OD1	49:D4:51:ASP:O	2.25	0.55
53:D8:30:ARG:O	53:D8:31:HIS:CB	2.54	0.55
1:CA:1533:C:C2'	1:CA:1533:C:O2	2.53	0.55
27:DE:21:VAL:HG23	27:DE:22:PRO:HD3	1.89	0.55
26:BD:27:THR:O	26:BD:28:GLU:CB	2.55	0.55
40:D2:49:THR:CB	40:D2:50:PRO:CD	2.83	0.55
1:CA:703:G:C2'	1:CA:704:A:OP2	2.55	0.55
5:AH:93:PRO:HG2	8:AK:105:ARG:NE	2.22	0.55
41:BS:107:LEU:N	41:BS:107:LEU:HD22	2.22	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:23:SER:HB2	8:CK:61:VAL:O	2.07	0.55
34:BO:59:LEU:CG	34:BO:60:MET:H	2.20	0.55
40:B2:97:LYS:O	40:B2:98:GLU:HB2	2.07	0.55
54:DA:1778:U:H2'	54:DA:1784:A:N6	2.22	0.55
24:BA:1947:C:H2'	24:BA:1948:G:H5''	1.88	0.55
24:BA:2457:U:H2'	24:BA:2458:G:O4'	2.07	0.55
48:BX:8:LEU:HD12	48:BX:30:ARG:O	2.06	0.55
27:BE:116:VAL:O	27:BE:117:MET:CB	2.53	0.55
1:CA:1151:A:N3	10:CM:39:PRO:HG3	2.22	0.55
54:DA:2656:U:C5	54:DA:2657:A:N7	2.75	0.55
37:DQ:36:TYR:HD2	37:DQ:52:SER:CB	2.19	0.55
1:CA:1148:U:O5'	1:CA:1148:U:H6	1.89	0.55
24:BA:2447:G:H3'	24:BA:2500:U:OP2	2.06	0.55
33:BN:3:GLN:CB	33:BN:4:PRO:HD2	2.36	0.55
24:BA:752:A:HO2'	24:BA:753:C:P	2.28	0.55
9:CL:45:ALA:O	9:CL:48:GLU:HG2	2.07	0.55
16:CS:43:LYS:HA	16:CS:48:TRP:CB	2.37	0.55
54:DA:637:A:O2'	54:DA:638:G:OP2	2.19	0.55
1:AA:933:G:OP2	7:AJ:2:ALA:N	2.40	0.55
30:BH:110:SER:O	30:BH:111:HIS:CB	2.54	0.55
2:AE:142:LEU:HA	2:AE:145:LEU:HB2	1.87	0.55
22:AC:66:C:H2'	22:AC:67:C:H6	1.71	0.55
1:CA:748:C:H1'	1:CA:749:C:H5	1.71	0.55
22:AD:38:A:H2'	22:AD:39:C:H5'	1.89	0.55
12:AO:6:THR:OG1	12:AO:9:GLN:HG3	2.06	0.55
1:CA:1089:G:HO2'	1:CA:1170:A:H2	1.54	0.55
35:BP:87:LYS:HE3	45:B3:7:LEU:HD12	1.88	0.55
17:CT:84:LEU:C	17:CT:86:GLU:N	2.60	0.55
54:DA:2555:U:C5	54:DA:2556:C:C6	2.95	0.55
59:DA:2935:C:H2'	59:DA:2936:C:C6	2.42	0.55
6:CI:33:TYR:HE2	6:CI:74:ASP:HB3	1.71	0.55
38:BR:137:LYS:NZ	38:BR:137:LYS:HB3	2.22	0.55
41:DS:88:ARG:HB3	41:DS:92:ARG:HB3	1.89	0.55
25:BB:50:G:OP2	37:BQ:62:LYS:HB2	2.07	0.55
53:B8:48:PHE:N	53:B8:48:PHE:HD1	2.05	0.55
43:DU:95:LYS:HA	43:DU:101:LYS:H	1.72	0.55
43:DU:95:LYS:HD3	43:DU:95:LYS:N	2.23	0.55
1:AA:1364:U:C2'	1:AA:1365:G:OP1	2.55	0.55
13:AP:20:THR:O	13:AP:22:ILE:N	2.35	0.55
44:BV:157:LEU:CB	44:BV:161:VAL:HG21	2.27	0.55
54:DA:1063:G:H1'	54:DA:1077:A:N7	2.22	0.55
54:DA:580:C:O2'	54:DA:581:C:H5'	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:12:THR:CG2	43:BU:13:VAL:N	2.69	0.55
34:BO:125:VAL:HG13	34:BO:144:GLU:HB3	1.87	0.55
24:BA:997:G:O2'	24:BA:998:C:H5'	2.07	0.55
27:DE:54:GLN:N	27:DE:54:GLN:NE2	2.56	0.55
54:DA:888:C:H4'	54:DA:889:C:OP2	2.07	0.55
46:BZ:97:LEU:CD1	46:BZ:98:LEU:H	2.20	0.55
2:CE:187:LEU:HD22	2:CE:201:ILE:O	2.07	0.55
24:BA:1384:A:H1'	24:BA:1405:U:O4'	2.07	0.55
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.71	0.55
3:AF:137:ALA:O	3:AF:141:VAL:HG23	2.07	0.55
2:AE:21:ARG:HH22	2:AE:38:GLY:HA3	1.69	0.55
26:BD:62:TYR:CE1	26:BD:64:ILE:HA	2.41	0.55
15:AR:82:ILE:HD13	15:AR:87:ILE:H	1.72	0.55
51:B6:17:LYS:HB3	51:B6:17:LYS:NZ	2.21	0.55
1:CA:1260:C:P	1:CA:1284:C:H4'	2.47	0.55
37:DQ:107:GLU:N	37:DQ:110:LEU:HD11	2.22	0.55
30:BH:155:SER:O	30:BH:156:ALA:O	2.25	0.55
24:BA:1301:A:H2'	24:BA:1302:A:C3'	2.29	0.55
7:AJ:28:ASN:OD1	7:AJ:36:LYS:HE3	2.06	0.55
30:BH:86:GLU:HG3	30:BH:165:ALA:N	2.22	0.55
1:CA:815:A:O2'	1:CA:816:A:P	2.64	0.55
47:BW:43:GLN:O	47:BW:44:LEU:HG	2.07	0.55
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.07	0.55
29:BG:63:ILE:HG13	29:BG:64:THR:N	2.21	0.55
1:AA:1056:U:H5'	3:AF:163:ALA:HB2	1.88	0.55
30:DH:26:VAL:CG1	30:DH:27:LYS:N	2.64	0.55
34:DO:88:LEU:C	34:DO:90:ARG:N	2.60	0.55
17:AT:62:SER:HB2	17:AT:72:ARG:NH1	2.22	0.55
28:DF:28:ILE:O	28:DF:28:ILE:HD12	2.06	0.55
7:AJ:86:GLN:HE22	22:AD:31:G:N2	2.05	0.55
40:B2:49:THR:CB	40:B2:50:PRO:CD	2.84	0.55
1:CA:189:U:C2	17:CT:72:ARG:NH1	2.75	0.55
8:AK:10:LEU:N	8:AK:10:LEU:HD23	2.22	0.55
46:BZ:90:ILE:CG2	46:BZ:90:ILE:O	2.54	0.55
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.42	0.55
54:DA:2657:A:H2'	54:DA:2658:C:C5'	2.36	0.55
54:DA:2653:U:O2'	30:DH:110:SER:HB2	2.07	0.55
29:DG:83:ARG:HG3	29:DG:86:MET:HE1	1.89	0.55
24:BA:1286:A:C2'	24:BA:1288:U:OP2	2.55	0.55
24:BA:2275:C:O2'	24:BA:2276:G:OP2	2.21	0.55
1:CA:828:A:H2'	1:CA:829:G:O4'	2.07	0.55
9:CL:40:LEU:HD11	9:CL:70:LYS:CG	2.37	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CL:70:LYS:O	9:CL:74:ILE:HG13	2.07	0.55
16:CS:28:ARG:NH1	16:CS:28:ARG:HG2	2.22	0.55
31:BK:109:ILE:N	31:BK:109:ILE:CD1	2.69	0.55
1:AA:197:A:H1'	1:AA:198:G:O4'	2.06	0.55
6:AI:37:VAL:HG13	6:AI:65:VAL:HG12	1.89	0.55
37:BQ:73:LEU:O	37:BQ:73:LEU:HD13	2.06	0.55
9:AL:128:ARG:HG3	22:AC:32:C:OP2	2.07	0.55
17:AT:52:LYS:O	17:AT:55:ASP:OD2	2.25	0.55
38:DR:16:ARG:HG2	38:DR:18:ASP:OD1	2.07	0.55
8:CK:119:LEU:HD12	8:CK:124:ALA:HA	1.88	0.55
44:DV:16:SER:O	44:DV:20:ARG:HB2	2.06	0.55
39:D1:27:LEU:O	39:D1:29:SER:N	2.40	0.55
15:AR:81:LEU:HD11	15:AR:85:LEU:CD1	2.36	0.55
24:BA:1585:C:O2'	24:BA:1586:A:P	2.65	0.55
54:DA:971:C:H2'	54:DA:972:G:H5'	1.89	0.55
40:D2:27:ALA:O	40:D2:28:GLU:O	2.24	0.55
52:D7:31:LEU:O	52:D7:32:LYS:C	2.43	0.55
23:A1:4:A:O2'	23:A1:5:A:P	2.65	0.55
24:BA:2142:C:H2'	24:BA:2143:C:C6	2.41	0.55
1:CA:1294:G:O2'	1:CA:1295:G:H5'	2.07	0.55
1:AA:1523:G:H2'	1:AA:1524:C:C6	2.41	0.55
1:AA:715:A:H2'	1:AA:716:A:C8	2.42	0.55
55:DB:65:C:O2'	55:DB:66:A:H5'	2.07	0.55
24:BA:654(S):G:H8	24:BA:654(S):G:O5'	1.88	0.54
29:BG:101:ILE:HD12	29:BG:102:PHE:N	2.22	0.54
46:DZ:83:GLU:OE1	46:DZ:85:LEU:HD23	2.07	0.54
24:BA:2759:G:H8	24:BA:2759:G:C5'	2.19	0.54
44:BV:94:GLU:OE1	44:BV:94:GLU:N	2.40	0.54
54:DA:582:G:H2'	54:DA:583:G:H8	1.72	0.54
43:BU:97:ARG:N	43:BU:97:ARG:HD3	2.22	0.54
30:BH:125:VAL:HG12	30:BH:126:PRO:HG3	1.90	0.54
34:BO:101:VAL:CG2	34:BO:108:LYS:H	2.16	0.54
34:BO:84:ASN:HA	34:BO:116:GLY:HA3	1.88	0.54
1:CA:1199:U:H4'	10:CM:54:PHE:CE1	2.42	0.54
13:CP:121:LYS:HE2	13:CP:121:LYS:N	2.22	0.54
13:CP:81:LEU:HB3	13:CP:89:GLY:HA2	1.89	0.54
2:CE:16:HIS:CE1	2:CE:209:ARG:HH21	2.25	0.54
26:DD:31:LYS:O	26:DD:35:LYS:O	2.24	0.54
42:BT:28:PHE:CD1	42:BT:28:PHE:N	2.75	0.54
2:AE:42:ILE:HG13	2:AE:43:ASP:N	2.22	0.54
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.42	0.54
29:DG:114:ILE:HD11	29:DG:140:ILE:HD12	1.89	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:51:ALA:O	44:BV:54:HIS:HB2	2.07	0.54
28:DF:32:LEU:HD12	28:DF:36:VAL:HG23	1.89	0.54
54:DA:1371:G:O2'	54:DA:1372:U:C5	2.59	0.54
35:BP:26:TYR:C	35:BP:28:ALA:N	2.59	0.54
25:BB:5:C:O2'	25:BB:6:C:H5'	2.06	0.54
4:CG:31:CYS:O	4:CG:32:ALA:HB3	2.07	0.54
1:AA:500:G:H2'	1:AA:501:C:C6	2.43	0.54
54:DA:411:G:H4'	54:DA:412:A:C5'	2.36	0.54
51:D6:20:ASN:CG	51:D6:21:TYR:H	2.09	0.54
47:BW:45:SER:O	47:BW:46:GLN:NE2	2.41	0.54
1:AA:927:G:OP2	1:AA:1503:A:N7	2.41	0.54
54:DA:1558:A:HO2'	54:DA:1559:G:P	2.30	0.54
1:CA:411:A:C5	1:CA:413:G:N3	2.75	0.54
1:CA:451:A:H4'	1:CA:452:A:O4'	2.07	0.54
2:AE:8:LYS:HG3	2:AE:11:LEU:CD2	2.36	0.54
12:AO:75:HIS:HD2	12:AO:77:LEU:HB2	1.72	0.54
43:BU:17:SER:HB3	43:BU:71:LYS:HB3	1.88	0.54
5:AH:60:TYR:CB	5:AH:64:ARG:HH21	2.14	0.54
54:DA:881:G:H3'	54:DA:882:G:C5'	2.33	0.54
24:BA:2614:A:C4'	24:BA:2615:U:OP1	2.53	0.54
54:DA:2319:G:C4'	54:DA:2320:A:OP1	2.54	0.54
41:BS:75:TYR:CE2	41:BS:104:THR:CB	2.90	0.54
32:BM:131:GLN:NE2	32:BM:132:ALA:HB3	2.22	0.54
24:BA:1429:G:H2'	24:BA:1430:C:C6	2.42	0.54
20:AW:73:HIS:O	20:AW:76:ALA:HB3	2.07	0.54
12:AO:22:SER:C	12:AO:24:VAL:N	2.58	0.54
26:BD:130:ALA:C	26:BD:131:LEU:HD12	2.27	0.54
54:DA:229:A:O2'	54:DA:230:U:OP2	2.21	0.54
24:BA:1820:U:C2	26:BD:202:LYS:HD2	2.42	0.54
47:DW:31:GLU:HB2	47:DW:53:LEU:HD11	1.89	0.54
29:BG:175:LEU:O	29:BG:177:GLY:N	2.40	0.54
54:DA:2584:U:O2	54:DA:2584:U:H3'	2.07	0.54
1:CA:644:G:H2'	1:CA:645:C:C5'	2.37	0.54
3:CF:107:GLN:CD	3:CF:107:GLN:N	2.61	0.54
43:BU:94:LYS:HZ1	43:BU:101:LYS:NZ	2.04	0.54
54:DA:2867:G:H2'	54:DA:2868:A:OP2	2.07	0.54
1:CA:50:A:O2'	1:CA:51:A:OP2	2.24	0.54
24:BA:107:C:H2'	24:BA:108:U:C6	2.42	0.54
8:CK:77:GLU:HG2	8:CK:78:GLN:N	2.22	0.54
45:D3:56:ASP:O	45:D3:57:PHE:HB2	2.06	0.54
1:AA:743:U:H2'	1:AA:744:C:C6	2.41	0.54
38:BR:39:ARG:HG3	38:BR:40:THR:N	2.23	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:271(C):U:H2'	54:DA:271(C):U:O2	2.07	0.54
24:BA:2052:G:O4'	27:BE:142:GLY:HA3	2.07	0.54
6:CI:92:LYS:HB2	6:CI:92:LYS:HZ2	1.72	0.54
6:CI:92:LYS:NZ	6:CI:92:LYS:HB2	2.22	0.54
43:DU:95:LYS:NZ	43:DU:95:LYS:HB2	2.21	0.54
49:B4:36:CYS:O	49:B4:41:PRO:HG2	2.08	0.54
29:BG:112:PRO:O	29:BG:114:ILE:N	2.37	0.54
24:BA:2748:A:O2'	30:BH:66:GLY:HA3	2.07	0.54
43:BU:36:ALA:HA	43:BU:69:ALA:N	2.22	0.54
30:BH:125:VAL:CG1	30:BH:126:PRO:CG	2.85	0.54
30:DH:86:GLU:HG3	30:DH:165:ALA:CB	2.38	0.54
39:B1:98:LEU:CB	39:B1:102:GLU:HB2	2.37	0.54
39:B1:58:ARG:HG2	39:B1:62:ILE:HD11	1.89	0.54
39:B1:91:ASP:OD2	39:B1:96:ALA:HB2	2.07	0.54
54:DA:890:A:O2'	54:DA:892:G:C8	2.60	0.54
34:DO:106:LEU:O	34:DO:107:LYS:HD3	2.07	0.54
24:BA:1397:U:O2'	24:BA:1398:C:OP1	2.26	0.54
2:AE:163:PHE:HA	2:AE:185:ILE:O	2.07	0.54
1:AA:792:A:C4	1:AA:794:A:N6	2.75	0.54
26:BD:35:LYS:NZ	26:BD:64:ILE:O	2.40	0.54
12:AO:46:LYS:CG	12:AO:47:LYS:H	2.19	0.54
40:D2:52:VAL:O	40:D2:54:GLY:N	2.39	0.54
33:DN:53:LYS:HD2	33:DN:56:ASP:OD1	2.08	0.54
24:BA:2061:G:HO2'	24:BA:2062:A:P	2.30	0.54
37:BQ:53:SER:HA	37:BQ:58:LEU:HD21	1.88	0.54
50:D5:55:ARG:HD3	50:D5:56:LYS:H	1.73	0.54
24:BA:1272:A:C2	24:BA:1618:A:C2	2.94	0.54
12:AO:127:GLU:O	12:AO:129:ALA:N	2.41	0.54
54:DA:2287:A:O2'	54:DA:2288:A:H3'	2.07	0.54
59:DA:2923:C:C2	61:DA:2931:A:H1'	2.42	0.54
24:BA:582:G:H2'	24:BA:583:G:H8	1.72	0.54
17:AT:63:ARG:HG2	17:AT:64:PRO:N	2.22	0.54
26:BD:153:ALA:O	26:BD:154:LYS:HG3	2.08	0.54
54:DA:2111:C:C5	54:DA:2145:C:N3	2.76	0.54
24:BA:194:G:H2'	24:BA:195:A:H5'	1.90	0.54
22:CD:9:G:N2	22:CD:45:G:N7	2.55	0.54
54:DA:2531:A:H2'	54:DA:2531:A:N3	2.22	0.54
54:DA:2657:A:N9	54:DA:2665:A:N6	2.55	0.54
24:BA:1278:A:H2'	24:BA:1279:G:H8	1.73	0.54
24:BA:189:G:H1	24:BA:205:G:HO2'	1.45	0.54
42:BT:65:ARG:HH11	42:BT:65:ARG:HG3	1.72	0.54
48:BX:19:GLN:HE22	48:BX:52:HIS:CE1	2.25	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:825:G:H2'	1:CA:826:C:C6	2.42	0.54
31:DK:2:LYS:HA	31:DK:20:ASP:CB	2.36	0.54
32:BM:120:LEU:HD23	32:BM:120:LEU:C	2.26	0.54
11:AN:29:ILE:HG22	11:AN:44:SER:CB	2.35	0.54
51:B6:31:PRO:O	51:B6:32:ASN:HB2	2.07	0.54
15:CR:77:ARG:HA	15:CR:80:ALA:CB	2.36	0.54
7:AJ:41:ARG:HH11	7:AJ:41:ARG:HG3	1.73	0.54
1:AA:625:G:H4'	16:AS:16:HIS:CD2	2.43	0.54
15:CR:65:ARG:NH1	15:CR:65:ARG:HB2	2.20	0.54
46:DZ:53:VAL:O	46:DZ:54:ALA:C	2.45	0.54
54:DA:547:A:H2'	54:DA:548:A:N9	2.22	0.54
24:BA:834:C:H2'	24:BA:835:A:H8	1.72	0.54
2:CE:134:GLU:O	2:CE:138:LEU:HD12	2.07	0.54
54:DA:8:A:H5''	32:DM:51:PHE:HZ	1.73	0.54
31:DK:110:ASP:CB	31:DK:111:PRO:C	2.76	0.54
9:AL:56:LEU:N	9:AL:56:LEU:HD23	2.22	0.54
14:CQ:15:LYS:O	14:CQ:16:PHE:O	2.24	0.54
24:BA:1652:A:H3'	24:BA:1653:G:C8	2.42	0.54
1:CA:775:G:O2'	1:CA:776:G:H5'	2.07	0.54
3:AF:85:ARG:HA	3:AF:85:ARG:NE	2.22	0.54
9:AL:78:LYS:NZ	9:AL:78:LYS:HB2	2.22	0.54
22:CC:75:C:OP1	54:DA:2602:A:OP1	2.24	0.54
46:DZ:92:LYS:O	46:DZ:94:LEU:N	2.41	0.54
1:CA:69:G:C2	1:CA:73:G:C8	2.95	0.54
11:AN:15:ALA:O	11:AN:16:SER:CB	2.55	0.54
43:DU:97:ARG:NH2	43:DU:98:VAL:CB	2.65	0.54
19:AV:67:VAL:HG23	49:B4:60:GLN:HE22	1.71	0.54
54:DA:1060:U:O2'	54:DA:1062:G:H5'	2.08	0.54
34:BO:112:LEU:O	34:BO:112:LEU:HD13	2.07	0.54
19:CV:68:GLY:O	49:D4:68:ARG:HG2	2.07	0.54
34:DO:114:ILE:HD11	34:DO:130:PHE:HE1	1.70	0.54
54:DA:2788:C:O2'	54:DA:2809:A:N3	2.34	0.54
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.42	0.54
4:AG:13:ARG:HD2	4:AG:38:TYR:O	2.08	0.54
32:DM:42:TRP:CD1	39:D1:63:VAL:HG11	2.42	0.54
35:BP:141:GLN:CB	44:BV:73:GLN:HG2	2.38	0.54
24:BA:2291:U:H2'	24:BA:2292:C:C6	2.43	0.54
24:BA:1299:G:H5''	24:BA:1300:U:OP1	2.07	0.54
29:BG:76:SER:C	29:BG:77:ILE:HD12	2.28	0.54
36:D0:28:LEU:HD13	36:D0:28:LEU:O	2.08	0.54
4:CG:19:LEU:N	4:CG:19:LEU:HD23	2.23	0.54
12:AO:124:LYS:HG3	12:AO:125:PRO:N	2.22	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:94:LEU:H	4:CG:94:LEU:CD1	2.08	0.54
24:BA:2296:U:OP2	37:BQ:9:ARG:NH1	2.40	0.54
38:DR:6:LEU:O	38:DR:7:ILE:C	2.44	0.54
34:DO:65:ARG:HH21	53:D8:15:LYS:HB2	1.72	0.54
1:AA:961:U:OP2	1:AA:1223:C:H4'	2.06	0.54
1:AA:1222:G:O2'	1:AA:1223:C:H5'	2.07	0.54
1:AA:960:U:C2'	1:AA:961:U:OP2	2.56	0.54
1:AA:820:U:C4'	1:AA:821:G:OP2	2.55	0.54
54:DA:2210:G:H5'	54:DA:2211:G:OP2	2.06	0.54
45:B3:37:LEU:N	45:B3:59:LEU:O	2.27	0.54
24:BA:2522:U:O2'	24:BA:2647:U:H5''	2.07	0.54
37:DQ:13:ARG:O	37:DQ:13:ARG:HD2	2.06	0.54
25:BB:95:U:H3'	25:BB:95:U:C6	2.42	0.54
3:CF:43:LEU:O	3:CF:47:LEU:HB3	2.07	0.54
2:AE:130:ARG:HG2	2:AE:130:ARG:HH11	1.72	0.54
28:BF:182:ASN:HD21	28:BF:185:ASP:CG	2.11	0.54
24:BA:859:G:HO2'	24:BA:860:U:P	2.30	0.54
24:BA:858:U:HO2'	24:BA:2268:A:H2'	1.71	0.54
48:BX:24:LYS:HE3	48:BX:24:LYS:CA	2.35	0.54
50:B5:45:VAL:CG1	50:B5:56:LYS:HG3	2.37	0.54
1:CA:595:G:H5''	1:CA:596:C:OP1	2.06	0.54
26:DD:263:ARG:HB2	26:DD:263:ARG:HH11	1.67	0.54
27:BE:8:LYS:HG2	27:BE:192:ASN:HA	1.89	0.54
26:DD:118:VAL:HG22	26:DD:119:ALA:H	1.72	0.54
43:DU:2:ARG:NH1	43:DU:2:ARG:HG2	2.22	0.54
42:DT:65:ARG:H	42:DT:65:ARG:HD3	1.70	0.54
38:DR:98:LYS:HB3	38:DR:100:TYR:CE1	2.43	0.54
54:DA:718:A:H2'	54:DA:719:C:H5'	1.89	0.54
31:DK:94:ALA:HB1	31:DK:111:PRO:HB2	1.89	0.54
9:CL:9:ARG:HB2	9:CL:14:VAL:HG22	1.88	0.54
24:BA:603:A:H1'	24:BA:604:G:O4'	2.08	0.54
41:DS:80:PRO:O	41:DS:100:THR:CG2	2.55	0.54
27:BE:76:ARG:HG2	27:BE:195:LEU:HD22	1.89	0.54
15:AR:10:LYS:HE3	15:AR:10:LYS:O	2.06	0.54
1:CA:342:C:O2'	1:CA:343:U:H5'	2.07	0.54
1:CA:1237:C:C4'	1:CA:1334:G:N2	2.70	0.54
35:BP:62:GLY:HA2	35:BP:107:ALA:O	2.07	0.54
60:DA:2910:U:H3'	61:DA:2911:A:H5'	1.89	0.54
36:D0:12:ARG:HG3	36:D0:12:ARG:HH11	1.71	0.54
54:DA:1443:G:N2	54:DA:1549:C:C2	2.75	0.54
24:BA:680:G:H2'	24:BA:681:G:C8	2.42	0.54
54:DA:1287:A:N7	36:D0:107:ASP:HB2	2.22	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:24:LEU:N	37:BQ:24:LEU:HD22	2.22	0.54
23:A1:19:A:H5'	23:A1:19:A:H8	1.71	0.54
26:BD:166:GLN:CA	26:BD:166:GLN:HE21	2.18	0.54
1:AA:521:G:O2'	1:AA:522:C:H5'	2.06	0.54
24:BA:654(C):G:H2'	24:BA:654(C):G:N3	2.22	0.54
3:AF:16:ARG:H	3:AF:16:ARG:HH11	1.55	0.54
49:B4:20:ASN:C	49:B4:21:VAL:HG22	2.28	0.54
34:BO:97:PRO:C	34:BO:99:LEU:H	2.09	0.54
40:B2:6:LYS:HB2	40:B2:11:GLN:HG2	1.88	0.54
24:BA:1011:G:OP2	39:B1:70:ARG:NH2	2.40	0.54
2:CE:170:GLU:HA	2:CE:172:ILE:HD12	1.90	0.54
24:BA:2418:A:H2'	24:BA:2419:U:C6	2.43	0.54
39:D1:58:ARG:NH1	39:D1:93:LYS:HE2	2.22	0.54
54:DA:1142(A):A:C8	54:DA:1144:G:N7	2.75	0.54
10:CM:32:ALA:O	10:CM:33:GLN:O	2.25	0.54
1:AA:842:C:C4'	1:AA:843:U:OP1	2.51	0.54
26:DD:155:LEU:HD23	26:DD:177:LEU:CD2	2.36	0.54
1:CA:453:A:H62	1:CA:479:C:H42	1.55	0.54
31:DK:64:GLU:O	31:DK:67:ARG:HB3	2.08	0.54
7:AJ:79:ARG:HG2	7:AJ:80:VAL:N	2.23	0.54
31:BK:2:LYS:HA	31:BK:20:ASP:CA	2.33	0.54
44:DV:5:LEU:O	44:DV:6:LYS:CB	2.56	0.54
8:CK:51:VAL:HG11	8:CK:60:ARG:CG	2.37	0.54
51:B6:52:VAL:HG13	51:B6:53:LYS:N	2.21	0.54
1:AA:687:A:H4'	1:AA:688:G:O5'	2.07	0.54
43:BU:67:LEU:HD11	43:BU:71:LYS:HE2	1.90	0.54
7:CJ:46:ALA:HB2	7:CJ:117:ALA:HB1	1.88	0.54
1:AA:57:G:H2'	1:AA:58:C:H6	1.71	0.54
14:CQ:13:THR:N	14:CQ:14:PRO:HD2	2.22	0.54
1:AA:998:G:H2'	1:AA:998(A):C:C6	2.43	0.54
24:BA:1277:G:O2'	36:B0:24:GLN:HG2	2.07	0.54
2:AE:98:LEU:O	2:AE:101:MET:HG2	2.08	0.54
42:BT:65:ARG:NH1	42:BT:65:ARG:HG3	2.23	0.54
8:CK:97:VAL:CG1	8:CK:98:LYS:N	2.70	0.54
1:CA:826:C:H2'	1:CA:827:U:O2	2.06	0.54
32:BM:98:VAL:HG23	32:BM:99:LEU:N	2.22	0.54
24:BA:1171:G:H1'	24:BA:1173:G:C5'	2.37	0.54
8:AK:84:ARG:CG	8:AK:84:ARG:HH11	2.20	0.54
28:DF:127:GLU:O	28:DF:129:PHE:N	2.39	0.54
54:DA:612:G:C2	54:DA:613:U:O2	2.60	0.54
19:CV:15:LEU:H	19:CV:15:LEU:CD2	2.21	0.54
52:B7:28:ARG:HH11	52:B7:28:ARG:CG	2.19	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CL:66:ARG:NH1	9:CL:66:ARG:HG2	2.22	0.54
1:CA:50:A:O2'	1:CA:52:G:H8	1.90	0.54
24:BA:2839:G:H5'	36:B0:46:GLY:HA2	1.89	0.54
3:AF:118:GLN:O	3:AF:122:GLU:HG3	2.08	0.54
47:BW:10:LEU:C	47:BW:12:GLU:H	2.09	0.54
1:CA:707:C:H2'	1:CA:708:C:C6	2.43	0.54
41:BS:38:TYR:O	50:B5:28:PRO:HB3	2.07	0.54
1:CA:31:G:N2	1:CA:47:C:H5''	2.22	0.54
1:AA:284:G:H2'	1:AA:285:G:H8	1.71	0.54
33:DN:1:MET:HE3	33:DN:67:LYS:HE2	1.88	0.54
26:DD:124:PRO:HB2	26:DD:126:GLN:NE2	2.22	0.54
48:DX:2:PRO:O	48:DX:3:ARG:O	2.25	0.54
24:BA:654(V):A:O2'	24:BA:655:A:H5'	2.08	0.54
52:D7:18:PHE:C	52:D7:18:PHE:CD2	2.81	0.54
54:DA:1095:A:N3	54:DA:1095:A:H2'	2.22	0.54
11:CN:24:SER:HB3	11:CN:27:ASN:O	2.08	0.54
54:DA:596:G:H2'	54:DA:597:U:O4'	2.07	0.54
30:DH:126:PRO:HD2	30:DH:127:GLU:H	1.72	0.54
1:CA:792:A:O2'	1:CA:794:A:N7	2.40	0.54
22:AD:76:A:O2'	24:BA:2394:C:N3	2.30	0.54
13:AP:7:VAL:HG23	13:AP:8:GLU:N	2.21	0.54
19:AV:64:GLU:C	19:AV:66:MET:N	2.60	0.54
27:DE:176:ILE:HG22	27:DE:179:GLU:H	1.72	0.54
44:DV:139:VAL:HA	44:DV:156:LYS:HE2	1.90	0.54
1:CA:956:U:H2'	1:CA:957:U:H5'	1.89	0.54
49:D4:47:GLN:O	49:D4:48:ARG:HB2	2.07	0.54
34:DO:140:ALA:O	34:DO:141:ALA:HB2	2.08	0.54
42:BT:12:VAL:HG22	42:BT:17:ALA:HB2	1.89	0.54
1:AA:792:A:O2'	1:AA:793:U:OP2	2.25	0.54
54:DA:2807:G:O6	54:DA:2893:G:O6	2.25	0.54
27:BE:50:GLY:HA2	27:BE:78:LEU:HB3	1.89	0.54
39:D1:95:LEU:HD12	40:D2:11:GLN:HE21	1.72	0.54
28:BF:89:VAL:O	28:BF:91:GLY:N	2.36	0.54
44:BV:105:VAL:CG1	44:BV:140:ASP:N	2.70	0.54
1:CA:148:G:H2'	1:CA:149:A:H8	1.71	0.54
44:BV:34:ASN:H	44:BV:34:ASN:HD22	1.55	0.54
24:BA:924:C:H2'	24:BA:925:C:C6	2.43	0.54
42:BT:8:ILE:HD12	42:BT:8:ILE:N	2.14	0.54
8:CK:101:PRO:HG2	8:CK:133:LEU:HD11	1.89	0.54
54:DA:26:G:C6	54:DA:27:G:C2	2.94	0.54
54:DA:27:G:N2	54:DA:512:G:C2'	2.67	0.54
4:CG:11:LEU:O	4:CG:12:CYS:C	2.46	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CS:3:LYS:O	16:CS:21:VAL:HA	2.08	0.54
55:DB:95:U:H2'	55:DB:96:G:C8	2.42	0.54
1:AA:817:C:H4'	1:AA:818:G:O5'	2.08	0.54
1:AA:848:C:O2'	1:AA:849:C:H5'	2.08	0.54
30:DH:8:PRO:O	30:DH:9:ILE:HG23	2.08	0.54
54:DA:2304:G:N2	29:DG:156:ASP:OD2	2.39	0.54
12:CO:6:THR:OG1	12:CO:9:GLN:HG3	2.08	0.54
24:BA:1142(A):A:C5	24:BA:1144:G:C5	2.95	0.54
1:CA:1347:G:C2'	1:CA:1348:U:OP2	2.55	0.54
24:BA:1428:C:C5	24:BA:1569:A:H5''	2.42	0.54
24:BA:811:U:O2	24:BA:1250:G:H3'	2.06	0.54
29:DG:3:LEU:HD12	29:DG:4:ASP:N	2.19	0.54
4:CG:153:ARG:NH1	4:CG:181:MET:CG	2.71	0.54
28:BF:110:LEU:HD23	28:BF:110:LEU:C	2.28	0.54
54:DA:2063:C:H2'	54:DA:2064:C:H6	1.73	0.54
28:DF:129:PHE:O	28:DF:130:ALA:CB	2.55	0.54
24:BA:2712:U:O2'	24:BA:2712(A):A:C8	2.59	0.54
24:BA:2354:G:O2'	45:B3:36:ILE:HD12	2.08	0.54
16:AS:17:TYR:N	16:AS:17:TYR:CD1	2.73	0.54
54:DA:1505:C:H3'	54:DA:1506:C:H6	1.73	0.54
27:BE:8:LYS:HE3	27:BE:188:VAL:O	2.08	0.54
3:AF:157:ILE:C	3:AF:159:GLY:N	2.61	0.54
45:D3:49:LYS:O	45:D3:50:ASN:HB2	2.07	0.54
47:BW:4:SER:CB	47:BW:5:GLU:OE2	2.55	0.54
11:CN:91:ARG:NH2	18:CU:88:LYS:HZ1	2.06	0.54
24:BA:1088:A:H4'	24:BA:1089:G:H8	1.69	0.54
1:CA:842:C:H5'	1:CA:843:U:OP1	2.08	0.54
7:CJ:137:LYS:O	7:CJ:141:VAL:HG23	2.08	0.54
4:AG:165:MET:HE3	4:AG:168:ARG:HB2	1.88	0.54
24:BA:2870:C:H2'	24:BA:2871:C:C5'	2.38	0.54
54:DA:2672:G:C3'	54:DA:2673:G:H5''	2.38	0.54
44:DV:124:ILE:O	44:DV:126:VAL:HG13	2.07	0.54
24:BA:919:G:H2'	24:BA:920:G:H8	1.72	0.54
54:DA:2873:A:H4'	54:DA:2874:C:OP1	2.07	0.54
1:CA:162:A:N7	1:CA:163:C:H1'	2.23	0.54
28:DF:62:ARG:NH1	28:DF:62:ARG:HB3	2.22	0.54
54:DA:2572:A:C8	27:DE:144:ARG:NE	2.75	0.54
54:DA:270(Z):U:O2'	54:DA:271(A):C:OP2	2.25	0.54
1:AA:135:C:H2'	1:AA:136:C:H5'	1.89	0.54
30:BH:147:ASN:N	30:BH:147:ASN:HD22	2.04	0.54
36:B0:71:GLN:HE21	36:B0:71:GLN:N	2.05	0.54
24:BA:2461:C:H2'	24:BA:2462:U:C6	2.41	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1318:A:O3'	19:AV:10:PHE:HE2	1.91	0.54
44:BV:135:GLU:O	44:BV:136:PHE:O	2.25	0.54
24:BA:1043:C:N3	24:BA:1112:G:N2	2.53	0.54
30:BH:22:GLY:CA	30:BH:37:VAL:HB	2.37	0.54
43:DU:47:LYS:O	43:DU:49:VAL:HG23	2.08	0.54
29:BG:9:ARG:O	29:BG:13:GLU:HG2	2.07	0.54
29:BG:13:GLU:O	29:BG:14:GLU:CB	2.55	0.54
30:DH:153:LYS:HA	30:DH:153:LYS:CE	2.38	0.54
2:AE:22:LYS:O	2:AE:24:TRP:N	2.41	0.54
53:D8:32:LEU:O	53:D8:36:LYS:HE3	2.07	0.54
24:BA:1310:G:OP2	52:B7:9:ARG:CZ	2.55	0.54
27:DE:14:ILE:HG23	27:DE:15:PHE:N	2.23	0.54
39:D1:86:ALA:HB1	39:D1:88:ILE:HD11	1.90	0.54
35:BP:64:ILE:HG12	35:BP:64:ILE:O	2.07	0.54
24:BA:1558:A:H4'	24:BA:1559:G:O5'	2.08	0.54
1:CA:64:G:H4'	1:CA:65:U:H5'	1.88	0.54
25:BB:72:G:N2	25:BB:103:U:C5	2.76	0.54
26:DD:25:THR:O	26:DD:25:THR:HG23	2.07	0.54
24:BA:2305:A:H2'	24:BA:2306:C:H5''	1.90	0.54
31:BK:3:VAL:CG1	31:BK:38:LEU:HA	2.33	0.54
1:AA:1004:A:H2'	1:AA:1025:U:C4	2.41	0.54
50:D5:44:THR:O	50:D5:46:CYS:N	2.41	0.54
54:DA:2298:A:H2'	54:DA:2299:G:O4'	2.07	0.54
29:DG:81:LYS:O	29:DG:82:LEU:CB	2.56	0.54
3:CF:195:VAL:CG1	3:CF:196:LEU:N	2.71	0.54
9:AL:85:LEU:HD12	9:AL:86:VAL:N	2.23	0.54
8:AK:6:ILE:H	8:AK:6:ILE:CD1	2.19	0.54
1:CA:321:A:H62	1:CA:328:C:HO2'	1.55	0.54
6:AI:55:ASP:HB3	6:AI:86:ARG:HH12	1.72	0.54
1:CA:650:G:O2'	1:CA:651:C:H5'	2.08	0.54
16:AS:14:ASN:N	16:AS:15:PRO:HD3	2.22	0.54
24:BA:1955:U:O2'	24:BA:1956:U:H5'	2.08	0.54
46:DZ:53:VAL:HG12	46:DZ:54:ALA:N	2.21	0.54
12:AO:111:LYS:HD2	12:AO:111:LYS:N	2.22	0.54
24:BA:370:G:H4'	24:BA:371:A:OP2	2.08	0.54
31:BK:71:ILE:O	31:BK:71:ILE:HG23	2.06	0.54
3:CF:92:ALA:HB2	3:CF:99:VAL:CG1	2.37	0.54
2:CE:83:MET:O	2:CE:85:ALA:N	2.41	0.54
54:DA:540:G:H5'	54:DA:541:C:OP2	2.08	0.54
26:DD:158:ALA:HB3	26:DD:161:THR:HG21	1.90	0.54
24:BA:1316:U:H2'	24:BA:1317:A:H8	1.73	0.54
1:AA:432:A:H2'	1:AA:433:C:O4'	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:318:G:H2'	1:CA:319:G:H8	1.73	0.54
24:BA:1899:G:N2	24:BA:1902:C:C4	2.75	0.54
13:AP:92:HIS:CE1	13:AP:98:VAL:HG21	2.43	0.54
19:AV:49:ILE:O	19:AV:60:VAL:HG13	2.08	0.54
21:AX:8:THR:HG22	21:AX:9:ARG:N	2.22	0.54
49:B4:20:ASN:O	49:B4:21:VAL:HG22	2.07	0.54
29:BG:114:ILE:HG22	29:BG:117:PHE:HB2	1.88	0.54
29:BG:34:LEU:HD13	29:BG:99:MET:HE1	1.90	0.54
1:AA:1139:G:H5'	1:AA:1140:C:OP1	2.07	0.54
54:DA:593:G:H2'	54:DA:594:U:C6	2.43	0.54
39:B1:92:ARG:NH1	40:B2:11:GLN:HB2	2.22	0.54
49:D4:65:ASP:O	49:D4:66:SER:HB3	2.07	0.54
25:BB:30:C:H4'	25:BB:58:A:H2	1.73	0.54
54:DA:1483:G:H2'	54:DA:1484:G:H8	1.72	0.54
3:CF:109:PRO:O	3:CF:115:LEU:HD12	2.08	0.54
10:CM:61:GLU:HG3	14:CQ:58:LYS:HE2	1.90	0.54
28:BF:63:LYS:HE3	28:BF:75:HIS:O	2.08	0.54
24:BA:558:G:O2'	24:BA:559:G:H5'	2.08	0.54
51:B6:45:LYS:HG3	51:B6:46:HIS:N	2.22	0.54
4:AG:31:CYS:O	4:AG:32:ALA:O	2.25	0.54
35:DP:39:PRO:HB3	35:DP:99:PRO:HD3	1.89	0.54
54:DA:1019:U:O2'	54:DA:1021:A:C2	2.60	0.54
24:BA:2534:A:H5'	24:BA:2534:A:C8	2.38	0.54
30:BH:151:ILE:C	30:BH:152:ARG:HG2	2.27	0.54
35:BP:21:THR:HG22	35:BP:99:PRO:O	2.07	0.54
1:AA:1118:C:N4	1:AA:1156:G:N2	2.56	0.54
31:DK:57:ARG:CZ	31:DK:57:ARG:HB2	2.36	0.54
34:BO:56:SER:O	34:BO:57:THR:CG2	2.55	0.54
51:D6:17:LYS:O	51:D6:18:ARG:HB2	2.08	0.54
7:CJ:13:GLN:O	7:CJ:24:THR:HG21	2.08	0.54
7:AJ:155:ARG:CG	7:AJ:155:ARG:HH11	2.20	0.54
54:DA:2126:A:O2'	54:DA:2127:G:P	2.65	0.54
44:DV:7:ALA:O	44:DV:8:TYR:CD2	2.61	0.54
20:AW:53:LEU:HB3	20:AW:102:GLY:HA3	1.88	0.54
1:AA:919:A:O2'	1:AA:920:U:H5'	2.08	0.54
26:DD:206:LEU:O	26:DD:211:ARG:NH1	2.38	0.54
1:AA:1219:U:O2'	19:AV:34:TRP:HB3	2.07	0.54
24:BA:247:G:H4'	24:BA:386:G:C5	2.43	0.54
7:AJ:102:ARG:O	7:AJ:106:GLN:HG3	2.07	0.54
1:CA:872:A:C4	1:CA:874:G:N7	2.76	0.54
24:BA:2051:A:N6	24:BA:2614:A:H2'	2.16	0.54
2:AE:107:THR:HG23	2:AE:110:GLN:OE1	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1175:G:H2'	1:CA:1176:A:C8	2.43	0.54
18:CU:51:LEU:HD22	18:CU:55:ARG:HD2	1.89	0.54
54:DA:1279:G:C4'	36:D0:31:HIS:HD2	2.17	0.54
54:DA:2314:C:H2'	54:DA:2315:G:H8	1.71	0.54
26:DD:80:ALA:HB3	26:DD:94:LEU:HD13	1.88	0.54
7:AJ:69:VAL:O	7:AJ:69:VAL:HG12	2.08	0.54
54:DA:2646:C:OP2	54:DA:2646:C:H6	1.91	0.54
1:CA:538:G:OP1	12:CO:113:ARG:HD2	2.07	0.54
1:CA:15:G:H4'	5:CH:24:ARG:HH12	1.71	0.54
24:BA:226:G:H1'	24:BA:228:A:N6	2.23	0.54
54:DA:2198:A:HO2'	54:DA:2199:A:P	2.31	0.54
42:BT:35:THR:O	42:BT:39:ILE:HG13	2.08	0.54
7:CJ:50:ILE:O	7:CJ:50:ILE:HG22	2.07	0.54
1:AA:9:G:H5'	5:AH:122:GLU:OE2	2.08	0.54
24:BA:270(R):G:H2'	24:BA:270(S):G:C8	2.42	0.54
35:BP:104:PHE:N	35:BP:104:PHE:HD1	2.04	0.54
12:AO:62:SER:HB2	12:AO:64:TYR:CE1	2.43	0.54
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.08	0.54
37:BQ:42:ASP:O	37:BQ:43:GLU:HB2	2.08	0.54
24:BA:1460:A:H5''	24:BA:1461:G:OP2	2.08	0.54
34:DO:124:LYS:HA	34:DO:143:GLY:O	2.08	0.54
1:CA:697:U:H2'	1:CA:698:G:H5'	1.89	0.54
8:AK:97:VAL:HA	8:AK:100:ILE:HD11	1.90	0.54
34:DO:24:GLY:O	34:DO:25:SER:HB3	2.06	0.54
1:AA:1327:C:H2'	1:AA:1328:C:H6	1.72	0.54
3:AF:15:THR:HG23	3:AF:16:ARG:NH1	2.23	0.54
19:AV:42:PRO:HG2	49:B4:63:TYR:CE2	2.42	0.54
19:AV:49:ILE:O	19:AV:60:VAL:HG22	2.08	0.54
54:DA:1066:U:O2	54:DA:1066:U:H2'	2.06	0.54
54:DA:1061:U:C5'	54:DA:1070:A:H1'	2.38	0.54
44:DV:136:PHE:HD1	44:DV:137:ILE:N	2.05	0.54
24:BA:1047:G:H1'	24:BA:1111:A:N1	2.23	0.54
28:BF:117:ARG:HD3	28:BF:120:GLU:OE1	2.08	0.54
54:DA:888:C:H5'	54:DA:889:C:O5'	2.08	0.54
2:AE:55:PHE:HE1	2:AE:218:ALA:HA	1.72	0.54
54:DA:623:G:H2'	54:DA:624:C:H6	1.73	0.54
24:BA:2777:G:H4'	24:BA:2778:A:C5'	2.38	0.54
24:BA:2808:U:H2'	24:BA:2809:A:C5'	2.38	0.54
32:DM:7:LYS:HD3	32:DM:9:VAL:CA	2.38	0.54
44:BV:26:GLY:HA2	44:BV:85:HIS:CE1	2.42	0.54
37:BQ:100:ALA:HA	37:BQ:103:GLU:HG3	1.89	0.54
24:BA:481:G:H2'	24:BA:507:A:N1	2.23	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2656:U:C5	24:BA:2657:A:N7	2.76	0.54
1:AA:1347:G:O2'	1:AA:1348:U:P	2.66	0.54
1:AA:1374:A:H2'	1:AA:1375:A:H5'	1.89	0.54
54:DA:2131:G:C5'	54:DA:2132:U:H4'	2.38	0.54
15:AR:54:ARG:HG2	15:AR:58:MET:CE	2.37	0.54
7:CJ:102:ARG:O	7:CJ:106:GLN:HG3	2.08	0.54
5:CH:101:ILE:HG12	5:CH:101:ILE:O	2.08	0.54
26:DD:183:ARG:HG2	26:DD:183:ARG:NH1	2.11	0.54
24:BA:2314:C:H2'	24:BA:2315:G:H8	1.72	0.54
55:DB:12:C:C4'	55:DB:13:A:OP1	2.55	0.54
1:CA:280:C:H4'	1:CA:281:G:OP2	2.08	0.54
5:AH:51:VAL:CG2	5:AH:52:PRO:HD3	2.34	0.54
31:BK:38:LEU:HD12	31:BK:38:LEU:N	2.19	0.54
48:BX:8:LEU:CD1	48:BX:31:LEU:HD12	2.38	0.54
1:CA:1349:A:OP2	9:CL:118:LYS:NZ	2.39	0.54
1:CA:1151:A:H2'	1:CA:1152:A:C8	2.42	0.54
26:DD:211:ARG:HD2	26:DD:214:TRP:CZ3	2.43	0.54
28:DF:53:THR:C	28:DF:55:GLY:H	2.11	0.54
1:AA:713:G:N2	1:AA:777:A:H4'	2.22	0.54
1:AA:754:C:C3'	1:AA:754:C:O2	2.56	0.54
54:DA:2317:C:O2'	54:DA:2318:G:H5'	2.08	0.54
1:CA:447:G:H2'	1:CA:485:G:N2	2.23	0.54
24:BA:71:A:O2'	24:BA:72:U:OP2	2.26	0.54
3:CF:37:GLN:HE22	14:CQ:47:LEU:HD22	1.73	0.54
1:CA:1148:U:OP1	9:CL:7:THR:HG21	2.08	0.54
2:CE:37:ASN:N	2:CE:37:ASN:ND2	2.52	0.54
2:AE:12:GLU:C	2:AE:14:GLY:N	2.62	0.54
29:DG:7:LEU:HD12	29:DG:104:GLU:HA	1.88	0.54
24:BA:289:A:H2'	24:BA:289:A:N3	2.22	0.54
7:AJ:47:CYS:HB3	7:AJ:58:PRO:HG3	1.90	0.54
42:DT:41:ASN:N	42:DT:41:ASN:ND2	2.56	0.54
1:CA:651:C:H2'	1:CA:652:U:C6	2.43	0.54
24:BA:1246:A:O2'	28:BF:45:ARG:NH2	2.40	0.54
55:DB:116:G:H4'	37:DQ:54:LEU:HD13	1.89	0.54
47:BW:15:LYS:HE3	47:BW:67:LYS:CE	2.37	0.54
1:CA:1094:G:C2'	1:CA:1095:U:OP2	2.56	0.54
1:CA:1015:A:H2'	1:CA:1016:A:O4'	2.07	0.54
55:DB:33:G:H5'	29:DG:2:PRO:HG3	1.89	0.54
54:DA:1203:G:H5'	34:DO:3:LEU:HD12	1.90	0.54
24:BA:2770:G:H5''	24:BA:2771:C:OP2	2.07	0.54
38:BR:105:LEU:HD22	38:BR:109:GLU:HG3	1.90	0.54
1:CA:186(C):G:H2'	1:CA:186(D):C:C6	2.43	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1795:C:O2	26:DD:255:LYS:HE2	2.06	0.54
54:DA:270(F):U:H2'	54:DA:270(G):C:C6	2.43	0.54
1:AA:783:C:N4	1:AA:800:G:N2	2.55	0.54
54:DA:2052:G:H4'	27:DE:143:ASN:O	2.08	0.54
34:DO:92:GLU:HA	34:DO:123:LEU:CD2	2.38	0.54
33:DN:49:ARG:HB3	33:DN:49:ARG:NH1	2.23	0.54
27:DE:134:ILE:HD12	27:DE:134:ILE:C	2.28	0.54
46:DZ:91:LYS:CE	46:DZ:91:LYS:HA	2.37	0.54
24:BA:2250:G:C5	35:BP:82:ARG:CD	2.86	0.54
31:BK:97:ILE:O	31:BK:100:ALA:HB3	2.08	0.54
43:DU:87:LYS:NZ	43:DU:87:LYS:HB2	2.23	0.54
1:AA:1313:U:OP2	19:AV:6:LYS:HE3	2.08	0.54
13:AP:12:ASN:O	13:AP:13:LYS:HB2	2.08	0.54
54:DA:1088:A:H3'	54:DA:1088:A:N3	2.23	0.54
39:B1:92:ARG:O	39:B1:93:LYS:C	2.46	0.54
27:DE:51:PHE:O	27:DE:74:PRO:HB3	2.08	0.54
54:DA:1112:G:H2'	54:DA:1113:U:H6	1.73	0.54
13:CP:66:LEU:O	13:CP:67:GLU:C	2.46	0.54
49:D4:63:TYR:C	49:D4:65:ASP:N	2.61	0.54
41:BS:92:ARG:HG2	41:BS:92:ARG:HH11	1.73	0.54
2:CE:102:LEU:HB3	2:CE:180:LEU:HD12	1.90	0.54
34:DO:112:LEU:C	34:DO:112:LEU:HD13	2.29	0.54
54:DA:623:G:H2'	54:DA:624:C:C6	2.43	0.54
27:DE:14:ILE:HD11	38:DR:14:TYR:CZ	2.42	0.54
27:BE:4:ILE:HD11	27:BE:96:PHE:CE2	2.40	0.54
40:B2:76:LYS:HD2	40:B2:80:GLN:O	2.08	0.54
26:DD:28:GLU:O	26:DD:29:PRO:C	2.45	0.54
47:BW:41:ILE:CD1	47:BW:44:LEU:HD12	2.38	0.54
2:AE:164:VAL:HG12	2:AE:165:VAL:H	1.72	0.54
26:BD:267:SER:O	26:BD:269:PHE:N	2.41	0.54
1:AA:1381:U:H1'	7:AJ:79:ARG:NH1	2.23	0.54
24:BA:2145:C:C5	24:BA:2147:G:N2	2.76	0.54
27:BE:16:ARG:O	27:BE:17:ASP:HB2	2.06	0.54
1:AA:713:G:N2	1:AA:777:A:C4'	2.66	0.54
47:DW:41:ILE:HD11	47:DW:44:LEU:HB2	1.89	0.54
24:BA:72:U:H1'	47:BW:58:ALA:CB	2.38	0.54
24:BA:1324:G:N2	24:BA:1331:A:C4	2.76	0.54
7:AJ:138:LYS:HE2	7:AJ:142:GLU:OE1	2.08	0.54
54:DA:2233:U:H2'	54:DA:2234:G:C8	2.43	0.54
54:DA:2645:G:H4'	54:DA:2732:G:O2'	2.08	0.54
41:BS:1:MET:HG3	41:BS:2:GLU:N	2.22	0.54
2:AE:196:LEU:HD13	2:AE:197:VAL:HG23	1.90	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CR:21:ASP:OD1	15:CR:24:SER:HB2	2.07	0.54
7:AJ:35:LYS:HB3	7:AJ:38:LEU:HD13	1.89	0.54
54:DA:612:G:N2	54:DA:617:G:C5	2.76	0.54
54:DA:1673:U:O2'	54:DA:1674:G:H5'	2.08	0.54
53:D8:63:PRO:O	53:D8:64:TYR:HB2	2.07	0.54
1:AA:191:G:O2'	1:AA:192:U:H5'	2.08	0.54
1:CA:975:A:H62	10:CM:60:ARG:HH12	1.56	0.54
7:CJ:12:LEU:HD22	7:CJ:12:LEU:N	2.23	0.54
33:DN:78:ARG:O	38:DR:73:GLU:HG3	2.08	0.54
31:BK:29:TYR:HE1	31:BK:33:ARG:NE	2.06	0.54
36:D0:91:GLN:HG2	36:D0:91:GLN:O	2.08	0.54
1:AA:986:A:H1'	19:AV:54:GLY:O	2.07	0.54
51:D6:12:GLU:HG2	51:D6:52:VAL:O	2.07	0.54
18:CU:39:VAL:HA	18:CU:42:ARG:NH1	2.23	0.54
24:BA:403:U:O2'	24:BA:404:C:P	2.66	0.54
1:CA:671:G:O2'	1:CA:672:U:H5'	2.07	0.54
24:BA:1418:G:H8	24:BA:1418:G:O5'	1.90	0.54
39:D1:47:TYR:C	39:D1:47:TYR:CD2	2.81	0.54
18:CU:29:PHE:N	18:CU:29:PHE:CD2	2.76	0.54
1:CA:414:A:H2'	1:CA:415:A:O4'	2.07	0.54
1:CA:1418:A:H2	54:DA:1948:G:N3	2.05	0.54
30:DH:91:GLY:O	30:DH:94:TYR:HB2	2.08	0.54
24:BA:125:G:C6	52:B7:10:ARG:HG3	2.44	0.54
11:AN:13:GLN:C	11:AN:13:GLN:OE1	2.46	0.54
54:DA:579:G:H2'	54:DA:580:C:C6	2.42	0.54
13:CP:73:GLU:O	13:CP:77:ASN:N	2.33	0.54
3:CF:53:ALA:HB2	3:CF:115:LEU:HD21	1.90	0.54
34:DO:84:ASN:ND2	34:DO:115:LEU:HD12	2.22	0.54
42:BT:27:THR:OG1	42:BT:80:ILE:HG22	2.07	0.54
1:CA:1446:A:N3	1:CA:1446:A:H5'	2.23	0.54
2:AE:200:ILE:CG2	2:AE:201:ILE:N	2.71	0.54
54:DA:747:U:C4	50:D5:2:ALA:N	2.76	0.54
40:B2:85:LYS:HG3	40:B2:86:GLY:N	2.23	0.54
24:BA:2347:C:H2'	24:BA:2348:U:C6	2.43	0.54
39:D1:74:LEU:HD13	39:D1:79:PHE:HB2	1.89	0.54
33:DN:12:ASP:CG	33:DN:14:THR:HG23	2.29	0.54
54:DA:2060:A:HO2'	54:DA:2061:G:P	2.31	0.54
54:DA:2060:A:O2'	54:DA:2061:G:OP2	2.21	0.54
28:DF:63:LYS:NZ	28:DF:67:GLN:HE21	2.06	0.54
44:BV:10:ARG:HB3	44:BV:36:LYS:O	2.08	0.54
37:BQ:99:LYS:HE2	37:BQ:103:GLU:OE2	2.08	0.54
24:BA:2656:U:N3	24:BA:2665:A:C2	2.75	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2657:A:C4	24:BA:2665:A:N6	2.75	0.54
44:BV:40:ASP:HB3	44:BV:43:GLU:CG	2.38	0.54
44:BV:43:GLU:O	44:BV:47:VAL:HG23	2.08	0.54
47:DW:16:LEU:O	47:DW:16:LEU:CG	2.49	0.54
4:AG:27:TYR:O	4:AG:28:SER:CB	2.54	0.54
1:AA:821:G:H2'	1:AA:822:C:H6	1.72	0.54
1:CA:191:G:N9	20:CW:105:SER:HB3	2.23	0.54
24:BA:2314:C:H5'	29:BG:38:VAL:HG11	1.88	0.54
3:AF:23:TYR:O	3:AF:24:ALA:HB2	2.06	0.54
5:AH:36:ASP:OD2	5:AH:40:ARG:HB2	2.08	0.54
38:DR:55:ASN:O	38:DR:57:PHE:O	2.26	0.54
27:DE:186:GLY:O	27:DE:188:VAL:N	2.40	0.54
28:DF:197:ASP:O	28:DF:198:ALA:HB3	2.06	0.54
14:CQ:40:CYS:H	14:CQ:43:CYS:HB2	1.73	0.54
3:CF:134:ILE:HG21	3:CF:168:ALA:HB3	1.89	0.54
3:CF:134:ILE:CD1	3:CF:153:VAL:HG21	2.35	0.54
9:CL:99:LEU:O	9:CL:101:PHE:N	2.41	0.54
47:DW:47:ASN:N	47:DW:47:ASN:ND2	2.54	0.54
30:BH:92:ILE:HD12	30:BH:92:ILE:N	2.23	0.54
24:BA:50:U:O2'	24:BA:51:G:OP1	2.22	0.54
46:DZ:76:ARG:HG2	46:DZ:76:ARG:NH1	2.19	0.54
34:BO:14:LYS:CD	34:BO:14:LYS:O	2.56	0.54
54:DA:546:C:OP1	54:DA:547:A:N6	2.41	0.54
44:BV:127:LYS:CB	44:BV:162:GLU:HG3	2.38	0.54
24:BA:709:U:H2'	24:BA:710:G:H8	1.73	0.54
24:BA:790:C:O2'	24:BA:791:C:P	2.66	0.54
40:B2:73:SER:HB2	40:B2:82:ARG:O	2.08	0.54
54:DA:1754:C:OP1	38:DR:96:ARG:NH1	2.31	0.54
17:CT:65:ILE:HD12	17:CT:65:ILE:H	1.73	0.54
54:DA:162:U:OP1	54:DA:162:U:C6	2.61	0.54
54:DA:2847:U:OP1	38:DR:98:LYS:HD3	2.08	0.54
36:D0:38:VAL:HG22	36:D0:112:ALA:HB2	1.90	0.54
9:CL:13:ALA:HA	9:CL:66:ARG:O	2.08	0.54
9:CL:13:ALA:HB2	9:CL:67:GLY:C	2.28	0.54
34:DO:37:GLY:C	34:DO:41:ARG:HD3	2.29	0.54
39:D1:24:TYR:O	39:D1:29:SER:HB3	2.08	0.54
2:AE:111:ARG:NH1	2:AE:111:ARG:HG2	2.23	0.54
1:AA:521:G:O5'	12:AO:73:GLU:HG2	2.06	0.54
50:B5:52:TYR:O	50:B5:53:ALA:HB2	2.08	0.54
54:DA:660:G:O3'	28:DF:38:ARG:NH2	2.41	0.54
45:D3:53:MET:HA	45:D3:58:THR:O	2.08	0.54
24:BA:2122:U:H2'	24:BA:2123:G:O4'	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:85:ASP:OD2	26:DD:88:ARG:HG2	2.07	0.54
1:CA:1000:A:H2'	1:CA:1001:G:H5'	1.89	0.54
24:BA:2513:G:H2'	24:BA:2514:U:C6	2.42	0.54
24:BA:2352:A:H2'	24:BA:2353:G:H5'	1.90	0.54
54:DA:1388:G:O2'	54:DA:1389:G:H5'	2.08	0.54
28:DF:147:GLY:O	28:DF:148:LEU:HD23	2.07	0.54
1:CA:1137:C:O2'	1:CA:1138:G:C2	2.61	0.54
17:AT:95:TYR:HA	17:AT:98:LEU:HD12	1.90	0.54
1:AA:181:G:O2'	1:AA:182:U:P	2.66	0.54
30:DH:125:VAL:HA	30:DH:126:PRO:CB	2.29	0.53
54:DA:152:G:H2'	54:DA:153:C:C6	2.43	0.53
43:DU:90:LEU:H	43:DU:90:LEU:HD22	1.73	0.53
1:AA:1266:G:N2	1:AA:1269:A:OP2	2.41	0.53
10:AM:61:GLU:OE1	14:AQ:58:LYS:HE2	2.08	0.53
19:AV:69:HIS:HB2	19:AV:74:PHE:HE2	1.73	0.53
1:AA:1313:U:P	19:AV:6:LYS:HB3	2.48	0.53
9:AL:27:THR:HB	9:AL:32:ASP:CA	2.33	0.53
24:BA:1204:A:O2'	24:BA:1205:U:P	2.65	0.53
34:BO:127:ALA:O	34:BO:147:LEU:HA	2.08	0.53
14:CQ:22:THR:HB	14:CQ:33:VAL:HG11	1.88	0.53
19:CV:9:VAL:HG12	49:D4:66:SER:O	2.08	0.53
29:BG:29:TRP:HE3	29:BG:33:ARG:NH1	2.05	0.53
26:DD:34:VAL:C	26:DD:35:LYS:HG3	2.29	0.53
2:AE:183:PRO:HA	2:AE:198:ASP:OD1	2.07	0.53
54:DA:2419:U:C5'	51:D6:23:THR:HG22	2.37	0.53
4:AG:19:LEU:CD1	4:AG:21:LEU:HD23	2.34	0.53
22:AD:15:G:O2'	22:AD:20:U:N3	2.40	0.53
33:DN:12:ASP:OD1	33:DN:85:VAL:HG13	2.08	0.53
1:AA:6:G:N2	5:AH:98:THR:HG23	2.23	0.53
24:BA:925:C:C3'	24:BA:926:A:H5''	2.38	0.53
36:D0:70:LEU:HD13	36:D0:75:LEU:HD11	1.88	0.53
24:BA:2656:U:O4	24:BA:2657:A:C5	2.61	0.53
27:DE:101:ARG:HB3	27:DE:201:THR:OG1	2.08	0.53
38:DR:105:LEU:O	38:DR:107:ASP:N	2.41	0.53
54:DA:896:A:C2'	54:DA:897:C:OP1	2.56	0.53
44:BV:59:LEU:CG	44:BV:60:GLU:H	2.20	0.53
54:DA:389:G:H1	34:DO:72:PRO:HD3	1.73	0.53
1:CA:728:A:C6	15:CR:54:ARG:HD2	2.43	0.53
27:DE:25:VAL:HG11	38:DR:11:GLU:HG2	1.90	0.53
24:BA:1946:U:H2'	24:BA:1947:C:C6	2.42	0.53
1:AA:954:G:H2'	1:AA:955:U:H6	1.73	0.53
54:DA:1559:G:H5''	54:DA:1560:G:OP2	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DN:7:TYR:C	33:DN:8:LEU:HD22	2.29	0.53
24:BA:2311:A:H2'	24:BA:2312:U:H6	1.71	0.53
2:AE:164:VAL:CG1	2:AE:165:VAL:N	2.71	0.53
24:BA:1179:C:C3'	24:BA:1180:C:C5'	2.87	0.53
22:AD:19:G:H22	24:BA:2169:A:N6	2.06	0.53
20:AW:100:ILE:O	20:AW:102:GLY:N	2.40	0.53
44:DV:125:LEU:C	44:DV:164:ALA:HB3	2.29	0.53
28:BF:165:ARG:CB	28:BF:165:ARG:NH1	2.70	0.53
30:DH:12:PRO:O	30:DH:13:LYS:HB2	2.07	0.53
1:AA:1072:G:H2'	1:AA:1073:U:H6	1.70	0.53
40:D2:66:ARG:CB	40:D2:66:ARG:HH11	2.20	0.53
48:DX:56:VAL:CG1	48:DX:57:GLU:H	2.20	0.53
8:CK:20:TYR:HD1	8:CK:65:TYR:HD2	1.55	0.53
10:CM:16:LEU:O	10:CM:20:ALA:HB2	2.08	0.53
1:CA:1190:G:OP1	3:CF:5:ILE:HG23	2.08	0.53
24:BA:1314:C:C6	24:BA:1314:C:H5'	2.43	0.53
4:CG:120:LEU:HD22	4:CG:125:HIS:CB	2.38	0.53
1:AA:706:A:C4'	11:AN:29:ILE:HD11	2.38	0.53
1:CA:456:C:H2'	1:CA:457:C:H6	1.74	0.53
10:CM:101:VAL:HG22	10:CM:101:VAL:O	2.07	0.53
54:DA:1035:U:OP1	30:DH:59:ARG:HD2	2.08	0.53
6:AI:63:TYR:N	6:AI:63:TYR:CD2	2.76	0.53
28:DF:31:HIS:HB2	34:DO:9:ASN:HD22	1.72	0.53
1:CA:838:G:C5	1:CA:842:C:H1'	2.43	0.53
54:DA:445:C:H2'	54:DA:446:G:O4'	2.08	0.53
54:DA:528:A:C2	54:DA:2043:C:H4'	2.42	0.53
19:AV:53:ASN:CB	19:AV:77:THR:HG22	2.38	0.53
1:AA:274:A:H4'	1:AA:275:G:OP1	2.07	0.53
54:DA:1972:A:H2'	54:DA:1973:G:C8	2.43	0.53
1:CA:1095:U:P	1:CA:1108:G:H1	2.31	0.53
33:DN:68:GLU:HA	33:DN:78:ARG:HB3	1.89	0.53
17:CT:33:GLY:O	17:CT:34:LYS:O	2.25	0.53
41:BS:34:ASN:O	41:BS:35:ILE:C	2.44	0.53
54:DA:1829:A:H2'	54:DA:1830:C:H5'	1.90	0.53
24:BA:2124:G:H2'	24:BA:2125:G:H5'	1.90	0.53
54:DA:2098:U:H2'	54:DA:2099:U:C6	2.44	0.53
20:AW:14:LYS:O	20:AW:18:GLN:HG3	2.07	0.53
35:BP:22:LYS:HE3	35:BP:22:LYS:C	2.29	0.53
38:DR:88:ILE:C	38:DR:88:ILE:HD12	2.29	0.53
24:BA:1444(A):A:H2'	24:BA:1444(A):A:N3	2.23	0.53
42:DT:5:TYR:HE2	47:DW:30:ARG:HH11	1.56	0.53
1:CA:878:G:H5'	8:CK:89:PRO:HG2	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AG:53:ASP:O	4:AG:57:ARG:NH1	2.41	0.53
54:DA:270(T):G:OP1	46:DZ:97:LEU:HD22	2.08	0.53
54:DA:728:G:H4'	26:DD:13:ARG:HD2	1.90	0.53
1:CA:971:G:H22	1:CA:1363:A:P	2.31	0.53
11:AN:124:LYS:HZ2	11:AN:125:PHE:HE1	1.55	0.53
2:AE:42:ILE:HD12	2:AE:202:PRO:HB2	1.91	0.53
2:AE:61:LEU:CD2	2:AE:68:ILE:HG13	2.38	0.53
27:BE:47:VAL:HG23	27:BE:84:PHE:O	2.08	0.53
27:BE:77:ILE:C	27:BE:78:LEU:HD23	2.29	0.53
1:CA:175:C:O2'	1:CA:176:C:H5'	2.08	0.53
53:B8:60:LEU:C	53:B8:61:LEU:HG	2.28	0.53
1:AA:1116:C:C3'	1:AA:1117:G:H5''	2.38	0.53
49:D4:37:SER:C	49:D4:39:CYS:N	2.62	0.53
54:DA:389:G:C6	34:DO:70:GLN:HB3	2.44	0.53
1:CA:939:G:H2'	1:CA:940:C:C6	2.43	0.53
12:CO:42:THR:HA	12:CO:53:ARG:O	2.08	0.53
4:AG:145:GLU:HG3	4:AG:184:LYS:NZ	2.22	0.53
54:DA:2345:G:O2'	54:DA:2381:C:H2'	2.07	0.53
20:AW:23:ARG:HA	20:AW:26:ASN:HD21	1.73	0.53
24:BA:2864:G:H2'	24:BA:2865:U:O4'	2.08	0.53
17:AT:68:ARG:HH11	17:AT:68:ARG:HG2	1.74	0.53
26:BD:267:SER:C	26:BD:269:PHE:N	2.62	0.53
53:B8:10:ALA:C	53:B8:12:LYS:H	2.11	0.53
54:DA:2114:A:N6	54:DA:2119:A:H62	2.06	0.53
24:BA:1022:G:H22	24:BA:1142(A):A:H2	1.55	0.53
24:BA:1019:U:H3	24:BA:1142(A):A:N6	2.04	0.53
54:DA:270(C):C:O2'	54:DA:270(D):C:H5'	2.07	0.53
35:BP:58:PHE:C	35:BP:59:ARG:HD2	2.28	0.53
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.43	0.53
31:BK:136:VAL:HG13	31:BK:136:VAL:O	2.08	0.53
32:BM:23:LEU:HA	32:BM:60:ILE:HG21	1.90	0.53
54:DA:2543:G:H5'	54:DA:2543:G:H8	1.73	0.53
1:CA:108:G:C2	1:CA:109:A:N1	2.76	0.53
31:BK:49:ALA:O	31:BK:53:ALA:HB2	2.07	0.53
51:B6:28:ARG:NH2	51:B6:30:THR:HG23	2.22	0.53
1:AA:988:G:H2'	1:AA:989:C:O4'	2.08	0.53
27:BE:24:THR:HG21	27:BE:186:GLY:O	2.08	0.53
6:CI:89:MET:O	6:CI:89:MET:HG2	2.09	0.53
9:CL:47:LEU:HB3	9:CL:50:LEU:HD12	1.90	0.53
22:AC:1:C:C2'	22:AC:2:G:OP2	2.55	0.53
24:BA:714:U:O2	24:BA:716:A:C8	2.60	0.53
40:B2:83:ARG:CD	40:B2:83:ARG:N	2.71	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1067:A:O2'	1:CA:1068:G:C8	2.61	0.53
7:CJ:85:TYR:HE1	7:CJ:154:TYR:HE1	1.56	0.53
54:DA:2139:C:H2'	54:DA:2140:C:O4'	2.08	0.53
54:DA:2137:C:O2	54:DA:2137:C:H2'	2.07	0.53
1:CA:341:C:H2'	1:CA:342:C:H6	1.74	0.53
44:BV:6:LYS:O	44:BV:7:ALA:HB2	2.08	0.53
25:BB:10:C:N4	25:BB:11:C:N4	2.56	0.53
24:BA:1904:G:H2'	24:BA:1905:C:O4'	2.09	0.53
24:BA:1012:U:O2	32:BM:25:ARG:NH1	2.40	0.53
24:BA:128:C:H2'	24:BA:129:C:O5'	2.08	0.53
40:D2:45:THR:HG22	40:D2:45:THR:O	2.08	0.53
40:B2:67:GLY:O	40:B2:88:ARG:HD2	2.08	0.53
4:AG:199:ASN:O	4:AG:200:GLU:HG2	2.07	0.53
46:DZ:87:PRO:O	46:DZ:91:LYS:N	2.31	0.53
1:AA:1310:G:H2'	1:AA:1311:G:O4'	2.09	0.53
1:AA:1234:C:C4'	1:AA:1364:U:O2'	2.55	0.53
54:DA:2638:G:P	27:DE:82:ARG:NH2	2.82	0.53
49:D4:56:VAL:HA	49:D4:60:GLN:CB	2.28	0.53
24:BA:270(A):A:H5"	46:BZ:97:LEU:CD2	2.36	0.53
3:AF:112:SER:O	3:AF:116:VAL:HG23	2.08	0.53
2:AE:162:ILE:HD13	2:AE:177:ALA:CB	2.37	0.53
51:D6:11:LEU:CD1	51:D6:51:GLU:HG3	2.39	0.53
54:DA:2391:G:OP2	53:D8:32:LEU:HD13	2.09	0.53
24:BA:2289:G:H2'	24:BA:2289:G:N3	2.23	0.53
21:CX:14:TRP:CZ3	21:CX:15:ARG:HD3	2.43	0.53
44:DV:52:SER:C	44:DV:53:ILE:HG13	2.29	0.53
38:DR:110:ILE:HG23	38:DR:111:ARG:N	2.24	0.53
54:DA:879:G:H2'	54:DA:880:G:O4'	2.08	0.53
24:BA:1471:A:C2	24:BA:1472:A:C8	2.96	0.53
24:BA:817:C:H2'	24:BA:818:G:O4'	2.08	0.53
51:D6:13:CYS:O	51:D6:14:THR:HB	2.08	0.53
26:DD:25:THR:HG21	26:DD:81:ALA:CB	2.38	0.53
43:BU:50:ARG:HG2	43:BU:53:PRO:HG3	1.90	0.53
54:DA:1930:G:C2'	54:DA:1931:U:OP2	2.55	0.53
1:AA:1399:C:C2	1:AA:1502:A:N6	2.77	0.53
5:AH:26:PHE:CD1	5:AH:26:PHE:N	2.75	0.53
60:DA:2902:U:O4'	59:DA:2923:C:H1'	2.09	0.53
7:AJ:155:ARG:O	7:AJ:156:TRP:CB	2.56	0.53
54:DA:2161:C:C2'	54:DA:2162:G:H5'	2.38	0.53
11:AN:10:VAL:O	11:AN:11:LYS:CB	2.57	0.53
1:AA:753:A:H4'	1:AA:754:C:H5"	1.88	0.53
22:CD:69:C:O2'	22:CD:70:G:H5'	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:D7:10:ARG:NH1	52:D7:14:LYS:HE3	2.23	0.53
44:DV:94:GLU:CB	44:DV:130:PRO:CD	2.86	0.53
1:CA:1158:C:C2	1:CA:1160:G:N7	2.76	0.53
54:DA:2019:A:C2'	54:DA:2020:A:O5'	2.55	0.53
27:BE:110:GLY:O	36:B0:3:HIS:NE2	2.41	0.53
54:DA:701:G:C3'	54:DA:702:G:H5''	2.39	0.53
46:BZ:53:VAL:CG2	46:BZ:58:ILE:HD12	2.38	0.53
2:AE:213:LEU:O	2:AE:213:LEU:HD23	2.07	0.53
36:B0:21:TYR:CZ	36:B0:43:GLU:HG2	2.43	0.53
13:CP:39:ILE:HD11	13:CP:56:LEU:HB2	1.90	0.53
1:CA:465:A:N7	1:CA:467:G:O6	2.42	0.53
26:BD:200:ASP:O	26:BD:201:HIS:C	2.47	0.53
13:AP:35:GLU:HG3	13:AP:36:LYS:H	1.71	0.53
16:AS:20:VAL:CG2	16:AS:32:TYR:HB3	2.39	0.53
50:D5:16:ARG:NH1	50:D5:17:ASP:OD1	2.41	0.53
1:AA:280:C:H4'	1:AA:281:G:OP2	2.07	0.53
54:DA:2776:A:H4'	54:DA:2777:G:C5'	2.39	0.53
1:CA:626:U:H5''	16:CS:38:TYR:CD2	2.44	0.53
4:AG:165:MET:HE1	4:AG:168:ARG:HB2	1.91	0.53
7:AJ:66:VAL:HG12	7:AJ:70:LYS:HE3	1.90	0.53
54:DA:2649:U:H2'	54:DA:2650:U:C6	2.43	0.53
24:BA:902:C:O2'	24:BA:903:C:H5'	2.07	0.53
1:CA:601:C:O2'	1:CA:602:A:H5'	2.08	0.53
24:BA:1889:A:N1	24:BA:2234:G:H1'	2.23	0.53
54:DA:1831:G:H2'	54:DA:1832:C:H6	1.73	0.53
1:CA:1098:C:O2'	1:CA:1099:G:H5'	2.08	0.53
24:BA:1082:U:H3'	24:BA:1082:U:C6	2.43	0.53
1:AA:1453:G:C8	20:AW:39:LYS:HE3	2.44	0.53
25:BB:40:U:N3	25:BB:43:C:H5''	2.22	0.53
24:BA:1827:C:H2'	24:BA:1828:G:O4'	2.08	0.53
19:AV:7:LYS:CE	19:AV:8:GLY:N	2.71	0.53
54:DA:278:A:H8	54:DA:278:A:H5'	1.72	0.53
54:DA:2636:U:P	27:DE:79:ARG:HA	2.48	0.53
54:DA:2750:A:O2'	54:DA:2751:G:OP1	2.22	0.53
28:BF:24:LEU:O	28:BF:25:PRO:O	2.26	0.53
2:AE:216:SER:C	2:AE:218:ALA:H	2.11	0.53
24:BA:686:G:H5'	52:B7:11:LYS:HE2	1.89	0.53
24:BA:2776:A:H3'	24:BA:2776:A:OP1	2.07	0.53
27:BE:66:HIS:C	27:BE:68:ALA:N	2.61	0.53
28:BF:62:ARG:HH21	28:BF:64:ILE:HA	1.74	0.53
5:AH:92:LYS:HE3	8:AK:102:ARG:HH22	1.73	0.53
44:BV:48:PHE:CE2	44:BV:52:SER:HA	2.43	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BF:5:ALA:CB	28:BF:125:LEU:HD21	2.38	0.53
40:B2:77:ALA:C	40:B2:78:LYS:HG2	2.29	0.53
40:B2:76:LYS:HB2	40:B2:79:VAL:CG2	2.38	0.53
12:AO:117:ARG:CZ	12:AO:124:LYS:HA	2.39	0.53
34:BO:52:GLU:HG2	34:BO:55:ARG:O	2.08	0.53
1:CA:346:G:H5''	38:DR:41:ARG:NH1	2.24	0.53
47:BW:33:MET:O	47:BW:37:PHE:HD1	1.91	0.53
54:DA:1212:G:HO2'	54:DA:1213:A:P	2.31	0.53
26:BD:109:ASP:HB2	26:BD:196:VAL:O	2.08	0.53
34:DO:88:LEU:HD23	34:DO:89:ALA:N	2.24	0.53
7:AJ:3:ARG:O	7:AJ:3:ARG:HG3	2.08	0.53
1:AA:129(A):G:N1	1:AA:188:U:H4'	2.22	0.53
54:DA:783:A:C3'	54:DA:783:A:C8	2.91	0.53
54:DA:783:A:H3'	54:DA:783:A:C8	2.43	0.53
1:CA:1186:G:O3'	9:CL:113:LYS:NZ	2.37	0.53
40:D2:81:TYR:C	40:D2:82:ARG:HG3	2.27	0.53
13:CP:34:LEU:CD1	13:CP:41:PRO:HG3	2.38	0.53
22:CD:70:G:H2'	22:CD:71:C:H5'	1.90	0.53
2:AE:101:MET:HA	2:AE:108:ILE:HG21	1.89	0.53
2:AE:98:LEU:HB2	2:AE:101:MET:HE1	1.90	0.53
40:D2:22:VAL:CG1	40:D2:23:GLU:N	2.71	0.53
4:CG:173:TRP:CD1	4:CG:174:LEU:HG	2.44	0.53
54:DA:1007:C:H5''	32:DM:35:ARG:NH1	2.24	0.53
7:CJ:113:GLU:HB2	7:CJ:119:ARG:CG	2.35	0.53
54:DA:94:G:N3	47:DW:47:ASN:OD1	2.41	0.53
24:BA:2109:U:H2'	24:BA:2110:G:H8	1.73	0.53
1:AA:1277:C:O2'	1:AA:1279:A:H1'	2.08	0.53
6:AI:52:ILE:O	6:AI:53:ALA:HB3	2.07	0.53
2:AE:229:VAL:O	2:AE:231:GLU:N	2.41	0.53
34:BO:11:GLY:O	34:BO:12:ALA:CB	2.56	0.53
24:BA:1678:G:H22	24:BA:1989:G:H1	1.55	0.53
4:AG:172:PRO:O	4:AG:186:LEU:HD12	2.08	0.53
54:DA:1786:A:C2	54:DA:2606:C:H1'	2.42	0.53
2:CE:24:TRP:CE2	2:CE:26:PRO:HD3	2.43	0.53
1:CA:313:A:H2'	1:CA:314:C:C6	2.44	0.53
1:AA:507:C:H2'	1:AA:508:C:C5	2.43	0.53
54:DA:2673:G:O2'	54:DA:2674:G:H5'	2.09	0.53
41:DS:28:SER:HB3	41:DS:31:GLU:HB2	1.91	0.53
24:BA:2572:A:OP1	27:BE:144:ARG:HB2	2.08	0.53
24:BA:236:C:O2'	24:BA:431:U:H4'	2.08	0.53
54:DA:1516:U:H2'	54:DA:1517:G:C8	2.43	0.53
43:DU:5:MET:HE1	43:DU:32:PRO:HB3	1.91	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1385:G:O2'	1:AA:1386:G:H5'	2.08	0.53
54:DA:989:G:N7	48:DX:13:ILE:HD11	2.23	0.53
36:B0:12:ARG:HD3	36:B0:16:HIS:ND1	2.22	0.53
24:BA:2016:U:H1'	50:B5:6:VAL:HG13	1.91	0.53
4:CG:14:ARG:HD3	4:CG:14:ARG:O	2.09	0.53
1:CA:546:G:P	4:CG:72:GLU:HB3	2.49	0.53
13:AP:63:THR:HG22	13:AP:64:TRP:N	2.23	0.53
24:BA:2758:A:C3'	24:BA:2759:G:H5''	2.39	0.53
31:BK:124:GLY:O	31:BK:141:LYS:HA	2.09	0.53
1:AA:1311:G:N2	1:AA:1327:C:C2	2.77	0.53
13:AP:87:TYR:CE1	13:AP:91:ARG:HD3	2.43	0.53
49:B4:55:ARG:HG2	49:B4:56:VAL:N	2.24	0.53
53:D8:58:ILE:O	53:D8:61:LEU:HG	2.08	0.53
30:BH:17:VAL:CG1	30:BH:18:GLU:H	2.13	0.53
30:BH:44:VAL:HG22	30:BH:51:ARG:HD3	1.90	0.53
54:DA:481:G:OP2	43:DU:47:LYS:HG3	2.09	0.53
34:BO:112:LEU:H	34:BO:128:HIS:HD2	1.52	0.53
1:CA:1054:C:O2'	1:CA:1055:A:H5''	2.09	0.53
1:CA:1233:G:H2'	1:CA:1234:C:H6	1.73	0.53
1:CA:960:U:H2'	1:CA:960:U:O2	2.07	0.53
19:CV:63:THR:O	19:CV:66:MET:HG2	2.09	0.53
49:D4:49:PHE:N	49:D4:49:PHE:CD1	2.76	0.53
25:BB:56:G:OP1	29:BG:27:ASN:ND2	2.42	0.53
3:AF:119:ARG:HD3	3:AF:123:GLN:NE2	2.23	0.53
3:AF:119:ARG:NH2	3:AF:140:ARG:HD2	2.23	0.53
3:AF:47:LEU:CD2	3:AF:52:LEU:HD13	2.38	0.53
1:CA:95:G:H2'	1:CA:96:G:C5'	2.38	0.53
24:BA:2656:U:C5	24:BA:2664:G:N2	2.67	0.53
24:BA:2061:G:O2'	24:BA:2062:A:P	2.66	0.53
1:AA:353:A:H8	1:AA:353:A:C5'	2.12	0.53
1:AA:1158:C:N3	1:AA:1160:G:N7	2.57	0.53
31:DK:56:LYS:HG3	31:DK:57:ARG:N	2.23	0.53
1:AA:501:C:H2'	1:AA:502:G:H8	1.72	0.53
34:DO:64:LYS:HG3	53:D8:25:MET:SD	2.48	0.53
40:D2:41:GLY:HA3	40:D2:46:VAL:CG1	2.38	0.53
23:A1:22:A:H5'	23:A1:23:A:OP2	2.09	0.53
1:AA:1206:G:O2'	3:AF:193:TYR:HA	2.09	0.53
1:CA:450:G:N7	1:CA:481:G:N1	2.56	0.53
22:CD:76:A:O2'	54:DA:2394:C:N3	2.37	0.53
1:CA:566:G:C4'	1:CA:567:G:OP1	2.55	0.53
1:AA:1024:G:H2'	1:AA:1024:G:N3	2.24	0.53
24:BA:1021:A:H8	24:BA:1021:A:H3'	1.74	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DG:139:LEU:HD22	29:DG:146:TYR:HD1	1.73	0.53
38:BR:102:ILE:HB	38:BR:110:ILE:HD11	1.91	0.53
24:BA:1689:A:H62	24:BA:1698:A:H2	1.56	0.53
1:CA:1153:C:C2	1:CA:1154:G:C8	2.96	0.53
11:CN:125:PHE:HD1	11:CN:125:PHE:N	2.05	0.53
13:AP:73:GLU:HG3	49:B4:52:THR:CG2	2.35	0.53
9:CL:28:VAL:HG13	9:CL:63:ILE:HG21	1.90	0.53
11:AN:38:ASN:N	11:AN:38:ASN:HD22	2.06	0.53
1:CA:828:A:N6	1:CA:858:G:O2'	2.41	0.53
1:CA:828:A:H5''	1:CA:859:A:C2	2.44	0.53
24:BA:671:C:O2'	24:BA:672:C:C5'	2.54	0.53
24:BA:565:C:H4'	24:BA:1253:A:C6	2.43	0.53
4:CG:23:GLY:HA3	4:CG:112:VAL:CG2	2.38	0.53
12:AO:33:ARG:HG2	12:AO:60:LEU:HD12	1.89	0.53
6:AI:50:TYR:CE1	18:AU:77:GLY:HA2	2.44	0.53
29:BG:160:VAL:HG12	29:BG:161:THR:H	1.70	0.53
24:BA:458:G:C2'	24:BA:459:U:OP2	2.57	0.53
30:DH:59:ARG:CG	30:DH:59:ARG:HH11	2.20	0.53
27:BE:8:LYS:O	27:BE:8:LYS:HG3	2.08	0.53
29:DG:121:ASN:HD22	29:DG:122:PRO:N	2.06	0.53
31:DK:76:THR:HG23	31:DK:139:GLN:O	2.08	0.53
17:CT:11:VAL:HG22	17:CT:20:THR:O	2.09	0.53
9:CL:4:TYR:CE2	9:CL:88:TYR:HB2	2.44	0.53
54:DA:2249:U:H4'	54:DA:2275:C:C5	2.44	0.53
1:AA:1386:G:C2	1:AA:1387:G:C8	2.97	0.53
1:CA:1179:A:O3'	9:CL:103:THR:HG23	2.09	0.53
12:CO:83:VAL:CG2	12:CO:100:ILE:HG23	2.38	0.53
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.08	0.53
24:BA:2121:G:H2'	24:BA:2122:U:C6	2.43	0.53
4:AG:60:GLU:OE2	4:AG:199:ASN:N	2.41	0.53
24:BA:1451:C:O2'	24:BA:1457:A:N6	2.41	0.53
24:BA:271(B):G:H4'	24:BA:271(C):U:H5''	1.89	0.53
32:DM:137:LYS:HG3	32:DM:138:LEU:N	2.23	0.53
36:B0:84:ALA:HB3	36:B0:85:PRO:HD3	1.91	0.53
28:BF:162:LEU:HD12	28:BF:162:LEU:N	2.24	0.53
48:BX:29:ARG:HH11	48:BX:29:ARG:HG3	1.73	0.53
24:BA:2343:C:HO2'	24:BA:2373:G:HO2'	1.52	0.53
25:BB:44:G:C5	49:B4:1:MET:SD	3.02	0.53
3:AF:11:ARG:HH21	3:AF:180:ALA:HB3	1.72	0.53
1:AA:1248:A:H2'	9:AL:70:LYS:NZ	2.22	0.53
30:BH:6:ARG:O	30:BH:65:HIS:HE1	1.91	0.53
24:BA:1205:U:H4'	24:BA:1206:G:OP2	2.07	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CV:7:LYS:HG3	19:CV:8:GLY:N	2.22	0.53
54:DA:2702:U:OP1	54:DA:2702:U:O4'	2.27	0.53
26:DD:35:LYS:CG	26:DD:64:ILE:H	2.14	0.53
42:BT:55:ASN:HB2	42:BT:80:ILE:HG12	1.90	0.53
2:AE:36:ARG:H	2:AE:41:ILE:CD1	2.22	0.53
51:D6:9:LEU:HD13	51:D6:26:ASN:ND2	2.24	0.53
1:CA:1036:G:H3'	1:CA:1037:C:C5	2.43	0.53
4:AG:16:GLY:HA2	4:AG:33:MET:CE	2.39	0.53
37:DQ:74:ALA:HB1	37:DQ:107:GLU:HB3	1.89	0.53
31:DK:78:THR:HG22	31:DK:141:LYS:CD	2.27	0.53
44:BV:117:LEU:C	44:BV:118:GLN:NE2	2.62	0.53
44:BV:52:SER:O	44:BV:54:HIS:N	2.41	0.53
35:DP:29:PHE:N	35:DP:105:GLU:OE2	2.41	0.53
35:BP:98:LYS:HB3	35:BP:99:PRO:HD2	1.91	0.53
49:D4:37:SER:HB3	49:D4:42:PHE:CD1	2.43	0.53
55:DB:8:U:C5'	55:DB:8:U:C6	2.87	0.53
38:DR:3:ARG:HG3	38:DR:7:ILE:CG1	2.36	0.53
47:BW:46:GLN:C	47:BW:49:LYS:HZ2	2.12	0.53
33:DN:2:ILE:N	33:DN:2:ILE:HD12	2.23	0.53
23:A1:22:A:H3'	23:A1:23:A:C5'	2.31	0.53
1:AA:1205:U:H1'	3:AF:195:VAL:HG23	1.90	0.53
1:AA:531:U:C5'	1:AA:532:A:OP1	2.56	0.53
5:CH:137:GLU:OE1	5:CH:141:GLN:NE2	2.42	0.53
3:AF:23:TYR:CD2	10:AM:10:GLY:HA2	2.42	0.53
1:AA:1003:G:H2'	1:AA:1004:A:C5'	2.39	0.53
43:BU:83:THR:HG22	43:BU:85:VAL:CG2	2.32	0.53
44:BV:121:HIS:H	44:BV:171:ILE:HG12	1.73	0.53
24:BA:2119:A:N6	24:BA:2170:A:C5	2.77	0.53
30:DH:12:PRO:HG3	30:DH:48:GLY:O	2.09	0.53
24:BA:1278:A:O2'	24:BA:1279:G:H5'	2.09	0.53
42:DT:60:ARG:NH1	52:D7:47:ARG:HH22	2.07	0.53
37:DQ:56:LEU:O	37:DQ:58:LEU:HD22	2.09	0.53
28:DF:179:GLU:CD	28:DF:179:GLU:H	2.11	0.53
32:BM:55:VAL:HB	32:BM:126:PRO:CA	2.36	0.53
11:AN:37:GLY:O	11:AN:39:PRO:HD3	2.09	0.53
45:B3:51:VAL:N	45:B3:62:LEU:HD12	2.24	0.53
32:DM:70:LYS:C	32:DM:71:ILE:HD13	2.28	0.53
9:CL:53:VAL:CB	9:CL:95:LYS:HE3	2.36	0.53
24:BA:2046:G:C4	24:BA:2047:U:C5	2.95	0.53
24:BA:849:A:H2	48:BX:24:LYS:HB3	1.74	0.53
24:BA:1098:A:H3'	24:BA:1099:G:H5'	1.90	0.53
34:BO:14:LYS:O	34:BO:16:ARG:HG2	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:121:PRO:HB3	26:BD:135:PHE:CE1	2.43	0.53
2:AE:168:THR:HA	2:AE:171:ALA:HB2	1.91	0.53
45:D3:11:ARG:HH11	45:D3:11:ARG:CG	2.21	0.53
44:BV:127:LYS:HB3	44:BV:162:GLU:CG	2.39	0.53
1:CA:713:G:N2	1:CA:777:A:C1'	2.69	0.53
1:AA:10:A:H2'	1:AA:11:G:C8	2.43	0.53
1:AA:645:C:O2'	1:AA:646:U:H5'	2.09	0.53
44:DV:4:ARG:NH1	44:DV:4:ARG:HG2	2.24	0.53
1:AA:913:A:O2'	1:AA:914:A:OP2	2.24	0.53
1:AA:210:U:O2'	1:AA:216:G:O4'	2.26	0.53
1:AA:748:C:O2'	1:AA:749:C:P	2.67	0.53
24:BA:1491:G:H5'	26:BD:99:ASP:OD1	2.09	0.53
49:B4:47:GLN:O	49:B4:49:PHE:N	2.41	0.53
16:AS:74:LEU:O	16:AS:79:VAL:HG23	2.08	0.53
54:DA:1567:A:H5'	26:DD:58:HIS:CD2	2.43	0.53
54:DA:972:G:H2'	54:DA:973:A:C8	2.44	0.53
54:DA:1788:C:OP1	26:DD:222:ARG:NH2	2.38	0.53
24:BA:1641:A:H2'	24:BA:1642:G:O4'	2.08	0.53
41:BS:56:ALA:O	41:BS:60:ASN:HB3	2.09	0.53
24:BA:2247:A:H2'	24:BA:2248:C:C6	2.43	0.53
41:DS:43:GLY:O	41:DS:44:ALA:C	2.46	0.53
6:CI:78:GLU:OE2	6:CI:81:ILE:HD12	2.08	0.53
24:BA:1833:U:O2	24:BA:1969:A:H2	1.92	0.53
7:AJ:17:VAL:O	7:AJ:17:VAL:HG12	2.07	0.53
7:CJ:95:ARG:CZ	7:CJ:99:LEU:HD11	2.38	0.53
1:AA:1313:U:P	19:AV:6:LYS:HD3	2.49	0.53
1:AA:973:G:H1'	10:AM:55:LYS:CG	2.39	0.53
1:AA:1126:U:O2'	1:AA:1127:G:OP2	2.21	0.53
54:DA:583:G:OP2	39:D1:10:ARG:NH1	2.42	0.53
24:BA:1045:A:H1'	24:BA:1047:G:C8	2.44	0.53
30:BH:2:SER:O	30:BH:3:ARG:HG3	2.08	0.53
30:BH:51:ARG:HG3	30:BH:51:ARG:NH1	2.24	0.53
43:BU:72:VAL:O	43:BU:73:ARG:HB2	2.09	0.53
54:DA:498:G:N2	54:DA:506:G:O6	2.32	0.53
1:CA:1320:C:C2	19:CV:72:GLY:HA3	2.43	0.53
13:CP:81:LEU:HD13	13:CP:88:ARG:HD2	1.91	0.53
2:CE:75:LYS:HD3	2:CE:75:LYS:C	2.28	0.53
34:DO:79:ARG:HD3	34:DO:110:TYR:CE1	2.43	0.53
3:AF:83:ARG:HA	3:AF:87:LEU:HG	1.91	0.53
41:BS:29:LEU:O	41:BS:29:LEU:HD12	2.09	0.53
24:BA:9:U:H5'	32:BM:115:ARG:NH2	2.22	0.53
26:BD:26:LYS:N	26:BD:26:LYS:HD2	2.23	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:D2:48:GLY:O	40:D2:49:THR:O	2.26	0.53
22:AD:6:G:O2'	22:AD:7:G:H8	1.92	0.53
24:BA:241:A:O2'	24:BA:242:G:P	2.67	0.53
36:D0:1:MET:O	36:D0:2:ARG:HG3	2.08	0.53
1:AA:663:A:H2'	1:AA:664:G:O4'	2.09	0.53
1:CA:1126:U:C1'	1:CA:1280:A:H62	2.21	0.53
4:CG:13:ARG:HD2	4:CG:38:TYR:O	2.09	0.53
1:CA:497:U:H2'	1:CA:497:U:O2	2.09	0.53
44:BV:91:LEU:HD23	44:BV:91:LEU:N	2.09	0.53
24:BA:196:A:H61	24:BA:831:G:H21	1.54	0.53
43:BU:50:ARG:CB	43:BU:53:PRO:HG3	2.39	0.53
24:BA:90:U:H2'	24:BA:91:A:H5''	1.90	0.53
27:BE:154:LYS:HE3	27:BE:154:LYS:CA	2.35	0.53
32:BM:45:ASN:H	32:BM:45:ASN:ND2	2.00	0.53
37:DQ:10:ARG:O	37:DQ:14:VAL:HG12	2.09	0.53
35:BP:134:ARG:HH11	35:BP:134:ARG:HG2	1.73	0.53
24:BA:2127:G:H2'	24:BA:2128:C:C4'	2.39	0.53
24:BA:2130:U:H1'	24:BA:2133:G:O2'	2.09	0.53
33:BN:78:ARG:NH2	38:BR:73:GLU:OE2	2.41	0.53
24:BA:1069:A:O2'	24:BA:1072:C:OP1	2.24	0.53
29:DG:125:PHE:C	29:DG:127:GLY:H	2.12	0.53
4:CG:79:PHE:CE2	4:CG:83:SER:HB2	2.43	0.53
1:AA:1020:U:C2'	1:AA:1021:G:H5''	2.39	0.53
28:BF:182:ASN:O	28:BF:186:ILE:HG12	2.08	0.53
1:AA:707:C:H2'	1:AA:708:C:H6	1.72	0.53
26:DD:77:ALA:HB2	26:DD:97:TYR:CG	2.44	0.53
1:AA:39:G:N7	1:AA:547:A:C8	2.77	0.53
1:AA:345:C:H5'	38:BR:41:ARG:CZ	2.38	0.53
54:DA:270(K):C:O2'	54:DA:270(L):U:H6	1.92	0.53
4:CG:172:PRO:HB2	4:CG:193:ASP:OD2	2.08	0.53
6:AI:63:TYR:O	6:AI:65:VAL:HG13	2.08	0.53
4:AG:173:TRP:HZ3	4:AG:193:ASP:HB3	1.74	0.53
22:AD:12:G:H2'	22:AD:13:C:OP1	2.08	0.53
43:BU:101:LYS:O	43:BU:101:LYS:CE	2.57	0.53
1:CA:713:G:H21	1:CA:777:A:H1'	1.72	0.53
2:AE:142:LEU:HD23	2:AE:142:LEU:O	2.09	0.53
1:AA:210:U:O2'	1:AA:216:G:O5'	2.25	0.53
5:CH:87:SER:HB3	5:CH:131:ILE:CD1	2.39	0.53
32:DM:19:GLU:HA	32:DM:59:LYS:HB2	1.91	0.53
49:B4:50:VAL:HG12	49:B4:51:ASP:N	2.24	0.53
16:AS:53:VAL:HG12	16:AS:79:VAL:HG22	1.91	0.53
1:AA:636:U:H2'	1:AA:637:G:H8	1.72	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2142:C:O2'	24:BA:2143:C:H5'	2.09	0.53
1:CA:1293:G:H2'	1:CA:1294:G:C8	2.43	0.53
54:DA:789:A:OP1	54:DA:789:A:H3'	2.09	0.53
35:BP:47:ILE:HG22	35:BP:48:GLU:N	2.24	0.53
54:DA:1750:G:O2'	54:DA:1751:C:H5'	2.08	0.53
27:BE:170:LEU:HD12	27:BE:170:LEU:N	2.24	0.53
1:CA:44:G:H2'	1:CA:45:U:O4'	2.09	0.53
54:DA:270(V):G:O2'	54:DA:270(W):G:H5'	2.08	0.53
8:AK:99:GLU:OE1	8:AK:99:GLU:N	2.41	0.53
54:DA:1850:G:H2'	54:DA:1851:U:O4'	2.09	0.53
30:DH:128:PRO:CD	30:DH:129:THR:N	2.71	0.53
1:AA:1324:A:C4'	1:AA:1362:C:H4'	2.39	0.53
19:AV:67:VAL:HG22	19:AV:68:GLY:N	2.24	0.53
29:BG:114:ILE:CD1	29:BG:140:ILE:HG21	2.38	0.53
43:BU:74:PRO:O	43:BU:80:GLY:HA2	2.09	0.53
30:BH:89:ILE:CG1	30:BH:90:LYS:N	2.71	0.53
19:CV:65:ASN:HA	49:D4:55:ARG:HH11	1.73	0.53
34:DO:125:VAL:HG13	34:DO:125:VAL:O	2.09	0.53
34:DO:125:VAL:O	34:DO:145:PRO:HD2	2.08	0.53
42:BT:14:SER:O	42:BT:17:ALA:N	2.42	0.53
28:BF:26:ALA:C	28:BF:27:GLU:HG2	2.29	0.53
11:AN:125:PHE:H	11:AN:125:PHE:HD1	1.56	0.53
51:D6:7:ILE:CG1	51:D6:8:LYS:H	2.07	0.53
32:BM:112:LEU:HA	32:BM:115:ARG:HB2	1.91	0.53
1:AA:411:A:C4	1:AA:413:G:H1'	2.44	0.53
24:BA:1926:U:O4'	24:BA:1929:G:O6	2.27	0.53
30:BH:152:ARG:C	30:BH:154:PRO:CD	2.77	0.53
30:BH:156:ALA:CB	30:BH:159:GLU:O	2.57	0.53
24:BA:232:G:O2'	24:BA:233:A:H5'	2.08	0.53
54:DA:1538:G:O2'	54:DA:1539:G:H5'	2.08	0.53
50:D5:60:VAL:CG1	50:D5:60:VAL:OXT	2.56	0.53
24:BA:27:G:N2	24:BA:512:G:C2'	2.66	0.53
26:DD:25:THR:CG2	26:DD:81:ALA:HB1	2.38	0.53
38:DR:34:VAL:CG1	38:DR:36:GLU:HG2	2.39	0.53
31:DK:131:LYS:HB3	31:DK:132:PRO:CA	2.38	0.53
1:AA:1343:G:H2'	1:AA:1344:C:O4'	2.09	0.53
29:BG:41:GLN:HB3	29:BG:43:LEU:CD1	2.38	0.53
55:DB:12:C:H2'	45:D3:74:ARG:CG	2.31	0.53
44:DV:57:ILE:N	44:DV:57:ILE:HD12	2.23	0.53
19:CV:27:GLU:O	19:CV:28:LYS:CG	2.53	0.53
30:DH:139:GLN:O	30:DH:143:GLN:HB2	2.09	0.53
35:DP:76:LYS:O	35:DP:88:GLY:HA3	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CD:58:A:H1'	22:CD:60:U:C5	2.44	0.53
30:DH:40:GLU:O	30:DH:41:MET:HB2	2.09	0.53
54:DA:363(F):A:H1'	54:DA:364:C:C5	2.44	0.53
1:CA:965:A:C2	1:CA:969:A:C2	2.97	0.53
24:BA:2646:C:O5'	24:BA:2646:C:H6	1.92	0.53
1:CA:335:C:H2'	1:CA:336:C:H6	1.72	0.53
3:AF:22:TRP:HB2	3:AF:59:ARG:HB2	1.90	0.53
8:CK:100:ILE:CB	8:CK:125:ARG:HH12	2.20	0.53
20:AW:67:ALA:HA	20:AW:73:HIS:H	1.73	0.53
12:AO:79:GLU:C	12:AO:81:SER:H	2.12	0.53
1:AA:174:C:O5'	1:AA:174:C:H6	1.92	0.53
15:CR:62:GLN:N	15:CR:65:ARG:HH12	2.06	0.53
24:BA:548:A:C2'	24:BA:549:G:H5'	2.37	0.53
8:AK:73:ASP:OD2	8:AK:75:ARG:HG3	2.09	0.53
54:DA:55:G:N3	54:DA:127:A:C2	2.77	0.53
3:AF:149:ALA:HA	3:AF:201:TYR:O	2.08	0.53
28:DF:116:ASP:OD1	28:DF:119:ARG:NH2	2.41	0.53
1:AA:366:C:H4'	1:AA:367:U:OP1	2.07	0.53
42:DT:53:LYS:NZ	42:DT:55:ASN:HD21	2.06	0.53
39:D1:39:LEU:O	39:D1:40:PHE:C	2.48	0.53
5:AH:144:THR:OG1	5:AH:146:ALA:HB3	2.09	0.53
24:BA:2729:G:H2'	24:BA:2730:C:H6	1.74	0.53
54:DA:1831:G:H2'	54:DA:1832:C:C6	2.44	0.53
1:AA:1523:G:H2'	1:AA:1524:C:H6	1.74	0.53
54:DA:236:C:H2'	54:DA:237:C:C6	2.44	0.53
24:BA:1039:G:O2'	24:BA:1040:C:H5'	2.08	0.53
1:AA:1208:C:H2'	1:AA:1209:C:H6	1.73	0.53
44:BV:30:ASN:HB3	44:BV:90:VAL:HB	1.90	0.53
54:DA:1292:U:H2'	54:DA:1293:C:C6	2.44	0.53
12:AO:41:ARG:HH12	12:AO:43:VAL:HG12	1.74	0.53
10:AM:24:VAL:O	10:AM:24:VAL:HG12	2.09	0.53
1:CA:1231:G:O2'	1:CA:1232:U:H5'	2.09	0.53
26:BD:246:PRO:HB2	26:BD:255:LYS:HD3	1.91	0.53
1:AA:928:G:O2'	1:AA:1533:C:O2'	2.14	0.53
1:AA:1364:U:C2'	1:AA:1364:U:O2	2.57	0.53
1:AA:975:A:C8	1:AA:1365:G:N2	2.77	0.53
10:AM:60:ARG:HG3	10:AM:61:GLU:N	2.24	0.53
34:BO:114:ILE:O	34:BO:114:ILE:HG12	2.07	0.53
13:CP:76:ALA:O	13:CP:79:LYS:HB3	2.09	0.53
54:DA:2702:U:H2'	54:DA:2702:U:O2	2.08	0.53
41:BS:88:ARG:HB2	41:BS:93:ALA:H	1.73	0.53
2:CE:206:ASP:O	2:CE:207:ALA:HB3	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:109:PRO:HB3	3:AF:115:LEU:HD13	1.90	0.53
27:BE:44:TYR:O	27:BE:45:THR:HB	2.09	0.53
27:BE:46:ALA:HB2	27:BE:82:ARG:HA	1.91	0.53
27:BE:87:GLU:HG3	27:BE:87:GLU:O	2.07	0.53
40:B2:85:LYS:CG	40:B2:87:HIS:H	2.09	0.53
51:B6:42:TRP:CD1	51:B6:44:ARG:NH1	2.75	0.53
4:AG:67:ILE:HG22	4:AG:68:TYR:CD1	2.43	0.53
24:BA:1434:A:H2'	24:BA:1435:G:C8	2.44	0.53
1:CA:173:U:O2'	1:CA:174:C:OP1	2.27	0.53
35:DP:134:ARG:CZ	44:DV:122:ARG:HH22	2.22	0.53
54:DA:1142(A):A:N7	54:DA:1144:G:N7	2.56	0.53
28:BF:122:LYS:O	28:BF:123:LEU:HB3	2.07	0.53
54:DA:1474:C:C3'	54:DA:1475:G:C5'	2.87	0.53
54:DA:2729:G:C1'	27:DE:187:ALA:HB2	2.30	0.53
4:CG:22:LYS:CG	4:CG:26:CYS:SG	2.97	0.53
1:CA:77:C:C2'	1:CA:78:G:H5''	2.28	0.53
17:CT:5:VAL:O	17:CT:6:LEU:HD23	2.09	0.53
5:AH:20:GLN:O	5:AH:21:ALA:C	2.47	0.53
28:BF:79:GLY:HA2	28:BF:86:GLY:HA2	1.91	0.53
7:AJ:3:ARG:C	7:AJ:5:ARG:N	2.59	0.53
31:DK:74:ASN:N	31:DK:74:ASN:HD22	1.94	0.53
1:AA:1381:U:C1'	7:AJ:79:ARG:HH22	2.21	0.53
1:AA:1024:G:H4'	1:AA:1025:U:C5'	2.38	0.53
1:AA:1024:G:H5'	1:AA:1025:U:OP1	2.09	0.53
24:BA:1006:C:H1'	32:BM:106:MET:HE3	1.89	0.53
43:BU:67:LEU:HD12	43:BU:68:HIS:H	1.74	0.53
1:AA:632:A:HO2'	1:AA:633:G:P	2.30	0.53
3:AF:129:ALA:CB	3:AF:132:ARG:CZ	2.86	0.53
27:DE:7:VAL:O	27:DE:196:VAL:HG13	2.09	0.53
40:D2:7:THR:CG2	40:D2:22:VAL:HG11	2.39	0.53
25:BB:81:G:N2	25:BB:82:G:C5	2.77	0.53
36:D0:56:LYS:C	36:D0:58:GLY:N	2.61	0.53
3:CF:78:GLY:HA3	3:CF:83:ARG:CB	2.38	0.53
16:CS:75:ARG:C	16:CS:77:ALA:H	2.11	0.53
41:BS:12:ILE:CG1	41:BS:42:ARG:HH12	2.19	0.53
41:BS:75:TYR:O	41:BS:75:TYR:HD2	1.92	0.53
24:BA:2129:C:H3'	24:BA:2130:U:H5'	1.90	0.53
24:BA:671:C:C2'	24:BA:672:C:O5'	2.57	0.53
24:BA:671:C:OP1	34:BO:42:SER:O	2.27	0.53
3:CF:134:ILE:CG2	3:CF:168:ALA:HB3	2.39	0.53
1:AA:96:G:O2'	1:AA:97:U:H5'	2.09	0.53
27:DE:119:ARG:HD3	27:DE:160:TYR:HB2	1.91	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DF:129:PHE:O	28:DF:142:TRP:CD1	2.62	0.53
15:CR:29:VAL:HG11	15:CR:67:LEU:HD21	1.89	0.53
15:CR:26:GLU:HA	15:CR:81:LEU:HD22	1.91	0.53
24:BA:1821:A:H2'	24:BA:1822:G:C5'	2.39	0.53
44:BV:169:GLU:OE1	44:BV:169:GLU:HA	2.08	0.53
33:BN:104:ARG:NH1	33:BN:104:ARG:HB3	2.21	0.53
28:DF:9:ILE:HD11	28:DF:125:LEU:CG	2.36	0.53
24:BA:662:G:H5''	34:BO:15:ARG:O	2.09	0.53
27:BE:182:LEU:C	27:BE:183:LEU:HD12	2.30	0.53
6:CI:75:LEU:HD21	6:CI:79:LEU:HD11	1.91	0.53
41:DS:8:ARG:HH11	41:DS:8:ARG:HG3	1.73	0.53
22:CD:36:U:O5'	22:CD:36:U:H6	1.91	0.53
1:AA:116:A:H8	1:AA:116:A:O5'	1.91	0.53
18:CU:25:THR:C	18:CU:26:LEU:HD23	2.29	0.53
30:DH:44:VAL:CG2	30:DH:44:VAL:O	2.57	0.53
4:AG:98:GLU:OE2	4:AG:103:ASN:ND2	2.42	0.53
54:DA:1517:G:H2'	54:DA:1518:C:H6	1.74	0.53
24:BA:2402:C:C6	24:BA:2402:C:OP2	2.62	0.53
26:BD:148:GLU:HB2	26:BD:151:LYS:HD2	1.90	0.53
12:AO:59:ARG:HA	12:AO:65:GLU:HA	1.90	0.53
54:DA:1257:C:O2'	28:DF:84:VAL:HG12	2.08	0.53
1:CA:706:A:C2'	1:CA:707:C:H5'	2.39	0.53
1:AA:811:C:H4'	1:AA:900:A:N6	2.23	0.53
24:BA:1758:G:O2'	24:BA:1759:A:OP1	2.18	0.53
1:AA:84:U:O2'	1:AA:85:U:OP1	2.25	0.53
54:DA:2592:G:H2'	54:DA:2593:U:O4'	2.09	0.53
24:BA:1677:A:H8	24:BA:1677:A:O5'	1.92	0.53
31:BK:85:GLU:O	31:BK:123:LEU:HD12	2.09	0.53
31:BK:97:ILE:H	31:BK:97:ILE:HD12	1.74	0.53
1:AA:973:G:H1'	10:AM:55:LYS:HD3	1.90	0.53
30:BH:68:THR:O	30:BH:72:ILE:HG13	2.09	0.53
24:BA:1244:G:C2'	24:BA:1245:G:H5'	2.39	0.53
29:BG:26:GLN:NE2	29:BG:27:ASN:HB2	2.24	0.53
3:CF:51:GLY:O	3:CF:70:VAL:HG13	2.09	0.53
2:AE:162:ILE:CD1	2:AE:184:VAL:HG13	2.39	0.53
51:D6:25:LYS:HE2	51:D6:27:LYS:HE3	1.91	0.53
54:DA:1174:A:H2'	54:DA:1174:A:N3	2.23	0.53
1:CA:1370:G:O2'	1:CA:1371:G:H5'	2.09	0.53
4:AG:16:GLY:O	4:AG:17:VAL:C	2.47	0.53
24:BA:1929:G:C5'	24:BA:1930:G:OP1	2.57	0.53
24:BA:2419:U:O4	53:B8:31:HIS:CE1	2.62	0.53
24:BA:1556:C:H2'	24:BA:1557:C:C6	2.44	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DG:16:ARG:HG2	29:DG:16:ARG:HH11	1.74	0.53
36:D0:70:LEU:O	36:D0:72:ASP:N	2.42	0.53
43:BU:46:LYS:CD	43:BU:63:LYS:HB3	2.39	0.53
30:BH:152:ARG:C	30:BH:154:PRO:HD3	2.29	0.53
54:DA:1543:A:C2'	54:DA:1544:C:OP2	2.57	0.53
29:BG:72:ARG:HG3	29:BG:72:ARG:NH1	2.23	0.53
37:BQ:54:LEU:HD13	37:BQ:54:LEU:O	2.09	0.53
29:DG:179:PRO:HG3	49:D4:38:LYS:HZ1	1.74	0.53
40:D2:35:LEU:HD21	40:D2:57:VAL:CG2	2.30	0.53
47:BW:51:ARG:HA	47:BW:54:LYS:HE3	1.90	0.53
5:AH:50:GLU:CB	5:AH:53:LEU:HD12	2.38	0.53
54:DA:2112:G:O6	54:DA:2169:A:N6	2.42	0.53
10:CM:74:ILE:HD13	10:CM:74:ILE:N	2.16	0.53
54:DA:2756:U:H5''	54:DA:2757:A:OP1	2.09	0.53
33:BN:13:ASN:O	33:BN:15:GLY:N	2.42	0.53
1:AA:1000:A:H2'	1:AA:1001:G:O4'	2.08	0.53
27:DE:7:VAL:CG2	27:DE:8:LYS:H	2.11	0.53
54:DA:2310:A:N6	29:DG:79:ASN:HB2	2.24	0.53
15:CR:7:GLU:O	15:CR:11:VAL:HG23	2.08	0.53
9:AL:48:GLU:HB3	9:AL:101:PHE:CE2	2.41	0.53
14:CQ:40:CYS:H	14:CQ:43:CYS:CB	2.22	0.53
32:BM:17:ASP:O	32:BM:18:ALA:CB	2.55	0.53
24:BA:2413:G:N2	34:BO:70:GLN:HE22	2.07	0.53
28:BF:181:LEU:HD21	28:BF:186:ILE:HD11	1.91	0.53
54:DA:1586:A:H3'	54:DA:1587:A:C8	2.37	0.53
24:BA:2712:U:H1'	24:BA:2712(A):A:C8	2.44	0.53
24:BA:320:A:H2'	28:BF:136:THR:OG1	2.09	0.53
19:CV:29:ARG:HD3	19:CV:30:LEU:HD13	1.91	0.53
46:DZ:20:ARG:HG2	46:DZ:20:ARG:NH1	2.24	0.53
28:DF:34:TRP:CH2	34:DO:8:PRO:HB3	2.43	0.53
33:BN:1:MET:CE	33:BN:67:LYS:HG2	2.39	0.53
41:DS:25:ARG:HH11	41:DS:25:ARG:HB2	1.74	0.53
52:B7:22:MET:O	52:B7:28:ARG:NH1	2.42	0.53
54:DA:807:U:OP2	34:DO:41:ARG:NH1	2.41	0.53
15:CR:6:GLU:H	15:CR:6:GLU:CD	2.12	0.53
39:B1:88:ILE:HG13	39:B1:88:ILE:O	2.08	0.53
32:DM:109:LYS:HD2	32:DM:109:LYS:H	1.73	0.53
1:CA:524:G:H2'	1:CA:525:C:C6	2.44	0.53
1:CA:256:U:H2'	1:CA:257:G:O4'	2.09	0.53
22:AC:44:A:O2'	22:AC:45:G:H5'	2.09	0.53
1:AA:571:U:H3'	1:AA:572:A:H5''	1.91	0.53
28:DF:140:LEU:O	28:DF:143:ALA:HB3	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:76:VAL:C	30:DH:78:GLY:H	2.13	0.53
54:DA:852:G:H2'	54:DA:853:G:H8	1.74	0.53
30:DH:89:ILE:O	30:DH:89:ILE:CG1	2.57	0.52
1:AA:1362(A):C:H5'	1:AA:1363:A:O5'	2.09	0.52
3:AF:14:ILE:O	3:AF:15:THR:HB	2.09	0.52
3:AF:15:THR:CG2	3:AF:16:ARG:NH1	2.72	0.52
3:AF:181:ASN:ND2	3:AF:204:LEU:HB3	2.25	0.52
13:AP:99:ARG:O	13:AP:99:ARG:HD3	2.09	0.52
19:AV:6:LYS:CG	19:AV:7:LYS:H	2.22	0.52
44:BV:137:ILE:HG23	44:BV:157:LEU:HD11	1.89	0.52
2:AE:133:LYS:CD	2:AE:137:ARG:HH12	1.96	0.52
44:DV:120:ILE:HD12	44:DV:171:ILE:H	1.74	0.52
24:BA:298:G:OP1	43:BU:84:ARG:O	2.27	0.52
54:DA:483:A:H3'	54:DA:484:C:C6	2.43	0.52
1:CA:1305:G:N2	1:CA:1331:G:C4	2.77	0.52
1:CA:958:A:C6	1:CA:959:A:C6	2.97	0.52
19:CV:65:ASN:H	19:CV:65:ASN:ND2	2.08	0.52
2:CE:188:ALA:HB3	2:CE:200:ILE:CG2	2.40	0.52
26:DD:35:LYS:HD3	26:DD:63:ARG:CA	2.39	0.52
34:DO:147:LEU:O	34:DO:148:LEU:CB	2.57	0.52
27:BE:45:THR:O	27:BE:46:ALA:HB2	2.09	0.52
1:CA:1370:G:O3'	9:CL:12:GLU:HG3	2.08	0.52
53:B8:32:LEU:CD2	53:B8:33:ASN:N	2.72	0.52
40:D2:38:LEU:HD13	40:D2:55:ALA:HB3	1.91	0.52
2:AE:178:ARG:HH22	8:AK:68:ARG:HH12	1.58	0.52
44:BV:111:VAL:CG2	44:BV:145:GLU:HB2	2.39	0.52
54:DA:1653:G:O2'	54:DA:1654:A:OP2	2.26	0.52
10:AM:78:ASN:O	10:AM:82:ILE:HB	2.09	0.52
34:BO:60:MET:C	34:BO:61:ARG:HG2	2.29	0.52
24:BA:60:G:H5''	47:BW:54:LYS:NZ	2.24	0.52
54:DA:1434:A:N6	54:DA:1558:A:H62	1.94	0.52
24:BA:2305:A:H5''	29:BG:134:GLY:HA3	1.90	0.52
24:BA:1799:G:N2	26:BD:155:LEU:HA	2.24	0.52
1:AA:448:A:N6	1:AA:486:U:H3	1.99	0.52
20:CW:30:LYS:HE2	20:CW:72:LEU:HD12	1.92	0.52
1:AA:1024:G:C4'	1:AA:1025:U:OP1	2.57	0.52
1:AA:1024:G:O2'	1:AA:1025:U:H6	1.92	0.52
1:AA:1025:U:C2'	1:AA:1026:G:O4'	2.55	0.52
11:AN:11:LYS:HZ2	24:BA:2144:U:H5	1.57	0.52
9:CL:113:LYS:HD3	9:CL:119:ALA:O	2.09	0.52
33:BN:13:ASN:C	33:BN:15:GLY:N	2.60	0.52
14:CQ:7:ILE:CG1	14:CQ:8:GLU:N	2.72	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AI:69:GLU:N	6:AI:69:GLU:CD	2.62	0.52
45:B3:19:LYS:C	45:B3:20:ARG:HG2	2.30	0.52
11:AN:20:TYR:O	11:AN:30:VAL:HA	2.09	0.52
1:AA:1284:C:H2'	1:AA:1285:A:C8	2.43	0.52
48:DX:6:VAL:HG12	48:DX:56:VAL:HG22	1.91	0.52
24:BA:411:G:H5''	24:BA:412:A:OP1	2.09	0.52
24:BA:2584:U:H3'	24:BA:2584:U:O2	2.09	0.52
1:CA:383:A:C2'	1:CA:384:G:H5'	2.39	0.52
25:BB:78:A:H2'	25:BB:79:C:O4'	2.08	0.52
1:AA:675:A:H2'	1:AA:676:A:C8	2.44	0.52
4:CG:156:GLU:HG2	4:CG:160:GLN:NE2	2.23	0.52
24:BA:1943:U:H5''	24:BA:1944:U:OP1	2.09	0.52
6:CI:69:GLU:C	6:CI:71:ARG:H	2.13	0.52
22:AC:31:G:C4	22:AC:32:C:C5	2.97	0.52
4:AG:128:VAL:C	4:AG:130:GLY:H	2.12	0.52
24:BA:2683:C:OP1	38:BR:53:ARG:NH2	2.42	0.52
20:AW:40:ALA:HB2	20:AW:55:ILE:CG2	2.38	0.52
22:AD:38:A:C2'	22:AD:39:C:H5'	2.39	0.52
54:DA:2093:G:OP1	31:DK:23:PRO:HG2	2.09	0.52
1:CA:508:C:O2'	1:CA:509:A:C8	2.57	0.52
54:DA:2783:G:H2'	54:DA:2784:C:C6	2.43	0.52
24:BA:2318:G:H22	37:BQ:2:ALA:CA	2.22	0.52
5:CH:140:ARG:HB2	5:CH:140:ARG:NH1	2.23	0.52
11:AN:54:ARG:HH11	11:AN:54:ARG:HG3	1.74	0.52
54:DA:1794:U:H1'	54:DA:1900:A:N3	2.24	0.52
1:AA:622:A:C8	1:AA:623:C:C6	2.96	0.52
6:CI:14:LEU:HD22	6:CI:18:GLN:NE2	2.23	0.52
24:BA:262:A:H2'	24:BA:263:C:O4'	2.09	0.52
54:DA:489:G:C5	54:DA:1284:A:C2	2.98	0.52
24:BA:401:A:H2'	24:BA:402:A:O4'	2.09	0.52
54:DA:138:G:H5'	54:DA:138:G:N3	2.24	0.52
24:BA:138:G:O6	24:BA:1596:A:OP1	2.26	0.52
31:BK:123:LEU:HD22	31:BK:143:SER:HB3	1.91	0.52
1:AA:1323:G:H4'	1:AA:1362(A):C:N3	2.23	0.52
54:DA:1065:U:O4	54:DA:1070:A:OP1	2.28	0.52
31:DK:77:LEU:HD12	31:DK:77:LEU:O	2.09	0.52
30:BH:30:LYS:HB3	30:BH:136:ILE:HG23	1.91	0.52
54:DA:482:A:C4'	43:DU:47:LYS:HD2	2.35	0.52
34:BO:98:GLU:CA	34:BO:101:VAL:HG12	2.33	0.52
39:B1:98:LEU:HB2	39:B1:102:GLU:HB2	1.91	0.52
13:CP:87:TYR:CE1	13:CP:91:ARG:HD3	2.44	0.52
3:CF:48:TYR:O	3:CF:51:GLY:N	2.41	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:52:LEU:N	3:AF:52:LEU:HD23	2.23	0.52
1:CA:1131:G:C6	1:CA:1143:G:N2	2.77	0.52
2:AE:69:LEU:CD2	2:AE:91:PRO:HB2	2.37	0.52
1:AA:792:A:O2'	1:AA:793:U:C5'	2.56	0.52
27:BE:46:ALA:CB	27:BE:82:ARG:HA	2.38	0.52
39:D1:92:ARG:NH2	39:D1:94:ASN:HD22	2.07	0.52
54:DA:2060:A:O2'	54:DA:2061:G:P	2.67	0.52
32:DM:103:VAL:O	32:DM:106:MET:N	2.42	0.52
36:D0:67:LEU:HD13	36:D0:76:VAL:CG2	2.27	0.52
43:BU:62:GLU:CD	43:BU:63:LYS:N	2.58	0.52
37:BQ:34:HIS:ND1	37:BQ:53:SER:HB3	2.24	0.52
7:AJ:28:ASN:O	7:AJ:31:MET:HB3	2.08	0.52
31:DK:52:ARG:HG3	31:DK:53:ALA:N	2.24	0.52
54:DA:263:C:H2'	54:DA:264:C:O4'	2.09	0.52
17:AT:68:ARG:O	17:AT:69:LYS:HB2	2.09	0.52
24:BA:1799:G:H22	26:BD:155:LEU:HA	1.73	0.52
12:AO:74:GLY:O	12:AO:75:HIS:HB3	2.09	0.52
24:BA:1022:G:C6	24:BA:1140:C:C4	2.97	0.52
10:CM:39:PRO:HB3	10:CM:70:ARG:NH1	2.23	0.52
45:B3:53:MET:HB3	45:B3:59:LEU:CD2	2.39	0.52
32:DM:131:GLN:CG	32:DM:132:ALA:H	2.21	0.52
24:BA:976:C:C5'	24:BA:1156:A:N6	2.68	0.52
8:AK:7:ALA:HB2	8:AK:85:ARG:HD2	1.90	0.52
54:DA:2315:G:H2'	54:DA:2316:C:C6	2.44	0.52
5:CH:36:ASP:OD1	5:CH:37:ARG:N	2.42	0.52
1:CA:1065:U:O2'	1:CA:1066:C:P	2.66	0.52
1:CA:1028(A):C:H2'	1:CA:1028(B):C:C6	2.43	0.52
54:DA:2272:U:H5''	54:DA:2273:A:OP1	2.09	0.52
36:B0:33:ARG:CG	36:B0:115:GLU:HG3	2.38	0.52
39:B1:21:ALA:HA	39:B1:24:TYR:CE1	2.44	0.52
24:BA:547:A:H2'	24:BA:548:A:C8	2.44	0.52
37:BQ:39:ILE:HB	37:BQ:49:VAL:HB	1.91	0.52
11:CN:91:ARG:NH2	18:CU:88:LYS:NZ	2.57	0.52
2:AE:118:LEU:HD13	2:AE:142:LEU:HB2	1.91	0.52
1:CA:626:U:C2	1:CA:627:G:C8	2.97	0.52
3:CF:173:VAL:O	3:CF:173:VAL:HG12	2.08	0.52
4:CG:77:ASN:ND2	4:CG:77:ASN:H	2.06	0.52
8:AK:111:ILE:HD12	8:AK:135:CYS:SG	2.49	0.52
41:DS:7:ALA:HB2	41:DS:50:VAL:CG2	2.40	0.52
31:DK:110:ASP:HB3	31:DK:111:PRO:C	2.29	0.52
1:CA:1120:G:H2'	1:CA:1121:U:C6	2.45	0.52
5:AH:144:THR:C	5:AH:146:ALA:H	2.12	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2352:A:H2'	54:DA:2353:G:H5'	1.91	0.52
24:BA:2225:A:H4'	24:BA:2226:C:OP2	2.09	0.52
17:AT:3:LYS:HB3	17:AT:61:GLU:HB3	1.91	0.52
54:DA:1192:G:O2'	54:DA:1193:G:H5'	2.08	0.52
12:AO:34:ARG:HG2	12:AO:35:GLY:N	2.24	0.52
24:BA:2154:G:H2'	24:BA:2155:G:H8	1.74	0.52
17:AT:83:ASP:O	17:AT:86:GLU:HB2	2.08	0.52
26:DD:233:HIS:CD2	26:DD:233:HIS:N	2.75	0.52
1:CA:62:U:H6	1:CA:62:U:O5'	1.92	0.52
1:AA:1427:U:H2'	1:AA:1428:A:H8	1.73	0.52
1:CA:359:U:H2'	1:CA:360:A:H8	1.74	0.52
53:B8:25:MET:CE	53:B8:47:LYS:HG2	2.38	0.52
19:AV:49:ILE:HD13	19:AV:62:ILE:HD11	1.91	0.52
19:AV:36:ARG:HD2	19:AV:72:GLY:N	2.24	0.52
19:AV:5:LEU:HD13	19:AV:9:VAL:HA	1.91	0.52
1:AA:519:C:C2'	1:AA:520:A:H5'	2.39	0.52
9:AL:26:VAL:HG23	9:AL:61:ALA:O	2.09	0.52
54:DA:1053:C:H3'	54:DA:1054:A:C5'	2.39	0.52
44:DV:105:VAL:CG1	44:DV:138:GLU:HG2	2.40	0.52
44:DV:110:GLY:O	44:DV:117:LEU:HD21	2.08	0.52
44:DV:169:GLU:O	44:DV:170:THR:HG23	2.10	0.52
30:BH:30:LYS:O	30:BH:31:GLY:O	2.26	0.52
30:BH:43:VAL:O	30:BH:43:VAL:HG13	2.10	0.52
30:BH:89:ILE:HD11	30:BH:129:THR:CB	2.36	0.52
1:CA:1321:C:C3'	1:CA:1322:C:H5''	2.40	0.52
1:CA:978:A:N6	1:CA:1318:A:N7	2.57	0.52
13:CP:73:GLU:O	13:CP:76:ALA:N	2.42	0.52
19:CV:11:VAL:O	19:CV:11:VAL:HG13	2.09	0.52
2:CE:92:TYR:CE1	2:CE:151:GLY:HA3	2.45	0.52
2:CE:80:ILE:CD1	2:CE:208:ILE:HG23	2.22	0.52
3:AF:47:LEU:HD21	3:AF:68:VAL:HG11	1.90	0.52
27:DE:64:LYS:C	27:DE:66:HIS:H	2.12	0.52
1:CA:1534:A:H2'	1:CA:1535:C:C5	2.44	0.52
54:DA:1728:G:C3'	54:DA:1729:A:H5''	2.24	0.52
54:DA:2612:C:C4	54:DA:2613:U:H5	2.27	0.52
27:BE:35:GLN:H	27:BE:48:GLN:NE2	1.99	0.52
15:AR:29:VAL:HA	15:AR:32:LEU:HD12	1.92	0.52
44:BV:118:GLN:NE2	44:BV:118:GLN:N	2.57	0.52
32:DM:22:THR:CG2	32:DM:23:LEU:N	2.61	0.52
54:DA:1541:U:H2'	54:DA:1542:G:O4'	2.09	0.52
8:CK:87:SER:HA	8:CK:93:VAL:HG23	1.91	0.52
49:D4:40:HIS:N	49:D4:41:PRO:CD	2.73	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CJ:106:GLN:O	7:CJ:110:GLN:HG3	2.10	0.52
51:D6:14:THR:OG1	51:D6:19:ARG:NE	2.41	0.52
37:DQ:67:ARG:HB2	37:DQ:67:ARG:HH11	1.65	0.52
54:DA:2347:C:OP1	51:D6:39:TYR:HE2	1.91	0.52
28:BF:80:ALA:O	28:BF:83:PHE:HB2	2.08	0.52
54:DA:2115:G:H4'	54:DA:2166:G:O2'	2.10	0.52
44:DV:6:LYS:O	44:DV:7:ALA:HB3	2.10	0.52
8:AK:83:ILE:CB	8:AK:137:VAL:HG13	2.33	0.52
41:DS:38:TYR:OH	50:D5:47:PRO:HG3	2.08	0.52
54:DA:2318:G:H2'	54:DA:2319:G:OP1	2.08	0.52
35:BP:58:PHE:O	35:BP:59:ARG:HB3	2.10	0.52
24:BA:1328:G:C2'	24:BA:1330:C:C5	2.92	0.52
1:CA:1160:G:H1	1:CA:1177:G:H21	1.55	0.52
33:BN:10:VAL:HG22	33:BN:17:ARG:O	2.08	0.52
1:AA:992:U:O2'	1:AA:993:G:OP2	2.26	0.52
27:DE:137:HIS:HB3	27:DE:138:PRO:CD	2.37	0.52
1:CA:164:U:H2'	1:CA:165:C:H6	1.74	0.52
24:BA:754:C:H2'	24:BA:755:C:C6	2.45	0.52
7:AJ:150:ALA:C	11:AN:57:THR:HG21	2.30	0.52
1:AA:1278:U:H5'	1:AA:1279:A:C5'	2.39	0.52
29:BG:107:LEU:HD13	29:BG:177:GLY:O	2.09	0.52
1:AA:1190:G:H5'	3:AF:176:HIS:NE2	2.25	0.52
46:DZ:4:VAL:HG22	46:DZ:5:CYS:N	2.25	0.52
1:AA:646:U:H2'	1:AA:647:C:H6	1.73	0.52
54:DA:557:U:H2'	54:DA:558:G:C8	2.43	0.52
54:DA:2649:U:H2'	54:DA:2650:U:H6	1.73	0.52
34:DO:37:GLY:HA2	34:DO:41:ARG:NE	2.23	0.52
1:CA:1427:U:H2'	1:CA:1428:A:H8	1.75	0.52
1:CA:1292:U:O2'	1:CA:1293:G:H5'	2.10	0.52
45:D3:56:ASP:OD2	45:D3:56:ASP:C	2.47	0.52
27:DE:39:PRO:HG2	27:DE:40:GLU:OE1	2.09	0.52
54:DA:140:A:C8	54:DA:1408:C:O2'	2.60	0.52
1:CA:1034:G:H2'	1:CA:1035:A:C8	2.44	0.52
25:BB:104:A:H2'	25:BB:105:G:O4'	2.09	0.52
30:BH:163:TYR:N	30:BH:163:TYR:CD1	2.76	0.52
26:BD:174:ILE:N	26:BD:174:ILE:HD12	2.24	0.52
24:BA:1902:C:C2'	24:BA:1903:G:O5'	2.55	0.52
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.90	0.52
21:AX:9:ARG:NH1	21:AX:13:ILE:HD12	2.15	0.52
29:BG:143:GLU:N	49:B4:31:ILE:HD13	2.24	0.52
53:D8:61:LEU:O	53:D8:62:LEU:CB	2.57	0.52
54:DA:1101:U:H2'	54:DA:1102:C:C6	2.42	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DK:120:ILE:HD11	31:DK:126:TYR:OH	2.10	0.52
30:BH:54:ARG:HD2	30:BH:65:HIS:CD2	2.44	0.52
34:BO:105:LEU:O	34:BO:106:LEU:HB2	2.09	0.52
54:DA:704:G:H1'	54:DA:727:A:H61	1.74	0.52
30:DH:2:SER:O	30:DH:3:ARG:C	2.47	0.52
13:CP:92:HIS:CD2	13:CP:98:VAL:HG21	2.43	0.52
49:D4:48:ARG:CZ	49:D4:51:ASP:HA	2.40	0.52
41:BS:15:ARG:O	41:BS:19:LEU:HD13	2.10	0.52
29:BG:14:GLU:C	29:BG:17:PRO:HD2	2.30	0.52
26:DD:66:ASP:OD2	26:DD:69:ARG:HG2	2.09	0.52
54:DA:2419:U:O2'	54:DA:2420:C:H5'	2.09	0.52
27:BE:51:PHE:O	27:BE:74:PRO:HB2	2.09	0.52
26:BD:69:ARG:NH2	26:BD:105:ILE:HD11	2.24	0.52
24:BA:1224:G:H5'	24:BA:1225:C:OP2	2.09	0.52
24:BA:1928:A:H2'	24:BA:1929:G:H5'	1.88	0.52
44:BV:174:VAL:O	44:BV:174:VAL:HG12	2.09	0.52
35:DP:29:PHE:HB3	35:DP:65:PHE:CZ	2.44	0.52
47:DW:50:ILE:CD1	47:DW:51:ARG:N	2.61	0.52
1:AA:664:G:C5'	18:AU:64:ARG:HH21	2.23	0.52
35:BP:20:ALA:O	35:BP:21:THR:C	2.46	0.52
1:CA:429:U:H1'	1:CA:430:A:H5''	1.92	0.52
2:CE:87:ARG:HH11	2:CE:223:ILE:HD12	1.73	0.52
29:DG:111:LEU:HB2	49:D4:38:LYS:HZ3	1.73	0.52
3:CF:20:SER:CB	3:CF:40:ARG:HH22	2.14	0.52
16:CS:34:GLU:OE1	16:CS:55:ARG:HD3	2.10	0.52
1:CA:344:A:H5''	1:CA:345:C:OP2	2.09	0.52
54:DA:1929:G:C3'	54:DA:1929:G:H8	2.20	0.52
24:BA:1948:G:H2'	24:BA:1949:G:C5'	2.39	0.52
1:CA:253:U:H2'	1:CA:254:G:C8	2.45	0.52
47:BW:50:ILE:O	47:BW:53:LEU:N	2.43	0.52
37:BQ:67:ARG:HH11	37:BQ:67:ARG:HB2	1.70	0.52
28:BF:114:VAL:HG21	28:BF:202:PHE:CZ	2.45	0.52
26:BD:10:THR:O	26:BD:11:PRO:O	2.28	0.52
31:DK:67:ARG:NH2	31:DK:68:LEU:HB2	2.24	0.52
1:CA:323:U:H5'	20:CW:23:ARG:HB2	1.91	0.52
17:CT:62:SER:HB3	17:CT:72:ARG:HH21	1.72	0.52
54:DA:1288:U:C4'	54:DA:1289:C:OP2	2.57	0.52
58:DA:2909:G:N2	59:DA:2928:C:N3	2.56	0.52
54:DA:2654:A:C2	54:DA:2665:A:H5'	2.43	0.52
2:CE:178:ARG:HH22	8:CK:68:ARG:HH22	1.53	0.52
3:AF:131:ARG:HE	3:AF:166:GLU:CD	2.11	0.52
38:DR:94:ALA:O	38:DR:95:ARG:HB3	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:D0:53:HIS:HA	36:D0:56:LYS:HD3	1.90	0.52
54:DA:1608:A:O2'	54:DA:1610:A:P	2.68	0.52
48:BX:6:VAL:HG22	48:BX:56:VAL:CG2	2.39	0.52
14:CQ:24:CYS:HB2	14:CQ:39:LEU:C	2.29	0.52
12:CO:32:PHE:HE1	12:CO:86:ARG:HG3	1.73	0.52
46:BZ:5:CYS:CB	46:BZ:8:SER:HG	2.23	0.52
18:AU:82:THR:HG22	18:AU:84:LYS:NZ	2.24	0.52
1:AA:1540:U:C2'	1:AA:1541:U:OP1	2.57	0.52
1:AA:1067:A:N3	1:AA:1068:G:H1'	2.24	0.52
1:CA:1027:C:O2'	1:CA:1028:C:P	2.68	0.52
54:DA:637:A:OP1	34:DO:133:SER:HB3	2.08	0.52
24:BA:2339:G:H2'	24:BA:2340:G:C8	2.45	0.52
6:AI:30:LEU:CD2	6:AI:75:LEU:HD11	2.38	0.52
24:BA:962:G:OP1	24:BA:963:U:OP2	2.28	0.52
31:DK:25:TYR:CE2	31:DK:29:TYR:CD2	2.97	0.52
38:DR:100:TYR:HB3	38:DR:103:ARG:NH1	2.25	0.52
9:CL:13:ALA:HB2	9:CL:68:GLY:HA3	1.91	0.52
30:DH:121:ILE:HG12	30:DH:135:GLY:HA3	1.91	0.52
54:DA:950:G:O2'	54:DA:951:C:H5'	2.08	0.52
1:AA:1104:G:H4'	2:AE:111:ARG:CZ	2.39	0.52
33:DN:79:PHE:CD2	38:DR:72:VAL:HG22	2.45	0.52
33:BN:49:ARG:HD3	33:BN:49:ARG:H	1.74	0.52
61:CC:103:A:H5'	59:DA:2907:C:O2'	2.10	0.52
2:CE:232:PRO:O	2:CE:233:SER:O	2.27	0.52
30:DH:24:VAL:O	30:DH:24:VAL:HG23	2.09	0.52
54:DA:669:G:H2'	54:DA:669:G:N3	2.25	0.52
2:CE:9:GLU:OE2	2:CE:9:GLU:N	2.42	0.52
24:BA:421:U:O2'	24:BA:422:A:P	2.67	0.52
14:AQ:6:LEU:C	14:AQ:8:GLU:H	2.12	0.52
29:BG:98:ARG:HA	29:BG:101:ILE:HG12	1.92	0.52
24:BA:1378:A:O2'	24:BA:1379:A:H5'	2.00	0.52
24:BA:2250:G:C4	35:BP:82:ARG:CD	2.93	0.52
43:DU:91:GLU:HG3	43:DU:92:ASN:N	2.25	0.52
13:AP:23:TYR:CD1	13:AP:71:ARG:HD2	2.45	0.52
13:AP:28:ALA:C	13:AP:30:ALA:N	2.63	0.52
19:AV:51:VAL:O	19:AV:57:HIS:HA	2.09	0.52
21:AX:8:THR:CG2	21:AX:9:ARG:N	2.73	0.52
44:BV:128:VAL:HG22	44:BV:129:SER:N	2.23	0.52
44:BV:157:LEU:O	44:BV:158:PRO:O	2.28	0.52
28:BF:117:ARG:HD2	28:BF:190:GLU:O	2.09	0.52
54:DA:481:G:O2'	54:DA:482:A:P	2.67	0.52
54:DA:704:G:C2'	54:DA:726:G:H22	2.07	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:972:C:H4'	10:CM:57:LYS:HG3	1.92	0.52
13:CP:65:LYS:CE	49:D4:50:VAL:HG11	2.40	0.52
46:BZ:92:LYS:C	46:BZ:93:GLU:HG2	2.30	0.52
25:BB:27:C:N4	25:BB:28:C:N4	2.57	0.52
29:BG:13:GLU:O	29:BG:14:GLU:HB2	2.10	0.52
29:BG:16:ARG:HH21	29:BG:31:VAL:CG1	2.22	0.52
3:CF:181:ASN:HD21	3:CF:204:LEU:CD1	2.11	0.52
28:BF:24:LEU:HB3	28:BF:25:PRO:HD2	1.91	0.52
1:CA:1534:A:H2'	1:CA:1535:C:H41	1.74	0.52
40:D2:34:GLU:O	40:D2:36:PRO:HD3	2.10	0.52
37:DQ:83:LYS:O	37:DQ:109:GLY:CA	2.46	0.52
5:CH:12:LEU:O	5:CH:13:ILE:HD12	2.08	0.52
2:CE:5:ILE:N	2:CE:5:ILE:HD13	2.24	0.52
37:BQ:27:SER:HA	37:BQ:88:ASP:HB2	1.91	0.52
40:B2:70:ILE:HG22	40:B2:72:VAL:CG2	2.37	0.52
29:BG:77:ILE:O	29:BG:81:LYS:O	2.27	0.52
29:DG:124:SER:HB2	29:DG:131:TYR:CE1	2.44	0.52
44:BV:5:LEU:HD11	44:BV:39:VAL:HG12	1.92	0.52
16:CS:4:ILE:HD12	16:CS:4:ILE:N	2.23	0.52
31:DK:109:ILE:HB	31:DK:130:TYR:CZ	2.43	0.52
1:AA:1506:U:O2'	1:AA:1507:A:P	2.67	0.52
1:AA:922:G:H2'	1:AA:923:A:C8	2.44	0.52
28:BF:101:LEU:HD12	28:BF:102:PRO:CD	2.38	0.52
26:BD:11:PRO:O	26:BD:13:ARG:N	2.43	0.52
38:BR:124:ASP:C	38:BR:126:ALA:H	2.12	0.52
8:CK:102:ARG:NH1	8:CK:105:ARG:HH22	2.08	0.52
44:DV:59:LEU:O	44:DV:60:GLU:CG	2.54	0.52
1:AA:999:U:H1'	1:AA:1042:G:N2	2.23	0.52
36:D0:52:ILE:CG2	36:D0:94:TYR:HD1	2.22	0.52
47:DW:7:ARG:HG3	47:DW:7:ARG:NH1	2.25	0.52
54:DA:1332:G:N2	54:DA:1610:A:C8	2.77	0.52
18:CU:44:LEU:N	18:CU:44:LEU:HD12	2.24	0.52
1:CA:892:A:H2'	1:CA:893:C:C6	2.44	0.52
24:BA:2166:G:O2'	24:BA:2167:U:C6	2.60	0.52
54:DA:2770:G:H5''	54:DA:2771:C:OP2	2.10	0.52
24:BA:524:U:H2'	24:BA:525:U:H6	1.74	0.52
48:DX:9:VAL:HG12	48:DX:32:GLN:HE22	1.74	0.52
6:AI:87:ARG:O	6:AI:88:VAL:HG23	2.10	0.52
37:DQ:25:ARG:CB	37:DQ:25:ARG:HH11	2.22	0.52
54:DA:865:C:H5'	54:DA:866:A:OP1	2.09	0.52
24:BA:1060:U:H1'	24:BA:1062:G:H5'	1.91	0.52
3:CF:140:ARG:HH11	3:CF:140:ARG:HG3	1.75	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:270(N):G:O2'	24:BA:270(P):C:H5''	2.10	0.52
22:AC:1:C:O2'	22:AC:2:G:H5'	2.10	0.52
24:BA:1392:A:C6	24:BA:1393:A:C6	2.97	0.52
1:CA:300:A:H2'	1:CA:301:G:O4'	2.10	0.52
36:B0:45:ARG:HB2	36:B0:95:THR:HG21	1.91	0.52
39:B1:76:TYR:O	39:B1:79:PHE:HB3	2.10	0.52
28:DF:162:LEU:HD23	28:DF:165:ARG:NH2	2.25	0.52
32:BM:96:GLU:H	32:BM:96:GLU:CD	2.13	0.52
54:DA:1908:C:H2'	54:DA:1909:C:H6	1.75	0.52
24:BA:2352:A:C2	45:B3:33:ALA:O	2.62	0.52
2:CE:233:SER:OG	2:CE:234:PRO:HD2	2.09	0.52
40:B2:13:ARG:NH1	40:B2:15:GLU:OE1	2.40	0.52
24:BA:1839:G:C8	24:BA:1927:A:H1'	2.44	0.52
54:DA:901:A:H5'	54:DA:902:C:OP2	2.08	0.52
24:BA:1399:C:H2'	24:BA:1400:G:H8	1.73	0.52
54:DA:2258:C:H2'	54:DA:2426:A:H5''	1.91	0.52
11:AN:74:ALA:C	11:AN:76:GLY:H	2.13	0.52
19:AV:51:VAL:HG11	19:AV:72:GLY:HA2	1.91	0.52
30:BH:24:VAL:HG22	30:BH:35:VAL:HB	1.90	0.52
24:BA:1212:G:O2'	24:BA:1213:A:P	2.67	0.52
34:BO:98:GLU:HA	34:BO:101:VAL:CG1	2.33	0.52
39:B1:102:GLU:HA	39:B1:104:GLN:OE1	2.09	0.52
49:D4:54:GLY:O	49:D4:71:ARG:HA	2.08	0.52
24:BA:2611:U:O2'	50:B5:3:LYS:HD3	2.09	0.52
24:BA:1265:A:H1'	24:BA:1267:U:C6	2.43	0.52
3:CF:112:SER:HB3	3:CF:115:LEU:HD12	1.92	0.52
3:AF:174:PRO:CB	3:AF:177:THR:HG22	2.40	0.52
2:AE:47:THR:HA	2:AE:202:PRO:HG3	1.92	0.52
26:BD:63:ARG:O	26:BD:65:ILE:HG23	2.10	0.52
32:DM:7:LYS:HD3	32:DM:9:VAL:N	2.25	0.52
44:BV:118:GLN:O	44:BV:118:GLN:HG2	2.08	0.52
1:CA:197:A:N6	1:CA:221:C:H5'	2.24	0.52
44:DV:51:ALA:O	44:DV:52:SER:HB3	2.09	0.52
32:DM:57:ALA:O	32:DM:58:ASP:HB3	2.09	0.52
50:D5:55:ARG:HG3	50:D5:57:VAL:H	1.74	0.52
30:BH:131:VAL:HG22	30:BH:132:ARG:N	2.24	0.52
16:CS:1:MET:SD	16:CS:3:LYS:HE3	2.49	0.52
54:DA:2405:G:HO2'	54:DA:2406:U:P	2.33	0.52
26:DD:155:LEU:CD1	26:DD:155:LEU:N	2.71	0.52
43:BU:19:LYS:O	43:BU:21:LYS:N	2.41	0.52
1:CA:1060:C:C4	3:CF:2:GLY:HA2	2.45	0.52
1:CA:1060:C:O2'	1:CA:1061:G:H5'	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:873:A:H4'	1:CA:874:G:OP1	2.06	0.52
38:BR:86:ILE:HG12	38:BR:86:ILE:O	2.09	0.52
1:CA:448:A:N3	1:CA:449:C:O2	2.42	0.52
11:CN:124:LYS:O	11:CN:126:ARG:N	2.40	0.52
32:DM:112:LEU:C	32:DM:112:LEU:HD23	2.30	0.52
33:BN:10:VAL:O	33:BN:10:VAL:HG23	2.08	0.52
55:DB:104:A:O2'	44:DV:30:ASN:HA	2.10	0.52
54:DA:2315:G:H2'	54:DA:2316:C:H6	1.74	0.52
4:CG:206:PHE:HD2	4:CG:207:TYR:CD1	2.27	0.52
1:AA:1349:A:OP2	9:AL:118:LYS:HE2	2.10	0.52
1:AA:468:A:C2'	1:AA:474:G:H5'	2.40	0.52
1:CA:538:G:H5''	12:CO:114:LYS:HB2	1.91	0.52
15:AR:2:PRO:HG2	15:AR:3:ILE:HD13	1.91	0.52
54:DA:2009:G:OP1	41:DS:41:LYS:HE2	2.10	0.52
12:CO:127:GLU:O	12:CO:128:ALA:HB3	2.10	0.52
24:BA:1098:A:H3'	24:BA:1099:G:C5'	2.40	0.52
1:CA:1473:A:H2'	1:CA:1474:G:O4'	2.08	0.52
4:AG:173:TRP:CZ3	4:AG:193:ASP:HB3	2.44	0.52
22:CD:27:U:H2'	22:CD:28:C:C6	2.44	0.52
54:DA:558:G:OP1	32:DM:111:PRO:HD2	2.08	0.52
24:BA:80:G:C2'	24:BA:81:G:H5'	2.40	0.52
45:B3:72:ARG:HB2	45:B3:75:LEU:HB2	1.90	0.52
47:BW:7:ARG:HH11	47:BW:7:ARG:HB3	1.73	0.52
24:BA:2557:G:H2'	24:BA:2558:C:H6	1.74	0.52
24:BA:1012:U:O4	32:BM:25:ARG:HA	2.10	0.52
55:DB:92:G:O2'	55:DB:93:C:H5'	2.10	0.52
19:AV:32:LYS:O	19:AV:33:THR:HB	2.09	0.52
22:AC:50:U:H2'	22:AC:51:C:C6	2.44	0.52
24:BA:2600:A:C6	24:BA:2601:C:N4	2.77	0.52
1:AA:234:C:O2'	1:AA:235:C:H5'	2.10	0.52
38:DR:99:LEU:HB2	38:DR:101:PHE:CE1	2.45	0.52
1:CA:150:C:O5'	1:CA:150:C:H6	1.91	0.52
28:BF:57:VAL:HG12	28:BF:58:ALA:N	2.25	0.52
4:CG:176:LEU:HD12	4:CG:182:LYS:O	2.10	0.52
25:BB:38:C:O5'	25:BB:38:C:H6	1.93	0.52
52:B7:19:ARG:NH1	52:B7:19:ARG:HG2	2.22	0.52
11:AN:13:GLN:CG	11:AN:76:GLY:HA3	2.37	0.52
27:DE:176:ILE:HG22	27:DE:176:ILE:O	2.10	0.52
44:DV:154:ASP:CG	44:DV:155:LEU:N	2.61	0.52
30:BH:7:LEU:HD11	30:BH:66:GLY:CA	2.31	0.52
43:DU:61:ILE:HG23	43:DU:62:GLU:N	2.25	0.52
27:DE:54:GLN:O	27:DE:55:ASN:HB2	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BB:28:C:H2'	25:BB:29:A:O4'	2.09	0.52
29:BG:16:ARG:N	29:BG:17:PRO:HD2	2.25	0.52
2:CE:200:ILE:HG22	2:CE:201:ILE:N	2.24	0.52
26:DD:36:PRO:HA	26:DD:62:TYR:O	2.09	0.52
10:CM:6:ILE:CG2	10:CM:98:ILE:HG13	2.21	0.52
3:AF:43:LEU:HD21	3:AF:101:LEU:HD11	1.90	0.52
3:AF:84:ILE:HG23	3:AF:88:ARG:NE	2.25	0.52
51:D6:30:THR:HG23	51:D6:30:THR:O	2.09	0.52
27:DE:61:ARG:O	27:DE:63:LEU:N	2.42	0.52
1:CA:1536:C:C4	23:C1:10:G:N2	2.78	0.52
1:CA:687:A:H61	1:CA:703:G:H1'	1.75	0.52
37:DQ:89:ARG:HH11	37:DQ:89:ARG:HG2	1.74	0.52
1:AA:1179:A:H4'	9:AL:103:THR:HA	1.92	0.52
54:DA:876:C:H2'	54:DA:877:U:O4'	2.09	0.52
29:DG:34:LEU:HD13	29:DG:34:LEU:C	2.30	0.52
1:CA:815:A:HO2'	1:CA:816:A:P	2.32	0.52
26:BD:43:ARG:NH1	26:BD:49:ILE:CG2	2.73	0.52
24:BA:1945:G:H2'	24:BA:1946:U:C6	2.44	0.52
1:AA:1402:C:O2	1:AA:1500:A:N1	2.43	0.52
5:CH:101:ILE:N	5:CH:101:ILE:HD13	2.25	0.52
10:CM:4:ILE:HB	10:CM:74:ILE:CD1	2.37	0.52
54:DA:298:G:P	43:DU:85:VAL:HG22	2.49	0.52
24:BA:2147:G:H2'	24:BA:2148:G:C8	2.45	0.52
54:DA:1419:A:C8	54:DA:1579:A:N6	2.78	0.52
24:BA:1754:C:H5	38:BR:96:ARG:NH2	2.08	0.52
1:AA:1029:G:H2'	1:AA:1030:C:O5'	2.10	0.52
45:D3:35:ASN:ND2	45:D3:35:ASN:N	2.49	0.52
24:BA:1427:A:O2'	24:BA:1428:C:OP2	2.23	0.52
1:AA:1239:A:N6	1:AA:1299:A:H62	2.07	0.52
22:AD:22:G:O2'	22:AD:23:C:P	2.68	0.52
1:CA:1079:G:C6	1:CA:1080:A:N6	2.78	0.52
35:DP:119:ARG:NH1	35:DP:119:ARG:HG2	2.20	0.52
1:AA:704:A:N3	1:AA:704:A:H2'	2.24	0.52
51:B6:31:PRO:O	51:B6:32:ASN:CB	2.57	0.52
15:AR:2:PRO:HG2	15:AR:3:ILE:CD1	2.40	0.52
58:DA:2908:G:N2	59:DP:204:C:C6	2.78	0.52
22:AD:12:G:C2'	22:AD:13:C:OP1	2.57	0.52
54:DA:1264:G:H5'	50:D5:11:THR:CG2	2.39	0.52
1:AA:179:A:O2'	1:AA:180:U:H5'	2.10	0.52
24:BA:391:G:H2'	24:BA:392:C:C6	2.45	0.52
11:CN:46:GLY:HA2	11:CN:50:TYR:O	2.10	0.52
26:DD:174:ILE:CD1	26:DD:174:ILE:N	2.73	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BP:97:VAL:HG11	35:BP:103:MET:SD	2.49	0.52
7:AJ:71:PRO:HD3	7:AJ:103:TRP:HZ3	1.74	0.52
4:CG:147:ALA:HA	4:CG:182:LYS:HA	1.91	0.52
54:DA:2693:A:H2'	54:DA:2694:G:H8	1.75	0.52
1:AA:491:G:O2'	1:AA:492:G:H5'	2.10	0.52
11:AN:27:ASN:CG	11:AN:28:THR:H	2.12	0.52
36:B0:52:ILE:O	36:B0:55:ALA:HB3	2.10	0.52
36:B0:94:TYR:N	36:B0:94:TYR:CD1	2.76	0.52
38:DR:42:ILE:HD12	38:DR:42:ILE:N	2.25	0.52
13:AP:3:ARG:HH12	29:BG:113:ARG:HG2	1.75	0.52
13:AP:67:GLU:O	13:AP:70:LEU:HD13	2.10	0.52
1:AA:1313:U:OP2	19:AV:6:LYS:HB3	2.09	0.52
9:AL:27:THR:OG1	9:AL:31:GLN:O	2.27	0.52
44:BV:160:GLY:O	44:BV:161:VAL:C	2.48	0.52
44:DV:107:THR:CG2	44:DV:108:PRO:HA	2.40	0.52
43:BU:81:LYS:HB3	43:BU:82:PRO:HD2	1.91	0.52
39:B1:102:GLU:N	39:B1:103:PRO:CD	2.73	0.52
27:DE:55:ASN:C	27:DE:57:LYS:N	2.62	0.52
13:CP:66:LEU:O	13:CP:68:GLY:N	2.43	0.52
1:CA:1314:C:N4	19:CV:2:PRO:O	2.43	0.52
19:CV:3:ARG:HG3	19:CV:4:SER:N	2.24	0.52
24:BA:747:U:O2	24:BA:2014:A:H1'	2.09	0.52
2:CE:80:ILE:HD11	2:CE:208:ILE:CG2	2.23	0.52
1:CA:590:C:O2'	1:CA:591:U:H5'	2.10	0.52
25:BB:102:G:H8	25:BB:102:G:O5'	1.93	0.52
37:BQ:14:VAL:HG21	37:BQ:89:ARG:HH11	1.75	0.52
24:BA:222:A:O2'	24:BA:223:A:OP1	2.27	0.52
54:DA:1169:G:H2'	54:DA:1170:G:C5'	2.28	0.52
38:BR:3:ARG:C	38:BR:7:ILE:HG12	2.29	0.52
1:AA:1117:G:O3'	9:AL:104:ARG:HD3	2.09	0.52
31:DK:52:ARG:HB3	31:DK:52:ARG:NH1	2.25	0.52
37:DQ:62:LYS:HB3	37:DQ:97:ARG:CD	2.39	0.52
33:DN:2:ILE:CD1	33:DN:82:ASN:HD22	2.14	0.52
43:BU:38:ILE:HG22	43:BU:66:PRO:CA	2.37	0.52
26:DD:133:LEU:HG	26:DD:189:CYS:O	2.10	0.52
2:AE:74:LYS:NZ	2:AE:169:LYS:HG3	2.25	0.52
28:DF:108:LYS:O	28:DF:112:MET:HG3	2.10	0.52
1:CA:1014:A:C5'	19:CV:14:HIS:CD2	2.93	0.52
51:B6:52:VAL:HG22	51:B6:53:LYS:N	2.16	0.52
54:DA:297:C:H5''	43:DU:85:VAL:CG2	2.34	0.52
24:BA:1278:A:H5''	36:B0:36:THR:HG22	1.90	0.52
54:DA:99:U:O2'	54:DA:101:G:P	2.67	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DM:114:ARG:C	32:DM:116:LEU:H	2.13	0.52
3:AF:59:ARG:NE	3:AF:64:VAL:HG12	2.24	0.52
6:AI:94:GLN:HE22	18:AU:32:ARG:NH1	2.08	0.52
24:BA:1885:A:H5'	24:BA:1886:C:OP2	2.10	0.52
24:BA:958:U:H6	24:BA:958:U:H5'	1.74	0.52
2:AE:15:VAL:HG11	2:AE:213:LEU:CD1	2.39	0.52
1:CA:102:G:H2'	1:CA:103:C:C6	2.43	0.52
4:CG:155:LEU:O	4:CG:159:ARG:HG2	2.10	0.52
16:CS:45:THR:HG23	16:CS:46:PRO:CD	2.39	0.52
25:BB:110:G:C2'	25:BB:111:U:H5'	2.39	0.52
1:CA:1289:A:OP1	21:CX:10:ARG:HD3	2.09	0.52
1:AA:1067:A:O2'	1:AA:1068:G:O4'	2.26	0.52
54:DA:322:A:H1'	54:DA:339:U:O2	2.10	0.52
1:AA:1256:A:OP2	3:AF:26:LYS:HE2	2.10	0.52
24:BA:1502:C:H5'	24:BA:1503:U:OP2	2.10	0.52
7:AJ:34:GLY:O	7:AJ:35:LYS:HG3	2.10	0.52
5:AH:111:GLU:O	5:AH:113:ALA:N	2.36	0.52
1:AA:965:A:C2	1:AA:969:A:C2	2.98	0.52
24:BA:2182:G:H2'	24:BA:2183:C:C6	2.45	0.52
49:D4:15:ILE:H	49:D4:15:ILE:HD13	1.74	0.52
4:AG:100:ARG:HH12	4:AG:137:SER:HB3	1.75	0.52
24:BA:1416:G:C2'	24:BA:1417:C:C6	2.93	0.52
54:DA:470:A:C8	54:DA:470:A:H5'	2.43	0.52
54:DA:163:U:H4'	54:DA:164:U:H5	1.74	0.52
9:CL:3:GLN:HB3	9:CL:20:ARG:CG	2.40	0.52
24:BA:2298:A:H2'	24:BA:2299:G:O4'	2.10	0.52
1:AA:511:C:O2'	1:AA:512:U:O5'	2.27	0.52
54:DA:1583:A:H2'	54:DA:1583:A:N3	2.25	0.52
16:AS:52:ASP:OD1	16:AS:55:ARG:HG3	2.10	0.52
24:BA:18:C:H2'	24:BA:19:C:C6	2.45	0.52
1:CA:1237:C:H4'	1:CA:1334:G:N2	2.25	0.52
22:AC:44:A:H2'	22:AC:45:G:O4'	2.10	0.52
32:DM:12:ARG:NH1	32:DM:50:ASP:OD1	2.43	0.52
24:BA:2672:G:H2'	24:BA:2673:G:H5''	1.92	0.52
54:DA:17:G:H2'	54:DA:18:C:C6	2.44	0.52
54:DA:2854:G:H2'	54:DA:2855:C:H6	1.74	0.52
30:BH:149:ARG:HA	30:BH:162:ILE:HG21	1.91	0.52
24:BA:1644:C:O2	24:BA:1644:C:H2'	2.09	0.52
27:DE:170:LEU:CD2	27:DE:185:LYS:HB2	2.40	0.52
24:BA:1690:A:H2'	24:BA:1691:C:O4'	2.10	0.52
49:B4:11:PRO:O	49:B4:12:ALA:HB2	2.09	0.52
46:DZ:91:LYS:HE3	46:DZ:91:LYS:CA	2.39	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:977:A:N6	1:AA:1224:G:OP1	2.43	0.52
19:AV:36:ARG:NE	19:AV:70:LYS:HB2	2.25	0.52
49:B4:15:ILE:HG22	49:B4:16:CYS:N	2.25	0.52
30:BH:56:SER:HB2	30:BH:58:GLU:OE1	2.10	0.52
24:BA:878:A:H61	24:BA:899:A:H1'	1.75	0.52
13:CP:98:VAL:HG12	13:CP:98:VAL:O	2.10	0.52
25:BB:56:G:H4'	25:BB:57:A:C8	2.45	0.52
28:BF:3:GLU:CA	28:BF:24:LEU:HG	2.25	0.52
3:AF:113:ALA:HB2	3:AF:183:ASP:HB3	1.91	0.52
4:AG:26:CYS:HA	4:AG:31:CYS:SG	2.49	0.52
39:D1:59:ARG:O	39:D1:63:VAL:HG23	2.10	0.52
22:AD:56:C:C3'	22:AD:57:A:H5''	2.40	0.52
24:BA:242:G:C2'	24:BA:243:U:OP2	2.58	0.52
54:DA:1138:G:N2	32:DM:106:MET:HE3	2.20	0.52
24:BA:479:A:H4'	24:BA:480:A:H5'	1.90	0.52
24:BA:2481:G:O2'	24:BA:2482:G:P	2.67	0.52
24:BA:2842:G:H21	38:BR:3:ARG:HH22	1.58	0.52
55:DB:48:A:H2'	55:DB:49:C:H6	1.72	0.52
55:DB:7:G:C2'	55:DB:8:U:H5''	2.39	0.52
43:BU:87:LYS:CB	43:BU:92:ASN:HB3	2.36	0.52
1:CA:160:A:N6	1:CA:347:G:H1'	2.24	0.52
1:AA:1400:C:H5''	1:AA:1401:G:OP2	2.10	0.52
11:CN:99:GLN:HE21	11:CN:105:VAL:HG21	1.75	0.52
24:BA:607:U:O4	24:BA:608:A:C5	2.63	0.52
24:BA:2867:G:C2'	24:BA:2868:A:OP2	2.58	0.52
38:BR:119:LYS:C	38:BR:121:ILE:H	2.12	0.52
44:BV:148:ASP:HB2	44:BV:172:ALA:CB	2.40	0.52
11:AN:9:LYS:O	11:AN:10:VAL:HB	2.10	0.52
33:DN:113:LYS:HG2	33:DN:117:LEU:CD1	2.38	0.52
54:DA:2656:U:C4	54:DA:2657:A:N7	2.77	0.52
1:AA:1028(A):C:H2'	1:AA:1028(B):C:C6	2.45	0.52
6:AI:69:GLU:HG2	6:AI:70:ASP:H	1.75	0.52
38:DR:23:ARG:HG2	38:DR:120:ARG:HH12	1.75	0.52
41:BS:17:VAL:HG11	41:BS:103:ILE:HD11	1.92	0.52
24:BA:2133:G:H21	24:BA:2158:A:N6	2.08	0.52
24:BA:1061:U:HO2'	24:BA:1070:A:C4'	2.23	0.52
54:DA:2314:C:O2'	54:DA:2315:G:H5'	2.10	0.52
47:BW:26:ARG:NH1	47:BW:26:ARG:HB3	2.22	0.52
24:BA:859:G:C2'	24:BA:860:U:OP2	2.57	0.52
15:CR:26:GLU:OE2	15:CR:77:ARG:NH1	2.43	0.52
24:BA:848:G:H2'	24:BA:849:A:H8	1.70	0.52
13:AP:79:LYS:O	13:AP:82:MET:HB3	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DF:125:LEU:HA	28:DF:194:MET:O	2.10	0.52
2:AE:80:ILE:C	2:AE:80:ILE:HD12	2.31	0.52
6:CI:99:ALA:HB1	18:CU:23:LYS:NZ	2.25	0.52
17:AT:19:VAL:HG22	17:AT:44:ALA:HB3	1.92	0.52
54:DA:1936:A:H4'	54:DA:1937:A:OP2	2.10	0.52
1:AA:179:A:H2'	1:AA:180:U:H6	1.72	0.52
47:BW:15:LYS:HE3	47:BW:67:LYS:NZ	2.25	0.52
1:CA:745:C:H2'	1:CA:746:A:C8	2.44	0.52
24:BA:2857:G:N2	24:BA:2859:G:H3'	2.24	0.52
24:BA:407:G:H2'	24:BA:408:G:C8	2.43	0.52
1:CA:521:G:O5'	12:CO:73:GLU:HG3	2.10	0.52
46:BZ:20:ARG:HG2	46:BZ:20:ARG:NH1	2.24	0.52
1:CA:511:C:H4'	4:CG:43:HIS:CD2	2.45	0.52
54:DA:1095:A:C2'	54:DA:1095:A:N3	2.72	0.52
4:AG:199:ASN:CG	4:AG:202:LEU:HG	2.30	0.52
24:BA:2672:G:C3'	24:BA:2673:G:H5''	2.39	0.52
30:BH:149:ARG:HA	30:BH:162:ILE:CG2	2.39	0.52
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.45	0.52
1:AA:34:C:O2'	1:AA:35:G:H5'	2.09	0.52
1:AA:154:C:O2'	1:AA:155:C:H5'	2.10	0.52
54:DA:1416:G:H2'	54:DA:1417:C:C5	2.45	0.52
31:DK:83:ALA:O	31:DK:84:GLY:C	2.48	0.52
1:CA:353:A:H5'	1:CA:353:A:H8	1.74	0.52
1:AA:1394:A:H5''	1:AA:1395:C:OP2	2.09	0.52
4:CG:65:ARG:NH1	4:CG:70:ILE:O	2.43	0.52
54:DA:2108:C:O2'	54:DA:2109:U:H5'	2.10	0.52
1:AA:1135:U:HO2'	1:AA:1136:U:P	2.32	0.52
33:DN:16:ALA:HA	33:DN:46:ALA:HB2	1.92	0.52
3:CF:175:LEU:H	3:CF:175:LEU:HD12	1.75	0.52
36:D0:41:ALA:O	36:D0:43:GLU:N	2.43	0.52
43:DU:9:LYS:O	43:DU:9:LYS:HG2	2.10	0.52
48:DX:49:LYS:O	48:DX:49:LYS:HG2	2.10	0.52
1:CA:80:G:H5'	1:CA:81:G:OP2	2.10	0.52
2:CE:53:ARG:O	2:CE:56:ARG:HB2	2.10	0.52
46:DZ:83:GLU:CG	46:DZ:84:GLY:N	2.71	0.52
1:CA:795:C:H1'	1:CA:1506:U:C5	2.45	0.52
43:DU:75:ILE:C	43:DU:75:ILE:HD13	2.30	0.52
19:AV:5:LEU:HD13	19:AV:9:VAL:HG22	1.91	0.52
54:DA:1081:U:H5'	54:DA:1082:U:OP2	2.10	0.52
26:DD:43:ARG:NH1	26:DD:44:ASN:OD1	2.42	0.52
24:BA:1212:G:C2'	24:BA:1236:G:N2	2.73	0.52
39:B1:108:GLU:C	39:B1:110:VAL:H	2.13	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1045:A:O2'	54:DA:1046:A:P	2.68	0.52
28:BF:24:LEU:HD12	28:BF:25:PRO:HD2	1.90	0.52
1:AA:697:U:O2	1:AA:798:G:H1'	2.10	0.52
1:CA:1507:A:OP2	23:C1:12:A:N6	2.42	0.52
50:B5:38:ALA:HB3	50:B5:48:GLU:OE2	2.10	0.52
27:BE:61:ARG:N	27:BE:62:PRO:CD	2.72	0.52
1:CA:590:C:OP1	8:CK:29:SER:HA	2.10	0.52
33:DN:43:VAL:HG23	33:DN:56:ASP:O	2.10	0.52
33:DN:14:THR:HG21	33:DN:86:ILE:HD13	1.91	0.52
54:DA:2059:A:H5'	54:DA:2060:A:OP2	2.10	0.52
24:BA:221:A:H4'	24:BA:222:A:O5'	2.09	0.52
38:DR:111:ARG:O	38:DR:112:ARG:CG	2.55	0.52
54:DA:2712:U:H2'	54:DA:2712(A):A:H3'	1.91	0.52
40:D2:35:LEU:CD2	40:D2:57:VAL:HG22	2.32	0.52
24:BA:943:U:OP2	34:BO:36:LYS:CG	2.53	0.52
29:BG:60:LEU:C	29:BG:60:LEU:HD23	2.30	0.52
7:AJ:5:ARG:HH21	7:AJ:7:ALA:CA	2.20	0.52
1:AA:1037:C:H2'	1:AA:1038:C:H6	1.69	0.52
36:B0:87:TYR:HD1	36:B0:90:ARG:HE	1.57	0.52
1:CA:1346:A:H5'	9:CL:120:ARG:HH12	1.75	0.52
27:BE:197:ILE:HD12	27:BE:198:VAL:N	2.25	0.52
13:CP:34:LEU:HD12	13:CP:41:PRO:HG3	1.92	0.52
1:AA:711:G:O2'	1:AA:712:A:H5'	2.09	0.52
35:BP:34:LEU:CD1	35:BP:129:THR:HB	2.35	0.52
35:BP:34:LEU:HD11	35:BP:129:THR:CB	2.37	0.52
32:BM:127:ASP:C	32:BM:128:HIS:HD1	2.13	0.52
2:AE:9:GLU:O	2:AE:12:GLU:HG3	2.10	0.52
1:CA:89:U:C2'	1:CA:90:C:O5'	2.58	0.52
1:AA:133:U:OP1	20:AW:74:LYS:NZ	2.40	0.52
58:DA:2908:G:O2'	60:DA:2932:U:N3	2.39	0.52
6:CI:30:LEU:O	6:CI:35:ALA:HB3	2.10	0.52
1:AA:946:A:H2'	1:AA:947:G:H8	1.71	0.52
1:CA:1474:G:H4'	54:DA:1701:A:C2	2.45	0.52
24:BA:2426:A:C4'	24:BA:2427:C:OP2	2.58	0.52
23:C1:18:G:O2'	23:C1:19:A:OP2	2.24	0.52
52:D7:38:GLY:O	52:D7:39:ARG:C	2.48	0.52
54:DA:2879:C:H5'	54:DA:2880:C:OP1	2.10	0.52
24:BA:2303:G:O2'	24:BA:2304:G:H5'	2.10	0.52
15:AR:10:LYS:HE3	15:AR:10:LYS:CA	2.40	0.52
31:BK:29:TYR:CE1	31:BK:33:ARG:NE	2.77	0.52
31:BK:62:LYS:HD2	31:BK:62:LYS:C	2.29	0.52
36:B0:12:ARG:NH1	36:B0:12:ARG:HG3	2.25	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1399:C:O2'	24:BA:1400:G:H5'	2.10	0.52
31:DK:85:GLU:HA	31:DK:85:GLU:OE2	2.08	0.52
39:D1:107:ALA:O	39:D1:111:GLU:OE1	2.28	0.52
7:CJ:151:TYR:HA	7:CJ:153:HIS:CE1	2.45	0.52
18:AU:27:GLY:O	18:AU:29:PHE:HD2	1.93	0.52
54:DA:2360:A:H8	54:DA:2360:A:O5'	1.92	0.52
1:AA:291:C:O2'	1:AA:292:G:H5'	2.09	0.52
54:DA:1270:C:H5''	54:DA:1271:G:H5'	1.92	0.52
42:DT:52:VAL:HG12	42:DT:52:VAL:O	2.09	0.52
49:D4:14:ILE:O	49:D4:14:ILE:HG23	2.10	0.52
40:B2:43:GLU:HA	40:B2:43:GLU:OE2	2.09	0.52
46:DZ:60:PHE:HE2	46:DZ:91:LYS:HZ1	1.57	0.51
13:AP:46:LYS:CG	13:AP:46:LYS:O	2.58	0.51
30:BH:6:ARG:HH12	30:BH:62:LYS:HD3	1.75	0.51
54:DA:1316:U:H2'	54:DA:1317:A:C8	2.45	0.51
24:BA:1212:G:HO2'	24:BA:1213:A:P	2.34	0.51
34:BO:99:LEU:HD12	34:BO:102:ARG:HH11	1.75	0.51
13:CP:90:LEU:CB	13:CP:93:ARG:HD2	2.40	0.51
49:D4:68:ARG:HD3	49:D4:69:LYS:HG2	1.92	0.51
30:DH:153:LYS:HG3	30:DH:161:GLY:HA2	1.91	0.51
34:DO:112:LEU:HD22	34:DO:113:LYS:H	1.75	0.51
24:BA:1385:G:HO2'	24:BA:1386:C:P	2.33	0.51
28:BF:20:LEU:HD22	28:BF:23:ASP:OD2	2.10	0.51
1:AA:696:A:O2'	1:AA:697:U:H5''	2.10	0.51
3:AF:81:GLY:O	3:AF:82:GLU:HB3	2.10	0.51
53:D8:52:LYS:N	53:D8:53:PRO:HD2	2.22	0.51
54:DA:747:U:N1	50:D5:2:ALA:HB3	2.26	0.51
26:BD:35:LYS:CE	26:BD:65:ILE:HG22	2.40	0.51
1:CA:1285:A:O2'	1:CA:1286:A:OP2	2.26	0.51
4:AG:30:LYS:NZ	4:AG:35:ARG:CZ	2.73	0.51
53:B8:34:TRP:CG	53:B8:35:GLN:N	2.77	0.51
53:B8:35:GLN:O	53:B8:35:GLN:HG3	2.10	0.51
24:BA:1558:A:O2'	24:BA:1559:G:OP2	2.24	0.51
28:DF:67:GLN:O	28:DF:68:LYS:CB	2.39	0.51
54:DA:1020:A:N1	54:DA:1141:U:C2'	2.73	0.51
54:DA:1027:A:N6	54:DA:1126:A:H1'	2.25	0.51
54:DA:1006:C:H1'	32:DM:106:MET:HE2	1.92	0.51
54:DA:1543:A:HO2'	54:DA:1544:C:H3'	1.68	0.51
37:BQ:35:ILE:HG22	37:BQ:53:SER:HB2	1.92	0.51
30:BH:115:VAL:HG11	30:BH:148:ILE:CD1	2.40	0.51
3:CF:40:ARG:O	3:CF:44:GLU:HG3	2.10	0.51
47:BW:50:ILE:CD1	47:BW:51:ARG:N	2.69	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DK:69:LYS:O	31:DK:73:GLU:HB2	2.10	0.51
7:AJ:5:ARG:C	7:AJ:7:ALA:H	2.14	0.51
24:BA:1543:A:O2'	24:BA:1544:C:H3'	2.09	0.51
29:DG:44:GLY:CA	29:DG:88:ILE:HD11	2.40	0.51
1:CA:560:U:O2'	1:CA:561:U:OP2	2.21	0.51
8:CK:51:VAL:HG11	8:CK:60:ARG:HG3	1.92	0.51
1:CA:1100:C:OP2	2:CE:96:ARG:HG2	2.10	0.51
1:AA:713:G:H21	1:AA:777:A:C1'	2.24	0.51
33:BN:120:GLU:HB2	38:BR:68:TYR:HE2	1.75	0.51
22:CD:66:C:H2'	22:CD:67:C:C6	2.45	0.51
25:BB:81:G:O6	25:BB:96:G:C5	2.62	0.51
1:CA:1177:G:H2'	1:CA:1178:G:C4	2.45	0.51
38:BR:58:ASN:HD22	38:BR:58:ASN:C	2.14	0.51
47:BW:13:ALA:HA	47:BW:16:LEU:HD21	1.92	0.51
1:AA:359:U:H2'	1:AA:360:A:C8	2.45	0.51
35:BP:38:GLU:HB2	35:BP:127:ILE:CG2	2.37	0.51
3:CF:22:TRP:CZ3	3:CF:32:LEU:HD12	2.45	0.51
4:CG:106:TYR:CE1	4:CG:112:VAL:O	2.62	0.51
4:CG:162:LEU:HD11	4:CG:181:MET:HB3	1.92	0.51
24:BA:917:A:H2'	24:BA:918:A:O4'	2.10	0.51
10:AM:79:ARG:H	10:AM:79:ARG:CD	2.21	0.51
35:BP:55:VAL:CG1	35:BP:56:ARG:N	2.73	0.51
1:AA:675:A:H2'	1:AA:676:A:H8	1.74	0.51
24:BA:2094:G:N2	24:BA:2196:C:H1'	2.24	0.51
19:CV:15:LEU:H	19:CV:15:LEU:HD23	1.74	0.51
23:C1:18:G:C2'	23:C1:19:A:OP2	2.58	0.51
24:BA:981:A:H8	24:BA:982:C:H5	1.57	0.51
54:DA:2784:C:H5''	27:DE:41:LYS:HZ2	1.74	0.51
4:CG:127:THR:CG2	4:CG:128:VAL:N	2.73	0.51
1:CA:545:C:H5''	4:CG:72:GLU:HG2	1.92	0.51
54:DA:2815:C:H5'	50:D5:29:THR:HG21	1.92	0.51
1:CA:277:C:H5''	17:CT:68:ARG:NH2	2.25	0.51
54:DA:634:C:H2'	54:DA:635:C:C6	2.45	0.51
22:CD:3:C:O2'	22:CD:4:G:H5'	2.10	0.51
35:BP:137:TYR:CE1	44:BV:83:PRO:HG2	2.46	0.51
43:DU:74:PRO:O	43:DU:80:GLY:HA2	2.10	0.51
13:AP:45:VAL:O	13:AP:47:ASP:N	2.43	0.51
44:DV:136:PHE:O	44:DV:137:ILE:HG23	2.10	0.51
44:DV:170:THR:O	44:DV:171:ILE:HB	2.10	0.51
30:BH:12:PRO:O	30:BH:13:LYS:O	2.29	0.51
34:BO:146:VAL:HG22	34:BO:147:LEU:N	2.18	0.51
32:DM:134:ARG:O	32:DM:136:GLU:N	2.43	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:30:GLU:HG3	26:DD:63:ARG:NH2	2.25	0.51
41:DS:14:PRO:O	41:DS:17:VAL:N	2.42	0.51
1:AA:1111:A:N1	3:AF:177:THR:HB	2.25	0.51
2:AE:32:ILE:O	2:AE:43:ASP:HB2	2.09	0.51
2:AE:36:ARG:HG2	2:AE:37:ASN:ND2	2.26	0.51
49:B4:58:ARG:O	49:B4:62:ARG:HG2	2.09	0.51
22:AC:75:C:C3'	22:AC:76:A:H5''	2.24	0.51
24:BA:686:G:H1'	52:B7:6:GLN:O	2.10	0.51
24:BA:242:G:HO2'	24:BA:254:G:H1	1.56	0.51
32:DM:94:HIS:O	32:DM:95:PRO:O	2.27	0.51
24:BA:2443:C:O2'	24:BA:2444:G:H5'	2.09	0.51
1:AA:1157:A:O2'	1:AA:1158:C:H5''	2.10	0.51
1:AA:1372:U:H2'	1:AA:1373:G:H5'	1.92	0.51
1:CA:430:A:C2'	1:CA:431:A:H5'	2.40	0.51
54:DA:2468:G:O6	54:DA:2481:G:H2'	2.09	0.51
51:D6:34:LEU:HD23	51:D6:36:LEU:HD22	1.92	0.51
1:CA:160:A:O2'	1:CA:344:A:N6	2.44	0.51
31:DK:114:LEU:O	31:DK:115:ALA:HB3	2.09	0.51
23:A1:12:A:H5'	23:A1:13:A:OP1	2.10	0.51
23:A1:13:A:H2'	23:A1:14:A:OP1	2.10	0.51
7:CJ:15:ASP:CB	7:CJ:20:ASP:H	2.13	0.51
1:CA:191:G:C1'	20:CW:105:SER:HB3	2.39	0.51
55:DB:12:C:H5''	55:DB:13:A:OP1	2.09	0.51
1:CA:452:A:H4'	16:CS:72:ARG:HH22	1.70	0.51
1:CA:1374:A:H2'	1:CA:1375:A:C5'	2.41	0.51
24:BA:1698:A:O2'	24:BA:1699:G:H5''	2.10	0.51
13:AP:53:VAL:HG12	13:AP:57:ARG:HH11	1.76	0.51
1:AA:713:G:N2	1:AA:777:A:H1'	2.25	0.51
54:DA:1162:G:H1'	40:D2:23:GLU:OE2	2.09	0.51
35:BP:43:THR:HB	35:BP:45:GLN:HG2	1.92	0.51
2:AE:130:ARG:HG2	2:AE:130:ARG:NH1	2.25	0.51
33:BN:10:VAL:HG21	33:BN:17:ARG:HA	1.92	0.51
7:CJ:16:LEU:HD11	9:CL:45:ALA:HB2	1.92	0.51
14:AQ:22:THR:O	14:AQ:23:ARG:HB2	2.09	0.51
1:AA:39:G:N7	1:AA:547:A:H8	2.08	0.51
12:CO:126:LYS:HZ2	12:CO:126:LYS:HB2	1.73	0.51
20:CW:83:ARG:O	20:CW:86:ARG:HB3	2.10	0.51
12:CO:23:LYS:O	12:CO:24:VAL:HG23	2.10	0.51
28:DF:65:TRP:HZ2	28:DF:72:ARG:NH2	2.08	0.51
24:BA:548:A:H2'	24:BA:549:G:C5'	2.40	0.51
54:DA:2151:G:H2'	54:DA:2152:G:H8	1.75	0.51
6:AI:28:ARG:HH11	6:AI:28:ARG:HA	1.73	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:440:A:H3'	1:CA:442:C:C6	2.43	0.51
24:BA:1060:U:O2	24:BA:1088:A:H8	1.92	0.51
2:CE:134:GLU:HB3	2:CE:138:LEU:CD1	2.39	0.51
54:DA:2879:C:C4'	54:DA:2880:C:OP1	2.58	0.51
24:BA:2219:G:H2'	24:BA:2224:G:H5'	1.92	0.51
24:BA:80:G:H4'	24:BA:346:A:C8	2.45	0.51
8:CK:12:ARG:NH1	8:CK:27:PRO:HD2	2.25	0.51
26:BD:227:ASN:O	26:BD:228:PRO:C	2.48	0.51
24:BA:1652:A:O3'	24:BA:1653:G:C8	2.63	0.51
24:BA:2193:G:H8	24:BA:2193:G:H5'	1.75	0.51
1:CA:30:U:O2'	1:CA:31:G:OP1	2.24	0.51
54:DA:489:G:N2	54:DA:1321:A:OP1	2.43	0.51
54:DA:2426:A:O2'	54:DA:2427:C:OP1	2.25	0.51
54:DA:1416:G:H2'	54:DA:1417:C:C6	2.45	0.51
54:DA:332:A:O2'	54:DA:334:C:OP2	2.19	0.51
44:DV:80:ARG:HH21	44:DV:82:ARG:HH12	1.58	0.51
6:CI:101:ALA:HA	18:CU:28:GLU:OE1	2.10	0.51
24:BA:503:A:H5''	24:BA:504:U:OP1	2.08	0.51
41:BS:71:VAL:HG12	41:BS:71:VAL:O	2.10	0.51
17:AT:87:LYS:O	17:AT:91:ARG:HD3	2.09	0.51
40:D2:75:PHE:C	40:D2:75:PHE:CD1	2.83	0.51
7:CJ:89:MET:CE	7:CJ:156:TRP:H	2.22	0.51
3:AF:60:ALA:O	3:AF:61:ALA:HB3	2.11	0.51
1:AA:29:G:O2'	1:AA:295:C:H4'	2.10	0.51
1:CA:1206:G:C6	1:CA:1207:G:C5	2.98	0.51
31:BK:79:ILE:C	31:BK:142:VAL:HG21	2.30	0.51
43:DU:101:LYS:O	43:DU:102:CYS:SG	2.66	0.51
3:AF:181:ASN:O	3:AF:181:ASN:CG	2.48	0.51
9:AL:27:THR:HB	9:AL:33:PHE:N	2.25	0.51
9:AL:63:ILE:N	9:AL:63:ILE:HD12	2.25	0.51
30:BH:30:LYS:HD3	30:BH:136:ILE:HG13	1.93	0.51
24:BA:299:A:H5''	43:BU:84:ARG:NH1	2.25	0.51
43:BU:95:LYS:NZ	43:BU:100:ALA:HA	2.25	0.51
54:DA:481:G:HO2'	54:DA:482:A:P	2.33	0.51
24:BA:898:C:H2'	24:BA:899:A:O4'	2.10	0.51
27:DE:51:PHE:CD1	27:DE:52:LEU:N	2.76	0.51
27:DE:77:ILE:O	27:DE:78:LEU:C	2.48	0.51
19:CV:40:ILE:HG23	19:CV:67:VAL:O	2.10	0.51
2:CE:170:GLU:HA	2:CE:172:ILE:CD1	2.41	0.51
3:CF:113:ALA:C	3:CF:115:LEU:H	2.14	0.51
3:CF:11:ARG:O	3:CF:13:GLY:N	2.43	0.51
1:CA:1188:A:H5''	14:CQ:58:LYS:HZ1	1.75	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:67:PHE:CE1	26:DD:157:ARG:NH2	2.79	0.51
26:DD:35:LYS:HG2	26:DD:64:ILE:HG22	1.92	0.51
34:DO:112:LEU:HD11	34:DO:114:ILE:CG2	2.40	0.51
28:BF:22:ALA:C	28:BF:24:LEU:N	2.62	0.51
1:CA:1072:G:H2'	1:CA:1073:U:H6	1.73	0.51
2:AE:200:ILE:HG22	2:AE:202:PRO:HD3	1.91	0.51
53:D8:29:LYS:HB2	53:D8:44:LYS:HG2	1.90	0.51
28:BF:132:VAL:CG2	28:BF:133:ASN:H	2.02	0.51
24:BA:7:G:H2'	24:BA:8:A:O4'	2.11	0.51
24:BA:2346:A:C2	24:BA:2383:G:C2	2.99	0.51
21:CX:3:LYS:HB3	21:CX:14:TRP:CD1	2.46	0.51
53:B8:32:LEU:HD23	53:B8:33:ASN:H	1.75	0.51
37:DQ:106:ARG:HA	37:DQ:110:LEU:CG	2.39	0.51
1:CA:177:C:H2'	1:CA:178:C:H6	1.76	0.51
35:BP:141:GLN:HE21	44:BV:75:ASN:N	2.09	0.51
37:BQ:20:ARG:HG2	45:B3:49:LYS:HD2	1.93	0.51
24:BA:265:A:H2'	24:BA:266:G:OP2	2.11	0.51
54:DA:1543:A:HO2'	54:DA:1544:C:P	2.33	0.51
22:AC:15:G:H5''	22:AC:16:C:OP2	2.10	0.51
55:DB:40:U:C2'	55:DB:41:U:OP1	2.58	0.51
3:CF:35:GLU:OE2	3:CF:95:THR:HG23	2.10	0.51
44:BV:23:LYS:HE2	44:BV:40:ASP:OD2	2.11	0.51
16:CS:21:VAL:O	16:CS:33:ILE:HG12	2.11	0.51
54:DA:1928:A:O2'	54:DA:1929:G:H5'	2.10	0.51
1:AA:960:U:O2	1:AA:960:U:H2'	2.10	0.51
24:BA:2873:A:N3	24:BA:2873:A:H2'	2.24	0.51
30:DH:6:ARG:C	30:DH:8:PRO:HD2	2.30	0.51
29:DG:97:ASP:O	29:DG:101:ILE:HG23	2.10	0.51
1:CA:323:U:H6	1:CA:323:U:O5'	1.91	0.51
31:DK:12:LEU:O	31:DK:13:GLY:O	2.28	0.51
1:AA:1035:A:H2'	1:AA:1036:G:C5'	2.41	0.51
40:D2:14:VAL:HA	40:D2:18:LEU:HD12	1.93	0.51
50:D5:40:LYS:HD3	50:D5:46:CYS:SG	2.50	0.51
24:BA:527:C:C6	24:BA:528:A:N6	2.78	0.51
33:DN:23:ARG:O	33:DN:39:ILE:HB	2.10	0.51
54:DA:1331:A:O2'	54:DA:1332:G:H8	1.92	0.51
34:BO:42:SER:O	34:BO:44:GLY:N	2.43	0.51
24:BA:1250:G:O2'	24:BA:1251:C:OP1	2.25	0.51
46:BZ:4:VAL:HG23	46:BZ:5:CYS:O	2.10	0.51
24:BA:2282:G:O2'	24:BA:2283:C:OP2	2.19	0.51
1:CA:406:G:C5'	4:CG:5:ILE:HD13	2.40	0.51
54:DA:205:G:C2'	54:DA:206:U:OP2	2.57	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AI:87:ARG:HG2	6:AI:87:ARG:HH11	1.75	0.51
24:BA:2103:C:H2'	24:BA:2104:G:H8	1.75	0.51
24:BA:1964:G:C4'	24:BA:1965:C:OP2	2.58	0.51
9:CL:88:TYR:O	9:CL:89:ASN:CB	2.59	0.51
24:BA:895:U:H2'	24:BA:896:A:OP1	2.10	0.51
39:B1:85:LYS:O	39:B1:87:GLY:N	2.44	0.51
1:AA:164:U:H2'	1:AA:165:C:C6	2.45	0.51
1:AA:620:C:O2'	1:AA:621:A:H5'	2.11	0.51
54:DA:807:U:O2'	54:DA:808:G:H5'	2.11	0.51
54:DA:1789:A:O2'	26:DD:219:PRO:HB3	2.11	0.51
24:BA:2729:G:H2'	24:BA:2730:C:C6	2.46	0.51
54:DA:2869:G:O2'	36:D0:61:HIS:HE1	1.93	0.51
23:A1:4:A:HO2'	23:A1:5:A:P	2.32	0.51
32:DM:12:ARG:NH1	32:DM:50:ASP:OD2	2.41	0.51
54:DA:332:A:O2'	54:DA:333:G:P	2.68	0.51
1:CA:422:C:O2'	1:CA:423:G:H5''	2.10	0.51
3:CF:3:ASN:ND2	3:CF:4:LYS:NZ	2.58	0.51
3:CF:29:TYR:OH	14:CQ:54:PRO:HD2	2.09	0.51
54:DA:2026:C:H2'	54:DA:2027:G:O5'	2.10	0.51
24:BA:2874:C:O2	24:BA:2874:C:H2'	2.10	0.51
7:AJ:131:LYS:NZ	7:AJ:131:LYS:HB2	2.26	0.51
24:BA:966:G:H2'	24:BA:967:C:C6	2.45	0.51
8:AK:11:THR:HG22	8:AK:15:ASN:HD21	1.74	0.51
35:BP:77:LYS:HZ1	35:BP:82:ARG:C	2.14	0.51
9:AL:28:VAL:HG13	9:AL:29:ASN:N	2.24	0.51
9:AL:38:GLN:C	9:AL:40:LEU:N	2.64	0.51
54:DA:1065:U:H3'	54:DA:1066:U:C4'	2.41	0.51
44:DV:108:PRO:C	44:DV:110:GLY:H	2.13	0.51
30:BH:61:HIS:O	30:BH:62:LYS:C	2.49	0.51
24:BA:1212:G:H2'	24:BA:1236:G:N2	2.23	0.51
24:BA:876:C:H2'	24:BA:877:U:O4'	2.10	0.51
13:CP:87:TYR:C	13:CP:89:GLY:N	2.64	0.51
26:DD:35:LYS:HD2	26:DD:104:TYR:CD1	2.45	0.51
1:CA:1443:G:C3'	1:CA:1446:A:C5'	2.85	0.51
2:AE:28:PHE:O	2:AE:29:ALA:O	2.28	0.51
24:BA:2635:C:H5'	27:BE:77:ILE:HG22	1.92	0.51
24:BA:1567:A:H2	26:BD:28:GLU:HA	1.75	0.51
13:CP:4:ILE:HG22	13:CP:5:ALA:H	1.75	0.51
40:B2:85:LYS:HG3	40:B2:87:HIS:CA	2.39	0.51
13:AP:40:ASN:HD22	13:AP:43:THR:CG2	2.05	0.51
28:BF:51:THR:CB	28:BF:88:VAL:HG11	2.40	0.51
1:CA:197:A:O2'	1:CA:198:G:C8	2.63	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:26:GLY:HA2	44:BV:85:HIS:CD2	2.46	0.51
24:BA:2376:A:H2'	24:BA:2377:A:O4'	2.11	0.51
41:BS:70:TYR:O	41:BS:107:LEU:HD12	2.10	0.51
42:BT:9:LEU:HD12	42:BT:30:VAL:C	2.31	0.51
1:AA:1375:A:H2'	1:AA:1376:U:C6	2.45	0.51
31:DK:57:ARG:O	31:DK:61:ARG:HG2	2.11	0.51
1:CA:428:G:H4'	1:CA:429:U:O5'	2.10	0.51
1:CA:38:G:C2	1:CA:397:A:H2	2.27	0.51
54:DA:2712:U:O2	54:DA:2712:U:H5''	2.09	0.51
6:CI:86:ARG:O	6:CI:87:ARG:CG	2.50	0.51
54:DA:1932:A:H2'	54:DA:1933:G:O4'	2.10	0.51
54:DA:1213:A:N3	54:DA:1238:G:H1'	2.25	0.51
43:BU:28:LYS:O	43:BU:29:GLU:O	2.28	0.51
4:AG:158:ILE:O	4:AG:162:LEU:HB2	2.10	0.51
26:BD:9:TYR:CD2	26:BD:10:THR:HG22	2.46	0.51
3:AF:195:VAL:HG12	3:AF:196:LEU:N	2.26	0.51
1:CA:453:A:C6	1:CA:454:C:N4	2.78	0.51
26:BD:179:SER:C	26:BD:181:GLU:H	2.13	0.51
31:DK:67:ARG:O	31:DK:71:ILE:HG22	2.10	0.51
54:DA:2126:A:C2	54:DA:2162:G:N2	2.78	0.51
1:AA:687:A:HO2'	1:AA:688:G:P	2.34	0.51
54:DA:1281:G:O2'	54:DA:1282:U:H5'	2.10	0.51
22:CD:54:U:H3	22:CD:58:A:N6	2.00	0.51
26:DD:259:THR:O	26:DD:260:ARG:C	2.49	0.51
22:CD:15:G:H22	22:CD:59:A:H1'	1.74	0.51
11:AN:82:VAL:HB	11:AN:108:ILE:HG12	1.92	0.51
3:AF:58:GLU:O	3:AF:64:VAL:HA	2.10	0.51
24:BA:1409:C:O2'	24:BA:1410:G:H5'	2.10	0.51
1:CA:827:U:C5'	1:CA:828:A:OP2	2.56	0.51
9:AL:49:PRO:O	9:AL:53:VAL:HG22	2.11	0.51
24:BA:1885:A:H3'	24:BA:1886:C:C6	2.39	0.51
54:DA:2821:A:OP2	27:DE:110:GLY:HA3	2.10	0.51
4:CG:83:SER:HA	4:CG:89:THR:HG23	1.92	0.51
1:CA:88:C:H3'	1:CA:89:U:C5	2.45	0.51
44:DV:61:LEU:HB3	44:DV:62:PRO:CD	2.40	0.51
54:DA:1504:C:H5'	54:DA:1505:C:OP2	2.10	0.51
12:CO:24:VAL:CG1	12:CO:24:VAL:O	2.58	0.51
54:DA:1430:C:H2'	54:DA:1431:U:C6	2.46	0.51
32:DM:120:LEU:CD1	32:DM:122:VAL:HG23	2.38	0.51
38:DR:16:ARG:HD3	38:DR:19:LEU:HG	1.92	0.51
24:BA:2591:C:OP2	26:BD:238:GLY:O	2.27	0.51
34:BO:91:PHE:CD1	34:BO:91:PHE:N	2.78	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AM:22:LYS:CD	10:AM:26:ALA:HB2	2.40	0.51
7:AJ:57:GLU:H	7:AJ:57:GLU:CD	2.13	0.51
1:CA:602:A:H2'	1:CA:603:U:O4'	2.11	0.51
1:CA:32:A:OP2	1:CA:398:C:H1'	2.10	0.51
24:BA:2257:U:H2'	24:BA:2258:C:C6	2.46	0.51
1:AA:745:C:OP1	1:AA:851:G:O2'	2.28	0.51
1:AA:836:G:O2'	1:AA:837:G:H5'	2.11	0.51
24:BA:40:C:H2'	24:BA:41:C:H6	1.75	0.51
24:BA:1572:A:H2'	24:BA:1573:G:O4'	2.10	0.51
1:AA:230:G:H2'	1:AA:231:G:O4'	2.11	0.51
46:DZ:92:LYS:C	46:DZ:94:LEU:N	2.62	0.51
24:BA:1379:A:O2'	24:BA:1380:G:P	2.68	0.51
24:BA:2494:G:O2'	24:BA:2495:G:H5'	2.10	0.51
31:BK:76:THR:O	31:BK:77:LEU:C	2.48	0.51
1:AA:1221:G:OP1	1:AA:1321:C:N4	2.44	0.51
1:AA:1322:C:C2'	1:AA:1322:C:O2	2.58	0.51
9:AL:2:GLU:CG	9:AL:3:GLN:H	2.23	0.51
54:DA:1054:A:H2'	54:DA:1055:G:O4'	2.11	0.51
30:BH:19:VAL:HG13	30:BH:43:VAL:HG22	1.92	0.51
43:BU:14:LEU:CD2	43:BU:73:ARG:HB2	2.41	0.51
1:CA:984:C:H2'	1:CA:985:C:C6	2.46	0.51
1:CA:1305:G:H5'	21:CX:4:GLY:HA3	1.92	0.51
13:CP:65:LYS:HB3	49:D4:50:VAL:HG21	1.93	0.51
49:D4:50:VAL:O	49:D4:51:ASP:C	2.48	0.51
24:BA:1614:A:N1	41:BS:91:GLY:HA2	2.26	0.51
24:BA:2015:A:H5'	41:BS:92:ARG:NH2	2.24	0.51
25:BB:55:U:O2'	25:BB:56:G:H5'	2.11	0.51
29:BG:29:TRP:O	29:BG:31:VAL:N	2.43	0.51
34:DO:101:VAL:HA	34:DO:105:LEU:O	2.10	0.51
54:DA:1728:G:H2'	54:DA:1731:G:O6	2.10	0.51
24:BA:2788:C:OP1	27:BE:61:ARG:NH1	2.43	0.51
29:DG:114:ILE:CG2	29:DG:115:ARG:N	2.73	0.51
24:BA:1161:C:H2'	24:BA:1162:G:H8	1.75	0.51
1:CA:1022:G:H2'	1:CA:1023:G:C8	2.45	0.51
4:AG:30:LYS:HZ3	4:AG:35:ARG:CZ	2.23	0.51
1:AA:3:G:C5'	1:AA:4:U:OP1	2.59	0.51
1:CA:199:G:O2'	1:CA:200:G:H5'	2.11	0.51
44:BV:10:ARG:NH1	44:BV:26:GLY:O	2.43	0.51
44:DV:48:PHE:CZ	44:DV:52:SER:HA	2.46	0.51
37:BQ:106:ARG:CB	37:BQ:110:LEU:HD21	2.34	0.51
54:DA:1537:C:H2'	54:DA:1538:G:O4'	2.11	0.51
55:DB:42:C:O3'	29:DG:67:LYS:HE3	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DB:43:C:P	29:DG:67:LYS:HE3	2.50	0.51
29:DG:37:VAL:HG22	29:DG:159:VAL:CA	2.34	0.51
53:B8:14:VAL:CG1	53:B8:15:LYS:H	2.21	0.51
31:DK:129:THR:HA	31:DK:137:PRO:HA	1.93	0.51
1:AA:923:A:H2'	1:AA:924:C:C6	2.46	0.51
24:BA:2688:U:H3'	24:BA:2688:U:O2	2.09	0.51
54:DA:2211:G:H2'	54:DA:2211:G:N3	2.26	0.51
34:DO:31:ALA:C	34:DO:32:THR:HG23	2.31	0.51
1:CA:1297:C:HO2'	1:CA:1298:C:P	2.33	0.51
27:BE:16:ARG:HG3	27:BE:16:ARG:NH1	2.23	0.51
1:AA:999:U:H2'	1:AA:1000:A:OP1	2.11	0.51
27:DE:7:VAL:HG11	38:DR:1:MET:HE3	1.91	0.51
54:DA:2307:G:O2'	54:DA:2308:G:OP2	2.27	0.51
48:BX:52:HIS:H	48:BX:52:HIS:HD2	1.59	0.51
1:CA:1160:G:H2'	1:CA:1160:G:N3	2.25	0.51
26:DD:134:ARG:HB2	26:DD:135:PHE:HD2	1.75	0.51
35:BP:133:ARG:O	35:BP:134:ARG:HB2	2.09	0.51
24:BA:2127:G:C3'	24:BA:2128:C:H5''	2.39	0.51
24:BA:671:C:H2'	24:BA:672:C:O5'	2.10	0.51
9:AL:83:ARG:O	9:AL:86:VAL:HG12	2.11	0.51
24:BA:1024:G:OP2	24:BA:1025:G:H3'	2.11	0.51
54:DA:1889:A:N1	54:DA:2234:G:H1'	2.26	0.51
3:CF:22:TRP:CH2	3:CF:32:LEU:HB2	2.45	0.51
18:AU:18:ARG:C	18:AU:20:ALA:H	2.13	0.51
24:BA:2012:G:O3'	41:BS:96:ILE:HG12	2.11	0.51
11:CN:29:ILE:HG13	11:CN:44:SER:HB3	1.92	0.51
18:AU:74:ARG:O	18:AU:81:PHE:HE1	1.92	0.51
7:AJ:44:TYR:HA	7:AJ:47:CYS:SG	2.50	0.51
54:DA:592:G:N3	53:D8:4:MET:CE	2.74	0.51
24:BA:635:C:O2'	24:BA:639:U:OP1	2.28	0.51
6:CI:10:LEU:HD13	6:CI:61:LEU:HD13	1.93	0.51
3:AF:138:VAL:CG2	3:AF:151:VAL:HG23	2.40	0.51
7:CJ:11:GLN:C	7:CJ:12:LEU:HD22	2.31	0.51
1:CA:627:G:O2'	1:CA:628:G:H5'	2.10	0.51
47:BW:15:LYS:HA	47:BW:67:LYS:NZ	2.25	0.51
1:AA:216:G:H2'	1:AA:217:C:H6	1.74	0.51
24:BA:2262:U:H2'	24:BA:2263:C:H6	1.76	0.51
47:DW:15:LYS:H	47:DW:67:LYS:HE2	1.73	0.51
35:BP:79:LEU:O	35:BP:80:GLU:OE2	2.28	0.51
24:BA:1652:A:OP1	36:B0:8:ARG:NH1	2.44	0.51
24:BA:18:C:H2'	24:BA:19:C:H6	1.75	0.51
54:DA:1159:U:H2'	54:DA:1160:G:H8	1.73	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1103:C:C4	1:AA:1104:G:N7	2.79	0.51
42:DT:5:TYR:CE2	47:DW:30:ARG:HG3	2.45	0.51
1:AA:186(D):C:H2'	1:AA:186(E):C:H6	1.75	0.51
22:AC:23:C:H2'	22:AC:24:U:C6	2.45	0.51
12:AO:69:TYR:HB2	12:AO:96:VAL:HG11	1.91	0.51
24:BA:823:G:H2'	24:BA:824:A:C8	2.45	0.51
26:DD:210:GLY:O	26:DD:213:ARG:N	2.43	0.51
22:CC:19:G:C4	22:CC:57:A:C2	2.99	0.51
17:AT:59:ILE:CD1	17:AT:73:VAL:HA	2.40	0.51
54:DA:735:A:H3'	54:DA:736:C:H6	1.76	0.51
54:DA:1565:C:O2'	54:DA:1566:A:O5'	2.28	0.51
20:CW:9:ASN:HD22	20:CW:9:ASN:C	2.14	0.51
24:BA:693:C:O2'	24:BA:694:U:H5'	2.11	0.51
1:AA:1125:U:OP2	1:AA:1145:C:N4	2.43	0.51
44:BV:132:ASN:C	44:BV:133:ILE:HD12	2.31	0.51
30:BH:54:ARG:HB2	30:BH:55:PRO:HD2	1.93	0.51
1:CA:1269:A:C2	1:CA:1313:U:O4'	2.64	0.51
1:CA:1306:A:N6	1:CA:1331:G:O2'	2.44	0.51
19:CV:69:HIS:HD1	49:D4:69:LYS:HE2	1.76	0.51
24:BA:1397:U:HO2'	24:BA:1398:C:P	2.32	0.51
2:AE:82:ARG:HH11	2:AE:82:ARG:HG3	1.76	0.51
24:BA:1102:C:H2'	24:BA:1103:A:H5''	1.92	0.51
24:BA:1816:G:H8	26:BD:62:TYR:CZ	2.28	0.51
21:CX:6:ARG:HE	21:CX:15:ARG:NH2	2.08	0.51
31:DK:4:ILE:N	31:DK:37:VAL:O	2.41	0.51
37:BQ:27:SER:HA	37:BQ:88:ASP:CB	2.41	0.51
27:BE:93:VAL:HG12	27:BE:93:VAL:O	2.11	0.51
27:DE:203:LYS:HE3	27:DE:204:ALA:CB	2.40	0.51
10:AM:82:ILE:O	10:AM:86:MET:HB2	2.10	0.51
38:BR:48:ILE:HG22	38:BR:49:VAL:N	2.25	0.51
31:DK:56:LYS:C	31:DK:56:LYS:HD2	2.31	0.51
4:CG:13:ARG:HD3	4:CG:38:TYR:O	2.10	0.51
49:D4:42:PHE:O	49:D4:44:THR:N	2.44	0.51
16:CS:20:VAL:HG23	16:CS:34:GLU:O	2.11	0.51
34:DO:62:LEU:CD2	34:DO:62:LEU:H	2.19	0.51
15:AR:56:LEU:HA	15:AR:59:MET:CE	2.41	0.51
24:BA:2429:G:N7	34:BO:56:SER:OG	2.44	0.51
54:DA:1930:G:N2	54:DA:1968:G:H2'	2.26	0.51
37:BQ:66:ALA:HA	37:BQ:69:VAL:HG12	1.92	0.51
1:CA:191:G:O2'	20:CW:101:GLY:O	2.27	0.51
20:CW:89:ARG:HH22	20:CW:106:ALA:HB2	1.75	0.51
5:AH:26:PHE:CZ	23:A1:25:A:N6	2.79	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DO:95:VAL:HG13	34:DO:100:LEU:CD2	2.41	0.51
16:CS:72:ARG:HD3	16:CS:73:LEU:HD23	1.91	0.51
7:AJ:26:PHE:O	7:AJ:30:ILE:HG12	2.11	0.51
1:AA:691:G:O5'	1:AA:691:G:H8	1.94	0.51
54:DA:1647:G:O5'	54:DA:1648:C:OP1	2.28	0.51
24:BA:1754:C:H5'	38:BR:101:PHE:CE2	2.46	0.51
28:BF:161:GLU:O	28:BF:165:ARG:N	2.37	0.51
54:DA:1797:C:O2'	26:DD:259:THR:HB	2.10	0.51
25:BB:65:C:N4	25:BB:108:C:H2'	2.24	0.51
54:DA:1607:C:H4'	54:DA:1608:A:O5'	2.11	0.51
3:AF:58:GLU:O	3:AF:59:ARG:CG	2.59	0.51
54:DA:1340:U:HO2'	54:DA:1341:U:P	2.32	0.51
24:BA:1857:G:H2'	24:BA:1858:G:O4'	2.10	0.51
10:CM:17:ASP:HA	10:CM:20:ALA:HB3	1.93	0.51
24:BA:1761:C:C4	24:BA:1762:A:C6	2.98	0.51
24:BA:1171:G:H1'	24:BA:1173:G:O4'	2.10	0.51
1:CA:1116:C:O2'	1:CA:1117:G:H5''	2.11	0.51
24:BA:2161:C:H2'	24:BA:2162:G:O4'	2.11	0.51
24:BA:865:C:H4'	24:BA:866:A:OP1	2.10	0.51
12:AO:33:ARG:CG	12:AO:60:LEU:HD12	2.40	0.51
54:DA:345:A:O2'	54:DA:347:A:N7	2.43	0.51
49:D4:12:ALA:HB1	49:D4:30:GLU:H	1.76	0.51
54:DA:1465:G:N2	54:DA:1466:G:H1'	2.26	0.51
31:BK:98:ALA:CA	31:BK:109:ILE:HD11	2.41	0.51
33:DN:4:PRO:O	33:DN:5:GLN:CB	2.58	0.51
6:AI:22:GLU:OE1	6:AI:84:ASN:HB2	2.10	0.51
53:B8:52:LYS:N	53:B8:53:PRO:HD2	2.26	0.51
4:CG:196:LEU:HD12	4:CG:196:LEU:H	1.75	0.51
50:D5:20:ARG:C	50:D5:22:HIS:H	2.14	0.51
12:CO:27:LEU:C	12:CO:29:GLY:N	2.64	0.51
54:DA:2619:C:O2'	54:DA:2620:C:H5'	2.10	0.51
18:CU:64:ARG:O	18:CU:66:LEU:N	2.43	0.51
40:D2:1:MET:HE2	40:D2:43:GLU:HG2	1.92	0.51
24:BA:414:C:H2'	24:BA:415:A:C8	2.46	0.51
1:AA:544:G:H2'	1:AA:545:C:H6	1.76	0.51
1:CA:937:A:C2	1:CA:1379:G:C6	2.99	0.51
24:BA:574:C:O2	27:BE:145:LYS:NZ	2.39	0.51
1:CA:60:A:O2'	1:CA:61:G:OP2	2.28	0.51
24:BA:2192:G:H2'	24:BA:2193:G:H5''	1.92	0.51
1:CA:22:G:H2'	1:CA:23:C:C6	2.46	0.51
54:DA:2086:U:H2'	54:DA:2087:G:C8	2.45	0.51
1:CA:260:G:H2'	1:CA:261:U:C6	2.46	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:755:C:H2'	54:DA:756:C:C6	2.46	0.51
1:AA:303:A:H2'	1:AA:304:U:C6	2.46	0.51
1:AA:1121:U:O2'	1:AA:1122:U:H5'	2.10	0.51
5:AH:155:GLU:O	5:AH:155:GLU:HG2	2.11	0.51
54:DA:2600:A:C6	54:DA:2601:C:N4	2.79	0.51
43:DU:77:PRO:O	43:DU:78:ALA:HB2	2.11	0.51
27:DE:95:ILE:CD1	27:DE:95:ILE:H	2.19	0.51
54:DA:1317:A:H2'	54:DA:1318:C:H6	1.75	0.51
24:BA:443:A:OP1	28:BF:46:ARG:HB2	2.10	0.51
34:BO:97:PRO:C	34:BO:98:GLU:HG3	2.31	0.51
26:DD:10:THR:HG23	26:DD:13:ARG:CB	2.34	0.51
19:CV:41:VAL:CG1	19:CV:45:VAL:N	2.74	0.51
1:CA:958:A:C8	19:CV:55:LYS:HD2	2.46	0.51
54:DA:886:C:H2'	54:DA:887:A:O4'	2.10	0.51
3:AF:148:GLY:HA3	3:AF:172:ARG:O	2.11	0.51
24:BA:2779:U:H1'	24:BA:2781:A:C5	2.46	0.51
1:CA:703:G:O2'	1:CA:704:A:OP2	2.28	0.51
53:B8:33:ASN:H	53:B8:36:LYS:CE	2.11	0.51
54:DA:2503:A:H3'	54:DA:2503:A:OP2	2.11	0.51
54:DA:805:G:C4'	54:DA:806:C:OP2	2.58	0.51
24:BA:2294:C:OP1	37:BQ:89:ARG:NH2	2.44	0.51
36:B0:97:VAL:HA	36:B0:113:LEU:O	2.11	0.51
29:BG:72:ARG:HD3	29:BG:86:MET:O	2.11	0.51
1:AA:1346:A:H5'	9:AL:120:ARG:HH12	1.75	0.51
9:AL:97:LYS:HB3	9:AL:98:PRO:HD3	1.92	0.51
55:DB:48:A:H4'	37:DQ:95:HIS:HD2	1.76	0.51
24:BA:819:A:H2'	24:BA:820:A:H5'	1.93	0.51
26:BD:43:ARG:HH11	26:BD:44:ASN:CG	2.14	0.51
53:B8:49:VAL:C	53:B8:50:LEU:HG	2.30	0.51
54:DA:1799:G:HO2'	54:DA:1800:C:P	2.33	0.51
31:BK:9:LEU:HD23	31:BK:9:LEU:N	2.26	0.51
5:AH:50:GLU:HB2	5:AH:53:LEU:HD12	1.92	0.51
31:DK:14:ASP:O	31:DK:16:GLY:N	2.44	0.51
24:BA:1005:C:C5	24:BA:1143:A:H1'	2.46	0.51
24:BA:1142(A):A:N7	24:BA:1144:G:C5	2.79	0.51
36:D0:118:GLU:OXT	36:D0:118:GLU:HG3	2.11	0.51
32:DM:131:GLN:HE21	32:DM:132:ALA:H	1.58	0.51
22:CD:20:U:C2'	22:CD:21:A:H5''	2.39	0.51
25:BB:94:C:H2'	25:BB:95:U:O4'	2.11	0.51
33:DN:24:VAL:HG21	33:DN:32:TYR:O	2.10	0.51
3:AF:58:GLU:HB2	3:AF:65:ALA:HB3	1.93	0.51
54:DA:2302:G:C6	54:DA:2303:G:C5	2.99	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:252:G:OP2	34:BO:50:ARG:NH2	2.32	0.51
4:AG:106:TYR:HE1	4:AG:112:VAL:O	1.94	0.51
54:DA:2732:G:H3'	54:DA:2733:A:H5'	1.91	0.51
54:DA:1588:C:H2'	54:DA:1589:C:C6	2.44	0.51
20:AW:67:ALA:O	20:AW:69:GLY:N	2.44	0.51
12:AO:24:VAL:HG12	12:AO:27:LEU:HD23	1.93	0.51
54:DA:1668:A:H2'	54:DA:1674:G:N7	2.26	0.51
18:AU:79:LEU:HB3	18:AU:80:PRO:CD	2.40	0.51
1:CA:1019:C:H2'	1:CA:1020:U:O4'	2.11	0.51
6:CI:75:LEU:HD23	6:CI:79:LEU:HG	1.91	0.51
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.76	0.51
29:DG:121:ASN:HD22	29:DG:122:PRO:CD	2.23	0.51
53:B8:52:LYS:N	53:B8:52:LYS:CD	2.74	0.51
53:B8:52:LYS:CD	53:B8:52:LYS:H	2.24	0.51
8:AK:63:LEU:N	8:AK:63:LEU:HD22	2.26	0.51
42:DT:65:ARG:CD	42:DT:65:ARG:H	2.23	0.51
30:DH:55:PRO:HG2	30:DH:61:HIS:ND1	2.26	0.51
1:AA:393:A:O2'	1:AA:394:G:H5'	2.10	0.51
42:DT:36:LYS:HA	42:DT:39:ILE:HD12	1.91	0.51
54:DA:2842:G:C2'	54:DA:2843:G:H5'	2.40	0.51
54:DA:2124:G:H2'	54:DA:2125:G:O4'	2.11	0.51
3:AF:17:ASP:O	3:AF:18:TRP:O	2.29	0.51
1:AA:767:A:H2'	1:AA:768:A:O4'	2.10	0.51
24:BA:363(B):G:O2'	24:BA:363(C):G:H5'	2.11	0.51
1:CA:181:G:O2'	1:CA:182:U:C6	2.64	0.51
59:CP:202:C:O4'	61:DA:2918:A:H2'	2.11	0.51
23:C1:21:A:H8	23:C1:21:A:O5'	1.93	0.51
24:BA:78:A:H2'	24:BA:79:G:H8	1.74	0.51
24:BA:1222:C:O2'	24:BA:1223:C:H5'	2.10	0.51
3:CF:21:ARG:CD	3:CF:21:ARG:N	2.74	0.51
24:BA:2366:A:H2'	24:BA:2367:G:O4'	2.11	0.51
54:DA:153:C:OP2	46:DZ:88:LYS:HE2	2.11	0.51
24:BA:2759:G:C2'	24:BA:2760:C:H5'	2.41	0.51
43:BU:95:LYS:NZ	43:BU:96:ILE:N	2.58	0.51
54:DA:1042:G:H2'	54:DA:1043:C:C6	2.46	0.51
1:CA:1318:A:C5'	19:CV:11:VAL:HG11	2.41	0.51
1:CA:1324:A:C4'	1:CA:1362:C:H4'	2.41	0.51
49:D4:54:GLY:HA2	49:D4:57:GLU:HG2	1.92	0.51
3:CF:70:VAL:CG1	3:CF:71:ALA:N	2.73	0.51
28:BF:25:PRO:C	28:BF:27:GLU:H	2.13	0.51
3:AF:50:ALA:HB2	3:AF:75:VAL:CG2	2.41	0.51
23:C1:10:G:H2'	23:C1:11:U:O5'	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1534:A:C2'	1:CA:1535:C:C5	2.94	0.51
38:DR:14:TYR:CD1	38:DR:14:TYR:N	2.77	0.51
26:BD:142:VAL:CG2	26:BD:143:HIS:N	2.74	0.51
13:CP:9:ILE:HD12	13:CP:9:ILE:C	2.31	0.51
1:CA:701:C:C2'	1:CA:702:A:OP2	2.59	0.51
4:AG:22:LYS:CB	4:AG:26:CYS:HB2	2.41	0.51
24:BA:2286:A:O2'	51:B6:37:ARG:NH2	2.44	0.51
37:DQ:83:LYS:HG2	37:DQ:109:GLY:H	1.76	0.51
22:AD:5:G:C2'	22:AD:6:G:H5'	2.39	0.51
5:AH:101:ILE:O	5:AH:101:ILE:HG12	2.11	0.51
35:BP:141:GLN:NE2	44:BV:75:ASN:N	2.59	0.51
35:DP:133:ARG:HG2	35:DP:134:ARG:N	2.26	0.51
24:BA:2291:U:O2'	24:BA:2374:C:H1'	2.11	0.51
40:B2:1:MET:SD	40:B2:42:GLY:HA3	2.50	0.51
29:BG:75:LYS:O	29:BG:76:SER:HB2	2.11	0.51
1:AA:1162:C:C2	1:AA:1175:G:N2	2.78	0.51
51:D6:20:ASN:O	51:D6:21:TYR:CB	2.59	0.51
1:AA:437:U:H5'	4:AG:155:LEU:HD21	1.92	0.51
5:CH:107:ARG:O	5:CH:108:ALA:C	2.49	0.51
31:DK:71:ILE:O	31:DK:72:LEU:HB2	2.10	0.51
1:CA:1239:A:N6	1:CA:1299:A:H62	2.09	0.51
54:DA:1496:A:C8	54:DA:1577:C:O2'	2.47	0.51
1:AA:712:A:H2'	1:AA:713:G:O4'	2.11	0.51
1:AA:1031:G:C8	1:AA:1031:G:OP1	2.64	0.51
24:BA:1533:C:H3'	24:BA:1534:G:O4'	2.10	0.51
24:BA:812:C:C2	24:BA:813:U:C5	2.98	0.51
24:BA:1365:A:N6	24:BA:1366:A:C6	2.78	0.51
1:CA:531:U:H5''	1:CA:532:A:OP1	2.10	0.51
24:BA:1164:G:H2'	24:BA:1165:U:H6	1.74	0.51
13:AP:79:LYS:HE3	13:AP:82:MET:CE	2.39	0.51
54:DA:616:A:C4	28:DF:180:GLY:HA2	2.46	0.51
28:DF:192:LEU:HD21	28:DF:194:MET:HE2	1.92	0.51
24:BA:372:G:H2'	24:BA:400:G:O6	2.11	0.51
9:AL:128:ARG:HG2	9:AL:128:ARG:HH11	1.75	0.51
31:BK:15:VAL:HG12	31:BK:16:GLY:H	1.75	0.51
24:BA:1063:G:H2'	24:BA:1064:C:O4'	2.10	0.51
4:CG:52:SER:O	4:CG:53:ASP:C	2.49	0.51
32:DM:16:ILE:HG22	32:DM:17:ASP:N	2.26	0.51
44:DV:124:ILE:HD11	44:DV:165:VAL:CG2	2.41	0.51
24:BA:857:C:H1'	45:B3:26:TYR:HE2	1.75	0.51
35:DP:25:ASP:HA	35:DP:100:GLY:O	2.11	0.51
54:DA:788:A:O2'	54:DA:789:A:OP2	2.22	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1427:U:H2'	1:AA:1428:A:C8	2.46	0.51
1:CA:1405:G:O2'	1:CA:1519:A:H5'	2.11	0.51
54:DA:2219:G:H2'	54:DA:2224:G:H5'	1.92	0.51
24:BA:1008:C:H5''	24:BA:1009:A:OP1	2.11	0.51
34:BO:9:ASN:HB2	34:BO:10:PRO:HD2	1.92	0.51
30:BH:144:VAL:O	30:BH:145:ALA:C	2.48	0.51
29:BG:62:LEU:HG	49:B4:27:THR:HG21	1.93	0.51
4:AG:194:LEU:HD22	4:AG:194:LEU:N	2.26	0.51
20:AW:101:GLY:O	20:AW:103:GLY:N	2.43	0.51
25:BB:43:C:H5'	49:B4:1:MET:H3	1.75	0.51
31:BK:86:THR:HA	31:BK:123:LEU:HG	1.93	0.51
10:AM:54:PHE:O	10:AM:55:LYS:HG3	2.10	0.51
13:AP:48:LEU:O	13:AP:49:THR:C	2.49	0.51
29:BG:120:LEU:N	29:BG:179:PRO:O	2.44	0.51
34:DO:49:ARG:HE	53:D8:59:LYS:HG2	1.76	0.51
27:DE:105:THR:HG23	27:DE:166:THR:OG1	2.10	0.51
34:BO:105:LEU:N	34:BO:105:LEU:HD12	2.25	0.51
39:B1:58:ARG:HA	39:B1:61:TRP:CE3	2.45	0.51
1:CA:1355:G:H2'	1:CA:1356:G:H8	1.76	0.51
1:CA:959:A:H2	1:CA:1221:G:N3	2.09	0.51
2:CE:187:LEU:HD13	2:CE:187:LEU:O	2.11	0.51
28:BF:20:LEU:HB3	28:BF:199:TRP:CH2	2.41	0.51
3:AF:76:VAL:HG13	3:AF:84:ILE:CD1	2.39	0.51
28:BF:65:TRP:CZ3	28:BF:75:HIS:HD2	2.29	0.51
27:BE:34:VAL:CG2	27:BE:78:LEU:HD13	2.39	0.51
38:DR:14:TYR:HD1	38:DR:14:TYR:H	1.56	0.51
30:BH:153:LYS:O	30:BH:155:SER:N	2.44	0.51
50:D5:56:LYS:N	50:D5:56:LYS:HD2	2.13	0.51
26:DD:28:GLU:OE1	26:DD:29:PRO:HD2	2.11	0.51
24:BA:1728:G:H5''	24:BA:1728:G:N3	2.26	0.51
40:D2:41:GLY:N	40:D2:46:VAL:HG13	2.26	0.51
30:DH:4:ILE:O	30:DH:6:ARG:N	2.43	0.51
24:BA:448:U:C4	24:BA:583:G:H1'	2.45	0.51
7:AJ:3:ARG:O	7:AJ:5:ARG:N	2.43	0.51
8:CK:104:ARG:HD2	8:CK:138:TRP:CD2	2.46	0.51
24:BA:1180:C:H6	24:BA:1180:C:H5'	1.75	0.51
24:BA:1142(A):A:N7	24:BA:1144:G:N7	2.59	0.51
42:BT:63:LYS:HA	42:BT:72:LYS:HA	1.93	0.51
1:AA:1475:G:OP1	24:BA:1689:A:H1'	2.10	0.51
14:AQ:15:LYS:HG3	14:AQ:16:PHE:CD2	2.45	0.51
33:DN:113:LYS:O	33:DN:116:SER:HB3	2.11	0.51
54:DA:1165:U:C2	54:DA:1166:C:C5	2.98	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2311:A:O2'	54:DA:2312:U:C5'	2.59	0.51
24:BA:2564:A:C2	24:BA:2647:U:H4'	2.46	0.51
37:DQ:18:ILE:C	37:DQ:19:LYS:O	2.44	0.51
36:D0:92:GLY:N	36:D0:94:TYR:HE2	2.09	0.51
27:DE:116:VAL:HG22	27:DE:122:PHE:HB2	1.91	0.51
33:DN:24:VAL:O	33:DN:24:VAL:HG13	2.11	0.51
28:DF:198:ALA:C	28:DF:200:GLU:N	2.62	0.51
54:DA:662:G:H5'	34:DO:15:ARG:HA	1.92	0.51
8:AK:6:ILE:HB	8:AK:85:ARG:NH1	2.26	0.51
3:CF:150:LYS:HG3	3:CF:169:ALA:HB2	1.92	0.51
1:AA:201:C:C2	1:AA:209:U:H6	2.28	0.51
1:AA:358:U:H2'	1:AA:359:U:H6	1.76	0.51
1:CA:1032:A:H3'	1:CA:1032(A):G:C5'	2.41	0.51
1:CA:376:G:H5''	16:CS:5:ARG:CD	2.36	0.51
21:CX:10:ARG:HH11	21:CX:10:ARG:HG3	1.76	0.51
48:DX:7:LYS:HE2	48:DX:32:GLN:NE2	2.25	0.51
1:CA:456:C:O2'	1:CA:457:C:H5'	2.10	0.51
50:B5:55:ARG:NH1	50:B5:55:ARG:HB2	2.26	0.51
24:BA:2339:G:H2'	24:BA:2340:G:H8	1.76	0.51
32:DM:118:LYS:O	32:DM:120:LEU:N	2.43	0.51
32:DM:78:TYR:N	32:DM:78:TYR:HD1	2.07	0.51
1:CA:1210:C:H5'	1:CA:1214:C:N4	2.26	0.51
26:BD:239:ARG:HG3	26:BD:239:ARG:HH21	1.76	0.51
41:BS:73:ALA:O	41:BS:106:ILE:HG12	2.11	0.51
3:AF:122:GLU:C	3:AF:124:ILE:H	2.13	0.51
10:AM:22:LYS:O	10:AM:26:ALA:N	2.44	0.51
54:DA:2030:A:H5''	54:DA:2031:A:OP1	2.11	0.51
55:DB:34:U:H5''	55:DB:35:U:OP1	2.11	0.51
30:DH:72:ILE:O	30:DH:75:ALA:HB3	2.11	0.51
1:CA:518:C:O2'	1:CA:519:C:OP2	2.22	0.51
42:DT:47:PHE:N	42:DT:47:PHE:CD1	2.78	0.51
37:BQ:3:ARG:HH12	45:B3:74:ARG:HH22	1.59	0.51
24:BA:1199:U:H2'	24:BA:1200:C:C6	2.45	0.51
16:CS:39:TYR:OH	16:CS:41:PRO:HB3	2.11	0.51
54:DA:715:G:H2'	54:DA:716:A:C8	2.45	0.51
30:DH:19:VAL:HG13	30:DH:43:VAL:CG2	2.41	0.51
1:CA:1282:C:H2'	1:CA:1283:G:O4'	2.11	0.51
24:BA:1016:G:H2'	24:BA:1017:G:O4'	2.10	0.51
44:DV:70:LEU:HD11	44:DV:98:MET:HE1	1.91	0.51
12:AO:29:GLY:O	12:AO:30:ALA:C	2.48	0.51
54:DA:1278:A:O3'	36:D0:34:ILE:HG23	2.11	0.51
54:DA:1436:G:H1'	54:DA:1477:A:O2'	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B5:60:VAL:HG23	50:B5:60:VAL:OXT	2.09	0.51
24:BA:1512:G:H2'	24:BA:1513:C:C6	2.46	0.51
46:BZ:23:LYS:HE3	46:BZ:28:GLY:HA3	1.92	0.51
49:B4:10:VAL:CB	49:B4:11:PRO:HD3	2.14	0.51
1:CA:794:A:C4'	1:CA:794:A:C8	2.94	0.51
1:CA:794:A:H2'	1:CA:795:C:C6	2.45	0.51
43:DU:95:LYS:O	43:DU:96:ILE:O	2.28	0.51
10:AM:47:PHE:HB2	14:AQ:34:TYR:HE2	1.76	0.51
19:AV:64:GLU:C	19:AV:66:MET:H	2.12	0.51
49:B4:38:LYS:HG3	49:B4:38:LYS:O	2.10	0.51
29:BG:111:LEU:HB2	29:BG:112:PRO:CD	2.33	0.51
1:CA:1104:G:O2'	1:CA:1105:A:H5'	2.11	0.51
54:DA:1057:A:C2'	54:DA:1058:U:H5'	2.40	0.51
43:BU:12:THR:HA	43:BU:26:LYS:HA	1.93	0.51
27:DE:54:GLN:NE2	27:DE:54:GLN:H	2.08	0.51
1:CA:1053:G:C4'	1:CA:1054:C:H5'	2.41	0.51
49:B4:6:HIS:CB	49:B4:7:PRO:CA	2.79	0.51
29:BG:29:TRP:C	29:BG:31:VAL:H	2.14	0.51
2:CE:15:VAL:H	2:CE:16:HIS:HD1	1.59	0.51
1:CA:1124:G:C5'	1:CA:1145:C:H41	2.23	0.51
2:AE:200:ILE:N	2:AE:200:ILE:HD12	2.26	0.51
54:DA:608:A:H2'	54:DA:609:A:O4'	2.11	0.51
23:C1:13:A:H4'	23:C1:14:A:OP1	2.11	0.51
24:BA:2776:A:O2'	24:BA:2777:G:OP2	2.17	0.51
27:BE:51:PHE:O	27:BE:52:LEU:HB2	2.11	0.51
21:CX:14:TRP:CE3	21:CX:15:ARG:HD3	2.46	0.51
1:CA:1026:G:C6	1:CA:1036:G:N2	2.79	0.51
4:AG:34:GLU:O	4:AG:35:ARG:CB	2.58	0.51
24:BA:1928:A:O2'	24:BA:1929:G:H5'	2.11	0.51
44:BV:105:VAL:O	44:BV:139:VAL:HG12	2.11	0.51
45:B3:83:PRO:O	45:B3:84:LEU:C	2.49	0.51
45:B3:83:PRO:O	45:B3:85:ALA:N	2.44	0.51
37:DQ:87:PHE:O	37:DQ:88:ASP:O	2.29	0.51
29:DG:109:VAL:O	29:DG:113:ARG:HG3	2.10	0.51
16:CS:1:MET:O	16:CS:3:LYS:HG3	2.11	0.51
24:BA:1280:G:C3'	24:BA:1281:G:C5'	2.89	0.51
54:DA:1929:G:O5'	54:DA:1929:G:H8	1.88	0.51
24:BA:1815:A:P	26:BD:54:ARG:HH22	2.34	0.51
31:DK:130:TYR:HB3	31:DK:136:VAL:HG13	1.93	0.51
1:AA:848:C:H2'	1:AA:849:C:H6	1.76	0.51
42:BT:50:LYS:HB2	42:BT:84:ALA:CB	2.41	0.51
1:AA:1053:G:N7	1:AA:1199:U:H2'	2.26	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:188:U:O2'	1:AA:189:U:C5'	2.53	0.51
2:AE:11:LEU:HD13	2:AE:11:LEU:N	2.18	0.51
2:AE:7:VAL:O	2:AE:8:LYS:C	2.49	0.51
1:AA:1181:G:C2	1:AA:1182:G:N2	2.79	0.51
1:AA:690:G:N2	11:AN:55:LYS:HZ1	2.09	0.51
2:CE:178:ARG:NH2	8:CK:74:PRO:HB3	2.18	0.51
38:DR:57:PHE:CG	38:DR:58:ASN:N	2.79	0.51
33:DN:23:ARG:HH11	33:DN:23:ARG:HG2	1.76	0.51
4:CG:108:LEU:HD11	4:CG:174:LEU:CD2	2.37	0.51
32:DM:108:PRO:O	32:DM:113:GLY:HA3	2.10	0.51
33:BN:69:ILE:HD12	33:BN:69:ILE:N	2.26	0.51
27:DE:37:ARG:HE	27:DE:37:ARG:N	2.09	0.51
5:CH:126:ARG:HG3	5:CH:126:ARG:NH1	2.19	0.51
34:DO:13:ASN:O	34:DO:14:LYS:C	2.49	0.51
26:DD:94:LEU:HD13	26:DD:94:LEU:C	2.31	0.51
4:CG:206:PHE:CD2	4:CG:207:TYR:CD1	2.99	0.51
47:BW:25:VAL:HG23	47:BW:26:ARG:N	2.26	0.51
4:CG:178:VAL:O	4:CG:180:GLY:N	2.44	0.51
54:DA:229:A:N6	54:DA:418:G:O5'	2.43	0.51
1:AA:483:C:H6	1:AA:483:C:O5'	1.94	0.51
5:AH:114:GLY:O	5:AH:115:VAL:O	2.28	0.51
41:DS:70:TYR:HD2	41:DS:70:TYR:N	2.06	0.51
1:CA:41:G:H2'	1:CA:42:G:C8	2.42	0.51
35:BP:2:LEU:H	35:BP:2:LEU:CD1	2.23	0.51
15:AR:15:PHE:O	15:AR:27:VAL:HG23	2.11	0.51
54:DA:2341:G:H2'	54:DA:2342:C:H6	1.73	0.51
2:AE:114:ARG:O	2:AE:118:LEU:HG	2.10	0.51
54:DA:454:A:H4'	54:DA:455:C:OP2	2.10	0.51
42:DT:18:TYR:C	42:DT:20:GLY:N	2.64	0.51
38:DR:20:PRO:HD2	38:DR:86:ILE:HG23	1.92	0.51
32:DM:26:LEU:HG	32:DM:30:ILE:HD11	1.93	0.51
38:DR:51:ARG:HG3	38:DR:98:LYS:HG3	1.93	0.51
11:AN:50:TYR:CD1	11:AN:60:ALA:HB2	2.46	0.51
54:DA:1582:C:C2	54:DA:1583:A:C8	2.99	0.51
39:B1:74:LEU:N	39:B1:74:LEU:HD12	2.26	0.51
24:BA:2192:G:H2'	24:BA:2193:G:C5'	2.41	0.51
54:DA:844:C:H2'	54:DA:845:G:O4'	2.11	0.51
24:BA:128:C:C2'	24:BA:129:C:O5'	2.59	0.51
1:CA:545:C:OP2	4:CG:62:GLN:NE2	2.43	0.51
22:AC:22:G:O2'	22:AC:23:C:H5'	2.10	0.51
29:DG:51:ARG:HB3	29:DG:51:ARG:HH11	1.76	0.51
1:CA:1463:C:O2'	1:CA:1464:G:H5'	2.12	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BN:26:LYS:HE3	33:BN:37:ASP:CG	2.31	0.51
54:DA:375:C:H2'	54:DA:376:C:C6	2.46	0.51
32:BM:75:TYR:CZ	32:BM:77:GLY:HA2	2.45	0.51
54:DA:309:G:O2'	54:DA:329:G:C8	2.63	0.51
46:DZ:85:LEU:HA	46:DZ:87:PRO:HD2	1.91	0.50
1:CA:73:G:H2'	1:CA:74:C:C6	2.46	0.50
43:DU:94:LYS:HE3	43:DU:101:LYS:HZ3	1.76	0.50
43:DU:75:ILE:CG1	43:DU:76:CYS:N	2.73	0.50
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.45	0.50
13:AP:28:ALA:O	13:AP:30:ALA:N	2.44	0.50
49:B4:14:ILE:HG12	49:B4:15:ILE:N	2.25	0.50
30:BH:137:ASP:OD2	30:BH:140:LYS:HG3	2.11	0.50
40:B2:5:VAL:HG22	40:B2:6:LYS:N	2.26	0.50
54:DA:1113:U:OP1	30:DH:2:SER:N	2.44	0.50
1:CA:1363:A:C4'	1:CA:1364:U:OP1	2.59	0.50
13:CP:66:LEU:O	13:CP:70:LEU:HB2	2.11	0.50
54:DA:626:U:H5'	54:DA:627:A:C5'	2.40	0.50
3:AF:173:VAL:N	3:AF:174:PRO:HD3	2.26	0.50
2:AE:162:ILE:O	2:AE:185:ILE:HG12	2.11	0.50
2:AE:82:ARG:HA	2:AE:92:TYR:HE1	1.71	0.50
24:BA:686:G:N7	52:B7:5:TRP:CH2	2.80	0.50
27:BE:60:ASN:C	27:BE:62:PRO:CD	2.68	0.50
1:AA:428:G:O2'	1:AA:429:U:OP2	2.26	0.50
54:DA:910:A:C5	35:DP:13:GLN:HG3	2.46	0.50
37:BQ:106:ARG:HB2	37:BQ:106:ARG:NH1	2.16	0.50
24:BA:2531:A:H4'	30:BH:157:TYR:CD2	2.46	0.50
54:DA:2723:C:H4'	36:D0:1:MET:HE2	1.93	0.50
25:BB:42:C:H4'	29:BG:67:LYS:O	2.10	0.50
1:CA:1127:G:H21	1:CA:1147:C:H41	1.58	0.50
37:BQ:34:HIS:NE2	37:BQ:54:LEU:HD23	2.26	0.50
30:BH:102:ALA:HA	30:BH:117:PRO:HD3	1.92	0.50
8:CK:102:ARG:NH1	8:CK:105:ARG:HH12	2.09	0.50
28:DF:108:LYS:NZ	28:DF:108:LYS:HA	2.27	0.50
44:BV:120:ILE:HG23	44:BV:121:HIS:H	1.75	0.50
24:BA:1312:U:C3'	42:BT:63:LYS:NZ	2.74	0.50
54:DA:2656:U:H3'	54:DA:2656:U:C6	2.45	0.50
3:AF:135:LYS:O	3:AF:139:GLN:HB2	2.11	0.50
24:BA:2522:U:C2'	24:BA:2523:G:H5''	2.39	0.50
32:BM:134:ARG:N	32:BM:135:PRO:CD	2.75	0.50
1:CA:812:C:O2'	1:CA:813:U:P	2.69	0.50
1:AA:1369:C:H2'	1:AA:1370:G:O4'	2.11	0.50
1:CA:659:U:OP1	15:CR:9:GLN:NE2	2.44	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DX:56:VAL:CG1	48:DX:57:GLU:N	2.74	0.50
24:BA:1757:U:O2	24:BA:1762:A:N1	2.44	0.50
2:AE:15:VAL:HG21	2:AE:209:ARG:O	2.11	0.50
4:CG:112:VAL:HG12	4:CG:116:GLN:OE1	2.11	0.50
1:CA:105:G:H2'	1:CA:106:C:H6	1.76	0.50
24:BA:704:G:H2'	24:BA:726:G:N2	2.23	0.50
16:CS:43:LYS:C	16:CS:45:THR:H	2.14	0.50
1:AA:1067:A:O2'	1:AA:1068:G:O5'	2.28	0.50
15:CR:16:ALA:HB1	15:CR:21:ASP:HB3	1.92	0.50
58:DA:2916:G:H2'	60:DA:2917:U:C6	2.45	0.50
1:AA:88:C:O2'	1:AA:89:U:H5'	2.11	0.50
54:DA:614:U:O4	28:DF:175:THR:HG22	2.11	0.50
10:AM:53:PRO:HA	14:AQ:42:ILE:HD12	1.91	0.50
26:BD:135:PHE:N	26:BD:135:PHE:CD2	2.77	0.50
24:BA:75:G:H4'	47:BW:55:ARG:HH21	1.76	0.50
1:AA:823:G:H2'	1:AA:824:C:H6	1.75	0.50
54:DA:528:A:H2'	54:DA:529:A:H5'	1.93	0.50
3:CF:99:VAL:O	3:CF:99:VAL:HG23	2.11	0.50
55:DB:24:G:O6	55:DB:56:G:H2'	2.11	0.50
1:AA:1123:A:H1'	10:AM:37:PRO:O	2.12	0.50
54:DA:2674:G:H2'	54:DA:2675:A:C8	2.46	0.50
22:CC:63:G:H2'	22:CC:64:G:H8	1.77	0.50
24:BA:2035:G:H5''	24:BA:2036:C:OP2	2.11	0.50
41:BS:35:ILE:HG23	50:B5:28:PRO:HD2	1.93	0.50
54:DA:848:G:H2'	54:DA:849:A:C8	2.45	0.50
52:D7:36:GLN:HG2	52:D7:36:GLN:O	2.09	0.50
33:DN:15:GLY:O	33:DN:46:ALA:HB1	2.10	0.50
2:CE:53:ARG:HA	2:CE:56:ARG:HG3	1.93	0.50
1:CA:264:U:O2'	17:CT:64:PRO:HD2	2.10	0.50
3:CF:139:GLN:O	3:CF:143:GLU:HB2	2.11	0.50
3:AF:67:THR:O	3:AF:69:HIS:CE1	2.64	0.50
54:DA:523:C:O2	54:DA:553:U:O2'	2.29	0.50
55:DB:87:G:O5'	55:DB:87:G:H8	1.94	0.50
44:DV:116:VAL:HG23	44:DV:116:VAL:O	2.11	0.50
11:AN:13:GLN:N	11:AN:13:GLN:CD	2.63	0.50
31:BK:83:ALA:HB2	31:BK:88:ILE:HD13	1.93	0.50
33:BN:87:ILE:HG21	33:BN:91:LEU:HA	1.93	0.50
9:AL:37:PHE:HE2	9:AL:70:LYS:HG3	1.75	0.50
30:BH:26:VAL:HG22	30:BH:26:VAL:O	2.10	0.50
24:BA:1204:A:O2'	24:BA:1205:U:OP2	2.29	0.50
30:DH:103:LEU:CD1	30:DH:131:VAL:HG21	2.41	0.50
1:CA:1321:C:H3'	1:CA:1322:C:H5''	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1309:G:O2'	24:BA:1310:G:H5'	2.11	0.50
27:BE:38:THR:HG22	27:BE:41:LYS:H	1.75	0.50
27:BE:39:PRO:HD3	27:BE:45:THR:OG1	2.11	0.50
22:AC:20:U:C3'	22:AC:21:A:C5'	2.87	0.50
5:AH:79:GLU:HB3	5:AH:92:LYS:HA	1.91	0.50
44:BV:10:ARG:HB3	44:BV:36:LYS:C	2.31	0.50
35:BP:141:GLN:HB3	44:BV:74:VAL:C	2.31	0.50
44:DV:121:HIS:CD2	44:DV:121:HIS:H	2.29	0.50
44:DV:81:ARG:O	44:DV:81:ARG:HD3	2.12	0.50
24:BA:2376:A:N6	37:BQ:89:ARG:HD2	2.27	0.50
24:BA:2654:A:C4	24:BA:2656:U:O2	2.65	0.50
41:BS:64:MET:HG2	41:BS:109:GLU:OE2	2.11	0.50
24:BA:2529:G:H5'	24:BA:2530:A:O5'	2.11	0.50
55:DB:31:C:O2	55:DB:31:C:H2'	2.11	0.50
54:DA:411:G:N2	34:DO:71:VAL:HG21	2.27	0.50
17:AT:58:GLU:HG3	17:AT:77:VAL:CG2	2.42	0.50
24:BA:1731:G:N2	24:BA:1732:A:N7	2.59	0.50
24:BA:1732:A:N7	24:BA:1733:G:C5	2.79	0.50
31:BK:38:LEU:CD1	31:BK:38:LEU:H	2.23	0.50
9:CL:10:ARG:HG3	9:CL:105:ASP:HB2	1.92	0.50
33:BN:11:ALA:O	33:BN:12:ASP:HB3	2.11	0.50
54:DA:1946:U:H2'	54:DA:1947:C:C6	2.43	0.50
11:AN:84:VAL:HG11	11:AN:95:ILE:HD11	1.94	0.50
32:DM:112:LEU:HD23	32:DM:113:GLY:N	2.26	0.50
47:DW:36:ARG:O	47:DW:40:SER:HB2	2.10	0.50
34:BO:21:ARG:HA	34:BO:21:ARG:HE	1.76	0.50
54:DA:1587:A:H2'	54:DA:1588:C:C6	2.46	0.50
6:AI:48:LEU:HD13	6:AI:52:ILE:HG13	1.92	0.50
2:AE:229:VAL:HG22	2:AE:229:VAL:O	2.11	0.50
54:DA:371:A:H1'	54:DA:373:U:C5	2.47	0.50
24:BA:662:G:C5'	34:BO:15:ARG:O	2.59	0.50
54:DA:1505:C:H3'	54:DA:1506:C:C6	2.46	0.50
6:CI:63:TYR:CD2	6:CI:63:TYR:N	2.79	0.50
22:CC:60:U:H5"	22:CC:61:C:OP2	2.12	0.50
17:AT:19:VAL:HG23	17:AT:44:ALA:HB3	1.92	0.50
2:AE:114:ARG:HH11	2:AE:118:LEU:HD21	1.75	0.50
3:AF:34:LEU:HD12	3:AF:34:LEU:O	2.11	0.50
1:CA:748:C:O2'	1:CA:749:C:OP2	2.29	0.50
24:BA:651:G:C5'	53:B8:18:ALA:HB3	2.41	0.50
10:AM:90:LEU:N	10:AM:91:PRO:CD	2.74	0.50
54:DA:719:C:H2'	54:DA:720:C:H6	1.77	0.50
26:BD:228:PRO:HD3	26:BD:234:GLY:O	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:691:C:H2'	24:BA:692:C:H6	1.76	0.50
1:CA:1293:G:H2'	1:CA:1294:G:H8	1.74	0.50
1:AA:521:G:OP1	12:AO:73:GLU:HA	2.10	0.50
26:DD:233:HIS:CD2	26:DD:233:HIS:H	2.29	0.50
1:AA:35:G:H2'	1:AA:36:C:C6	2.47	0.50
54:DA:2785:C:O2'	54:DA:2786:U:H5'	2.11	0.50
15:CR:39:LEU:O	15:CR:40:SER:C	2.50	0.50
22:CC:53:G:O2'	22:CC:54:U:H5'	2.10	0.50
36:B0:101:ALA:HB2	50:B5:44:THR:OG1	2.11	0.50
13:AP:16:ASP:OD2	13:AP:17:VAL:HG23	2.11	0.50
4:AG:170:VAL:O	4:AG:171:GLY:O	2.29	0.50
38:BR:132:LYS:O	38:BR:136:GLN:HB3	2.11	0.50
1:CA:190:G:H2'	1:CA:190:G:N3	2.26	0.50
24:BA:764:A:N3	26:BD:213:ARG:NH1	2.60	0.50
49:D4:10:VAL:HG23	49:D4:11:PRO:HD2	1.93	0.50
1:CA:6:G:N2	5:CH:98:THR:OG1	2.43	0.50
54:DA:307:G:H21	54:DA:330:A:H62	1.60	0.50
30:DH:126:PRO:HD2	30:DH:127:GLU:N	2.25	0.50
24:BA:654(C):G:N1	24:BA:654(S):G:N1	2.59	0.50
46:DZ:83:GLU:CD	46:DZ:85:LEU:H	2.15	0.50
1:AA:1305:G:OP1	21:AX:2:GLY:N	2.44	0.50
10:AM:47:PHE:CE2	14:AQ:37:PHE:HE2	2.29	0.50
13:AP:66:LEU:CA	13:AP:70:LEU:HD12	2.39	0.50
19:AV:11:VAL:HG12	19:AV:38:SER:HB2	1.93	0.50
1:AA:1127:G:N2	1:AA:1145:C:N1	2.59	0.50
1:AA:1280:A:OP1	10:AM:40:LEU:HD21	2.12	0.50
2:AE:137:ARG:HH21	2:AE:137:ARG:HG3	1.77	0.50
54:DA:1508:A:O2'	54:DA:1509:C:O4'	2.29	0.50
54:DA:580:C:H2'	54:DA:581:C:C6	2.47	0.50
24:BA:1042:G:O2'	24:BA:1043:C:H5'	2.12	0.50
24:BA:332:A:C5	24:BA:335:C:C4	2.99	0.50
30:DH:133:VAL:HG12	30:DH:141:VAL:HG13	1.93	0.50
1:CA:960:U:C2'	1:CA:960:U:O2	2.59	0.50
49:D4:61:ARG:C	49:D4:63:TYR:H	2.14	0.50
2:CE:82:ARG:HA	2:CE:92:TYR:CE2	2.45	0.50
30:DH:152:ARG:C	30:DH:153:LYS:HE2	2.32	0.50
34:DO:114:ILE:HD13	34:DO:125:VAL:CG2	2.41	0.50
54:DA:2810:A:N6	54:DA:2891:G:H2'	2.26	0.50
53:B8:34:TRP:C	53:B8:36:LYS:N	2.65	0.50
5:AH:81:GLU:HA	5:AH:89:ILE:O	2.11	0.50
1:CA:176:C:O2'	1:CA:1451:A:N1	2.44	0.50
54:DA:805:G:C5'	54:DA:806:C:OP2	2.59	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DF:32:LEU:O	28:DF:36:VAL:HG23	2.11	0.50
37:DQ:86:ALA:O	37:DQ:87:PHE:HB3	2.09	0.50
37:DQ:26:LEU:CD2	37:DQ:87:PHE:CD1	2.94	0.50
29:BG:67:LYS:CE	49:B4:2:LYS:HG2	2.29	0.50
24:BA:2528:U:C2'	24:BA:2529:G:H5''	2.41	0.50
54:DA:26:G:H2'	54:DA:27:G:O4'	2.12	0.50
54:DA:2406:U:N3	34:DO:72:PRO:HB2	2.26	0.50
24:BA:805:G:C4'	24:BA:806:C:OP2	2.60	0.50
1:AA:960:U:N3	1:AA:1225:A:C8	2.76	0.50
17:AT:60:ILE:HB	17:AT:74:LEU:HD23	1.93	0.50
54:DA:2287:A:N6	54:DA:2344:U:N3	2.52	0.50
42:BT:44:GLU:OE1	42:BT:50:LYS:O	2.30	0.50
1:CA:192:U:O4'	20:CW:103:GLY:HA2	2.10	0.50
1:CA:192:U:H2'	1:CA:193:C:C6	2.47	0.50
1:AA:1054:C:H42	23:A1:22:A:H61	1.56	0.50
31:BK:13:GLY:HA3	31:BK:17:GLN:CD	2.32	0.50
1:AA:1182:G:H5''	1:AA:1183:A:C5'	2.41	0.50
54:DA:2145:C:H2'	54:DA:2147:G:N2	2.26	0.50
44:DV:24:LEU:CD1	44:DV:86:VAL:HG23	2.38	0.50
40:D2:5:VAL:HG22	40:D2:14:VAL:HG22	1.93	0.50
13:AP:108:ARG:CZ	13:AP:114:ARG:HG2	2.40	0.50
1:AA:632:A:H4'	1:AA:633:G:O5'	2.11	0.50
54:DA:1166:C:C2	54:DA:1167:U:C5	3.00	0.50
24:BA:1496:A:H1'	24:BA:1577:C:O2'	2.11	0.50
2:AE:98:LEU:HB2	2:AE:101:MET:CE	2.42	0.50
5:CH:126:ARG:CG	5:CH:126:ARG:HH11	2.20	0.50
24:BA:139:G:O2'	24:BA:140:A:C2	2.64	0.50
24:BA:1068:G:N1	24:BA:1069:A:N6	2.59	0.50
9:CL:79:LEU:HD22	9:CL:101:PHE:O	2.10	0.50
41:BS:69:LEU:HD12	41:BS:69:LEU:O	2.11	0.50
1:CA:328:C:H4'	1:CA:329:A:C5'	2.41	0.50
24:BA:2389:G:H5''	24:BA:2390:U:C5'	2.40	0.50
24:BA:755:C:H2'	24:BA:756:C:H6	1.77	0.50
20:AW:74:LYS:HA	20:AW:74:LYS:HE3	1.93	0.50
15:CR:17:ARG:NH1	15:CR:77:ARG:CZ	2.74	0.50
15:CR:17:ARG:NH1	15:CR:77:ARG:NH1	2.59	0.50
18:AU:76:LEU:O	18:AU:78:LEU:N	2.44	0.50
6:CI:10:LEU:HD13	6:CI:61:LEU:HD11	1.92	0.50
6:CI:63:TYR:N	6:CI:63:TYR:HD2	2.09	0.50
29:DG:121:ASN:HD22	29:DG:121:ASN:C	2.13	0.50
17:AT:10:VAL:CG1	17:AT:19:VAL:HB	2.41	0.50
17:AT:10:VAL:HA	17:AT:20:THR:O	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1513:A:H2'	1:CA:1514:C:H6	1.74	0.50
10:AM:44:VAL:HG22	10:AM:66:ARG:HG2	1.94	0.50
32:DM:73:THR:HG22	32:DM:82:LEU:HD11	1.93	0.50
52:D7:32:LYS:NZ	52:D7:36:GLN:NE2	2.59	0.50
54:DA:467:G:OP1	52:D7:33:ARG:NH1	2.44	0.50
24:BA:2695:C:H2'	24:BA:2696:U:H6	1.76	0.50
24:BA:40:C:H2'	24:BA:41:C:C6	2.47	0.50
31:BK:27:ARG:HD2	46:BZ:71:TYR:CE1	2.47	0.50
24:BA:2884:U:H2'	24:BA:2885:C:H5'	1.93	0.50
16:AS:36:ILE:O	16:AS:36:ILE:HG13	2.11	0.50
3:CF:184:TYR:HA	3:CF:200:ALA:O	2.12	0.50
11:AN:126:ARG:O	11:AN:127:LYS:C	2.49	0.50
48:DX:17:LYS:HA	48:DX:20:LYS:HD2	1.92	0.50
29:BG:96:ARG:O	29:BG:97:ASP:C	2.49	0.50
46:DZ:80:LEU:HB2	46:DZ:81:LYS:CE	2.41	0.50
26:BD:246:PRO:HD2	26:BD:255:LYS:HD3	1.92	0.50
10:AM:50:ILE:CD1	10:AM:60:ARG:HH11	2.25	0.50
9:AL:28:VAL:CG1	9:AL:63:ILE:H	2.24	0.50
44:BV:130:PRO:O	44:BV:133:ILE:HD11	2.12	0.50
44:DV:134:PRO:C	44:DV:136:PHE:N	2.64	0.50
24:BA:2749:A:C8	24:BA:2750:A:N7	2.80	0.50
30:DH:131:VAL:CG1	30:DH:132:ARG:N	2.74	0.50
43:DU:46:LYS:HE3	43:DU:63:LYS:HB3	1.93	0.50
34:BO:83:VAL:HG23	34:BO:105:LEU:HD22	1.93	0.50
1:CA:1054:C:N4	59:CA:1605:C:C2	2.80	0.50
10:CM:54:PHE:O	10:CM:55:LYS:HG3	2.10	0.50
13:CP:120:LYS:O	13:CP:121:LYS:HB2	2.11	0.50
49:D4:57:GLU:O	49:D4:61:ARG:O	2.30	0.50
54:DA:1568:G:OP1	26:DD:63:ARG:NH2	2.44	0.50
26:BD:34:VAL:HG21	26:BD:103:ARG:HA	1.92	0.50
5:AH:79:GLU:HA	5:AH:91:LEU:O	2.12	0.50
35:BP:141:GLN:HA	44:BV:75:ASN:ND2	2.27	0.50
18:AU:66:LEU:O	18:AU:66:LEU:HD12	2.12	0.50
35:BP:39:PRO:HB3	35:BP:99:PRO:HD3	1.92	0.50
22:AC:16:C:O2'	22:AC:60:U:O3'	2.29	0.50
1:AA:1372:U:OP2	9:AL:11:LYS:NZ	2.44	0.50
37:DQ:95:HIS:CG	37:DQ:96:GLY:N	2.78	0.50
13:CP:57:ARG:CB	13:CP:57:ARG:HH11	2.14	0.50
54:DA:2409:G:H2'	54:DA:2410:G:O4'	2.10	0.50
54:DA:1929:G:C4'	54:DA:1930:G:OP1	2.59	0.50
54:DA:1820:U:O2'	26:DD:159:ALA:HB3	2.12	0.50
24:BA:2849:U:OP1	38:BR:95:ARG:NH1	2.45	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DK:64:GLU:O	31:DK:67:ARG:NE	2.44	0.50
35:BP:75:THR:HA	35:BP:88:GLY:HA2	1.93	0.50
2:AE:217:ARG:HH11	2:AE:217:ARG:HG3	1.76	0.50
40:B2:48:GLY:O	40:B2:49:THR:O	2.30	0.50
30:DH:143:GLN:HE21	30:DH:143:GLN:C	2.15	0.50
22:CD:64:G:C2'	22:CD:65:C:H5'	2.42	0.50
52:D7:9:ARG:HH12	52:D7:47:ARG:HG3	1.76	0.50
47:DW:41:ILE:HD11	47:DW:44:LEU:CB	2.42	0.50
1:AA:1370:G:O2'	1:AA:1371:G:H5'	2.11	0.50
2:AE:121:LEU:HD22	2:AE:127:ILE:HG12	1.92	0.50
54:DA:2296:U:C4'	54:DA:2297:C:OP1	2.57	0.50
9:CL:83:ARG:HA	9:CL:86:VAL:CG1	2.42	0.50
9:CL:53:VAL:HG21	9:CL:92:TYR:CZ	2.45	0.50
38:BR:90:GLN:HE21	38:BR:90:GLN:CA	2.15	0.50
9:CL:48:GLU:N	9:CL:49:PRO:CD	2.74	0.50
4:CG:162:LEU:HD13	4:CG:181:MET:HB3	1.93	0.50
20:AW:72:LEU:C	20:AW:72:LEU:HD23	2.31	0.50
54:DA:113:G:H5''	54:DA:114:U:OP1	2.12	0.50
54:DA:1694:C:O2'	54:DA:1695:G:P	2.69	0.50
54:DA:602:G:N2	54:DA:655:A:C8	2.75	0.50
32:DM:87:LEU:C	32:DM:87:LEU:HD23	2.32	0.50
2:CE:24:TRP:CE3	2:CE:26:PRO:HA	2.45	0.50
24:BA:2679:A:H5'	27:BE:165:VAL:HG11	1.93	0.50
24:BA:1935:G:H1'	24:BA:1964:G:N2	2.26	0.50
12:AO:6:THR:H	12:AO:9:GLN:HE21	1.58	0.50
24:BA:2592:G:C5	24:BA:2593:U:C5	2.99	0.50
24:BA:1467:C:C6	24:BA:1546:C:H2'	2.46	0.50
33:BN:47:ILE:HG13	33:BN:48:PRO:HD2	1.93	0.50
24:BA:2773:C:OP1	27:BE:164:ARG:NE	2.44	0.50
24:BA:404:C:O2'	24:BA:405:U:H5'	2.11	0.50
54:DA:1814:G:H4'	26:DD:51:VAL:HG21	1.92	0.50
10:AM:21:GLN:HG2	10:AM:21:GLN:O	2.10	0.50
54:DA:2737:G:H2'	54:DA:2738:A:H8	1.77	0.50
17:CT:13:ASP:C	17:CT:15:MET:H	2.15	0.50
1:AA:222:U:H2'	1:AA:223:U:C6	2.46	0.50
54:DA:2590:A:H2'	54:DA:2591:C:C6	2.47	0.50
39:D1:112:ARG:HH11	39:D1:112:ARG:HG2	1.76	0.50
34:BO:123:LEU:C	34:BO:123:LEU:HD12	2.30	0.50
22:CC:68:C:O2'	22:CC:69:C:H5'	2.12	0.50
28:BF:1:MET:HB3	28:BF:2:LYS:HE3	1.94	0.50
24:BA:2643:G:H2'	24:BA:2644:G:O4'	2.12	0.50
46:DZ:87:PRO:O	46:DZ:91:LYS:HB2	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:B4:69:LYS:C	49:B4:69:LYS:HD3	2.32	0.50
30:BH:19:VAL:HG13	30:BH:43:VAL:CG2	2.41	0.50
40:B2:33:VAL:HG12	40:B2:34:GLU:O	2.11	0.50
19:CV:50:ALA:CB	19:CV:57:HIS:HB3	2.37	0.50
54:DA:1457:A:C2	54:DA:2703:C:C2	3.00	0.50
46:BZ:97:LEU:O	46:BZ:98:LEU:O	2.29	0.50
34:DO:104:GLY:C	34:DO:105:LEU:HD12	2.31	0.50
34:DO:147:LEU:O	34:DO:148:LEU:HB2	2.11	0.50
3:AF:84:ILE:HG23	3:AF:88:ARG:HE	1.75	0.50
51:D6:9:LEU:HB3	51:D6:26:ASN:O	2.11	0.50
28:BF:134:GLY:HA2	28:BF:166:ALA:HB2	1.94	0.50
27:BE:38:THR:O	27:BE:43:GLY:N	2.27	0.50
26:BD:83:GLU:OE1	26:BD:104:TYR:CE2	2.65	0.50
13:CP:2:ALA:O	13:CP:9:ILE:HB	2.10	0.50
22:AD:18:G:O4'	22:AD:18:G:OP1	2.29	0.50
35:DP:132:VAL:HG12	35:DP:133:ARG:N	2.27	0.50
37:DQ:89:ARG:HD2	37:DQ:89:ARG:O	2.11	0.50
24:BA:872:A:N6	24:BA:906:G:C6	2.80	0.50
54:DA:511:U:C5	54:DA:512:G:C5	2.99	0.50
9:AL:95:LYS:C	9:AL:98:PRO:HD2	2.32	0.50
29:DG:111:LEU:N	29:DG:112:PRO:CD	2.75	0.50
55:DB:81:G:N3	55:DB:82:G:N7	2.59	0.50
1:CA:728:A:C5	15:CR:54:ARG:HD2	2.46	0.50
47:BW:53:LEU:HD22	47:BW:57:ILE:HD11	1.93	0.50
26:DD:238:GLY:O	26:DD:239:ARG:HB2	2.11	0.50
24:BA:620:G:H4'	24:BA:621:A:OP1	2.10	0.50
29:DG:43:LEU:O	29:DG:88:ILE:HG12	2.12	0.50
31:DK:74:ASN:ND2	31:DK:75:LEU:H	2.09	0.50
8:AK:10:LEU:HB3	8:AK:83:ILE:CD1	2.41	0.50
9:CL:105:ASP:C	9:CL:107:ARG:H	2.14	0.50
46:BZ:86:SER:N	46:BZ:87:PRO:HD2	2.26	0.50
25:BB:95:U:C6	25:BB:95:U:C3'	2.95	0.50
41:BS:21:VAL:HG22	41:BS:47:VAL:CG2	2.41	0.50
11:AN:33:THR:HG22	11:AN:39:PRO:CA	2.38	0.50
1:CA:828:A:H5''	1:CA:859:A:N1	2.27	0.50
31:BK:130:TYR:CD1	31:BK:131:LYS:N	2.80	0.50
29:DG:6:ALA:H	49:D4:23:GLU:CG	2.25	0.50
4:CG:54:TYR:CE1	4:CG:206:PHE:HE1	2.29	0.50
1:CA:278:G:OP2	17:CT:41:LYS:HE2	2.12	0.50
16:AS:21:VAL:O	16:AS:33:ILE:HB	2.11	0.50
17:CT:48:GLU:O	17:CT:49:GLU:C	2.48	0.50
15:AR:31:LEU:HD12	15:AR:31:LEU:N	2.26	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:4:VAL:HG23	46:DZ:10:LYS:C	2.32	0.50
6:AI:75:LEU:HD21	6:AI:79:LEU:HD11	1.93	0.50
1:CA:1488:G:O2'	1:CA:1489:G:H5'	2.12	0.50
10:CM:81:THR:C	10:CM:83:GLU:N	2.64	0.50
46:BZ:15:ALA:O	46:BZ:40:ARG:HG3	2.12	0.50
54:DA:2249:U:H4'	54:DA:2275:C:H5	1.77	0.50
24:BA:603:A:H4'	24:BA:604:G:O5'	2.12	0.50
54:DA:142:G:H1'	42:DT:37:THR:HG22	1.91	0.50
24:BA:2649:U:H2'	24:BA:2650:U:C6	2.47	0.50
24:BA:1585:C:HO2'	24:BA:1586:A:P	2.33	0.50
1:AA:181:G:H1'	1:AA:182:U:H5	1.76	0.50
50:D5:43:HIS:CD2	50:D5:43:HIS:N	2.79	0.50
8:AK:11:THR:HG22	8:AK:15:ASN:ND2	2.26	0.50
1:AA:303:A:H2'	1:AA:304:U:H6	1.76	0.50
1:AA:555:C:H2'	1:AA:556:C:C6	2.46	0.50
1:AA:693:G:H2'	1:AA:694:A:O4'	2.12	0.50
9:CL:55:ALA:HA	9:CL:58:HIS:HD2	1.76	0.50
24:BA:301:G:O2'	24:BA:302:C:C6	2.63	0.50
45:B3:32:ARG:HB2	45:B3:35:ASN:OD1	2.11	0.50
42:BT:53:LYS:HB3	42:BT:82:GLN:HB3	1.93	0.50
33:DN:35:VAL:O	33:DN:35:VAL:HG23	2.11	0.50
24:BA:654(C):G:C2'	24:BA:654(C):G:N3	2.74	0.50
46:DZ:94:LEU:O	46:DZ:95:LEU:HG	2.11	0.50
1:CA:74:C:N4	1:CA:75:C:N4	2.59	0.50
24:BA:1379:A:O2'	24:BA:1380:G:OP1	2.30	0.50
49:B4:43:TYR:O	49:B4:44:THR:OG1	2.24	0.50
44:DV:107:THR:HG22	44:DV:108:PRO:HA	1.94	0.50
44:DV:134:PRO:O	44:DV:136:PHE:N	2.45	0.50
44:DV:170:THR:O	44:DV:171:ILE:CB	2.60	0.50
30:BH:29:PRO:C	30:BH:30:LYS:HG3	2.32	0.50
30:BH:24:VAL:CG2	30:BH:35:VAL:HB	2.41	0.50
24:BA:1507:A:H2'	24:BA:1508:A:O4'	2.11	0.50
28:BF:116:ASP:OD2	34:BO:1:MET:HG3	2.11	0.50
54:DA:483:A:C2	54:DA:484:C:H1'	2.47	0.50
34:BO:114:ILE:HD13	34:BO:130:PHE:CE1	2.46	0.50
1:CA:1201:A:O2'	1:CA:1202:G:OP2	2.30	0.50
1:CA:1357:A:H2	1:CA:1365:G:H22	1.60	0.50
54:DA:890:A:O2'	54:DA:892:G:H8	1.94	0.50
24:BA:1342:A:O2'	24:BA:1343:G:O5'	2.30	0.50
24:BA:1342:A:N1	24:BA:1397:U:C5	2.80	0.50
54:DA:2419:U:O4	53:D8:30:ARG:CZ	2.59	0.50
29:DG:114:ILE:HG21	29:DG:117:PHE:HB2	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AR:61:GLY:O	15:AR:65:ARG:HG3	2.12	0.50
4:AG:26:CYS:CA	4:AG:31:CYS:HB2	2.32	0.50
39:D1:92:ARG:CD	39:D1:94:ASN:HB3	2.42	0.50
22:AD:48:C:H2'	22:AD:48:C:O2	2.11	0.50
29:DG:16:ARG:HB3	29:DG:17:PRO:HD3	1.94	0.50
42:BT:8:ILE:CD1	42:BT:42:ALA:HB1	2.29	0.50
54:DA:1474:C:H2'	54:DA:1475:G:H5''	1.93	0.50
29:DG:103:LEU:HD21	29:DG:178:PHE:CZ	2.47	0.50
1:CA:742:G:H5''	15:CR:58:MET:CE	2.42	0.50
1:CA:250:A:O2'	1:CA:251:G:OP2	2.29	0.50
7:AJ:27:ILE:HD11	7:AJ:43:PHE:CD2	2.46	0.50
54:DA:52:A:C2'	54:DA:53:A:H5'	2.42	0.50
54:DA:2346:A:HO2'	54:DA:2347:C:P	2.33	0.50
24:BA:609:A:H2'	24:BA:609(A):G:O4'	2.12	0.50
29:BG:41:GLN:O	29:BG:43:LEU:N	2.45	0.50
17:AT:64:PRO:HB3	17:AT:70:ARG:NH1	2.27	0.50
29:DG:41:GLN:HE21	29:DG:60:LEU:CD1	2.24	0.50
10:AM:8:LEU:HD12	10:AM:8:LEU:N	2.27	0.50
4:AG:120:LEU:HB3	4:AG:126:ILE:CD1	2.36	0.50
54:DA:2114:A:N6	54:DA:2119:A:N6	2.59	0.50
54:DA:2171:A:O2'	54:DA:2172:U:O5'	2.29	0.50
26:DD:182:LEU:H	26:DD:272:ALA:CB	2.25	0.50
32:BM:45:ASN:N	32:BM:45:ASN:ND2	2.59	0.50
1:AA:633:G:H2'	1:AA:634:C:H6	1.75	0.50
32:BM:38:HIS:CE1	32:BM:39:ARG:HG3	2.46	0.50
22:CD:14:A:H5'	22:CD:16:C:H41	1.76	0.50
2:AE:102:LEU:CD1	2:AE:102:LEU:H	2.23	0.50
2:AE:97:TRP:HH2	2:AE:176:GLU:CG	2.24	0.50
52:D7:46:VAL:HG12	52:D7:47:ARG:N	2.27	0.50
30:DH:169:VAL:HG13	30:DH:170:ARG:N	2.26	0.50
54:DA:2290:G:H2'	54:DA:2291:U:O4'	2.12	0.50
1:CA:677:U:H2'	1:CA:678:U:H6	1.70	0.50
14:CQ:48:ALA:CA	14:CQ:53:LEU:HD12	2.42	0.50
36:B0:3:HIS:O	36:B0:5:LYS:HG3	2.12	0.50
24:BA:1171:G:H1'	24:BA:1173:G:H5'	1.92	0.50
2:CE:23:ARG:HH11	2:CE:23:ARG:HG2	1.76	0.50
54:DA:2771:C:H2'	54:DA:2772:C:H6	1.76	0.50
1:CA:112:G:C4'	1:CA:389:A:H5''	2.41	0.50
13:CP:102:ARG:HG3	13:CP:102:ARG:O	2.11	0.50
41:BS:1:MET:HA	41:BS:1:MET:HE3	1.92	0.50
1:AA:1279:A:N3	1:AA:1279:A:H2'	2.27	0.50
1:AA:197:A:C6	1:AA:221:C:H4'	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:414:C:H2'	54:DA:415:A:C8	2.46	0.50
1:AA:807:A:H2'	1:AA:808:C:C6	2.46	0.50
42:BT:37:THR:C	42:BT:39:ILE:H	2.14	0.50
24:BA:370:G:O2'	24:BA:371:A:OP1	2.30	0.50
54:DA:458:G:O2'	54:DA:469:G:N1	2.45	0.50
24:BA:10:G:H2'	24:BA:11:G:C8	2.47	0.50
2:AE:56:ARG:HH11	2:AE:56:ARG:HG2	1.77	0.50
48:DX:21:ALA:O	48:DX:25:ALA:N	2.41	0.50
47:BW:10:LEU:HG	47:BW:14:ARG:HH21	1.75	0.50
30:DH:24:VAL:HG21	30:DH:72:ILE:HG12	1.94	0.50
1:CA:1085:U:H4'	1:CA:1086:U:OP2	2.12	0.50
32:BM:11:PRO:HB2	32:BM:51:PHE:HE1	1.76	0.50
1:AA:868:C:H2'	1:AA:869:G:O4'	2.11	0.50
45:B3:70:GLN:O	45:B3:70:GLN:HG3	2.12	0.50
16:CS:83:GLU:HG3	16:CS:84:ALA:H	1.77	0.50
1:CA:792:A:O2'	1:CA:793:U:O5'	2.29	0.50
10:AM:48:THR:HG22	10:AM:60:ARG:HD2	1.93	0.50
13:AP:88:ARG:HG3	13:AP:98:VAL:HG13	1.94	0.50
19:AV:36:ARG:CG	19:AV:70:LYS:HB2	2.40	0.50
49:B4:39:CYS:O	49:B4:40:HIS:CG	2.64	0.50
33:BN:90:GLN:O	33:BN:92:GLU:HG3	2.11	0.50
1:AA:1126:U:H6	1:AA:1126:U:OP2	1.95	0.50
9:AL:20:ARG:H	9:AL:60:ASP:H	1.60	0.50
27:DE:105:THR:HB	27:DE:197:ILE:HG12	1.92	0.50
27:DE:2:LYS:HG2	27:DE:95:ILE:CG2	2.42	0.50
24:BA:1238:G:O2'	24:BA:1239:G:H5'	2.12	0.50
54:DA:480:A:H2'	54:DA:481:G:OP1	2.11	0.50
43:DU:48:ALA:HB2	43:DU:61:ILE:CD1	2.41	0.50
2:CE:103:THR:N	2:CE:180:LEU:HD11	2.26	0.50
2:CE:200:ILE:O	2:CE:201:ILE:HD13	2.12	0.50
34:DO:138:LEU:HD11	34:DO:144:GLU:CG	2.42	0.50
1:CA:1128:C:O2'	1:CA:1130:A:C8	2.65	0.50
26:BD:118:VAL:HG22	26:BD:119:ALA:N	2.27	0.50
21:CX:6:ARG:HH21	21:CX:15:ARG:NE	2.09	0.50
40:D2:51:VAL:CG1	40:D2:52:VAL:H	2.22	0.50
40:D2:51:VAL:CG1	40:D2:52:VAL:N	2.75	0.50
5:CH:32:VAL:O	5:CH:43:LEU:HD12	2.12	0.50
54:DA:195:A:N7	54:DA:197:A:OP1	2.45	0.50
54:DA:1138:G:H2'	54:DA:1139:G:O4'	2.12	0.50
37:DQ:26:LEU:HD22	37:DQ:87:PHE:CD1	2.46	0.50
10:CM:40:LEU:HB2	10:CM:69:ASN:CB	2.40	0.50
41:BS:18:ARG:HG3	41:BS:76:VAL:HG12	1.94	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DQ:60:GLY:O	37:DQ:61:ASN:CB	2.55	0.50
3:CF:36:ASP:HB3	3:CF:40:ARG:NH1	2.25	0.50
3:CF:34:LEU:O	3:CF:38:ARG:HG3	2.10	0.50
33:DN:104:ARG:NE	38:DR:34:VAL:HG11	2.26	0.50
47:BW:51:ARG:HG3	47:BW:52:ASP:N	2.27	0.50
24:BA:260:G:H1'	24:BA:621:A:H8	1.76	0.50
1:AA:528:C:H5'	1:AA:535:A:C6	2.46	0.50
1:AA:1379:G:C8	7:AJ:3:ARG:HD3	2.47	0.50
38:BR:118:ARG:CG	38:BR:121:ILE:HD12	2.42	0.50
17:AT:66:SER:O	17:AT:67:LYS:C	2.50	0.50
31:BK:9:LEU:HD23	31:BK:9:LEU:H	1.76	0.50
31:BK:2:LYS:O	31:BK:3:VAL:HG13	2.11	0.50
19:CV:26:GLY:O	19:CV:27:GLU:HB2	2.11	0.50
24:BA:329:G:N7	43:BU:19:LYS:CE	2.74	0.50
1:AA:1030:C:H2'	1:AA:1031:G:OP1	2.11	0.50
14:CQ:8:GLU:C	14:CQ:10:ALA:H	2.14	0.50
40:B2:22:VAL:CG2	40:B2:23:GLU:H	2.22	0.50
1:CA:738:C:H2'	1:CA:739:C:C6	2.46	0.50
9:CL:29:ASN:OD1	9:CL:64:THR:HA	2.11	0.50
11:AN:110:ASP:CB	18:AU:85:LEU:HD11	2.40	0.50
24:BA:589:C:H2'	24:BA:590:A:C8	2.47	0.50
24:BA:1171:G:H2'	24:BA:1173:G:N3	2.26	0.50
24:BA:1610:A:H5''	24:BA:1611:C:OP2	2.11	0.50
49:D4:22:ILE:H	49:D4:22:ILE:HD12	1.77	0.50
1:CA:107:G:H2'	1:CA:108:G:H5'	1.94	0.50
54:DA:559:G:N2	39:D1:49:HIS:CD2	2.78	0.50
8:CK:91:ARG:NH1	8:CK:91:ARG:HG2	2.25	0.50
12:AO:79:GLU:HG3	12:AO:80:HIS:N	2.27	0.50
29:BG:160:VAL:CG1	29:BG:161:THR:N	2.73	0.50
6:AI:78:GLU:O	6:AI:81:ILE:HG13	2.11	0.50
2:AE:62:ALA:C	2:AE:64:ARG:N	2.65	0.50
41:DS:22:ASP:HA	41:DS:25:ARG:HH12	1.75	0.50
24:BA:414:C:H2'	24:BA:415:A:H8	1.77	0.50
7:AJ:64:GLN:O	7:AJ:65:ALA:C	2.49	0.50
1:CA:564:C:C6	17:CT:31:LEU:HD11	2.47	0.50
10:AM:22:LYS:C	10:AM:22:LYS:HD2	2.32	0.50
54:DA:2886:G:H2'	54:DA:2887:U:H6	1.76	0.50
40:D2:29:PRO:O	40:D2:61:VAL:O	2.29	0.50
1:CA:22:G:H2'	1:CA:23:C:H6	1.76	0.50
55:DB:66:A:O2'	55:DB:67:G:P	2.69	0.50
54:DA:735:A:H3'	54:DA:736:C:C6	2.47	0.50
10:CM:84:GLN:C	10:CM:86:MET:H	2.14	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:56:LEU:O	37:BQ:57:LYS:O	2.30	0.50
54:DA:2373:G:H2'	54:DA:2374:C:C6	2.47	0.50
1:CA:1114:C:H1'	14:CQ:60:SER:HB2	1.93	0.50
3:CF:132:ARG:O	3:CF:136:GLN:HB2	2.11	0.50
12:AO:25:PRO:O	12:AO:26:ALA:HB3	2.12	0.50
34:BO:26:GLY:O	34:BO:27:HIS:C	2.50	0.50
24:BA:270(O):U:O2	24:BA:270(O):U:H2'	2.10	0.50
50:D5:37:LYS:HD2	50:D5:37:LYS:O	2.12	0.50
8:AK:91:ARG:CG	8:AK:91:ARG:HH11	2.25	0.50
1:CA:693:G:H2'	1:CA:694:A:C8	2.47	0.50
26:BD:122:ASP:O	26:BD:123:ALA:O	2.29	0.50
12:AO:110:VAL:HG23	12:AO:120:TYR:HB3	1.94	0.50
1:AA:977:A:H2'	1:AA:977:A:N3	2.26	0.50
49:B4:40:HIS:N	49:B4:41:PRO:HD2	2.21	0.50
44:BV:155:LEU:C	44:BV:156:LYS:HG2	2.31	0.50
54:DA:1061:U:C4'	54:DA:1070:A:H1'	2.42	0.50
44:DV:150:LEU:O	44:DV:151:HIS:O	2.29	0.50
30:BH:125:VAL:HG13	30:BH:126:PRO:CG	2.41	0.50
39:B1:92:ARG:NH1	40:B2:11:GLN:CB	2.75	0.50
39:B1:90:VAL:CG2	40:B2:39:LEU:HB3	2.31	0.50
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.76	0.50
13:CP:117:VAL:O	13:CP:118:ALA:C	2.51	0.50
26:DD:35:LYS:HE2	26:DD:104:TYR:HB2	1.94	0.50
26:DD:65:ILE:C	26:DD:65:ILE:HD13	2.32	0.50
34:DO:112:LEU:HD22	34:DO:113:LYS:N	2.26	0.50
24:BA:1340:U:H4'	24:BA:1341:U:OP2	2.11	0.50
24:BA:1341:U:H3'	24:BA:1397:U:C2	2.46	0.50
2:AE:70:PHE:CD1	2:AE:70:PHE:N	2.79	0.50
52:B7:5:TRP:HE1	52:B7:7:PRO:HG3	1.76	0.50
24:BA:2808:U:O4	24:BA:2892:A:N7	2.44	0.50
27:BE:32:PRO:HA	27:BE:90:THR:HG23	1.93	0.50
24:BA:1162:G:N2	40:B2:89:GLN:HE22	2.10	0.50
11:CN:106:LYS:O	11:CN:107:SER:HB3	2.12	0.50
24:BA:1925:C:N4	24:BA:1926:U:O4'	2.45	0.50
24:BA:1930:G:N2	24:BA:1968:G:H2'	2.27	0.50
53:B8:33:ASN:HB2	53:B8:36:LYS:HE2	1.94	0.50
22:AD:47:U:H2'	22:AD:48:C:H4'	1.94	0.50
22:AD:49:G:H8	22:AD:49:G:O5'	1.95	0.50
35:BP:64:ILE:N	35:BP:64:ILE:CD1	2.74	0.50
44:BV:111:VAL:HG21	44:BV:145:GLU:HB2	1.94	0.50
37:BQ:84:GLN:HA	37:BQ:109:GLY:CA	2.42	0.50
37:BQ:105:ALA:CB	37:BQ:112:PHE:HE2	2.24	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2656:U:O4	24:BA:2665:A:C6	2.64	0.50
54:DA:1531:C:O2'	54:DA:1532:C:H5'	2.11	0.50
1:AA:1178:G:C8	1:AA:1180:A:OP2	2.65	0.50
54:DA:880:G:H4'	54:DA:880:G:OP1	2.10	0.50
54:DA:897:C:H2'	54:DA:898:C:O4'	2.12	0.50
12:AO:124:LYS:O	12:AO:125:PRO:C	2.48	0.50
34:BO:56:SER:O	34:BO:57:THR:CB	2.59	0.50
47:DW:69:ARG:HH11	47:DW:69:ARG:CB	2.25	0.50
54:DA:1099:G:H5'	54:DA:1099:G:C8	2.37	0.50
24:BA:91:A:H2'	24:BA:92:G:H5'	1.93	0.50
47:BW:50:ILE:O	47:BW:51:ARG:C	2.51	0.50
54:DA:1212:G:C2'	54:DA:1236:G:N2	2.75	0.50
24:BA:621:A:C2	24:BA:622:G:C8	3.00	0.50
29:BG:41:GLN:CB	29:BG:43:LEU:HD13	2.40	0.50
24:BA:447:A:H5''	24:BA:448:U:OP1	2.11	0.50
24:BA:1799:G:N7	26:BD:179:SER:OG	2.45	0.50
26:BD:155:LEU:N	26:BD:155:LEU:CD1	2.75	0.50
24:BA:1142(A):A:C5	24:BA:1144:G:N7	2.79	0.50
1:AA:1229:A:H2'	1:AA:1230:C:C6	2.46	0.50
1:CA:1239:A:H2'	1:CA:1298:C:N4	2.26	0.50
33:BN:23:ARG:NH1	33:BN:23:ARG:HG2	2.22	0.50
24:BA:395:U:H2'	24:BA:396:G:C8	2.47	0.50
27:BE:116:VAL:HG23	27:BE:120:TRP:HD1	1.77	0.50
22:CD:58:A:O2'	22:CD:60:U:C5	2.63	0.50
54:DA:2657:A:H2'	54:DA:2658:C:H5'	1.94	0.50
3:AF:131:ARG:HE	3:AF:166:GLU:CG	2.25	0.50
1:AA:752:G:H8	1:AA:752:G:O5'	1.95	0.50
22:CD:70:G:C2'	22:CD:71:C:H5'	2.41	0.50
11:AN:21:ILE:HG12	11:AN:30:VAL:HG12	1.94	0.50
2:AE:102:LEU:CD1	2:AE:102:LEU:N	2.74	0.50
3:CF:195:VAL:HG12	3:CF:196:LEU:H	1.75	0.50
54:DA:99:U:C6	54:DA:102:G:C2	3.00	0.50
1:AA:1287:A:H2	1:AA:1353:G:H1'	1.75	0.50
24:BA:1364:G:C8	46:BZ:2:SER:HA	2.46	0.50
24:BA:1608:A:O2'	24:BA:1610:A:OP2	2.29	0.50
24:BA:2166:G:H4'	24:BA:2167:U:OP1	2.11	0.50
24:BA:616:A:O2'	24:BA:617:G:OP1	2.29	0.50
24:BA:177:G:H5''	24:BA:178:G:OP2	2.12	0.50
59:DP:204:C:H6	59:DP:204:C:O5'	1.94	0.50
1:AA:965:A:O2'	1:AA:966:G:C5'	2.58	0.50
54:DA:592:G:N2	53:D8:4:MET:CE	2.73	0.50
27:BE:104:VAL:HG11	27:BE:188:VAL:HG23	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AK:34:GLU:O	8:AK:37:ARG:HG2	2.12	0.50
4:AG:150:GLU:O	4:AG:152:SER:N	2.44	0.50
9:CL:33:PHE:HZ	9:CL:47:LEU:HD21	1.76	0.50
6:AI:75:LEU:O	6:AI:78:GLU:N	2.45	0.50
1:AA:243:A:H4'	1:AA:244:U:O5'	2.11	0.50
2:AE:142:LEU:HD23	2:AE:142:LEU:C	2.32	0.50
12:CO:28:LYS:O	12:CO:29:GLY:C	2.50	0.50
27:BE:134:ILE:HA	27:BE:137:HIS:CD2	2.47	0.50
44:BV:19:ARG:CG	44:BV:19:ARG:HH11	2.25	0.50
24:BA:2593:U:H2'	24:BA:2594:C:C6	2.47	0.50
3:AF:6:HIS:NE2	3:AF:184:TYR:CE2	2.79	0.50
54:DA:746:A:C6	54:DA:2611:U:H5''	2.47	0.50
1:CA:1405:G:O4'	1:CA:1519:A:H4'	2.11	0.50
11:AN:126:ARG:HG3	11:AN:126:ARG:HH11	1.76	0.50
30:DH:16:SER:O	30:DH:17:VAL:HG23	2.12	0.50
47:DW:9:GLN:O	47:DW:12:GLU:HB3	2.10	0.50
4:CG:107:ARG:C	4:CG:109:GLY:H	2.14	0.50
18:AU:37:VAL:O	18:AU:38:GLU:C	2.50	0.50
24:BA:1922:G:O2'	24:BA:1923:U:H5'	2.12	0.50
33:DN:69:ILE:O	33:DN:76:ALA:HA	2.11	0.50
54:DA:2660:A:H2'	54:DA:2660:A:N3	2.27	0.50
6:AI:19:LEU:O	6:AI:19:LEU:HD23	2.12	0.50
29:DG:35:GLU:CD	29:DG:35:GLU:C	2.71	0.50
24:BA:1510:A:H2'	24:BA:1511:A:H8	1.76	0.50
54:DA:2604:U:C2'	54:DA:2605:U:H5'	2.42	0.50
29:BG:6:ALA:HB3	29:BG:104:GLU:OE1	2.12	0.50
24:BA:2495:G:O2'	24:BA:2496:C:H5'	2.11	0.50
35:BP:77:LYS:HZ3	35:BP:82:ARG:CA	2.04	0.50
1:AA:1321:C:C3'	1:AA:1322:C:H5''	2.42	0.50
13:AP:39:ILE:HD11	13:AP:56:LEU:HD23	1.92	0.50
49:B4:56:VAL:HG13	49:B4:57:GLU:N	2.27	0.50
30:BH:77:LYS:C	30:BH:79:VAL:H	2.14	0.50
43:BU:73:ARG:HH21	43:BU:81:LYS:HA	1.77	0.50
40:B2:34:GLU:C	40:B2:35:LEU:HD13	2.32	0.50
40:B2:5:VAL:HG23	40:B2:37:VAL:CG1	2.39	0.50
1:CA:1053:G:H5'	1:CA:1054:C:C5'	2.27	0.50
13:CP:120:LYS:O	13:CP:121:LYS:CB	2.60	0.50
1:CA:1314:C:OP2	19:CV:4:SER:OG	2.30	0.50
19:CV:65:ASN:O	49:D4:59:PHE:HE2	1.95	0.50
24:BA:270:A:O2'	24:BA:270(A):A:H5'	2.12	0.50
3:CF:11:ARG:HG3	3:CF:15:THR:HG21	1.94	0.50
3:AF:148:GLY:HA3	3:AF:203:PHE:HB3	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:75:VAL:HB	3:AF:83:ARG:CD	2.32	0.50
2:AE:161:ALA:O	2:AE:162:ILE:HG23	2.12	0.50
1:AA:794:A:H2'	1:AA:795:C:H6	1.71	0.50
54:DA:621:A:H2'	54:DA:622:G:H5'	1.94	0.50
54:DA:1174:A:C2	54:DA:1175:U:H1'	2.46	0.50
1:CA:687:A:N6	1:CA:703:G:H1'	2.27	0.50
39:D1:92:ARG:NH1	39:D1:95:LEU:HD11	2.26	0.50
37:DQ:83:LYS:HG2	37:DQ:109:GLY:HA2	1.90	0.50
22:AD:59:A:H2'	22:AD:60:U:H5'	1.94	0.50
1:CA:66:G:O4'	1:CA:173:U:O4	2.30	0.50
44:BV:26:GLY:HA3	44:BV:86:VAL:O	2.12	0.50
43:BU:44:ILE:HG12	43:BU:45:VAL:N	2.27	0.50
28:BF:123:LEU:HD12	28:BF:192:LEU:HD22	1.94	0.50
24:BA:2477:C:C6	24:BA:2481:G:O6	2.64	0.50
24:BA:2477:C:H6	24:BA:2481:G:O6	1.95	0.50
36:D0:28:LEU:CD2	36:D0:114:VAL:HG12	2.41	0.50
12:AO:124:LYS:HG3	12:AO:125:PRO:HD2	1.93	0.50
30:BH:133:VAL:CG1	30:BH:134:SER:N	2.75	0.50
8:AK:12:ARG:NH1	8:AK:27:PRO:CD	2.71	0.50
1:AA:815:A:H5''	1:AA:817:C:H41	1.77	0.50
20:CW:49:ALA:CB	20:CW:99:LEU:HD22	2.42	0.50
29:BG:45:GLU:C	29:BG:47:LYS:H	2.16	0.50
1:AA:1200:C:O2	1:AA:1200:C:H2'	2.10	0.50
1:AA:327:A:O3'	1:AA:328:C:O4'	2.30	0.50
24:BA:2862:G:H2'	24:BA:2863:C:H6	1.77	0.50
2:AE:6:THR:CG2	2:AE:217:ARG:HB3	2.41	0.50
20:CW:26:ASN:CB	20:CW:71:THR:HG23	2.42	0.50
40:B2:48:GLY:HA3	40:B2:52:VAL:HG22	1.93	0.50
54:DA:2110:G:H4'	54:DA:2111:C:OP1	2.12	0.50
44:BV:150:LEU:CD2	44:BV:171:ILE:HG22	2.42	0.50
4:AG:86:LYS:HZ2	4:AG:86:LYS:HA	1.72	0.50
24:BA:363:G:H5'	24:BA:363(A):A:OP2	2.12	0.50
1:AA:1029:G:OP1	1:AA:1029:G:H4'	2.12	0.50
54:DA:1946:U:N3	54:DA:1947:C:C5	2.79	0.50
29:DG:83:ARG:HG2	29:DG:83:ARG:HH11	1.76	0.50
52:D7:12:ARG:HG3	52:D7:12:ARG:NH1	2.27	0.50
37:DQ:52:SER:O	37:DQ:56:LEU:CD2	2.60	0.50
2:AE:233:SER:O	2:AE:235:SER:N	2.45	0.50
1:CA:830:G:H2'	1:CA:831:U:O4'	2.12	0.50
14:CQ:39:LEU:HD22	14:CQ:43:CYS:HB3	1.93	0.50
24:BA:1884:A:C2	24:BA:1885:A:C8	3.00	0.50
51:B6:36:LEU:HD21	51:B6:50:ARG:NH2	2.27	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DF:11:VAL:CG1	28:DF:12:LEU:N	2.75	0.50
35:BP:127:ILE:CG2	35:BP:128:LYS:H	2.23	0.50
24:BA:859:G:O2'	24:BA:860:U:OP2	2.30	0.50
24:BA:1963:U:C2'	24:BA:1963:U:O2	2.57	0.50
48:DX:7:LYS:CB	48:DX:34:GLU:HG2	2.41	0.50
1:AA:90:C:H5'	1:AA:91:C:OP1	2.12	0.50
41:DS:70:TYR:CD2	41:DS:70:TYR:N	2.75	0.50
26:BD:135:PHE:N	26:BD:135:PHE:HD2	2.10	0.50
13:AP:106:ASN:O	13:AP:107:ALA:HB3	2.12	0.50
1:AA:151:A:O2'	1:AA:152:A:H5'	2.11	0.50
45:D3:51:VAL:CG2	45:D3:81:VAL:HG23	2.42	0.50
37:DQ:35:ILE:CD1	37:DQ:101:LEU:HD23	2.41	0.50
24:BA:2439:A:H5'	24:BA:2439:A:H8	1.76	0.50
1:AA:243:A:O2'	1:AA:244:U:OP2	2.29	0.50
2:AE:145:LEU:O	2:AE:149:LEU:HB2	2.12	0.50
24:BA:1176:G:H5'	24:BA:1177:A:OP1	2.12	0.50
7:AJ:73:MET:HA	7:AJ:91:VAL:HG23	1.94	0.50
4:CG:165:MET:HE3	4:CG:168:ARG:HD2	1.93	0.50
12:CO:62:SER:C	12:CO:64:TYR:H	2.15	0.50
54:DA:2740:A:N6	54:DA:2764:A:C8	2.80	0.50
10:AM:22:LYS:HD2	10:AM:22:LYS:O	2.12	0.50
4:AG:61:LYS:NZ	4:AG:62:GLN:HE22	2.10	0.50
16:AS:53:VAL:O	16:AS:57:ARG:HG3	2.12	0.50
3:AF:94:LEU:C	3:AF:94:LEU:HD12	2.32	0.50
54:DA:844:C:H3'	54:DA:845:G:C8	2.46	0.50
54:DA:2572:A:C8	27:DE:144:ARG:HB3	2.46	0.50
32:DM:137:LYS:HG3	32:DM:138:LEU:H	1.77	0.50
19:AV:32:LYS:N	19:AV:32:LYS:HD3	2.26	0.50
29:DG:49:ASP:OD1	29:DG:51:ARG:HG3	2.12	0.50
36:B0:101:ALA:O	36:B0:102:GLU:HB3	2.12	0.50
33:BN:71:ARG:HH11	33:BN:71:ARG:HG3	1.76	0.50
24:BA:2710:C:OP1	36:B0:15:SER:OG	2.29	0.50
1:CA:536:C:H2'	1:CA:536:C:O2	2.11	0.50
27:DE:46:ALA:HB1	27:DE:80:GLU:HB2	1.94	0.50
54:DA:1275:A:H4'	54:DA:1276:A:O5'	2.10	0.50
35:DP:108:GLY:O	35:DP:109:VAL:HG23	2.12	0.50
24:BA:1581:G:H2'	24:BA:1582:C:O4'	2.12	0.50
35:DP:36:ALA:HB1	35:DP:127:ILE:HD12	1.93	0.50
54:DA:2143:C:H2'	54:DA:2144:U:O4'	2.12	0.50
46:DZ:81:LYS:O	46:DZ:82:LEU:O	2.30	0.49
31:BK:104:GLN:HG2	31:BK:105:HIS:HD2	1.77	0.49
53:B8:47:LYS:C	53:B8:48:PHE:HD1	2.15	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1320:C:H1'	19:AV:73:GLU:HG3	1.92	0.49
1:AA:1324:A:O4'	1:AA:1362:C:H4'	2.12	0.49
3:AF:16:ARG:NH1	3:AF:16:ARG:N	2.57	0.49
29:BG:120:LEU:HB3	29:BG:131:TYR:OH	2.12	0.49
29:BG:143:GLU:CD	29:BG:143:GLU:H	2.15	0.49
24:BA:1887:C:C3'	24:BA:1888:G:H5''	2.40	0.49
9:AL:26:VAL:HG22	9:AL:60:ASP:HA	1.94	0.49
53:D8:56:GLU:O	53:D8:57:ARG:C	2.50	0.49
54:DA:1053:C:H3'	54:DA:1054:A:H5''	1.93	0.49
54:DA:1085:A:O2'	54:DA:1086:A:P	2.70	0.49
54:DA:1510:A:OP1	54:DA:1511:A:H5'	2.12	0.49
39:B1:92:ARG:CD	39:B1:94:ASN:HB3	2.38	0.49
21:CX:2:GLY:O	21:CX:4:GLY:N	2.45	0.49
25:BB:55:U:C1'	29:BG:29:TRP:HE1	2.25	0.49
11:AN:122:LYS:O	11:AN:124:LYS:N	2.45	0.49
50:B5:46:CYS:SG	50:B5:48:GLU:CG	2.99	0.49
40:B2:69:LYS:NZ	40:B2:85:LYS:HZ3	2.08	0.49
1:CA:1024:G:C2'	1:CA:1025:U:H5''	2.42	0.49
24:BA:1926:U:C6	24:BA:1928:A:OP2	2.65	0.49
1:CA:179:A:H2'	1:CA:180:U:C6	2.43	0.49
35:DP:79:LEU:O	35:DP:80:GLU:OE1	2.31	0.49
24:BA:84:A:OP1	43:BU:8:LYS:HD3	2.11	0.49
8:CK:84:ARG:O	8:CK:135:CYS:HB2	2.12	0.49
51:D6:44:ARG:O	51:D6:45:LYS:CB	2.60	0.49
38:BR:48:ILE:H	38:BR:48:ILE:HD12	1.77	0.49
1:CA:1280:A:H1'	10:CM:41:PRO:HG3	1.94	0.49
30:BH:102:ALA:HB1	30:BH:115:VAL:C	2.32	0.49
3:CF:35:GLU:O	3:CF:39:ILE:HG13	2.12	0.49
54:DA:1557:C:OP2	54:DA:1558:A:H2'	2.11	0.49
1:AA:1057:G:H4'	3:AF:196:LEU:HA	1.93	0.49
59:DA:2923:C:C2'	58:DA:2924:G:OP2	2.60	0.49
1:AA:321:A:N7	1:AA:328:C:C2	2.80	0.49
26:BD:260:ARG:HH12	26:BD:264:LYS:HD3	1.76	0.49
24:BA:311:A:N6	24:BA:328:U:C5	2.80	0.49
49:D4:9:LEU:H	49:D4:27:THR:CG2	2.25	0.49
3:AF:136:GLN:HA	3:AF:139:GLN:HB3	1.93	0.49
35:BP:59:ARG:O	35:BP:60:ARG:CB	2.59	0.49
54:DA:2563:U:H2'	54:DA:2565:A:OP2	2.12	0.49
24:BA:1858:G:O2'	24:BA:1884:A:N6	2.44	0.49
54:DA:95:G:O2'	47:DW:48:HIS:ND1	2.45	0.49
36:B0:106:GLY:O	36:B0:107:ASP:CB	2.59	0.49
7:CJ:148:ASN:HD21	22:CD:40:C:H4'	1.76	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AK:89:PRO:HA	8:AK:92:ARG:HH11	1.76	0.49
1:CA:37:U:O2'	1:CA:500:G:H4'	2.12	0.49
24:BA:638:G:H2'	24:BA:639:U:C6	2.47	0.49
54:DA:1687:G:H2'	54:DA:1688:U:C6	2.47	0.49
7:CJ:50:ILE:HA	7:CJ:54:THR:HG22	1.94	0.49
24:BA:283:A:H4'	24:BA:284:U:OP2	2.12	0.49
4:AG:128:VAL:C	4:AG:130:GLY:N	2.66	0.49
54:DA:405:U:C4'	54:DA:406:G:OP2	2.60	0.49
26:BD:146:GLU:HG2	26:BD:152:GLY:C	2.33	0.49
1:CA:747:C:H2'	1:CA:748:C:O4'	2.11	0.49
20:AW:36:LEU:CD1	20:AW:55:ILE:HG23	2.41	0.49
24:BA:2859:G:H3'	24:BA:2859:G:H8	1.77	0.49
54:DA:1583:A:H5'	54:DA:1585:C:C5	2.47	0.49
50:D5:50:GLY:O	50:D5:51:TYR:CB	2.59	0.49
26:DD:218:ARG:HB3	26:DD:219:PRO:HD2	1.94	0.49
24:BA:2556:C:H2'	24:BA:2557:G:O4'	2.12	0.49
8:CK:83:ILE:HB	8:CK:137:VAL:HG13	1.93	0.49
24:BA:822:U:H2'	24:BA:823:G:C8	2.46	0.49
24:BA:78:A:H2'	24:BA:79:G:C8	2.47	0.49
54:DA:310:A:O2'	54:DA:311:A:H2'	2.12	0.49
8:AK:91:ARG:HB2	12:AO:7:ILE:HG13	1.94	0.49
8:CK:95:VAL:HB	8:CK:99:GLU:O	2.12	0.49
33:DN:105:GLU:O	33:DN:108:GLU:HB2	2.12	0.49
26:BD:14:ARG:HG2	26:BD:15:PHE:CE2	2.47	0.49
54:DA:1655:A:O2'	27:DE:115:GLY:HA2	2.12	0.49
11:CN:25:TYR:N	11:CN:25:TYR:CD1	2.80	0.49
1:AA:1534:A:H2'	1:AA:1535:C:C6	2.47	0.49
1:AA:255:G:H2'	1:AA:256:U:C6	2.47	0.49
24:BA:654(S):G:C2	24:BA:654(T):A:C4	3.00	0.49
31:BK:144:VAL:O	31:BK:145:VAL:O	2.29	0.49
43:DU:88:LYS:NZ	43:DU:88:LYS:HA	2.27	0.49
1:AA:1324:A:H4'	1:AA:1362:C:H4'	1.95	0.49
10:AM:50:ILE:O	10:AM:52:GLY:N	2.45	0.49
29:BG:120:LEU:O	29:BG:180:PHE:HD2	1.94	0.49
54:DA:1104:C:H6	54:DA:1104:C:O5'	1.95	0.49
24:BA:1047:G:O2'	24:BA:1111:A:C2	2.65	0.49
30:BH:42:ARG:HG3	30:BH:44:VAL:HG13	1.93	0.49
7:AJ:113:GLU:CB	7:AJ:118:VAL:HG23	2.35	0.49
43:DU:44:ILE:CG1	43:DU:45:VAL:N	2.70	0.49
13:CP:82:MET:O	13:CP:83:ASP:C	2.49	0.49
25:BB:28:C:O2'	25:BB:29:A:H5'	2.12	0.49
2:CE:16:HIS:HB3	2:CE:210:SER:CB	2.42	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:172:ILE:H	2:CE:172:ILE:CD1	2.19	0.49
2:CE:207:ALA:O	2:CE:209:ARG:N	2.45	0.49
30:DH:153:LYS:CB	30:DH:154:PRO:CD	2.69	0.49
26:DD:72:LYS:O	26:DD:73:VAL:C	2.51	0.49
24:BA:1342:A:C6	24:BA:1397:U:C6	3.00	0.49
28:BF:21:ALA:HB3	28:BF:23:ASP:OD2	2.12	0.49
3:AF:173:VAL:HG12	3:AF:175:LEU:HD21	1.92	0.49
1:CA:924:C:O2'	1:CA:1502:A:N6	2.44	0.49
54:DA:1173:G:H4'	54:DA:1174:A:C8	2.47	0.49
24:BA:2348:U:O4	24:BA:2382:G:C2	2.65	0.49
4:AG:68:TYR:CD2	4:AG:97:LEU:HD22	2.46	0.49
8:CK:29:SER:CB	8:CK:32:LYS:HG3	2.28	0.49
24:BA:1929:G:H5''	24:BA:1930:G:OP1	2.12	0.49
32:DM:6:PRO:HG2	32:DM:43:THR:OG1	2.11	0.49
37:BQ:88:ASP:OD2	37:BQ:89:ARG:N	2.45	0.49
54:DA:1020:A:H4'	54:DA:1021:A:O5'	2.12	0.49
49:D4:36:CYS:O	49:D4:39:CYS:CB	2.55	0.49
55:DB:50:G:OP1	37:DQ:63:THR:HG23	2.12	0.49
54:DA:386:G:H3'	54:DA:388:G:N2	2.28	0.49
1:CA:815:A:O2'	1:CA:1527:C:O4'	2.30	0.49
10:CM:22:LYS:NZ	10:CM:23:ILE:HG12	2.27	0.49
47:BW:34:GLU:HA	47:BW:37:PHE:CD1	2.46	0.49
54:DA:1818:U:HO2'	54:DA:1819:A:P	2.35	0.49
4:AG:4:TYR:O	4:AG:5:ILE:C	2.50	0.49
24:BA:2312:U:OP1	29:BG:73:ALA:HA	2.11	0.49
2:AE:71:VAL:HB	2:AE:164:VAL:HG22	1.94	0.49
5:CH:41:VAL:CG1	5:CH:112:LEU:O	2.60	0.49
1:AA:485:G:C2'	1:AA:486:U:OP2	2.61	0.49
3:AF:131:ARG:O	3:AF:131:ARG:HG3	2.12	0.49
54:DA:2311:A:C3'	54:DA:2312:U:C5	2.92	0.49
25:BB:81:G:N7	25:BB:96:G:N3	2.59	0.49
38:DR:39:ARG:CG	38:DR:40:THR:H	2.22	0.49
1:CA:831:U:H2'	1:CA:832:C:H6	1.77	0.49
1:CA:676:A:O2'	1:CA:677:U:H5'	2.12	0.49
54:DA:1996:C:H4'	54:DA:1997:G:O5'	2.12	0.49
54:DA:752:A:HO2'	54:DA:753:C:P	2.33	0.49
31:BK:56:LYS:C	31:BK:56:LYS:HD2	2.32	0.49
26:BD:198:ASN:C	26:BD:200:ASP:H	2.15	0.49
26:BD:200:ASP:O	26:BD:202:LYS:N	2.45	0.49
1:CA:595:G:H1'	1:CA:596:C:C5	2.47	0.49
1:AA:191(F):U:O2'	1:AA:191:G:H5'	2.12	0.49
1:AA:197:A:O2'	1:AA:198:G:OP2	2.30	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:67:ILE:N	46:DZ:68:PRO:CD	2.76	0.49
15:AR:24:SER:O	15:AR:28:GLN:HG3	2.12	0.49
54:DA:1983:C:O2'	54:DA:1984:G:H5'	2.11	0.49
1:CA:849:C:O2'	1:CA:850:U:H5'	2.12	0.49
1:AA:908:A:H2'	1:AA:909:A:H8	1.77	0.49
24:BA:483:A:H5'	43:BU:49:VAL:HG22	1.94	0.49
43:DU:19:LYS:O	43:DU:19:LYS:CG	2.60	0.49
54:DA:813:U:H2'	54:DA:814:C:H6	1.75	0.49
9:CL:23:ASN:HD22	9:CL:23:ASN:N	2.08	0.49
35:DP:2:LEU:HD23	35:DP:2:LEU:N	2.27	0.49
44:DV:124:ILE:HG23	44:DV:124:ILE:O	2.11	0.49
1:CA:50:A:N6	1:CA:361:G:H4'	2.27	0.49
15:AR:7:GLU:O	15:AR:10:LYS:HB3	2.12	0.49
1:AA:746:A:H2'	1:AA:747:C:C6	2.47	0.49
54:DA:2572:A:O2'	54:DA:2573:C:P	2.70	0.49
1:CA:186(C):G:H2'	1:CA:186(D):C:H6	1.76	0.49
1:AA:1453:G:H2'	1:AA:1454:G:OP1	2.11	0.49
35:BP:1:MET:CE	35:BP:48:GLU:HG2	2.42	0.49
1:AA:1208:C:H2'	1:AA:1209:C:O4'	2.12	0.49
24:BA:2024:G:O2'	24:BA:2025:C:H5'	2.12	0.49
1:AA:1519:A:H3'	1:AA:1520:G:C5'	2.40	0.49
22:CD:31:G:H2'	22:CD:32:C:H6	1.76	0.49
29:BG:138:GLN:O	29:BG:138:GLN:HG2	2.10	0.49
2:AE:138:LEU:O	2:AE:141:GLU:HB3	2.11	0.49
46:DZ:93:GLU:O	46:DZ:97:LEU:HD11	2.12	0.49
24:BA:1899:G:N2	24:BA:1902:C:C5	2.80	0.49
3:AF:206:GLU:OE1	3:AF:206:GLU:HA	2.11	0.49
3:AF:206:GLU:O	3:AF:207:VAL:HB	2.12	0.49
29:BG:135:LEU:HD11	29:BG:157:ILE:HD12	1.95	0.49
24:BA:2745:C:O2'	30:BH:142:GLY:HA3	2.12	0.49
43:DU:44:ILE:CG1	43:DU:45:VAL:H	2.24	0.49
2:CE:68:ILE:O	2:CE:91:PRO:HD2	2.13	0.49
1:CA:1128:C:H2'	1:CA:1139:G:O6	2.12	0.49
27:DE:61:ARG:CB	27:DE:62:PRO:CD	2.90	0.49
4:AG:15:GLU:HG3	4:AG:63:LYS:HE2	1.94	0.49
32:DM:46:VAL:O	32:DM:47:ALA:CB	2.57	0.49
33:DN:47:ILE:CG1	33:DN:48:PRO:HD2	2.42	0.49
33:DN:55:GLY:O	33:DN:56:ASP:C	2.50	0.49
40:B2:70:ILE:O	40:B2:70:ILE:HG22	2.12	0.49
41:BS:70:TYR:CE2	41:BS:108:GLY:O	2.65	0.49
54:DA:1534:G:C8	54:DA:1534:G:H5''	2.47	0.49
8:CK:61:VAL:HG12	8:CK:63:LEU:HD13	1.94	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:56:VAL:HG13	44:BV:69:THR:O	2.12	0.49
1:CA:234:C:H2'	1:CA:235:C:C6	2.47	0.49
54:DA:1819:A:H3'	26:DD:178:PRO:HB2	1.94	0.49
3:AF:27:LYS:HE2	3:AF:27:LYS:CA	2.36	0.49
40:B2:49:THR:CG2	40:B2:50:PRO:HD3	2.42	0.49
54:DA:2126:A:H1'	54:DA:2127:G:O4'	2.12	0.49
44:DV:57:ILE:HG22	44:DV:58:VAL:N	2.28	0.49
40:D2:3:ALA:HB3	40:D2:14:VAL:HG23	1.92	0.49
36:B0:76:VAL:CG1	36:B0:77:ARG:N	2.75	0.49
24:BA:2146:C:H4'	24:BA:2147:G:O5'	2.12	0.49
38:BR:102:ILE:HB	38:BR:110:ILE:CD1	2.42	0.49
54:DA:1497:U:C5'	54:DA:1498:C:OP2	2.60	0.49
26:DD:186:HIS:CD2	26:DD:188:GLU:H	2.20	0.49
27:DE:37:ARG:HE	27:DE:37:ARG:H	1.59	0.49
11:AN:110:ASP:HB3	18:AU:85:LEU:CD1	2.41	0.49
12:CO:48:PRO:O	12:CO:49:ASN:ND2	2.44	0.49
1:CA:322:C:O5'	1:CA:322:C:H6	1.95	0.49
1:CA:1032:A:N7	1:CA:1032(A):G:H1'	2.27	0.49
1:AA:468:A:H2'	1:AA:474:G:C5'	2.42	0.49
1:CA:377:G:OP1	16:CS:5:ARG:NH1	2.45	0.49
1:CA:109:A:H5'	1:CA:110:C:OP2	2.13	0.49
25:BB:110:G:H2'	25:BB:111:U:H5'	1.95	0.49
4:AG:82:ALA:O	4:AG:83:SER:C	2.51	0.49
53:D8:10:ALA:O	53:D8:14:VAL:HG12	2.11	0.49
54:DA:270(K):C:H2'	54:DA:270(L):U:H5''	1.93	0.49
26:DD:76:PRO:HA	26:DD:118:VAL:HG23	1.93	0.49
1:AA:1528:U:O2'	1:AA:1529:G:H3'	2.12	0.49
25:BB:13:A:H5''	25:BB:15:A:N6	2.27	0.49
7:CJ:50:ILE:HG21	7:CJ:58:PRO:HA	1.93	0.49
43:DU:16:ALA:O	43:DU:21:LYS:HD3	2.11	0.49
3:AF:33:LEU:O	3:AF:36:ASP:HB2	2.12	0.49
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.77	0.49
24:BA:2683:C:H2'	24:BA:2684:U:C6	2.44	0.49
38:BR:53:ARG:O	38:BR:53:ARG:HG3	2.12	0.49
26:DD:2:ALA:CB	26:DD:20:ASP:HB3	2.42	0.49
32:DM:73:THR:CG2	32:DM:82:LEU:HD11	2.43	0.49
24:BA:404:C:H1'	24:BA:406:G:C8	2.47	0.49
1:AA:1519:A:C3'	1:AA:1520:G:H5'	2.42	0.49
4:AG:76:ARG:NH2	4:AG:80:GLU:OE1	2.38	0.49
24:BA:1131:G:H4'	32:BM:82:LEU:HB2	1.95	0.49
44:DV:69:THR:HG22	44:DV:90:VAL:HG22	1.95	0.49
54:DA:1893:C:C5	54:DA:1894:C:C5	3.00	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1462:C:H4'	24:BA:2703:C:H5'	1.94	0.49
1:CA:823:G:O2'	1:CA:824:C:H5'	2.12	0.49
5:AH:140:ARG:O	5:AH:140:ARG:HG2	2.12	0.49
1:AA:1269:A:N1	1:AA:1312:G:O2'	2.40	0.49
1:AA:1324:A:O2'	1:AA:1362:C:H5''	2.12	0.49
13:AP:10:PRO:O	13:AP:45:VAL:HG11	2.11	0.49
19:AV:62:ILE:CG2	19:AV:66:MET:HE1	2.40	0.49
13:AP:3:ARG:C	49:B4:34:GLU:HG3	2.33	0.49
49:B4:59:PHE:O	49:B4:63:TYR:HB3	2.12	0.49
36:B0:38:VAL:HG22	36:B0:112:ALA:HB2	1.94	0.49
1:CA:1054:C:C2'	1:CA:1054:C:O2	2.61	0.49
29:BG:29:TRP:C	29:BG:31:VAL:N	2.64	0.49
28:BF:63:LYS:CE	28:BF:67:GLN:HB3	2.40	0.49
54:DA:2809:A:O2'	54:DA:2810:A:H5'	2.13	0.49
24:BA:993:G:H1'	40:B2:89:GLN:OE1	2.11	0.49
39:D1:64:ARG:NH2	39:D1:64:ARG:CG	2.70	0.49
1:AA:5:U:O2	1:AA:5:U:H2'	2.11	0.49
5:CH:12:LEU:HD23	5:CH:13:ILE:H	1.76	0.49
37:BQ:88:ASP:O	37:BQ:89:ARG:CB	2.59	0.49
18:AU:31:LEU:HD11	18:AU:65:ILE:HD13	1.93	0.49
54:DA:1475:G:O2'	54:DA:1476:C:H5'	2.12	0.49
40:B2:77:ALA:O	40:B2:78:LYS:HG2	2.13	0.49
16:CS:59:TRP:HE3	16:CS:59:TRP:HA	1.76	0.49
54:DA:2346:A:O2'	54:DA:2347:C:P	2.71	0.49
28:BF:107:LYS:HB3	28:BF:206:ILE:HG22	1.95	0.49
2:AE:217:ARG:HB2	2:AE:217:ARG:CZ	2.43	0.49
24:BA:1182:A:H2'	24:BA:1183:G:C8	2.47	0.49
24:BA:1021:A:C3'	24:BA:1021:A:C8	2.95	0.49
24:BA:194:G:O2'	24:BA:195:A:H5'	2.12	0.49
13:CP:14:ARG:HG3	13:CP:16:ASP:OD2	2.13	0.49
3:AF:132:ARG:O	3:AF:136:GLN:HG3	2.13	0.49
27:BE:201:THR:HG22	27:BE:202:LYS:N	2.21	0.49
9:AL:79:LEU:HD11	9:AL:83:ARG:NE	2.27	0.49
24:BA:1538:G:O2'	24:BA:1539:G:H5'	2.13	0.49
24:BA:1252:G:HO2'	24:BA:1253:A:C4'	2.25	0.49
45:B3:51:VAL:CG2	45:B3:81:VAL:HG23	2.42	0.49
1:CA:530:G:HO2'	1:CA:531:U:P	2.36	0.49
1:AA:1020:U:H2'	1:AA:1021:G:H5''	1.94	0.49
1:CA:390:C:H4'	16:CS:28:ARG:NH2	2.27	0.49
31:BK:48:GLU:C	31:BK:48:GLU:OE2	2.51	0.49
8:CK:91:ARG:CG	8:CK:91:ARG:HH11	2.22	0.49
1:CA:464:G:H21	1:CA:468:A:H62	1.59	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:37:U:O2'	1:AA:38:G:H5'	2.12	0.49
5:AH:152:ARG:CG	5:AH:152:ARG:HH11	2.20	0.49
24:BA:1678:G:N2	24:BA:1989:G:H1	2.10	0.49
41:DS:29:LEU:HD23	41:DS:29:LEU:O	2.13	0.49
4:CG:198:VAL:HG12	4:CG:199:ASN:H	1.74	0.49
32:BM:70:LYS:HE2	32:BM:72:TYR:HE1	1.77	0.49
37:BQ:40:ILE:HG22	37:BQ:41:ASP:N	2.26	0.49
8:AK:86:ILE:HG13	8:AK:133:LEU:HD22	1.95	0.49
12:AO:23:LYS:H	12:AO:23:LYS:CD	2.26	0.49
26:DD:2:ALA:CB	26:DD:20:ASP:CB	2.90	0.49
54:DA:451:C:H4'	28:DF:52:LYS:HZ2	1.76	0.49
24:BA:2318:G:H1	37:BQ:2:ALA:HA	1.77	0.49
1:CA:998:G:C2'	1:CA:998(A):C:H5'	2.43	0.49
40:D2:91:TYR:C	40:D2:91:TYR:HD1	2.16	0.49
1:AA:224:C:H2'	1:AA:225:C:H6	1.76	0.49
54:DA:2033:A:H4'	54:DA:2034:U:OP1	2.12	0.49
3:AF:37:GLN:O	3:AF:41:GLY:N	2.45	0.49
3:CF:178:LEU:HD22	3:CF:178:LEU:N	2.27	0.49
46:DZ:19:GLN:OE1	46:DZ:19:GLN:HA	2.12	0.49
16:AS:76:GLN:O	16:AS:76:GLN:HG2	2.11	0.49
36:D0:18:LEU:HD13	36:D0:18:LEU:C	2.33	0.49
1:AA:261:U:C5	20:AW:79:ARG:NH1	2.80	0.49
29:BG:34:LEU:HD21	29:BG:159:VAL:HG23	1.95	0.49
53:D8:16:ILE:CD1	53:D8:57:ARG:HG2	2.42	0.49
53:D8:58:ILE:O	53:D8:61:LEU:HD12	2.13	0.49
24:BA:1114:G:H2'	24:BA:1115:G:H8	1.78	0.49
30:BH:59:ARG:O	30:BH:61:HIS:N	2.46	0.49
26:DD:44:ASN:ND2	26:DD:44:ASN:H	1.97	0.49
24:BA:34:C:O2'	24:BA:35:G:P	2.70	0.49
39:B1:92:ARG:HB3	40:B2:11:GLN:HE22	1.76	0.49
1:CA:954:G:H2'	1:CA:955:U:H6	1.76	0.49
13:CP:108:ARG:O	13:CP:109:THR:C	2.50	0.49
13:CP:23:TYR:HB3	13:CP:67:GLU:CG	2.39	0.49
49:D4:47:GLN:O	49:D4:48:ARG:CB	2.61	0.49
25:BB:31:C:N4	37:BQ:32:LEU:HD13	2.26	0.49
26:DD:130:ALA:C	26:DD:131:LEU:HD12	2.33	0.49
3:AF:174:PRO:HB3	3:AF:177:THR:HG22	1.93	0.49
2:AE:185:ILE:HA	2:AE:199:TYR:O	2.12	0.49
51:D6:7:ILE:C	51:D6:9:LEU:N	2.65	0.49
24:BA:9:U:H3	24:BA:2629:A:H61	1.61	0.49
1:CA:689:C:H2'	1:CA:690:G:C5'	2.40	0.49
1:CA:1025:U:O2'	1:CA:1026:G:H8	1.85	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:197:A:N7	1:CA:221:C:H4'	2.28	0.49
54:DA:2495:G:H5''	35:DP:81:VAL:CG1	2.43	0.49
44:BV:71:VAL:HA	44:BV:88:PHE:HA	1.94	0.49
33:BN:2:ILE:HD11	33:BN:82:ASN:ND2	2.09	0.49
24:BA:2657:A:C2'	24:BA:2658:C:H5'	2.42	0.49
41:BS:62:HIS:O	41:BS:63:ASP:O	2.31	0.49
10:AM:33:GLN:H	10:AM:75:ILE:CG1	2.24	0.49
24:BA:2468:G:H22	24:BA:2481:G:H2'	1.77	0.49
49:D4:42:PHE:O	49:D4:43:TYR:C	2.51	0.49
1:AA:1418:A:H5''	1:AA:1419:G:OP2	2.12	0.49
24:BA:95:G:O2'	47:BW:48:HIS:HB3	2.12	0.49
1:AA:1506:U:O2'	1:AA:1507:A:OP1	2.27	0.49
1:AA:406:G:H1'	1:AA:495:A:N1	2.27	0.49
1:AA:1052:U:H5''	1:AA:1053:G:OP2	2.13	0.49
1:AA:254:G:OP1	17:AT:67:LYS:O	2.30	0.49
7:AJ:80:VAL:HG13	7:AJ:85:TYR:HE1	1.77	0.49
9:CL:113:LYS:H	9:CL:119:ALA:HA	1.77	0.49
1:CA:1297:C:O2'	1:CA:1298:C:P	2.71	0.49
33:BN:23:ARG:CG	33:BN:23:ARG:HH11	2.22	0.49
24:BA:1697:G:C3'	24:BA:1698:A:H5''	2.38	0.49
6:AI:72:VAL:CG1	6:AI:73:ASN:N	2.76	0.49
38:DR:57:PHE:O	38:DR:59:THR:N	2.46	0.49
14:CQ:40:CYS:SG	14:CQ:43:CYS:N	2.75	0.49
24:BA:1252:G:O2'	24:BA:1253:A:O4'	2.30	0.49
54:DA:2818:G:O2'	54:DA:2819:G:H5'	2.13	0.49
24:BA:986:C:C2'	24:BA:987:G:H5'	2.43	0.49
46:DZ:40:ARG:NH2	46:DZ:42:GLN:HG2	2.27	0.49
33:BN:4:PRO:O	33:BN:5:GLN:CB	2.61	0.49
9:CL:43:ALA:C	9:CL:45:ALA:H	2.16	0.49
9:CL:43:ALA:HA	9:CL:74:ILE:HD13	1.94	0.49
1:CA:539:A:OP1	12:CO:114:LYS:HE2	2.12	0.49
24:BA:49:A:H1'	24:BA:51:G:C4	2.47	0.49
4:AG:96:LEU:HD12	4:AG:139:ARG:NH2	2.28	0.49
53:B8:39:LYS:O	53:B8:40:GLU:HB2	2.11	0.49
54:DA:616:A:O2'	54:DA:617:G:OP1	2.25	0.49
24:BA:614:U:C5'	24:BA:615:G:OP1	2.60	0.49
16:AS:8:ARG:CZ	16:AS:15:PRO:HG3	2.42	0.49
29:DG:121:ASN:ND2	29:DG:123:ASN:N	2.60	0.49
12:AO:53:ARG:NH1	12:AO:92:ASP:OD2	2.46	0.49
54:DA:1011:G:O2'	54:DA:1013:C:H5''	2.12	0.49
37:DQ:99:LYS:O	37:DQ:101:LEU:N	2.45	0.49
1:AA:860:A:H4'	8:AK:75:ARG:HH12	1.76	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CT:3:LYS:HD2	17:CT:60:ILE:HD11	1.95	0.49
9:AL:51:ARG:NH1	9:AL:51:ARG:HG3	2.27	0.49
54:DA:989:G:N7	48:DX:13:ILE:CD1	2.75	0.49
32:DM:82:LEU:HD12	32:DM:83:LYS:N	2.27	0.49
54:DA:2870:C:H2'	54:DA:2871:C:H5'	1.95	0.49
16:CS:83:GLU:HA	16:CS:83:GLU:OE2	2.12	0.49
2:AE:153:ARG:HD3	2:AE:153:ARG:O	2.12	0.49
15:CR:32:LEU:O	15:CR:33:THR:C	2.51	0.49
24:BA:198:C:H5'	24:BA:2244:U:OP1	2.13	0.49
54:DA:2193:G:H2'	54:DA:2194:G:H8	1.78	0.49
1:AA:812:C:O2'	1:AA:813:U:P	2.71	0.49
4:CG:118:ARG:NH2	4:CG:136:PRO:HB2	2.28	0.49
24:BA:76:C:H1'	47:BW:62:THR:HG21	1.93	0.49
25:BB:87:G:H2'	25:BB:88:C:H5''	1.94	0.49
1:CA:119:A:C5	1:CA:240:C:C4	3.00	0.49
24:BA:2111:C:OP1	24:BA:2111:C:O4'	2.30	0.49
54:DA:1249:U:O2	54:DA:1249:U:C2'	2.52	0.49
33:BN:99:PHE:CD2	33:BN:99:PHE:N	2.81	0.49
44:BV:31:ARG:HG2	44:BV:31:ARG:HH11	1.77	0.49
1:AA:423:G:H2'	1:AA:424:G:O4'	2.12	0.49
5:AH:19:MET:HA	5:AH:24:ARG:HA	1.93	0.49
1:CA:794:A:C2	1:CA:795:C:N3	2.81	0.49
31:BK:93:THR:HG22	31:BK:119:PRO:HB3	1.94	0.49
31:BK:93:THR:O	31:BK:97:ILE:CD1	2.61	0.49
34:BO:62:LEU:HD22	34:BO:63:PRO:CD	2.43	0.49
43:DU:84:ARG:HD3	43:DU:86:ARG:NH1	2.28	0.49
1:AA:1245:A:H2'	1:AA:1246:C:O4'	2.11	0.49
1:AA:1365:G:C5	1:AA:1366:C:C5	3.01	0.49
27:DE:179:GLU:O	27:DE:180:ASN:HB2	2.12	0.49
34:BO:107:LYS:C	34:BO:109:GLY:H	2.16	0.49
1:CA:1317:C:N3	19:CV:37:ARG:NH2	2.61	0.49
19:CV:9:VAL:O	19:CV:10:PHE:HB3	2.13	0.49
30:DH:151:ILE:C	30:DH:152:ARG:O	2.49	0.49
26:DD:35:LYS:CG	26:DD:64:ILE:HG22	2.42	0.49
24:BA:1083:U:H2'	24:BA:1085:A:OP2	2.12	0.49
28:BF:63:LYS:HA	28:BF:76:GLY:O	2.12	0.49
54:DA:619:G:H5''	54:DA:620:G:OP2	2.11	0.49
50:D5:2:ALA:O	50:D5:3:LYS:CB	2.60	0.49
1:CA:1024:G:C3'	1:CA:1025:U:H5''	2.42	0.49
5:AH:101:ILE:N	5:AH:101:ILE:HD13	2.11	0.49
1:CA:176:C:O2'	1:CA:177:C:H5'	2.12	0.49
54:DA:675:A:H4'	28:DF:67:GLN:NE2	2.26	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:102:ALA:C	37:BQ:104:GLY:H	2.15	0.49
37:BQ:106:ARG:HB2	37:BQ:110:LEU:HD11	1.95	0.49
32:DM:95:PRO:O	32:DM:97:ARG:N	2.46	0.49
48:BX:59:VAL:CG1	48:BX:60:GLU:H	2.06	0.49
51:D6:20:ASN:CG	51:D6:21:TYR:N	2.66	0.49
4:AG:178:VAL:O	4:AG:180:GLY:N	2.40	0.49
1:AA:1055:A:N7	1:AA:1200:C:N4	2.60	0.49
58:DA:2901:G:H5'	60:DA:2902:U:OP2	2.12	0.49
1:AA:485:G:H2'	1:AA:486:U:OP2	2.11	0.49
7:AJ:79:ARG:HG3	7:AJ:80:VAL:H	1.75	0.49
1:AA:551:U:O2'	12:AO:86:ARG:HD2	2.12	0.49
1:CA:129(A):G:O2'	1:CA:189:U:H3'	2.13	0.49
5:AH:48:ALA:HB2	5:AH:57:LYS:HD3	1.95	0.49
24:BA:2113:U:H5''	24:BA:2114:A:C1'	2.42	0.49
54:DA:1280:G:H2'	54:DA:1281:G:H5'	1.93	0.49
40:D2:79:VAL:O	40:D2:79:VAL:HG22	2.12	0.49
1:AA:1217:C:H2'	1:AA:1218:C:O4'	2.12	0.49
36:D0:96:ARG:NH2	36:D0:117:VAL:HG23	2.27	0.49
1:CA:964:A:N3	1:CA:969:A:O2'	2.43	0.49
24:BA:1427:A:H4'	24:BA:1428:C:O4'	2.12	0.49
1:AA:1301:U:O2	1:AA:1301:U:C2'	2.52	0.49
38:DR:38:ASN:O	38:DR:39:ARG:O	2.30	0.49
2:AE:128:GLU:C	2:AE:130:ARG:H	2.16	0.49
34:DO:14:LYS:O	34:DO:15:ARG:C	2.51	0.49
9:CL:79:LEU:O	9:CL:79:LEU:HD13	2.12	0.49
34:BO:19:VAL:HG22	34:BO:20:GLY:N	2.23	0.49
1:AA:209:U:O2	1:AA:209:U:H2'	2.11	0.49
24:BA:1171:G:H3'	24:BA:1171:G:P	2.52	0.49
1:CA:278:G:OP2	17:CT:92:ARG:NH2	2.45	0.49
4:AG:79:PHE:HE1	4:AG:204:ILE:HD13	1.78	0.49
1:CA:465:A:N7	1:CA:467:G:C6	2.81	0.49
24:BA:1819:A:H1'	24:BA:1821:A:C6	2.48	0.49
59:CO:201:C:H5'	60:DA:2917:U:H2'	1.94	0.49
53:B8:37:SER:O	53:B8:39:LYS:O	2.31	0.49
16:AS:54:GLU:N	16:AS:54:GLU:CD	2.65	0.49
1:CA:789:U:H2'	1:CA:791:G:OP2	2.11	0.49
39:B1:27:LEU:O	39:B1:31:SER:HB3	2.12	0.49
32:DM:68:GLU:HG2	32:DM:88:GLU:CD	2.33	0.49
34:DO:36:LYS:HB2	34:DO:40:SER:HB3	1.94	0.49
43:BU:101:LYS:O	43:BU:101:LYS:HE2	2.12	0.49
32:BM:14:VAL:CG1	32:BM:15:LEU:N	2.76	0.49
1:CA:748:C:OP2	1:CA:748:C:H6	1.96	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CL:23:ASN:H	9:CL:23:ASN:HD22	1.59	0.49
24:BA:2492:U:H2'	24:BA:2493:U:C6	2.47	0.49
35:BP:78:PRO:O	35:BP:79:LEU:CG	2.61	0.49
24:BA:1694:C:O2'	24:BA:1695:G:H5''	2.12	0.49
1:AA:1422:G:O3'	33:BN:49:ARG:NH1	2.45	0.49
55:DB:66:A:HO2'	55:DB:67:G:P	2.36	0.49
28:BF:162:LEU:HD12	28:BF:162:LEU:H	1.78	0.49
40:B2:13:ARG:HG2	40:B2:13:ARG:HH11	1.77	0.49
44:DV:82:ARG:HG3	44:DV:83:PRO:N	2.27	0.49
6:CI:101:ALA:HA	18:CU:28:GLU:HG2	1.95	0.49
54:DA:251:A:C5	54:DA:252:G:H1'	2.48	0.49
16:AS:69:THR:O	16:AS:73:LEU:HG	2.13	0.49
24:BA:940:G:H2'	24:BA:941:A:O4'	2.13	0.49
54:DA:698:C:O2'	54:DA:734:A:N6	2.45	0.49
24:BA:2707:G:H2'	24:BA:2708:G:C8	2.48	0.49
27:DE:17:ASP:N	27:DE:17:ASP:OD2	2.46	0.49
9:CL:110:GLU:HG3	9:CL:110:GLU:O	2.12	0.49
34:BO:68:GLN:HA	34:BO:68:GLN:OE1	2.13	0.49
41:DS:51:LEU:HD23	41:DS:105:VAL:HG11	1.95	0.49
13:CP:30:ALA:O	13:CP:31:LYS:C	2.49	0.49
45:B3:46:LYS:O	45:B3:47:PRO:O	2.30	0.49
31:BK:78:THR:O	31:BK:78:THR:HG22	2.11	0.49
9:AL:3:GLN:O	9:AL:4:TYR:CG	2.66	0.49
54:DA:1085:A:C2	54:DA:1086:A:H8	2.30	0.49
31:DK:140:LEU:HD23	31:DK:140:LEU:N	2.28	0.49
27:DE:179:GLU:OE1	27:DE:179:GLU:HA	2.10	0.49
44:DV:111:VAL:O	44:DV:111:VAL:HG22	2.12	0.49
30:BH:45:VAL:CG2	30:BH:46:GLU:H	2.17	0.49
24:BA:1204:A:O2'	24:BA:1205:U:H5''	2.13	0.49
30:DH:124:GLU:HB3	30:DH:132:ARG:CG	2.43	0.49
39:B1:104:GLN:CD	39:B1:104:GLN:H	2.15	0.49
1:CA:960:U:H4'	1:CA:961:U:H5''	1.94	0.49
19:CV:62:ILE:C	19:CV:63:THR:HG22	2.32	0.49
29:BG:11:TYR:CE2	29:BG:16:ARG:HD3	2.48	0.49
28:BF:29:ASN:N	28:BF:112:MET:CE	2.69	0.49
2:AE:16:HIS:HB2	2:AE:17:PHE:CD2	2.47	0.49
23:C1:12:A:C3'	23:C1:13:A:H5''	2.34	0.49
54:DA:2056:G:H2'	54:DA:2056:G:N3	2.28	0.49
24:BA:9:U:O4	24:BA:2629:A:C2	2.66	0.49
51:B6:47:THR:HB	51:B6:49:HIS:HE1	1.71	0.49
1:CA:143:A:N1	1:CA:220:G:O6	2.45	0.49
54:DA:2723:C:O3'	36:D0:1:MET:HE2	2.11	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:D0:1:MET:O	36:D0:2:ARG:CB	2.60	0.49
54:DA:1653:G:HO2'	54:DA:1654:A:P	2.36	0.49
24:BA:518:G:H4'	41:BS:18:ARG:NH1	2.21	0.49
1:AA:1374:A:C2'	1:AA:1375:A:H5'	2.42	0.49
4:CG:8:VAL:O	4:CG:11:LEU:HB2	2.12	0.49
29:DG:107:LEU:HD11	29:DG:178:PHE:CD1	2.48	0.49
54:DA:2414:G:H21	34:DO:67:MET:CE	2.26	0.49
47:DW:16:LEU:O	47:DW:17:SER:CB	2.56	0.49
1:CA:121:C:H5'	1:CA:122:G:OP1	2.12	0.49
1:AA:959:A:C2	1:AA:1222:G:O4'	2.66	0.49
54:DA:118:A:H5'	54:DA:119:A:H8	1.77	0.49
33:DN:20:MET:HG2	33:DN:21:CYS:O	2.11	0.49
24:BA:2305:A:H2'	24:BA:2306:C:C4'	2.42	0.49
29:BG:94:LEU:N	29:BG:94:LEU:HD23	2.27	0.49
1:AA:1440:C:O2'	1:AA:1442:G:N2	2.46	0.49
1:AA:1446:A:C5	38:BR:118:ARG:CZ	2.96	0.49
38:BR:124:ASP:O	38:BR:128:GLU:HB2	2.11	0.49
31:BK:9:LEU:CD2	31:BK:9:LEU:H	2.25	0.49
2:AE:5:ILE:HG13	2:AE:6:THR:N	2.26	0.49
31:BK:40:THR:O	31:BK:44:LEU:HG	2.12	0.49
12:AO:32:PHE:HB3	12:AO:84:LEU:HD21	1.94	0.49
34:DO:30:THR:O	34:DO:33:ARG:HB2	2.12	0.49
29:BG:78:SER:O	29:BG:79:ASN:C	2.51	0.49
46:BZ:7:ILE:CG2	46:BZ:69:LYS:HG2	2.41	0.49
54:DA:1289:C:H2'	54:DA:1290:C:H6	1.78	0.49
14:CQ:8:GLU:O	14:CQ:10:ALA:N	2.45	0.49
54:DA:2317:C:H3'	54:DA:2318:G:N2	2.26	0.49
1:AA:1240:U:OP2	7:AJ:116:ALA:HB2	2.12	0.49
3:CF:188:LEU:CD2	3:CF:188:LEU:N	2.76	0.49
1:AA:991:U:O2	1:AA:993:G:H8	1.95	0.49
54:DA:662:G:H5''	34:DO:15:ARG:O	2.12	0.49
9:CL:5:TYR:HA	9:CL:17:VAL:O	2.12	0.49
32:BM:99:LEU:O	32:BM:103:VAL:HG23	2.12	0.49
24:BA:1314:C:P	24:BA:1332:G:H5'	2.53	0.49
1:AA:1350:A:H2'	1:AA:1351:U:C6	2.47	0.49
27:DE:119:ARG:HD3	27:DE:160:TYR:CD2	2.47	0.49
24:BA:2167:U:H3	1:CA:1032:A:H2	1.60	0.49
15:AR:3:ILE:HG22	15:AR:38:ARG:NE	2.24	0.49
54:DA:273(F):C:C2'	54:DA:274:G:H5''	2.39	0.49
37:DQ:25:ARG:HH12	37:DQ:42:ASP:CG	2.16	0.49
31:DK:35:LEU:O	31:DK:36:ALA:CB	2.61	0.49
25:BB:13:A:H4'	25:BB:15:A:C6	2.48	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:14:ARG:HG2	8:CK:14:ARG:O	2.12	0.49
24:BA:284:U:O2'	24:BA:285:C:H5'	2.13	0.49
24:BA:2879:C:C4'	24:BA:2880:C:OP1	2.60	0.49
35:BP:110:THR:C	35:BP:112:GLU:N	2.66	0.49
1:AA:509:A:H2	1:AA:544:G:O4'	1.96	0.49
24:BA:2219:G:C2'	24:BA:2224:G:H5'	2.41	0.49
42:DT:51:VAL:HG13	42:DT:81:VAL:HG23	1.93	0.49
47:BW:10:LEU:C	47:BW:12:GLU:N	2.65	0.49
1:AA:881:G:H2'	1:AA:882:C:O4'	2.12	0.49
1:AA:1104:G:O2'	2:AE:111:ARG:NH2	2.45	0.49
40:D2:29:PRO:O	40:D2:61:VAL:HG22	2.12	0.49
4:CG:128:VAL:O	4:CG:130:GLY:N	2.45	0.49
24:BA:1838:C:H5'	24:BA:1839:G:OP1	2.12	0.49
44:DV:77:ASP:OD2	44:DV:80:ARG:HB2	2.12	0.49
1:AA:1460:A:H2'	1:AA:1461:G:O4'	2.12	0.49
54:DA:1526:G:O2'	54:DA:1527:G:H5'	2.13	0.49
54:DA:1718:G:C3'	54:DA:1725:G:H5''	2.43	0.49
1:AA:956:U:H2'	1:AA:957:U:O4'	2.12	0.49
41:BS:89:ALA:O	41:BS:90:ARG:HB2	2.13	0.49
1:CA:392:G:H2'	1:CA:393:A:C8	2.48	0.49
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.78	0.49
54:DA:1115:G:O2'	54:DA:1116:C:H5'	2.11	0.49
55:DB:69:G:H2'	55:DB:70:C:H6	1.76	0.49
46:DZ:80:LEU:C	46:DZ:81:LYS:CE	2.77	0.49
31:BK:79:ILE:HD11	31:BK:140:LEU:HD11	1.95	0.49
43:DU:81:LYS:HD3	43:DU:97:ARG:HD3	1.94	0.49
43:DU:81:LYS:CD	43:DU:97:ARG:HE	2.20	0.49
33:BN:87:ILE:HG22	33:BN:91:LEU:HA	1.95	0.49
24:BA:2567:G:H2'	24:BA:2568:C:C6	2.48	0.49
54:DA:1066:U:C2'	54:DA:1066:U:O2	2.60	0.49
30:BH:9:ILE:CB	30:BH:10:PRO:CA	2.81	0.49
43:BU:72:VAL:O	43:BU:73:ARG:CB	2.60	0.49
36:B0:39:PRO:C	36:B0:41:ALA:N	2.64	0.49
30:DH:103:LEU:H	30:DH:103:LEU:HD23	1.77	0.49
43:DU:47:LYS:C	43:DU:49:VAL:H	2.16	0.49
43:DU:61:ILE:HG22	43:DU:62:GLU:N	2.28	0.49
34:BO:114:ILE:HD13	34:BO:130:PHE:HE1	1.78	0.49
39:B1:92:ARG:HG2	39:B1:92:ARG:HH11	1.77	0.49
29:BG:9:ARG:NH1	29:BG:9:ARG:HG2	2.26	0.49
10:CM:63:PHE:CD1	14:CQ:58:LYS:HA	2.35	0.49
30:DH:153:LYS:O	30:DH:154:PRO:O	2.30	0.49
2:AE:17:PHE:CB	2:AE:42:ILE:HG12	2.42	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:D6:9:LEU:HD13	51:D6:26:ASN:HD22	1.76	0.49
24:BA:2790:A:C2	24:BA:2791:C:H3'	2.48	0.49
27:DE:61:ARG:O	27:DE:62:PRO:C	2.51	0.49
51:B6:11:LEU:C	51:B6:24:GLU:HG2	2.32	0.49
51:B6:24:GLU:OE1	53:B8:34:TRP:HZ3	1.95	0.49
44:BV:118:GLN:CG	44:BV:174:VAL:H	2.25	0.49
5:CH:45:PHE:CD2	5:CH:47:LYS:HD2	2.47	0.49
1:CA:220:G:C2'	1:CA:221:C:H5'	2.43	0.49
25:BB:76:G:H5'	44:BV:10:ARG:HH22	1.78	0.49
54:DA:1025:G:O2'	54:DA:1026:U:P	2.71	0.49
1:AA:664:G:P	18:AU:64:ARG:HH21	2.36	0.49
1:AA:1118:C:O2'	1:AA:1119:C:H5'	2.12	0.49
2:CE:7:VAL:CG2	2:CE:8:LYS:HD3	2.43	0.49
49:D4:1:MET:O	49:D4:1:MET:HG3	2.12	0.49
26:DD:227:ASN:HB3	26:DD:228:PRO:CD	2.30	0.49
44:BV:59:LEU:HD23	44:BV:69:THR:OG1	2.13	0.49
54:DA:1967:C:H2'	54:DA:1968:G:H5'	1.95	0.49
47:BW:46:GLN:C	47:BW:49:LYS:NZ	2.66	0.49
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.12	0.49
1:CA:191(E):G:H2'	1:CA:191(F):U:C6	2.47	0.49
20:CW:37:SER:O	20:CW:41:ILE:HG12	2.12	0.49
24:BA:1729:A:H2'	24:BA:1730:U:H5''	1.95	0.49
54:DA:302:C:O2'	54:DA:303:U:H5'	2.13	0.49
24:BA:387:U:O2'	24:BA:388:G:OP2	2.25	0.49
54:DA:2654:A:C4'	54:DA:2655:G:OP1	2.59	0.49
33:BN:11:ALA:O	33:BN:98:VAL:HG23	2.12	0.49
11:AN:99:GLN:OE1	11:AN:105:VAL:HG21	2.13	0.49
24:BA:528:A:N1	24:BA:2042:A:H2'	2.26	0.49
54:DA:2562:U:H1'	33:DN:23:ARG:HH12	1.73	0.49
1:AA:1298:C:H6	7:AJ:114:ARG:NH1	2.11	0.49
2:AE:127:ILE:O	2:AE:130:ARG:HB2	2.13	0.49
1:AA:209:U:O2	1:AA:209:U:C2'	2.60	0.49
2:CE:39:ILE:O	2:CE:41:ILE:HD12	2.12	0.49
29:DG:3:LEU:HD21	49:D4:25:TYR:CE1	2.48	0.49
6:AI:55:ASP:CB	6:AI:86:ARG:HH12	2.26	0.49
24:BA:2537:U:C2	24:BA:2538:C:C5	3.01	0.49
1:CA:587:G:N2	1:CA:755:G:C5	2.80	0.49
1:CA:595:G:N1	1:CA:641:U:H2'	2.28	0.49
27:BE:186:GLY:O	27:BE:188:VAL:HG12	2.12	0.49
6:CI:72:VAL:HG13	6:CI:73:ASN:N	2.27	0.49
24:BA:1254:A:C5'	24:BA:1255:U:H5'	2.40	0.49
54:DA:414:C:H2'	54:DA:415:A:H8	1.77	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:750:G:N3	15:AR:23:GLY:CA	2.76	0.49
29:DG:56:ALA:HB2	29:DG:153:ARG:NE	2.28	0.49
53:B8:52:LYS:N	53:B8:52:LYS:HD2	2.28	0.49
4:CG:196:LEU:C	4:CG:198:VAL:N	2.66	0.49
54:DA:1639:U:H2'	54:DA:1640:C:C5'	2.43	0.49
1:CA:1326:C:H2'	1:CA:1327:C:C6	2.47	0.49
4:CG:163:GLU:O	4:CG:165:MET:N	2.46	0.49
22:AD:37:A:H2'	22:AD:38:A:H8	1.77	0.49
24:BA:2593:U:H2'	24:BA:2594:C:H6	1.78	0.49
54:DA:924:C:H2'	54:DA:925:C:H6	1.77	0.49
12:CO:85:ILE:HD11	12:CO:98:TYR:CB	2.43	0.49
37:DQ:11:LYS:HG2	37:DQ:11:LYS:O	2.12	0.49
24:BA:470:A:H5'	24:BA:470:A:H8	1.78	0.49
1:AA:31:G:O2'	1:AA:32:A:O5'	2.28	0.49
1:CA:31:G:HO2'	1:CA:32:A:P	2.35	0.49
24:BA:2124:G:N2	24:BA:2125:G:H1'	2.27	0.49
1:AA:554:C:H2'	1:AA:555:C:C6	2.48	0.49
1:CA:895:G:H2'	1:CA:896:C:C6	2.47	0.49
1:AA:642:A:N7	8:AK:115:SER:HA	2.28	0.49
46:BZ:67:ILE:HB	46:BZ:68:PRO:HD3	1.93	0.49
16:AS:67:THR:HG22	16:AS:68:ASP:H	1.77	0.49
5:CH:60:TYR:CE1	5:CH:64:ARG:NH2	2.77	0.49
30:DH:98:LEU:HD12	30:DH:102:ALA:O	2.13	0.49
54:DA:1195:G:O2'	54:DA:1196:C:H5'	2.13	0.49
1:CA:1253:G:O2'	1:CA:1254:C:H5'	2.13	0.49
54:DA:2722:G:H4'	36:D0:4:LEU:HB2	1.95	0.49
54:DA:671:C:OP1	34:DO:42:SER:O	2.31	0.49
40:B2:75:PHE:HA	40:B2:81:TYR:HB3	1.93	0.49
43:DU:95:LYS:N	43:DU:95:LYS:CD	2.76	0.49
3:AF:206:GLU:HB3	3:AF:207:VAL:H	1.42	0.49
10:AM:56:HIS:O	10:AM:57:LYS:C	2.50	0.49
13:AP:3:ARG:HA	13:AP:8:GLU:HB2	1.95	0.49
1:AA:1320:C:C1'	19:AV:73:GLU:HG3	2.42	0.49
44:BV:157:LEU:HB3	44:BV:161:VAL:CG1	2.39	0.49
44:BV:93:ASP:O	44:BV:94:GLU:O	2.30	0.49
44:DV:143:GLY:O	44:DV:145:GLU:HG3	2.12	0.49
24:BA:1047:G:HO2'	24:BA:1111:A:H2	1.56	0.49
24:BA:2745:C:C4	24:BA:2746:U:C4	3.01	0.49
54:DA:500:G:N1	54:DA:503:A:OP2	2.44	0.49
54:DA:481:G:HO2'	54:DA:507:A:H61	1.61	0.49
25:BB:55:U:HO2'	29:BG:29:TRP:HE1	1.59	0.49
2:CE:69:LEU:HB3	2:CE:162:ILE:HG22	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BF:21:ALA:C	28:BF:23:ASP:N	2.63	0.49
3:AF:88:ARG:HB2	3:AF:101:LEU:HB3	1.93	0.49
3:AF:116:VAL:O	3:AF:119:ARG:HB3	2.12	0.49
3:AF:52:LEU:H	3:AF:52:LEU:CD2	2.25	0.49
2:AE:36:ARG:H	2:AE:41:ILE:HD13	1.76	0.49
54:DA:2056:G:N2	54:DA:2057:A:C4	2.80	0.49
26:BD:142:VAL:HG23	26:BD:192:THR:O	2.13	0.49
32:DM:4:TYR:OH	32:DM:7:LYS:NZ	2.46	0.49
2:AE:178:ARG:HH22	8:AK:68:ARG:NH1	2.11	0.49
1:AA:4:U:H5''	1:AA:5:U:OP2	2.13	0.49
44:BV:54:HIS:CD2	44:BV:101:PRO:HB3	2.48	0.49
35:BP:66:ILE:CG1	35:BP:67:ARG:N	2.76	0.49
1:CA:1127:G:N2	1:CA:1147:C:N4	2.60	0.49
1:AA:1374:A:C2	1:AA:1375:A:N7	2.80	0.49
9:AL:104:ARG:HG2	9:AL:104:ARG:O	2.13	0.49
1:CA:430:A:OP1	4:CG:9:CYS:N	2.46	0.49
2:CE:193:ASP:OD2	2:CE:196:LEU:CG	2.57	0.49
31:DK:128:LEU:O	31:DK:138:ILE:N	2.44	0.49
7:CJ:23:VAL:O	7:CJ:27:ILE:CD1	2.60	0.49
24:BA:2311:A:C2'	24:BA:2312:U:O5'	2.61	0.49
38:BR:117:ASP:C	38:BR:119:LYS:N	2.66	0.49
1:CA:243:A:H4'	1:CA:244:U:O5'	2.11	0.49
54:DA:2173:A:OP1	54:DA:2174:C:C5	2.65	0.49
2:CE:95:GLN:NE2	2:CE:147:LYS:HE2	2.27	0.49
24:BA:327:G:C2	24:BA:328:U:O2	2.66	0.49
35:DP:86:GLY:O	35:DP:88:GLY:N	2.46	0.49
24:BA:395:U:H2'	24:BA:396:G:N7	2.28	0.49
40:D2:76:LYS:HG3	40:D2:81:TYR:CD1	2.48	0.49
1:AA:681:C:O2'	1:AA:682:G:H5'	2.12	0.49
30:DH:13:LYS:CA	30:DH:13:LYS:HE2	2.40	0.49
22:CD:64:G:O2'	22:CD:65:C:H5'	2.13	0.49
54:DA:1608:A:HO2'	54:DA:1610:A:P	2.35	0.49
54:DA:530:G:C6	54:DA:2022:U:H5''	2.48	0.49
3:CF:76:VAL:HG21	3:CF:103:VAL:HG11	1.95	0.49
24:BA:590:A:H2'	24:BA:591:C:H6	1.73	0.49
4:CG:206:PHE:HD2	4:CG:207:TYR:CE1	2.31	0.49
24:BA:946:G:H2'	24:BA:947:G:H8	1.78	0.49
30:BH:92:ILE:CG2	30:BH:93:GLY:N	2.70	0.49
6:AI:53:ALA:C	6:AI:55:ASP:H	2.16	0.49
6:AI:9:VAL:HB	6:AI:87:ARG:HB2	1.95	0.49
1:AA:450:G:N7	1:AA:481:G:C6	2.81	0.49
54:DA:1240:U:O2'	54:DA:1241:A:H5'	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2427:C:H5''	24:BA:2428:G:OP1	2.13	0.49
1:AA:109:A:C4	1:AA:326:G:C2	3.01	0.49
24:BA:74:A:O2'	24:BA:75:G:OP2	2.25	0.49
32:DM:56:ASN:ND2	32:DM:125:GLY:C	2.66	0.49
54:DA:2152:G:H2'	54:DA:2153:G:H8	1.77	0.49
6:AI:28:ARG:CA	6:AI:28:ARG:HH11	2.26	0.49
34:DO:6:LEU:O	34:DO:7:ARG:O	2.31	0.49
15:AR:17:ARG:CZ	15:AR:77:ARG:NH1	2.76	0.49
35:DP:23:GLY:O	35:DP:24:GLY:O	2.30	0.49
2:CE:134:GLU:HB3	2:CE:138:LEU:HD12	1.93	0.49
31:DK:1:MET:HG3	31:DK:23:PRO:HA	1.94	0.49
9:CL:22:GLY:HA3	9:CL:60:ASP:OD2	2.13	0.49
54:DA:654:A:N3	54:DA:654:A:H2'	2.27	0.49
40:B2:47:VAL:O	40:B2:47:VAL:HG22	2.13	0.49
54:DA:162:U:O2	54:DA:162:U:H2'	2.12	0.49
1:AA:176:C:C2	1:AA:177:C:C5	3.01	0.49
54:DA:987:G:C2'	54:DA:988:A:H5'	2.42	0.49
24:BA:1694:C:O2'	24:BA:1695:G:P	2.71	0.49
54:DA:2098:U:H2'	54:DA:2099:U:H6	1.76	0.49
30:DH:19:VAL:HG13	30:DH:43:VAL:HG23	1.93	0.49
24:BA:2884:U:H2'	24:BA:2885:C:C5'	2.42	0.49
38:BR:51:ARG:O	38:BR:61:PHE:HA	2.13	0.49
24:BA:1013:C:O2'	24:BA:1014:U:H5'	2.13	0.49
42:BT:68:ARG:HH11	42:BT:68:ARG:HG3	1.78	0.49
44:BV:65:GLN:O	44:BV:67:LEU:N	2.45	0.49
24:BA:654(B):C:N4	24:BA:654(T):A:C2	2.77	0.49
43:DU:97:ARG:HG2	43:DU:97:ARG:NH1	2.28	0.49
1:AA:976:G:N2	1:AA:1362(A):C:OP2	2.33	0.49
13:AP:25:ILE:HD12	13:AP:25:ILE:N	2.28	0.49
13:AP:37:THR:O	13:AP:37:THR:HG22	2.13	0.49
29:BG:143:GLU:HA	49:B4:31:ILE:HD13	1.94	0.49
44:BV:128:VAL:HG21	44:BV:134:PRO:HD3	1.95	0.49
34:DO:47:ASP:OD1	34:DO:49:ARG:NH1	2.46	0.49
30:BH:22:GLY:HA2	30:BH:37:VAL:CB	2.43	0.49
43:BU:77:PRO:O	43:BU:78:ALA:HB2	2.13	0.49
1:CA:1322:C:O2	1:CA:1322:C:C2'	2.61	0.49
13:CP:90:LEU:HA	13:CP:93:ARG:CD	2.34	0.49
19:CV:11:VAL:O	19:CV:12:ASP:CB	2.61	0.49
49:D4:53:GLU:O	49:D4:57:GLU:HG3	2.13	0.49
2:CE:15:VAL:H	2:CE:16:HIS:CE1	2.30	0.49
3:AF:119:ARG:HD3	3:AF:123:GLN:HE21	1.77	0.49
41:BS:29:LEU:CD1	41:BS:51:LEU:HD11	2.43	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:D8:52:LYS:H	53:D8:53:PRO:HD2	1.66	0.49
54:DA:2631:G:N3	54:DA:2810:A:H2	2.10	0.49
24:BA:535:C:C2'	24:BA:536:A:H5'	2.43	0.49
13:CP:3:ARG:HA	13:CP:9:ILE:HG12	1.95	0.49
29:DG:115:ARG:HG2	29:DG:115:ARG:HH11	1.77	0.49
24:BA:1785:A:C8	24:BA:1787:A:C5	3.01	0.49
54:DA:803:U:H2'	54:DA:804:A:C5'	2.43	0.49
22:AC:19:G:C2	22:AC:57:A:C2	3.01	0.49
36:D0:33:ARG:NH2	50:D5:55:ARG:CG	2.66	0.49
40:D2:35:LEU:HD22	40:D2:57:VAL:O	2.13	0.49
1:CA:817:C:H1'	1:CA:819:A:H5'	1.95	0.49
47:BW:43:GLN:O	47:BW:44:LEU:CG	2.61	0.49
54:DA:120:U:O2	54:DA:120:U:O4'	2.28	0.49
28:BF:59:TYR:CD1	28:BF:78:ILE:HG13	2.48	0.49
38:BR:118:ARG:HA	38:BR:121:ILE:HB	1.95	0.49
35:BP:89:ASN:ND2	35:BP:89:ASN:N	2.60	0.49
54:DA:2113:U:H3'	54:DA:2114:A:O4'	2.13	0.49
54:DA:2128:C:H2'	54:DA:2129:C:C6	2.48	0.49
51:B6:52:VAL:O	51:B6:53:LYS:C	2.51	0.49
24:BA:1005:C:H2'	24:BA:1006:C:C6	2.48	0.49
29:DG:143:GLU:HA	49:D4:28:LYS:HD3	1.95	0.49
30:DH:137:ASP:CB	30:DH:140:LYS:HB2	2.43	0.49
30:DH:54:ARG:HD3	30:DH:65:HIS:ND1	2.27	0.49
13:CP:12:ASN:O	13:CP:13:LYS:HB2	2.13	0.49
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.48	0.49
3:CF:87:LEU:C	3:CF:89:GLU:N	2.65	0.49
32:BM:126:PRO:O	32:BM:127:ASP:CB	2.60	0.49
1:AA:357:G:O2'	1:AA:358:U:H5'	2.13	0.49
24:BA:1171:G:HO2'	24:BA:1173:G:C1'	2.25	0.49
54:DA:2134:A:N6	54:DA:2157:G:H1'	2.24	0.49
54:DA:228:A:H2'	54:DA:229:A:OP1	2.13	0.49
18:AU:50:ILE:HD11	18:AU:70:ILE:HG21	1.95	0.49
6:AI:37:VAL:HG12	6:AI:38:GLU:N	2.28	0.49
54:DA:365:C:C2'	54:DA:366:C:H5'	2.43	0.49
54:DA:2475:C:H2'	54:DA:2475:C:O2	2.13	0.49
24:BA:357:A:H2'	24:BA:358:U:H6	1.75	0.49
8:CK:109:ILE:HG12	8:CK:110:ALA:N	2.27	0.49
54:DA:2850:A:OP2	54:DA:2866:U:N3	2.46	0.49
54:DA:218:A:H2'	54:DA:219:G:O4'	2.13	0.49
58:DA:2933:G:C8	58:DP:206:G:H2'	2.47	0.49
12:AO:29:GLY:O	12:AO:30:ALA:O	2.31	0.49
40:D2:91:TYR:C	40:D2:91:TYR:CD1	2.87	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:B7:34:ARG:HB2	52:B7:42:LEU:HD22	1.94	0.49
20:CW:60:GLU:HG3	20:CW:81:LYS:HE3	1.94	0.49
24:BA:467:G:O2'	24:BA:468:G:H5'	2.12	0.49
54:DA:2465:C:O2'	54:DA:2466:C:H5'	2.13	0.49
30:DH:23:ARG:HD2	30:DH:34:GLU:OE2	2.12	0.49
54:DA:435:C:H2'	54:DA:436:C:H5'	1.94	0.49
22:CC:1:C:H2'	22:CC:2:G:OP2	2.13	0.49
24:BA:1666:G:O3'	33:BN:6:THR:HG23	2.12	0.49
30:DH:42:ARG:O	30:DH:52:VAL:HA	2.13	0.49
29:DG:92:VAL:HG13	29:DG:92:VAL:O	2.12	0.49
1:AA:162:A:H8	1:AA:162:A:O5'	1.95	0.49
10:AM:57:LYS:O	10:AM:58:ASP:O	2.31	0.48
13:AP:49:THR:HG21	13:AP:52:GLU:OE1	2.13	0.48
19:AV:63:THR:O	19:AV:64:GLU:HB3	2.12	0.48
29:BG:120:LEU:HD23	29:BG:179:PRO:HG2	1.95	0.48
24:BA:2747:G:N2	24:BA:2757:A:H62	2.08	0.48
34:BO:79:ARG:NE	34:BO:109:GLY:HA3	2.28	0.48
19:CV:5:LEU:HD22	49:D4:67:TYR:CE2	2.48	0.48
46:BZ:89:GLU:C	46:BZ:91:LYS:H	2.17	0.48
29:BG:16:ARG:HG2	29:BG:16:ARG:HH11	1.78	0.48
2:CE:180:LEU:O	2:CE:181:PHE:HB2	2.13	0.48
2:CE:181:PHE:O	2:CE:183:PRO:HD3	2.12	0.48
2:CE:75:LYS:HA	2:CE:78:GLN:NE2	2.26	0.48
34:DO:144:GLU:O	34:DO:144:GLU:OE1	2.31	0.48
28:BF:20:LEU:HD23	28:BF:21:ALA:CB	2.43	0.48
2:AE:36:ARG:N	2:AE:41:ILE:HD13	2.28	0.48
24:BA:1103:A:H8	24:BA:1103:A:H5'	1.78	0.48
54:DA:2285:C:H5	51:D6:27:LYS:CE	2.26	0.48
34:DO:52:GLU:OE2	34:DO:57:THR:HA	2.13	0.48
27:BE:57:LYS:NZ	27:BE:72:VAL:HG13	2.27	0.48
24:BA:1778:U:H2'	24:BA:1784:A:C6	2.48	0.48
51:B6:17:LYS:O	51:B6:18:ARG:HG2	2.13	0.48
11:CN:41:THR:HG22	11:CN:42:TRP:N	2.28	0.48
1:CA:1003:G:C8	1:CA:1003:G:H5'	2.48	0.48
5:AH:101:ILE:CD1	5:AH:119:LEU:HD23	2.40	0.48
54:DA:676:A:H2	54:DA:802:A:N6	2.03	0.48
35:DP:34:LEU:HD23	35:DP:104:PHE:HD1	1.77	0.48
24:BA:2534:A:H2'	24:BA:2535:G:O5'	2.13	0.48
24:BA:1301:A:H4'	24:BA:1302:A:OP1	2.13	0.48
24:BA:2472:G:N1	24:BA:2477:C:OP1	2.44	0.48
29:DG:113:ARG:HD2	49:D4:33:VAL:CG1	2.43	0.48
37:DQ:33:LYS:HB3	37:DQ:34:HIS:CD2	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:48:ARG:HH11	26:BD:48:ARG:HG3	1.78	0.48
54:DA:53:A:H2'	54:DA:54:G:O4'	2.13	0.48
54:DA:1212:G:H2'	54:DA:1236:G:N2	2.28	0.48
1:AA:528:C:H5'	1:AA:535:A:N6	2.28	0.48
24:BA:583:G:H5''	39:B1:10:ARG:HH12	1.77	0.48
1:AA:266:G:O2'	1:AA:267:C:OP2	2.30	0.48
26:BD:264:LYS:HG3	26:BD:265:PRO:HD2	1.94	0.48
35:BP:88:GLY:C	35:BP:89:ASN:CG	2.72	0.48
45:D3:25:ARG:HD2	45:D3:29:GLN:HE21	1.76	0.48
1:AA:552:U:O2'	12:AO:86:ARG:O	2.25	0.48
1:AA:689:C:O2'	1:AA:690:G:H5'	2.13	0.48
2:CE:140:HIS:C	2:CE:142:LEU:H	2.16	0.48
24:BA:1005:C:O2'	32:BM:28:THR:HG21	2.12	0.48
40:D2:18:LEU:HB3	40:D2:96:ILE:CG1	2.43	0.48
54:DA:1576:U:O2'	54:DA:1577:C:H5'	2.13	0.48
36:B0:66:VAL:HG12	36:B0:70:LEU:HD12	1.94	0.48
24:BA:273(E):U:C2'	24:BA:273(F):C:H5'	2.43	0.48
40:D2:7:THR:HG23	40:D2:22:VAL:HG11	1.94	0.48
48:BX:19:GLN:O	48:BX:23:LEU:HD12	2.13	0.48
35:BP:134:ARG:HG2	35:BP:134:ARG:NH1	2.28	0.48
54:DA:2332:U:H5'	54:DA:2336:A:N6	2.28	0.48
54:DA:1397:U:H3'	54:DA:1398:C:H5	1.77	0.48
54:DA:2063:C:H2'	54:DA:2064:C:C6	2.48	0.48
39:D1:52:ARG:CG	39:D1:52:ARG:NH1	2.76	0.48
12:AO:79:GLU:HG3	12:AO:80:HIS:CE1	2.48	0.48
1:CA:501:C:H2'	1:CA:502:G:C8	2.47	0.48
5:AH:122:GLU:HB3	5:AH:126:ARG:CG	2.43	0.48
32:BM:15:LEU:HD13	32:BM:15:LEU:C	2.33	0.48
27:BE:137:HIS:CB	27:BE:138:PRO:HD2	2.43	0.48
24:BA:2087:G:O2'	24:BA:2088:G:H5'	2.12	0.48
37:DQ:48:LEU:N	37:DQ:48:LEU:CD1	2.76	0.48
24:BA:2318:G:H22	37:BQ:2:ALA:N	2.11	0.48
54:DA:1882:C:H3'	54:DA:1883:G:H8	1.78	0.48
41:DS:88:ARG:HB3	41:DS:92:ARG:CB	2.41	0.48
1:AA:743:U:H2'	1:AA:744:C:H6	1.78	0.48
1:CA:1187:G:H21	14:CQ:60:SER:HB3	1.78	0.48
22:CC:1:C:C2'	22:CC:2:G:OP2	2.61	0.48
1:CA:581:G:N2	1:CA:582:U:C4	2.81	0.48
24:BA:2763:G:H5'	24:BA:2764:A:OP2	2.12	0.48
22:AD:28:C:H2'	22:AD:29:G:H8	1.76	0.48
1:AA:62:U:O2'	1:AA:379:C:H1'	2.13	0.48
1:CA:909:A:H2'	1:CA:910:C:O4'	2.11	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:191(B):G:O2'	1:CA:191(C):G:H5'	2.13	0.48
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.13	0.48
2:AE:158:LEU:H	2:AE:158:LEU:HD12	1.78	0.48
51:D6:37:ARG:HA	51:D6:37:ARG:HE	1.77	0.48
7:CJ:63:LYS:HD2	7:CJ:63:LYS:O	2.13	0.48
1:CA:1402:C:O2	1:CA:1500:A:N1	2.46	0.48
53:B8:9:GLY:O	53:B8:13:ARG:HG3	2.13	0.48
1:AA:1363:A:C4'	1:AA:1364:U:OP1	2.61	0.48
13:AP:39:ILE:HD12	13:AP:56:LEU:HD23	1.94	0.48
44:DV:136:PHE:CD1	44:DV:136:PHE:C	2.86	0.48
44:DV:134:PRO:HB2	44:DV:136:PHE:O	2.12	0.48
30:BH:29:PRO:HB2	30:BH:30:LYS:NZ	2.28	0.48
30:BH:2:SER:C	30:BH:3:ARG:HG3	2.34	0.48
24:BA:1204:A:H1'	24:BA:1206:G:C5	2.49	0.48
39:B1:65:ILE:HG22	39:B1:66:ASN:N	2.26	0.48
40:B2:5:VAL:CG2	40:B2:6:LYS:N	2.76	0.48
54:DA:1045:A:N3	54:DA:1047:G:C2	2.81	0.48
1:CA:1200:C:C2'	1:CA:1201:A:OP2	2.61	0.48
1:CA:1331:G:OP2	13:CP:23:TYR:CE2	2.66	0.48
13:CP:65:LYS:HZ2	13:CP:69:GLU:HG2	1.77	0.48
13:CP:73:GLU:O	13:CP:76:ALA:HB3	2.14	0.48
24:BA:1266:G:O4'	41:BS:15:ARG:NH2	2.46	0.48
26:DD:123:ALA:HB3	26:DD:131:LEU:HG	1.94	0.48
10:CM:98:ILE:CD1	10:CM:98:ILE:H	2.24	0.48
34:DO:101:VAL:CG1	34:DO:102:ARG:N	2.75	0.48
11:AN:125:PHE:CD1	11:AN:125:PHE:N	2.81	0.48
54:DA:1267:U:C5	54:DA:2012:G:C2	3.01	0.48
2:AE:69:LEU:HD13	2:AE:69:LEU:C	2.33	0.48
51:D6:7:ILE:O	51:D6:9:LEU:N	2.46	0.48
53:D8:33:ASN:O	53:D8:35:GLN:N	2.46	0.48
53:D8:35:GLN:HA	53:D8:35:GLN:OE1	2.12	0.48
54:DA:1171:G:N2	54:DA:1179:C:C2	2.81	0.48
54:DA:1180:C:O2'	54:DA:1181:C:H5''	2.13	0.48
26:BD:35:LYS:NZ	26:BD:65:ILE:HA	2.22	0.48
2:AE:178:ARG:NH2	8:AK:68:ARG:HH12	2.10	0.48
2:CE:5:ILE:HG21	2:CE:224:GLN:HG2	1.95	0.48
25:BB:75:G:H1	25:BB:102:G:H22	1.57	0.48
44:BV:34:ASN:ND2	44:BV:34:ASN:N	2.60	0.48
37:BQ:103:GLU:O	37:BQ:106:ARG:HG2	2.13	0.48
54:DA:1018:C:O2'	54:DA:1019:U:H5'	2.13	0.48
54:DA:1448:G:H5'	54:DA:1449:A:OP1	2.12	0.48
1:AA:741:G:H2'	1:AA:742:G:O4'	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AM:75:ILE:HD12	10:AM:76:ASN:OD1	2.13	0.48
41:BS:14:PRO:HB3	41:BS:18:ARG:NH2	2.28	0.48
9:AL:103:THR:HG22	9:AL:105:ASP:N	2.26	0.48
4:CG:9:CYS:SG	4:CG:22:LYS:CD	2.98	0.48
4:CG:9:CYS:SG	4:CG:22:LYS:CE	3.01	0.48
26:DD:25:THR:O	26:DD:27:THR:HG22	2.12	0.48
54:DA:1931:U:O2	54:DA:1931:U:O4'	2.29	0.48
24:BA:1948:G:O2'	24:BA:1949:G:H5'	2.13	0.48
13:AP:95:GLY:O	13:AP:110:ARG:HB3	2.12	0.48
1:AA:1507:A:H2'	1:AA:1508:G:C8	2.48	0.48
9:AL:122:ALA:HB1	9:AL:123:PRO:HD2	1.95	0.48
20:CW:97:ALA:HB3	20:CW:99:LEU:CD1	2.43	0.48
1:AA:437:U:H5''	4:AG:155:LEU:HD11	1.94	0.48
1:AA:1055:A:H1'	3:AF:156:ARG:HH12	1.78	0.48
24:BA:2867:G:O2'	24:BA:2868:A:P	2.70	0.48
1:AA:1038:C:O2'	1:AA:1039:C:P	2.72	0.48
11:CN:34:ASP:HB2	11:CN:35:PRO:HD2	1.95	0.48
9:CL:112:LYS:HD3	9:CL:113:LYS:O	2.13	0.48
1:AA:701:C:C4'	1:AA:702:A:H5''	2.35	0.48
13:CP:16:ASP:HB3	13:CP:34:LEU:HD11	1.93	0.48
29:DG:77:ILE:O	29:DG:81:LYS:O	2.31	0.48
22:CD:65:C:H2'	22:CD:66:C:C6	2.49	0.48
1:CA:487:A:H2'	1:CA:488:C:O4'	2.13	0.48
25:BB:82:G:N2	25:BB:95:U:H1'	2.29	0.48
25:BB:0:A:H2'	25:BB:1:U:C6	2.48	0.48
54:DA:2335:A:O2'	54:DA:2336:A:H8	1.96	0.48
32:BM:91:LEU:HD21	32:BM:98:VAL:HG11	1.94	0.48
24:BA:2330:G:H1'	45:B3:41:ARG:O	2.12	0.48
35:BP:127:ILE:CG2	35:BP:128:LYS:N	2.76	0.48
24:BA:704:G:C2'	24:BA:705:A:OP2	2.62	0.48
16:CS:43:LYS:HE2	16:CS:48:TRP:CZ3	2.47	0.48
24:BA:858:U:O2'	24:BA:2268:A:O2'	2.31	0.48
10:CM:3:LYS:O	10:CM:100:THR:HA	2.13	0.48
5:AH:71:LEU:CD2	5:AH:115:VAL:HG13	2.43	0.48
54:DA:1204:A:O2'	54:DA:1205:U:P	2.71	0.48
27:BE:24:THR:HG23	27:BE:186:GLY:HA2	1.94	0.48
15:AR:31:LEU:HD12	15:AR:31:LEU:H	1.78	0.48
11:CN:13:GLN:HG3	11:CN:75:TYR:O	2.13	0.48
1:AA:913:A:HO2'	1:AA:914:A:P	2.36	0.48
8:CK:45:ILE:HG13	8:CK:45:ILE:O	2.13	0.48
54:DA:1386:C:H2'	54:DA:1387:C:C6	2.48	0.48
54:DA:1385:G:H4'	54:DA:1386:C:OP1	2.11	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CC:64:G:H2'	22:CC:65:C:H6	1.77	0.48
54:DA:2574:G:H2'	54:DA:2575:C:O4'	2.12	0.48
1:AA:84:U:C2'	1:AA:85:U:OP1	2.60	0.48
54:DA:1417:C:C2'	54:DA:1418:G:H5'	2.43	0.48
16:CS:39:TYR:CE2	16:CS:41:PRO:HD3	2.47	0.48
13:AP:16:ASP:OD2	13:AP:17:VAL:N	2.46	0.48
24:BA:2740:A:N6	24:BA:2764:A:C8	2.81	0.48
1:CA:333:G:H4'	20:CW:16:HIS:CE1	2.48	0.48
24:BA:1080:A:H2'	24:BA:1081:U:H6	1.78	0.48
27:BE:147:PRO:HB2	27:BE:149:ARG:HG2	1.95	0.48
6:CI:51:PRO:HA	6:CI:55:ASP:O	2.12	0.48
25:BB:100:G:H2'	25:BB:101:A:O4'	2.14	0.48
21:CX:9:ARG:HH11	21:CX:9:ARG:HG2	1.78	0.48
35:DP:112:GLU:CD	35:DP:112:GLU:H	2.17	0.48
16:CS:57:ARG:HG3	16:CS:57:ARG:HH11	1.78	0.48
24:BA:519:U:H2'	24:BA:520:G:C8	2.48	0.48
10:CM:56:HIS:O	10:CM:58:ASP:O	2.30	0.48
24:BA:2494:G:H2'	24:BA:2495:G:H8	1.77	0.48
53:B8:23:VAL:CG1	53:B8:48:PHE:H	2.26	0.48
10:AM:47:PHE:CE1	10:AM:63:PHE:HB2	2.45	0.48
13:AP:22:ILE:CG2	13:AP:25:ILE:HD13	2.43	0.48
54:DA:1081:U:C5	54:DA:1082:U:H1'	2.48	0.48
44:DV:108:PRO:HG2	44:DV:111:VAL:HA	1.95	0.48
30:BH:7:LEU:HD22	30:BH:69:ARG:CG	2.42	0.48
26:DD:48:ARG:HG3	26:DD:48:ARG:HH11	1.78	0.48
24:BA:1359:A:N6	24:BA:1373:A:C2	2.80	0.48
24:BA:312:G:OP2	24:BA:313:C:H5	1.96	0.48
36:B0:37:THR:HB	36:B0:40:LYS:HG3	1.95	0.48
34:BO:110:TYR:HD2	34:BO:111:ARG:NH2	2.12	0.48
34:BO:112:LEU:HD12	34:BO:127:ALA:HA	1.94	0.48
2:CE:97:TRP:HZ2	2:CE:102:LEU:HD13	1.78	0.48
54:DA:1266:G:HO2'	54:DA:2012:G:H1	1.60	0.48
1:AA:792:A:O2'	1:AA:793:U:H5''	2.13	0.48
51:D6:27:LYS:O	51:D6:28:ARG:HG2	2.13	0.48
23:C1:11:U:O2'	23:C1:12:A:P	2.71	0.48
1:CA:1534:A:C2	1:CA:1535:C:N4	2.81	0.48
50:B5:46:CYS:SG	50:B5:48:GLU:CD	2.92	0.48
54:DA:1180:C:C2'	54:DA:1181:C:H5''	2.43	0.48
27:BE:51:PHE:CE2	27:BE:52:LEU:HG	2.48	0.48
26:BD:64:ILE:O	26:BD:64:ILE:HG12	2.13	0.48
51:B6:15:GLU:OE1	51:B6:18:ARG:HB2	2.13	0.48
51:B6:43:CYS:O	51:B6:44:ARG:CB	2.60	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:B6:48:VAL:HG13	51:B6:49:HIS:H	1.78	0.48
1:CA:701:C:O2'	1:CA:702:A:P	2.72	0.48
4:AG:9:CYS:HA	4:AG:12:CYS:CB	2.43	0.48
53:B8:56:GLU:O	53:B8:59:LYS:N	2.44	0.48
43:BU:61:ILE:CG2	43:BU:62:GLU:N	2.70	0.48
24:BA:2653:U:H3'	24:BA:2654:A:H8	1.77	0.48
24:BA:872:A:H4'	35:BP:66:ILE:HD11	1.95	0.48
7:CJ:80:VAL:HG12	7:CJ:81:GLY:N	2.28	0.48
38:BR:3:ARG:O	38:BR:5:ALA:N	2.46	0.48
50:D5:49:CYS:SG	50:D5:58:LEU:HB2	2.53	0.48
10:CM:33:GLN:HB2	10:CM:75:ILE:CD1	2.43	0.48
55:DB:31:C:C2	55:DB:32:C:C5	3.00	0.48
44:BV:58:VAL:O	44:BV:59:LEU:HG	2.13	0.48
43:BU:91:GLU:CG	43:BU:92:ASN:H	2.17	0.48
34:DO:71:VAL:HG13	34:DO:72:PRO:CD	2.43	0.48
7:CJ:107:ALA:CB	7:CJ:134:ALA:HB2	2.44	0.48
24:BA:942:G:O2'	24:BA:943:U:H5'	2.14	0.48
1:AA:1418:A:C2	24:BA:1948:G:N3	2.79	0.48
17:CT:67:LYS:HA	17:CT:70:ARG:HH12	1.76	0.48
20:CW:53:LEU:HA	20:CW:56:MET:CB	2.43	0.48
26:DD:237:GLU:HA	26:DD:237:GLU:OE1	2.12	0.48
24:BA:1731:G:H2'	24:BA:1732:A:H5'	1.95	0.48
26:BD:109:ASP:N	26:BD:196:VAL:O	2.46	0.48
31:BK:7:GLU:HG3	31:BK:8:PRO:CD	2.42	0.48
4:AG:109:GLY:O	4:AG:111:ALA:N	2.46	0.48
28:DF:107:LYS:O	28:DF:110:LEU:N	2.47	0.48
4:CG:114:ARG:CG	4:CG:114:ARG:HH11	2.17	0.48
1:AA:1004:A:N3	1:AA:1025:U:O4	2.46	0.48
24:BA:310:A:OP1	43:BU:17:SER:O	2.31	0.48
24:BA:2144:U:O2'	24:BA:2145:C:P	2.71	0.48
46:BZ:72:GLU:OE1	46:BZ:76:ARG:NH2	2.46	0.48
50:D5:48:GLU:HA	50:D5:59:GLU:HG2	1.94	0.48
38:BR:20:PRO:HD2	38:BR:86:ILE:CG2	2.35	0.48
22:CD:15:G:H2'	22:CD:59:A:H2	1.78	0.48
24:BA:975:G:H1'	24:BA:990:A:C2	2.48	0.48
2:AE:101:MET:HB2	2:AE:102:LEU:HD12	1.94	0.48
37:DQ:18:ILE:O	37:DQ:19:LYS:O	2.31	0.48
1:CA:1158:C:C2	1:CA:1160:G:C8	3.01	0.48
28:DF:155:LEU:HD23	28:DF:186:ILE:HA	1.95	0.48
37:DQ:55:ALA:O	37:DQ:56:LEU:HB3	2.14	0.48
9:AL:50:LEU:HA	9:AL:53:VAL:HG22	1.96	0.48
9:CL:79:LEU:O	9:CL:83:ARG:HG2	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CM:94:VAL:CG1	10:CM:95:GLU:N	2.76	0.48
24:BA:1365:A:H5'	46:BZ:12:PRO:HG2	1.94	0.48
54:DA:2064:C:H2'	54:DA:2065:C:H6	1.74	0.48
14:AQ:23:ARG:HG3	14:AQ:24:CYS:N	2.29	0.48
54:DA:227:A:O2'	54:DA:228:A:P	2.71	0.48
1:AA:585:G:H4'	12:AO:8:ASN:HD21	1.77	0.48
24:BA:1821:A:C2'	24:BA:1822:G:C5'	2.91	0.48
2:AE:76:GLN:HG2	2:AE:206:ASP:OD2	2.13	0.48
1:CA:641:U:H4'	1:CA:642:A:OP1	2.13	0.48
24:BA:2338:G:O2'	24:BA:2339:G:H5'	2.13	0.48
3:AF:4:LYS:HZ2	3:AF:4:LYS:CA	2.25	0.48
5:CH:83:GLU:HG2	5:CH:88:LYS:CG	2.42	0.48
27:BE:27:LEU:HD12	27:BE:180:ASN:O	2.13	0.48
26:BD:72:LYS:HB3	26:BD:72:LYS:HZ3	1.77	0.48
26:BD:72:LYS:NZ	26:BD:72:LYS:CB	2.75	0.48
43:DU:35:TYR:CD1	43:DU:69:ALA:HB3	2.48	0.48
1:AA:1114:C:O2'	14:AQ:60:SER:O	2.28	0.48
26:BD:176:ARG:HG2	26:BD:176:ARG:NH1	2.28	0.48
32:DM:30:ILE:O	32:DM:34:LEU:HD23	2.13	0.48
36:B0:93:GLY:C	36:B0:95:THR:H	2.15	0.48
11:AN:50:TYR:HD1	11:AN:60:ALA:HB2	1.78	0.48
24:BA:2033:A:O2'	24:BA:2034:U:OP1	2.29	0.48
24:BA:353:G:O2'	24:BA:354:G:H5'	2.14	0.48
3:AF:164:ARG:CG	3:AF:165:THR:H	2.23	0.48
1:AA:1522:U:O2'	1:AA:1523:G:H5'	2.14	0.48
1:AA:284:G:H2'	1:AA:285:G:C8	2.47	0.48
24:BA:363(B):G:H5'	24:BA:363(B):G:H8	1.78	0.48
1:CA:392:G:H2'	1:CA:393:A:H8	1.78	0.48
1:AA:984:C:O2'	1:AA:985:C:H5'	2.13	0.48
24:BA:1260:G:C6	24:BA:1261:C:C4	3.01	0.48
1:AA:733:A:O2'	1:AA:734:G:H5''	2.13	0.48
54:DA:476:G:O4'	54:DA:505:A:C2	2.66	0.48
28:DF:51:THR:O	28:DF:93:LYS:NZ	2.38	0.48
24:BA:474:G:H4'	24:BA:475:U:OP1	2.12	0.48
54:DA:2101:G:H2'	54:DA:2102:U:C6	2.48	0.48
24:BA:2236:C:H2'	24:BA:2237:G:H5'	1.95	0.48
24:BA:70:G:H2'	24:BA:113:G:O2'	2.13	0.48
40:B2:18:LEU:C	40:B2:18:LEU:HD23	2.33	0.48
26:DD:198:ASN:HD22	26:DD:198:ASN:C	2.16	0.48
24:BA:1525:G:H2'	24:BA:1526:G:C8	2.48	0.48
31:BK:77:LEU:O	31:BK:79:ILE:HG13	2.13	0.48
1:AA:1246:C:O2'	1:AA:1247:U:H5'	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:21:TYR:O	13:AP:22:ILE:HG13	2.12	0.48
54:DA:1077:A:N3	54:DA:1077:A:H2'	2.27	0.48
24:BA:1045:A:H1'	24:BA:1047:G:N9	2.29	0.48
30:BH:9:ILE:CG1	30:BH:51:ARG:HA	2.35	0.48
24:BA:1485:G:C2'	24:BA:1486:A:H5'	2.43	0.48
54:DA:1047:G:H2'	54:DA:1110:G:N1	2.27	0.48
14:CQ:22:THR:O	14:CQ:23:ARG:CB	2.59	0.48
2:CE:154:LEU:O	2:CE:155:LEU:HB2	2.13	0.48
2:CE:16:HIS:HB3	2:CE:210:SER:HB2	1.95	0.48
24:BA:1341:U:O2'	24:BA:1342:A:OP1	2.30	0.48
54:DA:608:A:N6	54:DA:609:A:C6	2.81	0.48
27:BE:70:ALA:C	27:BE:72:VAL:H	2.12	0.48
26:BD:94:LEU:HD23	26:BD:95:LEU:N	2.28	0.48
24:BA:993:G:O4'	40:B2:87:HIS:CE1	2.67	0.48
51:B6:44:ARG:O	51:B6:45:LYS:CG	2.60	0.48
1:CA:703:G:O2'	1:CA:704:A:P	2.71	0.48
1:CA:95:G:C2'	1:CA:96:G:C5'	2.92	0.48
12:AO:46:LYS:CG	12:AO:47:LYS:N	2.75	0.48
39:D1:91:ASP:O	39:D1:95:LEU:N	2.42	0.48
40:D2:36:PRO:HA	40:D2:56:SER:HG	1.78	0.48
35:DP:19:GLY:O	35:DP:98:LYS:HD3	2.14	0.48
54:DA:1023:U:C2'	54:DA:1024:G:H5'	2.43	0.48
54:DA:1534:G:N2	54:DA:1535:U:C6	2.82	0.48
54:DA:1535:U:O2	54:DA:1535:U:H3'	2.14	0.48
7:AJ:36:LYS:HA	7:AJ:39:ALA:HB3	1.95	0.48
4:CG:22:LYS:HB2	4:CG:26:CYS:HB2	1.96	0.48
30:BH:102:ALA:CB	30:BH:117:PRO:HD3	2.42	0.48
47:BW:47:ASN:O	47:BW:49:LYS:HD2	2.12	0.48
1:AA:1223:C:OP2	19:AV:78:ARG:NH2	2.45	0.48
43:BU:28:LYS:HA	43:BU:28:LYS:NZ	2.28	0.48
5:CH:78:HIS:CE1	5:CH:142:LEU:HD23	2.48	0.48
31:DK:10:GLU:O	31:DK:11:ASN:O	2.31	0.48
1:AA:14:U:O2	1:AA:17:U:H5	1.96	0.48
13:AP:53:VAL:HG12	13:AP:57:ARG:CD	2.44	0.48
24:BA:387:U:HO2'	24:BA:388:G:P	2.36	0.48
30:DH:12:PRO:HD3	30:DH:48:GLY:O	2.13	0.48
38:DR:58:ASN:HD22	38:DR:58:ASN:N	2.10	0.48
54:DA:2319:G:O2'	54:DA:2320:A:C4	2.64	0.48
54:DA:2311:A:OP1	54:DA:2312:U:O4	2.32	0.48
22:CD:48:C:N3	22:CD:59:A:H8	2.11	0.48
36:D0:52:ILE:CG2	36:D0:94:TYR:CD1	2.95	0.48
52:D7:48:LYS:CG	52:D7:49:ARG:H	2.23	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:47:VAL:O	27:DE:48:GLN:C	2.52	0.48
28:DF:198:ALA:O	28:DF:201:VAL:HG12	2.13	0.48
54:DA:270(R):G:C2'	46:DZ:78:LYS:HZ1	2.26	0.48
8:AK:6:ILE:O	8:AK:7:ALA:C	2.52	0.48
54:DA:2645:G:H5'	54:DA:2646:C:OP2	2.13	0.48
28:BF:110:LEU:O	28:BF:113:ALA:HB3	2.13	0.48
46:DZ:56:GLN:NE2	46:DZ:56:GLN:H	2.10	0.48
14:AQ:23:ARG:CD	14:AQ:28:GLY:O	2.60	0.48
31:BK:56:LYS:HE3	31:BK:60:GLU:HG2	1.94	0.48
1:CA:475:G:H2'	1:CA:476:G:O4'	2.14	0.48
9:AL:25:LYS:O	9:AL:25:LYS:HG2	2.12	0.48
24:BA:458:G:C3'	52:B7:38:GLY:O	2.60	0.48
54:DA:592:G:N3	53:D8:4:MET:HE2	2.28	0.48
6:AI:60:PHE:C	6:AI:61:LEU:HD12	2.33	0.48
54:DA:1688:U:H1'	54:DA:1701:A:C6	2.49	0.48
24:BA:654:A:C2'	24:BA:654:A:N3	2.76	0.48
22:AD:11:A:H2'	22:AD:12:G:C1'	2.42	0.48
29:DG:121:ASN:ND2	29:DG:121:ASN:C	2.66	0.48
53:B8:52:LYS:HB2	53:B8:53:PRO:HD3	1.95	0.48
24:BA:372:G:H1'	24:BA:373:U:H5	1.78	0.48
54:DA:528:A:C2'	54:DA:529:A:H5'	2.43	0.48
54:DA:172:C:O2'	54:DA:173:G:H5'	2.13	0.48
1:CA:49:U:H2'	1:CA:361:G:H21	1.78	0.48
4:AG:61:LYS:NZ	4:AG:62:GLN:NE2	2.61	0.48
12:AO:12:ARG:O	12:AO:14:GLY:N	2.47	0.48
24:BA:678:C:H2'	24:BA:679:C:C6	2.47	0.48
24:BA:1082:U:C6	24:BA:1082:U:C3'	2.96	0.48
1:AA:186(B):C:H2'	1:AA:186(C):G:H8	1.79	0.48
27:DE:38:THR:O	27:DE:42:ASP:HB2	2.13	0.48
31:BK:138:ILE:O	31:BK:138:ILE:HG23	2.14	0.48
24:BA:1630:G:H2'	24:BA:1630(A):C:C6	2.48	0.48
24:BA:191:A:O2'	24:BA:192:C:H5'	2.12	0.48
19:CV:43:GLU:N	19:CV:43:GLU:OE2	2.44	0.48
54:DA:299:A:H5'	54:DA:300:A:OP2	2.13	0.48
1:CA:359:U:H2'	1:CA:360:A:C8	2.48	0.48
13:AP:8:GLU:O	13:AP:10:PRO:CD	2.54	0.48
21:AX:12:LYS:HG2	21:AX:22:ARG:HB3	1.94	0.48
33:BN:87:ILE:HG22	33:BN:92:GLU:H	1.78	0.48
1:AA:1145:C:C2'	1:AA:1145:C:O2	2.60	0.48
1:AA:1146:A:H8	1:AA:1146:A:H5'	1.78	0.48
9:AL:34:ASN:O	9:AL:35:GLU:C	2.51	0.48
44:DV:157:LEU:HA	44:DV:161:VAL:HG11	1.95	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2747:G:C6	24:BA:2754:U:C5	3.02	0.48
30:BH:42:ARG:CD	30:BH:43:VAL:H	2.26	0.48
1:CA:1360:A:H2'	1:CA:1361:G:O4'	2.13	0.48
3:CF:42:LEU:HD12	3:CF:45:LYS:HZ3	1.77	0.48
28:BF:108:LYS:O	28:BF:112:MET:HG3	2.13	0.48
2:AE:29:ALA:O	2:AE:31:TYR:N	2.45	0.48
54:DA:2808:U:O2'	54:DA:2809:A:H5'	2.12	0.48
23:C1:12:A:H5'	23:C1:13:A:P	2.54	0.48
54:DA:2056:G:N2	50:D5:4:HIS:O	2.47	0.48
26:BD:30:GLU:HG3	26:BD:63:ARG:CZ	2.44	0.48
29:DG:115:ARG:HG2	29:DG:115:ARG:NH1	2.27	0.48
24:BA:2348:U:C4	24:BA:2382:G:N2	2.82	0.48
2:CE:42:ILE:HD11	2:CE:202:PRO:HB2	1.95	0.48
25:BB:74:U:C2'	25:BB:75:G:H5''	2.43	0.48
35:DP:31:ASP:O	35:DP:32:TYR:CG	2.66	0.48
27:BE:4:ILE:CD1	27:BE:96:PHE:HE2	2.27	0.48
1:CA:1150:U:H4'	1:CA:1280:A:H2	1.79	0.48
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.79	0.48
1:AA:1179:A:OP2	9:AL:93:ARG:NH2	2.47	0.48
9:AL:93:ARG:C	9:AL:95:LYS:H	2.17	0.48
44:BV:59:LEU:CG	44:BV:60:GLU:N	2.75	0.48
24:BA:89:G:OP2	24:BA:90:U:C6	2.66	0.48
43:BU:28:LYS:HA	43:BU:28:LYS:CE	2.44	0.48
24:BA:2850:A:H2'	24:BA:2851:A:C8	2.48	0.48
1:AA:752:G:C1'	1:AA:754:C:H41	2.25	0.48
11:AN:95:ILE:CG2	11:AN:108:ILE:HD11	2.43	0.48
3:AF:29:TYR:HD2	3:AF:29:TYR:O	1.97	0.48
38:BR:100:TYR:HD2	38:BR:103:ARG:CZ	2.27	0.48
24:BA:1061:U:O3'	24:BA:1070:A:H4'	2.12	0.48
1:CA:528:C:N4	1:CA:529:G:C6	2.82	0.48
4:CG:121:VAL:O	4:CG:134:ASP:HA	2.14	0.48
4:CG:3:ARG:O	4:CG:5:ILE:HG13	2.14	0.48
28:DF:128:ALA:O	28:DF:129:PHE:HB2	2.13	0.48
24:BA:49:A:H61	24:BA:177:G:H2'	1.78	0.48
15:CR:24:SER:OG	15:CR:25:THR:N	2.47	0.48
1:CA:502:G:C6	1:CA:503:C:C4	3.01	0.48
24:BA:2340:G:HO2'	24:BA:2341:G:H5'	1.78	0.48
1:AA:1190:G:OP1	3:AF:5:ILE:HD12	2.14	0.48
26:BD:135:PHE:HZ	4:CG:166:LYS:CG	2.26	0.48
46:BZ:56:GLN:NE2	46:BZ:56:GLN:H	2.11	0.48
34:DO:35:HIS:O	34:DO:36:LYS:O	2.31	0.48
34:DO:6:LEU:N	34:DO:6:LEU:CD2	2.75	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DF:31:HIS:HB2	34:DO:9:ASN:ND2	2.28	0.48
3:CF:173:VAL:N	3:CF:174:PRO:HD3	2.28	0.48
38:DR:16:ARG:HD3	38:DR:19:LEU:CG	2.43	0.48
38:DR:96:ARG:CB	38:DR:96:ARG:NH1	2.77	0.48
1:CA:622:A:C8	1:CA:623:C:C6	3.01	0.48
1:AA:232:G:H1'	1:AA:262:A:N1	2.29	0.48
54:DA:218:A:C2	54:DA:235:U:H4'	2.48	0.48
4:AG:52:SER:O	4:AG:54:TYR:N	2.47	0.48
1:AA:1453:G:H3'	20:AW:39:LYS:NZ	2.29	0.48
7:AJ:16:LEU:HD22	7:AJ:16:LEU:N	2.27	0.48
22:AC:25:C:H2'	22:AC:26:G:O4'	2.13	0.48
22:CC:68:C:H2'	22:CC:69:C:H6	1.78	0.48
22:CC:2:G:H5'	22:CC:2:G:C8	2.48	0.48
54:DA:1322:A:H2'	54:DA:1323:U:H6	1.78	0.48
13:CP:50:GLU:O	13:CP:54:VAL:HG23	2.13	0.48
54:DA:1344:G:H4'	54:DA:1384:A:C5	2.48	0.48
24:BA:935:C:C2	24:BA:936:C:C5	3.01	0.48
43:DU:11:ASP:HB2	43:DU:27:VAL:HG11	1.94	0.48
5:CH:84:PHE:HD2	5:CH:130:ASN:O	1.97	0.48
54:DA:2710:C:OP1	36:D0:15:SER:HB2	2.13	0.48
1:CA:74:C:C6	1:CA:74:C:O5'	2.62	0.48
31:BK:77:LEU:N	31:BK:140:LEU:HD12	2.29	0.48
19:AV:43:GLU:C	19:AV:45:VAL:N	2.66	0.48
49:B4:40:HIS:HA	49:B4:44:THR:CG2	2.44	0.48
31:DK:140:LEU:CD2	31:DK:140:LEU:N	2.77	0.48
30:BH:9:ILE:HG22	30:BH:10:PRO:HA	1.92	0.48
30:BH:125:VAL:HG12	30:BH:126:PRO:CD	2.43	0.48
24:BA:1264:G:C2'	24:BA:1265:A:OP1	2.62	0.48
26:DD:35:LYS:HD2	26:DD:104:TYR:CE1	2.49	0.48
3:AF:182:ILE:HG12	3:AF:203:PHE:HA	1.96	0.48
3:AF:113:ALA:HA	3:AF:202:ILE:HD11	1.95	0.48
24:BA:9:U:O4	24:BA:2629:A:N1	2.46	0.48
27:BE:54:GLN:O	27:BE:75:VAL:HG22	2.13	0.48
24:BA:2346:A:H5'	24:BA:2383:G:H1'	1.96	0.48
1:CA:1287:A:N6	1:CA:1288:A:N6	2.62	0.48
1:CA:96:G:H2'	1:CA:97:U:C4'	2.43	0.48
22:AD:18:G:H2'	22:AD:57:A:C2	2.48	0.48
5:CH:11:ILE:CG1	5:CH:31:LEU:HD12	2.42	0.48
32:DM:95:PRO:O	32:DM:96:GLU:C	2.51	0.48
54:DA:2823:A:OP1	27:DE:113:PHE:HB2	2.13	0.48
35:BP:28:ALA:CB	35:BP:67:ARG:NH1	2.76	0.48
51:D6:41:PRO:HD2	51:D6:46:HIS:H	1.77	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AL:89:ASN:O	9:AL:92:TYR:HB2	2.13	0.48
4:CG:33:MET:CE	4:CG:37:PRO:HA	2.42	0.48
4:CG:6:GLY:O	4:CG:8:VAL:HG23	2.14	0.48
49:D4:42:PHE:O	49:D4:44:THR:O	2.31	0.48
31:DK:114:LEU:HD12	31:DK:129:THR:O	2.12	0.48
20:CW:37:SER:HB3	20:CW:84:LEU:CD2	2.43	0.48
24:BA:270(L):U:N3	31:BK:50:ARG:NH1	2.57	0.48
1:AA:1381:U:C2'	1:AA:1382:C:H5'	2.44	0.48
1:AA:1008:C:C2'	1:AA:1009:G:OP1	2.61	0.48
11:CN:19:ALA:CB	11:CN:32:ILE:HG22	2.42	0.48
54:DA:1252:G:O4'	39:D1:33:ARG:HD3	2.13	0.48
54:DA:565:C:H4'	54:DA:1253:A:N6	2.28	0.48
24:BA:1142(A):A:N7	24:BA:1144:G:C6	2.81	0.48
1:AA:632:A:H4'	1:AA:633:G:H8	1.79	0.48
9:CL:118:LYS:NZ	9:CL:118:LYS:CB	2.76	0.48
24:BA:1698:A:O2'	24:BA:1699:G:C5'	2.61	0.48
54:DA:819:A:C4	54:DA:1189:A:C2	3.01	0.48
1:AA:680:C:H2'	1:AA:681:C:H6	1.79	0.48
44:DV:93:ASP:OD1	44:DV:94:GLU:N	2.46	0.48
18:AU:21:LYS:O	18:AU:22:VAL:HB	2.13	0.48
27:DE:23:VAL:HG12	27:DE:173:VAL:HG21	1.94	0.48
3:CF:195:VAL:CG1	3:CF:196:LEU:H	2.27	0.48
25:BB:81:G:N2	25:BB:82:G:O6	2.46	0.48
3:AF:22:TRP:CZ3	3:AF:32:LEU:HB2	2.48	0.48
9:CL:18:PHE:O	9:CL:61:ALA:HA	2.13	0.48
44:DV:33:LEU:CG	44:DV:34:ASN:N	2.77	0.48
1:AA:358:U:H2'	1:AA:359:U:C6	2.47	0.48
29:DG:125:PHE:HB3	29:DG:166:ASP:HB2	1.95	0.48
24:BA:2406:U:C2	34:BO:72:PRO:HB2	2.48	0.48
12:CO:119:LYS:C	12:CO:120:TYR:HD1	2.16	0.48
24:BA:532:A:HO2'	24:BA:533:G:P	2.29	0.48
44:BV:168:GLU:O	44:BV:169:GLU:C	2.52	0.48
29:BG:55:LYS:CE	29:BG:148:MET:HE2	2.40	0.48
58:DA:2916:G:H2'	60:DA:2917:U:H6	1.77	0.48
1:AA:968:A:H4'	1:AA:969:A:OP2	2.13	0.48
54:DA:616:A:O2'	54:DA:617:G:O4'	2.31	0.48
27:BE:9:VAL:HG21	27:BE:25:VAL:CG1	2.42	0.48
10:CM:49:VAL:CG1	10:CM:50:ILE:N	2.76	0.48
13:AP:109:THR:O	13:AP:109:THR:HG22	2.13	0.48
22:CC:58:A:H2'	22:CC:60:U:OP2	2.13	0.48
4:AG:193:ASP:N	4:AG:193:ASP:OD2	2.45	0.48
28:BF:136:THR:HG23	28:BF:170:LEU:HD11	1.94	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:824:C:H1'	8:AK:1:MET:HE2	1.96	0.48
43:BU:33:LYS:CE	43:BU:34:LYS:HG2	2.42	0.48
37:BQ:39:ILE:HG12	37:BQ:73:LEU:HD11	1.96	0.48
46:DZ:8:SER:OG	46:DZ:10:LYS:HG3	2.13	0.48
24:BA:786:C:H5''	24:BA:1780:A:N7	2.29	0.48
11:CN:91:ARG:HH22	18:CU:88:LYS:NZ	2.09	0.48
54:DA:2552:U:C2	54:DA:2554:U:H5'	2.49	0.48
17:CT:74:LEU:HD12	17:CT:75:ARG:NE	2.28	0.48
26:BD:165:ILE:HD13	26:BD:175:LEU:HD21	1.94	0.48
4:AG:163:GLU:C	4:AG:165:MET:H	2.17	0.48
1:CA:271:C:H2'	1:CA:272:C:H6	1.77	0.48
9:CL:59:PHE:CZ	9:CL:88:TYR:CE1	3.01	0.48
1:CA:667:G:H4'	15:CR:51:HIS:ND1	2.27	0.48
50:D5:52:TYR:O	50:D5:53:ALA:CB	2.60	0.48
16:CS:40:ASP:C	16:CS:42:ARG:H	2.17	0.48
36:B0:105:ARG:CG	36:B0:105:ARG:NH1	2.77	0.48
1:CA:600:C:H2'	1:CA:601:C:H6	1.79	0.48
38:DR:135:ALA:C	38:DR:137:LYS:H	2.16	0.48
17:AT:93:GLN:O	17:AT:95:TYR:N	2.46	0.48
1:CA:81:G:H2'	1:CA:82:U:O4'	2.12	0.48
54:DA:2660:A:C2	54:DA:2661:G:H1'	2.48	0.48
24:BA:1510:A:H2'	24:BA:1511:A:C8	2.49	0.48
46:BZ:64:ALA:HA	46:BZ:67:ILE:HG13	1.96	0.48
22:AD:25:C:H2'	22:AD:26:G:H5'	1.95	0.48
54:DA:2461:C:H2'	54:DA:2462:U:C6	2.49	0.48
5:AH:131:ILE:O	5:AH:134:ALA:HB3	2.13	0.48
44:BV:11:GLU:HG3	44:BV:12:GLY:N	2.28	0.48
1:CA:1110:A:H2'	1:CA:1111:A:O4'	2.13	0.48
18:CU:46:GLU:HG3	18:CU:47:THR:N	2.29	0.48
42:DT:44:GLU:OE1	42:DT:50:LYS:HD2	2.13	0.48
14:AQ:51:GLY:C	14:AQ:53:LEU:H	2.16	0.48
31:BK:104:GLN:HG2	31:BK:105:HIS:CD2	2.48	0.48
22:AD:68:C:C4	22:AD:69:C:C5	3.02	0.48
13:AP:22:ILE:HB	13:AP:25:ILE:HD13	1.96	0.48
13:AP:3:ARG:HD2	13:AP:8:GLU:HB2	1.96	0.48
19:AV:36:ARG:HD2	19:AV:73:GLU:N	2.29	0.48
29:BG:124:SER:HB3	29:BG:131:TYR:HE1	1.77	0.48
54:DA:1109:C:H2'	54:DA:1110:G:O4'	2.13	0.48
2:CE:181:PHE:HE1	8:CK:70:GLN:O	1.96	0.48
2:CE:16:HIS:HD2	2:CE:210:SER:HA	1.77	0.48
2:CE:206:ASP:HA	2:CE:211:ILE:HD11	1.94	0.48
1:CA:1188:A:H5''	14:CQ:58:LYS:NZ	2.29	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CF:71:ALA:HA	3:CF:106:VAL:HB	1.95	0.48
3:AF:115:LEU:O	3:AF:116:VAL:C	2.52	0.48
3:AF:73:PRO:O	3:AF:76:VAL:HG23	2.13	0.48
27:BE:68:ALA:HA	27:BE:71:GLY:CA	2.43	0.48
40:B2:85:LYS:CG	40:B2:86:GLY:N	2.77	0.48
51:B6:45:LYS:HB2	51:B6:45:LYS:NZ	2.29	0.48
32:DM:42:TRP:HA	32:DM:48:MET:CE	2.42	0.48
1:CA:65:U:C4	1:CA:381:C:N3	2.82	0.48
2:CE:5:ILE:O	2:CE:6:THR:O	2.32	0.48
44:BV:27:VAL:HG12	44:BV:87:ASP:HB3	1.95	0.48
8:CK:86:ILE:HG13	8:CK:133:LEU:CD2	2.44	0.48
54:DA:26:G:N1	54:DA:27:G:N2	2.62	0.48
54:DA:631:A:OP1	34:DO:64:LYS:HE2	2.14	0.48
47:DW:69:ARG:HH11	47:DW:69:ARG:HB3	1.79	0.48
1:CA:160:A:H2'	1:CA:161:A:O4'	2.14	0.48
54:DA:50:U:C4'	54:DA:51:G:OP2	2.56	0.48
30:DH:7:LEU:N	30:DH:8:PRO:CD	2.77	0.48
5:CH:100:VAL:O	5:CH:107:ARG:NH2	2.47	0.48
12:CO:6:THR:O	12:CO:7:ILE:C	2.51	0.48
16:CS:69:THR:O	16:CS:73:LEU:HG	2.14	0.48
7:AJ:86:GLN:NE2	22:AD:31:G:N2	2.62	0.48
24:BA:2146:C:H4'	24:BA:2147:G:C8	2.49	0.48
1:AA:1216:G:OP1	14:AQ:2:ALA:N	2.47	0.48
1:CA:953:G:H5''	1:CA:965:A:H61	1.76	0.48
54:DA:64:A:H1'	42:DT:66:LEU:HB2	1.95	0.48
1:CA:825:G:O2'	1:CA:826:C:H5'	2.14	0.48
24:BA:1252:G:O2'	24:BA:1253:A:P	2.72	0.48
24:BA:2166:G:O2'	24:BA:2167:U:OP1	2.25	0.48
4:CG:154:ASN:O	4:CG:155:LEU:O	2.32	0.48
1:CA:376:G:H4'	16:CS:5:ARG:HD2	1.95	0.48
41:BS:96:ILE:CD1	41:BS:96:ILE:C	2.81	0.48
24:BA:865:C:C4'	24:BA:866:A:OP1	2.62	0.48
22:CD:39:C:H2'	22:CD:40:C:H6	1.78	0.48
2:AE:194:PRO:O	2:AE:196:LEU:HD12	2.14	0.48
24:BA:1098:A:C2'	24:BA:1099:G:H5''	2.43	0.48
1:CA:85:U:O5'	1:CA:85:U:H6	1.97	0.48
27:BE:8:LYS:O	27:BE:9:VAL:CG2	2.61	0.48
8:AK:44:PHE:HA	8:AK:79:VAL:CG1	2.43	0.48
24:BA:227:A:O2'	24:BA:228:A:P	2.72	0.48
2:AE:167:PRO:O	2:AE:171:ALA:N	2.46	0.48
4:CG:196:LEU:HB3	4:CG:197:PRO:HD2	1.96	0.48
55:DB:56:G:H5'	29:DG:27:ASN:ND2	2.28	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2867:G:HO2'	54:DA:2868:A:H8	1.62	0.48
1:AA:1089:G:O2'	1:AA:1090:U:H5'	2.14	0.48
5:CH:87:SER:HB3	5:CH:131:ILE:HD13	1.95	0.48
24:BA:294:A:N6	24:BA:345:A:C4	2.81	0.48
30:DH:82:GLY:O	30:DH:83:TYR:O	2.32	0.48
14:CQ:15:LYS:HD2	14:CQ:16:PHE:CE2	2.49	0.48
3:AF:94:LEU:O	3:AF:94:LEU:HD12	2.13	0.48
24:BA:108:U:C2	24:BA:109:G:C8	3.01	0.48
1:CA:600:C:H2'	1:CA:601:C:C6	2.49	0.48
36:D0:42:LYS:HA	36:D0:45:ARG:HD2	1.95	0.48
54:DA:91:A:H2'	54:DA:92:G:H8	1.79	0.48
1:CA:544:G:H2'	1:CA:545:C:C6	2.48	0.48
49:D4:10:VAL:CG2	49:D4:11:PRO:HD2	2.43	0.48
26:BD:223:GLY:C	26:BD:225:ALA:H	2.16	0.48
22:AC:38:A:N7	22:AC:39:C:C5	2.82	0.48
1:CA:720:C:O5'	1:CA:720:C:H6	1.97	0.48
4:CG:60:GLU:O	4:CG:63:LYS:HB3	2.14	0.48
44:DV:19:ARG:HD3	44:DV:25:PRO:HD2	1.95	0.48
27:BE:101:ARG:NH1	27:BE:171:GLU:HB3	2.29	0.48
24:BA:424:G:O2'	24:BA:425:G:H5'	2.14	0.48
3:AF:11:ARG:O	3:AF:14:ILE:O	2.32	0.48
13:AP:21:TYR:C	13:AP:22:ILE:HG13	2.33	0.48
44:BV:130:PRO:C	44:BV:133:ILE:HD11	2.34	0.48
54:DA:593:G:H2'	54:DA:594:U:H6	1.79	0.48
54:DA:1062:G:N2	54:DA:1077:A:C5	2.80	0.48
44:DV:120:ILE:O	44:DV:171:ILE:HD13	2.14	0.48
24:BA:1041:C:H2'	24:BA:1042:G:H8	1.79	0.48
24:BA:2756:U:H4'	24:BA:2757:A:O5'	2.14	0.48
30:BH:20:ALA:CB	30:BH:25:LYS:HE3	2.42	0.48
30:BH:32:GLU:CG	30:BH:33:LEU:N	2.75	0.48
31:BK:82:ARG:NH1	31:BK:82:ARG:HG2	2.28	0.48
27:DE:55:ASN:O	27:DE:57:LYS:N	2.44	0.48
26:DD:130:ALA:HA	26:DD:192:THR:HA	1.95	0.48
34:DO:101:VAL:C	34:DO:103:ALA:H	2.17	0.48
1:CA:1074:G:H2'	1:CA:1075:C:C6	2.49	0.48
2:AE:92:TYR:C	2:AE:92:TYR:CD2	2.86	0.48
34:DO:61:ARG:HH21	53:D8:13:ARG:HD2	1.77	0.48
30:BH:97:ARG:HA	30:BH:97:ARG:CZ	2.43	0.48
54:DA:2056:G:N2	54:DA:2057:A:N9	2.61	0.48
39:D1:79:PHE:HE2	39:D1:83:LEU:HD22	1.78	0.48
22:AD:16:C:C2'	22:AD:17:C:OP1	2.62	0.48
24:BA:1559:G:O2'	24:BA:1560:G:OP1	2.25	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2760:C:O2'	54:DA:2761:G:H5''	2.14	0.48
35:BP:141:GLN:HG3	44:BV:73:GLN:CG	2.43	0.48
8:CK:10:LEU:H	8:CK:10:LEU:CD2	2.15	0.48
29:BG:81:LYS:H	29:BG:81:LYS:HD3	1.75	0.48
55:DB:21:G:H5'	55:DB:21:G:H8	1.78	0.48
16:CS:34:GLU:HG2	16:CS:35:LYS:N	2.29	0.48
43:BU:88:LYS:O	43:BU:90:LEU:N	2.46	0.48
1:CA:743:U:H2'	1:CA:744:C:C6	2.49	0.48
1:CA:1529:G:H5''	1:CA:1530:G:OP2	2.14	0.48
54:DA:1235:G:C6	54:DA:1236:G:N2	2.82	0.48
24:BA:2305:A:C2'	24:BA:2306:C:H5''	2.43	0.48
24:BA:2867:G:H2'	24:BA:2868:A:OP2	2.13	0.48
29:DG:97:ASP:N	29:DG:100:TRP:HD1	2.05	0.48
4:AG:127:THR:CG2	4:AG:147:ALA:HB3	2.44	0.48
11:CN:19:ALA:CA	11:CN:32:ILE:HG22	2.43	0.48
24:BA:1005:C:O2'	32:BM:28:THR:CG2	2.62	0.48
44:BV:171:ILE:O	44:BV:172:ALA:HB2	2.13	0.48
54:DA:2277:G:H5'	35:DP:85:LYS:HG3	1.95	0.48
42:BT:63:LYS:CD	42:BT:63:LYS:N	2.74	0.48
27:BE:199:ARG:CB	27:BE:199:ARG:HH11	2.18	0.48
12:CO:38:THR:CG2	12:CO:57:LYS:HB3	2.44	0.48
18:AU:87:ARG:HG3	18:AU:87:ARG:HH11	1.78	0.48
2:AE:101:MET:HE2	2:AE:108:ILE:HG21	1.96	0.48
1:CA:448:A:C2	1:CA:487:A:C2	3.01	0.48
52:D7:12:ARG:HG3	52:D7:12:ARG:HH11	1.79	0.48
24:BA:1288:U:O2'	24:BA:1647:G:N2	2.43	0.48
18:AU:53:ARG:C	18:AU:55:ARG:N	2.66	0.48
48:BX:22:ALA:O	48:BX:26:LEU:HG	2.13	0.48
1:CA:1161:C:H2'	1:CA:1162:C:H6	1.79	0.48
24:BA:2274:A:N1	24:BA:2276:G:H1'	2.29	0.48
37:DQ:56:LEU:HD23	37:DQ:56:LEU:C	2.34	0.48
24:BA:2681:C:C2'	24:BA:2682:U:OP2	2.61	0.48
22:CD:50:U:H2'	22:CD:51:C:H6	1.71	0.48
54:DA:2290:G:C8	54:DA:2290:G:H5'	2.37	0.48
44:DV:35:ARG:NH1	44:DV:35:ARG:HB3	2.29	0.48
3:CF:153:VAL:HA	3:CF:197:GLY:O	2.14	0.48
4:CG:100:ARG:CZ	4:CG:137:SER:HA	2.44	0.48
31:BK:48:GLU:O	31:BK:52:ARG:HG3	2.14	0.48
1:AA:1065:U:HO2'	1:AA:1066:C:P	2.37	0.48
28:DF:129:PHE:CD2	28:DF:163:VAL:HG21	2.48	0.48
54:DA:1221:C:H2'	54:DA:1222:C:H6	1.78	0.48
54:DA:2585:U:O2	54:DA:2585:U:C2'	2.61	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:25:VAL:HA	27:BE:182:LEU:O	2.14	0.48
14:CQ:41:ARG:NH1	14:CQ:41:ARG:HG2	2.29	0.48
6:CI:79:LEU:O	6:CI:85:VAL:HG11	2.14	0.48
4:AG:173:TRP:HB2	4:AG:187:ARG:O	2.14	0.48
6:AI:1:MET:HE3	6:AI:68:PRO:HD3	1.95	0.48
28:DF:34:TRP:HD1	34:DO:6:LEU:HB3	1.79	0.48
24:BA:1996:C:H5	33:BN:32:TYR:OH	1.97	0.48
27:DE:174:ASP:O	27:DE:182:LEU:HD12	2.14	0.48
54:DA:1827:C:H2'	54:DA:1828:G:O4'	2.13	0.48
4:CG:163:GLU:C	4:CG:165:MET:N	2.66	0.48
16:AS:57:ARG:HA	16:AS:60:LEU:HD12	1.94	0.48
5:CH:96:PRO:HA	5:CH:117:ASP:OD2	2.14	0.48
24:BA:2124:G:C2'	24:BA:2125:G:H5'	2.43	0.48
4:AG:52:SER:O	4:AG:53:ASP:C	2.52	0.48
54:DA:308:G:N2	54:DA:329:G:H1'	2.28	0.48
36:B0:102:GLU:CG	36:B0:102:GLU:O	2.61	0.48
54:DA:139:G:N2	54:DA:1596:A:H4'	2.28	0.48
53:B8:27:THR:O	53:B8:44:LYS:HD2	2.14	0.48
3:CF:148:GLY:O	3:CF:202:ILE:HA	2.14	0.48
24:BA:556:G:H8	24:BA:556:G:O5'	1.96	0.48
24:BA:2082:A:H2'	24:BA:2083:G:O4'	2.12	0.48
33:BN:77:ILE:O	33:BN:77:ILE:HG23	2.14	0.48
30:DH:45:VAL:HG13	30:DH:45:VAL:O	2.14	0.48
1:AA:1358:U:OP1	14:AQ:35:ARG:HG2	2.14	0.48
24:BA:611:C:O2'	24:BA:612:G:H5'	2.14	0.48
30:DH:127:GLU:HB3	30:DH:128:PRO:HD2	1.93	0.48
54:DA:768:G:O2'	54:DA:1379:A:N6	2.47	0.48
31:BK:76:THR:C	31:BK:77:LEU:HD23	2.34	0.48
10:AM:60:ARG:HG3	10:AM:61:GLU:H	1.78	0.48
13:AP:4:ILE:HD11	13:AP:19:LEU:CD1	2.44	0.48
13:AP:4:ILE:HG23	13:AP:5:ALA:N	2.23	0.48
13:AP:86:CYS:SG	13:AP:87:TYR:N	2.85	0.48
21:AX:2:GLY:O	21:AX:4:GLY:N	2.47	0.48
1:AA:519:C:H2'	1:AA:520:A:C5'	2.44	0.48
54:DA:1085:A:O2'	54:DA:1086:A:OP1	2.28	0.48
27:DE:93:VAL:C	27:DE:95:ILE:H	2.17	0.48
44:DV:135:GLU:HG3	44:DV:136:PHE:CD2	2.49	0.48
30:BH:29:PRO:O	30:BH:79:VAL:HB	2.13	0.48
30:BH:59:ARG:NH1	30:BH:59:ARG:HG3	2.28	0.48
36:B0:38:VAL:CG1	36:B0:42:LYS:HE3	2.44	0.48
30:DH:124:GLU:HB3	30:DH:132:ARG:CD	2.44	0.48
43:DU:57:GLN:O	43:DU:58:GLY:O	2.32	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1319:A:C2	1:CA:1361:G:N2	2.82	0.48
1:CA:976:G:N2	1:CA:1362(A):C:OP2	2.37	0.48
14:CQ:6:LEU:CD2	14:CQ:23:ARG:NH2	2.77	0.48
19:CV:36:ARG:NH1	19:CV:36:ARG:HB3	2.28	0.48
26:DD:35:LYS:CG	26:DD:64:ILE:CG2	2.92	0.48
28:BF:21:ALA:HB3	28:BF:23:ASP:CG	2.34	0.48
54:DA:620:G:H5''	54:DA:621:A:OP1	2.14	0.48
24:BA:2808:U:O2'	24:BA:2809:A:H5'	2.14	0.48
13:CP:8:GLU:C	13:CP:9:ILE:HG23	2.35	0.48
24:BA:993:G:N3	40:B2:89:GLN:OE1	2.47	0.48
1:CA:97:U:C4	1:CA:99:C:N4	2.82	0.48
4:AG:31:CYS:O	4:AG:32:ALA:C	2.51	0.48
40:D2:38:LEU:HD23	40:D2:39:LEU:H	1.79	0.48
1:CA:177:C:H2'	1:CA:178:C:C6	2.48	0.48
39:B1:50:ARG:HG2	39:B1:53:ARG:HH21	1.78	0.48
36:D0:70:LEU:C	36:D0:72:ASP:H	2.16	0.48
7:CJ:79:ARG:O	7:CJ:80:VAL:HG23	2.14	0.48
36:D0:44:LEU:HD22	36:D0:48:VAL:CG2	2.43	0.48
4:CG:9:CYS:C	4:CG:11:LEU:H	2.16	0.48
2:CE:214:ILE:O	2:CE:218:ALA:HB2	2.13	0.48
49:D4:36:CYS:O	49:D4:37:SER:C	2.52	0.48
3:CF:36:ASP:HA	3:CF:39:ILE:HD12	1.94	0.48
51:D6:20:ASN:ND2	51:D6:42:TRP:CZ2	2.82	0.48
26:DD:27:THR:O	26:DD:29:PRO:CD	2.62	0.48
1:AA:841:U:O2'	1:AA:842:C:OP1	2.23	0.48
30:DH:10:PRO:C	30:DH:11:VAL:HG22	2.34	0.48
5:CH:75:THR:HG23	5:CH:76:ILE:O	2.14	0.48
36:B0:78:LYS:HE2	36:B0:83:ILE:HD11	1.95	0.48
24:BA:2145:C:O2'	24:BA:2146:C:OP1	2.28	0.48
44:DV:125:LEU:HG	44:DV:164:ALA:HB1	1.95	0.48
54:DA:2531:A:H2	54:DA:2658:C:O2	1.97	0.48
2:AE:93:VAL:HG21	2:AE:97:TRP:HD1	1.78	0.48
35:BP:59:ARG:CD	35:BP:59:ARG:N	2.77	0.48
44:DV:94:GLU:CB	44:DV:130:PRO:HD3	2.38	0.48
47:DW:33:MET:O	47:DW:37:PHE:HD1	1.95	0.48
6:AI:96:PRO:HB3	18:AU:30:ASP:OD1	2.13	0.48
16:CS:25:ARG:HH11	16:CS:25:ARG:HG3	1.79	0.48
44:DV:33:LEU:HD11	44:DV:35:ARG:CG	2.44	0.48
24:BA:1000:A:C6	24:BA:1001:A:N1	2.82	0.48
46:BZ:54:ALA:CB	46:BZ:80:LEU:HB2	2.43	0.48
51:B6:6:ARG:O	51:B6:8:LYS:HD2	2.13	0.48
1:CA:402:G:C2'	1:CA:403:C:H5'	2.43	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:376:G:H5''	16:CS:5:ARG:CG	2.44	0.48
1:CA:950:U:H3'	13:CP:102:ARG:NH2	2.29	0.48
11:CN:62:GLN:O	11:CN:63:LEU:C	2.51	0.48
15:AR:3:ILE:CG2	15:AR:38:ARG:HE	2.23	0.48
54:DA:1586:A:O4'	54:DA:1586:A:N3	2.47	0.48
5:AH:111:GLU:C	5:AH:113:ALA:H	2.15	0.48
27:BE:179:GLU:HB3	27:BE:181:LEU:HD23	1.96	0.48
26:BD:134:ARG:C	26:BD:135:PHE:HD2	2.16	0.48
24:BA:105:C:O2'	43:BU:2:ARG:HG3	2.14	0.48
4:AG:134:ASP:O	4:AG:136:PRO:HD3	2.12	0.48
4:CG:198:VAL:CG1	4:CG:199:ASN:N	2.75	0.48
12:AO:18:VAL:HG23	12:AO:19:ARG:H	1.79	0.48
11:CN:82:VAL:O	11:CN:108:ILE:HA	2.13	0.48
1:AA:421:U:C2'	1:AA:421:U:O2	2.61	0.48
15:AR:67:LEU:HD22	15:AR:78:TYR:CE1	2.44	0.48
4:AG:49:ARG:HE	4:AG:49:ARG:CA	2.27	0.48
38:DR:16:ARG:NE	38:DR:19:LEU:HD21	2.27	0.48
1:CA:1300:G:HO2'	1:CA:1301:U:P	2.37	0.48
8:AK:20:TYR:HE2	8:AK:75:ARG:HB3	1.79	0.48
40:B2:45:THR:C	40:B2:47:VAL:N	2.68	0.48
3:AF:150:LYS:HB2	3:AF:169:ALA:HB1	1.95	0.48
4:AG:104:VAL:HG21	4:AG:140:VAL:HG11	1.96	0.48
1:CA:49:U:C2	1:CA:361:G:N2	2.82	0.48
8:CK:44:PHE:CD1	8:CK:80:ILE:HG12	2.49	0.48
36:D0:107:ASP:OD2	36:D0:107:ASP:C	2.52	0.48
32:DM:137:LYS:CG	32:DM:138:LEU:H	2.27	0.48
40:D2:21:ARG:HD2	40:D2:91:TYR:CZ	2.49	0.48
1:CA:895:G:H2'	1:CA:896:C:H6	1.79	0.48
1:CA:302:G:O3'	12:CO:17:LYS:HE2	2.14	0.48
31:BK:31:LEU:H	31:BK:31:LEU:HD12	1.79	0.48
31:BK:31:LEU:HD12	31:BK:31:LEU:N	2.29	0.48
24:BA:2252:G:H2'	24:BA:2253:G:C8	2.49	0.48
31:BK:72:LEU:O	31:BK:74:ASN:N	2.46	0.48
35:DP:42:ILE:N	35:DP:42:ILE:HD12	2.29	0.48
46:DZ:94:LEU:O	46:DZ:95:LEU:CB	2.62	0.48
1:CA:69:G:N1	1:CA:73:G:N7	2.61	0.48
1:CA:792:A:N9	1:CA:794:A:N6	2.61	0.48
19:AV:62:ILE:HD12	19:AV:62:ILE:N	2.29	0.48
49:B4:16:CYS:O	49:B4:18:CYS:N	2.47	0.48
1:AA:872:A:O2'	1:AA:873:A:O5'	2.31	0.48
44:BV:157:LEU:N	44:BV:158:PRO:CD	2.77	0.48
2:AE:139:LYS:O	2:AE:140:HIS:C	2.52	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1085:A:N3	54:DA:1086:A:C8	2.82	0.48
54:DA:1509:C:H3'	54:DA:1510:A:C5'	2.33	0.48
34:BO:116:GLY:O	34:BO:134:ALA:HB2	2.14	0.48
27:DE:77:ILE:CD1	27:DE:78:LEU:N	2.70	0.48
54:DA:2751:G:H4'	54:DA:2752:C:OP1	2.10	0.48
13:CP:72:ALA:O	13:CP:76:ALA:HB2	2.14	0.48
50:B5:4:HIS:O	50:B5:5:PRO:C	2.50	0.48
25:BB:57:A:O5'	25:BB:57:A:H8	1.97	0.48
24:BA:1085:A:HO2'	24:BA:1086:A:P	2.37	0.48
51:D6:8:LYS:O	51:D6:27:LYS:HA	2.13	0.48
53:D8:41:ILE:HG13	53:D8:42:ARG:N	2.28	0.48
27:DE:61:ARG:CB	27:DE:62:PRO:HD3	2.41	0.48
27:DE:64:LYS:C	27:DE:66:HIS:N	2.68	0.48
50:B5:46:CYS:SG	50:B5:47:PRO:HD2	2.54	0.48
24:BA:1161:C:H2'	24:BA:1162:G:C8	2.49	0.48
24:BA:1925:C:N4	24:BA:1926:U:C1'	2.77	0.48
39:D1:79:PHE:HE2	39:D1:83:LEU:CD2	2.27	0.48
54:DA:995:C:N4	32:DM:2:LYS:HG3	2.27	0.48
35:BP:63:LYS:HZ1	44:BV:175:VAL:HG11	1.79	0.48
54:DA:805:G:H4'	54:DA:806:C:OP2	2.14	0.48
25:BB:75:G:H2'	25:BB:76:G:O4'	2.13	0.48
44:BV:27:VAL:CA	44:BV:37:VAL:HG22	2.43	0.48
8:CK:86:ILE:HG22	8:CK:87:SER:N	2.29	0.48
35:BP:25:ASP:O	35:BP:26:TYR:C	2.51	0.48
54:DA:2131:G:N2	54:DA:2158:A:N7	2.62	0.48
44:BV:56:VAL:HG12	44:BV:57:ILE:N	2.27	0.48
1:CA:815:A:C2	1:CA:1529:G:C4	3.01	0.48
26:DD:25:THR:O	26:DD:26:LYS:C	2.52	0.48
33:DN:107:ARG:NH1	38:DR:36:GLU:OE1	2.46	0.48
26:BD:43:ARG:HB2	26:BD:54:ARG:HB2	1.96	0.48
27:BE:154:LYS:CE	27:BE:154:LYS:HA	2.37	0.48
26:BD:266:SER:O	26:BD:267:SER:O	2.32	0.48
20:CW:30:LYS:O	20:CW:33:ILE:HG12	2.14	0.48
1:AA:1035:A:H2'	1:AA:1036:G:H5''	1.95	0.48
11:CN:32:ILE:HD11	11:CN:68:ALA:O	2.14	0.48
10:CM:74:ILE:O	10:CM:74:ILE:HG12	2.13	0.48
49:D4:8:LYS:O	49:D4:9:LEU:CB	2.62	0.48
54:DA:1886:C:O2'	54:DA:1887:C:H5'	2.14	0.48
44:DV:72:ARG:CG	44:DV:72:ARG:HH11	2.26	0.48
30:DH:41:MET:HG3	30:DH:54:ARG:HA	1.96	0.48
54:DA:2657:A:N1	54:DA:2665:A:N7	2.61	0.48
1:AA:1041:A:H2'	1:AA:1042:G:C5'	2.37	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:94:ALA:O	38:DR:95:ARG:CB	2.61	0.48
1:CA:1178:G:H5''	9:CL:93:ARG:HH21	1.77	0.48
9:CL:7:THR:O	9:CL:83:ARG:HD2	2.14	0.48
54:DA:643:A:HO2'	54:DA:644:A:H5'	1.79	0.48
24:BA:1856:G:H2'	24:BA:1857:G:H5'	1.96	0.48
32:BM:95:PRO:C	32:BM:97:ARG:N	2.67	0.48
38:BR:27:THR:O	38:BR:89:VAL:HG22	2.14	0.48
1:CA:437:U:H5''	4:CG:155:LEU:HD22	1.95	0.48
1:AA:879:C:O2'	1:AA:880:C:H5'	2.14	0.48
54:DA:637:A:H2'	34:DO:117:GLU:OE2	2.13	0.48
29:BG:129:GLY:HA3	29:BG:163:ALA:O	2.14	0.48
1:CA:643:C:H5'	8:CK:31:PHE:CD1	2.48	0.48
54:DA:1036:G:OP1	30:DH:59:ARG:HB2	2.14	0.48
7:CJ:97:GLN:O	7:CJ:101:LEU:HG	2.14	0.48
1:AA:947:G:H2'	1:AA:948:C:O4'	2.13	0.48
54:DA:416:C:O2'	54:DA:417:C:H5'	2.13	0.48
42:DT:11:PRO:HB3	42:DT:92:LEU:CD2	2.43	0.48
1:AA:1113:C:O2'	1:AA:1114:C:H5'	2.13	0.48
54:DA:212:G:O2'	54:DA:213:A:H5'	2.14	0.48
44:BV:16:SER:O	44:BV:20:ARG:HG3	2.13	0.48
12:CO:10:LEU:HD13	17:CT:32:TYR:CE2	2.48	0.48
12:CO:50:SER:O	12:CO:51:ALA:HB2	2.14	0.48
32:DM:75:TYR:C	32:DM:76:SER:O	2.52	0.48
1:CA:706:A:O2'	1:CA:707:C:H5'	2.14	0.48
3:AF:164:ARG:HG2	3:AF:165:THR:N	2.29	0.48
54:DA:2870:C:C2'	54:DA:2871:C:H5'	2.44	0.48
1:AA:1208:C:H2'	1:AA:1209:C:C6	2.49	0.48
54:DA:852:G:H2'	54:DA:853:G:C8	2.49	0.48
1:AA:1135:U:O2'	1:AA:1136:U:P	2.72	0.48
1:AA:662:G:O2'	1:AA:836:G:C5'	2.62	0.48
54:DA:2074:U:H2'	54:DA:2075:U:C6	2.49	0.48
15:AR:4:THR:C	15:AR:6:GLU:H	2.17	0.48
11:CN:115:PRO:C	11:CN:117:ASN:H	2.18	0.48
24:BA:1500:G:H21	26:BD:100:GLY:HA3	1.79	0.48
54:DA:1272:A:H5'	54:DA:1273:U:OP2	2.14	0.48
54:DA:1923:U:H2'	54:DA:1924:C:H6	1.79	0.48
7:CJ:51:GLN:HA	7:CJ:51:GLN:OE1	2.14	0.48
31:BK:70:GLU:HA	31:BK:70:GLU:OE1	2.14	0.48
55:DB:74:U:H2'	55:DB:75:G:O4'	2.13	0.48
25:BB:51:G:H2'	25:BB:52:A:O4'	2.14	0.47
26:BD:246:PRO:CG	26:BD:255:LYS:HD3	2.44	0.47
43:DU:81:LYS:HZ2	43:DU:98:VAL:CG1	2.27	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:44:ARG:O	13:AP:45:VAL:HG23	2.14	0.47
29:BG:34:LEU:HD13	29:BG:99:MET:CE	2.44	0.47
9:AL:19:LEU:HD23	9:AL:61:ALA:CA	2.42	0.47
9:AL:4:TYR:HE2	9:AL:88:TYR:CD1	2.32	0.47
9:AL:16:ARG:O	9:AL:63:ILE:HA	2.14	0.47
24:BA:1113:U:H2'	24:BA:1114:G:C8	2.49	0.47
24:BA:1210:A:C4'	24:BA:1211:U:O5'	2.57	0.47
54:DA:506:G:H5'	54:DA:509:C:H1'	1.96	0.47
39:B1:100:VAL:O	39:B1:101:ARG:CG	2.55	0.47
54:DA:2636:U:OP1	27:DE:79:ARG:HG3	2.13	0.47
49:D4:60:GLN:O	49:D4:63:TYR:HB3	2.14	0.47
3:AF:70:VAL:O	3:AF:105:GLU:HA	2.14	0.47
1:AA:791:G:C6	1:AA:792:A:N7	2.82	0.47
1:CA:1003:G:C8	1:CA:1003:G:H3'	2.48	0.47
4:AG:21:LEU:HD13	4:AG:22:LYS:H	1.77	0.47
1:CA:143:A:H2	1:CA:220:G:N1	2.10	0.47
24:BA:924:C:H2'	24:BA:925:C:H6	1.78	0.47
45:B3:49:LYS:HE2	45:B3:49:LYS:CA	2.42	0.47
37:BQ:110:LEU:HB3	37:BQ:111:GLU:H	1.47	0.47
29:DG:12:TYR:O	29:DG:16:ARG:HB3	2.14	0.47
54:DA:1460:A:C4'	54:DA:1461:G:OP2	2.57	0.47
30:BH:153:LYS:HB2	30:BH:161:GLY:HA2	1.96	0.47
4:CG:11:LEU:O	4:CG:19:LEU:HD21	2.14	0.47
29:DG:111:LEU:HD22	29:DG:120:LEU:HD21	1.96	0.47
40:B2:61:VAL:O	40:B2:94:LEU:HD23	2.14	0.47
1:AA:960:U:O2	1:AA:960:U:C2'	2.62	0.47
1:AA:960:U:O2'	1:AA:961:U:OP2	2.32	0.47
1:AA:1498:U:O2'	1:AA:1499:A:OP2	2.31	0.47
1:AA:819:A:C5'	1:AA:820:U:OP2	2.54	0.47
1:AA:437:U:C5'	4:AG:155:LEU:HD11	2.44	0.47
45:D3:74:ARG:C	45:D3:76:GLY:N	2.67	0.47
5:CH:141:GLN:HA	5:CH:143:ARG:HH12	1.79	0.47
7:AJ:62:PHE:HA	7:AJ:124:LEU:HD22	1.94	0.47
44:DV:39:VAL:HG21	44:DV:44:PHE:HB2	1.95	0.47
12:AO:84:LEU:HD22	12:AO:85:ILE:N	2.29	0.47
19:CV:24:ALA:O	19:CV:25:LYS:HB2	2.13	0.47
24:BA:1138:G:H2'	24:BA:1139:G:O4'	2.13	0.47
13:AP:54:VAL:HG22	13:AP:57:ARG:CZ	2.43	0.47
28:DF:155:LEU:HA	28:DF:174:VAL:HG12	1.95	0.47
24:BA:2128:C:H2'	24:BA:2128:C:O2	2.14	0.47
9:AL:118:LYS:O	9:AL:118:LYS:HD3	2.14	0.47
1:CA:401:C:H2'	1:CA:402:G:H8	1.76	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:376:G:H5''	16:CS:5:ARG:CB	2.44	0.47
27:BE:203:LYS:HD3	27:BE:203:LYS:C	2.35	0.47
24:BA:2355:C:H5'	45:B3:36:ILE:CD1	2.42	0.47
42:DT:6:ASP:OD1	47:DW:29:LYS:NZ	2.47	0.47
47:DW:28:LYS:NZ	47:DW:56:GLN:HE22	2.11	0.47
13:AP:84:ILE:O	13:AP:85:GLY:O	2.31	0.47
8:AK:9:MET:CG	8:AK:26:VAL:HG21	2.43	0.47
24:BA:2182:G:H2'	24:BA:2183:C:H6	1.78	0.47
44:BV:127:LYS:HB3	44:BV:162:GLU:CB	2.44	0.47
54:DA:863:A:O2'	54:DA:864:G:H5'	2.14	0.47
12:AO:18:VAL:O	12:AO:19:ARG:CB	2.61	0.47
2:CE:24:TRP:CD1	2:CE:26:PRO:HD3	2.49	0.47
18:CU:30:ASP:C	18:CU:32:ARG:H	2.16	0.47
23:C1:19:A:C6	61:C1:103:A:C2	3.02	0.47
54:DA:2378:A:H5''	37:DQ:23:ARG:NH2	2.29	0.47
32:DM:34:LEU:O	32:DM:49:GLY:HA3	2.13	0.47
26:BD:236:GLY:O	26:BD:237:GLU:O	2.32	0.47
32:DM:18:ALA:O	32:DM:19:GLU:C	2.52	0.47
35:BP:68:ILE:HD13	35:BP:103:MET:HB3	1.95	0.47
38:BR:77:PRO:O	38:BR:78:LEU:C	2.51	0.47
1:CA:731:G:H5'	1:CA:766:A:H4'	1.95	0.47
32:DM:12:ARG:NH1	32:DM:50:ASP:CG	2.67	0.47
1:AA:1534:A:OP1	1:AA:1534:A:C8	2.66	0.47
54:DA:1232:G:H2'	54:DA:1233:C:H6	1.79	0.47
54:DA:2184:G:H2'	54:DA:2185:C:C6	2.49	0.47
1:AA:1484:C:O2'	1:AA:1485:U:H5'	2.13	0.47
3:AF:186:PHE:HE1	3:AF:197:GLY:CA	2.27	0.47
37:DQ:66:ALA:HA	37:DQ:69:VAL:HG12	1.96	0.47
54:DA:2100:G:N3	54:DA:2100:G:H2'	2.29	0.47
24:BA:874:G:H2'	24:BA:875:G:C8	2.49	0.47
24:BA:699:A:C2'	24:BA:700:G:H5'	2.44	0.47
3:AF:12:LEU:O	3:AF:13:GLY:C	2.53	0.47
19:AV:36:ARG:CG	19:AV:72:GLY:N	2.76	0.47
13:AP:80:ARG:HH12	49:B4:55:ARG:HD3	1.78	0.47
24:BA:1036:G:P	30:BH:59:ARG:HB2	2.55	0.47
30:BH:4:ILE:HD12	30:BH:4:ILE:C	2.34	0.47
40:B2:37:VAL:HG23	40:B2:38:LEU:H	1.79	0.47
54:DA:2635:C:H2'	54:DA:2636:U:O5'	2.13	0.47
46:BZ:92:LYS:O	46:BZ:93:GLU:HG2	2.14	0.47
24:BA:1344:G:C5'	24:BA:1384:A:N6	2.77	0.47
53:D8:53:PRO:CD	53:D8:54:GLU:N	2.77	0.47
23:C1:11:U:HO2'	23:C1:12:A:P	2.35	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:C1:13:A:O2'	23:C1:14:A:O5'	2.29	0.47
27:DE:15:PHE:CD1	27:DE:20:ALA:HB2	2.50	0.47
26:BD:117:VAL:CG2	26:BD:118:VAL:H	2.26	0.47
1:CA:93:U:H2'	1:CA:95:G:C5'	2.45	0.47
1:CA:1023:G:H3'	1:CA:1024:G:C5'	2.40	0.47
31:DK:123:LEU:HA	31:DK:142:VAL:CG2	2.44	0.47
44:BV:118:GLN:HG3	44:BV:173:ALA:HB3	1.95	0.47
1:CA:1449:C:HO2'	1:CA:1450:U:H6	1.60	0.47
53:B8:62:LEU:HB2	53:B8:63:PRO:CD	2.36	0.47
24:BA:2377:A:H2'	24:BA:2378:A:C8	2.49	0.47
54:DA:1444(A):A:O2'	54:DA:1460:A:N3	2.47	0.47
54:DA:1449:A:N3	54:DA:1530:G:H1'	2.30	0.47
54:DA:1535:U:O2	54:DA:1536:A:H5''	2.14	0.47
35:BP:66:ILE:HD13	35:BP:67:ARG:H	1.79	0.47
55:DB:50:G:OP2	37:DQ:62:LYS:HB2	2.15	0.47
54:DA:1929:G:C8	54:DA:1929:G:H3'	2.43	0.47
1:AA:1308:U:H5'	13:AP:110:ARG:NH1	2.29	0.47
7:AJ:27:ILE:HD12	7:AJ:27:ILE:N	2.29	0.47
54:DA:116:C:O2'	54:DA:117:G:H5'	2.14	0.47
4:AG:3:ARG:NH1	4:AG:5:ILE:CD1	2.74	0.47
7:AJ:86:GLN:NE2	22:AD:31:G:H21	2.13	0.47
20:CW:26:ASN:N	20:CW:26:ASN:ND2	2.62	0.47
54:DA:2172:U:H5'	54:DA:2173:A:OP2	2.13	0.47
12:AO:82:VAL:HG23	12:AO:106:ASP:OD1	2.14	0.47
24:BA:1141:U:H4'	24:BA:1142(A):A:O4'	2.14	0.47
30:DH:120:GLY:HA3	30:DH:140:LYS:NZ	2.27	0.47
1:CA:1346:A:C5	7:CJ:10:ARG:NH1	2.82	0.47
1:CA:1342:C:O2'	1:CA:1343:G:H5'	2.13	0.47
7:CJ:44:TYR:C	7:CJ:46:ALA:N	2.66	0.47
1:AA:701:C:O2'	1:AA:702:A:C5'	2.62	0.47
54:DA:2319:G:C8	37:DQ:3:ARG:HB3	2.50	0.47
24:BA:2522:U:H2'	24:BA:2523:G:C5'	2.42	0.47
11:AN:19:ALA:HB3	11:AN:82:VAL:HG22	1.96	0.47
25:BB:77:U:C5	25:BB:98:G:N2	2.82	0.47
25:BB:94:C:O2'	25:BB:95:U:H5'	2.13	0.47
36:D0:63:ARG:HG3	36:D0:63:ARG:NH1	2.29	0.47
11:AN:110:ASP:HB3	18:AU:85:LEU:CG	2.44	0.47
24:BA:2133:G:N2	24:BA:2158:A:N6	2.62	0.47
55:DB:104:A:H2'	55:DB:105:G:O4'	2.13	0.47
24:BA:1069:A:C4'	24:BA:1070:A:H5''	2.41	0.47
46:BZ:53:VAL:O	46:BZ:55:GLY:N	2.46	0.47
4:CG:79:PHE:HE2	4:CG:83:SER:HB2	1.79	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CW:13:LEU:HD12	20:CW:13:LEU:C	2.34	0.47
27:DE:119:ARG:HD3	27:DE:160:TYR:HD2	1.78	0.47
1:CA:438:G:H4'	4:CG:123:HIS:CE1	2.50	0.47
1:AA:467:G:H21	16:AS:82:GLN:HE22	1.62	0.47
11:CN:48:ILE:HG21	11:CN:63:LEU:HD13	1.96	0.47
1:AA:707:C:H2'	1:AA:708:C:C6	2.49	0.47
1:AA:1279:A:H2	10:AM:43:ARG:NH2	2.06	0.47
2:AE:208:ILE:HD13	2:AE:211:ILE:HD12	1.96	0.47
27:BE:8:LYS:O	27:BE:9:VAL:HG23	2.14	0.47
24:BA:2212:A:C4'	24:BA:2212:A:OP1	2.62	0.47
35:BP:2:LEU:N	35:BP:2:LEU:CD1	2.76	0.47
24:BA:283:A:HO2'	24:BA:284:U:P	2.35	0.47
2:CE:24:TRP:CZ3	2:CE:26:PRO:HA	2.49	0.47
54:DA:470:A:C8	54:DA:470:A:C5'	2.97	0.47
32:BM:137:LYS:HA	32:BM:137:LYS:HZ3	1.79	0.47
31:DK:1:MET:HG3	31:DK:23:PRO:CA	2.44	0.47
35:DP:57:HIS:ND1	35:DP:58:PHE:N	2.62	0.47
1:CA:1171:G:O2'	1:CA:1172:C:H5'	2.15	0.47
36:D0:41:ALA:C	36:D0:43:GLU:N	2.68	0.47
17:CT:63:ARG:HG2	17:CT:64:PRO:N	2.28	0.47
54:DA:1923:U:H2'	54:DA:1924:C:C6	2.49	0.47
1:AA:1462:G:H2'	1:AA:1463:C:C6	2.49	0.47
1:AA:568:G:O6	12:AO:5:PRO:HD3	2.14	0.47
24:BA:912:C:C2'	24:BA:913:U:H5'	2.44	0.47
52:D7:25:PRO:HA	52:D7:28:ARG:CZ	2.45	0.47
37:DQ:46:VAL:HG12	37:DQ:47:THR:N	2.28	0.47
1:CA:833:U:H2'	1:CA:834:C:H6	1.78	0.47
31:BK:54:GLN:HG3	31:BK:55:ALA:N	2.29	0.47
24:BA:110:G:C2	24:BA:111:A:C8	3.02	0.47
24:BA:2057:A:O2'	24:BA:2058:A:H5'	2.14	0.47
1:AA:99:C:H2'	1:AA:101:A:C8	2.49	0.47
54:DA:589:C:H2'	54:DA:590:A:C8	2.49	0.47
4:CG:183:GLY:C	4:CG:184:LYS:HG3	2.34	0.47
14:AQ:27:CYS:SG	14:AQ:29:ARG:HB2	2.54	0.47
14:AQ:29:ARG:HG2	14:AQ:40:CYS:HB2	1.95	0.47
14:AQ:29:ARG:HB3	14:AQ:40:CYS:HB3	1.96	0.47
30:DH:123:PHE:O	30:DH:125:VAL:HG23	2.13	0.47
24:BA:654(C):G:C2	24:BA:654(S):G:C6	3.02	0.47
1:AA:975:A:H4'	1:AA:976:G:O5'	2.14	0.47
13:AP:19:LEU:H	13:AP:19:LEU:HD22	1.76	0.47
44:DV:107:THR:HG22	44:DV:108:PRO:CA	2.43	0.47
34:BO:1:MET:O	34:BO:2:LYS:HG3	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:B2:38:LEU:HD12	40:B2:56:SER:N	2.29	0.47
1:CA:56:U:H2'	1:CA:57:G:H8	1.79	0.47
1:CA:1055:A:N7	1:CA:1200:C:N4	2.62	0.47
1:CA:1201:A:O2'	1:CA:1202:G:H5''	2.14	0.47
54:DA:1485:G:C8	54:DA:1485:G:H5'	2.46	0.47
3:AF:48:TYR:HA	3:AF:52:LEU:CD2	2.44	0.47
2:AE:184:VAL:N	2:AE:198:ASP:OD1	2.47	0.47
54:DA:2284:C:OP2	51:D6:8:LYS:HB2	2.15	0.47
53:D8:43:GLN:C	53:D8:44:LYS:HD2	2.34	0.47
54:DA:2811:G:P	27:DE:61:ARG:HG3	2.54	0.47
24:BA:2778:A:C4'	24:BA:2779:U:OP2	2.62	0.47
15:AR:33:THR:HG23	15:AR:63:ARG:HH11	1.79	0.47
21:CX:15:ARG:HG2	21:CX:15:ARG:NH1	2.29	0.47
40:D2:36:PRO:HA	40:D2:56:SER:CB	2.44	0.47
22:AD:60:U:H4'	22:AD:61:C:OP2	2.14	0.47
5:AH:76:ILE:CG2	5:AH:142:LEU:HD13	2.44	0.47
54:DA:1142(A):A:N7	54:DA:1144:G:C6	2.82	0.47
32:DM:57:ALA:HA	32:DM:60:ILE:CD1	2.43	0.47
32:DM:57:ALA:O	32:DM:58:ASP:CB	2.62	0.47
40:B2:1:MET:H1	40:B2:16:PRO:HD3	1.79	0.47
22:AC:59:A:H2'	22:AC:60:U:O4'	2.14	0.47
24:BA:2528:U:O2'	24:BA:2529:G:H5''	2.14	0.47
16:CS:21:VAL:HG23	16:CS:34:GLU:H	1.79	0.47
34:BO:59:LEU:O	34:BO:61:ARG:CG	2.62	0.47
1:CA:818:G:H3'	1:CA:819:A:H5'	1.95	0.47
38:DR:36:GLU:O	38:DR:37:GLY:C	2.53	0.47
54:DA:1929:G:C8	54:DA:1929:G:C4'	2.97	0.47
7:AJ:20:ASP:OD2	7:AJ:23:VAL:N	2.48	0.47
20:CW:50:GLU:HA	20:CW:100:ILE:CG2	2.43	0.47
24:BA:607:U:OP1	28:BF:103:LYS:N	2.44	0.47
1:AA:328:C:H4'	1:AA:329:A:C5'	2.43	0.47
20:AW:26:ASN:HD22	20:AW:27:LYS:H	1.62	0.47
10:AM:16:LEU:HD21	10:AM:94:VAL:HG13	1.95	0.47
1:CA:1348:U:C5	1:CA:1373:G:N2	2.80	0.47
24:BA:1698:A:O2'	24:BA:1699:G:P	2.72	0.47
38:BR:96:ARG:CG	38:BR:97:ALA:N	2.77	0.47
36:D0:117:VAL:O	36:D0:118:GLU:CB	2.62	0.47
24:BA:204:A:O2'	24:BA:205:G:P	2.72	0.47
25:BB:96:G:N1	25:BB:97:G:C5	2.82	0.47
54:DA:2020:A:O2'	54:DA:2021:C:H3'	2.15	0.47
1:CA:736:C:H2'	1:CA:737:A:C8	2.50	0.47
1:CA:738:C:H2'	1:CA:739:C:H6	1.78	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AL:99:LEU:HB3	9:AL:101:PHE:HE1	1.79	0.47
24:BA:1332:G:H22	24:BA:1609:A:H2'	1.77	0.47
29:DG:5:VAL:HG22	49:D4:25:TYR:CE2	2.50	0.47
24:BA:947:G:H2'	24:BA:948:G:C8	2.49	0.47
28:DF:45:ARG:NH1	28:DF:45:ARG:HG2	2.28	0.47
18:AU:18:ARG:NH1	18:AU:18:ARG:CB	2.76	0.47
36:B0:103:ARG:NH1	41:BS:40:ASN:OD1	2.46	0.47
31:BK:56:LYS:HG3	31:BK:57:ARG:N	2.29	0.47
24:BA:1503:U:H2'	24:BA:1504:C:C6	2.49	0.47
33:BN:107:ARG:HH11	33:BN:107:ARG:HG3	1.80	0.47
54:DA:273(F):C:H3'	54:DA:274:G:C5'	2.43	0.47
5:AH:12:LEU:HD22	5:AH:13:ILE:HD13	1.96	0.47
8:CK:33:GLU:C	8:CK:35:ILE:N	2.65	0.47
6:CI:89:MET:O	6:CI:90:VAL:C	2.51	0.47
6:CI:40:VAL:HG22	6:CI:41:GLU:N	2.30	0.47
22:AD:11:A:C2'	22:AD:12:G:O4'	2.60	0.47
32:DM:120:LEU:HD11	32:DM:122:VAL:CG2	2.42	0.47
24:BA:74:A:H5'	24:BA:75:G:O4'	2.14	0.47
54:DA:2688:U:O2	54:DA:2688:U:C2'	2.62	0.47
20:CW:64:ASP:O	20:CW:67:ALA:N	2.47	0.47
54:DA:1937:A:O2'	54:DA:1938:A:H5'	2.14	0.47
1:AA:1187:G:N3	1:AA:1187:G:H2'	2.29	0.47
40:D2:2:PHE:CD2	40:D2:13:ARG:NH2	2.83	0.47
4:CG:165:MET:CE	4:CG:168:ARG:HD2	2.44	0.47
54:DA:1038:C:O2'	54:DA:1039:G:H5'	2.14	0.47
6:CI:97:PHE:CD2	18:CU:31:LEU:HD21	2.48	0.47
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.48	0.47
54:DA:575:A:O2'	54:DA:576:U:H5'	2.14	0.47
54:DA:1159:U:H2'	54:DA:1160:G:C8	2.48	0.47
24:BA:2695:C:H2'	24:BA:2696:U:C6	2.48	0.47
24:BA:1525:G:H2'	24:BA:1526:G:H8	1.79	0.47
54:DA:1922:G:H2'	54:DA:1923:U:C6	2.49	0.47
24:BA:110:G:O2'	24:BA:111:A:H5'	2.14	0.47
1:CA:152:A:N6	1:CA:170:U:C2	2.82	0.47
17:AT:29:HIS:CG	17:AT:30:PRO:HD2	2.49	0.47
32:BM:93:THR:O	32:BM:94:HIS:C	2.52	0.47
54:DA:618:G:C2	54:DA:618(A):C:C2	3.02	0.47
54:DA:182:A:O2'	54:DA:183:C:H5'	2.14	0.47
1:AA:440:A:H3'	1:AA:442:C:H6	1.78	0.47
30:DH:127:GLU:OE2	30:DH:130:ARG:NH2	2.47	0.47
29:BG:121:ASN:HB2	29:BG:181:ARG:NH1	2.30	0.47
53:D8:56:GLU:O	53:D8:58:ILE:N	2.47	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DO:47:ASP:OD1	34:DO:50:ARG:NH2	2.47	0.47
24:BA:1047:G:O2'	24:BA:1110:G:N2	2.47	0.47
30:BH:17:VAL:HG21	30:BH:49:VAL:HG23	1.96	0.47
24:BA:444:C:OP2	39:B1:2:PRO:HD3	2.14	0.47
34:BO:125:VAL:CG1	34:BO:144:GLU:HB3	2.45	0.47
34:BO:131:SER:O	34:BO:134:ALA:N	2.47	0.47
24:BA:153:C:P	46:BZ:88:LYS:NZ	2.85	0.47
24:BA:1343:G:N2	24:BA:1344:G:C4	2.82	0.47
3:AF:71:ALA:C	3:AF:72:LYS:HD2	2.35	0.47
2:AE:38:GLY:O	2:AE:39:ILE:O	2.32	0.47
1:CA:1392:G:H21	1:CA:1502:A:H8	1.63	0.47
24:BA:2804:C:O2'	24:BA:2805:G:H5'	2.14	0.47
27:BE:50:GLY:O	27:BE:51:PHE:HB3	2.14	0.47
51:B6:25:LYS:NZ	51:B6:27:LYS:HD3	2.29	0.47
32:DM:9:VAL:HG21	32:DM:48:MET:CB	2.45	0.47
5:CH:13:ILE:O	5:CH:13:ILE:HG22	2.14	0.47
44:BV:28:MET:HG3	44:BV:37:VAL:CG1	2.42	0.47
35:BP:141:GLN:NE2	44:BV:73:GLN:HB3	2.29	0.47
35:BP:141:GLN:HB3	44:BV:75:ASN:CA	2.44	0.47
43:BU:42:VAL:O	43:BU:43:ASN:HB3	2.14	0.47
8:CK:6:ILE:O	8:CK:10:LEU:HG	2.14	0.47
18:AU:58:LEU:HD11	18:AU:63:GLN:OE1	2.15	0.47
29:BG:75:LYS:HG3	29:BG:76:SER:N	2.18	0.47
10:AM:75:ILE:HG13	10:AM:76:ASN:N	2.28	0.47
9:AL:100:GLY:O	9:AL:102:LEU:N	2.47	0.47
4:CG:29:PRO:O	4:CG:30:LYS:HB3	2.15	0.47
54:DA:2415:G:C4	54:DA:2416:C:C5	3.03	0.47
54:DA:2415:G:H4'	34:DO:66:GLY:C	2.34	0.47
40:D2:35:LEU:O	40:D2:37:VAL:N	2.47	0.47
1:AA:1501:C:H3'	1:AA:1504:G:N7	2.30	0.47
33:DN:8:LEU:HB2	33:DN:19:ILE:CD1	2.43	0.47
54:DA:1818:U:O2'	54:DA:1819:A:OP2	2.21	0.47
54:DA:422:A:C2	54:DA:423:A:C4	3.03	0.47
31:BK:47:LEU:HD12	31:BK:50:ARG:NE	2.23	0.47
54:DA:1404:C:C2'	54:DA:1405:U:H5'	2.44	0.47
24:BA:329:G:OP2	43:BU:71:LYS:NZ	2.47	0.47
22:CD:16:C:H2'	22:CD:16:C:O2	2.14	0.47
50:D5:48:GLU:HA	50:D5:59:GLU:CG	2.43	0.47
54:DA:2655:G:HO2'	54:DA:2664:G:H1	1.62	0.47
54:DA:1943:U:OP1	54:DA:1943:U:H6	1.97	0.47
54:DA:2319:G:H5'	54:DA:2320:A:OP1	2.14	0.47
29:DG:83:ARG:HB2	29:DG:86:MET:HE3	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BB:14:U:H4'	25:BB:106:G:N2	2.30	0.47
1:CA:1160:G:N2	1:CA:1161:C:O4'	2.47	0.47
54:DA:83:G:N1	54:DA:102:G:H2'	2.29	0.47
15:CR:8:LYS:HZ3	15:CR:8:LYS:HB2	1.79	0.47
3:AF:22:TRP:NE1	14:AQ:54:PRO:HG2	2.28	0.47
32:BM:56:ASN:H	32:BM:125:GLY:H	1.60	0.47
44:DV:33:LEU:HD21	44:DV:35:ARG:CD	2.42	0.47
1:AA:201:C:H3'	1:AA:209:U:H5	1.76	0.47
46:BZ:5:CYS:HB3	46:BZ:9:GLY:N	2.29	0.47
2:AE:12:GLU:O	2:AE:14:GLY:N	2.46	0.47
2:AE:15:VAL:CG1	2:AE:213:LEU:HD13	2.43	0.47
35:DP:119:ARG:O	35:DP:123:HIS:HD2	1.97	0.47
9:CL:42:ARG:NH2	9:CL:75:ASP:OD2	2.47	0.47
28:DF:127:GLU:OE1	28:DF:127:GLU:HA	2.06	0.47
8:AK:40:ALA:HB2	8:AK:45:ILE:CD1	2.44	0.47
1:AA:88:C:C2'	1:AA:89:U:H5'	2.45	0.47
1:AA:345:C:C5'	38:BR:41:ARG:CZ	2.92	0.47
36:B0:32:GLY:O	36:B0:115:GLU:HA	2.14	0.47
29:BG:161:THR:HG22	29:BG:163:ALA:N	2.30	0.47
3:AF:4:LYS:O	3:AF:5:ILE:O	2.32	0.47
46:DZ:7:ILE:HD12	46:DZ:62:VAL:HG11	1.96	0.47
10:CM:49:VAL:HG23	14:CQ:34:TYR:OH	2.13	0.47
41:DS:32:ALA:O	41:DS:33:ARG:C	2.52	0.47
24:BA:834:C:H2'	24:BA:835:A:C8	2.49	0.47
1:AA:908:A:H2'	1:AA:909:A:C8	2.48	0.47
25:BB:12:C:H4'	25:BB:13:A:C5'	2.43	0.47
33:BN:1:MET:HE3	33:BN:67:LYS:HE2	1.96	0.47
24:BA:283:A:C2	24:BA:427:U:H1'	2.49	0.47
15:AR:17:ARG:HG3	15:AR:17:ARG:NH1	2.29	0.47
8:AK:29:SER:HB3	8:AK:32:LYS:CB	2.44	0.47
24:BA:991:C:H6	24:BA:991:C:H5'	1.79	0.47
22:AD:37:A:H2'	22:AD:38:A:C8	2.48	0.47
1:AA:619:U:H3	4:AG:135:LEU:HD11	1.78	0.47
3:CF:127:ARG:NH1	3:CF:127:ARG:CG	2.74	0.47
8:CK:39:LEU:HD11	8:CK:111:ILE:HD11	1.96	0.47
39:B1:74:LEU:HD22	39:B1:79:PHE:HB2	1.96	0.47
52:B7:49:ARG:HH11	52:B7:49:ARG:HG2	1.80	0.47
36:D0:10:LEU:O	36:D0:12:ARG:HG3	2.14	0.47
1:AA:662:G:O2'	1:AA:836:G:H5''	2.14	0.47
1:CA:276:G:H5''	17:CT:15:MET:HE1	1.97	0.47
1:AA:222:U:H2'	1:AA:223:U:H6	1.79	0.47
27:BE:123:ALA:O	27:BE:124:GLY:O	2.33	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:249:PRO:HD2	26:BD:250:TRP:CE3	2.50	0.47
54:DA:2640:G:H2'	54:DA:2641:G:O5'	2.13	0.47
1:AA:1047:G:C2'	1:AA:1048:G:H5'	2.44	0.47
54:DA:2492:U:H2'	54:DA:2493:U:C6	2.49	0.47
54:DA:2062:A:H2'	54:DA:2062:A:N3	2.27	0.47
54:DA:828:U:C2'	54:DA:828:U:O2	2.62	0.47
54:DA:1490:A:H5''	54:DA:1491:G:OP2	2.14	0.47
38:DR:132:LYS:O	38:DR:136:GLN:HG3	2.13	0.47
14:AQ:34:TYR:CD1	14:AQ:34:TYR:N	2.83	0.47
19:AV:41:VAL:O	19:AV:42:PRO:C	2.50	0.47
49:B4:56:VAL:HG13	49:B4:57:GLU:H	1.79	0.47
30:BH:12:PRO:CB	30:BH:49:VAL:HB	2.22	0.47
24:BA:1241:A:H2'	24:BA:1242:A:O5'	2.14	0.47
30:DH:131:VAL:HG12	30:DH:132:ARG:N	2.29	0.47
27:DE:52:LEU:HB2	27:DE:75:VAL:CG2	2.40	0.47
2:CE:170:GLU:C	2:CE:172:ILE:HD12	2.33	0.47
2:CE:172:ILE:O	2:CE:175:ARG:CB	2.63	0.47
10:CM:47:PHE:CE1	10:CM:63:PHE:HB2	2.33	0.47
26:DD:35:LYS:HD3	26:DD:63:ARG:HB3	1.96	0.47
10:CM:24:VAL:HG21	10:CM:37:PRO:CG	2.43	0.47
34:DO:147:LEU:N	34:DO:147:LEU:HD22	2.28	0.47
27:BE:89:ASP:O	27:BE:90:THR:CB	2.61	0.47
26:BD:35:LYS:HG2	26:BD:64:ILE:CG2	2.45	0.47
1:CA:701:C:H1'	1:CA:703:G:C4	2.49	0.47
1:CA:1003:G:H5'	1:CA:1003:G:H8	1.80	0.47
1:CA:1004:A:H2'	1:CA:1005:A:N3	2.30	0.47
4:AG:9:CYS:SG	4:AG:22:LYS:HD2	2.54	0.47
54:DA:995:C:O2'	54:DA:996:A:OP2	2.26	0.47
2:CE:4:GLU:CG	2:CE:5:ILE:H	1.99	0.47
54:DA:675:A:OP1	28:DF:63:LYS:NZ	2.47	0.47
24:BA:241:A:HO2'	24:BA:242:G:P	2.37	0.47
7:CJ:78:ARG:HH11	7:CJ:78:ARG:HG3	1.78	0.47
54:DA:2370:G:H21	51:D6:45:LYS:NZ	2.12	0.47
1:AA:1177:G:H2'	1:AA:1178:G:N3	2.30	0.47
1:AA:1372:U:C2'	1:AA:1373:G:H5'	2.43	0.47
4:CG:9:CYS:SG	4:CG:22:LYS:HE3	2.55	0.47
2:CE:223:ILE:HA	2:CE:226:ARG:HB3	1.97	0.47
29:DG:36:LYS:HA	29:DG:95:ARG:HG2	1.95	0.47
6:CI:9:VAL:HB	6:CI:87:ARG:HB2	1.97	0.47
1:AA:1233:G:OP1	9:AL:123:PRO:O	2.32	0.47
28:BF:103:LYS:HA	28:BF:106:ARG:HG3	1.97	0.47
26:BD:6:PHE:HE2	26:BD:13:ARG:HH21	1.60	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1878:G:H2'	54:DA:1879:C:O4'	2.14	0.47
40:D2:59:ALA:HB2	40:D2:96:ILE:HD13	1.97	0.47
1:CA:1349:A:P	9:CL:118:LYS:HZ3	2.37	0.47
54:DA:2044:C:C6	54:DA:2044:C:H5'	2.35	0.47
27:DE:195:LEU:HD12	27:DE:196:VAL:N	2.29	0.47
54:DA:2311:A:C2'	54:DA:2312:U:C5	2.97	0.47
2:AE:97:TRP:CD1	2:AE:101:MET:HG3	2.49	0.47
52:B7:47:ARG:NH1	52:B7:47:ARG:H	2.05	0.47
1:CA:736:C:H2'	1:CA:737:A:H8	1.80	0.47
2:AE:121:LEU:HB3	2:AE:127:ILE:CD1	2.45	0.47
28:DF:196:LEU:C	28:DF:197:ASP:O	2.50	0.47
26:DD:134:ARG:HB2	26:DD:135:PHE:CD2	2.49	0.47
9:CL:18:PHE:HB2	9:CL:62:TYR:HB3	1.96	0.47
34:BO:71:VAL:HG13	34:BO:72:PRO:CD	2.43	0.47
29:BG:127:GLY:CA	29:BG:166:ASP:HB3	2.40	0.47
54:DA:2134:A:H62	54:DA:2157:G:C1'	2.23	0.47
24:BA:1669:A:H5''	24:BA:2550:G:OP1	2.15	0.47
1:CA:103:C:P	20:CW:17:ARG:HH21	2.37	0.47
12:CO:115:LYS:O	12:CO:117:ARG:N	2.47	0.47
1:AA:686:U:H1'	11:AN:42:TRP:HE1	1.80	0.47
1:CA:468:A:O2'	16:CS:81:ARG:HA	2.13	0.47
54:DA:228:A:C2'	54:DA:229:A:OP1	2.62	0.47
24:BA:871:U:C5'	35:BP:5:ARG:HH21	2.27	0.47
1:CA:788:U:H2'	1:CA:789:U:C5'	2.43	0.47
54:DA:592:G:H21	53:D8:4:MET:HE2	1.79	0.47
5:CH:82:VAL:CG1	5:CH:83:GLU:H	2.27	0.47
1:CA:1019:C:H2'	1:CA:1020:U:C4'	2.44	0.47
15:CR:61:GLY:C	15:CR:65:ARG:NH1	2.67	0.47
28:BF:160:ASN:OD1	28:BF:163:VAL:N	2.44	0.47
24:BA:1217:C:P	39:B1:15:LYS:HE3	2.54	0.47
24:BA:2814:C:C6	24:BA:2815:C:C5	3.02	0.47
11:CN:110:ASP:HB2	18:CU:88:LYS:HD3	1.95	0.47
8:CK:16:ALA:HB2	8:CK:24:THR:CG2	2.44	0.47
42:BT:60:ARG:O	42:BT:61:GLY:C	2.53	0.47
17:CT:29:HIS:N	17:CT:33:GLY:O	2.47	0.47
5:CH:153:LYS:HZ3	5:CH:153:LYS:HB2	1.79	0.47
20:AW:90:GLN:O	20:AW:93:GLU:OE2	2.32	0.47
32:DM:137:LYS:CG	32:DM:138:LEU:N	2.77	0.47
27:BE:169:ASN:C	27:BE:170:LEU:HD12	2.35	0.47
54:DA:270(W):G:H2'	54:DA:270(X):G:O4'	2.14	0.47
54:DA:716:A:C2	54:DA:717:G:H1'	2.49	0.47
31:BK:31:LEU:HB2	31:BK:32:PRO:HD3	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:25:LYS:C	46:DZ:27:GLU:H	2.17	0.47
54:DA:1758:G:O2'	54:DA:1759:A:OP1	2.22	0.47
54:DA:1810:A:H2'	54:DA:1811:G:H5'	1.97	0.47
5:AH:147:ASP:O	5:AH:151:LEU:HD23	2.14	0.47
11:AN:66:LEU:C	11:AN:68:ALA:N	2.66	0.47
54:DA:1374:G:H2'	54:DA:1375:C:H6	1.79	0.47
24:BA:978:G:O2'	24:BA:979:G:H5'	2.14	0.47
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.14	0.47
1:AA:1319:A:C2	1:AA:1361:G:N2	2.83	0.47
10:AM:60:ARG:CG	10:AM:61:GLU:N	2.77	0.47
13:AP:11:ARG:O	13:AP:12:ASN:C	2.53	0.47
19:AV:67:VAL:HG11	49:B4:59:PHE:HD1	1.77	0.47
19:AV:7:LYS:CE	19:AV:8:GLY:H	2.19	0.47
29:BG:117:PHE:CE1	29:BG:119:GLY:HA2	2.49	0.47
9:AL:33:PHE:O	9:AL:37:PHE:HB2	2.14	0.47
31:DK:77:LEU:HD12	31:DK:140:LEU:HB2	1.97	0.47
44:DV:108:PRO:CG	44:DV:112:ARG:N	2.70	0.47
43:BU:76:CYS:CB	43:BU:96:ILE:HD11	2.44	0.47
43:BU:75:ILE:CG1	43:BU:79:CYS:HA	2.45	0.47
54:DA:729:G:OP1	26:DD:10:THR:HG21	2.14	0.47
27:DE:78:LEU:CD2	27:DE:79:ARG:HD2	2.43	0.47
13:CP:23:TYR:HB2	13:CP:67:GLU:OE1	2.15	0.47
1:CA:1316:G:H5''	14:CQ:17:LYS:CE	2.44	0.47
2:CE:200:ILE:HD12	2:CE:200:ILE:H	1.79	0.47
3:CF:16:ARG:NH2	3:CF:183:ASP:OD2	2.47	0.47
34:DO:112:LEU:HD12	34:DO:127:ALA:CB	2.44	0.47
42:BT:12:VAL:HG22	42:BT:17:ALA:CB	2.43	0.47
28:BF:12:LEU:O	28:BF:13:SER:C	2.53	0.47
3:AF:182:ILE:HG23	3:AF:202:ILE:O	2.15	0.47
54:DA:2420:C:OP1	53:D8:34:TRP:HB2	2.14	0.47
27:DE:65:GLY:HA2	27:DE:70:ALA:HB3	1.95	0.47
24:BA:2637:U:H5'	27:BE:82:ARG:HH21	1.80	0.47
27:BE:36:ARG:O	27:BE:37:ARG:C	2.53	0.47
26:BD:93:ALA:HB2	26:BD:107:ALA:HB2	1.97	0.47
26:BD:34:VAL:O	26:BD:34:VAL:CG1	2.63	0.47
40:D2:48:GLY:O	40:D2:49:THR:C	2.52	0.47
4:AG:34:GLU:O	4:AG:35:ARG:HB2	2.14	0.47
39:D1:106:PHE:O	39:D1:109:LEU:HB2	2.15	0.47
44:BV:107:THR:CB	44:BV:108:PRO:CD	2.89	0.47
29:DG:16:ARG:NH2	29:DG:28:VAL:O	2.48	0.47
54:DA:1538:G:N2	54:DA:1539:G:C4	2.82	0.47
24:BA:2468:G:N2	24:BA:2481:G:H2'	2.29	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1275:A:O2'	1:CA:1276:G:H5'	2.14	0.47
47:DW:17:SER:CB	47:DW:18:PRO:CA	2.92	0.47
24:BA:270(B):A:H8	24:BA:270(C):C:C6	2.32	0.47
47:BW:33:MET:O	47:BW:37:PHE:CD1	2.67	0.47
31:DK:114:LEU:O	31:DK:128:LEU:HD12	2.15	0.47
31:DK:73:GLU:HG3	31:DK:136:VAL:CG2	2.43	0.47
1:AA:1502:A:C2	1:AA:1505:G:N2	2.78	0.47
20:CW:49:ALA:HB2	20:CW:99:LEU:HD22	1.97	0.47
20:CW:50:GLU:CG	20:CW:51:GLU:N	2.76	0.47
41:DS:66:GLU:O	41:DS:69:LEU:HG	2.14	0.47
45:D3:74:ARG:O	45:D3:76:GLY:N	2.47	0.47
24:BA:2562:U:H2'	24:BA:2563:U:H5'	1.96	0.47
28:DF:53:THR:C	28:DF:55:GLY:N	2.68	0.47
14:AQ:9:LYS:HG2	14:AQ:12:ARG:NH1	2.29	0.47
1:AA:680:C:H2'	1:AA:681:C:C6	2.50	0.47
54:DA:1605:C:H5'	54:DA:1610:A:N6	2.30	0.47
1:AA:1287:A:C2	1:AA:1353:G:H1'	2.50	0.47
1:AA:1288:A:H1'	1:AA:1352:C:O2'	2.14	0.47
9:CL:5:TYR:OH	9:CL:7:THR:HG23	2.15	0.47
1:AA:50:A:O2'	1:AA:52:G:N9	2.47	0.47
12:AO:33:ARG:HE	12:AO:33:ARG:HA	1.79	0.47
1:CA:468:A:H2'	1:CA:474:G:H5'	1.96	0.47
24:BA:566:U:H2'	24:BA:567:A:O4'	2.15	0.47
2:AE:80:ILE:HG21	2:AE:208:ILE:CD1	2.44	0.47
54:DA:1309:G:H4'	52:D7:7:PRO:HB2	1.96	0.47
54:DA:994:C:H3'	39:D1:54:LYS:HE3	1.95	0.47
1:AA:198:G:O2'	1:AA:199:G:H5'	2.13	0.47
54:DA:1569:A:H2'	54:DA:1570:A:O4'	2.15	0.47
43:BU:23:ARG:HH11	43:BU:23:ARG:CG	2.26	0.47
54:DA:1761:C:N4	54:DA:1762:A:H62	2.11	0.47
54:DA:275:G:O2'	54:DA:276:A:H8	1.98	0.47
17:AT:80:GLY:O	17:AT:81:ARG:CB	2.62	0.47
54:DA:34:C:C5	54:DA:454:A:O2'	2.67	0.47
28:DF:132:VAL:O	28:DF:133:ASN:C	2.52	0.47
22:AD:33:U:H2'	22:AD:35:A:OP2	2.14	0.47
54:DA:1385:G:C4'	54:DA:1386:C:OP1	2.63	0.47
1:AA:1386:G:C2	1:AA:1387:G:N7	2.83	0.47
1:AA:1423:G:H5'	33:BN:49:ARG:HH12	1.79	0.47
24:BA:678:C:H2'	24:BA:679:C:H6	1.80	0.47
23:A1:19:A:C8	23:A1:19:A:H5'	2.48	0.47
24:BA:1709:U:H2'	24:BA:1710:C:C6	2.49	0.47
12:CO:43:VAL:HG23	12:CO:93:LEU:HD22	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2540:C:H2'	54:DA:2541:A:O4'	2.14	0.47
12:CO:61:THR:O	12:CO:63:GLY:N	2.45	0.47
24:BA:2399:G:H2'	24:BA:2400:G:O4'	2.15	0.47
37:DQ:40:ILE:HG22	37:DQ:41:ASP:N	2.28	0.47
27:DE:89:ASP:O	27:DE:90:THR:O	2.33	0.47
20:AW:33:ILE:HD11	20:AW:62:LEU:C	2.35	0.47
29:DG:106:LEU:HA	29:DG:110:ALA:CB	2.44	0.47
24:BA:2422:A:H4'	24:BA:2423:U:OP1	2.14	0.47
26:BD:129:ASN:O	26:BD:193:VAL:HG12	2.14	0.47
54:DA:687:C:H2'	54:DA:687:C:O2	2.13	0.47
1:AA:1360:A:H8	1:AA:1360:A:OP1	1.97	0.47
1:AA:497:U:H2'	1:AA:497:U:O2	2.13	0.47
9:CL:106:ALA:O	9:CL:108:VAL:HG13	2.15	0.47
24:BA:1335:U:O2'	24:BA:1336:A:H5'	2.15	0.47
46:DZ:83:GLU:OE1	46:DZ:85:LEU:HB2	2.15	0.47
54:DA:153:C:O2'	54:DA:154:G:H5'	2.14	0.47
19:AV:36:ARG:O	19:AV:37:ARG:C	2.52	0.47
29:BG:111:LEU:CB	29:BG:112:PRO:HD3	2.33	0.47
29:BG:122:PRO:HD3	29:BG:180:PHE:O	2.14	0.47
33:BN:87:ILE:HG22	33:BN:92:GLU:N	2.28	0.47
9:AL:17:VAL:HG21	9:AL:81:ILE:N	2.30	0.47
9:AL:77:ILE:HG22	9:AL:81:ILE:HG13	1.96	0.47
54:DA:1078:U:C2'	54:DA:1079:C:OP2	2.63	0.47
44:DV:120:ILE:HD12	44:DV:171:ILE:N	2.29	0.47
7:AJ:113:GLU:O	7:AJ:119:ARG:NH1	2.46	0.47
43:DU:56:PRO:O	43:DU:58:GLY:N	2.47	0.47
54:DA:507:A:C5'	54:DA:508:G:H5'	2.45	0.47
34:BO:131:SER:O	34:BO:132:LYS:C	2.51	0.47
39:B1:82:GLY:HA3	39:B1:113:ALA:HB1	1.96	0.47
54:DA:278:A:H5'	54:DA:278:A:C8	2.49	0.47
54:DA:1042:G:H2'	54:DA:1043:C:H6	1.78	0.47
1:CA:1052:U:N3	1:CA:1200:C:N3	2.62	0.47
1:CA:1054:C:O2'	1:CA:1055:A:C5'	2.63	0.47
1:CA:980:C:H3'	1:CA:981:U:C6	2.50	0.47
1:CA:1322:C:H5'	13:CP:100:GLY:HA2	1.97	0.47
49:D4:50:VAL:O	49:D4:50:VAL:CG1	2.63	0.47
50:B5:4:HIS:CB	50:B5:5:PRO:CD	2.76	0.47
30:DH:154:PRO:CG	30:DH:162:ILE:O	2.61	0.47
1:CA:1146:A:H8	1:CA:1146:A:H5'	1.78	0.47
26:DD:32:SER:O	26:DD:33:LEU:CB	2.60	0.47
34:DO:115:LEU:CD1	34:DO:116:GLY:N	2.78	0.47
34:DO:126:VAL:HA	34:DO:145:PRO:HD2	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BF:20:LEU:HD13	28:BF:199:TRP:CZ3	2.50	0.47
3:AF:79:ARG:NH2	3:AF:84:ILE:HG21	2.29	0.47
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.77	0.47
3:AF:109:PRO:HA	3:AF:115:LEU:HD12	1.97	0.47
2:AE:218:ALA:O	2:AE:222:ILE:HG13	2.15	0.47
2:AE:221:LEU:HD12	2:AE:222:ILE:N	2.30	0.47
1:AA:794:A:C2	1:AA:795:C:N3	2.83	0.47
54:DA:2286:A:H61	51:D6:24:GLU:CD	2.17	0.47
54:DA:2630:G:O4'	54:DA:2894:G:H1'	2.14	0.47
27:DE:61:ARG:O	27:DE:63:LEU:CG	2.57	0.47
23:C1:13:A:O2'	23:C1:14:A:P	2.72	0.47
26:BD:117:VAL:HG21	26:BD:128:GLY:O	2.15	0.47
26:BD:24:ILE:O	26:BD:25:THR:C	2.52	0.47
26:BD:94:LEU:CD2	26:BD:94:LEU:C	2.83	0.47
26:BD:27:THR:CG2	26:BD:28:GLU:N	2.55	0.47
40:B2:69:LYS:HD3	40:B2:85:LYS:NZ	2.30	0.47
28:BF:61:GLY:O	28:BF:62:ARG:O	2.33	0.47
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.50	0.47
1:CA:96:G:C2'	1:CA:97:U:C5'	2.77	0.47
1:AA:410:G:OP2	4:AG:25:ARG:HG3	2.15	0.47
53:B8:33:ASN:O	53:B8:34:TRP:CD1	2.68	0.47
39:D1:92:ARG:CZ	39:D1:94:ASN:HD22	2.27	0.47
35:BP:61:GLY:O	35:BP:63:LYS:N	2.39	0.47
2:CE:224:GLN:HA	2:CE:229:VAL:HG23	1.97	0.47
44:BV:76:LEU:HD23	44:BV:76:LEU:H	1.80	0.47
37:BQ:20:ARG:C	37:BQ:22:GLY:H	2.18	0.47
37:BQ:88:ASP:CG	37:BQ:89:ARG:H	2.18	0.47
29:DG:14:GLU:O	29:DG:17:PRO:HG2	2.15	0.47
32:DM:57:ALA:CA	32:DM:60:ILE:HD11	2.44	0.47
54:DA:2822:G:H2'	54:DA:2823:A:H5''	1.97	0.47
36:D0:1:MET:SD	36:D0:1:MET:N	2.75	0.47
50:D5:57:VAL:HG13	50:D5:57:VAL:O	2.13	0.47
7:AJ:29:LYS:HB2	7:AJ:105:VAL:HG21	1.96	0.47
31:DK:54:GLN:O	31:DK:57:ARG:HG3	2.14	0.47
1:CA:428:G:O2'	1:CA:429:U:OP2	2.30	0.47
4:CG:11:LEU:CD2	4:CG:66:ARG:HD3	2.41	0.47
2:CE:220:ASP:O	2:CE:223:ILE:N	2.48	0.47
49:D4:38:LYS:C	49:D4:40:HIS:H	2.07	0.47
37:BQ:7:TYR:O	37:BQ:9:ARG:N	2.48	0.47
51:D6:20:ASN:O	51:D6:21:TYR:HB2	2.15	0.47
33:DN:104:ARG:HD3	38:DR:36:GLU:OE2	2.15	0.47
54:DA:1926:U:C2	54:DA:1929:G:C6	3.02	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:44:ASN:HB2	26:BD:49:ILE:HA	1.92	0.47
1:CA:266:G:O2'	1:CA:267:C:P	2.72	0.47
1:AA:923:A:H2'	1:AA:924:C:H6	1.79	0.47
54:DA:1236:G:C4'	54:DA:1237:A:OP1	2.56	0.47
24:BA:621:A:C2	24:BA:622:G:C4	3.03	0.47
24:BA:2312:U:H2'	24:BA:2313:C:H6	1.79	0.47
10:AM:5:ARG:O	10:AM:98:ILE:HA	2.14	0.47
10:AM:6:ILE:HG22	10:AM:98:ILE:CG1	2.45	0.47
1:AA:531:U:C4'	1:AA:532:A:OP1	2.63	0.47
1:AA:533:A:O2'	1:AA:534:U:OP1	2.26	0.47
3:AF:161:GLU:OE2	3:AF:162:GLN:N	2.48	0.47
54:DA:222:A:O2'	54:DA:223:A:O5'	2.29	0.47
2:AE:164:VAL:CG1	2:AE:165:VAL:H	2.28	0.47
24:BA:1528:A:H2	24:BA:1543:A:N1	2.13	0.47
24:BA:1528:A:N1	24:BA:1543:A:C2	2.81	0.47
1:AA:560:U:HO2'	1:AA:561:U:P	2.32	0.47
31:DK:74:ASN:ND2	31:DK:75:LEU:N	2.63	0.47
1:CA:279:A:H5''	1:CA:280:C:H3'	1.96	0.47
7:AJ:155:ARG:CG	7:AJ:155:ARG:NH1	2.78	0.47
4:CG:114:ARG:CG	4:CG:114:ARG:NH1	2.77	0.47
12:AO:54:LYS:HZ1	12:AO:75:HIS:HE1	1.63	0.47
24:BA:2116:G:O6	24:BA:2172:U:C5	2.68	0.47
54:DA:2756:U:H4'	54:DA:2757:A:OP1	2.15	0.47
30:DH:67:LEU:O	30:DH:71:LEU:HB2	2.15	0.47
1:CA:1374:A:O2'	7:CJ:28:ASN:HB3	2.13	0.47
24:BA:2562:U:C2'	24:BA:2563:U:H5'	2.44	0.47
44:DV:125:LEU:HG	44:DV:164:ALA:CB	2.45	0.47
54:DA:1188:U:H4'	40:D2:79:VAL:CG2	2.45	0.47
1:CA:872:A:C5	1:CA:874:G:C8	3.02	0.47
39:B1:17:ILE:O	39:B1:20:LEU:N	2.47	0.47
54:DA:2656:U:C3'	54:DA:2656:U:C6	2.97	0.47
1:AA:713:G:N2	1:AA:777:A:O4'	2.41	0.47
24:BA:2497:A:H1'	24:BA:2498:C:C5	2.47	0.47
14:CQ:8:GLU:C	14:CQ:10:ALA:N	2.68	0.47
25:BB:66:A:C2'	25:BB:67:G:OP2	2.63	0.47
24:BA:1647:G:OP2	24:BA:1647:G:H3'	2.15	0.47
36:D0:56:LYS:HE2	36:D0:94:TYR:OH	2.15	0.47
37:DQ:56:LEU:O	37:DQ:57:LYS:C	2.53	0.47
22:AD:22:G:HO2'	22:AD:23:C:P	2.36	0.47
32:BM:56:ASN:HA	32:BM:124:ALA:HA	1.97	0.47
9:AL:7:THR:HB	9:AL:83:ARG:HD2	1.96	0.47
14:CQ:40:CYS:O	14:CQ:42:ILE:N	2.48	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:585:G:N1	24:BA:1253:A:OP1	2.47	0.47
1:CA:407:G:O2'	4:CG:116:GLN:HG3	2.15	0.47
4:CG:153:ARG:CZ	4:CG:181:MET:HG3	2.44	0.47
24:BA:704:G:O2'	24:BA:705:A:P	2.72	0.47
36:B0:104:ARG:H	36:B0:108:GLY:HA2	1.79	0.47
6:CI:19:LEU:HD23	6:CI:19:LEU:C	2.35	0.47
18:AU:71:LYS:HA	18:AU:74:ARG:CD	2.45	0.47
24:BA:1639:U:H2'	24:BA:1640:C:C5'	2.44	0.47
44:BV:165:VAL:CG2	44:BV:169:GLU:HG2	2.44	0.47
1:AA:968:A:C5'	1:AA:969:A:OP2	2.59	0.47
5:AH:71:LEU:HD21	5:AH:115:VAL:HG13	1.97	0.47
42:BT:18:TYR:C	42:BT:20:GLY:N	2.68	0.47
1:CA:651:C:H2'	1:CA:652:U:O4'	2.15	0.47
5:AH:11:ILE:CG2	5:AH:12:LEU:N	2.77	0.47
46:DZ:29:GLY:C	46:DZ:30:VAL:CG2	2.82	0.47
24:BA:634:C:H2'	24:BA:635:C:C6	2.49	0.47
27:BE:8:LYS:O	27:BE:9:VAL:C	2.51	0.47
4:AG:173:TRP:C	4:AG:186:LEU:HD12	2.35	0.47
15:AR:23:GLY:O	15:AR:28:GLN:HG3	2.15	0.47
32:DM:67:LEU:O	32:DM:88:GLU:HG3	2.14	0.47
4:AG:150:GLU:O	4:AG:151:LYS:C	2.53	0.47
43:BU:31:LEU:HD22	43:BU:33:LYS:NZ	2.29	0.47
54:DA:943:U:OP2	34:DO:36:LYS:HG2	2.13	0.47
37:BQ:49:VAL:HG22	37:BQ:80:LEU:CD1	2.42	0.47
43:DU:39:VAL:O	43:DU:40:GLU:OE2	2.32	0.47
54:DA:1936:A:C8	54:DA:1940:U:O2	2.68	0.47
43:DU:19:LYS:HE3	43:DU:20:TYR:CE1	2.49	0.47
2:CE:71:VAL:HG23	2:CE:164:VAL:HG13	1.97	0.47
1:CA:625:G:H2'	1:CA:626:U:H6	1.77	0.47
26:DD:231:HIS:ND1	26:DD:232:PRO:HD2	2.30	0.47
20:AW:32:ALA:O	20:AW:36:LEU:HB2	2.15	0.47
42:DT:43:VAL:HG11	42:DT:51:VAL:HG21	1.97	0.47
42:DT:35:THR:O	42:DT:37:THR:N	2.47	0.47
54:DA:974:G:N2	54:DA:989:G:O2'	2.47	0.47
47:BW:10:LEU:O	47:BW:12:GLU:N	2.48	0.47
5:AH:144:THR:O	5:AH:148:VAL:HG23	2.15	0.47
15:CR:50:HIS:O	15:CR:53:HIS:N	2.47	0.47
24:BA:180:G:OP2	52:B7:32:LYS:CE	2.63	0.47
38:DR:29:ARG:NH1	38:DR:46:GLU:OE1	2.48	0.47
54:DA:237:C:O2'	54:DA:238:C:H5'	2.15	0.47
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.50	0.47
39:D1:107:ALA:O	39:D1:110:VAL:HB	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1278:A:OP1	36:D0:36:THR:HG22	2.14	0.47
17:CT:63:ARG:HG2	17:CT:64:PRO:CD	2.45	0.47
8:AK:91:ARG:HH11	8:AK:91:ARG:HG2	1.80	0.47
13:CP:30:ALA:O	13:CP:33:ALA:N	2.47	0.47
54:DA:137(A):G:H2'	54:DA:139:G:N7	2.29	0.47
24:BA:554:U:O2'	24:BA:556:G:C8	2.59	0.47
24:BA:2057:A:H2'	24:BA:2058:A:O4'	2.14	0.47
1:AA:1462:G:H2'	1:AA:1463:C:H6	1.79	0.47
24:BA:1813:G:H1'	26:BD:50:THR:OG1	2.15	0.47
5:AH:83:GLU:HA	5:AH:87:SER:O	2.14	0.47
4:AG:157:LEU:O	4:AG:161:ASN:ND2	2.47	0.47
24:BA:324:A:H2'	24:BA:325:G:O4'	2.15	0.47
55:DB:51:G:H5'	55:DB:52:A:OP2	2.15	0.47
1:CA:585:G:O2'	1:CA:879:C:H5''	2.13	0.47
1:CA:324:G:O2'	1:CA:326:G:N7	2.38	0.47
17:CT:98:LEU:O	17:CT:99:SER:C	2.53	0.47
26:BD:80:ALA:HB2	26:BD:96:HIS:CD2	2.50	0.47
2:CE:86:GLU:C	2:CE:88:ALA:H	2.17	0.47
54:DA:2524:G:H2'	54:DA:2741:A:C2	2.50	0.47
23:C1:16:A:H2'	23:C1:17:U:O4'	2.14	0.47
24:BA:1755:A:H2'	24:BA:1756:G:H5'	1.96	0.47
2:AE:46:LYS:HA	2:AE:49:GLU:HB2	1.96	0.47
27:DE:120:TRP:O	27:DE:121:ASN:HB2	2.14	0.47
54:DA:1472:A:H2'	54:DA:1473:G:O4'	2.15	0.47
24:BA:654(C):G:C5	24:BA:654(S):G:N2	2.82	0.47
49:B4:24:THR:CG2	49:B4:25:TYR:N	2.68	0.47
29:BG:101:ILE:HD12	29:BG:105:LYS:HE2	1.97	0.47
29:BG:96:ARG:O	29:BG:98:ARG:N	2.47	0.47
26:BD:246:PRO:HB2	26:BD:255:LYS:CD	2.45	0.47
11:AN:13:GLN:HG3	11:AN:76:GLY:O	2.15	0.47
31:BK:101:LEU:HD23	31:BK:101:LEU:N	2.30	0.47
10:AM:54:PHE:CG	10:AM:55:LYS:N	2.83	0.47
19:AV:36:ARG:HG3	19:AV:72:GLY:H	1.78	0.47
49:B4:40:HIS:H	49:B4:41:PRO:HD3	1.75	0.47
30:BH:16:SER:HB3	30:BH:27:LYS:O	2.15	0.47
54:DA:1317:A:H2'	54:DA:1318:C:C6	2.50	0.47
30:BH:89:ILE:CG1	30:BH:90:LYS:H	2.28	0.47
43:DU:44:ILE:O	43:DU:62:GLU:O	2.32	0.47
43:DU:56:PRO:O	43:DU:57:GLN:C	2.53	0.47
27:DE:56:PRO:O	27:DE:57:LYS:CB	2.61	0.47
54:DA:2751:G:O5'	54:DA:2751:G:C8	2.65	0.47
1:CA:1355:G:O2'	1:CA:1356:G:H5'	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CP:65:LYS:NZ	49:D4:52:THR:HG21	2.30	0.47
49:D4:50:VAL:O	49:D4:50:VAL:HG13	2.15	0.47
1:CA:1312:G:P	49:D4:58:ARG:HH12	2.38	0.47
3:CF:203:PHE:O	3:CF:204:LEU:HD23	2.14	0.47
26:DD:136:ILE:N	26:DD:136:ILE:HD12	2.30	0.47
34:DO:81:GLN:HB3	34:DO:110:TYR:HB3	1.97	0.47
49:B4:58:ARG:O	49:B4:62:ARG:N	2.47	0.47
23:C1:9:G:O2'	23:C1:10:G:C5'	2.59	0.47
1:CA:1533:C:H2'	1:CA:1534:A:H5''	1.95	0.47
27:DE:22:PRO:CG	27:DE:22:PRO:O	2.63	0.47
26:BD:23:GLU:C	26:BD:25:THR:N	2.68	0.47
40:D2:4:ILE:HA	40:D2:12:TYR:O	2.14	0.47
40:D2:6:LYS:HD3	40:D2:11:GLN:HG2	1.96	0.47
35:BP:141:GLN:NE2	44:BV:73:GLN:C	2.68	0.47
45:B3:50:ASN:ND2	45:B3:83:PRO:HD3	2.30	0.47
37:BQ:11:LYS:HD3	37:BQ:91:PRO:HD3	1.96	0.47
54:DA:2389:G:C5'	54:DA:2390:U:H5'	2.28	0.47
35:BP:66:ILE:N	35:BP:66:ILE:HD13	2.30	0.47
29:BG:81:LYS:CD	29:BG:81:LYS:N	2.72	0.47
9:AL:9:ARG:HB3	9:AL:104:ARG:NE	2.30	0.47
49:D4:33:VAL:CG1	49:D4:34:GLU:H	2.22	0.47
3:CF:95:THR:CG2	3:CF:96:GLY:H	2.10	0.47
54:DA:385:C:O2	34:DO:71:VAL:HG21	2.15	0.47
47:BW:65:ASN:ND2	47:BW:69:ARG:NH2	2.48	0.47
1:AA:934:C:H5	1:AA:1344:C:H2'	1.80	0.47
54:DA:1212:G:H1'	54:DA:1237:A:N6	2.30	0.47
54:DA:265:A:H2'	54:DA:266:G:O4'	2.15	0.47
31:DK:9:LEU:O	31:DK:10:GLU:O	2.33	0.47
2:CE:116:GLU:HA	2:CE:119:GLU:HB3	1.96	0.47
32:BM:62:VAL:CG2	32:BM:66:LYS:HG3	2.44	0.47
9:CL:112:LYS:HD3	9:CL:112:LYS:C	2.35	0.47
14:AQ:12:ARG:C	14:AQ:14:PRO:HD3	2.35	0.47
24:BA:528:A:H2	24:BA:2043:C:C5'	2.27	0.47
4:CG:173:TRP:C	4:CG:186:LEU:HB2	2.35	0.47
54:DA:701:G:H2'	54:DA:702:G:H5''	1.97	0.47
24:BA:945:A:C2	24:BA:2448:A:C6	3.03	0.47
1:AA:1350:A:H2'	1:AA:1351:U:O4'	2.15	0.47
54:DA:175:G:C2'	54:DA:176:G:H5'	2.43	0.47
1:CA:402:G:O2'	1:CA:403:C:H5'	2.14	0.47
1:CA:106:C:O2'	1:CA:107:G:H5'	2.15	0.47
24:BA:530:G:N3	24:BA:2021:C:O2'	2.48	0.47
1:AA:1065:U:O2'	1:AA:1066:C:OP2	2.31	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1094:G:H2'	1:AA:1095:U:OP2	2.14	0.47
6:CI:32:ASN:H	6:CI:32:ASN:HD22	1.62	0.47
8:AK:40:ALA:O	8:AK:42:GLU:N	2.47	0.47
7:AJ:38:LEU:CD1	7:AJ:38:LEU:H	2.27	0.47
54:DA:992:C:H2'	54:DA:993:G:H8	1.78	0.47
1:AA:968:A:C4'	1:AA:969:A:OP2	2.62	0.47
54:DA:1221:C:C2	54:DA:1222:C:C5	3.03	0.47
12:CO:127:GLU:O	12:CO:128:ALA:CB	2.62	0.47
15:CR:76:GLU:O	15:CR:78:TYR:N	2.48	0.47
29:DG:121:ASN:HD22	29:DG:122:PRO:HD2	1.79	0.47
7:CJ:50:ILE:HG21	7:CJ:61:VAL:HG21	1.97	0.47
24:BA:30:G:C5	24:BA:31:C:C4	3.03	0.47
11:CN:102:GLY:O	11:CN:103:LEU:C	2.53	0.47
54:DA:405:U:O2	54:DA:405:U:C2'	2.62	0.47
1:CA:932:C:C2	1:CA:1386:G:C2	3.03	0.47
1:CA:748:C:O2'	1:CA:749:C:O5'	2.31	0.47
54:DA:2848:G:O2'	54:DA:2849:U:P	2.72	0.47
54:DA:2867:G:O2'	54:DA:2868:A:H8	1.97	0.47
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.50	0.47
24:BA:208:C:H2'	24:BA:209:C:C6	2.48	0.47
18:CU:31:LEU:H	18:CU:31:LEU:CD2	2.27	0.47
24:BA:2838:G:O2'	36:B0:45:ARG:NH1	2.48	0.47
34:BO:90:ARG:HG2	34:BO:91:PHE:CD1	2.47	0.47
54:DA:2572:A:N7	27:DE:144:ARG:HB3	2.30	0.47
45:D3:53:MET:HB3	45:D3:59:LEU:HD23	1.97	0.47
45:D3:37:LEU:N	45:D3:59:LEU:O	2.41	0.47
40:B2:67:GLY:O	40:B2:88:ARG:CD	2.62	0.47
1:CA:46:G:O2'	1:CA:365:U:H1'	2.15	0.47
11:AN:24:SER:OG	11:AN:25:TYR:N	2.46	0.47
26:BD:213:ARG:HG3	26:BD:213:ARG:HH11	1.80	0.47
44:BV:31:ARG:HG2	44:BV:31:ARG:NH1	2.30	0.47
54:DA:1374:G:H2'	54:DA:1375:C:C6	2.50	0.47
29:DG:106:LEU:HA	29:DG:110:ALA:HB3	1.95	0.47
1:AA:781:A:H5'	1:AA:782:A:OP2	2.15	0.47
24:BA:2178:C:O2'	24:BA:2179:C:H5'	2.14	0.47
54:DA:1774:C:O2	54:DA:1774:C:H2'	2.15	0.47
30:DH:18:GLU:HA	30:DH:18:GLU:OE2	2.15	0.47
24:BA:546:C:H6	24:BA:546:C:OP1	1.98	0.47
6:AI:83:ASP:N	6:AI:83:ASP:OD2	2.47	0.47
50:B5:31:VAL:HG13	50:B5:42:PRO:HG3	1.97	0.47
1:AA:445:G:H2'	1:AA:446:G:H8	1.79	0.47
54:DA:1215:G:C2'	54:DA:1216:G:H5'	2.45	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BG:104:GLU:HG2	49:B4:23:GLU:CG	2.40	0.47
29:BG:5:VAL:CG1	29:BG:6:ALA:H	2.24	0.47
24:BA:2250:G:C2	35:BP:82:ARG:CD	2.98	0.47
13:AP:4:ILE:HD11	13:AP:19:LEU:HD13	1.97	0.47
44:BV:93:ASP:C	44:BV:95:PRO:HD2	2.35	0.47
54:DA:1085:A:HO2'	54:DA:1086:A:P	2.37	0.47
54:DA:1086:A:C2'	54:DA:1086:A:N3	2.78	0.47
44:DV:156:LYS:HB2	44:DV:158:PRO:HD3	1.96	0.47
30:BH:17:VAL:HG11	30:BH:45:VAL:HG21	1.97	0.47
54:DA:2795:G:C3'	54:DA:2797:U:C5'	2.79	0.47
34:BO:83:VAL:HG13	34:BO:114:ILE:HA	1.95	0.47
39:B1:90:VAL:O	39:B1:91:ASP:C	2.53	0.47
1:CA:1201:A:C2'	1:CA:1202:G:OP2	2.62	0.47
19:CV:40:ILE:CG1	19:CV:41:VAL:N	2.78	0.47
24:BA:153:C:OP1	46:BZ:88:LYS:HE3	2.15	0.47
46:BZ:92:LYS:O	46:BZ:93:GLU:CG	2.63	0.47
2:CE:92:TYR:CD1	2:CE:92:TYR:C	2.88	0.47
1:AA:795:C:O5'	1:AA:795:C:H6	1.98	0.47
54:DA:2804:C:O2'	54:DA:2805:G:H5'	2.15	0.47
24:BA:2779:U:H1'	24:BA:2781:A:C6	2.50	0.47
39:D1:91:ASP:O	39:D1:92:ARG:C	2.53	0.47
22:AD:58:A:C8	22:AD:58:A:OP2	2.67	0.47
33:DN:53:LYS:CD	33:DN:56:ASP:OD1	2.63	0.47
5:AH:93:PRO:HA	5:AH:118:ILE:CD1	2.45	0.47
36:B0:96:ARG:HG2	36:B0:97:VAL:N	2.29	0.47
27:BE:4:ILE:C	27:BE:5:LEU:HD23	2.35	0.47
54:DA:1022:G:N2	54:DA:1142(A):A:C2	2.77	0.47
8:CK:86:ILE:HG12	8:CK:135:CYS:HA	1.96	0.47
9:AL:9:ARG:HA	9:AL:13:ALA:O	2.15	0.47
55:DB:45:A:C1'	29:DG:95:ARG:NH1	2.77	0.47
24:BA:2391:G:H1'	24:BA:2424:C:H41	1.80	0.47
1:CA:742:G:C5'	15:CR:58:MET:HE1	2.45	0.47
31:DK:133:HIS:CB	31:DK:134:PRO:CD	2.92	0.47
26:DD:145:VAL:O	26:DD:153:ALA:HA	2.14	0.47
24:BA:2305:A:H2'	24:BA:2306:C:O4'	2.15	0.47
24:BA:2306:C:N4	29:BG:45:GLU:OE2	2.43	0.47
54:DA:221:A:H4'	54:DA:222:A:O5'	2.15	0.47
5:CH:77:PRO:HG2	5:CH:142:LEU:HD22	1.97	0.47
44:DV:26:GLY:HA3	44:DV:86:VAL:O	2.14	0.47
24:BA:1312:U:H3'	42:BT:63:LYS:CE	2.45	0.47
14:AQ:12:ARG:HG2	14:AQ:14:PRO:CD	2.37	0.47
2:CE:178:ARG:NH2	8:CK:68:ARG:NH2	2.62	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2126:A:H1'	24:BA:2127:G:H8	1.80	0.47
54:DA:1782:C:H1'	54:DA:2609:U:O4'	2.15	0.47
5:CH:42:GLY:CA	5:CH:136:MET:HE1	2.45	0.47
41:DS:4:LYS:HA	41:DS:106:ILE:HA	1.97	0.47
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.49	0.47
6:CI:69:GLU:O	6:CI:71:ARG:N	2.48	0.47
24:BA:1255:U:C5'	24:BA:1256:G:H5''	2.41	0.47
1:AA:389:A:N3	1:AA:389:A:H2'	2.29	0.47
24:BA:371:A:H1'	24:BA:373:U:C5	2.50	0.47
7:CJ:50:ILE:CG2	7:CJ:61:VAL:HG21	2.45	0.47
24:BA:1087:G:H2'	24:BA:1089:G:C1'	2.45	0.47
22:CC:20:U:H3'	22:CC:21:A:H5'	1.96	0.47
54:DA:469:G:C2'	54:DA:470:A:H5''	2.45	0.47
1:CA:9:G:H2'	1:CA:10:A:C8	2.48	0.47
24:BA:648:G:O4'	24:BA:2351:G:H5''	2.15	0.47
1:AA:779:C:O2'	1:AA:780:A:H5'	2.15	0.47
35:DP:58:PHE:O	35:DP:59:ARG:C	2.53	0.47
38:DR:51:ARG:CG	38:DR:98:LYS:HG3	2.44	0.47
24:BA:11:G:C2'	24:BA:12:U:H5'	2.45	0.47
24:BA:2303:G:H2'	24:BA:2304:G:H5'	1.95	0.47
24:BA:2401:U:H2'	24:BA:2402:C:H1'	1.97	0.47
24:BA:601:C:H4'	28:BF:104:LYS:HZ3	1.80	0.47
4:AG:58:LEU:O	4:AG:61:LYS:N	2.44	0.47
28:DF:162:LEU:HD23	28:DF:165:ARG:HH21	1.79	0.47
16:AS:58:TYR:C	16:AS:60:LEU:N	2.68	0.47
16:AS:58:TYR:O	16:AS:62:VAL:HG22	2.14	0.47
1:CA:583:A:N6	1:CA:758:G:O2'	2.48	0.47
32:DM:73:THR:HA	32:DM:83:LYS:O	2.15	0.47
36:D0:61:HIS:O	36:D0:65:LEU:HD13	2.14	0.47
36:B0:52:ILE:HG21	36:B0:94:TYR:CD2	2.50	0.47
41:BS:25:ARG:HA	41:BS:71:VAL:HG11	1.97	0.47
1:CA:356:A:O2'	1:CA:357:G:H5'	2.15	0.47
54:DA:1195:G:C2'	54:DA:1196:C:H5'	2.45	0.47
27:BE:101:ARG:HH11	27:BE:171:GLU:N	2.12	0.47
5:AH:127:ASN:O	5:AH:128:PRO:C	2.53	0.47
54:DA:1614:A:H62	41:DS:93:ALA:HB2	1.80	0.47
3:CF:124:ILE:C	3:CF:126:ARG:H	2.19	0.47
54:DA:360:G:O2'	54:DA:361:G:H5'	2.15	0.47
30:DH:104:GLU:HG3	30:DH:114:VAL:HG22	1.96	0.47
54:DA:922:U:H2'	54:DA:923:C:C6	2.50	0.47
20:CW:93:GLU:O	20:CW:93:GLU:HG2	2.14	0.47
1:CA:792:A:N3	1:CA:794:A:N6	2.62	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AV:42:PRO:O	19:AV:43:GLU:CB	2.54	0.47
1:AA:872:A:HO2'	1:AA:873:A:P	2.38	0.47
1:AA:1126:U:N3	1:AA:1281:U:O4'	2.44	0.47
44:DV:111:VAL:O	44:DV:113:ALA:N	2.48	0.47
30:BH:19:VAL:CG1	30:BH:43:VAL:HG22	2.45	0.47
28:BF:117:ARG:NH1	28:BF:120:GLU:OE1	2.47	0.47
30:BH:89:ILE:CD1	30:BH:89:ILE:H	2.28	0.47
13:CP:87:TYR:C	13:CP:89:GLY:H	2.18	0.47
25:BB:57:A:C4'	29:BG:30:GLU:HG3	2.44	0.47
54:DA:1816:G:N7	26:DD:62:TYR:CE1	2.83	0.47
26:DD:72:LYS:CG	26:DD:103:ARG:NH2	2.77	0.47
1:CA:923:A:O2'	1:CA:1399:C:OP2	2.32	0.47
27:DE:20:ALA:C	27:DE:21:VAL:HG13	2.35	0.47
26:BD:35:LYS:HA	26:BD:64:ILE:HG22	1.96	0.47
1:AA:428:G:C1'	1:AA:430:A:C8	2.98	0.47
45:B3:84:LEU:HD22	45:B3:84:LEU:O	2.15	0.47
29:DG:13:GLU:HG3	29:DG:13:GLU:O	2.14	0.47
27:BE:93:VAL:C	27:BE:95:ILE:HD12	2.35	0.47
24:BA:2531:A:H2	24:BA:2658:C:O2	1.98	0.47
28:BF:157:VAL:HB	28:BF:194:MET:HB3	1.96	0.47
7:CJ:70:LYS:O	7:CJ:138:LYS:HE3	2.15	0.47
7:CJ:140:ASP:HA	7:CJ:143:ARG:HH11	1.79	0.47
1:AA:1155:G:H2'	1:AA:1156:G:C5'	2.45	0.47
4:CG:31:CYS:O	4:CG:32:ALA:CB	2.62	0.47
37:DQ:59:LYS:HG2	37:DQ:60:GLY:N	2.13	0.47
30:BH:122:THR:O	30:BH:133:VAL:HG13	2.15	0.47
26:BD:43:ARG:C	26:BD:43:ARG:CD	2.83	0.47
24:BA:2720:U:H2'	24:BA:2721:A:C8	2.50	0.47
24:BA:1464:C:C2'	24:BA:1528:A:H8	2.28	0.47
29:DG:88:ILE:O	29:DG:88:ILE:CD1	2.54	0.47
7:AJ:85:TYR:CE2	7:AJ:154:TYR:HE1	2.33	0.47
1:CA:562:C:H5''	1:CA:563:A:OP1	2.15	0.47
11:CN:32:ILE:HD12	11:CN:72:ALA:CB	2.36	0.47
13:AP:108:ARG:HG3	13:AP:108:ARG:HH11	1.80	0.47
34:BO:37:GLY:O	34:BO:39:LYS:N	2.47	0.47
11:AN:11:LYS:HE3	24:BA:2144:U:C4	2.46	0.47
4:AG:86:LYS:CE	4:AG:86:LYS:HA	2.45	0.47
1:CA:1297:C:HO2'	1:CA:1298:C:C5'	2.28	0.47
54:DA:571:A:H2'	40:D2:78:LYS:HZ2	1.80	0.47
22:CD:72:A:H2'	22:CD:73:A:O4'	2.14	0.47
54:DA:893:C:H3'	54:DA:894:C:C5	2.50	0.47
44:DV:95:PRO:O	44:DV:96:VAL:HG13	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:AU:53:ARG:C	18:AU:55:ARG:H	2.17	0.47
36:D0:56:LYS:C	36:D0:58:GLY:H	2.18	0.47
32:DM:35:ARG:O	32:DM:35:ARG:HG3	2.15	0.47
47:BW:17:SER:HA	47:BW:20:GLU:CB	2.44	0.47
1:AA:991:U:O2	1:AA:993:G:H1'	2.15	0.47
54:DA:1397:U:H3'	54:DA:1398:C:C5	2.51	0.47
1:AA:981:U:H5'	14:AQ:21:TYR:CZ	2.50	0.47
28:BF:53:THR:HG23	28:BF:56:GLU:H	1.80	0.47
24:BA:2405:G:O2'	24:BA:2411:A:N6	2.48	0.47
24:BA:1681:G:C2'	24:BA:1762:A:O2'	2.63	0.47
39:D1:66:ASN:CB	39:D1:76:TYR:HB2	2.44	0.47
1:CA:533:A:O2'	1:CA:534:U:P	2.73	0.47
54:DA:2732:G:H3'	54:DA:2733:A:C5'	2.45	0.47
54:DA:227:A:OP1	34:DO:76:LYS:HE3	2.15	0.47
44:BV:165:VAL:CG1	44:BV:166:SER:H	2.21	0.47
53:B8:46:ARG:HH11	53:B8:46:ARG:CB	2.27	0.47
1:AA:481:G:C4'	1:AA:482:A:OP1	2.62	0.47
1:AA:90:C:C2'	1:AA:90:C:O2	2.63	0.47
29:BG:129:GLY:O	29:BG:130:ASN:CG	2.53	0.47
46:DZ:76:ARG:CD	46:DZ:76:ARG:H	2.28	0.47
24:BA:881:G:H2'	24:BA:882:G:OP1	2.15	0.47
24:BA:883:G:O2'	24:BA:884:C:P	2.72	0.47
54:DA:943:U:OP2	34:DO:36:LYS:CE	2.63	0.47
6:AI:35:ALA:CA	6:AI:67:MET:HB3	2.45	0.47
24:BA:2813:A:C6	24:BA:2814:C:C4	3.03	0.47
54:DA:2472:G:H2'	54:DA:2475:C:H42	1.79	0.47
6:AI:75:LEU:HD23	6:AI:75:LEU:C	2.36	0.47
1:AA:279:A:H5''	1:AA:281:G:O4'	2.15	0.47
40:D2:2:PHE:C	40:D2:2:PHE:CD1	2.88	0.47
35:DP:87:LYS:O	35:DP:89:ASN:N	2.43	0.47
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.97	0.47
20:AW:82:SER:OG	20:AW:83:ARG:N	2.47	0.47
24:BA:235:U:H2'	24:BA:236:C:C6	2.50	0.47
10:AM:46:ARG:HG2	10:AM:64:GLU:CB	2.45	0.47
4:AG:190:ASP:O	4:AG:191:ARG:C	2.51	0.47
37:DQ:5:THR:HG1	37:DQ:7:TYR:HB3	1.79	0.47
4:CG:126:ILE:HG22	4:CG:127:THR:H	1.80	0.47
1:AA:715:A:O2'	1:AA:716:A:H5'	2.15	0.47
1:AA:432:A:H3'	1:AA:433:C:H6	1.80	0.47
25:BB:73:A:N3	25:BB:73:A:H2'	2.30	0.47
3:AF:186:PHE:HE1	3:AF:197:GLY:HA3	1.79	0.47
43:DU:68:HIS:O	43:DU:71:LYS:HB2	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:979:G:C4	54:DA:982:C:N4	2.83	0.47
4:AG:14:ARG:O	4:AG:39:PRO:HG3	2.15	0.47
11:AN:114:VAL:HG13	11:AN:114:VAL:O	2.15	0.47
50:D5:45:VAL:O	50:D5:45:VAL:HG12	2.13	0.47
54:DA:57:C:H2'	54:DA:58:G:O4'	2.15	0.47
35:BP:36:ALA:C	35:BP:37:LEU:HD23	2.36	0.47
33:DN:37:ASP:O	33:DN:62:VAL:HG23	2.14	0.47
25:BB:51:G:N7	37:BQ:62:LYS:NZ	2.53	0.46
54:DA:153:C:OP1	46:DZ:88:LYS:HE2	2.15	0.46
31:BK:78:THR:CB	31:BK:104:GLN:NE2	2.73	0.46
3:AF:11:ARG:O	3:AF:15:THR:O	2.33	0.46
54:DA:241:A:O2'	53:D8:3:LYS:NZ	2.43	0.46
54:DA:1064:C:C2	54:DA:1065:U:H1'	2.50	0.46
54:DA:1509:C:OP1	54:DA:1509:C:H4'	2.15	0.46
44:DV:107:THR:HG21	44:DV:144:LEU:N	2.30	0.46
39:D1:8:VAL:O	39:D1:9:VAL:C	2.53	0.46
30:BH:20:ALA:O	30:BH:22:GLY:N	2.48	0.46
24:BA:330:A:O2'	24:BA:331:A:C8	2.68	0.46
30:DH:86:GLU:O	30:DH:132:ARG:HA	2.16	0.46
39:B1:92:ARG:NH1	40:B2:11:GLN:H	2.11	0.46
15:CR:82:ILE:HD11	15:CR:88:ARG:HG2	1.95	0.46
2:CE:15:VAL:HG23	2:CE:209:ARG:HE	1.80	0.46
54:DA:626:U:O4	34:DO:107:LYS:HE2	2.15	0.46
34:DO:144:GLU:N	34:DO:144:GLU:OE1	2.48	0.46
1:AA:1099:G:H5'	2:AE:96:ARG:NH1	2.31	0.46
2:AE:21:ARG:HA	2:AE:39:ILE:HA	1.97	0.46
2:AE:17:PHE:CD1	2:AE:42:ILE:HG12	2.49	0.46
24:BA:1055:G:H2'	24:BA:1056:G:C5'	2.45	0.46
51:D6:8:LYS:O	51:D6:27:LYS:HG2	2.15	0.46
54:DA:2057:A:O2'	54:DA:2058:A:H5'	2.16	0.46
27:BE:47:VAL:CG1	27:BE:48:GLN:H	1.98	0.46
27:BE:58:ARG:HA	27:BE:58:ARG:CZ	2.45	0.46
27:BE:70:ALA:O	27:BE:72:VAL:HG23	2.14	0.46
27:BE:77:ILE:O	27:BE:78:LEU:O	2.33	0.46
26:BD:74:GLY:O	26:BD:118:VAL:HG21	2.15	0.46
29:DG:116:ASP:O	29:DG:117:PHE:CB	2.50	0.46
4:AG:30:LYS:HG2	4:AG:35:ARG:HD2	1.96	0.46
39:D1:98:LEU:C	39:D1:98:LEU:HD23	2.35	0.46
32:DM:46:VAL:HG13	32:DM:47:ALA:N	2.31	0.46
28:DF:46:ARG:NH1	28:DF:46:ARG:CG	2.71	0.46
28:DF:184:TYR:CD2	28:DF:188:ARG:HD2	2.50	0.46
24:BA:2656:U:H3'	24:BA:2656:U:H6	1.76	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:103:ASP:OD2	27:DE:168:MET:HG2	2.15	0.46
27:DE:101:ARG:HD2	27:DE:171:GLU:HA	1.97	0.46
38:DR:111:ARG:C	38:DR:113:LYS:N	2.64	0.46
10:AM:74:ILE:H	10:AM:74:ILE:CD1	2.28	0.46
24:BA:2471:C:H3'	24:BA:2472:G:H8	1.79	0.46
54:DA:2372:G:H4'	51:D6:46:HIS:CD2	2.50	0.46
54:DA:898:C:H2'	54:DA:899:A:C5'	2.45	0.46
54:DA:2507:C:C2'	54:DA:2508:G:O5'	2.64	0.46
1:CA:819:A:C4'	1:CA:820:U:OP2	2.63	0.46
2:CE:168:THR:CB	2:CE:192:SER:HB2	2.41	0.46
33:DN:104:ARG:HG2	33:DN:121:VAL:HG12	1.97	0.46
24:BA:778:G:C5'	26:BD:48:ARG:HD2	2.45	0.46
1:CA:234:C:H2'	1:CA:235:C:H6	1.80	0.46
1:AA:961:U:O2'	1:AA:962:C:H5'	2.14	0.46
26:DD:183:ARG:CG	26:DD:183:ARG:NH1	2.69	0.46
5:AH:56:GLN:CA	5:AH:56:GLN:NE2	2.61	0.46
55:DB:12:C:C5'	55:DB:13:A:OP1	2.63	0.46
1:AA:1379:G:C5'	7:AJ:3:ARG:HH21	2.26	0.46
7:AJ:152:ALA:C	7:AJ:154:TYR:H	2.18	0.46
20:CW:28:ALA:C	20:CW:30:LYS:N	2.67	0.46
2:CE:96:ARG:N	2:CE:96:ARG:HD2	2.20	0.46
24:BA:2145:C:OP1	24:BA:2145:C:C6	2.68	0.46
54:DA:2278:A:C2'	54:DA:2279:G:O5'	2.64	0.46
22:CD:8:U:O4'	22:CD:48:C:O2'	2.33	0.46
44:DV:131:ARG:C	44:DV:133:ILE:H	2.18	0.46
41:BS:17:VAL:O	41:BS:20:VAL:HG13	2.14	0.46
9:AL:99:LEU:HB3	9:AL:101:PHE:CD1	2.50	0.46
44:DV:33:LEU:CD1	44:DV:34:ASN:H	2.28	0.46
45:B3:51:VAL:HG22	45:B3:81:VAL:HG23	1.95	0.46
1:CA:375:U:O3'	16:CS:6:LEU:HB2	2.15	0.46
1:CA:89:U:H2'	1:CA:90:C:C6	2.49	0.46
1:CA:540:G:H2'	1:CA:541:G:O4'	2.14	0.46
54:DA:338:G:N2	54:DA:339:U:H1'	2.29	0.46
42:DT:31:HIS:CD2	42:DT:33:LYS:HB2	2.50	0.46
24:BA:1820:U:HO2'	24:BA:1821:A:P	2.37	0.46
54:DA:639:U:O2'	54:DA:640:C:H5'	2.15	0.46
40:B2:44:LYS:O	40:B2:46:VAL:HG12	2.14	0.46
5:AH:115:VAL:O	5:AH:115:VAL:HG23	2.15	0.46
2:AE:206:ASP:O	2:AE:211:ILE:HD11	2.15	0.46
16:AS:20:VAL:HG23	16:AS:21:VAL:N	2.30	0.46
15:CR:76:GLU:C	15:CR:78:TYR:N	2.69	0.46
24:BA:2212:A:OP1	24:BA:2212:A:H4'	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AR:31:LEU:H	15:AR:31:LEU:CD1	2.28	0.46
17:AT:44:ALA:HA	17:AT:71:PHE:O	2.15	0.46
49:D4:15:ILE:HG22	49:D4:20:ASN:CA	2.45	0.46
24:BA:2439:A:C5'	24:BA:2439:A:C8	2.97	0.46
2:AE:109:SER:HA	2:AE:112:VAL:HG23	1.97	0.46
54:DA:528:A:C2	54:DA:2042:A:H2'	2.50	0.46
54:DA:760:G:H2'	54:DA:761:A:O4'	2.15	0.46
1:AA:210:U:H6	1:AA:210:U:OP2	1.97	0.46
54:DA:2674:G:H2'	54:DA:2675:A:H8	1.79	0.46
18:CU:31:LEU:N	18:CU:31:LEU:HD23	2.29	0.46
24:BA:2239:G:O2'	24:BA:2240:C:H5'	2.15	0.46
39:B1:76:TYR:CE2	39:B1:80:ILE:HG13	2.50	0.46
16:AS:56:ALA:O	16:AS:60:LEU:HG	2.14	0.46
1:CA:1120:G:H2'	1:CA:1121:U:H6	1.80	0.46
24:BA:572:A:C2	24:BA:2033:A:C2	3.03	0.46
1:CA:521:G:H4'	12:CO:73:GLU:HG3	1.97	0.46
24:BA:1652:A:H62	36:B0:11:ASN:HD21	1.61	0.46
8:CK:82:HIS:CD2	8:CK:83:ILE:N	2.82	0.46
1:AA:181:G:O2'	1:AA:182:U:O5'	2.32	0.46
7:CJ:92:SER:HB3	7:CJ:95:ARG:CB	2.45	0.46
1:AA:234:C:H2'	1:AA:235:C:H6	1.80	0.46
24:BA:966:G:H2'	24:BA:967:C:H6	1.79	0.46
29:DG:52:ILE:HG22	29:DG:52:ILE:O	2.15	0.46
1:CA:1464:G:O2'	1:CA:1465:C:H5'	2.15	0.46
24:BA:2884:U:C2'	24:BA:2885:C:H5'	2.45	0.46
22:AD:9:G:H5''	22:AD:10:G:OP2	2.14	0.46
54:DA:2184:G:H2'	54:DA:2185:C:H6	1.80	0.46
1:AA:185:A:O2'	20:AW:78:ALA:HB2	2.14	0.46
24:BA:2101:G:H2'	24:BA:2102:U:C6	2.50	0.46
24:BA:1129:A:O2'	24:BA:1130:U:OP2	2.28	0.46
2:AE:19:HIS:O	2:AE:20:GLU:O	2.32	0.46
1:CA:1197:G:O5'	1:CA:1198:G:OP2	2.33	0.46
27:BE:100:GLU:O	27:BE:172:VAL:HG23	2.15	0.46
24:BA:2588:G:H2'	24:BA:2589:A:O4'	2.15	0.46
54:DA:2578:G:H4'	54:DA:2578:G:OP2	2.15	0.46
1:AA:87:A:C8	1:AA:87:A:O5'	2.68	0.46
46:DZ:81:LYS:HE2	46:DZ:81:LYS:H	1.62	0.46
31:BK:97:ILE:HG23	31:BK:140:LEU:CD2	2.46	0.46
1:AA:1532:U:O4	23:A1:9:G:C8	2.68	0.46
43:DU:81:LYS:NZ	43:DU:98:VAL:HB	2.30	0.46
3:AF:11:ARG:O	3:AF:12:LEU:O	2.34	0.46
13:AP:74:VAL:O	13:AP:78:ILE:HG13	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AV:20:LEU:HD23	19:AV:44:MET:HE3	1.97	0.46
1:AA:1150:U:C4'	1:AA:1280:A:H2	2.27	0.46
44:BV:133:ILE:N	44:BV:133:ILE:HD12	2.30	0.46
54:DA:1065:U:H5''	54:DA:1066:U:H5''	1.97	0.46
54:DA:1509:C:H2'	54:DA:1511:A:C8	2.51	0.46
27:DE:3:GLY:HA3	27:DE:81:ILE:HG21	1.97	0.46
44:DV:140:ASP:OD2	44:DV:156:LYS:CA	2.63	0.46
24:BA:2749:A:N7	24:BA:2750:A:N7	2.63	0.46
30:BH:44:VAL:HG22	30:BH:51:ARG:CD	2.45	0.46
54:DA:607:U:OP1	28:DF:102:PRO:HA	2.16	0.46
24:BA:34:C:C2'	24:BA:35:G:OP2	2.64	0.46
28:BF:152:GLU:HA	28:BF:190:GLU:OE1	2.15	0.46
24:BA:1010:A:H5'	39:B1:62:ILE:HG21	1.97	0.46
24:BA:996:A:O2'	39:B1:92:ARG:NH2	2.41	0.46
54:DA:1453:A:H62	54:DA:2703:C:H5	1.62	0.46
29:BG:4:ASP:O	29:BG:8:LYS:HB3	2.14	0.46
34:DO:144:GLU:HA	34:DO:145:PRO:HD3	1.76	0.46
53:D8:9:GLY:O	53:D8:13:ARG:HG2	2.16	0.46
24:BA:2808:U:H5'	24:BA:2891:G:O6	2.15	0.46
27:BE:38:THR:H	27:BE:42:ASP:HB2	1.78	0.46
26:BD:21:PHE:HB3	26:BD:24:ILE:CB	2.45	0.46
24:BA:2344:U:H4'	24:BA:2345:G:OP1	2.13	0.46
1:CA:93:U:H2'	1:CA:95:G:C4'	2.44	0.46
24:BA:1906:G:C5	24:BA:1929:G:C2	3.02	0.46
51:B6:12:GLU:HB2	51:B6:22:ALA:CB	2.37	0.46
31:DK:37:VAL:HG11	31:DK:43:ASN:ND2	2.30	0.46
44:BV:110:GLY:HA2	44:BV:142:SER:O	2.15	0.46
54:DA:196:A:H5'	54:DA:197:A:OP2	2.15	0.46
44:BV:52:SER:C	44:BV:54:HIS:H	2.18	0.46
36:D0:75:LEU:HA	36:D0:78:LYS:HB3	1.97	0.46
54:DA:1359:A:C2	54:DA:1373:A:C4	3.04	0.46
36:D0:1:MET:O	36:D0:2:ARG:HB2	2.15	0.46
35:BP:28:ALA:HB3	35:BP:105:GLU:OE1	2.14	0.46
10:AM:4:ILE:HG12	10:AM:100:THR:HG21	1.96	0.46
1:AA:1158:C:O2	1:AA:1160:G:C8	2.67	0.46
40:B2:76:LYS:HB2	40:B2:79:VAL:HG23	1.97	0.46
12:AO:117:ARG:HB3	12:AO:122:THR:HB	1.96	0.46
44:BV:59:LEU:C	44:BV:60:GLU:HG2	2.35	0.46
44:BV:59:LEU:CD1	44:BV:60:GLU:N	2.76	0.46
16:CS:60:LEU:CA	16:CS:64:ALA:HB3	2.43	0.46
55:DB:7:G:O5'	37:DQ:29:PHE:CE1	2.69	0.46
43:BU:87:LYS:O	43:BU:88:LYS:HD3	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:648:G:H1'	54:DA:2351:G:OP1	2.15	0.46
53:B8:49:VAL:O	53:B8:50:LEU:CD2	2.64	0.46
1:AA:1498:U:O2'	1:AA:1499:A:P	2.73	0.46
28:BF:102:PRO:HB2	28:BF:105:VAL:CG2	2.36	0.46
30:DH:9:ILE:O	30:DH:10:PRO:O	2.33	0.46
38:BR:126:ALA:C	38:BR:128:GLU:H	2.18	0.46
31:DK:74:ASN:CG	31:DK:75:LEU:HD13	2.36	0.46
35:BP:75:THR:HG21	35:BP:85:LYS:HE3	1.97	0.46
1:CA:1459:C:O2'	1:CA:1460:A:H5'	2.15	0.46
1:CA:566:G:H5''	1:CA:567:G:OP1	2.15	0.46
54:DA:2173:A:C2	54:DA:2174:C:H1'	2.51	0.46
40:D2:5:VAL:HG13	40:D2:14:VAL:HG21	1.98	0.46
44:BV:148:ASP:HB2	44:BV:172:ALA:HB3	1.96	0.46
24:BA:2563:U:O2'	33:BN:28:SER:HB3	2.14	0.46
1:AA:60:A:O2'	1:AA:61:G:OP2	2.32	0.46
22:CD:20:U:H2'	22:CD:21:A:H5''	1.96	0.46
7:AJ:114:ARG:H	7:AJ:114:ARG:HG2	1.55	0.46
1:CA:1181:G:C4	1:CA:1182:G:N2	2.83	0.46
8:CK:122:ARG:O	8:CK:125:ARG:N	2.46	0.46
1:AA:992:U:O2'	1:AA:993:G:P	2.72	0.46
24:BA:811:U:O2'	24:BA:1250:G:H2'	2.16	0.46
32:BM:21:LYS:HB3	32:BM:26:LEU:HD13	1.97	0.46
32:BM:60:ILE:CD1	32:BM:99:LEU:HD23	2.45	0.46
24:BA:1681:G:C8	24:BA:1681:G:OP2	2.64	0.46
24:BA:2109:U:H6	24:BA:2109:U:O5'	1.97	0.46
24:BA:2173:A:H2'	24:BA:2173:A:N3	2.29	0.46
17:CT:92:ARG:HG3	17:CT:92:ARG:NH1	2.30	0.46
1:CA:458:C:H2'	1:CA:464:G:C8	2.50	0.46
12:AO:79:GLU:O	12:AO:81:SER:N	2.49	0.46
15:CR:77:ARG:HA	15:CR:80:ALA:HB3	1.95	0.46
1:AA:1434:A:H2'	1:AA:1435:G:O4'	2.15	0.46
4:AG:92:VAL:O	4:AG:96:LEU:HD23	2.15	0.46
1:AA:481:G:H2'	1:AA:483:C:N4	2.30	0.46
16:AS:21:VAL:O	16:AS:21:VAL:HG13	2.15	0.46
1:CA:975:A:N6	10:CM:60:ARG:NH1	2.63	0.46
1:AA:948:C:C6	13:AP:106:ASN:ND2	2.83	0.46
6:CI:40:VAL:HG22	6:CI:41:GLU:H	1.80	0.46
6:CI:100:ASN:HD22	6:CI:100:ASN:HA	1.47	0.46
15:AR:16:ALA:HB1	15:AR:21:ASP:HB3	1.95	0.46
16:CS:13:HIS:C	16:CS:15:PRO:HD3	2.36	0.46
54:DA:1786:A:N1	54:DA:2606:C:H1'	2.30	0.46
1:CA:604:G:O2'	1:CA:605:U:H5'	2.14	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:34:ALA:HA	42:BT:38:GLU:OE2	2.16	0.46
1:AA:1186:G:N2	1:AA:1187:G:H1'	2.30	0.46
44:DV:45:ASP:OD1	44:DV:49:ARG:NE	2.41	0.46
3:CF:172:ARG:O	3:CF:173:VAL:CG2	2.63	0.46
54:DA:163:U:H6	54:DA:163:U:H5'	1.80	0.46
54:DA:720:C:H2'	54:DA:721:C:H6	1.79	0.46
45:B3:72:ARG:CZ	45:B3:75:LEU:HD12	2.45	0.46
34:DO:37:GLY:O	34:DO:41:ARG:HD3	2.15	0.46
22:CC:64:G:H2'	22:CC:65:C:C6	2.50	0.46
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.50	0.46
54:DA:185:U:H2'	54:DA:186:G:H8	1.79	0.46
8:CK:80:ILE:HG23	8:CK:137:VAL:HG12	1.97	0.46
29:DG:135:LEU:HD11	29:DG:157:ILE:HD12	1.98	0.46
5:CH:96:PRO:HA	5:CH:117:ASP:CG	2.35	0.46
40:D2:61:VAL:HA	40:D2:94:LEU:HD23	1.97	0.46
24:BA:1517:G:H2'	24:BA:1518:C:H6	1.80	0.46
55:DB:65:C:C2'	55:DB:66:A:H5'	2.45	0.46
1:CA:1000:A:C2'	1:CA:1001:G:H5'	2.46	0.46
1:AA:1453:G:C2'	1:AA:1454:G:OP1	2.63	0.46
54:DA:1322:A:OP1	41:DS:11:ARG:HG3	2.15	0.46
1:AA:87:A:H2'	1:AA:87:A:N3	2.29	0.46
47:BW:70:GLN:HG2	47:BW:71:ASN:H	1.80	0.46
1:CA:1268:A:H4'	21:CX:19:GLY:C	2.36	0.46
41:BS:8:ARG:O	41:BS:9:TYR:HB2	2.14	0.46
45:B3:16:SER:O	45:B3:17:GLN:O	2.32	0.46
1:CA:1388:C:H2'	1:CA:1389:C:C6	2.51	0.46
14:CQ:36:PHE:CD1	14:CQ:36:PHE:C	2.88	0.46
10:CM:80:LYS:HB2	10:CM:80:LYS:NZ	2.30	0.46
44:BV:38:TYR:O	44:BV:38:TYR:CD1	2.68	0.46
54:DA:1383:C:O5'	54:DA:1383:C:H6	1.99	0.46
54:DA:2141:G:O2'	54:DA:2142:C:H5'	2.15	0.46
24:BA:2455:G:H2'	24:BA:2456:C:C6	2.49	0.46
30:DH:89:ILE:H	30:DH:89:ILE:HD13	1.80	0.46
30:DH:94:TYR:N	30:DH:94:TYR:CD1	2.82	0.46
1:CA:794:A:H4'	1:CA:1521:G:O2'	2.15	0.46
1:AA:1320:C:H1'	19:AV:73:GLU:CG	2.46	0.46
1:AA:1325:C:OP1	21:AX:15:ARG:HD2	2.15	0.46
1:AA:975:A:H8	1:AA:1365:G:N2	2.12	0.46
1:AA:974:A:C2'	1:AA:975:A:OP2	2.64	0.46
13:AP:15:VAL:N	13:AP:45:VAL:HG23	2.31	0.46
14:AQ:34:TYR:HD1	14:AQ:34:TYR:N	2.14	0.46
10:AM:47:PHE:CB	14:AQ:34:TYR:HE2	2.29	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:B4:43:TYR:C	49:B4:43:TYR:CD1	2.88	0.46
49:B4:56:VAL:O	49:B4:60:GLN:HB2	2.15	0.46
10:AM:40:LEU:HB3	10:AM:69:ASN:HB3	1.97	0.46
2:AE:133:LYS:HB3	2:AE:137:ARG:NH1	2.30	0.46
54:DA:1061:U:C3'	54:DA:1062:G:H5''	2.35	0.46
44:DV:128:VAL:HG22	44:DV:129:SER:H	1.80	0.46
30:BH:34:GLU:O	30:BH:35:VAL:HG23	2.15	0.46
24:BA:1359:A:H2	24:BA:1360:A:H1'	1.79	0.46
24:BA:35:G:H1'	24:BA:454:A:C4	2.50	0.46
28:BF:151:SER:C	28:BF:152:GLU:HG3	2.36	0.46
43:BU:97:ARG:HH21	43:BU:98:VAL:HB	1.80	0.46
39:B1:58:ARG:O	39:B1:62:ILE:CD1	2.63	0.46
49:D4:55:ARG:C	49:D4:59:PHE:HB3	2.35	0.46
3:CF:113:ALA:O	3:CF:115:LEU:N	2.48	0.46
1:CA:1188:A:H4'	14:CQ:58:LYS:HZ2	1.81	0.46
26:DD:102:LYS:O	26:DD:103:ARG:HG3	2.15	0.46
11:AN:124:LYS:NZ	11:AN:125:PHE:HE1	2.13	0.46
38:DR:118:ARG:NH2	38:DR:121:ILE:HD12	2.31	0.46
3:AF:173:VAL:O	3:AF:175:LEU:HG	2.15	0.46
2:AE:163:PHE:HE1	2:AE:215:LEU:HD13	1.81	0.46
2:AE:17:PHE:HZ	2:AE:44:LEU:HB3	1.79	0.46
2:AE:35:GLU:HA	2:AE:41:ILE:HD13	1.96	0.46
53:D8:40:GLU:C	53:D8:42:ARG:N	2.68	0.46
23:C1:12:A:H3'	23:C1:13:A:C5'	2.34	0.46
1:CA:1534:A:N3	1:CA:1534:A:H2'	2.31	0.46
54:DA:1179:C:C3'	54:DA:1180:C:H5''	2.43	0.46
27:BE:68:ALA:C	27:BE:70:ALA:N	2.68	0.46
8:CK:28:ALA:CB	8:CK:57:PRO:HB2	2.45	0.46
24:BA:1906:G:C8	24:BA:1929:G:N3	2.83	0.46
31:DK:37:VAL:HG12	31:DK:38:LEU:N	2.30	0.46
54:DA:2791:C:C1'	54:DA:2792:G:N7	2.77	0.46
44:BV:105:VAL:HG12	44:BV:139:VAL:HB	1.97	0.46
54:DA:2760:C:C3'	54:DA:2761:G:H5''	2.46	0.46
5:AH:93:PRO:HG2	8:AK:105:ARG:CZ	2.44	0.46
34:DO:46:LYS:O	34:DO:48:PRO:N	2.48	0.46
30:BH:151:ILE:HG22	30:BH:151:ILE:O	2.13	0.46
24:BA:264:C:C2'	24:BA:265:A:O5'	2.64	0.46
22:AC:59:A:H2'	22:AC:60:U:H5'	1.96	0.46
1:AA:1178:G:H5'	9:AL:93:ARG:NH2	2.25	0.46
30:BH:86:GLU:O	30:BH:87:LEU:CB	2.64	0.46
54:DA:2481:G:O2'	54:DA:2482:G:P	2.73	0.46
7:CJ:108:ALA:C	7:CJ:110:GLN:H	2.19	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1187:G:O5'	24:BA:1187:G:C8	2.68	0.46
54:DA:1833:U:C2	54:DA:1834:U:C6	3.03	0.46
54:DA:1833:U:N3	54:DA:1834:U:C5	2.83	0.46
17:AT:75:ARG:O	17:AT:75:ARG:HD2	2.15	0.46
33:DN:7:TYR:CD1	33:DN:20:MET:HB2	2.50	0.46
1:AA:529:G:H4'	1:AA:533:A:C2	2.51	0.46
24:BA:2866:U:H1'	24:BA:2868:A:O4'	2.15	0.46
54:DA:1406:U:H2'	54:DA:1407:C:H6	1.77	0.46
1:AA:1181:G:OP2	1:AA:1181:G:O4'	2.33	0.46
11:CN:34:ASP:HB2	11:CN:35:PRO:CD	2.45	0.46
54:DA:1251:C:O2'	54:DA:1252:G:H3'	2.14	0.46
5:AH:59:GLY:O	5:AH:60:TYR:C	2.54	0.46
1:CA:1346:A:H1'	1:CA:1348:U:C2	2.50	0.46
54:DA:2277:G:H2'	54:DA:2278:A:C5'	2.44	0.46
7:AJ:102:ARG:HG2	7:AJ:106:GLN:OE1	2.15	0.46
33:BN:13:ASN:C	33:BN:15:GLY:H	2.17	0.46
2:CE:174:VAL:O	2:CE:178:ARG:HB3	2.15	0.46
8:CK:68:ARG:HG2	8:CK:68:ARG:HH11	1.81	0.46
24:BA:2050:C:H1'	27:BE:156:MET:HE1	1.95	0.46
45:B3:45:PHE:O	45:B3:59:LEU:HD11	2.16	0.46
54:DA:2318:G:C2'	54:DA:2319:G:OP1	2.64	0.46
22:CD:70:G:O2'	22:CD:71:C:H5'	2.15	0.46
1:CA:448:A:OP2	1:CA:485:G:N2	2.30	0.46
27:DE:188:VAL:HG13	27:DE:188:VAL:O	2.15	0.46
1:CA:1176:A:H2'	1:CA:1177:G:C5'	2.40	0.46
3:CF:52:LEU:CD2	3:CF:52:LEU:H	2.20	0.46
3:CF:73:PRO:O	3:CF:77:ILE:HG13	2.16	0.46
18:CU:43:PHE:C	18:CU:44:LEU:HD12	2.36	0.46
34:DO:12:ALA:C	34:DO:14:LYS:H	2.17	0.46
8:AK:6:ILE:HG21	8:AK:85:ARG:HH12	1.79	0.46
3:CF:134:ILE:HG23	3:CF:151:VAL:HB	1.98	0.46
9:CL:17:VAL:HG11	9:CL:81:ILE:HA	1.96	0.46
24:BA:1252:G:H1'	39:B1:33:ARG:HD3	1.97	0.46
1:CA:920:U:H1'	1:CA:1080:A:N3	2.31	0.46
29:DG:104:GLU:OE1	49:D4:23:GLU:HB3	2.15	0.46
24:BA:2389:G:C5'	24:BA:2390:U:H5'	2.42	0.46
4:CG:146:ILE:N	4:CG:146:ILE:CD1	2.73	0.46
2:AE:208:ILE:HA	2:AE:211:ILE:CD1	2.41	0.46
2:AE:77:ALA:HB2	2:AE:211:ILE:HD13	1.96	0.46
6:AI:59:TYR:CD2	6:AI:61:LEU:HD11	2.50	0.46
6:CI:41:GLU:HG2	6:CI:43:LEU:CD1	2.44	0.46
35:BP:16:ARG:CG	35:BP:16:ARG:HH11	2.28	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DN:61:VAL:O	33:DN:84:ALA:HB1	2.16	0.46
45:D3:66:VAL:HG22	45:D3:82:ARG:HB3	1.96	0.46
1:AA:48:C:H6	1:AA:365:U:O4	1.98	0.46
24:BA:1076:C:H2'	24:BA:1077:A:C8	2.50	0.46
42:DT:26:TYR:HB3	42:DT:92:LEU:HD12	1.97	0.46
31:DK:139:GLN:HB2	31:DK:139:GLN:HE21	1.51	0.46
1:AA:1114:C:H2'	1:AA:1115:C:C6	2.50	0.46
32:BM:71:ILE:HD12	32:BM:71:ILE:N	2.29	0.46
1:AA:9:G:H2'	1:AA:10:A:C8	2.50	0.46
44:BV:15:PRO:HG2	44:BV:16:SER:N	2.30	0.46
38:DR:96:ARG:HH11	38:DR:96:ARG:CB	2.29	0.46
24:BA:2592:G:C6	24:BA:2593:U:C4	3.04	0.46
36:B0:18:LEU:CD1	36:B0:22:ARG:HE	2.28	0.46
41:DS:36:LEU:CD1	41:DS:47:VAL:HG12	2.44	0.46
8:CK:39:LEU:C	8:CK:45:ILE:HG12	2.35	0.46
26:DD:165:ILE:C	26:DD:166:GLN:HE21	2.18	0.46
1:CA:719:C:C2	18:CU:50:ILE:HD13	2.51	0.46
1:AA:995:C:O2'	1:AA:996:A:H5'	2.15	0.46
1:AA:724:G:H2'	1:AA:725:G:H8	1.80	0.46
24:BA:921:G:N2	45:B3:26:TYR:CD2	2.84	0.46
37:BQ:3:ARG:NH1	45:B3:74:ARG:HH22	2.13	0.46
32:BM:10:GLU:OE2	32:BM:11:PRO:HD2	2.15	0.46
55:DB:75:G:H21	44:DV:85:HIS:CE1	2.34	0.46
28:BF:200:GLU:O	28:BF:203:GLN:N	2.47	0.46
4:CG:7:PRO:HB2	4:CG:10:ARG:HD2	1.96	0.46
24:BA:1458:C:H5''	24:BA:1459:G:C5'	2.46	0.46
24:BA:365:C:O2'	24:BA:366:C:H5'	2.16	0.46
54:DA:846:C:O2'	54:DA:847:U:P	2.73	0.46
24:BA:43:G:H2'	24:BA:44:A:C8	2.50	0.46
24:BA:1387:C:C2	24:BA:1388:G:C8	3.03	0.46
54:DA:1637:A:H2'	54:DA:1638:C:C6	2.50	0.46
54:DA:1368:G:O2'	54:DA:1369:G:H5'	2.15	0.46
54:DA:1550:C:H2'	54:DA:1551:C:H6	1.81	0.46
54:DA:2588:G:O2'	54:DA:2589:A:H5'	2.15	0.46
41:BS:84:ARG:HG3	41:BS:98:LYS:NZ	2.30	0.46
37:DQ:24:LEU:HB2	37:DQ:85:VAL:HG12	1.98	0.46
10:AM:80:LYS:HB2	10:AM:80:LYS:NZ	2.31	0.46
54:DA:1854:A:H2'	54:DA:1855:G:O4'	2.15	0.46
55:DB:76:G:N2	55:DB:100:G:O6	2.46	0.46
24:BA:1971:A:C4	26:BD:241:PRO:HD3	2.50	0.46
19:AV:62:ILE:CA	19:AV:66:MET:HE1	2.45	0.46
29:BG:181:ARG:O	29:BG:182:LYS:HB2	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1129:C:N3	1:AA:1139:G:N2	2.63	0.46
54:DA:1086:A:H3'	54:DA:1086:A:N3	2.30	0.46
31:DK:92:VAL:HG13	31:DK:92:VAL:O	2.16	0.46
44:DV:102:LEU:CD1	44:DV:171:ILE:HD11	2.46	0.46
24:BA:2748:A:N7	24:BA:2757:A:N1	2.64	0.46
30:BH:26:VAL:H	30:BH:32:GLU:H	1.62	0.46
30:BH:59:ARG:C	30:BH:61:HIS:N	2.68	0.46
30:DH:86:GLU:O	30:DH:87:LEU:CB	2.64	0.46
24:BA:627:A:C8	24:BA:627:A:OP2	2.68	0.46
34:BO:106:LEU:HD21	34:BO:112:LEU:HB2	1.96	0.46
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.50	0.46
24:BA:270(A):A:C5'	46:BZ:97:LEU:HD22	2.41	0.46
26:DD:35:LYS:HE3	26:DD:65:ILE:N	2.31	0.46
1:CA:1446:A:C5	38:DR:118:ARG:NH1	2.83	0.46
1:CA:1400:C:H5''	1:CA:1401:G:OP2	2.15	0.46
27:BE:53:PRO:O	27:BE:54:GLN:C	2.54	0.46
15:AR:63:ARG:CZ	15:AR:87:ILE:HD13	2.46	0.46
11:CN:80:VAL:O	11:CN:106:LYS:HD3	2.16	0.46
1:AA:412:A:O2'	1:AA:413:G:OP2	2.32	0.46
39:D1:73:GLY:O	39:D1:74:LEU:CB	2.63	0.46
24:BA:1555:G:C2	24:BA:1556:C:C5	3.03	0.46
2:CE:17:PHE:CD2	2:CE:44:LEU:HD21	2.47	0.46
54:DA:803:U:C2'	54:DA:804:A:H5'	2.45	0.46
53:B8:56:GLU:N	53:B8:56:GLU:OE1	2.43	0.46
32:DM:97:ARG:HA	32:DM:100:GLU:HB3	1.97	0.46
54:DA:1543:A:O2'	54:DA:1544:C:P	2.73	0.46
10:AM:31:GLY:O	10:AM:81:THR:HG21	2.16	0.46
36:D0:79:LEU:HD23	36:D0:79:LEU:O	2.16	0.46
54:DA:897:C:H4'	60:DA:2927:U:H4'	1.97	0.46
44:BV:5:LEU:HB3	44:BV:59:LEU:HA	1.97	0.46
54:DA:2406:U:O4'	34:DO:75:ILE:HG22	2.16	0.46
54:DA:2408:U:H2'	54:DA:2409:G:H8	1.81	0.46
24:BA:2391:G:O2'	24:BA:2392:A:P	2.73	0.46
55:DB:81:G:N2	55:DB:82:G:N7	2.62	0.46
34:BO:32:THR:HG23	34:BO:32:THR:O	2.16	0.46
1:AA:935:A:H2'	1:AA:936:C:C6	2.49	0.46
30:DH:4:ILE:HG13	30:DH:6:ARG:HD3	1.97	0.46
12:AO:100:ILE:HG22	12:AO:101:VAL:N	2.30	0.46
8:CK:49:GLU:HG3	8:CK:49:GLU:O	2.15	0.46
24:BA:800:A:C4'	24:BA:801:G:O5'	2.55	0.46
9:CL:118:LYS:HB2	9:CL:118:LYS:HZ2	1.80	0.46
24:BA:1312:U:C3'	42:BT:63:LYS:HZ3	2.29	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:54:VAL:HA	13:AP:57:ARG:NE	2.30	0.46
26:DD:206:LEU:HD23	26:DD:206:LEU:HA	1.49	0.46
54:DA:270(B):A:C8	54:DA:270(C):C:C5	3.03	0.46
38:BR:94:ALA:C	38:BR:96:ARG:H	2.19	0.46
38:DR:54:ARG:NH1	38:DR:54:ARG:HG2	2.23	0.46
2:AE:100:GLY:O	2:AE:101:MET:C	2.53	0.46
44:DV:27:VAL:CG2	44:DV:28:MET:N	2.77	0.46
44:DV:30:ASN:CB	44:DV:89:PHE:HE2	2.27	0.46
46:BZ:4:VAL:HG11	46:BZ:11:ARG:HH12	1.77	0.46
24:BA:1604:C:HO2'	24:BA:1610:A:H61	1.62	0.46
24:BA:2584:U:C6	24:BA:2585:U:C4	3.04	0.46
31:BK:51:ILE:C	31:BK:53:ALA:N	2.69	0.46
38:BR:125:ARG:O	38:BR:129:ARG:NH1	2.49	0.46
8:AK:40:ALA:O	8:AK:43:GLY:N	2.36	0.46
40:B2:44:LYS:C	40:B2:46:VAL:N	2.68	0.46
13:AP:32:GLU:O	13:AP:35:GLU:HG3	2.15	0.46
24:BA:2195:C:O2'	24:BA:2196:C:H5'	2.16	0.46
31:DK:99:GLU:CG	31:DK:103:ARG:NH2	2.75	0.46
24:BA:662:G:OP1	34:BO:15:ARG:NE	2.49	0.46
24:BA:2886:G:H2'	24:BA:2887:U:H6	1.81	0.46
47:BW:64:LEU:C	47:BW:64:LEU:HD23	2.36	0.46
9:AL:128:ARG:NH1	9:AL:128:ARG:HG2	2.31	0.46
29:BG:118:ARG:NH1	29:BG:118:ARG:HG2	2.28	0.46
22:AC:1:C:H2'	22:AC:2:G:OP2	2.15	0.46
54:DA:2023:G:H5'	54:DA:2617:C:H4'	1.98	0.46
54:DA:2620:C:OP1	27:DE:152:LYS:O	2.33	0.46
24:BA:981:A:C8	24:BA:982:C:C5	3.01	0.46
32:DM:30:ILE:O	32:DM:34:LEU:CD2	2.63	0.46
1:CA:271:C:H2'	1:CA:272:C:C6	2.50	0.46
1:AA:1137:C:O4'	1:AA:1138:G:C2	2.68	0.46
24:BA:80:G:O2'	24:BA:81:G:H5'	2.15	0.46
45:D3:55:ARG:HB2	45:D3:55:ARG:CZ	2.45	0.46
1:CA:1413:A:H2'	1:CA:1414:U:H6	1.80	0.46
33:DN:101:PRO:HA	33:DN:120:GLU:O	2.16	0.46
1:CA:60:A:H1'	1:CA:61:G:O4'	2.16	0.46
22:CC:65:C:H2'	22:CC:66:C:H6	1.81	0.46
39:D1:27:LEU:O	39:D1:30:LYS:N	2.41	0.46
54:DA:2348:U:C4	54:DA:2382:G:N2	2.83	0.46
1:CA:708:C:O2'	1:CA:709:G:H5'	2.16	0.46
54:DA:271(C):U:O2'	54:DA:271:G:P	2.73	0.46
24:BA:405:U:C2'	24:BA:405:U:O2	2.63	0.46
24:BA:271(B):G:H4'	24:BA:271(C):U:OP1	2.14	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2247:A:H2'	24:BA:2248:C:H6	1.80	0.46
1:AA:865:A:H5'	1:AA:1078:U:O4	2.16	0.46
54:DA:140:A:H8	54:DA:1408:C:O2'	1.99	0.46
54:DA:2736:G:O2'	54:DA:2737:G:H5'	2.14	0.46
35:DP:109:VAL:HG13	35:DP:113:GLN:OE1	2.16	0.46
44:BV:12:GLY:O	44:BV:13:GLU:O	2.34	0.46
24:BA:1334:G:O2'	24:BA:1335:U:H5'	2.16	0.46
47:BW:70:GLN:O	47:BW:71:ASN:C	2.54	0.46
29:DG:20:ILE:HD13	29:DG:25:TYR:HB2	1.98	0.46
54:DA:751:A:H5'	41:DS:90:ARG:HA	1.98	0.46
54:DA:2447:G:H3'	54:DA:2500:U:OP2	2.15	0.46
1:AA:833:U:H2'	1:AA:834:C:H6	1.81	0.46
24:BA:735:A:C8	24:BA:736:C:C5	3.03	0.46
30:BH:118:PRO:HG2	30:BH:121:ILE:HG13	1.97	0.46
54:DA:2852:G:H2'	54:DA:2853:C:O4'	2.16	0.46
1:CA:663:A:H2'	1:CA:664:G:O4'	2.16	0.46
1:CA:767:A:H2'	1:CA:768:A:O4'	2.15	0.46
3:CF:23:TYR:CG	3:CF:24:ALA:N	2.83	0.46
54:DA:456:C:C4	42:DT:69:TYR:CE1	3.04	0.46
3:AF:11:ARG:HE	3:AF:180:ALA:HB3	1.81	0.46
13:AP:81:LEU:HD22	13:AP:88:ARG:C	2.36	0.46
54:DA:1509:C:N4	54:DA:1511:A:N6	2.63	0.46
26:DD:48:ARG:NH1	26:DD:48:ARG:HG3	2.31	0.46
24:BA:1483:G:C6	24:BA:1507:A:C2	3.03	0.46
24:BA:1212:G:C2'	24:BA:1213:A:OP2	2.63	0.46
31:BK:82:ARG:NH1	31:BK:82:ARG:CG	2.73	0.46
10:CM:38:ILE:CD1	10:CM:71:LEU:HB3	2.46	0.46
1:AA:1075:C:H4'	1:AA:1101:A:N6	2.30	0.46
2:AE:22:LYS:O	2:AE:23:ARG:C	2.54	0.46
53:D8:29:LYS:HE3	53:D8:41:ILE:O	2.15	0.46
24:BA:675:A:H4'	28:BF:63:LYS:NZ	2.30	0.46
24:BA:558:G:H5''	32:BM:112:LEU:HD22	1.98	0.46
1:CA:686:U:C2'	1:CA:687:A:O5'	2.64	0.46
1:CA:703:G:O2'	1:CA:704:A:H8	1.98	0.46
1:CA:1352:C:P	21:CX:3:LYS:HZ1	2.38	0.46
4:AG:36:ARG:CD	4:AG:38:TYR:CE2	2.99	0.46
53:B8:32:LEU:CD2	53:B8:33:ASN:H	2.28	0.46
39:D1:69:CYS:O	39:D1:74:LEU:HD12	2.16	0.46
35:DP:66:ILE:H	35:DP:104:PHE:HA	1.80	0.46
35:DP:63:LYS:HE2	35:DP:65:PHE:CZ	2.51	0.46
24:BA:265:A:HO2'	24:BA:266:G:P	2.38	0.46
54:DA:1543:A:C2	54:DA:1545:A:C4	3.03	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:86:ILE:CG1	8:CK:133:LEU:HD22	2.46	0.46
35:BP:26:TYR:HE1	35:BP:140:ALA:HA	1.81	0.46
10:AM:33:GLN:N	10:AM:75:ILE:HG12	2.28	0.46
50:D5:54:GLY:O	50:D5:55:ARG:C	2.54	0.46
29:DG:36:LYS:O	29:DG:37:VAL:HG23	2.15	0.46
37:DQ:61:ASN:O	37:DQ:65:VAL:HG23	2.15	0.46
15:AR:55:GLY:HA2	15:AR:58:MET:HE3	1.97	0.46
38:DR:6:LEU:O	38:DR:10:VAL:HG23	2.16	0.46
54:DA:1929:G:C5'	54:DA:1930:G:OP1	2.61	0.46
26:DD:79:VAL:HG21	26:DD:111:LEU:HD21	1.98	0.46
24:BA:88:G:H5'	24:BA:90:U:H5	1.80	0.46
20:CW:99:LEU:O	20:CW:100:ILE:HB	2.15	0.46
29:BG:69:ALA:O	29:BG:90:LEU:HA	2.15	0.46
24:BA:1817:G:H5''	26:BD:88:ARG:NH2	2.31	0.46
17:CT:100:LYS:O	17:CT:101:ARG:HB2	2.15	0.46
31:DK:9:LEU:HD21	31:DK:12:LEU:O	2.15	0.46
54:DA:2439:A:H4'	54:DA:2440:C:O5'	2.15	0.46
1:AA:1004:A:C4	1:AA:1025:U:O4	2.69	0.46
24:BA:1454:U:O2'	24:BA:1455:G:H8	1.93	0.46
54:DA:2655:G:N2	54:DA:2665:A:OP2	2.49	0.46
54:DA:1578:U:O2	54:DA:1578:U:H2'	2.15	0.46
1:AA:738:C:H5''	6:AI:69:GLU:HB2	1.97	0.46
32:DM:128:HIS:HB2	32:DM:129:PRO:CD	2.46	0.46
24:BA:2674:G:H2'	24:BA:2675:A:O4'	2.15	0.46
2:AE:101:MET:HE2	2:AE:108:ILE:CG2	2.46	0.46
58:DA:2912:G:C2'	59:DA:2913:C:C5'	2.93	0.46
54:DA:1311:G:O2'	54:DA:1312:U:OP2	2.31	0.46
35:BP:122:GLY:HA2	35:BP:129:THR:HG21	1.98	0.46
44:BV:122:ARG:HH11	44:BV:122:ARG:HG2	1.80	0.46
3:AF:59:ARG:CZ	3:AF:97:LYS:NZ	2.74	0.46
3:AF:22:TRP:HB3	3:AF:59:ARG:HB2	1.98	0.46
9:CL:83:ARG:C	9:CL:86:VAL:HG12	2.36	0.46
55:DB:15:A:C5'	55:DB:16:G:C8	2.96	0.46
32:BM:18:ALA:O	32:BM:21:LYS:HG2	2.15	0.46
26:DD:148:GLU:HB2	26:DD:151:LYS:HD2	1.98	0.46
4:CG:135:LEU:C	4:CG:137:SER:H	2.18	0.46
4:CG:135:LEU:O	4:CG:137:SER:N	2.48	0.46
24:BA:2712:U:O4'	24:BA:2712:U:O2	2.32	0.46
54:DA:71:A:C2	42:DT:31:HIS:CE1	3.01	0.46
1:AA:373:A:C4	1:AA:482:A:N7	2.83	0.46
29:BG:130:ASN:OD1	29:BG:160:VAL:HA	2.15	0.46
29:BG:160:VAL:CG1	29:BG:161:THR:H	2.28	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:4:LYS:O	3:AF:5:ILE:C	2.54	0.46
26:DD:117:VAL:CG2	26:DD:128:GLY:C	2.84	0.46
54:DA:864:G:H21	54:DA:866:A:H61	1.62	0.46
42:DT:65:ARG:CD	42:DT:65:ARG:N	2.79	0.46
54:DA:447:A:N1	54:DA:454:A:H2'	2.30	0.46
55:DB:56:G:H4'	55:DB:57:A:C8	2.50	0.46
1:CA:1301:U:H2'	1:CA:1302:U:O5'	2.16	0.46
1:AA:619:U:H3	4:AG:135:LEU:CD1	2.28	0.46
24:BA:2556:C:H2'	24:BA:2557:G:C5'	2.46	0.46
16:CS:30:GLY:O	16:CS:31:LYS:C	2.54	0.46
24:BA:363(B):G:H2'	24:BA:363(C):G:C8	2.50	0.46
54:DA:2224:G:OP1	26:DD:268:ARG:HD3	2.15	0.46
24:BA:466:A:OP1	52:B7:34:ARG:NH1	2.49	0.46
1:CA:333:G:H2'	1:CA:334:C:H6	1.81	0.46
26:DD:198:ASN:ND2	26:DD:198:ASN:C	2.69	0.46
24:BA:1530:G:H2'	24:BA:1531:C:C6	2.49	0.46
1:AA:45:U:H2'	1:AA:46:G:C8	2.51	0.46
54:DA:270(M):U:H4'	54:DA:270(M):U:OP1	2.15	0.46
30:DH:106:THR:HG22	30:DH:112:PRO:HB3	1.97	0.46
4:AG:148:VAL:HG12	4:AG:148:VAL:O	2.16	0.46
24:BA:1394:U:H3'	24:BA:1394:U:H6	1.81	0.46
24:BA:380:U:H5'	46:BZ:18:ILE:HD12	1.98	0.46
54:DA:2895:U:H2'	54:DA:2896:C:C6	2.51	0.46
54:DA:773:U:H5'	26:DD:47:GLY:HA2	1.97	0.46
1:AA:1305:G:C2	1:AA:1331:G:N3	2.83	0.46
19:AV:10:PHE:CD1	19:AV:11:VAL:N	2.83	0.46
19:AV:65:ASN:ND2	49:B4:55:ARG:NH1	2.63	0.46
19:AV:42:PRO:HD2	49:B4:63:TYR:OH	2.16	0.46
9:AL:27:THR:O	9:AL:28:VAL:CB	2.64	0.46
9:AL:40:LEU:CD2	9:AL:42:ARG:HG2	2.46	0.46
30:BH:137:ASP:HB2	30:BH:140:LYS:CE	2.46	0.46
24:BA:1205:U:C4'	24:BA:1206:G:OP2	2.63	0.46
26:DD:14:ARG:HG3	26:DD:15:PHE:N	2.31	0.46
13:CP:65:LYS:HZ3	49:D4:52:THR:HG21	1.80	0.46
2:CE:77:ALA:HB1	2:CE:211:ILE:HG21	1.97	0.46
28:BF:28:ILE:HA	28:BF:112:MET:CE	2.45	0.46
53:D8:44:LYS:HD2	53:D8:44:LYS:N	2.30	0.46
27:DE:63:LEU:O	27:DE:64:LYS:CB	2.62	0.46
27:BE:51:PHE:O	27:BE:74:PRO:CB	2.63	0.46
21:CX:14:TRP:CE3	21:CX:15:ARG:NH1	2.83	0.46
1:CA:1002:G:N3	1:CA:1003:G:N7	2.63	0.46
4:AG:18:LYS:HG2	4:AG:21:LEU:HD21	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DM:36:GLY:O	32:DM:42:TRP:HE3	1.98	0.46
37:DQ:108:GLY:O	37:DQ:110:LEU:N	2.48	0.46
44:BV:173:ALA:HB1	44:BV:175:VAL:HG13	1.97	0.46
24:BA:1557:C:H5''	24:BA:1558:A:OP2	2.16	0.46
1:CA:198:G:H2'	1:CA:199:G:H8	1.80	0.46
44:BV:72:ARG:O	44:BV:73:GLN:CB	2.63	0.46
24:BA:241:A:H5'	24:BA:243:U:O4'	2.16	0.46
24:BA:2291:U:H5''	24:BA:2380:C:O2	2.16	0.46
24:BA:84:A:H3'	43:BU:8:LYS:NZ	2.31	0.46
34:BO:47:ASP:CB	34:BO:48:PRO:CA	2.85	0.46
34:BO:48:PRO:O	34:BO:49:ARG:C	2.54	0.46
28:BF:121:GLY:O	28:BF:122:LYS:HD3	2.16	0.46
24:BA:428:A:N6	24:BA:429:A:N1	2.63	0.46
37:DQ:28:VAL:HG11	37:DQ:98:VAL:HG12	1.97	0.46
49:B4:2:LYS:HG2	49:B4:5:ILE:HG21	1.97	0.46
7:CJ:140:ASP:C	7:CJ:142:GLU:N	2.69	0.46
1:AA:1161:C:H2'	1:AA:1162:C:H6	1.78	0.46
53:D8:48:PHE:HD1	53:D8:48:PHE:N	2.14	0.46
1:CA:346:G:C5'	38:DR:41:ARG:HH11	2.29	0.46
54:DA:1963:U:C2'	54:DA:1963:U:O2	2.63	0.46
47:BW:53:LEU:CD2	47:BW:57:ILE:HD11	2.46	0.46
4:AG:145:GLU:C	4:AG:146:ILE:HD12	2.35	0.46
20:CW:96:GLY:O	20:CW:99:LEU:HD13	2.16	0.46
34:DO:1:MET:O	34:DO:2:LYS:HG3	2.16	0.46
28:BF:101:LEU:CD1	28:BF:102:PRO:HD2	2.45	0.46
1:AA:1200:C:H1'	1:AA:1204:A:H62	1.76	0.46
29:DG:102:PHE:HA	29:DG:105:LYS:HE3	1.98	0.46
4:AG:127:THR:HA	4:AG:132:ARG:HA	1.96	0.46
44:DV:5:LEU:O	44:DV:5:LEU:HD13	2.16	0.46
54:DA:1871:A:H2'	54:DA:1872:A:H8	1.79	0.46
40:D2:16:PRO:HA	40:D2:96:ILE:O	2.14	0.46
44:BV:171:ILE:O	44:BV:171:ILE:CG2	2.63	0.46
1:CA:1346:A:H5'	9:CL:120:ARG:NH1	2.30	0.46
1:CA:1296:C:H3'	1:CA:1297:C:H6	1.81	0.46
30:DH:53:GLU:HA	30:DH:53:GLU:OE1	2.16	0.46
26:DD:205:VAL:O	26:DD:206:LEU:C	2.52	0.46
54:DA:2665:A:H2'	54:DA:2666:C:O5'	2.15	0.46
1:AA:651:C:H2'	1:AA:652:U:O4'	2.16	0.46
27:DE:7:VAL:HG11	38:DR:1:MET:CE	2.45	0.46
24:BA:2273:A:O2'	24:BA:2274:A:H5'	2.15	0.46
24:BA:2681:C:O2'	24:BA:2682:U:P	2.74	0.46
9:CL:28:VAL:O	9:CL:29:ASN:C	2.53	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:917:A:H2'	54:DA:918:A:C5'	2.45	0.46
8:AK:6:ILE:CB	8:AK:85:ARG:HH12	2.29	0.46
8:AK:6:ILE:HB	8:AK:85:ARG:HH12	1.79	0.46
46:BZ:11:ARG:HB2	46:BZ:12:PRO:CD	2.46	0.46
48:DX:43:ILE:O	48:DX:47:VAL:HG23	2.16	0.46
9:CL:42:ARG:O	9:CL:45:ALA:HB3	2.16	0.46
1:CA:376:G:O3'	16:CS:5:ARG:HD2	2.16	0.46
24:BA:617:G:H5'	28:BF:40:GLN:HE21	1.80	0.46
12:AO:27:LEU:CD1	12:AO:33:ARG:HB2	2.46	0.46
1:CA:475:G:O2'	1:CA:476:G:H5'	2.15	0.46
13:AP:83:ASP:CG	13:AP:84:ILE:N	2.65	0.46
12:CO:126:LYS:HB2	12:CO:126:LYS:HZ3	1.80	0.46
42:DT:12:VAL:HG13	42:DT:12:VAL:O	2.15	0.46
1:CA:1336:C:H4'	1:CA:1336:C:OP1	2.16	0.46
54:DA:545:G:H2'	54:DA:546:C:O5'	2.15	0.46
50:D5:20:ARG:C	50:D5:22:HIS:N	2.68	0.46
25:BB:12:C:H5"	25:BB:13:A:OP1	2.16	0.46
1:CA:1327:C:OP1	21:CX:21:TYR:CD1	2.66	0.46
24:BA:2332:U:H5'	45:B3:43:THR:HG21	1.97	0.46
34:DO:23:PRO:O	34:DO:23:PRO:HG2	2.15	0.46
35:DP:87:LYS:HG2	35:DP:87:LYS:O	2.15	0.46
3:AF:149:ALA:O	3:AF:169:ALA:HB1	2.15	0.46
48:DX:59:VAL:CG1	48:DX:60:GLU:H	2.28	0.46
9:CL:9:ARG:HA	9:CL:76:ALA:HB1	1.97	0.46
24:BA:210:C:H4'	24:BA:1367:A:H1'	1.98	0.46
38:BR:35:LYS:N	38:BR:35:LYS:CD	2.78	0.46
36:B0:23:ASN:ND2	36:B0:23:ASN:N	2.63	0.46
24:BA:920:G:O2'	24:BA:921:G:H5'	2.16	0.46
4:CG:110:PHE:HD1	4:CG:110:PHE:H	1.63	0.46
54:DA:2572:A:C8	27:DE:144:ARG:CB	2.98	0.46
24:BA:403:U:C2'	24:BA:404:C:OP2	2.64	0.46
1:CA:586:C:H1'	1:CA:878:G:O2'	2.16	0.46
1:AA:555:C:H2'	1:AA:556:C:H6	1.81	0.46
1:AA:956:U:O2'	1:AA:957:U:H5'	2.16	0.46
24:BA:2763:G:H5'	24:BA:2764:A:P	2.55	0.46
24:BA:1530:G:H2'	24:BA:1531:C:H6	1.80	0.46
54:DA:2623:G:OP1	54:DA:2826:A:H1'	2.15	0.46
24:BA:1632:A:C5	24:BA:1633:G:C6	3.02	0.46
44:BV:151:HIS:O	44:BV:152:ALA:O	2.33	0.46
1:CA:555:C:OP1	12:CO:20:LYS:NZ	2.49	0.46
24:BA:484:C:H2'	24:BA:485:C:H6	1.80	0.46
54:DA:551:G:H5'	54:DA:1220:A:H1'	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2321:G:N3	54:DA:2321:G:H2'	2.31	0.46
4:CG:157:LEU:CD1	4:CG:161:ASN:HD21	2.27	0.46
6:CI:22:GLU:CD	6:CI:82:ARG:HH21	2.18	0.46
24:BA:2307:G:O6	29:BG:42:GLY:O	2.32	0.46
29:BG:48:GLU:OE2	29:BG:48:GLU:HA	2.16	0.46
37:BQ:62:LYS:HD3	37:BQ:97:ARG:NH1	2.30	0.46
46:DZ:80:LEU:CB	46:DZ:81:LYS:HE2	2.44	0.46
10:AM:50:ILE:HG12	14:AQ:41:ARG:HD3	1.98	0.46
13:AP:19:LEU:O	13:AP:20:THR:C	2.53	0.46
19:AV:41:VAL:O	19:AV:41:VAL:CG2	2.56	0.46
19:AV:6:LYS:H	19:AV:6:LYS:NZ	2.11	0.46
1:AA:1129:C:C2	1:AA:1132:C:N4	2.83	0.46
44:BV:159:PRO:O	44:BV:160:GLY:C	2.54	0.46
44:DV:137:ILE:HG22	44:DV:158:PRO:HG2	1.98	0.46
24:BA:1049:C:N3	24:BA:1113:U:H4'	2.31	0.46
24:BA:1359:A:HO2'	24:BA:1360:A:P	2.39	0.46
34:BO:112:LEU:O	34:BO:128:HIS:HB2	2.14	0.46
54:DA:2752:C:H5'	54:DA:2753:A:OP2	2.16	0.46
13:CP:23:TYR:HB3	13:CP:67:GLU:HA	1.98	0.46
41:BS:88:ARG:CB	41:BS:92:ARG:HB3	2.46	0.46
3:CF:6:HIS:C	3:CF:8:ILE:H	2.18	0.46
26:DD:61:LEU:HB3	26:DD:63:ARG:NH1	2.31	0.46
2:AE:24:TRP:CH2	2:AE:26:PRO:HA	2.49	0.46
2:AE:92:TYR:C	2:AE:92:TYR:HD2	2.18	0.46
24:BA:2785:C:H4'	27:BE:35:GLN:OE1	2.15	0.46
9:CL:11:LYS:O	9:CL:12:GLU:HB2	2.16	0.46
44:BV:110:GLY:O	44:BV:111:VAL:HB	2.16	0.46
44:BV:105:VAL:HG12	44:BV:139:VAL:CB	2.46	0.46
4:AG:209:ARG:HG3	4:AG:209:ARG:HH11	1.80	0.46
44:BV:27:VAL:HG22	44:BV:28:MET:N	2.30	0.46
35:BP:141:GLN:CG	44:BV:75:ASN:ND2	2.72	0.46
37:BQ:10:ARG:C	37:BQ:12:PHE:N	2.66	0.46
36:B0:98:LEU:O	36:B0:113:LEU:N	2.49	0.46
36:D0:78:LYS:O	36:D0:78:LYS:HG2	2.15	0.46
29:BG:77:ILE:N	29:BG:77:ILE:HD12	2.30	0.46
37:BQ:34:HIS:HE2	37:BQ:54:LEU:HD23	1.80	0.46
37:BQ:34:HIS:HB3	37:BQ:35:ILE:H	1.48	0.46
1:AA:1176:A:H2'	1:AA:1177:G:C5'	2.43	0.46
1:AA:1118:C:OP1	9:AL:104:ARG:NH1	2.48	0.46
1:AA:501:C:P	12:AO:124:LYS:NZ	2.89	0.46
12:AO:126:LYS:O	12:AO:127:GLU:C	2.53	0.46
55:DB:37:C:C2'	55:DB:38:C:H5'	2.46	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DG:95:ARG:O	29:DG:96:ARG:C	2.54	0.46
30:BH:86:GLU:HB2	30:BH:87:LEU:H	1.57	0.46
1:CA:397:A:N7	1:CA:548:G:C8	2.84	0.46
44:BV:59:LEU:O	44:BV:60:GLU:CG	2.64	0.46
15:AR:64:ARG:CG	15:AR:64:ARG:NH1	2.76	0.46
34:BO:59:LEU:CD1	34:BO:60:MET:H	2.29	0.46
54:DA:1927:A:C6	54:DA:1928:A:C6	3.04	0.46
53:B8:49:VAL:CG1	53:B8:50:LEU:H	2.22	0.46
19:AV:83:HIS:O	19:AV:85:LYS:HG2	2.15	0.46
7:AJ:21:VAL:HG23	7:AJ:21:VAL:O	2.16	0.46
34:DO:85:LEU:HD23	34:DO:88:LEU:HD22	1.97	0.46
7:AJ:3:ARG:CG	7:AJ:3:ARG:O	2.63	0.46
19:CV:24:ALA:O	19:CV:25:LYS:CB	2.63	0.46
2:CE:95:GLN:OE1	2:CE:95:GLN:HA	2.16	0.46
10:CM:39:PRO:CB	10:CM:70:ARG:HH12	2.27	0.46
24:BA:386:G:C2'	24:BA:387:U:OP1	2.63	0.46
1:AA:1030:C:C6	1:AA:1030:C:OP1	2.69	0.46
54:DA:1944:U:H5''	54:DA:1945:G:OP2	2.15	0.46
29:DG:76:SER:CB	29:DG:83:ARG:HA	2.46	0.46
1:CA:1161:C:H2'	1:CA:1162:C:C6	2.51	0.46
1:CA:1160:G:N1	1:CA:1177:G:N2	2.64	0.46
24:BA:139:G:HO2'	24:BA:140:A:H2	1.61	0.46
54:DA:905:U:H3'	54:DA:906:G:H5''	1.96	0.46
1:AA:458:C:H2'	1:AA:464:G:C8	2.47	0.46
1:CA:89:U:O2'	1:CA:90:C:P	2.74	0.46
1:AA:1065:U:C2'	1:AA:1066:C:OP2	2.63	0.46
1:AA:1094:G:C2'	1:AA:1095:U:OP2	2.63	0.46
24:BA:1658:C:OP1	27:BE:135:HIS:NE2	2.48	0.46
1:CA:457:C:N4	1:CA:458:C:H41	2.14	0.46
18:AU:74:ARG:HB3	18:AU:81:PHE:CE1	2.51	0.46
40:B2:46:VAL:O	40:B2:46:VAL:CG2	2.64	0.46
36:B0:33:ARG:HG2	36:B0:115:GLU:CG	2.42	0.46
54:DA:1505:C:H2'	54:DA:1505:C:O2	2.16	0.46
1:CA:975:A:H62	10:CM:60:ARG:NH1	2.13	0.46
8:AK:36:LEU:HB3	8:AK:48:TYR:CE2	2.50	0.46
24:BA:278:A:HO2'	24:BA:279:C:P	2.39	0.46
32:BM:74:ARG:HG3	32:BM:74:ARG:HH11	1.81	0.46
1:AA:9:G:C6	1:AA:26:A:N6	2.84	0.46
26:DD:18:VAL:CG1	26:DD:19:ALA:N	2.78	0.46
24:BA:1964:G:O2'	24:BA:1967:C:OP1	2.30	0.46
1:AA:210:U:OP2	1:AA:210:U:O4'	2.33	0.46
1:CA:1379:G:H2'	1:CA:1380:U:C6	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:889:A:HO2'	1:AA:890:G:P	2.38	0.46
54:DA:988:A:H8	54:DA:988:A:O5'	1.99	0.46
24:BA:680:G:H2'	24:BA:681:G:H8	1.79	0.46
54:DA:2592:G:C5	54:DA:2593:U:C5	3.04	0.46
1:AA:865:A:C2	1:AA:918:A:H4'	2.51	0.46
41:DS:48:ALA:O	41:DS:49:LYS:C	2.53	0.46
54:DA:489:G:N7	41:DS:49:LYS:NZ	2.64	0.46
24:BA:301:G:O2'	24:BA:302:C:O4'	2.33	0.46
54:DA:590:A:H2'	54:DA:591:C:C6	2.50	0.46
50:D5:36:CYS:C	50:D5:38:ALA:H	2.19	0.46
1:AA:105:G:C6	1:AA:106:C:C4	3.03	0.46
1:CA:35:G:C6	1:CA:36:C:N4	2.84	0.46
54:DA:2024:G:H2'	54:DA:2025:C:H6	1.81	0.46
46:DZ:79:GLY:N	46:DZ:80:LEU:HD23	2.30	0.46
1:CA:794:A:H2'	1:CA:795:C:H6	1.81	0.46
1:CA:795:C:O2'	1:CA:1506:U:C1'	2.63	0.46
31:BK:93:THR:O	31:BK:97:ILE:HD13	2.16	0.46
1:AA:1306:A:H2'	1:AA:1307:U:C6	2.51	0.46
13:AP:49:THR:O	13:AP:49:THR:HG23	2.16	0.46
13:AP:67:GLU:C	13:AP:69:GLU:N	2.67	0.46
13:AP:86:CYS:SG	13:AP:88:ARG:N	2.88	0.46
21:AX:2:GLY:C	21:AX:4:GLY:N	2.67	0.46
49:B4:14:ILE:HG23	49:B4:21:VAL:HG23	1.96	0.46
33:BN:87:ILE:HD13	33:BN:87:ILE:N	2.30	0.46
44:BV:157:LEU:HB2	44:BV:161:VAL:HG11	1.97	0.46
24:BA:1359:A:N6	24:BA:1373:A:N9	2.61	0.46
39:B1:110:VAL:O	39:B1:113:ALA:HB3	2.15	0.46
24:BA:1011:G:OP1	39:B1:75:ASN:HB3	2.16	0.46
31:BK:81:VAL:HG12	31:BK:82:ARG:N	2.30	0.46
46:BZ:97:LEU:HB3	46:BZ:98:LEU:HD13	1.97	0.46
25:BB:56:G:H5'	29:BG:27:ASN:HD21	1.80	0.46
3:CF:11:ARG:HH11	3:CF:11:ARG:HG2	1.80	0.46
30:DH:151:ILE:O	30:DH:152:ARG:O	2.34	0.46
28:BF:22:ALA:O	28:BF:24:LEU:N	2.38	0.46
54:DA:2012:G:H4'	41:DS:96:ILE:HD11	1.97	0.46
2:AE:24:TRP:CD1	2:AE:24:TRP:N	2.79	0.46
54:DA:1729:A:C2'	54:DA:1730:U:H5''	2.40	0.46
15:AR:29:VAL:HG13	15:AR:63:ARG:HG3	1.98	0.46
4:AG:12:CYS:CA	4:AG:21:LEU:CD2	2.84	0.46
53:B8:32:LEU:HD23	53:B8:33:ASN:N	2.30	0.46
37:DQ:74:ALA:O	37:DQ:75:GLU:C	2.54	0.46
2:AE:178:ARG:HE	8:AK:71:GLY:H	1.64	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DN:86:ILE:CD1	33:DN:86:ILE:H	2.28	0.46
29:DG:14:GLU:O	29:DG:17:PRO:HD2	2.16	0.46
24:BA:481:G:OP1	24:BA:481:G:H4'	2.15	0.46
30:BH:151:ILE:O	30:BH:152:ARG:HG2	2.16	0.46
22:AC:59:A:H2'	22:AC:60:U:C5'	2.45	0.46
54:DA:2371:G:O2'	51:D6:45:LYS:HB3	2.15	0.46
1:AA:353:A:H2'	1:AA:354:G:OP2	2.16	0.46
31:DK:58:LEU:C	31:DK:60:GLU:N	2.69	0.46
10:CM:32:ALA:HB3	10:CM:76:ASN:CB	2.34	0.46
1:AA:500:G:N2	1:AA:546:G:H1'	2.31	0.46
40:B2:62:LEU:HG	40:B2:63:GLY:H	1.81	0.46
15:AR:39:LEU:CD1	15:AR:56:LEU:HB2	2.46	0.46
1:AA:764:C:H5''	15:AR:50:HIS:CE1	2.51	0.46
1:CA:266:G:H5''	1:CA:268:C:H41	1.80	0.46
1:AA:961:U:OP2	1:AA:1223:C:C4'	2.64	0.46
13:AP:118:ALA:CB	22:AC:28:C:O2'	2.63	0.46
1:AA:251:G:C6	1:AA:266:G:C6	3.03	0.46
24:BA:1179:C:H3'	24:BA:1180:C:C5'	2.46	0.46
54:DA:2111:C:H41	54:DA:2147:G:N2	2.12	0.46
44:DV:58:VAL:O	44:DV:59:LEU:HB2	2.16	0.46
16:AS:5:ARG:HH21	16:AS:24:ALA:HA	1.79	0.46
54:DA:2749:A:H4'	30:DH:62:LYS:HB3	1.98	0.46
26:DD:211:ARG:HH11	26:DD:211:ARG:HG2	1.80	0.46
45:B3:18:ALA:O	45:B3:19:LYS:CG	2.59	0.46
40:D2:22:VAL:HG12	40:D2:23:GLU:H	1.76	0.46
1:AA:1239:A:H4'	1:AA:1240:U:O5'	2.16	0.46
25:BB:81:G:N2	25:BB:82:G:C6	2.84	0.46
54:DA:1310:G:OP2	52:D7:9:ARG:NH1	2.49	0.46
1:AA:1287:A:N6	1:AA:1288:A:N6	2.63	0.46
6:AI:98:LEU:HD12	6:AI:101:ALA:CB	2.42	0.46
24:BA:588:U:O5'	24:BA:588:U:H6	1.99	0.46
24:BA:986:C:H2'	24:BA:987:G:H5'	1.98	0.46
46:BZ:53:VAL:CB	46:BZ:58:ILE:HD12	2.44	0.46
3:CF:58:GLU:O	3:CF:59:ARG:HG3	2.15	0.46
9:CL:40:LEU:C	9:CL:42:ARG:H	2.18	0.46
1:AA:1066:C:H5'	1:AA:1067:A:OP2	2.15	0.46
6:AI:91:VAL:HG12	6:AI:92:LYS:O	2.16	0.46
1:CA:432:A:C8	1:CA:433:C:C5	3.03	0.46
29:BG:129:GLY:O	29:BG:161:THR:CB	2.62	0.46
54:DA:862:G:H5'	55:DB:79:C:H4'	1.98	0.46
43:DU:15:VAL:O	43:DU:21:LYS:HA	2.16	0.46
17:CT:76:LEU:HD11	17:CT:79:SER:H	1.80	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CD:36:U:O4	22:CD:37:A:N6	2.49	0.46
24:BA:30:G:C6	24:BA:31:C:C4	3.04	0.46
22:AC:2:G:C8	22:AC:2:G:H5'	2.50	0.46
2:CE:24:TRP:CZ2	2:CE:26:PRO:HB3	2.51	0.46
2:AE:64:ARG:O	2:AE:65:GLY:C	2.52	0.46
54:DA:34:C:C6	54:DA:454:A:O2'	2.69	0.46
35:DP:11:LYS:HE2	35:DP:87:LYS:HA	1.98	0.46
24:BA:687:C:C2'	24:BA:687:C:O2	2.64	0.46
47:BW:10:LEU:HG	47:BW:14:ARG:NH2	2.31	0.46
1:AA:762:C:H2'	1:AA:763:G:C8	2.48	0.46
1:AA:1104:G:H4'	2:AE:111:ARG:NH2	2.31	0.46
37:BQ:42:ASP:C	37:BQ:44:LYS:H	2.17	0.46
24:BA:1833:U:O2'	24:BA:1969:A:N1	2.31	0.46
24:BA:1838:C:H2'	24:BA:1898:U:O4	2.16	0.46
22:CC:68:C:H2'	22:CC:69:C:C6	2.51	0.46
1:CA:119:A:C8	1:CA:240:C:N4	2.84	0.46
54:DA:1342:A:O2'	54:DA:1344:G:P	2.74	0.46
54:DA:1297:C:OP1	54:DA:2710:C:H4'	2.16	0.46
27:DE:87:GLU:O	27:DE:89:ASP:N	2.48	0.46
1:AA:757:U:H2'	1:AA:758:G:O4'	2.16	0.46
1:AA:575:G:H4'	1:AA:576:G:O5'	2.16	0.46
34:BO:23:PRO:O	34:BO:24:GLY:C	2.52	0.46
44:DV:11:GLU:HG3	44:DV:12:GLY:N	2.31	0.46
2:AE:59:GLU:O	2:AE:63:MET:HG2	2.15	0.46
29:BG:52:ILE:O	29:BG:52:ILE:HG22	2.15	0.46
4:CG:192:GLU:H	4:CG:192:GLU:HG3	1.57	0.46
54:DA:2428:G:H5''	54:DA:2429:G:OP1	2.16	0.46
48:DX:28:LEU:HA	48:DX:33:GLN:OE1	2.16	0.46
21:AX:6:ARG:HG2	21:AX:15:ARG:NH2	2.31	0.46
1:AA:872:A:C4'	1:AA:873:A:OP1	2.53	0.46
33:BN:91:LEU:N	33:BN:91:LEU:CD2	2.79	0.46
9:AL:16:ARG:HH21	9:AL:66:ARG:HH22	1.64	0.46
44:DV:151:HIS:O	44:DV:153:SER:O	2.33	0.46
30:BH:44:VAL:HG23	30:BH:45:VAL:N	2.30	0.46
24:BA:1373:A:C2	24:BA:1374:G:H1'	2.51	0.46
34:BO:101:VAL:O	34:BO:103:ALA:N	2.43	0.46
34:BO:114:ILE:HG21	34:BO:130:PHE:CE1	2.50	0.46
40:B2:38:LEU:HD21	40:B2:57:VAL:CG2	2.46	0.46
1:CA:1312:G:H5''	49:D4:67:TYR:OH	2.16	0.46
3:AF:77:ILE:O	3:AF:78:GLY:O	2.34	0.46
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.15	0.46
24:BA:2777:G:H4'	24:BA:2778:A:H5''	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2346:A:H1'	24:BA:2383:G:N7	2.31	0.46
24:BA:644:A:O2'	24:BA:645:C:H5''	2.16	0.46
54:DA:996:A:H4'	39:D1:92:ARG:HE	1.80	0.46
32:DM:10:GLU:HA	32:DM:11:PRO:HD3	1.73	0.46
45:B3:82:ARG:O	45:B3:83:PRO:O	2.34	0.46
37:BQ:102:ALA:HB1	37:BQ:112:PHE:HD2	1.81	0.46
24:BA:233:A:O5'	24:BA:233:A:H8	1.99	0.46
4:CG:30:LYS:O	4:CG:32:ALA:N	2.49	0.46
55:DB:28:C:H2'	55:DB:29:A:O4'	2.16	0.46
55:DB:95:U:O5'	55:DB:95:U:H6	1.99	0.46
43:BU:55:TYR:CD2	43:BU:55:TYR:N	2.84	0.46
33:DN:8:LEU:N	33:DN:8:LEU:CD2	2.76	0.46
54:DA:2599:G:OP2	26:DD:236:GLY:HA3	2.15	0.46
24:BA:1731:G:N3	24:BA:1731:G:C3'	2.79	0.46
1:CA:451:A:N6	1:CA:481:G:O4'	2.48	0.46
20:CW:22:ARG:O	20:CW:26:ASN:ND2	2.49	0.46
54:DA:2163:C:C4	54:DA:2164:C:N4	2.84	0.46
32:BM:63:THR:HB	32:BM:64:GLY:H	1.51	0.46
24:BA:308:G:N2	24:BA:329:G:O2'	2.49	0.46
24:BA:1453:A:O2'	36:B0:73:VAL:HG11	2.16	0.46
1:CA:1349:A:H2'	1:CA:1350:A:H8	1.81	0.46
1:CA:1349:A:P	9:CL:118:LYS:NZ	2.89	0.46
32:BM:12:ARG:NH1	32:BM:38:HIS:NE2	2.64	0.46
27:BE:117:MET:O	27:BE:117:MET:HG2	2.15	0.46
1:CA:871:U:O2'	1:CA:872:A:OP1	2.31	0.46
27:BE:14:ILE:HB	38:BR:14:TYR:CE2	2.51	0.46
54:DA:1798:U:H5'	26:DD:259:THR:HG22	1.98	0.46
4:CG:92:VAL:O	4:CG:96:LEU:CD2	2.64	0.46
54:DA:1454:U:OP1	36:D0:77:ARG:NH1	2.48	0.46
54:DA:1454:U:H5'	36:D0:63:ARG:HE	1.80	0.46
1:CA:1178:G:C8	1:CA:1180:A:OP2	2.69	0.46
54:DA:84:A:H61	54:DA:102:G:H1'	1.78	0.46
6:AI:98:LEU:CA	18:AU:30:ASP:HA	2.42	0.46
29:DG:6:ALA:HB3	29:DG:104:GLU:OE2	2.16	0.46
41:BS:1:MET:HA	41:BS:1:MET:CE	2.45	0.46
54:DA:1694:C:O2	54:DA:1694:C:H2'	2.15	0.46
24:BA:1098:A:C3'	24:BA:1099:G:C5'	2.94	0.46
54:DA:1204:A:O2'	54:DA:1205:U:O5'	2.33	0.46
1:CA:605:U:H2'	1:CA:606:G:H8	1.80	0.46
7:CJ:54:THR:HG23	7:CJ:54:THR:O	2.16	0.46
16:CS:71:ARG:HB2	16:CS:71:ARG:HH11	1.79	0.46
27:BE:107:THR:O	27:BE:190:GLY:CA	2.64	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:88:LEU:HD22	30:DH:163:TYR:O	2.16	0.46
1:AA:279:A:O2'	1:AA:280:C:P	2.74	0.46
8:AK:29:SER:OG	8:AK:32:LYS:HG3	2.15	0.46
1:AA:645:C:H2'	1:AA:646:U:O4'	2.15	0.46
24:BA:391:G:C4	24:BA:392:C:C5	3.04	0.46
41:DS:28:SER:C	41:DS:30:GLU:N	2.69	0.46
6:CI:44:GLY:HA2	6:CI:59:TYR:CE2	2.51	0.46
3:AF:164:ARG:O	3:AF:165:THR:HB	2.16	0.46
54:DA:1192:G:C2'	54:DA:1193:G:H5'	2.45	0.46
54:DA:2785:C:H2'	54:DA:2786:U:O4'	2.15	0.46
1:AA:423:G:N2	1:AA:424:G:C4	2.84	0.46
10:CM:44:VAL:HG12	10:CM:45:ARG:N	2.30	0.46
1:CA:581:G:N2	1:CA:582:U:C5	2.84	0.46
2:AE:158:LEU:N	2:AE:158:LEU:HD12	2.31	0.46
43:DU:11:ASP:HB2	43:DU:27:VAL:CG1	2.46	0.46
3:AF:186:PHE:HD1	3:AF:198:VAL:O	1.99	0.46
24:BA:440:G:H2'	24:BA:441:U:C6	2.51	0.46
24:BA:2483:C:H5'	24:BA:2484:G:OP2	2.16	0.46
24:BA:2483:C:C5'	24:BA:2484:G:OP2	2.64	0.46
27:DE:1:MET:HA	27:DE:200:GLU:OE2	2.16	0.46
1:CA:355:C:O4'	1:CA:388:G:O2'	2.34	0.46
54:DA:1707:G:H2'	54:DA:1708:C:O4'	2.16	0.46
1:CA:632:A:H8	1:CA:633:G:C8	2.34	0.46
16:CS:19:ILE:HB	16:CS:37:GLY:O	2.16	0.46
1:AA:408:A:O2'	1:AA:409:G:H5'	2.16	0.46
24:BA:867:C:O2'	24:BA:868:U:H5'	2.16	0.46
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.51	0.46
10:CM:21:GLN:O	10:CM:21:GLN:HG2	2.16	0.46
13:AP:86:CYS:SG	13:AP:88:ARG:HB3	2.56	0.46
24:BA:2517:C:HO2'	24:BA:2518:A:P	2.39	0.46
44:DV:108:PRO:HG2	44:DV:111:VAL:CA	2.47	0.46
30:BH:125:VAL:HG13	30:BH:126:PRO:HB3	1.97	0.46
27:DE:54:GLN:CA	27:DE:54:GLN:HE21	2.27	0.46
1:CA:1199:U:H5'	10:CM:54:PHE:CE2	2.51	0.46
1:CA:1316:G:H22	1:CA:1318:A:H3'	1.77	0.46
13:CP:80:ARG:O	13:CP:82:MET:O	2.34	0.46
2:CE:162:ILE:CD1	2:CE:184:VAL:HG13	2.44	0.46
3:CF:15:THR:HG22	3:CF:15:THR:O	2.15	0.46
3:CF:53:ALA:O	3:CF:54:ARG:HB2	2.16	0.46
26:DD:105:ILE:HG23	26:DD:106:ILE:O	2.15	0.46
26:DD:36:PRO:HB3	26:DD:62:TYR:O	2.16	0.46
3:AF:50:ALA:O	3:AF:70:VAL:HG13	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:83:ARG:O	3:AF:84:ILE:HG12	2.16	0.46
24:BA:464:U:H2'	24:BA:465:G:O4'	2.15	0.46
1:CA:1535:C:C2'	1:CA:1536:C:H5	2.28	0.46
26:BD:143:HIS:O	26:BD:144:ALA:C	2.54	0.46
26:BD:92:ILE:HD12	26:BD:104:TYR:CD2	2.45	0.46
11:CN:104:GLN:O	11:CN:106:LYS:HG3	2.15	0.46
1:AA:411:A:C2	1:AA:413:G:O2'	2.69	0.46
32:DM:36:GLY:O	32:DM:42:TRP:CE3	2.69	0.46
54:DA:802:A:C2'	54:DA:803:U:H5''	2.46	0.46
53:B8:61:LEU:HD12	53:B8:62:LEU:N	2.31	0.46
24:BA:84:A:H61	24:BA:102:G:C2'	2.29	0.46
32:DM:96:GLU:O	32:DM:99:LEU:N	2.34	0.46
35:BP:101:ARG:HG3	35:BP:102:VAL:N	2.31	0.46
1:CA:1126:U:H1'	1:CA:1280:A:H62	1.81	0.46
1:CA:428:G:O2'	1:CA:429:U:P	2.74	0.46
24:BA:196:A:N6	24:BA:831:G:H21	2.14	0.46
55:DB:83:G:O2'	55:DB:84:C:H5'	2.16	0.46
54:DA:2469:A:H3'	54:DA:2470:G:O4'	2.16	0.46
54:DA:1834:U:O4'	54:DA:1969:A:C2	2.69	0.46
47:BW:46:GLN:CA	47:BW:49:LYS:HZ1	2.29	0.46
29:BG:39:ILE:HG23	29:BG:155:MET:SD	2.56	0.46
54:DA:266:G:H2'	54:DA:267:C:O5'	2.16	0.46
1:CA:558:G:C4	1:CA:559:A:C2	3.04	0.46
10:CM:4:ILE:O	10:CM:74:ILE:HD13	2.16	0.46
1:AA:688:G:H5'	11:AN:46:GLY:C	2.37	0.46
24:BA:1140:C:O4'	24:BA:1143:A:N7	2.49	0.46
54:DA:298:G:OP2	43:DU:85:VAL:HG22	2.15	0.46
54:DA:2654:A:N1	54:DA:2665:A:H5'	2.31	0.46
22:CD:22:G:O2'	22:CD:23:C:H5'	2.16	0.46
22:CD:7:G:C5'	22:CD:8:U:OP2	2.64	0.46
11:AN:30:VAL:HG21	11:AN:65:ALA:HA	1.98	0.46
52:B7:47:ARG:HH11	52:B7:47:ARG:CA	2.29	0.46
54:DA:2021:C:C5'	54:DA:2022:U:OP2	2.59	0.46
1:AA:993:G:O6	1:AA:1045:C:N3	2.49	0.46
4:AG:90:GLY:HA2	4:AG:204:ILE:HD11	1.98	0.46
24:BA:1819:A:H5''	26:BD:161:THR:CG2	2.45	0.46
1:AA:625:G:C4	1:AA:626:U:C5	3.04	0.46
1:CA:789:U:C2	1:CA:791:G:OP2	2.69	0.46
26:DD:118:VAL:O	26:DD:129:ASN:HA	2.16	0.46
54:DA:548:A:H2'	54:DA:549:G:H5'	1.98	0.46
1:CA:644:G:C5	1:CA:645:C:C6	3.04	0.46
12:AO:53:ARG:CG	12:AO:53:ARG:HH11	2.29	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:D5:16:ARG:O	50:D5:20:ARG:HG3	2.16	0.46
46:DZ:8:SER:HB3	46:DZ:66:HIS:CD2	2.50	0.46
27:DE:129:HIS:O	27:DE:130:GLY:C	2.53	0.46
11:CN:91:ARG:HH22	18:CU:88:LYS:HZ3	1.63	0.46
1:AA:244:U:C6	1:AA:894:G:N2	2.84	0.46
19:CV:15:LEU:N	19:CV:15:LEU:CD2	2.79	0.46
12:CO:27:LEU:HD13	12:CO:28:LYS:N	2.30	0.46
54:DA:127:A:H5'	54:DA:128:C:C6	2.51	0.46
39:B1:85:LYS:C	39:B1:87:GLY:N	2.69	0.46
26:DD:2:ALA:HB1	26:DD:20:ASP:CB	2.46	0.46
27:BE:144:ARG:HB3	27:BE:145:LYS:H	1.49	0.46
24:BA:234:C:H2'	24:BA:235:U:H6	1.80	0.46
24:BA:2830:G:N3	24:BA:2883:A:H2	2.14	0.46
42:DT:35:THR:HG23	42:DT:35:THR:O	2.16	0.46
10:AM:64:GLU:OE2	10:AM:66:ARG:NE	2.49	0.46
30:BH:105:LEU:CD1	30:BH:113:VAL:HB	2.45	0.46
24:BA:903:C:H2'	24:BA:904:C:H6	1.81	0.46
16:AS:58:TYR:O	16:AS:60:LEU:N	2.49	0.46
7:CJ:57:GLU:O	7:CJ:59:LEU:N	2.49	0.46
1:AA:768:A:H4'	1:AA:1523:G:N2	2.31	0.46
54:DA:2052:G:C8	27:DE:141:ILE:HD11	2.51	0.46
18:AU:29:PHE:N	18:AU:29:PHE:CD2	2.84	0.46
50:D5:42:PRO:CB	50:D5:43:HIS:HD2	2.29	0.46
54:DA:1655:A:H4'	27:DE:115:GLY:N	2.31	0.46
1:CA:664:G:H22	1:CA:741:G:H1	1.64	0.46
31:BK:117:GLU:HB2	31:BK:118:LYS:H	1.50	0.46
13:CP:10:PRO:HG3	13:CP:18:ALA:O	2.16	0.46
52:B7:24:THR:HG23	52:B7:27:GLY:H	1.80	0.46
1:AA:1269:A:C2	1:AA:1313:U:O4'	2.69	0.45
49:B4:37:SER:OG	49:B4:38:LYS:N	2.48	0.45
29:BG:121:ASN:HB2	29:BG:181:ARG:HH12	1.80	0.45
30:BH:54:ARG:HD2	30:BH:65:HIS:CE1	2.52	0.45
19:CV:63:THR:HG23	19:CV:66:MET:CE	2.46	0.45
19:CV:5:LEU:HD21	49:D4:66:SER:HB2	1.97	0.45
25:BB:55:U:O2'	29:BG:29:TRP:CD1	2.68	0.45
2:CE:163:PHE:CE1	2:CE:215:LEU:HD22	2.50	0.45
30:DH:109:PHE:CE1	30:DH:152:ARG:NH1	2.84	0.45
34:DO:98:GLU:HG2	34:DO:99:LEU:N	2.30	0.45
24:BA:1341:U:O2	42:BT:80:ILE:CD1	2.63	0.45
51:D6:11:LEU:HD11	51:D6:51:GLU:HG3	1.98	0.45
24:BA:2780:G:O2'	24:BA:2781:A:OP1	2.27	0.45
27:BE:60:ASN:CA	27:BE:62:PRO:HD2	2.44	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CP:3:ARG:O	13:CP:4:ILE:HD13	2.16	0.45
51:B6:23:THR:CG2	51:B6:24:GLU:H	2.28	0.45
40:D2:4:ILE:HG22	40:D2:39:LEU:HD23	1.98	0.45
37:DQ:109:GLY:O	37:DQ:110:LEU:HB2	2.16	0.45
5:CH:12:LEU:HB3	5:CH:31:LEU:HB2	1.97	0.45
39:B1:50:ARG:NH2	39:B1:50:ARG:HB2	2.30	0.45
54:DA:1142(A):A:O2'	54:DA:1143:A:P	2.74	0.45
54:DA:1141:U:H6	32:DM:63:THR:HG1	1.61	0.45
24:BA:2657:A:H1'	24:BA:2665:A:N6	2.30	0.45
36:D0:3:HIS:C	36:D0:5:LYS:H	2.17	0.45
24:BA:2876:G:O2'	38:BR:3:ARG:NH1	2.46	0.45
1:AA:1175:G:C2	1:AA:1176:A:C6	3.04	0.45
54:DA:2406:U:C4	34:DO:72:PRO:HB2	2.51	0.45
55:DB:82:G:N1	55:DB:95:U:O2	2.49	0.45
1:CA:346:G:H5''	38:DR:41:ARG:HH11	1.80	0.45
1:AA:1344:C:O2'	1:AA:1345:U:H5'	2.16	0.45
24:BA:608:A:N9	24:BA:621:A:N6	2.63	0.45
24:BA:2175:C:O2'	24:BA:2176:A:H5'	2.16	0.45
1:AA:322:C:O2'	20:AW:23:ARG:HB2	2.15	0.45
54:DA:222:A:O2'	54:DA:223:A:OP1	2.34	0.45
54:DA:422:A:C6	54:DA:423:A:C6	3.04	0.45
26:BD:266:SER:C	26:BD:267:SER:O	2.52	0.45
1:CA:561:U:C2'	1:CA:562:C:OP2	2.64	0.45
1:AA:1036:G:H3'	1:AA:1037:C:H6	1.77	0.45
24:BA:307:G:N2	24:BA:309:G:H3'	2.30	0.45
24:BA:2148:G:O2'	24:BA:2149:G:H5'	2.16	0.45
35:DP:85:LYS:HD3	35:DP:86:GLY:H	1.80	0.45
22:CD:13:C:H2'	22:CD:14:A:OP1	2.16	0.45
41:DS:34:ASN:ND2	50:D5:39:MET:HB2	2.32	0.45
54:DA:2665:A:H3'	54:DA:2665:A:N3	2.31	0.45
54:DA:1498:C:O4'	54:DA:1577:C:C4'	2.64	0.45
24:BA:2521:C:H2'	24:BA:2522:U:C6	2.50	0.45
24:BA:1329:U:H5''	24:BA:1330:C:H5	1.81	0.45
37:DQ:13:ARG:O	37:DQ:14:VAL:HB	2.15	0.45
4:CG:173:TRP:NE1	4:CG:174:LEU:HG	2.32	0.45
3:CF:78:GLY:HA3	3:CF:83:ARG:HB3	1.98	0.45
1:CA:889:A:HO2'	1:CA:890:G:P	2.39	0.45
24:BA:2412:A:H2'	24:BA:2413:G:H5'	1.98	0.45
27:DE:137:HIS:CB	27:DE:138:PRO:HD2	2.42	0.45
47:BW:25:VAL:HG12	47:BW:60:LEU:HD23	1.97	0.45
1:CA:406:G:O2'	1:CA:407:G:H5'	2.16	0.45
4:CG:100:ARG:NH2	4:CG:137:SER:HA	2.32	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:378:G:H2'	1:CA:379:C:C6	2.51	0.45
24:BA:864:G:H2'	24:BA:865:C:C6	2.50	0.45
36:B0:107:ASP:O	36:B0:108:GLY:C	2.54	0.45
6:CI:32:ASN:ND2	6:CI:32:ASN:H	2.12	0.45
48:DX:7:LYS:HE2	48:DX:32:GLN:HA	1.98	0.45
26:BD:125:ILE:HD12	26:BD:137:PRO:HD3	1.98	0.45
36:D0:85:PRO:C	36:D0:87:TYR:H	2.19	0.45
2:AE:77:ALA:O	2:AE:81:VAL:HG23	2.16	0.45
46:DZ:76:ARG:N	46:DZ:76:ARG:HD2	2.29	0.45
4:CG:199:ASN:O	4:CG:201:GLN:N	2.49	0.45
4:AG:70:ILE:HD12	4:AG:100:ARG:CZ	2.46	0.45
6:AI:33:TYR:CZ	6:AI:78:GLU:HG3	2.51	0.45
54:DA:275:G:N2	54:DA:276:A:N6	2.61	0.45
24:BA:1416:G:O2'	24:BA:1417:C:H6	1.99	0.45
1:AA:24:U:O2'	1:AA:25:C:H5'	2.16	0.45
32:BM:14:VAL:HG12	32:BM:15:LEU:N	2.31	0.45
30:DH:51:ARG:NH1	30:DH:51:ARG:HG3	2.30	0.45
1:CA:1381:U:H5	1:CA:1382:C:C4	2.34	0.45
16:CS:40:ASP:O	16:CS:42:ARG:N	2.50	0.45
17:CT:3:LYS:HD3	17:CT:61:GLU:O	2.16	0.45
29:DG:129:GLY:O	29:DG:130:ASN:OD1	2.34	0.45
54:DA:2888:C:H2'	54:DA:2889:C:H6	1.81	0.45
48:DX:18:ASP:O	48:DX:21:ALA:N	2.49	0.45
45:B3:26:TYR:CD1	45:B3:26:TYR:N	2.84	0.45
7:CJ:95:ARG:NE	7:CJ:99:LEU:HD11	2.30	0.45
27:BE:170:LEU:N	27:BE:170:LEU:CD1	2.79	0.45
24:BA:1690:A:H3'	24:BA:1691:C:H6	1.81	0.45
1:CA:33:A:H2'	1:CA:34:C:C6	2.50	0.45
1:CA:1081:G:H2'	1:CA:1082:G:H8	1.81	0.45
1:CA:366:C:H4'	1:CA:367:U:OP1	2.16	0.45
7:CJ:40:ALA:O	7:CJ:41:ARG:C	2.54	0.45
1:CA:477:G:H2'	1:CA:478:A:C8	2.52	0.45
5:CH:150:ARG:HG2	5:CH:150:ARG:O	2.16	0.45
54:DA:1591:G:H2'	54:DA:1592:C:C6	2.51	0.45
49:B4:13:ARG:O	49:B4:30:GLU:CB	2.64	0.45
31:BK:144:VAL:O	31:BK:145:VAL:HG22	2.16	0.45
31:BK:96:ASP:O	31:BK:97:ILE:C	2.54	0.45
53:B8:23:VAL:HG11	53:B8:47:LYS:HB3	1.97	0.45
13:AP:19:LEU:HD22	13:AP:19:LEU:N	2.31	0.45
49:B4:55:ARG:HB2	49:B4:59:PHE:HD1	1.80	0.45
1:AA:1129:C:H5'	1:AA:1130:A:C5'	2.47	0.45
54:DA:1086:A:H4'	54:DA:1103:A:N6	2.31	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:152:ALA:H	44:DV:170:THR:N	2.14	0.45
30:BH:136:ILE:N	30:BH:136:ILE:CD1	2.76	0.45
43:DU:48:ALA:CB	43:DU:61:ILE:HD13	2.45	0.45
39:B1:90:VAL:HA	40:B2:39:LEU:CD2	2.47	0.45
40:B2:39:LEU:CD1	40:B2:39:LEU:N	2.80	0.45
27:DE:77:ILE:O	27:DE:78:LEU:O	2.35	0.45
13:CP:121:LYS:NZ	59:CP:203:C:C4'	2.73	0.45
1:CA:1071:C:H5''	5:CH:49:PRO:HG2	1.98	0.45
1:AA:791:G:N2	1:AA:1497:G:O3'	2.50	0.45
1:AA:794:A:H4'	1:AA:1521:G:O2'	2.15	0.45
28:BF:65:TRP:O	28:BF:66:PRO:C	2.54	0.45
54:DA:2629:A:O2'	54:DA:2630:G:H5''	2.16	0.45
27:DE:13:ARG:HH11	27:DE:13:ARG:HB3	1.82	0.45
24:BA:1777:U:O2'	24:BA:1778:U:H5'	2.15	0.45
51:B6:15:GLU:HG3	51:B6:47:THR:HG21	1.96	0.45
24:BA:644:A:N6	24:BA:2349:G:H1'	2.31	0.45
37:DQ:78:LEU:HD21	37:DQ:108:GLY:HA2	1.99	0.45
35:DP:26:TYR:O	35:DP:27:VAL:O	2.33	0.45
44:DV:52:SER:O	44:DV:54:HIS:N	2.50	0.45
24:BA:833:U:H4'	34:BO:51:PHE:O	2.16	0.45
35:BP:28:ALA:HB2	35:BP:67:ARG:HH12	1.79	0.45
24:BA:2481:G:C2'	24:BA:2482:G:OP2	2.63	0.45
1:CA:1279:A:H2	10:CM:43:ARG:HH21	1.64	0.45
1:AA:1175:G:N1	1:AA:1176:A:N6	2.65	0.45
9:AL:102:LEU:O	9:AL:103:THR:OG1	2.29	0.45
9:AL:89:ASN:N	9:AL:90:PRO:CD	2.80	0.45
10:AM:13:HIS:HE1	10:AM:14:LYS:HE3	1.81	0.45
2:CE:87:ARG:NH1	2:CE:220:ASP:OD1	2.46	0.45
58:DA:2903:G:C5'	58:DA:2904:G:OP2	2.50	0.45
1:CA:38:G:N1	1:CA:397:A:H2	2.14	0.45
54:DA:2073:C:C5'	26:DD:229:VAL:HG22	2.47	0.45
54:DA:2132:U:C2'	54:DA:2133:G:O5'	2.65	0.45
51:D6:17:LYS:O	51:D6:18:ARG:CB	2.64	0.45
33:DN:112:MET:O	33:DN:115:VAL:CG2	2.64	0.45
4:AG:144:ASP:O	4:AG:184:LYS:HA	2.17	0.45
20:CW:96:GLY:O	20:CW:97:ALA:CB	2.64	0.45
1:AA:405:U:H3'	1:AA:406:G:H5'	1.98	0.45
3:AF:195:VAL:CG1	3:AF:196:LEU:N	2.79	0.45
28:BF:84:VAL:C	28:BF:86:GLY:N	2.69	0.45
1:CA:450:G:OP1	1:CA:452:A:OP1	2.34	0.45
1:CA:452:A:C6	1:CA:453:A:C6	3.04	0.45
1:AA:1443:G:H3'	1:AA:1446:A:C5'	2.38	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2210:G:C5'	54:DA:2211:G:OP2	2.63	0.45
26:BD:260:ARG:NH2	26:BD:270:ILE:HD11	2.31	0.45
31:BK:5:LEU:HD11	31:BK:19:VAL:CG1	2.46	0.45
1:AA:1024:G:C5'	1:AA:1025:U:OP1	2.64	0.45
54:DA:2114:A:C6	54:DA:2118:U:OP2	2.69	0.45
40:D2:5:VAL:HG22	40:D2:14:VAL:CG2	2.46	0.45
31:DK:86:THR:O	31:DK:87:LYS:HB2	2.15	0.45
54:DA:883:G:O5'	54:DA:883:G:H8	1.98	0.45
28:BF:179:GLU:CD	28:BF:179:GLU:N	2.69	0.45
38:BR:96:ARG:CG	38:BR:97:ALA:H	2.29	0.45
48:BX:19:GLN:O	48:BX:22:ALA:HB3	2.16	0.45
1:AA:1286:A:C8	1:AA:1287:A:H4'	2.51	0.45
3:CF:43:LEU:HD22	3:CF:47:LEU:CD2	2.46	0.45
15:CR:5:LYS:O	15:CR:8:LYS:CG	2.63	0.45
24:BA:2405:G:HO2'	24:BA:2411:A:N6	2.14	0.45
54:DA:2883:A:H5'	54:DA:2884:U:H5'	1.98	0.45
1:AA:1349:A:O2'	1:AA:1350:A:H5'	2.16	0.45
24:BA:754:C:H2'	24:BA:755:C:H6	1.81	0.45
24:BA:2355:C:C5'	45:B3:36:ILE:HD11	2.46	0.45
12:CO:126:LYS:C	12:CO:128:ALA:N	2.69	0.45
6:CI:68:PRO:HG3	6:CI:71:ARG:NH2	2.31	0.45
46:DZ:49:VAL:HG12	46:DZ:51:VAL:CG2	2.45	0.45
8:AK:37:ARG:CG	8:AK:38:ILE:HG13	2.45	0.45
6:AI:61:LEU:HB3	6:AI:63:TYR:HE2	1.81	0.45
45:D3:66:VAL:O	45:D3:81:VAL:HA	2.16	0.45
28:DF:65:TRP:CH2	28:DF:72:ARG:HB3	2.50	0.45
4:AG:137:SER:O	4:AG:138:TYR:C	2.55	0.45
24:BA:592:G:H2'	53:B8:4:MET:HE2	1.98	0.45
2:AE:114:ARG:NH1	2:AE:118:LEU:HD21	2.30	0.45
1:CA:627:G:H2'	1:CA:628:G:H8	1.80	0.45
3:CF:172:ARG:O	3:CF:173:VAL:HG23	2.15	0.45
24:BA:385:C:O2	24:BA:390:A:C2	2.69	0.45
40:B2:73:SER:CB	40:B2:83:ARG:HA	2.46	0.45
8:AK:86:ILE:HG12	8:AK:135:CYS:HA	1.96	0.45
54:DA:2866:U:O2'	54:DA:2867:G:P	2.74	0.45
1:CA:1068:G:OP2	1:CA:1094:G:H5''	2.15	0.45
10:AM:44:VAL:CG1	10:AM:46:ARG:HG3	2.46	0.45
1:CA:1009:G:C2	1:CA:1010:G:C8	3.04	0.45
17:CT:84:LEU:O	17:CT:86:GLU:N	2.49	0.45
24:BA:2154:G:H2'	24:BA:2155:G:C8	2.51	0.45
22:AC:50:U:O2'	22:AC:51:C:H5'	2.16	0.45
1:CA:353:A:H5'	1:CA:353:A:C8	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:213:ARG:HG3	26:BD:213:ARG:NH1	2.31	0.45
54:DA:1249:U:H2'	54:DA:1249:U:O2	2.16	0.45
4:AG:157:LEU:O	4:AG:161:ASN:HB2	2.16	0.45
54:DA:2229:C:O2'	54:DA:2230:G:H5'	2.16	0.45
54:DA:962:G:H2'	54:DA:963:U:H6	1.82	0.45
42:DT:8:ILE:CD1	42:DT:42:ALA:HB1	2.46	0.45
24:BA:2229:C:O2'	24:BA:2230:G:H5'	2.16	0.45
36:B0:72:ASP:HB3	36:B0:75:LEU:CB	2.46	0.45
2:AE:60:ASP:O	2:AE:60:ASP:OD2	2.34	0.45
30:BH:171:LEU:O	30:BH:171:LEU:CD2	2.65	0.45
24:BA:142:G:H2'	24:BA:143:C:H6	1.80	0.45
30:DH:128:PRO:HD2	30:DH:129:THR:N	2.25	0.45
25:BB:44:G:C2	25:BB:48:A:C2	3.04	0.45
31:BK:121:LYS:O	31:BK:122:GLU:OE2	2.35	0.45
1:AA:1244:C:H2'	1:AA:1245:A:H8	1.80	0.45
1:AA:1268:A:N3	1:AA:1326:C:O2'	2.45	0.45
19:AV:11:VAL:HB	19:AV:16:LEU:CD1	2.43	0.45
1:AA:1143:G:H2'	1:AA:1144:G:H8	1.73	0.45
9:AL:65:VAL:HG21	9:AL:73:GLN:CB	2.44	0.45
9:AL:4:TYR:CE2	9:AL:88:TYR:CG	3.04	0.45
54:DA:1065:U:C5'	54:DA:1066:U:H5''	2.46	0.45
30:BH:125:VAL:HG12	30:BH:126:PRO:CG	2.45	0.45
34:BO:84:ASN:N	34:BO:84:ASN:HD22	2.12	0.45
26:DD:11:PRO:O	26:DD:12:SER:CB	2.65	0.45
31:BK:82:ARG:HG3	31:BK:146:ALA:HA	1.99	0.45
54:DA:1045:A:C8	54:DA:1111:A:N6	2.85	0.45
54:DA:892:G:N3	54:DA:892:G:H2'	2.32	0.45
15:CR:82:ILE:O	15:CR:86:GLY:N	2.49	0.45
3:CF:8:ILE:C	3:CF:10:PHE:N	2.69	0.45
34:DO:115:LEU:HA	34:DO:134:ALA:CB	2.47	0.45
3:AF:87:LEU:C	3:AF:89:GLU:H	2.19	0.45
2:AE:198:ASP:OD2	2:AE:198:ASP:N	2.48	0.45
51:D6:9:LEU:CD1	51:D6:26:ASN:ND2	2.79	0.45
27:BE:87:GLU:O	27:BE:88:GLY:C	2.53	0.45
26:BD:62:TYR:HE1	26:BD:64:ILE:HA	1.82	0.45
1:CA:689:C:O2'	1:CA:690:G:H5'	2.15	0.45
4:AG:16:GLY:HA2	4:AG:33:MET:HE2	1.97	0.45
51:B6:9:LEU:HD13	51:B6:9:LEU:C	2.36	0.45
24:BA:2419:U:O4	53:B8:31:HIS:ND1	2.49	0.45
39:D1:92:ARG:C	39:D1:94:ASN:N	2.69	0.45
33:DN:53:LYS:CD	33:DN:53:LYS:N	2.69	0.45
53:B8:61:LEU:HD12	53:B8:62:LEU:H	1.81	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BF:157:VAL:HA	28:BF:176:LEU:O	2.16	0.45
24:BA:1300:U:O2'	24:BA:1301:A:OP2	2.24	0.45
24:BA:872:A:H4'	35:BP:66:ILE:CD1	2.46	0.45
24:BA:2876:G:H4'	38:BR:3:ARG:HD2	1.98	0.45
1:CA:1277:C:O2'	1:CA:1279:A:C8	2.62	0.45
49:D4:42:PHE:C	49:D4:42:PHE:CD1	2.90	0.45
55:DB:42:C:H4'	29:DG:67:LYS:O	2.17	0.45
30:BH:103:LEU:HD23	30:BH:103:LEU:H	1.81	0.45
44:BV:56:VAL:C	44:BV:57:ILE:HD12	2.36	0.45
54:DA:2408:U:O5'	54:DA:2408:U:H6	2.00	0.45
7:CJ:107:ALA:O	7:CJ:110:GLN:HB2	2.15	0.45
51:D6:48:VAL:O	51:D6:49:HIS:HB2	2.15	0.45
4:AG:179:GLU:C	4:AG:181:MET:H	2.18	0.45
1:AA:406:G:H5''	4:AG:5:ILE:CG2	2.40	0.45
24:BA:2305:A:H2'	24:BA:2306:C:C5'	2.47	0.45
38:BR:122:ASP:O	38:BR:126:ALA:CB	2.63	0.45
24:BA:2277:G:OP1	35:BP:85:LYS:CB	2.65	0.45
10:AM:16:LEU:O	10:AM:20:ALA:HB3	2.16	0.45
35:DP:30:GLY:CA	35:DP:107:ALA:HB2	2.39	0.45
24:BA:1141:U:O5'	32:BM:63:THR:HG21	2.17	0.45
28:DF:7:TYR:CD1	28:DF:7:TYR:N	2.85	0.45
54:DA:2756:U:H3	54:DA:2758:A:H62	1.64	0.45
41:DS:34:ASN:O	41:DS:35:ILE:C	2.55	0.45
38:BR:99:LEU:HB3	38:BR:101:PHE:CE1	2.52	0.45
1:AA:1000:A:C8	1:AA:1000:A:OP1	2.69	0.45
1:AA:998(A):C:H3'	1:AA:999:U:H5''	1.98	0.45
22:CD:68:C:C2	22:CD:69:C:C6	3.04	0.45
22:CD:15:G:H2'	22:CD:59:A:C2	2.51	0.45
2:AE:172:ILE:N	2:AE:172:ILE:CD1	2.79	0.45
54:DA:685:A:O2'	54:DA:686:G:OP2	2.31	0.45
25:BB:97:G:H2'	25:BB:98:G:O4'	2.17	0.45
48:BX:19:GLN:HE22	48:BX:52:HIS:HE1	1.64	0.45
35:BP:43:THR:C	35:BP:45:GLN:N	2.70	0.45
32:DM:113:GLY:O	32:DM:116:LEU:HB2	2.14	0.45
9:CL:80:GLY:C	9:CL:82:ALA:N	2.70	0.45
24:BA:1252:G:O2'	24:BA:1253:A:O5'	2.35	0.45
32:BM:21:LYS:O	32:BM:60:ILE:HG23	2.16	0.45
32:BM:87:LEU:O	32:BM:91:LEU:HG	2.15	0.45
10:CM:95:GLU:OE2	10:CM:95:GLU:HA	2.16	0.45
46:BZ:11:ARG:HB2	46:BZ:12:PRO:HD2	1.96	0.45
2:CE:240:GLN:O	2:CE:240:GLN:HG2	2.16	0.45
24:BA:2585:U:O2'	24:BA:2586:C:C5'	2.64	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BR:89:VAL:CG2	38:BR:90:GLN:H	2.27	0.45
12:CO:113:ARG:NH2	12:CO:120:TYR:CE2	2.85	0.45
54:DA:2175:C:H2'	54:DA:2176:A:H5''	1.98	0.45
2:CE:51:LEU:O	2:CE:55:PHE:HD2	2.00	0.45
24:BA:1504:C:O2'	24:BA:1505:C:H5''	2.16	0.45
4:CG:146:ILE:O	4:CG:146:ILE:HG22	2.15	0.45
24:BA:847:U:H2'	24:BA:848:G:H5''	1.98	0.45
13:AP:36:LYS:HG2	13:AP:59:TYR:OH	2.16	0.45
8:CK:33:GLU:O	8:CK:35:ILE:N	2.49	0.45
27:BE:8:LYS:HB3	27:BE:192:ASN:HA	1.97	0.45
35:BP:2:LEU:O	35:BP:70:PRO:HG2	2.15	0.45
15:AR:24:SER:OG	15:AR:25:THR:N	2.49	0.45
38:BR:29:ARG:HG3	38:BR:46:GLU:OE1	2.15	0.45
4:AG:150:GLU:O	4:AG:153:ARG:N	2.39	0.45
1:AA:909:A:OP1	12:AO:21:LYS:HE2	2.17	0.45
54:DA:2474:C:H5''	54:DA:2475:C:C6	2.51	0.45
33:BN:1:MET:HB2	33:BN:32:TYR:HB3	1.98	0.45
54:DA:2553:G:H2'	54:DA:2554:U:O4'	2.17	0.45
24:BA:426:C:O2'	24:BA:427:U:H5'	2.16	0.45
43:DU:35:TYR:CD1	43:DU:35:TYR:O	2.69	0.45
1:AA:542:G:H2'	1:AA:543:C:H6	1.81	0.45
26:BD:111:LEU:CD2	26:BD:115:GLN:HE22	2.29	0.45
24:BA:602:G:N2	24:BA:656:G:C5	2.85	0.45
54:DA:987:G:H2'	54:DA:988:A:H5'	1.99	0.45
5:AH:144:THR:O	5:AH:146:ALA:N	2.49	0.45
30:BH:147:ASN:N	30:BH:147:ASN:ND2	2.64	0.45
6:AI:100:ASN:HB3	18:AU:29:PHE:HE2	1.81	0.45
22:CD:31:G:H2'	22:CD:32:C:C6	2.50	0.45
1:AA:224:C:H2'	1:AA:225:C:C6	2.50	0.45
55:DB:75:G:N1	55:DB:102:G:N2	2.65	0.45
27:DE:33:VAL:HG12	27:DE:90:THR:H	1.81	0.45
54:DA:1412:A:O2'	54:DA:1413:G:H5'	2.16	0.45
54:DA:2689:U:O2'	54:DA:2690:C:OP2	2.31	0.45
1:AA:391:G:C6	1:AA:392:G:C5	3.04	0.45
24:BA:1292:U:H2'	24:BA:1293:C:C6	2.52	0.45
24:BA:155:C:O2	24:BA:155:C:H2'	2.15	0.45
24:BA:1425:G:O2'	24:BA:1426:G:H5'	2.17	0.45
1:CA:416:G:H2'	1:CA:417:C:C6	2.51	0.45
46:DZ:85:LEU:N	46:DZ:85:LEU:HD22	2.31	0.45
34:BO:63:PRO:HB3	53:B8:13:ARG:CG	2.41	0.45
43:DU:75:ILE:HA	43:DU:80:GLY:HA2	1.98	0.45
43:DU:97:ARG:HH11	43:DU:97:ARG:HG2	1.82	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:16:ARG:NH2	3:AF:181:ASN:OD1	2.49	0.45
19:AV:15:LEU:O	19:AV:19:VAL:CG2	2.64	0.45
19:AV:36:ARG:C	19:AV:38:SER:N	2.69	0.45
19:AV:39:THR:CG2	19:AV:40:ILE:H	2.20	0.45
21:AX:6:ARG:CZ	21:AX:15:ARG:HH21	2.29	0.45
49:B4:33:VAL:HG12	49:B4:35:VAL:O	2.17	0.45
1:AA:1128:C:C3'	1:AA:1139:G:O6	2.59	0.45
54:DA:666:G:H4'	34:DO:49:ARG:HH12	1.78	0.45
1:CA:1053:G:C6	1:CA:1199:U:H2'	2.50	0.45
50:B5:3:LYS:CG	50:B5:4:HIS:H	2.22	0.45
26:DD:65:ILE:HD11	26:DD:67:PHE:CE1	2.51	0.45
26:DD:92:ILE:HD12	26:DD:104:TYR:HD2	1.81	0.45
1:AA:1100:C:O2'	1:AA:1101:A:H5'	2.16	0.45
2:AE:162:ILE:HD11	2:AE:184:VAL:HG13	1.98	0.45
2:AE:187:LEU:HA	2:AE:201:ILE:HB	1.97	0.45
24:BA:1053:C:C2'	24:BA:1054:A:H5''	2.44	0.45
24:BA:1071:G:O6	24:BA:1091:G:O6	2.35	0.45
51:D6:11:LEU:H	51:D6:25:LYS:HA	1.81	0.45
26:BD:143:HIS:O	26:BD:144:ALA:O	2.34	0.45
1:CA:685:G:N2	1:CA:686:U:C4	2.84	0.45
11:CN:41:THR:CG2	11:CN:42:TRP:N	2.79	0.45
4:AG:9:CYS:HA	4:AG:12:CYS:H	1.82	0.45
39:D1:95:LEU:HD13	40:D2:4:ILE:HD12	1.98	0.45
22:AD:17:C:H3'	22:AD:17(A):C:C5'	2.45	0.45
22:AD:58:A:C1'	22:AD:60:U:C5	2.99	0.45
5:AH:90:VAL:CG2	5:AH:121:LYS:HB3	2.46	0.45
25:BB:75:G:N1	25:BB:102:G:N2	2.62	0.45
43:BU:46:LYS:NZ	43:BU:63:LYS:HG2	2.30	0.45
22:AC:17:C:H2'	22:AC:17(A):C:C5	2.51	0.45
10:AM:32:ALA:HB1	10:AM:75:ILE:CG1	2.46	0.45
51:D6:15:GLU:HB3	51:D6:16:CYS:H	1.46	0.45
41:BS:18:ARG:HE	41:BS:18:ARG:HB2	1.62	0.45
36:D0:29:LEU:CD1	36:D0:29:LEU:N	2.79	0.45
1:AA:1155:G:O2'	1:AA:1156:G:H5'	2.16	0.45
37:BQ:6:ALA:HA	37:BQ:9:ARG:CZ	2.46	0.45
15:AR:55:GLY:HA2	15:AR:58:MET:HE2	1.99	0.45
24:BA:804:A:H2'	24:BA:806:C:C4	2.51	0.45
34:BO:57:THR:O	34:BO:57:THR:HG23	2.15	0.45
1:CA:346:G:H2'	1:CA:346:G:N3	2.32	0.45
20:CW:84:LEU:C	20:CW:84:LEU:HD13	2.37	0.45
8:CK:102:ARG:NH1	8:CK:105:ARG:CZ	2.80	0.45
1:AA:448:A:OP2	1:AA:485:G:N2	2.47	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CW:71:THR:HG22	20:CW:72:LEU:N	2.32	0.45
40:B2:51:VAL:CG1	40:B2:52:VAL:N	2.79	0.45
54:DA:1250:G:O2'	54:DA:1251:C:OP1	2.23	0.45
2:CE:95:GLN:NE2	2:CE:96:ARG:NH1	2.65	0.45
1:AA:538:G:OP2	12:AO:115:LYS:HB2	2.16	0.45
28:BF:198:ALA:O	28:BF:201:VAL:HG12	2.15	0.45
22:CD:21:A:C2	22:CD:48:C:H1'	2.51	0.45
35:BP:57:HIS:O	35:BP:57:HIS:ND1	2.44	0.45
24:BA:1428:C:N4	24:BA:1569:A:H3'	2.31	0.45
1:AA:1238:A:N7	1:AA:1303:C:H1'	2.32	0.45
58:DA:2912:G:H2'	59:DA:2913:C:C5'	2.47	0.45
24:BA:2682:U:O2'	38:BR:58:ASN:OD1	2.33	0.45
1:CA:890:G:C2'	1:CA:891:U:OP2	2.65	0.45
1:CA:920:U:H1'	1:CA:1080:A:C2	2.51	0.45
27:DE:111:ARG:NE	27:DE:160:TYR:CE1	2.76	0.45
4:CG:101:LEU:HD21	4:CG:121:VAL:HG13	1.98	0.45
7:CJ:148:ASN:ND2	22:CD:40:C:H4'	2.31	0.45
54:DA:345:A:H2'	54:DA:347:A:H62	1.80	0.45
2:AE:230:VAL:HG12	2:AE:230:VAL:O	2.16	0.45
13:AP:76:ALA:O	13:AP:79:LYS:N	2.49	0.45
1:AA:450:G:C5'	16:AS:41:PRO:O	2.65	0.45
29:BG:161:THR:C	29:BG:163:ALA:H	2.20	0.45
16:AS:59:TRP:O	16:AS:64:ALA:HB3	2.17	0.45
1:AA:1190:G:C5'	3:AF:176:HIS:NE2	2.79	0.45
1:CA:1047:G:O2'	1:CA:1048:G:H5'	2.17	0.45
32:DM:120:LEU:HD13	32:DM:120:LEU:C	2.37	0.45
7:CJ:8:GLU:N	7:CJ:8:GLU:CD	2.67	0.45
26:BD:106:ILE:C	26:BD:106:ILE:CD1	2.84	0.45
28:DF:31:HIS:O	28:DF:34:TRP:HB3	2.15	0.45
10:CM:29:ARG:HH11	10:CM:29:ARG:HG2	1.81	0.45
54:DA:2617:C:O2'	54:DA:2618:G:H5'	2.16	0.45
18:CU:32:ARG:HH11	18:CU:65:ILE:HD13	1.80	0.45
37:BQ:98:VAL:O	37:BQ:101:LEU:HB3	2.17	0.45
3:CF:108:ASN:HB3	3:CF:111:LEU:HG	1.98	0.45
3:AF:184:TYR:HA	3:AF:200:ALA:O	2.15	0.45
54:DA:162:U:OP1	54:DA:162:U:H6	1.98	0.45
24:BA:579:G:H2'	24:BA:580:C:C6	2.52	0.45
16:AS:55:ARG:O	16:AS:58:TYR:HB3	2.15	0.45
1:CA:45:U:H2'	1:CA:46:G:C8	2.52	0.45
1:AA:233:C:O2'	1:AA:234:C:H5'	2.17	0.45
1:AA:186(C):G:H2'	1:AA:186(D):C:H6	1.82	0.45
54:DA:714:U:O2	54:DA:716:A:C8	2.70	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:535:A:H5''	1:CA:536:C:OP2	2.16	0.45
1:AA:929:G:H5'	1:AA:1534:A:OP2	2.17	0.45
22:CC:1:C:O2	22:CC:1:C:H3'	2.16	0.45
22:AD:29:G:H2'	22:AD:30:G:O4'	2.15	0.45
52:D7:24:THR:O	52:D7:28:ARG:HG3	2.16	0.45
24:BA:736:C:H2'	24:BA:737:C:H6	1.81	0.45
54:DA:1230:C:H2'	54:DA:1231:G:C8	2.52	0.45
42:DT:24:GLY:O	42:DT:82:GLN:HA	2.16	0.45
54:DA:2361:A:O5'	53:D8:27:THR:OG1	2.34	0.45
28:DF:117:ARG:NH2	28:DF:189:THR:O	2.50	0.45
24:BA:2744:G:N2	30:BH:143:GLN:OE1	2.50	0.45
31:BK:65:ALA:O	31:BK:69:LYS:N	2.50	0.45
20:CW:24:LEU:HD13	20:CW:24:LEU:O	2.17	0.45
30:BH:167:GLU:CD	30:BH:167:GLU:N	2.69	0.45
4:CG:187:ARG:HH11	4:CG:187:ARG:HG2	1.81	0.45
24:BA:150:C:H2'	24:BA:151:C:C6	2.52	0.45
24:BA:2642:G:H5''	32:BM:78:TYR:CD2	2.50	0.45
49:B4:25:TYR:O	49:B4:26:SER:C	2.53	0.45
1:AA:1270:C:O2'	1:AA:1271:G:H5'	2.16	0.45
1:AA:1365:G:C6	1:AA:1366:C:C4	3.05	0.45
10:AM:63:PHE:HB3	14:AQ:57:ARG:O	2.17	0.45
9:AL:32:ASP:C	9:AL:34:ASN:H	2.20	0.45
9:AL:43:ALA:O	9:AL:45:ALA:N	2.44	0.45
31:DK:77:LEU:HB2	31:DK:104:GLN:OE1	2.15	0.45
27:DE:95:ILE:HG22	27:DE:95:ILE:O	2.16	0.45
44:DV:108:PRO:HG2	44:DV:112:ARG:N	2.24	0.45
24:BA:2702:U:H6	24:BA:2702:U:OP1	1.98	0.45
24:BA:2749:A:H4'	30:BH:62:LYS:HB3	1.98	0.45
30:BH:69:ARG:HG3	30:BH:69:ARG:NH1	2.32	0.45
24:BA:442:G:O4'	28:BF:46:ARG:HD3	2.15	0.45
24:BA:443:A:H2	24:BA:1245:G:N3	2.15	0.45
54:DA:278:A:H8	54:DA:278:A:C5'	2.30	0.45
27:DE:51:PHE:HD1	27:DE:52:LEU:H	1.59	0.45
1:CA:1365:G:O2'	1:CA:1366:C:H5'	2.16	0.45
26:DD:69:ARG:C	26:DD:71:ASP:N	2.69	0.45
1:AA:1111:A:H2'	1:AA:1112:C:C6	2.51	0.45
22:AC:9:G:H1'	22:AC:46:G:H1'	1.97	0.45
22:AD:48:C:N4	22:AD:59:A:C5	2.84	0.45
22:AD:6:G:O2'	22:AD:7:G:C5'	2.64	0.45
31:DK:79:ILE:HG23	31:DK:81:VAL:HG13	1.98	0.45
35:BP:64:ILE:HG22	35:BP:106:VAL:HG12	1.98	0.45
5:AH:101:ILE:HD13	5:AH:118:ILE:O	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BP:141:GLN:CG	44:BV:75:ASN:CG	2.83	0.45
24:BA:241:A:O2'	24:BA:242:G:O5'	2.32	0.45
37:BQ:106:ARG:O	37:BQ:107:GLU:HB2	2.16	0.45
54:DA:1654:A:C2	27:DE:113:PHE:CD1	3.05	0.45
54:DA:1534:G:H3'	54:DA:1534:G:C8	2.51	0.45
42:BT:8:ILE:HA	42:BT:30:VAL:HG12	1.98	0.45
9:AL:95:LYS:C	9:AL:95:LYS:HD3	2.36	0.45
1:CA:430:A:P	4:CG:9:CYS:H	2.39	0.45
2:CE:214:ILE:HD13	2:CE:217:ARG:HH22	1.81	0.45
43:BU:54:LYS:C	43:BU:55:TYR:CG	2.89	0.45
1:AA:1226:C:H5''	13:AP:96:LEU:CD1	2.46	0.45
37:BQ:66:ALA:O	37:BQ:67:ARG:C	2.55	0.45
1:AA:1503:A:O2'	1:AA:1504:G:OP1	2.33	0.45
20:AW:22:ARG:HG3	20:AW:22:ARG:HH11	1.82	0.45
1:CA:452:A:HO2'	16:CS:72:ARG:HG3	1.82	0.45
31:BK:7:GLU:HG3	31:BK:8:PRO:N	2.31	0.45
2:AE:8:LYS:HB3	2:AE:217:ARG:HD3	1.99	0.45
32:BM:63:THR:O	32:BM:64:GLY:O	2.34	0.45
46:BZ:73:LEU:C	46:BZ:75:GLU:N	2.69	0.45
11:AN:95:ILE:O	11:AN:99:GLN:HG2	2.17	0.45
52:B7:47:ARG:HH11	52:B7:47:ARG:CB	2.30	0.45
1:AA:1238:A:N6	1:AA:1301:U:H3	2.09	0.45
35:BP:93:TYR:CD1	35:BP:93:TYR:N	2.85	0.45
2:AE:127:ILE:HD13	2:AE:130:ARG:HG3	1.98	0.45
31:BK:131:LYS:CA	31:BK:132:PRO:O	2.65	0.45
55:DB:105:G:O2'	55:DB:106:G:H5'	2.17	0.45
1:AA:50:A:N6	1:AA:361:G:H4'	2.31	0.45
1:CA:920:U:C1'	1:CA:1080:A:C2	3.00	0.45
54:DA:2818:G:H4'	54:DA:2837:G:O4'	2.17	0.45
1:CA:102:G:C4	1:CA:103:C:C5	3.04	0.45
1:AA:1541:U:H4'	18:AU:18:ARG:NH1	2.31	0.45
4:CG:178:VAL:O	4:CG:181:MET:N	2.50	0.45
1:CA:1028:C:C4	1:CA:1028(A):C:C5	3.04	0.45
41:DS:40:ASN:C	41:DS:41:LYS:HG2	2.36	0.45
54:DA:228:A:O2'	54:DA:229:A:P	2.75	0.45
47:DW:28:LYS:HB3	47:DW:57:ILE:HG12	1.97	0.45
54:DA:655:A:C2'	54:DA:656:G:H5'	2.47	0.45
50:B5:45:VAL:HG11	50:B5:56:LYS:HG3	1.99	0.45
34:BO:11:GLY:O	34:BO:12:ALA:HB3	2.16	0.45
8:AK:37:ARG:CG	8:AK:38:ILE:N	2.77	0.45
6:CI:61:LEU:HD23	6:CI:63:TYR:OH	2.17	0.45
6:AI:14:LEU:CD2	6:AI:18:GLN:HB2	2.44	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DG:121:ASN:C	29:DG:123:ASN:H	2.19	0.45
1:CA:1135:U:H4'	1:CA:1136:U:C5	2.45	0.45
45:D3:36:ILE:N	45:D3:36:ILE:HD13	2.31	0.45
43:DU:2:ARG:O	43:DU:3:VAL:C	2.55	0.45
17:AT:10:VAL:HG13	17:AT:19:VAL:HB	1.97	0.45
1:CA:1326:C:OP1	21:CX:12:LYS:HE3	2.16	0.45
4:CG:52:SER:H	4:CG:55:ALA:HB3	1.82	0.45
4:CG:52:SER:N	4:CG:55:ALA:HB3	2.32	0.45
18:CU:63:GLN:HA	18:CU:63:GLN:OE1	2.17	0.45
35:DP:23:GLY:O	35:DP:24:GLY:C	2.54	0.45
18:CU:82:THR:HG22	18:CU:83:GLU:H	1.79	0.45
54:DA:2847:U:P	38:DR:98:LYS:HZ3	2.39	0.45
54:DA:2832:U:O2'	54:DA:2833:G:OP2	2.35	0.45
49:D4:3:GLU:HG3	49:D4:4:GLY:H	1.80	0.45
36:D0:10:LEU:O	36:D0:11:ASN:C	2.55	0.45
54:DA:236:C:H2'	54:DA:237:C:H6	1.82	0.45
54:DA:2854:G:H2'	54:DA:2855:C:C6	2.51	0.45
29:DG:51:ARG:NH2	29:DG:52:ILE:HD11	2.32	0.45
30:DH:16:SER:OG	30:DH:17:VAL:N	2.50	0.45
4:CG:104:VAL:O	4:CG:107:ARG:N	2.49	0.45
16:AS:66:PRO:C	16:AS:67:THR:O	2.55	0.45
24:BA:1080:A:O2'	24:BA:1081:U:H5'	2.17	0.45
26:DD:109:ASP:HB2	26:DD:197:GLY:CA	2.46	0.45
17:AT:29:HIS:ND1	17:AT:30:PRO:HD2	2.31	0.45
1:CA:35:G:H2'	1:CA:36:C:C6	2.51	0.45
1:CA:1097:C:O2	1:CA:1169:A:H2	2.00	0.45
1:AA:131:C:H2'	1:AA:132:C:C6	2.52	0.45
54:DA:1248:G:N2	28:DF:88:VAL:HG22	2.30	0.45
24:BA:215:G:H4'	24:BA:216:A:H4'	1.97	0.45
1:AA:1431:C:C2'	1:AA:1432:G:H5'	2.47	0.45
41:DS:21:VAL:O	41:DS:21:VAL:HG12	2.17	0.45
40:D2:30:GLY:O	40:D2:31:ALA:O	2.34	0.45
1:CA:1408:A:O2'	1:CA:1409:C:H5'	2.17	0.45
54:DA:2240:C:O2'	54:DA:2241:A:H5'	2.15	0.45
46:DZ:60:PHE:CE2	46:DZ:91:LYS:NZ	2.84	0.45
1:AA:973:G:O6	1:AA:974:A:N6	2.50	0.45
13:AP:70:LEU:O	13:AP:74:VAL:HG23	2.15	0.45
29:BG:121:ASN:HD21	29:BG:123:ASN:HB2	1.82	0.45
9:AL:59:PHE:N	9:AL:59:PHE:CD1	2.85	0.45
54:DA:1094:U:O2'	54:DA:1096:A:OP1	2.34	0.45
24:BA:34:C:HO2'	24:BA:35:G:H8	1.59	0.45
54:DA:482:A:N6	54:DA:506:G:O2'	2.50	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:B1:89:GLU:O	39:B1:90:VAL:C	2.54	0.45
39:B1:91:ASP:OD2	39:B1:96:ALA:CA	2.64	0.45
1:CA:1305:G:C5'	21:CX:4:GLY:HA3	2.47	0.45
19:CV:69:HIS:O	19:CV:70:LYS:O	2.34	0.45
54:DA:1568:G:OP1	26:DD:63:ARG:CZ	2.64	0.45
24:BA:1344:G:O2'	24:BA:1385:G:H5''	2.17	0.45
2:AE:55:PHE:CA	2:AE:58:ILE:HG12	2.40	0.45
24:BA:2892:A:N6	24:BA:2893:G:N2	2.65	0.45
24:BA:558:G:C5'	32:BM:112:LEU:HD22	2.47	0.45
24:BA:1785:A:N7	24:BA:1787:A:C5	2.84	0.45
40:D2:47:VAL:O	40:D2:48:GLY:O	2.34	0.45
51:B6:42:TRP:HD1	51:B6:44:ARG:NH1	2.10	0.45
1:CA:1002:G:C2	1:CA:1003:G:C5	3.04	0.45
31:DK:78:THR:O	31:DK:79:ILE:HG12	2.16	0.45
5:AH:75:THR:HG23	5:AH:76:ILE:N	2.31	0.45
35:BP:141:GLN:HE21	44:BV:74:VAL:N	2.15	0.45
24:BA:222:A:HO2'	24:BA:223:A:P	2.38	0.45
37:DQ:89:ARG:O	37:DQ:90:GLY:C	2.55	0.45
42:BT:8:ILE:H	42:BT:8:ILE:CD1	2.14	0.45
38:BR:3:ARG:O	38:BR:4:GLY:C	2.54	0.45
54:DA:2313:C:H5'	29:DG:40:ASN:ND2	2.32	0.45
16:CS:22:THR:CA	16:CS:33:ILE:HG12	2.41	0.45
24:BA:2391:G:O2'	24:BA:2424:C:N4	2.49	0.45
9:AL:121:ARG:HD3	9:AL:122:ALA:O	2.17	0.45
33:DN:22:ILE:HG12	33:DN:41:ALA:HA	1.98	0.45
24:BA:2308:G:O6	24:BA:2311:A:N1	2.49	0.45
29:BG:94:LEU:HD23	29:BG:94:LEU:H	1.82	0.45
10:AM:23:ILE:HG22	10:AM:23:ILE:O	2.17	0.45
29:DG:44:GLY:HA2	29:DG:88:ILE:HG12	1.97	0.45
4:AG:126:ILE:HG22	4:AG:127:THR:N	2.28	0.45
31:BK:37:VAL:CG1	31:BK:38:LEU:N	2.79	0.45
1:AA:1007:C:C3'	1:AA:1008:C:H5''	2.43	0.45
54:DA:2115:G:O6	54:DA:2163:C:OP1	2.35	0.45
24:BA:2190:G:H5'	24:BA:2190:G:H8	1.82	0.45
1:AA:1218:C:H2'	1:AA:1219:U:H6	1.79	0.45
13:CP:15:VAL:O	13:CP:19:LEU:CD2	2.64	0.45
54:DA:1313:U:H3'	54:DA:1314:C:H5'	1.98	0.45
27:DE:47:VAL:O	27:DE:47:VAL:HG23	2.16	0.45
18:CU:43:PHE:C	18:CU:51:LEU:HD12	2.36	0.45
54:DA:858:U:O2'	54:DA:2268:A:C2'	2.65	0.45
8:AK:4:ASP:OD2	8:AK:7:ALA:CB	2.64	0.45
54:DA:2836:U:H2'	54:DA:2837:G:C8	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:D1:76:TYR:C	39:D1:76:TYR:CD2	2.90	0.45
28:DF:45:ARG:NH1	28:DF:45:ARG:CG	2.71	0.45
24:BA:753:C:H2'	24:BA:754:C:H6	1.82	0.45
24:BA:1431:U:H2'	24:BA:1432:C:H6	1.81	0.45
24:BA:727:A:OP1	24:BA:1431:U:O2'	2.33	0.45
11:CN:48:ILE:HD11	11:CN:64:ALA:N	2.32	0.45
40:B2:24:LYS:HG3	40:B2:64:HIS:NE2	2.31	0.45
7:CJ:148:ASN:C	7:CJ:150:ALA:N	2.69	0.45
35:BP:132:VAL:HG11	44:BV:81:ARG:NH2	2.31	0.45
15:CR:77:ARG:HA	15:CR:80:ALA:HB2	1.99	0.45
1:AA:585:G:O2'	1:AA:879:C:H5'	2.16	0.45
54:DA:991:C:H2'	54:DA:992:C:O5'	2.16	0.45
54:DA:1204:A:C2'	54:DA:1205:U:OP2	2.65	0.45
24:BA:2886:G:H2'	24:BA:2887:U:C6	2.52	0.45
54:DA:2395:C:H2'	54:DA:2396:G:O4'	2.17	0.45
46:DZ:54:ALA:O	46:DZ:55:GLY:O	2.35	0.45
1:CA:439:A:C4	1:CA:496:A:C2	3.05	0.45
43:BU:33:LYS:HE2	43:BU:34:LYS:CG	2.45	0.45
1:CA:626:U:O2'	1:CA:627:G:H5'	2.17	0.45
17:AT:81:ARG:HH21	17:AT:84:LEU:HD21	1.82	0.45
1:CA:914:A:H2'	1:CA:915:A:H8	1.82	0.45
32:DM:20:GLY:HA2	32:DM:61:ARG:HD2	1.99	0.45
22:AD:42:G:H2'	22:AD:43:A:C8	2.47	0.45
35:DP:59:ARG:N	35:DP:59:ARG:HD2	2.31	0.45
17:CT:33:GLY:O	17:CT:34:LYS:C	2.55	0.45
35:BP:103:MET:O	35:BP:104:PHE:HB2	2.17	0.45
9:AL:47:LEU:HB3	9:AL:51:ARG:HH12	1.82	0.45
54:DA:185:U:H2'	54:DA:186:G:C8	2.52	0.45
24:BA:352:G:N3	24:BA:352:G:H2'	2.31	0.45
41:DS:88:ARG:CB	41:DS:92:ARG:HB3	2.47	0.45
34:DO:92:GLU:HA	34:DO:123:LEU:HD23	1.98	0.45
7:CJ:95:ARG:HG2	7:CJ:99:LEU:HD12	1.98	0.45
54:DA:237:C:C2'	54:DA:238:C:H5'	2.45	0.45
1:CA:1034:G:H2'	1:CA:1035:A:H8	1.81	0.45
42:DT:47:PHE:O	42:DT:48:LYS:C	2.55	0.45
50:B5:31:VAL:CG1	50:B5:42:PRO:HG3	2.47	0.45
1:AA:1429:C:H2'	1:AA:1430:C:H6	1.82	0.45
1:CA:490:G:O2'	1:CA:491:G:H5'	2.17	0.45
24:BA:487:C:N4	24:BA:488:G:C6	2.85	0.45
54:DA:1726:G:O2'	54:DA:1727:U:H5'	2.17	0.45
24:BA:2415:G:H2'	24:BA:2416:C:H6	1.82	0.45
44:BV:32:HIS:O	44:BV:33:LEU:HD22	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2762:G:H2'	54:DA:2763:G:H5'	1.99	0.45
24:BA:2063:C:O2	24:BA:2451:A:C2	2.70	0.45
1:AA:190:G:H8	1:AA:190:G:OP1	2.00	0.45
6:AI:54:LYS:NZ	6:AI:54:LYS:HB2	2.31	0.45
35:BP:119:ARG:HH11	35:BP:119:ARG:HG3	1.82	0.45
54:DA:207:A:H2'	54:DA:208:C:O4'	2.17	0.45
28:DF:167:ALA:HB1	28:DF:173:VAL:HG11	1.99	0.45
1:CA:1059:C:O2	10:CM:53:PRO:HG3	2.17	0.45
49:B4:13:ARG:O	49:B4:30:GLU:HA	2.16	0.45
54:DA:270(T):G:C5	54:DA:270(U):C:C5	3.05	0.45
24:BA:957:A:N6	24:BA:2494:G:N2	2.65	0.45
1:AA:1364:U:H2'	1:AA:1365:G:OP1	2.17	0.45
19:AV:45:VAL:O	19:AV:47:HIS:N	2.49	0.45
19:AV:64:GLU:CD	19:AV:65:ASN:H	2.20	0.45
9:AL:27:THR:CG2	9:AL:32:ASP:HA	2.46	0.45
27:DE:2:LYS:O	27:DE:199:ARG:HA	2.17	0.45
44:DV:136:PHE:CD1	44:DV:137:ILE:N	2.84	0.45
24:BA:2747:G:H21	24:BA:2757:A:N6	2.13	0.45
30:BH:44:VAL:CG2	30:BH:51:ARG:NH1	2.74	0.45
28:BF:46:ARG:NH1	28:BF:46:ARG:HG2	2.31	0.45
43:BU:75:ILE:HG13	43:BU:79:CYS:HA	1.99	0.45
54:DA:484:C:OP1	43:DU:51:VAL:HG11	2.16	0.45
39:B1:106:PHE:O	39:B1:110:VAL:HG23	2.17	0.45
1:CA:1269:A:H2	1:CA:1312:G:N3	2.14	0.45
1:CA:1317:C:O2	19:CV:37:ARG:NH1	2.46	0.45
15:CR:30:ALA:HA	15:CR:85:LEU:HD11	1.97	0.45
15:CR:82:ILE:CG2	15:CR:83:GLU:N	2.79	0.45
42:BT:12:VAL:HG12	42:BT:28:PHE:HA	1.99	0.45
3:AF:141:VAL:O	3:AF:141:VAL:HG12	2.16	0.45
2:AE:36:ARG:NH1	2:AE:36:ARG:HG3	2.30	0.45
24:BA:1085:A:O2'	24:BA:1086:A:P	2.75	0.45
23:C1:14:A:O2'	23:C1:15:A:H5'	2.17	0.45
1:CA:1536:C:H6	1:CA:1536:C:OP1	2.00	0.45
54:DA:747:U:O2	54:DA:2014:A:H1'	2.17	0.45
27:BE:35:GLN:HE22	27:BE:37:ARG:HH21	1.65	0.45
34:DO:21:ARG:HA	34:DO:21:ARG:HE	1.81	0.45
1:CA:1025:U:C2'	1:CA:1026:G:H8	2.28	0.45
39:D1:79:PHE:CE2	39:D1:83:LEU:HD13	2.51	0.45
1:AA:3:G:H4'	1:AA:4:U:H5''	1.99	0.45
25:BB:74:U:C2'	25:BB:75:G:C5'	2.91	0.45
35:BP:141:GLN:HG3	44:BV:73:GLN:CD	2.36	0.45
35:DP:34:LEU:HB2	35:DP:118:LEU:HD22	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BB:8:U:H5'	25:BB:8:U:C6	2.39	0.45
43:BU:8:LYS:N	43:BU:11:ASP:OD2	2.50	0.45
10:AM:4:ILE:CD1	10:AM:82:ILE:HD11	2.47	0.45
7:CJ:79:ARG:HG2	7:CJ:79:ARG:NH1	2.29	0.45
1:CA:1276:G:H2'	1:CA:1277:C:O4'	2.17	0.45
9:AL:91:ASP:C	9:AL:93:ARG:H	2.20	0.45
3:CF:34:LEU:C	3:CF:34:LEU:HD23	2.37	0.45
13:CP:57:ARG:HD2	13:CP:61:GLU:OE2	2.17	0.45
34:BO:56:SER:C	34:BO:57:THR:HG22	2.37	0.45
51:D6:18:ARG:O	51:D6:19:ARG:O	2.33	0.45
13:AP:97:PRO:CA	13:AP:110:ARG:HD3	2.46	0.45
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.51	0.45
17:AT:58:GLU:HG3	17:AT:77:VAL:HG22	1.99	0.45
20:AW:29:LYS:H	20:AW:29:LYS:HG2	1.37	0.45
10:AM:96:ILE:H	10:AM:96:ILE:HD13	1.80	0.45
11:CN:32:ILE:HD11	11:CN:72:ALA:HB2	1.96	0.45
12:AO:32:PHE:CG	12:AO:84:LEU:HD11	2.51	0.45
13:AP:53:VAL:O	13:AP:57:ARG:HD3	2.17	0.45
1:CA:1060:C:C5	3:CF:2:GLY:CA	3.00	0.45
33:DN:97:ARG:H	33:DN:117:LEU:CD2	2.24	0.45
29:DG:83:ARG:HG3	29:DG:86:MET:CE	2.46	0.45
1:AA:1300:G:O2'	1:AA:1301:U:O5'	2.33	0.45
25:BB:81:G:H5'	25:BB:82:G:OP2	2.17	0.45
1:CA:1178:G:C5'	9:CL:93:ARG:NH2	2.70	0.45
24:BA:2273:A:H2'	24:BA:2274:A:C8	2.51	0.45
32:DM:114:ARG:O	32:DM:115:ARG:CB	2.65	0.45
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.17	0.45
1:CA:835:U:OP2	18:CU:60:ALA:HB3	2.16	0.45
26:DD:68:LYS:HD2	26:DD:70:TRP:CZ2	2.52	0.45
41:BS:12:ILE:HG13	41:BS:42:ARG:NH1	2.26	0.45
24:BA:2135:A:O2'	24:BA:2160:G:H4'	2.16	0.45
1:CA:676:A:H2'	1:CA:677:U:C6	2.52	0.45
54:DA:859:G:O2'	54:DA:860:U:OP2	2.35	0.45
1:AA:360:A:C2'	1:AA:361:G:H5'	2.47	0.45
24:BA:1171:G:H1'	24:BA:1173:G:C4'	2.47	0.45
24:BA:1001:A:H2'	24:BA:1002:G:H5'	1.97	0.45
1:CA:390:C:H2'	1:CA:391:G:C8	2.51	0.45
24:BA:532:A:N7	24:BA:2021:C:H2'	2.31	0.45
54:DA:2063:C:C5	54:DA:2064:C:C5	3.04	0.45
1:CA:464:G:N2	1:CA:468:A:H62	2.14	0.45
1:AA:878:G:H5'	8:AK:89:PRO:CG	2.46	0.45
18:AU:75:ILE:C	18:AU:77:GLY:H	2.20	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
59:CC:106:C:OP2	58:DA:2908:G:H5'	2.17	0.45
54:DA:656:G:H2'	54:DA:657:U:O4'	2.17	0.45
24:BA:1751:C:H2'	24:BA:1752:C:C6	2.51	0.45
24:BA:634:C:H2'	24:BA:635:C:H6	1.82	0.45
8:AK:1:MET:O	8:AK:2:LEU:O	2.35	0.45
43:DU:25:GLY:HA3	43:DU:39:VAL:CG1	2.47	0.45
25:BB:12:C:C5'	25:BB:13:A:OP1	2.65	0.45
24:BA:1348:G:C2'	24:BA:1349:A:C5'	2.91	0.45
6:CI:3:ARG:HH11	6:CI:3:ARG:HG3	1.80	0.45
9:CL:47:LEU:HD22	9:CL:47:LEU:H	1.81	0.45
26:BD:72:LYS:HB3	26:BD:72:LYS:HZ2	1.81	0.45
54:DA:2779:U:H1'	54:DA:2781:A:C6	2.51	0.45
3:CF:92:ALA:HB2	3:CF:99:VAL:HG11	1.99	0.45
1:CA:1112:C:H1'	3:CF:179:ARG:NH1	2.28	0.45
16:AS:42:ARG:O	16:AS:44:THR:HG23	2.17	0.45
1:CA:312:C:O2'	1:CA:313:A:H5'	2.16	0.45
24:BA:218:A:H2	24:BA:235:U:H4'	1.81	0.45
45:B3:12:ASN:HA	45:B3:14:ARG:HH21	1.81	0.45
37:DQ:5:THR:OG1	37:DQ:8:GLU:HG3	2.17	0.45
54:DA:90:U:HO2'	54:DA:91:A:H8	1.58	0.45
8:AK:112:LEU:HD12	8:AK:114:THR:HG22	1.98	0.45
24:BA:403:U:O2'	24:BA:404:C:OP2	2.33	0.45
24:BA:127:A:H5''	24:BA:128:C:O4'	2.16	0.45
54:DA:1270:C:H5''	54:DA:1271:G:C5'	2.47	0.45
6:CI:101:ALA:HA	18:CU:28:GLU:CG	2.46	0.45
26:DD:198:ASN:ND2	26:DD:198:ASN:O	2.50	0.45
55:DB:52:A:O2'	55:DB:53:A:C8	2.67	0.45
1:AA:833:U:H2'	1:AA:834:C:C6	2.52	0.45
24:BA:1632:A:H8	24:BA:1632:A:O5'	1.99	0.45
1:CA:1409:C:H4'	54:DA:1915:U:O4	2.17	0.45
26:BD:231:HIS:ND1	26:BD:232:PRO:HD2	2.32	0.45
54:DA:244:A:H2'	54:DA:245:G:O4'	2.17	0.45
8:CK:64:LYS:HB3	8:CK:79:VAL:HG21	1.98	0.45
54:DA:439:G:H2'	54:DA:440:G:C8	2.52	0.45
1:AA:1258:G:O2'	1:AA:1259:C:H5'	2.17	0.45
54:DA:1128:A:O2'	54:DA:1129:A:O5'	2.35	0.45
55:DB:110:G:H2'	55:DB:111:U:O4'	2.16	0.45
46:DZ:80:LEU:O	46:DZ:81:LYS:CD	2.65	0.45
1:AA:1269:A:H2'	1:AA:1270:C:O4'	2.17	0.45
3:AF:16:ARG:H	3:AF:16:ARG:NH1	2.13	0.45
10:AM:54:PHE:CZ	10:AM:55:LYS:HD2	2.52	0.45
9:AL:114:TYR:HE1	10:AM:60:ARG:O	2.00	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:70:LEU:HD22	13:AP:71:ARG:N	2.32	0.45
19:AV:45:VAL:C	19:AV:47:HIS:H	2.20	0.45
29:BG:135:LEU:HD23	29:BG:140:ILE:HD11	1.99	0.45
54:DA:1053:C:C3'	54:DA:1054:A:C5'	2.94	0.45
27:DE:199:ARG:HH11	27:DE:199:ARG:HG3	1.82	0.45
27:DE:4:ILE:HG12	27:DE:91:VAL:HG11	1.99	0.45
44:DV:105:VAL:HG11	44:DV:138:GLU:HG2	1.99	0.45
54:DA:1318:C:C3'	54:DA:1319:G:H5''	2.46	0.45
24:BA:322:A:O2'	24:BA:339:U:N3	2.48	0.45
43:BU:14:LEU:HD23	43:BU:73:ARG:HB2	1.99	0.45
43:BU:95:LYS:NZ	43:BU:96:ILE:O	2.49	0.45
34:BO:102:ARG:HH21	34:BO:102:ARG:HG3	1.82	0.45
54:DA:728:G:O2'	54:DA:729:G:P	2.74	0.45
13:CP:65:LYS:NZ	13:CP:69:GLU:HG2	2.31	0.45
49:D4:68:ARG:O	49:D4:69:LYS:HB2	2.17	0.45
2:CE:170:GLU:CA	2:CE:172:ILE:HD12	2.46	0.45
2:CE:68:ILE:HB	2:CE:70:PHE:HE1	1.82	0.45
3:CF:42:LEU:HD12	3:CF:45:LYS:NZ	2.32	0.45
28:BF:25:PRO:HB2	28:BF:26:ALA:H	1.59	0.45
3:AF:78:GLY:O	3:AF:81:GLY:N	2.50	0.45
3:AF:84:ILE:O	3:AF:88:ARG:CG	2.60	0.45
24:BA:1086:A:C4'	24:BA:1103:A:H61	2.25	0.45
54:DA:1180:C:H6	54:DA:1180:C:C5'	2.30	0.45
27:BE:52:LEU:HB3	27:BE:75:VAL:HG23	1.98	0.45
26:BD:34:VAL:HG13	26:BD:104:TYR:CE1	2.52	0.45
1:CA:1285:A:C8	1:CA:1285:A:OP1	2.70	0.45
4:AG:64:LEU:O	4:AG:67:ILE:HB	2.17	0.45
5:CH:12:LEU:HB3	5:CH:31:LEU:CB	2.46	0.45
2:CE:229:VAL:HG12	2:CE:229:VAL:O	2.17	0.45
35:DP:65:PHE:O	35:DP:66:ILE:CG1	2.48	0.45
37:BQ:11:LYS:HG3	37:BQ:15:ARG:HE	1.82	0.45
51:D6:15:GLU:OE2	51:D6:44:ARG:NH1	2.49	0.45
54:DA:2408:U:H2'	54:DA:2409:G:C8	2.52	0.45
26:DD:25:THR:O	26:DD:25:THR:CG2	2.65	0.45
54:DA:1930:G:HO2'	54:DA:1968:G:H1	1.64	0.45
1:CA:251:G:N2	1:CA:253:U:C5	2.85	0.45
24:BA:60:G:H5''	47:BW:54:LYS:HZ3	1.82	0.45
17:AT:75:ARG:C	17:AT:75:ARG:HD2	2.37	0.45
54:DA:2344:U:HO2'	54:DA:2345:G:C5'	2.30	0.45
1:CA:191(F):U:O2	20:CW:105:SER:HB2	2.17	0.45
20:CW:44:ALA:O	20:CW:91:LEU:HB3	2.16	0.45
1:AA:563:A:H1'	1:AA:566:G:HO2'	1.80	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BG:40:ASN:ND2	29:BG:41:GLN:N	2.65	0.45
29:BG:53:LEU:O	29:BG:57:ALA:HB2	2.17	0.45
5:AH:15:ARG:NH1	23:A1:25:A:N7	2.63	0.45
1:AA:1054:C:O2'	1:AA:1055:A:H5''	2.17	0.45
20:AW:19:SER:O	20:AW:22:ARG:HB2	2.17	0.45
34:DO:88:LEU:C	34:DO:88:LEU:HD23	2.37	0.45
28:BF:78:ILE:C	28:BF:80:ALA:H	2.20	0.45
1:AA:251:G:H5'	1:AA:252:U:OP1	2.17	0.45
5:CH:7:GLU:HB3	5:CH:112:LEU:HD13	1.99	0.45
1:CA:563:A:H1'	1:CA:566:G:HO2'	1.81	0.45
54:DA:2168:G:N2	54:DA:2169:A:H3'	2.31	0.45
34:BO:45:LEU:CD1	34:BO:46:LYS:H	2.30	0.45
30:DH:137:ASP:HB2	30:DH:140:LYS:HE3	1.98	0.45
38:DR:24:PRO:HD3	38:DR:52:ILE:HD12	1.99	0.45
17:CT:59:ILE:N	17:CT:59:ILE:CD1	2.78	0.45
1:CA:765:G:N2	1:CA:812:C:H2'	2.32	0.45
1:CA:529:G:O4'	1:CA:533:A:C2	2.70	0.45
1:AA:1368:G:OP2	9:AL:112:LYS:HD2	2.17	0.45
3:CF:22:TRP:HB3	3:CF:59:ARG:HB2	1.99	0.45
38:BR:27:THR:CG2	38:BR:90:GLN:HB3	2.46	0.45
4:CG:133:VAL:HG12	4:CG:135:LEU:H	1.82	0.45
36:B0:21:TYR:CD2	36:B0:21:TYR:N	2.85	0.45
24:BA:916:G:C2'	24:BA:917:A:H5''	2.46	0.45
54:DA:189:G:H1	54:DA:205:G:HO2'	1.65	0.45
54:DA:2065:C:C2	54:DA:2066:C:C5	3.05	0.45
54:DA:1205:U:C4'	54:DA:1206:G:OP2	2.65	0.45
27:BE:179:GLU:HA	27:BE:179:GLU:OE2	2.16	0.45
8:AK:64:LYS:HD2	8:AK:79:VAL:HG21	1.99	0.45
6:AI:61:LEU:HD23	6:AI:63:TYR:CE2	2.52	0.45
17:CT:48:GLU:O	17:CT:50:LYS:N	2.50	0.45
54:DA:549:G:H2'	54:DA:550:G:O4'	2.17	0.45
17:AT:52:LYS:HD2	17:AT:55:ASP:OD2	2.17	0.45
24:BA:2439:A:C5'	24:BA:2439:A:H8	2.29	0.45
22:CD:35:A:H2'	22:CD:36:U:O4'	2.17	0.45
2:CE:25:ASN:HA	2:CE:26:PRO:HD2	1.85	0.45
54:DA:275:G:H21	54:DA:276:A:N6	2.15	0.45
54:DA:2618:G:H2'	54:DA:2619:C:H6	1.81	0.45
12:CO:64:TYR:O	12:CO:65:GLU:HB2	2.17	0.45
36:B0:18:LEU:HD11	36:B0:22:ARG:NH2	2.32	0.45
24:BA:1951:U:O2	24:BA:1953:A:C8	2.70	0.45
54:DA:173:G:H2'	54:DA:174:C:H6	1.79	0.45
1:AA:370:C:O2'	1:AA:371:G:H5'	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1413:A:C5	1:CA:1414:U:C5	3.04	0.45
24:BA:2648:C:H2'	24:BA:2649:U:C6	2.52	0.45
39:D1:27:LEU:HD12	39:D1:31:SER:HB3	1.98	0.45
27:BE:6:GLY:O	27:BE:195:LEU:HD12	2.17	0.45
5:AH:33:VAL:HG12	5:AH:34:VAL:H	1.82	0.45
54:DA:2870:C:C5'	36:D0:65:LEU:HD21	2.46	0.45
1:AA:122:G:O5'	1:AA:122:G:H8	2.00	0.45
1:CA:22:G:O2'	1:CA:23:C:H5'	2.16	0.45
20:CW:10:LEU:C	20:CW:12:ALA:H	2.20	0.45
50:B5:52:TYR:O	50:B5:53:ALA:CB	2.64	0.45
24:BA:2092:U:C5	24:BA:2226:C:OP1	2.70	0.45
24:BA:2672:G:C2'	24:BA:2673:G:H5''	2.47	0.45
24:BA:822:U:H2'	24:BA:823:G:H8	1.82	0.45
1:AA:812:C:C2'	1:AA:813:U:OP2	2.65	0.45
24:BA:683:C:H6	24:BA:683:C:O5'	2.00	0.45
31:BK:128:LEU:O	31:BK:138:ILE:HG22	2.17	0.45
47:BW:70:GLN:HG2	47:BW:71:ASN:N	2.31	0.45
54:DA:2230:G:C6	54:DA:2231:C:C4	3.05	0.45
58:CA:1601:G:H2'	58:CP:201:G:O4'	2.17	0.45
54:DA:520:G:H2'	54:DA:521:G:H8	1.82	0.45
24:BA:1478:G:H2'	24:BA:1479:G:H8	1.81	0.45
24:BA:568:U:O2'	24:BA:570:G:N7	2.39	0.45
7:AJ:126:ASP:O	7:AJ:129:GLU:HB3	2.16	0.45
52:D7:2:LYS:HG2	52:D7:3:ARG:N	2.31	0.45
41:BS:80:PRO:HD2	41:BS:100:THR:HG21	1.99	0.45
32:DM:5:VAL:HG13	32:DM:5:VAL:O	2.16	0.45
1:AA:493:G:O5'	1:AA:493:G:H8	2.00	0.45
1:AA:524:G:H2'	1:AA:525:C:C6	2.52	0.45
54:DA:1856:G:H2'	54:DA:1857:G:H5'	1.98	0.45
11:AN:91:ARG:HH11	11:AN:91:ARG:HG2	1.81	0.45
24:BA:654(C):G:C4	24:BA:654(C):G:H3'	2.52	0.45
29:BG:101:ILE:HD12	29:BG:101:ILE:C	2.37	0.45
13:AP:3:ARG:HB2	29:BG:113:ARG:HH21	1.80	0.45
24:BA:1041:C:H2'	24:BA:1042:G:C8	2.52	0.45
24:BA:2748:A:H2	24:BA:2753:A:H61	1.63	0.45
30:BH:49:VAL:O	30:BH:50:VAL:C	2.55	0.45
34:BO:95:VAL:HG23	34:BO:125:VAL:HG23	1.99	0.45
31:BK:82:ARG:HH11	31:BK:82:ARG:HG2	1.81	0.45
1:CA:1053:G:N7	1:CA:1200:C:H5''	2.31	0.45
1:CA:1227:A:N7	1:CA:1228:C:C6	2.85	0.45
1:CA:983:A:C2	1:CA:984:C:C6	3.02	0.45
13:CP:66:LEU:C	13:CP:70:LEU:HB2	2.37	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BB:28:C:H5''	37:BQ:31:SER:HB3	1.99	0.45
2:CE:77:ALA:HB2	2:CE:211:ILE:HG21	1.99	0.45
28:BF:20:LEU:HD13	28:BF:199:TRP:HZ3	1.82	0.45
2:AE:41:ILE:N	2:AE:41:ILE:CD1	2.80	0.45
2:AE:61:LEU:HG	2:AE:68:ILE:HD11	1.98	0.45
51:D6:7:ILE:O	51:D6:8:LYS:HG2	2.16	0.45
53:D8:36:LYS:HB3	53:D8:40:GLU:HG2	1.99	0.45
53:D8:52:LYS:O	53:D8:52:LYS:CG	2.64	0.45
50:B5:40:LYS:CE	50:B5:46:CYS:H	2.29	0.45
24:BA:9:U:H3	24:BA:2629:A:N6	2.15	0.45
13:CP:8:GLU:OE2	29:DG:115:ARG:NH1	2.50	0.45
24:BA:795:C:H2'	24:BA:796:C:C6	2.52	0.45
4:AG:21:LEU:H	4:AG:21:LEU:HG	0.92	0.45
32:DM:7:LYS:HD3	32:DM:9:VAL:H	1.80	0.45
54:DA:2790:A:C3'	54:DA:2791:C:H5''	2.47	0.45
44:BV:117:LEU:C	44:BV:118:GLN:HE21	2.20	0.45
20:CW:36:LEU:HA	20:CW:36:LEU:HD13	1.82	0.45
35:DP:133:ARG:CG	35:DP:134:ARG:N	2.78	0.45
37:BQ:109:GLY:O	37:BQ:110:LEU:O	2.34	0.45
37:BQ:15:ARG:CZ	37:BQ:88:ASP:OD1	2.65	0.45
32:DM:22:THR:O	32:DM:60:ILE:HG22	2.16	0.45
24:BA:222:A:H62	24:BA:232:G:H21	1.65	0.45
51:D6:45:LYS:HD3	51:D6:45:LYS:HA	1.80	0.45
38:BR:23:ARG:O	38:BR:24:PRO:C	2.55	0.45
1:AA:1117:G:O3'	9:AL:104:ARG:CD	2.65	0.45
1:AA:1375:A:H2'	1:AA:1376:U:H6	1.82	0.45
10:AM:13:HIS:ND1	10:AM:14:LYS:N	2.65	0.45
55:DB:37:C:H2'	55:DB:38:C:H5'	1.99	0.45
7:CJ:102:ARG:HG2	7:CJ:106:GLN:HE21	1.80	0.45
1:AA:1227:A:C4	13:AP:117:VAL:CG2	3.00	0.45
24:BA:2720:U:C2	24:BA:2721:A:C8	3.05	0.45
5:CH:101:ILE:HD13	5:CH:101:ILE:H	1.82	0.45
20:CW:53:LEU:HD12	20:CW:100:ILE:HG23	1.98	0.45
26:DD:145:VAL:HG12	26:DD:146:GLU:N	2.32	0.45
24:BA:2314:C:C2	24:BA:2315:G:C8	3.04	0.45
30:DH:7:LEU:C	30:DH:7:LEU:HD12	2.37	0.45
24:BA:2458:G:C2'	24:BA:2490:G:O6	2.56	0.45
53:B8:10:ALA:C	53:B8:12:LYS:N	2.69	0.45
1:CA:1014:A:C4'	19:CV:14:HIS:CD2	2.96	0.45
13:AP:108:ARG:HG3	13:AP:108:ARG:NH1	2.32	0.45
54:DA:1289:C:C2	54:DA:1290:C:C5	3.05	0.45
54:DA:2654:A:N9	54:DA:2656:U:O2	2.50	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1030:C:C2'	1:AA:1031:G:OP1	2.65	0.45
1:AA:737:A:O2'	6:AI:73:ASN:ND2	2.50	0.45
1:AA:754:C:H1'	15:AR:69:TYR:CD1	2.52	0.45
34:DO:45:LEU:CD1	34:DO:45:LEU:N	2.79	0.45
25:BB:96:G:C6	25:BB:97:G:N7	2.84	0.45
24:BA:954:G:O2'	24:BA:2274:A:N1	2.42	0.45
27:BE:200:GLU:CG	27:BE:201:THR:N	2.72	0.45
48:BX:54:VAL:HG12	48:BX:55:ARG:N	2.32	0.45
3:CF:87:LEU:C	3:CF:89:GLU:H	2.19	0.45
28:DF:196:LEU:O	28:DF:200:GLU:HG2	2.17	0.45
31:DK:117:GLU:O	31:DK:118:LYS:HB2	2.17	0.45
32:BM:120:LEU:HD23	32:BM:120:LEU:O	2.17	0.45
24:BA:1364:G:OP1	46:BZ:3:LYS:HD3	2.16	0.45
1:CA:372:C:H42	1:CA:389:A:H62	1.63	0.45
1:CA:377:G:P	16:CS:5:ARG:HH11	2.39	0.45
24:BA:918:A:O5'	24:BA:918:A:H8	2.00	0.45
1:AA:706:A:N7	1:AA:707:C:C5	2.85	0.45
1:CA:1027:C:C2	1:CA:1028:C:C5	3.05	0.45
18:AU:50:ILE:HD12	18:AU:70:ILE:CD1	2.43	0.45
18:AU:72:ARG:O	18:AU:75:ILE:HB	2.16	0.45
24:BA:871:U:C5'	35:BP:5:ARG:NH2	2.80	0.45
1:AA:173:U:H1'	1:AA:197:A:N1	2.32	0.45
27:BE:11:MET:HG3	27:BE:24:THR:HA	1.98	0.45
24:BA:228:A:C5	24:BA:230:U:C2	3.04	0.45
28:BF:170:LEU:HD12	28:BF:170:LEU:H	1.82	0.45
54:DA:2687:U:O2'	54:DA:2688:U:H5'	2.17	0.45
24:BA:1665:A:C4'	33:BN:67:LYS:HB2	2.43	0.45
31:DK:127:VAL:HG13	31:DK:139:GLN:CG	2.47	0.45
2:CE:22:LYS:O	2:CE:24:TRP:N	2.50	0.45
32:BM:84:LYS:C	32:BM:85:ILE:HG13	2.38	0.45
32:BM:71:ILE:O	32:BM:71:ILE:CD1	2.64	0.45
24:BA:961:C:H5''	24:BA:962:G:OP2	2.17	0.45
11:CN:75:TYR:CD1	11:CN:75:TYR:N	2.85	0.45
39:B1:112:ARG:O	39:B1:116:ALA:HB3	2.17	0.45
5:AH:143:ARG:NH1	8:AK:77:GLU:OE1	2.49	0.45
24:BA:605:C:H1'	24:BA:657:U:O2'	2.15	0.45
54:DA:782:A:N3	26:DD:226:MET:HB3	2.32	0.45
5:AH:10:MET:CG	5:AH:32:VAL:HG22	2.45	0.45
22:AC:64:G:H2'	22:AC:65:C:H6	1.82	0.45
24:BA:1515:C:H2'	24:BA:1516:U:C6	2.52	0.45
7:AJ:16:LEU:O	7:AJ:17:VAL:HB	2.16	0.45
7:CJ:95:ARG:HH11	7:CJ:95:ARG:HG3	1.82	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1278:A:H4'	36:D0:34:ILE:CG2	2.47	0.45
38:BR:132:LYS:NZ	38:BR:132:LYS:CB	2.80	0.45
32:BM:11:PRO:HB2	32:BM:51:PHE:CE1	2.52	0.45
1:AA:765:G:N1	1:AA:812:C:H2'	2.32	0.45
1:CA:119:A:H5''	1:CA:120:A:O4'	2.17	0.45
24:BA:466:A:H1'	24:BA:683:C:O4'	2.16	0.45
14:AQ:53:LEU:HB3	14:AQ:56:VAL:HG21	1.99	0.45
22:AC:37:A:C2	23:A1:16:A:C6	3.05	0.45
3:AF:121:ALA:HB2	3:AF:198:VAL:HG21	1.99	0.45
54:DA:327:G:H2'	54:DA:328:U:C6	2.52	0.45
22:CC:7:G:H4'	22:CC:8:U:OP2	2.16	0.45
54:DA:2766:G:C2	54:DA:2767:C:C6	3.04	0.45
29:BG:18:GLU:HG3	29:BG:18:GLU:O	2.16	0.45
13:AP:15:VAL:CA	13:AP:45:VAL:HG22	2.39	0.45
19:AV:9:VAL:HG11	49:B4:63:TYR:CD1	2.50	0.45
2:CE:98:LEU:O	2:CE:101:MET:HG3	2.17	0.45
44:DV:120:ILE:HD13	44:DV:169:GLU:CG	2.45	0.45
24:BA:1202:C:N4	24:BA:1203:G:C6	2.85	0.45
30:BH:127:GLU:CG	30:BH:128:PRO:HD2	2.44	0.45
34:BO:130:PHE:CZ	34:BO:144:GLU:HB2	2.52	0.45
34:BO:79:ARG:HG3	34:BO:109:GLY:O	2.16	0.45
24:BA:1149:G:H2'	24:BA:1150:C:H6	1.80	0.45
24:BA:996:A:O3'	39:B1:92:ARG:NE	2.49	0.45
1:CA:1235:U:O2'	1:CA:1305:G:O5'	2.35	0.45
1:CA:1312:G:OP2	49:D4:67:TYR:HE1	2.00	0.45
15:CR:83:GLU:C	15:CR:85:LEU:N	2.70	0.45
34:DO:112:LEU:CD1	34:DO:114:ILE:HG23	2.47	0.45
41:DS:14:PRO:O	41:DS:16:LYS:N	2.50	0.45
1:CA:1535:C:O2'	1:CA:1536:C:P	2.75	0.45
24:BA:534:U:O2'	39:B1:49:HIS:CD2	2.70	0.45
11:CN:53:SER:C	11:CN:55:LYS:H	2.20	0.45
22:AD:48:C:C5	22:AD:59:A:C8	3.05	0.45
31:DK:124:GLY:N	31:DK:142:VAL:HG23	2.31	0.45
35:BP:51:ARG:NH2	35:BP:64:ILE:HD11	2.32	0.45
5:CH:10:MET:HB2	5:CH:32:VAL:HG22	1.93	0.45
37:BQ:104:GLY:C	37:BQ:106:ARG:N	2.70	0.45
43:BU:9:LYS:O	43:BU:27:VAL:HG23	2.17	0.45
27:BE:4:ILE:HD12	27:BE:28:ALA:HB3	1.99	0.45
54:DA:1444(A):A:H4'	54:DA:1460:A:O2'	2.17	0.45
54:DA:1006:C:H5'	32:DM:28:THR:HG23	1.99	0.45
18:AU:31:LEU:O	18:AU:69:THR:HG21	2.16	0.45
35:BP:35:VAL:HG12	35:BP:130:LYS:O	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1179:A:C5'	9:AL:102:LEU:HD22	2.47	0.45
44:BV:4:ARG:HA	44:BV:58:VAL:HB	1.98	0.45
40:B2:62:LEU:HB3	40:B2:93:GLU:O	2.16	0.45
33:DN:104:ARG:NH2	38:DR:34:VAL:HG11	2.32	0.45
1:CA:121:C:N4	1:CA:236:G:OP2	2.50	0.45
5:CH:55:VAL:O	5:CH:58:ALA:HB3	2.16	0.45
31:DK:135:GLU:HB2	31:DK:136:VAL:H	1.50	0.45
26:DD:238:GLY:O	26:DD:239:ARG:O	2.35	0.45
5:AH:56:GLN:HE21	5:AH:56:GLN:CA	2.08	0.45
54:DA:301:G:HO2'	54:DA:302:C:H6	1.63	0.45
20:AW:22:ARG:O	20:AW:26:ASN:ND2	2.50	0.45
2:AE:8:LYS:O	2:AE:8:LYS:HG2	2.17	0.45
8:AK:53:VAL:O	8:AK:54:ASP:HB2	2.17	0.45
24:BA:204:A:O2'	24:BA:205:G:O5'	2.32	0.45
28:DF:155:LEU:HA	28:DF:174:VAL:CG1	2.46	0.45
34:BO:42:SER:O	34:BO:43:GLY:C	2.55	0.45
31:BK:110:ASP:O	31:BK:111:PRO:C	2.54	0.45
54:DA:2819:G:H2'	54:DA:2821:A:N7	2.31	0.45
8:AK:84:ARG:NH1	8:AK:84:ARG:CG	2.80	0.45
1:CA:438:G:OP1	4:CG:125:HIS:CE1	2.70	0.45
1:AA:1032(B):G:H2'	1:AA:1033:G:C4'	2.46	0.45
24:BA:617:G:H5'	28:BF:40:GLN:NE2	2.31	0.45
35:BP:56:ARG:CB	35:BP:56:ARG:HH11	2.22	0.45
20:AW:67:ALA:C	20:AW:69:GLY:N	2.69	0.45
20:AW:74:LYS:O	20:AW:76:ALA:N	2.50	0.45
13:CP:56:LEU:HD13	13:CP:56:LEU:O	2.17	0.45
34:BO:13:ASN:C	34:BO:15:ARG:N	2.69	0.45
15:AR:18:PHE:CD1	15:AR:21:ASP:HB2	2.52	0.45
25:BB:16:G:N2	25:BB:17:C:C2	2.85	0.45
26:DD:45:ASN:CG	26:DD:46:GLN:N	2.68	0.45
2:AE:113:HIS:C	2:AE:115:LEU:H	2.20	0.45
24:BA:713:G:H2'	24:BA:714:U:C6	2.49	0.45
1:AA:1292:U:H2'	1:AA:1293:G:H8	1.76	0.45
1:AA:1294:G:C2'	1:AA:1295:G:H5'	2.47	0.45
10:CM:51:ARG:HH11	10:CM:51:ARG:HG2	1.81	0.45
24:BA:981:A:N1	24:BA:2027:G:O2'	2.36	0.45
35:BP:113:GLN:O	35:BP:116:GLU:HB3	2.17	0.45
1:CA:116:A:H61	1:CA:313:A:H1'	1.82	0.45
1:AA:1090:U:O2'	1:AA:1091:U:H5'	2.17	0.45
2:CE:30:ARG:O	2:CE:31:TYR:HD2	2.00	0.45
24:BA:895:U:C2'	24:BA:896:A:OP1	2.64	0.45
4:CG:150:GLU:C	4:CG:152:SER:H	2.20	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CL:13:ALA:HB2	9:CL:68:GLY:CA	2.47	0.45
26:DD:166:GLN:CA	26:DD:166:GLN:NE2	2.78	0.45
54:DA:25:U:H5''	41:DS:80:PRO:HD3	1.99	0.45
1:AA:889:A:O2'	1:AA:890:G:P	2.75	0.45
54:DA:2348:U:O4	54:DA:2382:G:N2	2.49	0.45
7:CJ:122:HIS:CD2	7:CJ:122:HIS:H	2.33	0.45
44:DV:23:LYS:HD3	44:DV:23:LYS:N	2.30	0.45
19:AV:32:LYS:O	19:AV:33:THR:CB	2.66	0.45
11:AN:24:SER:HB3	11:AN:27:ASN:O	2.17	0.45
31:DK:83:ALA:O	31:DK:85:GLU:N	2.50	0.45
24:BA:764:A:C6	24:BA:781:A:C2	3.05	0.45
24:BA:301:G:HO2'	24:BA:302:C:H6	1.55	0.45
24:BA:1666:G:OP1	33:BN:66:LYS:HD3	2.17	0.45
54:DA:2062:A:C2'	54:DA:2062:A:N3	2.78	0.45
1:CA:366:C:O2'	1:CA:394:G:N2	2.50	0.45
54:DA:1338:G:O2'	54:DA:1339:G:H5'	2.17	0.45
54:DA:2432:A:C8	46:DZ:33:LYS:HE2	2.52	0.45
54:DA:225:A:O2'	54:DA:257:A:H4'	2.17	0.45
35:DP:5:ARG:O	35:DP:6:ARG:O	2.35	0.45
54:DA:2479:G:C6	54:DA:2480:C:C5	3.05	0.45
36:D0:17:ARG:O	36:D0:20:LEU:HB3	2.17	0.45
26:BD:45:ASN:HB2	26:BD:46:GLN:OE1	2.17	0.45
54:DA:2120:G:H2'	54:DA:2121:G:H8	1.82	0.45
54:DA:1001:A:H2'	54:DA:1002:G:O4'	2.16	0.45
22:CC:44:A:H2'	22:CC:45:G:O4'	2.17	0.45
28:DF:144:LYS:C	28:DF:146:ALA:H	2.20	0.45
35:DP:93:TYR:CD1	35:DP:93:TYR:N	2.85	0.45
24:BA:659:C:C6	24:BA:659:C:H5''	2.52	0.45
24:BA:2759:G:C8	24:BA:2759:G:C5'	2.98	0.44
31:BK:122:GLU:HB3	31:BK:126:TYR:OH	2.17	0.44
31:BK:76:THR:OG1	31:BK:77:LEU:N	2.51	0.44
43:DU:94:LYS:HE3	43:DU:101:LYS:HZ1	1.78	0.44
1:AA:1329:A:H5''	13:AP:25:ILE:O	2.18	0.44
3:AF:16:ARG:NH1	3:AF:16:ARG:HG2	2.31	0.44
21:AX:12:LYS:HG3	21:AX:17:THR:O	2.16	0.44
49:B4:37:SER:O	49:B4:39:CYS:N	2.50	0.44
9:AL:18:PHE:O	9:AL:19:LEU:CG	2.65	0.44
54:DA:1086:A:H2'	54:DA:1086:A:N3	2.32	0.44
24:BA:2745:C:O3'	30:BH:142:GLY:HA3	2.17	0.44
30:BH:126:PRO:HB2	30:BH:128:PRO:N	2.28	0.44
39:B1:103:PRO:HD2	39:B1:104:GLN:HE22	1.81	0.44
54:DA:2636:U:OP2	27:DE:79:ARG:CZ	2.65	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1049:C:C5'	54:DA:1049:C:H6	2.22	0.44
1:CA:971:G:H2'	1:CA:1365:G:H4'	1.99	0.44
13:CP:108:ARG:O	13:CP:111:LYS:N	2.48	0.44
19:CV:45:VAL:O	19:CV:62:ILE:O	2.35	0.44
2:CE:189:ASP:OD2	2:CE:205:ASP:OD1	2.35	0.44
10:CM:63:PHE:HB3	14:CQ:57:ARG:O	2.17	0.44
10:CM:6:ILE:O	10:CM:71:LEU:HD12	2.18	0.44
34:DO:81:GLN:CD	34:DO:106:LEU:O	2.55	0.44
2:AE:68:ILE:HD12	2:AE:68:ILE:N	2.32	0.44
2:AE:90:MET:HB3	2:AE:91:PRO:CD	2.48	0.44
24:BA:1101:U:H2'	24:BA:1102:C:C6	2.48	0.44
54:DA:2612:C:C4	54:DA:2613:U:C5	3.05	0.44
24:BA:2805:G:N2	24:BA:2807:G:C6	2.85	0.44
27:BE:34:VAL:HG11	27:BE:64:LYS:HE3	1.99	0.44
27:DE:21:VAL:HG23	27:DE:22:PRO:CD	2.46	0.44
1:CA:1004:A:H1'	1:CA:1036:G:N1	2.32	0.44
1:CA:1004:A:C5	1:CA:1025:U:H1'	2.51	0.44
1:AA:428:G:H1'	1:AA:430:A:C8	2.52	0.44
37:DQ:78:LEU:HD21	37:DQ:108:GLY:CA	2.47	0.44
5:CH:12:LEU:HD21	5:CH:14:ARG:HB3	1.98	0.44
20:CW:36:LEU:C	20:CW:38:LYS:N	2.71	0.44
28:DF:63:LYS:HZ3	28:DF:67:GLN:HE21	1.64	0.44
29:DG:14:GLU:HB3	29:DG:15:VAL:H	1.56	0.44
54:DA:1141:U:C5	32:DM:64:GLY:HA3	2.53	0.44
43:BU:45:VAL:HG12	43:BU:61:ILE:O	2.17	0.44
24:BA:265:A:C2'	24:BA:266:G:OP2	2.65	0.44
41:BS:108:GLY:O	41:BS:109:GLU:C	2.56	0.44
38:BR:45:PHE:CE2	38:BR:74:ARG:HB2	2.52	0.44
10:AM:31:GLY:O	10:AM:78:ASN:ND2	2.49	0.44
54:DA:2445:G:OP1	28:DF:74:ARG:NH2	2.50	0.44
40:B2:80:GLN:CA	40:B2:80:GLN:NE2	2.67	0.44
13:CP:53:VAL:HG12	13:CP:57:ARG:HH12	1.82	0.44
4:CG:94:LEU:O	4:CG:98:GLU:N	2.50	0.44
34:DO:75:ILE:HG12	34:DO:77:ARG:HH12	1.82	0.44
40:B2:98:GLU:O	40:B2:99:ILE:HB	2.17	0.44
54:DA:1926:U:O2	54:DA:1928:A:C8	2.71	0.44
54:DA:1968:G:C2'	54:DA:1969:A:H5''	2.47	0.44
54:DA:1932:A:C2	54:DA:1969:A:C5	3.04	0.44
6:CI:23:LYS:HG2	6:CI:27:GLN:OE1	2.18	0.44
20:CW:56:MET:HG3	20:CW:88:VAL:HG21	1.98	0.44
24:BA:608:A:OP1	28:BF:100:THR:HG21	2.17	0.44
1:AA:437:U:H2'	1:AA:438:G:O4'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:447:A:H4'	24:BA:448:U:C5'	2.48	0.44
1:AA:484:G:H4'	1:AA:485:G:O5'	2.17	0.44
11:CN:17:GLY:CA	11:CN:77:MET:HE3	2.43	0.44
24:BA:1688:U:O2	24:BA:1700:A:H5'	2.17	0.44
54:DA:2653:U:C2	54:DA:2654:A:N7	2.85	0.44
1:AA:1031:G:N2	1:AA:1032:A:N9	2.63	0.44
24:BA:528:A:C2	24:BA:2043:C:H4'	2.52	0.44
7:CJ:111:ARG:HD2	7:CJ:123:GLU:HB2	1.99	0.44
41:BS:6:ILE:HA	41:BS:103:ILE:O	2.17	0.44
24:BA:1061:U:H1'	24:BA:1070:A:H1'	1.98	0.44
1:CA:14:U:O2	1:CA:17:U:H5	2.00	0.44
47:BW:26:ARG:NH1	47:BW:26:ARG:CB	2.80	0.44
31:BK:51:ILE:C	31:BK:53:ALA:H	2.19	0.44
12:CO:117:ARG:NH2	12:CO:124:LYS:HD3	2.32	0.44
1:AA:1064:G:C8	1:AA:1066:C:C2	3.05	0.44
20:AW:67:ALA:O	20:AW:73:HIS:CE1	2.70	0.44
24:BA:2712:U:O2'	24:BA:2712(A):A:H8	1.99	0.44
1:AA:1278:U:H5'	1:AA:1279:A:O4'	2.18	0.44
1:AA:677:U:H6	1:AA:677:U:O5'	2.00	0.44
1:CA:498:A:O2'	1:CA:500:G:O4'	2.35	0.44
1:AA:220:G:C2'	1:AA:221:C:H5'	2.47	0.44
15:AR:18:PHE:CE1	15:AR:21:ASP:HB2	2.52	0.44
54:DA:2688:U:O2	54:DA:2688:U:H3'	2.17	0.44
4:CG:68:TYR:O	4:CG:69:GLY:C	2.55	0.44
29:DG:19:LEU:HA	29:DG:22:ARG:HB2	1.99	0.44
24:BA:371:A:HO2'	24:BA:372:G:P	2.40	0.44
3:CF:140:ARG:HH11	3:CF:140:ARG:CG	2.30	0.44
24:BA:283:A:O2'	24:BA:284:U:P	2.74	0.44
54:DA:213:A:O2'	54:DA:214:G:H5'	2.18	0.44
9:CL:4:TYR:CZ	9:CL:88:TYR:HB2	2.51	0.44
3:AF:6:HIS:HA	3:AF:7:PRO:HD2	1.78	0.44
54:DA:172:C:H2'	54:DA:173:G:C8	2.52	0.44
24:BA:431:U:H6	24:BA:431:U:O5'	2.00	0.44
26:DD:166:GLN:HA	26:DD:166:GLN:NE2	2.32	0.44
54:DA:1516:U:H2'	54:DA:1517:G:H8	1.83	0.44
29:DG:129:GLY:HA2	29:DG:169:ALA:HB2	1.99	0.44
41:BS:113:LYS:HD2	41:BS:113:LYS:C	2.38	0.44
27:BE:105:THR:HG21	27:BE:164:ARG:CZ	2.47	0.44
23:A1:4:A:O2'	23:A1:5:A:O5'	2.30	0.44
36:D0:12:ARG:HG3	36:D0:12:ARG:NH1	2.32	0.44
54:DA:755:C:H2'	54:DA:756:C:H6	1.81	0.44
24:BA:1008:C:N4	24:BA:1136:G:N1	2.65	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1198:U:C2	24:BA:1199:U:C5	3.04	0.44
13:CP:28:ALA:C	13:CP:30:ALA:N	2.70	0.44
27:BE:149:ARG:HG3	27:BE:149:ARG:HH11	1.83	0.44
24:BA:2252:G:H2'	24:BA:2253:G:H8	1.81	0.44
14:AQ:29:ARG:HG2	14:AQ:40:CYS:CB	2.47	0.44
24:BA:1442:G:H2'	24:BA:1443:G:O4'	2.16	0.44
40:D2:69:LYS:HG3	40:D2:87:HIS:O	2.17	0.44
24:BA:2215:G:C2'	24:BA:2216:G:H5'	2.48	0.44
10:AM:70:ARG:HG3	10:AM:70:ARG:HH11	1.82	0.44
24:BA:2334:G:H5''	24:BA:2335:A:OP2	2.16	0.44
6:CI:7:ASN:ND2	18:CU:34:TYR:HE1	2.16	0.44
1:AA:1450:U:C5	1:AA:1451:A:N3	2.85	0.44
1:AA:148:G:H4'	1:AA:1450:U:N3	2.32	0.44
54:DA:2724:C:O2	54:DA:2724:C:H2'	2.16	0.44
13:CP:110:ARG:HG3	13:CP:110:ARG:HH11	1.82	0.44
1:AA:149:A:H2'	1:AA:150:C:C6	2.51	0.44
25:BB:38:C:H3'	25:BB:38:C:C6	2.52	0.44
26:BD:255:LYS:HE2	26:BD:255:LYS:H	1.75	0.44
3:AF:181:ASN:HD21	3:AF:204:LEU:HB3	1.82	0.44
13:AP:44:ARG:HG2	13:AP:44:ARG:H	1.61	0.44
1:AA:1244:C:P	21:AX:8:THR:HG23	2.57	0.44
13:AP:3:ARG:HH11	29:BG:113:ARG:HE	1.65	0.44
24:BA:2517:C:C2	24:BA:2542:A:N6	2.85	0.44
24:BA:2517:C:C4	24:BA:2542:A:C6	3.05	0.44
54:DA:1086:A:H4'	54:DA:1103:A:H62	1.82	0.44
54:DA:1511:A:O2'	54:DA:1512:G:H5'	2.17	0.44
44:DV:139:VAL:CG1	44:DV:139:VAL:O	2.65	0.44
24:BA:1112:G:OP1	30:BH:3:ARG:NH2	2.50	0.44
43:BU:77:PRO:O	43:BU:78:ALA:CB	2.65	0.44
54:DA:479:A:O2'	54:DA:481:G:H5'	2.17	0.44
34:BO:112:LEU:HD22	34:BO:112:LEU:C	2.38	0.44
39:B1:91:ASP:OD2	39:B1:96:ALA:HA	2.17	0.44
1:CA:1226:C:O3'	13:CP:111:LYS:HE3	2.16	0.44
10:CM:54:PHE:CD2	10:CM:55:LYS:HD2	2.53	0.44
10:CM:54:PHE:CE2	10:CM:55:LYS:HD2	2.52	0.44
41:BS:15:ARG:CZ	50:B5:20:ARG:NH2	2.80	0.44
24:BA:270:A:C2'	24:BA:270(A):A:H5'	2.47	0.44
54:DA:1482:U:H5'	54:DA:1483:G:P	2.58	0.44
28:BF:29:ASN:H	28:BF:112:MET:HE1	1.78	0.44
28:BF:20:LEU:O	28:BF:21:ALA:O	2.34	0.44
1:CA:1535:C:H2'	1:CA:1535:C:O2	2.17	0.44
24:BA:2785:C:H5'	27:BE:41:LYS:CE	2.48	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:687:A:H4'	1:CA:688:G:O5'	2.18	0.44
21:CX:6:ARG:C	21:CX:8:THR:H	2.20	0.44
24:BA:1879:C:C4	24:BA:1880:C:C5	3.04	0.44
4:AG:68:TYR:CD1	4:AG:68:TYR:N	2.86	0.44
39:D1:57:PHE:O	39:D1:59:ARG:N	2.50	0.44
22:AD:49:G:C2'	22:AD:50:U:H5'	2.47	0.44
31:DK:79:ILE:HG22	31:DK:81:VAL:HG22	1.99	0.44
24:BA:241:A:H5'	24:BA:243:U:C1'	2.47	0.44
54:DA:1024:G:C6	54:DA:1025:G:C6	3.06	0.44
43:BU:63:LYS:HZ1	43:BU:63:LYS:HA	1.83	0.44
28:BF:192:LEU:HD21	28:BF:194:MET:HG2	1.98	0.44
49:B4:2:LYS:HD2	49:B4:2:LYS:O	2.17	0.44
1:AA:664:G:H5'	18:AU:64:ARG:HH21	1.81	0.44
22:AC:18:G:O2'	22:AC:60:U:C4	2.70	0.44
7:CJ:26:PHE:HZ	7:CJ:120:ILE:HG23	1.82	0.44
34:DO:75:ILE:HG12	34:DO:77:ARG:NH1	2.32	0.44
24:BA:1033:U:O2	24:BA:1033:U:C2'	2.65	0.44
54:DA:1833:U:O2	54:DA:1969:A:C2	2.68	0.44
5:CH:52:PRO:HB2	5:CH:53:LEU:HD12	1.97	0.44
1:AA:934:C:O2'	1:AA:935:A:P	2.75	0.44
33:DN:19:ILE:H	33:DN:19:ILE:HD13	1.83	0.44
26:DD:177:LEU:O	26:DD:179:SER:N	2.51	0.44
1:AA:532:A:N1	3:AF:156:ARG:NH2	2.65	0.44
1:CA:246:A:O2'	1:CA:247:G:O5'	2.35	0.44
24:BA:956:G:OP1	35:BP:86:GLY:N	2.49	0.44
44:BV:150:LEU:HD21	44:BV:171:ILE:HG21	2.00	0.44
1:CA:934:C:N4	1:CA:1344:C:N3	2.65	0.44
32:BM:12:ARG:O	32:BM:50:ASP:HB2	2.17	0.44
31:DK:90:GLY:O	31:DK:121:LYS:HE2	2.16	0.44
1:CA:1240:U:O2'	7:CJ:38:LEU:HD23	2.17	0.44
39:B1:17:ILE:O	39:B1:20:LEU:HB2	2.17	0.44
38:BR:19:LEU:HA	38:BR:20:PRO:HD3	1.80	0.44
38:DR:57:PHE:O	38:DR:58:ASN:C	2.53	0.44
25:BB:14:U:O2'	25:BB:107:U:H1'	2.17	0.44
44:DV:93:ASP:O	44:DV:94:GLU:CB	2.65	0.44
25:BB:82:G:O2'	25:BB:83:G:H5'	2.17	0.44
3:CF:43:LEU:HD11	3:CF:66:VAL:HG11	1.98	0.44
16:CS:50:LYS:HD3	16:CS:50:LYS:O	2.17	0.44
47:BW:13:ALA:O	47:BW:16:LEU:HG	2.17	0.44
3:CF:37:GLN:NE2	14:CQ:47:LEU:HD22	2.33	0.44
8:AK:6:ILE:CG2	8:AK:85:ARG:NH1	2.78	0.44
26:DD:80:ALA:O	26:DD:113:VAL:HG13	2.16	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:6:HIS:C	43:BU:7:VAL:HG22	2.38	0.44
54:DA:753:C:O5'	54:DA:753:C:H6	1.99	0.44
18:AU:83:GLU:C	18:AU:84:LYS:HE2	2.38	0.44
7:CJ:16:LEU:HD13	9:CL:45:ALA:HB2	1.99	0.44
15:AR:38:ARG:HH11	15:AR:38:ARG:CG	2.29	0.44
24:BA:1802:A:N1	24:BA:1822:G:H1'	2.31	0.44
14:AQ:45:ARG:HH11	14:AQ:45:ARG:HG3	1.82	0.44
14:AQ:44:LEU:HD12	14:AQ:44:LEU:C	2.37	0.44
34:BO:14:LYS:HD3	34:BO:14:LYS:O	2.16	0.44
5:CH:80:ILE:HG13	5:CH:82:VAL:HG23	1.99	0.44
26:BD:121:PRO:HB3	26:BD:135:PHE:HE1	1.82	0.44
3:AF:138:VAL:O	3:AF:142:MET:HG2	2.17	0.44
45:D3:7:LEU:CD2	45:D3:11:ARG:NH1	2.80	0.44
10:CM:62:HIS:CD2	10:CM:62:HIS:N	2.85	0.44
2:CE:164:VAL:HB	2:CE:186:ALA:HB1	1.96	0.44
1:AA:421:U:H5''	1:AA:422:C:OP2	2.17	0.44
8:CK:110:ALA:HB3	8:CK:121:ASP:HB3	1.98	0.44
19:AV:28:LYS:C	19:AV:30:LEU:H	2.21	0.44
24:BA:649:G:H2'	24:BA:650:C:C6	2.52	0.44
3:CF:108:ASN:HB3	3:CF:111:LEU:HD12	1.99	0.44
24:BA:2591:C:H2'	24:BA:2592:G:C8	2.52	0.44
24:BA:1465:G:H21	24:BA:1466:G:H1'	1.82	0.44
3:AF:200:ALA:C	3:AF:201:TYR:CD1	2.91	0.44
1:AA:426:G:H2'	1:AA:427:U:H6	1.82	0.44
35:BP:17:LEU:HD21	35:BP:41:TRP:HE1	1.83	0.44
20:AW:94:ALA:O	20:AW:95:ALA:HB2	2.17	0.44
26:DD:226:MET:H	26:DD:226:MET:HG2	1.53	0.44
20:AW:60:GLU:HG3	20:AW:81:LYS:HD2	1.98	0.44
40:D2:61:VAL:HG22	40:D2:61:VAL:O	2.16	0.44
1:AA:1454:G:O2'	1:AA:1455:G:H5'	2.17	0.44
24:BA:1638:C:H4'	24:BA:2710:C:O2	2.17	0.44
27:BE:147:PRO:HG2	27:BE:149:ARG:H	1.82	0.44
24:BA:2607:G:H2'	24:BA:2608:G:O4'	2.16	0.44
54:DA:2024:G:H2'	54:DA:2025:C:C6	2.53	0.44
26:DD:52:ARG:HB2	26:DD:53:PHE:CD2	2.53	0.44
24:BA:2017:U:H4'	50:B5:8:LYS:O	2.17	0.44
1:CA:408:A:OP2	4:CG:115:ARG:NH2	2.50	0.44
5:AH:96:PRO:HA	5:AH:117:ASP:OD2	2.18	0.44
54:DA:460:A:H2'	54:DA:461:C:O4'	2.17	0.44
1:AA:1070:U:H5'	5:AH:18:ARG:HH22	1.83	0.44
16:AS:18:ARG:HD3	16:AS:35:LYS:HD2	2.00	0.44
42:BT:64:LYS:NZ	42:BT:73:ARG:NH2	2.66	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:80:SER:HA	38:DR:81:PRO:HD3	1.73	0.44
54:DA:781:A:H2	54:DA:1776:G:N3	2.14	0.44
26:BD:5:LYS:HG2	26:BD:17:THR:HG22	1.99	0.44
29:BG:36:LYS:HE2	29:BG:95:ARG:HH22	1.78	0.44
46:DZ:48:LYS:HA	46:DZ:60:PHE:O	2.17	0.44
1:AA:975:A:H2	14:AQ:34:TYR:OH	1.98	0.44
1:AA:974:A:O2'	1:AA:975:A:OP2	2.33	0.44
3:AF:11:ARG:O	3:AF:12:LEU:C	2.55	0.44
29:BG:123:ASN:C	29:BG:125:PHE:H	2.21	0.44
1:AA:1150:U:H4'	1:AA:1280:A:H2	1.83	0.44
9:AL:29:ASN:CG	9:AL:30:GLY:H	2.19	0.44
44:BV:137:ILE:HD13	44:BV:157:LEU:CD2	2.45	0.44
44:BV:94:GLU:HB3	44:BV:95:PRO:CD	2.39	0.44
54:DA:1079:C:N4	54:DA:1080:A:C6	2.85	0.44
44:DV:108:PRO:CB	44:DV:112:ARG:HB2	2.39	0.44
24:BA:322:A:H5'	24:BA:323:G:OP2	2.18	0.44
24:BA:996:A:H2'	24:BA:997:G:C8	2.52	0.44
19:CV:3:ARG:CG	19:CV:4:SER:H	2.21	0.44
51:D6:7:ILE:HG23	51:D6:8:LYS:N	2.32	0.44
28:BF:65:TRP:CZ3	28:BF:73:ALA:O	2.71	0.44
24:BA:2629:A:HO2'	24:BA:2630:G:C5'	2.30	0.44
15:AR:88:ARG:HD3	15:AR:88:ARG:HA	1.80	0.44
51:B6:48:VAL:HG13	51:B6:49:HIS:N	2.32	0.44
1:CA:1351:U:O2'	1:CA:1352:C:H5'	2.17	0.44
4:AG:32:ALA:C	4:AG:33:MET:O	2.55	0.44
51:B6:21:TYR:O	51:B6:22:ALA:CB	2.65	0.44
22:AD:57:A:O5'	22:AD:58:A:P	2.76	0.44
54:DA:804:A:H2'	54:DA:806:C:C4	2.52	0.44
37:BQ:86:ALA:O	37:BQ:87:PHE:CB	2.65	0.44
24:BA:2882:A:OP1	36:B0:96:ARG:NE	2.51	0.44
39:B1:50:ARG:NH1	40:B2:72:VAL:HG21	2.21	0.44
32:DM:63:THR:HG23	32:DM:66:LYS:HE3	2.00	0.44
38:DR:107:ASP:HB2	38:DR:108:ARG:H	1.48	0.44
22:AC:19:G:H1	29:BG:83:ARG:NH2	2.15	0.44
41:BS:14:PRO:CB	41:BS:18:ARG:HH21	2.30	0.44
54:DA:1474:C:H2'	54:DA:1475:G:C5'	2.48	0.44
50:D5:56:LYS:O	50:D5:58:LEU:N	2.50	0.44
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.52	0.44
1:AA:1347:G:N7	9:AL:107:ARG:HB3	2.31	0.44
49:D4:33:VAL:CG1	49:D4:34:GLU:N	2.80	0.44
54:DA:385:C:C2'	54:DA:386:G:OP2	2.66	0.44
54:DA:2469:A:O2'	35:DP:56:ARG:CG	2.64	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1280:G:H2'	24:BA:1281:G:C5'	2.42	0.44
33:DN:104:ARG:NH1	38:DR:36:GLU:CD	2.71	0.44
38:DR:36:GLU:CG	38:DR:41:ARG:HD3	2.46	0.44
53:D8:15:LYS:C	53:D8:15:LYS:HD3	2.37	0.44
1:AA:1502:A:H2	1:AA:1505:G:H22	1.62	0.44
1:AA:922:G:N3	1:AA:1398:A:C2	2.82	0.44
42:BT:50:LYS:CB	42:BT:84:ALA:HB2	2.45	0.44
20:CW:98:PRO:C	20:CW:100:ILE:H	2.19	0.44
20:CW:89:ARG:HH12	20:CW:106:ALA:HB1	1.82	0.44
1:AA:535:A:H4'	1:AA:536:C:OP1	2.16	0.44
16:CS:72:ARG:CD	16:CS:73:LEU:HD23	2.48	0.44
1:AA:1442:G:N7	1:AA:1446:A:C2	2.86	0.44
24:BA:1799:G:N2	24:BA:1818:U:O2'	2.51	0.44
2:AE:11:LEU:H	2:AE:11:LEU:CD1	2.19	0.44
1:CA:1014:A:C4'	19:CV:14:HIS:NE2	2.73	0.44
38:BR:106:SER:C	38:BR:107:ASP:OD1	2.56	0.44
1:CA:1343:G:H2'	1:CA:1344:C:H6	1.75	0.44
27:BE:197:ILE:HD11	27:BE:199:ARG:NH1	2.31	0.44
7:CJ:45:ASP:O	7:CJ:49:ILE:HG12	2.17	0.44
54:DA:2044:C:H6	54:DA:2044:C:C5'	2.23	0.44
13:CP:16:ASP:O	13:CP:19:LEU:HD23	2.17	0.44
3:AF:131:ARG:O	3:AF:131:ARG:CG	2.65	0.44
37:DQ:3:ARG:O	37:DQ:4:LEU:O	2.35	0.44
34:DO:45:LEU:HD12	34:DO:45:LEU:N	2.32	0.44
47:DW:41:ILE:HD12	47:DW:41:ILE:O	2.16	0.44
1:AA:1285:A:HO2'	1:AA:1286:A:H5''	1.82	0.44
41:BS:10:VAL:O	41:BS:12:ILE:HG22	2.17	0.44
9:CL:5:TYR:CD2	9:CL:6:GLY:N	2.86	0.44
9:CL:7:THR:O	9:CL:83:ARG:CD	2.66	0.44
46:BZ:5:CYS:HB3	46:BZ:9:GLY:H	1.83	0.44
4:CG:76:ARG:O	4:CG:79:PHE:HB3	2.17	0.44
54:DA:94:G:H2'	54:DA:95:G:O4'	2.18	0.44
1:AA:1010:G:O2'	1:AA:1011:G:H5'	2.16	0.44
24:BA:2163:C:H2'	24:BA:2164:C:O4'	2.17	0.44
12:CO:120:TYR:N	12:CO:120:TYR:CD1	2.85	0.44
15:CR:29:VAL:HB	15:CR:81:LEU:HD21	1.99	0.44
1:AA:674:G:O2'	1:AA:675:A:H5'	2.17	0.44
1:AA:673:G:O3'	6:AI:87:ARG:NH2	2.50	0.44
54:DA:637:A:OP1	34:DO:133:SER:CB	2.65	0.44
54:DA:614:U:C4	28:DF:175:THR:HG22	2.52	0.44
54:DA:2585:U:O2'	54:DA:2586:C:H5'	2.17	0.44
52:B7:35:ARG:O	52:B7:38:GLY:N	2.48	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1432:C:H2'	54:DA:1433:U:O4'	2.16	0.44
49:D4:15:ILE:CG2	49:D4:20:ASN:ND2	2.81	0.44
24:BA:2331:G:H4'	45:B3:43:THR:H	1.82	0.44
1:AA:542:G:H5'	4:AG:41:GLY:HA3	2.00	0.44
2:CE:30:ARG:HH21	2:CE:194:PRO:HG2	1.82	0.44
41:DS:28:SER:O	41:DS:30:GLU:N	2.51	0.44
41:BS:55:ALA:C	41:BS:57:ASN:H	2.21	0.44
1:CA:1237:C:O4'	1:CA:1334:G:N2	2.46	0.44
1:CA:1464:G:H2'	1:CA:1465:C:H6	1.82	0.44
1:AA:161:A:H2'	1:AA:162:A:C8	2.53	0.44
4:CG:157:LEU:O	4:CG:161:ASN:ND2	2.50	0.44
6:CI:22:GLU:OE1	6:CI:82:ARG:NH2	2.46	0.44
41:BS:80:PRO:CD	41:BS:100:THR:HG21	2.47	0.44
54:DA:1998:G:H2'	54:DA:1999:C:H6	1.83	0.44
1:AA:119:A:O2'	1:AA:120:A:OP2	2.23	0.44
54:DA:292:C:O2'	54:DA:293:U:H5'	2.17	0.44
45:D3:78:TYR:N	45:D3:78:TYR:CD1	2.86	0.44
53:B8:23:VAL:CG1	53:B8:48:PHE:O	2.34	0.44
13:AP:3:ARG:HB3	49:B4:34:GLU:HG3	1.99	0.44
21:AX:8:THR:HG22	21:AX:10:ARG:H	1.82	0.44
29:BG:143:GLU:HA	49:B4:31:ILE:CD1	2.47	0.44
24:BA:1045:A:N3	24:BA:1047:G:N3	2.65	0.44
54:DA:481:G:C2'	54:DA:482:A:OP2	2.65	0.44
26:DD:12:SER:C	26:DD:14:ARG:N	2.70	0.44
39:B1:108:GLU:O	39:B1:111:GLU:N	2.51	0.44
27:DE:50:GLY:CA	27:DE:74:PRO:HG3	2.46	0.44
1:CA:960:U:HO2'	1:CA:961:U:P	2.35	0.44
2:CE:188:ALA:CB	2:CE:200:ILE:HG23	2.47	0.44
10:CM:61:GLU:CG	14:CQ:58:LYS:HE2	2.47	0.44
30:DH:153:LYS:HG3	30:DH:162:ILE:H	1.78	0.44
24:BA:1342:A:N1	24:BA:1397:U:C6	2.86	0.44
28:BF:4:VAL:HG11	28:BF:17:ARG:HE	1.83	0.44
1:AA:1101:A:C4'	1:AA:1102:A:O5'	2.45	0.44
2:AE:16:HIS:HB2	2:AE:17:PHE:CE2	2.52	0.44
2:AE:44:LEU:H	2:AE:44:LEU:HD12	1.83	0.44
54:DA:2420:C:H41	53:D8:30:ARG:HD2	1.81	0.44
24:BA:9:U:C4	24:BA:2629:A:N1	2.86	0.44
26:BD:69:ARG:HD2	26:BD:119:ALA:HB2	2.00	0.44
51:B6:38:LYS:HA	51:B6:48:VAL:O	2.18	0.44
37:DQ:83:LYS:CE	37:DQ:109:GLY:HA2	2.47	0.44
22:AD:49:G:C8	22:AD:49:G:O5'	2.70	0.44
37:BQ:106:ARG:O	37:BQ:106:ARG:NH1	2.51	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1543:A:H1'	54:DA:1545:A:C4'	2.46	0.44
54:DA:1170:G:C8	54:DA:1170:G:H5'	2.42	0.44
35:BP:35:VAL:CG1	35:BP:130:LYS:HB3	2.47	0.44
35:BP:21:THR:HG23	35:BP:21:THR:O	2.17	0.44
22:AC:58:A:H1'	22:AC:60:U:C5	2.53	0.44
10:CM:33:GLN:HB2	10:CM:75:ILE:HD11	1.99	0.44
53:D8:47:LYS:HD2	53:D8:48:PHE:N	2.33	0.44
54:DA:2481:G:O2'	54:DA:2482:G:O5'	2.35	0.44
24:BA:1947:C:C3'	24:BA:1948:G:C5'	2.93	0.44
37:BQ:70:GLY:C	37:BQ:72:ALA:N	2.67	0.44
54:DA:1952:A:C6	33:DN:22:ILE:HD12	2.53	0.44
24:BA:620:G:H5'	24:BA:621:A:OP1	2.18	0.44
54:DA:1818:U:H2'	26:DD:154:LYS:O	2.17	0.44
24:BA:2458:G:O2'	24:BA:2460:U:O4	2.32	0.44
16:CS:72:ARG:HD3	16:CS:72:ARG:O	2.18	0.44
29:DG:63:ILE:HG12	29:DG:64:THR:N	2.33	0.44
10:AM:94:VAL:O	10:AM:96:ILE:HD13	2.18	0.44
1:AA:1004:A:HO2'	1:AA:1005:A:P	2.33	0.44
12:AO:71:PRO:O	12:AO:102:ARG:HD2	2.18	0.44
1:AA:134:A:H1'	1:AA:325:A:C5	2.52	0.44
24:BA:2562:U:C1'	33:BN:23:ARG:HH12	2.20	0.44
1:CA:1151:A:H1'	10:CM:39:PRO:CB	2.42	0.44
7:CJ:38:LEU:O	7:CJ:42:ILE:HG13	2.17	0.44
54:DA:2050:C:H2'	54:DA:2051:A:O4'	2.18	0.44
1:AA:1301:U:C4	1:AA:1303:C:C6	3.04	0.44
32:DM:112:LEU:O	32:DM:116:LEU:HG	2.17	0.44
8:CK:97:VAL:CG1	8:CK:98:LYS:H	2.30	0.44
44:DV:27:VAL:CG1	44:DV:87:ASP:HB3	2.46	0.44
4:CG:206:PHE:CD2	4:CG:207:TYR:CE1	3.06	0.44
24:BA:946:G:O2'	24:BA:947:G:C5'	2.62	0.44
1:AA:1020:U:H2'	1:AA:1021:G:C5'	2.48	0.44
47:BW:24:LEU:O	47:BW:28:LYS:HG2	2.17	0.44
24:BA:1431:U:O2'	24:BA:1432:C:H5'	2.17	0.44
24:BA:726:G:HO2'	24:BA:727:A:P	2.40	0.44
35:BP:55:VAL:HG13	35:BP:56:ARG:N	2.32	0.44
15:CR:25:THR:HG22	15:CR:70:LEU:HD22	1.99	0.44
54:DA:226:G:H1'	54:DA:228:A:N6	2.31	0.44
6:AI:47:ARG:HA	6:AI:57:GLN:HB3	2.00	0.44
5:AH:66:MET:O	5:AH:67:VAL:HB	2.17	0.44
29:BG:171:ALA:O	29:BG:175:LEU:HG	2.18	0.44
1:CA:587:G:N2	1:CA:754:C:OP2	2.50	0.44
24:BA:639:U:C2	24:BA:640:C:C5	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CJ:69:VAL:O	7:CJ:69:VAL:CG1	2.62	0.44
8:AK:36:LEU:HA	8:AK:39:LEU:HB3	1.98	0.44
24:BA:227:A:O2'	24:BA:228:A:H5''	2.17	0.44
1:CA:1336:C:C2'	1:CA:1337:G:OP2	2.65	0.44
25:BB:15:A:C3'	25:BB:16:G:C5'	2.94	0.44
1:CA:777:A:H2'	1:CA:778:G:C8	2.52	0.44
6:AI:7:ASN:N	6:AI:7:ASN:HD22	2.13	0.44
11:CN:13:GLN:HG3	11:CN:75:TYR:CA	2.48	0.44
1:CA:913:A:HO2'	1:CA:914:A:P	2.37	0.44
1:AA:1512:U:H2'	1:AA:1513:A:H8	1.83	0.44
1:CA:1238:A:N7	1:CA:1301:U:O4	2.50	0.44
31:DK:1:MET:HG3	31:DK:23:PRO:CB	2.47	0.44
24:BA:2840:C:H5''	36:B0:53:HIS:CD2	2.53	0.44
35:BP:42:ILE:HD13	35:BP:97:VAL:HG23	1.99	0.44
24:BA:691:C:O2'	24:BA:692:C:H5'	2.17	0.44
24:BA:2319:G:H5'	24:BA:2320:A:OP1	2.17	0.44
24:BA:270(I):G:H2'	24:BA:270(J):G:H8	1.82	0.44
36:B0:52:ILE:O	36:B0:55:ALA:N	2.50	0.44
1:CA:422:C:OP2	1:CA:422:C:O4'	2.35	0.44
54:DA:2026:C:C2'	54:DA:2027:G:O5'	2.65	0.44
45:B3:34:GLY:O	45:B3:35:ASN:C	2.56	0.44
54:DA:1655:A:O3'	27:DE:115:GLY:HA3	2.17	0.44
1:CA:833:U:C2	1:CA:834:C:C5	3.06	0.44
24:BA:2415:G:C4	24:BA:2416:C:C5	3.05	0.44
54:DA:2367:G:H2'	54:DA:2368:C:H6	1.82	0.44
1:CA:807:A:H2'	1:CA:808:C:C6	2.52	0.44
1:CA:443:C:O2'	1:CA:444:C:H5'	2.18	0.44
42:BT:89:ILE:HG22	42:BT:91:ALA:HB3	1.98	0.44
1:AA:1356:G:O2'	1:AA:1357:A:H5'	2.18	0.44
16:AS:27:LYS:HD3	16:AS:30:GLY:HA2	2.00	0.44
46:DZ:60:PHE:HE2	46:DZ:91:LYS:NZ	2.16	0.44
24:BA:1790:C:H5''	24:BA:1791:A:OP1	2.17	0.44
31:BK:91:SER:OG	31:BK:119:PRO:HB2	2.18	0.44
22:AD:68:C:H3'	22:AD:69:C:H5''	1.96	0.44
1:AA:1244:C:OP2	21:AX:8:THR:HG23	2.18	0.44
44:DV:169:GLU:O	44:DV:170:THR:OG1	2.35	0.44
44:DV:152:ALA:H	44:DV:170:THR:H	1.66	0.44
24:BA:332:A:O2'	24:BA:333:G:P	2.76	0.44
43:BU:95:LYS:HD3	43:BU:95:LYS:O	2.18	0.44
2:CE:54:THR:HG21	2:CE:201:ILE:HD11	2.00	0.44
3:AF:112:SER:HB3	3:AF:115:LEU:HD12	1.99	0.44
3:AF:113:ALA:O	3:AF:115:LEU:N	2.50	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1390:U:H2'	1:CA:1391:U:C6	2.53	0.44
1:CA:1504:G:P	1:CA:1504:G:H3'	2.55	0.44
1:CA:1535:C:C3'	1:CA:1536:C:H5	2.30	0.44
24:BA:1225:C:O3'	40:B2:85:LYS:CB	2.57	0.44
24:BA:644:A:O3'	24:BA:645:C:H6	2.01	0.44
1:CA:96:G:C2	1:CA:97:U:H1'	2.52	0.44
39:D1:86:ALA:CB	39:D1:88:ILE:HD11	2.47	0.44
1:AA:5:U:O2'	1:AA:6:G:P	2.76	0.44
35:DP:66:ILE:O	35:DP:104:PHE:N	2.49	0.44
44:DV:48:PHE:HE2	44:DV:71:VAL:HG11	1.82	0.44
43:BU:8:LYS:O	43:BU:27:VAL:HG23	2.17	0.44
35:BP:20:ALA:CA	35:BP:99:PRO:HG2	2.31	0.44
49:D4:39:CYS:HB3	49:D4:41:PRO:HD2	2.00	0.44
55:DB:20:C:H2'	55:DB:21:G:C5'	2.32	0.44
54:DA:412:A:N6	54:DA:2412:A:O4'	2.51	0.44
54:DA:389:G:N1	34:DO:71:VAL:HG12	2.32	0.44
43:BU:55:TYR:O	43:BU:56:PRO:C	2.55	0.44
24:BA:88:G:N3	24:BA:88:G:H2'	2.33	0.44
31:DK:131:LYS:HD2	31:DK:131:LYS:N	2.32	0.44
1:AA:1502:A:H4'	1:AA:1503:A:OP2	2.17	0.44
54:DA:1558:A:N3	54:DA:1558:A:O4'	2.50	0.44
42:BT:87:GLN:O	42:BT:88:LYS:HB3	2.18	0.44
33:DN:40:VAL:CG1	33:DN:41:ALA:N	2.80	0.44
24:BA:1731:G:N2	24:BA:1732:A:C8	2.85	0.44
30:DH:4:ILE:CD1	30:DH:4:ILE:H	2.25	0.44
1:AA:1206:G:C6	1:AA:1207:G:C5	3.06	0.44
26:BD:267:SER:O	26:BD:269:PHE:HD1	2.00	0.44
24:BA:1544:C:C2'	24:BA:1544:C:O2	2.65	0.44
53:B8:8:LYS:O	53:B8:12:LYS:HG3	2.18	0.44
45:D3:25:ARG:HH11	45:D3:25:ARG:HG2	1.82	0.44
34:DO:31:ALA:C	34:DO:32:THR:CG2	2.85	0.44
54:DA:1869:G:H8	54:DA:1869:G:C5'	2.26	0.44
24:BA:2563:U:H4'	33:BN:28:SER:HA	2.00	0.44
22:CD:18:G:O2'	22:CD:60:U:N3	2.47	0.44
26:DD:17:THR:HG21	26:DD:204:ILE:HA	1.99	0.44
38:DR:23:ARG:CB	38:DR:24:PRO:HD2	2.40	0.44
11:AN:21:ILE:HD13	11:AN:94:ALA:CB	2.47	0.44
1:AA:1071:C:C2	1:AA:1072:G:N7	2.85	0.44
28:DF:201:VAL:HG13	28:DF:202:PHE:N	2.33	0.44
45:D3:40:GLN:OE1	45:D3:45:PHE:HB2	2.18	0.44
9:CL:29:ASN:OD1	9:CL:65:VAL:N	2.48	0.44
54:DA:917:A:C2'	54:DA:918:A:H5'	2.46	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BN:68:GLU:CB	33:BN:78:ARG:HB2	2.41	0.44
54:DA:774:A:H2	54:DA:787:U:C2'	2.30	0.44
10:CM:16:LEU:C	10:CM:16:LEU:HD13	2.38	0.44
24:BA:1365:A:OP2	46:BZ:3:LYS:HB3	2.18	0.44
4:CG:3:ARG:O	4:CG:4:TYR:C	2.55	0.44
1:CA:539:A:OP1	12:CO:114:LYS:CE	2.65	0.44
24:BA:864:G:H21	24:BA:866:A:N6	2.13	0.44
1:AA:683:G:N2	1:AA:708:C:C2	2.86	0.44
24:BA:120:U:O2	24:BA:120:U:H2'	2.17	0.44
34:BO:13:ASN:O	34:BO:15:ARG:N	2.51	0.44
24:BA:2019:A:C6	24:BA:2020:A:N7	2.85	0.44
1:AA:946:A:N6	1:AA:1236:A:N6	2.65	0.44
6:AI:61:LEU:HD23	6:AI:63:TYR:OH	2.17	0.44
6:AI:61:LEU:HD12	6:AI:61:LEU:N	2.32	0.44
35:BP:69:PHE:CD1	35:BP:70:PRO:HD2	2.52	0.44
16:CS:15:PRO:O	16:CS:16:HIS:ND1	2.50	0.44
43:DU:36:ALA:HB1	43:DU:67:LEU:O	2.16	0.44
34:DO:6:LEU:N	34:DO:6:LEU:HD22	2.31	0.44
1:AA:243:A:N6	1:AA:281:G:O2'	2.50	0.44
41:DS:19:LEU:HD12	41:DS:19:LEU:HA	1.79	0.44
54:DA:486:C:H4'	41:DS:60:ASN:OD1	2.17	0.44
37:BQ:101:LEU:C	37:BQ:101:LEU:HD13	2.37	0.44
1:CA:1378:C:N3	7:CJ:76:ARG:NH2	2.66	0.44
48:DX:60:GLU:O	48:DX:60:GLU:HG2	2.16	0.44
31:DK:110:ASP:CB	31:DK:111:PRO:CA	2.96	0.44
54:DA:2739:U:O2'	54:DA:2740:A:H5'	2.17	0.44
33:DN:120:GLU:OE1	38:DR:67:SER:OG	2.25	0.44
24:BA:2859:G:C8	24:BA:2859:G:C3'	3.00	0.44
54:DA:319:C:C2'	54:DA:320:A:H5'	2.48	0.44
54:DA:2213:U:C1'	46:DZ:52:ARG:CZ	2.95	0.44
1:CA:597:G:C2'	1:CA:598:U:H5'	2.47	0.44
1:CA:599:C:N3	1:CA:600:C:C5	2.86	0.44
38:DR:135:ALA:C	38:DR:137:LYS:N	2.71	0.44
28:DF:24:LEU:N	28:DF:24:LEU:HD12	2.33	0.44
1:AA:1524:C:OP1	11:AN:120:ARG:NH1	2.49	0.44
38:BR:105:LEU:HD22	38:BR:109:GLU:CB	2.46	0.44
24:BA:2124:G:C2	24:BA:2125:G:C1'	3.01	0.44
44:BV:7:ALA:O	44:BV:8:TYR:CG	2.71	0.44
54:DA:2259:G:C2	54:DA:2282:G:N1	2.86	0.44
1:AA:186(D):C:H2'	1:AA:186(E):C:C6	2.53	0.44
1:AA:256:U:H2'	1:AA:257:G:C8	2.53	0.44
24:BA:1131:G:O2'	24:BA:1132:A:P	2.76	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CH:62:ALA:C	5:CH:64:ARG:H	2.21	0.44
14:AQ:35:ARG:HG3	14:AQ:36:PHE:N	2.32	0.44
27:DE:120:TRP:CE3	27:DE:155:LYS:HD3	2.53	0.44
1:CA:542:G:H5'	4:CG:41:GLY:HA3	1.99	0.44
1:CA:663:A:O2'	1:CA:664:G:H5'	2.17	0.44
24:BA:215:G:H5'	24:BA:216:A:OP1	2.17	0.44
10:AM:39:PRO:HA	10:AM:70:ARG:NH1	2.33	0.44
11:CN:83:ILE:HG12	11:CN:109:VAL:HG23	1.99	0.44
28:BF:128:ALA:O	28:BF:130:ALA:N	2.51	0.44
40:D2:72:VAL:HG13	40:D2:85:LYS:HB3	2.00	0.44
54:DA:821:A:H5''	54:DA:822:U:H6	1.83	0.44
24:BA:1957:C:H2'	24:BA:1958:C:C6	2.53	0.44
28:DF:149:ASP:OD2	28:DF:151:SER:HB3	2.17	0.44
6:AI:3:ARG:HH11	6:AI:3:ARG:HG2	1.81	0.44
11:AN:117:ASN:N	11:AN:117:ASN:HD22	2.14	0.44
39:D1:53:ARG:C	39:D1:55:ARG:H	2.20	0.44
54:DA:304:G:H2'	54:DA:305:U:C6	2.53	0.44
54:DA:152:G:H2'	54:DA:153:C:H6	1.82	0.44
31:BK:97:ILE:HG13	31:BK:140:LEU:HD21	2.00	0.44
49:B4:40:HIS:N	49:B4:41:PRO:CD	2.58	0.44
44:BV:157:LEU:O	44:BV:161:VAL:HG21	2.18	0.44
24:BA:2748:A:H2'	24:BA:2749:A:O5'	2.18	0.44
24:BA:322:A:HO2'	24:BA:339:U:H3	1.64	0.44
54:DA:2798:C:C4	54:DA:2799:A:N6	2.86	0.44
24:BA:627:A:H4'	24:BA:628:G:H5'	1.98	0.44
1:CA:1226:C:H2'	13:CP:103:THR:O	2.18	0.44
19:CV:8:GLY:O	19:CV:9:VAL:CG2	2.57	0.44
10:CM:38:ILE:CG1	10:CM:71:LEU:HB3	2.48	0.44
34:DO:107:LYS:HB2	34:DO:110:TYR:HD2	1.83	0.44
34:DO:115:LEU:CB	34:DO:131:SER:HB2	2.47	0.44
3:AF:115:LEU:C	3:AF:117:ALA:N	2.70	0.44
3:AF:172:ARG:HH21	3:AF:174:PRO:CG	2.23	0.44
2:AE:22:LYS:N	2:AE:22:LYS:CD	2.80	0.44
24:BA:675:A:O2'	28:BF:67:GLN:NE2	2.50	0.44
1:AA:760:G:C2'	1:AA:761:G:H5'	2.45	0.44
8:CK:28:ALA:O	8:CK:29:SER:HB2	2.18	0.44
39:D1:97:ASP:HA	39:D1:100:VAL:CG2	2.47	0.44
35:BP:61:GLY:C	35:BP:63:LYS:H	2.18	0.44
54:DA:197:A:H2'	54:DA:198:C:H5'	1.99	0.44
24:BA:2374:C:H2'	24:BA:2375:G:O4'	2.17	0.44
24:BA:2656:U:O4	24:BA:2657:A:N7	2.51	0.44
24:BA:2657:A:N9	24:BA:2665:A:N6	2.65	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:B4:2:LYS:H	49:B4:2:LYS:CD	2.23	0.44
29:BG:67:LYS:HD3	49:B4:5:ILE:HD12	1.99	0.44
10:AM:34:VAL:CG2	10:AM:74:ILE:HG22	2.45	0.44
37:BQ:29:PHE:HD2	37:BQ:30:ARG:N	2.15	0.44
4:CG:9:CYS:SG	4:CG:32:ALA:HB2	2.58	0.44
54:DA:2467:C:C2'	54:DA:2468:G:H5'	2.48	0.44
51:D6:34:LEU:O	51:D6:36:LEU:HD22	2.17	0.44
1:AA:848:C:H2'	1:AA:849:C:C6	2.53	0.44
30:DH:6:ARG:CG	30:DH:7:LEU:N	2.81	0.44
34:DO:88:LEU:O	34:DO:90:ARG:N	2.50	0.44
1:AA:187:C:O2'	1:AA:188:U:H5'	2.18	0.44
31:DK:9:LEU:C	31:DK:10:GLU:HG3	2.36	0.44
54:DA:2110:G:O2'	54:DA:2111:C:OP1	2.29	0.44
1:AA:14:U:C6	1:AA:16:A:OP2	2.70	0.44
54:DA:1188:U:H2'	54:DA:1189:A:H5'	1.98	0.44
22:CD:25:C:H2'	22:CD:26:G:O4'	2.18	0.44
33:DN:97:ARG:HA	33:DN:117:LEU:HD22	2.00	0.44
1:AA:710:G:O2'	1:AA:711:G:H5'	2.17	0.44
35:BP:115:MET:HG3	35:BP:131:ILE:HD13	1.99	0.44
11:CN:124:LYS:HB3	11:CN:125:PHE:H	1.67	0.44
18:AU:53:ARG:NH2	18:AU:60:ALA:N	2.65	0.44
54:DA:86:C:H4'	54:DA:104:U:H1'	1.99	0.44
54:DA:1312:U:HO2'	54:DA:1313:U:P	2.41	0.44
54:DA:1311:G:O2'	54:DA:1312:U:P	2.76	0.44
54:DA:1312:U:O2'	54:DA:1313:U:OP2	2.31	0.44
54:DA:1332:G:N2	54:DA:1610:A:H8	2.12	0.44
37:DQ:57:LYS:O	37:DQ:58:LEU:HB3	2.18	0.44
1:CA:1542:G:H3'	18:CU:19:LYS:HD3	2.00	0.44
24:BA:139:G:O2'	24:BA:140:A:H2	2.00	0.44
24:BA:141:A:H5'	24:BA:141(A):C:OP2	2.18	0.44
31:BK:111:PRO:O	31:BK:112:LYS:C	2.56	0.44
24:BA:811:U:H2'	34:BO:21:ARG:HG3	1.99	0.44
24:BA:359:A:H2'	24:BA:360:G:O4'	2.18	0.44
1:CA:865:A:H2	1:CA:918:A:H4'	1.81	0.44
54:DA:1888:G:H5'	54:DA:1889:A:P	2.58	0.44
51:B6:28:ARG:HD2	51:B6:29:ASN:OD1	2.18	0.44
54:DA:2458:G:O2'	54:DA:2460:U:O4	2.34	0.44
20:CW:83:ARG:C	20:CW:86:ARG:HB3	2.38	0.44
16:AS:6:LEU:HB3	16:AS:17:TYR:HD2	1.81	0.44
5:CH:82:VAL:HG12	5:CH:83:GLU:H	1.77	0.44
27:BE:24:THR:O	27:BE:25:VAL:CB	2.66	0.44
1:AA:947:G:O2'	1:AA:948:C:H5'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:933:G:OP2	7:AJ:2:ALA:CB	2.66	0.44
28:DF:65:TRP:CZ2	28:DF:72:ARG:NH2	2.86	0.44
32:DM:67:LEU:HA	32:DM:87:LEU:HD13	2.00	0.44
24:BA:67:U:C2'	24:BA:68:G:H8	2.27	0.44
22:CD:27:U:H2'	22:CD:28:C:H6	1.82	0.44
22:CD:29:G:O2'	22:CD:30:G:H5'	2.18	0.44
24:BA:1087:G:C4	24:BA:1089:G:O2'	2.71	0.44
2:AE:117:GLU:HG3	2:AE:118:LEU:N	2.32	0.44
2:CE:24:TRP:CD2	2:CE:26:PRO:HD3	2.51	0.44
1:AA:68:G:N2	1:AA:69:G:H1'	2.33	0.44
34:BO:138:LEU:C	34:BO:140:ALA:N	2.70	0.44
3:AF:150:LYS:CB	3:AF:169:ALA:HB2	2.48	0.44
24:BA:933:A:C5	24:BA:934:G:C8	3.04	0.44
24:BA:2556:C:H2'	24:BA:2557:G:H5'	1.99	0.44
38:BR:105:LEU:CD2	38:BR:109:GLU:HG3	2.47	0.44
13:AP:29:ARG:HD3	13:AP:64:TRP:CE3	2.52	0.44
24:BA:2225:A:H4'	24:BA:2226:C:C6	2.53	0.44
1:AA:261:U:OP2	20:AW:79:ARG:NH2	2.50	0.44
54:DA:670:A:H4'	54:DA:671:C:O5'	2.17	0.44
44:BV:11:GLU:CG	44:BV:12:GLY:N	2.80	0.44
24:BA:1710:C:O2'	24:BA:1711:C:H5'	2.17	0.44
4:AG:40:PRO:O	4:AG:44:GLY:HA3	2.17	0.44
54:DA:2228:G:C6	54:DA:2229:C:C4	3.05	0.44
24:BA:121:G:H4'	24:BA:149:A:H5'	1.99	0.44
24:BA:1382:G:O2'	24:BA:1383:C:H5'	2.18	0.44
11:CN:96:ARG:O	11:CN:97:ALA:C	2.54	0.44
24:BA:2053:G:H2'	24:BA:2054:A:O4'	2.17	0.44
24:BA:1229(A):G:H2'	24:BA:1230:C:O4'	2.18	0.44
24:BA:1771:C:HO2'	24:BA:1786:A:H8	1.63	0.44
22:CC:47:U:O2'	22:CC:48:C:H6	2.00	0.44
41:BS:95:ILE:HG13	41:BS:95:ILE:O	2.18	0.44
30:BH:15:VAL:HG23	30:BH:15:VAL:O	2.17	0.44
17:AT:36:ILE:O	17:AT:36:ILE:HG13	2.18	0.44
49:D4:2:LYS:HD2	49:D4:2:LYS:HA	1.61	0.44
28:BF:142:TRP:CE3	28:BF:142:TRP:C	2.91	0.44
54:DA:765:G:H2'	54:DA:766:C:C6	2.52	0.44
55:DB:60:C:C2	55:DB:61:G:C8	3.05	0.44
46:DZ:82:LEU:HD12	46:DZ:82:LEU:O	2.11	0.44
24:BA:2394:C:P	34:BO:63:PRO:HD2	2.58	0.44
1:AA:1325:C:N3	1:AA:1326:C:C5	2.86	0.44
13:AP:70:LEU:HD22	13:AP:70:LEU:C	2.38	0.44
19:AV:70:LYS:O	19:AV:71:LEU:HD23	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BG:112:PRO:C	29:BG:114:ILE:N	2.70	0.44
1:CA:1008:C:H6	1:CA:1008:C:H5'	1.83	0.44
1:AA:1128:C:C4	1:AA:1139:G:N2	2.86	0.44
44:DV:108:PRO:O	44:DV:110:GLY:N	2.45	0.44
44:DV:152:ALA:HA	44:DV:171:ILE:HB	2.00	0.44
30:BH:137:ASP:OD1	30:BH:138:LYS:N	2.51	0.44
24:BA:1359:A:C2'	24:BA:1360:A:O5'	2.66	0.44
39:B1:101:ARG:C	39:B1:102:GLU:HG2	2.38	0.44
39:B1:111:GLU:HA	39:B1:114:LYS:HG2	2.00	0.44
40:B2:37:VAL:CG2	40:B2:38:LEU:N	2.76	0.44
49:D4:68:ARG:HH11	49:D4:69:LYS:HG2	1.82	0.44
29:BG:32:PRO:HB2	29:BG:172:LEU:HD22	1.97	0.44
41:DS:14:PRO:HB3	41:DS:18:ARG:HE	1.83	0.44
3:AF:108:ASN:HD21	3:AF:144:SER:CB	2.24	0.44
3:AF:177:THR:HG23	3:AF:177:THR:O	2.18	0.44
1:AA:792:A:N3	1:AA:794:A:C5	2.85	0.44
24:BA:2791:C:C5'	24:BA:2792:G:OP1	2.56	0.44
28:BF:132:VAL:C	28:BF:134:GLY:H	2.21	0.44
1:CA:1399:C:C2	1:CA:1401:G:C5	3.05	0.44
24:BA:2635:C:H5'	27:BE:77:ILE:CG2	2.48	0.44
24:BA:2637:U:C5'	24:BA:2638:G:OP2	2.66	0.44
26:BD:34:VAL:C	26:BD:35:LYS:HG3	2.37	0.44
26:BD:34:VAL:O	26:BD:35:LYS:CB	2.65	0.44
11:CN:106:LYS:O	11:CN:107:SER:CB	2.66	0.44
1:CA:1025:U:H3'	1:CA:1025:U:C6	2.52	0.44
37:DQ:110:LEU:HA	37:DQ:112:PHE:CE1	2.53	0.44
37:BQ:10:ARG:CZ	37:BQ:91:PRO:HB2	2.47	0.44
28:DF:184:TYR:CE2	28:DF:188:ARG:HD2	2.52	0.44
54:DA:2002:G:OP1	36:D0:9:LYS:HD3	2.17	0.44
24:BA:2444:G:P	28:BF:68:LYS:HE3	2.57	0.44
49:D4:39:CYS:O	49:D4:40:HIS:CB	2.66	0.44
4:CG:93:PHE:CZ	4:CG:97:LEU:HD11	2.52	0.44
22:AD:72:A:H2'	22:AD:73:A:C5'	2.32	0.44
42:BT:51:VAL:HA	42:BT:83:VAL:HA	2.00	0.44
20:CW:48:LYS:HB3	20:CW:51:GLU:CG	2.48	0.44
26:DD:145:VAL:HB	26:DD:155:LEU:HB2	1.99	0.44
10:AM:97:GLU:C	10:AM:98:ILE:HD12	2.38	0.44
1:AA:1057:G:H5''	3:AF:154:SER:O	2.17	0.44
20:AW:26:ASN:HA	20:AW:29:LYS:CG	2.47	0.44
24:BA:1528:A:C2	24:BA:1543:A:C2	3.05	0.44
35:BP:90:VAL:O	35:BP:90:VAL:HG12	2.18	0.44
44:DV:24:LEU:HD21	44:DV:86:VAL:CG2	2.48	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2114:A:C8	24:BA:2118:U:OP2	2.70	0.44
22:CD:26:G:H22	22:CD:45:G:N2	2.16	0.44
54:DA:2615:U:H2'	54:DA:2616:C:H6	1.83	0.44
5:AH:35:GLY:HA3	5:AH:112:LEU:HB3	2.00	0.44
54:DA:6:A:H4'	32:DM:129:PRO:HB3	2.00	0.44
22:CD:66:C:H2'	22:CD:67:C:H6	1.82	0.44
18:AU:53:ARG:HA	18:AU:56:THR:OG1	2.17	0.44
1:CA:1176:A:N6	1:CA:1177:G:C4	2.85	0.44
37:DQ:56:LEU:O	37:DQ:57:LYS:O	2.36	0.44
49:D4:23:GLU:O	49:D4:24:THR:OG1	2.34	0.44
1:AA:457:C:O2'	1:AA:458:C:H5'	2.18	0.44
1:CA:456:C:H2'	1:CA:457:C:C6	2.51	0.44
44:BV:165:VAL:CG2	44:BV:166:SER:H	2.27	0.44
1:AA:547:A:O2'	1:AA:548:G:OP2	2.35	0.44
24:BA:2538:C:O2'	24:BA:2539:C:H5'	2.17	0.44
24:BA:1955:U:O3'	24:BA:1956:U:H6	2.00	0.44
1:AA:197:A:N6	1:AA:220:G:O2'	2.50	0.44
6:AI:10:LEU:HD12	6:AI:61:LEU:HD13	2.00	0.44
45:D3:68:GLU:OE1	45:D3:82:ARG:NH1	2.50	0.44
1:AA:109:A:C6	1:AA:326:G:C6	3.06	0.44
54:DA:1012:U:O2'	54:DA:1013:C:OP2	2.32	0.44
24:BA:69:C:H2'	24:BA:69:C:O2	2.16	0.44
24:BA:2726:U:O2'	33:BN:67:LYS:HE2	2.18	0.44
4:CG:52:SER:HB3	4:CG:55:ALA:HB3	2.00	0.44
54:DA:445:C:C2'	54:DA:446:G:H5'	2.47	0.44
54:DA:13:A:H5''	54:DA:14:A:OP1	2.18	0.44
54:DA:74:A:H4'	54:DA:75:G:O4'	2.17	0.44
40:B2:83:ARG:HH11	40:B2:83:ARG:HG3	1.83	0.44
24:BA:676:A:H2	24:BA:802:A:H61	1.63	0.44
24:BA:2298:A:N6	24:BA:2318:G:C8	2.86	0.44
24:BA:2557:G:O2'	24:BA:2558:C:H5'	2.17	0.44
55:DB:33:G:H5'	29:DG:2:PRO:CG	2.48	0.44
24:BA:2735:G:H2'	24:BA:2736:G:C8	2.51	0.44
8:CK:82:HIS:CD2	8:CK:82:HIS:C	2.91	0.44
24:BA:1389:G:H2'	24:BA:1390:U:C6	2.53	0.44
45:D3:42:GLY:C	45:D3:57:PHE:HD1	2.21	0.44
25:BB:73:A:C4	25:BB:104:A:C2	3.06	0.44
38:DR:99:LEU:O	38:DR:99:LEU:CD1	2.65	0.44
39:D1:44:ASN:HD21	40:D2:75:PHE:N	2.16	0.44
24:BA:1573:G:C8	24:BA:1574:C:C5	3.06	0.44
29:DG:51:ARG:HB3	29:DG:51:ARG:NH1	2.33	0.44
24:BA:1638:C:O2	24:BA:2698:U:O2'	2.35	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:186:PHE:HA	3:AF:198:VAL:O	2.17	0.44
3:AF:186:PHE:HZ	3:AF:188:LEU:HD13	1.83	0.44
54:DA:847:U:C4	54:DA:933:A:N1	2.86	0.44
10:AM:39:PRO:HA	10:AM:70:ARG:HH12	1.81	0.44
17:AT:7:THR:HG22	17:AT:8:GLY:N	2.32	0.44
54:DA:609(A):G:H2'	54:DA:610:C:C6	2.53	0.44
54:DA:1277:G:O2'	36:D0:24:GLN:NE2	2.51	0.44
4:CG:132:ARG:HH11	4:CG:132:ARG:HG2	1.83	0.44
54:DA:1835:G:C5'	54:DA:1836:C:OP2	2.66	0.44
33:BN:52:VAL:HG22	33:BN:94:ARG:NH1	2.32	0.44
24:BA:300:A:C5	24:BA:334:C:H4'	2.53	0.44
54:DA:958:U:O2	55:DB:89(A):A:H4'	2.17	0.44
24:BA:706:A:H2'	24:BA:707:G:O4'	2.17	0.44
24:BA:1903:G:OP2	26:BD:241:PRO:HB2	2.18	0.44
53:B8:24:ALA:O	53:B8:48:PHE:CE1	2.71	0.44
13:AP:56:LEU:C	13:AP:56:LEU:HD13	2.38	0.44
19:AV:39:THR:HA	19:AV:70:LYS:HA	1.99	0.44
21:AX:15:ARG:HH11	21:AX:15:ARG:CB	2.12	0.44
31:DK:92:VAL:O	31:DK:120:ILE:HG22	2.18	0.44
44:DV:117:LEU:HB3	44:DV:118:GLN:H	1.70	0.44
44:DV:137:ILE:O	44:DV:156:LYS:NZ	2.50	0.44
24:BA:1049:C:C5	24:BA:1050:A:N7	2.85	0.44
30:BH:43:VAL:O	30:BH:43:VAL:HG22	2.18	0.44
30:BH:51:ARG:H	30:BH:51:ARG:NH1	2.16	0.44
26:DD:44:ASN:CB	26:DD:49:ILE:HG22	2.46	0.44
1:CA:1200:C:H4'	1:CA:1201:A:C5'	2.45	0.44
14:CQ:17:LYS:HG3	14:CQ:18:VAL:N	2.33	0.44
25:BB:24:G:H5'	25:BB:25:A:C8	2.52	0.44
25:BB:57:A:C4	29:BG:29:TRP:HB2	2.53	0.44
3:CF:68:VAL:HG12	3:CF:70:VAL:HG23	1.98	0.44
28:BF:25:PRO:O	28:BF:26:ALA:CB	2.65	0.44
2:AE:154:LEU:CD2	2:AE:154:LEU:C	2.86	0.44
24:BA:1310:G:OP2	52:B7:9:ARG:NH1	2.51	0.44
24:BA:2636:U:H4'	27:BE:80:GLU:OE2	2.18	0.44
40:B2:69:LYS:HZ3	40:B2:85:LYS:NZ	2.14	0.44
4:AG:19:LEU:O	4:AG:20:TYR:C	2.56	0.44
51:B6:24:GLU:OE1	53:B8:34:TRP:CZ3	2.71	0.44
39:D1:79:PHE:CE2	39:D1:83:LEU:CD1	3.00	0.44
5:CH:31:LEU:HD23	5:CH:45:PHE:CD1	2.53	0.44
35:DP:81:VAL:HG23	35:DP:82:ARG:N	2.31	0.44
53:B8:6:THR:O	53:B8:7:HIS:CB	2.64	0.44
54:DA:1005:C:O2'	32:DM:28:THR:CG2	2.66	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2376:A:N1	37:DQ:87:PHE:HD2	2.13	0.44
37:DQ:86:ALA:O	37:DQ:87:PHE:CB	2.65	0.44
54:DA:1535:U:C2	54:DA:1537:C:O2	2.71	0.44
42:BT:7:VAL:O	42:BT:30:VAL:HG12	2.18	0.44
1:AA:1176:A:N6	1:AA:1177:G:C5	2.86	0.44
54:DA:2402:C:H2'	54:DA:2403:C:H5'	1.99	0.44
30:BH:123:PHE:HD2	30:BH:133:VAL:HG21	1.83	0.44
15:CR:54:ARG:O	15:CR:55:GLY:C	2.55	0.44
1:CA:1530:G:H2'	1:CA:1531:A:O4'	2.18	0.44
1:CA:255:G:OP1	17:CT:69:LYS:NZ	2.45	0.44
1:AA:960:U:O2'	1:AA:961:U:P	2.76	0.44
26:DD:238:GLY:C	26:DD:239:ARG:O	2.53	0.44
26:DD:155:LEU:N	26:DD:155:LEU:HD12	2.32	0.44
54:DA:1407:C:O2	54:DA:1407:C:H2'	2.17	0.44
1:CA:1459:C:H5''	20:CW:27:LYS:NZ	2.33	0.44
7:AJ:120:ILE:HG22	7:AJ:124:LEU:HD12	1.99	0.44
12:AO:68:ALA:HB1	12:AO:85:ILE:HD11	2.00	0.44
24:BA:2147:G:H3'	24:BA:2147:G:C8	2.52	0.44
54:DA:2746:U:O5'	54:DA:2746:U:H6	2.01	0.44
46:BZ:86:SER:H	46:BZ:87:PRO:HD3	1.83	0.44
46:BZ:86:SER:H	46:BZ:87:PRO:CD	2.30	0.44
38:BR:50:ILE:HA	38:BR:99:LEU:HD12	2.00	0.44
2:CE:178:ARG:HH22	8:CK:68:ARG:NH2	2.16	0.44
36:B0:69:ASP:O	36:B0:70:LEU:HG	2.17	0.44
1:CA:484:G:O2'	1:CA:485:G:P	2.76	0.44
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.33	0.44
54:DA:860:U:O2	54:DA:860:U:O4'	2.33	0.44
44:DV:27:VAL:CG2	44:DV:28:MET:H	2.31	0.44
44:DV:35:ARG:HB3	44:DV:35:ARG:HH11	1.83	0.44
54:DA:2830:G:N3	54:DA:2883:A:H2	2.15	0.44
28:DF:42:ALA:O	28:DF:45:ARG:HB2	2.18	0.44
1:CA:404:U:O2'	1:CA:405:U:H5'	2.17	0.44
7:AJ:38:LEU:HD12	7:AJ:38:LEU:N	2.30	0.44
50:B5:55:ARG:HH11	50:B5:55:ARG:HB2	1.81	0.44
1:CA:655:A:C2	1:CA:754:C:N4	2.86	0.44
1:CA:85:U:O2'	1:CA:86:U:O5'	2.30	0.44
2:CE:132:LYS:HA	2:CE:135:GLN:CB	2.43	0.44
46:DZ:49:VAL:HG12	46:DZ:51:VAL:HG23	1.99	0.44
1:CA:495:A:H4'	1:CA:496:A:O5'	2.15	0.44
6:CI:3:ARG:HG2	6:CI:93:SER:OG	2.17	0.44
24:BA:1087:G:H2'	24:BA:1089:G:H1'	1.99	0.44
54:DA:1916:A:H3'	54:DA:1917:U:H6	1.83	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:172:VAL:HG13	27:DE:182:LEU:HD11	1.98	0.44
54:DA:192:C:C2'	54:DA:193:U:H5'	2.46	0.44
24:BA:2571:C:H5''	24:BA:2572:A:H5''	1.99	0.44
24:BA:234:C:C2	24:BA:235:U:C6	3.06	0.44
31:DK:110:ASP:HB2	31:DK:111:PRO:C	2.38	0.44
24:BA:2299:G:N1	24:BA:2318:G:H8	2.15	0.44
24:BA:656:G:H2'	24:BA:657:U:O4'	2.17	0.44
42:DT:35:THR:O	42:DT:36:LYS:C	2.55	0.44
24:BA:469:G:C2'	24:BA:470:A:H5''	2.48	0.44
61:DA:2905:A:H8	61:DA:2905:A:O5'	2.01	0.44
20:AW:97:ALA:O	20:AW:99:LEU:N	2.50	0.44
54:DA:271(C):U:C2'	54:DA:271:G:OP1	2.66	0.44
8:CK:88:LYS:HB3	8:CK:89:PRO:HD2	2.00	0.44
50:B5:6:VAL:HG13	50:B5:7:PRO:HD2	2.00	0.44
36:D0:41:ALA:C	36:D0:43:GLU:H	2.21	0.44
5:CH:62:ALA:O	5:CH:64:ARG:N	2.51	0.44
4:AG:110:PHE:O	4:AG:161:ASN:HB3	2.18	0.44
4:AG:42:GLN:C	4:AG:44:GLY:H	2.21	0.44
1:AA:575:G:H4'	1:AA:576:G:C5'	2.47	0.44
52:B7:30:VAL:O	52:B7:31:LEU:C	2.56	0.44
18:CU:20:ALA:O	18:CU:21:LYS:HG3	2.18	0.44
33:BN:105:GLU:OE1	33:BN:105:GLU:N	2.50	0.44
34:BO:119:GLU:OE1	34:BO:119:GLU:HA	2.18	0.44
54:DA:491:G:N2	54:DA:492:A:H1'	2.33	0.44
24:BA:126:A:OP2	52:B7:19:ARG:HG3	2.18	0.44
43:DU:88:LYS:HB3	43:DU:90:LEU:CD2	2.48	0.44
10:AM:54:PHE:CE1	10:AM:55:LYS:HD2	2.53	0.44
13:AP:99:ARG:CD	13:AP:99:ARG:O	2.65	0.44
49:B4:33:VAL:O	49:B4:34:GLU:O	2.35	0.44
9:AL:4:TYR:HD2	9:AL:4:TYR:HA	1.65	0.44
24:BA:1043:C:H42	24:BA:1112:G:H1	1.66	0.44
30:BH:137:ASP:HB3	30:BH:140:LYS:HB2	1.99	0.44
24:BA:323:G:C6	24:BA:333:G:C5	3.06	0.44
36:B0:39:PRO:C	36:B0:41:ALA:H	2.20	0.44
40:B2:5:VAL:HG23	40:B2:37:VAL:CG2	2.44	0.44
54:DA:1113:U:H5'	30:DH:2:SER:HB2	2.00	0.44
19:CV:10:PHE:CD1	19:CV:38:SER:HB2	2.52	0.44
24:BA:1342:A:C2	24:BA:1397:U:C6	3.06	0.44
1:AA:1106:G:H2'	1:AA:1107:C:H6	1.82	0.44
24:BA:2777:G:C5'	24:BA:2778:A:H5''	2.47	0.44
15:AR:82:ILE:HD11	15:AR:87:ILE:C	2.38	0.44
1:CA:1025:U:C3'	1:CA:1025:U:C6	3.01	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AG:21:LEU:HD11	4:AG:26:CYS:O	2.18	0.44
37:DQ:110:LEU:HA	37:DQ:112:PHE:CZ	2.53	0.44
24:BA:1556:C:H2'	24:BA:1557:C:H6	1.82	0.44
35:DP:27:VAL:HG13	35:DP:28:ALA:N	2.32	0.44
44:DV:122:ARG:HB3	44:DV:123:ASP:H	1.43	0.44
24:BA:2292:C:O2'	24:BA:2293:C:H5'	2.17	0.44
24:BA:2291:U:O2'	24:BA:2374:C:O2	2.36	0.44
29:DG:16:ARG:CZ	29:DG:31:VAL:HG11	2.47	0.44
28:BF:123:LEU:O	28:BF:124:LEU:C	2.55	0.44
29:BG:67:LYS:CE	49:B4:5:ILE:HG21	2.47	0.44
22:AC:58:A:O2'	22:AC:59:A:H3'	2.18	0.44
4:CG:13:ARG:NH2	4:CG:36:ARG:HH21	2.15	0.44
8:CK:23:SER:HB3	8:CK:62:TYR:HA	2.00	0.44
55:DB:43:C:H3'	55:DB:44:G:H5'	2.00	0.44
40:B2:31:ALA:O	40:B2:61:VAL:HG12	2.18	0.44
24:BA:831:G:H22	34:BO:53:GLY:CA	2.31	0.44
51:D6:19:ARG:HD2	51:D6:19:ARG:HA	1.77	0.44
22:AD:1:C:C5	22:AD:2:G:N7	2.86	0.44
26:DD:143:HIS:HD2	26:DD:144:ALA:HB2	1.82	0.44
5:CH:48:ALA:HB2	5:CH:57:LYS:HD3	2.00	0.44
4:AG:24:GLU:HA	4:AG:27:TYR:HB3	1.98	0.44
5:CH:94:ALA:HB2	5:CH:119:LEU:HG	2.00	0.44
26:DD:237:GLU:HB3	26:DD:238:GLY:H	1.45	0.44
1:AA:532:A:H61	3:AF:193:TYR:CB	2.29	0.44
31:BK:5:LEU:HD11	31:BK:19:VAL:HG12	1.99	0.44
1:CA:1460:A:H3'	1:CA:1461:G:C8	2.51	0.44
26:DD:272:ALA:HB1	26:DD:273:ARG:H	1.58	0.44
22:AD:19:G:O6	24:BA:2112:G:C1'	2.65	0.44
1:CA:1348:U:C5	1:CA:1349:A:N7	2.86	0.44
9:CL:10:ARG:NE	9:CL:105:ASP:CB	2.81	0.44
54:DA:1288:U:C5'	54:DA:1289:C:OP2	2.66	0.44
33:BN:120:GLU:OE2	33:BN:122:LEU:HD11	2.17	0.44
24:BA:2732:G:C3'	24:BA:2733:A:H5'	2.40	0.44
24:BA:1427:A:H4'	24:BA:1428:C:O5'	2.18	0.44
11:CN:121:PRO:HD2	11:CN:126:ARG:CD	2.46	0.44
28:DF:174:VAL:O	28:DF:174:VAL:CG1	2.65	0.44
24:BA:6:A:H4'	32:BM:129:PRO:CB	2.45	0.44
14:CQ:47:LEU:O	14:CQ:48:ALA:C	2.56	0.44
1:CA:1538:C:H3'	1:CA:1539:C:C5'	2.42	0.44
42:DT:70:LEU:H	42:DT:70:LEU:HD23	1.77	0.44
26:DD:95:LEU:HD12	26:DD:95:LEU:O	2.17	0.44
24:BA:986:C:O2'	24:BA:987:G:H5'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AS:75:ARG:C	16:AS:77:ALA:H	2.21	0.44
1:AA:1032(B):G:H2'	1:AA:1033:G:H5''	2.00	0.44
24:BA:48:G:H2'	24:BA:49:A:H2	1.82	0.44
20:AW:67:ALA:HA	20:AW:73:HIS:CA	2.46	0.44
2:AE:196:LEU:HD12	2:AE:197:VAL:H	1.83	0.44
2:CE:47:THR:HG22	2:CE:51:LEU:CG	2.48	0.44
54:DA:640:C:H2'	54:DA:641:C:C6	2.53	0.44
42:DT:3:THR:HA	42:DT:6:ASP:OD2	2.18	0.44
54:DA:1464:C:O2'	54:DA:1528:A:H8	1.96	0.44
24:BA:846:C:C4	24:BA:930:U:C6	3.06	0.44
10:CM:100:THR:O	10:CM:101:VAL:HB	2.17	0.44
41:DS:29:LEU:HD11	41:DS:55:ALA:HB2	1.98	0.44
1:CA:1204:A:OP1	14:CQ:3:ARG:NH2	2.50	0.44
12:AO:111:LYS:O	12:AO:112:ASP:CB	2.64	0.44
1:CA:1336:C:H2'	1:CA:1337:G:OP2	2.17	0.44
8:CK:109:ILE:HD11	8:CK:120:THR:HG22	2.00	0.44
24:BA:2065:C:H2'	24:BA:2066:C:C6	2.53	0.44
10:CM:51:ARG:NH1	10:CM:51:ARG:HG2	2.33	0.44
54:DA:1973:G:H2'	54:DA:1974:C:C6	2.52	0.44
41:BS:57:ASN:O	41:BS:58:ALA:C	2.56	0.44
28:BF:70:THR:HG22	28:BF:72:ARG:HG2	2.00	0.44
12:CO:44:THR:HA	12:CO:45:PRO:HD3	1.70	0.44
1:AA:890:G:C2'	1:AA:891:U:OP2	2.66	0.44
1:CA:599:C:HO2'	8:CK:129:VAL:C	2.21	0.44
36:B0:11:ASN:H	36:B0:11:ASN:HD22	1.66	0.44
54:DA:184:C:H2'	54:DA:185:U:C6	2.53	0.44
38:DR:29:ARG:HA	38:DR:45:PHE:O	2.17	0.44
1:AA:622:A:C8	1:AA:623:C:C5	3.06	0.44
17:AT:73:VAL:HG22	17:AT:73:VAL:O	2.16	0.44
54:DA:1526:G:C6	54:DA:1527:G:C2	3.05	0.44
1:CA:581:G:C2	1:CA:582:U:C5	3.06	0.44
54:DA:1342:A:O2'	54:DA:1344:G:OP2	2.35	0.44
22:AD:25:C:C2'	22:AD:26:G:H5'	2.48	0.44
26:BD:193:VAL:HG22	26:BD:194:GLY:N	2.33	0.44
35:BP:8:LYS:O	35:BP:9:TYR:CD1	2.71	0.44
24:BA:728:G:C5	24:BA:730:C:C5	3.06	0.44
54:DA:1985:G:O2'	54:DA:1986:A:H5'	2.18	0.44
30:DH:37:VAL:HG11	30:DH:68:THR:HG23	1.98	0.44
36:B0:57:ARG:O	36:B0:59:ASP:N	2.51	0.44
54:DA:2774:C:H2'	54:DA:2775:A:O4'	2.17	0.44
5:CH:147:ASP:OD2	5:CH:147:ASP:N	2.50	0.44
33:DN:77:ILE:O	33:DN:77:ILE:HG23	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2765:A:N3	54:DA:2765:A:H3'	2.32	0.44
54:DA:1208:C:H5'	54:DA:1209:G:OP2	2.18	0.44
7:CJ:75:VAL:HG13	7:CJ:145:ALA:HA	2.00	0.44
46:DZ:94:LEU:O	46:DZ:95:LEU:HB2	2.17	0.43
1:AA:978:A:C2	1:AA:1319:A:H1'	2.53	0.43
13:AP:30:ALA:O	13:AP:34:LEU:HD23	2.18	0.43
44:BV:94:GLU:CA	44:BV:130:PRO:HD3	2.47	0.43
44:DV:102:LEU:HD22	44:DV:156:LYS:HZ2	1.80	0.43
30:BH:10:PRO:HB2	30:BH:11:VAL:H	1.61	0.43
30:BH:16:SER:O	30:BH:26:VAL:HA	2.18	0.43
24:BA:1483:G:H2'	24:BA:1484:G:H8	1.83	0.43
30:BH:89:ILE:HD13	30:BH:90:LYS:N	2.29	0.43
54:DA:506:G:O3'	54:DA:507:A:H8	1.99	0.43
13:CP:80:ARG:NH1	19:CV:65:ASN:O	2.51	0.43
19:CV:63:THR:HG23	19:CV:66:MET:HE3	2.00	0.43
2:CE:163:PHE:HA	2:CE:163:PHE:HD2	1.70	0.43
3:CF:14:ILE:C	3:CF:16:ARG:H	2.21	0.43
26:DD:35:LYS:HB3	26:DD:36:PRO:HA	2.00	0.43
1:CA:1139:G:N2	1:CA:1143:G:C6	2.86	0.43
2:AE:216:SER:O	2:AE:218:ALA:N	2.51	0.43
24:BA:1085:A:N3	24:BA:1086:A:C8	2.86	0.43
54:DA:1178:C:O2'	54:DA:1179:C:C5'	2.66	0.43
53:B8:29:LYS:O	53:B8:32:LEU:N	2.51	0.43
33:DN:47:ILE:HG13	33:DN:48:PRO:HD2	1.99	0.43
44:BV:141:VAL:HG12	44:BV:142:SER:N	2.33	0.43
1:AA:8:A:H5'	5:AH:120:THR:O	2.18	0.43
1:CA:1454:G:H2'	1:CA:1455:G:O4'	2.17	0.43
54:DA:2495:G:H5''	35:DP:81:VAL:HG12	1.98	0.43
27:BE:28:ALA:O	27:BE:29:GLY:O	2.36	0.43
24:BA:266:G:H2'	24:BA:267:C:O5'	2.18	0.43
7:CJ:78:ARG:CG	7:CJ:78:ARG:HH11	2.30	0.43
29:DG:67:LYS:HD2	29:DG:67:LYS:N	2.33	0.43
44:BV:5:LEU:HD11	44:BV:39:VAL:HG11	1.99	0.43
16:CS:20:VAL:HG22	16:CS:21:VAL:H	1.83	0.43
34:DO:70:GLN:N	34:DO:70:GLN:OE1	2.51	0.43
54:DA:118:A:N3	54:DA:178:G:H1'	2.33	0.43
2:CE:33:TYR:HD1	2:CE:33:TYR:O	2.00	0.43
54:DA:301:G:O2'	54:DA:302:C:O4'	2.36	0.43
41:DS:67:ASP:N	41:DS:67:ASP:OD2	2.50	0.43
10:AM:10:GLY:HA3	10:AM:16:LEU:CD2	2.43	0.43
20:CW:28:ALA:O	20:CW:30:LYS:N	2.50	0.43
31:BK:4:ILE:HG12	31:BK:18:VAL:HG22	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2119:A:C2	54:DA:2171:A:N3	2.86	0.43
54:DA:1190:G:C5'	34:DO:32:THR:HA	2.48	0.43
24:BA:1312:U:H3'	42:BT:63:LYS:HE2	1.99	0.43
6:AI:72:VAL:HG13	6:AI:73:ASN:H	1.81	0.43
1:CA:8:A:N7	4:CG:208:SER:O	2.51	0.43
2:AE:173:ALA:O	2:AE:176:GLU:N	2.51	0.43
24:BA:1328:G:H2'	24:BA:1330:C:N4	2.33	0.43
18:AU:23:LYS:HA	18:AU:26:LEU:HD13	1.99	0.43
27:DE:11:MET:O	27:DE:12:THR:HB	2.18	0.43
3:CF:188:LEU:HD12	3:CF:195:VAL:CG1	2.48	0.43
24:BA:969:U:O5'	24:BA:969:U:H6	2.00	0.43
25:BB:83:G:H5''	48:BX:52:HIS:ND1	2.32	0.43
40:D2:66:ARG:NH1	40:D2:88:ARG:NH1	2.62	0.43
54:DA:1312:U:O2'	54:DA:1313:U:P	2.76	0.43
3:AF:59:ARG:CG	3:AF:64:VAL:HG12	2.46	0.43
24:BA:140:A:H8	24:BA:1409:C:H5'	1.83	0.43
1:CA:890:G:O2'	1:CA:906:G:N1	2.47	0.43
54:DA:701:G:C2'	54:DA:702:G:H5''	2.48	0.43
12:AO:88:GLY:H	12:AO:98:TYR:HA	1.83	0.43
24:BA:2161:C:C2'	24:BA:2162:G:H5'	2.48	0.43
4:CG:180:GLY:O	4:CG:181:MET:C	2.54	0.43
28:BF:181:LEU:O	28:BF:205:ARG:NH2	2.50	0.43
24:BA:288:C:O2	24:BA:288:C:H2'	2.17	0.43
31:BK:56:LYS:O	31:BK:60:GLU:N	2.38	0.43
27:BE:203:LYS:O	27:BE:204:ALA:HB2	2.18	0.43
24:BA:1820:U:H2'	26:BD:158:ALA:O	2.16	0.43
7:AJ:38:LEU:O	7:AJ:41:ARG:HB3	2.18	0.43
27:BE:8:LYS:HB3	27:BE:193:GLY:H	1.83	0.43
1:AA:1267:C:C2'	1:AA:1267:C:O2	2.59	0.43
6:AI:44:GLY:HA2	6:AI:59:TYR:CZ	2.52	0.43
29:DG:121:ASN:HD21	29:DG:123:ASN:HB2	1.83	0.43
32:DM:87:LEU:C	32:DM:87:LEU:CD2	2.86	0.43
44:BV:127:LYS:CG	44:BV:162:GLU:HG3	2.48	0.43
12:AO:53:ARG:HH11	12:AO:53:ARG:HG3	1.83	0.43
10:CM:96:ILE:N	10:CM:96:ILE:CD1	2.79	0.43
12:CO:27:LEU:C	12:CO:29:GLY:H	2.20	0.43
12:CO:27:LEU:HD13	12:CO:28:LYS:H	1.83	0.43
24:BA:357:A:H2'	24:BA:358:U:O4'	2.17	0.43
1:AA:10:A:N3	1:AA:11:G:C8	2.86	0.43
1:CA:745:C:OP1	1:CA:851:G:O2'	2.28	0.43
24:BA:1599:C:OP1	42:BT:36:LYS:HB2	2.18	0.43
42:DT:14:SER:HB2	42:DT:15:GLU:OE1	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DN:91:LEU:N	33:DN:91:LEU:CD2	2.80	0.43
24:BA:845:G:H21	24:BA:933:A:H61	1.65	0.43
24:BA:1368:G:C2	24:BA:1369:G:C8	3.06	0.43
5:CH:67:VAL:HG22	5:CH:68:GLU:N	2.33	0.43
54:DA:2139:C:C2'	54:DA:2140:C:H5'	2.47	0.43
24:BA:1653:G:O2'	24:BA:1654:A:OP2	2.27	0.43
52:D7:19:ARG:HG2	52:D7:19:ARG:NH1	2.33	0.43
32:DM:109:LYS:H	32:DM:109:LYS:CD	2.26	0.43
23:A1:4:A:H1'	23:A1:5:A:H8	1.83	0.43
1:AA:745:C:H2'	1:AA:746:A:H8	1.82	0.43
54:DA:1443:G:C2'	54:DA:1444:G:H5'	2.48	0.43
61:CC:103:A:H2'	58:CC:104:G:H5'	2.00	0.43
20:CW:9:ASN:ND2	20:CW:9:ASN:O	2.47	0.43
24:BA:693:C:H2'	24:BA:694:U:C6	2.53	0.43
22:AD:26:G:N2	22:AD:45:G:N2	2.66	0.43
22:AC:37:A:H2'	22:AC:38:A:O4'	2.18	0.43
24:BA:2179:C:O2	24:BA:2179:C:H2'	2.18	0.43
54:DA:1002:G:H2'	54:DA:1003:G:O5'	2.18	0.43
24:BA:719:C:O2'	24:BA:720:C:H5'	2.18	0.43
9:AL:84:ALA:O	9:AL:87:GLN:HB3	2.18	0.43
54:DA:516:C:H1'	54:DA:1261:C:O2'	2.17	0.43
4:CG:95:GLY:O	4:CG:99:SER:N	2.51	0.43
54:DA:569:U:C4	54:DA:570:G:C6	3.06	0.43
1:AA:611:A:O5'	1:AA:611:A:H8	2.00	0.43
24:BA:2667:C:O5'	24:BA:2667:C:H6	2.01	0.43
18:AU:25:THR:HG22	18:AU:25:THR:O	2.18	0.43
42:BT:41:ASN:N	42:BT:41:ASN:HD22	2.16	0.43
47:BW:6:VAL:C	47:BW:8:LYS:N	2.71	0.43
24:BA:2186:G:O2'	24:BA:2187:G:H5'	2.18	0.43
54:DA:1217:C:OP1	39:D1:15:LYS:NZ	2.48	0.43
31:BK:84:GLY:O	31:BK:86:THR:N	2.49	0.43
1:AA:1127:G:N2	1:AA:1144:G:N1	2.66	0.43
9:AL:28:VAL:O	9:AL:29:ASN:C	2.55	0.43
9:AL:43:ALA:C	9:AL:45:ALA:H	2.20	0.43
54:DA:1509:C:C4	54:DA:1511:A:N6	2.85	0.43
44:DV:144:LEU:HD21	44:DV:150:LEU:HD13	2.00	0.43
44:DV:158:PRO:N	44:DV:161:VAL:HG21	2.33	0.43
30:BH:10:PRO:O	30:BH:49:VAL:CG1	2.66	0.43
30:BH:54:ARG:HE	30:BH:57:ASP:CG	2.21	0.43
26:DD:44:ASN:HB2	26:DD:49:ILE:HA	1.93	0.43
43:DU:47:LYS:O	43:DU:49:VAL:N	2.48	0.43
39:B1:91:ASP:O	39:B1:92:ARG:C	2.56	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D4:48:ARG:NH1	49:D4:51:ASP:HA	2.34	0.43
19:CV:5:LEU:HD22	49:D4:67:TYR:CZ	2.54	0.43
25:BB:24:G:H2'	25:BB:56:G:C6	2.49	0.43
29:BG:16:ARG:HE	29:BG:31:VAL:HG11	1.83	0.43
2:CE:77:ALA:HB1	2:CE:165:VAL:HG11	2.00	0.43
3:CF:106:VAL:HG11	3:CF:109:PRO:HA	2.00	0.43
26:DD:102:LYS:O	26:DD:103:ARG:CG	2.66	0.43
26:DD:30:GLU:HG3	26:DD:63:ARG:NE	2.32	0.43
34:DO:101:VAL:HA	34:DO:106:LEU:HB2	1.99	0.43
34:DO:96:THR:HG22	34:DO:126:VAL:CB	2.47	0.43
2:AE:54:THR:HG22	2:AE:58:ILE:HD11	2.00	0.43
1:AA:1100:C:P	2:AE:96:ARG:HD3	2.58	0.43
1:CA:1504:G:OP1	1:CA:1507:A:H4'	2.18	0.43
1:CA:1535:C:H2'	1:CA:1536:C:C5	2.51	0.43
27:BE:54:GLN:O	27:BE:55:ASN:CG	2.56	0.43
24:BA:1785:A:H2'	24:BA:1787:A:N7	2.32	0.43
24:BA:794:G:H2'	24:BA:795:C:C6	2.53	0.43
37:DQ:110:LEU:HD23	37:DQ:112:PHE:CE2	2.54	0.43
44:BV:139:VAL:O	44:BV:139:VAL:CG1	2.66	0.43
8:AK:102:ARG:H	8:AK:102:ARG:HG3	1.53	0.43
37:BQ:23:ARG:NH2	37:BQ:84:GLN:OE1	2.50	0.43
43:BU:8:LYS:O	43:BU:27:VAL:CG2	2.67	0.43
29:DG:31:VAL:HG13	29:DG:31:VAL:O	2.18	0.43
24:BA:2657:A:C1'	24:BA:2665:A:N6	2.81	0.43
54:DA:1530:G:C5	54:DA:1531:C:C5	3.06	0.43
35:BP:66:ILE:CD1	35:BP:67:ARG:H	2.30	0.43
38:DR:107:ASP:OD2	38:DR:109:GLU:HB2	2.19	0.43
22:AC:58:A:HO2'	22:AC:59:A:H3'	1.83	0.43
10:AM:78:ASN:ND2	10:AM:81:THR:CG2	2.79	0.43
7:CJ:62:PHE:O	7:CJ:64:GLN:N	2.51	0.43
55:DB:28:C:O2'	55:DB:29:A:H5'	2.18	0.43
30:BH:85:LYS:O	30:BH:132:ARG:HB2	2.19	0.43
15:AR:56:LEU:O	15:AR:60:VAL:HG23	2.17	0.43
55:DB:81:G:C2	55:DB:82:G:C5	3.04	0.43
40:D2:35:LEU:N	40:D2:35:LEU:HD22	2.23	0.43
2:CE:192:SER:OG	2:CE:193:ASP:N	2.50	0.43
26:BD:43:ARG:HD2	26:BD:44:ASN:OD1	2.19	0.43
1:CA:254:G:H2'	1:CA:255:G:H8	1.82	0.43
1:AA:814:A:N7	1:AA:816:A:C4	2.86	0.43
22:CD:19:G:C2	22:CD:57:A:C6	3.06	0.43
24:BA:2865:U:C5	24:BA:2866:U:N3	2.86	0.43
2:AE:74:LYS:HZ1	2:AE:169:LYS:HG3	1.81	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:186(F):C:H2'	1:AA:187:C:O4'	2.18	0.43
29:DG:44:GLY:HA2	29:DG:88:ILE:HD11	1.99	0.43
4:AG:111:ALA:HB2	4:AG:120:LEU:HD12	1.98	0.43
45:D3:25:ARG:CD	45:D3:29:GLN:HE22	2.27	0.43
24:BA:1006:C:O2	32:BM:106:MET:HG2	2.18	0.43
24:BA:2116:G:O6	24:BA:2172:U:C4	2.71	0.43
24:BA:2116:G:C8	24:BA:2117:A:C6	3.06	0.43
24:BA:2146:C:H5''	24:BA:2147:G:P	2.58	0.43
30:DH:136:ILE:HD12	30:DH:136:ILE:N	2.31	0.43
54:DA:2277:G:C5'	35:DP:85:LYS:HG3	2.49	0.43
31:DK:121:LYS:HB2	31:DK:121:LYS:HE3	1.79	0.43
54:DA:2663:G:H3'	54:DA:2664:G:H8	1.83	0.43
1:AA:998(A):C:H2'	1:AA:999:U:C4'	2.48	0.43
32:DM:129:PRO:C	32:DM:131:GLN:H	2.20	0.43
38:DR:49:VAL:CG1	38:DR:49:VAL:O	2.64	0.43
54:DA:1310:G:H2'	54:DA:1311:G:H5'	2.00	0.43
1:AA:1251:A:O2'	1:AA:1252:A:H5'	2.18	0.43
1:AA:1286:A:H4'	21:AX:25:LYS:HD2	2.00	0.43
33:BN:10:VAL:HG11	33:BN:16:ALA:O	2.18	0.43
34:DO:13:ASN:C	34:DO:15:ARG:H	2.21	0.43
39:B1:33:ARG:O	39:B1:37:GLU:HG2	2.18	0.43
24:BA:814:C:O2'	24:BA:815:C:H5'	2.18	0.43
1:CA:918:A:H2'	1:CA:919:A:O4'	2.19	0.43
1:CA:1080:A:H5''	5:CH:16:THR:HG21	1.99	0.43
1:AA:1017:G:O2'	1:AA:1018:C:H5'	2.16	0.43
3:CF:22:TRP:CB	3:CF:59:ARG:HB2	2.48	0.43
3:CF:59:ARG:HH12	3:CF:97:LYS:CD	2.31	0.43
30:BH:92:ILE:CD1	30:BH:92:ILE:N	2.81	0.43
18:AU:18:ARG:O	18:AU:20:ALA:N	2.47	0.43
5:CH:36:ASP:C	5:CH:37:ARG:HG2	2.38	0.43
25:BB:111:U:H2'	25:BB:112:G:H8	1.78	0.43
1:CA:539:A:OP1	12:CO:114:LYS:NZ	2.48	0.43
1:AA:1067:A:H1'	1:AA:1068:G:O4'	2.18	0.43
24:BA:2711:A:OP1	24:BA:2712(A):A:P	2.76	0.43
2:AE:27:LYS:HB3	2:AE:194:PRO:HD2	2.00	0.43
1:AA:1277:C:O2'	1:AA:1279:A:C8	2.68	0.43
54:DA:227:A:HO2'	54:DA:228:A:P	2.41	0.43
1:AA:878:G:H2'	1:AA:879:C:C6	2.53	0.43
24:BA:2355:C:H4'	45:B3:36:ILE:HD11	1.99	0.43
4:AG:139:ARG:HG3	4:AG:139:ARG:NH1	2.25	0.43
13:AP:32:GLU:HA	13:AP:35:GLU:HG2	2.00	0.43
28:DF:192:LEU:HD21	28:DF:194:MET:HE3	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:270(E):G:O2'	24:BA:270(F):U:H5'	2.18	0.43
24:BA:2093:G:N2	24:BA:2094:G:C4	2.86	0.43
54:DA:1308:A:H2'	54:DA:1309:G:O4'	2.18	0.43
1:AA:375:U:H4'	16:AS:17:TYR:CE2	2.54	0.43
3:AF:4:LYS:NZ	3:AF:4:LYS:C	2.71	0.43
54:DA:2583:G:N1	54:DA:2584:U:C5	2.86	0.43
6:CI:35:ALA:HA	6:CI:67:MET:HB3	1.99	0.43
8:AK:39:LEU:O	8:AK:44:PHE:HB2	2.18	0.43
8:AK:33:GLU:HG2	8:AK:59:LEU:HD11	1.99	0.43
7:AJ:2:ALA:O	7:AJ:4:ARG:N	2.51	0.43
54:DA:2687:U:C4	54:DA:2688:U:C6	3.06	0.43
10:CM:96:ILE:HD13	10:CM:96:ILE:H	1.83	0.43
54:DA:866:A:N3	54:DA:866:A:H2'	2.32	0.43
11:CN:20:TYR:C	11:CN:21:ILE:HD12	2.38	0.43
24:BA:1062:G:C6	24:BA:1077:A:C2	3.06	0.43
48:BX:11:SER:HB3	48:BX:13:ILE:HG12	1.99	0.43
22:AC:2:G:H8	22:AC:2:G:H5'	1.83	0.43
1:AA:541:G:O2'	1:AA:542:G:H5'	2.18	0.43
54:DA:1710:C:H2'	54:DA:1711:C:H6	1.83	0.43
44:BV:15:PRO:O	44:BV:19:ARG:HD3	2.18	0.43
54:DA:654(S):G:H2'	54:DA:654(T):A:O5'	2.18	0.43
24:BA:2591:C:OP1	26:BD:239:ARG:HG3	2.17	0.43
54:DA:2649:U:H2'	54:DA:2650:U:O4'	2.18	0.43
36:B0:18:LEU:CD1	36:B0:22:ARG:NE	2.81	0.43
24:BA:1952:A:C6	24:BA:1953:A:N1	2.86	0.43
31:DK:111:PRO:O	31:DK:112:LYS:C	2.55	0.43
54:DA:2839:G:H2'	54:DA:2840:C:H6	1.81	0.43
52:B7:49:ARG:NH1	52:B7:49:ARG:HG2	2.33	0.43
54:DA:2610:C:H4'	54:DA:2611:U:OP2	2.18	0.43
49:B4:66:SER:O	49:B4:68:ARG:N	2.51	0.43
24:BA:1412:A:H2'	24:BA:1413:G:C8	2.52	0.43
1:AA:1201:A:C2'	1:AA:1202:G:OP2	2.66	0.43
41:DS:88:ARG:HH11	41:DS:88:ARG:HG2	1.82	0.43
54:DA:2725:A:HO2'	54:DA:2726:U:P	2.40	0.43
54:DA:2099:U:H2'	54:DA:2099:U:O2	2.17	0.43
7:CJ:89:MET:HE1	7:CJ:156:TRP:H	1.83	0.43
42:BT:52:VAL:HG12	42:BT:82:GLN:O	2.18	0.43
34:BO:26:GLY:O	34:BO:28:GLY:N	2.51	0.43
15:AR:4:THR:C	15:AR:6:GLU:N	2.71	0.43
44:DV:12:GLY:O	44:DV:13:GLU:O	2.36	0.43
54:DA:2228:G:C5	54:DA:2229:C:C5	3.05	0.43
54:DA:1324:G:H1'	54:DA:1616:A:N6	2.33	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DB:88:C:H3'	55:DB:89:G:C8	2.53	0.43
36:B0:63:ARG:NH1	36:B0:80:PHE:CD1	2.86	0.43
1:CA:186(E):C:O2'	1:CA:186(F):C:H5'	2.18	0.43
54:DA:1645:G:OP1	54:DA:1646:C:H5'	2.18	0.43
8:CK:1:MET:CE	8:CK:1:MET:H3	2.31	0.43
20:AW:75:ASN:N	20:AW:75:ASN:OD1	2.49	0.43
28:BF:8:GLN:O	28:BF:8:GLN:NE2	2.51	0.43
29:BG:128:ARG:HH21	29:BG:128:ARG:HG2	1.83	0.43
17:AT:51:TYR:CD1	17:AT:51:TYR:N	2.86	0.43
1:CA:1042:G:O2'	1:CA:1043:C:H5'	2.18	0.43
50:D5:15:ARG:HA	50:D5:18:ALA:HB3	1.99	0.43
6:AI:43:LEU:HD12	6:AI:43:LEU:N	2.33	0.43
34:BO:62:LEU:C	34:BO:62:LEU:CD1	2.72	0.43
1:AA:1324:A:H4'	1:AA:1362:C:O3'	2.17	0.43
29:BG:110:ALA:O	29:BG:111:LEU:C	2.56	0.43
29:BG:159:VAL:HG13	29:BG:159:VAL:O	2.17	0.43
1:AA:518:C:H2'	1:AA:530:G:C8	2.53	0.43
33:BN:86:ILE:HD12	33:BN:86:ILE:H	1.82	0.43
1:AA:1130:A:N6	1:AA:1144:G:N2	2.66	0.43
53:D8:58:ILE:O	53:D8:61:LEU:CD1	2.67	0.43
54:DA:1061:U:H5'	54:DA:1070:A:O2'	2.18	0.43
54:DA:1083:U:O2'	54:DA:1085:A:C5'	2.65	0.43
27:DE:2:LYS:HG2	27:DE:95:ILE:HG22	1.99	0.43
27:DE:3:GLY:CA	27:DE:81:ILE:HG21	2.49	0.43
24:BA:1047:G:H2'	24:BA:1110:G:H22	1.82	0.43
26:DD:11:PRO:O	26:DD:12:SER:OG	2.30	0.43
39:B1:111:GLU:C	39:B1:113:ALA:N	2.70	0.43
19:CV:5:LEU:HD21	49:D4:66:SER:CB	2.49	0.43
54:DA:2698:U:H2'	54:DA:2699:C:H6	1.77	0.43
2:CE:162:ILE:O	2:CE:185:ILE:HG13	2.18	0.43
24:BA:1406:U:H2'	24:BA:1407:C:C6	2.53	0.43
54:DA:1265:A:H2	54:DA:1266:G:N2	2.16	0.43
3:AF:79:ARG:C	3:AF:81:GLY:H	2.21	0.43
53:D8:40:GLU:O	53:D8:43:GLN:N	2.50	0.43
24:BA:1225:C:H5''	40:B2:85:LYS:HE2	2.01	0.43
28:BF:61:GLY:C	28:BF:77:ASP:HB3	2.38	0.43
31:DK:79:ILE:CB	31:DK:142:VAL:HA	2.42	0.43
44:BV:143:GLY:O	44:BV:144:LEU:C	2.56	0.43
44:BV:145:GLU:HG2	44:BV:146:ILE:HG12	2.00	0.43
1:CA:64:G:N2	1:CA:68:G:O6	2.28	0.43
44:BV:9:TYR:O	44:BV:10:ARG:CB	2.64	0.43
45:B3:49:LYS:O	45:B3:50:ASN:CB	2.63	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:D0:74:LYS:O	36:D0:76:VAL:N	2.45	0.43
41:BS:70:TYR:H	41:BS:70:TYR:HD2	1.66	0.43
29:BG:67:LYS:CD	49:B4:5:ILE:HG21	2.47	0.43
36:D0:33:ARG:HA	36:D0:114:VAL:O	2.18	0.43
36:D0:48:VAL:O	36:D0:49:ASP:C	2.57	0.43
29:DG:67:LYS:CE	49:D4:6:HIS:NE2	2.74	0.43
24:BA:1403:C:H5''	24:BA:1471:A:C1'	2.32	0.43
15:AR:39:LEU:C	15:AR:39:LEU:HD13	2.38	0.43
24:BA:803:U:O2'	24:BA:804:A:H5'	2.18	0.43
1:CA:345:C:H4'	1:CA:346:G:C2	2.54	0.43
1:AA:1232:U:H2'	1:AA:1233:G:O4'	2.18	0.43
20:CW:101:GLY:C	20:CW:103:GLY:H	2.21	0.43
20:CW:44:ALA:C	20:CW:91:LEU:HB3	2.39	0.43
20:CW:50:GLU:O	20:CW:52:ALA:N	2.51	0.43
54:DA:1971:A:C4	26:DD:241:PRO:HD3	2.53	0.43
54:DA:301:G:O2'	54:DA:302:C:H6	2.01	0.43
41:DS:111:HIS:CG	41:DS:112:GLY:H	2.37	0.43
24:BA:1463:C:H2'	24:BA:1464:C:C6	2.53	0.43
7:AJ:79:ARG:HG3	7:AJ:79:ARG:NH1	2.29	0.43
7:AJ:77:SER:HA	7:AJ:86:GLN:HA	1.99	0.43
54:DA:2126:A:H4'	54:DA:2127:G:O5'	2.18	0.43
1:AA:689:C:P	11:AN:46:GLY:HA3	2.58	0.43
2:CE:115:LEU:HD21	2:CE:153:ARG:HD3	2.00	0.43
24:BA:1020:A:N1	24:BA:1141:U:H2'	2.34	0.43
30:DH:137:ASP:OD1	30:DH:138:LYS:N	2.51	0.43
30:DH:53:GLU:CD	30:DH:54:ARG:H	2.21	0.43
28:BF:195:ASP:C	28:BF:197:ASP:N	2.71	0.43
1:CA:338:A:C6	1:CA:339:C:C4	3.06	0.43
33:BN:98:VAL:O	33:BN:119:PRO:HD3	2.18	0.43
33:BN:13:ASN:ND2	33:BN:97:ARG:HB2	2.33	0.43
2:CE:178:ARG:HH21	8:CK:74:PRO:CB	2.21	0.43
2:AE:106:LYS:O	2:AE:110:GLN:HG3	2.18	0.43
1:CA:779:C:H4'	11:CN:121:PRO:O	2.18	0.43
1:CA:1157:A:N6	1:CA:1180:A:C5	2.87	0.43
41:BS:20:VAL:O	41:BS:23:LEU:HB3	2.18	0.43
9:AL:48:GLU:N	9:AL:49:PRO:CD	2.81	0.43
1:AA:981:U:H5'	14:AQ:21:TYR:CE1	2.53	0.43
24:BA:1537:C:H2'	24:BA:1538:G:OP2	2.18	0.43
24:BA:1537:C:C2'	24:BA:1538:G:OP2	2.65	0.43
24:BA:1001:A:H2'	24:BA:1002:G:C5'	2.48	0.43
24:BA:1024:G:OP2	24:BA:1026:U:OP1	2.36	0.43
24:BA:1026:U:C6	24:BA:1026:U:H3'	2.53	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.18	0.43
24:BA:530:G:O2'	24:BA:532:A:C8	2.70	0.43
54:DA:2490:G:H5''	54:DA:2491:U:OP1	2.18	0.43
24:BA:288:C:C2'	24:BA:289:A:H8	2.27	0.43
54:DA:2273:A:C2'	54:DA:2274:A:H5'	2.48	0.43
26:BD:131:LEU:N	26:BD:131:LEU:HD12	2.32	0.43
1:AA:674:G:H2'	1:AA:675:A:C8	2.50	0.43
6:AI:91:VAL:HG11	18:AU:72:ARG:NH2	2.33	0.43
24:BA:459:U:H4'	52:B7:40:TRP:CZ3	2.52	0.43
27:BE:179:GLU:O	27:BE:180:ASN:HB2	2.19	0.43
43:BU:5:MET:HE1	43:BU:32:PRO:HA	1.99	0.43
54:DA:1983:C:H4'	54:DA:2606:C:H4'	2.00	0.43
49:D4:15:ILE:CD1	49:D4:15:ILE:N	2.78	0.43
7:CJ:60:LYS:O	7:CJ:61:VAL:C	2.57	0.43
43:DU:15:VAL:HB	43:DU:20:TYR:O	2.17	0.43
11:CN:108:ILE:HG21	18:CU:88:LYS:OXT	2.19	0.43
24:BA:2820:A:O5'	36:B0:4:LEU:HD22	2.18	0.43
32:BM:46:VAL:O	32:BM:47:ALA:CB	2.63	0.43
27:DE:69:LYS:C	27:DE:71:GLY:N	2.71	0.43
54:DA:732:C:C2'	54:DA:733:G:H5'	2.48	0.43
54:DA:814:C:O2'	54:DA:815:C:H5'	2.19	0.43
1:AA:246:A:O2'	1:AA:247:G:P	2.76	0.43
54:DA:1754:C:H2'	54:DA:1755:A:C8	2.53	0.43
54:DA:7:G:O2'	54:DA:8:A:H5'	2.19	0.43
32:DM:17:ASP:O	32:DM:55:VAL:O	2.34	0.43
24:BA:2839:G:H4'	36:B0:49:ASP:CB	2.49	0.43
1:AA:394:G:H2'	1:AA:395:C:H6	1.82	0.43
3:AF:134:ILE:HG22	3:AF:168:ALA:HB3	2.00	0.43
1:CA:730:G:C5	1:CA:731:G:H1'	2.52	0.43
24:BA:1652:A:O2'	24:BA:1653:G:H5'	2.18	0.43
24:BA:1517:G:C4	24:BA:1518:C:C5	3.06	0.43
24:BA:1517:G:H2'	24:BA:1518:C:C6	2.53	0.43
30:DH:35:VAL:CG2	30:DH:75:ALA:HB2	2.48	0.43
3:AF:54:ARG:HB2	3:AF:69:HIS:ND1	2.32	0.43
54:DA:2737:G:H2'	54:DA:2738:A:C8	2.53	0.43
54:DA:962:G:O2'	54:DA:963:U:H5'	2.17	0.43
3:CF:69:HIS:CD2	3:CF:69:HIS:N	2.86	0.43
24:BA:826:U:H2'	24:BA:828:U:O4'	2.18	0.43
44:BV:14:LYS:O	44:BV:18:LEU:HD13	2.18	0.43
54:DA:452:G:N3	54:DA:457:A:H2	2.16	0.43
3:CF:27:LYS:HB3	3:CF:27:LYS:NZ	2.34	0.43
54:DA:1951:U:O2	54:DA:1953:A:H8	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:60:PHE:HZ	46:DZ:90:ILE:HG21	1.82	0.43
46:DZ:92:LYS:O	46:DZ:93:GLU:C	2.56	0.43
31:BK:97:ILE:HG13	31:BK:140:LEU:CD2	2.49	0.43
43:DU:84:ARG:HD3	43:DU:86:ARG:HH11	1.82	0.43
43:DU:95:LYS:HB2	43:DU:99:CYS:O	2.18	0.43
1:AA:1243:C:H5''	21:AX:8:THR:HG21	2.00	0.43
3:AF:207:VAL:O	3:AF:207:VAL:HG12	2.18	0.43
3:AF:2:GLY:O	3:AF:3:ASN:HB2	2.18	0.43
49:B4:41:PRO:O	49:B4:42:PHE:O	2.37	0.43
1:AA:1281:U:O3'	1:AA:1282:C:C6	2.71	0.43
30:BH:69:ARG:NH1	30:BH:73:ALA:HB2	2.34	0.43
30:BH:73:ALA:O	30:BH:76:VAL:HB	2.18	0.43
36:B0:39:PRO:O	36:B0:41:ALA:N	2.51	0.43
24:BA:627:A:N6	34:BO:116:GLY:HA2	2.34	0.43
54:DA:729:G:H5'	54:DA:730:C:H5''	2.00	0.43
26:DD:10:THR:O	26:DD:11:PRO:C	2.56	0.43
54:DA:2635:C:C5'	27:DE:77:ILE:HD13	2.49	0.43
1:CA:976:G:H8	1:CA:1358:U:H2'	1.84	0.43
13:CP:69:GLU:O	13:CP:70:LEU:C	2.56	0.43
49:D4:59:PHE:CE1	49:D4:70:GLY:N	2.87	0.43
3:AF:21:ARG:NH1	3:AF:21:ARG:CB	2.63	0.43
30:DH:149:ARG:HA	30:DH:162:ILE:HG21	1.99	0.43
24:BA:2791:C:C2	24:BA:2792:G:N7	2.86	0.43
5:CH:20:GLN:O	5:CH:21:ALA:C	2.57	0.43
34:DO:19:VAL:HG22	34:DO:21:ARG:H	1.83	0.43
27:DE:13:ARG:HH11	27:DE:13:ARG:HB2	1.81	0.43
24:BA:1160:G:C6	24:BA:1161:C:C4	3.07	0.43
1:CA:95:G:C2'	1:CA:96:G:H5''	2.49	0.43
1:CA:95:G:H2'	1:CA:96:G:H8	1.83	0.43
1:CA:1026:G:O6	1:CA:1036:G:C2	2.71	0.43
22:AD:56:C:H2'	22:AD:57:A:C5'	2.27	0.43
22:AD:5:G:C2'	22:AD:6:G:C5'	2.93	0.43
54:DA:2791:C:C2	54:DA:2792:G:N7	2.86	0.43
53:B8:6:THR:HG21	53:B8:63:PRO:CG	2.48	0.43
32:DM:103:VAL:O	32:DM:104:LYS:C	2.56	0.43
28:BF:124:LEU:O	28:BF:126:VAL:HG13	2.17	0.43
41:BS:59:VAL:HA	41:BS:64:MET:N	2.30	0.43
41:BS:59:VAL:O	41:BS:63:ASP:HA	2.18	0.43
54:DA:1537:C:N4	54:DA:1538:G:C6	2.86	0.43
10:AM:82:ILE:O	10:AM:86:MET:CB	2.66	0.43
24:BA:2875:C:O2'	38:BR:5:ALA:CB	2.64	0.43
1:AA:1151:A:H2'	1:AA:1152:A:H8	1.84	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D4:43:TYR:O	49:D4:46:GLN:HA	2.19	0.43
16:CS:21:VAL:HG23	16:CS:34:GLU:N	2.34	0.43
51:D6:20:ASN:O	51:D6:21:TYR:CG	2.71	0.43
54:DA:1932:A:C2	54:DA:1969:A:C6	3.07	0.43
1:AA:953:G:H2'	1:AA:954:G:O4'	2.17	0.43
1:CA:191:G:N3	20:CW:105:SER:HB3	2.33	0.43
24:BA:2311:A:H2'	24:BA:2312:U:C6	2.51	0.43
54:DA:301:G:C6	54:DA:317:G:C5	3.07	0.43
1:AA:1055:A:O2'	3:AF:156:ARG:NH1	2.51	0.43
1:AA:1056:U:O4	1:AA:1200:C:C6	2.71	0.43
38:BR:118:ARG:HA	38:BR:121:ILE:HD12	1.99	0.43
38:BR:124:ASP:O	38:BR:126:ALA:N	2.51	0.43
31:DK:65:ALA:CA	31:DK:67:ARG:HH21	2.29	0.43
31:DK:68:LEU:HA	31:DK:71:ILE:HG22	1.99	0.43
7:AJ:76:ARG:HD3	7:AJ:78:ARG:CZ	2.49	0.43
43:BU:67:LEU:HD11	43:BU:71:LYS:CE	2.48	0.43
38:BR:110:ILE:CG2	38:BR:111:ARG:N	2.81	0.43
1:CA:1349:A:H2'	1:CA:1350:A:C8	2.53	0.43
20:AW:54:LYS:HA	20:AW:57:ARG:CZ	2.48	0.43
32:BM:39:ARG:NH2	32:BM:41:ASP:HB3	2.32	0.43
24:BA:1579:A:H2'	24:BA:1580:A:C8	2.53	0.43
1:AA:737:A:H1'	6:AI:73:ASN:OD1	2.18	0.43
2:AE:170:GLU:C	2:AE:172:ILE:H	2.22	0.43
37:DQ:14:VAL:CG1	37:DQ:15:ARG:N	2.81	0.43
54:DA:2035:G:C4'	54:DA:2036:C:OP2	2.66	0.43
54:DA:531:C:C5	54:DA:2035:G:C2	3.07	0.43
54:DA:702:G:H2'	54:DA:703:U:O5'	2.19	0.43
40:B2:64:HIS:CD2	40:B2:92:THR:HG1	2.36	0.43
7:CJ:148:ASN:O	7:CJ:150:ALA:N	2.51	0.43
1:AA:1067:A:N3	1:AA:1068:G:C1'	2.81	0.43
13:CP:39:ILE:HD12	13:CP:56:LEU:HD23	1.99	0.43
37:DQ:42:ASP:C	37:DQ:44:LYS:N	2.72	0.43
33:DN:61:VAL:O	33:DN:61:VAL:HG13	2.18	0.43
12:AO:53:ARG:HB3	12:AO:93:LEU:HD11	2.01	0.43
54:DA:1012:U:H3	32:DM:25:ARG:HH11	1.66	0.43
45:B3:43:THR:O	45:B3:43:THR:CG2	2.66	0.43
29:DG:136:ARG:O	29:DG:154:GLY:CA	2.62	0.43
8:AK:21:LYS:O	8:AK:63:LEU:HD23	2.18	0.43
54:DA:275:G:O2'	54:DA:276:A:C8	2.72	0.43
1:AA:69:G:C2	1:AA:73:G:N7	2.86	0.43
30:DH:92:ILE:CD1	30:DH:160:LYS:HD3	2.48	0.43
40:D2:1:MET:HE1	40:D2:43:GLU:HG2	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CU:82:THR:CG2	18:CU:83:GLU:N	2.79	0.43
41:DS:50:VAL:O	41:DS:53:SER:N	2.50	0.43
24:BA:11:G:H2'	24:BA:12:U:H5'	2.00	0.43
24:BA:580:C:H2'	24:BA:581:C:H6	1.83	0.43
7:CJ:122:HIS:HA	7:CJ:125:MET:HB2	2.00	0.43
1:CA:113:G:H2'	1:CA:114:U:O4'	2.18	0.43
52:D7:17:GLY:O	52:D7:20:ALA:HB3	2.18	0.43
35:DP:21:THR:HB	35:DP:22:LYS:H	1.42	0.43
1:CA:1237:C:C4'	1:CA:1334:G:H21	2.31	0.43
17:AT:93:GLN:C	17:AT:95:TYR:N	2.71	0.43
54:DA:2257:U:H2'	54:DA:2258:C:C6	2.53	0.43
54:DA:2258:C:H4'	54:DA:2259:G:OP2	2.18	0.43
54:DA:2027:G:C5	54:DA:2028:U:C5	3.07	0.43
4:CG:60:GLU:HG2	4:CG:202:LEU:HD12	2.00	0.43
37:DQ:38:GLN:CG	37:DQ:47:THR:HG21	2.48	0.43
54:DA:2141:G:H2'	54:DA:2142:C:H6	1.84	0.43
24:BA:225:A:O2'	24:BA:257:A:H4'	2.18	0.43
46:DZ:44:PRO:O	46:DZ:46:LEU:N	2.51	0.43
24:BA:2070:G:H2'	24:BA:2071:A:C8	2.52	0.43
25:BB:53:A:O5'	25:BB:53:A:H8	2.02	0.43
13:AP:15:VAL:N	13:AP:45:VAL:CG2	2.82	0.43
19:AV:29:ARG:O	19:AV:31:ILE:HG22	2.18	0.43
29:BG:114:ILE:CG2	29:BG:117:PHE:HB2	2.49	0.43
29:BG:120:LEU:N	29:BG:120:LEU:HD22	2.34	0.43
27:DE:3:GLY:HA3	27:DE:81:ILE:CD1	2.47	0.43
44:DV:103:ARG:HB3	44:DV:138:GLU:HG3	2.00	0.43
26:DD:43:ARG:CZ	26:DD:49:ILE:HG21	2.49	0.43
26:DD:44:ASN:HB3	26:DD:49:ILE:CG2	2.47	0.43
39:B1:90:VAL:O	39:B1:92:ARG:N	2.51	0.43
39:B1:91:ASP:O	39:B1:92:ARG:O	2.37	0.43
24:BA:1150:C:O2'	24:BA:1151:G:H5'	2.17	0.43
13:CP:87:TYR:HA	13:CP:90:LEU:HG	2.01	0.43
13:CP:90:LEU:HD12	13:CP:91:ARG:N	2.33	0.43
28:BF:29:ASN:C	28:BF:112:MET:HE1	2.39	0.43
2:AE:91:PRO:CA	2:AE:154:LEU:HD11	2.43	0.43
51:D6:11:LEU:HD12	51:D6:51:GLU:HG3	2.00	0.43
27:BE:35:GLN:HG3	27:BE:64:LYS:HZ1	1.82	0.43
1:CA:1004:A:O4'	1:CA:1036:G:O6	2.35	0.43
54:DA:2444:G:OP2	28:DF:68:LYS:HE3	2.19	0.43
35:BP:141:GLN:O	44:BV:76:LEU:HD23	2.18	0.43
54:DA:910:A:C6	35:DP:13:GLN:HG3	2.53	0.43
36:D0:51:LEU:HD13	36:D0:66:VAL:HG22	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AM:33:GLN:H	10:AM:75:ILE:CD1	2.32	0.43
1:CA:1256:A:N1	1:CA:1277:C:H3'	2.33	0.43
1:AA:1158:C:C2	1:AA:1160:G:C8	3.06	0.43
1:AA:1347:G:OP2	9:AL:107:ARG:HG2	2.18	0.43
12:AO:125:PRO:O	12:AO:126:LYS:O	2.35	0.43
47:DW:62:THR:O	47:DW:65:ASN:HB2	2.18	0.43
1:AA:1227:A:C5	13:AP:117:VAL:HG21	2.53	0.43
1:AA:923:A:P	5:AH:21:ALA:HB2	2.59	0.43
1:AA:265:G:H2'	1:AA:267:C:H5	1.82	0.43
31:DK:68:LEU:HA	31:DK:71:ILE:HG23	1.98	0.43
54:DA:554:U:O2'	54:DA:556:G:O5'	2.35	0.43
26:DD:181:GLU:HA	26:DD:272:ALA:CB	2.38	0.43
1:AA:687:A:O2'	1:AA:688:G:P	2.77	0.43
2:CE:95:GLN:HE21	2:CE:147:LYS:CE	2.28	0.43
43:BU:68:HIS:HB3	43:BU:71:LYS:HG3	2.01	0.43
44:BV:150:LEU:HG	44:BV:171:ILE:CG2	2.42	0.43
24:BA:2147:G:H3'	24:BA:2147:G:H8	1.84	0.43
46:BZ:72:GLU:OE2	46:BZ:72:GLU:HA	2.18	0.43
27:BE:121:ASN:O	27:BE:122:PHE:C	2.55	0.43
1:AA:709:G:O2'	1:AA:710:G:H5'	2.16	0.43
22:CD:20:U:C3'	22:CD:21:A:C5'	2.91	0.43
54:DA:871:U:H4'	35:DP:69:PHE:CE2	2.54	0.43
43:DU:6:HIS:ND1	43:DU:6:HIS:N	2.66	0.43
41:BS:75:TYR:HE2	41:BS:104:THR:CB	2.30	0.43
41:BS:17:VAL:HG12	41:BS:21:VAL:HG23	2.01	0.43
1:CA:889:A:O2'	1:CA:890:G:P	2.76	0.43
24:BA:1856:G:C2'	24:BA:1857:G:H5'	2.48	0.43
9:CL:43:ALA:O	9:CL:45:ALA:N	2.51	0.43
12:CO:120:TYR:O	12:CO:121:GLY:O	2.36	0.43
12:CO:120:TYR:O	12:CO:121:GLY:C	2.57	0.43
6:CI:91:VAL:CG1	18:CU:72:ARG:NH1	2.82	0.43
27:BE:204:ALA:O	27:BE:205:ALA:CB	2.66	0.43
15:CR:17:ARG:HD3	15:CR:26:GLU:HG3	2.00	0.43
8:AK:40:ALA:HB2	8:AK:45:ILE:HD11	1.99	0.43
47:DW:28:LYS:CE	47:DW:56:GLN:NE2	2.82	0.43
13:AP:82:MET:SD	13:AP:83:ASP:N	2.92	0.43
1:CA:501:C:H1'	1:CA:549:C:H1'	2.01	0.43
31:BK:22:LYS:O	31:BK:23:PRO:C	2.57	0.43
34:BO:16:ARG:HE	34:BO:16:ARG:H	1.66	0.43
27:BE:24:THR:HG21	27:BE:188:VAL:HG12	2.00	0.43
6:CI:73:ASN:O	6:CI:76:ALA:HB3	2.19	0.43
6:CI:76:ALA:HB1	6:CI:80:ARG:HH21	1.82	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CI:72:VAL:HG23	6:CI:90:VAL:HG11	1.98	0.43
12:CO:22:SER:C	12:CO:24:VAL:H	2.22	0.43
6:CI:85:VAL:O	6:CI:85:VAL:HG12	2.18	0.43
31:DK:35:LEU:O	31:DK:35:LEU:HD12	2.19	0.43
24:BA:883:G:O2'	24:BA:884:C:OP1	2.32	0.43
1:CA:440:A:C8	1:CA:442:C:C5	3.06	0.43
18:CU:63:GLN:O	18:CU:66:LEU:HB3	2.18	0.43
34:BO:138:LEU:HD12	34:BO:138:LEU:C	2.38	0.43
1:AA:644:G:C5	1:AA:645:C:C5	3.07	0.43
24:BA:2087:G:C2'	24:BA:2088:G:H5'	2.48	0.43
13:CP:36:LYS:CD	13:CP:36:LYS:C	2.86	0.43
20:AW:36:LEU:HD13	20:AW:55:ILE:HG23	2.00	0.43
54:DA:164:U:P	54:DA:165:U:C5	3.12	0.43
8:CK:118:VAL:O	8:CK:119:LEU:HD23	2.17	0.43
24:BA:2839:G:H4'	36:B0:49:ASP:OD2	2.19	0.43
24:BA:691:C:H2'	24:BA:692:C:C6	2.53	0.43
1:AA:881:G:OP2	12:AO:12:ARG:NH2	2.52	0.43
54:DA:2870:C:H2'	54:DA:2871:C:C5'	2.48	0.43
10:CM:90:LEU:N	10:CM:91:PRO:CD	2.81	0.43
1:AA:744:C:O2'	1:AA:745:C:H5'	2.18	0.43
61:CC:103:A:C2'	58:CC:104:G:H5'	2.48	0.43
3:CF:3:ASN:HD21	3:CF:4:LYS:HZ1	1.65	0.43
33:BN:26:LYS:O	33:BN:27:GLY:O	2.37	0.43
17:CT:13:ASP:O	17:CT:15:MET:N	2.51	0.43
24:BA:301:G:O2'	24:BA:302:C:H6	1.99	0.43
24:BA:2707:G:H2'	24:BA:2708:G:H8	1.81	0.43
24:BA:874:G:O2'	24:BA:875:G:H5'	2.19	0.43
1:CA:1388:C:H2'	1:CA:1389:C:H6	1.82	0.43
54:DA:847:U:O4	54:DA:933:A:N1	2.52	0.43
24:BA:257:A:H2'	24:BA:258:G:O4'	2.18	0.43
24:BA:2689:U:H5''	24:BA:2690:C:H5'	2.00	0.43
24:BA:1473:G:C5	24:BA:1474:C:C5	3.06	0.43
2:AE:84:GLU:OE1	2:AE:84:GLU:HA	2.18	0.43
24:BA:1146:C:O2'	24:BA:1147:C:H5'	2.18	0.43
3:AF:179:ARG:O	3:AF:179:ARG:HG3	2.19	0.43
24:BA:1893:C:C5	24:BA:1894:C:C5	3.07	0.43
54:DA:769:G:O2'	54:DA:770:G:H5'	2.18	0.43
1:AA:726:C:O2'	1:AA:727:G:H5'	2.18	0.43
29:BG:142:PRO:HG2	29:BG:143:GLU:CD	2.39	0.43
1:AA:518:C:H5'	1:AA:519:C:H6	1.83	0.43
9:AL:31:GLN:HB3	9:AL:35:GLU:HB3	2.01	0.43
53:D8:58:ILE:O	53:D8:61:LEU:CG	2.66	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:179:GLU:CB	27:DE:181:LEU:HD23	2.24	0.43
24:BA:1045:A:C2'	24:BA:1046:A:OP2	2.66	0.43
24:BA:455:C:N3	24:BA:472:A:H2'	2.34	0.43
28:BF:153:SER:HB2	28:BF:190:GLU:H	1.83	0.43
39:B1:57:PHE:O	39:B1:58:ARG:C	2.57	0.43
39:B1:91:ASP:OD2	39:B1:96:ALA:CB	2.66	0.43
40:B2:35:LEU:HD23	40:B2:35:LEU:O	2.17	0.43
27:DE:51:PHE:O	27:DE:74:PRO:CB	2.67	0.43
19:CV:36:ARG:NH1	19:CV:52:TYR:O	2.51	0.43
15:CR:83:GLU:OE1	15:CR:83:GLU:HA	2.19	0.43
26:DD:30:GLU:CD	26:DD:63:ARG:HE	2.21	0.43
24:BA:2635:C:C5'	27:BE:77:ILE:HG22	2.49	0.43
26:BD:21:PHE:O	26:BD:24:ILE:HB	2.18	0.43
29:DG:114:ILE:O	29:DG:116:ASP:N	2.51	0.43
1:CA:701:C:H1'	1:CA:703:G:C5	2.53	0.43
1:AA:410:G:C4'	1:AA:411:A:OP1	2.66	0.43
1:AA:425:G:O2'	4:AG:45:GLN:NE2	2.51	0.43
4:AG:32:ALA:O	4:AG:33:MET:O	2.36	0.43
39:D1:99:ALA:HA	39:D1:106:PHE:HB2	2.01	0.43
39:D1:79:PHE:HD2	39:D1:79:PHE:C	2.18	0.43
33:DN:51:ALA:O	33:DN:53:LYS:HE3	2.19	0.43
5:AH:139:LEU:HA	5:AH:142:LEU:HD11	2.01	0.43
28:DF:63:LYS:CE	28:DF:67:GLN:HB2	2.48	0.43
44:BV:48:PHE:CE2	44:BV:71:VAL:HG11	2.50	0.43
24:BA:2377:A:H4'	37:BQ:111:GLU:O	2.18	0.43
24:BA:481:G:H1'	24:BA:506:G:H21	1.84	0.43
30:BH:107:VAL:HG21	30:BH:153:LYS:CG	2.49	0.43
24:BA:265:A:O2'	24:BA:266:G:O5'	2.35	0.43
37:DQ:30:ARG:NH2	37:DQ:92:TYR:HD1	2.17	0.43
38:DR:105:LEU:C	38:DR:107:ASP:OD1	2.56	0.43
54:DA:2073:C:H5'	26:DD:229:VAL:HG22	1.99	0.43
24:BA:27:G:HO2'	24:BA:28:A:H8	1.61	0.43
24:BA:27:G:N2	24:BA:513:A:OP2	2.52	0.43
55:DB:96:G:C6	55:DB:97:G:N7	2.86	0.43
1:CA:742:G:O2'	1:CA:743:U:H5'	2.19	0.43
47:DW:59:ARG:O	47:DW:62:THR:HG23	2.19	0.43
54:DA:1930:G:H2'	54:DA:1968:G:C6	2.53	0.43
47:BW:48:HIS:CE1	47:BW:49:LYS:HG3	2.54	0.43
1:AA:1503:A:H61	23:A1:12:A:N6	2.14	0.43
1:AA:849:C:H2'	1:AA:850:U:O4'	2.18	0.43
1:CA:191:G:H1'	20:CW:105:SER:CB	2.48	0.43
28:BF:101:LEU:O	28:BF:102:PRO:C	2.57	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2306:C:N3	29:BG:45:GLU:OE2	2.51	0.43
1:AA:1054:C:H5''	1:AA:1054:C:H6	1.84	0.43
1:AA:324:G:OP1	20:AW:22:ARG:HD2	2.19	0.43
2:CE:29:ALA:O	2:CE:32:ILE:HG22	2.17	0.43
7:AJ:85:TYR:CE2	7:AJ:154:TYR:CE1	3.06	0.43
12:AO:70:ILE:CD1	12:AO:77:LEU:HD12	2.47	0.43
29:DG:145:THR:O	29:DG:146:TYR:HB3	2.19	0.43
20:AW:53:LEU:HD22	20:AW:56:MET:CE	2.49	0.43
1:AA:537:G:H2'	1:AA:538:G:H8	1.83	0.43
24:BA:1688:U:H5'	24:BA:1689:A:OP1	2.19	0.43
1:CA:1152:A:OP1	10:CM:68:HIS:NE2	2.50	0.43
5:AH:9:LYS:HD2	5:AH:9:LYS:HA	1.82	0.43
14:CQ:12:ARG:C	14:CQ:14:PRO:CD	2.80	0.43
24:BA:2615:U:H2'	24:BA:2616:C:H6	1.83	0.43
54:DA:1945:G:O2'	54:DA:1946:U:H5'	2.17	0.43
54:DA:2298:A:N6	54:DA:2318:G:H8	2.06	0.43
22:CD:21:A:N1	22:CD:48:C:H1'	2.33	0.43
11:AN:21:ILE:HD12	11:AN:84:VAL:HG12	2.01	0.43
24:BA:976:C:O2	24:BA:976:C:H2'	2.19	0.43
52:D7:47:ARG:HB2	52:D7:48:LYS:H	1.64	0.43
1:CA:1542:G:H5''	18:CU:19:LYS:N	2.33	0.43
3:AF:63:ASN:O	3:AF:64:VAL:CG2	2.67	0.43
24:BA:2389:G:H5''	24:BA:2390:U:O4'	2.19	0.43
24:BA:1668:A:H4'	24:BA:1669:A:O5'	2.19	0.43
1:CA:406:G:N2	1:CA:437:U:O2	2.52	0.43
4:CG:122:ARG:HA	4:CG:134:ASP:HB2	2.00	0.43
1:AA:1541:U:H6	1:AA:1541:U:C3'	2.23	0.43
1:AA:878:G:H5''	8:AK:89:PRO:HG2	1.99	0.43
54:DA:1694:C:C2'	54:DA:1695:G:OP2	2.67	0.43
54:DA:1528:A:H2'	54:DA:1529:A:O4'	2.19	0.43
1:AA:373:A:C2	1:AA:482:A:N6	2.86	0.43
24:BA:673:C:C2'	24:BA:674:G:H5'	2.48	0.43
1:CA:186:C:H4'	20:CW:82:SER:HB3	2.01	0.43
16:AS:15:PRO:O	16:AS:16:HIS:ND1	2.52	0.43
33:DN:63:VAL:O	33:DN:63:VAL:HG23	2.18	0.43
54:DA:1937:A:O2'	54:DA:1938:A:P	2.77	0.43
43:BU:94:LYS:HZ2	43:BU:101:LYS:HZ3	1.66	0.43
24:BA:371:A:H1'	24:BA:373:U:C6	2.53	0.43
54:DA:1916:A:H3'	54:DA:1917:U:C6	2.53	0.43
10:CM:30:SER:OG	10:CM:81:THR:HG22	2.19	0.43
8:AK:23:SER:HA	8:AK:63:LEU:HD22	1.99	0.43
54:DA:1709:U:H2'	54:DA:1710:C:H6	1.81	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:405:U:H5''	54:DA:406:G:OP2	2.19	0.43
3:CF:101:LEU:C	3:CF:101:LEU:HD23	2.38	0.43
4:AG:163:GLU:C	4:AG:165:MET:N	2.72	0.43
54:DA:1827:C:O2'	54:DA:1828:G:H5'	2.18	0.43
11:CN:75:TYR:HD1	11:CN:75:TYR:N	2.16	0.43
1:AA:778:G:O2'	1:AA:779:C:H5'	2.18	0.43
1:AA:803:G:H2'	1:AA:804:U:C6	2.53	0.43
54:DA:2832:U:C2'	54:DA:2833:G:OP2	2.66	0.43
45:B3:75:LEU:N	45:B3:75:LEU:HD23	2.33	0.43
7:AJ:141:VAL:O	7:AJ:144:MET:HB2	2.18	0.43
7:AJ:144:MET:O	7:AJ:145:ALA:C	2.57	0.43
24:BA:852:G:H2'	24:BA:853:G:O4'	2.19	0.43
24:BA:1174:A:H5'	24:BA:1175:U:OP2	2.19	0.43
1:CA:1015:A:H2'	1:CA:1016:A:H8	1.83	0.43
24:BA:679:C:O2'	24:BA:680:G:H5'	2.19	0.43
54:DA:2725:A:O2'	54:DA:2726:U:P	2.77	0.43
27:DE:143:ASN:N	27:DE:143:ASN:ND2	2.65	0.43
1:CA:543:C:OP1	4:CG:14:ARG:NH2	2.49	0.43
28:BF:162:LEU:CD1	28:BF:162:LEU:H	2.31	0.43
54:DA:17:G:H2'	54:DA:18:C:H6	1.84	0.43
1:AA:186(B):C:H2'	1:AA:186(C):G:C8	2.54	0.43
16:CS:39:TYR:CZ	16:CS:41:PRO:HB3	2.52	0.43
24:BA:2698:U:H2'	24:BA:2699:C:C6	2.54	0.43
1:AA:765:G:H1	1:AA:812:C:H2'	1.83	0.43
5:CH:64:ARG:HG3	5:CH:64:ARG:HH11	1.81	0.43
1:CA:191(C):G:H2'	1:CA:191(D):U:C6	2.54	0.43
54:DA:440:G:H2'	54:DA:441:U:C6	2.53	0.43
1:CA:489:C:OP1	4:CG:132:ARG:NH2	2.51	0.43
7:CJ:88:PRO:HB3	7:CJ:145:ALA:HA	2.01	0.43
52:B7:43:THR:HG23	52:B7:44:PRO:HD2	2.00	0.43
11:CN:70:LYS:HA	11:CN:73:MET:HE2	2.00	0.43
22:CC:14:A:C2	22:CC:15:G:H1'	2.53	0.43
38:DR:64:ARG:HH11	38:DR:64:ARG:HG2	1.84	0.43
38:DR:114:LEU:HA	38:DR:114:LEU:HD23	1.74	0.43
29:BG:87:PRO:HG2	29:BG:87:PRO:O	2.18	0.43
9:CL:41:VAL:HG12	9:CL:41:VAL:O	2.18	0.43
1:CA:1133:G:C6	1:CA:1142:G:C6	3.06	0.43
30:DH:125:VAL:CG1	30:DH:126:PRO:CG	2.94	0.43
25:BB:39:A:H2'	25:BB:39:A:N3	2.34	0.43
25:BB:44:G:OP1	49:B4:1:MET:HG3	2.18	0.43
29:BG:104:GLU:O	29:BG:108:ASN:N	2.45	0.43
1:AA:1325:C:H4'	21:AX:17:THR:CG2	2.26	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AV:20:LEU:CA	19:AV:44:MET:HE1	2.36	0.43
19:AV:65:ASN:HA	19:AV:65:ASN:HD22	1.54	0.43
19:AV:8:GLY:O	19:AV:9:VAL:C	2.57	0.43
44:BV:138:GLU:N	44:BV:138:GLU:OE1	2.50	0.43
44:DV:151:HIS:CE1	44:DV:168:GLU:HG3	2.54	0.43
30:BH:6:ARG:HD2	30:BH:54:ARG:NH2	2.34	0.43
34:BO:99:LEU:CD1	34:BO:102:ARG:HH11	2.31	0.43
39:B1:61:TRP:O	39:B1:65:ILE:HD13	2.19	0.43
39:B1:92:ARG:CD	39:B1:92:ARG:O	2.67	0.43
39:B1:95:LEU:HD12	40:B2:11:GLN:HE21	1.84	0.43
54:DA:1046:A:H5'	54:DA:1047:G:C8	2.54	0.43
54:DA:1043:C:C2	54:DA:1112:G:N2	2.87	0.43
1:CA:1316:G:N1	1:CA:1319:A:OP2	2.46	0.43
1:CA:1320:C:N4	1:CA:1321:C:N4	2.66	0.43
1:CA:1124:G:O5'	10:CM:35:SER:HB2	2.18	0.43
1:CA:1074:G:H2'	1:CA:1075:C:H6	1.83	0.43
54:DA:1265:A:H1'	54:DA:1267:U:C6	2.53	0.43
1:AA:1106:G:O2'	1:AA:1107:C:H5'	2.19	0.43
2:AE:86:GLU:C	2:AE:88:ALA:H	2.22	0.43
54:DA:2420:C:O5'	54:DA:2420:C:H6	2.02	0.43
4:AG:25:ARG:CG	4:AG:25:ARG:HH11	2.30	0.43
28:BF:88:VAL:HG22	28:BF:89:VAL:N	2.34	0.43
22:AD:53:G:C2	22:AD:54:U:C5	3.07	0.43
44:BV:118:GLN:HG3	44:BV:174:VAL:H	1.84	0.43
30:BH:152:ARG:NE	30:BH:153:LYS:HD3	2.32	0.43
36:D0:54:LEU:O	36:D0:62:ALA:HB1	2.19	0.43
54:DA:1530:G:H2'	54:DA:1531:C:H6	1.84	0.43
8:CK:6:ILE:HB	8:CK:85:ARG:HH11	1.74	0.43
1:AA:664:G:H5'	18:AU:64:ARG:NH2	2.34	0.43
24:BA:2469:A:N3	24:BA:2469:A:O4'	2.52	0.43
24:BA:2478:A:O2'	24:BA:2528:U:H1'	2.19	0.43
1:AA:1176:A:C2'	1:AA:1177:G:H5'	2.44	0.43
55:DB:40:U:H1'	55:DB:45:A:N6	2.33	0.43
44:BV:56:VAL:CG1	44:BV:57:ILE:N	2.81	0.43
55:DB:7:G:H2'	55:DB:8:U:H5''	2.01	0.43
24:BA:27:G:C2'	24:BA:28:A:OP2	2.66	0.43
40:B2:98:GLU:HB3	40:B2:99:ILE:H	1.73	0.43
27:DE:25:VAL:HG21	38:DR:8:LYS:HG3	2.00	0.43
1:CA:233:C:N3	1:CA:234:C:C5	2.87	0.43
23:A1:13:A:C2'	23:A1:14:A:OP1	2.66	0.43
1:AA:1503:A:O2'	1:AA:1504:G:P	2.76	0.43
9:AL:117:HIS:HB2	9:AL:121:ARG:O	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:23:GLU:HG3	42:BT:24:GLY:N	2.33	0.43
20:CW:44:ALA:HB1	20:CW:91:LEU:HB2	2.00	0.43
41:DS:65:LEU:CD1	41:DS:68:ARG:NH1	2.75	0.43
1:AA:252:U:C2	1:AA:253:U:C5	3.07	0.43
2:CE:32:ILE:HD13	2:CE:190:THR:CG2	2.48	0.43
2:AE:217:ARG:HA	2:AE:220:ASP:HB2	2.00	0.43
1:CA:560:U:H4'	1:CA:561:U:H5''	2.01	0.43
12:AO:100:ILE:CG2	12:AO:101:VAL:N	2.81	0.43
12:AO:54:LYS:NZ	12:AO:75:HIS:HE1	2.16	0.43
24:BA:1141:U:H1'	24:BA:1142(A):A:C2	2.54	0.43
44:BV:150:LEU:HD21	44:BV:171:ILE:CG2	2.49	0.43
1:CA:1347:G:N2	1:CA:1374:A:OP2	2.50	0.43
46:BZ:85:LEU:C	46:BZ:87:PRO:HD2	2.38	0.43
1:AA:14:U:O2	1:AA:17:U:C5	2.72	0.43
22:CD:25:C:O2'	22:CD:26:G:H5'	2.19	0.43
10:CM:70:ARG:HG3	10:CM:70:ARG:HH11	1.83	0.43
1:AA:1216:G:H5''	14:AQ:5:ALA:CB	2.48	0.43
24:BA:2645:G:H3'	24:BA:2646:C:H5'	2.00	0.43
24:BA:2645:G:H3'	24:BA:2646:C:C5'	2.48	0.43
2:AE:102:LEU:O	2:AE:105:PHE:N	2.51	0.43
1:AA:1298:C:H5	7:AJ:114:ARG:HD2	1.81	0.43
25:BB:3:C:H2'	25:BB:3:C:O2	2.17	0.43
24:BA:890:A:N7	24:BA:892:G:C6	2.87	0.43
24:BA:2126:A:H4'	24:BA:2127:G:C5'	2.48	0.43
24:BA:1882:C:O2	24:BA:1882:C:H2'	2.19	0.43
1:CA:16:A:N1	1:CA:919:A:H2	2.16	0.43
24:BA:1024:G:C6	24:BA:1025:G:C6	3.06	0.43
24:BA:2166:G:C2'	24:BA:2167:U:H5''	2.49	0.43
1:CA:1117:G:H5'	1:CA:1117:G:H8	1.83	0.43
1:AA:1032(B):G:C2'	1:AA:1033:G:H5''	2.48	0.43
24:BA:532:A:O2'	24:BA:2021:C:N4	2.52	0.43
1:AA:686:U:O4	1:AA:703:G:O2'	2.36	0.43
54:DA:226:G:H1'	54:DA:228:A:H61	1.84	0.43
1:CA:589:C:H1'	1:CA:653:A:H61	1.83	0.43
27:BE:25:VAL:CG1	27:BE:181:LEU:HD12	2.48	0.43
24:BA:2210:G:O2'	24:BA:2211:G:OP1	2.25	0.43
24:BA:2018:G:H2'	24:BA:2019:A:O4'	2.19	0.43
54:DA:1701:A:C3'	54:DA:1702:G:H5'	2.49	0.43
1:AA:1263:C:H2'	1:AA:1264:C:H6	1.82	0.43
53:B8:52:LYS:HB2	53:B8:53:PRO:CD	2.49	0.43
1:CA:606:G:N2	1:CA:631:G:H8	2.17	0.43
24:BA:1060:U:C1'	24:BA:1062:G:H5'	2.49	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:592:G:N2	53:B8:4:MET:HE1	2.33	0.43
4:CG:163:GLU:OE2	4:CG:163:GLU:HA	2.19	0.43
35:BP:116:GLU:OE1	35:BP:116:GLU:HA	2.19	0.43
32:DM:26:LEU:HG	32:DM:30:ILE:CD1	2.49	0.43
32:DM:30:ILE:HG22	32:DM:34:LEU:CD2	2.48	0.43
1:AA:210:U:HO2'	1:AA:216:G:P	2.40	0.43
46:DZ:73:LEU:C	46:DZ:75:GLU:N	2.70	0.43
11:AN:59:TYR:OH	11:AN:63:LEU:HD11	2.18	0.43
1:AA:19:C:H5''	5:AH:86:ALA:CB	2.47	0.43
2:AE:111:ARG:HA	2:AE:111:ARG:HD3	1.80	0.43
38:BR:137:LYS:HB3	38:BR:137:LYS:HZ2	1.82	0.43
54:DA:2726:U:H6	33:DN:67:LYS:HZ3	1.67	0.43
24:BA:2123:G:H2'	24:BA:2124:G:H8	1.83	0.43
17:AT:93:GLN:C	17:AT:95:TYR:H	2.21	0.43
24:BA:2225:A:H4'	24:BA:2226:C:H6	1.83	0.43
24:BA:868:U:C4	24:BA:869:G:N7	2.87	0.43
8:CK:64:LYS:CB	8:CK:79:VAL:HG21	2.48	0.43
1:AA:1081:G:H5''	5:AH:18:ARG:HG3	2.00	0.43
3:CF:69:HIS:HA	3:CF:104:GLN:HB2	2.00	0.43
24:BA:1268:A:C2	24:BA:1269:A:H1'	2.53	0.43
36:B0:13:HIS:O	36:B0:14:SER:C	2.57	0.43
54:DA:2095:C:H2'	54:DA:2096:U:O4'	2.18	0.43
2:CE:127:ILE:HG23	2:CE:128:GLU:N	2.34	0.43
41:BS:50:VAL:CG2	41:BS:105:VAL:HG23	2.49	0.43
1:CA:295:C:H2'	1:CA:296:U:C6	2.53	0.43
1:AA:784:C:H4'	24:BA:1837:C:OP1	2.19	0.43
54:DA:2681:C:O2'	54:DA:2682:U:H5'	2.19	0.43
33:BN:7:TYR:HE1	33:BN:20:MET:CE	2.32	0.43
54:DA:762:U:H4'	54:DA:763:G:O5'	2.18	0.43
54:DA:80:G:C2'	54:DA:81:G:H5'	2.48	0.43
31:BK:123:LEU:CD2	31:BK:143:SER:HB3	2.48	0.43
43:DU:75:ILE:HG12	43:DU:76:CYS:H	1.79	0.43
1:AA:1061:G:C5	1:AA:1062:U:C5	3.07	0.43
13:AP:34:LEU:HD11	13:AP:41:PRO:HB3	2.00	0.43
29:BG:109:VAL:HG11	29:BG:142:PRO:HB3	2.01	0.43
9:AL:6:GLY:CA	9:AL:17:VAL:H	2.31	0.43
9:AL:3:GLN:O	9:AL:4:TYR:CD2	2.71	0.43
54:DA:1104:C:H2'	54:DA:1105:U:C6	2.54	0.43
30:BH:89:ILE:H	30:BH:89:ILE:HD13	1.83	0.43
27:DE:52:LEU:O	27:DE:74:PRO:HA	2.18	0.43
1:CA:1355:G:H2'	1:CA:1356:G:C8	2.53	0.43
1:CA:957:U:O2	1:CA:960:U:C6	2.72	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D4:48:ARG:C	49:D4:49:PHE:HD1	2.22	0.43
30:DH:109:PHE:C	30:DH:111:HIS:H	2.22	0.43
3:AF:173:VAL:HG12	3:AF:175:LEU:CD2	2.49	0.43
3:AF:56:ASP:O	3:AF:66:VAL:HA	2.18	0.43
2:AE:44:LEU:HD12	2:AE:45:GLN:H	1.82	0.43
24:BA:751:A:C6	24:BA:789:A:C5	3.07	0.43
1:CA:922:G:H4'	5:CH:20:GLN:HA	2.00	0.43
26:BD:30:GLU:HA	26:BD:83:GLU:OE2	2.18	0.43
15:AR:29:VAL:O	15:AR:32:LEU:HB2	2.19	0.43
24:BA:797:C:OP2	28:BF:62:ARG:HG3	2.18	0.43
22:AD:46:G:O2'	22:AD:47:U:H5''	2.19	0.43
1:CA:1452:C:C4'	1:CA:1453:G:OP1	2.53	0.43
54:DA:676:A:N1	54:DA:802:A:N1	2.66	0.43
54:DA:910:A:C6	54:DA:911:A:C6	3.07	0.43
37:BQ:110:LEU:O	37:BQ:111:GLU:HB2	2.19	0.43
54:DA:1461:G:O2'	54:DA:1462:C:H5'	2.19	0.43
54:DA:1023:U:H2'	54:DA:1024:G:C5'	2.45	0.43
28:BF:127:GLU:HB2	28:BF:196:LEU:CD1	2.41	0.43
24:BA:2468:G:O2'	24:BA:2469:A:O4'	2.36	0.43
54:DA:510:C:O2'	54:DA:511:U:H5'	2.19	0.43
50:D5:56:LYS:N	50:D5:56:LYS:CD	2.76	0.43
50:D5:56:LYS:O	50:D5:57:VAL:C	2.57	0.43
4:CG:90:GLY:HA3	4:CG:204:ILE:HD11	2.00	0.43
49:B4:8:LYS:CA	49:B4:8:LYS:HE2	2.33	0.43
1:CA:817:C:H4'	1:CA:818:G:OP1	2.18	0.43
2:CE:197:VAL:CG1	2:CE:198:ASP:N	2.82	0.43
24:BA:820:A:H2'	24:BA:821:A:O4'	2.19	0.43
24:BA:1849:G:H2'	24:BA:1849:G:N3	2.34	0.43
44:DV:15:PRO:HA	44:DV:18:LEU:HD13	2.00	0.43
24:BA:608:A:N6	24:BA:609:A:C6	2.86	0.43
1:AA:533:A:H4'	1:AA:534:U:OP1	2.18	0.43
1:CA:453:A:H2'	1:CA:454:C:C6	2.53	0.43
24:BA:2848:G:H2'	24:BA:2867:G:N2	2.33	0.43
24:BA:2851:A:O2'	36:B0:64:ARG:NH2	2.52	0.43
38:BR:121:ILE:O	38:BR:124:ASP:N	2.51	0.43
44:DV:24:LEU:O	44:DV:24:LEU:HG	2.18	0.43
24:BA:329:G:O6	43:BU:19:LYS:CG	2.67	0.43
54:DA:2743:C:H2'	54:DA:2744:G:O5'	2.19	0.43
30:DH:120:GLY:O	30:DH:136:ILE:HD12	2.19	0.43
20:AW:50:GLU:HA	20:AW:100:ILE:HG12	1.99	0.43
1:AA:1216:G:H5''	14:AQ:5:ALA:HB3	2.00	0.43
24:BA:247:G:H4'	24:BA:386:G:C6	2.53	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BN:97:ARG:HA	33:BN:117:LEU:HD12	2.00	0.43
54:DA:1796:U:H2'	54:DA:1797:C:H6	1.81	0.43
22:CD:70:G:H2'	22:CD:71:C:C5'	2.49	0.43
11:AN:96:ARG:O	11:AN:99:GLN:HB2	2.18	0.43
1:AA:1284:C:H2'	1:AA:1285:A:H8	1.82	0.43
38:BR:58:ASN:O	38:BR:58:ASN:ND2	2.51	0.43
37:BQ:46:VAL:CG1	37:BQ:47:THR:N	2.80	0.43
24:BA:251:A:H2'	24:BA:252:G:O4'	2.19	0.43
1:CA:329:A:C4	1:CA:332:G:C5	3.07	0.43
1:CA:1492:A:H4'	12:CO:47:LYS:HD3	2.00	0.43
1:CA:538:G:O2'	1:CA:539:A:H5'	2.19	0.43
24:BA:2009:G:OP1	41:BS:41:LYS:HE3	2.19	0.43
24:BA:2713:A:H5'	24:BA:2714:G:OP2	2.19	0.43
24:BA:1165:U:O2'	24:BA:1166:C:H5'	2.18	0.43
1:CA:652:U:O2'	1:CA:653:A:C5'	2.67	0.43
1:AA:191:G:C2'	1:AA:192:U:H5'	2.48	0.43
55:DB:3:C:C2	55:DB:4:C:C5	3.07	0.43
32:DM:118:LYS:C	32:DM:120:LEU:H	2.20	0.43
1:AA:1213:A:N7	1:AA:1215:G:C5	2.87	0.43
27:DE:16:ARG:O	27:DE:18:ASP:O	2.36	0.43
24:BA:1087:G:H2'	24:BA:1089:G:O4'	2.18	0.43
1:AA:10:A:C2	1:AA:11:G:C5	3.07	0.43
38:DR:19:LEU:HA	38:DR:20:PRO:HD3	1.87	0.43
31:DK:33:ARG:HH11	31:DK:33:ARG:CG	2.31	0.43
33:DN:78:ARG:HH21	38:DR:103:ARG:HH22	1.64	0.43
22:CC:17:C:H2'	22:CC:17(A):C:H5	1.79	0.43
24:BA:1029:A:N6	24:BA:1125:G:O2'	2.52	0.43
54:DA:2330:G:C2'	54:DA:2331:G:H5'	2.49	0.43
12:AO:12:ARG:O	12:AO:13:LYS:C	2.57	0.43
3:AF:155:GLY:HA2	3:AF:164:ARG:N	2.34	0.43
52:D7:32:LYS:O	52:D7:33:ARG:C	2.56	0.43
54:DA:271(C):U:HO2'	54:DA:271:G:P	2.42	0.43
4:CG:14:ARG:HD3	4:CG:14:ARG:C	2.39	0.43
22:CC:2:G:H8	22:CC:2:G:H5'	1.82	0.43
24:BA:2081:C:O2'	24:BA:2082:A:H5'	2.18	0.43
15:CR:10:LYS:O	15:CR:14:GLU:HB2	2.18	0.43
54:DA:1156:A:H4'	54:DA:1157:G:OP2	2.18	0.43
24:BA:1655:A:H4'	27:BE:115:GLY:H	1.83	0.43
29:DG:59:GLU:O	29:DG:62:LEU:HB3	2.18	0.43
32:DM:90:MET:O	32:DM:91:LEU:C	2.57	0.43
29:BG:7:LEU:HD23	29:BG:7:LEU:O	2.18	0.43
31:BK:129:THR:HG22	31:BK:137:PRO:HB3	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:89:VAL:O	38:DR:90:GLN:HB2	2.19	0.43
38:DR:89:VAL:O	38:DR:90:GLN:CB	2.67	0.43
1:CA:69:G:N2	1:CA:73:G:C8	2.87	0.43
10:AM:50:ILE:HD13	10:AM:60:ARG:HH11	1.84	0.43
9:AL:19:LEU:HD23	9:AL:61:ALA:N	2.33	0.43
24:BA:1212:G:O2'	24:BA:1236:G:N2	2.52	0.43
54:DA:727:A:C2	26:DD:9:TYR:CD2	3.07	0.43
1:CA:1320:C:C4	1:CA:1321:C:N4	2.87	0.43
25:BB:31:C:H2'	25:BB:31:C:O2	2.18	0.43
50:D5:3:LYS:O	50:D5:4:HIS:C	2.56	0.43
32:BM:115:ARG:O	32:BM:118:LYS:HB2	2.19	0.43
1:AA:760:G:H2'	1:AA:761:G:C5'	2.48	0.43
24:BA:827:U:O2	24:BA:2246:G:H4'	2.19	0.43
1:CA:175:C:H2'	1:CA:176:C:H6	1.84	0.43
54:DA:1139:G:O2'	54:DA:1143:A:N1	2.45	0.43
43:BU:45:VAL:HG23	43:BU:45:VAL:O	2.19	0.43
40:B2:1:MET:HG2	40:B2:2:PHE:H	1.82	0.43
31:DK:60:GLU:CA	31:DK:60:GLU:OE2	2.66	0.43
31:DK:60:GLU:HA	31:DK:60:GLU:OE2	2.18	0.43
4:CG:90:GLY:O	4:CG:93:PHE:HB3	2.19	0.43
40:B2:29:PRO:HA	40:B2:61:VAL:CG2	2.49	0.43
54:DA:387:U:HO2'	54:DA:388:G:P	2.42	0.43
1:CA:251:G:N2	1:CA:253:U:C4	2.86	0.43
1:AA:1226:C:N4	13:AP:104:ARG:HD2	2.33	0.43
7:CJ:23:VAL:O	7:CJ:27:ILE:HD12	2.19	0.43
54:DA:149:A:C2	54:DA:150:C:C2	3.07	0.43
26:DD:241:PRO:O	26:DD:242:ARG:C	2.55	0.43
24:BA:1728:G:C2	24:BA:1730:U:OP2	2.71	0.43
1:AA:438:G:H5''	1:AA:439:A:OP1	2.18	0.43
5:CH:72:GLN:C	5:CH:74:GLY:H	2.23	0.43
36:B0:77:ARG:O	36:B0:78:LYS:C	2.57	0.43
1:CA:1240:U:O2'	7:CJ:38:LEU:CD2	2.67	0.43
54:DA:270(B):A:O2'	54:DA:364:C:H2'	2.19	0.43
24:BA:1577:C:H2'	24:BA:1578:U:C6	2.54	0.43
1:AA:998(A):C:N3	1:AA:999:U:C6	2.86	0.43
11:AN:21:ILE:HD13	11:AN:94:ALA:HB1	2.00	0.43
35:BP:58:PHE:HB3	35:BP:59:ARG:HH21	1.84	0.43
27:DE:23:VAL:HG12	27:DE:184:VAL:O	2.19	0.43
54:DA:102:G:C2'	54:DA:103:A:OP2	2.66	0.43
40:B2:22:VAL:HG13	40:B2:23:GLU:O	2.19	0.43
54:DA:1314:C:H6	54:DA:1314:C:H5'	1.84	0.43
27:DE:48:GLN:HB3	27:DE:48:GLN:HE21	1.55	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BW:17:SER:HA	47:BW:20:GLU:HB2	2.00	0.43
24:BA:669:G:N3	24:BA:669:G:C2'	2.80	0.43
9:AL:50:LEU:HA	9:AL:53:VAL:CG2	2.48	0.43
44:DV:29:TYR:HA	44:DV:33:LEU:O	2.19	0.43
46:BZ:80:LEU:O	46:BZ:81:LYS:CB	2.67	0.43
24:BA:2328:A:C2	24:BA:2329:G:C5	3.07	0.43
15:CR:25:THR:O	15:CR:29:VAL:HG23	2.18	0.43
1:AA:965:A:C2	1:AA:969:A:N1	2.87	0.43
24:BA:1097:U:O2'	24:BA:1098:A:H5'	2.19	0.43
52:D7:5:TRP:CD1	52:D7:7:PRO:HG3	2.53	0.43
15:CR:71:GLN:HB2	15:CR:78:TYR:CE1	2.54	0.43
30:DH:59:ARG:CG	30:DH:59:ARG:NH1	2.79	0.43
46:DZ:53:VAL:CG1	46:DZ:54:ALA:N	2.81	0.43
39:B1:21:ALA:HA	39:B1:24:TYR:CD1	2.54	0.43
12:AO:20:LYS:H	12:AO:20:LYS:HD3	1.82	0.43
24:BA:1996:C:C5	33:BN:32:TYR:OH	2.71	0.43
24:BA:2331:G:O2'	24:BA:2336:A:N1	2.37	0.43
22:AC:71:C:C2'	22:AC:72:A:H5'	2.49	0.43
2:CE:130:ARG:NH2	2:CE:138:LEU:HD21	2.34	0.43
1:CA:9:G:H5'	5:CH:122:GLU:OE2	2.19	0.43
5:AH:82:VAL:HG21	5:AH:141:GLN:NE2	2.33	0.43
1:CA:131:C:H2'	1:CA:132:C:H6	1.83	0.43
24:BA:2830:G:H2'	24:BA:2883:A:C2	2.54	0.43
39:B1:76:TYR:CZ	39:B1:80:ILE:HG13	2.54	0.43
38:BR:98:LYS:CA	38:BR:98:LYS:HE3	2.48	0.43
8:AK:112:LEU:HD12	8:AK:114:THR:CG2	2.48	0.43
54:DA:901:A:H2'	54:DA:901:A:N3	2.34	0.43
54:DA:1417:C:H2'	54:DA:1418:G:H5'	2.00	0.43
44:DV:77:ASP:O	44:DV:78:LYS:C	2.56	0.43
1:AA:564:C:O2'	8:AK:91:ARG:NH2	2.52	0.43
1:AA:812:C:O2'	1:AA:813:U:C6	2.70	0.43
22:AD:26:G:H1	22:AD:44:A:N6	2.17	0.43
22:AD:9:G:O2'	22:AD:45:G:H2'	2.18	0.43
27:DE:155:LYS:O	27:DE:156:MET:HG3	2.19	0.43
1:CA:542:G:OP1	4:CG:10:ARG:NH2	2.51	0.43
44:BV:151:HIS:C	44:BV:151:HIS:CD2	2.91	0.43
11:AN:89:ALA:O	11:AN:91:ARG:N	2.41	0.43
24:BA:300:A:H2'	24:BA:334:C:O2'	2.19	0.43
1:AA:611:A:C5	1:AA:612:C:C5	3.07	0.43
1:AA:668:G:O2'	15:AR:46:HIS:HB3	2.19	0.43
1:CA:1424:C:O2'	1:CA:1425:U:H5'	2.19	0.43
1:AA:892:A:C2	1:AA:907:A:C4	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:D1:43:GLY:HA3	40:D2:73:SER:OG	2.19	0.43
1:AA:930:C:C2'	1:AA:931:C:H5'	2.48	0.43
24:BA:1742:C:H5'	24:BA:1743:G:OP2	2.19	0.43
3:CF:129:ALA:C	3:CF:131:ARG:N	2.72	0.43
54:DA:636:G:OP1	34:DO:132:LYS:HB2	2.17	0.43
1:CA:763:G:H2'	1:CA:764:C:C6	2.54	0.43
1:CA:229:U:H2'	1:CA:230:G:O4'	2.19	0.43
35:BP:81:VAL:CA	35:BP:82:ARG:HH12	2.31	0.43
43:DU:97:ARG:HH21	43:DU:98:VAL:CG2	2.32	0.43
1:AA:1306:A:H2'	1:AA:1307:U:H6	1.83	0.43
1:AA:1321:C:C4	1:AA:1322:C:C5	3.07	0.43
3:AF:11:ARG:NH1	3:AF:11:ARG:CG	2.81	0.43
13:AP:49:THR:CG2	13:AP:52:GLU:OE1	2.67	0.43
33:BN:61:VAL:O	33:BN:61:VAL:HG13	2.18	0.43
1:AA:1127:G:C2'	1:AA:1147:C:H42	2.32	0.43
54:DA:1082:U:C2	54:DA:1086:A:C2	3.07	0.43
34:BO:115:LEU:HB2	34:BO:131:SER:CB	2.47	0.43
1:CA:963:G:H21	10:CM:55:LYS:CE	2.31	0.43
19:CV:62:ILE:HG22	19:CV:63:THR:N	2.34	0.43
2:CE:69:LEU:HD12	2:CE:91:PRO:O	2.19	0.43
42:BT:55:ASN:O	42:BT:79:ALA:HA	2.19	0.43
28:BF:10:PRO:O	28:BF:11:VAL:HG23	2.19	0.43
27:BE:37:ARG:HD3	27:BE:44:TYR:CZ	2.54	0.43
27:BE:72:VAL:O	27:BE:72:VAL:HG12	2.19	0.43
26:BD:25:THR:HG23	26:BD:26:LYS:O	2.19	0.43
4:AG:30:LYS:HB3	4:AG:35:ARG:CZ	2.49	0.43
37:DQ:105:ALA:C	37:DQ:110:LEU:HD21	2.38	0.43
1:CA:1454:G:OP1	20:CW:39:LYS:NZ	2.49	0.43
1:CA:221:C:H2'	1:CA:222:U:H6	1.83	0.43
24:BA:85:G:N3	24:BA:103:A:C2	2.87	0.43
30:BH:169:VAL:O	30:BH:170:ARG:HG3	2.19	0.43
8:CK:86:ILE:CB	8:CK:133:LEU:HD22	2.49	0.43
1:AA:1177:G:H2'	1:AA:1178:G:C2	2.54	0.43
29:DG:131:TYR:HE2	29:DG:133:LEU:HD22	1.84	0.43
16:CS:20:VAL:CG2	16:CS:21:VAL:N	2.81	0.43
54:DA:2406:U:H5''	54:DA:2408:U:OP2	2.18	0.43
54:DA:2414:G:H21	34:DO:67:MET:HE1	1.83	0.43
34:BO:52:GLU:HB2	34:BO:53:GLY:H	1.48	0.43
1:CA:815:A:H5''	1:CA:817:C:N4	2.33	0.43
47:BW:47:ASN:O	47:BW:50:ILE:HG13	2.19	0.43
1:AA:960:U:N3	1:AA:1225:A:N7	2.61	0.43
13:AP:94:ARG:O	13:AP:94:ARG:HG3	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2287:A:C2	54:DA:2289:G:C8	3.07	0.43
26:BD:11:PRO:C	26:BD:13:ARG:N	2.72	0.43
45:D3:74:ARG:HG3	45:D3:74:ARG:H	1.60	0.43
7:AJ:5:ARG:HH21	7:AJ:7:ALA:CB	2.32	0.43
24:BA:1817:G:H5''	26:BD:88:ARG:HH21	1.84	0.43
31:DK:65:ALA:C	31:DK:67:ARG:N	2.71	0.43
7:AJ:76:ARG:HH11	7:AJ:76:ARG:HG2	1.84	0.43
54:DA:792:G:H2'	54:DA:2440:C:N3	2.34	0.43
54:DA:1880:C:H6	54:DA:1880:C:C5'	2.21	0.43
10:CM:74:ILE:CD1	10:CM:74:ILE:H	2.21	0.43
24:BA:2168:G:N3	24:BA:2168:G:C2'	2.80	0.43
55:DB:71:C:C4	55:DB:72:G:N7	2.86	0.43
50:D5:40:LYS:HE2	50:D5:47:PRO:CG	2.49	0.43
54:DA:2657:A:H2'	54:DA:2658:C:O5'	2.19	0.43
27:BE:16:ARG:NH1	27:BE:173:VAL:HG13	2.34	0.43
1:AA:1031:G:N2	1:AA:1032:A:C4	2.86	0.43
45:B3:40:GLN:OE1	45:B3:44:ARG:N	2.52	0.43
35:BP:59:ARG:HD2	35:BP:59:ARG:N	2.34	0.43
40:D2:66:ARG:NH1	40:D2:88:ARG:CD	2.74	0.43
36:D0:94:TYR:CD2	36:D0:94:TYR:N	2.87	0.43
47:DW:6:VAL:O	47:DW:7:ARG:C	2.57	0.43
1:CA:765:G:H22	1:CA:812:C:H2'	1.84	0.43
5:CH:126:ARG:CG	5:CH:126:ARG:NH1	2.79	0.43
18:CU:43:PHE:HA	18:CU:51:LEU:HD12	2.01	0.43
16:CS:75:ARG:C	16:CS:77:ALA:N	2.72	0.43
9:CL:26:VAL:CG1	9:CL:63:ILE:HD13	2.49	0.43
14:CQ:26:ARG:NH1	14:CQ:43:CYS:HA	2.33	0.43
32:BM:26:LEU:O	32:BM:30:ILE:HG13	2.19	0.43
54:DA:2836:U:C4	54:DA:2883:A:N6	2.87	0.43
29:DG:7:LEU:CD2	29:DG:176:LEU:HD22	2.45	0.43
1:CA:389:A:H2'	1:CA:390:C:H5'	2.00	0.43
24:BA:915:C:O2'	24:BA:916:G:H5'	2.19	0.43
11:CN:44:SER:O	11:CN:48:ILE:HG12	2.18	0.43
11:CN:62:GLN:O	11:CN:64:ALA:N	2.52	0.43
20:AW:67:ALA:HA	20:AW:73:HIS:N	2.33	0.43
24:BA:2713:A:H3'	24:BA:2714:G:H5'	2.01	0.43
2:AE:194:PRO:HG2	2:AE:195:ASP:H	1.84	0.43
8:AK:40:ALA:C	8:AK:42:GLU:N	2.72	0.43
1:AA:719:C:N4	18:AU:71:LYS:HE2	2.34	0.43
54:DA:638:G:C5	54:DA:651:G:C2	3.07	0.43
24:BA:846:C:N4	24:BA:930:U:C6	2.87	0.43
3:AF:5:ILE:HD13	3:AF:5:ILE:O	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:29:GLY:O	46:DZ:31:GLY:N	2.49	0.43
19:CV:29:ARG:HG2	19:CV:29:ARG:HH11	1.84	0.43
54:DA:404:C:HO2'	54:DA:405:U:P	2.41	0.43
55:DB:24:G:N7	55:DB:56:G:H2'	2.33	0.43
37:BQ:101:LEU:HD22	37:BQ:101:LEU:O	2.18	0.43
1:CA:746:A:H4'	1:CA:837:G:O2'	2.19	0.43
1:CA:7:G:H5'	1:CA:298:A:O4'	2.18	0.43
9:CL:22:GLY:O	9:CL:23:ASN:C	2.57	0.43
39:B1:112:ARG:NH1	40:B2:47:VAL:CG1	2.82	0.43
5:AH:103:GLY:O	5:AH:104:ALA:C	2.56	0.43
1:CA:509:A:HO2'	1:CA:510:A:P	2.41	0.43
1:CA:936:C:H2'	1:CA:937:A:C8	2.54	0.43
54:DA:1385:G:HO2'	54:DA:1386:C:H6	1.63	0.43
24:BA:2032:G:C2'	24:BA:2033:A:OP2	2.67	0.43
24:BA:2033:A:P	24:BA:2033:A:O4'	2.77	0.43
35:DP:25:ASP:H	35:DP:102:VAL:HG23	1.84	0.43
1:AA:1423:G:H2'	1:AA:1424:C:C6	2.54	0.43
54:DA:971:C:H2'	54:DA:972:G:C5'	2.49	0.43
24:BA:1316:U:H2'	24:BA:1317:A:C8	2.51	0.43
24:BA:271(B):G:H4'	24:BA:271(C):U:C5'	2.48	0.43
14:AQ:6:LEU:C	14:AQ:8:GLU:N	2.69	0.43
38:BR:136:GLN:HB3	38:BR:136:GLN:HE21	1.54	0.43
54:DA:307:G:N2	54:DA:310:A:C8	2.87	0.43
24:BA:2111:C:O4'	24:BA:2111:C:P	2.77	0.43
1:CA:720:C:H2'	1:CA:721:G:C8	2.53	0.43
24:BA:978:G:C2'	24:BA:979:G:H5'	2.49	0.43
54:DA:1215:G:O2'	54:DA:1216:G:H5'	2.19	0.43
29:DG:25:TYR:CZ	29:DG:32:PRO:HD3	2.54	0.43
54:DA:1248:G:OP2	28:DF:92:PRO:HB3	2.19	0.43
1:AA:1470:G:O2'	1:AA:1471:G:H5'	2.19	0.43
22:AC:35:A:H2'	22:AC:36:U:C6	2.54	0.43
42:BT:31:HIS:ND1	42:BT:32:PRO:HD2	2.34	0.43
54:DA:999:U:O2'	54:DA:1000:A:H5'	2.19	0.43
1:CA:184:G:H4'	1:CA:224:C:O3'	2.18	0.43
27:BE:91:VAL:HG13	27:BE:91:VAL:O	2.19	0.43
30:BH:98:LEU:HD12	30:BH:98:LEU:N	2.34	0.43
30:DH:125:VAL:HG12	30:DH:126:PRO:CD	2.49	0.42
53:B8:25:MET:C	53:B8:48:PHE:HE1	2.23	0.42
10:AM:54:PHE:O	10:AM:55:LYS:CG	2.66	0.42
19:AV:36:ARG:HG3	19:AV:72:GLY:N	2.34	0.42
29:BG:34:LEU:HD21	29:BG:159:VAL:CG2	2.49	0.42
1:AA:1139:G:C5'	1:AA:1140:C:OP1	2.67	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AL:77:ILE:HG22	9:AL:81:ILE:CG1	2.49	0.42
27:DE:197:ILE:CD1	27:DE:199:ARG:HH12	2.26	0.42
24:BA:2749:A:H4'	30:BH:62:LYS:CB	2.49	0.42
24:BA:1359:A:O2'	24:BA:1360:A:OP1	2.37	0.42
1:CA:973:G:N3	10:CM:55:LYS:HE2	2.34	0.42
19:CV:39:THR:CG2	19:CV:40:ILE:H	2.23	0.42
19:CV:51:VAL:HG12	19:CV:52:TYR:N	2.33	0.42
41:BS:92:ARG:NH1	41:BS:92:ARG:HG2	2.34	0.42
2:CE:100:GLY:N	2:CE:176:GLU:OE2	2.51	0.42
3:CF:12:LEU:C	3:CF:14:ILE:H	2.21	0.42
28:BF:17:ARG:HG3	28:BF:17:ARG:NH1	2.34	0.42
1:AA:1106:G:H5''	3:AF:172:ARG:CG	2.48	0.42
54:DA:1179:C:H2'	54:DA:1180:C:C5'	2.23	0.42
27:BE:31:CYS:HB3	27:BE:49:LEU:HB3	1.99	0.42
27:BE:71:GLY:C	27:BE:73:GLU:H	2.22	0.42
26:BD:73:VAL:HG12	26:BD:74:GLY:N	2.34	0.42
22:AC:21:A:C5	22:AC:46:G:C6	3.06	0.42
24:BA:643:A:H2'	24:BA:644:A:H5'	2.01	0.42
1:AA:428:G:H1'	1:AA:430:A:N7	2.34	0.42
22:AD:60:U:OP2	22:AD:61:C:N4	2.45	0.42
1:CA:64:G:N2	1:CA:67:C:N4	2.67	0.42
32:DM:57:ALA:O	32:DM:124:ALA:HA	2.18	0.42
32:DM:62:VAL:HG12	32:DM:66:LYS:HB2	2.01	0.42
24:BA:2661:G:H2'	24:BA:2662:A:C8	2.54	0.42
27:DE:203:LYS:HD2	27:DE:203:LYS:C	2.39	0.42
54:DA:1542:G:O6	54:DA:1543:A:N6	2.52	0.42
1:AA:1117:G:O5'	9:AL:104:ARG:NH1	2.52	0.42
2:CE:87:ARG:NH1	2:CE:223:ILE:HD12	2.33	0.42
55:DB:48:A:H4'	37:DQ:95:HIS:CD2	2.54	0.42
11:CN:105:VAL:O	11:CN:105:VAL:HG23	2.19	0.42
2:CE:33:TYR:C	2:CE:33:TYR:CD1	2.92	0.42
24:BA:1818:U:H2'	26:BD:154:LYS:O	2.19	0.42
31:DK:144:VAL:HG22	31:DK:145:VAL:HG13	2.01	0.42
11:CN:34:ASP:OD1	11:CN:38:ASN:HB2	2.18	0.42
54:DA:811:U:O2'	54:DA:1250:G:H2'	2.18	0.42
29:DG:139:LEU:HA	29:DG:144:ILE:HG21	2.00	0.42
24:BA:2144:U:H6	24:BA:2144:U:O5'	2.01	0.42
24:BA:394:A:C5'	24:BA:395:U:OP2	2.59	0.42
10:CM:10:GLY:O	10:CM:68:HIS:N	2.51	0.42
26:DD:17:THR:HG22	26:DD:204:ILE:HA	1.98	0.42
38:BR:99:LEU:HB3	38:BR:101:PHE:HE1	1.84	0.42
33:BN:13:ASN:HD21	33:BN:97:ARG:HB2	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AK:56:LYS:HA	8:AK:57:PRO:HD2	1.90	0.42
1:CA:1205:U:H5'	3:CF:190:ARG:CZ	2.48	0.42
1:AA:1287:A:H8	1:AA:1287:A:H5'	1.84	0.42
24:BA:2723:C:C4	24:BA:2724:C:C5	3.07	0.42
51:B6:36:LEU:CD2	51:B6:50:ARG:CZ	2.97	0.42
1:AA:361:G:H2'	1:AA:362:G:O4'	2.19	0.42
24:BA:389:G:N1	34:BO:70:GLN:HB3	2.33	0.42
24:BA:1761:C:N4	24:BA:1762:A:N6	2.67	0.42
46:BZ:57:GLU:O	46:BZ:58:ILE:HG13	2.19	0.42
24:BA:2448:A:H5'	24:BA:2449:U:OP2	2.18	0.42
8:AK:84:ARG:NH1	8:AK:84:ARG:HG2	2.27	0.42
1:AA:1095:U:P	1:AA:1108:G:H1	2.41	0.42
44:DV:63:ASP:O	44:DV:64:GLY:C	2.57	0.42
8:AK:25:ASP:OD1	8:AK:60:ARG:HG3	2.19	0.42
28:DF:64:ILE:HA	28:DF:64:ILE:HD12	1.89	0.42
29:DG:121:ASN:HA	29:DG:181:ARG:NH2	2.34	0.42
54:DA:2688:U:O2	54:DA:2719:G:N1	2.52	0.42
46:BZ:56:GLN:HE21	46:BZ:56:GLN:N	2.17	0.42
17:CT:77:VAL:O	17:CT:78:GLU:HB2	2.18	0.42
1:AA:116:A:C8	1:AA:116:A:O5'	2.71	0.42
1:AA:1512:U:C2	1:AA:1513:A:C8	3.07	0.42
1:CA:1301:U:C2'	1:CA:1301:U:O2	2.67	0.42
22:AD:36:U:H2'	22:AD:37:A:O4'	2.19	0.42
9:CL:25:LYS:O	9:CL:60:ASP:OD1	2.37	0.42
36:B0:18:LEU:HD11	36:B0:22:ARG:HH21	1.84	0.42
6:CI:45:LEU:CD1	6:CI:59:TYR:HD1	2.31	0.42
24:BA:1951:U:O2	24:BA:1953:A:H8	2.01	0.42
8:AK:77:GLU:HG2	8:AK:78:GLN:H	1.80	0.42
54:DA:392:C:H5''	54:DA:409:C:H5''	2.01	0.42
1:AA:394:G:H2'	1:AA:395:C:C6	2.54	0.42
7:AJ:12:LEU:N	7:AJ:12:LEU:HD12	2.32	0.42
4:AG:62:GLN:O	4:AG:66:ARG:N	2.47	0.42
24:BA:1401:G:H2'	24:BA:1402:C:C6	2.54	0.42
1:CA:598:U:H4'	8:CK:94:TYR:CD2	2.54	0.42
16:CS:23:ASP:O	16:CS:26:ARG:HB2	2.18	0.42
3:AF:85:ARG:CA	3:AF:85:ARG:NE	2.82	0.42
54:DA:1751:C:O2'	54:DA:1752:C:H5'	2.19	0.42
1:CA:422:C:H1'	1:CA:423:G:C2	2.54	0.42
1:CA:535:A:H4'	1:CA:536:C:OP1	2.15	0.42
44:BV:65:GLN:HB3	44:BV:66:SER:H	1.64	0.42
24:BA:1261:C:C2'	24:BA:1262:A:O5'	2.67	0.42
13:CP:54:VAL:O	13:CP:58:GLU:OE2	2.37	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:50:VAL:HG22	41:BS:105:VAL:HG23	2.01	0.42
1:CA:349:A:O2'	1:CA:350:G:H5'	2.20	0.42
48:DX:50:VAL:HB	48:DX:53:LEU:HD12	2.00	0.42
54:DA:249:C:O2	53:D8:12:LYS:HE3	2.19	0.42
45:D3:72:ARG:HH21	45:D3:75:LEU:HD12	1.83	0.42
5:CH:105:VAL:HB	5:CH:106:PRO:CD	2.48	0.42
24:BA:57:C:H2'	24:BA:58:G:O4'	2.19	0.42
24:BA:664:C:H2'	24:BA:665:C:H6	1.84	0.42
1:AA:613:C:H2'	1:AA:614:A:O4'	2.19	0.42
31:DK:31:LEU:HD12	31:DK:31:LEU:N	2.35	0.42
45:B3:54:GLY:O	45:B3:56:ASP:N	2.52	0.42
8:AK:87:SER:HA	8:AK:93:VAL:HG23	2.00	0.42
11:AN:81:ASP:OD1	11:AN:106:LYS:HD3	2.19	0.42
24:BA:1826:G:H2'	24:BA:1827:C:H6	1.84	0.42
24:BA:1902:C:OP1	26:BD:242:ARG:HD3	2.19	0.42
24:BA:125:G:H5''	52:B7:19:ARG:HD3	2.01	0.42
13:AP:56:LEU:O	13:AP:60:VAL:HG23	2.18	0.42
19:AV:47:HIS:HB3	19:AV:48:THR:H	1.42	0.42
19:AV:6:LYS:CG	19:AV:7:LYS:N	2.83	0.42
1:AA:1270:C:OP2	21:AX:24:ARG:NH2	2.52	0.42
9:AL:28:VAL:CG2	9:AL:29:ASN:N	2.62	0.42
44:DV:105:VAL:HG22	44:DV:105:VAL:O	2.18	0.42
24:BA:1359:A:N7	24:BA:1373:A:C2	2.87	0.42
24:BA:996:A:C2'	39:B1:92:ARG:HH21	2.31	0.42
40:B2:35:LEU:CD2	40:B2:35:LEU:O	2.67	0.42
1:CA:1051:C:O2'	1:CA:1052:U:H5'	2.18	0.42
19:CV:41:VAL:CG1	19:CV:45:VAL:H	2.32	0.42
24:BA:1264:G:H2'	24:BA:2014:A:N6	2.33	0.42
2:CE:200:ILE:HD12	2:CE:200:ILE:N	2.34	0.42
34:DO:101:VAL:HG13	34:DO:102:ARG:N	2.33	0.42
34:DO:107:LYS:O	34:DO:108:LYS:C	2.58	0.42
28:BF:21:ALA:O	28:BF:23:ASP:N	2.52	0.42
3:AF:43:LEU:O	3:AF:47:LEU:HB3	2.18	0.42
54:DA:2422:A:O2'	54:DA:2424:C:H5''	2.19	0.42
24:BA:2638:G:H1'	24:BA:2778:A:N6	2.34	0.42
27:BE:35:GLN:HG3	27:BE:64:LYS:HZ2	1.84	0.42
13:CP:3:ARG:HD2	13:CP:9:ILE:CG1	2.45	0.42
1:CA:1260:C:H4'	1:CA:1284:C:H5'	2.00	0.42
4:AG:30:LYS:HZ1	4:AG:35:ARG:NH2	2.18	0.42
24:BA:2417:C:H2'	24:BA:2418:A:O4'	2.19	0.42
39:D1:91:ASP:OD2	39:D1:96:ALA:HB2	2.19	0.42
44:BV:140:ASP:HB3	44:BV:141:VAL:H	1.63	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AH:91:LEU:HG	5:AH:120:THR:CG2	2.42	0.42
2:CE:17:PHE:CG	2:CE:44:LEU:HD11	2.53	0.42
1:CA:1451:A:H2'	1:CA:1451:A:N3	2.34	0.42
29:DG:16:ARG:NE	29:DG:31:VAL:HG11	2.34	0.42
43:BU:60:PHE:N	43:BU:60:PHE:CD2	2.80	0.42
7:CJ:79:ARG:NH1	7:CJ:82:GLY:HA2	2.34	0.42
54:DA:512:G:HO2'	54:DA:513:A:H8	1.67	0.42
54:DA:2729:G:N3	27:DE:187:ALA:HB2	2.33	0.42
29:DG:34:LEU:HD11	29:DG:99:MET:CE	2.49	0.42
30:BH:133:VAL:HG13	30:BH:134:SER:N	2.34	0.42
44:BV:3:TYR:C	44:BV:58:VAL:HG23	2.40	0.42
54:DA:385:C:O2'	54:DA:388:G:N2	2.52	0.42
4:AG:158:ILE:HG22	4:AG:181:MET:HE2	2.00	0.42
54:DA:1252:G:HO2'	54:DA:1253:A:P	2.42	0.42
2:CE:142:LEU:HD23	2:CE:142:LEU:O	2.18	0.42
54:DA:2745:C:C4	54:DA:2746:U:C4	3.07	0.42
46:BZ:73:LEU:C	46:BZ:75:GLU:H	2.21	0.42
1:AA:1218:C:P	14:AQ:9:LYS:HZ1	2.41	0.42
45:B3:53:MET:HA	45:B3:58:THR:O	2.18	0.42
2:AE:97:TRP:HZ3	2:AE:172:ILE:HG22	1.84	0.42
1:AA:1298:C:O2'	1:AA:1299:A:C4	2.71	0.42
54:DA:1331:A:HO2'	54:DA:1332:G:H8	1.67	0.42
54:DA:1605:C:H2'	54:DA:1606:G:O4'	2.19	0.42
55:DB:15:A:C5'	55:DB:16:G:H8	2.27	0.42
51:B6:50:ARG:O	51:B6:51:GLU:C	2.57	0.42
28:BF:34:TRP:HB2	34:BO:6:LEU:CD1	2.42	0.42
28:DF:11:VAL:HG12	28:DF:12:LEU:H	1.84	0.42
9:CL:95:LYS:HD3	9:CL:95:LYS:C	2.39	0.42
20:CW:13:LEU:CD1	20:CW:17:ARG:NH1	2.82	0.42
47:DW:48:HIS:O	47:DW:49:LYS:C	2.57	0.42
47:BW:25:VAL:C	47:BW:27:GLU:N	2.72	0.42
12:CO:119:LYS:HB2	12:CO:120:TYR:HD1	1.83	0.42
1:AA:1064:G:HO2'	1:AA:1065:U:P	2.41	0.42
28:DF:128:ALA:O	28:DF:129:PHE:CB	2.67	0.42
24:BA:49:A:N6	24:BA:177:G:H2'	2.34	0.42
1:AA:677:U:C2	1:AA:678:U:C5	3.06	0.42
9:AL:23:ASN:O	9:AL:25:LYS:N	2.52	0.42
34:BO:12:ALA:C	34:BO:14:LYS:N	2.72	0.42
2:CE:60:ASP:C	2:CE:62:ALA:N	2.72	0.42
54:DA:1204:A:H2'	54:DA:1205:U:OP2	2.19	0.42
24:BA:2814:C:O2'	50:B5:29:THR:HG21	2.19	0.42
24:BA:1349:A:N6	24:BA:1598:C:H42	2.17	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DQ:99:LYS:C	37:DQ:101:LEU:N	2.72	0.42
6:CI:3:ARG:HB3	6:CI:93:SER:CB	2.48	0.42
1:AA:115:G:O2'	1:AA:116:A:N7	2.43	0.42
54:DA:1827:C:C2'	54:DA:1828:G:H5'	2.48	0.42
44:BV:99:TYR:HA	44:BV:124:ILE:O	2.18	0.42
1:CA:1381:U:C5	1:CA:1382:C:C5	3.08	0.42
54:DA:391:G:C4	54:DA:392:C:C5	3.06	0.42
11:AN:62:GLN:O	11:AN:63:LEU:C	2.57	0.42
54:DA:142:G:H1'	42:DT:37:THR:HG21	2.01	0.42
3:AF:165:THR:HG23	3:AF:165:THR:O	2.19	0.42
36:D0:10:LEU:O	36:D0:12:ARG:N	2.52	0.42
24:BA:2120:G:H2'	24:BA:2121:G:C8	2.54	0.42
24:BA:1833:U:H2'	24:BA:1834:U:O4'	2.20	0.42
12:CO:91:LYS:HE2	12:CO:91:LYS:HB2	1.76	0.42
37:BQ:3:ARG:HH12	45:B3:74:ARG:NH2	2.16	0.42
8:AK:91:ARG:CG	8:AK:91:ARG:NH1	2.82	0.42
40:B2:81:TYR:CD1	40:B2:81:TYR:N	2.83	0.42
24:BA:2588:G:O6	24:BA:2607:G:C6	2.71	0.42
24:BA:1633:G:H8	24:BA:1633:G:O5'	2.01	0.42
54:DA:962:G:H2'	54:DA:963:U:C6	2.54	0.42
54:DA:1230:C:H2'	54:DA:1231:G:H8	1.84	0.42
24:BA:2335:A:N7	24:BA:2337:G:C5	2.87	0.42
17:AT:7:THR:O	17:AT:23:VAL:HG22	2.19	0.42
1:AA:193:C:O2'	1:AA:194:C:H5'	2.18	0.42
6:AI:40:VAL:O	6:AI:40:VAL:HG13	2.18	0.42
36:D0:81:ASP:OD2	36:D0:81:ASP:N	2.51	0.42
14:CQ:9:LYS:O	14:CQ:9:LYS:HG2	2.19	0.42
4:AG:177:ASP:CG	4:AG:177:ASP:O	2.57	0.42
24:BA:2197:U:O2'	24:BA:2198:A:C8	2.65	0.42
5:AH:58:ALA:O	5:AH:62:ALA:HB2	2.18	0.42
13:AP:81:LEU:CB	13:AP:89:GLY:HA3	2.46	0.42
1:AA:1364:U:C6	21:AX:14:TRP:HH2	2.33	0.42
49:B4:39:CYS:HB3	49:B4:40:HIS:H	1.62	0.42
13:AP:3:ARG:CB	29:BG:113:ARG:HH21	2.33	0.42
54:DA:1062:G:N3	54:DA:1077:A:N6	2.67	0.42
54:DA:1070:A:N6	54:DA:1096:A:N1	2.68	0.42
44:DV:134:PRO:C	44:DV:136:PHE:H	2.22	0.42
30:BH:77:LYS:C	30:BH:79:VAL:N	2.72	0.42
24:BA:1374:G:O2'	24:BA:1375:C:H5'	2.20	0.42
24:BA:1204:A:O2'	24:BA:1205:U:C5'	2.67	0.42
24:BA:1204:A:C2	24:BA:1241:A:N1	2.87	0.42
34:BO:114:ILE:HG23	34:BO:130:PHE:CD1	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BO:84:ASN:HB2	34:BO:87:ASP:OD1	2.19	0.42
34:BO:88:LEU:HD11	34:BO:95:VAL:HG21	2.00	0.42
39:B1:92:ARG:O	39:B1:92:ARG:HD3	2.19	0.42
1:CA:956:U:H2'	1:CA:957:U:C5'	2.48	0.42
19:CV:41:VAL:HG12	19:CV:45:VAL:H	1.85	0.42
19:CV:69:HIS:ND1	49:D4:69:LYS:HE2	2.33	0.42
25:BB:24:G:H4'	25:BB:25:A:C8	2.54	0.42
2:CE:16:HIS:CD2	2:CE:213:LEU:HD13	2.54	0.42
34:DO:98:GLU:O	34:DO:99:LEU:C	2.57	0.42
28:BF:17:ARG:HG3	28:BF:17:ARG:HH11	1.85	0.42
3:AF:119:ARG:HE	3:AF:137:ALA:HA	1.85	0.42
1:AA:1084:G:H5'	1:AA:1102:A:OP2	2.19	0.42
26:BD:142:VAL:HG21	26:BD:191:ALA:CB	2.49	0.42
24:BA:1816:G:H8	26:BD:62:TYR:HH	1.66	0.42
28:BF:61:GLY:O	28:BF:77:ASP:HB3	2.18	0.42
1:CA:1285:A:HO2'	1:CA:1286:A:P	2.42	0.42
4:AG:26:CYS:SG	4:AG:32:ALA:CA	3.08	0.42
51:B6:24:GLU:O	51:B6:25:LYS:HB2	2.19	0.42
40:D2:38:LEU:CD2	40:D2:39:LEU:N	2.82	0.42
24:BA:1434:A:H2'	24:BA:1435:G:H8	1.83	0.42
35:DP:20:ALA:HA	35:DP:98:LYS:HB3	2.02	0.42
43:BU:43:ASN:HB2	43:BU:64:GLU:HA	1.97	0.42
30:BH:107:VAL:HG21	30:BH:152:ARG:HG3	1.99	0.42
54:DA:1534:G:C8	54:DA:1534:G:C3'	3.01	0.42
1:AA:168:G:O2'	1:AA:169:C:H5''	2.17	0.42
10:AM:76:ASN:HA	10:AM:77:PRO:HD2	1.86	0.42
10:AM:82:ILE:O	10:AM:86:MET:N	2.52	0.42
7:CJ:79:ARG:HH12	7:CJ:82:GLY:HA2	1.84	0.42
1:CA:1126:U:H5	1:CA:1127:G:C4	2.35	0.42
7:CJ:140:ASP:O	7:CJ:142:GLU:N	2.52	0.42
4:CG:36:ARG:HA	4:CG:37:PRO:HD2	1.82	0.42
1:AA:502:G:OP1	12:AO:116:SER:HA	2.18	0.42
54:DA:2714:G:C6	54:DA:2715:C:C4	3.08	0.42
55:DB:80:U:C2'	55:DB:81:G:H5''	2.49	0.42
30:DH:77:LYS:HZ2	30:DH:77:LYS:HB3	1.78	0.42
1:CA:160:A:HO2'	1:CA:344:A:N6	2.17	0.42
24:BA:1948:G:C5'	24:BA:1948:G:C8	2.96	0.42
26:DD:108:PRO:HG2	26:DD:111:LEU:HB2	2.01	0.42
20:CW:96:GLY:O	20:CW:99:LEU:CD1	2.67	0.42
26:DD:155:LEU:HD23	26:DD:177:LEU:HD21	2.00	0.42
1:CA:412:A:O2'	1:CA:413:G:P	2.77	0.42
29:BG:88:ILE:HD13	29:BG:88:ILE:C	2.39	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:447:A:H2'	24:BA:473:G:N7	2.34	0.42
24:BA:270(L):U:O4	31:BK:50:ARG:NH1	2.52	0.42
54:DA:585:G:O6	54:DA:1251:C:H2'	2.19	0.42
43:BU:21:LYS:CG	43:BU:21:LYS:O	2.64	0.42
1:AA:376:G:H4'	16:AS:5:ARG:CD	2.46	0.42
1:AA:537:G:H2'	1:AA:538:G:C8	2.54	0.42
1:CA:1240:U:C4	7:CJ:32:ARG:HD2	2.55	0.42
29:DG:77:ILE:H	29:DG:82:LEU:HB2	1.84	0.42
24:BA:975:G:C5	24:BA:976:C:C5	3.08	0.42
1:AA:1298:C:O2'	1:AA:1299:A:C5	2.67	0.42
54:DA:102:G:OP2	47:DW:7:ARG:NH2	2.53	0.42
54:DA:1608:A:C4'	54:DA:1609:A:OP1	2.67	0.42
55:DB:15:A:C2'	55:DB:16:G:OP1	2.67	0.42
46:BZ:80:LEU:HD13	46:BZ:80:LEU:N	2.33	0.42
46:DZ:13:ILE:CG1	46:DZ:42:GLN:HB2	2.49	0.42
1:CA:390:C:O2'	1:CA:391:G:H5'	2.19	0.42
1:AA:1033:G:HO2'	1:AA:1034:G:P	2.43	0.42
24:BA:864:G:H2'	24:BA:865:C:H6	1.84	0.42
24:BA:917:A:N1	25:BB:80:U:H4'	2.34	0.42
15:AR:3:ILE:HD13	15:AR:3:ILE:N	2.33	0.42
20:AW:67:ALA:C	20:AW:69:GLY:H	2.22	0.42
4:CG:146:ILE:H	4:CG:146:ILE:CD1	2.30	0.42
26:DD:263:ARG:CB	26:DD:263:ARG:NH1	2.75	0.42
24:BA:883:G:C2'	24:BA:884:C:OP1	2.67	0.42
4:AG:102:ASP:HA	4:AG:121:VAL:HG21	2.01	0.42
54:DA:2687:U:N3	54:DA:2688:U:C6	2.87	0.42
24:BA:30:G:C5	24:BA:31:C:C5	3.07	0.42
24:BA:16:G:H2'	24:BA:17:G:H8	1.83	0.42
28:DF:132:VAL:HG23	28:DF:133:ASN:H	1.82	0.42
18:AU:36:ASN:ND2	18:AU:39:VAL:CG2	2.80	0.42
38:DR:96:ARG:CZ	38:DR:96:ARG:HB2	2.49	0.42
8:AK:19:VAL:O	8:AK:20:TYR:C	2.56	0.42
24:BA:650:C:H5''	24:BA:651:G:OP2	2.19	0.42
16:CS:40:ASP:C	16:CS:42:ARG:N	2.73	0.42
1:CA:1429:C:H2'	1:CA:1430:C:H6	1.83	0.42
55:DB:35:U:H2'	55:DB:36:C:C6	2.53	0.42
5:AH:33:VAL:HG12	5:AH:34:VAL:N	2.34	0.42
54:DA:540:G:H3'	54:DA:541:C:C6	2.54	0.42
37:BQ:44:LYS:HB2	37:BQ:44:LYS:HE3	1.85	0.42
19:AV:52:TYR:C	19:AV:54:GLY:H	2.22	0.42
50:B5:51:TYR:HB3	50:B5:52:TYR:H	1.49	0.42
1:CA:878:G:C5'	8:CK:89:PRO:HG2	2.48	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:213:ARG:HA	26:DD:213:ARG:HD2	1.60	0.42
24:BA:699:A:O2'	24:BA:700:G:H5'	2.19	0.42
1:AA:1047:G:O5'	1:AA:1047:G:H8	2.03	0.42
54:DA:2524:G:H2'	54:DA:2741:A:H2	1.84	0.42
54:DA:270(M):U:H1'	54:DA:270(N):G:C6	2.54	0.42
54:DA:1412:A:H2'	54:DA:1413:G:O4'	2.20	0.42
11:AN:89:ALA:C	11:AN:91:ARG:H	2.23	0.42
1:AA:1355:G:O2'	1:AA:1356:G:H5'	2.18	0.42
24:BA:2718:G:C6	24:BA:2719:G:C5	3.07	0.42
48:DX:46:ASN:O	48:DX:50:VAL:HG22	2.19	0.42
1:CA:157:G:C2'	1:CA:158:G:H5'	2.49	0.42
54:DA:1423:G:H2'	54:DA:1424:G:H8	1.84	0.42
6:CI:36:ARG:CZ	6:CI:38:GLU:HG2	2.50	0.42
51:D6:33:LYS:C	51:D6:35:GLU:H	2.22	0.42
28:BF:39:TRP:O	28:BF:43:LYS:HG2	2.19	0.42
44:BV:24:LEU:HA	44:BV:25:PRO:HD3	1.82	0.42
15:AR:26:GLU:H	15:AR:26:GLU:HG2	1.53	0.42
49:B4:11:PRO:HB2	49:B4:12:ALA:H	1.65	0.42
24:BA:2393:A:OP1	53:B8:30:ARG:HB2	2.19	0.42
3:AF:16:ARG:NH2	3:AF:181:ASN:CA	2.75	0.42
29:BG:145:THR:O	29:BG:146:TYR:HB3	2.20	0.42
1:AA:518:C:H5'	1:AA:519:C:C5	2.53	0.42
9:AL:66:ARG:NH1	9:AL:66:ARG:CB	2.82	0.42
44:BV:133:ILE:O	44:BV:135:GLU:N	2.53	0.42
54:DA:2637:U:H5''	27:DE:82:ARG:HH21	1.84	0.42
30:BH:51:ARG:CZ	30:BH:52:VAL:H	2.32	0.42
24:BA:1244:G:H2'	24:BA:1245:G:H5'	2.01	0.42
30:BH:130:ARG:HD3	30:BH:130:ARG:O	2.19	0.42
36:B0:38:VAL:HG12	36:B0:42:LYS:HE3	2.02	0.42
34:BO:101:VAL:CG1	34:BO:102:ARG:H	2.32	0.42
1:CA:1224:G:HO2'	1:CA:1225:A:P	2.33	0.42
32:DM:15:LEU:HD13	32:DM:15:LEU:C	2.40	0.42
34:DO:120:ALA:HB1	34:DO:138:LEU:CB	2.49	0.42
28:BF:18:ARG:CG	28:BF:19:GLU:N	2.66	0.42
3:AF:113:ALA:N	3:AF:202:ILE:HD12	2.35	0.42
53:D8:28:GLY:O	53:D8:29:LYS:O	2.37	0.42
53:D8:53:PRO:HD2	53:D8:54:GLU:H	1.84	0.42
1:CA:1503:A:O2'	1:CA:1504:G:OP1	2.37	0.42
32:BM:113:GLY:HA2	32:BM:116:LEU:HD12	2.01	0.42
29:DG:117:PHE:CE1	29:DG:119:GLY:CA	3.03	0.42
29:DG:114:ILE:HG22	29:DG:117:PHE:HB2	2.01	0.42
24:BA:2346:A:O2'	24:BA:2347:C:P	2.77	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:D2:55:ALA:O	40:D2:56:SER:OG	2.31	0.42
5:AH:76:ILE:HG13	5:AH:118:ILE:HD13	2.01	0.42
29:BG:67:LYS:NZ	49:B4:2:LYS:HB3	2.34	0.42
54:DA:1530:G:O6	54:DA:1542:G:N2	2.53	0.42
8:CK:85:ARG:HA	8:CK:135:CYS:HB3	2.02	0.42
38:DR:110:ILE:CG2	38:DR:111:ARG:N	2.82	0.42
4:CG:19:LEU:O	4:CG:20:TYR:C	2.57	0.42
54:DA:900:A:H2'	54:DA:900:A:N3	2.34	0.42
30:BH:103:LEU:HD23	30:BH:115:VAL:O	2.18	0.42
24:BA:196:A:H5'	24:BA:197:A:OP2	2.19	0.42
1:CA:254:G:OP1	17:CT:67:LYS:O	2.36	0.42
1:AA:815:A:HO2'	1:AA:816:A:P	2.40	0.42
2:CE:33:TYR:HD1	2:CE:33:TYR:C	2.23	0.42
1:AA:566:G:C4'	1:AA:567:G:OP1	2.63	0.42
40:D2:25:LEU:H	40:D2:92:THR:CG2	2.29	0.42
4:AG:179:GLU:C	4:AG:181:MET:N	2.72	0.42
24:BA:2311:A:H3'	24:BA:2312:U:C6	2.51	0.42
24:BA:2849:U:O2'	24:BA:2850:A:P	2.76	0.42
31:BK:5:LEU:CD1	31:BK:19:VAL:HG12	2.49	0.42
12:AO:83:VAL:CG2	12:AO:84:LEU:N	2.83	0.42
2:CE:142:LEU:O	2:CE:145:LEU:HB2	2.19	0.42
40:D2:59:ALA:HA	40:D2:95:LEU:O	2.19	0.42
1:AA:1229:A:H2'	1:AA:1230:C:H6	1.84	0.42
44:BV:171:ILE:HD13	44:BV:172:ALA:N	2.33	0.42
54:DA:2746:U:H2'	54:DA:2747:G:H5'	2.02	0.42
30:DH:119:GLU:CD	30:DH:120:GLY:H	2.22	0.42
20:AW:57:ARG:HH22	20:AW:100:ILE:HG21	1.84	0.42
54:DA:1288:U:H5''	54:DA:1289:C:OP2	2.19	0.42
24:BA:1699:G:O2'	24:BA:1700:A:P	2.77	0.42
58:DA:2909:G:N2	59:DA:2928:C:O2	2.52	0.42
1:AA:1216:G:H2'	1:AA:1217:C:H6	1.84	0.42
38:DR:54:ARG:HA	38:DR:59:THR:HG23	2.02	0.42
38:DR:54:ARG:CG	38:DR:54:ARG:NH1	2.80	0.42
2:AE:95:GLN:O	2:AE:97:TRP:N	2.52	0.42
1:CA:779:C:O2'	1:CA:780:A:H5'	2.19	0.42
37:DQ:15:ARG:O	37:DQ:19:LYS:HD3	2.20	0.42
27:DE:11:MET:HE3	27:DE:186:GLY:HA2	2.01	0.42
25:BB:95:U:H2'	25:BB:96:G:C8	2.55	0.42
1:CA:1177:G:C2	1:CA:1181:G:O6	2.72	0.42
35:BP:72:LYS:O	35:BP:93:TYR:HB3	2.18	0.42
24:BA:2681:C:C5	24:BA:2727:G:N2	2.87	0.42
15:CR:8:LYS:NZ	15:CR:31:LEU:HD11	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AD:22:G:O2'	22:AD:23:C:O5'	2.36	0.42
24:BA:1761:C:H42	24:BA:1762:A:H61	1.67	0.42
49:D4:23:GLU:C	49:D4:24:THR:HG1	2.22	0.42
9:CL:71:SER:O	9:CL:74:ILE:N	2.52	0.42
54:DA:2177:C:N4	54:DA:2178:C:N4	2.68	0.42
54:DA:70:G:H21	54:DA:71:A:N6	2.16	0.42
27:BE:7:VAL:HA	27:BE:194:GLY:O	2.19	0.42
29:BG:129:GLY:O	29:BG:130:ASN:OD1	2.38	0.42
54:DA:372:G:H2'	54:DA:373:U:OP2	2.18	0.42
5:AH:136:MET:C	5:AH:138:ALA:N	2.73	0.42
54:DA:2607:G:H2'	54:DA:2608:G:O4'	2.19	0.42
3:AF:151:VAL:HA	3:AF:199:LYS:O	2.19	0.42
46:BZ:56:GLN:H	46:BZ:56:GLN:CD	2.23	0.42
50:D5:20:ARG:HA	50:D5:23:HIS:CE1	2.54	0.42
24:BA:684:G:C2	24:BA:774:A:C2	3.07	0.42
5:AH:145:LYS:O	5:AH:149:GLU:HG3	2.19	0.42
24:BA:2331:G:N3	24:BA:2336:A:H2	2.17	0.42
24:BA:710:G:O2'	24:BA:711:G:H5'	2.19	0.42
24:BA:2590:A:OP2	26:BD:237:GLU:HB3	2.19	0.42
46:DZ:72:GLU:O	46:DZ:75:GLU:HB2	2.19	0.42
24:BA:1772:G:N2	24:BA:1774:C:C5'	2.83	0.42
3:AF:6:HIS:HD2	3:AF:7:PRO:HD2	1.83	0.42
54:DA:718:A:C2'	54:DA:719:C:H5'	2.49	0.42
9:CL:100:GLY:C	9:CL:102:LEU:N	2.71	0.42
54:DA:363:G:O2'	54:DA:363(A):A:H5'	2.18	0.42
54:DA:141(A):C:H2'	54:DA:142:G:O4'	2.19	0.42
54:DA:1683:C:H2'	54:DA:1684:C:H6	1.82	0.42
23:A1:4:A:H4'	23:A1:5:A:H5'	2.01	0.42
33:DN:1:MET:HG2	33:DN:67:LYS:HG2	2.02	0.42
24:BA:2016:U:H1'	50:B5:6:VAL:CG1	2.49	0.42
24:BA:1897:G:H2'	24:BA:1898:U:C6	2.54	0.42
3:CF:143:GLU:C	3:CF:145:GLY:H	2.23	0.42
16:CS:83:GLU:HG3	16:CS:84:ALA:N	2.33	0.42
3:AF:186:PHE:CE2	3:AF:188:LEU:HD22	2.54	0.42
1:AA:1047:G:O2'	1:AA:1048:G:H5'	2.19	0.42
24:BA:256:A:O2'	24:BA:257:A:H5'	2.20	0.42
21:CX:5:ASP:O	21:CX:11:GLY:HA3	2.20	0.42
24:BA:25:U:C5	24:BA:26:G:C6	3.08	0.42
54:DA:1246:A:C2'	54:DA:1247:A:O5'	2.67	0.42
24:BA:560:C:H2'	24:BA:561:G:O4'	2.19	0.42
1:CA:305:G:H5''	1:CA:306:G:OP1	2.19	0.42
27:DE:94:GLU:C	27:DE:96:PHE:N	2.73	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DG:73:ALA:O	29:DG:84:LYS:O	2.38	0.42
37:DQ:64:GLU:O	37:DQ:68:GLN:HG3	2.19	0.42
1:CA:948:C:O2'	1:CA:949:A:H5'	2.19	0.42
26:BD:7:LYS:NZ	26:BD:7:LYS:HB3	2.34	0.42
26:BD:61:LEU:HD12	26:BD:61:LEU:HA	1.65	0.42
31:BK:94:ALA:O	31:BK:95:LYS:C	2.57	0.42
1:AA:1324:A:OP2	13:AP:99:ARG:NH2	2.53	0.42
19:AV:46:GLY:HA2	19:AV:62:ILE:O	2.19	0.42
29:BG:145:THR:HG23	49:B4:28:LYS:HE2	2.01	0.42
54:DA:242:G:HO2'	54:DA:254:G:H1	1.65	0.42
54:DA:1056:G:H4'	54:DA:1057:A:H8	1.84	0.42
54:DA:1055:G:O2'	54:DA:1085:A:N1	2.39	0.42
27:DE:176:ILE:HD12	27:DE:176:ILE:N	2.35	0.42
27:DE:28:ALA:HB3	27:DE:93:VAL:CG2	2.46	0.42
30:BH:54:ARG:HH11	30:BH:65:HIS:CE1	2.38	0.42
43:BU:74:PRO:O	43:BU:80:GLY:CA	2.68	0.42
43:DU:60:PHE:N	43:DU:60:PHE:CD2	2.87	0.42
54:DA:1045:A:O2'	54:DA:1046:A:OP2	2.36	0.42
1:CA:1221:G:H4'	19:CV:53:ASN:O	2.19	0.42
1:CA:1222:G:H2'	1:CA:1223:C:O4'	2.20	0.42
13:CP:88:ARG:O	13:CP:88:ARG:HD2	2.19	0.42
24:BA:153:C:OP2	46:BZ:88:LYS:NZ	2.52	0.42
29:BG:16:ARG:NH2	29:BG:31:VAL:HG11	2.31	0.42
2:CE:163:PHE:CD2	2:CE:185:ILE:HD12	2.54	0.42
26:DD:31:LYS:C	26:DD:32:SER:O	2.54	0.42
26:DD:33:LEU:O	26:DD:35:LYS:N	2.52	0.42
34:DO:52:GLU:OE2	34:DO:58:THR:N	2.52	0.42
1:CA:1536:C:C6	1:CA:1536:C:OP1	2.72	0.42
54:DA:1171:G:H3'	54:DA:1173:G:C5'	2.49	0.42
24:BA:534:U:H2'	24:BA:535:C:C6	2.53	0.42
26:BD:69:ARG:NH1	26:BD:128:GLY:O	2.46	0.42
24:BA:775:G:O5'	24:BA:777:A:H1'	2.19	0.42
4:AG:31:CYS:O	4:AG:33:MET:O	2.38	0.42
44:BV:111:VAL:HG21	44:BV:145:GLU:HB3	2.01	0.42
5:CH:31:LEU:HD23	5:CH:45:PHE:HD1	1.85	0.42
44:BV:75:ASN:HA	44:BV:75:ASN:HD22	1.71	0.42
35:DP:132:VAL:HG11	44:DV:81:ARG:CZ	2.50	0.42
24:BA:84:A:H1'	24:BA:85:G:O4'	2.20	0.42
43:BU:39:VAL:HG23	43:BU:40:GLU:N	2.34	0.42
24:BA:2531:A:H61	24:BA:2662:A:H61	1.68	0.42
24:BA:2532:G:H4'	24:BA:2657:A:N1	2.35	0.42
54:DA:1537:C:C5	54:DA:1538:G:C5	3.07	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:29:PHE:CD2	37:BQ:30:ARG:N	2.88	0.42
1:AA:1174:G:H2'	1:AA:1175:G:C8	2.55	0.42
1:AA:1372:U:O2'	1:AA:1373:G:H5'	2.19	0.42
24:BA:2296:U:O2	24:BA:2333:A:N3	2.53	0.42
34:DO:64:LYS:HG3	53:D8:25:MET:CE	2.50	0.42
37:BQ:66:ALA:O	37:BQ:69:VAL:N	2.53	0.42
54:DA:1478:G:O2'	54:DA:1558:A:H2	2.02	0.42
26:DD:177:LEU:C	26:DD:179:SER:H	2.23	0.42
1:AA:496:A:H2'	1:AA:496:A:N3	2.34	0.42
1:AA:1442:G:N7	1:AA:1446:A:N1	2.67	0.42
1:AA:1443:G:N7	38:BR:118:ARG:CB	2.81	0.42
1:AA:266:G:O2'	1:AA:267:C:P	2.78	0.42
26:BD:264:LYS:HG2	26:BD:266:SER:H	1.84	0.42
24:BA:1543:A:O2'	24:BA:1545:A:H4'	2.19	0.42
1:AA:1037:C:C2'	1:AA:1038:C:O4'	2.65	0.42
19:CV:18:LYS:O	19:CV:18:LYS:HD2	2.19	0.42
19:CV:21:GLU:HG3	19:CV:22:LEU:CD1	2.49	0.42
54:DA:565:C:O2'	54:DA:566:U:H5'	2.19	0.42
1:CA:129(A):G:N2	1:CA:191(A):G:C5	2.87	0.42
54:DA:2756:U:C4'	54:DA:2757:A:OP1	2.67	0.42
46:BZ:73:LEU:HB3	46:BZ:90:ILE:CD1	2.48	0.42
54:DA:2615:U:H2'	54:DA:2616:C:C6	2.55	0.42
1:AA:1032:A:H5''	1:AA:1032(A):G:C8	2.54	0.42
8:AK:54:ASP:C	8:AK:56:LYS:H	2.22	0.42
24:BA:2615:U:H2'	24:BA:2616:C:C6	2.54	0.42
22:CD:48:C:N3	22:CD:59:A:C8	2.87	0.42
1:CA:965:A:H4'	1:CA:966:G:OP1	2.19	0.42
35:BP:118:LEU:HD12	35:BP:131:ILE:HG23	2.00	0.42
54:DA:85:G:N3	54:DA:103:A:C2	2.87	0.42
40:B2:12:TYR:CZ	40:B2:22:VAL:HG23	2.54	0.42
52:D7:9:ARG:NH1	52:D7:47:ARG:HG3	2.35	0.42
3:CF:83:ARG:O	3:CF:86:VAL:HG22	2.20	0.42
24:BA:2727:G:O3'	33:BN:70:LYS:HE2	2.18	0.42
1:CA:660:G:OP1	15:CR:5:LYS:NZ	2.44	0.42
24:BA:892:G:H3'	24:BA:893:C:H6	1.83	0.42
24:BA:2157:G:O2'	24:BA:2158:A:O4'	2.35	0.42
14:CQ:48:ALA:HA	14:CQ:53:LEU:HD12	2.02	0.42
9:CL:8:GLY:CA	9:CL:79:LEU:HD12	2.49	0.42
24:BA:1884:A:H2'	24:BA:1885:A:O5'	2.19	0.42
28:BF:53:THR:HG23	28:BF:55:GLY:H	1.84	0.42
1:AA:1021:G:H8	1:AA:1021:G:H5'	1.85	0.42
54:DA:2517:C:C4	54:DA:2542:A:C6	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:120:LEU:HA	4:CG:120:LEU:HD23	1.83	0.42
17:CT:41:LYS:HZ3	17:CT:92:ARG:HH22	1.63	0.42
1:AA:703:G:O2'	1:AA:704:A:OP2	2.31	0.42
35:BP:132:VAL:CG1	44:BV:81:ARG:NH2	2.82	0.42
53:B8:39:LYS:O	53:B8:40:GLU:CB	2.67	0.42
1:AA:81:G:N1	1:AA:89:U:C2	2.87	0.42
28:DF:123:LEU:HD12	28:DF:124:LEU:H	1.82	0.42
47:DW:27:GLU:CD	47:DW:27:GLU:H	2.17	0.42
1:CA:643:C:H5'	8:CK:31:PHE:CE1	2.55	0.42
1:CA:789:U:H3'	1:CA:789:U:O2	2.20	0.42
1:AA:1190:G:P	3:AF:5:ILE:HG23	2.59	0.42
20:AW:41:ILE:HG22	20:AW:88:VAL:HG23	2.00	0.42
10:AM:7:LYS:HG3	10:AM:71:LEU:HD13	2.02	0.42
42:BT:35:THR:H	42:BT:38:GLU:CG	2.30	0.42
22:AC:31:G:C5	22:AC:32:C:C5	3.08	0.42
54:DA:2151:G:H2'	54:DA:2152:G:C8	2.54	0.42
18:CU:74:ARG:NH2	18:CU:81:PHE:HA	2.35	0.42
2:AE:112:VAL:O	2:AE:115:LEU:HB3	2.20	0.42
54:DA:2618:G:H2'	54:DA:2619:C:C6	2.55	0.42
41:DS:19:LEU:O	41:DS:22:ASP:HB2	2.19	0.42
24:BA:724:U:H2'	24:BA:725:G:O4'	2.20	0.42
40:B2:73:SER:HB2	40:B2:83:ARG:HA	2.01	0.42
44:BV:15:PRO:CG	44:BV:16:SER:H	2.30	0.42
9:CL:88:TYR:O	9:CL:89:ASN:HB2	2.20	0.42
24:BA:1773:A:N7	24:BA:1829:A:H1'	2.33	0.42
41:DS:81:ALA:C	41:DS:82:LEU:HD12	2.40	0.42
35:BP:17:LEU:N	35:BP:17:LEU:HD23	2.35	0.42
28:BF:72:ARG:HB3	28:BF:72:ARG:NH1	2.33	0.42
20:AW:97:ALA:O	20:AW:99:LEU:HG	2.19	0.42
24:BA:2035:G:C4'	24:BA:2036:C:OP2	2.67	0.42
9:CL:128:ARG:HH21	22:CC:35:A:P	2.42	0.42
3:AF:155:GLY:HA2	3:AF:164:ARG:H	1.84	0.42
23:A1:4:A:H1'	23:A1:5:A:C8	2.55	0.42
54:DA:1794:U:O4'	54:DA:1900:A:C2	2.73	0.42
27:DE:143:ASN:HB2	27:DE:147:PRO:HD2	2.00	0.42
18:CU:29:PHE:HD2	18:CU:29:PHE:N	2.17	0.42
54:DA:2816:C:O3'	36:D0:99:LYS:NZ	2.52	0.42
44:DV:70:LEU:HD11	44:DV:98:MET:CE	2.49	0.42
1:CA:119:A:O2'	1:CA:120:A:OP2	2.27	0.42
16:AS:66:PRO:O	16:AS:67:THR:O	2.38	0.42
24:BA:912:C:O2'	24:BA:913:U:H5'	2.19	0.42
24:BA:736:C:H2'	24:BA:737:C:C6	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AE:59:GLU:O	2:AE:63:MET:N	2.45	0.42
55:DB:111:U:H2'	55:DB:112:G:H8	1.83	0.42
1:AA:147:G:O2'	1:AA:148:G:H5'	2.20	0.42
17:AT:7:THR:CG2	17:AT:8:GLY:N	2.81	0.42
1:CA:183:G:H2'	1:CA:184:G:O4'	2.19	0.42
14:CQ:9:LYS:HB3	14:CQ:9:LYS:HE2	1.85	0.42
27:DE:31:CYS:HB3	27:DE:49:LEU:HG	2.01	0.42
54:DA:2082:A:H2'	54:DA:2083:G:O4'	2.20	0.42
8:AK:41:ARG:HH22	8:AK:123:GLU:CD	2.23	0.42
54:DA:2570:G:H2'	54:DA:2571:C:C6	2.55	0.42
32:BM:35:ARG:C	32:BM:37:LYS:H	2.23	0.42
54:DA:2768:C:C4	54:DA:2769:C:C5	3.07	0.42
30:DH:58:GLU:O	30:DH:60:ARG:N	2.53	0.42
24:BA:1682:G:H2'	24:BA:1683:C:C6	2.54	0.42
1:CA:219:C:H6	1:CA:219:C:O5'	2.03	0.42
4:CG:59:ARG:NE	4:CG:59:ARG:HA	2.34	0.42
6:CI:48:LEU:HA	6:CI:48:LEU:HD23	1.85	0.42
54:DA:857:C:H5'	45:D3:77:ARG:HH22	1.84	0.42
29:BG:102:PHE:C	29:BG:104:GLU:N	2.72	0.42
35:BP:77:LYS:CD	35:BP:82:ARG:HA	2.49	0.42
1:AA:1316:G:H22	1:AA:1319:A:P	2.43	0.42
1:AA:1321:C:C5	1:AA:1322:C:C5	3.08	0.42
1:AA:971:G:OP2	1:AA:1231:G:N2	2.34	0.42
13:AP:25:ILE:HG22	13:AP:26:GLY:N	2.33	0.42
33:BN:88:ASN:C	33:BN:90:GLN:H	2.23	0.42
44:BV:138:GLU:OE2	44:BV:156:LYS:HG3	2.19	0.42
54:DA:1060:U:C2'	54:DA:1061:U:H5''	2.50	0.42
54:DA:1077:A:C2'	54:DA:1077:A:N3	2.83	0.42
24:BA:1109:C:C4	24:BA:1110:G:C2	3.08	0.42
24:BA:1111:A:C2'	24:BA:1112:G:H4'	2.50	0.42
30:BH:11:VAL:HG13	30:BH:11:VAL:O	2.19	0.42
30:BH:137:ASP:CB	30:BH:140:LYS:HE2	2.47	0.42
30:BH:34:GLU:CD	30:BH:35:VAL:N	2.73	0.42
54:DA:1050:A:H2'	54:DA:1051:G:O4'	2.19	0.42
1:CA:960:U:N3	1:CA:1225:A:C5	2.84	0.42
1:CA:1054:C:N3	59:CA:1605:C:H1'	2.35	0.42
19:CV:4:SER:O	19:CV:5:LEU:HD13	2.20	0.42
49:D4:54:GLY:HA2	49:D4:57:GLU:CG	2.50	0.42
13:CP:93:ARG:NH1	54:DA:887:A:OP1	2.52	0.42
2:CE:67:THR:C	2:CE:68:ILE:HD12	2.40	0.42
2:CE:92:TYR:C	2:CE:92:TYR:HD1	2.22	0.42
26:DD:75:ILE:HG21	26:DD:99:ASP:HB2	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DO:114:ILE:CD1	34:DO:130:PHE:CE1	2.98	0.42
34:DO:125:VAL:C	34:DO:145:PRO:HD2	2.39	0.42
24:BA:1341:U:O2	42:BT:80:ILE:HD13	2.19	0.42
28:BF:132:VAL:HG13	28:BF:133:ASN:OD1	2.18	0.42
54:DA:747:U:C4	54:DA:2613:U:C5	3.08	0.42
24:BA:2807:G:H3'	24:BA:2808:U:H5''	2.02	0.42
24:BA:2287:A:HO2'	24:BA:2288:A:P	2.41	0.42
1:AA:428:G:O4'	1:AA:430:A:C8	2.72	0.42
40:D2:38:LEU:CD1	40:D2:55:ALA:HB1	2.50	0.42
32:DM:43:THR:HA	32:DM:44:PRO:HD2	1.92	0.42
22:AD:58:A:OP2	22:AD:58:A:H8	2.02	0.42
2:CE:5:ILE:HB	2:CE:221:LEU:HD23	2.01	0.42
34:BO:49:ARG:HB3	53:B8:59:LYS:HE2	2.01	0.42
55:DB:42:C:H4'	29:DG:67:LYS:CD	2.45	0.42
55:DB:50:G:H5''	37:DQ:61:ASN:ND2	2.35	0.42
30:BH:86:GLU:HA	30:BH:132:ARG:CB	2.49	0.42
51:D6:50:ARG:HG2	51:D6:50:ARG:HH11	1.84	0.42
26:DD:25:THR:HG23	26:DD:27:THR:HB	2.02	0.42
54:DA:1935:G:H1	54:DA:1962:C:H2'	1.84	0.42
4:AG:27:TYR:O	4:AG:28:SER:OG	2.35	0.42
7:CJ:15:ASP:OD1	7:CJ:23:VAL:HG11	2.19	0.42
33:DN:20:MET:O	33:DN:41:ALA:CB	2.67	0.42
1:AA:1055:A:O3'	3:AF:161:GLU:OE2	2.37	0.42
1:AA:533:A:O2'	1:AA:535:A:OP2	2.38	0.42
30:DH:26:VAL:CG1	30:DH:33:LEU:HB2	2.50	0.42
24:BA:2862:G:H2'	24:BA:2863:C:C6	2.54	0.42
17:AT:69:LYS:H	17:AT:70:ARG:HD2	1.85	0.42
5:CH:71:LEU:HD11	5:CH:113:ALA:O	2.20	0.42
54:DA:556:G:H8	54:DA:556:G:O5'	2.02	0.42
31:DK:8:PRO:HG3	31:DK:14:ASP:CB	2.48	0.42
1:CA:1014:A:C4'	19:CV:14:HIS:HE2	2.19	0.42
36:B0:67:LEU:HD23	36:B0:76:VAL:HG21	2.02	0.42
24:BA:363:G:H8	24:BA:363:G:OP2	2.02	0.42
1:AA:1031:G:N9	1:AA:1031:G:OP1	2.52	0.42
1:AA:652:U:O2'	1:AA:653:A:H5''	2.20	0.42
54:DA:1945:G:H2'	54:DA:1946:U:H6	1.85	0.42
52:D7:12:ARG:HH21	52:D7:44:PRO:HB3	1.85	0.42
54:DA:686:G:O6	52:D7:12:ARG:CG	2.63	0.42
54:DA:99:U:H1'	54:DA:102:G:C5	2.54	0.42
27:DE:117:MET:HA	27:DE:122:PHE:N	2.35	0.42
38:BR:57:PHE:O	38:BR:59:THR:N	2.49	0.42
2:AE:119:GLU:C	2:AE:121:LEU:H	2.21	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:36:ARG:HH11	27:DE:36:ARG:CB	2.28	0.42
8:CK:20:TYR:CD1	8:CK:65:TYR:HD2	2.35	0.42
9:AL:79:LEU:O	9:AL:83:ARG:N	2.49	0.42
14:CQ:39:LEU:HB3	14:CQ:43:CYS:CB	2.43	0.42
9:CL:6:GLY:HA3	9:CL:84:ALA:HB2	2.01	0.42
24:BA:1331:A:H2'	24:BA:1333:C:C5	2.54	0.42
1:CA:530:G:N2	1:CA:1492:A:H61	2.17	0.42
1:AA:1194:U:H2'	1:AA:1195:C:O4'	2.20	0.42
4:CG:206:PHE:CD2	4:CG:207:TYR:HD1	2.37	0.42
12:CO:109:GLY:HA3	12:CO:121:GLY:O	2.20	0.42
24:BA:2009:G:C6	24:BA:2010:G:N7	2.87	0.42
11:AN:48:ILE:HG22	11:AN:48:ILE:O	2.20	0.42
49:D4:12:ALA:HB1	49:D4:30:GLU:N	2.35	0.42
2:AE:230:VAL:C	2:AE:231:GLU:HG3	2.38	0.42
1:AA:1059:C:O2'	10:AM:53:PRO:HD3	2.20	0.42
24:BA:2425:A:H5'	24:BA:2427:C:O4'	2.19	0.42
6:AI:14:LEU:HD23	6:AI:18:GLN:OE1	2.20	0.42
1:CA:644:G:O2'	1:CA:645:C:H5'	2.19	0.42
14:AQ:26:ARG:HD3	14:AQ:43:CYS:CB	2.46	0.42
1:CA:769:G:H4'	1:CA:1513:A:H4'	2.01	0.42
24:BA:2336:A:H61	45:B3:43:THR:CG2	2.31	0.42
23:C1:19:A:C2	61:C1:103:A:N3	2.87	0.42
1:CA:626:U:H2'	1:CA:627:G:O4'	2.20	0.42
3:AF:34:LEU:HG	3:AF:38:ARG:NH2	2.34	0.42
54:DA:458:G:O2'	54:DA:459:U:P	2.77	0.42
2:CE:158:LEU:C	2:CE:158:LEU:HD12	2.38	0.42
44:BV:19:ARG:HH12	44:BV:84:GLU:HB2	1.84	0.42
42:DT:87:GLN:C	42:DT:88:LYS:HG3	2.40	0.42
7:AJ:63:LYS:O	7:AJ:66:VAL:HB	2.19	0.42
1:AA:914:A:O2'	1:AA:915:A:H5'	2.19	0.42
1:CA:1300:G:O2'	1:CA:1301:U:O5'	2.29	0.42
1:AA:860:A:H2'	1:AA:861:G:O4'	2.20	0.42
9:CL:23:ASN:ND2	9:CL:23:ASN:N	2.60	0.42
26:BD:239:ARG:O	26:BD:240:ALA:HB2	2.19	0.42
26:DD:2:ALA:O	26:DD:3:VAL:CB	2.68	0.42
15:CR:64:ARG:CD	15:CR:68:ARG:NH2	2.82	0.42
24:BA:1936:A:H4'	24:BA:1937:A:OP2	2.17	0.42
54:DA:2275:C:O2	35:DP:83:MET:HG3	2.19	0.42
24:BA:12:U:O2	24:BA:12:U:C2'	2.67	0.42
24:BA:234:C:H2'	24:BA:235:U:C6	2.54	0.42
1:CA:50:A:H4'	1:CA:51:A:H5'	2.01	0.42
24:BA:346:A:N3	24:BA:346:A:H2'	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:B0:105:ARG:HG2	36:B0:105:ARG:HH11	1.83	0.42
3:AF:134:ILE:HD11	3:AF:153:VAL:HG21	2.02	0.42
24:BA:2033:A:H2'	24:BA:2035:G:OP2	2.20	0.42
32:DM:75:TYR:HA	32:DM:82:LEU:HA	2.01	0.42
36:D0:10:LEU:C	36:D0:12:ARG:N	2.72	0.42
28:DF:62:ARG:CB	28:DF:62:ARG:NH1	2.82	0.42
26:DD:158:ALA:HB3	26:DD:161:THR:CG2	2.49	0.42
24:BA:404:C:O2'	24:BA:405:U:P	2.77	0.42
24:BA:2124:G:C2	24:BA:2125:G:H1'	2.55	0.42
1:AA:85:U:HO2'	1:AA:86:U:P	2.43	0.42
22:AC:26:G:H1	22:AC:44:A:H61	1.68	0.42
22:AC:50:U:H2'	22:AC:51:C:H6	1.85	0.42
24:BA:363(B):G:H2'	24:BA:363(C):G:O4'	2.19	0.42
54:DA:308:G:C8	54:DA:501:A:O4'	2.73	0.42
1:AA:812:C:O2'	1:AA:813:U:OP2	2.37	0.42
54:DA:1758:G:N2	54:DA:2696:U:H4'	2.34	0.42
31:BK:117:GLU:OE1	31:BK:118:LYS:HG2	2.19	0.42
54:DA:821:A:H5''	54:DA:822:U:C6	2.55	0.42
24:BA:718:A:H3'	24:BA:719:C:H6	1.84	0.42
24:BA:1291:C:H4'	24:BA:1536:A:OP1	2.20	0.42
24:BA:1842:G:H2'	24:BA:1843:C:C6	2.55	0.42
54:DA:280:C:H2'	54:DA:281:G:H5'	2.00	0.42
54:DA:1381:G:H2'	54:DA:1382:G:H5'	2.00	0.42
31:DK:82:ARG:HD3	31:DK:82:ARG:HA	1.77	0.42
54:DA:2544:G:O5'	54:DA:2544:G:H8	2.02	0.42
15:AR:72:ARG:HH11	15:AR:72:ARG:HG2	1.84	0.42
59:DA:2926:C:O5'	59:DA:2926:C:H6	2.02	0.42
5:AH:3:GLU:O	5:AH:5:ASP:N	2.44	0.42
31:BK:86:THR:O	31:BK:87:LYS:C	2.57	0.42
43:DU:91:GLU:CG	43:DU:92:ASN:N	2.83	0.42
13:AP:12:ASN:O	13:AP:12:ASN:CG	2.58	0.42
1:AA:974:A:N3	14:AQ:31:ARG:NE	2.67	0.42
2:CE:109:SER:C	2:CE:111:ARG:N	2.73	0.42
44:BV:128:VAL:HG23	44:BV:160:GLY:HA3	2.02	0.42
44:DV:102:LEU:HD22	44:DV:156:LYS:HZ1	1.83	0.42
30:BH:50:VAL:HG13	30:BH:50:VAL:O	2.19	0.42
34:BO:2:LYS:HE2	34:BO:4:SER:OG	2.20	0.42
43:BU:72:VAL:CG2	43:BU:73:ARG:H	2.22	0.42
30:BH:129:THR:O	30:BH:130:ARG:HB2	2.18	0.42
54:DA:729:G:OP1	26:DD:10:THR:OG1	2.30	0.42
26:DD:12:SER:O	26:DD:14:ARG:N	2.51	0.42
1:CA:973:G:C4	10:CM:55:LYS:HE2	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:211:ILE:O	2:CE:215:LEU:HB2	2.20	0.42
26:DD:71:ASP:CB	26:DD:103:ARG:HH22	2.32	0.42
24:BA:1102:C:C2'	24:BA:1103:A:H5''	2.49	0.42
51:D6:25:LYS:HE2	51:D6:27:LYS:CD	2.49	0.42
24:BA:788:A:O2'	24:BA:789:A:P	2.78	0.42
40:D2:47:VAL:HG13	40:D2:48:GLY:N	2.26	0.42
28:BF:77:ASP:N	28:BF:77:ASP:OD1	2.52	0.42
39:D1:79:PHE:CD2	39:D1:83:LEU:HD13	2.54	0.42
1:CA:198:G:H2'	1:CA:199:G:C8	2.55	0.42
53:B8:6:THR:HG21	53:B8:63:PRO:HG2	2.02	0.42
35:DP:27:VAL:HG11	35:DP:134:ARG:HG3	2.00	0.42
37:BQ:23:ARG:CB	37:BQ:86:ALA:HB2	2.48	0.42
24:BA:85:G:H2'	24:BA:86:C:O4'	2.19	0.42
24:BA:2532:G:H2'	24:BA:2533:A:O4'	2.19	0.42
37:DQ:26:LEU:HB3	37:DQ:87:PHE:HA	2.02	0.42
54:DA:1535:U:C3'	54:DA:1536:A:C5'	2.92	0.42
35:BP:67:ARG:NH1	35:BP:102:VAL:HG21	2.35	0.42
22:AC:59:A:C2'	22:AC:60:U:H5'	2.49	0.42
41:BS:13:SER:HA	41:BS:14:PRO:HD3	1.93	0.42
29:DG:109:VAL:C	29:DG:112:PRO:HD2	2.40	0.42
54:DA:1659:U:O2	54:DA:2712(A):A:H2	2.03	0.42
16:CS:55:ARG:O	16:CS:56:ALA:C	2.57	0.42
1:CA:818:G:C3'	1:CA:819:A:C5'	2.97	0.42
12:CO:53:ARG:HH12	12:CO:92:ASP:CB	2.33	0.42
38:DR:3:ARG:O	38:DR:4:GLY:C	2.58	0.42
47:BW:40:SER:C	47:BW:42:GLY:H	2.22	0.42
1:AA:1393:U:HO2'	1:AA:1501:C:HO2'	1.61	0.42
24:BA:2848:G:HO2'	24:BA:2849:U:P	2.42	0.42
26:BD:67:PHE:CZ	26:BD:157:ARG:CZ	3.02	0.42
26:BD:183:ARG:HG3	26:BD:270:ILE:HG23	2.02	0.42
28:DF:109:GLY:O	28:DF:110:LEU:C	2.58	0.42
7:AJ:76:ARG:HD2	7:AJ:89:MET:HG3	2.02	0.42
2:CE:142:LEU:HD21	2:CE:146:GLN:HE21	1.84	0.42
24:BA:329:G:O6	43:BU:19:LYS:HA	2.20	0.42
22:AD:19:G:H22	24:BA:2169:A:H62	1.68	0.42
30:DH:136:ILE:O	30:DH:137:ASP:O	2.38	0.42
1:CA:934:C:O2'	1:CA:935:A:P	2.77	0.42
22:CD:18:G:O3'	22:CD:60:U:O2	2.37	0.42
54:DA:1496:A:O2'	54:DA:1497:U:C6	2.71	0.42
1:AA:754:C:C2'	1:AA:755:G:OP1	2.68	0.42
30:DH:105:LEU:N	30:DH:105:LEU:CD1	2.81	0.42
1:AA:1298:C:C5	7:AJ:114:ARG:HD2	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:104:VAL:CG1	27:DE:188:VAL:HG23	2.49	0.42
1:AA:1253:G:H2'	1:AA:1254:C:C6	2.55	0.42
37:DQ:52:SER:HB2	37:DQ:55:ALA:CB	2.49	0.42
27:DE:36:ARG:HB3	27:DE:36:ARG:NH1	2.31	0.42
1:CA:829:G:C2	1:CA:830:G:C8	3.07	0.42
54:DA:2302:G:C6	54:DA:2315:G:C6	3.07	0.42
16:CS:45:THR:CG2	16:CS:46:PRO:HD2	2.47	0.42
46:DZ:56:GLN:HB2	46:DZ:57:GLU:H	1.48	0.42
18:AU:50:ILE:CD1	18:AU:70:ILE:HG21	2.49	0.42
44:BV:168:GLU:OE1	44:BV:168:GLU:N	2.53	0.42
24:BA:2355:C:C4'	45:B3:36:ILE:HD11	2.50	0.42
35:BP:108:GLY:O	35:BP:109:VAL:HG22	2.19	0.42
1:CA:502:G:C5	1:CA:503:C:C5	3.07	0.42
54:DA:1504:C:H2'	54:DA:1504:C:O2	2.18	0.42
37:BQ:77:ALA:O	37:BQ:80:LEU:N	2.52	0.42
12:AO:20:LYS:CD	12:AO:20:LYS:N	2.81	0.42
1:AA:115:G:O2'	1:AA:116:A:P	2.78	0.42
54:DA:527:C:OP2	54:DA:2779:U:O4	2.37	0.42
26:BD:165:ILE:HD13	26:BD:175:LEU:CD2	2.50	0.42
54:DA:34:C:H6	54:DA:454:A:HO2'	1.62	0.42
24:BA:391:G:O2'	24:BA:410:G:OP1	2.33	0.42
16:AS:43:LYS:HA	16:AS:48:TRP:HB3	2.01	0.42
54:DA:363(B):G:H2'	54:DA:363(C):G:H8	1.85	0.42
34:BO:90:ARG:HG3	34:BO:91:PHE:HD1	1.83	0.42
14:CQ:15:LYS:HA	14:CQ:15:LYS:HD3	1.86	0.42
1:AA:300:A:O5'	1:AA:300:A:H8	2.03	0.42
1:CA:1089:G:O2'	1:CA:1170:A:H2	2.02	0.42
19:AV:24:ALA:O	19:AV:25:LYS:HG3	2.19	0.42
54:DA:1548:C:H2'	54:DA:1549:C:H6	1.84	0.42
44:DV:82:ARG:HG3	44:DV:83:PRO:CD	2.50	0.42
3:CF:3:ASN:ND2	3:CF:4:LYS:HZ1	2.17	0.42
1:AA:186(C):G:O2'	1:AA:186(D):C:H5'	2.19	0.42
1:CA:1084:G:OP1	1:CA:1086:U:C2	2.72	0.42
16:AS:4:ILE:HB	16:AS:66:PRO:HA	2.02	0.42
55:DB:75:G:H1	55:DB:102:G:N2	2.16	0.42
24:BA:979:G:N2	24:BA:985:C:C4	2.87	0.42
3:CF:23:TYR:CD2	3:CF:24:ALA:N	2.88	0.42
29:DG:55:LYS:O	29:DG:59:GLU:HB2	2.19	0.42
32:DM:52:VAL:CG1	32:DM:53:VAL:N	2.82	0.42
47:DW:4:SER:OG	47:DW:5:GLU:OE2	2.26	0.42
45:D3:9:SER:O	45:D3:10:THR:O	2.37	0.42
24:BA:292:C:O2'	24:BA:293:U:H5'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2679:A:H5'	27:DE:165:VAL:HG11	2.01	0.42
42:BT:3:THR:HA	42:BT:6:ASP:OD2	2.20	0.42
54:DA:30:G:H2'	54:DA:31:C:O4'	2.20	0.42
44:DV:68:PRO:HG2	44:DV:68:PRO:O	2.20	0.42
34:DO:119:GLU:HA	34:DO:119:GLU:OE1	2.19	0.42
11:CN:33:THR:HB	11:CN:37:GLY:C	2.40	0.42
24:BA:1794:U:H2'	24:BA:1795:C:H6	1.85	0.42
11:AN:15:ALA:O	11:AN:16:SER:HB2	2.20	0.42
43:DU:95:LYS:HA	43:DU:101:LYS:N	2.33	0.42
1:AA:1061:G:O4'	10:AM:56:HIS:ND1	2.53	0.42
34:DO:49:ARG:HH11	34:DO:49:ARG:HG2	1.84	0.42
44:DV:153:SER:O	44:DV:154:ASP:HB3	2.20	0.42
39:D1:6:THR:HG21	39:D1:10:ARG:CZ	2.50	0.42
24:BA:2745:C:H2'	24:BA:2746:U:C6	2.54	0.42
30:BH:26:VAL:HG12	30:BH:32:GLU:N	2.34	0.42
30:BH:42:ARG:HD2	30:BH:42:ARG:HA	1.66	0.42
28:DF:101:LEU:HD12	28:DF:102:PRO:N	2.33	0.42
30:BH:128:PRO:O	30:BH:130:ARG:N	2.52	0.42
50:B5:16:ARG:HD2	50:B5:20:ARG:HH12	1.85	0.42
25:BB:30:C:H2'	25:BB:31:C:O5'	2.18	0.42
2:CE:97:TRP:HZ3	2:CE:172:ILE:HG22	1.85	0.42
54:DA:2011:U:H2'	54:DA:2012:G:C5'	2.46	0.42
3:AF:70:VAL:O	3:AF:106:VAL:N	2.51	0.42
51:D6:7:ILE:O	51:D6:8:LYS:CG	2.68	0.42
54:DA:2803:C:C2	54:DA:2804:C:C5	3.08	0.42
23:C1:13:A:O2'	23:C1:14:A:C8	2.72	0.42
27:BE:71:GLY:C	27:BE:73:GLU:N	2.72	0.42
40:B2:85:LYS:CD	40:B2:86:GLY:H	2.33	0.42
51:B6:18:ARG:O	51:B6:19:ARG:C	2.58	0.42
24:BA:795:C:H2'	24:BA:796:C:H6	1.85	0.42
1:CA:687:A:HO2'	1:CA:688:G:P	2.43	0.42
1:AA:428:G:HO2'	1:AA:429:U:P	2.43	0.42
1:AA:430:A:OP1	4:AG:9:CYS:N	2.46	0.42
51:B6:9:LEU:HB3	51:B6:27:LYS:HA	2.01	0.42
44:BV:105:VAL:HG11	44:BV:140:ASP:N	2.33	0.42
35:DP:20:ALA:HB2	35:DP:99:PRO:HD2	1.99	0.42
37:BQ:23:ARG:NH1	37:BQ:23:ARG:HG2	2.32	0.42
24:BA:2293:C:O3'	37:BQ:89:ARG:NH2	2.52	0.42
32:DM:96:GLU:O	32:DM:97:ARG:C	2.57	0.42
28:DF:183:VAL:HG22	28:DF:184:TYR:N	2.35	0.42
37:BQ:29:PHE:O	37:BQ:35:ILE:HA	2.20	0.42
37:BQ:35:ILE:O	37:BQ:35:ILE:HG23	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:D0:28:LEU:HD12	36:D0:29:LEU:HD12	2.01	0.42
9:AL:92:TYR:O	9:AL:95:LYS:HD2	2.20	0.42
54:DA:1301:A:O2'	54:DA:1302:A:C3'	2.58	0.42
29:DG:99:MET:O	29:DG:103:LEU:HB2	2.20	0.42
40:B2:61:VAL:O	40:B2:93:GLU:O	2.38	0.42
53:B8:14:VAL:CG1	53:B8:22:VAL:CG1	2.95	0.42
20:CW:99:LEU:O	20:CW:100:ILE:CB	2.68	0.42
35:BP:86:GLY:C	35:BP:88:GLY:N	2.72	0.42
31:BK:2:LYS:N	31:BK:20:ASP:HB2	2.35	0.42
12:AO:74:GLY:O	12:AO:102:ARG:NH1	2.52	0.42
24:BA:1019:U:O2'	24:BA:1021:A:C2	2.53	0.42
28:DF:20:LEU:HD12	28:DF:21:ALA:N	2.26	0.42
1:CA:1368:G:OP1	9:CL:111:ARG:NH2	2.47	0.42
20:AW:48:LYS:O	20:AW:49:ALA:C	2.57	0.42
24:BA:1754:C:OP1	38:BR:96:ARG:NH1	2.52	0.42
15:AR:70:LEU:O	15:AR:73:GLU:HB2	2.20	0.42
24:BA:975:G:C6	24:BA:976:C:C5	3.08	0.42
35:BP:54:MET:O	35:BP:57:HIS:HB3	2.20	0.42
18:AU:53:ARG:O	18:AU:55:ARG:N	2.53	0.42
25:BB:3:C:C2	25:BB:4:C:C5	3.08	0.42
1:CA:735:C:O2'	1:CA:736:C:H5'	2.19	0.42
27:DE:35:GLN:HB3	27:DE:48:GLN:HB2	2.01	0.42
1:CA:321:A:O2'	1:CA:322:C:H5'	2.20	0.42
29:DG:4:ASP:O	29:DG:5:VAL:HB	2.19	0.42
28:DF:45:ARG:HH11	28:DF:45:ARG:HG2	1.83	0.42
24:BA:2173:A:OP1	24:BA:2174:C:C5	2.73	0.42
25:BB:79:C:C2'	25:BB:80:U:H5'	2.50	0.42
1:AA:1435:G:H2'	1:AA:1436:U:C5	2.53	0.42
54:DA:990:A:O5'	54:DA:991:C:OP2	2.37	0.42
13:AP:82:MET:O	13:AP:83:ASP:C	2.57	0.42
27:BE:8:LYS:HB3	27:BE:193:GLY:N	2.35	0.42
10:CM:49:VAL:HG11	14:CQ:41:ARG:O	2.19	0.42
1:AA:806:C:O2'	1:AA:807:A:H5'	2.19	0.42
1:AA:355:C:C4	1:AA:356:A:N7	2.88	0.42
27:DE:128:SER:O	27:DE:129:HIS:HB2	2.19	0.42
27:DE:152:LYS:HG2	32:DM:78:TYR:CD1	2.55	0.42
7:CJ:11:GLN:HG3	7:CJ:12:LEU:H	1.85	0.42
27:BE:134:ILE:N	27:BE:134:ILE:HD13	2.35	0.42
1:CA:746:A:C2'	1:CA:747:C:H5'	2.50	0.42
44:BV:19:ARG:CG	44:BV:19:ARG:NH1	2.82	0.42
41:DS:74:ALA:O	41:DS:75:TYR:CB	2.65	0.42
1:CA:116:A:O5'	1:CA:116:A:H8	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:217:C:O2'	1:AA:218:C:H5'	2.20	0.42
1:AA:1103:C:H2'	1:AA:1104:G:O4'	2.20	0.42
20:AW:14:LYS:HG3	20:AW:15:ARG:N	2.34	0.42
54:DA:1417:C:O2'	54:DA:1418:G:H5'	2.20	0.42
17:AT:59:ILE:HD13	17:AT:73:VAL:HA	2.02	0.42
32:BM:75:TYR:CE2	32:BM:77:GLY:HA2	2.55	0.42
1:AA:554:C:C2	1:AA:555:C:C5	3.08	0.42
54:DA:2660:A:C2	54:DA:2661:G:C4	3.08	0.42
46:BZ:67:ILE:N	46:BZ:68:PRO:CD	2.82	0.42
31:BK:32:PRO:C	31:BK:34:GLY:H	2.23	0.42
11:AN:66:LEU:O	11:AN:67:ASP:C	2.57	0.42
1:CA:632:A:C8	1:CA:633:G:C8	3.07	0.42
5:AH:5:ASP:CG	5:AH:5:ASP:O	2.57	0.42
24:BA:1794:U:O2'	24:BA:1795:C:H5'	2.20	0.42
26:BD:132:PRO:O	26:BD:133:LEU:C	2.57	0.42
28:BF:36:VAL:CG1	28:BF:183:VAL:HG11	2.50	0.42
1:CA:1359:C:H3'	14:CQ:35:ARG:HH12	1.84	0.42
1:CA:20:U:O5'	1:CA:20:U:H6	2.03	0.42
1:CA:310:G:OP2	16:CS:27:LYS:HE3	2.18	0.42
48:BX:4:LEU:O	48:BX:36:VAL:HA	2.19	0.42
24:BA:1575:C:H2'	24:BA:1576:U:O4'	2.20	0.42
34:DO:135:LEU:HD13	34:DO:139:LYS:HE3	2.01	0.42
2:AE:214:ILE:HD13	2:AE:214:ILE:HA	1.93	0.42
22:AC:47:U:OP2	22:AC:47:U:H4'	2.19	0.42
1:AA:608:A:H2'	1:AA:609:A:O4'	2.20	0.42
24:BA:1248:G:H2'	39:B1:3:ARG:HA	2.01	0.42
30:DH:89:ILE:H	30:DH:89:ILE:CD1	2.32	0.42
43:DU:90:LEU:HB2	43:DU:91:GLU:H	1.53	0.42
10:AM:48:THR:CA	10:AM:62:HIS:HB3	2.32	0.42
19:AV:20:LEU:C	19:AV:22:LEU:H	2.22	0.42
13:AP:3:ARG:HB3	49:B4:34:GLU:CB	2.50	0.42
19:AV:67:VAL:HG21	49:B4:59:PHE:CG	2.55	0.42
24:BA:1887:C:H2'	24:BA:1888:G:C5'	2.16	0.42
1:AA:1280:A:C5'	1:AA:1281:U:OP2	2.60	0.42
9:AL:4:TYR:CE2	9:AL:88:TYR:CD1	3.07	0.42
54:DA:729:G:H2'	54:DA:1775:U:O2	2.20	0.42
1:CA:1319:A:H2'	1:CA:1323:G:C8	2.54	0.42
1:CA:1364:U:H6	1:CA:1364:U:OP1	2.03	0.42
19:CV:66:MET:O	19:CV:66:MET:HG3	2.19	0.42
25:BB:56:G:P	29:BG:27:ASN:ND2	2.93	0.42
29:BG:16:ARG:N	29:BG:17:PRO:CD	2.82	0.42
2:CE:162:ILE:O	2:CE:185:ILE:CG1	2.67	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DO:115:LEU:HB3	34:DO:131:SER:HB2	2.02	0.42
34:DO:81:GLN:HE21	34:DO:81:GLN:HB2	1.59	0.42
3:AF:109:PRO:HB3	3:AF:115:LEU:CD1	2.50	0.42
2:AE:177:ALA:C	2:AE:179:LYS:N	2.68	0.42
26:BD:35:LYS:CB	26:BD:36:PRO:HA	2.37	0.42
24:BA:993:G:C6	24:BA:994:C:N4	2.87	0.42
1:CA:96:G:N1	1:CA:97:U:H1'	2.34	0.42
32:DM:42:TRP:HA	32:DM:48:MET:HE3	2.02	0.42
22:AD:16:C:H5''	22:AD:17:C:C4	2.55	0.42
2:AE:178:ARG:HH11	2:AE:178:ARG:HG2	1.85	0.42
31:DK:79:ILE:HD13	31:DK:79:ILE:HA	1.83	0.42
1:CA:64:G:H5''	1:CA:65:U:OP1	2.19	0.42
54:DA:1471:A:C6	54:DA:1522:G:C2	3.08	0.42
54:DA:1530:G:H8	54:DA:1530:G:O5'	2.03	0.42
38:DR:50:ILE:HD11	38:DR:102:ILE:HG12	2.01	0.42
38:DR:105:LEU:HG	38:DR:105:LEU:O	2.18	0.42
1:AA:353:A:C2'	1:AA:354:G:OP2	2.67	0.42
54:DA:512:G:O2'	54:DA:513:A:P	2.78	0.42
1:CA:1126:U:C5	1:CA:1127:G:C5	3.08	0.42
1:AA:1152:A:O2'	1:AA:1153:C:C5'	2.66	0.42
9:AL:10:ARG:NH1	9:AL:105:ASP:OD1	2.53	0.42
24:BA:1272:A:H5'	24:BA:1273:U:OP2	2.20	0.42
55:DB:50:G:P	37:DQ:63:THR:HG23	2.59	0.42
3:CF:35:GLU:O	3:CF:38:ARG:N	2.53	0.42
16:CS:1:MET:H2	16:CS:24:ALA:HB3	1.84	0.42
24:BA:27:G:H2'	24:BA:28:A:OP2	2.20	0.42
15:AR:50:HIS:O	15:AR:53:HIS:HB3	2.20	0.42
24:BA:2391:G:HO2'	24:BA:2392:A:P	2.39	0.42
27:DE:10:GLY:HA3	38:DR:8:LYS:HD3	2.02	0.42
24:BA:95:G:N2	24:BA:96:G:H1'	2.35	0.42
13:AP:94:ARG:C	13:AP:96:LEU:H	2.22	0.42
54:DA:2288:A:C2	54:DA:2325:G:C8	3.08	0.42
24:BA:270(U):C:H2'	24:BA:270(V):G:H8	1.85	0.42
24:BA:622:G:H2'	24:BA:623:G:C5'	2.50	0.42
1:AA:532:A:N6	3:AF:193:TYR:HB3	2.30	0.42
24:BA:2849:U:O2'	24:BA:2850:A:O5'	2.38	0.42
38:BR:121:ILE:HG22	38:BR:122:ASP:N	2.34	0.42
26:BD:264:LYS:CG	26:BD:265:PRO:HD2	2.50	0.42
5:CH:78:HIS:HE1	5:CH:143:ARG:N	2.12	0.42
24:BA:2147:G:C2'	24:BA:2148:G:O4'	2.68	0.42
54:DA:2743:C:C2'	54:DA:2744:G:O5'	2.68	0.42
1:CA:1373:G:H5''	7:CJ:36:LYS:HB3	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2189:U:C3'	24:BA:2190:G:H5''	2.49	0.42
13:CP:12:ASN:ND2	13:CP:12:ASN:N	2.68	0.42
36:B0:26:LYS:HG3	36:B0:70:LEU:HD23	2.02	0.42
54:DA:2312:U:O5'	54:DA:2312:U:C6	2.66	0.42
25:BB:96:G:N1	25:BB:97:G:C4	2.88	0.42
1:CA:1181:G:O4'	1:CA:1181:G:OP2	2.37	0.42
1:AA:579:G:C4	1:AA:580:U:C5	3.08	0.42
18:CU:53:ARG:C	18:CU:55:ARG:H	2.22	0.42
3:AF:29:TYR:OH	14:AQ:54:PRO:CD	2.66	0.42
24:BA:2133:G:O2'	24:BA:2158:A:H2	2.01	0.42
1:AA:1195:C:H5''	1:AA:1196:U:OP2	2.20	0.42
3:CF:58:GLU:HB2	3:CF:65:ALA:HB3	2.01	0.42
11:AN:44:SER:O	11:AN:48:ILE:HG12	2.19	0.42
54:DA:638:G:H2'	54:DA:639:U:C6	2.55	0.42
54:DA:991:C:C2'	54:DA:992:C:O5'	2.68	0.42
5:AH:41:VAL:HG22	5:AH:113:ALA:CB	2.43	0.42
54:DA:796:C:H2'	54:DA:797:C:H6	1.78	0.42
1:CA:652:U:H1'	1:CA:653:A:C2	2.48	0.42
1:CA:652:U:O2'	1:CA:653:A:O5'	2.37	0.42
1:CA:641:U:H5''	1:CA:642:A:OP1	2.20	0.42
24:BA:637:A:OP1	34:BO:133:SER:HB3	2.20	0.42
1:CA:492:G:C4	1:CA:493:G:C8	3.07	0.42
19:CV:29:ARG:HD3	19:CV:30:LEU:H	1.84	0.42
19:CV:30:LEU:O	19:CV:31:ILE:HB	2.19	0.42
45:D3:36:ILE:H	45:D3:36:ILE:HD13	1.85	0.42
24:BA:314:A:O2'	24:BA:315:G:H5'	2.20	0.42
17:CT:76:LEU:HD21	17:CT:79:SER:HB2	2.01	0.42
1:CA:1489:G:H2'	1:CA:1490:C:C6	2.55	0.42
4:CG:52:SER:O	4:CG:55:ALA:N	2.52	0.42
54:DA:404:C:O2'	54:DA:405:U:P	2.77	0.42
55:DB:24:G:C6	55:DB:56:G:H2'	2.54	0.42
23:C1:4:A:H2'	23:C1:5:A:O4'	2.20	0.42
38:DR:76:PHE:HA	38:DR:77:PRO:HD3	1.75	0.42
54:DA:2378:A:H4'	37:DQ:23:ARG:CZ	2.49	0.42
42:DT:14:SER:O	42:DT:15:GLU:C	2.57	0.42
37:DQ:49:VAL:HG21	37:DQ:77:ALA:HA	2.02	0.42
4:CG:150:GLU:C	4:CG:152:SER:N	2.73	0.42
4:CG:150:GLU:O	4:CG:152:SER:N	2.53	0.42
6:CI:46:ARG:HG3	6:CI:47:ARG:N	2.34	0.42
26:DD:165:ILE:O	26:DD:166:GLN:NE2	2.53	0.42
34:DO:37:GLY:O	34:DO:38:GLN:C	2.58	0.42
1:AA:44:G:N2	1:AA:399:G:C4	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2734:A:H5'	24:BA:2735:G:OP2	2.20	0.42
24:BA:856:C:H4'	24:BA:857:C:OP1	2.20	0.42
1:CA:544:G:H2'	1:CA:545:C:H6	1.84	0.42
24:BA:1838:C:C5'	24:BA:1839:G:OP1	2.67	0.42
24:BA:952:G:C6	24:BA:966:G:C6	3.07	0.42
1:CA:1329:A:P	13:CP:28:ALA:HB3	2.60	0.42
1:AA:568:G:O6	12:AO:5:PRO:CD	2.68	0.42
41:BS:9:TYR:H	41:BS:102:HIS:HD2	1.68	0.42
1:CA:184:G:H2'	1:CA:185:A:H8	1.85	0.42
24:BA:540:G:H2'	24:BA:541:C:H6	1.84	0.42
1:AA:830:G:H2'	1:AA:831:U:O4'	2.19	0.42
24:BA:1844:C:O2'	24:BA:1845:G:H5'	2.19	0.42
54:DA:723:G:H2'	54:DA:724:U:C6	2.55	0.42
54:DA:2212:A:O2'	54:DA:2215:G:C8	2.71	0.42
54:DA:1747:G:O2'	54:DA:1748:G:H5'	2.20	0.42
6:AI:71:ARG:HG3	6:AI:71:ARG:NH1	2.34	0.42
9:CL:35:GLU:O	9:CL:35:GLU:HG2	2.19	0.42
54:DA:850:C:C2'	54:DA:851:U:H5'	2.50	0.42
31:BK:102:SER:OG	31:BK:103:ARG:N	2.51	0.42
1:AA:1317:C:O2	19:AV:37:ARG:NH2	2.50	0.42
1:AA:1318:A:O2'	19:AV:37:ARG:HG2	2.20	0.42
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.54	0.42
3:AF:13:GLY:HA3	14:AQ:57:ARG:NE	2.34	0.42
1:AA:1130:A:H61	1:AA:1144:G:N2	2.18	0.42
24:BA:1208:C:C4	24:BA:1209:G:N7	2.87	0.42
24:BA:34:C:O2'	24:BA:35:G:H8	2.03	0.42
30:DH:84:SER:OG	30:DH:85:LYS:N	2.51	0.42
34:BO:83:VAL:O	34:BO:83:VAL:HG13	2.20	0.42
24:BA:996:A:C1'	39:B1:92:ARG:HH21	2.33	0.42
40:B2:35:LEU:HA	40:B2:36:PRO:HD2	1.87	0.42
40:B2:14:VAL:HB	40:B2:96:ILE:HG13	2.02	0.42
21:CX:2:GLY:C	21:CX:4:GLY:H	2.23	0.42
25:BB:27:C:C4	25:BB:28:C:C4	3.08	0.42
3:AF:172:ARG:O	3:AF:173:VAL:HG22	2.19	0.42
3:AF:84:ILE:C	3:AF:88:ARG:HG2	2.39	0.42
24:BA:1054:A:H2'	24:BA:1055:G:O4'	2.20	0.42
28:BF:65:TRP:HZ3	28:BF:73:ALA:O	2.03	0.42
54:DA:608:A:C6	54:DA:609:A:C6	3.08	0.42
54:DA:608:A:C8	54:DA:621:A:N6	2.88	0.42
24:BA:2777:G:H4'	24:BA:2778:A:H5'	2.01	0.42
27:BE:35:GLN:N	27:BE:48:GLN:NE2	2.65	0.42
51:B6:24:GLU:HG3	53:B8:34:TRP:CZ3	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DN:50:GLY:O	33:DN:51:ALA:C	2.57	0.42
44:BV:104:PHE:O	44:BV:107:THR:HG23	2.20	0.42
24:BA:1434:A:N6	24:BA:1558:A:H62	2.10	0.42
2:CE:44:LEU:H	2:CE:44:LEU:CD1	2.26	0.42
5:CH:31:LEU:HA	5:CH:31:LEU:HD22	1.86	0.42
1:CA:195:A:C5	1:CA:196:A:N1	2.88	0.42
35:DP:34:LEU:HD23	35:DP:104:PHE:CD1	2.55	0.42
24:BA:2881:C:H2'	24:BA:2882:A:O4'	2.19	0.42
32:DM:58:ASP:HB3	32:DM:95:PRO:HB3	2.02	0.42
28:BF:123:LEU:O	28:BF:192:LEU:O	2.38	0.42
28:BF:192:LEU:HD23	28:BF:192:LEU:C	2.41	0.42
54:DA:1543:A:H2'	54:DA:1544:C:OP2	2.19	0.42
51:D6:41:PRO:HG3	51:D6:44:ARG:HB2	2.01	0.42
55:DB:38:C:N4	55:DB:44:G:H1	2.18	0.42
54:DA:2712(A):A:H5''	54:DA:2713:A:OP2	2.20	0.42
53:D8:25:MET:HB3	53:D8:26:LYS:H	1.68	0.42
54:DA:412:A:H2'	54:DA:412:A:N3	2.35	0.42
24:BA:2392:A:C2	24:BA:2429:G:N3	2.88	0.42
54:DA:2468:G:H2'	54:DA:2476:A:N3	2.35	0.42
54:DA:2468:G:H5''	35:DP:120:ILE:HD12	2.02	0.42
15:CR:54:ARG:NH1	15:CR:58:MET:SD	2.93	0.42
27:DE:25:VAL:CG1	38:DR:11:GLU:HG2	2.50	0.42
38:DR:6:LEU:HD12	38:DR:9:LEU:HD12	2.01	0.42
54:DA:1833:U:C2	54:DA:1834:U:C5	3.08	0.42
34:DO:65:ARG:HH21	53:D8:15:LYS:HB3	1.84	0.42
31:DK:138:ILE:HG23	31:DK:138:ILE:O	2.19	0.42
33:DN:2:ILE:HG12	33:DN:8:LEU:HD11	2.02	0.42
33:DN:2:ILE:N	33:DN:2:ILE:CD1	2.82	0.42
28:BF:107:LYS:C	28:BF:109:GLY:N	2.73	0.42
1:AA:404:U:H5'	4:AG:122:ARG:HD2	2.02	0.42
12:CO:6:THR:H	12:CO:9:GLN:NE2	1.97	0.42
1:CA:280:C:N3	17:CT:39:SER:N	2.68	0.42
11:CN:72:ALA:HB1	11:CN:77:MET:HG2	2.02	0.42
1:CA:129(A):G:H4'	1:CA:130:A:O5'	2.19	0.42
24:BA:2119:A:N6	24:BA:2170:A:N7	2.68	0.42
27:BE:116:VAL:HG21	27:BE:122:PHE:CE2	2.55	0.42
31:DK:87:LYS:HA	31:DK:122:GLU:HA	2.02	0.42
1:CA:1240:U:OP2	7:CJ:116:ALA:HB2	2.20	0.42
50:D5:40:LYS:HE2	50:D5:47:PRO:HG2	2.02	0.42
50:D5:39:MET:C	50:D5:40:LYS:HG3	2.39	0.42
14:AQ:14:PRO:O	14:AQ:15:LYS:C	2.58	0.42
33:BN:98:VAL:HG13	33:BN:118:ALA:HA	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BX:23:LEU:N	48:BX:23:LEU:HD12	2.34	0.42
42:DT:60:ARG:HH12	52:D7:47:ARG:HH22	1.67	0.42
43:DU:6:HIS:O	43:DU:7:VAL:CG1	2.59	0.42
1:CA:659:U:C2	1:CA:660:G:N7	2.88	0.42
33:DN:31:LYS:O	33:DN:32:TYR:HD2	2.02	0.42
25:BB:113:C:H4'	37:BQ:46:VAL:HG22	2.02	0.42
1:CA:1148:U:C5	1:CA:1149:C:C5	3.08	0.42
24:BA:814:C:N3	24:BA:1194:A:C2	2.88	0.42
1:CA:920:U:O4'	1:CA:1080:A:C2	2.73	0.42
24:BA:1332:G:H5''	24:BA:1333:C:OP2	2.20	0.42
1:CA:402:G:O2'	4:CG:135:LEU:CD1	2.68	0.42
24:BA:2173:A:H3'	24:BA:2174:C:O4'	2.20	0.42
48:DX:7:LYS:HG2	48:DX:7:LYS:O	2.19	0.42
5:AH:71:LEU:HD21	5:AH:115:VAL:H	1.85	0.42
1:CA:752:G:HO2'	1:CA:753:A:P	2.42	0.42
54:DA:1206:G:C6	54:DA:1207:C:C4	3.07	0.42
10:CM:49:VAL:HG13	10:CM:50:ILE:N	2.35	0.42
1:CA:439:A:OP2	1:CA:493:G:N2	2.51	0.42
54:DA:2199:A:H61	54:DA:2226:C:N4	2.18	0.42
28:BF:167:ALA:HA	28:BF:170:LEU:HD13	2.02	0.42
54:DA:2687:U:H2'	54:DA:2688:U:O4'	2.19	0.42
43:DU:20:TYR:CE1	43:DU:42:VAL:HA	2.55	0.42
24:BA:65:C:H4'	42:BT:69:TYR:CE1	2.55	0.42
24:BA:593:G:C1'	53:B8:4:MET:HE1	2.48	0.42
1:CA:994:A:N7	1:CA:1216:G:H4'	2.35	0.42
54:DA:557:U:C2	54:DA:558:G:C8	3.08	0.42
54:DA:7:G:H2'	54:DA:8:A:O4'	2.20	0.42
54:DA:155:C:H5'	54:DA:161:U:OP2	2.19	0.42
6:CI:45:LEU:O	6:CI:46:ARG:HB2	2.19	0.42
1:CA:1381:U:C5	1:CA:1382:C:C4	3.08	0.42
1:CA:49:U:O3'	1:CA:50:A:H3'	2.20	0.42
39:D1:27:LEU:C	39:D1:29:SER:N	2.74	0.42
39:D1:35:ALA:O	39:D1:39:LEU:HG	2.19	0.42
35:BP:79:LEU:C	35:BP:80:GLU:CD	2.78	0.42
7:CJ:18:TYR:CD2	7:CJ:59:LEU:HD13	2.55	0.42
24:BA:1412:A:C4	24:BA:1413:G:C8	3.07	0.42
1:CA:511:C:O2'	1:CA:512:U:C5'	2.68	0.42
24:BA:1517:G:C2'	24:BA:1518:C:H5'	2.50	0.42
11:AN:120:ARG:HA	11:AN:121:PRO:HD3	1.82	0.42
54:DA:1095:A:N3	54:DA:1095:A:H3'	2.35	0.42
26:DD:196:VAL:CG1	26:DD:196:VAL:O	2.68	0.42
24:BA:2770:G:C5'	24:BA:2771:C:OP2	2.68	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:186(B):C:O2'	1:CA:186(C):G:H5'	2.20	0.42
24:BA:404:C:C2'	24:BA:405:U:OP2	2.68	0.42
20:AW:12:ALA:O	20:AW:15:ARG:HB2	2.20	0.42
7:CJ:95:ARG:O	7:CJ:96:GLN:C	2.58	0.42
35:BP:1:MET:HE3	35:BP:48:GLU:HG2	2.02	0.42
24:BA:1758:G:C2	24:BA:2696:U:H5'	2.55	0.42
8:CK:95:VAL:O	8:CK:95:VAL:HG23	2.20	0.42
54:DA:435:C:C2'	54:DA:436:C:H5'	2.50	0.42
52:B7:21:ARG:O	52:B7:27:GLY:HA3	2.20	0.42
54:DA:2762:G:C2'	54:DA:2763:G:H5'	2.49	0.42
54:DA:2724:C:C2'	54:DA:2724:C:O2	2.64	0.42
54:DA:2243:U:H2'	54:DA:2244:U:C6	2.55	0.42
44:BV:24:LEU:HD12	44:BV:25:PRO:N	2.35	0.42
54:DA:321:G:OP2	28:DF:135:LYS:HA	2.20	0.42
26:BD:229:VAL:HG13	26:BD:230:ASP:OD1	2.20	0.42
54:DA:914:C:H2'	54:DA:915:C:H5'	2.01	0.42
1:AA:417:C:O2'	1:AA:418:C:H5'	2.19	0.42
33:DN:17:ARG:HG2	33:DN:17:ARG:HH11	1.84	0.42
24:BA:269:U:H2'	24:BA:269:U:O2	2.20	0.42
1:CA:399:G:H2'	1:CA:400:C:C6	2.54	0.42
1:AA:1425:U:O2'	1:AA:1426:C:H5'	2.20	0.42
24:BA:2370:G:H2'	24:BA:2371:G:C8	2.55	0.42
1:AA:1316:G:H4'	14:AQ:18:VAL:CG1	2.42	0.41
13:AP:80:ARG:HH12	49:B4:55:ARG:CD	2.33	0.41
19:AV:12:ASP:O	19:AV:16:LEU:HD22	2.20	0.41
1:AA:1313:U:OP1	19:AV:6:LYS:HD3	2.20	0.41
27:DE:4:ILE:HG22	27:DE:198:VAL:HB	2.02	0.41
30:BH:27:LYS:HE3	30:BH:28:GLY:N	2.34	0.41
30:BH:37:VAL:HG13	30:BH:38:SER:N	2.35	0.41
30:DH:84:SER:O	30:DH:85:LYS:CB	2.64	0.41
43:DU:51:VAL:CG1	43:DU:52:SER:N	2.74	0.41
34:BO:147:LEU:HB2	34:BO:148:LEU:H	1.63	0.41
26:DD:14:ARG:CG	26:DD:15:PHE:N	2.83	0.41
26:DD:9:TYR:CZ	26:DD:13:ARG:HD3	2.54	0.41
40:B2:5:VAL:HA	40:B2:37:VAL:HB	2.01	0.41
54:DA:1034:G:O5'	54:DA:1034:G:H8	2.03	0.41
1:CA:1200:C:O2'	1:CA:1201:A:OP2	2.37	0.41
19:CV:41:VAL:HG11	19:CV:45:VAL:HG13	2.02	0.41
2:CE:166:ASP:O	2:CE:170:GLU:OE1	2.38	0.41
34:DO:83:VAL:HG11	34:DO:112:LEU:HD21	1.97	0.41
24:BA:1341:U:HO2'	24:BA:1342:A:P	2.41	0.41
28:BF:112:MET:HA	28:BF:115:ALA:HB3	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:96:ILE:CG2	41:DS:96:ILE:O	2.68	0.41
3:AF:172:ARG:HE	3:AF:172:ARG:HB3	1.66	0.41
3:AF:78:GLY:O	3:AF:79:ARG:C	2.59	0.41
2:AE:54:THR:HG21	2:AE:201:ILE:HD11	2.02	0.41
2:AE:85:ALA:CB	2:AE:92:TYR:CD1	3.03	0.41
24:BA:1091:G:C2	24:BA:1101:U:O2	2.73	0.41
27:DE:63:LEU:CD1	27:DE:64:LYS:N	2.71	0.41
27:BE:62:PRO:C	27:BE:64:LYS:N	2.72	0.41
27:BE:50:GLY:HA2	27:BE:74:PRO:HG3	2.02	0.41
54:DA:2683:C:H1'	27:DE:13:ARG:NH2	2.35	0.41
4:AG:13:ARG:CD	4:AG:38:TYR:O	2.68	0.41
4:AG:64:LEU:HD21	4:AG:97:LEU:CD1	2.50	0.41
39:D1:57:PHE:C	39:D1:59:ARG:N	2.74	0.41
32:DM:10:GLU:OE2	32:DM:11:PRO:CD	2.68	0.41
37:BQ:108:GLY:C	37:BQ:110:LEU:N	2.72	0.41
37:BQ:83:LYS:HE2	37:BQ:84:GLN:HG3	2.00	0.41
24:BA:2881:C:C4	24:BA:2882:A:N7	2.88	0.41
40:B2:1:MET:HG2	40:B2:42:GLY:HA3	2.01	0.41
28:DF:183:VAL:O	28:DF:184:TYR:C	2.57	0.41
37:DQ:92:TYR:HB2	37:DQ:98:VAL:HG11	2.02	0.41
24:BA:1300:U:H2'	24:BA:1635:G:OP1	2.20	0.41
37:BQ:30:ARG:NH1	37:BQ:30:ARG:CG	2.82	0.41
36:D0:28:LEU:HD13	36:D0:28:LEU:C	2.40	0.41
1:CA:430:A:OP1	4:CG:9:CYS:CB	2.65	0.41
16:CS:21:VAL:HG21	16:CS:59:TRP:NE1	2.35	0.41
54:DA:386:G:H4'	54:DA:387:U:OP2	2.20	0.41
1:CA:939:G:H5''	7:CJ:102:ARG:CZ	2.48	0.41
40:D2:35:LEU:HB2	40:D2:37:VAL:CG2	2.49	0.41
51:D6:36:LEU:HD13	51:D6:50:ARG:HH12	1.81	0.41
54:DA:1941:C:N4	54:DA:1965:C:H5'	2.35	0.41
26:BD:48:ARG:NH1	26:BD:48:ARG:HG3	2.35	0.41
24:BA:1848:A:C4	24:BA:1849:G:C8	3.08	0.41
54:DA:1099:G:H2'	54:DA:1100:C:O4'	2.19	0.41
7:AJ:95:ARG:C	7:AJ:97:GLN:N	2.73	0.41
7:AJ:23:VAL:HG13	7:AJ:43:PHE:CZ	2.54	0.41
7:CJ:24:THR:HA	7:CJ:27:ILE:HD13	2.01	0.41
42:BT:51:VAL:HG13	42:BT:81:VAL:HB	2.01	0.41
54:DA:1212:G:C2'	54:DA:1213:A:OP2	2.68	0.41
24:BA:609(A):G:C4	24:BA:610:C:C5	3.08	0.41
28:BF:105:VAL:C	28:BF:107:LYS:H	2.23	0.41
1:AA:405:U:H5''	1:AA:406:G:O4'	2.20	0.41
1:AA:531:U:H4'	1:AA:532:A:OP1	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DK:74:ASN:CG	31:DK:75:LEU:N	2.68	0.41
1:CA:247:G:OP2	17:CT:100:LYS:N	2.53	0.41
54:DA:584:C:H2'	54:DA:585:G:O4'	2.19	0.41
54:DA:1884:A:C2'	54:DA:1885:A:C5'	2.88	0.41
1:AA:920:U:O4'	1:AA:1080:A:C2	2.73	0.41
13:CP:16:ASP:HB3	13:CP:34:LEU:CD1	2.49	0.41
13:CP:19:LEU:N	13:CP:19:LEU:HD22	2.33	0.41
29:DG:78:SER:O	29:DG:80:PHE:N	2.53	0.41
52:B7:47:ARG:N	52:B7:47:ARG:CD	2.78	0.41
1:AA:1239:A:H2'	1:AA:1298:C:N4	2.35	0.41
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.55	0.41
1:CA:1541:U:H5''	1:CA:1542:G:OP1	2.20	0.41
3:AF:58:GLU:O	3:AF:59:ARG:HG2	2.20	0.41
32:BM:55:VAL:HG23	32:BM:56:ASN:OD1	2.19	0.41
24:BA:2128:C:H3'	24:BA:2129:C:C6	2.55	0.41
28:BF:53:THR:HG22	28:BF:56:GLU:CG	2.50	0.41
2:AE:15:VAL:CG2	2:AE:210:SER:HB2	2.44	0.41
24:BA:946:G:H2'	24:BA:947:G:O5'	2.20	0.41
54:DA:2517:C:N3	54:DA:2542:A:C6	2.87	0.41
1:CA:374:A:C6	1:CA:375:U:C4	3.07	0.41
1:CA:1066:C:O2	1:CA:1066:C:H2'	2.20	0.41
11:AN:22:HIS:HB3	11:AN:29:ILE:HG12	2.01	0.41
18:AU:71:LYS:HA	18:AU:74:ARG:HG3	2.02	0.41
53:B8:43:GLN:HE21	53:B8:46:ARG:HH21	1.67	0.41
1:CA:652:U:O2'	1:CA:653:A:H5''	2.21	0.41
24:BA:660:G:C5	24:BA:661:C:C5	3.08	0.41
34:BO:13:ASN:C	34:BO:15:ARG:H	2.23	0.41
8:AK:36:LEU:O	8:AK:39:LEU:N	2.53	0.41
1:CA:263:A:OP2	20:CW:79:ARG:NH1	2.52	0.41
41:DS:8:ARG:NH1	41:DS:8:ARG:HG3	2.34	0.41
18:CU:74:ARG:NE	18:CU:80:PRO:O	2.48	0.41
24:BA:1416:G:C2'	24:BA:1417:C:H6	2.32	0.41
17:CT:74:LEU:O	17:CT:74:LEU:HD13	2.20	0.41
29:DG:27:ASN:HB3	29:DG:30:GLU:OE2	2.19	0.41
54:DA:2182:G:H2'	54:DA:2183:C:C6	2.53	0.41
54:DA:2867:G:H4'	54:DA:2867:G:OP2	2.20	0.41
1:CA:131:C:H2'	1:CA:132:C:C6	2.55	0.41
24:BA:604:G:O2'	24:BA:605:C:H5'	2.20	0.41
5:CH:153:LYS:HD3	5:CH:153:LYS:C	2.41	0.41
47:DW:15:LYS:H	47:DW:67:LYS:HZ3	1.68	0.41
1:CA:1017:G:O2'	1:CA:1018:C:H5'	2.20	0.41
54:DA:1750:G:N2	54:DA:1751:C:C2	2.87	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AN:27:ASN:CG	11:AN:28:THR:N	2.73	0.41
24:BA:1690:A:H3'	24:BA:1691:C:C6	2.55	0.41
54:DA:2360:A:OP1	53:D8:49:VAL:HG12	2.20	0.41
36:D0:34:ILE:HG22	36:D0:35:THR:N	2.35	0.41
1:AA:255:G:H1'	17:AT:16:GLN:NE2	2.35	0.41
2:AE:153:ARG:HH11	2:AE:153:ARG:HG2	1.85	0.41
24:BA:1813:G:H2'	24:BA:1814:G:H5'	2.02	0.41
1:CA:34:C:O2'	1:CA:35:G:H5'	2.20	0.41
30:BH:171:LEU:O	30:BH:171:LEU:HD23	2.20	0.41
1:AA:718:G:H5'	11:AN:117:ASN:OD1	2.20	0.41
1:CA:1141:C:H2'	1:CA:1142:G:H8	1.85	0.41
1:CA:156:G:O2'	1:CA:157:G:H5'	2.20	0.41
24:BA:24:G:H2'	24:BA:25:U:O4'	2.20	0.41
1:CA:1243:C:H2'	1:CA:1244:C:C6	2.55	0.41
54:DA:246:C:H2'	54:DA:247:G:H5'	2.01	0.41
1:CA:39:G:C2	1:CA:40:C:C6	3.07	0.41
24:BA:2507:C:H2'	24:BA:2508:G:O4'	2.20	0.41
16:AS:83:GLU:O	16:AS:84:ALA:C	2.59	0.41
28:DF:80:ALA:O	28:DF:83:PHE:HB2	2.20	0.41
1:CA:867:G:H8	1:CA:867:G:OP2	2.03	0.41
19:CV:58:VAL:O	19:CV:58:VAL:HG23	2.20	0.41
24:BA:1804:C:H6	24:BA:1804:C:O5'	2.02	0.41
24:BA:1920:C:O5'	24:BA:1920:C:H6	2.02	0.41
11:AN:34:ASP:C	11:AN:34:ASP:OD2	2.58	0.41
1:CA:5:U:H2'	1:CA:5:U:O2	2.20	0.41
1:AA:414:A:H5'	1:AA:414:A:C8	2.55	0.41
1:AA:419:C:O2	1:AA:419:C:H2'	2.20	0.41
1:AA:347:G:O2'	1:AA:348:G:H5'	2.19	0.41
12:AO:109:GLY:HA3	12:AO:121:GLY:O	2.20	0.41
1:CA:882:C:O2'	1:CA:883:C:H5'	2.20	0.41
24:BA:654(C):G:C2	24:BA:654(S):G:N1	2.88	0.41
13:AP:13:LYS:O	13:AP:14:ARG:O	2.37	0.41
2:CE:99:GLY:O	2:CE:108:ILE:HD11	2.20	0.41
54:DA:1103:A:H3'	54:DA:1104:C:H6	1.86	0.41
24:BA:1372:U:O4	24:BA:1373:A:C5	2.73	0.41
43:BU:76:CYS:O	43:BU:77:PRO:C	2.58	0.41
40:B2:3:ALA:HB1	40:B2:38:LEU:CD2	2.50	0.41
1:CA:1234:C:C2'	1:CA:1235:U:H5'	2.49	0.41
25:BB:28:C:OP1	37:BQ:31:SER:OG	2.24	0.41
2:AE:200:ILE:CD1	2:AE:200:ILE:H	2.30	0.41
2:AE:70:PHE:O	2:AE:92:TYR:HA	2.21	0.41
53:D8:40:GLU:O	53:D8:41:ILE:C	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2349:G:OP2	53:D8:42:ARG:HD3	2.20	0.41
27:BE:71:GLY:O	27:BE:73:GLU:N	2.52	0.41
26:BD:108:PRO:HB3	26:BD:143:HIS:CE1	2.55	0.41
15:AR:36:ILE:HG22	15:AR:37:ASN:N	2.36	0.41
24:BA:1162:G:H21	40:B2:89:GLN:NE2	2.18	0.41
1:CA:701:C:H4'	1:CA:702:A:H5''	2.02	0.41
1:CA:95:G:C2'	1:CA:96:G:H5'	2.47	0.41
32:DM:1:MET:O	32:DM:1:MET:HG3	2.19	0.41
1:CA:1449:C:O2'	1:CA:1450:U:C6	2.71	0.41
54:DA:197:A:N6	54:DA:2430:A:H2'	2.35	0.41
54:DA:2444:G:OP2	28:DF:68:LYS:CE	2.68	0.41
53:B8:16:ILE:HD11	53:B8:60:LEU:HD12	2.02	0.41
53:B8:61:LEU:HD13	53:B8:62:LEU:HG	2.02	0.41
44:DV:48:PHE:CE2	44:DV:71:VAL:HG11	2.55	0.41
54:DA:776:G:O6	54:DA:793:A:H2'	2.20	0.41
18:AU:64:ARG:O	18:AU:66:LEU:N	2.53	0.41
1:AA:1177:G:OP2	9:AL:97:LYS:NZ	2.49	0.41
7:AJ:36:LYS:HB2	7:AJ:36:LYS:NZ	2.34	0.41
1:AA:1151:A:H5''	10:AM:42:THR:OG1	2.19	0.41
4:CG:33:MET:HE1	4:CG:37:PRO:O	2.20	0.41
37:DQ:95:HIS:O	37:DQ:96:GLY:C	2.57	0.41
40:B2:62:LEU:HD22	40:B2:95:LEU:HB2	2.02	0.41
1:CA:742:G:C2'	1:CA:743:U:H5'	2.50	0.41
33:DN:107:ARG:HA	33:DN:112:MET:HE1	2.01	0.41
24:BA:1846:G:C5'	24:BA:1847:A:OP2	2.54	0.41
26:DD:110:GLY:O	26:DD:111:LEU:C	2.59	0.41
5:AH:20:GLN:HE21	5:AH:20:GLN:C	2.24	0.41
9:AL:121:ARG:C	9:AL:121:ARG:HD3	2.41	0.41
46:BZ:96:LYS:HB3	46:BZ:96:LYS:HE2	1.86	0.41
28:BF:202:PHE:CE1	28:BF:206:ILE:HD11	2.55	0.41
4:AG:3:ARG:CB	4:AG:3:ARG:NH2	2.75	0.41
24:BA:1799:G:H2'	26:BD:181:GLU:OE2	2.19	0.41
40:D2:15:GLU:O	40:D2:96:ILE:HB	2.19	0.41
38:BR:106:SER:CB	38:BR:110:ILE:HD12	2.49	0.41
1:CA:1349:A:H2'	1:CA:1350:A:O4'	2.20	0.41
1:CA:1241:G:H2'	1:CA:1242:C:C5	2.53	0.41
32:BM:7:LYS:O	32:BM:9:VAL:HG13	2.20	0.41
28:DF:53:THR:O	28:DF:55:GLY:N	2.53	0.41
13:CP:13:LYS:HA	13:CP:44:ARG:CD	2.48	0.41
54:DA:2531:A:H3'	54:DA:2532:G:H8	1.84	0.41
5:AH:112:LEU:N	5:AH:112:LEU:HD23	2.35	0.41
25:BB:66:A:O2'	25:BB:67:G:P	2.78	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
58:DA:2912:G:H2'	59:DA:2913:C:H5'	2.01	0.41
42:DT:60:ARG:HH22	52:D7:47:ARG:HH12	1.68	0.41
24:BA:2681:C:N3	24:BA:2724:C:N4	2.68	0.41
2:AE:121:LEU:HB3	2:AE:127:ILE:HG12	2.02	0.41
35:BP:27:VAL:HG21	35:BP:134:ARG:O	2.20	0.41
7:CJ:111:ARG:HH11	7:CJ:111:ARG:CB	2.23	0.41
8:CK:122:ARG:HH11	8:CK:122:ARG:HG3	1.85	0.41
32:BM:55:VAL:HB	32:BM:126:PRO:CB	2.49	0.41
54:DA:859:G:O2'	54:DA:860:U:O2	2.29	0.41
3:CF:59:ARG:NH1	3:CF:97:LYS:HE3	2.34	0.41
1:CA:108:G:C2	1:CA:109:A:C2	3.08	0.41
1:AA:707:C:O2'	1:AA:708:C:H5'	2.20	0.41
1:CA:1218:C:H2'	1:CA:1219:U:C5	2.53	0.41
33:BN:104:ARG:CD	38:BR:34:VAL:HG11	2.50	0.41
54:DA:1464:C:O2'	54:DA:1528:A:C8	2.63	0.41
6:CI:67:MET:HB2	6:CI:68:PRO:CD	2.48	0.41
27:DE:167:VAL:CG1	27:DE:189:PRO:HD3	2.50	0.41
14:CQ:3:ARG:CG	14:CQ:4:LYS:N	2.83	0.41
54:DA:2225:A:H4'	54:DA:2226:C:C6	2.55	0.41
24:BA:882:G:H2'	24:BA:883:G:C1'	2.50	0.41
24:BA:2716:U:C2'	24:BA:2717:G:H5'	2.50	0.41
24:BA:1349:A:N6	24:BA:1598:C:N4	2.67	0.41
8:CK:11:THR:HA	8:CK:14:ARG:NH1	2.35	0.41
28:DF:34:TRP:CA	34:DO:6:LEU:HD12	2.47	0.41
24:BA:283:A:H5'	24:BA:284:U:H5	1.86	0.41
1:CA:1211:U:H5'	1:CA:1212:U:P	2.60	0.41
32:DM:30:ILE:HG22	32:DM:34:LEU:HD21	2.01	0.41
1:AA:210:U:O2	1:AA:210:U:H2'	2.19	0.41
8:CK:38:ILE:CD1	8:CK:118:VAL:HG12	2.49	0.41
54:DA:391:G:H2'	54:DA:392:C:H6	1.85	0.41
24:BA:605:C:O2	24:BA:657:U:O2'	2.38	0.41
1:CA:598:U:H2'	1:CA:599:C:C6	2.55	0.41
15:CR:50:HIS:O	15:CR:53:HIS:HB3	2.20	0.41
5:AH:32:VAL:CG1	5:AH:33:VAL:N	2.83	0.41
17:CT:82:MET:C	17:CT:84:LEU:N	2.72	0.41
52:D7:32:LYS:HZ3	52:D7:36:GLN:NE2	2.18	0.41
54:DA:1547:C:C2	54:DA:1548:C:C5	3.08	0.41
28:BF:57:VAL:CG1	28:BF:58:ALA:N	2.83	0.41
24:BA:966:G:C6	24:BA:967:C:N4	2.88	0.41
44:DV:91:LEU:N	44:DV:91:LEU:HD22	2.35	0.41
32:BM:51:PHE:N	32:BM:51:PHE:CD1	2.88	0.41
24:BA:1629:U:O2	24:BA:2698:U:H5''	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AE:116:GLU:HB3	2:AE:153:ARG:NH2	2.35	0.41
54:DA:2193:G:H2'	54:DA:2194:G:C8	2.55	0.41
54:DA:1718:G:H3'	54:DA:1725:G:H5''	2.01	0.41
1:CA:894:G:C6	1:CA:895:G:C5	3.08	0.41
54:DA:2101:G:H2'	54:DA:2102:U:H6	1.84	0.41
26:DD:109:ASP:HB2	26:DD:197:GLY:HA2	2.03	0.41
52:D7:25:PRO:HA	52:D7:28:ARG:NH2	2.35	0.41
24:BA:484:C:H2'	24:BA:485:C:C6	2.55	0.41
36:B0:72:ASP:HB3	36:B0:75:LEU:HB2	2.00	0.41
40:D2:72:VAL:HG13	40:D2:72:VAL:O	2.19	0.41
6:CI:36:ARG:NH2	6:CI:38:GLU:HG2	2.35	0.41
41:BS:26:GLY:O	41:BS:27:LYS:C	2.58	0.41
1:CA:1270:C:O2'	1:CA:1271:G:H5'	2.21	0.41
1:CA:1091:U:H2'	1:CA:1093:A:OP2	2.20	0.41
1:AA:117:G:H2'	1:AA:118:U:O4'	2.20	0.41
26:DD:168:ARG:O	26:DD:169:GLU:HB2	2.19	0.41
7:CJ:126:ASP:OD2	7:CJ:126:ASP:N	2.53	0.41
24:BA:1975:G:H2'	24:BA:1976:U:O4'	2.19	0.41
1:CA:410:G:H3'	1:CA:410:G:C8	2.55	0.41
11:AN:101:SER:OG	11:AN:102:GLY:N	2.53	0.41
49:B4:13:ARG:HH11	49:B4:22:ILE:HG13	1.85	0.41
19:AV:16:LEU:CD1	19:AV:16:LEU:N	2.83	0.41
21:AX:12:LYS:HG2	21:AX:22:ARG:CB	2.50	0.41
2:CE:109:SER:C	2:CE:111:ARG:H	2.22	0.41
54:DA:1082:U:C4	54:DA:1083:U:H1'	2.55	0.41
24:BA:1045:A:H1'	24:BA:1047:G:C5	2.56	0.41
30:BH:33:LEU:HD21	30:BH:140:LYS:CE	2.43	0.41
30:BH:61:HIS:O	30:BH:63:SER:N	2.53	0.41
30:BH:9:ILE:HG21	30:BH:49:VAL:O	2.20	0.41
43:BU:26:LYS:HB2	43:BU:26:LYS:HE3	1.87	0.41
34:BO:108:LYS:C	34:BO:110:TYR:H	2.24	0.41
34:BO:110:TYR:HD2	34:BO:111:ARG:HH21	1.67	0.41
39:B1:96:ALA:O	39:B1:98:LEU:HD12	2.20	0.41
39:B1:92:ARG:NH1	40:B2:11:GLN:HG3	2.35	0.41
19:CV:41:VAL:HG13	19:CV:44:MET:CB	2.38	0.41
46:BZ:91:LYS:CE	46:BZ:92:LYS:H	2.33	0.41
28:BF:7:TYR:HD2	28:BF:18:ARG:HB2	1.85	0.41
41:DS:17:VAL:O	41:DS:18:ARG:C	2.57	0.41
3:AF:113:ALA:CB	3:AF:114:PRO:HD3	2.37	0.41
2:AE:22:LYS:H	2:AE:22:LYS:HD2	1.86	0.41
2:AE:22:LYS:HE2	2:AE:38:GLY:HA2	2.02	0.41
2:AE:51:LEU:HD22	2:AE:55:PHE:HE2	1.85	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2777:G:H5''	24:BA:2778:A:H5''	2.02	0.41
26:BD:97:TYR:CE1	26:BD:103:ARG:HG3	2.56	0.41
44:DV:48:PHE:CE2	44:DV:52:SER:HA	2.55	0.41
24:BA:923:C:H2'	24:BA:924:C:H6	1.83	0.41
54:DA:1027:A:N6	54:DA:1126:A:C1'	2.83	0.41
24:BA:1299:G:H5''	24:BA:1300:U:H5''	2.02	0.41
54:DA:1653:G:O6	36:D0:9:LYS:O	2.38	0.41
54:DA:1448:G:H5'	54:DA:1543:A:OP1	2.19	0.41
42:BT:29:TRP:O	42:BT:30:VAL:HG13	2.20	0.41
35:BP:66:ILE:CG1	35:BP:67:ARG:H	2.34	0.41
22:AC:18:G:H1'	22:AC:58:A:C2	2.55	0.41
7:CJ:79:ARG:CZ	7:CJ:82:GLY:HA2	2.51	0.41
1:AA:1156:G:C3'	1:AA:1157:A:H5''	2.50	0.41
54:DA:898:C:H2'	54:DA:899:A:H5''	2.02	0.41
55:DB:43:C:H5'	49:D4:1:MET:HA	2.01	0.41
4:CG:94:LEU:HA	4:CG:97:LEU:HD12	2.01	0.41
12:CO:53:ARG:HH12	12:CO:92:ASP:HB3	1.85	0.41
24:BA:1946:U:C2	24:BA:1947:C:C5	3.08	0.41
1:AA:1225:A:H5''	1:AA:1226:C:OP2	2.20	0.41
1:AA:818:G:H2'	1:AA:819:A:H5''	2.02	0.41
26:DD:145:VAL:CG1	26:DD:146:GLU:N	2.84	0.41
29:BG:40:ASN:HD22	29:BG:41:GLN:N	2.17	0.41
10:AM:6:ILE:CG2	10:AM:98:ILE:HG13	2.51	0.41
41:DS:68:ARG:O	41:DS:110:LYS:N	2.46	0.41
24:BA:2850:A:OP2	24:BA:2866:U:N3	2.52	0.41
26:BD:147:LEU:HD13	26:BD:155:LEU:HD11	2.02	0.41
1:AA:1024:G:C2'	1:AA:1025:U:H5'	2.50	0.41
12:AO:82:VAL:C	12:AO:83:VAL:HG12	2.40	0.41
5:AH:57:LYS:C	5:AH:59:GLY:N	2.73	0.41
24:BA:1697:G:OP2	24:BA:1698:A:H3'	2.20	0.41
4:AG:108:LEU:O	4:AG:108:LEU:HG	2.21	0.41
7:CJ:44:TYR:O	7:CJ:47:CYS:N	2.53	0.41
1:AA:1216:G:O2'	1:AA:1217:C:H5'	2.20	0.41
14:AQ:9:LYS:HA	14:AQ:12:ARG:HH11	1.85	0.41
14:AQ:15:LYS:O	14:AQ:16:PHE:O	2.37	0.41
33:DN:97:ARG:CA	33:DN:117:LEU:HD22	2.50	0.41
1:AA:60:A:HO2'	1:AA:61:G:P	2.43	0.41
24:BA:2356:C:H2'	24:BA:2357:U:O4'	2.20	0.41
38:DR:24:PRO:HA	38:DR:49:VAL:CG1	2.39	0.41
54:DA:99:U:O2'	54:DA:101:G:OP2	2.37	0.41
25:BB:1:U:C2'	25:BB:2:C:H5'	2.50	0.41
1:CA:336:C:H2'	1:CA:337:C:H6	1.85	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CF:76:VAL:CG2	3:CF:103:VAL:HG11	2.49	0.41
30:DH:169:VAL:HG22	30:DH:170:ARG:N	2.25	0.41
54:DA:2291:U:H5''	54:DA:2380:C:O2'	2.21	0.41
1:CA:892:A:H2'	1:CA:893:C:H6	1.85	0.41
3:CF:142:MET:HG2	3:CF:149:ALA:HB2	2.02	0.41
41:BS:66:GLU:O	41:BS:66:GLU:HG2	2.19	0.41
48:DX:37:LEU:HD23	48:DX:37:LEU:N	2.35	0.41
2:AE:236:TYR:C	2:AE:238:LEU:N	2.73	0.41
40:B2:64:HIS:CD2	40:B2:92:THR:OG1	2.74	0.41
1:AA:1066:C:C5'	1:AA:1067:A:OP2	2.68	0.41
1:AA:481:G:H2'	1:AA:483:C:H41	1.85	0.41
50:B5:45:VAL:HG12	50:B5:56:LYS:HG3	2.02	0.41
54:DA:1676:A:H2'	54:DA:1677:A:O4'	2.20	0.41
6:CI:88:VAL:HG12	6:CI:89:MET:N	2.34	0.41
41:DS:1:MET:HG3	41:DS:2:GLU:N	2.36	0.41
7:CJ:87:VAL:HG11	7:CJ:155:ARG:HA	2.02	0.41
45:D3:36:ILE:HA	45:D3:60:PHE:CB	2.51	0.41
6:AI:35:ALA:CB	6:AI:67:MET:HB3	2.50	0.41
24:BA:508:G:HO2'	24:BA:509:C:P	2.37	0.41
1:CA:1490:C:H2'	1:CA:1491:G:O4'	2.21	0.41
54:DA:1917:U:O2'	54:DA:1918:A:H5'	2.20	0.41
7:CJ:141:VAL:O	7:CJ:141:VAL:CG1	2.65	0.41
24:BA:592:G:N3	53:B8:4:MET:HE2	2.36	0.41
54:DA:527:C:H4'	54:DA:528:A:O5'	2.20	0.41
17:AT:81:ARG:NE	17:AT:84:LEU:HD11	2.34	0.41
17:CT:11:VAL:HG23	17:CT:12:SER:N	2.35	0.41
1:CA:299:G:H2'	1:CA:300:A:C8	2.56	0.41
54:DA:968:G:H2'	54:DA:969:U:C6	2.55	0.41
54:DA:2649:U:C2	54:DA:2672:G:N2	2.88	0.41
52:B7:1:MET:O	52:B7:2:LYS:C	2.58	0.41
36:B0:18:LEU:HD11	36:B0:22:ARG:CZ	2.50	0.41
54:DA:2473:U:O2	54:DA:2473:U:C2'	2.67	0.41
44:DV:20:ARG:CD	44:DV:20:ARG:O	2.68	0.41
54:DA:868:U:C4	54:DA:869:G:N7	2.89	0.41
38:DR:134:GLU:OE1	38:DR:135:ALA:N	2.53	0.41
24:BA:1412:A:O2'	24:BA:1413:G:H5'	2.20	0.41
9:CL:128:ARG:HD3	22:CC:32:C:OP2	2.19	0.41
54:DA:2870:C:H5''	36:D0:65:LEU:CD2	2.49	0.41
54:DA:2456:C:O5'	54:DA:2456:C:H6	2.03	0.41
1:CA:511:C:O2'	1:CA:512:U:P	2.78	0.41
32:DM:109:LYS:N	32:DM:109:LYS:CD	2.83	0.41
24:BA:2142:C:H2'	24:BA:2143:C:H6	1.84	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:42:ASP:O	37:BQ:43:GLU:CB	2.67	0.41
54:DA:1794:U:H2'	54:DA:1795:C:H6	1.85	0.41
35:BP:22:LYS:HE3	35:BP:23:GLY:N	2.34	0.41
24:BA:2874:C:O2	24:BA:2874:C:C2'	2.68	0.41
44:DV:70:LEU:HB2	44:DV:91:LEU:HD21	2.01	0.41
10:CM:84:GLN:HG3	10:CM:84:GLN:H	1.50	0.41
10:CM:45:ARG:HH11	10:CM:45:ARG:HG3	1.86	0.41
1:CA:1254:C:OP1	10:CM:45:ARG:NE	2.53	0.41
22:AD:26:G:C2	22:AD:45:G:N2	2.89	0.41
1:CA:1408:A:H2'	1:CA:1409:C:H6	1.85	0.41
54:DA:1131:G:HO2'	54:DA:1132:A:H8	1.67	0.41
54:DA:1805:U:O2	26:DD:50:THR:HB	2.20	0.41
24:BA:270(Z):U:O2'	24:BA:271(A):C:C5	2.73	0.41
54:DA:1152:C:O2'	54:DA:1153:C:H5'	2.19	0.41
44:BV:115:GLY:HA2	44:BV:176:PRO:HA	2.02	0.41
54:DA:1904:G:O2'	54:DA:1905:C:H5'	2.20	0.41
33:DN:92:GLU:O	33:DN:93:PRO:C	2.58	0.41
24:BA:1120:G:H2'	24:BA:1121:C:C6	2.56	0.41
1:CA:977:A:N3	1:CA:977:A:H2'	2.35	0.41
26:BD:268:ARG:HG2	26:BD:268:ARG:HH11	1.85	0.41
24:BA:2180:U:H2'	24:BA:2181:G:C8	2.55	0.41
24:BA:654(C):G:C4	24:BA:654(S):G:C2	3.08	0.41
24:BA:1825:A:H2'	24:BA:1826:G:C8	2.56	0.41
24:BA:1378:A:C2'	24:BA:1379:A:C5'	2.91	0.41
35:BP:82:ARG:O	35:BP:84:GLY:N	2.47	0.41
31:BK:100:ALA:O	31:BK:101:LEU:C	2.58	0.41
43:DU:95:LYS:H	43:DU:95:LYS:CD	2.33	0.41
1:AA:1323:G:O2'	1:AA:1324:A:H5'	2.20	0.41
1:AA:1363:A:H1'	1:AA:1365:G:C8	2.48	0.41
29:BG:143:GLU:CA	49:B4:31:ILE:HD13	2.50	0.41
49:B4:18:CYS:HB3	49:B4:36:CYS:HB2	1.33	0.41
29:BG:142:PRO:HG2	29:BG:143:GLU:OE1	2.21	0.41
29:BG:121:ASN:HB2	29:BG:181:ARG:NH2	2.35	0.41
54:DA:1084:A:N3	54:DA:1085:A:N7	2.67	0.41
44:DV:157:LEU:O	44:DV:158:PRO:O	2.37	0.41
24:BA:2745:C:H4'	30:BH:142:GLY:O	2.20	0.41
30:BH:22:GLY:HA2	30:BH:37:VAL:CG2	2.51	0.41
24:BA:1373:A:H2'	24:BA:1374:G:O4'	2.20	0.41
43:BU:20:TYR:N	43:BU:20:TYR:CD1	2.89	0.41
43:BU:81:LYS:CD	43:BU:97:ARG:CZ	2.98	0.41
14:CQ:18:VAL:CG2	14:CQ:19:ARG:N	2.82	0.41
2:CE:155:LEU:C	2:CE:157:ARG:H	2.23	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CF:113:ALA:HB3	3:CF:114:PRO:CD	2.43	0.41
3:CF:46:GLU:C	3:CF:48:TYR:H	2.23	0.41
24:BA:1344:G:C5'	24:BA:1384:A:H62	2.33	0.41
28:BF:32:LEU:C	28:BF:32:LEU:HD23	2.40	0.41
2:AE:39:ILE:O	2:AE:41:ILE:HD12	2.21	0.41
54:DA:260:G:H1'	54:DA:621:A:H8	1.85	0.41
1:CA:1503:A:O2'	1:CA:1504:G:O5'	2.38	0.41
22:CD:34:C:N4	23:C1:14:A:N6	2.60	0.41
54:DA:1176:G:O2'	54:DA:1178:C:H5	2.04	0.41
54:DA:2612:C:C5	54:DA:2613:U:H5	2.38	0.41
27:BE:68:ALA:HA	27:BE:71:GLY:HA3	2.03	0.41
32:BM:112:LEU:O	32:BM:115:ARG:N	2.53	0.41
40:B2:87:HIS:O	40:B2:87:HIS:CG	2.74	0.41
4:AG:21:LEU:N	4:AG:21:LEU:CD1	2.73	0.41
53:B8:36:LYS:HG2	53:B8:36:LYS:H	1.57	0.41
39:D1:83:LEU:HG	39:D1:88:ILE:HG13	2.02	0.41
39:D1:92:ARG:O	39:D1:92:ARG:CG	2.54	0.41
39:D1:92:ARG:NH2	40:D2:11:GLN:O	2.53	0.41
37:DQ:83:LYS:HE3	37:DQ:84:GLN:CG	2.49	0.41
1:AA:8:A:N7	4:AG:208:SER:O	2.54	0.41
32:DM:21:LYS:O	32:DM:22:THR:O	2.39	0.41
28:BF:125:LEU:HD23	28:BF:125:LEU:N	2.09	0.41
24:BA:232:G:HO2'	24:BA:233:A:H5'	1.85	0.41
54:DA:1530:G:C6	54:DA:1531:C:C4	3.09	0.41
54:DA:1534:G:C8	54:DA:1534:G:C5'	3.04	0.41
18:AU:58:LEU:HD21	18:AU:66:LEU:HD22	2.01	0.41
18:AU:62:GLU:C	18:AU:64:ARG:N	2.72	0.41
24:BA:2469:A:H1'	24:BA:2482:G:C6	2.56	0.41
10:CM:40:LEU:HB3	10:CM:41:PRO:HD2	2.02	0.41
7:AJ:36:LYS:HA	7:AJ:39:ALA:CB	2.51	0.41
31:DK:56:LYS:NZ	31:DK:60:GLU:HB2	2.36	0.41
49:D4:38:LYS:HG3	49:D4:44:THR:OG1	2.20	0.41
15:AR:60:VAL:O	15:AR:64:ARG:HB2	2.20	0.41
42:DT:57:LEU:H	42:DT:57:LEU:HD12	1.85	0.41
53:B8:14:VAL:CG1	53:B8:22:VAL:HG13	2.50	0.41
17:AT:5:VAL:HG22	17:AT:60:ILE:HG13	2.03	0.41
26:DD:239:ARG:O	26:DD:240:ALA:CB	2.62	0.41
1:AA:404:U:H2'	1:AA:405:U:C6	2.56	0.41
1:AA:439:A:C4	1:AA:496:A:C2	3.09	0.41
1:AA:1205:U:O2'	1:AA:1206:G:H5'	2.21	0.41
20:AW:27:LYS:O	20:AW:30:LYS:HB2	2.20	0.41
2:AE:74:LYS:HB3	2:AE:75:LYS:H	1.57	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1464:C:O2'	24:BA:1528:A:C8	2.45	0.41
29:DG:60:LEU:HD23	29:DG:60:LEU:C	2.41	0.41
24:BA:1022:G:N2	24:BA:1142(A):A:H2	2.18	0.41
40:D2:16:PRO:HB3	40:D2:97:LYS:O	2.20	0.41
24:BA:2169:A:N3	24:BA:2169:A:H2'	2.36	0.41
9:CL:118:LYS:HB3	9:CL:118:LYS:NZ	2.34	0.41
54:DA:1288:U:H2'	54:DA:1327:C:O2	2.20	0.41
40:D2:81:TYR:C	40:D2:82:ARG:CG	2.89	0.41
14:AQ:14:PRO:O	14:AQ:15:LYS:O	2.38	0.41
13:CP:12:ASN:HD22	13:CP:12:ASN:N	2.18	0.41
1:AA:1000:A:C3'	1:AA:1001:G:H5''	2.40	0.41
1:AA:736:C:C2	1:AA:737:A:N7	2.88	0.41
1:CA:448:A:C2	1:CA:449:C:O2	2.73	0.41
1:AA:1240:U:OP2	7:AJ:116:ALA:CB	2.69	0.41
1:CA:812:C:OP1	1:CA:903:G:H1'	2.20	0.41
27:BE:202:LYS:N	27:BE:202:LYS:HD3	2.35	0.41
1:AA:1288:A:O2'	1:AA:1289:A:H5'	2.21	0.41
24:BA:2681:C:N3	24:BA:2724:C:C5	2.89	0.41
27:DE:35:GLN:HG3	27:DE:37:ARG:NH2	2.35	0.41
32:BM:128:HIS:HB2	32:BM:129:PRO:HD2	2.02	0.41
1:CA:891:U:C2'	1:CA:892:A:H5'	2.50	0.41
9:AL:79:LEU:O	9:AL:79:LEU:HD13	2.20	0.41
31:DK:93:THR:O	31:DK:97:ILE:HG12	2.21	0.41
3:CF:128:PHE:O	3:CF:130:VAL:N	2.54	0.41
1:CA:321:A:H2'	1:CA:322:C:C5	2.55	0.41
54:DA:2156:G:N1	54:DA:2157:G:N2	2.68	0.41
6:AI:25:ILE:HG21	6:AI:82:ARG:HD2	2.02	0.41
9:CL:49:PRO:O	9:CL:85:LEU:HD21	2.20	0.41
24:BA:2012:G:H5''	41:BS:96:ILE:HD11	2.02	0.41
1:CA:474:G:H2'	1:CA:475:G:H8	1.85	0.41
7:AJ:50:ILE:O	7:AJ:52:GLU:N	2.53	0.41
40:B2:41:GLY:N	40:B2:46:VAL:CG1	2.81	0.41
1:AA:965:A:H5''	1:AA:966:G:OP1	2.20	0.41
54:DA:612:G:C4	54:DA:613:U:O2	2.73	0.41
54:DA:614:U:O2'	54:DA:615:G:OP1	2.36	0.41
36:D0:85:PRO:C	36:D0:87:TYR:N	2.73	0.41
24:BA:673:C:H2'	24:BA:674:G:H5'	2.01	0.41
1:CA:653:A:H1'	8:CK:56:LYS:HD3	2.02	0.41
5:AH:11:ILE:HB	5:AH:31:LEU:HD22	2.01	0.41
47:BW:5:GLU:H	47:BW:5:GLU:CD	2.24	0.41
4:CG:198:VAL:CG1	4:CG:199:ASN:H	2.32	0.41
27:DE:18:ASP:O	27:DE:19:ARG:C	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:848:C:O2'	1:CA:849:C:H5'	2.20	0.41
17:AT:52:LYS:N	17:AT:52:LYS:HD2	2.32	0.41
33:DN:71:ARG:HH11	38:DR:74:ARG:HH21	1.65	0.41
54:DA:526:A:O2'	54:DA:2043:C:O2	2.36	0.41
18:CU:64:ARG:O	18:CU:65:ILE:C	2.58	0.41
3:CF:88:ARG:NH2	3:CF:101:LEU:O	2.53	0.41
24:BA:415:A:H2'	24:BA:416:C:H6	1.86	0.41
24:BA:1934:C:H2'	24:BA:1935:G:O4'	2.20	0.41
16:AS:42:ARG:O	16:AS:43:LYS:C	2.58	0.41
24:BA:2037:G:H2'	24:BA:2038:G:H8	1.81	0.41
16:CS:9:PHE:HB3	16:CS:10:GLY:H	1.64	0.41
48:DX:39:ASP:O	48:DX:40:THR:C	2.59	0.41
24:BA:1937:A:H2'	24:BA:1939:U:OP2	2.20	0.41
1:CA:937:A:C2	1:CA:1379:G:O6	2.74	0.41
5:CH:68:GLU:O	5:CH:68:GLU:CG	2.68	0.41
42:DT:7:VAL:O	42:DT:30:VAL:CG1	2.67	0.41
15:AR:81:LEU:CD1	15:AR:85:LEU:HD12	2.49	0.41
39:B1:83:LEU:HG	39:B1:88:ILE:HD11	2.03	0.41
24:BA:2259:G:H2'	24:BA:2260:C:H6	1.84	0.41
26:DD:158:ALA:O	26:DD:196:VAL:HG11	2.21	0.41
1:CA:524:G:C6	1:CA:525:C:N4	2.88	0.41
33:BN:26:LYS:HB3	33:BN:27:GLY:H	1.72	0.41
10:AM:19:SER:C	10:AM:21:GLN:H	2.24	0.41
40:D2:21:ARG:HD2	40:D2:91:TYR:CE2	2.55	0.41
24:BA:1261:C:H2'	24:BA:1262:A:O5'	2.21	0.41
1:AA:408:A:C4	1:AA:409:G:C8	3.08	0.41
54:DA:1914:C:H2'	54:DA:1915:U:O4'	2.20	0.41
24:BA:659:C:H6	24:BA:659:C:H5''	1.85	0.41
1:CA:186(E):C:H2'	1:CA:186(F):C:C6	2.54	0.41
1:CA:1425:U:H2'	1:CA:1426:C:H6	1.86	0.41
1:CA:20:U:H2'	1:CA:21:G:O4'	2.20	0.41
54:DA:2080:G:H2'	54:DA:2081:C:C6	2.55	0.41
1:AA:1483:A:H2	24:BA:1959:G:N3	2.18	0.41
28:DF:59:TYR:HB3	28:DF:60:SER:H	1.70	0.41
1:AA:308:C:H2'	1:AA:309:G:H8	1.85	0.41
54:DA:273(A):G:H2'	54:DA:273(B):C:O4'	2.20	0.41
24:BA:959:A:O2'	24:BA:960:A:H5'	2.21	0.41
5:CH:26:PHE:CD1	5:CH:26:PHE:N	2.87	0.41
47:DW:61:LEU:HD23	47:DW:61:LEU:HA	1.85	0.41
26:DD:215:LEU:HG	26:DD:215:LEU:H	1.59	0.41
24:BA:2407:G:O5'	24:BA:2407:G:C8	2.73	0.41
32:BM:19:GLU:HB3	32:BM:59:LYS:HE3	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BG:102:PHE:O	29:BG:104:GLU:N	2.54	0.41
29:BG:96:ARG:NH1	29:BG:96:ARG:HG2	2.35	0.41
54:DA:270(T):G:O2'	54:DA:270(U):C:H5'	2.21	0.41
1:AA:949:A:H2'	1:AA:950:U:O4'	2.21	0.41
29:BG:135:LEU:O	29:BG:136:ARG:O	2.38	0.41
54:DA:2637:U:O2'	54:DA:2638:G:H5'	2.20	0.41
30:BH:135:GLY:C	30:BH:136:ILE:HD12	2.40	0.41
30:DH:86:GLU:HG3	30:DH:165:ALA:CA	2.49	0.41
34:BO:109:GLY:O	34:BO:110:TYR:O	2.38	0.41
27:DE:54:GLN:N	27:DE:54:GLN:CD	2.73	0.41
1:CA:1199:U:H4'	10:CM:54:PHE:CE2	2.55	0.41
3:CF:113:ALA:C	3:CF:115:LEU:N	2.72	0.41
1:CA:1446:A:O2'	1:CA:1447:G:O5'	2.36	0.41
54:DA:1265:A:O2'	54:DA:1266:G:O4'	2.39	0.41
51:D6:24:GLU:HB3	51:D6:25:LYS:H	1.56	0.41
24:BA:1612:C:H4'	52:B7:5:TRP:O	2.21	0.41
24:BA:2287:A:N3	24:BA:2289:G:C8	2.89	0.41
24:BA:2344:U:H4'	24:BA:2345:G:O5'	2.20	0.41
1:CA:1284:C:H2'	1:CA:1285:A:N7	2.35	0.41
4:AG:18:LYS:CD	4:AG:32:ALA:HB3	2.51	0.41
39:D1:97:ASP:HA	39:D1:100:VAL:HG23	2.01	0.41
1:CA:66:G:O4'	1:CA:173:U:C4	2.74	0.41
35:DP:27:VAL:HG22	35:DP:105:GLU:CD	2.41	0.41
35:DP:118:LEU:HD13	35:DP:131:ILE:HG23	2.02	0.41
54:DA:911:A:H2'	35:DP:9:TYR:OH	2.20	0.41
37:BQ:84:GLN:HA	37:BQ:109:GLY:HA3	2.02	0.41
32:DM:28:THR:O	32:DM:29:LYS:C	2.59	0.41
43:BU:43:ASN:ND2	43:BU:43:ASN:N	2.66	0.41
49:B4:4:GLY:O	49:B4:5:ILE:HG22	2.20	0.41
41:BS:14:PRO:CB	41:BS:18:ARG:NH2	2.84	0.41
40:B2:62:LEU:CD2	40:B2:95:LEU:HB2	2.51	0.41
15:AR:39:LEU:HD11	15:AR:56:LEU:HB2	2.03	0.41
12:CO:90:VAL:HG12	12:CO:92:ASP:H	1.85	0.41
27:DE:9:VAL:HB	27:DE:10:GLY:H	1.70	0.41
26:BD:44:ASN:ND2	26:BD:49:ILE:HG22	2.35	0.41
1:AA:814:A:H4'	1:AA:1511:G:H5'	2.02	0.41
29:BG:38:VAL:HG22	29:BG:39:ILE:N	2.35	0.41
24:BA:2459:A:C2	24:BA:2460:U:H1'	2.55	0.41
24:BA:2849:U:C2'	24:BA:2850:A:OP2	2.68	0.41
38:BR:119:LYS:C	38:BR:121:ILE:N	2.74	0.41
54:DA:554:U:O2'	54:DA:556:G:C8	2.68	0.41
35:BP:89:ASN:HB2	35:BP:90:VAL:H	1.66	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AH:50:GLU:HB3	5:AH:53:LEU:HD12	2.01	0.41
54:DA:2171:A:C2	54:DA:2172:U:N3	2.88	0.41
19:CV:13:ASP:O	19:CV:14:HIS:O	2.39	0.41
5:AH:57:LYS:HE2	5:AH:61:TYR:CE2	2.47	0.41
1:CA:1346:A:C4	7:CJ:10:ARG:NH1	2.88	0.41
9:CL:118:LYS:HZ2	9:CL:118:LYS:CB	2.34	0.41
46:BZ:87:PRO:C	46:BZ:90:ILE:HG22	2.40	0.41
1:CA:1297:C:O2'	1:CA:1298:C:O5'	2.37	0.41
28:BF:195:ASP:O	28:BF:198:ALA:N	2.52	0.41
54:DA:363(F):A:H1'	54:DA:364:C:H5	1.85	0.41
38:BR:50:ILE:N	38:BR:50:ILE:HD12	2.36	0.41
1:CA:485:G:C2'	1:CA:486:U:OP2	2.68	0.41
54:DA:685:A:OP1	52:D7:11:LYS:NZ	2.39	0.41
1:AA:1298:C:C6	7:AJ:114:ARG:NH1	2.88	0.41
27:DE:24:THR:HB	27:DE:184:VAL:HG23	2.02	0.41
36:D0:55:ALA:HA	36:D0:80:PHE:CE2	2.55	0.41
32:DM:114:ARG:C	32:DM:116:LEU:N	2.74	0.41
1:AA:1253:G:N1	1:AA:1285:A:N6	2.68	0.41
1:CA:658:G:C2'	1:CA:659:U:H5'	2.51	0.41
44:DV:29:TYR:O	44:DV:30:ASN:HB3	2.21	0.41
24:BA:1537:C:O5'	24:BA:1537:C:H6	2.03	0.41
32:BM:97:ARG:HA	32:BM:97:ARG:HD3	1.94	0.41
24:BA:1604:C:HO2'	24:BA:1610:A:N6	2.19	0.41
48:DX:37:LEU:HD12	48:DX:43:ILE:CG2	2.50	0.41
1:AA:1237:C:C4'	1:AA:1334:G:H21	2.33	0.41
1:CA:436:C:O2'	1:CA:437:U:H5'	2.20	0.41
9:CL:43:ALA:C	9:CL:45:ALA:N	2.73	0.41
51:B6:29:ASN:HA	51:B6:32:ASN:OD1	2.20	0.41
27:BE:203:LYS:HD3	27:BE:204:ALA:HB3	2.02	0.41
1:AA:585:G:H4'	12:AO:8:ASN:ND2	2.35	0.41
24:BA:1821:A:OP1	26:BD:201:HIS:HD2	2.04	0.41
7:AJ:35:LYS:C	7:AJ:37:ASN:N	2.74	0.41
54:DA:605:C:H1'	54:DA:657:U:O2'	2.21	0.41
1:AA:1058:G:H2'	1:AA:1059:C:C6	2.54	0.41
1:CA:652:U:O4	1:CA:752:G:C2'	2.65	0.41
34:BO:14:LYS:HD2	34:BO:14:LYS:O	2.20	0.41
1:AA:1190:G:OP2	3:AF:5:ILE:CG2	2.69	0.41
27:BE:188:VAL:HA	27:BE:189:PRO:HD2	1.75	0.41
41:DS:29:LEU:HD23	41:DS:29:LEU:C	2.41	0.41
28:DF:64:ILE:HG23	28:DF:65:TRP:CD1	2.54	0.41
24:BA:319:C:H2'	24:BA:320:A:O4'	2.21	0.41
15:AR:24:SER:HB3	15:AR:27:VAL:HB	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:117:VAL:HG22	26:DD:118:VAL:N	2.35	0.41
37:BQ:52:SER:HB2	37:BQ:55:ALA:HB2	2.02	0.41
54:DA:1786:A:N1	54:DA:2606:C:C1'	2.84	0.41
25:BB:16:G:C2	25:BB:17:C:C2	3.09	0.41
38:BR:81:PRO:HD2	38:BR:82:LEU:HD12	2.01	0.41
11:CN:21:ILE:HD13	11:CN:84:VAL:HG12	2.02	0.41
1:AA:599:C:O2'	1:AA:600:C:H5'	2.20	0.41
54:DA:2776:A:O2'	54:DA:2777:G:OP2	2.31	0.41
55:DB:56:G:H5''	55:DB:57:A:OP1	2.20	0.41
24:BA:1177:A:HO2'	24:BA:1178:C:H5	1.64	0.41
54:DA:469:G:H2'	54:DA:470:A:H5''	2.02	0.41
41:DS:25:ARG:CB	41:DS:25:ARG:NH1	2.79	0.41
34:BO:140:ALA:O	34:BO:141:ALA:HB2	2.21	0.41
2:CE:130:ARG:HH22	2:CE:138:LEU:HD21	1.85	0.41
12:CO:8:ASN:O	12:CO:11:VAL:HG23	2.20	0.41
35:BP:103:MET:C	35:BP:104:PHE:HD1	2.23	0.41
2:AE:10:LEU:HD13	2:AE:10:LEU:C	2.40	0.41
49:D4:4:GLY:O	49:D4:5:ILE:C	2.59	0.41
7:CJ:17:VAL:HG12	7:CJ:18:TYR:CD1	2.55	0.41
24:BA:1695:G:N2	24:BA:1696:G:C8	2.88	0.41
8:AK:114:THR:C	8:AK:116:LYS:H	2.23	0.41
1:CA:1206:G:H4'	3:CF:192:THR:O	2.20	0.41
1:CA:1405:G:H1'	1:CA:1519:A:O4'	2.20	0.41
27:BE:101:ARG:CZ	27:BE:171:GLU:HB3	2.50	0.41
4:AG:14:ARG:HG3	4:AG:14:ARG:NH1	2.34	0.41
1:CA:740:U:O2'	1:CA:741:G:H5'	2.19	0.41
1:CA:35:G:N2	12:CO:118:SER:OG	2.52	0.41
13:CP:110:ARG:HG3	13:CP:110:ARG:O	2.20	0.41
18:CU:20:ALA:C	18:CU:21:LYS:HG3	2.41	0.41
24:BA:540:G:H2'	24:BA:541:C:C6	2.55	0.41
4:CG:111:ALA:HB3	4:CG:117:ALA:HB2	2.02	0.41
1:CA:575:G:H4'	1:CA:576:G:O5'	2.21	0.41
43:BU:102:CYS:HB3	43:BU:103:GLY:H	1.43	0.41
37:DQ:51:ALA:HB3	37:DQ:73:LEU:HD23	2.01	0.41
26:DD:269:PHE:CD2	26:DD:269:PHE:N	2.88	0.41
33:BN:8:LEU:N	33:BN:8:LEU:CD2	2.84	0.41
18:CU:76:LEU:HD22	18:CU:76:LEU:N	2.35	0.41
4:AG:73:ARG:HD2	4:AG:73:ARG:HA	1.64	0.41
28:BF:119:ARG:HH11	28:BF:119:ARG:HG2	1.84	0.41
19:AV:80:TYR:O	19:AV:81:ARG:CB	2.68	0.41
24:BA:2817:G:P	36:B0:99:LYS:HZ1	2.44	0.41
30:DH:146:ALA:HB2	30:DH:164:TYR:OH	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1378:A:C2'	54:DA:1379:A:C5'	2.84	0.41
25:BB:49:C:OP1	37:BQ:97:ARG:CG	2.68	0.41
46:DZ:86:SER:O	46:DZ:89:GLU:HB2	2.21	0.41
31:BK:143:SER:O	31:BK:144:VAL:CG2	2.62	0.41
1:AA:1307:U:H6	1:AA:1307:U:O5'	2.03	0.41
49:B4:63:TYR:OH	49:B4:69:LYS:HE3	2.21	0.41
29:BG:114:ILE:HD11	29:BG:140:ILE:HG21	2.02	0.41
9:AL:5:TYR:HB3	9:AL:6:GLY:H	1.55	0.41
24:BA:1242:A:N1	34:BO:4:SER:HB2	2.35	0.41
36:B0:37:THR:O	36:B0:38:VAL:C	2.59	0.41
34:BO:79:ARG:CZ	34:BO:109:GLY:HA3	2.51	0.41
39:B1:92:ARG:HG2	39:B1:92:ARG:NH1	2.35	0.41
54:DA:1033:U:N3	54:DA:2750:A:C2	2.88	0.41
14:CQ:22:THR:HB	14:CQ:33:VAL:CG1	2.50	0.41
1:CA:974:A:H1'	14:CQ:31:ARG:HE	1.86	0.41
19:CV:7:LYS:CG	19:CV:8:GLY:N	2.83	0.41
49:D4:61:ARG:C	49:D4:63:TYR:N	2.73	0.41
41:DS:14:PRO:C	41:DS:18:ARG:HD2	2.41	0.41
3:AF:112:SER:O	3:AF:115:LEU:HB2	2.19	0.41
2:AE:33:TYR:CD1	2:AE:33:TYR:C	2.94	0.41
54:DA:1181:C:H5'	54:DA:1181:C:C6	2.38	0.41
24:BA:9:U:OP1	32:BM:115:ARG:NH1	2.48	0.41
27:BE:63:LEU:HD23	27:BE:64:LYS:O	2.21	0.41
1:AA:582:U:C2	1:AA:760:G:C6	3.08	0.41
15:AR:62:GLN:O	15:AR:63:ARG:C	2.58	0.41
33:DN:48:PRO:O	33:DN:50:GLY:N	2.54	0.41
54:DA:803:U:C3'	54:DA:803:U:C6	3.03	0.41
44:DV:79:ARG:C	44:DV:81:ARG:H	2.24	0.41
24:BA:2443:C:H2'	24:BA:2444:G:C8	2.49	0.41
1:AA:1119:C:H2'	1:AA:1120:G:H8	1.85	0.41
4:CG:25:ARG:C	4:CG:27:TYR:H	2.24	0.41
54:DA:877:U:O4	54:DA:899:A:N1	2.53	0.41
12:AO:124:LYS:HG3	12:AO:125:PRO:CG	2.51	0.41
16:CS:20:VAL:CG2	16:CS:32:TYR:CD2	3.04	0.41
55:DB:81:G:N7	55:DB:96:G:N3	2.69	0.41
1:AA:1500:A:OP2	1:AA:1505:G:OP1	2.37	0.41
1:AA:92:G:C6	1:AA:93:U:C4	3.09	0.41
42:BT:49:VAL:HB	42:BT:83:VAL:HG23	2.01	0.41
20:CW:48:LYS:O	20:CW:49:ALA:C	2.59	0.41
41:BS:36:LEU:CD1	41:BS:48:ALA:HA	2.36	0.41
26:BD:11:PRO:C	26:BD:13:ARG:H	2.23	0.41
1:CA:451:A:C2	1:CA:480:U:C2	3.08	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BR:95:ARG:HG3	38:BR:95:ARG:NH1	2.33	0.41
29:DG:44:GLY:C	29:DG:46:ALA:N	2.73	0.41
8:CK:105:ARG:O	8:CK:107:LEU:N	2.47	0.41
31:DK:72:LEU:C	31:DK:74:ASN:H	2.24	0.41
1:CA:281:G:H8	1:CA:281:G:OP2	2.04	0.41
4:AG:120:LEU:CB	4:AG:126:ILE:HD11	2.37	0.41
7:AJ:30:ILE:HD12	7:AJ:120:ILE:HD11	2.02	0.41
2:CE:115:LEU:O	2:CE:119:GLU:N	2.54	0.41
24:BA:1139:G:HO2'	24:BA:1143:A:H62	1.61	0.41
8:AK:83:ILE:HB	8:AK:137:VAL:CG1	2.40	0.41
54:DA:2520:C:C6	54:DA:2567:G:H1'	2.55	0.41
38:BR:96:ARG:HB2	38:BR:96:ARG:CZ	2.50	0.41
25:BB:95:U:C4	25:BB:96:G:N7	2.88	0.41
42:DT:60:ARG:HA	42:DT:75:ASP:OD2	2.20	0.41
38:BR:57:PHE:CG	38:BR:58:ASN:N	2.88	0.41
1:CA:827:U:C5	1:CA:870:U:C4	3.09	0.41
31:DK:117:GLU:O	31:DK:118:LYS:CB	2.67	0.41
14:CQ:40:CYS:N	14:CQ:43:CYS:SG	2.87	0.41
24:BA:1324:G:H3'	24:BA:1325:G:C5'	2.49	0.41
3:CF:59:ARG:HH12	3:CF:97:LYS:CE	2.33	0.41
41:DS:73:ALA:HB3	41:DS:106:ILE:CG1	2.46	0.41
17:CT:22:LEU:HD13	17:CT:41:LYS:HG2	2.01	0.41
24:BA:1431:U:H2'	24:BA:1432:C:C6	2.55	0.41
1:CA:538:G:OP2	12:CO:115:LYS:HG3	2.21	0.41
24:BA:862:G:H3'	24:BA:863:A:H8	1.85	0.41
28:DF:129:PHE:O	28:DF:142:TRP:HD1	2.03	0.41
27:BE:203:LYS:HE2	27:BE:204:ALA:HB3	2.01	0.41
6:AI:45:LEU:HD11	6:AI:57:GLN:CD	2.41	0.41
6:AI:47:ARG:NH1	6:AI:47:ARG:CB	2.80	0.41
13:AP:35:GLU:CG	13:AP:36:LYS:N	2.79	0.41
54:DA:614:U:C2'	54:DA:615:G:OP1	2.67	0.41
28:DF:176:LEU:HD11	28:DF:180:GLY:O	2.19	0.41
5:AH:13:ILE:HD13	5:AH:13:ILE:H	1.86	0.41
1:CA:642:A:H2'	1:CA:643:C:C6	2.56	0.41
8:CK:33:GLU:O	8:CK:36:LEU:N	2.53	0.41
1:CA:498:A:H2	1:CA:500:G:N3	2.18	0.41
16:AS:20:VAL:CG2	16:AS:21:VAL:N	2.82	0.41
7:CJ:101:LEU:O	7:CJ:104:LEU:HB2	2.21	0.41
14:CQ:34:TYR:CD1	14:CQ:34:TYR:N	2.89	0.41
6:AI:62:TRP:CE2	18:AU:35:ARG:NH2	2.88	0.41
54:DA:1701:A:H2'	54:DA:1702:G:H5'	2.03	0.41
1:AA:109:A:H2'	1:AA:326:G:N2	2.29	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2075:U:H2'	24:BA:2238:G:N2	2.35	0.41
54:DA:2688:U:O2	54:DA:2719:G:C2	2.74	0.41
1:CA:777:A:H2'	1:CA:778:G:H8	1.85	0.41
11:CN:20:TYR:N	11:CN:31:THR:O	2.54	0.41
11:CN:92:GLU:O	11:CN:95:ILE:N	2.54	0.41
1:CA:627:G:H2'	1:CA:628:G:C8	2.54	0.41
1:AA:9:G:OP1	5:AH:122:GLU:HB2	2.21	0.41
24:BA:385:C:O2	24:BA:390:A:H2	2.03	0.41
32:BM:137:LYS:NZ	32:BM:138:LEU:HD23	2.36	0.41
1:AA:246:A:O2'	1:AA:247:G:O4'	2.31	0.41
3:CF:108:ASN:CG	3:CF:111:LEU:HG	2.41	0.41
24:BA:1773:A:H2'	24:BA:1774:C:H5'	2.02	0.41
1:CA:50:A:N6	1:CA:361:G:C4'	2.83	0.41
54:DA:363(A):A:H2'	54:DA:363(B):G:H8	1.86	0.41
54:DA:1385:G:C5'	54:DA:1386:C:OP1	2.68	0.41
54:DA:977:G:C6	54:DA:987:G:C6	3.08	0.41
7:CJ:122:HIS:CD2	7:CJ:122:HIS:N	2.87	0.41
1:AA:30:U:O2'	1:AA:31:G:OP1	2.36	0.41
54:DA:218:A:H2	54:DA:235:U:H4'	1.86	0.41
54:DA:2486:G:H2'	54:DA:2487:G:O5'	2.21	0.41
45:B3:7:LEU:HB3	45:B3:8:GLY:H	1.67	0.41
11:AN:54:ARG:HH11	11:AN:54:ARG:CG	2.33	0.41
20:CW:10:LEU:O	20:CW:12:ALA:N	2.53	0.41
54:DA:2725:A:O2'	54:DA:2726:U:O5'	2.38	0.41
54:DA:540:G:H3'	54:DA:541:C:H6	1.85	0.41
54:DA:270(F):U:H2'	54:DA:270(G):C:H6	1.84	0.41
1:CA:877:C:H5''	8:CK:88:LYS:HD3	2.02	0.41
2:CE:231:GLU:HG3	2:CE:233:SER:H	1.86	0.41
33:BN:71:ARG:O	33:BN:73:ASP:N	2.54	0.41
26:BD:14:ARG:HG2	26:BD:15:PHE:CD2	2.55	0.41
10:CM:45:ARG:HB2	10:CM:65:LEU:HB3	2.03	0.41
54:DA:2539:C:O2'	54:DA:2540:C:H5'	2.21	0.41
54:DA:2228:G:C5	54:DA:2229:C:C4	3.08	0.41
24:BA:1292:U:H2'	24:BA:1293:C:H6	1.86	0.41
24:BA:1230:C:H2'	24:BA:1231:G:C8	2.56	0.41
22:CC:47:U:HO2'	22:CC:48:C:P	2.43	0.41
44:BV:18:LEU:HD12	44:BV:18:LEU:N	2.35	0.41
1:CA:986:A:H1'	19:CV:54:GLY:O	2.21	0.41
54:DA:2716:U:O2'	54:DA:2717:G:H5'	2.21	0.41
1:CA:584:G:H8	1:CA:584:G:O5'	2.02	0.41
27:BE:79:ARG:NH1	27:BE:79:ARG:HG3	2.35	0.41
35:DP:45:GLN:H	35:DP:45:GLN:HE21	1.69	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:246:PRO:CD	26:BD:255:LYS:HD3	2.50	0.41
31:BK:86:THR:CG2	31:BK:122:GLU:HG3	2.51	0.41
31:BK:125:GLU:HG3	31:BK:125:GLU:O	2.21	0.41
34:BO:62:LEU:O	53:B8:13:ARG:HB3	2.21	0.41
3:AF:181:ASN:ND2	3:AF:204:LEU:CB	2.84	0.41
10:AM:48:THR:CG2	10:AM:60:ARG:HD2	2.50	0.41
13:AP:46:LYS:O	13:AP:48:LEU:N	2.54	0.41
19:AV:11:VAL:CG2	19:AV:16:LEU:HD21	2.50	0.41
49:B4:36:CYS:O	49:B4:41:PRO:CG	2.69	0.41
1:AA:1128:C:H2'	1:AA:1130:A:N7	2.36	0.41
54:DA:1081:U:C2	54:DA:1082:U:O2'	2.73	0.41
54:DA:1080:A:C2'	54:DA:1081:U:O5'	2.69	0.41
54:DA:1105:U:O2'	54:DA:1106:G:H5'	2.19	0.41
24:BA:1047:G:H2'	24:BA:1110:G:N1	2.35	0.41
24:BA:1045:A:C2	24:BA:1047:G:N2	2.88	0.41
24:BA:1115:G:O2'	24:BA:1116:C:H5'	2.20	0.41
43:BU:98:VAL:O	43:BU:99:CYS:CB	2.66	0.41
34:BO:85:LEU:HA	34:BO:88:LEU:HB2	1.99	0.41
34:BO:85:LEU:CA	34:BO:88:LEU:HB3	2.45	0.41
1:CA:980:C:O2	14:CQ:19:ARG:O	2.39	0.41
2:CE:200:ILE:CG2	2:CE:201:ILE:N	2.83	0.41
42:BT:12:VAL:CG1	42:BT:27:THR:HG23	2.50	0.41
1:CA:1074:G:H4'	2:CE:104:ASN:HB2	2.02	0.41
41:DS:14:PRO:C	41:DS:16:LYS:N	2.73	0.41
2:AE:21:ARG:O	2:AE:22:LYS:C	2.59	0.41
2:AE:61:LEU:CD1	2:AE:66:GLY:HA3	2.49	0.41
1:AA:792:A:N3	1:AA:794:A:N7	2.69	0.41
1:AA:794:A:N3	1:AA:795:C:C4	2.88	0.41
22:AC:75:C:P	22:AC:76:A:H5'	2.61	0.41
27:BE:35:GLN:CB	27:BE:48:GLN:NE2	2.80	0.41
24:BA:2634:G:H4'	27:BE:77:ILE:HD13	2.01	0.41
1:CA:96:G:C8	1:CA:96:G:H5'	2.48	0.41
51:B6:10:LEU:CA	51:B6:24:GLU:OE1	2.62	0.41
40:D2:38:LEU:O	40:D2:51:VAL:HA	2.21	0.41
33:DN:47:ILE:HD12	33:DN:48:PRO:CD	2.43	0.41
28:DF:68:LYS:HG2	28:DF:69:HIS:CE1	2.55	0.41
28:DF:68:LYS:O	28:DF:69:HIS:HB2	2.21	0.41
44:BV:9:TYR:O	44:BV:37:VAL:HA	2.20	0.41
35:DP:34:LEU:HD11	35:DP:129:THR:CB	2.35	0.41
53:B8:59:LYS:HE3	53:B8:59:LYS:HB2	1.81	0.41
24:BA:833:U:H5''	34:BO:48:PRO:HB2	2.02	0.41
32:DM:27:ALA:O	32:DM:28:THR:C	2.57	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BP:20:ALA:HA	35:BP:99:PRO:CG	2.33	0.41
24:BA:2481:G:O2'	24:BA:2482:G:O5'	2.35	0.41
1:AA:353:A:C5'	1:AA:353:A:C8	2.96	0.41
29:DG:95:ARG:CA	29:DG:99:MET:HB3	2.50	0.41
4:CG:93:PHE:CE1	4:CG:97:LEU:HD11	2.55	0.41
16:CS:22:THR:HB	16:CS:32:TYR:HB3	2.03	0.41
38:DR:43:GLN:CG	38:DR:44:ASP:N	2.77	0.41
20:CW:101:GLY:C	20:CW:103:GLY:N	2.73	0.41
20:CW:89:ARG:HH12	20:CW:106:ALA:CB	2.34	0.41
26:DD:240:ALA:HA	26:DD:241:PRO:HD2	1.85	0.41
24:BA:620:G:C4'	24:BA:621:A:OP1	2.69	0.41
24:BA:1729:A:O2'	24:BA:1730:U:C5'	2.69	0.41
54:DA:1800:C:P	26:DD:266:SER:HG	2.44	0.41
26:DD:145:VAL:O	26:DD:154:LYS:N	2.49	0.41
54:DA:301:G:C6	54:DA:317:G:C6	3.08	0.41
26:BD:270:ILE:C	26:BD:271:ILE:HG13	2.41	0.41
26:DD:182:LEU:N	26:DD:272:ALA:HB3	2.32	0.41
2:CE:95:GLN:HB3	2:CE:148:TYR:HD1	1.84	0.41
2:CE:95:GLN:O	2:CE:96:ARG:C	2.59	0.41
54:DA:2758:A:C5	30:DH:67:LEU:HD21	2.56	0.41
1:CA:1349:A:O2'	1:CA:1350:A:H5'	2.20	0.41
54:DA:1884:A:O2'	54:DA:1885:A:H5''	2.20	0.41
54:DA:1798:U:O2'	54:DA:1802:A:H1'	2.20	0.41
1:AA:1000:A:H2'	1:AA:1001:G:C4'	2.51	0.41
11:AN:108:ILE:HG22	18:AU:87:ARG:HB2	2.03	0.41
54:DA:2562:U:H2'	54:DA:2563:U:H5'	2.03	0.41
1:AA:1239:A:H4'	1:AA:1240:U:C5'	2.50	0.41
54:DA:1007:C:O2'	32:DM:108:PRO:HA	2.20	0.41
26:DD:134:ARG:H	26:DD:134:ARG:HG3	1.55	0.41
24:BA:889:C:O3'	24:BA:890:A:H4'	2.20	0.41
24:BA:2158:A:H5''	24:BA:2159:G:OP1	2.21	0.41
11:AN:38:ASN:HA	11:AN:39:PRO:HD3	1.83	0.41
36:B0:2:ARG:NH1	36:B0:3:HIS:CD2	2.89	0.41
24:BA:1171:G:O2'	24:BA:1173:G:C4	2.73	0.41
24:BA:1325:G:OP2	24:BA:1616:A:H2'	2.20	0.41
9:AL:112:LYS:C	9:AL:112:LYS:CD	2.88	0.41
6:AI:21:LEU:O	6:AI:24:GLU:HB3	2.21	0.41
4:CG:101:LEU:CD2	4:CG:121:VAL:HG11	2.50	0.41
24:BA:1429:G:H2'	24:BA:1430:C:H6	1.86	0.41
1:AA:1033:G:O2'	1:AA:1034:G:P	2.78	0.41
1:CA:1066:C:H42	1:CA:1191:A:H62	1.69	0.41
12:CO:117:ARG:HB3	12:CO:122:THR:HB	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:B0:107:ASP:OD2	36:B0:108:GLY:N	2.53	0.41
54:DA:1586:A:H5''	54:DA:1587:A:N7	2.36	0.41
1:AA:1279:A:N3	1:AA:1279:A:C2'	2.84	0.41
54:DA:71:A:H4'	54:DA:72:U:O5'	2.20	0.41
24:BA:2046:G:N3	24:BA:2047:U:C5	2.89	0.41
1:AA:674:G:H1'	18:AU:81:PHE:CE2	2.55	0.41
7:AJ:41:ARG:NH1	7:AJ:41:ARG:HG3	2.34	0.41
54:DA:639:U:H2'	54:DA:640:C:C6	2.55	0.41
47:DW:53:LEU:O	47:DW:57:ILE:HG13	2.21	0.41
2:AE:230:VAL:O	2:AE:231:GLU:O	2.39	0.41
24:BA:2267:A:H5''	24:BA:2268:A:H5''	2.00	0.41
1:AA:481:G:O2'	1:AA:483:C:N4	2.54	0.41
5:AH:114:GLY:O	5:AH:115:VAL:C	2.58	0.41
29:BG:161:THR:HG22	29:BG:163:ALA:H	1.85	0.41
53:D8:14:VAL:CG1	53:D8:60:LEU:HD11	2.51	0.41
1:CA:649:G:C6	1:CA:650:G:N7	2.89	0.41
1:CA:186:C:H2'	1:CA:186(A):C:C6	2.55	0.41
1:CA:641:U:C4'	1:CA:642:A:OP1	2.68	0.41
2:CE:62:ALA:O	2:CE:65:GLY:N	2.53	0.41
54:DA:2586:C:C5	54:DA:2608:G:N2	2.88	0.41
24:BA:226:G:O2'	24:BA:227:A:O5'	2.39	0.41
24:BA:2425:A:C4'	24:BA:2426:A:O5'	2.63	0.41
24:BA:319:C:C2'	24:BA:320:A:H5'	2.50	0.41
54:DA:546:C:H5'	54:DA:547:A:N7	2.35	0.41
42:BT:39:ILE:HG22	42:BT:39:ILE:O	2.20	0.41
54:DA:1262:A:C6	54:DA:1263:U:C4	3.08	0.41
17:CT:77:VAL:HG12	17:CT:77:VAL:O	2.20	0.41
18:CU:74:ARG:HG2	18:CU:79:LEU:HB2	2.02	0.41
12:CO:89:ARG:HB3	12:CO:97:ARG:HA	2.02	0.41
24:BA:2205:C:C2	24:BA:2206:C:C5	3.09	0.41
54:DA:459:U:OP1	52:D7:39:ARG:HA	2.20	0.41
1:CA:749:C:O2	1:CA:749:C:H2'	2.21	0.41
11:CN:56:GLY:O	11:CN:89:ALA:HB3	2.21	0.41
1:CA:1216:G:H5''	14:CQ:5:ALA:HB2	2.02	0.41
24:BA:1465:G:C2	24:BA:1466:G:N9	2.88	0.41
1:AA:596:C:C6	1:AA:596:C:H5'	2.56	0.41
24:BA:235:U:H2'	24:BA:236:C:H6	1.84	0.41
5:AH:141:GLN:O	5:AH:143:ARG:HG2	2.21	0.41
1:AA:512:U:H2'	1:AA:513:C:H6	1.85	0.41
5:CH:68:GLU:HG3	5:CH:70:PRO:HD3	2.03	0.41
4:AG:58:LEU:CD2	4:AG:58:LEU:C	2.89	0.41
39:D1:39:LEU:O	39:D1:42:ALA:N	2.53	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:552:U:H2'	1:CA:553:A:C8	2.55	0.41
54:DA:2136:C:H2'	54:DA:2137:C:C6	2.53	0.41
24:BA:1585:C:O2	24:BA:1585:C:C2'	2.68	0.41
36:D0:91:GLN:N	36:D0:91:GLN:NE2	2.69	0.41
24:BA:2692:C:O2'	24:BA:2693:A:H5'	2.21	0.41
1:CA:318:G:H2'	1:CA:319:G:C8	2.53	0.41
1:CA:525:C:H5''	12:CO:91:LYS:NZ	2.36	0.41
29:DG:51:ARG:NH1	29:DG:51:ARG:CB	2.83	0.41
1:CA:1187:G:H21	14:CQ:60:SER:CB	2.33	0.41
1:AA:1519:A:H2'	1:AA:1520:G:H5'	2.03	0.41
26:DD:197:GLY:O	26:DD:198:ASN:HB3	2.21	0.41
31:BK:31:LEU:N	31:BK:32:PRO:CD	2.84	0.41
37:DQ:66:ALA:HA	37:DQ:69:VAL:CG1	2.51	0.41
54:DA:828:U:H3'	54:DA:828:U:O2	2.21	0.41
1:AA:105:G:C5	1:AA:106:C:C5	3.09	0.41
1:AA:757:U:O2'	1:AA:758:G:H5'	2.21	0.41
54:DA:1338:G:N7	42:DT:62:LYS:NZ	2.59	0.41
27:BE:79:ARG:N	27:BE:79:ARG:HD2	2.35	0.41
5:AH:63:ARG:C	5:AH:65:ASN:H	2.24	0.41
24:BA:2488:A:H2'	24:BA:2489:G:O4'	2.20	0.41
53:D8:17:THR:O	53:D8:20:GLY:N	2.46	0.41
38:DR:28:VAL:HG23	38:DR:87:ASP:O	2.21	0.41
5:CH:6:PHE:HB2	5:CH:63:ARG:HH12	1.86	0.41
24:BA:1932:A:H2'	24:BA:1933:G:O4'	2.21	0.41
24:BA:1851:U:C2'	24:BA:1852:C:H5'	2.51	0.41
18:CU:84:LYS:HG2	18:CU:84:LYS:H	1.56	0.41
55:DB:58:A:H5'	55:DB:59:A:OP2	2.20	0.41
54:DA:856:C:H5''	54:DA:856:C:C6	2.56	0.41
54:DA:2246:G:O2'	54:DA:2247:A:H5'	2.20	0.41
24:BA:2759:G:H2'	24:BA:2760:C:C5'	2.49	0.41
31:BK:104:GLN:OE1	31:BK:105:HIS:NE2	2.54	0.41
1:AA:971:G:O6	1:AA:1364:U:O2	2.39	0.41
13:AP:66:LEU:C	13:AP:70:LEU:HD12	2.41	0.41
19:AV:36:ARG:CZ	19:AV:73:GLU:HG3	2.51	0.41
19:AV:47:HIS:O	19:AV:48:THR:CG2	2.68	0.41
21:AX:9:ARG:HG3	21:AX:10:ARG:N	2.35	0.41
31:DK:77:LEU:CD1	31:DK:140:LEU:HB2	2.49	0.41
44:DV:108:PRO:HB2	44:DV:112:ARG:CB	2.42	0.41
30:BH:136:ILE:HG22	30:BH:136:ILE:O	2.20	0.41
30:BH:40:GLU:HB3	30:BH:41:MET:HE3	2.03	0.41
30:BH:76:VAL:HG12	30:BH:77:LYS:N	2.36	0.41
43:DU:49:VAL:O	43:DU:50:ARG:C	2.59	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:B1:104:GLN:N	39:B1:104:GLN:NE2	2.54	0.41
1:CA:981:U:H2'	1:CA:982:U:C5	2.56	0.41
2:CE:204:ASN:C	2:CE:204:ASN:HD22	2.22	0.41
2:CE:212:GLN:O	2:CE:212:GLN:NE2	2.54	0.41
30:DH:145:ALA:O	30:DH:148:ILE:HB	2.21	0.41
41:DS:14:PRO:HG3	41:DS:101:SER:OG	2.21	0.41
3:AF:108:ASN:OD1	3:AF:110:ASN:HB2	2.20	0.41
3:AF:114:PRO:O	3:AF:117:ALA:HB3	2.20	0.41
3:AF:52:LEU:O	3:AF:52:LEU:HG	2.21	0.41
51:D6:8:LYS:O	51:D6:9:LEU:HB2	2.20	0.41
28:BF:65:TRP:CH2	28:BF:75:HIS:HD2	2.38	0.41
39:B1:45:TYR:O	39:B1:49:HIS:HB2	2.20	0.41
26:BD:21:PHE:HB3	26:BD:24:ILE:CG1	2.51	0.41
1:CA:1004:A:H2	1:CA:1024:G:C5	2.39	0.41
24:BA:1906:G:C6	24:BA:1907:G:N7	2.89	0.41
22:AD:46:G:H2'	22:AD:47:U:OP2	2.21	0.41
1:CA:1450:U:O2'	1:CA:1451:A:P	2.79	0.41
54:DA:2250:G:C4	35:DP:82:ARG:HG3	2.56	0.41
1:CA:91:C:C3'	1:CA:92:G:H5"	2.50	0.41
32:DM:62:VAL:CG1	32:DM:66:LYS:HB2	2.50	0.41
25:BB:42:C:H5"	29:BG:67:LYS:HE3	2.03	0.41
54:DA:1535:U:H2'	54:DA:1536:A:C8	2.50	0.41
10:AM:3:LYS:N	10:AM:74:ILE:O	2.53	0.41
7:CJ:80:VAL:CG1	7:CJ:81:GLY:N	2.83	0.41
1:AA:1177:G:C4	1:AA:1178:G:N2	2.89	0.41
53:D8:26:LYS:HA	53:D8:26:LYS:HD3	1.86	0.41
47:BW:37:PHE:O	47:BW:40:SER:HB3	2.20	0.41
1:AA:1502:A:H2	1:AA:1505:G:N2	2.18	0.41
54:DA:2287:A:N6	54:DA:2344:U:C2	2.89	0.41
29:BG:64:THR:HG1	29:BG:94:LEU:HD13	1.85	0.41
2:AE:73:THR:O	2:AE:74:LYS:O	2.39	0.41
5:CH:75:THR:CG2	5:CH:76:ILE:N	2.80	0.41
24:BA:270(L):U:O2	31:BK:50:ARG:HD2	2.21	0.41
31:BK:3:VAL:O	31:BK:18:VAL:HA	2.20	0.41
1:AA:1005:A:C5'	1:AA:1006:C:C5	3.03	0.41
24:BA:1022:G:H4'	24:BA:1023:U:H5'	2.02	0.41
35:DP:90:VAL:C	35:DP:92:GLY:N	2.71	0.41
44:DV:72:ARG:NH2	44:DV:97:GLU:O	2.54	0.41
13:CP:15:VAL:O	13:CP:19:LEU:HD22	2.21	0.41
54:DA:2656:U:O4	54:DA:2665:A:C6	2.73	0.41
54:DA:270(C):C:O5'	54:DA:270(C):C:H6	2.03	0.41
33:BN:98:VAL:HG13	33:BN:98:VAL:O	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:682:G:C6	1:AA:709:G:C6	3.08	0.41
22:CD:68:C:C2	22:CD:69:C:C5	3.08	0.41
24:BA:205:G:O2'	24:BA:206:U:P	2.79	0.41
25:BB:65:C:C2'	25:BB:66:A:H5'	2.51	0.41
24:BA:1353:A:H4'	26:BD:38:LYS:HZ2	1.85	0.41
24:BA:1286:A:C6	24:BA:1289:C:C2	3.08	0.41
1:AA:1300:G:HO2'	1:AA:1301:U:P	2.43	0.41
49:B4:71:ARG:HH11	49:B4:71:ARG:CB	2.25	0.41
36:D0:55:ALA:O	36:D0:58:GLY:HA3	2.21	0.41
40:B2:12:TYR:HH	40:B2:22:VAL:HG23	1.84	0.41
47:DW:41:ILE:HD12	47:DW:43:GLN:N	2.35	0.41
33:BN:34:THR:OG1	33:BN:35:VAL:N	2.54	0.41
54:DA:2018:G:H2'	54:DA:2019:A:H8	1.83	0.41
1:CA:734:G:C6	1:CA:735:C:C4	3.09	0.41
48:BX:54:VAL:CG1	48:BX:55:ARG:N	2.83	0.41
37:DQ:53:SER:HA	37:DQ:56:LEU:CD2	2.50	0.41
27:DE:36:ARG:O	27:DE:37:ARG:C	2.59	0.41
18:CU:53:ARG:O	18:CU:55:ARG:N	2.53	0.41
26:DD:68:LYS:O	26:DD:68:LYS:HG3	2.20	0.41
8:CK:20:TYR:CD1	8:CK:65:TYR:CD2	2.98	0.41
9:AL:50:LEU:O	9:AL:55:ALA:O	2.39	0.41
1:AA:980:C:H5''	1:AA:981:U:C5	2.56	0.41
24:BA:1537:C:O2'	24:BA:1538:G:O5'	2.39	0.41
24:BA:1002:G:C2'	24:BA:1003:G:O5'	2.69	0.41
2:CE:23:ARG:H	2:CE:23:ARG:CD	2.30	0.41
24:BA:13:A:C5'	24:BA:14:A:OP1	2.69	0.41
1:CA:474:G:C5	1:CA:475:G:N7	2.88	0.41
1:AA:674:G:N2	11:AN:116:HIS:HB2	2.35	0.41
54:DA:1694:C:O2'	54:DA:1695:G:OP2	2.37	0.41
54:DA:612:G:C2	54:DA:613:U:C2	3.09	0.41
24:BA:1944:U:H1'	24:BA:1955:U:O4'	2.21	0.41
1:AA:197:A:N6	1:AA:221:C:C5'	2.84	0.41
54:DA:1429:G:C4	54:DA:1430:C:C5	3.09	0.41
10:CM:29:ARG:O	10:CM:30:SER:HB3	2.20	0.41
12:CO:25:PRO:HD2	12:CO:97:ARG:HH11	1.86	0.41
17:CT:11:VAL:HG23	17:CT:12:SER:H	1.85	0.41
12:CO:62:SER:HB2	12:CO:64:TYR:CD1	2.56	0.41
4:CG:77:ASN:HD22	4:CG:77:ASN:H	1.66	0.41
42:DT:83:VAL:CG1	42:DT:87:GLN:HB2	2.50	0.41
35:BP:110:THR:OG1	35:BP:113:GLN:OE1	2.38	0.41
54:DA:813:U:OP2	34:DO:23:PRO:O	2.39	0.41
1:CA:1210:C:H5'	1:CA:1214:C:H42	1.86	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:509:A:C5'	4:AG:55:ALA:HB2	2.50	0.41
54:DA:654:A:O2'	54:DA:654(A):A:N7	2.52	0.41
1:CA:1095:U:C5'	1:CA:1109:C:O2	2.68	0.41
8:AK:13:ILE:O	8:AK:17:THR:HG23	2.21	0.41
9:CL:20:ARG:O	9:CL:21:PRO:C	2.59	0.41
42:DT:54:VAL:C	42:DT:55:ASN:HD22	2.23	0.41
54:DA:988:A:C2'	54:DA:989:G:O5'	2.69	0.41
24:BA:1029:A:N1	24:BA:2465:C:O2'	2.48	0.41
24:BA:107:C:C2	24:BA:108:U:C5	3.08	0.41
4:CG:127:THR:HG23	4:CG:130:GLY:O	2.20	0.41
33:DN:1:MET:HE2	33:DN:67:LYS:HG2	2.03	0.41
24:BA:2461:C:H2'	24:BA:2462:U:H6	1.83	0.41
1:CA:1137:C:O2'	1:CA:1138:G:N3	2.53	0.41
1:CA:353:A:H2'	1:CA:354:G:OP2	2.21	0.41
1:CA:1329:A:H5''	13:CP:29:ARG:HG3	2.01	0.41
54:DA:1029:A:H2	54:DA:2465:C:O2	2.04	0.41
52:D7:24:THR:HB	52:D7:25:PRO:HD2	2.03	0.41
54:DA:1774:C:O2	54:DA:1774:C:C2'	2.67	0.41
54:DA:270(M):U:H1'	54:DA:270(N):G:N1	2.36	0.41
24:BA:869:G:H2'	24:BA:870:A:H8	1.85	0.41
7:AJ:127:ALA:C	7:AJ:129:GLU:N	2.74	0.41
16:AS:9:PHE:CE2	16:AS:18:ARG:NE	2.89	0.41
24:BA:539:G:H2'	24:BA:540:G:C8	2.56	0.41
24:BA:2799:A:H2'	24:BA:2801:A:C8	2.56	0.41
4:AG:141:ARG:HB3	4:AG:142:PRO:CD	2.51	0.41
27:DE:161:GLY:O	27:DE:162:ALA:HB3	2.20	0.41
7:CJ:55:GLY:O	7:CJ:56:GLN:NE2	2.54	0.41
31:DK:32:PRO:C	31:DK:34:GLY:H	2.24	0.41
41:BS:94:ASP:N	41:BS:94:ASP:OD1	2.53	0.41
4:CG:15:GLU:OE1	4:CG:15:GLU:N	2.54	0.41
1:AA:12:U:H4'	1:AA:526:C:H4'	2.02	0.41
41:DS:71:VAL:HA	41:DS:107:LEU:HD12	2.02	0.41
1:AA:1184:G:O2'	1:AA:1185:G:H5'	2.21	0.41
24:BA:1378:A:OP1	52:B7:10:ARG:NH2	2.54	0.41
35:BP:81:VAL:HG12	35:BP:82:ARG:H	1.86	0.41
53:B8:23:VAL:HG13	53:B8:48:PHE:H	1.86	0.41
1:AA:1365:G:H2'	1:AA:1366:C:H6	1.86	0.41
1:AA:973:G:C3'	1:AA:974:A:H5''	2.40	0.41
1:AA:977:A:O2'	1:AA:978:A:C5'	2.67	0.41
3:AF:11:ARG:HH11	3:AF:11:ARG:CG	2.27	0.41
13:AP:25:ILE:N	13:AP:25:ILE:CD1	2.84	0.41
13:AP:34:LEU:HA	13:AP:39:ILE:CG1	2.44	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:15:VAL:CA	13:AP:45:VAL:CG2	2.96	0.41
13:AP:80:ARG:NH1	49:B4:55:ARG:HD3	2.36	0.41
29:BG:133:LEU:HD21	29:BG:135:LEU:HD11	2.03	0.41
9:AL:38:GLN:O	9:AL:40:LEU:N	2.53	0.41
9:AL:22:GLY:C	9:AL:24:GLY:N	2.73	0.41
53:D8:56:GLU:C	53:D8:58:ILE:N	2.73	0.41
27:DE:93:VAL:H	27:DE:95:ILE:CD1	2.23	0.41
24:BA:2748:A:O2'	24:BA:2749:A:H5'	2.20	0.41
24:BA:2756:U:O4'	24:BA:2757:A:C8	2.73	0.41
30:BH:76:VAL:O	30:BH:78:GLY:N	2.54	0.41
30:BH:29:PRO:O	30:BH:30:LYS:CB	2.68	0.41
43:BU:75:ILE:HA	43:BU:80:GLY:HA2	2.02	0.41
24:BA:1651:G:OP1	36:B0:40:LYS:HG3	2.21	0.41
54:DA:2798:C:N4	54:DA:2799:A:H61	2.19	0.41
34:BO:84:ASN:ND2	34:BO:116:GLY:HA3	2.36	0.41
39:B1:65:ILE:O	39:B1:66:ASN:C	2.59	0.41
1:CA:1306:A:H61	1:CA:1331:G:H1'	1.86	0.41
1:CA:1357:A:O5'	1:CA:1357:A:C8	2.70	0.41
19:CV:39:THR:HG23	19:CV:68:GLY:O	2.21	0.41
49:D4:64:GLY:C	49:D4:66:SER:N	2.73	0.41
1:CA:1312:G:H3'	49:D4:67:TYR:OH	2.21	0.41
1:CA:1224:G:O6	1:CA:1322:C:H1'	2.21	0.41
10:CM:54:PHE:CZ	10:CM:55:LYS:CE	3.04	0.41
13:CP:117:VAL:CG2	13:CP:118:ALA:H	2.31	0.41
13:CP:117:VAL:O	13:CP:119:GLY:N	2.53	0.41
19:CV:39:THR:O	19:CV:40:ILE:HB	2.20	0.41
50:B5:3:LYS:HG3	50:B5:4:HIS:N	2.27	0.41
29:BG:14:GLU:O	29:BG:17:PRO:HG2	2.21	0.41
2:CE:75:LYS:C	2:CE:77:ALA:H	2.25	0.41
3:CF:70:VAL:HG12	3:CF:71:ALA:H	1.85	0.41
26:DD:33:LEU:HB3	26:DD:34:VAL:H	1.48	0.41
34:DO:101:VAL:HG23	34:DO:106:LEU:HB3	2.03	0.41
24:BA:1397:U:H2'	24:BA:1397:U:O2	2.21	0.41
24:BA:1397:U:O2'	24:BA:1398:C:P	2.79	0.41
3:AF:84:ILE:CG2	3:AF:88:ARG:NE	2.83	0.41
2:AE:21:ARG:HG2	2:AE:39:ILE:CG1	2.49	0.41
2:AE:33:TYR:HB2	2:AE:43:ASP:N	2.36	0.41
2:AE:18:GLY:HA2	2:AE:40:HIS:O	2.21	0.41
51:D6:6:ARG:NE	51:D6:6:ARG:HA	2.35	0.41
51:D6:27:LYS:CB	51:D6:27:LYS:NZ	2.73	0.41
49:B4:58:ARG:C	49:B4:62:ARG:HG2	2.42	0.41
54:DA:2633:G:H5'	54:DA:2811:G:O2'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:62:PRO:O	27:DE:63:LEU:C	2.59	0.41
54:DA:1177:A:H5''	54:DA:1178:C:O5'	2.20	0.41
54:DA:1176:G:O2'	54:DA:1177:A:H5'	2.20	0.41
24:BA:2808:U:H3	24:BA:2892:A:H62	1.68	0.41
24:BA:2630:G:H1'	24:BA:2894:G:H1'	2.01	0.41
27:BE:70:ALA:C	27:BE:72:VAL:N	2.71	0.41
26:BD:35:LYS:HE3	26:BD:65:ILE:HG22	2.03	0.41
26:BD:35:LYS:HE2	26:BD:65:ILE:HG22	2.03	0.41
24:BA:793:A:C2'	24:BA:794:G:OP2	2.68	0.41
1:CA:687:A:C2	1:CA:704:A:C5	3.08	0.41
1:CA:1251:A:H1'	1:CA:1369:C:O2'	2.21	0.41
1:CA:1004:A:C2	1:CA:1024:G:C8	3.09	0.41
1:AA:411:A:N7	1:AA:429:U:C5	2.89	0.41
4:AG:11:LEU:O	4:AG:12:CYS:C	2.58	0.41
53:B8:32:LEU:CD2	53:B8:34:TRP:N	2.78	0.41
39:D1:57:PHE:O	39:D1:60:LEU:N	2.54	0.41
39:D1:91:ASP:OD2	39:D1:96:ALA:CA	2.69	0.41
44:BV:108:PRO:O	44:BV:109:ALA:HB2	2.21	0.41
5:AH:90:VAL:HG23	5:AH:121:LYS:O	2.20	0.41
5:CH:132:ALA:O	5:CH:133:TYR:C	2.59	0.41
1:CA:178:C:O2'	1:CA:179:A:H5'	2.20	0.41
5:CH:10:MET:CE	5:CH:13:ILE:HD13	2.51	0.41
54:DA:802:A:H2'	54:DA:803:U:C5'	2.51	0.41
53:B8:60:LEU:HD23	53:B8:60:LEU:HA	1.77	0.41
44:BV:9:TYR:HB3	44:BV:10:ARG:H	1.45	0.41
54:DA:1902:C:H2'	54:DA:1903:G:O5'	2.21	0.41
37:BQ:20:ARG:C	37:BQ:22:GLY:N	2.74	0.41
54:DA:1006:C:O2	32:DM:106:MET:HG2	2.20	0.41
24:BA:479:A:H4'	24:BA:480:A:OP1	2.20	0.41
24:BA:479:A:HO2'	24:BA:481:G:H5''	1.76	0.41
24:BA:221:A:N7	24:BA:266:G:C5	2.89	0.41
37:DQ:89:ARG:NH1	37:DQ:89:ARG:HG2	2.36	0.41
54:DA:1471:A:H2'	54:DA:1471:A:N3	2.35	0.41
22:AC:17:C:N3	22:AC:17(A):C:N4	2.69	0.41
38:BR:48:ILE:HD12	38:BR:48:ILE:N	2.36	0.41
36:D0:29:LEU:HD11	36:D0:48:VAL:CG1	2.50	0.41
4:CG:26:CYS:HA	4:CG:31:CYS:HA	2.03	0.41
2:CE:87:ARG:HH11	2:CE:223:ILE:HD11	1.82	0.41
29:DG:67:LYS:NZ	49:D4:6:HIS:CD2	2.89	0.41
54:DA:2133:G:C2	54:DA:2158:A:N6	2.89	0.41
44:BV:40:ASP:HB3	44:BV:43:GLU:HG3	2.03	0.41
44:BV:69:THR:HA	44:BV:91:LEU:CD2	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:88:LYS:C	43:BU:90:LEU:H	2.24	0.41
34:BO:57:THR:HG21	34:BO:60:MET:CB	2.50	0.41
55:DB:82:G:C6	55:DB:95:U:O2	2.74	0.41
34:BO:52:GLU:CB	34:BO:55:ARG:HB3	2.50	0.41
34:BO:56:SER:O	34:BO:57:THR:HB	2.21	0.41
54:DA:2467:C:O2'	54:DA:2468:G:H5'	2.20	0.41
47:DW:18:PRO:C	47:DW:20:GLU:N	2.73	0.41
1:CA:815:A:C2	1:CA:1529:G:N3	2.88	0.41
24:BA:818:G:C2	24:BA:1190:G:O6	2.73	0.41
47:BW:36:ARG:O	47:BW:37:PHE:C	2.59	0.41
1:AA:1227:A:H2'	1:AA:1228:C:O5'	2.21	0.41
5:CH:51:VAL:CB	5:CH:52:PRO:HD3	2.38	0.41
4:AG:24:GLU:O	4:AG:27:TYR:HB3	2.20	0.41
17:AT:58:GLU:HB2	17:AT:74:LEU:HB3	2.02	0.41
54:DA:51:G:O2'	54:DA:119:A:C6	2.72	0.41
43:BU:28:LYS:HE2	43:BU:28:LYS:HA	2.02	0.41
24:BA:270(U):C:H2'	24:BA:270(V):G:C8	2.56	0.41
24:BA:270(U):C:OP2	46:BZ:96:LYS:CD	2.69	0.41
26:DD:154:LYS:C	26:DD:155:LEU:HD12	2.41	0.41
26:DD:147:LEU:CD1	26:DD:155:LEU:HD21	2.51	0.41
40:D2:24:LYS:CA	40:D2:92:THR:HG23	2.38	0.41
24:BA:2305:A:N1	29:BG:154:GLY:N	2.64	0.41
24:BA:2851:A:O2'	24:BA:2852:G:H5'	2.21	0.41
38:BR:118:ARG:HG2	38:BR:121:ILE:HD12	2.03	0.41
2:CE:125:PRO:O	2:CE:126:GLU:HB2	2.20	0.41
1:AA:1006:C:HO2'	1:AA:1007:C:P	2.43	0.41
54:DA:2164:C:C5	54:DA:2165:G:N7	2.89	0.41
54:DA:2163:C:H5''	54:DA:2172:U:OP2	2.21	0.41
12:AO:54:LYS:HE2	12:AO:54:LYS:HB3	1.75	0.41
12:AO:54:LYS:NZ	12:AO:75:HIS:CE1	2.88	0.41
2:CE:143:GLU:O	2:CE:147:LYS:HB2	2.21	0.41
24:BA:307:G:N2	24:BA:310:A:OP2	2.52	0.41
24:BA:2171:A:O2'	24:BA:2172:U:O4'	2.27	0.41
9:CL:105:ASP:C	9:CL:107:ARG:N	2.74	0.41
9:CL:10:ARG:CG	9:CL:105:ASP:HB2	2.51	0.41
20:AW:48:LYS:O	20:AW:50:GLU:N	2.54	0.41
1:CA:1239:A:H1'	1:CA:1241:G:C5	2.55	0.41
44:DV:72:ARG:HG2	44:DV:72:ARG:O	2.21	0.41
1:CA:1154:G:N3	1:CA:1155:G:C8	2.89	0.41
1:CA:873:A:C8	1:CA:873:A:O5'	2.67	0.41
54:DA:2655:G:C2'	54:DA:2656:U:OP2	2.69	0.41
27:BE:16:ARG:O	27:BE:17:ASP:CB	2.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:362:U:C5'	24:BA:363:G:OP1	2.61	0.41
1:AA:1028(B):C:H3'	1:AA:1029:G:H4'	2.02	0.41
29:DG:47:LYS:HE3	29:DG:47:LYS:HB2	1.80	0.41
29:DG:78:SER:O	29:DG:79:ASN:C	2.59	0.41
12:CO:38:THR:HG22	12:CO:57:LYS:HB3	2.01	0.41
11:AN:20:TYR:HB2	11:AN:31:THR:CG2	2.49	0.41
52:D7:8:ASN:HD21	52:D7:10:ARG:HB3	1.86	0.41
34:DO:39:LYS:HA	34:DO:45:LEU:HD11	1.83	0.41
11:CN:124:LYS:HB3	11:CN:125:PHE:CD1	2.47	0.41
1:AA:1299:A:C6	1:AA:1301:U:C2	3.09	0.41
1:CA:1176:A:N6	1:CA:1177:G:C2	2.89	0.41
35:BP:73:PRO:HA	35:BP:93:TYR:CD2	2.56	0.41
3:CF:47:LEU:HD11	3:CF:76:VAL:CG1	2.42	0.41
3:CF:47:LEU:CD1	3:CF:76:VAL:HG12	2.42	0.41
38:BR:55:ASN:C	38:BR:59:THR:HG22	2.42	0.41
33:DN:31:LYS:HA	33:DN:31:LYS:HD3	1.92	0.41
45:D3:40:GLN:NE2	45:D3:43:THR:HA	2.36	0.41
41:BS:20:VAL:O	41:BS:23:LEU:N	2.40	0.41
18:AU:30:ASP:C	18:AU:32:ARG:H	2.24	0.41
34:DO:12:ALA:C	34:DO:14:LYS:N	2.73	0.41
14:CQ:47:LEU:O	14:CQ:50:LYS:N	2.52	0.41
3:CF:120:VAL:O	3:CF:123:GLN:HB2	2.20	0.41
34:BO:18:ARG:O	34:BO:19:VAL:HB	2.21	0.41
24:BA:1608:A:HO2'	24:BA:1610:A:P	2.43	0.41
2:CE:37:ASN:C	2:CE:39:ILE:N	2.73	0.41
1:CA:1032(A):G:H2'	1:CA:1032(B):G:C8	2.56	0.41
1:CA:403:C:O2'	4:CG:122:ARG:NH2	2.53	0.41
2:CE:114:ARG:O	2:CE:118:LEU:HG	2.21	0.41
1:AA:705:U:H2'	1:AA:706:A:H5'	2.02	0.41
24:BA:2009:G:N3	36:B0:107:ASP:HA	2.36	0.41
24:BA:1659:U:O2'	24:BA:2712(A):A:N1	2.43	0.41
2:CE:47:THR:O	2:CE:51:LEU:N	2.32	0.41
1:AA:1255:G:N7	1:AA:1279:A:N1	2.69	0.41
1:CA:1217:C:O2'	1:CA:1218:C:H5'	2.21	0.41
54:DA:1694:C:HO2'	54:DA:1695:G:H5''	1.84	0.41
24:BA:270(F):U:C2	24:BA:270(G):C:C5	3.09	0.41
54:DA:1677:A:N6	54:DA:1678:G:C2	2.89	0.41
31:DK:27:ARG:HB3	46:DZ:71:TYR:CE1	2.56	0.41
1:AA:174:C:O2'	1:AA:175:C:H5'	2.21	0.41
27:BE:188:VAL:O	27:BE:188:VAL:HG13	2.20	0.41
7:CJ:103:TRP:O	7:CJ:104:LEU:C	2.59	0.41
24:BA:2020:A:H5'	50:B5:12:SER:HB3	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:55:ALA:O	41:DS:58:ALA:HB3	2.21	0.41
1:CA:1048:G:H2'	1:CA:1050:G:H8	1.86	0.41
1:CA:1336:C:C2'	1:CA:1336:C:O2	2.61	0.41
24:BA:1912:A:N7	24:BA:1918:A:C2	2.89	0.41
43:DU:2:ARG:O	43:DU:3:VAL:O	2.38	0.41
54:DA:1937:A:O2'	54:DA:1938:A:OP1	2.28	0.41
29:DG:22:ARG:HH22	29:DG:175:LEU:HD21	1.85	0.41
1:AA:355:C:H2'	1:AA:356:A:O4'	2.21	0.41
24:BA:688:U:H5'	24:BA:1780:A:C2	2.56	0.41
24:BA:1348:G:C6	24:BA:1349:A:N7	2.89	0.41
11:CN:21:ILE:CD1	11:CN:82:VAL:HG13	2.51	0.41
24:BA:2820:A:O4'	36:B0:4:LEU:CD2	2.66	0.41
32:BM:72:TYR:N	32:BM:85:ILE:O	2.54	0.41
54:DA:529:A:C6	54:DA:2023:G:C6	3.09	0.41
47:BW:63:VAL:O	47:BW:67:LYS:HD3	2.21	0.41
1:AA:1293:G:O2'	1:AA:1294:G:H5'	2.21	0.41
54:DA:458:G:O2'	54:DA:469:G:C6	2.72	0.41
12:CO:21:LYS:CD	12:CO:21:LYS:N	2.83	0.41
12:CO:62:SER:O	12:CO:64:TYR:N	2.54	0.41
12:CO:64:TYR:HB3	12:CO:65:GLU:H	1.69	0.41
24:BA:1965:C:H2'	24:BA:1966:A:C8	2.56	0.41
16:CS:8:ARG:HG2	16:CS:8:ARG:NH1	2.31	0.41
1:AA:860:A:H4'	8:AK:75:ARG:NH1	2.35	0.41
1:AA:1091:U:O2	1:AA:1093:A:C8	2.74	0.41
54:DA:817:C:O2'	54:DA:839:U:H5''	2.20	0.41
24:BA:2599:G:C8	26:BD:236:GLY:HA2	2.55	0.41
5:AH:107:ARG:O	5:AH:110:LEU:N	2.54	0.41
24:BA:2839:G:H4'	36:B0:49:ASP:HB3	2.03	0.41
1:AA:889:A:O2'	1:AA:890:G:O5'	2.39	0.41
38:BR:78:LEU:HD22	38:BR:79:HIS:HD2	1.85	0.41
54:DA:988:A:H4'	54:DA:1155:A:N1	2.36	0.41
54:DA:533:G:H5'	39:D1:24:TYR:CE2	2.56	0.41
1:CA:1170:A:O5'	1:CA:1170:A:H8	2.03	0.41
54:DA:356:G:O2'	54:DA:357:A:H5'	2.21	0.41
54:DA:90:U:O2'	54:DA:91:A:H8	2.02	0.41
32:DM:101:HIS:HD2	32:DM:102:ALA:N	2.19	0.41
1:CA:274:A:O2'	1:CA:275:G:C8	2.74	0.41
3:AF:85:ARG:CA	3:AF:85:ARG:HE	2.34	0.41
54:DA:2726:U:O2'	54:DA:2727:G:H5'	2.20	0.41
1:CA:543:C:P	4:CG:14:ARG:HH21	2.44	0.41
12:AO:41:ARG:NH1	12:AO:43:VAL:HG12	2.36	0.41
1:AA:571:U:H3'	1:AA:572:A:C5'	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DN:10:VAL:HG21	33:DN:16:ALA:HB3	2.03	0.41
50:D5:41:PRO:HA	50:D5:42:PRO:HD3	1.82	0.41
54:DA:331:A:O2'	54:DA:332:A:OP1	2.30	0.41
1:AA:295:C:H2'	1:AA:296:U:O4'	2.20	0.41
23:C1:20:A:H2'	23:C1:21:A:C8	2.55	0.41
24:BA:1637:A:H2'	24:BA:1638:C:C6	2.56	0.41
1:AA:15:G:H4'	5:AH:24:ARG:HH12	1.86	0.41
24:BA:2708:G:O2'	24:BA:2709:G:H5'	2.21	0.41
1:CA:392:G:H2'	1:CA:393:A:O4'	2.20	0.41
44:BV:66:SER:O	44:BV:67:LEU:C	2.58	0.41
30:DH:20:ALA:HB3	30:DH:23:ARG:HG2	2.03	0.41
1:AA:926:G:H1	23:A1:16:A:P	2.43	0.41
30:DH:45:VAL:O	30:DH:45:VAL:CG1	2.69	0.41
24:BA:1387:C:C4	24:BA:1388:G:N7	2.89	0.41
6:CI:7:ASN:ND2	18:CU:34:TYR:CE1	2.88	0.41
8:CK:1:MET:O	8:CK:2:LEU:HB2	2.21	0.41
1:CA:986:A:H2'	1:CA:987:G:C8	2.56	0.41
5:AH:42:GLY:HA2	5:AH:65:ASN:O	2.21	0.41
24:BA:1547:C:O2'	24:BA:1548:C:H5'	2.20	0.41
24:BA:273(A):G:C2'	24:BA:273(B):C:H5'	2.51	0.41
26:BD:245:PRO:CB	26:BD:253:GLN:OE1	2.69	0.41
43:DU:13:VAL:O	43:DU:24:VAL:HA	2.20	0.41
32:BM:42:TRP:HA	32:BM:48:MET:HE1	2.03	0.41
37:DQ:93:LYS:HB2	37:DQ:93:LYS:HE3	1.93	0.41
24:BA:984:A:O5'	24:BA:984:A:H8	2.04	0.41
26:BD:215:LEU:HA	26:BD:215:LEU:HD23	1.78	0.41
28:BF:60:SER:O	28:BF:60:SER:OG	2.39	0.41
4:CG:209:ARG:HA	4:CG:209:ARG:NE	2.36	0.41
35:BP:138:ASP:OD2	35:BP:138:ASP:N	2.54	0.41
20:AW:45:GLN:O	20:AW:45:GLN:HG2	2.21	0.41
1:CA:482:A:N3	1:CA:482:A:H2'	2.36	0.41
1:AA:1466:C:H2'	1:AA:1467:G:O4'	2.21	0.41
1:AA:1479:C:C2	1:AA:1480:G:C8	3.08	0.41
1:AA:573:A:H2'	1:AA:574:A:C8	2.56	0.41
24:BA:1493:C:H4'	24:BA:1494:A:OP2	2.17	0.41
24:BA:2559:C:H2'	24:BA:2559:C:O2	2.21	0.41
54:DA:1426:G:O5'	54:DA:1426:G:H8	2.03	0.41
54:DA:1804:C:H6	54:DA:1804:C:O5'	2.04	0.41
30:BH:94:TYR:CD1	30:BH:94:TYR:N	2.89	0.41
28:DF:13:SER:OG	28:DF:14:PRO:HD2	2.21	0.41
54:DA:59:U:O2'	54:DA:73:A:H2'	2.20	0.41
54:DA:680:G:H2'	54:DA:681:G:C8	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:97:ARG:NH2	43:DU:98:VAL:CG2	2.85	0.41
43:DU:98:VAL:O	43:DU:99:CYS:HB3	2.21	0.41
13:AP:34:LEU:HD23	13:AP:34:LEU:H	1.86	0.41
49:B4:43:TYR:C	49:B4:43:TYR:HD1	2.23	0.41
1:AA:1127:G:O2'	1:AA:1147:C:N3	2.54	0.41
9:AL:16:ARG:CB	9:AL:16:ARG:NH1	2.70	0.41
2:AE:133:LYS:O	2:AE:136:VAL:N	2.54	0.41
54:DA:1102:C:O2'	54:DA:1103:A:H5''	2.20	0.41
54:DA:1509:C:N4	54:DA:1511:A:H62	2.19	0.41
30:BH:79:VAL:HG23	30:BH:79:VAL:O	2.20	0.41
24:BA:1210:A:H5'	24:BA:1212:G:O4'	2.21	0.41
39:B1:107:ALA:O	39:B1:110:VAL:HB	2.21	0.41
54:DA:277:C:H5''	54:DA:278:A:C8	2.55	0.41
2:CE:76:GLN:OE1	2:CE:206:ASP:HB3	2.21	0.41
34:DO:84:ASN:HB2	34:DO:87:ASP:OD2	2.21	0.41
41:DS:14:PRO:O	41:DS:15:ARG:C	2.58	0.41
3:AF:172:ARG:C	3:AF:173:VAL:CG2	2.89	0.41
1:AA:1074:G:C5	1:AA:1075:C:C5	3.09	0.41
24:BA:1101:U:O2'	24:BA:1102:C:H5'	2.20	0.41
54:DA:2810:A:H61	54:DA:2891:G:H2'	1.86	0.41
1:CA:922:G:C6	1:CA:923:A:C6	3.08	0.41
24:BA:2627:G:N3	24:BA:2781:A:H2	2.19	0.41
34:DO:18:ARG:HD2	34:DO:27:HIS:CD2	2.56	0.41
13:CP:8:GLU:C	13:CP:9:ILE:CG2	2.90	0.41
40:B2:89:GLN:HA	40:B2:90:PRO:HD3	1.82	0.41
24:BA:2344:U:OP1	51:B6:38:LYS:HE3	2.21	0.41
1:CA:96:G:O2'	1:CA:97:U:H5'	2.20	0.41
4:AG:63:LYS:O	4:AG:67:ILE:HG13	2.21	0.41
24:BA:1930:G:HO2'	24:BA:1931:U:H5	1.67	0.41
40:D2:38:LEU:CD1	40:D2:55:ALA:CB	2.99	0.41
32:DM:9:VAL:HB	32:DM:10:GLU:H	1.70	0.41
32:DM:10:GLU:OE2	32:DM:11:PRO:HD2	2.21	0.41
31:DK:123:LEU:HA	31:DK:142:VAL:HG21	2.02	0.41
33:DN:86:ILE:N	33:DN:86:ILE:CD1	2.83	0.41
5:AH:100:VAL:HG13	5:AH:118:ILE:CG2	2.46	0.41
44:BV:9:TYR:CE2	44:BV:35:ARG:NH2	2.89	0.41
27:BE:4:ILE:O	27:BE:5:LEU:HD23	2.21	0.41
54:DA:1471:A:C5	54:DA:1522:G:N1	2.89	0.41
54:DA:1530:G:H2'	54:DA:1531:C:C6	2.55	0.41
24:BA:2062:A:N7	24:BA:2503:A:N6	2.69	0.41
54:DA:28:A:N6	54:DA:512:G:H1'	2.36	0.41
10:AM:13:HIS:CE1	10:AM:14:LYS:HE3	2.55	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:12:CYS:O	4:CG:33:MET:HG3	2.21	0.41
24:BA:1617:C:H5''	24:BA:1618:A:OP2	2.21	0.41
26:DD:228:PRO:HD3	26:DD:234:GLY:O	2.21	0.41
43:BU:88:LYS:HA	43:BU:88:LYS:HD3	1.93	0.41
40:B2:97:LYS:O	40:B2:98:GLU:CB	2.68	0.41
33:DN:110:GLY:HA2	33:DN:112:MET:HE2	2.02	0.41
47:BW:48:HIS:ND1	47:BW:49:LYS:HE3	2.36	0.41
37:BQ:67:ARG:HH11	37:BQ:67:ARG:CB	2.34	0.41
7:AJ:20:ASP:O	7:AJ:21:VAL:CG2	2.54	0.41
4:AG:24:GLU:N	4:AG:27:TYR:CB	2.82	0.41
4:AG:145:GLU:HG3	4:AG:184:LYS:HZ1	1.82	0.41
24:BA:260:G:C2	24:BA:261:G:H1'	2.56	0.41
1:AA:436:C:H2'	1:AA:437:U:C6	2.56	0.41
34:DO:85:LEU:HD23	34:DO:85:LEU:HA	1.92	0.41
54:DA:421:U:O2'	54:DA:422:A:OP2	2.23	0.41
1:CA:246:A:C6	1:CA:279:A:C2	3.09	0.41
7:AJ:86:GLN:CD	22:AD:31:G:H21	2.24	0.41
54:DA:2439:A:O2'	54:DA:2440:C:OP2	2.34	0.41
43:BU:17:SER:HB2	43:BU:71:LYS:CD	2.38	0.41
49:D4:26:SER:C	49:D4:27:THR:O	2.58	0.41
30:DH:137:ASP:HB2	30:DH:140:LYS:CE	2.51	0.41
9:CL:113:LYS:H	9:CL:113:LYS:CD	2.27	0.41
22:CD:26:G:N2	22:CD:45:G:H21	2.19	0.41
22:CD:60:U:C5'	22:CD:61:C:OP2	2.68	0.41
1:AA:999:U:C2'	1:AA:1000:A:OP1	2.69	0.41
5:CH:90:VAL:C	5:CH:91:LEU:HD12	2.42	0.41
54:DA:2562:U:C2'	54:DA:2563:U:H5'	2.51	0.41
7:AJ:15:ASP:OD1	7:AJ:19:GLY:N	2.53	0.41
25:BB:96:G:C6	25:BB:97:G:C5	3.09	0.41
21:AX:26:LYS:HZ3	21:AX:26:LYS:H	1.69	0.41
15:CR:11:VAL:O	15:CR:12:ILE:C	2.60	0.41
54:DA:1092:C:C3'	54:DA:1092:C:C6	3.04	0.41
33:BN:10:VAL:HG11	33:BN:16:ALA:C	2.40	0.41
3:CF:138:VAL:HG22	3:CF:151:VAL:HG23	2.03	0.41
24:BA:1072:C:H2'	24:BA:1093:G:O6	2.20	0.41
32:BM:34:LEU:HD23	32:BM:34:LEU:N	2.36	0.41
24:BA:1331:A:H2'	24:BA:1333:C:H5	1.86	0.41
24:BA:946:G:C2'	24:BA:947:G:O5'	2.69	0.41
24:BA:2162:G:H2'	24:BA:2163:C:O4'	2.21	0.41
24:BA:2173:A:H3'	24:BA:2174:C:H6	1.85	0.41
4:CG:178:VAL:HG12	4:CG:179:GLU:N	2.35	0.41
24:BA:865:C:C5'	24:BA:866:A:OP1	2.69	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:531:C:H5'	24:BA:532:A:O4'	2.20	0.41
1:AA:877:C:O2'	8:AK:89:PRO:HG3	2.21	0.41
26:BD:198:ASN:ND2	26:BD:198:ASN:O	2.54	0.41
27:BE:25:VAL:CG1	27:BE:26:ILE:N	2.84	0.41
54:DA:1688:U:O2	54:DA:1700:A:H8	2.04	0.41
6:AI:14:LEU:CD2	6:AI:18:GLN:OE1	2.69	0.41
28:BF:170:LEU:N	28:BF:170:LEU:HD12	2.36	0.41
19:CV:31:ILE:HG23	19:CV:31:ILE:O	2.21	0.41
54:DA:943:U:P	34:DO:36:LYS:HG2	2.61	0.41
37:BQ:49:VAL:HG12	37:BQ:73:LEU:HD22	2.03	0.41
43:DU:42:VAL:HG21	43:DU:67:LEU:CD1	2.51	0.41
54:DA:2617:C:C2'	54:DA:2618:G:H5'	2.51	0.41
54:DA:212:G:C2'	54:DA:213:A:H5'	2.51	0.41
34:BO:135:LEU:O	34:BO:139:LYS:HB2	2.21	0.41
8:CK:109:ILE:HG13	8:CK:120:THR:HB	2.03	0.41
44:BV:19:ARG:HH11	44:BV:19:ARG:HG3	1.86	0.41
41:BS:3:ALA:O	41:BS:106:ILE:HA	2.21	0.41
26:BD:77:ALA:O	26:BD:116:GLN:HG3	2.19	0.41
1:AA:383:A:H2'	1:AA:384:G:C4'	2.51	0.41
11:AN:69:ALA:HB1	11:AN:103:LEU:HD21	2.03	0.41
49:B4:46:GLN:CG	49:B4:47:GLN:H	2.33	0.41
31:DK:94:ALA:O	31:DK:96:ASP:N	2.54	0.41
29:DG:53:LEU:CD1	29:DG:87:PRO:HB2	2.51	0.41
1:CA:1413:A:H2'	1:CA:1414:U:C6	2.56	0.41
24:BA:1520:U:H2'	24:BA:1521:G:C8	2.56	0.41
4:AG:191:ARG:HA	4:AG:191:ARG:NH1	2.36	0.41
17:CT:86:GLU:O	17:CT:87:LYS:C	2.60	0.41
28:DF:62:ARG:CZ	28:DF:62:ARG:HB3	2.51	0.41
1:AA:899:C:H2'	1:AA:900:A:O4'	2.21	0.41
54:DA:2592:G:C6	54:DA:2593:U:C4	3.09	0.41
33:DN:16:ALA:HA	33:DN:46:ALA:CB	2.50	0.41
17:CT:63:ARG:HG2	17:CT:64:PRO:HD2	2.03	0.41
54:DA:552:G:H2'	54:DA:553:U:O4'	2.21	0.41
1:AA:423:G:O2'	1:AA:424:G:H5'	2.21	0.41
1:CA:1485:U:O2'	1:CA:1486:G:H5'	2.21	0.41
11:AN:66:LEU:O	11:AN:68:ALA:N	2.54	0.41
1:AA:445:G:C6	1:AA:490:G:C6	3.09	0.41
1:CA:416:G:C5	1:CA:417:C:C4	3.09	0.41
54:DA:1438:U:O2'	54:DA:1439:A:H5'	2.20	0.41
1:CA:1376:U:O2	1:CA:1377:A:C8	2.74	0.41
39:B1:36:ARG:HG2	39:B1:40:PHE:CE1	2.56	0.41
24:BA:212:G:O2'	24:BA:213:A:H5'	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:577:G:H2'	1:CA:578:C:H6	1.86	0.41
17:AT:11:VAL:HG21	17:AT:88:TYR:CE2	2.56	0.41
8:CK:53:VAL:HG12	8:CK:54:ASP:OD2	2.20	0.41
17:CT:89:LEU:HD23	17:CT:89:LEU:HA	1.93	0.41
24:BA:343:C:O2	24:BA:343:C:H2'	2.20	0.41
25:BB:44:G:P	49:B4:1:MET:HG3	2.61	0.40
46:DZ:82:LEU:HD13	46:DZ:83:GLU:C	2.36	0.40
46:DZ:85:LEU:N	46:DZ:85:LEU:CD2	2.84	0.40
46:DZ:94:LEU:HA	46:DZ:94:LEU:HD23	1.82	0.40
31:BK:144:VAL:O	31:BK:145:VAL:CG2	2.69	0.40
3:AF:206:GLU:O	3:AF:207:VAL:CB	2.68	0.40
19:AV:21:GLU:HG3	19:AV:22:LEU:CD2	2.50	0.40
19:AV:26:GLY:C	19:AV:27:GLU:HG3	2.41	0.40
19:AV:49:ILE:HD13	19:AV:62:ILE:CD1	2.50	0.40
19:AV:67:VAL:CG1	19:AV:68:GLY:N	2.79	0.40
49:B4:40:HIS:HA	49:B4:44:THR:HB	2.02	0.40
33:BN:88:ASN:OD1	33:BN:92:GLU:HB2	2.21	0.40
9:AL:81:ILE:HG22	9:AL:81:ILE:O	2.21	0.40
44:BV:153:SER:C	44:BV:155:LEU:N	2.72	0.40
24:BA:1114:G:C2	24:BA:1115:G:C5	3.10	0.40
24:BA:1204:A:N1	24:BA:1241:A:H2	2.18	0.40
34:BO:115:LEU:HD13	34:BO:115:LEU:C	2.40	0.40
39:B1:105:VAL:CG2	39:B1:106:PHE:N	2.83	0.40
54:DA:1043:C:C3'	54:DA:1044:G:H5''	2.51	0.40
1:CA:981:U:H5'	14:CQ:21:TYR:CZ	2.56	0.40
19:CV:10:PHE:CD2	19:CV:11:VAL:N	2.90	0.40
49:D4:63:TYR:O	49:D4:65:ASP:N	2.54	0.40
26:DD:31:LYS:O	26:DD:32:SER:O	2.39	0.40
1:CA:1071:C:O2'	1:CA:1072:G:H5'	2.21	0.40
3:AF:110:ASN:O	3:AF:141:VAL:HG13	2.20	0.40
3:AF:115:LEU:HD23	3:AF:115:LEU:HA	1.88	0.40
2:AE:184:VAL:HB	2:AE:198:ASP:H	1.87	0.40
1:AA:792:A:C4	1:AA:794:A:C6	3.09	0.40
27:BE:58:ARG:HH11	27:BE:59:VAL:HG23	1.86	0.40
1:CA:1004:A:O5'	1:CA:1036:G:O6	2.40	0.40
24:BA:2420:C:H41	53:B8:31:HIS:CB	2.24	0.40
24:BA:2067:G:H5'	24:BA:2068:U:OP2	2.21	0.40
37:DQ:83:LYS:HE3	37:DQ:84:GLN:HG3	2.02	0.40
22:AD:7:G:O6	22:AD:49:G:O6	2.39	0.40
35:BP:63:LYS:O	35:BP:63:LYS:HG2	2.21	0.40
35:DP:20:ALA:HB1	35:DP:99:PRO:CG	2.51	0.40
35:DP:39:PRO:HA	35:DP:97:VAL:O	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:104:GLY:C	37:BQ:106:ARG:H	2.23	0.40
37:BQ:26:LEU:O	37:BQ:26:LEU:HD23	2.20	0.40
30:BH:168:PRO:O	30:BH:169:VAL:HB	2.20	0.40
41:BS:70:TYR:O	41:BS:107:LEU:HA	2.21	0.40
35:BP:66:ILE:O	35:BP:67:ARG:CB	2.69	0.40
38:DR:50:ILE:CG2	38:DR:62:THR:OG1	2.68	0.40
1:CA:1150:U:H4'	1:CA:1280:A:C2	2.57	0.40
1:AA:1153:C:C2	1:AA:1154:G:C8	3.09	0.40
54:DA:2405:G:O2'	54:DA:2406:U:P	2.78	0.40
54:DA:2467:C:H2'	54:DA:2468:G:O4'	2.22	0.40
1:CA:939:G:C6	1:CA:940:C:N4	2.89	0.40
47:DW:65:ASN:O	47:DW:66:GLU:C	2.59	0.40
38:DR:10:VAL:O	38:DR:11:GLU:C	2.59	0.40
26:BD:43:ARG:CZ	26:BD:49:ILE:HG21	2.51	0.40
47:BW:54:LYS:O	47:BW:57:ILE:HG12	2.22	0.40
31:DK:132:PRO:O	31:DK:133:HIS:C	2.59	0.40
1:AA:1505:G:C5'	1:AA:1506:U:OP1	2.53	0.40
1:AA:577:G:H1'	1:AA:816:A:C4	2.56	0.40
17:AT:75:ARG:HH11	17:AT:77:VAL:HA	1.85	0.40
4:CG:170:VAL:CG2	4:CG:171:GLY:H	2.17	0.40
24:BA:2312:U:OP2	29:BG:74:LYS:HE2	2.21	0.40
1:AA:1206:G:C1'	3:AF:193:TYR:O	2.60	0.40
29:DG:98:ARG:CA	29:DG:101:ILE:HG12	2.40	0.40
35:BP:89:ASN:O	35:BP:91:GLU:N	2.55	0.40
34:BO:45:LEU:HD12	34:BO:46:LYS:H	1.86	0.40
30:DH:66:GLY:O	30:DH:67:LEU:C	2.58	0.40
1:CA:1346:A:C1'	1:CA:1348:U:C2	3.04	0.40
1:CA:935:A:N6	7:CJ:3:ARG:HG3	2.36	0.40
1:CA:338:A:H2	1:CA:351:G:H22	1.64	0.40
39:B1:16:LYS:O	39:B1:20:LEU:CD2	2.57	0.40
1:CA:1183:A:O2'	1:CA:1184:G:OP1	2.35	0.40
1:AA:579:G:C6	1:AA:580:U:C4	3.09	0.40
1:AA:728:A:N1	1:AA:729:A:C6	2.89	0.40
22:AD:22:G:H2'	22:AD:23:C:C5	2.52	0.40
16:CS:50:LYS:HD3	16:CS:51:VAL:O	2.21	0.40
1:CA:1537:U:H2'	1:CA:1538:C:C6	2.54	0.40
24:BA:1858:G:C6	24:BA:1883:G:C6	3.09	0.40
24:BA:1324:G:H1'	24:BA:1616:A:N1	2.36	0.40
39:D1:76:TYR:O	39:D1:80:ILE:HG12	2.21	0.40
4:CG:120:LEU:CD2	4:CG:125:HIS:HB2	2.45	0.40
41:BS:1:MET:HG3	41:BS:2:GLU:H	1.86	0.40
54:DA:323:G:C2'	28:DF:169:ASN:ND2	2.79	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:32:GLU:OE2	13:AP:32:GLU:O	2.39	0.40
54:DA:1612:C:H4'	52:D7:5:TRP:O	2.20	0.40
27:BE:27:LEU:O	27:BE:27:LEU:HG	2.20	0.40
6:CI:40:VAL:HA	6:CI:62:TRP:O	2.21	0.40
22:CC:58:A:O2'	22:CC:60:U:H6	2.02	0.40
22:CC:61:C:H2'	22:CC:62:C:C6	2.53	0.40
37:BQ:52:SER:H	37:BQ:55:ALA:CB	2.30	0.40
54:DA:865:C:C5'	54:DA:866:A:OP1	2.69	0.40
24:BA:787:U:P	24:BA:1780:A:H62	2.44	0.40
24:BA:1349:A:C2'	24:BA:1350:C:OP1	2.69	0.40
54:DA:2617:C:H2'	54:DA:2618:G:C5'	2.51	0.40
24:BA:2679:A:C5'	27:BE:165:VAL:HG11	2.51	0.40
24:BA:551:G:H5'	24:BA:1220:A:H1'	2.03	0.40
1:AA:854:G:OP2	1:AA:871:U:C6	2.74	0.40
24:BA:1095:A:N3	24:BA:1095:A:C2'	2.82	0.40
54:DA:2867:G:OP2	54:DA:2867:G:C4'	2.69	0.40
7:AJ:63:LYS:HG3	7:AJ:64:GLN:N	2.36	0.40
1:CA:1215:G:C2	1:CA:1216:G:C8	3.10	0.40
1:AA:367:U:C6	1:AA:394:G:N2	2.89	0.40
35:BP:41:TRP:HZ3	35:BP:74:TYR:CE1	2.38	0.40
24:BA:1191:G:H2'	24:BA:1192:G:O4'	2.22	0.40
54:DA:987:G:H2'	54:DA:988:A:C5'	2.51	0.40
54:DA:2887:U:C2	54:DA:2888:C:C5	3.09	0.40
7:CJ:121:ALA:O	7:CJ:125:MET:HG3	2.21	0.40
17:CT:83:ASP:O	17:CT:87:LYS:HG2	2.21	0.40
54:DA:2573:C:H5''	54:DA:2574:G:H5''	2.03	0.40
1:AA:432:A:H3'	1:AA:433:C:C6	2.56	0.40
54:DA:2815:C:H2'	54:DA:2816:C:H6	1.86	0.40
54:DA:2816:C:H1'	50:D5:43:HIS:CE1	2.56	0.40
4:AG:170:VAL:HG13	4:AG:170:VAL:O	2.21	0.40
3:CF:178:LEU:CD2	3:CF:178:LEU:N	2.85	0.40
2:AE:153:ARG:NH1	2:AE:153:ARG:HG2	2.36	0.40
22:CC:1:C:O2	22:CC:1:C:C2'	2.68	0.40
24:BA:519:U:H2'	24:BA:520:G:H8	1.85	0.40
54:DA:1922:G:O2'	54:DA:1923:U:H5'	2.21	0.40
54:DA:2640:G:C2'	54:DA:2641:G:O5'	2.69	0.40
12:CO:43:VAL:HG13	12:CO:55:VAL:HG21	2.03	0.40
1:CA:1387:G:C4	1:CA:1388:C:C5	3.09	0.40
24:BA:2228:G:C6	24:BA:2229:C:C4	3.09	0.40
6:AI:41:GLU:HB3	6:AI:43:LEU:HD11	2.02	0.40
54:DA:855:G:H2'	54:DA:856:C:C6	2.57	0.40
1:CA:12:U:H4'	1:CA:526:C:H4'	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2620:C:H2'	24:BA:2621:A:O5'	2.21	0.40
24:BA:2620:C:C2'	24:BA:2621:A:O5'	2.69	0.40
24:BA:1376:C:O2'	24:BA:1377:G:H5'	2.20	0.40
54:DA:709:U:H2'	54:DA:710:G:C8	2.57	0.40
1:CA:1308:U:OP2	13:CP:99:ARG:HD2	2.21	0.40
47:DW:11:GLU:HA	47:DW:14:ARG:HD2	2.02	0.40
15:CR:69:TYR:CZ	15:CR:73:GLU:HG3	2.56	0.40
27:BE:69:LYS:HA	27:BE:69:LYS:HD2	1.88	0.40
29:DG:18:GLU:OE2	29:DG:18:GLU:HA	2.21	0.40
1:AA:79:G:OP1	1:AA:79:G:H4'	2.21	0.40
39:D1:5:LYS:C	39:D1:7:GLY:N	2.75	0.40
35:DP:139:GLU:CG	35:DP:140:ALA:N	2.84	0.40
24:BA:1705:G:H2'	24:BA:1706:U:O4'	2.21	0.40
46:DZ:91:LYS:HG3	46:DZ:92:LYS:N	2.32	0.40
23:A1:8:A:C3'	23:A1:9:G:C5'	2.86	0.40
19:AV:11:VAL:CB	19:AV:16:LEU:HD21	2.49	0.40
49:B4:28:LYS:HD2	49:B4:31:ILE:HG12	2.03	0.40
49:B4:69:LYS:O	49:B4:69:LYS:HG2	2.22	0.40
44:BV:155:LEU:O	44:BV:157:LEU:CD1	2.62	0.40
44:BV:159:PRO:HG2	44:BV:160:GLY:N	2.33	0.40
54:DA:1094:U:O2	54:DA:1096:A:H5'	2.20	0.40
24:BA:1114:G:H2'	24:BA:1115:G:C8	2.56	0.40
24:BA:2756:U:H5''	24:BA:2757:A:OP1	2.20	0.40
24:BA:445:C:OP1	39:B1:2:PRO:HA	2.22	0.40
24:BA:1204:A:N1	24:BA:1241:A:C2	2.89	0.40
30:BH:89:ILE:O	30:BH:90:LYS:HB2	2.21	0.40
26:DD:13:ARG:O	26:DD:13:ARG:HG2	2.20	0.40
54:DA:2635:C:C2'	54:DA:2636:U:O5'	2.69	0.40
1:CA:1320:C:C4	1:CA:1321:C:C4	3.09	0.40
1:CA:956:U:O2'	1:CA:957:U:H5'	2.21	0.40
49:D4:49:PHE:HD1	49:D4:49:PHE:N	2.16	0.40
49:D4:52:THR:O	49:D4:53:GLU:CB	2.69	0.40
54:DA:1453:A:N6	54:DA:2702:U:H1'	2.37	0.40
46:BZ:88:LYS:HB3	46:BZ:88:LYS:HE2	1.80	0.40
28:BF:29:ASN:H	28:BF:112:MET:CE	2.34	0.40
3:AF:113:ALA:C	3:AF:115:LEU:N	2.75	0.40
2:AE:42:ILE:CD1	2:AE:202:PRO:HB2	2.50	0.40
54:DA:2422:A:OP2	51:D6:6:ARG:NH1	2.55	0.40
53:D8:40:GLU:O	53:D8:42:ARG:N	2.54	0.40
24:BA:686:G:N2	24:BA:788:A:H61	2.19	0.40
24:BA:2811:G:P	27:BE:61:ARG:HG3	2.62	0.40
26:BD:26:LYS:O	26:BD:27:THR:OG1	2.37	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:31:LYS:HE3	26:BD:31:LYS:HB2	1.83	0.40
39:D1:57:PHE:O	39:D1:58:ARG:C	2.59	0.40
32:DM:1:MET:HE3	39:D1:95:LEU:HD21	1.98	0.40
22:AD:8:U:H6	22:AD:8:U:OP2	2.04	0.40
44:BV:105:VAL:O	44:BV:139:VAL:CG1	2.69	0.40
5:AH:92:LYS:HB3	5:AH:119:LEU:HB2	2.02	0.40
5:AH:93:PRO:HA	5:AH:118:ILE:HD12	2.03	0.40
2:CE:17:PHE:HB2	2:CE:42:ILE:CG2	2.50	0.40
35:BP:141:GLN:CA	44:BV:75:ASN:ND2	2.84	0.40
44:BV:44:PHE:CZ	44:BV:48:PHE:CD2	3.09	0.40
53:B8:55:ALA:O	53:B8:56:GLU:C	2.59	0.40
30:BH:151:ILE:O	30:BH:152:ARG:O	2.39	0.40
27:DE:101:ARG:C	27:DE:201:THR:OG1	2.58	0.40
54:DA:1533:C:C5'	54:DA:1534:G:OP2	2.70	0.40
54:DA:1534:G:C8	54:DA:1534:G:C4'	3.05	0.40
54:DA:27:G:H1'	54:DA:513:A:H62	1.86	0.40
38:BR:48:ILE:CG2	38:BR:49:VAL:N	2.84	0.40
1:CA:1122:U:H2'	1:CA:1123:A:O4'	2.21	0.40
29:DG:112:PRO:CA	49:D4:37:SER:HB2	2.51	0.40
49:D4:42:PHE:CZ	49:D4:43:TYR:HB3	2.57	0.40
55:DB:50:G:H5''	37:DQ:61:ASN:HD21	1.86	0.40
44:BV:58:VAL:O	44:BV:59:LEU:CG	2.69	0.40
54:DA:411:G:H4'	54:DA:412:A:H5''	2.03	0.40
47:DW:18:PRO:C	47:DW:20:GLU:H	2.24	0.40
2:CE:168:THR:CG2	2:CE:192:SER:HB2	2.51	0.40
51:D6:50:ARG:HG2	51:D6:50:ARG:NH1	2.37	0.40
7:AJ:22:LEU:CD1	7:AJ:97:GLN:HE22	2.34	0.40
1:AA:1392:G:N2	1:AA:1502:A:H8	2.19	0.40
24:BA:623:G:H2'	24:BA:624:C:O4'	2.21	0.40
4:AG:162:LEU:HD12	4:AG:181:MET:HE2	2.02	0.40
10:AM:6:ILE:HD13	10:AM:23:ILE:HG21	2.04	0.40
41:DS:66:GLU:HG2	41:DS:67:ASP:N	2.37	0.40
28:BF:59:TYR:N	28:BF:59:TYR:CD2	2.88	0.40
24:BA:1800:C:OP2	26:BD:183:ARG:NH2	2.55	0.40
1:AA:1380:U:H4'	1:AA:1381:U:O5'	2.22	0.40
54:DA:2190:G:H8	54:DA:2190:G:H5'	1.86	0.40
54:DA:2110:G:O2'	54:DA:2111:C:P	2.80	0.40
32:BM:6:PRO:HB3	32:BM:41:ASP:OD2	2.22	0.40
32:BM:9:VAL:O	32:BM:9:VAL:HG23	2.22	0.40
24:BA:2512:C:H4'	27:BE:122:PHE:CE2	2.56	0.40
33:DN:13:ASN:HD21	33:DN:97:ARG:HB3	1.87	0.40
8:AK:54:ASP:C	8:AK:56:LYS:N	2.74	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:2309:A:C8	54:DA:2310:A:C2	3.09	0.40
22:CD:7:G:C4'	22:CD:8:U:OP2	2.70	0.40
25:BB:67:G:H2'	25:BB:68:C:H6	1.85	0.40
24:BA:528:A:H8	24:BA:528:A:H3'	1.85	0.40
47:DW:37:PHE:O	47:DW:40:SER:HB3	2.21	0.40
54:DA:1092:C:H2'	54:DA:1093:G:C4'	2.52	0.40
30:DH:169:VAL:CG2	30:DH:170:ARG:H	2.27	0.40
31:DK:39:ALA:C	31:DK:40:THR:O	2.60	0.40
8:CK:97:VAL:O	8:CK:100:ILE:HG13	2.20	0.40
9:CL:83:ARG:HG2	9:CL:83:ARG:H	1.64	0.40
3:CF:5:ILE:CD1	3:CF:5:ILE:H	2.34	0.40
24:BA:2405:G:HO2'	24:BA:2406:U:P	2.41	0.40
24:BA:1757:U:N3	24:BA:1762:A:C2	2.65	0.40
24:BA:1314:C:H5'	24:BA:1314:C:H6	1.83	0.40
46:BZ:54:ALA:O	46:BZ:55:GLY:O	2.39	0.40
7:CJ:118:VAL:HG23	7:CJ:119:ARG:N	2.35	0.40
24:BA:529:A:N3	24:BA:529:A:C2'	2.78	0.40
36:B0:103:ARG:HB3	36:B0:108:GLY:HA2	2.03	0.40
1:AA:1255:G:N7	1:AA:1279:A:C6	2.89	0.40
6:AI:47:ARG:HH11	6:AI:47:ARG:HB3	1.73	0.40
1:AA:674:G:H21	11:AN:116:HIS:HB2	1.87	0.40
27:BE:26:ILE:O	27:BE:27:LEU:CB	2.62	0.40
18:AU:35:ARG:HA	18:AU:78:LEU:HD13	2.02	0.40
6:CI:75:LEU:C	6:CI:75:LEU:HD23	2.41	0.40
24:BA:882:G:H2'	24:BA:883:G:C4'	2.51	0.40
12:AO:90:VAL:O	12:AO:90:VAL:HG12	2.22	0.40
42:BT:37:THR:C	42:BT:39:ILE:N	2.74	0.40
11:CN:31:THR:HG23	11:CN:31:THR:O	2.21	0.40
54:DA:691:C:O2'	54:DA:692:C:H5'	2.21	0.40
3:CF:140:ARG:NH1	3:CF:140:ARG:HB2	2.36	0.40
1:AA:542:G:H5'	4:AG:41:GLY:CA	2.52	0.40
22:AD:65:C:C2'	22:AD:66:C:H5'	2.49	0.40
1:CA:49:U:H5''	1:CA:50:A:OP2	2.21	0.40
39:B1:80:ILE:CG2	39:B1:80:ILE:O	2.69	0.40
24:BA:852:G:C2'	24:BA:853:G:H5'	2.51	0.40
46:BZ:74:VAL:O	46:BZ:74:VAL:HG12	2.20	0.40
24:BA:692:C:P	26:BD:56:GLY:H	2.44	0.40
27:BE:195:LEU:HD12	27:BE:196:VAL:N	2.35	0.40
24:BA:2556:C:C2'	24:BA:2557:G:H5'	2.51	0.40
54:DA:97:C:C2'	54:DA:97:C:O2	2.68	0.40
25:BB:10:C:N4	25:BB:11:C:H41	2.19	0.40
1:AA:33:A:H2'	1:AA:34:C:C6	2.57	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AJ:131:LYS:HZ2	7:AJ:131:LYS:HB2	1.86	0.40
1:CA:357:G:O2'	1:CA:358:U:H5'	2.20	0.40
13:CP:28:ALA:C	13:CP:30:ALA:H	2.24	0.40
54:DA:1322:A:C5	54:DA:1323:U:C5	3.09	0.40
24:BA:874:G:H2'	24:BA:875:G:H8	1.84	0.40
54:DA:1810:A:H2'	54:DA:1811:G:O4'	2.20	0.40
5:AH:147:ASP:HA	5:AH:150:ARG:HB2	2.04	0.40
30:BH:121:ILE:HD13	30:BH:121:ILE:HA	1.91	0.40
31:BK:117:GLU:O	31:BK:118:LYS:C	2.59	0.40
24:BA:1957:C:H2'	24:BA:1958:C:H6	1.86	0.40
24:BA:2689:U:P	24:BA:2719:G:H22	2.44	0.40
1:CA:184:G:O4'	1:CA:224:C:H4'	2.22	0.40
5:AH:58:ALA:O	5:AH:62:ALA:CB	2.69	0.40
24:BA:540:G:C4	24:BA:541:C:C5	3.09	0.40
6:AI:71:ARG:HG3	6:AI:71:ARG:HH11	1.86	0.40
30:DH:146:ALA:HA	30:DH:164:TYR:OH	2.21	0.40
24:BA:1547:C:H2'	24:BA:1548:C:H6	1.85	0.40
17:CT:94:ASN:O	17:CT:97:SER:N	2.53	0.40
1:AA:156:G:O2'	1:AA:157:G:H5'	2.22	0.40
1:AA:195:A:C6	1:AA:196:A:N1	2.90	0.40
35:DP:52:VAL:O	35:DP:53:ALA:C	2.59	0.40
25:BB:114:G:H2'	25:BB:115:G:O4'	2.21	0.40
1:CA:1208:C:H2'	1:CA:1209:C:O4'	2.20	0.40
17:CT:85:VAL:HG12	17:CT:85:VAL:O	2.20	0.40
3:CF:55:VAL:O	3:CF:55:VAL:HG12	2.21	0.40
2:AE:240:GLN:C	2:AE:240:GLN:OE1	2.60	0.40
5:AH:43:LEU:HD12	5:AH:44:GLY:H	1.86	0.40
24:BA:1345:C:O2'	24:BA:1346:G:H5'	2.22	0.40
30:DH:128:PRO:CG	30:DH:129:THR:H	2.33	0.40
24:BA:1899:G:O2'	24:BA:1900:A:H5''	2.21	0.40
26:BD:246:PRO:CB	26:BD:255:LYS:HD3	2.51	0.40
3:AF:13:GLY:HA3	14:AQ:57:ARG:NH2	2.36	0.40
19:AV:36:ARG:NH2	19:AV:70:LYS:N	2.69	0.40
29:BG:117:PHE:CZ	29:BG:119:GLY:HA2	2.57	0.40
24:BA:1888:G:H5'	24:BA:1888:G:N3	2.36	0.40
33:BN:87:ILE:CG2	33:BN:92:GLU:N	2.84	0.40
24:BA:2566:A:O2'	24:BA:2567:G:OP2	2.32	0.40
54:DA:1080:A:H2'	54:DA:1081:U:O5'	2.21	0.40
24:BA:1047:G:C2'	24:BA:1110:G:H22	2.32	0.40
24:BA:331:A:N3	24:BA:1209:G:C6	2.90	0.40
30:BH:125:VAL:HG13	30:BH:126:PRO:CA	2.51	0.40
54:DA:503:A:C5	54:DA:506:G:C5	3.10	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:997:G:OP1	39:B1:93:LYS:HB2	2.22	0.40
54:DA:1044:G:H8	54:DA:1044:G:H5'	1.86	0.40
1:CA:1054:C:C5	1:CA:1196:U:C4	3.09	0.40
2:CE:70:PHE:O	2:CE:92:TYR:HA	2.22	0.40
3:CF:13:GLY:O	3:CF:14:ILE:HB	2.21	0.40
26:DD:35:LYS:CE	26:DD:64:ILE:C	2.89	0.40
28:BF:32:LEU:C	28:BF:32:LEU:CD2	2.90	0.40
2:AE:17:PHE:CZ	2:AE:44:LEU:HB3	2.55	0.40
54:DA:2283:C:H5'	51:D6:8:LYS:CE	2.52	0.40
26:BD:69:ARG:NH2	26:BD:192:THR:HG21	2.36	0.40
1:AA:581:G:O2'	1:AA:582:U:H5'	2.21	0.40
24:BA:775:G:N2	24:BA:793:A:O2'	2.50	0.40
24:BA:2285:C:OP2	51:B6:27:LYS:NZ	2.44	0.40
32:DM:7:LYS:CG	32:DM:8:GLN:N	2.81	0.40
54:DA:1139:G:O3'	32:DM:24:GLY:HA3	2.21	0.40
28:DF:36:VAL:HG11	28:DF:183:VAL:HG11	2.04	0.40
35:BP:21:THR:N	35:BP:99:PRO:O	2.54	0.40
24:BA:2842:G:C2'	24:BA:2843:G:H5'	2.51	0.40
4:CG:19:LEU:HG	4:CG:21:LEU:HG	2.03	0.40
2:CE:223:ILE:O	2:CE:226:ARG:HB3	2.21	0.40
29:DG:61:ALA:CB	29:DG:67:LYS:HA	2.50	0.40
54:DA:2404:C:O3'	34:DO:77:ARG:NH2	2.54	0.40
54:DA:412:A:N7	54:DA:2411:A:H2	2.19	0.40
15:AR:54:ARG:O	15:AR:57:LEU:N	2.55	0.40
26:DD:107:ALA:HA	26:DD:108:PRO:HD2	2.01	0.40
5:CH:48:ALA:C	5:CH:50:GLU:H	2.24	0.40
20:CW:49:ALA:HA	20:CW:92:LEU:HD21	2.03	0.40
39:B1:34:LYS:CA	39:B1:34:LYS:HE2	2.36	0.40
54:DA:1819:A:O2'	54:DA:1820:U:OP2	2.32	0.40
4:AG:3:ARG:CZ	4:AG:5:ILE:HD13	2.52	0.40
29:BG:41:GLN:NE2	29:BG:60:LEU:HD12	2.28	0.40
58:DA:2924:G:O5'	58:DA:2924:G:H8	2.04	0.40
1:CA:453:A:H4'	16:CS:72:ARG:HB2	2.01	0.40
7:AJ:154:TYR:O	7:AJ:155:ARG:C	2.59	0.40
31:DK:10:GLU:O	31:DK:11:ASN:HB3	2.21	0.40
31:DK:9:LEU:CD2	31:DK:12:LEU:O	2.69	0.40
54:DA:2114:A:H2'	54:DA:2115:G:OP1	2.21	0.40
54:DA:2163:C:N4	54:DA:2164:C:N4	2.70	0.40
54:DA:2117:A:N7	54:DA:2172:U:N3	2.70	0.40
36:B0:73:VAL:HG12	36:B0:77:ARG:NH1	2.36	0.40
1:CA:1186:G:H21	14:CQ:61:TRP:C	2.23	0.40
1:CA:1346:A:O2'	1:CA:1347:G:H1'	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1280:G:O2'	54:DA:1281:G:H5''	2.22	0.40
20:AW:57:ARG:NH2	20:AW:100:ILE:HG21	2.35	0.40
42:BT:63:LYS:HA	42:BT:72:LYS:HB2	2.03	0.40
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.53	0.40
13:AP:54:VAL:HG12	13:AP:58:GLU:OE1	2.21	0.40
22:CD:67:C:C2	22:CD:68:C:C5	3.10	0.40
25:BB:96:G:N2	25:BB:97:G:C1'	2.84	0.40
54:DA:1310:G:OP2	52:D7:9:ARG:CZ	2.69	0.40
38:DR:39:ARG:HG2	38:DR:40:THR:N	2.25	0.40
1:AA:991:U:O2	1:AA:993:G:C8	2.74	0.40
1:AA:994:A:N3	1:AA:994:A:H2'	2.37	0.40
3:CF:149:ALA:O	3:CF:169:ALA:CA	2.67	0.40
24:BA:587:C:H4'	24:BA:588:U:O5'	2.21	0.40
24:BA:2406:U:O4	34:BO:70:GLN:HB2	2.22	0.40
49:D4:21:VAL:O	49:D4:22:ILE:O	2.40	0.40
1:AA:1019:C:H2'	1:AA:1020:U:O5'	2.21	0.40
1:CA:406:G:C2	1:CA:407:G:C8	3.08	0.40
1:AA:468:A:C4'	16:AS:82:GLN:OE1	2.69	0.40
1:CA:390:C:H2'	1:CA:391:G:H8	1.86	0.40
15:AR:38:ARG:O	15:AR:41:GLU:N	2.54	0.40
54:DA:1588:C:O2'	54:DA:1589:C:H5'	2.21	0.40
12:AO:79:GLU:HG3	12:AO:80:HIS:H	1.84	0.40
45:B3:25:ARG:HD3	45:B3:36:ILE:O	2.22	0.40
28:DF:118:ALA:HA	28:DF:123:LEU:HB3	2.02	0.40
14:AQ:45:ARG:O	14:AQ:49:HIS:CD2	2.74	0.40
8:CK:33:GLU:C	8:CK:35:ILE:H	2.25	0.40
54:DA:1241:A:H2'	54:DA:1242:A:O5'	2.22	0.40
15:AR:15:PHE:O	15:AR:27:VAL:CG2	2.69	0.40
15:AR:27:VAL:O	15:AR:28:GLN:C	2.58	0.40
19:CV:29:ARG:HG2	19:CV:29:ARG:NH1	2.37	0.40
54:DA:1761:C:N4	54:DA:1762:A:N6	2.69	0.40
43:BU:94:LYS:HZ2	43:BU:101:LYS:NZ	2.16	0.40
25:BB:18:G:H2'	25:BB:19:G:C8	2.57	0.40
37:DQ:102:ALA:C	37:DQ:104:GLY:N	2.73	0.40
7:CJ:21:VAL:HG23	7:CJ:22:LEU:N	2.32	0.40
1:CA:299:G:O2'	1:CA:300:A:H5'	2.20	0.40
1:CA:913:A:O2'	1:CA:914:A:P	2.78	0.40
26:DD:230:ASP:N	26:DD:230:ASP:OD2	2.54	0.40
1:CA:1300:G:O2'	1:CA:1301:U:OP2	2.39	0.40
1:CA:1067:A:O2'	1:CA:1068:G:P	2.80	0.40
1:CA:1108:G:H5'	3:CF:176:HIS:ND1	2.36	0.40
24:BA:2838:G:C4'	36:B0:45:ARG:HH12	2.34	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:5:MET:CE	43:DU:32:PRO:HB3	2.51	0.40
24:BA:657:U:OP2	24:BA:657:U:H6	2.03	0.40
24:BA:1368:G:O2'	24:BA:1369:G:H5'	2.22	0.40
1:AA:890:G:O2'	1:AA:891:U:P	2.79	0.40
54:DA:534:U:H5'	39:D1:42:ALA:HB1	2.02	0.40
24:BA:2001:A:OP1	36:B0:9:LYS:NZ	2.54	0.40
44:DV:37:VAL:HG23	44:DV:38:TYR:N	2.36	0.40
38:DR:29:ARG:NH1	38:DR:29:ARG:HB2	2.36	0.40
24:BA:270(J):G:OP2	24:BA:270(J):G:H8	2.04	0.40
58:DA:2933:G:H2'	59:DA:2934:C:H6	1.86	0.40
11:AN:128:ALA:O	11:AN:129:SER:CB	2.68	0.40
41:DS:88:ARG:HD2	41:DS:88:ARG:HA	1.92	0.40
1:AA:1523:G:OP1	11:AN:123:LYS:CD	2.70	0.40
3:AF:85:ARG:HE	3:AF:85:ARG:C	2.24	0.40
12:AO:34:ARG:O	12:AO:61:THR:HG23	2.21	0.40
54:DA:476:G:O4'	54:DA:505:A:H2	2.04	0.40
13:CP:54:VAL:O	13:CP:54:VAL:HG12	2.21	0.40
22:AD:25:C:H2'	22:AD:26:G:C5'	2.52	0.40
29:BG:46:ALA:C	29:BG:48:GLU:N	2.75	0.40
1:AA:1431:C:O2'	1:AA:1432:G:H5'	2.21	0.40
11:CN:83:ILE:HG12	11:CN:109:VAL:CG2	2.51	0.40
24:BA:1474:C:H3'	24:BA:1475:G:H8	1.84	0.40
54:DA:80:G:O2'	54:DA:81:G:H5'	2.21	0.40
54:DA:2080:G:H2'	54:DA:2081:C:H6	1.86	0.40
1:CA:1419:G:O2'	1:CA:1420:C:H5'	2.21	0.40
1:CA:1515:C:O2'	1:CA:1516:G:H5'	2.21	0.40
28:DF:33:LEU:O	28:DF:37:VAL:HG23	2.21	0.40
24:BA:1810:A:H2'	24:BA:1811:G:O4'	2.21	0.40
54:DA:2813:A:H2'	54:DA:2814:C:O4'	2.21	0.40
11:CN:90:GLY:O	11:CN:94:ALA:HB2	2.21	0.40
25:BB:63:G:H2'	25:BB:64:C:C6	2.57	0.40
40:D2:70:ILE:HG22	40:D2:70:ILE:O	2.21	0.40
24:BA:1914:C:H3'	24:BA:1914:C:OP1	2.21	0.40
53:D8:39:LYS:HD2	53:D8:39:LYS:O	2.22	0.40
27:DE:154:LYS:HD3	27:DE:154:LYS:C	2.42	0.40
24:BA:2826:A:C5	24:BA:2827:C:C5	3.09	0.40
24:BA:1707:G:H2'	24:BA:1708:C:C6	2.57	0.40
46:DZ:96:LYS:HG2	46:DZ:96:LYS:O	2.21	0.40
19:AV:49:ILE:N	19:AV:60:VAL:HG22	2.31	0.40
9:AL:19:LEU:CD2	9:AL:61:ALA:HA	2.47	0.40
2:AE:132:LYS:NZ	2:AE:135:GLN:HE22	2.20	0.40
54:DA:1507:A:H5'	54:DA:1508:A:OP2	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1509:C:H2'	54:DA:1511:A:H8	1.84	0.40
27:DE:3:GLY:HA3	27:DE:81:ILE:CG2	2.52	0.40
44:DV:144:LEU:CD2	44:DV:150:LEU:HD13	2.51	0.40
30:BH:61:HIS:C	30:BH:63:SER:N	2.74	0.40
30:BH:124:GLU:N	30:BH:124:GLU:OE1	2.53	0.40
43:DU:57:GLN:O	43:DU:58:GLY:C	2.60	0.40
40:B2:35:LEU:CD1	40:B2:35:LEU:N	2.81	0.40
40:B2:38:LEU:HD12	40:B2:56:SER:CA	2.52	0.40
54:DA:1049:C:H1'	54:DA:1113:U:H4'	2.03	0.40
19:CV:3:ARG:CG	19:CV:4:SER:N	2.83	0.40
32:DM:133:GLN:C	32:DM:134:ARG:HG2	2.41	0.40
29:BG:31:VAL:HA	29:BG:32:PRO:HD3	1.87	0.40
2:CE:97:TRP:CH2	2:CE:176:GLU:HB2	2.54	0.40
1:CA:1124:G:H3'	1:CA:1145:C:H41	1.70	0.40
28:BF:10:PRO:HD2	28:BF:13:SER:OG	2.21	0.40
3:AF:114:PRO:HA	3:AF:185:GLY:HA3	2.03	0.40
54:DA:1181:C:C5'	54:DA:1181:C:H6	2.24	0.40
40:B2:71:LEU:CA	40:B2:86:GLY:HA3	2.51	0.40
51:B6:17:LYS:O	51:B6:18:ARG:CB	2.70	0.40
4:AG:21:LEU:N	4:AG:21:LEU:HD12	2.36	0.40
51:B6:13:CYS:H	51:B6:22:ALA:HB1	1.81	0.40
8:AK:68:ARG:HH11	8:AK:68:ARG:HG2	1.86	0.40
44:DV:121:HIS:CD2	44:DV:121:HIS:N	2.86	0.40
24:BA:99:U:H4'	24:BA:102:G:H1'	2.03	0.40
35:BP:26:TYR:CE1	35:BP:140:ALA:HA	2.57	0.40
37:BQ:54:LEU:HD13	37:BQ:54:LEU:C	2.41	0.40
55:DB:7:G:H4'	37:DQ:29:PHE:CD1	2.56	0.40
34:BO:52:GLU:OE1	34:BO:52:GLU:C	2.59	0.40
20:CW:50:GLU:HA	20:CW:100:ILE:HG22	2.02	0.40
24:BA:2313:C:C2	24:BA:2314:C:C5	3.09	0.40
29:BG:154:GLY:O	29:BG:155:MET:HB3	2.20	0.40
30:DH:26:VAL:HG12	30:DH:33:LEU:HB2	2.03	0.40
1:AA:327:A:C2	1:AA:329:A:N3	2.89	0.40
1:AA:1443:G:N2	24:BA:2863:C:O3'	2.55	0.40
24:BA:2866:U:H2'	24:BA:2866:U:O2	2.20	0.40
1:CA:1014:A:H5'	19:CV:14:HIS:CD2	2.56	0.40
39:D1:33:ARG:O	39:D1:37:GLU:HB2	2.21	0.40
43:BU:21:LYS:HD3	43:BU:21:LYS:HA	2.01	0.40
44:BV:121:HIS:C	44:BV:123:ASP:H	2.24	0.40
54:DA:1288:U:HO2'	54:DA:1647:G:H21	1.58	0.40
1:CA:1061:G:C5	1:CA:1062:U:C5	3.09	0.40
28:BF:161:GLU:O	28:BF:164:ARG:N	2.54	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1000:A:H3'	1:AA:1001:G:C5'	2.42	0.40
24:BA:528:A:C8	24:BA:528:A:H3'	2.56	0.40
37:DQ:20:ARG:HE	37:DQ:21:THR:HA	1.87	0.40
42:DT:9:LEU:HA	47:DW:36:ARG:HH21	1.86	0.40
24:BA:2681:C:O2'	24:BA:2682:U:H5'	2.21	0.40
33:DN:31:LYS:C	33:DN:32:TYR:CD2	2.94	0.40
16:CS:50:LYS:HD3	16:CS:50:LYS:C	2.41	0.40
1:CA:830:G:O2'	1:CA:831:U:H5'	2.21	0.40
31:BK:110:ASP:C	31:BK:111:PRO:O	2.57	0.40
54:DA:860:U:O2	54:DA:2268:A:O4'	2.40	0.40
14:CQ:48:ALA:O	14:CQ:51:GLY:N	2.53	0.40
3:CF:33:LEU:HD11	14:CQ:53:LEU:HD23	2.04	0.40
24:BA:2822:G:OP2	27:BE:110:GLY:O	2.39	0.40
55:DB:15:A:H3'	55:DB:16:G:H5'	2.03	0.40
1:CA:532:A:H2'	1:CA:533:A:OP1	2.22	0.40
49:D4:22:ILE:HG22	49:D4:23:GLU:H	1.86	0.40
27:DE:119:ARG:HG2	27:DE:160:TYR:HB2	2.04	0.40
5:CH:36:ASP:O	5:CH:37:ARG:HG2	2.22	0.40
9:CL:71:SER:O	9:CL:72:GLY:C	2.58	0.40
24:BA:703:U:H2'	24:BA:704:G:O4'	2.21	0.40
1:AA:706:A:N7	1:AA:707:C:H5	2.18	0.40
1:CA:1028(A):C:H2'	1:CA:1028(B):C:H6	1.84	0.40
54:DA:2175:C:C2'	54:DA:2176:A:H5''	2.52	0.40
26:BD:136:ILE:HA	26:BD:137:PRO:HD3	1.88	0.40
15:CR:70:LEU:HD23	15:CR:81:LEU:HD23	2.04	0.40
42:DT:31:HIS:HA	42:DT:32:PRO:HD3	1.88	0.40
24:BA:858:U:H2'	24:BA:2268:A:N3	2.36	0.40
59:CC:106:C:OP2	59:CC:107:C:O3'	2.40	0.40
13:AP:84:ILE:O	13:AP:84:ILE:HG22	2.21	0.40
28:DF:124:LEU:HD12	28:DF:125:LEU:O	2.22	0.40
9:AL:25:LYS:H	9:AL:25:LYS:CD	2.30	0.40
1:AA:191:G:C5	1:AA:192:U:C5	3.10	0.40
54:DA:1204:A:C2	54:DA:1241:A:C2	3.10	0.40
2:CE:132:LYS:HA	2:CE:135:GLN:CG	2.51	0.40
1:AA:174:C:H2'	1:AA:175:C:H6	1.86	0.40
6:CI:8:ILE:HG22	6:CI:10:LEU:HD12	2.03	0.40
45:D3:49:LYS:N	45:D3:80:HIS:ND1	2.62	0.40
4:CG:68:TYR:OH	4:CG:196:LEU:HD21	2.22	0.40
4:CG:199:ASN:OD1	4:CG:201:GLN:HB3	2.21	0.40
7:CJ:50:ILE:HA	7:CJ:54:THR:CG2	2.52	0.40
6:AI:26:ILE:O	6:AI:30:LEU:HG	2.22	0.40
1:AA:279:A:HO2'	1:AA:280:C:P	2.45	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DA:1328:G:H2'	54:DA:1330:C:C4	2.57	0.40
54:DA:1711:C:O2'	54:DA:1712:C:H5'	2.21	0.40
6:CI:98:LEU:HD12	6:CI:98:LEU:C	2.41	0.40
3:CF:92:ALA:HB2	3:CF:99:VAL:HG13	2.03	0.40
38:DR:20:PRO:HG2	38:DR:86:ILE:O	2.21	0.40
28:BF:95:ARG:O	28:BF:95:ARG:HG3	2.20	0.40
41:DS:74:ALA:C	41:DS:75:TYR:HD1	2.24	0.40
54:DA:654(T):A:C6	54:DA:654(U):A:C4	3.10	0.40
41:DS:82:LEU:N	41:DS:98:LYS:O	2.42	0.40
26:BD:111:LEU:HD22	26:BD:111:LEU:HA	1.86	0.40
9:CL:9:ARG:CG	9:CL:14:VAL:HG22	2.51	0.40
24:BA:2840:C:H4'	36:B0:53:HIS:HD2	1.85	0.40
38:BR:76:PHE:HA	38:BR:77:PRO:HD3	1.78	0.40
1:CA:1179:A:H8	1:CA:1179:A:OP1	2.04	0.40
7:AJ:57:GLU:CD	7:AJ:57:GLU:N	2.75	0.40
41:BS:31:GLU:O	41:BS:35:ILE:HG13	2.21	0.40
54:DA:271(C):U:C2'	54:DA:271(C):U:O2	2.69	0.40
8:AK:97:VAL:O	8:AK:100:ILE:HG13	2.22	0.40
7:CJ:92:SER:HB3	7:CJ:95:ARG:HB2	2.03	0.40
54:DA:332:A:C2	54:DA:335:C:C5	3.10	0.40
3:AF:30:ARG:HB2	14:AQ:36:PHE:O	2.21	0.40
54:DA:1810:A:C2'	54:DA:1811:G:H5'	2.51	0.40
22:CC:37:A:C2	23:C1:16:A:C6	3.10	0.40
54:DA:979:G:N2	54:DA:985:C:C4	2.89	0.40
37:DQ:24:LEU:N	37:DQ:24:LEU:HD22	2.37	0.40
24:BA:149:A:H2'	24:BA:150:C:O4'	2.21	0.40
44:BV:29:TYR:HA	44:BV:33:LEU:O	2.21	0.40
54:DA:1835:G:H5'	54:DA:1836:C:OP2	2.21	0.40
24:BA:828:U:O2	24:BA:828:U:C2'	2.66	0.40
33:BN:8:LEU:N	33:BN:8:LEU:HD22	2.37	0.40
24:BA:2836:U:H2'	24:BA:2837:G:C8	2.56	0.40
11:AN:92:GLU:O	11:AN:93:GLN:C	2.60	0.40
54:DA:2262:U:H2'	54:DA:2263:C:H6	1.86	0.40
13:CP:47:ASP:O	13:CP:48:LEU:HB3	2.20	0.40
17:CT:8:GLY:HA3	17:CT:21:VAL:HG12	2.03	0.40
31:BK:41:GLU:O	31:BK:45:LYS:HG2	2.22	0.40
1:CA:696:A:H8	1:CA:696:A:O5'	2.04	0.40
26:BD:127:VAL:O	26:BD:127:VAL:HG12	2.22	0.40
1:CA:1266:G:H8	1:CA:1266:G:O5'	2.03	0.40
36:B0:34:ILE:HA	36:B0:34:ILE:HD13	1.84	0.40
54:DA:2477:C:O5'	54:DA:2477:C:H6	2.05	0.40
54:DA:2708:G:H4'	36:D0:71:GLN:HE22	1.86	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BG:35:GLU:O	29:BG:36:LYS:O	2.39	0.40
43:DU:84:ARG:HH12	43:DU:97:ARG:CB	2.15	0.40
43:DU:95:LYS:HA	43:DU:101:LYS:CB	2.51	0.40
43:DU:97:ARG:CG	43:DU:97:ARG:O	2.70	0.40
1:AA:971:G:P	1:AA:1231:G:H21	2.43	0.40
3:AF:205:GLY:O	3:AF:206:GLU:HG2	2.22	0.40
24:BA:2517:C:N3	24:BA:2542:A:C6	2.89	0.40
54:DA:242:G:O3'	53:D8:6:THR:HG23	2.21	0.40
54:DA:1055:G:O2'	54:DA:1085:A:N6	2.53	0.40
27:DE:93:VAL:HG21	27:DE:180:ASN:HA	2.03	0.40
43:BU:13:VAL:HG22	43:BU:14:LEU:O	2.22	0.40
1:CA:1054:C:O2'	1:CA:1055:A:O5'	2.38	0.40
13:CP:119:GLY:O	13:CP:120:LYS:O	2.38	0.40
29:BG:172:LEU:O	29:BG:176:LEU:HG	2.22	0.40
3:CF:70:VAL:CG1	3:CF:71:ALA:H	2.35	0.40
54:DA:2667:C:H1'	30:DH:109:PHE:CD2	2.45	0.40
2:AE:216:SER:C	2:AE:218:ALA:N	2.75	0.40
54:DA:620:G:H4'	54:DA:621:A:O5'	2.22	0.40
1:CA:1392:G:O2'	1:CA:1502:A:H5'	2.22	0.40
27:BE:35:GLN:NE2	27:BE:37:ARG:HH21	2.20	0.40
27:BE:38:THR:HG21	27:BE:40:GLU:OE1	2.21	0.40
27:BE:53:PRO:O	27:BE:72:VAL:HG12	2.21	0.40
24:BA:1777:U:C2'	24:BA:1778:U:H5'	2.51	0.40
1:CA:591:U:H2'	1:CA:592:G:H8	1.87	0.40
35:BP:51:ARG:CG	35:BP:52:VAL:N	2.81	0.40
44:BV:118:GLN:HG3	44:BV:173:ALA:CA	2.52	0.40
2:CE:5:ILE:CG2	2:CE:224:GLN:HG2	2.51	0.40
34:BO:47:ASP:OD2	34:BO:49:ARG:HB2	2.21	0.40
54:DA:1026:U:HO2'	54:DA:1027:A:H5''	1.86	0.40
24:BA:221:A:C2	24:BA:233:A:C4	3.09	0.40
1:AA:742:G:P	15:AR:35:ARG:HH22	2.44	0.40
54:DA:512:G:O2'	54:DA:513:A:H8	2.04	0.40
1:AA:1154:G:N2	1:AA:1155:G:C4	2.90	0.40
1:AA:1161:C:C2	1:AA:1162:C:C5	3.09	0.40
55:DB:49:C:H2'	55:DB:50:G:H8	1.87	0.40
37:DQ:59:LYS:CG	37:DQ:60:GLY:N	2.80	0.40
54:DA:389:G:H1	34:DO:71:VAL:HG12	1.87	0.40
40:D2:35:LEU:C	40:D2:37:VAL:N	2.75	0.40
1:AA:1227:A:C2	19:AV:83:HIS:HB3	2.56	0.40
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.21	0.40
54:DA:2344:U:O2'	54:DA:2345:G:H5''	2.21	0.40
20:CW:98:PRO:O	20:CW:100:ILE:N	2.42	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DO:2:LYS:O	34:DO:5:ASP:CB	2.70	0.40
24:BA:622:G:H2'	24:BA:623:G:H5'	2.02	0.40
3:AF:27:LYS:O	3:AF:27:LYS:HG3	2.21	0.40
1:AA:534:U:H5'	1:AA:535:A:OP2	2.21	0.40
59:DA:2923:C:OP1	60:DA:2925:U:OP1	2.40	0.40
1:AA:329:A:H2'	1:AA:332:G:N7	2.36	0.40
1:AA:1002:G:H3'	1:AA:1003:G:O4'	2.22	0.40
1:AA:1004:A:O2'	1:AA:1036:G:O6	2.40	0.40
54:DA:565:C:H2'	54:DA:566:U:O4'	2.21	0.40
40:D2:95:LEU:HD13	40:D2:95:LEU:C	2.42	0.40
54:DA:2567:G:H2'	54:DA:2568:C:H6	1.83	0.40
31:DK:121:LYS:CG	31:DK:122:GLU:N	2.85	0.40
7:CJ:46:ALA:O	7:CJ:49:ILE:HB	2.21	0.40
1:AA:1218:C:OP2	14:AQ:9:LYS:NZ	2.54	0.40
33:BN:120:GLU:HB2	38:BR:68:TYR:CE2	2.54	0.40
35:BP:57:HIS:O	35:BP:58:PHE:HD2	2.05	0.40
52:B7:47:ARG:HD3	52:B7:47:ARG:H	1.85	0.40
37:DQ:6:ALA:O	37:DQ:10:ARG:HD3	2.21	0.40
18:AU:55:ARG:HH11	18:AU:55:ARG:HG3	1.86	0.40
54:DA:102:G:O2'	54:DA:103:A:P	2.80	0.40
2:AE:126:GLU:O	2:AE:130:ARG:NH1	2.54	0.40
28:DF:198:ALA:HA	28:DF:201:VAL:CG1	2.41	0.40
24:BA:670:A:C4'	24:BA:671:C:OP1	2.67	0.40
24:BA:631:A:H5'	34:BO:65:ARG:HG2	2.03	0.40
32:BM:87:LEU:HD22	32:BM:91:LEU:HD11	2.03	0.40
24:BA:2282:G:O2'	24:BA:2390:U:O4	2.40	0.40
7:AJ:135:VAL:O	7:AJ:138:LYS:N	2.55	0.40
47:BW:25:VAL:C	47:BW:27:GLU:H	2.24	0.40
26:DD:142:VAL:HA	26:DD:194:GLY:H	1.86	0.40
24:BA:2012:G:O3'	41:BS:96:ILE:CG1	2.70	0.40
4:AG:79:PHE:CD2	4:AG:207:TYR:HD1	2.39	0.40
54:DA:2063:C:C6	54:DA:2064:C:C5	3.10	0.40
54:DA:2177:C:C4	54:DA:2178:C:C5	3.10	0.40
38:DR:26:ASP:HB3	38:DR:92:GLY:H	1.87	0.40
31:BK:56:LYS:O	31:BK:57:ARG:C	2.59	0.40
31:BK:56:LYS:CG	31:BK:57:ARG:N	2.84	0.40
1:AA:451:A:H1'	1:AA:452:A:C5	2.56	0.40
24:BA:2094:G:C6	24:BA:2095:C:C4	3.09	0.40
54:DA:1364:G:OP1	46:DZ:3:LYS:HG3	2.22	0.40
16:AS:14:ASN:N	16:AS:15:PRO:CD	2.83	0.40
1:CA:788:U:C5	1:CA:789:U:C5	3.09	0.40
8:AK:34:GLU:C	8:AK:36:LEU:N	2.74	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:152:A:C8	1:AA:153:C:C5	3.09	0.40
35:BP:16:ARG:CG	35:BP:16:ARG:NH1	2.83	0.40
45:D3:68:GLU:CG	45:D3:80:HIS:HB2	2.50	0.40
6:AI:11:ASN:O	6:AI:14:LEU:HB2	2.22	0.40
45:D3:7:LEU:CD2	45:D3:11:ARG:HG2	2.51	0.40
17:CT:51:TYR:HA	17:CT:52:LYS:HZ2	1.86	0.40
15:AR:21:ASP:CG	15:AR:24:SER:HB2	2.42	0.40
18:AU:45:SER:HB3	18:AU:51:LEU:HD21	2.04	0.40
24:BA:372:G:O2'	24:BA:400:G:N1	2.55	0.40
33:DN:25:LEU:HD12	33:DN:38:VAL:HG13	2.04	0.40
18:CU:73:ALA:HB3	18:CU:79:LEU:CD1	2.47	0.40
24:BA:270(P):C:C2	24:BA:270(Q):C:C5	3.09	0.40
3:AF:38:ARG:HE	3:AF:38:ARG:HB2	1.58	0.40
27:BE:108:SER:O	27:BE:162:ALA:CA	2.68	0.40
12:CO:62:SER:O	12:CO:64:TYR:CD1	2.70	0.40
24:BA:414:C:H1'	24:BA:1864:U:O2'	2.21	0.40
35:BP:110:THR:C	35:BP:112:GLU:H	2.24	0.40
1:AA:1512:U:H2'	1:AA:1513:A:C8	2.55	0.40
1:AA:1512:U:N3	1:AA:1513:A:N7	2.69	0.40
36:B0:28:LEU:HD13	36:B0:28:LEU:C	2.42	0.40
3:CF:108:ASN:HB3	3:CF:111:LEU:CG	2.51	0.40
3:CF:108:ASN:HB3	3:CF:111:LEU:CD1	2.52	0.40
35:DP:58:PHE:C	35:DP:59:ARG:HD2	2.42	0.40
54:DA:2684:U:C4	54:DA:2685:G:N7	2.90	0.40
4:AG:103:ASN:O	4:AG:104:VAL:C	2.59	0.40
11:AN:60:ALA:C	11:AN:62:GLN:N	2.75	0.40
54:DA:987:G:O2'	54:DA:988:A:H5'	2.21	0.40
20:AW:93:GLU:OE1	20:AW:94:ALA:N	2.54	0.40
30:BH:96:ALA:HA	30:BH:105:LEU:HA	2.04	0.40
54:DA:1789:A:OP1	26:DD:221:VAL:HA	2.21	0.40
1:CA:1119:C:H2'	1:CA:1120:G:O4'	2.20	0.40
24:BA:1653:G:C6	36:B0:9:LYS:HG3	2.57	0.40
24:BA:1652:A:C2'	24:BA:1653:G:H5'	2.52	0.40
17:CT:82:MET:C	17:CT:84:LEU:H	2.25	0.40
16:CS:26:ARG:HH21	16:CS:31:LYS:HG2	1.86	0.40
54:DA:1443:G:O2'	54:DA:1444:G:H5'	2.21	0.40
28:DF:61:GLY:O	28:DF:62:ARG:C	2.57	0.40
7:AJ:16:LEU:O	7:AJ:17:VAL:CB	2.68	0.40
27:BE:167:VAL:HG22	27:BE:170:LEU:HD11	2.03	0.40
1:AA:571:U:O2	1:AA:918:A:H5'	2.21	0.40
54:DA:2352:A:C4	54:DA:2366:A:C2	3.09	0.40
17:CT:68:ARG:O	17:CT:68:ARG:HG3	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CS:39:TYR:CD2	16:CS:41:PRO:HD3	2.56	0.40
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.21	0.40
37:BQ:56:LEU:O	37:BQ:57:LYS:C	2.60	0.40
1:AA:642:A:C8	8:AK:115:SER:HA	2.56	0.40
54:DA:1342:A:O2'	54:DA:1344:G:OP1	2.39	0.40
26:BD:223:GLY:O	26:BD:225:ALA:N	2.54	0.40
54:DA:687:C:C2'	54:DA:687:C:O2	2.69	0.40
4:AG:39:PRO:HA	4:AG:40:PRO:HD3	1.89	0.40
1:AA:149:A:C2	1:AA:172:A:N6	2.90	0.40
32:DM:53:VAL:HG22	32:DM:121:LYS:HB2	2.04	0.40
1:AA:414:A:H8	1:AA:414:A:H5'	1.87	0.40
26:BD:257:LEU:HD23	26:BD:258:LYS:O	2.22	0.40
24:BA:1480:G:H5'	24:BA:1482:U:OP2	2.22	0.40
1:CA:265:G:O2'	17:CT:66:SER:HA	2.22	0.40
1:CA:217:C:H2'	1:CA:218:C:O4'	2.21	0.40
40:B2:66:ARG:HG2	40:B2:66:ARG:H	1.55	0.40
54:DA:1681:G:OP2	54:DA:1681:G:H8	2.04	0.40
45:B3:11:ARG:O	45:B3:11:ARG:CG	2.69	0.40
51:D6:53:LYS:NZ	51:D6:53:LYS:HB3	2.36	0.40
8:CK:48:TYR:N	8:CK:48:TYR:CD2	2.89	0.40
24:BA:1421:G:C2	24:BA:1422:G:C8	3.09	0.40
24:BA:1980:G:H4'	24:BA:1981:A:OP2	2.22	0.40

All (18) 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)
30:BH:125:VAL:CG2	1:CA:84:U:N1[3_545]	1.00	1.20
30:BH:125:VAL:CG2	1:CA:84:U:C6[3_545]	1.17	1.03
30:BH:126:PRO:CD	1:CA:82:U:O3'[3_545]	1.41	0.79
30:BH:126:PRO:CG	1:CA:84:U:O5'[3_545]	1.57	0.63
30:BH:126:PRO:CG	1:CA:84:U:P[3_545]	1.60	0.60
30:BH:126:PRO:CG	1:CA:84:U:C5'[3_545]	1.66	0.54
30:BH:126:PRO:CG	1:CA:82:U:O3'[3_545]	1.70	0.50
30:BH:125:VAL:CG2	1:CA:84:U:C2[3_545]	1.72	0.48
30:BH:125:VAL:CG1	1:CA:84:U:C3'[3_545]	1.75	0.45
30:BH:125:VAL:CG2	1:CA:84:U:C5[3_545]	1.89	0.31
30:BH:126:PRO:CB	1:CA:84:U:C5'[3_545]	1.90	0.30
30:BH:125:VAL:CG1	1:CA:84:U:C5'[3_545]	1.95	0.25
30:BH:125:VAL:CG1	1:CA:84:U:C4'[3_545]	1.96	0.24
1:AA:85:U:O5'	24:BA:362:U:O4'[3_545]	1.99	0.21
30:BH:126:PRO:CG	1:CA:84:U:OP1[3_545]	2.03	0.17

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BH:125:VAL:CB	1:CA:84:U:C6[3_545]	2.07	0.13
1:AA:85:U:OP1	24:BA:362:U:O5'[3_545]	2.19	0.01
30:BH:125:VAL:CG2	1:CA:84:U:C1'[3_545]	2.19	0.01

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	
2	AE	234/256 (91%)	128 (55%)	55 (24%)	51 (22%)	0	1
2	CE	235/256 (92%)	153 (65%)	52 (22%)	30 (13%)	0	10
3	AF	204/239 (85%)	119 (58%)	49 (24%)	36 (18%)	0	4
3	CF	203/239 (85%)	128 (63%)	56 (28%)	19 (9%)	1	17
4	AG	206/209 (99%)	117 (57%)	56 (27%)	33 (16%)	0	5
4	CG	206/209 (99%)	133 (65%)	51 (25%)	22 (11%)	1	13
5	AH	152/162 (94%)	103 (68%)	34 (22%)	15 (10%)	1	15
5	CH	149/162 (92%)	103 (69%)	31 (21%)	15 (10%)	1	15
6	AI	99/101 (98%)	71 (72%)	21 (21%)	7 (7%)	2	25
6	CI	99/101 (98%)	66 (67%)	24 (24%)	9 (9%)	1	18
7	AJ	153/156 (98%)	95 (62%)	42 (28%)	16 (10%)	1	14
7	CJ	153/156 (98%)	102 (67%)	36 (24%)	15 (10%)	1	16
8	AK	136/138 (99%)	98 (72%)	29 (21%)	9 (7%)	2	28
8	CK	136/138 (99%)	92 (68%)	29 (21%)	15 (11%)	1	13
9	AL	126/128 (98%)	71 (56%)	36 (29%)	19 (15%)	0	6
9	CL	125/128 (98%)	77 (62%)	32 (26%)	16 (13%)	0	10
10	AM	97/105 (92%)	67 (69%)	20 (21%)	10 (10%)	1	14
10	CM	97/105 (92%)	68 (70%)	19 (20%)	10 (10%)	1	14
11	AN	119/129 (92%)	76 (64%)	29 (24%)	14 (12%)	1	12

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
11	CN	117/129 (91%)	87 (74%)	21 (18%)	9 (8%)	1	22
12	AO	123/132 (93%)	80 (65%)	22 (18%)	21 (17%)	0	4
12	CO	123/132 (93%)	85 (69%)	24 (20%)	14 (11%)	1	12
13	AP	116/126 (92%)	62 (53%)	23 (20%)	31 (27%)	0	1
13	CP	119/126 (94%)	71 (60%)	27 (23%)	21 (18%)	0	4
14	AQ	58/61 (95%)	37 (64%)	15 (26%)	6 (10%)	1	14
14	CQ	58/61 (95%)	33 (57%)	15 (26%)	10 (17%)	0	4
15	AR	86/89 (97%)	55 (64%)	27 (31%)	4 (5%)	4	39
15	CR	86/89 (97%)	61 (71%)	19 (22%)	6 (7%)	2	26
16	AS	82/88 (93%)	57 (70%)	16 (20%)	9 (11%)	1	13
16	CS	82/88 (93%)	48 (58%)	23 (28%)	11 (13%)	0	9
17	AT	98/105 (93%)	75 (76%)	17 (17%)	6 (6%)	2	30
17	CT	98/105 (93%)	75 (76%)	15 (15%)	8 (8%)	1	21
18	AU	69/88 (78%)	42 (61%)	21 (30%)	6 (9%)	1	19
18	CU	68/88 (77%)	46 (68%)	14 (21%)	8 (12%)	1	12
19	AV	80/93 (86%)	43 (54%)	20 (25%)	17 (21%)	0	2
19	CV	82/93 (88%)	46 (56%)	18 (22%)	18 (22%)	0	1
20	AW	97/106 (92%)	54 (56%)	26 (27%)	17 (18%)	0	4
20	CW	97/106 (92%)	63 (65%)	16 (16%)	18 (19%)	0	3
21	AX	23/27 (85%)	15 (65%)	7 (30%)	1 (4%)	4	42
21	CX	23/27 (85%)	15 (65%)	4 (17%)	4 (17%)	0	4
26	BD	270/276 (98%)	193 (72%)	46 (17%)	31 (12%)	1	12
26	DD	270/276 (98%)	204 (76%)	46 (17%)	20 (7%)	2	24
27	BE	203/206 (98%)	114 (56%)	46 (23%)	43 (21%)	0	2
27	DE	203/206 (98%)	120 (59%)	41 (20%)	42 (21%)	0	2
28	BF	206/210 (98%)	137 (66%)	45 (22%)	24 (12%)	1	12
28	DF	200/210 (95%)	144 (72%)	36 (18%)	20 (10%)	1	15
29	BG	179/182 (98%)	114 (64%)	39 (22%)	26 (14%)	0	7
29	DG	179/182 (98%)	120 (67%)	38 (21%)	21 (12%)	1	12
30	BH	168/180 (93%)	60 (36%)	54 (32%)	54 (32%)	0	0
30	DH	168/180 (93%)	94 (56%)	36 (21%)	38 (23%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
31	BK	144/148 (97%)	77 (54%)	45 (31%)	22 (15%)	0	6
31	DK	144/148 (97%)	80 (56%)	36 (25%)	28 (19%)	0	3
32	BM	136/140 (97%)	88 (65%)	29 (21%)	19 (14%)	0	8
32	DM	136/140 (97%)	84 (62%)	30 (22%)	22 (16%)	0	5
33	BN	120/122 (98%)	96 (80%)	17 (14%)	7 (6%)	3	32
33	DN	120/122 (98%)	90 (75%)	21 (18%)	9 (8%)	2	24
34	BO	148/150 (99%)	80 (54%)	32 (22%)	36 (24%)	0	1
34	DO	148/150 (99%)	97 (66%)	19 (13%)	32 (22%)	0	1
35	BP	139/141 (99%)	96 (69%)	24 (17%)	19 (14%)	0	8
35	DP	139/141 (99%)	94 (68%)	30 (22%)	15 (11%)	1	13
36	B0	115/118 (98%)	73 (64%)	31 (27%)	11 (10%)	1	17
36	D0	116/118 (98%)	82 (71%)	20 (17%)	14 (12%)	1	11
37	BQ	109/112 (97%)	58 (53%)	32 (29%)	19 (17%)	0	4
37	DQ	109/112 (97%)	62 (57%)	28 (26%)	19 (17%)	0	4
38	BR	135/146 (92%)	94 (70%)	31 (23%)	10 (7%)	2	24
38	DR	135/146 (92%)	83 (62%)	32 (24%)	20 (15%)	0	6
39	B1	115/118 (98%)	81 (70%)	22 (19%)	12 (10%)	1	14
39	D1	115/118 (98%)	87 (76%)	19 (16%)	9 (8%)	1	22
40	B2	99/101 (98%)	67 (68%)	12 (12%)	20 (20%)	0	2
40	D2	99/101 (98%)	73 (74%)	16 (16%)	10 (10%)	1	15
41	BS	111/113 (98%)	79 (71%)	20 (18%)	12 (11%)	1	13
41	DS	111/113 (98%)	75 (68%)	22 (20%)	14 (13%)	0	10
42	BT	90/96 (94%)	63 (70%)	18 (20%)	9 (10%)	1	15
42	DT	90/96 (94%)	77 (86%)	8 (9%)	5 (6%)	3	34
43	BU	100/110 (91%)	37 (37%)	29 (29%)	34 (34%)	0	0
43	DU	100/110 (91%)	57 (57%)	17 (17%)	26 (26%)	0	1
44	BV	174/206 (84%)	85 (49%)	43 (25%)	46 (26%)	0	1
44	DV	170/206 (82%)	91 (54%)	40 (24%)	39 (23%)	0	1
45	B3	78/85 (92%)	54 (69%)	13 (17%)	11 (14%)	0	8
45	D3	75/85 (88%)	56 (75%)	13 (17%)	6 (8%)	1	21
46	BZ	95/98 (97%)	66 (70%)	17 (18%)	12 (13%)	0	10

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
46	DZ	95/98 (97%)	64 (67%)	20 (21%)	11 (12%)	1	12
47	BW	67/72 (93%)	43 (64%)	12 (18%)	12 (18%)	0	4
47	DW	67/72 (93%)	46 (69%)	12 (18%)	9 (13%)	0	9
48	BX	57/60 (95%)	51 (90%)	4 (7%)	2 (4%)	6	50
48	DX	57/60 (95%)	45 (79%)	9 (16%)	3 (5%)	3	35
49	B4	69/71 (97%)	33 (48%)	10 (14%)	26 (38%)	0	0
49	D4	69/71 (97%)	23 (33%)	20 (29%)	26 (38%)	0	0
50	B5	57/60 (95%)	37 (65%)	14 (25%)	6 (10%)	1	14
50	D5	57/60 (95%)	33 (58%)	9 (16%)	15 (26%)	0	1
51	B6	46/54 (85%)	9 (20%)	11 (24%)	26 (56%)	0	0
51	D6	47/54 (87%)	15 (32%)	18 (38%)	14 (30%)	0	0
52	B7	47/49 (96%)	36 (77%)	9 (19%)	2 (4%)	4	42
52	D7	47/49 (96%)	37 (79%)	7 (15%)	3 (6%)	2	29
53	B8	62/65 (95%)	37 (60%)	14 (23%)	11 (18%)	0	4
53	D8	62/65 (95%)	36 (58%)	15 (24%)	11 (18%)	0	4
All	All	11381/12054 (94%)	7244 (64%)	2468 (22%)	1669 (15%)	0	6

All (1669) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AE	8	LYS
2	AE	17	PHE
2	AE	20	GLU
2	AE	23	ARG
2	AE	29	ALA
2	AE	33	TYR
2	AE	39	ILE
2	AE	63	MET
2	AE	74	LYS
2	AE	103	THR
2	AE	125	PRO
2	AE	126	GLU
2	AE	127	ILE
2	AE	141	GLU
2	AE	150	SER
2	AE	156	LYS
2	AE	165	VAL

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Mol	Chain	Res	Type
2	AE	191	ASP
2	AE	194	PRO
2	AE	195	ASP
2	AE	216	SER
2	AE	229	VAL
2	AE	230	VAL
2	AE	231	GLU
3	AF	4	LYS
3	AF	5	ILE
3	AF	12	LEU
3	AF	18	TRP
3	AF	24	ALA
3	AF	45	LYS
3	AF	77	ILE
3	AF	78	GLY
3	AF	79	ARG
3	AF	85	ARG
3	AF	94	LEU
3	AF	98	ASN
3	AF	107	GLN
3	AF	162	GLN
3	AF	165	THR
3	AF	205	GLY
4	AG	5	ILE
4	AG	17	VAL
4	AG	20	TYR
4	AG	24	GLU
4	AG	28	SER
4	AG	29	PRO
4	AG	32	ALA
4	AG	33	MET
4	AG	110	PHE
4	AG	123	HIS
4	AG	129	ASN
4	AG	149	ALA
4	AG	150	GLU
4	AG	151	LYS
4	AG	171	GLY
4	AG	189	PRO
5	AH	17	ALA
5	AH	115	VAL
5	AH	146	ALA

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Mol	Chain	Res	Type
6	AI	40	VAL
6	AI	62	TRP
6	AI	82	ARG
7	AJ	6	ARG
7	AJ	17	VAL
7	AJ	79	ARG
7	AJ	80	VAL
7	AJ	150	ALA
7	AJ	155	ARG
8	AK	2	LEU
8	AK	51	VAL
9	AL	21	PRO
9	AL	23	ASN
9	AL	28	VAL
9	AL	35	GLU
9	AL	44	VAL
9	AL	103	THR
9	AL	124	GLN
10	AM	57	LYS
10	AM	58	ASP
11	AN	10	VAL
11	AN	11	LYS
11	AN	12	ARG
11	AN	14	VAL
11	AN	16	SER
11	AN	89	ALA
11	AN	123	LYS
12	AO	13	LYS
12	AO	30	ALA
12	AO	47	LYS
12	AO	126	LYS
12	AO	127	GLU
13	AP	4	ILE
13	AP	9	ILE
13	AP	10	PRO
13	AP	14	ARG
13	AP	44	ARG
13	AP	45	VAL
13	AP	47	ASP
13	AP	83	ASP
13	AP	100	GLY
14	AQ	15	LYS

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Mol	Chain	Res	Type
14	AQ	16	PHE
15	AR	24	SER
16	AS	64	ALA
17	AT	69	LYS
18	AU	19	LYS
18	AU	22	VAL
19	AV	9	VAL
19	AV	27	GLU
19	AV	29	ARG
19	AV	33	THR
19	AV	37	ARG
19	AV	43	GLU
19	AV	45	VAL
19	AV	67	VAL
19	AV	70	LYS
20	AW	49	ALA
20	AW	95	ALA
20	AW	97	ALA
26	BD	3	VAL
26	BD	28	GLU
26	BD	58	HIS
26	BD	123	ALA
26	BD	196	VAL
26	BD	237	GLU
26	BD	263	ARG
26	BD	267	SER
27	BE	2	LYS
27	BE	25	VAL
27	BE	59	VAL
27	BE	61	ARG
27	BE	77	ILE
27	BE	78	LEU
27	BE	88	GLY
27	BE	118	LYS
27	BE	132	HIS
27	BE	204	ALA
28	BF	11	VAL
28	BF	17	ARG
28	BF	21	ALA
28	BF	25	PRO
28	BF	62	ARG
28	BF	86	GLY

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Mol	Chain	Res	Type
28	BF	89	VAL
28	BF	128	ALA
28	BF	132	VAL
29	BG	5	VAL
29	BG	14	GLU
29	BG	22	ARG
29	BG	36	LYS
29	BG	76	SER
29	BG	97	ASP
29	BG	124	SER
29	BG	136	ARG
29	BG	176	LEU
30	BH	9	ILE
30	BH	10	PRO
30	BH	11	VAL
30	BH	13	LYS
30	BH	15	VAL
30	BH	21	PRO
30	BH	27	LYS
30	BH	31	GLY
30	BH	39	PRO
30	BH	46	GLU
30	BH	47	GLU
30	BH	49	VAL
30	BH	50	VAL
30	BH	76	VAL
30	BH	84	SER
30	BH	86	GLU
30	BH	87	LEU
30	BH	92	ILE
30	BH	109	PHE
30	BH	111	HIS
30	BH	112	PRO
30	BH	125	VAL
30	BH	126	PRO
30	BH	128	PRO
30	BH	129	THR
30	BH	130	ARG
30	BH	131	VAL
30	BH	152	ARG
30	BH	153	LYS
30	BH	156	ALA

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Mol	Chain	Res	Type
30	BH	167	GLU
30	BH	168	PRO
31	BK	77	LEU
31	BK	101	LEU
31	BK	102	SER
31	BK	120	ILE
31	BK	132	PRO
31	BK	144	VAL
31	BK	145	VAL
32	BM	17	ASP
32	BM	18	ALA
32	BM	63	THR
32	BM	64	GLY
32	BM	130	HIS
32	BM	131	GLN
32	BM	133	GLN
33	BN	48	PRO
33	BN	68	GLU
34	BO	10	PRO
34	BO	12	ALA
34	BO	15	ARG
34	BO	21	ARG
34	BO	25	SER
34	BO	27	HIS
34	BO	36	LYS
34	BO	38	GLN
34	BO	57	THR
34	BO	63	PRO
34	BO	67	MET
34	BO	108	LYS
34	BO	110	TYR
34	BO	111	ARG
34	BO	147	LEU
35	BP	59	ARG
35	BP	64	ILE
35	BP	79	LEU
35	BP	90	VAL
35	BP	135	ASP
35	BP	136	ALA
36	B0	10	LEU
36	B0	107	ASP
37	BQ	57	LYS

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Mol	Chain	Res	Type
37	BQ	61	ASN
37	BQ	88	ASP
37	BQ	89	ARG
37	BQ	107	GLU
37	BQ	110	LEU
38	BR	107	ASP
39	B1	9	VAL
39	B1	90	VAL
39	B1	93	LYS
39	B1	98	LEU
40	B2	31	ALA
40	B2	44	LYS
40	B2	45	THR
40	B2	49	THR
40	B2	55	ALA
40	B2	72	VAL
40	B2	80	GLN
40	B2	84	LYS
40	B2	85	LYS
40	B2	87	HIS
40	B2	98	GLU
41	BS	11	ARG
41	BS	58	ALA
41	BS	63	ASP
41	BS	80	PRO
42	BT	60	ARG
42	BT	61	GLY
42	BT	68	ARG
42	BT	70	LEU
43	BU	17	SER
43	BU	21	LYS
43	BU	29	GLU
43	BU	43	ASN
43	BU	49	VAL
43	BU	50	ARG
43	BU	63	LYS
43	BU	72	VAL
43	BU	73	ARG
43	BU	77	PRO
43	BU	78	ALA
43	BU	89	PHE
43	BU	96	ILE

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Mol	Chain	Res	Type
43	BU	99	CYS
43	BU	102	CYS
44	BV	10	ARG
44	BV	13	GLU
44	BV	51	ALA
44	BV	60	GLU
44	BV	94	GLU
44	BV	95	PRO
44	BV	107	THR
44	BV	111	VAL
44	BV	112	ARG
44	BV	120	ILE
44	BV	128	VAL
44	BV	134	PRO
44	BV	136	PHE
44	BV	141	VAL
44	BV	150	LEU
44	BV	151	HIS
44	BV	152	ALA
44	BV	157	LEU
44	BV	158	PRO
44	BV	159	PRO
44	BV	161	VAL
44	BV	165	VAL
44	BV	172	ALA
45	B3	9	SER
45	B3	10	THR
45	B3	17	GLN
45	B3	47	PRO
45	B3	49	LYS
45	B3	83	PRO
46	BZ	54	ALA
46	BZ	78	LYS
46	BZ	96	LYS
47	BW	16	LEU
47	BW	17	SER
47	BW	43	GLN
47	BW	44	LEU
47	BW	47	ASN
47	BW	48	HIS
47	BW	50	ILE
47	BW	71	ASN

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Mol	Chain	Res	Type
49	B4	5	ILE
49	B4	6	HIS
49	B4	10	VAL
49	B4	21	VAL
49	B4	34	GLU
49	B4	39	CYS
49	B4	40	HIS
49	B4	42	PHE
49	B4	44	THR
49	B4	48	ARG
49	B4	51	ASP
49	B4	52	THR
49	B4	53	GLU
50	B5	4	HIS
50	B5	53	ALA
50	B5	55	ARG
51	B6	7	ILE
51	B6	18	ARG
51	B6	20	ASN
51	B6	22	ALA
51	B6	25	LYS
51	B6	27	LYS
51	B6	31	PRO
51	B6	35	GLU
51	B6	40	CYS
51	B6	42	TRP
51	B6	44	ARG
51	B6	45	LYS
53	B8	32	LEU
53	B8	41	ILE
53	B8	51	ALA
2	CE	6	THR
2	CE	15	VAL
2	CE	26	PRO
2	CE	84	GLU
2	CE	88	ALA
2	CE	126	GLU
2	CE	230	VAL
2	CE	233	SER
3	CF	4	LYS
3	CF	12	LEU
3	CF	14	ILE

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Mol	Chain	Res	Type
3	CF	29	TYR
3	CF	61	ALA
3	CF	189	ALA
3	CF	190	ARG
4	CG	28	SER
4	CG	30	LYS
4	CG	51	PRO
4	CG	89	THR
4	CG	129	ASN
4	CG	154	ASN
4	CG	155	LEU
4	CG	178	VAL
5	CH	146	ALA
7	CJ	5	ARG
7	CJ	7	ALA
8	CK	50	ARG
8	CK	129	VAL
9	CL	23	ASN
9	CL	56	LEU
9	CL	95	LYS
9	CL	111	ARG
9	CL	117	HIS
10	CM	30	SER
10	CM	33	GLN
11	CN	91	ARG
12	CO	18	VAL
12	CO	27	LEU
12	CO	48	PRO
12	CO	62	SER
12	CO	121	GLY
13	CP	67	GLU
13	CP	70	LEU
13	CP	83	ASP
13	CP	106	ASN
13	CP	108	ARG
13	CP	118	ALA
14	CQ	3	ARG
14	CQ	16	PHE
14	CQ	23	ARG
15	CR	88	ARG
16	CS	44	THR
16	CS	67	THR

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Mol	Chain	Res	Type
17	CT	34	LYS
17	CT	49	GLU
18	CU	22	VAL
19	CV	3	ARG
19	CV	12	ASP
19	CV	14	HIS
19	CV	25	LYS
19	CV	26	GLY
19	CV	31	ILE
19	CV	41	VAL
19	CV	70	LYS
19	CV	78	ARG
19	CV	79	THR
20	CW	48	LYS
20	CW	49	ALA
20	CW	74	LYS
20	CW	95	ALA
20	CW	96	GLY
20	CW	100	ILE
21	CX	7	ARG
21	CX	9	ARG
21	CX	22	ARG
26	DD	26	LYS
26	DD	28	GLU
26	DD	123	ALA
26	DD	231	HIS
27	DE	4	ILE
27	DE	7	VAL
27	DE	9	VAL
27	DE	22	PRO
27	DE	54	GLN
27	DE	57	LYS
27	DE	60	ASN
27	DE	63	LEU
27	DE	64	LYS
27	DE	68	ALA
27	DE	70	ALA
27	DE	73	GLU
27	DE	90	THR
27	DE	92	THR
27	DE	93	VAL
27	DE	169	ASN

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Mol	Chain	Res	Type
27	DE	187	ALA
27	DE	189	PRO
28	DF	25	PRO
28	DF	66	PRO
28	DF	68	LYS
28	DF	73	ALA
28	DF	89	VAL
28	DF	128	ALA
28	DF	176	LEU
29	DG	4	ASP
29	DG	14	GLU
29	DG	79	ASN
29	DG	86	MET
30	DH	10	PRO
30	DH	12	PRO
30	DH	83	TYR
30	DH	85	LYS
30	DH	86	GLU
30	DH	87	LEU
30	DH	90	LYS
30	DH	92	ILE
30	DH	126	PRO
30	DH	127	GLU
30	DH	128	PRO
30	DH	137	ASP
30	DH	138	LYS
30	DH	153	LYS
30	DH	154	PRO
30	DH	155	SER
30	DH	169	VAL
31	DK	9	LEU
31	DK	10	GLU
31	DK	13	GLY
31	DK	15	VAL
31	DK	66	GLU
31	DK	115	ALA
31	DK	133	HIS
31	DK	145	VAL
32	DM	6	PRO
32	DM	9	VAL
32	DM	22	THR
32	DM	36	GLY

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Mol	Chain	Res	Type
32	DM	58	ASP
32	DM	95	PRO
32	DM	97	ARG
32	DM	119	ARG
32	DM	131	GLN
32	DM	133	GLN
32	DM	134	ARG
33	DN	49	ARG
34	DO	5	ASP
34	DO	10	PRO
34	DO	15	ARG
34	DO	19	VAL
34	DO	21	ARG
34	DO	25	SER
34	DO	27	HIS
34	DO	36	LYS
34	DO	38	GLN
34	DO	42	SER
34	DO	65	ARG
34	DO	95	VAL
34	DO	106	LEU
34	DO	107	LYS
34	DO	141	ALA
34	DO	148	LEU
35	DP	6	ARG
35	DP	18	LYS
35	DP	22	LYS
35	DP	27	VAL
35	DP	81	VAL
35	DP	90	VAL
35	DP	134	ARG
36	D0	2	ARG
36	D0	3	HIS
36	D0	4	LEU
36	D0	14	SER
36	D0	58	GLY
36	D0	86	ARG
36	D0	117	VAL
37	DQ	4	LEU
37	DQ	12	PHE
37	DQ	14	VAL
37	DQ	23	ARG

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Mol	Chain	Res	Type
37	DQ	56	LEU
37	DQ	57	LYS
37	DQ	88	ASP
37	DQ	89	ARG
37	DQ	90	GLY
37	DQ	107	GLU
38	DR	2	ASN
38	DR	3	ARG
38	DR	39	ARG
38	DR	55	ASN
38	DR	58	ASN
38	DR	90	GLN
38	DR	94	ALA
38	DR	97	ALA
38	DR	106	SER
38	DR	107	ASP
40	D2	28	GLU
40	D2	31	ALA
40	D2	45	THR
40	D2	48	GLY
40	D2	49	THR
40	D2	50	PRO
40	D2	53	GLU
40	D2	79	VAL
41	DS	59	VAL
41	DS	67	ASP
41	DS	75	TYR
41	DS	111	HIS
42	DT	36	LYS
43	DU	3	VAL
43	DU	23	ARG
43	DU	48	ALA
43	DU	49	VAL
43	DU	50	ARG
43	DU	58	GLY
43	DU	63	LYS
43	DU	77	PRO
43	DU	78	ALA
43	DU	96	ILE
44	DV	6	LYS
44	DV	13	GLU
44	DV	31	ARG

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Mol	Chain	Res	Type
44	DV	51	ALA
44	DV	111	VAL
44	DV	112	ARG
44	DV	114	GLY
44	DV	116	VAL
44	DV	122	ARG
44	DV	141	VAL
44	DV	151	HIS
44	DV	155	LEU
44	DV	156	LYS
44	DV	158	PRO
44	DV	170	THR
44	DV	171	ILE
45	D3	10	THR
46	DZ	30	VAL
46	DZ	54	ALA
46	DZ	81	LYS
46	DZ	82	LEU
46	DZ	95	LEU
47	DW	16	LEU
47	DW	43	GLN
47	DW	47	ASN
47	DW	48	HIS
47	DW	71	ASN
48	DX	3	ARG
49	D4	5	ILE
49	D4	14	ILE
49	D4	16	CYS
49	D4	22	ILE
49	D4	23	GLU
49	D4	36	CYS
49	D4	37	SER
49	D4	40	HIS
49	D4	42	PHE
49	D4	43	TYR
49	D4	49	PHE
49	D4	50	VAL
49	D4	51	ASP
49	D4	53	GLU
49	D4	62	ARG
49	D4	66	SER
49	D4	68	ARG

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Mol	Chain	Res	Type
50	D5	3	LYS
50	D5	4	HIS
50	D5	35	GLU
50	D5	51	TYR
50	D5	53	ALA
51	D6	7	ILE
51	D6	14	THR
51	D6	15	GLU
51	D6	19	ARG
51	D6	21	TYR
51	D6	33	LYS
51	D6	45	LYS
51	D6	48	VAL
53	D8	29	LYS
53	D8	31	HIS
53	D8	34	TRP
53	D8	52	LYS
53	D8	62	LEU
2	AE	15	VAL
2	AE	32	ILE
2	AE	75	LYS
2	AE	96	ARG
2	AE	97	TRP
2	AE	102	LEU
2	AE	131	PRO
2	AE	132	LYS
2	AE	178	ARG
2	AE	217	ARG
2	AE	234	PRO
2	AE	239	VAL
3	AF	13	GLY
3	AF	64	VAL
3	AF	84	ILE
3	AF	129	ALA
3	AF	158	GLY
3	AF	161	GLU
3	AF	206	GLU
4	AG	4	TYR
4	AG	16	GLY
4	AG	34	GLU
4	AG	40	PRO
4	AG	41	GLY

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Mol	Chain	Res	Type
5	AH	4	THR
5	AH	19	MET
5	AH	112	LEU
6	AI	81	ILE
7	AJ	3	ARG
7	AJ	4	ARG
7	AJ	7	ALA
7	AJ	51	GLN
7	AJ	97	GLN
7	AJ	149	ARG
8	AK	54	ASP
8	AK	98	LYS
9	AL	19	LEU
9	AL	24	GLY
9	AL	29	ASN
9	AL	30	GLY
9	AL	34	ASN
9	AL	101	PHE
9	AL	118	LYS
10	AM	32	ALA
10	AM	36	GLY
10	AM	51	ARG
10	AM	59	SER
10	AM	68	HIS
10	AM	75	ILE
11	AN	127	LYS
12	AO	18	VAL
12	AO	19	ARG
12	AO	23	LYS
12	AO	80	HIS
13	AP	3	ARG
13	AP	12	ASN
13	AP	13	LYS
13	AP	21	TYR
13	AP	68	GLY
13	AP	69	GLU
13	AP	82	MET
13	AP	84	ILE
13	AP	85	GLY
13	AP	86	CYS
14	AQ	14	PRO
15	AR	86	GLY

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Mol	Chain	Res	Type
16	AS	43	LYS
16	AS	53	VAL
16	AS	63	GLY
16	AS	67	THR
17	AT	33	GLY
17	AT	99	SER
18	AU	77	GLY
19	AV	84	GLY
20	AW	50	GLU
20	AW	102	GLY
21	AX	3	LYS
26	BD	12	SER
26	BD	25	THR
26	BD	27	THR
26	BD	48	ARG
26	BD	127	VAL
26	BD	144	ALA
26	BD	157	ARG
26	BD	224	ALA
27	BE	27	LEU
27	BE	29	GLY
27	BE	33	VAL
27	BE	34	VAL
27	BE	60	ASN
27	BE	66	HIS
27	BE	71	GLY
27	BE	92	THR
27	BE	129	HIS
28	BF	2	LYS
28	BF	67	GLN
28	BF	84	VAL
28	BF	95	ARG
29	BG	30	GLU
29	BG	47	LYS
29	BG	82	LEU
29	BG	113	ARG
29	BG	159	VAL
30	BH	45	VAL
30	BH	55	PRO
30	BH	137	ASP
30	BH	151	ILE
30	BH	169	VAL

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Mol	Chain	Res	Type
31	BK	11	ASN
31	BK	73	GLU
31	BK	113	ARG
31	BK	142	VAL
32	BM	50	ASP
32	BM	98	VAL
33	BN	27	GLY
34	BO	6	LEU
34	BO	16	ARG
34	BO	19	VAL
34	BO	43	GLY
34	BO	60	MET
34	BO	83	VAL
34	BO	103	ALA
34	BO	141	ALA
34	BO	146	VAL
35	BP	15	GLY
35	BP	60	ARG
35	BP	111	GLU
35	BP	134	ARG
36	B0	11	ASN
36	B0	58	GLY
36	B0	82	GLU
36	B0	93	GLY
36	B0	102	GLU
37	BQ	4	LEU
37	BQ	7	TYR
37	BQ	8	GLU
37	BQ	23	ARG
37	BQ	96	GLY
37	BQ	97	ARG
38	BR	9	LEU
38	BR	24	PRO
38	BR	118	ARG
38	BR	125	ARG
39	B1	86	ALA
39	B1	91	ASP
39	B1	109	LEU
40	B2	47	VAL
40	B2	79	VAL
41	BS	109	GLU
43	BU	3	VAL

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Mol	Chain	Res	Type
43	BU	22	GLY
43	BU	44	ILE
43	BU	53	PRO
43	BU	62	GLU
43	BU	80	GLY
43	BU	85	VAL
43	BU	101	LYS
44	BV	9	TYR
44	BV	31	ARG
44	BV	39	VAL
44	BV	53	ILE
44	BV	59	LEU
44	BV	66	SER
44	BV	102	LEU
44	BV	104	PHE
44	BV	169	GLU
45	B3	19	LYS
45	B3	55	ARG
46	BZ	28	GLY
46	BZ	30	VAL
46	BZ	55	GLY
46	BZ	81	LYS
46	BZ	84	GLY
46	BZ	92	LYS
46	BZ	97	LEU
49	B4	11	PRO
49	B4	23	GLU
49	B4	26	SER
49	B4	46	GLN
49	B4	50	VAL
49	B4	67	TYR
50	B5	38	ALA
50	B5	42	PRO
51	B6	12	GLU
51	B6	15	GLU
51	B6	23	THR
51	B6	34	LEU
51	B6	51	GLU
53	B8	34	TRP
53	B8	50	LEU
2	CE	18	GLY
2	CE	65	GLY

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Mol	Chain	Res	Type
2	CE	208	ILE
2	CE	216	SER
2	CE	237	ALA
3	CF	60	ALA
3	CF	79	ARG
3	CF	129	ALA
3	CF	145	GLY
4	CG	7	PRO
4	CG	20	TYR
4	CG	32	ALA
4	CG	164	ALA
4	CG	170	VAL
4	CG	179	GLU
4	CG	181	MET
4	CG	200	GLU
5	CH	21	ALA
5	CH	63	ARG
5	CH	108	ALA
6	CI	70	ASP
7	CJ	4	ARG
7	CJ	63	LYS
7	CJ	141	VAL
8	CK	68	ARG
8	CK	69	ARG
8	CK	76	PRO
8	CK	122	ARG
9	CL	31	GLN
9	CL	41	VAL
9	CL	100	GLY
9	CL	109	VAL
10	CM	36	GLY
10	CM	68	HIS
11	CN	103	LEU
11	CN	107	SER
11	CN	124	LYS
11	CN	125	PHE
11	CN	126	ARG
12	CO	65	GLU
12	CO	110	VAL
12	CO	115	LYS
12	CO	116	SER
12	CO	128	ALA

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Mol	Chain	Res	Type
13	CP	49	THR
13	CP	68	GLY
13	CP	120	LYS
14	CQ	14	PRO
14	CQ	15	LYS
15	CR	77	ARG
16	CS	49	LEU
17	CT	14	LYS
17	CT	33	GLY
17	CT	78	GLU
17	CT	100	LYS
18	CU	27	GLY
18	CU	54	ARG
18	CU	64	ARG
18	CU	65	ILE
19	CV	13	ASP
19	CV	45	VAL
20	CW	11	SER
20	CW	28	ALA
20	CW	62	LEU
20	CW	99	LEU
20	CW	102	GLY
20	CW	103	GLY
21	CX	3	LYS
26	DD	3	VAL
26	DD	32	SER
26	DD	58	HIS
26	DD	122	ASP
26	DD	169	GLU
27	DE	8	LYS
27	DE	20	ALA
27	DE	37	ARG
27	DE	53	PRO
27	DE	61	ARG
27	DE	71	GLY
27	DE	78	LEU
27	DE	88	GLY
27	DE	186	GLY
27	DE	190	GLY
27	DE	204	ALA
28	DF	18	ARG
28	DF	107	LYS

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Mol	Chain	Res	Type
28	DF	108	LYS
28	DF	111	ALA
28	DF	132	VAL
28	DF	134	GLY
28	DF	168	ARG
29	DG	36	LYS
29	DG	81	LYS
29	DG	82	LEU
29	DG	96	ARG
29	DG	110	ALA
29	DG	126	ASP
29	DG	136	ARG
30	DH	3	ARG
30	DH	8	PRO
30	DH	55	PRO
30	DH	59	ARG
30	DH	84	SER
30	DH	151	ILE
30	DH	156	ALA
30	DH	168	PRO
31	DK	12	LEU
31	DK	36	ALA
31	DK	72	LEU
31	DK	135	GLU
32	DM	23	LEU
32	DM	76	SER
33	DN	51	ALA
33	DN	56	ASP
33	DN	68	GLU
34	DO	6	LEU
34	DO	11	GLY
34	DO	12	ALA
34	DO	16	ARG
35	DP	13	GLN
35	DP	24	GLY
35	DP	28	ALA
35	DP	57	HIS
35	DP	59	ARG
36	D0	11	ASN
37	DQ	87	PHE
37	DQ	96	GLY
37	DQ	100	ALA

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Mol	Chain	Res	Type
37	DQ	109	GLY
37	DQ	111	GLU
38	DR	4	GLY
38	DR	36	GLU
38	DR	43	GLN
38	DR	67	SER
38	DR	124	ASP
39	D1	9	VAL
39	D1	28	ARG
39	D1	73	GLY
39	D1	90	VAL
41	DS	63	ASP
41	DS	66	GLU
42	DT	67	GLY
43	DU	4	LYS
43	DU	41	GLY
43	DU	53	PRO
43	DU	56	PRO
43	DU	57	GLN
43	DU	99	CYS
44	DV	38	TYR
44	DV	79	ARG
44	DV	80	ARG
44	DV	110	GLY
44	DV	124	ILE
44	DV	153	SER
44	DV	159	PRO
45	D3	18	ALA
45	D3	55	ARG
46	DZ	45	ASN
46	DZ	55	GLY
46	DZ	84	GLY
47	DW	24	LEU
47	DW	44	LEU
47	DW	70	GLN
49	D4	9	LEU
49	D4	24	THR
50	D5	43	HIS
50	D5	55	ARG
52	D7	39	ARG
2	AE	13	ALA
2	AE	45	GLN

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Mol	Chain	Res	Type
2	AE	101	MET
2	AE	154	LEU
2	AE	226	ARG
3	AF	66	VAL
3	AF	76	VAL
3	AF	88	ARG
3	AF	121	ALA
3	AF	160	ALA
3	AF	174	PRO
4	AG	3	ARG
4	AG	53	ASP
4	AG	83	SER
4	AG	156	GLU
5	AH	3	GLU
5	AH	7	GLU
5	AH	108	ALA
6	AI	53	ALA
7	AJ	111	ARG
8	AK	41	ARG
8	AK	53	VAL
8	AK	134	ILE
9	AL	4	TYR
9	AL	41	VAL
9	AL	43	ALA
9	AL	121	ARG
12	AO	45	PRO
12	AO	79	GLU
12	AO	91	LYS
12	AO	92	ASP
12	AO	128	ALA
13	AP	5	ALA
13	AP	29	ARG
13	AP	46	LYS
13	AP	64	TRP
13	AP	99	ARG
16	AS	59	TRP
16	AS	76	GLN
17	AT	74	LEU
17	AT	81	ARG
17	AT	94	ASN
18	AU	23	LYS
19	AV	64	GLU

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Mol	Chain	Res	Type
19	AV	72	GLY
19	AV	80	TYR
20	AW	73	HIS
20	AW	98	PRO
26	BD	46	GLN
26	BD	52	ARG
26	BD	156	ALA
26	BD	159	ALA
26	BD	195	ALA
26	BD	201	HIS
26	BD	226	MET
27	BE	9	VAL
27	BE	17	ASP
27	BE	32	PRO
27	BE	82	ARG
27	BE	117	MET
27	BE	122	PHE
27	BE	131	ALA
27	BE	135	HIS
27	BE	187	ALA
28	BF	22	ALA
28	BF	90	PHE
28	BF	129	PHE
28	BF	136	THR
29	BG	4	ASP
29	BG	110	ALA
29	BG	147	ASP
30	BH	12	PRO
30	BH	32	GLU
30	BH	69	ARG
30	BH	90	LYS
30	BH	117	PRO
30	BH	155	SER
31	BK	60	GLU
31	BK	78	THR
31	BK	100	ALA
31	BK	112	LYS
31	BK	119	PRO
31	BK	143	SER
32	BM	8	GLN
32	BM	46	VAL
32	BM	70	LYS

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Mol	Chain	Res	Type
32	BM	108	PRO
32	BM	127	ASP
33	BN	14	THR
34	BO	5	ASP
34	BO	29	LYS
34	BO	47	ASP
34	BO	59	LEU
34	BO	98	GLU
35	BP	62	GLY
35	BP	81	VAL
35	BP	130	LYS
36	B0	17	ARG
37	BQ	20	ARG
37	BQ	35	ILE
38	BR	58	ASN
38	BR	130	ALA
40	B2	36	PRO
41	BS	27	LYS
41	BS	28	SER
41	BS	93	ALA
42	BT	42	ALA
43	BU	52	SER
43	BU	59	GLY
44	BV	7	ALA
44	BV	43	GLU
44	BV	45	ASP
44	BV	63	ASP
44	BV	109	ALA
44	BV	146	ILE
44	BV	163	LEU
45	B3	18	ALA
45	B3	84	LEU
46	BZ	93	GLU
47	BW	8	LYS
49	B4	22	ILE
51	B6	11	LEU
51	B6	19	ARG
51	B6	43	CYS
53	B8	21	LYS
53	B8	30	ARG
53	B8	35	GLN
53	B8	49	VAL

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Mol	Chain	Res	Type
2	CE	155	LEU
2	CE	159	PRO
2	CE	175	ARG
3	CF	16	ARG
3	CF	45	LYS
3	CF	81	GLY
4	CG	29	PRO
4	CG	73	ARG
4	CG	136	PRO
5	CH	37	ARG
6	CI	41	GLU
6	CI	87	ARG
7	CJ	35	LYS
7	CJ	62	PHE
7	CJ	149	ARG
8	CK	2	LEU
8	CK	128	GLY
9	CL	12	GLU
9	CL	13	ALA
10	CM	57	LYS
12	CO	51	ALA
12	CO	123	LYS
13	CP	12	ASN
13	CP	101	GLN
13	CP	121	LYS
14	CQ	9	LYS
14	CQ	41	ARG
15	CR	14	GLU
15	CR	23	GLY
16	CS	8	ARG
16	CS	83	GLU
17	CT	30	PRO
17	CT	99	SER
18	CU	55	ARG
19	CV	6	LYS
19	CV	27	GLU
20	CW	82	SER
20	CW	98	PRO
26	DD	111	LEU
26	DD	238	GLY
26	DD	242	ARG
26	DD	262	ARG

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Mol	Chain	Res	Type
27	DE	62	PRO
27	DE	69	LYS
27	DE	82	ARG
27	DE	117	MET
27	DE	130	GLY
27	DE	132	HIS
29	DG	5	VAL
29	DG	115	ARG
29	DG	128	ARG
29	DG	174	GLU
30	DH	50	VAL
30	DH	81	GLU
30	DH	152	ARG
31	DK	11	ASN
31	DK	86	THR
31	DK	87	LYS
31	DK	118	LYS
32	DM	45	ASN
32	DM	130	HIS
32	DM	135	PRO
34	DO	7	ARG
34	DO	14	LYS
34	DO	43	GLY
34	DO	89	ALA
34	DO	102	ARG
34	DO	115	LEU
35	DP	88	GLY
35	DP	91	GLU
36	D0	42	LYS
36	D0	45	ARG
36	D0	71	GLN
36	D0	107	ASP
37	DQ	19	LYS
37	DQ	61	ASN
37	DQ	74	ALA
37	DQ	75	GLU
38	DR	78	LEU
38	DR	112	ARG
39	D1	46	ALA
39	D1	58	ARG
39	D1	93	LYS
40	D2	54	GLY

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Mol	Chain	Res	Type
41	DS	68	ARG
41	DS	93	ALA
42	DT	48	LYS
42	DT	87	GLN
43	DU	21	LYS
43	DU	39	VAL
43	DU	42	VAL
43	DU	69	ALA
43	DU	91	GLU
43	DU	102	CYS
44	DV	30	ASN
44	DV	61	LEU
44	DV	64	GLY
44	DV	81	ARG
44	DV	92	SER
44	DV	118	GLN
44	DV	135	GLU
44	DV	163	LEU
45	D3	15	ASP
45	D3	57	PHE
45	D3	75	LEU
46	DZ	74	VAL
46	DZ	91	LYS
46	DZ	93	GLU
49	D4	27	THR
49	D4	46	GLN
51	D6	18	ARG
52	D7	32	LYS
53	D8	46	ARG
53	D8	47	LYS
2	AE	53	ARG
2	AE	88	ALA
2	AE	133	LYS
2	AE	134	GLU
2	AE	207	ALA
3	AF	15	THR
3	AF	16	ARG
3	AF	82	GLU
3	AF	83	ARG
3	AF	130	VAL
3	AF	179	ARG
4	AG	108	LEU

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Mol	Chain	Res	Type
4	AG	168	ARG
8	AK	20	TYR
10	AM	93	GLY
11	AN	48	ILE
11	AN	90	GLY
12	AO	17	LYS
12	AO	51	ALA
13	AP	18	ALA
13	AP	49	THR
14	AQ	13	THR
14	AQ	29	ARG
15	AR	21	ASP
16	AS	15	PRO
20	AW	68	LYS
20	AW	74	LYS
20	AW	83	ARG
20	AW	88	VAL
20	AW	101	GLY
26	BD	33	LEU
26	BD	257	LEU
27	BE	46	ALA
27	BE	47	VAL
27	BE	49	LEU
27	BE	57	LYS
27	BE	64	LYS
27	BE	124	GLY
28	BF	23	ASP
28	BF	43	LYS
29	BG	111	LEU
29	BG	175	LEU
30	BH	7	LEU
30	BH	19	VAL
30	BH	77	LYS
30	BH	99	VAL
31	BK	53	ALA
31	BK	74	ASN
31	BK	83	ALA
31	BK	131	LYS
32	BM	23	LEU
32	BM	111	PRO
33	BN	5	GLN
33	BN	54	GLU

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Mol	Chain	Res	Type
34	BO	62	LEU
34	BO	69	GLY
34	BO	144	GLU
35	BP	89	ASN
36	B0	14	SER
36	B0	86	ARG
37	BQ	66	ALA
37	BQ	87	PHE
38	BR	4	GLY
38	BR	86	ILE
39	B1	99	ALA
40	B2	37	VAL
40	B2	61	VAL
43	BU	56	PRO
43	BU	61	ILE
43	BU	82	PRO
43	BU	100	ALA
44	BV	73	GLN
44	BV	96	VAL
46	BZ	31	GLY
47	BW	10	LEU
48	BX	16	PRO
49	B4	12	ALA
49	B4	13	ARG
49	B4	25	TYR
49	B4	38	LYS
49	B4	43	TYR
49	B4	47	GLN
51	B6	16	CYS
51	B6	49	HIS
2	CE	19	HIS
2	CE	131	PRO
2	CE	160	ASP
2	CE	177	ALA
3	CF	168	ALA
4	CG	151	LYS
5	CH	70	PRO
5	CH	72	GLN
5	CH	124	GLY
6	CI	13	ASN
6	CI	40	VAL
6	CI	42	GLU

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Mol	Chain	Res	Type
7	CJ	41	ARG
7	CJ	109	ASN
7	CJ	116	ALA
7	CJ	117	ALA
8	CK	27	PRO
8	CK	49	GLU
10	CM	93	GLY
12	CO	64	TYR
13	CP	4	ILE
13	CP	14	ARG
13	CP	69	GLU
13	CP	77	ASN
14	CQ	44	LEU
14	CQ	48	ALA
15	CR	86	GLY
16	CS	26	ARG
16	CS	28	ARG
16	CS	48	TRP
19	CV	28	LYS
19	CV	44	MET
19	CV	64	GLU
20	CW	40	ALA
20	CW	51	GLU
26	DD	12	SER
26	DD	73	VAL
27	DE	66	HIS
27	DE	126	PRO
28	DF	43	LYS
28	DF	130	ALA
28	DF	145	GLU
29	DG	12	TYR
29	DG	117	PHE
29	DG	146	TYR
30	DH	13	LYS
30	DH	109	PHE
30	DH	159	GLU
31	DK	40	THR
31	DK	110	ASP
31	DK	113	ARG
31	DK	117	GLU
31	DK	122	GLU
32	DM	96	GLU

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Mol	Chain	Res	Type
32	DM	127	ASP
32	DM	132	ALA
33	DN	17	ARG
33	DN	97	ARG
34	DO	29	LYS
34	DO	47	ASP
34	DO	139	LYS
38	DR	37	GLY
38	DR	95	ARG
39	D1	74	LEU
41	DS	14	PRO
41	DS	48	ALA
44	DV	144	LEU
49	D4	8	LYS
50	D5	14	ALA
50	D5	37	LYS
50	D5	45	VAL
50	D5	48	GLU
51	D6	8	LYS
51	D6	9	LEU
51	D6	10	LEU
51	D6	49	HIS
53	D8	25	MET
53	D8	53	PRO
2	AE	87	ARG
2	AE	202	PRO
2	AE	204	ASN
2	AE	235	SER
4	AG	35	ARG
4	AG	39	PRO
4	AG	93	PHE
4	AG	159	ARG
5	AH	21	ALA
5	AH	59	GLY
5	AH	128	PRO
7	AJ	39	ALA
9	AL	94	ALA
11	AN	35	PRO
11	AN	113	PRO
12	AO	12	ARG
12	AO	83	VAL
13	AP	20	THR

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Mol	Chain	Res	Type
13	AP	51	ALA
13	AP	106	ASN
13	AP	116	THR
14	AQ	36	PHE
15	AR	87	ILE
16	AS	16	HIS
18	AU	39	VAL
18	AU	76	LEU
19	AV	38	SER
19	AV	46	GLY
19	AV	47	HIS
20	AW	75	ASN
20	AW	82	SER
26	BD	170	GLY
27	BE	4	ILE
27	BE	45	THR
27	BE	55	ASN
27	BE	73	GLU
27	BE	189	PRO
28	BF	3	GLU
28	BF	9	ILE
28	BF	133	ASN
29	BG	24	GLY
29	BG	32	PRO
30	BH	60	ARG
30	BH	118	PRO
30	BH	160	LYS
30	BH	162	ILE
32	BM	128	HIS
34	BO	2	LYS
34	BO	7	ARG
34	BO	122	PRO
35	BP	7	MET
35	BP	44	ALA
35	BP	83	MET
36	B0	4	LEU
39	B1	92	ARG
40	B2	29	PRO
40	B2	99	ILE
41	BS	45	TYR
41	BS	65	LEU
42	BT	36	LYS

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Mol	Chain	Res	Type
42	BT	51	VAL
42	BT	67	GLY
43	BU	11	ASP
43	BU	74	PRO
44	BV	2	GLU
44	BV	138	GLU
44	BV	160	GLY
50	B5	36	CYS
51	B6	41	PRO
52	B7	48	LYS
53	B8	61	LEU
2	CE	23	ARG
2	CE	98	LEU
2	CE	129	GLU
2	CE	194	PRO
2	CE	229	VAL
2	CE	231	GLU
3	CF	125	GLU
5	CH	74	GLY
5	CH	77	PRO
5	CH	128	PRO
5	CH	132	ALA
6	CI	12	PRO
6	CI	32	ASN
6	CI	96	PRO
8	CK	29	SER
8	CK	34	GLU
8	CK	103	VAL
9	CL	44	VAL
9	CL	88	TYR
9	CL	89	ASN
10	CM	53	PRO
10	CM	59	SER
10	CM	75	ILE
11	CN	64	ALA
11	CN	105	VAL
12	CO	63	GLY
18	CU	58	LEU
19	CV	11	VAL
26	DD	33	LEU
26	DD	239	ARG
27	DE	79	ARG

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Mol	Chain	Res	Type
28	DF	47	GLY
28	DF	118	ALA
28	DF	136	THR
30	DH	11	VAL
30	DH	27	LYS
30	DH	47	GLU
30	DH	77	LYS
30	DH	170	ARG
31	DK	18	VAL
31	DK	26	ALA
31	DK	102	SER
32	DM	29	LYS
32	DM	104	LYS
32	DM	128	HIS
33	DN	25	LEU
34	DO	50	ARG
34	DO	97	PRO
34	DO	108	LYS
36	D0	85	PRO
39	D1	91	ASP
41	DS	32	ALA
42	DT	19	ALA
43	DU	7	VAL
44	DV	132	ASN
44	DV	133	ILE
48	DX	13	ILE
49	D4	30	GLU
49	D4	33	VAL
49	D4	70	GLY
50	D5	42	PRO
51	D6	35	GLU
53	D8	57	ARG
53	D8	64	TYR
2	AE	26	PRO
4	AG	91	SER
6	AI	24	GLU
7	AJ	100	ALA
10	AM	76	ASN
11	AN	117	ASN
12	AO	22	SER
19	AV	41	VAL
20	AW	84	LEU

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Mol	Chain	Res	Type
20	AW	99	LEU
26	BD	11	PRO
26	BD	199	ALA
26	BD	268	ARG
27	BE	52	LEU
29	BG	81	LYS
29	BG	109	VAL
30	BH	8	PRO
30	BH	52	VAL
30	BH	164	TYR
31	BK	51	ILE
33	BN	12	ASP
34	BO	8	PRO
35	BP	4	PRO
35	BP	91	GLU
37	BQ	11	LYS
37	BQ	60	GLY
38	BR	104	ASN
39	B1	102	GLU
40	B2	71	LEU
43	BU	57	GLN
44	BV	58	VAL
45	B3	48	GLY
47	BW	11	GLU
51	B6	17	LYS
51	B6	21	TYR
51	B6	52	VAL
52	B7	46	VAL
2	CE	25	ASN
3	CF	51	GLY
5	CH	112	LEU
5	CH	115	VAL
10	CM	85	LEU
11	CN	106	LYS
13	CP	13	LYS
13	CP	48	LEU
14	CQ	20	ALA
16	CS	57	ARG
26	DD	178	PRO
29	DG	109	VAL
29	DG	181	ARG
30	DH	7	LEU

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Mol	Chain	Res	Type
30	DH	26	VAL
31	DK	104	GLN
31	DK	112	LYS
31	DK	120	ILE
38	DR	38	ASN
41	DS	11	ARG
41	DS	33	ARG
44	DV	94	GLU
49	D4	69	LYS
50	D5	57	VAL
52	D7	44	PRO
5	AH	67	VAL
26	BD	236	GLY
27	BE	50	GLY
28	BF	28	ILE
29	BG	42	GLY
29	BG	86	MET
47	BW	42	GLY
2	CE	202	PRO
2	CE	239	VAL
3	CF	114	PRO
4	CG	88	VAL
5	CH	49	PRO
7	CJ	55	GLY
7	CJ	58	PRO
8	CK	106	GLY
18	CU	37	VAL
20	CW	63	ILE
26	DD	240	ALA
27	DE	86	PRO
27	DE	184	VAL
31	DK	71	ILE
35	DP	86	GLY
36	D0	32	GLY
40	D2	36	PRO
41	DS	35	ILE
44	DV	53	ILE
44	DV	130	PRO
4	AG	178	VAL
5	AH	109	ILE
7	AJ	21	VAL
8	AK	101	PRO

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Mol	Chain	Res	Type
20	AW	41	ILE
27	BE	186	GLY
37	BQ	90	GLY
39	B1	100	VAL
53	B8	38	GLY
2	CE	227	GLY
4	CG	90	GLY
9	CL	24	GLY
13	CP	60	VAL
15	CR	18	PHE
16	CS	53	VAL
43	DU	27	VAL
43	DU	32	PRO
50	D5	46	CYS
3	AF	55	VAL
5	AH	129	ILE
11	AN	39	PRO
12	AO	125	PRO
27	BE	72	VAL
28	BF	78	ILE
29	BG	177	GLY
32	BM	134	ARG
39	B1	65	ILE
40	B2	46	VAL
41	BS	35	ILE
44	BV	83	PRO
48	BX	59	VAL
3	CF	134	ILE
13	CP	84	ILE
26	DD	34	VAL
29	DG	52	ILE
33	DN	114	ILE
43	DU	51	VAL
44	DV	107	THR
44	DV	115	GLY
50	D5	34	PRO
12	AO	87	GLY
13	AP	95	GLY
26	BD	24	ILE
42	BT	84	ALA
43	BU	7	VAL
9	CL	21	PRO

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Mol	Chain	Res	Type
13	CP	78	ILE
27	DE	52	LEU
27	DE	55	ASN
33	DN	27	GLY
48	DX	40	THR
6	AI	51	PRO
41	BS	108	GLY
43	BU	13	VAL
7	CJ	14	PRO
8	CK	51	VAL
16	CS	41	PRO
20	CW	97	ALA
32	BM	126	PRO
47	DW	18	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	
2	AE	204/220 (93%)	169 (83%)	35 (17%)	3	18
2	CE	205/220 (93%)	181 (88%)	24 (12%)	8	38
3	AF	160/188 (85%)	141 (88%)	19 (12%)	8	37
3	CF	159/188 (85%)	145 (91%)	14 (9%)	14	57
4	AG	180/181 (99%)	152 (84%)	28 (16%)	4	23
4	CG	180/181 (99%)	163 (91%)	17 (9%)	13	52
5	AH	119/123 (97%)	102 (86%)	17 (14%)	5	28
5	CH	116/123 (94%)	106 (91%)	10 (9%)	15	58
6	AI	90/90 (100%)	80 (89%)	10 (11%)	9	42
6	CI	90/90 (100%)	76 (84%)	14 (16%)	4	23
7	AJ	126/127 (99%)	114 (90%)	12 (10%)	12	51
7	CJ	126/127 (99%)	115 (91%)	11 (9%)	15	57
8	AK	119/119 (100%)	112 (94%)	7 (6%)	28	75
8	CK	119/119 (100%)	106 (89%)	13 (11%)	9	43

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	AL	99/99 (100%)	80 (81%)	19 (19%)	2	12
9	CL	98/99 (99%)	87 (89%)	11 (11%)	9	41
10	AM	89/92 (97%)	80 (90%)	9 (10%)	11	48
10	CM	89/92 (97%)	81 (91%)	8 (9%)	14	55
11	AN	92/99 (93%)	83 (90%)	9 (10%)	12	50
11	CN	90/99 (91%)	81 (90%)	9 (10%)	11	49
12	AO	104/109 (95%)	92 (88%)	12 (12%)	8	39
12	CO	104/109 (95%)	90 (86%)	14 (14%)	6	30
13	AP	94/101 (93%)	75 (80%)	19 (20%)	2	11
13	CP	97/101 (96%)	81 (84%)	16 (16%)	3	20
14	AQ	49/50 (98%)	44 (90%)	5 (10%)	11	48
14	CQ	49/50 (98%)	42 (86%)	7 (14%)	5	28
15	AR	79/80 (99%)	74 (94%)	5 (6%)	25	73
15	CR	79/80 (99%)	73 (92%)	6 (8%)	19	65
16	AS	72/74 (97%)	63 (88%)	9 (12%)	7	35
16	CS	72/74 (97%)	63 (88%)	9 (12%)	7	35
17	AT	95/97 (98%)	87 (92%)	8 (8%)	16	59
17	CT	95/97 (98%)	89 (94%)	6 (6%)	25	73
18	AU	62/77 (80%)	53 (86%)	9 (14%)	5	27
18	CU	61/77 (79%)	55 (90%)	6 (10%)	12	50
19	AV	71/80 (89%)	63 (89%)	8 (11%)	9	40
19	CV	73/80 (91%)	61 (84%)	12 (16%)	3	20
20	AW	76/82 (93%)	65 (86%)	11 (14%)	5	27
20	CW	76/82 (93%)	67 (88%)	9 (12%)	8	38
21	AX	20/22 (91%)	18 (90%)	2 (10%)	11	49
21	CX	20/22 (91%)	19 (95%)	1 (5%)	34	79
26	BD	214/218 (98%)	183 (86%)	31 (14%)	5	27
26	DD	214/218 (98%)	176 (82%)	38 (18%)	2	16
27	BE	165/166 (99%)	137 (83%)	28 (17%)	3	18
27	DE	165/166 (99%)	127 (77%)	38 (23%)	1	7
28	BF	165/166 (99%)	142 (86%)	23 (14%)	5	29

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
28	DF	161/166 (97%)	139 (86%)	22 (14%)	5	29
29	BG	155/156 (99%)	139 (90%)	16 (10%)	10	47
29	DG	155/156 (99%)	130 (84%)	25 (16%)	3	22
30	BH	142/148 (96%)	111 (78%)	31 (22%)	1	8
30	DH	142/148 (96%)	115 (81%)	27 (19%)	2	13
31	BK	122/124 (98%)	105 (86%)	17 (14%)	5	29
31	DK	122/124 (98%)	95 (78%)	27 (22%)	1	8
32	BM	117/119 (98%)	101 (86%)	16 (14%)	5	29
32	DM	117/119 (98%)	97 (83%)	20 (17%)	3	18
33	BN	100/100 (100%)	88 (88%)	12 (12%)	7	37
33	DN	100/100 (100%)	90 (90%)	10 (10%)	11	49
34	BO	116/116 (100%)	86 (74%)	30 (26%)	1	5
34	DO	116/116 (100%)	89 (77%)	27 (23%)	1	7
35	BP	111/111 (100%)	92 (83%)	19 (17%)	3	18
35	DP	111/111 (100%)	92 (83%)	19 (17%)	3	18
36	B0	100/101 (99%)	87 (87%)	13 (13%)	6	33
36	D0	101/101 (100%)	83 (82%)	18 (18%)	2	16
37	BQ	87/88 (99%)	74 (85%)	13 (15%)	4	26
37	DQ	87/88 (99%)	74 (85%)	13 (15%)	4	26
38	BR	120/127 (94%)	99 (82%)	21 (18%)	3	17
38	DR	120/127 (94%)	96 (80%)	24 (20%)	2	11
39	B1	93/94 (99%)	82 (88%)	11 (12%)	8	38
39	D1	93/94 (99%)	79 (85%)	14 (15%)	4	25
40	B2	82/82 (100%)	67 (82%)	15 (18%)	2	14
40	D2	82/82 (100%)	70 (85%)	12 (15%)	5	27
41	BS	92/92 (100%)	76 (83%)	16 (17%)	3	17
41	DS	92/92 (100%)	77 (84%)	15 (16%)	3	21
42	BT	74/78 (95%)	61 (82%)	13 (18%)	3	16
42	DT	74/78 (95%)	62 (84%)	12 (16%)	3	21
43	BU	85/91 (93%)	61 (72%)	24 (28%)	0	4
43	DU	85/91 (93%)	70 (82%)	15 (18%)	3	16

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
44	BV	155/179 (87%)	120 (77%)	35 (23%)	1	8
44	DV	152/179 (85%)	124 (82%)	28 (18%)	2	14
45	B3	63/67 (94%)	55 (87%)	8 (13%)	6	33
45	D3	62/67 (92%)	54 (87%)	8 (13%)	6	33
46	BZ	82/83 (99%)	69 (84%)	13 (16%)	4	22
46	DZ	82/83 (99%)	67 (82%)	15 (18%)	2	14
47	BW	64/67 (96%)	57 (89%)	7 (11%)	9	43
47	DW	64/67 (96%)	57 (89%)	7 (11%)	9	43
48	BX	51/52 (98%)	43 (84%)	8 (16%)	4	23
48	DX	51/52 (98%)	40 (78%)	11 (22%)	1	9
49	B4	63/63 (100%)	43 (68%)	20 (32%)	0	3
49	D4	63/63 (100%)	44 (70%)	19 (30%)	0	4
50	B5	51/52 (98%)	46 (90%)	5 (10%)	12	50
50	D5	51/52 (98%)	40 (78%)	11 (22%)	1	9
51	B6	47/52 (90%)	30 (64%)	17 (36%)	0	2
51	D6	48/52 (92%)	38 (79%)	10 (21%)	2	10
52	B7	42/42 (100%)	33 (79%)	9 (21%)	1	9
52	D7	42/42 (100%)	38 (90%)	4 (10%)	12	51
53	B8	54/55 (98%)	43 (80%)	11 (20%)	2	10
53	D8	54/55 (98%)	39 (72%)	15 (28%)	0	4
All	All	9616/9998 (96%)	8160 (85%)	1456 (15%)	4	25

All (1456) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AE	11	LEU
2	AE	12	GLU
2	AE	17	PHE
2	AE	23	ARG
2	AE	24	TRP
2	AE	28	PHE
2	AE	30	ARG
2	AE	33	TYR
2	AE	42	ILE
2	AE	44	LEU

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Mol	Chain	Res	Type
2	AE	45	GLN
2	AE	49	GLU
2	AE	50	GLU
2	AE	70	PHE
2	AE	82	ARG
2	AE	83	MET
2	AE	92	TYR
2	AE	108	ILE
2	AE	114	ARG
2	AE	117	GLU
2	AE	128	GLU
2	AE	145	LEU
2	AE	154	LEU
2	AE	156	LYS
2	AE	158	LEU
2	AE	187	LEU
2	AE	189	ASP
2	AE	195	ASP
2	AE	196	LEU
2	AE	208	ILE
2	AE	221	LEU
2	AE	224	GLN
2	AE	226	ARG
2	AE	231	GLU
2	AE	240	GLN
3	AF	4	LYS
3	AF	5	ILE
3	AF	18	TRP
3	AF	21	ARG
3	AF	23	TYR
3	AF	27	LYS
3	AF	28	GLN
3	AF	29	TYR
3	AF	36	ASP
3	AF	46	GLU
3	AF	62	ASP
3	AF	87	LEU
3	AF	119	ARG
3	AF	127	ARG
3	AF	131	ARG
3	AF	161	GLU
3	AF	192	THR

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Mol	Chain	Res	Type
3	AF	196	LEU
3	AF	206	GLU
4	AG	8	VAL
4	AG	14	ARG
4	AG	19	LEU
4	AG	21	LEU
4	AG	24	GLU
4	AG	26	CYS
4	AG	38	TYR
4	AG	42	GLN
4	AG	53	ASP
4	AG	57	ARG
4	AG	58	LEU
4	AG	68	TYR
4	AG	73	ARG
4	AG	84	LYS
4	AG	86	LYS
4	AG	96	LEU
4	AG	97	LEU
4	AG	107	ARG
4	AG	122	ARG
4	AG	127	THR
4	AG	129	ASN
4	AG	135	LEU
4	AG	155	LEU
4	AG	163	GLU
4	AG	177	ASP
4	AG	187	ARG
4	AG	191	ARG
4	AG	209	ARG
5	AH	6	PHE
5	AH	13	ILE
5	AH	20	GLN
5	AH	25	ARG
5	AH	26	PHE
5	AH	51	VAL
5	AH	76	ILE
5	AH	78	HIS
5	AH	79	GLU
5	AH	83	GLU
5	AH	90	VAL
5	AH	101	ILE

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Mol	Chain	Res	Type
5	AH	112	LEU
5	AH	116	THR
5	AH	152	ARG
5	AH	153	LYS
5	AH	155	GLU
6	AI	14	LEU
6	AI	16	GLN
6	AI	28	ARG
6	AI	46	ARG
6	AI	54	LYS
6	AI	63	TYR
6	AI	69	GLU
6	AI	78	GLU
6	AI	85	VAL
6	AI	98	LEU
7	AJ	3	ARG
7	AJ	8	GLU
7	AJ	37	ASN
7	AJ	57	GLU
7	AJ	84	ASN
7	AJ	124	LEU
7	AJ	126	ASP
7	AJ	136	LYS
7	AJ	137	LYS
7	AJ	151	TYR
7	AJ	155	ARG
7	AJ	156	TRP
8	AK	1	MET
8	AK	10	LEU
8	AK	18	ARG
8	AK	25	ASP
8	AK	56	LYS
8	AK	102	ARG
8	AK	137	VAL
9	AL	1	MET
9	AL	4	TYR
9	AL	10	ARG
9	AL	16	ARG
9	AL	21	PRO
9	AL	25	LYS
9	AL	27	THR
9	AL	35	GLU

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Mol	Chain	Res	Type
9	AL	38	GLN
9	AL	58	HIS
9	AL	60	ASP
9	AL	88	TYR
9	AL	95	LYS
9	AL	112	LYS
9	AL	114	TYR
9	AL	117	HIS
9	AL	118	LYS
9	AL	121	ARG
9	AL	124	GLN
10	AM	8	LEU
10	AM	22	LYS
10	AM	47	PHE
10	AM	62	HIS
10	AM	74	ILE
10	AM	78	ASN
10	AM	79	ARG
10	AM	80	LYS
10	AM	96	ILE
11	AN	9	LYS
11	AN	13	GLN
11	AN	18	ARG
11	AN	38	ASN
11	AN	79	SER
11	AN	93	GLN
11	AN	112	THR
11	AN	125	PHE
11	AN	129	SER
12	AO	20	LYS
12	AO	23	LYS
12	AO	24	VAL
12	AO	28	LYS
12	AO	42	THR
12	AO	62	SER
12	AO	91	LYS
12	AO	98	TYR
12	AO	110	VAL
12	AO	111	LYS
12	AO	124	LYS
12	AO	126	LYS
13	AP	7	VAL

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Mol	Chain	Res	Type
13	AP	10	PRO
13	AP	19	LEU
13	AP	23	TYR
13	AP	27	LYS
13	AP	34	LEU
13	AP	35	GLU
13	AP	39	ILE
13	AP	46	LYS
13	AP	48	LEU
13	AP	64	TRP
13	AP	66	LEU
13	AP	70	LEU
13	AP	71	ARG
13	AP	73	GLU
13	AP	77	ASN
13	AP	93	ARG
13	AP	105	THR
13	AP	108	ARG
14	AQ	6	LEU
14	AQ	15	LYS
14	AQ	29	ARG
14	AQ	44	LEU
14	AQ	61	TRP
15	AR	3	ILE
15	AR	10	LYS
15	AR	18	PHE
15	AR	26	GLU
15	AR	82	ILE
16	AS	1	MET
16	AS	2	VAL
16	AS	20	VAL
16	AS	27	LYS
16	AS	45	THR
16	AS	53	VAL
16	AS	54	GLU
16	AS	55	ARG
16	AS	69	THR
17	AT	6	LEU
17	AT	20	THR
17	AT	25	ARG
17	AT	26	GLN
17	AT	52	LYS

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Mol	Chain	Res	Type
17	AT	73	VAL
17	AT	74	LEU
17	AT	78	GLU
18	AU	19	LYS
18	AU	26	LEU
18	AU	29	PHE
18	AU	37	VAL
18	AU	38	GLU
18	AU	47	THR
18	AU	58	LEU
18	AU	68	LYS
18	AU	87	ARG
19	AV	5	LEU
19	AV	6	LYS
19	AV	7	LYS
19	AV	11	VAL
19	AV	25	LYS
19	AV	27	GLU
19	AV	43	GLU
19	AV	65	ASN
20	AW	24	LEU
20	AW	26	ASN
20	AW	29	LYS
20	AW	36	LEU
20	AW	68	LYS
20	AW	73	HIS
20	AW	74	LYS
20	AW	75	ASN
20	AW	83	ARG
20	AW	84	LEU
20	AW	93	GLU
21	AX	9	ARG
21	AX	15	ARG
26	BD	10	THR
26	BD	24	ILE
26	BD	43	ARG
26	BD	61	LEU
26	BD	65	ILE
26	BD	67	PHE
26	BD	68	LYS
26	BD	71	ASP
26	BD	72	LYS

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Mol	Chain	Res	Type
26	BD	76	PRO
26	BD	94	LEU
26	BD	95	LEU
26	BD	98	VAL
26	BD	103	ARG
26	BD	105	ILE
26	BD	106	ILE
26	BD	111	LEU
26	BD	122	ASP
26	BD	150	LYS
26	BD	161	THR
26	BD	166	GLN
26	BD	176	ARG
26	BD	192	THR
26	BD	198	ASN
26	BD	211	ARG
26	BD	212	SER
26	BD	242	ARG
26	BD	244	ARG
26	BD	255	LYS
26	BD	270	ILE
26	BD	271	ILE
27	BE	4	ILE
27	BE	7	VAL
27	BE	16	ARG
27	BE	17	ASP
27	BE	37	ARG
27	BE	38	THR
27	BE	58	ARG
27	BE	60	ASN
27	BE	63	LEU
27	BE	69	LYS
27	BE	75	VAL
27	BE	78	LEU
27	BE	79	ARG
27	BE	95	ILE
27	BE	113	PHE
27	BE	116	VAL
27	BE	118	LYS
27	BE	119	ARG
27	BE	134	ILE
27	BE	144	ARG

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Mol	Chain	Res	Type
27	BE	154	LYS
27	BE	184	VAL
27	BE	197	ILE
27	BE	199	ARG
27	BE	200	GLU
27	BE	201	THR
27	BE	202	LYS
27	BE	203	LYS
28	BF	2	LYS
28	BF	7	TYR
28	BF	17	ARG
28	BF	24	LEU
28	BF	27	GLU
28	BF	28	ILE
28	BF	29	ASN
28	BF	32	LEU
28	BF	33	LEU
28	BF	65	TRP
28	BF	67	GLN
28	BF	74	ARG
28	BF	83	PHE
28	BF	96	ASP
28	BF	97	TYR
28	BF	125	LEU
28	BF	149	ASP
28	BF	158	THR
28	BF	164	ARG
28	BF	174	VAL
28	BF	175	THR
28	BF	183	VAL
28	BF	197	ASP
29	BG	34	LEU
29	BG	35	GLU
29	BG	43	LEU
29	BG	49	ASP
29	BG	72	ARG
29	BG	80	PHE
29	BG	81	LYS
29	BG	88	ILE
29	BG	114	ILE
29	BG	115	ARG
29	BG	118	ARG

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Mol	Chain	Res	Type
29	BG	121	ASN
29	BG	135	LEU
29	BG	148	MET
29	BG	164	GLU
29	BG	174	GLU
30	BH	9	ILE
30	BH	12	PRO
30	BH	18	GLU
30	BH	21	PRO
30	BH	27	LYS
30	BH	39	PRO
30	BH	40	GLU
30	BH	46	GLU
30	BH	47	GLU
30	BH	51	ARG
30	BH	54	ARG
30	BH	59	ARG
30	BH	77	LYS
30	BH	81	GLU
30	BH	83	TYR
30	BH	85	LYS
30	BH	89	ILE
30	BH	94	TYR
30	BH	101	ARG
30	BH	103	LEU
30	BH	105	LEU
30	BH	109	PHE
30	BH	116	GLU
30	BH	119	GLU
30	BH	124	GLU
30	BH	130	ARG
30	BH	157	TYR
30	BH	158	HIS
30	BH	163	TYR
30	BH	167	GLU
30	BH	170	ARG
31	BK	1	MET
31	BK	9	LEU
31	BK	52	ARG
31	BK	54	GLN
31	BK	56	LYS
31	BK	57	ARG

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Mol	Chain	Res	Type
31	BK	62	LYS
31	BK	74	ASN
31	BK	77	LEU
31	BK	82	ARG
31	BK	101	LEU
31	BK	109	ILE
31	BK	117	GLU
31	BK	122	GLU
31	BK	125	GLU
31	BK	130	TYR
31	BK	138	ILE
32	BM	1	MET
32	BM	32	THR
32	BM	33	LEU
32	BM	34	LEU
32	BM	41	ASP
32	BM	45	ASN
32	BM	48	MET
32	BM	71	ILE
32	BM	87	LEU
32	BM	96	GLU
32	BM	99	LEU
32	BM	108	PRO
32	BM	111	PRO
32	BM	112	LEU
32	BM	131	GLN
32	BM	137	LYS
33	BN	8	LEU
33	BN	9	GLU
33	BN	34	THR
33	BN	43	VAL
33	BN	48	PRO
33	BN	49	ARG
33	BN	80	ASP
33	BN	97	ARG
33	BN	99	PHE
33	BN	104	ARG
33	BN	108	GLU
33	BN	114	ILE
34	BO	6	LEU
34	BO	9	ASN
34	BO	10	PRO

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Mol	Chain	Res	Type
34	BO	14	LYS
34	BO	21	ARG
34	BO	27	HIS
34	BO	30	THR
34	BO	45	LEU
34	BO	52	GLU
34	BO	58	THR
34	BO	59	LEU
34	BO	63	PRO
34	BO	75	ILE
34	BO	81	GLN
34	BO	85	LEU
34	BO	86	LYS
34	BO	87	ASP
34	BO	91	PHE
34	BO	98	GLU
34	BO	107	LYS
34	BO	110	TYR
34	BO	112	LEU
34	BO	114	ILE
34	BO	115	LEU
34	BO	117	GLU
34	BO	136	GLU
34	BO	138	LEU
34	BO	144	GLU
34	BO	147	LEU
34	BO	148	LEU
35	BP	1	MET
35	BP	7	MET
35	BP	16	ARG
35	BP	22	LYS
35	BP	25	ASP
35	BP	45	GLN
35	BP	51	ARG
35	BP	56	ARG
35	BP	59	ARG
35	BP	64	ILE
35	BP	66	ILE
35	BP	80	GLU
35	BP	81	VAL
35	BP	82	ARG
35	BP	83	MET

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Mol	Chain	Res	Type
35	BP	89	ASN
35	BP	103	MET
35	BP	104	PHE
35	BP	134	ARG
36	B0	2	ARG
36	B0	6	SER
36	B0	49	ASP
36	B0	51	LEU
36	B0	63	ARG
36	B0	67	LEU
36	B0	71	GLN
36	B0	74	LYS
36	B0	75	LEU
36	B0	76	VAL
36	B0	79	LEU
36	B0	104	ARG
36	B0	105	ARG
37	BQ	12	PHE
37	BQ	15	ARG
37	BQ	17	ARG
37	BQ	20	ARG
37	BQ	23	ARG
37	BQ	25	ARG
37	BQ	29	PHE
37	BQ	32	LEU
37	BQ	36	TYR
37	BQ	48	LEU
37	BQ	56	LEU
37	BQ	106	ARG
37	BQ	110	LEU
38	BR	8	LYS
38	BR	9	LEU
38	BR	11	GLU
38	BR	27	THR
38	BR	29	ARG
38	BR	35	LYS
38	BR	41	ARG
38	BR	51	ARG
38	BR	58	ASN
38	BR	59	THR
38	BR	63	VAL
38	BR	74	ARG

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Mol	Chain	Res	Type
38	BR	78	LEU
38	BR	88	ILE
38	BR	91	ARG
38	BR	98	LYS
38	BR	99	LEU
38	BR	105	LEU
38	BR	115	ARG
38	BR	136	GLN
38	BR	137	LYS
39	B1	5	LYS
39	B1	37	GLU
39	B1	52	ARG
39	B1	64	ARG
39	B1	71	GLN
39	B1	74	LEU
39	B1	92	ARG
39	B1	93	LYS
39	B1	97	ASP
39	B1	98	LEU
39	B1	104	GLN
40	B2	15	GLU
40	B2	19	LYS
40	B2	28	GLU
40	B2	35	LEU
40	B2	45	THR
40	B2	64	HIS
40	B2	66	ARG
40	B2	71	LEU
40	B2	75	PHE
40	B2	80	GLN
40	B2	81	TYR
40	B2	82	ARG
40	B2	83	ARG
40	B2	87	HIS
40	B2	98	GLU
41	BS	1	MET
41	BS	11	ARG
41	BS	18	ARG
41	BS	19	LEU
41	BS	20	VAL
41	BS	34	ASN
41	BS	40	ASN

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Mol	Chain	Res	Type
41	BS	52	GLU
41	BS	66	GLU
41	BS	70	TYR
41	BS	75	TYR
41	BS	88	ARG
41	BS	94	ASP
41	BS	96	ILE
41	BS	107	LEU
41	BS	113	LYS
42	BT	8	ILE
42	BT	12	VAL
42	BT	28	PHE
42	BT	30	VAL
42	BT	37	THR
42	BT	48	LYS
42	BT	49	VAL
42	BT	53	LYS
42	BT	57	LEU
42	BT	63	LYS
42	BT	69	TYR
42	BT	75	ASP
42	BT	76	ARG
43	BU	5	MET
43	BU	7	VAL
43	BU	14	LEU
43	BU	21	LYS
43	BU	28	LYS
43	BU	33	LYS
43	BU	35	TYR
43	BU	38	ILE
43	BU	42	VAL
43	BU	43	ASN
43	BU	50	ARG
43	BU	55	TYR
43	BU	57	GLN
43	BU	60	PHE
43	BU	62	GLU
43	BU	63	LYS
43	BU	68	HIS
43	BU	75	ILE
43	BU	76	CYS
43	BU	77	PRO

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Mol	Chain	Res	Type
43	BU	86	ARG
43	BU	95	LYS
43	BU	97	ARG
43	BU	99	CYS
44	BV	1	MET
44	BV	4	ARG
44	BV	9	TYR
44	BV	10	ARG
44	BV	13	GLU
44	BV	19	ARG
44	BV	29	TYR
44	BV	33	LEU
44	BV	34	ASN
44	BV	45	ASP
44	BV	50	GLN
44	BV	54	HIS
44	BV	59	LEU
44	BV	61	LEU
44	BV	67	LEU
44	BV	70	LEU
44	BV	73	GLN
44	BV	75	ASN
44	BV	81	ARG
44	BV	87	ASP
44	BV	88	PHE
44	BV	89	PHE
44	BV	91	LEU
44	BV	93	ASP
44	BV	107	THR
44	BV	112	ARG
44	BV	118	GLN
44	BV	122	ARG
44	BV	131	ARG
44	BV	136	PHE
44	BV	139	VAL
44	BV	144	LEU
44	BV	151	HIS
44	BV	156	LYS
44	BV	171	ILE
45	B3	7	LEU
45	B3	11	ARG
45	B3	25	ARG

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Mol	Chain	Res	Type
45	B3	26	TYR
45	B3	36	ILE
45	B3	43	THR
45	B3	49	LYS
45	B3	84	LEU
46	BZ	40	ARG
46	BZ	41	ARG
46	BZ	56	GLN
46	BZ	78	LYS
46	BZ	80	LEU
46	BZ	81	LYS
46	BZ	82	LEU
46	BZ	85	LEU
46	BZ	90	ILE
46	BZ	91	LYS
46	BZ	95	LEU
46	BZ	97	LEU
46	BZ	98	LEU
47	BW	9	GLN
47	BW	31	GLU
47	BW	47	ASN
47	BW	49	LYS
47	BW	50	ILE
47	BW	52	ASP
47	BW	60	LEU
48	BX	16	PRO
48	BX	17	LYS
48	BX	24	LYS
48	BX	32	GLN
48	BX	36	VAL
48	BX	40	THR
48	BX	46	ASN
48	BX	52	HIS
49	B4	2	LYS
49	B4	5	ILE
49	B4	6	HIS
49	B4	9	LEU
49	B4	10	VAL
49	B4	13	ARG
49	B4	14	ILE
49	B4	16	CYS
49	B4	18	CYS

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Mol	Chain	Res	Type
49	B4	21	VAL
49	B4	34	GLU
49	B4	39	CYS
49	B4	43	TYR
49	B4	55	ARG
49	B4	59	PHE
49	B4	61	ARG
49	B4	63	TYR
49	B4	67	TYR
49	B4	69	LYS
49	B4	71	ARG
50	B5	3	LYS
50	B5	4	HIS
50	B5	25	LEU
50	B5	52	TYR
50	B5	55	ARG
51	B6	7	ILE
51	B6	8	LYS
51	B6	10	LEU
51	B6	12	GLU
51	B6	20	ASN
51	B6	21	TYR
51	B6	24	GLU
51	B6	27	LYS
51	B6	28	ARG
51	B6	29	ASN
51	B6	30	THR
51	B6	31	PRO
51	B6	33	LYS
51	B6	37	ARG
51	B6	38	LYS
51	B6	45	LYS
51	B6	46	HIS
52	B7	1	MET
52	B7	4	THR
52	B7	8	ASN
52	B7	28	ARG
52	B7	33	ARG
52	B7	43	THR
52	B7	47	ARG
52	B7	48	LYS
52	B7	49	ARG

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Mol	Chain	Res	Type
53	B8	25	MET
53	B8	27	THR
53	B8	32	LEU
53	B8	34	TRP
53	B8	40	GLU
53	B8	41	ILE
53	B8	43	GLN
53	B8	48	PHE
53	B8	52	LYS
53	B8	54	GLU
53	B8	61	LEU
2	CE	5	ILE
2	CE	8	LYS
2	CE	16	HIS
2	CE	23	ARG
2	CE	24	TRP
2	CE	33	TYR
2	CE	36	ARG
2	CE	37	ASN
2	CE	63	MET
2	CE	67	THR
2	CE	73	THR
2	CE	82	ARG
2	CE	92	TYR
2	CE	121	LEU
2	CE	155	LEU
2	CE	163	PHE
2	CE	165	VAL
2	CE	168	THR
2	CE	172	ILE
2	CE	174	VAL
2	CE	178	ARG
2	CE	196	LEU
2	CE	204	ASN
2	CE	215	LEU
3	CF	5	ILE
3	CF	12	LEU
3	CF	16	ARG
3	CF	21	ARG
3	CF	29	TYR
3	CF	56	ASP
3	CF	94	LEU

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Mol	Chain	Res	Type
3	CF	127	ARG
3	CF	131	ARG
3	CF	154	SER
3	CF	184	TYR
3	CF	192	THR
3	CF	193	TYR
3	CF	196	LEU
4	CG	3	ARG
4	CG	7	PRO
4	CG	9	CYS
4	CG	13	ARG
4	CG	30	LYS
4	CG	50	ARG
4	CG	53	ASP
4	CG	79	PHE
4	CG	86	LYS
4	CG	94	LEU
4	CG	96	LEU
4	CG	114	ARG
4	CG	122	ARG
4	CG	131	ARG
4	CG	181	MET
4	CG	200	GLU
4	CG	201	GLN
5	CH	10	MET
5	CH	13	ILE
5	CH	16	THR
5	CH	20	GLN
5	CH	31	LEU
5	CH	53	LEU
5	CH	73	ASN
5	CH	79	GLU
5	CH	101	ILE
5	CH	153	LYS
6	CI	17	SER
6	CI	21	LEU
6	CI	27	GLN
6	CI	32	ASN
6	CI	36	ARG
6	CI	55	ASP
6	CI	63	TYR
6	CI	69	GLU

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Mol	Chain	Res	Type
6	CI	74	ASP
6	CI	77	ARG
6	CI	87	ARG
6	CI	92	LYS
6	CI	97	PHE
6	CI	100	ASN
7	CJ	8	GLU
7	CJ	12	LEU
7	CJ	78	ARG
7	CJ	84	ASN
7	CJ	98	SER
7	CJ	111	ARG
7	CJ	114	ARG
7	CJ	124	LEU
7	CJ	137	LYS
7	CJ	148	ASN
7	CJ	155	ARG
8	CK	1	MET
8	CK	10	LEU
8	CK	27	PRO
8	CK	41	ARG
8	CK	52	ASP
8	CK	63	LEU
8	CK	69	ARG
8	CK	81	HIS
8	CK	99	GLU
8	CK	119	LEU
8	CK	121	ASP
8	CK	129	VAL
8	CK	137	VAL
9	CL	7	THR
9	CL	9	ARG
9	CL	48	GLU
9	CL	65	VAL
9	CL	83	ARG
9	CL	95	LYS
9	CL	104	ARG
9	CL	113	LYS
9	CL	114	TYR
9	CL	121	ARG
9	CL	128	ARG
10	CM	22	LYS

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Mol	Chain	Res	Type
10	CM	47	PHE
10	CM	57	LYS
10	CM	62	HIS
10	CM	74	ILE
10	CM	80	LYS
10	CM	84	GLN
10	CM	96	ILE
11	CN	26	ASN
11	CN	32	ILE
11	CN	63	LEU
11	CN	75	TYR
11	CN	92	GLU
11	CN	109	VAL
11	CN	114	VAL
11	CN	116	HIS
11	CN	125	PHE
12	CO	17	LYS
12	CO	20	LYS
12	CO	27	LEU
12	CO	41	ARG
12	CO	53	ARG
12	CO	57	LYS
12	CO	60	LEU
12	CO	62	SER
12	CO	70	ILE
12	CO	73	GLU
12	CO	81	SER
12	CO	89	ARG
12	CO	112	ASP
12	CO	120	TYR
13	CP	3	ARG
13	CP	8	GLU
13	CP	13	LYS
13	CP	35	GLU
13	CP	47	ASP
13	CP	56	LEU
13	CP	57	ARG
13	CP	64	TRP
13	CP	66	LEU
13	CP	70	LEU
13	CP	88	ARG
13	CP	90	LEU

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Mol	Chain	Res	Type
13	CP	101	GLN
13	CP	115	LYS
13	CP	116	THR
13	CP	122	LYS
14	CQ	3	ARG
14	CQ	12	ARG
14	CQ	14	PRO
14	CQ	16	PHE
14	CQ	24	CYS
14	CQ	27	CYS
14	CQ	44	LEU
15	CR	3	ILE
15	CR	8	LYS
15	CR	26	GLU
15	CR	39	LEU
15	CR	62	GLN
15	CR	65	ARG
16	CS	1	MET
16	CS	26	ARG
16	CS	28	ARG
16	CS	59	TRP
16	CS	62	VAL
16	CS	69	THR
16	CS	71	ARG
16	CS	72	ARG
16	CS	82	GLN
17	CT	12	SER
17	CT	48	GLU
17	CT	52	LYS
17	CT	59	ILE
17	CT	68	ARG
17	CT	74	LEU
18	CU	26	LEU
18	CU	29	PHE
18	CU	32	ARG
18	CU	46	GLU
18	CU	54	ARG
18	CU	55	ARG
19	CV	5	LEU
19	CV	10	PHE
19	CV	12	ASP
19	CV	13	ASP

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Mol	Chain	Res	Type
19	CV	15	LEU
19	CV	23	ASN
19	CV	29	ARG
19	CV	30	LEU
19	CV	41	VAL
19	CV	63	THR
19	CV	65	ASN
19	CV	83	HIS
20	CW	9	ASN
20	CW	11	SER
20	CW	24	LEU
20	CW	26	ASN
20	CW	41	ILE
20	CW	62	LEU
20	CW	73	HIS
20	CW	75	ASN
20	CW	93	GLU
21	CX	6	ARG
26	DD	10	THR
26	DD	17	THR
26	DD	26	LYS
26	DD	33	LEU
26	DD	43	ARG
26	DD	44	ASN
26	DD	61	LEU
26	DD	65	ILE
26	DD	67	PHE
26	DD	71	ASP
26	DD	73	VAL
26	DD	94	LEU
26	DD	98	VAL
26	DD	105	ILE
26	DD	106	ILE
26	DD	116	GLN
26	DD	131	LEU
26	DD	134	ARG
26	DD	135	PHE
26	DD	155	LEU
26	DD	157	ARG
26	DD	166	GLN
26	DD	173	VAL
26	DD	183	ARG

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Mol	Chain	Res	Type
26	DD	192	THR
26	DD	198	ASN
26	DD	200	ASP
26	DD	215	LEU
26	DD	217	ARG
26	DD	218	ARG
26	DD	226	MET
26	DD	230	ASP
26	DD	237	GLU
26	DD	257	LEU
26	DD	259	THR
26	DD	261	LYS
26	DD	262	ARG
26	DD	271	ILE
27	DE	2	LYS
27	DE	4	ILE
27	DE	13	ARG
27	DE	16	ARG
27	DE	17	ASP
27	DE	25	VAL
27	DE	26	ILE
27	DE	27	LEU
27	DE	33	VAL
27	DE	36	ARG
27	DE	37	ARG
27	DE	38	THR
27	DE	41	LYS
27	DE	45	THR
27	DE	54	GLN
27	DE	61	ARG
27	DE	62	PRO
27	DE	66	HIS
27	DE	73	GLU
27	DE	75	VAL
27	DE	77	ILE
27	DE	78	LEU
27	DE	79	ARG
27	DE	80	GLU
27	DE	101	ARG
27	DE	113	PHE
27	DE	117	MET
27	DE	119	ARG

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Mol	Chain	Res	Type
27	DE	143	ASN
27	DE	146	THR
27	DE	154	LYS
27	DE	167	VAL
27	DE	179	GLU
27	DE	184	VAL
27	DE	196	VAL
27	DE	200	GLU
27	DE	202	LYS
27	DE	203	LYS
28	DF	7	TYR
28	DF	9	ILE
28	DF	25	PRO
28	DF	32	LEU
28	DF	45	ARG
28	DF	46	ARG
28	DF	65	TRP
28	DF	66	PRO
28	DF	67	GLN
28	DF	70	THR
28	DF	82	ILE
28	DF	106	ARG
28	DF	108	LYS
28	DF	117	ARG
28	DF	124	LEU
28	DF	127	GLU
28	DF	145	GLU
28	DF	164	ARG
28	DF	169	ASN
28	DF	181	LEU
28	DF	183	VAL
28	DF	206	ILE
29	DG	4	ASP
29	DG	22	ARG
29	DG	33	ARG
29	DG	34	LEU
29	DG	35	GLU
29	DG	43	LEU
29	DG	45	GLU
29	DG	63	ILE
29	DG	67	LYS
29	DG	71	THR

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Mol	Chain	Res	Type
29	DG	88	ILE
29	DG	94	LEU
29	DG	96	ARG
29	DG	97	ASP
29	DG	103	LEU
29	DG	115	ARG
29	DG	118	ARG
29	DG	121	ASN
29	DG	133	LEU
29	DG	147	ASP
29	DG	155	MET
29	DG	156	ASP
29	DG	159	VAL
29	DG	167	GLU
29	DG	174	GLU
30	DH	3	ARG
30	DH	4	ILE
30	DH	9	ILE
30	DH	10	PRO
30	DH	11	VAL
30	DH	16	SER
30	DH	27	LYS
30	DH	32	GLU
30	DH	37	VAL
30	DH	41	MET
30	DH	43	VAL
30	DH	59	ARG
30	DH	64	LEU
30	DH	77	LYS
30	DH	81	GLU
30	DH	85	LYS
30	DH	88	LEU
30	DH	89	ILE
30	DH	105	LEU
30	DH	132	ARG
30	DH	143	GLN
30	DH	152	ARG
30	DH	153	LYS
30	DH	154	PRO
30	DH	155	SER
30	DH	158	HIS
30	DH	169	VAL

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Mol	Chain	Res	Type
31	DK	1	MET
31	DK	9	LEU
31	DK	25	TYR
31	DK	33	ARG
31	DK	38	LEU
31	DK	41	GLU
31	DK	42	SER
31	DK	52	ARG
31	DK	56	LYS
31	DK	57	ARG
31	DK	67	ARG
31	DK	70	GLU
31	DK	74	ASN
31	DK	85	GLU
31	DK	88	ILE
31	DK	96	ASP
31	DK	101	LEU
31	DK	112	LYS
31	DK	113	ARG
31	DK	128	LEU
31	DK	131	LYS
31	DK	134	PRO
31	DK	135	GLU
31	DK	139	GLN
31	DK	140	LEU
31	DK	141	LYS
31	DK	142	VAL
32	DM	2	LYS
32	DM	7	LYS
32	DM	43	THR
32	DM	45	ASN
32	DM	48	MET
32	DM	60	ILE
32	DM	61	ARG
32	DM	65	LYS
32	DM	73	THR
32	DM	78	TYR
32	DM	90	MET
32	DM	93	THR
32	DM	94	HIS
32	DM	101	HIS
32	DM	109	LYS

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Mol	Chain	Res	Type
32	DM	112	LEU
32	DM	120	LEU
32	DM	127	ASP
32	DM	131	GLN
32	DM	136	GLU
33	DN	8	LEU
33	DN	9	GLU
33	DN	17	ARG
33	DN	19	ILE
33	DN	23	ARG
33	DN	31	LYS
33	DN	39	ILE
33	DN	49	ARG
33	DN	53	LYS
33	DN	65	THR
34	DO	5	ASP
34	DO	10	PRO
34	DO	16	ARG
34	DO	21	ARG
34	DO	27	HIS
34	DO	29	LYS
34	DO	30	THR
34	DO	32	THR
34	DO	36	LYS
34	DO	38	GLN
34	DO	41	ARG
34	DO	50	ARG
34	DO	55	ARG
34	DO	61	ARG
34	DO	62	LEU
34	DO	64	LYS
34	DO	65	ARG
34	DO	68	GLN
34	DO	75	ILE
34	DO	81	GLN
34	DO	88	LEU
34	DO	91	PHE
34	DO	99	LEU
34	DO	100	LEU
34	DO	108	LYS
34	DO	144	GLU
34	DO	146	VAL

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Mol	Chain	Res	Type
35	DP	2	LEU
35	DP	25	ASP
35	DP	26	TYR
35	DP	27	VAL
35	DP	45	GLN
35	DP	46	GLN
35	DP	54	MET
35	DP	55	VAL
35	DP	58	PHE
35	DP	59	ARG
35	DP	79	LEU
35	DP	80	GLU
35	DP	83	MET
35	DP	89	ASN
35	DP	90	VAL
35	DP	91	GLU
35	DP	130	LYS
35	DP	135	ASP
35	DP	139	GLU
36	D0	14	SER
36	D0	16	HIS
36	D0	31	HIS
36	D0	37	THR
36	D0	44	LEU
36	D0	51	LEU
36	D0	57	ARG
36	D0	66	VAL
36	D0	67	LEU
36	D0	75	LEU
36	D0	76	VAL
36	D0	81	ASP
36	D0	91	GLN
36	D0	95	THR
36	D0	104	ARG
36	D0	105	ARG
36	D0	107	ASP
36	D0	113	LEU
37	DQ	4	LEU
37	DQ	12	PHE
37	DQ	17	ARG
37	DQ	18	ILE
37	DQ	20	ARG

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Mol	Chain	Res	Type
37	DQ	44	LYS
37	DQ	56	LEU
37	DQ	57	LYS
37	DQ	89	ARG
37	DQ	101	LEU
37	DQ	103	GLU
37	DQ	106	ARG
37	DQ	111	GLU
38	DR	2	ASN
38	DR	14	TYR
38	DR	22	PHE
38	DR	23	ARG
38	DR	26	ASP
38	DR	27	THR
38	DR	42	ILE
38	DR	51	ARG
38	DR	58	ASN
38	DR	65	LYS
38	DR	73	GLU
38	DR	78	LEU
38	DR	84	GLN
38	DR	86	ILE
38	DR	87	ASP
38	DR	99	LEU
38	DR	100	TYR
38	DR	104	ASN
38	DR	107	ASP
38	DR	111	ARG
38	DR	112	ARG
38	DR	115	ARG
38	DR	128	GLU
38	DR	134	GLU
39	D1	5	LYS
39	D1	9	VAL
39	D1	31	SER
39	D1	49	HIS
39	D1	52	ARG
39	D1	74	LEU
39	D1	76	TYR
39	D1	79	PHE
39	D1	88	ILE
39	D1	92	ARG

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Mol	Chain	Res	Type
39	D1	98	LEU
39	D1	108	GLU
39	D1	114	LYS
39	D1	117	GLN
40	D2	13	ARG
40	D2	14	VAL
40	D2	18	LEU
40	D2	35	LEU
40	D2	38	LEU
40	D2	39	LEU
40	D2	40	LEU
40	D2	66	ARG
40	D2	75	PHE
40	D2	89	GLN
40	D2	91	TYR
40	D2	99	ILE
41	DS	11	ARG
41	DS	14	PRO
41	DS	16	LYS
41	DS	18	ARG
41	DS	19	LEU
41	DS	20	VAL
41	DS	63	ASP
41	DS	67	ASP
41	DS	69	LEU
41	DS	70	TYR
41	DS	87	PRO
41	DS	88	ARG
41	DS	92	ARG
41	DS	107	LEU
41	DS	109	GLU
42	DT	3	THR
42	DT	6	ASP
42	DT	15	GLU
42	DT	27	THR
42	DT	30	VAL
42	DT	41	ASN
42	DT	55	ASN
42	DT	57	LEU
42	DT	65	ARG
42	DT	70	LEU
42	DT	80	ILE

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Mol	Chain	Res	Type
42	DT	88	LYS
43	DU	7	VAL
43	DU	11	ASP
43	DU	27	VAL
43	DU	45	VAL
43	DU	57	GLN
43	DU	64	GLU
43	DU	75	ILE
43	DU	77	PRO
43	DU	79	CYS
43	DU	87	LYS
43	DU	88	LYS
43	DU	89	PHE
43	DU	90	LEU
43	DU	95	LYS
43	DU	97	ARG
44	DV	2	GLU
44	DV	20	ARG
44	DV	24	LEU
44	DV	31	ARG
44	DV	38	TYR
44	DV	72	ARG
44	DV	76	LEU
44	DV	81	ARG
44	DV	82	ARG
44	DV	87	ASP
44	DV	94	GLU
44	DV	96	VAL
44	DV	97	GLU
44	DV	107	THR
44	DV	117	LEU
44	DV	118	GLN
44	DV	119	GLU
44	DV	121	HIS
44	DV	122	ARG
44	DV	123	ASP
44	DV	131	ARG
44	DV	132	ASN
44	DV	137	ILE
44	DV	139	VAL
44	DV	148	ASP
44	DV	155	LEU

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Mol	Chain	Res	Type
44	DV	170	THR
44	DV	171	ILE
45	D3	10	THR
45	D3	11	ARG
45	D3	35	ASN
45	D3	36	ILE
45	D3	41	ARG
45	D3	55	ARG
45	D3	74	ARG
45	D3	82	ARG
46	DZ	2	SER
46	DZ	11	ARG
46	DZ	21	ARG
46	DZ	30	VAL
46	DZ	40	ARG
46	DZ	41	ARG
46	DZ	56	GLN
46	DZ	76	ARG
46	DZ	80	LEU
46	DZ	81	LYS
46	DZ	83	GLU
46	DZ	87	PRO
46	DZ	91	LYS
46	DZ	92	LYS
46	DZ	97	LEU
47	DW	7	ARG
47	DW	9	GLN
47	DW	16	LEU
47	DW	24	LEU
47	DW	53	LEU
47	DW	62	THR
47	DW	64	LEU
48	DX	4	LEU
48	DX	8	LEU
48	DX	9	VAL
48	DX	10	LYS
48	DX	17	LYS
48	DX	30	ARG
48	DX	31	LEU
48	DX	32	GLN
48	DX	37	LEU
48	DX	40	THR

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Mol	Chain	Res	Type
48	DX	44	ARG
49	D4	6	HIS
49	D4	15	ILE
49	D4	18	CYS
49	D4	21	VAL
49	D4	23	GLU
49	D4	39	CYS
49	D4	42	PHE
49	D4	48	ARG
49	D4	49	PHE
49	D4	50	VAL
49	D4	51	ASP
49	D4	53	GLU
49	D4	57	GLU
49	D4	61	ARG
49	D4	62	ARG
49	D4	63	TYR
49	D4	67	TYR
49	D4	68	ARG
49	D4	71	ARG
50	D5	3	LYS
50	D5	4	HIS
50	D5	6	VAL
50	D5	11	THR
50	D5	19	ARG
50	D5	25	LEU
50	D5	36	CYS
50	D5	37	LYS
50	D5	52	TYR
50	D5	56	LYS
50	D5	58	LEU
51	D6	6	ARG
51	D6	8	LYS
51	D6	18	ARG
51	D6	19	ARG
51	D6	28	ARG
51	D6	34	LEU
51	D6	37	ARG
51	D6	42	TRP
51	D6	44	ARG
51	D6	46	HIS
52	D7	1	MET

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Mol	Chain	Res	Type
52	D7	8	ASN
52	D7	9	ARG
52	D7	43	THR
53	D8	15	LYS
53	D8	16	ILE
53	D8	30	ARG
53	D8	35	GLN
53	D8	39	LYS
53	D8	43	GLN
53	D8	44	LYS
53	D8	47	LYS
53	D8	48	PHE
53	D8	49	VAL
53	D8	52	LYS
53	D8	53	PRO
53	D8	62	LEU
53	D8	63	PRO
53	D8	65	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (298) such sidechains are listed below:

Mol	Chain	Res	Type
2	AE	37	ASN
2	AE	40	HIS
2	AE	76	GLN
2	AE	94	ASN
2	AE	135	GLN
2	AE	140	HIS
2	AE	146	GLN
2	AE	224	GLN
3	AF	63	ASN
3	AF	123	GLN
3	AF	162	GLN
4	AG	45	GLN
4	AG	62	GLN
4	AG	123	HIS
4	AG	129	ASN
5	AH	20	GLN
5	AH	56	GLN
5	AH	141	GLN
6	AI	32	ASN
6	AI	73	ASN

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Mol	Chain	Res	Type
6	AI	94	GLN
7	AJ	68	ASN
7	AJ	96	GLN
7	AJ	97	GLN
8	AK	15	ASN
9	AL	29	ASN
9	AL	34	ASN
9	AL	124	GLN
10	AM	56	HIS
10	AM	78	ASN
10	AM	84	GLN
11	AN	38	ASN
11	AN	93	GLN
11	AN	116	HIS
11	AN	117	ASN
12	AO	9	GLN
12	AO	75	HIS
13	AP	40	ASN
13	AP	106	ASN
14	AQ	49	HIS
15	AR	9	GLN
15	AR	13	GLN
15	AR	37	ASN
15	AR	50	HIS
16	AS	65	GLN
16	AS	76	GLN
17	AT	16	GLN
17	AT	26	GLN
17	AT	94	ASN
19	AV	14	HIS
19	AV	56	GLN
19	AV	57	HIS
19	AV	65	ASN
19	AV	83	HIS
20	AW	26	ASN
20	AW	73	HIS
26	BD	115	GLN
26	BD	126	GLN
26	BD	143	HIS
26	BD	164	GLN
26	BD	166	GLN
26	BD	186	HIS

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Mol	Chain	Res	Type
26	BD	198	ASN
26	BD	201	HIS
27	BE	35	GLN
27	BE	48	GLN
27	BE	60	ASN
27	BE	66	HIS
27	BE	143	ASN
27	BE	192	ASN
28	BF	8	GLN
28	BF	29	ASN
28	BF	40	GLN
28	BF	75	HIS
28	BF	169	ASN
29	BG	26	GLN
29	BG	41	GLN
29	BG	58	GLN
29	BG	79	ASN
29	BG	123	ASN
30	BH	74	ASN
30	BH	139	GLN
30	BH	147	ASN
31	BK	43	ASN
31	BK	54	GLN
31	BK	105	HIS
32	BM	45	ASN
32	BM	131	GLN
32	BM	133	GLN
33	BN	3	GLN
33	BN	29	ASN
33	BN	82	ASN
33	BN	88	ASN
34	BO	70	GLN
34	BO	84	ASN
34	BO	128	HIS
35	BP	12	GLN
35	BP	13	GLN
35	BP	46	GLN
35	BP	89	ASN
35	BP	141	GLN
36	B0	11	ASN
36	B0	23	ASN
36	B0	24	GLN

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Mol	Chain	Res	Type
36	B0	61	HIS
36	B0	71	GLN
38	BR	43	GLN
38	BR	79	HIS
38	BR	90	GLN
38	BR	136	GLN
39	B1	49	HIS
39	B1	75	ASN
39	B1	81	HIS
39	B1	104	GLN
40	B2	11	GLN
40	B2	80	GLN
40	B2	89	GLN
41	BS	57	ASN
41	BS	102	HIS
42	BT	41	ASN
42	BT	55	ASN
42	BT	87	GLN
43	BU	43	ASN
43	BU	57	GLN
44	BV	34	ASN
44	BV	50	GLN
44	BV	75	ASN
44	BV	118	GLN
44	BV	121	HIS
44	BV	151	HIS
46	BZ	56	GLN
47	BW	9	GLN
47	BW	65	ASN
48	BX	19	GLN
48	BX	46	ASN
48	BX	52	HIS
49	B4	60	GLN
50	B5	4	HIS
50	B5	43	HIS
51	B6	20	ASN
52	B7	8	ASN
2	CE	37	ASN
2	CE	78	GLN
2	CE	94	ASN
2	CE	95	GLN
2	CE	135	GLN

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Mol	Chain	Res	Type
2	CE	146	GLN
2	CE	204	ASN
2	CE	212	GLN
3	CF	3	ASN
3	CF	28	GLN
3	CF	37	GLN
3	CF	69	HIS
3	CF	98	ASN
3	CF	170	GLN
3	CF	181	ASN
4	CG	42	GLN
4	CG	77	ASN
4	CG	160	GLN
4	CG	161	ASN
4	CG	201	GLN
5	CH	20	GLN
5	CH	72	GLN
5	CH	73	ASN
5	CH	78	HIS
5	CH	141	GLN
6	CI	7	ASN
6	CI	18	GLN
6	CI	32	ASN
6	CI	64	GLN
6	CI	94	GLN
6	CI	100	ASN
7	CJ	28	ASN
7	CJ	37	ASN
7	CJ	56	GLN
7	CJ	68	ASN
7	CJ	97	GLN
7	CJ	106	GLN
7	CJ	122	HIS
9	CL	23	ASN
9	CL	58	HIS
9	CL	89	ASN
9	CL	124	GLN
10	CM	13	HIS
10	CM	56	HIS
10	CM	78	ASN
11	CN	26	ASN
11	CN	38	ASN

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Mol	Chain	Res	Type
11	CN	99	GLN
12	CO	9	GLN
12	CO	49	ASN
13	CP	12	ASN
13	CP	101	GLN
14	CQ	49	HIS
15	CR	9	GLN
15	CR	37	ASN
15	CR	71	GLN
16	CS	76	GLN
16	CS	82	GLN
17	CT	16	GLN
18	CU	36	ASN
19	CV	23	ASN
19	CV	47	HIS
19	CV	65	ASN
20	CW	16	HIS
20	CW	26	ASN
26	DD	44	ASN
26	DD	58	HIS
26	DD	116	GLN
26	DD	143	HIS
26	DD	166	GLN
26	DD	186	HIS
26	DD	198	ASN
26	DD	227	ASN
27	DE	48	GLN
27	DE	121	ASN
27	DE	135	HIS
27	DE	192	ASN
28	DF	40	GLN
28	DF	67	GLN
28	DF	69	HIS
28	DF	75	HIS
28	DF	169	ASN
28	DF	204	ASN
29	DG	26	GLN
29	DG	40	ASN
29	DG	41	GLN
29	DG	121	ASN
30	DH	139	GLN
30	DH	143	GLN

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Mol	Chain	Res	Type
30	DH	147	ASN
31	DK	11	ASN
31	DK	43	ASN
31	DK	74	ASN
31	DK	105	HIS
31	DK	139	GLN
32	DM	45	ASN
32	DM	56	ASN
32	DM	69	GLN
32	DM	101	HIS
32	DM	128	HIS
32	DM	131	GLN
33	DN	5	GLN
33	DN	82	ASN
34	DO	9	ASN
34	DO	68	GLN
34	DO	81	GLN
34	DO	84	ASN
34	DO	128	HIS
35	DP	45	GLN
35	DP	123	HIS
36	D0	3	HIS
36	D0	13	HIS
36	D0	16	HIS
36	D0	23	ASN
36	D0	24	GLN
36	D0	61	HIS
36	D0	71	GLN
36	D0	91	GLN
38	DR	55	ASN
38	DR	58	ASN
38	DR	84	GLN
39	D1	44	ASN
39	D1	49	HIS
39	D1	71	GLN
39	D1	94	ASN
40	D2	11	GLN
40	D2	89	GLN
41	DS	34	ASN
41	DS	40	ASN
41	DS	57	ASN
41	DS	61	ASN

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Mol	Chain	Res	Type
41	DS	102	HIS
42	DT	31	HIS
42	DT	41	ASN
42	DT	55	ASN
42	DT	87	GLN
43	DU	57	GLN
44	DV	50	GLN
44	DV	54	HIS
44	DV	121	HIS
44	DV	151	HIS
45	D3	29	GLN
45	D3	35	ASN
46	DZ	56	GLN
46	DZ	66	HIS
47	DW	9	GLN
47	DW	56	GLN
47	DW	65	ASN
48	DX	19	GLN
48	DX	32	GLN
48	DX	46	ASN
49	D4	6	HIS
50	D5	43	HIS
52	D7	8	ASN
52	D7	36	GLN
53	D8	31	HIS
53	D8	43	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1516/1517 (99%)	341 (22%)	139 (9%)
1	CA	1514/1517 (99%)	316 (20%)	133 (8%)
22	AC	77/77 (100%)	15 (19%)	5 (6%)
22	AD	76/77 (98%)	28 (36%)	6 (7%)
22	CC	76/77 (98%)	15 (19%)	8 (10%)
22	CD	76/77 (98%)	11 (14%)	1 (1%)
23	A1	22/25 (88%)	10 (45%)	3 (13%)
23	C1	22/25 (88%)	9 (40%)	5 (22%)
24	BA	2884/2885 (99%)	762 (26%)	325 (11%)
25	BB	119/122 (97%)	25 (21%)	3 (2%)
54	DA	2884/2898 (99%)	776 (26%)	354 (12%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
55	DB	119/120 (99%)	21 (17%)	6 (5%)
All	All	9385/9417 (99%)	2329 (24%)	988 (10%)

All (2329) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	4	U
1	AA	5	U
1	AA	6	G
1	AA	8	A
1	AA	9	G
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	48	C
1	AA	49	U
1	AA	50	A
1	AA	51	A
1	AA	52	G
1	AA	61	G
1	AA	65	U
1	AA	66	G
1	AA	76	G
1	AA	79	G
1	AA	80	G
1	AA	84	U
1	AA	85	U
1	AA	86	U
1	AA	87	A
1	AA	88	C
1	AA	90	C
1	AA	91	C
1	AA	93	U
1	AA	96	G
1	AA	101	A
1	AA	109	A
1	AA	110	C
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	122	G
1	AA	129(A)	G

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Mol	Chain	Res	Type
1	AA	130	A
1	AA	169	C
1	AA	173	U
1	AA	174	C
1	AA	182	U
1	AA	186	C
1	AA	189	U
1	AA	190	G
1	AA	191(A)	G
1	AA	191(D)	U
1	AA	191(F)	U
1	AA	195	A
1	AA	197	A
1	AA	198	G
1	AA	201	C
1	AA	208	U
1	AA	209	U
1	AA	210	U
1	AA	216	G
1	AA	244	U
1	AA	245	C
1	AA	247	G
1	AA	251	G
1	AA	252	U
1	AA	266	G
1	AA	267	C
1	AA	275	G
1	AA	279	A
1	AA	280	C
1	AA	281	G
1	AA	289	G
1	AA	306	G
1	AA	316	G
1	AA	328	C
1	AA	329	A
1	AA	330	C
1	AA	332	G
1	AA	344	A
1	AA	345	C
1	AA	346	G
1	AA	350	G
1	AA	352	C

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Mol	Chain	Res	Type
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	368	U
1	AA	373	A
1	AA	389	A
1	AA	397	A
1	AA	398	C
1	AA	406	G
1	AA	410	G
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	439	A
1	AA	442	C
1	AA	451	A
1	AA	452	A
1	AA	466	C
1	AA	478	A
1	AA	482	A
1	AA	484	G
1	AA	485	G
1	AA	494	U
1	AA	495	A
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	519	C
1	AA	527	G
1	AA	530	G
1	AA	531	U
1	AA	532	A

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Mol	Chain	Res	Type
1	AA	533	A
1	AA	534	U
1	AA	535	A
1	AA	536	C
1	AA	548	G
1	AA	559	A
1	AA	560	U
1	AA	561	U
1	AA	563	A
1	AA	566	G
1	AA	567	G
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	581	G
1	AA	596	C
1	AA	630	G
1	AA	632	A
1	AA	633	G
1	AA	642	A
1	AA	653	A
1	AA	665	A
1	AA	687	A
1	AA	688	G
1	AA	697	U
1	AA	702	A
1	AA	704	A
1	AA	721	G
1	AA	722	A
1	AA	724	G
1	AA	731	G
1	AA	748	C
1	AA	749	C
1	AA	754	C
1	AA	777	A
1	AA	793	U
1	AA	801	U
1	AA	813	U
1	AA	815	A
1	AA	816	A
1	AA	817	C

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Mol	Chain	Res	Type
1	AA	818	G
1	AA	819	A
1	AA	820	U
1	AA	821	G
1	AA	828	A
1	AA	841	U
1	AA	842	C
1	AA	843	U
1	AA	859	A
1	AA	871	U
1	AA	872	A
1	AA	873	A
1	AA	874	G
1	AA	885	G
1	AA	889	A
1	AA	890	G
1	AA	891	U
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	940	C
1	AA	960	U
1	AA	961	U
1	AA	966	G
1	AA	968	A
1	AA	969	A
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	982	U
1	AA	983	A
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	994	A
1	AA	999	U
1	AA	1000	A

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Mol	Chain	Res	Type
1	AA	1001	G
1	AA	1003	G
1	AA	1004	A
1	AA	1005	A
1	AA	1006	C
1	AA	1007	C
1	AA	1008	C
1	AA	1009	G
1	AA	1020	U
1	AA	1021	G
1	AA	1024	G
1	AA	1025	U
1	AA	1029	G
1	AA	1030	C
1	AA	1031	G
1	AA	1032	A
1	AA	1032(A)	G
1	AA	1033	G
1	AA	1034	G
1	AA	1036	G
1	AA	1038	C
1	AA	1039	C
1	AA	1042	G
1	AA	1050	G
1	AA	1053	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1085	U
1	AA	1086	U
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1102	A
1	AA	1117	G
1	AA	1118	C
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1130	A

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Mol	Chain	Res	Type
1	AA	1131	G
1	AA	1136	U
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C
1	AA	1146	A
1	AA	1157	A
1	AA	1158	C
1	AA	1159	U
1	AA	1160	G
1	AA	1178	G
1	AA	1181	G
1	AA	1183	A
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	1215	G
1	AA	1224	G
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1238	A
1	AA	1240	U
1	AA	1256	A
1	AA	1257	U
1	AA	1258	G
1	AA	1273	G
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1285	A
1	AA	1286	A
1	AA	1287	A
1	AA	1288	A
1	AA	1297	C
1	AA	1299	A

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Mol	Chain	Res	Type
1	AA	1300	G
1	AA	1301	U
1	AA	1305	G
1	AA	1317	C
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1335	C
1	AA	1337	G
1	AA	1347	G
1	AA	1348	U
1	AA	1362(A)	C
1	AA	1363	A
1	AA	1364	U
1	AA	1365	G
1	AA	1381	U
1	AA	1394	A
1	AA	1395	C
1	AA	1397	C
1	AA	1398	A
1	AA	1400	C
1	AA	1401	G
1	AA	1419	G
1	AA	1442	G
1	AA	1443	G
1	AA	1446	A
1	AA	1447	G
1	AA	1450	U
1	AA	1451	A
1	AA	1452	C
1	AA	1453	G
1	AA	1454	G
1	AA	1492	A
1	AA	1493	A
1	AA	1499	A
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G

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Mol	Chain	Res	Type
1	AA	1519	A
1	AA	1520	G
1	AA	1529	G
1	AA	1530	G
1	AA	1532	U
1	AA	1533	C
1	AA	1534	A
1	AA	1536	C
1	AA	1540	U
1	AA	1541	U
1	AA	1542	G
22	AC	2	G
22	AC	8	U
22	AC	9	G
22	AC	10	G
22	AC	16	C
22	AC	17	C
22	AC	17(A)	C
22	AC	18	G
22	AC	20	U
22	AC	46	G
22	AC	47	U
22	AC	49	G
22	AC	59	A
22	AC	61	C
22	AC	76	A
22	AD	2	G
22	AD	6	G
22	AD	7	G
22	AD	8	U
22	AD	10	G
22	AD	13	C
22	AD	16	C
22	AD	17	C
22	AD	17(A)	C
22	AD	18	G
22	AD	19	G
22	AD	20	U
22	AD	21	A
22	AD	22	G
22	AD	23	C
22	AD	46	G

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Mol	Chain	Res	Type
22	AD	47	U
22	AD	48	C
22	AD	49	G
22	AD	52	G
22	AD	57	A
22	AD	58	A
22	AD	59	A
22	AD	61	C
22	AD	66	C
22	AD	69	C
22	AD	71	C
22	AD	73	A
23	A1	5	A
23	A1	8	A
23	A1	9	G
23	A1	14	A
23	A1	19	A
23	A1	20	A
23	A1	22	A
23	A1	23	A
23	A1	24	A
23	A1	25	A
24	BA	9	U
24	BA	13	A
24	BA	14	A
24	BA	15	G
24	BA	28	A
24	BA	34	C
24	BA	35	G
24	BA	46	C
24	BA	49	A
24	BA	50	U
24	BA	51	G
24	BA	52	A
24	BA	55	G
24	BA	60	G
24	BA	68	G
24	BA	69	C
24	BA	70	G
24	BA	71	A
24	BA	72	U
24	BA	73	A

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Mol	Chain	Res	Type
24	BA	74	A
24	BA	75	G
24	BA	85	G
24	BA	88	G
24	BA	90	U
24	BA	91	A
24	BA	93	C
24	BA	99	U
24	BA	101	G
24	BA	102	G
24	BA	105	C
24	BA	118	A
24	BA	119	A
24	BA	120	U
24	BA	121	G
24	BA	126	A
24	BA	129	C
24	BA	138	G
24	BA	140	A
24	BA	155	C
24	BA	161	U
24	BA	171	G
24	BA	174	C
24	BA	178	G
24	BA	196	A
24	BA	199	A
24	BA	200	U
24	BA	204	A
24	BA	205	G
24	BA	206	U
24	BA	214	G
24	BA	215	G
24	BA	216	A
24	BA	221	A
24	BA	222	A
24	BA	223	A
24	BA	228	A
24	BA	229	A
24	BA	232	G
24	BA	233	A
24	BA	241	A
24	BA	242	G

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Mol	Chain	Res	Type
24	BA	243	U
24	BA	248	G
24	BA	249	C
24	BA	250	G
24	BA	252	G
24	BA	261	G
24	BA	265	A
24	BA	266	G
24	BA	269	U
24	BA	270(K)	C
24	BA	270(L)	U
24	BA	270(M)	U
24	BA	270(O)	U
24	BA	270(P)	C
24	BA	270(Z)	U
24	BA	271(C)	U
24	BA	271	G
24	BA	273(D)	C
24	BA	274	G
24	BA	276	A
24	BA	278	A
24	BA	279	C
24	BA	283	A
24	BA	284	U
24	BA	289	A
24	BA	301	G
24	BA	310	A
24	BA	311	A
24	BA	312	G
24	BA	316	C
24	BA	322	A
24	BA	323	G
24	BA	324	A
24	BA	329	G
24	BA	330	A
24	BA	332	A
24	BA	333	G
24	BA	352	G
24	BA	353	G
24	BA	361	G
24	BA	363	G
24	BA	363(A)	A

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Mol	Chain	Res	Type
24	BA	363(B)	G
24	BA	363(F)	A
24	BA	364	C
24	BA	371	A
24	BA	372	G
24	BA	373	U
24	BA	386	G
24	BA	387	U
24	BA	388	G
24	BA	391	G
24	BA	395	U
24	BA	396	G
24	BA	404	C
24	BA	405	U
24	BA	406	G
24	BA	411	G
24	BA	412	A
24	BA	422	A
24	BA	428	A
24	BA	435	C
24	BA	443	A
24	BA	444	C
24	BA	446	G
24	BA	447	A
24	BA	448	U
24	BA	449	A
24	BA	455	C
24	BA	457	A
24	BA	458	G
24	BA	459	U
24	BA	467	G
24	BA	470	A
24	BA	475	U
24	BA	479	A
24	BA	480	A
24	BA	481	G
24	BA	482	A
24	BA	503	A
24	BA	504	U
24	BA	505	A
24	BA	506	G
24	BA	507	A

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Mol	Chain	Res	Type
24	BA	508	G
24	BA	509	C
24	BA	512	G
24	BA	528	A
24	BA	529	A
24	BA	530	G
24	BA	531	C
24	BA	533	G
24	BA	563	G
24	BA	571	A
24	BA	572	A
24	BA	573	G
24	BA	574	C
24	BA	575	A
24	BA	588	U
24	BA	604	G
24	BA	607	U
24	BA	614	U
24	BA	615	G
24	BA	616	A
24	BA	617	G
24	BA	620	G
24	BA	621	A
24	BA	622	G
24	BA	627	A
24	BA	628	G
24	BA	638	G
24	BA	645	C
24	BA	646	A
24	BA	650	C
24	BA	654	A
24	BA	654(C)	G
24	BA	654(R)	C
24	BA	654(S)	G
24	BA	669	G
24	BA	670	A
24	BA	671	C
24	BA	672	C
24	BA	686	G
24	BA	687	C
24	BA	705	A
24	BA	708	C

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Mol	Chain	Res	Type
24	BA	722	A
24	BA	728	G
24	BA	729	G
24	BA	730	C
24	BA	739	G
24	BA	747	U
24	BA	753	C
24	BA	762	U
24	BA	763	G
24	BA	775	G
24	BA	776	G
24	BA	777	A
24	BA	782	A
24	BA	784	A
24	BA	785	G
24	BA	789	A
24	BA	790	C
24	BA	791	C
24	BA	792	G
24	BA	793	A
24	BA	794	G
24	BA	800	A
24	BA	801	G
24	BA	802	A
24	BA	805	G
24	BA	806	C
24	BA	811	U
24	BA	812	C
24	BA	819	A
24	BA	827	U
24	BA	828	U
24	BA	830	G
24	BA	831	G
24	BA	832	G
24	BA	847	U
24	BA	848	G
24	BA	856	C
24	BA	857	C
24	BA	860	U
24	BA	865	C
24	BA	866	A
24	BA	871	U

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Mol	Chain	Res	Type
24	BA	878	A
24	BA	879	G
24	BA	882	G
24	BA	883	G
24	BA	884	C
24	BA	885	C
24	BA	886	C
24	BA	888	C
24	BA	889	C
24	BA	890	A
24	BA	893	C
24	BA	894	C
24	BA	896	A
24	BA	897	C
24	BA	901	A
24	BA	910	A
24	BA	917	A
24	BA	926	A
24	BA	931	G
24	BA	932	G
24	BA	933	A
24	BA	941	A
24	BA	946	G
24	BA	955	C
24	BA	957	A
24	BA	958	U
24	BA	959	A
24	BA	961	C
24	BA	962	G
24	BA	973	A
24	BA	974	G
24	BA	983	A
24	BA	989	G
24	BA	990	A
24	BA	991	C
24	BA	996	A
24	BA	997	G
24	BA	1000	A
24	BA	1005	C
24	BA	1008	C
24	BA	1009	A
24	BA	1012	U

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Mol	Chain	Res	Type
24	BA	1013	C
24	BA	1022	G
24	BA	1023	U
24	BA	1025	G
24	BA	1026	U
24	BA	1027	A
24	BA	1033	U
24	BA	1034	G
24	BA	1044	G
24	BA	1045	A
24	BA	1046	A
24	BA	1047	G
24	BA	1050	A
24	BA	1054	A
24	BA	1056	G
24	BA	1060	U
24	BA	1061	U
24	BA	1070	A
24	BA	1071	G
24	BA	1073	A
24	BA	1086	A
24	BA	1087	G
24	BA	1088	A
24	BA	1090	U
24	BA	1095	A
24	BA	1096	A
24	BA	1097	U
24	BA	1099	G
24	BA	1103	A
24	BA	1104	C
24	BA	1111	A
24	BA	1126	A
24	BA	1127	A
24	BA	1130	U
24	BA	1131	G
24	BA	1132	A
24	BA	1135	C
24	BA	1136	G
24	BA	1142	U
24	BA	1142(A)	A
24	BA	1143	A
24	BA	1155	A

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Mol	Chain	Res	Type
24	BA	1156	A
24	BA	1157	G
24	BA	1171	G
24	BA	1173	G
24	BA	1175	U
24	BA	1177	A
24	BA	1178	C
24	BA	1180	C
24	BA	1183	G
24	BA	1195	G
24	BA	1204	A
24	BA	1205	U
24	BA	1206	G
24	BA	1211	U
24	BA	1212	G
24	BA	1213	A
24	BA	1220	A
24	BA	1221	C
24	BA	1236	G
24	BA	1237	A
24	BA	1238	G
24	BA	1247	A
24	BA	1249	U
24	BA	1251	C
24	BA	1252	G
24	BA	1253	A
24	BA	1254	A
24	BA	1255	U
24	BA	1256	G
24	BA	1265	A
24	BA	1266	G
24	BA	1271	G
24	BA	1272	A
24	BA	1273	U
24	BA	1276	A
24	BA	1281	G
24	BA	1288	U
24	BA	1289	C
24	BA	1300	U
24	BA	1301	A
24	BA	1302	A
24	BA	1303	G

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Mol	Chain	Res	Type
24	BA	1313	U
24	BA	1314	C
24	BA	1319	G
24	BA	1320	C
24	BA	1321	A
24	BA	1325	G
24	BA	1326	U
24	BA	1329	U
24	BA	1330	C
24	BA	1332	G
24	BA	1333	C
24	BA	1341	U
24	BA	1342	A
24	BA	1343	G
24	BA	1345	C
24	BA	1349	A
24	BA	1359	A
24	BA	1360	A
24	BA	1368	G
24	BA	1379	A
24	BA	1380	G
24	BA	1384	A
24	BA	1385	G
24	BA	1391	U
24	BA	1397	U
24	BA	1398	C
24	BA	1406	U
24	BA	1416	G
24	BA	1420	U
24	BA	1421	G
24	BA	1427	A
24	BA	1428	C
24	BA	1429	G
24	BA	1434	A
24	BA	1436	G
24	BA	1437	C
24	BA	1444(A)	A
24	BA	1449	A
24	BA	1449(A)	G
24	BA	1453	A
24	BA	1454	U
24	BA	1455	G

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Mol	Chain	Res	Type
24	BA	1459	G
24	BA	1460	A
24	BA	1461	G
24	BA	1467	C
24	BA	1471	A
24	BA	1475	G
24	BA	1482	U
24	BA	1483	G
24	BA	1485	G
24	BA	1488	G
24	BA	1490	A
24	BA	1491	G
24	BA	1493	C
24	BA	1494	A
24	BA	1497	U
24	BA	1499	C
24	BA	1502	C
24	BA	1505	C
24	BA	1509	C
24	BA	1510	A
24	BA	1522	G
24	BA	1528	A
24	BA	1534	G
24	BA	1535	U
24	BA	1537	C
24	BA	1538	G
24	BA	1543	A
24	BA	1544	C
24	BA	1545	A
24	BA	1547	C
24	BA	1554	A
24	BA	1555	G
24	BA	1558	A
24	BA	1559	G
24	BA	1560	G
24	BA	1566	A
24	BA	1567	A
24	BA	1569	A
24	BA	1578	U
24	BA	1579	A
24	BA	1585	C
24	BA	1586	A

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Mol	Chain	Res	Type
24	BA	1588	C
24	BA	1593	G
24	BA	1595	G
24	BA	1602	U
24	BA	1603	A
24	BA	1608	A
24	BA	1610	A
24	BA	1611	C
24	BA	1615	C
24	BA	1616	A
24	BA	1617	C
24	BA	1618	A
24	BA	1619	G
24	BA	1635	G
24	BA	1640	C
24	BA	1647	G
24	BA	1648	C
24	BA	1653	G
24	BA	1654	A
24	BA	1667	G
24	BA	1668	A
24	BA	1669	A
24	BA	1674	G
24	BA	1675	C
24	BA	1681	G
24	BA	1682	G
24	BA	1694	C
24	BA	1695	G
24	BA	1696	G
24	BA	1698	A
24	BA	1699	G
24	BA	1700	A
24	BA	1706	U
24	BA	1728	G
24	BA	1729	A
24	BA	1754	C
24	BA	1758	G
24	BA	1759	A
24	BA	1762	A
24	BA	1763	G
24	BA	1764	G
24	BA	1773	A

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Mol	Chain	Res	Type
24	BA	1780	A
24	BA	1781	C
24	BA	1782	C
24	BA	1784	A
24	BA	1785	A
24	BA	1787	A
24	BA	1791	A
24	BA	1800	C
24	BA	1801	G
24	BA	1802	A
24	BA	1815	A
24	BA	1816	G
24	BA	1820	U
24	BA	1821	A
24	BA	1822	G
24	BA	1828	G
24	BA	1829	A
24	BA	1835	G
24	BA	1838	C
24	BA	1839	G
24	BA	1847	A
24	BA	1848	A
24	BA	1858	G
24	BA	1869	G
24	BA	1878	G
24	BA	1880	C
24	BA	1882	C
24	BA	1888	G
24	BA	1900	A
24	BA	1903	G
24	BA	1906	G
24	BA	1913	A
24	BA	1914	C
24	BA	1917	U
24	BA	1919	A
24	BA	1930	G
24	BA	1931	U
24	BA	1937	A
24	BA	1938	A
24	BA	1939	U
24	BA	1940	U
24	BA	1941	C

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Mol	Chain	Res	Type
24	BA	1943	U
24	BA	1944	U
24	BA	1948	G
24	BA	1955	U
24	BA	1956	U
24	BA	1962	C
24	BA	1963	U
24	BA	1964	G
24	BA	1965	C
24	BA	1966	A
24	BA	1967	C
24	BA	1970	A
24	BA	1971	A
24	BA	1972	A
24	BA	1980	G
24	BA	1981	A
24	BA	1982	C
24	BA	1993	U
24	BA	1996	C
24	BA	1997	G
24	BA	2019	A
24	BA	2022	U
24	BA	2023	G
24	BA	2027	G
24	BA	2031	A
24	BA	2032	G
24	BA	2033	A
24	BA	2034	U
24	BA	2035	G
24	BA	2036	C
24	BA	2043	C
24	BA	2051	A
24	BA	2052	G
24	BA	2055	C
24	BA	2056	G
24	BA	2059	A
24	BA	2060	A
24	BA	2061	G
24	BA	2062	A
24	BA	2063	C
24	BA	2067	G
24	BA	2068	U

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Mol	Chain	Res	Type
24	BA	2069	G
24	BA	2092	U
24	BA	2108	C
24	BA	2111	C
24	BA	2112	G
24	BA	2113	U
24	BA	2114	A
24	BA	2115	G
24	BA	2117	A
24	BA	2119	A
24	BA	2120	G
24	BA	2123	G
24	BA	2126	A
24	BA	2127	G
24	BA	2128	C
24	BA	2130	U
24	BA	2131	G
24	BA	2132	U
24	BA	2133	G
24	BA	2140	C
24	BA	2145	C
24	BA	2146	C
24	BA	2147	G
24	BA	2165	G
24	BA	2167	U
24	BA	2168	G
24	BA	2169	A
24	BA	2171	A
24	BA	2172	U
24	BA	2173	A
24	BA	2190	G
24	BA	2192	G
24	BA	2193	G
24	BA	2198	A
24	BA	2210	G
24	BA	2211	G
24	BA	2212	A
24	BA	2226	C
24	BA	2238	G
24	BA	2239	G
24	BA	2249	U
24	BA	2250	G

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Mol	Chain	Res	Type
24	BA	2251	G
24	BA	2259	G
24	BA	2266	A
24	BA	2267	A
24	BA	2275	C
24	BA	2276	G
24	BA	2283	C
24	BA	2286	A
24	BA	2288	A
24	BA	2289	G
24	BA	2297	C
24	BA	2305	A
24	BA	2306	C
24	BA	2307	G
24	BA	2308	G
24	BA	2309	A
24	BA	2312	U
24	BA	2319	G
24	BA	2320	A
24	BA	2325	G
24	BA	2334	G
24	BA	2335	A
24	BA	2336	A
24	BA	2337	G
24	BA	2345	G
24	BA	2346	A
24	BA	2347	C
24	BA	2349	G
24	BA	2350	C
24	BA	2382	G
24	BA	2383	G
24	BA	2385	C
24	BA	2388	A
24	BA	2392	A
24	BA	2402	C
24	BA	2406	U
24	BA	2407	G
24	BA	2423	U
24	BA	2424	C
24	BA	2425	A
24	BA	2426	A
24	BA	2427	C

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Mol	Chain	Res	Type
24	BA	2429	G
24	BA	2430	A
24	BA	2435	A
24	BA	2439	A
24	BA	2440	C
24	BA	2441	C
24	BA	2447	G
24	BA	2448	A
24	BA	2449	U
24	BA	2450	A
24	BA	2458	G
24	BA	2469	A
24	BA	2470	G
24	BA	2472	G
24	BA	2474	C
24	BA	2476	A
24	BA	2478	A
24	BA	2482	G
24	BA	2484	G
24	BA	2490	G
24	BA	2491	U
24	BA	2497	A
24	BA	2498	C
24	BA	2502	G
24	BA	2503	A
24	BA	2504	U
24	BA	2505	G
24	BA	2518	A
24	BA	2519	U
24	BA	2520	C
24	BA	2523	G
24	BA	2529	G
24	BA	2531	A
24	BA	2534	A
24	BA	2543	G
24	BA	2552	U
24	BA	2554	U
24	BA	2566	A
24	BA	2567	G
24	BA	2573	C
24	BA	2581	G
24	BA	2582	G

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Mol	Chain	Res	Type
24	BA	2602	A
24	BA	2603	G
24	BA	2609	U
24	BA	2610	C
24	BA	2611	U
24	BA	2612	C
24	BA	2613	U
24	BA	2614	A
24	BA	2615	U
24	BA	2629	A
24	BA	2630	G
24	BA	2646	C
24	BA	2654	A
24	BA	2655	G
24	BA	2665	A
24	BA	2673	G
24	BA	2675	A
24	BA	2682	U
24	BA	2690	C
24	BA	2691	C
24	BA	2702	U
24	BA	2703	C
24	BA	2712	U
24	BA	2712(A)	A
24	BA	2713	A
24	BA	2714	G
24	BA	2725	A
24	BA	2733	A
24	BA	2748	A
24	BA	2750	A
24	BA	2751	G
24	BA	2752	C
24	BA	2754	U
24	BA	2756	U
24	BA	2757	A
24	BA	2759	G
24	BA	2762	G
24	BA	2763	G
24	BA	2765	A
24	BA	2770	G
24	BA	2777	G
24	BA	2778	A

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Mol	Chain	Res	Type
24	BA	2779	U
24	BA	2780	G
24	BA	2781	A
24	BA	2790	A
24	BA	2791	C
24	BA	2792	G
24	BA	2797	U
24	BA	2807	G
24	BA	2808	U
24	BA	2820	A
24	BA	2821	A
24	BA	2828	C
24	BA	2833	G
24	BA	2834	G
24	BA	2835	A
24	BA	2836	U
24	BA	2849	U
24	BA	2850	A
24	BA	2860	A
24	BA	2866	U
24	BA	2867	G
24	BA	2868	A
24	BA	2872	G
24	BA	2874	C
24	BA	2879	C
24	BA	2880	C
24	BA	2894	G
24	BA	2896	C
25	BB	0	A
25	BB	3	C
25	BB	8	U
25	BB	12	C
25	BB	13	A
25	BB	15	A
25	BB	16	G
25	BB	22	U
25	BB	25	A
25	BB	27	C
25	BB	35	U
25	BB	40	U
25	BB	42	C
25	BB	45	A

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Mol	Chain	Res	Type
25	BB	52	A
25	BB	53	A
25	BB	57	A
25	BB	67	G
25	BB	73	A
25	BB	75	G
25	BB	88	C
25	BB	89	G
25	BB	96	G
25	BB	109	G
25	BB	112	G
1	CA	9	G
1	CA	13	U
1	CA	14	U
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	48	C
1	CA	49	U
1	CA	50	A
1	CA	51	A
1	CA	61	G
1	CA	65	U
1	CA	66	G
1	CA	78	G
1	CA	81	G
1	CA	84	U
1	CA	85	U
1	CA	87	A
1	CA	89	U
1	CA	90	C
1	CA	92	G
1	CA	95	G
1	CA	96	G
1	CA	97	U
1	CA	101	A
1	CA	109	A
1	CA	110	C
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	122	G

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Mol	Chain	Res	Type
1	CA	130	A
1	CA	144	G
1	CA	147	G
1	CA	163	C
1	CA	172	A
1	CA	173	U
1	CA	174	C
1	CA	190	G
1	CA	191(A)	G
1	CA	195	A
1	CA	197	A
1	CA	198	G
1	CA	201	C
1	CA	209	U
1	CA	244	U
1	CA	245	C
1	CA	247	G
1	CA	251	G
1	CA	252	U
1	CA	266	G
1	CA	267	C
1	CA	275	G
1	CA	280	C
1	CA	281	G
1	CA	289	G
1	CA	305	G
1	CA	306	G
1	CA	316	G
1	CA	328	C
1	CA	329	A
1	CA	330	C
1	CA	332	G
1	CA	344	A
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	368	U
1	CA	373	A

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Mol	Chain	Res	Type
1	CA	397	A
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	419	C
1	CA	422	C
1	CA	423	G
1	CA	428	G
1	CA	429	U
1	CA	430	A
1	CA	440	A
1	CA	451	A
1	CA	452	A
1	CA	467	G
1	CA	482	A
1	CA	484	G
1	CA	485	G
1	CA	495	A
1	CA	496	A
1	CA	497	U
1	CA	500	G
1	CA	508	C
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	517	G
1	CA	518	C
1	CA	519	C
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	534	U
1	CA	536	C
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	566	G

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Mol	Chain	Res	Type
1	CA	567	G
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	596	C
1	CA	631	G
1	CA	642	A
1	CA	665	A
1	CA	687	A
1	CA	688	G
1	CA	701	C
1	CA	702	A
1	CA	703	G
1	CA	704	A
1	CA	721	G
1	CA	722	A
1	CA	723	U
1	CA	731	G
1	CA	749	C
1	CA	754	C
1	CA	755	G
1	CA	793	U
1	CA	794	A
1	CA	813	U
1	CA	815	A
1	CA	816	A
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	820	U
1	CA	821	G
1	CA	828	A
1	CA	841	U
1	CA	843	U
1	CA	848	C
1	CA	859	A
1	CA	871	U
1	CA	872	A
1	CA	873	A
1	CA	874	G

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Mol	Chain	Res	Type
1	CA	885	G
1	CA	889	A
1	CA	890	G
1	CA	891	U
1	CA	902	G
1	CA	914	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	960	U
1	CA	961	U
1	CA	966	G
1	CA	968	A
1	CA	969	A
1	CA	972	C
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	982	U
1	CA	983	A
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	994	A
1	CA	1001	G
1	CA	1002	G
1	CA	1003	G
1	CA	1004	A
1	CA	1005	A
1	CA	1006	C
1	CA	1008	C
1	CA	1024	G
1	CA	1025	U
1	CA	1028	C
1	CA	1028(A)	C
1	CA	1029	G
1	CA	1032(A)	G
1	CA	1036	G
1	CA	1037	C

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Mol	Chain	Res	Type
1	CA	1040	U
1	CA	1050	G
1	CA	1054	C
1	CA	1055	A
1	CA	1064	G
1	CA	1066	C
1	CA	1068	G
1	CA	1085	U
1	CA	1086	U
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1102	A
1	CA	1117	G
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1127	G
1	CA	1129	C
1	CA	1130	A
1	CA	1131	G
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1140	C
1	CA	1146	A
1	CA	1151	A
1	CA	1157	A
1	CA	1158	C
1	CA	1159	U
1	CA	1160	G
1	CA	1177	G
1	CA	1178	G
1	CA	1179	A
1	CA	1181	G
1	CA	1183	A
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1201	A
1	CA	1202	G

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Mol	Chain	Res	Type
1	CA	1212	U
1	CA	1215	G
1	CA	1224	G
1	CA	1225	A
1	CA	1226	C
1	CA	1227	A
1	CA	1238	A
1	CA	1240	U
1	CA	1241	G
1	CA	1256	A
1	CA	1257	U
1	CA	1273	G
1	CA	1280	A
1	CA	1281	U
1	CA	1282	C
1	CA	1285	A
1	CA	1286	A
1	CA	1287	A
1	CA	1298	C
1	CA	1299	A
1	CA	1301	U
1	CA	1302	U
1	CA	1303	C
1	CA	1305	G
1	CA	1317	C
1	CA	1320	C
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1335	C
1	CA	1336	C
1	CA	1345	U
1	CA	1346	A
1	CA	1347	G
1	CA	1348	U
1	CA	1353	G
1	CA	1363	A
1	CA	1364	U
1	CA	1365	G
1	CA	1381	U
1	CA	1394	A
1	CA	1395	C

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Mol	Chain	Res	Type
1	CA	1396	A
1	CA	1397	C
1	CA	1400	C
1	CA	1401	G
1	CA	1419	G
1	CA	1442	G
1	CA	1446	A
1	CA	1447	G
1	CA	1451	A
1	CA	1452	C
1	CA	1453	G
1	CA	1454	G
1	CA	1487	G
1	CA	1492	A
1	CA	1499	A
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1517	G
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
1	CA	1532	U
1	CA	1533	C
1	CA	1534	A
1	CA	1535	C
1	CA	1536	C
1	CA	1538	C
1	CA	1539	C
1	CA	1542	G
22	CC	2	G
22	CC	7	G
22	CC	8	U
22	CC	9	G
22	CC	10	G
22	CC	16	C
22	CC	17(A)	C
22	CC	18	G
22	CC	20	U

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Mol	Chain	Res	Type
22	CC	47	U
22	CC	48	C
22	CC	49	G
22	CC	58	A
22	CC	61	C
22	CC	76	A
22	CD	8	U
22	CD	10	G
22	CD	14	A
22	CD	15	G
22	CD	17	C
22	CD	18	G
22	CD	20	U
22	CD	47	U
22	CD	48	C
22	CD	49	G
22	CD	55	U
23	C1	9	G
23	C1	10	G
23	C1	11	U
23	C1	12	A
23	C1	13	A
23	C1	14	A
23	C1	19	A
23	C1	23	A
23	C1	25	A
54	DA	9	U
54	DA	13	A
54	DA	14	A
54	DA	34	C
54	DA	46	C
54	DA	49	A
54	DA	50	U
54	DA	51	G
54	DA	52	A
54	DA	60	G
54	DA	61	G
54	DA	64	A
54	DA	70	G
54	DA	71	A
54	DA	72	U
54	DA	73	A

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Mol	Chain	Res	Type
54	DA	74	A
54	DA	75	G
54	DA	83	G
54	DA	85	G
54	DA	88	G
54	DA	90	U
54	DA	91	A
54	DA	99	U
54	DA	101	G
54	DA	102	G
54	DA	103	A
54	DA	113	G
54	DA	118	A
54	DA	119	A
54	DA	120	U
54	DA	121	G
54	DA	125	G
54	DA	126	A
54	DA	138	G
54	DA	140	A
54	DA	161	U
54	DA	162	U
54	DA	163	U
54	DA	164	U
54	DA	181	A
54	DA	196	A
54	DA	197	A
54	DA	204	A
54	DA	205	G
54	DA	206	U
54	DA	215	G
54	DA	216	A
54	DA	221	A
54	DA	222	A
54	DA	223	A
54	DA	227	A
54	DA	228	A
54	DA	229	A
54	DA	230	U
54	DA	232	G
54	DA	233	A
54	DA	239	U

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Mol	Chain	Res	Type
54	DA	241	A
54	DA	242	G
54	DA	243	U
54	DA	248	G
54	DA	249	C
54	DA	250	G
54	DA	252	G
54	DA	265	A
54	DA	266	G
54	DA	270(L)	U
54	DA	270(M)	U
54	DA	270(O)	U
54	DA	270(P)	C
54	DA	271(A)	C
54	DA	271(C)	U
54	DA	271	G
54	DA	274	G
54	DA	276	A
54	DA	277	C
54	DA	278	A
54	DA	279	C
54	DA	284	U
54	DA	285	C
54	DA	299	A
54	DA	301	G
54	DA	311	A
54	DA	312	G
54	DA	317	G
54	DA	322	A
54	DA	323	G
54	DA	324	A
54	DA	329	G
54	DA	330	A
54	DA	332	A
54	DA	333	G
54	DA	346	A
54	DA	352	G
54	DA	363	G
54	DA	364	C
54	DA	371	A
54	DA	373	U
54	DA	386	G

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Mol	Chain	Res	Type
54	DA	387	U
54	DA	388	G
54	DA	390	A
54	DA	391	G
54	DA	395	U
54	DA	396	G
54	DA	405	U
54	DA	406	G
54	DA	411	G
54	DA	412	A
54	DA	428	A
54	DA	435	C
54	DA	442	G
54	DA	443	A
54	DA	444	C
54	DA	446	G
54	DA	447	A
54	DA	448	U
54	DA	455	C
54	DA	457	A
54	DA	458	G
54	DA	470	A
54	DA	473	G
54	DA	475	U
54	DA	480	A
54	DA	481	G
54	DA	482	A
54	DA	504	U
54	DA	505	A
54	DA	506	G
54	DA	507	A
54	DA	509	C
54	DA	513	A
54	DA	527	C
54	DA	528	A
54	DA	529	A
54	DA	531	C
54	DA	532	A
54	DA	533	G
54	DA	537	C
54	DA	539	G
54	DA	540	G

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Mol	Chain	Res	Type
54	DA	546	C
54	DA	547	A
54	DA	563	G
54	DA	572	A
54	DA	573	G
54	DA	574	C
54	DA	575	A
54	DA	586	A
54	DA	588	U
54	DA	603	A
54	DA	604	G
54	DA	607	U
54	DA	609	A
54	DA	614	U
54	DA	615	G
54	DA	616	A
54	DA	617	G
54	DA	621	A
54	DA	627	A
54	DA	628	G
54	DA	638	G
54	DA	645	C
54	DA	646	A
54	DA	651	G
54	DA	654	A
54	DA	654(A)	A
54	DA	669	G
54	DA	670	A
54	DA	671	C
54	DA	686	G
54	DA	687	C
54	DA	702	G
54	DA	703	U
54	DA	705	A
54	DA	717	G
54	DA	722	A
54	DA	729	G
54	DA	730	C
54	DA	739	G
54	DA	740	U
54	DA	747	U
54	DA	753	C

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Mol	Chain	Res	Type
54	DA	762	U
54	DA	763	G
54	DA	765	G
54	DA	775	G
54	DA	776	G
54	DA	777	A
54	DA	782	A
54	DA	784	A
54	DA	785	G
54	DA	789	A
54	DA	790	C
54	DA	791	C
54	DA	792	G
54	DA	793	A
54	DA	794	G
54	DA	800	A
54	DA	801	G
54	DA	803	U
54	DA	805	G
54	DA	806	C
54	DA	812	C
54	DA	819	A
54	DA	827	U
54	DA	828	U
54	DA	830	G
54	DA	831	G
54	DA	845	G
54	DA	846	C
54	DA	847	U
54	DA	854	G
54	DA	856	C
54	DA	857	C
54	DA	859	G
54	DA	860	U
54	DA	866	A
54	DA	871	U
54	DA	880	G
54	DA	881	G
54	DA	882	G
54	DA	884	C
54	DA	885	C
54	DA	886	C

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Mol	Chain	Res	Type
54	DA	888	C
54	DA	889	C
54	DA	890	A
54	DA	893	C
54	DA	896	A
54	DA	897	C
54	DA	899	A
54	DA	900	A
54	DA	901	A
54	DA	906	G
54	DA	910	A
54	DA	914	C
54	DA	917	A
54	DA	930	U
54	DA	931	G
54	DA	933	A
54	DA	941	A
54	DA	945	A
54	DA	946	G
54	DA	953	A
54	DA	958	U
54	DA	959	A
54	DA	961	C
54	DA	962	G
54	DA	973	A
54	DA	974	G
54	DA	975	G
54	DA	983	A
54	DA	989	G
54	DA	991	C
54	DA	996	A
54	DA	1008	C
54	DA	1009	A
54	DA	1012	U
54	DA	1013	C
54	DA	1020	A
54	DA	1021	A
54	DA	1022	G
54	DA	1023	U
54	DA	1025	G
54	DA	1026	U
54	DA	1027	A

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Mol	Chain	Res	Type
54	DA	1033	U
54	DA	1034	G
54	DA	1044	G
54	DA	1045	A
54	DA	1046	A
54	DA	1049	C
54	DA	1050	A
54	DA	1054	A
54	DA	1055	G
54	DA	1059	G
54	DA	1060	U
54	DA	1061	U
54	DA	1065	U
54	DA	1066	U
54	DA	1067	A
54	DA	1068	G
54	DA	1070	A
54	DA	1071	G
54	DA	1076	C
54	DA	1077	A
54	DA	1078	U
54	DA	1079	C
54	DA	1082	U
54	DA	1083	U
54	DA	1084	A
54	DA	1085	A
54	DA	1086	A
54	DA	1087	G
54	DA	1088	A
54	DA	1090	U
54	DA	1092	C
54	DA	1093	G
54	DA	1095	A
54	DA	1096	A
54	DA	1097	U
54	DA	1099	G
54	DA	1103	A
54	DA	1104	C
54	DA	1105	U
54	DA	1110	G
54	DA	1126	A
54	DA	1127	A

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Mol	Chain	Res	Type
54	DA	1128	A
54	DA	1129	A
54	DA	1131	G
54	DA	1135	C
54	DA	1136	G
54	DA	1142	U
54	DA	1142(A)	A
54	DA	1143	A
54	DA	1144	G
54	DA	1155	A
54	DA	1157	G
54	DA	1170	G
54	DA	1173	G
54	DA	1174	A
54	DA	1175	U
54	DA	1176	G
54	DA	1178	C
54	DA	1179	C
54	DA	1180	C
54	DA	1181	C
54	DA	1195	G
54	DA	1204	A
54	DA	1205	U
54	DA	1206	G
54	DA	1210	A
54	DA	1211	U
54	DA	1212	G
54	DA	1220	A
54	DA	1236	G
54	DA	1237	A
54	DA	1238	G
54	DA	1248	G
54	DA	1249	U
54	DA	1251	C
54	DA	1252	G
54	DA	1253	A
54	DA	1254	A
54	DA	1256	G
54	DA	1265	A
54	DA	1266	G
54	DA	1267	U
54	DA	1269	A

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Mol	Chain	Res	Type
54	DA	1271	G
54	DA	1272	A
54	DA	1273	U
54	DA	1275	A
54	DA	1276	A
54	DA	1281	G
54	DA	1286	A
54	DA	1287	A
54	DA	1288	U
54	DA	1289	C
54	DA	1300	U
54	DA	1301	A
54	DA	1302	A
54	DA	1303	G
54	DA	1312	U
54	DA	1313	U
54	DA	1314	C
54	DA	1319	G
54	DA	1320	C
54	DA	1321	A
54	DA	1325	G
54	DA	1326	U
54	DA	1329	U
54	DA	1330	C
54	DA	1333	C
54	DA	1340	U
54	DA	1341	U
54	DA	1342	A
54	DA	1343	G
54	DA	1344	G
54	DA	1345	C
54	DA	1349	A
54	DA	1359	A
54	DA	1365	A
54	DA	1368	G
54	DA	1372	U
54	DA	1379	A
54	DA	1380	G
54	DA	1384	A
54	DA	1385	G
54	DA	1386	C
54	DA	1391	U

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Mol	Chain	Res	Type
54	DA	1395	A
54	DA	1397	U
54	DA	1398	C
54	DA	1411	C
54	DA	1416	G
54	DA	1419	A
54	DA	1420	U
54	DA	1421	G
54	DA	1427	A
54	DA	1428	C
54	DA	1429	G
54	DA	1444(A)	A
54	DA	1449	A
54	DA	1449(A)	G
54	DA	1453	A
54	DA	1455	G
54	DA	1458	C
54	DA	1459	G
54	DA	1461	G
54	DA	1467	C
54	DA	1471	A
54	DA	1475	G
54	DA	1482	U
54	DA	1483	G
54	DA	1485	G
54	DA	1490	A
54	DA	1491	G
54	DA	1493	C
54	DA	1494	A
54	DA	1497	U
54	DA	1504	C
54	DA	1505	C
54	DA	1506	C
54	DA	1508	A
54	DA	1509	C
54	DA	1510	A
54	DA	1511	A
54	DA	1533	C
54	DA	1534	G
54	DA	1535	U
54	DA	1536	A
54	DA	1537	C

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Mol	Chain	Res	Type
54	DA	1544	C
54	DA	1545	A
54	DA	1554	A
54	DA	1555	G
54	DA	1558	A
54	DA	1559	G
54	DA	1560	G
54	DA	1565	C
54	DA	1566	A
54	DA	1567	A
54	DA	1568	G
54	DA	1569	A
54	DA	1578	U
54	DA	1579	A
54	DA	1585	C
54	DA	1586	A
54	DA	1598	C
54	DA	1602	U
54	DA	1603	A
54	DA	1607	C
54	DA	1608	A
54	DA	1609	A
54	DA	1611	C
54	DA	1615	C
54	DA	1616	A
54	DA	1617	C
54	DA	1618	A
54	DA	1619	G
54	DA	1640	C
54	DA	1647	G
54	DA	1648	C
54	DA	1654	A
54	DA	1667	G
54	DA	1668	A
54	DA	1674	G
54	DA	1675	C
54	DA	1681	G
54	DA	1682	G
54	DA	1693	U
54	DA	1694	C
54	DA	1695	G
54	DA	1698	A

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Mol	Chain	Res	Type
54	DA	1699	G
54	DA	1700	A
54	DA	1725	G
54	DA	1729	A
54	DA	1730	U
54	DA	1731	G
54	DA	1742	C
54	DA	1743	G
54	DA	1754	C
54	DA	1758	G
54	DA	1759	A
54	DA	1763	G
54	DA	1764	G
54	DA	1773	A
54	DA	1780	A
54	DA	1781	C
54	DA	1782	C
54	DA	1785	A
54	DA	1787	A
54	DA	1791	A
54	DA	1799	G
54	DA	1800	C
54	DA	1801	G
54	DA	1802	A
54	DA	1815	A
54	DA	1816	G
54	DA	1820	U
54	DA	1821	A
54	DA	1828	G
54	DA	1829	A
54	DA	1835	G
54	DA	1838	C
54	DA	1839	G
54	DA	1847	A
54	DA	1848	A
54	DA	1869	G
54	DA	1872	A
54	DA	1878	G
54	DA	1880	C
54	DA	1885	A
54	DA	1889	A
54	DA	1900	A

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Mol	Chain	Res	Type
54	DA	1901	A
54	DA	1906	G
54	DA	1912	A
54	DA	1913	A
54	DA	1914	C
54	DA	1918	A
54	DA	1919	A
54	DA	1929	G
54	DA	1930	G
54	DA	1931	U
54	DA	1937	A
54	DA	1938	A
54	DA	1939	U
54	DA	1940	U
54	DA	1941	C
54	DA	1943	U
54	DA	1944	U
54	DA	1945	G
54	DA	1955	U
54	DA	1956	U
54	DA	1963	U
54	DA	1964	G
54	DA	1965	C
54	DA	1966	A
54	DA	1967	C
54	DA	1969	A
54	DA	1970	A
54	DA	1971	A
54	DA	1972	A
54	DA	1981	A
54	DA	1982	C
54	DA	1991	U
54	DA	1993	U
54	DA	1996	C
54	DA	1997	G
54	DA	2020	A
54	DA	2021	C
54	DA	2022	U
54	DA	2023	G
54	DA	2031	A
54	DA	2032	G
54	DA	2033	A

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Mol	Chain	Res	Type
54	DA	2034	U
54	DA	2035	G
54	DA	2036	C
54	DA	2043	C
54	DA	2044	C
54	DA	2051	A
54	DA	2052	G
54	DA	2055	C
54	DA	2056	G
54	DA	2059	A
54	DA	2060	A
54	DA	2061	G
54	DA	2062	A
54	DA	2063	C
54	DA	2067	G
54	DA	2068	U
54	DA	2069	G
54	DA	2092	U
54	DA	2093	G
54	DA	2111	C
54	DA	2113	U
54	DA	2114	A
54	DA	2115	G
54	DA	2116	G
54	DA	2117	A
54	DA	2120	G
54	DA	2126	A
54	DA	2127	G
54	DA	2128	C
54	DA	2131	G
54	DA	2132	U
54	DA	2135	A
54	DA	2136	C
54	DA	2146	C
54	DA	2147	G
54	DA	2159	G
54	DA	2166	G
54	DA	2168	G
54	DA	2173	A
54	DA	2176	A
54	DA	2190	G
54	DA	2192	G

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Mol	Chain	Res	Type
54	DA	2198	A
54	DA	2199	A
54	DA	2210	G
54	DA	2211	G
54	DA	2212	A
54	DA	2213	U
54	DA	2215	G
54	DA	2225	A
54	DA	2226	C
54	DA	2227	A
54	DA	2238	G
54	DA	2239	G
54	DA	2245	U
54	DA	2249	U
54	DA	2250	G
54	DA	2251	G
54	DA	2259	G
54	DA	2266	A
54	DA	2267	A
54	DA	2273	A
54	DA	2283	C
54	DA	2286	A
54	DA	2289	G
54	DA	2290	G
54	DA	2297	C
54	DA	2307	G
54	DA	2308	G
54	DA	2309	A
54	DA	2310	A
54	DA	2311	A
54	DA	2319	G
54	DA	2320	A
54	DA	2321	G
54	DA	2325	G
54	DA	2326	C
54	DA	2334	G
54	DA	2335	A
54	DA	2336	A
54	DA	2337	G
54	DA	2345	G
54	DA	2346	A
54	DA	2347	C

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Mol	Chain	Res	Type
54	DA	2350	C
54	DA	2383	G
54	DA	2384	G
54	DA	2385	C
54	DA	2390	U
54	DA	2392	A
54	DA	2394	C
54	DA	2402	C
54	DA	2403	C
54	DA	2406	U
54	DA	2407	G
54	DA	2424	C
54	DA	2425	A
54	DA	2426	A
54	DA	2427	C
54	DA	2429	G
54	DA	2430	A
54	DA	2435	A
54	DA	2439	A
54	DA	2440	C
54	DA	2441	C
54	DA	2447	G
54	DA	2448	A
54	DA	2449	U
54	DA	2450	A
54	DA	2458	G
54	DA	2459	A
54	DA	2468	G
54	DA	2470	G
54	DA	2474	C
54	DA	2475	C
54	DA	2476	A
54	DA	2478	A
54	DA	2482	G
54	DA	2484	G
54	DA	2490	G
54	DA	2491	U
54	DA	2497	A
54	DA	2498	C
54	DA	2502	G
54	DA	2503	A
54	DA	2504	U

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Mol	Chain	Res	Type
54	DA	2505	G
54	DA	2506	U
54	DA	2507	C
54	DA	2508	G
54	DA	2518	A
54	DA	2519	U
54	DA	2520	C
54	DA	2523	G
54	DA	2529	G
54	DA	2531	A
54	DA	2542	A
54	DA	2543	G
54	DA	2554	U
54	DA	2566	A
54	DA	2567	G
54	DA	2573	C
54	DA	2574	G
54	DA	2585	U
54	DA	2586	C
54	DA	2602	A
54	DA	2609	U
54	DA	2610	C
54	DA	2611	U
54	DA	2612	C
54	DA	2613	U
54	DA	2614	A
54	DA	2615	U
54	DA	2629	A
54	DA	2632	A
54	DA	2645	G
54	DA	2646	C
54	DA	2654	A
54	DA	2655	G
54	DA	2656	U
54	DA	2658	C
54	DA	2665	A
54	DA	2673	G
54	DA	2682	U
54	DA	2690	C
54	DA	2691	C
54	DA	2702	U
54	DA	2703	C

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Mol	Chain	Res	Type
54	DA	2712	U
54	DA	2712(A)	A
54	DA	2713	A
54	DA	2714	G
54	DA	2724	C
54	DA	2725	A
54	DA	2726	U
54	DA	2732	G
54	DA	2733	A
54	DA	2750	A
54	DA	2751	G
54	DA	2752	C
54	DA	2756	U
54	DA	2757	A
54	DA	2758	A
54	DA	2761	G
54	DA	2765	A
54	DA	2766	G
54	DA	2770	G
54	DA	2777	G
54	DA	2778	A
54	DA	2779	U
54	DA	2780	G
54	DA	2781	A
54	DA	2789	C
54	DA	2790	A
54	DA	2791	C
54	DA	2792	G
54	DA	2797	U
54	DA	2798	C
54	DA	2799	A
54	DA	2807	G
54	DA	2820	A
54	DA	2821	A
54	DA	2833	G
54	DA	2834	G
54	DA	2836	U
54	DA	2849	U
54	DA	2866	U
54	DA	2867	G
54	DA	2868	A
54	DA	2872	G

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Mol	Chain	Res	Type
54	DA	2874	C
54	DA	2879	C
54	DA	2880	C
54	DA	2892	A
55	DB	8	U
55	DB	13	A
55	DB	15	A
55	DB	21	G
55	DB	25	A
55	DB	27	C
55	DB	35	U
55	DB	41	U
55	DB	42	C
55	DB	45	A
55	DB	52	A
55	DB	56	G
55	DB	57	A
55	DB	67	G
55	DB	73	A
55	DB	81	G
55	DB	88	C
55	DB	89	G
55	DB	96	G
55	DB	109	G
55	DB	112	G

All (988) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	4	U
1	AA	5	U
1	AA	7	G
1	AA	8	A
1	AA	13	U
1	AA	30	U
1	AA	31	G
1	AA	47	C
1	AA	48	C
1	AA	49	U
1	AA	50	A
1	AA	51	A
1	AA	60	A

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Mol	Chain	Res	Type
1	AA	65	U
1	AA	84	U
1	AA	109	A
1	AA	115	G
1	AA	119	A
1	AA	121	C
1	AA	129(A)	G
1	AA	173	U
1	AA	181	G
1	AA	197	A
1	AA	201	C
1	AA	208	U
1	AA	243	A
1	AA	244	U
1	AA	246	A
1	AA	250	A
1	AA	251	G
1	AA	266	G
1	AA	274	A
1	AA	279	A
1	AA	280	C
1	AA	305	G
1	AA	327	A
1	AA	328	C
1	AA	329	A
1	AA	344	A
1	AA	351	G
1	AA	366	C
1	AA	367	U
1	AA	372	C
1	AA	388	G
1	AA	410	G
1	AA	412	A
1	AA	428	G
1	AA	429	U
1	AA	438	G
1	AA	481	G
1	AA	484	G
1	AA	495	A
1	AA	496	A
1	AA	498	A
1	AA	508	C

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Mol	Chain	Res	Type
1	AA	511	C
1	AA	518	C
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	535	A
1	AA	547	A
1	AA	559	A
1	AA	560	U
1	AA	562	C
1	AA	566	G
1	AA	575	G
1	AA	576	G
1	AA	595	G
1	AA	631	G
1	AA	632	A
1	AA	641	U
1	AA	653	A
1	AA	687	A
1	AA	701	C
1	AA	702	A
1	AA	717	C
1	AA	721	G
1	AA	748	C
1	AA	753	A
1	AA	792	A
1	AA	812	C
1	AA	815	A
1	AA	817	C
1	AA	819	A
1	AA	820	U
1	AA	841	U
1	AA	842	C
1	AA	871	U
1	AA	872	A
1	AA	873	A
1	AA	889	A
1	AA	890	G
1	AA	913	A
1	AA	934	C
1	AA	960	U
1	AA	965	A

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Mol	Chain	Res	Type
1	AA	968	A
1	AA	975	A
1	AA	982	U
1	AA	992	U
1	AA	993	G
1	AA	1004	A
1	AA	1006	C
1	AA	1019	C
1	AA	1024	G
1	AA	1033	G
1	AA	1038	C
1	AA	1049	U
1	AA	1065	U
1	AA	1067	A
1	AA	1085	U
1	AA	1101	A
1	AA	1135	U
1	AA	1137	C
1	AA	1182	G
1	AA	1201	A
1	AA	1214	C
1	AA	1224	G
1	AA	1226	C
1	AA	1239	A
1	AA	1281	U
1	AA	1300	G
1	AA	1346	A
1	AA	1347	G
1	AA	1363	A
1	AA	1380	U
1	AA	1394	A
1	AA	1399	C
1	AA	1400	C
1	AA	1498	U
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1528	U
1	AA	1529	G
1	AA	1532	U

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Mol	Chain	Res	Type
22	AC	1	C
22	AC	16	C
22	AC	17(A)	C
22	AC	19	G
22	AC	58	A
22	AD	6	G
22	AD	7	G
22	AD	9	G
22	AD	16	C
22	AD	22	G
22	AD	60	U
23	A1	4	A
23	A1	7	G
23	A1	19	A
24	BA	13	A
24	BA	27	G
24	BA	33	U
24	BA	34	C
24	BA	49	A
24	BA	50	U
24	BA	51	G
24	BA	60	G
24	BA	70	G
24	BA	71	A
24	BA	72	U
24	BA	74	A
24	BA	83	G
24	BA	84	A
24	BA	119	A
24	BA	120	U
24	BA	125	G
24	BA	177	G
24	BA	196	A
24	BA	199	A
24	BA	204	A
24	BA	205	G
24	BA	214	G
24	BA	215	G
24	BA	221	A
24	BA	222	A
24	BA	227	A
24	BA	241	A

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Mol	Chain	Res	Type
24	BA	242	G
24	BA	249	C
24	BA	265	A
24	BA	271(B)	G
24	BA	278	A
24	BA	283	A
24	BA	301	G
24	BA	311	A
24	BA	321	G
24	BA	322	A
24	BA	323	G
24	BA	329	G
24	BA	330	A
24	BA	331	A
24	BA	332	A
24	BA	363(F)	A
24	BA	370	G
24	BA	371	A
24	BA	372	G
24	BA	386	G
24	BA	387	U
24	BA	390	A
24	BA	403	U
24	BA	404	C
24	BA	411	G
24	BA	421	U
24	BA	434	U
24	BA	442	G
24	BA	446	G
24	BA	447	A
24	BA	448	U
24	BA	454	A
24	BA	455	C
24	BA	457	A
24	BA	458	G
24	BA	474	G
24	BA	479	A
24	BA	503	A
24	BA	506	G
24	BA	508	G
24	BA	527	C
24	BA	529	A

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Mol	Chain	Res	Type
24	BA	531	C
24	BA	532	A
24	BA	571	A
24	BA	573	G
24	BA	574	C
24	BA	587	C
24	BA	603	A
24	BA	616	A
24	BA	620	G
24	BA	627	A
24	BA	637	A
24	BA	654(R)	C
24	BA	669	G
24	BA	670	A
24	BA	685	A
24	BA	686	G
24	BA	704	G
24	BA	728	G
24	BA	739	G
24	BA	746	A
24	BA	752	A
24	BA	762	U
24	BA	764	A
24	BA	774	A
24	BA	775	G
24	BA	776	G
24	BA	788	A
24	BA	789	A
24	BA	790	C
24	BA	791	C
24	BA	792	G
24	BA	800	A
24	BA	801	G
24	BA	805	G
24	BA	811	U
24	BA	829	A
24	BA	830	G
24	BA	846	C
24	BA	856	C
24	BA	858	U
24	BA	859	G
24	BA	865	C

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Mol	Chain	Res	Type
24	BA	877	U
24	BA	883	G
24	BA	913	U
24	BA	930	U
24	BA	932	G
24	BA	945	A
24	BA	957	A
24	BA	961	C
24	BA	973	A
24	BA	974(A)	C
24	BA	989	G
24	BA	1008	C
24	BA	1020	A
24	BA	1022	G
24	BA	1033	U
24	BA	1060	U
24	BA	1085	A
24	BA	1126	A
24	BA	1128	A
24	BA	1130	U
24	BA	1131	G
24	BA	1142(A)	A
24	BA	1143	A
24	BA	1156	A
24	BA	1171	G
24	BA	1204	A
24	BA	1205	U
24	BA	1210	A
24	BA	1212	G
24	BA	1220	A
24	BA	1236	G
24	BA	1237	A
24	BA	1247	A
24	BA	1248	G
24	BA	1250	G
24	BA	1251	C
24	BA	1252	G
24	BA	1253	A
24	BA	1264	G
24	BA	1265	A
24	BA	1266	G
24	BA	1272	A

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Mol	Chain	Res	Type
24	BA	1275	A
24	BA	1288	U
24	BA	1300	U
24	BA	1301	A
24	BA	1302	A
24	BA	1312	U
24	BA	1320	C
24	BA	1325	G
24	BA	1329	U
24	BA	1332	G
24	BA	1340	U
24	BA	1341	U
24	BA	1342	A
24	BA	1344	G
24	BA	1359	A
24	BA	1378	A
24	BA	1379	A
24	BA	1396	U
24	BA	1397	U
24	BA	1427	A
24	BA	1428	C
24	BA	1453	A
24	BA	1454	U
24	BA	1458	C
24	BA	1490	A
24	BA	1493	C
24	BA	1497	U
24	BA	1537	C
24	BA	1554	A
24	BA	1558	A
24	BA	1565	C
24	BA	1566	A
24	BA	1585	C
24	BA	1602	U
24	BA	1607	C
24	BA	1608	A
24	BA	1610	A
24	BA	1615	C
24	BA	1616	A
24	BA	1617	C
24	BA	1618	A
24	BA	1634	A

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Mol	Chain	Res	Type
24	BA	1647	G
24	BA	1652	A
24	BA	1653	G
24	BA	1668	A
24	BA	1674	G
24	BA	1681	G
24	BA	1693	U
24	BA	1694	C
24	BA	1698	A
24	BA	1699	G
24	BA	1706	U
24	BA	1758	G
24	BA	1762	A
24	BA	1780	A
24	BA	1781	C
24	BA	1784	A
24	BA	1786	A
24	BA	1799	G
24	BA	1800	C
24	BA	1801	G
24	BA	1815	A
24	BA	1819	A
24	BA	1820	U
24	BA	1828	G
24	BA	1838	C
24	BA	1847	A
24	BA	1918	A
24	BA	1925	C
24	BA	1929	G
24	BA	1930	G
24	BA	1936	A
24	BA	1937	A
24	BA	1938	A
24	BA	1939	U
24	BA	1940	U
24	BA	1943	U
24	BA	1944	U
24	BA	1954	G
24	BA	1955	U
24	BA	1962	C
24	BA	1963	U
24	BA	1964	G

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Mol	Chain	Res	Type
24	BA	1966	A
24	BA	1970	A
24	BA	1980	G
24	BA	1992	G
24	BA	1996	C
24	BA	2021	C
24	BA	2033	A
24	BA	2035	G
24	BA	2051	A
24	BA	2061	G
24	BA	2062	A
24	BA	2067	G
24	BA	2092	U
24	BA	2111	C
24	BA	2126	A
24	BA	2132	U
24	BA	2144	U
24	BA	2145	C
24	BA	2146	C
24	BA	2166	G
24	BA	2191	G
24	BA	2197	U
24	BA	2210	G
24	BA	2211	G
24	BA	2225	A
24	BA	2238	G
24	BA	2249	U
24	BA	2250	G
24	BA	2258	C
24	BA	2266	A
24	BA	2275	C
24	BA	2282	G
24	BA	2286	A
24	BA	2288	A
24	BA	2296	U
24	BA	2311	A
24	BA	2319	G
24	BA	2334	G
24	BA	2336	A
24	BA	2344	U
24	BA	2345	G
24	BA	2384	G

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Mol	Chain	Res	Type
24	BA	2391	G
24	BA	2406	U
24	BA	2422	A
24	BA	2423	U
24	BA	2425	A
24	BA	2426	A
24	BA	2439	A
24	BA	2447	G
24	BA	2448	A
24	BA	2449	U
24	BA	2458	G
24	BA	2481	G
24	BA	2490	G
24	BA	2497	A
24	BA	2503	A
24	BA	2517	C
24	BA	2518	A
24	BA	2519	U
24	BA	2566	A
24	BA	2572	A
24	BA	2581	G
24	BA	2602	A
24	BA	2609	U
24	BA	2610	C
24	BA	2613	U
24	BA	2614	A
24	BA	2645	G
24	BA	2681	C
24	BA	2689	U
24	BA	2690	C
24	BA	2713	A
24	BA	2756	U
24	BA	2776	A
24	BA	2778	A
24	BA	2780	G
24	BA	2791	C
24	BA	2820	A
24	BA	2832	U
24	BA	2835	A
24	BA	2848	G
24	BA	2849	U
24	BA	2859	G

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Mol	Chain	Res	Type
24	BA	2867	G
24	BA	2873	A
24	BA	2879	C
25	BB	12	C
25	BB	56	G
25	BB	66	A
1	CA	7	G
1	CA	8	A
1	CA	13	U
1	CA	30	U
1	CA	31	G
1	CA	47	C
1	CA	48	C
1	CA	49	U
1	CA	50	A
1	CA	51	A
1	CA	60	A
1	CA	64	G
1	CA	65	U
1	CA	89	U
1	CA	109	A
1	CA	115	G
1	CA	119	A
1	CA	121	C
1	CA	173	U
1	CA	197	A
1	CA	243	A
1	CA	244	U
1	CA	246	A
1	CA	250	A
1	CA	251	G
1	CA	266	G
1	CA	274	A
1	CA	279	A
1	CA	280	C
1	CA	305	G
1	CA	328	C
1	CA	329	A
1	CA	351	G
1	CA	366	C
1	CA	367	U
1	CA	388	G

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Mol	Chain	Res	Type
1	CA	410	G
1	CA	412	A
1	CA	428	G
1	CA	429	U
1	CA	451	A
1	CA	481	G
1	CA	484	G
1	CA	495	A
1	CA	498	A
1	CA	508	C
1	CA	509	A
1	CA	511	C
1	CA	517	G
1	CA	518	C
1	CA	530	G
1	CA	531	U
1	CA	533	A
1	CA	535	A
1	CA	547	A
1	CA	559	A
1	CA	560	U
1	CA	562	C
1	CA	566	G
1	CA	575	G
1	CA	576	G
1	CA	595	G
1	CA	641	U
1	CA	653	A
1	CA	687	A
1	CA	701	C
1	CA	702	A
1	CA	703	G
1	CA	717	C
1	CA	721	G
1	CA	733	A
1	CA	748	C
1	CA	753	A
1	CA	792	A
1	CA	793	U
1	CA	812	C
1	CA	815	A
1	CA	817	C

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Mol	Chain	Res	Type
1	CA	818	G
1	CA	819	A
1	CA	820	U
1	CA	871	U
1	CA	872	A
1	CA	873	A
1	CA	884	U
1	CA	889	A
1	CA	890	G
1	CA	913	A
1	CA	934	C
1	CA	960	U
1	CA	965	A
1	CA	968	A
1	CA	975	A
1	CA	976	G
1	CA	982	U
1	CA	992	U
1	CA	1027	C
1	CA	1049	U
1	CA	1065	U
1	CA	1067	A
1	CA	1085	U
1	CA	1094	G
1	CA	1101	A
1	CA	1139	G
1	CA	1177	G
1	CA	1182	G
1	CA	1200	C
1	CA	1214	C
1	CA	1224	G
1	CA	1226	C
1	CA	1239	A
1	CA	1285	A
1	CA	1297	C
1	CA	1300	G
1	CA	1345	U
1	CA	1347	G
1	CA	1363	A
1	CA	1380	U
1	CA	1394	A
1	CA	1396	A

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Mol	Chain	Res	Type
1	CA	1399	C
1	CA	1400	C
1	CA	1450	U
1	CA	1452	C
1	CA	1498	U
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1528	U
1	CA	1529	G
1	CA	1535	C
22	CC	7	G
22	CC	9	G
22	CC	16	C
22	CC	17(A)	C
22	CC	19	G
22	CC	47	U
22	CC	58	A
22	CC	60	U
22	CD	9	G
23	C1	9	G
23	C1	10	G
23	C1	11	U
23	C1	13	A
23	C1	18	G
54	DA	13	A
54	DA	33	U
54	DA	49	A
54	DA	50	U
54	DA	51	G
54	DA	60	G
54	DA	63	U
54	DA	70	G
54	DA	71	A
54	DA	72	U
54	DA	74	A
54	DA	84	A
54	DA	90	U
54	DA	99	U
54	DA	102	G

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Mol	Chain	Res	Type
54	DA	119	A
54	DA	120	U
54	DA	125	G
54	DA	139	G
54	DA	177	G
54	DA	196	A
54	DA	199	A
54	DA	204	A
54	DA	205	G
54	DA	215	G
54	DA	221	A
54	DA	222	A
54	DA	227	A
54	DA	228	A
54	DA	229	A
54	DA	232	G
54	DA	241	A
54	DA	242	G
54	DA	249	C
54	DA	271(B)	G
54	DA	271(C)	U
54	DA	275	G
54	DA	278	A
54	DA	283	A
54	DA	301	G
54	DA	311	A
54	DA	321	G
54	DA	322	A
54	DA	323	G
54	DA	329	G
54	DA	330	A
54	DA	331	A
54	DA	332	A
54	DA	345	A
54	DA	352	G
54	DA	363(F)	A
54	DA	370	G
54	DA	371	A
54	DA	372	G
54	DA	385	C
54	DA	386	G
54	DA	387	U

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Mol	Chain	Res	Type
54	DA	390	A
54	DA	403	U
54	DA	404	C
54	DA	405	U
54	DA	411	G
54	DA	421	U
54	DA	434	U
54	DA	442	G
54	DA	446	G
54	DA	447	A
54	DA	448	U
54	DA	454	A
54	DA	455	C
54	DA	457	A
54	DA	458	G
54	DA	474	G
54	DA	479	A
54	DA	481	G
54	DA	503	A
54	DA	506	G
54	DA	512	G
54	DA	527	C
54	DA	528	A
54	DA	529	A
54	DA	531	C
54	DA	532	A
54	DA	571	A
54	DA	573	G
54	DA	574	C
54	DA	587	C
54	DA	603	A
54	DA	614	U
54	DA	616	A
54	DA	620	G
54	DA	627	A
54	DA	637	A
54	DA	653	A
54	DA	669	G
54	DA	670	A
54	DA	685	A
54	DA	686	G
54	DA	704	G

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Mol	Chain	Res	Type
54	DA	726	G
54	DA	728	G
54	DA	739	G
54	DA	752	A
54	DA	762	U
54	DA	764	A
54	DA	775	G
54	DA	776	G
54	DA	788	A
54	DA	789	A
54	DA	790	C
54	DA	791	C
54	DA	792	G
54	DA	793	A
54	DA	800	A
54	DA	801	G
54	DA	805	G
54	DA	811	U
54	DA	829	A
54	DA	830	G
54	DA	846	C
54	DA	856	C
54	DA	858	U
54	DA	859	G
54	DA	865	C
54	DA	888	C
54	DA	896	A
54	DA	913	U
54	DA	930	U
54	DA	932	G
54	DA	957	A
54	DA	961	C
54	DA	973	A
54	DA	974	G
54	DA	974(A)	C
54	DA	989	G
54	DA	995	C
54	DA	1008	C
54	DA	1011	G
54	DA	1020	A
54	DA	1022	G
54	DA	1025	G

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Mol	Chain	Res	Type
54	DA	1026	U
54	DA	1033	U
54	DA	1045	A
54	DA	1078	U
54	DA	1085	A
54	DA	1126	A
54	DA	1128	A
54	DA	1130	U
54	DA	1131	G
54	DA	1142(A)	A
54	DA	1143	A
54	DA	1156	A
54	DA	1175	U
54	DA	1178	C
54	DA	1204	A
54	DA	1205	U
54	DA	1210	A
54	DA	1211	U
54	DA	1212	G
54	DA	1236	G
54	DA	1237	A
54	DA	1247	A
54	DA	1248	G
54	DA	1250	G
54	DA	1251	C
54	DA	1252	G
54	DA	1253	A
54	DA	1266	G
54	DA	1272	A
54	DA	1275	A
54	DA	1286	A
54	DA	1288	U
54	DA	1300	U
54	DA	1301	A
54	DA	1302	A
54	DA	1311	G
54	DA	1312	U
54	DA	1320	C
54	DA	1324	G
54	DA	1325	G
54	DA	1329	U
54	DA	1332	G

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Mol	Chain	Res	Type
54	DA	1340	U
54	DA	1341	U
54	DA	1342	A
54	DA	1344	G
54	DA	1378	A
54	DA	1385	G
54	DA	1396	U
54	DA	1397	U
54	DA	1427	A
54	DA	1428	C
54	DA	1451	C
54	DA	1453	A
54	DA	1454	U
54	DA	1458	C
54	DA	1460	A
54	DA	1490	A
54	DA	1493	C
54	DA	1497	U
54	DA	1543	A
54	DA	1554	A
54	DA	1558	A
54	DA	1559	G
54	DA	1565	C
54	DA	1566	A
54	DA	1567	A
54	DA	1602	U
54	DA	1607	C
54	DA	1608	A
54	DA	1609	A
54	DA	1610	A
54	DA	1615	C
54	DA	1616	A
54	DA	1617	C
54	DA	1618	A
54	DA	1634	A
54	DA	1647	G
54	DA	1653	G
54	DA	1668	A
54	DA	1674	G
54	DA	1681	G
54	DA	1693	U
54	DA	1694	C

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Mol	Chain	Res	Type
54	DA	1698	A
54	DA	1699	G
54	DA	1706	U
54	DA	1758	G
54	DA	1762	A
54	DA	1780	A
54	DA	1781	C
54	DA	1784	A
54	DA	1786	A
54	DA	1799	G
54	DA	1800	C
54	DA	1801	G
54	DA	1815	A
54	DA	1818	U
54	DA	1819	A
54	DA	1820	U
54	DA	1828	G
54	DA	1838	C
54	DA	1900	A
54	DA	1912	A
54	DA	1913	A
54	DA	1918	A
54	DA	1929	G
54	DA	1930	G
54	DA	1936	A
54	DA	1937	A
54	DA	1938	A
54	DA	1939	U
54	DA	1940	U
54	DA	1943	U
54	DA	1944	U
54	DA	1954	G
54	DA	1955	U
54	DA	1962	C
54	DA	1964	G
54	DA	1966	A
54	DA	1970	A
54	DA	1980	G
54	DA	1992	G
54	DA	1996	C
54	DA	2021	C
54	DA	2022	U

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Mol	Chain	Res	Type
54	DA	2032	G
54	DA	2033	A
54	DA	2035	G
54	DA	2051	A
54	DA	2060	A
54	DA	2061	G
54	DA	2062	A
54	DA	2067	G
54	DA	2092	U
54	DA	2110	G
54	DA	2126	A
54	DA	2158	A
54	DA	2197	U
54	DA	2198	A
54	DA	2210	G
54	DA	2225	A
54	DA	2238	G
54	DA	2249	U
54	DA	2250	G
54	DA	2258	C
54	DA	2266	A
54	DA	2275	C
54	DA	2282	G
54	DA	2286	A
54	DA	2288	A
54	DA	2296	U
54	DA	2307	G
54	DA	2308	G
54	DA	2311	A
54	DA	2318	G
54	DA	2319	G
54	DA	2320	A
54	DA	2334	G
54	DA	2336	A
54	DA	2344	U
54	DA	2345	G
54	DA	2346	A
54	DA	2384	G
54	DA	2391	G
54	DA	2405	G
54	DA	2423	U
54	DA	2425	A

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Mol	Chain	Res	Type
54	DA	2426	A
54	DA	2439	A
54	DA	2447	G
54	DA	2448	A
54	DA	2449	U
54	DA	2458	G
54	DA	2468	G
54	DA	2481	G
54	DA	2490	G
54	DA	2497	A
54	DA	2503	A
54	DA	2506	U
54	DA	2507	C
54	DA	2517	C
54	DA	2518	A
54	DA	2519	U
54	DA	2566	A
54	DA	2572	A
54	DA	2581	G
54	DA	2609	U
54	DA	2610	C
54	DA	2613	U
54	DA	2614	A
54	DA	2645	G
54	DA	2654	A
54	DA	2689	U
54	DA	2690	C
54	DA	2712	U
54	DA	2725	A
54	DA	2732	G
54	DA	2750	A
54	DA	2751	G
54	DA	2756	U
54	DA	2776	A
54	DA	2778	A
54	DA	2780	G
54	DA	2791	C
54	DA	2820	A
54	DA	2832	U
54	DA	2835	A
54	DA	2848	G
54	DA	2866	U

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Mol	Chain	Res	Type
54	DA	2867	G
54	DA	2873	A
54	DA	2879	C
55	DB	12	C
55	DB	14	U
55	DB	24	G
55	DB	34	U
55	DB	56	G
55	DB	66	A

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 2724 ligands modelled in this entry, 2659 are monoatomic - leaving 65 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
61	A	C1	101	-	22,24,25	0.75	0	32,35,38	0.68	0
60	U	C1	102	-	19,21,22	1.61	3 (15%)	23,30,33	0.66	0
61	A	C1	103	-	22,24,25	0.73	0	32,35,38	0.69	0
58	G	CA	1601	-	23,25,26	1.01	1 (4%)	32,37,40	5.23	4 (12%)
58	G	CA	1602	-	23,25,26	0.99	2 (8%)	32,37,40	5.71	3 (9%)
59	C	CA	1603	-	19,21,22	1.10	3 (15%)	24,30,33	0.72	1 (4%)
60	U	CA	1604	-	19,21,22	1.55	2 (10%)	23,30,33	0.82	0
59	C	CA	1605	-	19,21,22	1.11	2 (10%)	24,30,33	0.79	1 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
58	G	CA	1606	-	23,25,26	0.99	1 (4%)	32,37,40	5.25	4 (12%)
61	A	CA	1607	-	22,24,25	0.71	1 (4%)	32,35,38	0.69	0
58	G	CC	101	-	22,22,26	0.86	1 (4%)	31,33,40	5.15	4 (12%)
58	G	CC	102	-	23,25,26	0.97	2 (8%)	32,37,40	5.25	4 (12%)
61	A	CC	103	-	22,24,25	0.73	1 (4%)	32,35,38	0.73	0
58	G	CC	104	-	23,25,26	0.95	1 (4%)	32,37,40	5.36	4 (12%)
59	C	CC	105	-	19,21,22	1.13	3 (15%)	24,30,33	1.14	2 (8%)
59	C	CC	106	-	19,21,22	1.00	1 (5%)	24,30,33	0.72	1 (4%)
59	C	CC	107	-	19,21,22	1.29	1 (5%)	24,30,33	2.31	4 (16%)
59	C	CO	201	-	19,21,22	1.00	2 (10%)	24,30,33	0.78	1 (4%)
58	G	CP	201	-	23,25,26	0.97	2 (8%)	32,37,40	5.17	4 (12%)
59	C	CP	202	-	19,21,22	1.07	2 (10%)	24,30,33	0.73	1 (4%)
59	C	CP	203	-	19,21,22	1.07	2 (10%)	24,30,33	0.81	1 (4%)
59	C	CP	204	-	19,21,22	1.11	2 (10%)	24,30,33	0.77	1 (4%)
58	G	DA	2901	-	23,25,26	0.96	2 (8%)	32,37,40	5.11	4 (12%)
60	U	DA	2902	-	19,21,22	1.48	1 (5%)	23,30,33	0.70	0
58	G	DA	2903	-	23,25,26	0.96	1 (4%)	32,37,40	5.13	5 (15%)
58	G	DA	2904	-	23,25,26	0.93	1 (4%)	32,37,40	5.26	4 (12%)
61	A	DA	2905	-	22,24,25	0.76	0	32,35,38	0.68	0
58	G	DA	2906	-	23,25,26	0.95	1 (4%)	32,37,40	5.50	4 (12%)
59	C	DA	2907	-	19,21,22	0.97	1 (5%)	24,30,33	0.75	1 (4%)
58	G	DA	2908	-	23,25,26	0.96	1 (4%)	32,37,40	4.98	4 (12%)
58	G	DA	2909	-	23,25,26	1.01	2 (8%)	32,37,40	4.92	4 (12%)
60	U	DA	2910	-	19,21,22	1.60	2 (10%)	23,30,33	0.70	0
61	A	DA	2911	-	22,24,25	0.70	1 (4%)	32,35,38	0.67	0
58	G	DA	2912	-	23,25,26	0.92	1 (4%)	32,37,40	4.92	4 (12%)
59	C	DA	2913	-	19,21,22	1.08	3 (15%)	24,30,33	0.79	1 (4%)
60	U	DA	2914	-	19,21,22	1.52	2 (10%)	23,30,33	0.68	0
59	C	DA	2915	-	19,21,22	1.06	3 (15%)	24,30,33	0.74	1 (4%)
58	G	DA	2916	-	23,25,26	0.93	1 (4%)	32,37,40	5.38	4 (12%)
60	U	DA	2917	-	19,21,22	1.59	1 (5%)	23,30,33	0.79	0
61	A	DA	2918	-	22,24,25	0.72	0	32,35,38	0.65	0
61	A	DA	2919	-	22,24,25	0.72	0	32,35,38	0.66	0
58	G	DA	2920	-	23,25,26	0.96	1 (4%)	32,37,40	5.22	4 (12%)
58	G	DA	2921	-	23,25,26	0.93	2 (8%)	32,37,40	5.27	4 (12%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
60	U	DA	2922	-	19,21,22	1.56	1 (5%)	23,30,33	0.78	0
59	C	DA	2923	-	19,21,22	1.02	1 (5%)	24,30,33	1.11	1 (4%)
58	G	DA	2924	-	23,25,26	0.94	1 (4%)	32,37,40	5.31	4 (12%)
60	U	DA	2925	-	19,21,22	1.56	2 (10%)	23,30,33	0.80	0
59	C	DA	2926	-	19,21,22	0.98	2 (10%)	24,30,33	0.77	1 (4%)
60	U	DA	2927	-	19,21,22	1.60	2 (10%)	23,30,33	0.89	0
59	C	DA	2928	-	19,21,22	0.96	0	24,30,33	0.75	1 (4%)
61	A	DA	2929	-	22,24,25	0.73	1 (4%)	32,35,38	0.80	0
61	A	DA	2930	-	22,24,25	0.68	1 (4%)	32,35,38	1.12	4 (12%)
61	A	DA	2931	-	22,24,25	0.77	1 (4%)	32,35,38	0.69	0
60	U	DA	2932	-	19,21,22	1.54	2 (10%)	23,30,33	1.12	0
58	G	DA	2933	-	23,25,26	1.00	1 (4%)	32,37,40	5.26	4 (12%)
59	C	DA	2934	-	19,21,22	1.04	1 (5%)	24,30,33	0.74	1 (4%)
59	C	DA	2935	-	19,21,22	1.02	1 (5%)	24,30,33	0.72	1 (4%)
59	C	DA	2936	-	19,21,22	0.95	2 (10%)	24,30,33	0.73	1 (4%)
59	C	DA	2937	-	19,21,22	1.06	2 (10%)	24,30,33	0.84	1 (4%)
58	G	DP	201	-	23,25,26	0.97	2 (8%)	32,37,40	4.73	4 (12%)
58	G	DP	202	-	23,25,26	1.01	2 (8%)	32,37,40	4.72	4 (12%)
60	U	DP	203	-	19,21,22	1.62	1 (5%)	23,30,33	0.70	0
59	C	DP	204	-	19,21,22	1.13	3 (15%)	24,30,33	0.76	1 (4%)
59	C	DP	205	-	19,21,22	0.97	1 (5%)	24,30,33	0.84	1 (4%)
58	G	DP	206	-	23,25,26	0.94	0	32,37,40	4.95	4 (12%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
61	A	C1	101	-	-	0/8/25/26	0/3/3/3
60	U	C1	102	-	-	0/6/25/26	0/2/2/2
61	A	C1	103	-	-	0/8/25/26	0/3/3/3
58	G	CA	1601	-	-	0/8/25/26	0/3/3/3
58	G	CA	1602	-	-	0/8/25/26	0/3/3/3
59	C	CA	1603	-	-	0/6/25/26	0/2/2/2
60	U	CA	1604	-	-	0/6/25/26	0/2/2/2
59	C	CA	1605	-	-	0/6/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	G	CA	1606	-	-	0/8/25/26	0/3/3/3
61	A	CA	1607	-	-	0/8/25/26	0/3/3/3
58	G	CC	101	-	-	0/6/22/26	0/3/3/3
58	G	CC	102	-	-	0/8/25/26	0/3/3/3
61	A	CC	103	-	-	0/8/25/26	0/3/3/3
58	G	CC	104	-	-	0/8/25/26	0/3/3/3
59	C	CC	105	-	-	0/6/25/26	0/2/2/2
59	C	CC	106	-	-	0/6/25/26	0/2/2/2
59	C	CC	107	-	-	0/6/25/26	0/2/2/2
59	C	CO	201	-	-	0/6/25/26	0/2/2/2
58	G	CP	201	-	-	0/8/25/26	0/3/3/3
59	C	CP	202	-	-	0/6/25/26	0/2/2/2
59	C	CP	203	-	-	0/6/25/26	0/2/2/2
59	C	CP	204	-	-	0/6/25/26	0/2/2/2
58	G	DA	2901	-	-	0/8/25/26	0/3/3/3
60	U	DA	2902	-	-	0/6/25/26	0/2/2/2
58	G	DA	2903	-	-	1/8/25/26	0/3/3/3
58	G	DA	2904	-	-	1/8/25/26	0/3/3/3
61	A	DA	2905	-	-	0/8/25/26	0/3/3/3
58	G	DA	2906	-	-	0/8/25/26	0/3/3/3
59	C	DA	2907	-	-	0/6/25/26	0/2/2/2
58	G	DA	2908	-	-	1/8/25/26	0/3/3/3
58	G	DA	2909	-	-	0/8/25/26	0/3/3/3
60	U	DA	2910	-	-	0/6/25/26	0/2/2/2
61	A	DA	2911	-	-	1/8/25/26	0/3/3/3
58	G	DA	2912	-	-	0/8/25/26	0/3/3/3
59	C	DA	2913	-	-	0/6/25/26	0/2/2/2
60	U	DA	2914	-	-	0/6/25/26	0/2/2/2
59	C	DA	2915	-	-	0/6/25/26	0/2/2/2
58	G	DA	2916	-	-	0/8/25/26	0/3/3/3
60	U	DA	2917	-	-	0/6/25/26	0/2/2/2
61	A	DA	2918	-	-	0/8/25/26	0/3/3/3
61	A	DA	2919	-	-	0/8/25/26	0/3/3/3
58	G	DA	2920	-	-	0/8/25/26	0/3/3/3
58	G	DA	2921	-	-	0/8/25/26	0/3/3/3
60	U	DA	2922	-	-	0/6/25/26	0/2/2/2
59	C	DA	2923	-	-	0/6/25/26	0/2/2/2
58	G	DA	2924	-	-	0/8/25/26	0/3/3/3
60	U	DA	2925	-	-	0/6/25/26	0/2/2/2
59	C	DA	2926	-	-	0/6/25/26	0/2/2/2
60	U	DA	2927	-	-	0/6/25/26	0/2/2/2
59	C	DA	2928	-	-	0/6/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
61	A	DA	2929	-	-	0/8/25/26	0/3/3/3
61	A	DA	2930	-	-	0/8/25/26	0/3/3/3
61	A	DA	2931	-	-	1/8/25/26	0/3/3/3
60	U	DA	2932	-	-	0/6/25/26	0/2/2/2
58	G	DA	2933	-	-	0/8/25/26	0/3/3/3
59	C	DA	2934	-	-	0/6/25/26	0/2/2/2
59	C	DA	2935	-	-	0/6/25/26	0/2/2/2
59	C	DA	2936	-	-	0/6/25/26	0/2/2/2
59	C	DA	2937	-	-	0/6/25/26	0/2/2/2
58	G	DP	201	-	-	0/8/25/26	0/3/3/3
58	G	DP	202	-	-	0/8/25/26	0/3/3/3
60	U	DP	203	-	-	0/6/25/26	0/2/2/2
59	C	DP	204	-	-	0/6/25/26	0/2/2/2
59	C	DP	205	-	-	0/6/25/26	0/2/2/2
58	G	DP	206	-	-	0/8/25/26	0/3/3/3

All (92) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
60	DA	2917	U	C5-C4	5.87	1.43	1.37
60	DP	203	U	C5-C4	5.87	1.43	1.37
60	DA	2932	U	C5-C4	5.65	1.43	1.37
60	CA	1604	U	C5-C4	5.61	1.43	1.37
60	DA	2910	U	C5-C4	5.51	1.43	1.37
60	DA	2925	U	C5-C4	5.51	1.43	1.37
60	DA	2927	U	C5-C4	5.49	1.43	1.37
60	C1	102	U	C5-C4	5.46	1.43	1.37
60	DA	2922	U	C5-C4	5.40	1.43	1.37
60	DA	2902	U	C5-C4	5.32	1.43	1.37
60	DA	2914	U	C5-C4	5.29	1.43	1.37
59	CC	107	C	C4-N4	-3.88	1.23	1.35
59	CP	204	C	C2-N1	2.75	1.41	1.38
59	CC	105	C	C2-N1	2.56	1.41	1.38
59	CP	202	C	O2-C2	2.55	1.25	1.21
59	CA	1605	C	O2-C2	2.49	1.25	1.21
59	DP	204	C	C2-N1	2.48	1.41	1.38
60	C1	102	U	C6-N1	2.39	1.39	1.35
59	CP	203	C	O2-C2	2.38	1.24	1.21
59	DP	204	C	P-OP1	2.37	1.49	1.46
59	CA	1605	C	P-OP1	2.37	1.49	1.46
61	DA	2931	A	P-OP1	2.36	1.49	1.46
60	CA	1604	U	P-OP1	2.35	1.49	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	CA	1603	C	C2-N1	2.34	1.40	1.38
59	DA	2913	C	P-OP1	2.31	1.49	1.46
59	CA	1603	C	O2-C2	2.30	1.24	1.21
59	CP	204	C	O2-C2	2.30	1.24	1.21
60	DA	2910	U	P-OP1	2.28	1.49	1.46
58	DA	2909	G	P-OP1	2.25	1.49	1.46
59	DA	2937	C	O2-C2	2.25	1.24	1.21
58	DA	2924	G	P-OP1	2.24	1.49	1.46
59	CC	105	C	O2-C2	2.23	1.24	1.21
59	CC	106	C	P-OP1	2.23	1.49	1.46
59	CP	202	C	P-OP1	2.22	1.49	1.46
60	DA	2932	U	P-OP1	2.21	1.49	1.46
60	DA	2927	U	P-OP1	2.20	1.49	1.46
59	DA	2934	C	O2-C2	2.20	1.24	1.21
58	DA	2933	G	C6-N1	2.19	1.39	1.36
58	CA	1601	G	C6-N1	2.19	1.39	1.36
61	DA	2929	A	P-OP1	2.18	1.49	1.46
60	C1	102	U	P-OP1	2.17	1.49	1.46
58	CA	1602	G	P-OP1	2.17	1.49	1.46
59	DA	2935	C	O2-C2	2.16	1.24	1.21
59	DA	2923	C	O2-C2	2.15	1.24	1.21
59	CA	1603	C	P-OP1	2.14	1.49	1.46
58	CP	201	G	C6-N1	2.14	1.39	1.36
59	DA	2937	C	P-OP1	2.14	1.49	1.46
58	DA	2903	G	P-OP1	2.14	1.49	1.46
58	DA	2901	G	C6-N1	2.14	1.39	1.36
59	CP	203	C	C2-N1	2.14	1.40	1.38
58	DA	2904	G	P-OP1	2.14	1.49	1.46
59	DA	2915	C	P-OP1	2.13	1.49	1.46
58	CC	102	G	C6-N1	2.12	1.39	1.36
58	DP	202	G	C6-N1	2.12	1.39	1.36
58	DA	2901	G	P-OP1	2.12	1.49	1.46
59	DA	2926	C	P-OP1	2.11	1.49	1.46
59	CO	201	C	O2-C2	2.11	1.24	1.21
58	DA	2916	G	P-OP1	2.11	1.49	1.46
58	DP	201	G	C6-N1	2.11	1.39	1.36
58	CP	201	G	P-OP1	2.10	1.49	1.46
59	DA	2913	C	C2-N1	2.09	1.40	1.38
61	DA	2930	A	P-OP1	2.09	1.49	1.46
60	DA	2914	U	P-OP1	2.08	1.49	1.46
61	CC	103	A	P-OP1	2.08	1.49	1.46
58	DA	2908	G	C6-N1	2.08	1.39	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	DA	2915	C	C2-N1	2.08	1.40	1.38
59	DA	2926	C	O2-C2	2.08	1.24	1.21
58	DA	2921	G	C6-N1	2.07	1.39	1.36
58	CC	104	G	C6-N1	2.07	1.39	1.36
61	DA	2911	A	P-OP1	2.06	1.49	1.46
58	DA	2912	G	C6-N1	2.06	1.39	1.36
59	DA	2936	C	O2-C2	2.06	1.24	1.21
59	DA	2915	C	O2-C2	2.06	1.24	1.21
59	CC	105	C	P-OP1	2.05	1.49	1.46
59	DP	204	C	O2-C2	2.05	1.24	1.21
59	DA	2907	C	P-OP1	2.05	1.49	1.46
58	CA	1602	G	C6-N1	2.04	1.39	1.36
58	CA	1606	G	C6-N1	2.04	1.39	1.36
58	DA	2921	G	P-OP1	2.04	1.49	1.46
58	CC	102	G	P-OP1	2.03	1.49	1.46
58	CC	101	G	C6-N1	2.03	1.39	1.36
58	DP	202	G	P-OP1	2.03	1.49	1.46
59	DA	2936	C	P-OP1	2.03	1.49	1.46
59	DA	2913	C	O2-C2	2.02	1.24	1.21
59	DP	205	C	O2-C2	2.02	1.24	1.21
61	CA	1607	A	P-OP1	2.02	1.49	1.46
58	DA	2909	G	C6-N1	2.02	1.39	1.36
58	DP	201	G	P-OP1	2.01	1.49	1.46
59	CO	201	C	P-OP1	2.01	1.49	1.46
60	DA	2925	U	P-OP1	2.01	1.49	1.46
58	DA	2906	G	C6-N1	2.01	1.39	1.36
58	DA	2920	G	C6-N1	2.01	1.39	1.36

All (117) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	CA	1602	G	C6-C5-N7	-30.65	130.01	134.14
58	DA	2906	G	C6-C5-N7	-29.39	130.18	134.14
58	DA	2916	G	C6-C5-N7	-28.69	130.28	134.14
58	CC	104	G	C6-C5-N7	-28.47	130.31	134.14
58	DA	2924	G	C6-C5-N7	-28.23	130.34	134.14
58	DA	2904	G	C6-C5-N7	-27.97	130.37	134.14
58	DA	2933	G	C6-C5-N7	-27.95	130.38	134.14
58	DA	2921	G	C6-C5-N7	-27.91	130.38	134.14
58	CC	102	G	C6-C5-N7	-27.89	130.38	134.14
58	CA	1606	G	C6-C5-N7	-27.83	130.39	134.14
58	CA	1601	G	C6-C5-N7	-27.78	130.40	134.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	DA	2920	G	C6-C5-N7	-27.72	130.41	134.14
58	CP	201	G	C6-C5-N7	-27.38	130.45	134.14
58	DA	2903	G	C6-C5-N7	-27.00	130.50	134.14
58	DA	2901	G	C6-C5-N7	-26.82	130.53	134.14
58	CC	101	G	C6-C5-N7	-26.76	130.54	134.14
58	DA	2908	G	C6-C5-N7	-25.98	130.64	134.14
58	DP	206	G	C6-C5-N7	-25.93	130.65	134.14
58	DA	2912	G	C6-C5-N7	-25.81	130.66	134.14
58	DA	2909	G	C6-C5-N7	-25.71	130.68	134.14
58	DP	201	G	C6-C5-N7	-24.80	130.80	134.14
58	DP	202	G	C6-C5-N7	-24.53	130.84	134.14
58	CA	1606	G	C6-N1-C2	8.94	125.25	120.20
58	DA	2901	G	C6-N1-C2	8.91	125.23	120.20
58	CC	101	G	C6-N1-C2	8.84	125.19	120.20
58	DA	2920	G	C6-N1-C2	8.83	125.19	120.20
58	CC	102	G	C6-N1-C2	8.83	125.19	120.20
58	CC	104	G	C6-N1-C2	8.82	125.18	120.20
58	CP	201	G	C6-N1-C2	8.81	125.18	120.20
58	DA	2921	G	C6-N1-C2	8.79	125.16	120.20
58	DA	2903	G	C6-N1-C2	8.78	125.16	120.20
58	DA	2908	G	C6-N1-C2	8.78	125.16	120.20
58	DA	2906	G	C6-N1-C2	8.77	125.15	120.20
58	DA	2916	G	C6-N1-C2	8.73	125.13	120.20
58	DA	2933	G	C6-N1-C2	8.72	125.13	120.20
58	DP	206	G	C6-N1-C2	8.70	125.11	120.20
58	DP	202	G	C6-N1-C2	8.70	125.11	120.20
58	DA	2924	G	C6-N1-C2	8.68	125.10	120.20
58	DA	2904	G	C6-N1-C2	8.67	125.10	120.20
58	CA	1601	G	C6-N1-C2	8.63	125.08	120.20
58	CA	1602	G	C6-N1-C2	8.63	125.07	120.20
58	DA	2912	G	C6-N1-C2	8.60	125.05	120.20
58	DA	2909	G	C6-N1-C2	8.58	125.05	120.20
58	DP	201	G	C6-N1-C2	8.57	125.04	120.20
59	CC	107	C	C2-N3-C4	7.89	127.01	115.65
59	CC	107	C	C5-C4-N3	-5.32	114.70	121.67
59	CC	107	C	C6-C5-C4	4.45	119.63	117.51
59	CO	201	C	C2-N3-C4	3.06	120.05	115.65
59	CA	1605	C	C2-N3-C4	3.05	120.04	115.65
59	CC	106	C	C2-N3-C4	3.05	120.04	115.65
59	DA	2913	C	C2-N3-C4	3.05	120.03	115.65
59	CP	203	C	C2-N3-C4	3.03	120.02	115.65
59	DP	204	C	C2-N3-C4	3.03	120.01	115.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	DA	2935	C	C2-N3-C4	3.02	120.00	115.65
59	CC	105	C	C2-N3-C4	3.02	119.99	115.65
59	CP	202	C	C2-N3-C4	3.01	119.99	115.65
59	DA	2934	C	C2-N3-C4	3.01	119.98	115.65
59	DA	2928	C	C2-N3-C4	3.01	119.98	115.65
59	DA	2937	C	C2-N3-C4	3.01	119.98	115.65
59	CA	1603	C	C2-N3-C4	3.00	119.97	115.65
59	DA	2936	C	C2-N3-C4	3.00	119.96	115.65
59	CP	204	C	C2-N3-C4	2.98	119.94	115.65
59	DA	2907	C	C2-N3-C4	2.98	119.93	115.65
59	DA	2923	C	C2-N3-C4	2.97	119.93	115.65
59	DA	2926	C	C2-N3-C4	2.98	119.93	115.65
59	DA	2915	C	C2-N3-C4	2.95	119.90	115.65
59	DP	205	C	C2-N3-C4	2.95	119.89	115.65
58	DA	2924	G	C2-N3-C4	-2.86	111.87	115.30
58	DA	2906	G	C2-N3-C4	-2.84	111.89	115.30
58	DA	2908	G	C2-N3-C4	-2.84	111.89	115.30
58	CA	1602	G	C2-N3-C4	-2.82	111.92	115.30
61	DA	2930	A	C8-N9-C1'	2.82	131.46	126.15
58	DA	2921	G	C2-N3-C4	-2.81	111.93	115.30
58	CP	201	G	C2-N3-C4	-2.81	111.94	115.30
58	DA	2916	G	C2-N3-C4	-2.81	111.94	115.30
58	DP	206	G	C2-N3-C4	-2.80	111.95	115.30
58	CA	1601	G	C2-N3-C4	-2.78	111.96	115.30
58	DA	2912	G	C2-N3-C4	-2.78	111.97	115.30
58	DA	2904	G	C2-N3-C4	-2.78	111.97	115.30
58	CA	1606	G	C2-N3-C4	-2.77	111.98	115.30
58	DA	2933	G	C2-N3-C4	-2.76	111.99	115.30
58	DA	2920	G	C2-N3-C4	-2.76	111.99	115.30
58	CC	102	G	C2-N3-C4	-2.75	112.00	115.30
58	DA	2903	G	C2-N3-C4	-2.75	112.00	115.30
58	DA	2909	G	C2-N3-C4	-2.74	112.02	115.30
58	CC	104	G	C2-N3-C4	-2.72	112.04	115.30
58	CC	101	G	C2-N3-C4	-2.71	112.06	115.30
58	DA	2901	G	C2-N3-C4	-2.71	112.05	115.30
58	DP	202	G	C2-N3-C4	-2.66	112.11	115.30
58	DP	201	G	C2-N3-C4	-2.65	112.12	115.30
59	CC	107	C	C5-C4-N4	2.61	125.93	121.30
58	DA	2908	G	C5-C4-N3	2.49	128.94	126.07
58	DP	202	G	C5-C4-N3	2.48	128.92	126.07
58	DA	2912	G	C5-C4-N3	2.47	128.91	126.07
58	DA	2909	G	C5-C4-N3	2.44	128.88	126.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	DP	206	G	C5-C4-N3	2.44	128.88	126.07
59	CC	105	C	C2'-C1'-N1	2.40	119.90	113.34
58	DP	201	G	C5-C4-N3	2.37	128.79	126.07
61	DA	2930	A	C1'-N9-C4	-2.34	122.60	126.64
58	DA	2921	G	C5-C4-N3	2.33	128.75	126.07
58	CC	102	G	C5-C4-N3	2.30	128.72	126.07
58	CP	201	G	C5-C4-N3	2.30	128.72	126.07
58	DA	2933	G	C5-C4-N3	2.29	128.71	126.07
58	DA	2901	G	C5-C4-N3	2.27	128.68	126.07
58	DA	2903	G	C5-C4-N3	2.27	128.68	126.07
58	CC	101	G	C5-C4-N3	2.26	128.68	126.07
58	DA	2924	G	C5-C4-N3	2.24	128.65	126.07
58	CA	1606	G	C5-C4-N3	2.23	128.63	126.07
58	DA	2904	G	C5-C4-N3	2.22	128.62	126.07
58	DA	2920	G	C5-C4-N3	2.20	128.60	126.07
58	CA	1601	G	C5-C4-N3	2.18	128.58	126.07
58	DA	2916	G	C5-C4-N3	2.10	128.48	126.07
61	DA	2930	A	C2'-C1'-N9	2.08	119.02	113.35
58	DA	2906	G	C5-C4-N3	2.08	128.46	126.07
61	DA	2930	A	O4'-C1'-C2'	2.08	109.71	106.69
58	CC	104	G	C5-C4-N3	2.05	128.43	126.07
58	DA	2903	G	O3'-C3'-C2'	-2.01	105.34	111.83

There are no chirality outliers.

All (5) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
58	DA	2904	G	OP2-P-O5'-C5'
61	DA	2911	A	OP2-P-O5'-C5'
58	DA	2903	G	OP2-P-O5'-C5'
61	DA	2931	A	OP2-P-O5'-C5'
58	DA	2908	G	OP2-P-O5'-C5'

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	1517/1517 (100%)	-0.76	2 (0%) 93 84	66, 113, 195, 251	0
1	CA	1515/1517 (99%)	-0.83	10 (0%) 84 56	47, 111, 193, 247	0
2	AE	236/256 (92%)	0.65	18 (7%) 14 7	111, 152, 183, 188	0
2	CE	237/256 (92%)	0.52	18 (7%) 14 7	108, 138, 175, 185	0
3	AF	206/239 (86%)	0.62	17 (8%) 11 6	116, 134, 171, 178	0
3	CF	205/239 (85%)	0.76	16 (7%) 13 7	98, 128, 150, 160	0
4	AG	208/209 (99%)	-0.04	0 100 100	72, 106, 128, 137	0
4	CG	208/209 (99%)	0.10	5 (2%) 56 26	95, 116, 136, 143	0
5	AH	154/162 (95%)	0.06	3 (1%) 64 32	89, 109, 139, 163	0
5	CH	151/162 (93%)	0.25	4 (2%) 53 24	84, 105, 132, 157	0
6	AI	101/101 (100%)	0.41	0 100 100	85, 106, 121, 138	0
6	CI	101/101 (100%)	0.52	2 (1%) 62 30	80, 109, 119, 139	0
7	AJ	155/156 (99%)	0.47	10 (6%) 18 8	105, 129, 150, 160	0
7	CJ	155/156 (99%)	0.18	4 (2%) 53 24	98, 121, 141, 157	0
8	AK	138/138 (100%)	-0.37	0 100 100	91, 114, 126, 131	0
8	CK	138/138 (100%)	-0.01	1 (0%) 84 56	83, 109, 121, 123	0
9	AL	128/128 (100%)	-0.11	0 100 100	109, 150, 168, 173	0
9	CL	127/128 (99%)	-0.16	0 100 100	98, 138, 160, 169	0
10	AM	99/105 (94%)	0.16	3 (3%) 48 22	118, 152, 168, 172	0
10	CM	99/105 (94%)	0.35	7 (7%) 16 7	111, 147, 168, 175	0
11	AN	121/129 (93%)	0.62	5 (4%) 35 15	88, 110, 140, 155	0
11	CN	119/129 (92%)	0.79	8 (6%) 17 8	79, 102, 128, 146	0
12	AO	125/132 (94%)	0.24	3 (2%) 56 26	77, 96, 115, 148	0
12	CO	125/132 (94%)	0.48	3 (2%) 56 26	72, 90, 115, 150	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AP	118/126 (93%)	0.08	3 (2%) 54 25	114, 146, 169, 172	0
13	CP	121/126 (96%)	-0.22	1 (0%) 83 53	95, 132, 150, 153	0
14	AQ	60/61 (98%)	-0.07	0 100 100	119, 134, 148, 152	0
14	CQ	60/61 (98%)	-0.14	0 100 100	97, 116, 127, 129	0
15	AR	88/89 (98%)	-0.05	1 (1%) 77 44	80, 102, 125, 136	0
15	CR	88/89 (98%)	-0.18	1 (1%) 77 44	77, 103, 122, 127	0
16	AS	84/88 (95%)	-0.51	0 100 100	86, 97, 118, 150	0
16	CS	84/88 (95%)	-0.33	0 100 100	95, 112, 140, 156	0
17	AT	100/105 (95%)	-0.24	1 (1%) 79 47	81, 104, 130, 155	0
17	CT	100/105 (95%)	-0.14	1 (1%) 79 47	82, 109, 125, 144	0
18	AU	71/88 (80%)	0.27	3 (4%) 35 14	87, 107, 135, 141	0
18	CU	70/88 (79%)	0.80	7 (10%) 8 5	84, 107, 125, 125	0
19	AV	82/93 (88%)	0.10	1 (1%) 75 42	130, 159, 169, 170	0
19	CV	84/93 (90%)	-0.03	0 100 100	118, 134, 149, 152	0
20	AW	99/106 (93%)	-0.30	1 (1%) 79 47	88, 106, 149, 157	0
20	CW	99/106 (93%)	-0.40	0 100 100	96, 119, 148, 155	0
21	AX	25/27 (92%)	-0.12	0 100 100	143, 151, 161, 165	0
21	CX	25/27 (92%)	-0.58	0 100 100	101, 131, 147, 158	0
22	AC	77/77 (100%)	-0.56	0 100 100	76, 119, 153, 162	0
22	AD	77/77 (100%)	-0.11	1 (1%) 74 40	111, 217, 236, 246	0
22	CC	77/77 (100%)	-0.57	0 100 100	68, 99, 133, 139	0
22	CD	77/77 (100%)	0.01	3 (3%) 37 16	105, 210, 222, 228	0
23	A1	23/25 (92%)	0.77	4 (17%) 2 2	101, 193, 235, 240	0
23	C1	23/25 (92%)	1.21	4 (17%) 2 2	87, 180, 239, 241	0
24	BA	2885/2885 (100%)	-0.73	17 (0%) 86 59	53, 90, 211, 243	0
25	BB	120/122 (98%)	-0.75	0 100 100	103, 144, 169, 214	0
26	BD	272/276 (98%)	0.34	8 (2%) 49 23	50, 78, 97, 112	0
26	DD	272/276 (98%)	0.33	8 (2%) 49 23	44, 63, 84, 100	0
27	BE	205/206 (99%)	0.21	5 (2%) 56 26	60, 93, 138, 151	0
27	DE	205/206 (99%)	0.49	13 (6%) 19 8	48, 84, 123, 139	0
28	BF	208/210 (99%)	0.51	11 (5%) 25 10	62, 98, 158, 176	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	DF	202/210 (96%)	-0.16	1 (0%) 88 64	40, 74, 112, 125	0
29	BG	181/182 (99%)	1.00	31 (17%) 2 2	120, 144, 163, 175	0
29	DG	181/182 (99%)	0.03	2 (1%) 77 44	86, 109, 136, 146	0
30	BH	170/180 (94%)	0.62	23 (13%) 4 3	121, 169, 203, 209	0
30	DH	170/180 (94%)	0.06	0 100 100	75, 101, 123, 131	0
31	BK	146/148 (98%)	0.45	2 (1%) 72 38	82, 122, 143, 151	0
31	DK	146/148 (98%)	0.17	2 (1%) 72 38	68, 112, 127, 142	0
32	BM	138/140 (98%)	0.82	14 (10%) 7 5	80, 105, 124, 129	0
32	DM	138/140 (98%)	0.16	2 (1%) 72 38	66, 84, 116, 123	0
33	BN	122/122 (100%)	0.46	2 (1%) 68 35	69, 86, 99, 105	0
33	DN	122/122 (100%)	0.55	2 (1%) 68 35	50, 77, 90, 95	0
34	BO	150/150 (100%)	0.70	12 (8%) 12 7	67, 106, 135, 158	0
34	DO	150/150 (100%)	0.43	9 (6%) 21 9	45, 88, 114, 138	0
35	BP	141/141 (100%)	0.96	19 (13%) 4 3	82, 105, 134, 178	0
35	DP	141/141 (100%)	0.46	5 (3%) 42 19	62, 86, 107, 131	0
36	B0	117/118 (99%)	-0.35	0 100 100	54, 80, 102, 119	0
36	D0	118/118 (100%)	0.01	0 100 100	54, 80, 98, 107	0
37	BQ	111/112 (99%)	0.21	4 (3%) 41 18	113, 132, 155, 167	0
37	DQ	111/112 (99%)	0.54	5 (4%) 32 14	82, 97, 130, 139	0
38	BR	137/146 (93%)	-0.09	2 (1%) 70 36	77, 93, 148, 177	0
38	DR	137/146 (93%)	0.09	2 (1%) 70 36	71, 89, 136, 157	0
39	B1	117/118 (99%)	0.87	15 (12%) 4 3	68, 94, 135, 155	0
39	D1	117/118 (99%)	-0.15	2 (1%) 67 34	53, 69, 104, 130	0
40	B2	101/101 (100%)	1.69	38 (37%) 1 1	64, 118, 132, 136	0
40	D2	101/101 (100%)	0.31	5 (4%) 28 12	52, 97, 117, 126	0
41	BS	113/113 (100%)	0.06	2 (1%) 65 33	67, 80, 101, 141	0
41	DS	113/113 (100%)	0.18	3 (2%) 52 24	53, 70, 100, 142	0
42	BT	92/96 (95%)	0.12	3 (3%) 44 20	73, 89, 111, 121	0
42	DT	92/96 (95%)	-0.19	1 (1%) 77 44	54, 70, 91, 103	0
43	BU	102/110 (92%)	0.65	9 (8%) 10 6	79, 106, 161, 172	0
43	DU	102/110 (92%)	-0.12	1 (0%) 79 47	67, 93, 134, 144	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	BV	176/206 (85%)	0.79	14 (7%) 12 7	113, 142, 185, 190	0
44	DV	172/206 (83%)	1.06	23 (13%) 4 3	90, 126, 184, 190	0
45	B3	80/85 (94%)	0.94	7 (8%) 10 6	84, 99, 113, 119	0
45	D3	77/85 (90%)	0.42	1 (1%) 74 40	67, 81, 100, 115	0
46	BZ	97/98 (98%)	0.65	8 (8%) 12 6	67, 91, 149, 174	0
46	DZ	97/98 (98%)	0.17	3 (3%) 47 22	48, 78, 141, 158	0
47	BW	69/72 (95%)	0.08	1 (1%) 72 38	80, 105, 125, 140	0
47	DW	69/72 (95%)	-0.17	1 (1%) 72 38	60, 83, 105, 122	0
48	BX	59/60 (98%)	1.31	13 (22%) 1 2	83, 107, 129, 134	0
48	DX	59/60 (98%)	0.32	2 (3%) 43 19	64, 84, 110, 124	0
49	B4	71/71 (100%)	1.69	24 (33%) 1 1	164, 193, 208, 211	0
49	D4	71/71 (100%)	0.28	0 100 100	128, 160, 185, 188	0
50	B5	59/60 (98%)	0.41	8 (13%) 4 3	57, 91, 168, 177	0
50	D5	59/60 (98%)	0.73	9 (15%) 3 3	46, 86, 186, 190	0
51	B6	48/54 (88%)	2.17	23 (47%) 1 1	138, 153, 169, 175	0
51	D6	49/54 (90%)	3.54	43 (87%) 0 0	132, 146, 156, 162	0
52	B7	49/49 (100%)	0.13	1 (2%) 62 30	51, 68, 116, 148	0
52	D7	49/49 (100%)	-0.14	2 (4%) 35 15	40, 49, 109, 135	0
53	B8	64/65 (98%)	1.13	10 (15%) 3 2	77, 93, 114, 152	0
53	D8	64/65 (98%)	0.55	2 (3%) 47 22	53, 72, 100, 127	0
54	DA	2886/2898 (99%)	-0.63	14 (0%) 88 64	35, 74, 192, 231	0
55	DB	120/120 (100%)	-0.72	0 100 100	77, 106, 126, 157	0
All	All	20970/21471 (97%)	-0.13	660 (3%) 47 22	35, 102, 176, 251	0

All (660) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
53	B8	65	GLU	12.4
24	BA	1176	G	12.2
41	DS	113	LYS	10.3
28	BF	1	MET	9.1
54	DA	2798	C	8.8
50	B5	59	GLU	8.0
24	BA	2798	C	7.9

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Mol	Chain	Res	Type	RSRZ
24	BA	1177	A	7.7
40	D2	36	PRO	7.7
18	CU	88	LYS	7.7
51	D6	19	ARG	7.7
1	CA	86	U	7.5
39	B1	118	GLY	7.5
11	CN	11	LYS	7.4
49	B4	28	LYS	7.3
54	DA	2797	U	7.2
24	BA	2797	U	7.1
23	C1	3	C	7.0
51	D6	50	ARG	6.7
28	BF	208	GLY	6.5
22	CD	47	U	6.4
51	D6	42	TRP	5.9
34	DO	149	GLU	5.8
40	B2	1	MET	5.8
49	B4	31	ILE	5.6
51	B6	50	ARG	5.6
45	B3	85	ALA	5.6
51	D6	34	LEU	5.6
40	B2	45	THR	5.4
51	D6	53	LYS	5.4
3	AF	79	ARG	5.4
51	D6	18	ARG	5.4
28	BF	12	LEU	5.3
24	BA	2799	A	5.3
49	B4	40	HIS	5.3
48	BX	60	GLU	5.2
41	BS	113	LYS	5.1
35	BP	91	GLU	5.1
49	B4	29	PRO	5.1
41	DS	112	GLY	5.1
11	AN	9	LYS	5.0
50	D5	55	ARG	5.0
50	B5	2	ALA	4.9
2	CE	4	GLU	4.9
23	C1	4	A	4.9
27	BE	69	LYS	4.9
11	CN	12	ARG	4.8
26	DD	26	LYS	4.8
27	DE	69	LYS	4.8

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Mol	Chain	Res	Type	RSRZ
44	DV	114	GLY	4.8
51	D6	29	ASN	4.8
42	BT	92	LEU	4.8
49	B4	30	GLU	4.8
53	B8	64	TYR	4.8
43	BU	50	ARG	4.8
44	DV	145	GLU	4.8
51	B6	13	CYS	4.7
23	C1	25	A	4.7
51	D6	16	CYS	4.7
50	D5	57	VAL	4.7
28	BF	2	LYS	4.6
51	D6	13	CYS	4.6
52	B7	49	ARG	4.6
39	B1	91	ASP	4.6
32	BM	1	MET	4.6
50	D5	58	LEU	4.6
29	BG	137	GLU	4.5
1	CA	1542	G	4.5
27	DE	204	ALA	4.5
38	DR	1	MET	4.5
40	B2	26	ASP	4.5
44	BV	108	PRO	4.4
7	CJ	79	ARG	4.4
39	D1	117	GLN	4.4
51	D6	44	ARG	4.4
51	D6	20	ASN	4.4
30	BH	25	LYS	4.3
7	CJ	78	ARG	4.3
24	BA	1067	A	4.3
51	D6	51	GLU	4.3
51	D6	6	ARG	4.3
27	DE	205	ALA	4.3
49	B4	42	PHE	4.3
30	BH	18	GLU	4.2
51	D6	35	GLU	4.2
51	D6	43	CYS	4.2
29	BG	86	MET	4.2
23	A1	3	C	4.2
51	B6	51	GLU	4.2
23	A1	25	A	4.2
50	D5	59	GLU	4.2

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Mol	Chain	Res	Type	RSRZ
50	B5	54	GLY	4.2
45	B3	84	LEU	4.1
48	BX	2	PRO	4.1
50	D5	54	GLY	4.1
44	DV	4	ARG	4.1
31	DK	146	ALA	4.1
1	CA	1541	U	4.1
19	AV	85	LYS	4.1
46	DZ	98	LEU	4.1
51	D6	33	LYS	4.1
51	D6	22	ALA	4.1
29	BG	138	GLN	4.1
41	DS	111	HIS	4.1
39	B1	89	GLU	4.1
34	DO	92	GLU	4.1
49	B4	9	LEU	4.0
11	CN	129	SER	4.0
34	BO	149	GLU	4.0
51	D6	12	GLU	4.0
3	CF	201	TYR	4.0
51	D6	37	ARG	4.0
40	B2	36	PRO	3.9
39	B1	72	HIS	3.9
51	B6	8	LYS	3.9
49	B4	32	TYR	3.9
29	BG	39	ILE	3.9
34	BO	150	ALA	3.9
51	D6	39	TYR	3.9
32	BM	8	GLN	3.9
48	BX	3	ARG	3.9
2	AE	217	ARG	3.9
37	DQ	111	GLU	3.9
28	BF	10	PRO	3.8
23	A1	4	A	3.8
48	DX	60	GLU	3.8
51	D6	30	THR	3.8
51	D6	25	LYS	3.8
49	B4	8	LYS	3.8
49	B4	24	THR	3.8
31	BK	146	ALA	3.8
51	D6	17	LYS	3.8
27	BE	1	MET	3.8

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Mol	Chain	Res	Type	RSRZ
24	BA	1095	A	3.8
39	B1	90	VAL	3.7
51	B6	6	ARG	3.7
1	CA	1537	U	3.7
27	BE	205	ALA	3.7
22	CD	17(A)	C	3.7
40	B2	44	LYS	3.7
50	D5	53	ALA	3.7
15	AR	2	PRO	3.6
51	D6	21	TYR	3.6
54	DA	2799	A	3.6
49	B4	27	THR	3.6
51	B6	9	LEU	3.6
1	CA	84	U	3.6
28	BF	27	GLU	3.6
39	B1	112	ARG	3.6
2	CE	231	GLU	3.6
51	B6	7	ILE	3.6
43	BU	86	ARG	3.5
44	DV	2	GLU	3.5
12	CO	64	TYR	3.5
54	DA	654	A	3.5
53	D8	64	TYR	3.5
2	CE	125	PRO	3.5
34	BO	106	LEU	3.5
35	BP	140	ALA	3.5
18	AU	88	LYS	3.5
46	DZ	96	LYS	3.5
51	D6	49	HIS	3.5
49	B4	44	THR	3.4
51	D6	52	VAL	3.4
50	B5	53	ALA	3.4
40	B2	16	PRO	3.4
35	BP	1	MET	3.4
24	BA	1535	U	3.4
5	AH	3	GLU	3.4
29	BG	182	LYS	3.4
51	D6	24	GLU	3.4
29	BG	155	MET	3.4
37	DQ	105	ALA	3.3
40	B2	91	TYR	3.3
52	D7	49	ARG	3.3

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Mol	Chain	Res	Type	RSRZ
39	B1	117	GLN	3.3
51	B6	53	LYS	3.3
2	AE	156	LYS	3.3
40	B2	15	GLU	3.3
51	B6	36	LEU	3.3
54	DA	2795	G	3.3
11	AN	10	VAL	3.3
2	CE	129	GLU	3.3
39	B1	111	GLU	3.3
2	AE	163	PHE	3.2
2	AE	155	LEU	3.2
44	BV	138	GLU	3.2
29	DG	182	LYS	3.2
29	BG	62	LEU	3.2
11	AN	13	GLN	3.2
2	AE	9	GLU	3.2
34	DO	150	ALA	3.2
30	BH	19	VAL	3.2
3	AF	101	LEU	3.2
2	AE	122	PHE	3.2
32	DM	130	HIS	3.2
39	D1	118	GLY	3.2
44	DV	117	LEU	3.2
40	B2	20	LEU	3.2
44	DV	1	MET	3.2
29	BG	84	LYS	3.2
44	DV	171	ILE	3.1
32	BM	138	LEU	3.1
44	DV	118	GLN	3.1
43	BU	46	LYS	3.1
44	DV	109	ALA	3.1
51	B6	29	ASN	3.1
51	B6	14	THR	3.1
48	BX	38	GLU	3.1
40	B2	18	LEU	3.1
35	BP	103	MET	3.1
3	CF	169	ALA	3.1
2	AE	226	ARG	3.1
2	AE	5	ILE	3.1
40	B2	19	LYS	3.1
40	B2	40	LEU	3.1
38	BR	134	GLU	3.1

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Mol	Chain	Res	Type	RSRZ
29	BG	41	GLN	3.1
30	BH	41	MET	3.1
44	DV	146	ILE	3.1
53	B8	63	PRO	3.1
2	AE	123	ALA	3.0
35	BP	33	GLY	3.0
2	CE	126	GLU	3.0
30	BH	17	VAL	3.0
46	BZ	95	LEU	3.0
49	B4	6	HIS	3.0
3	CF	168	ALA	3.0
46	BZ	3	LYS	3.0
44	DV	148	ASP	3.0
11	AN	12	ARG	3.0
38	BR	1	MET	3.0
51	D6	32	ASN	3.0
51	B6	27	LYS	3.0
51	D6	36	LEU	3.0
51	B6	52	VAL	3.0
44	DV	144	LEU	3.0
44	BV	119	GLU	3.0
40	B2	25	LEU	3.0
29	BG	34	LEU	2.9
29	BG	139	LEU	2.9
28	BF	20	LEU	2.9
40	B2	53	GLU	2.9
39	B1	88	ILE	2.9
49	B4	41	PRO	2.9
49	B4	13	ARG	2.9
28	BF	11	VAL	2.9
28	BF	207	GLY	2.9
40	B2	5	VAL	2.9
51	B6	35	GLU	2.9
51	D6	15	GLU	2.9
7	AJ	83	ALA	2.9
26	DD	2	ALA	2.9
51	D6	31	PRO	2.9
30	BH	33	LEU	2.9
26	DD	35	LYS	2.9
49	B4	43	TYR	2.9
54	DA	1536	A	2.9
40	B2	27	ALA	2.9

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Mol	Chain	Res	Type	RSRZ
7	CJ	85	TYR	2.9
22	CD	20	U	2.9
34	BO	110	TYR	2.9
32	BM	134	ARG	2.9
40	B2	31	ALA	2.9
5	AH	2	PRO	2.8
30	BH	47	GLU	2.8
29	BG	48	GLU	2.8
10	AM	65	LEU	2.8
39	B1	109	LEU	2.8
10	AM	64	GLU	2.8
30	BH	50	VAL	2.8
32	BM	133	GLN	2.8
50	D5	52	TYR	2.8
51	B6	34	LEU	2.8
27	BE	54	GLN	2.8
37	BQ	58	LEU	2.8
48	BX	4	LEU	2.8
51	B6	25	LYS	2.8
18	CU	87	ARG	2.8
49	B4	7	PRO	2.8
51	D6	14	THR	2.8
30	BH	34	GLU	2.8
41	BS	112	GLY	2.8
50	D5	56	LYS	2.8
29	BG	43	LEU	2.8
35	BP	37	LEU	2.8
54	DA	270(L)	U	2.8
27	DE	6	GLY	2.8
29	BG	10	LYS	2.8
34	DO	94	GLU	2.8
35	BP	10	ARG	2.8
2	AE	215	LEU	2.8
30	BH	27	LYS	2.8
29	BG	90	LEU	2.8
48	BX	59	VAL	2.8
7	CJ	154	TYR	2.8
31	BK	12	LEU	2.8
11	CN	81	ASP	2.8
51	B6	49	HIS	2.8
2	AE	187	LEU	2.8
47	BW	72	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
48	BX	28	LEU	2.8
40	B2	98	GLU	2.8
40	B2	12	TYR	2.7
3	AF	104	GLN	2.7
3	CF	72	LYS	2.7
54	DA	2805	G	2.7
39	B1	71	GLN	2.7
24	BA	1066	U	2.7
35	BP	90	VAL	2.7
48	BX	35	ARG	2.7
44	BV	155	LEU	2.7
23	A1	5	A	2.7
43	BU	48	ALA	2.7
48	BX	29	ARG	2.7
7	AJ	9	VAL	2.7
27	DE	195	LEU	2.7
40	B2	64	HIS	2.7
2	AE	214	ILE	2.7
7	AJ	12	LEU	2.7
50	D5	51	TYR	2.7
44	BV	107	THR	2.7
44	BV	154	ASP	2.7
1	CA	1538	C	2.7
29	BG	146	TYR	2.7
3	CF	182	ILE	2.7
40	B2	101	GLY	2.6
35	BP	63	LYS	2.6
50	B5	56	LYS	2.6
44	DV	147	GLY	2.6
17	AT	101	ARG	2.6
5	CH	8	GLU	2.6
35	BP	66	ILE	2.6
44	DV	98	MET	2.6
24	BA	1174	A	2.6
2	CE	214	ILE	2.6
35	BP	68	ILE	2.6
3	AF	80	GLY	2.6
50	B5	60	VAL	2.6
30	BH	44	VAL	2.6
30	BH	101	ARG	2.6
44	BV	163	LEU	2.6
48	BX	5	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
3	AF	100	ALA	2.6
32	BM	136	GLU	2.6
30	BH	45	VAL	2.6
34	BO	124	LYS	2.6
40	B2	38	LEU	2.6
49	B4	39	CYS	2.6
24	BA	1509	C	2.6
40	B2	17	GLY	2.6
32	BM	10	GLU	2.6
43	BU	53	PRO	2.6
5	CH	7	GLU	2.6
7	AJ	153	HIS	2.6
32	BM	15	LEU	2.6
2	CE	130	ARG	2.6
10	CM	6	ILE	2.6
34	DO	121	LYS	2.6
35	BP	104	PHE	2.5
35	BP	38	GLU	2.5
44	BV	157	LEU	2.5
40	D2	45	THR	2.5
44	DV	99	TYR	2.5
3	AF	103	VAL	2.5
2	CE	217	ARG	2.5
4	CG	169	LYS	2.5
27	BE	70	ALA	2.5
22	AD	17(A)	C	2.5
34	BO	94	GLU	2.5
10	CM	95	GLU	2.5
32	BM	12	ARG	2.5
40	B2	34	GLU	2.5
44	BV	162	GLU	2.5
27	DE	7	VAL	2.5
54	DA	2804	C	2.5
40	B2	93	GLU	2.5
2	AE	218	ALA	2.5
29	BG	83	ARG	2.5
30	BH	24	VAL	2.5
49	B4	45	GLY	2.5
54	DA	1177	A	2.5
12	AO	128	ALA	2.5
18	CU	76	LEU	2.5
2	CE	222	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
47	DW	43	GLN	2.5
51	D6	7	ILE	2.5
33	DN	53	LYS	2.5
51	D6	38	LYS	2.5
26	DD	111	LEU	2.5
40	B2	39	LEU	2.5
46	BZ	94	LEU	2.5
12	AO	64	TYR	2.5
48	BX	55	ARG	2.5
51	D6	5	VAL	2.5
7	AJ	82	GLY	2.5
35	DP	91	GLU	2.4
51	D6	9	LEU	2.4
23	C1	5	A	2.4
29	BG	103	LEU	2.4
40	D2	38	LEU	2.4
48	BX	26	LEU	2.4
53	D8	65	GLU	2.4
35	BP	32	TYR	2.4
18	CU	78	LEU	2.4
26	BD	262	ARG	2.4
3	AF	145	GLY	2.4
44	DV	5	LEU	2.4
51	D6	11	LEU	2.4
3	CF	184	TYR	2.4
50	B5	55	ARG	2.4
35	BP	105	GLU	2.4
43	BU	52	SER	2.4
24	BA	654(A)	A	2.4
34	BO	119	GLU	2.4
53	B8	22	VAL	2.4
43	BU	5	MET	2.4
2	CE	229	VAL	2.4
13	CP	122	LYS	2.4
29	BG	150	ASP	2.4
3	AF	135	LYS	2.4
3	CF	19	GLU	2.4
45	B3	21	LEU	2.4
51	D6	47	THR	2.4
11	AN	14	VAL	2.4
24	BA	2795	G	2.4
51	B6	43	CYS	2.4

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Mol	Chain	Res	Type	RSRZ
15	CR	88	ARG	2.4
33	DN	122	LEU	2.4
29	BG	58	GLN	2.4
51	D6	27	LYS	2.4
18	CU	42	ARG	2.4
30	BH	96	ALA	2.4
2	CE	230	VAL	2.4
7	AJ	22	LEU	2.4
37	BQ	82	ILE	2.4
49	B4	14	ILE	2.4
51	B6	19	ARG	2.4
30	BH	48	GLY	2.4
39	B1	114	LYS	2.4
2	AE	30	ARG	2.4
51	B6	37	ARG	2.4
29	BG	75	LYS	2.4
30	BH	21	PRO	2.4
30	BH	116	GLU	2.4
35	BP	48	GLU	2.4
45	B3	53	MET	2.4
32	BM	51	PHE	2.4
43	DU	63	LYS	2.4
11	CN	50	TYR	2.3
29	BG	152	LEU	2.3
42	DT	92	LEU	2.3
44	DV	143	GLY	2.3
10	CM	33	GLN	2.3
3	CF	149	ALA	2.3
29	BG	82	LEU	2.3
3	CF	190	ARG	2.3
2	AE	48	MET	2.3
29	BG	102	PHE	2.3
46	DZ	95	LEU	2.3
10	CM	28	ARG	2.3
2	CE	5	ILE	2.3
2	CE	96	ARG	2.3
32	BM	14	VAL	2.3
40	B2	21	ARG	2.3
34	BO	95	VAL	2.3
40	B2	4	ILE	2.3
30	BH	105	LEU	2.3
37	DQ	110	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
29	BG	51	ARG	2.3
2	AE	6	THR	2.3
1	AA	1542	G	2.3
3	CF	170	GLN	2.3
18	CU	79	LEU	2.3
46	BZ	97	LEU	2.3
50	B5	58	LEU	2.3
1	AA	85	U	2.3
51	D6	23	THR	2.3
24	BA	1178	C	2.3
35	DP	105	GLU	2.3
40	B2	94	LEU	2.3
26	BD	34	VAL	2.3
18	AU	87	ARG	2.3
33	BN	1	MET	2.3
44	BV	125	LEU	2.3
51	D6	10	LEU	2.3
29	BG	52	ILE	2.3
40	B2	60	GLU	2.3
44	DV	162	GLU	2.3
49	B4	52	THR	2.3
11	CN	110	ASP	2.3
11	CN	128	ALA	2.3
44	BV	137	ILE	2.3
46	BZ	98	LEU	2.3
29	BG	60	LEU	2.3
39	B1	108	GLU	2.3
27	DE	199	ARG	2.3
28	DF	8	GLN	2.3
43	BU	49	VAL	2.3
3	CF	87	LEU	2.3
37	DQ	24	LEU	2.3
3	AF	83	ARG	2.3
46	BZ	21	ARG	2.3
44	BV	175	VAL	2.3
44	DV	97	GLU	2.3
3	AF	72	LYS	2.3
1	CA	1540	U	2.3
13	AP	2	ALA	2.3
35	BP	34	LEU	2.3
44	BV	5	LEU	2.3
26	BD	23	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
48	DX	2	PRO	2.3
11	CN	13	GLN	2.2
51	D6	41	PRO	2.2
3	AF	60	ALA	2.2
42	BT	91	ALA	2.2
3	CF	200	ALA	2.2
3	AF	146	ALA	2.2
17	CT	101	ARG	2.2
27	DE	54	GLN	2.2
3	CF	15	THR	2.2
32	BM	23	LEU	2.2
34	BO	64	LYS	2.2
7	AJ	32	ARG	2.2
26	BD	64	ILE	2.2
31	DK	117	GLU	2.2
18	CU	77	GLY	2.2
4	CG	166	LYS	2.2
2	CE	67	THR	2.2
10	CM	98	ILE	2.2
44	DV	63	ASP	2.2
10	CM	85	LEU	2.2
44	DV	119	GLU	2.2
54	DA	2146	C	2.2
44	DV	115	GLY	2.2
2	AE	70	PHE	2.2
2	CE	163	PHE	2.2
34	BO	92	GLU	2.2
53	B8	23	VAL	2.2
51	B6	12	GLU	2.2
39	B1	106	PHE	2.2
34	DO	95	VAL	2.2
6	CI	50	TYR	2.2
26	BD	35	LYS	2.2
53	B8	57	ARG	2.2
30	BH	32	GLU	2.2
53	B8	56	GLU	2.2
3	AF	200	ALA	2.2
54	DA	163	U	2.2
54	DA	276	A	2.2
40	B2	32	THR	2.2
44	DV	88	PHE	2.2
1	CA	345	C	2.2

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Mol	Chain	Res	Type	RSRZ
24	BA	2146	C	2.2
3	AF	199	LYS	2.2
40	B2	6	LYS	2.2
53	B8	11	LYS	2.2
26	DD	91	ARG	2.2
42	BT	90	GLU	2.2
27	DE	72	VAL	2.2
29	BG	157	ILE	2.2
45	B3	6	GLY	2.2
32	DM	134	ARG	2.2
46	BZ	6	GLU	2.1
54	DA	645	C	2.1
7	AJ	81	GLY	2.1
12	CO	41	ARG	2.1
29	BG	136	ARG	2.1
34	DO	90	ARG	2.1
34	DO	100	LEU	2.1
27	DE	73	GLU	2.1
3	AF	202	ILE	2.1
26	BD	5	LYS	2.1
27	DE	4	ILE	2.1
45	B3	64	ASP	2.1
53	B8	21	LYS	2.1
3	CF	91	LEU	2.1
37	DQ	84	GLN	2.1
40	B2	86	GLY	2.1
2	CE	68	ILE	2.1
10	AM	6	ILE	2.1
44	BV	140	ASP	2.1
35	DP	130	LYS	2.1
45	D3	8	GLY	2.1
4	CG	168	ARG	2.1
29	BG	178	PHE	2.1
4	CG	24	GLU	2.1
20	AW	106	ALA	2.1
45	B3	74	ARG	2.1
49	B4	46	GLN	2.1
2	CE	133	LYS	2.1
7	AJ	155	ARG	2.1
26	DD	34	VAL	2.1
28	BF	26	ALA	2.1
46	BZ	11	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
3	AF	201	TYR	2.1
13	AP	9	ILE	2.1
49	B4	38	LYS	2.1
10	CM	4	ILE	2.1
26	DD	16	MET	2.1
39	B1	101	ARG	2.1
5	CH	50	GLU	2.1
34	BO	1	MET	2.1
51	D6	26	ASN	2.1
52	D7	48	LYS	2.1
30	BH	28	GLY	2.1
33	BN	43	VAL	2.1
3	AF	107	GLN	2.1
30	BH	115	VAL	2.1
43	BU	88	LYS	2.1
13	AP	94	ARG	2.1
30	BH	20	ALA	2.1
35	DP	1	MET	2.1
5	AH	4	THR	2.1
1	CA	344	A	2.1
29	DG	84	LYS	2.1
26	DD	168	ARG	2.1
5	CH	9	LYS	2.1
40	B2	97	LYS	2.1
40	D2	53	GLU	2.1
37	BQ	60	GLY	2.1
53	B8	9	GLY	2.1
26	BD	39	LYS	2.1
38	DR	3	ARG	2.1
2	CE	233	SER	2.1
32	BM	119	ARG	2.1
48	BX	6	VAL	2.1
3	CF	43	LEU	2.1
35	DP	20	ALA	2.0
51	B6	42	TRP	2.0
37	BQ	26	LEU	2.0
49	B4	11	PRO	2.0
1	CA	1030	C	2.0
2	AE	222	ILE	2.0
28	BF	21	ALA	2.0
29	BG	64	THR	2.0
3	CF	90	GLU	2.0

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Mol	Chain	Res	Type	RSRZ
12	CO	28	LYS	2.0
34	DO	130	PHE	2.0
40	B2	14	VAL	2.0
26	BD	217	ARG	2.0
35	BP	65	PHE	2.0
12	AO	129	ALA	2.0
34	BO	108	LYS	2.0
40	B2	28	GLU	2.0
4	CG	181	MET	2.0
7	AJ	59	LEU	2.0
27	DE	76	ARG	2.0
32	BM	26	LEU	2.0
40	D2	1	MET	2.0
6	CI	1	MET	2.0
27	DE	68	ALA	2.0
35	BP	141	GLN	2.0
40	B2	47	VAL	2.0
51	B6	30	THR	2.0
24	BA	654(B)	C	2.0
18	AU	86	VAL	2.0
8	CK	130	GLY	2.0
24	BA	654	A	2.0
40	B2	83	ARG	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	1864	1/1	0.24	-	87,87,87,87	0
56	MG	DA	3377	1/1	0.09	-	76,76,76,76	0
56	MG	CA	1881	1/1	0.07	-	144,144,144,144	0
56	MG	BA	3478	1/1	0.52	-	127,127,127,127	0
56	MG	CA	1779	1/1	0.22	-	82,82,82,82	0
56	MG	AA	1628	1/1	0.40	-	69,69,69,69	0
56	MG	DA	3154	1/1	0.14	-	48,48,48,48	0
56	MG	CA	1708	1/1	0.17	-	106,106,106,106	0
56	MG	AA	1866	1/1	0.32	-	117,117,117,117	0
56	MG	DA	3349	1/1	0.14	-	51,51,51,51	0
56	MG	BA	2936	1/1	0.24	-	50,50,50,50	0
56	MG	BA	3197	1/1	0.16	-	103,103,103,103	0
56	MG	CA	1869	1/1	0.28	-	112,112,112,112	0
56	MG	AA	1642	1/1	0.18	-	64,64,64,64	0
56	MG	DA	3425	1/1	0.15	-	37,37,37,37	0
56	MG	BA	3428	1/1	0.12	-	93,93,93,93	0
56	MG	BA	3099	1/1	0.06	-	42,42,42,42	0
56	MG	DA	3670	1/1	0.16	-	62,62,62,62	0
56	MG	BA	3556	1/1	0.14	-	82,82,82,82	0
59	C	DA	2915	20/21	0.54	-	200,201,203,204	0
56	MG	DA	3384	1/1	0.48	-	98,98,98,98	0
56	MG	AA	1957	1/1	0.17	-	82,82,82,82	0
56	MG	BA	2945	1/1	0.19	-	39,39,39,39	0
56	MG	DA	3708	1/1	0.33	-	102,102,102,102	0
56	MG	AA	1839	1/1	0.14	-	91,91,91,91	0
56	MG	BA	3010	1/1	0.33	-	55,55,55,55	0
56	MG	CD	124	1/1	0.17	-	109,109,109,109	0
56	MG	CA	1760	1/1	0.14	-	114,114,114,114	0
56	MG	DA	3549	1/1	0.56	-	96,96,96,96	0
56	MG	DA	2972	1/1	0.18	-	33,33,33,33	0
56	MG	BA	3446	1/1	0.14	-	74,74,74,74	0
56	MG	DA	3010	1/1	0.30	-	24,24,24,24	0
56	MG	CA	1894	1/1	0.16	-	82,82,82,82	0
56	MG	BA	3350	1/1	0.15	-	63,63,63,63	0
56	MG	DA	3588	1/1	0.08	-	68,68,68,68	0
56	MG	AA	1877	1/1	0.35	-	80,80,80,80	0
56	MG	DA	3135	1/1	0.45	-	65,65,65,65	0
56	MG	DA	3652	1/1	0.25	-	78,78,78,78	0
56	MG	AI	201	1/1	0.13	-	72,72,72,72	0
56	MG	DA	3560	1/1	0.07	-	64,64,64,64	0
56	MG	AA	1750	1/1	0.20	-	79,79,79,79	0
56	MG	DA	3663	1/1	0.46	-	109,109,109,109	0
56	MG	CA	1663	1/1	0.24	-	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1814	1/1	0.25	-	63,63,63,63	0
56	MG	BA	3285	1/1	0.17	-	79,79,79,79	0
56	MG	DA	3125	1/1	0.32	-	56,56,56,56	0
56	MG	CG	301	1/1	0.48	-	113,113,113,113	0
56	MG	BA	3473	1/1	0.19	-	93,93,93,93	0
56	MG	BA	3186	1/1	0.16	-	83,83,83,83	0
56	MG	D5	101	1/1	0.18	-	54,54,54,54	0
56	MG	DA	3592	1/1	0.35	-	81,81,81,81	0
56	MG	AA	1602	1/1	0.24	-	53,53,53,53	0
56	MG	AA	1920	1/1	0.07	-	115,115,115,115	0
56	MG	BE	306	1/1	0.13	-	72,72,72,72	0
56	MG	BA	3203	1/1	0.23	-	64,64,64,64	0
56	MG	CA	1658	1/1	0.23	-	76,76,76,76	0
56	MG	BA	3024	1/1	0.22	-	40,40,40,40	0
56	MG	DA	3353	1/1	0.20	-	88,88,88,88	0
56	MG	CA	1785	1/1	0.06	-	55,55,55,55	0
56	MG	BA	3485	1/1	0.15	-	69,69,69,69	0
56	MG	DA	3177	1/1	0.05	-	26,26,26,26	0
56	MG	BA	3327	1/1	0.12	-	65,65,65,65	0
56	MG	AA	1743	1/1	0.09	-	75,75,75,75	0
56	MG	CA	1800	1/1	0.17	-	66,66,66,66	0
56	MG	BK	201	1/1	0.19	-	68,68,68,68	0
56	MG	CA	1858	1/1	0.19	-	87,87,87,87	0
56	MG	BA	3157	1/1	0.12	-	45,45,45,45	0
56	MG	DA	3410	1/1	0.14	-	75,75,75,75	0
56	MG	BA	3378	1/1	0.33	-	129,129,129,129	0
56	MG	CC	112	1/1	0.29	-	88,88,88,88	0
56	MG	CA	1722	1/1	0.32	-	101,101,101,101	0
56	MG	AA	1686	1/1	0.19	-	60,60,60,60	0
56	MG	DA	3822	1/1	0.24	-	117,117,117,117	0
56	MG	BA	3150	1/1	0.25	-	72,72,72,72	0
56	MG	CC	108	1/1	0.08	-	70,70,70,70	0
56	MG	DA	3544	1/1	0.32	-	86,86,86,86	0
56	MG	DA	3806	1/1	0.15	-	73,73,73,73	0
56	MG	AA	1824	1/1	0.17	-	85,85,85,85	0
56	MG	AA	1751	1/1	0.22	-	73,73,73,73	0
56	MG	BA	2959	1/1	0.15	-	36,36,36,36	0
56	MG	DA	3138	1/1	0.34	-	52,52,52,52	0
56	MG	BA	3497	1/1	0.21	-	72,72,72,72	0
61	A	CA	1607	22/23	0.33	-	188,192,193,194	0
56	MG	DA	2969	1/1	0.18	-	23,23,23,23	0
56	MG	BA	3440	1/1	0.13	-	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1930	1/1	0.35	-	82,82,82,82	0
56	MG	DA	3365	1/1	0.40	-	93,93,93,93	0
56	MG	AA	1997	1/1	0.40	-	108,108,108,108	0
56	MG	BA	3261	1/1	0.27	-	99,99,99,99	0
56	MG	CD	110	1/1	0.21	-	102,102,102,102	0
56	MG	AA	1821	1/1	0.21	-	141,141,141,141	0
56	MG	BD	301	1/1	0.25	-	65,65,65,65	0
56	MG	DA	3487	1/1	0.25	-	98,98,98,98	0
56	MG	AA	1857	1/1	0.34	-	88,88,88,88	0
56	MG	BA	3251	1/1	0.24	-	78,78,78,78	0
56	MG	BA	3434	1/1	0.32	-	88,88,88,88	0
56	MG	DA	3826	1/1	0.40	-	118,118,118,118	0
56	MG	DA	3589	1/1	0.12	-	130,130,130,130	0
56	MG	DA	3539	1/1	0.52	-	112,112,112,112	0
56	MG	AA	1829	1/1	0.21	-	109,109,109,109	0
60	U	DA	2917	20/21	0.58	-	190,192,196,196	0
56	MG	BA	3259	1/1	0.06	-	90,90,90,90	0
56	MG	BA	3389	1/1	0.28	-	89,89,89,89	0
56	MG	DA	3469	1/1	0.26	-	66,66,66,66	0
56	MG	BA	3281	1/1	0.36	-	113,113,113,113	0
56	MG	DA	3604	1/1	0.28	-	91,91,91,91	0
56	MG	DA	3829	1/1	0.17	-	157,157,157,157	0
56	MG	BA	3357	1/1	0.15	-	66,66,66,66	0
56	MG	AA	1706	1/1	0.33	-	143,143,143,143	0
56	MG	BA	3003	1/1	0.11	-	40,40,40,40	0
56	MG	BA	3453	1/1	0.31	-	73,73,73,73	0
56	MG	BA	3394	1/1	0.14	-	121,121,121,121	0
56	MG	BA	3064	1/1	0.33	-	76,76,76,76	0
56	MG	AD	103	1/1	0.16	-	101,101,101,101	0
56	MG	D0	204	1/1	0.27	-	95,95,95,95	0
56	MG	CX	101	1/1	0.09	-	90,90,90,90	0
56	MG	AA	1863	1/1	0.41	-	92,92,92,92	0
56	MG	BA	3304	1/1	0.10	-	63,63,63,63	0
56	MG	BA	2966	1/1	0.28	-	46,46,46,46	0
56	MG	CA	1799	1/1	0.25	-	84,84,84,84	0
56	MG	AA	1746	1/1	0.26	-	81,81,81,81	0
56	MG	BA	3013	1/1	0.23	-	60,60,60,60	0
56	MG	A1	101	1/1	0.10	-	102,102,102,102	0
56	MG	BA	3136	1/1	0.48	-	111,111,111,111	0
56	MG	DA	3227	1/1	0.17	-	50,50,50,50	0
56	MG	B5	101	1/1	0.10	-	46,46,46,46	0
56	MG	AC	101	1/1	0.10	-	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3083	1/1	0.16	-	19,19,19,19	0
56	MG	CA	1830	1/1	0.15	-	66,66,66,66	0
56	MG	AA	1904	1/1	0.23	-	121,121,121,121	0
56	MG	DA	3155	1/1	0.12	-	40,40,40,40	0
56	MG	DA	3525	1/1	0.16	-	66,66,66,66	0
56	MG	DA	3076	1/1	0.14	-	48,48,48,48	0
56	MG	BA	3111	1/1	0.23	-	53,53,53,53	0
56	MG	DA	3205	1/1	0.47	-	96,96,96,96	0
56	MG	BA	3069	1/1	0.09	-	48,48,48,48	0
56	MG	BA	3339	1/1	0.09	-	74,74,74,74	0
56	MG	AA	1603	1/1	0.35	-	54,54,54,54	0
56	MG	DA	3203	1/1	0.05	-	25,25,25,25	0
56	MG	AA	1936	1/1	0.06	-	74,74,74,74	0
56	MG	AA	1989	1/1	0.21	-	91,91,91,91	0
56	MG	DA	3091	1/1	0.19	-	54,54,54,54	0
56	MG	BA	3218	1/1	0.11	-	70,70,70,70	0
56	MG	AA	1725	1/1	0.32	-	92,92,92,92	0
56	MG	BA	3106	1/1	0.28	-	80,80,80,80	0
56	MG	AA	1763	1/1	0.37	-	74,74,74,74	0
56	MG	DA	3480	1/1	0.32	-	86,86,86,86	0
56	MG	D3	102	1/1	0.11	-	72,72,72,72	0
56	MG	DA	3355	1/1	0.41	-	87,87,87,87	0
56	MG	DA	3294	1/1	0.32	-	64,64,64,64	0
56	MG	BA	3367	1/1	0.39	-	111,111,111,111	0
56	MG	DA	3162	1/1	0.20	-	48,48,48,48	0
56	MG	BA	2917	1/1	0.28	-	37,37,37,37	0
56	MG	BA	3072	1/1	0.12	-	48,48,48,48	0
56	MG	AA	1932	1/1	0.28	-	122,122,122,122	0
56	MG	BA	2996	1/1	0.28	-	68,68,68,68	0
56	MG	BA	3030	1/1	0.17	-	47,47,47,47	0
56	MG	BA	3436	1/1	0.22	-	66,66,66,66	0
56	MG	DA	3839	1/1	0.53	-	138,138,138,138	0
56	MG	CA	1861	1/1	0.21	-	79,79,79,79	0
56	MG	AA	1635	1/1	0.17	-	54,54,54,54	0
56	MG	BA	3049	1/1	0.22	-	71,71,71,71	0
56	MG	DA	3504	1/1	0.18	-	61,61,61,61	0
56	MG	CA	1723	1/1	0.10	-	110,110,110,110	0
56	MG	DA	2996	1/1	0.25	-	26,26,26,26	0
56	MG	DA	3442	1/1	0.24	-	91,91,91,91	0
56	MG	AA	1764	1/1	0.10	-	96,96,96,96	0
56	MG	DB	225	1/1	0.34	-	84,84,84,84	0
56	MG	BA	3375	1/1	0.15	-	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	DA	3615	1/1	0.23	-	89,89,89,89	0
56	MG	BA	3368	1/1	0.53	-	113,113,113,113	0
56	MG	AO	201	1/1	0.17	-	70,70,70,70	0
56	MG	DB	219	1/1	0.22	-	77,77,77,77	0
56	MG	BA	3539	1/1	0.14	-	100,100,100,100	0
56	MG	DA	3647	1/1	0.50	-	99,99,99,99	0
56	MG	DA	2949	1/1	0.26	-	27,27,27,27	0
56	MG	AA	1669	1/1	0.33	-	54,54,54,54	0
56	MG	DA	3720	1/1	0.27	-	100,100,100,100	0
56	MG	BA	2941	1/1	0.21	-	27,27,27,27	0
56	MG	DA	3756	1/1	0.36	-	116,116,116,116	0
56	MG	BA	3122	1/1	0.32	-	63,63,63,63	0
56	MG	DA	3801	1/1	0.23	-	108,108,108,108	0
56	MG	CX	103	1/1	0.21	-	106,106,106,106	0
56	MG	CA	1630	1/1	0.36	-	71,71,71,71	0
56	MG	BA	2973	1/1	0.21	-	47,47,47,47	0
56	MG	DB	214	1/1	0.10	-	85,85,85,85	0
56	MG	DA	3056	1/1	0.27	-	68,68,68,68	0
56	MG	BA	3512	1/1	0.23	-	113,113,113,113	0
56	MG	BA	3158	1/1	0.10	-	39,39,39,39	0
56	MG	DA	3100	1/1	0.07	-	34,34,34,34	0
56	MG	AA	2010	1/1	0.13	-	83,83,83,83	0
56	MG	AA	1869	1/1	0.11	-	83,83,83,83	0
56	MG	DA	3591	1/1	0.40	-	72,72,72,72	0
56	MG	DA	3461	1/1	0.15	-	77,77,77,77	0
56	MG	BE	307	1/1	0.15	-	84,84,84,84	0
56	MG	DA	3676	1/1	0.34	-	71,71,71,71	0
56	MG	CA	1933	1/1	0.20	-	81,81,81,81	0
56	MG	AA	1749	1/1	0.31	-	72,72,72,72	0
56	MG	AS	102	1/1	0.15	-	90,90,90,90	0
56	MG	DA	2991	1/1	0.02	-	16,16,16,16	0
56	MG	CA	1670	1/1	0.33	-	81,81,81,81	0
56	MG	BA	3531	1/1	0.08	-	75,75,75,75	0
56	MG	DA	2978	1/1	0.20	-	39,39,39,39	0
56	MG	DA	3342	1/1	0.11	-	63,63,63,63	0
56	MG	DA	3765	1/1	0.58	-	123,123,123,123	0
56	MG	CA	1952	1/1	0.09	-	77,77,77,77	0
56	MG	DA	3327	1/1	0.42	-	81,81,81,81	0
56	MG	DA	3426	1/1	0.27	-	70,70,70,70	0
56	MG	AA	1935	1/1	0.23	-	94,94,94,94	0
56	MG	AA	1947	1/1	0.14	-	119,119,119,119	0
56	MG	DA	3515	1/1	0.24	-	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	BA	3160	1/1	0.25	-	65,65,65,65	0
56	MG	DA	3314	1/1	0.24	-	59,59,59,59	0
56	MG	AA	1787	1/1	0.09	-	65,65,65,65	0
56	MG	AA	1786	1/1	0.17	-	93,93,93,93	0
56	MG	DU	202	1/1	0.66	-	139,139,139,139	0
56	MG	AA	1927	1/1	0.34	-	98,98,98,98	0
56	MG	BA	3237	1/1	0.18	-	82,82,82,82	0
56	MG	CA	1846	1/1	0.10	-	65,65,65,65	0
56	MG	DA	3494	1/1	0.18	-	74,74,74,74	0
56	MG	DA	3399	1/1	0.10	-	58,58,58,58	0
56	MG	AA	2036	1/1	0.14	-	90,90,90,90	0
56	MG	DA	3694	1/1	0.13	-	88,88,88,88	0
56	MG	BA	2924	1/1	0.20	-	55,55,55,55	0
56	MG	AW	201	1/1	0.17	-	108,108,108,108	0
56	MG	BA	2964	1/1	0.25	-	45,45,45,45	0
56	MG	AA	1616	1/1	0.13	-	76,76,76,76	0
56	MG	DA	3255	1/1	0.32	-	61,61,61,61	0
56	MG	DA	3654	1/1	0.28	-	91,91,91,91	0
56	MG	BA	2951	1/1	0.21	-	38,38,38,38	0
56	MG	AA	1648	1/1	0.36	-	68,68,68,68	0
56	MG	CA	1827	1/1	0.24	-	102,102,102,102	0
56	MG	DA	3685	1/1	0.21	-	63,63,63,63	0
56	MG	CA	1702	1/1	0.23	-	62,62,62,62	0
56	MG	BA	3243	1/1	0.08	-	49,49,49,49	0
56	MG	DA	3751	1/1	0.47	-	92,92,92,92	0
56	MG	AA	1801	1/1	0.47	-	94,94,94,94	0
56	MG	BA	3022	1/1	0.13	-	46,46,46,46	0
56	MG	CA	1758	1/1	0.16	-	96,96,96,96	0
56	MG	DA	3192	1/1	0.23	-	40,40,40,40	0
56	MG	BA	3202	1/1	0.06	-	65,65,65,65	0
56	MG	BU	202	1/1	0.12	-	73,73,73,73	0
56	MG	DA	3033	1/1	0.31	-	40,40,40,40	0
56	MG	BA	3175	1/1	0.10	-	54,54,54,54	0
56	MG	DA	3659	1/1	0.35	-	84,84,84,84	0
56	MG	DA	3834	1/1	0.68	-	85,85,85,85	0
56	MG	DA	3630	1/1	0.15	-	97,97,97,97	0
56	MG	AA	1992	1/1	0.07	-	106,106,106,106	0
56	MG	DA	3309	1/1	0.28	-	66,66,66,66	0
56	MG	AA	1699	1/1	0.27	-	95,95,95,95	0
56	MG	DA	3364	1/1	0.31	-	100,100,100,100	0
56	MG	DA	3536	1/1	0.26	-	87,87,87,87	0
56	MG	AA	1799	1/1	0.20	-	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1836	1/1	0.06	-	98,98,98,98	0
56	MG	BA	3413	1/1	0.10	-	92,92,92,92	0
56	MG	AA	1614	1/1	0.47	-	73,73,73,73	0
56	MG	AA	1810	1/1	0.19	-	75,75,75,75	0
56	MG	DA	3029	1/1	0.22	-	43,43,43,43	0
56	MG	DA	3144	1/1	0.33	-	91,91,91,91	0
56	MG	DA	3491	1/1	0.41	-	69,69,69,69	0
56	MG	DA	3481	1/1	0.26	-	86,86,86,86	0
56	MG	DA	3030	1/1	0.44	-	57,57,57,57	0
56	MG	D0	203	1/1	0.08	-	63,63,63,63	0
56	MG	CA	1794	1/1	0.21	-	147,147,147,147	0
56	MG	BA	3189	1/1	0.30	-	76,76,76,76	0
56	MG	BB	212	1/1	0.27	-	81,81,81,81	0
56	MG	BA	3196	1/1	0.45	-	89,89,89,89	0
56	MG	DA	3068	1/1	0.24	-	53,53,53,53	0
56	MG	DA	3038	1/1	0.19	-	46,46,46,46	0
56	MG	CA	1627	1/1	0.31	-	69,69,69,69	0
56	MG	DA	3101	1/1	0.28	-	72,72,72,72	0
56	MG	DA	3119	1/1	0.39	-	67,67,67,67	0
56	MG	AA	1978	1/1	0.06	-	99,99,99,99	0
56	MG	CA	1955	1/1	0.14	-	89,89,89,89	0
56	MG	BA	3180	1/1	0.16	-	72,72,72,72	0
56	MG	BA	3392	1/1	0.14	-	70,70,70,70	0
56	MG	AA	2037	1/1	0.14	-	97,97,97,97	0
56	MG	DA	3682	1/1	0.37	-	88,88,88,88	0
56	MG	CD	121	1/1	0.12	-	112,112,112,112	0
56	MG	AA	1974	1/1	0.25	-	96,96,96,96	0
56	MG	DA	3066	1/1	0.27	-	34,34,34,34	0
56	MG	BA	3131	1/1	0.35	-	76,76,76,76	0
56	MG	A1	102	1/1	0.10	-	66,66,66,66	0
56	MG	BA	3249	1/1	0.20	-	59,59,59,59	0
56	MG	DG	201	1/1	0.11	-	76,76,76,76	0
56	MG	DA	3427	1/1	0.36	-	72,72,72,72	0
56	MG	CA	1650	1/1	0.26	-	66,66,66,66	0
56	MG	BA	2998	1/1	0.14	-	51,51,51,51	0
56	MG	BA	2953	1/1	0.18	-	32,32,32,32	0
56	MG	BA	3227	1/1	0.25	-	82,82,82,82	0
56	MG	BB	204	1/1	0.34	-	97,97,97,97	0
56	MG	BA	2906	1/1	0.25	-	101,101,101,101	0
56	MG	DA	3439	1/1	0.14	-	70,70,70,70	0
56	MG	DA	3311	1/1	0.28	-	82,82,82,82	0
56	MG	AA	1644	1/1	0.46	-	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	DA	3788	1/1	0.35	-	101,101,101,101	0
56	MG	AA	1842	1/1	0.16	-	72,72,72,72	0
56	MG	CA	1640	1/1	0.23	-	70,70,70,70	0
56	MG	DA	3262	1/1	0.20	-	45,45,45,45	0
56	MG	CA	1797	1/1	0.15	-	76,76,76,76	0
56	MG	BA	3466	1/1	0.07	-	84,84,84,84	0
56	MG	BA	2914	1/1	0.16	-	17,17,17,17	0
56	MG	BA	3471	1/1	0.35	-	156,156,156,156	0
56	MG	BA	3216	1/1	0.26	-	86,86,86,86	0
56	MG	BA	3056	1/1	0.28	-	71,71,71,71	0
56	MG	BA	3298	1/1	0.16	-	95,95,95,95	0
56	MG	DA	3736	1/1	0.45	-	102,102,102,102	0
56	MG	DA	3449	1/1	0.32	-	105,105,105,105	0
56	MG	AA	2017	1/1	0.12	-	92,92,92,92	0
56	MG	BA	3517	1/1	0.11	-	93,93,93,93	0
56	MG	DA	3714	1/1	0.10	-	85,85,85,85	0
56	MG	CA	1745	1/1	0.14	-	88,88,88,88	0
56	MG	DA	3219	1/1	0.23	-	71,71,71,71	0
56	MG	CA	1852	1/1	0.26	-	82,82,82,82	0
56	MG	AA	2035	1/1	0.33	-	86,86,86,86	0
56	MG	CA	1621	1/1	0.09	-	67,67,67,67	0
56	MG	DA	3027	1/1	0.25	-	27,27,27,27	0
56	MG	BA	3480	1/1	0.11	-	87,87,87,87	0
56	MG	DA	3296	1/1	0.31	-	71,71,71,71	0
56	MG	CA	1682	1/1	0.28	-	59,59,59,59	0
56	MG	AA	1944	1/1	0.10	-	111,111,111,111	0
56	MG	BA	3039	1/1	0.21	-	58,58,58,58	0
56	MG	AA	1854	1/1	0.21	-	97,97,97,97	0
56	MG	AA	1925	1/1	0.12	-	87,87,87,87	0
56	MG	DA	3080	1/1	0.16	-	59,59,59,59	0
56	MG	BA	3050	1/1	0.36	-	67,67,67,67	0
56	MG	BA	3581	1/1	0.37	-	125,125,125,125	0
56	MG	BA	3210	1/1	0.05	-	54,54,54,54	0
56	MG	AA	1795	1/1	0.25	-	70,70,70,70	0
56	MG	DA	3001	1/1	0.18	-	21,21,21,21	0
56	MG	DA	2953	1/1	0.24	-	35,35,35,35	0
56	MG	AA	1719	1/1	0.36	-	90,90,90,90	0
56	MG	BQ	201	1/1	0.24	-	105,105,105,105	0
56	MG	CA	1862	1/1	0.14	-	99,99,99,99	0
56	MG	DA	3282	1/1	0.13	-	47,47,47,47	0
56	MG	DA	3619	1/1	0.07	-	116,116,116,116	0
56	MG	CQ	102	1/1	0.15	-	111,111,111,111	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	BA	3031	1/1	0.08	-	82,82,82,82	0
56	MG	B0	202	1/1	0.36	-	111,111,111,111	0
56	MG	DA	3674	1/1	0.15	-	74,74,74,74	0
56	MG	DA	3018	1/1	0.26	-	60,60,60,60	0
56	MG	BA	2970	1/1	0.26	-	32,32,32,32	0
56	MG	AA	1739	1/1	0.07	-	66,66,66,66	0
56	MG	DA	3523	1/1	0.26	-	90,90,90,90	0
56	MG	DR	201	1/1	0.08	-	77,77,77,77	0
56	MG	DA	3463	1/1	0.19	-	39,39,39,39	0
56	MG	DA	2984	1/1	0.24	-	26,26,26,26	0
56	MG	DA	3533	1/1	0.26	-	69,69,69,69	0
56	MG	D7	101	1/1	0.13	-	55,55,55,55	0
56	MG	DA	3445	1/1	0.13	-	38,38,38,38	0
56	MG	BA	3023	1/1	0.27	-	52,52,52,52	0
56	MG	BA	3312	1/1	0.08	-	75,75,75,75	0
56	MG	AA	1902	1/1	0.12	-	107,107,107,107	0
56	MG	DA	3306	1/1	0.39	-	99,99,99,99	0
56	MG	AA	1627	1/1	0.33	-	70,70,70,70	0
56	MG	DA	3302	1/1	0.24	-	84,84,84,84	0
56	MG	BA	3103	1/1	0.16	-	53,53,53,53	0
56	MG	CA	1801	1/1	0.26	-	80,80,80,80	0
56	MG	AA	1730	1/1	0.46	-	85,85,85,85	0
56	MG	BB	206	1/1	0.26	-	85,85,85,85	0
56	MG	DA	3049	1/1	0.23	-	35,35,35,35	0
56	MG	CC	118	1/1	0.18	-	99,99,99,99	0
56	MG	BA	3271	1/1	0.10	-	59,59,59,59	0
56	MG	AA	1761	1/1	0.51	-	136,136,136,136	0
56	MG	CA	1980	1/1	0.13	-	116,116,116,116	0
56	MG	AA	1785	1/1	0.09	-	78,78,78,78	0
56	MG	DD	301	1/1	0.23	-	43,43,43,43	0
56	MG	AA	1942	1/1	0.11	-	128,128,128,128	0
56	MG	DA	3600	1/1	0.10	-	76,76,76,76	0
56	MG	DA	3272	1/1	0.30	-	71,71,71,71	0
56	MG	CA	1948	1/1	0.10	-	88,88,88,88	0
56	MG	AA	1879	1/1	0.04	-	85,85,85,85	0
56	MG	BA	3374	1/1	0.13	-	39,39,39,39	0
56	MG	DA	3502	1/1	0.69	-	104,104,104,104	0
56	MG	BA	3119	1/1	0.17	-	51,51,51,51	0
56	MG	BA	3087	1/1	0.25	-	72,72,72,72	0
56	MG	CA	1875	1/1	0.21	-	72,72,72,72	0
56	MG	BA	3058	1/1	0.17	-	49,49,49,49	0
56	MG	BA	3549	1/1	0.30	-	110,110,110,110	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	CA	1908	1/1	0.16	-	103,103,103,103	0
56	MG	AA	1716	1/1	0.08	-	66,66,66,66	0
56	MG	BA	3521	1/1	0.21	-	109,109,109,109	0
56	MG	AA	1980	1/1	0.10	-	136,136,136,136	0
56	MG	AA	1870	1/1	0.16	-	92,92,92,92	0
56	MG	BA	3526	1/1	0.09	-	100,100,100,100	0
56	MG	BA	3173	1/1	0.10	-	68,68,68,68	0
56	MG	DA	3693	1/1	0.68	-	136,136,136,136	0
56	MG	CA	1646	1/1	0.13	-	42,42,42,42	0
56	MG	DA	3257	1/1	0.23	-	59,59,59,59	0
56	MG	BA	3481	1/1	0.09	-	80,80,80,80	0
56	MG	BA	3028	1/1	0.11	-	41,41,41,41	0
56	MG	CA	1641	1/1	0.18	-	54,54,54,54	0
56	MG	CA	1666	1/1	0.22	-	101,101,101,101	0
56	MG	BA	2915	1/1	0.20	-	34,34,34,34	0
56	MG	DA	3790	1/1	0.29	-	92,92,92,92	0
56	MG	DA	3518	1/1	0.19	-	91,91,91,91	0
56	MG	CA	1697	1/1	0.13	-	74,74,74,74	0
56	MG	DA	3371	1/1	0.33	-	45,45,45,45	0
56	MG	CA	1898	1/1	0.10	-	113,113,113,113	0
56	MG	DA	3323	1/1	0.29	-	58,58,58,58	0
56	MG	DA	3025	1/1	0.26	-	42,42,42,42	0
56	MG	BE	301	1/1	0.14	-	60,60,60,60	0
56	MG	AA	1895	1/1	0.13	-	133,133,133,133	0
56	MG	CA	1905	1/1	0.27	-	122,122,122,122	0
56	MG	BA	3329	1/1	0.15	-	69,69,69,69	0
56	MG	BA	3482	1/1	0.12	-	101,101,101,101	0
56	MG	BA	3005	1/1	0.34	-	70,70,70,70	0
56	MG	DA	3325	1/1	0.32	-	91,91,91,91	0
56	MG	DA	3072	1/1	0.24	-	55,55,55,55	0
56	MG	DA	2948	1/1	0.32	-	34,34,34,34	0
56	MG	DA	3614	1/1	0.10	-	80,80,80,80	0
56	MG	BA	3036	1/1	0.19	-	41,41,41,41	0
56	MG	BA	3568	1/1	0.12	-	123,123,123,123	0
56	MG	DA	3065	1/1	0.29	-	59,59,59,59	0
56	MG	DA	3139	1/1	0.24	-	49,49,49,49	0
56	MG	BA	3468	1/1	0.39	-	110,110,110,110	0
56	MG	BB	225	1/1	0.23	-	90,90,90,90	0
56	MG	BA	3129	1/1	0.23	-	72,72,72,72	0
56	MG	CD	118	1/1	0.09	-	60,60,60,60	0
56	MG	BA	3372	1/1	0.16	-	53,53,53,53	0
56	MG	DA	3798	1/1	0.30	-	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	DA	3731	1/1	0.35	-	110,110,110,110	0
56	MG	AA	1607	1/1	0.20	-	68,68,68,68	0
56	MG	DA	3633	1/1	0.21	-	110,110,110,110	0
56	MG	BA	3290	1/1	0.08	-	91,91,91,91	0
56	MG	BA	3380	1/1	0.19	-	71,71,71,71	0
56	MG	DA	3253	1/1	0.09	-	88,88,88,88	0
56	MG	BA	3410	1/1	0.13	-	82,82,82,82	0
56	MG	CA	1947	1/1	0.14	-	112,112,112,112	0
56	MG	CA	1620	1/1	0.31	-	60,60,60,60	0
56	MG	AJ	201	1/1	0.20	-	116,116,116,116	0
56	MG	DA	3103	1/1	0.42	-	59,59,59,59	0
56	MG	DA	3274	1/1	0.31	-	68,68,68,68	0
56	MG	DA	3495	1/1	0.10	-	71,71,71,71	0
56	MG	BA	3123	1/1	0.35	-	71,71,71,71	0
56	MG	BA	3346	1/1	0.17	-	52,52,52,52	0
56	MG	AA	1826	1/1	0.37	-	108,108,108,108	0
56	MG	AA	1977	1/1	0.30	-	86,86,86,86	0
56	MG	DA	3347	1/1	0.42	-	66,66,66,66	0
56	MG	AA	1704	1/1	0.28	-	88,88,88,88	0
56	MG	AA	1738	1/1	0.30	-	84,84,84,84	0
56	MG	DA	3093	1/1	0.36	-	71,71,71,71	0
56	MG	BA	2938	1/1	0.23	-	39,39,39,39	0
56	MG	BA	3417	1/1	0.10	-	97,97,97,97	0
56	MG	CW	204	1/1	0.06	-	68,68,68,68	0
56	MG	BA	2952	1/1	0.17	-	41,41,41,41	0
56	MG	DA	3732	1/1	0.10	-	60,60,60,60	0
56	MG	BB	203	1/1	0.10	-	85,85,85,85	0
56	MG	CD	126	1/1	0.21	-	82,82,82,82	0
56	MG	D6	102	1/1	0.38	-	94,94,94,94	0
56	MG	AA	1914	1/1	0.12	-	109,109,109,109	0
58	G	CA	1606	23/24	0.44	-	180,186,187,187	0
56	MG	DA	3376	1/1	0.37	-	67,67,67,67	0
56	MG	AA	1744	1/1	0.20	-	77,77,77,77	0
56	MG	BA	3379	1/1	0.18	-	98,98,98,98	0
56	MG	BB	220	1/1	0.32	-	80,80,80,80	0
56	MG	DA	3021	1/1	0.39	-	46,46,46,46	0
56	MG	DA	3424	1/1	0.23	-	83,83,83,83	0
56	MG	BA	3195	1/1	0.13	-	124,124,124,124	0
56	MG	BA	3554	1/1	0.16	-	122,122,122,122	0
56	MG	BA	3441	1/1	0.12	-	144,144,144,144	0
56	MG	BA	3484	1/1	0.18	-	106,106,106,106	0
56	MG	BA	3075	1/1	0.08	-	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	AA	1940	1/1	0.21	-	91,91,91,91	0
56	MG	DB	202	1/1	0.13	-	87,87,87,87	0
56	MG	AA	1867	1/1	0.30	-	85,85,85,85	0
56	MG	DA	2976	1/1	0.25	-	45,45,45,45	0
56	MG	DA	3022	1/1	0.22	-	27,27,27,27	0
56	MG	DA	3337	1/1	0.03	-	28,28,28,28	0
56	MG	BA	3575	1/1	0.13	-	82,82,82,82	0
56	MG	DA	3707	1/1	0.18	-	98,98,98,98	0
56	MG	CA	1705	1/1	0.20	-	101,101,101,101	0
56	MG	BA	3017	1/1	0.15	-	48,48,48,48	0
56	MG	BA	3494	1/1	0.16	-	65,65,65,65	0
56	MG	DA	3754	1/1	0.25	-	88,88,88,88	0
56	MG	BA	3519	1/1	0.05	-	90,90,90,90	0
56	MG	BA	3408	1/1	0.09	-	75,75,75,75	0
56	MG	CA	1714	1/1	0.19	-	106,106,106,106	0
56	MG	DA	3796	1/1	0.33	-	84,84,84,84	0
56	MG	DA	3020	1/1	0.37	-	34,34,34,34	0
56	MG	DA	3697	1/1	0.26	-	87,87,87,87	0
56	MG	CA	1818	1/1	0.22	-	108,108,108,108	0
56	MG	BA	2968	1/1	0.13	-	29,29,29,29	0
56	MG	BA	3038	1/1	0.19	-	39,39,39,39	0
56	MG	DA	3653	1/1	0.20	-	59,59,59,59	0
56	MG	DA	3516	1/1	0.10	-	73,73,73,73	0
56	MG	BA	2912	1/1	0.20	-	138,138,138,138	0
56	MG	DA	3554	1/1	0.14	-	81,81,81,81	0
56	MG	DA	3290	1/1	0.43	-	67,67,67,67	0
56	MG	DA	3386	1/1	0.18	-	56,56,56,56	0
56	MG	BA	3248	1/1	0.08	-	81,81,81,81	0
56	MG	BA	3317	1/1	0.14	-	63,63,63,63	0
56	MG	CA	1893	1/1	0.29	-	120,120,120,120	0
56	MG	DA	3006	1/1	0.35	-	36,36,36,36	0
56	MG	AA	1643	1/1	0.10	-	124,124,124,124	0
56	MG	CA	1900	1/1	0.34	-	81,81,81,81	0
56	MG	BA	3344	1/1	0.12	-	69,69,69,69	0
56	MG	DA	3595	1/1	0.19	-	65,65,65,65	0
56	MG	BA	3397	1/1	0.17	-	47,47,47,47	0
56	MG	AP	201	1/1	0.13	-	82,82,82,82	0
56	MG	CA	1748	1/1	0.39	-	123,123,123,123	0
56	MG	AA	1964	1/1	0.53	-	103,103,103,103	0
56	MG	DA	3795	1/1	0.13	-	65,65,65,65	0
56	MG	CA	1944	1/1	0.17	-	81,81,81,81	0
56	MG	DA	3734	1/1	0.32	-	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	2979	1/1	0.25	-	60,60,60,60	0
56	MG	DA	3741	1/1	0.49	-	134,134,134,134	0
56	MG	DA	3248	1/1	0.18	-	71,71,71,71	0
56	MG	CA	1954	1/1	0.21	-	205,205,205,205	0
56	MG	CA	1618	1/1	0.19	-	42,42,42,42	0
56	MG	BB	222	1/1	0.14	-	93,93,93,93	0
56	MG	DA	3369	1/1	0.21	-	67,67,67,67	0
56	MG	CA	1741	1/1	0.22	-	73,73,73,73	0
56	MG	BA	3563	1/1	0.18	-	74,74,74,74	0
56	MG	CA	1895	1/1	0.10	-	112,112,112,112	0
56	MG	DA	3316	1/1	0.27	-	98,98,98,98	0
56	MG	CA	1725	1/1	0.29	-	96,96,96,96	0
56	MG	DA	2980	1/1	0.28	-	29,29,29,29	0
56	MG	BA	3272	1/1	0.17	-	66,66,66,66	0
56	MG	CA	1913	1/1	0.12	-	107,107,107,107	0
60	U	CA	1604	20/21	0.24	-	135,138,147,147	0
56	MG	BA	3213	1/1	0.12	-	61,61,61,61	0
56	MG	AA	1671	1/1	0.15	-	66,66,66,66	0
56	MG	BA	3279	1/1	0.26	-	85,85,85,85	0
56	MG	CA	1882	1/1	0.20	-	110,110,110,110	0
56	MG	BA	3229	1/1	0.21	-	77,77,77,77	0
56	MG	DA	3454	1/1	0.12	-	120,120,120,120	0
56	MG	DA	3140	1/1	0.21	-	76,76,76,76	0
56	MG	DA	3142	1/1	0.34	-	56,56,56,56	0
56	MG	AA	1820	1/1	0.14	-	98,98,98,98	0
56	MG	CA	1979	1/1	0.11	-	61,61,61,61	0
56	MG	CA	1770	1/1	0.15	-	72,72,72,72	0
56	MG	CD	123	1/1	0.10	-	81,81,81,81	0
56	MG	CA	1644	1/1	0.25	-	70,70,70,70	0
56	MG	DA	3202	1/1	0.15	-	33,33,33,33	0
56	MG	CA	1912	1/1	0.05	-	92,92,92,92	0
56	MG	BA	3362	1/1	0.12	-	68,68,68,68	0
56	MG	CA	1732	1/1	0.24	-	54,54,54,54	0
56	MG	BB	201	1/1	0.22	-	69,69,69,69	0
56	MG	DA	3273	1/1	0.23	-	60,60,60,60	0
56	MG	AA	1848	1/1	0.13	-	70,70,70,70	0
56	MG	AA	1873	1/1	0.11	-	80,80,80,80	0
56	MG	BA	3090	1/1	0.19	-	61,61,61,61	0
56	MG	BA	3422	1/1	0.21	-	83,83,83,83	0
56	MG	CA	1755	1/1	0.12	-	71,71,71,71	0
56	MG	AA	1733	1/1	0.20	-	102,102,102,102	0
56	MG	DA	3428	1/1	0.20	-	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	3635	1/1	0.15	-	79,79,79,79	0
56	MG	AA	1872	1/1	0.12	-	108,108,108,108	0
56	MG	DA	2970	1/1	0.24	-	31,31,31,31	0
56	MG	BA	3506	1/1	0.07	-	77,77,77,77	0
56	MG	AA	1674	1/1	0.22	-	74,74,74,74	0
56	MG	BR	202	1/1	0.22	-	105,105,105,105	0
56	MG	CA	1788	1/1	0.36	-	118,118,118,118	0
56	MG	CA	1904	1/1	0.28	-	105,105,105,105	0
56	MG	DA	3007	1/1	0.22	-	49,49,49,49	0
56	MG	DA	3500	1/1	0.48	-	155,155,155,155	0
56	MG	CP	206	1/1	0.19	-	122,122,122,122	0
56	MG	BA	3254	1/1	0.23	-	101,101,101,101	0
56	MG	DA	3054	1/1	0.31	-	43,43,43,43	0
56	MG	DA	3258	1/1	0.38	-	75,75,75,75	0
56	MG	DA	3385	1/1	0.13	-	58,58,58,58	0
56	MG	CA	1726	1/1	0.16	-	56,56,56,56	0
56	MG	DA	3172	1/1	0.31	-	48,48,48,48	0
56	MG	CA	1989	1/1	0.07	-	80,80,80,80	0
56	MG	DA	3650	1/1	0.12	-	70,70,70,70	0
56	MG	BA	3277	1/1	0.13	-	73,73,73,73	0
56	MG	D0	201	1/1	0.14	-	38,38,38,38	0
56	MG	BA	3314	1/1	0.20	-	76,76,76,76	0
56	MG	BA	3034	1/1	0.19	-	61,61,61,61	0
56	MG	DA	3250	1/1	0.21	-	40,40,40,40	0
56	MG	DA	3416	1/1	0.49	-	100,100,100,100	0
56	MG	BA	2984	1/1	0.18	-	48,48,48,48	0
56	MG	DA	3609	1/1	0.10	-	60,60,60,60	0
56	MG	DA	2963	1/1	0.12	-	23,23,23,23	0
56	MG	AA	1889	1/1	0.07	-	68,68,68,68	0
56	MG	CA	1782	1/1	0.23	-	99,99,99,99	0
56	MG	CA	1776	1/1	0.18	-	81,81,81,81	0
56	MG	DA	2973	1/1	0.39	-	48,48,48,48	0
56	MG	BA	3496	1/1	0.10	-	73,73,73,73	0
56	MG	AA	1970	1/1	0.27	-	98,98,98,98	0
56	MG	BA	3548	1/1	0.26	-	81,81,81,81	0
56	MG	DA	2994	1/1	0.23	-	20,20,20,20	0
56	MG	DA	3324	1/1	0.21	-	63,63,63,63	0
56	MG	AA	1928	1/1	0.30	-	117,117,117,117	0
56	MG	BA	3306	1/1	0.53	-	105,105,105,105	0
56	MG	DA	3688	1/1	0.20	-	98,98,98,98	0
56	MG	AA	1701	1/1	0.23	-	72,72,72,72	0
56	MG	DA	2992	1/1	0.38	-	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1982	1/1	0.25	-	110,110,110,110	0
56	MG	BA	2969	1/1	0.28	-	33,33,33,33	0
56	MG	AA	1849	1/1	0.23	-	92,92,92,92	0
56	MG	AA	1682	1/1	0.39	-	87,87,87,87	0
56	MG	DA	3780	1/1	0.36	-	111,111,111,111	0
56	MG	BA	3266	1/1	0.35	-	97,97,97,97	0
56	MG	BA	3310	1/1	0.14	-	80,80,80,80	0
56	MG	CA	1974	1/1	0.07	-	113,113,113,113	0
58	G	DP	206	23/24	0.49	-	189,190,191,193	0
56	MG	DA	3367	1/1	0.17	-	49,49,49,49	0
56	MG	BA	3319	1/1	0.49	-	108,108,108,108	0
56	MG	AA	1922	1/1	0.22	-	94,94,94,94	0
56	MG	DA	3031	1/1	0.26	-	37,37,37,37	0
56	MG	DA	3329	1/1	0.21	-	83,83,83,83	0
56	MG	CA	1792	1/1	0.23	-	69,69,69,69	0
56	MG	DA	3345	1/1	0.23	-	49,49,49,49	0
56	MG	DA	3059	1/1	0.26	-	36,36,36,36	0
56	MG	AA	1691	1/1	0.25	-	62,62,62,62	0
56	MG	BA	3490	1/1	0.32	-	107,107,107,107	0
56	MG	DA	3542	1/1	0.32	-	88,88,88,88	0
56	MG	DO	204	1/1	0.19	-	65,65,65,65	0
56	MG	AA	1742	1/1	0.31	-	83,83,83,83	0
56	MG	CA	1635	1/1	0.37	-	87,87,87,87	0
56	MG	CA	1608	1/1	0.21	-	50,50,50,50	0
56	MG	BA	3255	1/1	0.25	-	93,93,93,93	0
56	MG	CA	1938	1/1	0.13	-	84,84,84,84	0
56	MG	DA	3555	1/1	0.26	-	78,78,78,78	0
56	MG	AA	1782	1/1	0.29	-	106,106,106,106	0
56	MG	BA	3201	1/1	0.30	-	97,97,97,97	0
56	MG	CA	1812	1/1	0.07	-	89,89,89,89	0
56	MG	DA	2946	1/1	0.30	-	25,25,25,25	0
56	MG	BA	2948	1/1	0.19	-	29,29,29,29	0
56	MG	CC	120	1/1	0.15	-	67,67,67,67	0
56	MG	DA	3151	1/1	0.43	-	72,72,72,72	0
56	MG	DA	3813	1/1	0.13	-	71,71,71,71	0
56	MG	AA	1732	1/1	0.18	-	89,89,89,89	0
56	MG	DA	3583	1/1	0.22	-	68,68,68,68	0
56	MG	DA	3388	1/1	0.15	-	88,88,88,88	0
56	MG	DA	3042	1/1	0.42	-	69,69,69,69	0
56	MG	CA	1717	1/1	0.21	-	53,53,53,53	0
56	MG	BA	3328	1/1	0.20	-	105,105,105,105	0
56	MG	DA	3019	1/1	0.29	-	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	AW	203	1/1	0.23	-	114,114,114,114	0
56	MG	AA	1905	1/1	0.19	-	96,96,96,96	0
56	MG	DA	2939	1/1	0.29	-	44,44,44,44	0
56	MG	AA	1734	1/1	0.24	-	60,60,60,60	0
56	MG	D1	204	1/1	0.25	-	71,71,71,71	0
56	MG	DA	3778	1/1	0.17	-	97,97,97,97	0
56	MG	DA	3256	1/1	0.36	-	80,80,80,80	0
56	MG	DA	3783	1/1	0.09	-	64,64,64,64	0
56	MG	BA	3390	1/1	0.12	-	77,77,77,77	0
56	MG	AA	1823	1/1	0.35	-	104,104,104,104	0
56	MG	BA	3425	1/1	0.04	-	98,98,98,98	0
56	MG	DA	3032	1/1	0.32	-	40,40,40,40	0
56	MG	CA	1820	1/1	0.18	-	127,127,127,127	0
56	MG	DA	3825	1/1	0.32	-	111,111,111,111	0
56	MG	BA	3135	1/1	0.30	-	62,62,62,62	0
56	MG	AA	1847	1/1	0.26	-	91,91,91,91	0
56	MG	BA	3001	1/1	0.15	-	40,40,40,40	0
56	MG	DA	3363	1/1	0.61	-	105,105,105,105	0
56	MG	BA	3360	1/1	0.33	-	117,117,117,117	0
56	MG	DA	3092	1/1	0.16	-	41,41,41,41	0
56	MG	CA	1803	1/1	0.05	-	35,35,35,35	0
56	MG	DA	3046	1/1	0.24	-	41,41,41,41	0
56	MG	BA	3269	1/1	0.09	-	90,90,90,90	0
56	MG	AA	1815	1/1	0.17	-	62,62,62,62	0
56	MG	BA	3558	1/1	0.18	-	108,108,108,108	0
56	MG	CA	1969	1/1	0.16	-	90,90,90,90	0
56	MG	BA	3398	1/1	0.10	-	131,131,131,131	0
56	MG	BA	2910	1/1	0.10	-	149,149,149,149	0
56	MG	CA	1868	1/1	0.15	-	109,109,109,109	0
56	MG	DA	3581	1/1	0.29	-	87,87,87,87	0
56	MG	DA	3221	1/1	0.22	-	66,66,66,66	0
60	U	DA	2922	20/21	0.61	-	202,204,205,206	0
56	MG	AA	1844	1/1	0.30	-	108,108,108,108	0
56	MG	AA	2006	1/1	0.12	-	86,86,86,86	0
56	MG	AA	2025	1/1	0.33	-	71,71,71,71	0
56	MG	CC	109	1/1	0.15	-	87,87,87,87	0
56	MG	CA	1930	1/1	0.15	-	104,104,104,104	0
56	MG	CA	1653	1/1	0.08	-	53,53,53,53	0
56	MG	DA	3280	1/1	0.17	-	65,65,65,65	0
56	MG	AA	1630	1/1	0.35	-	55,55,55,55	0
56	MG	CA	1766	1/1	0.29	-	113,113,113,113	0
56	MG	BA	2990	1/1	0.22	-	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	2963	1/1	0.15	-	32,32,32,32	0
56	MG	DA	3833	1/1	0.09	-	82,82,82,82	0
56	MG	DA	3651	1/1	0.15	-	67,67,67,67	0
56	MG	BA	3096	1/1	0.20	-	37,37,37,37	0
56	MG	DA	3661	1/1	0.22	-	82,82,82,82	0
56	MG	DA	3211	1/1	0.10	-	66,66,66,66	0
56	MG	BA	3443	1/1	0.07	-	79,79,79,79	0
56	MG	AA	1837	1/1	0.11	-	59,59,59,59	0
56	MG	BA	3384	1/1	0.20	-	76,76,76,76	0
56	MG	BB	216	1/1	0.15	-	83,83,83,83	0
56	MG	DA	3433	1/1	0.22	-	85,85,85,85	0
56	MG	AA	1708	1/1	0.28	-	70,70,70,70	0
56	MG	BA	3455	1/1	0.19	-	78,78,78,78	0
56	MG	AA	1611	1/1	0.37	-	63,63,63,63	0
60	U	C1	102	20/21	0.22	-	126,134,138,138	0
56	MG	CA	1789	1/1	0.37	-	123,123,123,123	0
56	MG	BA	3511	1/1	0.09	-	140,140,140,140	0
56	MG	DA	3701	1/1	0.15	-	104,104,104,104	0
56	MG	CA	1688	1/1	0.18	-	67,67,67,67	0
56	MG	DA	3730	1/1	0.17	-	56,56,56,56	0
58	G	DA	2909	23/24	0.26	-	232,233,236,236	0
56	MG	BA	3004	1/1	0.16	-	30,30,30,30	0
56	MG	DA	3486	1/1	0.11	-	95,95,95,95	0
56	MG	DA	3183	1/1	0.18	-	54,54,54,54	0
56	MG	AA	1934	1/1	0.14	-	88,88,88,88	0
56	MG	BA	3033	1/1	0.24	-	45,45,45,45	0
56	MG	DA	3704	1/1	0.34	-	112,112,112,112	0
56	MG	BA	3228	1/1	0.18	-	83,83,83,83	0
56	MG	BA	3359	1/1	0.10	-	73,73,73,73	0
56	MG	AL	202	1/1	0.29	-	129,129,129,129	0
56	MG	AC	108	1/1	0.10	-	61,61,61,61	0
56	MG	CA	1685	1/1	0.13	-	66,66,66,66	0
56	MG	BA	3543	1/1	0.19	-	72,72,72,72	0
56	MG	DA	3104	1/1	0.24	-	47,47,47,47	0
56	MG	AA	2003	1/1	0.10	-	128,128,128,128	0
56	MG	AA	1883	1/1	0.16	-	64,64,64,64	0
56	MG	BA	3470	1/1	0.15	-	79,79,79,79	0
56	MG	DA	3836	1/1	0.20	-	92,92,92,92	0
56	MG	DA	3004	1/1	0.17	-	39,39,39,39	0
56	MG	BA	3303	1/1	0.10	-	41,41,41,41	0
56	MG	DA	3562	1/1	0.31	-	78,78,78,78	0
56	MG	AA	1679	1/1	0.25	-	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3466	1/1	0.15	-	83,83,83,83	0
56	MG	CD	104	1/1	0.05	-	83,83,83,83	0
56	MG	DA	3180	1/1	0.22	-	68,68,68,68	0
56	MG	BA	3077	1/1	0.12	-	46,46,46,46	0
56	MG	DA	3612	1/1	0.18	-	80,80,80,80	0
56	MG	AA	1612	1/1	0.42	-	68,68,68,68	0
56	MG	BA	3070	1/1	0.21	-	53,53,53,53	0
56	MG	BA	3324	1/1	0.27	-	87,87,87,87	0
56	MG	BA	2982	1/1	0.38	-	61,61,61,61	0
56	MG	AA	1621	1/1	0.29	-	50,50,50,50	0
56	MG	CA	1614	1/1	0.29	-	73,73,73,73	0
56	MG	BA	3098	1/1	0.23	-	60,60,60,60	0
56	MG	CK	202	1/1	0.10	-	87,87,87,87	0
56	MG	BA	2977	1/1	0.16	-	33,33,33,33	0
56	MG	AA	1606	1/1	0.23	-	55,55,55,55	0
56	MG	AA	1937	1/1	0.21	-	95,95,95,95	0
56	MG	DA	3394	1/1	0.21	-	77,77,77,77	0
56	MG	DA	3052	1/1	0.18	-	41,41,41,41	0
56	MG	AA	1737	1/1	0.17	-	97,97,97,97	0
56	MG	BA	2985	1/1	0.06	-	46,46,46,46	0
56	MG	AA	1931	1/1	0.32	-	98,98,98,98	0
56	MG	AA	1818	1/1	0.11	-	64,64,64,64	0
60	U	DA	2914	20/21	0.52	-	199,203,205,205	0
56	MG	AA	1899	1/1	0.24	-	112,112,112,112	0
56	MG	DA	3690	1/1	0.34	-	88,88,88,88	0
56	MG	BA	2931	1/1	0.20	-	29,29,29,29	0
56	MG	DA	3171	1/1	0.54	-	111,111,111,111	0
56	MG	CD	119	1/1	0.04	-	95,95,95,95	0
56	MG	BA	3015	1/1	0.24	-	70,70,70,70	0
56	MG	BA	3400	1/1	0.09	-	117,117,117,117	0
60	U	DA	2927	20/21	0.41	-	197,201,202,203	0
56	MG	DA	3642	1/1	0.16	-	80,80,80,80	0
56	MG	CA	1802	1/1	0.06	-	78,78,78,78	0
56	MG	BA	3289	1/1	0.28	-	71,71,71,71	0
56	MG	DA	3173	1/1	0.30	-	53,53,53,53	0
56	MG	BA	3206	1/1	0.18	-	67,67,67,67	0
56	MG	D1	205	1/1	0.40	-	110,110,110,110	0
56	MG	CA	1768	1/1	0.09	-	129,129,129,129	0
56	MG	CA	1855	1/1	0.25	-	130,130,130,130	0
56	MG	BA	3162	1/1	0.28	-	69,69,69,69	0
56	MG	CA	1822	1/1	0.38	-	105,105,105,105	0
56	MG	DA	3460	1/1	0.16	-	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3259	1/1	0.53	-	83,83,83,83	0
56	MG	DA	3540	1/1	0.21	-	74,74,74,74	0
56	MG	CA	1678	1/1	0.12	-	77,77,77,77	0
56	MG	DA	3571	1/1	0.19	-	86,86,86,86	0
56	MG	DA	3522	1/1	0.10	-	56,56,56,56	0
56	MG	AA	1629	1/1	0.33	-	74,74,74,74	0
56	MG	CA	1750	1/1	0.12	-	64,64,64,64	0
56	MG	DA	3214	1/1	0.18	-	38,38,38,38	0
56	MG	BA	3048	1/1	0.08	-	41,41,41,41	0
56	MG	CA	1879	1/1	0.19	-	84,84,84,84	0
56	MG	DA	3270	1/1	0.22	-	51,51,51,51	0
56	MG	DA	3036	1/1	0.29	-	44,44,44,44	0
56	MG	CA	1917	1/1	0.26	-	130,130,130,130	0
56	MG	BA	3082	1/1	0.37	-	59,59,59,59	0
56	MG	CA	1884	1/1	0.29	-	62,62,62,62	0
56	MG	C1	104	1/1	0.09	-	65,65,65,65	0
56	MG	AA	1609	1/1	0.39	-	71,71,71,71	0
56	MG	AA	1946	1/1	0.07	-	82,82,82,82	0
56	MG	CA	1710	1/1	0.18	-	62,62,62,62	0
56	MG	AA	1892	1/1	0.13	-	99,99,99,99	0
56	MG	DA	3368	1/1	0.15	-	70,70,70,70	0
56	MG	AA	1731	1/1	0.30	-	63,63,63,63	0
56	MG	CA	1616	1/1	0.34	-	54,54,54,54	0
56	MG	B3	101	1/1	0.15	-	72,72,72,72	0
56	MG	AA	2000	1/1	0.12	-	38,38,38,38	0
56	MG	BA	3231	1/1	0.10	-	68,68,68,68	0
56	MG	CA	1828	1/1	0.40	-	104,104,104,104	0
56	MG	DA	3313	1/1	0.25	-	70,70,70,70	0
56	MG	AT	202	1/1	0.25	-	111,111,111,111	0
56	MG	DA	3800	1/1	0.15	-	71,71,71,71	0
56	MG	CA	1856	1/1	0.16	-	91,91,91,91	0
56	MG	BW	101	1/1	0.11	-	65,65,65,65	0
56	MG	DA	3753	1/1	0.26	-	86,86,86,86	0
56	MG	CA	1667	1/1	0.23	-	74,74,74,74	0
56	MG	BA	2958	1/1	0.20	-	44,44,44,44	0
56	MG	DA	3761	1/1	0.24	-	106,106,106,106	0
61	A	C1	101	22/23	0.17	-	138,139,140,140	0
56	MG	BA	2957	1/1	0.18	-	33,33,33,33	0
56	MG	DA	3077	1/1	0.17	-	44,44,44,44	0
56	MG	BA	3161	1/1	0.47	-	96,96,96,96	0
56	MG	DA	3578	1/1	0.16	-	54,54,54,54	0
56	MG	DA	3594	1/1	0.30	-	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3009	1/1	0.30	-	41,41,41,41	0
56	MG	AA	1707	1/1	0.23	-	64,64,64,64	0
56	MG	AA	1665	1/1	0.22	-	59,59,59,59	0
56	MG	DA	3245	1/1	0.18	-	57,57,57,57	0
56	MG	DA	3163	1/1	0.30	-	65,65,65,65	0
56	MG	CA	1654	1/1	0.24	-	81,81,81,81	0
56	MG	BA	3146	1/1	0.18	-	78,78,78,78	0
56	MG	AA	1769	1/1	0.22	-	80,80,80,80	0
56	MG	DA	3641	1/1	0.15	-	43,43,43,43	0
56	MG	CW	203	1/1	0.11	-	111,111,111,111	0
56	MG	DA	3348	1/1	0.31	-	100,100,100,100	0
56	MG	BA	3429	1/1	0.18	-	56,56,56,56	0
56	MG	CA	1971	1/1	0.12	-	94,94,94,94	0
56	MG	DA	3819	1/1	0.12	-	83,83,83,83	0
56	MG	DA	3000	1/1	0.35	-	45,45,45,45	0
58	G	DP	201	23/24	0.31	-	190,191,192,193	0
56	MG	DA	3373	1/1	0.50	-	127,127,127,127	0
56	MG	AA	1955	1/1	0.32	-	103,103,103,103	0
56	MG	DA	3766	1/1	0.09	-	73,73,73,73	0
56	MG	BA	3487	1/1	0.10	-	74,74,74,74	0
56	MG	AD	102	1/1	0.19	-	120,120,120,120	0
56	MG	AA	1990	1/1	0.13	-	97,97,97,97	0
56	MG	DA	3057	1/1	0.26	-	58,58,58,58	0
56	MG	DA	3375	1/1	0.14	-	52,52,52,52	0
56	MG	BB	221	1/1	0.12	-	106,106,106,106	0
56	MG	AA	2032	1/1	0.17	-	84,84,84,84	0
56	MG	BA	3322	1/1	0.25	-	72,72,72,72	0
56	MG	CA	1835	1/1	0.20	-	89,89,89,89	0
56	MG	BA	3407	1/1	0.37	-	106,106,106,106	0
56	MG	D1	206	1/1	0.15	-	66,66,66,66	0
56	MG	DA	3457	1/1	0.10	-	91,91,91,91	0
56	MG	CA	1762	1/1	0.30	-	70,70,70,70	0
56	MG	CA	1754	1/1	0.34	-	93,93,93,93	0
56	MG	BA	3552	1/1	0.10	-	76,76,76,76	0
56	MG	BA	3045	1/1	0.18	-	26,26,26,26	0
56	MG	DA	3107	1/1	0.24	-	40,40,40,40	0
56	MG	BA	3144	1/1	0.15	-	68,68,68,68	0
56	MG	AA	1949	1/1	0.16	-	122,122,122,122	0
56	MG	AL	201	1/1	0.21	-	79,79,79,79	0
61	A	DA	2911	22/23	0.51	-	216,217,221,222	0
56	MG	CA	1669	1/1	0.18	-	61,61,61,61	0
56	MG	CA	1826	1/1	0.07	-	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	BA	2927	1/1	0.28	-	32,32,32,32	0
56	MG	DA	2986	1/1	0.20	-	35,35,35,35	0
56	MG	DA	3148	1/1	0.30	-	48,48,48,48	0
56	MG	DA	3820	1/1	0.35	-	84,84,84,84	0
56	MG	DA	3577	1/1	0.18	-	54,54,54,54	0
56	MG	DA	3097	1/1	0.10	-	57,57,57,57	0
56	MG	BA	3500	1/1	0.07	-	64,64,64,64	0
56	MG	DA	3398	1/1	0.27	-	75,75,75,75	0
56	MG	AA	1918	1/1	0.09	-	84,84,84,84	0
56	MG	BA	3219	1/1	0.04	-	48,48,48,48	0
56	MG	CA	1910	1/1	0.24	-	134,134,134,134	0
56	MG	DA	2974	1/1	0.19	-	25,25,25,25	0
56	MG	DA	3450	1/1	0.33	-	99,99,99,99	0
56	MG	DA	3530	1/1	0.15	-	78,78,78,78	0
56	MG	DA	3420	1/1	0.18	-	32,32,32,32	0
56	MG	DA	3553	1/1	0.17	-	99,99,99,99	0
56	MG	DA	3352	1/1	0.37	-	81,81,81,81	0
56	MG	CA	1987	1/1	0.14	-	50,50,50,50	0
56	MG	BA	3305	1/1	0.12	-	62,62,62,62	0
56	MG	BA	3182	1/1	0.09	-	41,41,41,41	0
56	MG	BA	3294	1/1	0.20	-	65,65,65,65	0
56	MG	AA	1758	1/1	0.14	-	108,108,108,108	0
56	MG	DA	3321	1/1	0.23	-	75,75,75,75	0
56	MG	CA	1773	1/1	0.28	-	51,51,51,51	0
56	MG	CA	1626	1/1	0.21	-	73,73,73,73	0
59	C	CP	203	20/21	0.38	-	164,172,175,176	0
58	G	DA	2906	23/24	0.44	-	200,204,206,207	0
56	MG	CA	1738	1/1	0.08	-	86,86,86,86	0
56	MG	DA	3047	1/1	0.32	-	86,86,86,86	0
56	MG	DA	3343	1/1	0.24	-	65,65,65,65	0
56	MG	AA	2027	1/1	0.14	-	81,81,81,81	0
56	MG	DA	3493	1/1	0.40	-	92,92,92,92	0
56	MG	DA	2938	1/1	0.30	-	28,28,28,28	0
56	MG	AA	1651	1/1	0.31	-	60,60,60,60	0
56	MG	CA	1613	1/1	0.19	-	70,70,70,70	0
56	MG	AA	1605	1/1	0.33	-	61,61,61,61	0
56	MG	CA	1655	1/1	0.31	-	79,79,79,79	0
56	MG	CP	208	1/1	0.36	-	137,137,137,137	0
56	MG	CW	202	1/1	0.04	-	108,108,108,108	0
56	MG	BE	305	1/1	0.15	-	68,68,68,68	0
56	MG	DA	3758	1/1	0.09	-	50,50,50,50	0
56	MG	CD	112	1/1	0.09	-	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3046	1/1	0.17	-	29,29,29,29	0
56	MG	BA	3577	1/1	0.12	-	80,80,80,80	0
56	MG	AA	1890	1/1	0.13	-	72,72,72,72	0
56	MG	BA	3449	1/1	0.16	-	76,76,76,76	0
56	MG	CD	102	1/1	0.10	-	99,99,99,99	0
56	MG	AA	1859	1/1	0.08	-	77,77,77,77	0
56	MG	AA	1658	1/1	0.20	-	57,57,57,57	0
56	MG	DA	3777	1/1	0.29	-	88,88,88,88	0
56	MG	BB	226	1/1	0.20	-	146,146,146,146	0
56	MG	DA	3168	1/1	0.24	-	63,63,63,63	0
56	MG	AA	1948	1/1	0.07	-	82,82,82,82	0
56	MG	BA	2934	1/1	0.36	-	42,42,42,42	0
56	MG	DA	3193	1/1	0.44	-	95,95,95,95	0
56	MG	DA	2989	1/1	0.36	-	39,39,39,39	0
56	MG	CA	1656	1/1	0.43	-	86,86,86,86	0
56	MG	CA	1978	1/1	0.21	-	116,116,116,116	0
56	MG	AA	1967	1/1	0.16	-	84,84,84,84	0
56	MG	CA	1831	1/1	0.34	-	156,156,156,156	0
56	MG	CA	1781	1/1	0.17	-	66,66,66,66	0
57	ZN	AQ	102	1/1	0.12	-	142,142,142,142	0
56	MG	AA	1853	1/1	0.19	-	104,104,104,104	0
56	MG	BA	2955	1/1	0.28	-	29,29,29,29	0
56	MG	CA	1638	1/1	0.26	-	68,68,68,68	0
56	MG	CA	1897	1/1	0.06	-	115,115,115,115	0
56	MG	BA	3503	1/1	0.15	-	66,66,66,66	0
56	MG	CA	1724	1/1	0.26	-	76,76,76,76	0
56	MG	DA	3241	1/1	0.42	-	62,62,62,62	0
56	MG	DA	3782	1/1	0.17	-	95,95,95,95	0
56	MG	DA	3598	1/1	0.21	-	59,59,59,59	0
56	MG	CA	1709	1/1	0.22	-	71,71,71,71	0
56	MG	CA	1983	1/1	0.17	-	103,103,103,103	0
56	MG	AA	1898	1/1	0.14	-	102,102,102,102	0
56	MG	CA	1927	1/1	0.20	-	81,81,81,81	0
60	U	DA	2902	20/21	0.51	-	207,208,214,214	0
56	MG	DA	3552	1/1	0.14	-	100,100,100,100	0
56	MG	CA	1662	1/1	0.26	-	68,68,68,68	0
56	MG	BA	3457	1/1	0.20	-	80,80,80,80	0
56	MG	DA	3823	1/1	0.19	-	70,70,70,70	0
56	MG	DA	3832	1/1	0.50	-	112,112,112,112	0
56	MG	BA	3535	1/1	0.15	-	94,94,94,94	0
56	MG	CA	1692	1/1	0.13	-	59,59,59,59	0
56	MG	AA	1999	1/1	0.18	-	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1755	1/1	0.33	-	62,62,62,62	0
56	MG	DA	3069	1/1	0.17	-	40,40,40,40	0
56	MG	AA	1876	1/1	0.28	-	78,78,78,78	0
56	MG	BA	3474	1/1	0.29	-	78,78,78,78	0
56	MG	BA	3120	1/1	0.22	-	75,75,75,75	0
56	MG	DA	3737	1/1	0.10	-	75,75,75,75	0
56	MG	BA	3114	1/1	0.15	-	67,67,67,67	0
57	ZN	CG	302	1/1	0.24	-	94,94,94,94	0
56	MG	DA	3733	1/1	0.10	-	85,85,85,85	0
56	MG	CA	1940	1/1	0.11	-	69,69,69,69	0
56	MG	BE	303	1/1	0.07	-	45,45,45,45	0
56	MG	BU	204	1/1	0.18	-	94,94,94,94	0
56	MG	CA	1647	1/1	0.07	-	53,53,53,53	0
56	MG	AA	1954	1/1	0.32	-	108,108,108,108	0
56	MG	AA	1961	1/1	0.06	-	46,46,46,46	0
56	MG	DA	3838	1/1	0.49	-	101,101,101,101	0
56	MG	DA	3356	1/1	0.19	-	71,71,71,71	0
56	MG	AA	1656	1/1	0.16	-	71,71,71,71	0
56	MG	BA	3560	1/1	0.10	-	48,48,48,48	0
56	MG	DA	3743	1/1	0.25	-	78,78,78,78	0
56	MG	DA	3725	1/1	0.42	-	111,111,111,111	0
56	MG	DA	3263	1/1	0.17	-	74,74,74,74	0
56	MG	DA	3189	1/1	0.25	-	52,52,52,52	0
56	MG	DA	2983	1/1	0.39	-	40,40,40,40	0
56	MG	CA	1817	1/1	0.17	-	92,92,92,92	0
56	MG	DO	205	1/1	0.18	-	90,90,90,90	0
61	A	DA	2930	22/23	0.41	-	193,196,197,197	0
56	MG	CA	1690	1/1	0.20	-	70,70,70,70	0
56	MG	BA	3236	1/1	0.13	-	33,33,33,33	0
56	MG	DA	3750	1/1	0.16	-	144,144,144,144	0
56	MG	CA	1749	1/1	0.18	-	124,124,124,124	0
56	MG	DA	3464	1/1	0.09	-	65,65,65,65	0
56	MG	AA	2004	1/1	0.32	-	124,124,124,124	0
56	MG	DA	3706	1/1	0.29	-	70,70,70,70	0
56	MG	DA	3587	1/1	0.24	-	76,76,76,76	0
56	MG	AA	1619	1/1	0.39	-	55,55,55,55	0
56	MG	DA	3213	1/1	0.26	-	57,57,57,57	0
56	MG	BE	304	1/1	0.25	-	86,86,86,86	0
56	MG	CA	1747	1/1	0.14	-	104,104,104,104	0
56	MG	DA	3179	1/1	0.30	-	61,61,61,61	0
56	MG	AA	1740	1/1	0.17	-	69,69,69,69	0
56	MG	DA	3160	1/1	0.24	-	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	DA	3574	1/1	0.42	-	73,73,73,73	0
56	MG	CA	1740	1/1	0.19	-	67,67,67,67	0
56	MG	BA	3080	1/1	0.20	-	69,69,69,69	0
56	MG	AA	1649	1/1	0.17	-	84,84,84,84	0
56	MG	DA	3514	1/1	0.15	-	83,83,83,83	0
56	MG	AA	1678	1/1	0.24	-	57,57,57,57	0
56	MG	DA	3791	1/1	0.46	-	99,99,99,99	0
56	MG	DB	221	1/1	0.28	-	94,94,94,94	0
56	MG	BA	3340	1/1	0.09	-	77,77,77,77	0
56	MG	BA	3006	1/1	0.18	-	54,54,54,54	0
56	MG	DA	3419	1/1	0.28	-	91,91,91,91	0
56	MG	AA	1759	1/1	0.28	-	77,77,77,77	0
56	MG	CA	1883	1/1	0.20	-	83,83,83,83	0
56	MG	DA	3568	1/1	0.45	-	90,90,90,90	0
56	MG	BA	3530	1/1	0.12	-	110,110,110,110	0
56	MG	DA	3499	1/1	0.32	-	80,80,80,80	0
56	MG	BA	3377	1/1	0.12	-	67,67,67,67	0
56	MG	DA	3496	1/1	0.18	-	64,64,64,64	0
56	MG	DH	203	1/1	0.05	-	65,65,65,65	0
59	C	DA	2934	20/21	0.42	-	199,202,203,204	0
56	MG	BA	3308	1/1	0.34	-	78,78,78,78	0
56	MG	DA	3095	1/1	0.28	-	54,54,54,54	0
56	MG	CD	120	1/1	0.08	-	110,110,110,110	0
56	MG	AA	1660	1/1	0.12	-	60,60,60,60	0
56	MG	CA	1718	1/1	0.35	-	75,75,75,75	0
56	MG	DA	3188	1/1	0.46	-	89,89,89,89	0
56	MG	DA	3028	1/1	0.46	-	75,75,75,75	0
56	MG	CA	1986	1/1	0.12	-	104,104,104,104	0
56	MG	AA	1792	1/1	0.31	-	74,74,74,74	0
56	MG	AA	1617	1/1	0.39	-	77,77,77,77	0
56	MG	DA	3382	1/1	0.29	-	80,80,80,80	0
56	MG	AA	1721	1/1	0.35	-	72,72,72,72	0
56	MG	BA	3242	1/1	0.19	-	82,82,82,82	0
56	MG	BA	3057	1/1	0.17	-	65,65,65,65	0
56	MG	CA	1891	1/1	0.07	-	59,59,59,59	0
56	MG	CA	1634	1/1	0.28	-	50,50,50,50	0
56	MG	DA	3667	1/1	0.18	-	67,67,67,67	0
56	MG	AA	1668	1/1	0.54	-	107,107,107,107	0
56	MG	DU	204	1/1	0.30	-	99,99,99,99	0
56	MG	DA	3175	1/1	0.33	-	56,56,56,56	0
59	C	DA	2923	20/21	0.32	-	207,209,210,210	0
56	MG	DA	3391	1/1	0.16	-	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	2962	1/1	0.13	-	20,20,20,20	0
56	MG	DA	3133	1/1	0.26	-	57,57,57,57	0
56	MG	BA	3371	1/1	0.09	-	55,55,55,55	0
56	MG	BA	3352	1/1	0.18	-	112,112,112,112	0
56	MG	AA	1926	1/1	0.15	-	102,102,102,102	0
56	MG	DA	3742	1/1	0.24	-	97,97,97,97	0
56	MG	DA	3827	1/1	0.19	-	109,109,109,109	0
56	MG	AA	1881	1/1	0.13	-	77,77,77,77	0
60	U	DA	2910	20/21	0.69	-	222,224,231,231	0
56	MG	CA	1823	1/1	0.20	-	65,65,65,65	0
56	MG	DA	3346	1/1	0.14	-	20,20,20,20	0
56	MG	BA	3438	1/1	0.18	-	54,54,54,54	0
56	MG	BA	3366	1/1	0.14	-	69,69,69,69	0
56	MG	BA	3143	1/1	0.36	-	74,74,74,74	0
56	MG	DA	3405	1/1	0.31	-	87,87,87,87	0
56	MG	CA	1786	1/1	0.27	-	104,104,104,104	0
56	MG	BA	3188	1/1	0.22	-	68,68,68,68	0
56	MG	CA	1959	1/1	0.52	-	134,134,134,134	0
56	MG	BA	3358	1/1	0.20	-	101,101,101,101	0
56	MG	BU	203	1/1	0.08	-	74,74,74,74	0
56	MG	BA	3516	1/1	0.17	-	56,56,56,56	0
56	MG	AA	1659	1/1	0.22	-	81,81,81,81	0
56	MG	AA	1667	1/1	0.23	-	61,61,61,61	0
56	MG	CQ	103	1/1	0.09	-	122,122,122,122	0
56	MG	CA	1624	1/1	0.21	-	44,44,44,44	0
56	MG	CA	1645	1/1	0.28	-	60,60,60,60	0
56	MG	DA	3408	1/1	0.19	-	79,79,79,79	0
56	MG	DA	3799	1/1	0.08	-	119,119,119,119	0
56	MG	BA	3118	1/1	0.20	-	82,82,82,82	0
56	MG	CA	1878	1/1	0.08	-	73,73,73,73	0
56	MG	AA	1680	1/1	0.21	-	70,70,70,70	0
56	MG	CA	1866	1/1	0.14	-	121,121,121,121	0
56	MG	DA	3016	1/1	0.26	-	31,31,31,31	0
56	MG	BA	3502	1/1	0.14	-	91,91,91,91	0
56	MG	CA	1968	1/1	0.23	-	78,78,78,78	0
56	MG	DA	3547	1/1	0.11	-	43,43,43,43	0
56	MG	DA	3315	1/1	0.24	-	78,78,78,78	0
56	MG	CA	1877	1/1	0.14	-	69,69,69,69	0
56	MG	AA	1714	1/1	0.06	-	89,89,89,89	0
56	MG	CC	114	1/1	0.13	-	102,102,102,102	0
56	MG	DB	220	1/1	0.33	-	122,122,122,122	0
56	MG	CA	1664	1/1	0.29	-	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	C	DA	2928	20/21	0.36	-	192,195,200,200	0
56	MG	DA	3700	1/1	0.11	-	76,76,76,76	0
56	MG	BA	3198	1/1	0.12	-	58,58,58,58	0
56	MG	BA	2923	1/1	0.20	-	44,44,44,44	0
56	MG	BF	302	1/1	0.40	-	117,117,117,117	0
56	MG	DA	2968	1/1	0.28	-	24,24,24,24	0
56	MG	BA	3079	1/1	0.14	-	59,59,59,59	0
56	MG	CA	1744	1/1	0.04	-	132,132,132,132	0
56	MG	CA	1949	1/1	0.14	-	101,101,101,101	0
56	MG	DH	202	1/1	0.55	-	98,98,98,98	0
57	ZN	CQ	104	1/1	0.09	-	142,142,142,142	0
56	MG	CP	205	1/1	0.25	-	118,118,118,118	0
56	MG	DA	3161	1/1	0.18	-	66,66,66,66	0
56	MG	DA	3328	1/1	0.20	-	76,76,76,76	0
56	MG	AA	1690	1/1	0.13	-	91,91,91,91	0
56	MG	AA	2028	1/1	0.14	-	102,102,102,102	0
56	MG	AC	105	1/1	0.10	-	88,88,88,88	0
56	MG	AA	1965	1/1	0.30	-	117,117,117,117	0
56	MG	BA	3145	1/1	0.16	-	74,74,74,74	0
56	MG	D1	203	1/1	0.12	-	84,84,84,84	0
56	MG	CA	1696	1/1	0.14	-	62,62,62,62	0
56	MG	DA	3026	1/1	0.24	-	42,42,42,42	0
56	MG	AA	1783	1/1	0.34	-	90,90,90,90	0
56	MG	DA	3656	1/1	0.10	-	52,52,52,52	0
56	MG	AA	1830	1/1	0.25	-	88,88,88,88	0
56	MG	AA	2011	1/1	0.35	-	120,120,120,120	0
61	A	DA	2929	22/23	0.32	-	188,191,195,195	0
56	MG	BA	3393	1/1	0.12	-	82,82,82,82	0
56	MG	DA	3498	1/1	0.23	-	66,66,66,66	0
56	MG	DH	201	1/1	0.10	-	77,77,77,77	0
56	MG	BA	3542	1/1	0.08	-	78,78,78,78	0
56	MG	DA	3235	1/1	0.24	-	82,82,82,82	0
56	MG	D0	205	1/1	0.81	-	95,95,95,95	0
56	MG	DU	203	1/1	0.18	-	94,94,94,94	0
56	MG	AA	1919	1/1	0.30	-	117,117,117,117	0
56	MG	BA	2975	1/1	0.20	-	40,40,40,40	0
56	MG	BA	3051	1/1	0.26	-	74,74,74,74	0
56	MG	AA	1756	1/1	0.21	-	68,68,68,68	0
56	MG	DA	3658	1/1	0.12	-	75,75,75,75	0
56	MG	BA	3148	1/1	0.11	-	42,42,42,42	0
56	MG	CA	1928	1/1	0.20	-	70,70,70,70	0
56	MG	DA	3643	1/1	0.33	-	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3671	1/1	0.49	-	63,63,63,63	0
56	MG	BA	3332	1/1	0.11	-	60,60,60,60	0
56	MG	AA	2039	1/1	0.09	-	64,64,64,64	0
56	MG	CA	1880	1/1	0.03	-	117,117,117,117	0
56	MG	BA	3007	1/1	0.23	-	51,51,51,51	0
56	MG	BA	3492	1/1	0.07	-	86,86,86,86	0
56	MG	BA	3076	1/1	0.20	-	88,88,88,88	0
56	MG	DA	3285	1/1	0.24	-	56,56,56,56	0
56	MG	AA	1909	1/1	0.51	-	128,128,128,128	0
56	MG	DW	102	1/1	0.16	-	91,91,91,91	0
56	MG	DA	3546	1/1	0.26	-	94,94,94,94	0
56	MG	CA	1832	1/1	0.14	-	106,106,106,106	0
59	C	CC	106	20/21	0.71	-	226,229,230,230	0
56	MG	DA	3178	1/1	0.23	-	78,78,78,78	0
56	MG	AA	1775	1/1	0.31	-	88,88,88,88	0
56	MG	DA	3130	1/1	0.29	-	53,53,53,53	0
56	MG	DA	3655	1/1	0.30	-	113,113,113,113	0
56	MG	DA	3411	1/1	0.17	-	75,75,75,75	0
56	MG	DA	3287	1/1	0.22	-	44,44,44,44	0
56	MG	AA	2033	1/1	0.24	-	106,106,106,106	0
56	MG	DA	3772	1/1	0.14	-	82,82,82,82	0
56	MG	DA	3660	1/1	0.10	-	81,81,81,81	0
56	MG	BA	3060	1/1	0.09	-	35,35,35,35	0
56	MG	BA	3092	1/1	0.10	-	58,58,58,58	0
56	MG	DA	3698	1/1	0.15	-	79,79,79,79	0
56	MG	DA	3014	1/1	0.05	-	32,32,32,32	0
56	MG	BA	3117	1/1	0.14	-	93,93,93,93	0
56	MG	DW	101	1/1	0.23	-	75,75,75,75	0
56	MG	DA	3035	1/1	0.17	-	44,44,44,44	0
56	MG	DA	3387	1/1	0.35	-	109,109,109,109	0
56	MG	DA	3567	1/1	0.23	-	59,59,59,59	0
56	MG	CA	1657	1/1	0.11	-	52,52,52,52	0
56	MG	DA	3317	1/1	0.14	-	33,33,33,33	0
56	MG	AA	1610	1/1	0.29	-	68,68,68,68	0
56	MG	BA	3256	1/1	0.21	-	64,64,64,64	0
56	MG	BA	2946	1/1	0.31	-	50,50,50,50	0
56	MG	CA	1674	1/1	0.05	-	93,93,93,93	0
56	MG	BA	3185	1/1	0.13	-	84,84,84,84	0
56	MG	BA	3337	1/1	0.17	-	73,73,73,73	0
56	MG	BA	2944	1/1	0.18	-	29,29,29,29	0
56	MG	DA	3113	1/1	0.16	-	38,38,38,38	0
56	MG	BA	3307	1/1	0.19	-	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	3421	1/1	0.25	-	88,88,88,88	0
56	MG	DA	3657	1/1	0.35	-	98,98,98,98	0
56	MG	CA	1816	1/1	0.18	-	78,78,78,78	0
56	MG	CA	1914	1/1	0.09	-	83,83,83,83	0
56	MG	AA	1788	1/1	0.12	-	91,91,91,91	0
56	MG	AA	1683	1/1	0.28	-	60,60,60,60	0
56	MG	DA	3207	1/1	0.25	-	31,31,31,31	0
56	MG	DA	3417	1/1	0.19	-	78,78,78,78	0
56	MG	CA	1777	1/1	0.13	-	85,85,85,85	0
56	MG	DA	3565	1/1	0.33	-	80,80,80,80	0
56	MG	DA	3145	1/1	0.35	-	58,58,58,58	0
59	C	DA	2937	20/21	0.87	-	217,217,218,218	0
56	MG	BB	223	1/1	0.11	-	122,122,122,122	0
56	MG	CA	1945	1/1	0.25	-	85,85,85,85	0
56	MG	DA	3807	1/1	0.32	-	87,87,87,87	0
56	MG	DE	303	1/1	0.10	-	20,20,20,20	0
56	MG	DA	3438	1/1	0.07	-	182,182,182,182	0
56	MG	DA	2964	1/1	0.29	-	53,53,53,53	0
56	MG	AA	1840	1/1	0.45	-	132,132,132,132	0
56	MG	DA	3521	1/1	0.13	-	72,72,72,72	0
56	MG	CA	1687	1/1	0.25	-	99,99,99,99	0
56	MG	CD	105	1/1	0.06	-	124,124,124,124	0
56	MG	DA	3166	1/1	0.12	-	57,57,57,57	0
56	MG	CA	1844	1/1	0.17	-	44,44,44,44	0
56	MG	BA	3510	1/1	0.24	-	91,91,91,91	0
56	MG	AA	1972	1/1	0.22	-	78,78,78,78	0
56	MG	AA	1784	1/1	0.04	-	76,76,76,76	0
56	MG	DA	3291	1/1	0.18	-	38,38,38,38	0
56	MG	BA	3524	1/1	0.14	-	52,52,52,52	0
56	MG	BA	2919	1/1	0.13	-	29,29,29,29	0
56	MG	DB	217	1/1	0.33	-	122,122,122,122	0
56	MG	DA	3541	1/1	0.07	-	81,81,81,81	0
56	MG	AA	1694	1/1	0.31	-	66,66,66,66	0
56	MG	AA	1994	1/1	0.10	-	86,86,86,86	0
56	MG	CA	1609	1/1	0.19	-	29,29,29,29	0
56	MG	DA	3837	1/1	0.20	-	86,86,86,86	0
56	MG	BA	3139	1/1	0.10	-	40,40,40,40	0
56	MG	CA	1729	1/1	0.20	-	99,99,99,99	0
56	MG	DA	3299	1/1	0.12	-	84,84,84,84	0
56	MG	BA	3351	1/1	0.07	-	69,69,69,69	0
56	MG	BA	2921	1/1	0.31	-	41,41,41,41	0
56	MG	DA	3488	1/1	0.24	-	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	BA	3544	1/1	0.13	-	71,71,71,71	0
56	MG	BA	3316	1/1	0.38	-	110,110,110,110	0
56	MG	BA	3456	1/1	0.10	-	86,86,86,86	0
56	MG	BA	3226	1/1	0.29	-	88,88,88,88	0
56	MG	BA	3163	1/1	0.07	-	63,63,63,63	0
56	MG	DA	3447	1/1	0.28	-	95,95,95,95	0
56	MG	B3	102	1/1	0.09	-	58,58,58,58	0
56	MG	BA	3451	1/1	0.18	-	64,64,64,64	0
56	MG	CA	1711	1/1	0.16	-	88,88,88,88	0
56	MG	AA	1693	1/1	0.10	-	95,95,95,95	0
56	MG	DA	3721	1/1	0.18	-	83,83,83,83	0
56	MG	AA	1924	1/1	0.26	-	114,114,114,114	0
56	MG	AA	1921	1/1	0.16	-	76,76,76,76	0
56	MG	BA	3335	1/1	0.41	-	86,86,86,86	0
56	MG	AA	1720	1/1	0.13	-	76,76,76,76	0
56	MG	DA	3543	1/1	0.30	-	63,63,63,63	0
56	MG	DA	3740	1/1	0.23	-	99,99,99,99	0
56	MG	D2	201	1/1	0.34	-	110,110,110,110	0
56	MG	DA	3683	1/1	0.23	-	87,87,87,87	0
56	MG	D3	101	1/1	0.20	-	48,48,48,48	0
56	MG	AH	201	1/1	0.30	-	103,103,103,103	0
56	MG	CA	1946	1/1	0.08	-	87,87,87,87	0
56	MG	CA	1795	1/1	0.22	-	86,86,86,86	0
56	MG	BA	2902	1/1	0.20	-	57,57,57,57	0
56	MG	CA	1829	1/1	0.15	-	92,92,92,92	0
56	MG	DA	3570	1/1	0.10	-	91,91,91,91	0
56	MG	DA	3397	1/1	0.09	-	67,67,67,67	0
56	MG	CA	1649	1/1	0.21	-	48,48,48,48	0
56	MG	BA	3547	1/1	0.20	-	74,74,74,74	0
56	MG	CA	1805	1/1	0.07	-	112,112,112,112	0
56	MG	BA	3012	1/1	0.17	-	56,56,56,56	0
56	MG	DA	3034	1/1	0.27	-	41,41,41,41	0
56	MG	DA	3679	1/1	0.26	-	81,81,81,81	0
56	MG	BA	2907	1/1	0.31	-	106,106,106,106	0
56	MG	CA	1925	1/1	0.14	-	93,93,93,93	0
56	MG	BA	3205	1/1	0.17	-	92,92,92,92	0
56	MG	AA	1645	1/1	0.20	-	55,55,55,55	0
56	MG	DA	3665	1/1	0.11	-	70,70,70,70	0
56	MG	AA	1735	1/1	0.41	-	108,108,108,108	0
56	MG	DA	3646	1/1	0.26	-	86,86,86,86	0
56	MG	DA	3507	1/1	0.28	-	79,79,79,79	0
56	MG	CA	1873	1/1	0.16	-	118,118,118,118	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	0.20	-	117,117,117,117	0
58	G	DA	2933	23/24	0.44	-	193,200,205,206	0
56	MG	BA	3207	1/1	0.14	-	67,67,67,67	0
56	MG	BA	3073	1/1	0.30	-	71,71,71,71	0
56	MG	AA	1956	1/1	0.29	-	118,118,118,118	0
56	MG	BA	3318	1/1	0.18	-	76,76,76,76	0
56	MG	BA	2988	1/1	0.16	-	46,46,46,46	0
56	MG	BA	3292	1/1	0.12	-	54,54,54,54	0
56	MG	BA	3430	1/1	0.14	-	90,90,90,90	0
56	MG	DA	3746	1/1	0.19	-	84,84,84,84	0
56	MG	CA	1661	1/1	0.11	-	80,80,80,80	0
56	MG	AA	1702	1/1	0.26	-	71,71,71,71	0
56	MG	CA	1695	1/1	0.39	-	76,76,76,76	0
56	MG	BA	3091	1/1	0.16	-	59,59,59,59	0
56	MG	DA	3586	1/1	0.41	-	70,70,70,70	0
56	MG	BA	3212	1/1	0.20	-	87,87,87,87	0
56	MG	DA	3378	1/1	0.21	-	64,64,64,64	0
56	MG	CA	1619	1/1	0.08	-	37,37,37,37	0
56	MG	DA	3264	1/1	0.22	-	66,66,66,66	0
56	MG	CQ	101	1/1	0.04	-	71,71,71,71	0
59	C	DA	2907	20/21	0.59	-	206,207,208,208	0
56	MG	BA	2918	1/1	0.32	-	46,46,46,46	0
56	MG	DA	2947	1/1	0.23	-	25,25,25,25	0
56	MG	DA	3218	1/1	0.13	-	48,48,48,48	0
56	MG	CA	1962	1/1	0.44	-	102,102,102,102	0
56	MG	BA	2981	1/1	0.23	-	58,58,58,58	0
56	MG	AA	1841	1/1	0.35	-	100,100,100,100	0
56	MG	CD	106	1/1	0.18	-	94,94,94,94	0
56	MG	CA	1870	1/1	0.12	-	121,121,121,121	0
56	MG	DA	3120	1/1	0.18	-	56,56,56,56	0
56	MG	CA	1887	1/1	0.21	-	130,130,130,130	0
56	MG	DA	3232	1/1	0.32	-	77,77,77,77	0
56	MG	CA	1730	1/1	0.13	-	111,111,111,111	0
56	MG	CD	107	1/1	0.20	-	122,122,122,122	0
56	MG	CA	1716	1/1	0.11	-	58,58,58,58	0
56	MG	CA	1651	1/1	0.17	-	52,52,52,52	0
56	MG	BA	2949	1/1	0.39	-	62,62,62,62	0
56	MG	BA	3479	1/1	0.23	-	119,119,119,119	0
56	MG	DA	3043	1/1	0.25	-	51,51,51,51	0
56	MG	BA	3439	1/1	0.24	-	73,73,73,73	0
56	MG	DA	3722	1/1	0.12	-	66,66,66,66	0
56	MG	CA	1863	1/1	0.04	-	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3476	1/1	0.51	-	104,104,104,104	0
56	MG	BA	3283	1/1	0.37	-	126,126,126,126	0
56	MG	CA	1972	1/1	0.33	-	92,92,92,92	0
56	MG	DA	3374	1/1	0.18	-	59,59,59,59	0
56	MG	AA	1850	1/1	0.41	-	112,112,112,112	0
56	MG	AA	1718	1/1	0.06	-	63,63,63,63	0
56	MG	BA	2933	1/1	0.15	-	50,50,50,50	0
56	MG	BA	3467	1/1	0.06	-	81,81,81,81	0
56	MG	DA	3305	1/1	0.45	-	73,73,73,73	0
56	MG	CA	1771	1/1	0.12	-	83,83,83,83	0
58	G	CP	201	23/24	0.40	-	175,178,181,181	0
56	MG	DT	101	1/1	0.10	-	51,51,51,51	0
56	MG	AA	2022	1/1	0.11	-	117,117,117,117	0
56	MG	CA	1680	1/1	0.15	-	63,63,63,63	0
56	MG	BA	3044	1/1	0.11	-	114,114,114,114	0
56	MG	DA	3181	1/1	0.16	-	43,43,43,43	0
56	MG	AA	1981	1/1	0.09	-	115,115,115,115	0
56	MG	DA	3062	1/1	0.16	-	25,25,25,25	0
56	MG	DA	3520	1/1	0.18	-	66,66,66,66	0
56	MG	BA	3086	1/1	0.25	-	50,50,50,50	0
56	MG	DA	3492	1/1	0.09	-	80,80,80,80	0
56	MG	BA	2909	1/1	0.07	-	66,66,66,66	0
56	MG	DA	2941	1/1	0.20	-	22,22,22,22	0
56	MG	AA	1809	1/1	0.34	-	85,85,85,85	0
56	MG	BA	3369	1/1	0.06	-	73,73,73,73	0
56	MG	AA	2012	1/1	0.18	-	117,117,117,117	0
56	MG	DA	3067	1/1	0.26	-	49,49,49,49	0
56	MG	CA	1778	1/1	0.14	-	101,101,101,101	0
56	MG	BA	3067	1/1	0.26	-	43,43,43,43	0
56	MG	DA	3559	1/1	0.09	-	66,66,66,66	0
56	MG	BA	3191	1/1	0.39	-	79,79,79,79	0
56	MG	BA	3386	1/1	0.16	-	85,85,85,85	0
56	MG	BA	3078	1/1	0.21	-	57,57,57,57	0
56	MG	AA	1943	1/1	0.07	-	83,83,83,83	0
56	MG	BA	3325	1/1	0.16	-	98,98,98,98	0
56	MG	DA	2942	1/1	0.27	-	23,23,23,23	0
56	MG	AA	1962	1/1	0.16	-	55,55,55,55	0
56	MG	AA	1695	1/1	0.40	-	73,73,73,73	0
56	MG	BA	3215	1/1	0.17	-	58,58,58,58	0
56	MG	DB	204	1/1	0.16	-	94,94,94,94	0
56	MG	CA	1623	1/1	0.15	-	68,68,68,68	0
56	MG	DA	3085	1/1	0.25	-	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	AA	1779	1/1	0.09	-	114,114,114,114	0
56	MG	DA	3436	1/1	0.27	-	86,86,86,86	0
56	MG	DA	3575	1/1	0.12	-	91,91,91,91	0
56	MG	DA	3002	1/1	0.42	-	49,49,49,49	0
56	MG	BA	3562	1/1	0.20	-	94,94,94,94	0
56	MG	BA	3529	1/1	0.12	-	88,88,88,88	0
56	MG	AA	1675	1/1	0.20	-	62,62,62,62	0
56	MG	CA	1839	1/1	0.14	-	79,79,79,79	0
56	MG	CA	1675	1/1	0.27	-	62,62,62,62	0
56	MG	AA	1838	1/1	0.22	-	77,77,77,77	0
56	MG	BA	3240	1/1	0.41	-	71,71,71,71	0
56	MG	CA	1727	1/1	0.18	-	94,94,94,94	0
56	MG	BA	3156	1/1	0.32	-	68,68,68,68	0
56	MG	DA	3358	1/1	0.29	-	70,70,70,70	0
56	MG	DA	3150	1/1	0.19	-	43,43,43,43	0
56	MG	BA	3267	1/1	0.29	-	102,102,102,102	0
56	MG	DA	3292	1/1	0.30	-	53,53,53,53	0
56	MG	DA	3088	1/1	0.13	-	29,29,29,29	0
56	MG	BA	3551	1/1	0.08	-	98,98,98,98	0
56	MG	CA	1612	1/1	0.16	-	39,39,39,39	0
56	MG	BA	3557	1/1	0.16	-	131,131,131,131	0
56	MG	BA	2928	1/1	0.16	-	46,46,46,46	0
56	MG	DA	3828	1/1	0.24	-	114,114,114,114	0
56	MG	CC	117	1/1	0.14	-	110,110,110,110	0
59	C	DA	2913	20/21	0.47	-	206,207,211,211	0
56	MG	DB	211	1/1	0.25	-	78,78,78,78	0
56	MG	CA	1943	1/1	0.05	-	90,90,90,90	0
56	MG	DA	3252	1/1	0.33	-	58,58,58,58	0
56	MG	DA	3625	1/1	0.12	-	91,91,91,91	0
56	MG	BA	3347	1/1	0.18	-	99,99,99,99	0
56	MG	DA	3164	1/1	0.28	-	78,78,78,78	0
56	MG	DA	3787	1/1	0.13	-	57,57,57,57	0
56	MG	DA	3276	1/1	0.23	-	67,67,67,67	0
56	MG	BB	219	1/1	0.04	-	124,124,124,124	0
56	MG	AA	1689	1/1	0.16	-	93,93,93,93	0
56	MG	BA	3002	1/1	0.24	-	62,62,62,62	0
56	MG	BA	3068	1/1	0.25	-	72,72,72,72	0
56	MG	CA	1853	1/1	0.21	-	129,129,129,129	0
56	MG	AA	1700	1/1	0.29	-	62,62,62,62	0
56	MG	DA	2993	1/1	0.35	-	47,47,47,47	0
56	MG	DA	3579	1/1	0.19	-	92,92,92,92	0
56	MG	DA	3268	1/1	0.34	-	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BO	201	1/1	0.13	-	50,50,50,50	0
56	MG	AA	1760	1/1	0.42	-	91,91,91,91	0
56	MG	BA	2991	1/1	0.29	-	76,76,76,76	0
56	MG	BA	3165	1/1	0.11	-	46,46,46,46	0
56	MG	DA	3271	1/1	0.18	-	32,32,32,32	0
56	MG	BA	2960	1/1	0.22	-	49,49,49,49	0
56	MG	DA	3810	1/1	0.22	-	89,89,89,89	0
56	MG	CA	1903	1/1	0.19	-	67,67,67,67	0
56	MG	DA	3234	1/1	0.34	-	64,64,64,64	0
56	MG	BA	3420	1/1	0.20	-	82,82,82,82	0
56	MG	AA	1897	1/1	0.10	-	56,56,56,56	0
56	MG	D3	103	1/1	0.33	-	76,76,76,76	0
56	MG	DA	3467	1/1	0.50	-	95,95,95,95	0
56	MG	BA	3178	1/1	0.23	-	60,60,60,60	0
56	MG	DA	2951	1/1	0.16	-	19,19,19,19	0
56	MG	BA	3246	1/1	0.11	-	54,54,54,54	0
56	MG	CA	1686	1/1	0.15	-	72,72,72,72	0
56	MG	DA	3794	1/1	0.09	-	54,54,54,54	0
57	ZN	AG	301	1/1	0.26	-	82,82,82,82	0
56	MG	CA	1988	1/1	0.07	-	65,65,65,65	0
56	MG	CM	201	1/1	0.19	-	91,91,91,91	0
56	MG	AA	2016	1/1	0.34	-	102,102,102,102	0
56	MG	DA	2959	1/1	0.12	-	17,17,17,17	0
56	MG	DA	3627	1/1	0.25	-	93,93,93,93	0
56	MG	DA	3295	1/1	0.11	-	76,76,76,76	0
56	MG	DA	3395	1/1	0.23	-	78,78,78,78	0
56	MG	BA	2986	1/1	0.20	-	41,41,41,41	0
56	MG	BB	202	1/1	0.14	-	59,59,59,59	0
56	MG	DA	2944	1/1	0.31	-	23,23,23,23	0
56	MG	DA	3842	1/1	0.28	-	90,90,90,90	0
56	MG	BA	3571	1/1	0.23	-	94,94,94,94	0
56	MG	BA	3094	1/1	0.14	-	84,84,84,84	0
56	MG	DA	3572	1/1	0.21	-	79,79,79,79	0
56	MG	BA	2980	1/1	0.31	-	53,53,53,53	0
56	MG	AA	1729	1/1	0.20	-	87,87,87,87	0
56	MG	DO	202	1/1	0.05	-	42,42,42,42	0
56	MG	DA	3749	1/1	0.95	-	138,138,138,138	0
56	MG	AA	1963	1/1	0.53	-	103,103,103,103	0
56	MG	BA	3151	1/1	0.51	-	114,114,114,114	0
56	MG	CA	1677	1/1	0.20	-	56,56,56,56	0
56	MG	AA	1625	1/1	0.32	-	62,62,62,62	0
56	MG	BA	3361	1/1	0.14	-	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3448	1/1	0.33	-	86,86,86,86	0
56	MG	AA	1753	1/1	0.29	-	71,71,71,71	0
56	MG	CA	1886	1/1	0.29	-	90,90,90,90	0
56	MG	BA	3149	1/1	0.21	-	61,61,61,61	0
56	MG	AA	2009	1/1	0.08	-	71,71,71,71	0
56	MG	DD	302	1/1	0.33	-	40,40,40,40	0
56	MG	DA	3226	1/1	0.18	-	68,68,68,68	0
56	MG	BA	3116	1/1	0.28	-	64,64,64,64	0
56	MG	BA	2994	1/1	0.30	-	60,60,60,60	0
59	C	CP	202	20/21	0.38	-	147,160,162,163	0
56	MG	D0	202	1/1	0.19	-	51,51,51,51	0
56	MG	CA	1850	1/1	0.08	-	76,76,76,76	0
56	MG	AA	2023	1/1	0.05	-	112,112,112,112	0
56	MG	BA	2911	1/1	0.11	-	120,120,120,120	0
56	MG	DA	3497	1/1	0.15	-	72,72,72,72	0
56	MG	DB	205	1/1	0.20	-	69,69,69,69	0
56	MG	DA	3220	1/1	0.27	-	56,56,56,56	0
56	MG	AA	1806	1/1	0.33	-	118,118,118,118	0
56	MG	BA	3208	1/1	0.24	-	68,68,68,68	0
56	MG	BA	3260	1/1	0.22	-	77,77,77,77	0
56	MG	CA	1763	1/1	0.11	-	57,57,57,57	0
56	MG	DA	3105	1/1	0.31	-	50,50,50,50	0
56	MG	DA	3249	1/1	0.12	-	113,113,113,113	0
56	MG	BA	3555	1/1	0.49	-	119,119,119,119	0
56	MG	DA	2966	1/1	0.30	-	24,24,24,24	0
56	MG	AA	1789	1/1	0.20	-	128,128,128,128	0
56	MG	DA	3200	1/1	0.29	-	60,60,60,60	0
56	MG	CA	1819	1/1	0.16	-	86,86,86,86	0
56	MG	BA	3083	1/1	0.18	-	37,37,37,37	0
56	MG	AA	1843	1/1	0.37	-	93,93,93,93	0
56	MG	DA	3517	1/1	0.24	-	76,76,76,76	0
56	MG	DA	3334	1/1	0.31	-	54,54,54,54	0
56	MG	AA	1620	1/1	0.23	-	67,67,67,67	0
56	MG	DA	3197	1/1	0.18	-	48,48,48,48	0
56	MG	DA	3293	1/1	0.33	-	55,55,55,55	0
56	MG	BA	2972	1/1	0.39	-	65,65,65,65	0
56	MG	CA	1693	1/1	0.09	-	62,62,62,62	0
56	MG	BA	3121	1/1	0.21	-	76,76,76,76	0
56	MG	DA	3045	1/1	0.22	-	34,34,34,34	0
56	MG	DA	3622	1/1	0.07	-	114,114,114,114	0
56	MG	BA	2974	1/1	0.29	-	39,39,39,39	0
56	MG	BA	3137	1/1	0.36	-	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1777	1/1	0.28	-	69,69,69,69	0
56	MG	AA	1670	1/1	0.14	-	75,75,75,75	0
56	MG	DA	2952	1/1	0.30	-	29,29,29,29	0
56	MG	CA	1720	1/1	0.14	-	53,53,53,53	0
56	MG	AA	1664	1/1	0.33	-	69,69,69,69	0
56	MG	BA	3164	1/1	0.09	-	70,70,70,70	0
56	MG	AA	1900	1/1	0.11	-	102,102,102,102	0
56	MG	BA	3427	1/1	0.07	-	80,80,80,80	0
56	MG	AA	2029	1/1	0.29	-	127,127,127,127	0
56	MG	BA	3241	1/1	0.30	-	92,92,92,92	0
56	MG	DA	3686	1/1	0.23	-	62,62,62,62	0
56	MG	CA	1936	1/1	0.24	-	92,92,92,92	0
56	MG	DA	3611	1/1	0.05	-	74,74,74,74	0
56	MG	DA	2985	1/1	0.19	-	40,40,40,40	0
56	MG	AA	1698	1/1	0.39	-	79,79,79,79	0
56	MG	BA	3278	1/1	0.20	-	119,119,119,119	0
56	MG	BB	218	1/1	0.10	-	65,65,65,65	0
56	MG	BA	3268	1/1	0.40	-	87,87,87,87	0
56	MG	DA	3527	1/1	0.18	-	90,90,90,90	0
56	MG	BA	3472	1/1	0.14	-	125,125,125,125	0
58	G	CC	101	20/24	0.66	-	213,214,215,215	0
56	MG	AA	1966	1/1	0.30	-	85,85,85,85	0
56	MG	CD	122	1/1	0.16	-	97,97,97,97	0
56	MG	DA	3243	1/1	0.30	-	59,59,59,59	0
56	MG	AA	1692	1/1	0.19	-	75,75,75,75	0
56	MG	DA	3094	1/1	0.33	-	68,68,68,68	0
56	MG	CA	1735	1/1	0.28	-	85,85,85,85	0
56	MG	DA	3817	1/1	0.10	-	72,72,72,72	0
56	MG	DA	3301	1/1	0.43	-	73,73,73,73	0
56	MG	CA	1752	1/1	0.12	-	74,74,74,74	0
56	MG	DA	2988	1/1	0.40	-	54,54,54,54	0
56	MG	DA	3784	1/1	0.10	-	90,90,90,90	0
56	MG	BA	3020	1/1	0.24	-	72,72,72,72	0
56	MG	DA	3506	1/1	0.23	-	51,51,51,51	0
56	MG	BA	3528	1/1	0.14	-	88,88,88,88	0
56	MG	BA	2978	1/1	0.23	-	47,47,47,47	0
56	MG	CA	1672	1/1	0.12	-	84,84,84,84	0
56	MG	DA	3475	1/1	0.17	-	83,83,83,83	0
56	MG	BA	3168	1/1	0.25	-	65,65,65,65	0
56	MG	AA	1711	1/1	0.39	-	86,86,86,86	0
56	MG	BA	3124	1/1	0.36	-	75,75,75,75	0
56	MG	CA	1874	1/1	0.18	-	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	C	CO	201	20/21	0.41	-	186,186,189,189	0
56	MG	BB	205	1/1	0.20	-	74,74,74,74	0
56	MG	DA	3803	1/1	0.21	-	81,81,81,81	0
56	MG	CA	1838	1/1	0.40	-	95,95,95,95	0
56	MG	CA	1743	1/1	0.25	-	89,89,89,89	0
56	MG	AA	2020	1/1	0.15	-	103,103,103,103	0
56	MG	AD	101	1/1	0.34	-	85,85,85,85	0
56	MG	DA	3548	1/1	0.28	-	82,82,82,82	0
56	MG	BA	3052	1/1	0.19	-	63,63,63,63	0
56	MG	AA	1906	1/1	0.36	-	86,86,86,86	0
58	G	CC	104	23/24	0.81	-	211,216,216,218	0
56	MG	DA	3338	1/1	0.18	-	86,86,86,86	0
56	MG	BA	2997	1/1	0.31	-	60,60,60,60	0
56	MG	DA	3793	1/1	0.13	-	57,57,57,57	0
56	MG	DA	3818	1/1	0.21	-	97,97,97,97	0
56	MG	BA	3505	1/1	0.33	-	114,114,114,114	0
56	MG	AA	1993	1/1	0.28	-	134,134,134,134	0
56	MG	DB	213	1/1	0.70	-	133,133,133,133	0
56	MG	BA	3194	1/1	0.26	-	87,87,87,87	0
59	C	DA	2926	20/21	0.30	-	191,195,202,202	0
56	MG	DA	3198	1/1	0.29	-	60,60,60,60	0
56	MG	AA	1811	1/1	0.08	-	81,81,81,81	0
56	MG	BA	3406	1/1	0.10	-	68,68,68,68	0
56	MG	BB	224	1/1	0.09	-	81,81,81,81	0
56	MG	DA	3759	1/1	0.29	-	166,166,166,166	0
56	MG	BA	3583	1/1	0.07	-	79,79,79,79	0
56	MG	AA	1817	1/1	0.04	-	89,89,89,89	0
56	MG	CA	1699	1/1	0.18	-	79,79,79,79	0
56	MG	AA	1736	1/1	0.17	-	53,53,53,53	0
56	MG	BA	3431	1/1	0.10	-	96,96,96,96	0
56	MG	DA	3254	1/1	0.46	-	79,79,79,79	0
56	MG	AA	1688	1/1	0.23	-	39,39,39,39	0
56	MG	DA	3769	1/1	0.30	-	94,94,94,94	0
56	MG	DA	3157	1/1	0.50	-	74,74,74,74	0
56	MG	DA	3361	1/1	0.15	-	34,34,34,34	0
56	MG	DA	3129	1/1	0.12	-	39,39,39,39	0
56	MG	AA	1884	1/1	0.11	-	86,86,86,86	0
56	MG	BA	3138	1/1	0.21	-	85,85,85,85	0
56	MG	CA	1876	1/1	0.10	-	98,98,98,98	0
56	MG	AA	1604	1/1	0.28	-	53,53,53,53	0
56	MG	DA	3013	1/1	0.34	-	31,31,31,31	0
56	MG	DA	3096	1/1	0.30	-	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	DB	229	1/1	0.18	-	78,78,78,78	0
56	MG	DA	3048	1/1	0.24	-	78,78,78,78	0
56	MG	BA	3461	1/1	0.10	-	66,66,66,66	0
56	MG	DA	3745	1/1	0.19	-	152,152,152,152	0
56	MG	BA	3320	1/1	0.40	-	101,101,101,101	0
56	MG	CA	1648	1/1	0.18	-	72,72,72,72	0
56	MG	DA	3137	1/1	0.10	-	62,62,62,62	0
56	MG	DA	3835	1/1	0.61	-	78,78,78,78	0
56	MG	AA	1615	1/1	0.23	-	38,38,38,38	0
56	MG	AA	1662	1/1	0.30	-	100,100,100,100	0
56	MG	DH	204	1/1	0.15	-	77,77,77,77	0
56	MG	DA	3723	1/1	0.14	-	93,93,93,93	0
56	MG	BA	3084	1/1	0.38	-	83,83,83,83	0
56	MG	CA	1783	1/1	0.11	-	92,92,92,92	0
56	MG	DA	3165	1/1	0.08	-	40,40,40,40	0
56	MG	AA	1613	1/1	0.27	-	53,53,53,53	0
56	MG	DA	3102	1/1	0.08	-	46,46,46,46	0
56	MG	CA	1956	1/1	0.17	-	91,91,91,91	0
56	MG	BA	3336	1/1	0.25	-	88,88,88,88	0
56	MG	CA	1811	1/1	0.14	-	79,79,79,79	0
56	MG	DA	3402	1/1	0.18	-	107,107,107,107	0
56	MG	DA	3407	1/1	0.35	-	79,79,79,79	0
56	MG	BA	2929	1/1	0.23	-	32,32,32,32	0
56	MG	CA	1739	1/1	0.17	-	82,82,82,82	0
56	MG	BF	301	1/1	0.12	-	80,80,80,80	0
56	MG	BA	3355	1/1	0.14	-	64,64,64,64	0
56	MG	AA	1650	1/1	0.14	-	74,74,74,74	0
56	MG	CA	1746	1/1	0.09	-	80,80,80,80	0
56	MG	BA	3232	1/1	0.12	-	99,99,99,99	0
56	MG	DA	3620	1/1	0.21	-	99,99,99,99	0
56	MG	CD	111	1/1	0.10	-	87,87,87,87	0
56	MG	DA	2940	1/1	0.32	-	24,24,24,24	0
56	MG	DA	3672	1/1	0.25	-	101,101,101,101	0
56	MG	AA	1833	1/1	0.30	-	88,88,88,88	0
56	MG	DA	3196	1/1	0.12	-	77,77,77,77	0
56	MG	DA	3111	1/1	0.11	-	52,52,52,52	0
56	MG	AA	1661	1/1	0.41	-	93,93,93,93	0
56	MG	BA	3000	1/1	0.14	-	25,25,25,25	0
56	MG	DA	3636	1/1	0.49	-	80,80,80,80	0
56	MG	DA	3304	1/1	0.37	-	76,76,76,76	0
56	MG	BA	3515	1/1	0.20	-	80,80,80,80	0
56	MG	BA	3309	1/1	0.09	-	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	BA	2971	1/1	0.15	-	57,57,57,57	0
56	MG	DA	3775	1/1	0.16	-	114,114,114,114	0
56	MG	AA	1626	1/1	0.18	-	55,55,55,55	0
56	MG	CD	125	1/1	0.34	-	83,83,83,83	0
56	MG	DA	3812	1/1	0.27	-	90,90,90,90	0
56	MG	CW	205	1/1	0.15	-	143,143,143,143	0
56	MG	CA	1660	1/1	0.35	-	86,86,86,86	0
56	MG	DR	202	1/1	0.11	-	102,102,102,102	0
56	MG	DU	206	1/1	0.17	-	83,83,83,83	0
56	MG	DB	227	1/1	0.20	-	105,105,105,105	0
56	MG	DA	3764	1/1	0.46	-	106,106,106,106	0
56	MG	AA	1901	1/1	0.08	-	89,89,89,89	0
56	MG	BA	3442	1/1	0.08	-	89,89,89,89	0
56	MG	AA	1976	1/1	0.37	-	86,86,86,86	0
56	MG	BA	3342	1/1	0.23	-	90,90,90,90	0
56	MG	DA	2979	1/1	0.21	-	38,38,38,38	0
56	MG	CA	1642	1/1	0.29	-	86,86,86,86	0
56	MG	AA	1790	1/1	0.20	-	53,53,53,53	0
56	MG	DA	3303	1/1	0.13	-	109,109,109,109	0
56	MG	DA	3333	1/1	0.39	-	82,82,82,82	0
56	MG	BA	3545	1/1	0.33	-	82,82,82,82	0
56	MG	AA	2015	1/1	0.18	-	106,106,106,106	0
56	MG	CA	1610	1/1	0.30	-	56,56,56,56	0
56	MG	AA	1908	1/1	0.26	-	95,95,95,95	0
56	MG	DA	3149	1/1	0.19	-	55,55,55,55	0
56	MG	DA	3012	1/1	0.12	-	35,35,35,35	0
56	MG	DA	3414	1/1	0.37	-	111,111,111,111	0
56	MG	DA	3771	1/1	0.14	-	69,69,69,69	0
56	MG	AA	1724	1/1	0.44	-	82,82,82,82	0
56	MG	DA	3217	1/1	0.11	-	102,102,102,102	0
56	MG	BA	3174	1/1	0.33	-	90,90,90,90	0
56	MG	AA	1723	1/1	0.17	-	89,89,89,89	0
56	MG	AA	1684	1/1	0.26	-	74,74,74,74	0
56	MG	BA	3331	1/1	0.34	-	80,80,80,80	0
56	MG	CD	109	1/1	0.03	-	89,89,89,89	0
56	MG	DA	3699	1/1	0.23	-	78,78,78,78	0
56	MG	CA	1691	1/1	0.13	-	60,60,60,60	0
56	MG	B8	101	1/1	0.14	-	76,76,76,76	0
56	MG	DA	3224	1/1	0.30	-	64,64,64,64	0
56	MG	DA	3452	1/1	0.19	-	77,77,77,77	0
56	MG	CA	1926	1/1	0.38	-	112,112,112,112	0
56	MG	BA	2950	1/1	0.17	-	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3441	1/1	0.18	-	94,94,94,94	0
56	MG	DB	224	1/1	0.24	-	109,109,109,109	0
56	MG	DA	3446	1/1	0.29	-	70,70,70,70	0
56	MG	AW	204	1/1	0.13	-	105,105,105,105	0
56	MG	CA	1871	1/1	0.26	-	90,90,90,90	0
56	MG	BA	3391	1/1	0.16	-	86,86,86,86	0
56	MG	CA	1965	1/1	0.11	-	106,106,106,106	0
56	MG	D1	201	1/1	0.40	-	83,83,83,83	0
56	MG	AA	1959	1/1	0.44	-	104,104,104,104	0
56	MG	DA	3204	1/1	0.28	-	68,68,68,68	0
56	MG	DA	3380	1/1	0.18	-	86,86,86,86	0
56	MG	CA	1901	1/1	0.11	-	61,61,61,61	0
56	MG	DO	203	1/1	0.37	-	100,100,100,100	0
56	MG	BA	3134	1/1	0.23	-	61,61,61,61	0
56	MG	DO	201	1/1	0.14	-	55,55,55,55	0
56	MG	BA	3364	1/1	0.12	-	77,77,77,77	0
56	MG	DA	3768	1/1	0.05	-	67,67,67,67	0
56	MG	DA	3563	1/1	0.18	-	74,74,74,74	0
56	MG	AA	2001	1/1	0.23	-	76,76,76,76	0
56	MG	AA	1673	1/1	0.12	-	91,91,91,91	0
56	MG	CA	1772	1/1	0.36	-	118,118,118,118	0
56	MG	BA	3313	1/1	0.27	-	102,102,102,102	0
59	C	CA	1605	20/21	0.20	-	136,138,139,139	0
56	MG	BA	3100	1/1	0.14	-	70,70,70,70	0
56	MG	BA	3055	1/1	0.18	-	58,58,58,58	0
56	MG	AA	2030	1/1	0.47	-	188,188,188,188	0
56	MG	DA	3618	1/1	0.24	-	139,139,139,139	0
56	MG	BA	3463	1/1	0.21	-	69,69,69,69	0
56	MG	DA	3279	1/1	0.24	-	46,46,46,46	0
56	MG	DA	2967	1/1	0.27	-	31,31,31,31	0
56	MG	DA	3238	1/1	0.18	-	61,61,61,61	0
56	MG	BA	3019	1/1	0.13	-	67,67,67,67	0
56	MG	CA	1617	1/1	0.25	-	51,51,51,51	0
56	MG	BA	3423	1/1	0.17	-	85,85,85,85	0
56	MG	BA	3026	1/1	0.22	-	60,60,60,60	0
56	MG	BA	3580	1/1	0.11	-	89,89,89,89	0
56	MG	CA	1906	1/1	0.24	-	66,66,66,66	0
58	G	DA	2912	23/24	0.44	-	207,210,214,215	0
56	MG	DA	3128	1/1	0.43	-	92,92,92,92	0
56	MG	DA	3666	1/1	0.24	-	72,72,72,72	0
56	MG	DA	3815	1/1	0.09	-	97,97,97,97	0
56	MG	DA	3210	1/1	0.12	-	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	D3	104	1/1	0.24	-	75,75,75,75	0
56	MG	DA	3664	1/1	0.12	-	87,87,87,87	0
56	MG	BA	3176	1/1	0.21	-	65,65,65,65	0
56	MG	BA	2930	1/1	0.18	-	33,33,33,33	0
56	MG	CA	1721	1/1	0.06	-	64,64,64,64	0
56	MG	DA	3141	1/1	0.27	-	79,79,79,79	0
56	MG	DA	3551	1/1	0.15	-	66,66,66,66	0
56	MG	BA	2993	1/1	0.39	-	52,52,52,52	0
56	MG	DA	3421	1/1	0.24	-	62,62,62,62	0
56	MG	AA	1797	1/1	0.14	-	75,75,75,75	0
56	MG	DA	3124	1/1	0.23	-	41,41,41,41	0
56	MG	BA	3047	1/1	0.16	-	41,41,41,41	0
56	MG	BA	2904	1/1	0.17	-	101,101,101,101	0
56	MG	DB	209	1/1	0.48	-	81,81,81,81	0
56	MG	BA	3155	1/1	0.19	-	64,64,64,64	0
56	MG	CA	1764	1/1	0.12	-	79,79,79,79	0
56	MG	DA	3109	1/1	0.22	-	66,66,66,66	0
56	MG	BA	3509	1/1	0.24	-	107,107,107,107	0
56	MG	CA	1761	1/1	0.18	-	82,82,82,82	0
56	MG	DU	201	1/1	0.19	-	60,60,60,60	0
56	MG	BA	3578	1/1	0.14	-	98,98,98,98	0
56	MG	AA	1713	1/1	0.38	-	94,94,94,94	0
56	MG	CA	1859	1/1	0.26	-	111,111,111,111	0
56	MG	CA	1804	1/1	0.22	-	77,77,77,77	0
56	MG	AA	1917	1/1	0.41	-	132,132,132,132	0
56	MG	CD	108	1/1	0.08	-	174,174,174,174	0
56	MG	BA	3235	1/1	0.14	-	59,59,59,59	0
56	MG	B4	101	1/1	0.14	-	85,85,85,85	0
56	MG	DA	3222	1/1	0.31	-	75,75,75,75	0
56	MG	DA	3300	1/1	0.31	-	78,78,78,78	0
56	MG	CA	1966	1/1	0.20	-	84,84,84,84	0
56	MG	AA	1632	1/1	0.21	-	72,72,72,72	0
56	MG	AA	1929	1/1	0.19	-	124,124,124,124	0
56	MG	AA	1996	1/1	0.34	-	106,106,106,106	0
56	MG	BA	3167	1/1	0.40	-	91,91,91,91	0
56	MG	DA	3437	1/1	0.23	-	73,73,73,73	0
59	C	CP	204	20/21	0.40	-	171,177,179,179	0
56	MG	BU	205	1/1	0.17	-	55,55,55,55	0
56	MG	DA	3240	1/1	0.25	-	74,74,74,74	0
56	MG	CA	1633	1/1	0.28	-	68,68,68,68	0
56	MG	DA	3684	1/1	0.28	-	98,98,98,98	0
56	MG	DA	3331	1/1	0.26	-	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3504	1/1	0.15	-	115,115,115,115	0
56	MG	DA	3087	1/1	0.31	-	56,56,56,56	0
56	MG	DA	3176	1/1	0.18	-	33,33,33,33	0
56	MG	CA	1975	1/1	0.36	-	90,90,90,90	0
56	MG	BA	3222	1/1	0.36	-	88,88,88,88	0
56	MG	AA	1772	1/1	0.32	-	71,71,71,71	0
56	MG	DA	3344	1/1	0.44	-	74,74,74,74	0
56	MG	AA	1896	1/1	0.37	-	93,93,93,93	0
56	MG	DA	3649	1/1	0.20	-	99,99,99,99	0
56	MG	AA	1812	1/1	0.35	-	110,110,110,110	0
56	MG	CA	1751	1/1	0.15	-	89,89,89,89	0
56	MG	AA	1862	1/1	0.14	-	77,77,77,77	0
56	MG	DA	3153	1/1	0.47	-	93,93,93,93	0
59	C	DP	204	20/21	0.37	-	191,193,194,195	0
56	MG	DA	3393	1/1	0.50	-	73,73,73,73	0
56	MG	BA	3476	1/1	0.22	-	97,97,97,97	0
56	MG	DA	3453	1/1	0.43	-	94,94,94,94	0
56	MG	DA	3601	1/1	0.13	-	49,49,49,49	0
56	MG	AA	1677	1/1	0.36	-	63,63,63,63	0
56	MG	AA	1986	1/1	0.17	-	96,96,96,96	0
56	MG	DA	3341	1/1	0.08	-	41,41,41,41	0
56	MG	BA	2913	1/1	0.42	-	115,115,115,115	0
56	MG	AA	1831	1/1	0.13	-	76,76,76,76	0
56	MG	AA	1825	1/1	0.08	-	95,95,95,95	0
56	MG	CA	1935	1/1	0.06	-	122,122,122,122	0
56	MG	DA	3266	1/1	0.20	-	33,33,33,33	0
56	MG	BA	3301	1/1	0.28	-	92,92,92,92	0
56	MG	BB	213	1/1	0.16	-	122,122,122,122	0
56	MG	BA	3037	1/1	0.19	-	61,61,61,61	0
56	MG	CK	201	1/1	0.15	-	90,90,90,90	0
56	MG	AA	1639	1/1	0.39	-	73,73,73,73	0
56	MG	DA	3597	1/1	0.27	-	79,79,79,79	0
56	MG	DA	3186	1/1	0.29	-	56,56,56,56	0
56	MG	BA	2932	1/1	0.17	-	37,37,37,37	0
56	MG	BA	3021	1/1	0.14	-	35,35,35,35	0
56	MG	DA	3320	1/1	0.09	-	81,81,81,81	0
56	MG	AA	1907	1/1	0.08	-	106,106,106,106	0
56	MG	DA	3191	1/1	0.32	-	56,56,56,56	0
56	MG	BA	3564	1/1	0.08	-	77,77,77,77	0
56	MG	DA	3580	1/1	0.16	-	96,96,96,96	0
56	MG	CA	1842	1/1	0.13	-	74,74,74,74	0
56	MG	CA	1967	1/1	0.21	-	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	CA	1970	1/1	0.13	-	145,145,145,145	0
58	G	DA	2920	23/24	0.49	-	196,198,199,200	0
56	MG	DA	3603	1/1	0.38	-	78,78,78,78	0
56	MG	DA	3451	1/1	0.40	-	70,70,70,70	0
56	MG	BA	3152	1/1	0.35	-	72,72,72,72	0
56	MG	DA	3696	1/1	0.07	-	52,52,52,52	0
56	MG	AA	2018	1/1	0.21	-	117,117,117,117	0
56	MG	DB	207	1/1	0.21	-	99,99,99,99	0
56	MG	DA	3390	1/1	0.25	-	70,70,70,70	0
56	MG	BA	3353	1/1	0.20	-	75,75,75,75	0
56	MG	BA	3220	1/1	0.18	-	59,59,59,59	0
56	MG	CD	115	1/1	0.23	-	106,106,106,106	0
56	MG	CA	1757	1/1	0.10	-	80,80,80,80	0
56	MG	BA	3288	1/1	0.08	-	66,66,66,66	0
56	MG	BA	3128	1/1	0.31	-	72,72,72,72	0
56	MG	DA	3412	1/1	0.07	-	57,57,57,57	0
56	MG	CA	1767	1/1	0.08	-	118,118,118,118	0
56	MG	BA	2956	1/1	0.17	-	38,38,38,38	0
56	MG	DA	3307	1/1	0.26	-	70,70,70,70	0
56	MG	DA	3566	1/1	0.19	-	94,94,94,94	0
56	MG	AA	1726	1/1	0.18	-	68,68,68,68	0
56	MG	BA	3381	1/1	0.10	-	45,45,45,45	0
56	MG	BA	3574	1/1	0.15	-	86,86,86,86	0
56	MG	DA	3406	1/1	0.29	-	90,90,90,90	0
56	MG	DA	3727	1/1	0.29	-	83,83,83,83	0
56	MG	B6	101	1/1	0.11	-	84,84,84,84	0
56	MG	AC	102	1/1	0.40	-	85,85,85,85	0
56	MG	DA	3396	1/1	0.28	-	70,70,70,70	0
56	MG	DA	3524	1/1	0.42	-	96,96,96,96	0
56	MG	AA	1938	1/1	0.26	-	89,89,89,89	0
56	MG	BA	3204	1/1	0.30	-	76,76,76,76	0
56	MG	CA	1622	1/1	0.12	-	40,40,40,40	0
56	MG	DA	3190	1/1	0.10	-	51,51,51,51	0
56	MG	DA	3281	1/1	0.21	-	64,64,64,64	0
56	MG	DA	3422	1/1	0.46	-	99,99,99,99	0
56	MG	BA	3573	1/1	0.22	-	86,86,86,86	0
56	MG	CA	1957	1/1	0.19	-	121,121,121,121	0
56	MG	BA	3040	1/1	0.13	-	40,40,40,40	0
56	MG	DA	3703	1/1	0.15	-	78,78,78,78	0
56	MG	DA	3108	1/1	0.27	-	60,60,60,60	0
56	MG	CA	1713	1/1	0.17	-	61,61,61,61	0
56	MG	BA	3042	1/1	0.05	-	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	2967	1/1	0.30	-	60,60,60,60	0
56	MG	DA	3318	1/1	0.25	-	123,123,123,123	0
56	MG	BA	3399	1/1	0.14	-	82,82,82,82	0
56	MG	DA	3747	1/1	0.32	-	106,106,106,106	0
56	MG	BA	3507	1/1	0.17	-	80,80,80,80	0
56	MG	AA	1709	1/1	0.44	-	130,130,130,130	0
56	MG	BA	2965	1/1	0.08	-	30,30,30,30	0
56	MG	AA	1910	1/1	0.12	-	103,103,103,103	0
56	MG	DA	3512	1/1	0.08	-	56,56,56,56	0
56	MG	AA	1652	1/1	0.21	-	82,82,82,82	0
56	MG	BA	3348	1/1	0.37	-	99,99,99,99	0
56	MG	BA	3029	1/1	0.20	-	40,40,40,40	0
56	MG	BA	3153	1/1	0.24	-	71,71,71,71	0
56	MG	DA	3576	1/1	0.33	-	76,76,76,76	0
56	MG	CD	103	1/1	0.15	-	113,113,113,113	0
56	MG	DA	3078	1/1	0.31	-	49,49,49,49	0
56	MG	DA	2987	1/1	0.36	-	52,52,52,52	0
56	MG	DA	2958	1/1	0.15	-	32,32,32,32	0
56	MG	CA	1611	1/1	0.24	-	66,66,66,66	0
56	MG	DA	3477	1/1	0.48	-	118,118,118,118	0
56	MG	AA	1987	1/1	0.21	-	86,86,86,86	0
56	MG	BA	3433	1/1	0.28	-	109,109,109,109	0
56	MG	DA	2943	1/1	0.25	-	27,27,27,27	0
56	MG	CA	1728	1/1	0.18	-	60,60,60,60	0
56	MG	BA	3177	1/1	0.33	-	89,89,89,89	0
56	MG	BT	102	1/1	0.15	-	100,100,100,100	0
56	MG	AA	1913	1/1	0.24	-	114,114,114,114	0
56	MG	AA	1865	1/1	0.43	-	140,140,140,140	0
56	MG	DA	3735	1/1	0.28	-	89,89,89,89	0
56	MG	DA	3354	1/1	0.15	-	91,91,91,91	0
56	MG	DA	3638	1/1	0.54	-	95,95,95,95	0
56	MG	BA	3276	1/1	0.18	-	79,79,79,79	0
56	MG	DA	3534	1/1	0.12	-	68,68,68,68	0
56	MG	DA	3629	1/1	0.41	-	78,78,78,78	0
56	MG	DA	2955	1/1	0.30	-	28,28,28,28	0
56	MG	CX	102	1/1	0.05	-	104,104,104,104	0
56	MG	AA	1748	1/1	0.17	-	85,85,85,85	0
56	MG	CD	101	1/1	0.16	-	53,53,53,53	0
56	MG	DA	3269	1/1	0.23	-	67,67,67,67	0
56	MG	DD	303	1/1	0.17	-	43,43,43,43	0
56	MG	DA	3359	1/1	0.33	-	79,79,79,79	0
56	MG	CA	1629	1/1	0.21	-	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3354	1/1	0.10	-	57,57,57,57	0
56	MG	DA	3267	1/1	0.20	-	63,63,63,63	0
56	MG	DA	3632	1/1	0.12	-	80,80,80,80	0
56	MG	AA	2024	1/1	0.22	-	75,75,75,75	0
56	MG	DA	3689	1/1	0.25	-	83,83,83,83	0
56	MG	BA	3334	1/1	0.24	-	75,75,75,75	0
56	MG	BA	3450	1/1	0.14	-	90,90,90,90	0
56	MG	BA	3401	1/1	0.12	-	36,36,36,36	0
56	MG	CA	1815	1/1	0.20	-	98,98,98,98	0
56	MG	AC	104	1/1	0.11	-	85,85,85,85	0
56	MG	BB	209	1/1	0.16	-	59,59,59,59	0
56	MG	CA	1919	1/1	0.14	-	127,127,127,127	0
56	MG	BA	3343	1/1	0.27	-	73,73,73,73	0
58	G	DP	202	23/24	0.32	-	188,189,190,190	0
56	MG	BA	3284	1/1	0.13	-	74,74,74,74	0
56	MG	BA	3293	1/1	0.47	-	111,111,111,111	0
56	MG	DA	3265	1/1	0.32	-	77,77,77,77	0
56	MG	AA	1975	1/1	0.22	-	86,86,86,86	0
56	MG	AA	1641	1/1	0.13	-	76,76,76,76	0
56	MG	DA	3379	1/1	0.49	-	77,77,77,77	0
58	G	CA	1602	23/24	0.39	-	162,165,174,174	0
56	MG	CA	1625	1/1	0.15	-	51,51,51,51	0
56	MG	BA	3089	1/1	0.40	-	74,74,74,74	0
56	MG	BA	3561	1/1	0.39	-	117,117,117,117	0
56	MG	DA	3617	1/1	0.27	-	96,96,96,96	0
56	MG	AA	1728	1/1	0.28	-	77,77,77,77	0
56	MG	BA	3270	1/1	0.45	-	98,98,98,98	0
56	MG	BA	3101	1/1	0.18	-	56,56,56,56	0
56	MG	BA	3489	1/1	0.17	-	93,93,93,93	0
56	MG	DA	3501	1/1	0.51	-	93,93,93,93	0
56	MG	CA	1787	1/1	0.18	-	78,78,78,78	0
56	MG	CA	1753	1/1	0.48	-	86,86,86,86	0
56	MG	BA	3043	1/1	0.08	-	51,51,51,51	0
56	MG	DA	3459	1/1	0.33	-	82,82,82,82	0
56	MG	CD	117	1/1	0.07	-	85,85,85,85	0
59	C	DP	205	20/21	0.47	-	189,190,191,191	0
56	MG	AC	107	1/1	0.58	-	114,114,114,114	0
56	MG	DA	3182	1/1	0.32	-	64,64,64,64	0
56	MG	AA	1915	1/1	0.17	-	172,172,172,172	0
56	MG	BA	3356	1/1	0.06	-	75,75,75,75	0
56	MG	BA	2947	1/1	0.17	-	30,30,30,30	0
56	MG	DA	3561	1/1	0.15	-	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	DA	3584	1/1	0.19	-	91,91,91,91	0
56	MG	DA	3802	1/1	0.29	-	110,110,110,110	0
56	MG	BA	3414	1/1	0.24	-	105,105,105,105	0
56	MG	CA	1867	1/1	0.41	-	127,127,127,127	0
56	MG	AA	1766	1/1	0.10	-	69,69,69,69	0
56	MG	BA	3209	1/1	0.21	-	58,58,58,58	0
56	MG	BA	2922	1/1	0.21	-	46,46,46,46	0
56	MG	BA	3054	1/1	0.22	-	66,66,66,66	0
56	MG	BA	3365	1/1	0.16	-	77,77,77,77	0
56	MG	CH	201	1/1	0.14	-	82,82,82,82	0
56	MG	DA	3841	1/1	0.17	-	94,94,94,94	0
56	MG	AA	1984	1/1	0.17	-	80,80,80,80	0
56	MG	BA	3540	1/1	0.20	-	69,69,69,69	0
56	MG	AA	1774	1/1	0.25	-	75,75,75,75	0
56	MG	DA	3774	1/1	0.20	-	88,88,88,88	0
56	MG	DA	2981	1/1	0.16	-	35,35,35,35	0
56	MG	DA	3482	1/1	0.36	-	95,95,95,95	0
56	MG	DA	3223	1/1	0.10	-	23,23,23,23	0
56	MG	CA	1769	1/1	0.23	-	110,110,110,110	0
56	MG	CA	1851	1/1	0.19	-	76,76,76,76	0
56	MG	AA	1958	1/1	0.35	-	93,93,93,93	0
56	MG	AA	1816	1/1	0.21	-	107,107,107,107	0
56	MG	AA	1856	1/1	0.20	-	71,71,71,71	0
56	MG	DA	3082	1/1	0.32	-	57,57,57,57	0
56	MG	DA	3624	1/1	0.32	-	134,134,134,134	0
56	MG	DA	3821	1/1	0.32	-	106,106,106,106	0
56	MG	BA	2935	1/1	0.25	-	46,46,46,46	0
56	MG	CA	1834	1/1	0.05	-	100,100,100,100	0
56	MG	BA	3063	1/1	0.25	-	63,63,63,63	0
56	MG	DA	3430	1/1	0.09	-	60,60,60,60	0
56	MG	AA	1941	1/1	0.11	-	93,93,93,93	0
56	MG	DA	3596	1/1	0.26	-	103,103,103,103	0
56	MG	DB	216	1/1	0.19	-	94,94,94,94	0
56	MG	DA	3199	1/1	0.25	-	55,55,55,55	0
56	MG	CA	1984	1/1	0.19	-	100,100,100,100	0
56	MG	DA	3702	1/1	0.29	-	88,88,88,88	0
56	MG	DA	3781	1/1	0.14	-	68,68,68,68	0
56	MG	AA	1608	1/1	0.39	-	67,67,67,67	0
56	MG	CA	1890	1/1	0.08	-	80,80,80,80	0
56	MG	DB	206	1/1	0.21	-	57,57,57,57	0
56	MG	BA	3184	1/1	0.45	-	116,116,116,116	0
56	MG	BA	3370	1/1	0.11	-	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	1793	1/1	0.20	-	73,73,73,73	0
56	MG	BA	3426	1/1	0.07	-	43,43,43,43	0
56	MG	CA	1668	1/1	0.15	-	64,64,64,64	0
56	MG	DT	102	1/1	0.14	-	64,64,64,64	0
56	MG	DA	3401	1/1	0.33	-	79,79,79,79	0
56	MG	AA	1663	1/1	0.23	-	71,71,71,71	0
56	MG	BA	3469	1/1	0.24	-	70,70,70,70	0
56	MG	BA	3109	1/1	0.21	-	73,73,73,73	0
56	MG	DA	3716	1/1	0.10	-	68,68,68,68	0
56	MG	DA	3569	1/1	0.26	-	87,87,87,87	0
56	MG	DA	3529	1/1	0.27	-	95,95,95,95	0
56	MG	DA	3435	1/1	0.39	-	100,100,100,100	0
56	MG	CA	1985	1/1	0.22	-	73,73,73,73	0
58	G	DA	2903	23/24	0.44	-	200,202,205,206	0
56	MG	DA	3792	1/1	0.23	-	67,67,67,67	0
56	MG	CA	1679	1/1	0.15	-	70,70,70,70	0
56	MG	AA	1697	1/1	0.22	-	77,77,77,77	0
56	MG	DA	3132	1/1	0.15	-	46,46,46,46	0
56	MG	AA	1657	1/1	0.38	-	83,83,83,83	0
56	MG	BA	3419	1/1	0.07	-	101,101,101,101	0
56	MG	DA	2957	1/1	0.25	-	21,21,21,21	0
56	MG	CA	1736	1/1	0.13	-	61,61,61,61	0
56	MG	AA	1803	1/1	0.17	-	61,61,61,61	0
56	MG	BA	3081	1/1	0.29	-	72,72,72,72	0
56	MG	CA	1765	1/1	0.08	-	90,90,90,90	0
56	MG	DS	201	1/1	0.37	-	104,104,104,104	0
56	MG	DA	2962	1/1	0.43	-	38,38,38,38	0
56	MG	AA	1798	1/1	0.32	-	79,79,79,79	0
56	MG	DA	3805	1/1	0.20	-	92,92,92,92	0
56	MG	CA	1671	1/1	0.13	-	87,87,87,87	0
56	MG	CA	1939	1/1	0.11	-	94,94,94,94	0
56	MG	AA	1960	1/1	0.17	-	98,98,98,98	0
56	MG	DA	3513	1/1	0.13	-	68,68,68,68	0
56	MG	BA	3221	1/1	0.28	-	82,82,82,82	0
56	MG	AA	1741	1/1	0.16	-	93,93,93,93	0
56	MG	DA	3776	1/1	0.20	-	127,127,127,127	0
56	MG	CA	1683	1/1	0.35	-	83,83,83,83	0
56	MG	DA	3724	1/1	0.23	-	78,78,78,78	0
56	MG	DA	3472	1/1	0.19	-	90,90,90,90	0
56	MG	CA	1796	1/1	0.15	-	100,100,100,100	0
58	G	DA	2908	23/24	0.23	-	230,232,233,233	0
56	MG	DA	3073	1/1	0.38	-	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	AA	1715	1/1	0.12	-	76,76,76,76	0
59	C	DA	2936	20/21	0.48	-	211,214,215,216	0
56	MG	CC	113	1/1	0.06	-	79,79,79,79	0
56	MG	BA	3245	1/1	0.12	-	128,128,128,128	0
56	MG	DA	3429	1/1	0.13	-	66,66,66,66	0
58	G	CA	1601	23/24	0.44	-	179,181,186,186	0
56	MG	CA	1689	1/1	0.17	-	67,67,67,67	0
56	MG	DA	3040	1/1	0.31	-	62,62,62,62	0
56	MG	CA	1665	1/1	0.24	-	76,76,76,76	0
56	MG	BA	2940	1/1	0.20	-	27,27,27,27	0
56	MG	BA	3252	1/1	0.12	-	38,38,38,38	0
56	MG	DA	3039	1/1	0.44	-	62,62,62,62	0
56	MG	BA	3395	1/1	0.08	-	60,60,60,60	0
56	MG	DA	3675	1/1	0.13	-	37,37,37,37	0
56	MG	DA	3005	1/1	0.11	-	20,20,20,20	0
56	MG	DA	3711	1/1	0.13	-	83,83,83,83	0
56	MG	DA	3767	1/1	0.14	-	79,79,79,79	0
56	MG	DA	3444	1/1	0.06	-	41,41,41,41	0
56	MG	DA	3308	1/1	0.49	-	87,87,87,87	0
56	MG	DA	3485	1/1	0.43	-	103,103,103,103	0
56	MG	AA	1696	1/1	0.32	-	134,134,134,134	0
56	MG	DA	2945	1/1	0.23	-	23,23,23,23	0
56	MG	BA	3483	1/1	0.15	-	103,103,103,103	0
56	MG	AA	1640	1/1	0.23	-	75,75,75,75	0
56	MG	DA	3668	1/1	0.46	-	118,118,118,118	0
56	MG	DA	3811	1/1	0.34	-	76,76,76,76	0
56	MG	CA	1941	1/1	0.30	-	94,94,94,94	0
56	MG	DA	3277	1/1	0.17	-	58,58,58,58	0
56	MG	DA	3623	1/1	0.21	-	72,72,72,72	0
56	MG	DA	3011	1/1	0.43	-	51,51,51,51	0
56	MG	AA	1804	1/1	0.36	-	88,88,88,88	0
61	A	DA	2905	22/23	0.43	-	198,198,199,199	0
56	MG	DA	3187	1/1	0.35	-	54,54,54,54	0
56	MG	DA	2960	1/1	0.15	-	18,18,18,18	0
56	MG	BA	3115	1/1	0.31	-	89,89,89,89	0
56	MG	DA	3608	1/1	0.37	-	81,81,81,81	0
56	MG	BA	3402	1/1	0.17	-	96,96,96,96	0
56	MG	DA	3535	1/1	0.14	-	107,107,107,107	0
56	MG	BA	3041	1/1	0.09	-	39,39,39,39	0
56	MG	AK	201	1/1	0.13	-	90,90,90,90	0
56	MG	DA	3392	1/1	0.21	-	60,60,60,60	0
56	MG	BA	2942	1/1	0.30	-	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	AA	1727	1/1	0.24	-	104,104,104,104	0
56	MG	DA	3455	1/1	0.07	-	59,59,59,59	0
56	MG	CP	207	1/1	0.17	-	93,93,93,93	0
56	MG	BA	3140	1/1	0.11	-	51,51,51,51	0
56	MG	DA	3237	1/1	0.24	-	52,52,52,52	0
56	MG	CA	1924	1/1	0.08	-	95,95,95,95	0
56	MG	DA	2982	1/1	0.39	-	40,40,40,40	0
56	MG	BA	3383	1/1	0.20	-	63,63,63,63	0
56	MG	AA	1969	1/1	0.13	-	89,89,89,89	0
56	MG	DA	3206	1/1	0.37	-	59,59,59,59	0
56	MG	DA	3121	1/1	0.27	-	47,47,47,47	0
56	MG	BA	2995	1/1	0.29	-	52,52,52,52	0
56	MG	AA	1676	1/1	0.15	-	96,96,96,96	0
56	MG	DA	3117	1/1	0.07	-	23,23,23,23	0
56	MG	AA	2019	1/1	0.05	-	104,104,104,104	0
56	MG	CC	119	1/1	0.13	-	88,88,88,88	0
56	MG	CA	1977	1/1	0.24	-	87,87,87,87	0
56	MG	BA	3432	1/1	0.21	-	115,115,115,115	0
56	MG	DA	3695	1/1	0.47	-	88,88,88,88	0
56	MG	DA	3201	1/1	0.34	-	72,72,72,72	0
56	MG	CC	110	1/1	0.16	-	86,86,86,86	0
56	MG	BA	3257	1/1	0.07	-	63,63,63,63	0
56	MG	BA	3445	1/1	0.44	-	96,96,96,96	0
56	MG	DB	210	1/1	0.14	-	114,114,114,114	0
56	MG	CA	1701	1/1	0.18	-	55,55,55,55	0
56	MG	BA	3187	1/1	0.06	-	40,40,40,40	0
56	MG	BA	3546	1/1	0.24	-	102,102,102,102	0
61	A	C1	103	22/23	0.24	-	133,135,137,138	0
56	MG	DB	218	1/1	0.43	-	84,84,84,84	0
56	MG	DA	3403	1/1	0.14	-	50,50,50,50	0
56	MG	CA	1950	1/1	0.10	-	110,110,110,110	0
56	MG	DA	3122	1/1	0.37	-	67,67,67,67	0
56	MG	BA	3016	1/1	0.28	-	63,63,63,63	0
56	MG	DA	3687	1/1	0.23	-	76,76,76,76	0
56	MG	CA	1942	1/1	0.07	-	136,136,136,136	0
56	MG	CA	1964	1/1	0.09	-	90,90,90,90	0
56	MG	DA	3298	1/1	0.32	-	102,102,102,102	0
56	MG	AA	1894	1/1	0.40	-	103,103,103,103	0
56	MG	DB	223	1/1	0.05	-	104,104,104,104	0
56	MG	BA	3110	1/1	0.17	-	34,34,34,34	0
56	MG	AA	1998	1/1	0.29	-	98,98,98,98	0
56	MG	AA	1654	1/1	0.26	-	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	3130	1/1	0.27	-	75,75,75,75	0
61	A	CC	103	22/23	0.59	-	208,209,210,210	0
56	MG	BA	2920	1/1	0.18	-	36,36,36,36	0
56	MG	BA	2925	1/1	0.23	-	46,46,46,46	0
56	MG	DA	3261	1/1	0.21	-	55,55,55,55	0
60	U	DA	2932	20/21	0.51	-	191,194,195,195	0
56	MG	DA	3465	1/1	0.18	-	55,55,55,55	0
56	MG	BA	2989	1/1	0.39	-	60,60,60,60	0
56	MG	AA	1796	1/1	0.44	-	75,75,75,75	0
56	MG	BA	3065	1/1	0.17	-	51,51,51,51	0
56	MG	DA	3773	1/1	0.20	-	76,76,76,76	0
56	MG	BA	3093	1/1	0.12	-	65,65,65,65	0
56	MG	CA	1703	1/1	0.23	-	84,84,84,84	0
56	MG	AA	1776	1/1	0.40	-	110,110,110,110	0
58	G	DA	2904	23/24	0.60	-	199,200,202,202	0
56	MG	BA	3458	1/1	0.10	-	76,76,76,76	0
56	MG	BA	3275	1/1	0.30	-	77,77,77,77	0
56	MG	AA	1923	1/1	0.12	-	85,85,85,85	0
56	MG	AA	1911	1/1	0.31	-	104,104,104,104	0
56	MG	BA	3409	1/1	0.16	-	100,100,100,100	0
56	MG	CA	1929	1/1	0.29	-	116,116,116,116	0
56	MG	AT	201	1/1	0.20	-	101,101,101,101	0
56	MG	DA	3677	1/1	0.30	-	82,82,82,82	0
56	MG	DA	3537	1/1	0.12	-	60,60,60,60	0
56	MG	CA	1784	1/1	0.19	-	71,71,71,71	0
56	MG	BT	101	1/1	0.07	-	65,65,65,65	0
56	MG	BA	2987	1/1	0.29	-	57,57,57,57	0
56	MG	BA	3541	1/1	0.23	-	79,79,79,79	0
56	MG	DA	3216	1/1	0.39	-	74,74,74,74	0
56	MG	BA	3147	1/1	0.44	-	83,83,83,83	0
56	MG	BA	2976	1/1	0.24	-	38,38,38,38	0
56	MG	DA	3081	1/1	0.18	-	61,61,61,61	0
56	MG	CA	1911	1/1	0.26	-	117,117,117,117	0
56	MG	BA	3522	1/1	0.04	-	54,54,54,54	0
56	MG	BA	3181	1/1	0.34	-	97,97,97,97	0
56	MG	CA	1865	1/1	0.15	-	109,109,109,109	0
56	MG	CA	1825	1/1	0.24	-	92,92,92,92	0
56	MG	BA	3579	1/1	0.10	-	83,83,83,83	0
56	MG	DA	3631	1/1	0.45	-	123,123,123,123	0
56	MG	DB	226	1/1	0.17	-	84,84,84,84	0
56	MG	CA	1953	1/1	0.06	-	91,91,91,91	0
56	MG	BA	2983	1/1	0.24	-	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	1778	1/1	0.07	-	61,61,61,61	0
56	MG	DG	202	1/1	0.09	-	84,84,84,84	0
56	MG	CA	1976	1/1	0.24	-	86,86,86,86	0
56	MG	AA	1623	1/1	0.34	-	53,53,53,53	0
56	MG	BA	3104	1/1	0.29	-	47,47,47,47	0
56	MG	CR	101	1/1	0.35	-	117,117,117,117	0
56	MG	BA	3533	1/1	0.10	-	81,81,81,81	0
56	MG	DA	3709	1/1	0.29	-	87,87,87,87	0
56	MG	AA	1834	1/1	0.51	-	183,183,183,183	0
56	MG	BA	3112	1/1	0.26	-	64,64,64,64	0
56	MG	AA	1903	1/1	0.23	-	95,95,95,95	0
56	MG	DA	3760	1/1	0.18	-	106,106,106,106	0
56	MG	BA	3286	1/1	0.22	-	80,80,80,80	0
56	MG	CA	1628	1/1	0.16	-	49,49,49,49	0
56	MG	BA	3454	1/1	0.09	-	100,100,100,100	0
56	MG	BA	3179	1/1	0.19	-	51,51,51,51	0
56	MG	DA	2965	1/1	0.28	-	32,32,32,32	0
56	MG	CA	1848	1/1	0.14	-	119,119,119,119	0
56	MG	AA	1710	1/1	0.18	-	78,78,78,78	0
56	MG	AA	1995	1/1	0.26	-	142,142,142,142	0
56	MG	BA	3323	1/1	0.08	-	58,58,58,58	0
56	MG	AA	1875	1/1	0.20	-	113,113,113,113	0
56	MG	AA	2031	1/1	0.29	-	86,86,86,86	0
56	MG	BA	3514	1/1	0.38	-	102,102,102,102	0
56	MG	AA	1624	1/1	0.33	-	56,56,56,56	0
56	MG	CA	1706	1/1	0.17	-	66,66,66,66	0
56	MG	DA	3443	1/1	0.19	-	82,82,82,82	0
56	MG	BA	3273	1/1	0.09	-	72,72,72,72	0
56	MG	DA	3044	1/1	0.19	-	48,48,48,48	0
56	MG	CA	1698	1/1	0.20	-	56,56,56,56	0
56	MG	AA	1979	1/1	0.28	-	75,75,75,75	0
56	MG	CT	201	1/1	0.21	-	76,76,76,76	0
56	MG	AA	1988	1/1	0.19	-	93,93,93,93	0
56	MG	BA	3388	1/1	0.44	-	95,95,95,95	0
56	MG	BA	3465	1/1	0.20	-	92,92,92,92	0
56	MG	CA	1615	1/1	0.15	-	53,53,53,53	0
56	MG	DA	3236	1/1	0.09	-	39,39,39,39	0
56	MG	AA	1861	1/1	0.20	-	120,120,120,120	0
56	MG	AA	1808	1/1	0.12	-	92,92,92,92	0
56	MG	BA	3376	1/1	0.17	-	121,121,121,121	0
56	MG	DA	3613	1/1	0.10	-	109,109,109,109	0
56	MG	DA	2954	1/1	0.26	-	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	1968	1/1	0.09	-	80,80,80,80	0
56	MG	AA	2026	1/1	0.28	-	90,90,90,90	0
56	MG	CA	1715	1/1	0.15	-	77,77,77,77	0
56	MG	BR	201	1/1	0.15	-	103,103,103,103	0
56	MG	BA	3520	1/1	0.24	-	55,55,55,55	0
56	MG	DA	2956	1/1	0.26	-	46,46,46,46	0
56	MG	DA	3350	1/1	0.25	-	71,71,71,71	0
56	MG	AA	1860	1/1	0.28	-	93,93,93,93	0
56	MG	BA	3211	1/1	0.04	-	43,43,43,43	0
56	MG	CA	1775	1/1	0.15	-	52,52,52,52	0
56	MG	BA	3009	1/1	0.18	-	57,57,57,57	0
56	MG	AA	1832	1/1	0.21	-	91,91,91,91	0
56	MG	BA	2926	1/1	0.18	-	43,43,43,43	0
56	MG	BA	3159	1/1	0.26	-	61,61,61,61	0
56	MG	DA	3229	1/1	0.20	-	61,61,61,61	0
56	MG	CH	202	1/1	0.17	-	72,72,72,72	0
56	MG	DA	3678	1/1	0.23	-	76,76,76,76	0
56	MG	DA	3478	1/1	0.56	-	116,116,116,116	0
56	MG	CS	102	1/1	0.14	-	119,119,119,119	0
56	MG	BA	3532	1/1	0.23	-	83,83,83,83	0
56	MG	DA	3717	1/1	0.18	-	75,75,75,75	0
56	MG	BA	3095	1/1	0.15	-	52,52,52,52	0
56	MG	BA	3582	1/1	0.27	-	133,133,133,133	0
56	MG	DA	3509	1/1	0.47	-	111,111,111,111	0
56	MG	BA	3341	1/1	0.05	-	119,119,119,119	0
56	MG	DA	3639	1/1	0.13	-	116,116,116,116	0
56	MG	DA	3340	1/1	0.62	-	113,113,113,113	0
56	MG	BA	3321	1/1	0.15	-	64,64,64,64	0
56	MG	DA	2961	1/1	0.14	-	17,17,17,17	0
56	MG	CA	1841	1/1	0.29	-	103,103,103,103	0
56	MG	BA	3225	1/1	0.08	-	49,49,49,49	0
56	MG	DA	3532	1/1	0.30	-	92,92,92,92	0
56	MG	AA	1888	1/1	0.14	-	114,114,114,114	0
56	MG	CA	1916	1/1	0.13	-	74,74,74,74	0
56	MG	AA	2034	1/1	0.35	-	94,94,94,94	0
56	MG	AA	1637	1/1	0.54	-	82,82,82,82	0
56	MG	BA	3538	1/1	0.15	-	65,65,65,65	0
56	MG	AA	1953	1/1	0.17	-	94,94,94,94	0
56	MG	B1	201	1/1	0.18	-	80,80,80,80	0
56	MG	BA	3405	1/1	0.19	-	82,82,82,82	0
56	MG	DA	3286	1/1	0.28	-	65,65,65,65	0
56	MG	AA	1638	1/1	0.24	-	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	BA	3460	1/1	0.20	-	90,90,90,90	0
56	MG	BA	3373	1/1	0.36	-	105,105,105,105	0
56	MG	CA	1824	1/1	0.27	-	105,105,105,105	0
56	MG	DU	205	1/1	0.19	-	75,75,75,75	0
56	MG	BA	3183	1/1	0.14	-	80,80,80,80	0
56	MG	DA	3024	1/1	0.25	-	36,36,36,36	0
56	MG	BA	2905	1/1	0.23	-	136,136,136,136	0
56	MG	CA	1921	1/1	0.08	-	36,36,36,36	0
56	MG	AA	2013	1/1	0.15	-	94,94,94,94	0
56	MG	DA	3336	1/1	0.30	-	84,84,84,84	0
56	MG	BA	3027	1/1	0.17	-	46,46,46,46	0
56	MG	CA	1742	1/1	0.41	-	108,108,108,108	0
56	MG	DA	3744	1/1	0.08	-	64,64,64,64	0
56	MG	CA	1774	1/1	0.20	-	68,68,68,68	0
56	MG	CA	1780	1/1	0.05	-	87,87,87,87	0
58	G	DA	2901	23/24	0.59	-	214,217,220,220	0
56	MG	DA	2999	1/1	0.20	-	33,33,33,33	0
56	MG	DA	3152	1/1	0.34	-	55,55,55,55	0
56	MG	BA	3333	1/1	0.13	-	62,62,62,62	0
56	MG	DA	3538	1/1	0.33	-	84,84,84,84	0
57	ZN	AA	2040	1/1	0.55	-	300,300,300,300	0
56	MG	CA	1896	1/1	0.20	-	89,89,89,89	0
56	MG	BA	3172	1/1	0.24	-	72,72,72,72	0
56	MG	DA	3389	1/1	0.22	-	66,66,66,66	0
56	MG	AA	1871	1/1	0.07	-	117,117,117,117	0
56	MG	DA	3748	1/1	0.29	-	102,102,102,102	0
56	MG	BA	2916	1/1	0.25	-	42,42,42,42	0
56	MG	DA	3366	1/1	0.26	-	62,62,62,62	0
56	MG	DA	3474	1/1	0.55	-	107,107,107,107	0
56	MG	AA	1851	1/1	0.18	-	97,97,97,97	0
56	MG	DA	3084	1/1	0.18	-	50,50,50,50	0
56	MG	BA	3534	1/1	0.15	-	93,93,93,93	0
56	MG	AA	1885	1/1	0.24	-	113,113,113,113	0
56	MG	DA	3691	1/1	0.11	-	105,105,105,105	0
56	MG	CL	201	1/1	0.48	-	81,81,81,81	0
56	MG	AA	1952	1/1	0.06	-	76,76,76,76	0
56	MG	BA	3475	1/1	0.17	-	73,73,73,73	0
56	MG	AA	1747	1/1	0.29	-	89,89,89,89	0
61	A	DA	2919	22/23	0.35	-	194,198,199,199	0
56	MG	CA	1864	1/1	0.11	-	80,80,80,80	0
56	MG	DA	3808	1/1	0.30	-	97,97,97,97	0
56	MG	DA	3610	1/1	0.64	-	124,124,124,124	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1717	1/1	0.30	-	77,77,77,77	0
56	MG	BA	3291	1/1	0.17	-	86,86,86,86	0
56	MG	DA	3008	1/1	0.25	-	40,40,40,40	0
56	MG	BA	3499	1/1	0.37	-	114,114,114,114	0
56	MG	BB	214	1/1	0.33	-	91,91,91,91	0
56	MG	BB	211	1/1	0.23	-	80,80,80,80	0
56	MG	AA	1618	1/1	0.29	-	39,39,39,39	0
56	MG	CA	1712	1/1	0.17	-	84,84,84,84	0
56	MG	BA	2999	1/1	0.14	-	27,27,27,27	0
56	MG	AA	1845	1/1	0.14	-	88,88,88,88	0
56	MG	CA	1923	1/1	0.14	-	114,114,114,114	0
56	MG	AA	1757	1/1	0.15	-	45,45,45,45	0
56	MG	AA	1791	1/1	0.07	-	68,68,68,68	0
56	MG	DA	3134	1/1	0.38	-	63,63,63,63	0
56	MG	CA	1918	1/1	0.16	-	123,123,123,123	0
56	MG	DA	3118	1/1	0.35	-	84,84,84,84	0
56	MG	BA	3491	1/1	0.27	-	104,104,104,104	0
56	MG	BA	2901	1/1	0.12	-	61,61,61,61	0
56	MG	AA	1633	1/1	0.31	-	79,79,79,79	0
56	MG	DA	2971	1/1	0.09	-	22,22,22,22	0
56	MG	AA	1666	1/1	0.25	-	95,95,95,95	0
56	MG	CA	1704	1/1	0.25	-	98,98,98,98	0
56	MG	AA	1827	1/1	0.19	-	88,88,88,88	0
56	MG	DA	3231	1/1	0.28	-	65,65,65,65	0
56	MG	CA	1733	1/1	0.14	-	54,54,54,54	0
56	MG	BA	3437	1/1	0.17	-	88,88,88,88	0
56	MG	DA	3809	1/1	0.25	-	76,76,76,76	0
56	MG	CA	1837	1/1	0.17	-	135,135,135,135	0
56	MG	DA	3275	1/1	0.35	-	100,100,100,100	0
56	MG	DA	3739	1/1	0.07	-	22,22,22,22	0
56	MG	BA	3326	1/1	0.10	-	54,54,54,54	0
56	MG	DA	3519	1/1	0.07	-	43,43,43,43	0
56	MG	DA	2998	1/1	0.19	-	37,37,37,37	0
56	MG	DA	3789	1/1	0.19	-	74,74,74,74	0
56	MG	AA	1646	1/1	0.22	-	66,66,66,66	0
56	MG	DA	3015	1/1	0.22	-	24,24,24,24	0
56	MG	DA	3605	1/1	0.13	-	93,93,93,93	0
56	MG	DA	3763	1/1	0.15	-	75,75,75,75	0
56	MG	BA	3525	1/1	0.09	-	95,95,95,95	0
56	MG	CA	1808	1/1	0.30	-	88,88,88,88	0
56	MG	AA	1634	1/1	0.42	-	97,97,97,97	0
56	MG	BA	3477	1/1	0.15	-	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	CA	1631	1/1	0.22	-	40,40,40,40	0
56	MG	BA	2903	1/1	0.14	-	82,82,82,82	0
56	MG	DA	3383	1/1	0.07	-	66,66,66,66	0
56	MG	BA	3014	1/1	0.30	-	49,49,49,49	0
56	MG	DA	3718	1/1	0.25	-	92,92,92,92	0
56	MG	BA	2943	1/1	0.30	-	44,44,44,44	0
56	MG	BA	2954	1/1	0.26	-	54,54,54,54	0
56	MG	DA	3156	1/1	0.32	-	59,59,59,59	0
56	MG	DA	3510	1/1	0.34	-	87,87,87,87	0
56	MG	BU	201	1/1	0.29	-	75,75,75,75	0
56	MG	DA	3673	1/1	0.15	-	66,66,66,66	0
56	MG	DZ	101	1/1	0.06	-	79,79,79,79	0
56	MG	DA	3194	1/1	0.08	-	51,51,51,51	0
56	MG	BA	3126	1/1	0.12	-	42,42,42,42	0
56	MG	BA	3338	1/1	0.16	-	100,100,100,100	0
56	MG	CC	116	1/1	0.31	-	99,99,99,99	0
56	MG	BA	3214	1/1	0.22	-	67,67,67,67	0
56	MG	CA	1958	1/1	0.16	-	74,74,74,74	0
56	MG	DA	3284	1/1	0.14	-	45,45,45,45	0
56	MG	DB	212	1/1	0.38	-	75,75,75,75	0
61	A	DA	2918	22/23	0.25	-	137,139,140,145	0
56	MG	DA	3602	1/1	0.18	-	100,100,100,100	0
56	MG	BA	3141	1/1	0.16	-	52,52,52,52	0
56	MG	DA	3626	1/1	0.69	-	136,136,136,136	0
56	MG	DA	3003	1/1	0.27	-	37,37,37,37	0
56	MG	BA	3537	1/1	0.31	-	108,108,108,108	0
56	MG	DA	3063	1/1	0.30	-	34,34,34,34	0
56	MG	BE	302	1/1	0.12	-	85,85,85,85	0
56	MG	AA	1828	1/1	0.15	-	98,98,98,98	0
56	MG	DA	3483	1/1	0.32	-	86,86,86,86	0
56	MG	CA	1814	1/1	0.09	-	71,71,71,71	0
56	MG	DA	3606	1/1	0.33	-	92,92,92,92	0
56	MG	AA	1878	1/1	0.20	-	99,99,99,99	0
56	MG	BA	3088	1/1	0.17	-	49,49,49,49	0
56	MG	BA	3200	1/1	0.28	-	90,90,90,90	0
56	MG	CA	1892	1/1	0.18	-	74,74,74,74	0
56	MG	BA	3113	1/1	0.11	-	41,41,41,41	0
56	MG	DA	3247	1/1	0.40	-	75,75,75,75	0
56	MG	CA	1676	1/1	0.25	-	71,71,71,71	0
56	MG	CA	1731	1/1	0.13	-	66,66,66,66	0
56	MG	DA	3637	1/1	0.25	-	107,107,107,107	0
56	MG	CA	1756	1/1	0.22	-	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3372	1/1	0.35	-	93,93,93,93	0
56	MG	BA	2908	1/1	0.15	-	102,102,102,102	0
56	MG	AA	1855	1/1	0.24	-	101,101,101,101	0
56	MG	BA	3193	1/1	0.26	-	80,80,80,80	0
56	MG	CA	1681	1/1	0.16	-	73,73,73,73	0
56	MG	CA	1813	1/1	0.24	-	106,106,106,106	0
56	MG	AA	1647	1/1	0.44	-	71,71,71,71	0
56	MG	BA	3032	1/1	0.40	-	66,66,66,66	0
56	MG	AA	1983	1/1	0.28	-	104,104,104,104	0
56	MG	BA	3154	1/1	0.25	-	117,117,117,117	0
56	MG	DB	222	1/1	0.26	-	92,92,92,92	0
56	MG	DA	3582	1/1	0.26	-	74,74,74,74	0
56	MG	DA	3404	1/1	0.15	-	60,60,60,60	0
56	MG	DA	3061	1/1	0.11	-	39,39,39,39	0
56	MG	BA	3412	1/1	0.20	-	94,94,94,94	0
56	MG	DA	3786	1/1	0.21	-	102,102,102,102	0
56	MG	BA	3097	1/1	0.22	-	59,59,59,59	0
56	MG	BA	3550	1/1	0.21	-	102,102,102,102	0
56	MG	DA	3557	1/1	0.29	-	90,90,90,90	0
56	MG	DA	3585	1/1	0.24	-	86,86,86,86	0
56	MG	DA	3158	1/1	0.08	-	56,56,56,56	0
56	MG	AA	1745	1/1	0.20	-	67,67,67,67	0
56	MG	AA	1622	1/1	0.18	-	78,78,78,78	0
56	MG	DA	3728	1/1	0.28	-	82,82,82,82	0
56	MG	DA	3558	1/1	0.06	-	75,75,75,75	0
56	MG	BA	3287	1/1	0.37	-	79,79,79,79	0
56	MG	AA	1916	1/1	0.17	-	93,93,93,93	0
56	MG	BA	3239	1/1	0.15	-	49,49,49,49	0
56	MG	AA	1912	1/1	0.17	-	79,79,79,79	0
56	MG	CA	1889	1/1	0.31	-	106,106,106,106	0
56	MG	AH	202	1/1	0.07	-	80,80,80,80	0
56	MG	DB	228	1/1	0.33	-	116,116,116,116	0
56	MG	BA	3127	1/1	0.30	-	64,64,64,64	0
56	MG	D6	101	1/1	0.74	-	98,98,98,98	0
56	MG	BD	302	1/1	0.13	-	69,69,69,69	0
56	MG	AA	1765	1/1	0.24	-	83,83,83,83	0
56	MG	AA	1807	1/1	0.06	-	65,65,65,65	0
56	MG	DA	3503	1/1	0.37	-	85,85,85,85	0
56	MG	DB	208	1/1	0.22	-	135,135,135,135	0
56	MG	AA	1822	1/1	0.10	-	107,107,107,107	0
56	MG	CA	1759	1/1	0.24	-	90,90,90,90	0
56	MG	AA	2014	1/1	0.28	-	175,175,175,175	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3330	1/1	0.11	-	62,62,62,62	0
56	MG	DA	3017	1/1	0.26	-	44,44,44,44	0
56	MG	AA	1836	1/1	0.14	-	58,58,58,58	0
58	G	CC	102	23/24	0.57	-	211,212,213,214	0
56	MG	CA	1636	1/1	0.29	-	85,85,85,85	0
56	MG	BA	3264	1/1	0.14	-	64,64,64,64	0
56	MG	DA	3195	1/1	0.17	-	62,62,62,62	0
56	MG	BA	3274	1/1	0.15	-	116,116,116,116	0
56	MG	BA	3415	1/1	0.21	-	89,89,89,89	0
56	MG	AA	1636	1/1	0.41	-	71,71,71,71	0
56	MG	DA	3351	1/1	0.14	-	107,107,107,107	0
56	MG	DA	3070	1/1	0.22	-	42,42,42,42	0
56	MG	AA	1886	1/1	0.33	-	102,102,102,102	0
56	MG	BA	3566	1/1	0.14	-	56,56,56,56	0
56	MG	BA	3132	1/1	0.41	-	90,90,90,90	0
56	MG	CW	201	1/1	0.24	-	67,67,67,67	0
56	MG	AA	1722	1/1	0.37	-	68,68,68,68	0
56	MG	AA	1601	1/1	0.23	-	42,42,42,42	0
56	MG	DA	3225	1/1	0.40	-	96,96,96,96	0
56	MG	BA	3105	1/1	0.25	-	87,87,87,87	0
56	MG	AC	103	1/1	0.09	-	86,86,86,86	0
56	MG	BA	3493	1/1	0.21	-	85,85,85,85	0
56	MG	DA	3831	1/1	0.19	-	142,142,142,142	0
56	MG	DA	3644	1/1	0.18	-	62,62,62,62	0
56	MG	CA	1694	1/1	0.10	-	76,76,76,76	0
56	MG	DB	215	1/1	0.20	-	99,99,99,99	0
56	MG	DA	3840	1/1	0.06	-	99,99,99,99	0
56	MG	DA	3086	1/1	0.40	-	114,114,114,114	0
58	G	DA	2916	23/24	0.47	-	195,197,199,199	0
56	MG	BA	3125	1/1	0.16	-	94,94,94,94	0
56	MG	AA	1780	1/1	0.29	-	95,95,95,95	0
56	MG	DA	3123	1/1	0.20	-	61,61,61,61	0
56	MG	BA	3435	1/1	0.08	-	59,59,59,59	0
56	MG	CA	1793	1/1	0.19	-	86,86,86,86	0
56	MG	BA	3102	1/1	0.06	-	113,113,113,113	0
56	MG	CA	1931	1/1	0.09	-	98,98,98,98	0
56	MG	DA	3230	1/1	0.32	-	81,81,81,81	0
56	MG	CA	1807	1/1	0.16	-	97,97,97,97	0
56	MG	DA	2997	1/1	0.29	-	34,34,34,34	0
56	MG	DA	3381	1/1	0.14	-	44,44,44,44	0
56	MG	DA	3415	1/1	0.08	-	76,76,76,76	0
56	MG	DA	3471	1/1	0.23	-	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	AA	2008	1/1	0.10	-	69,69,69,69	0
56	MG	DA	3064	1/1	0.14	-	22,22,22,22	0
56	MG	AA	1685	1/1	0.19	-	96,96,96,96	0
56	MG	BA	3297	1/1	0.22	-	131,131,131,131	0
56	MG	DA	3147	1/1	0.15	-	54,54,54,54	0
56	MG	DA	3170	1/1	0.19	-	64,64,64,64	0
56	MG	CA	1840	1/1	0.11	-	70,70,70,70	0
56	MG	BZ	101	1/1	0.24	-	92,92,92,92	0
56	MG	DA	2995	1/1	0.10	-	46,46,46,46	0
56	MG	CA	1684	1/1	0.20	-	57,57,57,57	0
56	MG	DA	2950	1/1	0.34	-	30,30,30,30	0
56	MG	AA	1819	1/1	0.36	-	98,98,98,98	0
56	MG	BA	3527	1/1	0.11	-	63,63,63,63	0
56	MG	BA	3217	1/1	0.26	-	86,86,86,86	0
56	MG	DA	3816	1/1	0.10	-	72,72,72,72	0
56	MG	DA	3136	1/1	0.38	-	60,60,60,60	0
60	U	DA	2925	20/21	0.60	-	203,208,208,208	0
56	MG	BA	3133	1/1	0.18	-	49,49,49,49	0
56	MG	AA	2002	1/1	0.08	-	81,81,81,81	0
56	MG	AA	1805	1/1	0.44	-	109,109,109,109	0
56	MG	DA	3051	1/1	0.43	-	68,68,68,68	0
56	MG	AA	1770	1/1	0.24	-	71,71,71,71	0
56	MG	BA	3059	1/1	0.33	-	59,59,59,59	0
56	MG	DA	3770	1/1	0.23	-	75,75,75,75	0
56	MG	DA	3332	1/1	0.12	-	104,104,104,104	0
56	MG	CA	1791	1/1	0.31	-	85,85,85,85	0
56	MG	DA	3779	1/1	0.25	-	58,58,58,58	0
56	MG	CA	1990	1/1	0.12	-	92,92,92,92	0
56	MG	CA	1734	1/1	0.11	-	131,131,131,131	0
56	MG	DA	3505	1/1	0.11	-	73,73,73,73	0
56	MG	DA	3167	1/1	0.45	-	89,89,89,89	0
56	MG	CA	1673	1/1	0.14	-	67,67,67,67	0
56	MG	DA	3098	1/1	0.29	-	52,52,52,52	0
56	MG	CA	1857	1/1	0.12	-	96,96,96,96	0
56	MG	BA	3190	1/1	0.20	-	78,78,78,78	0
56	MG	AA	1687	1/1	0.62	-	138,138,138,138	0
56	MG	BA	3576	1/1	0.10	-	40,40,40,40	0
56	MG	BA	3053	1/1	0.23	-	43,43,43,43	0
56	MG	CA	1798	1/1	0.06	-	85,85,85,85	0
56	MG	DA	3528	1/1	0.45	-	102,102,102,102	0
56	MG	BA	3263	1/1	0.32	-	65,65,65,65	0
56	MG	AA	1951	1/1	0.17	-	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	1802	1/1	0.21	-	98,98,98,98	0
56	MG	DA	3114	1/1	0.23	-	48,48,48,48	0
56	MG	BA	3074	1/1	0.21	-	41,41,41,41	0
56	MG	BA	3224	1/1	0.23	-	54,54,54,54	0
56	MG	BA	3247	1/1	0.19	-	63,63,63,63	0
56	MG	CA	1845	1/1	0.23	-	83,83,83,83	0
56	MG	DA	3607	1/1	0.54	-	152,152,152,152	0
56	MG	DA	3297	1/1	0.14	-	53,53,53,53	0
56	MG	BA	3382	1/1	0.24	-	123,123,123,123	0
56	MG	DA	3112	1/1	0.15	-	43,43,43,43	0
56	MG	DA	3212	1/1	0.10	-	34,34,34,34	0
56	MG	DA	3055	1/1	0.39	-	83,83,83,83	0
56	MG	DA	3053	1/1	0.23	-	23,23,23,23	0
56	MG	DE	302	1/1	0.10	-	51,51,51,51	0
56	MG	DA	3830	1/1	0.12	-	108,108,108,108	0
56	MG	BA	3061	1/1	0.15	-	70,70,70,70	0
56	MG	DA	3058	1/1	0.36	-	47,47,47,47	0
56	MG	AA	1773	1/1	0.16	-	81,81,81,81	0
56	MG	CA	1937	1/1	0.23	-	96,96,96,96	0
56	MG	BA	3085	1/1	0.08	-	40,40,40,40	0
56	MG	AA	2038	1/1	0.35	-	116,116,116,116	0
56	MG	BA	3170	1/1	0.31	-	72,72,72,72	0
56	MG	CC	111	1/1	0.10	-	65,65,65,65	0
56	MG	AA	1945	1/1	0.32	-	67,67,67,67	0
56	MG	DA	3360	1/1	0.13	-	105,105,105,105	0
56	MG	BB	210	1/1	0.24	-	62,62,62,62	0
56	MG	BA	3452	1/1	0.16	-	57,57,57,57	0
56	MG	AA	1887	1/1	0.33	-	161,161,161,161	0
56	MG	DA	3041	1/1	0.29	-	52,52,52,52	0
56	MG	BA	3253	1/1	0.17	-	70,70,70,70	0
56	MG	DA	3712	1/1	0.29	-	104,104,104,104	0
56	MG	DA	3797	1/1	0.14	-	206,206,206,206	0
56	MG	BA	3363	1/1	0.15	-	79,79,79,79	0
56	MG	AA	1939	1/1	0.08	-	118,118,118,118	0
56	MG	DA	3669	1/1	0.09	-	73,73,73,73	0
56	MG	BA	3444	1/1	0.24	-	66,66,66,66	0
56	MG	DA	3462	1/1	0.06	-	68,68,68,68	0
56	MG	BA	3233	1/1	0.14	-	84,84,84,84	0
56	MG	BA	2961	1/1	0.31	-	46,46,46,46	0
56	MG	BA	3448	1/1	0.27	-	95,95,95,95	0
56	MG	BA	3411	1/1	0.19	-	71,71,71,71	0
56	MG	BA	3018	1/1	0.40	-	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1847	1/1	0.23	-	113,113,113,113	0
56	MG	DA	3713	1/1	0.29	-	131,131,131,131	0
56	MG	BA	3296	1/1	0.11	-	57,57,57,57	0
56	MG	DA	3680	1/1	0.11	-	82,82,82,82	0
56	MG	BA	3265	1/1	0.04	-	40,40,40,40	0
56	MG	DA	3738	1/1	0.22	-	92,92,92,92	0
56	MG	AA	2005	1/1	0.07	-	96,96,96,96	0
56	MG	BA	3553	1/1	0.17	-	96,96,96,96	0
56	MG	BA	3262	1/1	0.14	-	58,58,58,58	0
56	MG	DA	3640	1/1	0.23	-	86,86,86,86	0
56	MG	BA	2992	1/1	0.27	-	63,63,63,63	0
56	MG	AA	1893	1/1	0.11	-	95,95,95,95	0
56	MG	DA	3185	1/1	0.36	-	76,76,76,76	0
56	MG	CA	1932	1/1	0.14	-	90,90,90,90	0
56	MG	DA	3752	1/1	0.43	-	91,91,91,91	0
56	MG	BA	3523	1/1	0.12	-	104,104,104,104	0
56	MG	AA	1891	1/1	0.27	-	93,93,93,93	0
59	C	CC	105	20/21	0.72	-	219,224,225,225	0
56	MG	DA	3071	1/1	0.27	-	75,75,75,75	0
56	MG	DA	3804	1/1	0.04	-	61,61,61,61	0
56	MG	AA	1781	1/1	0.36	-	98,98,98,98	0
56	MG	AA	1933	1/1	0.27	-	98,98,98,98	0
56	MG	CA	1885	1/1	0.26	-	133,133,133,133	0
56	MG	DA	2990	1/1	0.25	-	63,63,63,63	0
56	MG	DA	3330	1/1	0.72	-	134,134,134,134	0
56	MG	DA	3089	1/1	0.09	-	42,42,42,42	0
56	MG	DA	3312	1/1	0.24	-	62,62,62,62	0
59	C	CC	107	20/21	0.60	-	229,229,230,230	0
56	MG	BB	208	1/1	0.13	-	91,91,91,91	0
56	MG	CA	1790	1/1	0.22	-	47,47,47,47	0
56	MG	DA	3432	1/1	0.20	-	71,71,71,71	0
56	MG	BA	3572	1/1	0.32	-	106,106,106,106	0
56	MG	AA	1800	1/1	0.46	-	117,117,117,117	0
56	MG	DA	3050	1/1	0.30	-	58,58,58,58	0
56	MG	CA	1806	1/1	0.39	-	86,86,86,86	0
56	MG	BA	3559	1/1	0.24	-	104,104,104,104	0
56	MG	BA	3462	1/1	0.26	-	77,77,77,77	0
56	MG	BA	3536	1/1	0.27	-	89,89,89,89	0
56	MG	CA	1960	1/1	0.47	-	103,103,103,103	0
56	MG	BA	3315	1/1	0.15	-	84,84,84,84	0
56	MG	DA	3757	1/1	0.51	-	82,82,82,82	0
56	MG	DA	3573	1/1	0.38	-	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3456	1/1	0.55	-	92,92,92,92	0
59	C	DA	2935	20/21	0.42	-	205,208,209,210	0
56	MG	BA	3396	1/1	0.20	-	63,63,63,63	0
56	MG	BA	3501	1/1	0.17	-	80,80,80,80	0
56	MG	AA	1752	1/1	0.34	-	75,75,75,75	0
56	MG	DA	3710	1/1	0.30	-	94,94,94,94	0
56	MG	CA	1872	1/1	0.13	-	85,85,85,85	0
56	MG	DA	3662	1/1	0.32	-	99,99,99,99	0
56	MG	DA	3115	1/1	0.20	-	77,77,77,77	0
56	MG	AA	1768	1/1	0.18	-	67,67,67,67	0
56	MG	AA	1813	1/1	0.32	-	93,93,93,93	0
56	MG	AA	1672	1/1	0.30	-	68,68,68,68	0
56	MG	DA	3621	1/1	0.25	-	86,86,86,86	0
56	MG	DA	3545	1/1	0.27	-	73,73,73,73	0
56	MG	CA	1833	1/1	0.10	-	107,107,107,107	0
59	C	CA	1603	20/21	0.29	-	147,151,160,160	0
56	MG	BA	3223	1/1	0.24	-	88,88,88,88	0
56	MG	DA	3260	1/1	0.16	-	64,64,64,64	0
56	MG	AA	1874	1/1	0.20	-	63,63,63,63	0
56	MG	DA	3556	1/1	0.39	-	87,87,87,87	0
56	MG	CC	115	1/1	0.11	-	75,75,75,75	0
56	MG	DA	3322	1/1	0.33	-	56,56,56,56	0
56	MG	DA	3423	1/1	0.37	-	75,75,75,75	0
56	MG	DA	3126	1/1	0.34	-	66,66,66,66	0
56	MG	DA	3288	1/1	0.36	-	83,83,83,83	0
56	MG	BA	3238	1/1	0.34	-	85,85,85,85	0
56	MG	DA	3357	1/1	0.20	-	131,131,131,131	0
56	MG	BA	3311	1/1	0.20	-	48,48,48,48	0
56	MG	AA	1880	1/1	0.12	-	80,80,80,80	0
56	MG	BA	3459	1/1	0.26	-	110,110,110,110	0
56	MG	DA	3511	1/1	0.43	-	89,89,89,89	0
56	MG	BA	3066	1/1	0.41	-	99,99,99,99	0
56	MG	AA	1971	1/1	0.36	-	123,123,123,123	0
56	MG	DA	3326	1/1	0.19	-	63,63,63,63	0
56	MG	DA	3228	1/1	0.40	-	89,89,89,89	0
56	MG	BA	3387	1/1	0.14	-	67,67,67,67	0
56	MG	AW	202	1/1	0.08	-	59,59,59,59	0
56	MG	DA	3484	1/1	0.24	-	84,84,84,84	0
56	MG	CA	1821	1/1	0.31	-	84,84,84,84	0
56	MG	DA	3814	1/1	0.10	-	53,53,53,53	0
56	MG	BA	3416	1/1	0.21	-	74,74,74,74	0
56	MG	CA	1652	1/1	0.31	-	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	DA	3310	1/1	0.05	-	39,39,39,39	0
56	MG	BA	3199	1/1	0.30	-	84,84,84,84	0
56	MG	DA	3370	1/1	0.15	-	50,50,50,50	0
56	MG	D1	202	1/1	0.14	-	75,75,75,75	0
56	MG	CA	1973	1/1	0.10	-	82,82,82,82	0
56	MG	CA	1934	1/1	0.13	-	86,86,86,86	0
56	MG	BA	3447	1/1	0.20	-	109,109,109,109	0
56	MG	BA	3498	1/1	0.22	-	59,59,59,59	0
56	MG	BA	3008	1/1	0.22	-	95,95,95,95	0
56	MG	BA	3424	1/1	0.24	-	107,107,107,107	0
56	MG	BA	3518	1/1	0.40	-	134,134,134,134	0
56	MG	BA	3404	1/1	0.08	-	82,82,82,82	0
56	MG	BA	3250	1/1	0.25	-	93,93,93,93	0
56	MG	AX	101	1/1	0.17	-	107,107,107,107	0
56	MG	CA	1810	1/1	0.26	-	100,100,100,100	0
56	MG	DA	3335	1/1	0.23	-	70,70,70,70	0
56	MG	DA	3755	1/1	0.15	-	88,88,88,88	0
56	MG	DA	3645	1/1	0.37	-	74,74,74,74	0
56	MG	DA	3319	1/1	0.11	-	63,63,63,63	0
56	MG	AS	101	1/1	0.27	-	84,84,84,84	0
56	MG	DA	3251	1/1	0.29	-	72,72,72,72	0
56	MG	DG	203	1/1	0.24	-	112,112,112,112	0
56	MG	CD	114	1/1	0.07	-	109,109,109,109	0
56	MG	DA	3729	1/1	0.13	-	60,60,60,60	0
56	MG	DA	3239	1/1	0.15	-	49,49,49,49	0
56	MG	BA	3192	1/1	0.05	-	54,54,54,54	0
56	MG	AA	1982	1/1	0.11	-	126,126,126,126	0
56	MG	DA	3131	1/1	0.21	-	49,49,49,49	0
56	MG	DA	3479	1/1	0.24	-	86,86,86,86	0
56	MG	BA	3345	1/1	0.15	-	80,80,80,80	0
56	MG	BA	3299	1/1	0.32	-	94,94,94,94	0
56	MG	AA	2021	1/1	0.07	-	108,108,108,108	0
56	MG	DA	3233	1/1	0.25	-	106,106,106,106	0
56	MG	BA	3567	1/1	0.11	-	69,69,69,69	0
56	MG	CA	1700	1/1	0.14	-	64,64,64,64	0
56	MG	CA	1899	1/1	0.05	-	99,99,99,99	0
56	MG	DA	3550	1/1	0.40	-	82,82,82,82	0
56	MG	DA	3023	1/1	0.07	-	42,42,42,42	0
57	ZN	AA	2041	1/1	0.31	-	262,262,262,262	0
56	MG	DA	3490	1/1	0.39	-	81,81,81,81	0
56	MG	DA	3468	1/1	0.07	-	51,51,51,51	0
56	MG	CA	1951	1/1	0.13	-	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3628	1/1	0.16	-	81,81,81,81	0
56	MG	CA	1809	1/1	0.11	-	62,62,62,62	0
56	MG	DA	3184	1/1	0.19	-	42,42,42,42	0
56	MG	BA	3488	1/1	0.28	-	96,96,96,96	0
56	MG	DA	3616	1/1	0.45	-	94,94,94,94	0
56	MG	BA	3166	1/1	0.08	-	57,57,57,57	0
56	MG	DA	3362	1/1	0.10	-	64,64,64,64	0
56	MG	BA	3385	1/1	0.21	-	64,64,64,64	0
56	MG	CA	1632	1/1	0.30	-	51,51,51,51	0
56	MG	DA	3090	1/1	0.05	-	28,28,28,28	0
56	MG	CA	1907	1/1	0.07	-	50,50,50,50	0
56	MG	DA	3074	1/1	0.32	-	58,58,58,58	0
56	MG	BB	217	1/1	0.38	-	102,102,102,102	0
56	MG	DA	3418	1/1	0.23	-	73,73,73,73	0
56	MG	DA	3431	1/1	0.27	-	73,73,73,73	0
56	MG	CA	1963	1/1	0.09	-	217,217,217,217	0
56	MG	DA	3037	1/1	0.23	-	31,31,31,31	0
56	MG	AQ	101	1/1	0.06	-	83,83,83,83	0
56	MG	DA	3715	1/1	0.10	-	69,69,69,69	0
56	MG	DA	3648	1/1	0.46	-	112,112,112,112	0
56	MG	DA	3470	1/1	0.21	-	87,87,87,87	0
56	MG	BH	201	1/1	0.48	-	193,193,193,193	0
56	MG	AA	1631	1/1	0.28	-	60,60,60,60	0
56	MG	CS	101	1/1	0.25	-	82,82,82,82	0
56	MG	DA	3127	1/1	0.12	-	43,43,43,43	0
56	MG	CA	1915	1/1	0.28	-	128,128,128,128	0
56	MG	AA	1712	1/1	0.09	-	50,50,50,50	0
56	MG	BA	3282	1/1	0.22	-	103,103,103,103	0
56	MG	AA	1846	1/1	0.42	-	97,97,97,97	0
56	MG	CA	1920	1/1	0.12	-	101,101,101,101	0
56	MG	DA	3209	1/1	0.14	-	53,53,53,53	0
56	MG	CA	1639	1/1	0.24	-	62,62,62,62	0
56	MG	AA	2007	1/1	0.38	-	119,119,119,119	0
56	MG	BA	3403	1/1	0.33	-	89,89,89,89	0
56	MG	DA	3215	1/1	0.37	-	72,72,72,72	0
56	MG	BA	3570	1/1	0.20	-	104,104,104,104	0
56	MG	DA	3531	1/1	0.09	-	110,110,110,110	0
56	MG	DA	3099	1/1	0.23	-	50,50,50,50	0
56	MG	DA	3116	1/1	0.39	-	59,59,59,59	0
56	MG	AA	1705	1/1	0.15	-	77,77,77,77	0
56	MG	AA	1991	1/1	0.09	-	70,70,70,70	0
56	MG	DA	3489	1/1	0.11	-	104,104,104,104	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3060	1/1	0.22	-	28,28,28,28	0
56	MG	DA	3244	1/1	0.26	-	66,66,66,66	0
56	MG	DA	3143	1/1	0.29	-	44,44,44,44	0
56	MG	BB	207	1/1	0.26	-	69,69,69,69	0
56	MG	BA	3508	1/1	0.07	-	90,90,90,90	0
56	MG	CA	1643	1/1	0.19	-	52,52,52,52	0
56	MG	DA	3440	1/1	0.26	-	69,69,69,69	0
56	MG	BA	3244	1/1	0.08	-	67,67,67,67	0
56	MG	BA	3011	1/1	0.18	-	57,57,57,57	0
56	MG	BA	3300	1/1	0.13	-	87,87,87,87	0
56	MG	BA	3513	1/1	0.11	-	77,77,77,77	0
56	MG	DA	3289	1/1	0.31	-	65,65,65,65	0
56	MG	DA	3719	1/1	0.71	-	141,141,141,141	0
56	MG	BA	2937	1/1	0.23	-	53,53,53,53	0
56	MG	DA	3726	1/1	0.17	-	63,63,63,63	0
56	MG	AA	1868	1/1	0.23	-	103,103,103,103	0
56	MG	DA	3146	1/1	0.67	-	103,103,103,103	0
56	MG	CA	1961	1/1	0.12	-	95,95,95,95	0
56	MG	BA	3230	1/1	0.10	-	67,67,67,67	0
56	MG	BA	3495	1/1	0.20	-	97,97,97,97	0
60	U	DP	203	20/21	0.23	-	190,195,196,196	0
56	MG	AA	1973	1/1	0.15	-	84,84,84,84	0
56	MG	DA	3634	1/1	1.33	-	168,168,168,168	0
56	MG	CA	1922	1/1	0.15	-	133,133,133,133	0
56	MG	DA	3246	1/1	0.11	-	57,57,57,57	0
56	MG	AA	1985	1/1	0.47	-	131,131,131,131	0
56	MG	AA	1950	1/1	0.13	-	90,90,90,90	0
56	MG	DA	3409	1/1	0.30	-	57,57,57,57	0
56	MG	DB	201	1/1	0.37	-	86,86,86,86	0
56	MG	BA	3171	1/1	0.07	-	50,50,50,50	0
56	MG	CA	1902	1/1	0.16	-	87,87,87,87	0
56	MG	BA	3107	1/1	0.07	-	61,61,61,61	0
56	MG	DA	3106	1/1	0.20	-	52,52,52,52	0
56	MG	BA	3025	1/1	0.13	-	47,47,47,47	0
56	MG	BA	3464	1/1	0.30	-	102,102,102,102	0
56	MG	CA	1849	1/1	0.13	-	112,112,112,112	0
56	MG	BA	2939	1/1	0.34	-	47,47,47,47	0
56	MG	AA	1794	1/1	0.33	-	93,93,93,93	0
58	G	DA	2924	23/24	0.46	-	203,205,210,210	0
56	MG	DA	3434	1/1	0.23	-	77,77,77,77	0
56	MG	DA	3508	1/1	0.24	-	94,94,94,94	0
56	MG	CA	1854	1/1	0.28	-	133,133,133,133	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1707	1/1	0.40	-	107,107,107,107	0
56	MG	DZ	102	1/1	0.05	-	79,79,79,79	0
56	MG	DA	3110	1/1	0.40	-	73,73,73,73	0
56	MG	DF	301	1/1	0.16	-	82,82,82,82	0
56	MG	CA	1888	1/1	0.13	-	105,105,105,105	0
58	G	DA	2921	23/24	0.51	-	199,201,202,202	0
56	MG	DA	3169	1/1	0.32	-	76,76,76,76	0
56	MG	AA	1767	1/1	0.52	-	110,110,110,110	0
56	MG	BA	3280	1/1	0.12	-	61,61,61,61	0
56	MG	CA	1843	1/1	0.25	-	58,58,58,58	0
56	MG	BA	3108	1/1	0.11	-	41,41,41,41	0
56	MG	DA	2975	1/1	0.12	-	57,57,57,57	0
61	A	DA	2931	22/23	0.42	-	181,188,194,194	0
56	MG	AA	1771	1/1	0.26	-	70,70,70,70	0
56	MG	BA	3569	1/1	0.18	-	137,137,137,137	0
56	MG	BA	3349	1/1	0.12	-	82,82,82,82	0
56	MG	BA	3418	1/1	0.08	-	65,65,65,65	0
56	MG	DA	2977	1/1	0.24	-	25,25,25,25	0
56	MG	BA	3142	1/1	0.13	-	90,90,90,90	0
56	MG	B0	201	1/1	0.17	-	74,74,74,74	0
56	MG	DA	3159	1/1	0.28	-	60,60,60,60	0
56	MG	DA	3526	1/1	0.47	-	79,79,79,79	0
56	MG	CA	1659	1/1	0.19	-	49,49,49,49	0
56	MG	DA	3413	1/1	0.39	-	93,93,93,93	0
56	MG	AA	1655	1/1	0.21	-	91,91,91,91	0
56	MG	DA	3590	1/1	0.18	-	74,74,74,74	0
56	MG	BA	3302	1/1	0.07	-	61,61,61,61	0
56	MG	AA	1754	1/1	0.33	-	96,96,96,96	0
56	MG	AA	1858	1/1	0.09	-	83,83,83,83	0
56	MG	DA	3599	1/1	0.24	-	75,75,75,75	0
56	MG	DA	3593	1/1	0.30	-	183,183,183,183	0
56	MG	DA	3762	1/1	0.19	-	132,132,132,132	0
56	MG	DA	3079	1/1	0.26	-	48,48,48,48	0
56	MG	DA	3339	1/1	0.25	-	76,76,76,76	0
56	MG	BA	3258	1/1	0.16	-	100,100,100,100	0
56	MG	DA	3564	1/1	0.51	-	127,127,127,127	0
56	MG	DE	301	1/1	0.18	-	27,27,27,27	0
56	MG	CA	1719	1/1	0.10	-	65,65,65,65	0
56	MG	DA	3692	1/1	0.15	-	94,94,94,94	0
56	MG	BA	3062	1/1	0.21	-	61,61,61,61	0
56	MG	AA	1882	1/1	0.42	-	134,134,134,134	0
56	MG	AA	1762	1/1	0.25	-	104,104,104,104	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3169	1/1	0.26	-	60,60,60,60	0
56	MG	BA	3295	1/1	0.11	-	55,55,55,55	0
56	MG	DA	3458	1/1	0.55	-	85,85,85,85	0
56	MG	DA	3473	1/1	0.14	-	72,72,72,72	0
56	MG	BA	3486	1/1	0.24	-	90,90,90,90	0
56	MG	DB	203	1/1	0.42	-	67,67,67,67	0
56	MG	AA	1703	1/1	0.25	-	49,49,49,49	0
56	MG	DA	3208	1/1	0.12	-	45,45,45,45	0
56	MG	BB	215	1/1	0.13	-	65,65,65,65	0
56	MG	BA	3565	1/1	0.13	-	99,99,99,99	0
56	MG	DA	3824	1/1	0.15	-	59,59,59,59	0
56	MG	CA	1909	1/1	0.09	-	46,46,46,46	0
56	MG	AA	1653	1/1	0.07	-	107,107,107,107	0
56	MG	AA	1852	1/1	0.19	-	66,66,66,66	0
56	MG	BA	3035	1/1	0.18	-	48,48,48,48	0
56	MG	DA	3283	1/1	0.53	-	101,101,101,101	0
56	MG	DA	3681	1/1	0.25	-	106,106,106,106	0
56	MG	CA	1860	1/1	0.16	-	101,101,101,101	0
56	MG	AA	1835	1/1	0.30	-	109,109,109,109	0
56	MG	BA	3071	1/1	0.19	-	74,74,74,74	0
56	MG	DA	3174	1/1	0.17	-	51,51,51,51	0
56	MG	CD	116	1/1	0.12	-	90,90,90,90	0
56	MG	CD	113	1/1	0.12	-	80,80,80,80	0
56	MG	CA	1981	1/1	0.10	-	88,88,88,88	0
56	MG	AA	1681	1/1	0.10	-	43,43,43,43	0
56	MG	DA	3075	1/1	0.19	-	50,50,50,50	0
56	MG	DA	3278	1/1	0.13	-	56,56,56,56	0
56	MG	AC	106	1/1	0.17	-	79,79,79,79	0
56	MG	DA	3705	1/1	0.39	-	117,117,117,117	0
56	MG	DA	3242	1/1	0.29	-	115,115,115,115	0
56	MG	CA	1737	1/1	0.20	-	66,66,66,66	0
56	MG	DA	3400	1/1	0.28	-	113,113,113,113	0
56	MG	BA	3234	1/1	0.07	-	42,42,42,42	0
56	MG	DA	3785	1/1	0.54	-	71,71,71,71	0
56	MG	CA	1637	1/1	0.30	-	59,59,59,59	0

6.5 Other polymers ⓘ

There are no such residues in this entry.