



Full wwPDB X-ray Structure Validation Report

Jun 16, 2014 – 09:22 PM BST

PDB ID : 4V9A
Title : Crystal Structure of the 70S ribosome with tetracycline. This entry contains the 30S subunit of molecule A.
Authors : Jenner, L.; Yusupov, M.; Yusupova, G.
Deposited on : 2012-07-18
Resolution : 3.30 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>

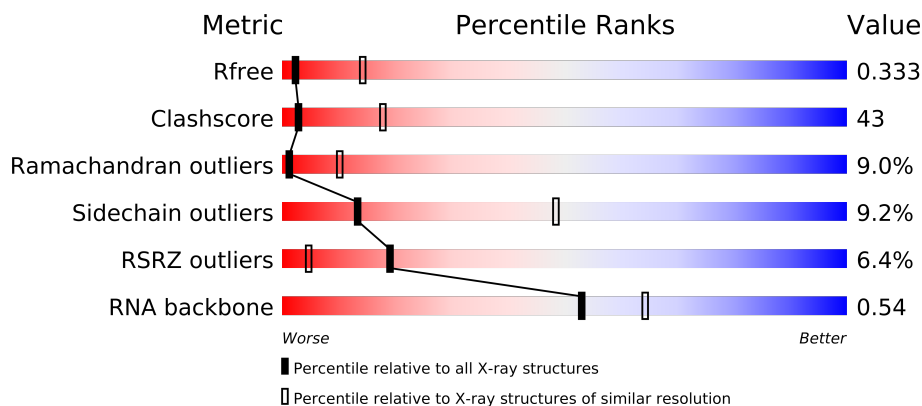
The following versions of software and data (see [references](#)) were used in the production of this report:

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 3.30 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	1341 (3.40-3.20)
Clashscore	79885	1696 (3.40-3.20)
Ramachandran outliers	78287	1664 (3.40-3.20)
Sidechain outliers	78261	1662 (3.40-3.20)
RSRZ outliers	66119	1342 (3.40-3.20)
RNA backbone	1838	1042 (3.90-2.70)

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	1506	
1	CA	1506	
2	AE	256	
2	CE	256	
3	AF	239	
3	CF	239	
4	AG	208	
4	CG	208	
5	AH	162	
5	CH	162	
6	AI	101	

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Mol	Chain	Length	Quality of chain
6	CI	101	
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	128	
12	CO	128	
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	CC	77	
23	A1	4	
23	C1	4	
24	BA	2912	
24	DA	2912	
25	BB	122	
25	DB	122	
26	BD	276	
26	DD	276	
27	BE	206	

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Mol	Chain	Length	Quality of chain
27	DE	206	
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	

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Mol	Chain	Length	Quality of chain
48	DX	60	
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	

2 Entry composition

There are 56 unique types of molecules in this entry. The entry contains 292440 atoms, of which 1 is 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 ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1506	Total	C	N	O	P	0	0	0
			32369	14408	5997	10459	1505			
1	CA	1506	Total	C	N	O	P	0	0	0
			32372	14408	5997	10461	1506			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AE	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	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	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
3	CF	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	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			
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	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	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	127	Total	C	N	O	0	0	0
			1010	639	197	174			
9	CL	127	Total	C	N	O	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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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	119	Total	C	N	O	S	0	0	0
			885	549	168	165	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	116	Total	C	N	O	S	0	0	0
			928	574	191	161	2			
13	CP	117	Total	C	N	O	S	0	0	0
			933	577	192	162	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	72	Total	C	N	O	0	0	0
			591	376	117	98			
18	CU	72	Total	C	N	O	0	0	0
			591	376	117	98			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AV	83	Total	C	N	O	S	0	0	0
			665	424	124	115	2			
19	CV	78	Total	C	N	O	S	0	0	0
			624	398	115	109	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			
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.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AC	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			

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AC	17A	C	U	CONFLICT	GB AP008226.1
AC	50	U	C	CONFLICT	GB AP008226.1
AC	51	C	G	CONFLICT	GB AP008226.1
AC	63	G	C	CONFLICT	GB AP008226.1
CC	17A	C	U	CONFLICT	GB AP008226.1
CC	50	U	C	CONFLICT	GB AP008226.1
CC	51	C	G	CONFLICT	GB AP008226.1
CC	63	G	C	CONFLICT	GB AP008226.1

- Molecule 23 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	A1	4	Total	C	N	O	P	0	0	0
			85	38	14	29	4			
23	C1	4	Total	C	N	O	P	0	0	0
			85	38	14	29	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BA	2912	Total	C	N	O	P	0	0	0
			62707	27911	11722	20163	2911			
24	DA	2909	Total	C	N	O	P	0	0	0
			62647	27884	11716	20139	2908			

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BA	161	U	-	INSERTION	GB AP008226.1
BA	654A	A	G	CONFLICT	GB AP008226.1
BA	654E	C	G	CONFLICT	GB AP008226.1
BA	654P	G	C	CONFLICT	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
DA	158	U	-	INSERTION	GB AP008226.1
DA	654A	A	G	CONFLICT	GB AP008226.1
DA	654E	C	G	CONFLICT	GB AP008226.1
DA	654P	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 25 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BB	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			
25	DB	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			

- 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			
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	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
28	DF	208	Total	C	N	O	S	0	0	0
			1627	1037	304	283	3			

- 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			

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

- 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			
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	175	Total	C	N	O	S	0	0	0
			1397	892	251	251	3			
44	DV	179	Total	C	N	O	S	0	0	0
			1428	911	255	259	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	B3	76	Total	C	N	O	S	0	0	0
			607	376	128	102	1			
45	D3	77	Total	C	N	O	S	0	0	0
			613	379	129	104	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	66	Total	C	N	O	S	0	0	0
			558	346	113	98	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	66	Total	C	N	O	S	0	0	0
			533	335	96	97	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	D4	63	Total	C	N	O	S	0	0	0
			515	326	93	91	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	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			
51	D6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	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	61	Total	C	N	O	S	0	0	0
			488	312	99	75	2			
53	D8	61	Total	C	N	O	S	0	0	0
			488	312	99	75	2			

- Molecule 54 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	BA	627	Total	Mg	0	0
			627	627		
54	CA	204	Total	Mg	0	0
			204	204		

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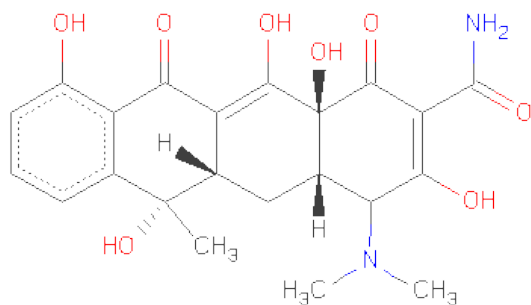
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	CH	1	Total 1	Mg 1	0	0
54	DZ	2	Total 2	Mg 2	0	0
54	B8	1	Total 1	Mg 1	0	0
54	BE	5	Total 5	Mg 5	0	0
54	DU	1	Total 1	Mg 1	0	0
54	B1	2	Total 2	Mg 2	0	0
54	BP	1	Total 1	Mg 1	0	0
54	AS	1	Total 1	Mg 1	0	0
54	B5	2	Total 2	Mg 2	0	0
54	BB	17	Total 17	Mg 17	0	0
54	AJ	1	Total 1	Mg 1	0	0
54	BF	2	Total 2	Mg 2	0	0
54	DR	1	Total 1	Mg 1	0	0
54	B2	1	Total 1	Mg 1	0	0
54	AA	232	Total 232	Mg 232	0	0
54	AR	1	Total 1	Mg 1	0	0
54	B6	1	Total 1	Mg 1	0	0
54	CG	2	Total 2	Mg 2	0	0
54	BU	2	Total 2	Mg 2	0	0
54	A1	1	Total 1	Mg 1	0	0
54	DD	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	CC	8	Total 8	Mg 8	0	0
54	DE	3	Total 3	Mg 3	0	0
54	B3	2	Total 2	Mg 2	0	0
54	DA	525	Total 525	Mg 525	0	0
54	B7	3	Total 3	Mg 3	0	0
54	AG	2	Total 2	Mg 2	0	0
54	BO	3	Total 3	Mg 3	0	0
54	AQ	2	Total 2	Mg 2	0	0
54	D1	1	Total 1	Mg 1	0	0
54	AH	2	Total 2	Mg 2	0	0
54	BZ	1	Total 1	Mg 1	0	0
54	AC	9	Total 9	Mg 9	0	0
54	D5	1	Total 1	Mg 1	0	0
54	DP	1	Total 1	Mg 1	0	0
54	CS	1	Total 1	Mg 1	0	0
54	DB	14	Total 14	Mg 14	0	0

- Molecule 55 is TETRACYCLINE (three-letter code: TAC) (formula: $C_{22}H_{24}N_2O_8$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
55	AA	1	Total	C	H	N	O	0	0
			33	22	1	2	8		
55	CA	1	Total	C	N	O		0	0
			32	22	2	8			

- Molecule 56 is ZINC ION (three-letter code: ZN) (formula: Zn).

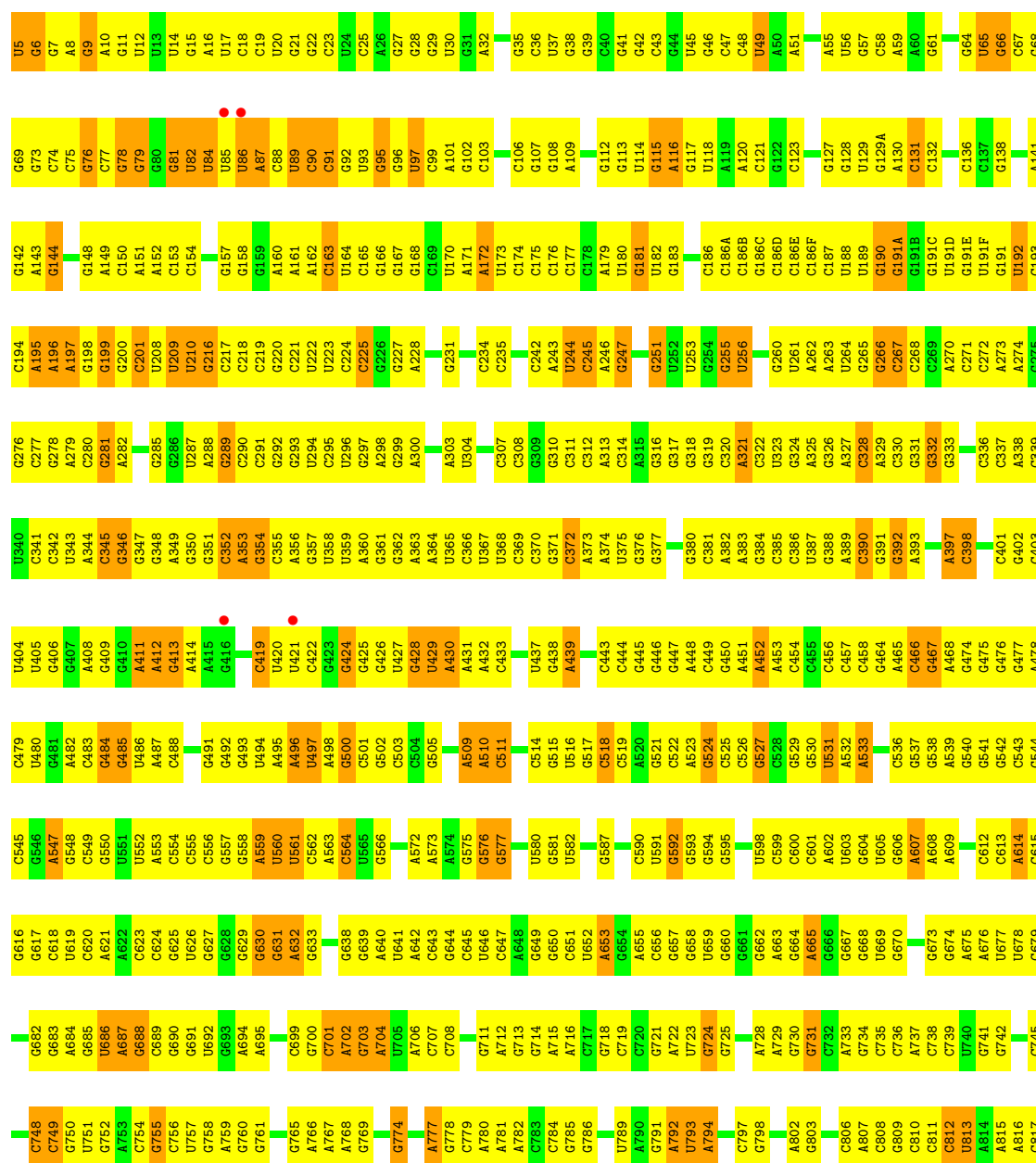
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AG	1	Total	Zn	0	0
			1	1		
56	AQ	1	Total	Zn	0	0
			1	1		
56	CQ	1	Total	Zn	0	0
			1	1		
56	CG	1	Total	Zn	0	0
			1	1		

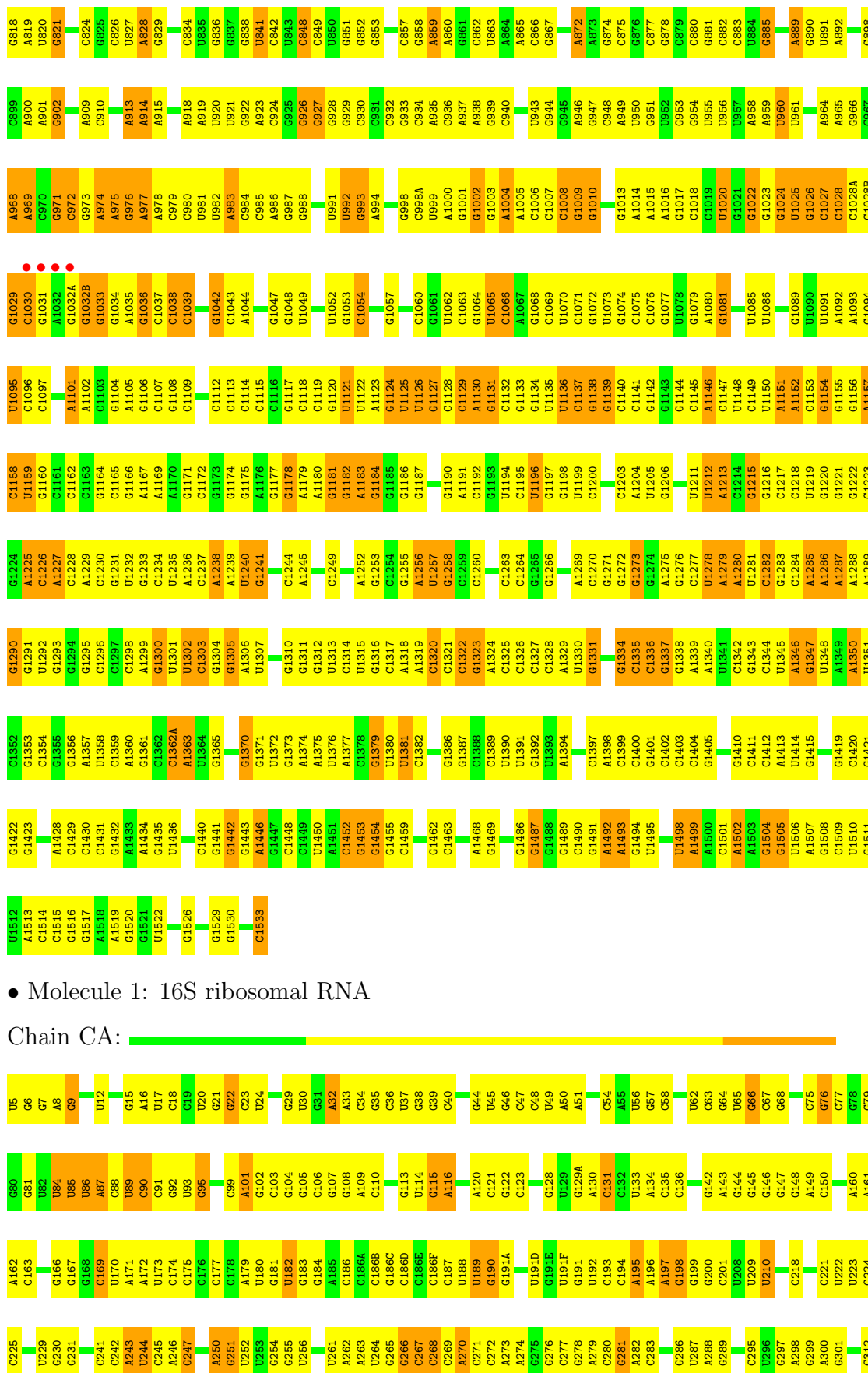
3 Residue-property plots

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.

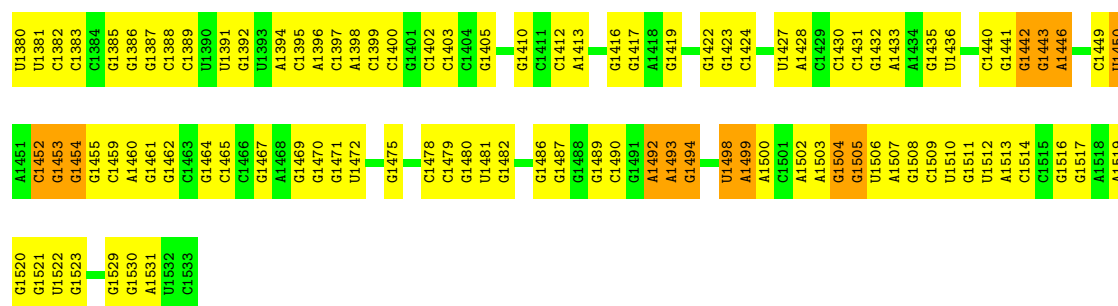
- Molecule 1: 16S ribosomal RNA

Chain AA: 



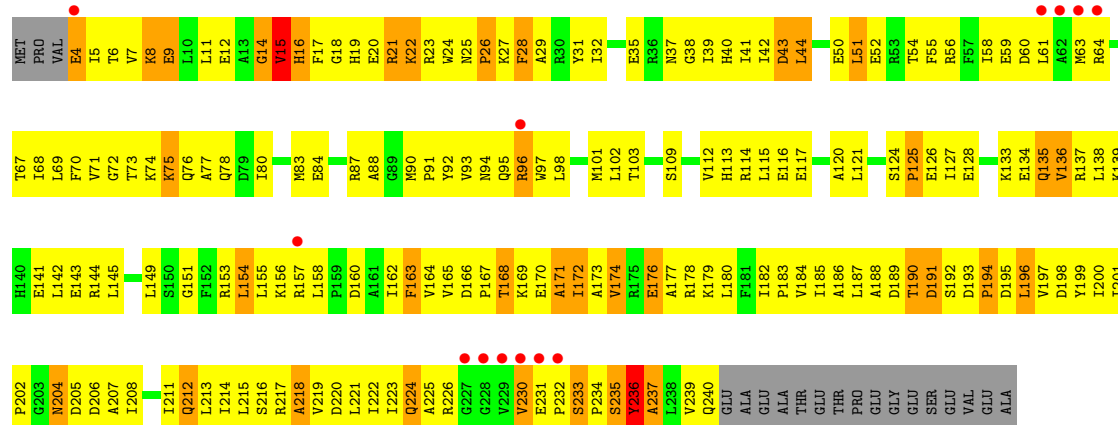


A1319	G1255	C1195	C1128	A1067	G1009	U950	C880	U801	G730	G661	G594	C528	A452	C386	G316
C1320	A1266	U1196	C1129	G1068	G1010	G951	G881	A802	G731	G662	G695	G529	A453	U387	G316
C1321	A1267	G1197	C1130	G1069	G1011	U952	C882	G803	G732	A663	C596	G530	C454	G388	A321
C1322	G1268	G1198	A1131	U1070	U1012	G953	C883	G811	G733	G664	C597	U531	C455	A389	A322
C1323	C1259	U1199	G1132	G1071	G1013	G954	U884	C812	G734	A665	U598	A532	C458	C390	C322
A1324	C1260	C1200	G1133	G1072	A1014	U955	G885	C813	G735	G666	C599	A533	C459	G391	U323
C1325	C1261	A1201	G1134	U1073	A1015	U956	G886	U813	G736	G667	C600	U534	C460	G392	G324
C1326	C1263	G1202	U1135	G1074	A1016	U957	A889	U814	G737	G668	A602	A535	C461	A393	A325
C1327	A1264	C1203	U1136	C1075	G1017	A958	G890	A815	C738	U671	G601	A536	C462	G394	G326
C1328	G1265	C1137	C1137	G1076	A959	A959	U891	A816	U740	G673	U605	G537	C463	C395	G327
A1329	G1266	U1205	G1138	G1077	U960	A960	A892	C817	G741	G674	G606	G538	C464	C396	C328
U1330	C1267	G1206	G993	U1078	G1021	C961	C893	C818	G742	A675	G607	A539	C465	A397	A329
G1331	A1268	G1207	C1140	U1079	G1022	U962	G894	A819	G743	A676	A608	G540	C466	C398	
A1332	A1269	C1208	C1141	A1080	G1023	G963	G895	U820	G744	U677		G541	C467		G332
A1333	C1270	C1209	G1142	G1081	G1024	A964	G896	U821	G745	U678		G542	C468	G402	G333
G1334	C1210	G1143	G1143	G1082	U1025	A965	C897		C746		A611	G543	C469	G403	
C1335	A1275	U1211	G1144	U1083	G1026	G966	A900	C826	C747	G682	C612	G544	C470	U404	C337
C1336	G1276	U1212	G1145	G1084	C1027	C967	A901	U827	G748	G683	C613	G545	C471	U405	A338
G1337	C1277	A1213	A1146	U1085	C1028	A968	A902	A828	U751	A684	A614	G546	C472	G406	C339
G1338	U1278	C1214	C1147	U1086	C1028A	A969	G903	G829	G752	G685	C615	A547	C473	G407	U340
A1339	A1279	G1215	U1148	G1087	C1028B	C970	G904	U833	G753	U686	C616	G550	C474	A408	C341
A1340	A1280	G1216	C1149	U1088	G1029	G971	G906	U834	C754	A687	C617	G551	C475	G409	G410
U1341	U1281	C1217	U1150	G1089	C1030	C972	A907	G835	C755	G688	C618	U552	C476	A411	C345
C1342	C1282	C1218	A1151	U1090	G1031	G973		U836	G756	G689	C619	U553	C477	A412	G346
G1343	G1283	U1219	A1152	U1091	A1032	A974		G837	U757	G690	C620	A554	C478	G413	
C1344	C1284	G1220	C1153	A1092	G1032A	A975	C912	G838		G691	A621	C555	C479	A414	A344
U1345	A1285	G1221	G1154	A1093	G1032B	G976	A913	U839	G763	U692	C622	G558	C480		
A1346	A1286	G1222	G1155	G1094	G1033	A977	A914	U841	C764	G693	C623	G559	C481	C418	C350
G1347	A1287	C1223	G1156	U1095	G1034	A978	A915	C842	G765	A694	C624	A559	C482	C419	G351
A1348	A1288	G1224	A1157	C1096	A1035	C979	G916	U843	G766	A695	C625	U560	C483	U421	C352
A1349	A1289	A1225	C1158	C1097	G1036	U980	G917	C848	G767	A696	U626	U561	C484	G426	A353
	G1290	C1226	U1159	C1098	G1037	U981	A918	C849	G768	U697	C627	G562	C504	U427	G354
	G1291	A1227	G1160	G1099	C1038	U982	A919	U850	G769	G698	C628	G563	C505	C422	C422
	U1292	C1228	C1161	C1100	C1039	A983	U920	G851	G770	G699	C629	A563	C506	G423	C355
	G1293	A1101	U1040	G1052	U1040	C984	U921	G852	G771	G699	C630	U565	C507	G424	A356
		A1102	A1041	G1042	A1041	C985	G922	G853	U772	A702	C631	U566	C508	G425	G357
	A1167	C1103	C1043	G1043	C1043	A986	A923	G854	G773	G703	A632	G566	C509	G426	U358
	A1169	G1104	C1044	C1043	C1043	G987	G926	G855		U705	C633	G567	C510	U427	U359
		A1105	A1044	C1045	C1045	G988	G927	A706	A777	A706	C634	U571	C511	G428	A360
	C1172	G1106	C1046	C1046	C1046	C989	G928	C856	G778	C707	C635	A572	C512	U429	G361
	G1173	C1107	A1047	A1046	A1046	C990		C857		C708	C636	A573	C513	U430	
		G1108	G1047	G1047	G1047	U991	C930	A858	A782	G709	U636	A574	C514	A431	U365
	A1176	C1109	G1048	G1048	G1048	U992	C931	A860	G783	G710	C637	A575	C515	A432	C366
	G1177	A1110	G1049	G1049	G1049	G993	C932	C861	G784	G711	C638	G575	C516	C433	U367
	G1178	A1111	G1050	C1111	G1050	A994	G933	C862	G785	A712	C639	G577	C517	U434	
	A1179	C1112	C1051	C1112	C1051	C995	C934	U863	G786	G713	C640	U580	C518	C435	C370
	A1180	G1052	U1052	G1052	U1052	A996	A935	A864	A787	G714	C641	A581	C519	C436	G371
	G1181	C1113	G1053	C1113	G1053	U997	C936	A865	G788	A715	C642	U582	C520	U437	C372
	C1114	C1114	C1054	C1054	C1054	G998	A937	C866	U789	A716	C643	U583	C521	C438	A373
		G1182	C1054	C1054	C1054	U998	A938	C867	G790	G717	C644	A584	C522	A439	A374
	A1183	G1183	C1054	C1054	C1054	U999	A939	C868	G791	G718	C645	G585	C523	A440	U375
	G1184	C1118	G1057	G1057	G1057	U1000	G940	C869	A792	C719	C646	G586	C524	G442	G376
	G1185	C1119	G1058	G1058	G1058	A1001	G941	U870	U793	G720	C647	G587	C525	C443	
	G1186	G1120	C1059	C1059	C1059	G1002	G942	U871	A794	G721	C648	G588	C526	C444	C379
	G1187	U1121	C1060	G1061	G1061	U1003	G943	A872	G795	A722	C649	G589	C527	G447	A382
	A1188	U1122	G1061	G1061	G1061	A1004	G944	A873	C796	U723	C650	C590	C528	A448	A383
	C1189	A1123	U1062	C1063	C1063	A1005	A945	A874	C797	G724	C651	U591	C529	C449	G384
	G1190	G1124	U1063	C1064	C1064	A1006	A946	G874	G798	G725	C652	G592	C530	G450	C385
	A1191	U1125	G1064	G1064	G1064	C1007	G947		G799	C726	C653	G593	C531	A451	
	G1192	U1126	U1065	G1065	G1065	C1008	A949	C878	G800	C727	C654	G594	C532		
	U1194	G1127	C1066	C1066	C1066			C879							



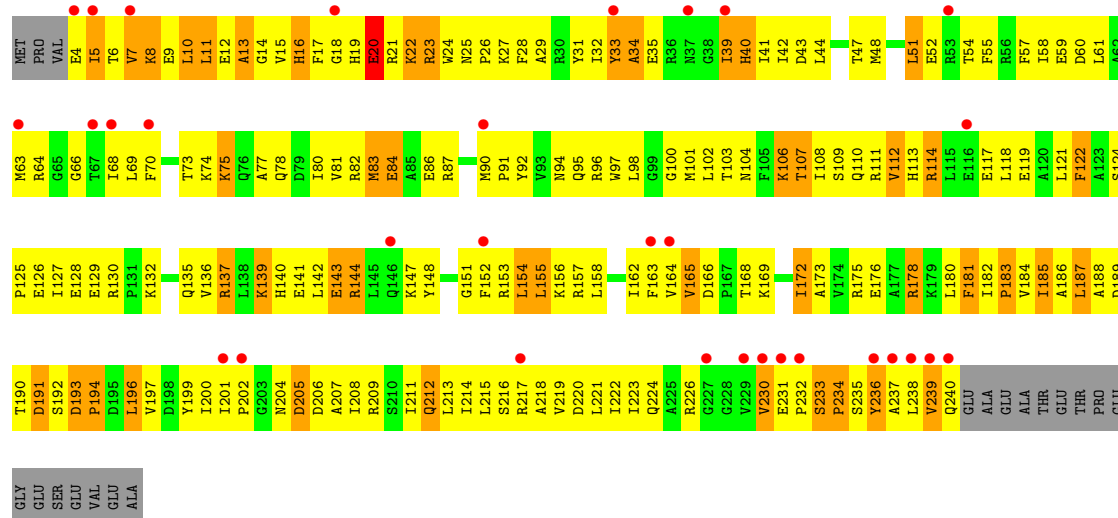
• Molecule 2: 30S RIBOSOMAL PROTEIN S2

Chain AE:



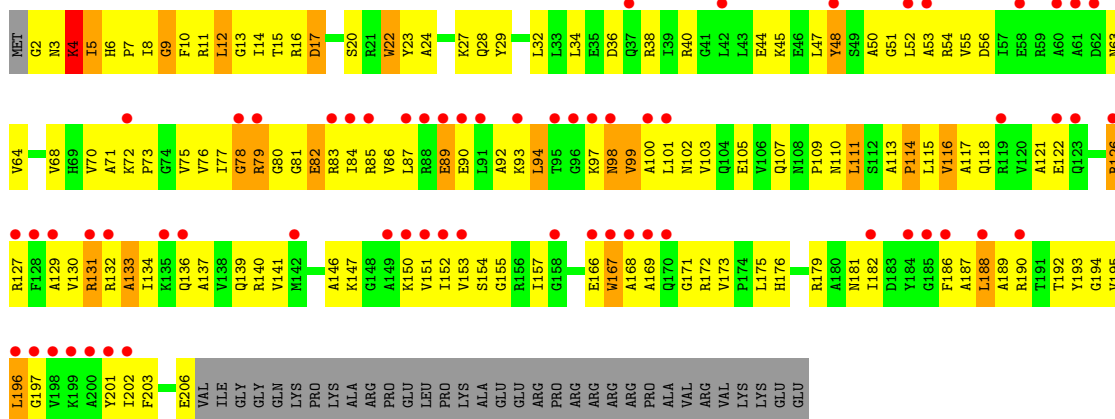
• Molecule 2: 30S RIBOSOMAL PROTEIN S2

Chain CE:



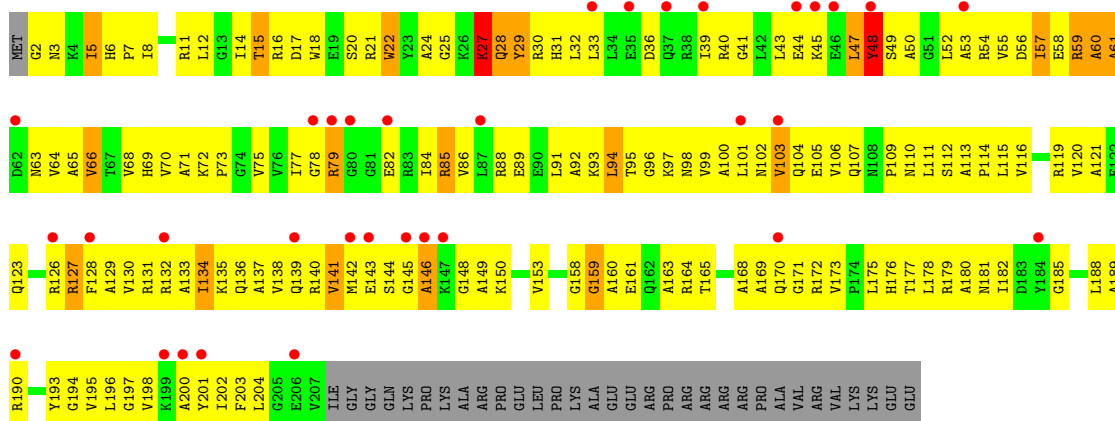
• Molecule 3: 30S RIBOSOMAL PROTEIN S3

Chain AF:



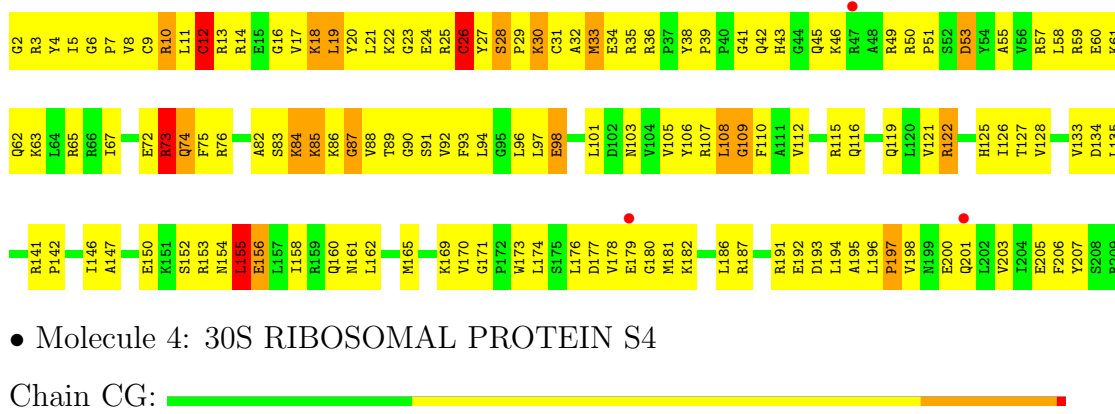
• Molecule 3: 30S RIBOSOMAL PROTEIN S3

Chain CF:



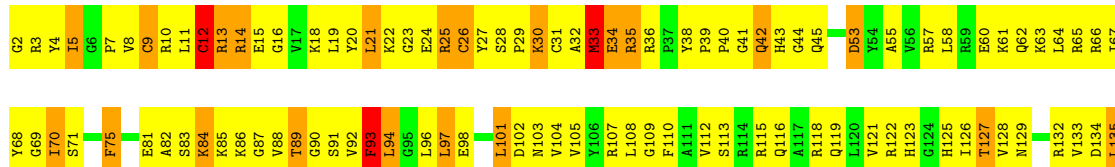
• Molecule 4: 30S RIBOSOMAL PROTEIN S4

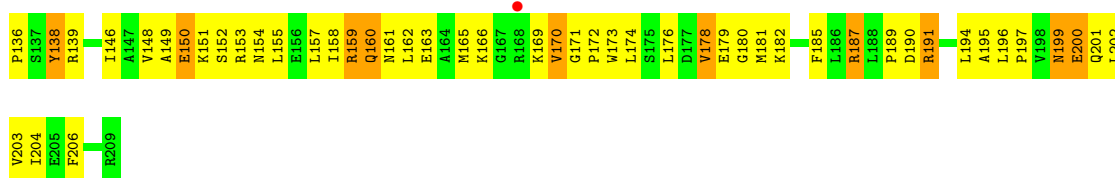
Chain AG:



• Molecule 4: 30S RIBOSOMAL PROTEIN S4

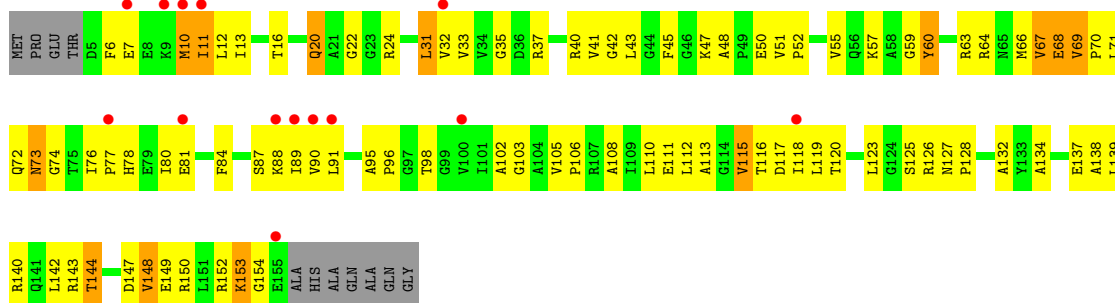
Chain CG:





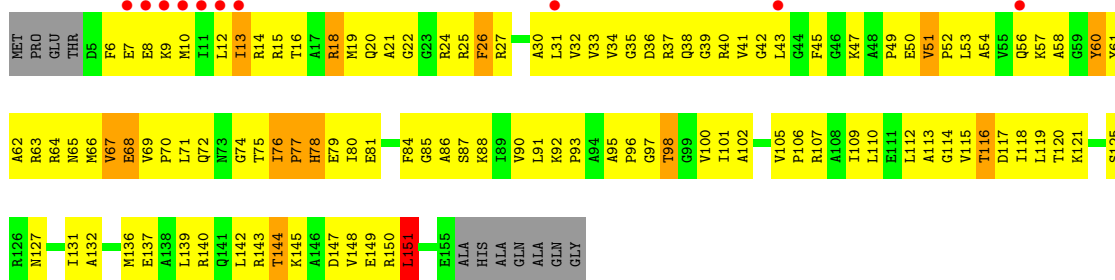
• Molecule 5: 30S RIBOSOMAL PROTEIN S5

Chain AH:



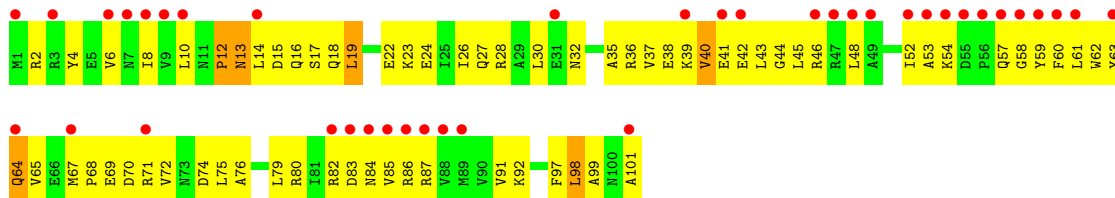
• Molecule 5: 30S RIBOSOMAL PROTEIN S5

Chain CH:



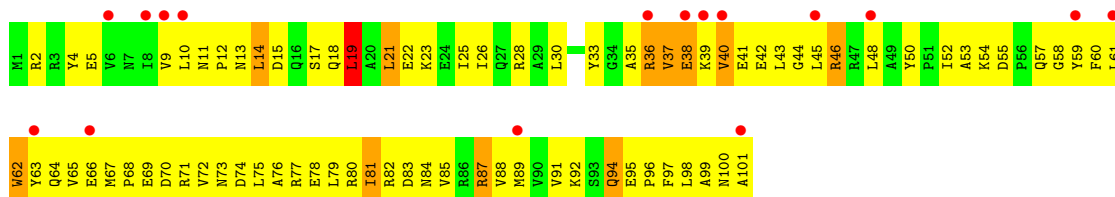
• Molecule 6: 30S RIBOSOMAL PROTEIN S6

Chain AI:



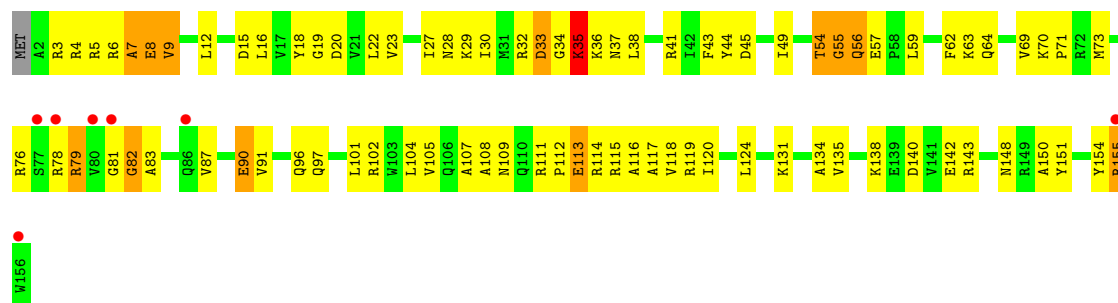
• Molecule 6: 30S RIBOSOMAL PROTEIN S6

Chain CI:



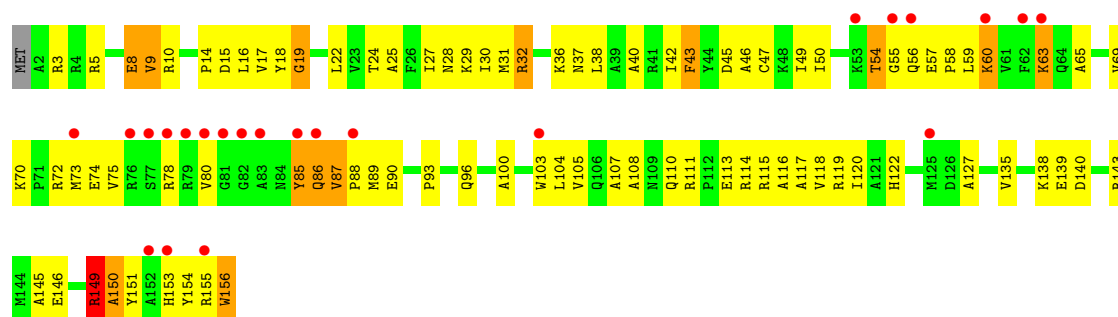
- Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain AJ:



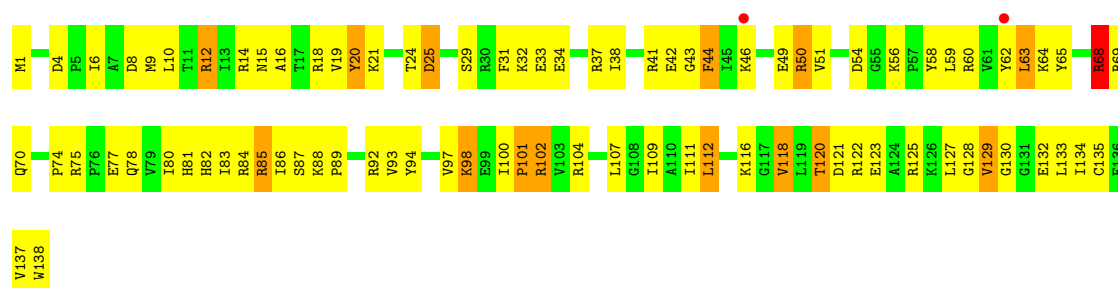
- Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain CJ:



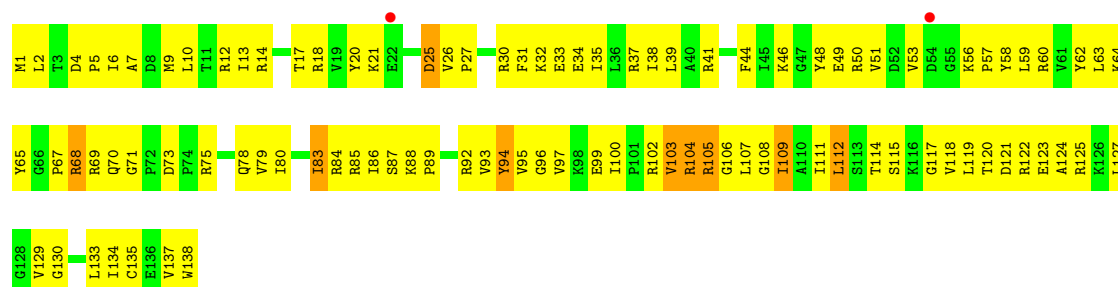
- Molecule 8: 30S RIBOSOMAL PROTEIN S8

Chain AK:



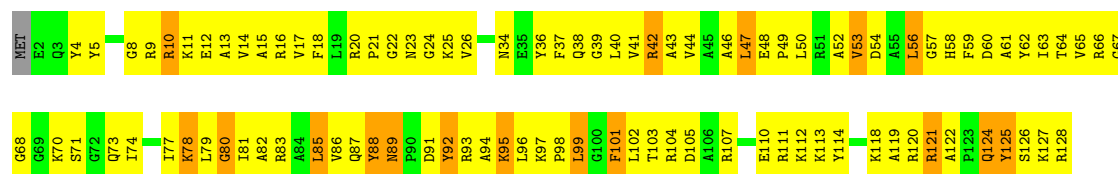
- Molecule 8: 30S RIBOSOMAL PROTEIN S8

Chain CK:



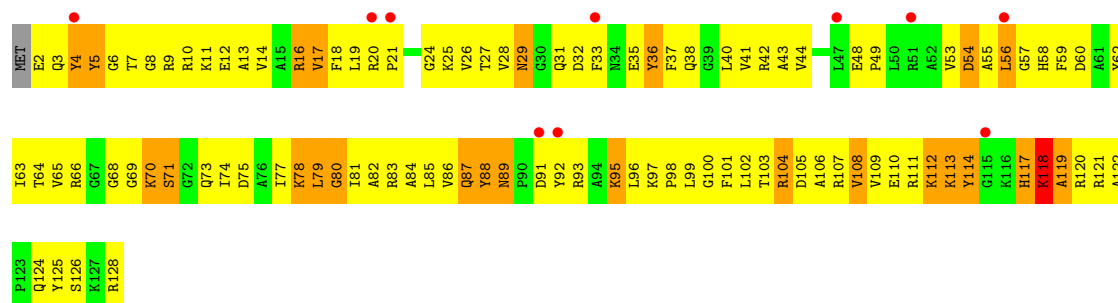
- Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain AL:



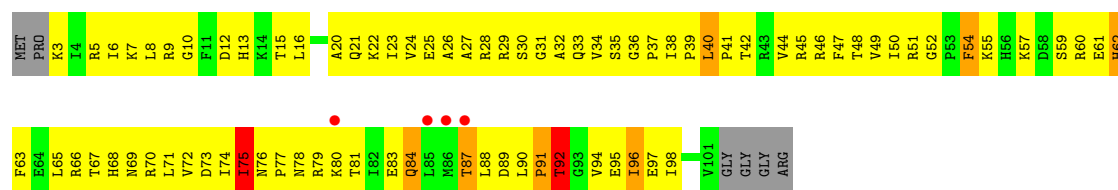
- Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain CL:



- Molecule 10: 30S RIBOSOMAL PROTEIN S10

Chain AM:



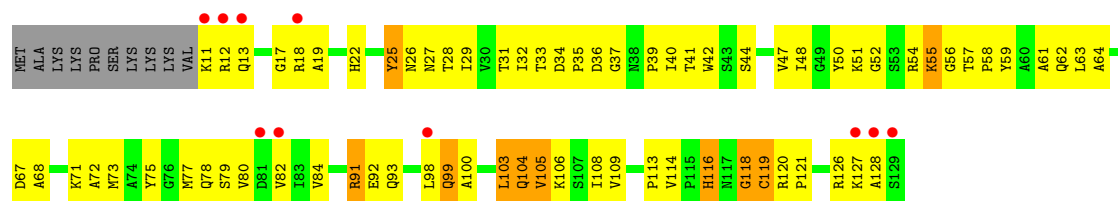
- Molecule 10: 30S RIBOSOMAL PROTEIN S10

Chain CM:



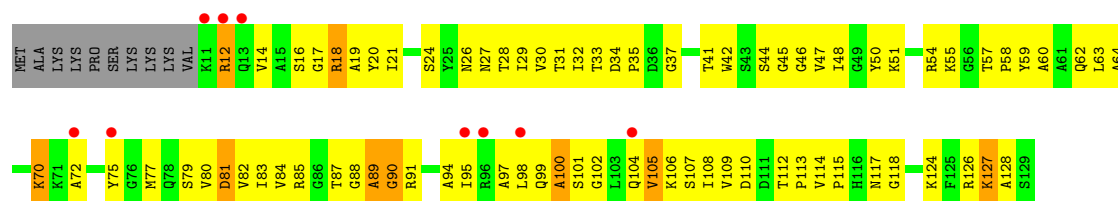
- Molecule 11: 30S RIBOSOMAL PROTEIN S11

Chain AN:



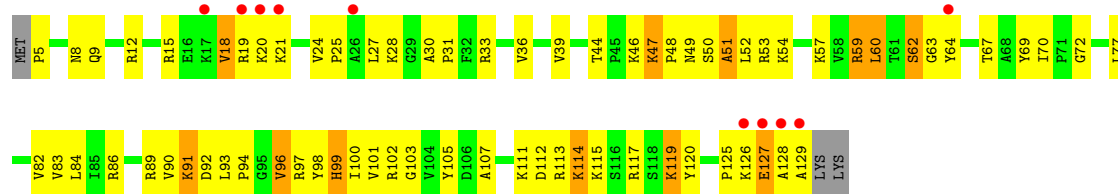
- Molecule 11: 30S RIBOSOMAL PROTEIN S11

Chain CN:



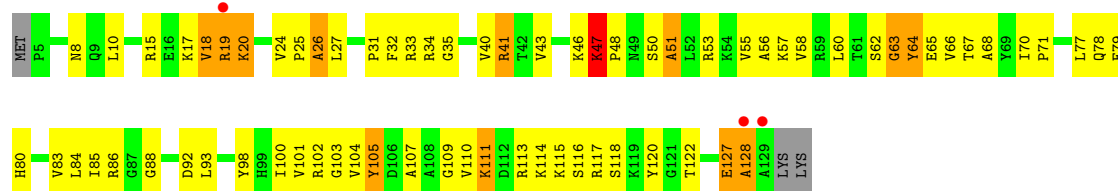
- Molecule 12: 30S RIBOSOMAL PROTEIN S12

Chain AO:



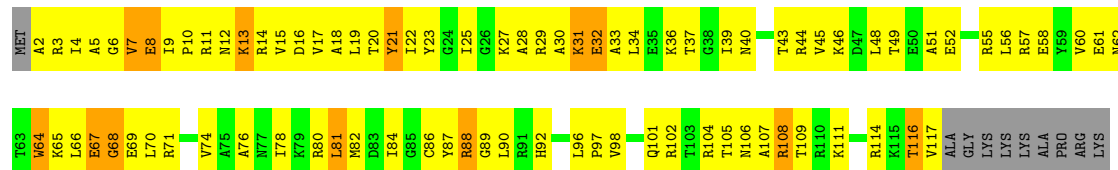
- Molecule 12: 30S RIBOSOMAL PROTEIN S12

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: 



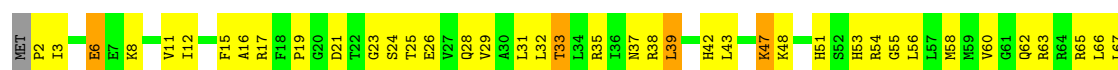
- Molecule 14: 30S RIBOSOMAL PROTEIN S14

Chain CQ: 



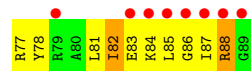
- Molecule 15: 30S RIBOSOMAL PROTEIN S15

Chain AR: 



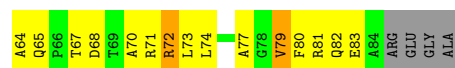
- Molecule 15: 30S RIBOSOMAL PROTEIN S15

Chain CR: 



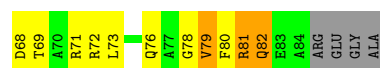
- Molecule 16: 30S RIBOSOMAL PROTEIN S16

Chain AS: 



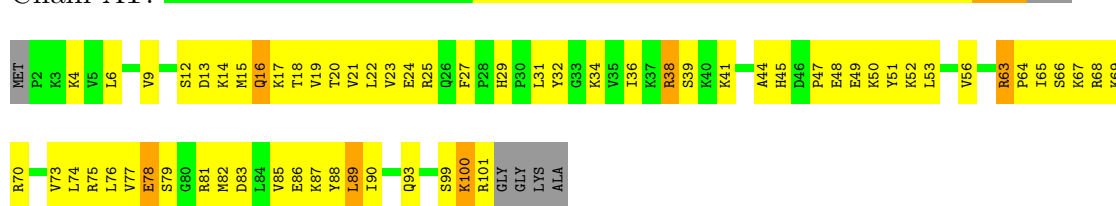
- Molecule 16: 30S RIBOSOMAL PROTEIN S16

Chain CS: 



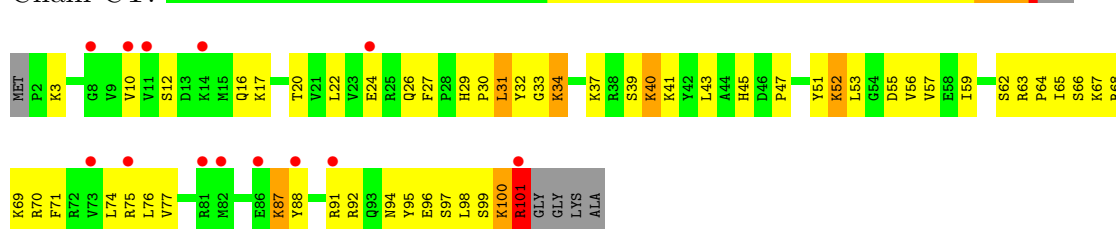
- Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain AT:



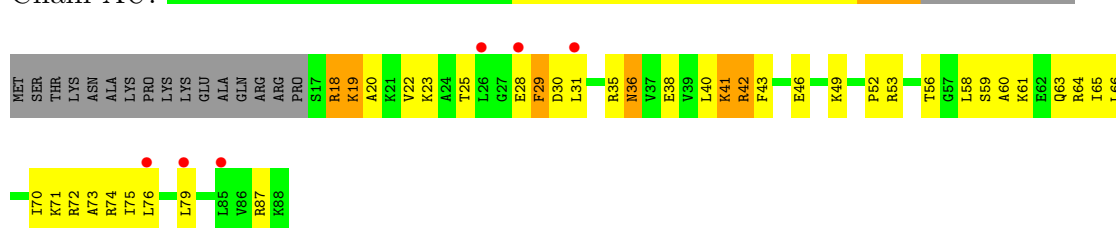
- Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain CT:



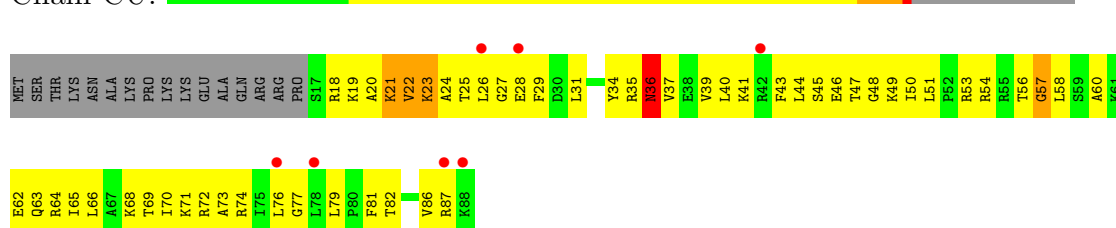
- Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain AU:



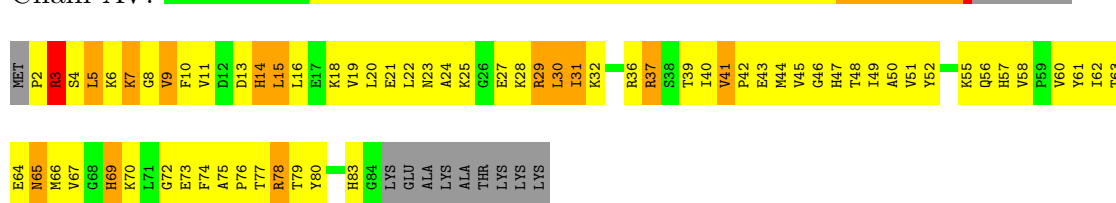
- Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain CU:



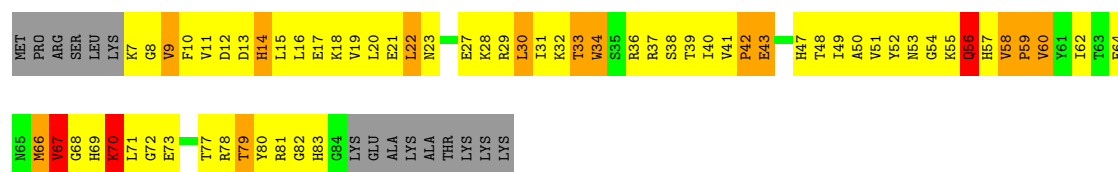
- Molecule 19: 30S RIBOSOMAL PROTEIN S19

Chain AV:



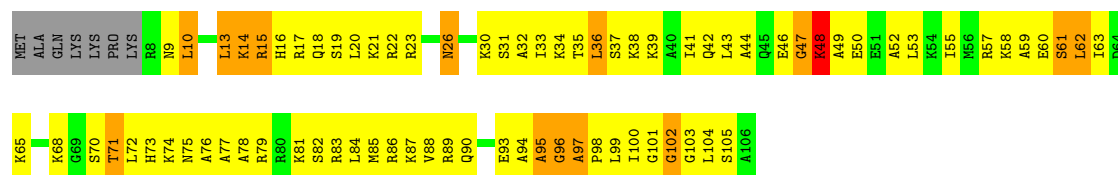
- Molecule 19: 30S RIBOSOMAL PROTEIN S19

Chain CV:



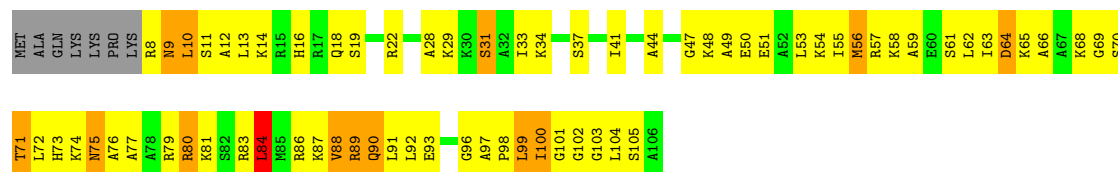
• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain AW:



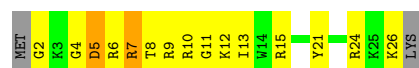
• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain CW:



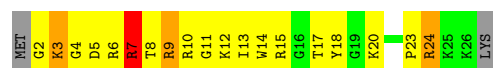
• Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain AX:



• Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain CX:



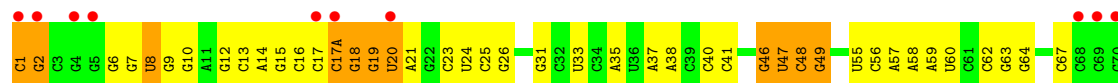
• Molecule 22: TRNA-FMET

Chain AC:



• Molecule 22: TRNA-FMET

Chain CC:





- Molecule 23: MRNA

Chain A1:



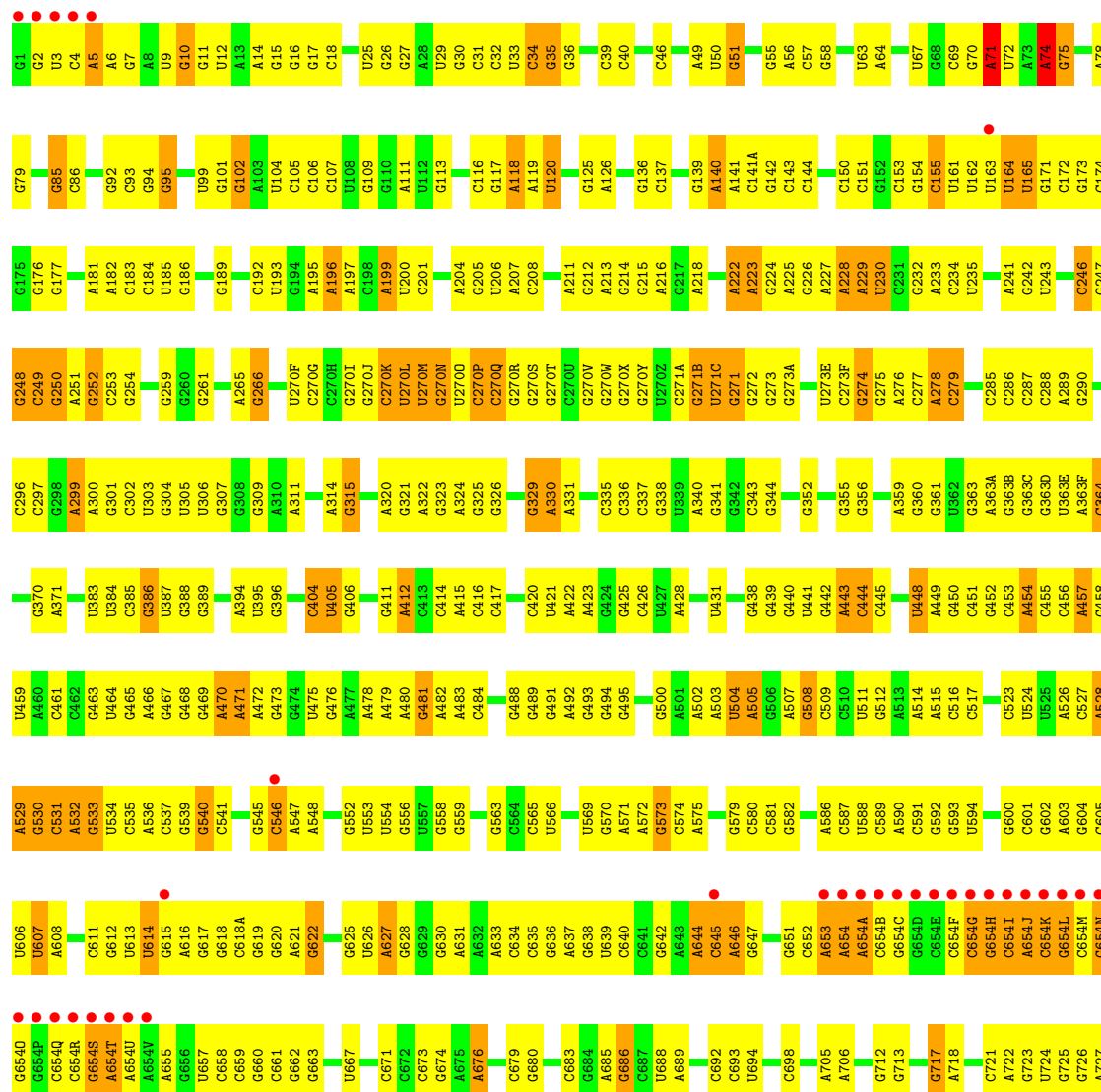
- Molecule 23: MRNA

Chain C1:



- Molecule 24: 23S ribosomal RNA

Chain BA:

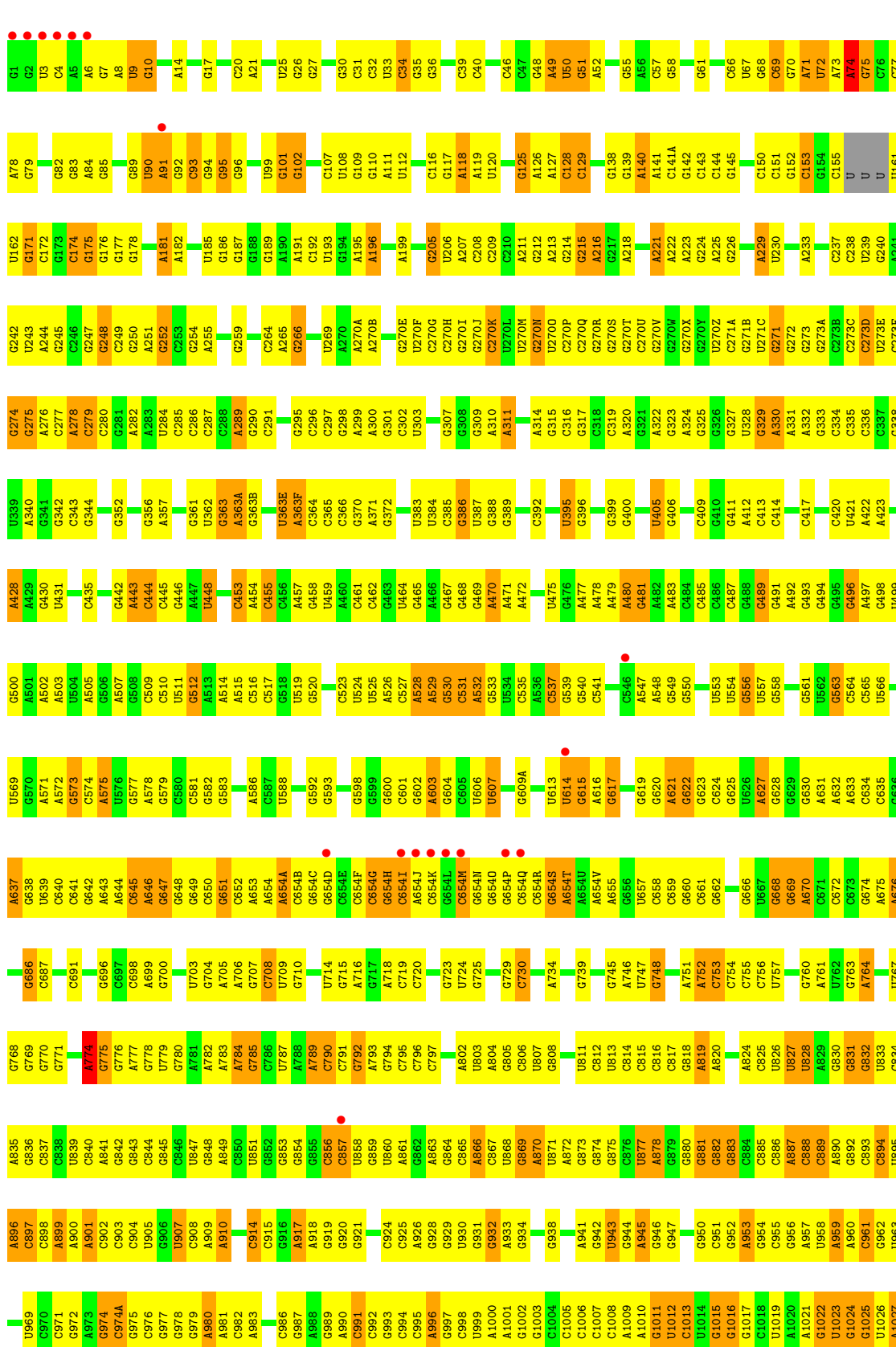


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A1783	C1626	A1698	C1546	G1484	C1409	G1338	C1270	C1201	U1130	U1066	C996	G928	U860	A793	G729
A1784	G1627	A1699	C1547	A1485	C1410	G1339	G1271	C1202	A1132	A1067	U999	G929	A794	G794	C730
A1785	C1628	A1701	C1548	A1486	C1411	U1340	A1272	G1203	A1000	G1088	A1001	U930	G795	C795	G733
A1786	G1629	G1702	C1549	A1487	G1416	U1341	U1273	A1204	C1135	A1070	G1002	G932	C864	C796	G734
G1790	G1630		C1550	G1488	C1417	A1342	U1205	U1205	C1136	G1071	G1003	A933	A866	C797	G735
A1791		G1705	C1557	G1491	U1420	G1343	A1278	G1206	G1137	C1072	C1004	G938	C867	G798	C736
G1792	G1633	U1706	A1558	G1492	G1420	G1344	G1279	C1207	G1138	A1073	C1005		U868	C737	
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G1795	G1635	C1710	A1562	A1496	G1423	G1349	G1281	C1209	C1140	C1075			A802	G739	
C1711	A1637	U1497	G1563	U1497	G1424	U1352	U1282	A1210	U1141	G1076	A1009	G874	G805	U740	
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U1798	U1639	C1499	C1565	A1427	G1426	A1354	U1288	A1213	A1142A	U1078	G1011	G944	G875	G742	
G1799	G1640	G1500	G1566	G1428	G1427	A1355	U1288	A1213	A1143	C1079	U1012	A945	C876	G743	
C1800	A1641	C1501	A1567	G1430	G1429	U1357	U1292	G1216	G1144	A1080	U1013	G946	U877	G744	
G1801	G1642	C1502	G1568	C1430	U1431	U1357	U1293		C1145	U1081	U1014	G947	A878	G745	
A1802	G1643	U1503	A1569	U1431	U1431	G1358	U1293	A1220	C1146	U1082	G1015		G879	G746	
A1803			A1570	A1359	C1432	A1359	A1302	A1227	C1147	U1083		G950	G880	U747	
G1804	G1647	G1728	A1571	C1506	U1433	A1360	G1296	C1221	A1148	A1084	C1018	C951	G881	C812	
U1805	C1648	A1729	A1572	A1507	U1434	A1360	C1297	C1222	G1149	A1085	U1019	G952	G882	C813	
U1808	G1650	G1731	C1575	A1508	G1435	G1364	G1299	G1223	C1150	A1086	A1020	A953	G883	C814	
A1809	A1651	A1732	U1576	A1509	G1441	A1365	U1300	G1225	G1151	G1087	A1021	G954	C884	A751	
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G1748	C1658		C1582	U1516	G1448	G1374	A1306	G1238	G1163	A1095	G1030	G962	C893	G760	
A1749	C1662	G1748	A1583	G1517	A1449	C1375	A1307	G1239	U1165	U1096		U963	C894	U762	
G1750	G1663	G1750	C1585	G1519	G1450	C1376	G1309	U1240	G1166	U1097	U1033	G968	U895	G763	
U1820	A1664		A1586	U1520	C1451	A1379	G1310	A1241	C1167	A1098	U1035	G969	A896	A764	
G1824	G1665	G1753	U1590	G1521	A1453	G1380	U1312	G1243	U1167	G1099	C1100	C970	C898	G765	
A1825	G1666	C1754	G1591	G1522	U1454	A1384	U1313	G1244	G1169	U1101	G1037	C971	A899	U767	
G1826	G1667	A1755	C1592	U1523	G1455	G1385	C1314	G1245	G1170	C1102	G1038	G972	A900	G768	
C1827	A1668	G1756	G1593	G1524	C1458	G1386	C1315	A1246	G1171	A1103	G1039	A973	A901	G769	
G1828	G1669	G1757	G1594	G1525	G1459	C1387	U1316	A1247	G1173	C1104		G974	C902	G770	
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G1831	G1676	C1761	C1598	A1529	G1462		C1320	G1251	G1176	G1107	A1046	U905	U839	A774	
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	G1681		U1602	C1533	C1468	U1396	G1325	G1257	C1181	G1112	G1051	A980	C844	G778	
		C1767	G1606	G1534	A1469	U1397	G1326	G1258	A1182	U1113		A983	A911	U779	
C1837	C1685	U1768	C1607	U1535	G1470	C1398	U1326	G1259	G1183	G1114	A1054	A984	G845		
C1838	C1686		A1608	A1536	A1471	G1399	C1327	G1260	G1184	G1115	G1055	C985	C912	C846	
C1844	G1687	A1773	A1609	G1538	G1472	U1400	U1329	C1261	C1185	C1116	G1056	C986		U847	
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G1846	A1689	U1776	G1540	G1474	C1475	C1402	C1331	G1263	G1187	G1122	U1058	A988	C916	A849	
A1847	A1690	G1777	U1541	G1475		C1403	A1332	G1264	U1188	C1123	G1059	G989	A917	G785	
A1848	C1691	U1778	G1542		G1476	G1404	C1333	A1265	G1191	G1125	U1060	G993	U851	G786	
G1849	U1692	U1779	A1543	G1478		U1405	C1334	G1266	G1192	A1126	U1061	C994	G855	A788	
U1851	C1694	C1781	C1544	G1479		U1406	U1335	A1268	G1193	A1127	G1062	C995	C856	A789	
						C1407	A1336		A1194		C1064	A996	C924	C857	
														G791	



● Molecule 24: 23S ribosomal RNA

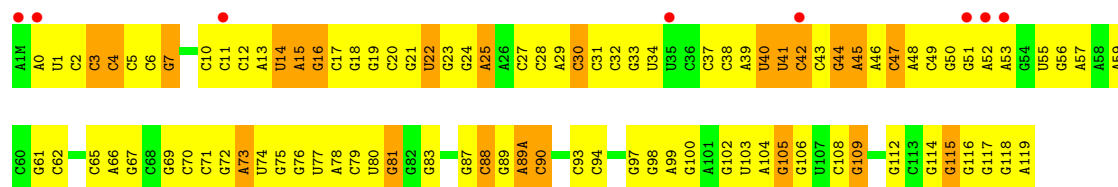
Chain DA:



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C2067	U1995	A1913	G1753	C1658	A1586	C1515	A1449	C1375	U1299	G1229	U1094	A1030
U2068	C1996	G1827	G1763	U1659	A1587		C1450	C1376	U1300	G1229A	A1095	
C2069	G1997	A1828	G1766	C1660	C1588	U1519	C1451	A1377	A1301	C1230	U1096	G1036
G2070	U1998	G1829	G1767	G1661	U1590	G1520	C1453	A1378	A1302	G1231	U1097	G1037
A2071	C1999	U1757	U1758		U1591	G1521	U1454	G1380	G1303	G1232	U1098	C1038
	G2000	G1758	A1665	A1666	C1592	G1522	U1455	A1384	C1304	G1233	G1099	C1039
U2074	A2001	G1759	G1666	G1667	C1593		G1459	A1385	A1307	G1235	U1101	C1040
	G2002	G1760	G1668	G1669	U1594	G1525	A1460	C1386	A1308	U1240	C1102	C1041
G2080	C1991	A1762	A1668	G1670	G1595	G1526	A1461	C1387	G1309	A1241	A1103	G1042
A2081	G1922	G1763	A1669	U1671	A1596	A1528	C1462	G1388	G1310	A1242	U1105	C1043
A2082	C1994	G1764	U1672	C1673	A1597	A1529	C1463	G1389	G1311		G1106	G1044
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G2088	G1772	G1678	C1680	C1607	U1607	U1535	C1469	U1397	G1318	U1249	G1112	A1050
	A1848	A1679	A1680	A1608		U1536	A1470	U1398	C1319	G1250	C1180	G1051
U2092	G1850	G1681	C1682	A1609	C1610	C1537	A1471	G1401	G1320	G1251	G1182	A1054
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C2102	C1957	A1701	A1702	G1631	C1549	C1551	A1482	G1416	A1331	U1262	G1193	C1064
	U1983	G1705	G1706	G1632	C1552	G1555	A1483	C1417	G1332	G1263	U1194	U1065
C2109	C1986	U1707	C1708	G1633	G1556	G1557	A1484	C1418	C1333	G1264	U1195	U1066
G2110	C1987	U1708	C1709	A1634	C1558	C1559	A1485	U1419	U1334	A1265	U1196	A1067
U2111	A1882	G1709	U1710	G1635	C1560	G1561	A1486	U1420	U1335	G1266	U1197	G1068
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G2113	A1884	G1711	U1712	U1639	C1564	A1565	A1488	G1422	G1337	A1268	G1137	A1070
C2114	G1889	C1712	C1713	G1640	A1566	A1567	U1489	G1423	G1338	C1270	G1138	C1072
G2115	A1890	U1716	G1717	A1641	A1568	A1569	A1490	G1424	U1340	G1271	G1139	A1073
C2116	C1800	U1718	G1719	G1642	A1569	A1570	A1491	G1425	U1341	A1272	U1205	G1074
	G1801	C1720	G1721	G1643	A1570	A1571	A1492	G1426	A1342	U1273	G1206	C1075
A2117	A1802	U1721	G1722	G1644	A1571	A1572	A1493	A1427	G1343	A1274	U1141	C1076
U2118	A1803	G1723	G1724	G1645	A1572	A1573	A1494	A1428	G1344	A1275	A1142	U1077
A2051	C1804	U1724	G1725	G1646	A1573	A1574	A1495	C1429	A1276	G1276	A1143	U1078
C2052	U1805	G1726		G1647	A1574	A1575	A1496	G1430	G1277	G1277	G1144	C1079
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A2054	G1807	U1728		G1649	A1576	A1577	A1498	G1435	G1350	G1279	G1215	U1081
C2055	A1810	G1729		G1650	A1577	A1578	A1499	G1436	C1351		G1216	U1082
G2056	G1811	U1730		G1651	A1578	A1579	C1504	C1437	U1288	A1287	G1217	U1083
A2057	A1812	G1731		G1652	A1579	A1580	C1505	U1438	U1289	U1288	G1218	U1084
C2058	C1902	U1732		A1652	A1580	A1581	C1506	A1439	A1360	G1291	A1148	A1085
A2059	G1906	A1732		A1653	A1581	A1582	A1507	G1440	G1364	G1292	G1151	A1086
G2060	C1907	C1742		A1654	A1582	A1583	A1508	G1441	A1365	U1293	G1152	G1087
C2061	U1908	G1743		A1655	A1583	A1584	A1509	G1442	G1366	C1293	C1222	A1088
A2062	C1909	G1744		A1656	A1584	A1585	A1510	G1443	A1367	U1294	G1223	G1089
G2131	U1911	G1745		A1657	A1585	A1586	A1511	A1444	G1368	C1295	G1224	U1090
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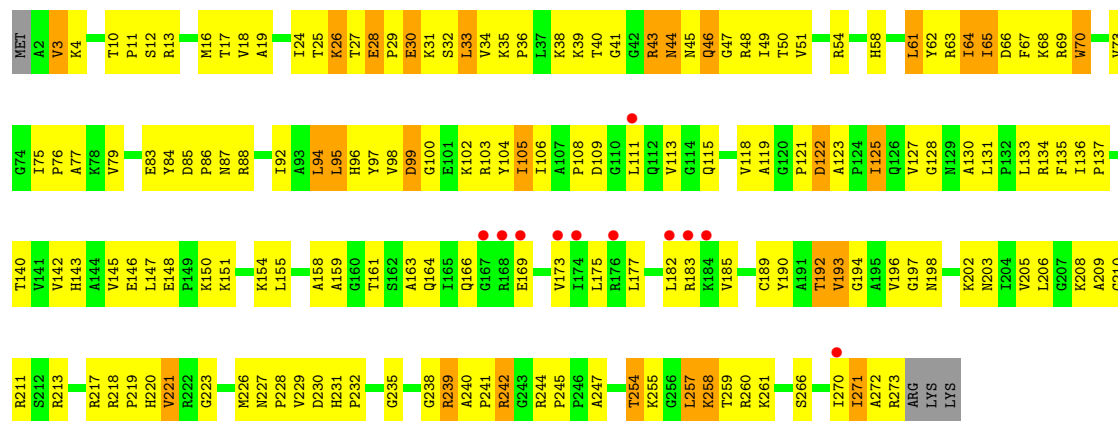


Chain DB:



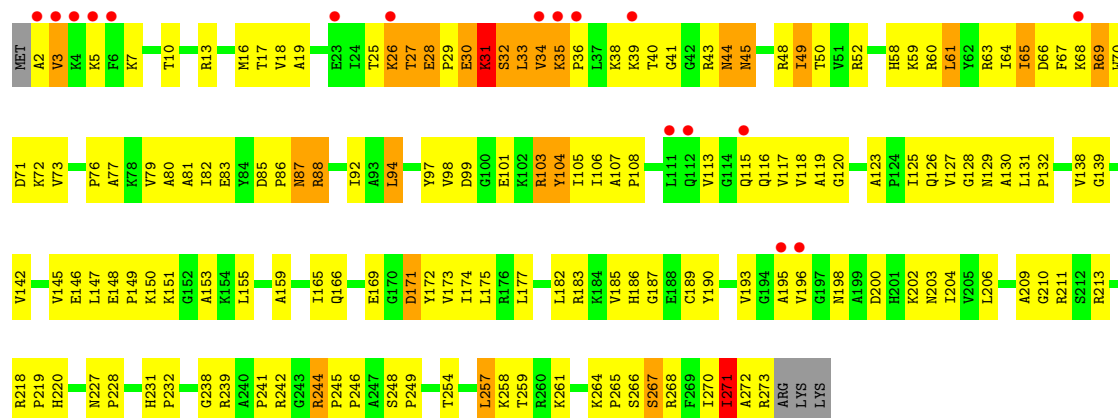
- Molecule 26: 50S ribosomal protein L2

Chain BD:



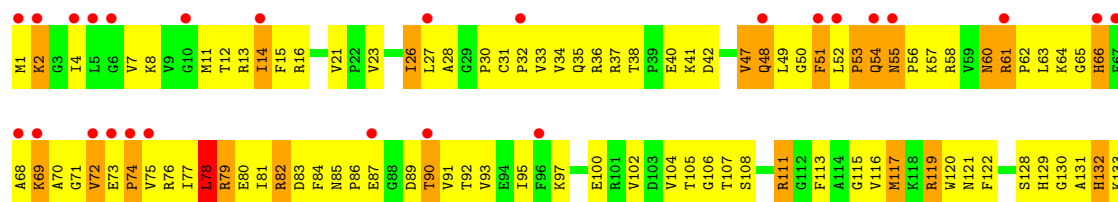
- Molecule 26: 50S ribosomal protein L2

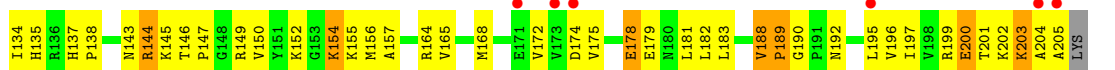
Chain DD:



- Molecule 27: 50S ribosomal protein L3

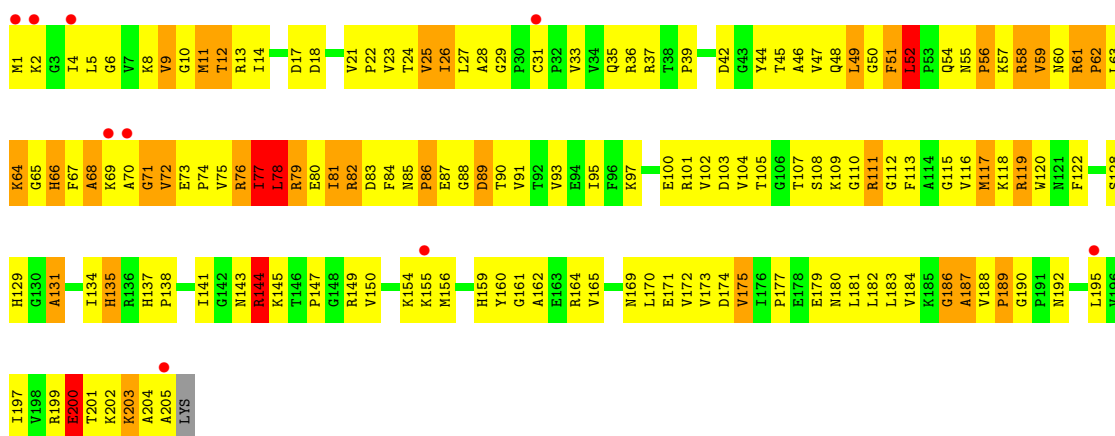
Chain BE:





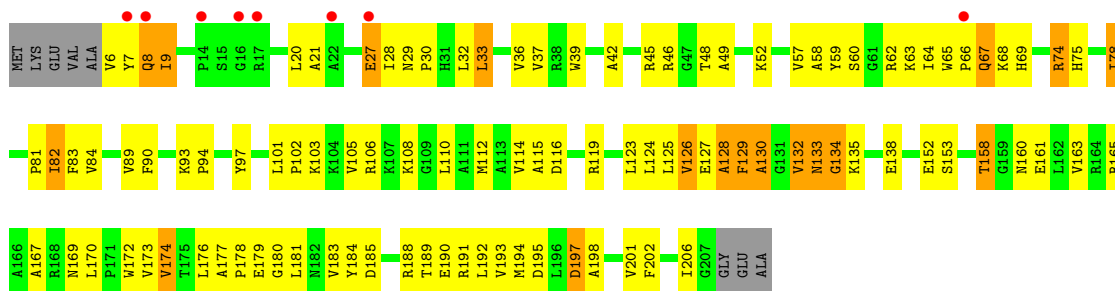
• Molecule 27: 50S ribosomal protein L3

Chain DE:



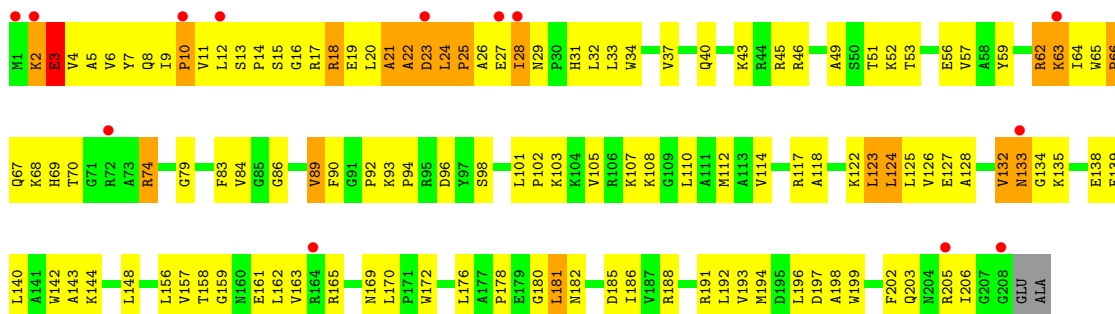
• Molecule 28: 50S ribosomal protein L4

Chain BF:



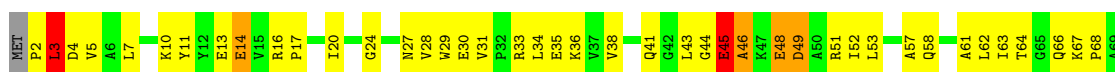
• Molecule 28: 50S ribosomal protein L4

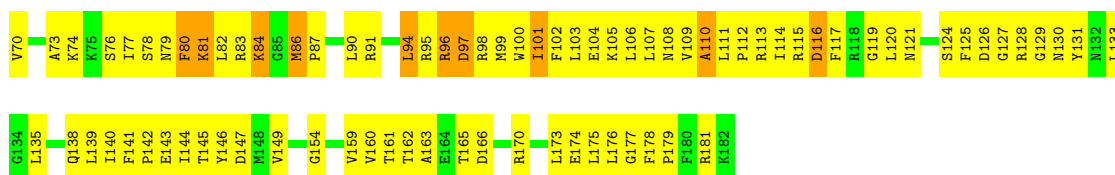
Chain DF:



• Molecule 29: 50S ribosomal protein L5

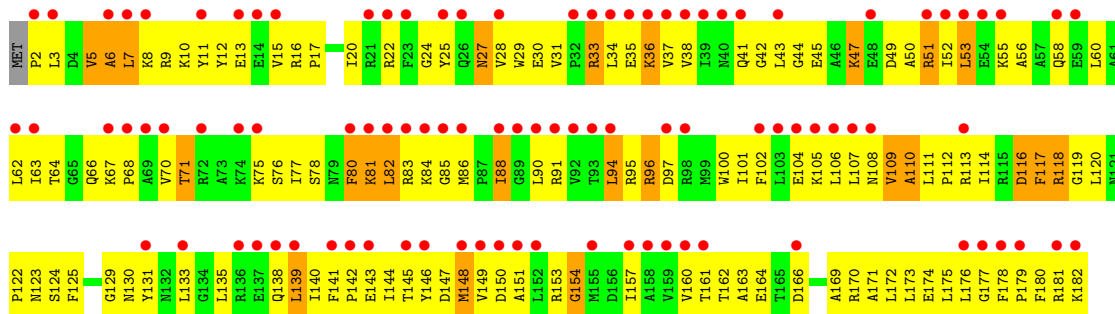
Chain BG:





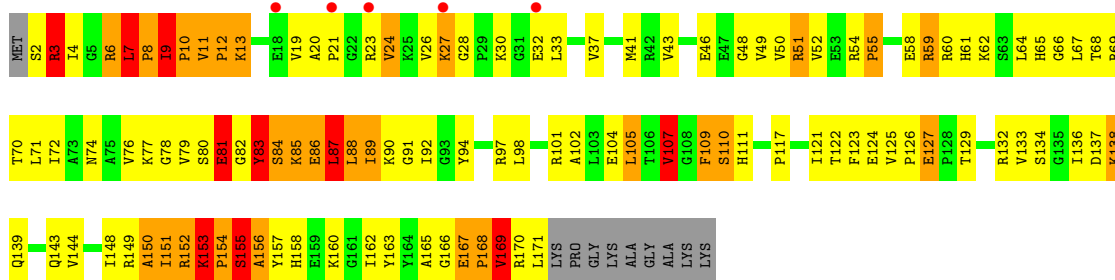
• Molecule 29: 50S ribosomal protein L5

Chain DG:



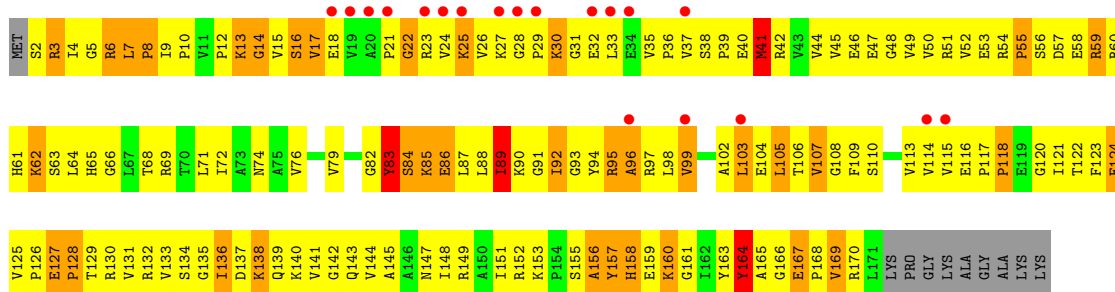
• Molecule 30: 50S ribosomal protein L6

Chain BH:



• Molecule 30: 50S ribosomal protein L6

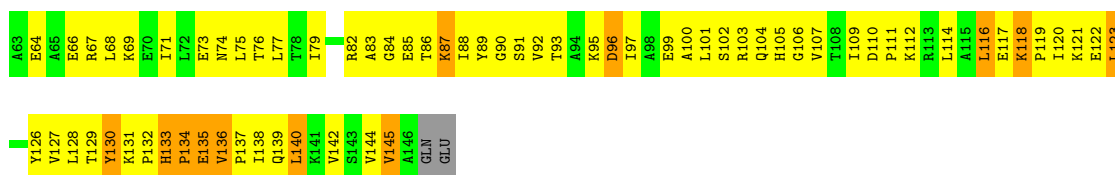
Chain DH:



• Molecule 31: 50S ribosomal protein L9

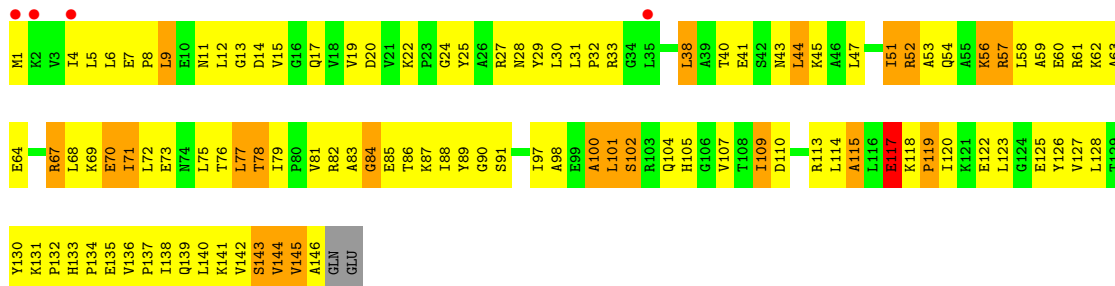
Chain BK:





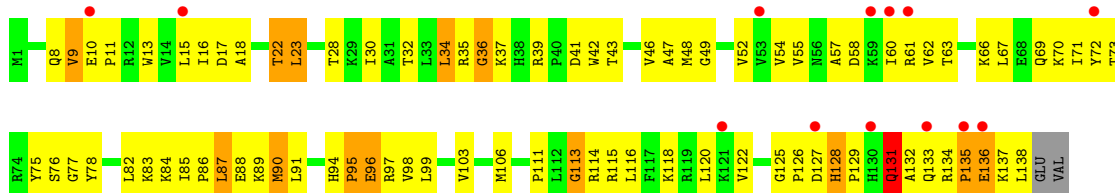
- Molecule 31: 50S ribosomal protein L9

Chain DK:



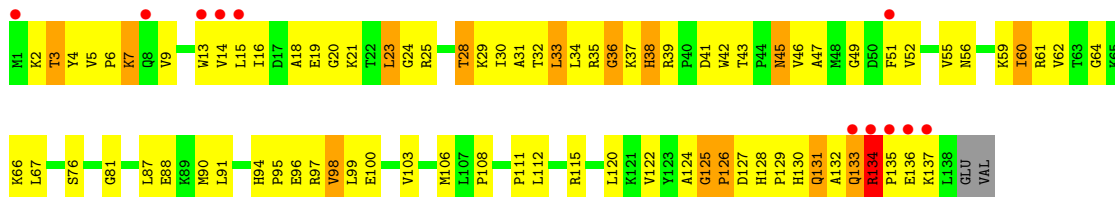
- Molecule 32: 50S ribosomal protein L13

Chain BM:



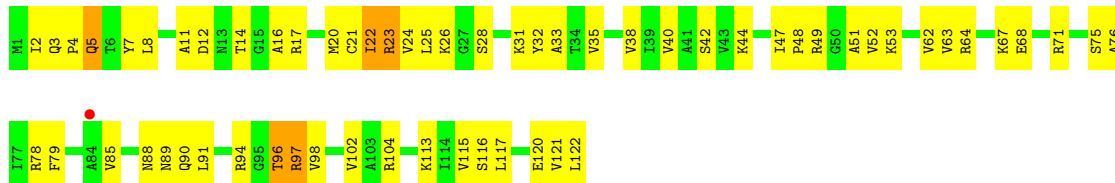
- Molecule 32: 50S ribosomal protein L13

Chain DM:



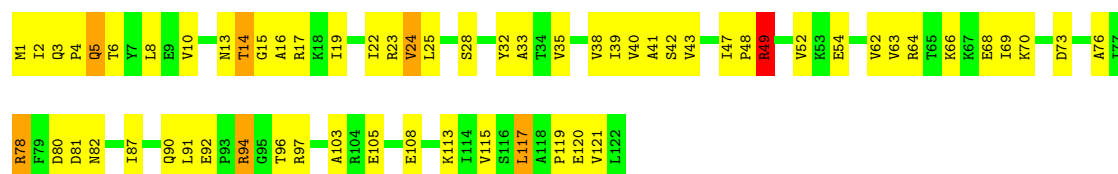
- Molecule 33: 50S ribosomal protein L14

Chain BN:



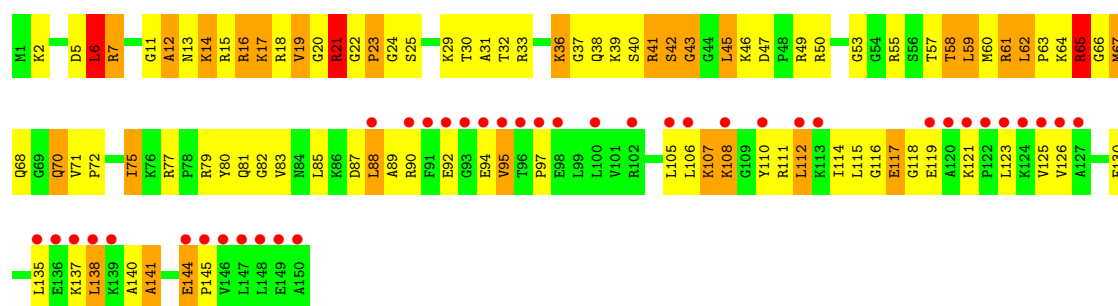
- Molecule 33: 50S ribosomal protein L14

Chain DN:



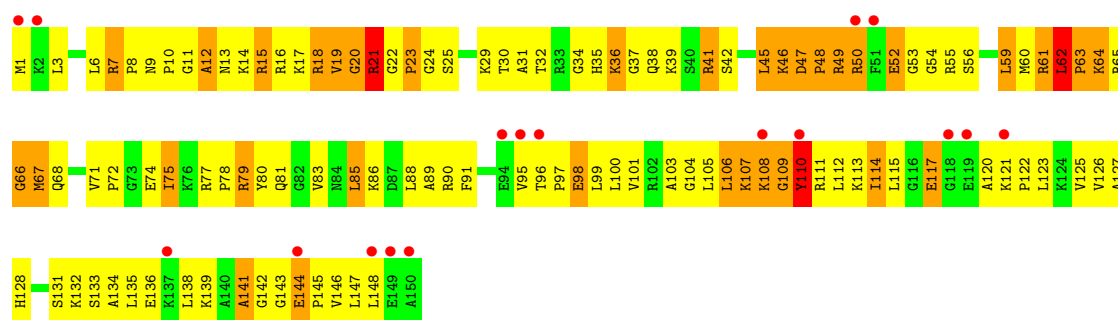
- Molecule 34: 50S ribosomal protein L15

Chain BO:



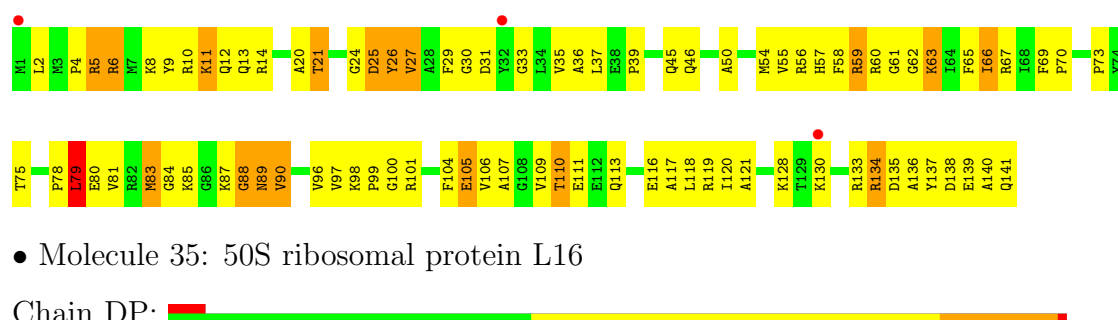
- Molecule 34: 50S ribosomal protein L15

Chain DO:



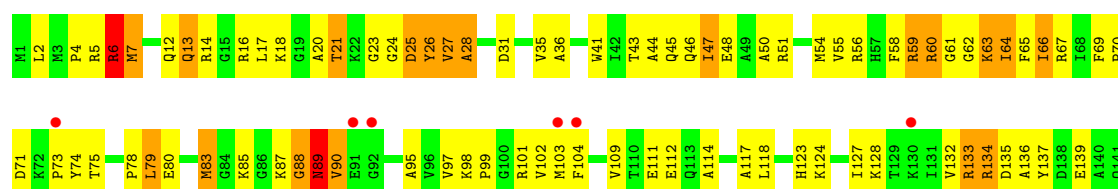
- Molecule 35: 50S ribosomal protein L16

Chain BP:



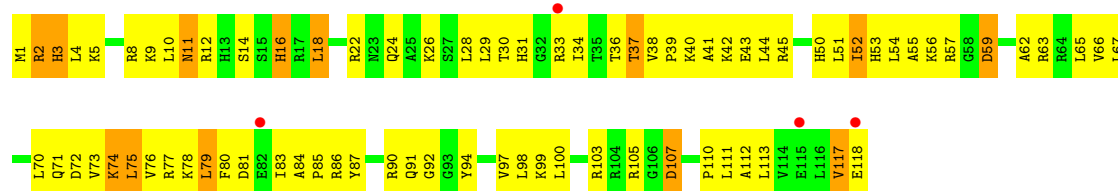
- Molecule 35: 50S ribosomal protein L16

Chain DP:



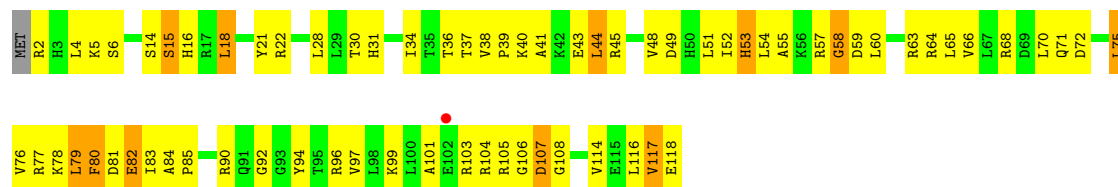
- Molecule 36: 50S ribosomal protein L17

Chain B0:



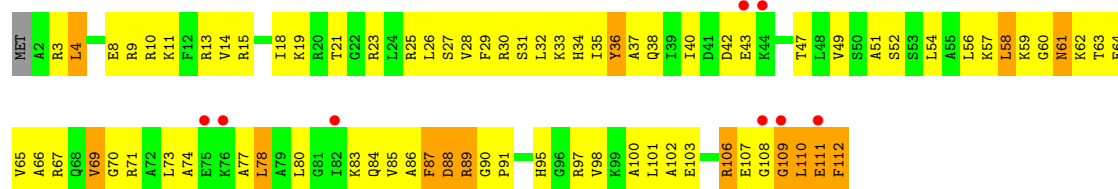
- Molecule 36: 50S ribosomal protein L17

Chain D0:



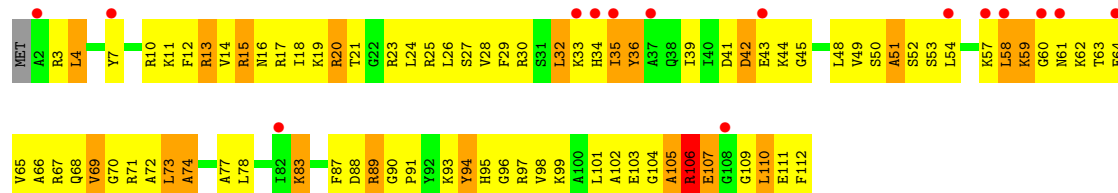
- Molecule 37: 50S ribosomal protein L18

Chain BQ:



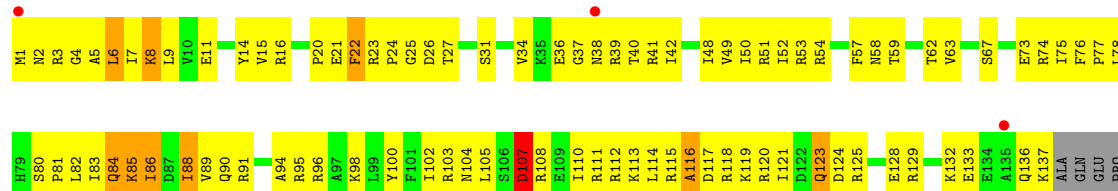
- Molecule 37: 50S ribosomal protein L18

Chain DQ:



- Molecule 38: 50S ribosomal protein L19

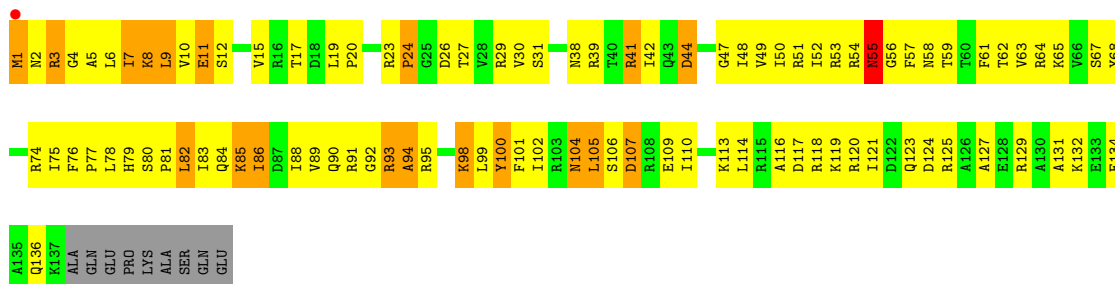
Chain BR:



LYS
ALA
SER
GLN
GLU

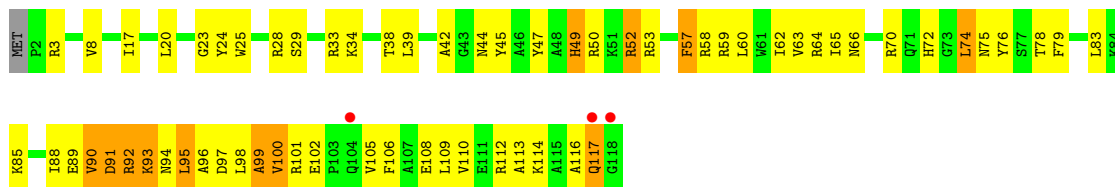
- Molecule 38: 50S ribosomal protein L19

Chain DR: 



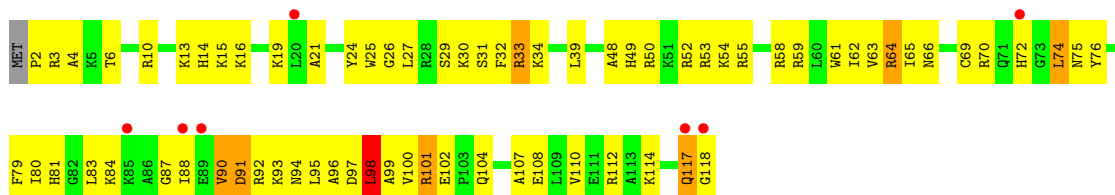
- Molecule 39: 50S ribosomal protein L20

Chain B1: 



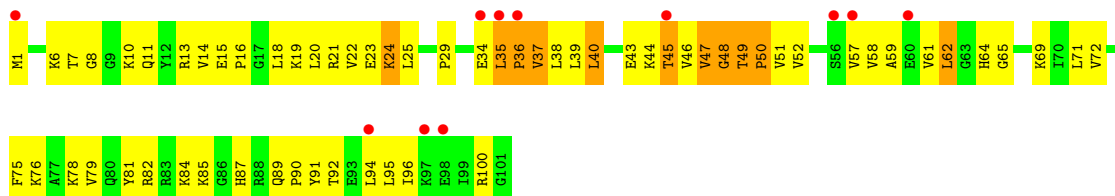
- Molecule 39: 50S ribosomal protein L20

Chain D1: 



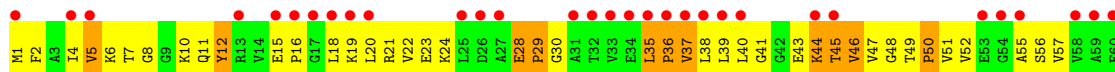
- Molecule 40: 50S ribosomal protein L21

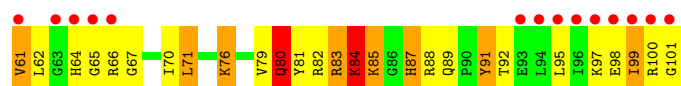
Chain B2: 



- Molecule 40: 50S ribosomal protein L21

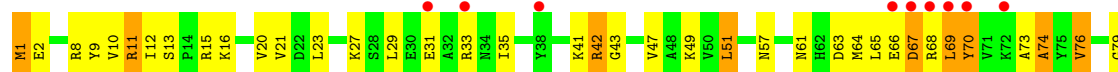
Chain D2: 





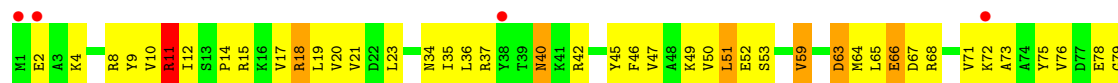
- Molecule 41: 50S ribosomal protein L22

Chain BS:



- Molecule 41: 50S ribosomal protein L22

Chain DS:



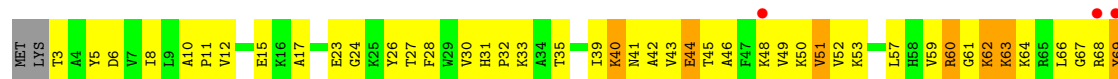
- Molecule 42: 50S ribosomal protein L23

Chain BT:



- Molecule 42: 50S ribosomal protein L23

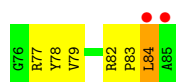
Chain DT:



- Molecule 43: 50S ribosomal protein L24

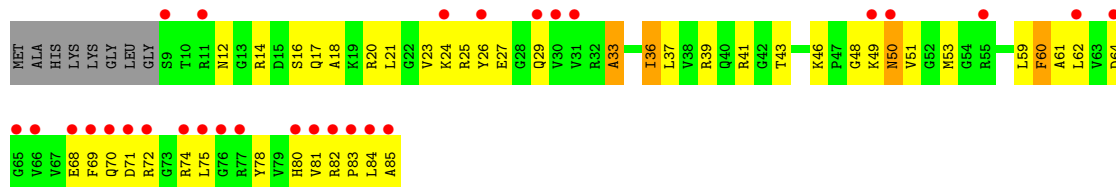
Chain BU:





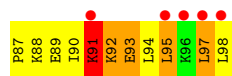
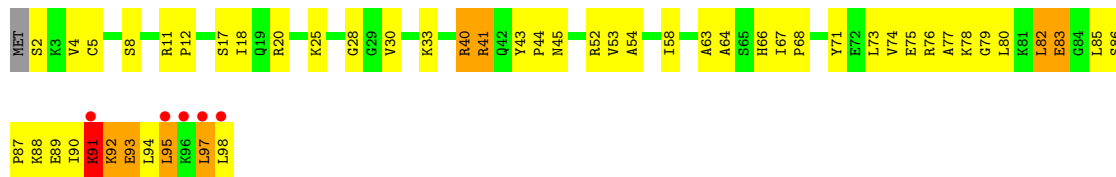
- Molecule 45: 50S ribosomal protein L27

Chain D3:



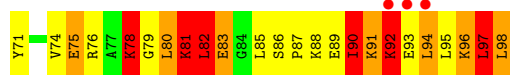
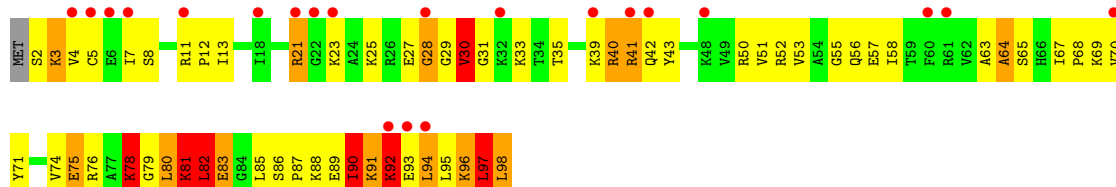
- Molecule 46: 50S ribosomal protein L28

Chain BZ:



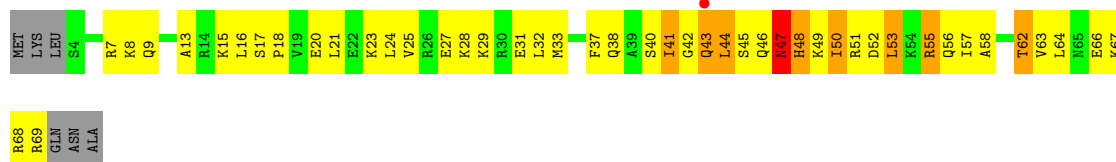
- Molecule 46: 50S ribosomal protein L28

Chain DZ:



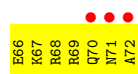
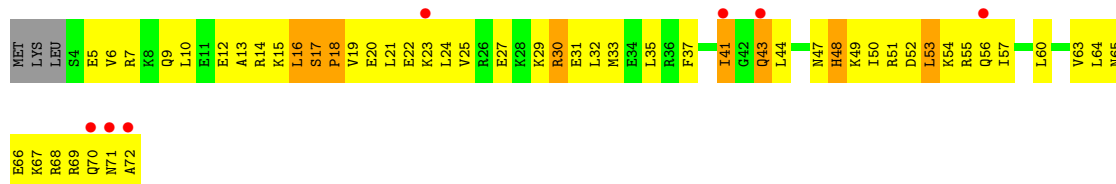
- Molecule 47: 50S ribosomal protein L29

Chain BW:



- Molecule 47: 50S ribosomal protein L29

Chain DW:



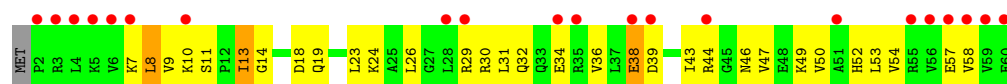
- Molecule 48: 50S ribosomal protein L30

Chain BX:



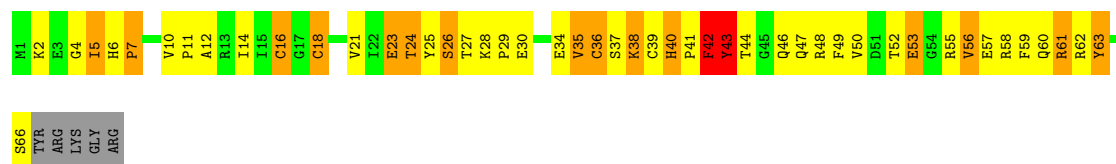
- Molecule 48: 50S ribosomal protein L30

Chain DX:



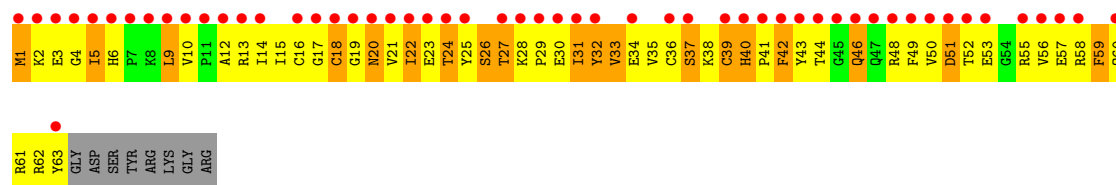
- Molecule 49: 50S ribosomal protein L31

Chain B4:



- Molecule 49: 50S ribosomal protein L31

Chain D4:



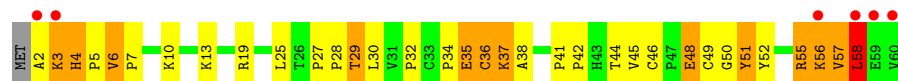
- Molecule 50: 50S ribosomal protein L32

Chain B5:



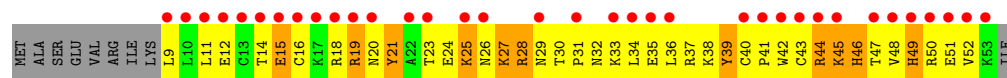
- Molecule 50: 50S ribosomal protein L32

Chain D5:



- Molecule 51: 50S ribosomal protein L33

Chain B6:



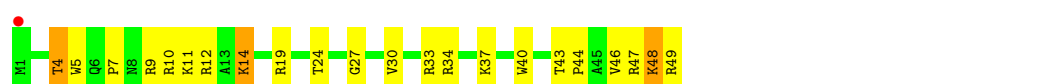
- Molecule 51: 50S ribosomal protein L33

Chain D6:



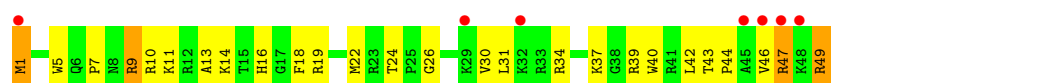
- Molecule 52: 50S ribosomal protein L34

Chain B7:



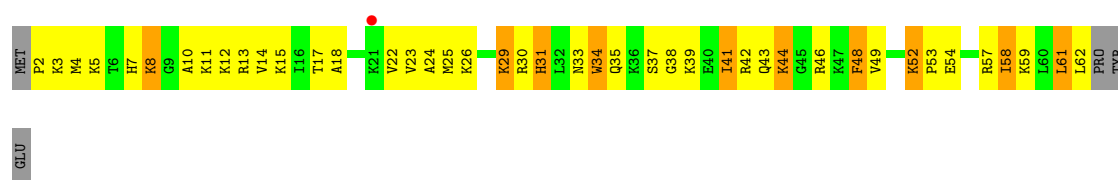
- Molecule 52: 50S ribosomal protein L34

Chain D7:



- Molecule 53: 50S ribosomal protein L35

Chain B8:



- Molecule 53: 50S ribosomal protein L35

Chain D8:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	209.27Å 448.54Å 615.75Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	173.07 – 3.30 224.27 – 3.30	Depositor EDS
% Data completeness (in resolution range)	100.0 (173.07-3.30) 93.5 (224.27-3.30)	Depositor EDS
R_{merge}	0.42	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.12 (at 3.33Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_987)	Depositor
R, R_{free}	0.202 , 0.254 0.298 , 0.333	Depositor DCC
R_{free} test set	892 reflections (0.11%)	DCC
Wilson B-factor (Å ²)	101.1	Xtriage
Anisotropy	0.258	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.24 , 67.5	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.43$, $\langle L^2 \rangle = 0.25$	Xtriage
Outliers	0 of 859965 reflections	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	292440	wwPDB-VP
Average B, all atoms (Å ²)	135.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.58% 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, TAC

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	0.31	2/36234 (0.0%)	0.62	7/56554 (0.0%)
1	CA	0.30	0/36237	0.60	4/56558 (0.0%)
2	AE	0.28	0/1959	0.47	0/2642
2	CE	0.25	0/1959	0.43	0/2642
3	AF	0.25	0/1629	0.41	0/2195
3	CF	0.26	0/1636	0.42	0/2205
4	AG	0.40	2/1733 (0.1%)	0.49	0/2318
4	CG	0.36	1/1733 (0.1%)	0.50	1/2318 (0.0%)
5	AH	0.29	0/1171	0.46	0/1576
5	CH	0.28	0/1171	0.47	0/1576
6	AI	0.28	0/856	0.43	0/1154
6	CI	0.27	0/856	0.43	0/1154
7	AJ	0.28	0/1276	0.42	0/1709
7	CJ	0.32	0/1276	0.45	0/1709
8	AK	0.28	0/1136	0.46	0/1527
8	CK	0.68	4/1136 (0.4%)	0.57	1/1527 (0.1%)
9	AL	0.39	1/1029 (0.1%)	0.49	0/1379
9	CL	0.31	0/1029	0.46	0/1379
10	AM	0.25	0/814	0.44	0/1095
10	CM	0.28	0/814	0.47	0/1095
11	AN	0.27	0/900	0.46	0/1213
11	CN	0.25	0/900	0.43	0/1213
12	AO	0.29	0/991	0.47	0/1327
12	CO	0.31	0/991	0.47	0/1327
13	AP	0.30	0/938	0.47	0/1258
13	CP	0.26	0/943	0.44	0/1265
14	AQ	0.31	0/501	0.45	0/664
14	CQ	0.31	0/501	0.54	1/664 (0.2%)
15	AR	0.27	0/745	0.42	0/992
15	CR	0.26	0/745	0.38	0/992
16	AS	0.32	0/721	0.47	0/970
16	CS	0.27	0/721	0.44	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AT	0.30	0/847	0.44	0/1131
17	CT	0.33	0/847	0.53	1/1131 (0.1%)
18	AU	0.26	0/596	0.44	0/790
18	CU	0.28	0/596	0.45	0/790
19	AV	0.34	0/680	0.58	0/915
19	CV	0.35	0/638	0.58	0/860
20	AW	0.41	0/765	0.54	0/1007
20	CW	0.27	0/765	0.44	0/1007
21	AX	0.28	0/221	0.43	0/288
21	CX	0.41	0/221	0.61	0/288
22	AC	0.47	2/1832 (0.1%)	0.82	5/2855 (0.2%)
22	CC	0.45	2/1832 (0.1%)	0.80	5/2855 (0.2%)
23	A1	0.33	0/94	0.62	0/144
23	C1	0.40	0/94	0.67	0/144
24	BA	0.43	1/70233 (0.0%)	0.77	36/109643 (0.0%)
24	DA	0.39	4/70167 (0.0%)	0.73	38/109541 (0.0%)
25	BB	0.37	0/2928	0.73	1/4568 (0.0%)
25	DB	0.34	0/2928	0.62	0/4568
26	BD	0.39	0/2165	0.57	0/2919
26	DD	0.59	5/2165 (0.2%)	0.55	0/2919
27	BE	0.32	0/1601	0.52	0/2160
27	DE	0.32	0/1601	0.55	0/2160
28	BF	0.32	0/1620	0.49	0/2194
28	DF	0.29	0/1662	0.49	0/2249
29	BG	0.30	0/1499	0.48	0/2016
29	DG	0.27	0/1499	0.46	0/2016
30	BH	0.38	0/1332	0.63	2/1802 (0.1%)
30	DH	0.25	0/1332	0.52	2/1802 (0.1%)
31	BK	0.28	0/1151	0.47	0/1558
31	DK	0.27	0/1151	0.48	0/1558
32	BM	0.28	0/1131	0.50	0/1525
32	DM	0.28	0/1131	0.46	0/1525
33	BN	0.30	0/943	0.48	0/1269
33	DN	0.30	0/943	0.47	0/1269
34	BO	0.39	0/1162	0.64	0/1544
34	DO	0.38	0/1162	0.57	0/1544
35	BP	0.35	0/1143	0.53	0/1527
35	DP	0.41	2/1143 (0.2%)	0.82	3/1527 (0.2%)
36	B0	0.35	0/982	0.53	1/1312 (0.1%)
36	D0	0.30	0/974	0.50	0/1302
37	BQ	0.32	0/892	0.54	0/1187
37	DQ	0.39	0/892	0.51	0/1187
38	BR	0.31	0/1155	0.47	0/1542

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DR	0.34	0/1155	0.51	0/1542
39	B1	0.36	0/982	0.52	0/1306
39	D1	0.31	0/982	0.46	0/1306
40	B2	0.32	0/790	0.52	0/1057
40	D2	0.35	0/790	0.53	0/1057
41	BS	0.31	0/911	0.50	0/1220
41	DS	0.30	0/911	0.50	0/1220
42	BT	0.42	0/739	0.52	0/993
42	DT	0.36	0/739	0.50	0/993
43	BU	0.37	0/798	0.51	0/1064
43	DU	0.33	0/798	0.50	0/1064
44	BV	0.32	0/1427	0.50	0/1935
44	DV	0.27	0/1460	0.45	0/1982
45	B3	0.33	0/615	0.50	0/819
45	D3	0.32	0/621	0.48	0/827
46	BZ	0.37	0/770	0.56	0/1022
46	DZ	0.33	0/770	0.55	0/1022
47	BW	0.39	0/560	0.55	0/741
47	DW	0.29	0/583	0.48	0/771
48	BX	0.31	0/474	0.48	0/635
48	DX	0.26	0/474	0.45	0/635
49	B4	0.81	3/545 (0.6%)	0.65	2/733 (0.3%)
49	D4	0.44	1/527 (0.2%)	0.55	0/709
50	B5	0.33	0/473	0.54	0/639
50	D5	0.29	0/473	0.47	0/639
51	B6	0.44	0/396	0.70	2/529 (0.4%)
51	D6	0.44	0/396	0.62	0/529
52	B7	0.43	0/438	0.68	0/575
52	D7	0.31	0/438	0.53	0/575
53	B8	0.40	0/494	0.58	0/649
53	D8	0.49	0/494	0.84	3/649 (0.5%)
All	All	0.37	30/316019 (0.0%)	0.66	115/472742 (0.0%)

All (30) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	DA	2377	A	N9-C4	20.50	1.50	1.37
26	DD	104	TYR	CD1-CE1	13.75	1.59	1.39
8	CK	94	TYR	CD2-CE2	-13.18	1.19	1.39
49	B4	16	CYS	CB-SG	-12.84	1.60	1.82
26	DD	104	TYR	CD2-CE2	12.77	1.58	1.39
22	AC	17(A)	C	C4-N4	-11.86	1.23	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	CC	17(A)	C	C4-N4	-11.28	1.23	1.33
8	CK	94	TYR	CB-CG	-9.84	1.36	1.51
8	CK	94	TYR	CD1-CE1	-8.84	1.26	1.39
24	DA	2377	A	N3-C4	8.08	1.39	1.34
8	CK	94	TYR	CZ-OH	-7.51	1.25	1.37
4	AG	26	CYS	CB-SG	7.33	1.94	1.82
49	B4	18	CYS	CB-SG	6.99	1.94	1.82
24	BA	2751	G	N7-C5	-6.82	1.35	1.39
22	CC	17(A)	C	N3-C4	6.78	1.38	1.33
26	DD	104	TYR	CE1-CZ	6.64	1.47	1.38
26	DD	104	TYR	CE2-CZ	6.58	1.47	1.38
49	D4	39	CYS	CB-SG	-6.11	1.71	1.82
1	AA	192	U	O3'-P	6.05	1.68	1.61
22	AC	17(A)	C	N3-C4	6.05	1.38	1.33
35	DP	6	ARG	CZ-NH1	5.98	1.40	1.33
49	B4	43	TYR	CD2-CE2	5.94	1.48	1.39
9	AL	101	PHE	CD1-CE1	5.89	1.51	1.39
4	CG	12	CYS	CB-SG	-5.73	1.72	1.81
24	DA	2377	A	C5-C6	5.44	1.46	1.41
26	DD	104	TYR	CG-CD1	5.23	1.46	1.39
1	AA	192	U	C3'-O3'	5.22	1.49	1.42
24	DA	2393	A	N9-C4	5.21	1.41	1.37
4	AG	12	CYS	CB-SG	5.15	1.91	1.82
35	DP	6	ARG	NE-CZ	5.06	1.39	1.33

All (115) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	DA	2377	A	C2-N3-C4	28.76	124.98	110.60
24	BA	2751	G	N1-C6-O6	20.94	132.47	119.90
24	DA	2377	A	C8-N9-C4	-20.26	97.69	105.80
35	DP	6	ARG	NE-CZ-NH1	19.44	130.02	120.30
22	CC	17(A)	C	N3-C4-C5	-18.15	114.64	121.90
24	DA	2377	A	N3-C4-C5	-17.55	114.52	126.80
24	DA	2377	A	N9-C4-C5	17.51	112.80	105.80
22	AC	17(A)	C	N3-C4-C5	-17.35	114.96	121.90
24	DA	2344	U	N3-C4-C5	-15.11	105.53	114.60
24	DA	2344	U	C6-N1-C2	-14.55	112.27	121.00
22	CC	17(A)	C	C2-N3-C4	14.49	127.15	119.90
35	DP	6	ARG	NE-CZ-NH2	-14.42	113.09	120.30
22	AC	17(A)	C	C2-N3-C4	13.92	126.86	119.90
24	BA	2751	G	C5-C6-O6	-12.60	121.04	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	DA	2377	A	C4-C5-N7	-11.53	104.94	110.70
24	BA	2751	G	C4-C5-C6	11.07	125.44	118.80
24	DA	2377	A	N1-C2-N3	-10.93	123.83	129.30
24	DA	2377	A	C5-C6-N1	10.58	122.99	117.70
30	BH	3	ARG	NE-CZ-NH1	-10.53	115.04	120.30
1	AA	1381	U	N3-C2-O2	-10.39	114.93	122.20
24	BA	2751	G	C5-C6-N1	-10.37	106.32	111.50
24	BA	2751	G	C6-C5-N7	-10.30	124.22	130.40
24	BA	1999	C	C6-N1-C2	10.05	124.32	120.30
24	BA	2751	G	C8-N9-C4	-9.28	102.69	106.40
24	DA	2377	A	C5-N7-C8	8.83	108.32	103.90
24	DA	2344	U	N3-C2-O2	-8.79	116.05	122.20
24	DA	2344	U	C2-N3-C4	8.79	132.27	127.00
22	AC	17(A)	C	C5-C4-N4	8.78	126.34	120.20
1	AA	1381	U	C6-N1-C2	-8.55	115.87	121.00
30	DH	3	ARG	NE-CZ-NH2	-8.44	116.08	120.30
24	DA	2345	G	N3-C4-N9	-8.22	121.07	126.00
24	DA	2344	U	C4-C5-C6	8.03	124.52	119.70
22	CC	17(A)	C	C5-C4-N4	7.99	125.79	120.20
24	DA	1601	G	N7-C8-N9	7.78	116.99	113.10
22	CC	17(A)	C	N1-C2-O2	7.71	123.52	118.90
24	DA	1601	G	C8-N9-C4	-7.70	103.32	106.40
24	DA	2344	U	C5-C6-N1	7.70	126.55	122.70
35	DP	6	ARG	CD-NE-CZ	7.64	134.30	123.60
24	DA	2377	A	N1-C6-N6	-7.43	114.14	118.60
24	DA	2344	U	N3-C4-O4	7.22	124.46	119.40
24	BA	2285	C	C2-N1-C1'	-7.02	111.08	118.80
24	BA	676	A	C2-N3-C4	-6.98	107.11	110.60
24	BA	774	A	C2-N3-C4	-6.95	107.12	110.60
24	DA	2344	U	C5-C4-O4	6.85	130.01	125.90
1	AA	1381	U	C2-N1-C1'	6.84	125.90	117.70
53	D8	30	ARG	CG-CD-NE	6.81	126.10	111.80
24	BA	2430	A	C2-N3-C4	-6.65	107.27	110.60
1	CA	598	U	C2-N1-C1'	-6.64	109.73	117.70
22	CC	17(A)	C	N1-C2-N3	-6.64	114.55	119.20
24	BA	2285	C	C6-N1-C1'	6.60	128.72	120.80
24	DA	2377	A	N3-C4-N9	6.60	132.68	127.40
22	AC	17(A)	C	N1-C2-O2	6.56	122.84	118.90
24	DA	2377	A	O4'-C1'-N9	6.53	113.42	108.20
24	DA	2344	U	N1-C2-N3	6.52	118.81	114.90
51	B6	28	ARG	NE-CZ-NH1	6.47	123.54	120.30
24	DA	2377	A	C6-C5-N7	6.45	136.81	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	DA	1246	A	N9-C4-C5	6.43	108.37	105.80
53	D8	30	ARG	CB-CG-CD	6.29	127.97	111.60
24	BA	71	A	C5-N7-C8	-6.25	100.77	103.90
1	CA	598	U	N3-C2-O2	6.19	126.53	122.20
24	DA	2345	G	N9-C4-C5	6.17	107.87	105.40
53	D8	30	ARG	NE-CZ-NH1	6.16	123.38	120.30
24	BA	1992	G	C8-N9-C4	-6.15	103.94	106.40
8	CK	94	TYR	CD1-CE1-CZ	-6.11	114.30	119.80
22	AC	17(A)	C	N1-C2-N3	-5.87	115.09	119.20
24	DA	2393	A	C8-N9-C4	-5.84	103.47	105.80
4	CG	12	CYS	CA-CB-SG	5.81	124.47	114.00
24	DA	453	C	C6-N1-C2	5.78	122.61	120.30
30	BH	3	ARG	NH1-CZ-NH2	5.74	125.72	119.40
24	DA	774	A	C2-N3-C4	-5.74	107.73	110.60
1	AA	255	G	N3-C4-C5	5.73	131.47	128.60
24	BA	74	A	C2-N3-C4	-5.73	107.74	110.60
24	BA	246	C	C6-N1-C2	5.70	122.58	120.30
24	BA	2751	G	N3-C2-N2	-5.66	115.94	119.90
1	AA	1381	U	N1-C2-O2	5.63	126.74	122.80
1	AA	1381	U	N1-C2-N3	5.61	118.27	114.90
1	AA	192	U	N1-C2-O2	5.56	126.69	122.80
24	BA	2785	C	C6-N1-C2	-5.54	118.08	120.30
24	BA	1311	G	C5-N7-C8	5.52	107.06	104.30
24	BA	1311	G	N3-C4-C5	-5.51	125.85	128.60
24	BA	676	A	C5-N7-C8	-5.49	101.16	103.90
24	BA	840	C	C6-N1-C2	5.46	122.48	120.30
24	BA	783	A	C5-N7-C8	-5.42	101.19	103.90
1	CA	598	U	C6-N1-C2	5.42	124.25	121.00
24	BA	1992	G	N3-C4-C5	-5.41	125.89	128.60
1	CA	598	U	P-O3'-C3'	5.41	126.19	119.70
24	DA	74	A	N1-C6-N6	5.38	121.83	118.60
24	DA	870	A	N1-C6-N6	-5.37	115.38	118.60
24	DA	2377	A	C6-N1-C2	-5.37	115.38	118.60
24	DA	1678	G	N3-C4-C5	5.37	131.28	128.60
24	BA	71	A	C4-C5-N7	5.36	113.38	110.70
51	B6	28	ARG	NE-CZ-NH2	-5.35	117.62	120.30
25	BB	47	C	C6-N1-C2	5.34	122.44	120.30
24	BA	74	A	N1-C6-N6	5.34	121.80	118.60
17	CT	101	ARG	NE-CZ-NH1	-5.33	117.63	120.30
24	BA	783	A	C2-N3-C4	-5.30	107.95	110.60
30	DH	3	ARG	NE-CZ-NH1	5.30	122.95	120.30
24	BA	2751	G	N3-C4-C5	-5.30	125.95	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B0	2	ARG	NE-CZ-NH2	-5.29	117.65	120.30
49	B4	42	PHE	CB-CG-CD1	-5.29	117.10	120.80
24	BA	676	A	N3-C4-C5	5.25	130.48	126.80
24	DA	2717	G	C8-N9-C4	-5.23	104.31	106.40
24	BA	461	C	N1-C2-O2	-5.21	115.77	118.90
24	BA	2751	G	N1-C2-N2	5.20	120.88	116.20
24	DA	1992	G	C8-N9-C4	-5.12	104.35	106.40
14	CQ	22	THR	CB-CA-C	-5.12	97.78	111.60
24	BA	71	A	N1-C6-N6	5.11	121.67	118.60
24	DA	1899	G	N3-C4-C5	5.11	131.15	128.60
24	DA	676	A	C5-N7-C8	-5.10	101.35	103.90
24	BA	140	A	N1-C6-N6	5.08	121.65	118.60
49	B4	42	PHE	CB-CA-C	5.05	120.50	110.40
24	BA	1999	C	N3-C4-C5	5.04	123.92	121.90
24	DA	1761	C	C6-N1-C2	5.04	122.31	120.30
24	BA	2351	G	N3-C4-C5	-5.03	126.08	128.60
24	BA	1261	C	C6-N1-C2	5.00	122.30	120.30

There are no chirality outliers.

There are no planarity outliers.

5.2 Close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32369	0	16335	1780	1
1	CA	32372	0	16338	2038	3
2	AE	1924	0	1975	321	0
2	CE	1924	0	1975	349	0
3	AF	1605	0	1668	210	0
3	CF	1612	0	1677	235	0
4	AG	1703	0	1764	273	0
4	CG	1703	0	1763	334	0
5	AH	1155	0	1213	125	0
5	CH	1155	0	1212	196	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	AI	843	0	857	100	0
6	CI	843	0	857	107	0
7	AJ	1257	0	1296	153	0
7	CJ	1257	0	1296	176	0
8	AK	1116	0	1177	120	0
8	CK	1116	0	1176	177	0
9	AL	1010	0	1037	267	0
9	CL	1010	0	1037	291	0
10	AM	801	0	849	149	0
10	CM	801	0	849	238	1
11	AN	885	0	904	79	0
11	CN	885	0	904	87	0
12	AO	975	0	1062	108	0
12	CO	975	0	1062	91	0
13	AP	928	0	987	157	0
13	CP	933	0	992	195	0
14	AQ	492	0	529	74	0
14	CQ	492	0	530	133	0
15	AR	734	0	771	54	0
15	CR	734	0	771	76	0
16	AS	705	0	725	116	0
16	CS	705	0	725	94	0
17	AT	834	0	904	96	0
17	CT	834	0	904	88	0
18	AU	591	0	662	60	0
18	CU	591	0	662	69	0
19	AV	665	0	686	181	0
19	CV	624	0	636	250	0
20	AW	763	0	861	140	0
20	CW	763	0	861	87	0
21	AX	217	0	234	26	0
21	CX	217	0	234	60	0
22	AC	1640	0	836	47	0
22	CC	1640	0	836	67	0
23	A1	85	0	43	1	0
23	C1	85	0	43	5	0
24	BA	62707	0	31611	2736	0
24	DA	62647	0	31583	2861	2
25	BB	2617	0	1328	127	0
25	DB	2617	0	1328	167	0
26	BD	2115	0	2195	286	0
26	DD	2115	0	2192	237	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
27	BE	1568	0	1634	180	0
27	DE	1568	0	1634	297	0
28	BF	1585	0	1632	147	0
28	DF	1627	0	1680	173	0
29	BG	1474	0	1535	213	0
29	DG	1474	0	1535	220	0
30	BH	1307	0	1382	220	0
30	DH	1307	0	1382	277	0
31	BK	1136	0	1223	174	1
31	DK	1136	0	1223	158	0
32	BM	1104	0	1180	105	0
32	DM	1104	0	1180	132	0
33	BN	933	0	996	66	0
33	DN	933	0	996	84	0
34	BO	1145	0	1228	187	0
34	DO	1145	0	1228	239	0
35	BP	1122	0	1179	127	0
35	DP	1122	0	1178	151	0
36	B0	968	0	1033	102	0
36	D0	960	0	1021	95	0
37	BQ	882	0	943	149	0
37	DQ	882	0	943	207	0
38	BR	1141	0	1202	135	0
38	DR	1141	0	1202	123	0
39	B1	964	0	1022	114	0
39	D1	964	0	1021	140	0
40	B2	779	0	852	103	0
40	D2	779	0	851	175	0
41	BS	900	0	964	66	0
41	DS	900	0	964	75	0
42	BT	725	0	778	72	0
42	DT	725	0	778	86	0
43	BU	785	0	878	136	0
43	DU	785	0	878	153	0
44	BV	1397	0	1430	209	0
44	DV	1428	0	1454	255	0
45	B3	607	0	628	43	0
45	D3	613	0	633	59	0
46	BZ	763	0	848	91	0
46	DZ	763	0	848	93	0
47	BW	558	0	610	62	0
47	DW	581	0	629	71	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
48	BX	469	0	518	31	0
48	DX	469	0	518	39	0
49	B4	533	0	522	132	0
49	D4	515	0	510	157	0
50	B5	459	0	480	67	0
50	D5	459	0	476	46	0
51	B6	389	0	404	142	0
51	D6	389	0	404	166	0
52	B7	430	0	480	55	0
52	D7	430	0	479	73	0
53	B8	488	0	560	110	0
53	D8	488	0	559	138	0
54	A1	1	0	0	0	0
54	AA	232	0	0	0	0
54	AC	9	0	0	0	0
54	AG	2	0	0	0	0
54	AH	2	0	0	0	0
54	AJ	1	0	0	0	0
54	AQ	2	0	0	0	0
54	AR	1	0	0	0	0
54	AS	1	0	0	0	0
54	B1	2	0	0	0	0
54	B2	1	0	0	0	0
54	B3	2	0	0	0	0
54	B5	2	0	0	0	0
54	B6	1	0	0	0	0
54	B7	3	0	0	0	0
54	B8	1	0	0	0	0
54	BA	627	0	0	0	0
54	BB	17	0	0	0	0
54	BE	5	0	0	0	0
54	BF	2	0	0	0	0
54	BO	3	0	0	0	0
54	BP	1	0	0	0	0
54	BU	2	0	0	0	0
54	BZ	1	0	0	0	0
54	CA	204	0	0	0	0
54	CC	8	0	0	0	0
54	CG	2	0	0	0	0
54	CH	1	0	0	0	0
54	CS	1	0	0	0	0
54	D1	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	D5	1	0	0	0	0
54	DA	525	0	0	0	0
54	DB	14	0	0	0	0
54	DD	1	0	0	0	0
54	DE	3	0	0	0	0
54	DP	1	0	0	0	0
54	DR	1	0	0	0	0
54	DU	1	0	0	0	0
54	DZ	2	0	0	0	0
55	AA	32	1	20	4	0
55	CA	32	0	22	3	0
56	AG	1	0	0	0	0
56	AQ	1	0	0	0	0
56	CG	1	0	0	2	0
56	CQ	1	0	0	0	0
All	All	292439	1	197339	20528	4

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 43.

All (20528) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1600:C:C2'	52:D7:49:ARG:HE	0.98	1.56
4:CG:31:CYS:SG	4:CG:33:MET:HE2	1.43	1.53
1:CA:598:U:O3'	8:CK:94:TYR:CE2	1.65	1.48
19:CV:70:LYS:CE	19:CV:73:GLU:HG3	1.44	1.48
24:DA:1600:C:H2'	52:D7:49:ARG:NE	1.12	1.43
7:CJ:78:ARG:NH1	7:CJ:85:TYR:HD1	1.15	1.43
24:DA:2377:A:H1'	37:DQ:112:PHE:CD1	1.54	1.42
1:CA:1118:C:H5'	9:CL:104:ARG:NE	1.32	1.40
3:AF:6:HIS:CD2	3:AF:8:ILE:HG22	1.56	1.40
51:D6:37:ARG:NH2	51:D6:38:LYS:HB2	1.12	1.40
24:BA:2000:G:H5''	36:B0:2:ARG:NH1	1.29	1.40
9:AL:49:PRO:HD3	9:AL:78:LYS:NZ	1.36	1.39
24:DA:2393:A:H5''	53:D8:30:ARG:NE	1.30	1.38
7:CJ:78:ARG:NH2	7:CJ:87:VAL:HG13	1.32	1.37
7:CJ:89:MET:HA	7:CJ:155:ARG:NH1	1.38	1.36
7:CJ:89:MET:CA	7:CJ:155:ARG:HH12	1.38	1.36
24:DA:2377:A:C1'	37:DQ:112:PHE:CD1	2.07	1.35
24:BA:2284:C:H5''	51:B6:28:ARG:NH2	1.35	1.34
1:CA:1118:C:C5'	9:CL:104:ARG:HE	1.40	1.34
40:D2:21:ARG:NH2	40:D2:65:GLY:O	1.60	1.33

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1199:U:H4'	10:AM:54:PHE:CE2	1.63	1.33
19:AV:28:LYS:CE	19:AV:47:HIS:HA	1.59	1.32
24:DA:870:A:H3'	35:DP:6:ARG:NH2	1.42	1.32
7:CJ:78:ARG:NH1	7:CJ:85:TYR:CD1	1.87	1.32
43:BU:81:LYS:NZ	43:BU:96:ILE:HD13	1.41	1.32
4:CG:31:CYS:SG	4:CG:33:MET:CE	2.18	1.31
1:AA:1381:U:H2'	7:AJ:79:ARG:NE	1.40	1.31
1:CA:1289:A:H5'	21:CX:10:ARG:NH2	1.46	1.30
9:AL:99:LEU:HB2	9:AL:101:PHE:CE2	1.64	1.30
7:CJ:88:PRO:O	7:CJ:155:ARG:NH1	1.64	1.30
1:AA:1381:U:H2'	7:AJ:79:ARG:CZ	1.59	1.30
24:DA:870:A:P	35:DP:6:ARG:NH1	2.02	1.30
24:BA:1998:G:C2'	24:BA:1999:C:H5'	1.61	1.30
12:CO:47:LYS:HB3	12:CO:48:PRO:CD	1.61	1.29
1:CA:1117:G:O2'	9:CL:104:ARG:HD2	1.31	1.29
49:B4:37:SER:HB3	49:B4:43:TYR:OH	1.30	1.29
7:CJ:78:ARG:NH2	7:CJ:87:VAL:CG1	1.96	1.29
29:BG:107:LEU:O	49:B4:38:LYS:HG2	1.28	1.28
24:DA:1600:C:H3'	52:D7:49:ARG:NH2	1.46	1.28
24:BA:2399:G:H2'	51:B6:19:ARG:CZ	1.64	1.28
30:BH:4:ILE:HD11	30:BH:7:LEU:CG	1.64	1.28
9:CL:16:ARG:NH1	9:CL:64:THR:HG21	1.46	1.27
24:BA:1601:G:OP1	52:B7:49:ARG:NH2	1.67	1.27
30:BH:4:ILE:CD1	30:BH:7:LEU:HG	1.64	1.26
24:BA:2285:C:OP1	51:B6:28:ARG:HD2	1.33	1.26
20:CW:70:SER:HA	20:CW:73:HIS:CE1	1.70	1.26
1:AA:1381:U:O2	7:AJ:79:ARG:NE	1.69	1.26
24:DA:2344:U:O2'	51:D6:39:TYR:CE1	1.90	1.25
24:BA:2000:G:C5'	36:B0:2:ARG:HH12	1.51	1.24
26:BD:35:LYS:HD2	26:BD:104:TYR:CD1	1.72	1.24
4:AG:8:VAL:HG11	4:AG:115:ARG:NH2	1.49	1.24
1:CA:1191:A:OP1	3:CF:3:ASN:ND2	1.70	1.24
7:CJ:78:ARG:NH2	7:CJ:87:VAL:N	1.85	1.24
24:DA:528:A:C2	24:DA:2043:C:H5'	1.70	1.24
47:BW:43:GLN:O	47:BW:45:SER:N	1.71	1.24
24:DA:2377:A:H2'	37:DQ:112:PHE:CE1	1.73	1.23
24:DA:2749:A:O4'	30:DH:6:ARG:NH2	1.71	1.23
24:DA:2377:A:C2'	37:DQ:112:PHE:CE1	2.23	1.22
51:D6:37:ARG:NH2	51:D6:38:LYS:CB	2.02	1.22
24:DA:2393:A:H8	53:D8:30:ARG:CZ	1.51	1.22
7:CJ:78:ARG:HH21	7:CJ:87:VAL:CB	1.52	1.22
5:CH:51:VAL:HB	5:CH:52:PRO:HD3	1.22	1.21

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1049:C:N3	30:BH:3:ARG:NH2	1.87	1.21
1:AA:1320:C:OP2	19:AV:3:ARG:NH2	1.72	1.21
24:DA:1601:G:C8	52:D7:49:ARG:NH1	2.08	1.21
1:CA:1322:C:OP2	19:CV:78:ARG:NH2	1.73	1.21
1:AA:1382:C:O5'	7:AJ:79:ARG:NH1	1.73	1.21
24:DA:1246:A:OP2	34:DO:15:ARG:NH1	1.72	1.21
29:BG:112:PRO:CB	49:B4:37:SER:HB2	1.69	1.20
25:BB:45:A:O4'	29:BG:95:ARG:NH1	1.72	1.20
30:BH:2:SER:O	30:BH:3:ARG:HD2	1.41	1.20
24:DA:1600:C:C3'	52:D7:49:ARG:HH21	1.54	1.19
24:DA:2416:C:H5''	34:DO:64:LYS:NZ	1.54	1.19
1:AA:193:C:C6	20:AW:57:ARG:NH1	2.08	1.19
1:CA:986:A:N3	19:CV:52:TYR:OH	1.73	1.19
43:DU:76:CYS:SG	43:DU:77:PRO:HD2	1.81	1.19
24:DA:2438:U:O3'	24:DA:2439:A:H3'	1.40	1.19
4:AG:8:VAL:CG1	4:AG:115:ARG:HH22	1.53	1.19
24:BA:631:A:OP2	53:B8:46:ARG:NH2	1.76	1.19
24:BA:2438:U:O3'	24:BA:2439:A:H3'	1.40	1.19
27:DE:60:ASN:ND2	27:DE:63:LEU:HG	1.56	1.18
12:AO:47:LYS:HB3	12:AO:48:PRO:CD	1.70	1.18
34:DO:101:VAL:HG23	34:DO:106:LEU:HD23	1.26	1.18
29:BG:112:PRO:HG3	49:B4:38:LYS:HD3	1.21	1.17
1:AA:192:U:O2'	20:AW:57:ARG:CD	1.85	1.17
24:DA:2801:A:H4'	24:DA:2895:U:H4'	1.20	1.17
24:BA:484:C:OP1	43:BU:51:VAL:HG11	1.43	1.17
1:CA:1289:A:C5'	21:CX:10:ARG:NH2	2.05	1.17
31:BK:69:LYS:HA	31:BK:136:VAL:HG11	1.24	1.17
24:DA:1899:G:N2	24:DA:1902:C:H41	1.42	1.17
43:BU:49:VAL:O	43:BU:51:VAL:N	1.75	1.17
19:CV:70:LYS:HZ2	19:CV:72:GLY:C	1.47	1.16
24:BA:1601:G:C5'	52:B7:49:ARG:HH12	1.58	1.16
53:B8:52:LYS:H	53:B8:53:PRO:HD2	1.05	1.16
7:CJ:113:GLU:HB2	7:CJ:119:ARG:HG2	1.27	1.16
26:BD:35:LYS:HG2	26:BD:64:ILE:N	1.61	1.16
7:AJ:16:LEU:HD11	9:AL:42:ARG:HA	1.25	1.16
40:B2:36:PRO:O	40:B2:37:VAL:HG13	1.46	1.16
1:CA:598:U:O3'	8:CK:94:TYR:CZ	1.98	1.16
19:CV:70:LYS:HE3	19:CV:73:GLU:CB	1.75	1.16
27:DE:4:ILE:HD11	27:DE:28:ALA:HB1	1.27	1.16
7:CJ:45:ASP:HB3	7:CJ:115:ARG:NH2	1.61	1.15
19:CV:31:ILE:HD11	19:CV:33:THR:HG22	1.27	1.15
3:CF:36:ASP:O	3:CF:39:ILE:HG22	1.47	1.15

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:110:LEU:HG	37:BQ:111:GLU:N	1.33	1.15
19:AV:28:LYS:HE2	19:AV:47:HIS:CA	1.75	1.15
2:AE:74:LYS:HZ1	2:AE:166:ASP:HB3	1.11	1.15
5:AH:10:MET:HB3	5:AH:32:VAL:HG22	1.25	1.15
1:AA:193:C:H6	20:AW:57:ARG:NH1	1.41	1.15
24:DA:2286:A:P	51:D6:28:ARG:HH11	1.69	1.15
43:BU:96:ILE:HG23	43:BU:101:LYS:HG3	1.20	1.15
12:CO:47:LYS:CB	12:CO:48:PRO:HD3	1.75	1.15
24:DA:2345:G:OP2	51:D6:39:TYR:CE1	2.00	1.14
24:BA:2610:C:H4'	24:BA:2611:U:OP2	1.41	1.14
24:BA:592:G:H21	53:B8:4:MET:HE1	1.07	1.14
35:DP:24:GLY:HA3	35:DP:25:ASP:HB2	1.25	1.14
49:B4:37:SER:HB3	49:B4:43:TYR:CZ	1.82	1.14
37:BQ:110:LEU:HD21	37:BQ:112:PHE:CG	1.82	1.14
24:BA:1088:A:H5'	24:BA:1089:G:H5'	1.21	1.14
34:BO:71:VAL:HG13	34:BO:72:PRO:HD3	1.25	1.14
24:DA:2634:G:O3'	27:DE:77:ILE:HG21	1.44	1.14
21:CX:7:ARG:HH11	21:CX:7:ARG:HG3	1.00	1.14
40:D2:35:LEU:HD21	40:D2:57:VAL:HG13	1.24	1.14
19:CV:66:MET:N	19:CV:67:VAL:HG13	1.60	1.14
30:DH:3:ARG:HG3	30:DH:4:ILE:N	1.47	1.14
51:D6:9:LEU:HG	51:D6:27:LYS:HA	1.17	1.14
24:DA:1601:G:O4'	52:D7:49:ARG:HD2	1.46	1.13
30:BH:4:ILE:HD12	30:BH:4:ILE:O	1.48	1.13
24:DA:2393:A:C5'	53:D8:30:ARG:HE	1.61	1.13
39:B1:97:ASP:OD2	39:B1:101:ARG:NH1	1.81	1.13
46:BZ:92:LYS:O	46:BZ:94:LEU:N	1.82	1.13
1:CA:957:U:H4'	19:CV:79:THR:HG23	1.13	1.13
13:CP:15:VAL:HG12	13:CP:45:VAL:HG22	1.24	1.13
2:AE:80:ILE:HD11	2:AE:212:GLN:HA	1.18	1.13
30:DH:9:ILE:HG21	30:DH:51:ARG:HB3	1.27	1.13
1:CA:957:U:H4'	19:CV:79:THR:CG2	1.79	1.12
1:CA:1127:G:H4'	9:CL:66:ARG:HH12	1.12	1.12
13:AP:84:ILE:HD11	19:AV:66:MET:HG2	1.17	1.12
43:BU:96:ILE:HD12	43:BU:98:VAL:HG12	1.29	1.13
44:BV:51:ALA:HB1	44:BV:57:ILE:HD11	1.30	1.12
1:CA:1179:A:N3	9:CL:104:ARG:NH2	1.95	1.12
7:CJ:78:ARG:NH2	7:CJ:87:VAL:CA	2.11	1.12
24:DA:2376:A:C2	37:DQ:112:PHE:HB3	1.84	1.12
46:BZ:77:ALA:O	46:BZ:78:LYS:HD2	1.50	1.12
29:DG:111:LEU:HB2	29:DG:112:PRO:HD3	1.31	1.12
26:DD:34:VAL:O	26:DD:35:LYS:HG2	1.47	1.12

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:44:ASN:HB3	26:DD:49:ILE:HA	1.31	1.12
19:CV:28:LYS:HG2	19:CV:29:ARG:H	1.12	1.12
24:DA:1600:C:C2'	52:D7:49:ARG:NE	1.80	1.12
24:DA:2285:C:H2'	51:D6:28:ARG:CZ	1.79	1.12
9:AL:48:GLU:HB2	9:AL:78:LYS:NZ	1.64	1.12
2:CE:8:LYS:HE3	2:CE:11:LEU:CD2	1.78	1.12
40:D2:84:LYS:HE3	40:D2:85:LYS:HG2	1.30	1.12
29:DG:33:ARG:HD3	29:DG:162:THR:CG2	1.80	1.12
13:CP:27:LYS:HE2	13:CP:31:LYS:HE3	1.27	1.12
3:AF:8:ILE:HD11	3:AF:16:ARG:HG2	1.32	1.12
24:BA:1601:G:H5'	52:B7:49:ARG:NH2	1.62	1.12
32:DM:56:ASN:H	32:DM:125:GLY:HA3	1.04	1.12
19:CV:70:LYS:CE	19:CV:73:GLU:CG	2.27	1.12
4:AG:22:LYS:HB2	4:AG:26:CYS:HB2	1.19	1.12
4:CG:18:LYS:HG3	4:CG:33:MET:SD	1.89	1.11
28:DF:18:ARG:HH21	28:DF:20:LEU:HD12	1.14	1.11
28:DF:25:PRO:HB3	28:DF:28:ILE:HG13	1.20	1.11
19:CV:70:LYS:HE3	19:CV:73:GLU:CG	1.80	1.11
19:CV:36:ARG:HD2	19:CV:72:GLY:HA2	1.13	1.11
8:AK:34:GLU:HB3	8:AK:118:VAL:HG21	1.32	1.11
38:DR:55:ASN:H	38:DR:59:THR:HG22	1.14	1.11
43:BU:52:SER:HB2	43:BU:53:PRO:HD3	1.27	1.11
13:CP:91:ARG:HB2	13:CP:98:VAL:HG12	1.32	1.11
24:DA:2286:A:C5'	51:D6:28:ARG:CG	2.28	1.11
19:AV:39:THR:HG22	19:AV:40:ILE:H	1.12	1.11
1:CA:1254:C:C5'	10:CM:45:ARG:HH12	1.63	1.11
7:CJ:78:ARG:NH2	7:CJ:87:VAL:CB	2.13	1.11
27:BE:78:LEU:HD21	27:BE:79:ARG:HD2	1.33	1.11
1:CA:254:G:H21	17:CT:16:GLN:NE2	1.45	1.11
43:BU:96:ILE:HD11	43:BU:99:CYS:SG	1.90	1.11
31:BK:92:VAL:HG13	31:BK:120:ILE:HG23	1.32	1.11
1:CA:1080:A:H4'	5:CH:16:THR:OG1	1.51	1.11
40:B2:49:THR:HB	40:B2:50:PRO:HD2	1.26	1.11
4:AG:9:CYS:SG	4:AG:22:LYS:HE3	1.90	1.10
2:CE:8:LYS:CG	2:CE:11:LEU:HG	1.80	1.10
10:CM:81:THR:HA	10:CM:84:GLN:HG2	1.33	1.10
51:D6:23:THR:HG22	51:D6:24:GLU:H	1.12	1.10
1:AA:103:C:OP2	20:AW:14:LYS:NZ	1.85	1.10
24:BA:2286:A:H2'	51:B6:31:PRO:HD3	1.27	1.10
24:BA:2751:G:N7	30:BH:3:ARG:NH1	1.99	1.10
2:CE:236:TYR:HB2	2:CE:239:VAL:HB	1.12	1.10
24:DA:1601:G:H5'	52:D7:49:ARG:HG2	1.13	1.10

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2343:C:C2'	24:DA:2344:U:H5'	1.81	1.10
24:DA:2285:C:O3'	51:D6:28:ARG:NH1	1.84	1.10
43:BU:76:CYS:HB3	43:BU:81:LYS:HZ1	1.06	1.10
40:B2:35:LEU:HD21	40:B2:57:VAL:CG1	1.79	1.10
38:BR:62:THR:HG22	38:BR:75:ILE:HG12	1.30	1.10
1:CA:1220:G:H5'	19:CV:37:ARG:HH12	1.09	1.10
24:DA:2286:A:C5'	51:D6:28:ARG:HG2	1.82	1.10
1:CA:1290:G:C2'	1:CA:1291:G:H5'	1.82	1.10
28:DF:24:LEU:HD12	28:DF:25:PRO:HD3	1.26	1.10
1:AA:195:A:H4'	20:AW:68:LYS:CE	1.82	1.09
24:DA:1071:G:H1'	24:DA:1089:G:H2'	1.30	1.09
31:BK:101:LEU:HD21	31:BK:107:VAL:HG23	1.34	1.09
26:BD:31:LYS:HD2	26:BD:94:LEU:HD11	1.32	1.09
27:DE:60:ASN:O	27:DE:62:PRO:HD2	1.51	1.09
24:DA:511:U:H3'	24:DA:512:G:H5''	1.31	1.09
1:CA:1320:C:H2'	1:CA:1321:C:O4'	1.53	1.09
1:AA:192:U:C1'	20:AW:103:GLY:HA2	1.81	1.09
26:DD:31:LYS:HE2	26:DD:33:LEU:HD11	1.33	1.09
43:DU:17:SER:HB2	43:DU:71:LYS:HD2	1.27	1.09
1:AA:975:A:H4'	1:AA:976:G:H5''	1.29	1.09
34:BO:75:ILE:H	34:BO:75:ILE:HD13	1.18	1.09
34:DO:47:ASP:HB3	34:DO:48:PRO:O	1.52	1.09
38:BR:5:ALA:HA	38:BR:8:LYS:HG2	1.34	1.09
9:CL:2:GLU:HG2	9:CL:3:GLN:H	1.12	1.09
26:BD:35:LYS:NZ	26:BD:104:TYR:HB2	1.66	1.09
24:BA:1005:C:O2'	32:BM:28:THR:HG21	1.52	1.09
24:BA:1998:G:H2'	24:BA:1999:C:H5'	1.33	1.09
30:DH:4:ILE:HD12	30:DH:5:GLY:N	1.67	1.09
46:DZ:87:PRO:HA	46:DZ:90:ILE:HG23	1.34	1.09
10:CM:34:VAL:HG12	10:CM:74:ILE:HA	1.25	1.09
4:CG:33:MET:HE3	56:CG:303:ZN:ZN	0.83	1.08
30:DH:6:ARG:HH12	30:DH:62:LYS:C	1.55	1.08
7:CJ:45:ASP:CB	7:CJ:115:ARG:HH22	1.65	1.08
46:BZ:92:LYS:O	46:BZ:95:LEU:N	1.87	1.08
24:BA:1359:A:H2'	24:BA:1360:A:H5'	1.09	1.08
44:DV:153:SER:HB3	44:DV:167:PRO:HB3	1.26	1.08
17:CT:45:HIS:HB2	17:CT:65:ILE:HD13	1.27	1.08
3:CF:137:ALA:HA	3:CF:140:ARG:CZ	1.82	1.08
44:BV:150:LEU:HG	44:BV:154:ASP:CG	1.73	1.08
19:CV:58:VAL:HG22	19:CV:60:VAL:HG12	1.32	1.08
10:CM:4:ILE:HB	10:CM:74:ILE:HD11	1.35	1.08
49:D4:61:ARG:HA	49:D4:61:ARG:NH1	1.66	1.08

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CC:75:C:H3'	22:CC:76:A:C5'	1.81	1.08
24:BA:2418:A:O2'	51:B6:21:TYR:CE2	2.05	1.08
3:CF:95:THR:HG22	3:CF:97:LYS:HG2	1.34	1.08
10:AM:50:ILE:HA	10:AM:60:ARG:HG2	1.22	1.08
34:BO:19:VAL:HG22	34:BO:20:GLY:H	0.97	1.08
24:DA:2343:C:O2'	24:DA:2344:U:H5'	1.53	1.08
29:BG:112:PRO:HB3	49:B4:37:SER:HB2	1.11	1.08
24:BA:2635:C:H5''	27:BE:78:LEU:HA	1.15	1.08
28:DF:101:LEU:HD12	28:DF:102:PRO:HD2	1.28	1.08
34:BO:36:LYS:HB3	34:BO:40:SER:HB3	1.34	1.08
1:CA:1254:C:H5''	10:CM:45:ARG:NH1	1.67	1.08
2:AE:67:THR:HG21	2:AE:155:LEU:HD11	1.11	1.08
1:AA:1028(B):C:H3'	1:AA:1029:G:H5''	1.28	1.08
1:CA:1203:C:H5''	14:CQ:3:ARG:HH21	1.15	1.08
24:DA:1601:G:H5'	52:D7:49:ARG:CG	1.83	1.07
43:DU:50:ARG:HG2	43:DU:53:PRO:HG3	1.13	1.07
13:AP:12:ASN:HB2	13:AP:46:LYS:HZ3	1.15	1.07
24:DA:2286:A:OP2	51:D6:28:ARG:HD2	1.54	1.07
40:B2:35:LEU:CD2	40:B2:57:VAL:HG13	1.83	1.07
22:CC:75:C:H3'	22:CC:76:A:H5''	1.36	1.07
24:BA:2015:A:H1'	50:B5:2:ALA:HA	1.33	1.07
44:DV:24:LEU:HB3	44:DV:41:LEU:HD11	1.12	1.07
9:CL:16:ARG:HG2	9:CL:64:THR:HG22	1.12	1.07
24:BA:1601:G:H5'	52:B7:49:ARG:CZ	1.84	1.07
29:DG:33:ARG:CD	29:DG:162:THR:HG21	1.83	1.07
1:AA:103:C:P	20:AW:14:LYS:HZ1	1.75	1.07
43:DU:4:LYS:HE2	43:DU:4:LYS:HA	1.37	1.07
4:CG:12:CYS:SG	4:CG:33:MET:HE2	1.94	1.07
19:CV:70:LYS:HE3	19:CV:73:GLU:HG3	1.36	1.07
1:CA:979:C:H42	14:CQ:18:VAL:HG13	1.15	1.07
7:CJ:78:ARG:HH21	7:CJ:87:VAL:CG1	1.59	1.07
1:AA:1178:G:H5'	9:AL:93:ARG:HH22	1.11	1.07
43:BU:97:ARG:HH21	43:BU:98:VAL:HB	0.97	1.07
43:BU:75:ILE:HG22	43:BU:80:GLY:HA2	1.32	1.07
49:B4:37:SER:CB	49:B4:43:TYR:OH	2.02	1.07
30:BH:86:GLU:HG3	30:BH:165:ALA:H	0.97	1.07
10:CM:6:ILE:HD11	10:CM:72:VAL:HG12	1.33	1.07
2:AE:103:THR:HG23	2:AE:176:GLU:HB2	1.10	1.07
18:CU:45:SER:HB3	18:CU:51:LEU:HD21	1.34	1.07
30:DH:92:ILE:HG23	30:DH:93:GLY:H	1.18	1.07
1:CA:1289:A:C5'	21:CX:10:ARG:HH22	1.63	1.06
27:DE:68:ALA:HB1	27:DE:71:GLY:HA3	1.07	1.06

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:D2:35:LEU:HG	40:D2:37:VAL:CG1	1.85	1.06
43:DU:96:ILE:HG23	43:DU:101:LYS:HD2	1.36	1.06
35:DP:66:ILE:HD13	35:DP:66:ILE:H	1.16	1.06
43:BU:81:LYS:HZ2	43:BU:96:ILE:CD1	1.67	1.06
1:AA:1382:C:O4'	7:AJ:79:ARG:NH1	1.87	1.06
30:BH:4:ILE:HD13	30:BH:6:ARG:HE	1.15	1.06
36:B0:36:THR:HG22	36:B0:37:THR:H	1.15	1.06
4:CG:108:LEU:HD23	4:CG:110:PHE:HE1	1.17	1.06
1:CA:1186:G:O3'	9:CL:113:LYS:NZ	1.89	1.06
10:CM:40:LEU:HD12	10:CM:41:PRO:HD2	1.36	1.06
43:BU:76:CYS:CB	43:BU:81:LYS:HZ1	1.68	1.06
4:AG:12:CYS:HA	4:AG:19:LEU:HD21	1.34	1.06
4:AG:31:CYS:HB2	4:AG:33:MET:SD	1.95	1.06
1:AA:1319:A:C3'	19:AV:3:ARG:HH21	1.68	1.06
27:DE:68:ALA:CB	27:DE:71:GLY:HA3	1.86	1.06
40:D2:35:LEU:O	40:D2:37:VAL:HG22	1.54	1.06
24:BA:270(I):G:N3	46:BZ:78:LYS:NZ	2.02	1.06
19:CV:11:VAL:HG22	19:CV:39:THR:H	1.14	1.06
34:DO:71:VAL:HG13	34:DO:72:PRO:HD3	1.38	1.06
29:BG:107:LEU:O	49:B4:38:LYS:CG	2.02	1.06
1:AA:1319:A:H3'	19:AV:3:ARG:NH2	1.71	1.06
24:BA:1178:C:H2'	24:BA:1179:C:C6	1.91	1.06
42:DT:63:LYS:O	42:DT:64:LYS:HG3	1.54	1.06
24:BA:1899:G:N2	24:BA:1902:C:H41	1.52	1.06
10:CM:6:ILE:HD11	10:CM:72:VAL:CG1	1.86	1.06
7:CJ:90:GLU:H	7:CJ:155:ARG:NH2	1.52	1.06
12:AO:46:LYS:HG2	12:AO:47:LYS:N	1.71	1.06
24:DA:2777:G:H5''	24:DA:2778:A:H5'	1.36	1.06
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.10	1.06
31:DK:77:LEU:HD22	31:DK:141:LYS:HB3	1.07	1.06
26:BD:231:HIS:ND1	26:BD:232:PRO:HD2	1.71	1.06
33:DN:47:ILE:HG13	33:DN:48:PRO:HD2	1.31	1.06
45:D3:27:GLU:HG3	45:D3:68:GLU:HA	1.35	1.06
9:CL:17:VAL:HG21	9:CL:80:GLY:C	1.76	1.05
30:BH:4:ILE:HD13	30:BH:6:ARG:NE	1.70	1.05
30:BH:154:PRO:O	30:BH:156:ALA:N	1.88	1.05
38:BR:54:ARG:HA	38:BR:59:THR:HG23	1.38	1.05
29:BG:161:THR:HG22	29:BG:163:ALA:H	1.14	1.05
6:AI:43:LEU:HD11	18:AU:35:ARG:HH22	1.15	1.05
37:DQ:3:ARG:HD2	37:DQ:4:LEU:H	1.21	1.05
24:DA:2393:A:C8	53:D8:30:ARG:CZ	2.38	1.05
2:CE:8:LYS:HE3	2:CE:11:LEU:HD21	1.08	1.05

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:511:U:H3'	24:DA:512:G:C5'	1.85	1.05
5:AH:139:LEU:HA	5:AH:142:LEU:HD13	1.33	1.05
10:AM:48:THR:HG23	10:AM:62:HIS:CD2	1.91	1.05
1:CA:976:G:H5'	14:CQ:31:ARG:HH11	1.20	1.05
7:CJ:78:ARG:HD2	7:CJ:85:TYR:CD1	1.91	1.05
12:AO:47:LYS:HB3	12:AO:48:PRO:HD2	1.33	1.05
2:CE:11:LEU:CD1	2:CE:213:LEU:HD11	1.85	1.05
44:BV:142:SER:HB3	44:BV:143:GLY:HA2	1.38	1.05
28:DF:24:LEU:CD1	28:DF:25:PRO:HD3	1.86	1.05
1:CA:1106:G:H5''	3:CF:172:ARG:HG2	1.34	1.05
47:DW:17:SER:CB	47:DW:18:PRO:HA	1.87	1.05
32:DM:47:ALA:HB2	32:DM:112:LEU:HD11	1.38	1.05
24:DA:1601:G:H8	52:D7:49:ARG:NH1	1.44	1.05
24:DA:1111:A:O2'	24:DA:1112:G:H4'	1.55	1.05
2:AE:77:ALA:HB2	2:AE:211:ILE:HD13	1.38	1.05
29:DG:108:ASN:HA	49:D4:38:LYS:HG2	1.39	1.05
5:CH:81:GLU:HG2	5:CH:90:VAL:HG13	1.30	1.05
24:BA:1607:C:C4'	24:BA:1608:A:H5'	1.84	1.04
25:DB:45:A:H1'	29:DG:95:ARG:HH12	1.22	1.04
1:CA:632:A:H4'	1:CA:633:G:O5'	1.53	1.04
24:DA:2286:A:H5''	51:D6:28:ARG:CZ	1.87	1.04
19:AV:24:ALA:O	19:AV:25:LYS:HG3	1.53	1.04
13:AP:7:VAL:HG12	13:AP:8:GLU:H	1.18	1.04
1:AA:192:U:H1'	20:AW:103:GLY:CA	1.86	1.04
44:DV:53:ILE:CG2	44:DV:71:VAL:HG22	1.87	1.04
30:BH:77:LYS:HE2	30:BH:138:LYS:HD2	1.39	1.04
24:BA:2701:C:H3'	24:BA:2702:U:H5''	1.35	1.04
4:CG:22:LYS:HD3	4:CG:26:CYS:CB	1.87	1.04
1:CA:1256:A:H62	1:CA:1277:C:H3'	1.20	1.04
1:CA:1330:U:H4'	13:CP:23:TYR:CE1	1.91	1.04
7:CJ:78:ARG:HH21	7:CJ:87:VAL:CG2	1.71	1.04
5:CH:76:ILE:HD11	5:CH:142:LEU:HD11	1.40	1.04
24:BA:2210:G:H3'	24:BA:2211:G:C8	1.92	1.04
31:BK:133:HIS:HB2	31:BK:134:PRO:CD	1.87	1.04
18:CU:22:VAL:HG22	18:CU:23:LYS:H	1.20	1.04
37:BQ:110:LEU:HD22	37:BQ:112:PHE:CZ	1.90	1.04
39:B1:95:LEU:N	39:B1:95:LEU:HD12	1.70	1.04
24:DA:1071:G:OP2	24:DA:1097:U:H4'	1.57	1.04
2:AE:96:ARG:HD2	2:AE:96:ARG:H	1.23	1.04
2:AE:44:LEU:H	2:AE:44:LEU:HD12	1.22	1.04
1:AA:559:A:C4'	1:AA:560:U:H3'	1.85	1.04
39:B1:90:VAL:O	39:B1:92:ARG:N	1.88	1.04

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:11:LEU:HD11	2:CE:213:LEU:CD1	1.88	1.04
1:CA:279:A:OP2	17:CT:95:TYR:OH	1.76	1.04
35:BP:111:GLU:OE1	35:BP:133:ARG:NH2	1.91	1.04
24:BA:2110:G:H3'	24:BA:2111:C:H5''	1.34	1.04
1:CA:1123:A:H4'	10:CM:37:PRO:HD2	1.40	1.03
9:CL:16:ARG:HG2	9:CL:64:THR:CG2	1.88	1.03
9:AL:48:GLU:H	9:AL:78:LYS:NZ	1.56	1.03
24:BA:2418:A:OP2	53:B8:29:LYS:NZ	1.89	1.03
1:AA:1381:U:C2	7:AJ:79:ARG:NE	2.17	1.03
13:AP:12:ASN:HB2	13:AP:46:LYS:NZ	1.72	1.03
29:BG:112:PRO:HB3	49:B4:37:SER:CB	1.88	1.03
27:DE:60:ASN:HD21	27:DE:63:LEU:HG	0.88	1.03
45:B3:27:GLU:HG3	45:B3:68:GLU:HA	1.36	1.03
19:AV:36:ARG:HG2	19:AV:51:VAL:CG1	1.88	1.03
12:AO:46:LYS:HE2	12:AO:47:LYS:HG2	1.37	1.03
47:DW:17:SER:HB2	47:DW:18:PRO:HA	1.04	1.03
24:BA:1607:C:H4'	24:BA:1608:A:H5'	1.05	1.03
38:DR:92:GLY:HA2	38:DR:116:ALA:HA	1.39	1.03
10:AM:94:VAL:HG12	10:AM:95:GLU:H	1.21	1.03
34:DO:21:ARG:HA	34:DO:21:ARG:HE	1.19	1.03
29:BG:3:LEU:HD12	29:BG:3:LEU:H	1.16	1.03
24:DA:2875:C:H4'	38:DR:5:ALA:HB2	1.39	1.03
20:AW:22:ARG:O	20:AW:26:ASN:ND2	1.92	1.03
51:D6:37:ARG:HH22	51:D6:38:LYS:CB	1.68	1.03
4:AG:22:LYS:HE2	4:AG:26:CYS:HB2	1.37	1.03
44:DV:150:LEU:HD13	44:DV:154:ASP:HB2	1.39	1.03
13:AP:17:VAL:O	13:AP:20:THR:HG22	1.57	1.03
29:BG:83:ARG:H	29:BG:86:MET:HG3	1.20	1.03
28:DF:132:VAL:HG22	28:DF:133:ASN:H	1.16	1.03
44:DV:67:LEU:HD22	44:DV:90:VAL:HG13	1.40	1.03
24:DA:2286:A:H5''	51:D6:28:ARG:CG	1.89	1.03
19:AV:41:VAL:HG21	19:AV:45:VAL:HG13	1.40	1.03
43:BU:81:LYS:HD2	43:BU:96:ILE:HB	1.41	1.03
24:BA:1050:A:C8	24:BA:2751:G:N7	2.27	1.03
37:BQ:87:PHE:HB2	37:BQ:112:PHE:CE2	1.93	1.03
2:AE:8:LYS:HE2	2:AE:8:LYS:H	1.20	1.03
29:DG:75:LYS:HE3	29:DG:77:ILE:HD11	1.34	1.03
4:AG:186:LEU:HD12	4:AG:187:ARG:HG2	1.37	1.03
11:CN:70:LYS:HA	11:CN:70:LYS:HE3	1.40	1.03
24:DA:2377:A:C1'	37:DQ:112:PHE:CE1	2.37	1.02
9:AL:49:PRO:CD	9:AL:78:LYS:NZ	2.20	1.02
24:BA:2418:A:O2'	51:B6:21:TYR:HE2	1.41	1.02

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:68:ALA:HB1	27:DE:71:GLY:CA	1.88	1.02
1:CA:1290:G:H2'	1:CA:1291:G:H5'	1.36	1.02
1:AA:559:A:H4'	1:AA:560:U:H3'	1.02	1.02
44:BV:108:PRO:HG2	44:BV:114:GLY:HA3	1.38	1.02
5:AH:51:VAL:HB	5:AH:52:PRO:HD3	1.40	1.02
7:CJ:78:ARG:HD2	7:CJ:85:TYR:CE1	1.94	1.02
51:D6:37:ARG:HG3	51:D6:39:TYR:CD1	1.94	1.02
9:AL:96:LEU:CA	9:AL:99:LEU:HD11	1.89	1.02
24:DA:870:A:H5''	35:DP:6:ARG:CG	1.89	1.02
40:D2:37:VAL:HG23	40:D2:38:LEU:CD1	1.89	1.02
2:CE:185:ILE:HG22	2:CE:199:TYR:HB2	1.40	1.02
44:DV:53:ILE:HG21	44:DV:71:VAL:HG22	1.40	1.02
1:AA:1285:A:H4'	1:AA:1286:A:O5'	1.56	1.02
24:DA:2393:A:C5'	53:D8:30:ARG:NE	2.18	1.02
27:DE:55:ASN:ND2	27:DE:72:VAL:O	1.91	1.02
44:BV:147:GLY:HA2	44:BV:175:VAL:HG13	1.41	1.02
35:BP:58:PHE:O	35:BP:59:ARG:HB3	1.56	1.02
1:CA:448:A:O5'	1:CA:485:G:N2	1.92	1.02
24:DA:2610:C:H4'	24:DA:2611:U:OP2	1.50	1.02
53:B8:59:LYS:HB2	53:B8:59:LYS:NZ	1.72	1.02
1:AA:1381:U:H2'	7:AJ:79:ARG:CD	1.89	1.02
24:BA:1601:G:C5'	52:B7:49:ARG:HH22	1.73	1.02
27:DE:9:VAL:HG23	27:DE:10:GLY:H	1.23	1.02
35:BP:24:GLY:HA3	35:BP:25:ASP:HB2	1.40	1.02
14:CQ:22:THR:HG21	14:CQ:33:VAL:CG1	1.90	1.02
1:CA:1366:C:O3'	10:CM:60:ARG:NH2	1.92	1.02
1:AA:1316:G:H1	19:AV:5:LEU:HD21	1.24	1.02
1:CA:1178:G:OP2	9:CL:97:LYS:NZ	1.90	1.02
24:BA:860:U:H5	24:BA:917:A:C2	1.78	1.02
24:DA:2286:A:C5'	51:D6:28:ARG:NH1	2.23	1.01
43:BU:97:ARG:NH2	43:BU:98:VAL:HB	1.75	1.01
49:B4:34:GLU:HG2	49:B4:35:VAL:H	1.25	1.01
27:DE:60:ASN:HD21	27:DE:63:LEU:CG	1.73	1.01
2:CE:8:LYS:HG3	2:CE:11:LEU:CG	1.89	1.01
44:DV:175:VAL:HG22	44:DV:176:PRO:HD2	1.38	1.01
1:AA:1023:G:H3'	1:AA:1024:G:H5''	1.38	1.01
38:DR:107:ASP:OD1	38:DR:109:GLU:HB2	1.60	1.01
1:CA:1289:A:H5'	21:CX:10:ARG:HH22	0.96	1.01
24:DA:2286:A:H5'	51:D6:28:ARG:HG2	1.37	1.01
1:AA:193:C:H5'	20:AW:57:ARG:HD2	1.04	1.01
2:CE:233:SER:HB3	2:CE:234:PRO:CD	1.90	1.01
39:D1:90:VAL:O	39:D1:92:ARG:N	1.94	1.01

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:D8:60:LEU:O	53:D8:61:LEU:HD12	1.61	1.01
24:DA:1601:G:O5'	52:D7:49:ARG:CZ	2.07	1.01
7:CJ:78:ARG:HH22	7:CJ:87:VAL:CA	1.70	1.01
24:BA:2399:G:H2'	51:B6:19:ARG:NH2	1.74	1.01
43:BU:97:ARG:HD3	43:BU:97:ARG:H	1.22	1.01
17:CT:45:HIS:HB2	17:CT:65:ILE:CD1	1.90	1.01
24:BA:2175:C:H3'	24:BA:2176:A:H5''	1.41	1.01
5:AH:68:GLU:O	5:AH:70:PRO:HD3	1.59	1.01
44:DV:157:LEU:HB3	44:DV:161:VAL:HG12	1.38	1.01
34:BO:58:THR:HG22	34:BO:61:ARG:HH11	1.26	1.01
1:CA:599:C:P	8:CK:94:TYR:CE2	2.54	1.01
29:DG:33:ARG:HD3	29:DG:162:THR:HG21	1.01	1.01
1:AA:1129:C:N4	1:AA:1142:G:O6	1.92	1.01
31:DK:118:LYS:HG2	31:DK:119:PRO:HD2	1.40	1.01
24:BA:1678:G:N2	24:BA:1989:G:H22	1.57	1.01
9:CL:17:VAL:HG12	9:CL:63:ILE:HG12	1.43	1.01
19:CV:66:MET:H	19:CV:67:VAL:HG13	1.19	1.01
24:DA:528:A:H2	24:DA:2043:C:C5'	1.72	1.01
30:DH:3:ARG:NH1	30:DH:4:ILE:HG13	1.74	1.01
31:BK:88:ILE:O	31:BK:121:LYS:HE3	1.61	1.01
1:AA:664:G:H22	1:AA:741:G:H1	1.06	1.01
24:DA:2286:A:H5'	51:D6:28:ARG:CG	1.89	1.00
9:AL:49:PRO:HD3	9:AL:78:LYS:HZ2	0.86	1.00
7:CJ:90:GLU:N	7:CJ:155:ARG:HH22	1.56	1.00
1:AA:1320:C:P	19:AV:3:ARG:NH2	2.33	1.00
44:BV:150:LEU:HG	44:BV:154:ASP:OD1	1.60	1.00
24:BA:943:U:OP2	34:BO:36:LYS:HD2	1.59	1.00
5:AH:78:HIS:HB3	8:AK:107:LEU:HD12	1.43	1.00
34:BO:57:THR:HG23	34:BO:59:LEU:HB3	1.40	1.00
24:BA:654(M):C:H2'	24:BA:654(N):G:C8	1.94	1.00
34:BO:13:ASN:O	34:BO:15:ARG:N	1.94	1.00
24:BA:2427:C:H5''	24:BA:2428:G:OP1	1.61	1.00
4:AG:22:LYS:HE2	4:AG:26:CYS:CB	1.87	1.00
30:DH:3:ARG:CG	30:DH:4:ILE:H	1.74	1.00
34:BO:71:VAL:CG1	34:BO:72:PRO:HD3	1.91	1.00
2:AE:212:GLN:OE1	2:AE:216:SER:OG	1.77	1.00
4:AG:173:TRP:HA	4:AG:186:LEU:HD11	1.43	1.00
1:AA:748:C:H4'	1:AA:749:C:O5'	1.59	1.00
1:CA:1443:G:H3'	1:CA:1446:A:H5''	1.40	1.00
14:CQ:24:CYS:CB	14:CQ:29:ARG:HD2	1.89	1.00
24:BA:2371:G:H4'	51:B6:45:LYS:HG3	1.42	1.00
26:BD:28:GLU:HB3	26:BD:29:PRO:CD	1.91	1.00

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:192:U:O2'	20:AW:57:ARG:HD3	1.17	1.00
39:D1:90:VAL:HG12	39:D1:91:ASP:H	1.22	1.00
1:AA:491:G:H2'	1:AA:492:G:H8	1.26	1.00
39:B1:74:LEU:HD12	39:B1:79:PHE:HB2	1.43	1.00
36:B0:74:LYS:O	36:B0:76:VAL:N	1.95	1.00
2:CE:12:GLU:HG2	2:CE:213:LEU:HD13	1.41	1.00
49:D4:2:LYS:HD2	49:D4:6:HIS:CD2	1.97	1.00
19:CV:31:ILE:CD1	19:CV:33:THR:HG22	1.92	1.00
1:AA:193:C:O4'	20:AW:57:ARG:NH1	1.95	1.00
2:AE:74:LYS:NZ	2:AE:166:ASP:HB3	1.76	1.00
10:CM:79:ARG:NH1	10:CM:80:LYS:HG3	1.77	1.00
1:AA:1381:U:C2'	7:AJ:79:ARG:CZ	2.38	1.00
43:DU:75:ILE:HA	43:DU:80:GLY:HA2	1.40	1.00
24:DA:1069:A:H1'	24:DA:1096:A:H4'	1.44	1.00
27:BE:201:THR:HG22	27:BE:203:LYS:H	1.23	1.00
24:DA:1600:C:C3'	52:D7:49:ARG:HE	1.74	1.00
24:DA:2657:A:O3'	30:DH:160:LYS:NZ	1.95	1.00
24:DA:660:G:H21	34:DO:12:ALA:HA	1.23	1.00
9:CL:9:ARG:HG2	9:CL:14:VAL:HG13	1.44	0.99
13:CP:53:VAL:HG23	13:CP:57:ARG:HH21	1.27	0.99
2:AE:235:SER:O	2:AE:237:ALA:N	1.93	0.99
24:BA:2123:G:H2'	24:BA:2124:G:H8	1.26	0.99
29:BG:131:TYR:O	29:BG:159:VAL:HG22	1.61	0.99
39:D1:34:LYS:HA	39:D1:34:LYS:HE2	1.43	0.99
2:CE:8:LYS:HG3	2:CE:11:LEU:HG	1.01	0.99
44:DV:24:LEU:HB3	44:DV:41:LEU:CD1	1.91	0.99
49:D4:14:ILE:HG23	49:D4:33:VAL:HG21	1.42	0.99
14:CQ:19:ARG:HH11	14:CQ:19:ARG:HG3	1.26	0.99
24:BA:2286:A:C2'	51:B6:31:PRO:HD3	1.92	0.99
53:B8:52:LYS:H	53:B8:53:PRO:CD	1.75	0.99
2:AE:91:PRO:HG3	2:AE:155:LEU:HG	1.42	0.99
30:BH:86:GLU:HG3	30:BH:165:ALA:N	1.77	0.99
39:D1:90:VAL:HG12	39:D1:91:ASP:N	1.78	0.99
2:AE:32:ILE:HD11	2:AE:40:HIS:HB3	1.44	0.99
1:AA:992:U:H4'	1:AA:993:G:O5'	1.59	0.99
37:DQ:66:ALA:O	37:DQ:69:VAL:HG13	1.62	0.99
26:BD:43:ARG:NH1	26:BD:44:ASN:OD1	1.95	0.99
1:AA:1381:U:C2'	7:AJ:79:ARG:NE	2.25	0.99
24:DA:511:U:C3'	24:DA:512:G:H5''	1.92	0.99
1:AA:1382:C:C5'	7:AJ:79:ARG:NH1	2.24	0.99
4:CG:13:ARG:O	4:CG:15:GLU:N	1.96	0.99
3:AF:188:LEU:HD21	3:AF:195:VAL:HB	1.43	0.99

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1060:C:C5	3:AF:2:GLY:HA2	1.97	0.99
1:CA:1330:U:H4'	13:CP:23:TYR:HE1	1.19	0.99
24:DA:2286:A:H5''	51:D6:28:ARG:CD	1.93	0.99
28:DF:4:VAL:HA	28:DF:19:GLU:HB3	1.45	0.99
10:AM:22:LYS:HE3	10:AM:90:LEU:HD13	1.40	0.99
2:CE:8:LYS:HD3	2:CE:217:ARG:HD2	1.44	0.99
24:DA:242:G:H5''	53:D8:62:LEU:HD13	1.45	0.99
14:CQ:24:CYS:SG	14:CQ:29:ARG:NH1	2.36	0.98
2:AE:219:VAL:HA	2:AE:222:ILE:HD12	1.42	0.98
1:AA:1199:U:C4'	10:AM:54:PHE:CE2	2.44	0.98
1:AA:1035:A:H3'	1:AA:1036:G:H5''	1.42	0.98
44:BV:76:LEU:HD23	44:BV:76:LEU:H	1.25	0.98
13:CP:3:ARG:HG2	13:CP:9:ILE:HG21	1.43	0.98
38:BR:26:ASP:HB3	38:BR:91:ARG:HA	1.45	0.98
14:CQ:22:THR:CG2	14:CQ:33:VAL:HG11	1.92	0.98
1:AA:193:C:C5'	20:AW:57:ARG:HD2	1.92	0.98
5:CH:68:GLU:O	5:CH:70:PRO:HD3	1.62	0.98
31:DK:101:LEU:H	31:DK:101:LEU:HD23	1.28	0.98
3:CF:120:VAL:HA	3:CF:123:GLN:HG3	1.45	0.98
4:CG:26:CYS:HA	4:CG:31:CYS:CB	1.86	0.98
19:CV:70:LYS:HZ2	19:CV:73:GLU:N	1.59	0.98
35:DP:24:GLY:HA2	35:DP:101:ARG:HD2	1.46	0.98
13:AP:12:ASN:HB2	13:AP:46:LYS:CE	1.93	0.98
34:DO:71:VAL:CG1	34:DO:72:PRO:HD3	1.93	0.98
44:DV:128:VAL:HG22	44:DV:129:SER:H	1.24	0.98
24:BA:592:G:N2	53:B8:4:MET:HE1	1.78	0.98
26:DD:49:ILE:HD11	26:DD:52:ARG:HA	1.42	0.98
13:AP:11:ARG:HE	13:AP:46:LYS:HE3	1.28	0.98
24:BA:2110:G:H3'	24:BA:2111:C:C5'	1.94	0.98
3:AF:190:ARG:HA	3:AF:195:VAL:HG12	1.46	0.98
1:AA:1220:G:O3'	19:AV:36:ARG:NH2	1.96	0.98
2:CE:11:LEU:HD13	2:CE:12:GLU:N	1.78	0.98
24:BA:1359:A:C2'	24:BA:1360:A:H5'	1.94	0.98
31:BK:144:VAL:O	31:BK:145:VAL:HG22	1.60	0.98
24:DA:2417:C:P	34:DO:64:LYS:HE2	2.04	0.98
37:BQ:15:ARG:HG3	37:BQ:19:LYS:HD2	1.43	0.98
46:DZ:86:SER:N	46:DZ:87:PRO:HD2	1.78	0.98
29:DG:80:PHE:HD2	29:DG:82:LEU:HD11	1.28	0.98
4:CG:9:CYS:SG	4:CG:22:LYS:NZ	2.36	0.97
3:AF:6:HIS:CD2	3:AF:8:ILE:CG2	2.47	0.97
24:DA:2286:A:H5''	51:D6:28:ARG:NH1	1.79	0.97
24:BA:2371:G:H4'	51:B6:45:LYS:CG	1.94	0.97

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:910:A:C5	35:DP:13:GLN:HG3	1.99	0.97
4:AG:28:SER:OG	4:AG:29:PRO:HD3	1.64	0.97
37:BQ:110:LEU:CG	37:BQ:111:GLU:N	2.24	0.97
1:AA:1286:A:H5''	21:AX:26:LYS:HD2	1.46	0.97
34:DO:19:VAL:HG22	34:DO:20:GLY:H	1.25	0.97
24:BA:1601:G:H5'	52:B7:49:ARG:NH1	1.77	0.97
34:BO:61:ARG:HD2	53:B8:24:ALA:HB1	1.45	0.97
19:CV:36:ARG:HH11	19:CV:72:GLY:CA	1.76	0.97
9:AL:99:LEU:HB2	9:AL:101:PHE:CD2	1.99	0.97
24:BA:404:C:H1'	24:BA:405:U:OP2	1.65	0.97
13:CP:40:ASN:HD22	13:CP:43:THR:HG23	1.27	0.97
47:BW:50:ILE:HD12	47:BW:51:ARG:H	1.26	0.97
1:CA:1151:A:O2'	10:CM:70:ARG:NH2	1.97	0.97
9:AL:96:LEU:HA	9:AL:99:LEU:HD11	1.44	0.97
1:AA:193:C:H5'	20:AW:57:ARG:CD	1.93	0.97
24:DA:1899:G:O2'	24:DA:1900:A:H5''	1.65	0.97
24:BA:1753:G:OP1	38:BR:95:ARG:NH1	1.98	0.97
24:DA:2537:U:H2'	24:DA:2538:C:C6	2.00	0.97
1:CA:1450:U:O2'	1:CA:1452:C:N4	1.98	0.97
53:D8:49:VAL:O	53:D8:50:LEU:HB2	1.63	0.97
2:CE:25:ASN:HD21	2:CE:27:LYS:HD3	1.29	0.97
19:CV:36:ARG:HH11	19:CV:72:GLY:HA3	1.28	0.97
24:BA:2419:U:O4'	51:B6:21:TYR:OH	1.83	0.97
26:BD:28:GLU:HB3	26:BD:29:PRO:HD3	1.45	0.97
16:AS:52:ASP:OD2	16:AS:55:ARG:HG3	1.65	0.97
10:CM:4:ILE:CB	10:CM:74:ILE:HD11	1.93	0.97
24:BA:622:G:OP2	34:BO:108:LYS:HE2	1.65	0.97
9:AL:83:ARG:O	9:AL:86:VAL:HG12	1.65	0.97
24:BA:49:A:N7	24:BA:120:U:H5	1.61	0.97
24:BA:1601:G:C5'	52:B7:49:ARG:NH1	2.26	0.97
39:B1:95:LEU:H	39:B1:95:LEU:HD12	1.22	0.97
45:B3:49:LYS:HD2	45:B3:82:ARG:HH22	1.29	0.97
9:CL:78:LYS:HD3	9:CL:101:PHE:HE1	1.28	0.97
43:BU:96:ILE:CG2	43:BU:101:LYS:HG3	1.94	0.97
1:AA:193:C:O5'	20:AW:57:ARG:CZ	2.08	0.97
2:CE:92:TYR:CE1	2:CE:151:GLY:HA3	1.99	0.97
37:DQ:3:ARG:HD2	37:DQ:4:LEU:N	1.78	0.97
26:BD:39:LYS:NZ	26:BD:87:ASN:OD1	1.96	0.97
3:AF:6:HIS:HD2	3:AF:8:ILE:HG22	0.81	0.96
1:AA:559:A:H4'	1:AA:560:U:C3'	1.94	0.96
34:DO:126:VAL:HG22	34:DO:145:PRO:HG3	1.44	0.96
24:BA:2400:G:O4'	51:B6:19:ARG:NH2	1.96	0.96

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:8:A:H4'	1:AA:9:G:OP1	1.65	0.96
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.00	0.96
24:BA:1496:A:H8	24:BA:1577:C:HO2'	0.98	0.96
30:DH:122:THR:HG23	30:DH:134:SER:HB2	1.46	0.96
1:AA:1191:A:H5''	3:AF:4:LYS:NZ	1.79	0.96
19:CV:36:ARG:HD3	19:CV:51:VAL:HG11	1.45	0.96
13:AP:81:LEU:HD11	13:AP:86:CYS:HB3	1.45	0.96
47:DW:17:SER:HB2	47:DW:18:PRO:CA	1.96	0.96
9:CL:16:ARG:HH11	9:CL:64:THR:HG21	1.14	0.96
24:DA:2285:C:C3'	51:D6:28:ARG:NH1	2.29	0.96
13:AP:81:LEU:CD1	13:AP:86:CYS:HB3	1.95	0.96
39:B1:92:ARG:HB3	39:B1:95:LEU:HD13	1.46	0.96
1:AA:1192:C:OP2	3:AF:4:LYS:NZ	1.99	0.96
38:DR:88:ILE:HD11	38:DR:91:ARG:HG2	1.44	0.96
8:CK:109:ILE:HG23	8:CK:137:VAL:HG23	1.47	0.96
4:CG:22:LYS:CD	4:CG:26:CYS:HB2	1.93	0.96
1:CA:1133:G:H2'	1:CA:1134:G:H8	1.29	0.96
19:CV:66:MET:N	19:CV:67:VAL:CG1	2.28	0.96
19:CV:70:LYS:HE2	19:CV:73:GLU:HG3	0.98	0.96
43:BU:97:ARG:HH21	43:BU:98:VAL:CB	1.79	0.96
27:DE:55:ASN:HD22	27:DE:72:VAL:HG12	1.28	0.96
1:CA:410:G:H3'	4:CG:25:ARG:HH21	1.29	0.96
19:CV:31:ILE:HD12	19:CV:32:LYS:H	1.28	0.96
24:BA:2284:C:C5'	51:B6:28:ARG:NH2	2.29	0.96
4:CG:75:PHE:CE1	4:CG:93:PHE:HZ	1.84	0.96
24:BA:620:G:H4'	24:BA:621:A:C5'	1.95	0.96
5:AH:150:ARG:O	5:AH:153:LYS:HG3	1.64	0.96
5:CH:43:LEU:HD13	5:CH:136:MET:HG3	1.48	0.96
9:AL:48:GLU:CB	9:AL:78:LYS:HZ3	1.78	0.96
7:CJ:45:ASP:HB3	7:CJ:115:ARG:HH22	0.80	0.96
1:CA:1080:A:H5'	5:CH:14:ARG:NH2	1.79	0.96
42:BT:55:ASN:HB2	42:BT:80:ILE:HG23	1.45	0.96
28:BF:8:GLN:O	28:BF:8:GLN:NE2	1.99	0.96
1:CA:1128:C:H4'	9:CL:16:ARG:NH1	1.81	0.96
53:B8:52:LYS:N	53:B8:53:PRO:HD2	1.81	0.96
34:DO:107:LYS:O	34:DO:109:GLY:N	1.98	0.96
3:AF:77:ILE:O	3:AF:83:ARG:HB3	1.64	0.96
1:CA:411:A:C5	1:CA:413:G:H1'	2.01	0.95
9:AL:48:GLU:N	9:AL:78:LYS:NZ	2.14	0.95
24:BA:2287:A:N6	24:BA:2344:U:H3	1.64	0.95
1:AA:1316:G:O6	19:AV:5:LEU:HD11	1.66	0.95
10:AM:48:THR:HA	10:AM:62:HIS:CB	1.95	0.95

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:121:PRO:HB3	26:BD:135:PHE:CE2	2.00	0.95
52:B7:47:ARG:CG	52:B7:48:LYS:N	2.27	0.95
1:CA:963:G:N3	10:CM:55:LYS:NZ	2.13	0.95
3:AF:72:LYS:HD3	3:AF:75:VAL:HG21	1.46	0.95
14:CQ:22:THR:HG21	14:CQ:33:VAL:HG11	1.47	0.95
27:DE:64:LYS:HZ3	27:DE:68:ALA:HB3	1.29	0.95
24:DA:1070:A:C8	24:DA:1096:A:H1'	2.01	0.95
1:AA:1305:G:N2	1:AA:1331:G:H2'	1.80	0.95
1:AA:1065:U:H1'	1:AA:1066:C:OP2	1.64	0.95
36:D0:37:THR:HG22	36:D0:39:PRO:HD2	1.43	0.95
10:CM:6:ILE:CD1	10:CM:72:VAL:HG12	1.97	0.95
19:AV:13:ASP:O	19:AV:16:LEU:N	1.98	0.95
24:BA:1113:U:H5'	30:BH:2:SER:HB3	1.47	0.95
24:BA:270(R):G:H21	46:BZ:78:LYS:HE2	1.30	0.95
6:CI:48:LEU:HD21	6:CI:60:PHE:HZ	1.30	0.95
24:BA:796:C:H2'	24:BA:797:C:C6	2.01	0.95
13:CP:83:ASP:O	13:CP:84:ILE:HG22	1.66	0.95
4:AG:21:LEU:CD1	4:AG:22:LYS:HD3	1.96	0.95
40:D2:35:LEU:HG	40:D2:37:VAL:HG11	1.46	0.95
19:CV:28:LYS:HZ1	19:CV:30:LEU:H	1.13	0.95
39:D1:91:ASP:O	39:D1:92:ARG:HG2	1.66	0.95
4:CG:18:LYS:CG	4:CG:33:MET:SD	2.53	0.95
12:AO:47:LYS:HA	12:AO:47:LYS:HE2	1.48	0.95
1:AA:980:C:HO2'	14:AQ:21:TYR:HE2	1.07	0.95
1:AA:626:U:O3'	16:AS:38:TYR:OH	1.85	0.95
24:BA:270(N):G:H21	31:BK:50:ARG:NH2	1.64	0.95
2:CE:11:LEU:CD1	2:CE:12:GLU:H	1.79	0.95
24:DA:1060:U:H5''	24:DA:1061:U:C5	2.01	0.95
44:BV:151:HIS:CE1	44:BV:154:ASP:H	1.84	0.95
19:CV:11:VAL:CG2	19:CV:39:THR:HB	1.97	0.95
28:BF:32:LEU:HD11	28:BF:105:VAL:HG13	1.47	0.95
53:D8:32:LEU:HD12	53:D8:33:ASN:H	1.26	0.95
4:AG:31:CYS:N	4:AG:33:MET:SD	2.38	0.95
46:BZ:53:VAL:HG22	46:BZ:74:VAL:HG23	1.45	0.95
2:CE:28:PHE:HD2	2:CE:32:ILE:HG23	1.30	0.95
1:AA:547:A:OP1	4:AG:73:ARG:NH2	2.00	0.95
1:AA:464:G:N2	1:AA:467:G:N7	2.15	0.95
22:AC:20:U:H2'	22:AC:21:A:H5'	1.47	0.95
1:AA:15:G:H4'	5:AH:24:ARG:HH12	1.32	0.95
1:CA:1320:C:H1'	19:CV:70:LYS:NZ	1.82	0.95
24:BA:1050:A:C8	24:BA:2751:G:C8	2.55	0.95
27:DE:4:ILE:CD1	27:DE:28:ALA:HB1	1.95	0.95

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:43:ARG:NH1	26:DD:44:ASN:ND2	2.15	0.95
1:AA:1191:A:H5''	3:AF:4:LYS:HZ3	1.29	0.95
24:BA:1021:A:H3'	24:BA:1022:G:H5''	1.47	0.95
1:CA:503:C:OP2	12:CO:116:SER:HB3	1.67	0.95
9:AL:99:LEU:HD13	9:AL:101:PHE:CD2	2.01	0.95
25:BB:40:U:O2	25:BB:45:A:N6	2.00	0.95
44:BV:51:ALA:CB	44:BV:57:ILE:HD11	1.96	0.95
49:D4:5:ILE:HG13	49:D4:6:HIS:H	1.29	0.95
24:BA:2162:G:H1'	24:BA:2173:A:H8	1.31	0.95
1:AA:437:U:H5'	4:AG:155:LEU:CD2	1.97	0.95
13:AP:65:LYS:H	49:B4:50:VAL:HG11	1.31	0.95
24:DA:2377:A:H2'	37:DQ:112:PHE:CZ	2.01	0.95
24:BA:2399:G:C2'	51:B6:19:ARG:CZ	2.44	0.95
1:AA:430:A:OP2	4:AG:8:VAL:HG22	1.67	0.95
49:D4:28:LYS:CE	49:D4:31:ILE:HD11	1.97	0.95
10:AM:49:VAL:HG23	14:AQ:41:ARG:HB2	1.47	0.95
14:CQ:26:ARG:NE	14:CQ:43:CYS:SG	2.39	0.95
4:CG:149:ALA:O	4:CG:153:ARG:HG3	1.66	0.95
38:BR:3:ARG:HB3	38:BR:6:LEU:HB2	1.49	0.95
1:AA:877:C:OP1	8:AK:88:LYS:NZ	1.99	0.95
1:CA:1014:A:H5'	19:CV:15:LEU:HD11	1.47	0.94
10:AM:48:THR:HA	10:AM:62:HIS:HB3	1.46	0.94
24:BA:1403:C:H5''	24:BA:1471:A:H1'	1.49	0.94
24:BA:774:A:H2	24:BA:787:U:HO2'	1.00	0.94
24:DA:910:A:H62	35:DP:12:GLN:HA	1.32	0.94
43:BU:81:LYS:HD2	43:BU:96:ILE:CB	1.97	0.94
27:DE:4:ILE:HD11	27:DE:28:ALA:CB	1.97	0.94
1:AA:196:A:OP1	20:AW:68:LYS:NZ	2.00	0.94
24:BA:860:U:C5	24:BA:917:A:C2	2.55	0.94
39:D1:66:ASN:HD21	39:D1:70:ARG:HE	0.99	0.94
45:D3:53:MET:HG3	45:D3:59:LEU:CD2	1.97	0.94
37:BQ:59:LYS:HD3	37:BQ:60:GLY:N	1.82	0.94
9:CL:82:ALA:HB3	9:CL:101:PHE:CD2	2.01	0.94
31:BK:69:LYS:HA	31:BK:136:VAL:CG1	1.97	0.94
40:B2:35:LEU:HD23	40:B2:35:LEU:O	1.67	0.94
34:BO:19:VAL:HG22	34:BO:20:GLY:N	1.80	0.94
11:AN:33:THR:HG22	11:AN:39:PRO:HA	1.49	0.94
26:BD:35:LYS:HE3	26:BD:64:ILE:C	1.88	0.94
49:B4:34:GLU:HG2	49:B4:35:VAL:N	1.79	0.94
5:AH:11:ILE:HD11	5:AH:31:LEU:HD13	1.47	0.94
24:DA:1071:G:H1'	24:DA:1089:G:C2'	1.97	0.94
24:BA:1409:C:O2'	24:BA:1410:G:H5'	1.67	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1347:G:N2	1:AA:1373:G:H2'	1.83	0.94
24:DA:2393:A:OP1	53:D8:28:GLY:N	1.97	0.94
24:DA:871:U:P	35:DP:6:ARG:HH21	1.91	0.94
13:CP:3:ARG:HG2	13:CP:9:ILE:CG2	1.97	0.94
49:D4:28:LYS:HE2	49:D4:31:ILE:HD11	1.45	0.94
2:CE:25:ASN:OD1	2:CE:27:LYS:HG3	1.68	0.94
10:AM:28:ARG:HE	10:AM:34:VAL:HG22	1.32	0.94
52:B7:47:ARG:CG	52:B7:48:LYS:H	1.79	0.94
24:DA:1187:G:OP1	40:D2:82:ARG:NH1	1.99	0.94
19:CV:49:ILE:HG23	19:CV:62:ILE:HD11	1.50	0.94
3:AF:8:ILE:HG23	3:AF:9:GLY:N	1.83	0.94
24:DA:2343:C:O2'	24:DA:2373:G:O2'	1.75	0.94
24:DA:2749:A:H5'	30:DH:6:ARG:CZ	1.95	0.94
24:DA:654(O):G:H2'	24:DA:654(P):G:H8	1.29	0.94
25:DB:66:A:H61	25:DB:108:C:H5''	1.32	0.94
19:CV:36:ARG:HD2	19:CV:72:GLY:CA	1.98	0.94
24:BA:1061:U:O2'	24:BA:1070:A:N3	1.99	0.94
2:AE:233:SER:HB2	2:AE:234:PRO:HD2	1.49	0.94
4:CG:75:PHE:HE1	4:CG:93:PHE:HZ	0.97	0.94
24:DA:2537:U:H2'	24:DA:2538:C:H6	1.29	0.94
28:DF:11:VAL:HG23	28:DF:12:LEU:H	1.31	0.94
24:BA:1797:C:H2'	24:BA:1798:U:H5'	1.50	0.94
25:DB:24:G:N2	25:DB:27:C:N3	2.16	0.94
10:CM:6:ILE:HG22	10:CM:98:ILE:HG12	1.49	0.94
1:AA:1382:C:C6	7:AJ:79:ARG:CZ	2.51	0.94
37:BQ:110:LEU:CD1	37:BQ:112:PHE:CD2	2.50	0.94
24:BA:1062:G:N1	24:BA:1076:C:N3	2.15	0.94
2:AE:8:LYS:N	2:AE:8:LYS:HE2	1.83	0.94
24:DA:1060:U:H5''	24:DA:1061:U:C6	2.01	0.94
24:DA:1077:A:HO2'	24:DA:1088:A:H61	1.07	0.94
2:AE:67:THR:HG21	2:AE:155:LEU:CD1	1.97	0.94
50:D5:4:HIS:HB2	50:D5:5:PRO:HD3	1.49	0.94
24:DA:2689:U:H4'	24:DA:2690:C:O5'	1.67	0.94
1:AA:673:G:H2'	1:AA:674:G:C8	2.02	0.94
28:BF:184:TYR:O	28:BF:188:ARG:HG3	1.67	0.94
12:CO:111:LYS:H	12:CO:111:LYS:HD3	1.30	0.94
9:AL:41:VAL:O	9:AL:43:ALA:N	2.01	0.94
13:AP:13:LYS:O	13:AP:44:ARG:NH1	2.01	0.94
3:AF:79:ARG:HB2	3:AF:82:GLU:HB2	1.48	0.94
22:AC:59:A:H2'	22:AC:60:U:H5'	1.50	0.94
24:BA:2580:U:H4'	27:BE:130:GLY:HA3	1.48	0.94
24:DA:1601:G:H8	52:D7:49:ARG:CZ	1.81	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:33:MET:CE	56:CG:303:ZN:ZN	1.45	0.94
3:AF:6:HIS:HD2	3:AF:8:ILE:CG2	1.78	0.94
30:BH:2:SER:O	30:BH:3:ARG:CD	2.16	0.94
24:DA:1062:G:N2	24:DA:1077:A:N3	2.14	0.94
3:CF:136:GLN:O	3:CF:140:ARG:HG2	1.68	0.94
4:CG:75:PHE:HE1	4:CG:93:PHE:CZ	1.85	0.94
44:BV:52:SER:O	44:BV:54:HIS:N	2.01	0.94
44:DV:139:VAL:HG12	44:DV:140:ASP:H	1.33	0.94
1:AA:517:G:N1	1:AA:533:A:OP2	2.00	0.94
24:DA:2068:U:N3	24:DA:2430:A:H2	1.66	0.94
1:AA:267:C:OP1	17:AT:67:LYS:HD2	1.67	0.94
53:D8:30:ARG:HG2	53:D8:30:ARG:O	1.67	0.93
24:DA:328:U:H4'	43:DU:68:HIS:ND1	1.83	0.93
24:BA:1607:C:H4'	24:BA:1608:A:C5'	1.96	0.93
2:AE:12:GLU:HA	2:AE:16:HIS:HD2	1.32	0.93
42:DT:50:LYS:HB3	42:DT:84:ALA:HB2	1.46	0.93
39:B1:92:ARG:HD3	39:B1:95:LEU:HD11	1.47	0.93
24:DA:1070:A:H5'	24:DA:1071:G:C5'	1.97	0.93
2:AE:44:LEU:H	2:AE:44:LEU:CD1	1.81	0.93
1:AA:1286:A:C5'	21:AX:26:LYS:HD2	1.97	0.93
41:DS:64:MET:CE	41:DS:109:GLU:HG3	1.98	0.93
1:AA:186(B):C:OP1	20:AW:86:ARG:NH1	2.01	0.93
1:AA:1199:U:C4'	10:AM:54:PHE:HE2	1.78	0.93
49:B4:38:LYS:HA	49:B4:44:THR:HG21	1.47	0.93
37:BQ:110:LEU:HD21	37:BQ:112:PHE:CD1	2.03	0.93
2:AE:103:THR:HG23	2:AE:176:GLU:CB	1.99	0.93
32:DM:5:VAL:O	32:DM:7:LYS:NZ	2.02	0.93
2:CE:119:GLU:HA	2:CE:122:PHE:HB2	1.49	0.93
24:DA:2681:C:H5	24:DA:2725:A:H62	1.04	0.93
24:BA:2287:A:H62	24:BA:2344:U:H3	0.93	0.93
1:AA:195:A:H4'	20:AW:68:LYS:HE3	1.48	0.93
34:BO:58:THR:HG22	34:BO:61:ARG:NH1	1.83	0.93
32:DM:18:ALA:HA	32:DM:21:LYS:HD2	1.49	0.93
24:DA:273(E):U:H3	24:DA:363(A):A:H61	1.17	0.93
4:AG:22:LYS:HB2	4:AG:26:CYS:CB	1.99	0.93
24:DA:1055:G:H1'	24:DA:1085:A:C2	2.04	0.93
5:CH:67:VAL:HG22	5:CH:69:VAL:HG23	1.50	0.93
17:AT:38:ARG:HE	17:AT:38:ARG:HA	1.34	0.93
24:DA:2415:G:H4'	34:DO:67:MET:H	1.31	0.93
53:B8:54:GLU:HG2	53:B8:57:ARG:HH21	1.33	0.93
1:AA:1382:C:C6	7:AJ:79:ARG:NH2	2.36	0.93
1:AA:1382:C:C5'	7:AJ:79:ARG:HH11	1.79	0.93

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BO:19:VAL:CG2	34:BO:20:GLY:H	1.79	0.93
52:B7:47:ARG:HG2	52:B7:48:LYS:H	1.33	0.93
4:CG:22:LYS:HD3	4:CG:26:CYS:HB2	0.96	0.93
24:BA:270(R):G:N2	46:BZ:78:LYS:HE2	1.83	0.93
2:CE:7:VAL:HG22	2:CE:8:LYS:H	1.32	0.93
27:DE:47:VAL:HG22	27:DE:48:GLN:H	1.31	0.93
35:BP:65:PHE:O	35:BP:66:ILE:HG13	1.67	0.93
9:AL:99:LEU:HB2	9:AL:101:PHE:HE2	1.16	0.93
30:DH:89:ILE:CD1	30:DH:94:TYR:HB2	1.99	0.93
1:CA:452:A:N6	1:CA:480:U:O2	2.02	0.93
22:CC:1:C:O2'	22:CC:2:G:OP2	1.85	0.93
13:AP:10:PRO:HB2	13:AP:18:ALA:HB1	1.49	0.93
1:AA:1319:A:C5'	19:AV:5:LEU:HD23	1.99	0.93
29:DG:133:LEU:HD21	29:DG:157:ILE:HB	1.51	0.93
4:CG:8:VAL:CG1	4:CG:21:LEU:HD22	1.99	0.93
24:DA:2748:A:C2'	30:DH:6:ARG:HH21	1.82	0.93
1:CA:812:C:H4'	1:CA:813:U:O5'	1.68	0.93
24:DA:1600:C:H2'	52:D7:49:ARG:CZ	1.99	0.92
24:DA:1070:A:H5'	24:DA:1071:G:H5''	1.48	0.92
31:DK:77:LEU:CD2	31:DK:141:LYS:HB3	1.98	0.92
49:D4:23:GLU:HG3	49:D4:24:THR:H	1.33	0.92
28:BF:66:PRO:O	28:BF:67:GLN:HB3	1.69	0.92
24:BA:507:A:H5''	24:BA:508:G:H5'	1.49	0.92
28:BF:6:VAL:HG13	28:BF:119:ARG:HB2	1.49	0.92
37:BQ:110:LEU:HD22	37:BQ:112:PHE:CE1	2.04	0.92
53:B8:59:LYS:HB2	53:B8:59:LYS:HZ2	1.28	0.92
44:DV:105:VAL:HG13	44:DV:106:GLY:H	1.29	0.92
30:DH:13:LYS:O	30:DH:15:VAL:HG13	1.70	0.92
24:DA:78:A:H2'	24:DA:79:G:H8	1.32	0.92
37:BQ:42:ASP:O	37:BQ:43:GLU:HG2	1.70	0.92
24:DA:2392:A:H3'	53:D8:30:ARG:NH1	1.84	0.92
13:AP:81:LEU:HD12	13:AP:84:ILE:CG2	2.00	0.92
13:AP:11:ARG:HG2	13:AP:46:LYS:HD2	1.51	0.92
20:CW:10:LEU:HD21	20:CW:12:ALA:HB3	1.52	0.92
2:CE:83:MET:SD	2:CE:234:PRO:HB2	2.10	0.92
10:CM:28:ARG:HH12	10:CM:33:GLN:HA	1.34	0.92
24:BA:2131:G:H1'	24:BA:2158:A:H62	1.30	0.92
38:DR:88:ILE:HD13	38:DR:91:ARG:NH1	1.85	0.92
1:AA:255:G:H2'	1:AA:256:U:C6	2.04	0.92
1:AA:928:G:O2'	1:AA:1533:C:OP1	1.86	0.92
40:D2:71:LEU:HD12	40:D2:71:LEU:O	1.68	0.92
36:B0:117:VAL:HG22	36:B0:118:GLU:H	1.31	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B5:16:ARG:HG3	50:B5:17:ASP:N	1.84	0.92
24:DA:2502:G:H5'	24:DA:2503:A:H5''	1.52	0.92
3:AF:8:ILE:HD11	3:AF:16:ARG:CG	1.99	0.92
24:BA:2284:C:H5''	51:B6:28:ARG:HH22	1.24	0.92
12:CO:47:LYS:HB3	12:CO:48:PRO:HD3	0.93	0.92
20:CW:70:SER:HA	20:CW:73:HIS:HE1	1.31	0.92
29:BG:34:LEU:HB3	29:BG:99:MET:HE1	1.52	0.92
27:DE:77:ILE:HG22	27:DE:77:ILE:O	1.68	0.92
34:DO:48:PRO:O	34:DO:50:ARG:N	2.02	0.92
1:AA:437:U:H5'	4:AG:155:LEU:HD21	1.51	0.92
1:CA:1005:A:H3'	1:CA:1006:C:H5'	1.49	0.92
1:CA:1320:C:C2	19:CV:70:LYS:NZ	2.38	0.92
19:CV:37:ARG:HG3	19:CV:37:ARG:HH11	1.30	0.92
1:CA:1220:G:H5'	19:CV:37:ARG:NH1	1.83	0.92
24:BA:2415:G:H4'	34:BO:67:MET:H	1.33	0.92
4:AG:84:LYS:HA	4:AG:84:LYS:HE3	1.51	0.92
31:DK:72:LEU:HD21	31:DK:107:VAL:HG11	1.52	0.92
26:BD:30:GLU:HA	26:BD:30:GLU:OE2	1.68	0.92
24:BA:2415:G:H4'	34:BO:67:MET:N	1.85	0.92
40:B2:38:LEU:C	40:B2:39:LEU:HD12	1.90	0.92
30:BH:88:LEU:HD12	30:BH:89:ILE:N	1.84	0.92
19:AV:41:VAL:CG2	19:AV:45:VAL:HG13	2.00	0.92
1:AA:192:U:H1'	20:AW:103:GLY:HA2	0.95	0.92
2:AE:67:THR:CG2	2:AE:155:LEU:HD11	1.97	0.92
24:BA:1899:G:H22	24:BA:1902:C:N4	1.67	0.92
24:BA:2177:C:H3'	24:BA:2178:C:H5''	1.52	0.92
24:DA:273(D):C:N4	24:DA:363(B):G:O6	2.03	0.92
31:DK:131:LYS:HB3	31:DK:132:PRO:HA	1.48	0.92
45:B3:24:LYS:HG3	45:B3:36:ILE:HD11	1.50	0.92
4:AG:196:LEU:HG	4:AG:197:PRO:HD2	1.52	0.92
4:CG:178:VAL:HG12	4:CG:179:GLU:H	1.33	0.92
24:DA:1600:C:C3'	52:D7:49:ARG:NH2	2.21	0.92
1:CA:542:G:P	4:CG:10:ARG:HH21	1.92	0.92
3:AF:8:ILE:HG23	3:AF:9:GLY:H	1.35	0.92
51:D6:37:ARG:HD2	51:D6:38:LYS:H	1.35	0.92
24:DA:2345:G:OP2	51:D6:39:TYR:CZ	2.22	0.92
1:AA:1117:G:H5''	9:AL:104:ARG:HH12	1.33	0.92
9:AL:14:VAL:O	9:AL:65:VAL:HG23	1.70	0.92
39:B1:92:ARG:NH2	40:B2:10:LYS:HB3	1.83	0.92
13:CP:69:GLU:OE2	29:DG:118:ARG:NH2	2.01	0.92
30:BH:152:ARG:O	30:BH:154:PRO:HD2	1.68	0.92
1:CA:1014:A:H5'	19:CV:15:LEU:CD1	2.00	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D4:12:ALA:HB1	49:D4:29:PRO:HA	1.52	0.92
1:AA:838:G:H2'	1:AA:841:U:H5''	1.50	0.92
2:AE:24:TRP:CZ3	2:AE:26:PRO:HA	2.05	0.92
20:AW:72:LEU:HD21	20:AW:77:ALA:H	1.35	0.92
16:AS:4:ILE:HD12	16:AS:21:VAL:HG22	1.52	0.92
49:D4:21:VAL:HG22	49:D4:22:ILE:H	1.35	0.92
5:CH:10:MET:HG2	5:CH:32:VAL:HG22	1.51	0.92
24:DA:2877:G:OP1	38:DR:2:ASN:ND2	2.02	0.92
35:BP:30:GLY:HA2	35:BP:107:ALA:HB2	1.52	0.92
31:DK:98:ALA:HA	31:DK:109:ILE:HD11	1.50	0.92
9:AL:48:GLU:N	9:AL:78:LYS:HZ3	1.64	0.91
35:DP:24:GLY:CA	35:DP:25:ASP:HB2	2.00	0.91
24:BA:1998:G:O2'	24:BA:1999:C:H5'	1.67	0.91
24:DA:2801:A:H4'	24:DA:2895:U:C4'	2.00	0.91
2:AE:80:ILE:HD11	2:AE:212:GLN:CA	1.99	0.91
24:BA:1359:A:N1	24:BA:1372:U:N3	2.15	0.91
24:DA:2602:A:H4'	24:DA:2603:G:O5'	1.68	0.91
24:DA:2417:C:OP2	34:DO:64:LYS:HE2	1.69	0.91
2:CE:233:SER:HB3	2:CE:234:PRO:HD2	1.50	0.91
2:CE:8:LYS:CD	2:CE:217:ARG:HD2	2.00	0.91
38:BR:1:MET:O	38:BR:3:ARG:N	2.03	0.91
47:BW:47:ASN:O	47:BW:49:LYS:N	2.03	0.91
46:DZ:82:LEU:HD23	46:DZ:82:LEU:H	1.34	0.91
9:AL:97:LYS:HB3	9:AL:98:PRO:HD3	1.52	0.91
27:BE:65:GLY:HA2	27:BE:70:ALA:HB2	1.51	0.91
1:CA:598:U:O3'	8:CK:94:TYR:HE2	1.31	0.91
9:AL:78:LYS:HE3	9:AL:101:PHE:CD1	2.05	0.91
7:CJ:90:GLU:HG2	7:CJ:155:ARG:NH2	1.85	0.91
40:B2:35:LEU:HD21	40:B2:57:VAL:HG13	0.92	0.91
30:BH:10:PRO:O	30:BH:11:VAL:HG13	1.69	0.91
5:CH:92:LYS:HB3	5:CH:119:LEU:HB2	1.51	0.91
43:BU:81:LYS:HD2	43:BU:96:ILE:CG2	2.01	0.91
5:AH:12:LEU:C	5:AH:13:ILE:HD12	1.89	0.91
43:BU:81:LYS:HZ2	43:BU:96:ILE:HD13	0.79	0.91
4:AG:21:LEU:HD11	4:AG:22:LYS:HD3	1.48	0.91
30:DH:6:ARG:NH1	30:DH:62:LYS:O	2.03	0.91
1:AA:193:C:O5'	20:AW:57:ARG:NH1	2.03	0.91
44:DV:151:HIS:HB3	44:DV:170:THR:HA	1.50	0.91
27:BE:197:ILE:HD11	27:BE:199:ARG:HE	1.35	0.91
40:D2:49:THR:O	40:D2:51:VAL:N	2.02	0.91
4:CG:12:CYS:HB3	4:CG:33:MET:HG2	1.52	0.91
1:CA:1127:G:H4'	9:CL:66:ARG:NH1	1.86	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AL:49:PRO:CD	9:AL:78:LYS:HZ2	1.79	0.91
9:AL:96:LEU:O	9:AL:99:LEU:HD12	1.71	0.91
51:B6:31:PRO:HB2	51:B6:35:GLU:HG2	1.53	0.91
24:DA:1077:A:HO2'	24:DA:1088:A:N6	1.68	0.91
29:DG:104:GLU:HG2	49:D4:23:GLU:HG2	1.50	0.91
42:DT:50:LYS:CB	42:DT:84:ALA:HB2	2.01	0.91
8:AK:51:VAL:HG21	8:AK:60:ARG:HG3	1.53	0.91
26:BD:182:LEU:H	26:BD:272:ALA:HB3	1.33	0.91
22:CC:48:C:O2'	22:CC:49:G:OP2	1.87	0.91
49:D4:9:LEU:H	49:D4:9:LEU:HD22	1.36	0.91
49:B4:52:THR:HG23	49:B4:53:GLU:H	1.35	0.91
40:D2:44:LYS:O	40:D2:46:VAL:N	2.04	0.91
9:CL:79:LEU:CD1	9:CL:104:ARG:HA	2.00	0.91
24:BA:2285:C:OP1	51:B6:28:ARG:CD	2.19	0.91
21:CX:7:ARG:CG	21:CX:7:ARG:HH11	1.84	0.91
1:AA:103:C:P	20:AW:14:LYS:NZ	2.40	0.91
44:DV:119:GLU:N	44:DV:119:GLU:OE2	2.02	0.91
24:BA:943:U:OP2	34:BO:36:LYS:CD	2.18	0.91
1:AA:1025:U:O2'	1:AA:1026:G:OP2	1.87	0.91
24:BA:2679:A:H4'	27:BE:165:VAL:HG11	1.53	0.91
1:CA:560:U:O2'	1:CA:561:U:OP2	1.87	0.91
8:AK:85:ARG:HH11	8:AK:85:ARG:HG3	1.33	0.91
9:AL:40:LEU:CD2	9:AL:70:LYS:HD2	1.99	0.91
36:B0:54:LEU:HD21	36:B0:65:LEU:HD23	1.50	0.91
1:CA:250:A:H1'	1:CA:251:G:OP2	1.69	0.91
8:AK:120:THR:HG23	8:AK:122:ARG:H	1.36	0.91
1:CA:1117:G:O2'	9:CL:104:ARG:CD	2.18	0.91
1:CA:1123:A:O3'	10:CM:36:GLY:HA3	1.71	0.91
51:D6:9:LEU:CG	51:D6:27:LYS:HA	2.00	0.91
1:AA:1028:C:O2	1:AA:1033:G:N2	2.04	0.91
1:CA:1203:C:C5'	14:CQ:3:ARG:HH21	1.84	0.91
24:BA:1169:G:H1	24:BA:1180:C:H42	1.17	0.91
24:BA:2151:G:H2'	24:BA:2152:G:H8	1.34	0.91
16:AS:22:THR:HA	16:AS:33:ILE:HG13	1.49	0.91
24:BA:2689:U:H4'	24:BA:2690:C:O5'	1.70	0.91
9:AL:4:TYR:CZ	9:AL:88:TYR:HB2	2.06	0.91
24:BA:1601:G:H5'	52:B7:49:ARG:HH22	1.25	0.91
9:CL:2:GLU:N	9:CL:88:TYR:HH	1.67	0.91
43:DU:50:ARG:CG	43:DU:53:PRO:HG3	2.00	0.91
28:BF:29:ASN:HB3	28:BF:112:MET:HE1	1.52	0.91
47:DW:47:ASN:O	47:DW:49:LYS:N	2.02	0.91
34:BO:31:ALA:O	34:BO:32:THR:HG22	1.71	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:242:G:H5''	53:B8:62:LEU:HD13	1.53	0.91
1:CA:1254:C:H5''	10:CM:45:ARG:HH12	1.23	0.90
26:BD:35:LYS:HG2	26:BD:64:ILE:H	1.31	0.90
37:BQ:110:LEU:HD11	37:BQ:112:PHE:CD2	2.05	0.90
40:B2:38:LEU:HD23	40:B2:39:LEU:N	1.85	0.90
24:BA:1174:A:H3'	24:BA:1175:U:H5''	1.53	0.90
42:BT:27:THR:CG2	42:BT:80:ILE:HB	2.01	0.90
26:DD:92:ILE:HD12	26:DD:104:TYR:CD2	2.05	0.90
43:BU:79:CYS:SG	43:BU:80:GLY:N	2.41	0.90
1:AA:686:U:H1'	11:AN:42:TRP:HE1	1.34	0.90
1:CA:838:G:N2	1:CA:849:C:N3	2.19	0.90
7:CJ:113:GLU:CB	7:CJ:119:ARG:HG2	2.02	0.90
39:B1:92:ARG:HB2	40:B2:11:GLN:NE2	1.85	0.90
24:BA:2635:C:OP1	27:BE:78:LEU:HB2	1.71	0.90
24:DA:90:U:H2'	24:DA:90:U:O2	1.72	0.90
24:DA:2816:C:O3'	36:D0:99:LYS:NZ	2.05	0.90
32:BM:46:VAL:HG11	32:BM:48:MET:HE3	1.50	0.90
1:CA:1321:C:O2	19:CV:36:ARG:NH2	2.04	0.90
1:CA:976:G:OP1	14:CQ:32:SER:N	2.04	0.90
1:AA:1221:G:H5'	19:AV:36:ARG:NH2	1.86	0.90
29:DG:161:THR:HG22	29:DG:163:ALA:H	1.35	0.90
10:CM:81:THR:CA	10:CM:84:GLN:HG2	2.01	0.90
34:DO:47:ASP:HB3	34:DO:48:PRO:C	1.92	0.90
1:CA:1297:C:H4'	1:CA:1298:C:H5'	1.52	0.90
51:D6:25:LYS:HB3	53:D8:34:TRP:CZ3	2.05	0.90
10:AM:48:THR:HG23	10:AM:62:HIS:HD2	1.36	0.90
29:BG:2:PRO:O	29:BG:4:ASP:N	2.03	0.90
3:AF:8:ILE:CD1	3:AF:16:ARG:HG2	2.00	0.90
24:DA:2286:A:H5''	51:D6:28:ARG:NE	1.87	0.90
24:BA:1088:A:H5'	24:BA:1089:G:C5'	2.01	0.90
24:DA:330:A:H2	24:DA:1210:A:HO2'	0.92	0.90
43:DU:17:SER:CB	43:DU:71:LYS:HD2	2.00	0.90
3:AF:15:THR:CG2	3:AF:181:ASN:HA	2.02	0.90
24:DA:1359:A:H2'	24:DA:1360:A:H5'	1.52	0.90
29:DG:64:THR:HG23	29:DG:66:GLN:H	1.36	0.90
1:CA:412:A:H4'	1:CA:413:G:H5'	1.54	0.90
1:CA:1239:A:H4'	1:CA:1240:U:H5''	1.54	0.90
9:AL:96:LEU:HA	9:AL:99:LEU:CD1	2.01	0.90
4:AG:31:CYS:CB	4:AG:33:MET:SD	2.60	0.90
44:DV:118:GLN:O	44:DV:118:GLN:HG3	1.68	0.90
27:DE:67:PHE:O	27:DE:69:LYS:N	2.03	0.90
42:BT:49:VAL:HG11	42:BT:83:VAL:HG22	1.53	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:81:LEU:HD11	13:AP:86:CYS:CB	2.02	0.90
4:AG:30:LYS:HB3	4:AG:34:GLU:HB2	1.53	0.90
24:DA:528:A:H2	24:DA:2043:C:H5'	0.78	0.90
1:AA:1319:A:H5''	19:AV:5:LEU:CD2	2.02	0.90
4:CG:108:LEU:HD23	4:CG:110:PHE:CE1	2.07	0.90
5:AH:139:LEU:HA	5:AH:142:LEU:CD1	2.02	0.90
16:AS:6:LEU:HB3	16:AS:17:TYR:CD2	2.07	0.90
32:BM:95:PRO:O	32:BM:97:ARG:N	2.05	0.90
2:AE:163:PHE:HA	2:AE:185:ILE:HG23	1.52	0.90
1:AA:90:C:H3'	1:AA:91:C:H5''	1.54	0.90
24:DA:67:U:H3	24:DA:74:A:H2	1.02	0.90
2:CE:11:LEU:HD11	2:CE:213:LEU:HD11	0.93	0.90
1:AA:974:A:O2'	1:AA:975:A:OP2	1.90	0.90
1:AA:975:A:C4'	1:AA:976:G:H5''	2.02	0.90
24:DA:71:A:H3'	24:DA:71:A:OP2	1.71	0.90
24:DA:995:C:N4	32:DM:2:LYS:HG3	1.86	0.90
3:CF:85:ARG:H	3:CF:85:ARG:HD2	1.37	0.90
26:DD:28:GLU:HB3	26:DD:29:PRO:HD3	1.52	0.90
1:CA:1128:C:N3	1:CA:1144:G:N2	2.20	0.90
19:AV:41:VAL:HG21	19:AV:45:VAL:CG1	2.01	0.90
24:BA:2751:G:C8	30:BH:3:ARG:HD3	2.05	0.90
30:DH:89:ILE:HG23	30:DH:90:LYS:H	1.36	0.90
4:CG:173:TRP:CD1	4:CG:174:LEU:HG	2.06	0.90
1:CA:1211:U:O2'	1:CA:1213:A:N3	2.03	0.90
31:DK:9:LEU:HD11	31:DK:12:LEU:HD22	1.53	0.90
24:BA:2807:G:N1	24:BA:2893:G:O6	2.04	0.90
34:DO:52:GLU:OE1	34:DO:54:GLY:N	2.05	0.89
51:B6:31:PRO:HB2	51:B6:35:GLU:CG	2.02	0.89
29:DG:113:ARG:HG2	29:DG:140:ILE:HA	1.54	0.89
2:CE:25:ASN:HD21	2:CE:27:LYS:CD	1.85	0.89
29:DG:56:ALA:HB2	29:DG:153:ARG:NE	1.87	0.89
24:DA:94:G:OP2	43:DU:54:LYS:NZ	2.04	0.89
38:BR:123:GLN:O	38:BR:125:ARG:N	2.06	0.89
1:CA:66:G:H4'	1:CA:173:U:H5	1.36	0.89
1:CA:976:G:H5'	14:CQ:31:ARG:NH1	1.86	0.89
26:BD:35:LYS:HB3	26:BD:63:ARG:HA	1.54	0.89
7:CJ:113:GLU:HB2	7:CJ:119:ARG:CG	2.02	0.89
40:B2:34:GLU:O	40:B2:36:PRO:HD3	1.71	0.89
44:DV:175:VAL:CG2	44:DV:176:PRO:HD2	2.01	0.89
1:AA:739:C:P	6:AI:2:ARG:HH22	1.94	0.89
24:DA:676:A:H8	24:DA:2069:G:N2	1.69	0.89
1:CA:597:G:H2'	1:CA:598:U:H5'	1.52	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:35:LYS:HD3	26:BD:63:ARG:HB3	1.53	0.89
24:DA:1245:G:OP1	34:DO:13:ASN:ND2	2.06	0.89
25:BB:45:A:C1'	29:BG:95:ARG:HH12	1.85	0.89
24:DA:2790:A:H4'	24:DA:2791:C:O5'	1.71	0.89
24:BA:34:C:H6	24:BA:34:C:OP2	1.56	0.89
1:CA:1097:C:O2'	1:CA:1169:A:N3	2.04	0.89
9:CL:82:ALA:HB3	9:CL:101:PHE:HD2	1.38	0.89
24:DA:2376:A:H2	37:DQ:112:PHE:HB3	1.32	0.89
1:AA:1382:C:H6	7:AJ:79:ARG:CZ	1.86	0.89
30:DH:4:ILE:HD13	30:DH:6:ARG:HG3	1.52	0.89
24:DA:1899:G:N2	24:DA:1902:C:N4	2.21	0.89
21:CX:7:ARG:NH1	21:CX:7:ARG:HG3	1.80	0.89
30:DH:9:ILE:HG21	30:DH:51:ARG:CB	2.03	0.89
2:CE:19:HIS:CD2	2:CE:20:GLU:HG2	2.07	0.89
40:D2:8:GLY:O	40:D2:10:LYS:HE3	1.72	0.89
1:AA:626:U:H5''	16:AS:38:TYR:CZ	2.07	0.89
24:BA:1021:A:C3'	24:BA:1022:G:H5''	2.02	0.89
1:AA:562:C:H4'	1:AA:563:A:H5'	1.52	0.89
32:BM:62:VAL:CG2	32:BM:66:LYS:HD2	2.02	0.89
2:AE:124:SER:HB2	2:AE:125:PRO:HD2	1.54	0.89
30:BH:153:LYS:HB3	30:BH:162:ILE:H	1.37	0.89
1:AA:1129:C:N4	1:AA:1133:G:O6	2.05	0.89
38:DR:62:THR:HG22	38:DR:75:ILE:HG12	1.53	0.89
19:CV:78:ARG:O	19:CV:79:THR:HG22	1.73	0.89
24:BA:2415:G:O3'	34:BO:66:GLY:HA3	1.72	0.89
2:AE:103:THR:CG2	2:AE:176:GLU:HB2	2.00	0.89
1:CA:254:G:H21	17:CT:16:GLN:HE21	1.11	0.89
24:BA:2213:U:C1'	46:BZ:52:ARG:HH12	1.84	0.89
1:CA:963:G:H21	10:CM:55:LYS:HE2	1.37	0.89
24:BA:1068:G:H2'	24:BA:1069:A:C8	2.07	0.89
2:CE:172:ILE:HD12	2:CE:173:ALA:H	1.37	0.89
31:BK:92:VAL:HG13	31:BK:120:ILE:CG2	2.03	0.89
29:DG:67:LYS:HB3	49:D4:6:HIS:CE1	2.08	0.89
35:DP:97:VAL:HG11	35:DP:103:MET:HE1	1.54	0.89
24:DA:1448:G:O2'	24:DA:1529:A:N1	2.06	0.89
8:CK:5:PRO:HG2	8:CK:6:ILE:HD12	1.53	0.89
24:BA:1778:U:H2'	24:BA:1784:A:N6	1.87	0.89
9:CL:28:VAL:HG13	9:CL:63:ILE:O	1.71	0.89
13:CP:29:ARG:HB3	13:CP:64:TRP:CH2	2.06	0.89
19:CV:28:LYS:HZ1	19:CV:29:ARG:HB2	1.38	0.89
10:CM:21:GLN:O	10:CM:24:VAL:HG12	1.72	0.89
1:AA:1286:A:C4'	21:AX:26:LYS:HD2	2.02	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AH:41:VAL:CG2	5:AH:113:ALA:HB2	2.03	0.89
24:DA:1653:G:H1'	24:DA:1654:A:OP2	1.71	0.89
24:BA:325:G:O2'	24:BA:326:G:H5'	1.71	0.89
9:AL:48:GLU:H	9:AL:78:LYS:HZ3	1.09	0.89
24:DA:870:A:OP2	35:DP:6:ARG:NH1	2.06	0.89
10:CM:4:ILE:CD1	10:CM:100:THR:HG22	2.03	0.89
24:DA:870:A:C3'	35:DP:6:ARG:NH2	2.34	0.88
2:AE:236:TYR:HA	2:AE:239:VAL:HG21	1.54	0.88
10:CM:21:GLN:HE21	10:CM:24:VAL:HG11	1.38	0.88
35:DP:66:ILE:HD13	35:DP:66:ILE:N	1.89	0.88
4:CG:121:VAL:CG1	4:CG:126:ILE:HD12	2.04	0.88
5:CH:35:GLY:HA3	5:CH:112:LEU:HB3	1.55	0.88
10:AM:28:ARG:NE	10:AM:34:VAL:HG22	1.88	0.88
22:CC:59:A:H2'	22:CC:60:U:H5'	1.55	0.88
24:DA:1460:A:H4'	24:DA:1461:G:OP2	1.71	0.88
27:BE:16:ARG:HG3	27:BE:16:ARG:O	1.74	0.88
1:AA:1240:U:O2'	7:AJ:38:LEU:HD23	1.73	0.88
1:CA:1191:A:P	3:CF:3:ASN:HD21	1.96	0.88
9:CL:3:GLN:HE21	9:CL:20:ARG:HH11	1.21	0.88
44:DV:118:GLN:CG	44:DV:118:GLN:O	2.19	0.88
1:AA:1028(B):C:H3'	1:AA:1029:G:C5'	2.03	0.88
8:AK:120:THR:HG22	8:AK:123:GLU:HG3	1.55	0.88
2:AE:109:SER:O	2:AE:112:VAL:HG12	1.72	0.88
4:CG:33:MET:O	4:CG:35:ARG:N	2.07	0.88
44:BV:141:VAL:HB	44:BV:144:LEU:HD21	1.55	0.88
14:AQ:13:THR:N	14:AQ:14:PRO:HD2	1.86	0.88
9:AL:5:TYR:HE1	9:AL:16:ARG:HB2	1.38	0.88
24:BA:2068:U:N3	24:BA:2430:A:H2	1.69	0.88
34:BO:114:ILE:HD11	34:BO:130:PHE:CD2	2.08	0.88
10:CM:32:ALA:HA	10:CM:76:ASN:HD22	1.36	0.88
48:DX:11:SER:HB3	48:DX:13:ILE:HD13	1.53	0.88
24:DA:2416:C:C5'	34:DO:64:LYS:NZ	2.35	0.88
19:AV:28:LYS:HE3	19:AV:46:GLY:O	1.74	0.88
19:CV:28:LYS:HG2	19:CV:29:ARG:N	1.87	0.88
2:CE:17:PHE:CE2	2:CE:44:LEU:HD22	2.07	0.88
24:BA:2162:G:H1'	24:BA:2173:A:C8	2.08	0.88
28:DF:132:VAL:HG22	28:DF:133:ASN:N	1.89	0.88
44:BV:108:PRO:HB2	44:BV:115:GLY:H	1.37	0.88
48:BX:8:LEU:HD13	48:BX:31:LEU:HD23	1.55	0.88
38:BR:11:GLU:N	38:BR:11:GLU:OE1	2.07	0.88
1:AA:1312:G:N7	19:AV:4:SER:HB2	1.89	0.88
9:CL:9:ARG:HD2	9:CL:14:VAL:HG22	1.55	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:81:LEU:HG	13:AP:89:GLY:CA	2.04	0.88
40:B2:44:LYS:O	40:B2:46:VAL:N	2.06	0.88
24:BA:2636:U:OP1	27:BE:79:ARG:HA	1.72	0.88
24:DA:1056:G:H5''	24:DA:1057:A:H5'	1.54	0.88
3:AF:131:ARG:HA	3:AF:131:ARG:NH1	1.87	0.88
2:AE:162:ILE:HD11	2:AE:184:VAL:HG22	1.55	0.88
36:B0:84:ALA:HB3	36:B0:85:PRO:HD3	1.53	0.88
28:BF:9:ILE:HD13	28:BF:20:LEU:O	1.73	0.88
13:CP:108:ARG:HD3	13:CP:114:ARG:HG3	1.53	0.88
24:BA:1069:A:H4'	24:BA:1070:A:C5'	2.02	0.88
24:DA:2284:C:OP2	51:D6:27:LYS:NZ	2.05	0.88
24:BA:2210:G:H3'	24:BA:2211:G:H8	1.34	0.88
8:AK:68:ARG:NH1	8:AK:70:GLN:OE1	2.06	0.88
10:CM:56:HIS:O	10:CM:58:ASP:N	2.07	0.88
24:DA:2355:C:H1'	45:D3:39:ARG:HH21	1.36	0.88
35:DP:75:THR:HB	35:DP:88:GLY:HA3	1.54	0.88
24:BA:2685:G:HO2'	24:BA:2726:U:H5	1.17	0.88
5:CH:15:ARG:HD2	5:CH:26:PHE:CD2	2.09	0.88
9:CL:78:LYS:HD3	9:CL:101:PHE:CE1	2.09	0.88
1:AA:1053:G:HO2'	1:AA:1199:U:H5	0.97	0.88
24:DA:870:A:H5''	35:DP:6:ARG:HG3	1.52	0.88
37:BQ:87:PHE:CE1	37:BQ:102:ALA:HB2	2.09	0.88
29:BG:94:LEU:HD23	29:BG:94:LEU:H	1.36	0.88
11:CN:89:ALA:O	11:CN:91:ARG:N	2.06	0.88
4:CG:86:LYS:HG3	4:CG:87:GLY:H	1.37	0.88
24:DA:592:G:H21	53:D8:4:MET:HE1	1.37	0.88
1:AA:964:A:O2'	10:AM:55:LYS:NZ	2.06	0.88
7:CJ:46:ALA:HB2	7:CJ:117:ALA:HB1	1.56	0.88
2:AE:176:GLU:OE1	2:AE:176:GLU:N	2.06	0.88
24:DA:1057:A:H62	24:DA:1087:G:H5''	1.38	0.88
32:DM:7:LYS:HE3	32:DM:7:LYS:HA	1.54	0.88
1:CA:599:C:P	8:CK:94:TYR:HE2	1.93	0.88
9:AL:48:GLU:CB	9:AL:78:LYS:NZ	2.34	0.88
24:BA:1088:A:C5'	24:BA:1089:G:H5'	2.04	0.88
2:CE:11:LEU:CD1	2:CE:12:GLU:N	2.35	0.88
44:DV:151:HIS:CB	44:DV:170:THR:HA	2.04	0.88
4:CG:121:VAL:HG12	4:CG:126:ILE:HD12	1.55	0.88
38:BR:25:GLY:H	38:BR:49:VAL:HG23	1.37	0.88
29:BG:64:THR:HG23	29:BG:94:LEU:HD13	1.56	0.88
24:DA:1601:G:O4'	52:D7:49:ARG:CD	2.20	0.88
4:CG:8:VAL:O	4:CG:11:LEU:HG	1.74	0.88
1:CA:1179:A:H1'	9:CL:104:ARG:CZ	2.04	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CV:31:ILE:HD11	19:CV:33:THR:CG2	2.04	0.88
1:CA:1320:C:H1'	19:CV:70:LYS:HZ1	1.39	0.88
9:AL:48:GLU:HB2	9:AL:78:LYS:HZ3	1.34	0.88
24:BA:2751:G:C5	30:BH:3:ARG:HG3	2.08	0.88
2:CE:236:TYR:CB	2:CE:239:VAL:HB	2.00	0.88
6:AI:43:LEU:HD11	18:AU:35:ARG:NH2	1.88	0.88
1:AA:438:G:H2'	1:AA:494:U:O4	1.74	0.88
24:DA:34:C:OP2	24:DA:34:C:H6	1.55	0.88
7:CJ:149:ARG:O	7:CJ:151:TYR:N	2.07	0.87
35:DP:6:ARG:O	35:DP:7:MET:HG2	1.73	0.87
24:BA:2751:G:O2'	24:BA:2752:C:O5'	1.91	0.87
13:CP:78:ILE:HG23	13:CP:92:HIS:CD2	2.09	0.87
24:DA:1071:G:N3	24:DA:1089:G:O2'	2.06	0.87
5:CH:78:HIS:HB2	8:CK:104:ARG:HD2	1.52	0.87
31:BK:130:TYR:C	31:BK:131:LYS:HD2	1.94	0.87
24:DA:888:C:H4'	24:DA:889:C:O5'	1.72	0.87
24:DA:2542:A:O2'	24:DA:2543:G:O5'	1.92	0.87
12:CO:24:VAL:CG1	12:CO:26:ALA:HB2	2.04	0.87
24:DA:2427:C:H5"	24:DA:2428:G:OP1	1.73	0.87
19:CV:58:VAL:HG22	19:CV:60:VAL:CG1	2.03	0.87
53:D8:32:LEU:CD1	53:D8:33:ASN:H	1.85	0.87
44:BV:117:LEU:O	44:BV:118:GLN:HB2	1.73	0.87
44:BV:143:GLY:HA3	44:BV:144:LEU:HG	1.55	0.87
5:CH:68:GLU:O	5:CH:68:GLU:HG3	1.74	0.87
46:DZ:23:LYS:HD2	46:DZ:28:GLY:HA3	1.57	0.87
11:AN:22:HIS:HB3	11:AN:29:ILE:HG23	1.57	0.87
24:DA:1601:G:O5'	52:D7:49:ARG:NH1	2.07	0.87
1:CA:977:A:OP2	14:CQ:31:ARG:NH2	2.06	0.87
9:AL:96:LEU:HA	9:AL:99:LEU:CG	2.05	0.87
26:BD:35:LYS:HD3	26:BD:63:ARG:CB	2.05	0.87
1:AA:1319:A:C3'	19:AV:3:ARG:NH2	2.29	0.87
34:BO:64:LYS:O	34:BO:66:GLY:N	2.07	0.87
24:BA:1006:C:H1'	32:BM:106:MET:HE3	1.54	0.87
16:AS:20:VAL:HG21	16:AS:32:TYR:CG	2.09	0.87
3:CF:12:LEU:HD11	14:CQ:51:GLY:HA2	1.55	0.87
24:BA:676:A:H8	24:BA:2069:G:N2	1.72	0.87
24:BA:1312:U:OP2	42:BT:63:LYS:NZ	2.07	0.87
1:CA:686:U:H1'	11:CN:42:TRP:HE1	1.38	0.87
3:CF:47:LEU:O	3:CF:49:SER:N	2.08	0.87
4:AG:9:CYS:SG	4:AG:22:LYS:CE	2.62	0.87
4:AG:28:SER:HB3	4:AG:29:PRO:CD	2.04	0.87
2:CE:12:GLU:HB2	2:CE:15:VAL:HB	1.54	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1225:C:O2'	40:D2:85:LYS:N	2.08	0.87
10:CM:34:VAL:CG1	10:CM:74:ILE:HG22	2.05	0.87
25:DB:40:U:H1'	25:DB:46:A:C2	2.10	0.87
42:BT:83:VAL:CG1	42:BT:87:GLN:HB2	2.04	0.87
7:CJ:78:ARG:HH22	7:CJ:87:VAL:N	1.64	0.87
7:CJ:90:GLU:HG2	7:CJ:155:ARG:HH21	1.40	0.87
24:DA:870:A:OP1	35:DP:6:ARG:NH1	2.08	0.87
43:BU:76:CYS:HB3	43:BU:81:LYS:NZ	1.90	0.87
34:DO:49:ARG:O	34:DO:49:ARG:HG2	1.75	0.87
10:CM:34:VAL:HG12	10:CM:74:ILE:CA	2.04	0.87
30:BH:86:GLU:CG	30:BH:165:ALA:H	1.85	0.87
42:DT:63:LYS:O	42:DT:63:LYS:HD2	1.74	0.87
41:DS:64:MET:HE2	41:DS:109:GLU:HG3	1.54	0.87
35:BP:66:ILE:HD12	35:BP:67:ARG:N	1.90	0.87
1:CA:582:U:OP1	15:CR:64:ARG:NH1	2.06	0.87
24:BA:880:G:O6	24:BA:897:C:N4	2.06	0.87
24:DA:2161:C:C2	24:DA:2173:A:H1'	2.09	0.87
3:AF:8:ILE:CG2	3:AF:9:GLY:H	1.87	0.87
5:AH:12:LEU:O	5:AH:13:ILE:HD12	1.75	0.87
24:BA:1173:G:C2	24:BA:1175:U:H2'	2.10	0.87
22:CC:15:G:H21	22:CC:21:A:H1'	1.40	0.87
34:BO:123:LEU:CD1	34:BO:125:VAL:HG13	2.03	0.87
24:DA:2130:U:H2'	24:DA:2158:A:C2	2.09	0.87
24:BA:1535:U:C5	24:BA:1537:C:H1'	2.10	0.87
20:CW:97:ALA:HB1	20:CW:98:PRO:HD2	1.57	0.87
28:BF:133:ASN:O	28:BF:135:LYS:N	2.07	0.87
4:CG:31:CYS:HB3	4:CG:33:MET:HG3	1.55	0.87
1:CA:1289:A:N1	9:CL:70:LYS:NZ	2.21	0.87
37:DQ:107:GLU:O	37:DQ:110:LEU:HD23	1.73	0.87
25:DB:2:C:O2	25:DB:118:G:N2	2.07	0.87
1:CA:15:G:H4'	5:CH:24:ARG:HH12	1.35	0.87
27:DE:131:ALA:HB1	27:DE:135:HIS:CE1	2.09	0.87
4:CG:26:CYS:HA	4:CG:31:CYS:HB2	1.53	0.87
49:B4:37:SER:HB3	49:B4:43:TYR:CE2	2.09	0.87
26:BD:35:LYS:HZ1	26:BD:104:TYR:HB2	1.34	0.87
1:AA:413:G:H2'	1:AA:428:G:N2	1.90	0.87
2:CE:82:ARG:HB2	2:CE:94:ASN:HD21	1.39	0.87
25:DB:51:G:OP2	37:DQ:59:LYS:NZ	2.08	0.87
24:BA:212:G:C2'	24:BA:213:A:H5'	2.05	0.87
21:CX:9:ARG:O	21:CX:12:LYS:N	2.08	0.87
24:DA:779:U:OP1	26:DD:49:ILE:HG22	1.73	0.87
31:BK:133:HIS:HB2	31:BK:134:PRO:HD2	1.57	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BR:98:LYS:HB3	38:BR:100:TYR:CE1	2.09	0.87
24:DA:888:C:H4'	24:DA:889:C:C5'	2.04	0.87
29:BG:36:LYS:HD2	29:BG:160:VAL:HG21	1.54	0.87
1:CA:1346:A:H1'	1:CA:1347:G:OP2	1.75	0.86
24:BA:2286:A:H2'	51:B6:31:PRO:CD	2.05	0.86
4:AG:28:SER:CB	4:AG:29:PRO:CD	2.52	0.86
24:BA:389:G:H1	34:BO:71:VAL:HG12	1.38	0.86
40:D2:37:VAL:HG23	40:D2:38:LEU:HD12	1.55	0.86
19:CV:28:LYS:CG	19:CV:29:ARG:H	1.85	0.86
31:DK:9:LEU:CD1	31:DK:12:LEU:HD22	2.05	0.86
38:BR:50:ILE:HD11	38:BR:102:ILE:HD11	1.56	0.86
26:BD:109:ASP:HB2	26:BD:197:GLY:HA2	1.57	0.86
9:AL:49:PRO:HD3	9:AL:78:LYS:HZ1	1.38	0.86
53:D8:32:LEU:HD12	53:D8:33:ASN:N	1.90	0.86
24:DA:833:U:O2	34:DO:55:ARG:NH1	2.08	0.86
1:AA:1199:U:H4'	10:AM:54:PHE:HE2	1.11	0.86
4:AG:8:VAL:HG11	4:AG:115:ARG:HH22	0.73	0.86
1:AA:1225:A:H5''	1:AA:1226:C:OP2	1.75	0.86
19:CV:11:VAL:HG12	19:CV:12:ASP:O	1.74	0.86
2:CE:4:GLU:N	2:CE:4:GLU:OE2	2.08	0.86
24:BA:2000:G:C5'	36:B0:2:ARG:NH1	2.18	0.86
24:DA:2419:U:C5	53:D8:31:HIS:HD2	1.94	0.86
19:AV:40:ILE:HA	19:AV:44:MET:HE3	1.54	0.86
19:AV:39:THR:HG22	19:AV:40:ILE:N	1.88	0.86
20:CW:70:SER:HA	20:CW:73:HIS:ND1	1.89	0.86
4:AG:22:LYS:CB	4:AG:26:CYS:HB2	2.05	0.86
51:D6:23:THR:HG22	51:D6:24:GLU:N	1.90	0.86
28:DF:102:PRO:HB2	28:DF:105:VAL:HG23	1.57	0.86
24:BA:2211:G:H4'	24:BA:2212:A:OP2	1.74	0.86
24:DA:1187:G:OP1	40:D2:82:ARG:CZ	2.23	0.86
32:BM:99:LEU:HD12	32:BM:122:VAL:HG21	1.57	0.86
24:BA:2683:C:O2'	27:BE:13:ARG:NH2	2.09	0.86
50:D5:37:LYS:HB3	50:D5:37:LYS:NZ	1.91	0.86
7:CJ:75:VAL:HG13	7:CJ:145:ALA:HA	1.58	0.86
1:CA:1221:G:H4'	19:CV:77:THR:HG21	1.57	0.86
24:DA:2287:A:H62	24:DA:2344:U:H3	1.22	0.86
7:CJ:89:MET:HG2	7:CJ:155:ARG:NH1	1.90	0.86
44:DV:24:LEU:CB	44:DV:41:LEU:HD11	2.03	0.86
49:D4:13:ARG:HD2	49:D4:22:ILE:HG22	1.58	0.86
40:D2:79:VAL:O	40:D2:80:GLN:HB2	1.73	0.86
4:AG:12:CYS:HA	4:AG:19:LEU:CD2	2.06	0.86
10:CM:81:THR:HA	10:CM:84:GLN:CG	2.06	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:87:PRO:CA	46:DZ:90:ILE:HG23	2.05	0.86
29:DG:67:LYS:HB3	49:D4:6:HIS:ND1	1.91	0.86
24:BA:2212:A:H1'	24:BA:2215:G:C5	2.10	0.86
25:DB:2:C:H2'	25:DB:3:C:C6	2.11	0.86
22:CC:8:U:O2	22:CC:14:A:N6	2.08	0.86
18:AU:19:LYS:HD2	18:AU:19:LYS:N	1.89	0.86
1:AA:1304:G:OP1	21:AX:2:GLY:N	2.08	0.86
44:DV:45:ASP:O	44:DV:49:ARG:HG2	1.75	0.86
9:CL:17:VAL:HG12	9:CL:63:ILE:CG1	2.05	0.86
19:CV:70:LYS:HE2	19:CV:73:GLU:CG	1.95	0.86
40:B2:44:LYS:HG2	40:B2:45:THR:H	1.40	0.86
2:CE:28:PHE:HD2	2:CE:32:ILE:CG2	1.88	0.86
27:BE:68:ALA:O	27:BE:70:ALA:N	2.07	0.86
4:AG:108:LEU:CD1	4:AG:174:LEU:HD13	2.05	0.86
24:DA:2416:C:H5''	34:DO:64:LYS:HZ3	1.37	0.86
43:BU:76:CYS:SG	43:BU:77:PRO:HD2	2.15	0.86
24:BA:2015:A:N3	50:B5:2:ALA:N	2.23	0.86
30:DH:109:PHE:CZ	30:DH:152:ARG:HD3	2.10	0.86
1:CA:963:G:N2	1:CA:972:C:N3	2.24	0.86
7:CJ:78:ARG:CZ	7:CJ:87:VAL:HG13	2.05	0.86
24:DA:2419:U:O4	53:D8:31:HIS:CD2	2.28	0.86
51:D6:25:LYS:HB3	53:D8:34:TRP:HZ3	1.38	0.86
24:BA:2400:G:H2'	24:BA:2401:U:H6	1.41	0.86
27:DE:6:GLY:HA2	27:DE:51:PHE:CZ	2.11	0.86
10:AM:22:LYS:HE3	10:AM:90:LEU:CD1	2.06	0.86
29:DG:133:LEU:CD2	29:DG:157:ILE:HB	2.05	0.86
32:DM:91:LEU:HA	32:DM:95:PRO:HB3	1.56	0.86
1:CA:1259:C:H3'	1:CA:1260:C:H5''	1.55	0.86
44:BV:44:PHE:CE2	44:BV:86:VAL:HG11	2.10	0.86
24:DA:2015:A:H1'	50:D5:2:ALA:HA	1.58	0.86
1:AA:1342:C:H4'	9:AL:125:TYR:HB3	1.57	0.86
24:DA:2285:C:C2'	51:D6:28:ARG:NH1	2.39	0.86
24:BA:2400:G:H2'	24:BA:2401:U:C6	2.11	0.86
43:DU:42:VAL:HG22	43:DU:65:ALA:HB3	1.58	0.86
34:DO:126:VAL:HG22	34:DO:145:PRO:CG	2.05	0.86
24:DA:2119:A:C6	24:DA:2171:A:H1'	2.10	0.86
37:DQ:39:ILE:HD12	37:DQ:73:LEU:HD11	1.57	0.86
34:DO:112:LEU:HD23	34:DO:113:LYS:N	1.90	0.86
24:BA:2502:G:H5'	24:BA:2503:A:H5''	1.58	0.86
24:BA:155:C:N4	24:BA:171:G:O6	2.08	0.86
4:CG:18:LYS:NZ	4:CG:33:MET:SD	2.48	0.86
34:BO:64:LYS:HD2	53:B8:25:MET:CE	2.06	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CF:137:ALA:HA	3:CF:140:ARG:NH1	1.90	0.86
34:BO:50:ARG:HH21	53:B8:59:LYS:HD3	1.41	0.86
1:AA:255:G:H2'	1:AA:256:U:H6	1.36	0.86
3:CF:84:ILE:HG23	3:CF:85:ARG:HD2	1.57	0.86
9:AL:23:ASN:HB3	9:AL:25:LYS:NZ	1.91	0.86
37:BQ:103:GLU:O	37:BQ:106:ARG:HG2	1.76	0.86
20:CW:56:MET:CE	20:CW:88:VAL:HG21	2.05	0.86
2:CE:80:ILE:HD13	2:CE:211:ILE:HG22	1.57	0.85
13:AP:12:ASN:CB	13:AP:46:LYS:HZ3	1.88	0.85
10:AM:33:GLN:HB3	10:AM:75:ILE:HD11	1.58	0.85
24:DA:1024:G:H3'	24:DA:1025:G:H5''	1.58	0.85
4:CG:81:GLU:HG2	4:CG:85:LYS:HE2	1.55	0.85
24:BA:1952:A:C5	33:BN:22:ILE:HD11	2.11	0.85
30:DH:72:ILE:HD12	30:DH:72:ILE:H	1.41	0.85
24:DA:2285:C:C2'	51:D6:28:ARG:CZ	2.54	0.85
24:DA:27:G:N2	24:DA:512:G:H1'	1.90	0.85
46:DZ:53:VAL:HG22	46:DZ:74:VAL:HG13	1.58	0.85
9:CL:121:ARG:NH1	9:CL:122:ALA:O	2.08	0.85
1:CA:1326:C:OP1	21:CX:17:THR:OG1	1.94	0.85
24:DA:2344:U:O2'	51:D6:39:TYR:CZ	2.17	0.85
2:AE:219:VAL:HA	2:AE:222:ILE:CD1	2.05	0.85
40:B2:49:THR:CB	40:B2:50:PRO:HD2	2.05	0.85
43:DU:18:GLY:O	43:DU:20:TYR:N	2.09	0.85
31:DK:77:LEU:O	31:DK:79:ILE:HG12	1.76	0.85
49:D4:2:LYS:HD2	49:D4:6:HIS:CG	2.11	0.85
29:BG:83:ARG:N	29:BG:86:MET:HG3	1.89	0.85
1:CA:173:U:O2	1:CA:197:A:N6	2.10	0.85
18:AU:18:ARG:HG2	18:AU:19:LYS:H	1.42	0.85
24:DA:2877:G:P	38:DR:2:ASN:HD21	1.99	0.85
3:CF:20:SER:HB2	3:CF:40:ARG:HH22	1.38	0.85
1:CA:1086:U:H3	1:CA:1099:G:H22	1.21	0.85
8:CK:119:LEU:HG	8:CK:123:GLU:HG3	1.56	0.85
1:CA:1227:A:H4'	13:CP:115:LYS:NZ	1.91	0.85
19:CV:58:VAL:CG2	19:CV:60:VAL:HG12	2.06	0.85
37:DQ:106:ARG:NH1	37:DQ:106:ARG:O	2.08	0.85
43:DU:76:CYS:SG	43:DU:77:PRO:CD	2.64	0.85
2:AE:194:PRO:O	2:AE:196:LEU:N	2.08	0.85
34:BO:21:ARG:HA	34:BO:21:ARG:HE	1.42	0.85
29:BG:73:ALA:HB1	29:BG:82:LEU:HD11	1.58	0.85
50:D5:4:HIS:CB	50:D5:5:PRO:HD3	2.07	0.85
28:BF:185:ASP:HA	28:BF:188:ARG:HD3	1.57	0.85
24:DA:108:U:H2'	24:DA:109:G:H8	1.42	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1171:G:O2'	24:DA:1173:G:O5'	1.95	0.85
34:BO:39:LYS:HB2	34:BO:45:LEU:HD21	1.57	0.85
19:CV:42:PRO:O	19:CV:43:GLU:HG2	1.77	0.85
33:DN:25:LEU:HB2	33:DN:38:VAL:HG23	1.56	0.85
36:D0:34:ILE:HG22	36:D0:114:VAL:HB	1.58	0.85
24:DA:1060:U:H4'	24:DA:1061:U:H5''	1.56	0.85
31:BK:131:LYS:HB3	31:BK:132:PRO:HA	1.59	0.85
49:D4:18:CYS:H	49:D4:19:GLY:HA2	1.41	0.85
49:D4:23:GLU:HG3	49:D4:24:THR:N	1.90	0.85
20:AW:72:LEU:HD21	20:AW:77:ALA:N	1.90	0.85
47:DW:41:ILE:HG13	47:DW:44:LEU:HD12	1.56	0.85
9:CL:53:VAL:HG23	9:CL:54:ASP:H	1.41	0.85
49:B4:12:ALA:HB1	49:B4:29:PRO:HA	1.58	0.85
1:CA:539:A:OP2	12:CO:115:LYS:NZ	2.08	0.85
4:CG:31:CYS:N	4:CG:34:GLU:OE2	2.10	0.85
13:AP:81:LEU:HD12	13:AP:84:ILE:HG21	1.56	0.85
24:DA:2807:G:N1	24:DA:2893:G:O6	2.09	0.85
24:BA:996:A:OP2	39:B1:92:ARG:NH2	2.09	0.85
24:DA:1055:G:H1'	24:DA:1085:A:H2	1.38	0.85
24:BA:2137:C:N4	24:BA:2155:G:O6	2.09	0.85
1:AA:1286:A:H4'	21:AX:26:LYS:HD2	1.59	0.85
24:DA:1187:G:OP1	40:D2:82:ARG:NH2	2.10	0.85
12:CO:24:VAL:HG13	12:CO:98:TYR:HE1	1.42	0.85
6:AI:98:LEU:HB3	18:AU:30:ASP:HA	1.58	0.85
15:AR:74:ASP:OD1	15:AR:77:ARG:HG2	1.77	0.85
1:AA:427:U:OP1	4:AG:13:ARG:NH2	2.09	0.85
7:CJ:78:ARG:HH21	7:CJ:87:VAL:HG22	1.41	0.85
24:DA:1138:G:H21	32:DM:106:MET:HE3	1.40	0.85
24:DA:1313:U:H2'	24:DA:1610:A:C2	2.12	0.85
24:BA:2315:G:H2'	24:BA:2316:C:C6	2.11	0.85
38:BR:129:ARG:O	38:BR:133:GLU:HG3	1.76	0.85
19:CV:70:LYS:HE3	19:CV:73:GLU:CA	2.07	0.85
29:BG:116:ASP:O	49:B4:42:PHE:HZ	1.60	0.85
1:AA:1221:G:P	19:AV:36:ARG:HH22	2.00	0.85
3:CF:39:ILE:HD13	3:CF:57:ILE:HD11	1.56	0.85
44:BV:105:VAL:HG22	44:BV:106:GLY:H	1.39	0.85
39:D1:98:LEU:C	39:D1:100:VAL:H	1.80	0.85
6:CI:37:VAL:HG12	6:CI:38:GLU:H	1.41	0.85
1:CA:509:A:C5'	4:CG:55:ALA:HB2	2.06	0.85
9:CL:95:LYS:NZ	9:CL:95:LYS:O	2.09	0.85
24:DA:602:G:HO2'	24:DA:604:G:HO2'	1.23	0.85
7:CJ:89:MET:HA	7:CJ:155:ARG:CZ	2.06	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:110:LEU:HG	37:BQ:111:GLU:H	1.40	0.85
17:CT:45:HIS:CB	17:CT:65:ILE:HD13	2.06	0.85
1:CA:963:G:H1	1:CA:972:C:H42	1.24	0.85
24:DA:2131:G:H5'	24:DA:2132:U:H5''	1.58	0.85
25:DB:80:U:H2'	25:DB:81:G:H21	1.40	0.85
1:AA:1178:G:H5'	9:AL:93:ARG:NH2	1.91	0.84
13:AP:81:LEU:CD1	13:AP:84:ILE:HG21	2.07	0.84
19:AV:24:ALA:O	19:AV:25:LYS:CG	2.25	0.84
1:AA:414:A:OP2	1:AA:428:G:N2	2.08	0.84
44:DV:153:SER:HB3	44:DV:167:PRO:CB	2.06	0.84
3:CF:120:VAL:HG21	3:CF:137:ALA:HB2	1.57	0.84
49:D4:61:ARG:HA	49:D4:61:ARG:HH11	1.39	0.84
28:BF:29:ASN:H	28:BF:112:MET:HE3	1.42	0.84
24:BA:1729:A:O2'	24:BA:1730:U:H5''	1.76	0.84
24:BA:71:A:C2	42:BT:31:HIS:CE1	2.65	0.84
42:DT:67:GLY:O	42:DT:69:TYR:N	2.09	0.84
37:DQ:107:GLU:N	37:DQ:110:LEU:CD2	2.41	0.84
1:AA:1199:U:H4'	10:AM:54:PHE:CD2	2.11	0.84
19:AV:23:ASN:OD1	19:AV:24:ALA:N	2.10	0.84
26:BD:28:GLU:N	26:BD:28:GLU:OE1	2.10	0.84
37:BQ:110:LEU:CD2	37:BQ:112:PHE:CD1	2.60	0.84
24:BA:1069:A:H4'	24:BA:1070:A:H5''	1.59	0.84
1:AA:1296:C:O3'	13:AP:13:LYS:NZ	2.08	0.84
4:CG:108:LEU:HD13	4:CG:174:LEU:HD22	1.58	0.84
5:CH:41:VAL:H	5:CH:67:VAL:HG13	1.41	0.84
24:BA:1022:G:H22	24:BA:1142(A):A:H2	1.22	0.84
1:CA:452:A:N3	16:CS:72:ARG:NH2	2.25	0.84
24:DA:2295:C:H41	37:DQ:13:ARG:NH2	1.75	0.84
31:BK:40:THR:HG22	31:BK:42:SER:H	1.42	0.84
16:AS:8:ARG:HB3	16:AS:28:ARG:HH12	1.39	0.84
24:BA:1408:C:C2	24:BA:1595:G:N2	2.45	0.84
24:DA:960:A:H61	35:DP:83:MET:CE	1.90	0.84
34:DO:101:VAL:CG2	34:DO:106:LEU:HD23	2.08	0.84
38:DR:88:ILE:HD13	38:DR:91:ARG:CZ	2.07	0.84
24:DA:1171:G:O6	24:DA:1178:C:N4	2.10	0.84
1:CA:1183:A:O2'	1:CA:1184:G:OP1	1.94	0.84
53:B8:29:LYS:CG	53:B8:44:LYS:HG2	2.07	0.84
19:AV:15:LEU:HD12	19:AV:16:LEU:N	1.92	0.84
24:BA:1093:G:H5'	30:BH:170:ARG:NH2	1.91	0.84
39:B1:95:LEU:CD1	39:B1:95:LEU:H	1.90	0.84
43:DU:13:VAL:HG21	43:DU:72:VAL:HB	1.59	0.84
24:DA:2130:U:H2'	24:DA:2158:A:N1	1.91	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:49:VAL:HG21	37:BQ:77:ALA:HB2	1.59	0.84
33:BN:25:LEU:HB2	33:BN:38:VAL:HG13	1.58	0.84
52:D7:5:TRP:NE1	52:D7:7:PRO:HG3	1.92	0.84
7:CJ:24:THR:O	7:CJ:27:ILE:HG22	1.78	0.84
7:CJ:90:GLU:H	7:CJ:155:ARG:HH22	0.86	0.84
12:AO:46:LYS:HE2	12:AO:47:LYS:CG	2.07	0.84
37:BQ:83:LYS:HG2	37:BQ:109:GLY:HA3	1.58	0.84
2:CE:11:LEU:HD12	2:CE:12:GLU:H	1.41	0.84
1:AA:358:U:OP1	31:DK:87:LYS:NZ	2.10	0.84
24:BA:2127:G:O6	24:BA:2161:C:N4	2.10	0.84
27:DE:104:VAL:HG11	27:DE:188:VAL:CG2	2.08	0.84
24:BA:259:G:O2'	24:BA:621:A:O2'	1.95	0.84
6:CI:46:ARG:HB2	6:CI:60:PHE:CE1	2.12	0.84
25:BB:30:C:H2'	25:BB:31:C:H5'	1.59	0.84
35:DP:24:GLY:HA3	35:DP:25:ASP:CB	2.00	0.84
4:AG:30:LYS:O	4:AG:30:LYS:HD3	1.78	0.84
24:BA:1102:C:H2'	24:BA:1103:A:C8	2.12	0.84
13:CP:49:THR:HG22	13:CP:51:ALA:H	1.43	0.84
24:BA:2636:U:P	27:BE:79:ARG:HA	2.18	0.84
24:DA:483:A:H4'	43:DU:49:VAL:HA	1.60	0.84
6:AI:43:LEU:CD1	18:AU:35:ARG:HH22	1.91	0.84
20:AW:26:ASN:HD22	20:AW:26:ASN:H	1.21	0.84
2:AE:198:ASP:OD1	8:AK:70:GLN:NE2	2.10	0.84
43:DU:88:LYS:O	43:DU:90:LEU:N	2.09	0.84
4:CG:199:ASN:O	4:CG:201:GLN:N	2.09	0.84
32:DM:133:GLN:O	32:DM:134:ARG:NE	2.10	0.84
1:CA:444:C:O2	1:CA:490:G:N2	2.09	0.84
9:AL:9:ARG:CG	9:AL:14:VAL:HG23	2.08	0.84
2:AE:204:ASN:HD22	2:AE:206:ASP:H	1.24	0.84
40:D2:35:LEU:HD21	40:D2:57:VAL:CG1	2.06	0.84
24:DA:2610:C:C4'	24:DA:2611:U:OP2	2.25	0.84
53:B8:59:LYS:CB	53:B8:59:LYS:NZ	2.40	0.84
24:DA:2415:G:H4'	34:DO:67:MET:N	1.93	0.84
28:BF:64:ILE:HG22	28:BF:65:TRP:CD1	2.12	0.84
34:BO:97:PRO:HD3	34:BO:126:VAL:O	1.76	0.84
24:BA:212:G:O2'	24:BA:213:A:H5'	1.78	0.84
32:DM:97:ARG:O	32:DM:100:GLU:N	2.11	0.84
24:DA:1665:A:C2'	24:DA:1666:G:H5'	2.06	0.84
25:DB:20:C:O2'	25:DB:21:G:H5'	1.78	0.84
2:CE:164:VAL:HG12	2:CE:165:VAL:H	1.40	0.84
1:CA:689:C:H2'	1:CA:690:G:H5'	1.59	0.84
4:CG:22:LYS:NZ	4:CG:26:CYS:SG	2.50	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CM:45:ARG:HG3	10:CM:45:ARG:HH11	1.43	0.84
1:CA:1269:A:OP1	21:CX:18:TYR:HE1	1.61	0.84
37:BQ:110:LEU:CD2	37:BQ:112:PHE:CG	2.61	0.84
10:CM:28:ARG:HH11	10:CM:28:ARG:HG2	1.42	0.84
5:CH:78:HIS:HB2	8:CK:104:ARG:CD	2.06	0.84
3:CF:29:TYR:OH	14:CQ:54:PRO:HD2	1.76	0.84
24:DA:1534:G:H2'	24:DA:1537:C:H42	1.43	0.84
34:DO:121:LYS:HB3	34:DO:123:LEU:HD22	1.59	0.84
24:BA:1416:G:H2'	24:BA:1417:C:C6	2.11	0.84
14:CQ:24:CYS:HB2	14:CQ:29:ARG:HD2	1.60	0.84
12:AO:47:LYS:CB	12:AO:48:PRO:CD	2.53	0.84
2:AE:80:ILE:CD1	2:AE:212:GLN:HA	2.06	0.84
29:DG:113:ARG:NH1	29:DG:140:ILE:O	2.11	0.84
2:CE:28:PHE:CD2	2:CE:32:ILE:HG23	2.13	0.84
2:CE:33:TYR:HB3	2:CE:41:ILE:HG22	1.59	0.84
30:DH:153:LYS:HB3	30:DH:161:GLY:HA2	1.59	0.84
1:AA:664:G:N2	1:AA:741:G:H1	1.74	0.84
24:DA:1341:U:OP2	24:DA:1394:U:O2'	1.94	0.84
28:DF:125:LEU:HD23	28:DF:125:LEU:H	1.41	0.84
3:AF:8:ILE:HD11	3:AF:16:ARG:NE	1.93	0.84
24:DA:2393:A:H5''	53:D8:30:ARG:HE	0.87	0.84
24:BA:2371:G:H4'	51:B6:45:LYS:CD	2.07	0.84
19:AV:13:ASP:O	19:AV:15:LEU:N	2.11	0.84
26:DD:31:LYS:CE	26:DD:33:LEU:HD11	2.08	0.84
26:DD:33:LEU:HD12	26:DD:34:VAL:HG12	1.60	0.84
25:DB:43:C:P	49:D4:6:HIS:HE2	2.00	0.84
1:AA:491:G:H2'	1:AA:492:G:C8	2.12	0.84
24:BA:1310:G:OP2	52:B7:9:ARG:HD2	1.78	0.84
41:DS:111:HIS:CE1	41:DS:113:LYS:HE3	2.12	0.84
24:BA:71:A:C2	42:BT:31:HIS:HE1	1.96	0.84
24:BA:1364:G:OP2	46:BZ:2:SER:OG	1.96	0.84
24:DA:75:G:H4'	47:DW:55:ARG:NH2	1.92	0.84
1:AA:624:C:O3'	16:AS:10:GLY:HA2	1.77	0.84
24:DA:1600:C:C3'	52:D7:49:ARG:NE	2.39	0.83
24:BA:2166:G:O2'	24:BA:2167:U:OP1	1.95	0.83
1:AA:999:U:H2'	1:AA:1000:A:H8	1.41	0.83
40:D2:28:GLU:HG3	40:D2:29:PRO:HD2	1.58	0.83
13:CP:33:ALA:O	13:CP:37:THR:OG1	1.94	0.83
28:DF:24:LEU:HB3	28:DF:25:PRO:CD	2.07	0.83
24:BA:2150:U:H2'	24:BA:2151:G:C8	2.13	0.83
24:BA:2163:C:H5'	24:BA:2172:U:OP2	1.76	0.83
24:BA:2173:A:H3'	24:BA:2173:A:OP1	1.76	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1174:A:N7	24:DA:1176:G:O2'	2.11	0.83
1:AA:914:A:O2'	1:AA:915:A:H5'	1.78	0.83
28:DF:53:THR:CG2	28:DF:56:GLU:HG3	2.07	0.83
1:CA:393:A:OP2	16:CS:12:LYS:NZ	2.11	0.83
24:DA:2296:U:H4'	24:DA:2297:C:OP1	1.76	0.83
11:AN:54:ARG:O	11:AN:56:GLY:N	2.11	0.83
44:DV:163:LEU:HD23	44:DV:163:LEU:H	1.43	0.83
37:DQ:19:LYS:O	37:DQ:20:ARG:HG2	1.79	0.83
24:DA:2393:A:H8	53:D8:30:ARG:NH1	1.75	0.83
24:DA:1899:G:H22	24:DA:1902:C:H41	1.22	0.83
2:CE:42:ILE:HG22	2:CE:190:THR:HG23	1.60	0.83
27:DE:47:VAL:HG22	27:DE:48:GLN:N	1.93	0.83
24:BA:1912:A:H4'	24:BA:1913:A:OP1	1.75	0.83
1:CA:1320:C:O2	19:CV:70:LYS:NZ	2.11	0.83
2:AE:8:LYS:NZ	2:AE:217:ARG:HH21	1.75	0.83
44:DV:170:THR:O	44:DV:172:ALA:N	2.11	0.83
34:DO:71:VAL:HG13	34:DO:72:PRO:CD	2.09	0.83
25:DB:39:A:N6	49:D4:1:MET:HB3	1.93	0.83
31:DK:118:LYS:CG	31:DK:119:PRO:HD2	2.08	0.83
1:AA:1128:C:O2	1:AA:1144:G:N2	2.11	0.83
3:CF:40:ARG:HG2	3:CF:55:VAL:HG11	1.61	0.83
34:DO:128:HIS:HA	34:DO:147:LEU:HA	1.60	0.83
34:DO:89:ALA:HB1	34:DO:121:LYS:HD3	1.60	0.83
4:AG:23:GLY:HA2	4:AG:112:VAL:CG2	2.09	0.83
24:DA:2306:C:H3'	24:DA:2307:G:H5''	1.58	0.83
15:AR:6:GLU:OE2	15:AR:6:GLU:N	2.09	0.83
9:CL:79:LEU:HD11	9:CL:104:ARG:HA	1.60	0.83
14:CQ:24:CYS:HB3	14:CQ:29:ARG:HD2	1.60	0.83
24:DA:2377:A:N9	37:DQ:112:PHE:CD1	2.21	0.83
51:D6:37:ARG:CZ	51:D6:38:LYS:HB2	2.05	0.83
39:B1:92:ARG:HD2	40:B2:11:GLN:HB2	1.58	0.83
2:AE:90:MET:HA	2:AE:90:MET:HE2	1.59	0.83
28:BF:6:VAL:CG1	28:BF:119:ARG:HB2	2.08	0.83
1:AA:687:A:H1'	1:AA:688:G:OP2	1.78	0.83
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.14	0.83
12:AO:24:VAL:HG13	12:AO:98:TYR:CE2	2.14	0.83
7:AJ:91:VAL:HG23	7:AJ:96:GLN:HG2	1.58	0.83
9:CL:85:LEU:HD12	9:CL:86:VAL:N	1.94	0.83
10:CM:70:ARG:HG3	10:CM:70:ARG:HH11	1.41	0.83
24:DA:2286:A:P	51:D6:28:ARG:NH1	2.51	0.83
13:AP:84:ILE:HG23	13:AP:86:CYS:H	1.41	0.83
26:BD:31:LYS:HD2	26:BD:94:LEU:CD1	2.07	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:6:ARG:NH1	30:DH:62:LYS:C	2.31	0.83
24:BA:2701:C:H3'	24:BA:2702:U:C5'	2.09	0.83
44:DV:67:LEU:HD22	44:DV:90:VAL:CG1	2.08	0.83
3:AF:188:LEU:CD2	3:AF:195:VAL:HB	2.08	0.83
38:BR:7:ILE:O	38:BR:9:LEU:N	2.11	0.83
24:BA:1797:C:C2'	24:BA:1798:U:H5'	2.08	0.83
24:BA:1798:U:C5'	26:BD:259:THR:HG22	2.09	0.83
1:AA:998:G:N2	1:AA:1043:C:O2	2.11	0.83
4:CG:201:GLN:OE1	5:CH:116:THR:OG1	1.96	0.83
30:DH:158:HIS:ND1	30:DH:158:HIS:O	2.12	0.83
1:CA:1253:G:OP1	10:CM:46:ARG:NH1	2.11	0.83
19:CV:70:LYS:NZ	19:CV:73:GLU:N	2.26	0.83
26:BD:35:LYS:HD2	26:BD:104:TYR:CE1	2.14	0.83
26:BD:64:ILE:O	26:BD:64:ILE:HG12	1.77	0.83
1:CA:1216:G:H2'	1:CA:1217:C:C6	2.13	0.83
24:BA:2135:A:N6	24:BA:2156:G:O2'	2.12	0.83
29:BG:83:ARG:N	29:BG:86:MET:HE2	1.94	0.83
1:CA:1027:C:H3'	1:CA:1028:C:H5''	1.58	0.83
24:BA:443:A:H5''	24:BA:444:C:OP1	1.79	0.83
24:BA:2712:U:H1'	24:BA:2712(A):A:C8	2.14	0.83
7:AJ:115:ARG:HB3	7:AJ:118:VAL:HG12	1.57	0.83
1:AA:1453:G:O2'	20:AW:39:LYS:NZ	2.11	0.83
2:AE:113:HIS:HA	2:AE:116:GLU:OE1	1.79	0.83
13:CP:19:LEU:HD12	13:CP:20:THR:H	1.44	0.83
24:BA:2418:A:HO2'	51:B6:21:TYR:HE2	0.85	0.83
24:DA:870:A:H3'	35:DP:6:ARG:HH21	1.33	0.83
24:BA:2751:G:H1'	24:BA:2752:C:OP1	1.77	0.83
12:AO:46:LYS:HG2	12:AO:47:LYS:H	1.44	0.83
34:BO:71:VAL:HG13	34:BO:72:PRO:CD	2.07	0.83
24:DA:1061:U:H4'	24:DA:1070:A:O2'	1.79	0.83
4:CG:173:TRP:HB3	4:CG:187:ARG:NH1	1.93	0.83
32:BM:46:VAL:CG1	32:BM:48:MET:HE3	2.08	0.83
11:CN:94:ALA:O	11:CN:98:LEU:HG	1.77	0.83
47:BW:31:GLU:HB2	47:BW:53:LEU:HD11	1.61	0.83
1:CA:328:C:H4'	1:CA:329:A:H5'	1.59	0.83
4:CG:18:LYS:HB2	4:CG:33:MET:SD	2.18	0.83
24:DA:2399:G:N2	24:DA:2417:C:O2	2.11	0.83
26:BD:35:LYS:CD	26:BD:104:TYR:CD1	2.60	0.83
1:AA:558:G:H2'	1:AA:559:A:H2	1.42	0.83
24:BA:1567:A:H5'	26:BD:58:HIS:CD2	2.13	0.83
26:DD:79:VAL:HG12	26:DD:113:VAL:HA	1.59	0.83
24:BA:2312:U:OP2	29:BG:74:LYS:HE2	1.78	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AL:9:ARG:HG2	9:AL:14:VAL:HA	1.61	0.83
4:AG:31:CYS:HB2	4:AG:33:MET:CE	2.09	0.83
37:BQ:110:LEU:HD13	37:BQ:112:PHE:CE2	2.14	0.83
24:DA:2415:G:O3'	34:DO:66:GLY:HA3	1.78	0.83
24:DA:2355:C:C4'	45:D3:36:ILE:HD11	2.08	0.83
24:DA:2166:G:N3	24:DA:2171:A:N6	2.26	0.83
9:CL:16:ARG:CG	9:CL:64:THR:HG22	2.05	0.82
24:DA:2377:A:C2'	37:DQ:112:PHE:CD1	2.58	0.82
24:DA:2416:C:H5''	34:DO:64:LYS:HZ1	1.41	0.82
4:AG:30:LYS:HB2	4:AG:33:MET:H	1.44	0.82
45:D3:27:GLU:HB2	45:D3:69:PHE:HD2	1.42	0.82
24:DA:2157:G:O2'	24:DA:2158:A:H5'	1.76	0.82
11:AN:59:TYR:CE2	11:AN:63:LEU:HD11	2.14	0.82
33:DN:68:GLU:HB3	33:DN:78:ARG:NH1	1.94	0.82
27:DE:14:ILE:HD11	27:DE:173:VAL:HG11	1.58	0.82
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.12	0.82
24:DA:212:G:O2'	24:DA:213:A:H5'	1.79	0.82
27:DE:37:ARG:HD3	27:DE:42:ASP:HB3	1.61	0.82
26:DD:33:LEU:CD1	26:DD:34:VAL:HG12	2.09	0.82
32:DM:56:ASN:N	32:DM:125:GLY:HA3	1.90	0.82
24:DA:1060:U:O4'	24:DA:1062:G:H5'	1.79	0.82
24:DA:1653:G:C1'	24:DA:1654:A:OP2	2.27	0.82
24:DA:2100:G:O6	24:DA:2189:U:N3	2.12	0.82
20:CW:86:ARG:HB2	20:CW:86:ARG:NH1	1.93	0.82
1:CA:736:C:H2'	1:CA:737:A:C8	2.14	0.82
30:BH:80:SER:O	30:BH:81:GLU:HG3	1.79	0.82
1:CA:542:G:OP1	4:CG:10:ARG:NH2	2.13	0.82
9:AL:49:PRO:CD	9:AL:78:LYS:HZ1	1.89	0.82
24:DA:2393:A:C8	53:D8:30:ARG:NH2	2.47	0.82
49:D4:36:CYS:O	49:D4:37:SER:OG	1.95	0.82
44:DV:150:LEU:HD13	44:DV:154:ASP:CB	2.09	0.82
3:AF:70:VAL:HG12	3:AF:72:LYS:H	1.43	0.82
35:BP:136:ALA:HB1	44:BV:52:SER:HB3	1.61	0.82
24:DA:273(D):C:N3	24:DA:363(B):G:N1	2.26	0.82
24:DA:974:G:O2'	24:DA:975:G:N7	2.12	0.82
13:CP:76:ALA:O	13:CP:80:ARG:HG3	1.78	0.82
24:DA:2344:U:C2'	51:D6:37:ARG:HE	1.90	0.82
30:BH:8:PRO:O	30:BH:9:ILE:HG23	1.80	0.82
2:CE:7:VAL:HG22	2:CE:8:LYS:N	1.95	0.82
32:DM:56:ASN:H	32:DM:125:GLY:CA	1.89	0.82
1:CA:1081:G:N7	5:CH:47:LYS:NZ	2.27	0.82
44:BV:169:GLU:OE2	44:BV:170:THR:N	2.10	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1443:G:H3'	1:CA:1446:A:C5'	2.09	0.82
25:DB:24:G:N7	25:DB:56:G:O2'	2.13	0.82
28:BF:64:ILE:HD11	28:BF:78:ILE:HG23	1.60	0.82
7:AJ:115:ARG:HD3	7:AJ:116:ALA:H	1.45	0.82
24:BA:1434:A:H61	24:BA:1558:A:N6	1.77	0.82
24:BA:330:A:HO2'	24:BA:331:A:H8	1.28	0.82
51:D6:25:LYS:CB	53:D8:34:TRP:HZ3	1.93	0.82
9:AL:40:LEU:HD23	9:AL:70:LYS:HD2	1.59	0.82
30:BH:70:THR:HG22	30:BH:74:ASN:HD21	1.41	0.82
9:AL:23:ASN:HB3	9:AL:25:LYS:HZ2	1.44	0.82
20:CW:53:LEU:HB3	20:CW:102:GLY:HA3	1.60	0.82
24:BA:594:U:H5'	53:B8:61:LEU:CD1	2.09	0.82
25:BB:117:G:H2'	25:BB:118:G:H5''	1.62	0.82
22:CC:9:G:O4'	22:CC:46:G:H1'	1.78	0.82
1:AA:345:C:O2'	1:AA:346:G:N2	2.12	0.82
30:DH:7:LEU:H	30:DH:8:PRO:HD2	1.45	0.82
5:CH:51:VAL:CB	5:CH:52:PRO:HD3	2.07	0.82
7:CJ:111:ARG:NH2	7:CJ:122:HIS:HB3	1.93	0.82
14:CQ:12:ARG:C	14:CQ:14:PRO:HD3	2.00	0.82
6:CI:23:LYS:CE	6:CI:61:LEU:HD21	2.09	0.82
26:DD:28:GLU:CB	26:DD:29:PRO:HD3	2.09	0.82
4:AG:191:ARG:HH12	4:AG:195:ALA:HA	1.45	0.82
1:CA:1148:U:O2	9:CL:66:ARG:NH2	2.13	0.82
21:CX:12:LYS:HD2	21:CX:17:THR:O	1.80	0.82
24:DA:2393:A:H5'	34:DO:62:LEU:HD22	1.59	0.82
26:BD:65:ILE:HD11	26:BD:67:PHE:CE1	2.15	0.82
24:DA:2749:A:C5'	30:DH:6:ARG:CZ	2.57	0.82
50:B5:4:HIS:HB2	50:B5:5:PRO:HD3	1.61	0.82
2:AE:236:TYR:HA	2:AE:239:VAL:CG2	2.10	0.82
2:CE:19:HIS:HD2	2:CE:20:GLU:N	1.76	0.82
24:BA:1332:G:H21	24:BA:1610:A:H8	1.25	0.82
8:AK:51:VAL:HG11	8:AK:60:ARG:HD2	1.62	0.82
24:DA:2111:C:O2	24:DA:2118:U:O2'	1.98	0.82
42:DT:24:GLY:O	42:DT:82:GLN:HA	1.78	0.82
35:BP:12:GLN:HG2	35:BP:73:PRO:HD2	1.60	0.82
41:BS:84:ARG:HB2	41:BS:96:ILE:HD11	1.62	0.82
2:CE:84:GLU:HG3	2:CE:215:LEU:HB3	1.60	0.82
27:DE:11:MET:HA	27:DE:24:THR:HA	1.60	0.82
5:AH:69:VAL:HG12	5:AH:71:LEU:HD21	1.60	0.82
17:AT:64:PRO:HA	17:AT:70:ARG:HG3	1.60	0.82
24:DA:1630:G:N2	24:DA:1636:C:O2	2.13	0.82
48:BX:38:GLU:N	48:BX:38:GLU:OE1	2.12	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:CX:9:ARG:HG2	21:CX:10:ARG:N	1.95	0.82
24:DA:2344:U:OP1	51:D6:37:ARG:CZ	2.28	0.82
19:AV:18:LYS:O	19:AV:22:LEU:HD13	1.80	0.82
40:B2:35:LEU:HD22	40:B2:35:LEU:H	1.44	0.82
2:CE:187:LEU:HD13	2:CE:205:ASP:HA	1.62	0.82
28:DF:25:PRO:CB	28:DF:28:ILE:HG13	2.06	0.82
49:D4:16:CYS:HB3	49:D4:20:ASN:N	1.95	0.82
26:DD:25:THR:HG22	26:DD:82:ILE:H	1.44	0.82
44:BV:19:ARG:NH1	44:BV:84:GLU:HB2	1.95	0.82
10:CM:48:THR:HG23	10:CM:62:HIS:HB3	1.61	0.82
43:DU:39:VAL:HG23	43:DU:40:GLU:H	1.43	0.82
24:BA:2400:G:O4'	51:B6:19:ARG:CZ	2.27	0.82
46:BZ:86:SER:O	46:BZ:90:ILE:HG13	1.80	0.82
29:DG:139:LEU:HD12	29:DG:140:ILE:N	1.94	0.82
2:CE:8:LYS:HB3	2:CE:217:ARG:NE	1.95	0.82
10:CM:54:PHE:CZ	10:CM:55:LYS:HE3	2.15	0.82
20:CW:29:LYS:O	20:CW:33:ILE:HG12	1.78	0.82
24:BA:1790:C:H5''	24:BA:1791:A:OP1	1.80	0.82
24:BA:2470:G:H5'	35:BP:56:ARG:HH21	1.44	0.82
1:CA:429:U:P	4:CG:13:ARG:HH21	2.03	0.81
4:AG:29:PRO:O	4:AG:34:GLU:HG3	1.80	0.81
2:AE:217:ARG:O	2:AE:220:ASP:N	2.13	0.81
24:DA:78:A:H2'	24:DA:79:G:C8	2.14	0.81
20:CW:10:LEU:HD21	20:CW:12:ALA:CB	2.10	0.81
3:CF:85:ARG:N	3:CF:85:ARG:HD2	1.93	0.81
24:BA:2531:A:N6	24:BA:2661:G:O6	2.13	0.81
42:DT:6:ASP:OD2	47:DW:29:LYS:NZ	2.10	0.81
4:CG:18:LYS:CB	4:CG:33:MET:SD	2.68	0.81
1:CA:1150:U:O2	10:CM:39:PRO:HG2	1.80	0.81
19:AV:36:ARG:CG	19:AV:51:VAL:CG1	2.57	0.81
29:DG:113:ARG:HB3	29:DG:140:ILE:HB	1.62	0.81
1:AA:1296:C:OP1	13:AP:44:ARG:NH2	2.12	0.81
29:BG:77:ILE:HG21	29:BG:80:PHE:HE1	1.43	0.81
39:D1:66:ASN:HD21	39:D1:70:ARG:NE	1.78	0.81
26:DD:25:THR:HG21	26:DD:81:ALA:HA	1.61	0.81
6:AI:14:LEU:HD21	6:AI:18:GLN:HB2	1.62	0.81
26:DD:166:GLN:HB3	26:DD:174:ILE:HG22	1.60	0.81
12:CO:70:ILE:HD13	12:CO:77:LEU:HD12	1.60	0.81
24:BA:2849:U:H4'	24:BA:2868:A:C2	2.15	0.81
1:AA:224:C:H2'	1:AA:225:C:C6	2.13	0.81
28:BF:178:PRO:HB2	28:BF:201:VAL:HG11	1.62	0.81
7:CJ:69:VAL:HG22	7:CJ:135:VAL:HG22	1.60	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:597:G:C2'	1:CA:598:U:H5'	2.09	0.81
1:CA:979:C:H3'	1:CA:980:C:H5''	1.62	0.81
14:CQ:29:ARG:NH2	14:CQ:40:CYS:SG	2.54	0.81
24:DA:2748:A:O3'	30:DH:6:ARG:NE	2.13	0.81
24:DA:2748:A:C2'	30:DH:6:ARG:NH2	2.42	0.81
5:AH:43:LEU:HD21	5:AH:132:ALA:HB1	1.60	0.81
24:BA:1061:U:H4'	24:BA:1070:A:H1'	1.62	0.81
24:BA:1057:A:H2'	24:BA:1058:U:C6	2.15	0.81
40:B2:49:THR:HB	40:B2:50:PRO:CD	2.09	0.81
1:CA:1291:G:O3'	9:CL:38:GLN:HG2	1.80	0.81
24:DA:1056:G:H5''	24:DA:1057:A:C5'	2.10	0.81
34:DO:48:PRO:HG2	34:DO:49:ARG:H	1.44	0.81
24:DA:634:C:H2'	24:DA:635:C:C6	2.15	0.81
1:CA:1052:U:H5''	1:CA:1053:G:OP2	1.81	0.81
1:AA:186(B):C:O4'	20:AW:89:ARG:NH2	2.13	0.81
11:CN:27:ASN:OD1	11:CN:28:THR:N	2.13	0.81
24:BA:1567:A:C5'	26:BD:58:HIS:CD2	2.62	0.81
12:CO:71:PRO:O	12:CO:102:ARG:NH1	2.13	0.81
2:CE:121:LEU:O	2:CE:121:LEU:HD23	1.79	0.81
41:BS:68:ARG:O	41:BS:110:LYS:N	2.13	0.81
18:AU:66:LEU:HD11	18:AU:70:ILE:HD11	1.59	0.81
17:AT:74:LEU:HD12	17:AT:75:ARG:HG2	1.62	0.81
43:BU:81:LYS:NZ	43:BU:96:ILE:CD1	2.34	0.81
49:B4:42:PHE:O	49:B4:43:TYR:CD2	2.34	0.81
10:AM:94:VAL:HG12	10:AM:95:GLU:N	1.96	0.81
24:DA:1434:A:H61	24:DA:1558:A:N6	1.79	0.81
25:BB:37:C:H2'	25:BB:38:C:H5'	1.61	0.81
32:BM:75:TYR:CE2	32:BM:77:GLY:HA2	2.14	0.81
7:AJ:16:LEU:CD1	9:AL:42:ARG:HA	2.08	0.81
1:CA:1292:U:O4'	9:CL:38:GLN:OE1	1.99	0.81
43:DU:42:VAL:HG11	43:DU:67:LEU:HD13	1.61	0.81
5:CH:78:HIS:CG	8:CK:104:ARG:HD2	2.15	0.81
4:AG:173:TRP:HA	4:AG:186:LEU:CD1	2.10	0.81
24:BA:860:U:H5	24:BA:917:A:N1	1.77	0.81
40:D2:70:ILE:O	40:D2:71:LEU:HG	1.80	0.81
27:BE:105:THR:HB	27:BE:197:ILE:HG12	1.61	0.81
24:DA:270(K):C:O2	24:DA:270(N):G:N2	2.14	0.81
11:AN:27:ASN:OD1	11:AN:28:THR:N	2.12	0.81
24:BA:2074:U:H2'	24:BA:2075:U:C6	2.16	0.81
10:AM:26:ALA:HA	10:AM:29:ARG:HE	1.44	0.81
1:CA:1127:G:C4'	9:CL:66:ARG:HH12	1.93	0.81
10:CM:68:HIS:HD2	10:CM:70:ARG:HH12	1.27	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CM:9:ARG:HH21	10:CM:95:GLU:HB3	1.45	0.81
24:DA:2344:U:O2'	51:D6:39:TYR:HE1	1.63	0.81
24:DA:2394:C:OP1	34:DO:63:PRO:HD2	1.81	0.81
30:DH:3:ARG:NH2	30:DH:7:LEU:HD13	1.96	0.81
2:CE:10:LEU:HD12	2:CE:13:ALA:HB2	1.62	0.81
24:BA:606:U:H4'	24:BA:658:C:H4'	1.63	0.81
38:DR:6:LEU:HA	38:DR:9:LEU:HB2	1.62	0.81
24:DA:1654:A:O5'	36:D0:2:ARG:CZ	2.29	0.81
24:DA:2470:G:H5'	35:DP:56:ARG:HH22	1.45	0.81
27:BE:174:ASP:OD1	27:BE:175:VAL:N	2.13	0.81
24:BA:784:A:C5	26:BD:229:VAL:HG21	2.16	0.81
13:CP:23:TYR:HB3	13:CP:67:GLU:HA	1.63	0.81
24:DA:2346:A:H5''	24:DA:2383:G:H1'	1.62	0.81
26:BD:65:ILE:HD11	26:BD:67:PHE:CD1	2.15	0.81
34:BO:57:THR:HG23	34:BO:59:LEU:CB	2.11	0.81
24:DA:1441:G:O2'	24:DA:1442:G:H5'	1.81	0.81
24:DA:2105:C:H2'	24:DA:2106:G:C8	2.15	0.81
24:DA:1542:G:H3'	24:DA:1543:A:H5''	1.63	0.81
24:DA:2377:A:H1'	37:DQ:112:PHE:CG	2.16	0.81
29:BG:112:PRO:CA	49:B4:37:SER:HB2	2.11	0.81
26:BD:35:LYS:CG	26:BD:64:ILE:N	2.42	0.81
44:BV:141:VAL:HB	44:BV:144:LEU:CD2	2.10	0.81
12:CO:27:LEU:HD11	12:CO:62:SER:OG	1.80	0.81
3:AF:152:ILE:HG13	3:AF:167:TRP:HB2	1.63	0.81
37:DQ:36:TYR:HD1	37:DQ:36:TYR:H	1.25	0.81
20:AW:44:ALA:CB	20:AW:88:VAL:HG13	2.10	0.81
6:AI:19:LEU:HD21	6:AI:23:LYS:HE2	1.62	0.81
13:AP:58:GLU:O	13:AP:62:ASN:ND2	2.11	0.81
24:DA:2377:A:N9	37:DQ:112:PHE:HD1	1.79	0.81
9:AL:48:GLU:CA	9:AL:78:LYS:NZ	2.44	0.81
13:AP:7:VAL:HG12	13:AP:8:GLU:N	1.95	0.81
2:AE:74:LYS:NZ	2:AE:166:ASP:CB	2.44	0.81
24:BA:1060:U:H1'	24:BA:1061:U:OP2	1.80	0.81
51:D6:9:LEU:HG	51:D6:27:LYS:CA	2.07	0.81
24:BA:2157:G:O2'	24:BA:2158:A:O4'	1.98	0.81
1:AA:1128:C:H4'	9:AL:16:ARG:NH1	1.96	0.81
28:BF:57:VAL:CG1	28:BF:59:TYR:HD1	1.93	0.81
46:DZ:76:ARG:HD2	46:DZ:94:LEU:HD22	1.62	0.81
24:BA:1364:G:N7	46:BZ:2:SER:HB3	1.95	0.81
24:DA:1607:C:H5''	24:DA:1608:A:H5'	1.61	0.81
35:BP:79:LEU:C	35:BP:79:LEU:HD12	2.00	0.81
9:CL:16:ARG:CZ	9:CL:64:THR:HG21	2.11	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:28:GLU:CB	26:BD:29:PRO:CD	2.59	0.81
9:CL:2:GLU:HG2	9:CL:3:GLN:N	1.94	0.81
24:DA:621:A:H2'	24:DA:622:G:H5'	1.61	0.81
52:B7:9:ARG:HE	52:B7:48:LYS:HB2	1.46	0.81
18:CU:41:LYS:HD3	18:CU:41:LYS:O	1.79	0.81
2:AE:55:PHE:HD1	2:AE:58:ILE:HD12	1.44	0.81
30:DH:127:GLU:HG2	30:DH:128:PRO:HD2	1.63	0.81
26:DD:147:LEU:HD13	26:DD:155:LEU:HD11	1.63	0.81
38:BR:42:ILE:O	38:BR:42:ILE:HD12	1.81	0.81
1:CA:957:U:H1'	1:CA:960:U:H5	1.46	0.80
19:CV:36:ARG:CD	19:CV:72:GLY:HA2	2.05	0.80
24:DA:2376:A:N3	37:DQ:112:PHE:HB3	1.96	0.80
53:B8:29:LYS:HG2	53:B8:44:LYS:HG2	1.62	0.80
37:BQ:110:LEU:HD11	37:BQ:111:GLU:O	1.81	0.80
24:BA:1091:G:H2'	24:BA:1092:C:C4'	2.11	0.80
40:D2:38:LEU:HD11	40:D2:57:VAL:HG12	1.62	0.80
10:CM:4:ILE:HD12	10:CM:100:THR:HG22	1.61	0.80
1:AA:1295:G:O2'	13:AP:14:ARG:NH1	2.14	0.80
34:BO:63:PRO:HB3	53:B8:12:LYS:O	1.81	0.80
3:AF:68:VAL:HG12	3:AF:70:VAL:HG23	1.61	0.80
47:BW:53:LEU:O	47:BW:57:ILE:HG13	1.79	0.80
24:DA:2113:U:H3'	24:DA:2114:A:H8	1.45	0.80
24:DA:1601:G:C8	52:D7:49:ARG:CZ	2.60	0.80
9:CL:73:GLN:O	9:CL:77:ILE:HD12	1.82	0.80
19:CV:31:ILE:HG21	19:CV:49:ILE:HA	1.63	0.80
30:DH:4:ILE:CD1	30:DH:5:GLY:N	2.44	0.80
5:CH:51:VAL:HB	5:CH:52:PRO:CD	2.08	0.80
19:AV:80:TYR:OH	19:AV:83:HIS:HB2	1.80	0.80
29:BG:114:ILE:HD13	29:BG:140:ILE:HG21	1.61	0.80
2:CE:19:HIS:CE1	2:CE:205:ASP:OD1	2.34	0.80
20:AW:14:LYS:O	20:AW:17:ARG:N	2.14	0.80
1:CA:992:U:H1'	1:CA:993:G:OP2	1.80	0.80
10:CM:54:PHE:CE1	10:CM:55:LYS:HE3	2.16	0.80
19:AV:39:THR:CG2	19:AV:40:ILE:H	1.93	0.80
4:AG:8:VAL:HG23	4:AG:21:LEU:HD11	1.63	0.80
1:AA:1319:A:H5''	19:AV:5:LEU:HD23	1.60	0.80
27:DE:60:ASN:ND2	27:DE:63:LEU:CG	2.39	0.80
7:CJ:54:THR:O	7:CJ:56:GLN:N	2.13	0.80
24:BA:2635:C:C5'	27:BE:78:LEU:HA	2.05	0.80
1:AA:102:G:O2'	1:AA:151:A:N3	2.12	0.80
24:DA:1022:G:H1'	24:DA:1023:U:OP2	1.82	0.80
4:AG:23:GLY:HA2	4:AG:112:VAL:HG22	1.62	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:146:GLU:HB2	26:DD:189:CYS:HB3	1.63	0.80
2:CE:8:LYS:HB3	2:CE:217:ARG:CZ	2.12	0.80
1:CA:254:G:N2	17:CT:16:GLN:NE2	2.27	0.80
44:DV:118:GLN:NE2	44:DV:171:ILE:O	2.14	0.80
1:AA:689:C:H2'	1:AA:690:G:H5'	1.63	0.80
24:DA:882:G:O6	24:DA:894:C:N4	2.14	0.80
24:BA:2316:C:O2'	29:BG:128:ARG:NH2	2.15	0.80
24:DA:960:A:H61	35:DP:83:MET:HE3	1.46	0.80
24:DA:2712:U:H1'	24:DA:2712(A):A:C8	2.16	0.80
1:CA:818:G:O2'	1:CA:819:A:H5'	1.80	0.80
1:CA:1317:C:H42	14:CQ:19:ARG:HH22	1.29	0.80
34:DO:64:LYS:CG	34:DO:64:LYS:O	2.28	0.80
43:BU:75:ILE:HG22	43:BU:80:GLY:CA	2.09	0.80
19:AV:36:ARG:HG2	19:AV:51:VAL:HG11	1.62	0.80
37:BQ:108:GLY:O	37:BQ:110:LEU:N	2.13	0.80
44:DV:117:LEU:HD13	44:DV:118:GLN:N	1.96	0.80
24:BA:2701:C:C3'	24:BA:2702:U:H5''	2.11	0.80
24:BA:2123:G:H2'	24:BA:2124:G:C8	2.16	0.80
32:BM:57:ALA:O	32:BM:60:ILE:HG12	1.82	0.80
29:DG:64:THR:OG1	29:DG:94:LEU:HD13	1.80	0.80
6:CI:91:VAL:HG11	18:CU:72:ARG:NH1	1.97	0.80
15:AR:39:LEU:HD13	15:AR:56:LEU:HD13	1.64	0.80
33:DN:4:PRO:O	33:DN:5:GLN:HB2	1.81	0.80
24:BA:1264:G:H5'	50:B5:11:THR:HG21	1.63	0.80
35:DP:78:PRO:O	35:DP:79:LEU:HB3	1.81	0.80
2:CE:196:LEU:HD12	2:CE:197:VAL:HG23	1.64	0.80
1:AA:1260:C:O5'	1:AA:1284:C:H4'	1.82	0.80
14:CQ:29:ARG:CZ	14:CQ:40:CYS:HB3	2.10	0.80
24:DA:870:A:H3'	35:DP:6:ARG:CZ	2.10	0.80
1:AA:1319:A:OP1	19:AV:70:LYS:NZ	2.14	0.80
39:B1:95:LEU:N	39:B1:95:LEU:CD1	2.45	0.80
3:CF:134:ILE:O	3:CF:137:ALA:N	2.14	0.80
44:BV:148:ASP:OD1	44:BV:173:ALA:HA	1.81	0.80
39:D1:100:VAL:O	39:D1:102:GLU:N	2.15	0.80
24:BA:621:A:H2'	24:BA:622:G:H5'	1.64	0.80
40:D2:80:GLN:HE21	40:D2:80:GLN:N	1.78	0.80
28:BF:57:VAL:HG13	28:BF:59:TYR:HD1	1.43	0.80
8:AK:87:SER:HA	8:AK:93:VAL:HG23	1.63	0.80
32:BM:62:VAL:HG22	32:BM:66:LYS:HD2	1.64	0.80
2:AE:69:LEU:HB3	2:AE:162:ILE:HG22	1.62	0.80
32:DM:97:ARG:O	32:DM:99:LEU:N	2.13	0.80
24:DA:1607:C:H4'	24:DA:1608:A:O5'	1.80	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BN:120:GLU:HG2	33:BN:122:LEU:HD11	1.60	0.80
30:DH:46:GLU:HG2	30:DH:47:GLU:H	1.44	0.80
40:B2:15:GLU:CG	40:B2:16:PRO:HD2	2.12	0.80
9:AL:10:ARG:HA	9:AL:104:ARG:HH21	1.45	0.80
7:CJ:45:ASP:CB	7:CJ:115:ARG:NH2	2.35	0.80
30:BH:153:LYS:HD2	30:BH:153:LYS:N	1.95	0.80
30:DH:89:ILE:HD11	30:DH:94:TYR:HB2	1.62	0.80
4:CG:94:LEU:HA	4:CG:97:LEU:HB2	1.62	0.80
1:AA:663:A:H5''	18:AU:61:LYS:HE3	1.64	0.80
24:BA:1535:U:H2'	24:BA:1535:U:O2	1.81	0.80
1:CA:1285:A:H4'	1:CA:1286:A:O5'	1.78	0.80
14:CQ:4:LYS:HA	14:CQ:7:ILE:HG12	1.63	0.80
5:AH:96:PRO:HA	5:AH:117:ASP:OD2	1.82	0.80
10:AM:96:ILE:HD13	10:AM:96:ILE:H	1.47	0.80
1:CA:957:U:C4'	19:CV:79:THR:HG23	2.05	0.80
51:D6:44:ARG:O	51:D6:45:LYS:HB2	1.79	0.80
51:B6:41:PRO:HD2	51:B6:46:HIS:N	1.96	0.80
30:BH:4:ILE:HG12	30:BH:6:ARG:CZ	2.11	0.80
24:DA:2749:A:C4'	30:DH:6:ARG:NH2	2.45	0.80
27:DE:64:LYS:HZ1	27:DE:66:HIS:CG	2.00	0.80
1:CA:993:G:O6	1:CA:1045:C:N4	2.15	0.80
24:BA:1899:G:H22	24:BA:1902:C:H41	0.84	0.80
24:BA:2111:C:C2	24:BA:2118:U:H4'	2.16	0.80
44:BV:108:PRO:CG	44:BV:114:GLY:HA3	2.12	0.80
24:BA:2785:C:O2	27:BE:64:LYS:NZ	2.12	0.80
24:DA:405:U:O2	24:DA:405:U:H3'	1.81	0.80
1:AA:421:U:O4	3:AF:127:ARG:NH2	2.15	0.80
43:BU:83:THR:HG22	43:BU:84:ARG:H	1.45	0.80
19:CV:80:TYR:CE2	19:CV:82:GLY:HA2	2.17	0.80
24:DA:870:A:H5''	35:DP:6:ARG:HG2	1.63	0.80
1:AA:1382:C:H6	7:AJ:79:ARG:NH1	1.80	0.80
40:D2:84:LYS:NZ	40:D2:84:LYS:HB2	1.97	0.80
1:CA:1245:A:N6	1:CA:1291:G:O6	2.15	0.80
4:CG:173:TRP:HD1	4:CG:174:LEU:HG	1.45	0.80
5:CH:76:ILE:HG23	5:CH:77:PRO:HD2	1.63	0.80
24:DA:676:A:H8	24:DA:2069:G:H21	0.87	0.80
4:AG:170:VAL:HG22	4:AG:174:LEU:HB2	1.62	0.80
24:DA:1007:C:OP1	32:DM:35:ARG:NH1	2.15	0.80
20:AW:50:GLU:HB2	20:AW:99:LEU:HD23	1.64	0.80
24:BA:2099:U:N3	24:BA:2190:G:O6	2.14	0.80
24:DA:2646:C:OP2	24:DA:2732:G:O2'	1.99	0.80
27:BE:115:GLY:HA2	27:BE:157:ALA:HB1	1.63	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:410:G:H3'	4:CG:25:ARG:NH2	1.97	0.80
9:AL:48:GLU:HB2	9:AL:78:LYS:CE	2.11	0.80
19:AV:19:VAL:CG1	19:AV:44:MET:HB3	2.11	0.80
44:BV:151:HIS:CE1	44:BV:154:ASP:N	2.49	0.80
43:DU:13:VAL:CG2	43:DU:72:VAL:HB	2.11	0.80
38:BR:24:PRO:HD3	38:BR:52:ILE:HD12	1.64	0.80
24:BA:620:G:H4'	24:BA:621:A:H5''	1.64	0.80
20:AW:72:LEU:HD23	20:AW:73:HIS:N	1.96	0.80
1:CA:558:G:H2'	1:CA:559:A:H2	1.47	0.80
26:DD:92:ILE:HD12	26:DD:104:TYR:CE2	2.17	0.80
24:DA:2099:U:H2'	24:DA:2100:G:H5''	1.64	0.80
27:DE:5:LEU:HD22	27:DE:197:ILE:HG22	1.63	0.80
52:B7:43:THR:HG23	52:B7:44:PRO:HD2	1.64	0.80
44:BV:7:ALA:HB2	44:BV:59:LEU:CD2	2.11	0.80
1:CA:638:G:O2'	1:CA:639:G:H5'	1.82	0.80
5:CH:110:LEU:O	5:CH:115:VAL:HG22	1.82	0.80
25:BB:103:U:O2'	44:BV:72:ARG:HG2	1.82	0.80
3:AF:73:PRO:HA	3:AF:76:VAL:HG22	1.63	0.80
1:AA:1179:A:OP2	9:AL:93:ARG:NH2	2.16	0.79
24:BA:1601:G:C5'	52:B7:49:ARG:NH2	2.37	0.79
20:AW:47:GLY:O	20:AW:49:ALA:N	2.14	0.79
27:DE:64:LYS:NZ	27:DE:68:ALA:HB3	1.97	0.79
26:DD:30:GLU:OE1	26:DD:63:ARG:NE	2.13	0.79
17:CT:97:SER:HA	17:CT:101:ARG:NE	1.96	0.79
45:B3:49:LYS:HD2	45:B3:82:ARG:NH2	1.97	0.79
45:D3:53:MET:HG3	45:D3:59:LEU:HD23	1.63	0.79
25:DB:55:U:O2'	25:DB:56:G:H5'	1.82	0.79
41:DS:66:GLU:O	41:DS:68:ARG:N	2.12	0.79
24:DA:71:A:H5''	24:DA:73:A:C8	2.17	0.79
24:DA:592:G:H21	53:D8:4:MET:CE	1.94	0.79
24:BA:95:G:H4'	47:BW:46:GLN:CD	2.03	0.79
12:AO:30:ALA:HB1	12:AO:31:PRO:HD2	1.64	0.79
2:AE:215:LEU:HD22	2:AE:215:LEU:H	1.46	0.79
28:DF:7:TYR:CD1	28:DF:18:ARG:HB2	2.18	0.79
38:DR:55:ASN:N	38:DR:59:THR:HG22	1.95	0.79
24:DA:1085:A:OP2	24:DA:1085:A:H2'	1.82	0.79
24:BA:176:G:C2'	24:BA:177:G:H5'	2.12	0.79
24:DA:1019:U:HO2'	24:DA:1021:A:H2	1.29	0.79
8:CK:119:LEU:CD2	8:CK:124:ALA:HA	2.11	0.79
3:CF:14:ILE:HG12	3:CF:15:THR:H	1.47	0.79
13:CP:62:ASN:HA	49:D4:49:PHE:HZ	1.47	0.79
24:DA:2393:A:H5''	53:D8:30:ARG:CZ	2.11	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CM:79:ARG:HH12	10:CM:80:LYS:HG3	1.44	0.79
46:DZ:90:ILE:HG13	46:DZ:90:ILE:O	1.81	0.79
24:DA:1336:A:P	42:DT:64:LYS:HE3	2.21	0.79
34:DO:21:ARG:CA	34:DO:21:ARG:HE	1.95	0.79
24:DA:996:A:OP2	39:D1:92:ARG:NH2	2.15	0.79
40:D2:7:THR:HG23	40:D2:22:VAL:HG21	1.65	0.79
29:DG:5:VAL:O	29:DG:7:LEU:N	2.16	0.79
1:AA:626:U:H5''	16:AS:38:TYR:CE2	2.17	0.79
2:CE:180:LEU:O	2:CE:182:ILE:HG13	1.82	0.79
31:BK:38:LEU:HD12	31:BK:38:LEU:H	1.45	0.79
5:CH:150:ARG:O	5:CH:151:LEU:HB2	1.81	0.79
24:BA:1246:A:OP1	34:BO:15:ARG:NH2	2.15	0.79
34:DO:126:VAL:HA	34:DO:145:PRO:HG2	1.63	0.79
1:CA:452:A:H1'	16:CS:72:ARG:CZ	2.12	0.79
40:D2:49:THR:HB	40:D2:50:PRO:HD2	1.64	0.79
29:DG:60:LEU:O	29:DG:64:THR:HG22	1.82	0.79
42:BT:50:LYS:H	42:BT:87:GLN:HE22	1.29	0.79
1:CA:345:C:O2	1:CA:346:G:N2	2.15	0.79
1:CA:716:A:N3	11:CN:118:GLY:HA2	1.96	0.79
1:CA:421:U:O2	1:CA:421:U:H2'	1.82	0.79
26:BD:130:ALA:C	26:BD:131:LEU:HD12	2.03	0.79
30:DH:104:GLU:HG2	30:DH:105:LEU:H	1.45	0.79
24:DA:2404:C:O3'	34:DO:77:ARG:NH2	2.15	0.79
20:CW:51:GLU:HA	20:CW:54:LYS:HE3	1.65	0.79
1:CA:1289:A:H5''	21:CX:10:ARG:NH2	1.96	0.79
40:D2:37:VAL:HG23	40:D2:38:LEU:HD13	1.65	0.79
2:CE:19:HIS:NE2	2:CE:20:GLU:HG2	1.97	0.79
10:CM:81:THR:HA	10:CM:84:GLN:HE21	1.48	0.79
38:BR:5:ALA:HB2	38:BR:8:LYS:HE2	1.64	0.79
6:AI:36:ARG:NH2	6:AI:38:GLU:OE2	2.14	0.79
1:CA:15:G:H4'	5:CH:24:ARG:NH1	1.97	0.79
49:B4:12:ALA:CB	49:B4:29:PRO:HA	2.12	0.79
24:BA:1728:G:H8	24:BA:1732:A:H62	1.27	0.79
28:DF:188:ARG:HA	34:DO:3:LEU:HD11	1.64	0.79
4:AG:141:ARG:HB3	4:AG:142:PRO:HD2	1.64	0.79
3:CF:190:ARG:N	3:CF:190:ARG:HD2	1.98	0.79
24:BA:11:G:H2'	24:BA:12:U:H5'	1.64	0.79
1:CA:976:G:C8	1:CA:1358:U:H2'	2.18	0.79
19:CV:49:ILE:HG23	19:CV:62:ILE:CD1	2.12	0.79
7:CJ:78:ARG:NH2	7:CJ:87:VAL:H	1.77	0.79
1:AA:1157:A:H62	1:AA:1178:G:N2	1.79	0.79
4:AG:28:SER:HB3	4:AG:29:PRO:HD2	1.62	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:110:LEU:HD22	37:BQ:112:PHE:CE2	2.18	0.79
2:AE:97:TRP:CH2	2:AE:176:GLU:OE2	2.36	0.79
19:CV:11:VAL:HG22	19:CV:39:THR:N	1.94	0.79
25:DB:42:C:O2'	49:D4:6:HIS:HE1	1.66	0.79
24:BA:661:C:O2'	34:BO:13:ASN:O	2.00	0.79
24:DA:598:G:H1'	34:DO:12:ALA:HB2	1.64	0.79
14:AQ:13:THR:N	14:AQ:14:PRO:CD	2.46	0.79
16:AS:43:LYS:HG3	16:AS:48:TRP:CZ3	2.17	0.79
24:BA:602:G:N2	24:BA:655:A:N7	2.30	0.79
1:CA:673:G:H2'	1:CA:674:G:C8	2.18	0.79
24:DA:2679:A:H4'	27:DE:165:VAL:HG11	1.64	0.79
24:DA:1925:C:C2'	24:DA:1926:U:H5'	2.12	0.79
24:BA:1991:U:C2'	24:BA:1992:G:H5''	2.12	0.79
1:CA:409:G:H2'	1:CA:410:G:O4'	1.83	0.79
19:CV:49:ILE:CD1	19:CV:51:VAL:HG23	2.11	0.79
1:AA:1158:C:H2'	1:AA:1158:C:O2	1.82	0.79
30:BH:109:PHE:O	30:BH:111:HIS:N	2.14	0.79
36:B0:38:VAL:HB	36:B0:39:PRO:HD3	1.65	0.79
49:B4:62:ARG:O	49:B4:66:SER:OG	2.00	0.79
3:AF:150:LYS:HE3	3:AF:152:ILE:HD11	1.65	0.79
24:BA:1528:A:H2	24:BA:1542:G:C2	2.01	0.79
45:D3:72:ARG:HE	45:D3:75:LEU:HD12	1.47	0.79
1:CA:297:G:N2	1:CA:300:A:OP2	2.16	0.79
1:AA:1382:C:C4'	7:AJ:79:ARG:HH11	1.96	0.79
19:AV:36:ARG:HG2	19:AV:51:VAL:HG13	1.64	0.79
27:DE:63:LEU:O	27:DE:64:LYS:CD	2.31	0.79
2:CE:44:LEU:O	2:CE:47:THR:N	2.13	0.79
24:DA:1105:U:H2'	24:DA:1106:G:H8	1.47	0.79
10:AM:49:VAL:CG2	14:AQ:41:ARG:HB2	2.13	0.79
30:DH:92:ILE:HG23	30:DH:93:GLY:N	1.95	0.79
1:CA:1105:A:H5'	2:CE:111:ARG:HH22	1.48	0.79
31:BK:110:ASP:N	31:BK:130:TYR:OH	2.14	0.79
2:AE:44:LEU:HD12	2:AE:44:LEU:N	1.98	0.79
16:AS:5:ARG:O	16:AS:19:ILE:HD13	1.82	0.79
27:DE:105:THR:OG1	27:DE:199:ARG:NH2	2.15	0.79
9:AL:47:LEU:HD13	9:AL:47:LEU:H	1.45	0.79
1:CA:951:G:OP2	13:CP:102:ARG:NH2	2.16	0.79
15:AR:33:THR:O	15:AR:37:ASN:ND2	2.15	0.79
14:CQ:29:ARG:CZ	14:CQ:40:CYS:SG	2.71	0.79
9:AL:48:GLU:CA	9:AL:78:LYS:HZ3	1.94	0.79
4:AG:21:LEU:HD12	4:AG:22:LYS:N	1.98	0.79
24:DA:2749:A:P	30:DH:6:ARG:HE	2.06	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:64:LYS:HE2	27:DE:73:GLU:OE2	1.83	0.79
24:BA:1092:C:O2'	30:BH:170:ARG:NH2	2.16	0.79
24:DA:1069:A:O2'	24:DA:1072:C:OP2	2.01	0.79
44:BV:108:PRO:HB2	44:BV:115:GLY:N	1.97	0.79
1:AA:1124:G:O2'	10:AM:38:ILE:HD12	1.81	0.79
1:CA:66:G:H4'	1:CA:173:U:C5	2.17	0.79
45:D3:72:ARG:HH21	45:D3:75:LEU:CD1	1.96	0.79
24:DA:784:A:O2'	24:DA:785:G:H5''	1.82	0.79
24:BA:370:G:H4'	24:BA:371:A:OP2	1.82	0.79
50:B5:39:MET:O	50:B5:40:LYS:HG3	1.83	0.79
1:CA:983:A:H2	1:CA:984:C:C6	2.00	0.79
24:DA:2343:C:HO2'	24:DA:2373:G:HO2'	0.96	0.79
53:D8:30:ARG:CG	53:D8:30:ARG:O	2.30	0.79
43:BU:101:LYS:HB3	43:BU:101:LYS:HZ2	1.48	0.79
1:AA:1320:C:P	19:AV:3:ARG:HH21	1.99	0.79
44:BV:51:ALA:HB1	44:BV:57:ILE:CD1	2.11	0.79
43:BU:55:TYR:CE1	43:BU:61:ILE:HD11	2.18	0.79
24:DA:1065:U:O4	24:DA:1073:A:N6	2.15	0.79
24:BA:2111:C:O2	24:BA:2118:U:O2'	1.98	0.79
24:BA:2147:G:H2'	24:BA:2148:G:O4'	1.83	0.79
39:B1:74:LEU:CD1	39:B1:79:PHE:HB2	2.11	0.79
19:CV:41:VAL:HB	19:CV:42:PRO:HD2	1.65	0.79
40:B2:15:GLU:HG3	40:B2:16:PRO:HD2	1.63	0.79
25:DB:89(A):A:N7	25:DB:90:C:H1'	1.98	0.79
24:BA:558:G:P	32:BM:111:PRO:HG2	2.23	0.79
32:DM:15:LEU:HD13	32:DM:16:ILE:N	1.98	0.79
53:D8:59:LYS:HZ2	53:D8:59:LYS:HB2	1.48	0.79
24:DA:2343:C:H2'	24:DA:2344:U:H5'	1.63	0.78
1:AA:1117:G:H4'	9:AL:104:ARG:NH1	1.99	0.78
7:CJ:89:MET:HA	7:CJ:155:ARG:HH12	0.65	0.78
24:DA:871:U:OP1	35:DP:4:PRO:HA	1.82	0.78
27:DE:63:LEU:O	27:DE:64:LYS:HD3	1.82	0.78
24:BA:1069:A:H4'	24:BA:1070:A:O5'	1.82	0.78
29:DG:161:THR:HG22	29:DG:163:ALA:N	1.97	0.78
2:AE:12:GLU:HA	2:AE:16:HIS:CD2	2.18	0.78
35:BP:66:ILE:HD12	35:BP:67:ARG:H	1.47	0.78
24:DA:2355:C:H5'	45:D3:36:ILE:HD11	1.63	0.78
24:DA:1012:U:O4	32:DM:28:THR:HG21	1.82	0.78
24:BA:805:G:O4'	34:BO:38:GLN:NE2	2.15	0.78
18:CU:66:LEU:O	18:CU:70:ILE:HG13	1.81	0.78
14:AQ:26:ARG:HH11	14:AQ:43:CYS:HB2	1.48	0.78
24:DA:971:C:C2'	24:DA:972:G:H5'	2.12	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BN:98:VAL:HG12	33:BN:117:LEU:HB2	1.65	0.78
24:DA:481:G:OP2	43:DU:47:LYS:HB2	1.83	0.78
24:DA:2808:U:C2'	24:DA:2809:A:H5'	2.12	0.78
24:DA:1093:G:H22	24:DA:1097:U:H5''	1.48	0.78
24:DA:328:U:H4'	43:DU:68:HIS:CE1	2.17	0.78
28:DF:67:GLN:O	28:DF:67:GLN:HG3	1.82	0.78
34:BO:126:VAL:HG22	34:BO:145:PRO:CG	2.13	0.78
18:AU:18:ARG:HG2	18:AU:19:LYS:N	1.98	0.78
35:BP:110:THR:HG23	35:BP:113:GLN:OE1	1.83	0.78
1:CA:659:U:H5''	15:CR:9:GLN:HE22	1.47	0.78
47:BW:33:MET:HG3	47:BW:37:PHE:CE1	2.18	0.78
24:DA:654(H):G:H3'	24:DA:654(I):C:H5''	1.65	0.78
24:DA:1405:U:H2'	24:DA:1406:U:C6	2.18	0.78
24:DA:2376:A:H3'	24:DA:2377:A:H8	1.46	0.78
24:DA:871:U:H5'	35:DP:69:PHE:CE2	2.17	0.78
30:DH:3:ARG:HH22	30:DH:7:LEU:HD13	1.47	0.78
2:CE:185:ILE:CG2	2:CE:199:TYR:HB2	2.12	0.78
24:DA:660:G:H21	34:DO:12:ALA:CA	1.96	0.78
45:D3:53:MET:HG3	45:D3:59:LEU:HD21	1.65	0.78
8:AK:49:GLU:O	8:AK:51:VAL:N	2.15	0.78
27:BE:106:GLY:HA3	27:BE:189:PRO:HB2	1.65	0.78
1:CA:706:A:O4'	11:CN:29:ILE:HD11	1.84	0.78
24:DA:1012:U:O2	32:DM:25:ARG:NH1	2.15	0.78
4:CG:196:LEU:HB3	4:CG:197:PRO:HD2	1.64	0.78
42:DT:8:ILE:CD1	42:DT:43:VAL:HG12	2.13	0.78
15:AR:71:GLN:HB3	15:AR:78:TYR:CD1	2.18	0.78
24:DA:1582:C:HO2'	24:DA:1586:A:H8	1.26	0.78
14:AQ:2:ALA:HB1	14:AQ:6:LEU:HD11	1.65	0.78
1:CA:428:G:OP2	4:CG:10:ARG:HD2	1.84	0.78
1:CA:980:C:H3'	1:CA:981:U:H6	1.48	0.78
24:DA:2378:A:H4'	37:DQ:23:ARG:NH1	1.98	0.78
12:AO:47:LYS:HB3	12:AO:48:PRO:HD3	1.65	0.78
24:BA:1093:G:H5'	30:BH:170:ARG:HH22	1.47	0.78
39:B1:92:ARG:HD3	39:B1:95:LEU:CD1	2.13	0.78
2:CE:17:PHE:CD2	2:CE:44:LEU:HD21	2.18	0.78
36:B0:36:THR:HG22	36:B0:37:THR:N	1.97	0.78
4:AG:186:LEU:CD1	4:AG:187:ARG:HG2	2.13	0.78
1:AA:15:G:H4'	5:AH:24:ARG:NH1	1.96	0.78
1:CA:1005:A:H3'	1:CA:1006:C:C5'	2.12	0.78
7:CJ:75:VAL:CG1	7:CJ:145:ALA:HA	2.12	0.78
20:CW:57:ARG:HH21	20:CW:102:GLY:HA2	1.48	0.78
1:CA:750:G:H1'	15:CR:22:THR:OG1	1.82	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:470:A:OP1	28:DF:59:TYR:HE1	1.64	0.78
2:AE:5:ILE:HG22	2:AE:221:LEU:HD23	1.64	0.78
1:AA:612:C:O2	1:AA:629:G:N2	2.16	0.78
24:DA:1601:G:P	52:D7:49:ARG:NH2	2.56	0.78
24:DA:1600:C:H2'	52:D7:49:ARG:CD	2.14	0.78
13:CP:19:LEU:O	13:CP:22:ILE:HG13	1.82	0.78
1:AA:1179:A:H4'	9:AL:103:THR:HA	1.66	0.78
9:AL:95:LYS:HD3	9:AL:96:LEU:HD12	1.66	0.78
1:AA:509:A:O2'	1:AA:510:A:OP1	2.01	0.78
24:DA:2751:G:H1'	30:DH:4:ILE:O	1.84	0.78
24:BA:1076:C:H2'	24:BA:1077:A:H5''	1.65	0.78
27:DE:2:LYS:NZ	27:DE:95:ILE:O	2.15	0.78
38:BR:54:ARG:HA	38:BR:59:THR:CG2	2.13	0.78
10:AM:83:GLU:O	10:AM:87:THR:HG23	1.83	0.78
10:AM:34:VAL:HG12	10:AM:74:ILE:HG23	1.66	0.78
47:DW:51:ARG:HA	47:DW:54:LYS:HG2	1.64	0.78
24:BA:2389:G:H5''	24:BA:2390:U:H5'	1.62	0.78
24:BA:1833:U:H2'	24:BA:1834:U:H6	1.47	0.78
41:BS:79:GLY:HA3	41:BS:100:THR:HG22	1.63	0.78
24:DA:1488:G:H5'	24:DA:1489:U:OP2	1.82	0.78
1:CA:1240:U:H3	7:CJ:32:ARG:HH21	1.32	0.78
24:DA:870:A:OP1	35:DP:6:ARG:CD	2.31	0.78
24:DA:2748:A:O2'	30:DH:6:ARG:NH2	2.16	0.78
34:BO:75:ILE:H	34:BO:75:ILE:CD1	1.94	0.78
28:BF:29:ASN:H	28:BF:112:MET:CE	1.97	0.78
24:BA:242:G:C5'	53:B8:62:LEU:HD13	2.12	0.78
24:BA:71:A:H2	42:BT:31:HIS:CE1	2.00	0.78
8:AK:20:TYR:HE2	8:AK:75:ARG:HB3	1.48	0.78
22:AC:8:U:O2	22:AC:14:A:N6	2.17	0.78
30:BH:168:PRO:O	30:BH:169:VAL:HG12	1.83	0.78
1:AA:1167:A:H2'	1:AA:1169:A:C8	2.19	0.78
24:BA:1420:U:O2'	24:BA:1421:G:OP1	2.01	0.78
1:CA:1254:C:OP1	10:CM:45:ARG:NH1	2.16	0.78
24:BA:1057:A:O2'	24:BA:1058:U:O4'	2.02	0.78
2:CE:16:HIS:HB3	2:CE:209:ARG:HE	1.47	0.78
5:CH:78:HIS:CB	8:CK:104:ARG:HD2	2.13	0.78
39:D1:91:ASP:OD1	39:D1:96:ALA:N	2.17	0.78
24:BA:273(F):C:H3'	24:BA:274:G:H5''	1.65	0.78
3:CF:121:ALA:HB2	3:CF:198:VAL:HG21	1.66	0.78
1:AA:82:U:O2'	1:AA:84:U:OP1	2.02	0.78
50:D5:41:PRO:O	50:D5:44:THR:OG1	2.00	0.78
24:BA:2267:A:N6	24:BA:2272:U:O2	2.16	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2023:G:H5'	24:BA:2617:C:H4'	1.66	0.78
24:DA:1601:G:C5'	52:D7:49:ARG:CZ	2.60	0.78
49:B4:56:VAL:O	49:B4:60:GLN:HG2	1.84	0.78
24:DA:1111:A:C2'	24:DA:1112:G:H4'	2.13	0.78
40:B2:44:LYS:O	40:B2:46:VAL:HG12	1.82	0.78
44:BV:147:GLY:N	44:BV:174:VAL:O	2.13	0.78
42:BT:27:THR:HG22	42:BT:80:ILE:HB	1.66	0.78
1:AA:93:U:H2'	1:AA:95:G:O4'	1.82	0.78
24:BA:2:G:H1	24:BA:2901:C:H42	1.30	0.78
5:CH:110:LEU:HB3	5:CH:115:VAL:HG21	1.66	0.78
12:CO:117:ARG:HB3	12:CO:122:THR:HB	1.66	0.78
50:D5:45:VAL:HG11	50:D5:56:LYS:HG3	1.66	0.78
8:CK:33:GLU:HG3	8:CK:48:TYR:CE2	2.18	0.78
38:DR:24:PRO:HA	38:DR:49:VAL:HG13	1.65	0.78
1:CA:591:U:H2'	1:CA:592:G:H8	1.49	0.78
1:CA:980:C:H3'	1:CA:981:U:C6	2.18	0.78
1:CA:1118:C:C6	9:CL:104:ARG:NH2	2.51	0.78
9:CL:118:LYS:HD2	9:CL:118:LYS:O	1.82	0.78
9:CL:78:LYS:HG2	9:CL:101:PHE:CZ	2.19	0.78
1:CA:1280:A:H5''	10:CM:40:LEU:HD11	1.66	0.78
24:DA:2393:A:OP1	53:D8:27:THR:HA	1.84	0.78
13:AP:11:ARG:HG2	13:AP:46:LYS:HZ2	1.49	0.78
1:CA:1014:A:H1'	19:CV:34:TRP:HB2	1.65	0.78
34:BO:60:MET:O	34:BO:61:ARG:NH2	2.17	0.78
36:B0:74:LYS:HE3	36:B0:77:ARG:HH21	1.49	0.78
17:AT:22:LEU:HD22	17:AT:88:TYR:CD2	2.19	0.78
28:BF:63:LYS:CE	28:BF:67:GLN:HB2	2.14	0.78
48:BX:12:PRO:O	48:BX:20:LYS:NZ	2.16	0.78
34:BO:6:LEU:O	34:BO:7:ARG:HG2	1.83	0.78
14:AQ:12:ARG:C	14:AQ:14:PRO:HD2	2.04	0.78
8:AK:44:PHE:HE2	8:AK:109:ILE:HG22	1.49	0.78
24:BA:1557:C:H5''	24:BA:1558:A:OP2	1.83	0.78
2:CE:124:SER:HB2	2:CE:125:PRO:HD2	1.66	0.78
16:AS:45:THR:HG22	16:AS:47:ASP:H	1.48	0.78
24:BA:2306:C:H3'	24:BA:2307:G:C5'	2.14	0.78
24:BA:2306:C:H3'	24:BA:2307:G:H5'	1.66	0.78
24:DA:443:A:H5''	24:DA:444:C:OP1	1.84	0.78
4:CG:19:LEU:HB2	4:CG:21:LEU:HD11	1.65	0.77
10:CM:40:LEU:HD23	10:CM:69:ASN:HB3	1.66	0.77
9:AL:89:ASN:HB3	9:AL:91:ASP:OD1	1.81	0.77
53:D8:32:LEU:HD12	53:D8:33:ASN:C	2.05	0.77
19:AV:19:VAL:HG13	19:AV:44:MET:HB3	1.65	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BW:43:GLN:C	47:BW:45:SER:H	1.87	0.77
53:B8:52:LYS:N	53:B8:53:PRO:CD	2.42	0.77
30:DH:44:VAL:HG13	30:DH:51:ARG:HG3	1.66	0.77
44:BV:150:LEU:HB3	44:BV:172:ALA:HB3	1.65	0.77
34:BO:18:ARG:O	34:BO:19:VAL:HB	1.82	0.77
1:CA:1203:C:OP1	14:CQ:3:ARG:NE	2.16	0.77
1:CA:1014:A:H5'	19:CV:15:LEU:HD21	1.66	0.77
24:BA:1171:G:H3'	24:BA:1174:A:H61	1.48	0.77
30:BH:77:LYS:CE	30:BH:138:LYS:HD2	2.12	0.77
27:DE:104:VAL:HG11	27:DE:188:VAL:HG23	1.65	0.77
38:DR:8:LYS:NZ	38:DR:8:LYS:HB3	1.97	0.77
1:CA:448:A:P	1:CA:485:G:H22	2.06	0.77
35:DP:74:TYR:O	35:DP:90:VAL:HA	1.84	0.77
24:DA:2165:G:OP2	24:DA:2166:G:N2	2.17	0.77
1:AA:677:U:H3	1:AA:713:G:H22	1.32	0.77
12:CO:20:LYS:HD2	12:CO:20:LYS:N	1.99	0.77
12:AO:59:ARG:HB2	12:AO:59:ARG:HH11	1.49	0.77
24:DA:2243:U:O2'	24:DA:2244:U:H5'	1.84	0.77
12:CO:34:ARG:HG2	12:CO:35:GLY:H	1.47	0.77
1:CA:1206:G:O2'	3:CF:193:TYR:HA	1.84	0.77
13:CP:4:ILE:CD1	13:CP:5:ALA:H	1.97	0.77
1:AA:1381:U:O2	7:AJ:79:ARG:CD	2.32	0.77
1:AA:1320:C:N3	19:AV:36:ARG:NH1	2.31	0.77
27:DE:77:ILE:O	27:DE:77:ILE:CG2	2.32	0.77
46:BZ:91:LYS:N	46:BZ:93:GLU:OE2	2.16	0.77
24:DA:389:G:H22	34:DO:72:PRO:CG	1.96	0.77
24:BA:2139:C:N4	24:BA:2152:G:O6	2.14	0.77
24:DA:2059:A:H5'	24:DA:2060:A:OP2	1.83	0.77
1:AA:452:A:OP1	16:AS:72:ARG:NH2	2.17	0.77
30:DH:25:LYS:HE3	30:DH:27:LYS:H	1.48	0.77
1:CA:666:G:H5'	1:CA:726:C:H1'	1.66	0.77
27:DE:116:VAL:HG22	27:DE:117:MET:H	1.49	0.77
1:CA:748:C:H4'	1:CA:749:C:O5'	1.83	0.77
3:AF:130:VAL:HA	3:AF:133:ALA:HB3	1.65	0.77
27:BE:50:GLY:HA2	27:BE:77:ILE:HA	1.66	0.77
24:BA:2400:G:O5'	51:B6:19:ARG:NE	2.16	0.77
43:BU:96:ILE:HD12	43:BU:98:VAL:CG1	2.13	0.77
43:BU:49:VAL:C	43:BU:51:VAL:H	1.88	0.77
37:BQ:11:LYS:HE3	37:BQ:15:ARG:HH21	1.47	0.77
29:DG:107:LEU:HD23	29:DG:111:LEU:HD11	1.63	0.77
10:CM:81:THR:HA	10:CM:84:GLN:NE2	1.99	0.77
5:CH:76:ILE:HG12	5:CH:77:PRO:HD2	1.63	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:632:A:H2'	1:CA:632:A:OP2	1.84	0.77
27:DE:9:VAL:HG21	27:DE:25:VAL:HB	1.65	0.77
31:DK:131:LYS:HA	31:DK:132:PRO:O	1.85	0.77
24:DA:2712(A):A:H5''	24:DA:2713:A:OP2	1.82	0.77
43:BU:83:THR:HG22	43:BU:84:ARG:N	1.99	0.77
41:BS:51:LEU:HD23	41:BS:105:VAL:HG11	1.67	0.77
15:CR:3:ILE:HD13	15:CR:3:ILE:H	1.49	0.77
4:CG:8:VAL:HG13	4:CG:21:LEU:HD22	1.65	0.77
1:CA:1255:G:OP2	10:CM:45:ARG:NH2	2.17	0.77
1:CA:1329:A:H5'	13:CP:29:ARG:NE	2.00	0.77
9:AL:96:LEU:O	9:AL:99:LEU:CD1	2.31	0.77
24:DA:871:U:C5'	35:DP:69:PHE:CE2	2.68	0.77
24:BA:1060:U:C4	24:BA:1062:G:H4'	2.19	0.77
13:CP:15:VAL:HG12	13:CP:45:VAL:CG2	2.11	0.77
41:DS:73:ALA:O	41:DS:106:ILE:HG12	1.83	0.77
42:BT:24:GLY:O	42:BT:82:GLN:HA	1.85	0.77
41:DS:14:PRO:HB3	41:DS:18:ARG:NH2	2.00	0.77
46:DZ:7:ILE:HD11	46:DZ:70:VAL:HG22	1.65	0.77
42:DT:57:LEU:HD21	42:DT:78:LYS:HB2	1.67	0.77
8:CK:70:GLN:HG2	8:CK:71:GLY:H	1.49	0.77
24:DA:1600:C:H3'	52:D7:49:ARG:HH21	0.67	0.77
19:CV:70:LYS:CE	19:CV:73:GLU:N	2.48	0.77
1:AA:1178:G:P	9:AL:93:ARG:HH12	2.06	0.77
9:AL:99:LEU:CD1	9:AL:101:PHE:CD2	2.67	0.77
24:BA:2399:G:H2'	51:B6:19:ARG:NE	1.99	0.77
40:D2:55:ALA:HA	40:D2:101:GLY:HA3	1.65	0.77
13:CP:3:ARG:HG3	49:D4:32:TYR:CE1	2.19	0.77
19:CV:28:LYS:HZ1	19:CV:30:LEU:N	1.82	0.77
24:BA:1803:A:O2'	26:BD:259:THR:HG21	1.84	0.77
24:DA:90:U:HO2'	24:DA:91:A:H8	1.32	0.77
28:BF:133:ASN:ND2	28:BF:138:GLU:OE2	2.15	0.77
43:DU:61:ILE:HG22	43:DU:62:GLU:HG3	1.67	0.77
1:CA:396:G:O2'	1:CA:398:C:OP1	2.01	0.77
24:BA:1689:A:H62	24:BA:1698:A:H2	1.32	0.77
15:CR:69:TYR:HD1	15:CR:72:ARG:HH21	1.30	0.77
11:AN:84:VAL:HG22	11:AN:109:VAL:O	1.84	0.77
19:CV:31:ILE:HD12	19:CV:32:LYS:N	1.99	0.77
1:AA:1226:C:O2'	13:AP:111:LYS:NZ	2.17	0.77
40:B2:36:PRO:O	40:B2:37:VAL:CG1	2.28	0.77
26:DD:34:VAL:HG21	26:DD:103:ARG:HA	1.66	0.77
24:BA:2210:G:H5'	24:BA:2211:G:N7	2.00	0.77
25:DB:31:C:O2	25:DB:53:A:N6	2.17	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:53:ILE:HG22	44:BV:71:VAL:O	1.85	0.77
44:BV:44:PHE:CZ	44:BV:86:VAL:HG11	2.20	0.77
24:DA:1665:A:H2'	24:DA:1666:G:H5'	1.66	0.77
24:DA:499:U:O4'	43:DU:47:LYS:NZ	2.16	0.77
24:BA:1578:U:H2'	24:BA:1579:A:H5'	1.66	0.77
3:AF:175:LEU:HD21	3:AF:201:TYR:CE2	2.18	0.77
24:DA:1485:G:O2'	24:DA:1486:A:H5'	1.85	0.77
4:AG:177:ASP:HB3	4:AG:182:LYS:HG3	1.65	0.77
24:DA:2213:U:H4'	46:DZ:52:ARG:HH12	1.50	0.77
28:DF:157:VAL:HB	28:DF:194:MET:HG2	1.67	0.77
24:DA:110:G:O2'	24:DA:111:A:H5'	1.84	0.77
19:AV:15:LEU:O	19:AV:19:VAL:HG23	1.84	0.77
19:AV:41:VAL:H	19:AV:44:MET:CE	1.98	0.77
1:AA:1382:C:C4'	7:AJ:79:ARG:NH1	2.47	0.77
29:DG:139:LEU:C	29:DG:139:LEU:HD12	2.04	0.77
28:DF:22:ALA:C	28:DF:24:LEU:H	1.88	0.77
13:AP:11:ARG:CG	13:AP:46:LYS:HZ2	1.98	0.77
29:BG:83:ARG:H	29:BG:86:MET:HE2	1.47	0.77
24:BA:1798:U:H5''	26:BD:259:THR:CG2	2.14	0.77
1:AA:999:U:H2'	1:AA:1000:A:C8	2.19	0.77
37:BQ:71:ARG:HH21	37:BQ:106:ARG:HH21	1.33	0.77
34:BO:38:GLN:HG2	34:BO:45:LEU:HD13	1.66	0.77
1:CA:689:C:C2'	1:CA:690:G:H5'	2.15	0.77
2:CE:126:GLU:O	2:CE:130:ARG:NH1	2.18	0.77
15:CR:15:PHE:O	15:CR:27:VAL:HG22	1.85	0.77
24:DA:1859:A:N6	24:DA:1883:G:O2'	2.18	0.77
30:DH:102:ALA:HB1	30:DH:115:VAL:O	1.85	0.77
24:DA:1600:C:C3'	52:D7:49:ARG:CZ	2.63	0.77
1:CA:1305:G:OP1	21:CX:2:GLY:N	2.18	0.77
24:DA:870:A:OP1	35:DP:6:ARG:HD2	1.84	0.77
50:B5:4:HIS:CB	50:B5:5:PRO:HD3	2.14	0.77
13:CP:45:VAL:O	13:CP:48:LEU:HD22	1.85	0.77
4:CG:189:PRO:HB2	4:CG:194:LEU:HD21	1.66	0.77
1:CA:1213:A:N6	1:CA:1215:G:N3	2.33	0.77
6:AI:62:TRP:CH2	6:AI:64:GLN:HB2	2.20	0.77
24:BA:2210:G:C3'	24:BA:2211:G:C8	2.68	0.77
1:CA:1295:G:O2'	13:CP:14:ARG:NH1	2.18	0.77
24:BA:176:G:O2'	24:BA:177:G:H5'	1.85	0.77
24:BA:1798:U:H5''	26:BD:259:THR:HG22	1.65	0.77
22:CC:59:A:C2'	22:CC:60:U:H5'	2.15	0.77
30:DH:104:GLU:HG2	30:DH:105:LEU:N	2.00	0.77
50:B5:40:LYS:HD3	50:B5:46:CYS:SG	2.23	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DF:199:TRP:CZ3	28:DF:203:GLN:HG3	2.20	0.77
27:DE:12:THR:O	27:DE:23:VAL:HG22	1.85	0.77
24:BA:2378:A:H2'	37:BQ:21:THR:HG21	1.67	0.77
1:CA:878:G:H5'	8:CK:89:PRO:HG2	1.66	0.77
1:AA:1448:C:O2	1:AA:1455:G:N2	2.18	0.77
1:CA:1149:C:P	9:CL:9:ARG:NH1	2.57	0.77
24:DA:329:G:O6	43:DU:19:LYS:NZ	2.15	0.77
1:CA:1106:G:C5'	3:CF:172:ARG:HG2	2.14	0.77
34:BO:57:THR:CG2	34:BO:59:LEU:HB3	2.13	0.77
37:DQ:65:VAL:O	37:DQ:68:GLN:NE2	2.18	0.77
3:AF:190:ARG:CA	3:AF:195:VAL:HG12	2.15	0.77
1:AA:626:U:H2'	1:AA:627:G:C8	2.19	0.77
1:CA:559:A:H4'	1:CA:560:U:H5''	1.65	0.77
8:CK:119:LEU:HD21	8:CK:124:ALA:HA	1.67	0.77
36:D0:28:LEU:HD21	36:D0:114:VAL:HG12	1.66	0.77
25:DB:21:G:H2'	25:DB:22:U:O4'	1.85	0.77
24:BA:2188:C:H2'	24:BA:2189:U:O4'	1.84	0.77
34:BO:85:LEU:HA	34:BO:88:LEU:HD22	1.64	0.77
28:DF:122:LYS:O	28:DF:124:LEU:N	2.18	0.77
26:BD:125:ILE:O	26:BD:125:ILE:HG22	1.83	0.77
4:CG:9:CYS:CB	4:CG:22:LYS:NZ	2.47	0.77
13:CP:4:ILE:HD11	13:CP:8:GLU:HB2	1.67	0.77
19:CV:58:VAL:O	19:CV:60:VAL:HG13	1.85	0.77
19:AV:40:ILE:O	19:AV:41:VAL:HG12	1.84	0.77
24:BA:1601:G:P	52:B7:49:ARG:NH2	2.57	0.77
24:BA:270(N):G:N2	31:BK:50:ARG:NH2	2.32	0.77
29:BG:83:ARG:H	29:BG:86:MET:CG	1.97	0.77
6:CI:23:LYS:CD	6:CI:61:LEU:HD21	2.14	0.77
25:DB:30:C:H2'	25:DB:31:C:H5'	1.66	0.77
24:BA:2790:A:H2	24:BA:2894:G:H5''	1.50	0.77
45:D3:36:ILE:O	45:D3:36:ILE:HD13	1.85	0.77
11:CN:95:ILE:HA	11:CN:98:LEU:HD12	1.65	0.77
24:DA:1162:G:H21	40:D2:89:GLN:HE22	1.30	0.77
24:BA:2352:A:H2'	24:BA:2353:G:H5'	1.66	0.77
5:CH:84:PHE:O	5:CH:86:ALA:N	2.17	0.77
24:DA:2286:A:C5'	51:D6:28:ARG:HG3	2.14	0.76
26:BD:35:LYS:CE	26:BD:104:TYR:HB2	2.15	0.76
4:AG:8:VAL:CG2	4:AG:21:LEU:HD11	2.14	0.76
30:DH:6:ARG:NE	30:DH:66:GLY:HA3	2.00	0.76
29:DG:16:ARG:NH1	29:DG:28:VAL:HG12	2.00	0.76
31:DK:77:LEU:HD22	31:DK:141:LYS:CB	2.03	0.76
44:DV:93:ASP:HA	44:DV:130:PRO:HG2	1.65	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AH:41:VAL:O	5:AH:67:VAL:HG12	1.84	0.76
38:BR:7:ILE:C	38:BR:9:LEU:H	1.89	0.76
6:AI:87:ARG:HG3	6:AI:87:ARG:HH11	1.50	0.76
24:DA:2294:C:H5	37:DQ:13:ARG:HH12	1.31	0.76
30:DH:30:LYS:HG2	30:DH:136:ILE:HG21	1.66	0.76
19:CV:9:VAL:HG21	49:D4:63:TYR:CD1	2.19	0.76
24:DA:2416:C:C5'	34:DO:64:LYS:HZ3	1.96	0.76
30:BH:43:VAL:HG23	30:BH:52:VAL:HG22	1.67	0.76
24:BA:1601:G:P	52:B7:49:ARG:CZ	2.73	0.76
24:BA:1600:C:O3'	52:B7:49:ARG:NH1	2.19	0.76
24:BA:1063:G:N2	24:BA:1076:C:H1'	2.00	0.76
2:CE:28:PHE:CD2	2:CE:32:ILE:CG2	2.67	0.76
28:DF:18:ARG:NH2	28:DF:20:LEU:HD12	1.98	0.76
28:DF:22:ALA:O	28:DF:24:LEU:N	2.18	0.76
38:BR:62:THR:CG2	38:BR:75:ILE:HG12	2.12	0.76
44:BV:150:LEU:CD1	44:BV:154:ASP:OD2	2.32	0.76
3:CF:95:THR:HG22	3:CF:97:LYS:CG	2.15	0.76
13:AP:12:ASN:CA	13:AP:46:LYS:HD3	2.15	0.76
19:CV:22:LEU:CD1	19:CV:27:GLU:HA	2.15	0.76
8:AK:41:ARG:NH1	8:AK:123:GLU:OE1	2.17	0.76
24:BA:2068:U:H3	24:BA:2430:A:H2	0.86	0.76
32:DM:98:VAL:HG23	32:DM:99:LEU:H	1.49	0.76
8:CK:37:ARG:HH11	8:CK:41:ARG:HH22	1.33	0.76
18:AU:72:ARG:O	18:AU:76:LEU:HD23	1.86	0.76
13:CP:96:LEU:HB3	13:CP:97:PRO:HD2	1.67	0.76
19:CV:49:ILE:HD11	19:CV:51:VAL:HG23	1.66	0.76
1:AA:1346:A:H5''	9:AL:120:ARG:HH12	1.50	0.76
24:BA:2418:A:H1'	51:B6:21:TYR:CZ	2.20	0.76
34:DO:79:ARG:NH2	34:DO:109:GLY:HA3	2.00	0.76
37:BQ:11:LYS:HE3	37:BQ:15:ARG:NH2	2.00	0.76
24:BA:1092:C:N4	24:BA:1099:G:O6	2.18	0.76
17:CT:45:HIS:CE1	17:CT:47:PRO:HG3	2.20	0.76
24:DA:259:G:O2'	24:DA:621:A:O2'	2.01	0.76
5:CH:41:VAL:H	5:CH:67:VAL:CG1	1.98	0.76
8:CK:106:GLY:HA2	8:CK:122:ARG:NH2	2.00	0.76
32:DM:120:LEU:HD21	32:DM:122:VAL:HG23	1.66	0.76
31:DK:51:ILE:HG22	31:DK:52:ARG:N	1.98	0.76
24:BA:529:A:H4'	24:BA:530:G:H5'	1.68	0.76
24:BA:633:A:H2'	24:BA:634:C:H5'	1.65	0.76
43:DU:87:LYS:HB3	43:DU:92:ASN:HB3	1.65	0.76
1:AA:1113:C:O2'	1:AA:1114:C:H5'	1.85	0.76
24:DA:1730:U:O2'	24:DA:1731:G:OP1	2.04	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:9:MET:HB2	8:CK:32:LYS:HZ3	1.50	0.76
24:DA:307:G:N2	24:DA:310:A:OP2	2.18	0.76
8:AK:16:ALA:HB2	8:AK:24:THR:HG21	1.67	0.76
1:CA:1301:U:O2'	1:CA:1302:U:OP1	2.03	0.76
37:DQ:26:LEU:HD22	37:DQ:87:PHE:CD1	2.20	0.76
24:BA:2347:C:H4'	51:B6:39:TYR:CE2	2.20	0.76
1:AA:1381:U:C2'	7:AJ:79:ARG:CD	2.62	0.76
24:DA:1111:A:H4'	30:DH:3:ARG:HB2	1.67	0.76
30:DH:3:ARG:NH2	30:DH:7:LEU:HB2	2.01	0.76
24:BA:1062:G:N2	24:BA:1078:U:O4'	2.17	0.76
32:DM:128:HIS:HB2	32:DM:129:PRO:HD2	1.67	0.76
44:BV:150:LEU:HG	44:BV:154:ASP:OD2	1.85	0.76
18:CU:45:SER:HB3	18:CU:51:LEU:CD2	2.11	0.76
5:CH:76:ILE:HD11	5:CH:142:LEU:CD1	2.13	0.76
27:DE:9:VAL:HG21	27:DE:25:VAL:CG1	2.14	0.76
1:CA:485:G:H1'	1:CA:486:U:H5	1.49	0.76
36:B0:63:ARG:HB2	36:B0:80:PHE:HE2	1.47	0.76
27:BE:203:LYS:O	27:BE:203:LYS:HD2	1.84	0.76
35:DP:64:ILE:HD12	35:DP:64:ILE:N	2.00	0.76
1:AA:390:C:O3'	16:AS:28:ARG:NH2	2.18	0.76
46:DZ:7:ILE:CD1	46:DZ:70:VAL:HG22	2.14	0.76
24:BA:1082:U:H2'	24:BA:1083:U:H4'	1.66	0.76
24:DA:500:G:N2	24:DA:502:A:H3'	2.01	0.76
34:DO:9:ASN:HB3	34:DO:10:PRO:HD2	1.68	0.76
24:BA:654(A):A:O2'	24:BA:654(B):C:H5'	1.85	0.76
18:AU:40:LEU:O	18:AU:42:ARG:N	2.18	0.76
24:DA:2392:A:H3'	53:D8:30:ARG:CZ	2.15	0.76
24:BA:2370:G:N2	51:B6:40:CYS:SG	2.59	0.76
24:DA:1043:C:O2	24:DA:1112:G:N2	2.17	0.76
24:DA:1043:C:H2'	24:DA:1044:G:H5'	1.66	0.76
34:DO:15:ARG:HH11	34:DO:15:ARG:HG3	1.50	0.76
2:CE:19:HIS:CD2	2:CE:20:GLU:CG	2.69	0.76
1:CA:1080:A:C4'	5:CH:16:THR:OG1	2.31	0.76
25:DB:45:A:H1'	29:DG:95:ARG:NH1	1.99	0.76
10:AM:32:ALA:CB	10:AM:76:ASN:HB2	2.16	0.76
48:BX:7:LYS:O	48:BX:9:VAL:HG13	1.86	0.76
16:AS:57:ARG:HA	16:AS:60:LEU:HD12	1.68	0.76
1:AA:191(C):G:O2'	1:AA:191(D):U:H5'	1.85	0.76
24:BA:1829:A:N6	24:BA:1976:U:O2	2.18	0.76
1:AA:1256:A:O2'	1:AA:1257:U:OP2	2.03	0.76
53:D8:30:ARG:O	53:D8:32:LEU:N	2.19	0.76
1:AA:1199:U:C5'	10:AM:54:PHE:HE2	1.98	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:96:ILE:CD1	43:BU:98:VAL:HG12	2.12	0.76
30:BH:4:ILE:CD1	30:BH:6:ARG:NE	2.47	0.76
12:AO:46:LYS:CE	12:AO:47:LYS:HG2	2.15	0.76
24:DA:1899:G:H22	24:DA:1902:C:N4	1.82	0.76
2:AE:74:LYS:HE3	2:AE:169:LYS:CD	2.15	0.76
13:CP:53:VAL:HG23	13:CP:57:ARG:NH2	2.01	0.76
10:CM:28:ARG:CZ	10:CM:34:VAL:HG22	2.16	0.76
22:CC:75:C:C3'	22:CC:76:A:H5''	2.15	0.76
25:DB:66:A:N6	25:DB:108:C:H5''	2.01	0.76
24:BA:507:A:C5'	24:BA:508:G:H5'	2.15	0.76
20:AW:39:LYS:HB2	20:AW:55:ILE:HG21	1.67	0.76
40:D2:45:THR:O	40:D2:47:VAL:N	2.17	0.76
1:AA:244:U:H4'	1:AA:245:C:C5'	2.16	0.76
24:BA:2688:U:C5	24:BA:2720:U:OP2	2.39	0.76
24:BA:2688:U:H5	24:BA:2720:U:OP2	1.67	0.76
1:CA:914:A:O2'	1:CA:915:A:H5'	1.85	0.76
24:DA:1364:G:OP2	46:DZ:2:SER:N	2.18	0.76
24:DA:2683:C:OP1	38:DR:53:ARG:NH2	2.19	0.76
24:DA:1688:U:O2	24:DA:1700:A:H5'	1.85	0.76
9:CL:75:ASP:OD1	9:CL:78:LYS:NZ	2.17	0.76
24:DA:2392:A:H3'	53:D8:30:ARG:HH12	1.50	0.76
37:BQ:110:LEU:CD2	37:BQ:112:PHE:CE1	2.69	0.76
13:CP:3:ARG:HB2	49:D4:34:GLU:OE2	1.86	0.76
44:DV:119:GLU:HG2	44:DV:122:ARG:HH22	1.51	0.76
25:DB:42:C:H4'	29:DG:67:LYS:HG2	1.66	0.76
34:DO:21:ARG:NE	34:DO:21:ARG:HA	1.96	0.76
29:DG:77:ILE:HB	29:DG:82:LEU:HD12	1.66	0.76
15:CR:82:ILE:HD13	15:CR:83:GLU:N	2.01	0.76
27:BE:26:ILE:HD13	27:BE:27:LEU:N	2.01	0.76
8:AK:102:ARG:HG2	8:AK:102:ARG:O	1.85	0.76
1:CA:574:A:H5''	1:CA:575:G:OP2	1.86	0.76
1:CA:1288:A:H5'	21:CX:13:ILE:HD11	1.68	0.76
9:CL:6:GLY:O	9:CL:17:VAL:CG2	2.33	0.76
53:B8:29:LYS:HG2	53:B8:44:LYS:CG	2.16	0.76
24:BA:1113:U:H5'	30:BH:2:SER:CB	2.14	0.76
24:BA:2415:G:H4'	34:BO:66:GLY:CA	2.15	0.76
24:BA:389:G:N1	34:BO:71:VAL:HG12	2.01	0.76
24:DA:1074:G:OP1	24:DA:2474:C:O2'	2.03	0.76
10:CM:21:GLN:HE21	10:CM:24:VAL:CG1	1.97	0.76
53:D8:23:VAL:HG22	53:D8:47:LYS:HB3	1.67	0.76
26:DD:25:THR:O	26:DD:27:THR:HG22	1.86	0.76
1:AA:1291:G:OP1	7:AJ:37:ASN:ND2	2.18	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:67:U:H3	24:BA:74:A:H2	1.34	0.76
24:BA:1210:A:H5''	24:BA:1212:G:H5'	1.67	0.76
24:BA:1701:A:H2'	24:BA:1702:G:H5'	1.68	0.76
24:DA:616:A:C8	28:DF:176:LEU:HD11	2.21	0.76
4:CG:11:LEU:O	4:CG:13:ARG:N	2.19	0.76
1:CA:1269:A:OP1	21:CX:18:TYR:CE1	2.37	0.76
1:CA:1128:C:H4'	9:CL:16:ARG:HH12	1.48	0.76
1:CA:1320:C:C1'	19:CV:70:LYS:NZ	2.48	0.76
9:AL:4:TYR:HH	9:AL:88:TYR:HD1	1.33	0.76
24:BA:2397:G:H5''	46:BZ:28:GLY:HA2	1.68	0.76
24:DA:870:A:P	35:DP:6:ARG:CZ	2.74	0.76
49:B4:38:LYS:NZ	49:B4:44:THR:OG1	2.18	0.76
26:BD:34:VAL:HG21	26:BD:103:ARG:HA	1.68	0.76
26:BD:65:ILE:HD11	26:BD:67:PHE:CZ	2.21	0.76
24:BA:2751:G:C6	30:BH:3:ARG:HG3	2.20	0.76
2:AE:97:TRP:CZ3	2:AE:172:ILE:HG13	2.19	0.76
3:CF:72:LYS:HD2	3:CF:75:VAL:HG23	1.68	0.76
1:AA:1239:A:O2'	7:AJ:114:ARG:O	2.03	0.76
24:BA:2175:C:C3'	24:BA:2176:A:H5''	2.14	0.76
1:AA:244:U:H4'	1:AA:245:C:O5'	1.85	0.76
24:BA:1026:U:H1'	24:BA:1027:A:O5'	1.86	0.76
1:AA:1292:U:P	7:AJ:41:ARG:HH22	2.08	0.76
3:AF:22:TRP:HZ3	3:AF:24:ALA:HB2	1.51	0.76
1:CA:1392:G:H21	1:CA:1502:A:H8	1.31	0.76
37:BQ:14:VAL:O	37:BQ:18:ILE:HD13	1.86	0.76
39:B1:66:ASN:HA	39:B1:76:TYR:HB2	1.66	0.76
24:DA:1496:A:H8	24:DA:1577:C:HO2'	1.30	0.76
12:AO:60:LEU:H	12:AO:60:LEU:HD23	1.51	0.76
3:AF:115:LEU:O	3:AF:118:GLN:N	2.18	0.76
24:DA:2285:C:H2'	51:D6:28:ARG:NH2	2.01	0.76
27:DE:76:ARG:O	27:DE:78:LEU:N	2.18	0.76
28:DF:24:LEU:HD12	28:DF:25:PRO:CD	2.12	0.76
38:DR:55:ASN:ND2	38:DR:55:ASN:O	2.19	0.76
13:AP:12:ASN:HB2	13:AP:46:LYS:HE2	1.66	0.76
45:D3:27:GLU:HB2	45:D3:69:PHE:CD2	2.21	0.76
24:DA:660:G:N2	34:DO:12:ALA:HA	2.00	0.76
16:AS:6:LEU:HB3	16:AS:17:TYR:HD2	1.50	0.76
17:AT:67:LYS:O	17:AT:68:ARG:HB3	1.85	0.76
44:DV:105:VAL:O	44:DV:108:PRO:HD3	1.85	0.76
1:CA:17:U:H2'	1:CA:18:C:C6	2.21	0.76
24:DA:537:C:N4	24:DA:556:G:O6	2.19	0.76
2:AE:158:LEU:HD12	2:AE:158:LEU:O	1.84	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2394:C:OP1	34:DO:63:PRO:CD	2.33	0.75
49:B4:43:TYR:CG	49:B4:44:THR:N	2.53	0.75
20:AW:53:LEU:HB2	20:AW:100:ILE:HG23	1.66	0.75
27:DE:37:ARG:HD2	27:DE:44:TYR:OH	1.85	0.75
31:BK:130:TYR:O	31:BK:131:LYS:HD2	1.86	0.75
39:D1:66:ASN:OD1	39:D1:76:TYR:N	2.18	0.75
44:DV:105:VAL:O	44:DV:107:THR:N	2.19	0.75
31:DK:109:ILE:HD13	31:DK:109:ILE:H	1.48	0.75
29:DG:56:ALA:HB2	29:DG:153:ARG:HE	1.51	0.75
1:AA:160:A:H61	1:AA:347:G:H1'	1.51	0.75
53:D8:59:LYS:HB2	53:D8:59:LYS:NZ	2.01	0.75
24:DA:1416:G:H2'	24:DA:1417:C:C6	2.21	0.75
24:DA:142:G:H2'	24:DA:143:C:C6	2.20	0.75
44:DV:77:ASP:OD1	44:DV:80:ARG:HD2	1.86	0.75
24:BA:102:G:OP1	47:BW:7:ARG:NH2	2.19	0.75
1:AA:1327:C:OP2	21:AX:12:LYS:NZ	2.18	0.75
9:CL:9:ARG:CD	9:CL:14:VAL:HG22	2.15	0.75
37:DQ:110:LEU:HD12	37:DQ:111:GLU:N	2.01	0.75
9:AL:96:LEU:CB	9:AL:99:LEU:HD11	2.16	0.75
24:DA:2747:G:O6	24:DA:2755:C:H5''	1.85	0.75
29:DG:13:GLU:O	29:DG:17:PRO:HG3	1.86	0.75
19:CV:11:VAL:HG23	19:CV:39:THR:HB	1.68	0.75
26:BD:231:HIS:ND1	26:BD:232:PRO:CD	2.48	0.75
6:AI:63:TYR:O	6:AI:65:VAL:HG13	1.85	0.75
37:BQ:54:LEU:HD13	37:BQ:54:LEU:O	1.86	0.75
41:BS:84:ARG:HB2	41:BS:96:ILE:CD1	2.16	0.75
44:BV:62:PRO:O	44:BV:63:ASP:HB2	1.85	0.75
4:AG:121:VAL:O	4:AG:134:ASP:HA	1.86	0.75
30:BH:41:MET:HE1	30:BH:64:LEU:HB2	1.66	0.75
1:CA:110:C:O2'	16:CS:25:ARG:O	2.04	0.75
24:BA:1335:U:OP2	42:BT:65:ARG:NE	2.19	0.75
2:CE:22:LYS:NZ	2:CE:35:GLU:OE1	2.14	0.75
7:CJ:24:THR:O	7:CJ:28:ASN:ND2	2.19	0.75
19:AV:44:MET:O	19:AV:47:HIS:HB2	1.86	0.75
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.69	0.75
2:AE:204:ASN:ND2	2:AE:206:ASP:H	1.85	0.75
8:AK:34:GLU:CB	8:AK:118:VAL:HG21	2.16	0.75
24:DA:309:G:H4'	43:DU:18:GLY:HA3	1.68	0.75
1:AA:974:A:O2'	1:AA:975:A:P	2.44	0.75
46:DZ:91:LYS:NZ	46:DZ:91:LYS:HB2	2.01	0.75
28:BF:28:ILE:HG22	28:BF:112:MET:HB3	1.69	0.75
1:AA:737:A:H2'	1:AA:738:C:C6	2.22	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1312:U:H1'	24:BA:1313:U:OP2	1.86	0.75
24:DA:270(R):G:H2'	24:DA:270(S):G:H8	1.51	0.75
24:BA:910:A:C5	35:BP:13:GLN:HG3	2.20	0.75
24:DA:2471:C:N4	24:DA:2476:A:O2'	2.19	0.75
3:AF:73:PRO:O	3:AF:76:VAL:HG22	1.86	0.75
3:AF:76:VAL:HG21	3:AF:103:VAL:HG11	1.68	0.75
28:BF:192:LEU:HD21	28:BF:194:MET:CE	2.16	0.75
35:DP:98:LYS:HB3	35:DP:99:PRO:HD2	1.67	0.75
38:BR:77:PRO:HB2	38:BR:80:SER:HB2	1.67	0.75
24:DA:2032:G:O2'	27:DE:145:LYS:NZ	2.19	0.75
24:DA:1569:A:O2'	26:DD:38:LYS:HG3	1.86	0.75
1:AA:153:C:H42	1:AA:168:G:H1	1.33	0.75
13:CP:4:ILE:HD13	13:CP:5:ALA:H	1.51	0.75
51:B6:29:ASN:HA	51:B6:32:ASN:HB3	1.68	0.75
1:AA:542:G:OP1	4:AG:10:ARG:NH2	2.19	0.75
24:BA:1087:G:C8	24:BA:1089:G:H1'	2.22	0.75
1:CA:1077:G:N2	1:CA:1080:A:OP2	2.18	0.75
6:CI:22:GLU:O	6:CI:26:ILE:HG13	1.86	0.75
1:AA:266:G:H5''	1:AA:267:C:C5	2.21	0.75
24:BA:1538:G:H2'	24:BA:1539:G:H8	1.51	0.75
24:BA:2785:C:H1'	27:BE:64:LYS:HE3	1.68	0.75
10:CM:8:LEU:HG	10:CM:96:ILE:CD1	2.16	0.75
24:DA:2092:U:H4'	24:DA:2093:G:O5'	1.85	0.75
1:AA:115:G:H4'	1:AA:116:A:O5'	1.87	0.75
24:BA:495:G:H1'	41:BS:57:ASN:ND2	2.02	0.75
24:BA:2799:A:H3'	24:BA:2801:A:C8	2.21	0.75
28:BF:167:ALA:HA	28:BF:170:LEU:HD23	1.67	0.75
9:CL:106:ALA:O	9:CL:108:VAL:HG12	1.86	0.75
11:CN:32:ILE:CD1	11:CN:72:ALA:HB2	2.14	0.75
10:CM:40:LEU:HB3	10:CM:69:ASN:O	1.85	0.75
24:BA:2751:G:C4	30:BH:3:ARG:HG3	2.22	0.75
2:CE:12:GLU:HA	2:CE:15:VAL:HG23	1.68	0.75
24:DA:330:A:H2	24:DA:1210:A:O2'	1.66	0.75
1:CA:1014:A:H5'	19:CV:15:LEU:CD2	2.15	0.75
47:DW:17:SER:HB3	47:DW:21:LEU:HD12	1.66	0.75
39:D1:90:VAL:HG22	40:D2:39:LEU:HB3	1.67	0.75
31:DK:117:GLU:OE1	31:DK:118:LYS:N	2.20	0.75
24:DA:2733:A:H2	27:DE:204:ALA:H	1.35	0.75
15:AR:17:ARG:HD3	15:AR:26:GLU:HG3	1.68	0.75
3:CF:113:ALA:HB3	3:CF:114:PRO:HD3	1.68	0.75
24:DA:669:G:O2'	24:DA:670:A:O5'	2.02	0.75
1:CA:411:A:C6	1:CA:413:G:H1'	2.21	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2286:A:C5'	51:D6:28:ARG:CZ	2.62	0.75
4:AG:20:TYR:CE2	6:CI:15:ASP:HB3	2.21	0.75
2:CE:20:GLU:O	2:CE:40:HIS:N	2.19	0.75
24:BA:2151:G:H2'	24:BA:2152:G:C8	2.21	0.75
5:AH:41:VAL:HG21	5:AH:113:ALA:HB2	1.66	0.75
24:BA:607:U:H3	24:BA:621:A:H2	1.35	0.75
1:AA:448:A:O5'	1:AA:485:G:N2	2.17	0.75
24:BA:3:U:OP1	24:BA:2790:A:N6	2.18	0.75
24:BA:2469:A:H61	24:BA:2481:G:H1'	1.50	0.75
24:BA:2100:G:O2'	24:BA:2101:G:H5'	1.86	0.75
24:BA:654:A:H3'	24:BA:654:A:N3	2.02	0.75
1:CA:123:C:OP1	1:CA:312:C:H5'	1.86	0.75
13:CP:81:LEU:HD22	13:CP:86:CYS:SG	2.26	0.75
24:DA:2840:C:H4'	36:D0:53:HIS:CD2	2.21	0.75
11:CN:100:ALA:O	11:CN:102:GLY:N	2.19	0.75
13:CP:84:ILE:O	13:CP:84:ILE:HG23	1.86	0.75
7:CJ:73:MET:HG2	7:CJ:90:GLU:HA	1.69	0.75
24:BA:2751:G:C4	30:BH:3:ARG:CG	2.69	0.75
2:CE:168:THR:HG21	2:CE:191:ASP:O	1.87	0.75
29:DG:16:ARG:NH1	29:DG:31:VAL:HG21	2.00	0.75
1:CA:1203:C:H5''	14:CQ:3:ARG:NH2	1.96	0.75
49:D4:5:ILE:HG13	49:D4:6:HIS:N	2.01	0.75
2:AE:31:TYR:O	2:AE:42:ILE:HD13	1.87	0.75
24:BA:74:A:H4'	24:BA:75:G:O5'	1.87	0.75
35:BP:26:TYR:O	35:BP:27:VAL:HB	1.85	0.75
44:BV:125:LEU:O	44:BV:164:ALA:HB3	1.85	0.75
51:D6:37:ARG:HD2	51:D6:38:LYS:N	2.01	0.75
24:DA:2344:U:O3'	51:D6:39:TYR:OH	2.00	0.75
26:BD:35:LYS:NZ	26:BD:65:ILE:HA	2.01	0.75
4:AG:30:LYS:HG2	4:AG:32:ALA:CA	2.17	0.75
37:BQ:83:LYS:CG	37:BQ:109:GLY:HA3	2.16	0.75
40:D2:35:LEU:HD21	40:D2:37:VAL:HG21	1.69	0.75
44:BV:151:HIS:HE1	44:BV:154:ASP:N	1.83	0.75
13:AP:11:ARG:NE	13:AP:46:LYS:HE3	2.01	0.75
24:DA:270(N):G:OP1	31:DK:57:ARG:NH2	2.19	0.75
31:BK:41:GLU:OE2	31:BK:42:SER:N	2.20	0.75
24:BA:1567:A:C5'	26:BD:58:HIS:HD2	1.98	0.75
43:DU:39:VAL:HG23	43:DU:41:GLY:H	1.51	0.75
24:BA:1544:C:O2'	24:BA:1545:A:O5'	2.05	0.75
5:CH:8:GLU:OE2	5:CH:63:ARG:NH2	2.20	0.75
1:AA:1212:U:H5''	1:AA:1213:A:OP1	1.87	0.75
1:CA:589:C:O2	1:CA:650:G:N2	2.19	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BK:104:GLN:HG2	31:BK:105:HIS:CD2	2.22	0.75
1:CA:841:U:H4'	1:CA:842:C:C5	2.22	0.75
24:DA:654(B):C:H2'	24:DA:654(C):G:C8	2.22	0.75
17:AT:14:LYS:H	17:AT:14:LYS:HD2	1.52	0.75
9:CL:78:LYS:CD	9:CL:101:PHE:CE1	2.69	0.75
1:CA:957:U:O3'	19:CV:79:THR:HG21	1.86	0.75
24:DA:2344:U:H2'	51:D6:37:ARG:HE	1.49	0.75
24:BA:2419:U:O4	53:B8:30:ARG:NH2	2.19	0.75
53:B8:17:THR:CG2	53:B8:23:VAL:HG23	2.16	0.75
10:CM:28:ARG:NH1	10:CM:33:GLN:HA	2.01	0.75
5:CH:76:ILE:HG23	5:CH:77:PRO:CD	2.17	0.75
1:AA:1133:G:H2'	1:AA:1134:G:H8	1.52	0.75
32:DM:120:LEU:HD23	32:DM:120:LEU:C	2.07	0.75
24:DA:971:C:H2'	24:DA:972:G:H5'	1.69	0.75
1:CA:1399:C:C2	1:CA:1502:A:N6	2.54	0.75
24:DA:494:G:OP1	41:DS:8:ARG:NH1	2.19	0.75
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.21	0.75
24:BA:1024:G:H3'	24:BA:1025:G:H5''	1.68	0.75
18:CU:73:ALA:HB3	18:CU:79:LEU:HD12	1.69	0.75
24:DA:2286:A:OP2	51:D6:28:ARG:CD	2.35	0.74
24:DA:1246:A:OP2	34:DO:15:ARG:CZ	2.34	0.74
27:DE:81:ILE:O	27:DE:82:ARG:HB3	1.87	0.74
24:DA:1210:A:C5'	24:DA:1212:G:H5'	2.17	0.74
44:DV:95:PRO:HA	44:DV:128:VAL:O	1.85	0.74
1:AA:1122:U:O4	1:AA:1123:A:N6	2.20	0.74
20:CW:10:LEU:CD2	20:CW:12:ALA:H	2.00	0.74
49:B4:58:ARG:NH1	49:B4:62:ARG:HD2	2.02	0.74
12:CO:83:VAL:HG22	12:CO:84:LEU:H	1.48	0.74
24:DA:2127:G:H5'	24:DA:2128:C:H5''	1.68	0.74
17:AT:77:VAL:O	17:AT:78:GLU:HB2	1.86	0.74
44:BV:60:GLU:O	44:BV:61:LEU:HG	1.86	0.74
1:CA:591:U:H2'	1:CA:592:G:C8	2.22	0.74
27:DE:107:THR:O	27:DE:190:GLY:HA2	1.87	0.74
24:DA:1396:U:H2'	24:DA:1396:U:O2	1.87	0.74
1:AA:154:C:H42	1:AA:167:G:H1	1.35	0.74
24:DA:1601:G:C5'	52:D7:49:ARG:HG2	2.08	0.74
24:DA:2344:U:H2'	51:D6:37:ARG:NE	2.02	0.74
4:AG:22:LYS:CE	4:AG:26:CYS:HB2	2.14	0.74
25:BB:42:C:OP2	49:B4:2:LYS:HE2	1.86	0.74
12:AO:46:LYS:CG	12:AO:47:LYS:N	2.48	0.74
24:BA:1059:G:OP2	24:BA:1060:U:H3'	1.87	0.74
1:CA:266:G:H2'	1:CA:266:G:N3	2.01	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:146:ILE:HA	44:DV:176:PRO:HD3	1.68	0.74
35:BP:59:ARG:HG2	35:BP:60:ARG:N	2.02	0.74
1:AA:1192:C:P	3:AF:4:LYS:HZ1	2.10	0.74
24:BA:213:A:O2'	24:BA:214:G:H5'	1.88	0.74
41:BS:64:MET:HA	41:BS:109:GLU:OE2	1.87	0.74
1:AA:408:A:P	4:AG:115:ARG:HD2	2.27	0.74
4:AG:25:ARG:C	4:AG:27:TYR:H	1.87	0.74
24:DA:1047:G:H1'	24:DA:1110:G:H22	1.49	0.74
30:DH:4:ILE:HD12	30:DH:5:GLY:CA	2.17	0.74
40:D2:84:LYS:HE3	40:D2:85:LYS:CG	2.12	0.74
1:CA:1070:U:O5'	5:CH:25:ARG:NH1	2.20	0.74
24:DA:1105:U:H2'	24:DA:1106:G:C8	2.22	0.74
44:DV:119:GLU:HB3	44:DV:122:ARG:HH12	1.52	0.74
38:DR:88:ILE:CD1	38:DR:91:ARG:CZ	2.65	0.74
38:BR:11:GLU:H	38:BR:11:GLU:CD	1.90	0.74
16:AS:28:ARG:HG3	16:AS:29:ASP:OD1	1.86	0.74
24:DA:2213:U:H4'	46:DZ:52:ARG:NH1	2.03	0.74
1:CA:599:C:OP1	8:CK:94:TYR:CE2	2.38	0.74
1:CA:1049:U:H4'	1:CA:1050:G:H5''	1.68	0.74
9:CL:42:ARG:HH12	9:CL:71:SER:HA	1.52	0.74
7:CJ:151:TYR:HB3	7:CJ:154:TYR:HB2	1.69	0.74
24:DA:2635:C:P	27:DE:77:ILE:HG21	2.28	0.74
2:CE:8:LYS:CE	2:CE:11:LEU:CD2	2.62	0.74
24:DA:1087:G:O6	24:DA:1089:G:N2	2.18	0.74
24:DA:1210:A:H5'	24:DA:1212:G:H5'	1.69	0.74
44:DV:148:ASP:HB3	44:DV:172:ALA:O	1.87	0.74
24:DA:997:G:OP1	39:D1:93:LYS:HD3	1.88	0.74
25:DB:115:G:OP2	25:DB:115:G:H8	1.68	0.74
8:AK:44:PHE:HE2	8:AK:109:ILE:CG2	2.00	0.74
24:DA:2355:C:C5'	45:D3:36:ILE:HD11	2.18	0.74
12:CO:32:PHE:HB3	12:CO:84:LEU:HD11	1.69	0.74
25:BB:24:G:N7	25:BB:56:G:H2'	2.01	0.74
41:BS:73:ALA:HB3	41:BS:106:ILE:HG23	1.69	0.74
6:CI:77:ARG:NH1	6:CI:77:ARG:HB3	2.03	0.74
45:B3:72:ARG:CB	45:B3:75:LEU:HB2	2.18	0.74
4:CG:12:CYS:SG	4:CG:33:MET:CE	2.70	0.74
7:CJ:28:ASN:O	7:CJ:31:MET:N	2.18	0.74
9:AL:36:TYR:OH	9:AL:73:GLN:NE2	2.15	0.74
24:DA:2749:A:H1'	30:DH:63:SER:HB3	1.69	0.74
24:DA:2635:C:C5'	27:DE:77:ILE:HG22	2.18	0.74
2:CE:237:ALA:H	2:CE:239:VAL:HG23	1.52	0.74
4:CG:138:TYR:C	4:CG:138:TYR:HD1	1.91	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:94:GLU:O	44:DV:96:VAL:HG23	1.86	0.74
1:AA:1120:G:H2'	1:AA:1121:U:H6	1.52	0.74
24:DA:90:U:O2	24:DA:90:U:C2'	2.34	0.74
3:CF:82:GLU:H	3:CF:85:ARG:HD3	1.51	0.74
24:BA:2807:G:H3'	24:BA:2808:U:H5''	1.68	0.74
37:DQ:41:ASP:OD2	37:DQ:44:LYS:NZ	2.19	0.74
5:CH:102:ALA:O	5:CH:107:ARG:NH1	2.21	0.74
24:DA:1614:A:H62	41:DS:93:ALA:HB2	1.52	0.74
9:CL:37:PHE:HD2	9:CL:43:ALA:HB1	1.50	0.74
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.87	0.74
24:DA:2591:C:OP1	26:DD:239:ARG:HD2	1.86	0.74
1:AA:598:U:H4'	8:AK:94:TYR:CD2	2.22	0.74
8:CK:129:VAL:HG22	8:CK:130:GLY:H	1.52	0.74
1:CA:412:A:H1'	1:CA:413:G:OP2	1.87	0.74
1:CA:543:C:OP1	4:CG:14:ARG:NE	2.19	0.74
19:CV:66:MET:HA	19:CV:67:VAL:O	1.86	0.74
37:DQ:107:GLU:C	37:DQ:110:LEU:HD23	2.08	0.74
43:BU:97:ARG:N	43:BU:97:ARG:HD3	2.01	0.74
1:AA:430:A:OP1	4:AG:9:CYS:HB2	1.87	0.74
2:CE:19:HIS:CD2	2:CE:20:GLU:N	2.55	0.74
26:BD:223:GLY:HA3	26:BD:231:HIS:CD2	2.22	0.74
44:DV:30:ASN:HB2	44:DV:89:PHE:CE1	2.23	0.74
24:BA:2209:C:O2	24:BA:2216:G:C2	2.40	0.74
24:BA:2392:A:H8	34:BO:60:MET:HB3	1.52	0.74
24:BA:1309:G:H4'	52:B7:7:PRO:HB2	1.68	0.74
1:CA:438:G:H4'	4:CG:123:HIS:ND1	2.03	0.74
24:DA:654(O):G:H2'	24:DA:654(P):G:C8	2.18	0.74
24:DA:108:U:H2'	24:DA:109:G:C8	2.22	0.74
31:DK:38:LEU:H	31:DK:38:LEU:HD12	1.51	0.74
24:BA:545:G:H2'	24:BA:546:C:H5''	1.68	0.74
24:DA:540:G:H2'	24:DA:541:C:H6	1.52	0.74
31:BK:5:LEU:O	31:BK:6:LEU:HD12	1.87	0.74
7:CJ:8:GLU:N	7:CJ:8:GLU:OE1	2.19	0.74
24:DA:2392:A:H2	24:DA:2424:C:H42	1.34	0.74
26:BD:34:VAL:O	26:BD:34:VAL:HG13	1.86	0.74
26:BD:35:LYS:CG	26:BD:64:ILE:HG23	2.18	0.74
34:DO:11:GLY:O	34:DO:13:ASN:N	2.21	0.74
9:AL:40:LEU:HD21	9:AL:70:LYS:HD2	1.69	0.74
2:CE:55:PHE:CD1	2:CE:58:ILE:HD12	2.23	0.74
17:CT:101:ARG:HG2	17:CT:101:ARG:HH21	1.53	0.74
20:AW:13:LEU:HD12	20:AW:14:LYS:N	2.03	0.74
13:AP:12:ASN:N	13:AP:46:LYS:HD3	2.01	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:26:LYS:H	26:DD:26:LYS:HD2	1.50	0.74
24:DA:1925:C:O2'	24:DA:1926:U:H5'	1.88	0.74
1:CA:537:G:H5''	12:CO:113:ARG:NH1	2.02	0.74
24:BA:2405:G:OP1	34:BO:77:ARG:NH2	2.21	0.74
24:BA:2018:G:O2'	39:B1:34:LYS:HE3	1.87	0.74
46:BZ:11:ARG:HB2	46:BZ:12:PRO:HD2	1.70	0.74
1:CA:598:U:O3'	8:CK:94:TYR:OH	2.03	0.74
9:AL:53:VAL:HG13	9:AL:95:LYS:HD2	1.70	0.74
13:AP:81:LEU:HG	13:AP:89:GLY:HA3	1.70	0.74
4:AG:21:LEU:HD12	4:AG:21:LEU:C	2.08	0.74
27:DE:70:ALA:O	27:DE:72:VAL:N	2.21	0.74
40:D2:84:LYS:CE	40:D2:85:LYS:HG2	2.13	0.74
31:BK:83:ALA:HB2	31:BK:88:ILE:HA	1.67	0.74
4:CG:172:PRO:HB2	4:CG:187:ARG:NH2	2.02	0.74
24:BA:2178:C:H2'	24:BA:2179:C:C6	2.23	0.74
44:DV:158:PRO:O	44:DV:161:VAL:HG13	1.88	0.74
20:CW:56:MET:HE1	20:CW:88:VAL:HG21	1.68	0.74
24:BA:602:G:HO2'	24:BA:604:G:HO2'	1.32	0.74
12:CO:103:GLY:N	12:CO:107:ALA:O	2.20	0.74
20:CW:64:ASP:OD1	20:CW:81:LYS:HD2	1.86	0.74
24:BA:488:G:N2	24:BA:491:G:H5''	2.03	0.74
47:BW:15:LYS:H	47:BW:67:LYS:NZ	1.85	0.74
7:AJ:107:ALA:HB3	7:AJ:134:ALA:HB2	1.69	0.74
7:CJ:65:ALA:HB1	7:CJ:127:ALA:HB3	1.67	0.74
1:CA:1498:U:H1'	1:CA:1499:A:OP2	1.88	0.74
41:DS:2:GLU:OE1	41:DS:72:LYS:NZ	2.20	0.74
7:CJ:78:ARG:HH22	7:CJ:87:VAL:HA	1.52	0.74
24:DA:2419:U:C4	53:D8:31:HIS:HD2	2.04	0.74
1:AA:1221:G:C5'	19:AV:36:ARG:NH2	2.50	0.74
1:AA:1319:A:H5'	19:AV:5:LEU:HD23	1.70	0.74
9:AL:70:LYS:HG3	9:AL:71:SER:H	1.53	0.74
40:B2:35:LEU:HD22	40:B2:57:VAL:O	1.88	0.74
29:DG:111:LEU:HB2	29:DG:112:PRO:CD	2.12	0.74
2:CE:83:MET:CE	2:CE:234:PRO:HB2	2.18	0.74
39:D1:90:VAL:CG1	39:D1:91:ASP:H	1.92	0.74
10:AM:22:LYS:CE	10:AM:90:LEU:HD13	2.18	0.74
13:AP:65:LYS:N	49:B4:50:VAL:HG11	2.02	0.74
1:AA:1042:G:O2'	24:DA:2155:G:N2	2.20	0.74
3:CF:175:LEU:HD11	3:CF:201:TYR:CE2	2.23	0.74
8:CK:88:LYS:HB2	8:CK:89:PRO:HD2	1.68	0.74
24:BA:1491:G:O4'	26:BD:99:ASP:HB3	1.87	0.74
7:CJ:15:ASP:O	7:CJ:19:GLY:HA2	1.88	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CF:63:ASN:HA	3:CF:98:ASN:HB3	1.69	0.74
33:DN:64:ARG:NH1	33:DN:81:ASP:OD1	2.21	0.74
14:AQ:59:ALA:HB1	14:AQ:61:TRP:HZ3	1.53	0.74
24:BA:2406:U:O4	34:BO:70:GLN:HB2	1.88	0.74
12:AO:39:VAL:HG22	12:AO:57:LYS:HB3	1.70	0.74
9:CL:21:PRO:HA	9:CL:59:PHE:HA	1.70	0.74
39:B1:89:GLU:HG3	39:B1:89:GLU:O	1.85	0.74
52:D7:1:MET:HA	52:D7:1:MET:HE3	1.69	0.74
24:DA:986:C:C2'	24:DA:987:G:H5'	2.18	0.74
24:DA:2392:A:H3'	53:D8:30:ARG:NH2	2.03	0.74
51:B6:18:ARG:O	51:B6:19:ARG:HG2	1.88	0.74
24:BA:2418:A:H1'	51:B6:21:TYR:CE2	2.23	0.74
2:AE:164:VAL:HG12	2:AE:166:ASP:H	1.53	0.74
46:BZ:83:GLU:HG2	46:BZ:85:LEU:H	1.52	0.74
26:DD:44:ASN:HB2	26:DD:48:ARG:O	1.88	0.74
29:DG:29:TRP:HB3	29:DG:33:ARG:HH12	1.53	0.74
5:AH:41:VAL:HG23	5:AH:113:ALA:HB2	1.69	0.74
26:BD:85:ASP:OD1	26:BD:87:ASN:ND2	2.20	0.74
1:AA:484:G:O2'	1:AA:485:G:OP2	2.05	0.74
24:DA:2444:G:OP2	28:DF:68:LYS:HE2	1.88	0.74
20:CW:57:ARG:NH2	20:CW:102:GLY:HA2	2.03	0.74
35:BP:78:PRO:O	35:BP:79:LEU:HG	1.88	0.74
35:BP:79:LEU:O	35:BP:79:LEU:HD12	1.87	0.74
30:DH:54:ARG:NE	30:DH:57:ASP:OD1	2.18	0.74
39:B1:44:ASN:HD21	40:B2:75:PHE:H	1.36	0.74
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.05	0.73
9:AL:78:LYS:HE3	9:AL:101:PHE:HD1	1.51	0.73
1:AA:1382:C:C5	7:AJ:79:ARG:NH2	2.56	0.73
26:BD:30:GLU:OE2	26:BD:30:GLU:CA	2.36	0.73
26:BD:65:ILE:HD11	26:BD:67:PHE:CG	2.23	0.73
39:B1:90:VAL:HG12	39:B1:91:ASP:N	2.02	0.73
10:CM:34:VAL:HG12	10:CM:74:ILE:CG2	2.18	0.73
1:CA:1218:C:OP1	14:CQ:9:LYS:NZ	2.21	0.73
31:BK:133:HIS:HB2	31:BK:134:PRO:HD3	1.70	0.73
2:AE:17:PHE:HD1	2:AE:41:ILE:HG23	1.51	0.73
3:AF:83:ARG:O	3:AF:86:VAL:HG22	1.88	0.73
24:BA:1533:C:O2	24:BA:1538:G:N2	2.12	0.73
1:CA:920:U:H2'	1:CA:921:U:C6	2.23	0.73
10:CM:48:THR:HA	10:CM:62:HIS:HB3	1.70	0.73
9:AL:47:LEU:HB2	9:AL:50:LEU:HD12	1.69	0.73
8:CK:12:ARG:NH1	8:CK:26:VAL:HA	2.03	0.73
1:AA:643:C:H5'	8:AK:31:PHE:CD1	2.23	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:998:G:N2	1:CA:1043:C:O2	2.21	0.73
7:AJ:59:LEU:HD23	7:AJ:59:LEU:H	1.53	0.73
1:CA:572:A:H5''	1:CA:917:G:H4'	1.68	0.73
24:BA:2505:G:HO2'	24:BA:2506:U:H6	1.34	0.73
28:BF:160:ASN:OD1	28:BF:163:VAL:HG23	1.88	0.73
24:BA:993:G:OP1	39:B1:50:ARG:NH2	2.21	0.73
1:CA:429:U:OP1	4:CG:13:ARG:NH2	2.19	0.73
30:BH:4:ILE:HB	30:BH:6:ARG:CD	2.18	0.73
1:AA:191:G:O2'	20:AW:103:GLY:N	2.20	0.73
6:AI:22:GLU:OE1	6:AI:84:ASN:ND2	2.21	0.73
29:DG:75:LYS:HG3	29:DG:76:SER:H	1.53	0.73
29:DG:104:GLU:HG2	49:D4:23:GLU:CG	2.17	0.73
22:CC:1:C:H4'	22:CC:2:G:O5'	1.87	0.73
38:DR:2:ASN:O	38:DR:4:GLY:N	2.21	0.73
44:BV:19:ARG:HH12	44:BV:84:GLU:HB2	1.53	0.73
1:CA:652:U:H1'	1:CA:653:A:H2	1.53	0.73
24:BA:2562:U:H1'	33:BN:23:ARG:HH11	1.51	0.73
44:BV:18:LEU:HD12	44:BV:18:LEU:H	1.53	0.73
24:BA:1583:A:H5'	24:BA:1585:C:C5'	2.19	0.73
43:DU:28:LYS:HE3	43:DU:63:LYS:HZ3	1.53	0.73
38:DR:127:ALA:O	38:DR:131:ALA:HB2	1.87	0.73
24:BA:439:G:O2'	24:BA:440:G:H5'	1.88	0.73
49:B4:57:GLU:HA	49:B4:60:GLN:CG	2.18	0.73
39:B1:92:ARG:HB3	39:B1:95:LEU:CD1	2.18	0.73
24:BA:1359:A:C2	24:BA:1372:U:O4	2.41	0.73
35:DP:134:ARG:NH2	44:DV:122:ARG:HD2	2.03	0.73
1:AA:1023:G:H3'	1:AA:1024:G:C5'	2.17	0.73
24:BA:858:U:O2	24:BA:2268:A:H2'	1.88	0.73
39:D1:91:ASP:C	39:D1:92:ARG:HG2	2.05	0.73
39:D1:92:ARG:HD2	40:D2:11:GLN:CD	2.08	0.73
40:D2:22:VAL:HG22	40:D2:23:GLU:N	2.03	0.73
9:AL:16:ARG:O	9:AL:63:ILE:HG23	1.88	0.73
11:AN:33:THR:HG22	11:AN:39:PRO:CA	2.17	0.73
40:D2:76:LYS:NZ	40:D2:82:ARG:HH21	1.85	0.73
24:DA:1654:A:O5'	36:D0:2:ARG:NE	2.22	0.73
24:DA:1313:U:H2'	24:DA:1610:A:N1	2.02	0.73
24:BA:1408:C:O2	24:BA:1595:G:N2	2.22	0.73
3:AF:73:PRO:HG3	3:AF:105:GLU:HG3	1.71	0.73
42:BT:35:THR:O	42:BT:39:ILE:HG13	1.88	0.73
29:BG:16:ARG:O	29:BG:20:ILE:HG13	1.88	0.73
22:CC:56:C:O2	29:DG:78:SER:OG	2.06	0.73
1:CA:1112:C:O2	3:CF:179:ARG:HG2	1.88	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2447:G:H1'	24:DA:2448:A:OP2	1.87	0.73
4:CG:18:LYS:HD3	4:CG:20:TYR:CE1	2.23	0.73
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.24	0.73
1:CA:1268:A:H5''	21:CX:24:ARG:HH21	1.53	0.73
1:CA:1288:A:H4'	21:CX:13:ILE:CD1	2.18	0.73
51:D6:37:ARG:NH2	51:D6:38:LYS:H	1.86	0.73
9:AL:9:ARG:HG2	9:AL:14:VAL:CB	2.18	0.73
1:AA:413:G:H2'	1:AA:428:G:H21	1.53	0.73
31:BK:69:LYS:CA	31:BK:136:VAL:HG11	2.12	0.73
43:DU:4:LYS:CE	43:DU:4:LYS:HA	2.17	0.73
6:AI:60:PHE:C	6:AI:61:LEU:HD12	2.09	0.73
31:BK:110:ASP:HB3	31:BK:111:PRO:C	2.07	0.73
31:BK:133:HIS:CB	31:BK:134:PRO:CD	2.65	0.73
28:BF:32:LEU:CD1	28:BF:105:VAL:HG13	2.19	0.73
1:AA:439:A:OP2	1:AA:493:G:N1	2.21	0.73
42:DT:50:LYS:HB3	42:DT:84:ALA:CB	2.17	0.73
24:DA:2836:U:H2'	24:DA:2837:G:C8	2.24	0.73
42:DT:8:ILE:HD13	42:DT:43:VAL:HG12	1.70	0.73
24:BA:314:A:C2'	24:BA:315:G:H5'	2.18	0.73
24:BA:2228:G:OP1	26:BD:261:LYS:NZ	2.21	0.73
24:DA:943:U:OP2	34:DO:36:LYS:HD2	1.88	0.73
1:CA:1240:U:H3	7:CJ:32:ARG:NH2	1.84	0.73
49:D4:57:GLU:H	49:D4:60:GLN:CD	1.92	0.73
1:AA:412:A:H1'	1:AA:413:G:OP2	1.88	0.73
49:B4:35:VAL:O	49:B4:35:VAL:HG12	1.89	0.73
24:DA:2793:G:N2	24:DA:2803:C:N3	2.33	0.73
24:BA:746:A:C5	24:BA:2611:U:H5''	2.24	0.73
24:DA:2634:G:O3'	27:DE:77:ILE:CG2	2.33	0.73
46:BZ:92:LYS:O	46:BZ:93:GLU:C	2.26	0.73
43:BU:52:SER:CB	43:BU:53:PRO:HD3	2.13	0.73
10:CM:82:ILE:HG22	10:CM:86:MET:HE1	1.71	0.73
1:CA:1014:A:P	19:CV:15:LEU:HD11	2.29	0.73
10:AM:22:LYS:NZ	10:AM:88:LEU:O	2.20	0.73
27:DE:33:VAL:HG23	27:DE:47:VAL:HG23	1.70	0.73
35:BP:30:GLY:CA	35:BP:107:ALA:HB2	2.17	0.73
1:AA:689:C:C2'	1:AA:690:G:H5'	2.18	0.73
35:DP:97:VAL:HG11	35:DP:103:MET:CE	2.19	0.73
24:DA:1654:A:O5'	36:D0:2:ARG:NH2	2.21	0.73
37:DQ:25:ARG:HD2	37:DQ:88:ASP:HB2	1.69	0.73
24:DA:2470:G:H5'	35:DP:56:ARG:NH2	2.04	0.73
33:BN:120:GLU:HG2	33:BN:122:LEU:CD1	2.19	0.73
27:BE:116:VAL:O	27:BE:117:MET:CB	2.36	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:30:ARG:O	8:CK:34:GLU:HG2	1.88	0.73
29:BG:28:VAL:O	29:BG:31:VAL:HG12	1.89	0.73
24:BA:2248:C:H2'	24:BA:2249:U:H5'	1.70	0.73
9:AL:66:ARG:HG3	9:AL:66:ARG:HH11	1.53	0.73
4:CG:31:CYS:SG	4:CG:33:MET:HE3	2.23	0.73
19:CV:36:ARG:HD3	19:CV:51:VAL:CG1	2.18	0.73
1:AA:1221:G:P	19:AV:36:ARG:NH2	2.60	0.73
29:BG:95:ARG:O	29:BG:99:MET:N	2.20	0.73
2:AE:75:LYS:O	2:AE:75:LYS:HD3	1.87	0.73
20:AW:13:LEU:HD12	20:AW:13:LEU:C	2.09	0.73
1:AA:1003:G:N2	1:AA:1038:C:O2	2.21	0.73
1:CA:1213:A:N1	1:CA:1215:G:H1'	2.03	0.73
4:AG:186:LEU:HD12	4:AG:187:ARG:CG	2.17	0.73
9:AL:79:LEU:O	9:AL:82:ALA:N	2.22	0.73
24:DA:1174:A:N6	24:DA:1176:G:H1'	2.04	0.73
42:DT:57:LEU:CD2	42:DT:78:LYS:HB2	2.19	0.73
24:BA:2688:U:H3'	24:BA:2688:U:O2	1.88	0.73
2:CE:127:ILE:O	2:CE:135:GLN:NE2	2.21	0.73
2:CE:230:VAL:HG13	2:CE:231:GLU:N	2.04	0.73
38:DR:77:PRO:HB2	38:DR:80:SER:HB2	1.69	0.73
1:AA:537:G:H5''	12:AO:113:ARG:NH1	2.04	0.73
1:CA:501:C:H2'	1:CA:502:G:H8	1.51	0.73
1:CA:1279:A:H5''	1:CA:1280:A:OP1	1.89	0.73
1:CA:979:C:N4	14:CQ:18:VAL:HG13	1.99	0.73
24:DA:2377:A:H1'	37:DQ:112:PHE:HD1	1.42	0.73
53:D8:29:LYS:O	53:D8:31:HIS:N	2.22	0.73
51:B6:32:ASN:CA	51:B6:35:GLU:OE2	2.36	0.73
19:AV:28:LYS:HE2	19:AV:47:HIS:HA	0.79	0.73
49:B4:42:PHE:C	49:B4:43:TYR:CD2	2.62	0.73
26:BD:35:LYS:HE3	26:BD:65:ILE:N	2.03	0.73
40:D2:38:LEU:CD1	40:D2:57:VAL:HG12	2.19	0.73
28:DF:25:PRO:HB3	28:DF:28:ILE:CG1	2.11	0.73
43:DU:97:ARG:NH2	43:DU:98:VAL:HB	2.03	0.73
4:AG:173:TRP:C	4:AG:186:LEU:HG	2.08	0.73
5:AH:102:ALA:HB2	5:AH:120:THR:OG1	1.89	0.73
24:BA:1310:G:OP2	52:B7:9:ARG:NH1	2.14	0.73
3:AF:50:ALA:HA	3:AF:72:LYS:HD2	1.70	0.73
24:DA:67:U:N3	24:DA:74:A:H2	1.83	0.73
24:BA:34:C:C6	24:BA:34:C:OP2	2.41	0.73
4:CG:86:LYS:HG3	4:CG:87:GLY:N	2.03	0.73
24:DA:1012:U:C4	32:DM:28:THR:HG21	2.22	0.73
1:AA:1277:C:O2'	1:AA:1279:A:H1'	1.88	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2533:A:OP1	24:DA:2665:A:H1'	1.89	0.73
1:AA:1422:G:O3'	33:BN:49:ARG:NH1	2.20	0.73
1:AA:486:U:H2'	1:AA:487:A:H8	1.54	0.73
24:DA:1910:G:O2'	24:DA:1911:U:H5'	1.88	0.73
6:CI:68:PRO:HG3	6:CI:71:ARG:NH2	2.03	0.73
9:CL:82:ALA:CB	9:CL:101:PHE:CD2	2.72	0.73
1:AA:1348:U:C5	1:AA:1373:G:N2	2.57	0.73
24:BA:2284:C:H5''	51:B6:28:ARG:HH21	1.50	0.73
24:DA:870:A:C3'	35:DP:6:ARG:HH21	2.00	0.73
53:B8:49:VAL:HB	53:B8:53:PRO:HB3	1.71	0.73
24:BA:917:A:H2'	24:BA:918:A:H5'	1.69	0.73
1:AA:838:G:C2'	1:AA:841:U:H5''	2.18	0.73
30:BH:12:PRO:HD3	30:BH:48:GLY:O	1.87	0.73
24:DA:2873:A:H8	36:D0:6:SER:H	1.37	0.73
28:BF:192:LEU:HD21	28:BF:194:MET:HE2	1.70	0.73
9:CL:25:LYS:HE2	9:CL:32:ASP:OD1	1.88	0.73
24:BA:955:C:H2'	24:BA:956:G:H5'	1.69	0.73
39:B1:105:VAL:O	39:B1:109:LEU:HG	1.88	0.73
34:DO:23:PRO:O	34:DO:25:SER:N	2.22	0.73
14:CQ:23:ARG:NH1	14:CQ:29:ARG:O	2.21	0.73
24:DA:2801:A:C4'	24:DA:2895:U:H4'	2.11	0.73
13:AP:12:ASN:O	13:AP:14:ARG:N	2.22	0.73
31:DK:81:VAL:HG21	31:DK:123:LEU:HD21	1.69	0.73
25:DB:38:C:O4'	37:DQ:95:HIS:NE2	2.22	0.73
37:DQ:66:ALA:HB1	37:DQ:101:LEU:HB2	1.71	0.73
24:DA:90:U:H2'	24:DA:91:A:H5''	1.70	0.73
6:AI:19:LEU:O	6:AI:19:LEU:HD23	1.89	0.73
24:BA:274:G:H2'	24:BA:275:G:O4'	1.89	0.73
13:CP:86:CYS:O	13:CP:89:GLY:N	2.21	0.73
24:BA:2396:G:H5'	46:BZ:25:LYS:HE2	1.71	0.73
4:AG:152:SER:O	4:AG:154:ASN:N	2.22	0.73
19:AV:32:LYS:HA	19:AV:50:ALA:HB3	1.71	0.73
48:BX:43:ILE:O	48:BX:47:VAL:HG23	1.89	0.73
9:AL:70:LYS:HG3	9:AL:71:SER:N	2.03	0.73
2:AE:87:ARG:NH2	2:AE:216:SER:O	2.21	0.73
3:CF:71:ALA:CB	3:CF:109:PRO:HB3	2.19	0.73
25:DB:39:A:H61	49:D4:1:MET:HB3	1.51	0.73
24:BA:2110:G:H5''	24:BA:2145:C:N4	2.04	0.73
24:DA:637:A:H4'	24:DA:638:G:O5'	1.87	0.73
1:CA:1004:A:H2'	1:CA:1005:A:H5''	1.71	0.73
1:AA:919:A:O2'	1:AA:920:U:H5'	1.89	0.73
3:CF:15:THR:CG2	3:CF:181:ASN:HA	2.18	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:D1:110:VAL:HG12	39:D1:114:LYS:HD2	1.71	0.73
14:AQ:3:ARG:HD3	14:AQ:3:ARG:C	2.09	0.73
1:CA:12:U:H4'	1:CA:526:C:H4'	1.70	0.73
7:AJ:78:ARG:HH21	7:AJ:154:TYR:C	1.92	0.73
1:AA:1498:U:H1'	1:AA:1499:A:OP2	1.89	0.73
43:BU:20:TYR:CE1	43:BU:42:VAL:HA	2.24	0.73
24:DA:2855:C:H2'	24:DA:2856:C:H6	1.53	0.73
27:BE:92:THR:O	27:BE:95:ILE:HG12	1.89	0.73
24:DA:2884:U:H2'	24:DA:2885:C:H5'	1.71	0.73
1:CA:426:G:OP1	4:CG:38:TYR:OH	2.06	0.72
7:CJ:85:TYR:HH	7:CJ:154:TYR:HE2	1.36	0.72
9:AL:96:LEU:CA	9:AL:99:LEU:CD1	2.63	0.72
43:DU:75:ILE:HD12	43:DU:76:CYS:N	2.04	0.72
24:DA:2439:A:P	24:DA:2439:A:H3'	2.28	0.72
37:BQ:110:LEU:CD2	37:BQ:112:PHE:CD2	2.71	0.72
24:DA:2776:A:H4'	24:DA:2777:G:O5'	1.87	0.72
2:CE:168:THR:HG23	2:CE:192:SER:HA	1.69	0.72
6:CI:23:LYS:HE2	6:CI:61:LEU:HD21	1.68	0.72
1:AA:79:G:N2	1:AA:90:C:N3	2.36	0.72
3:CF:85:ARG:CD	3:CF:85:ARG:H	2.01	0.72
48:BX:8:LEU:HD13	48:BX:31:LEU:CD2	2.18	0.72
50:D5:6:VAL:HG22	50:D5:7:PRO:HD2	1.71	0.72
1:CA:328:C:H4'	1:CA:329:A:C5'	2.19	0.72
35:BP:78:PRO:HG2	35:BP:81:VAL:HG11	1.71	0.72
1:CA:530:G:H3'	1:CA:531:U:C5'	2.19	0.72
29:DG:97:ASP:HA	29:DG:100:TRP:HD1	1.54	0.72
1:CA:1123:A:H4'	10:CM:37:PRO:CD	2.18	0.72
1:CA:1220:G:N3	19:CV:52:TYR:HE2	1.88	0.72
1:CA:1317:C:N4	14:CQ:19:ARG:HH12	1.86	0.72
13:CP:17:VAL:O	13:CP:20:THR:OG1	2.06	0.72
1:CA:979:C:O2	14:CQ:19:ARG:NH2	2.21	0.72
9:AL:10:ARG:HG3	9:AL:105:ASP:OD1	1.89	0.72
7:AJ:23:VAL:O	7:AJ:27:ILE:HG13	1.89	0.72
46:BZ:53:VAL:CG2	46:BZ:74:VAL:HG23	2.17	0.72
24:BA:2636:U:OP1	27:BE:80:GLU:N	2.21	0.72
24:DA:26:G:OP1	41:DS:80:PRO:HB3	1.89	0.72
46:DZ:87:PRO:HA	46:DZ:90:ILE:CG2	2.17	0.72
44:BV:171:ILE:HD13	44:BV:171:ILE:N	2.04	0.72
18:CU:22:VAL:HG22	18:CU:23:LYS:N	1.99	0.72
44:BV:107:THR:HG21	44:BV:112:ARG:HA	1.71	0.72
47:BW:50:ILE:CD1	47:BW:51:ARG:H	2.01	0.72
24:DA:637:A:H2'	34:DO:117:GLU:OE2	1.88	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:121:PRO:HB3	26:BD:135:PHE:HE2	1.53	0.72
6:CI:23:LYS:HE2	6:CI:61:LEU:HD11	1.71	0.72
27:DE:134:ILE:HA	27:DE:137:HIS:CD2	2.24	0.72
37:BQ:34:HIS:HB2	37:BQ:36:TYR:HE1	1.51	0.72
8:CK:64:LYS:HG2	8:CK:79:VAL:HG21	1.70	0.72
26:BD:69:ARG:NH2	26:BD:128:GLY:O	2.22	0.72
3:AF:53:ALA:HB2	3:AF:115:LEU:HD11	1.69	0.72
24:BA:908:C:O2'	24:BA:909:A:H5'	1.88	0.72
12:AO:18:VAL:HG23	12:AO:19:ARG:N	2.05	0.72
52:D7:46:VAL:HG12	52:D7:47:ARG:H	1.54	0.72
24:DA:2365:G:N7	53:D8:39:LYS:NZ	2.34	0.72
1:CA:719:C:H42	18:CU:71:LYS:NZ	1.87	0.72
9:CL:8:GLY:HA3	9:CL:80:GLY:H	1.52	0.72
1:CA:1149:C:OP2	9:CL:9:ARG:NH1	2.23	0.72
19:CV:66:MET:CA	19:CV:67:VAL:HG13	2.18	0.72
9:AL:49:PRO:O	9:AL:53:VAL:HG23	1.88	0.72
24:DA:2392:A:H8	34:DO:61:ARG:HD2	1.51	0.72
24:BA:270(I):G:H1'	46:BZ:78:LYS:CE	2.18	0.72
24:DA:259:G:H21	24:DA:621:A:H8	1.36	0.72
1:AA:1005:A:O2'	1:AA:1037:C:O2'	2.07	0.72
5:CH:69:VAL:CG1	5:CH:71:LEU:HD11	2.19	0.72
6:AI:37:VAL:HG12	6:AI:38:GLU:N	2.04	0.72
24:DA:631:A:OP2	53:D8:47:LYS:NZ	2.20	0.72
40:D2:79:VAL:C	40:D2:80:GLN:HE21	1.91	0.72
24:BA:517:C:OP1	50:B5:16:ARG:NH2	2.21	0.72
26:DD:28:GLU:HB3	26:DD:29:PRO:CD	2.19	0.72
32:DM:134:ARG:HG2	32:DM:134:ARG:O	1.88	0.72
32:BM:134:ARG:O	32:BM:136:GLU:N	2.22	0.72
1:CA:1060:C:C5	3:CF:2:GLY:HA3	2.24	0.72
35:DP:59:ARG:O	35:DP:60:ARG:HG2	1.89	0.72
24:DA:271:G:H2'	24:DA:272:G:C8	2.24	0.72
43:DU:48:ALA:HB3	43:DU:59:GLY:C	2.09	0.72
1:CA:1342:C:H4'	9:CL:125:TYR:HB3	1.71	0.72
1:CA:1118:C:O4'	9:CL:104:ARG:NH2	2.22	0.72
14:CQ:22:THR:HG23	14:CQ:33:VAL:HG11	1.71	0.72
19:CV:49:ILE:C	19:CV:49:ILE:HD12	2.09	0.72
24:DA:2286:A:H5''	51:D6:28:ARG:HG2	1.60	0.72
24:DA:2393:A:H8	53:D8:30:ARG:NH2	1.85	0.72
24:BA:2419:U:H5'	51:B6:23:THR:HG21	1.72	0.72
24:BA:2422:A:N7	53:B8:31:HIS:HE1	1.88	0.72
4:AG:19:LEU:H	4:AG:19:LEU:HD23	1.54	0.72
31:BK:69:LYS:CB	31:BK:136:VAL:HG13	2.19	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CM:34:VAL:HG12	10:CM:74:ILE:HG22	1.72	0.72
3:CF:70:VAL:HG12	3:CF:72:LYS:H	1.54	0.72
4:CG:108:LEU:CD1	4:CG:174:LEU:HB3	2.19	0.72
14:CQ:13:THR:N	14:CQ:14:PRO:HD3	2.04	0.72
24:BA:2393:A:H4'	34:BO:61:ARG:H	1.54	0.72
3:AF:72:LYS:HB3	3:AF:75:VAL:CG2	2.19	0.72
8:AK:121:ASP:OD1	8:AK:125:ARG:NH2	2.21	0.72
34:BO:125:VAL:O	34:BO:145:PRO:HD2	1.89	0.72
31:DK:52:ARG:HD2	31:DK:53:ALA:N	2.05	0.72
24:DA:654(I):C:O2	24:DA:654(I):C:H2'	1.89	0.72
31:DK:130:TYR:HB3	31:DK:136:VAL:HG13	1.72	0.72
24:DA:828:U:H2'	24:DA:828:U:O2	1.90	0.72
24:BA:1593:G:H2'	24:BA:1594:G:C8	2.24	0.72
24:DA:2219:G:OP1	26:DD:172:TYR:OH	2.06	0.72
29:BG:46:ALA:CB	29:BG:52:ILE:HG21	2.18	0.72
1:CA:1220:G:H21	19:CV:54:GLY:CA	2.01	0.72
1:CA:1297:C:O2'	1:CA:1298:C:OP2	2.06	0.72
1:CA:1352:C:OP1	21:CX:3:LYS:NZ	2.22	0.72
13:CP:22:ILE:HB	13:CP:25:ILE:HG13	1.71	0.72
13:CP:29:ARG:HD3	13:CP:64:TRP:CH2	2.25	0.72
1:AA:1374:A:H2'	1:AA:1375:A:H5'	1.70	0.72
24:BA:1601:G:P	52:B7:49:ARG:NH1	2.62	0.72
29:BG:109:VAL:O	29:BG:113:ARG:HG3	1.89	0.72
37:BQ:110:LEU:HG	37:BQ:111:GLU:CA	2.19	0.72
3:CF:130:VAL:O	3:CF:134:ILE:HG12	1.89	0.72
29:DG:35:GLU:O	29:DG:36:LYS:HB3	1.88	0.72
38:DR:88:ILE:CD1	38:DR:91:ARG:HG2	2.19	0.72
22:AC:20:U:C2'	22:AC:21:A:H5'	2.19	0.72
4:AG:196:LEU:CG	4:AG:197:PRO:HD2	2.19	0.72
24:DA:94:G:P	43:DU:54:LYS:NZ	2.63	0.72
4:AG:105:VAL:HG13	4:AG:110:PHE:HB2	1.70	0.72
4:AG:194:LEU:HD12	4:AG:195:ALA:N	2.04	0.72
26:DD:67:PHE:HB3	26:DD:153:ALA:HB3	1.71	0.72
44:DV:101:PRO:C	44:DV:102:LEU:HD12	2.09	0.72
32:BM:15:LEU:HD13	32:BM:16:ILE:N	2.05	0.72
24:DA:468:G:N7	52:D7:39:ARG:NH2	2.37	0.72
24:DA:2801:A:H2'	24:DA:2802:G:O4'	1.89	0.72
39:B1:108:GLU:CD	39:B1:112:ARG:HH12	1.93	0.72
13:AP:11:ARG:HG2	13:AP:46:LYS:CD	2.18	0.72
1:AA:1192:C:P	3:AF:4:LYS:NZ	2.63	0.72
27:BE:72:VAL:O	27:BE:74:PRO:HD3	1.88	0.72
1:CA:735:C:O2'	1:CA:736:C:H5'	1.89	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1200:C:H5'	1:CA:1201:A:H5''	1.72	0.72
24:BA:1280:G:O2'	24:BA:1281:G:H5'	1.88	0.72
24:DA:2387:U:O2'	45:D3:41:ARG:NH1	2.23	0.72
1:CA:922:G:N3	1:CA:1398:A:H2	1.88	0.72
33:DN:39:ILE:HG13	33:DN:39:ILE:O	1.86	0.72
1:CA:594:G:H2'	1:CA:595:G:H5'	1.70	0.72
11:AN:126:ARG:O	11:AN:128:ALA:N	2.22	0.72
9:CL:10:ARG:NH1	9:CL:75:ASP:OD2	2.23	0.72
1:CA:1289:A:H5''	21:CX:10:ARG:HH21	1.54	0.72
4:AG:6:GLY:O	4:AG:8:VAL:HG13	1.89	0.72
27:DE:76:ARG:HG2	27:DE:195:LEU:HD13	1.71	0.72
46:DZ:86:SER:N	46:DZ:87:PRO:CD	2.53	0.72
3:CF:105:GLU:OE1	3:CF:107:GLN:HG2	1.89	0.72
4:CG:173:TRP:HB3	4:CG:187:ARG:HH11	1.55	0.72
28:DF:132:VAL:O	28:DF:134:GLY:N	2.23	0.72
38:DR:23:ARG:HG2	38:DR:120:ARG:HH12	1.55	0.72
37:BQ:65:VAL:O	37:BQ:69:VAL:HG12	1.88	0.72
42:DT:30:VAL:HG12	42:DT:31:HIS:N	2.04	0.72
24:DA:470:A:OP1	28:DF:59:TYR:CE1	2.41	0.72
24:DA:2884:U:C2'	24:DA:2885:C:H5'	2.20	0.72
24:BA:907:U:O2'	35:BP:101:ARG:NH2	2.22	0.72
24:BA:674:G:O2'	28:BF:74:ARG:HG3	1.90	0.72
24:BA:642:G:H21	24:BA:646:A:H2	1.36	0.72
30:DH:38:SER:OG	30:DH:39:PRO:HD2	1.90	0.72
33:DN:10:VAL:CG2	33:DN:17:ARG:HA	2.19	0.72
8:CK:13:ILE:O	8:CK:17:THR:HG23	1.89	0.72
38:DR:78:LEU:HD23	38:DR:78:LEU:O	1.88	0.72
24:BA:764:A:N3	26:BD:213:ARG:NH1	2.38	0.72
4:CG:24:GLU:O	4:CG:27:TYR:HB3	1.90	0.72
1:CA:599:C:P	8:CK:94:TYR:CZ	2.69	0.72
14:CQ:22:THR:HB	14:CQ:35:ARG:CZ	2.19	0.72
9:AL:9:ARG:HG2	9:AL:14:VAL:CA	2.19	0.72
4:AG:24:GLU:O	4:AG:28:SER:N	2.22	0.72
43:BU:51:VAL:HG22	43:BU:51:VAL:O	1.90	0.72
27:DE:36:ARG:NH1	27:DE:85:ASN:OD1	2.22	0.72
2:AE:235:SER:C	2:AE:237:ALA:H	1.92	0.72
38:BR:5:ALA:CB	38:BR:8:LYS:HE2	2.20	0.72
13:AP:14:ARG:HG2	13:AP:16:ASP:OD1	1.89	0.72
30:DH:109:PHE:CE1	30:DH:152:ARG:HD3	2.23	0.72
6:AI:67:MET:HB2	6:AI:68:PRO:HD2	1.71	0.72
1:AA:1126:U:H5	1:AA:1127:G:C4	2.07	0.72
4:AG:84:LYS:CA	4:AG:84:LYS:HE3	2.19	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:196:A:OP1	20:CW:68:LYS:NZ	2.21	0.72
30:DH:46:GLU:HB3	30:DH:49:VAL:HG23	1.72	0.72
33:BN:98:VAL:HG12	33:BN:117:LEU:CB	2.19	0.72
6:CI:2:ARG:NH2	15:CR:2:PRO:HD2	2.05	0.72
8:CK:37:ARG:NH1	8:CK:41:ARG:HH22	1.88	0.72
26:BD:142:VAL:HG23	26:BD:193:VAL:HA	1.72	0.72
32:DM:66:LYS:O	32:DM:87:LEU:HD12	1.89	0.72
24:DA:796:C:H2'	24:DA:797:C:C6	2.25	0.72
18:AU:29:PHE:H	18:AU:29:PHE:HD1	1.38	0.72
18:AU:36:ASN:H	18:AU:36:ASN:HD22	1.36	0.72
24:DA:857:C:H4'	45:D3:23:VAL:HG21	1.70	0.72
26:BD:118:VAL:HG22	26:BD:119:ALA:H	1.53	0.72
1:CA:1124:G:H3'	1:CA:1145:C:N4	2.05	0.72
1:CA:977:A:N3	1:CA:977:A:H2'	2.05	0.72
24:DA:2776:A:H3'	24:DA:2776:A:OP1	1.90	0.72
2:AE:8:LYS:CE	2:AE:8:LYS:H	2.01	0.72
2:CE:8:LYS:CE	2:CE:217:ARG:HD2	2.18	0.72
24:BA:747:U:C6	50:B5:2:ALA:HB3	2.25	0.72
35:BP:59:ARG:O	35:BP:60:ARG:HG2	1.88	0.72
27:BE:181:LEU:HD21	38:BR:7:ILE:CG2	2.20	0.72
31:DK:68:LEU:HA	31:DK:71:ILE:HG22	1.72	0.72
16:AS:20:VAL:HG23	16:AS:34:GLU:O	1.88	0.72
24:DA:2119:A:N6	24:DA:2170:A:N7	2.38	0.72
5:CH:150:ARG:O	5:CH:151:LEU:CB	2.38	0.72
3:AF:22:TRP:CZ3	3:AF:24:ALA:HB2	2.24	0.72
41:DS:87:PRO:HA	41:DS:93:ALA:HA	1.71	0.72
47:DW:31:GLU:O	47:DW:35:LEU:HD23	1.89	0.72
30:DH:35:VAL:HG13	30:DH:36:PRO:HD2	1.71	0.72
24:BA:534:U:H5'	39:B1:42:ALA:HB1	1.70	0.72
9:CL:17:VAL:HG12	9:CL:63:ILE:CD1	2.19	0.72
9:CL:9:ARG:CG	9:CL:14:VAL:HG13	2.19	0.72
51:B6:47:THR:HG22	51:B6:48:VAL:N	2.05	0.72
24:BA:1998:G:H2'	24:BA:1999:C:C5'	2.16	0.72
29:DG:108:ASN:CA	49:D4:38:LYS:HG2	2.18	0.72
31:BK:101:LEU:HD21	31:BK:107:VAL:CG2	2.17	0.72
46:DZ:91:LYS:O	46:DZ:93:GLU:N	2.22	0.72
24:BA:2210:G:H5'	24:BA:2211:G:C8	2.25	0.72
24:BA:2123:G:H22	24:BA:2175:C:H42	1.38	0.72
30:BH:12:PRO:O	30:BH:13:LYS:HB2	1.90	0.72
12:CO:27:LEU:HD11	12:CO:62:SER:CB	2.19	0.72
24:DA:1019:U:O2'	24:DA:1021:A:H2	1.73	0.72
1:AA:222:U:H2'	1:AA:223:U:C6	2.24	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.52	0.72
8:CK:51:VAL:HG11	8:CK:60:ARG:HH11	1.55	0.72
1:AA:1015:A:O2'	14:AQ:15:LYS:NZ	2.22	0.72
1:AA:431:A:H2'	1:AA:432:A:O4'	1.90	0.72
24:DA:2262:U:H5	45:D3:16:SER:OG	1.73	0.72
7:CJ:88:PRO:C	7:CJ:155:ARG:NH1	2.42	0.71
24:BA:2056:G:N2	50:B5:4:HIS:O	2.22	0.71
17:CT:94:ASN:HA	17:CT:97:SER:OG	1.90	0.71
44:BV:116:VAL:HG11	44:BV:175:VAL:O	1.89	0.71
44:BV:150:LEU:CG	44:BV:154:ASP:CG	2.56	0.71
5:CH:69:VAL:HG12	5:CH:71:LEU:CD1	2.19	0.71
6:AI:67:MET:CE	6:AI:75:LEU:HD12	2.19	0.71
1:AA:559:A:OP1	5:AH:126:ARG:NH2	2.23	0.71
24:BA:2168:G:N3	24:BA:2168:G:H3'	2.05	0.71
24:DA:634:C:H2'	24:DA:635:C:H6	1.55	0.71
22:AC:59:A:C2'	22:AC:60:U:H5'	2.19	0.71
24:DA:1174:A:C6	24:DA:1176:G:H1'	2.24	0.71
12:AO:24:VAL:HG12	12:AO:27:LEU:HG	1.72	0.71
47:BW:31:GLU:CB	47:BW:53:LEU:HD11	2.20	0.71
27:BE:115:GLY:HA2	27:BE:157:ALA:CB	2.20	0.71
24:BA:602:G:N2	24:BA:655:A:C8	2.57	0.71
24:BA:1716:U:O2'	24:BA:1717:G:H5'	1.90	0.71
24:DA:2292:C:OP1	37:DQ:17:ARG:NH2	2.23	0.71
24:BA:2591:C:H2'	24:BA:2592:G:C8	2.25	0.71
1:CA:57:G:H2'	1:CA:58:C:C6	2.24	0.71
24:BA:1221:C:H2'	24:BA:1222:C:H6	1.55	0.71
2:CE:75:LYS:HE3	2:CE:75:LYS:N	2.06	0.71
4:AG:98:GLU:HG3	4:AG:103:ASN:HD21	1.54	0.71
24:BA:2564:A:C2	24:BA:2647:U:H4'	2.25	0.71
21:CX:6:ARG:HH21	21:CX:15:ARG:HH22	1.37	0.71
51:D6:38:LYS:O	51:D6:46:HIS:HD2	1.73	0.71
24:BA:1653:G:H1'	24:BA:1654:A:OP2	1.90	0.71
7:AJ:20:ASP:HB3	7:AJ:23:VAL:HG23	1.71	0.71
40:B2:44:LYS:HG2	40:B2:45:THR:N	2.05	0.71
1:CA:1308:U:H5''	13:CP:98:VAL:HG22	1.71	0.71
27:DE:9:VAL:HG21	27:DE:25:VAL:CB	2.19	0.71
1:AA:1286:A:H5''	21:AX:26:LYS:CD	2.19	0.71
24:DA:2056:G:N2	50:D5:4:HIS:O	2.23	0.71
13:CP:41:PRO:O	13:CP:43:THR:N	2.23	0.71
2:CE:119:GLU:N	2:CE:119:GLU:OE2	2.22	0.71
1:AA:684:A:H5''	11:AN:11:LYS:NZ	2.04	0.71
34:BO:144:GLU:N	34:BO:144:GLU:OE2	2.23	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CF:40:ARG:HG2	3:CF:55:VAL:CG1	2.20	0.71
24:DA:1173:G:HO2'	24:DA:1174:A:H2	1.32	0.71
40:D2:29:PRO:O	40:D2:61:VAL:HG13	1.90	0.71
12:AO:24:VAL:HG11	12:AO:27:LEU:CD1	2.20	0.71
24:DA:443:A:H1'	24:DA:1201:C:O4'	1.90	0.71
1:CA:913:A:H1'	1:CA:914:A:OP2	1.89	0.71
6:CI:11:ASN:ND2	6:CI:84:ASN:OD1	2.17	0.71
40:B2:24:LYS:HB3	40:B2:24:LYS:NZ	2.05	0.71
3:CF:78:GLY:HA2	3:CF:79:ARG:HH21	1.55	0.71
44:BV:16:SER:O	44:BV:20:ARG:HD2	1.90	0.71
13:AP:32:GLU:O	13:AP:36:LYS:HG2	1.90	0.71
1:AA:177:C:OP1	20:AW:65:LYS:NZ	2.20	0.71
24:DA:1600:C:C2'	52:D7:49:ARG:CZ	2.62	0.71
1:CA:410:G:N1	1:CA:429:U:O2	2.23	0.71
1:CA:1127:G:H21	1:CA:1146:A:H62	1.36	0.71
1:CA:1270:C:OP2	21:CX:18:TYR:OH	2.05	0.71
7:CJ:150:ALA:HB2	11:CN:50:TYR:OH	1.90	0.71
34:DO:62:LEU:C	34:DO:62:LEU:CD1	2.58	0.71
4:AG:59:ARG:NH2	4:AG:62:GLN:HG3	2.05	0.71
29:DG:113:ARG:HA	49:D4:35:VAL:HG11	1.73	0.71
17:CT:97:SER:O	17:CT:98:LEU:HD23	1.91	0.71
43:DU:42:VAL:HG11	43:DU:67:LEU:CD1	2.19	0.71
1:CA:405:U:O4	4:CG:2:GLY:N	2.23	0.71
40:D2:80:GLN:HE21	40:D2:80:GLN:CA	2.03	0.71
24:BA:880:G:N1	24:BA:897:C:N3	2.38	0.71
28:BF:114:VAL:HG21	28:BF:202:PHE:CZ	2.25	0.71
24:BA:2340:G:O2'	24:BA:2341:G:H5'	1.90	0.71
24:DA:1638:C:H4'	24:DA:2710:C:O2	1.89	0.71
40:D2:64:HIS:CD2	40:D2:92:THR:HG23	2.24	0.71
24:BA:360:G:O2'	24:BA:361:G:H5'	1.90	0.71
40:D2:62:LEU:H	40:D2:62:LEU:HD22	1.55	0.71
33:DN:87:ILE:HD11	33:DN:91:LEU:C	2.10	0.71
9:CL:78:LYS:HG2	9:CL:101:PHE:HZ	1.53	0.71
1:AA:1117:G:C5'	9:AL:104:ARG:HH12	2.02	0.71
51:B6:20:ASN:O	51:B6:21:TYR:HB3	1.91	0.71
26:BD:35:LYS:HD3	26:BD:63:ARG:CA	2.19	0.71
24:BA:1060:U:H5'	24:BA:1061:U:H5	1.55	0.71
2:CE:8:LYS:HE2	2:CE:217:ARG:CD	2.20	0.71
1:CA:279:A:H5''	1:CA:281:G:O4'	1.91	0.71
24:BA:1359:A:H2'	24:BA:1360:A:C5'	2.04	0.71
33:DN:47:ILE:HG13	33:DN:48:PRO:CD	2.15	0.71
49:D4:1:MET:O	49:D4:2:LYS:HD3	1.90	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DQ:29:PHE:O	37:DQ:35:ILE:HD12	1.90	0.71
46:DZ:23:LYS:CD	46:DZ:28:GLY:HA3	2.19	0.71
6:AI:24:GLU:HA	6:AI:27:GLN:CG	2.19	0.71
27:DE:200:GLU:HG2	27:DE:201:THR:N	2.05	0.71
24:BA:95:G:H4'	47:BW:46:GLN:NE2	2.06	0.71
8:CK:84:ARG:O	8:CK:135:CYS:HB2	1.91	0.71
1:CA:1504:G:OP1	1:CA:1507:A:H4'	1.91	0.71
24:DA:2219:G:H2'	24:DA:2224:G:H5'	1.72	0.71
20:AW:95:ALA:O	20:AW:97:ALA:N	2.23	0.71
4:AG:83:SER:HA	4:AG:89:THR:HG21	1.73	0.71
7:AJ:5:ARG:HD2	7:AJ:7:ALA:N	2.03	0.71
30:DH:42:ARG:O	30:DH:52:VAL:HG13	1.89	0.71
17:CT:10:VAL:HG12	17:CT:53:LEU:HA	1.73	0.71
1:CA:792:A:H4'	1:CA:793:U:O5'	1.90	0.71
1:CA:1118:C:H5'	9:CL:104:ARG:CZ	2.19	0.71
1:CA:1139:G:H22	1:CA:1143:G:H22	1.36	0.71
1:CA:1320:C:N3	19:CV:36:ARG:NH1	2.38	0.71
1:CA:1305:G:N2	1:CA:1332:A:OP2	2.19	0.71
19:CV:70:LYS:NZ	19:CV:72:GLY:C	2.35	0.71
9:AL:93:ARG:HE	9:AL:102:LEU:HD13	1.54	0.71
40:D2:21:ARG:CZ	40:D2:91:TYR:HB3	2.20	0.71
26:BD:35:LYS:HG2	26:BD:64:ILE:CA	2.20	0.71
40:D2:35:LEU:CD2	40:D2:37:VAL:HG21	2.20	0.71
26:DD:35:LYS:CB	26:DD:64:ILE:HG22	2.21	0.71
2:CE:7:VAL:CG2	2:CE:8:LYS:H	2.03	0.71
44:DV:151:HIS:HD2	44:DV:153:SER:OG	1.73	0.71
1:CA:989:C:H1'	1:CA:1016:A:H2	1.56	0.71
1:CA:1061:G:H1'	10:CM:56:HIS:CE1	2.25	0.71
12:CO:83:VAL:HG21	12:CO:100:ILE:HD13	1.73	0.71
40:D2:28:GLU:HG3	40:D2:29:PRO:CD	2.20	0.71
1:AA:631:G:O2'	1:AA:632:A:O4'	2.08	0.71
13:CP:29:ARG:HB3	13:CP:64:TRP:HH2	1.53	0.71
19:CV:49:ILE:CD1	19:CV:60:VAL:HG22	2.20	0.71
24:DA:2287:A:OP1	51:D6:30:THR:CG2	2.38	0.71
24:BA:1050:A:N7	24:BA:2751:G:C5	2.59	0.71
2:AE:76:GLN:OE1	2:AE:206:ASP:HB3	1.90	0.71
24:BA:1069:A:H5''	24:BA:1070:A:OP1	1.90	0.71
13:CP:3:ARG:NH2	13:CP:7:VAL:HB	2.06	0.71
29:DG:33:ARG:H	29:DG:162:THR:HG22	1.55	0.71
1:AA:151:A:H2'	1:AA:152:A:H5'	1.72	0.71
24:DA:1088:A:O3'	24:DA:1089:G:H8	1.74	0.71
19:CV:17:GLU:O	19:CV:21:GLU:HG2	1.90	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:D0:38:VAL:HB	36:D0:39:PRO:HD3	1.72	0.71
6:CI:23:LYS:HD2	6:CI:61:LEU:HD21	1.73	0.71
1:CA:1096:C:O2'	1:CA:1097:C:H5'	1.89	0.71
24:DA:882:G:N1	24:DA:894:C:N3	2.39	0.71
3:CF:47:LEU:HG	3:CF:52:LEU:HB3	1.70	0.71
24:BA:2502:G:C5'	24:BA:2503:A:H5''	2.20	0.71
37:DQ:27:SER:HA	37:DQ:88:ASP:HB3	1.71	0.71
24:BA:330:A:O2'	24:BA:331:A:H8	1.74	0.71
24:DA:2887:U:O2'	24:DA:2888:C:H5'	1.90	0.71
32:DM:34:LEU:O	32:DM:49:GLY:HA3	1.89	0.71
1:CA:1320:C:C4	1:CA:1321:C:C4	2.79	0.71
9:CL:112:LYS:HE3	9:CL:118:LYS:HA	1.73	0.71
7:CJ:16:LEU:CD1	9:CL:42:ARG:HA	2.21	0.71
24:DA:2808:U:O2'	24:DA:2809:A:H5'	1.90	0.71
3:CF:39:ILE:HG21	3:CF:57:ILE:HD11	1.71	0.71
2:CE:7:VAL:O	2:CE:217:ARG:NH2	2.22	0.71
24:DA:1101:U:H2'	24:DA:1102:C:C6	2.25	0.71
39:D1:66:ASN:ND2	39:D1:70:ARG:HE	1.84	0.71
49:D4:22:ILE:HG13	49:D4:23:GLU:H	1.56	0.71
24:BA:49:A:N7	24:BA:120:U:C5	2.53	0.71
1:AA:686:U:O2'	1:AA:687:A:O5'	2.08	0.71
38:BR:51:ARG:HG3	38:BR:98:LYS:HE3	1.72	0.71
20:CW:89:ARG:NH1	20:CW:105:SER:O	2.23	0.71
38:BR:37:GLY:O	38:BR:39:ARG:N	2.22	0.71
5:CH:151:LEU:HD11	8:CK:79:VAL:HG22	1.72	0.71
2:AE:221:LEU:HD13	2:AE:221:LEU:O	1.91	0.71
42:DT:57:LEU:HD21	42:DT:78:LYS:CB	2.20	0.71
39:D1:112:ARG:NH1	40:D2:47:VAL:HG11	2.06	0.71
33:DN:10:VAL:HG21	33:DN:16:ALA:O	1.91	0.71
8:CK:17:THR:O	8:CK:78:GLN:NE2	2.24	0.71
1:AA:1159:U:O4'	1:AA:1182:G:N2	2.24	0.71
24:DA:2845:G:O2'	24:DA:2846:G:H5'	1.89	0.71
1:CA:1328:C:O2'	13:CP:29:ARG:NH2	2.22	0.71
7:CJ:78:ARG:NH2	7:CJ:87:VAL:HG22	2.06	0.71
24:DA:2376:A:C2	37:DQ:112:PHE:CB	2.71	0.71
3:AF:8:ILE:HD11	3:AF:16:ARG:CD	2.20	0.71
51:D6:37:ARG:HH21	51:D6:38:LYS:H	1.39	0.71
24:DA:643:A:N1	24:DA:2369:A:O2'	2.23	0.71
24:DA:2393:A:H4'	34:DO:62:LEU:N	2.05	0.71
24:BA:2439:A:H3'	24:BA:2439:A:P	2.31	0.71
26:DD:44:ASN:HB3	26:DD:49:ILE:CA	2.16	0.71
2:CE:17:PHE:CD2	2:CE:44:LEU:CD2	2.74	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:119:GLU:HB3	44:DV:122:ARG:NH1	2.05	0.71
44:BV:76:LEU:CD2	44:BV:76:LEU:H	2.03	0.71
24:BA:2828:C:C2'	24:BA:2829:C:H5'	2.20	0.71
1:AA:689:C:H3'	1:AA:690:G:H21	1.54	0.71
3:CF:82:GLU:N	3:CF:85:ARG:HD3	2.06	0.71
8:CK:6:ILE:HD12	8:CK:6:ILE:H	1.56	0.71
25:BB:37:C:C2'	25:BB:38:C:H5'	2.21	0.71
1:AA:162:A:H3'	1:AA:163:C:C5'	2.21	0.71
7:AJ:78:ARG:HH21	7:AJ:154:TYR:CA	2.04	0.71
1:CA:923:A:H5'	5:CH:21:ALA:HB2	1.71	0.71
29:BG:57:ALA:HB2	29:BG:90:LEU:HD21	1.71	0.71
1:CA:339:C:C2'	1:CA:340:U:H5'	2.21	0.71
1:AA:1104:G:OP1	2:AE:144:ARG:NH2	2.23	0.71
1:AA:5:U:O2'	1:AA:6:G:O5'	2.07	0.71
16:CS:49:LEU:HD12	16:CS:50:LYS:N	2.05	0.71
43:BU:44:ILE:HG13	43:BU:45:VAL:H	1.55	0.71
24:DA:1299:G:H5''	24:DA:1300:U:OP1	1.91	0.71
3:CF:27:LYS:HB3	3:CF:27:LYS:NZ	2.05	0.71
24:BA:1981:A:H5''	24:BA:1982:C:OP2	1.91	0.71
1:CA:1324:A:C4'	1:CA:1362:C:H4'	2.21	0.71
14:CQ:29:ARG:NE	14:CQ:40:CYS:HB3	2.06	0.71
24:BA:2346:A:O3'	51:B6:39:TYR:OH	2.09	0.71
29:DG:110:ALA:HB1	29:DG:140:ILE:CD1	2.21	0.71
24:DA:1568:G:OP2	26:DD:63:ARG:NH2	2.23	0.71
44:DV:150:LEU:O	44:DV:171:ILE:HB	1.91	0.71
1:AA:1330:U:H5''	1:AA:1331:G:OP2	1.91	0.71
5:AH:77:PRO:HD2	5:AH:142:LEU:HD23	1.73	0.71
31:DK:118:LYS:HG2	31:DK:119:PRO:CD	2.17	0.71
1:AA:1124:G:H3'	1:AA:1145:C:N4	2.04	0.71
35:BP:33:GLY:HA2	35:BP:105:GLU:HB2	1.73	0.71
1:CA:1003:G:N1	1:CA:1037:C:N3	2.36	0.71
24:BA:1434:A:H61	24:BA:1558:A:H62	1.37	0.71
24:BA:2469:A:O2'	35:BP:56:ARG:NE	2.23	0.71
6:AI:19:LEU:C	6:AI:19:LEU:HD23	2.11	0.71
27:DE:101:ARG:NH1	27:DE:171:GLU:HB2	2.06	0.71
30:DH:27:LYS:HB2	30:DH:32:GLU:HB3	1.72	0.71
31:BK:6:LEU:HD13	31:BK:36:ALA:HA	1.71	0.71
24:DA:877:U:H4'	24:DA:878:A:OP1	1.90	0.71
24:BA:574:C:N3	27:BE:145:LYS:NZ	2.36	0.71
32:BM:114:ARG:O	32:BM:115:ARG:HB3	1.90	0.71
1:CA:1148:U:C2'	9:CL:66:ARG:HH21	2.03	0.71
1:CA:1300:G:O2'	1:CA:1301:U:O5'	2.08	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CL:16:ARG:CG	9:CL:64:THR:CG2	2.64	0.71
1:AA:1199:U:C4'	10:AM:54:PHE:CD2	2.71	0.71
49:B4:40:HIS:N	49:B4:41:PRO:CD	2.54	0.71
1:CA:1191:A:H8	1:CA:1191:A:OP2	1.74	0.71
30:DH:3:ARG:NH1	30:DH:7:LEU:HD13	2.06	0.71
24:DA:2801:A:C5'	24:DA:2895:U:H5''	2.21	0.71
24:DA:1225:C:O2	40:D2:84:LYS:NZ	2.24	0.71
1:CA:987:G:N2	1:CA:1219:U:O2	2.24	0.71
35:BP:24:GLY:CA	35:BP:25:ASP:HB2	2.18	0.71
24:BA:620:G:H4'	24:BA:621:A:H5'	1.72	0.71
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.25	0.71
24:BA:547:A:H2'	24:BA:548:A:C8	2.25	0.71
24:DA:176:G:O2'	24:DA:177:G:H5'	1.90	0.71
44:DV:15:PRO:O	44:DV:19:ARG:NE	2.24	0.71
27:BE:55:ASN:O	27:BE:57:LYS:N	2.24	0.71
30:DH:6:ARG:HG2	30:DH:66:GLY:HA2	1.73	0.70
51:D6:9:LEU:CD1	51:D6:27:LYS:H	2.04	0.70
17:CT:97:SER:C	17:CT:101:ARG:HD2	2.12	0.70
43:DU:42:VAL:CG2	43:DU:65:ALA:HB3	2.20	0.70
4:CG:138:TYR:C	4:CG:138:TYR:CD1	2.64	0.70
4:CG:65:ARG:HB2	4:CG:75:PHE:CE2	2.26	0.70
24:BA:2174:C:H2'	24:BA:2175:C:C5	2.26	0.70
24:DA:2875:C:C4'	38:DR:5:ALA:HB2	2.18	0.70
39:D1:66:ASN:HB2	39:D1:76:TYR:HB2	1.71	0.70
24:DA:2355:C:H4'	45:D3:36:ILE:HD11	1.72	0.70
12:CO:24:VAL:HG13	12:CO:98:TYR:CE1	2.25	0.70
1:AA:913:A:H1'	1:AA:914:A:OP2	1.91	0.70
2:CE:176:GLU:O	2:CE:180:LEU:HG	1.91	0.70
24:DA:2572:A:N7	27:DE:145:LYS:HB2	2.06	0.70
24:BA:956:G:OP2	35:BP:14:ARG:NH2	2.24	0.70
1:CA:1342:C:H1'	9:CL:124:GLN:HG3	1.72	0.70
8:CK:49:GLU:O	8:CK:51:VAL:HG13	1.91	0.70
40:B2:64:HIS:ND1	40:B2:92:THR:HG22	2.06	0.70
38:DR:12:SER:O	38:DR:15:VAL:HG12	1.90	0.70
41:BS:12:ILE:HG13	41:BS:42:ARG:HH11	1.54	0.70
1:CA:1378:C:H5	1:CA:1379:G:C8	2.09	0.70
29:BG:143:GLU:OE1	49:B4:26:SER:OG	2.05	0.70
33:BN:4:PRO:O	33:BN:5:GLN:HB2	1.91	0.70
1:CA:1142:G:H2'	1:CA:1143:G:O4'	1.91	0.70
1:CA:1252:A:H2'	1:CA:1253:G:O4'	1.91	0.70
1:CA:957:U:H1'	1:CA:960:U:C5	2.26	0.70
3:AF:8:ILE:CD1	3:AF:16:ARG:NE	2.53	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AL:53:VAL:HG22	9:AL:95:LYS:HE3	1.73	0.70
2:AE:97:TRP:HH2	2:AE:176:GLU:OE2	1.72	0.70
24:BA:1085:A:H4'	24:BA:1086:A:OP1	1.91	0.70
26:DD:35:LYS:HB3	26:DD:64:ILE:CG2	2.21	0.70
1:CA:1080:A:P	5:CH:14:ARG:HH22	2.14	0.70
5:CH:81:GLU:HG2	5:CH:90:VAL:CG1	2.15	0.70
1:AA:1120:G:H2'	1:AA:1121:U:C6	2.26	0.70
1:AA:1152:A:H4'	10:AM:13:HIS:CD2	2.26	0.70
26:BD:133:LEU:HD13	26:BD:173:VAL:CG2	2.21	0.70
1:AA:90:C:C3'	1:AA:91:C:H5''	2.20	0.70
27:DE:199:ARG:HB3	27:DE:200:GLU:OE1	1.90	0.70
24:BA:527:C:OP2	24:BA:2779:U:H5	1.73	0.70
24:DA:986:C:O2'	24:DA:987:G:H5'	1.91	0.70
30:BH:126:PRO:O	30:BH:127:GLU:HG2	1.90	0.70
41:BS:88:ARG:HB3	41:BS:92:ARG:HB2	1.74	0.70
24:BA:1326:U:O2'	24:BA:1327:C:H5'	1.91	0.70
49:B4:46:GLN:HE22	49:B4:48:ARG:HB2	1.54	0.70
24:DA:2797:U:H2'	24:DA:2798:C:H5'	1.74	0.70
24:BA:1338:G:N7	42:BT:62:LYS:NZ	2.36	0.70
1:AA:518:C:O2'	1:AA:530:G:N2	2.24	0.70
1:CA:1114:C:H5'	14:CQ:57:ARG:NH2	2.05	0.70
1:CA:1135:U:H4'	1:CA:1136:U:H5	1.55	0.70
1:CA:1313:U:OP2	19:CV:7:LYS:HE3	1.91	0.70
9:CL:85:LEU:O	9:CL:89:ASN:ND2	2.24	0.70
24:DA:2420:C:OP2	53:D8:33:ASN:HA	1.90	0.70
13:AP:7:VAL:HG21	29:BG:115:ARG:NH2	2.06	0.70
4:AG:30:LYS:HG2	4:AG:32:ALA:HA	1.72	0.70
24:DA:2788:C:H5'	27:DE:61:ARG:NH1	2.06	0.70
24:DA:2808:U:H2'	24:DA:2809:A:H5'	1.73	0.70
2:CE:98:LEU:HB2	2:CE:101:MET:SD	2.31	0.70
2:CE:5:ILE:HD11	2:CE:55:PHE:HB3	1.72	0.70
3:CF:120:VAL:CA	3:CF:123:GLN:HG3	2.21	0.70
5:CH:76:ILE:CD1	5:CH:142:LEU:HD11	2.20	0.70
31:DK:76:THR:CG2	31:DK:140:LEU:HD13	2.21	0.70
49:D4:14:ILE:CG2	49:D4:33:VAL:HG11	2.22	0.70
38:BR:94:ALA:O	38:BR:95:ARG:HB2	1.91	0.70
53:D8:48:PHE:O	53:D8:49:VAL:O	2.08	0.70
52:B7:47:ARG:HG2	52:B7:48:LYS:N	1.98	0.70
13:AP:65:LYS:O	13:AP:66:LEU:HD23	1.91	0.70
1:CA:197:A:H1'	1:CA:198:G:OP2	1.89	0.70
26:DD:79:VAL:CG1	26:DD:113:VAL:HA	2.21	0.70
20:CW:86:ARG:HB2	20:CW:86:ARG:HH11	1.57	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:841:U:H4'	1:CA:842:C:C6	2.25	0.70
24:DA:2267:A:H5''	24:DA:2268:A:H5'	1.72	0.70
1:AA:339:C:OP2	33:BN:97:ARG:NH1	2.23	0.70
24:BA:1287:A:N7	36:B0:107:ASP:HB2	2.06	0.70
44:DV:132:ASN:C	44:DV:133:ILE:HD12	2.11	0.70
38:BR:27:THR:HG22	38:BR:48:ILE:HG12	1.73	0.70
43:BU:2:ARG:HG2	43:BU:2:ARG:O	1.91	0.70
31:DK:114:LEU:HD23	31:DK:114:LEU:O	1.91	0.70
1:CA:413:G:O2'	1:CA:414:A:OP2	2.06	0.70
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.20	0.70
9:AL:78:LYS:HE3	9:AL:101:PHE:CE1	2.27	0.70
53:B8:29:LYS:CB	53:B8:44:LYS:HG2	2.22	0.70
49:B4:37:SER:CB	49:B4:43:TYR:CE2	2.74	0.70
30:DH:137:ASP:OD1	30:DH:139:GLN:N	2.24	0.70
53:B8:23:VAL:CG1	53:B8:46:ARG:HD3	2.21	0.70
24:BA:483:A:H5''	43:BU:49:VAL:HG22	1.72	0.70
35:DP:133:ARG:O	35:DP:134:ARG:HB3	1.91	0.70
5:CH:67:VAL:HG22	5:CH:69:VAL:CG2	2.20	0.70
5:CH:68:GLU:O	5:CH:68:GLU:CG	2.39	0.70
25:DB:39:A:C6	49:D4:1:MET:HB3	2.26	0.70
29:BG:77:ILE:CG2	29:BG:80:PHE:HE1	2.03	0.70
4:AG:173:TRP:O	4:AG:186:LEU:HG	1.92	0.70
29:DG:104:GLU:CG	49:D4:23:GLU:HG2	2.20	0.70
8:AK:134:ILE:HG22	8:AK:135:CYS:SG	2.32	0.70
5:CH:100:VAL:HA	5:CH:118:ILE:HG22	1.72	0.70
47:DW:52:ASP:O	47:DW:56:GLN:HG3	1.92	0.70
27:DE:203:LYS:HD2	27:DE:203:LYS:O	1.92	0.70
24:DA:479:A:H4'	24:DA:480:A:OP1	1.90	0.70
20:CW:63:ILE:HD13	20:CW:80:ARG:HB3	1.72	0.70
24:DA:2665:A:H2'	24:DA:2666:C:O4'	1.91	0.70
8:CK:31:PHE:O	8:CK:35:ILE:HG13	1.92	0.70
24:BA:1767:C:C2'	24:BA:1768:U:H5'	2.21	0.70
4:CG:163:GLU:HA	4:CG:166:LYS:HE3	1.73	0.70
36:B0:98:LEU:O	36:B0:113:LEU:N	2.23	0.70
51:B6:29:ASN:CA	51:B6:32:ASN:HB3	2.22	0.70
2:AE:19:HIS:NE2	2:AE:20:GLU:OE2	2.25	0.70
24:BA:1073:A:H2'	24:BA:1074:G:O4'	1.92	0.70
38:BR:5:ALA:HA	38:BR:8:LYS:CG	2.19	0.70
10:AM:48:THR:HA	10:AM:62:HIS:HB2	1.71	0.70
34:BO:114:ILE:HD11	34:BO:130:PHE:HD2	1.53	0.70
24:BA:165:U:H3'	24:BA:165:U:O2	1.91	0.70
25:DB:89:G:C6	25:DB:89(A):A:N1	2.60	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:619:U:H3	4:AG:135:LEU:HD13	1.56	0.70
1:CA:133:U:OP1	20:CW:74:LYS:NZ	2.23	0.70
9:CL:125:TYR:CD1	9:CL:126:SER:N	2.60	0.70
13:AP:30:ALA:O	13:AP:32:GLU:N	2.25	0.70
35:BP:54:MET:CE	35:BP:118:LEU:HD23	2.21	0.70
16:CS:9:PHE:HB2	16:CS:16:HIS:O	1.91	0.70
1:AA:600:C:H4'	8:AK:128:GLY:O	1.92	0.70
33:DN:108:GLU:OE1	33:DN:108:GLU:N	2.23	0.70
2:AE:136:VAL:HG23	2:AE:137:ARG:H	1.57	0.70
1:AA:1336:C:O2'	1:AA:1337:G:O5'	2.09	0.70
1:CA:1288:A:N3	1:CA:1352:C:O2'	2.25	0.70
19:CV:79:THR:O	19:CV:79:THR:HG23	1.90	0.70
9:AL:49:PRO:N	9:AL:78:LYS:HZ1	1.90	0.70
34:DO:60:MET:C	34:DO:61:ARG:HG2	2.12	0.70
26:BD:35:LYS:HG2	26:BD:64:ILE:HG23	1.74	0.70
12:AO:93:LEU:O	12:AO:96:VAL:HG12	1.92	0.70
37:BQ:111:GLU:O	37:BQ:112:PHE:HB3	1.91	0.70
1:CA:1080:A:H5''	5:CH:16:THR:HG21	1.74	0.70
6:AI:41:GLU:O	6:AI:43:LEU:HD12	1.90	0.70
34:BO:61:ARG:HB2	34:BO:61:ARG:CZ	2.20	0.70
13:CP:40:ASN:ND2	13:CP:43:THR:HG23	2.05	0.70
4:CG:150:GLU:N	4:CG:150:GLU:OE1	2.23	0.70
31:DK:68:LEU:HA	31:DK:71:ILE:CG2	2.21	0.70
20:CW:84:LEU:O	20:CW:88:VAL:HG23	1.92	0.70
1:AA:376:G:OP1	16:AS:5:ARG:HB2	1.91	0.70
6:CI:67:MET:HB2	6:CI:68:PRO:HD2	1.73	0.70
16:AS:64:ALA:O	16:AS:65:GLN:HG2	1.91	0.70
1:CA:1179:A:C4	9:CL:104:ARG:NH2	2.52	0.70
19:CV:70:LYS:HE3	19:CV:73:GLU:N	2.06	0.70
1:AA:1249:C:O2'	9:AL:73:GLN:OE1	2.08	0.70
24:BA:2347:C:H2'	24:BA:2348:U:H6	1.57	0.70
24:BA:1076:C:C2'	24:BA:1077:A:H5''	2.21	0.70
27:DE:36:ARG:HH12	27:DE:86:PRO:HD2	1.57	0.70
29:DG:109:VAL:O	29:DG:113:ARG:HB2	1.90	0.70
34:DO:47:ASP:OD1	34:DO:49:ARG:HB3	1.91	0.70
30:BH:151:ILE:HG22	30:BH:151:ILE:O	1.91	0.70
5:CH:80:ILE:HG22	8:CK:104:ARG:HE	1.55	0.70
31:DK:101:LEU:H	31:DK:101:LEU:CD2	2.03	0.70
6:CI:48:LEU:HD21	6:CI:60:PHE:CZ	2.20	0.70
37:DQ:7:TYR:CE2	37:DQ:91:PRO:HG2	2.27	0.70
24:BA:2272:U:H5''	24:BA:2273:A:OP1	1.91	0.70
28:DF:192:LEU:HD23	28:DF:193:VAL:N	2.07	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:66:GLU:O	41:BS:66:GLU:HG2	1.90	0.70
1:CA:923:A:C5'	5:CH:21:ALA:HB2	2.21	0.70
49:B4:26:SER:OG	49:B4:27:THR:N	2.25	0.70
16:CS:14:ASN:OD1	16:CS:42:ARG:NH2	2.24	0.70
24:BA:1568:G:H5''	26:BD:61:LEU:HD13	1.73	0.70
31:BK:116:LEU:HD12	31:BK:117:GLU:N	2.06	0.70
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.26	0.70
25:DB:116:G:H4'	37:DQ:54:LEU:HG	1.72	0.70
1:CA:1256:A:N6	1:CA:1277:C:H3'	2.02	0.70
1:CA:1324:A:H4'	1:CA:1362:C:H4'	1.74	0.70
1:CA:1367:C:H5'	10:CM:60:ARG:NH2	2.07	0.70
19:CV:49:ILE:CG2	19:CV:62:ILE:HD11	2.20	0.70
27:DE:68:ALA:O	27:DE:70:ALA:N	2.20	0.70
2:AE:21:ARG:NH1	2:AE:39:ILE:HG12	2.07	0.70
2:CE:5:ILE:HD12	2:CE:221:LEU:HD21	1.73	0.70
1:CA:1079:G:O3'	5:CH:14:ARG:NH2	2.24	0.70
44:BV:146:ILE:HD13	44:BV:147:GLY:N	2.07	0.70
5:CH:72:GLN:O	5:CH:75:THR:HG22	1.90	0.70
49:D4:12:ALA:CB	49:D4:29:PRO:HA	2.21	0.70
40:D2:44:LYS:O	40:D2:46:VAL:HG12	1.91	0.70
3:CF:44:GLU:HG2	3:CF:52:LEU:CD1	2.22	0.70
24:DA:1005:C:O2'	32:DM:28:THR:OG1	2.03	0.70
1:AA:862:C:C2'	1:AA:863:U:H5'	2.21	0.70
30:DH:126:PRO:O	30:DH:127:GLU:HB2	1.91	0.70
24:DA:2195:C:O2'	24:DA:2196:C:H5'	1.92	0.70
9:CL:125:TYR:HD1	9:CL:126:SER:H	1.39	0.70
24:BA:1441:G:H2'	24:BA:1442:G:H8	1.55	0.70
48:DX:8:LEU:HD22	48:DX:31:LEU:HD12	1.72	0.70
26:DD:130:ALA:C	26:DD:131:LEU:HD12	2.12	0.70
30:DH:86:GLU:OE1	30:DH:86:GLU:N	2.24	0.70
1:CA:1372:U:OP2	9:CL:11:LYS:NZ	2.20	0.70
37:DQ:74:ALA:HB1	37:DQ:107:GLU:HG2	1.73	0.70
19:AV:41:VAL:H	19:AV:44:MET:HE2	1.56	0.70
43:BU:81:LYS:HB3	43:BU:97:ARG:CD	2.20	0.70
2:AE:50:GLU:HG3	2:AE:200:ILE:O	1.92	0.70
1:AA:976:G:OP1	14:AQ:32:SER:N	2.19	0.70
24:BA:875:G:H4'	44:BV:170:THR:HG23	1.72	0.70
44:DV:24:LEU:HD23	44:DV:41:LEU:HD12	1.72	0.70
9:AL:16:ARG:HG2	9:AL:64:THR:CG2	2.21	0.70
5:CH:102:ALA:HB2	5:CH:120:THR:OG1	1.91	0.70
37:DQ:15:ARG:O	37:DQ:19:LYS:HG3	1.92	0.70
24:DA:943:U:OP2	34:DO:36:LYS:CG	2.40	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:719:C:N4	18:CU:71:LYS:HZ1	1.90	0.70
26:BD:127:VAL:HA	26:BD:193:VAL:CG2	2.21	0.70
24:BA:448:U:H1'	28:BF:84:VAL:HG11	1.73	0.70
24:BA:1812:A:H1'	26:BD:46:GLN:HE22	1.57	0.70
27:BE:134:ILE:C	27:BE:134:ILE:HD12	2.11	0.70
1:CA:853:G:H2'	1:CA:854:G:H8	1.57	0.70
1:AA:1329:A:N7	21:AX:7:ARG:NH2	2.40	0.70
9:CL:29:ASN:O	9:CL:29:ASN:ND2	2.24	0.70
3:AF:11:ARG:O	3:AF:13:GLY:N	2.25	0.70
24:DA:2344:U:C2'	51:D6:39:TYR:HE1	2.05	0.70
19:AV:47:HIS:O	19:AV:62:ILE:HG12	1.92	0.70
43:BU:81:LYS:HB3	43:BU:97:ARG:HD2	1.71	0.70
13:CP:48:LEU:HD11	13:CP:53:VAL:CG1	2.22	0.70
24:BA:270(I):G:C2'	46:BZ:78:LYS:HZ1	2.05	0.70
28:DF:3:GLU:HA	28:DF:24:LEU:HD23	1.74	0.70
24:DA:1092:C:O2'	30:DH:170:ARG:NH2	2.25	0.70
10:AM:94:VAL:CG1	10:AM:95:GLU:H	2.02	0.70
25:BB:80:U:O2'	25:BB:81:G:H5''	1.91	0.70
1:AA:276:G:O2'	17:AT:68:ARG:NH1	2.25	0.70
1:AA:277:C:H5''	17:AT:68:ARG:NH2	2.07	0.70
35:BP:66:ILE:HA	35:BP:104:PHE:HD1	1.56	0.70
35:DP:65:PHE:O	35:DP:104:PHE:HA	1.92	0.70
17:AT:100:LYS:HE3	17:AT:100:LYS:O	1.90	0.70
27:DE:105:THR:HG21	27:DE:164:ARG:HE	1.57	0.70
44:DV:80:ARG:O	44:DV:81:ARG:HG3	1.91	0.70
25:BB:16:G:H2'	25:BB:17:C:H6	1.56	0.70
1:AA:650:G:O2'	1:AA:651:C:H5'	1.91	0.70
45:D3:37:LEU:HD12	45:D3:60:PHE:HA	1.73	0.70
1:AA:1014:A:H5''	19:AV:14:HIS:HB2	1.74	0.70
11:AN:78:GLN:O	11:AN:103:LEU:HA	1.91	0.70
24:DA:229:A:HO2'	24:DA:230:U:H5	1.38	0.70
1:CA:1300:G:O2'	1:CA:1301:U:P	2.49	0.69
9:CL:102:LEU:H	9:CL:102:LEU:HD12	1.57	0.69
1:AA:1178:G:P	9:AL:93:ARG:NH1	2.64	0.69
30:BH:2:SER:OG	30:BH:3:ARG:CZ	2.39	0.69
2:AE:77:ALA:HB2	2:AE:211:ILE:CD1	2.20	0.69
2:AE:212:GLN:CD	2:AE:235:SER:HG	1.95	0.69
29:DG:11:TYR:HA	29:DG:15:VAL:HB	1.72	0.69
3:CF:195:VAL:O	3:CF:196:LEU:HD22	1.92	0.69
32:DM:47:ALA:HB2	32:DM:112:LEU:CD1	2.21	0.69
34:DO:125:VAL:O	34:DO:145:PRO:HD2	1.90	0.69
37:DQ:24:LEU:HD12	37:DQ:41:ASP:HA	1.74	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:141:A:C8	24:BA:1408:C:H1'	2.27	0.69
24:BA:1416:G:H1	24:BA:1582:C:H42	1.40	0.69
24:BA:1701:A:C2'	24:BA:1702:G:H5'	2.22	0.69
1:CA:719:C:N4	18:CU:71:LYS:NZ	2.40	0.69
33:DN:10:VAL:HG22	33:DN:17:ARG:HA	1.73	0.69
24:BA:1812:A:H1'	26:BD:46:GLN:NE2	2.07	0.69
24:BA:286:C:H2'	24:BA:287:C:C6	2.27	0.69
8:AK:100:ILE:CG2	8:AK:101:PRO:HD2	2.22	0.69
20:CW:14:LYS:O	20:CW:18:GLN:HG3	1.92	0.69
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.26	0.69
13:AP:49:THR:HB	13:AP:52:GLU:HG3	1.73	0.69
12:AO:102:ARG:HG3	12:AO:120:TYR:HA	1.72	0.69
13:CP:27:LYS:CE	13:CP:31:LYS:HE3	2.16	0.69
37:DQ:26:LEU:HD22	37:DQ:87:PHE:HD1	1.57	0.69
1:AA:1157:A:H1'	1:AA:1158:C:C5	2.27	0.69
24:DA:2393:A:OP2	53:D8:30:ARG:CZ	2.40	0.69
34:DO:65:ARG:O	34:DO:68:GLN:NE2	2.24	0.69
19:AV:41:VAL:HG22	19:AV:42:PRO:C	2.12	0.69
43:BU:101:LYS:HB3	43:BU:101:LYS:NZ	2.07	0.69
1:AA:409:G:OP1	4:AG:24:GLU:N	2.25	0.69
49:B4:4:GLY:O	49:B4:6:HIS:N	2.25	0.69
1:CA:1106:G:H5''	3:CF:172:ARG:CG	2.17	0.69
44:DV:61:LEU:HD11	44:DV:67:LEU:HD12	1.74	0.69
9:AL:79:LEU:HD21	9:AL:83:ARG:HE	1.57	0.69
7:AJ:38:LEU:HD12	7:AJ:38:LEU:H	1.57	0.69
1:CA:552:U:H1'	12:CO:32:PHE:CE1	2.27	0.69
37:BQ:77:ALA:O	37:BQ:80:LEU:N	2.24	0.69
24:BA:1416:G:H2'	24:BA:1417:C:C5	2.27	0.69
1:CA:393:A:OP2	16:CS:12:LYS:CE	2.39	0.69
28:BF:177:ALA:HB1	28:BF:178:PRO:HD2	1.73	0.69
3:CF:15:THR:HG23	3:CF:181:ASN:HA	1.73	0.69
24:BA:1834:U:H2'	24:BA:1834:U:O2	1.92	0.69
1:AA:1256:A:H5''	1:AA:1258:G:N3	2.07	0.69
1:CA:501:C:H2'	1:CA:502:G:C8	2.27	0.69
13:AP:49:THR:HG22	13:AP:51:ALA:H	1.57	0.69
24:DA:2467:C:H4'	35:DP:123:HIS:CD2	2.27	0.69
9:CL:128:ARG:NH2	22:CC:33:U:OP2	2.25	0.69
25:DB:1:U:H3	25:DB:119:A:H2	1.39	0.69
11:CN:45:GLY:O	11:CN:48:ILE:HG22	1.91	0.69
24:DA:2376:A:H3'	24:DA:2377:A:C8	2.26	0.69
24:DA:2286:A:H5'	51:D6:28:ARG:HG3	1.71	0.69
19:AV:40:ILE:HA	19:AV:44:MET:CE	2.22	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:B4:42:PHE:C	49:B4:43:TYR:HD2	1.94	0.69
2:AE:164:VAL:HB	2:AE:186:ALA:HB2	1.73	0.69
24:DA:2777:G:C5'	24:DA:2778:A:H5'	2.17	0.69
29:DG:111:LEU:CB	29:DG:112:PRO:HD3	2.19	0.69
13:AP:11:ARG:HG2	13:AP:46:LYS:NZ	2.07	0.69
43:DU:81:LYS:HD3	43:DU:97:ARG:CZ	2.22	0.69
24:DA:389:G:N1	34:DO:71:VAL:HG12	2.07	0.69
24:BA:2108:C:H2'	24:BA:2109:U:H5'	1.73	0.69
1:AA:1152:A:OP2	10:AM:68:HIS:NE2	2.24	0.69
1:AA:498:A:H4'	1:AA:500:G:OP1	1.90	0.69
8:AK:88:LYS:HB3	8:AK:89:PRO:HD2	1.74	0.69
44:DV:139:VAL:HG12	44:DV:140:ASP:N	2.07	0.69
1:CA:66:G:C4'	1:CA:173:U:C5	2.75	0.69
4:CG:82:ALA:HA	4:CG:85:LYS:HD3	1.73	0.69
31:DK:58:LEU:HD23	31:DK:59:ALA:N	2.07	0.69
34:BO:39:LYS:HB2	34:BO:45:LEU:CD2	2.22	0.69
41:DS:15:ARG:O	41:DS:19:LEU:HD13	1.92	0.69
10:AM:6:ILE:CG1	10:AM:72:VAL:HG12	2.23	0.69
24:BA:1328:G:H2'	24:BA:1330:C:C5	2.28	0.69
1:CA:1118:C:O2'	1:CA:1119:C:H5'	1.92	0.69
24:BA:1062:G:O6	24:BA:1075:C:N4	2.24	0.69
19:CV:29:ARG:HD2	19:CV:48:THR:OG1	1.92	0.69
13:AP:12:ASN:HA	13:AP:46:LYS:HD3	1.75	0.69
24:BA:2108:C:C2'	24:BA:2109:U:H5'	2.22	0.69
11:CN:70:LYS:HA	11:CN:70:LYS:CE	2.18	0.69
24:DA:2015:A:C2	50:D5:6:VAL:HG23	2.27	0.69
36:D0:28:LEU:CD2	36:D0:114:VAL:HG12	2.21	0.69
50:B5:40:LYS:CE	50:B5:46:CYS:HB3	2.23	0.69
6:CI:68:PRO:HB2	6:CI:70:ASP:OD1	1.92	0.69
1:AA:1015:A:O3'	14:AQ:15:LYS:NZ	2.23	0.69
10:AM:98:ILE:O	10:AM:98:ILE:HD12	1.92	0.69
3:AF:64:VAL:HG23	3:AF:99:VAL:HA	1.74	0.69
29:BG:76:SER:OG	29:BG:84:LYS:N	2.24	0.69
24:BA:92:G:H2'	24:BA:93:C:C6	2.27	0.69
45:D3:50:ASN:ND2	45:D3:81:VAL:O	2.25	0.69
25:DB:14:U:H4'	25:DB:70:C:O2	1.92	0.69
16:CS:80:PHE:O	16:CS:82:GLN:NE2	2.24	0.69
24:BA:2320:A:H2'	24:BA:2320:A:N3	2.07	0.69
1:CA:958:A:N3	1:CA:985:C:O2'	2.23	0.69
14:CQ:19:ARG:NH1	14:CQ:19:ARG:HG3	2.00	0.69
24:DA:2344:U:OP1	51:D6:37:ARG:NH2	2.25	0.69
9:AL:10:ARG:HA	9:AL:104:ARG:HE	1.55	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:65:ILE:HD11	26:BD:67:PHE:CD2	2.27	0.69
26:BD:67:PHE:HE1	26:BD:106:ILE:HD11	1.56	0.69
29:BG:113:ARG:HD3	29:BG:140:ILE:O	1.91	0.69
43:BU:55:TYR:CZ	43:BU:61:ILE:HD11	2.27	0.69
46:DZ:89:GLU:O	46:DZ:91:LYS:N	2.26	0.69
1:CA:1014:A:C5'	19:CV:15:LEU:HD21	2.21	0.69
1:CA:1212:U:O2'	1:CA:1213:A:O4'	2.08	0.69
5:AH:139:LEU:CA	5:AH:142:LEU:HD13	2.19	0.69
29:DG:76:SER:C	29:DG:77:ILE:HD12	2.12	0.69
1:AA:437:U:H2'	1:AA:438:G:O4'	1.92	0.69
41:DS:64:MET:HE3	41:DS:109:GLU:HG3	1.73	0.69
24:DA:34:C:OP2	24:DA:34:C:C6	2.44	0.69
24:BA:880:G:O2'	24:BA:881:G:OP1	2.08	0.69
22:CC:9:G:O2'	22:CC:10:G:N7	2.24	0.69
42:DT:10:ALA:HB1	42:DT:11:PRO:HD2	1.74	0.69
10:AM:9:ARG:HG2	10:AM:69:ASN:HD22	1.57	0.69
36:D0:58:GLY:HA2	36:D0:80:PHE:CE2	2.28	0.69
1:AA:807:A:H2'	1:AA:808:C:C6	2.27	0.69
13:AP:4:ILE:O	13:AP:6:GLY:N	2.25	0.69
14:AQ:44:LEU:HD12	14:AQ:44:LEU:C	2.11	0.69
24:BA:612:G:H2'	24:BA:613:U:O2	1.93	0.69
38:DR:93:ARG:HG2	38:DR:117:ASP:HB3	1.74	0.69
1:CA:1237:C:O4'	1:CA:1334:G:N2	2.25	0.69
7:CJ:78:ARG:O	7:CJ:78:ARG:HG3	1.92	0.69
7:CJ:150:ALA:HB2	11:CN:50:TYR:CZ	2.28	0.69
37:DQ:103:GLU:O	37:DQ:106:ARG:HG2	1.92	0.69
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.23	0.69
26:BD:32:SER:HA	26:BD:36:PRO:HD2	1.74	0.69
51:D6:9:LEU:HD11	51:D6:27:LYS:H	1.56	0.69
2:CE:19:HIS:HE1	2:CE:205:ASP:OD1	1.74	0.69
5:CH:67:VAL:CG2	5:CH:69:VAL:CG2	2.70	0.69
34:BO:61:ARG:HD2	53:B8:24:ALA:CB	2.20	0.69
1:AA:1121:U:H2'	1:AA:1122:U:C6	2.26	0.69
28:BF:116:ASP:OD1	28:BF:119:ARG:NH2	2.25	0.69
1:CA:1089:G:O2'	1:CA:1090:U:H5'	1.91	0.69
24:BA:1991:U:H2'	24:BA:1992:G:H5''	1.74	0.69
1:CA:1502:A:H2	1:CA:1505:G:H1	1.40	0.69
52:D7:1:MET:HA	52:D7:1:MET:CE	2.22	0.69
24:DA:806:C:OP2	34:DO:41:ARG:NH2	2.24	0.69
8:AK:100:ILE:HG23	8:AK:101:PRO:HD2	1.74	0.69
38:DR:113:LYS:O	38:DR:114:LEU:HD23	1.93	0.69
36:B0:53:HIS:HB2	36:B0:94:TYR:HE2	1.57	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:38:ILE:HD11	8:CK:118:VAL:HG12	1.74	0.69
24:BA:2519:U:C6	24:BA:2542:A:N6	2.61	0.69
34:BO:23:PRO:O	34:BO:25:SER:N	2.26	0.69
24:DA:247:G:H4'	24:DA:386:G:C5	2.27	0.69
1:CA:1227:A:H4'	13:CP:115:LYS:HZ2	1.56	0.69
9:CL:17:VAL:HG21	9:CL:80:GLY:O	1.90	0.69
24:DA:2345:G:P	51:D6:39:TYR:HH	2.15	0.69
1:AA:1179:A:O3'	9:AL:103:THR:HG23	1.92	0.69
24:BA:2400:G:C1'	51:B6:19:ARG:NH2	2.56	0.69
24:DA:910:A:N7	35:DP:13:GLN:HG3	2.07	0.69
1:AA:1221:G:H5'	19:AV:36:ARG:HH21	1.55	0.69
12:AO:90:VAL:O	12:AO:91:LYS:HB3	1.93	0.69
2:CE:5:ILE:O	2:CE:5:ILE:HG23	1.92	0.69
53:D8:50:LEU:O	53:D8:51:ALA:CB	2.40	0.69
24:BA:1798:U:C5'	26:BD:259:THR:CG2	2.70	0.69
24:DA:747:U:C4	50:D5:2:ALA:N	2.61	0.69
37:BQ:49:VAL:HG21	37:BQ:77:ALA:CB	2.22	0.69
7:AJ:115:ARG:HB3	7:AJ:118:VAL:CG1	2.22	0.69
7:AJ:115:ARG:HG3	7:AJ:117:ALA:H	1.56	0.69
24:DA:2099:U:C2'	24:DA:2100:G:H5''	2.21	0.69
1:CA:518:C:O2'	1:CA:530:G:N2	2.26	0.69
1:CA:1378:C:H5''	1:CA:1379:G:OP2	1.92	0.69
44:BV:165:VAL:O	44:BV:166:SER:OG	2.10	0.69
3:CF:164:ARG:HG2	3:CF:165:THR:H	1.57	0.69
35:DP:137:TYR:CE1	44:DV:83:PRO:HG3	2.26	0.69
7:CJ:153:HIS:HB2	11:CN:58:PRO:HG2	1.74	0.69
1:CA:1149:C:O2'	1:CA:1280:A:N1	2.22	0.69
13:CP:66:LEU:HA	13:CP:70:LEU:HB2	1.75	0.69
37:DQ:105:ALA:O	37:DQ:107:GLU:N	2.26	0.69
9:AL:53:VAL:HG22	9:AL:96:LEU:HD11	1.75	0.69
51:B6:12:GLU:HB2	51:B6:23:THR:HA	1.75	0.69
1:AA:1053:G:H3'	1:AA:1054:C:H5'	1.74	0.69
43:BU:96:ILE:CD1	43:BU:99:CYS:SG	2.78	0.69
26:BD:65:ILE:HD11	26:BD:67:PHE:CE2	2.27	0.69
24:DA:2748:A:H2'	30:DH:6:ARG:HH21	1.58	0.69
2:AE:178:ARG:NH1	2:AE:196:LEU:O	2.26	0.69
24:BA:1065:U:N3	24:BA:1069:A:OP2	2.18	0.69
2:CE:17:PHE:CE2	2:CE:44:LEU:CD2	2.74	0.69
29:DG:10:LYS:O	29:DG:15:VAL:HG23	1.93	0.69
1:AA:1002:G:H2'	1:AA:1003:G:C8	2.27	0.69
1:AA:1002:G:O6	1:AA:1037:C:N4	2.26	0.69
5:CH:41:VAL:CG2	5:CH:67:VAL:HG11	2.23	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DN:47:ILE:CG1	33:DN:48:PRO:HD2	2.18	0.69
1:AA:56:U:H5'	31:DK:82:ARG:HH22	1.58	0.69
6:AI:37:VAL:HG12	6:AI:38:GLU:H	1.57	0.69
2:AE:42:ILE:O	2:AE:44:LEU:HD12	1.91	0.69
24:BA:860:U:C5	24:BA:917:A:N1	2.60	0.69
22:AC:19:G:H3'	22:AC:20:U:C5	2.28	0.69
24:DA:2064:C:O2'	24:DA:2065:C:H5'	1.93	0.69
12:CO:83:VAL:HG22	12:CO:84:LEU:N	2.07	0.69
24:DA:2128:C:C1'	24:DA:2173:A:H61	2.05	0.69
4:CG:199:ASN:HB3	4:CG:202:LEU:HG	1.73	0.69
5:CH:100:VAL:O	5:CH:107:ARG:NH2	2.26	0.69
24:DA:1534:G:H2'	24:DA:1537:C:N4	2.07	0.69
47:DW:54:LYS:HG3	47:DW:55:ARG:N	2.08	0.69
42:DT:5:TYR:CZ	47:DW:30:ARG:HG2	2.27	0.69
24:DA:2688:U:O2	24:DA:2688:U:H3'	1.93	0.69
42:BT:5:TYR:HD1	47:BW:33:MET:CE	2.04	0.69
24:DA:1162:G:N2	40:D2:89:GLN:HE22	1.90	0.69
8:CK:12:ARG:HD2	8:CK:26:VAL:HG12	1.73	0.69
1:AA:157:G:H2'	1:AA:158:G:H8	1.57	0.69
1:AA:983:A:H2	1:AA:984:C:C6	2.10	0.69
29:BG:46:ALA:HB1	29:BG:52:ILE:HG21	1.73	0.69
40:D2:24:LYS:HA	40:D2:92:THR:OG1	1.93	0.69
29:BG:70:VAL:HA	29:BG:90:LEU:HD12	1.73	0.69
24:BA:286:C:H2'	24:BA:287:C:H6	1.57	0.69
8:CK:20:TYR:HD1	8:CK:65:TYR:CD2	2.10	0.69
24:BA:1427:A:H4'	24:BA:1428:C:O5'	1.92	0.69
24:DA:1301:A:C8	24:DA:1303:G:C8	2.81	0.69
24:DA:2331:G:O2'	45:D3:43:THR:HG22	1.92	0.69
24:BA:1826:G:H4'	26:BD:242:ARG:CZ	2.22	0.69
24:BA:297:C:H5''	43:BU:85:VAL:CG2	2.23	0.69
3:AF:20:SER:OG	3:AF:36:ASP:OD2	2.10	0.69
7:CJ:59:LEU:HD23	7:CJ:59:LEU:O	1.92	0.69
24:DA:205:G:O6	46:DZ:39:LYS:NZ	2.20	0.69
38:BR:84:GLN:HG3	38:BR:85:LYS:HG3	1.75	0.69
4:CG:42:GLN:HG3	4:CG:43:HIS:CD2	2.28	0.69
1:CA:1297:C:H4'	1:CA:1298:C:C5'	2.23	0.69
9:AL:9:ARG:HG2	9:AL:14:VAL:HG23	1.74	0.69
27:DE:81:ILE:HG21	27:DE:84:PHE:HB3	1.73	0.69
29:DG:107:LEU:HD23	29:DG:111:LEU:CD1	2.23	0.69
2:CE:97:TRP:HZ2	2:CE:102:LEU:HD13	1.58	0.69
1:CA:277:C:H5''	17:CT:68:ARG:NH2	2.08	0.69
43:DU:17:SER:OG	43:DU:18:GLY:N	2.24	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:118:ARG:O	4:CG:121:VAL:HG22	1.92	0.69
25:DB:38:C:O2'	37:DQ:93:LYS:NZ	2.26	0.69
44:DV:128:VAL:HG22	44:DV:129:SER:N	2.03	0.69
24:BA:2748:A:OP1	30:BH:70:THR:OG1	2.08	0.69
24:BA:2212:A:O2'	24:BA:2213:U:O5'	2.08	0.69
35:BP:59:ARG:HG2	35:BP:60:ARG:H	1.57	0.69
39:D1:100:VAL:O	39:D1:101:ARG:HG2	1.93	0.69
38:BR:91:ARG:O	38:BR:116:ALA:HA	1.91	0.69
2:CE:25:ASN:O	2:CE:27:LYS:N	2.25	0.69
1:AA:1128:C:C4'	9:AL:16:ARG:HH12	2.06	0.69
9:AL:79:LEU:CD2	9:AL:83:ARG:HG2	2.23	0.69
1:CA:1053:G:HO2'	1:CA:1199:U:H5	1.40	0.69
3:AF:50:ALA:HA	3:AF:72:LYS:CD	2.22	0.69
1:AA:437:U:H5'	4:AG:155:LEU:HD22	1.73	0.69
24:BA:1470:G:H5''	24:BA:1471:A:OP1	1.93	0.69
20:AW:81:LYS:O	20:AW:84:LEU:N	2.26	0.69
27:DE:200:GLU:HG2	27:DE:201:THR:H	1.58	0.69
2:AE:221:LEU:HD13	2:AE:221:LEU:C	2.13	0.69
41:BS:79:GLY:HA3	41:BS:100:THR:CG2	2.22	0.69
1:CA:1200:C:H5'	1:CA:1201:A:C5'	2.22	0.69
19:AV:50:ALA:HB1	19:AV:57:HIS:HB3	1.74	0.69
1:CA:518:C:H4'	1:CA:519:C:H6	1.57	0.69
24:BA:1320:C:C5	24:BA:1329:U:H5'	2.28	0.69
28:DF:32:LEU:HD23	28:DF:32:LEU:O	1.92	0.69
24:BA:500:G:N2	24:BA:502:A:H3'	2.08	0.69
27:BE:12:THR:O	27:BE:23:VAL:HG22	1.93	0.69
24:DA:1826:G:H4'	26:DD:242:ARG:NH2	2.08	0.69
27:DE:147:PRO:HB2	27:DE:149:ARG:HG2	1.75	0.69
24:DA:835:A:OP1	53:D8:52:LYS:HG2	1.93	0.69
31:BK:127:VAL:HG22	31:BK:139:GLN:HB3	1.75	0.69
2:AE:117:GLU:O	2:AE:121:LEU:HG	1.93	0.69
1:CA:411:A:C2'	1:CA:412:A:H5'	2.23	0.69
1:CA:1128:C:H2'	1:CA:1139:G:O6	1.93	0.69
1:CA:1179:A:OP2	9:CL:93:ARG:NH2	2.25	0.69
51:D6:37:ARG:CD	51:D6:38:LYS:H	2.06	0.69
24:BA:1050:A:H2'	24:BA:1051:G:O4'	1.93	0.69
39:B1:92:ARG:NH1	40:B2:11:GLN:O	2.26	0.69
17:CT:100:LYS:NZ	17:CT:100:LYS:HB3	2.08	0.69
31:BK:86:THR:O	31:BK:87:LYS:HB2	1.91	0.69
5:CH:47:LYS:O	5:CH:57:LYS:HD2	1.92	0.69
24:BA:2213:U:O4'	46:BZ:52:ARG:NH1	2.25	0.69
24:BA:1798:U:H5'	26:BD:259:THR:HG22	1.75	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:53:ILE:H	44:BV:71:VAL:CG1	2.06	0.69
37:BQ:25:ARG:NH1	37:BQ:42:ASP:OD2	2.26	0.69
38:DR:3:ARG:HG2	38:DR:6:LEU:HB2	1.74	0.69
24:BA:2828:C:O2'	24:BA:2829:C:H5'	1.93	0.69
1:AA:562:C:C4'	1:AA:563:A:H5'	2.23	0.69
8:CK:123:GLU:O	8:CK:127:LEU:HD23	1.93	0.69
1:CA:674:G:H2'	1:CA:675:A:H8	1.58	0.69
36:D0:78:LYS:O	36:D0:82:GLU:HB3	1.93	0.69
24:DA:1510:A:C8	24:DA:1511:A:C8	2.81	0.69
24:DA:848:G:H2'	24:DA:849:A:C8	2.28	0.69
1:CA:532:A:H5'	3:CF:161:GLU:OE1	1.93	0.69
9:CL:114:TYR:CE2	10:CM:60:ARG:O	2.47	0.68
30:BH:8:PRO:C	30:BH:9:ILE:HG13	2.11	0.68
4:AG:28:SER:CB	4:AG:29:PRO:HD3	2.19	0.68
53:B8:23:VAL:HG11	53:B8:46:ARG:HD3	1.75	0.68
27:DE:46:ALA:HB2	27:DE:82:ARG:HA	1.74	0.68
24:DA:1062:G:H2'	24:DA:1063:G:N7	2.09	0.68
30:BH:74:ASN:O	30:BH:77:LYS:HG2	1.93	0.68
35:BP:134:ARG:HA	35:BP:138:ASP:OD2	1.92	0.68
49:D4:23:GLU:CG	49:D4:24:THR:H	2.00	0.68
1:AA:1145:C:H5''	1:AA:1146:A:OP1	1.93	0.68
24:BA:1021:A:H3'	24:BA:1022:G:C5'	2.23	0.68
40:D2:76:LYS:HZ3	40:D2:82:ARG:HH21	1.40	0.68
24:BA:2580:U:H4'	27:BE:130:GLY:CA	2.20	0.68
32:DM:13:TRP:HB3	32:DM:134:ARG:HB2	1.75	0.68
26:DD:147:LEU:CD1	26:DD:155:LEU:HD11	2.22	0.68
15:AR:71:GLN:HB3	15:AR:78:TYR:CG	2.28	0.68
30:DH:29:PRO:HG2	30:DH:79:VAL:C	2.14	0.68
24:BA:74:A:H5'	24:BA:75:G:O4'	1.93	0.68
34:DO:6:LEU:O	34:DO:7:ARG:HG2	1.93	0.68
24:BA:900:A:H3'	24:BA:901:A:H8	1.57	0.68
37:BQ:58:LEU:N	37:BQ:58:LEU:HD23	2.09	0.68
1:CA:1098:C:OP2	2:CE:144:ARG:NH1	2.27	0.68
29:BG:13:GLU:O	29:BG:14:GLU:HB2	1.92	0.68
12:AO:127:GLU:OE1	12:AO:127:GLU:N	2.25	0.68
24:DA:2751:G:C6	30:DH:2:SER:HB3	2.26	0.68
31:BK:69:LYS:HG3	31:BK:136:VAL:HG13	1.75	0.68
2:AE:171:ALA:HA	2:AE:174:VAL:CG1	2.23	0.68
46:BZ:92:LYS:HA	46:BZ:95:LEU:CG	2.22	0.68
24:DA:1056:G:H4'	24:DA:1057:A:H8	1.56	0.68
24:DA:1085:A:C4'	24:DA:1086:A:OP1	2.40	0.68
1:CA:1014:A:C4'	19:CV:15:LEU:HD21	2.22	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:560:U:H4'	1:CA:561:U:O5'	1.93	0.68
24:DA:675:A:OP1	28:DF:63:LYS:NZ	2.24	0.68
4:CG:86:LYS:CG	4:CG:87:GLY:H	2.06	0.68
1:AA:966:G:O2'	9:AL:127:LYS:O	2.11	0.68
1:AA:1080:A:H5''	5:AH:16:THR:HG21	1.75	0.68
24:BA:2277:G:H2'	24:BA:2278:A:H5''	1.75	0.68
27:DE:200:GLU:OE1	27:DE:200:GLU:N	2.26	0.68
27:DE:116:VAL:O	27:DE:117:MET:HG2	1.92	0.68
10:CM:8:LEU:HG	10:CM:96:ILE:HD13	1.73	0.68
24:DA:669:G:H1'	24:DA:670:A:OP1	1.93	0.68
1:AA:537:G:H5''	12:AO:113:ARG:HH12	1.58	0.68
24:BA:955:C:C2'	24:BA:956:G:H5'	2.23	0.68
4:CG:159:ARG:O	4:CG:162:LEU:N	2.26	0.68
24:DA:2477:C:H1'	24:DA:2480:C:H41	1.58	0.68
24:DA:1935:G:H1'	24:DA:1964:G:N2	2.08	0.68
1:CA:1305:G:HO2'	1:CA:1306:A:H8	1.38	0.68
10:CM:61:GLU:OE1	14:CQ:58:LYS:HE2	1.93	0.68
34:DO:52:GLU:OE1	34:DO:53:GLY:N	2.25	0.68
13:AP:82:MET:HE2	13:AP:92:HIS:HB3	1.74	0.68
26:BD:30:GLU:HG3	26:BD:63:ARG:CZ	2.24	0.68
4:AG:19:LEU:N	4:AG:19:LEU:HD23	2.08	0.68
28:DF:18:ARG:HD3	28:DF:19:GLU:N	2.08	0.68
30:DH:147:ASN:O	30:DH:151:ILE:HG12	1.93	0.68
2:AE:96:ARG:CD	2:AE:96:ARG:H	2.01	0.68
44:BV:107:THR:HB	44:BV:108:PRO:HD2	1.75	0.68
44:DV:157:LEU:CB	44:DV:161:VAL:HG12	2.21	0.68
49:D4:13:ARG:HD2	49:D4:22:ILE:CG2	2.22	0.68
1:CA:437:U:H5''	4:CG:155:LEU:HD13	1.75	0.68
4:CG:153:ARG:HG2	4:CG:181:MET:SD	2.33	0.68
17:AT:16:GLN:O	17:AT:17:LYS:HB2	1.94	0.68
24:DA:1332:G:N2	24:DA:1610:A:C8	2.59	0.68
1:CA:322:C:H5	1:CA:328:C:H5	1.40	0.68
26:BD:155:LEU:HD23	26:BD:177:LEU:CD2	2.23	0.68
8:AK:8:ASP:OD1	8:AK:12:ARG:NH1	2.25	0.68
43:DU:64:GLU:OE2	43:DU:64:GLU:N	2.26	0.68
1:AA:328:C:H4'	1:AA:329:A:H5'	1.76	0.68
1:AA:819:A:H4'	1:AA:820:U:OP2	1.92	0.68
42:DT:15:GLU:H	42:DT:15:GLU:CD	1.95	0.68
12:AO:83:VAL:HG22	12:AO:84:LEU:N	2.08	0.68
24:DA:863:A:O2'	24:DA:864:G:H5'	1.93	0.68
1:CA:1205:U:O2'	3:CF:194:GLY:HA2	1.92	0.68
1:CA:1329:A:H4'	13:CP:24:GLY:HA2	1.73	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2786:U:H4'	27:DE:64:LYS:C	2.14	0.68
24:DA:2786:U:H5'	27:DE:65:GLY:CA	2.23	0.68
24:BA:1087:G:H5'	24:BA:1088:A:OP2	1.92	0.68
13:AP:11:ARG:CB	13:AP:46:LYS:HZ2	2.06	0.68
1:CA:1216:G:H5''	14:CQ:5:ALA:HB2	1.74	0.68
24:BA:2117:A:N6	24:BA:2172:U:O4	2.27	0.68
40:D2:10:LYS:NZ	40:D2:23:GLU:OE2	2.26	0.68
24:BA:2468:G:OP1	35:BP:119:ARG:NH2	2.24	0.68
18:AU:66:LEU:O	18:AU:70:ILE:HG13	1.93	0.68
22:AC:47:U:O2'	22:AC:48:C:O5'	2.11	0.68
39:D1:112:ARG:CZ	40:D2:47:VAL:HG11	2.23	0.68
24:BA:438:G:O2'	24:BA:439:G:H5'	1.92	0.68
24:DA:2887:U:H2'	24:DA:2888:C:H6	1.58	0.68
1:AA:200:G:N2	1:AA:218:C:O2	2.27	0.68
36:D0:81:ASP:O	36:D0:82:GLU:HB2	1.93	0.68
2:AE:231:GLU:CD	2:AE:232:PRO:HD2	2.13	0.68
24:BA:2317:C:C2'	24:BA:2318:G:H5'	2.24	0.68
31:DK:27:ARG:HD2	46:DZ:71:TYR:CE2	2.28	0.68
44:DV:14:LYS:HB3	44:DV:14:LYS:HZ3	1.58	0.68
10:AM:91:PRO:O	10:AM:92:THR:HG23	1.93	0.68
4:CG:11:LEU:HD12	4:CG:12:CYS:N	2.09	0.68
7:CJ:74:GLU:N	7:CJ:89:MET:O	2.24	0.68
43:BU:81:LYS:HZ3	43:BU:96:ILE:HD13	1.52	0.68
20:CW:70:SER:CA	20:CW:73:HIS:CE1	2.65	0.68
26:BD:96:HIS:CD2	26:BD:102:LYS:HE2	2.29	0.68
24:BA:1113:U:OP1	30:BH:2:SER:N	2.26	0.68
1:CA:1290:G:H2'	1:CA:1291:G:C5'	2.19	0.68
4:CG:190:ASP:OD1	4:CG:191:ARG:N	2.26	0.68
49:D4:16:CYS:HB2	49:D4:20:ASN:HB2	1.75	0.68
24:BA:404:C:C1'	24:BA:405:U:OP2	2.40	0.68
53:D8:23:VAL:CG2	53:D8:48:PHE:H	2.07	0.68
1:AA:1120:G:O2'	1:AA:1121:U:H5'	1.92	0.68
24:DA:2602:A:H4'	24:DA:2603:G:C5'	2.23	0.68
8:AK:120:THR:HG23	8:AK:122:ARG:N	2.09	0.68
24:DA:1654:A:C4'	36:D0:2:ARG:HH21	2.07	0.68
39:B1:62:ILE:HG23	39:B1:76:TYR:CE2	2.29	0.68
24:DA:981:A:H5''	24:DA:982:C:OP2	1.94	0.68
42:BT:10:ALA:HB1	42:BT:11:PRO:HD2	1.76	0.68
16:CS:22:THR:HA	16:CS:33:ILE:HG13	1.76	0.68
1:CA:354:G:N2	1:CA:388:G:O2'	2.21	0.68
24:DA:2348:U:C2'	24:DA:2349:G:H5'	2.22	0.68
19:CV:52:TYR:CE2	19:CV:54:GLY:HA2	2.29	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:D6:34:LEU:HD12	51:D6:50:ARG:NH1	2.08	0.68
51:B6:47:THR:HG22	51:B6:48:VAL:H	1.56	0.68
13:AP:81:LEU:O	13:AP:84:ILE:HG22	1.94	0.68
4:AG:22:LYS:HB2	4:AG:26:CYS:H	1.57	0.68
5:AH:10:MET:SD	5:AH:13:ILE:CD1	2.81	0.68
24:DA:1054:A:H2'	24:DA:1055:G:C8	2.29	0.68
3:CF:92:ALA:HB2	3:CF:99:VAL:CG1	2.23	0.68
1:AA:1331:G:OP2	13:AP:23:TYR:HD1	1.75	0.68
24:BA:1678:G:H22	24:BA:1989:G:H22	1.41	0.68
53:D8:49:VAL:HG12	53:D8:50:LEU:N	2.09	0.68
40:D2:79:VAL:C	40:D2:80:GLN:NE2	2.47	0.68
12:CO:24:VAL:HG12	12:CO:24:VAL:O	1.93	0.68
24:DA:2137:C:N4	24:DA:2154:G:O6	2.26	0.68
24:DA:1602:U:OP2	42:DT:60:ARG:NH2	2.26	0.68
1:CA:347:G:O2'	1:CA:348:G:H5'	1.94	0.68
24:DA:1729:A:O2'	24:DA:1730:U:H5''	1.94	0.68
33:DN:87:ILE:HD12	33:DN:92:GLU:C	2.13	0.68
1:AA:933:G:OP2	7:AJ:3:ARG:HB2	1.94	0.68
1:AA:668:G:H4'	15:AR:48:LYS:HB2	1.75	0.68
26:DD:76:PRO:O	26:DD:98:VAL:HG12	1.93	0.68
1:AA:401:C:H2'	1:AA:402:G:C8	2.29	0.68
1:AA:826:C:H2'	1:AA:827:U:O2	1.94	0.68
1:CA:115:G:H4'	1:CA:116:A:O5'	1.91	0.68
29:BG:91:ARG:C	29:BG:91:ARG:HD2	2.14	0.68
29:BG:91:ARG:HD2	29:BG:91:ARG:O	1.93	0.68
16:CS:54:GLU:N	16:CS:54:GLU:OE1	2.20	0.68
29:DG:145:THR:OG1	29:DG:148:MET:HB2	1.93	0.68
24:DA:1418:G:OP1	24:DA:1588:C:O2'	2.11	0.68
24:DA:2517:C:O2'	24:DA:2519:U:H5	1.75	0.68
1:AA:1089:G:N2	1:AA:1096:C:O2	2.27	0.68
24:DA:1601:G:C5'	52:D7:49:ARG:CG	2.68	0.68
24:DA:2286:A:C5'	51:D6:28:ARG:HH11	1.98	0.68
24:BA:1601:G:OP1	52:B7:49:ARG:CZ	2.39	0.68
1:AA:509:A:H5''	4:AG:55:ALA:HB2	1.76	0.68
24:BA:1049:C:H1'	24:BA:1113:U:O2'	1.94	0.68
1:AA:961:U:OP2	1:AA:1223:C:H1'	1.94	0.68
34:DO:13:ASN:O	34:DO:15:ARG:N	2.26	0.68
2:AE:80:ILE:CD1	2:AE:212:GLN:CA	2.69	0.68
29:DG:16:ARG:N	29:DG:17:PRO:HD2	2.09	0.68
28:DF:101:LEU:HD12	28:DF:102:PRO:CD	2.15	0.68
1:AA:1025:U:H4'	1:AA:1026:G:O5'	1.94	0.68
39:D1:100:VAL:C	39:D1:101:ARG:HG2	2.14	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:D1:34:LYS:HA	39:D1:34:LYS:CE	2.19	0.68
1:AA:1121:U:H2'	1:AA:1122:U:H6	1.58	0.68
32:BM:62:VAL:HG21	32:BM:66:LYS:HD2	1.73	0.68
24:DA:2542:A:H1'	24:DA:2543:G:C8	2.29	0.68
37:BQ:106:ARG:HD2	37:BQ:107:GLU:OE1	1.94	0.68
24:DA:1332:G:H21	24:DA:1610:A:H8	1.37	0.68
7:AJ:91:VAL:CG2	7:AJ:96:GLN:HG2	2.23	0.68
7:AJ:115:ARG:CD	7:AJ:116:ALA:H	2.06	0.68
24:BA:1967:C:H2'	24:BA:1968:G:H5'	1.75	0.68
15:CR:82:ILE:O	15:CR:86:GLY:N	2.25	0.68
37:BQ:10:ARG:O	37:BQ:14:VAL:HG12	1.94	0.68
24:BA:314:A:H2'	24:BA:315:G:H5'	1.75	0.68
39:D1:72:HIS:CD2	39:D1:110:VAL:HG21	2.29	0.68
7:AJ:45:ASP:O	7:AJ:49:ILE:HG12	1.93	0.68
24:BA:1188:U:H4'	40:B2:79:VAL:HG22	1.76	0.68
47:DW:68:ARG:HD3	47:DW:72:ALA:HB3	1.75	0.68
26:BD:79:VAL:HG21	26:BD:111:LEU:HD11	1.76	0.68
1:AA:22:G:H2'	1:AA:23:C:C6	2.29	0.68
9:CL:112:LYS:HD3	9:CL:112:LYS:C	2.13	0.68
24:DA:2287:A:N6	24:DA:2344:U:H3	1.91	0.68
34:DO:64:LYS:HG2	34:DO:64:LYS:O	1.93	0.68
24:DA:2637:U:H5''	27:DE:82:ARG:HH21	1.59	0.68
2:CE:185:ILE:HG22	2:CE:199:TYR:CB	2.21	0.68
2:CE:217:ARG:O	2:CE:220:ASP:HB2	1.93	0.68
8:AK:34:GLU:HB3	8:AK:118:VAL:CG2	2.18	0.68
13:AP:11:ARG:CG	13:AP:46:LYS:NZ	2.56	0.68
31:BK:131:LYS:HB3	31:BK:132:PRO:CA	2.23	0.68
38:BR:3:ARG:HA	38:BR:6:LEU:CD2	2.24	0.68
24:DA:2445:G:OP1	28:DF:74:ARG:NH2	2.26	0.68
28:BF:28:ILE:O	28:BF:28:ILE:HD12	1.94	0.68
29:DG:37:VAL:O	29:DG:94:LEU:HD23	1.94	0.68
24:DA:69:C:O2	24:DA:73:A:O2'	2.11	0.68
1:AA:1351:U:O4'	7:AJ:33:ASP:HB3	1.94	0.68
9:AL:125:TYR:HD1	9:AL:126:SER:H	1.42	0.68
12:AO:59:ARG:NH1	12:AO:59:ARG:HB2	2.08	0.68
33:DN:87:ILE:HD11	33:DN:92:GLU:N	2.09	0.68
16:CS:15:PRO:O	16:CS:16:HIS:ND1	2.27	0.68
24:DA:1507:A:C4	24:DA:1508:A:H1'	2.29	0.68
1:AA:401:C:H2'	1:AA:402:G:H8	1.59	0.68
1:CA:425:G:O3'	4:CG:45:GLN:NE2	2.26	0.68
24:BA:1268:A:H2'	24:BA:1269:A:O4'	1.93	0.68
50:D5:57:VAL:HG12	50:D5:58:LEU:H	1.59	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DF:128:ALA:O	28:DF:142:TRP:NE1	2.27	0.68
19:CV:36:ARG:NH1	19:CV:72:GLY:HA3	2.04	0.68
49:D4:57:GLU:N	49:D4:60:GLN:HG2	2.08	0.68
24:BA:2286:A:C8	51:B6:37:ARG:NH1	2.62	0.68
30:BH:6:ARG:CZ	30:BH:54:ARG:HH12	2.06	0.68
30:DH:4:ILE:HD13	30:DH:6:ARG:CG	2.23	0.68
24:DA:2749:A:C5'	30:DH:6:ARG:NH2	2.57	0.68
2:AE:167:PRO:CD	2:AE:188:ALA:HB2	2.24	0.68
28:DF:24:LEU:CB	28:DF:25:PRO:HD3	2.24	0.68
4:CG:189:PRO:CB	4:CG:194:LEU:HD21	2.23	0.68
27:DE:9:VAL:HG23	27:DE:10:GLY:N	2.03	0.68
39:D1:92:ARG:HD3	39:D1:95:LEU:HD12	1.75	0.68
25:DB:50:G:OP1	37:DQ:63:THR:HG23	1.92	0.68
37:DQ:59:LYS:HD3	37:DQ:61:ASN:H	1.58	0.68
50:D5:37:LYS:HZ3	50:D5:37:LYS:HB3	1.55	0.68
12:AO:24:VAL:CG1	12:AO:27:LEU:HG	2.23	0.68
24:BA:2850:A:C2	24:BA:2851:A:C4	2.82	0.68
50:D5:55:ARG:O	50:D5:56:LYS:HG2	1.94	0.68
11:CN:32:ILE:HD13	11:CN:72:ALA:HB2	1.74	0.68
24:BA:1812:A:C1'	26:BD:46:GLN:HE22	2.07	0.68
27:BE:40:GLU:OE2	27:BE:40:GLU:N	2.26	0.68
27:BE:36:ARG:NH2	27:BE:89:ASP:OD1	2.27	0.68
44:DV:125:LEU:HB3	44:DV:165:VAL:HG13	1.76	0.68
17:AT:50:LYS:HE3	17:AT:51:TYR:CE1	2.29	0.68
1:AA:228:A:H4'	16:AS:62:VAL:HG11	1.76	0.68
41:DS:47:VAL:HA	41:DS:50:VAL:HG12	1.76	0.68
15:AR:47:LYS:H	15:AR:47:LYS:HD2	1.59	0.68
4:AG:146:ILE:N	4:AG:146:ILE:HD12	2.09	0.68
38:DR:74:ARG:HD3	38:DR:76:PHE:CE1	2.29	0.68
1:CA:1147:C:H4'	9:CL:5:TYR:HE2	1.58	0.68
49:B4:38:LYS:HA	49:B4:44:THR:CG2	2.22	0.68
20:AW:101:GLY:O	20:AW:103:GLY:N	2.27	0.68
12:AO:92:ASP:O	12:AO:94:PRO:HD3	1.94	0.68
2:AE:74:LYS:HE3	2:AE:169:LYS:HD3	1.75	0.68
2:CE:12:GLU:O	2:CE:14:GLY:N	2.27	0.68
28:DF:2:LYS:HG2	28:DF:24:LEU:HG	1.76	0.68
1:AA:1239:A:H62	1:AA:1299:A:H62	1.42	0.68
31:BK:132:PRO:HG2	31:BK:133:HIS:CE1	2.29	0.68
49:D4:22:ILE:O	49:D4:24:THR:HG23	1.92	0.68
11:AN:22:HIS:HB3	11:AN:29:ILE:CG2	2.23	0.68
3:CF:12:LEU:HD11	14:CQ:51:GLY:CA	2.24	0.68
24:DA:2141:G:H1	24:DA:2150:U:H3	1.42	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:270(R):G:H2'	24:DA:270(S):G:C8	2.29	0.68
36:D0:97:VAL:HG22	36:D0:114:VAL:HG22	1.76	0.68
5:CH:100:VAL:HG13	5:CH:118:ILE:CG2	2.24	0.68
3:AF:76:VAL:HG21	3:AF:103:VAL:CG1	2.24	0.68
24:BA:528:A:N1	24:BA:2043:C:O5'	2.27	0.68
24:BA:2306:C:O2	29:BG:45:GLU:OE2	2.12	0.68
1:CA:618:C:H5'	1:CA:619:U:H5''	1.76	0.68
8:CK:38:ILE:CD1	8:CK:118:VAL:HG12	2.23	0.68
44:BV:103:ARG:HG3	44:BV:136:PHE:CD1	2.29	0.68
24:DA:1790:C:H5''	24:DA:1791:A:OP1	1.93	0.68
47:BW:42:GLY:O	47:BW:44:LEU:N	2.27	0.68
17:CT:63:ARG:HG2	17:CT:64:PRO:HD2	1.75	0.68
26:BD:270:ILE:O	26:BD:271:ILE:HG23	1.91	0.68
1:CA:940:C:H2'	1:CA:941:G:C8	2.28	0.68
24:DA:1593:G:H2'	24:DA:1594:G:C8	2.29	0.68
1:CA:1269:A:OP1	21:CX:24:ARG:CZ	2.42	0.67
51:B6:32:ASN:HA	51:B6:35:GLU:OE2	1.94	0.67
46:BZ:92:LYS:HA	46:BZ:95:LEU:HG	1.76	0.67
10:CM:79:ARG:O	10:CM:83:GLU:HG3	1.93	0.67
24:DA:1088:A:H3'	24:DA:1088:A:N3	2.08	0.67
24:DA:483:A:H5''	43:DU:49:VAL:HG13	1.74	0.67
44:DV:24:LEU:H	44:DV:41:LEU:HD13	1.58	0.67
30:DH:109:PHE:CZ	30:DH:152:ARG:HB2	2.29	0.67
24:DA:389:G:H22	34:DO:72:PRO:HG2	1.59	0.67
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.10	0.67
24:BA:1022:G:H4'	24:BA:1023:U:O5'	1.92	0.67
20:AW:86:ARG:O	20:AW:90:GLN:HG3	1.94	0.67
24:DA:989:G:OP2	48:DX:11:SER:OG	2.09	0.67
24:DA:2542:A:H1'	24:DA:2543:G:N7	2.09	0.67
4:CG:60:GLU:OE2	4:CG:199:ASN:N	2.17	0.67
24:DA:2105:C:H2'	24:DA:2106:G:H8	1.59	0.67
37:DQ:36:TYR:N	37:DQ:36:TYR:CD1	2.62	0.67
1:AA:1281:U:H5''	1:AA:1282:C:OP2	1.93	0.67
27:DE:197:ILE:HD11	27:DE:199:ARG:HE	1.59	0.67
22:AC:8:U:O4'	22:AC:48:C:O2'	2.12	0.67
47:BW:15:LYS:H	47:BW:67:LYS:HZ1	1.42	0.67
44:BV:5:LEU:O	44:BV:6:LYS:HB2	1.93	0.67
24:DA:1678:G:H22	24:DA:1989:G:H1	1.41	0.67
22:AC:1:C:O2	22:AC:1:C:H3'	1.94	0.67
1:CA:1031:G:N7	1:CA:1032(A):G:N2	2.42	0.67
5:CH:127:ASN:O	5:CH:131:ILE:HG12	1.93	0.67
24:DA:445:C:OP1	39:D1:2:PRO:HA	1.95	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:36:ARG:HB2	4:CG:38:TYR:CE2	2.28	0.67
9:CL:16:ARG:NH1	9:CL:64:THR:CG2	2.41	0.67
10:CM:6:ILE:HD11	10:CM:72:VAL:HG13	1.74	0.67
51:B6:29:ASN:O	51:B6:32:ASN:ND2	2.27	0.67
30:DH:6:ARG:HH22	30:DH:63:SER:HA	1.60	0.67
5:AH:10:MET:HA	5:AH:32:VAL:HA	1.76	0.67
1:CA:266:G:H1'	1:CA:267:C:OP2	1.95	0.67
46:DZ:90:ILE:CG1	46:DZ:90:ILE:O	2.41	0.67
31:DK:123:LEU:HD22	31:DK:142:VAL:HG22	1.75	0.67
18:CU:53:ARG:NH1	18:CU:60:ALA:HB2	2.09	0.67
24:BA:1678:G:N2	24:BA:1989:G:N2	2.38	0.67
24:BA:654(M):C:C2'	24:BA:654(N):G:C8	2.74	0.67
38:BR:24:PRO:HA	38:BR:49:VAL:HG23	1.77	0.67
1:CA:1199:U:H4'	10:CM:54:PHE:CE2	2.30	0.67
27:DE:137:HIS:HB3	27:DE:138:PRO:HD2	1.76	0.67
24:BA:2788:C:O2'	24:BA:2809:A:N3	2.25	0.67
24:DA:2354:G:O2'	45:D3:36:ILE:HD12	1.94	0.67
24:DA:592:G:N2	53:D8:4:MET:HE1	2.09	0.67
24:DA:2161:C:O2	24:DA:2173:A:H1'	1.94	0.67
20:CW:89:ARG:O	20:CW:92:LEU:N	2.27	0.67
24:DA:1019:U:H3	24:DA:1142(A):A:H62	1.41	0.67
26:DD:166:GLN:HB3	26:DD:174:ILE:CG2	2.24	0.67
15:AR:56:LEU:O	15:AR:60:VAL:HG23	1.94	0.67
24:BA:75:G:H4'	47:BW:55:ARG:NH2	2.08	0.67
45:B3:72:ARG:HB2	45:B3:75:LEU:HB2	1.75	0.67
30:DH:42:ARG:HA	30:DH:42:ARG:NH1	2.09	0.67
8:AK:97:VAL:HG13	8:AK:98:LYS:HD3	1.76	0.67
24:BA:2296:U:OP2	37:BQ:9:ARG:NH1	2.27	0.67
24:DA:1412:A:H2'	24:DA:1413:G:C8	2.30	0.67
45:D3:70:GLN:HE21	45:D3:80:HIS:HE2	1.41	0.67
24:BA:2537:U:H2'	24:BA:2538:C:C6	2.29	0.67
30:BH:157:TYR:HA	30:BH:171:LEU:O	1.94	0.67
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.09	0.67
19:CV:52:TYR:HB2	19:CV:57:HIS:CE1	2.30	0.67
31:BK:69:LYS:CA	31:BK:136:VAL:CG1	2.71	0.67
24:BA:1060:U:C2	24:BA:1062:G:H5'	2.29	0.67
24:BA:1105:U:H2'	24:BA:1106:G:C8	2.29	0.67
17:CT:100:LYS:HZ2	17:CT:100:LYS:HB3	1.57	0.67
17:CT:67:LYS:O	17:CT:69:LYS:N	2.27	0.67
26:BD:223:GLY:CA	26:BD:231:HIS:CD2	2.78	0.67
31:BK:133:HIS:CD2	31:BK:134:PRO:HD2	2.29	0.67
29:DG:80:PHE:CD2	29:DG:82:LEU:HD11	2.21	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:107:THR:HB	44:BV:108:PRO:CD	2.24	0.67
9:CL:95:LYS:HZ3	9:CL:95:LYS:HB2	1.59	0.67
37:DQ:7:TYR:HE1	37:DQ:11:LYS:HZ3	1.41	0.67
24:DA:2099:U:C3'	24:DA:2100:G:H5''	2.25	0.67
27:DE:1:MET:SD	27:DE:200:GLU:HG3	2.34	0.67
30:DH:26:VAL:HG21	30:DH:76:VAL:HG22	1.75	0.67
24:BA:960:A:H61	35:BP:83:MET:CE	2.08	0.67
4:AG:152:SER:C	4:AG:154:ASN:H	1.98	0.67
25:DB:15:A:H5'	25:DB:16:G:C8	2.30	0.67
34:DO:39:LYS:CA	34:DO:45:LEU:HD11	2.25	0.67
39:D1:69:CYS:HB3	39:D1:74:LEU:CD1	2.24	0.67
1:AA:728:A:H2'	1:AA:729:A:C8	2.29	0.67
36:B0:30:THR:HG22	36:B0:31:HIS:CE1	2.29	0.67
2:CE:132:LYS:O	2:CE:132:LYS:HD2	1.94	0.67
24:DA:2758:A:C2	24:DA:2759:G:H1'	2.29	0.67
36:D0:103:ARG:HD3	36:D0:108:GLY:O	1.93	0.67
1:CA:412:A:H4'	1:CA:413:G:C5'	2.23	0.67
1:CA:1329:A:OP1	13:CP:28:ALA:HB3	1.93	0.67
1:CA:1366:C:OP1	9:CL:117:HIS:NE2	2.27	0.67
24:DA:2393:A:C5'	53:D8:30:ARG:CZ	2.65	0.67
24:DA:792:G:H5''	24:DA:793:A:H5'	1.77	0.67
7:CJ:115:ARG:NH1	7:CJ:117:ALA:HB3	2.09	0.67
37:BQ:85:VAL:CG2	37:BQ:110:LEU:HB2	2.23	0.67
2:AE:170:GLU:O	2:AE:173:ALA:N	2.26	0.67
2:AE:197:VAL:CG1	2:AE:200:ILE:HG13	2.25	0.67
24:BA:592:G:H21	53:B8:4:MET:CE	1.97	0.67
33:BN:76:ALA:HB3	38:BR:75:ILE:HB	1.75	0.67
43:DU:97:ARG:H	43:DU:97:ARG:HD3	1.59	0.67
24:BA:1332:G:N2	24:BA:1610:A:C8	2.61	0.67
35:BP:133:ARG:O	35:BP:134:ARG:CB	2.42	0.67
2:AE:29:ALA:O	2:AE:32:ILE:HG22	1.93	0.67
1:AA:673:G:H5''	6:AI:87:ARG:NH1	2.08	0.67
1:CA:1002:G:H2'	1:CA:1003:G:C8	2.30	0.67
29:DG:60:LEU:O	29:DG:60:LEU:HD23	1.95	0.67
1:CA:192:U:H2'	1:CA:193:C:H6	1.58	0.67
20:CW:53:LEU:CB	20:CW:102:GLY:HA3	2.25	0.67
24:BA:1210:A:H5''	24:BA:1212:G:C5'	2.24	0.67
24:DA:856:C:H2'	24:DA:857:C:C6	2.29	0.67
24:DA:2262:U:H4'	24:DA:2328:A:C2	2.29	0.67
24:DA:141:A:H8	24:DA:1595:G:H21	1.38	0.67
24:DA:2352:A:H2	45:D3:33:ALA:HB1	1.59	0.67
26:DD:132:PRO:HD3	26:DD:190:TYR:CE2	2.29	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1341:U:OP2	24:BA:1394:U:O2'	2.09	0.67
4:CG:11:LEU:C	4:CG:13:ARG:N	2.47	0.67
19:CV:70:LYS:CE	19:CV:73:GLU:CA	2.73	0.67
30:DH:137:ASP:OD1	30:DH:138:LYS:N	2.28	0.67
24:BA:2751:G:C5	30:BH:3:ARG:CG	2.76	0.67
24:DA:2789:C:N3	24:DA:2790:A:N6	2.43	0.67
3:CF:71:ALA:HB2	3:CF:106:VAL:HB	1.76	0.67
18:CU:22:VAL:O	18:CU:24:ALA:N	2.25	0.67
36:B0:63:ARG:HB2	36:B0:80:PHE:CE2	2.29	0.67
2:AE:51:LEU:HD22	2:AE:55:PHE:CE2	2.30	0.67
32:DM:94:HIS:HB2	32:DM:96:GLU:OE1	1.94	0.67
1:AA:1454:G:OP1	20:AW:39:LYS:NZ	2.24	0.67
38:DR:51:ARG:HG3	38:DR:98:LYS:HG3	1.75	0.67
40:D2:62:LEU:HD22	40:D2:62:LEU:N	2.10	0.67
32:BM:115:ARG:O	32:BM:118:LYS:N	2.27	0.67
1:AA:1014:A:H4'	19:AV:14:HIS:CE1	2.28	0.67
1:CA:376:G:H5''	16:CS:5:ARG:HD3	1.77	0.67
24:DA:1689:A:H62	24:DA:1698:A:H2	1.41	0.67
34:BO:94:GLU:O	34:BO:95:VAL:HB	1.94	0.67
16:AS:23:ASP:OD1	16:AS:25:ARG:HD3	1.94	0.67
24:DA:2345:G:H2'	24:DA:2345:G:O5'	1.95	0.67
24:DA:2346:A:H5''	24:DA:2383:G:C1'	2.25	0.67
24:DA:2393:A:C4'	53:D8:30:ARG:HE	2.08	0.67
24:DA:2801:A:H4'	24:DA:2895:U:C5'	2.23	0.67
27:DE:64:LYS:NZ	27:DE:68:ALA:CB	2.57	0.67
40:D2:35:LEU:HG	40:D2:37:VAL:HG13	1.76	0.67
24:DA:895:U:H4'	24:DA:896:A:C5	2.28	0.67
44:DV:120:ILE:CD1	44:DV:171:ILE:HA	2.25	0.67
44:DV:144:LEU:HD23	44:DV:148:ASP:HA	1.76	0.67
24:DA:1336:A:H2'	24:DA:1337:G:C8	2.30	0.67
40:D2:79:VAL:O	40:D2:80:GLN:CB	2.41	0.67
24:DA:2542:A:O2'	24:DA:2543:G:P	2.53	0.67
24:BA:1510:A:OP1	24:BA:1511:A:H5'	1.94	0.67
24:BA:2661:G:H2'	24:BA:2662:A:O4'	1.94	0.67
41:DS:4:LYS:HB3	41:DS:106:ILE:HG22	1.75	0.67
24:DA:1155:A:OP1	39:D1:55:ARG:HD2	1.93	0.67
1:CA:339:C:OP2	33:DN:97:ARG:NH2	2.26	0.67
1:AA:644:G:C2'	1:AA:645:C:H5'	2.25	0.67
1:CA:188:U:O2'	1:CA:189:U:H5'	1.95	0.67
24:DA:756:C:C2'	24:DA:757:U:H5'	2.25	0.67
35:BP:137:TYR:HE2	44:BV:49:ARG:HE	1.41	0.67
30:BH:20:ALA:HB1	30:BH:21:PRO:HD2	1.76	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:B6:11:LEU:HD21	51:B6:51:GLU:HG3	1.75	0.67
19:AV:63:THR:OG1	19:AV:66:MET:HG3	1.95	0.67
27:DE:37:ARG:NH1	27:DE:80:GLU:OE2	2.28	0.67
2:CE:233:SER:CB	2:CE:234:PRO:CD	2.70	0.67
10:AM:48:THR:CG2	10:AM:62:HIS:HD2	2.05	0.67
2:AE:73:THR:HG22	2:AE:95:GLN:O	1.95	0.67
34:DO:19:VAL:HG22	34:DO:20:GLY:N	2.05	0.67
9:AL:16:ARG:HG2	9:AL:64:THR:HG23	1.75	0.67
1:AA:404:U:N3	1:AA:497:U:O4	2.16	0.67
24:BA:1141:U:H6	32:BM:63:THR:HG1	1.42	0.67
24:BA:881:G:H22	24:BA:895:U:H3	1.43	0.67
1:CA:1086:U:H2'	1:CA:1087:G:O4'	1.95	0.67
1:CA:328:C:H1'	1:CA:329:A:OP2	1.95	0.67
41:DS:19:LEU:HB3	50:D5:25:LEU:HD12	1.75	0.67
4:AG:177:ASP:CB	4:AG:182:LYS:HG3	2.24	0.67
8:CK:129:VAL:HG22	8:CK:130:GLY:N	2.08	0.67
29:BG:11:TYR:O	29:BG:16:ARG:HG3	1.95	0.67
29:BG:105:LYS:CD	49:B4:26:SER:HB2	2.24	0.67
43:DU:38:ILE:CG2	43:DU:64:GLU:HB2	2.25	0.67
43:DU:9:LYS:O	43:DU:27:VAL:HG13	1.95	0.67
24:DA:336:C:H4'	43:DU:6:HIS:CD2	2.30	0.67
1:CA:811:C:O2'	1:CA:901:A:N1	2.27	0.67
24:BA:889:C:O2	24:BA:889:C:H3'	1.94	0.67
1:CA:1366:C:O2'	10:CM:60:ARG:NH1	2.27	0.67
24:BA:2001:A:H5''	24:BA:2689:U:O2'	1.95	0.67
1:AA:1374:A:C2'	1:AA:1375:A:H5'	2.23	0.67
19:AV:40:ILE:HG22	19:AV:69:HIS:O	1.95	0.67
30:DH:4:ILE:CD1	30:DH:6:ARG:HG3	2.24	0.67
20:AW:49:ALA:O	20:AW:53:LEU:HG	1.95	0.67
3:CF:105:GLU:HG2	3:CF:106:VAL:N	2.09	0.67
13:AP:12:ASN:OD1	13:AP:13:LYS:N	2.26	0.67
4:CG:93:PHE:HD1	4:CG:93:PHE:C	1.98	0.67
24:BA:1178:C:H2'	24:BA:1179:C:H6	1.55	0.67
24:DA:1337:G:H2'	24:DA:1338:G:H8	1.60	0.67
10:AM:87:THR:OG1	10:AM:88:LEU:N	2.25	0.67
1:AA:464:G:H1'	1:AA:468:A:H61	1.60	0.67
28:BF:64:ILE:HG22	28:BF:65:TRP:NE1	2.09	0.67
32:BM:46:VAL:HG11	32:BM:48:MET:CE	2.23	0.67
20:CW:33:ILE:HD13	20:CW:62:LEU:HB3	1.77	0.67
27:DE:203:LYS:HD2	27:DE:203:LYS:C	2.15	0.67
4:AG:101:LEU:HD23	4:AG:121:VAL:CG1	2.25	0.67
43:DU:28:LYS:HE3	43:DU:63:LYS:NZ	2.10	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1967:C:H2'	24:DA:1968:G:H5'	1.77	0.67
11:CN:109:VAL:HG22	18:CU:86:VAL:HG12	1.75	0.67
2:CE:114:ARG:HA	2:CE:114:ARG:HE	1.59	0.67
1:CA:585:G:N3	1:CA:879:C:H4'	2.09	0.67
1:CA:965:A:C2	1:CA:969:A:C2	2.82	0.67
1:AA:1346:A:H5''	9:AL:120:ARG:NH1	2.10	0.67
9:AL:93:ARG:HE	9:AL:102:LEU:CD1	2.08	0.67
3:CF:39:ILE:CD1	3:CF:57:ILE:HD11	2.25	0.67
39:B1:92:ARG:CD	39:B1:95:LEU:HD11	2.23	0.67
2:AE:87:ARG:HD2	2:AE:87:ARG:O	1.95	0.67
1:CA:267:C:OP1	17:CT:67:LYS:HD2	1.95	0.67
24:DA:1338:G:N7	42:DT:62:LYS:NZ	2.39	0.67
10:AM:48:THR:HG23	10:AM:62:HIS:CG	2.29	0.67
1:AA:558:G:H2'	1:AA:559:A:C2	2.29	0.67
24:BA:1022:G:H1'	24:BA:1023:U:OP2	1.94	0.67
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.30	0.67
24:DA:2163:C:OP1	24:DA:2171:A:H2'	1.95	0.67
17:AT:56:VAL:O	17:AT:77:VAL:HB	1.95	0.67
24:BA:273(E):U:O2'	24:BA:273(F):C:H5'	1.94	0.67
44:BV:18:LEU:CD1	44:BV:18:LEU:H	2.07	0.67
35:BP:75:THR:HB	35:BP:88:GLY:HA3	1.77	0.67
44:BV:4:ARG:CZ	44:BV:58:VAL:HG11	2.24	0.67
1:CA:1173:G:OP1	7:CJ:5:ARG:NH1	2.20	0.67
2:CE:106:LYS:HD2	2:CE:106:LYS:O	1.95	0.67
1:AA:501:C:H2'	1:AA:502:G:C8	2.29	0.67
4:CG:18:LYS:CD	4:CG:20:TYR:CE1	2.79	0.67
4:CG:18:LYS:NZ	4:CG:34:GLU:OE1	2.27	0.67
9:CL:79:LEU:HD22	9:CL:101:PHE:O	1.94	0.67
21:CX:9:ARG:HG2	21:CX:10:ARG:H	1.60	0.67
24:DA:2344:U:C3'	51:D6:39:TYR:HE1	2.08	0.67
24:DA:2393:A:OP1	53:D8:27:THR:CA	2.42	0.67
24:DA:871:U:OP1	35:DP:5:ARG:N	2.26	0.67
1:AA:1381:U:H2'	7:AJ:79:ARG:NH1	2.06	0.67
30:BH:4:ILE:HB	30:BH:6:ARG:HD3	1.77	0.67
12:AO:46:LYS:CG	12:AO:47:LYS:H	2.06	0.67
34:DO:106:LEU:O	34:DO:107:LYS:HB2	1.93	0.67
24:BA:1077:A:H3'	24:BA:1078:U:C5'	2.25	0.67
2:CE:19:HIS:HE1	2:CE:205:ASP:CG	1.98	0.67
1:CA:277:C:H5''	17:CT:68:ARG:HH22	1.59	0.67
1:CA:1080:A:P	5:CH:14:ARG:NH2	2.68	0.67
34:BO:75:ILE:N	34:BO:75:ILE:HD13	2.00	0.67
34:DO:47:ASP:HB3	34:DO:48:PRO:CA	2.24	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:89:ILE:HG21	30:DH:129:THR:HG22	1.77	0.67
5:AH:138:ALA:O	5:AH:142:LEU:HD12	1.94	0.67
1:AA:994:A:O2'	14:AQ:12:ARG:NH2	2.28	0.67
9:AL:79:LEU:HD21	9:AL:83:ARG:NE	2.09	0.67
5:CH:43:LEU:HD13	5:CH:136:MET:CG	2.23	0.67
1:AA:87:A:H2'	1:AA:88:C:C6	2.29	0.67
24:BA:2789:C:H1'	24:BA:2892:A:H2	1.60	0.67
8:CK:5:PRO:HG2	8:CK:6:ILE:CD1	2.24	0.67
12:CO:24:VAL:HG13	12:CO:26:ALA:HB2	1.77	0.67
43:DU:39:VAL:HG23	43:DU:40:GLU:N	2.10	0.67
15:CR:22:THR:O	15:CR:27:VAL:HG11	1.95	0.67
3:CF:121:ALA:CB	3:CF:198:VAL:HG21	2.24	0.67
35:BP:26:TYR:CD2	35:BP:140:ALA:HB3	2.30	0.67
4:CG:163:GLU:HG2	4:CG:166:LYS:NZ	2.10	0.67
25:BB:15:A:H5'	25:BB:16:G:C8	2.30	0.67
24:BA:265:A:H1'	24:BA:266:G:O4'	1.95	0.67
20:AW:58:LYS:O	20:AW:61:SER:HB3	1.94	0.67
1:CA:1134:G:H2'	1:CA:1135:U:H5'	1.76	0.66
19:CV:31:ILE:HD11	19:CV:33:THR:N	2.10	0.66
19:CV:37:ARG:CG	19:CV:37:ARG:HH11	2.05	0.66
24:DA:2419:U:C4	53:D8:31:HIS:CD2	2.81	0.66
29:BG:97:ASP:O	29:BG:101:ILE:HG23	1.95	0.66
2:AE:20:GLU:HB2	2:AE:190:THR:OG1	1.95	0.66
40:D2:38:LEU:HD22	40:D2:56:SER:N	2.10	0.66
26:DD:31:LYS:O	26:DD:32:SER:O	2.13	0.66
2:CE:168:THR:CG2	2:CE:192:SER:HA	2.26	0.66
2:CE:40:HIS:HB3	2:CE:190:THR:HG21	1.78	0.66
31:BK:123:LEU:HB2	31:BK:142:VAL:HG23	1.77	0.66
10:CM:28:ARG:HH12	10:CM:34:VAL:H	1.43	0.66
49:D4:61:ARG:HA	49:D4:61:ARG:CZ	2.25	0.66
31:DK:77:LEU:HD12	31:DK:78:THR:N	2.09	0.66
44:DV:69:THR:HG22	44:DV:90:VAL:HA	1.77	0.66
34:BO:58:THR:CG2	34:BO:61:ARG:NH1	2.57	0.66
37:DQ:59:LYS:HD3	37:DQ:61:ASN:N	2.10	0.66
25:DB:51:G:P	37:DQ:59:LYS:NZ	2.69	0.66
38:BR:26:ASP:CB	38:BR:91:ARG:HA	2.23	0.66
1:AA:626:U:H2'	1:AA:627:G:H8	1.57	0.66
48:DX:13:ILE:HD12	48:DX:13:ILE:H	1.60	0.66
24:DA:270(F):U:H2'	24:DA:270(G):C:C6	2.30	0.66
24:DA:1665:A:O2'	24:DA:1666:G:H5'	1.95	0.66
24:BA:594:U:H5'	53:B8:61:LEU:HD13	1.77	0.66
30:BH:41:MET:CE	30:BH:64:LEU:HB2	2.24	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AG:109:GLY:HA3	4:AG:165:MET:SD	2.34	0.66
24:BA:1812:A:C1'	26:BD:46:GLN:NE2	2.58	0.66
1:AA:501:C:H1'	1:AA:549:C:H1'	1.77	0.66
48:DX:43:ILE:O	48:DX:47:VAL:HG23	1.95	0.66
24:BA:222:A:H3'	24:BA:421:U:O5'	1.94	0.66
48:DX:7:LYS:O	48:DX:54:VAL:HG13	1.95	0.66
1:CA:545:C:OP1	4:CG:61:LYS:NZ	2.28	0.66
24:BA:489:G:N7	41:BS:49:LYS:NZ	2.43	0.66
24:BA:270(O):U:O2	24:BA:270(O):U:H3'	1.95	0.66
24:DA:2702:U:H4'	24:DA:2703:C:OP1	1.95	0.66
4:CG:9:CYS:CB	4:CG:22:LYS:HZ3	2.08	0.66
1:CA:1317:C:N4	14:CQ:19:ARG:HH22	1.92	0.66
1:CA:947:G:H4'	13:CP:109:THR:CG2	2.26	0.66
10:CM:68:HIS:HD2	10:CM:70:ARG:NH1	1.91	0.66
13:CP:29:ARG:HD3	13:CP:64:TRP:CZ3	2.30	0.66
14:CQ:29:ARG:CZ	14:CQ:40:CYS:CB	2.72	0.66
24:DA:2370:G:O2'	51:D6:45:LYS:NZ	2.28	0.66
9:AL:99:LEU:CB	9:AL:101:PHE:HE2	2.02	0.66
24:BA:2401:U:H2'	24:BA:2402:C:C6	2.29	0.66
30:BH:52:VAL:O	30:BH:65:HIS:NE2	2.26	0.66
4:AG:21:LEU:HD12	4:AG:22:LYS:HD3	1.73	0.66
1:CA:1190:G:P	3:CF:5:ILE:HD12	2.34	0.66
24:DA:1079:C:N4	24:DA:1088:A:OP1	2.22	0.66
44:DV:119:GLU:H	44:DV:119:GLU:CD	1.97	0.66
30:BH:153:LYS:CB	30:BH:154:PRO:CD	2.73	0.66
24:BA:1899:G:O2'	24:BA:1900:A:O5'	2.11	0.66
53:B8:59:LYS:HB2	53:B8:59:LYS:HZ3	1.61	0.66
24:BA:196:A:OP2	34:BO:46:LYS:NZ	2.28	0.66
40:D2:7:THR:CG2	40:D2:22:VAL:HG21	2.26	0.66
5:CH:12:LEU:HD22	5:CH:13:ILE:H	1.58	0.66
31:BK:140:LEU:H	31:BK:140:LEU:HD23	1.59	0.66
1:CA:594:G:C2'	1:CA:595:G:H5'	2.26	0.66
24:BA:2491:U:O2'	24:BA:2570:G:OP1	2.12	0.66
1:CA:436:C:O2'	4:CG:157:LEU:HD13	1.95	0.66
1:CA:316:G:OP2	1:CA:351:G:O2'	2.14	0.66
2:AE:160:ASP:O	2:AE:183:PRO:HD2	1.95	0.66
24:BA:1292:U:H2'	24:BA:1293:C:C6	2.29	0.66
42:DT:27:THR:HG22	42:DT:80:ILE:HG22	1.77	0.66
24:DA:286:C:H2'	24:DA:287:C:C6	2.31	0.66
24:DA:489:G:N7	41:DS:49:LYS:NZ	2.42	0.66
10:AM:78:ASN:O	10:AM:81:THR:OG1	2.10	0.66
24:DA:2345:G:P	51:D6:39:TYR:CZ	2.87	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AL:9:ARG:O	9:AL:104:ARG:NE	2.28	0.66
43:BU:76:CYS:N	43:BU:81:LYS:CE	2.59	0.66
26:BD:65:ILE:C	26:BD:65:ILE:HD12	2.15	0.66
37:BQ:85:VAL:HG22	37:BQ:110:LEU:HB2	1.76	0.66
43:DU:50:ARG:HG2	43:DU:53:PRO:CG	2.07	0.66
24:BA:1899:G:N2	24:BA:1902:C:N4	2.34	0.66
39:D1:92:ARG:CD	40:D2:11:GLN:HB2	2.26	0.66
24:BA:1496:A:H5'	24:BA:1497:U:OP1	1.94	0.66
4:AG:65:ARG:HG3	4:AG:75:PHE:CD2	2.31	0.66
26:BD:182:LEU:N	26:BD:272:ALA:HB3	2.08	0.66
24:DA:2170:A:C2'	24:DA:2171:A:H5'	2.26	0.66
38:BR:102:ILE:HA	38:BR:105:LEU:HD13	1.77	0.66
9:AL:23:ASN:HD22	9:AL:25:LYS:NZ	1.93	0.66
24:DA:960:A:H5''	24:DA:961:C:OP1	1.95	0.66
11:AN:54:ARG:O	11:AN:57:THR:N	2.27	0.66
24:DA:828:U:C2'	24:DA:828:U:O2	2.42	0.66
1:CA:793:U:O2	1:CA:1516:G:H4'	1.96	0.66
1:CA:339:C:O2'	1:CA:340:U:H5'	1.95	0.66
2:CE:132:LYS:O	2:CE:136:VAL:HG23	1.95	0.66
33:DN:2:ILE:HD12	33:DN:6:THR:HG21	1.76	0.66
29:DG:170:ARG:HH22	29:DG:182:LYS:HA	1.60	0.66
24:DA:2584:U:C6	24:DA:2585:U:C5	2.83	0.66
43:BU:5:MET:HE3	43:BU:32:PRO:HA	1.76	0.66
24:BA:559:G:H22	39:B1:49:HIS:CD2	2.12	0.66
44:DV:13:GLU:HB3	44:DV:18:LEU:HD11	1.77	0.66
1:CA:1131:G:H1	1:CA:1143:G:H21	1.43	0.66
7:CJ:25:ALA:HA	7:CJ:28:ASN:ND2	2.10	0.66
9:CL:10:ARG:NE	9:CL:105:ASP:OD2	2.24	0.66
11:CN:59:TYR:CE2	11:CN:63:LEU:HD11	2.29	0.66
13:AP:81:LEU:HD12	13:AP:86:CYS:HB3	1.76	0.66
19:AV:41:VAL:HG22	19:AV:42:PRO:HA	1.77	0.66
1:AA:542:G:H5'	4:AG:41:GLY:HA3	1.77	0.66
43:DU:76:CYS:O	43:DU:78:ALA:N	2.29	0.66
24:DA:2893:G:H4'	24:DA:2894:G:O5'	1.95	0.66
24:BA:1138:G:H21	32:BM:106:MET:CE	2.08	0.66
5:CH:69:VAL:HG12	5:CH:71:LEU:HD11	1.77	0.66
31:DK:77:LEU:HD13	31:DK:141:LYS:O	1.95	0.66
24:DA:2317:C:O2'	24:DA:2318:G:H5'	1.95	0.66
37:DQ:93:LYS:O	37:DQ:95:HIS:N	2.28	0.66
1:CA:631:G:H3'	1:CA:632:A:C8	2.30	0.66
45:B3:68:GLU:OE2	45:B3:82:ARG:NH1	2.28	0.66
9:AL:17:VAL:HG11	9:AL:81:ILE:HD13	1.75	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:120:GLY:C	30:DH:121:ILE:HD13	2.16	0.66
26:DD:26:LYS:O	26:DD:27:THR:HB	1.96	0.66
12:AO:25:PRO:HD2	12:AO:98:TYR:OH	1.95	0.66
28:DF:181:LEU:HD11	28:DF:194:MET:HE1	1.77	0.66
6:AI:91:VAL:HG11	18:AU:72:ARG:NH1	2.10	0.66
24:BA:1649:G:O2'	36:B0:107:ASP:OD1	2.05	0.66
1:CA:1098:C:OP2	2:CE:144:ARG:NH2	2.28	0.66
42:DT:40:LYS:C	42:DT:42:ALA:H	1.98	0.66
44:BV:30:ASN:OD1	44:BV:32:HIS:N	2.28	0.66
24:BA:2823:A:OP1	27:BE:113:PHE:HB2	1.95	0.66
1:CA:1117:G:O3'	9:CL:104:ARG:HD3	1.95	0.66
1:CA:1179:A:H1'	9:CL:104:ARG:NH2	2.09	0.66
30:DH:3:ARG:CZ	30:DH:7:LEU:HD13	2.24	0.66
37:BQ:110:LEU:CD1	37:BQ:112:PHE:CE2	2.77	0.66
50:B5:3:LYS:O	50:B5:4:HIS:C	2.33	0.66
24:BA:1063:G:H22	24:BA:1076:C:H1'	1.59	0.66
24:BA:1068:G:H4'	24:BA:1070:A:N6	2.10	0.66
46:BZ:73:LEU:HB3	46:BZ:90:ILE:HG22	1.76	0.66
46:BZ:53:VAL:HG22	46:BZ:74:VAL:CG2	2.22	0.66
19:CV:28:LYS:NZ	19:CV:29:ARG:HB2	2.10	0.66
2:CE:68:ILE:H	2:CE:90:MET:HE2	1.60	0.66
2:CE:80:ILE:HG21	2:CE:208:ILE:HD11	1.78	0.66
51:D6:23:THR:CG2	51:D6:24:GLU:H	1.90	0.66
1:AA:1029:G:C2'	1:AA:1030:C:H5''	2.26	0.66
13:AP:20:THR:HG23	13:AP:21:TYR:CD1	2.30	0.66
24:BA:1899:G:O2'	24:BA:1900:A:P	2.53	0.66
24:BA:2114:A:N6	24:BA:2115:G:O6	2.29	0.66
24:BA:249:C:H4'	24:BA:250:G:O5'	1.96	0.66
24:BA:1797:C:O2'	26:BD:259:THR:CG2	2.43	0.66
24:DA:2681:C:H5	24:DA:2725:A:N6	1.87	0.66
24:BA:593:G:O3'	53:B8:61:LEU:HD13	1.96	0.66
26:DD:155:LEU:HD23	26:DD:177:LEU:HD22	1.77	0.66
35:DP:16:ARG:O	35:DP:17:LEU:HD23	1.94	0.66
1:AA:1167:A:H2'	1:AA:1169:A:H8	1.61	0.66
28:DF:31:HIS:HB2	34:DO:9:ASN:ND2	2.10	0.66
52:D7:34:ARG:HB3	52:D7:42:LEU:HD23	1.78	0.66
24:BA:297:C:H5''	43:BU:85:VAL:HG21	1.78	0.66
40:B2:76:LYS:HG2	40:B2:81:TYR:CD2	2.29	0.66
15:CR:43:LEU:HD12	15:CR:56:LEU:HD22	1.75	0.66
26:DD:231:HIS:ND1	26:DD:232:PRO:HD2	2.11	0.66
1:AA:123:C:OP1	1:AA:312:C:H5'	1.95	0.66
20:AW:48:LYS:H	20:AW:48:LYS:HD2	1.58	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CR:17:ARG:HH12	15:CR:77:ARG:CZ	2.09	0.66
45:D3:24:LYS:O	45:D3:25:ARG:NH1	2.26	0.66
32:DM:38:HIS:CE1	32:DM:39:ARG:HG3	2.30	0.66
11:AN:79:SER:HB2	11:AN:106:LYS:HE3	1.78	0.66
1:CA:598:U:C3'	8:CK:94:TYR:CE2	2.75	0.66
1:CA:1238:A:N3	1:CA:1241:G:O2'	2.26	0.66
1:CA:1256:A:H5''	1:CA:1258:G:C2	2.30	0.66
3:AF:8:ILE:O	3:AF:11:ARG:N	2.17	0.66
43:BU:76:CYS:O	43:BU:81:LYS:NZ	2.29	0.66
43:BU:81:LYS:CD	43:BU:96:ILE:HB	2.22	0.66
1:AA:956:U:C2	1:AA:1225:A:C2	2.83	0.66
2:AE:8:LYS:HZ2	2:AE:217:ARG:HH21	1.42	0.66
24:DA:1057:A:N6	24:DA:1087:G:H5''	2.09	0.66
4:CG:93:PHE:CD1	4:CG:93:PHE:C	2.67	0.66
5:AH:78:HIS:HE1	5:AH:143:ARG:H	1.41	0.66
49:D4:18:CYS:SG	49:D4:19:GLY:HA2	2.36	0.66
30:DH:135:GLY:HA3	30:DH:141:VAL:CG2	2.26	0.66
26:DD:28:GLU:CG	26:DD:29:PRO:HD3	2.26	0.66
24:DA:2113:U:H2'	24:DA:2114:A:H5'	1.76	0.66
42:BT:5:TYR:HD1	47:BW:33:MET:HE1	1.60	0.66
1:CA:475:G:H2'	1:CA:476:G:H8	1.61	0.66
1:AA:123:C:OP1	1:AA:311:C:O2'	2.12	0.66
24:DA:1693:U:H4'	24:DA:1694:C:OP2	1.96	0.66
24:DA:395:U:H2'	24:DA:396:G:N7	2.11	0.66
1:AA:793:U:O2	1:AA:1516:G:H4'	1.96	0.66
1:CA:1280:A:OP1	10:CM:7:LYS:NZ	2.26	0.66
10:CM:40:LEU:CD1	10:CM:41:PRO:HD2	2.21	0.66
1:CA:1366:C:C3'	10:CM:60:ARG:HH22	2.08	0.66
49:D4:57:GLU:CA	49:D4:60:GLN:HG2	2.25	0.66
3:AF:7:PRO:O	3:AF:11:ARG:NH1	2.29	0.66
9:AL:10:ARG:HA	9:AL:104:ARG:NH2	2.10	0.66
9:AL:89:ASN:O	9:AL:92:TYR:HB2	1.96	0.66
24:BA:2287:A:C2	24:BA:2289:G:C1'	2.79	0.66
1:AA:411:A:C5	1:AA:413:G:H1'	2.31	0.66
27:DE:37:ARG:HD3	27:DE:42:ASP:CB	2.25	0.66
40:D2:38:LEU:CD2	40:D2:55:ALA:HB1	2.25	0.66
24:BA:875:G:OP1	44:BV:175:VAL:HG21	1.95	0.66
5:CH:41:VAL:O	5:CH:67:VAL:HG12	1.95	0.66
25:DB:40:U:H1'	25:DB:46:A:N1	2.11	0.66
39:D1:96:ALA:HA	39:D1:98:LEU:CD1	2.26	0.66
25:DB:24:G:H4'	25:DB:25:A:H8	1.60	0.66
1:AA:690:G:O2'	1:AA:691:G:H5'	1.95	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:15:THR:HG23	3:AF:181:ASN:HA	1.77	0.66
24:DA:2212:A:H1'	24:DA:2215:G:C5	2.31	0.66
7:AJ:18:TYR:CE2	7:AJ:59:LEU:HD22	2.31	0.66
1:CA:626:U:H2'	1:CA:627:G:H8	1.61	0.66
5:AH:87:SER:OG	5:AH:125:SER:HB3	1.96	0.66
1:AA:406:G:N3	4:AG:119:GLN:NE2	2.37	0.66
5:AH:63:ARG:HA	5:AH:66:MET:CE	2.26	0.66
24:DA:962:G:O2'	24:DA:963:U:H5'	1.96	0.66
24:BA:2287:A:C2	24:BA:2289:G:C8	2.83	0.66
24:BA:2415:G:C4'	34:BO:67:MET:H	2.05	0.66
24:BA:1063:G:H2'	24:BA:1064:C:C6	2.30	0.66
24:BA:1061:U:O2'	24:BA:1070:A:O4'	2.13	0.66
44:DV:151:HIS:CA	44:DV:170:THR:HA	2.26	0.66
30:DH:89:ILE:CG2	30:DH:129:THR:HG22	2.25	0.66
1:CA:620:C:C6	4:CG:135:LEU:HD23	2.31	0.66
24:BA:2115:G:H5''	24:BA:2116:G:OP2	1.96	0.66
39:D1:98:LEU:C	39:D1:100:VAL:N	2.49	0.66
1:CA:1443:G:N2	38:DR:119:LYS:HG3	2.11	0.66
13:CP:14:ARG:HA	13:CP:43:THR:O	1.96	0.66
24:BA:1310:G:N7	24:BA:1311:G:N7	2.43	0.66
25:DB:24:G:N3	25:DB:27:C:N4	2.40	0.66
41:DS:65:LEU:HD12	41:DS:68:ARG:HD2	1.77	0.66
28:BF:63:LYS:NZ	28:BF:75:HIS:O	2.29	0.66
12:CO:24:VAL:HG12	12:CO:26:ALA:HB2	1.77	0.66
1:CA:392:G:C5'	16:CS:12:LYS:NZ	2.59	0.66
1:CA:328:C:H2'	1:CA:328:C:O2	1.95	0.66
37:BQ:34:HIS:CB	37:BQ:36:TYR:HE1	2.09	0.66
15:AR:8:LYS:O	15:AR:12:ILE:HG13	1.95	0.66
1:AA:162:A:H5''	1:AA:163:C:OP2	1.95	0.66
24:BA:1583:A:H5'	24:BA:1585:C:O5'	1.96	0.66
11:AN:73:MET:SD	11:AN:103:LEU:HD21	2.36	0.66
43:DU:38:ILE:HG22	43:DU:64:GLU:HB2	1.77	0.66
24:BA:2758:A:C4	30:BH:67:LEU:HD21	2.30	0.66
24:BA:1819:A:H5''	26:BD:161:THR:HG21	1.78	0.66
1:CA:1028(B):C:H3'	1:CA:1029:G:H5''	1.77	0.66
24:BA:1317:A:O2'	24:BA:1318:C:H5'	1.96	0.66
13:AP:105:THR:OG1	13:AP:106:ASN:N	2.29	0.66
29:BG:48:GLU:HG3	29:BG:49:ASP:H	1.61	0.66
7:CJ:87:VAL:HG11	7:CJ:154:TYR:O	1.96	0.66
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.59	0.66
43:BU:97:ARG:CD	43:BU:97:ARG:H	2.04	0.66
9:AL:42:ARG:NH1	9:AL:71:SER:OG	2.29	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:88:ASP:O	37:BQ:89:ARG:HG2	1.96	0.66
13:CP:3:ARG:HH22	13:CP:7:VAL:HB	1.61	0.66
17:CT:97:SER:HA	17:CT:101:ARG:CZ	2.26	0.66
31:BK:86:THR:HA	31:BK:123:LEU:HD21	1.76	0.66
1:CA:1290:G:N2	1:CA:1291:G:H1'	2.11	0.66
24:DA:1068:G:H2'	24:DA:1069:A:O4'	1.95	0.66
9:CL:3:GLN:HG2	9:CL:20:ARG:CG	2.26	0.66
8:CK:106:GLY:HA2	8:CK:122:ARG:HH22	1.60	0.66
24:BA:1174:A:C3'	24:BA:1175:U:H5''	2.25	0.66
44:DV:91:LEU:CD2	44:DV:96:VAL:HG21	2.26	0.66
24:BA:249:C:O2	53:B8:12:LYS:NZ	2.28	0.66
36:B0:117:VAL:HG22	36:B0:118:GLU:N	2.09	0.66
16:AS:22:THR:HA	16:AS:33:ILE:CG1	2.24	0.66
1:CA:392:G:H5''	16:CS:12:LYS:NZ	2.11	0.66
1:AA:224:C:H2'	1:AA:225:C:H6	1.56	0.66
24:DA:2798:C:H5''	24:DA:2799:A:OP2	1.96	0.66
24:DA:229:A:N1	24:DA:417:C:O2'	2.28	0.66
48:DX:53:LEU:HD12	48:DX:54:VAL:HG23	1.78	0.66
24:DA:162:U:H4'	24:DA:171:G:C8	2.31	0.66
30:BH:67:LEU:HD11	30:BH:71:LEU:HD22	1.77	0.66
24:DA:1427:A:H4'	24:DA:1428:C:O5'	1.94	0.66
12:CO:79:GLU:HG3	12:CO:80:HIS:CD2	2.31	0.66
20:AW:33:ILE:HD12	20:AW:62:LEU:HB3	1.78	0.66
32:BM:41:ASP:HA	39:B1:64:ARG:HH21	1.61	0.66
24:DA:2248:C:H2'	24:DA:2249:U:H5'	1.77	0.66
24:DA:1956:U:H2'	24:DA:1957:C:H5'	1.76	0.66
1:CA:1358:U:H5''	1:CA:1359:C:OP2	1.96	0.66
7:CJ:16:LEU:HD12	9:CL:42:ARG:HA	1.78	0.66
51:D6:16:CYS:O	51:D6:44:ARG:NH2	2.28	0.66
9:AL:4:TYR:CE1	9:AL:88:TYR:HB2	2.29	0.66
24:DA:2749:A:H5'	30:DH:6:ARG:NE	2.10	0.66
34:BO:65:ARG:O	34:BO:68:GLN:NE2	2.29	0.66
40:D2:35:LEU:HD23	40:D2:35:LEU:O	1.95	0.66
1:AA:195:A:H4'	20:AW:68:LYS:NZ	2.10	0.66
10:CM:34:VAL:CG1	10:CM:74:ILE:CG2	2.72	0.66
24:BA:1359:A:H2	24:BA:1372:U:O4	1.79	0.66
35:DP:66:ILE:HG12	35:DP:67:ARG:H	1.60	0.66
1:CA:664:G:H22	1:CA:741:G:H1	1.43	0.66
24:BA:860:U:C5	24:BA:917:A:H2	2.10	0.66
39:D1:92:ARG:HD3	39:D1:95:LEU:CD1	2.26	0.66
37:DQ:69:VAL:HG22	37:DQ:101:LEU:HD21	1.78	0.66
50:B5:16:ARG:HG3	50:B5:17:ASP:H	1.56	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2111:C:C2	24:DA:2118:U:H1'	2.30	0.66
47:DW:41:ILE:CG1	47:DW:44:LEU:HD12	2.25	0.66
38:BR:42:ILE:C	38:BR:42:ILE:HD12	2.16	0.66
3:AF:73:PRO:HG3	3:AF:105:GLU:CG	2.26	0.66
8:CK:9:MET:HB2	8:CK:32:LYS:NZ	2.10	0.66
24:DA:1421:G:N2	24:DA:1495:A:N1	2.43	0.66
40:B2:24:LYS:HA	40:B2:92:THR:HG23	1.76	0.66
13:AP:69:GLU:OE1	49:B4:48:ARG:NH2	2.27	0.66
36:D0:78:LYS:HE2	36:D0:83:ILE:HD11	1.76	0.66
20:AW:58:LYS:O	20:AW:61:SER:N	2.29	0.66
26:BD:136:ILE:CG2	26:BD:137:PRO:HD2	2.25	0.66
1:AA:107:G:H3'	1:AA:108:G:H21	1.61	0.66
28:DF:34:TRP:CZ3	34:DO:8:PRO:HB3	2.31	0.66
4:CG:146:ILE:HD12	4:CG:146:ILE:N	2.11	0.66
24:DA:1204:A:O2'	24:DA:1205:U:OP2	2.12	0.66
1:CA:1410:G:N2	1:CA:1490:C:O2	2.26	0.66
24:BA:1203:G:H3'	24:BA:1204:A:H5''	1.78	0.66
24:DA:1601:G:P	52:D7:49:ARG:CZ	2.84	0.65
4:CG:9:CYS:HB2	4:CG:22:LYS:NZ	2.09	0.65
1:CA:1127:G:N2	1:CA:1146:A:H62	1.93	0.65
1:CA:1288:A:H4'	21:CX:10:ARG:HH12	1.59	0.65
7:CJ:78:ARG:O	7:CJ:78:ARG:CG	2.45	0.65
24:DA:2377:A:H4'	37:DQ:111:GLU:HG2	1.77	0.65
24:BA:2401:U:H2'	24:BA:2402:C:H6	1.61	0.65
13:AP:84:ILE:HD11	19:AV:66:MET:CG	2.10	0.65
24:BA:2751:G:N7	30:BH:3:ARG:HD3	2.11	0.65
1:AA:1316:G:N1	19:AV:5:LEU:HD21	2.07	0.65
5:CH:18:ARG:HH22	5:CH:25:ARG:HD2	1.61	0.65
10:CM:28:ARG:NH1	10:CM:34:VAL:H	1.94	0.65
1:AA:1034:G:H2'	1:AA:1035:A:C8	2.30	0.65
30:BH:150:ALA:C	30:BH:152:ARG:H	1.97	0.65
24:BA:2213:U:C4'	46:BZ:52:ARG:NH1	2.59	0.65
31:BK:131:LYS:HA	31:BK:135:GLU:HB3	1.78	0.65
27:DE:104:VAL:HG11	27:DE:188:VAL:HG21	1.77	0.65
53:D8:50:LEU:HG	53:D8:51:ALA:H	1.60	0.65
9:AL:83:ARG:C	9:AL:86:VAL:HG12	2.17	0.65
38:BR:3:ARG:HA	38:BR:6:LEU:HD22	1.77	0.65
28:BF:67:GLN:HG3	28:BF:67:GLN:O	1.96	0.65
24:DA:90:U:C2'	24:DA:91:A:H5''	2.26	0.65
24:DA:2094:G:C2'	24:DA:2095:C:H5'	2.26	0.65
24:DA:974:G:O2'	24:DA:974(A):C:P	2.53	0.65
24:DA:479:A:N3	24:DA:481:G:H5''	2.11	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1326:C:OP1	21:AX:12:LYS:HE3	1.97	0.65
44:BV:100:VAL:O	44:BV:124:ILE:HG22	1.95	0.65
26:BD:142:VAL:HG23	26:BD:192:THR:C	2.17	0.65
45:D3:48:GLY:HA3	45:D3:80:HIS:ND1	2.11	0.65
44:BV:4:ARG:HA	44:BV:58:VAL:HB	1.77	0.65
15:CR:39:LEU:HD12	15:CR:56:LEU:HD13	1.76	0.65
1:CA:450:G:H4'	16:CS:41:PRO:O	1.95	0.65
24:DA:1834:U:H2'	24:DA:1834:U:O2	1.97	0.65
24:BA:2432:A:C4	46:BZ:33:LYS:HG2	2.30	0.65
3:AF:206:GLU:HG2	3:AF:206:GLU:O	1.96	0.65
36:D0:21:TYR:OH	36:D0:43:GLU:HG2	1.96	0.65
24:DA:2547:U:O2	33:DN:23:ARG:NH2	2.30	0.65
24:BA:1252:G:N3	39:B1:33:ARG:HD2	2.10	0.65
1:CA:1306:A:N6	1:CA:1331:G:H1'	2.11	0.65
24:DA:2344:U:C2'	51:D6:39:TYR:CE1	2.77	0.65
51:D6:40:CYS:SG	51:D6:45:LYS:HD2	2.36	0.65
24:BA:1113:U:H5'	30:BH:2:SER:N	2.12	0.65
49:D4:15:ILE:HD11	49:D4:31:ILE:O	1.96	0.65
9:CL:4:TYR:HD2	9:CL:19:LEU:HD12	1.60	0.65
49:D4:2:LYS:CD	49:D4:6:HIS:CD2	2.78	0.65
25:DB:44:G:C2	25:DB:48:A:C2	2.84	0.65
20:AW:26:ASN:HD22	20:AW:26:ASN:N	1.94	0.65
24:DA:2502:G:H5'	24:DA:2503:A:C5'	2.26	0.65
48:BX:31:LEU:O	48:BX:32:GLN:HB2	1.94	0.65
24:DA:2130:U:O2'	24:DA:2133:G:O2'	2.15	0.65
1:CA:920:U:H2'	1:CA:921:U:H6	1.61	0.65
28:DF:53:THR:HG22	28:DF:56:GLU:CD	2.17	0.65
30:DH:30:LYS:HB2	30:DH:79:VAL:O	1.95	0.65
15:AR:8:LYS:HG3	15:AR:31:LEU:HD11	1.78	0.65
1:AA:1014:A:H2	1:AA:1219:U:O2	1.78	0.65
30:DH:21:PRO:O	30:DH:23:ARG:N	2.29	0.65
4:CG:62:GLN:O	4:CG:66:ARG:HD2	1.96	0.65
24:BA:571:A:O2'	40:B2:78:LYS:NZ	2.27	0.65
28:DF:8:GLN:CG	28:DF:126:VAL:HG12	2.26	0.65
1:CA:933:G:O6	7:CJ:3:ARG:NH2	2.30	0.65
24:BA:301:G:C4	24:BA:302:C:C5	2.83	0.65
31:BK:93:THR:HG22	31:BK:119:PRO:HB3	1.78	0.65
46:DZ:25:LYS:O	46:DZ:25:LYS:HD3	1.95	0.65
24:BA:2639:A:H2'	24:BA:2640:G:H5'	1.77	0.65
41:BS:13:SER:HB3	41:BS:16:LYS:CD	2.26	0.65
1:CA:1227:A:H4'	13:CP:115:LYS:HZ1	1.60	0.65
14:CQ:25:VAL:HG22	14:CQ:38:GLY:O	1.96	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CV:9:VAL:HG11	49:D4:63:TYR:CE1	2.31	0.65
26:BD:35:LYS:HG2	26:BD:64:ILE:CG2	2.25	0.65
7:AJ:15:ASP:OD1	7:AJ:16:LEU:N	2.28	0.65
3:CF:70:VAL:C	3:CF:106:VAL:HG23	2.15	0.65
44:BV:117:LEU:O	44:BV:118:GLN:CB	2.44	0.65
10:AM:50:ILE:HA	10:AM:60:ARG:CG	2.13	0.65
43:DU:81:LYS:HB3	43:DU:82:PRO:HD2	1.76	0.65
27:DE:9:VAL:CG2	27:DE:25:VAL:HB	2.27	0.65
16:AS:43:LYS:CG	16:AS:48:TRP:CZ3	2.80	0.65
46:DZ:82:LEU:CD2	46:DZ:82:LEU:H	2.08	0.65
42:BT:50:LYS:H	42:BT:87:GLN:NE2	1.94	0.65
24:BA:212:G:H2'	24:BA:213:A:H5'	1.77	0.65
24:DA:1142(A):A:H4'	32:DM:25:ARG:HH22	1.59	0.65
1:AA:1453:G:H3'	1:AA:1454:G:H5'	1.78	0.65
33:DN:3:GLN:HB2	33:DN:4:PRO:HD2	1.79	0.65
44:BV:98:MET:O	44:BV:125:LEU:HD12	1.96	0.65
9:CL:36:TYR:CD2	9:CL:37:PHE:CE1	2.85	0.65
24:BA:1593:G:H2'	24:BA:1594:G:H8	1.61	0.65
25:DB:13:A:O2'	25:DB:14:U:H3'	1.95	0.65
24:DA:1967:C:C2'	24:DA:1968:G:H5'	2.26	0.65
31:BK:93:THR:O	31:BK:97:ILE:HG13	1.97	0.65
1:AA:336:C:O2'	1:AA:337:C:H5'	1.97	0.65
24:BA:1192:G:O2'	24:BA:1193:G:H5'	1.96	0.65
44:BV:132:ASN:ND2	44:BV:160:GLY:HA2	2.12	0.65
1:CA:179:A:H2'	1:CA:180:U:H6	1.59	0.65
35:BP:39:PRO:HA	35:BP:97:VAL:O	1.96	0.65
30:DH:144:VAL:O	30:DH:148:ILE:HG12	1.95	0.65
24:BA:2291:U:H5''	24:BA:2380:C:O2'	1.96	0.65
1:CA:1288:A:C5'	21:CX:13:ILE:HD11	2.27	0.65
11:CN:48:ILE:HG12	11:CN:63:LEU:HB2	1.76	0.65
9:AL:8:GLY:O	9:AL:15:ALA:N	2.27	0.65
30:DH:137:ASP:OD2	30:DH:140:LYS:HE2	1.97	0.65
43:DU:81:LYS:HD3	43:DU:97:ARG:NH1	2.11	0.65
4:CG:65:ARG:HG3	4:CG:75:PHE:CD2	2.32	0.65
1:CA:1015:A:N3	1:CA:1218:C:O2'	2.30	0.65
1:CA:1212:U:O2'	1:CA:1213:A:C8	2.50	0.65
24:DA:389:G:H1	34:DO:71:VAL:HG12	1.60	0.65
1:AA:55:A:C6	31:DK:89:TYR:CD1	2.84	0.65
10:AM:83:GLU:HG2	10:AM:87:THR:HG21	1.79	0.65
10:AM:34:VAL:CG1	10:AM:74:ILE:HG12	2.26	0.65
8:AK:120:THR:HG22	8:AK:123:GLU:H	1.62	0.65
26:DD:25:THR:CG2	26:DD:82:ILE:H	2.07	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2789:C:H2'	24:BA:2790:A:H4'	1.78	0.65
24:DA:893:C:O2'	24:DA:894:C:H5'	1.97	0.65
24:BA:1558:A:H1'	24:BA:1559:G:OP2	1.97	0.65
44:BV:68:PRO:HB2	44:BV:91:LEU:HB2	1.78	0.65
31:BK:79:ILE:HD11	31:BK:100:ALA:HB1	1.76	0.65
7:AJ:57:GLU:OE1	7:AJ:57:GLU:N	2.29	0.65
24:DA:2262:U:O2'	24:DA:2263:C:H5'	1.96	0.65
50:D5:57:VAL:C	50:D5:58:LEU:HD12	2.17	0.65
34:DO:39:LYS:HA	34:DO:45:LEU:CD1	2.25	0.65
24:DA:2716:U:C2'	24:DA:2717:G:H5'	2.27	0.65
24:DA:1514:U:O2'	24:DA:1515:C:H5'	1.97	0.65
1:AA:824:C:O2'	8:AK:1:MET:N	2.29	0.65
9:AL:13:ALA:HB2	9:AL:68:GLY:HA3	1.77	0.65
29:DG:83:ARG:O	29:DG:85:GLY:N	2.30	0.65
1:AA:922:G:H4'	5:AH:20:GLN:HA	1.78	0.65
1:CA:1346:A:C5'	9:CL:120:ARG:HH12	2.10	0.65
19:CV:69:HIS:HB3	19:CV:73:GLU:OE1	1.97	0.65
21:CX:24:ARG:HH11	21:CX:24:ARG:HG3	1.62	0.65
40:B2:44:LYS:CG	40:B2:45:THR:H	2.02	0.65
3:CF:141:VAL:HG12	3:CF:141:VAL:O	1.96	0.65
36:B0:79:LEU:HA	36:B0:83:ILE:HD12	1.77	0.65
25:DB:51:G:P	37:DQ:59:LYS:HZ1	2.20	0.65
38:BR:88:ILE:HD12	38:BR:90:GLN:H	1.61	0.65
30:DH:116:GLU:O	30:DH:118:PRO:HD3	1.96	0.65
25:DB:24:G:O2'	25:DB:56:G:N7	2.22	0.65
24:BA:1191:G:OP1	34:BO:32:THR:OG1	2.14	0.65
1:AA:862:C:H2'	1:AA:863:U:H5'	1.79	0.65
43:DU:48:ALA:HB3	43:DU:59:GLY:O	1.96	0.65
24:DA:2695:C:H2'	24:DA:2696:U:C6	2.30	0.65
33:BN:96:THR:O	33:BN:97:ARG:HB3	1.95	0.65
1:CA:1173:G:P	7:CJ:5:ARG:HH12	2.20	0.65
11:AN:79:SER:CB	11:AN:106:LYS:HE3	2.27	0.65
24:BA:27:G:N2	24:BA:512:G:H1'	2.11	0.65
2:CE:113:HIS:O	2:CE:117:GLU:HB2	1.96	0.65
28:BF:123:LEU:HD12	28:BF:124:LEU:H	1.61	0.65
24:BA:271(B):G:H1'	24:BA:271(C):U:OP2	1.96	0.65
29:DG:43:LEU:N	29:DG:88:ILE:HD13	2.11	0.65
1:CA:1382:C:H2'	1:CA:1383:C:C6	2.31	0.65
26:DD:148:GLU:HB2	26:DD:151:LYS:HD2	1.76	0.65
31:BK:64:GLU:O	31:BK:68:LEU:N	2.24	0.65
10:CM:50:ILE:HA	10:CM:60:ARG:HB3	1.79	0.65
9:AL:95:LYS:HB2	9:AL:95:LYS:NZ	2.11	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:870:A:O5'	35:DP:6:ARG:CZ	2.45	0.65
24:DA:1246:A:P	34:DO:15:ARG:NH2	2.69	0.65
29:BG:67:LYS:H	49:B4:6:HIS:CE1	2.15	0.65
2:CE:8:LYS:HE2	2:CE:217:ARG:HD2	1.78	0.65
24:DA:1188:U:O2'	24:DA:1189:A:H5'	1.96	0.65
37:DQ:29:PHE:HD1	37:DQ:30:ARG:N	1.94	0.65
37:BQ:67:ARG:NH2	37:BQ:103:GLU:OE2	2.29	0.65
46:DZ:53:VAL:HG21	46:DZ:74:VAL:HG22	1.77	0.65
27:DE:169:ASN:OD1	27:DE:203:LYS:HG2	1.96	0.65
30:DH:30:LYS:HZ3	30:DH:30:LYS:HB2	1.61	0.65
38:DR:74:ARG:HD3	38:DR:76:PHE:CZ	2.32	0.65
1:CA:129(A):G:C6	1:CA:188:U:H4'	2.32	0.65
1:CA:149:A:O2'	1:CA:150:C:H5'	1.97	0.65
25:DB:83:G:H4'	48:DX:52:HIS:CG	2.31	0.65
24:DA:623:G:H2'	24:DA:624:C:C6	2.31	0.65
27:BE:1:MET:N	27:BE:83:ASP:O	2.29	0.65
24:BA:2347:C:P	51:B6:39:TYR:HH	2.19	0.65
30:DH:7:LEU:N	30:DH:8:PRO:HD2	2.10	0.65
40:D2:35:LEU:CG	40:D2:37:VAL:HG11	2.22	0.65
30:DH:44:VAL:CG1	30:DH:51:ARG:HG3	2.27	0.65
24:DA:814:C:H5''	40:D2:84:LYS:HB3	1.79	0.65
30:BH:87:LEU:HD21	30:BH:162:ILE:CG2	2.26	0.65
24:DA:91:A:H2'	24:DA:92:G:O4'	1.96	0.65
24:DA:1536:A:C8	24:DA:1537:C:H1'	2.32	0.65
26:DD:68:LYS:HB3	26:DD:70:TRP:CH2	2.30	0.65
32:DM:14:VAL:HG23	32:DM:137:LYS:HG2	1.79	0.65
31:BK:77:LEU:C	31:BK:77:LEU:HD12	2.17	0.65
27:BE:38:THR:HB	27:BE:40:GLU:OE2	1.97	0.65
29:DG:88:ILE:O	29:DG:88:ILE:HD13	1.96	0.65
24:DA:2281:C:O2'	24:DA:2282:G:H5'	1.95	0.65
4:CG:9:CYS:HB2	4:CG:22:LYS:HZ1	1.60	0.65
1:CA:1117:G:H2'	9:CL:104:ARG:CZ	2.27	0.65
14:CQ:29:ARG:NH1	14:CQ:40:CYS:H	1.94	0.65
14:CQ:29:ARG:CD	14:CQ:40:CYS:HB3	2.26	0.65
10:CM:49:VAL:CG1	14:CQ:41:ARG:HB2	2.26	0.65
49:B4:57:GLU:HA	49:B4:60:GLN:HG2	1.79	0.65
24:DA:774:A:H2	24:DA:787:U:HO2'	1.45	0.65
39:B1:108:GLU:OE1	40:B2:44:LYS:HG2	1.96	0.65
49:D4:28:LYS:HE3	49:D4:31:ILE:HD11	1.75	0.65
28:DF:24:LEU:CB	28:DF:25:PRO:CD	2.73	0.65
17:CT:95:TYR:O	17:CT:96:GLU:C	2.33	0.65
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.32	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CI:100:ASN:HB2	18:CU:23:LYS:HE2	1.79	0.65
24:BA:654(N):G:H2'	24:BA:654(O):G:O4'	1.96	0.65
1:AA:1152:A:H4'	10:AM:13:HIS:HD2	1.60	0.65
16:AS:40:ASP:O	16:AS:42:ARG:N	2.29	0.65
17:AT:68:ARG:H	17:AT:70:ARG:NH1	1.95	0.65
4:AG:84:LYS:CE	4:AG:84:LYS:HA	2.27	0.65
46:DZ:80:LEU:O	46:DZ:81:LYS:HB3	1.97	0.65
25:BB:117:G:C2'	25:BB:118:G:H5''	2.26	0.65
2:CE:178:ARG:NH2	8:CK:68:ARG:HH22	1.95	0.65
24:BA:1992:G:H1'	24:BA:1993:U:OP2	1.96	0.65
25:DB:88:C:H5	25:DB:89:G:C4	2.15	0.65
24:DA:1728:G:N2	24:DA:1730:U:OP2	2.30	0.65
24:BA:654(S):G:H1'	24:BA:654(T):A:O5'	1.97	0.65
35:DP:132:VAL:CG2	44:DV:81:ARG:HH21	2.09	0.65
1:CA:532:A:H3'	1:CA:533:A:C5'	2.27	0.65
1:AA:667:G:H4'	15:AR:51:HIS:CE1	2.32	0.65
24:DA:752:A:H4'	24:DA:753:C:O5'	1.96	0.65
24:BA:1956:U:H2'	24:BA:1957:C:H5'	1.79	0.65
7:CJ:78:ARG:NH2	7:CJ:87:VAL:CG2	2.51	0.65
1:AA:1158:C:C2'	1:AA:1158:C:O2	2.45	0.65
24:BA:2371:G:H5'	51:B6:45:LYS:HD2	1.78	0.65
1:CA:1067:A:N1	1:CA:1108:G:O2'	2.30	0.65
19:AV:36:ARG:CG	19:AV:51:VAL:HG13	2.22	0.65
24:BA:2144:U:H4'	24:BA:2145:C:H5	1.59	0.65
44:BV:111:VAL:C	44:BV:112:ARG:HD3	2.17	0.65
1:AA:748:C:C4'	1:AA:749:C:O5'	2.41	0.65
9:AL:16:ARG:CG	9:AL:64:THR:HG22	2.26	0.65
1:CA:452:A:O2'	1:CA:453:A:O5'	2.08	0.65
8:CK:120:THR:HG23	8:CK:123:GLU:OE1	1.97	0.65
34:DO:121:LYS:HB3	34:DO:123:LEU:CD2	2.26	0.65
1:CA:393:A:OP2	16:CS:12:LYS:HE2	1.96	0.65
42:DT:44:GLU:O	42:DT:46:ALA:N	2.28	0.65
24:DA:654(S):G:H1'	24:DA:654(T):A:OP1	1.97	0.65
1:CA:708:C:OP1	11:CN:85:ARG:NH2	2.29	0.65
33:BN:4:PRO:O	33:BN:5:GLN:CB	2.44	0.65
1:AA:1336:C:O2'	1:AA:1337:G:P	2.55	0.65
24:BA:2511:U:O2'	27:BE:138:PRO:O	2.13	0.65
24:BA:271(B):G:H4'	24:BA:271(C):U:C5'	2.27	0.65
44:DV:3:TYR:HE2	44:DV:55:HIS:CB	2.10	0.65
55:AA:1833:TAC:C42	55:AA:1833:TAC:O1C	2.45	0.65
26:DD:118:VAL:HG22	26:DD:119:ALA:H	1.62	0.65
5:CH:144:THR:HG23	5:CH:147:ASP:OD1	1.97	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1486:A:H2'	24:BA:1487:G:H8	1.62	0.65
17:CT:59:ILE:HG22	17:CT:71:PHE:CD1	2.32	0.65
49:D4:48:ARG:HH22	49:D4:51:ASP:HB2	1.61	0.65
26:BD:35:LYS:NZ	26:BD:64:ILE:O	2.28	0.65
24:DA:2749:A:H4'	30:DH:62:LYS:HB3	1.77	0.65
24:BA:1111:A:O2'	24:BA:1112:G:H4'	1.97	0.65
5:AH:10:MET:SD	5:AH:13:ILE:HD11	2.37	0.65
46:BZ:93:GLU:OE1	46:BZ:93:GLU:N	2.30	0.65
31:BK:120:ILE:HD11	31:BK:126:TYR:CE2	2.32	0.65
24:DA:1085:A:H4'	24:DA:1086:A:OP1	1.96	0.65
44:BV:140:ASP:O	44:BV:144:LEU:HD21	1.97	0.65
1:CA:1212:U:O2'	1:CA:1213:A:H8	1.79	0.65
25:DB:42:C:O2'	49:D4:6:HIS:CE1	2.50	0.65
29:DG:6:ALA:N	49:D4:23:GLU:OE2	2.30	0.65
31:DK:101:LEU:HD23	31:DK:101:LEU:N	2.08	0.65
24:BA:1409:C:C2'	24:BA:1410:G:H5'	2.27	0.65
10:AM:40:LEU:HB3	10:AM:41:PRO:HD2	1.78	0.65
3:AF:130:VAL:O	3:AF:134:ILE:HG12	1.97	0.65
15:CR:75:PRO:O	15:CR:78:TYR:HB3	1.97	0.65
24:DA:2855:C:H2'	24:DA:2856:C:C6	2.31	0.65
1:AA:518:C:H5''	1:AA:519:C:C5	2.31	0.65
36:B0:33:ARG:HH11	36:B0:113:LEU:HD21	1.61	0.65
47:DW:68:ARG:HD3	47:DW:72:ALA:CB	2.27	0.65
15:CR:16:ALA:HB1	15:CR:21:ASP:HB3	1.77	0.65
24:BA:1030:G:OP2	35:BP:128:LYS:NZ	2.30	0.65
24:BA:469:G:C2'	24:BA:470:A:H5''	2.27	0.65
41:BS:27:LYS:O	41:BS:70:TYR:HB2	1.97	0.65
24:BA:1914:C:H3'	24:BA:1914:C:O2	1.97	0.65
24:BA:1795:C:O2	26:BD:255:LYS:HE2	1.97	0.65
1:CA:956:U:C2	1:CA:1225:A:C2	2.85	0.64
1:AA:1348:U:H3	1:AA:1374:A:H2	1.44	0.64
1:AA:1374:A:O2'	7:AJ:28:ASN:HB3	1.96	0.64
39:B1:90:VAL:HG22	40:B2:39:LEU:HD23	1.80	0.64
46:BZ:86:SER:N	46:BZ:87:PRO:CD	2.60	0.64
3:CF:111:LEU:HD11	3:CF:145:GLY:HA3	1.78	0.64
24:BA:2131:G:C1'	24:BA:2158:A:H62	2.07	0.64
1:AA:1125:U:OP2	1:AA:1145:C:N4	2.30	0.64
24:DA:635:C:O2'	24:DA:639:U:OP1	2.15	0.64
5:AH:105:VAL:HB	5:AH:106:PRO:HD3	1.78	0.64
3:AF:86:VAL:O	3:AF:90:GLU:HG2	1.97	0.64
1:AA:403:C:OP2	4:AG:74:GLN:NE2	2.29	0.64
1:AA:467:G:N2	16:AS:82:GLN:OE1	2.22	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:273(E):U:H3	24:DA:363(A):A:N6	1.91	0.64
22:CC:48:C:C2'	22:CC:49:G:OP2	2.45	0.64
1:CA:558:G:H5''	1:CA:559:A:OP2	1.97	0.64
6:AI:69:GLU:O	6:AI:72:VAL:HG12	1.97	0.64
7:AJ:38:LEU:CD1	7:AJ:38:LEU:H	2.10	0.64
42:DT:5:TYR:HB2	47:DW:29:LYS:HG2	1.80	0.64
20:AW:98:PRO:O	20:AW:99:LEU:HD12	1.97	0.64
50:B5:46:CYS:HB2	50:B5:50:GLY:HA2	1.78	0.64
1:CA:657:G:H21	15:CR:22:THR:HG1	1.44	0.64
30:DH:103:LEU:HG	30:DH:115:VAL:HB	1.77	0.64
24:BA:1082:U:N3	24:BA:1083:U:H1'	2.12	0.64
35:BP:11:LYS:HG2	35:BP:75:THR:HG21	1.78	0.64
24:BA:270(V):G:H2'	24:BA:270(W):G:H8	1.61	0.64
24:DA:1249:U:O4'	39:D1:4:ALA:HB3	1.97	0.64
45:D3:51:VAL:N	45:D3:62:LEU:HD12	2.11	0.64
24:DA:1472:A:H2'	24:DA:1473:G:O4'	1.97	0.64
2:AE:14:GLY:O	2:AE:15:VAL:HG22	1.97	0.64
30:BH:68:THR:O	30:BH:72:ILE:HG13	1.97	0.64
24:BA:234:C:H2'	24:BA:235:U:H6	1.62	0.64
26:DD:72:LYS:NZ	26:DD:99:ASP:OD2	2.31	0.64
1:AA:113:G:H2'	1:AA:114:U:H6	1.61	0.64
1:AA:190:G:O2'	1:AA:191(A):G:OP2	2.12	0.64
1:CA:1279:A:H5''	10:CM:7:LYS:HZ2	1.61	0.64
1:CA:1180:A:H5'	9:CL:103:THR:HG23	1.77	0.64
9:CL:6:GLY:O	9:CL:17:VAL:HG22	1.97	0.64
37:DQ:107:GLU:N	37:DQ:110:LEU:HD21	2.11	0.64
24:DA:2378:A:O4'	37:DQ:112:PHE:CE2	2.51	0.64
24:DA:2285:C:H3'	51:D6:28:ARG:HD2	1.79	0.64
9:AL:49:PRO:HA	9:AL:52:ALA:HB3	1.79	0.64
51:B6:31:PRO:HB2	51:B6:35:GLU:HG3	1.77	0.64
19:AV:21:GLU:O	19:AV:25:LYS:HD2	1.97	0.64
43:BU:76:CYS:N	43:BU:81:LYS:HE3	2.12	0.64
26:BD:35:LYS:HZ1	26:BD:65:ILE:HA	1.62	0.64
30:DH:3:ARG:HH12	30:DH:7:LEU:HD13	1.61	0.64
24:BA:2415:G:O3'	34:BO:66:GLY:CA	2.43	0.64
7:CJ:46:ALA:HB2	7:CJ:117:ALA:CB	2.26	0.64
28:DF:18:ARG:C	28:DF:18:ARG:HD3	2.17	0.64
10:CM:27:ALA:HB2	10:CM:85:LEU:HD11	1.79	0.64
2:CE:236:TYR:HB2	2:CE:239:VAL:CB	2.08	0.64
24:DA:511:U:C3'	24:DA:512:G:C5'	2.63	0.64
1:CA:1057:G:H2'	1:CA:1058:G:O4'	1.97	0.64
24:DA:483:A:C4'	43:DU:49:VAL:HA	2.27	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:485:G:O2'	1:CA:486:U:P	2.54	0.64
53:B8:59:LYS:CB	53:B8:59:LYS:HZ3	2.08	0.64
31:BK:144:VAL:HG22	31:BK:145:VAL:N	2.12	0.64
3:CF:47:LEU:HD12	3:CF:48:TYR:N	2.12	0.64
4:AG:108:LEU:HD12	4:AG:174:LEU:HD13	1.77	0.64
49:B4:14:ILE:CD1	49:B4:24:THR:HG22	2.27	0.64
24:BA:443:A:H1'	24:BA:1201:C:O4'	1.96	0.64
26:BD:18:VAL:HA	26:BD:211:ARG:HH22	1.61	0.64
24:DA:2712:U:OP1	24:DA:2714:G:H4'	1.98	0.64
24:BA:11:G:C2'	24:BA:12:U:H5'	2.27	0.64
24:DA:1925:C:H2'	24:DA:1926:U:H5'	1.78	0.64
35:DP:16:ARG:HD3	35:DP:18:LYS:HZ3	1.60	0.64
1:AA:1047:G:O2'	1:AA:1048:G:H5'	1.97	0.64
44:BV:18:LEU:HD12	44:BV:18:LEU:N	2.12	0.64
24:BA:2564:A:OP1	24:BA:2648:C:H4'	1.98	0.64
2:CE:106:LYS:HD2	2:CE:106:LYS:C	2.18	0.64
1:CA:243:A:H1'	1:CA:244:U:OP2	1.98	0.64
25:DB:12:C:H6	25:DB:12:C:OP2	1.80	0.64
1:CA:32:A:H2'	1:CA:33:A:C8	2.32	0.64
1:CA:108:G:H5'	1:CA:109:A:H5''	1.78	0.64
22:CC:12:G:H1'	24:DA:1923:U:O2'	1.96	0.64
34:DO:97:PRO:O	34:DO:98:GLU:HB3	1.97	0.64
24:BA:1754:C:H5''	38:BR:113:LYS:HE2	1.78	0.64
14:CQ:38:GLY:O	14:CQ:39:LEU:HD23	1.98	0.64
24:BA:2399:G:C2'	51:B6:19:ARG:NE	2.59	0.64
37:BQ:110:LEU:CD2	37:BQ:112:PHE:CE2	2.80	0.64
2:AE:204:ASN:HD22	2:AE:206:ASP:N	1.95	0.64
40:D2:35:LEU:HG	40:D2:37:VAL:CG2	2.28	0.64
2:CE:91:PRO:HG3	2:CE:154:LEU:HB2	1.78	0.64
1:AA:180:U:H5''	1:AA:181:G:OP2	1.98	0.64
24:DA:1061:U:C4'	24:DA:1070:A:O2'	2.46	0.64
30:BH:109:PHE:C	30:BH:111:HIS:H	2.00	0.64
1:CA:1219:U:O2'	19:CV:34:TRP:HB3	1.97	0.64
24:BA:1176:G:H3'	24:BA:1177:A:C8	2.32	0.64
25:DB:45:A:C1'	29:DG:95:ARG:HH12	2.05	0.64
31:BK:110:ASP:HB3	31:BK:111:PRO:CA	2.28	0.64
39:D1:90:VAL:HG22	40:D2:39:LEU:CB	2.27	0.64
1:CA:1452:C:H4'	1:CA:1453:G:H5'	1.79	0.64
1:CA:1004:A:C3'	1:CA:1005:A:H5''	2.27	0.64
24:DA:2128:C:H1'	24:DA:2173:A:N1	2.13	0.64
24:BA:1416:G:N2	24:BA:1582:C:N3	2.35	0.64
24:BA:443:A:OP2	24:BA:615:G:N2	2.29	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AI:23:LYS:O	6:AI:27:GLN:HG2	1.97	0.64
24:BA:2389:G:C5'	24:BA:2390:U:H5'	2.27	0.64
28:DF:197:ASP:OD1	28:DF:198:ALA:N	2.30	0.64
24:DA:979:G:H3'	24:DA:980:A:C5'	2.26	0.64
18:AU:36:ASN:N	18:AU:36:ASN:HD22	1.96	0.64
3:AF:97:LYS:O	3:AF:99:VAL:N	2.31	0.64
40:D2:67:GLY:O	40:D2:88:ARG:HD2	1.97	0.64
11:CN:127:LYS:HB2	11:CN:127:LYS:HZ3	1.60	0.64
30:BH:124:GLU:HB2	30:BH:132:ARG:HG2	1.78	0.64
46:DZ:57:GLU:O	46:DZ:58:ILE:HD13	1.97	0.64
33:BN:90:GLN:N	33:BN:90:GLN:OE1	2.31	0.64
24:BA:2196:C:O2'	24:BA:2197:U:H5'	1.96	0.64
1:CA:1347:G:H21	1:CA:1373:G:H2'	1.62	0.64
19:CV:9:VAL:HG12	19:CV:10:PHE:N	2.12	0.64
1:AA:1118:C:H1'	1:AA:1179:A:C5	2.32	0.64
24:DA:2420:C:P	53:D8:33:ASN:HA	2.37	0.64
26:BD:63:ARG:HG2	26:BD:92:ILE:CD1	2.28	0.64
1:AA:193:C:C4'	20:AW:57:ARG:HH11	2.09	0.64
12:AO:90:VAL:O	12:AO:91:LYS:CB	2.46	0.64
13:CP:3:ARG:HA	13:CP:9:ILE:HG23	1.78	0.64
43:BU:52:SER:HB2	43:BU:53:PRO:CD	2.14	0.64
2:AE:154:LEU:H	2:AE:154:LEU:HD23	1.62	0.64
1:AA:1022:G:H2'	1:AA:1023:G:C8	2.32	0.64
1:CA:994:A:C5	1:CA:1216:G:H4'	2.33	0.64
1:AA:55:A:H2	31:DK:82:ARG:HE	1.45	0.64
5:AH:69:VAL:HG12	5:AH:71:LEU:CD2	2.27	0.64
47:BW:50:ILE:HD12	47:BW:51:ARG:N	2.05	0.64
1:AA:438:G:H5''	1:AA:439:A:OP1	1.98	0.64
4:AG:155:LEU:HD12	4:AG:156:GLU:N	2.11	0.64
1:AA:716:A:H1'	11:AN:118:GLY:HA2	1.80	0.64
27:DE:33:VAL:HG23	27:DE:47:VAL:CG2	2.27	0.64
24:DA:2505:G:O6	24:DA:2576:G:H2'	1.97	0.64
3:AF:15:THR:HG21	3:AF:181:ASN:HA	1.79	0.64
8:CK:119:LEU:HD23	8:CK:124:ALA:HB2	1.80	0.64
1:AA:913:A:H4'	1:AA:914:A:O5'	1.97	0.64
30:DH:126:PRO:O	30:DH:127:GLU:CB	2.45	0.64
44:BV:59:LEU:HD12	44:BV:69:THR:HG21	1.78	0.64
24:BA:1466:G:H2'	24:BA:1547:C:N4	2.12	0.64
24:BA:633:A:C2'	24:BA:634:C:H5'	2.26	0.64
8:AK:94:TYR:HE1	8:AK:132:GLU:HB2	1.61	0.64
33:BN:47:ILE:HG23	33:BN:48:PRO:HD2	1.77	0.64
24:DA:2797:U:C2'	24:DA:2798:C:H5'	2.27	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1408:C:O2	24:DA:1595:G:N2	2.31	0.64
24:BA:2345:G:N3	24:BA:2381:C:H2'	2.13	0.64
33:DN:43:VAL:HG12	33:DN:54:GLU:HA	1.80	0.64
1:AA:368:U:P	31:DK:91:SER:OG	2.55	0.64
20:CW:96:GLY:O	20:CW:99:LEU:HD21	1.98	0.64
3:CF:21:ARG:NH1	3:CF:21:ARG:HB3	2.12	0.64
26:BD:24:ILE:HG22	26:BD:24:ILE:O	1.97	0.64
1:CA:1117:G:C2'	9:CL:104:ARG:HD2	2.28	0.64
10:CM:9:ARG:NH2	10:CM:95:GLU:OE1	2.29	0.64
13:CP:19:LEU:CD1	13:CP:30:ALA:HB1	2.26	0.64
10:CM:50:ILE:HD11	14:CQ:41:ARG:NE	2.13	0.64
1:AA:1157:A:H1'	1:AA:1158:C:C4	2.32	0.64
19:AV:41:VAL:HG22	19:AV:42:PRO:CA	2.28	0.64
1:CA:1190:G:OP1	3:CF:5:ILE:HD12	1.97	0.64
34:BO:64:LYS:HD2	53:B8:25:MET:HE2	1.78	0.64
24:BA:996:A:H4'	39:B1:92:ARG:HE	1.62	0.64
29:DG:107:LEU:HD11	29:DG:178:PHE:CE1	2.32	0.64
2:CE:55:PHE:HD1	2:CE:58:ILE:HD12	1.61	0.64
1:CA:269:C:H2'	1:CA:270:A:C8	2.33	0.64
24:DA:1061:U:H4'	24:DA:1070:A:H1'	1.80	0.64
24:BA:811:U:O2'	34:BO:21:ARG:HG3	1.98	0.64
24:BA:2213:U:C4'	46:BZ:52:ARG:HH12	2.11	0.64
14:AQ:21:TYR:HE1	14:AQ:23:ARG:HH21	1.44	0.64
42:BT:49:VAL:HG13	42:BT:87:GLN:NE2	2.13	0.64
26:DD:65:ILE:HG12	26:DD:67:PHE:CE2	2.31	0.64
2:CE:178:ARG:HH21	8:CK:68:ARG:NH2	1.95	0.64
1:CA:882:C:O2'	1:CA:883:C:H5'	1.97	0.64
1:CA:1392:G:N2	1:CA:1502:A:H8	1.96	0.64
29:DG:97:ASP:HA	29:DG:100:TRP:CD1	2.33	0.64
33:BN:96:THR:O	33:BN:97:ARG:CB	2.45	0.64
30:DH:86:GLU:C	30:DH:87:LEU:HD12	2.16	0.64
9:CL:128:ARG:NH1	22:CC:35:A:OP2	2.30	0.64
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.33	0.64
39:D1:83:LEU:HG	39:D1:88:ILE:HD11	1.78	0.64
1:CA:1172:C:O3'	7:CJ:5:ARG:NH2	2.21	0.64
24:BA:185:U:H4'	24:BA:218:A:H4'	1.78	0.64
1:AA:112:G:OP1	16:AS:27:LYS:HD2	1.97	0.64
24:DA:1779:U:C2'	24:DA:1783:A:H62	2.09	0.64
2:AE:149:LEU:O	2:AE:153:ARG:N	2.30	0.64
15:AR:55:GLY:HA2	15:AR:58:MET:HE2	1.79	0.64
24:BA:526:A:N6	24:BA:2626:C:H4'	2.13	0.64
43:BU:30:VAL:HG13	43:BU:37:VAL:HG12	1.80	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CT:66:SER:O	17:CT:70:ARG:NH1	2.30	0.64
5:AH:33:VAL:HG12	5:AH:112:LEU:HD12	1.79	0.64
1:CA:1118:C:C5'	9:CL:104:ARG:NE	2.20	0.64
24:BA:2418:A:O2'	24:BA:2419:U:O5'	2.15	0.64
2:AE:21:ARG:HB3	2:AE:39:ILE:HA	1.80	0.64
27:DE:81:ILE:HG22	27:DE:82:ARG:N	2.12	0.64
28:DF:25:PRO:HB2	28:DF:27:GLU:H	1.63	0.64
10:CM:4:ILE:HB	10:CM:74:ILE:CD1	2.18	0.64
10:CM:4:ILE:CG1	10:CM:74:ILE:HD11	2.26	0.64
24:BA:876:C:H2'	24:BA:877:U:O4'	1.96	0.64
30:DH:89:ILE:O	30:DH:90:LYS:HB2	1.96	0.64
34:BO:49:ARG:HD2	53:B8:58:ILE:HG21	1.78	0.64
24:BA:1797:C:O2'	26:BD:259:THR:HG22	1.98	0.64
17:AT:63:ARG:O	17:AT:65:ILE:HD12	1.98	0.64
30:BH:88:LEU:HD12	30:BH:89:ILE:H	1.62	0.64
1:AA:67:C:H2'	1:AA:68:G:C8	2.33	0.64
2:AE:127:ILE:HG23	2:AE:128:GLU:H	1.63	0.64
26:BD:109:ASP:HB2	26:BD:197:GLY:CA	2.26	0.64
47:DW:43:GLN:O	47:DW:44:LEU:HD23	1.97	0.64
24:DA:1534:G:H3'	24:DA:1535:U:C5'	2.27	0.64
24:DA:211:A:O2'	24:DA:212:G:H5'	1.97	0.64
10:CM:48:THR:CG2	10:CM:62:HIS:HB3	2.26	0.64
27:DE:101:ARG:CZ	27:DE:171:GLU:HB2	2.27	0.64
1:AA:1047:G:C2'	1:AA:1048:G:H5'	2.27	0.64
24:DA:1386:C:OP2	24:DA:1396:U:H5	1.80	0.64
24:BA:2248:C:C2'	24:BA:2249:U:H5'	2.27	0.64
4:AG:83:SER:HA	4:AG:89:THR:CG2	2.27	0.64
1:CA:616:G:C2	1:CA:617:G:C8	2.85	0.64
1:CA:87:A:N3	1:CA:87:A:H2'	2.13	0.64
24:DA:1146:C:C2'	24:DA:1147:C:H5'	2.28	0.64
24:DA:931:G:O2'	48:DX:24:LYS:NZ	2.30	0.64
24:DA:771:G:OP1	52:D7:10:ARG:NH1	2.30	0.64
12:CO:110:VAL:HG23	12:CO:120:TYR:HB3	1.79	0.64
24:DA:1379:A:H4'	24:DA:1380:G:OP2	1.97	0.64
1:CA:597:G:C3'	1:CA:598:U:H5'	2.27	0.64
1:CA:1227:A:O2'	13:CP:115:LYS:HG3	1.97	0.64
9:CL:82:ALA:HB3	9:CL:101:PHE:CE2	2.31	0.64
34:DO:62:LEU:HD13	34:DO:63:PRO:N	2.13	0.64
1:AA:193:C:C5'	20:AW:57:ARG:NH1	2.61	0.64
27:DE:58:ARG:HD2	27:DE:58:ARG:N	2.11	0.64
3:CF:58:GLU:HB2	3:CF:65:ALA:HB3	1.78	0.64
24:BA:1093:G:H1'	24:BA:1099:G:H1	1.63	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:172:ILE:HD12	2:CE:173:ALA:N	2.12	0.64
24:DA:1083:U:O2'	24:DA:1086:A:N6	2.31	0.64
44:BV:142:SER:HB3	44:BV:143:GLY:CA	2.19	0.64
1:AA:1023:G:C6	1:AA:1024:G:H1'	2.32	0.64
24:BA:1171:G:C3'	24:BA:1174:A:H61	2.10	0.64
24:BA:1178:C:O2'	24:BA:1179:C:P	2.56	0.64
38:DR:1:MET:HE2	38:DR:1:MET:C	2.18	0.64
39:D1:92:ARG:HD3	40:D2:11:GLN:HB2	1.80	0.64
1:AA:1106:G:H2'	1:AA:1107:C:H6	1.63	0.64
5:CH:92:LYS:HD3	5:CH:119:LEU:HD12	1.80	0.64
26:DD:25:THR:HG21	26:DD:81:ALA:CA	2.26	0.64
1:CA:192:U:H2'	1:CA:193:C:C6	2.33	0.64
1:AA:914:A:C2'	1:AA:915:A:H5'	2.27	0.64
28:DF:185:ASP:OD1	28:DF:188:ARG:NH2	2.31	0.64
24:DA:654(S):G:C1'	24:DA:654(T):A:OP1	2.46	0.64
1:AA:164:U:H2'	1:AA:165:C:C6	2.33	0.64
26:DD:117:VAL:HG12	26:DD:118:VAL:N	2.13	0.64
29:DG:101:ILE:C	29:DG:101:ILE:HD12	2.17	0.64
16:CS:45:THR:OG1	16:CS:46:PRO:HD2	1.98	0.64
24:DA:1183:G:O3'	48:DX:29:ARG:NH2	2.31	0.64
1:CA:766:A:H2'	1:CA:767:A:O4'	1.97	0.64
3:CF:89:GLU:N	3:CF:89:GLU:OE2	2.31	0.64
24:DA:128:C:H4'	24:DA:129:C:OP1	1.97	0.64
32:DM:43:THR:HG22	32:DM:45:ASN:ND2	2.12	0.64
1:CA:1347:G:C8	9:CL:107:ARG:HB3	2.33	0.64
24:DA:2370:G:C2'	51:D6:45:LYS:NZ	2.61	0.64
4:AG:18:LYS:NZ	4:AG:31:CYS:SG	2.71	0.64
24:DA:1035:U:OP1	30:DH:59:ARG:NH1	2.29	0.64
24:BA:1050:A:C8	24:BA:2751:G:C5	2.85	0.64
7:CJ:46:ALA:CB	7:CJ:117:ALA:HB1	2.27	0.64
37:BQ:83:LYS:HG2	37:BQ:109:GLY:CA	2.28	0.64
2:AE:187:LEU:HD22	2:AE:205:ASP:HB3	1.79	0.64
24:DA:1098:A:H3'	24:DA:1099:G:H8	1.63	0.64
44:DV:175:VAL:HG22	44:DV:176:PRO:CD	2.20	0.64
3:CF:92:ALA:HB2	3:CF:99:VAL:HG11	1.80	0.64
24:DA:322:A:H5'	24:DA:340:A:H1'	1.80	0.64
24:BA:2210:G:H2'	24:BA:2210:G:N3	2.12	0.64
49:D4:16:CYS:HB3	49:D4:20:ASN:H	1.63	0.64
1:AA:1128:C:C4'	9:AL:16:ARG:NH1	2.60	0.64
38:BR:3:ARG:HB2	38:BR:7:ILE:HG13	1.79	0.64
28:DF:9:ILE:HG12	28:DF:13:SER:O	1.98	0.64
27:DE:35:GLN:HB3	27:DE:48:GLN:NE2	2.12	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1004:A:C2'	1:CA:1005:A:H5''	2.28	0.64
49:D4:9:LEU:N	49:D4:9:LEU:HD22	2.11	0.64
1:AA:86:U:O3'	1:AA:87:A:H4'	1.97	0.64
6:AI:16:GLN:HA	6:AI:19:LEU:HB3	1.79	0.64
5:CH:110:LEU:HB3	5:CH:115:VAL:CG2	2.27	0.64
1:AA:1211:U:H5'	1:AA:1212:U:OP1	1.98	0.64
24:DA:1614:A:N1	41:DS:91:GLY:HA2	2.12	0.64
12:AO:83:VAL:HG22	12:AO:84:LEU:H	1.61	0.64
8:AK:29:SER:HB3	8:AK:32:LYS:CB	2.28	0.64
26:DD:2:ALA:N	26:DD:200:ASP:OD2	2.31	0.64
31:DK:31:LEU:N	31:DK:32:PRO:HD2	2.12	0.64
31:DK:7:GLU:HG3	31:DK:8:PRO:HD2	1.80	0.64
47:DW:13:ALA:HA	47:DW:16:LEU:HD21	1.79	0.64
24:BA:523:C:C2'	24:BA:524:U:H5'	2.28	0.64
10:CM:6:ILE:HG22	10:CM:98:ILE:CG1	2.27	0.64
10:CM:9:ARG:NH2	10:CM:95:GLU:HB3	2.13	0.64
19:CV:9:VAL:HG12	19:CV:10:PHE:H	1.61	0.64
37:DQ:110:LEU:HD12	37:DQ:111:GLU:C	2.18	0.64
51:D6:37:ARG:HH22	51:D6:38:LYS:HB2	0.82	0.64
24:BA:2286:A:H8	51:B6:37:ARG:NH1	1.94	0.64
19:AV:15:LEU:HD12	19:AV:16:LEU:H	1.63	0.64
19:AV:21:GLU:OE2	19:AV:25:LYS:NZ	2.27	0.64
34:DO:81:GLN:NE2	34:DO:106:LEU:O	2.31	0.64
2:AE:84:GLU:HB3	2:AE:219:VAL:HG21	1.80	0.64
29:DG:118:ARG:N	29:DG:118:ARG:HE	1.94	0.64
29:DG:16:ARG:HH11	29:DG:28:VAL:HG12	1.61	0.64
1:CA:1080:A:C5'	5:CH:14:ARG:NH2	2.59	0.64
5:CH:93:PRO:O	8:CK:105:ARG:NH2	2.31	0.64
24:BA:1173:G:N2	24:BA:1175:U:H2'	2.12	0.64
24:DA:1336:A:H2'	24:DA:1337:G:H8	1.62	0.64
24:BA:252:G:OP2	34:BO:50:ARG:NH1	2.31	0.64
1:AA:1060:C:C5	3:AF:2:GLY:CA	2.79	0.64
25:DB:24:G:H4'	25:DB:25:A:C8	2.32	0.64
12:CO:84:LEU:HD13	12:CO:85:ILE:N	2.12	0.64
2:CE:104:ASN:OD1	2:CE:107:THR:OG1	2.11	0.64
3:CF:188:LEU:HD23	3:CF:190:ARG:NH2	2.13	0.64
45:D3:72:ARG:HG3	45:D3:75:LEU:HB2	1.79	0.64
5:CH:87:SER:OG	5:CH:125:SER:O	2.10	0.64
24:BA:1210:A:H4'	24:BA:1211:U:OP2	1.97	0.64
24:DA:2196:C:O2'	24:DA:2197:U:H5'	1.98	0.64
3:CF:60:ALA:HB3	3:CF:63:ASN:HD21	1.62	0.64
27:BE:47:VAL:HG11	27:BE:86:PRO:CD	2.28	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2105:C:H2'	24:BA:2106:G:H8	1.62	0.64
4:AG:127:THR:HG22	4:AG:128:VAL:N	2.13	0.64
43:BU:68:HIS:O	43:BU:71:LYS:HB2	1.98	0.64
44:DV:10:ARG:NH2	44:DV:26:GLY:O	2.30	0.64
24:DA:918:A:H5''	25:DB:97:G:O2'	1.98	0.64
11:CN:87:THR:HG22	11:CN:87:THR:O	1.98	0.64
24:DA:2880:C:O3'	36:D0:90:ARG:NH1	2.31	0.64
24:BA:2820:A:O2'	24:BA:2821:A:OP1	2.15	0.64
14:AQ:4:LYS:O	14:AQ:7:ILE:HG12	1.97	0.64
1:CA:1126:U:H4'	1:CA:1127:G:C8	2.33	0.64
7:CJ:146:GLU:O	7:CJ:149:ARG:HB2	1.97	0.64
3:AF:16:ARG:HG3	3:AF:17:ASP:H	1.63	0.64
24:BA:2000:G:H5''	36:B0:2:ARG:HH12	0.62	0.64
1:AA:1348:U:H5	1:AA:1373:G:N2	1.95	0.64
2:CE:23:ARG:O	2:CE:23:ARG:NE	2.30	0.64
3:CF:137:ALA:HA	3:CF:140:ARG:NH2	2.12	0.64
1:AA:1301:U:H2'	1:AA:1302:U:H5'	1.79	0.64
25:DB:102:G:N2	44:DV:73:GLN:OE1	2.30	0.64
27:BE:165:VAL:O	27:BE:189:PRO:HG2	1.99	0.64
1:CA:198:G:H2'	1:CA:199:G:H8	1.63	0.64
1:CA:15:G:H1'	5:CH:19:MET:CE	2.28	0.64
37:BQ:71:ARG:HH21	37:BQ:106:ARG:NH2	1.95	0.64
24:DA:270(G):C:H2'	24:DA:270(H):C:H6	1.63	0.64
25:BB:30:C:C2'	25:BB:31:C:H5'	2.26	0.64
20:CW:33:ILE:CD1	20:CW:62:LEU:HB3	2.28	0.64
1:CA:345:C:O2'	1:CA:346:G:O5'	2.16	0.64
24:DA:971:C:H2'	24:DA:972:G:C5'	2.28	0.64
33:BN:98:VAL:CG1	33:BN:117:LEU:HB2	2.28	0.64
15:CR:70:LEU:HG	15:CR:78:TYR:HB2	1.80	0.64
8:CK:86:ILE:HG13	8:CK:133:LEU:CD2	2.28	0.64
8:CK:20:TYR:HE2	8:CK:75:ARG:HD2	1.63	0.64
1:AA:581:G:OP1	15:AR:65:ARG:NH1	2.31	0.64
24:DA:2120:G:H2'	24:DA:2121:G:H5'	1.80	0.64
17:AT:12:SER:HB3	17:AT:20:THR:HB	1.80	0.64
1:CA:1147:C:O3'	9:CL:5:TYR:OH	2.16	0.63
1:CA:1346:A:C1'	1:CA:1347:G:OP2	2.46	0.63
24:DA:2345:G:P	51:D6:39:TYR:CE1	2.91	0.63
24:BA:1998:G:O2'	24:BA:1999:C:C5'	2.46	0.63
24:DA:2749:A:P	30:DH:6:ARG:NE	2.71	0.63
29:DG:106:LEU:HA	29:DG:110:ALA:HB3	1.80	0.63
1:CA:266:G:C1'	1:CA:267:C:OP2	2.45	0.63
31:BK:92:VAL:O	31:BK:120:ILE:HG22	1.98	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1247:U:H1'	1:CA:1291:G:N2	2.14	0.63
2:AE:61:LEU:CD2	2:AE:68:ILE:HD11	2.27	0.63
1:CA:495:A:H4'	1:CA:496:A:OP1	1.97	0.63
18:CU:22:VAL:CG2	18:CU:23:LYS:H	2.04	0.63
52:B7:47:ARG:HG3	52:B7:48:LYS:N	2.13	0.63
40:D2:1:MET:SD	40:D2:43:GLU:HB2	2.39	0.63
29:DG:94:LEU:HD23	29:DG:94:LEU:H	1.63	0.63
2:AE:55:PHE:CD1	2:AE:58:ILE:HD12	2.31	0.63
8:CK:6:ILE:HD12	8:CK:6:ILE:N	2.12	0.63
34:DO:112:LEU:HD23	34:DO:112:LEU:C	2.18	0.63
37:BQ:67:ARG:O	37:BQ:71:ARG:HG2	1.98	0.63
8:CK:119:LEU:CD2	8:CK:124:ALA:CA	2.76	0.63
24:DA:1602:U:P	42:DT:60:ARG:NH2	2.70	0.63
1:CA:345:C:H1'	1:CA:346:G:N1	2.12	0.63
41:BS:9:TYR:HA	41:BS:100:THR:CG2	2.28	0.63
24:BA:2505:G:O2'	24:BA:2506:U:H6	1.80	0.63
24:DA:2710:C:OP1	36:D0:15:SER:HB2	1.98	0.63
24:BA:1827:C:C2'	24:BA:1828:G:H5'	2.28	0.63
2:CE:155:LEU:HD12	2:CE:157:ARG:HB3	1.81	0.63
1:CA:1150:U:O3'	10:CM:41:PRO:HA	1.98	0.63
1:CA:1191:A:OP1	3:CF:3:ASN:CG	2.35	0.63
31:BK:86:THR:HA	31:BK:123:LEU:CD2	2.29	0.63
1:CA:1081:G:OP1	5:CH:18:ARG:HG2	1.99	0.63
31:BK:131:LYS:CB	31:BK:132:PRO:HA	2.28	0.63
2:AE:17:PHE:C	2:AE:42:ILE:HG22	2.17	0.63
28:DF:132:VAL:HG13	28:DF:133:ASN:OD1	1.98	0.63
22:CC:18:G:H1'	22:CC:58:A:C2	2.32	0.63
32:BM:35:ARG:O	32:BM:37:LYS:N	2.31	0.63
8:CK:6:ILE:CD1	8:CK:6:ILE:H	2.10	0.63
24:DA:270(I):G:H1	24:DA:270(Q):C:H42	1.44	0.63
16:AS:8:ARG:HB3	16:AS:28:ARG:NH1	2.11	0.63
43:BU:83:THR:CG2	43:BU:84:ARG:H	2.11	0.63
1:CA:345:C:H1'	1:CA:346:G:C2	2.33	0.63
22:AC:47:U:HO2'	22:AC:48:C:P	2.20	0.63
24:DA:540:G:H2'	24:DA:541:C:C6	2.33	0.63
53:D8:40:GLU:H	53:D8:43:GLN:CG	2.11	0.63
44:DV:19:ARG:HH12	44:DV:84:GLU:CA	2.11	0.63
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.33	0.63
24:BA:2317:C:H2'	24:BA:2318:G:H5'	1.80	0.63
24:DA:1593:G:H2'	24:DA:1594:G:H8	1.63	0.63
1:CA:187:C:H2'	1:CA:188:U:O4'	1.98	0.63
2:CE:112:VAL:HG12	2:CE:113:HIS:ND1	2.14	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:271(B):G:H4'	24:BA:271(C):U:O5'	1.98	0.63
24:BA:1800:C:OP1	26:BD:266:SER:OG	2.05	0.63
24:DA:1785:A:H4'	24:DA:1982:C:O2'	1.97	0.63
38:DR:11:GLU:OE1	38:DR:11:GLU:N	2.31	0.63
43:BU:35:TYR:CD2	43:BU:69:ALA:HB3	2.32	0.63
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.63	0.63
1:CA:1320:C:O4'	19:CV:70:LYS:HE2	1.98	0.63
37:DQ:78:LEU:HD11	37:DQ:107:GLU:HB3	1.78	0.63
1:AA:1183:A:O2'	1:AA:1184:G:OP1	2.08	0.63
34:DO:52:GLU:OE1	34:DO:55:ARG:N	2.31	0.63
24:BA:2347:C:H2'	24:BA:2348:U:C6	2.33	0.63
49:B4:39:CYS:O	49:B4:40:HIS:HB2	1.99	0.63
34:BO:64:LYS:O	34:BO:65:ARG:C	2.36	0.63
19:CV:38:SER:HB2	19:CV:71:LEU:CD1	2.28	0.63
6:AI:26:ILE:O	6:AI:30:LEU:HG	1.98	0.63
37:DQ:7:TYR:CZ	37:DQ:91:PRO:HG2	2.33	0.63
8:CK:86:ILE:CB	8:CK:133:LEU:HD22	2.29	0.63
30:DH:26:VAL:CG2	30:DH:76:VAL:HG22	2.28	0.63
31:DK:38:LEU:N	31:DK:38:LEU:HD12	2.13	0.63
24:BA:2396:G:H1'	46:BZ:30:VAL:HG12	1.79	0.63
1:CA:129(A):G:C2	1:CA:191(A):G:C8	2.86	0.63
24:BA:1486:A:H2'	24:BA:1487:G:C8	2.32	0.63
41:BS:70:TYR:H	41:BS:70:TYR:HD1	1.46	0.63
1:AA:49:U:C2	1:AA:361:G:N2	2.66	0.63
24:DA:1747:G:O2'	24:DA:1748:G:H5'	1.98	0.63
29:BG:127:GLY:HA2	29:BG:166:ASP:OD2	1.98	0.63
6:CI:94:GLN:HE21	6:CI:94:GLN:HA	1.64	0.63
24:BA:771:G:OP1	52:B7:10:ARG:NH1	2.31	0.63
37:DQ:107:GLU:H	37:DQ:110:LEU:CD2	2.10	0.63
29:BG:61:ALA:HA	29:BG:66:GLN:O	1.97	0.63
2:CE:19:HIS:NE2	2:CE:20:GLU:OE2	2.32	0.63
24:DA:1071:G:C1'	24:DA:1089:G:H2'	2.20	0.63
2:AE:61:LEU:HD23	2:AE:68:ILE:HD11	1.79	0.63
29:BG:77:ILE:CG2	29:BG:80:PHE:CE1	2.81	0.63
38:DR:26:ASP:OD1	38:DR:120:ARG:NH2	2.31	0.63
24:BA:1311:G:O6	52:B7:48:LYS:NZ	2.24	0.63
4:CG:178:VAL:HG12	4:CG:179:GLU:N	2.10	0.63
24:DA:2123:G:O2'	24:DA:2124:G:H5'	1.98	0.63
37:DQ:14:VAL:HG22	37:DQ:18:ILE:CD1	2.29	0.63
24:DA:1537:C:H2'	24:DA:1538:G:O4'	1.99	0.63
24:DA:1341:U:OP1	24:DA:1397:U:N3	2.22	0.63
24:BA:654(A):A:C2'	24:BA:654(B):C:H5'	2.28	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AO:60:LEU:HD23	12:AO:60:LEU:N	2.12	0.63
24:BA:1500:G:N2	26:BD:99:ASP:O	2.26	0.63
33:DN:113:LYS:O	33:DN:117:LEU:HD23	1.97	0.63
47:BW:41:ILE:CD1	47:BW:44:LEU:HD12	2.28	0.63
44:DV:13:GLU:OE2	44:DV:13:GLU:N	2.31	0.63
42:DT:40:LYS:O	42:DT:42:ALA:N	2.32	0.63
8:AK:37:ARG:HH21	8:AK:38:ILE:CD1	2.12	0.63
1:CA:677:U:H3	1:CA:713:G:H22	1.45	0.63
6:CI:45:LEU:HD12	6:CI:59:TYR:CD1	2.33	0.63
24:DA:1310:G:OP2	52:D7:9:ARG:NH1	2.31	0.63
45:B3:74:ARG:NH1	45:B3:74:ARG:HB3	2.13	0.63
45:B3:69:PHE:CE2	45:B3:79:VAL:HG22	2.34	0.63
24:DA:1317:A:O2'	24:DA:1318:C:H5'	1.98	0.63
7:CJ:78:ARG:CD	7:CJ:85:TYR:CE1	2.77	0.63
3:AF:8:ILE:HG23	14:AQ:49:HIS:O	1.99	0.63
9:AL:10:ARG:CZ	9:AL:105:ASP:OD2	2.46	0.63
2:AE:101:MET:C	2:AE:102:LEU:HD12	2.18	0.63
24:BA:1102:C:H2'	24:BA:1103:A:H8	1.63	0.63
20:AW:14:LYS:HG3	20:AW:18:GLN:HG3	1.78	0.63
24:DA:1060:U:C4'	24:DA:1061:U:H5''	2.28	0.63
44:DV:120:ILE:HD12	44:DV:169:GLU:OE2	1.98	0.63
1:CA:1216:G:H5''	14:CQ:5:ALA:CB	2.28	0.63
31:BK:133:HIS:CB	31:BK:134:PRO:HD2	2.27	0.63
24:BA:779:U:OP1	26:BD:49:ILE:HG13	1.99	0.63
37:DQ:29:PHE:HD1	37:DQ:30:ARG:H	1.45	0.63
32:DM:60:ILE:HD13	32:DM:61:ARG:N	2.14	0.63
27:BE:52:LEU:O	27:BE:74:PRO:HB3	1.98	0.63
1:AA:66:G:N2	1:AA:172:A:C2	2.67	0.63
24:BA:880:G:HO2'	24:BA:881:G:P	2.20	0.63
4:AG:169:LYS:HG2	4:AG:170:VAL:N	2.14	0.63
49:B4:10:VAL:HG13	49:B4:11:PRO:CD	2.29	0.63
17:AT:9:VAL:HG12	17:AT:56:VAL:HG22	1.81	0.63
1:CA:659:U:H5''	15:CR:9:GLN:NE2	2.13	0.63
24:DA:2219:G:C2'	24:DA:2224:G:H5'	2.26	0.63
27:BE:57:LYS:HB3	27:BE:57:LYS:NZ	2.14	0.63
24:DA:646:A:H2'	24:DA:647:G:O4'	1.99	0.63
45:B3:42:GLY:O	45:B3:57:PHE:HD2	1.82	0.63
50:D5:57:VAL:HG12	50:D5:58:LEU:N	2.14	0.63
50:B5:6:VAL:HG13	50:B5:7:PRO:HD2	1.79	0.63
32:BM:17:ASP:O	32:BM:18:ALA:HB3	1.98	0.63
24:BA:733:G:C8	24:BA:761:A:N6	2.66	0.63
18:CU:31:LEU:H	18:CU:31:LEU:HD23	1.64	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AG:57:ARG:HB3	4:AG:206:PHE:HB2	1.79	0.63
1:CA:1298:C:H4'	1:CA:1299:A:C5	2.34	0.63
1:CA:1297:C:H1'	1:CA:1298:C:OP2	1.98	0.63
1:CA:1346:A:H5''	9:CL:120:ARG:HH12	1.61	0.63
1:AA:1381:U:O2	7:AJ:79:ARG:HG2	1.99	0.63
24:DA:2751:G:H5'	24:DA:2752:C:OP2	1.97	0.63
24:BA:1078:U:H1'	24:BA:1088:A:C2	2.34	0.63
24:DA:2635:C:H5'	27:DE:77:ILE:CG2	2.28	0.63
40:D2:38:LEU:HD22	40:D2:55:ALA:HB1	1.80	0.63
20:AW:18:GLN:O	20:AW:20:LEU:N	2.32	0.63
1:CA:1290:G:C2	1:CA:1291:G:H1'	2.34	0.63
24:DA:1070:A:H2'	24:DA:1096:A:N3	2.13	0.63
49:D4:53:GLU:CD	49:D4:58:ARG:HG3	2.19	0.63
25:DB:38:C:C1'	37:DQ:95:HIS:HE2	2.11	0.63
50:D5:4:HIS:CB	50:D5:5:PRO:CD	2.77	0.63
38:BR:88:ILE:HD12	38:BR:90:GLN:N	2.14	0.63
25:DB:28:C:H2'	25:DB:29:A:O4'	1.99	0.63
29:DG:133:LEU:HD21	29:DG:157:ILE:CB	2.25	0.63
27:BE:65:GLY:HA2	27:BE:70:ALA:CB	2.27	0.63
32:BM:35:ARG:HH21	32:BM:42:TRP:HZ2	1.47	0.63
42:BT:83:VAL:HG11	42:BT:87:GLN:HB2	1.79	0.63
5:CH:91:LEU:HD13	5:CH:120:THR:HG22	1.79	0.63
30:DH:30:LYS:NZ	30:DH:30:LYS:HB2	2.14	0.63
18:AU:40:LEU:C	18:AU:42:ARG:H	2.01	0.63
18:CU:73:ALA:CB	18:CU:79:LEU:HD12	2.27	0.63
6:CI:77:ARG:HH11	6:CI:77:ARG:HB3	1.62	0.63
1:CA:534:U:H5'	1:CA:535:A:OP2	1.98	0.63
1:AA:1442:G:C6	1:AA:1446:A:N6	2.67	0.63
1:CA:189:U:O4	17:CT:62:SER:HB3	1.97	0.63
38:DR:50:ILE:HD11	38:DR:102:ILE:HD11	1.79	0.63
1:CA:677:U:H2'	1:CA:678:U:C6	2.33	0.63
24:BA:2747:G:O6	24:BA:2755:C:H5''	1.98	0.63
53:D8:14:VAL:HG21	53:D8:22:VAL:HG12	1.80	0.63
41:DS:75:TYR:CE1	41:DS:104:THR:HB	2.33	0.63
4:CG:32:ALA:C	4:CG:33:MET:O	2.35	0.63
24:BA:1653:G:C1'	24:BA:1654:A:OP2	2.46	0.63
29:DG:114:ILE:HD13	29:DG:140:ILE:HG21	1.80	0.63
24:DA:1060:U:H3	24:DA:1088:A:H8	1.45	0.63
24:DA:1069:A:C1'	24:DA:1096:A:H4'	2.26	0.63
27:DE:9:VAL:HG21	27:DE:25:VAL:HG12	1.79	0.63
49:D4:23:GLU:C	49:D4:24:THR:HG1	2.02	0.63
1:AA:1065:U:C1'	1:AA:1066:C:OP2	2.45	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:D0:37:THR:CG2	36:D0:39:PRO:HD2	2.25	0.63
24:BA:325:G:C2'	24:BA:326:G:H5'	2.29	0.63
49:B4:59:PHE:O	49:B4:62:ARG:HG2	1.98	0.63
20:CW:44:ALA:HB3	20:CW:91:LEU:HD12	1.79	0.63
27:BE:26:ILE:HD13	27:BE:26:ILE:C	2.18	0.63
11:CN:32:ILE:HD12	11:CN:72:ALA:HB2	1.81	0.63
9:CL:27:THR:OG1	9:CL:32:ASP:HA	1.97	0.63
24:DA:943:U:OP2	34:DO:36:LYS:CD	2.47	0.63
24:DA:2267:A:H5''	24:DA:2268:A:C5'	2.29	0.63
2:CE:95:GLN:CB	2:CE:148:TYR:HD2	2.12	0.63
31:BK:33:ARG:O	31:BK:35:LEU:HD23	1.98	0.63
24:DA:2762:G:H5'	24:DA:2763:G:OP2	1.98	0.63
39:B1:59:ARG:O	39:B1:63:VAL:HG23	1.99	0.63
26:BD:17:THR:HB	26:BD:205:VAL:H	1.64	0.63
12:AO:70:ILE:HD13	12:AO:77:LEU:HD12	1.79	0.63
1:CA:1127:G:N1	1:CA:1145:C:H1'	2.14	0.63
1:CA:1135:U:H4'	1:CA:1136:U:C5	2.34	0.63
1:CA:1298:C:H41	7:CJ:114:ARG:HB3	1.64	0.63
13:AP:88:ARG:HG2	13:AP:98:VAL:CG1	2.29	0.63
24:BA:1060:U:H5'	24:BA:1061:U:C5	2.34	0.63
31:BK:109:ILE:HG22	31:BK:130:TYR:CE2	2.34	0.63
5:AH:67:VAL:HG22	5:AH:69:VAL:HG23	1.81	0.63
34:BO:62:LEU:HD23	34:BO:63:PRO:O	1.99	0.63
6:CI:37:VAL:HG12	6:CI:38:GLU:N	2.13	0.63
16:AS:14:ASN:O	16:AS:14:ASN:ND2	2.32	0.63
24:BA:2789:C:H3'	24:BA:2790:A:H5''	1.80	0.63
3:CF:43:LEU:HD21	3:CF:47:LEU:HD23	1.81	0.63
32:DM:35:ARG:O	32:DM:37:LYS:N	2.29	0.63
28:DF:53:THR:HG22	28:DF:56:GLU:CG	2.29	0.63
24:DA:212:G:C2'	24:DA:213:A:H5'	2.29	0.63
1:CA:878:G:C5'	8:CK:89:PRO:HG2	2.29	0.63
24:DA:142:G:H2'	24:DA:143:C:H6	1.64	0.63
41:BS:64:MET:O	41:BS:65:LEU:HB2	1.97	0.63
45:B3:70:GLN:OE1	45:B3:72:ARG:HD3	1.99	0.63
3:AF:64:VAL:CG2	3:AF:99:VAL:HA	2.29	0.63
28:DF:33:LEU:O	28:DF:37:VAL:HG23	1.98	0.63
38:BR:112:ARG:HA	38:BR:115:ARG:HE	1.62	0.63
9:AL:18:PHE:HB2	9:AL:62:TYR:O	1.99	0.63
24:BA:1748:G:H2'	24:BA:1749:A:H8	1.62	0.63
25:BB:50:G:OP1	37:BQ:63:THR:HG23	1.99	0.63
36:B0:103:ARG:HH21	36:B0:110:PRO:HD3	1.63	0.63
24:DA:1771:C:O2'	24:DA:1786:A:H8	1.82	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:D0:118:GLU:OE2	36:D0:118:GLU:HA	1.98	0.63
1:CA:1267:C:H2'	1:CA:1267:C:O2	1.98	0.63
9:CL:82:ALA:CB	9:CL:101:PHE:HD2	2.10	0.63
49:D4:48:ARG:NH2	49:D4:51:ASP:HB2	2.13	0.63
37:DQ:110:LEU:HD12	37:DQ:111:GLU:CA	2.29	0.63
24:DA:2378:A:C8	37:DQ:112:PHE:HZ	2.16	0.63
37:DQ:74:ALA:HB1	37:DQ:107:GLU:CB	2.29	0.63
51:D6:37:ARG:HG3	51:D6:39:TYR:CE1	2.32	0.63
4:AG:25:ARG:C	4:AG:27:TYR:N	2.52	0.63
30:DH:6:ARG:CG	30:DH:66:GLY:HA2	2.28	0.63
43:DU:75:ILE:HG22	43:DU:80:GLY:HA3	1.80	0.63
24:DA:2629:A:O2'	24:DA:2630:G:C5'	2.47	0.63
37:BQ:15:ARG:O	37:BQ:19:LYS:HG3	1.98	0.63
24:DA:2635:C:H5''	27:DE:77:ILE:HG22	1.80	0.63
1:CA:254:G:OP1	17:CT:68:ARG:HB3	1.99	0.63
10:CM:78:ASN:ND2	10:CM:81:THR:HG23	2.14	0.63
1:AA:1331:G:OP2	13:AP:23:TYR:CD1	2.51	0.63
44:DV:30:ASN:HB2	44:DV:89:PHE:HE1	1.63	0.63
24:BA:2125:G:N2	24:BA:2162:G:N3	2.47	0.63
26:DD:25:THR:CG2	26:DD:81:ALA:HB1	2.29	0.63
28:DF:67:GLN:O	28:DF:67:GLN:CG	2.46	0.63
28:DF:53:THR:HG22	28:DF:56:GLU:HG3	1.81	0.63
30:BH:80:SER:C	30:BH:81:GLU:HG3	2.19	0.63
17:AT:14:LYS:N	17:AT:14:LYS:HD2	2.13	0.63
1:AA:875:C:H1'	8:AK:15:ASN:OD1	1.99	0.63
44:BV:4:ARG:NH1	44:BV:58:VAL:HG11	2.12	0.63
6:CI:76:ALA:O	6:CI:80:ARG:HG3	1.99	0.63
28:DF:43:LYS:HA	28:DF:98:SER:HB3	1.81	0.63
42:BT:28:PHE:CE2	42:BT:92:LEU:HD11	2.34	0.63
9:AL:10:ARG:CA	9:AL:104:ARG:HH21	2.12	0.62
24:BA:2400:G:C2'	24:BA:2401:U:H6	2.11	0.62
43:BU:77:PRO:O	43:BU:78:ALA:HB2	1.99	0.62
20:CW:70:SER:CA	20:CW:73:HIS:HE1	2.09	0.62
40:B2:6:LYS:O	40:B2:37:VAL:HG21	1.98	0.62
24:BA:998:C:OP2	39:B1:58:ARG:NH1	2.31	0.62
26:DD:30:GLU:HG3	26:DD:63:ARG:CZ	2.29	0.62
44:BV:150:LEU:HD12	44:BV:154:ASP:OD2	2.00	0.62
1:AA:1004:A:O2'	1:AA:1036:G:O6	2.13	0.62
30:DH:152:ARG:HG3	30:DH:153:LYS:HG2	1.80	0.62
5:CH:76:ILE:HG22	5:CH:93:PRO:HG3	1.80	0.62
25:BB:82:G:O2'	25:BB:83:G:H5'	1.98	0.62
1:AA:448:A:P	1:AA:485:G:H22	2.21	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AC:20:U:H2'	22:AC:21:A:C5'	2.25	0.62
12:CO:88:GLY:H	12:CO:98:TYR:HA	1.64	0.62
24:BA:2315:G:H2'	24:BA:2316:C:H6	1.64	0.62
24:BA:141:A:H8	24:BA:1595:G:H21	1.46	0.62
5:CH:74:GLY:O	5:CH:116:THR:N	2.26	0.62
1:CA:687:A:H1'	1:CA:688:G:OP2	1.99	0.62
33:DN:68:GLU:OE2	33:DN:78:ARG:NH1	2.32	0.62
39:D1:72:HIS:HD2	39:D1:110:VAL:HG21	1.64	0.62
26:BD:155:LEU:HD23	26:BD:177:LEU:HD22	1.81	0.62
24:DA:84:A:N6	24:DA:102:G:O2'	2.28	0.62
4:CG:58:LEU:HD23	4:CG:62:GLN:CG	2.29	0.62
22:AC:23:C:H2'	22:AC:24:U:C6	2.34	0.62
8:AK:58:TYR:O	8:AK:59:LEU:HD23	1.99	0.62
1:CA:35:G:C2	1:CA:550:G:N3	2.67	0.62
24:DA:289:A:N3	24:DA:289:A:H2'	2.13	0.62
24:DA:2898:U:H2'	24:DA:2899:G:O4'	1.98	0.62
1:CA:433:C:H2'	1:CA:434:U:C6	2.34	0.62
1:CA:980:C:H5'	1:CA:981:U:H5	1.64	0.62
9:AL:73:GLN:O	9:AL:77:ILE:HG13	1.99	0.62
24:BA:2285:C:H5'	24:BA:2288:A:N6	2.14	0.62
1:AA:1221:G:H4'	19:AV:77:THR:HG21	1.81	0.62
53:B8:14:VAL:HG21	53:B8:22:VAL:CG1	2.29	0.62
2:AE:167:PRO:HG2	2:AE:192:SER:HB3	1.81	0.62
24:BA:1091:G:H3'	24:BA:1092:C:H5''	1.81	0.62
27:DE:80:GLU:O	27:DE:81:ILE:HB	1.97	0.62
2:CE:16:HIS:HB3	2:CE:209:ARG:HB2	1.81	0.62
13:CP:91:ARG:HB2	13:CP:98:VAL:CG1	2.19	0.62
9:CL:2:GLU:CG	9:CL:3:GLN:H	1.98	0.62
46:DZ:91:LYS:HZ3	46:DZ:91:LYS:HB2	1.64	0.62
44:DV:24:LEU:H	44:DV:41:LEU:CD1	2.12	0.62
1:CA:405:U:OP2	4:CG:3:ARG:NH2	2.32	0.62
19:CV:39:THR:HG22	19:CV:40:ILE:N	2.14	0.62
29:BG:129:GLY:O	29:BG:161:THR:HB	2.00	0.62
35:BP:24:GLY:HA3	35:BP:25:ASP:CB	2.11	0.62
1:AA:450:G:H4'	16:AS:41:PRO:O	1.99	0.62
28:DF:11:VAL:HG23	28:DF:12:LEU:N	2.10	0.62
13:AP:10:PRO:CB	13:AP:18:ALA:HB1	2.26	0.62
26:DD:27:THR:HG23	26:DD:27:THR:O	1.99	0.62
1:CA:63:C:H2'	1:CA:64:G:H5'	1.81	0.62
24:DA:2355:C:H5'	45:D3:36:ILE:CD1	2.28	0.62
35:DP:75:THR:HA	35:DP:90:VAL:H	1.62	0.62
37:DQ:39:ILE:HD12	37:DQ:73:LEU:CD1	2.29	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1388:G:O2'	24:DA:1389:G:H5'	1.99	0.62
1:AA:246:A:P	17:AT:100:LYS:HD3	2.39	0.62
42:DT:23:GLU:HG2	42:DT:24:GLY:H	1.64	0.62
24:BA:2661:G:H2'	24:BA:2662:A:C8	2.34	0.62
3:AF:173:VAL:HG12	3:AF:175:LEU:CD1	2.29	0.62
27:BE:26:ILE:HG22	27:BE:182:LEU:O	1.99	0.62
1:AA:620:C:C2	4:AG:135:LEU:HD23	2.35	0.62
28:BF:127:GLU:O	28:BF:129:PHE:N	2.32	0.62
38:DR:57:PHE:HD1	38:DR:79:HIS:HD1	1.47	0.62
26:BD:118:VAL:HG22	26:BD:119:ALA:N	2.14	0.62
1:AA:1014:A:H4'	19:AV:14:HIS:ND1	2.15	0.62
1:CA:468:A:H4'	16:CS:82:GLN:HE22	1.63	0.62
1:AA:1095:U:H5'	1:AA:1109:C:O2	1.99	0.62
29:DG:83:ARG:HB2	29:DG:86:MET:HG3	1.81	0.62
43:BU:14:LEU:HD12	43:BU:23:ARG:O	1.98	0.62
6:CI:18:GLN:HA	6:CI:21:LEU:HD22	1.80	0.62
24:DA:1439:A:C2'	24:DA:1440:G:H5'	2.29	0.62
1:AA:1148:U:H2'	1:AA:1149:C:O4'	1.98	0.62
1:CA:1298:C:H4'	1:CA:1299:A:C8	2.33	0.62
1:CA:979:C:H3'	1:CA:980:C:C5'	2.27	0.62
19:CV:68:GLY:HA3	49:D4:59:PHE:CZ	2.35	0.62
24:BA:1652:A:OP1	36:B0:8:ARG:NH1	2.32	0.62
24:DA:2420:C:H41	53:D8:31:HIS:HB3	1.64	0.62
35:DP:6:ARG:HG2	35:DP:7:MET:H	1.63	0.62
1:AA:1381:U:O2'	7:AJ:79:ARG:HG3	2.00	0.62
24:BA:630:G:OP1	53:B8:46:ARG:NH1	2.32	0.62
34:DO:107:LYS:C	34:DO:109:GLY:H	1.97	0.62
24:BA:1091:G:H2'	24:BA:1092:C:O4'	2.00	0.62
24:BA:997:G:O2'	24:BA:998:C:H5'	1.99	0.62
2:CE:8:LYS:O	2:CE:9:GLU:HB3	1.98	0.62
43:DU:17:SER:HB2	43:DU:71:LYS:CD	2.17	0.62
1:CA:447:G:O6	1:CA:485:G:H2'	1.98	0.62
27:BE:201:THR:HG22	27:BE:203:LYS:N	2.05	0.62
27:BE:106:GLY:HA2	27:BE:196:VAL:HG12	1.81	0.62
7:AJ:115:ARG:HG3	7:AJ:117:ALA:N	2.14	0.62
20:AW:44:ALA:HB2	20:AW:88:VAL:HG13	1.79	0.62
10:AM:96:ILE:H	10:AM:96:ILE:CD1	2.11	0.62
32:DM:14:VAL:CG1	32:DM:52:VAL:HA	2.29	0.62
24:BA:634:C:H2'	24:BA:635:C:C6	2.34	0.62
41:BS:1:MET:HA	41:BS:1:MET:CE	2.29	0.62
1:AA:1115:C:H1'	14:AQ:61:TRP:HB2	1.80	0.62
1:AA:486:U:H2'	1:AA:487:A:C8	2.32	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:186:HIS:HD2	26:DD:187:GLY:H	1.47	0.62
1:AA:601:C:H2'	1:AA:602:A:H8	1.64	0.62
24:BA:2298:A:H62	24:BA:2318:G:H8	1.46	0.62
24:BA:1252:G:O4'	39:B1:33:ARG:HD3	1.99	0.62
24:DA:1907:G:O2'	24:DA:1908:C:H5'	1.99	0.62
27:BE:47:VAL:HG11	27:BE:86:PRO:HD3	1.81	0.62
49:D4:39:CYS:O	49:D4:40:HIS:HB2	1.97	0.62
1:AA:656:C:H4'	15:AR:62:GLN:HE22	1.63	0.62
24:DA:1423:G:H2'	24:DA:1424:G:H8	1.63	0.62
26:DD:264:LYS:HG2	26:DD:266:SER:HB3	1.80	0.62
24:DA:2199:A:C8	24:DA:2205:C:C5	2.87	0.62
8:CK:107:LEU:HD22	8:CK:107:LEU:H	1.64	0.62
42:BT:36:LYS:HE2	42:BT:54:VAL:O	1.99	0.62
28:DF:79:GLY:HA2	28:DF:86:GLY:HA2	1.81	0.62
38:BR:136:GLN:HG3	38:BR:137:LYS:H	1.65	0.62
28:DF:158:THR:O	28:DF:178:PRO:HD3	1.99	0.62
24:DA:2401:U:H2'	24:DA:2402:C:H6	1.63	0.62
27:BE:60:ASN:OD1	27:BE:62:PRO:HD2	1.99	0.62
1:CA:1126:U:O4	1:CA:1281:U:C6	2.53	0.62
1:CA:1226:C:H4'	19:CV:80:TYR:OH	1.98	0.62
1:CA:1239:A:H4'	1:CA:1240:U:C5'	2.27	0.62
19:AV:40:ILE:HG12	19:AV:41:VAL:HB	1.81	0.62
24:DA:2746:U:H2'	24:DA:2747:G:H5'	1.82	0.62
24:BA:1057:A:N7	24:BA:1086:A:H2'	2.14	0.62
51:D6:10:LEU:O	51:D6:11:LEU:HD13	1.99	0.62
40:D2:84:LYS:HG3	40:D2:85:LYS:N	2.14	0.62
5:CH:57:LYS:O	5:CH:61:TYR:CD2	2.52	0.62
14:CQ:9:LYS:HA	14:CQ:12:ARG:CZ	2.30	0.62
24:BA:2210:G:C5'	24:BA:2211:G:N7	2.62	0.62
24:BA:2126:A:H4'	24:BA:2127:G:O5'	1.99	0.62
29:BG:77:ILE:HG21	29:BG:80:PHE:CE1	2.32	0.62
9:CL:97:LYS:HB3	9:CL:98:PRO:HD3	1.81	0.62
24:BA:1310:G:C5	24:BA:1311:G:N7	2.68	0.62
5:CH:10:MET:CG	5:CH:32:VAL:HG22	2.26	0.62
2:AE:127:ILE:HG23	2:AE:128:GLU:N	2.14	0.62
24:DA:885:C:O2	24:DA:892:G:N2	2.32	0.62
32:DM:98:VAL:HG23	32:DM:99:LEU:N	2.12	0.62
34:DO:112:LEU:H	34:DO:128:HIS:CD2	2.17	0.62
1:CA:194:C:H2'	1:CA:195:A:H5''	1.79	0.62
37:DQ:14:VAL:HG21	37:DQ:89:ARG:HG3	1.80	0.62
1:AA:1494:G:O2'	24:BA:1913:A:OP1	2.16	0.62
7:AJ:115:ARG:HG3	7:AJ:116:ALA:N	2.13	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:498:G:H21	43:DU:47:LYS:HZ1	1.48	0.62
34:BO:85:LEU:HA	34:BO:88:LEU:CD2	2.30	0.62
24:BA:1209:G:H21	24:BA:1210:A:H62	1.48	0.62
24:DA:1496:A:H8	24:DA:1577:C:O2'	1.82	0.62
1:AA:321:A:C2	1:AA:333:G:C2	2.88	0.62
1:CA:38:G:C2	1:CA:397:A:C2	2.87	0.62
24:DA:1278:A:H5''	36:D0:36:THR:HG22	1.80	0.62
24:DA:1217:C:OP1	39:D1:15:LYS:HE3	1.98	0.62
1:CA:1492:A:H5''	1:CA:1493:A:OP2	1.99	0.62
11:AN:32:ILE:HD12	11:AN:72:ALA:HB2	1.79	0.62
1:CA:1277:C:O2'	1:CA:1279:A:H8	1.82	0.62
51:D6:34:LEU:O	51:D6:35:GLU:HB2	1.98	0.62
24:BA:2346:A:H4'	24:BA:2347:C:OP2	1.99	0.62
24:BA:1050:A:N7	24:BA:2751:G:N7	2.48	0.62
31:BK:73:GLU:HB2	31:BK:136:VAL:HG12	1.81	0.62
27:DE:81:ILE:CG2	27:DE:84:PHE:HB3	2.30	0.62
9:CL:24:GLY:N	9:CL:60:ASP:OD1	2.32	0.62
9:CL:24:GLY:HA3	9:CL:57:GLY:HA2	1.82	0.62
4:CG:138:TYR:HD1	4:CG:139:ARG:N	1.97	0.62
34:BO:50:ARG:HH21	53:B8:59:LYS:CD	2.10	0.62
39:D1:91:ASP:O	39:D1:92:ARG:CG	2.44	0.62
1:CA:382:A:H2'	1:CA:383:A:C8	2.34	0.62
27:BE:197:ILE:CD1	27:BE:199:ARG:HE	2.09	0.62
42:DT:30:VAL:HG12	42:DT:31:HIS:H	1.64	0.62
24:BA:1312:U:H4'	24:BA:1313:U:O5'	1.99	0.62
1:CA:191:G:H1'	20:CW:104:LEU:O	2.00	0.62
7:CJ:69:VAL:CG1	7:CJ:103:TRP:HE3	2.12	0.62
44:BV:125:LEU:HG	44:BV:164:ALA:CB	2.30	0.62
17:AT:13:ASP:OD1	17:AT:14:LYS:NZ	2.31	0.62
4:AG:150:GLU:OE2	4:AG:150:GLU:N	2.31	0.62
24:DA:2884:U:H2'	24:DA:2885:C:C5'	2.30	0.62
8:CK:49:GLU:HG3	8:CK:51:VAL:CG1	2.29	0.62
24:DA:324:A:N6	24:DA:338:G:O2'	2.32	0.62
24:BA:335:C:O5'	24:BA:335:C:H6	1.82	0.62
24:BA:627:A:H4'	24:BA:628:G:OP1	1.97	0.62
16:AS:9:PHE:CZ	16:AS:18:ARG:HD2	2.33	0.62
24:BA:1641:A:H2'	24:BA:1642:G:O4'	1.99	0.62
36:B0:41:ALA:O	36:B0:44:LEU:N	2.31	0.62
42:BT:41:ASN:O	42:BT:45:THR:HG23	1.99	0.62
36:D0:104:ARG:HD2	36:D0:107:ASP:OD2	1.98	0.62
33:DN:14:THR:O	33:DN:14:THR:HG22	1.99	0.62
26:BD:68:LYS:HD2	26:BD:70:TRP:CH2	2.35	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BH:26:VAL:O	30:BH:27:LYS:HB3	1.99	0.62
1:CA:1254:C:C5'	10:CM:45:ARG:NH1	2.36	0.62
13:CP:19:LEU:HD13	13:CP:30:ALA:CB	2.30	0.62
24:DA:2287:A:OP1	51:D6:30:THR:HG21	1.99	0.62
24:BA:2284:C:C5'	51:B6:28:ARG:HH22	2.05	0.62
24:BA:2402:C:H4'	24:BA:2402:C:OP1	1.98	0.62
13:AP:92:HIS:CE1	13:AP:98:VAL:HG21	2.35	0.62
1:AA:1320:C:H2'	1:AA:1321:C:O4'	1.98	0.62
29:BG:67:LYS:HD3	49:B4:5:ILE:HG12	1.81	0.62
20:AW:53:LEU:HB2	20:AW:100:ILE:CG2	2.29	0.62
7:AJ:15:ASP:OD1	7:AJ:44:TYR:OH	2.17	0.62
24:BA:1065:U:H1'	24:BA:1074:G:N2	2.14	0.62
24:DA:2638:G:O2'	24:DA:2639:A:O5'	2.15	0.62
24:DA:1567:A:OP1	26:DD:60:ARG:NE	2.32	0.62
2:CE:20:GLU:CG	2:CE:191:ASP:HB2	2.29	0.62
2:CE:20:GLU:HA	2:CE:20:GLU:OE1	1.99	0.62
8:CK:106:GLY:CA	8:CK:122:ARG:NH2	2.61	0.62
19:CV:22:LEU:HD12	19:CV:27:GLU:HA	1.81	0.62
24:BA:795:C:H2'	24:BA:796:C:C6	2.34	0.62
24:BA:796:C:H2'	24:BA:797:C:H6	1.61	0.62
1:AA:685:G:N2	1:AA:686:U:C4	2.68	0.62
34:BO:126:VAL:HG22	34:BO:145:PRO:HG2	1.80	0.62
46:DZ:53:VAL:HG22	46:DZ:74:VAL:CG1	2.30	0.62
16:AS:68:ASP:OD1	16:AS:71:ARG:NH2	2.33	0.62
52:D7:5:TRP:CD1	52:D7:7:PRO:HG3	2.35	0.62
24:BA:1264:G:H5'	50:B5:11:THR:CG2	2.28	0.62
24:BA:528:A:C2	24:BA:2043:C:H4'	2.35	0.62
25:DB:18:G:H2'	25:DB:19:G:C8	2.34	0.62
1:AA:827:U:H5	1:AA:872:A:H61	1.43	0.62
39:D1:83:LEU:CD2	39:D1:88:ILE:HG13	2.29	0.62
32:BM:137:LYS:HG3	32:BM:138:LEU:N	2.14	0.62
7:CJ:17:VAL:HG12	7:CJ:18:TYR:CD1	2.34	0.62
43:BU:39:VAL:HG12	43:BU:40:GLU:N	2.15	0.62
1:AA:607:A:O2'	1:AA:608:A:H5'	1.98	0.62
25:DB:73:A:H2'	25:DB:74:U:H5'	1.80	0.62
1:CA:1316:G:N2	1:CA:1319:A:OP2	2.32	0.62
24:BA:2287:A:C2	24:BA:2289:G:N9	2.68	0.62
19:AV:41:VAL:HA	19:AV:44:MET:HG2	1.82	0.62
30:DH:6:ARG:HA	30:DH:69:ARG:HG2	1.81	0.62
1:AA:954:G:H2'	1:AA:955:U:C6	2.34	0.62
19:AV:52:TYR:HA	19:AV:56:GLN:O	1.99	0.62
24:DA:2787:C:O3'	27:DE:61:ARG:NH1	2.33	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AE:164:VAL:HB	2:AE:186:ALA:CB	2.29	0.62
2:AE:71:VAL:CG2	2:AE:164:VAL:HG22	2.30	0.62
2:CE:6:THR:HB	2:CE:221:LEU:HD13	1.81	0.62
10:CM:28:ARG:HG2	10:CM:28:ARG:NH1	2.12	0.62
3:CF:106:VAL:O	3:CF:109:PRO:HD3	2.00	0.62
39:B1:79:PHE:O	39:B1:83:LEU:HD13	2.00	0.62
49:D4:21:VAL:HG22	49:D4:22:ILE:N	2.10	0.62
10:AM:22:LYS:HD3	10:AM:22:LYS:O	2.00	0.62
24:DA:2850:A:N7	24:DA:2868:A:O2'	2.26	0.62
35:BP:66:ILE:O	35:BP:104:PHE:N	2.28	0.62
2:AE:70:PHE:HE1	2:AE:163:PHE:HD2	1.45	0.62
1:AA:736:C:H2'	1:AA:737:A:C8	2.34	0.62
24:DA:2127:G:H1	24:DA:2162:G:H1'	1.65	0.62
24:BA:2849:U:H1'	24:BA:2866:U:O2	1.99	0.62
44:BV:7:ALA:HB2	44:BV:59:LEU:HD21	1.80	0.62
28:DF:57:VAL:HG11	28:DF:59:TYR:CD2	2.34	0.62
1:CA:719:C:O2'	18:CU:49:LYS:HB3	1.99	0.62
1:AA:1434:A:H2'	1:AA:1435:G:O4'	1.99	0.62
24:BA:448:U:H1'	28:BF:84:VAL:CG1	2.29	0.62
36:D0:44:LEU:HD22	36:D0:48:VAL:HG23	1.80	0.62
32:BM:137:LYS:HG3	32:BM:138:LEU:H	1.63	0.62
44:DV:51:ALA:HB1	44:DV:57:ILE:HD11	1.82	0.62
24:BA:660:G:H21	34:BO:12:ALA:HA	1.65	0.62
34:DO:122:PRO:HB3	34:DO:141:ALA:HB1	1.80	0.62
41:BS:76:VAL:CG2	41:BS:101:SER:HB3	2.30	0.62
24:BA:1598:C:O2'	24:BA:1599:C:H5'	2.00	0.62
1:CA:1405:G:O4'	1:CA:1519:A:H4'	2.00	0.62
24:DA:125:G:H1'	52:D7:13:ALA:HB1	1.81	0.62
48:BX:6:VAL:HB	48:BX:54:VAL:HG21	1.81	0.62
1:CA:1126:U:C4'	1:CA:1127:G:OP2	2.47	0.62
1:CA:1289:A:C5'	21:CX:10:ARG:HH21	2.04	0.62
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.34	0.62
1:AA:1180:A:OP1	9:AL:103:THR:OG1	2.14	0.62
9:AL:95:LYS:O	9:AL:99:LEU:HD21	2.00	0.62
29:BG:112:PRO:CB	49:B4:37:SER:CB	2.61	0.62
4:AG:22:LYS:CE	4:AG:26:CYS:CB	2.69	0.62
1:AA:1319:A:C5'	19:AV:5:LEU:CD2	2.67	0.62
27:DE:55:ASN:C	27:DE:57:LYS:H	2.02	0.62
7:CJ:111:ARG:HH21	7:CJ:122:HIS:HB3	1.64	0.62
24:BA:1063:G:H2'	24:BA:1064:C:H6	1.63	0.62
29:DG:31:VAL:O	29:DG:33:ARG:HG3	1.99	0.62
30:BH:109:PHE:N	30:BH:109:PHE:CD1	2.67	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:89:ILE:HD12	30:DH:94:TYR:HB2	1.80	0.62
35:DP:66:ILE:O	35:DP:67:ARG:HB2	2.00	0.62
4:CG:88:VAL:HG22	5:CH:96:PRO:HB2	1.81	0.62
8:CK:106:GLY:CA	8:CK:122:ARG:HH22	2.13	0.62
24:BA:654(L):G:OP1	24:BA:654(M):C:N4	2.32	0.62
24:BA:607:U:OP1	28:BF:102:PRO:HA	1.99	0.62
10:AM:34:VAL:HB	10:AM:73:ASP:O	2.00	0.62
20:CW:13:LEU:HD12	20:CW:13:LEU:N	2.15	0.62
26:DD:25:THR:O	26:DD:26:LYS:C	2.38	0.62
24:DA:33:U:H4'	24:DA:34:C:OP1	1.99	0.62
24:DA:270(K):C:N3	24:DA:270(N):G:N1	2.48	0.62
9:CL:95:LYS:NZ	9:CL:95:LYS:HB2	2.14	0.62
49:B4:14:ILE:HG13	49:B4:24:THR:CG2	2.30	0.62
15:AR:43:LEU:HD12	15:AR:56:LEU:HD22	1.82	0.62
14:CQ:45:ARG:O	14:CQ:49:HIS:HD2	1.83	0.62
1:AA:1292:U:H2'	1:AA:1293:G:H8	1.62	0.62
24:BA:278:A:O2'	24:BA:279:C:O4'	2.16	0.62
24:DA:1203:G:H3'	24:DA:1204:A:H5''	1.82	0.62
24:DA:1241:A:O2'	24:DA:1242:A:H5'	2.00	0.62
24:BA:2291:U:O2'	24:BA:2374:C:H1'	2.00	0.62
24:DA:769:G:O2'	24:DA:770:G:H5'	2.00	0.62
6:CI:14:LEU:H	6:CI:14:LEU:HD12	1.65	0.62
28:DF:117:ARG:HH12	34:DO:1:MET:H2	1.47	0.62
24:DA:265:A:H1'	24:DA:266:G:O4'	1.99	0.62
7:CJ:105:VAL:O	7:CJ:108:ALA:HB3	1.99	0.62
4:CG:170:VAL:HG22	4:CG:171:GLY:H	1.64	0.62
30:DH:155:SER:O	30:DH:156:ALA:HB2	2.00	0.62
14:AQ:37:PHE:CE1	14:AQ:53:LEU:HD13	2.35	0.62
34:DO:65:ARG:HB2	34:DO:65:ARG:HH11	1.64	0.62
13:AP:74:VAL:O	13:AP:78:ILE:HG12	2.00	0.62
49:B4:36:CYS:O	49:B4:39:CYS:CB	2.48	0.62
24:BA:1045:A:H4'	24:BA:1046:A:H5'	1.81	0.62
24:DA:2439:A:O2'	24:DA:2440:C:OP2	2.16	0.62
24:BA:1070:A:N7	24:BA:1096:A:H2'	2.13	0.62
29:DG:169:ALA:O	29:DG:173:LEU:HD23	1.99	0.62
9:CL:3:GLN:NE2	9:CL:20:ARG:HD2	2.15	0.62
44:DV:111:VAL:HG13	44:DV:145:GLU:OE2	2.00	0.62
1:AA:1025:U:HO2'	1:AA:1026:G:P	2.18	0.62
4:CG:108:LEU:CD1	4:CG:174:LEU:HD13	2.29	0.62
24:BA:2163:C:H5''	24:BA:2171:A:H8	1.65	0.62
4:CG:149:ALA:C	4:CG:153:ARG:HG3	2.19	0.62
27:DE:47:VAL:CG2	27:DE:48:GLN:H	2.08	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1027:C:C3'	1:CA:1028:C:H5''	2.30	0.62
2:AE:22:LYS:HA	2:AE:24:TRP:CD1	2.35	0.62
8:AK:85:ARG:NE	8:AK:87:SER:O	2.33	0.62
11:CN:95:ILE:HG21	11:CN:108:ILE:HD13	1.81	0.62
3:CF:52:LEU:H	3:CF:52:LEU:HD23	1.65	0.62
24:DA:1022:G:H22	24:DA:1142(A):A:H2	1.44	0.62
24:DA:1171:G:H1'	24:DA:1173:G:P	2.40	0.62
40:B2:14:VAL:HB	40:B2:96:ILE:HG13	1.81	0.62
1:CA:422:C:O2'	1:CA:423:G:C2	2.53	0.62
12:CO:34:ARG:HG2	12:CO:35:GLY:N	2.14	0.62
24:DA:1729:A:H1'	24:DA:1730:U:H5	1.65	0.62
1:AA:198:G:H2'	1:AA:199:G:H8	1.64	0.62
24:BA:2335:A:O2'	24:BA:2336:A:OP2	2.13	0.62
36:D0:80:PHE:O	36:D0:85:PRO:HD3	2.00	0.62
38:BR:84:GLN:HG3	38:BR:85:LYS:N	2.13	0.62
24:BA:2818:G:O2'	24:BA:2819:G:H5'	2.00	0.62
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.34	0.62
1:CA:975:A:H5'	1:CA:1363:A:N6	2.15	0.62
24:BA:947:G:N2	24:BA:971:C:C2	2.67	0.62
24:BA:1871:A:H2'	24:BA:1872:A:C8	2.34	0.62
24:BA:1859:A:N6	24:BA:1883:G:O2'	2.33	0.62
24:BA:337:C:H2'	24:BA:338:G:O4'	1.99	0.62
1:CA:1320:C:C1'	19:CV:70:LYS:HE2	2.29	0.62
1:CA:1118:C:C3'	9:CL:83:ARG:HH22	2.13	0.62
11:CN:46:GLY:HA2	11:CN:50:TYR:O	1.99	0.62
24:DA:2286:A:O5'	51:D6:28:ARG:NH1	2.33	0.62
4:AG:31:CYS:CA	4:AG:33:MET:SD	2.88	0.62
24:DA:1049:C:O2'	24:DA:1050:A:H5'	2.00	0.62
24:BA:2751:G:C5	30:BH:3:ARG:CD	2.83	0.62
27:DE:50:GLY:O	27:DE:51:PHE:HB3	2.00	0.62
24:DA:2636:U:H4'	27:DE:80:GLU:CD	2.20	0.62
46:BZ:58:ILE:CD1	46:BZ:86:SER:HB2	2.29	0.62
3:CF:120:VAL:HA	3:CF:123:GLN:CG	2.25	0.62
4:CG:96:LEU:HB3	4:CG:139:ARG:HH12	1.65	0.62
24:BA:1607:C:C5'	24:BA:1608:A:H5'	2.29	0.62
5:AH:51:VAL:HB	5:AH:52:PRO:CD	2.20	0.62
27:BE:201:THR:CG2	27:BE:203:LYS:HB3	2.30	0.62
24:DA:2849:U:H4'	24:DA:2868:A:C2	2.35	0.62
24:BA:1021:A:C2'	24:BA:1022:G:H5''	2.30	0.62
8:AK:85:ARG:CG	8:AK:85:ARG:HH11	2.08	0.62
31:DK:11:ASN:C	31:DK:12:LEU:HD12	2.20	0.62
24:BA:762:U:H4'	24:BA:763:G:O5'	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AR:39:LEU:HD13	15:AR:56:LEU:CD1	2.28	0.62
24:BA:1263:U:O2'	50:B5:11:THR:HG23	2.00	0.62
1:CA:851:G:H2'	1:CA:852:G:H8	1.65	0.62
30:DH:29:PRO:HG2	30:DH:79:VAL:O	2.00	0.62
27:BE:2:LYS:HB2	27:BE:95:ILE:CG2	2.30	0.62
25:DB:16:G:H2'	25:DB:17:C:H6	1.65	0.62
29:BG:48:GLU:HG3	29:BG:49:ASP:N	2.15	0.62
24:DA:1439:A:H2'	24:DA:1440:G:H5'	1.82	0.62
1:CA:1422:G:O3'	33:DN:49:ARG:NH1	2.32	0.62
17:CT:32:TYR:O	17:CT:34:LYS:N	2.31	0.62
11:AN:91:ARG:NH2	11:AN:92:GLU:HB2	2.14	0.62
1:CA:182:U:C4	1:CA:183:G:H1'	2.34	0.62
1:CA:828:A:H2'	1:CA:829:G:O4'	1.99	0.62
45:B3:11:ARG:O	45:B3:14:ARG:NH2	2.32	0.62
45:B3:12:ASN:HA	45:B3:14:ARG:HH21	1.64	0.62
51:D6:51:GLU:O	51:D6:52:VAL:HG23	1.98	0.62
24:BA:1139:G:O2'	24:BA:1143:A:N1	2.29	0.62
9:CL:112:LYS:HD3	9:CL:113:LYS:N	2.15	0.61
24:DA:250:G:P	34:DO:60:MET:HE1	2.40	0.61
13:AP:81:LEU:HD11	13:AP:86:CYS:SG	2.40	0.61
43:BU:101:LYS:HZ3	43:BU:102:CYS:H	1.47	0.61
24:BA:270(R):G:H2'	24:BA:270(S):G:C8	2.35	0.61
28:DF:18:ARG:HH21	28:DF:20:LEU:CD1	2.03	0.61
43:BU:50:ARG:C	43:BU:52:SER:H	2.02	0.61
43:DU:17:SER:HB3	43:DU:71:LYS:HB3	1.82	0.61
44:BV:151:HIS:HB3	44:BV:168:GLU:HA	1.81	0.61
24:BA:1171:G:H2'	24:BA:1174:A:N1	2.15	0.61
31:DK:76:THR:HG21	31:DK:140:LEU:HD13	1.82	0.61
27:DE:25:VAL:HG12	27:DE:26:ILE:N	2.14	0.61
29:DG:105:LYS:HE3	29:DG:143:GLU:OE1	2.00	0.61
1:AA:992:U:H3	1:AA:1044:A:H62	1.45	0.61
37:DQ:101:LEU:C	37:DQ:101:LEU:HD13	2.20	0.61
26:BD:44:ASN:HB2	26:BD:48:ARG:O	1.99	0.61
9:AL:20:ARG:O	9:AL:60:ASP:N	2.19	0.61
25:DB:66:A:H61	25:DB:108:C:C5'	2.11	0.61
1:AA:277:C:C5'	17:AT:68:ARG:HH22	2.13	0.61
42:DT:50:LYS:CB	42:DT:84:ALA:CB	2.76	0.61
42:BT:50:LYS:HB3	42:BT:87:GLN:OE1	2.00	0.61
24:BA:1537:C:H2'	24:BA:1538:G:C8	2.35	0.61
24:DA:1012:U:O2	24:DA:1143:A:H2	1.83	0.61
50:B5:33:CYS:SG	50:B5:40:LYS:NZ	2.63	0.61
22:AC:47:U:O2'	22:AC:48:C:P	2.58	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:4:LYS:CB	41:DS:106:ILE:HG22	2.30	0.61
28:DF:192:LEU:HD23	28:DF:193:VAL:H	1.65	0.61
31:BK:77:LEU:O	31:BK:77:LEU:HD12	2.00	0.61
6:CI:74:ASP:O	6:CI:77:ARG:NH1	2.31	0.61
9:CL:58:HIS:HB2	9:CL:59:PHE:CE2	2.34	0.61
39:D1:49:HIS:HA	39:D1:52:ARG:HG3	1.82	0.61
1:AA:983:A:H5''	1:AA:984:C:OP2	2.00	0.61
13:AP:32:GLU:OE1	13:AP:36:LYS:HG3	2.00	0.61
24:DA:2716:U:O2'	24:DA:2717:G:H5'	2.00	0.61
24:BA:1799:G:O2'	24:BA:1800:C:OP2	2.13	0.61
22:AC:12:G:H1'	24:BA:1923:U:O2'	1.99	0.61
12:CO:55:VAL:HG22	12:CO:56:ALA:N	2.14	0.61
24:BA:931:G:O2'	48:BX:24:LYS:NZ	2.33	0.61
36:B0:57:ARG:HB3	36:B0:59:ASP:OD1	1.99	0.61
24:BA:1164:G:H2'	24:BA:1165:U:C6	2.34	0.61
33:BN:16:ALA:HB2	33:BN:52:VAL:HG21	1.82	0.61
33:BN:71:ARG:HH11	38:BR:74:ARG:NH2	1.97	0.61
24:DA:1601:G:H5'	52:D7:49:ARG:CD	2.31	0.61
1:CA:1242:C:O2'	1:CA:1303:C:H5''	2.01	0.61
1:CA:969:A:O2'	1:CA:970:C:H5'	2.00	0.61
3:AF:8:ILE:CG2	3:AF:9:GLY:N	2.46	0.61
24:BA:2401:U:H5'	51:B6:18:ARG:HD3	1.81	0.61
2:AE:21:ARG:O	2:AE:21:ARG:HG2	2.00	0.61
24:BA:2610:C:C4'	24:BA:2611:U:OP2	2.33	0.61
2:CE:42:ILE:CG2	2:CE:190:THR:HG23	2.28	0.61
28:DF:2:LYS:HD3	28:DF:2:LYS:N	2.14	0.61
3:CF:195:VAL:C	3:CF:196:LEU:HD22	2.20	0.61
4:CG:121:VAL:HG13	4:CG:126:ILE:HD12	1.81	0.61
19:CV:13:ASP:HA	19:CV:16:LEU:HD13	1.82	0.61
8:AK:104:ARG:HB3	8:AK:107:LEU:HB2	1.82	0.61
49:D4:14:ILE:HG23	49:D4:33:VAL:CG2	2.26	0.61
10:AM:30:SER:OG	10:AM:84:GLN:HG3	1.99	0.61
1:AA:1126:U:C6	1:AA:1127:G:C8	2.88	0.61
24:BA:1021:A:H8	24:BA:1021:A:H3'	1.65	0.61
11:CN:44:SER:H	11:CN:47:VAL:HB	1.65	0.61
24:DA:2135:A:H3'	24:DA:2136:C:C5	2.35	0.61
24:BA:1729:A:H1'	24:BA:1730:U:C5	2.34	0.61
33:DN:4:PRO:O	33:DN:5:GLN:CB	2.48	0.61
50:B5:33:CYS:HB2	50:B5:40:LYS:HD2	1.81	0.61
24:DA:943:U:OP2	34:DO:36:LYS:HG3	2.00	0.61
24:BA:1935:G:H1'	24:BA:1964:G:N2	2.14	0.61
47:DW:68:ARG:HA	47:DW:72:ALA:CB	2.30	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1337:G:H5''	1:CA:1338:G:OP1	2.00	0.61
20:AW:46:GLU:O	20:AW:48:LYS:HD2	2.00	0.61
24:DA:128:C:H2'	24:DA:129:C:H6	1.65	0.61
1:AA:607:A:H2'	1:AA:608:A:O4'	2.00	0.61
33:BN:71:ARG:HH11	38:BR:74:ARG:HH21	1.48	0.61
24:DA:1880:C:O2'	24:DA:1881:C:H5'	2.00	0.61
5:AH:37:ARG:HH12	5:AH:111:GLU:HB3	1.65	0.61
33:DN:66:LYS:NZ	33:DN:80:ASP:O	2.33	0.61
24:DA:1949:G:O2'	24:DA:1950:G:H5'	2.00	0.61
24:BA:2097:C:O2'	24:BA:2098:U:H5'	2.00	0.61
43:BU:46:LYS:HE3	43:BU:63:LYS:HG2	1.82	0.61
24:DA:1952:A:C5	33:DN:22:ILE:HD12	2.34	0.61
24:DA:1600:C:O2'	52:D7:49:ARG:HB3	2.00	0.61
1:CA:1367:C:H5'	10:CM:60:ARG:HH21	1.65	0.61
13:CP:29:ARG:CB	13:CP:64:TRP:CH2	2.82	0.61
19:CV:31:ILE:CG1	19:CV:33:THR:HG22	2.30	0.61
49:D4:55:ARG:CG	49:D4:56:VAL:H	2.13	0.61
24:DA:2286:A:O4'	51:D6:28:ARG:CZ	2.48	0.61
9:AL:9:ARG:HD3	9:AL:14:VAL:CG2	2.30	0.61
43:BU:77:PRO:O	43:BU:78:ALA:CB	2.49	0.61
4:AG:25:ARG:O	4:AG:27:TYR:N	2.32	0.61
26:DD:44:ASN:CB	26:DD:49:ILE:HA	2.19	0.61
2:CE:12:GLU:HB2	2:CE:15:VAL:CB	2.27	0.61
29:DG:29:TRP:HB3	29:DG:33:ARG:NH1	2.13	0.61
2:AE:90:MET:HA	2:AE:90:MET:CE	2.30	0.61
13:AP:12:ASN:H	13:AP:46:LYS:HD3	1.63	0.61
30:BH:153:LYS:CB	30:BH:154:PRO:HD3	2.30	0.61
43:DU:84:ARG:HH21	43:DU:97:ARG:HB2	1.63	0.61
19:CV:38:SER:HB2	19:CV:71:LEU:HD11	1.83	0.61
24:BA:2133:G:H1'	24:BA:2158:A:H61	1.66	0.61
27:DE:11:MET:CA	27:DE:24:THR:HA	2.29	0.61
44:BV:112:ARG:O	44:BV:112:ARG:HG2	2.00	0.61
10:AM:28:ARG:NH2	10:AM:34:VAL:O	2.33	0.61
3:AF:82:GLU:O	3:AF:86:VAL:HG13	2.00	0.61
1:CA:438:G:H4'	4:CG:123:HIS:CG	2.34	0.61
27:BE:63:LEU:HB2	27:BE:73:GLU:OE2	2.00	0.61
29:BG:94:LEU:N	29:BG:94:LEU:HD23	2.09	0.61
24:DA:1479:G:O2'	24:DA:1558:A:H5'	2.01	0.61
42:DT:8:ILE:HD11	42:DT:43:VAL:HG12	1.82	0.61
1:AA:1256:A:H4'	1:AA:1257:U:O5'	2.00	0.61
47:BW:17:SER:HB2	47:BW:20:GLU:HG3	1.82	0.61
24:BA:908:C:C2'	24:BA:909:A:H5'	2.29	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:134:ILE:C	27:BE:134:ILE:CD1	2.69	0.61
3:AF:20:SER:HB2	3:AF:40:ARG:HH22	1.65	0.61
24:BA:26:G:C6	24:BA:27:G:N1	2.68	0.61
24:DA:2400:G:H2'	24:DA:2401:U:H6	1.62	0.61
31:BK:4:ILE:HD11	31:BK:44:LEU:HD12	1.82	0.61
31:BK:129:THR:HA	31:BK:137:PRO:HA	1.82	0.61
26:DD:138:VAL:HA	26:DD:165:ILE:CG2	2.31	0.61
24:BA:1146:C:O2'	24:BA:1147:C:H5'	2.00	0.61
36:B0:1:MET:O	36:B0:2:ARG:HB2	2.00	0.61
2:CE:19:HIS:C	2:CE:19:HIS:CD2	2.73	0.61
2:CE:80:ILE:HG21	2:CE:208:ILE:CD1	2.29	0.61
1:CA:266:G:O3'	17:CT:67:LYS:HB2	2.01	0.61
44:BV:150:LEU:CG	44:BV:154:ASP:OD2	2.47	0.61
24:DA:2532:G:O2'	24:DA:2657:A:N1	2.33	0.61
30:DH:92:ILE:CG2	30:DH:93:GLY:H	2.02	0.61
44:DV:93:ASP:HB2	44:DV:131:ARG:NH1	2.15	0.61
24:BA:662:G:H5'	34:BO:15:ARG:HA	1.82	0.61
44:BV:52:SER:C	44:BV:54:HIS:H	2.04	0.61
27:DE:134:ILE:HA	27:DE:137:HIS:HD2	1.64	0.61
24:BA:2442:C:H2'	24:BA:2443:C:H6	1.65	0.61
24:DA:1173:G:O2'	24:DA:1174:A:C2	2.49	0.61
24:DA:2131:G:H5'	24:DA:2132:U:C5'	2.29	0.61
10:CM:48:THR:CB	10:CM:62:HIS:HB3	2.30	0.61
24:DA:2468:G:H8	24:DA:2468:G:OP2	1.82	0.61
3:AF:22:TRP:HZ3	3:AF:24:ALA:CB	2.12	0.61
1:AA:163:C:H2'	1:AA:164:U:C6	2.35	0.61
24:DA:2262:U:H4'	24:DA:2328:A:H2	1.63	0.61
2:AE:135:GLN:O	2:AE:137:ARG:N	2.33	0.61
36:D0:52:ILE:C	36:D0:54:LEU:H	2.04	0.61
8:AK:9:MET:SD	8:AK:32:LYS:HG3	2.41	0.61
24:BA:817:C:H4'	24:BA:932:G:C5	2.36	0.61
24:DA:1505:C:H2'	24:DA:1506:C:C6	2.35	0.61
24:BA:1813:G:H1'	26:BD:50:THR:OG1	2.00	0.61
32:DM:90:MET:HA	32:DM:90:MET:CE	2.30	0.61
15:CR:6:GLU:OE1	15:CR:6:GLU:N	2.32	0.61
6:AI:28:ARG:O	6:AI:32:ASN:ND2	2.30	0.61
32:BM:58:ASP:OD1	32:BM:125:GLY:N	2.32	0.61
20:CW:8:ARG:O	20:CW:9:ASN:HB2	2.00	0.61
1:CA:1118:C:H2'	1:CA:1119:C:H6	1.65	0.61
9:AL:9:ARG:HG2	9:AL:14:VAL:CG2	2.30	0.61
51:B6:20:ASN:O	51:B6:21:TYR:CB	2.49	0.61
19:AV:28:LYS:CE	19:AV:47:HIS:CA	2.53	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:867:C:C5	24:DA:868:U:C5	2.89	0.61
1:AA:193:C:H6	20:AW:57:ARG:HH12	0.68	0.61
37:BQ:112:PHE:C	37:BQ:112:PHE:CD1	2.73	0.61
5:AH:10:MET:SD	5:AH:13:ILE:HD13	2.40	0.61
40:B2:38:LEU:HD22	40:B2:52:VAL:HG22	1.82	0.61
26:DD:35:LYS:HB3	26:DD:64:ILE:HG22	1.81	0.61
24:DA:2875:C:O2'	38:DR:5:ALA:HB3	2.00	0.61
24:DA:2864:G:OP1	38:DR:119:LYS:HD3	2.00	0.61
37:DQ:65:VAL:HA	37:DQ:68:GLN:HE22	1.65	0.61
3:AF:196:LEU:HD23	3:AF:196:LEU:N	2.16	0.61
28:BF:63:LYS:HE2	28:BF:67:GLN:HB2	1.80	0.61
5:CH:13:ILE:H	5:CH:13:ILE:HD13	1.65	0.61
22:CC:20:U:H3'	22:CC:21:A:H5'	1.83	0.61
26:DD:28:GLU:CB	26:DD:29:PRO:CD	2.76	0.61
24:BA:2:G:H2'	24:BA:3:U:C6	2.35	0.61
24:DA:2166:G:O2'	24:DA:2167:U:OP1	2.10	0.61
16:AS:57:ARG:NH2	16:AS:79:VAL:HA	2.15	0.61
4:CG:200:GLU:HG3	4:CG:201:GLN:N	2.16	0.61
7:AJ:113:GLU:HB2	7:AJ:119:ARG:HG3	1.83	0.61
1:AA:17:U:H2'	1:AA:18:C:C6	2.36	0.61
8:CK:84:ARG:HG2	8:CK:85:ARG:N	2.15	0.61
1:AA:1113:C:C2'	1:AA:1114:C:H5'	2.31	0.61
24:BA:1335:U:P	42:BT:65:ARG:HE	2.23	0.61
24:BA:2563:U:H1'	24:BA:2566:A:N6	2.15	0.61
29:BG:46:ALA:HB1	29:BG:52:ILE:CG2	2.28	0.61
4:AG:98:GLU:O	4:AG:103:ASN:ND2	2.33	0.61
24:BA:1326:U:C2'	24:BA:1327:C:H5'	2.30	0.61
24:BA:2331:G:H4'	45:B3:43:THR:H	1.65	0.61
52:D7:10:ARG:O	52:D7:14:LYS:HG2	2.00	0.61
1:CA:713:G:H2'	1:CA:714:G:C8	2.36	0.61
24:BA:1748:G:H2'	24:BA:1749:A:C8	2.35	0.61
24:BA:337:C:C2	24:BA:338:G:H1'	2.35	0.61
12:CO:55:VAL:HG22	12:CO:56:ALA:H	1.65	0.61
24:BA:2817:G:OP1	36:B0:99:LYS:NZ	2.29	0.61
36:D0:70:LEU:O	36:D0:72:ASP:N	2.32	0.61
1:CA:1127:G:H2'	1:CA:1128:C:C6	2.36	0.61
1:CA:1320:C:O2'	1:CA:1321:C:H5'	2.00	0.61
9:CL:17:VAL:HG21	9:CL:80:GLY:CA	2.29	0.61
9:CL:6:GLY:O	9:CL:17:VAL:HG23	2.01	0.61
13:CP:79:LYS:HE3	13:CP:83:ASP:OD2	2.01	0.61
1:CA:957:U:C4'	19:CV:79:THR:CG2	2.66	0.61
37:DQ:74:ALA:CB	37:DQ:107:GLU:HB2	2.31	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:54:ARG:NH1	3:AF:56:ASP:OD1	2.33	0.61
51:B6:44:ARG:N	51:B6:44:ARG:HD3	2.16	0.61
24:BA:2287:A:N6	24:BA:2344:U:N3	2.41	0.61
19:AV:16:LEU:HD11	19:AV:20:LEU:CD1	2.31	0.61
1:AA:1381:U:O2	7:AJ:79:ARG:CG	2.48	0.61
24:BA:1049:C:C4	30:BH:3:ARG:NH2	2.58	0.61
7:CJ:115:ARG:O	7:CJ:119:ARG:HG3	2.01	0.61
39:B1:92:ARG:C	39:B1:94:ASN:H	2.04	0.61
29:DG:17:PRO:HA	29:DG:20:ILE:HD12	1.81	0.61
10:CM:82:ILE:CG2	10:CM:86:MET:HE1	2.30	0.61
44:DV:151:HIS:HA	44:DV:170:THR:HA	1.82	0.61
3:CF:120:VAL:CG2	3:CF:140:ARG:HH22	2.13	0.61
53:D8:23:VAL:CG2	53:D8:48:PHE:N	2.64	0.61
8:CK:103:VAL:HG21	8:CK:109:ILE:CA	2.30	0.61
16:AS:49:LEU:HD12	16:AS:50:LYS:H	1.66	0.61
1:AA:277:C:H5''	17:AT:68:ARG:HH22	1.64	0.61
24:DA:273(C):C:H3'	24:DA:273(D):C:H5''	1.83	0.61
31:DK:131:LYS:HB3	31:DK:132:PRO:CA	2.26	0.61
1:CA:559:A:N3	1:CA:559:A:H2'	2.15	0.61
26:DD:27:THR:HG21	26:DD:83:GLU:HG2	1.81	0.61
10:CM:32:ALA:HA	10:CM:76:ASN:ND2	2.13	0.61
36:B0:84:ALA:HB3	36:B0:85:PRO:CD	2.30	0.61
49:B4:10:VAL:HG13	49:B4:11:PRO:HD2	1.82	0.61
24:BA:1728:G:N2	24:BA:1730:U:OP2	2.34	0.61
4:CG:60:GLU:HG2	4:CG:202:LEU:HB2	1.82	0.61
1:CA:690:G:H2'	1:CA:691:G:O4'	2.01	0.61
47:BW:25:VAL:HG13	47:BW:57:ILE:HG23	1.83	0.61
6:AI:15:ASP:OD2	6:AI:17:SER:HB2	1.99	0.61
7:CJ:69:VAL:HG12	7:CJ:103:TRP:HE3	1.65	0.61
10:AM:25:GLU:O	10:AM:29:ARG:HG2	2.01	0.61
30:DH:103:LEU:H	30:DH:103:LEU:HD23	1.66	0.61
24:BA:2566:A:H4'	24:BA:2567:G:O5'	1.99	0.61
30:DH:35:VAL:CG1	30:DH:71:LEU:HD21	2.31	0.61
24:BA:2432:A:C5	46:BZ:33:LYS:HG2	2.35	0.61
2:AE:60:ASP:O	2:AE:64:ARG:HG2	2.01	0.61
24:DA:1140:C:H5'	32:DM:24:GLY:HA3	1.81	0.61
1:AA:592:G:H2'	1:AA:593:G:H8	1.64	0.61
19:AV:30:LEU:HA	19:AV:48:THR:HB	1.81	0.61
1:CA:833:U:O2'	1:CA:834:C:H5'	2.01	0.61
1:AA:735:C:H5'	18:AU:71:LYS:HD3	1.83	0.61
46:DZ:96:LYS:O	46:DZ:97:LEU:HB2	1.99	0.61
24:DA:955:C:H2'	24:DA:956:G:H5'	1.82	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:120:ILE:HG22	44:BV:121:HIS:HB2	1.83	0.61
1:AA:724:G:O2'	1:AA:725:G:H5'	2.01	0.61
1:CA:430:A:H2'	1:CA:431:A:O4'	2.01	0.61
1:CA:1299:A:C6	1:CA:1301:U:C2	2.88	0.61
1:CA:1320:C:C1'	19:CV:70:LYS:CE	2.77	0.61
19:CV:70:LYS:NZ	19:CV:73:GLU:CA	2.64	0.61
34:DO:64:LYS:O	34:DO:64:LYS:HG3	2.01	0.61
34:DO:65:ARG:NH1	34:DO:65:ARG:HB2	2.15	0.61
19:AV:41:VAL:HG23	19:AV:44:MET:C	2.21	0.61
24:BA:1045:A:C8	24:BA:1047:G:C2	2.89	0.61
24:BA:994:C:O2	40:B2:10:LYS:HE2	2.00	0.61
26:DD:34:VAL:O	26:DD:35:LYS:CG	2.38	0.61
2:CE:101:MET:HA	2:CE:108:ILE:HG13	1.81	0.61
2:CE:91:PRO:HG3	2:CE:154:LEU:CB	2.31	0.61
2:CE:78:GLN:O	2:CE:94:ASN:ND2	2.33	0.61
29:DG:15:VAL:HG21	29:DG:176:LEU:HD23	1.82	0.61
1:CA:256:U:OP1	17:CT:17:LYS:NZ	2.30	0.61
1:AA:1027:C:C4'	1:AA:1028:C:OP1	2.48	0.61
24:DA:872:A:O2'	35:DP:66:ILE:HD11	2.00	0.61
1:CA:40:C:H42	1:CA:402:G:H1	1.49	0.61
5:CH:41:VAL:HG23	5:CH:67:VAL:HG11	1.82	0.61
36:B0:52:ILE:O	36:B0:55:ALA:N	2.32	0.61
25:DB:33:G:C6	25:DB:34:U:C4	2.88	0.61
1:CA:1027:C:H2'	1:CA:1028:C:C6	2.36	0.61
20:AW:63:ILE:HG22	20:AW:77:ALA:HB1	1.81	0.61
30:BH:50:VAL:O	30:BH:50:VAL:HG12	1.99	0.61
42:BT:50:LYS:N	42:BT:87:GLN:HE22	1.98	0.61
1:AA:74:C:N3	1:AA:96:G:N2	2.46	0.61
24:DA:71:A:N1	42:DT:31:HIS:HE1	1.98	0.61
2:AE:162:ILE:HD12	2:AE:162:ILE:O	2.00	0.61
31:DK:56:LYS:O	31:DK:60:GLU:HG2	2.00	0.61
1:CA:392:G:C5'	16:CS:12:LYS:HZ1	2.13	0.61
1:AA:246:A:OP1	17:AT:100:LYS:HD3	2.01	0.61
37:BQ:36:TYR:N	37:BQ:36:TYR:CD1	2.68	0.61
2:CE:100:GLY:HA3	2:CE:104:ASN:HB2	1.82	0.61
24:DA:856:C:O2'	24:DA:857:C:OP1	2.18	0.61
45:D3:81:VAL:O	45:D3:83:PRO:HD3	2.01	0.61
24:DA:1508:A:H4'	24:DA:1510:A:N1	2.15	0.61
24:BA:688:U:H5'	24:BA:1780:A:C2	2.35	0.61
24:DA:1027:A:C2	24:DA:2488:A:H5'	2.36	0.61
30:DH:95:ARG:O	30:DH:96:ALA:HB3	2.00	0.61
1:CA:1117:G:O3'	9:CL:104:ARG:CD	2.48	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CL:64:THR:HG23	9:CL:64:THR:O	2.00	0.61
13:CP:22:ILE:HB	13:CP:25:ILE:CG1	2.30	0.61
13:CP:79:LYS:C	13:CP:79:LYS:HD3	2.20	0.61
13:CP:8:GLU:OE2	13:CP:22:ILE:HG23	2.01	0.61
51:B6:18:ARG:HD2	51:B6:18:ARG:O	2.00	0.61
24:BA:2418:A:O2'	51:B6:21:TYR:OH	2.18	0.61
30:BH:58:GLU:HB2	30:BH:61:HIS:ND1	2.16	0.61
24:BA:1056:G:H21	24:BA:1103:A:H62	1.49	0.61
39:B1:91:ASP:C	39:B1:93:LYS:H	2.04	0.61
40:B2:38:LEU:HD23	40:B2:40:LEU:H	1.66	0.61
13:CP:48:LEU:HD11	13:CP:53:VAL:HG12	1.83	0.61
24:BA:270(N):G:H21	31:BK:50:ARG:HH21	1.46	0.61
13:CP:3:ARG:NH2	29:DG:139:LEU:HD11	2.15	0.61
29:DG:161:THR:HG22	29:DG:162:THR:N	2.16	0.61
29:DG:172:LEU:O	29:DG:176:LEU:HG	1.99	0.61
10:CM:82:ILE:HG22	10:CM:86:MET:CE	2.31	0.61
24:BA:1359:A:N1	24:BA:1372:U:C4	2.67	0.61
24:DA:322:A:H3'	28:DF:169:ASN:ND2	2.15	0.61
4:CG:83:SER:HA	4:CG:89:THR:HG23	1.83	0.61
24:BA:2163:C:OP2	24:BA:2164:C:N4	2.34	0.61
24:BA:2394:C:OP1	34:BO:62:LEU:HG	2.01	0.61
1:AA:1190:G:H5'	3:AF:176:HIS:CE1	2.36	0.61
43:DU:52:SER:OG	43:DU:56:PRO:HA	2.01	0.61
24:BA:1778:U:H2'	24:BA:1784:A:H62	1.66	0.61
24:DA:1654:A:C5'	36:D0:2:ARG:HH21	2.14	0.61
24:BA:2502:G:H5'	24:BA:2503:A:C5'	2.30	0.61
8:CK:119:LEU:HD21	8:CK:124:ALA:CA	2.31	0.61
36:D0:34:ILE:CG2	36:D0:114:VAL:HB	2.30	0.61
37:DQ:25:ARG:CG	37:DQ:88:ASP:HB2	2.30	0.61
47:BW:28:LYS:HB3	47:BW:53:LEU:HD21	1.83	0.61
12:CO:102:ARG:HB3	12:CO:109:GLY:HA2	1.82	0.61
24:BA:1541:U:O2'	24:BA:1542:G:H5'	2.01	0.61
1:CA:6:G:H4'	1:CA:298:A:H4'	1.81	0.61
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.36	0.61
4:AG:161:ASN:O	4:AG:165:MET:HG2	2.01	0.61
17:CT:53:LEU:HD12	17:CT:53:LEU:H	1.65	0.61
28:BF:176:LEU:HD21	28:BF:180:GLY:O	2.01	0.61
2:CE:95:GLN:HB2	2:CE:148:TYR:HD2	1.65	0.61
1:AA:1195:C:O3'	55:AA:1833:TAC:N21	2.34	0.61
24:DA:1319:G:C6	24:DA:1320:C:N4	2.69	0.61
3:CF:129:ALA:O	3:CF:133:ALA:N	2.29	0.61
44:DV:135:GLU:HG3	44:DV:136:PHE:HD1	1.65	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1046:A:H3'	24:DA:1046:A:N3	2.16	0.61
41:DS:95:ILE:HG13	41:DS:95:ILE:O	1.98	0.61
28:DF:21:ALA:C	28:DF:23:ASP:H	2.04	0.61
4:CG:10:ARG:HG2	4:CG:10:ARG:NH1	2.15	0.61
13:CP:80:ARG:CD	49:D4:55:ARG:HD3	2.30	0.61
51:D6:36:LEU:O	51:D6:37:ARG:HB2	2.00	0.61
19:AV:41:VAL:HG23	19:AV:45:VAL:N	2.16	0.61
24:BA:2751:G:C1'	24:BA:2752:C:OP1	2.47	0.61
24:DA:1899:G:H2'	24:DA:1900:A:OP2	2.01	0.61
37:BQ:78:LEU:HD23	37:BQ:78:LEU:O	2.01	0.61
27:DE:44:TYR:O	27:DE:45:THR:HB	2.01	0.61
26:DD:30:GLU:O	26:DD:31:LYS:HB3	1.99	0.61
19:CV:28:LYS:NZ	19:CV:30:LEU:H	1.95	0.61
2:CE:15:VAL:HG12	2:CE:16:HIS:CD2	2.35	0.61
30:DH:94:TYR:CE1	30:DH:107:VAL:HA	2.36	0.61
5:CH:67:VAL:CG2	5:CH:69:VAL:HG23	2.25	0.61
5:CH:9:LYS:HB2	5:CH:112:LEU:HD21	1.82	0.61
6:AI:48:LEU:HD21	6:AI:60:PHE:HZ	1.65	0.61
27:DE:104:VAL:CG1	27:DE:188:VAL:HG23	2.30	0.61
29:BG:82:LEU:H	29:BG:86:MET:HE3	1.65	0.61
1:CA:447:G:C6	1:CA:485:G:H2'	2.35	0.61
1:CA:485:G:H1'	1:CA:486:U:C5	2.33	0.61
40:D2:22:VAL:HG22	40:D2:23:GLU:H	1.63	0.61
1:AA:734:G:H21	18:AU:75:ILE:CD1	2.14	0.61
31:DK:109:ILE:HD13	31:DK:109:ILE:N	2.16	0.61
24:BA:2829:C:H5"	27:BE:76:ARG:HH22	1.65	0.61
1:CA:250:A:H1'	1:CA:251:G:P	2.40	0.61
28:DF:65:TRP:O	28:DF:67:GLN:N	2.33	0.61
29:BG:36:LYS:HD2	29:BG:160:VAL:CG2	2.28	0.61
31:DK:56:LYS:C	31:DK:56:LYS:HD2	2.21	0.61
24:DA:1171:G:H1'	24:DA:1173:G:OP1	2.01	0.61
24:BA:910:A:H62	35:BP:12:GLN:HA	1.65	0.61
24:DA:1586:A:C2	24:DA:1587:A:C5	2.89	0.61
2:AE:5:ILE:CG2	2:AE:221:LEU:HD23	2.31	0.61
36:B0:30:THR:HG22	36:B0:31:HIS:ND1	2.15	0.61
1:AA:501:C:H2'	1:AA:502:G:H8	1.66	0.61
24:BA:442:G:O4'	28:BF:46:ARG:HD3	2.01	0.61
26:BD:148:GLU:HB2	26:BD:151:LYS:HD2	1.82	0.61
1:AA:332:G:OP2	20:AW:10:LEU:HD22	2.01	0.61
24:BA:533:G:N2	39:B1:45:TYR:CE2	2.69	0.61
47:DW:24:LEU:HD22	47:DW:60:LEU:HD21	1.82	0.61
26:DD:40:THR:HG22	26:DD:41:GLY:O	2.01	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:218:ARG:HB3	26:BD:219:PRO:HD2	1.83	0.61
1:CA:1234:C:H1'	1:CA:1364:U:O2	2.01	0.61
1:CA:1188:A:H4'	14:CQ:58:LYS:NZ	2.16	0.61
1:CA:1320:C:N3	1:CA:1321:C:C2	2.69	0.61
1:CA:1322:C:O2'	1:CA:1323:G:O5'	2.12	0.61
9:CL:93:ARG:HE	9:CL:102:LEU:CD2	2.13	0.61
24:DA:2345:G:H5''	51:D6:39:TYR:CZ	2.36	0.61
24:DA:909:A:O2'	24:DA:910:A:H5''	2.01	0.61
43:BU:75:ILE:O	43:BU:76:CYS:HB2	1.99	0.61
43:BU:75:ILE:C	43:BU:81:LYS:HE3	2.20	0.61
30:BH:4:ILE:CG1	30:BH:6:ARG:CZ	2.78	0.61
4:AG:22:LYS:CB	4:AG:26:CYS:H	2.13	0.61
1:AA:1314:C:H41	19:AV:5:LEU:HA	1.65	0.61
3:CF:66:VAL:HB	3:CF:101:LEU:HD12	1.83	0.61
2:AE:200:ILE:N	2:AE:200:ILE:HD12	2.16	0.61
46:BZ:89:GLU:C	46:BZ:93:GLU:OE2	2.39	0.61
30:BH:151:ILE:HG22	30:BH:153:LYS:HE2	1.83	0.61
31:DK:79:ILE:CG2	31:DK:142:VAL:HG23	2.30	0.61
1:AA:1133:G:H2'	1:AA:1134:G:C8	2.35	0.61
10:AM:7:LYS:HB2	10:AM:97:GLU:HB2	1.82	0.61
1:AA:625:G:H4'	16:AS:16:HIS:CD2	2.36	0.61
1:CA:509:A:O2'	1:CA:510:A:OP1	2.18	0.61
22:CC:18:G:H1'	22:CC:58:A:H2	1.66	0.61
26:BD:18:VAL:CG1	26:BD:19:ALA:N	2.64	0.61
24:BA:1265:A:OP1	24:BA:1265:A:H8	1.83	0.61
24:BA:274:G:N1	24:BA:276:A:N1	2.49	0.61
44:DV:54:HIS:CG	44:DV:101:PRO:HD3	2.36	0.61
24:BA:1221:C:H2'	24:BA:1222:C:C6	2.36	0.61
33:DN:96:THR:O	33:DN:117:LEU:HD11	2.01	0.61
1:AA:595:G:O6	1:AA:641:U:O2'	2.16	0.61
44:BV:45:ASP:O	44:BV:49:ARG:HG2	2.01	0.61
25:DB:12:C:O2'	45:D3:74:ARG:HG2	2.01	0.61
41:DS:75:TYR:CZ	41:DS:104:THR:HG21	2.36	0.61
24:DA:2401:U:H2'	24:DA:2402:C:C6	2.36	0.61
3:CF:102:ASN:O	3:CF:103:VAL:HG23	2.01	0.61
24:BA:2030:A:H5''	24:BA:2031:A:OP1	2.01	0.61
27:BE:37:ARG:N	27:BE:37:ARG:HE	1.99	0.61
28:DF:127:GLU:HB2	28:DF:196:LEU:HD23	1.82	0.61
3:AF:11:ARG:HG2	3:AF:11:ARG:HH11	1.66	0.60
53:B8:14:VAL:HG21	53:B8:22:VAL:HG13	1.83	0.60
2:AE:21:ARG:HH11	2:AE:39:ILE:HG12	1.65	0.60
21:CX:7:ARG:NH1	21:CX:7:ARG:CG	2.49	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:255:G:H1'	17:CT:16:GLN:CD	2.21	0.60
10:CM:81:THR:HG22	10:CM:84:GLN:NE2	2.16	0.60
44:DV:151:HIS:N	44:DV:154:ASP:OD2	2.34	0.60
1:AA:1033:G:C2'	1:AA:1034:G:H5'	2.31	0.60
30:BH:109:PHE:HD1	30:BH:109:PHE:N	1.99	0.60
36:B0:36:THR:CG2	36:B0:37:THR:H	1.97	0.60
4:CG:105:VAL:HG13	4:CG:110:PHE:HB2	1.83	0.60
24:DA:2321:G:N3	24:DA:2321:G:H2'	2.16	0.60
49:D4:1:MET:HG2	49:D4:2:LYS:N	2.15	0.60
24:BA:2110:G:C3'	24:BA:2111:C:H5''	2.20	0.60
24:BA:2140:C:O2'	24:BA:2141:G:H5'	2.01	0.60
1:AA:1287:A:P	21:AX:26:LYS:HZ2	2.24	0.60
24:DA:995:C:N4	32:DM:2:LYS:CG	2.62	0.60
24:DA:1176:G:H2'	24:DA:1177:A:OP2	2.00	0.60
24:BA:1416:G:C2'	24:BA:1417:C:C6	2.82	0.60
3:CF:14:ILE:HG12	3:CF:15:THR:N	2.16	0.60
8:AK:20:TYR:CE2	8:AK:75:ARG:HB3	2.32	0.60
27:DE:116:VAL:HG22	27:DE:117:MET:N	2.16	0.60
28:DF:181:LEU:HD11	28:DF:194:MET:CE	2.31	0.60
31:BK:79:ILE:HD11	31:BK:100:ALA:CB	2.31	0.60
1:AA:1336:C:HO2'	1:AA:1337:G:P	2.24	0.60
1:CA:854:G:C2	1:CA:855:G:C8	2.89	0.60
11:AN:103:LEU:HD22	11:AN:103:LEU:N	2.16	0.60
24:DA:336:C:H5''	43:DU:6:HIS:HD2	1.66	0.60
33:DN:2:ILE:HD12	33:DN:8:LEU:HD11	1.82	0.60
39:B1:49:HIS:HA	39:B1:52:ARG:HG2	1.81	0.60
1:CA:1028(A):C:N4	1:CA:1028(B):C:H41	1.99	0.60
24:BA:2327:A:H2'	24:BA:2328:A:C8	2.36	0.60
13:CP:34:LEU:O	13:CP:38:GLY:N	2.34	0.60
24:BA:2472:G:H22	24:BA:2477:C:H5''	1.66	0.60
46:BZ:67:ILE:N	46:BZ:68:PRO:HD2	2.16	0.60
8:CK:14:ARG:O	8:CK:18:ARG:HG2	2.01	0.60
3:CF:73:PRO:HB2	3:CF:77:ILE:HD12	1.83	0.60
24:DA:191:A:H2'	24:DA:192:C:C6	2.36	0.60
24:BA:1590:U:H2'	24:BA:1591:G:C8	2.35	0.60
1:AA:251:G:N2	1:AA:253:U:C5	2.69	0.60
37:BQ:23:ARG:NH2	37:BQ:84:GLN:OE1	2.34	0.60
24:BA:978:G:C2'	24:BA:979:G:H5'	2.30	0.60
9:AL:48:GLU:N	9:AL:49:PRO:CD	2.63	0.60
43:BU:81:LYS:NZ	43:BU:96:ILE:HG21	2.16	0.60
4:AG:19:LEU:N	4:AG:19:LEU:CD2	2.64	0.60
1:CA:1095:U:OP2	1:CA:1108:G:N1	2.31	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DO:105:LEU:N	34:DO:105:LEU:HD12	2.16	0.60
37:BQ:27:SER:HA	37:BQ:88:ASP:HB2	1.83	0.60
24:BA:1057:A:C2'	24:BA:1058:U:C6	2.83	0.60
29:DG:28:VAL:O	29:DG:31:VAL:HG22	2.01	0.60
3:CF:140:ARG:HG3	3:CF:141:VAL:HG23	1.81	0.60
31:DK:76:THR:HG23	31:DK:140:LEU:CD1	2.30	0.60
24:BA:2133:G:H1'	24:BA:2158:A:N6	2.16	0.60
53:B8:8:LYS:O	53:B8:12:LYS:HG3	2.00	0.60
31:BK:144:VAL:O	31:BK:145:VAL:CG2	2.45	0.60
10:AM:24:VAL:HG23	10:AM:34:VAL:CG2	2.31	0.60
30:DH:12:PRO:HB2	30:DH:15:VAL:HG22	1.82	0.60
20:AW:72:LEU:CD2	20:AW:76:ALA:HB3	2.31	0.60
48:BX:8:LEU:HD22	48:BX:31:LEU:HD22	1.83	0.60
28:BF:201:VAL:HG13	28:BF:202:PHE:N	2.16	0.60
35:DP:132:VAL:HG21	44:DV:81:ARG:HH21	1.65	0.60
4:AG:101:LEU:HD23	4:AG:121:VAL:HG11	1.82	0.60
32:BM:114:ARG:O	32:BM:115:ARG:CB	2.49	0.60
1:AA:644:G:O2'	1:AA:645:C:H5'	2.01	0.60
1:CA:186(F):C:H2'	1:CA:187:C:O4'	2.01	0.60
26:DD:77:ALA:CB	26:DD:97:TYR:HA	2.31	0.60
40:B2:65:GLY:HA3	40:B2:91:TYR:CZ	2.36	0.60
24:DA:1519:G:C2'	24:DA:1520:U:H5'	2.31	0.60
16:CS:1:MET:HE1	16:CS:65:GLN:HB2	1.82	0.60
39:D1:30:LYS:HE3	50:D5:13:LYS:NZ	2.15	0.60
1:AA:947:G:H4'	13:AP:109:THR:HG23	1.82	0.60
37:DQ:74:ALA:HB1	37:DQ:107:GLU:CG	2.31	0.60
4:AG:4:TYR:OH	4:AG:7:PRO:O	2.16	0.60
30:DH:3:ARG:CG	30:DH:4:ILE:N	2.39	0.60
24:BA:1068:G:H1'	24:BA:1096:A:H1'	1.82	0.60
2:CE:68:ILE:H	2:CE:90:MET:CE	2.14	0.60
1:AA:974:A:P	14:AQ:41:ARG:HH12	2.23	0.60
24:DA:895:U:H4'	24:DA:896:A:C4	2.36	0.60
44:BV:170:THR:C	44:BV:171:ILE:HG12	2.22	0.60
1:CA:1014:A:H4'	19:CV:15:LEU:HD21	1.82	0.60
30:BH:70:THR:O	30:BH:74:ASN:ND2	2.34	0.60
24:BA:2160:G:H2'	24:BA:2161:C:O4'	2.00	0.60
9:AL:17:VAL:CG1	9:AL:81:ILE:HD13	2.31	0.60
10:AM:16:LEU:HD12	10:AM:70:ARG:HE	1.65	0.60
30:DH:120:GLY:O	30:DH:121:ILE:HD13	2.02	0.60
1:AA:1190:G:OP1	3:AF:4:LYS:HA	2.01	0.60
10:CM:54:PHE:CZ	10:CM:55:LYS:CE	2.83	0.60
1:CA:689:C:H2'	1:CA:690:G:C5'	2.31	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:444:C:H4'	28:BF:49:ALA:HB2	1.82	0.60
1:CA:89:U:O2'	1:CA:90:C:O5'	2.20	0.60
3:CF:180:ALA:O	3:CF:181:ASN:HB3	2.01	0.60
28:DF:124:LEU:O	28:DF:124:LEU:HG	2.01	0.60
9:AL:66:ARG:HG3	9:AL:66:ARG:NH1	2.17	0.60
40:D2:64:HIS:HD2	40:D2:92:THR:HG23	1.66	0.60
7:AJ:5:ARG:HD2	7:AJ:7:ALA:H	1.64	0.60
1:CA:616:G:N3	1:CA:617:G:C8	2.69	0.60
8:CK:20:TYR:CZ	8:CK:75:ARG:HB3	2.36	0.60
24:BA:2537:U:H2'	24:BA:2538:C:H6	1.66	0.60
24:BA:222:A:H3'	24:BA:421:U:C5'	2.31	0.60
26:DD:97:TYR:HB2	26:DD:101:GLU:O	2.01	0.60
24:BA:2784:C:O2'	27:BE:37:ARG:NH1	2.34	0.60
1:CA:628:G:O2'	1:CA:629:G:H5'	2.00	0.60
26:BD:164:GLN:O	26:BD:175:LEU:HD23	2.02	0.60
1:AA:669:U:O2'	1:AA:670:G:H5'	2.01	0.60
1:CA:973:G:H3'	1:CA:974:A:H5"	1.83	0.60
1:CA:1152:A:OP1	10:CM:68:HIS:NE2	2.31	0.60
19:AV:67:VAL:HG12	49:B4:63:TYR:HE2	1.66	0.60
1:AA:1382:C:C6	7:AJ:79:ARG:NH1	2.64	0.60
24:DA:1042:G:H2'	24:DA:1043:C:C6	2.36	0.60
2:CE:33:TYR:HB2	2:CE:43:ASP:CA	2.31	0.60
24:DA:1210:A:H5'	24:DA:1212:G:O4'	2.01	0.60
24:DA:2532:G:N2	24:DA:2663:G:O2'	2.34	0.60
43:DU:14:LEU:HG	43:DU:15:VAL:N	2.15	0.60
24:DA:2315:G:OP1	29:DG:36:LYS:NZ	2.32	0.60
24:BA:2156:G:C6	24:BA:2157:G:N2	2.70	0.60
24:BA:2168:G:H2'	24:BA:2169:A:OP1	2.01	0.60
37:DQ:101:LEU:HD13	37:DQ:101:LEU:O	2.01	0.60
16:AS:49:LEU:O	16:AS:50:LYS:HG3	2.00	0.60
1:CA:451:A:C6	1:CA:481:G:N7	2.70	0.60
1:CA:1034:G:H2'	1:CA:1035:A:H8	1.66	0.60
40:D2:41:GLY:HA3	40:D2:46:VAL:HG11	1.83	0.60
1:AA:77:C:H2'	1:AA:78:G:C8	2.35	0.60
33:BN:67:LYS:HE3	33:BN:68:GLU:OE1	2.00	0.60
24:DA:888:C:H1'	24:DA:889:C:OP2	2.00	0.60
9:AL:26:VAL:HG13	9:AL:61:ALA:HB3	1.83	0.60
7:AJ:115:ARG:CG	7:AJ:116:ALA:N	2.64	0.60
27:DE:102:VAL:HA	27:DE:200:GLU:O	2.01	0.60
24:BA:1126:A:H4'	24:BA:1127:A:O5'	2.01	0.60
3:AF:23:TYR:CD1	3:AF:24:ALA:N	2.69	0.60
35:BP:26:TYR:HD2	35:BP:140:ALA:HB3	1.65	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:162:A:H3'	1:AA:163:C:C4'	2.31	0.60
8:CK:51:VAL:HG21	8:CK:60:ARG:NH1	2.16	0.60
1:CA:474:G:H5''	16:CS:81:ARG:CZ	2.32	0.60
26:BD:70:TRP:O	26:BD:73:VAL:HG23	2.00	0.60
34:DO:122:PRO:HA	34:DO:142:GLY:H	1.66	0.60
30:BH:94:TYR:CD1	30:BH:107:VAL:HA	2.37	0.60
50:B5:20:ARG:HG2	50:B5:23:HIS:CD2	2.37	0.60
3:CF:18:TRP:NE1	14:CQ:53:LEU:O	2.33	0.60
24:DA:363(E):U:H5'	24:DA:363(F):A:OP2	2.01	0.60
24:BA:1855:G:N1	24:BA:1888:G:C8	2.69	0.60
28:BF:161:GLU:O	28:BF:165:ARG:HG3	2.01	0.60
24:BA:78:A:H2'	24:BA:79:G:H8	1.66	0.60
24:DA:2774:C:H2'	24:DA:2775:A:O4'	2.01	0.60
24:BA:142:G:H1'	42:BT:37:THR:HG21	1.82	0.60
24:DA:586:A:H5'	28:DF:89:VAL:HG21	1.83	0.60
24:DA:2335:A:C8	24:DA:2337:G:C5	2.88	0.60
24:BA:1432:C:H2'	24:BA:1433:U:O4'	2.00	0.60
24:DA:1601:G:C4'	52:D7:49:ARG:HD2	2.31	0.60
4:CG:11:LEU:C	4:CG:11:LEU:HD12	2.22	0.60
4:CG:26:CYS:CA	4:CG:31:CYS:HB2	2.30	0.60
1:CA:1138:G:H3'	1:CA:1138:G:N3	2.17	0.60
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.02	0.60
1:CA:979:C:OP1	1:CA:1223:C:N4	2.34	0.60
1:CA:1288:A:H4'	21:CX:10:ARG:NH1	2.15	0.60
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.35	0.60
13:CP:80:ARG:HD3	49:D4:55:ARG:HD3	1.83	0.60
52:B7:49:ARG:HH11	52:B7:49:ARG:HG3	1.67	0.60
4:AG:8:VAL:CG2	4:AG:21:LEU:CD1	2.78	0.60
24:DA:2748:A:H2'	30:DH:6:ARG:NH2	2.13	0.60
27:DE:64:LYS:NZ	27:DE:66:HIS:CG	2.68	0.60
24:BA:1084:A:N6	24:BA:1085:A:C6	2.70	0.60
10:CM:79:ARG:H	10:CM:79:ARG:HD3	1.66	0.60
1:AA:560:U:H4'	1:AA:561:U:O5'	2.01	0.60
5:AH:89:ILE:HD12	5:AH:90:VAL:H	1.67	0.60
32:DM:7:LYS:CA	32:DM:7:LYS:HE3	2.29	0.60
17:AT:38:ARG:HA	17:AT:38:ARG:NE	2.09	0.60
1:CA:1021:G:H2'	1:CA:1022:G:C8	2.36	0.60
49:D4:9:LEU:CD2	49:D4:9:LEU:H	2.13	0.60
1:CA:558:G:C4	1:CA:559:A:C2	2.89	0.60
34:BO:126:VAL:HG22	34:BO:145:PRO:HG3	1.83	0.60
3:CF:20:SER:HB2	3:CF:40:ARG:NH2	2.13	0.60
24:DA:2150:U:H2'	24:DA:2151:G:H8	1.66	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:390:C:H2'	1:AA:391:G:C8	2.37	0.60
2:CE:178:ARG:NH2	8:CK:68:ARG:NH2	2.49	0.60
32:DM:136:GLU:C	32:DM:137:LYS:HE2	2.21	0.60
30:DH:26:VAL:HG13	30:DH:79:VAL:HG11	1.82	0.60
24:DA:1728:G:H8	24:DA:1732:A:H62	1.47	0.60
1:CA:474:G:H5'	16:CS:81:ARG:HB3	1.83	0.60
2:CE:142:LEU:HD23	2:CE:142:LEU:O	2.00	0.60
11:CN:104:GLN:O	11:CN:106:LYS:N	2.34	0.60
5:AH:110:LEU:HD13	5:AH:118:ILE:HG21	1.82	0.60
1:CA:773:G:O3'	26:DD:202:LYS:NZ	2.35	0.60
24:BA:1918:A:O2'	24:BA:1920:C:N4	2.33	0.60
24:BA:588:U:H1'	28:BF:90:PHE:HB3	1.82	0.60
24:DA:2017:U:O2	50:D5:10:LYS:HB2	2.02	0.60
12:CO:92:ASP:O	12:CO:93:LEU:HD23	2.01	0.60
24:BA:1763:G:H4'	24:BA:1763:G:OP1	2.02	0.60
1:CA:1180:A:OP1	9:CL:103:THR:OG1	2.20	0.60
24:DA:2344:U:C3'	51:D6:37:ARG:HE	2.15	0.60
27:DE:61:ARG:O	27:DE:63:LEU:N	2.35	0.60
40:D2:35:LEU:CD2	40:D2:37:VAL:CG2	2.79	0.60
2:AE:215:LEU:O	2:AE:219:VAL:HG23	2.00	0.60
10:CM:81:THR:CA	10:CM:84:GLN:HE21	2.15	0.60
1:AA:1299:A:H2'	1:AA:1301:U:O4'	2.02	0.60
30:DH:89:ILE:HG23	30:DH:90:LYS:N	2.14	0.60
24:BA:1176:G:H2'	24:BA:1178:C:C5	2.36	0.60
24:BA:2177:C:H3'	24:BA:2178:C:C5'	2.29	0.60
38:DR:106:SER:O	38:DR:107:ASP:CB	2.49	0.60
1:AA:1203:C:O2'	1:AA:1204:A:H5'	2.01	0.60
3:AF:50:ALA:HB1	3:AF:70:VAL:HG11	1.81	0.60
24:BA:2789:C:O2'	24:BA:2893:G:N2	2.34	0.60
8:CK:120:THR:OG1	8:CK:123:GLU:HG2	2.02	0.60
28:BF:178:PRO:HG2	28:BF:179:GLU:OE2	2.01	0.60
1:CA:1206:G:H1'	3:CF:193:TYR:O	2.02	0.60
1:AA:1047:G:H1'	1:AA:1215:G:O2'	2.01	0.60
1:CA:600:C:H5''	8:CK:97:VAL:HG23	1.82	0.60
8:CK:69:ARG:HB2	8:CK:69:ARG:NH1	2.17	0.60
24:BA:902:C:O2'	24:BA:903:C:H5'	2.01	0.60
39:B1:60:LEU:HD11	39:B1:64:ARG:HE	1.66	0.60
38:DR:50:ILE:CD1	38:DR:102:ILE:HD11	2.32	0.60
24:DA:1184:G:H5'	48:DX:29:ARG:NH2	2.17	0.60
24:BA:1827:C:O2'	24:BA:1828:G:H5'	2.01	0.60
24:BA:1431:U:O2'	24:BA:1432:C:H5'	2.02	0.60
24:BA:273:G:H1	24:BA:364:C:H42	1.50	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:276:A:N1	24:DA:277:C:N4	2.50	0.60
34:BO:119:GLU:HA	34:BO:119:GLU:OE2	2.01	0.60
4:CG:84:LYS:HA	4:CG:84:LYS:HE2	1.84	0.60
3:AF:29:TYR:OH	14:AQ:54:PRO:HD2	2.02	0.60
1:CA:1140:C:O2'	1:CA:1141:C:H5'	2.02	0.60
1:CA:1226:C:H5'	19:CV:80:TYR:CE1	2.37	0.60
9:AL:65:VAL:HG21	9:AL:73:GLN:HB3	1.83	0.60
19:AV:28:LYS:CE	19:AV:46:GLY:O	2.48	0.60
13:AP:57:ARG:HD2	49:B4:35:VAL:HG23	1.83	0.60
53:B8:22:VAL:CG2	53:B8:53:PRO:HB2	2.32	0.60
6:AI:46:ARG:HB3	6:AI:60:PHE:CE1	2.36	0.60
24:BA:917:A:H2'	24:BA:918:A:C5'	2.31	0.60
9:AL:16:ARG:CG	9:AL:64:THR:CG2	2.79	0.60
30:DH:122:THR:HG23	30:DH:134:SER:CB	2.28	0.60
32:BM:46:VAL:O	32:BM:47:ALA:HB3	2.00	0.60
1:CA:1097:C:H1'	1:CA:1169:A:C2	2.37	0.60
30:DH:72:ILE:HD12	30:DH:72:ILE:N	2.14	0.60
24:DA:1173:G:O2'	24:DA:1174:A:H2	1.83	0.60
30:DH:46:GLU:HG2	30:DH:47:GLU:N	2.17	0.60
24:BA:278:A:H2'	24:BA:279:C:C6	2.36	0.60
1:CA:407:G:O4'	4:CG:119:GLN:NE2	2.34	0.60
24:DA:2348:U:H2'	24:DA:2349:G:H5'	1.82	0.60
8:AK:37:ARG:HH21	8:AK:38:ILE:HD11	1.67	0.60
24:BA:336:C:N3	24:BA:337:C:C5	2.70	0.60
3:CF:6:HIS:HD2	3:CF:7:PRO:HD2	1.64	0.60
1:AA:784:C:H4'	24:BA:1837:C:OP1	2.01	0.60
9:AL:118:LYS:O	9:AL:119:ALA:HB3	2.00	0.60
15:AR:24:SER:O	15:AR:28:GLN:HG3	2.01	0.60
24:BA:2629:A:C2'	24:BA:2630:G:H5''	2.31	0.60
1:CA:693:G:H2'	1:CA:694:A:C8	2.36	0.60
37:BQ:37:ALA:HB2	37:BQ:101:LEU:HD21	1.84	0.60
1:CA:1132:C:H2'	1:CA:1133:G:C8	2.37	0.60
1:CA:1306:A:H62	1:CA:1331:G:H1'	1.67	0.60
19:CV:68:GLY:HA3	49:D4:59:PHE:HZ	1.67	0.60
24:DA:2416:C:C5'	34:DO:64:LYS:HZ1	2.09	0.60
43:BU:97:ARG:C	43:BU:97:ARG:HE	2.05	0.60
24:BA:1601:G:O5'	52:B7:49:ARG:NH1	2.27	0.60
4:AG:22:LYS:HE2	4:AG:26:CYS:CA	2.21	0.60
31:BK:69:LYS:CG	31:BK:136:VAL:HG13	2.31	0.60
7:AJ:15:ASP:O	7:AJ:19:GLY:HA2	2.01	0.60
24:BA:1062:G:H2'	24:BA:1063:G:C8	2.37	0.60
27:DE:50:GLY:HA3	27:DE:74:PRO:HG3	1.83	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:813:U:H2'	24:DA:814:C:C6	2.37	0.60
30:BH:151:ILE:HB	30:BH:153:LYS:HD3	1.83	0.60
30:BH:86:GLU:N	30:BH:86:GLU:OE1	2.30	0.60
43:DU:13:VAL:HG21	43:DU:72:VAL:CB	2.32	0.60
35:DP:66:ILE:N	35:DP:66:ILE:CD1	2.61	0.60
24:BA:2210:G:C3'	24:BA:2211:G:H8	2.08	0.60
24:BA:2123:G:C4	24:BA:2124:G:N7	2.70	0.60
29:BG:3:LEU:CD1	29:BG:3:LEU:H	1.94	0.60
34:BO:47:ASP:OD1	34:BO:49:ARG:HG2	2.02	0.60
24:BA:917:A:C2'	24:BA:918:A:H5'	2.30	0.60
3:AF:186:PHE:HE1	3:AF:197:GLY:CA	2.15	0.60
38:BR:25:GLY:N	38:BR:49:VAL:HG23	2.13	0.60
1:AA:1125:U:O4	10:AM:5:ARG:HD3	2.02	0.60
24:BA:50:U:H3'	24:BA:51:G:H5'	1.84	0.60
1:CA:963:G:H21	10:CM:55:LYS:CE	2.13	0.60
17:AT:38:ARG:HG3	17:AT:39:SER:H	1.67	0.60
26:DD:94:LEU:HG	26:DD:104:TYR:CE1	2.36	0.60
7:AJ:38:LEU:HD12	7:AJ:38:LEU:N	2.17	0.60
24:DA:1313:U:C2	24:DA:1610:A:H2	2.20	0.60
18:AU:66:LEU:CD1	18:AU:70:ILE:HD11	2.32	0.60
24:DA:1478:G:H2'	24:DA:1479:G:H8	1.65	0.60
30:DH:26:VAL:HG21	30:DH:76:VAL:HA	1.83	0.60
43:DU:48:ALA:HB3	43:DU:59:GLY:CA	2.31	0.60
24:DA:2262:U:H2'	24:DA:2263:C:H6	1.67	0.60
4:CG:163:GLU:HA	4:CG:166:LYS:CE	2.32	0.60
29:DG:146:TYR:O	29:DG:149:VAL:HG22	2.00	0.60
5:AH:35:GLY:HA3	5:AH:112:LEU:HB3	1.82	0.60
24:DA:1878:G:H2'	24:DA:1879:C:C6	2.35	0.60
1:CA:1158:C:C2	1:CA:1160:G:C8	2.89	0.60
24:DA:1270:C:H5''	24:DA:1271:G:O5'	2.01	0.60
24:DA:2209:C:O2	24:DA:2216:G:C2	2.55	0.60
1:CA:865:A:H2	1:CA:918:A:H4'	1.67	0.60
24:DA:7:G:H2'	24:DA:8:A:O4'	2.00	0.60
1:AA:383:A:OP1	1:AA:454:C:O2'	2.11	0.60
39:D1:14:HIS:HA	39:D1:32:PHE:CE1	2.36	0.60
13:CP:23:TYR:CE2	13:CP:71:ARG:HB2	2.36	0.60
4:AG:8:VAL:CB	4:AG:115:ARG:HH22	2.12	0.60
1:AA:1227:A:H5'	13:AP:111:LYS:HE2	1.84	0.60
46:BZ:92:LYS:C	46:BZ:94:LEU:N	2.54	0.60
24:BA:270(R):G:H2'	24:BA:270(S):G:H8	1.66	0.60
9:CL:3:GLN:HA	9:CL:19:LEU:O	2.02	0.60
44:BV:151:HIS:CE1	44:BV:154:ASP:CG	2.74	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1027:C:C2	1:AA:1028:C:C5	2.89	0.60
1:AA:1027:C:C6	1:AA:1028:C:H5	2.20	0.60
24:BA:1899:G:HO2'	24:BA:1900:A:P	2.25	0.60
28:DF:132:VAL:CG2	28:DF:133:ASN:H	1.92	0.60
36:B0:70:LEU:O	36:B0:72:ASP:N	2.34	0.60
49:D4:33:VAL:O	49:D4:33:VAL:HG12	2.02	0.60
52:B7:9:ARG:NH2	52:B7:48:LYS:HD3	2.17	0.60
31:DK:113:ARG:O	31:DK:131:LYS:HD3	2.01	0.60
16:AS:20:VAL:CG2	16:AS:32:TYR:HB2	2.30	0.60
5:CH:12:LEU:HD22	5:CH:13:ILE:N	2.16	0.60
2:AE:54:THR:HG23	2:AE:199:TYR:HB3	1.84	0.60
1:AA:66:G:C2	1:AA:67:C:C6	2.90	0.60
24:DA:1451:C:H42	24:DA:1459:G:H1	1.48	0.60
1:AA:1312:G:C5	19:AV:4:SER:HB2	2.37	0.60
12:CO:84:LEU:HD23	12:CO:105:TYR:HE2	1.67	0.60
28:BF:68:LYS:O	28:BF:69:HIS:HB2	2.02	0.60
24:DA:2094:G:O2'	24:DA:2095:C:H5'	2.02	0.60
44:BV:70:LEU:HG	44:BV:91:LEU:HD21	1.82	0.60
1:AA:81:G:N2	1:AA:82:U:O2	2.34	0.60
8:CK:85:ARG:NH1	8:CK:87:SER:O	2.35	0.60
24:DA:1700:A:H2'	24:DA:1701:A:H5'	1.84	0.60
3:AF:113:ALA:HB3	3:AF:114:PRO:HD3	1.82	0.60
44:BV:5:LEU:O	44:BV:6:LYS:CB	2.49	0.60
20:AW:48:LYS:H	20:AW:48:LYS:CD	2.15	0.60
28:DF:34:TRP:CE3	34:DO:8:PRO:HB3	2.37	0.60
25:DB:83:G:C5'	48:DX:52:HIS:CD2	2.85	0.60
24:BA:1165:U:H2'	24:BA:1166:C:C6	2.36	0.60
7:AJ:97:GLN:O	7:AJ:101:LEU:HG	2.01	0.60
7:AJ:22:LEU:HD22	7:AJ:62:PHE:CE2	2.36	0.60
24:DA:278:A:O2'	24:DA:279:C:P	2.60	0.60
25:BB:65:C:N4	25:BB:108:C:H2'	2.17	0.60
24:DA:280:C:C2	24:DA:361:G:N2	2.70	0.60
3:AF:94:LEU:HD23	3:AF:94:LEU:N	2.16	0.60
40:B2:72:VAL:HG13	40:B2:85:LYS:HB3	1.84	0.60
24:BA:340:A:C2'	24:BA:341:G:H5'	2.31	0.60
1:CA:976:G:OP1	14:CQ:31:ARG:CD	2.49	0.60
9:CL:114:TYR:HD2	10:CM:60:ARG:HG3	1.67	0.60
1:AA:1347:G:C8	9:AL:107:ARG:HB3	2.37	0.60
40:B2:35:LEU:N	40:B2:35:LEU:HD22	2.17	0.60
3:CF:22:TRP:CH2	3:CF:32:LEU:HB3	2.37	0.60
37:BQ:78:LEU:HD12	37:BQ:108:GLY:HA2	1.83	0.60
26:DD:35:LYS:HB2	26:DD:36:PRO:HA	1.83	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CP:92:HIS:CE1	13:CP:98:VAL:HG11	2.37	0.60
44:DV:92:SER:O	44:DV:94:GLU:N	2.31	0.60
24:BA:2155:G:H3'	24:BA:2156:G:H8	1.67	0.60
39:D1:90:VAL:CG2	40:D2:39:LEU:HB3	2.32	0.60
6:CI:26:ILE:O	6:CI:30:LEU:HG	2.02	0.60
17:AT:67:LYS:HA	17:AT:70:ARG:HH12	1.66	0.60
32:DM:60:ILE:HD13	32:DM:61:ARG:H	1.66	0.60
16:CS:72:ARG:HG2	16:CS:72:ARG:O	2.02	0.60
46:DZ:79:GLY:C	46:DZ:80:LEU:HD22	2.22	0.60
24:DA:1653:G:H4'	36:D0:2:ARG:CZ	2.32	0.60
25:DB:80:U:H2'	25:DB:81:G:N2	2.14	0.60
26:BD:18:VAL:HG12	26:BD:19:ALA:N	2.17	0.60
1:AA:1260:C:H4'	1:AA:1284:C:H5'	1.83	0.60
24:BA:1544:C:H2'	24:BA:1544:C:O2	2.02	0.60
32:DM:14:VAL:HG22	32:DM:15:LEU:N	2.16	0.60
1:CA:1060:C:H5	3:CF:2:GLY:CA	2.15	0.60
1:AA:601:C:H2'	1:AA:602:A:C8	2.37	0.60
36:D0:52:ILE:O	36:D0:54:LEU:N	2.35	0.60
24:DA:2248:C:C2'	24:DA:2249:U:H5'	2.32	0.60
1:CA:179:A:H2'	1:CA:180:U:C6	2.36	0.60
17:CT:59:ILE:CG2	17:CT:71:PHE:CD1	2.85	0.60
29:BG:125:PHE:CZ	29:BG:170:ARG:HA	2.36	0.60
24:BA:1858:G:C6	24:BA:1883:G:C6	2.90	0.60
24:BA:1909:C:O2'	24:BA:1910:G:H5'	2.01	0.60
4:AG:92:VAL:O	4:AG:96:LEU:HD22	2.02	0.60
1:CA:1137:C:H5'	1:CA:1138:G:C5	2.36	0.59
9:CL:85:LEU:C	9:CL:85:LEU:HD12	2.23	0.59
10:CM:47:PHE:HE1	10:CM:63:PHE:HB2	1.66	0.59
1:CA:947:G:H5''	13:CP:109:THR:HG23	1.83	0.59
13:CP:84:ILE:CG2	13:CP:84:ILE:O	2.50	0.59
51:D6:15:GLU:HB3	51:D6:49:HIS:CE1	2.37	0.59
9:AL:96:LEU:HA	9:AL:99:LEU:HG	1.82	0.59
7:CJ:113:GLU:CG	7:CJ:119:ARG:HG2	2.32	0.59
40:B2:35:LEU:CD2	40:B2:35:LEU:N	2.65	0.59
13:CP:49:THR:HB	13:CP:52:GLU:HG3	1.84	0.59
2:CE:8:LYS:HE2	2:CE:217:ARG:HD3	1.84	0.59
31:BK:95:LYS:NZ	31:BK:99:GLU:HB2	2.17	0.59
4:CG:65:ARG:HB2	4:CG:75:PHE:HE2	1.67	0.59
5:CH:67:VAL:HG21	5:CH:69:VAL:HG22	1.83	0.59
24:BA:2208:U:O2'	24:BA:2209:C:H5'	2.02	0.59
18:CU:22:VAL:HG12	18:CU:56:THR:HA	1.83	0.59
44:BV:107:THR:CB	44:BV:108:PRO:CD	2.80	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DO:85:LEU:H	34:DO:85:LEU:HD22	1.67	0.59
24:DA:2818:G:O2'	24:DA:2819:G:H5'	2.01	0.59
31:DK:11:ASN:O	31:DK:12:LEU:HD12	2.01	0.59
1:AA:1312:G:OP2	49:B4:62:ARG:NH2	2.35	0.59
4:AG:23:GLY:CA	4:AG:112:VAL:HG21	2.32	0.59
2:CE:121:LEU:HG	2:CE:126:GLU:HB2	1.83	0.59
35:BP:109:VAL:CG1	35:BP:113:GLN:HB3	2.32	0.59
24:DA:1582:C:O2'	24:DA:1586:A:H8	1.84	0.59
38:DR:51:ARG:HG3	38:DR:98:LYS:CG	2.31	0.59
1:AA:1256:A:O2'	1:AA:1257:U:P	2.59	0.59
24:BA:2563:U:O2	24:BA:2565:A:H8	1.85	0.59
1:AA:1318:A:H1'	19:AV:37:ARG:HH21	1.67	0.59
1:CA:1521:G:H2'	1:CA:1522:U:C6	2.37	0.59
24:BA:616:A:C8	28:BF:176:LEU:HD11	2.37	0.59
1:AA:406:G:H5''	4:AG:5:ILE:HD13	1.84	0.59
35:BP:20:ALA:O	35:BP:21:THR:HG22	2.01	0.59
8:AK:29:SER:HB3	8:AK:32:LYS:HB2	1.83	0.59
37:BQ:61:ASN:HB3	37:BQ:64:GLU:OE2	2.02	0.59
7:AJ:22:LEU:HD22	7:AJ:62:PHE:HE2	1.67	0.59
1:CA:1433:A:OP2	1:CA:1467:G:N1	2.28	0.59
1:AA:929:G:C5	1:AA:930:C:C5	2.90	0.59
29:BG:173:LEU:HD22	29:BG:178:PHE:CZ	2.37	0.59
1:AA:210:U:O2'	1:AA:216:G:O5'	2.19	0.59
1:AA:142:G:H2'	1:AA:143:A:C8	2.37	0.59
24:BA:2760:C:O2'	24:BA:2761:G:H5'	2.02	0.59
1:CA:1157:A:H1'	1:CA:1181:G:N2	2.17	0.59
1:CA:1288:A:C2	1:CA:1289:A:C4	2.90	0.59
9:AL:53:VAL:HG13	9:AL:95:LYS:CD	2.31	0.59
9:AL:53:VAL:HG13	9:AL:95:LYS:CE	2.31	0.59
43:BU:75:ILE:CG2	43:BU:80:GLY:HA2	2.22	0.59
24:DA:2748:A:C3'	30:DH:6:ARG:HH21	2.14	0.59
40:B2:35:LEU:CD2	40:B2:35:LEU:H	2.12	0.59
2:AE:164:VAL:HG12	2:AE:166:ASP:N	2.17	0.59
2:AE:187:LEU:HA	2:AE:201:ILE:HB	1.82	0.59
2:CE:12:GLU:HG2	2:CE:213:LEU:CD1	2.25	0.59
44:BV:167:PRO:HB2	44:BV:168:GLU:OE2	2.02	0.59
1:AA:1022:G:H2'	1:AA:1023:G:H8	1.67	0.59
5:CH:34:VAL:O	5:CH:41:VAL:HA	2.02	0.59
1:CA:993:G:O2'	1:CA:994:A:N7	2.34	0.59
38:BR:53:ARG:HB3	38:BR:53:ARG:CZ	2.32	0.59
24:BA:2161:C:O2'	24:BA:2162:G:H5'	2.01	0.59
5:AH:68:GLU:O	5:AH:70:PRO:CD	2.42	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:140:ASP:CG	44:DV:141:VAL:H	2.06	0.59
20:CW:10:LEU:HD23	20:CW:12:ALA:H	1.67	0.59
24:BA:516:C:H2'	24:BA:517:C:H6	1.67	0.59
34:BO:114:ILE:HD11	34:BO:130:PHE:CE2	2.36	0.59
27:DE:135:HIS:N	27:DE:135:HIS:ND1	2.49	0.59
24:BA:1952:A:C2	33:BN:22:ILE:HG13	2.37	0.59
24:DA:270(S):G:O4'	46:DZ:78:LYS:HG2	2.01	0.59
24:DA:1665:A:H2'	24:DA:1666:G:C5'	2.31	0.59
28:DF:57:VAL:CG1	28:DF:59:TYR:CD2	2.85	0.59
24:DA:993:G:H1'	40:D2:89:GLN:OE1	2.02	0.59
8:CK:51:VAL:HG11	8:CK:60:ARG:NH1	2.17	0.59
42:DT:28:PHE:CE2	42:DT:92:LEU:HD11	2.37	0.59
10:AM:9:ARG:HG2	10:AM:69:ASN:ND2	2.17	0.59
1:CA:113:G:H2'	1:CA:114:U:H6	1.67	0.59
11:AN:79:SER:OG	11:AN:106:LYS:HE3	2.02	0.59
24:BA:469:G:O6	52:B7:37:LYS:HE2	2.03	0.59
24:DA:289:A:H5'	24:DA:290:G:OP2	2.01	0.59
37:DQ:12:PHE:O	37:DQ:16:ASN:ND2	2.35	0.59
4:AG:88:VAL:HG21	4:AG:91:SER:HB2	1.83	0.59
50:D5:35:GLU:HG3	50:D5:50:GLY:O	2.01	0.59
24:DA:2563:U:H4'	33:DN:28:SER:HA	1.83	0.59
7:AJ:73:MET:HA	7:AJ:90:GLU:HA	1.84	0.59
1:CA:583:A:H2'	1:CA:584:G:O4'	2.02	0.59
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.36	0.59
1:CA:1325:C:P	21:CX:15:ARG:HH21	2.26	0.59
51:B6:15:GLU:HG2	51:B6:16:CYS:H	1.67	0.59
1:AA:958:A:N3	1:AA:985:C:O2'	2.34	0.59
25:BB:42:C:P	29:BG:67:LYS:CE	2.90	0.59
1:AA:192:U:H2'	20:AW:57:ARG:NH1	1.72	0.59
24:BA:1093:G:H5''	30:BH:170:ARG:HH12	1.66	0.59
27:BE:78:LEU:HD23	27:BE:79:ARG:HB2	1.85	0.59
10:CM:80:LYS:O	10:CM:84:GLN:N	2.35	0.59
28:DF:102:PRO:HB2	28:DF:105:VAL:CG2	2.31	0.59
5:CH:76:ILE:HG23	5:CH:77:PRO:N	2.17	0.59
5:CH:76:ILE:CG2	5:CH:77:PRO:HD2	2.32	0.59
1:AA:992:U:H4'	1:AA:993:G:C5'	2.32	0.59
3:AF:81:GLY:O	3:AF:85:ARG:HB2	2.02	0.59
27:BE:181:LEU:HD21	38:BR:7:ILE:HG22	1.84	0.59
24:DA:2001:A:H5''	24:DA:2689:U:O2'	2.01	0.59
1:CA:1061:G:C1'	10:CM:56:HIS:CE1	2.85	0.59
47:DW:54:LYS:HG3	47:DW:55:ARG:H	1.67	0.59
26:BD:12:SER:HB2	26:BD:208:LYS:HB3	1.84	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1544:C:H2'	24:DA:1544:C:O2	2.01	0.59
24:BA:2785:C:OP1	27:BE:41:LYS:NZ	2.29	0.59
34:DO:3:LEU:HD12	34:DO:3:LEU:N	2.17	0.59
8:AK:20:TYR:HD1	8:AK:65:TYR:CE2	2.20	0.59
1:AA:153:C:N4	1:AA:168:G:H1	1.98	0.59
7:AJ:5:ARG:NH1	7:AJ:7:ALA:HA	2.16	0.59
24:BA:2331:G:O2'	45:B3:43:THR:HG22	2.01	0.59
8:CK:20:TYR:HA	8:CK:65:TYR:CE2	2.37	0.59
1:AA:818:G:O2'	1:AA:819:A:H5'	2.02	0.59
25:DB:83:G:H4'	48:DX:52:HIS:CD2	2.37	0.59
24:DA:2401:U:H2'	24:DA:2402:C:H5''	1.84	0.59
10:CM:3:LYS:NZ	10:CM:77:PRO:HD3	2.18	0.59
24:BA:2513:G:N2	27:BE:143:ASN:HD21	2.01	0.59
24:DA:1444(A):A:H2'	24:DA:1444(A):A:N3	2.17	0.59
30:BH:122:THR:HB	30:BH:134:SER:HB2	1.83	0.59
1:AA:1313:U:OP2	19:AV:6:LYS:HG2	2.00	0.59
1:CA:868:C:H2'	1:CA:869:G:O4'	2.02	0.59
27:BE:183:LEU:N	27:BE:183:LEU:HD12	2.17	0.59
12:AO:111:LYS:O	12:AO:112:ASP:HB2	2.03	0.59
38:DR:27:THR:CG2	38:DR:90:GLN:HB3	2.32	0.59
12:CO:41:ARG:NE	12:CO:43:VAL:HG12	2.17	0.59
1:CA:409:G:C2	1:CA:434:U:N3	2.70	0.59
1:CA:1347:G:N2	1:CA:1374:A:OP2	2.34	0.59
9:CL:114:TYR:CD2	10:CM:60:ARG:HG3	2.37	0.59
14:CQ:22:THR:OG1	14:CQ:23:ARG:N	2.34	0.59
51:D6:13:CYS:HA	51:D6:50:ARG:O	2.02	0.59
2:AE:178:ARG:HH21	8:AK:74:PRO:HB3	1.67	0.59
40:B2:46:VAL:HG22	40:B2:52:VAL:HG11	1.84	0.59
43:DU:36:ALA:HA	43:DU:67:LEU:O	2.02	0.59
44:DV:144:LEU:CD2	44:DV:149:SER:H	2.16	0.59
2:AE:91:PRO:HG3	2:AE:155:LEU:CG	2.24	0.59
5:CH:33:VAL:HG21	5:CH:109:ILE:HG12	1.83	0.59
1:CA:1103:C:H2'	1:CA:1104:G:O4'	2.02	0.59
2:CE:25:ASN:ND2	2:CE:27:LYS:CD	2.62	0.59
1:CA:509:A:H5''	4:CG:55:ALA:HB2	1.83	0.59
1:CA:1002:G:O6	1:CA:1037:C:N4	2.34	0.59
16:AS:20:VAL:HG21	16:AS:32:TYR:CB	2.31	0.59
3:CF:20:SER:O	14:CQ:54:PRO:HG3	2.02	0.59
3:CF:44:GLU:HG2	3:CF:52:LEU:HD11	1.82	0.59
32:DM:99:LEU:O	32:DM:103:VAL:HG23	2.01	0.59
11:AN:51:LYS:HA	11:AN:55:LYS:NZ	2.17	0.59
24:BA:594:U:C5'	53:B8:61:LEU:CD1	2.79	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BW:33:MET:HG3	47:BW:37:PHE:HE1	1.64	0.59
1:AA:983:A:H3'	1:AA:983:A:N3	2.17	0.59
24:DA:336:C:C5'	43:DU:6:HIS:HD2	2.14	0.59
15:AR:55:GLY:HA2	15:AR:58:MET:CE	2.32	0.59
27:BE:81:ILE:O	27:BE:82:ARG:HB3	2.02	0.59
24:BA:142:G:H1'	42:BT:37:THR:CG2	2.32	0.59
24:BA:2705:A:O2'	24:BA:2852:G:OP1	2.14	0.59
34:DO:59:LEU:HD13	34:DO:59:LEU:O	2.03	0.59
28:BF:45:ARG:HD3	28:BF:97:TYR:CG	2.37	0.59
17:CT:87:LYS:HB3	17:CT:91:ARG:NH2	2.16	0.59
14:CQ:6:LEU:HD21	14:CQ:23:ARG:NH2	2.17	0.59
49:B4:40:HIS:H	49:B4:41:PRO:CD	2.16	0.59
7:CJ:115:ARG:HB3	7:CJ:118:VAL:HG12	1.83	0.59
7:AJ:16:LEU:HD12	9:AL:41:VAL:HG12	1.85	0.59
26:DD:33:LEU:HD12	26:DD:34:VAL:CG1	2.32	0.59
1:AA:151:A:C2'	1:AA:152:A:H5'	2.33	0.59
49:D4:58:ARG:O	49:D4:61:ARG:HB3	2.02	0.59
24:BA:747:U:O2	24:BA:2014:A:H1'	2.02	0.59
24:BA:1496:A:C8	24:BA:1577:C:O2'	2.48	0.59
1:AA:1190:G:OP2	3:AF:5:ILE:HG23	2.02	0.59
24:DA:93:C:H5'	43:DU:54:LYS:NZ	2.16	0.59
1:AA:686:U:C2'	1:AA:687:A:O5'	2.50	0.59
1:CA:197:A:H3'	1:CA:197:A:OP2	2.03	0.59
24:BA:165:U:N3	24:BA:171:G:N7	2.51	0.59
35:BP:79:LEU:HD12	35:BP:80:GLU:HB2	1.84	0.59
24:BA:1528:A:O2'	24:BA:1529:A:H5'	2.03	0.59
47:BW:33:MET:O	47:BW:37:PHE:HD1	1.84	0.59
9:CL:27:THR:HG23	9:CL:31:GLN:C	2.22	0.59
43:BU:42:VAL:O	43:BU:42:VAL:HG12	2.02	0.59
37:BQ:56:LEU:O	37:BQ:58:LEU:HD22	2.03	0.59
24:BA:1805:U:O2	26:BD:50:THR:HB	2.03	0.59
39:D1:81:HIS:HD2	39:D1:117:GLN:HE22	1.49	0.59
1:CA:144:G:C2'	1:CA:145:G:H5'	2.32	0.59
24:BA:2655:G:N2	24:BA:2665:A:OP2	2.34	0.59
6:CI:75:LEU:O	6:CI:79:LEU:HG	2.03	0.59
3:AF:101:LEU:HD23	3:AF:102:ASN:N	2.16	0.59
50:B5:31:VAL:HG13	50:B5:42:PRO:HG3	1.85	0.59
1:CA:1321:C:OP2	1:CA:1323:G:OP2	2.21	0.59
14:CQ:22:THR:HG21	14:CQ:33:VAL:HG13	1.81	0.59
7:CJ:87:VAL:HG11	7:CJ:154:TYR:HB3	1.84	0.59
51:D6:36:LEU:HD21	51:D6:50:ARG:NH2	2.18	0.59
24:BA:2347:C:H4'	51:B6:39:TYR:HE2	1.66	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:B6:47:THR:CG2	51:B6:48:VAL:H	2.15	0.59
35:DP:4:PRO:HD3	35:DP:70:PRO:O	2.02	0.59
43:BU:96:ILE:CD1	43:BU:98:VAL:CG1	2.78	0.59
26:BD:35:LYS:HA	26:BD:64:ILE:HG22	1.84	0.59
37:BQ:15:ARG:NH1	37:BQ:88:ASP:OD2	2.36	0.59
24:BA:1077:A:H3'	24:BA:1078:U:H5''	1.84	0.59
27:DE:50:GLY:O	27:DE:51:PHE:CB	2.50	0.59
46:BZ:75:GLU:C	46:BZ:76:ARG:HD2	2.23	0.59
46:BZ:58:ILE:HD11	46:BZ:86:SER:HB2	1.84	0.59
38:BR:26:ASP:HB2	38:BR:90:GLN:O	2.02	0.59
24:DA:637:A:OP1	34:DO:133:SER:OG	2.21	0.59
1:CA:509:A:O2'	1:CA:510:A:P	2.60	0.59
38:BR:3:ARG:HB3	38:BR:6:LEU:CB	2.28	0.59
24:DA:2686:G:C2	24:DA:2724:C:O2	2.56	0.59
40:D2:41:GLY:HA3	40:D2:46:VAL:CG1	2.32	0.59
1:AA:703:G:C4'	1:AA:704:A:OP2	2.50	0.59
24:DA:2427:C:C5'	24:DA:2428:G:OP1	2.48	0.59
3:CF:47:LEU:CG	3:CF:52:LEU:HB3	2.33	0.59
1:AA:1232:U:OP1	9:AL:124:GLN:HG2	2.03	0.59
24:BA:1952:A:C6	33:BN:22:ILE:HD11	2.37	0.59
46:DZ:78:LYS:HD2	46:DZ:78:LYS:O	2.02	0.59
49:B4:10:VAL:HG22	49:B4:11:PRO:HD2	1.85	0.59
1:AA:862:C:O2'	1:AA:863:U:H5'	2.02	0.59
22:CC:46:G:H5'	22:CC:47:U:OP1	2.01	0.59
7:CJ:135:VAL:O	7:CJ:139:GLU:HG3	2.02	0.59
24:BA:2687:U:C4	24:BA:2688:U:C5	2.90	0.59
24:DA:2683:C:O2	33:DN:70:LYS:NZ	2.35	0.59
31:BK:103:ARG:HD2	31:BK:104:GLN:H	1.68	0.59
27:BE:2:LYS:HB2	27:BE:95:ILE:HG21	1.84	0.59
24:BA:2639:A:C2'	24:BA:2640:G:H5'	2.31	0.59
3:CF:21:ARG:HH11	3:CF:21:ARG:HB3	1.67	0.59
24:DA:1952:A:C6	33:DN:22:ILE:HD12	2.38	0.59
24:DA:955:C:C2'	24:DA:956:G:H5'	2.33	0.59
17:AT:86:GLU:O	17:AT:90:ILE:HG13	2.03	0.59
24:BA:456:C:O2'	24:BA:457:A:H5'	2.03	0.59
1:AA:859:A:H2'	1:AA:860:A:O4'	2.02	0.59
31:BK:56:LYS:O	31:BK:60:GLU:HB2	2.03	0.59
42:BT:29:TRP:CZ3	42:BT:78:LYS:HG3	2.38	0.59
13:CP:4:ILE:CD1	13:CP:8:GLU:HB2	2.32	0.59
1:CA:1288:A:O2'	21:CX:10:ARG:NH1	2.35	0.59
7:CJ:89:MET:N	7:CJ:155:ARG:HH12	1.97	0.59
29:BG:116:ASP:O	49:B4:42:PHE:CZ	2.50	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AG:59:ARG:HH22	4:AG:62:GLN:HG3	1.67	0.59
1:CA:1191:A:C8	1:CA:1191:A:OP2	2.56	0.59
46:BZ:75:GLU:O	46:BZ:76:ARG:HD2	2.02	0.59
1:CA:1308:U:H5''	13:CP:98:VAL:CG2	2.32	0.59
24:DA:1093:G:H1'	24:DA:1099:G:C2	2.38	0.59
3:CF:112:SER:O	3:CF:116:VAL:HG23	2.03	0.59
1:AA:1023:G:C3'	1:AA:1024:G:H5''	2.19	0.59
1:AA:1033:G:H2'	1:AA:1034:G:H5'	1.84	0.59
24:DA:483:A:C5'	43:DU:49:VAL:HA	2.32	0.59
42:DT:63:LYS:O	42:DT:64:LYS:CG	2.42	0.59
6:AI:8:ILE:HD12	6:AI:26:ILE:HD13	1.84	0.59
34:BO:50:ARG:NH2	53:B8:59:LYS:HD3	2.14	0.59
28:BF:101:LEU:HD12	28:BF:102:PRO:HD2	1.85	0.59
34:DO:85:LEU:HB3	34:DO:114:ILE:HD11	1.85	0.59
34:DO:85:LEU:H	34:DO:85:LEU:CD2	2.16	0.59
1:AA:627:G:P	16:AS:38:TYR:HH	2.22	0.59
28:BF:64:ILE:HG22	28:BF:65:TRP:CE2	2.38	0.59
2:AE:163:PHE:CA	2:AE:185:ILE:HG23	2.31	0.59
24:DA:654(V):A:H2	24:DA:655:A:C2	2.21	0.59
24:BA:1729:A:C8	24:BA:1730:U:H5	2.20	0.59
1:CA:373:A:C2	1:CA:374:A:C8	2.90	0.59
17:AT:76:LEU:HD11	17:AT:79:SER:N	2.17	0.59
27:DE:201:THR:HG22	27:DE:202:LYS:H	1.67	0.59
3:AF:129:ALA:HB3	3:AF:132:ARG:NH2	2.18	0.59
30:DH:41:MET:HE3	30:DH:55:PRO:HD3	1.84	0.59
32:BM:15:LEU:HD13	32:BM:15:LEU:C	2.23	0.59
30:DH:35:VAL:HG11	30:DH:71:LEU:CD2	2.32	0.59
1:AA:630:G:H2'	1:AA:631:G:C8	2.37	0.59
1:CA:936:C:O2'	1:CA:937:A:H5'	2.03	0.59
36:D0:78:LYS:O	36:D0:83:ILE:HG13	2.03	0.59
2:CE:144:ARG:O	2:CE:147:LYS:HB3	2.02	0.59
24:BA:271(B):G:C4'	24:BA:271(C):U:O5'	2.51	0.59
24:DA:414:C:H4'	24:DA:1879:C:O2	2.02	0.59
1:CA:865:A:C2	1:CA:918:A:H4'	2.37	0.59
24:DA:2087:G:O2'	24:DA:2088:G:H5'	2.03	0.59
24:BA:2199:A:H1'	31:BK:28:ASN:ND2	2.18	0.59
27:BE:119:ARG:NH1	27:BE:156:MET:O	2.36	0.59
24:BA:1845:G:OP1	26:BD:258:LYS:NZ	2.31	0.59
24:BA:1299:G:H5''	24:BA:1300:U:OP1	2.03	0.59
19:CV:83:HIS:O	19:CV:83:HIS:ND1	2.34	0.59
4:CG:21:LEU:HD12	4:CG:21:LEU:N	2.17	0.59
1:CA:1254:C:P	10:CM:45:ARG:NH1	2.76	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CV:70:LYS:HE3	19:CV:73:GLU:HB2	1.77	0.59
19:CV:79:THR:O	19:CV:79:THR:CG2	2.49	0.59
24:BA:2287:A:N3	24:BA:2289:G:C8	2.70	0.59
43:BU:81:LYS:HZ2	43:BU:96:ILE:HG21	1.67	0.59
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.17	0.59
24:BA:1105:U:H2'	24:BA:1106:G:H8	1.68	0.59
39:B1:92:ARG:O	39:B1:94:ASN:N	2.35	0.59
31:BK:101:LEU:CD2	31:BK:107:VAL:HG23	2.22	0.59
31:BK:95:LYS:HD3	31:BK:95:LYS:C	2.22	0.59
9:CL:3:GLN:HG2	9:CL:20:ARG:HG3	1.85	0.59
17:CT:45:HIS:NE2	17:CT:47:PRO:HG3	2.18	0.59
24:BA:943:U:OP2	34:BO:36:LYS:HD3	2.03	0.59
24:BA:1651:G:N2	24:BA:2007:C:C2	2.71	0.59
1:CA:1216:G:H2'	1:CA:1217:C:H6	1.66	0.59
24:BA:2392:A:H2	24:BA:2424:C:H42	1.49	0.59
24:BA:662:G:OP1	34:BO:15:ARG:NH1	2.35	0.59
36:B0:79:LEU:HD23	36:B0:83:ILE:HB	1.85	0.59
38:BR:25:GLY:H	38:BR:49:VAL:CG2	2.12	0.59
1:CA:1198:G:H2'	1:CA:1199:U:C6	2.37	0.59
40:D2:76:LYS:HG3	40:D2:80:GLN:O	2.03	0.59
8:AK:49:GLU:HG3	8:AK:51:VAL:HG13	1.85	0.59
24:BA:2712:U:H1'	24:BA:2712(A):A:H8	1.66	0.59
7:AJ:108:ALA:O	7:AJ:119:ARG:HD2	2.03	0.59
6:CI:72:VAL:HG13	6:CI:73:ASN:H	1.68	0.59
28:DF:188:ARG:HA	34:DO:3:LEU:CD1	2.33	0.59
1:CA:674:G:H2'	1:CA:675:A:C8	2.38	0.59
24:BA:1991:U:H2'	24:BA:1992:G:C5'	2.32	0.59
1:CA:518:C:H4'	1:CA:519:C:C6	2.37	0.59
1:CA:56:U:H2'	1:CA:57:G:H8	1.67	0.59
1:CA:458:C:C4	1:CA:464:G:C5	2.90	0.59
29:DG:145:THR:O	29:DG:147:ASP:N	2.34	0.59
47:DW:12:GLU:O	47:DW:16:LEU:HD23	2.03	0.59
1:AA:591:U:H2'	1:AA:592:G:H8	1.68	0.59
6:CI:12:PRO:CG	6:CI:57:GLN:HG3	2.33	0.59
1:AA:41:G:H2'	1:AA:42:G:H8	1.68	0.59
1:AA:587:G:C2	1:AA:755:G:C5	2.91	0.59
44:DV:99:TYR:HB3	44:DV:123:ASP:HB3	1.85	0.59
1:AA:392:G:H2'	1:AA:393:A:H8	1.67	0.59
35:DP:43:THR:OG1	35:DP:46:GLN:HG3	2.03	0.59
36:B0:3:HIS:O	36:B0:5:LYS:N	2.33	0.59
24:DA:1291:C:H2'	24:DA:1292:U:C6	2.38	0.59
24:BA:1931:U:O4'	24:BA:1931:U:O2	2.21	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.36	0.59
1:CA:1145:C:H4'	1:CA:1146:A:C8	2.37	0.59
19:CV:9:VAL:HG21	49:D4:63:TYR:CG	2.37	0.59
24:DA:2286:A:C4'	51:D6:28:ARG:NH1	2.64	0.59
19:AV:28:LYS:HE3	19:AV:46:GLY:C	2.23	0.59
24:BA:1999:C:H4'	24:BA:2686:G:N2	2.17	0.59
30:BH:7:LEU:N	30:BH:8:PRO:CD	2.66	0.59
26:BD:67:PHE:CE1	26:BD:106:ILE:HD11	2.37	0.59
12:AO:46:LYS:HB3	12:AO:92:ASP:O	2.03	0.59
2:CE:69:LEU:HD11	2:CE:152:PHE:HE1	1.67	0.59
40:D2:84:LYS:HZ3	40:D2:84:LYS:HB2	1.67	0.59
24:DA:1083:U:H2'	24:DA:1085:A:OP2	2.03	0.59
1:AA:975:A:H4'	1:AA:976:G:C5'	2.20	0.59
5:CH:67:VAL:CG2	5:CH:69:VAL:HG22	2.32	0.59
10:AM:47:PHE:O	10:AM:62:HIS:HB2	2.03	0.59
25:DB:75:G:N1	25:DB:102:G:N2	2.51	0.59
24:BA:2212:A:H1'	24:BA:2215:G:N7	2.17	0.59
24:DA:2611:U:O2	50:D5:3:LYS:HD2	2.03	0.59
39:D1:95:LEU:HD13	40:D2:4:ILE:HG23	1.84	0.59
37:BQ:67:ARG:HG2	37:BQ:71:ARG:NH2	2.18	0.59
15:AR:74:ASP:HB3	15:AR:77:ARG:HD3	1.84	0.59
11:AN:27:ASN:HA	11:AN:55:LYS:O	2.03	0.59
25:BB:116:G:H4'	37:BQ:54:LEU:CD1	2.33	0.59
2:CE:178:ARG:HH21	8:CK:68:ARG:HH22	1.50	0.59
27:BE:116:VAL:O	27:BE:117:MET:HB2	2.03	0.59
24:DA:499:U:C1'	43:DU:47:LYS:NZ	2.66	0.59
24:DA:654(G):C:H3'	24:DA:654(H):G:H5''	1.84	0.59
24:DA:1162:G:H21	40:D2:89:GLN:NE2	2.00	0.59
24:BA:1026:U:H1'	24:BA:1027:A:P	2.42	0.59
41:BS:73:ALA:HB3	41:BS:106:ILE:CG2	2.32	0.59
45:B3:72:ARG:HB3	45:B3:75:LEU:HB2	1.83	0.59
43:DU:48:ALA:HB3	43:DU:59:GLY:HA2	1.85	0.59
35:BP:54:MET:HE1	35:BP:118:LEU:CD2	2.33	0.59
1:AA:1329:A:H5'	13:AP:29:ARG:HD2	1.84	0.59
1:CA:505:G:C6	1:CA:535:A:C2	2.91	0.59
11:CN:126:ARG:NH2	11:CN:127:LYS:HE3	2.18	0.59
24:DA:1252:G:H4'	24:DA:1253:A:OP1	2.02	0.59
30:BH:117:PRO:HB3	30:BH:123:PHE:CE2	2.37	0.59
15:AR:87:ILE:HG22	15:AR:88:ARG:N	2.17	0.59
24:DA:902:C:H2'	24:DA:903:C:H6	1.67	0.59
17:CT:24:GLU:OE1	17:CT:37:LYS:HD3	2.03	0.59
10:CM:12:ASP:HB3	10:CM:15:THR:HG23	1.85	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:15:VAL:HG23	13:AP:43:THR:O	2.01	0.59
27:BE:14:ILE:O	27:BE:15:PHE:HB2	2.02	0.59
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.03	0.59
35:BP:35:VAL:HG13	35:BP:130:LYS:HB3	1.85	0.59
1:CA:539:A:H2'	1:CA:540:G:C8	2.38	0.59
1:CA:540:G:H2'	1:CA:541:G:O4'	2.02	0.59
4:CG:11:LEU:O	4:CG:12:CYS:C	2.41	0.59
1:CA:986:A:H1'	19:CV:54:GLY:O	2.03	0.59
1:CA:1254:C:OP1	10:CM:45:ARG:HA	2.03	0.59
51:B6:11:LEU:HD21	51:B6:51:GLU:CG	2.33	0.59
1:AA:960:U:O2'	1:AA:1223:C:H4'	2.03	0.59
37:BQ:110:LEU:HD21	37:BQ:112:PHE:CD2	2.30	0.59
10:CM:34:VAL:CG1	10:CM:74:ILE:HA	2.16	0.59
3:CF:137:ALA:CA	3:CF:140:ARG:CZ	2.71	0.59
44:BV:142:SER:CB	44:BV:143:GLY:HA2	2.24	0.59
24:BA:2146:C:H4'	24:BA:2147:G:N3	2.17	0.59
39:D1:91:ASP:OD1	39:D1:96:ALA:HB2	2.03	0.59
24:BA:654(G):C:N4	24:BA:654(L):G:OP1	2.35	0.59
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.68	0.59
1:AA:483:C:OP2	1:AA:484:G:O2'	2.21	0.59
8:AK:86:ILE:HG12	8:AK:135:CYS:HA	1.84	0.59
24:BA:2893:G:H4'	24:BA:2894:G:O4'	2.03	0.59
1:AA:376:G:O3'	16:AS:5:ARG:HD2	2.02	0.59
24:DA:2720:U:N3	24:DA:2873:A:C2	2.70	0.59
5:CH:106:PRO:O	5:CH:110:LEU:HG	2.03	0.59
32:DM:30:ILE:HG23	32:DM:52:VAL:HG11	1.84	0.59
15:CR:73:GLU:O	15:CR:75:PRO:HD3	2.02	0.59
8:CK:86:ILE:O	8:CK:88:LYS:HD2	2.03	0.59
24:BA:2352:A:C2'	24:BA:2353:G:H5'	2.33	0.59
1:CA:652:U:H1'	1:CA:653:A:C2	2.35	0.59
5:AH:6:PHE:HD2	5:AH:63:ARG:NH1	2.00	0.59
1:CA:1489:G:O2'	1:CA:1490:C:H5'	2.03	0.59
28:DF:8:GLN:HG2	28:DF:126:VAL:HG12	1.82	0.59
24:DA:1329:U:H5''	24:DA:1330:C:H5	1.68	0.59
17:AT:82:MET:O	17:AT:86:GLU:HG2	2.03	0.59
50:D5:32:PRO:O	50:D5:34:PRO:HD3	2.02	0.59
24:DA:2275:C:O2	35:DP:85:LYS:HG2	2.02	0.59
24:BA:192:C:H2'	24:BA:193:U:H5'	1.85	0.59
1:CA:770:C:O2'	1:CA:771:G:H5'	2.03	0.59
12:AO:50:SER:O	12:AO:51:ALA:HB2	2.02	0.59
10:CM:68:HIS:CD2	10:CM:70:ARG:NH1	2.71	0.58
19:CV:57:HIS:O	19:CV:59:PRO:HD3	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:CX:2:GLY:O	21:CX:4:GLY:N	2.35	0.58
53:D8:32:LEU:HD12	53:D8:33:ASN:CA	2.33	0.58
13:AP:88:ARG:HD3	13:AP:98:VAL:HG11	1.85	0.58
29:BG:97:ASP:H	29:BG:100:TRP:HD1	1.51	0.58
24:DA:2788:C:H5''	24:DA:2789:C:OP2	2.02	0.58
27:DE:39:PRO:HD3	27:DE:45:THR:OG1	2.03	0.58
2:CE:15:VAL:O	2:CE:209:ARG:NH2	2.36	0.58
29:DG:9:ARG:HD3	29:DG:13:GLU:OE2	2.02	0.58
34:BO:37:GLY:O	34:BO:40:SER:N	2.35	0.58
24:BA:1170:G:N2	24:BA:1180:C:C2	2.71	0.58
1:AA:56:U:O4'	31:DK:82:ARG:NH2	2.36	0.58
24:BA:2148:G:H2'	24:BA:2149:G:H8	1.67	0.58
1:AA:748:C:H1'	1:AA:749:C:OP2	2.02	0.58
22:AC:53:G:H2'	22:AC:54:U:C6	2.38	0.58
8:AK:123:GLU:O	8:AK:127:LEU:HD23	2.02	0.58
1:AA:64:G:H4'	1:AA:65:U:H5'	1.85	0.58
24:DA:2141:G:C5	24:DA:2151:G:C6	2.91	0.58
24:BA:321:G:H5'	28:BF:134:GLY:O	2.03	0.58
28:DF:31:HIS:HB2	34:DO:9:ASN:HD21	1.66	0.58
1:CA:1399:C:H4'	1:CA:1400:C:H5''	1.84	0.58
24:BA:1500:G:O2'	26:BD:100:GLY:O	2.12	0.58
30:DH:53:GLU:OE2	30:DH:54:ARG:HG2	2.02	0.58
36:B0:33:ARG:HH22	50:B5:55:ARG:HG2	1.67	0.58
1:CA:407:G:O2'	4:CG:116:GLN:HB2	2.03	0.58
11:CN:58:PRO:HA	11:CN:90:GLY:HA3	1.84	0.58
17:AT:48:GLU:O	17:AT:50:LYS:N	2.36	0.58
55:AA:1833:TAC:O1C	55:AA:1833:TAC:H422	2.03	0.58
1:AA:41:G:H2'	1:AA:42:G:C8	2.37	0.58
31:DK:122:GLU:O	31:DK:126:TYR:OH	2.13	0.58
24:DA:1465:G:H5'	24:DA:1528:A:O2'	2.03	0.58
26:DD:227:ASN:HB3	26:DD:228:PRO:HD2	1.85	0.58
32:BM:67:LEU:O	32:BM:88:GLU:HB2	2.03	0.58
4:CG:12:CYS:HB3	4:CG:33:MET:CG	2.30	0.58
1:CA:1179:A:H2'	1:CA:1180:A:O4'	2.03	0.58
51:D6:37:ARG:NH2	51:D6:38:LYS:N	2.51	0.58
24:DA:2392:A:C3'	53:D8:30:ARG:NH2	2.66	0.58
34:DO:62:LEU:C	34:DO:62:LEU:HD13	2.24	0.58
7:CJ:89:MET:CE	7:CJ:156:TRP:O	2.51	0.58
24:BA:2399:G:O2'	51:B6:19:ARG:HD2	2.03	0.58
43:BU:97:ARG:C	43:BU:97:ARG:NE	2.56	0.58
2:AE:219:VAL:O	2:AE:223:ILE:HG12	2.03	0.58
44:DV:120:ILE:HG13	44:DV:121:HIS:N	2.17	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:147:GLY:CA	44:BV:175:VAL:HG13	2.26	0.58
4:CG:96:LEU:H	4:CG:96:LEU:HD22	1.66	0.58
19:CV:20:LEU:O	19:CV:23:ASN:HB3	2.03	0.58
24:BA:1177:A:H4'	24:BA:1178:C:H6	1.68	0.58
6:AI:62:TRP:CZ3	6:AI:64:GLN:HB2	2.37	0.58
5:AH:76:ILE:HB	5:AH:77:PRO:HD2	1.84	0.58
30:BH:70:THR:HG22	30:BH:74:ASN:ND2	2.17	0.58
29:DG:5:VAL:HG13	49:D4:23:GLU:OE1	2.03	0.58
1:AA:1130:A:H62	1:AA:1144:G:H21	1.51	0.58
9:AL:79:LEU:C	9:AL:79:LEU:HD23	2.24	0.58
1:CA:509:A:H5'	4:CG:55:ALA:HB2	1.85	0.58
37:DQ:50:SER:O	37:DQ:51:ALA:HB2	2.03	0.58
24:DA:94:G:P	43:DU:54:LYS:HZ1	2.26	0.58
49:B4:14:ILE:HG13	49:B4:24:THR:HG21	1.85	0.58
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.38	0.58
24:DA:1416:G:H2'	24:DA:1417:C:C5	2.38	0.58
1:AA:1213:A:O2'	1:AA:1215:G:N7	2.25	0.58
35:BP:54:MET:HE1	35:BP:118:LEU:HD23	1.85	0.58
26:BD:111:LEU:HD22	26:BD:115:GLN:CD	2.23	0.58
16:AS:7:ALA:O	16:AS:9:PHE:HD1	1.86	0.58
43:BU:46:LYS:HE2	43:BU:63:LYS:HB3	1.85	0.58
24:BA:272:G:H2'	24:BA:273:G:C8	2.38	0.58
17:AT:66:SER:OG	17:AT:69:LYS:HB3	2.02	0.58
37:DQ:67:ARG:NH1	37:DQ:67:ARG:HB2	2.18	0.58
1:CA:580:U:H2'	1:CA:581:G:O4'	2.03	0.58
25:DB:78:A:C2	25:DB:99:A:C4	2.90	0.58
1:CA:1119:C:H2'	1:CA:1120:G:C8	2.38	0.58
1:CA:1128:C:H1'	1:CA:1146:A:H61	1.67	0.58
1:CA:1149:C:P	9:CL:9:ARG:HH11	2.27	0.58
1:CA:1151:A:O2'	1:CA:1152:A:O5'	2.20	0.58
1:CA:1277:C:O2'	1:CA:1279:A:C8	2.55	0.58
1:CA:1279:A:H5''	10:CM:7:LYS:NZ	2.18	0.58
10:CM:50:ILE:HD11	14:CQ:41:ARG:CZ	2.34	0.58
19:AV:41:VAL:CG2	19:AV:45:VAL:N	2.66	0.58
24:DA:870:A:C5'	35:DP:6:ARG:HG3	2.29	0.58
2:AE:219:VAL:CA	2:AE:222:ILE:HD12	2.27	0.58
49:D4:34:GLU:OE2	49:D4:35:VAL:HG23	2.03	0.58
29:DG:160:VAL:HG12	29:DG:161:THR:N	2.18	0.58
24:DA:1336:A:OP2	42:DT:64:LYS:HE3	2.03	0.58
2:AE:96:ARG:HD2	2:AE:96:ARG:N	2.06	0.58
25:BB:82:G:C2'	25:BB:83:G:H5'	2.32	0.58
24:DA:2060:A:OP1	28:DF:68:LYS:O	2.21	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1027:C:O2	1:CA:1035:A:N6	2.36	0.58
1:AA:739:C:P	6:AI:2:ARG:NH2	2.73	0.58
24:BA:449:A:C2'	24:BA:450:G:H5'	2.33	0.58
3:AF:131:ARG:HA	3:AF:131:ARG:HH11	1.64	0.58
24:DA:270(K):C:C2	24:DA:270(N):G:N2	2.71	0.58
44:BV:7:ALA:HB3	44:BV:61:LEU:CB	2.33	0.58
15:CR:70:LEU:HD21	15:CR:78:TYR:HA	1.84	0.58
24:DA:1484:G:O2'	24:DA:1485:G:H5'	2.03	0.58
37:BQ:10:ARG:HG2	37:BQ:91:PRO:HA	1.85	0.58
4:AG:134:ASP:C	4:AG:135:LEU:HD12	2.23	0.58
28:BF:129:PHE:O	28:BF:130:ALA:HB2	2.03	0.58
24:DA:858:U:O2	24:DA:2268:A:H2'	2.04	0.58
3:CF:79:ARG:N	3:CF:79:ARG:HE	2.01	0.58
8:CK:21:LYS:O	8:CK:65:TYR:OH	2.16	0.58
26:BD:79:VAL:HG12	26:BD:113:VAL:HA	1.84	0.58
15:CR:39:LEU:O	15:CR:39:LEU:HD22	2.02	0.58
20:AW:46:GLU:O	20:AW:48:LYS:CD	2.51	0.58
5:AH:63:ARG:HA	5:AH:66:MET:HE2	1.84	0.58
24:DA:1204:A:N1	24:DA:1241:A:N1	2.51	0.58
1:AA:142:G:H2'	1:AA:143:A:H8	1.68	0.58
24:DA:1858:G:H1'	24:DA:1884:A:N6	2.18	0.58
24:BA:859:G:O2'	24:BA:916:G:O6	2.20	0.58
29:DG:55:LYS:HG2	29:DG:150:ASP:OD1	2.03	0.58
24:DA:1275:A:N1	24:DA:1295:C:O2'	2.28	0.58
24:DA:370:G:H4'	24:DA:371:A:OP2	2.03	0.58
1:AA:1502:A:H2	1:AA:1505:G:H22	1.51	0.58
26:DD:7:LYS:HB3	26:DD:7:LYS:NZ	2.18	0.58
10:CM:87:THR:HG22	10:CM:87:THR:O	2.03	0.58
24:DA:208:C:H2'	24:DA:209:C:C6	2.38	0.58
4:CG:11:LEU:C	4:CG:13:ARG:H	2.05	0.58
1:CA:980:C:H5'	1:CA:981:U:C5	2.38	0.58
10:CM:45:ARG:HG3	10:CM:45:ARG:NH1	2.13	0.58
1:CA:1320:C:H1'	19:CV:70:LYS:CE	2.33	0.58
51:B6:36:LEU:HB2	51:B6:49:HIS:O	2.02	0.58
26:BD:35:LYS:CE	26:BD:64:ILE:C	2.67	0.58
24:DA:2749:A:C4'	30:DH:6:ARG:CZ	2.80	0.58
24:BA:2751:G:N7	30:BH:3:ARG:CZ	2.66	0.58
24:BA:2415:G:C3'	34:BO:66:GLY:HA3	2.32	0.58
24:DA:2786:U:O2'	27:DE:63:LEU:N	2.37	0.58
34:DO:79:ARG:CZ	34:DO:109:GLY:HA3	2.32	0.58
37:BQ:88:ASP:O	37:BQ:89:ARG:CB	2.51	0.58
24:BA:1071:G:C8	24:BA:1089:G:C6	2.91	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:35:LYS:HB3	26:DD:64:ILE:HG23	1.84	0.58
1:AA:976:G:C8	1:AA:1358:U:O2	2.56	0.58
24:BA:875:G:C4'	44:BV:170:THR:HG23	2.33	0.58
24:BA:1179:C:H2'	24:BA:1180:C:C6	2.38	0.58
24:BA:2182:G:H2'	24:BA:2183:C:C6	2.38	0.58
27:DE:26:ILE:O	27:DE:27:LEU:HB3	2.02	0.58
24:BA:196:A:H2'	24:BA:196:A:N3	2.19	0.58
5:AH:69:VAL:CG1	5:AH:71:LEU:HD21	2.31	0.58
1:AA:66:G:N2	1:AA:172:A:H2	2.01	0.58
28:DF:63:LYS:HE2	28:DF:67:GLN:HB2	1.86	0.58
18:AU:18:ARG:CG	18:AU:19:LYS:H	2.05	0.58
24:DA:1342:A:N6	24:DA:1397:U:C5	2.71	0.58
26:BD:206:LEU:HD12	26:BD:211:ARG:HG2	1.83	0.58
24:BA:2531:A:H2	24:BA:2658:C:O2	1.86	0.58
44:BV:7:ALA:O	44:BV:62:PRO:HD2	2.04	0.58
15:CR:69:TYR:O	15:CR:73:GLU:HG2	2.04	0.58
1:AA:1455:G:OP1	20:AW:35:THR:OG1	2.17	0.58
11:CN:32:ILE:HD13	11:CN:72:ALA:CB	2.32	0.58
31:BK:77:LEU:HA	31:BK:105:HIS:NE2	2.19	0.58
24:BA:545:G:C2'	24:BA:546:C:H5''	2.32	0.58
1:AA:538:G:O2'	1:AA:539:A:H5'	2.04	0.58
17:CT:10:VAL:CG1	17:CT:53:LEU:HA	2.33	0.58
35:BP:54:MET:HE2	35:BP:118:LEU:HD23	1.85	0.58
24:DA:2517:C:HO2'	24:DA:2519:U:H5	1.51	0.58
24:DA:162:U:H4'	24:DA:171:G:C5	2.38	0.58
27:BE:81:ILE:O	27:BE:82:ARG:CB	2.50	0.58
24:BA:2843:G:H1	24:BA:2874:C:H42	1.50	0.58
42:BT:3:THR:O	42:BT:6:ASP:HB2	2.03	0.58
24:DA:817:C:O2'	24:DA:839:U:H5''	2.04	0.58
15:CR:10:LYS:HD2	15:CR:10:LYS:O	2.02	0.58
14:CQ:44:LEU:HD12	14:CQ:44:LEU:C	2.24	0.58
24:DA:1131:G:OP2	24:DA:2515:C:H4'	2.04	0.58
24:DA:1601:G:OP2	52:D7:49:ARG:NH2	2.36	0.58
1:CA:1369:C:H2'	1:CA:1370:G:O4'	2.03	0.58
1:CA:1179:A:H4'	9:CL:102:LEU:O	2.03	0.58
10:CM:37:PRO:HA	10:CM:71:LEU:O	2.02	0.58
13:CP:19:LEU:HD13	13:CP:30:ALA:HB1	1.86	0.58
19:CV:66:MET:H	19:CV:67:VAL:CG1	2.03	0.58
53:D8:29:LYS:O	53:D8:32:LEU:HD23	2.03	0.58
13:AP:81:LEU:HD12	13:AP:84:ILE:HG22	1.85	0.58
19:AV:41:VAL:HG13	19:AV:42:PRO:HA	1.84	0.58
24:DA:1899:G:HO2'	24:DA:1900:A:H5''	1.64	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1055:G:O2'	24:BA:1085:A:N1	2.18	0.58
39:B1:92:ARG:CZ	40:B2:11:GLN:H	2.17	0.58
49:D4:38:LYS:HE2	49:D4:38:LYS:HA	1.84	0.58
1:CA:247:G:OP2	17:CT:100:LYS:NZ	2.36	0.58
1:CA:276:G:O2'	17:CT:68:ARG:NH1	2.36	0.58
1:CA:1291:G:H5''	7:CJ:37:ASN:OD1	2.03	0.58
44:DV:117:LEU:HD13	44:DV:118:GLN:H	1.67	0.58
13:AP:11:ARG:C	13:AP:46:LYS:HZ2	2.07	0.58
25:DB:51:G:O6	37:DQ:32:LEU:HD22	2.03	0.58
53:D8:23:VAL:HG23	53:D8:48:PHE:C	2.24	0.58
22:AC:53:G:H2'	22:AC:54:U:H6	1.67	0.58
1:AA:186:C:H5'	20:AW:78:ALA:HB1	1.85	0.58
40:D2:43:GLU:O	40:D2:44:LYS:HG2	2.03	0.58
28:BF:108:LYS:O	28:BF:112:MET:HG3	2.03	0.58
24:DA:1173:G:O2'	24:DA:1174:A:H5'	2.04	0.58
1:CA:8:A:H5'	5:CH:101:ILE:HD12	1.84	0.58
7:CJ:69:VAL:HG22	7:CJ:135:VAL:CG2	2.32	0.58
24:DA:2107:C:N3	24:DA:2182:G:N2	2.51	0.58
3:AF:73:PRO:CA	3:AF:76:VAL:HG22	2.33	0.58
1:CA:675:A:O2'	11:CN:114:VAL:O	2.19	0.58
30:DH:30:LYS:CG	30:DH:136:ILE:HG21	2.33	0.58
12:AO:39:VAL:HG22	12:AO:57:LYS:CB	2.32	0.58
38:DR:78:LEU:HD22	38:DR:79:HIS:CD2	2.37	0.58
30:DH:35:VAL:HG13	30:DH:71:LEU:HD21	1.86	0.58
1:AA:1317:C:C2'	1:AA:1318:A:H5'	2.33	0.58
8:CK:69:ARG:NH1	8:CK:75:ARG:O	2.37	0.58
12:AO:83:VAL:HG21	12:AO:100:ILE:HD13	1.86	0.58
34:DO:39:LYS:HB2	34:DO:45:LEU:HD11	1.86	0.58
1:CA:811:C:H4'	1:CA:900:A:N6	2.18	0.58
24:BA:2262:U:O2'	24:BA:2263:C:H5'	2.03	0.58
1:AA:143:A:H2	1:AA:220:G:H1	1.49	0.58
50:D5:46:CYS:HB3	50:D5:50:GLY:H	1.69	0.58
24:DA:2531:A:H5'	30:DH:157:TYR:CZ	2.39	0.58
36:B0:12:ARG:HE	36:B0:16:HIS:CE1	2.21	0.58
31:DK:24:GLY:O	31:DK:28:ASN:HB2	2.02	0.58
24:BA:950:G:C6	24:BA:951:C:C4	2.91	0.58
15:CR:48:LYS:HA	15:CR:48:LYS:HE2	1.85	0.58
24:BA:2632:A:HO2'	24:BA:2811:G:HO2'	1.47	0.58
24:BA:1344:G:H4'	24:BA:1384:A:C6	2.37	0.58
1:CA:1147:C:N4	1:CA:1148:U:O4	2.37	0.58
1:CA:1346:A:H4'	1:CA:1347:G:O5'	2.04	0.58
9:CL:17:VAL:CG1	9:CL:63:ILE:HD13	2.34	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CP:8:GLU:OE1	13:CP:22:ILE:HA	2.04	0.58
1:CA:986:A:C2	19:CV:52:TYR:OH	2.33	0.58
24:DA:2376:A:H2	37:DQ:112:PHE:CB	2.11	0.58
24:DA:2748:A:H2'	24:DA:2749:A:C8	2.38	0.58
24:DA:2749:A:O2'	30:DH:59:ARG:HD3	2.04	0.58
53:B8:14:VAL:HG22	53:B8:15:LYS:N	2.19	0.58
37:BQ:26:LEU:HB3	37:BQ:87:PHE:HA	1.85	0.58
39:B1:58:ARG:HH11	39:B1:93:LYS:HE2	1.69	0.58
2:AE:215:LEU:CD2	2:AE:215:LEU:H	2.15	0.58
20:AW:13:LEU:CD1	20:AW:13:LEU:C	2.72	0.58
24:DA:1077:A:O2'	24:DA:1088:A:N6	2.15	0.58
46:DZ:89:GLU:C	46:DZ:91:LYS:H	2.05	0.58
13:AP:11:ARG:HG2	13:AP:46:LYS:CE	2.33	0.58
19:CV:18:LYS:O	19:CV:22:LEU:HB2	2.03	0.58
5:CH:81:GLU:CG	5:CH:90:VAL:HG13	2.19	0.58
24:BA:2109:U:O4	24:BA:2179:C:N4	2.36	0.58
24:DA:593:G:H4'	53:D8:61:LEU:HD22	1.84	0.58
24:BA:654(F):C:O2	24:BA:654(O):G:N2	2.27	0.58
36:B0:74:LYS:HE3	36:B0:77:ARG:NH2	2.19	0.58
10:AM:21:GLN:HA	10:AM:24:VAL:HG12	1.85	0.58
28:BF:62:ARG:HG2	28:BF:63:LYS:H	1.68	0.58
43:BU:83:THR:CG2	43:BU:84:ARG:N	2.66	0.58
15:CR:15:PHE:CE2	15:CR:84:LYS:HD2	2.38	0.58
8:AK:94:TYR:CE1	8:AK:132:GLU:HB2	2.38	0.58
39:B1:44:ASN:HD21	40:B2:75:PHE:N	2.01	0.58
1:CA:710:G:O2'	1:CA:711:G:H5'	2.04	0.58
24:BA:573:G:O2'	24:BA:574:C:H3'	2.04	0.58
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.04	0.58
1:AA:406:G:C5'	4:AG:5:ILE:HD13	2.34	0.58
1:AA:107:G:C2'	1:AA:108:G:H5'	2.33	0.58
31:DK:14:ASP:OD1	31:DK:15:VAL:N	2.32	0.58
45:B3:74:ARG:HG2	45:B3:74:ARG:O	2.02	0.58
6:CI:17:SER:O	6:CI:21:LEU:HD13	2.04	0.58
28:BF:42:ALA:O	28:BF:45:ARG:HB2	2.04	0.58
10:CM:15:THR:O	10:CM:19:SER:HB3	2.04	0.58
1:AA:614:A:O2'	1:AA:615:C:H5'	2.03	0.58
31:BK:21:VAL:HG21	31:BK:25:TYR:HD2	1.68	0.58
4:CG:4:TYR:CD1	4:CG:5:ILE:N	2.71	0.58
34:BO:89:ALA:HA	34:BO:121:LYS:HD3	1.84	0.58
6:CI:41:GLU:O	6:CI:43:LEU:HD12	2.04	0.58
31:BK:62:LYS:O	31:BK:66:GLU:HG2	2.04	0.58
16:CS:69:THR:O	16:CS:73:LEU:HG	2.04	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:B4:47:GLN:NE2	49:B4:49:PHE:HB3	2.19	0.58
1:CA:598:U:O2'	8:CK:94:TYR:CZ	2.45	0.58
1:CA:1179:A:N3	9:CL:104:ARG:CZ	2.64	0.58
1:CA:1289:A:N6	9:CL:70:LYS:HZ2	2.02	0.58
49:D4:62:ARG:HA	49:D4:62:ARG:NE	2.18	0.58
9:AL:10:ARG:HA	9:AL:104:ARG:NE	2.19	0.58
10:CM:30:SER:N	10:CM:84:GLN:OE1	2.36	0.58
24:DA:1071:G:OP2	24:DA:1071:G:C8	2.57	0.58
9:CL:2:GLU:N	9:CL:2:GLU:OE1	2.37	0.58
1:AA:1005:A:N1	1:AA:1024:G:O2'	2.34	0.58
3:CF:195:VAL:HG23	3:CF:196:LEU:N	2.19	0.58
1:CA:405:U:H5''	1:CA:406:G:O4'	2.03	0.58
4:CG:138:TYR:CD1	4:CG:139:ARG:N	2.72	0.58
49:D4:2:LYS:HA	49:D4:6:HIS:HD2	1.69	0.58
40:D2:11:GLN:C	40:D2:12:TYR:CD1	2.76	0.58
40:D2:49:THR:O	40:D2:50:PRO:C	2.41	0.58
24:BA:2791:C:H2'	24:BA:2792:G:H8	1.68	0.58
4:AG:191:ARG:NH1	4:AG:195:ALA:HA	2.16	0.58
24:DA:2712:U:O2'	24:DA:2712(A):A:P	2.62	0.58
3:CF:14:ILE:O	3:CF:16:ARG:N	2.36	0.58
25:DB:90:C:P	35:DP:16:ARG:HH21	2.27	0.58
24:BA:1967:C:C2'	24:BA:1968:G:H5'	2.33	0.58
41:DS:79:GLY:HA3	41:DS:100:THR:HG22	1.84	0.58
27:BE:91:VAL:HG13	27:BE:95:ILE:HD11	1.86	0.58
24:DA:2692:C:H1'	24:DA:2847:U:O2'	2.04	0.58
1:CA:468:A:O2'	16:CS:81:ARG:HA	2.03	0.58
45:D3:43:THR:O	45:D3:43:THR:HG23	2.04	0.58
24:BA:2297:C:O2'	24:BA:2298:A:H5'	2.04	0.58
24:BA:579:G:H2'	24:BA:580:C:C6	2.38	0.58
24:BA:581:C:H2'	24:BA:582:G:C8	2.38	0.58
24:DA:1279:G:H4'	36:D0:31:HIS:CD2	2.39	0.58
24:BA:1443:G:C2	24:BA:1549:C:N3	2.71	0.58
3:AF:28:GLN:O	3:AF:32:LEU:HD23	2.03	0.58
24:BA:2065:C:H2'	24:BA:2066:C:H6	1.69	0.58
48:BX:23:LEU:HD22	48:BX:28:LEU:HD12	1.86	0.58
42:BT:57:LEU:N	42:BT:57:LEU:HD23	2.18	0.58
4:CG:29:PRO:C	4:CG:30:LYS:HG3	2.24	0.58
1:CA:1050:G:O2'	1:CA:1051:C:H5'	2.04	0.58
1:CA:1157:A:H1'	1:CA:1181:G:H21	1.67	0.58
1:CA:1281:U:OP2	1:CA:1282:C:N4	2.26	0.58
1:CA:1148:U:OP1	9:CL:7:THR:HG21	2.04	0.58
9:CL:89:ASN:HB2	9:CL:92:TYR:CD2	2.38	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CV:52:TYR:OH	19:CV:54:GLY:O	2.21	0.58
51:D6:40:CYS:HB2	51:D6:46:HIS:CE1	2.38	0.58
49:B4:36:CYS:O	49:B4:39:CYS:HB2	2.04	0.58
26:BD:31:LYS:HE2	26:BD:102:LYS:HD3	1.85	0.58
1:AA:1227:A:OP2	13:AP:111:LYS:HE3	2.04	0.58
1:AA:193:C:C5'	20:AW:57:ARG:HH11	2.15	0.58
9:AL:70:LYS:O	9:AL:74:ILE:HG13	2.02	0.58
24:BA:592:G:C2	53:B8:4:MET:HE1	2.37	0.58
24:BA:1087:G:C5	24:BA:1089:G:H1'	2.38	0.58
24:BA:1098:A:H2'	24:BA:1099:G:O4'	2.02	0.58
24:DA:2638:G:O2'	24:DA:2639:A:H8	1.86	0.58
39:B1:94:ASN:HB3	39:B1:95:LEU:HD12	1.86	0.58
19:CV:28:LYS:HG2	19:CV:29:ARG:HG2	1.85	0.58
1:AA:196:A:P	20:AW:68:LYS:HZ3	2.26	0.58
46:DZ:85:LEU:C	46:DZ:87:PRO:HD2	2.24	0.58
44:DV:151:HIS:CD2	44:DV:153:SER:OG	2.56	0.58
25:DB:39:A:N1	49:D4:1:MET:HB3	2.19	0.58
2:AE:17:PHE:HB2	2:AE:42:ILE:CG2	2.33	0.58
39:D1:96:ALA:HA	39:D1:98:LEU:HD12	1.85	0.58
49:D4:13:ARG:O	49:D4:14:ILE:HG13	2.03	0.58
38:BR:88:ILE:HD12	38:BR:89:VAL:N	2.18	0.58
53:D8:23:VAL:HG23	53:D8:48:PHE:N	2.19	0.58
24:BA:1021:A:H62	24:BA:1141:U:H3	1.51	0.58
4:AG:156:GLU:O	4:AG:160:GLN:HG3	2.04	0.58
48:DX:13:ILE:CD1	48:DX:13:ILE:H	2.16	0.58
42:BT:31:HIS:CD2	42:BT:33:LYS:H	2.22	0.58
37:DQ:14:VAL:HG22	37:DQ:18:ILE:HD12	1.86	0.58
24:DA:1342:A:C6	24:DA:1397:U:C5	2.92	0.58
4:AG:23:GLY:HA2	4:AG:112:VAL:HG21	1.82	0.58
1:AA:346:G:N3	1:AA:346:G:H2'	2.18	0.58
17:AT:77:VAL:O	17:AT:78:GLU:CB	2.52	0.58
32:DM:14:VAL:HG22	32:DM:15:LEU:H	1.69	0.58
43:DU:46:LYS:HG2	43:DU:46:LYS:O	2.04	0.58
38:DR:52:ILE:H	38:DR:98:LYS:NZ	2.02	0.58
3:AF:23:TYR:HD2	10:AM:10:GLY:HA2	1.67	0.58
24:BA:1024:G:C3'	24:BA:1025:G:H5''	2.33	0.58
24:DA:979:G:H3'	24:DA:980:A:H5''	1.85	0.58
24:DA:944:G:H5''	24:DA:945:A:O5'	2.03	0.58
4:CG:61:LYS:HD2	4:CG:206:PHE:HE2	1.69	0.58
38:BR:107:ASP:N	38:BR:107:ASP:OD1	2.35	0.58
24:BA:442:G:H1'	28:BF:48:THR:HG21	1.85	0.58
24:DA:2087:G:C2'	24:DA:2088:G:H5'	2.34	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:844:C:C2'	24:DA:845:G:H5'	2.34	0.58
24:BA:755:C:H2'	24:BA:756:C:C6	2.38	0.58
1:CA:46:G:O2'	1:CA:365:U:H1'	2.04	0.58
24:DA:39:C:O2	28:DF:46:ARG:NH2	2.36	0.58
24:BA:2523:G:C2'	24:BA:2524:G:H5'	2.34	0.58
1:CA:1226:C:O2'	13:CP:111:LYS:NZ	2.36	0.58
1:CA:1324:A:OP1	1:CA:1362(A):C:H1'	2.04	0.58
1:CA:1366:C:P	9:CL:117:HIS:HE2	2.26	0.58
10:CM:63:PHE:CD1	14:CQ:58:LYS:HA	2.39	0.58
1:CA:1188:A:H4'	14:CQ:58:LYS:HZ2	1.69	0.58
51:B6:36:LEU:HD13	51:B6:50:ARG:NH1	2.18	0.58
13:AP:82:MET:CE	13:AP:92:HIS:HB3	2.34	0.58
29:BG:112:PRO:HB3	49:B4:37:SER:N	2.19	0.58
24:BA:1600:C:O3'	52:B7:49:ARG:CZ	2.51	0.58
24:DA:1047:G:H2'	24:DA:1109:C:H42	1.66	0.58
51:D6:10:LEU:HD12	51:D6:10:LEU:O	2.04	0.58
2:AE:235:SER:HB2	2:AE:236:TYR:CD2	2.39	0.58
2:CE:233:SER:HB3	2:CE:234:PRO:HD3	1.79	0.58
2:CE:20:GLU:O	2:CE:39:ILE:HA	2.04	0.58
24:DA:1060:U:H4'	24:DA:1061:U:C5'	2.32	0.58
24:DA:1087:G:C6	24:DA:1089:G:N2	2.69	0.58
10:CM:28:ARG:NH2	10:CM:34:VAL:O	2.37	0.58
24:DA:874:G:H2'	24:DA:875:G:H8	1.69	0.58
13:AP:20:THR:O	13:AP:22:ILE:N	2.31	0.58
24:DA:1336:A:OP1	42:DT:64:LYS:HE3	2.03	0.58
24:DA:1337:G:H2'	24:DA:1338:G:C8	2.38	0.58
35:BP:133:ARG:O	35:BP:134:ARG:HB2	2.04	0.58
29:BG:2:PRO:C	29:BG:4:ASP:H	2.04	0.58
24:BA:919:G:N2	24:BA:2269:A:OP2	2.33	0.58
53:D8:49:VAL:CG1	53:D8:50:LEU:N	2.66	0.58
10:AM:24:VAL:HG23	10:AM:34:VAL:HG21	1.84	0.58
10:AM:33:GLN:O	10:AM:75:ILE:HG12	2.04	0.58
1:AA:458:C:H2'	1:AA:464:G:H8	1.69	0.58
28:BF:57:VAL:HG13	28:BF:59:TYR:CD1	2.32	0.58
4:CG:178:VAL:O	4:CG:180:GLY:N	2.30	0.58
43:DU:51:VAL:O	43:DU:52:SER:HB2	2.04	0.58
1:AA:562:C:O4'	1:AA:563:A:C2	2.57	0.58
18:AU:18:ARG:C	18:AU:19:LYS:HD2	2.24	0.58
37:DQ:24:LEU:HD12	37:DQ:41:ASP:CB	2.34	0.58
24:DA:1012:U:C2	24:DA:1143:A:H2	2.20	0.58
34:BO:39:LYS:CB	34:BO:45:LEU:CD2	2.82	0.58
10:CM:48:THR:CA	10:CM:62:HIS:HB3	2.33	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1280:A:O4'	10:AM:41:PRO:HG3	2.04	0.58
27:DE:108:SER:HB3	27:DE:165:VAL:HG21	1.86	0.58
42:BT:5:TYR:CD1	47:BW:33:MET:CE	2.86	0.58
24:DA:2213:U:O4'	46:DZ:52:ARG:NH2	2.36	0.58
46:DZ:4:VAL:HG23	46:DZ:4:VAL:O	2.04	0.58
7:AJ:18:TYR:CD2	7:AJ:59:LEU:HD22	2.39	0.58
32:DM:62:VAL:CG2	32:DM:66:LYS:HD2	2.33	0.58
1:AA:1329:A:P	13:AP:28:ALA:HB3	2.44	0.58
42:DT:12:VAL:HG23	42:DT:17:ALA:HB2	1.86	0.58
1:AA:792:A:H1'	1:AA:794:A:N7	2.19	0.58
24:BA:581:C:H2'	24:BA:582:G:H8	1.69	0.58
24:DA:861:A:N3	25:DB:79:C:O2'	2.35	0.58
24:BA:717:G:H2'	24:BA:718:A:O4'	2.02	0.58
24:BA:1162:G:O2'	40:B2:90:PRO:HG2	2.04	0.58
16:CS:55:ARG:HE	16:CS:55:ARG:HA	1.68	0.58
24:BA:1869:G:H5''	24:BA:1870:C:OP2	2.03	0.58
24:DA:1045:A:H2'	24:DA:1045:A:N3	2.19	0.58
24:DA:2036:C:H6	24:DA:2036:C:H5'	1.68	0.58
24:BA:1615:C:C6	24:BA:1617:C:C5	2.92	0.58
1:CA:960:U:N3	1:CA:1225:A:C4	2.71	0.58
7:CJ:16:LEU:HD12	9:CL:41:VAL:O	2.04	0.58
19:CV:62:ILE:HD12	19:CV:62:ILE:N	2.19	0.58
51:B6:12:GLU:HB2	51:B6:23:THR:HG22	1.86	0.58
51:B6:40:CYS:HA	51:B6:46:HIS:HA	1.86	0.58
19:AV:20:LEU:HG	19:AV:23:ASN:HD21	1.68	0.58
24:DA:870:A:OP1	35:DP:6:ARG:CZ	2.52	0.58
24:BA:1601:G:C4'	52:B7:49:ARG:HH12	2.15	0.58
24:BA:1045:A:C2	24:BA:1111:A:N6	2.72	0.58
12:AO:46:LYS:HE2	12:AO:47:LYS:CD	2.33	0.58
24:DA:1899:G:C2'	24:DA:1900:A:OP2	2.51	0.58
2:AE:196:LEU:HD12	2:AE:197:VAL:HG23	1.84	0.58
2:AE:75:LYS:HA	2:AE:78:GLN:HB2	1.85	0.58
24:BA:1061:U:H4'	24:BA:1070:A:C1'	2.33	0.58
46:BZ:86:SER:N	46:BZ:87:PRO:HD3	2.19	0.58
1:CA:277:C:OP2	17:CT:41:LYS:NZ	2.31	0.58
44:BV:167:PRO:O	44:BV:169:GLU:N	2.37	0.58
44:DV:25:PRO:O	44:DV:85:HIS:HA	2.03	0.58
4:CG:138:TYR:HE1	4:CG:139:ARG:O	1.87	0.58
33:DN:13:ASN:C	33:DN:15:GLY:H	2.07	0.58
29:DG:36:LYS:HA	29:DG:95:ARG:HG2	1.85	0.58
14:AQ:10:ALA:HB2	14:AQ:23:ARG:HH21	1.68	0.58
1:CA:558:G:H2'	1:CA:559:A:C2	2.36	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:97:U:H2'	1:AA:99:C:C6	2.38	0.58
1:CA:171:A:H2'	1:CA:172:A:C8	2.39	0.58
34:BO:123:LEU:HD13	34:BO:125:VAL:HG13	1.86	0.58
1:AA:999:U:H1'	24:DA:2137:C:H4'	1.86	0.58
24:DA:1176:G:C2'	24:DA:1177:A:OP2	2.52	0.58
7:AJ:70:LYS:HE3	7:AJ:96:GLN:HB2	1.86	0.58
20:CW:83:ARG:O	20:CW:86:ARG:HB3	2.03	0.58
26:BD:69:ARG:HD3	26:BD:105:ILE:HD11	1.85	0.58
35:BP:109:VAL:HG12	35:BP:113:GLN:HB3	1.85	0.58
24:DA:1421:G:C2	24:DA:1422:G:C8	2.92	0.58
12:AO:33:ARG:HG2	12:AO:60:LEU:HD12	1.86	0.58
27:DE:107:THR:O	27:DE:190:GLY:CA	2.51	0.58
31:BK:5:LEU:C	31:BK:6:LEU:HD12	2.23	0.58
24:BA:2593:U:H2'	24:BA:2594:C:H6	1.68	0.58
4:CG:161:ASN:O	4:CG:165:MET:HG2	2.03	0.58
1:AA:198:G:H2'	1:AA:199:G:C8	2.38	0.58
1:AA:321:A:N7	1:AA:328:C:C6	2.72	0.58
24:BA:1186:G:H2'	24:BA:1187:G:O4'	2.04	0.58
2:CE:114:ARG:O	2:CE:118:LEU:HG	2.03	0.58
24:BA:932:G:OP1	48:BX:29:ARG:NH2	2.37	0.58
24:DA:2335:A:O2'	24:DA:2336:A:H5''	2.04	0.58
24:DA:1131:G:O6	24:DA:2040:C:H1'	2.03	0.58
43:BU:38:ILE:HD11	43:BU:64:GLU:HG3	1.86	0.58
7:AJ:111:ARG:HB3	7:AJ:112:PRO:HD2	1.85	0.58
27:DE:161:GLY:O	27:DE:162:ALA:HB3	2.03	0.58
24:DA:815:C:H2'	24:DA:816:C:C6	2.38	0.58
1:AA:1138:G:N3	1:AA:1138:G:H3'	2.18	0.58
32:BM:34:LEU:O	32:BM:49:GLY:HA3	2.03	0.58
24:DA:1655:A:H4'	27:DE:115:GLY:N	2.19	0.58
26:DD:182:LEU:O	26:DD:271:ILE:HG13	2.04	0.58
1:CA:411:A:O2'	1:CA:412:A:H5'	2.04	0.57
9:CL:9:ARG:HD2	9:CL:14:VAL:CG2	2.32	0.57
14:CQ:41:ARG:HG3	14:CQ:42:ILE:HG12	1.86	0.57
19:CV:37:ARG:HG3	19:CV:37:ARG:NH1	2.09	0.57
24:DA:2287:A:OP1	51:D6:30:THR:HG22	2.04	0.57
51:D6:25:LYS:HB3	53:D8:34:TRP:CE3	2.39	0.57
24:BA:2418:A:C2'	24:BA:2419:U:O5'	2.52	0.57
19:AV:28:LYS:CD	19:AV:47:HIS:CD2	2.86	0.57
29:BG:112:PRO:HA	49:B4:37:SER:CB	2.33	0.57
29:BG:111:LEU:N	29:BG:112:PRO:HD2	2.18	0.57
24:BA:1078:U:H1'	24:BA:1088:A:H2	1.69	0.57
40:D2:55:ALA:HA	40:D2:101:GLY:CA	2.34	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:B1:91:ASP:O	39:B1:93:LYS:N	2.36	0.57
2:CE:28:PHE:CD2	2:CE:32:ILE:HG22	2.39	0.57
2:CE:83:MET:O	2:CE:86:GLU:N	2.37	0.57
2:CE:9:GLU:HA	2:CE:213:LEU:HD21	1.86	0.57
39:D1:92:ARG:HH11	39:D1:95:LEU:HG	1.68	0.57
24:BA:654(L):G:H5''	24:BA:654(M):C:C5	2.39	0.57
1:AA:1191:A:C5'	3:AF:4:LYS:HZ3	2.08	0.57
1:AA:450:G:H5''	16:AS:43:LYS:HZ2	1.69	0.57
42:DT:50:LYS:O	42:DT:51:VAL:HB	2.04	0.57
24:DA:71:A:C3'	24:DA:71:A:OP2	2.50	0.57
24:DA:889:C:N3	24:DA:890:A:O2'	2.36	0.57
37:DQ:42:ASP:O	37:DQ:43:GLU:HB2	2.04	0.57
8:CK:119:LEU:HD23	8:CK:124:ALA:CB	2.33	0.57
1:AA:1494:G:N2	24:BA:1912:A:C2	2.70	0.57
3:AF:150:LYS:HG3	3:AF:169:ALA:HB2	1.86	0.57
1:CA:659:U:OP1	15:CR:9:GLN:NE2	2.37	0.57
1:AA:191(D):U:H2'	1:AA:191(E):G:C8	2.39	0.57
1:AA:1490:C:O2'	1:AA:1491:G:H5'	2.04	0.57
1:AA:530:G:O2'	1:AA:531:U:OP1	2.21	0.57
2:AE:135:GLN:O	2:AE:138:LEU:N	2.37	0.57
24:BA:901:A:H5'	24:BA:902:C:OP2	2.04	0.57
24:DA:756:C:O2'	24:DA:757:U:H5'	2.03	0.57
53:D8:14:VAL:HG21	53:D8:22:VAL:CG1	2.34	0.57
11:AN:19:ALA:HA	11:AN:32:ILE:HA	1.87	0.57
24:DA:1288:U:C2	24:DA:1327:C:O2	2.57	0.57
1:AA:591:U:H2'	1:AA:592:G:C8	2.39	0.57
4:CG:29:PRO:HD2	4:CG:30:LYS:NZ	2.18	0.57
18:CU:27:GLY:O	18:CU:29:PHE:HD1	1.86	0.57
26:BD:273:ARG:HG3	26:BD:273:ARG:O	2.04	0.57
24:DA:588:U:H1'	28:DF:90:PHE:CG	2.39	0.57
4:CG:19:LEU:CB	4:CG:21:LEU:HD11	2.34	0.57
1:CA:1137:C:H5''	1:CA:1138:G:OP1	2.03	0.57
13:CP:29:ARG:CB	13:CP:64:TRP:HH2	2.16	0.57
21:CX:9:ARG:CG	21:CX:10:ARG:N	2.65	0.57
51:D6:36:LEU:HG	51:D6:50:ARG:NE	2.19	0.57
7:CJ:73:MET:HA	7:CJ:90:GLU:HA	1.85	0.57
40:D2:21:ARG:NE	40:D2:91:TYR:HB3	2.18	0.57
53:B8:17:THR:CG2	53:B8:23:VAL:CG2	2.81	0.57
13:CP:3:ARG:NH2	29:DG:139:LEU:HD21	2.19	0.57
1:CA:254:G:N2	17:CT:16:GLN:HE21	1.93	0.57
14:CQ:13:THR:N	14:CQ:14:PRO:CD	2.66	0.57
5:AH:51:VAL:CB	5:AH:52:PRO:HD3	2.25	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DQ:68:GLN:OE1	37:DQ:68:GLN:N	2.27	0.57
13:CP:40:ASN:HB3	13:CP:43:THR:HG23	1.85	0.57
16:AS:43:LYS:HG3	16:AS:48:TRP:CE3	2.38	0.57
24:BA:1021:A:H61	24:BA:1142(A):A:H61	1.52	0.57
1:CA:1004:A:C2	1:CA:1024:G:H1'	2.40	0.57
9:AL:97:LYS:CB	9:AL:98:PRO:HD3	2.32	0.57
24:DA:885:C:H1'	24:DA:892:G:H22	1.66	0.57
5:CH:101:ILE:HD12	5:CH:101:ILE:O	2.04	0.57
30:DH:125:VAL:HG13	30:DH:126:PRO:HD2	1.85	0.57
3:AF:73:PRO:HG3	3:AF:105:GLU:HB2	1.85	0.57
43:DU:47:LYS:N	43:DU:60:PHE:HB3	2.19	0.57
24:DA:1729:A:H1'	24:DA:1730:U:C5	2.39	0.57
31:BK:77:LEU:HD11	31:BK:140:LEU:HB2	1.86	0.57
26:BD:75:ILE:HG21	26:BD:99:ASP:OD1	2.04	0.57
50:B5:51:TYR:O	50:B5:56:LYS:NZ	2.27	0.57
1:AA:1310:G:O2'	1:AA:1311:G:H5'	2.04	0.57
3:CF:164:ARG:HG2	3:CF:165:THR:N	2.19	0.57
24:BA:888:C:H2'	24:BA:889:C:C6	2.39	0.57
1:AA:922:G:N3	1:AA:1398:A:H2	2.02	0.57
48:DX:18:ASP:OD1	48:DX:19:GLN:N	2.37	0.57
24:BA:1348:G:H2'	24:BA:1349:A:H5''	1.85	0.57
4:AG:88:VAL:CG2	4:AG:91:SER:HB2	2.34	0.57
24:DA:902:C:H2'	24:DA:903:C:C6	2.39	0.57
1:CA:614:A:C5	1:CA:615:C:C5	2.92	0.57
1:AA:291:C:O2'	1:AA:292:G:H5'	2.05	0.57
24:DA:2823:A:OP1	27:DE:113:PHE:HB2	2.04	0.57
1:CA:29:G:C5	1:CA:30:U:H5	2.22	0.57
1:CA:563:A:N3	1:CA:563:A:H2'	2.18	0.57
3:AF:34:LEU:HD23	3:AF:34:LEU:O	2.04	0.57
36:B0:100:LEU:HD13	36:B0:112:ALA:HA	1.84	0.57
38:DR:134:GLU:N	38:DR:134:GLU:OE2	2.37	0.57
31:BK:128:LEU:N	31:BK:138:ILE:O	2.33	0.57
1:AA:325:A:OP2	20:AW:70:SER:HB2	2.03	0.57
47:BW:64:LEU:CD2	47:BW:68:ARG:HD2	2.34	0.57
1:CA:429:U:P	4:CG:13:ARG:NH2	2.77	0.57
4:CG:39:PRO:O	4:CG:44:GLY:HA3	2.05	0.57
1:CA:1305:G:H2'	1:CA:1331:G:N2	2.20	0.57
53:D8:34:TRP:O	53:D8:36:LYS:N	2.37	0.57
19:AV:16:LEU:CD1	19:AV:20:LEU:CD1	2.83	0.57
4:AG:30:LYS:HD3	4:AG:30:LYS:C	2.23	0.57
1:AA:191:G:H2'	1:AA:192:U:O4'	2.04	0.57
7:AJ:16:LEU:HD13	9:AL:44:VAL:HG22	1.86	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B5:4:HIS:CB	50:B5:5:PRO:CD	2.82	0.57
40:D2:37:VAL:CG2	40:D2:38:LEU:HD12	2.33	0.57
2:CE:97:TRP:CZ2	2:CE:102:LEU:HD13	2.37	0.57
24:DA:511:U:C2'	24:DA:512:G:H5''	2.34	0.57
1:CA:994:A:N6	1:CA:1216:G:H5'	2.19	0.57
18:CU:53:ARG:O	18:CU:57:GLY:N	2.36	0.57
14:AQ:21:TYR:HE1	14:AQ:23:ARG:NH2	2.01	0.57
1:AA:464:G:N2	1:AA:467:G:C8	2.73	0.57
1:AA:130:A:C8	17:AT:63:ARG:HD3	2.39	0.57
17:AT:67:LYS:HA	17:AT:70:ARG:NH1	2.18	0.57
24:DA:89:G:H3'	24:DA:90:U:H5''	1.86	0.57
11:AN:31:THR:OG1	11:AN:42:TRP:HB3	2.04	0.57
24:DA:889:C:H2'	24:DA:890:A:H4'	1.85	0.57
37:DQ:43:GLU:O	37:DQ:44:LYS:HG3	2.04	0.57
37:DQ:49:VAL:HG11	37:DQ:73:LEU:HD13	1.84	0.57
31:DK:47:LEU:HG	31:DK:51:ILE:HD11	1.85	0.57
24:DA:783:A:H2'	24:DA:784:A:O3'	2.03	0.57
15:CR:63:ARG:O	15:CR:67:LEU:HD12	2.03	0.57
39:D1:108:GLU:OE2	40:D2:45:THR:HA	2.04	0.57
47:BW:55:ARG:O	47:BW:58:ALA:HB3	2.04	0.57
24:BA:2489:G:O2'	24:BA:2518:A:N6	2.38	0.57
35:DP:58:PHE:C	35:DP:59:ARG:HE	2.08	0.57
8:CK:46:LYS:HE3	8:CK:63:LEU:O	2.04	0.57
1:CA:792:A:H1'	1:CA:794:A:N7	2.18	0.57
26:BD:270:ILE:HG22	26:BD:271:ILE:N	2.19	0.57
44:BV:65:GLN:OE1	44:BV:67:LEU:HD21	2.04	0.57
24:DA:924:C:H2'	24:DA:925:C:C6	2.40	0.57
1:AA:760:G:H2'	1:AA:761:G:H5'	1.86	0.57
1:CA:1423:G:H5'	33:DN:49:ARG:HH12	1.68	0.57
33:BN:71:ARG:NH1	38:BR:74:ARG:HH21	2.02	0.57
24:DA:956:G:OP2	35:DP:14:ARG:NH2	2.37	0.57
24:BA:2629:A:O2'	24:BA:2630:G:H5''	2.03	0.57
10:CM:20:ALA:O	10:CM:23:ILE:HB	2.03	0.57
4:CG:4:TYR:HD1	4:CG:5:ILE:N	2.03	0.57
29:DG:125:PHE:HB3	29:DG:166:ASP:HB2	1.86	0.57
3:AF:98:ASN:O	3:AF:100:ALA:N	2.34	0.57
6:AI:99:ALA:HB1	18:AU:23:LYS:NZ	2.18	0.57
24:BA:2250:G:N2	35:BP:84:GLY:HA3	2.19	0.57
9:CL:48:GLU:N	9:CL:49:PRO:CD	2.68	0.57
30:DH:124:GLU:CD	30:DH:124:GLU:H	2.07	0.57
24:DA:1224:G:N2	24:DA:1227:A:OP2	2.32	0.57
1:CA:1126:U:H4'	1:CA:1127:G:H8	1.67	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1153:C:H2'	1:CA:1154:G:O4'	2.04	0.57
7:CJ:38:LEU:O	7:CJ:42:ILE:HG13	2.04	0.57
34:DO:63:PRO:HB3	53:D8:13:ARG:HG2	1.85	0.57
1:AA:1381:U:H1'	7:AJ:79:ARG:HG2	1.87	0.57
12:CO:47:LYS:CG	12:CO:48:PRO:HD3	2.32	0.57
4:AG:61:LYS:HD3	4:AG:62:GLN:N	2.20	0.57
29:DG:113:ARG:HG2	29:DG:140:ILE:CA	2.32	0.57
30:BH:153:LYS:CB	30:BH:162:ILE:H	2.12	0.57
1:CA:485:G:HO2'	1:CA:486:U:P	2.27	0.57
1:AA:663:A:C5'	18:AU:61:LYS:HE3	2.33	0.57
24:BA:2427:C:C5'	24:BA:2428:G:OP1	2.45	0.57
53:D8:24:ALA:H	53:D8:49:VAL:HG23	1.70	0.57
6:CI:23:LYS:O	6:CI:26:ILE:HB	2.04	0.57
38:BR:7:ILE:C	38:BR:9:LEU:N	2.56	0.57
41:DS:113:LYS:HZ3	41:DS:113:LYS:H	1.51	0.57
27:BE:61:ARG:O	27:BE:63:LEU:HD23	2.04	0.57
1:AA:75:C:H2'	1:AA:76:G:O4'	2.05	0.57
11:CN:21:ILE:HG12	11:CN:30:VAL:HG12	1.85	0.57
24:BA:883:G:H2'	24:BA:884:C:O4'	2.04	0.57
24:DA:2163:C:H5''	24:DA:2172:U:OP2	2.03	0.57
20:AW:44:ALA:HB1	20:AW:88:VAL:HG13	1.84	0.57
24:DA:405:U:C3'	24:DA:405:U:O2	2.52	0.57
25:BB:70:C:N3	25:BB:71:C:C5	2.72	0.57
24:BA:1541:U:C2'	24:BA:1542:G:H5'	2.34	0.57
15:CR:24:SER:O	15:CR:28:GLN:HG3	2.05	0.57
41:DS:18:ARG:HE	41:DS:76:VAL:HG13	1.70	0.57
41:BS:1:MET:C	41:BS:64:MET:HE1	2.25	0.57
9:CL:36:TYR:CD2	9:CL:37:PHE:HE1	2.20	0.57
24:DA:978:G:C2	24:DA:986:C:C2	2.92	0.57
12:AO:18:VAL:CG2	12:AO:19:ARG:N	2.68	0.57
33:DN:87:ILE:HD11	33:DN:92:GLU:CA	2.34	0.57
11:AN:105:VAL:O	11:AN:105:VAL:HG23	2.05	0.57
43:DU:11:ASP:O	43:DU:27:VAL:HG12	2.04	0.57
1:CA:243:A:H4'	1:CA:244:U:O5'	2.03	0.57
1:AA:656:C:H4'	15:AR:62:GLN:NE2	2.19	0.57
24:BA:1458:C:H5''	24:BA:1459:G:H5'	1.86	0.57
11:CN:12:ARG:HE	11:CN:12:ARG:HA	1.69	0.57
1:AA:881:G:P	12:AO:12:ARG:HH22	2.27	0.57
1:CA:200:G:O2'	1:CA:201:C:H5'	2.04	0.57
32:BM:90:MET:HA	32:BM:90:MET:CE	2.35	0.57
21:AX:5:ASP:O	21:AX:11:GLY:HA3	2.03	0.57
17:CT:74:LEU:HD12	17:CT:75:ARG:HG2	1.85	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:128:VAL:HG22	44:BV:129:SER:N	2.19	0.57
4:AG:200:GLU:O	4:AG:203:VAL:N	2.38	0.57
14:CQ:6:LEU:O	14:CQ:6:LEU:HD23	2.04	0.57
19:CV:9:VAL:HG11	49:D4:63:TYR:CZ	2.38	0.57
24:BA:2418:A:C1'	51:B6:21:TYR:CE2	2.88	0.57
19:AV:21:GLU:HG3	19:AV:25:LYS:HD2	1.86	0.57
24:BA:2415:G:H4'	34:BO:66:GLY:C	2.25	0.57
2:AE:98:LEU:H	2:AE:101:MET:HE3	1.68	0.57
24:BA:1077:A:H3'	24:BA:1077:A:N3	2.20	0.57
24:DA:2634:G:H4'	27:DE:77:ILE:HD12	1.87	0.57
46:DZ:87:PRO:O	46:DZ:91:LYS:HG2	2.04	0.57
4:CG:108:LEU:HD11	4:CG:174:LEU:HB3	1.85	0.57
5:CH:76:ILE:CD1	5:CH:142:LEU:CD1	2.80	0.57
35:BP:138:ASP:OD1	44:BV:81:ARG:NH2	2.37	0.57
36:D0:37:THR:HG22	36:D0:39:PRO:CD	2.25	0.57
26:DD:26:LYS:H	26:DD:26:LYS:CD	2.16	0.57
1:CA:197:A:C8	1:CA:198:G:C1'	2.88	0.57
24:DA:2142:C:H2'	24:DA:2143:C:C6	2.39	0.57
44:BV:7:ALA:HB2	44:BV:59:LEU:HD22	1.86	0.57
24:BA:1833:U:H2'	24:BA:1834:U:C6	2.36	0.57
38:DR:51:ARG:HG3	38:DR:98:LYS:HE3	1.86	0.57
24:DA:2212:A:H1'	24:DA:2215:G:C4	2.40	0.57
1:AA:1256:A:N6	1:AA:1278:U:OP2	2.38	0.57
24:BA:958:U:OP2	35:BP:14:ARG:NH1	2.37	0.57
24:BA:674:G:H1'	28:BF:74:ARG:HD3	1.85	0.57
4:CG:27:TYR:O	4:CG:28:SER:HB2	2.05	0.57
24:DA:176:G:C2'	24:DA:177:G:H5'	2.34	0.57
25:DB:18:G:H1	25:DB:65:C:H42	1.52	0.57
1:AA:501:C:OP1	12:AO:117:ARG:NH2	2.37	0.57
22:CC:12:G:H4'	24:DA:1908:C:O2	2.04	0.57
43:BU:6:HIS:HE1	43:BU:69:ALA:O	1.88	0.57
1:AA:724:G:C2	1:AA:725:G:C8	2.92	0.57
24:BA:2478:A:C2'	24:BA:2479:G:H5'	2.35	0.57
24:BA:205:G:O2'	24:BA:206:U:OP2	2.18	0.57
24:BA:1304:C:O2'	24:BA:1305:C:H5'	2.05	0.57
18:CU:58:LEU:HB2	18:CU:62:GLU:OE1	2.04	0.57
1:CA:498:A:H4'	1:CA:500:G:OP1	2.04	0.57
4:CG:31:CYS:CB	4:CG:33:MET:HG3	2.30	0.57
1:CA:1124:G:O2'	1:CA:1145:C:N3	2.31	0.57
1:CA:1358:U:H3'	1:CA:1359:C:C6	2.39	0.57
1:CA:976:G:H3'	14:CQ:31:ARG:NH1	2.20	0.57
51:B6:11:LEU:HG	51:B6:12:GLU:N	2.19	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:B6:11:LEU:HD21	51:B6:51:GLU:CD	2.25	0.57
43:BU:76:CYS:CA	43:BU:81:LYS:HZ1	2.17	0.57
4:AG:29:PRO:O	4:AG:34:GLU:HB2	2.04	0.57
27:DE:4:ILE:CG1	27:DE:28:ALA:HB1	2.34	0.57
2:AE:176:GLU:H	2:AE:176:GLU:CD	2.05	0.57
29:DG:112:PRO:HG2	49:D4:37:SER:HB2	1.86	0.57
10:CM:21:GLN:NE2	10:CM:24:VAL:CG1	2.68	0.57
1:AA:1023:G:C5	1:AA:1024:G:H1'	2.39	0.57
1:CA:1014:A:C5'	19:CV:15:LEU:HD11	2.29	0.57
29:DG:80:PHE:HD2	29:DG:82:LEU:CD1	2.10	0.57
24:BA:1310:G:C8	24:BA:1311:G:N7	2.73	0.57
8:AK:44:PHE:CE2	8:AK:109:ILE:HG22	2.35	0.57
24:BA:449:A:H2'	24:BA:450:G:H5'	1.86	0.57
24:DA:2127:G:N1	24:DA:2162:G:N3	2.53	0.57
29:BG:104:GLU:HG2	49:B4:23:GLU:CD	2.24	0.57
16:AS:53:VAL:HG12	16:AS:79:VAL:HG13	1.87	0.57
24:DA:1602:U:P	42:DT:60:ARG:HH22	2.27	0.57
24:BA:1991:U:O2'	24:BA:1992:G:H5''	2.05	0.57
50:B5:40:LYS:HD3	50:B5:46:CYS:CB	2.34	0.57
27:DE:13:ARG:HA	27:DE:21:VAL:O	2.05	0.57
24:BA:748:G:OP2	41:BS:88:ARG:HG3	2.04	0.57
10:AM:6:ILE:CD1	10:AM:23:ILE:HG21	2.35	0.57
24:BA:2320:A:C2	24:BA:2333:A:C8	2.92	0.57
39:D1:69:CYS:O	39:D1:74:LEU:HD12	2.03	0.57
43:BU:5:MET:CE	43:BU:32:PRO:HA	2.34	0.57
4:CG:58:LEU:HD23	4:CG:62:GLN:HG2	1.87	0.57
1:AA:607:A:C2	16:AS:31:LYS:HG3	2.40	0.57
47:DW:64:LEU:HD23	47:DW:64:LEU:O	2.05	0.57
1:CA:866:C:O2'	1:CA:919:A:OP1	2.21	0.57
24:DA:2565:A:H5''	24:DA:2566:A:OP2	2.05	0.57
24:BA:192:C:O2'	24:BA:802:A:N3	2.34	0.57
5:CH:31:LEU:HG	5:CH:45:PHE:HB2	1.87	0.57
34:BO:140:ALA:O	34:BO:141:ALA:HB2	2.03	0.57
3:AF:121:ALA:HB1	3:AF:189:ALA:HB2	1.86	0.57
1:CA:599:C:OP1	8:CK:94:TYR:HE2	1.81	0.57
19:CV:31:ILE:HD11	19:CV:33:THR:H	1.69	0.57
24:DA:2370:G:H21	51:D6:45:LYS:HE2	1.68	0.57
29:BG:112:PRO:CA	49:B4:37:SER:CB	2.82	0.57
26:BD:35:LYS:CE	26:BD:65:ILE:HA	2.34	0.57
4:AG:31:CYS:C	4:AG:33:MET:HG3	2.25	0.57
1:AA:1316:G:H5''	14:AQ:17:LYS:NZ	2.20	0.57
2:AE:76:GLN:O	2:AE:208:ILE:HG12	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:D2:35:LEU:CD2	40:D2:57:VAL:HG13	2.16	0.57
1:AA:1035:A:H3'	1:AA:1036:G:C5'	2.26	0.57
1:AA:1305:G:H5'	21:AX:4:GLY:HA3	1.86	0.57
19:CV:15:LEU:HD22	19:CV:15:LEU:N	2.20	0.57
24:BA:1175:U:H1'	24:BA:1176:G:N3	2.20	0.57
6:AI:22:GLU:O	6:AI:26:ILE:HG13	2.04	0.57
29:BG:131:TYR:HB3	29:BG:159:VAL:CG2	2.35	0.57
52:B7:5:TRP:NE1	52:B7:7:PRO:HG3	2.19	0.57
17:AT:22:LEU:HD22	17:AT:88:TYR:HD2	1.65	0.57
49:B4:52:THR:HG23	49:B4:53:GLU:N	2.15	0.57
24:DA:90:U:O2'	24:DA:91:A:C8	2.57	0.57
28:BF:20:LEU:HD12	28:BF:21:ALA:H	1.70	0.57
24:DA:2872:G:C4	24:DA:2873:A:N1	2.73	0.57
15:AR:82:ILE:O	15:AR:86:GLY:N	2.34	0.57
3:AF:173:VAL:HG12	3:AF:175:LEU:HD11	1.85	0.57
24:BA:1210:A:C5'	24:BA:1212:G:H5'	2.32	0.57
1:CA:57:G:H2'	1:CA:58:C:H6	1.70	0.57
31:DK:114:LEU:O	31:DK:115:ALA:HB3	2.05	0.57
1:CA:408:A:C2	1:CA:435:C:N3	2.73	0.57
2:CE:114:ARG:HG2	2:CE:141:GLU:OE2	2.05	0.57
20:AW:33:ILE:CD1	20:AW:62:LEU:HB3	2.35	0.57
24:BA:271(C):U:O2'	24:BA:271:G:OP2	2.21	0.57
48:BX:54:VAL:HG22	48:BX:55:ARG:N	2.20	0.57
6:CI:12:PRO:HG3	6:CI:57:GLN:HG3	1.87	0.57
26:DD:3:VAL:HG12	26:DD:17:THR:HB	1.86	0.57
1:AA:754:C:C2'	1:AA:754:C:O2	2.52	0.57
24:DA:1616:A:H4'	24:DA:1617:C:OP2	2.04	0.57
52:D7:26:GLY:O	52:D7:30:VAL:HG23	2.05	0.57
24:BA:1921:G:O2'	24:BA:1922:G:H5'	2.04	0.57
24:DA:2526:G:H5'	24:DA:2742:C:O2'	2.05	0.57
24:DA:2859:G:O2'	24:DA:2860:A:C5'	2.52	0.57
26:DD:273:ARG:HG2	26:DD:273:ARG:O	2.03	0.57
1:CA:1321:C:P	1:CA:1322:C:H3'	2.45	0.57
24:DA:2629:A:HO2'	24:DA:2630:G:C5'	2.17	0.57
3:CF:64:VAL:CG2	3:CF:66:VAL:HG23	2.35	0.57
2:AE:176:GLU:O	2:AE:179:LYS:N	2.37	0.57
29:DG:140:ILE:CG1	29:DG:141:PHE:N	2.67	0.57
13:AP:20:THR:C	13:AP:22:ILE:H	2.08	0.57
4:CG:126:ILE:HG22	4:CG:127:THR:H	1.69	0.57
5:CH:76:ILE:CG1	5:CH:77:PRO:HD2	2.35	0.57
25:DB:45:A:C1'	29:DG:95:ARG:NH1	2.66	0.57
25:DB:104:A:O4'	44:DV:29:TYR:HE2	1.88	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:B3:49:LYS:O	45:B3:50:ASN:HB2	2.05	0.57
25:DB:33:G:C6	25:DB:34:U:N3	2.73	0.57
26:BD:44:ASN:HB3	26:BD:49:ILE:HA	1.87	0.57
38:BR:23:ARG:NH2	38:BR:120:ARG:HD3	2.20	0.57
53:D8:23:VAL:HG23	53:D8:48:PHE:H	1.70	0.57
1:AA:484:G:H1'	1:AA:485:G:OP2	2.04	0.57
48:BX:7:LYS:HB2	48:BX:34:GLU:HG2	1.85	0.57
24:BA:320:A:H5''	24:BA:321:G:OP1	2.05	0.57
24:DA:2612:C:C5	24:DA:2613:U:H5	2.23	0.57
1:CA:736:C:OP1	18:CU:72:ARG:NH2	2.30	0.57
24:BA:910:A:N7	35:BP:13:GLN:HG3	2.20	0.57
5:AH:98:THR:HB	5:AH:117:ASP:HB3	1.87	0.57
18:CU:81:PHE:O	18:CU:82:THR:OG1	2.19	0.57
26:DD:218:ARG:HB3	26:DD:219:PRO:HD2	1.86	0.57
39:D1:108:GLU:O	39:D1:112:ARG:HG2	2.04	0.57
9:CL:106:ALA:O	9:CL:108:VAL:CG1	2.51	0.57
4:AG:152:SER:C	4:AG:154:ASN:N	2.58	0.57
25:DB:15:A:H5'	25:DB:16:G:H8	1.70	0.57
15:CR:39:LEU:C	15:CR:39:LEU:HD13	2.25	0.57
32:DM:39:ARG:C	32:DM:41:ASP:H	2.06	0.57
1:CA:626:U:H2'	1:CA:627:G:C8	2.40	0.57
1:CA:37:U:H2'	1:CA:38:G:H8	1.70	0.57
6:CI:14:LEU:N	6:CI:14:LEU:HD12	2.19	0.57
1:AA:142:G:H1	1:AA:221:C:H42	1.53	0.57
31:DK:62:LYS:HE3	31:DK:134:PRO:HD3	1.86	0.57
3:CF:185:GLY:O	3:CF:200:ALA:N	2.38	0.57
1:CA:1387:G:O2'	1:CA:1388:C:H5'	2.03	0.57
44:BV:33:LEU:HD21	44:BV:90:VAL:HG21	1.86	0.57
24:DA:1645:G:H5''	24:DA:1646:C:H5'	1.86	0.57
39:D1:27:LEU:HB3	39:D1:31:SER:HB3	1.86	0.57
1:CA:1320:C:C4	1:CA:1321:C:N3	2.72	0.57
1:AA:1360:A:OP2	14:AQ:35:ARG:NH2	2.38	0.57
13:AP:57:ARG:HB2	13:AP:57:ARG:NH1	2.20	0.57
2:AE:200:ILE:H	2:AE:200:ILE:HD12	1.70	0.57
24:BA:1055:G:H1'	24:BA:1085:A:N6	2.20	0.57
40:B2:38:LEU:O	40:B2:51:VAL:HG13	2.04	0.57
13:CP:3:ARG:HG2	13:CP:9:ILE:HG23	1.84	0.57
13:CP:3:ARG:HH21	29:DG:139:LEU:HD21	1.70	0.57
2:CE:21:ARG:O	2:CE:23:ARG:N	2.38	0.57
30:DH:107:VAL:C	30:DH:109:PHE:H	2.08	0.57
30:DH:120:GLY:O	30:DH:135:GLY:HA2	2.04	0.57
6:CI:61:LEU:O	6:CI:62:TRP:HB2	2.03	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AK:112:LEU:HD23	8:AK:112:LEU:N	2.20	0.57
1:AA:739:C:OP1	6:AI:2:ARG:NH2	2.38	0.57
37:DQ:25:ARG:CD	37:DQ:88:ASP:HB2	2.33	0.57
7:AJ:115:ARG:CB	7:AJ:118:VAL:HG12	2.31	0.57
5:CH:151:LEU:CD1	8:CK:79:VAL:HG22	2.34	0.57
24:DA:780:G:OP1	26:DD:218:ARG:NH2	2.27	0.57
19:AV:50:ALA:O	19:AV:57:HIS:HB3	2.04	0.57
18:AU:29:PHE:HE2	18:AU:43:PHE:HZ	1.51	0.57
1:CA:1098:C:OP2	2:CE:144:ARG:CZ	2.53	0.57
26:BD:147:LEU:HD13	26:BD:155:LEU:HD11	1.87	0.57
1:CA:938:A:C6	1:CA:939:G:C5	2.93	0.57
24:BA:1192:G:C2'	24:BA:1193:G:H5'	2.34	0.57
1:CA:87:A:H2	1:CA:88:C:C6	2.21	0.57
24:BA:78:A:H2'	24:BA:79:G:C8	2.39	0.57
1:AA:929:G:C6	1:AA:930:C:C4	2.92	0.57
24:BA:2199:A:N3	24:BA:2199:A:H2'	2.19	0.57
4:CG:29:PRO:O	4:CG:30:LYS:HG3	2.05	0.57
12:CO:50:SER:O	12:CO:51:ALA:HB2	2.04	0.57
24:DA:2228:G:OP1	26:DD:261:LYS:NZ	2.27	0.57
24:BA:479:A:N3	24:BA:481:G:H5''	2.19	0.57
47:DW:10:LEU:O	47:DW:14:ARG:HG3	2.05	0.57
24:BA:2749:A:H4'	30:BH:62:LYS:HB3	1.87	0.57
9:AL:121:ARG:NH1	9:AL:122:ALA:O	2.38	0.57
14:CQ:24:CYS:CB	14:CQ:29:ARG:HH11	2.18	0.57
19:CV:49:ILE:CD1	19:CV:51:VAL:CG2	2.81	0.57
19:CV:55:LYS:O	19:CV:56:GLN:HB3	2.04	0.57
21:CX:6:ARG:NE	21:CX:15:ARG:HH12	2.02	0.57
53:D8:34:TRP:C	53:D8:36:LYS:H	2.08	0.57
43:BU:81:LYS:HD2	43:BU:96:ILE:HG21	1.85	0.57
24:BA:1998:G:C3'	24:BA:1999:C:H5'	2.32	0.57
26:BD:65:ILE:HD12	26:BD:66:ASP:N	2.19	0.57
1:AA:543:C:C2'	1:AA:544:G:H5'	2.34	0.57
25:BB:42:C:OP2	49:B4:2:LYS:CE	2.51	0.57
24:DA:776:G:H4'	24:DA:777:A:O5'	2.03	0.57
2:AE:8:LYS:HZ3	2:AE:217:ARG:HH21	1.53	0.57
2:CE:33:TYR:HB2	2:CE:43:ASP:HA	1.87	0.57
24:DA:1225:C:HO2'	40:D2:85:LYS:N	2.01	0.57
31:BK:92:VAL:CG1	31:BK:120:ILE:HG23	2.21	0.57
24:DA:1093:G:N2	24:DA:1097:U:H5''	2.18	0.57
1:AA:974:A:C2'	1:AA:975:A:OP2	2.53	0.57
10:CM:28:ARG:HH12	10:CM:33:GLN:CA	2.13	0.57
24:DA:299:A:H5''	43:DU:84:ARG:NH1	2.19	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:322:A:OP2	28:DF:169:ASN:HB2	2.05	0.57
4:CG:65:ARG:CG	4:CG:75:PHE:HD2	2.18	0.57
4:CG:92:VAL:HG12	4:CG:96:LEU:HD21	1.85	0.57
1:AA:56:U:H5'	31:DK:82:ARG:NH2	2.19	0.57
1:AA:559:A:C5'	1:AA:560:U:H3'	2.34	0.57
29:DG:75:LYS:HG3	29:DG:76:SER:N	2.20	0.57
34:BO:49:ARG:HG3	53:B8:59:LYS:HG3	1.85	0.57
1:AA:748:C:H6	1:AA:748:C:OP2	1.88	0.57
38:BR:90:GLN:OE1	38:BR:121:ILE:HD11	2.04	0.57
22:AC:18:G:N2	22:AC:58:A:C5	2.73	0.57
24:BA:1021:A:C8	24:BA:1021:A:H3'	2.40	0.57
44:DV:107:THR:HG22	44:DV:107:THR:O	2.05	0.57
24:DA:2502:G:C5'	24:DA:2503:A:H5''	2.32	0.57
1:CA:1259:C:H3'	1:CA:1260:C:C5'	2.30	0.57
37:DQ:7:TYR:HE1	37:DQ:11:LYS:NZ	2.01	0.57
24:DA:2191:G:C5	24:DA:2192:G:N7	2.72	0.57
24:DA:2096:U:H3	24:DA:2193:G:H1	1.51	0.57
50:B5:40:LYS:NZ	50:B5:46:CYS:HB3	2.20	0.57
24:BA:2688:U:C3'	24:BA:2688:U:O2	2.53	0.57
39:B1:66:ASN:OD1	39:B1:76:TYR:HB3	2.05	0.57
24:DA:942:G:H2'	24:DA:943:U:O5'	2.05	0.57
36:B0:33:ARG:HH22	50:B5:55:ARG:HB3	1.69	0.57
1:AA:638:G:H2'	1:AA:639:G:H8	1.69	0.57
26:BD:136:ILE:HG23	26:BD:137:PRO:HD2	1.87	0.57
36:B0:40:LYS:O	36:B0:44:LEU:HB2	2.04	0.57
37:BQ:70:GLY:HA2	37:BQ:101:LEU:CD1	2.35	0.57
7:AJ:22:LEU:O	7:AJ:22:LEU:HD23	2.04	0.57
24:DA:1889:A:H1'	24:DA:2087:G:H5'	1.87	0.57
44:BV:128:VAL:HG22	44:BV:129:SER:H	1.70	0.57
24:BA:189:G:H2'	24:BA:205:G:N2	2.20	0.57
3:CF:30:ARG:HG3	14:CQ:37:PHE:O	2.05	0.57
24:DA:2820:A:C6	36:D0:4:LEU:HD11	2.39	0.57
14:CQ:8:GLU:O	14:CQ:10:ALA:N	2.38	0.57
17:CT:57:VAL:HG12	17:CT:76:LEU:HA	1.85	0.57
7:AJ:155:ARG:H	7:AJ:155:ARG:HD3	1.70	0.57
14:AQ:8:GLU:HA	14:AQ:8:GLU:OE2	2.05	0.57
25:BB:12:C:OP2	25:BB:12:C:H6	1.88	0.57
31:DK:138:ILE:HG23	31:DK:138:ILE:O	2.04	0.57
24:DA:550:G:O2'	24:DA:1220:A:N3	2.29	0.57
24:DA:1133:U:H2'	24:DA:1137:G:OP1	2.05	0.57
4:CG:10:ARG:HG2	4:CG:10:ARG:HH11	1.68	0.56
10:CM:50:ILE:HA	10:CM:60:ARG:HA	1.86	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:D6:15:GLU:HB2	51:D6:47:THR:HG21	1.86	0.56
24:BA:2371:G:N3	51:B6:46:HIS:HE1	2.03	0.56
24:BA:2346:A:H5''	24:BA:2383:G:O4'	2.05	0.56
30:DH:3:ARG:HH22	30:DH:7:LEU:CD1	2.17	0.56
24:BA:1063:G:H2'	24:BA:1064:C:O4'	2.05	0.56
24:BA:1079:C:H41	24:BA:1088:A:P	2.28	0.56
24:DA:511:U:H3'	24:DA:512:G:H5'	1.81	0.56
24:DA:1210:A:H5''	24:DA:1212:G:H5'	1.87	0.56
3:CF:140:ARG:HH11	3:CF:141:VAL:HG23	1.70	0.56
44:BV:140:ASP:O	44:BV:141:VAL:HB	2.04	0.56
30:DH:107:VAL:O	30:DH:109:PHE:N	2.37	0.56
4:CG:134:ASP:O	4:CG:136:PRO:HD3	2.05	0.56
19:CV:14:HIS:C	19:CV:15:LEU:HD22	2.26	0.56
30:DH:121:ILE:CG2	30:DH:133:VAL:HB	2.35	0.56
25:DB:7:G:H4'	37:DQ:29:PHE:CD2	2.40	0.56
35:BP:33:GLY:HA2	35:BP:105:GLU:CB	2.33	0.56
48:DX:13:ILE:HD12	48:DX:13:ILE:N	2.20	0.56
24:BA:880:G:H22	24:BA:898:C:H1'	1.70	0.56
34:DO:146:VAL:HG22	34:DO:147:LEU:HG	1.86	0.56
24:DA:1536:A:H5''	24:DA:1537:C:C6	2.40	0.56
3:AF:73:PRO:HA	3:AF:76:VAL:CG2	2.34	0.56
8:CK:64:LYS:CG	8:CK:79:VAL:HG21	2.35	0.56
1:CA:836:G:C6	1:CA:851:G:C6	2.92	0.56
1:AA:162:A:H3'	1:AA:163:C:H4'	1.87	0.56
1:AA:162:A:H3'	1:AA:163:C:H5''	1.85	0.56
24:DA:1156:A:OP1	39:D1:55:ARG:NH1	2.37	0.56
36:D0:58:GLY:HA2	36:D0:80:PHE:CD2	2.40	0.56
24:BA:901:A:H2'	24:BA:901:A:N3	2.20	0.56
1:CA:376:G:O3'	16:CS:5:ARG:NE	2.30	0.56
24:DA:1832:C:N4	24:DA:1833:U:C4	2.73	0.56
26:DD:72:LYS:HD3	26:DD:97:TYR:CE2	2.39	0.56
4:AG:53:ASP:HB3	4:AG:57:ARG:HH12	1.70	0.56
24:DA:4:C:H42	24:DA:2899:G:H1	1.53	0.56
24:DA:207:A:H2'	24:DA:208:C:O4'	2.05	0.56
24:BA:1663:C:HO2'	24:BA:1664:A:H8	1.51	0.56
24:BA:1665:A:C2'	24:BA:1666:G:H5'	2.34	0.56
1:CA:1225:A:H5''	1:CA:1226:C:OP2	2.05	0.56
1:CA:1305:G:O2'	1:CA:1306:A:H8	1.88	0.56
1:CA:976:G:H3'	14:CQ:31:ARG:HH12	1.69	0.56
1:CA:1347:G:N7	9:CL:107:ARG:HB3	2.20	0.56
24:DA:2419:U:C5	53:D8:31:HIS:CD2	2.85	0.56
24:BA:2400:G:O4'	51:B6:19:ARG:NE	2.38	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:871:U:H4'	35:DP:69:PHE:CD2	2.40	0.56
26:BD:35:LYS:CG	26:BD:64:ILE:H	2.06	0.56
43:DU:76:CYS:CB	43:DU:77:PRO:HD2	2.36	0.56
24:BA:994:C:OP1	39:B1:53:ARG:NH2	2.38	0.56
29:DG:118:ARG:HB3	29:DG:181:ARG:HD3	1.86	0.56
24:DA:1568:G:P	26:DD:63:ARG:HH22	2.28	0.56
43:DU:81:LYS:HB3	43:DU:82:PRO:CD	2.35	0.56
4:CG:191:ARG:HA	4:CG:191:ARG:HE	1.69	0.56
1:CA:1014:A:C5'	19:CV:15:LEU:CD2	2.83	0.56
5:AH:68:GLU:HG3	5:AH:68:GLU:O	2.05	0.56
24:BA:247:G:H4'	24:BA:386:G:C5	2.40	0.56
10:AM:83:GLU:OE2	10:AM:84:GLN:N	2.38	0.56
31:DK:97:ILE:O	31:DK:100:ALA:HB3	2.04	0.56
9:AL:5:TYR:CE1	9:AL:16:ARG:HB2	2.29	0.56
34:DO:95:VAL:HG13	34:DO:125:VAL:HA	1.86	0.56
52:B7:9:ARG:HH21	52:B7:48:LYS:HD3	1.70	0.56
16:AS:82:GLN:HG3	16:AS:83:GLU:N	2.19	0.56
37:BQ:25:ARG:NH2	37:BQ:40:ILE:HD12	2.20	0.56
24:BA:2790:A:H1'	24:BA:2893:G:O2'	2.05	0.56
29:BG:35:GLU:O	29:BG:36:LYS:HB3	2.05	0.56
9:AL:125:TYR:CD1	9:AL:126:SER:N	2.73	0.56
37:DQ:39:ILE:HG22	37:DQ:39:ILE:O	2.03	0.56
24:DA:270(A):A:OP1	46:DZ:98:LEU:HD12	2.04	0.56
25:DB:20:C:C2'	25:DB:21:G:H5'	2.34	0.56
24:BA:1416:G:H2'	24:BA:1417:C:H6	1.70	0.56
44:BV:75:ASN:O	44:BV:84:GLU:HG2	2.05	0.56
2:CE:193:ASP:O	2:CE:196:LEU:HG	2.05	0.56
32:DM:14:VAL:HG11	32:DM:52:VAL:HG22	1.87	0.56
24:BA:1026:U:C4'	24:BA:1027:A:OP1	2.52	0.56
3:AF:115:LEU:HD12	3:AF:115:LEU:N	2.21	0.56
4:AG:180:GLY:O	4:AG:181:MET:HB2	2.03	0.56
1:CA:1378:C:C5	1:CA:1379:G:C8	2.91	0.56
50:D5:58:LEU:HD12	50:D5:58:LEU:N	2.19	0.56
24:DA:1412:A:H2'	24:DA:1413:G:H8	1.68	0.56
26:DD:117:VAL:CG1	26:DD:118:VAL:N	2.68	0.56
11:CN:127:LYS:HB2	11:CN:127:LYS:NZ	2.20	0.56
24:BA:2657:A:O3'	30:BH:160:LYS:NZ	2.34	0.56
24:DA:1292:U:H2'	24:DA:1293:C:C6	2.39	0.56
24:DA:815:C:H2'	24:DA:816:C:H6	1.70	0.56
1:CA:1385:G:O2'	1:CA:1386:G:H5'	2.05	0.56
52:D7:16:HIS:HB2	52:D7:44:PRO:HG2	1.86	0.56
1:AA:131:C:H2'	1:AA:132:C:C6	2.40	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CM:22:LYS:HD2	10:CM:22:LYS:O	2.05	0.56
41:DS:82:LEU:HD23	41:DS:82:LEU:N	2.20	0.56
1:AA:811:C:H4'	1:AA:900:A:N6	2.19	0.56
1:CA:1124:G:H1'	10:CM:38:ILE:HD11	1.87	0.56
1:CA:1366:C:O2'	10:CM:60:ARG:NH2	2.37	0.56
14:CQ:22:THR:HB	14:CQ:35:ARG:NE	2.20	0.56
21:CX:18:TYR:CD1	21:CX:24:ARG:HD2	2.40	0.56
24:DA:2376:A:OP1	24:DA:2376:A:H8	1.88	0.56
37:DQ:99:LYS:HE2	37:DQ:103:GLU:OE1	2.05	0.56
51:D6:40:CYS:SG	51:D6:45:LYS:CD	2.94	0.56
9:AL:95:LYS:O	9:AL:99:LEU:CD2	2.52	0.56
29:BG:115:ARG:O	29:BG:116:ASP:HB2	2.05	0.56
24:DA:1047:G:H1'	24:DA:1110:G:N2	2.20	0.56
1:AA:958:A:C8	19:AV:55:LYS:HD2	2.41	0.56
24:DA:9:U:C2	24:DA:2629:A:N6	2.73	0.56
29:DG:110:ALA:HB1	29:DG:140:ILE:HD12	1.85	0.56
26:DD:44:ASN:N	26:DD:44:ASN:OD1	2.38	0.56
2:CE:8:LYS:CD	2:CE:217:ARG:CD	2.80	0.56
40:D2:84:LYS:HB2	40:D2:84:LYS:HZ2	1.69	0.56
27:BE:78:LEU:CD2	27:BE:79:ARG:HD2	2.22	0.56
24:DA:1060:U:C6	24:DA:1062:G:H4'	2.41	0.56
24:DA:1210:A:H5'	24:DA:1212:G:C5'	2.35	0.56
44:DV:119:GLU:CG	44:DV:122:ARG:HH22	2.19	0.56
3:CF:110:ASN:O	3:CF:141:VAL:HG13	2.05	0.56
1:AA:1007:C:H1'	1:AA:1023:G:N2	2.21	0.56
1:CA:1104:G:O2'	2:CE:111:ARG:NH2	2.38	0.56
35:BP:31:ASP:O	35:BP:133:ARG:O	2.22	0.56
39:D1:80:ILE:HG23	39:D1:84:LYS:HE2	1.87	0.56
24:DA:242:G:C5'	53:D8:62:LEU:HD13	2.27	0.56
1:AA:1120:G:O6	1:AA:1152:A:N6	2.39	0.56
24:BA:259:G:H21	24:BA:621:A:H8	1.54	0.56
24:DA:2850:A:C2	24:DA:2851:A:C4	2.93	0.56
26:BD:133:LEU:HD13	26:BD:173:VAL:HG21	1.86	0.56
1:CA:972:C:H4'	10:CM:57:LYS:HB2	1.86	0.56
16:AS:37:GLY:HA3	16:AS:50:LYS:O	2.06	0.56
1:AA:438:G:O2'	1:AA:496:A:N6	2.38	0.56
42:DT:50:LYS:CG	42:DT:84:ALA:HB2	2.35	0.56
41:DS:113:LYS:H	41:DS:113:LYS:NZ	2.04	0.56
27:DE:33:VAL:HG12	27:DE:89:ASP:HA	1.87	0.56
35:BP:66:ILE:CD1	35:BP:67:ARG:H	2.16	0.56
29:DG:133:LEU:HD11	29:DG:157:ILE:HD12	1.87	0.56
26:BD:182:LEU:H	26:BD:272:ALA:CB	2.14	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:687:A:H4'	1:AA:688:G:O5'	2.05	0.56
1:AA:737:A:H2'	1:AA:738:C:H6	1.66	0.56
24:DA:2134:A:H2'	24:DA:2134:A:N3	2.20	0.56
4:AG:170:VAL:CG2	4:AG:174:LEU:HB2	2.35	0.56
24:BA:2442:C:H2'	24:BA:2443:C:C6	2.40	0.56
32:DM:35:ARG:C	32:DM:37:LYS:H	2.08	0.56
31:DK:47:LEU:O	31:DK:51:ILE:HD12	2.06	0.56
24:BA:141:A:H1'	24:BA:1408:C:O4'	2.04	0.56
25:BB:30:C:OP2	37:BQ:32:LEU:HD11	2.05	0.56
24:DA:2191:G:C5	24:DA:2192:G:C8	2.92	0.56
24:BA:911:A:C5	35:BP:9:TYR:CD2	2.93	0.56
24:DA:1543:A:H1'	24:DA:1545:A:H1'	1.86	0.56
30:DH:48:GLY:O	30:DH:49:VAL:HG13	2.05	0.56
24:BA:1992:G:C1'	24:BA:1993:U:OP2	2.52	0.56
24:BA:1528:A:C2	24:BA:1542:G:C2	2.88	0.56
50:B5:33:CYS:SG	50:B5:34:PRO:HD2	2.45	0.56
15:AR:78:TYR:CZ	15:AR:82:ILE:HD11	2.41	0.56
38:DR:24:PRO:HD3	38:DR:52:ILE:HG13	1.87	0.56
24:BA:2378:A:C2'	37:BQ:21:THR:HG21	2.35	0.56
30:DH:30:LYS:HG2	30:DH:136:ILE:CG2	2.35	0.56
24:BA:654(Q):C:H2'	24:BA:654(R):C:C6	2.41	0.56
24:DA:2575:C:H5'	27:DE:144:ARG:HG2	1.87	0.56
24:DA:669:G:C1'	24:DA:670:A:OP1	2.53	0.56
31:BK:6:LEU:O	31:BK:7:GLU:HB2	2.05	0.56
24:BA:491:G:OP2	24:BA:491:G:H8	1.88	0.56
30:DH:41:MET:SD	30:DH:64:LEU:HB3	2.46	0.56
1:CA:1112:C:C4	3:CF:178:LEU:HD23	2.39	0.56
35:BP:75:THR:HB	35:BP:89:ASN:H	1.69	0.56
8:AK:97:VAL:CG1	8:AK:98:LYS:HD3	2.35	0.56
1:AA:1328:C:OP1	21:AX:21:TYR:OH	2.21	0.56
1:CA:1486:G:H2'	1:CA:1487:G:O4'	2.05	0.56
24:DA:1510:A:H8	24:DA:1511:A:C8	2.22	0.56
24:DA:1964:G:O2'	24:DA:1967:C:OP2	2.21	0.56
24:BA:1188:U:C4'	40:B2:79:VAL:HG22	2.35	0.56
24:BA:1340:U:H4'	24:BA:1341:U:OP2	2.06	0.56
24:BA:1819:A:H4'	24:BA:1820:U:O5'	2.05	0.56
26:DD:77:ALA:HB2	26:DD:97:TYR:CG	2.39	0.56
1:AA:112:G:H21	1:AA:354:G:C4'	2.19	0.56
1:AA:581:G:O2'	1:AA:582:U:H5'	2.06	0.56
12:CO:55:VAL:HG23	12:CO:68:ALA:O	2.05	0.56
26:BD:51:VAL:HG12	26:BD:54:ARG:HG3	1.86	0.56
1:AA:575:G:C4	1:AA:881:G:C2	2.94	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:120:TRP:O	27:BE:121:ASN:HB2	2.05	0.56
33:BN:88:ASN:O	33:BN:91:LEU:N	2.37	0.56
24:DA:2396:G:H4'	46:DZ:30:VAL:H	1.71	0.56
24:BA:768:G:H2'	24:BA:769:G:H8	1.70	0.56
1:CA:85:U:O2	1:CA:85:U:H3'	2.06	0.56
1:CA:797:C:O2'	1:CA:798:G:H5'	2.05	0.56
1:CA:1344:C:C2'	1:CA:1345:U:H5'	2.35	0.56
13:CP:27:LYS:O	13:CP:30:ALA:HB3	2.05	0.56
24:DA:2343:C:O2'	24:DA:2344:U:C5'	2.43	0.56
30:BH:3:ARG:HD2	30:BH:3:ARG:O	2.04	0.56
13:CP:49:THR:HG22	13:CP:51:ALA:N	2.17	0.56
2:CE:17:PHE:HE2	2:CE:44:LEU:HD22	1.68	0.56
44:DV:118:GLN:OE1	44:DV:173:ALA:C	2.44	0.56
33:DN:13:ASN:O	33:DN:15:GLY:N	2.37	0.56
24:BA:2153:G:H2'	24:BA:2154:G:O4'	2.05	0.56
34:BO:15:ARG:HG3	34:BO:16:ARG:N	2.20	0.56
24:DA:1188:U:C2'	24:DA:1189:A:H5'	2.35	0.56
28:BF:57:VAL:HG13	28:BF:58:ALA:N	2.20	0.56
1:CA:1002:G:H2'	1:CA:1003:G:H8	1.69	0.56
30:BH:88:LEU:HD13	30:BH:129:THR:O	2.04	0.56
26:DD:25:THR:HG22	26:DD:82:ILE:N	2.19	0.56
1:AA:692:U:H2'	1:AA:694:A:OP2	2.06	0.56
24:DA:1012:U:O4	32:DM:28:THR:CG2	2.51	0.56
12:AO:24:VAL:CG1	12:AO:27:LEU:CD1	2.83	0.56
1:AA:1453:G:H3'	1:AA:1454:G:C5'	2.34	0.56
25:BB:71:C:C2	25:BB:72:G:C8	2.93	0.56
1:CA:718:G:H5'	11:CN:117:ASN:ND2	2.20	0.56
24:BA:1993:U:H4'	27:BE:128:SER:HB3	1.87	0.56
45:D3:72:ARG:HH21	45:D3:75:LEU:HD12	1.68	0.56
1:CA:658:G:H1'	15:CR:22:THR:HB	1.86	0.56
24:DA:1416:G:H1	24:DA:1582:C:H42	1.53	0.56
8:CK:112:LEU:HD23	8:CK:112:LEU:N	2.20	0.56
44:DV:77:ASP:CG	44:DV:80:ARG:HD2	2.26	0.56
11:AN:103:LEU:O	11:AN:105:VAL:N	2.38	0.56
1:AA:401:C:O2'	1:AA:621:A:N3	2.37	0.56
1:AA:792:A:H4'	1:AA:793:U:O5'	2.05	0.56
35:BP:21:THR:HG22	35:BP:99:PRO:O	2.06	0.56
25:DB:77:U:C5	25:DB:98:G:N2	2.73	0.56
6:CI:97:PHE:O	18:CU:31:LEU:HD23	2.04	0.56
24:BA:340:A:H2'	24:BA:341:G:H5'	1.88	0.56
26:DD:270:ILE:HG22	26:DD:271:ILE:N	2.20	0.56
1:CA:337:C:H2'	1:CA:338:A:H8	1.69	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AC:17:C:OP2	22:AC:17(A):C:O2'	2.19	0.56
24:BA:2294:C:H2'	24:BA:2295:C:H6	1.70	0.56
44:BV:94:GLU:O	44:BV:130:PRO:HD3	2.06	0.56
24:BA:2025:C:H2'	24:BA:2026:C:C6	2.41	0.56
24:DA:1651:G:OP1	36:D0:40:LYS:HE3	2.05	0.56
30:DH:113:VAL:HG22	30:DH:114:VAL:N	2.20	0.56
26:DD:5:LYS:HB2	26:DD:5:LYS:NZ	2.19	0.56
10:CM:51:ARG:HG3	10:CM:59:SER:O	2.05	0.56
10:AM:65:LEU:HD12	14:AQ:55:GLY:O	2.05	0.56
1:CA:410:G:C2	1:CA:429:U:O2	2.58	0.56
1:CA:1254:C:OP1	10:CM:45:ARG:HG3	2.06	0.56
24:DA:2378:A:O4'	37:DQ:112:PHE:CZ	2.58	0.56
30:BH:55:PRO:HG2	30:BH:61:HIS:CD2	2.41	0.56
30:BH:2:SER:HB2	30:BH:3:ARG:NH2	2.20	0.56
24:BA:2439:A:O2'	24:BA:2600:A:OP1	2.23	0.56
24:BA:2376:A:C2	37:BQ:112:PHE:HB2	2.41	0.56
27:DE:37:ARG:NE	27:DE:42:ASP:OD1	2.38	0.56
24:DA:2635:C:H5'	27:DE:77:ILE:HG22	1.88	0.56
39:B1:98:LEU:O	39:B1:100:VAL:N	2.39	0.56
13:CP:48:LEU:HD23	13:CP:48:LEU:O	2.04	0.56
24:BA:2635:C:H5''	27:BE:78:LEU:CA	2.10	0.56
30:DH:169:VAL:HG22	30:DH:170:ARG:N	2.20	0.56
24:DA:27:G:H22	24:DA:512:G:H1'	1.66	0.56
24:DA:607:U:OP1	28:DF:102:PRO:HA	2.05	0.56
1:AA:1035:A:C3'	1:AA:1036:G:H5''	2.26	0.56
1:CA:1212:U:C2'	1:CA:1213:A:OP2	2.52	0.56
5:AH:41:VAL:HG12	5:AH:42:GLY:N	2.20	0.56
24:BA:1989:G:C2'	24:BA:1990:C:H5'	2.35	0.56
1:AA:993:G:H4'	1:AA:994:A:OP2	2.06	0.56
5:AH:153:LYS:HD3	5:AH:154:GLY:N	2.20	0.56
24:DA:273(D):C:C4	24:DA:273(E):U:C4	2.93	0.56
24:BA:2787:C:O3'	27:BE:61:ARG:NH1	2.38	0.56
1:AA:93:U:H2'	1:AA:95:G:C1'	2.36	0.56
28:DF:66:PRO:O	28:DF:67:GLN:HB3	2.04	0.56
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.70	0.56
24:DA:1653:G:H4'	36:D0:2:ARG:NH1	2.21	0.56
24:DA:2134:A:H61	24:DA:2157:G:C2'	2.17	0.56
37:BQ:107:GLU:OE1	37:BQ:107:GLU:N	2.39	0.56
1:CA:186(B):C:H4'	20:CW:89:ARG:NH2	2.21	0.56
16:AS:67:THR:HG22	16:AS:68:ASP:H	1.70	0.56
27:DE:201:THR:HG22	27:DE:203:LYS:H	1.70	0.56
9:CL:26:VAL:HG12	9:CL:27:THR:N	2.21	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1826:G:H4'	26:DD:242:ARG:HH21	1.71	0.56
24:DA:1317:A:C2'	24:DA:1318:C:H5'	2.35	0.56
24:BA:2261:C:O2'	24:BA:2262:U:H5'	2.06	0.56
28:DF:21:ALA:HB3	28:DF:23:ASP:OD2	2.06	0.56
16:CS:58:TYR:O	16:CS:61:SER:OG	2.23	0.56
24:BA:821:A:H5''	24:BA:822:U:H6	1.70	0.56
24:DA:1322:A:OP1	41:DS:11:ARG:HG3	2.05	0.56
24:DA:270(B):A:H62	24:DA:270(X):G:N2	2.04	0.56
1:CA:1471:G:H2'	1:CA:1472:U:C6	2.40	0.56
24:BA:2243:U:H2'	24:BA:2244:U:C6	2.40	0.56
27:DE:181:LEU:HD11	38:DR:7:ILE:HD12	1.87	0.56
24:BA:773:U:C5'	26:BD:47:GLY:HA2	2.35	0.56
24:BA:873:G:N2	24:BA:905:U:C2	2.74	0.56
1:AA:812:C:H4'	1:AA:813:U:O5'	2.03	0.56
24:DA:314:A:O2'	24:DA:315:G:H5'	2.04	0.56
1:CA:1251:A:H5'	9:CL:12:GLU:HB3	1.87	0.56
13:CP:19:LEU:HD12	13:CP:20:THR:N	2.17	0.56
49:D4:57:GLU:H	49:D4:60:GLN:CG	2.19	0.56
1:AA:1117:G:C4'	9:AL:104:ARG:NH1	2.67	0.56
1:AA:937:A:C2	1:AA:1379:G:C6	2.93	0.56
49:B4:36:CYS:O	49:B4:39:CYS:N	2.34	0.56
30:BH:4:ILE:HG12	30:BH:6:ARG:NH2	2.21	0.56
24:DA:1796:U:H2'	24:DA:1797:C:C6	2.40	0.56
37:BQ:110:LEU:HD13	37:BQ:112:PHE:CD2	2.29	0.56
24:BA:746:A:C6	24:BA:2611:U:H5''	2.41	0.56
29:DG:108:ASN:O	49:D4:37:SER:OG	2.24	0.56
29:DG:110:ALA:HA	29:DG:140:ILE:HG13	1.86	0.56
2:CE:185:ILE:CG2	2:CE:199:TYR:HD2	2.19	0.56
2:CE:5:ILE:CD1	2:CE:221:LEU:HD21	2.34	0.56
5:CH:57:LYS:O	5:CH:61:TYR:HD2	1.88	0.56
1:CA:1290:G:C2	1:CA:1291:G:C1'	2.89	0.56
9:CL:24:GLY:HA3	9:CL:57:GLY:CA	2.36	0.56
10:AM:50:ILE:CA	10:AM:60:ARG:HG2	2.16	0.56
30:BH:155:SER:O	30:BH:156:ALA:O	2.24	0.56
4:CG:108:LEU:HD12	4:CG:174:LEU:HD13	1.88	0.56
38:DR:106:SER:HA	38:DR:110:ILE:CD1	2.36	0.56
30:DH:122:THR:CG2	30:DH:134:SER:HB2	2.30	0.56
20:AW:72:LEU:HD21	20:AW:76:ALA:HB3	1.88	0.56
5:CH:10:MET:SD	5:CH:13:ILE:HG23	2.46	0.56
1:CA:843:U:H3'	1:CA:848:C:C5'	2.35	0.56
12:CO:27:LEU:HD21	12:CO:62:SER:CB	2.36	0.56
4:AG:108:LEU:HB3	4:AG:110:PHE:CD1	2.41	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1567:A:H5''	26:BD:58:HIS:HD2	1.68	0.56
7:CJ:69:VAL:HG12	7:CJ:103:TRP:CE3	2.40	0.56
14:AQ:25:VAL:HG22	14:AQ:39:LEU:HD23	1.86	0.56
24:DA:1496:A:C8	24:DA:1577:C:O2'	2.57	0.56
44:BV:100:VAL:HG21	44:BV:126:VAL:HG21	1.88	0.56
9:CL:27:THR:HG23	9:CL:31:GLN:O	2.06	0.56
14:AQ:3:ARG:HA	14:AQ:3:ARG:HH11	1.71	0.56
26:DD:186:HIS:HD2	26:DD:187:GLY:N	2.03	0.56
24:DA:2695:C:H2'	24:DA:2696:U:H6	1.70	0.56
24:BA:2010:G:H5''	41:BS:42:ARG:HB2	1.87	0.56
1:CA:476:G:O2'	1:CA:477:G:H5'	2.05	0.56
24:DA:924:C:H2'	24:DA:925:C:H6	1.71	0.56
24:BA:469:G:H2'	24:BA:470:A:H5''	1.87	0.56
24:BA:1163:G:O2'	24:BA:1164:G:H5'	2.06	0.56
37:BQ:101:LEU:O	37:BQ:101:LEU:HD12	2.06	0.56
24:DA:2859:G:O2'	24:DA:2860:A:O5'	2.24	0.56
27:DE:181:LEU:HD11	38:DR:7:ILE:CD1	2.36	0.56
24:DA:2619:C:O2'	24:DA:2620:C:H5'	2.06	0.56
24:DA:614:U:H4'	24:DA:615:G:OP1	2.05	0.56
24:DA:1170:G:O6	24:DA:1179:C:N4	2.30	0.56
29:DG:58:GLN:O	29:DG:62:LEU:HD13	2.05	0.56
24:DA:2483:C:N3	35:DP:124:LYS:NZ	2.50	0.56
15:AR:29:VAL:CG1	15:AR:67:LEU:HD11	2.35	0.56
1:AA:1353:G:H2'	1:AA:1354:C:H6	1.70	0.56
1:CA:1275:A:H2'	1:CA:1276:G:O4'	2.06	0.56
9:CL:16:ARG:HH11	9:CL:64:THR:CG2	2.04	0.56
1:CA:1367:C:P	10:CM:60:ARG:HH21	2.28	0.56
13:CP:23:TYR:HE2	13:CP:71:ARG:HB2	1.71	0.56
37:DQ:74:ALA:HB1	37:DQ:107:GLU:HB2	1.88	0.56
9:AL:93:ARG:CG	9:AL:102:LEU:HD11	2.36	0.56
34:DO:63:PRO:O	34:DO:65:ARG:N	2.35	0.56
35:DP:24:GLY:CA	35:DP:25:ASP:CB	2.68	0.56
2:AE:167:PRO:HG2	2:AE:192:SER:CB	2.36	0.56
28:DF:25:PRO:O	28:DF:26:ALA:HB3	2.06	0.56
1:AA:102:G:C6	1:AA:103:C:C4	2.94	0.56
2:CE:237:ALA:O	2:CE:238:LEU:HB3	2.05	0.56
1:CA:1057:G:O2'	1:CA:1058:G:H5'	2.05	0.56
1:AA:1302:U:H4'	1:AA:1302:U:OP2	2.04	0.56
43:DU:13:VAL:HG22	43:DU:14:LEU:O	2.06	0.56
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.40	0.56
14:CQ:12:ARG:NH1	14:CQ:12:ARG:HB2	2.21	0.56
24:BA:2148:G:O2'	24:BA:2149:G:H5'	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D4:18:CYS:N	49:D4:19:GLY:HA2	2.10	0.56
16:AS:38:TYR:O	16:AS:49:LEU:HD12	2.06	0.56
1:AA:495:A:C2	1:AA:496:A:C6	2.94	0.56
25:DB:66:A:C2	25:DB:108:C:C4	2.93	0.56
1:AA:703:G:H4'	1:AA:704:A:OP2	2.03	0.56
32:BM:96:GLU:HG2	32:BM:97:ARG:N	2.20	0.56
1:AA:376:G:H5''	16:AS:5:ARG:HB2	1.88	0.56
24:DA:1666:G:C2'	24:DA:1667:G:H5'	2.35	0.56
37:DQ:19:LYS:O	37:DQ:21:THR:N	2.39	0.56
7:AJ:91:VAL:HG23	7:AJ:96:GLN:CG	2.35	0.56
12:CO:70:ILE:CD1	12:CO:77:LEU:HD12	2.34	0.56
1:AA:1016:A:H5'	14:AQ:15:LYS:NZ	2.20	0.56
33:BN:3:GLN:HG2	33:BN:4:PRO:HD2	1.86	0.56
26:DD:131:LEU:HD12	26:DD:131:LEU:N	2.21	0.56
1:CA:475:G:H2'	1:CA:476:G:C8	2.40	0.56
24:DA:1508:A:H4'	24:DA:1510:A:C2	2.40	0.56
24:DA:1678:G:N2	24:DA:1989:G:H22	2.03	0.56
24:BA:524:U:H4'	24:BA:554:U:H4'	1.88	0.56
24:DA:221:A:C4	24:DA:266:G:N7	2.74	0.56
24:DA:17:G:H4'	39:D1:25:TRP:CH2	2.41	0.56
1:AA:197:A:N7	1:AA:221:C:H4'	2.21	0.56
1:AA:828:A:H2'	1:AA:829:G:O4'	2.05	0.56
1:AA:575:G:C4	1:AA:881:G:N2	2.74	0.56
24:BA:1637:A:H4'	24:BA:2711:A:O2'	2.06	0.56
24:DA:1932:A:H2'	24:DA:1933:G:H5'	1.87	0.56
1:CA:273:A:O2'	1:CA:274:A:H5'	2.06	0.56
1:CA:1237:C:O2'	1:CA:1300:G:N2	2.38	0.56
1:CA:1321:C:H3'	1:CA:1322:C:H5''	1.88	0.56
1:CA:1370:G:H5''	9:CL:12:GLU:HG3	1.87	0.56
13:CP:68:GLY:HA3	29:DG:116:ASP:OD1	2.04	0.56
1:CA:1288:A:O3'	21:CX:10:ARG:NH2	2.38	0.56
7:CJ:78:ARG:NH1	7:CJ:86:GLN:H	2.02	0.56
1:AA:1157:A:N6	1:AA:1180:A:C4	2.73	0.56
51:B6:47:THR:CG2	51:B6:48:VAL:N	2.69	0.56
24:DA:1047:G:C1'	24:DA:1110:G:H1	2.19	0.56
24:BA:1113:U:P	30:BH:2:SER:N	2.79	0.56
53:B8:22:VAL:HB	53:B8:53:PRO:HB2	1.86	0.56
2:AE:178:ARG:HH12	2:AE:196:LEU:C	2.09	0.56
24:DA:2637:U:H5''	27:DE:82:ARG:NH2	2.21	0.56
40:B2:38:LEU:CD2	40:B2:40:LEU:H	2.19	0.56
2:CE:12:GLU:CA	2:CE:15:VAL:HG23	2.34	0.56
28:DF:22:ALA:C	28:DF:24:LEU:N	2.55	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:126:ILE:HG22	4:CG:127:THR:N	2.20	0.56
24:DA:1312:U:H3'	42:DT:63:LYS:HE2	1.87	0.56
6:AI:35:ALA:HA	6:AI:67:MET:HB3	1.88	0.56
37:DQ:3:ARG:CD	37:DQ:4:LEU:N	2.64	0.56
2:AE:95:GLN:HB3	2:AE:96:ARG:HD2	1.87	0.56
1:CA:485:G:C2'	1:CA:486:U:OP2	2.53	0.56
24:BA:1141:U:P	32:BM:63:THR:HG21	2.45	0.56
1:AA:263:A:OP1	20:AW:79:ARG:NH1	2.39	0.56
20:CW:13:LEU:HD12	20:CW:13:LEU:H	1.70	0.56
1:CA:1028:C:N3	1:CA:1033:G:N2	2.41	0.56
1:CA:1005:A:O3'	1:CA:1037:C:O2'	2.24	0.56
3:AF:15:THR:CG2	3:AF:181:ASN:CA	2.80	0.56
1:AA:377:G:OP1	16:AS:3:LYS:HD2	2.06	0.56
5:CH:100:VAL:HG13	5:CH:118:ILE:HG21	1.86	0.56
24:DA:1389:G:H2'	24:DA:1390:U:C6	2.41	0.56
3:CF:149:ALA:HA	3:CF:201:TYR:O	2.06	0.56
24:DA:783:A:H8	24:DA:784:A:H4'	1.71	0.56
27:DE:12:THR:HG22	27:DE:13:ARG:H	1.70	0.56
24:BA:75:G:H4'	47:BW:55:ARG:HH21	1.68	0.56
31:BK:77:LEU:CD1	31:BK:140:LEU:HB2	2.36	0.56
2:CE:230:VAL:HG22	2:CE:231:GLU:H	1.70	0.56
24:BA:2414:G:OP1	46:BZ:25:LYS:NZ	2.38	0.56
29:BG:145:THR:HG23	49:B4:28:LYS:NZ	2.21	0.56
2:AE:136:VAL:HG23	2:AE:137:ARG:N	2.19	0.56
2:CE:118:LEU:HD13	2:CE:142:LEU:HB2	1.86	0.56
1:AA:1399:C:H4'	1:AA:1400:C:O5'	2.06	0.56
18:AU:23:LYS:HD2	18:AU:58:LEU:HD23	1.87	0.56
24:BA:1036:G:OP1	30:BH:59:ARG:HB2	2.06	0.56
24:BA:2742:C:O2'	24:BA:2743:C:H5'	2.06	0.56
24:BA:1710:C:H2'	24:BA:1711:C:H6	1.71	0.56
17:CT:39:SER:O	17:CT:40:LYS:HB2	2.06	0.56
8:CK:114:THR:HG23	8:CK:117:GLY:H	1.71	0.56
24:DA:116:C:H2'	24:DA:117:G:O4'	2.05	0.56
24:DA:853:G:H2'	24:DA:854:G:H8	1.71	0.56
9:CL:112:LYS:HG2	9:CL:118:LYS:HA	1.88	0.56
10:CM:49:VAL:HB	14:CQ:41:ARG:HB2	1.88	0.56
14:CQ:29:ARG:NH1	14:CQ:40:CYS:N	2.53	0.56
24:DA:2344:U:O2'	51:D6:37:ARG:HG2	2.06	0.56
9:AL:95:LYS:HD3	9:AL:96:LEU:CD1	2.34	0.56
1:AA:503:C:O2	1:AA:510:A:H2	1.89	0.56
24:DA:1111:A:O2'	24:DA:1112:G:C4'	2.43	0.56
24:BA:1113:U:C5'	30:BH:2:SER:HB3	2.29	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:85:VAL:HG23	37:BQ:110:LEU:HD13	1.88	0.56
39:B1:58:ARG:HH11	39:B1:93:LYS:CE	2.19	0.56
2:CE:19:HIS:O	2:CE:190:THR:OG1	2.24	0.56
1:CA:255:G:O2'	1:CA:256:U:H5'	2.06	0.56
5:CH:16:THR:O	5:CH:16:THR:HG23	2.05	0.56
1:AA:972:C:H4'	10:AM:57:LYS:CB	2.36	0.56
4:CG:104:VAL:O	4:CG:108:LEU:HB2	2.05	0.56
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.06	0.56
1:CA:1046:A:H61	1:CA:1213:A:H2	1.48	0.56
31:DK:125:GLU:HB2	31:DK:141:LYS:HD3	1.88	0.56
31:DK:86:THR:HG22	31:DK:87:LYS:N	2.20	0.56
1:CA:632:A:H4'	1:CA:633:G:C5'	2.34	0.56
44:DV:91:LEU:HD21	44:DV:96:VAL:HG21	1.87	0.56
24:BA:2213:U:H4'	46:BZ:52:ARG:NH1	2.20	0.56
40:D2:98:GLU:O	40:D2:99:ILE:HB	2.05	0.56
47:BW:50:ILE:CD1	47:BW:51:ARG:N	2.68	0.56
3:AF:78:GLY:O	3:AF:79:ARG:HB2	2.06	0.56
1:AA:437:U:C5'	4:AG:155:LEU:CD2	2.81	0.56
11:AN:12:ARG:HG2	11:AN:13:GLN:N	2.20	0.56
25:DB:115:G:C8	25:DB:115:G:OP2	2.56	0.56
25:DB:55:U:H4'	29:DG:27:ASN:OD1	2.05	0.56
44:DV:105:VAL:HG13	44:DV:106:GLY:N	2.09	0.56
20:AW:73:HIS:O	20:AW:76:ALA:HB3	2.06	0.56
3:CF:85:ARG:CD	3:CF:85:ARG:N	2.66	0.56
24:DA:2117:A:HO2'	24:DA:2118:U:H5	1.50	0.56
24:BA:1728:G:O6	24:BA:1730:U:H5'	2.05	0.56
16:AS:67:THR:HG22	16:AS:68:ASP:N	2.21	0.56
1:CA:373:A:N3	1:CA:374:A:C8	2.74	0.56
1:CA:89:U:H1'	1:CA:90:C:OP1	2.05	0.56
6:AI:14:LEU:HD21	6:AI:18:GLN:CB	2.33	0.56
3:CF:14:ILE:CG1	3:CF:15:THR:H	2.18	0.56
4:AG:176:LEU:HD12	4:AG:182:LYS:O	2.05	0.56
3:AF:117:ALA:HB1	3:AF:187:ALA:HB3	1.88	0.56
30:DH:41:MET:SD	30:DH:64:LEU:CB	2.94	0.56
53:D8:40:GLU:O	53:D8:41:ILE:HG13	2.05	0.56
24:BA:2517:C:C5	24:BA:2542:A:C5	2.94	0.56
24:DA:139:G:N2	24:DA:1596:A:H4'	2.21	0.56
42:DT:12:VAL:HG22	42:DT:27:THR:OG1	2.06	0.56
29:DG:122:PRO:HG3	29:DG:182:LYS:OXT	2.06	0.56
24:BA:1590:U:H2'	24:BA:1591:G:H8	1.67	0.56
1:CA:1386:G:O2'	1:CA:1387:G:H5'	2.06	0.56
24:DA:342:G:O2'	24:DA:343:C:H5'	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:4:C:H2'	24:BA:5:A:C8	2.40	0.56
6:AI:76:ALA:O	6:AI:80:ARG:HG3	2.06	0.56
24:BA:86:C:H4'	24:BA:104:U:H1'	1.88	0.56
46:DZ:63:ALA:O	46:DZ:65:SER:N	2.38	0.56
7:CJ:57:GLU:HB2	7:CJ:60:LYS:HB2	1.86	0.56
26:BD:217:ARG:HG2	26:BD:217:ARG:HH11	1.71	0.56
48:DX:36:VAL:O	48:DX:36:VAL:HG23	2.06	0.56
47:DW:23:LYS:HD3	47:DW:23:LYS:O	2.06	0.56
25:DB:41:U:O4	29:DG:70:VAL:HG23	2.06	0.56
1:CA:1301:U:C2'	1:CA:1302:U:OP1	2.53	0.56
24:DA:2370:G:N3	51:D6:45:LYS:NZ	2.53	0.56
24:BA:2371:G:H21	51:B6:46:HIS:CE1	2.24	0.56
13:AP:3:ARG:NE	13:AP:7:VAL:HG13	2.21	0.56
20:AW:57:ARG:O	20:AW:60:GLU:HB3	2.06	0.56
31:BK:69:LYS:HG3	31:BK:136:VAL:CG1	2.35	0.56
24:DA:1794:U:H1'	24:DA:1900:A:N3	2.21	0.56
39:B1:91:ASP:C	39:B1:93:LYS:N	2.59	0.56
17:CT:67:LYS:C	17:CT:69:LYS:H	2.10	0.56
31:BK:83:ALA:CB	31:BK:88:ILE:HA	2.34	0.56
24:DA:1069:A:H3'	24:DA:1073:A:H62	1.71	0.56
1:AA:1330:U:H4'	13:AP:23:TYR:CE1	2.40	0.56
30:DH:152:ARG:CZ	30:DH:153:LYS:HE2	2.36	0.56
6:AI:48:LEU:HD21	6:AI:60:PHE:CZ	2.40	0.56
5:AH:78:HIS:CE1	5:AH:143:ARG:H	2.23	0.56
49:D4:12:ALA:HB1	49:D4:29:PRO:CA	2.31	0.56
10:AM:34:VAL:HG11	10:AM:74:ILE:HG12	1.88	0.56
24:BA:1496:A:H2'	24:BA:1577:C:O2'	2.06	0.56
24:DA:2849:U:O4	38:DR:23:ARG:NH2	2.33	0.56
38:DR:23:ARG:HG2	38:DR:120:ARG:NH1	2.21	0.56
11:AN:33:THR:HA	11:AN:40:ILE:HG13	1.88	0.56
44:BV:53:ILE:H	44:BV:71:VAL:HG13	1.71	0.56
50:D5:37:LYS:HD2	50:D5:37:LYS:C	2.26	0.56
24:BA:594:U:C5'	53:B8:61:LEU:HD13	2.35	0.56
1:AA:346:G:H5'	38:BR:39:ARG:HH22	1.71	0.56
1:AA:619:U:H3	4:AG:135:LEU:CD1	2.19	0.56
24:DA:978:G:H2'	24:DA:979:G:O4'	2.06	0.56
1:CA:519:C:N4	1:CA:520:A:C6	2.74	0.56
16:CS:48:TRP:O	16:CS:49:LEU:HB2	2.05	0.56
24:BA:572:A:H5''	24:BA:573:G:OP2	2.06	0.56
1:AA:639:G:H2'	1:AA:640:A:H8	1.71	0.56
24:DA:229:A:O2'	24:DA:230:U:H5	1.88	0.56
4:CG:61:LYS:HD2	4:CG:206:PHE:CE2	2.41	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:106:C:H2'	1:AA:107:G:C8	2.41	0.56
17:CT:59:ILE:HG23	17:CT:71:PHE:HB3	1.88	0.56
24:BA:2264:C:N4	45:B3:15:ASP:OD2	2.39	0.56
24:BA:978:G:O2'	24:BA:979:G:H5'	2.06	0.56
24:BA:589:C:O2'	24:BA:590:A:H5'	2.04	0.56
1:AA:197:A:C5	1:AA:221:C:H4'	2.40	0.56
1:CA:562:C:H1'	12:CO:15:ARG:HD2	1.88	0.56
26:BD:228:PRO:HD3	26:BD:235:GLY:CA	2.36	0.56
1:CA:892:A:C2	1:CA:907:A:C4	2.93	0.56
11:CN:112:THR:HG23	11:CN:113:PRO:HD2	1.88	0.56
31:DK:13:GLY:HA3	31:DK:17:GLN:OE1	2.06	0.56
17:CT:56:VAL:O	17:CT:77:VAL:HB	2.05	0.56
24:BA:1133:U:H2'	24:BA:1137:G:OP1	2.06	0.56
11:AN:41:THR:HG21	11:AN:71:LYS:HB3	1.88	0.56
24:BA:2364:C:H2'	24:BA:2365:G:O4'	2.05	0.56
32:BM:73:THR:HB	32:BM:82:LEU:HD11	1.87	0.56
1:CA:1154:G:C4	1:CA:1155:G:C8	2.94	0.55
1:CA:1157:A:N3	1:CA:1157:A:H2'	2.21	0.55
1:CA:1367:C:P	10:CM:60:ARG:NH2	2.79	0.55
19:CV:49:ILE:HG13	19:CV:60:VAL:HG22	1.88	0.55
24:BA:2400:G:C2'	24:BA:2401:U:C6	2.88	0.55
19:AV:67:VAL:HG21	49:B4:60:GLN:HE22	1.72	0.55
30:BH:54:ARG:HB2	30:BH:55:PRO:HD2	1.87	0.55
26:BD:35:LYS:HE2	26:BD:104:TYR:HB2	1.88	0.55
29:BG:34:LEU:HB3	29:BG:99:MET:CE	2.30	0.55
24:BA:1061:U:H1'	24:BA:1070:A:N3	2.21	0.55
27:DE:36:ARG:NH2	27:DE:87:GLU:O	2.39	0.55
27:DE:76:ARG:CG	27:DE:195:LEU:HD22	2.36	0.55
29:DG:113:ARG:HD2	49:D4:35:VAL:HB	1.88	0.55
2:CE:12:GLU:HA	2:CE:15:VAL:CG2	2.35	0.55
2:CE:166:ASP:HB3	2:CE:169:LYS:HB2	1.88	0.55
24:DA:1061:U:H4'	24:DA:1070:A:C1'	2.36	0.55
24:BA:1794:U:H1'	24:BA:1900:A:N3	2.21	0.55
25:DB:45:A:H2'	25:DB:46:A:H5'	1.87	0.55
44:DV:30:ASN:HA	44:DV:89:PHE:CE1	2.41	0.55
30:BH:77:LYS:CG	30:BH:78:GLY:N	2.69	0.55
1:CA:485:G:O2'	1:CA:486:U:O5'	2.23	0.55
24:BA:2428:G:H5''	24:BA:2429:G:OP1	2.06	0.55
53:D8:48:PHE:CG	53:D8:49:VAL:N	2.73	0.55
1:CA:509:A:H4'	4:CG:55:ALA:HB2	1.87	0.55
28:BF:64:ILE:CG2	28:BF:65:TRP:NE1	2.69	0.55
20:AW:63:ILE:CG2	20:AW:77:ALA:HB1	2.36	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:684:A:H5''	11:AN:11:LYS:HZ3	1.70	0.55
4:AG:108:LEU:HB3	4:AG:110:PHE:CE1	2.42	0.55
1:AA:1452:C:HO2'	1:AA:1453:G:P	2.28	0.55
1:CA:322:C:C5	1:CA:328:C:H5	2.23	0.55
26:BD:11:PRO:O	26:BD:12:SER:OG	2.18	0.55
24:BA:527:C:H4'	24:BA:528:A:O5'	2.06	0.55
38:DR:51:ARG:CG	38:DR:98:LYS:HE3	2.36	0.55
3:AF:134:ILE:HG22	3:AF:168:ALA:HB3	1.86	0.55
28:DF:118:ALA:HB2	28:DF:123:LEU:HD22	1.87	0.55
46:DZ:11:ARG:HB2	46:DZ:12:PRO:HD2	1.87	0.55
31:DK:40:THR:O	31:DK:44:LEU:HB2	2.06	0.55
1:AA:1422:G:H5'	33:BN:48:PRO:HB3	1.88	0.55
1:AA:1498:U:C1'	1:AA:1499:A:OP2	2.53	0.55
40:B2:24:LYS:HB3	40:B2:24:LYS:HZ2	1.69	0.55
40:D2:62:LEU:H	40:D2:62:LEU:CD2	2.18	0.55
1:CA:1379:G:O2'	1:CA:1380:U:H5'	2.06	0.55
1:CA:464:G:C6	1:CA:466:C:H5'	2.41	0.55
38:BR:31:SER:HB2	38:BR:84:GLN:HG2	1.88	0.55
24:DA:2717:G:C2'	38:DR:100:TYR:HH	2.16	0.55
2:CE:112:VAL:CG1	2:CE:113:HIS:N	2.69	0.55
22:CC:25:C:H2'	22:CC:26:G:O4'	2.06	0.55
22:AC:12:G:H4'	24:BA:1908:C:O2	2.06	0.55
30:DH:95:ARG:O	30:DH:96:ALA:CB	2.53	0.55
1:AA:392:G:H2'	1:AA:393:A:C8	2.41	0.55
1:AA:881:G:OP2	12:AO:12:ARG:NH2	2.38	0.55
24:BA:2471:C:N4	24:BA:2476:A:O2'	2.39	0.55
30:BH:98:LEU:HD12	30:BH:102:ALA:O	2.07	0.55
24:DA:1349:A:H3'	24:DA:1349:A:N3	2.21	0.55
28:BF:36:VAL:HG11	28:BF:183:VAL:HG11	1.88	0.55
24:BA:2321:G:H5''	24:BA:2322:A:OP2	2.05	0.55
24:BA:1502:C:O2'	24:BA:1503:U:H5'	2.06	0.55
13:AP:64:TRP:N	13:AP:64:TRP:CD1	2.74	0.55
25:DB:112:G:N2	37:DQ:45:GLY:O	2.39	0.55
1:AA:186(C):G:O2'	1:AA:186(D):C:H5'	2.06	0.55
24:DA:1601:G:C4'	52:D7:49:ARG:CD	2.84	0.55
1:CA:1240:U:H3	7:CJ:32:ARG:CZ	2.19	0.55
1:CA:1320:C:C5	1:CA:1321:C:C5	2.94	0.55
10:CM:68:HIS:CD2	10:CM:70:ARG:HH12	2.16	0.55
1:CA:1228:C:OP1	13:CP:115:LYS:HG2	2.07	0.55
13:CP:62:ASN:HA	49:D4:49:PHE:CZ	2.37	0.55
3:AF:8:ILE:HD11	3:AF:16:ARG:HE	1.67	0.55
24:DA:2345:G:H5''	51:D6:39:TYR:CE2	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AL:99:LEU:CB	9:AL:101:PHE:CD2	2.84	0.55
19:AV:15:LEU:CD1	19:AV:16:LEU:N	2.68	0.55
29:BG:111:LEU:N	29:BG:112:PRO:CD	2.68	0.55
30:DH:9:ILE:CG2	30:DH:51:ARG:CB	2.81	0.55
1:CA:280:C:H3'	1:CA:281:G:H5'	1.88	0.55
2:AE:91:PRO:HD3	2:AE:155:LEU:CD2	2.36	0.55
13:AP:12:ASN:N	13:AP:46:LYS:CD	2.68	0.55
43:DU:15:VAL:HG22	43:DU:72:VAL:HG12	1.88	0.55
14:CQ:12:ARG:CB	14:CQ:14:PRO:HD3	2.36	0.55
44:DV:61:LEU:HB3	44:DV:62:PRO:HD2	1.88	0.55
24:BA:405:U:H2'	24:BA:405:U:O2	2.05	0.55
9:CL:95:LYS:C	9:CL:95:LYS:HZ2	2.05	0.55
12:AO:24:VAL:HG13	12:AO:98:TYR:HE2	1.70	0.55
24:DA:2185:C:H2'	24:DA:2186:G:H8	1.71	0.55
3:AF:152:ILE:HG13	3:AF:167:TRP:CB	2.35	0.55
6:AI:16:GLN:CD	6:AI:16:GLN:H	2.10	0.55
8:CK:12:ARG:HH11	8:CK:26:VAL:HA	1.69	0.55
24:BA:1281:G:H2'	24:BA:1282:U:H6	1.71	0.55
50:B5:55:ARG:O	50:B5:57:VAL:N	2.34	0.55
24:BA:2297:C:C2'	24:BA:2298:A:H5'	2.36	0.55
24:BA:819:A:OP2	24:BA:1187:G:N2	2.36	0.55
24:DA:445:C:O2'	24:DA:446:G:H5'	2.06	0.55
24:BA:1279:G:H4'	36:B0:31:HIS:CD2	2.42	0.55
1:CA:87:A:OP2	1:CA:87:A:C8	2.60	0.55
31:BK:8:PRO:O	31:BK:9:LEU:HD22	2.06	0.55
1:CA:865:A:H2	1:CA:918:A:C4'	2.19	0.55
41:DS:11:ARG:CZ	41:DS:98:LYS:HB3	2.36	0.55
24:BA:2244:U:C2'	24:BA:2245:U:H5'	2.36	0.55
24:BA:2855:C:H2'	24:BA:2856:C:H6	1.71	0.55
24:DA:524:U:H4'	24:DA:554:U:H4'	1.87	0.55
24:BA:743:G:O2'	24:BA:744:G:H5'	2.06	0.55
27:BE:204:ALA:O	27:BE:205:ALA:HB3	2.06	0.55
17:AT:15:MET:HB2	17:AT:18:THR:HB	1.88	0.55
24:DA:1600:C:C2'	52:D7:49:ARG:CD	2.80	0.55
1:CA:411:A:N7	1:CA:413:G:N3	2.54	0.55
4:CG:32:ALA:O	4:CG:36:ARG:N	2.39	0.55
1:CA:1151:A:H2'	1:CA:1152:A:H8	1.71	0.55
1:CA:1279:A:N3	1:CA:1279:A:H3'	2.21	0.55
9:AL:4:TYR:OH	9:AL:88:TYR:HD1	1.89	0.55
29:BG:111:LEU:HD13	29:BG:120:LEU:HD21	1.87	0.55
4:AG:8:VAL:HG21	4:AG:21:LEU:CD1	2.36	0.55
24:DA:1048:A:C2	24:DA:1112:G:N2	2.70	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2415:G:H4'	34:BO:66:GLY:HA3	1.88	0.55
27:DE:64:LYS:CE	27:DE:66:HIS:HA	2.36	0.55
24:BA:1061:U:O3'	24:BA:1070:A:H4'	2.05	0.55
40:D2:35:LEU:H	40:D2:35:LEU:CD2	2.20	0.55
24:BA:270(M):U:H4'	24:BA:270(N):G:C2	2.41	0.55
2:CE:215:LEU:O	2:CE:219:VAL:HG12	2.06	0.55
34:BO:19:VAL:HG22	34:BO:21:ARG:N	2.21	0.55
4:CG:101:LEU:O	4:CG:104:VAL:N	2.39	0.55
24:BA:2124:G:C2	24:BA:2125:G:H1'	2.42	0.55
24:BA:2110:G:OP1	24:BA:2145:C:N4	2.39	0.55
29:BG:2:PRO:N	29:BG:3:LEU:HD12	2.21	0.55
27:DE:11:MET:HA	27:DE:24:THR:CA	2.34	0.55
29:DG:77:ILE:HB	29:DG:82:LEU:CD1	2.34	0.55
36:B0:55:ALA:HA	36:B0:80:PHE:CE1	2.41	0.55
34:DO:88:LEU:HD12	34:DO:91:PHE:CZ	2.42	0.55
25:DB:55:U:HO2'	25:DB:56:G:H5'	1.72	0.55
16:AS:20:VAL:HG21	16:AS:32:TYR:HB2	1.89	0.55
16:AS:20:VAL:HG22	16:AS:21:VAL:N	2.20	0.55
1:CA:1097:C:H1'	1:CA:1169:A:H2	1.69	0.55
24:DA:1653:G:H4'	36:D0:2:ARG:NH2	2.21	0.55
30:DH:72:ILE:CD1	30:DH:72:ILE:H	2.16	0.55
1:CA:393:A:P	16:CS:12:LYS:NZ	2.78	0.55
3:CF:126:ARG:C	3:CF:127:ARG:HD2	2.27	0.55
24:DA:993:G:OP1	39:D1:50:ARG:NH2	2.39	0.55
24:DA:1010:A:H1'	24:DA:1153:C:H1'	1.87	0.55
24:DA:830:G:H4'	24:DA:831:G:OP2	2.06	0.55
24:DA:2696:U:H2'	24:DA:2697:G:H8	1.71	0.55
1:CA:853:G:H2'	1:CA:854:G:C8	2.41	0.55
10:AM:6:ILE:HG13	10:AM:72:VAL:HG12	1.87	0.55
47:BW:41:ILE:HD12	47:BW:44:LEU:HD12	1.87	0.55
24:BA:234:C:C2	24:BA:235:U:C6	2.94	0.55
24:DA:2334:G:H4'	24:DA:2335:A:OP2	2.06	0.55
24:BA:2303:G:O2'	24:BA:2304:G:H5'	2.06	0.55
1:CA:200:G:N2	1:CA:218:C:C2	2.74	0.55
16:AS:39:TYR:CD2	16:AS:73:LEU:HD11	2.41	0.55
12:CO:18:VAL:O	12:CO:19:ARG:HB3	2.06	0.55
5:AH:72:GLN:O	5:AH:73:ASN:HB3	2.05	0.55
40:B2:18:LEU:HD13	40:B2:19:LYS:O	2.06	0.55
1:CA:386:C:C2'	1:CA:387:U:H5'	2.36	0.55
45:D3:17:GLN:HA	45:D3:17:GLN:OE1	2.05	0.55
22:CC:63:G:C2	22:CC:64:G:C5	2.95	0.55
28:DF:14:PRO:O	28:DF:16:GLY:N	2.39	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:132:LYS:C	38:DR:136:GLN:HG3	2.26	0.55
27:BE:8:LYS:HE2	27:BE:192:ASN:OD1	2.05	0.55
1:CA:1118:C:H2'	1:CA:1119:C:C6	2.41	0.55
9:CL:117:HIS:O	9:CL:118:LYS:HB3	2.06	0.55
9:CL:14:VAL:O	9:CL:65:VAL:HA	2.06	0.55
1:AA:1178:G:C5'	9:AL:93:ARG:HH22	2.02	0.55
9:AL:96:LEU:HA	9:AL:99:LEU:CD2	2.36	0.55
51:B6:31:PRO:CB	51:B6:35:GLU:HG3	2.36	0.55
26:BD:96:HIS:HD2	26:BD:102:LYS:HG2	1.70	0.55
1:AA:1221:G:C2'	1:AA:1222:G:H5'	2.36	0.55
34:DO:15:ARG:NH1	34:DO:15:ARG:HG3	2.19	0.55
24:BA:1060:U:H1'	24:BA:1061:U:P	2.45	0.55
10:CM:28:ARG:HH12	10:CM:34:VAL:N	2.05	0.55
44:DV:150:LEU:CD1	44:DV:154:ASP:CB	2.83	0.55
44:DV:173:ALA:O	44:DV:175:VAL:N	2.38	0.55
4:CG:65:ARG:CG	4:CG:75:PHE:CD2	2.89	0.55
4:CG:94:LEU:N	4:CG:94:LEU:HD12	2.22	0.55
4:CG:98:GLU:O	4:CG:103:ASN:ND2	2.38	0.55
24:BA:2180:U:H5"	24:BA:2181:G:OP2	2.06	0.55
5:AH:51:VAL:O	5:AH:55:VAL:HG23	2.07	0.55
24:DA:997:G:O2'	24:DA:998:C:H5'	2.06	0.55
10:AM:22:LYS:C	10:AM:22:LYS:HD3	2.27	0.55
24:BA:658:C:H2'	24:BA:659:C:C6	2.41	0.55
9:AL:21:PRO:HA	9:AL:58:HIS:O	2.06	0.55
20:CW:13:LEU:CD1	20:CW:13:LEU:H	2.19	0.55
1:AA:67:C:H2'	1:AA:68:G:H8	1.71	0.55
12:CO:27:LEU:HD21	12:CO:62:SER:OG	2.06	0.55
34:DO:78:PRO:HB3	34:DO:111:ARG:NH2	2.21	0.55
20:CW:100:ILE:HD12	20:CW:100:ILE:H	1.71	0.55
45:D3:72:ARG:NE	45:D3:75:LEU:HD12	2.20	0.55
1:CA:659:U:O2'	1:CA:660:G:H5'	2.06	0.55
16:AS:45:THR:HG23	16:AS:46:PRO:HD2	1.89	0.55
29:BG:20:ILE:O	29:BG:24:GLY:HA2	2.07	0.55
1:CA:1060:C:H5	3:CF:2:GLY:HA3	1.68	0.55
31:BK:116:LEU:HD12	31:BK:117:GLU:H	1.71	0.55
25:BB:16:G:H2'	25:BB:17:C:C6	2.39	0.55
36:D0:54:LEU:HD23	36:D0:66:VAL:CG2	2.37	0.55
24:DA:189:G:H2'	24:DA:205:G:N2	2.21	0.55
12:AO:82:VAL:HG12	12:AO:83:VAL:N	2.21	0.55
16:AS:23:ASP:OD1	16:AS:25:ARG:CD	2.54	0.55
24:BA:1820:U:O2	26:BD:202:LYS:HB3	2.06	0.55
26:BD:137:PRO:HG2	26:BD:140:THR:OG1	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CR:18:PHE:O	15:CR:21:ASP:HB2	2.07	0.55
24:DA:290:G:H2'	24:DA:291:C:O4'	2.06	0.55
24:DA:860:U:O2'	24:DA:861:A:H5'	2.07	0.55
29:DG:129:GLY:HA2	29:DG:166:ASP:HA	1.89	0.55
24:BA:1272:A:C2	24:BA:1618:A:C2	2.95	0.55
24:BA:2035:G:H4'	24:BA:2036:C:OP2	2.07	0.55
11:AN:34:ASP:HB2	11:AN:35:PRO:CD	2.37	0.55
1:AA:946:A:OP1	13:AP:114:ARG:NH1	2.40	0.55
1:CA:1231:G:O2'	1:CA:1232:U:H5'	2.06	0.55
1:CA:1220:G:H21	19:CV:54:GLY:HA2	1.71	0.55
1:CA:1269:A:C5'	21:CX:18:TYR:CE1	2.89	0.55
37:DQ:104:GLY:C	37:DQ:106:ARG:H	2.10	0.55
1:AA:1118:C:C1'	1:AA:1179:A:C4	2.90	0.55
34:DO:63:PRO:C	34:DO:65:ARG:H	2.10	0.55
51:B6:15:GLU:CD	51:B6:44:ARG:HH22	2.08	0.55
43:BU:81:LYS:CE	43:BU:96:ILE:HG21	2.36	0.55
24:BA:2439:A:H5'	24:BA:2439:A:C8	2.42	0.55
7:CJ:116:ALA:O	7:CJ:119:ARG:HB2	2.07	0.55
24:DA:2635:C:C5'	27:DE:77:ILE:CG2	2.85	0.55
29:DG:106:LEU:O	29:DG:111:LEU:HG	2.07	0.55
2:CE:82:ARG:HB2	2:CE:94:ASN:ND2	2.15	0.55
1:AA:1003:G:H2'	1:AA:1004:A:O3'	2.07	0.55
1:AA:1029:G:O2'	1:AA:1030:C:H5''	2.06	0.55
19:CV:11:VAL:CG2	19:CV:39:THR:CB	2.77	0.55
24:BA:1174:A:H2'	24:BA:1176:G:H4'	1.89	0.55
27:DE:24:THR:O	27:DE:25:VAL:HB	2.06	0.55
1:AA:1287:A:OP2	21:AX:26:LYS:NZ	2.39	0.55
6:CI:23:LYS:CE	6:CI:61:LEU:HD11	2.35	0.55
24:BA:2875:C:O2'	38:BR:6:LEU:HD13	2.07	0.55
29:DG:133:LEU:N	29:DG:133:LEU:HD23	2.22	0.55
36:B0:85:PRO:O	36:B0:87:TYR:N	2.39	0.55
9:AL:23:ASN:HB3	9:AL:25:LYS:HZ3	1.71	0.55
1:CA:89:U:C1'	1:CA:90:C:OP1	2.55	0.55
27:DE:14:ILE:CD1	27:DE:173:VAL:HG11	2.33	0.55
3:CF:11:ARG:NE	3:CF:177:THR:O	2.36	0.55
25:DB:88:C:H5	25:DB:89:G:N3	2.04	0.55
2:AE:59:GLU:O	2:AE:63:MET:HG2	2.06	0.55
38:DR:24:PRO:HD3	38:DR:52:ILE:CD1	2.37	0.55
8:CK:86:ILE:HB	8:CK:133:LEU:HD22	1.88	0.55
24:BA:646:A:H2'	24:BA:647:G:O4'	2.06	0.55
1:AA:603:U:H2'	1:AA:604:G:H8	1.70	0.55
8:CK:20:TYR:CE2	8:CK:75:ARG:HB3	2.42	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:40:ARG:O	3:AF:44:GLU:HG2	2.06	0.55
24:DA:285:C:O2'	24:DA:286:C:H5'	2.07	0.55
22:CC:40:C:H2'	22:CC:41:C:H6	1.70	0.55
24:BA:931:G:O3'	48:BX:24:LYS:NZ	2.39	0.55
39:D1:30:LYS:HE3	50:D5:13:LYS:HZ2	1.71	0.55
1:AA:220:G:C2'	1:AA:221:C:H5'	2.36	0.55
6:CI:13:ASN:ND2	6:CI:55:ASP:OD2	2.36	0.55
32:DM:19:GLU:HG3	32:DM:59:LYS:HB3	1.87	0.55
24:DA:2271:G:OP1	45:D3:18:ALA:HB1	2.06	0.55
17:AT:45:HIS:CE1	17:AT:47:PRO:HG3	2.42	0.55
24:BA:1375:C:H2'	24:BA:1376:C:H6	1.72	0.55
15:AR:25:THR:HG21	15:AR:70:LEU:HB2	1.89	0.55
7:AJ:138:LYS:HE2	7:AJ:142:GLU:OE1	2.07	0.55
6:CI:36:ARG:O	6:CI:65:VAL:HG13	2.06	0.55
39:B1:106:PHE:O	39:B1:110:VAL:HG23	2.06	0.55
36:B0:29:LEU:H	36:B0:29:LEU:HD22	1.72	0.55
1:AA:444:C:H2'	1:AA:445:G:H8	1.71	0.55
1:AA:444:C:H2'	1:AA:445:G:C8	2.41	0.55
1:CA:1236:A:O2'	1:CA:1304:G:H4'	2.06	0.55
1:CA:984:C:H2'	1:CA:985:C:C6	2.41	0.55
1:CA:1188:A:H5''	14:CQ:58:LYS:HZ1	1.71	0.55
1:CA:1313:U:P	19:CV:7:LYS:HE3	2.46	0.55
14:AQ:58:LYS:HB3	14:AQ:58:LYS:NZ	2.22	0.55
24:DA:2344:U:C3'	51:D6:39:TYR:CE1	2.89	0.55
9:AL:48:GLU:HB2	9:AL:78:LYS:HZ1	1.63	0.55
24:DA:871:U:P	35:DP:6:ARG:NH2	2.63	0.55
1:AA:412:A:OP2	4:AG:35:ARG:NH2	2.40	0.55
4:AG:30:LYS:HG2	4:AG:32:ALA:N	2.22	0.55
1:CA:784:C:H4'	24:DA:1837:C:OP1	2.06	0.55
3:CF:39:ILE:HG21	3:CF:57:ILE:CD1	2.37	0.55
2:AE:71:VAL:HG21	2:AE:164:VAL:HG22	1.88	0.55
24:BA:1057:A:H2'	24:BA:1058:U:C5	2.42	0.55
24:BA:1088:A:N3	24:BA:1088:A:H3'	2.22	0.55
27:DE:51:PHE:O	27:DE:74:PRO:HB2	2.06	0.55
27:DE:46:ALA:CB	27:DE:82:ARG:HA	2.36	0.55
27:DE:36:ARG:NH1	27:DE:86:PRO:HD2	2.21	0.55
13:CP:3:ARG:CZ	29:DG:139:LEU:HD11	2.37	0.55
2:CE:20:GLU:HG3	2:CE:191:ASP:HB2	1.88	0.55
2:CE:69:LEU:HD23	2:CE:70:PHE:N	2.22	0.55
2:CE:8:LYS:CG	2:CE:11:LEU:CG	2.67	0.55
13:CP:87:TYR:O	13:CP:91:ARG:HG2	2.06	0.55
9:CL:4:TYR:CD2	9:CL:19:LEU:HB2	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:143:GLY:CA	44:BV:144:LEU:HG	2.31	0.55
1:AA:1034:G:C2	1:AA:1035:A:N6	2.75	0.55
1:AA:1026:G:H1	1:AA:1035:A:H61	1.53	0.55
30:BH:153:LYS:HB2	30:BH:154:PRO:CD	2.36	0.55
43:DU:13:VAL:HG23	43:DU:73:ARG:C	2.27	0.55
4:CG:134:ASP:OD1	4:CG:135:LEU:HD13	2.06	0.55
31:DK:76:THR:HG23	31:DK:77:LEU:H	1.72	0.55
24:BA:2119:A:N6	24:BA:2171:A:C2	2.75	0.55
1:AA:1153:C:P	10:AM:13:HIS:HE2	2.29	0.55
9:AL:83:ARG:HA	9:AL:86:VAL:CG1	2.37	0.55
30:DH:135:GLY:HA3	30:DH:141:VAL:HG21	1.89	0.55
42:BT:27:THR:HG23	42:BT:80:ILE:HB	1.86	0.55
17:AT:67:LYS:O	17:AT:68:ARG:CB	2.52	0.55
3:CF:82:GLU:H	3:CF:85:ARG:CD	2.20	0.55
3:CF:84:ILE:HG23	3:CF:85:ARG:NH1	2.22	0.55
24:BA:32:C:O2'	24:BA:33:U:H5'	2.07	0.55
24:BA:320:A:O2'	28:BF:169:ASN:OD1	2.21	0.55
1:CA:590:C:OP1	8:CK:30:ARG:HG2	2.06	0.55
15:CR:82:ILE:HD13	15:CR:82:ILE:C	2.27	0.55
1:CA:1502:A:H2	1:CA:1505:G:N1	2.04	0.55
1:AA:1213:A:C2	1:AA:1215:G:H1'	2.41	0.55
41:BS:64:MET:CA	41:BS:109:GLU:OE2	2.54	0.55
24:DA:986:C:H2'	24:DA:987:G:H5'	1.86	0.55
24:DA:2447:G:C1'	24:DA:2448:A:OP2	2.55	0.55
1:CA:518:C:H5''	1:CA:519:C:C6	2.42	0.55
24:BA:1767:C:O2'	24:BA:1768:U:H5'	2.07	0.55
7:CJ:59:LEU:HD23	7:CJ:59:LEU:C	2.26	0.55
1:AA:872:A:C4	1:AA:874:G:C8	2.94	0.55
1:CA:939:G:C6	1:CA:940:C:N4	2.75	0.55
1:AA:594:G:H2'	1:AA:595:G:H5'	1.88	0.55
24:BA:2096:U:H3	24:BA:2193:G:H1	1.53	0.55
24:DA:958:U:OP2	35:DP:14:ARG:NH1	2.40	0.55
30:BH:83:TYR:HD1	30:BH:84:SER:N	2.05	0.55
1:CA:144:G:O2'	1:CA:145:G:H5'	2.06	0.55
24:BA:1266:G:O5'	41:BS:15:ARG:NH2	2.39	0.55
24:BA:1638:C:H4'	24:BA:2710:C:O2	2.06	0.55
1:CA:802:A:H5'	1:CA:803:G:OP2	2.06	0.55
24:BA:1925:C:O2'	24:BA:1926:U:H5'	2.06	0.55
33:DN:24:VAL:CG2	33:DN:33:ALA:HB2	2.37	0.55
32:BM:72:TYR:HB2	32:BM:85:ILE:HG13	1.88	0.55
1:AA:191(F):U:O2	20:AW:105:SER:HB3	2.06	0.55
1:CA:512:U:H2'	1:CA:513:C:C6	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1269:A:O2'	1:CA:1325:C:O2'	2.25	0.55
1:CA:1298:C:O2'	1:CA:1299:A:OP2	2.16	0.55
10:CM:70:ARG:HG3	10:CM:70:ARG:NH1	2.18	0.55
10:CM:5:ARG:O	10:CM:98:ILE:HA	2.07	0.55
1:CA:1318:A:N6	14:CQ:18:VAL:HG21	2.22	0.55
19:CV:36:ARG:CD	19:CV:72:GLY:CA	2.76	0.55
37:DQ:106:ARG:HA	37:DQ:110:LEU:HD21	1.88	0.55
51:B6:32:ASN:N	51:B6:35:GLU:OE2	2.40	0.55
26:BD:96:HIS:CD2	26:BD:102:LYS:HG2	2.42	0.55
4:AG:29:PRO:O	4:AG:34:GLU:CG	2.51	0.55
1:CA:1065:U:H6	1:CA:1190:G:H21	1.53	0.55
24:DA:2779:U:O4'	24:DA:2779:U:O2	2.23	0.55
24:DA:2808:U:H2'	24:DA:2809:A:C5'	2.36	0.55
12:AO:53:ARG:HH12	12:AO:92:ASP:CB	2.20	0.55
24:BA:592:G:N3	53:B8:4:MET:CE	2.69	0.55
2:CE:101:MET:C	2:CE:102:LEU:HD12	2.27	0.55
1:CA:281:G:H8	1:CA:281:G:OP2	1.88	0.55
20:AW:20:LEU:O	20:AW:23:ARG:HB3	2.06	0.55
14:CQ:9:LYS:O	14:CQ:12:ARG:NH1	2.39	0.55
24:BA:1899:G:H21	24:BA:1902:C:H5	1.55	0.55
1:CA:1106:G:H4'	3:CF:171:GLY:O	2.07	0.55
44:BV:81:ARG:HG3	44:BV:81:ARG:O	2.07	0.55
27:DE:27:LEU:HG	27:DE:27:LEU:O	2.07	0.55
24:BA:1989:G:H2'	24:BA:1990:C:H5'	1.89	0.55
24:BA:654(M):C:H5''	24:BA:654(N):G:N7	2.22	0.55
1:CA:1446:A:OP1	1:CA:1446:A:H4'	2.06	0.55
34:DO:125:VAL:HG12	34:DO:144:GLU:HB3	1.88	0.55
1:CA:963:G:N2	10:CM:55:LYS:HE2	2.15	0.55
11:AN:40:ILE:HG22	11:AN:75:TYR:HD2	1.71	0.55
25:DB:27:C:C4	25:DB:28:C:C4	2.95	0.55
12:CO:111:LYS:H	12:CO:111:LYS:CD	2.05	0.55
1:AA:272:C:H2'	1:AA:273:A:C8	2.41	0.55
24:DA:78:A:C6	24:DA:109:G:C6	2.95	0.55
1:CA:843:U:H3'	1:CA:848:C:H5'	1.88	0.55
24:BA:2789:C:H2'	24:BA:2790:A:C4'	2.37	0.55
1:CA:169:C:C5	1:CA:170:U:C5	2.95	0.55
34:DO:112:LEU:H	34:DO:128:HIS:HD2	1.55	0.55
24:DA:1022:G:C1'	24:DA:1023:U:OP2	2.53	0.55
24:DA:1021:A:H62	24:DA:1141:U:H3	1.55	0.55
24:DA:1171:G:C1'	24:DA:1173:G:P	2.95	0.55
16:AS:68:ASP:CG	16:AS:71:ARG:HH21	2.10	0.55
24:BA:140:A:C8	24:BA:1408:C:O2'	2.60	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1534:G:H3'	24:DA:1535:U:H5'	1.88	0.55
24:DA:1342:A:C6	24:DA:1397:U:C6	2.95	0.55
1:CA:391:G:P	16:CS:28:ARG:HH22	2.30	0.55
7:AJ:70:LYS:CG	7:AJ:96:GLN:HB3	2.37	0.55
1:AA:343:U:O2'	1:AA:346:G:O6	2.14	0.55
42:DT:5:TYR:HB3	47:DW:33:MET:HB2	1.87	0.55
24:BA:1992:G:C2'	24:BA:1993:U:OP2	2.55	0.55
24:BA:1528:A:H2	24:BA:1542:G:N2	2.05	0.55
1:CA:659:U:C2	1:CA:660:G:C8	2.95	0.55
24:BA:635:C:O2'	24:BA:639:U:OP1	2.25	0.55
1:CA:1399:C:H4'	1:CA:1400:C:C5'	2.36	0.55
1:AA:1049:U:OP1	14:AQ:3:ARG:HG3	2.06	0.55
4:CG:24:GLU:N	4:CG:24:GLU:OE2	2.40	0.55
24:BA:2648:C:H2'	24:BA:2649:U:H6	1.72	0.55
33:DN:90:GLN:O	33:DN:91:LEU:HB2	2.06	0.55
24:DA:2347:C:H2'	24:DA:2348:U:C6	2.42	0.55
24:DA:1790:C:O2'	26:DD:209:ALA:HB2	2.07	0.55
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.71	0.55
24:DA:768:G:H21	24:DA:1379:A:H2'	1.71	0.55
47:DW:24:LEU:O	47:DW:24:LEU:HD23	2.07	0.55
29:DG:123:ASN:O	29:DG:125:PHE:N	2.37	0.55
24:BA:172:C:O2'	24:BA:173:G:H5'	2.06	0.55
26:DD:196:VAL:HG12	26:DD:196:VAL:O	2.07	0.55
11:AN:108:ILE:O	18:AU:87:ARG:N	2.39	0.55
24:BA:2864:G:H2'	24:BA:2865:U:C6	2.42	0.55
24:BA:2815:C:H5'	50:B5:29:THR:HG21	1.88	0.55
1:CA:377:G:OP1	16:CS:3:LYS:HD2	2.07	0.55
29:DG:91:ARG:HD2	29:DG:91:ARG:C	2.27	0.55
2:AE:142:LEU:HD23	2:AE:142:LEU:O	2.06	0.55
20:CW:75:ASN:N	20:CW:75:ASN:OD1	2.40	0.55
38:BR:78:LEU:HD13	38:BR:78:LEU:O	2.07	0.55
1:AA:719:C:O2'	18:AU:49:LYS:HB3	2.06	0.55
24:DA:2338:G:C2	24:DA:2339:G:C8	2.95	0.55
9:CL:79:LEU:HD13	9:CL:104:ARG:HA	1.83	0.55
19:CV:58:VAL:O	19:CV:60:VAL:N	2.39	0.55
51:B6:34:LEU:O	51:B6:51:GLU:HB3	2.07	0.55
24:BA:2287:A:N1	24:BA:2289:G:H1'	2.22	0.55
24:DA:527:C:H4'	24:DA:528:A:H5'	1.89	0.55
29:DG:139:LEU:C	29:DG:139:LEU:CD1	2.74	0.55
29:DG:33:ARG:H	29:DG:162:THR:CG2	2.20	0.55
24:DA:1070:A:H8	24:DA:1096:A:H1'	1.64	0.55
30:DH:169:VAL:HG22	30:DH:170:ARG:H	1.70	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:896:A:H2'	24:DA:897:C:C6	2.42	0.55
44:DV:117:LEU:HD22	44:DV:118:GLN:H	1.72	0.55
4:CG:185:PHE:HE1	4:CG:187:ARG:O	1.90	0.55
24:BA:2128:C:OP2	24:BA:2128:C:H6	1.89	0.55
1:AA:1132:C:H42	1:AA:1142:G:H1	1.53	0.55
29:BG:159:VAL:HG23	29:BG:159:VAL:O	2.07	0.55
3:AF:195:VAL:C	3:AF:196:LEU:HD23	2.28	0.55
2:CE:25:ASN:ND2	2:CE:27:LYS:HD3	2.10	0.55
9:AL:22:GLY:HA3	9:AL:60:ASP:OD2	2.06	0.55
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.41	0.55
25:DB:114:G:O2'	37:DQ:50:SER:OG	2.24	0.55
1:AA:255:G:H4'	17:AT:17:LYS:HE3	1.89	0.55
37:BQ:42:ASP:O	37:BQ:43:GLU:CG	2.51	0.55
43:DU:55:TYR:HB3	43:DU:56:PRO:HD2	1.89	0.55
12:CO:84:LEU:HD23	12:CO:105:TYR:CE2	2.42	0.55
37:DQ:24:LEU:HD12	37:DQ:41:ASP:CA	2.37	0.55
8:CK:119:LEU:HD23	8:CK:124:ALA:CA	2.36	0.55
32:DM:130:HIS:HB2	32:DM:134:ARG:HH12	1.71	0.55
37:BQ:36:TYR:HD1	37:BQ:36:TYR:N	2.04	0.55
24:BA:784:A:H5'	24:BA:785:G:OP1	2.06	0.55
24:DA:2106:G:H3'	24:DA:2107:C:C6	2.42	0.55
24:DA:1542:G:H3'	24:DA:1543:A:C5'	2.34	0.55
26:DD:70:TRP:CZ3	26:DD:146:GLU:OE2	2.60	0.55
2:CE:107:THR:HG22	2:CE:110:GLN:OE1	2.07	0.55
24:BA:2405:G:P	34:BO:77:ARG:HH22	2.28	0.55
41:DS:47:VAL:HA	41:DS:50:VAL:CG1	2.37	0.55
44:DV:1:MET:HG2	44:DV:2:GLU:H	1.71	0.55
31:BK:11:ASN:O	31:BK:13:GLY:N	2.40	0.55
24:DA:2402:C:H2'	24:DA:2403:C:H5'	1.89	0.55
28:BF:46:ARG:HH11	28:BF:46:ARG:HG2	1.72	0.55
24:BA:533:G:N2	39:B1:45:TYR:CD2	2.72	0.55
24:DA:2335:A:C8	24:DA:2337:G:N7	2.74	0.55
3:AF:63:ASN:CB	3:AF:98:ASN:HB2	2.37	0.55
1:AA:1238:A:N3	1:AA:1241:G:O2'	2.26	0.55
1:AA:1205:U:O2'	3:AF:194:GLY:HA2	2.07	0.55
5:CH:53:LEU:HD23	5:CH:53:LEU:O	2.07	0.55
24:BA:1996:C:OP1	33:BN:31:LYS:HE3	2.06	0.55
1:CA:1320:C:N1	19:CV:70:LYS:NZ	2.52	0.55
9:CL:6:GLY:HA3	9:CL:84:ALA:HB2	1.87	0.55
10:CM:49:VAL:HG11	14:CQ:41:ARG:HB2	1.87	0.55
19:CV:36:ARG:HH11	19:CV:72:GLY:HA2	1.70	0.55
19:CV:9:VAL:HG21	49:D4:63:TYR:CE1	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:D8:32:LEU:CG	53:D8:33:ASN:H	2.10	0.55
7:CJ:73:MET:HG2	7:CJ:90:GLU:CA	2.36	0.55
30:DH:3:ARG:HG3	30:DH:4:ILE:H	0.77	0.55
25:BB:42:C:H5'	49:B4:2:LYS:HD2	1.88	0.55
51:D6:10:LEU:C	51:D6:11:LEU:HD22	2.26	0.55
40:B2:38:LEU:HD22	40:B2:52:VAL:CG2	2.36	0.55
2:CE:187:LEU:HD23	2:CE:201:ILE:O	2.06	0.55
9:CL:4:TYR:N	9:CL:4:TYR:CD1	2.74	0.55
46:DZ:92:LYS:HE2	46:DZ:93:GLU:N	2.21	0.55
44:DV:152:ALA:C	44:DV:154:ASP:H	2.10	0.55
30:BH:149:ARG:O	30:BH:151:ILE:N	2.40	0.55
26:BD:223:GLY:CA	26:BD:231:HIS:HD2	2.18	0.55
26:BD:223:GLY:HA2	26:BD:231:HIS:HD2	1.70	0.55
44:DV:96:VAL:N	44:DV:128:VAL:O	2.33	0.55
24:BA:2215:G:O2'	24:BA:2216:G:H5'	2.07	0.55
27:BE:73:GLU:O	27:BE:74:PRO:O	2.25	0.55
24:DA:2135:A:H3'	24:DA:2136:C:C6	2.41	0.55
37:BQ:100:ALA:HA	37:BQ:103:GLU:HB2	1.89	0.55
1:CA:195:A:N7	1:CA:196:A:C6	2.75	0.55
24:DA:270(I):G:O6	24:DA:270(Q):C:N4	2.40	0.55
8:CK:119:LEU:HD23	8:CK:124:ALA:HA	1.88	0.55
24:BA:71:A:OP2	24:BA:113:G:H5'	2.07	0.55
25:BB:31:C:H4'	29:BG:29:TRP:CH2	2.41	0.55
1:AA:624:C:H4'	16:AS:10:GLY:C	2.27	0.55
24:BA:2100:G:C2'	24:BA:2101:G:H5'	2.37	0.55
27:DE:201:THR:HG22	27:DE:202:LYS:N	2.22	0.55
44:BV:7:ALA:HB3	44:BV:61:LEU:HB3	1.89	0.55
24:BA:602:G:O2'	24:BA:604:G:O2'	2.07	0.55
24:BA:2389:G:H5''	24:BA:2390:U:C5'	2.33	0.55
24:BA:273(F):C:H3'	24:BA:274:G:C5'	2.35	0.55
28:DF:176:LEU:HD21	28:DF:180:GLY:O	2.07	0.55
24:BA:1335:U:OP2	42:BT:65:ARG:NH2	2.40	0.55
13:CP:85:GLY:O	13:CP:86:CYS:HB3	2.07	0.55
38:BR:16:ARG:NH2	38:BR:83:ILE:O	2.39	0.55
6:CI:44:GLY:HA2	6:CI:59:TYR:CE2	2.41	0.55
24:BA:205:G:HO2'	24:BA:206:U:P	2.28	0.55
26:DD:5:LYS:CB	26:DD:5:LYS:NZ	2.69	0.55
24:DA:1805:U:O2	26:DD:50:THR:HB	2.07	0.55
24:BA:2653:U:O2'	30:BH:110:SER:HB2	2.07	0.55
24:DA:1016:G:H2'	24:DA:1017:G:O4'	2.07	0.55
1:AA:938:A:N6	1:AA:939:G:C6	2.75	0.55
24:DA:723:G:H2'	24:DA:724:U:O4'	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BN:24:VAL:HG23	33:BN:33:ALA:HB2	1.88	0.55
24:DA:557:U:H2'	24:DA:558:G:H8	1.71	0.55
11:CN:34:ASP:HB2	11:CN:35:PRO:HD2	1.89	0.55
24:BA:1161:C:O2'	40:B2:8:GLY:HA2	2.07	0.55
1:CA:1269:A:C2	1:CA:1313:U:O4'	2.60	0.55
13:CP:32:GLU:OE1	13:CP:59:TYR:OH	2.24	0.55
19:CV:70:LYS:HZ2	19:CV:72:GLY:CA	2.19	0.55
24:DA:2392:A:C2'	53:D8:30:ARG:HH22	2.21	0.55
24:DA:195:A:H4'	24:DA:251:A:O2'	2.07	0.55
51:B6:12:GLU:HA	51:B6:24:GLU:H	1.71	0.55
30:BH:4:ILE:CD1	30:BH:7:LEU:H	2.20	0.55
4:AG:8:VAL:HB	4:AG:21:LEU:HD22	1.89	0.55
27:DE:60:ASN:ND2	27:DE:61:ARG:N	2.54	0.55
12:AO:90:VAL:HG11	12:AO:93:LEU:HG	1.88	0.55
24:BA:1069:A:C4'	24:BA:1070:A:O5'	2.54	0.55
24:BA:1071:G:C5	24:BA:1072:C:C4	2.95	0.55
2:CE:152:PHE:C	2:CE:154:LEU:H	2.11	0.55
24:DA:1057:A:C2	24:DA:1081:U:N3	2.73	0.55
3:CF:71:ALA:CB	3:CF:106:VAL:HB	2.37	0.55
31:DK:81:VAL:HG21	31:DK:123:LEU:CD2	2.36	0.55
24:DA:2314:C:H5''	29:DG:38:VAL:HG21	1.89	0.55
25:DB:104:A:H2'	25:DB:105:G:O4'	2.07	0.55
1:AA:1128:C:C2	1:AA:1144:G:N2	2.66	0.55
5:AH:153:LYS:HD3	5:AH:153:LYS:C	2.28	0.55
24:BA:94:G:H21	47:BW:47:ASN:HD22	1.54	0.55
46:DZ:80:LEU:N	46:DZ:80:LEU:HD22	2.22	0.55
1:CA:250:A:C1'	1:CA:251:G:OP2	2.49	0.55
34:BO:123:LEU:HD11	34:BO:125:VAL:HG13	1.89	0.55
24:DA:2127:G:O6	24:DA:2161:C:N4	2.40	0.55
32:DM:120:LEU:CD2	32:DM:122:VAL:HG23	2.37	0.55
46:DZ:53:VAL:CG2	46:DZ:74:VAL:HG13	2.35	0.55
3:AF:113:ALA:O	3:AF:115:LEU:N	2.40	0.55
41:BS:57:ASN:O	41:BS:61:ASN:HB2	2.06	0.55
28:BF:172:TRP:CE3	28:BF:173:VAL:HG23	2.42	0.55
36:D0:54:LEU:HD23	36:D0:66:VAL:HG23	1.88	0.55
26:DD:242:ARG:N	26:DD:242:ARG:CD	2.69	0.55
26:BD:155:LEU:HD23	26:BD:177:LEU:HD21	1.89	0.55
33:DN:8:LEU:HD22	33:DN:8:LEU:N	2.22	0.55
31:BK:9:LEU:O	31:BK:10:GLU:HB3	2.07	0.55
24:DA:1771:C:O2'	24:DA:1786:A:C8	2.58	0.55
4:CG:170:VAL:HG22	4:CG:171:GLY:N	2.22	0.55
34:DO:59:LEU:C	34:DO:59:LEU:HD13	2.28	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:120:TRP:CD1	27:BE:155:LYS:HB3	2.41	0.55
2:CE:214:ILE:O	2:CE:218:ALA:N	2.31	0.55
27:DE:17:ASP:O	27:DE:18:ASP:HB2	2.06	0.55
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.42	0.55
8:AK:82:HIS:HE1	8:AK:84:ARG:HD3	1.71	0.55
24:DA:657:U:H2'	24:DA:658:C:C6	2.42	0.55
1:AA:1253:G:OP1	10:AM:46:ARG:NH2	2.40	0.55
1:CA:1299:A:C6	1:CA:1301:U:N3	2.75	0.54
1:CA:1371:G:OP1	9:CL:11:LYS:HG2	2.07	0.54
24:DA:2344:U:H3'	51:D6:37:ARG:HH11	1.71	0.54
1:AA:1157:A:C1'	1:AA:1158:C:C5	2.90	0.54
24:BA:2418:A:H2'	24:BA:2419:U:C6	2.41	0.54
1:AA:1199:U:O4'	10:AM:54:PHE:HD2	1.91	0.54
1:AA:1381:U:C2'	7:AJ:79:ARG:CG	2.85	0.54
24:BA:1998:G:C2'	24:BA:1999:C:C5'	2.58	0.54
1:AA:192:U:H4'	20:AW:102:GLY:C	2.27	0.54
12:AO:46:LYS:HE2	12:AO:47:LYS:HE3	1.90	0.54
13:CP:15:VAL:CG1	13:CP:45:VAL:HG22	2.16	0.54
2:CE:39:ILE:O	2:CE:41:ILE:HD12	2.08	0.54
2:AE:90:MET:HB3	2:AE:91:PRO:HD2	1.88	0.54
8:CK:104:ARG:NH1	8:CK:104:ARG:HB2	2.22	0.54
2:AE:17:PHE:CA	2:AE:42:ILE:CG2	2.85	0.54
5:AH:68:GLU:CG	5:AH:68:GLU:O	2.55	0.54
53:D8:49:VAL:O	53:D8:50:LEU:CB	2.43	0.54
24:DA:995:C:H42	32:DM:2:LYS:CG	2.20	0.54
1:CA:66:G:C4'	1:CA:173:U:H5	2.08	0.54
28:DF:63:LYS:HE2	28:DF:67:GLN:CB	2.36	0.54
29:BG:130:ASN:OD1	29:BG:160:VAL:HA	2.07	0.54
9:AL:124:GLN:HG3	9:AL:125:TYR:N	2.23	0.54
24:BA:154:G:H2'	24:BA:155:C:O4'	2.07	0.54
20:CW:100:ILE:O	20:CW:102:GLY:N	2.37	0.54
24:DA:1021:A:H3'	24:DA:1021:A:H8	1.72	0.54
1:AA:17:U:O4'	1:AA:1080:A:H1'	2.08	0.54
10:AM:26:ALA:HA	10:AM:29:ARG:NE	2.18	0.54
24:DA:2211:G:H1'	24:DA:2212:A:OP1	2.07	0.54
8:AK:97:VAL:HB	8:AK:129:VAL:O	2.07	0.54
24:DA:847:U:OP2	24:DA:929:G:O6	2.24	0.54
24:DA:1956:U:C2'	24:DA:1957:C:H5'	2.37	0.54
24:BA:760:G:H2'	24:BA:761:A:H5'	1.88	0.54
24:DA:1771:C:H1'	24:DA:1786:A:C8	2.42	0.54
6:CI:43:LEU:HD12	6:CI:43:LEU:N	2.22	0.54
1:AA:287:U:O2'	1:AA:288:A:H5'	2.06	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:174:C:H5'	24:DA:175:G:OP2	2.07	0.54
5:CH:137:GLU:HA	5:CH:140:ARG:NH1	2.22	0.54
3:AF:47:LEU:HD12	3:AF:47:LEU:N	2.22	0.54
24:BA:2450:A:C2	24:BA:2451:A:C4	2.95	0.54
24:BA:600:G:N2	24:BA:605:C:O3'	2.40	0.54
4:CG:14:ARG:HA	4:CG:39:PRO:HG3	1.89	0.54
1:CA:1372:U:H5'	9:CL:70:LYS:NZ	2.22	0.54
1:CA:947:G:C4'	13:CP:109:THR:HG23	2.37	0.54
7:CJ:78:ARG:CD	7:CJ:85:TYR:CD1	2.79	0.54
37:DQ:104:GLY:O	37:DQ:106:ARG:HG3	2.06	0.54
24:DA:2393:A:OP2	53:D8:30:ARG:NE	2.41	0.54
51:B6:24:GLU:HG3	51:B6:25:LYS:H	1.71	0.54
1:AA:191:G:H2'	1:AA:192:U:C6	2.42	0.54
24:DA:2638:G:HO2'	24:DA:2639:A:H8	1.55	0.54
24:DA:2284:C:P	51:D6:27:LYS:NZ	2.81	0.54
2:CE:47:THR:O	2:CE:51:LEU:HB2	2.06	0.54
1:CA:266:G:H5''	1:CA:268:C:H41	1.72	0.54
44:DV:151:HIS:ND1	44:DV:170:THR:OG1	2.28	0.54
3:CF:137:ALA:CA	3:CF:140:ARG:NH2	2.70	0.54
44:DV:24:LEU:C	44:DV:24:LEU:HD12	2.27	0.54
44:DV:129:SER:HB2	44:DV:130:PRO:HD2	1.89	0.54
31:BK:109:ILE:HG22	31:BK:130:TYR:HE2	1.73	0.54
3:AF:5:ILE:HD13	3:AF:5:ILE:H	1.72	0.54
26:BD:121:PRO:HA	26:BD:135:PHE:HD2	1.71	0.54
24:DA:2576:G:O2'	24:DA:2579:C:OP2	2.18	0.54
24:BA:2790:A:C2	24:BA:2894:G:H5''	2.37	0.54
9:AL:25:LYS:N	9:AL:25:LYS:CD	2.70	0.54
24:DA:1332:G:N2	24:DA:1610:A:N7	2.55	0.54
24:DA:2295:C:OP2	37:DQ:10:ARG:HD3	2.07	0.54
31:BK:40:THR:HG22	31:BK:41:GLU:OE2	2.08	0.54
35:BP:79:LEU:C	35:BP:79:LEU:CD1	2.72	0.54
2:CE:100:GLY:O	2:CE:104:ASN:N	2.40	0.54
28:BF:37:VAL:HG21	34:BO:6:LEU:HD21	1.89	0.54
1:AA:677:U:H1'	11:AN:119:CYS:SG	2.47	0.54
24:DA:110:G:C2	24:DA:111:A:C8	2.94	0.54
29:BG:28:VAL:O	29:BG:31:VAL:CG1	2.54	0.54
24:BA:2593:U:H2'	24:BA:2594:C:C6	2.42	0.54
1:CA:1423:G:H2'	1:CA:1424:C:C6	2.42	0.54
24:DA:1952:A:C2	33:DN:22:ILE:HG23	2.42	0.54
24:DA:2563:U:O2	24:DA:2565:A:C8	2.60	0.54
27:BE:15:PHE:CD1	38:BR:81:PRO:CD	2.90	0.54
24:BA:2478:A:H2'	24:BA:2479:G:H5'	1.90	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2528:U:O3'	24:DA:2529:G:N2	2.36	0.54
37:BQ:62:LYS:HB2	37:BQ:97:ARG:HD3	1.89	0.54
24:DA:529:A:H4'	24:DA:530:G:H5'	1.88	0.54
1:CA:1148:U:C2'	9:CL:66:ARG:NH2	2.70	0.54
21:CX:2:GLY:C	21:CX:4:GLY:H	2.10	0.54
24:DA:2286:A:C8	24:DA:2287:A:C6	2.95	0.54
24:BA:2418:A:O2'	51:B6:21:TYR:CZ	2.42	0.54
30:BH:4:ILE:O	30:BH:4:ILE:CD1	2.39	0.54
1:AA:429:U:H4'	1:AA:430:A:OP1	2.06	0.54
24:DA:2746:U:H4'	30:DH:138:LYS:HG3	1.89	0.54
1:AA:986:A:H1'	19:AV:55:LYS:HA	1.88	0.54
24:BA:1067:A:H5'	24:BA:1068:G:OP2	2.08	0.54
39:B1:95:LEU:O	39:B1:98:LEU:HD13	2.06	0.54
29:DG:11:TYR:OH	29:DG:16:ARG:NH2	2.41	0.54
24:DA:895:U:O2	24:DA:897:C:N4	2.40	0.54
5:CH:9:LYS:N	5:CH:33:VAL:O	2.40	0.54
24:BA:2163:C:C4	24:BA:2164:C:C2	2.95	0.54
39:D1:91:ASP:O	39:D1:95:LEU:N	2.40	0.54
1:AA:1120:G:C2'	1:AA:1121:U:H5'	2.37	0.54
24:DA:2127:G:C6	24:DA:2173:A:N7	2.75	0.54
20:CW:97:ALA:HB1	20:CW:98:PRO:CD	2.33	0.54
24:BA:211:A:O2'	24:BA:212:G:H5'	2.06	0.54
11:AN:59:TYR:O	11:AN:62:GLN:HB3	2.07	0.54
26:DD:67:PHE:CD1	26:DD:153:ALA:HB3	2.41	0.54
1:AA:1279:A:H5''	1:AA:1280:A:OP1	2.07	0.54
24:DA:2646:C:O5'	24:DA:2646:C:H6	1.89	0.54
18:CU:74:ARG:HD3	18:CU:81:PHE:HA	1.90	0.54
50:B5:40:LYS:HD3	50:B5:46:CYS:HB3	1.89	0.54
39:D1:58:ARG:O	39:D1:62:ILE:HD13	2.07	0.54
33:DN:87:ILE:CD1	33:DN:92:GLU:C	2.76	0.54
20:AW:94:ALA:O	20:AW:95:ALA:HB3	2.06	0.54
24:BA:1980:G:O2'	24:BA:1982:C:OP2	2.22	0.54
30:BH:157:TYR:C	30:BH:158:HIS:HD1	2.11	0.54
1:CA:585:G:H21	1:CA:879:C:C4'	2.20	0.54
24:BA:514:A:H1'	24:BA:581:C:O2'	2.07	0.54
1:CA:87:A:C2	1:CA:88:C:C6	2.95	0.54
12:CO:110:VAL:CG2	12:CO:120:TYR:HB3	2.38	0.54
49:D4:39:CYS:C	49:D4:41:PRO:HD3	2.27	0.54
24:BA:1884:A:C2	24:BA:1885:A:C8	2.95	0.54
1:CA:1158:C:O2	1:CA:1158:C:C2'	2.53	0.54
24:DA:361:G:N2	24:DA:362:U:O2	2.40	0.54
24:BA:1615:C:C5	24:BA:1617:C:C4	2.96	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:5:A:H61	24:BA:2898:U:H3	1.54	0.54
24:BA:1629:U:H2'	24:BA:1630:G:C8	2.41	0.54
27:DE:112:GLY:O	27:DE:159:HIS:HA	2.08	0.54
24:DA:573:G:O2'	24:DA:574:C:H3'	2.07	0.54
29:BG:146:TYR:O	29:BG:149:VAL:HG22	2.07	0.54
4:AG:45:GLN:C	4:AG:46:LYS:HD3	2.27	0.54
11:AN:98:LEU:C	11:AN:100:ALA:H	2.11	0.54
25:BB:51:G:H2'	25:BB:52:A:C1'	2.38	0.54
1:CA:1277:C:HO2'	1:CA:1279:A:H8	1.55	0.54
1:CA:980:C:O2	14:CQ:21:TYR:HD1	1.91	0.54
19:CV:31:ILE:CD1	19:CV:33:THR:N	2.70	0.54
19:CV:80:TYR:CD2	19:CV:82:GLY:N	2.75	0.54
1:AA:1374:A:H2'	1:AA:1375:A:C5'	2.37	0.54
34:DO:62:LEU:HD12	34:DO:62:LEU:C	2.27	0.54
7:CJ:89:MET:CG	7:CJ:155:ARG:NH1	2.67	0.54
51:B6:29:ASN:O	51:B6:30:THR:OG1	2.19	0.54
24:BA:2287:A:C2	24:BA:2289:G:H1'	2.43	0.54
26:BD:27:THR:HG21	26:BD:84:TYR:HB3	1.89	0.54
24:BA:484:C:OP1	43:BU:51:VAL:CG1	2.36	0.54
3:CF:58:GLU:HB2	3:CF:65:ALA:CB	2.38	0.54
24:BA:1060:U:H3	24:BA:1088:A:H8	1.54	0.54
24:BA:1074:G:O2'	24:BA:1075:C:H5'	2.07	0.54
24:DA:330:A:O2'	24:DA:331:A:H2'	2.06	0.54
3:CF:131:ARG:O	3:CF:134:ILE:HB	2.07	0.54
1:AA:1301:U:O3'	13:AP:21:TYR:OH	2.23	0.54
24:DA:322:A:H5'	24:DA:340:A:C1'	2.37	0.54
24:BA:2133:G:N3	24:BA:2158:A:N6	2.55	0.54
38:DR:8:LYS:HZ1	38:DR:8:LYS:HB3	1.70	0.54
24:BA:1817:G:C6	24:BA:1818:U:C4	2.96	0.54
40:D2:79:VAL:O	40:D2:80:GLN:NE2	2.40	0.54
37:DQ:29:PHE:CD1	37:DQ:30:ARG:N	2.75	0.54
1:AA:277:C:P	17:AT:68:ARG:HH22	2.30	0.54
24:BA:507:A:H5''	24:BA:508:G:C5'	2.30	0.54
1:CA:1027:C:O2'	1:CA:1034:G:N2	2.40	0.54
9:AL:124:GLN:HG3	9:AL:125:TYR:H	1.72	0.54
1:AA:377:G:OP1	16:AS:5:ARG:NH1	2.33	0.54
24:DA:1666:G:O2'	24:DA:1667:G:H5'	2.08	0.54
11:CN:27:ASN:ND2	11:CN:55:LYS:HD2	2.22	0.54
12:AO:24:VAL:HG12	12:AO:27:LEU:CG	2.38	0.54
6:AI:14:LEU:HD23	6:AI:15:ASP:N	2.22	0.54
26:DD:166:GLN:CB	26:DD:174:ILE:HG22	2.32	0.54
2:CE:178:ARG:HH22	2:CE:196:LEU:C	2.11	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:69:THR:HA	44:BV:89:PHE:O	2.07	0.54
3:AF:76:VAL:CG2	3:AF:103:VAL:HG11	2.36	0.54
30:DH:25:LYS:HZ1	30:DH:27:LYS:HB3	1.72	0.54
29:BG:44:GLY:C	29:BG:46:ALA:H	2.11	0.54
24:BA:2648:C:H2'	24:BA:2649:U:C6	2.42	0.54
1:CA:708:C:O2'	1:CA:709:G:H5'	2.06	0.54
2:AE:115:LEU:HD13	2:AE:145:LEU:HB2	1.90	0.54
24:BA:2320:A:C2	24:BA:2333:A:N7	2.75	0.54
24:DA:264:C:O2'	24:DA:265:A:H2'	2.07	0.54
19:AV:30:LEU:C	19:AV:30:LEU:HD12	2.27	0.54
47:DW:22:GLU:O	47:DW:25:VAL:HG22	2.07	0.54
8:CK:114:THR:HG22	8:CK:117:GLY:O	2.07	0.54
26:BD:108:PRO:HB3	26:BD:143:HIS:CE1	2.42	0.54
24:DA:1893:C:H2'	24:DA:1894:C:H5'	1.89	0.54
34:BO:83:VAL:CG1	34:BO:112:LEU:HD21	2.38	0.54
24:BA:587:C:N3	34:BO:33:ARG:NH1	2.55	0.54
29:BG:121:ASN:HD22	29:BG:181:ARG:HH12	1.55	0.54
43:DU:2:ARG:NH1	43:DU:2:ARG:HA	2.21	0.54
1:CA:1297:C:C4'	1:CA:1298:C:H5'	2.33	0.54
1:CA:977:A:H1'	1:CA:981:U:H3	1.72	0.54
1:CA:1152:A:P	10:CM:68:HIS:HE2	2.31	0.54
37:DQ:74:ALA:O	37:DQ:77:ALA:N	2.36	0.54
19:AV:16:LEU:HD12	19:AV:20:LEU:HD12	1.90	0.54
24:DA:1050:A:C2	24:DA:2751:G:H3'	2.43	0.54
1:AA:193:C:C4'	20:AW:57:ARG:NH1	2.69	0.54
27:DE:55:ASN:O	27:DE:57:LYS:N	2.41	0.54
7:CJ:45:ASP:CG	7:CJ:115:ARG:NH2	2.59	0.54
2:AE:176:GLU:O	2:AE:180:LEU:HG	2.08	0.54
24:DA:1076:C:H2'	24:DA:1077:A:O4'	2.08	0.54
34:BO:36:LYS:HG3	34:BO:37:GLY:H	1.72	0.54
44:DV:24:LEU:CB	44:DV:41:LEU:CD1	2.76	0.54
1:CA:1213:A:C6	1:CA:1215:G:C4	2.95	0.54
3:AF:70:VAL:HG12	3:AF:71:ALA:N	2.22	0.54
1:AA:265:G:H5'	17:AT:64:PRO:O	2.08	0.54
1:AA:700:G:H4'	1:AA:704:A:H1'	1.88	0.54
1:AA:76:G:C2	1:AA:95:G:C2	2.96	0.54
24:BA:2808:U:H5'	24:BA:2891:G:O6	2.08	0.54
1:CA:142:G:O2'	1:CA:196:A:N1	2.35	0.54
4:CG:57:ARG:NH2	5:CH:107:ARG:HD3	2.22	0.54
24:DA:2687:U:C4	24:DA:2688:U:C5	2.96	0.54
1:CA:421:U:H4'	1:CA:422:C:OP2	2.07	0.54
1:CA:299:G:C6	1:CA:300:A:C6	2.96	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:47:LYS:HA	43:DU:60:PHE:HB3	1.89	0.54
1:CA:851:G:H2'	1:CA:852:G:C8	2.43	0.54
24:BA:1578:U:C2'	24:BA:1579:A:H5'	2.35	0.54
44:BV:125:LEU:HG	44:BV:164:ALA:HB1	1.89	0.54
1:CA:651:C:H2'	1:CA:652:U:O4'	2.07	0.54
24:BA:1501:C:O4'	26:BD:100:GLY:HA2	2.07	0.54
24:DA:1003:G:O2'	24:DA:1010:A:N1	2.25	0.54
26:DD:172:TYR:CD1	26:DD:186:HIS:N	2.76	0.54
24:BA:1280:G:C2'	24:BA:1281:G:H5'	2.37	0.54
24:DA:856:C:O2'	24:DA:857:C:P	2.65	0.54
1:AA:599:C:H4'	8:AK:130:GLY:C	2.28	0.54
1:CA:474:G:C5'	16:CS:81:ARG:HB3	2.37	0.54
1:AA:807:A:H2'	1:AA:808:C:H6	1.73	0.54
15:CR:43:LEU:CD1	15:CR:56:LEU:HD22	2.37	0.54
24:BA:2197:U:H1'	24:BA:2198:A:C8	2.41	0.54
24:BA:125:G:C6	52:B7:10:ARG:HG3	2.43	0.54
1:CA:693:G:C6	1:CA:694:A:C6	2.96	0.54
24:BA:951:C:O2'	24:BA:952:G:H5'	2.07	0.54
24:BA:769:G:O2'	24:BA:770:G:H5'	2.08	0.54
1:CA:337:C:H2'	1:CA:338:A:C8	2.42	0.54
24:BA:2584:U:H2'	24:BA:2585:U:H2'	1.88	0.54
1:CA:636:U:H2'	1:CA:637:G:C8	2.42	0.54
11:CN:18:ARG:HH21	11:CN:37:GLY:CA	2.21	0.54
9:AL:99:LEU:CD1	9:AL:101:PHE:HD2	2.19	0.54
24:BA:2286:A:H4'	24:BA:2287:A:O4'	2.08	0.54
49:B4:40:HIS:H	49:B4:41:PRO:HD2	1.71	0.54
1:CA:1067:A:H1'	1:CA:1068:G:C1'	2.38	0.54
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.07	0.54
24:DA:1246:A:P	34:DO:15:ARG:HH22	2.30	0.54
29:BG:66:GLN:HA	49:B4:6:HIS:ND1	2.22	0.54
24:DA:2786:U:H5'	27:DE:65:GLY:N	2.23	0.54
37:BQ:110:LEU:C	37:BQ:110:LEU:HD12	2.28	0.54
24:BA:1070:A:N7	24:BA:1096:A:C8	2.76	0.54
29:DG:110:ALA:HB1	29:DG:140:ILE:HD11	1.88	0.54
2:CE:20:GLU:HG2	2:CE:191:ASP:HB2	1.89	0.54
24:DA:1075:C:H2'	24:DA:1076:C:C6	2.42	0.54
24:DA:511:U:O4	24:DA:512:G:C2	2.61	0.54
35:DP:134:ARG:NH2	44:DV:122:ARG:CD	2.71	0.54
13:AP:45:VAL:O	13:AP:48:LEU:HD22	2.07	0.54
4:CG:121:VAL:HG23	4:CG:122:ARG:N	2.23	0.54
5:CH:41:VAL:HG22	5:CH:67:VAL:HG11	1.88	0.54
24:BA:1171:G:C4	24:BA:1174:A:N6	2.76	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1793:C:H2'	24:BA:1794:U:H6	1.72	0.54
25:DB:75:G:H1	25:DB:102:G:N2	2.06	0.54
24:BA:2115:G:N1	24:BA:2119:A:N7	2.52	0.54
24:BA:2168:G:C2'	24:BA:2169:A:OP1	2.55	0.54
24:BA:2394:C:C2'	24:BA:2395:C:H5'	2.38	0.54
24:BA:1756:G:H4'	24:BA:1758:G:O4'	2.08	0.54
53:D8:48:PHE:CD2	53:D8:49:VAL:HA	2.43	0.54
3:AF:68:VAL:CG1	3:AF:70:VAL:HG23	2.35	0.54
17:AT:68:ARG:O	17:AT:68:ARG:HG3	2.06	0.54
32:DM:20:GLY:HA2	32:DM:61:ARG:HG2	1.89	0.54
36:B0:117:VAL:CG2	36:B0:118:GLU:H	2.13	0.54
24:BA:1312:U:C1'	24:BA:1313:U:OP2	2.53	0.54
24:DA:1009:A:OP1	32:DM:37:LYS:NZ	2.40	0.54
1:AA:865:A:C2	1:AA:918:A:H4'	2.42	0.54
24:DA:213:A:H2'	24:DA:214:G:O4'	2.08	0.54
24:DA:2873:A:H2'	24:DA:2873:A:N3	2.23	0.54
27:DE:101:ARG:O	27:DE:201:THR:OG1	2.26	0.54
53:D8:59:LYS:CB	53:D8:59:LYS:NZ	2.68	0.54
15:CR:82:ILE:HB	15:CR:87:ILE:HB	1.90	0.54
24:DA:492:A:C2'	24:DA:493:G:H5'	2.37	0.54
36:B0:53:HIS:HB2	36:B0:94:TYR:CE2	2.41	0.54
1:CA:353:A:H2'	1:CA:354:G:OP2	2.07	0.54
17:AT:50:LYS:HE3	17:AT:51:TYR:CZ	2.42	0.54
2:CE:112:VAL:HG11	2:CE:156:LYS:HE3	1.90	0.54
29:DG:41:GLN:NE2	29:DG:154:GLY:O	2.41	0.54
1:CA:827:U:H3	1:CA:872:A:H62	1.54	0.54
15:CR:18:PHE:HD1	15:CR:19:PRO:O	1.91	0.54
24:BA:185:U:H2'	24:BA:186:G:H8	1.72	0.54
4:CG:29:PRO:N	4:CG:30:LYS:HZ2	2.06	0.54
24:BA:2682:U:C6	27:BE:11:MET:HE2	2.42	0.54
1:CA:956:U:H1'	1:CA:1225:A:H2	1.71	0.54
1:CA:1372:U:OP1	9:CL:71:SER:HB3	2.08	0.54
14:CQ:21:TYR:HE2	14:CQ:23:ARG:HH21	1.53	0.54
19:CV:67:VAL:CG2	19:CV:68:GLY:N	2.70	0.54
53:D8:30:ARG:O	53:D8:31:HIS:C	2.46	0.54
13:AP:84:ILE:HG23	13:AP:86:CYS:N	2.18	0.54
26:BD:32:SER:O	26:BD:33:LEU:HB2	2.06	0.54
24:BA:2437:U:H2'	24:BA:2438:U:C6	2.43	0.54
29:DG:16:ARG:NH1	29:DG:31:VAL:CG2	2.70	0.54
24:DA:620:G:H4'	24:DA:621:A:H5''	1.90	0.54
30:DH:107:VAL:CG2	30:DH:152:ARG:HG2	2.37	0.54
24:BA:1178:C:O2'	24:BA:1179:C:O5'	2.26	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2870:C:H2'	24:BA:2871:C:O4'	2.07	0.54
1:CA:632:A:H1'	1:CA:633:G:OP2	2.07	0.54
44:DV:71:VAL:HA	44:DV:87:ASP:O	2.07	0.54
2:AE:17:PHE:CD1	2:AE:41:ILE:HG23	2.38	0.54
1:AA:1060:C:H5''	10:AM:51:ARG:HG2	1.90	0.54
10:AM:32:ALA:HB3	10:AM:76:ASN:O	2.07	0.54
24:DA:2061:G:OP1	28:DF:68:LYS:NZ	2.36	0.54
34:DO:78:PRO:HG3	34:DO:111:ARG:NH2	2.22	0.54
11:AN:57:THR:HG22	11:AN:59:TYR:H	1.71	0.54
37:DQ:15:ARG:NH1	37:DQ:90:GLY:HA2	2.22	0.54
1:CA:89:U:H1'	1:CA:90:C:P	2.48	0.54
2:CE:178:ARG:NH1	2:CE:196:LEU:O	2.36	0.54
44:DV:77:ASP:OD2	44:DV:80:ARG:NH1	2.41	0.54
13:CP:89:GLY:O	13:CP:93:ARG:HG3	2.08	0.54
24:DA:1154:G:P	39:D1:58:ARG:HE	2.31	0.54
29:BG:16:ARG:N	29:BG:17:PRO:HD2	2.22	0.54
24:BA:956:G:H4'	35:BP:83:MET:HE3	1.90	0.54
33:DN:10:VAL:HG21	33:DN:16:ALA:C	2.27	0.54
36:D0:44:LEU:CD2	36:D0:48:VAL:HG23	2.37	0.54
44:DV:16:SER:O	44:DV:20:ARG:HG3	2.08	0.54
44:BV:4:ARG:HD3	44:BV:58:VAL:HG11	1.89	0.54
24:BA:533:G:N3	39:B1:45:TYR:CE2	2.76	0.54
30:DH:124:GLU:N	30:DH:124:GLU:CD	2.61	0.54
30:BH:46:GLU:HB2	30:BH:49:VAL:CG2	2.37	0.54
24:DA:764:A:O4'	26:DD:213:ARG:HG3	2.08	0.54
24:DA:644:A:C2'	24:DA:645:C:H5''	2.38	0.54
24:BA:412:A:N7	24:BA:2411:A:H2	2.06	0.54
3:AF:109:PRO:C	3:AF:111:LEU:H	2.11	0.54
44:DV:39:VAL:HG23	44:DV:40:ASP:N	2.22	0.54
1:CA:539:A:C6	1:CA:540:G:C6	2.96	0.54
1:CA:1126:U:H4'	1:CA:1127:G:OP2	2.06	0.54
1:CA:1329:A:C2	1:CA:1330:U:H1'	2.43	0.54
1:CA:953:G:N7	13:CP:104:ARG:NH2	2.56	0.54
1:CA:978:A:H5''	1:CA:979:C:OP2	2.08	0.54
37:DQ:106:ARG:C	37:DQ:110:LEU:HD21	2.28	0.54
9:AL:99:LEU:HD13	9:AL:101:PHE:CG	2.42	0.54
24:BA:2344:U:H3'	51:B6:38:LYS:O	2.07	0.54
19:AV:22:LEU:HG	19:AV:27:GLU:O	2.08	0.54
19:AV:41:VAL:HG11	19:AV:67:VAL:HG22	1.89	0.54
24:DA:2747:G:H5''	30:DH:74:ASN:HD21	1.72	0.54
24:DA:2751:G:N1	30:DH:2:SER:HB3	2.23	0.54
1:AA:959:A:C2	1:AA:1222:G:O4'	2.61	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1246:A:H4'	28:DF:45:ARG:HH12	1.72	0.54
24:DA:2787:C:O2'	24:DA:2810:A:O2'	2.18	0.54
31:BK:69:LYS:HB2	31:BK:136:VAL:HG13	1.90	0.54
46:BZ:92:LYS:NZ	46:BZ:97:LEU:O	2.41	0.54
2:CE:69:LEU:HG	2:CE:91:PRO:HB2	1.89	0.54
24:DA:1059:G:C5	24:DA:1080:A:C2	2.95	0.54
1:AA:1032(B):G:H8	1:AA:1032(B):G:O5'	1.91	0.54
43:DU:13:VAL:HG22	43:DU:72:VAL:HB	1.89	0.54
27:DE:11:MET:H	38:DR:8:LYS:HE2	1.72	0.54
24:BA:2393:A:H4'	34:BO:61:ARG:N	2.21	0.54
38:BR:23:ARG:HB2	38:BR:120:ARG:HH12	1.71	0.54
10:AM:16:LEU:C	10:AM:16:LEU:HD13	2.28	0.54
6:CI:46:ARG:HB2	6:CI:60:PHE:CD1	2.42	0.54
4:CG:150:GLU:O	4:CG:152:SER:N	2.34	0.54
40:D2:70:ILE:O	40:D2:71:LEU:CG	2.55	0.54
1:AA:689:C:H2'	1:AA:690:G:C5'	2.35	0.54
24:DA:1359:A:H2'	24:DA:1360:A:C5'	2.31	0.54
24:DA:803:U:C2'	24:DA:804:A:H5'	2.38	0.54
42:DT:59:VAL:O	42:DT:61:GLY:N	2.41	0.54
24:BA:307:G:H21	24:BA:330:A:H62	1.55	0.54
24:BA:330:A:O2'	24:BA:331:A:C8	2.56	0.54
24:DA:2688:U:O2	24:DA:2688:U:C3'	2.56	0.54
3:CF:175:LEU:HD23	3:CF:182:ILE:HD12	1.90	0.54
14:AQ:59:ALA:HB1	14:AQ:61:TRP:CZ3	2.38	0.54
35:BP:87:LYS:O	35:BP:88:GLY:O	2.25	0.54
29:BG:46:ALA:HB2	29:BG:52:ILE:HG21	1.90	0.54
38:DR:78:LEU:HD23	38:DR:78:LEU:C	2.27	0.54
24:BA:2544:G:H2'	24:BA:2545:G:O4'	2.08	0.54
10:AM:6:ILE:HG12	10:AM:72:VAL:HG12	1.89	0.54
44:DV:14:LYS:O	44:DV:16:SER:N	2.39	0.54
44:BV:158:PRO:O	44:BV:160:GLY:N	2.36	0.54
24:BA:932:G:OP1	48:BX:29:ARG:NH1	2.41	0.54
6:AI:99:ALA:HB1	18:AU:23:LYS:HZ3	1.72	0.54
44:BV:155:LEU:HB2	44:BV:157:LEU:CD1	2.37	0.54
1:CA:20:U:H2'	1:CA:21:G:O4'	2.08	0.54
5:AH:84:PHE:HB3	5:AH:134:ALA:HB2	1.89	0.54
5:CH:58:ALA:O	5:CH:62:ALA:HB2	2.08	0.54
24:BA:1939:U:OP1	24:BA:2604:U:O2'	2.25	0.54
24:DA:185:U:H2'	24:DA:186:G:H8	1.73	0.54
1:CA:1478:C:H2'	1:CA:1479:C:H6	1.72	0.54
24:DA:1820:U:H4'	24:DA:1821:A:OP2	2.08	0.54
28:DF:140:LEU:O	28:DF:144:LYS:HB2	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:B2:62:LEU:HD22	40:B2:95:LEU:HB2	1.89	0.54
30:DH:97:ARG:HG2	30:DH:98:LEU:HD12	1.89	0.54
1:AA:419:C:H5'	1:AA:420:U:OP2	2.08	0.54
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.42	0.54
1:CA:1277:C:O2'	1:CA:1279:A:H1'	2.08	0.54
1:CA:1323:G:H3'	1:CA:1324:A:C8	2.43	0.54
10:CM:50:ILE:HG12	14:CQ:41:ARG:HD2	1.90	0.54
19:CV:78:ARG:O	19:CV:79:THR:CG2	2.50	0.54
24:DA:2286:A:C4'	51:D6:28:ARG:CZ	2.85	0.54
9:AL:96:LEU:HA	9:AL:99:LEU:HD21	1.89	0.54
24:DA:2418:A:C6	24:DA:2419:U:C4	2.96	0.54
7:CJ:89:MET:HA	7:CJ:155:ARG:NH2	2.22	0.54
1:AA:965:A:C2	1:AA:969:A:C2	2.96	0.54
30:DH:3:ARG:HH22	30:DH:7:LEU:HB2	1.71	0.54
24:DA:791:C:H4'	24:DA:792:G:OP1	2.07	0.54
37:BQ:27:SER:HA	37:BQ:88:ASP:CB	2.38	0.54
40:D2:55:ALA:CA	40:D2:101:GLY:HA3	2.37	0.54
24:BA:270(R):G:C2	46:BZ:78:LYS:HE2	2.43	0.54
2:CE:207:ALA:O	2:CE:211:ILE:HD12	2.06	0.54
24:DA:1070:A:H5'	24:DA:1071:G:H5'	1.89	0.54
1:CA:988:G:C6	1:CA:989:C:N3	2.76	0.54
6:AI:22:GLU:CD	6:AI:84:ASN:HD22	2.11	0.54
24:BA:2128:C:H5'	24:BA:2129:C:OP2	2.07	0.54
24:BA:2142:C:N3	24:BA:2143:C:N4	2.55	0.54
1:AA:1126:U:C5	1:AA:1127:G:C4	2.94	0.54
16:AS:40:ASP:C	16:AS:42:ARG:H	2.11	0.54
24:DA:94:G:H2'	24:DA:95:G:O4'	2.07	0.54
26:DD:83:GLU:OE1	26:DD:104:TYR:OH	2.21	0.54
42:BT:49:VAL:HA	42:BT:87:GLN:HE22	1.73	0.54
24:BA:2789:C:H1'	24:BA:2892:A:C2	2.41	0.54
36:B0:81:ASP:O	36:B0:85:PRO:HG2	2.08	0.54
4:CG:86:LYS:CG	4:CG:87:GLY:N	2.69	0.54
50:D5:37:LYS:HZ2	50:D5:37:LYS:HB3	1.73	0.54
20:CW:89:ARG:O	20:CW:93:GLU:N	2.38	0.54
1:CA:392:G:H5''	16:CS:12:LYS:HZ2	1.72	0.54
20:AW:43:LEU:CB	20:AW:52:ALA:HB2	2.37	0.54
1:CA:591:U:OP2	8:CK:30:ARG:HD3	2.07	0.54
6:CI:2:ARG:HH21	15:CR:2:PRO:HD2	1.73	0.54
28:DF:192:LEU:CD2	28:DF:194:MET:HG3	2.38	0.54
24:BA:633:A:C3'	24:BA:634:C:H5'	2.37	0.54
47:BW:15:LYS:N	47:BW:67:LYS:NZ	2.54	0.54
38:DR:78:LEU:CD2	38:DR:79:HIS:CD2	2.90	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1413:G:H1	24:DA:1589:C:H42	1.54	0.54
4:CG:61:LYS:HB2	4:CG:203:VAL:HG13	1.88	0.54
1:AA:19:C:OP1	5:AH:125:SER:OG	2.14	0.54
1:AA:353:A:H2'	1:AA:354:G:OP2	2.08	0.54
1:CA:35:G:C2	1:CA:550:G:C2	2.95	0.54
30:BH:27:LYS:HB2	30:BH:32:GLU:OE1	2.07	0.54
24:BA:1882:C:H5'	24:BA:1883:G:OP2	2.07	0.54
39:D1:81:HIS:CD2	39:D1:117:GLN:HE22	2.25	0.54
27:BE:15:PHE:CD1	38:BR:81:PRO:HD2	2.43	0.54
38:DR:132:LYS:O	38:DR:136:GLN:HG3	2.08	0.54
11:CN:34:ASP:HB2	11:CN:35:PRO:CD	2.38	0.54
29:DG:120:LEU:HG	29:DG:179:PRO:O	2.08	0.54
2:CE:61:LEU:HD11	2:CE:66:GLY:HA3	1.89	0.54
24:DA:1499:C:H2'	24:DA:1500:G:H8	1.73	0.54
1:AA:745:C:OP1	1:AA:851:G:O2'	2.25	0.54
34:BO:87:ASP:O	34:BO:90:ARG:HG2	2.08	0.54
5:AH:80:ILE:HG12	5:AH:81:GLU:N	2.22	0.54
1:AA:397:A:H5'	1:AA:398:C:OP1	2.08	0.54
40:B2:29:PRO:O	40:B2:61:VAL:HB	2.08	0.54
24:BA:2884:U:C2'	24:BA:2885:C:H5'	2.37	0.54
24:DA:698:C:O2'	24:DA:734:A:N6	2.41	0.54
24:DA:734:A:O2'	24:DA:1635:G:H5'	2.08	0.54
24:BA:977:G:C6	24:BA:987:G:C6	2.96	0.54
13:AP:2:ALA:HA	13:AP:9:ILE:HG23	1.89	0.54
15:AR:3:ILE:HD11	15:AR:38:ARG:HG3	1.90	0.54
1:CA:934:C:O2'	1:CA:1344:C:OP2	2.24	0.54
19:CV:31:ILE:CD1	19:CV:32:LYS:N	2.70	0.54
43:BU:12:THR:HG22	43:BU:75:ILE:HD11	1.90	0.54
24:BA:2751:G:C5	30:BH:3:ARG:HD3	2.43	0.54
24:BA:1049:C:H42	30:BH:3:ARG:NH2	2.06	0.54
19:AV:58:VAL:HG21	19:AV:75:ALA:HA	1.90	0.54
24:DA:2788:C:H5'	27:DE:61:ARG:HH12	1.73	0.54
24:BA:1091:G:C3'	24:BA:1092:C:H5''	2.37	0.54
40:B2:38:LEU:C	40:B2:38:LEU:HD23	2.28	0.54
24:BA:270(N):G:N2	31:BK:50:ARG:HH21	2.04	0.54
3:CF:70:VAL:HG12	3:CF:72:LYS:N	2.20	0.54
5:CH:6:PHE:HB2	5:CH:34:VAL:CG2	2.37	0.54
31:BK:110:ASP:HB3	31:BK:112:LYS:N	2.22	0.54
40:D2:22:VAL:CG2	40:D2:23:GLU:N	2.71	0.54
9:AL:79:LEU:HD23	9:AL:83:ARG:HG2	1.88	0.54
1:AA:447:G:H2'	1:AA:485:G:N2	2.23	0.54
28:BF:29:ASN:CB	28:BF:112:MET:HE1	2.32	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:74:C:H2'	1:AA:75:C:O4'	2.07	0.54
16:AS:57:ARG:HH21	16:AS:79:VAL:HA	1.71	0.54
44:DV:163:LEU:CD2	44:DV:163:LEU:H	2.16	0.54
24:BA:729:G:OP2	26:BD:13:ARG:NH1	2.36	0.54
24:BA:2660:A:C2	24:BA:2661:G:H1'	2.43	0.54
24:DA:1530:G:O6	24:DA:1542:G:N2	2.40	0.54
24:DA:1607:C:C5'	24:DA:1608:A:H5'	2.34	0.54
24:BA:2389:G:H5''	24:BA:2390:U:O4'	2.07	0.54
1:CA:754:C:H3'	1:CA:754:C:O2	2.08	0.54
8:CK:86:ILE:HG13	8:CK:133:LEU:HD22	1.88	0.54
24:DA:1496:A:H1'	24:DA:1577:C:O2'	2.07	0.54
29:DG:97:ASP:CA	29:DG:100:TRP:HD1	2.19	0.54
30:DH:35:VAL:CG1	30:DH:71:LEU:CD2	2.86	0.54
7:AJ:6:ARG:HG2	7:AJ:6:ARG:O	2.07	0.54
1:CA:408:A:H5'	4:CG:116:GLN:HE21	1.73	0.54
1:CA:517:G:H1	1:CA:533:A:P	2.31	0.54
16:CS:21:VAL:HG22	16:CS:33:ILE:HD12	1.89	0.54
44:BV:58:VAL:O	44:BV:67:LEU:O	2.26	0.54
1:CA:862:C:H1'	1:CA:874:G:H5''	1.90	0.54
1:AA:667:G:H4'	15:AR:51:HIS:ND1	2.23	0.54
24:BA:2105:C:H2'	24:BA:2106:G:C8	2.42	0.54
2:CE:157:ARG:HG2	2:CE:158:LEU:N	2.23	0.54
24:BA:760:G:C2'	24:BA:761:A:H5'	2.38	0.54
24:BA:2843:G:H1	24:BA:2874:C:N4	2.06	0.54
24:DA:1767:C:C2'	24:DA:1768:U:H5'	2.38	0.54
33:BN:89:ASN:O	33:BN:91:LEU:HD12	2.08	0.54
25:BB:6:C:H2'	25:BB:7:G:H5''	1.89	0.54
26:DD:210:GLY:O	26:DD:213:ARG:HB2	2.08	0.54
11:CN:20:TYR:CZ	11:CN:83:ILE:HD12	2.43	0.54
24:BA:1985:G:O2'	24:BA:1986:A:H5'	2.07	0.54
40:B2:69:LYS:HA	40:B2:87:HIS:O	2.08	0.54
1:CA:1289:A:P	21:CX:10:ARG:HH22	2.32	0.53
9:AL:78:LYS:C	9:AL:78:LYS:CD	2.71	0.53
24:BA:2419:U:P	53:B8:41:ILE:HD12	2.48	0.53
1:AA:1381:U:C3'	7:AJ:79:ARG:CZ	2.85	0.53
25:BB:42:C:OP1	29:BG:67:LYS:HE2	2.08	0.53
53:B8:22:VAL:HB	53:B8:53:PRO:CB	2.38	0.53
24:DA:1797:C:H4'	26:DD:257:LEU:O	2.08	0.53
2:AE:189:ASP:O	2:AE:191:ASP:N	2.41	0.53
2:AE:204:ASN:ND2	2:AE:206:ASP:O	2.41	0.53
49:D4:31:ILE:HG22	49:D4:32:TYR:N	2.23	0.53
2:CE:69:LEU:HD11	2:CE:152:PHE:CE1	2.44	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:221:LEU:HD12	2:CE:224:GLN:HG2	1.90	0.53
29:DG:9:ARG:HG2	29:DG:13:GLU:CD	2.29	0.53
10:CM:81:THR:OG1	10:CM:82:ILE:N	2.41	0.53
10:CM:81:THR:O	10:CM:84:GLN:HG2	2.08	0.53
24:DA:1210:A:H4'	24:DA:1211:U:H5''	1.90	0.53
43:DU:20:TYR:CE2	43:DU:42:VAL:HA	2.43	0.53
14:AQ:41:ARG:HE	14:AQ:42:ILE:HD11	1.71	0.53
10:CM:25:GLU:O	10:CM:29:ARG:HG3	2.08	0.53
24:DA:874:G:H2'	24:DA:875:G:C8	2.43	0.53
13:AP:12:ASN:CG	13:AP:13:LYS:H	2.08	0.53
30:BH:86:GLU:HG2	30:BH:87:LEU:H	1.74	0.53
6:AI:37:VAL:CG1	6:AI:38:GLU:H	2.21	0.53
24:BA:2210:G:O2'	24:BA:2211:G:OP1	2.23	0.53
18:CU:53:ARG:HA	18:CU:56:THR:OG1	2.08	0.53
27:DE:11:MET:CB	27:DE:24:THR:HA	2.38	0.53
1:AA:1145:C:H4'	1:AA:1146:A:H8	1.73	0.53
27:DE:35:GLN:HB3	27:DE:48:GLN:HE21	1.73	0.53
1:AA:1312:G:C5	19:AV:4:SER:CB	2.92	0.53
20:CW:87:LYS:O	20:CW:88:VAL:C	2.45	0.53
8:CK:119:LEU:HD11	8:CK:123:GLU:HB2	1.90	0.53
49:B4:24:THR:OG1	49:B4:25:TYR:N	2.41	0.53
4:CG:199:ASN:HB3	4:CG:202:LEU:CG	2.38	0.53
34:DO:89:ALA:CB	34:DO:121:LYS:HD3	2.36	0.53
24:BA:444:C:C4'	28:BF:49:ALA:HB2	2.38	0.53
42:DT:44:GLU:C	42:DT:46:ALA:H	2.10	0.53
27:BE:116:VAL:HG11	27:BE:122:PHE:CD2	2.43	0.53
26:BD:69:ARG:HE	26:BD:130:ALA:HB2	1.73	0.53
14:AQ:25:VAL:HG23	14:AQ:26:ARG:N	2.23	0.53
1:AA:713:G:H2'	1:AA:714:G:C8	2.43	0.53
34:DO:9:ASN:HB3	34:DO:10:PRO:CD	2.37	0.53
3:AF:23:TYR:CD2	10:AM:10:GLY:HA2	2.42	0.53
4:CG:112:VAL:HG13	4:CG:113:SER:H	1.74	0.53
26:DD:242:ARG:H	26:DD:242:ARG:HD3	1.72	0.53
1:CA:517:G:N1	1:CA:533:A:OP2	2.41	0.53
24:DA:141:A:H1'	24:DA:1408:C:C1'	2.38	0.53
24:DA:1408:C:C2	24:DA:1595:G:N2	2.76	0.53
38:BR:108:ARG:HA	38:BR:111:ARG:NH2	2.23	0.53
25:DB:73:A:C2'	25:DB:74:U:H5'	2.38	0.53
30:BH:83:TYR:CD1	30:BH:84:SER:N	2.77	0.53
1:CA:1471:G:H2'	1:CA:1472:U:H6	1.72	0.53
24:BA:1710:C:H2'	24:BA:1711:C:C6	2.42	0.53
1:CA:22:G:H2'	1:CA:23:C:C6	2.43	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2080:G:O2'	24:DA:2081:C:H5'	2.08	0.53
24:DA:1268:A:H2'	24:DA:1269:A:O4'	2.08	0.53
15:CR:7:GLU:O	15:CR:11:VAL:HG23	2.09	0.53
24:BA:1406:U:H2'	24:BA:1407:C:C6	2.42	0.53
24:DA:2245:U:H5'	24:DA:2246:G:H5'	1.90	0.53
1:AA:1363:A:H1'	1:AA:1365:G:N7	2.23	0.53
1:AA:1216:G:O2'	1:AA:1217:C:H5'	2.08	0.53
4:CG:32:ALA:O	4:CG:33:MET:O	2.26	0.53
1:CA:1144:G:C2'	1:CA:1145:C:H5'	2.38	0.53
1:CA:1266:G:H1	21:CX:24:ARG:HH22	1.54	0.53
1:AA:192:U:C1'	20:AW:103:GLY:CA	2.67	0.53
2:AE:187:LEU:HD22	2:AE:205:ASP:CB	2.38	0.53
24:BA:270(N):G:C6	24:BA:270(P):C:C4	2.97	0.53
24:DA:875:G:O3'	44:DV:170:THR:HG21	2.08	0.53
22:CC:75:C:C3'	22:CC:76:A:C5'	2.72	0.53
1:AA:1006:C:O2'	1:AA:1007:C:H5'	2.07	0.53
4:CG:70:ILE:CG2	4:CG:75:PHE:HB2	2.37	0.53
4:CG:89:THR:HG22	4:CG:90:GLY:N	2.23	0.53
1:CA:1045:C:H3'	1:CA:1046:A:H5''	1.89	0.53
1:AA:55:A:C6	31:DK:89:TYR:CG	2.96	0.53
24:BA:1332:G:N2	24:BA:1609:A:O2'	2.41	0.53
24:BA:246:C:C2'	24:BA:247:G:H5'	2.38	0.53
24:DA:660:G:O2'	24:DA:661:C:H5'	2.08	0.53
37:DQ:58:LEU:O	37:DQ:59:LYS:HB2	2.07	0.53
53:D8:50:LEU:O	53:D8:51:ALA:HB2	2.08	0.53
1:AA:1153:C:H2'	1:AA:1154:G:O4'	2.08	0.53
5:AH:102:ALA:HB1	5:AH:106:PRO:HG2	1.90	0.53
28:BF:64:ILE:HG22	28:BF:65:TRP:CG	2.41	0.53
22:CC:15:G:N2	22:CC:21:A:H1'	2.15	0.53
32:BM:96:GLU:HG2	32:BM:97:ARG:H	1.73	0.53
24:DA:995:C:H42	32:DM:2:LYS:HG3	1.70	0.53
27:DE:1:MET:HB2	27:DE:200:GLU:HG3	1.90	0.53
1:AA:617:G:O6	1:AA:623:C:N4	2.42	0.53
19:AV:50:ALA:HB1	19:AV:57:HIS:CB	2.38	0.53
26:BD:127:VAL:HA	26:BD:193:VAL:HG22	1.90	0.53
1:CA:56:U:H2'	1:CA:57:G:C8	2.42	0.53
2:CE:75:LYS:CA	2:CE:75:LYS:HE3	2.38	0.53
2:AE:134:GLU:O	2:AE:138:LEU:HG	2.07	0.53
24:BA:2665:A:H2'	24:BA:2666:C:O4'	2.07	0.53
26:DD:270:ILE:HG22	26:DD:271:ILE:H	1.73	0.53
1:AA:131:C:O2	1:AA:132:C:C5	2.61	0.53
39:B1:85:LYS:HD2	39:B1:117:GLN:HB2	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:644:A:H4'	24:BA:645:C:H5	1.73	0.53
32:DM:131:GLN:OE1	32:DM:132:ALA:N	2.41	0.53
31:DK:1:MET:O	31:DK:20:ASP:HA	2.08	0.53
24:BA:989:G:N7	48:BX:13:ILE:HD11	2.23	0.53
8:AK:10:LEU:HD22	8:AK:83:ILE:HD11	1.90	0.53
43:DU:43:ASN:O	43:DU:44:ILE:O	2.25	0.53
8:AK:14:ARG:O	8:AK:18:ARG:HD3	2.08	0.53
1:CA:1118:C:O2'	9:CL:83:ARG:NH2	2.40	0.53
9:CL:9:ARG:CD	9:CL:14:VAL:CG2	2.86	0.53
19:CV:49:ILE:O	19:CV:49:ILE:HD12	2.08	0.53
1:AA:1180:A:H5''	1:AA:1181:G:OP1	2.08	0.53
9:AL:53:VAL:CG2	9:AL:96:LEU:HD11	2.37	0.53
24:DA:2393:A:C8	53:D8:30:ARG:NH1	2.64	0.53
24:DA:2392:A:H3'	53:D8:30:ARG:HH22	1.72	0.53
24:BA:1601:G:H5''	24:BA:1602:U:OP2	2.08	0.53
26:BD:27:THR:C	26:BD:28:GLU:OE1	2.46	0.53
24:DA:528:A:C2	24:DA:2042:A:H2'	2.44	0.53
37:BQ:87:PHE:HD1	37:BQ:112:PHE:CZ	2.26	0.53
2:AE:197:VAL:HG11	2:AE:200:ILE:HG13	1.89	0.53
2:AE:74:LYS:CE	2:AE:169:LYS:HD3	2.38	0.53
24:BA:1057:A:C6	24:BA:1086:A:C2	2.97	0.53
2:CE:208:ILE:O	2:CE:212:GLN:N	2.41	0.53
2:CE:28:PHE:HE2	2:CE:32:ILE:HA	1.71	0.53
43:BU:50:ARG:HB2	43:BU:55:TYR:HD2	1.74	0.53
44:BV:145:GLU:O	44:BV:174:VAL:HB	2.08	0.53
24:DA:2315:G:H2'	24:DA:2316:C:C6	2.44	0.53
25:DB:43:C:P	49:D4:6:HIS:NE2	2.79	0.53
24:BA:2702:U:OP1	24:BA:2702:U:C6	2.61	0.53
2:AE:31:TYR:C	2:AE:42:ILE:HD13	2.28	0.53
29:DG:75:LYS:HE3	29:DG:77:ILE:CD1	2.24	0.53
39:D1:96:ALA:HA	39:D1:98:LEU:HD11	1.90	0.53
37:DQ:65:VAL:CA	37:DQ:68:GLN:HE22	2.21	0.53
6:CI:9:VAL:HG22	6:CI:60:PHE:CD2	2.43	0.53
1:AA:848:C:H2'	1:AA:849:C:C6	2.44	0.53
24:BA:213:A:H2'	24:BA:214:G:O4'	2.08	0.53
1:AA:1283:G:O2'	1:AA:1284:C:H5'	2.08	0.53
41:DS:17:VAL:O	41:DS:19:LEU:N	2.42	0.53
1:AA:538:G:H5''	12:AO:114:LYS:HB2	1.89	0.53
35:DP:59:ARG:N	35:DP:59:ARG:HE	2.06	0.53
1:AA:136:C:H42	1:AA:227:G:H1	1.57	0.53
24:DA:140:A:C8	24:DA:1408:C:O2'	2.60	0.53
24:BA:26:G:O2'	24:BA:514:A:N6	2.37	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CI:94:GLN:CA	6:CI:94:GLN:HE21	2.20	0.53
24:DA:2400:G:H2'	24:DA:2401:U:C6	2.43	0.53
28:DF:117:ARG:HH12	34:DO:1:MET:N	2.06	0.53
24:DA:816:C:O2'	24:DA:932:G:O6	2.25	0.53
24:BA:873:G:N2	24:BA:905:U:O2	2.41	0.53
1:AA:1353:G:H2'	1:AA:1354:C:C6	2.44	0.53
24:BA:2011:U:C2'	24:BA:2012:G:H5'	2.38	0.53
1:CA:1010:G:H2'	1:CA:1011:G:H8	1.73	0.53
24:DA:1789:A:H5''	26:DD:220:HIS:O	2.07	0.53
26:DD:127:VAL:HA	26:DD:193:VAL:HG23	1.90	0.53
25:DB:52:A:C5	37:DQ:33:LYS:HE2	2.43	0.53
28:BF:153:SER:OG	28:BF:190:GLU:HG3	2.08	0.53
47:BW:63:VAL:O	47:BW:66:GLU:HB2	2.08	0.53
24:BA:692:C:H4'	26:BD:41:GLY:O	2.07	0.53
24:DA:1869:G:H5'	24:DA:1870:C:OP2	2.09	0.53
4:CG:10:ARG:O	4:CG:40:PRO:HG3	2.08	0.53
10:CM:47:PHE:CE1	10:CM:63:PHE:HB2	2.43	0.53
10:CM:50:ILE:HA	10:CM:60:ARG:CB	2.38	0.53
9:CL:114:TYR:HD2	10:CM:60:ARG:CG	2.21	0.53
19:CV:50:ALA:HB1	19:CV:57:HIS:HB3	1.90	0.53
1:AA:964:A:N3	1:AA:969:A:O2'	2.35	0.53
1:AA:542:G:H5'	4:AG:41:GLY:CA	2.37	0.53
1:CA:1190:G:H3'	3:CF:3:ASN:ND2	2.23	0.53
37:BQ:112:PHE:C	37:BQ:112:PHE:HD1	2.10	0.53
2:CE:19:HIS:HE2	2:CE:20:GLU:HG2	1.70	0.53
24:DA:1071:G:OP2	24:DA:1071:G:H8	1.91	0.53
24:DA:874:G:N2	24:DA:904:C:C2	2.77	0.53
1:AA:1004:A:C8	1:AA:1026:G:C5	2.97	0.53
5:CH:33:VAL:HG12	5:CH:34:VAL:N	2.24	0.53
36:B0:54:LEU:O	36:B0:62:ALA:HB1	2.09	0.53
25:DB:72:G:N2	25:DB:103:U:C5	2.76	0.53
27:DE:9:VAL:CG2	27:DE:10:GLY:H	2.06	0.53
40:D2:16:PRO:HD3	40:D2:99:ILE:HD12	1.90	0.53
1:CA:1442:G:H1	1:CA:1461:G:H21	1.57	0.53
42:BT:27:THR:HG22	42:BT:80:ILE:CB	2.37	0.53
22:CC:19:G:C4	22:CC:57:A:C2	2.96	0.53
8:AK:120:THR:HG22	8:AK:123:GLU:CG	2.34	0.53
1:CA:198:G:H2'	1:CA:199:G:C8	2.41	0.53
24:DA:1653:G:C4'	36:D0:2:ARG:NH1	2.72	0.53
12:CO:60:LEU:C	12:CO:62:SER:H	2.11	0.53
20:CW:100:ILE:CD1	20:CW:100:ILE:H	2.21	0.53
24:DA:959:A:H62	35:DP:83:MET:HE1	1.73	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1509:C:H2'	24:BA:1510:A:OP1	2.08	0.53
24:DA:1558:A:H1'	24:DA:1559:G:OP2	2.08	0.53
26:DD:68:LYS:CB	26:DD:70:TRP:CH2	2.92	0.53
1:CA:421:U:C2'	1:CA:421:U:O2	2.55	0.53
24:BA:1688:U:H2'	24:BA:1698:A:N6	2.23	0.53
24:BA:639:U:H2'	24:BA:640:C:C6	2.43	0.53
24:BA:654(S):G:C4'	24:BA:654(T):A:OP1	2.57	0.53
9:CL:37:PHE:CD2	9:CL:43:ALA:HB1	2.39	0.53
1:CA:794:A:H4'	1:CA:1521:G:O2'	2.09	0.53
25:DB:16:G:H2'	25:DB:17:C:C6	2.42	0.53
24:BA:2517:C:C6	24:BA:2542:A:N7	2.76	0.53
29:DG:144:ILE:HG22	29:DG:146:TYR:H	1.74	0.53
44:BV:6:LYS:HD3	44:BV:8:TYR:CE1	2.44	0.53
24:DA:324:A:OP2	24:DA:1205:U:C4	2.61	0.53
41:BS:13:SER:HB3	41:BS:16:LYS:HD2	1.90	0.53
29:DG:41:GLN:O	29:DG:43:LEU:HD13	2.08	0.53
24:DA:2880:C:H1'	36:D0:92:GLY:HA3	1.89	0.53
6:CI:44:GLY:HA2	6:CI:59:TYR:CZ	2.43	0.53
24:DA:1310:G:OP2	52:D7:9:ARG:HD2	2.09	0.53
41:BS:76:VAL:HG21	41:BS:101:SER:HB3	1.90	0.53
24:BA:322:A:H5'	24:BA:340:A:H1'	1.89	0.53
24:DA:1766:U:O2'	24:DA:1767:C:H5'	2.09	0.53
46:DZ:63:ALA:O	46:DZ:64:ALA:C	2.46	0.53
2:CE:18:GLY:O	2:CE:204:ASN:ND2	2.41	0.53
1:CA:524:G:H2'	1:CA:525:C:C6	2.42	0.53
5:CH:36:ASP:OD1	5:CH:37:ARG:N	2.41	0.53
1:CA:439:A:N7	1:CA:440:A:H1'	2.23	0.53
24:BA:724:U:H2'	24:BA:725:G:O4'	2.08	0.53
24:BA:2693:A:H2'	24:BA:2694:G:H8	1.74	0.53
24:DA:181:A:C2	24:DA:435:C:C5	2.96	0.53
35:DP:36:ALA:HB1	35:DP:127:ILE:HD12	1.89	0.53
7:CJ:43:PHE:CD1	7:CJ:43:PHE:C	2.79	0.53
24:BA:2728:U:H2'	24:BA:2729:G:C8	2.43	0.53
24:DA:866:A:C6	24:DA:914:C:C6	2.96	0.53
1:CA:1136:U:H5''	1:CA:1137:C:C5	2.43	0.53
1:CA:1256:A:O2'	1:CA:1278:U:O2	2.26	0.53
1:CA:1370:G:O2'	1:CA:1371:G:H5'	2.08	0.53
1:CA:1346:A:H5''	9:CL:120:ARG:NH1	2.23	0.53
9:CL:42:ARG:NH1	9:CL:71:SER:HA	2.21	0.53
9:CL:79:LEU:O	9:CL:82:ALA:N	2.41	0.53
13:CP:82:MET:HG3	13:CP:83:ASP:N	2.23	0.53
49:D4:57:GLU:HA	49:D4:60:GLN:HG2	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CN:62:GLN:HG3	11:CN:97:ALA:HB2	1.90	0.53
9:AL:53:VAL:HG11	9:AL:92:TYR:CE1	2.43	0.53
24:DA:1088:A:H5'	24:DA:1089:G:H5'	1.91	0.53
35:DP:134:ARG:HH22	44:DV:122:ARG:HD2	1.73	0.53
44:DV:169:GLU:HG3	44:DV:171:ILE:HD12	1.89	0.53
24:BA:874:G:O2'	44:BV:170:THR:HG21	2.08	0.53
2:AE:67:THR:C	2:AE:68:ILE:HD12	2.29	0.53
24:BA:2612:C:C5	24:BA:2613:U:H5	2.27	0.53
4:CG:65:ARG:NH1	4:CG:70:ILE:O	2.41	0.53
5:CH:69:VAL:HG12	5:CH:71:LEU:HD12	1.89	0.53
24:DA:2320:A:C6	24:DA:2333:A:C8	2.96	0.53
24:BA:2702:U:H4'	24:BA:2703:C:OP1	2.09	0.53
10:AM:5:ARG:HB2	10:AM:73:ASP:OD1	2.08	0.53
34:DO:88:LEU:HD11	34:DO:95:VAL:HG21	1.88	0.53
26:BD:121:PRO:HA	26:BD:135:PHE:CD2	2.44	0.53
16:AS:43:LYS:HG3	16:AS:48:TRP:HZ3	1.72	0.53
24:DA:78:A:N1	24:DA:109:G:C6	2.77	0.53
1:CA:197:A:C8	1:CA:198:G:H1'	2.44	0.53
24:DA:885:C:H2'	24:DA:886:C:O4'	2.09	0.53
29:BG:35:GLU:O	29:BG:35:GLU:HG3	2.09	0.53
9:AL:25:LYS:N	9:AL:25:LYS:HD2	2.22	0.53
32:DM:28:THR:HG22	32:DM:29:LYS:HG3	1.90	0.53
37:DQ:14:VAL:CG2	37:DQ:18:ILE:HD11	2.38	0.53
1:CA:737:A:H2'	1:CA:738:C:C6	2.43	0.53
1:AA:363:A:C6	12:AO:30:ALA:HB1	2.44	0.53
22:AC:47:U:C2'	22:AC:48:C:OP2	2.56	0.53
1:AA:154:C:N4	1:AA:167:G:H1	2.03	0.53
35:DP:59:ARG:O	35:DP:60:ARG:CG	2.55	0.53
36:D0:52:ILE:C	36:D0:54:LEU:N	2.62	0.53
1:AA:827:U:H5	1:AA:872:A:N1	2.06	0.53
42:DT:12:VAL:HG23	42:DT:17:ALA:CB	2.37	0.53
24:BA:2626:C:H2'	24:BA:2627:G:C8	2.44	0.53
47:DW:22:GLU:HG2	47:DW:64:LEU:HD11	1.89	0.53
24:BA:273:G:H1	24:BA:364:C:N4	2.06	0.53
37:BQ:73:LEU:O	37:BQ:73:LEU:HD23	2.08	0.53
24:BA:1910:G:O2'	24:BA:1911:U:H5'	2.09	0.53
29:BG:177:GLY:O	29:BG:179:PRO:HD3	2.09	0.53
24:DA:1464:C:O2'	24:DA:1528:A:H2'	2.09	0.53
7:AJ:69:VAL:HG22	7:AJ:135:VAL:HA	1.90	0.53
46:BZ:41:ARG:HG3	46:BZ:43:TYR:CE1	2.43	0.53
24:DA:2781:A:H5''	24:DA:2782:G:H5'	1.91	0.53
24:DA:485:C:C2	24:DA:496:G:N2	2.76	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:828:U:O2	24:BA:828:U:C2'	2.56	0.53
7:CJ:63:LYS:HD2	7:CJ:63:LYS:O	2.08	0.53
4:CG:176:LEU:HB2	4:CG:182:LYS:O	2.08	0.53
1:CA:1129:C:N3	1:CA:1141:C:N4	2.55	0.53
24:DA:2377:A:C2'	37:DQ:112:PHE:CZ	2.73	0.53
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.07	0.53
29:BG:103:LEU:O	29:BG:106:LEU:HB3	2.08	0.53
1:AA:543:C:H2'	1:AA:544:G:H5'	1.90	0.53
4:AG:20:TYR:CZ	6:CI:15:ASP:HB3	2.44	0.53
19:AV:5:LEU:HD12	19:AV:5:LEU:O	2.09	0.53
34:DO:15:ARG:NH1	34:DO:15:ARG:CG	2.67	0.53
9:AL:70:LYS:CG	9:AL:71:SER:H	2.21	0.53
2:CE:12:GLU:CG	2:CE:213:LEU:HD13	2.26	0.53
17:CT:94:ASN:CA	17:CT:97:SER:OG	2.56	0.53
10:CM:81:THR:HA	10:CM:84:GLN:CD	2.29	0.53
1:AA:103:C:OP1	20:AW:14:LYS:NZ	2.41	0.53
2:CE:236:TYR:HD2	2:CE:239:VAL:O	1.91	0.53
1:AA:141:A:H1'	1:AA:182:U:O2	2.09	0.53
44:DV:153:SER:CB	44:DV:167:PRO:HB3	2.18	0.53
24:DA:2299:G:N1	24:DA:2318:G:C8	2.77	0.53
31:BK:135:GLU:H	31:BK:135:GLU:CD	2.12	0.53
1:AA:560:U:H5'	1:AA:566:G:N2	2.24	0.53
35:BP:134:ARG:HH21	44:BV:122:ARG:NE	2.07	0.53
25:BB:81:G:H2'	25:BB:82:G:H5'	1.90	0.53
34:BO:15:ARG:O	34:BO:16:ARG:C	2.47	0.53
10:AM:75:ILE:O	10:AM:77:PRO:HD3	2.09	0.53
1:CA:1435:G:H2'	1:CA:1436:U:C5	2.41	0.53
24:BA:1309:G:C6	24:BA:1310:G:C5	2.97	0.53
22:AC:59:A:H2'	22:AC:60:U:C5'	2.33	0.53
28:BF:6:VAL:HG13	28:BF:119:ARG:CB	2.31	0.53
34:BO:31:ALA:O	34:BO:32:THR:CG2	2.54	0.53
1:AA:691:G:H2'	1:AA:692:U:C6	2.44	0.53
42:DT:35:THR:O	42:DT:39:ILE:HG13	2.09	0.53
24:BA:1538:G:H2'	24:BA:1539:G:C8	2.40	0.53
34:DO:80:TYR:HA	34:DO:111:ARG:O	2.09	0.53
24:DA:1138:G:H21	32:DM:106:MET:CE	2.16	0.53
24:DA:1332:G:N2	24:DA:1609:A:O2'	2.42	0.53
24:DA:1388:G:C2'	24:DA:1389:G:H5'	2.38	0.53
1:AA:1276:G:N2	1:AA:1277:C:O2	2.42	0.53
24:BA:1992:G:O2'	24:BA:1993:U:OP2	2.24	0.53
30:BH:166:GLY:O	30:BH:167:GLU:HG2	2.08	0.53
1:CA:652:U:O2'	1:CA:653:A:O5'	2.27	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1490:C:C2'	1:AA:1491:G:H5'	2.38	0.53
24:DA:978:G:N2	24:DA:986:C:C2	2.76	0.53
24:BA:1767:C:H2'	24:BA:1768:U:H5'	1.90	0.53
24:BA:2317:C:O2'	24:BA:2318:G:H5'	2.08	0.53
44:DV:14:LYS:C	44:DV:16:SER:H	2.11	0.53
39:D1:74:LEU:HD13	39:D1:79:PHE:HB2	1.90	0.53
24:DA:962:G:C2'	24:DA:963:U:H5'	2.39	0.53
24:BA:995:C:C5	39:B1:57:PHE:HE2	2.27	0.53
24:DA:128:C:H2'	24:DA:129:C:C6	2.44	0.53
33:DN:80:ASP:OD2	38:DR:64:ARG:NH2	2.42	0.53
41:DS:95:ILE:CG1	41:DS:95:ILE:O	2.56	0.53
24:BA:481:G:OP1	43:BU:47:LYS:NZ	2.35	0.53
11:AN:34:ASP:HB2	11:AN:35:PRO:HD2	1.91	0.53
17:AT:45:HIS:O	17:AT:73:VAL:HG23	2.09	0.53
25:BB:32:C:C2	25:BB:51:G:N2	2.76	0.53
1:AA:552:U:O2'	12:AO:86:ARG:O	2.26	0.53
24:DA:2685:G:O2'	24:DA:2726:U:H5	1.92	0.53
24:BA:776:G:N7	24:BA:793:A:O2'	2.38	0.53
8:AK:6:ILE:HD12	8:AK:6:ILE:H	1.74	0.53
24:BA:143:C:H2'	24:BA:144:C:H6	1.74	0.53
3:AF:147:LYS:O	3:AF:203:PHE:HD2	1.91	0.53
26:BD:76:PRO:O	26:BD:98:VAL:HG23	2.08	0.53
4:CG:34:GLU:HG2	4:CG:35:ARG:H	1.74	0.53
1:CA:1118:C:O3'	9:CL:83:ARG:NH2	2.37	0.53
1:CA:1133:G:C4	1:CA:1134:G:C8	2.97	0.53
1:CA:1127:G:H1	1:CA:1145:C:H1'	1.73	0.53
13:CP:19:LEU:O	13:CP:21:TYR:N	2.41	0.53
11:CN:48:ILE:HG12	11:CN:63:LEU:CB	2.39	0.53
51:D6:40:CYS:SG	51:D6:45:LYS:HE2	2.49	0.53
24:DA:2343:C:C2'	24:DA:2344:U:C5'	2.72	0.53
35:DP:6:ARG:CG	35:DP:7:MET:H	2.19	0.53
29:BG:107:LEU:O	49:B4:38:LYS:HG3	2.06	0.53
24:DA:1794:U:H1'	24:DA:1900:A:C2	2.44	0.53
24:BA:1103:A:H2'	24:BA:1104:C:H5'	1.91	0.53
40:D2:35:LEU:N	40:D2:35:LEU:CD2	2.71	0.53
2:AE:215:LEU:N	2:AE:215:LEU:HD22	2.21	0.53
2:CE:87:ARG:NH2	2:CE:233:SER:H	2.06	0.53
44:BV:148:ASP:OD1	44:BV:174:VAL:N	2.42	0.53
24:DA:239:U:H2'	24:DA:240:G:O4'	2.08	0.53
29:BG:73:ALA:CB	29:BG:82:LEU:HD11	2.34	0.53
47:BW:48:HIS:O	47:BW:51:ARG:N	2.41	0.53
44:BV:52:SER:C	44:BV:54:HIS:N	2.61	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CC:6:G:O2'	22:CC:7:G:H5'	2.08	0.53
8:AK:120:THR:CG2	8:AK:123:GLU:HG3	2.33	0.53
28:BF:20:LEU:HD12	28:BF:21:ALA:N	2.24	0.53
1:CA:1061:G:H1'	10:CM:56:HIS:HE1	1.71	0.53
24:DA:1342:A:C2	24:DA:1602:U:N3	2.76	0.53
11:AN:52:GLY:H	11:AN:55:LYS:NZ	2.07	0.53
44:DV:126:VAL:HA	44:DV:163:LEU:HA	1.90	0.53
1:AA:280:C:H3'	1:AA:281:G:H5'	1.90	0.53
17:AT:100:LYS:CE	17:AT:101:ARG:HH11	2.22	0.53
42:DT:23:GLU:CG	42:DT:24:GLY:H	2.21	0.53
26:DD:149:PRO:O	26:DD:150:LYS:HB2	2.09	0.53
24:BA:2785:C:C2'	27:BE:64:LYS:HZ2	2.22	0.53
3:AF:73:PRO:HG3	3:AF:105:GLU:CB	2.38	0.53
24:BA:2022:U:O2'	24:BA:2617:C:H5'	2.09	0.53
28:DF:181:LEU:CD2	28:DF:186:ILE:HD11	2.39	0.53
44:BV:13:GLU:HB3	44:BV:18:LEU:HD11	1.91	0.53
41:BS:12:ILE:HG13	41:BS:42:ARG:NH1	2.23	0.53
50:B5:57:VAL:O	50:B5:57:VAL:HG13	2.09	0.53
1:AA:1336:C:H1'	1:AA:1337:G:C2	2.44	0.53
1:AA:22:G:H2'	1:AA:23:C:H6	1.73	0.53
24:DA:1146:C:O2'	24:DA:1147:C:H5'	2.09	0.53
24:DA:278:A:O2'	24:DA:279:C:OP1	2.22	0.53
24:BA:1443:G:O2'	24:BA:1444:G:H5'	2.09	0.53
24:DA:1893:C:C2'	24:DA:1894:C:H5'	2.38	0.53
24:DA:1973:G:H2'	24:DA:1974:C:C6	2.43	0.53
24:BA:1657:C:H4'	27:BE:133:LYS:HB3	1.90	0.53
10:AM:12:ASP:OD2	10:AM:15:THR:HG23	2.09	0.53
27:BE:34:VAL:HG22	27:BE:48:GLN:HB3	1.90	0.53
25:BB:61:G:O2'	25:BB:62:C:H5'	2.08	0.53
24:BA:2802:G:C6	24:BA:2803:C:C4	2.96	0.53
29:BG:27:ASN:HB3	29:BG:30:GLU:HG3	1.90	0.53
24:BA:118:A:OP2	24:BA:119:A:H2'	2.09	0.53
33:BN:20:MET:HE3	33:BN:44:LYS:HE3	1.90	0.53
9:CL:40:LEU:HD13	9:CL:74:ILE:HD11	1.91	0.53
6:CI:10:LEU:HD12	6:CI:10:LEU:N	2.24	0.53
11:AN:25:TYR:N	11:AN:25:TYR:CD1	2.73	0.53
24:DA:760:G:H2'	24:DA:761:A:O4'	2.08	0.53
24:BA:150:C:H2'	24:BA:151:C:C6	2.44	0.53
1:CA:947:G:H4'	13:CP:109:THR:HG23	1.91	0.53
14:CQ:29:ARG:HD3	14:CQ:40:CYS:HB3	1.90	0.53
53:D8:29:LYS:H	53:D8:44:LYS:HD3	1.74	0.53
30:BH:4:ILE:CG1	30:BH:6:ARG:NE	2.71	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AG:30:LYS:HB2	4:AG:34:GLU:H	1.74	0.53
30:DH:4:ILE:CD1	30:DH:5:GLY:H	2.20	0.53
24:DA:2805:G:C2	24:DA:2807:G:C4	2.97	0.53
12:AO:53:ARG:HB3	12:AO:69:TYR:HE1	1.73	0.53
2:CE:219:VAL:O	2:CE:219:VAL:HG22	2.08	0.53
35:DP:31:ASP:HA	35:DP:134:ARG:HD2	1.91	0.53
30:DH:91:GLY:O	30:DH:93:GLY:N	2.42	0.53
4:CG:88:VAL:O	4:CG:92:VAL:HG23	2.09	0.53
31:DK:76:THR:HG21	31:DK:140:LEU:HB2	1.90	0.53
3:CF:148:GLY:HA3	3:CF:172:ARG:O	2.07	0.53
47:DW:17:SER:OG	47:DW:67:LYS:HG2	2.09	0.53
9:AL:81:ILE:O	9:AL:85:LEU:HG	2.08	0.53
10:AM:5:ARG:HB3	10:AM:73:ASP:CG	2.29	0.53
3:AF:72:LYS:HB3	3:AF:75:VAL:HG23	1.90	0.53
4:CG:153:ARG:HA	4:CG:181:MET:HE1	1.91	0.53
44:DV:140:ASP:CG	44:DV:141:VAL:N	2.61	0.53
1:CA:838:G:N2	1:CA:849:C:C2	2.76	0.53
29:DG:94:LEU:CD2	29:DG:94:LEU:H	2.21	0.53
3:CF:12:LEU:HD23	3:CF:12:LEU:O	2.09	0.53
24:DA:1009:A:C4'	39:D1:59:ARG:HG3	2.38	0.53
1:CA:689:C:H3'	1:CA:690:G:H21	1.73	0.53
26:DD:65:ILE:HG12	26:DD:67:PHE:CZ	2.44	0.53
1:CA:914:A:C4	1:CA:915:A:C8	2.97	0.53
33:BN:47:ILE:HG23	33:BN:48:PRO:CD	2.39	0.53
1:CA:1342:C:O2'	9:CL:124:GLN:HA	2.09	0.53
26:DD:172:TYR:HD1	26:DD:186:HIS:N	2.07	0.53
24:BA:285:C:O2'	24:BA:286:C:H5'	2.08	0.53
1:CA:465:A:N7	1:CA:467:G:C6	2.76	0.53
34:DO:39:LYS:CB	34:DO:45:LEU:HD11	2.39	0.53
1:AA:728:A:C5	15:AR:54:ARG:HD2	2.44	0.53
24:DA:141:A:H1'	24:DA:1408:C:O4'	2.08	0.53
24:DA:99:U:C2	24:DA:102:G:N2	2.77	0.53
4:CG:58:LEU:CD2	4:CG:62:GLN:HG3	2.38	0.53
29:DG:135:LEU:N	29:DG:135:LEU:HD12	2.24	0.53
24:DA:1771:C:HO2'	24:DA:1786:A:C1'	2.21	0.53
31:BK:129:THR:HG22	31:BK:137:PRO:HB3	1.90	0.53
1:AA:392:G:C4	1:AA:393:A:C8	2.96	0.53
24:DA:901:A:H5'	24:DA:902:C:OP2	2.09	0.53
11:CN:12:ARG:HA	11:CN:12:ARG:NE	2.24	0.53
1:CA:385:C:O2'	1:CA:386:C:H5'	2.09	0.53
24:BA:725:G:C6	24:BA:726:G:N1	2.77	0.53
24:DA:919:G:N2	24:DA:2269:A:OP2	2.42	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:30:G:H2'	24:BA:31:C:C6	2.44	0.53
24:DA:2738:A:H2	24:DA:2766:G:H22	1.56	0.53
38:DR:47:GLY:O	38:DR:63:VAL:HG13	2.09	0.53
24:DA:2745:C:H4'	30:DH:142:GLY:O	2.09	0.53
1:CA:1223:C:P	1:CA:1224:G:H2'	2.48	0.53
1:CA:1335:C:H5''	1:CA:1336:C:H5'	1.90	0.53
9:CL:92:TYR:O	9:CL:96:LEU:HB2	2.09	0.53
1:CA:1068:G:N3	1:CA:1191:A:C2	2.77	0.53
1:AA:1316:G:H4'	14:AQ:18:VAL:HG11	1.91	0.53
24:BA:483:A:H4'	43:BU:49:VAL:HA	1.91	0.53
2:AE:75:LYS:HD3	2:AE:75:LYS:C	2.29	0.53
24:BA:1069:A:H5''	24:BA:1070:A:P	2.48	0.53
24:BA:1080:A:N6	24:BA:1087:G:OP2	2.40	0.53
24:DA:2776:A:H1'	24:DA:2777:G:OP2	2.09	0.53
26:DD:35:LYS:CB	26:DD:64:ILE:CG2	2.83	0.53
1:CA:1290:G:C3'	1:CA:1291:G:H5'	2.39	0.53
3:CF:120:VAL:CG2	3:CF:137:ALA:HB2	2.34	0.53
1:CA:404:U:O4	4:CG:2:GLY:N	2.41	0.53
24:BA:2120:G:P	24:BA:2120:G:H8	2.32	0.53
40:D2:39:LEU:N	40:D2:39:LEU:HD12	2.23	0.53
1:AA:443:C:H42	1:AA:491:G:H1	1.56	0.53
1:CA:1052:U:C5'	1:CA:1053:G:OP2	2.53	0.53
1:AA:980:C:H2'	1:AA:981:U:O4'	2.08	0.53
1:AA:256:U:C6	1:AA:256:U:OP2	2.62	0.53
24:DA:2681:C:OP2	27:DE:109:LYS:NZ	2.35	0.53
28:BF:64:ILE:CG2	28:BF:65:TRP:CE2	2.92	0.53
24:BA:2881:C:H5''	36:B0:117:VAL:HG21	1.91	0.53
24:DA:92:G:H2'	24:DA:93:C:C6	2.44	0.53
24:DA:2542:A:O2'	24:DA:2543:G:H8	1.92	0.53
1:CA:552:U:O4	1:CA:553:A:N6	2.41	0.53
24:DA:2124:G:N7	24:DA:2125:G:H1'	2.24	0.53
24:DA:270(T):G:C2	24:DA:270(U):C:C2	2.97	0.53
37:DQ:19:LYS:C	37:DQ:21:THR:H	2.11	0.53
12:AO:27:LEU:O	12:AO:28:LYS:HB3	2.09	0.53
24:DA:1434:A:H61	24:DA:1558:A:H62	1.53	0.53
30:DH:25:LYS:CE	30:DH:27:LYS:H	2.19	0.53
15:CR:87:ILE:CG2	15:CR:88:ARG:N	2.71	0.53
3:AF:115:LEU:O	3:AF:117:ALA:N	2.42	0.53
1:CA:652:U:C4	1:CA:752:G:N3	2.77	0.53
47:BW:9:GLN:OE1	47:BW:56:GLN:HG3	2.08	0.53
24:DA:1010:A:H5'	39:D1:62:ILE:HG21	1.91	0.53
30:DH:41:MET:HE3	30:DH:55:PRO:CD	2.39	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:644:G:H5'	8:CK:92:ARG:NH2	2.24	0.53
24:DA:857:C:O2'	24:DA:858:U:H5'	2.09	0.53
1:AA:321:A:O2'	1:AA:322:C:H5'	2.09	0.53
1:CA:938:A:N6	1:CA:939:G:C6	2.77	0.53
1:CA:757:U:O2'	1:CA:879:C:H1'	2.09	0.53
8:CK:107:LEU:HD22	8:CK:107:LEU:N	2.23	0.53
24:BA:2097:C:C2'	24:BA:2098:U:H5'	2.39	0.53
24:BA:2629:A:OP1	24:BA:2629:A:H4'	2.09	0.53
3:AF:63:ASN:HB2	3:AF:98:ASN:HB2	1.91	0.53
24:BA:2884:U:H2'	24:BA:2885:C:O4'	2.09	0.53
24:BA:806:C:C2	24:BA:807:U:C5	2.97	0.53
1:CA:1440:C:H2'	1:CA:1441:G:O4'	2.08	0.53
37:DQ:28:VAL:HG12	37:DQ:28:VAL:O	2.09	0.53
13:AP:37:THR:HB	13:AP:55:ARG:HE	1.74	0.53
37:BQ:30:ARG:HG3	37:BQ:30:ARG:HH11	1.73	0.53
1:CA:1118:C:C2'	1:CA:1119:C:H5'	2.39	0.53
1:CA:1250:A:C6	1:CA:1251:A:C6	2.97	0.53
1:CA:979:C:C5	1:CA:980:C:C6	2.96	0.53
19:CV:37:ARG:CG	19:CV:37:ARG:NH1	2.67	0.53
24:DA:2344:U:H2'	24:DA:2344:U:O5'	2.09	0.53
30:BH:8:PRO:HG2	30:BH:69:ARG:HE	1.74	0.53
19:AV:36:ARG:HB2	19:AV:36:ARG:NH1	2.24	0.53
28:DF:24:LEU:HB3	28:DF:25:PRO:HD2	1.89	0.53
24:DA:1071:G:P	24:DA:1097:U:H4'	2.48	0.53
3:CF:110:ASN:HB3	3:CF:144:SER:OG	2.08	0.53
2:AE:154:LEU:O	2:AE:155:LEU:HB2	2.09	0.53
24:BA:2015:A:C2	50:B5:2:ALA:N	2.77	0.53
30:DH:129:THR:C	30:DH:130:ARG:HG2	2.30	0.53
24:BA:1176:G:H5''	24:BA:1177:A:OP2	2.09	0.53
10:AM:48:THR:HG23	10:AM:62:HIS:HB3	1.91	0.53
24:BA:2126:A:N3	24:BA:2126:A:H2'	2.24	0.53
53:D8:60:LEU:C	53:D8:61:LEU:HD12	2.27	0.53
27:BE:201:THR:HG22	27:BE:203:LYS:HB3	1.91	0.53
52:B7:9:ARG:HH21	52:B7:48:LYS:CD	2.22	0.53
1:AA:626:U:C3'	16:AS:38:TYR:HH	2.13	0.53
37:BQ:59:LYS:HD3	37:BQ:60:GLY:H	1.71	0.53
25:DB:27:C:C5	25:DB:28:C:C5	2.97	0.53
1:CA:1026:G:H2'	1:CA:1027:C:H5'	1.91	0.53
35:DP:62:GLY:O	35:DP:63:LYS:HB2	2.09	0.53
3:CF:24:ALA:HB1	3:CF:28:GLN:NE2	2.23	0.53
1:CA:15:G:H2'	1:CA:16:A:C8	2.44	0.53
20:CW:50:GLU:HA	20:CW:100:ILE:HB	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1313:U:C2	24:DA:1610:A:C2	2.97	0.53
24:DA:1533:C:C5	24:DA:1534:G:H1'	2.45	0.53
28:DF:53:THR:HG23	28:DF:56:GLU:HG3	1.89	0.53
1:AA:1452:C:O2'	1:AA:1453:G:O5'	2.21	0.53
25:BB:116:G:H4'	37:BQ:54:LEU:HD13	1.90	0.53
1:AA:222:U:H2'	1:AA:223:U:C5	2.44	0.53
24:DA:780:G:H21	24:DA:783:A:H62	1.55	0.53
18:AU:40:LEU:C	18:AU:42:ARG:N	2.62	0.53
4:AG:101:LEU:HD23	4:AG:121:VAL:HG13	1.91	0.53
24:DA:491:G:H2'	24:DA:492:A:O4'	2.09	0.53
24:DA:2666:C:C5	24:DA:2667:C:C5	2.97	0.53
24:BA:646:A:C2'	24:BA:647:G:H5'	2.39	0.53
31:BK:116:LEU:CG	31:BK:117:GLU:H	2.22	0.53
31:BK:127:VAL:HG22	31:BK:139:GLN:CB	2.39	0.53
24:DA:2516:G:C6	24:DA:2517:C:N4	2.77	0.53
24:DA:2584:U:C5	24:DA:2585:U:C5	2.97	0.53
24:DA:2312:U:O2	29:DG:42:GLY:HA3	2.08	0.53
24:DA:128:C:C6	24:DA:128:C:H3'	2.43	0.53
24:BA:1642:G:C2'	24:BA:1643:G:H5'	2.39	0.53
24:DA:1465:G:N3	24:DA:1545(A):A:H2	2.06	0.53
24:BA:14:A:N7	24:BA:15:G:C8	2.77	0.53
25:BB:61:G:C2'	25:BB:62:C:H5'	2.38	0.53
22:AC:25:C:H2'	22:AC:26:G:O4'	2.09	0.53
24:BA:1385:G:H1'	24:BA:1386:C:C6	2.44	0.53
24:BA:1760:A:H2'	24:BA:1761:C:C6	2.44	0.53
24:BA:2357:U:OP1	45:B3:20:ARG:NH1	2.40	0.53
1:CA:1237:C:C1'	1:CA:1334:G:H21	2.20	0.52
1:CA:1297:C:H1'	1:CA:1298:C:P	2.49	0.52
1:CA:1320:C:C2	19:CV:36:ARG:NH1	2.77	0.52
1:CA:1320:C:C5	1:CA:1321:C:C4	2.97	0.52
1:CA:1320:C:C2'	1:CA:1321:C:O4'	2.43	0.52
1:CA:965:A:C2	1:CA:969:A:N1	2.76	0.52
7:CJ:36:LYS:O	7:CJ:40:ALA:N	2.42	0.52
14:CQ:29:ARG:NH1	14:CQ:40:CYS:HB3	2.24	0.52
11:CN:50:TYR:HD2	11:CN:60:ALA:HB2	1.74	0.52
53:D8:30:ARG:C	53:D8:32:LEU:H	2.13	0.52
24:DA:2417:C:P	34:DO:64:LYS:CE	2.89	0.52
24:DA:2429:G:N7	34:DO:56:SER:OG	2.33	0.52
24:BA:2287:A:C6	24:BA:2289:G:C4	2.98	0.52
19:AV:41:VAL:H	19:AV:44:MET:HE3	1.74	0.52
1:AA:1381:U:H2'	7:AJ:79:ARG:HD2	1.85	0.52
49:B4:38:LYS:N	49:B4:38:LYS:CD	2.71	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BH:2:SER:O	30:BH:3:ARG:O	2.27	0.52
24:DA:662:G:OP1	34:DO:17:LYS:HE3	2.09	0.52
25:BB:42:C:P	29:BG:67:LYS:HE2	2.49	0.52
27:DE:64:LYS:CE	27:DE:73:GLU:OE2	2.56	0.52
46:BZ:85:LEU:HA	46:BZ:87:PRO:HD2	1.91	0.52
26:DD:43:ARG:HH11	26:DD:44:ASN:ND2	2.04	0.52
2:CE:80:ILE:HD11	2:CE:212:GLN:HA	1.90	0.52
24:DA:875:G:H4'	44:DV:170:THR:HG22	1.91	0.52
2:AE:91:PRO:HD3	2:AE:155:LEU:HD21	1.91	0.52
44:DV:24:LEU:N	44:DV:41:LEU:HD13	2.25	0.52
5:CH:70:PRO:HD2	5:CH:142:LEU:HB2	1.91	0.52
5:CH:70:PRO:C	5:CH:71:LEU:HD12	2.30	0.52
24:DA:996:A:H4'	39:D1:92:ARG:NE	2.25	0.52
9:AL:16:ARG:CD	9:AL:64:THR:CG2	2.87	0.52
3:AF:87:LEU:O	3:AF:90:GLU:N	2.42	0.52
6:CI:23:LYS:HE2	6:CI:61:LEU:CD1	2.39	0.52
28:DF:9:ILE:HG23	28:DF:12:LEU:CA	2.39	0.52
28:BF:62:ARG:HG2	28:BF:63:LYS:N	2.23	0.52
42:BT:49:VAL:HG13	42:BT:83:VAL:HG13	1.91	0.52
42:DT:30:VAL:CG1	42:DT:31:HIS:N	2.72	0.52
2:AE:124:SER:HB2	2:AE:125:PRO:CD	2.35	0.52
24:DA:2118:U:H2'	24:DA:2119:A:OP2	2.09	0.52
24:DA:2141:G:N2	24:DA:2150:U:O2	2.34	0.52
24:BA:165:U:C2	24:BA:171:G:C8	2.96	0.52
24:DA:1025:G:H8	24:DA:1025:G:OP1	1.92	0.52
24:DA:270(N):G:O2'	24:DA:270(P):C:H5'	2.09	0.52
24:DA:1992:G:C1'	24:DA:1993:U:OP2	2.57	0.52
33:BN:122:LEU:N	33:BN:122:LEU:HD12	2.24	0.52
1:CA:423:G:N2	1:CA:424:G:C8	2.77	0.52
4:AG:141:ARG:HB3	4:AG:142:PRO:CD	2.38	0.52
24:DA:2667:C:C2'	24:DA:2668:G:H5'	2.39	0.52
24:DA:2262:U:C5	45:D3:16:SER:OG	2.59	0.52
3:CF:78:GLY:CA	3:CF:79:ARG:HH21	2.21	0.52
48:DX:8:LEU:HD22	48:DX:31:LEU:CD1	2.37	0.52
2:AE:120:ALA:O	2:AE:121:LEU:HD23	2.08	0.52
24:DA:2584:U:O2	24:DA:2584:U:O4'	2.23	0.52
29:BG:49:ASP:OD2	29:BG:51:ARG:NE	2.41	0.52
24:BA:125:G:H4'	24:BA:126:A:OP2	2.09	0.52
1:AA:669:U:C2	1:AA:670:G:C8	2.97	0.52
40:B2:72:VAL:O	40:B2:72:VAL:HG13	2.09	0.52
24:DA:1858:G:H1'	24:DA:1884:A:H61	1.73	0.52
1:CA:1480:G:C5	1:CA:1481:U:C5	2.98	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1753:G:N2	24:DA:1756:G:OP2	2.41	0.52
1:CA:763:G:H2'	1:CA:764:C:H6	1.74	0.52
12:AO:119:LYS:H	12:AO:119:LYS:CD	2.20	0.52
24:BA:1475:G:C2	24:BA:1519:G:C2	2.97	0.52
8:CK:94:TYR:CD1	8:CK:95:VAL:N	2.77	0.52
1:CA:1117:G:C2'	9:CL:104:ARG:CD	2.85	0.52
9:CL:17:VAL:CG2	9:CL:80:GLY:CA	2.88	0.52
13:CP:29:ARG:HB3	13:CP:64:TRP:CZ2	2.42	0.52
19:CV:31:ILE:O	19:CV:32:LYS:HD3	2.10	0.52
19:CV:51:VAL:O	19:CV:57:HIS:HA	2.08	0.52
9:AL:96:LEU:C	9:AL:99:LEU:CD1	2.77	0.52
13:AP:3:ARG:CZ	13:AP:7:VAL:HG22	2.39	0.52
24:BA:1112:G:O2'	30:BH:2:SER:HA	2.08	0.52
30:BH:2:SER:O	30:BH:3:ARG:NE	2.41	0.52
29:BG:135:LEU:HD23	29:BG:140:ILE:HD11	1.91	0.52
53:B8:14:VAL:CG2	53:B8:22:VAL:HG13	2.40	0.52
24:DA:2889:C:H3'	24:DA:2891:G:H8	1.74	0.52
3:CF:58:GLU:O	3:CF:59:ARG:HD2	2.09	0.52
2:AE:178:ARG:NH2	8:AK:74:PRO:HB3	2.23	0.52
29:DG:173:LEU:O	29:DG:178:PHE:HB2	2.09	0.52
19:CV:29:ARG:HH11	19:CV:48:THR:H	1.57	0.52
2:CE:8:LYS:CB	2:CE:217:ARG:NE	2.70	0.52
31:BK:101:LEU:C	31:BK:101:LEU:HD23	2.29	0.52
43:DU:20:TYR:CZ	43:DU:42:VAL:HA	2.44	0.52
44:DV:154:ASP:O	44:DV:155:LEU:HD23	2.08	0.52
1:CA:1215:G:N3	1:CA:1215:G:H2'	2.25	0.52
31:DK:77:LEU:HA	31:DK:141:LYS:O	2.10	0.52
31:DK:76:THR:CG2	31:DK:140:LEU:CD1	2.86	0.52
24:BA:2109:U:H3	24:BA:2180:U:H3	1.58	0.52
37:DQ:64:GLU:O	37:DQ:68:GLN:OE1	2.27	0.52
31:DK:97:ILE:O	31:DK:101:LEU:HD23	2.09	0.52
1:CA:1449:C:N4	1:CA:1452:C:N3	2.57	0.52
24:BA:176:G:H2'	24:BA:177:G:H5'	1.90	0.52
1:AA:277:C:H5'	17:AT:68:ARG:HH12	1.75	0.52
8:AK:85:ARG:NH1	8:AK:85:ARG:HG3	2.11	0.52
24:DA:89:G:H3'	24:DA:90:U:C5'	2.38	0.52
28:BF:132:VAL:O	28:BF:133:ASN:HB3	2.10	0.52
24:DA:1006:C:H1'	32:DM:106:MET:HE3	1.91	0.52
24:DA:1331:A:H2'	24:DA:1333:C:C5	2.44	0.52
16:AS:74:LEU:O	16:AS:79:VAL:HG23	2.09	0.52
5:CH:100:VAL:HG13	5:CH:118:ILE:HG22	1.89	0.52
1:CA:393:A:P	16:CS:12:LYS:CE	2.98	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CS:28:ARG:HG2	16:CS:29:ASP:OD1	2.09	0.52
17:AT:76:LEU:HD12	17:AT:77:VAL:H	1.72	0.52
24:DA:1607:C:H4'	24:DA:1608:A:C5'	2.38	0.52
24:BA:2101:G:H3'	24:BA:2102:U:C5	2.44	0.52
25:DB:88:C:H41	25:DB:89:G:N2	2.07	0.52
35:DP:16:ARG:HD3	35:DP:18:LYS:NZ	2.25	0.52
30:DH:103:LEU:HD23	30:DH:103:LEU:N	2.24	0.52
39:D1:48:ALA:O	39:D1:52:ARG:HG3	2.09	0.52
35:BP:75:THR:HA	35:BP:90:VAL:H	1.74	0.52
50:B5:55:ARG:C	50:B5:57:VAL:H	2.10	0.52
1:CA:108:G:H5'	1:CA:109:A:C5'	2.38	0.52
1:CA:273:A:C2'	1:CA:274:A:H5'	2.39	0.52
25:BB:6:C:C2	25:BB:115:G:N2	2.77	0.52
26:DD:106:ILE:HD11	26:DD:196:VAL:HG13	1.91	0.52
24:BA:270(F):U:H2'	24:BA:270(G):C:C6	2.44	0.52
34:DO:100:LEU:HD22	34:DO:100:LEU:N	2.24	0.52
5:CH:49:PRO:O	5:CH:50:GLU:HG2	2.08	0.52
20:AW:37:SER:O	20:AW:41:ILE:HG12	2.09	0.52
24:DA:196:A:O4'	34:DO:46:LYS:HD2	2.09	0.52
8:CK:25:ASP:OD1	8:CK:25:ASP:N	2.43	0.52
24:BA:1514:U:H2'	24:BA:1515:C:C6	2.44	0.52
1:AA:1171:G:O2'	1:AA:1172:C:H5'	2.08	0.52
1:CA:409:G:OP1	4:CG:22:LYS:HB3	2.09	0.52
4:CG:31:CYS:O	4:CG:33:MET:HG3	2.08	0.52
1:CA:1137:C:H4'	1:CA:1138:G:N3	2.24	0.52
1:CA:1240:U:H3	7:CJ:32:ARG:NE	2.07	0.52
1:CA:1123:A:C4'	10:CM:37:PRO:HD2	2.27	0.52
1:CA:947:G:OP1	13:CP:108:ARG:HG2	2.09	0.52
19:CV:66:MET:CA	19:CV:67:VAL:CG1	2.84	0.52
24:DA:2286:A:OP2	51:D6:28:ARG:HG3	2.09	0.52
53:D8:33:ASN:C	53:D8:34:TRP:HD1	2.12	0.52
49:B4:36:CYS:O	49:B4:39:CYS:SG	2.67	0.52
29:DG:114:ILE:CD1	29:DG:140:ILE:HG21	2.38	0.52
26:DD:35:LYS:CA	26:DD:64:ILE:CG2	2.87	0.52
29:DG:16:ARG:HH11	29:DG:28:VAL:CG1	2.23	0.52
1:CA:1292:U:C5'	9:CL:38:GLN:OE1	2.57	0.52
31:BK:102:SER:O	31:BK:106:GLY:HA2	2.10	0.52
34:DO:48:PRO:CG	34:DO:49:ARG:H	2.14	0.52
24:DA:880:G:H1	24:DA:897:C:N4	2.07	0.52
44:DV:111:VAL:O	44:DV:112:ARG:HB2	2.09	0.52
44:DV:150:LEU:HA	44:DV:154:ASP:OD2	2.09	0.52
3:CF:71:ALA:HA	3:CF:106:VAL:H	1.74	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CF:92:ALA:HA	3:CF:95:THR:HB	1.91	0.52
18:CU:43:PHE:O	18:CU:51:LEU:HD12	2.09	0.52
19:CV:16:LEU:O	19:CV:20:LEU:HD23	2.08	0.52
49:D4:4:GLY:O	49:D4:6:HIS:N	2.43	0.52
2:AE:41:ILE:N	2:AE:41:ILE:HD12	2.24	0.52
39:D1:93:LYS:O	39:D1:96:ALA:HB3	2.09	0.52
37:DQ:59:LYS:CD	37:DQ:60:GLY:H	2.22	0.52
9:AL:83:ARG:HA	9:AL:86:VAL:HG12	1.92	0.52
24:BA:1141:U:H4'	24:BA:1142(A):A:O4'	2.09	0.52
40:D2:76:LYS:NZ	40:D2:82:ARG:NH2	2.56	0.52
32:DM:23:LEU:HD22	32:DM:60:ILE:HD12	1.91	0.52
27:DE:88:GLY:O	27:DE:89:ASP:HB3	2.09	0.52
35:BP:66:ILE:HA	35:BP:104:PHE:HA	1.91	0.52
24:DA:2065:C:H2'	24:DA:2066:C:H6	1.73	0.52
24:DA:2836:U:C4	24:DA:2883:A:N6	2.77	0.52
24:BA:2791:C:N4	24:BA:2893:G:N7	2.57	0.52
24:DA:1025:G:C5	24:DA:1135:C:H1'	2.45	0.52
46:DZ:76:ARG:HD2	46:DZ:94:LEU:CD2	2.38	0.52
1:AA:863:U:H2'	1:AA:865:A:OP2	2.10	0.52
24:BA:2481:G:H2'	24:BA:2482:G:OP2	2.09	0.52
27:DE:169:ASN:CG	27:DE:203:LYS:HG2	2.30	0.52
25:DB:89(A):A:H5''	25:DB:90:C:OP2	2.09	0.52
1:CA:914:A:H2'	1:CA:915:A:H8	1.75	0.52
28:BF:127:GLU:C	28:BF:129:PHE:H	2.13	0.52
1:AA:1016:A:H5'	14:AQ:15:LYS:HZ2	1.74	0.52
50:B5:56:LYS:NZ	50:B5:56:LYS:HB3	2.25	0.52
1:CA:458:C:N4	1:CA:464:G:C6	2.77	0.52
24:BA:2333:A:N3	24:BA:2335:A:N6	2.56	0.52
37:BQ:52:SER:O	37:BQ:56:LEU:HD23	2.09	0.52
1:AA:106:C:H2'	1:AA:107:G:H8	1.74	0.52
24:BA:580:C:H2'	24:BA:581:C:C6	2.44	0.52
35:BP:37:LEU:HB2	35:BP:128:LYS:O	2.09	0.52
3:CF:129:ALA:HB3	3:CF:132:ARG:HB3	1.92	0.52
24:BA:2029:G:H2'	24:BA:2031:A:OP1	2.09	0.52
27:BE:37:ARG:HE	27:BE:37:ARG:H	1.57	0.52
3:CF:33:LEU:HD21	14:CQ:53:LEU:HD21	1.92	0.52
30:BH:46:GLU:OE1	30:BH:51:ARG:NH1	2.42	0.52
24:BA:1625:C:H2'	24:BA:1626:G:O4'	2.10	0.52
6:AI:53:ALA:O	6:AI:54:LYS:HB2	2.09	0.52
7:CJ:47:CYS:SG	7:CJ:58:PRO:CB	2.98	0.52
24:DA:581:C:OP1	39:D1:33:ARG:HG3	2.09	0.52
24:BA:1010:A:O2'	24:BA:1152:C:O2'	2.21	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1705:G:O2'	24:BA:1706:U:H5'	2.09	0.52
1:AA:1428:A:H2'	1:AA:1429:C:C6	2.45	0.52
1:CA:1127:G:C5'	9:CL:66:ARG:HH12	2.22	0.52
1:CA:976:G:OP1	14:CQ:31:ARG:HD3	2.09	0.52
13:CP:19:LEU:HD11	13:CP:30:ALA:HB1	1.90	0.52
7:CJ:78:ARG:NH1	7:CJ:86:GLN:N	2.56	0.52
3:AF:8:ILE:CD1	3:AF:16:ARG:CD	2.86	0.52
51:B6:12:GLU:CB	51:B6:23:THR:HG22	2.40	0.52
24:BA:2401:U:C2'	24:BA:2402:C:C6	2.92	0.52
26:BD:35:LYS:HZ3	26:BD:104:TYR:HB2	1.64	0.52
27:DE:2:LYS:HA	27:DE:84:PHE:CD1	2.44	0.52
39:B1:98:LEU:N	39:B1:98:LEU:HD12	2.25	0.52
2:CE:219:VAL:C	2:CE:222:ILE:HG22	2.30	0.52
31:BK:123:LEU:N	31:BK:123:LEU:HD23	2.24	0.52
10:CM:79:ARG:H	10:CM:79:ARG:CD	2.23	0.52
24:DA:1069:A:C5'	24:DA:1070:A:OP1	2.57	0.52
24:DA:1084:A:C2	24:DA:1106:G:H1'	2.45	0.52
1:AA:1003:G:H2'	1:AA:1004:A:H4'	1.92	0.52
1:CA:547:A:OP2	4:CG:2:GLY:HA3	2.08	0.52
4:CG:90:GLY:O	4:CG:93:PHE:HB3	2.10	0.52
5:CH:80:ILE:HG22	8:CK:104:ARG:NE	2.23	0.52
1:CA:1213:A:C6	1:CA:1215:G:H1'	2.44	0.52
1:CA:992:U:H1'	1:CA:993:G:P	2.49	0.52
31:DK:145:VAL:O	31:DK:146:ALA:HB3	2.10	0.52
29:DG:7:LEU:O	29:DG:7:LEU:HD23	2.10	0.52
6:CI:23:LYS:HE2	6:CI:61:LEU:CD2	2.37	0.52
37:BQ:66:ALA:HA	37:BQ:69:VAL:CG1	2.39	0.52
32:DM:21:LYS:O	32:DM:60:ILE:HD13	2.09	0.52
8:AK:42:GLU:HG3	8:AK:109:ILE:CD1	2.39	0.52
1:CA:173:U:O2	1:CA:197:A:C6	2.62	0.52
24:DA:2067:G:O2'	24:DA:2069:G:H5''	2.10	0.52
24:BA:882:G:O2'	24:BA:883:G:H8	1.92	0.52
24:DA:270(I):G:H1	24:DA:270(Q):C:N4	2.06	0.52
26:BD:206:LEU:HA	26:BD:211:ARG:HD3	1.91	0.52
1:AA:222:U:H2'	1:AA:223:U:H6	1.73	0.52
3:CF:189:ALA:C	3:CF:190:ARG:HD2	2.30	0.52
32:DM:14:VAL:CG2	32:DM:137:LYS:HG2	2.38	0.52
41:BS:9:TYR:HA	41:BS:100:THR:HG21	1.91	0.52
41:BS:1:MET:HA	41:BS:1:MET:HE3	1.91	0.52
18:AU:29:PHE:N	18:AU:29:PHE:CD1	2.76	0.52
36:B0:33:ARG:NH2	50:B5:55:ARG:HG2	2.24	0.52
24:DA:1301:A:O2'	24:DA:1302:A:H3'	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:B2:76:LYS:O	40:B2:79:VAL:HG12	2.10	0.52
24:DA:1592:C:H2'	24:DA:1593:G:C8	2.44	0.52
1:AA:405:U:H3'	1:AA:406:G:H5'	1.91	0.52
31:BK:93:THR:OG1	31:BK:96:ASP:OD1	2.28	0.52
46:DZ:51:VAL:O	46:DZ:51:VAL:HG23	2.09	0.52
16:CS:1:MET:HE3	16:CS:65:GLN:HG2	1.92	0.52
30:BH:91:GLY:HA3	30:BH:94:TYR:CD2	2.44	0.52
12:CO:57:LYS:HG3	12:CO:67:THR:HG22	1.90	0.52
44:DV:115:GLY:O	44:DV:116:VAL:HB	2.09	0.52
31:BK:29:TYR:O	31:BK:32:PRO:HD2	2.08	0.52
24:DA:1716:U:O2'	24:DA:1717:G:H5'	2.09	0.52
1:CA:147:G:H1	1:CA:175:C:H42	1.57	0.52
1:AA:540:G:H2'	1:AA:541:G:O4'	2.10	0.52
24:DA:2433:A:H5''	24:DA:2434:A:OP1	2.10	0.52
1:CA:410:G:OP2	4:CG:25:ARG:HB2	2.10	0.52
1:CA:1250:A:H4'	9:CL:68:GLY:O	2.10	0.52
1:CA:977:A:O2'	1:CA:979:C:OP2	2.21	0.52
1:CA:983:A:H3'	1:CA:983:A:N3	2.24	0.52
11:CN:59:TYR:O	11:CN:62:GLN:HB3	2.09	0.52
37:DQ:110:LEU:HG	37:DQ:111:GLU:H	1.75	0.52
24:BA:2286:A:C3'	51:B6:31:PRO:HD3	2.40	0.52
51:B6:35:GLU:OE1	51:B6:51:GLU:OE1	2.28	0.52
40:D2:20:LEU:HD12	40:D2:21:ARG:N	2.24	0.52
13:AP:81:LEU:HG	13:AP:89:GLY:HA2	1.89	0.52
43:BU:12:THR:O	43:BU:75:ILE:HD13	2.09	0.52
24:BA:1049:C:H2'	24:BA:1050:A:C5'	2.39	0.52
20:AW:53:LEU:CB	20:AW:100:ILE:HG23	2.37	0.52
37:BQ:111:GLU:O	37:BQ:112:PHE:CB	2.57	0.52
29:DG:11:TYR:O	29:DG:16:ARG:N	2.38	0.52
31:BK:87:LYS:HE2	31:BK:121:LYS:HE2	1.92	0.52
43:DU:68:HIS:H	43:DU:71:LYS:NZ	2.07	0.52
44:BV:109:ALA:CB	44:BV:174:VAL:HG21	2.40	0.52
44:BV:110:GLY:N	44:BV:144:LEU:H	2.08	0.52
1:CA:1202:G:C2'	1:CA:1203:C:H5'	2.40	0.52
43:DU:94:LYS:O	43:DU:101:LYS:HB2	2.10	0.52
4:CG:108:LEU:O	4:CG:110:PHE:N	2.42	0.52
19:CV:20:LEU:HD22	19:CV:20:LEU:N	2.24	0.52
36:B0:70:LEU:C	36:B0:72:ASP:H	2.13	0.52
1:AA:1060:C:C5'	10:AM:51:ARG:HG2	2.40	0.52
25:DB:30:C:C2'	25:DB:31:C:H5'	2.35	0.52
41:DS:65:LEU:HD12	41:DS:68:ARG:CD	2.40	0.52
35:BP:66:ILE:O	35:BP:67:ARG:HB2	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CH:13:ILE:N	5:CH:13:ILE:HD13	2.25	0.52
49:B4:58:ARG:HH12	49:B4:62:ARG:HD2	1.75	0.52
24:BA:897:C:H5''	24:BA:898:C:OP2	2.09	0.52
37:DQ:24:LEU:HD22	37:DQ:24:LEU:H	1.73	0.52
24:BA:2061:G:H5''	24:BA:2503:A:C2	2.44	0.52
24:BA:1728:G:H5''	24:BA:1728:G:N3	2.24	0.52
24:DA:1533:C:N4	24:DA:1534:G:N3	2.58	0.52
24:BA:1582:C:O2'	24:BA:1586:A:C8	2.62	0.52
24:DA:2094:G:H2'	24:DA:2095:C:H5'	1.92	0.52
24:BA:1791:A:H4'	26:BD:206:LEU:HB2	1.91	0.52
2:CE:197:VAL:HB	2:CE:200:ILE:HG12	1.92	0.52
27:DE:204:ALA:O	27:DE:205:ALA:HB3	2.10	0.52
30:DH:105:LEU:HD13	30:DH:105:LEU:N	2.24	0.52
2:AE:135:GLN:O	2:AE:136:VAL:C	2.47	0.52
38:DR:113:LYS:C	38:DR:114:LEU:HD23	2.30	0.52
28:DF:108:LYS:O	28:DF:112:MET:HG3	2.09	0.52
1:AA:827:U:H5	1:AA:872:A:N6	2.07	0.52
1:CA:1028(B):C:H3'	1:CA:1029:G:C5'	2.39	0.52
24:DA:2715:C:H2'	24:DA:2716:U:H6	1.74	0.52
1:CA:109:A:C6	1:CA:326:G:C6	2.97	0.52
24:BA:636:G:C2	34:BO:115:LEU:HD11	2.44	0.52
29:BG:173:LEU:HD22	29:BG:178:PHE:CE1	2.44	0.52
24:BA:2533:A:OP1	24:BA:2665:A:H1'	2.09	0.52
24:DA:224:G:N7	24:DA:420:C:H4'	2.25	0.52
1:CA:1387:G:C6	1:CA:1388:C:N4	2.78	0.52
24:BA:1259:G:O2'	24:BA:1260:G:H5'	2.10	0.52
26:DD:115:GLN:HG2	26:DD:116:GLN:H	1.75	0.52
24:BA:740:U:H2'	24:BA:741:G:C8	2.45	0.52
1:AA:652:U:C4	1:AA:752:G:N3	2.77	0.52
24:DA:2507:C:H5''	24:DA:2573:C:N4	2.23	0.52
1:AA:785:G:C2'	1:AA:786:G:H5'	2.38	0.52
41:BS:82:LEU:HB3	41:BS:98:LYS:HB2	1.91	0.52
39:B1:88:ILE:O	39:B1:88:ILE:HG22	2.08	0.52
26:BD:196:VAL:HG12	26:BD:196:VAL:O	2.09	0.52
24:BA:1691:C:O2'	24:BA:1692:U:H5'	2.10	0.52
24:BA:2281:C:C2'	24:BA:2282:G:H5'	2.39	0.52
1:CA:1299:A:N6	1:CA:1301:U:N3	2.58	0.52
14:CQ:19:ARG:CG	14:CQ:19:ARG:NH1	2.67	0.52
24:DA:2378:A:O4'	37:DQ:112:PHE:HE2	1.93	0.52
13:AP:70:LEU:HD23	13:AP:70:LEU:O	2.10	0.52
30:BH:4:ILE:HB	30:BH:6:ARG:HG3	1.91	0.52
24:BA:1050:A:N9	24:BA:2751:G:N7	2.58	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BB:42:C:O5'	29:BG:67:LYS:HE3	2.09	0.52
26:DD:34:VAL:O	26:DD:34:VAL:HG13	2.10	0.52
43:BU:50:ARG:O	43:BU:52:SER:N	2.39	0.52
44:BV:141:VAL:CB	44:BV:144:LEU:HD21	2.35	0.52
24:BA:747:U:C4	50:B5:2:ALA:N	2.78	0.52
43:DU:81:LYS:CD	43:DU:97:ARG:CZ	2.88	0.52
10:AM:48:THR:HG23	10:AM:62:HIS:CB	2.40	0.52
49:D4:13:ARG:N	49:D4:29:PRO:O	2.39	0.52
1:AA:1191:A:C5'	3:AF:4:LYS:NZ	2.64	0.52
1:AA:447:G:O6	1:AA:485:G:O2'	2.18	0.52
4:AG:155:LEU:C	4:AG:155:LEU:HD12	2.30	0.52
24:DA:2681:C:C4	24:DA:2724:C:C5	2.98	0.52
1:CA:1005:A:C2	1:CA:1006:C:H4'	2.45	0.52
24:DA:885:C:H1'	24:DA:892:G:N2	2.24	0.52
1:CA:1069:C:N4	1:CA:1094:G:O6	2.42	0.52
24:BA:139:G:N3	24:BA:141:A:N1	2.57	0.52
5:CH:101:ILE:HA	5:CH:107:ARG:HH22	1.74	0.52
24:DA:211:A:C2'	24:DA:212:G:H5'	2.40	0.52
24:DA:2094:G:P	31:DK:22:LYS:HD2	2.50	0.52
24:BA:2467:C:N4	24:BA:2468:G:C6	2.78	0.52
24:BA:783:A:H2'	24:BA:785:G:OP1	2.09	0.52
30:BH:166:GLY:O	30:BH:167:GLU:CG	2.57	0.52
46:DZ:7:ILE:HD12	46:DZ:70:VAL:HG22	1.91	0.52
41:DS:79:GLY:HA3	41:DS:100:THR:CG2	2.40	0.52
3:CF:179:ARG:O	3:CF:179:ARG:HG3	2.10	0.52
24:BA:673:C:H5''	28:BF:81:PRO:HD2	1.90	0.52
1:CA:532:A:H3'	1:CA:533:A:H5''	1.91	0.52
26:BD:25:THR:O	26:BD:26:LYS:C	2.48	0.52
24:BA:523:C:O2'	24:BA:524:U:H5'	2.10	0.52
1:AA:220:G:O2'	1:AA:221:C:H5'	2.09	0.52
10:CM:90:LEU:N	10:CM:90:LEU:HD12	2.25	0.52
29:DG:51:ARG:C	29:DG:51:ARG:HD2	2.29	0.52
24:BA:1213:A:N3	24:BA:1238:G:O2'	2.27	0.52
24:BA:1949:G:O2'	24:BA:1950:G:H5'	2.10	0.52
24:BA:863:A:O2'	24:BA:864:G:H5'	2.10	0.52
24:BA:199:A:C8	24:BA:2433:A:N6	2.78	0.52
1:CA:1139:G:N2	1:CA:1143:G:H1	2.07	0.52
1:CA:953:G:H5'	1:CA:965:A:H61	1.75	0.52
1:CA:1330:U:C4'	13:CP:23:TYR:HE1	2.08	0.52
13:CP:67:GLU:HG3	13:CP:68:GLY:H	1.74	0.52
1:CA:1114:C:O2'	14:CQ:60:SER:O	2.24	0.52
19:CV:31:ILE:CD1	19:CV:33:THR:H	2.22	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D4:48:ARG:NH1	49:D4:51:ASP:HB3	2.24	0.52
51:D6:15:GLU:OE2	51:D6:41:PRO:HG3	2.10	0.52
53:B8:43:GLN:O	53:B8:44:LYS:HD2	2.09	0.52
13:AP:87:TYR:HA	13:AP:90:LEU:HG	1.92	0.52
1:AA:1382:C:H6	7:AJ:79:ARG:NH2	1.87	0.52
4:AG:22:LYS:H	4:AG:26:CYS:CB	2.22	0.52
1:CA:1068:G:N3	1:CA:1191:A:H2	2.07	0.52
24:DA:1043:C:C2'	24:DA:1044:G:H5'	2.36	0.52
30:DH:4:ILE:HD11	30:DH:6:ARG:HB2	1.91	0.52
19:AV:5:LEU:CG	19:AV:5:LEU:O	2.57	0.52
27:DE:64:LYS:NZ	27:DE:66:HIS:HA	2.24	0.52
37:BQ:110:LEU:HD11	37:BQ:112:PHE:HD2	1.68	0.52
24:DA:2635:C:P	27:DE:77:ILE:CG2	2.97	0.52
13:CP:3:ARG:HB2	49:D4:34:GLU:CD	2.29	0.52
29:DG:117:PHE:C	29:DG:118:ARG:HE	2.13	0.52
24:DA:813:U:H2'	24:DA:814:C:H6	1.75	0.52
1:CA:256:U:H5''	17:CT:17:LYS:HZ1	1.75	0.52
1:CA:1290:G:O2'	1:CA:1291:G:H5'	2.07	0.52
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.45	0.52
3:CF:92:ALA:HB2	3:CF:99:VAL:HG13	1.91	0.52
24:BA:2115:G:H4'	24:BA:2166:G:O2'	2.09	0.52
44:DV:158:PRO:O	44:DV:161:VAL:N	2.42	0.52
34:BO:13:ASN:C	34:BO:15:ARG:N	2.63	0.52
22:AC:18:G:C2	22:AC:58:A:C5	2.98	0.52
41:DS:113:LYS:N	41:DS:113:LYS:NZ	2.58	0.52
1:AA:373:A:C4	1:AA:374:A:C8	2.98	0.52
24:DA:1340:U:H4'	24:DA:1394:U:O2'	2.10	0.52
11:AN:57:THR:HG22	11:AN:59:TYR:N	2.25	0.52
24:BA:309:G:N3	24:BA:329:G:O2'	2.42	0.52
6:AI:24:GLU:HG3	6:AI:27:GLN:HB2	1.90	0.52
3:CF:127:ARG:HD2	3:CF:127:ARG:N	2.25	0.52
24:DA:479:A:O2'	24:DA:481:G:H5'	2.09	0.52
1:CA:662:G:O2'	1:CA:836:G:OP1	2.28	0.52
24:BA:1930:G:N2	24:BA:1969:A:OP2	2.40	0.52
12:CO:20:LYS:HD2	12:CO:20:LYS:H	1.75	0.52
24:DA:2213:U:C4'	46:DZ:52:ARG:HH22	2.22	0.52
1:AA:1291:G:H4'	9:AL:39:GLY:HA3	1.92	0.52
1:CA:1043:C:H2'	1:CA:1044:A:H8	1.74	0.52
25:BB:15:A:H1'	25:BB:109:G:N9	2.25	0.52
24:DA:1511:A:C5	24:DA:1512:G:C5	2.97	0.52
15:CR:17:ARG:NH1	15:CR:77:ARG:NH1	2.57	0.52
24:BA:1317:A:C2'	24:BA:1318:C:H5'	2.40	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D4:40:HIS:N	49:D4:41:PRO:CD	2.73	0.52
14:AQ:53:LEU:HB3	14:AQ:56:VAL:HG21	1.91	0.52
24:BA:141(A):C:H2'	24:BA:142:G:O4'	2.09	0.52
24:BA:1301:A:C8	24:BA:1303:G:C8	2.98	0.52
24:DA:2859:G:O2'	24:DA:2860:A:H5'	2.10	0.52
26:DD:106:ILE:HD11	26:DD:196:VAL:CG1	2.40	0.52
24:DA:1894:C:C2'	24:DA:1895:C:H5'	2.39	0.52
26:BD:76:PRO:HG2	26:BD:98:VAL:HG21	1.91	0.52
34:DO:96:THR:O	34:DO:100:LEU:CD2	2.58	0.52
24:BA:1514:U:H2'	24:BA:1515:C:H6	1.75	0.52
1:AA:28:G:O2'	1:AA:296:U:OP1	2.26	0.52
41:BS:20:VAL:CG2	41:BS:47:VAL:HG21	2.39	0.52
34:DO:108:LYS:O	34:DO:110:TYR:N	2.43	0.52
1:CA:1195:C:O2	1:CA:1197:G:H1'	2.10	0.52
24:DA:2489:G:C2'	24:DA:2490:G:H5'	2.39	0.52
16:CS:7:ALA:O	16:CS:17:TYR:HA	2.10	0.52
1:CA:128:G:H4'	17:CT:3:LYS:HG2	1.92	0.52
27:BE:178:GLU:OE2	27:BE:178:GLU:N	2.31	0.52
20:CW:37:SER:O	20:CW:41:ILE:HG13	2.09	0.52
11:CN:24:SER:O	11:CN:88:GLY:HA3	2.10	0.52
1:CA:598:U:H4'	8:CK:94:TYR:CD2	2.45	0.52
1:CA:1147:C:C4	1:CA:1148:U:C4	2.98	0.52
19:CV:50:ALA:HA	19:CV:58:VAL:O	2.10	0.52
24:BA:2001:A:H4'	24:BA:2689:U:O2'	2.10	0.52
1:AA:1381:U:C2	7:AJ:79:ARG:CZ	2.89	0.52
24:DA:2748:A:C2	24:DA:2757:A:C5	2.98	0.52
43:DU:75:ILE:HD12	43:DU:76:CYS:CA	2.40	0.52
24:DA:1845:G:O2'	24:DA:1846:G:H5'	2.09	0.52
37:BQ:88:ASP:O	37:BQ:89:ARG:HB3	2.09	0.52
24:DA:2784:C:O2	27:DE:37:ARG:NH2	2.43	0.52
1:AA:1002:G:C6	1:AA:1003:G:C6	2.97	0.52
24:BA:1171:G:C2'	24:BA:1174:A:H61	2.23	0.52
24:BA:1175:U:C1'	24:BA:1176:G:H1'	2.40	0.52
6:AI:68:PRO:HG2	6:AI:71:ARG:HE	1.75	0.52
32:DM:46:VAL:O	32:DM:47:ALA:HB3	2.08	0.52
24:BA:2119:A:N6	24:BA:2170:A:N6	2.58	0.52
27:DE:8:LYS:O	27:DE:10:GLY:N	2.42	0.52
38:DR:5:ALA:O	38:DR:8:LYS:HG2	2.10	0.52
24:BA:654(M):C:H3'	24:BA:654(N):G:H8	1.75	0.52
29:DG:2:PRO:O	29:DG:5:VAL:HG23	2.09	0.52
1:AA:1057:G:H4'	3:AF:197:GLY:H	1.75	0.52
10:AM:51:ARG:NH2	10:AM:61:GLU:HB2	2.25	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:450:G:C5'	16:AS:43:LYS:HZ2	2.23	0.52
24:DA:2877:G:P	38:DR:2:ASN:ND2	2.74	0.52
1:CA:250:A:C1'	1:CA:251:G:P	2.98	0.52
35:DP:63:LYS:HE3	35:DP:65:PHE:CE1	2.45	0.52
8:AK:68:ARG:O	8:AK:68:ARG:HG3	2.10	0.52
11:CN:42:TRP:CZ3	11:CN:47:VAL:HG21	2.44	0.52
1:CA:1396:A:C2	5:CH:19:MET:HG2	2.45	0.52
1:CA:186(B):C:C4'	20:CW:89:ARG:NH2	2.73	0.52
24:DA:270(G):C:H2'	24:DA:270(H):C:C6	2.44	0.52
24:DA:1992:G:H1'	24:DA:1993:U:OP2	2.09	0.52
2:CE:164:VAL:HB	2:CE:186:ALA:CB	2.40	0.52
47:DW:51:ARG:HA	47:DW:54:LYS:HE3	1.91	0.52
26:BD:12:SER:O	26:BD:16:MET:HB2	2.10	0.52
1:CA:345:C:OP2	38:DR:39:ARG:NH1	2.43	0.52
8:CK:133:LEU:C	8:CK:133:LEU:HD23	2.30	0.52
8:CK:86:ILE:HG13	8:CK:133:LEU:HD21	1.90	0.52
1:AA:1448:C:N3	1:AA:1455:G:N1	2.45	0.52
30:DH:40:GLU:O	30:DH:41:MET:HB2	2.09	0.52
30:DH:54:ARG:HB2	30:DH:55:PRO:HD2	1.90	0.52
24:BA:304:G:C4	24:BA:314:A:C2	2.98	0.52
24:BA:958:U:O2	25:BB:89(A):A:O2'	2.27	0.52
1:CA:782:A:OP1	1:CA:1521:G:N2	2.32	0.52
24:DA:150:C:H2'	24:DA:151:C:C6	2.45	0.52
2:CE:95:GLN:HG3	2:CE:147:LYS:HZ2	1.74	0.52
1:CA:1172:C:C3'	7:CJ:5:ARG:HH22	2.22	0.52
24:BA:523:C:H2'	24:BA:524:U:H5'	1.92	0.52
24:DA:2402:C:OP1	24:DA:2402:C:H4'	2.09	0.52
33:BN:75:SER:OG	38:BR:74:ARG:NH1	2.42	0.52
4:AG:92:VAL:O	4:AG:96:LEU:CD2	2.58	0.52
1:AA:1206:G:O4'	3:AF:194:GLY:N	2.43	0.52
1:AA:45:U:O2'	1:AA:46:G:H5'	2.10	0.52
49:D4:42:PHE:O	49:D4:44:THR:N	2.40	0.52
48:DX:23:LEU:CD2	48:DX:50:VAL:HG11	2.40	0.52
24:BA:2716:U:O2'	24:BA:2717:G:H5'	2.10	0.52
24:BA:1680:U:C2'	24:BA:1681:G:H5'	2.39	0.52
45:B3:23:VAL:HB	45:B3:26:TYR:HE1	1.74	0.52
44:DV:11:GLU:HG2	44:DV:12:GLY:N	2.24	0.52
44:DV:76:LEU:CD2	44:DV:76:LEU:H	2.23	0.52
29:DG:53:LEU:HG	29:DG:53:LEU:O	2.08	0.52
26:BD:183:ARG:HG2	26:BD:183:ARG:HH11	1.75	0.52
25:BB:95:U:C2	25:BB:96:G:C8	2.97	0.52
1:CA:1152:A:H4'	10:CM:13:HIS:CD2	2.45	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1314:C:O2'	1:CA:1315:U:H5'	2.09	0.52
1:CA:1269:A:HO2'	1:CA:1325:C:HO2'	1.57	0.52
9:CL:28:VAL:HG12	9:CL:29:ASN:N	2.23	0.52
1:CA:1220:G:C5'	19:CV:37:ARG:HH12	2.01	0.52
51:D6:15:GLU:HB2	51:D6:47:THR:CG2	2.40	0.52
35:DP:23:GLY:CA	35:DP:25:ASP:HB2	2.40	0.52
24:DA:625:G:O6	34:DO:107:LYS:HE2	2.10	0.52
43:BU:49:VAL:O	43:BU:51:VAL:HG12	2.09	0.52
24:BA:1100:C:H2'	24:BA:1101:U:C6	2.44	0.52
38:DR:56:GLY:O	38:DR:59:THR:HG23	2.10	0.52
24:DA:1062:G:H2'	24:DA:1063:G:C8	2.44	0.52
30:BH:154:PRO:C	30:BH:156:ALA:H	1.99	0.52
1:CA:1104:G:C2	1:CA:1105:A:C4	2.98	0.52
29:DG:75:LYS:O	29:DG:76:SER:HB2	2.08	0.52
53:B8:7:HIS:CD2	53:B8:59:LYS:HD2	2.45	0.52
24:DA:2854:G:C2	24:DA:2864:G:C2	2.97	0.52
13:CP:14:ARG:HD2	13:CP:42:ALA:HA	1.92	0.52
1:AA:1191:A:OP2	3:AF:3:ASN:ND2	2.43	0.52
6:CI:5:GLU:HG2	6:CI:64:GLN:HE22	1.74	0.52
24:BA:1471:A:C2	24:BA:1472:A:C4	2.98	0.52
6:AI:87:ARG:HG3	6:AI:87:ARG:NH1	2.23	0.52
1:CA:1027:C:H3'	1:CA:1028:C:C5'	2.35	0.52
1:CA:560:U:HO2'	1:CA:561:U:P	2.23	0.52
24:BA:1009:A:OP2	32:BM:37:LYS:NZ	2.42	0.52
32:DM:2:LYS:HG2	32:DM:2:LYS:O	2.09	0.52
24:DA:1448:G:N2	24:DA:1463:C:O2	2.43	0.52
5:CH:15:ARG:O	5:CH:15:ARG:HG2	2.09	0.52
1:CA:582:U:OP1	15:CR:68:ARG:NH2	2.43	0.52
20:CW:53:LEU:HD12	20:CW:100:ILE:O	2.09	0.52
24:DA:1171:G:C1'	24:DA:1173:G:OP1	2.58	0.52
5:CH:102:ALA:CB	5:CH:120:THR:OG1	2.57	0.52
24:BA:1529:A:C8	24:BA:1530:G:C8	2.97	0.52
8:CK:86:ILE:HG21	8:CK:133:LEU:HD13	1.92	0.52
1:AA:619:U:N3	4:AG:135:LEU:HD13	2.23	0.52
1:AA:1212:U:H5''	1:AA:1213:A:P	2.50	0.52
24:DA:978:G:C2	24:DA:986:C:N3	2.78	0.52
1:AA:1423:G:P	33:BN:49:ARG:HH12	2.32	0.52
24:DA:2870:C:H2'	24:DA:2871:C:O4'	2.10	0.52
16:CS:40:ASP:HB3	16:CS:48:TRP:HB3	1.90	0.52
3:CF:163:ALA:O	3:CF:164:ARG:HB2	2.10	0.52
47:BW:38:GLN:HB3	47:BW:44:LEU:O	2.10	0.52
24:DA:141:A:C8	24:DA:1408:C:H1'	2.45	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:336:C:C2'	1:AA:337:C:H5'	2.40	0.52
1:AA:1432:G:OP1	38:BR:107:ASP:HB2	2.09	0.52
24:DA:2401:U:O2	24:DA:2402:C:C5	2.63	0.52
24:BA:1814:G:H4'	26:BD:51:VAL:HG21	1.91	0.52
24:DA:1864:U:H5''	24:DA:2410:G:O2'	2.10	0.52
1:CA:918:A:H2'	1:CA:919:A:O4'	2.10	0.52
24:DA:2653:U:O2'	30:DH:110:SER:HB2	2.10	0.52
24:DA:582:G:H2'	24:DA:583:G:C8	2.45	0.52
33:BN:64:ARG:HD3	33:BN:79:PHE:CD2	2.45	0.52
24:DA:1233:C:H2'	24:DA:1234:U:H6	1.74	0.52
24:BA:847:U:C5	24:BA:933:A:N1	2.78	0.52
24:DA:2302:G:O2'	24:DA:2303:G:H5'	2.10	0.52
24:DA:887:A:N3	24:DA:887:A:H2'	2.24	0.52
24:DA:2232:U:OP2	46:DZ:40:ARG:NH1	2.36	0.52
26:DD:39:LYS:NZ	26:DD:87:ASN:HB3	2.24	0.52
24:BA:2557:G:H2'	24:BA:2558:C:C6	2.45	0.52
21:CX:10:ARG:HA	21:CX:13:ILE:HG22	1.92	0.52
1:AA:1092:A:C6	1:AA:1183:A:C2	2.98	0.52
24:BA:2371:G:C5'	51:B6:45:LYS:HD2	2.39	0.52
24:BA:2371:G:C4'	51:B6:45:LYS:HG3	2.29	0.52
24:BA:2287:A:C2	24:BA:2346:A:N1	2.77	0.52
24:BA:2371:G:H4'	51:B6:45:LYS:HD2	1.89	0.52
35:DP:4:PRO:CG	35:DP:71:ASP:HA	2.40	0.52
26:BD:34:VAL:O	26:BD:34:VAL:CG1	2.57	0.52
24:DA:2749:A:C6	24:DA:2750:A:N6	2.78	0.52
24:BA:1050:A:C6	24:BA:2751:G:O6	2.63	0.52
24:DA:2788:C:C5'	27:DE:61:ARG:HH12	2.22	0.52
12:AO:93:LEU:O	12:AO:96:VAL:CG1	2.57	0.52
40:B2:35:LEU:CD2	40:B2:35:LEU:O	2.49	0.52
3:CF:56:ASP:OD1	3:CF:57:ILE:N	2.42	0.52
24:BA:1055:G:H1'	24:BA:1085:A:H61	1.74	0.52
40:D2:37:VAL:HG21	40:D2:57:VAL:CG1	2.40	0.52
39:B1:92:ARG:HD2	40:B2:11:GLN:CB	2.34	0.52
46:BZ:71:TYR:HA	46:BZ:74:VAL:HG12	1.92	0.52
2:AE:223:ILE:C	2:AE:225:ALA:H	2.13	0.52
26:DD:35:LYS:HA	26:DD:64:ILE:HG22	1.91	0.52
2:CE:212:GLN:NE2	2:CE:235:SER:HA	2.25	0.52
34:BO:21:ARG:HA	34:BO:21:ARG:NE	2.16	0.52
19:CV:15:LEU:O	19:CV:19:VAL:HG23	2.10	0.52
25:DB:45:A:C2'	25:DB:46:A:H5'	2.40	0.52
2:AE:17:PHE:HB2	2:AE:42:ILE:HG23	1.92	0.52
28:DF:132:VAL:CG2	28:DF:133:ASN:N	2.59	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1443:G:H22	38:DR:119:LYS:HG3	1.73	0.52
1:AA:1123:A:O3'	10:AM:36:GLY:HA3	2.09	0.52
22:AC:19:G:C2	22:AC:57:A:N3	2.78	0.52
1:AA:129:U:O2'	1:AA:130:A:H2'	2.10	0.52
30:BH:88:LEU:HD12	30:BH:88:LEU:C	2.30	0.52
2:AE:163:PHE:CE1	2:AE:185:ILE:HG12	2.44	0.52
32:DM:28:THR:CG2	32:DM:29:LYS:N	2.72	0.52
24:DA:270(N):G:H1'	24:DA:270(P):C:O4'	2.09	0.52
31:DK:58:LEU:C	31:DK:58:LEU:HD23	2.29	0.52
1:CA:392:G:H5'	16:CS:12:LYS:HZ1	1.75	0.52
7:AJ:70:LYS:HG3	7:AJ:96:GLN:HB3	1.92	0.52
27:BE:116:VAL:O	27:BE:117:MET:HB3	2.10	0.52
27:DE:101:ARG:HA	27:DE:170:LEU:O	2.09	0.52
44:BV:72:ARG:NH2	44:BV:97:GLU:O	2.43	0.52
1:CA:1072:G:O6	1:CA:1102:A:N6	2.43	0.52
24:BA:602:G:H2'	24:BA:655:A:N6	2.25	0.52
14:AQ:25:VAL:HG13	14:AQ:38:GLY:O	2.10	0.52
15:CR:5:LYS:O	15:CR:9:GLN:HG2	2.10	0.52
24:BA:956:G:OP1	35:BP:88:GLY:N	2.42	0.52
47:DW:32:LEU:O	47:DW:35:LEU:HB2	2.10	0.52
24:BA:748:G:C8	41:BS:89:ALA:HB1	2.45	0.52
24:BA:1288:U:C2	24:BA:1327:C:O2	2.63	0.52
1:AA:639:G:H2'	1:AA:640:A:C8	2.45	0.52
24:BA:613:U:O2	24:BA:613:U:O4'	2.28	0.52
1:CA:533:A:O2'	1:CA:534:U:H5'	2.10	0.52
29:BG:13:GLU:O	29:BG:13:GLU:HG3	2.10	0.52
1:AA:728:A:C6	15:AR:54:ARG:HD2	2.45	0.52
26:DD:132:PRO:HD3	26:DD:190:TYR:CZ	2.45	0.52
33:DN:2:ILE:CD1	33:DN:8:LEU:HD11	2.40	0.52
24:DA:2584:U:H6	24:DA:2585:U:C5	2.25	0.52
43:BU:3:VAL:HG12	43:BU:5:MET:HE2	1.91	0.52
26:DD:118:VAL:HG22	26:DD:119:ALA:N	2.23	0.52
26:BD:70:TRP:CZ2	26:BD:150:LYS:HA	2.45	0.52
24:BA:979:G:H3'	24:BA:980:A:H5''	1.91	0.52
24:DA:1519:G:O2'	24:DA:1520:U:H5'	2.10	0.52
18:CU:26:LEU:CD1	18:CU:29:PHE:CD1	2.93	0.52
47:DW:23:LYS:NZ	47:DW:27:GLU:OE2	2.40	0.52
5:AH:73:ASN:ND2	5:AH:73:ASN:O	2.43	0.52
24:DA:530:G:C6	24:DA:2022:U:H5''	2.44	0.52
24:BA:989:G:N7	48:BX:13:ILE:CD1	2.73	0.52
24:DA:1782:C:H1'	24:DA:2609:U:H5''	1.91	0.52
3:AF:89:GLU:O	3:AF:93:LYS:HB2	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:714:U:O2	24:DA:716:A:C8	2.63	0.52
33:BN:12:ASP:CG	33:BN:14:THR:HG23	2.30	0.52
12:AO:54:LYS:HD2	12:AO:54:LYS:N	2.25	0.52
24:BA:800:A:H8	24:BA:800:A:OP1	1.93	0.52
1:AA:359:U:H2'	1:AA:360:A:C8	2.44	0.52
24:DA:686:G:OP1	52:D7:11:LYS:HE3	2.10	0.52
9:CL:102:LEU:N	9:CL:102:LEU:HD12	2.23	0.51
1:CA:1288:A:C4'	21:CX:13:ILE:HD11	2.40	0.51
3:AF:7:PRO:O	3:AF:11:ARG:HG2	2.09	0.51
3:AF:8:ILE:CD1	3:AF:16:ARG:CG	2.76	0.51
53:D8:32:LEU:HD12	53:D8:34:TRP:N	2.24	0.51
24:BA:2422:A:N7	53:B8:31:HIS:CE1	2.75	0.51
1:AA:1198:G:O2'	10:AM:55:LYS:HD2	2.11	0.51
26:BD:27:THR:OG1	26:BD:83:GLU:HA	2.10	0.51
4:AG:8:VAL:O	4:AG:21:LEU:HD21	2.10	0.51
24:DA:2751:G:H5'	24:DA:2752:C:P	2.49	0.51
53:B8:17:THR:HG23	53:B8:23:VAL:HG23	1.92	0.51
34:DO:106:LEU:O	34:DO:107:LYS:CB	2.58	0.51
7:CJ:46:ALA:O	7:CJ:50:ILE:HG12	2.10	0.51
2:CE:92:TYR:N	2:CE:151:GLY:O	2.37	0.51
2:CE:223:ILE:O	2:CE:226:ARG:N	2.43	0.51
24:DA:1093:G:N2	24:DA:1097:U:OP2	2.43	0.51
44:DV:144:LEU:HD23	44:DV:149:SER:H	1.74	0.51
30:BH:153:LYS:HB2	30:BH:154:PRO:HD3	1.91	0.51
24:BA:1639:U:H4'	24:BA:2699:C:H4'	1.91	0.51
50:D5:3:LYS:O	50:D5:4:HIS:C	2.47	0.51
1:AA:1141:C:H2'	1:AA:1142:G:C8	2.45	0.51
24:BA:658:C:H2'	24:BA:659:C:H6	1.74	0.51
18:CU:41:LYS:HD3	18:CU:41:LYS:C	2.30	0.51
16:AS:15:PRO:O	16:AS:16:HIS:ND1	2.43	0.51
24:BA:774:A:H2	24:BA:787:U:O2'	1.79	0.51
35:BP:136:ALA:HB1	44:BV:52:SER:CB	2.38	0.51
1:AA:95:G:C6	1:AA:96:G:C6	2.98	0.51
3:CF:84:ILE:HG23	3:CF:85:ARG:CD	2.35	0.51
24:BA:2502:G:C5'	24:BA:2503:A:C5'	2.86	0.51
24:DA:1171:G:H1'	24:DA:1173:G:O5'	2.10	0.51
1:AA:376:G:H5''	16:AS:5:ARG:HD2	1.92	0.51
24:DA:1991:U:C2'	24:DA:1992:G:H5''	2.39	0.51
1:AA:160:A:H2'	1:AA:161:A:O4'	2.10	0.51
24:DA:1543:A:H1'	24:DA:1545:A:C1'	2.40	0.51
26:DD:155:LEU:N	26:DD:155:LEU:HD12	2.24	0.51
26:DD:145:VAL:HG12	26:DD:146:GLU:O	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2688:U:H5	24:DA:2720:U:OP2	1.92	0.51
1:CA:1074:G:H4'	2:CE:103:THR:HG22	1.91	0.51
24:DA:498:G:H21	43:DU:47:LYS:NZ	2.07	0.51
30:DH:16:SER:O	30:DH:17:VAL:HB	2.10	0.51
1:CA:57:G:C5	1:CA:58:C:C4	2.98	0.51
1:AA:606:G:N2	1:AA:631:G:N7	2.58	0.51
16:CS:48:TRP:O	16:CS:48:TRP:HE3	1.93	0.51
13:AP:49:THR:HB	13:AP:52:GLU:CG	2.39	0.51
1:AA:872:A:C5	1:AA:874:G:C8	2.98	0.51
24:DA:1791:A:H5'	26:DD:206:LEU:HD12	1.92	0.51
24:BA:1315:C:H2'	24:BA:1316:U:H6	1.74	0.51
1:AA:756:C:O2'	8:AK:1:MET:HE1	2.09	0.51
29:DG:101:ILE:HD12	29:DG:102:PHE:N	2.25	0.51
24:BA:1430:C:H2'	24:BA:1431:U:C6	2.45	0.51
24:DA:1291:C:H2'	24:DA:1292:U:H6	1.75	0.51
1:AA:754:C:H2'	1:AA:754:C:O2	2.09	0.51
24:DA:1348:G:H2'	24:DA:1349:A:C5'	2.40	0.51
24:BA:1266:G:O2'	24:BA:2012:G:O6	2.18	0.51
4:AG:46:LYS:HD3	4:AG:46:LYS:N	2.25	0.51
44:BV:155:LEU:HB2	44:BV:157:LEU:HD12	1.91	0.51
24:DA:2489:G:H2'	24:DA:2490:G:H5'	1.91	0.51
24:BA:2853:C:H2'	24:BA:2854:G:H8	1.74	0.51
29:DG:49:ASP:OD1	29:DG:50:ALA:N	2.43	0.51
24:BA:1392:A:C6	24:BA:1393:A:N1	2.78	0.51
24:DA:1193:G:O2'	24:DA:1194:A:H5'	2.10	0.51
42:BT:15:GLU:CD	42:BT:15:GLU:H	2.12	0.51
43:BU:34:LYS:O	43:BU:34:LYS:HG2	2.10	0.51
1:CA:1139:G:H22	1:CA:1143:G:N2	2.06	0.51
1:CA:1151:A:H2'	1:CA:1152:A:C8	2.45	0.51
1:CA:1117:G:O3'	9:CL:104:ARG:NE	2.43	0.51
14:CQ:6:LEU:CD2	14:CQ:23:ARG:NH2	2.74	0.51
24:DA:2291:U:OP1	24:DA:2381:C:H5'	2.10	0.51
9:AL:46:ALA:O	9:AL:78:LYS:NZ	2.43	0.51
24:BA:2400:G:C5'	51:B6:19:ARG:HE	2.21	0.51
19:AV:28:LYS:HD2	19:AV:29:ARG:N	2.25	0.51
29:BG:110:ALA:C	29:BG:112:PRO:HD2	2.30	0.51
1:AA:509:A:C5'	4:AG:55:ALA:HB2	2.40	0.51
24:DA:2752:C:H2'	24:DA:2753:A:H5'	1.92	0.51
24:DA:2809:A:H62	24:DA:2891:G:H2'	1.75	0.51
27:DE:72:VAL:O	27:DE:73:GLU:C	2.48	0.51
28:DF:7:TYR:HD1	28:DF:18:ARG:N	2.09	0.51
27:BE:78:LEU:HD23	27:BE:78:LEU:C	2.31	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1079:G:C6	1:CA:1080:A:N6	2.78	0.51
10:CM:27:ALA:O	10:CM:84:GLN:NE2	2.42	0.51
20:AW:14:LYS:O	20:AW:15:ARG:C	2.49	0.51
44:DV:118:GLN:O	44:DV:120:ILE:N	2.43	0.51
44:DV:150:LEU:CD2	44:DV:154:ASP:HB3	2.41	0.51
44:DV:151:HIS:HA	44:DV:170:THR:C	2.30	0.51
4:CG:101:LEU:O	4:CG:103:ASN:N	2.43	0.51
31:DK:75:LEU:HD12	31:DK:76:THR:N	2.25	0.51
6:AI:64:GLN:C	6:AI:64:GLN:HE21	2.12	0.51
24:BA:619:G:H5''	24:BA:620:G:OP2	2.11	0.51
1:CA:1023:G:H2'	1:CA:1024:G:OP1	2.10	0.51
4:CG:178:VAL:CG1	4:CG:179:GLU:H	2.16	0.51
1:AA:684:A:H5''	11:AN:11:LYS:HZ2	1.75	0.51
1:AA:76:G:N3	1:AA:95:G:N2	2.58	0.51
50:D5:6:VAL:HG22	50:D5:7:PRO:CD	2.40	0.51
32:DM:130:HIS:HB2	32:DM:134:ARG:NH1	2.26	0.51
24:BA:1416:G:HO2'	24:BA:1417:C:H6	1.56	0.51
25:BB:117:G:C3'	25:BB:118:G:H5''	2.39	0.51
26:BD:18:VAL:HG12	26:BD:19:ALA:O	2.11	0.51
35:DP:78:PRO:O	35:DP:79:LEU:CB	2.54	0.51
18:CU:63:GLN:OE1	18:CU:66:LEU:HD23	2.10	0.51
35:BP:109:VAL:HG13	35:BP:113:GLN:OE1	2.10	0.51
24:BA:274:G:C8	24:BA:274:G:OP1	2.64	0.51
1:AA:617:G:N1	1:AA:618:C:C5	2.79	0.51
24:DA:976:C:H5'	24:DA:1156:A:N6	2.25	0.51
29:BG:16:ARG:NH2	29:BG:31:VAL:CG1	2.73	0.51
24:DA:2364:C:H2'	24:DA:2365:G:O4'	2.10	0.51
24:DA:2696:U:H2'	24:DA:2697:G:C8	2.45	0.51
25:BB:15:A:H3'	25:BB:16:G:H5'	1.91	0.51
29:BG:76:SER:HG	29:BG:84:LYS:H	1.55	0.51
24:BA:296:C:O2'	24:BA:297:C:H5'	2.10	0.51
24:DA:2281:C:C2'	24:DA:2282:G:H5'	2.41	0.51
44:DV:3:TYR:HE2	44:DV:55:HIS:HB3	1.74	0.51
24:BA:234:C:H2'	24:BA:235:U:O4'	2.10	0.51
1:CA:105:G:C6	1:CA:106:C:C4	2.98	0.51
24:DA:1146:C:H2'	24:DA:1147:C:H5'	1.93	0.51
31:BK:114:LEU:O	31:BK:114:LEU:HG	2.10	0.51
24:BA:452:G:N3	24:BA:457:A:H2	2.08	0.51
31:DK:120:ILE:HG21	31:DK:126:TYR:CE2	2.44	0.51
24:DA:1932:A:C2'	24:DA:1933:G:H5'	2.40	0.51
24:BA:2011:U:H2'	24:BA:2012:G:H5'	1.90	0.51
24:DA:724:U:H2'	24:DA:725:G:O4'	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BG:149:VAL:O	29:BG:149:VAL:HG23	2.10	0.51
44:DV:8:TYR:N	44:DV:8:TYR:HD1	2.08	0.51
24:DA:1231:G:H2'	24:DA:1232:G:H8	1.75	0.51
24:BA:2756:U:H4'	24:BA:2757:A:OP1	2.08	0.51
24:DA:2832:U:H5''	24:DA:2833:G:C8	2.45	0.51
31:BK:61:ARG:HA	31:BK:61:ARG:NE	2.25	0.51
1:AA:319:G:O2'	1:AA:320:C:H5'	2.11	0.51
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.90	0.51
24:DA:1454:U:H5'	36:D0:63:ARG:NE	2.25	0.51
1:CA:979:C:H42	14:CQ:18:VAL:CG1	2.04	0.51
37:DQ:110:LEU:CD1	37:DQ:111:GLU:N	2.72	0.51
19:AV:41:VAL:CG2	19:AV:42:PRO:HA	2.40	0.51
26:BD:30:GLU:HG3	26:BD:63:ARG:NE	2.26	0.51
26:BD:35:LYS:HA	26:BD:64:ILE:CG2	2.40	0.51
30:DH:6:ARG:HH12	30:DH:62:LYS:CA	2.22	0.51
27:DE:64:LYS:HD3	27:DE:73:GLU:OE2	2.10	0.51
37:BQ:110:LEU:O	37:BQ:111:GLU:CB	2.58	0.51
2:AE:176:GLU:HG2	2:AE:177:ALA:H	1.75	0.51
5:AH:12:LEU:C	5:AH:12:LEU:HD13	2.31	0.51
29:DG:140:ILE:HG12	29:DG:141:PHE:H	1.76	0.51
24:DA:1056:G:O2'	24:DA:1086:A:O2'	2.18	0.51
24:DA:328:U:C4'	43:DU:68:HIS:CE1	2.90	0.51
44:DV:175:VAL:O	44:DV:177:PRO:HD3	2.11	0.51
24:BA:1902:C:N3	24:BA:1903:G:H1'	2.26	0.51
45:D3:27:GLU:N	45:D3:69:PHE:HE2	2.08	0.51
25:DB:75:G:N2	44:DV:87:ASP:OD1	2.44	0.51
2:AE:42:ILE:HD12	2:AE:43:ASP:N	2.25	0.51
1:AA:1203:C:C2'	1:AA:1204:A:H5'	2.40	0.51
5:CH:43:LEU:CD1	5:CH:136:MET:HG3	2.31	0.51
6:CI:61:LEU:HD23	6:CI:63:TYR:OH	2.10	0.51
27:DE:137:HIS:HB3	27:DE:138:PRO:CD	2.40	0.51
1:CA:1025:U:HO2'	1:CA:1026:G:H8	1.55	0.51
27:BE:102:VAL:HG12	27:BE:200:GLU:HA	1.91	0.51
40:D2:40:LEU:HD23	40:D2:41:GLY:O	2.09	0.51
33:BN:22:ILE:HG22	33:BN:40:VAL:HB	1.91	0.51
8:CK:119:LEU:CG	8:CK:123:GLU:HG3	2.35	0.51
24:BA:1729:A:C8	24:BA:1730:U:C5	2.97	0.51
1:CA:367:U:C6	1:CA:394:G:N2	2.78	0.51
30:BH:80:SER:O	30:BH:81:GLU:CG	2.54	0.51
44:BV:84:GLU:O	44:BV:85:HIS:HB2	2.10	0.51
24:BA:2850:A:H2'	24:BA:2851:A:C8	2.46	0.51
24:DA:2107:C:O2'	24:DA:2108:C:OP1	2.23	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2688:U:H1'	24:DA:2721:A:N6	2.25	0.51
24:BA:1263:U:H1'	50:B5:10:LYS:HG3	1.91	0.51
33:BN:120:GLU:CG	33:BN:122:LEU:HD11	2.37	0.51
14:CQ:7:ILE:HG21	14:CQ:28:GLY:HA2	1.92	0.51
24:BA:654(A):A:C2	24:BA:654(T):A:N1	2.79	0.51
39:B1:76:TYR:CD1	39:B1:76:TYR:C	2.83	0.51
1:CA:650:G:O2'	1:CA:651:C:H5'	2.11	0.51
24:BA:960:A:H61	35:BP:83:MET:HE1	1.75	0.51
1:AA:218:C:O2'	1:AA:219:C:H5'	2.11	0.51
1:CA:1508:G:O2'	1:CA:1509:C:H5'	2.10	0.51
39:D1:74:LEU:HD12	39:D1:74:LEU:O	2.11	0.51
1:CA:187:C:O2	1:CA:191(A):G:N1	2.43	0.51
20:AW:42:GLN:O	20:AW:46:GLU:HG2	2.10	0.51
27:BE:84:PHE:CZ	27:BE:86:PRO:HG3	2.45	0.51
16:CS:52:ASP:CG	16:CS:55:ARG:HG3	2.31	0.51
44:DV:44:PHE:CE1	44:DV:48:PHE:HB2	2.45	0.51
1:AA:652:U:O2'	1:AA:653:A:H5''	2.11	0.51
24:DA:2489:G:N7	24:DA:2490:G:C6	2.78	0.51
24:DA:1231:G:H2'	24:DA:1232:G:C8	2.45	0.51
36:D0:63:ARG:HH22	36:D0:77:ARG:HG2	1.74	0.51
31:DK:128:LEU:O	31:DK:137:PRO:HA	2.10	0.51
18:AU:53:ARG:HE	18:AU:59:SER:C	2.14	0.51
24:DA:1198:U:H2'	24:DA:1199:U:C6	2.46	0.51
40:D2:18:LEU:HD13	40:D2:19:LYS:N	2.26	0.51
1:AA:1404:C:H6	1:AA:1404:C:O5'	1.93	0.51
1:CA:1256:A:H5''	1:CA:1258:G:N3	2.24	0.51
51:D6:34:LEU:HB3	51:D6:50:ARG:HD2	1.91	0.51
19:AV:15:LEU:O	19:AV:19:VAL:N	2.42	0.51
43:BU:94:LYS:CD	43:BU:101:LYS:HZ2	2.23	0.51
26:BD:94:LEU:HD22	26:BD:95:LEU:N	2.25	0.51
4:AG:61:LYS:C	4:AG:61:LYS:HD3	2.31	0.51
1:AA:1227:A:H5'	13:AP:111:LYS:CE	2.41	0.51
12:AO:53:ARG:HG3	12:AO:93:LEU:HD21	1.93	0.51
2:AE:102:LEU:HD12	2:AE:102:LEU:N	2.24	0.51
26:DD:32:SER:C	26:DD:35:LYS:O	2.49	0.51
1:CA:1080:A:OP1	5:CH:14:ARG:NH2	2.43	0.51
24:DA:309:G:N3	24:DA:329:G:O2'	2.40	0.51
4:CG:92:VAL:HG12	4:CG:96:LEU:CD2	2.40	0.51
5:CH:34:VAL:HA	5:CH:112:LEU:HD23	1.92	0.51
5:CH:76:ILE:HG12	5:CH:77:PRO:CD	2.38	0.51
24:BA:1175:U:H1'	24:BA:1176:G:C1'	2.40	0.51
31:DK:76:THR:HG23	31:DK:77:LEU:N	2.26	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AI:75:LEU:HD23	6:AI:79:LEU:HG	1.91	0.51
1:CA:1104:G:H2'	1:CA:1105:A:H8	1.76	0.51
29:BG:78:SER:O	29:BG:80:PHE:N	2.44	0.51
1:AA:1288:A:H2'	1:AA:1289:A:C8	2.46	0.51
40:D2:10:LYS:HG3	40:D2:12:TYR:OH	2.11	0.51
37:DQ:58:LEU:HD23	37:DQ:58:LEU:N	2.26	0.51
10:AM:83:GLU:HG2	10:AM:87:THR:CG2	2.39	0.51
1:AA:1119:C:O2'	1:AA:1120:G:H5'	2.11	0.51
10:AM:35:SER:HB2	10:AM:73:ASP:HB2	1.91	0.51
6:AI:86:ARG:O	6:AI:87:ARG:HB2	2.10	0.51
31:DK:67:ARG:O	31:DK:71:ILE:HG22	2.11	0.51
31:DK:69:LYS:O	31:DK:73:GLU:HG3	2.10	0.51
24:DA:71:A:H3'	24:DA:71:A:P	2.50	0.51
24:BA:34:C:O2'	24:BA:35:G:OP2	2.28	0.51
1:CA:1090:U:H2'	1:CA:1091:U:C6	2.45	0.51
24:BA:1535:U:H5''	24:BA:1537:C:N3	2.26	0.51
18:AU:18:ARG:CG	18:AU:19:LYS:N	2.66	0.51
20:CW:56:MET:HE3	20:CW:88:VAL:HG21	1.89	0.51
24:DA:1024:G:C3'	24:DA:1025:G:H5''	2.33	0.51
24:DA:270(S):G:C1'	46:DZ:78:LYS:HG2	2.40	0.51
1:CA:690:G:O2'	1:CA:691:G:H5'	2.10	0.51
1:CA:327:A:O2'	1:CA:328:C:O4'	2.25	0.51
24:DA:2113:U:H3'	24:DA:2114:A:C8	2.36	0.51
3:CF:150:LYS:HG3	3:CF:169:ALA:HB2	1.91	0.51
25:DB:90:C:OP2	35:DP:16:ARG:NH2	2.39	0.51
24:DA:971:C:O2'	24:DA:972:G:H5'	2.10	0.51
24:BA:1026:U:C1'	24:BA:1027:A:P	2.98	0.51
1:CA:134:A:N6	16:CS:25:ARG:NH1	2.59	0.51
35:BP:140:ALA:O	35:BP:141:GLN:HB2	2.10	0.51
24:DA:654(S):G:C4'	24:DA:654(T):A:OP1	2.58	0.51
24:DA:540:G:C4	24:DA:541:C:C5	2.98	0.51
45:D3:21:LEU:HD21	45:D3:41:ARG:NH2	2.24	0.51
33:DN:10:VAL:HG21	33:DN:17:ARG:HA	1.93	0.51
1:CA:622:A:H2'	1:CA:623:C:H5'	1.91	0.51
24:BA:1205:U:H4'	24:BA:1206:G:OP2	2.10	0.51
8:AK:29:SER:HB3	8:AK:32:LYS:HB3	1.92	0.51
1:AA:49:U:H3	1:AA:362:G:H1'	1.76	0.51
24:BA:947:G:N3	24:BA:984:A:H2	2.08	0.51
10:CM:16:LEU:O	10:CM:20:ALA:HB3	2.10	0.51
1:CA:1388:C:H2'	1:CA:1389:C:H6	1.75	0.51
24:DA:186:G:O2'	24:DA:187:G:H5'	2.10	0.51
9:CL:40:LEU:CD1	9:CL:74:ILE:HD11	2.40	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:76:LEU:HD23	44:DV:76:LEU:H	1.75	0.51
1:AA:381:C:H2'	1:AA:382:A:O4'	2.11	0.51
1:CA:1176:A:H2'	1:CA:1177:G:O4'	2.10	0.51
5:AH:144:THR:HG23	5:AH:147:ASP:H	1.76	0.51
24:DA:1637:A:H4'	24:DA:2711:A:O2'	2.11	0.51
32:BM:30:ILE:HG23	32:BM:52:VAL:HG11	1.92	0.51
18:AU:60:ALA:O	18:AU:64:ARG:HG3	2.10	0.51
16:CS:67:THR:HG22	16:CS:68:ASP:H	1.76	0.51
24:BA:1095:A:H3'	24:BA:1095:A:N3	2.26	0.51
17:AT:53:LEU:N	17:AT:53:LEU:HD12	2.25	0.51
24:DA:61:G:H5'	47:DW:50:ILE:HD12	1.92	0.51
9:AL:128:ARG:HB2	9:AL:128:ARG:CZ	2.41	0.51
1:CA:1125:U:OP2	1:CA:1145:C:N4	2.43	0.51
1:CA:1237:C:OP1	1:CA:1238:A:H1'	2.11	0.51
1:CA:1305:G:N2	1:CA:1331:G:H2'	2.26	0.51
49:D4:57:GLU:HG2	49:D4:60:GLN:NE2	2.26	0.51
43:BU:97:ARG:N	43:BU:97:ARG:CD	2.68	0.51
4:AG:27:TYR:CD1	4:AG:27:TYR:O	2.63	0.51
24:DA:1047:G:O2'	24:DA:1110:G:N2	2.43	0.51
24:BA:1044:G:H4'	24:BA:1048:A:H1'	1.92	0.51
1:AA:956:U:O2	1:AA:1225:A:C2	2.64	0.51
24:DA:2790:A:N1	24:DA:2894:G:C6	2.78	0.51
12:AO:53:ARG:HB2	12:AO:93:LEU:HD11	1.93	0.51
2:AE:28:PHE:HE1	2:AE:192:SER:O	1.93	0.51
2:CE:80:ILE:O	2:CE:84:GLU:HG2	2.10	0.51
20:AW:14:LYS:O	20:AW:16:HIS:N	2.44	0.51
34:DO:49:ARG:O	34:DO:50:ARG:HB2	2.10	0.51
30:DH:109:PHE:CE1	30:DH:152:ARG:CD	2.93	0.51
30:DH:151:ILE:O	30:DH:152:ARG:HB3	2.09	0.51
1:CA:1104:G:C4	1:CA:1105:A:C8	2.99	0.51
3:CF:148:GLY:HA3	3:CF:172:ARG:H	1.75	0.51
30:BH:137:ASP:OD1	30:BH:138:LYS:N	2.41	0.51
24:BA:2108:C:H2'	24:BA:2109:U:C5'	2.40	0.51
29:BG:82:LEU:N	29:BG:86:MET:HE3	2.26	0.51
49:D4:21:VAL:CG2	49:D4:22:ILE:H	2.16	0.51
1:AA:1123:A:H4'	10:AM:36:GLY:HA3	1.92	0.51
34:DO:125:VAL:C	34:DO:145:PRO:HD2	2.31	0.51
24:BA:1470:G:N2	24:BA:1522:G:OP2	2.37	0.51
25:DB:3:C:H42	25:DB:117:G:H1	1.59	0.51
1:AA:266:G:C5'	1:AA:267:C:C5	2.91	0.51
38:DR:2:ASN:O	38:DR:3:ARG:C	2.48	0.51
24:DA:89:G:O5'	24:DA:90:U:H5''	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:66:G:N3	1:AA:66:G:H2'	2.25	0.51
12:CO:83:VAL:CG2	12:CO:100:ILE:HG23	2.41	0.51
12:CO:83:VAL:CG2	12:CO:84:LEU:H	2.20	0.51
1:AA:1000:A:H1'	24:DA:2136:C:O2'	2.09	0.51
24:BA:1729:A:H8	24:BA:1730:U:C5	2.29	0.51
5:CH:101:ILE:O	5:CH:120:THR:OG1	2.29	0.51
24:DA:75:G:O2'	47:DW:55:ARG:NH1	2.44	0.51
24:BA:1478:G:C8	24:BA:1510:A:N6	2.79	0.51
24:DA:1434:A:H61	24:DA:1558:A:H61	1.57	0.51
52:B7:43:THR:HG22	52:B7:44:PRO:O	2.09	0.51
3:CF:15:THR:HG21	3:CF:181:ASN:HA	1.93	0.51
24:BA:1675:C:N3	27:BE:128:SER:OG	2.44	0.51
32:DM:136:GLU:O	32:DM:137:LYS:HE2	2.10	0.51
35:BP:110:THR:OG1	35:BP:113:GLN:HB2	2.10	0.51
47:BW:33:MET:O	47:BW:37:PHE:CD1	2.63	0.51
24:DA:654(G):C:C3'	24:DA:654(H):G:H5''	2.40	0.51
27:DE:12:THR:HG23	38:DR:58:ASN:HD21	1.76	0.51
24:DA:654(R):C:N4	24:DA:654(S):G:O6	2.44	0.51
1:CA:1498:U:C1'	1:CA:1499:A:OP2	2.58	0.51
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.11	0.51
1:CA:790:A:C6	1:CA:791:G:C6	2.99	0.51
32:BM:115:ARG:O	32:BM:118:LYS:HB3	2.11	0.51
35:BP:50:ALA:HB1	35:BP:121:ALA:HB1	1.92	0.51
10:AM:6:ILE:HG12	10:AM:72:VAL:CG1	2.40	0.51
36:D0:44:LEU:HD22	36:D0:48:VAL:CG2	2.40	0.51
2:CE:144:ARG:O	2:CE:147:LYS:CB	2.59	0.51
4:AG:206:PHE:HD2	4:AG:207:TYR:CE1	2.28	0.51
24:DA:1287:A:C5	24:DA:1288:U:C4	2.99	0.51
1:AA:1392:G:O2'	1:AA:1502:A:H5''	2.10	0.51
43:BU:29:GLU:HB3	43:BU:38:ILE:CG2	2.41	0.51
1:AA:117:G:O6	1:AA:289:G:H1'	2.11	0.51
24:DA:530:G:C5	24:DA:2022:U:H5''	2.45	0.51
24:BA:1385:G:H1'	24:BA:1386:C:C5	2.46	0.51
1:AA:385:C:H2'	1:AA:386:C:C6	2.46	0.51
7:AJ:8:GLU:O	7:AJ:8:GLU:HG3	2.10	0.51
11:AN:44:SER:OG	11:AN:47:VAL:HG23	2.11	0.51
1:CA:412:A:H1'	1:CA:413:G:P	2.50	0.51
1:CA:1320:C:C2'	1:CA:1321:C:H5'	2.40	0.51
3:AF:8:ILE:O	3:AF:10:PHE:N	2.44	0.51
24:BA:2402:C:H2'	24:BA:2403:C:H5'	1.93	0.51
49:B4:37:SER:HB2	49:B4:43:TYR:OH	2.05	0.51
4:AG:20:TYR:CE2	6:CI:15:ASP:CB	2.94	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:774:A:O2'	24:DA:775:G:O5'	2.26	0.51
53:B8:52:LYS:HG3	53:B8:52:LYS:O	2.10	0.51
7:CJ:46:ALA:HB2	7:CJ:117:ALA:CA	2.41	0.51
37:BQ:87:PHE:HB2	37:BQ:112:PHE:CZ	2.43	0.51
5:AH:12:LEU:HD22	5:AH:13:ILE:N	2.25	0.51
26:DD:31:LYS:O	26:DD:31:LYS:HG3	2.10	0.51
19:CV:28:LYS:CG	19:CV:29:ARG:N	2.58	0.51
29:DG:16:ARG:HG2	29:DG:20:ILE:HD11	1.93	0.51
10:CM:4:ILE:HG12	10:CM:74:ILE:HD11	1.92	0.51
17:CT:45:HIS:CG	17:CT:65:ILE:HD13	2.46	0.51
24:BA:876:C:OP1	44:BV:149:SER:HB2	2.11	0.51
43:DU:73:ARG:HH21	43:DU:82:PRO:HD3	1.75	0.51
5:CH:77:PRO:HG2	5:CH:78:HIS:H	1.76	0.51
37:DQ:93:LYS:CD	37:DQ:95:HIS:HB2	2.41	0.51
1:AA:1190:G:H5'	3:AF:176:HIS:HE1	1.74	0.51
1:CA:509:A:C4'	4:CG:55:ALA:HB2	2.41	0.51
12:CO:111:LYS:NZ	12:CO:111:LYS:HB2	2.26	0.51
20:CW:10:LEU:HD21	20:CW:12:ALA:H	1.73	0.51
24:BA:2828:C:H2'	24:BA:2829:C:H5'	1.91	0.51
29:DG:63:ILE:HG13	29:DG:64:THR:N	2.26	0.51
2:AE:70:PHE:CD1	2:AE:163:PHE:HB3	2.46	0.51
1:AA:67:C:O2'	1:AA:171:A:H1'	2.11	0.51
12:CO:24:VAL:HG12	12:CO:26:ALA:CB	2.41	0.51
1:CA:691:G:H3'	11:CN:26:ASN:HD21	1.76	0.51
24:BA:1510:A:OP1	24:BA:1511:A:H8	1.94	0.51
10:AM:26:ALA:HB2	10:AM:29:ARG:HH21	1.76	0.51
6:AI:24:GLU:HA	6:AI:27:GLN:HG2	1.92	0.51
6:AI:24:GLU:O	6:AI:27:GLN:HB2	2.10	0.51
44:BV:69:THR:CA	44:BV:91:LEU:HD23	2.41	0.51
1:AA:1420:C:O2'	1:AA:1421:G:H5'	2.11	0.51
40:D2:62:LEU:HD21	40:D2:95:LEU:HB2	1.92	0.51
44:DV:133:ILE:N	44:DV:133:ILE:HD12	2.25	0.51
8:AK:116:LYS:HD2	8:AK:129:VAL:HG11	1.93	0.51
24:BA:1268:A:C2	24:BA:2013:A:C4	2.99	0.51
24:DA:1411:C:H2'	24:DA:1412:A:H8	1.76	0.51
36:B0:30:THR:CG2	36:B0:31:HIS:CE1	2.93	0.51
5:AH:6:PHE:HD2	5:AH:63:ARG:HH11	1.57	0.51
24:DA:2562:U:O2'	33:DN:23:ARG:NH1	2.43	0.51
24:DA:2717:G:C2'	38:DR:100:TYR:OH	2.59	0.51
4:AG:206:PHE:HD2	4:AG:207:TYR:CD1	2.29	0.51
24:DA:125:G:H1'	52:D7:13:ALA:CB	2.41	0.51
27:BE:14:ILE:HB	27:BE:21:VAL:HB	1.92	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:463:G:N1	24:BA:467:G:C6	2.78	0.51
24:BA:2884:U:H2'	24:BA:2885:C:H5'	1.92	0.51
24:BA:2485:G:H5''	35:BP:46:GLN:NE2	2.25	0.51
24:BA:1824:G:C2'	24:BA:1825:A:H5'	2.41	0.51
28:DF:51:THR:CG2	28:DF:92:PRO:HD2	2.41	0.51
11:CN:17:GLY:O	11:CN:80:VAL:HA	2.10	0.51
3:AF:52:LEU:H	3:AF:52:LEU:HD23	1.75	0.51
1:AA:722:A:N3	1:AA:722:A:H3'	2.26	0.51
1:AA:522:C:H2'	1:AA:523:A:O4'	2.11	0.51
33:DN:1:MET:HB2	33:DN:32:TYR:HB3	1.93	0.51
1:CA:1269:A:H5'	21:CX:18:TYR:CE1	2.46	0.51
1:CA:1344:C:O2'	1:CA:1345:U:H5'	2.11	0.51
1:CA:1319:A:H61	1:CA:1361:G:H21	1.58	0.51
10:CM:49:VAL:HG11	14:CQ:41:ARG:CB	2.40	0.51
49:D4:62:ARG:O	49:D4:63:TYR:HB3	2.11	0.51
1:AA:1117:G:H4'	9:AL:104:ARG:HH12	1.76	0.51
40:D2:20:LEU:HD12	40:D2:21:ARG:H	1.74	0.51
4:AG:33:MET:C	4:AG:35:ARG:N	2.63	0.51
30:DH:3:ARG:HH11	30:DH:4:ILE:HG13	1.69	0.51
24:BA:1049:C:N4	30:BH:3:ARG:NH2	2.57	0.51
27:DE:61:ARG:CB	27:DE:62:PRO:CD	2.88	0.51
7:CJ:46:ALA:N	7:CJ:117:ALA:HB1	2.26	0.51
9:AL:70:LYS:CG	9:AL:71:SER:N	2.73	0.51
3:CF:64:VAL:HG22	3:CF:65:ALA:N	2.26	0.51
46:BZ:53:VAL:O	46:BZ:54:ALA:HB3	2.11	0.51
29:DG:119:GLY:O	29:DG:181:ARG:HG3	2.09	0.51
2:CE:34:ALA:O	2:CE:41:ILE:N	2.44	0.51
24:DA:1225:C:H2'	24:DA:1226:G:O4'	2.11	0.51
24:DA:1069:A:H5''	24:DA:1070:A:OP1	2.10	0.51
1:AA:976:G:C8	1:AA:1358:U:C2	2.98	0.51
44:DV:118:GLN:HE22	44:DV:173:ALA:N	2.09	0.51
30:BH:151:ILE:O	30:BH:152:ARG:HB3	2.11	0.51
4:CG:108:LEU:HD13	4:CG:174:LEU:CD2	2.37	0.51
24:BA:2846:G:P	38:BR:54:ARG:HB2	2.51	0.51
6:AI:37:VAL:CG1	6:AI:38:GLU:N	2.72	0.51
39:D1:92:ARG:C	39:D1:94:ASN:H	2.13	0.51
10:AM:5:ARG:HA	10:AM:73:ASP:HA	1.93	0.51
24:BA:1496:A:C2'	24:BA:1577:C:O2'	2.59	0.51
1:CA:437:U:C2'	1:CA:438:G:H5'	2.41	0.51
24:BA:1798:U:H5''	26:BD:259:THR:HG23	1.92	0.51
1:AA:266:G:O3'	17:AT:67:LYS:HB2	2.11	0.51
1:CA:197:A:C6	1:CA:221:C:H4'	2.46	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1089:G:C2'	1:CA:1090:U:H5'	2.40	0.51
28:BF:9:ILE:HD13	28:BF:9:ILE:H	1.75	0.51
24:BA:881:G:C6	24:BA:882:G:C5	2.99	0.51
24:DA:2156:G:H2'	24:DA:2157:G:O4'	2.11	0.51
24:BA:165:U:O2	24:BA:165:U:C3'	2.59	0.51
25:DB:80:U:O2'	25:DB:81:G:H5''	2.11	0.51
24:DA:464:U:H4'	52:D7:5:TRP:CZ3	2.45	0.51
24:DA:1667:G:O2'	24:DA:1991:U:O4	2.15	0.51
34:DO:121:LYS:O	34:DO:123:LEU:HD23	2.11	0.51
24:DA:1800:C:OP2	26:DD:183:ARG:NH2	2.44	0.51
24:BA:528:A:C2	24:BA:2043:C:C5'	2.93	0.51
1:CA:826:C:H4'	8:CK:12:ARG:HG2	1.91	0.51
18:AU:25:THR:HB	18:AU:42:ARG:HH22	1.76	0.51
24:DA:669:G:O2'	24:DA:670:A:P	2.68	0.51
44:BV:163:LEU:HD22	44:BV:164:ALA:H	1.76	0.51
24:BA:2567:G:H2'	24:BA:2568:C:C6	2.46	0.51
27:BE:2:LYS:NZ	27:BE:100:GLU:OE2	2.30	0.51
24:BA:646:A:H2'	24:BA:647:G:H5'	1.91	0.51
24:DA:877:U:C4'	24:DA:878:A:OP1	2.58	0.51
24:BA:1441:G:H2'	24:BA:1442:G:C8	2.40	0.51
8:CK:38:ILE:HD11	8:CK:118:VAL:CG1	2.40	0.51
1:CA:116:A:OP2	1:CA:116:A:C8	2.64	0.51
1:CA:130:A:C8	17:CT:63:ARG:HG3	2.45	0.51
39:D1:69:CYS:HB3	39:D1:74:LEU:HD12	1.92	0.51
1:CA:545:C:H2'	1:CA:546:G:O4'	2.10	0.51
1:AA:113:G:O2'	1:AA:114:U:H5'	2.10	0.51
24:BA:1754:C:OP2	38:BR:113:LYS:HE3	2.11	0.51
1:CA:35:G:N2	1:CA:550:G:H1'	2.26	0.51
1:AA:1263:C:H2'	1:AA:1264:C:C6	2.46	0.51
24:DA:2821:A:OP2	27:DE:110:GLY:N	2.43	0.51
24:DA:1871:A:H2'	24:DA:1872:A:H8	1.75	0.51
44:DV:8:TYR:N	44:DV:8:TYR:CD1	2.77	0.51
26:DD:267:SER:O	26:DD:268:ARG:HB2	2.11	0.51
11:CN:19:ALA:HB3	11:CN:82:VAL:HG22	1.92	0.51
1:AA:1010:G:N2	1:AA:1020:U:H1'	2.25	0.51
24:BA:2532:G:H1'	24:BA:2663:G:N2	2.26	0.51
38:DR:42:ILE:HG12	38:DR:84:GLN:OE1	2.11	0.51
24:BA:207:A:H2'	24:BA:208:C:O4'	2.09	0.51
24:BA:944:G:H5''	24:BA:945:A:C5'	2.40	0.51
24:DA:2023:G:OP2	24:DA:2617:C:H4'	2.11	0.51
10:AM:42:THR:HG23	10:AM:67:THR:C	2.30	0.51
36:D0:57:ARG:C	36:D0:59:ASP:H	2.14	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:229:U:O2'	1:CA:230:G:H5'	2.10	0.51
1:CA:1128:C:C4'	9:CL:16:ARG:HH12	2.20	0.51
1:CA:1227:A:OP1	19:CV:80:TYR:OH	2.15	0.51
1:CA:1374:A:O2'	7:CJ:28:ASN:HB3	2.10	0.51
9:CL:28:VAL:HG21	9:CL:63:ILE:HB	1.93	0.51
1:CA:986:A:O2'	19:CV:55:LYS:O	2.28	0.51
1:AA:1157:A:N7	1:AA:1178:G:N2	2.55	0.51
53:D8:32:LEU:HB2	53:D8:36:LYS:HZ1	1.76	0.51
49:B4:60:GLN:O	49:B4:63:TYR:HB2	2.11	0.51
24:DA:909:A:O2'	24:DA:910:A:C5'	2.58	0.51
26:BD:35:LYS:N	26:BD:64:ILE:HG23	2.26	0.51
24:BA:1045:A:C6	24:BA:1111:A:N7	2.79	0.51
53:B8:49:VAL:HG12	53:B8:53:PRO:HD3	1.92	0.51
24:DA:2791:C:H2'	24:DA:2792:G:H8	1.76	0.51
2:AE:8:LYS:NZ	2:AE:217:ARG:NH2	2.52	0.51
29:DG:161:THR:CG2	29:DG:162:THR:N	2.73	0.51
17:CT:92:ARG:O	17:CT:95:TYR:HB2	2.10	0.51
1:AA:976:G:OP2	1:AA:1358:U:O2'	2.29	0.51
24:BA:1006:C:H5'	32:BM:28:THR:HG23	1.92	0.51
3:CF:120:VAL:HG22	3:CF:123:GLN:NE2	2.26	0.51
13:AP:22:ILE:HB	13:AP:25:ILE:HD12	1.91	0.51
24:DA:2320:A:C6	24:DA:2333:A:N7	2.79	0.51
1:CA:663:A:C2'	1:CA:664:G:H5'	2.40	0.51
24:DA:2060:A:O4'	24:DA:2502:G:H1'	2.10	0.51
22:CC:58:A:H4'	22:CC:59:A:OP1	2.10	0.51
24:DA:90:U:O2'	24:DA:91:A:H8	1.90	0.51
24:BA:242:G:O5'	53:B8:3:LYS:HE3	2.11	0.51
32:BM:96:GLU:HB2	32:BM:122:VAL:HG12	1.93	0.51
31:DK:9:LEU:HD12	31:DK:12:LEU:HD22	1.87	0.51
24:DA:1654:A:C5'	36:D0:2:ARG:NH2	2.74	0.51
24:DA:1006:C:H5''	32:DM:32:THR:CG2	2.40	0.51
24:DA:1021:A:C8	24:DA:1021:A:H3'	2.45	0.51
29:BG:128:ARG:HG2	29:BG:128:ARG:O	2.11	0.51
25:BB:30:C:H2'	25:BB:31:C:C5'	2.37	0.51
1:AA:862:C:H2'	1:AA:863:U:C5'	2.41	0.51
4:AG:141:ARG:CB	4:AG:142:PRO:HD2	2.35	0.51
15:CR:22:THR:OG1	15:CR:23:GLY:N	2.44	0.51
1:CA:1206:G:C4	1:CA:1207:G:C8	2.98	0.51
24:DA:1385:G:H4'	24:DA:1386:C:OP1	2.09	0.51
12:AO:114:LYS:HE2	12:AO:125:PRO:HG3	1.92	0.51
29:BG:105:LYS:HD3	49:B4:26:SER:HB2	1.90	0.51
16:CS:81:ARG:HG3	16:CS:81:ARG:O	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:1:MET:HG2	44:DV:2:GLU:N	2.26	0.51
24:BA:184:C:H2'	24:BA:185:U:C6	2.46	0.51
24:DA:6:A:C6	24:DA:7:G:C6	2.99	0.51
1:AA:929:G:C4	1:AA:930:C:C5	2.99	0.51
28:BF:36:VAL:HG11	28:BF:183:VAL:CG1	2.41	0.51
24:DA:1198:U:H2'	24:DA:1199:U:H6	1.76	0.51
2:CE:60:ASP:O	2:CE:64:ARG:HG3	2.10	0.51
18:AU:38:GLU:OE1	18:AU:41:LYS:HD3	2.11	0.51
44:DV:100:VAL:O	44:DV:124:ILE:HG22	2.11	0.51
33:DN:119:PRO:HB2	38:DR:68:TYR:CE2	2.46	0.51
26:DD:159:ALA:HB1	26:DD:198:ASN:O	2.11	0.51
25:BB:110:G:C5	25:BB:111:U:C5	2.98	0.51
39:B1:47:TYR:C	39:B1:47:TYR:CD1	2.83	0.51
8:CK:94:TYR:C	8:CK:94:TYR:CD1	2.80	0.51
1:CA:969:A:H2'	1:CA:970:C:O4'	2.10	0.51
9:AL:48:GLU:H	9:AL:78:LYS:HZ2	1.48	0.51
1:AA:1053:G:O2'	1:AA:1199:U:H5	1.76	0.51
19:AV:20:LEU:HG	19:AV:23:ASN:ND2	2.26	0.51
24:DA:2786:U:H5'	27:DE:65:GLY:HA2	1.93	0.51
37:BQ:110:LEU:C	37:BQ:110:LEU:CD1	2.76	0.51
24:BA:1063:G:H1'	24:BA:1077:A:H62	1.75	0.51
24:BA:270(P):C:H6	24:BA:270(P):C:OP1	1.93	0.51
24:BA:270(Q):C:OP1	31:BK:45:LYS:NZ	2.42	0.51
2:CE:17:PHE:HD2	2:CE:44:LEU:HD11	1.75	0.51
5:CH:57:LYS:O	5:CH:60:TYR:HB2	2.11	0.51
31:BK:102:SER:HA	31:BK:107:VAL:O	2.11	0.51
1:CA:1203:C:O3'	14:CQ:3:ARG:NH2	2.44	0.51
24:DA:389:G:N2	34:DO:72:PRO:CG	2.72	0.51
24:DA:2317:C:H2'	24:DA:2318:G:O4'	2.11	0.51
31:BK:133:HIS:CG	31:BK:134:PRO:HD2	2.45	0.51
28:DF:132:VAL:HG13	28:DF:133:ASN:N	2.26	0.51
24:DA:746:A:O2'	24:DA:2611:U:O2'	2.25	0.51
49:D4:16:CYS:HB3	49:D4:19:GLY:CA	2.41	0.51
29:DG:2:PRO:HG2	49:D4:25:TYR:OH	2.11	0.51
53:D8:24:ALA:HB3	53:D8:49:VAL:HG21	1.93	0.51
1:AA:1121:U:C2	1:AA:1122:U:C5	2.99	0.51
9:AL:24:GLY:HA3	9:AL:57:GLY:HA3	1.92	0.51
38:DR:91:ARG:HD2	38:DR:124:ASP:OD2	2.11	0.51
1:AA:458:C:N4	1:AA:464:G:O6	2.44	0.51
35:BP:136:ALA:O	35:BP:139:GLU:HB2	2.10	0.51
1:AA:533:A:C2	1:AA:536:C:C5	2.99	0.51
42:BT:44:GLU:HG2	42:BT:49:VAL:O	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:66:G:H22	1:AA:172:A:H2	1.59	0.51
1:AA:736:C:H2'	1:AA:737:A:H8	1.73	0.51
24:BA:33:U:H4'	24:BA:34:C:OP1	2.10	0.51
49:B4:12:ALA:HB2	49:B4:29:PRO:HA	1.92	0.51
5:CH:107:ARG:HB2	5:CH:107:ARG:NH1	2.25	0.51
24:DA:1534:G:O2'	24:DA:1538:G:N2	2.43	0.51
24:BA:2470:G:C5'	35:BP:56:ARG:HH21	2.17	0.51
24:DA:2872:G:C8	24:DA:2873:A:C2	2.99	0.51
24:BA:1993:U:H4'	27:BE:128:SER:CB	2.40	0.51
32:DM:137:LYS:HE2	32:DM:137:LYS:HA	1.92	0.51
15:CR:3:ILE:CD1	15:CR:3:ILE:H	2.20	0.51
24:BA:1082:U:C4	24:BA:1083:U:H1'	2.46	0.51
28:BF:128:ALA:O	28:BF:129:PHE:HB2	2.11	0.51
24:BA:2563:U:H4'	33:BN:28:SER:HA	1.92	0.51
1:CA:502:G:OP1	12:CO:118:SER:HB3	2.10	0.51
26:BD:142:VAL:HG23	26:BD:193:VAL:CA	2.40	0.51
4:AG:107:ARG:C	4:AG:109:GLY:H	2.15	0.51
29:BG:41:GLN:N	29:BG:90:LEU:O	2.40	0.51
1:CA:458:C:H3'	1:CA:464:G:H8	1.75	0.51
45:B3:42:GLY:O	45:B3:57:PHE:CD2	2.64	0.51
2:CE:112:VAL:HG12	2:CE:113:HIS:N	2.26	0.51
1:AA:113:G:H2'	1:AA:114:U:C6	2.45	0.51
41:DS:75:TYR:CE1	41:DS:104:THR:CB	2.94	0.51
1:AA:201:C:N4	1:AA:209:U:O2	2.44	0.51
17:CT:88:TYR:HA	17:CT:91:ARG:HD2	1.93	0.51
24:DA:2531:A:H5'	30:DH:157:TYR:CE1	2.45	0.51
1:CA:46:G:HO2'	1:CA:365:U:H1'	1.76	0.51
33:DN:105:GLU:OE1	33:DN:105:GLU:N	2.44	0.51
12:CO:127:GLU:O	12:CO:128:ALA:HB3	2.10	0.51
24:BA:1144:G:C6	24:BA:1145:C:N4	2.79	0.51
11:AN:17:GLY:O	11:AN:80:VAL:HA	2.11	0.51
9:CL:17:VAL:CG1	9:CL:63:ILE:CD1	2.88	0.51
13:CP:55:ARG:O	13:CP:59:TYR:HB3	2.11	0.51
19:CV:56:GLN:HE22	19:CV:58:VAL:HA	1.76	0.51
9:AL:10:ARG:CG	9:AL:105:ASP:OD1	2.58	0.51
9:AL:53:VAL:HA	9:AL:95:LYS:HE2	1.92	0.51
19:AV:16:LEU:CD1	19:AV:20:LEU:HD12	2.41	0.51
4:AG:21:LEU:HD11	4:AG:22:LYS:CD	2.31	0.51
1:AA:1221:G:H4'	19:AV:77:THR:CG2	2.40	0.51
2:AE:28:PHE:CD1	2:AE:190:THR:HA	2.45	0.51
46:BZ:92:LYS:O	46:BZ:94:LEU:CA	2.57	0.51
44:BV:139:VAL:O	44:BV:139:VAL:HG12	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1057:G:H4'	3:CF:196:LEU:O	2.11	0.51
24:BA:1175:U:HO2'	24:BA:1176:G:N2	2.09	0.51
24:BA:1177:A:H4'	24:BA:1178:C:H5''	1.91	0.51
24:BA:1331:A:O2'	24:BA:1332:G:H8	1.94	0.51
31:BK:133:HIS:O	31:BK:135:GLU:HG3	2.10	0.51
37:DQ:59:LYS:HD3	37:DQ:60:GLY:N	2.26	0.51
2:AE:24:TRP:CE3	2:AE:26:PRO:HA	2.45	0.51
1:AA:687:A:C1'	1:AA:688:G:OP2	2.55	0.51
1:AA:76:G:C2	1:AA:95:G:N3	2.79	0.51
1:CA:197:A:H1'	1:CA:198:G:P	2.51	0.51
24:DA:803:U:O2'	24:DA:804:A:H5'	2.11	0.51
3:CF:28:GLN:O	3:CF:31:HIS:N	2.43	0.51
24:DA:2134:A:HO2'	24:DA:2159:G:N2	2.09	0.51
24:DA:1012:U:H5'	24:DA:1013:C:O5'	2.10	0.51
1:AA:280:C:H4'	1:AA:281:G:OP2	2.11	0.51
12:AO:24:VAL:HG11	12:AO:27:LEU:HD12	1.91	0.51
1:AA:16:A:C2'	1:AA:17:U:H5'	2.41	0.51
24:BA:1509:C:C2'	24:BA:1510:A:OP1	2.59	0.51
1:CA:1074:G:N3	1:CA:1101:A:H2	2.09	0.51
24:DA:971:C:H2'	24:DA:972:G:O4'	2.10	0.51
24:BA:273(E):U:H3	24:BA:363(A):A:H61	1.58	0.51
1:CA:1207:G:C6	1:CA:1208:C:N4	2.79	0.51
41:DS:17:VAL:HG23	41:DS:18:ARG:N	2.26	0.51
1:CA:912:C:O2'	1:CA:913:A:H5'	2.10	0.51
7:AJ:5:ARG:HH11	7:AJ:7:ALA:H	1.60	0.51
24:DA:2348:U:O2'	24:DA:2349:G:H5'	2.10	0.51
24:BA:973:A:O4'	24:BA:1188:U:C6	2.64	0.51
24:DA:2208:U:C1'	26:DD:151:LYS:HE2	2.40	0.51
1:AA:354:G:N2	1:AA:388:G:O2'	2.38	0.51
1:AA:190:G:HO2'	1:AA:191(A):G:P	2.30	0.51
38:BR:111:ARG:O	38:BR:112:ARG:HB3	2.11	0.51
17:AT:85:VAL:O	17:AT:85:VAL:HG12	2.11	0.51
1:AA:614:A:OP1	4:AG:85:LYS:NZ	2.44	0.51
1:CA:29:G:O2'	1:CA:295:C:H4'	2.11	0.51
2:CE:61:LEU:CD1	2:CE:66:GLY:HA3	2.41	0.51
24:DA:196:A:OP2	34:DO:46:LYS:HE2	2.10	0.51
24:DA:96:G:H4'	47:DW:48:HIS:CD2	2.46	0.51
7:CJ:138:LYS:C	7:CJ:138:LYS:HD3	2.31	0.51
38:DR:29:ARG:HD3	38:DR:44:ASP:OD2	2.10	0.51
24:DA:2009:G:C2'	24:DA:2010:G:H5'	2.41	0.51
18:CU:36:ASN:HB2	18:CU:39:VAL:HG23	1.93	0.51
1:CA:1276:G:H2'	1:CA:1277:C:C6	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:D6:35:GLU:O	51:D6:36:LEU:HB2	2.11	0.50
24:DA:2345:G:C2'	24:DA:2345:G:O5'	2.54	0.50
53:D8:29:LYS:HB2	53:D8:44:LYS:HB2	1.91	0.50
51:B6:36:LEU:O	51:B6:37:ARG:HG3	2.10	0.50
26:BD:27:THR:N	26:BD:28:GLU:OE1	2.44	0.50
26:BD:35:LYS:CA	26:BD:64:ILE:CG2	2.89	0.50
30:DH:6:ARG:NE	30:DH:66:GLY:CA	2.72	0.50
24:BA:1049:C:H2'	24:BA:1050:A:H5''	1.93	0.50
24:DA:1246:A:OP2	34:DO:15:ARG:NH2	2.44	0.50
2:AE:176:GLU:O	2:AE:177:ALA:C	2.50	0.50
24:DA:2777:G:H5''	24:DA:2778:A:C5'	2.24	0.50
30:DH:10:PRO:HD2	30:DH:50:VAL:O	2.12	0.50
13:CP:74:VAL:O	13:CP:78:ILE:HG13	2.11	0.50
24:DA:309:G:H1'	24:DA:329:G:C4	2.45	0.50
24:BA:1138:G:H21	32:BM:106:MET:HE3	1.73	0.50
1:AA:1296:C:O3'	13:AP:13:LYS:CE	2.58	0.50
4:CG:108:LEU:HD13	4:CG:174:LEU:HD13	1.92	0.50
5:CH:35:GLY:CA	5:CH:112:LEU:HB3	2.33	0.50
24:DA:389:G:H22	34:DO:72:PRO:CD	2.25	0.50
49:D4:5:ILE:CG1	49:D4:6:HIS:H	2.14	0.50
30:BH:77:LYS:HG3	30:BH:78:GLY:N	2.26	0.50
28:DF:133:ASN:O	28:DF:162:LEU:HD23	2.11	0.50
1:AA:1287:A:N6	1:AA:1288:A:N6	2.58	0.50
36:B0:63:ARG:HG3	36:B0:76:VAL:HG11	1.92	0.50
1:AA:448:A:OP2	1:AA:485:G:N1	2.27	0.50
22:AC:20:U:C2'	22:AC:21:A:C5'	2.85	0.50
11:AN:13:GLN:HA	11:AN:75:TYR:O	2.11	0.50
1:AA:277:C:C5'	17:AT:68:ARG:NH2	2.72	0.50
24:DA:2355:C:O2	45:D3:39:ARG:NH2	2.44	0.50
20:CW:87:LYS:O	20:CW:89:ARG:N	2.43	0.50
24:DA:2101:G:H2'	24:DA:2102:U:O4'	2.11	0.50
24:BA:1527:G:H5''	24:BA:1528:A:OP1	2.09	0.50
24:DA:1496:A:O2'	24:DA:1497:U:H2'	2.11	0.50
1:AA:620:C:C4	4:AG:135:LEU:HD23	2.45	0.50
24:DA:654(C):G:H2'	24:DA:654(D):G:O4'	2.11	0.50
24:DA:1003:G:N2	24:DA:1153:C:C2	2.79	0.50
1:AA:1318:A:H5''	19:AV:10:PHE:CD2	2.46	0.50
36:D0:51:LEU:HD22	36:D0:66:VAL:HG13	1.92	0.50
24:BA:611:C:H2'	24:BA:612:G:O4'	2.10	0.50
42:DT:40:LYS:C	42:DT:42:ALA:N	2.64	0.50
1:AA:1515:C:O2'	1:AA:1516:G:H5'	2.11	0.50
1:AA:129(A):G:C2	1:AA:188:U:O2'	2.63	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:35:G:N2	1:CA:550:G:C4	2.79	0.50
24:DA:1444(A):A:C2'	24:DA:1444(A):A:N3	2.74	0.50
13:AP:40:ASN:HB3	13:AP:43:THR:HG23	1.93	0.50
3:AF:34:LEU:HD21	3:AF:38:ARG:HH11	1.76	0.50
47:BW:64:LEU:HD22	47:BW:68:ARG:HD2	1.93	0.50
1:AA:287:U:C2'	1:AA:288:A:H5'	2.41	0.50
24:DA:185:U:H2'	24:DA:186:G:C8	2.46	0.50
1:AA:652:U:C5	1:AA:752:G:N3	2.79	0.50
13:CP:106:ASN:O	13:CP:107:ALA:HB3	2.11	0.50
32:BM:13:TRP:O	32:BM:135:PRO:HD2	2.11	0.50
1:AA:857:C:H2'	1:AA:858:G:O4'	2.11	0.50
24:DA:2567:G:H2'	24:DA:2568:C:C6	2.46	0.50
1:AA:316:G:C2	1:AA:338:A:C2	3.00	0.50
8:AK:25:ASP:N	8:AK:25:ASP:OD1	2.44	0.50
24:DA:1601:G:H8	52:D7:49:ARG:HH12	1.25	0.50
1:CA:1133:G:N2	1:CA:1142:G:N3	2.59	0.50
1:CA:1330:U:H3'	1:CA:1331:G:O4'	2.11	0.50
9:CL:18:PHE:O	9:CL:62:TYR:N	2.34	0.50
51:D6:17:LYS:O	51:D6:18:ARG:HB3	2.11	0.50
9:AL:48:GLU:CA	9:AL:78:LYS:HZ1	2.23	0.50
1:AA:1053:G:O5'	1:AA:1054:C:H3'	2.12	0.50
43:BU:76:CYS:O	43:BU:81:LYS:HE2	2.10	0.50
24:DA:527:C:OP2	24:DA:2779:U:H5	1.94	0.50
24:DA:2760:C:H1'	30:DH:139:GLN:HE21	1.75	0.50
1:AA:978:A:C4	1:AA:1319:A:C2	2.99	0.50
1:AA:193:C:C5'	20:AW:57:ARG:CD	2.72	0.50
2:AE:165:VAL:O	2:AE:205:ASP:HB2	2.11	0.50
5:AH:31:LEU:HD21	5:AH:43:LEU:HD11	1.94	0.50
24:BA:1087:G:N7	24:BA:1089:G:H1'	2.27	0.50
2:CE:102:LEU:N	2:CE:102:LEU:HD12	2.26	0.50
2:CE:16:HIS:CB	2:CE:209:ARG:HB2	2.41	0.50
31:BK:88:ILE:HG22	31:BK:90:GLY:H	1.76	0.50
1:AA:102:G:C5	1:AA:103:C:C5	2.99	0.50
24:DA:1056:G:N2	24:DA:1103:A:C8	2.79	0.50
10:CM:28:ARG:NH2	10:CM:34:VAL:CG2	2.74	0.50
5:CH:78:HIS:HB2	8:CK:104:ARG:CG	2.41	0.50
24:BA:1178:C:HO2'	24:BA:1179:C:P	2.33	0.50
39:D1:80:ILE:O	39:D1:84:LYS:HG2	2.12	0.50
24:BA:621:A:H2'	24:BA:622:G:C5'	2.39	0.50
24:BA:1471:A:N3	24:BA:1471:A:H2'	2.26	0.50
25:DB:56:G:H4'	25:DB:57:A:H8	1.74	0.50
1:CA:1003:G:N2	1:CA:1037:C:C2	2.74	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:688:G:N2	1:AA:699:C:O2	2.40	0.50
1:CA:66:G:C6	1:CA:67:C:C5	2.99	0.50
3:AF:131:ARG:NH1	3:AF:166:GLU:OE2	2.43	0.50
35:DP:75:THR:HG21	35:DP:87:LYS:HE3	1.93	0.50
24:BA:676:A:H8	24:BA:2069:G:H21	0.87	0.50
34:DO:78:PRO:HG3	34:DO:111:ARG:HH22	1.75	0.50
37:BQ:106:ARG:CD	37:BQ:107:GLU:OE1	2.60	0.50
37:BQ:71:ARG:NH2	37:BQ:106:ARG:HH21	2.06	0.50
9:CL:53:VAL:HG13	9:CL:95:LYS:HE2	1.93	0.50
29:BG:7:LEU:HD11	29:BG:176:LEU:HD22	1.93	0.50
24:BA:1483:G:O6	24:BA:1506:C:N4	2.41	0.50
24:BA:729:G:N3	24:BA:1775:U:H1'	2.26	0.50
24:DA:1558:A:O2'	24:DA:1559:G:OP2	2.22	0.50
26:DD:65:ILE:HD11	26:DD:67:PHE:CE1	2.47	0.50
24:BA:2101:G:H3'	24:BA:2102:U:C6	2.45	0.50
32:DM:137:LYS:HE2	32:DM:137:LYS:CA	2.41	0.50
32:DM:14:VAL:HG13	32:DM:52:VAL:HA	1.93	0.50
43:BU:41:GLY:O	43:BU:42:VAL:C	2.50	0.50
4:AG:147:ALA:HA	4:AG:181:MET:O	2.11	0.50
36:B0:33:ARG:HD3	36:B0:113:LEU:HD11	1.92	0.50
1:AA:600:C:OP1	8:AK:98:LYS:HE3	2.11	0.50
26:DD:242:ARG:HG2	26:DD:246:PRO:HG3	1.93	0.50
1:AA:22:G:H4'	1:AA:885:G:C8	2.47	0.50
1:AA:107:G:O2'	1:AA:108:G:H5'	2.11	0.50
24:DA:2208:U:H1'	26:DD:151:LYS:HE2	1.93	0.50
47:DW:15:LYS:O	47:DW:16:LEU:HB3	2.11	0.50
1:AA:607:A:N1	16:AS:31:LYS:HG3	2.26	0.50
24:BA:272:G:H2'	24:BA:273:G:H8	1.76	0.50
1:AA:1272:G:C6	1:AA:1273:G:C5	3.00	0.50
11:CN:12:ARG:O	11:CN:75:TYR:HD2	1.93	0.50
24:BA:2864:G:H2'	24:BA:2865:U:H6	1.76	0.50
24:BA:1270:C:H5''	24:BA:1271:G:O5'	2.11	0.50
24:BA:1278:A:H4'	36:B0:34:ILE:HD12	1.94	0.50
1:CA:721:G:H4'	1:CA:722:A:O4'	2.10	0.50
47:BW:23:LYS:O	47:BW:27:GLU:HG3	2.11	0.50
34:DO:120:ALA:HB1	34:DO:138:LEU:HD23	1.94	0.50
24:BA:1580:A:H8	24:BA:1580:A:OP2	1.94	0.50
1:CA:1107:C:OP1	3:CF:173:VAL:N	2.45	0.50
24:DA:1669:A:O2'	24:DA:2549:G:OP1	2.28	0.50
1:CA:1144:G:H2'	1:CA:1145:C:H5'	1.93	0.50
9:CL:14:VAL:O	9:CL:65:VAL:HG23	2.11	0.50
10:CM:14:LYS:O	10:CM:18:ALA:HB3	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:D6:18:ARG:HG3	51:D6:18:ARG:HH11	1.76	0.50
53:D8:32:LEU:CG	53:D8:33:ASN:N	2.73	0.50
34:DO:55:ARG:HG2	34:DO:56:SER:N	2.25	0.50
19:AV:25:LYS:HD3	19:AV:27:GLU:OE1	2.10	0.50
35:DP:2:LEU:HD22	35:DP:69:PHE:HE1	1.76	0.50
29:BG:106:LEU:O	29:BG:110:ALA:HB3	2.11	0.50
24:DA:2439:A:H5'	24:DA:2439:A:C8	2.46	0.50
24:DA:2889:C:H2'	24:DA:2891:G:O4'	2.11	0.50
50:B5:3:LYS:O	50:B5:4:HIS:O	2.28	0.50
24:BA:1101:U:O2'	24:BA:1102:C:H5'	2.11	0.50
27:DE:76:ARG:HG3	27:DE:195:LEU:HD22	1.92	0.50
27:DE:81:ILE:O	27:DE:82:ARG:CB	2.59	0.50
51:D6:53:LYS:HD2	51:D6:53:LYS:C	2.32	0.50
2:AE:217:ARG:O	2:AE:218:ALA:C	2.49	0.50
26:DD:32:SER:O	26:DD:35:LYS:O	2.29	0.50
29:DG:130:ASN:OD1	29:DG:160:VAL:HA	2.11	0.50
3:CF:109:PRO:O	3:CF:112:SER:HB3	2.11	0.50
1:AA:1005:A:HO2'	1:AA:1037:C:HO2'	1.36	0.50
21:AX:6:ARG:O	21:AX:8:THR:N	2.42	0.50
24:BA:1171:G:H2'	24:BA:1174:A:C6	2.46	0.50
1:AA:7:G:H5'	1:AA:298:A:O4'	2.12	0.50
39:D1:95:LEU:HD11	40:D2:11:GLN:HB2	1.93	0.50
13:CP:40:ASN:HB3	13:CP:43:THR:CG2	2.41	0.50
1:AA:626:U:C5'	16:AS:38:TYR:CZ	2.87	0.50
24:BA:1470:G:O2'	24:BA:1522:G:O6	2.17	0.50
28:BF:57:VAL:CG1	28:BF:58:ALA:N	2.74	0.50
29:DG:151:ALA:HB3	29:DG:153:ARG:NH1	2.26	0.50
24:DA:2128:C:O2'	24:DA:2129:C:O4'	2.29	0.50
24:DA:2144:U:H4'	24:DA:2145:C:H5	1.76	0.50
24:DA:270(E):G:O2'	24:DA:270(F):U:H5'	2.11	0.50
1:CA:490:G:H2'	1:CA:491:G:H8	1.75	0.50
1:CA:691:G:H1'	1:CA:696:A:N6	2.27	0.50
1:AA:16:A:O2'	1:AA:17:U:H5'	2.11	0.50
24:DA:2100:G:H2'	24:DA:2101:G:O4'	2.12	0.50
24:DA:974:G:O2'	24:DA:974(A):C:OP2	2.28	0.50
24:BA:1508:A:O2'	24:BA:1509:C:O5'	2.30	0.50
17:AT:74:LEU:HD12	17:AT:75:ARG:CG	2.37	0.50
24:BA:783:A:O2'	24:BA:785:G:OP1	2.24	0.50
1:CA:836:G:C4	1:CA:851:G:C2	2.99	0.50
24:BA:654(A):A:N6	24:BA:654(U):A:C2	2.77	0.50
1:CA:1399:C:N3	1:CA:1502:A:N6	2.59	0.50
24:BA:1585:C:OP2	24:BA:1585:C:H4'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AJ:5:ARG:CG	7:AJ:6:ARG:H	2.25	0.50
17:CT:53:LEU:N	17:CT:53:LEU:HD12	2.27	0.50
24:DA:2477:C:H1'	24:DA:2480:C:N4	2.24	0.50
24:BA:2538:C:O2'	24:BA:2539:C:H5'	2.11	0.50
31:BK:93:THR:HG22	31:BK:119:PRO:CB	2.41	0.50
4:AG:76:ARG:HG3	4:AG:207:TYR:CE2	2.46	0.50
24:BA:1164:G:H2'	24:BA:1165:U:H6	1.75	0.50
11:CN:106:LYS:HG3	11:CN:107:SER:H	1.76	0.50
24:DA:588:U:C2	28:DF:90:PHE:CE1	2.99	0.50
21:AX:11:GLY:O	21:AX:15:ARG:HG3	2.12	0.50
4:AG:200:GLU:HG2	4:AG:201:GLN:H	1.76	0.50
24:DA:343:C:H2'	24:DA:344:G:H8	1.76	0.50
24:BA:104:U:C5	24:BA:105:C:C5	2.99	0.50
7:CJ:60:LYS:HB3	7:CJ:60:LYS:NZ	2.26	0.50
11:AN:17:GLY:HA3	11:AN:77:MET:SD	2.51	0.50
8:AK:46:LYS:HB2	8:AK:62:TYR:HB2	1.93	0.50
1:CA:49:U:C2	1:CA:361:G:N2	2.79	0.50
1:AA:944:G:C2	1:AA:1340:A:C6	3.00	0.50
24:DA:2842:G:O2'	24:DA:2843:G:H5'	2.11	0.50
46:BZ:82:LEU:HD22	46:BZ:82:LEU:N	2.27	0.50
24:BA:2081:C:H2'	24:BA:2082:A:C8	2.46	0.50
6:CI:98:LEU:HD12	6:CI:98:LEU:N	2.25	0.50
33:BN:63:VAL:HG11	33:BN:85:VAL:HG23	1.92	0.50
10:CM:65:LEU:HD13	14:CQ:55:GLY:O	2.11	0.50
9:CL:16:ARG:O	9:CL:16:ARG:CG	2.59	0.50
1:CA:1188:A:H4'	14:CQ:58:LYS:CE	2.42	0.50
13:CP:80:ARG:NH1	19:CV:66:MET:SD	2.82	0.50
29:BG:112:PRO:CG	49:B4:37:SER:HB2	2.38	0.50
26:BD:35:LYS:CB	26:BD:63:ARG:HA	2.33	0.50
1:AA:953:G:H2'	1:AA:954:G:O4'	2.12	0.50
12:AO:67:THR:O	12:AO:96:VAL:HG23	2.12	0.50
7:AJ:15:ASP:HB3	7:AJ:20:ASP:H	1.76	0.50
2:AE:74:LYS:HE3	2:AE:169:LYS:CG	2.41	0.50
2:AE:236:TYR:N	2:AE:236:TYR:CD2	2.69	0.50
29:DG:118:ARG:CB	29:DG:181:ARG:HD3	2.41	0.50
24:BA:2637:U:C2'	24:BA:2638:G:H5'	2.41	0.50
44:DV:120:ILE:HG21	44:DV:169:GLU:OE2	2.12	0.50
44:DV:148:ASP:OD2	44:DV:173:ALA:HA	2.12	0.50
5:CH:76:ILE:HG12	5:CH:142:LEU:HD13	1.94	0.50
4:CG:204:ILE:HD13	5:CH:97:GLY:O	2.11	0.50
24:BA:1170:G:N2	24:BA:1180:C:N3	2.60	0.50
24:BA:2174:C:H2'	24:BA:2175:C:C6	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:654(G):C:O2	24:BA:654(N):G:N1	2.44	0.50
44:BV:76:LEU:HD23	44:BV:76:LEU:N	2.06	0.50
2:CE:25:ASN:CG	2:CE:27:LYS:HG3	2.31	0.50
1:AA:1190:G:C5'	3:AF:176:HIS:CE1	2.94	0.50
36:D0:37:THR:HG22	36:D0:38:VAL:N	2.26	0.50
24:BA:1019:U:O2'	24:BA:1021:A:C2	2.59	0.50
26:DD:83:GLU:OE1	26:DD:104:TYR:CZ	2.64	0.50
24:DA:1462:C:C4	24:DA:1463:C:C5	2.99	0.50
7:AJ:35:LYS:HG2	7:AJ:38:LEU:HD22	1.93	0.50
24:DA:888:C:C1'	24:DA:889:C:OP2	2.58	0.50
24:BA:1537:C:H2'	24:BA:1538:G:O4'	2.12	0.50
24:DA:747:U:O2	24:DA:2014:A:H1'	2.11	0.50
20:CW:68:LYS:HG3	20:CW:69:GLY:H	1.75	0.50
1:AA:426:G:OP1	4:AG:38:TYR:OH	2.18	0.50
24:BA:1582:C:O2'	24:BA:1586:A:H8	1.95	0.50
30:DH:29:PRO:O	30:DH:30:LYS:HD3	2.11	0.50
24:DA:1731:G:H2'	24:DA:1732:A:O4'	2.11	0.50
1:AA:157:G:N2	1:AA:164:U:O2	2.40	0.50
1:AA:1318:A:H1'	19:AV:37:ARG:NH2	2.27	0.50
27:BE:134:ILE:HD12	27:BE:135:HIS:N	2.26	0.50
25:BB:15:A:H5'	25:BB:16:G:H8	1.77	0.50
24:DA:1511:A:H2'	24:DA:1512:G:O4'	2.11	0.50
1:CA:939:G:O2'	1:CA:1375:A:N3	2.40	0.50
1:AA:405:U:O4	4:AG:2:GLY:N	2.44	0.50
5:AH:63:ARG:HA	5:AH:66:MET:HE1	1.93	0.50
26:DD:72:LYS:HD3	26:DD:97:TYR:CD2	2.46	0.50
1:CA:1494:G:O2'	24:DA:1913:A:H5'	2.12	0.50
38:BR:74:ARG:HD3	38:BR:76:PHE:CZ	2.47	0.50
24:DA:1504:C:H2'	24:DA:1505:C:C6	2.46	0.50
1:AA:453:A:C6	1:AA:454:C:C4	2.99	0.50
1:AA:1270:C:OP2	21:AX:24:ARG:NH2	2.44	0.50
4:CG:30:LYS:HZ2	4:CG:30:LYS:N	2.09	0.50
1:CA:796:C:O2'	1:CA:797:C:H5'	2.11	0.50
24:BA:793:A:OP2	24:BA:2071:A:O2'	2.28	0.50
26:DD:115:GLN:HG2	26:DD:116:GLN:N	2.26	0.50
1:AA:297:G:H4'	1:AA:557:G:H4'	1.93	0.50
1:CA:1430:C:H2'	1:CA:1431:C:C6	2.45	0.50
35:BP:62:GLY:O	35:BP:63:LYS:HB2	2.10	0.50
7:CJ:22:LEU:HD23	7:CJ:22:LEU:C	2.31	0.50
24:BA:654(I):C:H3'	24:BA:654(I):C:O2	2.12	0.50
8:CK:39:LEU:HD12	8:CK:39:LEU:N	2.27	0.50
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.92	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:57:C:H2'	24:DA:58:G:O4'	2.11	0.50
24:DA:1601:G:H8	52:D7:49:ARG:NH2	2.07	0.50
1:CA:1321:C:C4	1:CA:1322:C:N4	2.80	0.50
1:CA:977:A:N3	1:CA:977:A:C2'	2.74	0.50
1:CA:1220:G:OP1	19:CV:37:ARG:NH1	2.45	0.50
49:D4:57:GLU:HA	49:D4:60:GLN:HE21	1.76	0.50
49:D4:62:ARG:HE	49:D4:62:ARG:HA	1.75	0.50
51:D6:37:ARG:NH2	51:D6:38:LYS:CA	2.71	0.50
1:AA:1375:A:C6	1:AA:1376:U:C4	2.99	0.50
51:B6:51:GLU:HG2	51:B6:52:VAL:N	2.27	0.50
19:AV:28:LYS:HE2	19:AV:47:HIS:CD2	2.45	0.50
4:AG:22:LYS:HB2	4:AG:26:CYS:N	2.24	0.50
1:AA:192:U:O4'	20:AW:103:GLY:N	2.44	0.50
24:DA:2809:A:C2	24:DA:2892:A:C4	3.00	0.50
24:BA:1074:G:H2'	24:BA:1075:C:H6	1.76	0.50
24:BA:997:G:C2'	24:BA:998:C:H5'	2.42	0.50
19:CV:28:LYS:HE3	19:CV:29:ARG:N	2.27	0.50
1:CA:1076:C:C2	1:CA:1082:G:N2	2.79	0.50
10:CM:81:THR:HG22	10:CM:84:GLN:HE21	1.76	0.50
24:DA:1091:G:C2	24:DA:1101:U:C2	3.00	0.50
1:AA:1025:U:O2'	1:AA:1026:G:P	2.66	0.50
1:AA:1029:G:H2'	1:AA:1030:C:H5''	1.93	0.50
4:CG:138:TYR:CE1	4:CG:139:ARG:O	2.64	0.50
24:BA:2209:C:O2	24:BA:2216:G:N1	2.45	0.50
1:AA:298:A:H2'	1:AA:299:G:O4'	2.12	0.50
24:BA:246:C:H2'	24:BA:247:G:H5'	1.94	0.50
39:B1:83:LEU:N	39:B1:83:LEU:HD12	2.25	0.50
36:B0:72:ASP:O	36:B0:76:VAL:HG23	2.12	0.50
1:AA:1153:C:C2	1:AA:1154:G:C8	2.98	0.50
42:BT:12:VAL:HG12	42:BT:27:THR:O	2.11	0.50
1:AA:437:U:O2'	4:AG:125:HIS:HE1	1.95	0.50
24:DA:2681:C:C6	24:DA:2724:C:N4	2.79	0.50
1:CA:453:A:H1'	16:CS:72:ARG:HH21	1.76	0.50
1:CA:453:A:H4'	16:CS:72:ARG:HB2	1.94	0.50
27:BE:68:ALA:O	27:BE:69:LYS:C	2.49	0.50
40:D2:48:GLY:HA3	40:D2:52:VAL:HG23	1.92	0.50
2:AE:70:PHE:CE1	2:AE:163:PHE:HD2	2.28	0.50
3:CF:84:ILE:HD11	3:CF:88:ARG:HH21	1.76	0.50
1:CA:34:C:H1'	12:CO:32:PHE:CE2	2.46	0.50
38:BR:50:ILE:CD1	38:BR:102:ILE:HD11	2.34	0.50
24:BA:1729:A:H1'	24:BA:1730:U:C6	2.46	0.50
24:DA:2468:G:H5''	24:DA:2476:A:N6	2.25	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:10:VAL:O	41:DS:12:ILE:N	2.45	0.50
1:AA:618:C:H5''	1:AA:619:U:H5''	1.94	0.50
24:DA:1396:U:C2'	24:DA:1396:U:O2	2.57	0.50
45:D3:37:LEU:HD12	45:D3:60:PHE:CA	2.41	0.50
27:BE:36:ARG:NH1	27:BE:85:ASN:OD1	2.44	0.50
24:BA:270(W):G:C2	24:BA:270(X):G:H1'	2.46	0.50
32:DM:43:THR:CG2	32:DM:45:ASN:ND2	2.75	0.50
24:BA:1827:C:H2'	24:BA:1828:G:C5'	2.42	0.50
24:DA:428:A:H8	24:DA:428:A:OP2	1.95	0.50
24:BA:979:G:H3'	24:BA:980:A:C5'	2.42	0.50
1:AA:813:U:OP2	1:AA:813:U:H6	1.94	0.50
24:BA:1095:A:N3	24:BA:1095:A:C2'	2.74	0.50
17:AT:23:VAL:HG12	17:AT:24:GLU:N	2.27	0.50
2:CE:77:ALA:O	2:CE:81:VAL:N	2.43	0.50
1:AA:478:A:O2'	1:AA:479:C:H5'	2.12	0.50
31:BK:19:VAL:HG22	31:BK:20:ASP:N	2.27	0.50
24:DA:2825:C:H2'	24:DA:2826:A:H5'	1.92	0.50
24:DA:49:A:H4'	24:DA:50:U:O5'	2.11	0.50
27:BE:168:MET:HE1	27:BE:202:LYS:HB3	1.93	0.50
49:B4:61:ARG:HE	49:B4:61:ARG:HA	1.76	0.50
3:AF:122:GLU:O	3:AF:126:ARG:HD3	2.11	0.50
1:CA:542:G:H5'	4:CG:41:GLY:CA	2.41	0.50
4:CG:9:CYS:CB	4:CG:22:LYS:HZ1	2.21	0.50
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.47	0.50
9:CL:78:LYS:CG	9:CL:101:PHE:CZ	2.93	0.50
24:DA:2285:C:C3'	51:D6:28:ARG:CZ	2.89	0.50
24:DA:2393:A:P	53:D8:28:GLY:H	2.29	0.50
35:DP:6:ARG:O	35:DP:7:MET:CG	2.52	0.50
29:BG:111:LEU:HB2	29:BG:112:PRO:HD3	1.92	0.50
26:BD:27:THR:HG23	26:BD:30:GLU:OE1	2.12	0.50
20:AW:100:ILE:HG13	20:AW:102:GLY:H	1.77	0.50
24:DA:774:A:H2	24:DA:787:U:O2'	1.94	0.50
40:D2:35:LEU:CD2	40:D2:57:VAL:O	2.59	0.50
24:BA:270(I):G:O2'	24:BA:270(J):G:H5'	2.11	0.50
29:DG:118:ARG:N	29:DG:118:ARG:NE	2.60	0.50
2:CE:188:ALA:HB1	2:CE:192:SER:OG	2.12	0.50
29:DG:8:LYS:O	29:DG:11:TYR:HB3	2.12	0.50
1:CA:271:C:H2'	1:CA:272:C:H6	1.77	0.50
1:CA:1245:A:H2'	1:CA:1246:C:C6	2.46	0.50
44:BV:170:THR:O	44:BV:171:ILE:HG12	2.12	0.50
3:CF:95:THR:O	3:CF:97:LYS:N	2.45	0.50
24:DA:607:U:O2	24:DA:621:A:N1	2.45	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1034:G:H2'	1:AA:1035:A:N7	2.26	0.50
5:CH:35:GLY:HA3	5:CH:112:LEU:O	2.12	0.50
1:CA:1016:A:H5'	14:CQ:15:LYS:CE	2.41	0.50
19:CV:14:HIS:CD2	19:CV:15:LEU:CD2	2.95	0.50
19:CV:39:THR:CG2	19:CV:40:ILE:N	2.75	0.50
29:BG:73:ALA:HB1	29:BG:82:LEU:CD1	2.37	0.50
40:D2:22:VAL:CG2	40:D2:23:GLU:H	2.25	0.50
24:DA:1160:G:N2	40:D2:10:LYS:HE2	2.27	0.50
3:AF:5:ILE:H	3:AF:5:ILE:CD1	2.25	0.50
24:BA:1803:A:H4'	26:BD:259:THR:HG23	1.92	0.50
1:AA:255:G:C4	1:AA:256:U:C5	2.99	0.50
1:AA:271:C:H2'	1:AA:272:C:C6	2.47	0.50
22:CC:59:A:H2'	22:CC:60:U:C5'	2.36	0.50
24:BA:36:G:N3	24:BA:450:G:O2'	2.45	0.50
24:BA:212:G:H2'	24:BA:213:A:C5'	2.41	0.50
34:DO:146:VAL:C	34:DO:147:LEU:HG	2.32	0.50
20:AW:43:LEU:HB2	20:AW:52:ALA:HB2	1.94	0.50
7:CJ:69:VAL:O	7:CJ:69:VAL:HG12	2.11	0.50
3:CF:11:ARG:HH22	3:CF:175:LEU:HA	1.76	0.50
27:BE:128:SER:OG	27:BE:129:HIS:N	2.44	0.50
8:CK:86:ILE:HG12	8:CK:135:CYS:HA	1.94	0.50
24:DA:492:A:H2'	24:DA:493:G:H5'	1.94	0.50
24:BA:304:G:C2	24:BA:314:A:C2	3.00	0.50
24:BA:956:G:C4'	35:BP:83:MET:HE3	2.42	0.50
26:DD:172:TYR:CD1	26:DD:186:HIS:HA	2.46	0.50
36:B0:33:ARG:NH1	36:B0:113:LEU:HD21	2.25	0.50
26:BD:111:LEU:HD22	26:BD:115:GLN:OE1	2.11	0.50
48:DX:18:ASP:OD1	48:DX:19:GLN:HG3	2.11	0.50
29:BG:170:ARG:HE	29:BG:174:GLU:HG2	1.77	0.50
24:DA:2402:C:H2'	24:DA:2403:C:C5'	2.41	0.50
1:CA:833:U:H2'	1:CA:834:C:H6	1.77	0.50
24:BA:2512:C:H2'	24:BA:2513:G:O4'	2.11	0.50
29:BG:138:GLN:O	29:BG:144:ILE:HG13	2.12	0.50
34:DO:96:THR:O	34:DO:100:LEU:HD23	2.12	0.50
1:CA:147:G:O2'	1:CA:148:G:H5'	2.11	0.50
24:BA:2281:C:O2'	24:BA:2282:G:H5'	2.11	0.50
1:AA:296:U:H2'	1:AA:297:G:C8	2.47	0.50
1:CA:1054:C:C5	1:CA:1196:U:C4	2.99	0.50
3:AF:52:LEU:H	3:AF:52:LEU:CD2	2.25	0.50
30:DH:167:GLU:HG2	30:DH:167:GLU:O	2.11	0.50
32:BM:91:LEU:HD21	32:BM:98:VAL:HG11	1.92	0.50
17:AT:34:LYS:O	17:AT:36:ILE:HG23	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1075:C:H4'	2:CE:175:ARG:NH2	2.26	0.50
1:CA:634:C:H2'	1:CA:635:G:H8	1.76	0.50
24:BA:1575:C:H2'	24:BA:1576:U:O4'	2.11	0.50
24:DA:273(A):G:N2	24:DA:364:C:C2	2.79	0.50
1:AA:1135:U:O2'	1:AA:1136:U:H5	1.95	0.50
32:BM:69:GLN:O	32:BM:71:ILE:HD12	2.11	0.50
4:AG:63:LYS:O	4:AG:67:ILE:HG13	2.12	0.50
4:CG:18:LYS:CE	4:CG:33:MET:SD	2.99	0.50
4:CG:8:VAL:O	4:CG:11:LEU:CG	2.55	0.50
1:CA:1147:C:H4'	9:CL:5:TYR:CE2	2.45	0.50
1:CA:1344:C:H5''	9:CL:120:ARG:O	2.12	0.50
1:CA:1118:C:H5''	9:CL:104:ARG:HB3	1.94	0.50
9:CL:82:ALA:CB	9:CL:101:PHE:CE2	2.95	0.50
13:CP:29:ARG:CG	13:CP:64:TRP:CH2	2.95	0.50
49:D4:57:GLU:HA	49:D4:60:GLN:CG	2.42	0.50
24:DA:2392:A:H2'	53:D8:30:ARG:HH22	1.76	0.50
4:AG:6:GLY:O	4:AG:8:VAL:CG1	2.58	0.50
31:BK:73:GLU:HG2	31:BK:73:GLU:O	2.12	0.50
3:CF:64:VAL:HG21	3:CF:66:VAL:HG23	1.93	0.50
2:AE:215:LEU:HA	2:AE:218:ALA:HB3	1.93	0.50
2:AE:4:GLU:HB3	2:AE:6:THR:HG22	1.93	0.50
13:CP:3:ARG:HE	13:CP:9:ILE:HD13	1.75	0.50
29:DG:106:LEU:O	29:DG:110:ALA:HB3	2.12	0.50
26:DD:35:LYS:HA	26:DD:64:ILE:CG2	2.42	0.50
44:BV:141:VAL:HB	44:BV:144:LEU:HD23	1.93	0.50
1:AA:1038:C:C2'	1:AA:1039:C:H5'	2.41	0.50
21:AX:6:ARG:C	21:AX:8:THR:H	2.15	0.50
1:CA:1046:A:N6	1:CA:1213:A:C2	2.69	0.50
1:CA:991:U:HO2'	1:CA:992:U:P	2.34	0.50
24:BA:1173:G:N3	24:BA:1175:U:H2'	2.25	0.50
31:DK:76:THR:HG22	31:DK:139:GLN:O	2.11	0.50
31:DK:79:ILE:HB	31:DK:142:VAL:HA	1.93	0.50
29:DG:35:GLU:HG3	29:DG:35:GLU:O	2.12	0.50
24:DA:811:U:O2'	34:DO:21:ARG:HG3	2.12	0.50
44:BV:105:VAL:HG22	44:BV:106:GLY:N	2.17	0.50
44:BV:106:GLY:O	44:BV:107:THR:OG1	2.23	0.50
38:DR:106:SER:O	38:DR:107:ASP:HB3	2.10	0.50
1:CA:1446:A:OP1	1:CA:1446:A:C4'	2.60	0.50
26:BD:85:ASP:OD2	26:BD:88:ARG:NH1	2.32	0.50
1:AA:437:U:O3'	4:AG:125:HIS:CE1	2.65	0.50
1:CA:451:A:C6	1:CA:481:G:C8	3.00	0.50
1:CA:1034:G:O2'	1:CA:1035:A:O4'	2.25	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:3:ARG:CG	38:DR:6:LEU:HB2	2.41	0.50
22:CC:19:G:C2	22:CC:57:A:C2	3.00	0.50
22:CC:7:G:C2'	22:CC:8:U:OP1	2.60	0.50
2:AE:51:LEU:O	2:AE:54:THR:N	2.45	0.50
1:CA:1089:G:H2'	1:CA:1090:U:O4'	2.12	0.50
24:DA:1450:C:N3	24:DA:1451:C:N4	2.60	0.50
12:CO:27:LEU:HB3	12:CO:33:ARG:HG2	1.94	0.50
24:DA:1142(A):A:C4	24:DA:1144:G:C8	3.00	0.50
24:DA:2250:G:C2	35:DP:83:MET:HB3	2.46	0.50
28:DF:52:LYS:HA	28:DF:56:GLU:OE1	2.12	0.50
17:AT:77:VAL:O	17:AT:77:VAL:HG12	2.11	0.50
52:B7:43:THR:CG2	52:B7:44:PRO:HD2	2.37	0.50
24:BA:527:C:N4	24:BA:2777:G:O2'	2.44	0.50
24:DA:1498:C:O4'	24:DA:1577:C:H4'	2.11	0.50
24:DA:976:C:H42	24:DA:987:G:H1	1.60	0.50
1:AA:148:G:H2'	1:AA:149:A:H8	1.77	0.50
1:AA:1328:C:O3'	13:AP:29:ARG:HG3	2.12	0.50
8:CK:20:TYR:CD1	8:CK:65:TYR:CD2	2.97	0.50
12:AO:83:VAL:CG2	12:AO:84:LEU:H	2.25	0.50
1:CA:613:C:H42	1:CA:627:G:H1	1.59	0.50
41:BS:70:TYR:CD1	41:BS:70:TYR:N	2.79	0.50
46:DZ:57:GLU:C	46:DZ:58:ILE:HD13	2.32	0.50
1:CA:571:U:O2'	1:CA:918:A:OP1	2.26	0.50
13:AP:15:VAL:O	13:AP:19:LEU:HD23	2.12	0.50
1:AA:1263:C:H2'	1:AA:1264:C:H6	1.75	0.50
42:BT:57:LEU:O	42:BT:57:LEU:HG	2.11	0.50
37:BQ:62:LYS:CB	37:BQ:97:ARG:HD3	2.42	0.50
31:BK:29:TYR:C	31:BK:32:PRO:HD2	2.32	0.50
44:DV:76:LEU:HD23	44:DV:76:LEU:O	2.11	0.50
24:BA:2838:G:N2	24:BA:2839:G:H1'	2.26	0.50
35:DP:26:TYR:C	35:DP:26:TYR:HD1	2.15	0.50
46:BZ:5:CYS:CB	46:BZ:8:SER:HG	2.24	0.50
1:AA:1386:G:C2	1:AA:1387:G:N7	2.80	0.50
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.11	0.50
24:DA:35:G:H2'	24:DA:36:G:O4'	2.12	0.50
38:BR:20:PRO:HG2	38:BR:86:ILE:O	2.12	0.50
24:DA:1657:C:H2'	24:DA:1658:C:C6	2.47	0.50
26:DD:125:ILE:HG22	26:DD:125:ILE:O	2.10	0.50
1:AA:1072:G:C5	1:AA:1073:U:C4	2.99	0.50
24:DA:2341:G:H2'	24:DA:2342:C:O4'	2.11	0.50
1:CA:1122:U:N3	1:CA:1123:A:N7	2.60	0.50
1:CA:1226:C:OP2	13:CP:103:THR:OG1	2.14	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CL:9:ARG:HD3	9:CL:14:VAL:CG1	2.41	0.50
19:CV:49:ILE:HD11	19:CV:60:VAL:HG22	1.94	0.50
21:CX:13:ILE:CG2	21:CX:14:TRP:N	2.75	0.50
1:AA:1117:G:C4'	9:AL:104:ARG:HH12	2.24	0.50
24:BA:2401:U:O2	24:BA:2402:C:C5	2.65	0.50
13:AP:81:LEU:HA	13:AP:84:ILE:HG22	1.94	0.50
35:DP:12:GLN:HG2	35:DP:73:PRO:HD2	1.94	0.50
30:BH:9:ILE:HD12	30:BH:9:ILE:O	2.12	0.50
1:CA:1111:A:N6	3:CF:176:HIS:O	2.44	0.50
1:AA:955:U:HO2'	19:AV:83:HIS:CD2	2.30	0.50
24:BA:1084:A:C6	24:BA:1085:A:C5	2.99	0.50
46:BZ:87:PRO:O	46:BZ:90:ILE:N	2.44	0.50
2:CE:87:ARG:NH1	2:CE:220:ASP:OD1	2.45	0.50
24:BA:2636:U:P	27:BE:79:ARG:CA	2.97	0.50
1:CA:254:G:H21	17:CT:16:GLN:HE22	1.46	0.50
1:CA:266:G:O5'	1:CA:267:C:H5	1.95	0.50
17:CT:95:TYR:C	17:CT:97:SER:N	2.64	0.50
10:CM:81:THR:CB	10:CM:84:GLN:HE21	2.24	0.50
24:BA:1006:C:H1'	32:BM:106:MET:CE	2.34	0.50
44:DV:151:HIS:HA	44:DV:170:THR:CA	2.42	0.50
44:BV:170:THR:C	44:BV:171:ILE:CG1	2.80	0.50
30:DH:109:PHE:CZ	30:DH:152:ARG:CD	2.88	0.50
31:DK:123:LEU:CD2	31:DK:142:VAL:HG22	2.40	0.50
24:BA:2702:U:H6	24:BA:2702:U:OP1	1.94	0.50
53:B8:7:HIS:HD2	53:B8:59:LYS:HD2	1.76	0.50
8:CK:109:ILE:HG23	8:CK:137:VAL:CG2	2.33	0.50
6:CI:23:LYS:HA	6:CI:26:ILE:HD12	1.92	0.50
1:AA:980:C:O2'	14:AQ:21:TYR:HE2	1.84	0.50
24:BA:1021:A:H2'	24:BA:1022:G:H5"	1.94	0.50
32:DM:20:GLY:HA2	32:DM:61:ARG:CG	2.42	0.50
43:DU:54:LYS:HG2	43:DU:55:TYR:CD1	2.47	0.50
1:AA:90:C:H2'	1:AA:91:C:O4'	2.12	0.50
1:AA:739:C:OP2	6:AI:2:ARG:NH2	2.39	0.50
38:BR:98:LYS:CB	38:BR:100:TYR:CE1	2.92	0.50
1:CA:5:U:C4	4:CG:86:LYS:HE3	2.47	0.50
31:DK:47:LEU:HG	31:DK:51:ILE:CD1	2.42	0.50
24:BA:71:A:N1	42:BT:31:HIS:HE1	2.08	0.50
42:DT:3:THR:HA	47:DW:29:LYS:HZ2	1.77	0.50
18:AU:63:GLN:HE22	18:AU:66:LEU:HD23	1.76	0.50
17:AT:78:GLU:OE2	17:AT:81:ARG:HD2	2.12	0.50
15:AR:43:LEU:CD1	15:AR:56:LEU:HD22	2.42	0.50
40:B2:15:GLU:HG2	40:B2:16:PRO:HD2	1.91	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:421:U:O4	3:CF:127:ARG:NH1	2.44	0.50
1:CA:673:G:H5''	6:CI:87:ARG:NH2	2.26	0.50
35:DP:17:LEU:HD21	35:DP:41:TRP:HE1	1.77	0.50
16:AS:45:THR:HG22	16:AS:47:ASP:N	2.22	0.50
24:DA:2728:U:H5'	33:DN:70:LYS:NZ	2.26	0.50
1:CA:515:G:H1'	1:CA:537:G:N2	2.26	0.50
1:AA:1186:G:H21	14:AQ:61:TRP:C	2.15	0.50
24:BA:534:U:H5'	39:B1:42:ALA:CB	2.38	0.50
33:DN:87:ILE:HG12	33:DN:91:LEU:HA	1.94	0.50
24:DA:387:U:H4'	24:DA:388:G:O5'	2.10	0.50
35:DP:135:ASP:OD2	35:DP:137:TYR:HD2	1.95	0.50
24:DA:1591:G:O2'	24:DA:1592:C:H5'	2.11	0.50
1:AA:108:G:N2	1:AA:108:G:OP2	2.44	0.50
1:CA:449:C:O4'	1:CA:449:C:O2	2.29	0.50
24:BA:2345:G:H1'	24:BA:2382:G:H5'	1.92	0.50
31:BK:114:LEU:HD12	31:BK:129:THR:O	2.11	0.50
24:DA:270(B):A:H62	24:DA:270(X):G:H21	1.59	0.50
1:CA:1479:C:C2	1:CA:1480:G:C8	3.00	0.50
24:DA:196:A:H2'	24:DA:196:A:N3	2.27	0.50
1:AA:564:C:OP1	12:AO:15:ARG:NE	2.41	0.50
55:CA:1805:TAC:H423	55:CA:1805:TAC:O1C	2.12	0.50
1:AA:319:G:H2'	1:AA:320:C:O4'	2.12	0.50
32:BM:70:LYS:O	32:BM:86:PRO:HA	2.12	0.50
24:BA:451:C:N4	24:BA:454:A:OP2	2.31	0.50
24:BA:16:G:C4	24:BA:17:G:C8	2.99	0.50
24:BA:2032:G:H21	27:BE:146:THR:HG23	1.77	0.50
20:CW:16:HIS:O	20:CW:19:SER:OG	2.23	0.50
1:CA:768:A:N3	1:CA:1512:U:O2'	2.43	0.50
27:BE:195:LEU:HD23	27:BE:195:LEU:C	2.31	0.50
1:CA:222:U:H2'	1:CA:223:U:C6	2.47	0.50
24:DA:302:C:H2'	24:DA:303:U:C6	2.47	0.50
1:CA:1266:G:N2	1:CA:1270:C:N3	2.59	0.50
1:CA:1367:C:H5''	9:CL:114:TYR:CB	2.42	0.50
51:D6:18:ARG:HH21	51:D6:44:ARG:CZ	2.25	0.50
51:B6:36:LEU:HD12	51:B6:48:VAL:HG12	1.94	0.50
24:BA:2286:A:H8	24:BA:2287:A:N6	2.10	0.50
13:AP:70:LEU:O	13:AP:74:VAL:HG23	2.12	0.50
30:BH:4:ILE:HD11	30:BH:7:LEU:HG	0.71	0.50
30:DH:3:ARG:NH1	30:DH:4:ILE:CG1	2.60	0.50
24:BA:270(M):U:O2'	24:BA:270(N):G:O5'	2.27	0.50
29:DG:106:LEU:HA	29:DG:110:ALA:CB	2.41	0.50
29:DG:114:ILE:HB	29:DG:117:PHE:HB2	1.94	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:57:PHE:CG	2:CE:199:TYR:CE2	3.00	0.50
31:BK:123:LEU:CB	31:BK:142:VAL:HG23	2.42	0.50
40:B2:49:THR:CB	40:B2:50:PRO:CD	2.74	0.50
10:AM:50:ILE:HG12	10:AM:60:ARG:HD3	1.93	0.50
34:BO:36:LYS:CG	34:BO:37:GLY:H	2.25	0.50
13:AP:12:ASN:H	13:AP:46:LYS:CD	2.25	0.50
24:BA:2154:G:H2'	24:BA:2155:G:H8	1.77	0.50
1:AA:1190:G:P	3:AF:5:ILE:HD12	2.52	0.50
18:CU:37:VAL:O	18:CU:41:LYS:HB2	2.12	0.50
11:AN:40:ILE:HG22	11:AN:75:TYR:CD2	2.46	0.50
24:DA:2061:G:N2	24:DA:2063:C:C6	2.80	0.50
1:CA:838:G:N2	1:CA:849:C:C4	2.80	0.50
11:CN:84:VAL:HG21	11:CN:95:ILE:HD11	1.94	0.50
24:DA:1313:U:C2'	24:DA:1610:A:C2	2.91	0.50
28:DF:125:LEU:H	28:DF:125:LEU:CD2	2.20	0.50
7:AJ:113:GLU:CG	7:AJ:119:ARG:HG2	2.41	0.50
10:CM:48:THR:HG23	10:CM:62:HIS:CB	2.37	0.50
24:BA:2074:U:H2'	24:BA:2075:U:H6	1.72	0.50
24:DA:2873:A:H8	36:D0:5:LYS:HA	1.77	0.50
1:CA:346:G:N2	1:CA:347:G:C8	2.80	0.50
35:BP:26:TYR:HD1	35:BP:27:VAL:N	2.10	0.50
52:D7:1:MET:CA	52:D7:1:MET:CE	2.90	0.50
24:BA:956:G:H2'	24:BA:957:A:H2'	1.92	0.50
25:BB:16:G:C4	25:BB:17:C:C5	3.00	0.50
24:BA:2298:A:N6	24:BA:2318:G:C8	2.79	0.50
1:CA:376:G:H4'	16:CS:5:ARG:HD3	1.94	0.50
1:AA:827:U:O2	1:AA:827:U:O4'	2.29	0.50
24:BA:889:C:C3'	24:BA:889:C:O2	2.59	0.50
24:BA:1316:U:H2'	24:BA:1317:A:C8	2.47	0.50
20:AW:30:LYS:NZ	20:AW:34:LYS:HB2	2.27	0.50
31:DK:8:PRO:HD3	31:DK:15:VAL:CG2	2.41	0.50
6:CI:33:TYR:CD1	6:CI:75:LEU:HD13	2.47	0.50
46:DZ:64:ALA:HA	46:DZ:67:ILE:HG13	1.93	0.50
1:AA:186(C):G:C6	1:AA:186(D):C:C4	3.00	0.50
25:BB:95:U:N3	25:BB:96:G:N7	2.60	0.50
33:DN:103:ALA:HB1	33:DN:105:GLU:OE1	2.12	0.50
17:AT:29:HIS:CE1	17:AT:32:TYR:CD2	3.00	0.50
24:DA:1986:A:H2'	24:DA:1987:G:C8	2.46	0.50
5:CH:145:LYS:O	5:CH:149:GLU:N	2.29	0.50
24:BA:1830:C:O2'	24:BA:1831:G:H5'	2.11	0.50
5:AH:140:ARG:O	5:AH:140:ARG:HG2	2.11	0.50
26:DD:244:ARG:HB2	26:DD:245:PRO:HD2	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:D0:65:LEU:O	36:D0:68:ARG:HB3	2.11	0.50
27:DE:186:GLY:O	27:DE:187:ALA:HB3	2.12	0.50
1:CA:512:U:O5'	4:CG:43:HIS:HE1	1.95	0.49
49:D4:55:ARG:HG3	49:D4:56:VAL:N	2.27	0.49
37:DQ:83:LYS:HB3	37:DQ:109:GLY:H	1.77	0.49
3:AF:13:GLY:HA2	14:AQ:57:ARG:CZ	2.42	0.49
36:B0:8:ARG:HD2	36:B0:43:GLU:HB2	1.93	0.49
9:AL:93:ARG:HG2	9:AL:102:LEU:HD11	1.94	0.49
34:DO:62:LEU:CD1	34:DO:63:PRO:N	2.75	0.49
1:AA:1382:C:H5'	7:AJ:79:ARG:HH11	1.73	0.49
30:BH:4:ILE:HB	30:BH:6:ARG:CG	2.41	0.49
49:B4:35:VAL:CG1	49:B4:35:VAL:O	2.56	0.49
24:BA:745:G:H2'	24:BA:746:A:H5'	1.94	0.49
24:BA:1060:U:C1'	24:BA:1061:U:P	3.00	0.49
40:D2:35:LEU:CG	40:D2:37:VAL:HG21	2.41	0.49
26:DD:31:LYS:CD	26:DD:33:LEU:HD11	2.42	0.49
40:D2:84:LYS:HG3	40:D2:85:LYS:CG	2.41	0.49
10:CM:30:SER:OG	10:CM:84:GLN:NE2	2.45	0.49
1:AA:102:G:C6	1:AA:103:C:C5	3.00	0.49
46:DZ:91:LYS:HZ2	46:DZ:91:LYS:HB2	1.76	0.49
44:DV:118:GLN:NE2	44:DV:173:ALA:HB3	2.27	0.49
6:AI:61:LEU:HB3	6:AI:63:TYR:HE1	1.77	0.49
24:DA:2321:G:H5''	24:DA:2322:A:OP2	2.12	0.49
25:DB:44:G:H1'	25:DB:46:A:H62	1.77	0.49
34:BO:49:ARG:HE	53:B8:58:ILE:HG22	1.77	0.49
38:DR:106:SER:O	38:DR:107:ASP:OD1	2.29	0.49
24:BA:607:U:C2	24:BA:621:A:N1	2.80	0.49
5:AH:153:LYS:NZ	5:AH:153:LYS:HB2	2.26	0.49
29:DG:133:LEU:H	29:DG:133:LEU:HD23	1.76	0.49
29:DG:133:LEU:HD21	29:DG:157:ILE:CG2	2.42	0.49
24:DA:674:G:O2'	28:DF:74:ARG:HG3	2.12	0.49
8:AK:51:VAL:HG22	8:AK:60:ARG:H	1.77	0.49
1:CA:197:A:H1'	1:CA:198:G:O4'	2.12	0.49
24:BA:32:C:C2'	24:BA:33:U:H5'	2.42	0.49
1:CA:5:U:C5	4:CG:86:LYS:HE3	2.47	0.49
49:B4:14:ILE:HD12	49:B4:24:THR:HG22	1.93	0.49
24:DA:2294:C:P	37:DQ:89:ARG:HH22	2.34	0.49
17:AT:99:SER:C	17:AT:101:ARG:H	2.16	0.49
24:DA:974(A):C:H2'	24:DA:974(A):C:O2	2.11	0.49
24:BA:1557:C:OP2	24:BA:1558:A:O2'	2.26	0.49
28:DF:188:ARG:CA	34:DO:3:LEU:HD11	2.39	0.49
1:CA:1399:C:H4'	1:CA:1400:C:O5'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AO:60:LEU:HD23	12:AO:64:TYR:O	2.11	0.49
44:DV:54:HIS:HB3	44:DV:101:PRO:HD3	1.93	0.49
24:DA:2266:A:H4'	24:DA:2267:A:C2	2.47	0.49
24:BA:547:A:C2'	24:BA:548:A:C8	2.93	0.49
22:CC:35:A:C2	23:C1:18:G:C2	2.99	0.49
1:CA:115:G:H1'	1:CA:116:A:OP2	2.12	0.49
24:DA:2584:U:C6	24:DA:2585:U:C6	2.99	0.49
6:CI:14:LEU:HD13	6:CI:19:LEU:HD22	1.94	0.49
24:BA:1884:A:N1	24:BA:1885:A:C5	2.80	0.49
24:BA:2328:A:H2'	24:BA:2329:G:C8	2.47	0.49
10:CM:3:LYS:HE2	10:CM:77:PRO:HG3	1.93	0.49
24:DA:1858:G:OP2	24:DA:1858:G:H8	1.95	0.49
17:CT:22:LEU:HD11	17:CT:39:SER:HB2	1.93	0.49
24:DA:572:A:C2	24:DA:2033:A:C2	3.00	0.49
1:CA:1010:G:H2'	1:CA:1011:G:C8	2.47	0.49
24:DA:2245:U:C5'	24:DA:2246:G:H5'	2.42	0.49
37:BQ:30:ARG:HA	37:BQ:35:ILE:HA	1.94	0.49
24:BA:830:G:H4'	24:BA:831:G:OP2	2.11	0.49
24:DA:1695:G:H2'	24:DA:1696:G:C4'	2.41	0.49
35:DP:20:ALA:HB2	44:DV:79:ARG:NH2	2.26	0.49
26:DD:85:ASP:OD1	26:DD:86:PRO:HD2	2.12	0.49
40:B2:22:VAL:HG12	40:B2:23:GLU:N	2.27	0.49
24:DA:1810:A:H2'	24:DA:1811:G:O4'	2.12	0.49
24:DA:654(J):A:H2'	24:DA:654(J):A:N3	2.27	0.49
24:BA:1786:A:H1'	24:BA:1938:A:N6	2.27	0.49
24:DA:1601:G:O5'	52:D7:49:ARG:NH2	2.43	0.49
1:CA:411:A:C5	1:CA:413:G:C1'	2.85	0.49
1:CA:1319:A:N6	1:CA:1361:G:H21	2.10	0.49
9:CL:79:LEU:O	9:CL:80:GLY:C	2.49	0.49
51:B6:14:THR:OG1	51:B6:21:TYR:N	2.45	0.49
1:AA:412:A:H4'	1:AA:413:G:O5'	2.12	0.49
24:DA:2757:A:H2'	24:DA:2757:A:N3	2.27	0.49
24:DA:2801:A:H5'	24:DA:2895:U:H5''	1.94	0.49
24:BA:483:A:C4	43:BU:60:PHE:CE1	3.01	0.49
37:BQ:108:GLY:C	37:BQ:110:LEU:H	2.10	0.49
2:AE:171:ALA:O	2:AE:174:VAL:HG13	2.13	0.49
24:BA:1087:G:C4	24:BA:1089:G:H1'	2.47	0.49
2:AE:4:GLU:O	2:AE:217:ARG:HD3	2.12	0.49
26:DD:44:ASN:CB	26:DD:48:ARG:O	2.59	0.49
2:CE:33:TYR:HD1	2:CE:33:TYR:O	1.95	0.49
1:CA:1292:U:H2'	1:CA:1293:G:H8	1.76	0.49
24:DA:1210:A:H5''	24:DA:1211:U:H3'	1.94	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1210:A:H5'	24:DA:1212:G:C4'	2.42	0.49
36:B0:24:GLN:HE22	36:B0:36:THR:HG21	1.76	0.49
34:BO:50:ARG:HD2	53:B8:7:HIS:HE2	1.77	0.49
53:D8:23:VAL:CG2	53:D8:47:LYS:HB3	2.39	0.49
1:AA:1152:A:H5'	10:AM:13:HIS:CD2	2.47	0.49
8:CK:103:VAL:HG21	8:CK:109:ILE:HA	1.94	0.49
1:AA:626:U:H4'	16:AS:38:TYR:OH	2.12	0.49
24:BA:2579:C:H2'	24:BA:2580:U:O4'	2.12	0.49
1:CA:197:A:H8	1:CA:198:G:N9	2.10	0.49
48:BX:7:LYS:NZ	48:BX:32:GLN:HG3	2.27	0.49
3:CF:43:LEU:C	3:CF:43:LEU:HD23	2.32	0.49
1:CA:1396:A:H2	5:CH:19:MET:HG2	1.77	0.49
31:DK:52:ARG:HD2	31:DK:52:ARG:C	2.32	0.49
31:DK:57:ARG:HG3	31:DK:58:LEU:N	2.26	0.49
24:DA:1332:G:N2	24:DA:1609:A:HO2'	2.10	0.49
1:AA:377:G:P	16:AS:5:ARG:HH11	2.35	0.49
2:CE:164:VAL:HG12	2:CE:165:VAL:N	2.18	0.49
1:AA:246:A:OP1	17:AT:100:LYS:CE	2.61	0.49
1:AA:341:C:O2'	1:AA:342:C:H5'	2.12	0.49
24:DA:2468:G:C8	24:DA:2468:G:OP2	2.64	0.49
24:BA:1530:G:O6	24:BA:1542:G:N2	2.44	0.49
50:B5:40:LYS:HG2	50:B5:47:PRO:HD2	1.92	0.49
50:D5:45:VAL:CG1	50:D5:56:LYS:HG3	2.39	0.49
30:DH:26:VAL:O	30:DH:26:VAL:HG13	2.09	0.49
24:BA:654(B):C:H2'	24:BA:654(C):G:C8	2.46	0.49
1:AA:620:C:C4	4:AG:135:LEU:CD2	2.96	0.49
44:BV:98:MET:SD	44:BV:133:ILE:HD12	2.52	0.49
31:BK:100:ALA:HA	31:BK:103:ARG:CZ	2.43	0.49
1:AA:632:A:N6	1:AA:633:G:C2	2.80	0.49
44:DV:19:ARG:HH12	44:DV:84:GLU:HA	1.77	0.49
44:DV:19:ARG:NH1	44:DV:84:GLU:HA	2.26	0.49
4:CG:162:LEU:O	4:CG:166:LYS:HG3	2.11	0.49
1:CA:854:G:H3'	1:CA:871:U:O4	2.12	0.49
38:BR:15:VAL:HG22	38:BR:16:ARG:N	2.27	0.49
37:BQ:58:LEU:N	37:BQ:58:LEU:CD2	2.74	0.49
1:CA:940:C:H2'	1:CA:941:G:H8	1.74	0.49
15:CR:56:LEU:O	15:CR:60:VAL:HG23	2.12	0.49
39:B1:57:PHE:O	39:B1:60:LEU:HB3	2.12	0.49
35:BP:20:ALA:O	35:BP:21:THR:CG2	2.59	0.49
24:BA:184:C:C2	24:BA:185:U:C5	3.01	0.49
46:BZ:64:ALA:HA	46:BZ:67:ILE:CD1	2.41	0.49
36:B0:100:LEU:HD13	36:B0:112:ALA:CA	2.42	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:481:G:OP2	43:BU:47:LYS:HG3	2.12	0.49
24:BA:847:U:C4	24:BA:933:A:N1	2.80	0.49
24:BA:654(I):C:O2	24:BA:654(I):C:C2'	2.60	0.49
24:DA:1190:G:OP1	34:DO:32:THR:HA	2.12	0.49
8:AK:33:GLU:OE1	8:AK:50:ARG:NE	2.45	0.49
30:DH:22:GLY:O	30:DH:37:VAL:HG12	2.13	0.49
28:DF:110:LEU:O	28:DF:114:VAL:HG23	2.12	0.49
1:CA:859:A:H2'	1:CA:860:A:O4'	2.12	0.49
24:BA:1947:C:O2'	24:BA:1948:G:H5'	2.12	0.49
24:BA:416:C:H2'	24:BA:417:C:O4'	2.13	0.49
39:B1:102:GLU:HA	39:B1:102:GLU:OE2	2.12	0.49
24:BA:2457:U:C2'	24:BA:2458:G:H5'	2.42	0.49
31:DK:61:ARG:HA	31:DK:64:GLU:HB2	1.93	0.49
24:DA:1215:G:O2'	24:DA:1216:G:H5'	2.12	0.49
1:CA:598:U:H4'	8:CK:94:TYR:CE2	2.46	0.49
1:CA:1304:G:C6	1:CA:1305:G:N1	2.80	0.49
14:CQ:22:THR:HG23	14:CQ:23:ARG:N	2.23	0.49
19:CV:36:ARG:CD	19:CV:51:VAL:HG11	2.29	0.49
24:DA:2392:A:H2'	53:D8:30:ARG:NH2	2.28	0.49
19:AV:41:VAL:N	19:AV:44:MET:HE3	2.27	0.49
49:B4:37:SER:CB	49:B4:43:TYR:HE2	2.24	0.49
24:BA:1045:A:OP1	24:BA:1045:A:H4'	2.11	0.49
27:DE:60:ASN:O	27:DE:62:PRO:CD	2.43	0.49
2:AE:77:ALA:CB	2:AE:165:VAL:HG21	2.42	0.49
13:CP:78:ILE:CG2	13:CP:92:HIS:CD2	2.89	0.49
24:DA:26:G:C6	24:DA:27:G:N1	2.81	0.49
43:DU:95:LYS:HD3	43:DU:96:ILE:O	2.12	0.49
4:CG:108:LEU:HB3	4:CG:110:PHE:CD1	2.47	0.49
24:BA:1175:U:H1'	24:BA:1176:G:H1'	1.94	0.49
27:DE:8:LYS:O	27:DE:9:VAL:CG2	2.60	0.49
18:AU:61:LYS:O	18:AU:65:ILE:HG12	2.12	0.49
28:BF:101:LEU:HD12	28:BF:102:PRO:CD	2.41	0.49
1:CA:1053:G:O2'	1:CA:1199:U:H5	1.94	0.49
28:BF:185:ASP:OD1	28:BF:188:ARG:NH1	2.27	0.49
1:AA:278:G:OP2	17:AT:41:LYS:HE2	2.13	0.49
40:D2:41:GLY:CA	40:D2:46:VAL:HG13	2.42	0.49
1:AA:692:U:H1'	1:AA:695:A:N7	2.27	0.49
24:DA:1653:G:H5''	36:D0:2:ARG:HH12	1.75	0.49
24:BA:882:G:O2'	24:BA:883:G:C8	2.63	0.49
24:BA:213:A:C2'	24:BA:214:G:H5'	2.42	0.49
24:BA:164:U:H5''	24:BA:165:U:C6	2.47	0.49
1:CA:8:A:H5'	5:CH:101:ILE:CD1	2.42	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1533:C:C6	24:DA:1534:G:H1'	2.47	0.49
7:AJ:115:ARG:CG	7:AJ:116:ALA:H	2.25	0.49
1:AA:676:A:H2'	1:AA:677:U:C6	2.47	0.49
41:BS:105:VAL:HG12	41:BS:107:LEU:CD1	2.42	0.49
1:CA:913:A:H4'	1:CA:914:A:O5'	2.11	0.49
31:BK:104:GLN:O	31:BK:105:HIS:HB2	2.12	0.49
25:BB:24:G:C8	25:BB:56:G:C8	3.01	0.49
1:AA:603:U:H2'	1:AA:604:G:C8	2.47	0.49
1:CA:625:G:H4'	16:CS:16:HIS:CD2	2.48	0.49
1:AA:638:G:O2'	1:AA:639:G:H5'	2.12	0.49
1:CA:457:C:H2'	1:CA:458:C:H6	1.77	0.49
36:D0:84:ALA:N	36:D0:85:PRO:CD	2.74	0.49
1:CA:376:G:H5''	16:CS:5:ARG:HB2	1.93	0.49
1:CA:585:G:H4'	12:CO:8:ASN:OD1	2.11	0.49
48:DX:7:LYS:HG3	48:DX:34:GLU:HG2	1.94	0.49
24:BA:1914:C:C3'	24:BA:1914:C:O2	2.60	0.49
1:AA:582:U:OP1	15:AR:68:ARG:NH2	2.45	0.49
24:BA:2302:G:O2'	24:BA:2303:G:H5'	2.12	0.49
26:BD:228:PRO:HD3	26:BD:235:GLY:HA3	1.94	0.49
34:BO:83:VAL:HG11	34:BO:112:LEU:HD21	1.93	0.49
24:DA:1499:C:H2'	24:DA:1500:G:C8	2.48	0.49
1:AA:785:G:O2'	1:AA:786:G:H5'	2.12	0.49
24:DA:1996:C:H5	33:DN:32:TYR:HH	1.59	0.49
1:AA:316:G:OP2	1:AA:351:G:O2'	2.30	0.49
10:CM:35:SER:N	10:CM:73:ASP:O	2.44	0.49
38:BR:57:PHE:CG	38:BR:58:ASN:N	2.80	0.49
4:AG:178:VAL:HG23	4:AG:179:GLU:N	2.27	0.49
24:DA:413:C:H6	24:DA:413:C:O5'	1.95	0.49
2:CE:139:LYS:C	2:CE:139:LYS:HD3	2.33	0.49
33:DN:120:GLU:OE2	38:DR:67:SER:HB2	2.12	0.49
1:CA:224:C:H2'	1:CA:225:C:C6	2.47	0.49
24:DA:1306:C:C2'	24:DA:1307:A:H5'	2.42	0.49
7:CJ:28:ASN:O	7:CJ:31:MET:HB3	2.11	0.49
19:CV:80:TYR:CE2	19:CV:82:GLY:CA	2.93	0.49
7:CJ:78:ARG:CZ	7:CJ:87:VAL:N	2.68	0.49
11:CN:50:TYR:CD2	11:CN:60:ALA:HB2	2.47	0.49
24:DA:2393:A:P	53:D8:30:ARG:CZ	3.00	0.49
7:CJ:89:MET:CB	7:CJ:155:ARG:HH12	2.17	0.49
24:BA:2285:C:P	51:B6:28:ARG:NE	2.85	0.49
1:AA:1199:U:H5'	10:AM:54:PHE:HE2	1.74	0.49
43:BU:76:CYS:O	43:BU:81:LYS:CE	2.61	0.49
4:AG:12:CYS:SG	4:AG:19:LEU:HD23	2.52	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2041:U:H2'	24:DA:2042:A:C8	2.47	0.49
24:DA:1114:G:H2'	24:DA:1115:G:H8	1.78	0.49
24:DA:2752:C:C2'	24:DA:2753:A:H5'	2.42	0.49
27:DE:73:GLU:OE1	27:DE:73:GLU:HA	2.12	0.49
5:CH:60:TYR:CG	5:CH:64:ARG:NH2	2.80	0.49
1:CA:1291:G:C5	1:CA:1292:U:C4	3.00	0.49
24:DA:1098:A:H3'	24:DA:1099:G:C8	2.46	0.49
24:DA:483:A:C5'	43:DU:49:VAL:HG13	2.43	0.49
1:CA:1015:A:O3'	14:CQ:15:LYS:NZ	2.35	0.49
44:DV:30:ASN:CB	44:DV:89:PHE:CE1	2.95	0.49
24:BA:2146:C:H4'	24:BA:2147:G:C4	2.47	0.49
39:D1:98:LEU:O	39:D1:100:VAL:N	2.43	0.49
24:DA:659:C:O2'	24:DA:660:G:H5'	2.13	0.49
34:DO:19:VAL:CG2	34:DO:20:GLY:H	2.07	0.49
38:DR:88:ILE:HD11	38:DR:91:ARG:CG	2.30	0.49
3:AF:50:ALA:CA	3:AF:72:LYS:HD2	2.41	0.49
24:BA:795:C:H2'	24:BA:796:C:H6	1.74	0.49
1:AA:450:G:OP1	16:AS:43:LYS:NZ	2.45	0.49
24:BA:1469:A:H2'	24:BA:1470:G:C8	2.47	0.49
28:BF:6:VAL:HG12	28:BF:115:ALA:O	2.12	0.49
36:B0:117:VAL:O	36:B0:118:GLU:HB2	2.13	0.49
1:CA:1002:G:N2	1:CA:1038:C:N3	2.60	0.49
42:BT:50:LYS:HB3	42:BT:84:ALA:CB	2.42	0.49
24:DA:890:A:H2'	24:DA:892:G:C8	2.47	0.49
4:AG:169:LYS:HG2	4:AG:170:VAL:H	1.77	0.49
24:DA:1011:G:C6	24:DA:1013:C:C4	2.99	0.49
24:DA:270(J):G:H1	24:DA:270(P):C:H42	1.59	0.49
1:AA:451:A:N6	1:AA:480:U:H2'	2.28	0.49
24:DA:1394:U:H3'	24:DA:1394:U:H6	1.77	0.49
24:BA:783:A:C2'	24:BA:785:G:OP1	2.61	0.49
24:BA:2785:C:H1'	27:BE:64:LYS:CE	2.41	0.49
24:DA:110:G:C2'	24:DA:111:A:H5'	2.42	0.49
8:CK:129:VAL:CG2	8:CK:130:GLY:H	2.24	0.49
7:CJ:65:ALA:HB1	7:CJ:127:ALA:CB	2.40	0.49
24:DA:2218:G:H5''	26:DD:186:HIS:CE1	2.47	0.49
8:CK:49:GLU:OE2	8:CK:62:TYR:OH	2.24	0.49
14:AQ:15:LYS:HB3	14:AQ:16:PHE:CD2	2.47	0.49
24:BA:278:A:H2'	24:BA:279:C:C5	2.47	0.49
31:BK:116:LEU:CD1	31:BK:117:GLU:H	2.25	0.49
24:BA:2296:U:H4'	24:BA:2297:C:OP1	2.13	0.49
16:AS:23:ASP:CG	16:AS:25:ARG:HD3	2.32	0.49
24:DA:2583:G:H2'	24:DA:2584:U:O2	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1820:U:C2	26:BD:202:LYS:HB3	2.48	0.49
38:BR:110:ILE:HG23	38:BR:111:ARG:H	1.77	0.49
29:BG:125:PHE:C	29:BG:127:GLY:H	2.15	0.49
24:DA:1423:G:H2'	24:DA:1424:G:C8	2.46	0.49
24:BA:1642:G:O2'	24:BA:1643:G:H5'	2.12	0.49
24:DA:1444(A):A:H5'	24:DA:1445:C:OP2	2.12	0.49
24:BA:2705:A:H2'	24:BA:2706:G:O4'	2.11	0.49
17:AT:87:LYS:HD3	17:AT:90:ILE:HD12	1.94	0.49
46:DZ:67:ILE:HB	46:DZ:68:PRO:HD3	1.95	0.49
1:AA:939:G:C6	1:AA:940:C:N4	2.80	0.49
31:DK:19:VAL:HG22	31:DK:20:ASP:N	2.27	0.49
1:AA:295:C:H2'	1:AA:296:U:C6	2.47	0.49
1:CA:1196:U:O2'	1:CA:1197:G:OP2	2.28	0.49
17:AT:4:LYS:HE3	17:AT:6:LEU:HD21	1.93	0.49
24:BA:6:A:H61	24:BA:2897:U:H3	1.61	0.49
1:CA:241:C:C2	1:CA:286:G:C2	3.01	0.49
24:DA:282:A:N6	24:DA:284:U:C2	2.80	0.49
45:B3:41:ARG:HA	45:B3:41:ARG:HE	1.76	0.49
34:BO:92:GLU:HA	34:BO:92:GLU:OE2	2.12	0.49
1:CA:409:G:N2	1:CA:434:U:N3	2.60	0.49
1:CA:1289:A:H61	9:CL:70:LYS:HZ2	1.60	0.49
19:CV:49:ILE:HD11	19:CV:60:VAL:CG2	2.43	0.49
21:CX:6:ARG:HE	21:CX:15:ARG:HH12	1.59	0.49
1:AA:1178:G:N2	1:AA:1181:G:N7	2.61	0.49
51:B6:19:ARG:HG3	51:B6:19:ARG:O	2.12	0.49
24:BA:2418:A:P	53:B8:29:LYS:NZ	2.84	0.49
53:B8:30:ARG:O	53:B8:31:HIS:HB2	2.11	0.49
13:AP:90:LEU:HD12	13:AP:90:LEU:C	2.33	0.49
30:DH:4:ILE:HD12	30:DH:5:GLY:C	2.33	0.49
24:DA:2893:G:H5'	24:DA:2894:G:OP1	2.12	0.49
27:DE:64:LYS:HZ1	27:DE:66:HIS:HA	1.78	0.49
37:BQ:87:PHE:CD1	37:BQ:112:PHE:CZ	3.01	0.49
5:AH:31:LEU:CD2	5:AH:43:LEU:HD11	2.42	0.49
24:BA:1060:U:C1'	24:BA:1061:U:OP2	2.57	0.49
46:BZ:92:LYS:HA	46:BZ:95:LEU:HB2	1.93	0.49
30:DH:50:VAL:O	30:DH:50:VAL:HG13	2.12	0.49
2:CE:16:HIS:HE1	2:CE:213:LEU:HD13	1.76	0.49
17:CT:101:ARG:HG2	17:CT:101:ARG:NH2	2.23	0.49
44:DV:171:ILE:HG22	44:DV:172:ALA:N	2.27	0.49
3:CF:136:GLN:O	3:CF:140:ARG:CG	2.50	0.49
44:BV:118:GLN:HG3	44:BV:173:ALA:HB3	1.94	0.49
44:BV:145:GLU:N	44:BV:145:GLU:CD	2.66	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:811:U:OP2	34:BO:21:ARG:O	2.30	0.49
24:DA:620:G:H4'	24:DA:621:A:C5'	2.43	0.49
45:D3:68:GLU:OE1	45:D3:82:ARG:NH1	2.44	0.49
30:DH:12:PRO:HB2	30:DH:15:VAL:CG2	2.42	0.49
2:AE:162:ILE:CD1	2:AE:184:VAL:HG13	2.43	0.49
24:DA:2153:G:C2	24:DA:2154:G:C8	3.01	0.49
24:DA:2135:A:C4	24:DA:2159:G:O2'	2.65	0.49
28:BF:135:LYS:HB3	28:BF:138:GLU:HG3	1.93	0.49
1:CA:194:C:C2'	1:CA:195:A:H5''	2.43	0.49
46:DZ:75:GLU:O	46:DZ:76:ARG:HG2	2.12	0.49
1:CA:1085:U:O4'	1:CA:1094:G:C2	2.66	0.49
24:DA:1176:G:O2'	24:DA:1177:A:O4'	2.30	0.49
24:BA:1916:A:H2'	24:BA:1917:U:O4'	2.13	0.49
24:BA:1511:A:H2'	24:BA:1512:G:O4'	2.11	0.49
24:BA:329:G:H4'	24:BA:330:A:OP2	2.12	0.49
3:CF:126:ARG:HB2	3:CF:128:PHE:CD1	2.48	0.49
24:DA:1925:C:H2'	24:DA:1926:U:C5'	2.42	0.49
50:B5:40:LYS:CD	50:B5:46:CYS:HB3	2.42	0.49
1:CA:660:G:H2'	1:CA:661:G:O4'	2.11	0.49
24:DA:1416:G:C2'	24:DA:1417:C:C6	2.95	0.49
38:DR:51:ARG:HG2	38:DR:52:ILE:N	2.27	0.49
15:CR:87:ILE:HG22	15:CR:88:ARG:N	2.27	0.49
24:DA:2590:A:OP2	26:DD:238:GLY:HA2	2.11	0.49
1:AA:1421:G:N2	1:AA:1422:G:H1'	2.28	0.49
24:DA:642:G:N2	24:DA:646:A:C2	2.79	0.49
3:AF:92:ALA:HB2	3:AF:99:VAL:CG1	2.43	0.49
24:DA:2352:A:C2	45:D3:33:ALA:HB1	2.44	0.49
24:DA:623:G:H2'	24:DA:624:C:H6	1.76	0.49
26:DD:77:ALA:HB2	26:DD:97:TYR:HA	1.93	0.49
26:DD:227:ASN:HB3	26:DD:228:PRO:CD	2.42	0.49
24:DA:844:C:O2'	24:DA:845:G:H5'	2.12	0.49
52:D7:16:HIS:CB	52:D7:44:PRO:HG2	2.42	0.49
1:AA:446:G:H1	1:AA:488:C:H42	1.60	0.49
24:DA:485:C:C2	24:DA:496:G:C2	2.99	0.49
35:DP:26:TYR:CD1	35:DP:26:TYR:C	2.86	0.49
33:BN:104:ARG:NH1	38:BR:36:GLU:OE1	2.45	0.49
30:DH:149:ARG:NH1	30:DH:163:TYR:HA	2.28	0.49
24:DA:2176:A:O2'	24:DA:2177:C:H5'	2.12	0.49
1:AA:890:G:O2'	1:AA:891:U:OP2	2.30	0.49
19:AV:78:ARG:O	19:AV:79:THR:HB	2.12	0.49
7:AJ:29:LYS:O	7:AJ:105:VAL:HG21	2.11	0.49
24:DA:1600:C:O2'	52:D7:49:ARG:NE	2.38	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2369:A:H2'	24:DA:2370:G:C8	2.48	0.49
26:BD:35:LYS:CE	26:BD:64:ILE:O	2.60	0.49
1:AA:411:A:C4	1:AA:413:G:H1'	2.47	0.49
4:AG:29:PRO:O	4:AG:34:GLU:CB	2.60	0.49
24:DA:2792:G:H2'	24:DA:2793:G:O4'	2.12	0.49
40:B2:36:PRO:C	40:B2:37:VAL:HG22	2.33	0.49
2:AE:19:HIS:NE2	2:AE:206:ASP:OD2	2.34	0.49
26:DD:71:ASP:CG	26:DD:103:ARG:HH22	2.15	0.49
24:BA:876:C:P	44:BV:149:SER:HB2	2.53	0.49
49:D4:53:GLU:OE2	49:D4:58:ARG:HB2	2.13	0.49
1:AA:1298:C:H4'	1:AA:1299:A:C4	2.47	0.49
30:BH:150:ALA:C	30:BH:152:ARG:N	2.66	0.49
43:DU:95:LYS:HB2	43:DU:100:ALA:HA	1.95	0.49
5:CH:67:VAL:HG21	5:CH:69:VAL:CG2	2.41	0.49
31:DK:83:ALA:HB2	31:DK:123:LEU:HD11	1.94	0.49
6:AI:8:ILE:HG22	6:AI:10:LEU:CD1	2.43	0.49
6:AI:38:GLU:HB2	6:AI:64:GLN:O	2.13	0.49
24:DA:811:U:O2	24:DA:1250:G:H2'	2.11	0.49
1:AA:662:G:H2'	1:AA:663:A:C8	2.47	0.49
37:DQ:66:ALA:HB1	37:DQ:101:LEU:CB	2.40	0.49
34:DO:85:LEU:N	34:DO:85:LEU:CD2	2.74	0.49
8:AK:4:ASP:OD2	8:AK:89:PRO:HD3	2.11	0.49
25:DB:3:C:C2'	25:DB:4:C:H5'	2.41	0.49
16:AS:20:VAL:HG22	16:AS:32:TYR:HB2	1.95	0.49
27:BE:165:VAL:HG12	27:BE:189:PRO:HG3	1.95	0.49
24:DA:803:U:H2'	24:DA:804:A:H5'	1.94	0.49
3:AF:131:ARG:HA	3:AF:131:ARG:CZ	2.41	0.49
24:DA:2111:C:C5	24:DA:2145:C:N4	2.80	0.49
18:AU:18:ARG:HG3	18:AU:18:ARG:HH11	1.78	0.49
29:BG:104:GLU:HG2	49:B4:23:GLU:OE2	2.13	0.49
1:CA:8:A:OP1	5:CH:121:LYS:HE2	2.11	0.49
12:AO:24:VAL:CG1	12:AO:27:LEU:CG	2.90	0.49
24:BA:2277:G:C2'	24:BA:2278:A:H5''	2.41	0.49
24:DA:1478:G:H2'	24:DA:1479:G:C8	2.45	0.49
31:BK:37:VAL:HG22	31:BK:38:LEU:H	1.78	0.49
42:BT:5:TYR:CD1	47:BW:33:MET:HE1	2.43	0.49
1:CA:754:C:O5'	15:CR:72:ARG:NH2	2.36	0.49
13:AP:33:ALA:HA	13:AP:36:LYS:HB2	1.94	0.49
38:BR:48:ILE:O	38:BR:63:VAL:HA	2.13	0.49
24:BA:1340:U:H4'	24:BA:1394:U:O2'	2.12	0.49
15:CR:39:LEU:HD13	15:CR:39:LEU:O	2.12	0.49
1:AA:475:G:H2'	1:AA:476:G:H8	1.77	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:724:G:H21	1:AA:725:G:H1'	1.77	0.49
24:DA:192:C:O2'	24:DA:802:A:N3	2.39	0.49
35:BP:35:VAL:CG1	35:BP:130:LYS:HB3	2.43	0.49
24:BA:950:G:C5	24:BA:951:C:C4	3.00	0.49
24:BA:2065:C:H2'	24:BA:2066:C:C6	2.46	0.49
24:DA:2859:G:H2'	24:DA:2860:A:C8	2.48	0.49
24:BA:480:A:H2'	24:BA:481:G:OP1	2.13	0.49
24:DA:2396:G:O2'	24:DA:2397:G:H5'	2.13	0.49
44:BV:94:GLU:HB3	44:BV:95:PRO:HD2	1.93	0.49
24:BA:467:G:OP1	52:B7:33:ARG:NH1	2.46	0.49
24:DA:1753:G:N1	24:DA:1756:G:C2	2.81	0.49
24:DA:1669:A:H2'	24:DA:1669:A:N3	2.26	0.49
34:BO:118:GLY:O	34:BO:137:LYS:NZ	2.38	0.49
36:B0:10:LEU:O	36:B0:11:ASN:C	2.51	0.49
1:CA:814:A:N7	1:CA:816:A:C4	2.80	0.49
18:CU:21:LYS:N	18:CU:21:LYS:HD2	2.28	0.49
1:AA:1306:A:N1	1:AA:1307:U:C2	2.81	0.49
26:BD:159:ALA:HB1	26:BD:198:ASN:O	2.13	0.49
24:DA:748:G:O6	24:DA:751:A:H5'	2.13	0.49
1:AA:527:G:O6	12:AO:49:ASN:ND2	2.45	0.49
1:CA:1240:U:N3	7:CJ:32:ARG:NE	2.60	0.49
1:CA:1348:U:C5	1:CA:1373:G:N2	2.81	0.49
1:CA:1148:U:H2'	9:CL:66:ARG:HH21	1.76	0.49
13:CP:108:ARG:HD3	13:CP:114:ARG:CG	2.34	0.49
24:DA:2289:G:N2	24:DA:2344:U:C2	2.80	0.49
10:AM:54:PHE:C	10:AM:54:PHE:CD1	2.86	0.49
52:B7:49:ARG:NH1	52:B7:49:ARG:CG	2.75	0.49
1:AA:544:G:OP1	4:AG:62:GLN:HG3	2.12	0.49
1:AA:428:G:O3'	4:AG:36:ARG:NH2	2.45	0.49
24:DA:2748:A:H2'	24:DA:2749:A:H8	1.77	0.49
24:BA:1048:A:N3	24:BA:1048:A:H2'	2.28	0.49
27:DE:64:LYS:HZ3	27:DE:68:ALA:CB	2.07	0.49
3:CF:32:LEU:O	3:CF:36:ASP:HB2	2.13	0.49
3:CF:36:ASP:O	3:CF:39:ILE:CG2	2.39	0.49
2:AE:170:GLU:O	2:AE:172:ILE:N	2.46	0.49
2:AE:196:LEU:HD12	2:AE:197:VAL:CG2	2.41	0.49
5:AH:11:ILE:H	5:AH:11:ILE:HD13	1.78	0.49
24:DA:2636:U:H4'	27:DE:80:GLU:OE1	2.12	0.49
40:D2:37:VAL:O	40:D2:38:LEU:HB2	2.13	0.49
24:BA:270(L):U:C4	31:BK:50:ARG:NH1	2.81	0.49
2:CE:233:SER:O	2:CE:235:SER:N	2.45	0.49
2:CE:33:TYR:O	2:CE:34:ALA:HB2	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:255:G:H1'	17:CT:16:GLN:OE1	2.13	0.49
24:DA:27:G:C2	24:DA:512:G:H1'	2.48	0.49
4:CG:96:LEU:HD12	4:CG:139:ARG:NH1	2.27	0.49
1:CA:1014:A:C4	19:CV:34:TRP:CD2	3.01	0.49
35:BP:58:PHE:O	35:BP:59:ARG:CB	2.42	0.49
24:BA:386:G:H4'	24:BA:387:U:OP2	2.13	0.49
34:BO:59:LEU:HG	34:BO:59:LEU:O	2.13	0.49
30:DH:135:GLY:CA	30:DH:141:VAL:HG21	2.43	0.49
40:D2:46:VAL:HG22	40:D2:46:VAL:O	2.12	0.49
24:BA:241:A:H5'	24:BA:243:U:O4'	2.13	0.49
1:CA:838:G:C2	1:CA:849:C:N3	2.80	0.49
24:BA:2685:G:O2'	24:BA:2726:U:H5	1.87	0.49
11:CN:95:ILE:HA	11:CN:98:LEU:CD1	2.40	0.49
37:DQ:14:VAL:HG21	37:DQ:89:ARG:CG	2.43	0.49
24:BA:1408:C:C2	24:BA:1595:G:C2	3.00	0.49
1:AA:246:A:OP1	17:AT:100:LYS:NZ	2.45	0.49
37:BQ:34:HIS:NE2	37:BQ:54:LEU:HD23	2.28	0.49
10:AM:96:ILE:HD13	10:AM:96:ILE:N	2.21	0.49
25:DB:88:C:C5	25:DB:89:G:C4	2.99	0.49
1:CA:657:G:N2	15:CR:22:THR:OG1	2.37	0.49
15:AR:16:ALA:HB1	15:AR:21:ASP:HB3	1.95	0.49
24:BA:1025:G:OP1	24:BA:1025:G:H8	1.96	0.49
7:AJ:78:ARG:NH2	7:AJ:154:TYR:C	2.63	0.49
53:D8:39:LYS:O	53:D8:40:GLU:HB2	2.12	0.49
1:CA:643:C:H2'	1:CA:644:G:H8	1.77	0.49
50:B5:51:TYR:H	50:B5:56:LYS:HB2	1.78	0.49
1:CA:407:G:OP1	4:CG:115:ARG:NH2	2.45	0.49
25:BB:13:A:HO2'	25:BB:15:A:C5'	2.26	0.49
23:C1:18:G:C2'	23:C1:19:U:OP2	2.61	0.49
3:AF:92:ALA:HB2	3:AF:99:VAL:HG11	1.95	0.49
1:CA:376:G:C5'	16:CS:5:ARG:HD3	2.43	0.49
1:AA:21:G:H2'	1:AA:22:G:C8	2.48	0.49
24:DA:1791:A:H4'	26:DD:206:LEU:HB2	1.94	0.49
24:DA:2584:U:C5'	24:DA:2585:U:OP2	2.61	0.49
55:AA:1833:TAC:H423	55:AA:1833:TAC:O1C	2.12	0.49
1:CA:87:A:H8	1:CA:87:A:OP2	1.94	0.49
27:BE:84:PHE:CE2	27:BE:86:PRO:HG3	2.47	0.49
36:D0:96:ARG:HH12	36:D0:118:GLU:H	1.61	0.49
1:AA:923:A:N6	1:AA:1392:G:O6	2.46	0.49
24:BA:2523:G:H2'	24:BA:2524:G:H5'	1.95	0.49
42:BT:15:GLU:OE1	42:BT:15:GLU:N	2.46	0.49
24:DA:453:C:H4'	24:DA:472:A:N6	2.27	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DG:90:LEU:HD22	29:DG:90:LEU:N	2.27	0.49
24:DA:1374:G:H2'	24:DA:1375:C:C6	2.48	0.49
34:DO:131:SER:O	34:DO:134:ALA:HB3	2.12	0.49
27:DE:150:VAL:HG13	27:DE:154:LYS:HD2	1.93	0.49
25:BB:92:G:C2	25:BB:93:C:C5	3.01	0.49
1:CA:1254:C:P	10:CM:45:ARG:HH12	2.34	0.49
1:CA:1187:G:P	9:CL:113:LYS:NZ	2.85	0.49
51:B6:11:LEU:HD11	51:B6:51:GLU:CG	2.43	0.49
49:B4:57:GLU:CA	49:B4:60:GLN:HG2	2.42	0.49
24:DA:870:A:OP1	35:DP:6:ARG:HG3	2.12	0.49
30:BH:4:ILE:CD1	30:BH:6:ARG:HE	2.03	0.49
26:BD:92:ILE:HD12	26:BD:104:TYR:CE2	2.48	0.49
2:AE:168:THR:CB	2:AE:192:SER:HB2	2.43	0.49
24:BA:1092:C:H2'	24:BA:1093:G:O4'	2.13	0.49
26:DD:30:GLU:HG3	26:DD:63:ARG:NE	2.28	0.49
26:DD:33:LEU:HD13	26:DD:34:VAL:HG12	1.93	0.49
1:CA:1291:G:O2'	9:CL:38:GLN:HB3	2.13	0.49
3:CF:68:VAL:HG12	3:CF:70:VAL:HG23	1.94	0.49
1:AA:1028:C:H2'	1:AA:1028(A):C:O4'	2.13	0.49
31:DK:143:SER:OG	31:DK:144:VAL:N	2.44	0.49
6:AI:43:LEU:HD22	6:AI:46:ARG:HH12	1.77	0.49
27:DE:10:GLY:O	27:DE:11:MET:HB2	2.13	0.49
39:D1:95:LEU:HD11	40:D2:11:GLN:CB	2.43	0.49
34:BO:57:THR:CG2	34:BO:59:LEU:CB	2.84	0.49
24:DA:2853:C:H2'	24:DA:2854:G:C8	2.47	0.49
39:B1:83:LEU:CD1	39:B1:83:LEU:H	2.26	0.49
42:BT:12:VAL:HG11	42:BT:27:THR:HB	1.93	0.49
1:CA:438:G:H4'	4:CG:123:HIS:CE1	2.47	0.49
25:DB:5:C:O2'	25:DB:27:C:O2	2.30	0.49
1:AA:95:G:H3'	1:AA:96:G:H8	1.78	0.49
24:BA:164:U:C5	24:BA:165:U:H1'	2.47	0.49
1:AA:389:A:H2'	1:AA:390:C:C5'	2.42	0.49
47:DW:9:GLN:HE22	47:DW:56:GLN:HG2	1.76	0.49
6:CI:72:VAL:HG13	6:CI:73:ASN:N	2.27	0.49
28:BF:197:ASP:OD1	28:BF:197:ASP:N	2.43	0.49
52:B7:12:ARG:NH2	52:B7:44:PRO:HB3	2.28	0.49
31:BK:38:LEU:CD1	31:BK:38:LEU:H	2.21	0.49
41:DS:45:TYR:HD2	41:DS:46:PHE:CD1	2.31	0.49
28:BF:192:LEU:HD21	28:BF:194:MET:HE3	1.92	0.49
24:DA:493:G:H2'	24:DA:494:G:O4'	2.13	0.49
9:CL:32:ASP:HB3	9:CL:35:GLU:HB2	1.94	0.49
29:BG:145:THR:O	29:BG:147:ASP:N	2.44	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:B0:53:HIS:ND1	36:B0:94:TYR:OH	2.28	0.49
24:BA:222:A:C4'	24:BA:223:A:OP1	2.60	0.49
24:BA:1204:A:N1	24:BA:1241:A:N1	2.60	0.49
24:BA:1956:U:C2'	24:BA:1957:C:H5'	2.43	0.49
1:AA:724:G:N2	1:AA:725:G:H1'	2.28	0.49
24:BA:1115:G:O2'	24:BA:1116:C:H5'	2.13	0.49
1:CA:1158:C:H3'	1:CA:1158:C:O2	2.13	0.49
24:BA:2761:G:H1'	30:BH:143:GLN:NE2	2.27	0.49
27:BE:183:LEU:N	27:BE:183:LEU:CD1	2.75	0.49
24:DA:2619:C:H2'	24:DA:2620:C:H6	1.78	0.49
46:DZ:67:ILE:N	46:DZ:68:PRO:CD	2.76	0.49
24:BA:463:G:C6	24:BA:467:G:C6	3.00	0.49
24:BA:1095:A:N3	24:BA:1095:A:H2'	2.27	0.49
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.48	0.49
50:B5:52:TYR:HD1	50:B5:53:ALA:H	1.61	0.49
24:BA:813:U:H2'	24:BA:814:C:C6	2.48	0.49
29:BG:58:GLN:OE1	29:BG:58:GLN:HA	2.13	0.49
27:DE:119:ARG:CG	27:DE:160:TYR:HB2	2.42	0.49
1:CA:949:A:H2'	1:CA:950:U:O4'	2.13	0.49
6:CI:101:ALA:OXT	18:CU:28:GLU:HB2	2.13	0.49
38:BR:132:LYS:C	38:BR:132:LYS:HD3	2.33	0.49
41:BS:95:ILE:O	41:BS:95:ILE:HG13	2.12	0.49
34:DO:75:ILE:N	34:DO:75:ILE:HD13	2.28	0.49
6:CI:95:GLU:HA	6:CI:95:GLU:OE1	2.12	0.49
24:DA:2057:A:H2'	24:DA:2058:A:O4'	2.13	0.49
1:CA:542:G:H5'	4:CG:41:GLY:HA3	1.94	0.49
1:CA:1133:G:O2'	1:CA:1134:G:H5'	2.13	0.49
1:CA:1254:C:H3'	10:CM:45:ARG:HH22	1.78	0.49
1:CA:1187:G:O2'	9:CL:111:ARG:NH1	2.46	0.49
9:CL:17:VAL:CG2	9:CL:80:GLY:C	2.66	0.49
13:CP:83:ASP:O	13:CP:84:ILE:CG2	2.50	0.49
1:CA:1114:C:H5'	14:CQ:57:ARG:HH22	1.75	0.49
24:BA:2400:G:N2	24:BA:2417:C:C2	2.80	0.49
13:AP:84:ILE:HG13	19:AV:74:PHE:HE2	1.77	0.49
1:AA:408:A:OP2	4:AG:115:ARG:HD2	2.13	0.49
4:AG:22:LYS:H	4:AG:26:CYS:HB2	1.78	0.49
24:BA:1048:A:N6	24:BA:1111:A:N3	2.60	0.49
24:BA:1048:A:C6	24:BA:1111:A:C2	3.00	0.49
34:DO:15:ARG:HH11	34:DO:15:ARG:CG	2.16	0.49
27:DE:63:LEU:O	27:DE:64:LYS:CE	2.60	0.49
2:AE:204:ASN:C	2:AE:204:ASN:HD22	2.16	0.49
2:CE:163:PHE:HA	2:CE:185:ILE:O	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CL:20:ARG:O	9:CL:60:ASP:N	2.45	0.49
24:BA:1005:C:O2'	32:BM:28:THR:CG2	2.42	0.49
44:DV:118:GLN:HG3	44:DV:120:ILE:HG23	1.94	0.49
44:BV:109:ALA:HB1	44:BV:174:VAL:HG21	1.94	0.49
43:DU:98:VAL:O	43:DU:99:CYS:HB2	2.11	0.49
4:CG:191:ARG:HH21	4:CG:194:LEU:HB2	1.77	0.49
24:BA:1331:A:HO2'	24:BA:1332:G:H8	1.61	0.49
24:BA:2157:G:N3	24:BA:2158:A:C2	2.81	0.49
27:DE:27:LEU:CD2	38:DR:1:MET:HG2	2.43	0.49
40:D2:12:TYR:N	40:D2:12:TYR:CD1	2.80	0.49
34:BO:14:LYS:O	34:BO:15:ARG:C	2.50	0.49
49:D4:14:ILE:HG13	49:D4:24:THR:HG21	1.94	0.49
31:BK:144:VAL:CG2	31:BK:145:VAL:N	2.75	0.49
34:DO:18:ARG:O	34:DO:19:VAL:HB	2.12	0.49
1:AA:1127:G:N2	1:AA:1145:C:H1'	2.28	0.49
24:BA:49:A:H5''	24:BA:51:G:O4'	2.13	0.49
8:CK:103:VAL:HG21	8:CK:109:ILE:N	2.28	0.49
6:CI:39:LYS:O	6:CI:40:VAL:HB	2.13	0.49
22:AC:18:G:O6	22:AC:57:A:N6	2.46	0.49
24:BA:1141:U:H6	32:BM:63:THR:OG1	1.95	0.49
1:AA:734:G:N2	18:AU:75:ILE:HD13	2.28	0.49
35:BP:65:PHE:C	35:BP:66:ILE:HG13	2.33	0.49
1:AA:92:G:H2'	1:AA:93:U:C6	2.48	0.49
1:AA:738:C:H5''	6:AI:2:ARG:NH1	2.28	0.49
5:CH:15:ARG:HD2	5:CH:26:PHE:HD2	1.73	0.49
29:BG:35:GLU:O	29:BG:160:VAL:HB	2.12	0.49
16:CS:27:LYS:HG2	16:CS:30:GLY:HA3	1.95	0.49
6:CI:4:TYR:HD1	6:CI:92:LYS:HA	1.78	0.49
1:AA:160:A:H1'	1:AA:344:A:C5	2.48	0.49
28:BF:110:LEU:HG	28:BF:202:PHE:HE1	1.78	0.49
24:DA:2470:G:O2'	24:DA:2471:C:H5'	2.12	0.49
24:BA:95:G:C4'	47:BW:46:GLN:NE2	2.74	0.49
3:CF:126:ARG:HB2	3:CF:128:PHE:HD1	1.78	0.49
18:CU:63:GLN:HA	18:CU:63:GLN:OE1	2.12	0.49
1:CA:7:G:H5'	1:CA:298:A:O4'	2.12	0.49
50:B5:40:LYS:HE2	50:B5:48:GLU:OE1	2.13	0.49
24:DA:952:G:OP1	35:DP:16:ARG:NH1	2.46	0.49
25:DB:88:C:C5	25:DB:89:G:N3	2.80	0.49
33:BN:113:LYS:O	33:BN:117:LEU:HG	2.12	0.49
24:BA:1420:U:HO2'	24:BA:1421:G:P	2.32	0.49
41:DS:21:VAL:C	41:DS:23:LEU:H	2.16	0.49
8:CK:12:ARG:HH12	8:CK:27:PRO:HD3	1.77	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:73:ALA:O	41:BS:74:ALA:HB2	2.13	0.49
7:AJ:59:LEU:HD23	7:AJ:59:LEU:N	2.25	0.49
44:BV:18:LEU:CD1	44:BV:18:LEU:N	2.74	0.49
18:AU:29:PHE:HE2	18:AU:43:PHE:CZ	2.31	0.49
24:BA:2544:G:H1'	24:BA:2646:C:H4'	1.93	0.49
24:DA:2869:G:H2'	24:DA:2870:C:O4'	2.13	0.49
16:CS:51:VAL:O	16:CS:53:VAL:HG13	2.12	0.49
24:DA:150:C:H2'	24:DA:151:C:H6	1.78	0.49
24:BA:1442:G:C2	24:BA:1550:C:O2	2.66	0.49
1:AA:22:G:C6	1:AA:23:C:C4	3.00	0.49
24:DA:648:G:O4'	24:DA:2351:G:H5''	2.13	0.49
32:DM:45:ASN:HD22	32:DM:45:ASN:N	2.10	0.49
3:CF:102:ASN:O	3:CF:103:VAL:CG2	2.60	0.49
39:D1:26:GLY:O	39:D1:30:LYS:NZ	2.31	0.49
24:BA:2629:A:H2'	24:BA:2630:G:H5''	1.93	0.49
24:BA:1299:G:H5''	24:BA:1300:U:P	2.53	0.49
36:B0:3:HIS:O	36:B0:5:LYS:HG3	2.13	0.49
1:CA:614:A:C4	1:CA:615:C:C5	3.01	0.49
1:CA:200:G:C2	1:CA:218:C:C2	3.00	0.49
24:BA:2863:C:H2'	24:BA:2864:G:H8	1.78	0.49
45:B3:23:VAL:HG13	45:B3:38:VAL:HG22	1.94	0.49
24:BA:1144:G:C6	24:BA:1145:C:C4	3.01	0.49
27:BE:168:MET:CE	27:BE:202:LYS:HB3	2.43	0.49
27:DE:119:ARG:HG3	27:DE:160:TYR:HB2	1.95	0.49
48:DX:39:ASP:OD1	48:DX:44:ARG:NH2	2.46	0.49
3:CF:54:ARG:HB2	3:CF:69:HIS:CG	2.48	0.49
24:DA:2362:G:O2'	24:DA:2363:C:H5'	2.13	0.49
24:DA:1838:C:H4'	24:DA:1839:G:C8	2.47	0.49
24:BA:230:U:OP2	24:BA:230:U:H6	1.96	0.49
31:DK:5:LEU:HD12	31:DK:5:LEU:N	2.27	0.49
1:CA:1092:A:C2	1:CA:1183:A:H2	2.31	0.49
1:CA:1321:C:C5'	1:CA:1322:C:H5''	2.43	0.49
1:CA:1330:U:O4	1:CA:1331:G:C6	2.66	0.49
9:CL:6:GLY:O	9:CL:80:GLY:HA2	2.12	0.49
37:DQ:110:LEU:CG	37:DQ:111:GLU:N	2.76	0.49
53:D8:30:ARG:C	53:D8:32:LEU:N	2.65	0.49
30:BH:4:ILE:HD12	30:BH:7:LEU:H	1.78	0.49
24:DA:2752:C:O4'	24:DA:2752:C:OP2	2.31	0.49
30:DH:4:ILE:CD1	30:DH:6:ARG:CG	2.89	0.49
29:BG:101:ILE:HD13	29:BG:102:PHE:N	2.28	0.49
24:BA:2293:C:H5''	37:BQ:89:ARG:HH12	1.78	0.49
2:AE:28:PHE:HZ	2:AE:188:ALA:O	1.96	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2638:G:HO2'	24:DA:2639:A:P	2.35	0.49
2:AE:88:ALA:HB2	2:AE:219:VAL:HG13	1.95	0.49
26:DD:35:LYS:CA	26:DD:64:ILE:HG22	2.41	0.49
32:DM:126:PRO:O	32:DM:127:ASP:HB2	2.13	0.49
24:DA:1062:G:O6	24:DA:1075:C:N4	2.46	0.49
1:AA:1295:G:O2'	1:AA:1302:U:O4	2.20	0.49
43:DU:100:ALA:O	43:DU:101:LYS:HG3	2.13	0.49
4:CG:101:LEU:HD23	4:CG:121:VAL:HG11	1.95	0.49
1:CA:1211:U:O2'	1:CA:1213:A:C4	2.65	0.49
24:DA:1336:A:P	42:DT:64:LYS:CE	2.99	0.49
38:BR:53:ARG:O	38:BR:54:ARG:HG3	2.13	0.49
27:DE:11:MET:HG3	27:DE:24:THR:HA	1.93	0.49
1:AA:741:G:H2'	1:AA:742:G:O4'	2.13	0.49
29:DG:143:GLU:CD	29:DG:143:GLU:H	2.16	0.49
1:AA:1057:G:H5''	3:AF:154:SER:O	2.12	0.49
1:AA:1126:U:H6	1:AA:1127:G:C8	2.31	0.49
24:BA:1472:A:H2'	24:BA:1473:G:O4'	2.13	0.49
1:AA:256:U:P	17:AT:17:LYS:HZ1	2.35	0.49
17:AT:68:ARG:H	17:AT:70:ARG:HH11	1.59	0.49
32:DM:18:ALA:HA	32:DM:21:LYS:CD	2.32	0.49
1:CA:99:C:H2'	1:CA:101:A:C8	2.48	0.49
24:DA:2162:G:O2'	24:DA:2173:A:OP2	2.30	0.49
18:AU:19:LYS:CD	18:AU:19:LYS:N	2.68	0.49
24:DA:270(T):G:P	46:DZ:98:LEU:O	2.70	0.49
25:DB:81:G:H5'	25:DB:81:G:N3	2.28	0.49
32:DM:134:ARG:CG	32:DM:134:ARG:O	2.58	0.49
30:BH:30:LYS:HG3	30:BH:79:VAL:O	2.12	0.49
28:BF:198:ALA:O	28:BF:201:VAL:HG12	2.13	0.49
27:BE:116:VAL:CG1	27:BE:122:PHE:CD2	2.96	0.49
1:CA:660:G:H2'	1:CA:661:G:C1'	2.43	0.49
24:DA:2211:G:H1'	24:DA:2212:A:P	2.52	0.49
24:BA:654(S):G:H1'	24:BA:654(T):A:P	2.53	0.49
1:AA:620:C:N3	4:AG:135:LEU:HD23	2.28	0.49
47:BW:15:LYS:N	47:BW:67:LYS:HZ3	2.10	0.49
24:BA:960:A:N6	35:BP:83:MET:CE	2.75	0.49
26:BD:142:VAL:HA	26:BD:194:GLY:H	1.78	0.49
32:BM:115:ARG:O	32:BM:118:LYS:CB	2.61	0.49
27:BE:137:HIS:HB3	27:BE:138:PRO:HD2	1.95	0.49
16:CS:82:GLN:H	16:CS:82:GLN:NE2	2.11	0.49
1:AA:872:A:N3	1:AA:872:A:H2'	2.27	0.49
1:AA:594:G:C2'	1:AA:595:G:H5'	2.43	0.49
30:BH:19:VAL:HG12	30:BH:20:ALA:N	2.28	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DN:8:LEU:CD1	33:DN:82:ASN:HB3	2.43	0.49
24:BA:581:C:OP1	39:B1:33:ARG:HG3	2.12	0.49
28:DF:8:GLN:HG3	28:DF:126:VAL:HG12	1.95	0.49
12:CO:10:LEU:HB3	17:CT:32:TYR:CE2	2.48	0.49
26:DD:270:ILE:C	26:DD:271:ILE:HG12	2.33	0.49
15:AR:63:ARG:O	15:AR:67:LEU:HD13	2.12	0.49
24:BA:828:U:O2	24:BA:828:U:H3'	2.13	0.49
24:DA:748:G:O6	24:DA:751:A:C5'	2.61	0.49
22:AC:9:G:O2'	22:AC:10:G:N7	2.37	0.49
24:DA:2084:C:H2'	24:DA:2085:C:H6	1.77	0.49
24:BA:1709:U:H1'	24:BA:2860:A:N3	2.27	0.49
24:DA:1257:C:O2	28:DF:84:VAL:HG23	2.13	0.49
3:AF:179:ARG:O	3:AF:179:ARG:HG3	2.13	0.49
24:DA:1921:G:H2'	24:DA:1922:G:H8	1.78	0.49
1:AA:1009:G:N3	1:AA:1009:G:H2'	2.28	0.49
24:BA:136:G:H2'	24:BA:137:C:H6	1.78	0.49
7:CJ:140:ASP:HA	7:CJ:143:ARG:NH1	2.27	0.49
20:AW:83:ARG:O	20:AW:87:LYS:HB2	2.13	0.49
24:DA:1601:G:C5'	52:D7:49:ARG:CD	2.91	0.48
1:CA:1151:A:O2'	1:CA:1152:A:O4'	2.20	0.48
1:CA:1321:C:C3'	1:CA:1322:C:H5''	2.42	0.48
10:CM:6:ILE:CG1	10:CM:72:VAL:O	2.61	0.48
1:CA:1288:A:C4'	21:CX:10:ARG:HH12	2.23	0.48
24:DA:2344:U:H5''	24:DA:2373:G:H4'	1.94	0.48
7:CJ:88:PRO:C	7:CJ:155:ARG:HH12	2.12	0.48
43:BU:96:ILE:HG13	43:BU:99:CYS:H	1.76	0.48
29:BG:108:ASN:HA	49:B4:38:LYS:HG2	1.94	0.48
26:BD:65:ILE:CD1	26:BD:67:PHE:CZ	2.96	0.48
1:AA:411:A:C6	1:AA:429:U:C4	3.01	0.48
24:DA:528:A:C2	24:DA:2043:C:C5'	2.63	0.48
1:AA:1319:A:OP2	19:AV:5:LEU:HD21	2.13	0.48
53:B8:17:THR:HG21	53:B8:23:VAL:HG23	1.93	0.48
24:DA:2811:G:OP1	27:DE:61:ARG:HG2	2.13	0.48
24:DA:1837:C:N4	24:DA:1899:G:N7	2.61	0.48
24:DA:1845:G:OP1	26:DD:258:LYS:NZ	2.31	0.48
24:BA:1091:G:H2'	24:BA:1092:C:H4'	1.92	0.48
24:BA:1093:G:N1	24:BA:1097:U:OP2	2.45	0.48
40:D2:35:LEU:H	40:D2:35:LEU:HD22	1.77	0.48
49:D4:35:VAL:O	49:D4:35:VAL:HG12	2.13	0.48
2:CE:83:MET:CE	2:CE:234:PRO:CB	2.90	0.48
2:CE:8:LYS:HB3	2:CE:217:ARG:NH2	2.28	0.48
1:AA:972:C:OP2	10:AM:57:LYS:HG2	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:120:ILE:CD1	44:DV:169:GLU:OE2	2.61	0.48
44:BV:116:VAL:HG21	44:BV:175:VAL:O	2.13	0.48
1:AA:1027:C:N1	1:AA:1028:C:H5	2.11	0.48
13:AP:12:ASN:CB	13:AP:46:LYS:NZ	2.56	0.48
1:CA:988:G:N2	1:CA:1218:C:H1'	2.27	0.48
24:BA:2134:A:N7	24:BA:2157:G:H1'	2.27	0.48
44:DV:157:LEU:HB3	44:DV:161:VAL:CG1	2.26	0.48
1:CA:1442:G:N7	1:CA:1446:A:N1	2.61	0.48
39:B1:83:LEU:H	39:B1:83:LEU:HD12	1.77	0.48
49:D4:14:ILE:HG23	49:D4:33:VAL:HG11	1.95	0.48
34:DO:85:LEU:HD23	34:DO:86:LYS:N	2.28	0.48
1:AA:263:A:O2'	1:AA:264:U:H5'	2.14	0.48
40:D2:41:GLY:CA	40:D2:46:VAL:CG1	2.91	0.48
28:BF:27:GLU:OE2	28:BF:28:ILE:N	2.41	0.48
1:AA:1240:U:O2'	7:AJ:38:LEU:CD2	2.55	0.48
12:CO:83:VAL:CG2	12:CO:84:LEU:N	2.76	0.48
11:AN:54:ARG:C	11:AN:56:GLY:N	2.66	0.48
44:BV:61:LEU:O	44:BV:61:LEU:HD12	2.12	0.48
24:BA:1243:G:O2'	34:BO:7:ARG:NH2	2.44	0.48
39:D1:112:ARG:NH1	40:D2:47:VAL:CG1	2.73	0.48
46:DZ:2:SER:O	46:DZ:4:VAL:HG13	2.13	0.48
8:CK:49:GLU:HG3	8:CK:51:VAL:HG13	1.94	0.48
33:DN:92:GLU:HG2	33:DN:113:LYS:HD2	1.94	0.48
24:BA:547:A:C3'	24:BA:548:A:C8	2.95	0.48
26:DD:231:HIS:CE1	26:DD:232:PRO:HD2	2.47	0.48
41:BS:13:SER:HB3	41:BS:16:LYS:HD3	1.94	0.48
29:DG:88:ILE:O	29:DG:88:ILE:CD1	2.61	0.48
48:DX:19:GLN:HE22	48:DX:52:HIS:CE1	2.31	0.48
26:DD:118:VAL:N	26:DD:129:ASN:OD1	2.46	0.48
24:BA:1485:G:C2'	24:BA:1486:A:H5'	2.43	0.48
24:BA:126:A:O5'	52:B7:19:ARG:HG3	2.12	0.48
26:BD:3:VAL:HG22	26:BD:17:THR:CG2	2.43	0.48
22:AC:23:C:H2'	22:AC:24:U:H6	1.78	0.48
20:AW:10:LEU:O	20:AW:10:LEU:HD23	2.13	0.48
24:BA:1115:G:H2'	24:BA:1116:C:H6	1.79	0.48
44:BV:152:ALA:O	44:BV:155:LEU:HG	2.13	0.48
24:BA:72:U:H3	47:BW:62:THR:HG23	1.77	0.48
32:BM:91:LEU:CD2	32:BM:98:VAL:HG11	2.43	0.48
1:AA:242:C:C2	1:AA:285:G:N2	2.81	0.48
1:CA:341:C:C2	1:CA:349:A:C2	3.01	0.48
24:DA:2367:G:O2'	24:DA:2368:C:H5'	2.13	0.48
24:DA:709:U:H2'	24:DA:710:G:C8	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:719:C:O2'	24:DA:720:C:H5'	2.12	0.48
33:DN:115:VAL:HG13	33:DN:121:VAL:HG21	1.94	0.48
24:BA:1342:A:C6	24:BA:1397:U:C5	3.01	0.48
24:BA:968:G:H5'	48:BX:17:LYS:HE2	1.94	0.48
34:BO:29:LYS:HG2	34:BO:30:THR:N	2.28	0.48
1:AA:524:G:H2'	1:AA:525:C:C6	2.48	0.48
1:CA:1119:C:H2'	1:CA:1120:G:H8	1.78	0.48
1:CA:1344:C:H2'	1:CA:1345:U:H5'	1.95	0.48
1:CA:956:U:O2	1:CA:1225:A:C2	2.66	0.48
13:CP:62:ASN:CA	49:D4:49:PHE:HZ	2.23	0.48
49:D4:55:ARG:CG	49:D4:56:VAL:N	2.76	0.48
51:D6:37:ARG:HH22	51:D6:38:LYS:CG	2.25	0.48
53:D8:34:TRP:CG	53:D8:35:GLN:N	2.80	0.48
53:D8:32:LEU:HB2	53:D8:36:LYS:NZ	2.27	0.48
19:AV:40:ILE:HD11	19:AV:62:ILE:HG23	1.96	0.48
26:BD:30:GLU:HG3	26:BD:63:ARG:NH2	2.27	0.48
24:DA:662:G:H5'	34:DO:15:ARG:HA	1.95	0.48
43:DU:75:ILE:HA	43:DU:80:GLY:CA	2.28	0.48
24:DA:1845:G:C2'	24:DA:1846:G:H5'	2.43	0.48
24:BA:1068:G:H4'	24:BA:1070:A:C6	2.49	0.48
39:B1:98:LEU:O	39:B1:99:ALA:C	2.51	0.48
46:BZ:73:LEU:HD22	46:BZ:90:ILE:O	2.13	0.48
2:CE:82:ARG:HG3	2:CE:92:TYR:OH	2.13	0.48
1:CA:1291:G:C6	1:CA:1292:U:C4	3.01	0.48
44:DV:150:LEU:HD22	44:DV:154:ASP:CB	2.43	0.48
4:CG:96:LEU:HB3	4:CG:139:ARG:NH1	2.28	0.48
4:CG:89:THR:O	4:CG:92:VAL:N	2.46	0.48
26:BD:232:PRO:HB3	26:BD:244:ARG:NH1	2.27	0.48
6:AI:6:VAL:HG12	6:AI:8:ILE:HG13	1.95	0.48
44:DV:92:SER:C	44:DV:94:GLU:H	2.14	0.48
9:AL:83:ARG:CA	9:AL:86:VAL:HG12	2.43	0.48
16:AS:49:LEU:O	16:AS:50:LYS:CG	2.61	0.48
24:BA:1469:A:H2'	24:BA:1470:G:H8	1.78	0.48
1:AA:270:A:C5	1:AA:271:C:C4	3.00	0.48
17:AT:38:ARG:O	17:AT:39:SER:OG	2.27	0.48
24:DA:107:C:N3	24:DA:108:U:C5	2.82	0.48
8:AK:133:LEU:HD23	8:AK:133:LEU:C	2.33	0.48
26:DD:25:THR:HG21	26:DD:81:ALA:CB	2.43	0.48
1:AA:692:U:H5	11:AN:26:ASN:OD1	1.96	0.48
1:AA:77:C:H2'	1:AA:78:G:N7	2.27	0.48
24:BA:2789:C:OP1	24:BA:2789:C:H4'	2.13	0.48
24:DA:1462:C:C5	24:DA:1463:C:C5	3.02	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DQ:41:ASP:HB3	37:DQ:48:LEU:HD11	1.96	0.48
20:CW:100:ILE:HD12	20:CW:100:ILE:N	2.27	0.48
12:AO:97:ARG:C	12:AO:98:TYR:CD1	2.86	0.48
26:BD:11:PRO:C	26:BD:13:ARG:H	2.16	0.48
6:AI:14:LEU:CD2	6:AI:18:GLN:HB2	2.38	0.48
24:DA:1557:C:H5'	24:DA:1558:A:OP2	2.13	0.48
1:AA:1279:A:O2'	1:AA:1281:U:OP2	2.22	0.48
27:DE:101:ARG:C	27:DE:201:THR:OG1	2.51	0.48
24:DA:784:A:OP2	24:DA:2589:A:OP1	2.31	0.48
24:DA:1364:G:OP1	46:DZ:3:LYS:HG3	2.13	0.48
24:DA:999:U:O2'	24:DA:1000:A:H5'	2.13	0.48
1:AA:643:C:H5'	8:AK:31:PHE:CE1	2.48	0.48
24:DA:942:G:C2'	24:DA:943:U:O5'	2.61	0.48
12:AO:18:VAL:O	12:AO:19:ARG:HB2	2.13	0.48
33:BN:3:GLN:O	33:BN:21:CYS:HB3	2.14	0.48
4:CG:163:GLU:HA	4:CG:166:LYS:CD	2.43	0.48
13:AP:34:LEU:O	13:AP:39:ILE:N	2.24	0.48
38:BR:84:GLN:CG	38:BR:85:LYS:N	2.76	0.48
12:AO:126:LYS:HD2	12:AO:127:GLU:OE1	2.12	0.48
22:AC:1:C:C2'	22:AC:2:G:OP2	2.61	0.48
1:CA:129(A):G:O3'	1:CA:189:U:H2'	2.13	0.48
24:BA:511:U:O4	24:BA:512:G:C2	2.66	0.48
1:CA:862:C:O2'	1:CA:863:U:H5'	2.12	0.48
4:AG:127:THR:CG2	4:AG:128:VAL:N	2.75	0.48
43:BU:14:LEU:HD12	43:BU:15:VAL:H	1.78	0.48
26:BD:4:LYS:O	26:BD:17:THR:HG23	2.14	0.48
33:BN:52:VAL:HG12	33:BN:94:ARG:NH2	2.28	0.48
5:AH:110:LEU:CD1	5:AH:118:ILE:HG21	2.42	0.48
26:DD:202:LYS:HG3	26:DD:203:ASN:OD1	2.13	0.48
4:AG:88:VAL:O	4:AG:90:GLY:N	2.45	0.48
12:AO:51:ALA:O	12:AO:52:LEU:HD23	2.12	0.48
24:DA:861:A:C2	24:DA:917:A:C4	3.01	0.48
30:BH:125:VAL:O	30:BH:125:VAL:HG12	2.11	0.48
11:CN:33:THR:OG1	11:CN:37:GLY:C	2.51	0.48
24:DA:866:A:C2	24:DA:914:C:H5'	2.48	0.48
5:AH:144:THR:CG2	5:AH:147:ASP:OD1	2.61	0.48
42:BT:14:SER:O	42:BT:17:ALA:N	2.45	0.48
24:BA:540:G:H5'	24:BA:541:C:OP2	2.14	0.48
27:BE:111:ARG:N	27:BE:111:ARG:HD2	2.28	0.48
24:DA:2670:A:O2'	24:DA:2671:A:H5'	2.12	0.48
3:AF:45:LYS:NZ	3:AF:45:LYS:HB2	2.29	0.48
8:CK:93:VAL:HG12	8:CK:94:TYR:N	2.28	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1347:G:O6	9:CL:10:ARG:NH2	2.43	0.48
1:CA:977:A:H4'	1:CA:980:C:H41	1.78	0.48
1:CA:947:G:C5'	13:CP:109:THR:HG23	2.44	0.48
21:CX:8:THR:HG22	21:CX:9:ARG:N	2.28	0.48
7:CJ:150:ALA:HA	11:CN:59:TYR:HB3	1.93	0.48
24:DA:2371:G:O4'	51:D6:45:LYS:HG2	2.14	0.48
53:B8:29:LYS:HB3	53:B8:44:LYS:HG2	1.95	0.48
29:BG:108:ASN:HA	49:B4:38:LYS:CB	2.43	0.48
4:AG:26:CYS:HA	4:AG:31:CYS:HA	1.94	0.48
24:DA:2753:A:C6	24:DA:2754:U:N3	2.81	0.48
24:BA:2751:G:O2'	24:BA:2752:C:O4'	2.31	0.48
24:DA:1246:A:C2'	24:DA:1247:A:O5'	2.61	0.48
1:AA:192:U:C6	20:AW:57:ARG:NH2	2.82	0.48
24:DA:2438:U:O2'	24:DA:2439:A:O3'	2.27	0.48
24:DA:9:U:OP2	24:DA:9:U:H6	1.96	0.48
24:BA:2376:A:H2	37:BQ:112:PHE:HB2	1.77	0.48
2:AE:102:LEU:HB3	2:AE:180:LEU:CD1	2.43	0.48
2:AE:72:GLY:HA2	2:AE:165:VAL:CG1	2.43	0.48
2:AE:74:LYS:NZ	2:AE:165:VAL:HG13	2.28	0.48
2:CE:12:GLU:C	2:CE:14:GLY:N	2.65	0.48
24:DA:1065:U:H3	24:DA:1073:A:N6	2.12	0.48
44:DV:146:ILE:HD12	44:DV:147:GLY:N	2.27	0.48
44:BV:116:VAL:HG23	44:BV:174:VAL:HG12	1.95	0.48
1:AA:1299:A:O3'	1:AA:1300:G:H4'	2.14	0.48
34:DO:71:VAL:HG12	34:DO:72:PRO:HD3	1.84	0.48
24:DA:2299:G:N1	24:DA:2318:G:H8	2.11	0.48
35:BP:59:ARG:CG	35:BP:60:ARG:N	2.74	0.48
26:BD:44:ASN:N	26:BD:44:ASN:ND2	2.61	0.48
1:AA:1060:C:C6	3:AF:2:GLY:HA2	2.44	0.48
24:BA:404:C:C2'	24:BA:405:U:OP2	2.61	0.48
10:AM:33:GLN:CB	10:AM:75:ILE:HD11	2.37	0.48
1:CA:503:C:O5'	1:CA:503:C:H6	1.96	0.48
24:DA:654(F):C:O2	24:DA:654(P):G:N2	2.46	0.48
44:DV:139:VAL:CG1	44:DV:140:ASP:H	2.16	0.48
20:AW:81:LYS:HA	20:AW:84:LEU:HB3	1.94	0.48
24:DA:2015:A:N3	50:D5:6:VAL:HG23	2.28	0.48
47:DW:43:GLN:O	47:DW:43:GLN:HG3	2.14	0.48
7:AJ:116:ALA:HA	7:AJ:119:ARG:NH2	2.28	0.48
26:BD:208:LYS:HG3	26:BD:211:ARG:H	1.76	0.48
24:BA:2481:G:C2'	24:BA:2482:G:OP2	2.61	0.48
6:AI:15:ASP:OD1	6:AI:18:GLN:NE2	2.47	0.48
24:DA:2872:G:C5	24:DA:2873:A:N1	2.81	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CQ:7:ILE:CG2	14:CQ:28:GLY:HA2	2.42	0.48
6:CI:50:TYR:CE2	18:CU:81:PHE:CE2	3.02	0.48
8:AK:69:ARG:NH2	8:AK:75:ARG:O	2.46	0.48
30:DH:27:LYS:HA	30:DH:31:GLY:O	2.13	0.48
42:DT:57:LEU:N	42:DT:57:LEU:HD23	2.28	0.48
24:DA:1485:G:C2'	24:DA:1486:A:H5'	2.43	0.48
27:DE:23:VAL:HA	27:DE:184:VAL:O	2.13	0.48
24:BA:1026:U:H4'	24:BA:1027:A:OP1	2.13	0.48
24:BA:1127:A:N1	24:BA:2463:C:O2'	2.47	0.48
3:AF:22:TRP:CE3	3:AF:22:TRP:O	2.66	0.48
1:AA:116:A:H61	1:AA:313:A:H1'	1.77	0.48
1:CA:961:U:C4	1:CA:962:C:C5	3.02	0.48
45:D3:60:PHE:N	45:D3:60:PHE:CD1	2.81	0.48
24:DA:247:G:H4'	24:DA:386:G:C4	2.48	0.48
28:DF:37:VAL:HG21	34:DO:6:LEU:HD21	1.96	0.48
37:BQ:56:LEU:C	37:BQ:58:LEU:HD22	2.33	0.48
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.49	0.48
1:AA:20:U:H2'	1:AA:21:G:O4'	2.13	0.48
1:CA:262:A:C6	1:CA:263:A:C6	3.01	0.48
24:BA:222:A:H3'	24:BA:421:U:H5'	1.95	0.48
1:CA:179:A:O2'	1:CA:180:U:H5'	2.13	0.48
24:BA:2096:U:H2'	24:BA:2097:C:C6	2.48	0.48
29:DG:125:PHE:CZ	29:DG:131:TYR:CD1	3.02	0.48
24:DA:606:U:H4'	24:DA:658:C:H4'	1.94	0.48
13:AP:76:ALA:O	13:AP:80:ARG:HB2	2.13	0.48
24:BA:667:U:O2	53:B8:2:PRO:HD2	2.14	0.48
1:CA:370:C:H2'	1:CA:371:G:C8	2.48	0.48
26:BD:145:VAL:HG12	26:BD:146:GLU:O	2.12	0.48
24:BA:974(A):C:H4'	24:BA:975:G:O5'	2.13	0.48
8:CK:121:ASP:HB2	8:CK:125:ARG:NH2	2.28	0.48
24:DA:1601:G:C5'	52:D7:49:ARG:NE	2.77	0.48
1:CA:512:U:H2'	1:CA:513:C:H6	1.79	0.48
1:CA:542:G:P	4:CG:10:ARG:NH2	2.74	0.48
4:CG:22:LYS:HB2	4:CG:26:CYS:H	1.77	0.48
1:CA:1122:U:C2	1:CA:1123:A:N7	2.82	0.48
1:CA:1309:G:C6	1:CA:1329:A:C2	3.02	0.48
1:CA:1347:G:C6	9:CL:107:ARG:NH2	2.81	0.48
1:CA:1372:U:H5'	9:CL:70:LYS:HZ3	1.78	0.48
9:CL:63:ILE:HD13	9:CL:77:ILE:HG23	1.94	0.48
13:CP:115:LYS:C	13:CP:117:VAL:H	2.17	0.48
19:CV:49:ILE:CG1	19:CV:62:ILE:HD11	2.43	0.48
49:D4:57:GLU:H	49:D4:60:GLN:HG2	1.75	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1180:A:P	9:AL:103:THR:OG1	2.71	0.48
24:DA:871:U:H4'	35:DP:69:PHE:CE2	2.48	0.48
49:B4:38:LYS:N	49:B4:38:LYS:HD2	2.27	0.48
26:BD:28:GLU:CD	26:BD:28:GLU:N	2.67	0.48
24:DA:2756:U:H4'	24:DA:2757:A:OP1	2.12	0.48
24:DA:2751:G:C1'	30:DH:4:ILE:O	2.59	0.48
1:AA:1321:C:C3'	1:AA:1322:C:H5''	2.42	0.48
53:B8:23:VAL:HG13	53:B8:46:ARG:HB3	1.96	0.48
12:AO:53:ARG:HH11	12:AO:53:ARG:HG3	1.78	0.48
7:AJ:23:VAL:HG13	7:AJ:43:PHE:CZ	2.48	0.48
37:BQ:88:ASP:OD1	37:BQ:90:GLY:N	2.36	0.48
2:AE:19:HIS:HA	2:AE:39:ILE:HG21	1.95	0.48
24:BA:1062:G:H3'	24:BA:1063:G:C8	2.48	0.48
27:DE:45:THR:O	27:DE:46:ALA:HB2	2.12	0.48
13:CP:3:ARG:CA	13:CP:9:ILE:HG23	2.43	0.48
28:DF:24:LEU:CG	28:DF:25:PRO:HD3	2.41	0.48
24:BA:2636:U:OP1	27:BE:79:ARG:CA	2.53	0.48
24:DA:510:C:H2'	24:DA:511:U:O4'	2.13	0.48
24:DA:511:U:H4'	24:DA:1235:G:H4'	1.95	0.48
44:DV:118:GLN:CD	44:DV:173:ALA:HB3	2.33	0.48
14:CQ:12:ARG:HD3	14:CQ:12:ARG:H	1.78	0.48
24:BA:2119:A:C2	24:BA:2171:A:H1'	2.48	0.48
29:BG:81:LYS:HE2	29:BG:81:LYS:N	2.28	0.48
9:AL:85:LEU:CD1	9:AL:85:LEU:C	2.82	0.48
3:AF:79:ARG:O	3:AF:81:GLY:N	2.45	0.48
22:AC:18:G:N3	22:AC:58:A:C2	2.81	0.48
24:DA:819:A:OP2	24:DA:1187:G:N2	2.29	0.48
24:BA:2791:C:H2'	24:BA:2792:G:C8	2.47	0.48
49:B4:59:PHE:HA	49:B4:62:ARG:HD3	1.95	0.48
24:DA:2159:G:O2'	24:DA:2160:G:O4'	2.31	0.48
1:CA:921:U:O2	5:CH:19:MET:HB3	2.14	0.48
38:BR:105:LEU:HD12	38:BR:105:LEU:N	2.29	0.48
24:DA:270(T):G:OP2	46:DZ:98:LEU:OXT	2.31	0.48
24:DA:2250:G:C6	35:DP:83:MET:HB3	2.48	0.48
30:BH:28:GLY:HA3	30:BH:79:VAL:HB	1.95	0.48
24:DA:2688:U:C5	24:DA:2720:U:OP2	2.65	0.48
24:DA:2712:U:O2'	24:DA:2712(A):A:O5'	2.30	0.48
40:B2:59:ALA:HB2	40:B2:96:ILE:HD13	1.94	0.48
3:CF:175:LEU:HD21	3:CF:201:TYR:HE2	1.78	0.48
24:BA:363:G:N2	24:BA:363(A):A:C4	2.81	0.48
24:BA:528:A:H2	24:BA:2043:C:H5'	1.78	0.48
24:BA:111:A:H4'	47:BW:69:ARG:NH2	2.28	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1335:U:OP2	42:BT:65:ARG:CZ	2.61	0.48
17:AT:13:ASP:H	17:AT:14:LYS:HD2	1.78	0.48
34:DO:38:GLN:O	34:DO:41:ARG:HB2	2.13	0.48
24:DA:271:G:H2'	24:DA:272:G:H8	1.77	0.48
1:CA:791:G:C5	1:CA:792:A:N7	2.82	0.48
16:CS:49:LEU:HD11	16:CS:51:VAL:HG23	1.95	0.48
8:AK:100:ILE:CG2	8:AK:101:PRO:CD	2.90	0.48
24:BA:2317:C:H2'	24:BA:2318:G:C5'	2.42	0.48
44:DV:165:VAL:HG23	44:DV:166:SER:N	2.28	0.48
41:DS:50:VAL:HG22	41:DS:50:VAL:O	2.13	0.48
24:DA:139:G:N3	24:DA:141:A:N1	2.61	0.48
46:DZ:25:LYS:C	46:DZ:25:LYS:HD3	2.34	0.48
35:BP:39:PRO:HD3	35:BP:99:PRO:HG3	1.94	0.48
24:BA:1274:A:N3	24:BA:1297:C:H1'	2.28	0.48
1:AA:592:G:H2'	1:AA:593:G:C8	2.47	0.48
24:DA:1519:G:H2'	24:DA:1520:U:O4'	2.13	0.48
30:BH:83:TYR:HB2	30:BH:134:SER:HA	1.93	0.48
24:BA:192:C:C2'	24:BA:193:U:H5'	2.43	0.48
24:BA:950:G:C6	24:BA:951:C:N4	2.81	0.48
34:BO:140:ALA:O	34:BO:141:ALA:CB	2.61	0.48
1:AA:946:A:C2	1:AA:1236:A:C2	3.02	0.48
24:DA:557:U:H2'	24:DA:558:G:C8	2.48	0.48
1:AA:971:G:N2	1:AA:1363:A:OP2	2.33	0.48
46:BZ:80:LEU:N	46:BZ:80:LEU:HD23	2.28	0.48
46:BZ:8:SER:HB3	46:BZ:66:HIS:ND1	2.28	0.48
24:DA:1937:A:N7	24:DA:1939:U:O2'	2.28	0.48
35:DP:54:MET:HE1	35:DP:118:LEU:CD2	2.43	0.48
10:AM:44:VAL:HG22	10:AM:66:ARG:HG2	1.95	0.48
24:BA:788:A:N3	52:B7:4:THR:OG1	2.45	0.48
18:CU:65:ILE:O	18:CU:69:THR:HG23	2.13	0.48
17:AT:19:VAL:HG23	17:AT:44:ALA:HB3	1.95	0.48
1:CA:1366:C:C2'	10:CM:60:ARG:HH22	2.25	0.48
10:CM:49:VAL:CB	14:CQ:41:ARG:HB2	2.43	0.48
19:CV:49:ILE:CG1	19:CV:60:VAL:HG22	2.42	0.48
24:DA:2392:A:C3'	53:D8:30:ARG:HH22	2.25	0.48
27:DE:68:ALA:HB1	27:DE:71:GLY:N	2.29	0.48
37:BQ:88:ASP:O	37:BQ:89:ARG:CG	2.60	0.48
24:BA:1093:G:HO2'	24:BA:1099:G:N2	2.11	0.48
39:B1:92:ARG:HH21	40:B2:10:LYS:HB3	1.74	0.48
31:BK:121:LYS:HG3	31:BK:122:GLU:N	2.28	0.48
10:CM:79:ARG:N	10:CM:79:ARG:HD3	2.28	0.48
43:DU:68:HIS:H	43:DU:71:LYS:HZ3	1.61	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DP:134:ARG:HH22	44:DV:122:ARG:CZ	2.27	0.48
44:BV:146:ILE:HG12	44:BV:174:VAL:O	2.12	0.48
34:BO:18:ARG:O	34:BO:19:VAL:CB	2.57	0.48
4:CG:92:VAL:O	4:CG:96:LEU:HD22	2.13	0.48
6:AI:30:LEU:O	6:AI:35:ALA:HB3	2.13	0.48
24:BA:2139:C:C2	24:BA:2153:G:O6	2.66	0.48
24:BA:2119:A:N6	24:BA:2170:A:C6	2.82	0.48
49:D4:14:ILE:HD12	49:D4:24:THR:CG2	2.43	0.48
38:BR:22:PHE:HA	38:BR:91:ARG:HH12	1.77	0.48
9:AL:85:LEU:HD12	9:AL:85:LEU:C	2.34	0.48
25:DB:66:A:C6	25:DB:108:C:C6	3.01	0.48
1:AA:265:G:H5''	17:AT:65:ILE:O	2.13	0.48
20:AW:72:LEU:HD22	20:AW:77:ALA:HB2	1.96	0.48
16:AS:20:VAL:HG23	16:AS:34:GLU:C	2.34	0.48
1:CA:559:A:H4'	1:CA:560:U:C5'	2.38	0.48
34:DO:112:LEU:C	34:DO:112:LEU:CD2	2.82	0.48
20:CW:103:GLY:O	20:CW:104:LEU:HD12	2.14	0.48
24:DA:1534:G:H5'	24:DA:1535:U:OP2	2.13	0.48
6:AI:12:PRO:O	6:AI:14:LEU:N	2.46	0.48
24:DA:1800:C:H3'	26:DD:147:LEU:HD22	1.94	0.48
24:BA:1529:A:H8	24:BA:1530:G:C8	2.31	0.48
24:BA:528:A:N1	24:BA:2042:A:H2'	2.27	0.48
1:CA:574:A:H1'	1:CA:883:C:O4'	2.13	0.48
1:AA:313:A:H2'	1:AA:314:C:C6	2.49	0.48
7:AJ:57:GLU:HB3	7:AJ:59:LEU:CD2	2.44	0.48
2:CE:127:ILE:HG13	2:CE:135:GLN:NE2	2.29	0.48
17:CT:53:LEU:CD1	17:CT:53:LEU:H	2.26	0.48
24:DA:2845:G:C2'	24:DA:2846:G:H5'	2.43	0.48
24:BA:1812:A:O4'	26:BD:46:GLN:NE2	2.47	0.48
1:CA:1413:A:H2	1:CA:1487:G:H22	1.60	0.48
24:BA:611:C:C2	24:BA:612:G:C8	3.01	0.48
24:DA:1826:G:C4'	26:DD:242:ARG:HH21	2.26	0.48
26:BD:155:LEU:N	26:BD:155:LEU:HD12	2.29	0.48
27:BE:89:ASP:O	27:BE:90:THR:HB	2.13	0.48
24:DA:1678:G:N2	24:DA:1989:G:H1	2.08	0.48
30:BH:157:TYR:C	30:BH:158:HIS:ND1	2.66	0.48
24:DA:2584:U:H5''	24:DA:2585:U:OP2	2.14	0.48
24:BA:2758:A:C5	30:BH:67:LEU:HD21	2.48	0.48
35:BP:21:THR:CG2	35:BP:99:PRO:O	2.60	0.48
24:BA:271(C):U:HO2'	24:BA:271:G:P	2.35	0.48
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.48	0.48
42:BT:90:GLU:O	42:BT:92:LEU:N	2.46	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CI:18:GLN:O	6:CI:21:LEU:HB2	2.13	0.48
24:BA:1411:C:H42	24:BA:1591:G:H1	1.60	0.48
39:D1:14:HIS:HA	39:D1:32:PHE:CD1	2.48	0.48
24:BA:753:C:O2'	24:BA:754:C:H5'	2.13	0.48
24:BA:726:G:O2'	24:BA:727:A:OP2	2.30	0.48
24:DA:686:G:H4'	24:DA:687:C:OP2	2.13	0.48
24:DA:454:A:H4'	24:DA:455:C:OP2	2.14	0.48
24:BA:2680:C:OP2	27:BE:111:ARG:NH2	2.46	0.48
1:AA:1155:G:H2'	1:AA:1156:G:O4'	2.14	0.48
24:BA:1168:G:C2	24:BA:1182:A:C2	3.02	0.48
32:DM:111:PRO:O	32:DM:115:ARG:HG3	2.13	0.48
1:CA:742:G:OP2	15:CR:35:ARG:NH2	2.46	0.48
24:BA:834:C:H1'	24:BA:2358:G:N3	2.29	0.48
48:BX:52:HIS:CD2	48:BX:52:HIS:H	2.30	0.48
24:DA:1304:C:O2'	24:DA:1305:C:H5'	2.14	0.48
1:CA:1277:C:H1'	1:CA:1282:C:O2	2.14	0.48
1:CA:1320:C:N4	1:CA:1321:C:N3	2.61	0.48
1:CA:1226:C:N4	13:CP:104:ARG:HB2	2.29	0.48
19:CV:49:ILE:C	19:CV:49:ILE:CD1	2.80	0.48
24:DA:2344:U:H2'	51:D6:37:ARG:CD	2.44	0.48
1:AA:1157:A:H61	1:AA:1180:A:H2'	1.78	0.48
1:AA:1374:A:C4	1:AA:1375:A:C8	3.01	0.48
1:AA:1180:A:P	9:AL:103:THR:HG1	2.36	0.48
9:AL:14:VAL:HG22	9:AL:15:ALA:N	2.28	0.48
9:AL:9:ARG:CG	9:AL:14:VAL:CG2	2.83	0.48
24:DA:2420:C:OP1	53:D8:34:TRP:N	2.46	0.48
24:BA:2369:A:C2	24:BA:2370:G:C5	3.01	0.48
24:BA:2401:U:H2'	24:BA:2402:C:H5''	1.96	0.48
24:DA:869:G:H2'	24:DA:870:A:H5'	1.95	0.48
1:AA:412:A:N6	4:AG:35:ARG:HG2	2.28	0.48
4:AG:59:ARG:HA	4:AG:59:ARG:NE	2.28	0.48
30:DH:6:ARG:CZ	30:DH:66:GLY:HA3	2.44	0.48
34:BO:65:ARG:HH21	53:B8:15:LYS:CB	2.27	0.48
27:DE:60:ASN:ND2	27:DE:63:LEU:CD2	2.76	0.48
2:AE:21:ARG:CB	2:AE:39:ILE:HA	2.43	0.48
27:DE:77:ILE:O	27:DE:78:LEU:O	2.31	0.48
46:BZ:94:LEU:HA	46:BZ:94:LEU:HD23	1.58	0.48
28:DF:18:ARG:C	28:DF:18:ARG:CD	2.82	0.48
43:DU:95:LYS:O	43:DU:95:LYS:HG3	2.13	0.48
1:CA:1212:U:H2'	1:CA:1213:A:OP2	2.14	0.48
1:CA:992:U:C1'	1:CA:993:G:OP2	2.58	0.48
29:BG:82:LEU:HA	29:BG:86:MET:CE	2.43	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CI:60:PHE:C	6:CI:61:LEU:HD12	2.34	0.48
30:DH:13:LYS:O	30:DH:14:GLY:C	2.51	0.48
1:CA:64:G:N2	1:CA:67:C:C4	2.81	0.48
24:BA:898:C:C6	24:BA:899:A:C8	3.02	0.48
24:DA:1142(A):A:H4'	32:DM:25:ARG:NH2	2.25	0.48
31:DK:51:ILE:O	31:DK:54:GLN:N	2.47	0.48
24:DA:2250:G:N1	35:DP:83:MET:HB3	2.28	0.48
47:DW:51:ARG:HG3	47:DW:52:ASP:N	2.29	0.48
11:AN:57:THR:HG23	11:AN:58:PRO:HD2	1.96	0.48
11:AN:62:GLN:HB2	11:AN:93:GLN:OE1	2.14	0.48
12:AO:24:VAL:HG11	12:AO:27:LEU:HD11	1.96	0.48
24:DA:1441:G:H2'	24:DA:1442:G:H8	1.78	0.48
26:DD:66:ASP:OD1	26:DD:68:LYS:O	2.31	0.48
24:BA:1541:U:O4	24:BA:1542:G:N1	2.47	0.48
4:CG:196:LEU:HB3	4:CG:197:PRO:CD	2.38	0.48
15:AR:75:PRO:O	15:AR:78:TYR:HB3	2.13	0.48
27:DE:116:VAL:HG21	27:DE:122:PHE:CD2	2.48	0.48
24:DA:654(B):C:C2	24:DA:654(T):A:N1	2.82	0.48
26:DD:238:GLY:O	26:DD:239:ARG:HB3	2.14	0.48
8:CK:97:VAL:HG22	8:CK:129:VAL:N	2.28	0.48
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.48	0.48
1:CA:853:G:N3	1:CA:854:G:C8	2.82	0.48
42:DT:10:ALA:HB1	42:DT:11:PRO:CD	2.41	0.48
28:DF:32:LEU:HD23	28:DF:32:LEU:C	2.32	0.48
22:AC:1:C:H2'	22:AC:2:G:OP2	2.13	0.48
1:AA:644:G:H2'	1:AA:645:C:O4'	2.14	0.48
5:AH:6:PHE:HZ	5:AH:40:ARG:HH12	1.61	0.48
35:BP:21:THR:H	35:BP:98:LYS:HB2	1.79	0.48
24:BA:1827:C:H2'	24:BA:1828:G:H5'	1.93	0.48
1:AA:607:A:C2'	1:AA:608:A:H5'	2.43	0.48
24:DA:192:C:H2'	24:DA:193:U:H5'	1.94	0.48
24:BA:588:U:C2	28:BF:90:PHE:CE1	3.01	0.48
25:BB:66:A:H61	25:BB:107:U:H2'	1.78	0.48
44:BV:29:TYR:HA	44:BV:33:LEU:O	2.13	0.48
1:AA:386:C:C2'	1:AA:387:U:H5'	2.43	0.48
24:BA:17:G:H2'	24:BA:18:C:C6	2.48	0.48
17:AT:4:LYS:HE3	17:AT:6:LEU:CD2	2.43	0.48
27:DE:119:ARG:HG2	27:DE:160:TYR:CG	2.48	0.48
17:CT:29:HIS:CG	17:CT:30:PRO:HD2	2.48	0.48
1:CA:930:C:C2'	1:CA:931:C:H5'	2.43	0.48
4:CG:133:VAL:HG12	4:CG:133:VAL:O	2.14	0.48
38:BR:96:ARG:HB2	38:BR:96:ARG:NH1	2.27	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:412:A:C1'	1:CA:413:G:P	3.02	0.48
9:CL:9:ARG:HD3	9:CL:14:VAL:HG13	1.95	0.48
10:CM:49:VAL:O	10:CM:61:GLU:N	2.46	0.48
19:AV:13:ASP:C	19:AV:15:LEU:N	2.67	0.48
43:BU:81:LYS:HB3	43:BU:97:ARG:HD3	1.94	0.48
26:BD:94:LEU:HD22	26:BD:94:LEU:C	2.33	0.48
24:DA:1047:G:H1'	24:DA:1110:G:H1	1.78	0.48
24:BA:1048:A:C6	24:BA:1111:A:N3	2.81	0.48
19:AV:36:ARG:HB2	19:AV:36:ARG:CZ	2.43	0.48
24:DA:2439:A:H5'	24:DA:2439:A:H8	1.79	0.48
2:AE:196:LEU:HD12	2:AE:196:LEU:C	2.34	0.48
2:AE:21:ARG:C	2:AE:23:ARG:H	2.16	0.48
2:AE:236:TYR:O	2:AE:237:ALA:O	2.32	0.48
51:D6:23:THR:CG2	51:D6:24:GLU:N	2.60	0.48
44:DV:120:ILE:HG13	44:DV:121:HIS:H	1.77	0.48
1:AA:1034:G:C2	1:AA:1035:A:C6	3.02	0.48
44:DV:24:LEU:N	44:DV:41:LEU:CD1	2.76	0.48
24:DA:385:C:O2	34:DO:71:VAL:HG21	2.14	0.48
24:DA:389:G:N2	34:DO:72:PRO:HG2	2.27	0.48
1:CA:1104:G:H2'	1:CA:1105:A:C8	2.48	0.48
1:CA:663:A:O2'	1:CA:664:G:H5'	2.14	0.48
2:AE:31:TYR:CD1	2:AE:31:TYR:N	2.79	0.48
29:BG:83:ARG:H	29:BG:86:MET:CE	2.23	0.48
34:BO:49:ARG:HE	53:B8:58:ILE:CG2	2.27	0.48
24:BA:2394:C:H2'	24:BA:2395:C:H5'	1.95	0.48
49:D4:22:ILE:HG13	49:D4:23:GLU:N	2.25	0.48
37:DQ:62:LYS:HB3	37:DQ:97:ARG:CD	2.42	0.48
53:D8:49:VAL:CG1	53:D8:50:LEU:H	2.27	0.48
9:AL:21:PRO:HA	9:AL:59:PHE:HA	1.95	0.48
9:AL:79:LEU:O	9:AL:80:GLY:C	2.51	0.48
5:AH:105:VAL:HB	5:AH:106:PRO:CD	2.43	0.48
1:AA:465:A:H2'	1:AA:466:C:H5''	1.94	0.48
22:AC:18:G:C6	22:AC:57:A:N6	2.82	0.48
24:BA:1021:A:C3'	24:BA:1021:A:C8	2.97	0.48
31:DK:68:LEU:CA	31:DK:71:ILE:HG22	2.42	0.48
22:CC:15:G:H5''	22:CC:16:C:OP2	2.14	0.48
24:DA:94:G:H21	47:DW:47:ASN:HD22	1.62	0.48
24:DA:675:A:C4	24:DA:804:A:C2	3.02	0.48
35:DP:61:GLY:HA2	35:DP:62:GLY:HA3	1.59	0.48
24:DA:270(U):C:H2'	24:DA:270(V):G:H8	1.78	0.48
24:DA:1171:G:C2'	24:DA:1173:G:O5'	2.62	0.48
24:DA:601:C:H2'	24:DA:602:G:O4'	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AS:71:ARG:O	16:AS:72:ARG:C	2.51	0.48
4:CG:200:GLU:HG3	4:CG:201:GLN:H	1.78	0.48
1:CA:89:U:C1'	1:CA:90:C:P	3.00	0.48
26:DD:67:PHE:HB3	26:DD:153:ALA:CB	2.41	0.48
50:B5:36:CYS:HB2	50:B5:40:LYS:NZ	2.29	0.48
24:BA:529:A:H8	24:BA:530:G:C6	2.31	0.48
1:AA:711:G:O2'	1:AA:712:A:H5'	2.13	0.48
24:DA:1386:C:H2'	24:DA:1387:C:H6	1.77	0.48
9:CL:36:TYR:CE2	9:CL:37:PHE:HE1	2.32	0.48
24:BA:909:A:H2'	24:BA:912:C:H5	1.78	0.48
35:DP:58:PHE:O	35:DP:60:ARG:N	2.47	0.48
32:DM:62:VAL:HG22	32:DM:66:LYS:HD2	1.96	0.48
24:DA:2797:U:H2'	24:DA:2798:C:C5'	2.41	0.48
1:CA:618:C:N3	1:CA:622:A:N6	2.61	0.48
31:BK:116:LEU:HG	31:BK:117:GLU:H	1.79	0.48
13:AP:52:GLU:O	13:AP:56:LEU:HD23	2.14	0.48
24:DA:835:A:OP1	53:D8:52:LYS:CG	2.60	0.48
44:BV:6:LYS:HD3	44:BV:8:TYR:OH	2.14	0.48
24:DA:768:G:C6	24:DA:769:G:C5	3.02	0.48
52:B7:10:ARG:O	52:B7:14:LYS:HB2	2.14	0.48
27:BE:37:ARG:HA	27:BE:42:ASP:OD2	2.13	0.48
30:BH:84:SER:OG	30:BH:85:LYS:N	2.45	0.48
1:AA:131:C:H2'	1:AA:132:C:H6	1.78	0.48
1:AA:811:C:O2'	1:AA:901:A:N1	2.47	0.48
37:BQ:62:LYS:HB3	37:BQ:97:ARG:CD	2.43	0.48
8:AK:6:ILE:HD12	8:AK:6:ILE:N	2.29	0.48
1:AA:653:A:O4'	8:AK:56:LYS:HE3	2.13	0.48
16:CS:68:ASP:O	16:CS:71:ARG:HB3	2.14	0.48
1:AA:1386:G:O2'	1:AA:1387:G:H5'	2.13	0.48
1:CA:160:A:H1'	1:CA:344:A:N7	2.28	0.48
24:DA:547:A:C5	24:DA:548:A:C5	3.01	0.48
24:DA:2030:A:H4'	24:DA:2031:A:H8	1.79	0.48
28:DF:62:ARG:O	28:DF:62:ARG:HG2	2.14	0.48
1:AA:577:G:H1'	1:AA:816:A:N3	2.28	0.48
4:CG:18:LYS:HD2	4:CG:20:TYR:CE1	2.49	0.48
1:CA:1237:C:H3'	1:CA:1336:C:H41	1.78	0.48
13:CP:19:LEU:O	13:CP:20:THR:C	2.52	0.48
37:DQ:83:LYS:HZ2	37:DQ:83:LYS:HB2	1.78	0.48
24:DA:2343:C:H2'	24:DA:2344:U:C5'	2.39	0.48
9:AL:95:LYS:HB2	9:AL:95:LYS:HZ2	1.79	0.48
24:DA:2393:A:H5''	53:D8:30:ARG:CD	2.33	0.48
51:B6:11:LEU:HD11	51:B6:51:GLU:HG3	1.95	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2401:U:O2	24:BA:2402:C:H5	1.96	0.48
19:AV:21:GLU:O	19:AV:25:LYS:CD	2.62	0.48
19:AV:41:VAL:HG13	19:AV:42:PRO:CA	2.43	0.48
19:AV:19:VAL:HG11	19:AV:44:MET:HB3	1.95	0.48
43:BU:96:ILE:HG23	43:BU:101:LYS:CG	2.15	0.48
26:BD:92:ILE:HD12	26:BD:104:TYR:CD2	2.48	0.48
4:AG:21:LEU:CD1	4:AG:21:LEU:C	2.82	0.48
25:BB:45:A:C1'	29:BG:95:ARG:NH1	2.60	0.48
29:BG:97:ASP:O	29:BG:101:ILE:CG2	2.62	0.48
24:BA:2437:U:H2'	24:BA:2438:U:H6	1.77	0.48
24:DA:2791:C:H2'	24:DA:2792:G:C8	2.49	0.48
24:BA:1054:A:C6	24:BA:1055:G:C6	3.02	0.48
29:DG:140:ILE:HG12	29:DG:141:PHE:N	2.29	0.48
28:DF:4:VAL:HG13	28:DF:19:GLU:OE1	2.13	0.48
10:CM:81:THR:C	10:CM:84:GLN:HG2	2.33	0.48
1:AA:102:G:C6	1:AA:103:C:N4	2.81	0.48
4:CG:65:ARG:HB2	4:CG:75:PHE:CD2	2.49	0.48
1:CA:990:C:H2'	1:CA:991:U:C1'	2.43	0.48
24:DA:1336:A:OP1	42:DT:64:LYS:CE	2.61	0.48
31:DK:77:LEU:HD21	31:DK:141:LYS:HE3	1.96	0.48
31:DK:123:LEU:HD13	31:DK:143:SER:HA	1.96	0.48
44:DV:29:TYR:HE1	44:DV:87:ASP:HB3	1.78	0.48
44:DV:93:ASP:HB2	44:DV:131:ARG:HH11	1.78	0.48
24:BA:2699:C:H2'	24:BA:2700:C:O4'	2.14	0.48
1:AA:1287:A:P	21:AX:26:LYS:HE3	2.53	0.48
24:BA:1677:A:C2'	24:BA:1678:G:O5'	2.62	0.48
25:DB:33:G:C2	25:DB:34:U:C2	3.01	0.48
31:DK:101:LEU:O	31:DK:102:SER:HB2	2.13	0.48
5:AH:90:VAL:O	5:AH:120:THR:HA	2.14	0.48
1:AA:626:U:C5'	16:AS:38:TYR:CE2	2.94	0.48
1:AA:456:C:H2'	1:AA:457:C:C6	2.48	0.48
24:BA:1403:C:C5'	24:BA:1471:A:H1'	2.33	0.48
24:DA:2068:U:N3	24:DA:2430:A:C2	2.56	0.48
20:CW:10:LEU:O	20:CW:13:LEU:HD13	2.13	0.48
1:CA:837:G:H2'	1:CA:838:G:O4'	2.13	0.48
1:AA:69:G:H1	1:AA:99:C:H42	1.61	0.48
49:B4:58:ARG:HH12	49:B4:62:ARG:HB3	1.78	0.48
32:DM:95:PRO:O	32:DM:98:VAL:HG22	2.14	0.48
37:DQ:48:LEU:O	37:DQ:49:VAL:HG23	2.14	0.48
24:DA:1006:C:H1'	32:DM:106:MET:CE	2.44	0.48
24:DA:270(U):C:H2'	24:DA:270(V):G:C8	2.48	0.48
1:AA:373:A:C2	1:AA:482:A:C6	3.02	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:345:C:H5'	1:AA:346:G:O5'	2.13	0.48
43:DU:47:LYS:H	43:DU:60:PHE:HB3	1.77	0.48
1:CA:745:C:H1'	1:CA:836:G:O2'	2.14	0.48
30:DH:18:GLU:H	30:DH:25:LYS:HD2	1.77	0.48
8:CK:9:MET:CB	8:CK:32:LYS:NZ	2.77	0.48
24:DA:1686:C:C2'	24:DA:1687:G:H5'	2.44	0.48
24:DA:540:G:C5	24:DA:541:C:C5	3.02	0.48
44:BV:14:LYS:O	44:BV:18:LEU:HD13	2.13	0.48
39:D1:110:VAL:O	39:D1:114:LYS:HG2	2.13	0.48
1:AA:6:G:C5	5:AH:119:LEU:HD11	2.49	0.48
29:BG:63:ILE:HG13	29:BG:63:ILE:O	2.14	0.48
11:AN:73:MET:SD	11:AN:103:LEU:CD2	3.00	0.48
10:AM:6:ILE:CG1	10:AM:72:VAL:CG1	2.90	0.48
24:BA:614:U:H3'	24:BA:616:A:OP1	2.14	0.48
1:CA:505:G:OP2	1:CA:534:U:H2'	2.14	0.48
45:D3:49:LYS:HB2	45:D3:80:HIS:HB3	1.96	0.48
44:DV:13:GLU:HB3	44:DV:18:LEU:CD1	2.43	0.48
20:AW:30:LYS:HA	20:AW:33:ILE:HG12	1.95	0.48
24:DA:1491:G:O2'	26:DD:101:GLU:HB2	2.14	0.48
1:CA:36:C:O2'	1:CA:37:U:H5'	2.14	0.48
1:CA:692:U:H2'	1:CA:694:A:OP2	2.14	0.48
37:BQ:70:GLY:CA	37:BQ:101:LEU:HD12	2.43	0.48
1:AA:929:G:H2'	1:AA:930:C:H6	1.79	0.48
34:DO:29:LYS:HG2	34:DO:30:THR:N	2.28	0.48
16:CS:52:ASP:O	16:CS:55:ARG:HB2	2.14	0.48
24:BA:2749:A:O3'	30:BH:62:LYS:HE2	2.14	0.48
6:CI:35:ALA:HB1	6:CI:65:VAL:HG11	1.95	0.48
24:BA:173:G:H2'	24:BA:174:C:C6	2.49	0.48
1:CA:1009:G:H1	1:CA:1020:U:H3	1.60	0.48
10:CM:89:ASP:C	10:CM:90:LEU:HD12	2.33	0.48
25:BB:94:C:H2'	25:BB:95:U:H6	1.79	0.48
28:DF:51:THR:HG21	28:DF:92:PRO:HD2	1.96	0.48
17:AT:29:HIS:CE1	17:AT:32:TYR:HD2	2.32	0.48
44:BV:1:MET:HA	44:BV:135:GLU:OE2	2.13	0.48
24:BA:1354:A:H2'	24:BA:1355:G:O4'	2.14	0.48
25:DB:93:C:H2'	25:DB:94:C:H6	1.78	0.48
1:AA:380:G:C2	1:AA:384:G:C6	3.01	0.48
1:CA:1469:G:H2'	1:CA:1470:G:C8	2.49	0.48
24:BA:1890:A:C2'	24:BA:1891:G:H5'	2.44	0.48
7:CJ:93:PRO:O	7:CJ:96:GLN:HB2	2.14	0.48
1:CA:1157:A:N3	1:CA:1157:A:C2'	2.77	0.48
1:CA:1349:A:P	9:CL:118:LYS:HZ2	2.36	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CL:65:VAL:HG21	9:CL:73:GLN:HB3	1.94	0.48
13:CP:56:LEU:O	13:CP:60:VAL:HG23	2.13	0.48
19:CV:66:MET:HA	19:CV:67:VAL:C	2.33	0.48
24:DA:2345:G:OP2	51:D6:39:TYR:CD1	2.59	0.48
24:BA:2418:A:C2'	51:B6:21:TYR:CE2	2.96	0.48
24:BA:2419:U:P	53:B8:41:ILE:CD1	3.02	0.48
19:AV:22:LEU:HD21	19:AV:29:ARG:HD3	1.96	0.48
19:AV:40:ILE:CA	19:AV:44:MET:HE3	2.35	0.48
24:DA:870:A:O5'	35:DP:6:ARG:NH1	2.44	0.48
30:DH:5:GLY:C	30:DH:6:ARG:HG3	2.34	0.48
19:AV:36:ARG:CB	19:AV:36:ARG:NH1	2.76	0.48
24:DA:2788:C:P	27:DE:61:ARG:HH12	2.37	0.48
40:B2:35:LEU:HD23	40:B2:35:LEU:C	2.29	0.48
2:AE:97:TRP:HZ3	2:AE:172:ILE:HG13	1.75	0.48
2:AE:37:ASN:O	2:AE:39:ILE:N	2.47	0.48
2:AE:50:GLU:HA	2:AE:50:GLU:OE2	2.14	0.48
2:AE:97:TRP:CZ3	2:AE:172:ILE:CG1	2.94	0.48
24:BA:1057:A:N6	24:BA:1086:A:C2	2.81	0.48
49:D4:28:LYS:HE2	49:D4:31:ILE:CD1	2.33	0.48
2:CE:16:HIS:O	2:CE:17:PHE:CD1	2.67	0.48
2:CE:70:PHE:O	2:CE:92:TYR:HA	2.14	0.48
24:DA:1063:G:H2'	24:DA:1063:G:N3	2.29	0.48
24:DA:1070:A:C5'	24:DA:1071:G:H5''	2.31	0.48
1:AA:1298:C:H5'	1:AA:1299:A:C8	2.48	0.48
5:CH:69:VAL:O	5:CH:71:LEU:HD12	2.14	0.48
47:DW:18:PRO:HG2	47:DW:19:VAL:H	1.79	0.48
24:DA:2853:C:H2'	24:DA:2854:G:H8	1.79	0.48
49:D4:26:SER:O	49:D4:27:THR:HG23	2.13	0.48
1:AA:1128:C:H4'	9:AL:16:ARG:HH11	1.77	0.48
24:BA:1817:G:OP1	26:BD:88:ARG:NH2	2.43	0.48
27:BE:71:GLY:O	27:BE:72:VAL:HB	2.14	0.48
22:CC:7:G:H2'	22:CC:8:U:OP1	2.13	0.48
24:BA:878:A:C2	24:BA:879:G:C5	3.02	0.48
24:BA:164:U:C6	24:BA:165:U:H6	2.30	0.48
29:BG:104:GLU:CG	49:B4:23:GLU:OE2	2.62	0.48
1:AA:1080:A:C5'	5:AH:16:THR:HG21	2.43	0.48
4:AG:194:LEU:C	4:AG:194:LEU:HD12	2.34	0.48
24:DA:2873:A:H8	36:D0:6:SER:N	2.06	0.48
5:CH:151:LEU:HD11	8:CK:79:VAL:CG2	2.44	0.48
41:DS:17:VAL:O	41:DS:20:VAL:HG22	2.14	0.48
24:DA:1496:A:H2'	24:DA:1498:C:C5	2.49	0.48
1:CA:651:C:H2'	1:CA:652:U:C6	2.49	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:999:U:H2'	1:CA:1000:A:C8	2.48	0.48
34:DO:37:GLY:HA2	34:DO:41:ARG:NH2	2.28	0.48
1:CA:644:G:O2'	1:CA:645:C:H5'	2.14	0.48
4:AG:162:LEU:CD1	4:AG:181:MET:HG2	2.44	0.48
1:CA:626:U:C2	1:CA:627:G:C8	3.02	0.48
1:AA:756:C:H4'	8:AK:1:MET:HE2	1.96	0.48
24:BA:270(V):G:H2'	24:BA:270(W):G:C8	2.46	0.48
31:DK:7:GLU:CG	31:DK:8:PRO:HD2	2.43	0.48
1:CA:35:G:N2	1:CA:550:G:N3	2.62	0.48
43:BU:40:GLU:HA	43:BU:40:GLU:OE1	2.12	0.48
24:DA:853:G:H2'	24:DA:854:G:C8	2.48	0.48
24:DA:1348:G:H2'	24:DA:1349:A:H5'	1.95	0.48
30:DH:166:GLY:O	30:DH:167:GLU:O	2.32	0.48
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.49	0.48
53:B8:39:LYS:HA	53:B8:42:ARG:NH2	2.29	0.48
24:DA:1425:G:N2	24:DA:1573:G:N7	2.62	0.48
24:DA:243:U:OP2	53:D8:8:LYS:HE3	2.13	0.48
1:AA:951:G:OP2	13:AP:102:ARG:NH2	2.47	0.48
24:DA:640:C:N4	24:DA:641:C:N4	2.61	0.48
1:CA:927:G:N1	1:CA:1391:U:C2	2.82	0.48
8:CK:58:TYR:O	8:CK:59:LEU:HD23	2.14	0.48
24:DA:1812:A:O2'	26:DD:45:ASN:HB2	2.14	0.48
1:CA:1049:U:H4'	1:CA:1050:G:C5'	2.42	0.48
1:CA:1118:C:H2'	1:CA:1119:C:O4'	2.14	0.48
1:CA:1303:C:N4	1:CA:1304:G:C6	2.81	0.48
10:CM:9:ARG:HG2	10:CM:69:ASN:OD1	2.14	0.48
1:CA:1220:G:H1'	19:CV:52:TYR:CD2	2.48	0.48
24:DA:2286:A:C8	24:DA:2287:A:N6	2.82	0.48
29:BG:108:ASN:HA	49:B4:38:LYS:HB2	1.95	0.48
29:BG:67:LYS:HD3	49:B4:5:ILE:CG1	2.43	0.48
1:AA:191:G:C2'	1:AA:192:U:O4'	2.62	0.48
27:DE:64:LYS:CD	27:DE:73:GLU:OE2	2.62	0.48
40:D2:35:LEU:HD22	40:D2:57:VAL:O	2.13	0.48
40:D2:35:LEU:HG	40:D2:37:VAL:HG21	1.96	0.48
2:AE:80:ILE:HD12	2:AE:212:GLN:HB2	1.95	0.48
24:BA:270(I):G:H1'	46:BZ:78:LYS:NZ	2.29	0.48
2:CE:21:ARG:HB3	2:CE:39:ILE:H	1.79	0.48
32:DM:55:VAL:HB	32:DM:126:PRO:HA	1.96	0.48
3:CF:119:ARG:NH2	3:CF:140:ARG:HD2	2.29	0.48
30:BH:153:LYS:HB3	30:BH:154:PRO:HD3	1.96	0.48
43:DU:99:CYS:SG	43:DU:100:ALA:N	2.84	0.48
4:CG:96:LEU:HD12	4:CG:139:ARG:HH11	1.78	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CH:71:LEU:CD2	5:CH:114:GLY:O	2.62	0.48
24:BA:1331:A:H2'	24:BA:1333:C:C5	2.49	0.48
24:BA:826:U:OP1	24:BA:2428:G:H3'	2.14	0.48
3:AF:186:PHE:HZ	3:AF:188:LEU:HG	1.79	0.48
24:BA:618:G:H2'	24:BA:618(A):C:O4'	2.14	0.48
9:AL:16:ARG:HD2	9:AL:64:THR:CG2	2.43	0.48
9:AL:17:VAL:HG21	9:AL:80:GLY:C	2.34	0.48
5:AH:105:VAL:N	5:AH:106:PRO:HD2	2.29	0.48
1:AA:877:C:O2'	1:AA:878:G:H5'	2.14	0.48
1:CA:1026:G:C2'	1:CA:1027:C:H5'	2.43	0.48
8:AK:112:LEU:HA	8:AK:134:ILE:HD13	1.94	0.48
8:AK:87:SER:CA	8:AK:93:VAL:HG23	2.40	0.48
1:AA:690:G:C2'	1:AA:691:G:H5'	2.44	0.48
24:BA:2:G:H1	24:BA:2901:C:N4	2.06	0.48
11:CN:84:VAL:HG11	11:CN:91:ARG:HE	1.78	0.48
9:AL:126:SER:O	9:AL:127:LYS:HB3	2.14	0.48
24:DA:654(V):A:C2	24:DA:655:A:C2	3.02	0.48
24:BA:2866:U:C2	24:BA:2868:A:H1'	2.48	0.48
27:DE:101:ARG:HH11	27:DE:171:GLU:N	2.12	0.48
20:CW:51:GLU:O	20:CW:55:ILE:HG12	2.13	0.48
24:DA:1384:A:N3	24:DA:1405:U:H1'	2.29	0.48
8:CK:9:MET:HG3	8:CK:26:VAL:HG11	1.96	0.48
9:CL:108:VAL:HG23	9:CL:109:VAL:N	2.29	0.48
24:BA:438:G:H2'	24:BA:439:G:H8	1.78	0.48
39:D1:110:VAL:HG12	39:D1:114:LYS:CD	2.43	0.48
24:DA:2263:C:O2'	24:DA:2264:C:H5'	2.14	0.48
1:CA:782:A:H2'	1:CA:783:C:H5'	1.96	0.48
43:BU:44:ILE:HG13	43:BU:45:VAL:N	2.25	0.48
4:CG:163:GLU:HG2	4:CG:166:LYS:HZ1	1.79	0.48
24:DA:1508:A:H2'	24:DA:1508:A:N3	2.28	0.48
42:BT:10:ALA:HB1	42:BT:11:PRO:CD	2.43	0.48
1:AA:827:U:C5	1:AA:872:A:N6	2.79	0.48
39:D1:83:LEU:HG	39:D1:88:ILE:CD1	2.43	0.48
1:CA:187:C:O2	1:CA:191(A):G:C6	2.67	0.48
48:DX:7:LYS:CG	48:DX:34:GLU:HG2	2.44	0.48
24:BA:1315:C:H2'	24:BA:1316:U:C6	2.49	0.48
1:AA:757:U:H2'	1:AA:758:G:O4'	2.14	0.48
34:DO:97:PRO:O	34:DO:98:GLU:CB	2.60	0.48
1:AA:1431:C:H2'	1:AA:1432:G:O4'	2.14	0.48
24:BA:2197:U:O2'	24:BA:2198:A:H2'	2.14	0.48
24:BA:2627:G:O2'	24:BA:2781:A:N1	2.31	0.48
31:DK:29:TYR:CD1	31:DK:33:ARG:HD2	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AF:94:LEU:HD23	3:AF:94:LEU:H	1.77	0.48
24:DA:1464:C:HO2'	24:DA:1528:A:H8	1.62	0.48
24:BA:1666:G:O2'	24:BA:1667:G:H5'	2.14	0.48
44:BV:157:LEU:N	44:BV:157:LEU:HD12	2.29	0.48
26:DD:127:VAL:HA	26:DD:193:VAL:CG2	2.44	0.48
30:DH:37:VAL:HG13	30:DH:37:VAL:O	2.14	0.48
34:DO:75:ILE:H	34:DO:75:ILE:HD13	1.79	0.48
34:BO:116:GLY:O	34:BO:117:GLU:C	2.52	0.48
1:AA:370:C:H2'	1:AA:371:G:O4'	2.14	0.48
24:BA:721:C:H2'	24:BA:722:A:H8	1.79	0.48
1:CA:75:C:H2'	1:CA:76:G:O4'	2.14	0.48
28:BF:152:GLU:OE1	28:BF:191:ARG:NE	2.44	0.48
7:AJ:82:GLY:O	7:AJ:83:ALA:HB2	2.14	0.48
27:DE:97:LYS:O	27:DE:100:GLU:HG3	2.14	0.48
13:AP:108:ARG:HD2	13:AP:108:ARG:N	2.28	0.48
9:AL:112:LYS:C	9:AL:112:LYS:HD3	2.34	0.48
27:DE:174:ASP:OD1	27:DE:175:VAL:N	2.44	0.48
1:CA:1120:G:C2	1:CA:1154:G:C2	3.02	0.47
51:D6:28:ARG:O	51:D6:32:ASN:ND2	2.46	0.47
1:AA:1158:C:N3	1:AA:1160:G:C8	2.82	0.47
1:AA:1179:A:O3'	9:AL:103:THR:CG2	2.61	0.47
19:AV:41:VAL:HG22	19:AV:45:VAL:HG13	1.89	0.47
49:B4:37:SER:CB	49:B4:43:TYR:CZ	2.71	0.47
24:BA:1045:A:N3	24:BA:1111:A:N6	2.62	0.47
24:BA:2751:G:C2	30:BH:3:ARG:HG3	2.49	0.47
1:AA:977:A:C8	1:AA:1223:C:C4	3.02	0.47
24:DA:792:G:O2'	24:DA:2440:C:N3	2.36	0.47
24:DA:2808:U:H5'	24:DA:2891:G:O6	2.14	0.47
12:AO:47:LYS:CB	12:AO:48:PRO:HD3	2.33	0.47
40:B2:36:PRO:O	40:B2:37:VAL:HG22	2.14	0.47
46:BZ:91:LYS:O	46:BZ:95:LEU:HG	2.14	0.47
2:AE:83:MET:HB3	2:AE:234:PRO:HG2	1.95	0.47
24:BA:270(P):C:C2'	24:BA:270(Q):C:H5'	2.44	0.47
2:CE:19:HIS:C	2:CE:19:HIS:HD2	2.16	0.47
2:CE:73:THR:HA	2:CE:94:ASN:O	2.14	0.47
10:CM:82:ILE:O	10:CM:86:MET:HB2	2.14	0.47
24:DA:239:U:O2'	24:DA:622:G:H4'	2.14	0.47
24:DA:299:A:N1	24:DA:322:A:O2'	2.37	0.47
36:B0:36:THR:CG2	36:B0:37:THR:N	2.66	0.47
1:CA:1014:A:C6	1:CA:1015:A:C6	3.02	0.47
1:CA:1016:A:H5'	14:CQ:15:LYS:HE3	1.94	0.47
42:DT:64:LYS:NZ	42:DT:73:ARG:NH2	2.61	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:91:LEU:HD22	44:DV:130:PRO:HG3	1.94	0.47
18:CU:60:ALA:O	18:CU:64:ARG:HG3	2.14	0.47
1:CA:485:G:O2'	1:CA:486:U:OP2	2.31	0.47
39:D1:66:ASN:OD1	39:D1:76:TYR:CB	2.61	0.47
34:DO:126:VAL:CA	34:DO:145:PRO:HG2	2.41	0.47
1:AA:979:C:H2'	1:AA:980:C:H5'	1.96	0.47
16:AS:22:THR:HA	16:AS:33:ILE:CD1	2.44	0.47
27:BE:52:LEU:HB2	27:BE:75:VAL:HG22	1.94	0.47
10:CM:56:HIS:C	10:CM:58:ASP:N	2.67	0.47
3:CF:40:ARG:O	3:CF:44:GLU:HB2	2.13	0.47
34:DO:78:PRO:CG	34:DO:111:ARG:NH2	2.77	0.47
49:B4:11:PRO:HA	49:B4:25:TYR:HA	1.95	0.47
24:DA:1533:C:C4	24:DA:1534:G:H1'	2.48	0.47
4:AG:112:VAL:HG12	4:AG:116:GLN:OE1	2.14	0.47
12:AO:24:VAL:CG1	12:AO:27:LEU:HD12	2.44	0.47
24:BA:2312:U:OP1	29:BG:74:LYS:N	2.34	0.47
24:BA:2481:G:HO2'	24:BA:2482:G:P	2.37	0.47
17:AT:9:VAL:O	17:AT:21:VAL:HA	2.14	0.47
3:AF:73:PRO:C	3:AF:76:VAL:HG22	2.34	0.47
3:AF:175:LEU:HD12	3:AF:175:LEU:N	2.29	0.47
24:DA:1730:U:HO2'	24:DA:1731:G:P	2.31	0.47
15:AR:12:ILE:O	15:AR:16:ALA:N	2.40	0.47
24:BA:960:A:H5''	24:BA:961:C:OP1	2.14	0.47
35:BP:10:ARG:O	35:BP:11:LYS:HB2	2.12	0.47
1:CA:1342:C:HO2'	9:CL:124:GLN:HA	1.79	0.47
26:DD:186:HIS:CD2	26:DD:187:GLY:N	2.81	0.47
1:AA:603:U:O2'	1:AA:604:G:H5'	2.14	0.47
1:CA:707:C:H2'	1:CA:708:C:C6	2.48	0.47
3:CF:27:LYS:HB3	3:CF:27:LYS:HZ3	1.74	0.47
1:AA:638:G:H2'	1:AA:639:G:C8	2.47	0.47
1:AA:200:G:H1	1:AA:217:C:H42	1.61	0.47
42:DT:26:TYR:HB3	42:DT:92:LEU:HD12	1.96	0.47
28:DF:32:LEU:HB3	28:DF:112:MET:HE1	1.96	0.47
47:DW:68:ARG:HA	47:DW:72:ALA:HB2	1.96	0.47
24:DA:141:A:H1'	24:DA:1408:C:H1'	1.95	0.47
24:DA:336:C:C5'	43:DU:6:HIS:CD2	2.96	0.47
10:AM:31:GLY:HA3	10:AM:81:THR:CG2	2.43	0.47
1:AA:1516:G:N1	1:AA:1519:A:OP2	2.47	0.47
24:DA:1204:A:C2	24:DA:1206:G:C2	3.02	0.47
24:DA:931:G:O3'	48:DX:24:LYS:NZ	2.46	0.47
24:BA:1431:U:C2'	24:BA:1432:C:H5'	2.43	0.47
27:BE:15:PHE:CE1	38:BR:81:PRO:HD2	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:B0:100:LEU:HD12	36:B0:100:LEU:N	2.29	0.47
24:DA:2742:C:O2'	24:DA:2743:C:H5'	2.14	0.47
24:BA:479:A:HO2'	24:BA:481:G:H8	1.61	0.47
5:CH:36:ASP:CG	5:CH:38:GLN:H	2.16	0.47
11:CN:14:VAL:HG23	11:CN:77:MET:HE2	1.95	0.47
24:BA:749:C:H4'	24:BA:1271:G:N3	2.29	0.47
1:AA:25:C:H5'	1:AA:524:G:H1'	1.96	0.47
24:DA:1971:A:C4	26:DD:241:PRO:HD3	2.49	0.47
42:BT:51:VAL:HG13	42:BT:81:VAL:HG23	1.95	0.47
11:CN:16:SER:HA	11:CN:79:SER:O	2.14	0.47
24:DA:926:A:H2'	24:DA:928:G:H8	1.77	0.47
1:AA:521:G:H5'	12:AO:72:GLY:O	2.14	0.47
27:DE:179:GLU:O	27:DE:180:ASN:HB2	2.13	0.47
9:CL:8:GLY:HA3	9:CL:79:LEU:HB2	1.94	0.47
24:BA:2397:G:N2	24:BA:2420:C:H1'	2.30	0.47
29:BG:112:PRO:HB3	49:B4:37:SER:H	1.78	0.47
29:BG:116:ASP:O	29:BG:117:PHE:HB3	2.14	0.47
25:BB:42:C:OP2	49:B4:2:LYS:CD	2.62	0.47
29:BG:96:ARG:O	29:BG:98:ARG:N	2.46	0.47
27:DE:55:ASN:ND2	27:DE:73:GLU:O	2.46	0.47
24:BA:1057:A:H62	24:BA:1086:A:H3'	1.79	0.47
24:BA:388:G:H5'	24:BA:389:G:OP2	2.14	0.47
27:DE:54:GLN:O	27:DE:75:VAL:HG22	2.14	0.47
51:D6:9:LEU:HD11	51:D6:26:ASN:OD1	2.14	0.47
46:BZ:76:ARG:HB2	46:BZ:94:LEU:HD13	1.96	0.47
24:DA:779:U:OP1	26:DD:49:ILE:CG2	2.56	0.47
2:CE:233:SER:CB	2:CE:234:PRO:HD2	2.33	0.47
30:DH:169:VAL:O	30:DH:170:ARG:HD3	2.14	0.47
3:CF:134:ILE:O	3:CF:135:LYS:C	2.53	0.47
3:CF:50:ALA:O	3:CF:70:VAL:HG13	2.14	0.47
24:DA:607:U:OP1	28:DF:103:LYS:N	2.36	0.47
13:AP:12:ASN:N	13:AP:46:LYS:HZ2	2.12	0.47
1:CA:620:C:H2'	1:CA:621:A:O4'	2.15	0.47
4:CG:91:SER:O	4:CG:94:LEU:CD1	2.62	0.47
24:BA:1173:G:N2	24:BA:1175:U:C2'	2.77	0.47
31:DK:144:VAL:HG12	31:DK:145:VAL:N	2.29	0.47
6:AI:63:TYR:HB3	6:AI:65:VAL:CG1	2.44	0.47
24:BA:1493:C:C4	24:BA:2210:G:C8	3.02	0.47
32:BM:22:THR:O	32:BM:23:LEU:HB2	2.14	0.47
1:AA:260:G:H2'	1:AA:261:U:C6	2.49	0.47
1:CA:451:A:C6	1:CA:481:G:C5	3.02	0.47
30:BH:11:VAL:O	30:BH:76:VAL:HG11	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:84:ALA:HB3	42:BT:87:GLN:OE1	2.14	0.47
1:AA:739:C:OP1	15:AR:2:PRO:HD3	2.14	0.47
34:BO:123:LEU:CD1	34:BO:125:VAL:CG1	2.87	0.47
24:DA:2118:U:C2'	24:DA:2119:A:OP2	2.62	0.47
11:AN:59:TYR:CZ	11:AN:63:LEU:HD21	2.48	0.47
24:BA:2713:A:H3'	24:BA:2714:G:H5''	1.96	0.47
24:DA:1434:A:O2'	24:DA:1435:G:H5'	2.14	0.47
1:AA:1150:U:H1'	1:AA:1280:A:N6	2.29	0.47
27:BE:116:VAL:H	27:BE:157:ALA:HB2	1.80	0.47
25:DB:89(A):A:C8	25:DB:90:C:H1'	2.49	0.47
8:AK:20:TYR:HE1	8:AK:78:GLN:NE2	2.11	0.47
41:BS:66:GLU:O	41:BS:66:GLU:CG	2.58	0.47
19:AV:50:ALA:CB	19:AV:57:HIS:HB3	2.43	0.47
52:D7:46:VAL:HG12	52:D7:47:ARG:N	2.26	0.47
1:AA:1317:C:H2'	1:AA:1318:A:O4'	2.14	0.47
24:BA:2522:U:O2'	24:BA:2647:U:H5''	2.15	0.47
22:CC:35:A:N3	23:C1:18:G:N2	2.62	0.47
3:AF:64:VAL:HG23	3:AF:64:VAL:O	2.13	0.47
12:AO:83:VAL:CG2	12:AO:84:LEU:N	2.75	0.47
1:AA:228:A:H4'	16:AS:62:VAL:CG1	2.44	0.47
24:DA:648:G:O2'	24:DA:649:G:H5'	2.13	0.47
48:DX:7:LYS:HG3	48:DX:34:GLU:CG	2.45	0.47
33:DN:8:LEU:HD12	33:DN:82:ASN:HB3	1.94	0.47
26:DD:231:HIS:CG	26:DD:232:PRO:HD2	2.47	0.47
1:AA:476:G:O2'	1:AA:477:G:H5'	2.14	0.47
31:BK:64:GLU:O	31:BK:67:ARG:N	2.48	0.47
24:BA:1957:C:H2'	24:BA:1958:C:C6	2.49	0.47
46:DZ:50:ARG:HA	46:DZ:58:ILE:O	2.14	0.47
1:AA:362:G:H2'	1:AA:364:A:OP2	2.13	0.47
24:BA:1146:C:C2'	24:BA:1147:C:H5'	2.44	0.47
25:BB:65:C:H41	25:BB:108:C:H2'	1.79	0.47
1:AA:1350:A:H61	1:AA:1372:U:H3	1.61	0.47
24:BA:1665:A:O2'	24:BA:1666:G:H5'	2.13	0.47
24:BA:1272:A:OP2	24:BA:1647:G:OP1	2.32	0.47
5:CH:140:ARG:O	5:CH:143:ARG:NH2	2.47	0.47
13:AP:37:THR:O	13:AP:55:ARG:NH2	2.46	0.47
7:CJ:22:LEU:HD23	7:CJ:22:LEU:O	2.14	0.47
24:DA:49:A:N3	24:DA:49:A:H2'	2.29	0.47
1:CA:768:A:O2'	1:CA:1523:G:N2	2.47	0.47
24:DA:302:C:H2'	24:DA:303:U:H6	1.80	0.47
24:BA:2860:A:N7	24:BA:2861:G:H1'	2.29	0.47
41:DS:92:ARG:NH1	41:DS:94:ASP:OD1	2.46	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:69:ARG:NH2	26:DD:128:GLY:O	2.47	0.47
38:BR:34:VAL:HG22	38:BR:41:ARG:HG3	1.95	0.47
25:DB:10:C:N3	25:DB:11:C:C5	2.83	0.47
41:DS:34:ASN:O	41:DS:37:ARG:HB3	2.14	0.47
24:DA:1436:G:H1'	24:DA:1477:A:O2'	2.14	0.47
24:BA:1973:G:H2'	24:BA:1974:C:C6	2.48	0.47
24:DA:2235:G:H2'	24:DA:2236:C:C6	2.49	0.47
1:CA:1179:A:N3	9:CL:104:ARG:NH1	2.62	0.47
1:CA:1240:U:H3	7:CJ:32:ARG:HE	1.60	0.47
1:CA:1329:A:H5'	13:CP:29:ARG:HE	1.79	0.47
1:CA:1117:G:H2'	9:CL:104:ARG:NH1	2.28	0.47
10:CM:9:ARG:HH21	10:CM:95:GLU:CB	2.23	0.47
49:D4:49:PHE:C	49:D4:51:ASP:H	2.17	0.47
37:DQ:106:ARG:HA	37:DQ:110:LEU:CD2	2.44	0.47
24:DA:2344:U:H3'	51:D6:37:ARG:HE	1.79	0.47
1:AA:1178:G:H5'	1:AA:1179:A:OP2	2.14	0.47
1:AA:1347:G:H22	1:AA:1374:A:P	2.36	0.47
53:D8:29:LYS:O	53:D8:30:ARG:C	2.51	0.47
24:BA:2287:A:C4	24:BA:2289:G:C8	3.03	0.47
13:AP:86:CYS:HA	19:AV:73:GLU:O	2.14	0.47
24:DA:869:G:C2'	24:DA:870:A:H5'	2.45	0.47
29:BG:111:LEU:CD1	29:BG:120:LEU:HD21	2.44	0.47
30:BH:43:VAL:O	30:BH:43:VAL:HG13	2.14	0.47
34:DO:79:ARG:HH21	34:DO:109:GLY:HA3	1.78	0.47
2:AE:72:GLY:HA2	2:AE:165:VAL:HG12	1.97	0.47
2:AE:217:ARG:HA	2:AE:220:ASP:OD2	2.14	0.47
19:CV:28:LYS:NZ	19:CV:30:LEU:N	2.58	0.47
2:CE:8:LYS:HD3	2:CE:217:ARG:CD	2.29	0.47
10:CM:79:ARG:HH12	10:CM:80:LYS:HE2	1.79	0.47
20:AW:9:ASN:ND2	20:AW:13:LEU:HD23	2.29	0.47
1:CA:989:C:H1'	1:CA:1016:A:C2	2.43	0.47
24:DA:996:A:N6	24:DA:1160:G:C6	2.83	0.47
1:AA:1129:C:H42	1:AA:1132:C:N4	2.12	0.47
24:BA:654(J):A:N3	24:BA:654(J):A:H3'	2.30	0.47
3:AF:186:PHE:HE1	3:AF:197:GLY:HA3	1.77	0.47
1:AA:1107:C:C4	1:AA:1108:G:C8	3.02	0.47
24:BA:1018:C:C2'	24:BA:1019:U:H5'	2.45	0.47
24:BA:1141:U:OP2	32:BM:63:THR:CG2	2.62	0.47
1:AA:264:U:C2'	1:AA:265:G:H5'	2.45	0.47
1:CA:452:A:O2'	1:CA:453:A:O4'	2.31	0.47
24:DA:2061:G:N2	24:DA:2063:C:N1	2.62	0.47
1:CA:1040:U:O4	1:CA:1041:A:N6	2.47	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:688:G:H2'	1:AA:689:C:H6	1.79	0.47
1:CA:848:C:H2'	1:CA:849:C:C6	2.49	0.47
35:DP:64:ILE:CD1	35:DP:64:ILE:N	2.70	0.47
24:DA:2355:C:H1'	45:D3:39:ARG:NH2	2.17	0.47
3:CF:52:LEU:CD2	3:CF:52:LEU:H	2.26	0.47
32:DM:120:LEU:HD21	32:DM:122:VAL:CG2	2.41	0.47
49:B4:29:PRO:O	49:B4:30:GLU:HB2	2.14	0.47
7:AJ:151:TYR:OH	11:AN:54:ARG:NE	2.47	0.47
7:AJ:113:GLU:HB2	7:AJ:119:ARG:CG	2.45	0.47
24:BA:1478:G:H2'	24:BA:1479:G:H8	1.80	0.47
1:AA:222:U:C2	1:AA:223:U:C5	3.02	0.47
24:DA:1543:A:C4'	24:DA:1543:A:OP1	2.63	0.47
33:BN:98:VAL:HG12	33:BN:117:LEU:HB3	1.94	0.47
24:DA:987:G:O2'	24:DA:1000:A:N3	2.41	0.47
47:DW:32:LEU:HA	47:DW:53:LEU:HD13	1.97	0.47
24:BA:2646:C:H6	24:BA:2646:C:O5'	1.97	0.47
24:BA:2646:C:OP2	24:BA:2732:G:O2'	2.24	0.47
45:B3:56:ASP:O	45:B3:57:PHE:HB2	2.14	0.47
1:CA:939:G:C4	1:CA:940:C:C5	3.03	0.47
24:BA:2639:A:H1'	24:BA:2778:A:C2	2.49	0.47
24:BA:185:U:H2'	24:BA:186:G:C8	2.49	0.47
25:DB:97:G:C5	25:DB:98:G:C8	3.03	0.47
24:DA:4:C:N3	24:DA:2899:G:N2	2.41	0.47
30:DH:95:ARG:CG	30:DH:96:ALA:H	2.26	0.47
24:BA:588:U:H1'	28:BF:90:PHE:CD1	2.49	0.47
24:DA:208:C:H2'	24:DA:209:C:H6	1.77	0.47
18:CU:26:LEU:HD13	18:CU:29:PHE:CD1	2.49	0.47
10:CM:22:LYS:HD2	10:CM:26:ALA:HB2	1.95	0.47
1:AA:834:C:OP1	18:AU:60:ALA:HB2	2.13	0.47
24:DA:49:A:H5''	24:DA:50:U:H3'	1.94	0.47
24:DA:748:G:OP2	41:DS:88:ARG:HG3	2.13	0.47
9:AL:34:ASN:O	9:AL:38:GLN:HB2	2.15	0.47
24:DA:1999:C:H5''	24:DA:2723:C:O2'	2.14	0.47
30:BH:121:ILE:HG13	30:BH:144:VAL:HG21	1.96	0.47
22:CC:17:C:OP2	22:CC:17(A):C:O2'	2.26	0.47
1:CA:287:U:O2'	1:CA:288:A:H5'	2.15	0.47
38:DR:104:ASN:O	38:DR:105:LEU:HG	2.14	0.47
10:AM:3:LYS:HD2	10:AM:3:LYS:N	2.29	0.47
24:DA:851:U:OP1	48:DX:49:LYS:NZ	2.34	0.47
1:CA:1267:C:N3	1:CA:1268:A:C2	2.82	0.47
1:CA:1314:C:H2'	1:CA:1315:U:H6	1.79	0.47
10:CM:5:ARG:HB3	10:CM:99:LYS:H	1.79	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CM:9:ARG:O	10:CM:94:VAL:HG13	2.15	0.47
13:CP:108:ARG:HG3	13:CP:112:GLY:O	2.15	0.47
24:DA:2344:U:O3'	51:D6:39:TYR:CZ	2.68	0.47
24:BA:2690:C:H5	36:B0:14:SER:HB2	1.80	0.47
19:AV:36:ARG:HD3	19:AV:52:TYR:O	2.14	0.47
24:DA:2895:U:H2'	24:DA:2896:C:C1'	2.45	0.47
7:CJ:46:ALA:CA	7:CJ:117:ALA:HB1	2.44	0.47
5:AH:43:LEU:CD2	5:AH:132:ALA:HB1	2.40	0.47
39:B1:92:ARG:HB2	40:B2:11:GLN:HE22	1.74	0.47
24:BA:270(M):U:H4'	24:BA:270(N):G:N3	2.29	0.47
2:CE:185:ILE:N	2:CE:185:ILE:HD13	2.29	0.47
10:CM:84:GLN:O	10:CM:85:LEU:HD23	2.15	0.47
30:BH:109:PHE:CE1	30:BH:152:ARG:NH2	2.83	0.47
30:BH:86:GLU:CG	30:BH:87:LEU:H	2.26	0.47
30:BH:87:LEU:HD23	30:BH:163:TYR:O	2.15	0.47
5:CH:139:LEU:HD23	5:CH:142:LEU:HD11	1.95	0.47
5:CH:78:HIS:HB2	8:CK:104:ARG:HG3	1.95	0.47
1:CA:991:U:O2	1:CA:993:G:H8	1.97	0.47
26:BD:223:GLY:HA2	26:BD:231:HIS:CD2	2.46	0.47
24:DA:2298:A:H1'	24:DA:2321:G:N2	2.29	0.47
24:BA:2176:A:N7	24:BA:2177:C:C4	2.82	0.47
44:BV:107:THR:CB	44:BV:108:PRO:HD2	2.43	0.47
50:D5:4:HIS:HB2	50:D5:5:PRO:CD	2.33	0.47
24:BA:918:A:H5''	25:BB:97:G:O2'	2.15	0.47
1:AA:1141:C:H2'	1:AA:1142:G:H8	1.78	0.47
37:DQ:61:ASN:O	37:DQ:65:VAL:CG2	2.63	0.47
9:AL:79:LEU:CD2	9:AL:83:ARG:NE	2.76	0.47
6:CI:62:TRP:CG	18:CU:35:ARG:NH1	2.82	0.47
4:AG:73:ARG:HB3	4:AG:74:GLN:H	1.45	0.47
1:AA:15:G:C4'	5:AH:24:ARG:NH1	2.74	0.47
1:AA:437:U:O3'	4:AG:125:HIS:HE1	1.96	0.47
1:AA:260:G:N2	1:AA:265:G:N7	2.63	0.47
24:DA:273(E):U:O2'	24:DA:273(F):C:H5'	2.15	0.47
20:CW:13:LEU:N	20:CW:13:LEU:CD1	2.77	0.47
27:BE:66:HIS:C	27:BE:68:ALA:H	2.18	0.47
32:BM:35:ARG:HB2	32:BM:42:TRP:CH2	2.49	0.47
8:CK:10:LEU:HD22	8:CK:83:ILE:HD11	1.96	0.47
24:DA:2127:G:H8	24:DA:2128:C:C6	2.32	0.47
24:DA:1009:A:H4'	39:D1:59:ARG:HG3	1.95	0.47
32:DM:25:ARG:O	32:DM:28:THR:HG22	2.14	0.47
24:DA:1533:C:H3'	24:DA:1534:G:O4'	2.14	0.47
34:DO:123:LEU:HD23	34:DO:123:LEU:N	2.29	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DQ:36:TYR:HA	37:DQ:52:SER:CB	2.44	0.47
27:DE:200:GLU:CG	27:DE:201:THR:N	2.72	0.47
3:CF:8:ILE:HD12	3:CF:16:ARG:HG2	1.96	0.47
50:B5:36:CYS:HB2	50:B5:40:LYS:HZ1	1.80	0.47
1:AA:1211:U:C5'	1:AA:1212:U:OP1	2.62	0.47
24:DA:1468:C:H2'	24:DA:1469:A:C8	2.50	0.47
1:CA:998(A):C:C4	1:CA:999:U:C4	3.02	0.47
1:CA:961:U:C2	1:CA:962:C:C6	3.02	0.47
16:CS:49:LEU:C	16:CS:49:LEU:HD12	2.35	0.47
24:BA:572:A:C2	24:BA:2033:A:C2	3.02	0.47
1:CA:465:A:N6	1:CA:467:G:C2	2.83	0.47
1:AA:321:A:C2	1:AA:333:G:N2	2.83	0.47
36:D0:103:ARG:NH1	41:DS:40:ASN:OD1	2.48	0.47
24:BA:1394:U:H3'	24:BA:1394:U:H6	1.79	0.47
32:BM:39:ARG:HB3	32:BM:41:ASP:OD1	2.14	0.47
24:DA:2259:G:C2	24:DA:2282:G:C6	3.03	0.47
24:BA:1799:G:OP1	26:BD:260:ARG:NE	2.45	0.47
1:CA:1494:G:H5'	24:DA:1913:A:C2	2.49	0.47
1:CA:975:A:H5'	1:CA:1363:A:H61	1.78	0.47
1:CA:973:G:C5	1:CA:974:A:C2	3.02	0.47
24:DA:2773:C:H2'	24:DA:2774:C:H6	1.79	0.47
1:AA:292:G:N7	1:AA:293:G:H1'	2.30	0.47
40:B2:29:PRO:HA	40:B2:61:VAL:CG1	2.44	0.47
40:B2:61:VAL:HA	40:B2:94:LEU:HD23	1.97	0.47
24:DA:581:C:OP1	39:D1:33:ARG:CG	2.62	0.47
27:DE:141:ILE:O	27:DE:154:LYS:HE2	2.14	0.47
24:BA:974(A):C:H4'	24:BA:975:G:C5'	2.44	0.47
35:DP:51:ARG:O	35:DP:54:MET:N	2.47	0.47
48:DX:26:LEU:HD21	48:DX:46:ASN:HB2	1.94	0.47
24:BA:825:C:O2	34:BO:55:ARG:NH2	2.47	0.47
42:BT:8:ILE:HD11	42:BT:43:VAL:HG22	1.96	0.47
37:BQ:28:VAL:HG11	37:BQ:98:VAL:HG12	1.97	0.47
1:CA:210:U:H4'	1:CA:210:U:OP1	2.15	0.47
34:DO:74:GLU:HG3	34:DO:74:GLU:O	2.14	0.47
24:BA:626:U:O4	34:BO:107:LYS:HE2	2.14	0.47
1:CA:1155:G:C6	1:CA:1156:G:C5	3.02	0.47
21:CX:6:ARG:HH21	21:CX:15:ARG:NH2	2.08	0.47
37:DQ:109:GLY:O	37:DQ:111:GLU:N	2.48	0.47
24:DA:2286:A:O4'	51:D6:28:ARG:NH2	2.48	0.47
51:D6:37:ARG:CD	51:D6:38:LYS:N	2.74	0.47
51:B6:41:PRO:HD2	51:B6:46:HIS:H	1.74	0.47
19:AV:24:ALA:C	19:AV:25:LYS:CG	2.82	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AV:45:VAL:C	19:AV:47:HIS:H	2.17	0.47
13:AP:7:VAL:CG1	13:AP:8:GLU:H	1.98	0.47
49:B4:37:SER:OG	49:B4:43:TYR:HE2	1.98	0.47
1:AA:408:A:OP1	4:AG:115:ARG:HD2	2.14	0.47
1:AA:429:U:OP2	4:AG:32:ALA:HB1	2.14	0.47
4:AG:62:GLN:OE1	4:AG:62:GLN:HA	2.15	0.47
24:DA:2749:A:N6	24:DA:2750:A:H62	2.12	0.47
1:AA:191:G:O2'	20:AW:101:GLY:O	2.30	0.47
24:BA:2438:U:O2'	24:BA:2439:A:O3'	2.31	0.47
24:DA:1837:C:N4	24:DA:1899:G:C5	2.82	0.47
37:BQ:110:LEU:O	37:BQ:111:GLU:HB2	2.14	0.47
40:D2:38:LEU:HD23	40:D2:55:ALA:HB1	1.94	0.47
46:BZ:92:LYS:HA	46:BZ:95:LEU:CB	2.44	0.47
2:AE:212:GLN:O	2:AE:213:LEU:C	2.52	0.47
2:AE:11:LEU:HB3	2:AE:213:LEU:HD11	1.96	0.47
2:AE:80:ILE:O	2:AE:84:GLU:HG2	2.14	0.47
19:CV:28:LYS:HZ1	19:CV:29:ARG:CB	2.18	0.47
2:CE:6:THR:HG23	2:CE:7:VAL:N	2.29	0.47
35:DP:133:ARG:O	35:DP:134:ARG:CB	2.61	0.47
4:CG:70:ILE:HG23	4:CG:71:SER:O	2.14	0.47
31:DK:76:THR:CG2	31:DK:140:LEU:HB2	2.44	0.47
49:D4:1:MET:CG	49:D4:2:LYS:N	2.76	0.47
38:DR:1:MET:CE	38:DR:1:MET:HA	2.44	0.47
24:BA:654(N):G:C2'	24:BA:654(O):G:O4'	2.62	0.47
49:D4:16:CYS:HA	49:D4:33:VAL:HG12	1.95	0.47
37:DQ:59:LYS:CD	37:DQ:60:GLY:N	2.78	0.47
44:BV:76:LEU:CD2	44:BV:76:LEU:N	2.72	0.47
1:CA:1454:G:O2'	1:CA:1455:G:H5'	2.14	0.47
1:AA:1151:A:H1'	10:AM:39:PRO:HB2	1.96	0.47
14:AQ:21:TYR:CE1	14:AQ:23:ARG:NH2	2.82	0.47
24:DA:1187:G:H8	24:DA:1187:G:O5'	1.96	0.47
30:BH:88:LEU:CD1	30:BH:129:THR:O	2.62	0.47
9:AL:97:LYS:HB3	9:AL:98:PRO:CD	2.34	0.47
35:DP:95:ALA:O	35:DP:97:VAL:HG23	2.14	0.47
1:CA:552:U:H4'	12:CO:86:ARG:HG2	1.96	0.47
24:BA:212:G:HO2'	24:BA:213:A:H5'	1.79	0.47
1:CA:1085:U:H3'	1:CA:1086:U:C5	2.50	0.47
9:CL:95:LYS:HD3	9:CL:95:LYS:C	2.34	0.47
24:DA:2131:G:C5'	24:DA:2132:U:H5''	2.36	0.47
1:CA:687:A:N3	1:CA:688:G:H1'	2.29	0.47
11:AN:48:ILE:HD11	11:AN:64:ALA:HA	1.96	0.47
1:AA:920:U:H2'	1:AA:921:U:C6	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2850:A:C5'	24:BA:2868:A:H2	2.28	0.47
28:BF:202:PHE:CE1	28:BF:206:ILE:HD11	2.49	0.47
24:DA:2873:A:C8	36:D0:5:LYS:HA	2.49	0.47
1:AA:1277:C:H1'	1:AA:1282:C:H1'	1.97	0.47
30:DH:46:GLU:CG	30:DH:47:GLU:H	2.21	0.47
1:AA:363:A:C5	12:AO:30:ALA:HB1	2.49	0.47
24:DA:953:A:C2	24:DA:954:G:C8	3.02	0.47
1:CA:659:U:C5'	15:CR:9:GLN:HE22	2.20	0.47
30:DH:16:SER:HB2	30:DH:27:LYS:O	2.14	0.47
28:DF:199:TRP:CZ3	28:DF:203:GLN:CG	2.95	0.47
24:DA:1668:A:N7	24:DA:1674:G:C6	2.82	0.47
47:BW:16:LEU:HD12	47:BW:17:SER:N	2.29	0.47
1:CA:1200:C:H4'	1:CA:1201:A:H5'	1.94	0.47
31:DK:110:ASP:OD1	31:DK:130:TYR:OH	2.13	0.47
1:AA:1016:A:P	14:AQ:15:LYS:HZ1	2.37	0.47
16:CS:37:GLY:HA3	16:CS:50:LYS:O	2.15	0.47
25:DB:15:A:H1'	25:DB:109:G:N9	2.30	0.47
8:CK:20:TYR:HA	8:CK:65:TYR:CZ	2.50	0.47
1:AA:327:A:C2	1:AA:329:A:C4	3.02	0.47
1:AA:933:G:O6	7:AJ:3:ARG:NH2	2.47	0.47
1:AA:1446:A:H4'	1:AA:1446:A:OP1	2.14	0.47
35:BP:135:ASP:OD1	35:BP:137:TYR:HB2	2.15	0.47
24:DA:102:G:OP1	47:DW:7:ARG:NH2	2.48	0.47
32:DM:38:HIS:ND1	32:DM:39:ARG:N	2.63	0.47
1:AA:129(A):G:N2	1:AA:188:U:O2'	2.48	0.47
24:DA:1913:A:H4'	24:DA:1914:C:OP2	2.12	0.47
24:BA:337:C:O2	24:BA:338:G:H1'	2.14	0.47
1:AA:1269:A:C2	1:AA:1313:U:O4'	2.68	0.47
24:DA:1857:G:C6	24:DA:1858:G:N1	2.83	0.47
6:CI:41:GLU:O	6:CI:43:LEU:CD1	2.63	0.47
29:DG:125:PHE:CZ	29:DG:131:TYR:HD1	2.32	0.47
24:BA:1638:C:H5''	24:BA:2710:C:O2'	2.14	0.47
33:BN:14:THR:O	33:BN:51:ALA:HB3	2.14	0.47
2:CE:59:GLU:O	2:CE:63:MET:N	2.48	0.47
24:BA:638:G:C5	24:BA:651:G:C2	3.02	0.47
24:BA:363(D):G:H2'	24:BA:363(E):U:O4'	2.14	0.47
44:BV:161:VAL:O	44:BV:162:GLU:HB3	2.14	0.47
24:DA:1718:G:N2	24:DA:1742:C:O2	2.48	0.47
1:CA:44:G:H2'	1:CA:45:U:O4'	2.14	0.47
24:DA:271(A):C:O2'	24:DA:271(B):G:H5'	2.14	0.47
24:BA:765:G:H2'	24:BA:766:C:H6	1.79	0.47
25:BB:73:A:C2'	25:BB:74:U:H5'	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1183:A:C2'	1:CA:1184:G:OP1	2.63	0.47
10:CM:50:ILE:HD11	14:CQ:41:ARG:NH2	2.30	0.47
7:CJ:78:ARG:HH22	7:CJ:87:VAL:CG1	2.14	0.47
51:D6:34:LEU:CD1	51:D6:50:ARG:HH11	2.28	0.47
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.78	0.47
7:CJ:89:MET:HE1	7:CJ:156:TRP:O	2.14	0.47
13:AP:78:ILE:O	13:AP:82:MET:HG3	2.14	0.47
49:B4:37:SER:HG	49:B4:43:TYR:HE2	1.58	0.47
30:BH:6:ARG:C	30:BH:8:PRO:HD2	2.34	0.47
53:B8:22:VAL:CB	53:B8:53:PRO:HB2	2.45	0.47
24:DA:2629:A:O2'	24:DA:2630:G:H4'	2.13	0.47
2:AE:168:THR:HG22	2:AE:169:LYS:N	2.29	0.47
24:BA:996:A:H4'	39:B1:92:ARG:NE	2.29	0.47
2:CE:19:HIS:HD2	2:CE:20:GLU:CB	2.27	0.47
1:AA:1028(B):C:N4	1:AA:1032(A):G:C2	2.83	0.47
30:DH:109:PHE:CE2	30:DH:152:ARG:HB2	2.48	0.47
1:CA:1213:A:C5	1:CA:1215:G:C4	3.01	0.47
1:CA:991:U:H3'	1:CA:1212:U:H3	1.80	0.47
19:CV:11:VAL:CG1	19:CV:12:ASP:N	2.77	0.47
1:AA:57:G:H2'	1:AA:58:C:C6	2.49	0.47
44:DV:128:VAL:CG2	44:DV:129:SER:H	2.08	0.47
24:BA:856:C:H5'	45:B3:27:GLU:OE2	2.15	0.47
24:DA:2537:U:C2	24:DA:2538:C:C5	3.03	0.47
1:AA:468:A:C2'	1:AA:474:G:H5'	2.44	0.47
24:BA:1140:C:OP1	32:BM:23:LEU:HB3	2.14	0.47
25:DB:66:A:N6	25:DB:108:C:C5'	2.74	0.47
1:CA:451:A:N1	1:CA:481:G:N7	2.62	0.47
8:AK:85:ARG:CG	8:AK:85:ARG:NH1	2.71	0.47
3:AF:15:THR:HG21	3:AF:181:ASN:CA	2.43	0.47
32:BM:54:VAL:HB	32:BM:122:VAL:HG22	1.97	0.47
24:BA:449:A:H2'	24:BA:450:G:C5'	2.44	0.47
35:DP:103:MET:O	35:DP:104:PHE:HB2	2.14	0.47
24:BA:325:G:HO2'	24:BA:326:G:H5'	1.75	0.47
24:BA:2726:U:H6	33:BN:67:LYS:NZ	2.12	0.47
12:CO:27:LEU:CD1	12:CO:62:SER:CB	2.91	0.47
1:CA:688:G:H2'	1:CA:689:C:H6	1.80	0.47
15:CR:24:SER:OG	15:CR:27:VAL:HG23	2.13	0.47
24:DA:1486:A:H2'	24:DA:1487:G:H8	1.79	0.47
1:CA:134:A:N6	16:CS:25:ARG:HH12	2.13	0.47
31:BK:140:LEU:CD2	31:BK:140:LEU:H	2.26	0.47
31:DK:38:LEU:HB2	31:DK:40:THR:HG23	1.97	0.47
24:BA:960:A:N6	35:BP:83:MET:HE1	2.29	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:922:G:H5'	5:CH:20:GLN:OE1	2.15	0.47
24:BA:642:G:N2	24:BA:646:A:H2	2.07	0.47
26:BD:210:GLY:O	26:BD:213:ARG:N	2.48	0.47
24:BA:278:A:H8	24:BA:278:A:OP2	1.98	0.47
1:CA:1378:C:H5	1:CA:1379:G:N9	2.12	0.47
32:DM:39:ARG:NH1	32:DM:41:ASP:OD2	2.48	0.47
1:CA:1381:U:C5	1:CA:1382:C:C5	3.02	0.47
1:AA:113:G:H1'	1:AA:354:G:H5'	1.97	0.47
24:DA:1167:U:C2	24:DA:1183:G:N2	2.83	0.47
24:DA:1184:G:P	48:DX:29:ARG:HH21	2.38	0.47
24:BA:2746:U:O4	24:BA:2755:C:H4'	2.14	0.47
24:DA:2335:A:N7	24:DA:2337:G:C5	2.83	0.47
24:BA:588:U:C2	28:BF:90:PHE:CD1	3.03	0.47
24:DA:1827:C:O2'	24:DA:1970:A:N3	2.44	0.47
17:CT:87:LYS:HB3	17:CT:91:ARG:CZ	2.44	0.47
1:CA:144:G:H2'	1:CA:145:G:H5'	1.97	0.47
1:CA:146:G:C2	1:CA:177:C:C2	3.02	0.47
39:B1:116:ALA:O	39:B1:117:GLN:CB	2.63	0.47
37:BQ:30:ARG:O	37:BQ:30:ARG:HG3	2.14	0.47
24:DA:1707:G:C5	24:DA:1756:G:C6	3.03	0.47
27:DE:175:VAL:O	27:DE:177:PRO:HD3	2.14	0.47
32:BM:131:GLN:HE21	32:BM:132:ALA:N	2.12	0.47
1:CA:321:A:C2	1:CA:333:G:C2	3.03	0.47
31:DK:88:ILE:HG22	31:DK:90:GLY:H	1.79	0.47
27:BE:4:ILE:HD13	27:BE:28:ALA:HB1	1.96	0.47
24:DA:2693:A:H2'	24:DA:2694:G:C8	2.49	0.47
24:DA:842:G:H2'	24:DA:843:G:O4'	2.15	0.47
24:DA:2472:G:C5	24:DA:2475:C:C4	3.02	0.47
1:AA:779:C:H2'	1:AA:780:A:O4'	2.13	0.47
24:DA:613:U:O4'	24:DA:613:U:O2	2.33	0.47
13:CP:116:THR:HG22	13:CP:116:THR:O	2.15	0.47
46:BZ:98:LEU:HG	46:BZ:98:LEU:O	2.14	0.47
31:DK:4:ILE:CD1	31:DK:43:ASN:O	2.62	0.47
12:AO:103:GLY:N	12:AO:107:ALA:O	2.46	0.47
24:BA:425:G:O2'	24:BA:426:C:H5'	2.15	0.47
25:DB:61:G:O2'	25:DB:62:C:H5'	2.13	0.47
1:AA:1334:G:H5''	1:AA:1335:C:OP2	2.14	0.47
24:BA:343:C:O2'	24:BA:344:G:H5'	2.15	0.47
4:CG:34:GLU:HG2	4:CG:35:ARG:N	2.29	0.47
4:CG:31:CYS:O	4:CG:32:ALA:HB3	2.15	0.47
1:CA:1154:G:C5	1:CA:1155:G:N7	2.83	0.47
1:CA:1224:G:O2'	1:CA:1322:C:OP2	2.33	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1333:A:C8	1:CA:1334:G:C8	3.03	0.47
10:CM:6:ILE:HG12	10:CM:72:VAL:O	2.14	0.47
1:CA:1151:A:O4'	10:CM:39:PRO:HB2	2.14	0.47
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.50	0.47
1:CA:1118:C:C1'	9:CL:104:ARG:HH21	2.27	0.47
13:CP:33:ALA:HB1	13:CP:56:LEU:HD22	1.97	0.47
19:CV:66:MET:N	19:CV:67:VAL:HG12	2.22	0.47
9:AL:4:TYR:HD1	9:AL:87:GLN:HB2	1.79	0.47
24:BA:2371:G:N3	51:B6:46:HIS:CE1	2.82	0.47
51:B6:18:ARG:O	51:B6:19:ARG:CG	2.62	0.47
19:AV:25:LYS:HB2	19:AV:27:GLU:OE2	2.14	0.47
43:BU:94:LYS:HD3	43:BU:101:LYS:HZ2	1.79	0.47
1:AA:1381:U:N1	7:AJ:79:ARG:NE	2.61	0.47
29:BG:117:PHE:CE1	29:BG:119:GLY:HA2	2.50	0.47
26:BD:35:LYS:HE2	26:BD:65:ILE:HG22	1.97	0.47
1:AA:977:A:C8	1:AA:1223:C:N3	2.83	0.47
1:AA:960:U:H4'	1:AA:961:U:H5''	1.96	0.47
24:DA:2629:A:O2'	24:DA:2630:G:O5'	2.29	0.47
24:DA:2789:C:HO2'	24:DA:2892:A:H2	1.60	0.47
2:AE:176:GLU:HG2	2:AE:177:ALA:N	2.30	0.47
2:AE:204:ASN:ND2	2:AE:206:ASP:N	2.55	0.47
5:AH:12:LEU:HB3	5:AH:31:LEU:HB3	1.97	0.47
24:BA:1075:C:H2'	24:BA:1076:C:O4'	2.15	0.47
24:BA:1091:G:H2'	24:BA:1092:C:C5'	2.45	0.47
24:BA:1054:A:H2'	24:BA:1055:G:C8	2.49	0.47
40:D2:37:VAL:HG21	40:D2:57:VAL:HG12	1.97	0.47
13:CP:48:LEU:CD1	13:CP:53:VAL:CG1	2.93	0.47
49:D4:17:GLY:N	49:D4:36:CYS:SG	2.88	0.47
29:DG:112:PRO:O	49:D4:35:VAL:HG11	2.13	0.47
2:CE:19:HIS:NE2	2:CE:20:GLU:CG	2.72	0.47
2:CE:8:LYS:CG	2:CE:9:GLU:H	2.27	0.47
29:DG:16:ARG:N	29:DG:17:PRO:CD	2.76	0.47
38:DR:54:ARG:HA	38:DR:59:THR:HB	1.96	0.47
1:CA:1076:C:N3	1:CA:1082:G:C2	2.82	0.47
1:AA:976:G:P	14:AQ:32:SER:H	2.35	0.47
10:CM:28:ARG:NH2	10:CM:34:VAL:HG22	2.30	0.47
44:DV:169:GLU:HA	44:DV:169:GLU:OE1	2.14	0.47
3:CF:111:LEU:HD21	3:CF:144:SER:O	2.15	0.47
44:BV:116:VAL:H	44:BV:174:VAL:HG13	1.79	0.47
34:BO:19:VAL:HG22	34:BO:21:ARG:H	1.78	0.47
1:AA:1296:C:C3'	13:AP:13:LYS:HZ1	2.24	0.47
30:BH:86:GLU:HG3	30:BH:165:ALA:CB	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DH:89:ILE:HD13	30:DH:91:GLY:N	2.29	0.47
4:CG:75:PHE:CE1	4:CG:93:PHE:CZ	2.76	0.47
33:DN:13:ASN:C	33:DN:15:GLY:N	2.68	0.47
2:AE:17:PHE:CB	2:AE:42:ILE:CG2	2.93	0.47
24:BA:2119:A:N6	24:BA:2171:A:H2	2.12	0.47
24:BA:2142:C:H2'	24:BA:2143:C:C6	2.50	0.47
24:BA:2144:U:H4'	24:BA:2145:C:C5	2.44	0.47
24:BA:2163:C:OP1	24:BA:2171:A:C8	2.68	0.47
27:DE:8:LYS:C	27:DE:9:VAL:HG22	2.35	0.47
29:BG:83:ARG:HB2	29:BG:86:MET:HG2	1.97	0.47
39:D1:90:VAL:CG1	39:D1:91:ASP:N	2.50	0.47
37:DQ:66:ALA:C	37:DQ:69:VAL:HG13	2.34	0.47
38:BR:24:PRO:HA	38:BR:49:VAL:CG2	2.42	0.47
24:DA:654(O):G:C2	24:DA:654(P):G:C5	3.02	0.47
41:DS:64:MET:O	41:DS:65:LEU:HB3	2.14	0.47
24:DA:2061:G:N2	24:DA:2063:C:C2	2.82	0.47
22:CC:13:C:O2'	22:CC:14:A:H5'	2.14	0.47
22:CC:18:G:N3	22:CC:58:A:C2	2.83	0.47
32:BM:95:PRO:O	32:BM:96:GLU:HG2	2.14	0.47
1:AA:88:C:H5''	1:AA:89:U:OP1	2.15	0.47
1:AA:95:G:H3'	1:AA:96:G:C8	2.50	0.47
1:CA:169:C:C4	1:CA:170:U:C4	3.03	0.47
24:DA:2162:G:H2'	24:DA:2163:C:H6	1.78	0.47
37:DQ:24:LEU:HD12	37:DQ:41:ASP:HB2	1.97	0.47
1:CA:193:C:O2'	1:CA:194:C:H5'	2.15	0.47
24:DA:1006:C:C2	24:DA:1138:G:N2	2.82	0.47
24:DA:1171:G:HO2'	24:DA:1173:G:C5'	2.20	0.47
24:DA:2190:G:H2'	24:DA:2191:G:C1'	2.44	0.47
25:BB:116:G:H2'	25:BB:117:G:O4'	2.15	0.47
24:DA:1531:C:O2'	24:DA:1532:C:H5'	2.15	0.47
24:BA:1264:G:H3'	24:BA:1265:A:H5''	1.95	0.47
33:BN:120:GLU:OE1	38:BR:67:SER:OG	2.32	0.47
14:CQ:4:LYS:HA	14:CQ:7:ILE:CG1	2.40	0.47
1:CA:673:G:C4	1:CA:734:G:C2	3.03	0.47
1:CA:673:G:O2'	18:CU:81:PHE:CZ	2.68	0.47
1:CA:298:A:H3'	1:CA:299:G:C8	2.48	0.47
47:BW:33:MET:CG	47:BW:37:PHE:CE1	2.95	0.47
1:AA:1166:G:C4	1:AA:1169:A:OP2	2.68	0.47
41:DS:17:VAL:C	41:DS:19:LEU:N	2.68	0.47
8:CK:70:GLN:HG2	8:CK:71:GLY:N	2.24	0.47
1:CA:754:C:P	15:CR:72:ARG:HH12	2.37	0.47
24:BA:1662:C:H1'	24:BA:2687:U:H5''	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:575:G:C6	1:CA:821:G:N7	2.83	0.47
41:DS:9:TYR:HA	41:DS:100:THR:HG23	1.97	0.47
1:CA:1060:C:C5	3:CF:2:GLY:CA	2.92	0.47
44:DV:54:HIS:HB3	44:DV:101:PRO:CD	2.45	0.47
45:D3:23:VAL:HB	45:D3:26:TYR:HE1	1.79	0.47
24:DA:856:C:H2'	24:DA:857:C:H6	1.77	0.47
24:BA:1337:G:H2'	24:BA:1338:G:O4'	2.14	0.47
1:AA:518:C:H5''	1:AA:519:C:C6	2.49	0.47
37:DQ:34:HIS:CE1	37:DQ:54:LEU:HD13	2.49	0.47
4:CG:112:VAL:CG1	4:CG:116:GLN:NE2	2.77	0.47
1:AA:1014:A:H5''	19:AV:14:HIS:CB	2.42	0.47
1:CA:468:A:H5''	16:CS:80:PHE:HB3	1.95	0.47
24:DA:1826:G:H4'	26:DD:242:ARG:CZ	2.44	0.47
1:CA:1098:C:P	2:CE:144:ARG:NH1	2.88	0.47
24:DA:864:G:C6	24:DA:865:C:N4	2.83	0.47
24:BA:2298:A:H2'	24:BA:2299:G:O4'	2.13	0.47
44:DV:14:LYS:HE2	44:DV:14:LYS:H	1.79	0.47
10:AM:89:ASP:HB3	10:AM:91:PRO:HD3	1.97	0.47
1:CA:114:U:O2'	1:CA:115:G:H5'	2.15	0.47
1:CA:1375:A:H4'	7:CJ:29:LYS:NZ	2.30	0.47
24:DA:141:A:H8	24:DA:1595:G:N2	2.10	0.47
44:BV:3:TYR:O	44:BV:58:VAL:HG23	2.14	0.47
24:BA:222:A:C1'	24:BA:223:A:OP1	2.62	0.47
24:DA:324:A:H2'	24:DA:325:G:O4'	2.15	0.47
24:BA:458:G:C8	52:B7:37:LYS:HG2	2.49	0.47
24:BA:218:A:C2	24:BA:235:U:H4'	2.50	0.47
26:DD:77:ALA:HB2	26:DD:97:TYR:CD1	2.50	0.47
6:CI:45:LEU:HD12	6:CI:59:TYR:HD1	1.80	0.47
45:B3:14:ARG:O	45:B3:15:ASP:HB2	2.14	0.47
33:BN:16:ALA:HB2	33:BN:52:VAL:CG2	2.45	0.47
33:BN:52:VAL:HG12	33:BN:94:ARG:HH21	1.79	0.47
24:DA:1328:G:H2'	24:DA:1330:C:C5	2.50	0.47
24:BA:2472:G:N2	24:BA:2477:C:H5''	2.28	0.47
3:CF:6:HIS:HD2	3:CF:7:PRO:CD	2.28	0.47
1:AA:173:U:C2	1:AA:197:A:C2	3.03	0.47
31:BK:58:LEU:C	31:BK:60:GLU:H	2.17	0.47
24:DA:225:A:H2'	24:DA:226:G:H5'	1.95	0.47
24:BA:1033:U:H4'	24:BA:1034:G:OP1	2.13	0.47
24:BA:768:G:H2'	24:BA:769:G:C8	2.48	0.47
24:BA:1633:G:C6	24:BA:1635:G:C4	3.03	0.47
24:DA:523:C:O2	24:DA:553:U:O2'	2.32	0.47
29:DG:177:GLY:O	29:DG:179:PRO:HD3	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:763:G:H2'	1:CA:764:C:C6	2.50	0.47
24:BA:1680:U:C4	24:BA:1681:G:C6	3.02	0.47
31:BK:54:GLN:HA	31:BK:57:ARG:HG2	1.96	0.47
31:DK:128:LEU:HD22	31:DK:128:LEU:N	2.30	0.47
28:DF:110:LEU:HD22	28:DF:202:PHE:CE1	2.49	0.47
24:BA:229:A:H1'	24:BA:230:U:P	2.55	0.47
1:CA:160:A:H1'	1:CA:344:A:C5	2.50	0.47
24:DA:2453:A:O2'	24:DA:2454:G:H5'	2.14	0.47
24:DA:630:G:N2	24:DA:633:A:OP2	2.42	0.47
24:BA:503:A:H4'	24:BA:504:U:H5''	1.97	0.47
13:AP:27:LYS:HE2	13:AP:31:LYS:NZ	2.30	0.47
24:DA:1804:C:O5'	24:DA:1804:C:H6	1.97	0.47
34:DO:83:VAL:O	34:DO:83:VAL:HG13	2.14	0.47
30:DH:83:TYR:HE1	30:DH:132:ARG:NE	2.13	0.47
27:BE:107:THR:O	27:BE:190:GLY:HA2	2.15	0.47
38:DR:81:PRO:C	38:DR:83:ILE:H	2.18	0.47
32:DM:4:TYR:O	39:D1:64:ARG:NH1	2.44	0.47
51:D6:14:THR:OG1	51:D6:19:ARG:HA	2.14	0.47
34:BO:81:GLN:NE2	34:BO:105:LEU:O	2.48	0.47
13:AP:96:LEU:HB3	13:AP:97:PRO:HD2	1.96	0.47
1:AA:781:A:O2'	1:AA:1522:U:O2	2.28	0.47
24:BA:1322:A:C5	24:BA:1323:U:C5	3.02	0.47
38:DR:86:ILE:HG12	38:DR:86:ILE:O	2.14	0.47
46:BZ:17:SER:HB2	46:BZ:40:ARG:HG2	1.96	0.47
27:DE:172:VAL:HG13	27:DE:182:LEU:HD11	1.96	0.47
1:CA:430:A:P	4:CG:9:CYS:H	2.37	0.47
1:CA:1145:C:H5''	1:CA:1146:A:OP1	2.14	0.47
1:CA:1299:A:N6	1:CA:1301:U:H3	2.13	0.47
1:CA:1344:C:C5'	9:CL:120:ARG:O	2.63	0.47
9:CL:89:ASN:HB2	9:CL:92:TYR:CE2	2.50	0.47
10:CM:13:HIS:HB3	10:CM:68:HIS:NE2	2.30	0.47
13:CP:30:ALA:O	13:CP:33:ALA:N	2.48	0.47
19:CV:7:LYS:HA	19:CV:7:LYS:HD3	1.80	0.47
37:DQ:94:TYR:CE2	37:DQ:99:LYS:HG3	2.49	0.47
9:AL:93:ARG:O	9:AL:95:LYS:N	2.47	0.47
51:B6:18:ARG:C	51:B6:19:ARG:HG2	2.34	0.47
19:AV:41:VAL:CG1	19:AV:67:VAL:HG13	2.44	0.47
19:AV:41:VAL:CG1	19:AV:42:PRO:HA	2.45	0.47
1:AA:412:A:C4'	1:AA:413:G:O5'	2.63	0.47
1:AA:1316:G:H22	1:AA:1319:A:C5'	2.28	0.47
29:BG:114:ILE:HD11	29:BG:140:ILE:CD1	2.45	0.47
29:BG:66:GLN:OE1	29:BG:98:ARG:NH1	2.48	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2807:G:N1	24:DA:2808:U:C2	2.83	0.47
2:AE:78:GLN:HG2	2:AE:94:ASN:OD1	2.14	0.47
24:DA:2638:G:H1'	24:DA:2778:A:N6	2.30	0.47
2:CE:19:HIS:HD2	2:CE:20:GLU:CG	2.23	0.47
29:DG:160:VAL:CG1	29:DG:161:THR:N	2.78	0.47
1:AA:1028(A):C:N4	1:AA:1029:G:C6	2.83	0.47
6:AI:10:LEU:N	6:AI:10:LEU:HD12	2.29	0.47
24:BA:2156:G:C5	24:BA:2157:G:N2	2.83	0.47
29:BG:82:LEU:CA	29:BG:86:MET:HE3	2.45	0.47
28:DF:133:ASN:HB2	28:DF:138:GLU:OE1	2.14	0.47
5:AH:41:VAL:HG23	5:AH:113:ALA:CB	2.43	0.47
36:B0:78:LYS:HG2	36:B0:83:ILE:HD11	1.96	0.47
49:D4:22:ILE:CG1	49:D4:23:GLU:H	2.23	0.47
34:DO:95:VAL:HG13	34:DO:125:VAL:HG23	1.97	0.47
4:CG:153:ARG:CG	4:CG:181:MET:SD	3.02	0.47
25:DB:5:C:H42	25:DB:115:G:H1	1.63	0.47
1:AA:256:U:C5	1:AA:256:U:OP2	2.68	0.47
35:BP:104:PHE:N	35:BP:104:PHE:CD1	2.82	0.47
1:CA:452:A:O2'	16:CS:72:ARG:NE	2.48	0.47
1:CA:1005:A:C2	1:CA:1006:C:C4'	2.97	0.47
1:CA:1039:C:H2'	1:CA:1040:U:O4'	2.14	0.47
24:BA:2685:G:P	38:BR:51:ARG:HH22	2.37	0.47
11:CN:21:ILE:HD12	11:CN:84:VAL:HG22	1.97	0.47
12:CO:27:LEU:CD2	12:CO:62:SER:HB2	2.45	0.47
24:DA:1138:G:O2'	32:DM:106:MET:HG3	2.15	0.47
4:CG:81:GLU:O	4:CG:85:LYS:HD2	2.15	0.47
1:CA:1069:C:N4	1:CA:1094:G:C6	2.82	0.47
24:BA:1567:A:H4'	26:BD:58:HIS:CD2	2.50	0.47
24:BA:2023:G:H4'	24:BA:2617:C:O3'	2.13	0.47
24:BA:2405:G:P	34:BO:77:ARG:NH2	2.87	0.47
7:AJ:59:LEU:O	7:AJ:63:LYS:HB3	2.15	0.47
1:AA:602:A:C6	1:AA:603:U:C4	3.03	0.47
2:AE:141:GLU:O	2:AE:144:ARG:HB3	2.15	0.47
16:CS:51:VAL:O	16:CS:53:VAL:N	2.47	0.47
1:AA:1310:G:N2	1:AA:1328:C:C2	2.82	0.47
24:BA:288:C:H2'	24:BA:289:A:H8	1.79	0.47
39:D1:83:LEU:O	39:D1:83:LEU:HD23	2.14	0.47
44:BV:132:ASN:HD21	44:BV:160:GLY:HA2	1.80	0.47
1:AA:824:C:H4'	8:AK:1:MET:H1	1.80	0.47
1:AA:186(F):C:H2'	1:AA:187:C:O4'	2.15	0.47
1:CA:1494:G:O4'	24:DA:1913:A:C4	2.67	0.47
1:CA:1158:C:H2'	1:CA:1158:C:O2	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1399:C:C2	1:AA:1401:G:C5	3.02	0.47
24:BA:1344:G:H4'	24:BA:1384:A:C5	2.49	0.47
1:AA:938:A:C6	1:AA:939:G:C5	3.02	0.47
24:DA:581:C:H2'	24:DA:582:G:C8	2.49	0.47
1:AA:1306:A:C2	1:AA:1307:U:C1'	2.97	0.47
24:BA:765:G:H2'	24:BA:766:C:C6	2.49	0.47
24:DA:2498:C:O2'	24:DA:2499:C:H5'	2.14	0.47
7:AJ:34:GLY:O	7:AJ:36:LYS:N	2.47	0.47
24:DA:699:A:H2'	24:DA:700:G:O4'	2.15	0.47
24:BA:1339:G:H5''	42:BT:16:LYS:HD3	1.96	0.47
43:DU:83:THR:HG22	43:DU:85:VAL:HG23	1.95	0.47
52:D7:22:MET:SD	52:D7:31:LEU:HD12	2.55	0.47
22:AC:51:C:H2'	22:AC:52:G:C8	2.50	0.47
31:BK:82:ARG:C	31:BK:89:TYR:HD2	2.18	0.47
24:BA:232:G:OP2	24:BA:232:G:H8	1.98	0.47
24:BA:431:U:H6	24:BA:431:U:O5'	1.98	0.47
1:AA:968:A:OP1	1:AA:968:A:H8	1.98	0.47
24:BA:2552:U:H2'	24:BA:2554:U:OP2	2.14	0.47
1:CA:1131:G:H1	1:CA:1143:G:N2	2.08	0.47
1:CA:1311:G:N2	1:CA:1326:C:O2	2.45	0.47
1:CA:983:A:H2	1:CA:984:C:C5	2.33	0.47
1:CA:1298:C:N4	7:CJ:114:ARG:HB3	2.29	0.47
13:CP:4:ILE:CD1	13:CP:5:ALA:N	2.74	0.47
24:BA:2399:G:O2'	51:B6:19:ARG:CD	2.62	0.47
51:B6:34:LEU:O	51:B6:35:GLU:HB2	2.15	0.47
19:AV:2:PRO:O	19:AV:3:ARG:CB	2.63	0.47
24:BA:745:G:C2'	24:BA:746:A:H5'	2.45	0.47
24:BA:1077:A:H2	24:BA:1088:A:H61	1.61	0.47
24:DA:1070:A:H5''	24:DA:1096:A:O2'	2.14	0.47
1:AA:1028:C:N3	1:AA:1033:G:N1	2.51	0.47
1:AA:1027:C:O4'	1:AA:1028:C:OP1	2.33	0.47
4:CG:108:LEU:O	4:CG:110:PHE:CD1	2.67	0.47
1:CA:1014:A:P	1:CA:1014:A:H8	2.38	0.47
5:AH:142:LEU:O	5:AH:143:ARG:HD3	2.15	0.47
3:CF:148:GLY:CA	3:CF:172:ARG:H	2.27	0.47
18:CU:23:LYS:C	18:CU:25:THR:H	2.18	0.47
2:AE:17:PHE:HA	2:AE:42:ILE:CG2	2.45	0.47
24:BA:2120:G:N2	24:BA:2178:C:O2	2.47	0.47
24:BA:2149:G:C6	24:BA:2150:U:C2	3.03	0.47
24:BA:2133:G:C1'	24:BA:2158:A:H61	2.26	0.47
29:BG:82:LEU:HA	29:BG:86:MET:HE3	1.95	0.47
38:BR:90:GLN:HG3	38:BR:91:ARG:N	2.29	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AL:79:LEU:CD2	9:AL:79:LEU:C	2.84	0.47
4:CG:153:ARG:NH1	4:CG:181:MET:HB2	2.30	0.47
25:DB:29:A:C2	25:DB:30:C:C2	3.02	0.47
44:DV:104:PHE:O	44:DV:105:VAL:HB	2.15	0.47
44:DV:105:VAL:CG1	44:DV:106:GLY:H	2.11	0.47
8:AK:42:GLU:HG3	8:AK:109:ILE:HD12	1.97	0.47
1:CA:1085:U:H3'	1:CA:1086:U:H5	1.80	0.47
1:AA:390:C:H2'	1:AA:391:G:H8	1.77	0.47
37:DQ:25:ARG:HD2	37:DQ:88:ASP:OD2	2.15	0.47
1:AA:865:A:H2	1:AA:918:A:H4'	1.80	0.47
28:BF:158:THR:HB	28:BF:195:ASP:OD2	2.15	0.47
7:CJ:69:VAL:CG2	7:CJ:135:VAL:HG22	2.38	0.47
24:BA:1448:G:N2	24:BA:1449:A:N6	2.63	0.47
24:BA:1541:U:O4	24:BA:1542:G:C2	2.67	0.47
50:B5:38:ALA:HB3	50:B5:40:LYS:HE3	1.97	0.47
30:BH:167:GLU:HA	30:BH:168:PRO:HD3	1.74	0.47
24:BA:2266:A:H1'	24:BA:2272:U:O4	2.15	0.47
27:DE:117:MET:HA	27:DE:122:PHE:N	2.30	0.47
8:CK:133:LEU:C	8:CK:133:LEU:CD2	2.83	0.47
24:DA:1495:A:C2'	24:DA:1496:A:H5'	2.45	0.47
24:DA:2572:A:H62	27:DE:145:LYS:HD3	1.80	0.47
1:CA:123:C:OP1	1:CA:312:C:C5'	2.61	0.47
20:CW:63:ILE:HG22	20:CW:77:ALA:HB1	1.96	0.47
1:CA:998:G:H2'	1:CA:998(A):C:C6	2.50	0.47
34:DO:36:LYS:HB3	34:DO:37:GLY:H	1.31	0.47
1:CA:457:C:N4	1:CA:458:C:H41	2.13	0.47
1:CA:474:G:H5''	16:CS:81:ARG:NH2	2.30	0.47
1:CA:474:G:H2'	1:CA:475:G:H8	1.79	0.47
26:DD:246:PRO:O	26:DD:254:THR:HG22	2.15	0.47
1:AA:324:G:N2	1:AA:327:A:C8	2.82	0.47
1:AA:827:U:C5	1:AA:872:A:N1	2.82	0.47
1:AA:227:G:H2'	1:AA:228:A:O4'	2.14	0.47
34:DO:39:LYS:HA	34:DO:45:LEU:HD13	1.96	0.47
24:DA:648:G:C4'	24:DA:2351:G:H5''	2.45	0.47
24:BA:422:A:C6	24:BA:423:A:C6	3.03	0.47
24:BA:1241:A:O2'	24:BA:1242:A:H5'	2.14	0.47
24:BA:2343:C:HO2'	24:BA:2373:G:HO2'	1.63	0.47
24:BA:2373:G:H2'	24:BA:2374:C:C6	2.50	0.47
9:AL:13:ALA:HA	9:AL:67:GLY:O	2.15	0.47
46:DZ:51:VAL:CG2	46:DZ:58:ILE:HB	2.45	0.47
25:BB:50:G:H5''	37:BQ:61:ASN:ND2	2.30	0.47
1:CA:995:C:O4'	14:CQ:8:GLU:OE1	2.33	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2244:U:H2'	24:BA:2245:U:H5'	1.95	0.47
25:BB:7:G:H4'	37:BQ:29:PHE:CD2	2.50	0.47
24:BA:1973:G:H2'	24:BA:1974:C:H6	1.79	0.47
1:CA:894:G:H2'	1:CA:895:G:H8	1.79	0.47
24:BA:2494:G:C4	24:BA:2495:G:C8	3.02	0.47
1:AA:1389:C:C5	1:AA:1390:U:C5	3.03	0.47
39:B1:28:ARG:HD3	39:B1:38:THR:OG1	2.13	0.47
24:BA:1847:A:O2'	24:BA:1848:A:H5'	2.15	0.47
24:DA:1632:A:N6	24:DA:1633:G:N1	2.63	0.47
1:CA:429:U:H2'	4:CG:25:ARG:NH1	2.30	0.47
4:CG:12:CYS:CB	4:CG:33:MET:HE2	2.45	0.47
1:CA:1134:G:C2'	1:CA:1135:U:H5'	2.45	0.47
1:CA:1288:A:O2'	1:CA:1289:A:H5'	2.15	0.47
1:CA:1297:C:C2'	1:CA:1298:C:OP2	2.63	0.47
1:CA:1329:A:O2'	13:CP:24:GLY:HA2	2.15	0.47
9:CL:118:LYS:O	9:CL:119:ALA:HB3	2.15	0.47
9:CL:9:ARG:CD	9:CL:14:VAL:HG13	2.43	0.47
37:DQ:104:GLY:C	37:DQ:106:ARG:N	2.67	0.47
24:DA:248:G:O5'	24:DA:249:C:H5''	2.15	0.47
51:B6:36:LEU:HD13	51:B6:50:ARG:CZ	2.44	0.47
24:BA:2286:A:C8	24:BA:2287:A:N6	2.84	0.47
4:AG:31:CYS:C	4:AG:33:MET:CG	2.83	0.47
24:BA:2751:G:O2'	24:BA:2752:C:P	2.72	0.47
1:AA:986:A:N3	19:AV:52:TYR:OH	2.38	0.47
34:BO:64:LYS:HD2	53:B8:25:MET:SD	2.55	0.47
37:BQ:110:LEU:HG	37:BQ:111:GLU:C	2.34	0.47
46:BZ:92:LYS:O	46:BZ:94:LEU:C	2.52	0.47
13:CP:3:ARG:HG3	49:D4:32:TYR:HE1	1.77	0.47
49:D4:32:TYR:HD1	49:D4:34:GLU:OE1	1.97	0.47
2:CE:54:THR:HG23	2:CE:199:TYR:HB3	1.96	0.47
43:BU:50:ARG:C	43:BU:52:SER:N	2.67	0.47
1:CA:246:A:H4'	1:CA:247:G:OP1	2.15	0.47
10:CM:78:ASN:CG	10:CM:81:THR:HG23	2.35	0.47
1:AA:102:G:N1	1:AA:103:C:C4	2.83	0.47
20:AW:18:GLN:O	20:AW:21:LYS:N	2.48	0.47
9:CL:4:TYR:CD2	9:CL:19:LEU:HD12	2.44	0.47
24:DA:904:C:O2'	24:DA:905:U:H5'	2.15	0.47
34:BO:19:VAL:HG21	34:BO:21:ARG:HB2	1.97	0.47
1:AA:1330:U:H3'	1:AA:1331:G:O4'	2.14	0.47
30:DH:152:ARG:NE	30:DH:153:LYS:HE2	2.30	0.47
43:DU:14:LEU:HD12	43:DU:15:VAL:H	1.80	0.47
6:AI:26:ILE:HG22	6:AI:30:LEU:HD11	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DW:17:SER:CB	47:DW:18:PRO:CA	2.63	0.47
44:DV:91:LEU:HD23	44:DV:96:VAL:HG21	1.95	0.47
27:DE:8:LYS:HB3	27:DE:192:ASN:HA	1.97	0.47
4:AG:173:TRP:HA	4:AG:186:LEU:CG	2.45	0.47
16:AS:14:ASN:HD21	16:AS:16:HIS:CE1	2.33	0.47
40:D2:76:LYS:HB2	40:D2:79:VAL:CG2	2.45	0.47
1:AA:532:A:H3'	1:AA:533:A:C5'	2.44	0.47
2:AE:12:GLU:CA	2:AE:16:HIS:CD2	2.96	0.47
24:DA:2065:C:H2'	24:DA:2066:C:C6	2.50	0.47
1:CA:1002:G:C6	1:CA:1003:G:C6	3.03	0.47
24:DA:2818:G:O2'	24:DA:2837:G:H5'	2.15	0.47
1:AA:95:G:C5	1:AA:96:G:C5	3.03	0.47
32:DM:94:HIS:O	32:DM:97:ARG:HD2	2.15	0.47
1:CA:192:U:C4'	20:CW:103:GLY:HA3	2.44	0.47
4:AG:23:GLY:CA	4:AG:112:VAL:CG2	2.86	0.47
24:DA:2306:C:H3'	24:DA:2307:G:C5'	2.36	0.47
7:AJ:70:LYS:HE2	7:AJ:96:GLN:OE1	2.14	0.47
24:BA:1509:C:N4	24:BA:1511:A:N1	2.63	0.47
24:DA:1530:G:O2'	24:DA:1531:C:H5'	2.14	0.47
25:BB:70:C:C2	25:BB:71:C:C5	3.03	0.47
24:BA:1668:A:H4'	24:BA:1669:A:O5'	2.14	0.47
1:CA:745:C:OP1	1:CA:851:G:O2'	2.32	0.47
38:DR:48:ILE:HG22	38:DR:49:VAL:N	2.28	0.47
1:CA:574:A:C5'	1:CA:575:G:OP2	2.61	0.47
1:CA:881:G:H2'	1:CA:882:C:O4'	2.15	0.47
24:DA:2195:C:C2'	24:DA:2196:C:H5'	2.44	0.47
20:CW:63:ILE:HG21	20:CW:81:LYS:HG3	1.96	0.47
33:DN:63:VAL:HG23	33:DN:64:ARG:HG3	1.96	0.47
1:CA:961:U:C2'	1:CA:962:C:H5'	2.45	0.47
45:D3:26:TYR:H	45:D3:29:GLN:NE2	2.13	0.47
1:CA:854:G:N1	1:CA:855:G:N7	2.62	0.47
24:DA:933:A:H2'	24:DA:934:G:H5'	1.97	0.47
1:AA:323:U:H2'	1:AA:324:G:O4'	2.15	0.47
1:CA:449:C:H2'	1:CA:450:G:O4'	2.15	0.47
24:BA:511:U:H2'	24:BA:512:G:H5'	1.96	0.47
1:CA:243:A:C1'	1:CA:244:U:OP2	2.63	0.47
11:AN:32:ILE:HD12	11:AN:68:ALA:O	2.15	0.47
1:CA:181:G:N2	1:CA:183:G:N2	2.64	0.47
28:DF:21:ALA:HB3	28:DF:23:ASP:CG	2.34	0.47
24:BA:141(A):C:H6	24:BA:141(A):C:O5'	1.96	0.47
1:AA:575:G:N9	1:AA:881:G:N2	2.63	0.47
24:DA:2820:A:O2'	24:DA:2821:A:OP1	2.22	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2070:G:H2'	24:BA:2071:A:C8	2.50	0.47
24:BA:1213:A:H1'	24:BA:1238:G:N3	2.30	0.47
16:CS:67:THR:HG22	16:CS:68:ASP:N	2.29	0.47
24:DA:2010:G:H5''	41:DS:42:ARG:HB2	1.97	0.47
24:DA:548:A:C2	24:DA:549:G:H1'	2.49	0.47
13:AP:116:THR:O	13:AP:117:VAL:CG1	2.62	0.47
33:BN:102:VAL:CG2	33:BN:121:VAL:HG22	2.45	0.47
2:AE:92:TYR:N	2:AE:151:GLY:O	2.41	0.47
27:BE:49:LEU:HD12	27:BE:49:LEU:N	2.30	0.47
24:DA:85:G:OP1	43:DU:30:VAL:HG21	2.14	0.47
24:DA:1710:C:H2'	24:DA:1711:C:H6	1.79	0.47
24:BA:69:C:O2'	24:BA:70:G:H5'	2.15	0.47
27:DE:111:ARG:H	27:DE:111:ARG:HD2	1.80	0.47
43:BU:57:GLN:N	43:BU:57:GLN:OE1	2.48	0.47
33:DN:73:ASP:HB2	38:DR:82:LEU:HD22	1.97	0.47
1:CA:1154:G:C6	1:CA:1155:G:C5	3.04	0.46
24:DA:2344:U:P	51:D6:37:ARG:CZ	3.03	0.46
9:AL:53:VAL:O	9:AL:54:ASP:HB2	2.14	0.46
24:DA:833:U:H2'	24:DA:834:C:C6	2.50	0.46
24:BA:2399:G:N3	51:B6:19:ARG:NH2	2.59	0.46
24:DA:871:U:OP1	35:DP:4:PRO:CA	2.60	0.46
29:BG:106:LEU:HD12	29:BG:110:ALA:CB	2.46	0.46
52:B7:49:ARG:HH11	52:B7:49:ARG:CG	2.28	0.46
24:DA:2748:A:H4'	30:DH:66:GLY:C	2.36	0.46
25:BB:45:A:OP2	29:BG:96:ARG:NH2	2.48	0.46
24:DA:775:G:H4'	24:DA:776:G:H5'	1.98	0.46
24:DA:1794:U:C1'	24:DA:1900:A:C2	2.98	0.46
27:DE:77:ILE:C	27:DE:78:LEU:HG	2.35	0.46
2:CE:11:LEU:HD13	2:CE:12:GLU:CB	2.44	0.46
9:CL:87:GLN:OE1	9:CL:88:TYR:N	2.49	0.46
3:CF:120:VAL:HA	3:CF:123:GLN:NE2	2.30	0.46
1:CA:1203:C:O2'	1:CA:1204:A:H5'	2.15	0.46
19:CV:14:HIS:CD2	19:CV:14:HIS:N	2.83	0.46
44:DV:29:TYR:O	44:DV:89:PHE:HA	2.14	0.46
1:CA:448:A:C8	1:CA:486:U:O4	2.69	0.46
5:AH:41:VAL:H	5:AH:67:VAL:HG13	1.81	0.46
13:CP:41:PRO:C	13:CP:43:THR:H	2.18	0.46
24:BA:608:A:C2	24:BA:621:A:C5	3.04	0.46
9:AL:56:LEU:CD2	9:AL:57:GLY:N	2.78	0.46
5:AH:150:ARG:O	5:AH:153:LYS:CG	2.51	0.46
4:CG:152:SER:O	4:CG:158:ILE:HG13	2.15	0.46
1:AA:264:U:O2	17:AT:64:PRO:HG2	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BE:75:VAL:C	27:BE:76:ARG:HD2	2.35	0.46
38:BR:98:LYS:HB3	38:BR:100:TYR:HE1	1.70	0.46
3:CF:52:LEU:N	3:CF:52:LEU:HD23	2.27	0.46
24:BA:879:G:C6	24:BA:880:G:C5	3.03	0.46
24:BA:880:G:N2	24:BA:898:C:C2	2.83	0.46
44:BV:25:PRO:O	44:BV:86:VAL:HG23	2.15	0.46
31:DK:52:ARG:O	31:DK:56:LYS:CG	2.63	0.46
24:BA:139:G:N2	24:BA:1596:A:H4'	2.29	0.46
37:DQ:11:LYS:O	37:DQ:15:ARG:HB2	2.15	0.46
10:AM:40:LEU:CB	10:AM:41:PRO:HD2	2.44	0.46
1:CA:638:G:C2'	1:CA:639:G:H5'	2.45	0.46
1:CA:346:G:OP1	38:DR:41:ARG:NH2	2.48	0.46
24:DA:2274:A:N1	24:DA:2276:G:H1'	2.29	0.46
24:BA:528:A:H2	24:BA:2043:C:C5'	2.28	0.46
38:DR:52:ILE:H	38:DR:98:LYS:HZ2	1.63	0.46
30:DH:18:GLU:H	30:DH:25:LYS:CD	2.28	0.46
42:DT:57:LEU:HD21	42:DT:78:LYS:HB3	1.94	0.46
9:AL:111:ARG:HD2	14:AQ:61:TRP:OXT	2.15	0.46
35:BP:11:LYS:HG2	35:BP:75:THR:CG2	2.42	0.46
1:AA:1336:C:O2	1:AA:1336:C:H2'	2.15	0.46
25:DB:17:C:H2'	25:DB:18:G:O4'	2.15	0.46
50:D5:57:VAL:CG1	50:D5:58:LEU:H	2.26	0.46
24:DA:162:U:H4'	24:DA:171:G:C4	2.50	0.46
44:DV:3:TYR:O	44:DV:58:VAL:N	2.44	0.46
31:DK:25:TYR:HE1	31:DK:29:TYR:CD2	2.33	0.46
1:AA:760:G:C2'	1:AA:761:G:H5'	2.46	0.46
24:BA:816:C:O2'	24:BA:932:G:O6	2.33	0.46
24:DA:565:C:H4'	24:DA:1253:A:C6	2.50	0.46
16:CS:55:ARG:O	16:CS:58:TYR:N	2.42	0.46
29:DG:123:ASN:C	29:DG:125:PHE:H	2.19	0.46
24:BA:478:A:C6	24:BA:480:A:C6	3.03	0.46
1:CA:795:C:H5''	1:CA:796:C:OP2	2.15	0.46
1:AA:765:G:N1	1:AA:812:C:H1'	2.30	0.46
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.15	0.46
26:BD:108:PRO:HG3	26:BD:143:HIS:CE1	2.49	0.46
5:CH:39:GLY:C	5:CH:40:ARG:HG3	2.34	0.46
36:D0:63:ARG:NH2	36:D0:77:ARG:HG2	2.30	0.46
24:DA:2341:G:H2'	24:DA:2342:C:C6	2.51	0.46
24:BA:1379:A:C4'	24:BA:1380:G:OP1	2.63	0.46
1:AA:909:A:H2'	1:AA:910:C:O4'	2.15	0.46
35:BP:5:ARG:O	35:BP:6:ARG:HB2	2.14	0.46
44:DV:9:TYR:CG	44:DV:35:ARG:NH1	2.83	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:CX:5:ASP:O	21:CX:11:GLY:HA3	2.14	0.46
24:BA:2464:C:O2	24:BA:2464:C:H2'	2.15	0.46
24:BA:1454:U:H5	36:B0:73:VAL:HG13	1.80	0.46
24:BA:848:G:H2'	24:BA:849:A:C8	2.50	0.46
9:AL:110:GLU:OE2	9:AL:113:LYS:NZ	2.39	0.46
45:B3:34:GLY:O	45:B3:35:ASN:C	2.51	0.46
1:AA:1052:U:O4	1:AA:1200:C:O2'	2.18	0.46
18:AU:73:ALA:HB3	18:AU:79:LEU:HD12	1.96	0.46
33:DN:19:ILE:O	33:DN:19:ILE:HG13	2.15	0.46
1:CA:84:U:H2'	1:CA:84:U:O2	2.15	0.46
43:BU:27:VAL:O	43:BU:27:VAL:HG22	2.15	0.46
1:AA:11:G:C5	1:AA:12:U:C5	3.02	0.46
1:CA:412:A:O2'	1:CA:413:G:OP2	2.22	0.46
1:CA:1279:A:O2'	1:CA:1282:C:N4	2.48	0.46
1:CA:983:A:H2	1:CA:984:C:H6	1.60	0.46
10:CM:13:HIS:HB3	10:CM:68:HIS:CE1	2.50	0.46
1:AA:1346:A:OP1	9:AL:120:ARG:NH1	2.47	0.46
53:D8:33:ASN:OD1	53:D8:33:ASN:N	2.48	0.46
51:B6:28:ARG:HB2	51:B6:29:ASN:H	1.60	0.46
24:DA:870:A:OP1	35:DP:6:ARG:CG	2.64	0.46
24:DA:871:U:H5'	35:DP:69:PHE:HE2	1.72	0.46
43:BU:97:ARG:HH21	43:BU:98:VAL:CG1	2.28	0.46
24:BA:1050:A:N7	24:BA:2751:G:C6	2.83	0.46
1:AA:1316:G:H4'	14:AQ:18:VAL:CG1	2.46	0.46
34:BO:64:LYS:HD2	53:B8:25:MET:HE1	1.96	0.46
27:DE:78:LEU:N	27:DE:78:LEU:HD23	2.31	0.46
2:AE:233:SER:HB2	2:AE:234:PRO:CD	2.35	0.46
24:BA:270(K):C:O2	24:BA:270(N):G:N2	2.47	0.46
2:CE:11:LEU:HD13	2:CE:12:GLU:HB3	1.97	0.46
10:CM:79:ARG:HH11	10:CM:80:LYS:HG3	1.70	0.46
10:CM:81:THR:O	10:CM:84:GLN:N	2.48	0.46
1:AA:975:A:C5'	1:AA:976:G:H5''	2.43	0.46
1:CA:992:U:C1'	1:CA:993:G:P	3.03	0.46
25:DB:104:A:C4	25:DB:105:G:H1'	2.50	0.46
38:DR:106:SER:O	38:DR:107:ASP:CG	2.53	0.46
24:BA:2393:A:O2'	24:BA:2394:C:H5'	2.16	0.46
9:AL:17:VAL:HA	9:AL:63:ILE:HG12	1.97	0.46
9:AL:79:LEU:O	9:AL:79:LEU:HD23	2.15	0.46
1:AA:626:U:H4'	16:AS:38:TYR:CZ	2.49	0.46
17:AT:65:ILE:HD12	17:AT:65:ILE:N	2.29	0.46
46:DZ:81:LYS:H	46:DZ:82:LEU:HD23	1.79	0.46
22:CC:48:C:N4	22:CC:59:A:C8	2.83	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AK:122:ARG:O	8:AK:125:ARG:N	2.47	0.46
24:DA:74:A:O5'	24:DA:74:A:C8	2.68	0.46
1:CA:63:C:H2'	1:CA:64:G:C5'	2.46	0.46
24:DA:1653:G:C3'	36:D0:2:ARG:NH1	2.79	0.46
10:CM:56:HIS:C	10:CM:58:ASP:H	2.19	0.46
3:CF:47:LEU:CD1	3:CF:48:TYR:N	2.77	0.46
1:AA:1043:C:H5''	24:DA:2155:G:O2'	2.15	0.46
1:CA:1284:C:H3'	1:CA:1285:A:H2'	1.97	0.46
32:DM:28:THR:HG22	32:DM:29:LYS:N	2.31	0.46
24:DA:1173:G:H21	24:DA:1176:G:H22	1.62	0.46
1:AA:373:A:O2'	1:AA:451:A:N7	2.47	0.46
43:DU:89:PHE:HD2	43:DU:90:LEU:HG	1.80	0.46
5:CH:107:ARG:HB2	5:CH:107:ARG:HH11	1.79	0.46
1:AA:1492:A:C6	24:BA:1913:A:N7	2.83	0.46
4:AG:192:GLU:O	4:AG:194:LEU:N	2.49	0.46
24:BA:2468:G:H22	24:BA:2481:G:H2'	1.80	0.46
36:D0:101:ALA:HB2	50:D5:44:THR:HB	1.98	0.46
1:AA:1257:U:H5'	1:AA:1258:G:C8	2.50	0.46
24:DA:2053:G:H5'	27:DE:144:ARG:O	2.14	0.46
30:DH:41:MET:SD	30:DH:64:LEU:HB2	2.56	0.46
24:DA:2887:U:H2'	24:DA:2888:C:C6	2.43	0.46
1:CA:625:G:H4'	16:CS:16:HIS:HD2	1.80	0.46
1:AA:1014:A:N3	1:AA:1219:U:H1'	2.30	0.46
36:D0:48:VAL:O	36:D0:49:ASP:C	2.52	0.46
24:DA:1511:A:C4	24:DA:1512:G:C8	3.02	0.46
24:BA:2298:A:N6	24:BA:2318:G:H8	2.10	0.46
47:DW:70:GLN:O	47:DW:70:GLN:HG2	2.14	0.46
29:DG:174:GLU:HB2	29:DG:180:PHE:HE2	1.80	0.46
1:CA:244:U:H4'	1:CA:245:C:H5''	1.97	0.46
24:BA:2195:C:O2'	24:BA:2196:C:H5'	2.15	0.46
24:DA:127:A:H5''	24:DA:128:C:C6	2.51	0.46
24:DA:128:C:C6	24:DA:128:C:C3'	2.98	0.46
1:AA:590:C:O2'	1:AA:591:U:H5'	2.15	0.46
14:CQ:52:GLN:O	14:CQ:53:LEU:HD23	2.15	0.46
37:BQ:51:ALA:HB3	37:BQ:73:LEU:HG	1.97	0.46
1:CA:1161:C:H2'	1:CA:1162:C:H6	1.80	0.46
24:DA:280:C:N3	24:DA:361:G:C2	2.84	0.46
1:AA:924:C:O2'	1:AA:1502:A:N6	2.49	0.46
16:CS:55:ARG:O	16:CS:58:TYR:HB3	2.16	0.46
1:CA:386:C:O2'	1:CA:387:U:H5'	2.15	0.46
1:CA:439:A:C5	1:CA:440:A:H1'	2.50	0.46
11:AN:44:SER:H	11:AN:47:VAL:HB	1.81	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:78:GLU:OE1	41:DS:99:ARG:HD2	2.15	0.46
31:BK:31:LEU:HD12	31:BK:31:LEU:N	2.31	0.46
44:BV:23:LYS:HE2	44:BV:40:ASP:OD2	2.15	0.46
3:CF:153:VAL:HA	3:CF:197:GLY:O	2.15	0.46
24:BA:466:A:N3	24:BA:683:C:H1'	2.30	0.46
24:DA:1743:G:C2	24:DA:1746:G:C8	3.04	0.46
26:DD:18:VAL:HG22	26:DD:19:ALA:N	2.30	0.46
1:CA:413:G:H2'	1:CA:428:G:H21	1.79	0.46
4:CG:31:CYS:O	4:CG:33:MET:CG	2.63	0.46
1:CA:956:U:C2	1:CA:1225:A:H2	2.31	0.46
1:CA:1309:G:N2	1:CA:1329:A:H1'	2.29	0.46
1:CA:1320:C:H2'	1:CA:1321:C:C4'	2.44	0.46
1:CA:1357:A:C5	1:CA:1358:U:C4	3.03	0.46
1:CA:1353:G:N1	1:CA:1370:G:C2	2.84	0.46
51:D6:36:LEU:HG	51:D6:50:ARG:CZ	2.44	0.46
51:D6:37:ARG:HH21	51:D6:38:LYS:N	2.07	0.46
7:CJ:89:MET:CA	7:CJ:155:ARG:NH1	2.24	0.46
43:BU:79:CYS:HG	43:BU:80:GLY:N	2.12	0.46
1:AA:1382:C:P	7:AJ:79:ARG:NH1	2.85	0.46
24:DA:1042:G:H1	24:DA:1113:U:H3	1.62	0.46
24:BA:2751:G:N7	30:BH:3:ARG:CD	2.77	0.46
53:B8:14:VAL:HG22	53:B8:15:LYS:H	1.78	0.46
34:DO:105:LEU:O	34:DO:106:LEU:HB3	2.15	0.46
2:AE:103:THR:CG2	2:AE:176:GLU:CB	2.77	0.46
2:AE:77:ALA:HB3	2:AE:165:VAL:HG21	1.98	0.46
24:BA:1061:U:H1'	24:BA:1070:A:C2	2.50	0.46
46:BZ:58:ILE:CG2	46:BZ:87:PRO:HG3	2.44	0.46
2:CE:181:PHE:O	2:CE:183:PRO:HD3	2.16	0.46
2:CE:5:ILE:HG21	2:CE:52:GLU:HG3	1.98	0.46
27:BE:78:LEU:HG	27:BE:79:ARG:N	2.31	0.46
1:CA:278:G:OP2	17:CT:41:LYS:HE2	2.16	0.46
5:CH:18:ARG:NH2	5:CH:25:ARG:HD2	2.27	0.46
3:CF:120:VAL:CG2	3:CF:140:ARG:NH2	2.78	0.46
24:BA:875:G:H5''	44:BV:173:ALA:CB	2.45	0.46
28:DF:101:LEU:CD1	28:DF:102:PRO:HD2	2.21	0.46
1:CA:403:C:O2'	1:CA:404:U:H5'	2.16	0.46
4:CG:204:ILE:HG21	5:CH:98:THR:O	2.16	0.46
31:DK:76:THR:CG2	31:DK:140:LEU:HA	2.45	0.46
49:D4:2:LYS:HD2	49:D4:6:HIS:CB	2.45	0.46
24:BA:2392:A:H8	34:BO:60:MET:CB	2.24	0.46
38:BR:94:ALA:O	38:BR:95:ARG:CB	2.60	0.46
10:AM:97:GLU:OE2	10:AM:97:GLU:HA	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:66:G:O4'	1:CA:173:U:C5	2.68	0.46
35:DP:63:LYS:C	35:DP:64:ILE:HD12	2.35	0.46
48:BX:31:LEU:O	48:BX:32:GLN:CB	2.63	0.46
5:CH:100:VAL:CG2	5:CH:116:THR:HA	2.46	0.46
24:DA:1342:A:H2	24:DA:1602:U:N3	2.13	0.46
24:BA:729:G:H5'	24:BA:730:C:H5''	1.97	0.46
2:CE:121:LEU:HG	2:CE:126:GLU:CB	2.45	0.46
33:DN:3:GLN:HB2	33:DN:4:PRO:CD	2.45	0.46
1:AA:1276:G:C2	1:AA:1277:C:C2	3.03	0.46
27:DE:1:MET:HB2	27:DE:200:GLU:CG	2.45	0.46
38:DR:98:LYS:N	38:DR:98:LYS:HD2	2.31	0.46
15:CR:67:LEU:HB3	15:CR:78:TYR:HE2	1.80	0.46
13:CP:97:PRO:CA	13:CP:110:ARG:HG2	2.45	0.46
3:CF:113:ALA:N	3:CF:202:ILE:HD12	2.31	0.46
24:BA:438:G:H2'	24:BA:439:G:C8	2.50	0.46
1:CA:709:G:H2'	1:CA:710:G:H8	1.80	0.46
4:CG:159:ARG:O	4:CG:160:GLN:C	2.53	0.46
47:DW:65:ASN:O	47:DW:68:ARG:N	2.47	0.46
1:AA:227:G:O2'	16:AS:62:VAL:HG22	2.15	0.46
24:BA:421:U:OP2	24:BA:421:U:H6	1.98	0.46
24:BA:270(W):G:H2'	24:BA:270(X):G:O4'	2.16	0.46
24:DA:1168:G:C2	24:DA:1182:A:C2	3.04	0.46
24:BA:533:G:N3	39:B1:45:TYR:CD2	2.84	0.46
24:DA:2564:A:H5''	24:DA:2565:A:OP2	2.16	0.46
24:BA:2572:A:OP1	24:BA:2574:G:H4'	2.15	0.46
24:DA:2821:A:H2'	24:DA:2822:G:O4'	2.15	0.46
1:AA:939:G:H2'	1:AA:940:C:C6	2.51	0.46
24:BA:2715:C:H2'	24:BA:2716:U:C6	2.50	0.46
30:DH:85:LYS:O	30:DH:132:ARG:HB2	2.14	0.46
24:BA:39:C:O2'	24:BA:40:C:H5'	2.15	0.46
26:DD:175:LEU:HD12	26:DD:185:VAL:HG21	1.97	0.46
24:BA:1208:C:C2	24:BA:1239:G:C2	3.04	0.46
25:BB:78:A:C2	25:BB:99:A:C4	3.03	0.46
1:AA:802:A:H2'	1:AA:803:G:O4'	2.16	0.46
24:BA:1257:C:H4'	28:BF:83:PHE:CD1	2.51	0.46
3:CF:45:LYS:O	3:CF:45:LYS:HD3	2.14	0.46
4:CG:12:CYS:CB	4:CG:33:MET:CE	2.93	0.46
1:CA:1300:G:O2'	1:CA:1301:U:OP2	2.32	0.46
1:CA:1331:G:OP2	13:CP:23:TYR:CD1	2.68	0.46
1:CA:1249:C:O2'	9:CL:73:GLN:OE1	2.28	0.46
10:CM:37:PRO:HA	10:CM:72:VAL:HG23	1.98	0.46
10:CM:70:ARG:CG	10:CM:70:ARG:HH11	2.12	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CP:108:ARG:HD2	13:CP:114:ARG:HE	1.80	0.46
37:DQ:104:GLY:O	37:DQ:106:ARG:N	2.47	0.46
24:BA:2399:G:O2'	51:B6:19:ARG:CZ	2.63	0.46
51:B6:25:LYS:HG3	53:B8:34:TRP:HE1	1.80	0.46
19:AV:64:GLU:O	49:B4:56:VAL:HG13	2.15	0.46
4:AG:30:LYS:CB	4:AG:33:MET:H	2.24	0.46
19:AV:5:LEU:HG	19:AV:5:LEU:O	2.15	0.46
27:DE:63:LEU:O	27:DE:64:LYS:CG	2.64	0.46
24:DA:1794:U:H2'	24:DA:1795:C:H6	1.79	0.46
27:DE:76:ARG:HG2	27:DE:195:LEU:HD22	1.98	0.46
35:DP:134:ARG:HH22	44:DV:122:ARG:CD	2.27	0.46
24:DA:621:A:H2'	24:DA:622:G:C5'	2.39	0.46
1:AA:1298:C:C5	7:AJ:114:ARG:HD3	2.51	0.46
31:DK:76:THR:HG23	31:DK:140:LEU:HA	1.96	0.46
2:AE:17:PHE:CA	2:AE:42:ILE:HG22	2.46	0.46
24:BA:2117:A:N6	24:BA:2172:U:C4	2.83	0.46
40:D2:98:GLU:OE1	40:D2:100:ARG:NH1	2.48	0.46
10:AM:20:ALA:C	10:AM:22:LYS:H	2.18	0.46
24:BA:49:A:C8	24:BA:120:U:H5	2.30	0.46
16:AS:82:GLN:HG3	16:AS:83:GLU:H	1.79	0.46
37:BQ:66:ALA:O	37:BQ:69:VAL:HG13	2.15	0.46
24:DA:71:A:C2	42:DT:31:HIS:CE1	3.04	0.46
35:DP:89:ASN:O	35:DP:90:VAL:CG1	2.64	0.46
24:BA:895:U:O2'	24:BA:897:C:OP2	2.21	0.46
24:DA:1006:C:H5''	32:DM:32:THR:HG23	1.97	0.46
9:CL:53:VAL:HG23	9:CL:54:ASP:N	2.19	0.46
24:DA:2186:G:O2'	24:DA:2187:G:H5'	2.15	0.46
1:CA:737:A:OP1	6:CI:91:VAL:HG13	2.15	0.46
41:BS:110:LYS:C	41:BS:112:GLY:H	2.19	0.46
1:CA:347:G:C2'	1:CA:348:G:H5'	2.45	0.46
14:AQ:25:VAL:HG22	14:AQ:39:LEU:CD2	2.46	0.46
41:DS:45:TYR:HD2	41:DS:46:PHE:CE1	2.33	0.46
1:CA:652:U:O4	1:CA:752:G:O2'	2.32	0.46
1:AA:1013:G:N2	1:AA:1016:A:OP2	2.46	0.46
24:BA:2592:G:C6	24:BA:2593:U:C4	3.04	0.46
2:AE:141:GLU:O	2:AE:145:LEU:HD23	2.14	0.46
24:DA:848:G:H2'	24:DA:849:A:H8	1.79	0.46
24:DA:2516:G:C6	24:DA:2517:C:C4	3.03	0.46
39:D1:79:PHE:O	39:D1:83:LEU:HB2	2.15	0.46
24:BA:223:A:O4'	24:BA:422:A:H5'	2.16	0.46
24:BA:2758:A:C2	30:BH:67:LEU:HD21	2.50	0.46
24:DA:1240:U:O2'	24:DA:1241:A:H5'	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:270(W):G:C6	24:BA:270(X):G:C4	3.04	0.46
22:CC:23:C:H2'	22:CC:24:U:C6	2.50	0.46
24:DA:1184:G:OP2	48:DX:30:ARG:NH2	2.48	0.46
30:DH:95:ARG:HG3	30:DH:96:ALA:H	1.81	0.46
27:BE:37:ARG:HD3	27:BE:42:ASP:OD1	2.16	0.46
30:BH:94:TYR:HE2	30:BH:160:LYS:HB3	1.80	0.46
37:BQ:70:GLY:CA	37:BQ:101:LEU:CD1	2.93	0.46
1:AA:1272:G:O6	1:AA:1273:G:C6	2.69	0.46
24:BA:479:A:H4'	24:BA:480:A:OP1	2.14	0.46
44:DV:44:PHE:C	44:DV:44:PHE:CD1	2.88	0.46
25:BB:20:C:O2'	25:BB:21:G:H5'	2.15	0.46
24:DA:2490:G:H2'	24:DA:2490:G:N3	2.30	0.46
3:AF:141:VAL:O	3:AF:146:ALA:CB	2.64	0.46
35:DP:47:ILE:O	35:DP:50:ALA:N	2.48	0.46
25:BB:63:G:C6	25:BB:64:C:C4	3.04	0.46
1:AA:815:A:N6	1:AA:1509:C:H1'	2.31	0.46
39:D1:21:ALA:HA	39:D1:24:TYR:CE2	2.50	0.46
2:AE:133:LYS:HD3	2:AE:133:LYS:O	2.15	0.46
18:AU:46:GLU:HG2	18:AU:46:GLU:O	2.15	0.46
24:DA:2309:A:OP1	24:DA:2309:A:C8	2.69	0.46
19:AV:65:ASN:HD22	19:AV:65:ASN:H	1.64	0.46
19:AV:65:ASN:N	19:AV:65:ASN:HD22	2.14	0.46
40:B2:71:LEU:HD23	40:B2:84:LYS:HE3	1.98	0.46
24:DA:2604:U:C2'	24:DA:2605:U:H5'	2.45	0.46
33:DN:35:VAL:HA	33:DN:62:VAL:O	2.16	0.46
1:CA:1280:A:P	10:CM:7:LYS:NZ	2.88	0.46
1:CA:1346:A:H5''	1:CA:1348:U:H1'	1.96	0.46
9:CL:71:SER:O	9:CL:75:ASP:HB2	2.15	0.46
13:CP:64:TRP:N	13:CP:64:TRP:CD1	2.83	0.46
19:CV:67:VAL:HG23	19:CV:68:GLY:H	1.80	0.46
1:CA:1289:A:P	21:CX:10:ARG:NH2	2.88	0.46
1:CA:1269:A:OP1	21:CX:24:ARG:NE	2.47	0.46
1:AA:1157:A:N6	1:AA:1178:G:N2	2.58	0.46
1:AA:1181:G:O2'	1:AA:1184:G:H5'	2.15	0.46
51:B6:21:TYR:O	51:B6:21:TYR:HD2	1.99	0.46
40:D2:21:ARG:CZ	40:D2:91:TYR:CB	2.93	0.46
24:DA:870:A:C2	24:DA:908:C:N3	2.83	0.46
1:AA:1382:C:O4'	7:AJ:79:ARG:CZ	2.60	0.46
1:AA:977:A:H3'	1:AA:977:A:N3	2.30	0.46
27:DE:64:LYS:HE3	27:DE:66:HIS:HA	1.97	0.46
24:BA:1059:G:C6	24:BA:1080:A:C2	3.02	0.46
24:BA:1093:G:H5''	30:BH:170:ARG:NH1	2.30	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:D2:35:LEU:CD1	40:D2:37:VAL:HG11	2.45	0.46
2:CE:205:ASP:OD1	2:CE:206:ASP:N	2.49	0.46
1:CA:1080:A:H5'	5:CH:14:ARG:HH22	1.74	0.46
24:DA:1061:U:C5'	24:DA:1062:G:OP2	2.64	0.46
43:DU:19:LYS:HG3	43:DU:20:TYR:CD2	2.51	0.46
3:CF:50:ALA:HB1	3:CF:70:VAL:HG11	1.98	0.46
43:DU:49:VAL:O	43:DU:50:ARG:C	2.54	0.46
36:B0:37:THR:HG22	36:B0:39:PRO:HD2	1.98	0.46
19:CV:39:THR:HG22	19:CV:40:ILE:H	1.79	0.46
24:BA:2212:A:O2'	24:BA:2215:G:C8	2.68	0.46
24:BA:2139:C:C4	24:BA:2140:C:C5	3.04	0.46
27:DE:188:VAL:HG23	27:DE:189:PRO:HD2	1.96	0.46
39:D1:66:ASN:CB	39:D1:76:TYR:HB2	2.41	0.46
39:B1:74:LEU:HD12	39:B1:79:PHE:CB	2.31	0.46
2:CE:25:ASN:C	2:CE:27:LYS:H	2.18	0.46
34:DO:126:VAL:HG22	34:DO:145:PRO:HG2	1.90	0.46
34:DO:143:GLY:O	34:DO:144:GLU:HB3	2.16	0.46
26:BD:133:LEU:O	26:BD:135:PHE:N	2.48	0.46
42:BT:60:ARG:HH22	52:B7:47:ARG:NH1	2.14	0.46
24:BA:464:U:H4'	52:B7:5:TRP:CZ3	2.51	0.46
6:CI:23:LYS:NZ	6:CI:42:GLU:OE1	2.49	0.46
16:AS:48:TRP:O	16:AS:49:LEU:HB2	2.16	0.46
11:AN:18:ARG:HH21	11:AN:37:GLY:N	2.13	0.46
1:AA:266:G:H5'	1:AA:268:C:H41	1.79	0.46
1:AA:272:C:H2'	1:AA:273:A:H8	1.79	0.46
1:AA:186:C:H2'	1:AA:186(A):C:H6	1.81	0.46
28:DF:65:TRP:HB3	28:DF:70:THR:HG21	1.97	0.46
1:AA:706:A:O4'	11:AN:29:ILE:HD13	2.16	0.46
24:BA:1313:U:C2'	24:BA:1313:U:O2	2.64	0.46
24:DA:2117:A:O2'	24:DA:2118:U:H5	1.99	0.46
1:CA:689:C:OP1	11:CN:27:ASN:ND2	2.48	0.46
1:AA:1279:A:H5''	1:AA:1280:A:P	2.56	0.46
27:DE:103:ASP:N	27:DE:200:GLU:O	2.49	0.46
24:BA:1244:G:OP1	34:BO:7:ARG:HD3	2.14	0.46
43:DU:61:ILE:HG22	43:DU:62:GLU:OE2	2.16	0.46
24:BA:67:U:N3	24:BA:74:A:H2	2.09	0.46
28:BF:192:LEU:HD23	28:BF:193:VAL:N	2.30	0.46
27:DE:144:ARG:HB3	27:DE:145:LYS:H	1.46	0.46
24:DA:1569:A:O2'	26:DD:38:LYS:NZ	2.40	0.46
1:CA:537:G:H5''	12:CO:113:ARG:HH12	1.75	0.46
9:CL:58:HIS:HB2	9:CL:59:PHE:CD2	2.51	0.46
24:DA:1155:A:O3'	39:D1:55:ARG:NH1	2.48	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:908:C:H2'	24:BA:909:A:H5'	1.97	0.46
24:BA:1281:G:O2'	24:BA:1282:U:H5'	2.15	0.46
1:AA:1015:A:H2'	1:AA:1016:A:H8	1.81	0.46
1:AA:605:U:O2'	1:AA:606:G:H5'	2.16	0.46
16:CS:11:SER:HB2	16:CS:14:ASN:HB3	1.98	0.46
16:CS:9:PHE:CZ	16:CS:18:ARG:HD2	2.50	0.46
3:AF:92:ALA:N	3:AF:99:VAL:HG11	2.31	0.46
12:AO:126:LYS:HD2	12:AO:127:GLU:H	1.81	0.46
31:BK:68:LEU:O	31:BK:71:ILE:HG12	2.15	0.46
43:BU:7:VAL:HG12	43:BU:74:PRO:HG3	1.97	0.46
8:CK:107:LEU:H	8:CK:107:LEU:CD2	2.27	0.46
36:B0:44:LEU:HD13	36:B0:44:LEU:C	2.36	0.46
17:CT:31:LEU:HD23	17:CT:32:TYR:CE1	2.50	0.46
24:BA:2031:A:C6	24:BA:2498:C:H1'	2.50	0.46
24:DA:817:C:C2	24:DA:818:G:C8	3.03	0.46
24:DA:2531:A:C2	24:DA:2659:G:O4'	2.68	0.46
4:CG:30:LYS:HB2	4:CG:30:LYS:HE2	1.69	0.46
39:B1:110:VAL:O	39:B1:113:ALA:HB3	2.16	0.46
1:AA:719:C:H1'	18:AU:49:LYS:HB3	1.97	0.46
24:BA:2081:C:H2'	24:BA:2082:A:H8	1.81	0.46
30:DH:164:TYR:HB3	30:DH:165:ALA:H	1.58	0.46
38:BR:20:PRO:HD2	38:BR:86:ILE:HG23	1.98	0.46
1:CA:927:G:N2	1:CA:1391:U:H1'	2.31	0.46
33:DN:35:VAL:CG2	33:DN:69:ILE:HD13	2.44	0.46
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.80	0.46
28:BF:93:LYS:HB3	28:BF:94:PRO:HD2	1.97	0.46
24:BA:2835:A:C6	24:BA:2879:C:C6	3.03	0.46
24:BA:671:C:OP1	34:BO:42:SER:O	2.33	0.46
24:BA:1685:C:O2'	24:BA:1686:C:H5'	2.14	0.46
7:AJ:54:THR:O	7:AJ:54:THR:OG1	2.33	0.46
24:DA:1854:A:H2'	24:DA:1855:G:O4'	2.14	0.46
13:CP:82:MET:HG3	13:CP:83:ASP:H	1.78	0.46
37:DQ:102:ALA:C	37:DQ:104:GLY:H	2.19	0.46
51:D6:40:CYS:SG	51:D6:45:LYS:CE	3.03	0.46
24:BA:2371:G:C4'	51:B6:45:LYS:HD2	2.45	0.46
24:BA:2419:U:OP2	53:B8:33:ASN:ND2	2.48	0.46
19:AV:22:LEU:HB3	19:AV:47:HIS:HE2	1.80	0.46
43:BU:81:LYS:CD	43:BU:96:ILE:HG21	2.45	0.46
4:AG:28:SER:OG	4:AG:29:PRO:CD	2.45	0.46
4:AG:33:MET:O	4:AG:34:GLU:C	2.53	0.46
19:AV:5:LEU:C	19:AV:5:LEU:HD12	2.35	0.46
24:DA:2801:A:H5'	24:DA:2896:C:OP1	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:746:A:O2'	24:BA:2611:U:O2'	2.33	0.46
24:DA:2776:A:H2	24:DA:2778:A:HO2'	1.63	0.46
46:BZ:90:ILE:N	46:BZ:93:GLU:OE2	2.48	0.46
2:CE:28:PHE:CE1	2:CE:31:TYR:HB2	2.51	0.46
28:DF:25:PRO:C	28:DF:27:GLU:N	2.69	0.46
17:CT:43:LEU:HD12	17:CT:68:ARG:HG2	1.98	0.46
1:CA:1081:G:O2'	1:CA:1082:G:H5'	2.15	0.46
30:BH:87:LEU:HD21	30:BH:162:ILE:HG22	1.98	0.46
24:DA:389:G:C6	34:DO:71:VAL:HG12	2.50	0.46
6:AI:8:ILE:CD1	6:AI:26:ILE:HD13	2.46	0.46
24:BA:2129:C:O2'	24:BA:2130:U:H5'	2.16	0.46
24:BA:2394:C:OP1	34:BO:63:PRO:HD2	2.16	0.46
1:AA:1151:A:N6	1:AA:1152:A:C6	2.84	0.46
24:BA:1019:U:H3	24:BA:1142(A):A:H62	1.62	0.46
40:D2:70:ILE:C	40:D2:71:LEU:HG	2.35	0.46
2:AE:24:TRP:CH2	2:AE:26:PRO:HA	2.50	0.46
38:DR:3:ARG:CZ	38:DR:6:LEU:HD13	2.46	0.46
24:BA:241:A:H4'	24:BA:242:G:OP1	2.15	0.46
26:DD:25:THR:CG2	26:DD:81:ALA:CB	2.93	0.46
32:BM:32:THR:HG23	32:BM:37:LYS:HB2	1.97	0.46
26:DD:28:GLU:CD	26:DD:29:PRO:HD3	2.36	0.46
24:BA:35:G:H2'	24:BA:36:G:O4'	2.15	0.46
38:BR:100:TYR:HD2	38:BR:103:ARG:NH2	2.14	0.46
11:CN:44:SER:O	11:CN:47:VAL:N	2.49	0.46
24:BA:884:C:C2	24:BA:885:C:H1'	2.51	0.46
24:DA:2117:A:O2'	24:DA:2118:U:C5	2.66	0.46
43:DU:88:LYS:C	43:DU:90:LEU:H	2.10	0.46
12:AO:89:ARG:HA	12:AO:97:ARG:HA	1.97	0.46
7:AJ:109:ASN:HA	7:AJ:119:ARG:HD2	1.97	0.46
1:CA:327:A:C5	1:CA:329:A:C5	3.04	0.46
24:DA:2108:C:H2'	24:DA:2109:U:C5	2.51	0.46
1:CA:1072:G:C5	1:CA:1073:U:C4	3.04	0.46
24:BA:1832:C:N4	24:BA:1833:U:C4	2.84	0.46
24:DA:2210:G:H5'	24:DA:2211:G:C6	2.51	0.46
5:CH:86:ALA:HB1	5:CH:125:SER:OG	2.14	0.46
30:DH:30:LYS:NZ	30:DH:79:VAL:O	2.49	0.46
24:BA:1210:A:C4'	24:BA:1211:U:OP2	2.63	0.46
24:DA:2572:A:OP1	24:DA:2574:G:H4'	2.14	0.46
24:BA:2801:A:OP1	24:BA:2895:U:O3'	2.33	0.46
24:DA:2884:U:H2'	24:DA:2885:C:O4'	2.15	0.46
40:B2:64:HIS:CE1	40:B2:92:THR:HG22	2.50	0.46
1:CA:1521:G:H2'	1:CA:1522:U:H6	1.80	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:6:G:H3'	1:AA:6:G:N3	2.31	0.46
1:AA:328:C:H4'	1:AA:329:A:C5'	2.45	0.46
24:DA:1412:A:C2	24:DA:1413:G:C4	3.04	0.46
1:CA:350:G:C6	1:CA:351:G:O6	2.68	0.46
24:DA:1833:U:H2'	24:DA:1834:U:H6	1.79	0.46
24:BA:580:C:H2'	24:BA:581:C:H6	1.79	0.46
1:AA:756:C:H2'	1:AA:757:U:O4'	2.15	0.46
1:CA:1381:U:C4	1:CA:1382:C:C5	3.03	0.46
24:BA:335:C:H4'	43:BU:73:ARG:NE	2.31	0.46
1:CA:37:U:H2'	1:CA:38:G:C8	2.50	0.46
1:AA:724:G:N3	1:AA:725:G:C8	2.84	0.46
28:BF:45:ARG:HD3	28:BF:97:TYR:CD2	2.51	0.46
1:AA:1399:C:C2	1:AA:1502:A:N6	2.84	0.46
24:DA:2514:U:H2'	24:DA:2515:C:C6	2.51	0.46
24:DA:39:C:O2'	24:DA:40:C:H5'	2.15	0.46
1:CA:563:A:O2'	1:CA:566:G:O3'	2.33	0.46
24:DA:1767:C:O2'	24:DA:1768:U:H5'	2.16	0.46
26:DD:5:LYS:HB2	26:DD:5:LYS:HZ2	1.79	0.46
6:CI:36:ARG:NH1	6:CI:66:GLU:OE1	2.48	0.46
5:CH:58:ALA:O	5:CH:62:ALA:CB	2.63	0.46
24:BA:2693:A:H2'	24:BA:2694:G:C8	2.51	0.46
24:DA:2651:C:O2'	24:DA:2652:C:H5'	2.16	0.46
1:AA:652:U:C5	1:AA:752:G:C2	3.03	0.46
24:BA:2558:C:H2'	24:BA:2559:C:H6	1.81	0.46
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.51	0.46
10:AM:42:THR:HG23	10:AM:67:THR:O	2.16	0.46
24:BA:16:G:C2	24:BA:17:G:C8	3.03	0.46
24:BA:2349:G:OP2	53:B8:42:ARG:HD3	2.16	0.46
35:BP:5:ARG:HG2	35:BP:5:ARG:O	2.14	0.46
8:CK:96:GLY:N	8:CK:99:GLU:OE2	2.35	0.46
5:AH:74:GLY:O	5:AH:115:VAL:HA	2.15	0.46
1:AA:926:G:H5'	1:AA:927:G:O5'	2.15	0.46
2:CE:128:GLU:HG3	2:CE:129:GLU:H	1.80	0.46
1:AA:750:G:N2	1:AA:751:U:C2	2.84	0.46
24:DA:627:A:H4'	24:DA:628:G:OP1	2.16	0.46
1:CA:730:G:C5	1:CA:731:G:H1'	2.50	0.46
24:DA:1263:U:C4	24:DA:1264:G:C6	3.03	0.46
21:AX:9:ARG:O	21:AX:13:ILE:HG13	2.16	0.46
44:BV:10:ARG:O	44:BV:36:LYS:HG3	2.16	0.46
24:DA:372:G:OP2	46:DZ:69:LYS:HE2	2.16	0.46
7:CJ:107:ALA:O	7:CJ:110:GLN:HB2	2.15	0.46
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:228:A:N3	24:BA:228:A:C2'	2.78	0.46
24:BA:2490:G:N3	24:BA:2490:G:H2'	2.30	0.46
24:DA:532:A:H2'	24:DA:532:A:N3	2.30	0.46
26:BD:40:THR:O	26:BD:40:THR:HG22	2.16	0.46
44:DV:28:MET:HE2	44:DV:28:MET:HB3	1.79	0.46
24:DA:1030:G:OP2	35:DP:128:LYS:NZ	2.42	0.46
24:DA:1125:G:C6	24:DA:1126:A:N6	2.84	0.46
34:BO:2:LYS:O	34:BO:5:ASP:HB2	2.16	0.46
24:BA:1694:C:H4'	24:BA:1695:G:O5'	2.16	0.46
37:BQ:38:GLN:HG3	37:BQ:47:THR:HG21	1.97	0.46
1:CA:1181:G:O3'	1:CA:1184:G:H4'	2.14	0.46
7:CJ:40:ALA:HB1	9:CL:41:VAL:HG21	1.98	0.46
24:DA:2286:A:OP2	51:D6:28:ARG:CG	2.63	0.46
24:BA:2001:A:C5'	24:BA:2689:U:O2'	2.63	0.46
30:BH:6:ARG:NH2	30:BH:54:ARG:HH12	2.14	0.46
24:BA:2751:G:N1	30:BH:3:ARG:HG3	2.31	0.46
1:AA:192:U:O4	1:AA:193:C:N4	2.49	0.46
12:AO:53:ARG:HH12	12:AO:92:ASP:HB3	1.80	0.46
40:B2:36:PRO:O	40:B2:37:VAL:CB	2.64	0.46
27:DE:82:ARG:HD2	27:DE:83:ASP:OD1	2.16	0.46
40:B2:52:VAL:HG23	40:B2:52:VAL:O	2.14	0.46
24:BA:535:C:O3'	39:B1:53:ARG:NH1	2.45	0.46
2:AE:234:PRO:O	2:AE:235:SER:OG	2.34	0.46
2:CE:97:TRP:CH2	2:CE:173:ALA:HA	2.51	0.46
2:CE:19:HIS:CE1	2:CE:205:ASP:CG	2.81	0.46
2:CE:8:LYS:CE	2:CE:217:ARG:CD	2.86	0.46
24:DA:1062:G:N2	24:DA:1077:A:C2	2.82	0.46
34:DO:48:PRO:CG	34:DO:49:ARG:N	2.76	0.46
1:AA:1005:A:H5''	1:AA:1006:C:C5	2.51	0.46
30:DH:152:ARG:CD	30:DH:153:LYS:HG2	2.46	0.46
1:CA:1014:A:C5	19:CV:34:TRP:CE3	3.03	0.46
35:BP:31:ASP:N	35:BP:106:VAL:O	2.41	0.46
34:BO:50:ARG:HD3	53:B8:7:HIS:CD2	2.50	0.46
9:CL:97:LYS:N	9:CL:98:PRO:CD	2.78	0.46
39:D1:97:ASP:O	39:D1:101:ARG:HD3	2.15	0.46
40:D2:23:GLU:OE1	40:D2:23:GLU:HA	2.16	0.46
38:DR:119:LYS:O	38:DR:123:GLN:HG3	2.15	0.46
1:AA:443:C:N3	1:AA:491:G:N2	2.52	0.46
37:DQ:69:VAL:HG22	37:DQ:101:LEU:CD2	2.46	0.46
3:AF:50:ALA:CA	3:AF:72:LYS:HB2	2.46	0.46
38:BR:3:ARG:HA	38:BR:6:LEU:HD23	1.94	0.46
1:AA:277:C:OP1	17:AT:68:ARG:NH2	2.47	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AE:16:HIS:N	2:AE:16:HIS:ND1	2.63	0.46
22:CC:1:C:O2'	22:CC:2:G:P	2.72	0.46
24:DA:2580:U:C5	24:DA:2581:G:C6	3.04	0.46
1:CA:1006:C:H2'	1:CA:1007:C:C6	2.51	0.46
30:BH:10:PRO:O	30:BH:11:VAL:CG1	2.52	0.46
24:DA:94:G:N3	47:DW:47:ASN:ND2	2.63	0.46
1:AA:64:G:N2	1:AA:67:C:C4	2.84	0.46
1:AA:76:G:C6	1:AA:77:C:C2	3.04	0.46
24:BA:2791:C:O2'	24:BA:2792:G:H5'	2.16	0.46
1:CA:553:A:O4'	12:CO:31:PRO:HA	2.16	0.46
24:DA:2166:G:C2	24:DA:2171:A:N6	2.83	0.46
32:DM:97:ARG:O	32:DM:98:VAL:C	2.53	0.46
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.51	0.46
24:BA:2850:A:H5'	24:BA:2868:A:H2	1.79	0.46
24:DA:1441:G:C2'	24:DA:1442:G:H5'	2.46	0.46
26:DD:70:TRP:CZ2	26:DD:150:LYS:HA	2.51	0.46
2:CE:196:LEU:HD12	2:CE:196:LEU:C	2.36	0.46
24:BA:1448:G:N3	24:BA:1529:A:H2	2.14	0.46
1:AA:1257:U:H5	3:AF:27:LYS:HD2	1.81	0.46
24:DA:1387:C:H5'	24:DA:1469:A:H4'	1.97	0.46
39:D1:52:ARG:O	39:D1:55:ARG:N	2.48	0.46
7:AJ:59:LEU:CD2	7:AJ:59:LEU:H	2.23	0.46
24:BA:764:A:H5'	26:BD:210:GLY:CA	2.46	0.46
26:BD:142:VAL:HG23	26:BD:193:VAL:N	2.31	0.46
24:DA:2327:A:H2'	24:DA:2328:A:O4'	2.16	0.46
33:BN:3:GLN:CG	33:BN:4:PRO:HD2	2.44	0.46
42:DT:11:PRO:HB3	42:DT:92:LEU:CD2	2.45	0.46
12:AO:83:VAL:CG2	12:AO:100:ILE:HG23	2.45	0.46
44:DV:14:LYS:CB	44:DV:14:LYS:HZ3	2.26	0.46
44:BV:3:TYR:O	44:BV:58:VAL:N	2.37	0.46
1:AA:405:U:H5''	1:AA:406:G:O4'	2.15	0.46
24:BA:1879:C:C2'	24:BA:1880:C:H5'	2.46	0.46
39:B1:60:LEU:C	39:B1:60:LEU:HD13	2.36	0.46
29:DG:88:ILE:HG23	29:DG:88:ILE:O	2.16	0.46
1:AA:355:C:O4'	1:AA:388:G:O2'	2.33	0.46
25:DB:12:C:C6	25:DB:12:C:OP2	2.63	0.46
26:BD:70:TRP:HD1	26:BD:190:TYR:CD1	2.34	0.46
1:AA:947:G:C6	1:AA:948:C:C4	3.04	0.46
24:BA:2574:G:O2'	27:BE:143:ASN:HB3	2.16	0.46
1:CA:563:A:H2	12:CO:15:ARG:CZ	2.28	0.46
1:AA:882:C:O2'	1:AA:883:C:H5'	2.15	0.46
24:DA:1651:G:N2	24:DA:2007:C:C2	2.84	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CR:4:THR:OG1	15:CR:7:GLU:HG3	2.16	0.46
24:DA:2825:C:C2'	24:DA:2826:A:H5'	2.46	0.46
30:DH:164:TYR:N	30:DH:167:GLU:OE2	2.48	0.46
24:BA:455:C:N3	24:BA:473:G:H5'	2.31	0.46
1:CA:76:G:C2	1:CA:95:G:C2	3.03	0.46
24:DA:926:A:H2'	24:DA:928:G:C8	2.51	0.46
18:AU:74:ARG:HA	18:AU:79:LEU:O	2.15	0.46
24:BA:1733:G:C2'	24:BA:1734:C:H5'	2.46	0.46
35:BP:116:GLU:O	35:BP:120:ILE:HG12	2.16	0.46
24:DA:1351:C:O2'	24:DA:1571:A:H1'	2.16	0.46
24:DA:20:C:O2'	24:DA:21:A:H5'	2.15	0.46
24:DA:836:G:C5	24:DA:837:C:C4	3.02	0.46
42:DT:48:LYS:N	42:DT:48:LYS:HD3	2.30	0.46
1:AA:701:C:OP1	1:AA:702:A:O2'	2.28	0.46
32:BM:126:PRO:HG2	32:BM:127:ASP:OD2	2.15	0.46
24:BA:1524:G:O2'	24:BA:1525:G:H5'	2.15	0.46
24:DA:487:C:H1'	41:DS:53:SER:HA	1.98	0.46
36:D0:76:VAL:O	36:D0:79:LEU:HB3	2.16	0.46
1:CA:1298:C:C2'	1:CA:1299:A:OP2	2.64	0.46
1:CA:1362:C:O2'	1:CA:1362(A):C:H5''	2.15	0.46
10:CM:13:HIS:CD2	10:CM:14:LYS:HG3	2.50	0.46
13:CP:19:LEU:HD13	13:CP:30:ALA:HB2	1.98	0.46
9:AL:105:ASP:HB2	9:AL:107:ARG:HD3	1.98	0.46
24:BA:2371:G:H21	51:B6:46:HIS:HE1	1.63	0.46
19:AV:18:LYS:HB3	19:AV:31:ILE:HD12	1.98	0.46
49:B4:43:TYR:CE1	49:B4:44:THR:OG1	2.63	0.46
26:BD:31:LYS:O	26:BD:35:LYS:O	2.34	0.46
30:DH:6:ARG:NH2	30:DH:63:SER:HA	2.29	0.46
53:B8:23:VAL:HG12	53:B8:46:ARG:HD3	1.98	0.46
24:BA:1077:A:H5'	24:BA:1078:U:H5'	1.96	0.46
49:D4:37:SER:OG	49:D4:38:LYS:N	2.47	0.46
2:CE:16:HIS:CD2	2:CE:209:ARG:HB2	2.51	0.46
2:CE:217:ARG:HA	2:CE:220:ASP:CG	2.36	0.46
2:CE:83:MET:SD	2:CE:234:PRO:O	2.74	0.46
40:D2:84:LYS:HG3	40:D2:85:LYS:HG2	1.96	0.46
1:AA:196:A:P	20:AW:68:LYS:NZ	2.88	0.46
10:CM:28:ARG:CZ	10:CM:34:VAL:H	2.28	0.46
3:CF:120:VAL:HA	3:CF:123:GLN:HE21	1.80	0.46
3:CF:131:ARG:HG2	3:CF:135:LYS:HE3	1.97	0.46
19:CV:12:ASP:O	19:CV:16:LEU:HD13	2.16	0.46
42:DT:63:LYS:HD2	42:DT:63:LYS:C	2.33	0.46
31:DK:144:VAL:CG1	31:DK:145:VAL:N	2.79	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2846:G:H2'	24:BA:2847:U:O4'	2.15	0.46
44:BV:108:PRO:HG2	44:BV:113:ALA:HA	1.98	0.46
49:D4:14:ILE:HD12	49:D4:24:THR:HG22	1.98	0.46
24:BA:607:U:O2	24:BA:621:A:N1	2.49	0.46
1:CA:972:C:O3'	10:CM:57:LYS:CG	2.64	0.46
22:AC:58:A:H4'	22:AC:59:A:OP1	2.16	0.46
1:CA:437:U:C5'	4:CG:155:LEU:HD13	2.45	0.46
20:AW:84:LEU:HD23	20:AW:84:LEU:C	2.36	0.46
35:BP:66:ILE:CA	35:BP:104:PHE:HA	2.46	0.46
24:DA:93:C:H5'	24:DA:94:G:OP2	2.16	0.46
11:CN:29:ILE:HG22	11:CN:44:SER:HB2	1.97	0.46
3:CF:47:LEU:HG	3:CF:52:LEU:HD13	1.97	0.46
24:BA:880:G:H2'	24:BA:881:G:H8	1.81	0.46
18:AU:18:ARG:HB3	18:AU:19:LYS:HD2	1.98	0.46
46:DZ:78:LYS:CD	46:DZ:78:LYS:O	2.63	0.46
42:DT:60:ARG:HG2	42:DT:60:ARG:HH11	1.81	0.46
1:AA:1494:G:N2	24:BA:1912:A:H2	2.14	0.46
24:BA:1508:A:H4'	24:BA:1509:C:C1'	2.46	0.46
24:BA:1557:C:P	24:BA:1558:A:HO2'	2.39	0.46
24:BA:1558:A:C4'	24:BA:1559:G:O5'	2.63	0.46
25:BB:70:C:C2	25:BB:71:C:C6	3.04	0.46
2:AE:221:LEU:O	2:AE:221:LEU:HD22	2.16	0.46
29:BG:45:GLU:H	29:BG:45:GLU:HG2	1.32	0.46
28:BF:192:LEU:HD23	28:BF:192:LEU:C	2.35	0.46
28:BF:172:TRP:CD2	28:BF:173:VAL:HG23	2.51	0.46
1:CA:652:U:C5	1:CA:752:G:N3	2.83	0.46
20:CW:76:ALA:O	20:CW:80:ARG:HB2	2.15	0.46
1:CA:644:G:C4	1:CA:645:C:C6	3.04	0.46
24:DA:856:C:HO2'	24:DA:857:C:P	2.39	0.46
1:CA:791:G:C6	1:CA:792:A:N7	2.83	0.46
24:DA:1299:G:H3'	24:DA:1639:U:O4	2.15	0.46
8:CK:20:TYR:HD1	8:CK:65:TYR:CE2	2.32	0.46
26:DD:242:ARG:H	26:DD:242:ARG:CD	2.28	0.46
44:BV:6:LYS:HD3	44:BV:8:TYR:HE1	1.80	0.46
1:AA:594:G:O6	1:AA:595:G:N1	2.48	0.46
22:CC:40:C:C2	22:CC:41:C:C5	3.04	0.46
20:AW:34:LYS:O	20:AW:38:LYS:HG3	2.16	0.46
1:AA:368:U:P	31:DK:91:SER:HG	2.38	0.46
25:BB:33:G:N2	25:BB:50:G:C4	2.84	0.46
24:BA:1349:A:N6	24:BA:1598:C:N4	2.64	0.46
24:BA:1858:G:O2'	24:BA:1884:A:N6	2.49	0.46
32:BM:58:ASP:N	32:BM:58:ASP:OD1	2.43	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:191:A:H2'	24:DA:192:C:H6	1.79	0.46
39:D1:117:GLN:HB3	39:D1:118:GLY:H	1.55	0.46
25:BB:6:C:C2	25:BB:115:G:C2	3.03	0.46
24:DA:553:U:O2'	24:DA:554:U:H5'	2.15	0.46
24:BA:2653:U:H5''	24:BA:2654:A:OP2	2.15	0.46
24:DA:574:C:H1'	24:DA:2055:C:C6	2.51	0.46
24:BA:987:G:H2'	24:BA:988:A:O4'	2.16	0.46
34:DO:96:THR:O	34:DO:99:LEU:HB3	2.15	0.46
24:BA:864:G:O2'	24:BA:865:C:H5'	2.16	0.46
24:BA:831:G:N2	34:BO:53:GLY:O	2.48	0.46
35:DP:54:MET:CE	35:DP:118:LEU:HD23	2.46	0.46
24:DA:548:A:C6	24:DA:549:G:H1'	2.50	0.46
1:CA:739:C:O2'	15:CR:42:HIS:ND1	2.47	0.46
25:BB:48:A:H2'	25:BB:49:C:C6	2.51	0.46
24:BA:2841:C:H42	24:BA:2876:G:H1	1.62	0.46
24:DA:577:G:C6	24:DA:578:A:N6	2.84	0.46
24:BA:492:A:H2'	24:BA:493:G:O4'	2.15	0.46
24:BA:2355:C:H1'	45:B3:39:ARG:HH21	1.81	0.46
24:DA:651:G:H2'	24:DA:651:G:N3	2.30	0.46
12:CO:17:LYS:HD3	12:CO:17:LYS:HA	1.74	0.46
16:CS:76:GLN:O	16:CS:76:GLN:HG2	2.16	0.46
15:AR:73:GLU:OE1	15:AR:73:GLU:HA	2.16	0.46
1:AA:1162:C:C2	1:AA:1175:G:C2	3.03	0.46
1:CA:1316:G:H5''	14:CQ:17:LYS:HE3	1.98	0.46
1:CA:955:U:H3	1:CA:1225:A:H61	1.62	0.46
9:CL:42:ARG:HH12	9:CL:71:SER:CA	2.25	0.46
51:D6:37:ARG:NH2	51:D6:38:LYS:CG	2.75	0.46
53:B8:43:GLN:C	53:B8:44:LYS:HD2	2.36	0.46
1:AA:1381:U:C1'	7:AJ:79:ARG:NE	2.79	0.46
34:DO:16:ARG:HA	34:DO:16:ARG:NE	2.31	0.46
39:B1:92:ARG:HD3	39:B1:94:ASN:HB3	1.96	0.46
28:DF:7:TYR:HD1	28:DF:18:ARG:HB2	1.79	0.46
1:CA:255:G:OP1	17:CT:69:LYS:NZ	2.25	0.46
17:CT:96:GLU:O	17:CT:101:ARG:NH2	2.48	0.46
1:CA:1077:G:N1	1:CA:1081:G:C6	2.83	0.46
24:DA:1062:G:H5''	24:DA:1063:G:OP2	2.16	0.46
31:BK:101:LEU:O	31:BK:101:LEU:HD23	2.16	0.46
30:BH:152:ARG:HG2	30:BH:153:LYS:N	2.30	0.46
4:CG:190:ASP:O	4:CG:194:LEU:CD2	2.64	0.46
24:DA:2314:C:O2'	24:DA:2315:G:H5'	2.15	0.46
1:CA:664:G:P	18:CU:64:ARG:HH21	2.38	0.46
39:D1:91:ASP:OD1	39:D1:96:ALA:CA	2.63	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BG:124:SER:HB2	29:BG:131:TYR:CE1	2.50	0.46
39:D1:34:LYS:CA	39:D1:34:LYS:CE	2.93	0.46
3:AF:155:GLY:HA3	3:AF:196:LEU:HB3	1.98	0.46
5:AH:89:ILE:HD12	5:AH:90:VAL:N	2.29	0.46
1:AA:1108:G:H5'	3:AF:176:HIS:CD2	2.51	0.46
1:AA:484:G:C2'	1:AA:485:G:OP2	2.63	0.46
37:DQ:35:ILE:O	37:DQ:35:ILE:HG23	2.16	0.46
1:AA:516:U:C4	1:AA:517:G:C6	3.04	0.46
1:AA:264:U:H2'	1:AA:265:G:H5'	1.98	0.46
1:AA:277:C:H5'	17:AT:68:ARG:NH1	2.31	0.46
4:AG:196:LEU:CD1	4:AG:197:PRO:HD2	2.45	0.46
27:BE:105:THR:OG1	27:BE:199:ARG:NH2	2.35	0.46
40:D2:48:GLY:C	40:D2:49:THR:O	2.55	0.46
8:AK:109:ILE:HD11	8:AK:120:THR:OG1	2.16	0.46
24:DA:93:C:H5'	43:DU:54:LYS:HZ2	1.79	0.46
42:DT:30:VAL:CG1	42:DT:31:HIS:H	2.28	0.46
24:BA:880:G:H2'	24:BA:881:G:O5'	2.16	0.46
24:DA:2118:U:O4	24:DA:2148:G:H1'	2.15	0.46
24:DA:2128:C:H1'	24:DA:2173:A:H61	1.81	0.46
24:DA:2612:C:C5	24:DA:2613:U:C5	3.03	0.46
24:DA:270(E):G:C5	24:DA:270(F):U:C5	3.04	0.46
24:DA:270(S):G:H5''	46:DZ:94:LEU:HD21	1.97	0.46
4:CG:53:ASP:HB3	4:CG:57:ARG:HH12	1.81	0.46
26:DD:70:TRP:HZ3	26:DD:146:GLU:CD	2.19	0.46
24:BA:1930:G:N2	24:BA:1968:G:H2'	2.31	0.46
24:DA:1161:C:H2'	24:DA:1162:G:H8	1.81	0.46
44:BV:126:VAL:HA	44:BV:164:ALA:HB2	1.98	0.46
24:DA:1385:G:O2'	24:DA:1396:U:C6	2.68	0.46
25:BB:59:A:C4	25:BB:60:C:C6	3.04	0.46
24:DA:2884:U:C2	50:D5:51:TYR:HE1	2.34	0.46
24:BA:1649:G:C6	24:BA:2009:G:C6	3.04	0.46
1:AA:987:G:N2	1:AA:1219:U:N3	2.63	0.46
25:DB:15:A:O2'	25:DB:109:G:C8	2.57	0.46
1:CA:353:A:C2'	1:CA:354:G:OP2	2.64	0.46
20:AW:58:LYS:O	20:AW:59:ALA:C	2.53	0.46
47:DW:13:ALA:HA	47:DW:16:LEU:CD2	2.45	0.46
1:AA:609:A:OP1	16:AS:18:ARG:NH2	2.46	0.46
24:DA:957:A:N1	24:DA:2458:G:H4'	2.30	0.46
6:CI:12:PRO:CB	6:CI:57:GLN:HG3	2.46	0.46
6:CI:12:PRO:HG2	6:CI:13:ASN:ND2	2.31	0.46
31:BK:21:VAL:HG22	31:BK:22:LYS:N	2.31	0.46
24:BA:769:G:C2'	24:BA:770:G:H5'	2.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:296:C:O2'	24:DA:297:C:H5'	2.15	0.46
24:BA:2863:C:H2'	24:BA:2864:G:C8	2.50	0.46
24:BA:2682:U:C5	27:BE:11:MET:CE	2.98	0.46
46:DZ:13:ILE:HD11	46:DZ:42:GLN:OE1	2.16	0.46
24:BA:1357:U:C4	24:BA:1358:G:C5	3.04	0.46
26:BD:226:MET:HB3	26:BD:230:ASP:HB2	1.97	0.46
15:AR:11:VAL:O	15:AR:15:PHE:HD1	1.99	0.46
1:CA:62:U:H1'	1:CA:379:C:H1'	1.96	0.46
4:CG:128:VAL:HG12	4:CG:129:ASN:OD1	2.16	0.46
22:CC:37:A:H2'	22:CC:38:A:O4'	2.16	0.46
7:AJ:140:ASP:HA	7:AJ:143:ARG:NH1	2.31	0.46
24:DA:1008:C:N4	24:DA:1136:G:N1	2.64	0.46
11:CN:51:LYS:HE2	11:CN:51:LYS:HB3	1.80	0.46
24:BA:225:A:H2'	24:BA:226:G:H5'	1.98	0.46
24:DA:535:C:O3'	39:D1:53:ARG:NH1	2.49	0.46
1:AA:721:G:C6	1:AA:733:A:C2	3.03	0.46
1:AA:1091:U:O2	1:AA:1093:A:C8	2.68	0.46
1:CA:542:G:H2'	1:CA:543:C:H6	1.81	0.46
1:CA:1186:G:H4'	9:CL:110:GLU:OE2	2.15	0.46
1:CA:1366:C:O2'	10:CM:60:ARG:CZ	2.64	0.46
1:CA:1366:C:HO2'	10:CM:60:ARG:HH12	1.62	0.46
19:CV:49:ILE:HD11	19:CV:51:VAL:CG2	2.40	0.46
24:DA:2376:A:N1	37:DQ:87:PHE:HD2	2.14	0.46
51:D6:15:GLU:OE1	51:D6:18:ARG:HD2	2.16	0.46
9:AL:93:ARG:NE	9:AL:102:LEU:CD1	2.78	0.46
9:AL:10:ARG:CA	9:AL:104:ARG:HE	2.26	0.46
29:BG:117:PHE:CE1	29:BG:119:GLY:CA	2.99	0.46
30:BH:8:PRO:HG2	30:BH:69:ARG:NE	2.31	0.46
26:BD:35:LYS:HB3	26:BD:36:PRO:HA	1.98	0.46
12:AO:46:LYS:HG2	12:AO:47:LYS:HG2	1.96	0.46
5:AH:11:ILE:HG21	5:AH:108:ALA:CB	2.46	0.46
24:BA:1106:G:H2'	24:BA:1107:G:C8	2.51	0.46
27:DE:37:ARG:O	27:DE:45:THR:HA	2.16	0.46
40:D2:37:VAL:CG2	40:D2:57:VAL:HG12	2.46	0.46
39:B1:92:ARG:C	39:B1:94:ASN:N	2.69	0.46
2:CE:8:LYS:CE	2:CE:11:LEU:HD23	2.42	0.46
2:CE:8:LYS:HG2	2:CE:9:GLU:H	1.80	0.46
24:DA:329:G:O6	43:DU:19:LYS:HG2	2.16	0.46
34:DO:48:PRO:C	34:DO:50:ARG:N	2.69	0.46
9:CL:19:LEU:O	9:CL:20:ARG:HG3	2.15	0.46
44:DV:175:VAL:O	44:DV:177:PRO:CD	2.64	0.46
22:CC:75:C:H3'	22:CC:76:A:H5'	1.86	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:383:U:H2'	24:DA:385:C:H5	1.80	0.46
6:AI:8:ILE:HG22	6:AI:10:LEU:HD12	1.98	0.46
5:AH:138:ALA:O	5:AH:142:LEU:CD1	2.63	0.46
44:DV:29:TYR:CE1	44:DV:87:ASP:HB3	2.50	0.46
24:BA:2211:G:C4'	24:BA:2212:A:OP2	2.55	0.46
1:AA:457:C:H2'	1:AA:458:C:C6	2.50	0.46
24:BA:1141:U:OP2	32:BM:63:THR:HG23	2.16	0.46
24:DA:819:A:C4	24:DA:1189:A:C2	3.04	0.46
24:DA:2001:A:H2'	24:DA:2002:G:C8	2.50	0.46
27:DE:48:GLN:O	27:DE:49:LEU:HD12	2.15	0.46
1:AA:78:G:C8	1:AA:79:G:C8	3.04	0.46
24:BA:2788:C:H5''	24:BA:2789:C:OP2	2.15	0.46
24:BA:1728:G:C6	24:BA:1730:U:H5'	2.50	0.46
24:DA:215:G:O3'	24:DA:216:A:H4'	2.16	0.46
24:BA:1479:G:O2'	24:BA:1558:A:H5'	2.16	0.46
24:BA:1478:G:HO2'	24:BA:1558:A:H2	1.64	0.46
28:BF:201:VAL:HG13	28:BF:202:PHE:H	1.79	0.46
30:DH:46:GLU:HB3	30:DH:49:VAL:CG2	2.43	0.46
24:BA:2100:G:C6	24:BA:2190:G:C6	3.03	0.46
1:CA:659:U:N3	1:CA:660:G:N7	2.64	0.46
24:DA:1344:G:H4'	24:DA:1384:A:C5	2.51	0.46
15:CR:70:LEU:CD2	15:CR:78:TYR:HA	2.44	0.46
28:DF:181:LEU:HD22	28:DF:186:ILE:HD11	1.98	0.46
1:AA:619:U:N3	4:AG:134:ASP:OD1	2.48	0.46
41:DS:9:TYR:HA	41:DS:100:THR:CG2	2.46	0.46
1:AA:1489:G:H2'	1:AA:1490:C:O4'	2.16	0.46
25:BB:55:U:H2'	25:BB:56:G:O4'	2.15	0.46
24:DA:2327:A:H2'	24:DA:2328:A:C8	2.51	0.46
16:CS:57:ARG:HH21	16:CS:79:VAL:HA	1.81	0.46
44:DV:19:ARG:NH1	44:DV:84:GLU:HB2	2.31	0.46
24:BA:1288:U:C2	24:BA:1327:C:C2	3.03	0.46
1:AA:530:G:H3'	1:AA:531:U:H5''	1.97	0.46
1:AA:1338:G:C6	1:AA:1339:A:C6	3.04	0.46
24:BA:2319:G:H4'	24:BA:2320:A:OP1	2.15	0.46
22:AC:1:C:O2	22:AC:1:C:C3'	2.62	0.46
24:DA:1411:C:O2'	24:DA:1412:A:H5'	2.16	0.46
24:BA:2197:U:C6	24:BA:2224:G:C6	3.04	0.46
1:AA:580:U:H5''	15:AR:58:MET:HG2	1.97	0.46
8:AK:9:MET:SD	8:AK:32:LYS:CG	3.04	0.46
31:DK:25:TYR:O	31:DK:29:TYR:HB3	2.15	0.46
24:BA:817:C:H4'	24:BA:932:G:C6	2.51	0.46
24:BA:588:U:H1'	28:BF:90:PHE:CG	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:363(F):A:H4'	24:BA:364:C:H5'	1.97	0.46
24:DA:2565:A:C5'	24:DA:2566:A:OP2	2.63	0.46
18:CU:27:GLY:O	18:CU:29:PHE:CD1	2.67	0.46
1:AA:655:A:C2	1:AA:754:C:N4	2.83	0.46
8:CK:114:THR:CG2	8:CK:117:GLY:O	2.64	0.46
30:BH:97:ARG:N	30:BH:104:GLU:O	2.47	0.46
1:AA:1216:G:O3'	14:AQ:5:ALA:CB	2.64	0.46
5:CH:36:ASP:OD2	5:CH:40:ARG:HB2	2.16	0.46
24:DA:273(A):G:C2	24:DA:364:C:N3	2.84	0.46
24:DA:243:U:C5	24:DA:254:G:N2	2.84	0.46
1:AA:1174:G:O2'	1:AA:1175:G:H5'	2.16	0.46
24:BA:355:G:O2'	24:BA:356:G:H5'	2.16	0.46
29:DG:171:ALA:O	29:DG:175:LEU:N	2.37	0.46
1:AA:553:A:H2'	1:AA:554:C:C6	2.51	0.46
12:CO:101:VAL:HG12	12:CO:104:VAL:HG23	1.98	0.46
24:DA:705:A:H2'	24:DA:706:A:O4'	2.16	0.46
1:AA:678:U:H2'	1:AA:679:C:C6	2.51	0.46
24:BA:840:C:H42	24:BA:938:G:H1	1.63	0.46
1:CA:282:A:C6	1:CA:283:C:C2	3.04	0.46
46:DZ:5:CYS:CB	46:DZ:8:SER:HG	2.29	0.46
34:DO:135:LEU:O	34:DO:139:LYS:HG3	2.16	0.46
28:BF:174:VAL:CG1	28:BF:189:THR:HG21	2.46	0.46
4:CG:8:VAL:HG11	4:CG:21:LEU:HB2	1.97	0.45
1:CA:982:U:O2	1:CA:1222:G:N1	2.42	0.45
9:CL:18:PHE:N	9:CL:62:TYR:O	2.44	0.45
36:B0:1:MET:O	36:B0:2:ARG:CB	2.63	0.45
51:B6:43:CYS:HB3	51:B6:44:ARG:HD3	1.97	0.45
19:AV:40:ILE:HG21	19:AV:66:MET:O	2.16	0.45
24:DA:870:A:C2	24:DA:907:U:N3	2.83	0.45
30:BH:2:SER:C	30:BH:3:ARG:NE	2.70	0.45
24:DA:2808:U:C2'	24:DA:2809:A:C5'	2.90	0.45
27:DE:55:ASN:ND2	27:DE:72:VAL:HG12	2.12	0.45
24:BA:1068:G:H4'	24:BA:1070:A:H61	1.81	0.45
24:BA:1084:A:N3	24:BA:1084:A:H3'	2.31	0.45
40:D2:5:VAL:CG1	40:D2:57:VAL:HG11	2.47	0.45
2:AE:8:LYS:HZ2	2:AE:217:ARG:NH2	2.10	0.45
2:CE:74:LYS:NZ	2:CE:205:ASP:O	2.44	0.45
2:CE:41:ILE:HD12	2:CE:41:ILE:N	2.31	0.45
28:DF:4:VAL:O	28:DF:4:VAL:HG12	2.16	0.45
43:BU:50:ARG:O	43:BU:53:PRO:HD2	2.16	0.45
24:BA:2636:U:H2'	24:BA:2637:U:C6	2.51	0.45
34:DO:48:PRO:HG2	34:DO:49:ARG:N	2.23	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:252:G:OP2	34:DO:50:ARG:NH2	2.49	0.45
44:DV:121:HIS:ND1	44:DV:169:GLU:HG2	2.30	0.45
1:AA:1004:A:H8	1:AA:1036:G:H1	1.62	0.45
38:BR:53:ARG:O	38:BR:59:THR:CG2	2.64	0.45
29:BG:161:THR:HG22	29:BG:162:THR:N	2.31	0.45
6:AI:30:LEU:O	6:AI:35:ALA:N	2.42	0.45
24:BA:2209:C:C2	24:BA:2216:G:N1	2.84	0.45
27:DE:25:VAL:CG1	27:DE:26:ILE:N	2.79	0.45
39:D1:76:TYR:O	39:D1:80:ILE:HG12	2.15	0.45
39:D1:95:LEU:C	39:D1:97:ASP:H	2.17	0.45
24:BA:778:G:C5	24:BA:779:U:C4	3.04	0.45
1:AA:497:U:H2'	1:AA:497:U:O2	2.15	0.45
35:BP:104:PHE:O	35:BP:105:GLU:HG2	2.16	0.45
27:BE:72:VAL:O	27:BE:74:PRO:CD	2.61	0.45
27:BE:52:LEU:HB2	27:BE:75:VAL:CG2	2.46	0.45
24:DA:2134:A:N6	24:DA:2157:G:H2'	2.31	0.45
32:DM:91:LEU:CA	32:DM:95:PRO:HB3	2.37	0.45
34:DO:127:ALA:O	34:DO:147:LEU:N	2.48	0.45
20:CW:89:ARG:O	20:CW:90:GLN:C	2.54	0.45
24:DA:464:U:C4'	52:D7:5:TRP:CZ3	2.98	0.45
1:CA:324:G:N2	1:CA:327:A:C8	2.84	0.45
24:DA:2191:G:C4	24:DA:2192:G:C8	3.04	0.45
1:AA:344:A:H5''	1:AA:345:C:OP2	2.15	0.45
3:CF:175:LEU:HD21	3:CF:201:TYR:CE2	2.51	0.45
1:CA:1101:A:H4'	1:CA:1102:A:O5'	2.16	0.45
31:BK:3:VAL:HG12	31:BK:38:LEU:HA	1.97	0.45
8:CK:12:ARG:NH1	8:CK:27:PRO:HD3	2.30	0.45
24:BA:1773:A:N7	24:BA:1829:A:H1'	2.31	0.45
24:DA:2728:U:O2'	24:DA:2729:G:H5'	2.16	0.45
8:AK:102:ARG:O	8:AK:102:ARG:CG	2.58	0.45
31:BK:104:GLN:O	31:BK:105:HIS:CB	2.63	0.45
24:DA:1003:G:N3	24:DA:1010:A:C2	2.84	0.45
30:DH:41:MET:CE	30:DH:55:PRO:HD2	2.46	0.45
24:DA:2665:A:O2'	24:DA:2666:C:H5'	2.16	0.45
1:CA:530:G:H3'	1:CA:531:U:H5''	1.95	0.45
24:BA:1281:G:C5	24:BA:1282:U:C5	3.04	0.45
8:CK:17:THR:HG22	8:CK:63:LEU:HD12	1.98	0.45
50:B5:51:TYR:O	50:B5:56:LYS:HB3	2.16	0.45
36:B0:92:GLY:N	36:B0:94:TYR:CE1	2.84	0.45
24:DA:1507:A:H5''	24:DA:1508:A:OP2	2.17	0.45
2:CE:95:GLN:CG	2:CE:147:LYS:HZ2	2.28	0.45
1:AA:1442:G:N7	1:AA:1446:A:C6	2.84	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:310:G:OP2	16:AS:27:LYS:NZ	2.41	0.45
1:AA:581:G:N2	1:AA:760:G:N7	2.64	0.45
32:BM:137:LYS:CG	32:BM:138:LEU:H	2.29	0.45
51:D6:51:GLU:O	51:D6:52:VAL:CG2	2.63	0.45
1:CA:973:G:C4	1:CA:974:A:C2	3.03	0.45
37:BQ:37:ALA:HB3	37:BQ:73:LEU:HD12	1.98	0.45
24:DA:564:C:C2'	24:DA:565:C:H5'	2.46	0.45
24:DA:566:U:H5''	34:DO:29:LYS:HE3	1.97	0.45
1:AA:1137:C:O2	1:AA:1138:G:N1	2.49	0.45
30:BH:46:GLU:OE2	30:BH:51:ARG:HD2	2.15	0.45
7:CJ:47:CYS:SG	7:CJ:58:PRO:HB2	2.56	0.45
24:DA:1712:C:H2'	24:DA:1716:U:H6	1.81	0.45
40:B2:22:VAL:CG1	40:B2:23:GLU:N	2.78	0.45
38:BR:128:GLU:O	38:BR:132:LYS:N	2.42	0.45
27:BE:28:ALA:HB3	27:BE:93:VAL:HG12	1.98	0.45
24:BA:1955:U:O2'	24:BA:2552:U:H4'	2.15	0.45
1:CA:896:C:O2'	1:CA:897:C:H5'	2.15	0.45
39:D1:24:TYR:HE2	39:D1:39:LEU:CD2	2.27	0.45
29:DG:22:ARG:NH2	29:DG:171:ALA:CB	2.78	0.45
1:CA:523:A:H61	12:CO:53:ARG:NH1	2.14	0.45
24:DA:516:C:O2'	24:DA:517:C:H5'	2.16	0.45
24:BA:736:C:C2'	24:BA:737:C:H5'	2.46	0.45
24:BA:1000:A:H62	24:BA:1154:G:H2'	1.81	0.45
2:CE:140:HIS:O	2:CE:140:HIS:ND1	2.37	0.45
6:AI:97:PHE:O	18:AU:31:LEU:HD12	2.17	0.45
24:BA:2888:C:O2'	24:BA:2889:C:H5'	2.16	0.45
1:CA:102:G:H2'	1:CA:103:C:H6	1.81	0.45
24:DA:399:G:H2'	24:DA:400:G:O4'	2.15	0.45
24:DA:1918:A:O2'	24:DA:1920:C:N4	2.49	0.45
24:BA:2077:A:H1'	24:BA:2435:A:O4'	2.16	0.45
1:CA:1432:G:H8	1:CA:1432:G:O5'	1.99	0.45
9:CL:102:LEU:H	9:CL:102:LEU:CD1	2.25	0.45
1:CA:1118:C:H5'	9:CL:104:ARG:HE	0.48	0.45
10:CM:45:ARG:CG	10:CM:45:ARG:NH1	2.78	0.45
13:CP:79:LYS:HE3	13:CP:83:ASP:CG	2.36	0.45
13:AP:81:LEU:HA	13:AP:84:ILE:CG2	2.47	0.45
29:BG:112:PRO:HA	49:B4:37:SER:HB2	1.88	0.45
29:BG:112:PRO:HB3	49:B4:37:SER:CA	2.43	0.45
4:AG:20:TYR:HA	4:AG:26:CYS:HB3	1.98	0.45
24:DA:1048:A:C5	24:DA:1111:A:H2	2.35	0.45
24:DA:1114:G:H2'	24:DA:1115:G:C8	2.51	0.45
24:DA:1246:A:P	34:DO:15:ARG:CZ	3.04	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:5:ILE:CD1	2:CE:55:PHE:HB3	2.43	0.45
30:BH:149:ARG:C	30:BH:151:ILE:H	2.19	0.45
30:BH:151:ILE:O	30:BH:153:LYS:CD	2.65	0.45
30:BH:86:GLU:HG2	30:BH:87:LEU:N	2.31	0.45
5:CH:34:VAL:CA	5:CH:112:LEU:HD23	2.47	0.45
1:CA:1014:A:OP1	1:CA:1014:A:H8	1.99	0.45
1:CA:988:G:C6	1:CA:989:C:C4	3.04	0.45
1:AA:1288:A:H2'	1:AA:1289:A:O4'	2.16	0.45
24:BA:860:U:O4'	24:BA:860:U:O2	2.35	0.45
9:AL:79:LEU:CD2	9:AL:83:ARG:CG	2.93	0.45
25:DB:3:C:H2'	25:DB:4:C:H6	1.81	0.45
1:AA:266:G:C5'	1:AA:268:C:H41	2.28	0.45
20:AW:90:GLN:O	20:AW:93:GLU:HB3	2.16	0.45
24:DA:2502:G:C5'	24:DA:2503:A:C5'	2.94	0.45
24:DA:2579:C:O4'	27:DE:134:ILE:HD13	2.16	0.45
27:BE:102:VAL:HB	27:BE:199:ARG:O	2.16	0.45
24:DA:66:C:H2'	24:DA:67:U:H6	1.80	0.45
42:DT:31:HIS:ND1	42:DT:32:PRO:HD2	2.31	0.45
34:BO:114:ILE:CD1	34:BO:130:PHE:CD2	2.93	0.45
34:BO:130:PHE:CZ	34:BO:144:GLU:HB2	2.51	0.45
10:CM:56:HIS:O	10:CM:58:ASP:O	2.34	0.45
37:BQ:67:ARG:HG2	37:BQ:71:ARG:CZ	2.46	0.45
29:BG:7:LEU:HB2	29:BG:104:GLU:CD	2.36	0.45
1:CA:390:C:O3'	16:CS:28:ARG:NH2	2.49	0.45
1:AA:1079:G:C6	1:AA:1080:A:N6	2.85	0.45
24:BA:1558:A:H4'	24:BA:1559:G:O5'	2.15	0.45
24:BA:2099:U:H2'	24:BA:2100:G:H8	1.81	0.45
45:D3:71:ASP:OD1	45:D3:72:ARG:N	2.49	0.45
15:CR:15:PHE:HZ	15:CR:84:LYS:HG2	1.82	0.45
28:DF:57:VAL:HG11	28:DF:59:TYR:HD2	1.81	0.45
34:BO:85:LEU:O	34:BO:88:LEU:HD23	2.15	0.45
24:DA:992:C:O2'	40:D2:87:HIS:CD2	2.69	0.45
24:DA:2727:G:O3'	33:DN:70:LYS:HE2	2.16	0.45
1:AA:1325:C:H2'	1:AA:1326:C:H6	1.81	0.45
7:AJ:107:ALA:CB	7:AJ:134:ALA:HB2	2.44	0.45
12:AO:39:VAL:O	12:AO:39:VAL:HG23	2.16	0.45
1:CA:1200:C:H5'	1:CA:1201:A:H5'	1.97	0.45
24:BA:956:G:O2'	35:BP:83:MET:CE	2.65	0.45
24:BA:2339:G:C2	24:BA:2340:G:C4	3.04	0.45
24:DA:1299:G:H5''	24:DA:1300:U:P	2.56	0.45
1:CA:935:A:H2'	1:CA:936:C:C6	2.51	0.45
45:D3:37:LEU:HD11	45:D3:61:ALA:N	2.31	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1826:G:H4'	26:BD:242:ARG:NH2	2.31	0.45
26:DD:242:ARG:N	26:DD:242:ARG:HD2	2.31	0.45
16:CS:21:VAL:HG13	16:CS:33:ILE:HB	1.97	0.45
5:AH:6:PHE:HB2	5:AH:63:ARG:HH12	1.82	0.45
24:BA:1204:A:C2	24:BA:1206:G:C2	3.05	0.45
32:BM:17:ASP:O	32:BM:18:ALA:CB	2.64	0.45
31:BK:10:GLU:O	31:BK:11:ASN:HB3	2.16	0.45
16:AS:7:ALA:O	16:AS:9:PHE:CD1	2.68	0.45
31:BK:24:GLY:O	31:BK:28:ASN:HB2	2.15	0.45
24:DA:565:C:H4'	24:DA:1253:A:N6	2.31	0.45
24:DA:1465:G:H4'	24:DA:1528:A:H1'	1.99	0.45
17:AT:15:MET:CB	17:AT:18:THR:HB	2.46	0.45
24:BA:1949:G:C2'	24:BA:1950:G:H5'	2.46	0.45
26:BD:183:ARG:HH11	26:BD:183:ARG:CG	2.28	0.45
24:DA:35:G:C4	24:DA:454:A:C2	3.04	0.45
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.80	0.45
34:DO:75:ILE:H	34:DO:75:ILE:CD1	2.29	0.45
31:BK:82:ARG:O	31:BK:89:TYR:HD2	1.99	0.45
2:CE:128:GLU:HG3	2:CE:129:GLU:N	2.31	0.45
26:BD:221:VAL:HG22	26:BD:226:MET:CE	2.46	0.45
45:D3:46:LYS:O	45:D3:78:TYR:HA	2.17	0.45
5:AH:88:LYS:HB3	5:AH:123:LEU:HB2	1.99	0.45
1:CA:890:G:O2'	1:CA:891:U:OP2	2.33	0.45
24:DA:1660:C:O2'	24:DA:1661:G:H5'	2.16	0.45
1:AA:949:A:C4	1:AA:1233:G:N2	2.84	0.45
24:BA:224:G:N7	24:BA:420:C:H4'	2.31	0.45
24:BA:2674:G:H5'	33:BN:26:LYS:HD3	1.98	0.45
1:CA:944:G:C2	1:CA:1340:A:C6	3.04	0.45
2:AE:224:GLN:O	2:AE:224:GLN:HG2	2.16	0.45
24:BA:810:U:O5'	24:BA:810:U:H6	1.99	0.45
27:BE:179:GLU:N	27:BE:179:GLU:OE1	2.49	0.45
13:AP:67:GLU:O	13:AP:68:GLY:C	2.55	0.45
1:CA:430:A:C2	1:CA:431:A:H1'	2.51	0.45
1:CA:538:G:H5''	12:CO:114:LYS:HB2	1.97	0.45
9:CL:18:PHE:HB2	9:CL:62:TYR:O	2.16	0.45
13:CP:22:ILE:CB	13:CP:25:ILE:HG13	2.42	0.45
14:CQ:24:CYS:SG	14:CQ:39:LEU:HA	2.56	0.45
51:B6:36:LEU:HD12	51:B6:48:VAL:CG1	2.46	0.45
24:BA:1601:G:P	52:B7:49:ARG:HH22	2.33	0.45
1:AA:411:A:C5	1:AA:429:U:C5	3.04	0.45
24:DA:2746:U:C2'	24:DA:2747:G:H5'	2.44	0.45
30:DH:6:ARG:CD	30:DH:66:GLY:CA	2.94	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1221:G:H2'	1:AA:1222:G:H5'	1.98	0.45
24:DA:1793:C:O2	24:DA:1900:A:H2	1.99	0.45
20:AW:9:ASN:HD22	20:AW:13:LEU:HD23	1.81	0.45
46:DZ:85:LEU:O	46:DZ:85:LEU:HD12	2.16	0.45
24:DA:895:U:OP2	44:DV:146:ILE:HG12	2.16	0.45
3:CF:134:ILE:HG21	3:CF:168:ALA:HB3	1.98	0.45
5:CH:41:VAL:O	5:CH:67:VAL:CG1	2.63	0.45
31:DK:76:THR:HG23	31:DK:140:LEU:HD12	1.98	0.45
1:CA:1105:A:C2	1:CA:1106:G:C5	3.03	0.45
24:BA:2163:C:H5''	24:BA:2171:A:C8	2.48	0.45
29:BG:77:ILE:HG23	29:BG:80:PHE:CD1	2.52	0.45
44:DV:61:LEU:CD1	44:DV:67:LEU:HD12	2.46	0.45
1:AA:1286:A:O3'	21:AX:26:LYS:CE	2.65	0.45
39:D1:95:LEU:O	39:D1:98:LEU:HG	2.16	0.45
5:AH:67:VAL:CG2	5:AH:69:VAL:HG23	2.43	0.45
24:DA:2853:C:O2'	24:DA:2854:G:H5'	2.17	0.45
37:DQ:65:VAL:C	37:DQ:68:GLN:HE22	2.18	0.45
24:DA:638:G:H2'	24:DA:639:U:H6	1.81	0.45
3:AF:79:ARG:HB2	3:AF:82:GLU:CB	2.35	0.45
3:AF:50:ALA:CB	3:AF:70:VAL:HG11	2.46	0.45
17:AT:88:TYR:CD1	17:AT:88:TYR:C	2.90	0.45
24:DA:273(E):U:C2'	24:DA:273(F):C:H5'	2.47	0.45
27:BE:105:THR:HG21	27:BE:164:ARG:CZ	2.46	0.45
1:CA:560:U:O2'	1:CA:561:U:P	2.73	0.45
42:DT:30:VAL:HG11	42:DT:39:ILE:HD11	1.99	0.45
2:AE:125:PRO:O	2:AE:127:ILE:N	2.49	0.45
48:BX:31:LEU:C	48:BX:33:GLN:H	2.20	0.45
12:CO:62:SER:O	12:CO:64:TYR:N	2.50	0.45
24:DA:2162:G:H2'	24:DA:2163:C:C6	2.51	0.45
24:BA:211:A:C2'	24:BA:212:G:H5'	2.46	0.45
24:DA:2612:C:H2'	24:DA:2613:U:H5'	1.99	0.45
25:DB:21:G:H2'	25:DB:22:U:C1'	2.47	0.45
24:DA:2101:G:H2'	24:DA:2102:U:C6	2.51	0.45
38:BR:37:GLY:C	38:BR:39:ARG:H	2.16	0.45
24:DA:2182:G:H2'	24:DA:2183:C:C6	2.52	0.45
24:BA:1543:A:H8	24:BA:1545:A:OP2	1.99	0.45
31:BK:140:LEU:N	31:BK:140:LEU:CD2	2.79	0.45
9:CL:32:ASP:O	9:CL:36:TYR:N	2.48	0.45
1:CA:515:G:C5	1:CA:516:U:C4	3.04	0.45
20:CW:74:LYS:C	20:CW:76:ALA:H	2.19	0.45
25:DB:13:A:H4'	25:DB:15:A:C6	2.50	0.45
1:CA:457:C:C2	1:CA:458:C:C5	3.05	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1678:G:N2	24:DA:1989:G:N2	2.64	0.45
24:DA:1697:G:OP2	24:DA:1698:A:O2'	2.19	0.45
29:DG:180:PHE:C	29:DG:182:LYS:H	2.18	0.45
1:AA:406:G:H21	4:AG:119:GLN:CD	2.20	0.45
4:CG:58:LEU:C	4:CG:58:LEU:HD23	2.37	0.45
25:DB:83:G:H5'	48:DX:52:HIS:CD2	2.51	0.45
24:DA:1491:G:H5'	26:DD:99:ASP:OD1	2.16	0.45
37:BQ:70:GLY:HA2	37:BQ:101:LEU:HD12	1.97	0.45
1:AA:173:U:H5''	1:AA:197:A:O4'	2.16	0.45
1:AA:828:A:OP1	8:AK:21:LYS:NZ	2.36	0.45
24:BA:873:G:H1	24:BA:904:C:H42	1.63	0.45
29:BG:139:LEU:CD2	29:BG:149:VAL:HG11	2.47	0.45
24:DA:1869:G:N1	24:DA:1872:A:OP2	2.44	0.45
24:DA:514:A:H1'	24:DA:581:C:O2'	2.16	0.45
36:D0:57:ARG:O	36:D0:59:ASP:N	2.49	0.45
24:BA:1270:C:H5''	24:BA:1271:G:C5'	2.47	0.45
18:CU:18:ARG:O	18:CU:19:LYS:HB2	2.16	0.45
1:AA:1112:C:H1'	3:AF:179:ARG:NH1	2.31	0.45
1:CA:930:C:O2'	1:CA:931:C:H5'	2.15	0.45
1:CA:160:A:H2'	1:CA:161:A:O4'	2.16	0.45
1:AA:781:A:H4'	1:AA:1522:U:O2'	2.16	0.45
31:BK:26:ALA:HB1	31:BK:31:LEU:HD13	1.98	0.45
3:CF:41:GLY:O	3:CF:45:LYS:HB2	2.16	0.45
20:CW:61:SER:O	20:CW:65:LYS:HG2	2.15	0.45
24:DA:1259:G:O2'	24:DA:1260:G:H5'	2.15	0.45
24:BA:2886:G:N2	24:BA:2887:U:C2	2.84	0.45
30:BH:105:LEU:HD23	30:BH:105:LEU:O	2.17	0.45
24:DA:118:A:OP2	24:DA:119:A:H5''	2.17	0.45
11:AN:113:PRO:O	11:AN:114:VAL:HB	2.16	0.45
24:BA:886:C:H2'	24:BA:887:A:H4'	1.97	0.45
1:CA:1226:C:H41	13:CP:104:ARG:HB2	1.82	0.45
51:D6:13:CYS:O	51:D6:22:ALA:N	2.50	0.45
53:D8:29:LYS:N	53:D8:44:LYS:HD3	2.31	0.45
24:DA:250:G:P	34:DO:60:MET:CE	3.04	0.45
24:BA:2419:U:OP1	53:B8:41:ILE:HD12	2.17	0.45
4:AG:18:LYS:HE3	4:AG:18:LYS:HB3	1.37	0.45
1:AA:977:A:H8	1:AA:1223:C:N3	2.15	0.45
24:DA:1246:A:OP1	34:DO:15:ARG:NH2	2.49	0.45
43:DU:75:ILE:CA	43:DU:80:GLY:HA2	2.28	0.45
34:BO:65:ARG:HH21	53:B8:15:LYS:HB3	1.81	0.45
27:DE:55:ASN:C	27:DE:57:LYS:N	2.69	0.45
24:DA:1794:U:C2	24:DA:1795:C:C5	3.04	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BZ:58:ILE:HD13	46:BZ:86:SER:HB2	1.97	0.45
2:CE:70:PHE:CD2	2:CE:163:PHE:HB3	2.52	0.45
24:DA:483:A:H5'	43:DU:49:VAL:HA	1.98	0.45
30:DH:90:LYS:O	30:DH:160:LYS:HA	2.16	0.45
8:CK:104:ARG:O	8:CK:106:GLY:N	2.50	0.45
24:BA:1606:G:H5''	24:BA:1607:C:OP1	2.15	0.45
25:DB:40:U:O4	25:DB:43:C:H5''	2.16	0.45
39:D1:97:ASP:CG	39:D1:101:ARG:HD3	2.35	0.45
1:AA:1132:C:O2'	1:AA:1133:G:H5'	2.16	0.45
37:DQ:62:LYS:O	37:DQ:65:VAL:HB	2.17	0.45
30:DH:135:GLY:HA3	30:DH:141:VAL:HG22	1.96	0.45
30:DH:82:GLY:O	30:DH:135:GLY:N	2.49	0.45
24:BA:1022:G:N2	24:BA:1142(A):A:C2	2.66	0.45
32:BM:22:THR:O	32:BM:61:ARG:O	2.34	0.45
24:BA:1522:G:OP2	24:BA:1523:U:C5	2.69	0.45
1:AA:266:G:H4'	1:AA:267:C:O5'	2.17	0.45
1:AA:186(A):C:O2	20:AW:104:LEU:HD12	2.17	0.45
1:CA:452:A:HO2'	1:CA:453:A:P	2.35	0.45
1:CA:1027:C:H2'	1:CA:1028:C:C5	2.51	0.45
27:BE:53:PRO:HA	27:BE:74:PRO:HA	1.98	0.45
3:AF:15:THR:HG23	3:AF:181:ASN:CA	2.42	0.45
2:AE:163:PHE:CD1	2:AE:185:ILE:HG12	2.52	0.45
48:BX:7:LYS:HZ1	48:BX:32:GLN:HG3	1.82	0.45
24:BA:1313:U:O2	24:BA:1313:U:H2'	2.16	0.45
3:CF:28:GLN:NE2	3:CF:29:TYR:H	2.15	0.45
24:BA:879:G:OP2	24:BA:879:G:H8	2.00	0.45
34:DO:111:ARG:HG3	34:DO:128:HIS:CE1	2.52	0.45
37:DQ:14:VAL:O	37:DQ:18:ILE:HG13	2.17	0.45
1:AA:376:G:H5''	16:AS:5:ARG:CG	2.46	0.45
24:DA:1395:A:O2'	24:DA:1397:U:C6	2.70	0.45
7:AJ:70:LYS:CE	7:AJ:96:GLN:HB2	2.46	0.45
24:BA:444:C:C2'	24:BA:445:C:O5'	2.64	0.45
42:DT:53:LYS:HB3	42:DT:82:GLN:HB3	1.99	0.45
41:BS:84:ARG:O	41:BS:96:ILE:HD13	2.17	0.45
24:DA:2468:G:H5''	24:DA:2476:A:H61	1.82	0.45
1:CA:819:A:H4'	1:CA:820:U:OP2	2.15	0.45
27:BE:116:VAL:HG13	27:BE:122:PHE:CG	2.52	0.45
1:CA:1101:A:N6	2:CE:176:GLU:OE2	2.49	0.45
32:DM:137:LYS:HE2	32:DM:137:LYS:N	2.31	0.45
24:DA:2210:G:C2'	24:DA:2210:G:N3	2.80	0.45
24:DA:2212:A:O2'	24:DA:2213:U:O5'	2.34	0.45
13:CP:97:PRO:N	13:CP:110:ARG:HG2	2.31	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:129:VAL:CG2	8:CK:130:GLY:N	2.77	0.45
1:CA:961:U:H2'	1:CA:962:C:C5'	2.47	0.45
24:BA:270(O):U:O2	24:BA:270(O):U:C3'	2.61	0.45
22:CC:24:U:H2'	22:CC:25:C:C6	2.51	0.45
24:DA:1279:G:C4'	36:D0:31:HIS:CD2	2.99	0.45
33:DN:24:VAL:HG21	33:DN:33:ALA:HB2	1.97	0.45
24:BA:723:G:H2'	24:BA:724:U:O4'	2.16	0.45
33:BN:7:TYR:CZ	33:BN:44:LYS:HG3	2.51	0.45
24:BA:807:U:O2'	24:BA:2060:A:N1	2.40	0.45
24:BA:1380:G:N3	24:BA:1380:G:H2'	2.31	0.45
1:AA:718:G:O6	18:AU:74:ARG:NH1	2.49	0.45
42:BT:73:ARG:HB3	42:BT:74:PRO:CD	2.47	0.45
24:DA:237:C:H2'	24:DA:238:C:C6	2.52	0.45
24:BA:2391:G:O6	24:BA:2425:A:H8	1.98	0.45
50:D5:36:CYS:SG	50:D5:48:GLU:HB2	2.56	0.45
1:CA:1263:C:C4	1:CA:1264:C:N4	2.85	0.45
28:DF:156:LEU:HD21	28:DF:163:VAL:HG12	1.98	0.45
24:BA:2238:G:N3	24:BA:2238:G:H2'	2.31	0.45
5:AH:45:PHE:CD2	5:AH:47:LYS:HD2	2.51	0.45
1:CA:412:A:C1'	1:CA:413:G:OP2	2.61	0.45
1:CA:977:A:OP2	14:CQ:31:ARG:CZ	2.65	0.45
19:CV:47:HIS:O	19:CV:62:ILE:HD13	2.17	0.45
1:AA:1379:G:C5	1:AA:1380:U:C5	3.05	0.45
7:CJ:90:GLU:CG	7:CJ:155:ARG:HH21	2.21	0.45
7:CJ:50:ILE:O	7:CJ:54:THR:CG2	2.64	0.45
24:BA:1085:A:N3	24:BA:1086:A:C5	2.85	0.45
27:DE:31:CYS:HB2	27:DE:91:VAL:HG23	1.97	0.45
46:BZ:92:LYS:CA	46:BZ:95:LEU:HG	2.44	0.45
2:CE:166:ASP:CG	2:CE:169:LYS:HB2	2.36	0.45
2:CE:219:VAL:O	2:CE:223:ILE:HG13	2.16	0.45
17:CT:96:GLU:O	17:CT:101:ARG:CZ	2.65	0.45
24:DA:1073:A:OP1	24:DA:1073:A:H8	1.99	0.45
13:AP:20:THR:HG23	13:AP:21:TYR:N	2.32	0.45
43:DU:13:VAL:HG21	43:DU:72:VAL:CG2	2.46	0.45
6:AI:67:MET:HE3	6:AI:75:LEU:HD12	1.98	0.45
47:DW:63:VAL:O	47:DW:67:LYS:HB2	2.17	0.45
24:BA:2213:U:H1'	46:BZ:52:ARG:HH12	1.74	0.45
18:CU:23:LYS:HG3	18:CU:24:ALA:N	2.31	0.45
24:BA:2170:A:H2'	24:BA:2171:A:O4'	2.16	0.45
29:BG:80:PHE:C	29:BG:81:LYS:HE2	2.36	0.45
28:DF:162:LEU:N	28:DF:162:LEU:HD12	2.32	0.45
5:AH:41:VAL:CG1	5:AH:42:GLY:N	2.80	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1446:A:C2	38:DR:118:ARG:NH2	2.85	0.45
38:BR:22:PHE:N	38:BR:22:PHE:CD1	2.83	0.45
1:AA:1191:A:OP1	3:AF:4:LYS:NZ	2.48	0.45
1:AA:675:A:N1	1:AA:716:A:C2	2.85	0.45
1:AA:130:A:N7	17:AT:63:ARG:HB2	2.31	0.45
28:BF:59:TYR:CD2	28:BF:78:ILE:HD12	2.51	0.45
22:CC:19:G:N3	22:CC:57:A:C2	2.85	0.45
26:DD:83:GLU:HB2	26:DD:92:ILE:HG13	1.99	0.45
32:BM:120:LEU:HD11	32:BM:122:VAL:HG23	1.99	0.45
24:DA:2134:A:N6	24:DA:2158:A:O4'	2.49	0.45
24:DA:2170:A:O2'	24:DA:2171:A:H5'	2.16	0.45
24:DA:747:U:C4	24:DA:2613:U:C4	3.05	0.45
24:BA:1952:A:C6	24:BA:1953:A:C6	3.05	0.45
24:DA:270(N):G:H1'	24:DA:270(P):C:C1'	2.46	0.45
49:B4:23:GLU:OE1	49:B4:24:THR:N	2.49	0.45
1:CA:738:C:H5''	6:CI:69:GLU:HB2	1.99	0.45
24:BA:1483:G:C2	24:BA:1507:A:C8	3.04	0.45
24:BA:729:G:N7	26:BD:209:ALA:HB3	2.32	0.45
24:BA:2470:G:H5'	35:BP:56:ARG:NH2	2.21	0.45
24:BA:2850:A:H5'	24:BA:2868:A:C2	2.51	0.45
25:BB:38:C:C2	25:BB:39:A:C8	3.05	0.45
3:AF:152:ILE:N	3:AF:152:ILE:HD12	2.32	0.45
6:AI:19:LEU:C	6:AI:19:LEU:CD2	2.82	0.45
24:BA:604:G:C6	24:BA:625:G:C2	3.04	0.45
6:CI:50:TYR:CE2	18:CU:81:PHE:HE2	2.34	0.45
2:AE:221:LEU:CD1	2:AE:221:LEU:C	2.85	0.45
22:AC:47:U:H2'	22:AC:48:C:OP2	2.16	0.45
24:BA:363:G:N2	24:BA:363(A):A:C5	2.85	0.45
1:CA:914:A:C2'	1:CA:915:A:H5'	2.45	0.45
24:DA:2683:C:C5	24:DA:2684:U:C5	3.04	0.45
1:AA:165:C:H2'	1:AA:166:G:H8	1.81	0.45
25:BB:24:G:N7	25:BB:56:G:C2'	2.77	0.45
24:BA:909:A:H2'	24:BA:912:C:C5	2.51	0.45
53:D8:40:GLU:HA	53:D8:43:GLN:HB2	1.97	0.45
33:DN:87:ILE:CD1	33:DN:92:GLU:N	2.77	0.45
24:DA:848:G:N3	24:DA:933:A:H1'	2.32	0.45
1:CA:1375:A:H4'	7:CJ:29:LYS:HZ3	1.81	0.45
24:DA:756:C:H2'	24:DA:757:U:H5'	1.98	0.45
1:AA:501:C:O2	1:AA:549:C:O2'	2.24	0.45
26:BD:136:ILE:HG22	26:BD:137:PRO:HD2	1.96	0.45
24:DA:2208:U:O4'	26:DD:151:LYS:HE2	2.16	0.45
24:BA:2626:C:H2'	24:BA:2627:G:H8	1.80	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DM:45:ASN:HD22	32:DM:45:ASN:H	1.62	0.45
2:AE:60:ASP:O	2:AE:64:ARG:NH1	2.49	0.45
24:BA:2533:A:H2'	24:BA:2534:A:O4'	2.15	0.45
24:BA:1035:U:OP1	30:BH:59:ARG:HD2	2.16	0.45
1:AA:1206:G:O2'	3:AF:193:TYR:HA	2.17	0.45
24:BA:977:G:H5'	24:BA:1155:A:H4'	1.99	0.45
24:BA:1386:C:H2'	24:BA:1387:C:H6	1.82	0.45
24:BA:1519:G:H2'	24:BA:1520:U:O4'	2.17	0.45
1:AA:27:G:H2'	1:AA:28:G:C8	2.52	0.45
24:DA:237:C:H2'	24:DA:238:C:H6	1.82	0.45
1:AA:369:C:O2	1:AA:369:C:H2'	2.15	0.45
46:BZ:4:VAL:O	46:BZ:4:VAL:HG23	2.17	0.45
24:DA:1222:C:C2	24:DA:1229(A):G:C2	3.04	0.45
24:DA:223:A:C8	24:DA:422:A:O4'	2.70	0.45
1:CA:430:A:OP1	4:CG:9:CYS:N	2.50	0.45
4:CG:41:GLY:O	4:CG:43:HIS:N	2.49	0.45
9:CL:78:LYS:CD	9:CL:101:PHE:HE1	2.06	0.45
9:CL:17:VAL:HG13	9:CL:63:ILE:HG23	1.99	0.45
1:CA:1317:C:H41	14:CQ:19:ARG:HH12	1.63	0.45
19:CV:31:ILE:O	19:CV:32:LYS:HG2	2.17	0.45
19:CV:49:ILE:HG13	19:CV:62:ILE:HD11	1.98	0.45
24:DA:2377:A:O2'	37:DQ:111:GLU:HB3	2.17	0.45
24:DA:2344:U:O2'	51:D6:37:ARG:CG	2.64	0.45
24:DA:2419:U:H5	53:D8:31:HIS:HD2	1.57	0.45
24:BA:2371:G:H4'	51:B6:45:LYS:CE	2.47	0.45
19:AV:21:GLU:OE2	19:AV:25:LYS:CE	2.65	0.45
24:BA:1093:G:H5'	30:BH:170:ARG:CZ	2.45	0.45
2:CE:43:ASP:C	2:CE:44:LEU:HD23	2.37	0.45
24:DA:814:C:OP1	40:D2:83:ARG:N	2.46	0.45
46:DZ:83:GLU:OE2	46:DZ:85:LEU:N	2.50	0.45
24:DA:873:G:N2	24:DA:905:U:C2	2.85	0.45
44:DV:151:HIS:ND1	44:DV:170:THR:CB	2.79	0.45
24:DA:875:G:H4'	44:DV:170:THR:CG2	2.46	0.45
30:DH:89:ILE:CG2	30:DH:90:LYS:H	2.18	0.45
4:CG:94:LEU:O	4:CG:98:GLU:N	2.46	0.45
1:AA:358:U:H1'	31:DK:89:TYR:HE1	1.82	0.45
31:DK:144:VAL:HG12	31:DK:145:VAL:O	2.17	0.45
38:BR:54:ARG:CA	38:BR:59:THR:HG23	2.26	0.45
24:DA:745:G:H2'	24:DA:746:A:H5'	1.99	0.45
1:AA:491:G:C4	1:AA:492:G:C8	3.04	0.45
49:D4:16:CYS:HB3	49:D4:19:GLY:C	2.37	0.45
13:CP:41:PRO:HG2	13:CP:42:ALA:H	1.81	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1151:A:C6	1:AA:1152:A:C5	3.05	0.45
1:AA:1191:A:H5''	3:AF:4:LYS:HZ2	1.74	0.45
24:BA:1022:G:C6	24:BA:1140:C:C4	3.04	0.45
1:CA:503:C:O2	1:CA:510:A:H2	1.99	0.45
1:AA:437:U:O2'	4:AG:125:HIS:CE1	2.69	0.45
40:D2:76:LYS:HE3	40:D2:80:GLN:O	2.16	0.45
32:DM:7:LYS:CA	32:DM:7:LYS:CE	2.94	0.45
1:CA:1004:A:H3'	1:CA:1005:A:H5''	1.96	0.45
24:BA:838:C:C2	24:BA:839:U:C6	3.04	0.45
26:DD:26:LYS:N	26:DD:26:LYS:HD2	2.22	0.45
1:AA:684:A:C5	1:AA:685:G:N7	2.84	0.45
3:AF:15:THR:HG21	3:AF:181:ASN:H	1.82	0.45
24:DA:995:C:O2	32:DM:3:THR:OG1	2.34	0.45
38:BR:11:GLU:N	38:BR:11:GLU:CD	2.64	0.45
1:CA:1061:G:O4'	10:CM:56:HIS:CE1	2.70	0.45
12:CO:25:PRO:O	12:CO:26:ALA:C	2.53	0.45
19:CV:41:VAL:HB	19:CV:42:PRO:CD	2.43	0.45
18:AU:63:GLN:NE2	18:AU:66:LEU:HD23	2.32	0.45
26:DD:70:TRP:CZ3	26:DD:146:GLU:CD	2.90	0.45
24:DA:2405:G:O2'	24:DA:2406:U:OP1	2.27	0.45
24:BA:1530:G:H2'	24:BA:1531:C:O4'	2.17	0.45
24:DA:954:G:O2'	24:DA:2274:A:N1	2.36	0.45
1:CA:836:G:C5	1:CA:851:G:N1	2.85	0.45
24:BA:2779:U:O4'	24:BA:2779:U:O2	2.35	0.45
43:DU:61:ILE:HG22	43:DU:62:GLU:CG	2.42	0.45
24:DA:1161:C:H2'	24:DA:1162:G:C8	2.51	0.45
46:DZ:3:LYS:O	46:DZ:12:PRO:HD3	2.16	0.45
1:CA:1502:A:C2	1:CA:1505:G:N2	2.83	0.45
39:B1:66:ASN:O	39:B1:70:ARG:HB2	2.16	0.45
16:CS:23:ASP:OD1	16:CS:25:ARG:HG3	2.16	0.45
4:AG:89:THR:O	4:AG:93:PHE:N	2.46	0.45
3:CF:27:LYS:HB3	3:CF:27:LYS:HZ2	1.79	0.45
8:AK:100:ILE:HG22	8:AK:101:PRO:HD2	1.97	0.45
10:AM:6:ILE:HD11	10:AM:23:ILE:HG21	1.98	0.45
1:CA:262:A:N6	1:CA:263:A:N6	2.64	0.45
24:BA:1878:G:H2'	24:BA:1879:C:C6	2.51	0.45
1:CA:1489:G:H2'	1:CA:1490:C:O4'	2.17	0.45
1:CA:862:C:C2'	1:CA:863:U:H5'	2.46	0.45
11:CN:126:ARG:HH21	11:CN:127:LYS:HE3	1.82	0.45
1:CA:265:G:O3'	17:CT:66:SER:HA	2.16	0.45
47:DW:16:LEU:C	47:DW:16:LEU:HD12	2.37	0.45
24:DA:2402:C:H2'	24:DA:2403:C:O5'	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:276:A:H2'	24:DA:277:C:O4'	2.17	0.45
24:DA:280:C:N3	24:DA:361:G:N2	2.64	0.45
1:AA:144:G:N2	1:AA:179:A:H1'	2.30	0.45
24:DA:1827:C:C2'	24:DA:1828:G:H5'	2.47	0.45
1:AA:828:A:N7	1:AA:859:A:C8	2.85	0.45
24:DA:1853:A:N1	24:DA:2087:G:H1'	2.32	0.45
18:CU:58:LEU:HD13	18:CU:62:GLU:HB2	1.98	0.45
1:AA:754:C:H3'	1:AA:754:C:O2	2.17	0.45
24:DA:2820:A:C5	36:D0:4:LEU:HD11	2.51	0.45
46:DZ:29:GLY:C	46:DZ:30:VAL:HG23	2.37	0.45
1:CA:23:C:H2'	1:CA:24:U:H6	1.82	0.45
24:DA:1986:A:H2'	24:DA:1987:G:H8	1.81	0.45
24:BA:2457:U:O4	24:BA:2458:G:C6	2.70	0.45
27:DE:150:VAL:HG13	27:DE:154:LYS:CD	2.47	0.45
24:BA:565:C:H2'	24:BA:566:U:O4'	2.17	0.45
48:DX:26:LEU:HD21	48:DX:46:ASN:CB	2.46	0.45
24:BA:1808:U:H2'	24:BA:1809:A:O4'	2.17	0.45
31:DK:41:GLU:O	31:DK:45:LYS:HG2	2.16	0.45
24:BA:1451:C:H4'	24:BA:1453:A:C8	2.52	0.45
24:BA:1368:G:O2'	24:BA:1369:G:H5'	2.16	0.45
24:DA:1757:U:H2'	24:DA:1758:G:OP1	2.17	0.45
1:AA:866:C:C4	1:AA:867:G:H1'	2.51	0.45
24:DA:245:G:O2'	24:DA:384:U:O2	2.30	0.45
20:CW:58:LYS:O	20:CW:58:LYS:HD3	2.17	0.45
24:BA:851:U:O2'	48:BX:42:ALA:O	2.28	0.45
1:CA:1417:G:C6	1:CA:1482:G:C6	3.05	0.45
4:CG:31:CYS:HB3	4:CG:33:MET:CG	2.38	0.45
1:CA:1237:C:C1'	1:CA:1334:G:N2	2.80	0.45
1:CA:978:A:C6	1:CA:1318:A:C6	3.05	0.45
1:CA:1320:C:C4	1:CA:1321:C:C2	3.05	0.45
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.52	0.45
14:CQ:24:CYS:HB2	14:CQ:29:ARG:HH11	1.82	0.45
19:CV:9:VAL:CG1	19:CV:10:PHE:H	2.29	0.45
19:CV:70:LYS:NZ	19:CV:73:GLU:HA	2.31	0.45
37:DQ:110:LEU:HD12	37:DQ:111:GLU:O	2.16	0.45
24:DA:2291:U:O2'	24:DA:2374:C:H1'	2.16	0.45
24:BA:1654:A:OP1	36:B0:2:ARG:HG2	2.16	0.45
43:BU:76:CYS:CB	43:BU:81:LYS:NZ	2.56	0.45
24:BA:1601:G:C5	24:BA:1602:U:C4	3.05	0.45
4:AG:8:VAL:HG21	4:AG:21:LEU:HD13	1.99	0.45
30:DH:7:LEU:HD12	30:DH:7:LEU:N	2.31	0.45
2:AE:74:LYS:HE3	2:AE:169:LYS:CE	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:78:LEU:C	27:DE:79:ARG:HD2	2.37	0.45
40:D2:35:LEU:N	40:D2:35:LEU:HD23	2.31	0.45
2:AE:236:TYR:C	2:AE:239:VAL:HG23	2.37	0.45
26:DD:31:LYS:HE3	26:DD:31:LYS:HB2	1.52	0.45
2:CE:12:GLU:OE1	2:CE:15:VAL:N	2.49	0.45
24:DA:1062:G:OP1	24:DA:1064:C:N4	2.50	0.45
24:DA:309:G:O2'	24:DA:329:G:C8	2.69	0.45
24:DA:330:A:C2	24:DA:1210:A:O2'	2.54	0.45
10:CM:28:ARG:NH2	10:CM:34:VAL:H	2.15	0.45
43:DU:14:LEU:CG	43:DU:15:VAL:N	2.78	0.45
1:CA:1014:A:O3'	19:CV:14:HIS:ND1	2.49	0.45
1:AA:357:G:H2'	1:AA:358:U:H6	1.81	0.45
44:DV:68:PRO:O	44:DV:91:LEU:HB2	2.16	0.45
29:BG:81:LYS:HB3	29:BG:82:LEU:H	1.63	0.45
34:BO:57:THR:OG1	34:BO:58:THR:N	2.49	0.45
24:BA:662:G:O2'	24:BA:663:G:H5'	2.16	0.45
49:D4:24:THR:O	49:D4:25:TYR:HB2	2.17	0.45
9:AL:24:GLY:N	9:AL:60:ASP:OD1	2.49	0.45
1:AA:403:C:O2'	4:AG:122:ARG:NH1	2.50	0.45
1:CA:437:U:O3'	4:CG:125:HIS:NE2	2.50	0.45
24:DA:2500:U:H5''	24:DA:2501:C:OP2	2.17	0.45
4:CG:178:VAL:C	4:CG:180:GLY:H	2.14	0.45
47:BW:47:ASN:OD1	47:BW:47:ASN:N	2.48	0.45
1:AA:91:C:N4	1:AA:92:G:O6	2.50	0.45
1:CA:197:A:H8	1:CA:198:G:C1'	2.28	0.45
24:DA:2119:A:N1	24:DA:2170:A:C8	2.84	0.45
27:DE:101:ARG:HD3	27:DE:171:GLU:HA	1.99	0.45
11:CN:115:PRO:C	11:CN:117:ASN:H	2.20	0.45
24:BA:1528:A:C6	24:BA:1529:A:C6	3.04	0.45
43:DU:46:LYS:O	43:DU:47:LYS:C	2.54	0.45
15:CR:69:TYR:HD1	15:CR:72:ARG:NH2	2.08	0.45
24:BA:2351:G:H2'	24:BA:2352:A:OP2	2.16	0.45
47:BW:16:LEU:H	47:BW:67:LYS:HE2	1.81	0.45
4:AG:150:GLU:C	4:AG:152:SER:H	2.20	0.45
1:CA:644:G:C2'	1:CA:645:C:H5'	2.47	0.45
1:AA:1017:G:H2'	1:AA:1018:C:O4'	2.17	0.45
1:AA:1015:A:C3'	14:AQ:15:LYS:HZ1	2.26	0.45
1:CA:1028(B):C:O2'	1:CA:1030:C:N4	2.49	0.45
24:DA:2716:U:HO2'	24:DA:2717:G:H5'	1.82	0.45
44:DV:1:MET:CG	44:DV:2:GLU:H	2.27	0.45
24:DA:2110:G:H1	24:DA:2179:C:H42	1.64	0.45
24:DA:956:G:H2'	24:DA:957:A:H2'	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:201:C:H42	1:AA:216:G:H1	1.62	0.45
24:DA:588:U:H1'	28:DF:90:PHE:CD1	2.50	0.45
24:DA:224:G:H2'	24:DA:225:A:O4'	2.17	0.45
25:BB:52:A:H62	37:BQ:33:LYS:CG	2.29	0.45
1:AA:564:C:H2'	1:AA:564:C:O2	2.16	0.45
7:CJ:138:LYS:O	7:CJ:138:LYS:HD3	2.16	0.45
24:BA:16:G:N3	24:BA:17:G:C8	2.85	0.45
34:DO:31:ALA:C	34:DO:32:THR:HG23	2.37	0.45
24:DA:718:A:H2'	24:DA:719:C:H5'	1.98	0.45
34:BO:106:LEU:O	34:BO:106:LEU:HD13	2.17	0.45
24:DA:1912:A:C8	24:DA:1918:A:C2	3.05	0.45
1:CA:1194:U:H4'	5:CH:22:GLY:O	2.17	0.45
24:DA:2357:U:OP1	45:D3:20:ARG:NH1	2.49	0.45
19:AV:8:GLY:O	19:AV:9:VAL:HB	2.17	0.45
24:DA:1297:C:H2'	24:DA:1298:C:H6	1.82	0.45
24:BA:161:U:HO2'	24:BA:162:U:H5	1.62	0.45
1:CA:1297:C:C1'	1:CA:1298:C:P	3.05	0.45
1:CA:1318:A:H5''	19:CV:10:PHE:HB3	1.99	0.45
1:CA:1321:C:C4	1:CA:1322:C:C5	3.04	0.45
1:CA:1348:U:H5	1:CA:1373:G:N2	2.14	0.45
37:DQ:107:GLU:H	37:DQ:110:LEU:HD22	1.79	0.45
9:AL:53:VAL:HG11	9:AL:92:TYR:CD1	2.52	0.45
51:B6:24:GLU:HG3	51:B6:25:LYS:N	2.32	0.45
26:BD:97:TYR:CE1	26:BD:103:ARG:HD3	2.52	0.45
1:AA:543:C:OP2	4:AG:10:ARG:NH1	2.45	0.45
4:AG:31:CYS:HB2	4:AG:33:MET:CG	2.45	0.45
25:BB:42:C:O2'	29:BG:67:LYS:O	2.19	0.45
27:DE:70:ALA:O	27:DE:72:VAL:HG23	2.17	0.45
7:CJ:49:ILE:HG22	7:CJ:49:ILE:O	2.15	0.45
51:D6:11:LEU:HD12	51:D6:53:LYS:HA	1.99	0.45
2:AE:87:ARG:NH1	2:AE:220:ASP:OD1	2.49	0.45
26:DD:61:LEU:O	26:DD:63:ARG:NH1	2.50	0.45
2:CE:80:ILE:CG2	2:CE:208:ILE:HD11	2.44	0.45
2:CE:221:LEU:HD12	2:CE:224:GLN:CG	2.47	0.45
2:CE:5:ILE:O	2:CE:6:THR:HG22	2.17	0.45
1:CA:256:U:C5'	17:CT:17:LYS:HZ1	2.29	0.45
9:CL:4:TYR:CD1	9:CL:88:TYR:CD1	3.05	0.45
44:DV:120:ILE:CG1	44:DV:121:HIS:N	2.79	0.45
13:AP:12:ASN:N	13:AP:46:LYS:NZ	2.65	0.45
10:AM:47:PHE:O	10:AM:63:PHE:N	2.50	0.45
25:DB:40:U:C4	25:DB:43:C:OP2	2.70	0.45
18:CU:22:VAL:CG1	18:CU:56:THR:HA	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:560:U:C4'	1:AA:561:U:OP2	2.65	0.45
34:BO:46:LYS:O	34:BO:47:ASP:C	2.54	0.45
53:D8:23:VAL:HG23	53:D8:48:PHE:CA	2.46	0.45
10:AM:5:ARG:CB	10:AM:73:ASP:OD1	2.65	0.45
10:AM:75:ILE:HG13	10:AM:76:ASN:H	1.82	0.45
24:BA:1310:G:C5	24:BA:1311:G:C5	3.05	0.45
4:CG:149:ALA:HB1	4:CG:150:GLU:OE1	2.17	0.45
24:BA:1844:C:OP1	26:BD:257:LEU:HD23	2.16	0.45
41:DS:68:ARG:O	41:DS:110:LYS:HB2	2.17	0.45
22:CC:19:G:H4'	22:CC:20:U:OP2	2.17	0.45
43:DU:52:SER:CB	43:DU:57:GLN:H	2.30	0.45
1:AA:686:U:O4	1:AA:703:G:H1'	2.17	0.45
24:BA:2790:A:H2	24:BA:2894:G:C5'	2.23	0.45
24:DA:675:A:N6	24:DA:676:A:N6	2.64	0.45
43:DU:89:PHE:CD2	43:DU:90:LEU:HG	2.52	0.45
16:CS:27:LYS:O	16:CS:28:ARG:C	2.54	0.45
11:AN:54:ARG:C	11:AN:56:GLY:H	2.20	0.45
1:AA:1492:A:C3'	1:AA:1493:A:H5''	2.46	0.45
1:CA:323:U:H2'	1:CA:324:G:O4'	2.16	0.45
25:BB:39:A:H2'	25:BB:39:A:N3	2.30	0.45
31:BK:37:VAL:HG22	31:BK:38:LEU:N	2.32	0.45
14:AQ:2:ALA:O	14:AQ:6:LEU:HD12	2.17	0.45
24:DA:1488:G:H2'	24:DA:1488:G:N3	2.31	0.45
1:CA:648:A:H2'	1:CA:649:G:H8	1.82	0.45
30:DH:25:LYS:NZ	30:DH:27:LYS:HB3	2.32	0.45
1:CA:666:G:OP2	1:CA:725:G:N2	2.32	0.45
39:D1:108:GLU:OE1	40:D2:45:THR:HA	2.16	0.45
24:DA:1419:A:N6	24:DA:1421:G:C2	2.85	0.45
24:DA:1668:A:C5	24:DA:1674:G:C5	3.04	0.45
41:DS:9:TYR:H	41:DS:102:HIS:CE1	2.35	0.45
24:DA:1469:A:H2'	24:DA:1470:G:O4'	2.17	0.45
9:CL:33:PHE:CE2	9:CL:37:PHE:CE2	3.05	0.45
31:DK:136:VAL:HG13	31:DK:136:VAL:O	2.17	0.45
26:BD:142:VAL:HG23	26:BD:192:THR:O	2.16	0.45
38:BR:63:VAL:O	38:BR:73:GLU:HA	2.17	0.45
24:DA:2467:C:H4'	35:DP:123:HIS:CG	2.51	0.45
12:AO:82:VAL:CG1	12:AO:105:TYR:HB3	2.47	0.45
1:CA:436:C:H1'	4:CG:157:LEU:HD11	1.99	0.45
15:CR:17:ARG:NH1	15:CR:77:ARG:CZ	2.78	0.45
24:BA:271(A):C:HO2'	24:BA:271(B):G:C5'	2.30	0.45
24:BA:1754:C:H5''	38:BR:113:LYS:CE	2.46	0.45
24:DA:1505:C:H2'	24:DA:1506:C:H6	1.81	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1270:C:O2'	1:AA:1271:G:H5'	2.17	0.45
30:BH:117:PRO:HD3	30:BH:123:PHE:CE2	2.52	0.45
24:DA:1129:A:O2'	24:DA:2515:C:O2	2.35	0.45
24:BA:950:G:H2'	24:BA:951:C:C6	2.52	0.45
24:BA:1344:G:C4'	24:BA:1384:A:C6	3.00	0.45
24:BA:1444:G:N2	24:BA:1548:C:C2	2.84	0.45
4:CG:29:PRO:CD	4:CG:30:LYS:NZ	2.79	0.45
15:AR:29:VAL:HG13	15:AR:67:LEU:HD11	1.98	0.45
39:B1:110:VAL:O	39:B1:114:LYS:HG2	2.16	0.45
1:CA:1440:C:C2	1:CA:1462:G:N2	2.85	0.45
24:BA:1475:G:C4	24:BA:1519:G:N2	2.85	0.45
1:AA:652:U:O2'	1:AA:653:A:C5'	2.64	0.45
29:DG:51:ARG:NH1	29:DG:52:ILE:HB	2.31	0.45
24:BA:451:C:P	28:BF:52:LYS:HD2	2.57	0.45
31:DK:61:ARG:HA	31:DK:61:ARG:HD3	1.86	0.45
1:AA:1228:C:P	13:AP:108:ARG:HH22	2.39	0.45
24:DA:1229(A):G:C6	24:DA:1230:C:C4	3.05	0.45
24:DA:696:G:C2	24:DA:767:U:O2	2.70	0.45
27:DE:128:SER:O	27:DE:129:HIS:HB2	2.17	0.45
1:CA:777:A:H2'	1:CA:778:G:H8	1.81	0.45
30:DH:45:VAL:HG13	30:DH:45:VAL:O	2.17	0.45
4:AG:14:ARG:O	4:AG:14:ARG:HD3	2.17	0.45
1:CA:417:C:O2'	1:CA:418:C:H5'	2.16	0.45
39:D1:104:GLN:O	39:D1:107:ALA:HB3	2.16	0.45
12:CO:40:VAL:HG21	12:CO:78:GLN:CA	2.47	0.45
24:DA:1601:G:H5'	52:D7:49:ARG:NE	2.32	0.45
1:CA:1128:C:C2	1:CA:1139:G:C6	3.05	0.45
1:CA:1319:A:H4'	1:CA:1320:C:OP1	2.17	0.45
1:CA:1321:C:O5'	1:CA:1322:C:H5''	2.16	0.45
19:CV:70:LYS:HD2	19:CV:72:GLY:N	2.32	0.45
49:D4:56:VAL:HG22	49:D4:57:GLU:HG3	1.98	0.45
24:DA:2287:A:C4	24:DA:2289:G:C8	3.05	0.45
1:AA:1157:A:O2'	1:AA:1158:C:O4'	2.35	0.45
1:AA:1381:U:C2	7:AJ:79:ARG:NH2	2.84	0.45
49:B4:16:CYS:HB2	49:B4:36:CYS:HB2	1.07	0.45
29:BG:106:LEU:HD12	29:BG:110:ALA:HB3	1.99	0.45
1:CA:1190:G:H4'	3:CF:176:HIS:CE1	2.51	0.45
47:BW:43:GLN:C	47:BW:45:SER:N	2.52	0.45
24:DA:2749:A:H5''	24:DA:2750:A:O5'	2.17	0.45
49:B4:34:GLU:CG	49:B4:35:VAL:H	2.13	0.45
7:CJ:113:GLU:OE2	7:CJ:122:HIS:ND1	2.50	0.45
3:CF:64:VAL:O	3:CF:100:ALA:HB3	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:37:ARG:HD3	27:DE:42:ASP:CG	2.38	0.45
46:BZ:87:PRO:C	46:BZ:89:GLU:N	2.69	0.45
2:CE:239:VAL:O	2:CE:240:GLN:HB2	2.16	0.45
24:DA:1057:A:H2	24:DA:1081:U:H3	1.58	0.45
24:DA:1093:G:C6	24:DA:1094:U:C2	3.05	0.45
44:DV:118:GLN:HG2	44:DV:118:GLN:O	2.13	0.45
44:DV:150:LEU:HD22	44:DV:154:ASP:CG	2.36	0.45
1:AA:1002:G:C2	1:AA:1003:G:C2	3.05	0.45
13:AP:48:LEU:N	13:AP:48:LEU:HD23	2.32	0.45
5:CH:76:ILE:CB	5:CH:77:PRO:HD2	2.47	0.45
24:BA:1177:A:H4'	24:BA:1178:C:C6	2.48	0.45
1:AA:55:A:H2'	31:DK:82:ARG:NH2	2.32	0.45
24:BA:2118:U:C2	24:BA:2149:G:H5'	2.52	0.45
4:AG:171:GLY:C	4:AG:173:TRP:H	2.20	0.45
24:BA:250:G:C6	24:BA:251:A:C6	3.05	0.45
3:AF:78:GLY:O	3:AF:79:ARG:CB	2.63	0.45
1:CA:972:C:O3'	10:CM:57:LYS:HG2	2.17	0.45
1:AA:734:G:H21	18:AU:75:ILE:HD13	1.81	0.45
41:DS:68:ARG:NH1	41:DS:111:HIS:O	2.50	0.45
27:DE:48:GLN:O	27:DE:49:LEU:O	2.34	0.45
1:CA:1004:A:H2	1:CA:1006:C:O2	2.00	0.45
8:AK:51:VAL:HG11	8:AK:60:ARG:CD	2.42	0.45
24:BA:1784:A:H4'	24:BA:1785:A:O5'	2.16	0.45
1:AA:1240:U:C4	7:AJ:32:ARG:HD2	2.52	0.45
24:DA:883:G:C6	24:DA:894:C:C4	3.04	0.45
24:DA:2139:C:C5	24:DA:2140:C:C5	3.04	0.45
9:AL:23:ASN:HD22	9:AL:25:LYS:HZ1	1.61	0.45
47:DW:54:LYS:HD2	47:DW:55:ARG:NH1	2.32	0.45
27:DE:14:ILE:HD11	27:DE:173:VAL:CG1	2.40	0.45
1:AA:346:G:C5'	38:BR:39:ARG:HH22	2.30	0.45
24:BA:1465:G:C4	24:BA:1466:G:C8	3.04	0.45
35:DP:16:ARG:CD	35:DP:18:LYS:HZ3	2.28	0.45
1:AA:676:A:H2'	1:AA:677:U:H6	1.81	0.45
24:DA:307:G:H22	24:DA:310:A:P	2.39	0.45
37:BQ:18:ILE:HD12	37:BQ:18:ILE:N	2.32	0.45
28:BF:192:LEU:CD2	28:BF:194:MET:HE3	2.47	0.45
24:DA:2225:A:H4'	24:DA:2226:C:O5'	2.15	0.45
8:CK:63:LEU:N	8:CK:63:LEU:HD22	2.32	0.45
24:BA:2336:A:H61	45:B3:43:THR:CG2	2.30	0.45
8:CK:20:TYR:OH	8:CK:75:ARG:HB3	2.17	0.45
1:CA:938:A:C5	1:CA:939:G:C8	3.05	0.45
32:BM:41:ASP:HA	39:B1:64:ARG:NH2	2.28	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:25:U:H2'	24:BA:26:G:O4'	2.17	0.45
1:CA:872:A:C4	1:CA:874:G:C8	3.05	0.45
26:DD:264:LYS:HE2	26:DD:266:SER:CB	2.47	0.45
24:DA:2199:A:N7	24:DA:2205:C:C5	2.85	0.45
32:BM:137:LYS:C	32:BM:138:LEU:HD22	2.37	0.45
24:BA:1166:C:O2	24:BA:1184:G:C2	2.69	0.45
47:DW:25:VAL:HG12	47:DW:60:LEU:HD23	1.98	0.45
26:BD:54:ARG:O	26:BD:218:ARG:HD3	2.16	0.45
24:DA:565:C:H2'	24:DA:566:U:O4'	2.17	0.45
15:AR:87:ILE:CG2	15:AR:88:ARG:N	2.80	0.45
1:AA:1392:G:N2	1:AA:1502:A:C8	2.83	0.45
4:CG:29:PRO:N	4:CG:30:LYS:NZ	2.65	0.45
16:CS:52:ASP:OD2	16:CS:55:ARG:HG3	2.16	0.45
16:AS:73:LEU:O	16:AS:77:ALA:HB2	2.17	0.45
8:AK:80:ILE:HG23	8:AK:137:VAL:CG1	2.47	0.45
55:CA:1805:TAC:H41	55:CA:1805:TAC:H422	1.59	0.45
24:DA:1257:C:H4'	28:DF:83:PHE:CD1	2.51	0.45
24:BA:1890:A:H2'	24:BA:1891:G:H5'	1.99	0.45
44:BV:11:GLU:O	44:BV:36:LYS:HE3	2.17	0.45
29:DG:171:ALA:O	29:DG:175:LEU:HG	2.16	0.45
24:DA:1757:U:C2'	24:DA:1758:G:OP1	2.65	0.45
52:B7:27:GLY:O	52:B7:30:VAL:HB	2.17	0.45
6:AI:4:TYR:HD1	6:AI:92:LYS:HA	1.82	0.45
37:BQ:4:LEU:HA	37:BQ:8:GLU:OE2	2.17	0.45
24:BA:55:G:H2'	24:BA:56:A:H8	1.82	0.45
24:BA:2050:C:C4	24:BA:2051:A:C6	3.05	0.45
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.82	0.45
28:DF:93:LYS:HB3	28:DF:94:PRO:CD	2.47	0.45
24:DA:1420:U:H6	24:DA:1420:U:H3'	1.82	0.45
28:BF:103:LYS:HG2	28:BF:106:ARG:HH21	1.82	0.45
4:CG:14:ARG:HG3	4:CG:14:ARG:HH11	1.81	0.45
1:CA:1141:C:H2'	1:CA:1142:G:C8	2.52	0.45
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.52	0.45
1:CA:1287:A:N6	1:CA:1371:G:O4'	2.50	0.45
10:CM:50:ILE:HA	10:CM:60:ARG:CA	2.47	0.45
13:CP:30:ALA:C	13:CP:32:GLU:N	2.69	0.45
13:CP:29:ARG:CD	13:CP:64:TRP:CH2	2.97	0.45
13:CP:62:ASN:O	13:CP:64:TRP:N	2.50	0.45
37:DQ:83:LYS:HB2	37:DQ:83:LYS:NZ	2.31	0.45
24:BA:2285:C:H5'	24:BA:2288:A:C6	2.51	0.45
26:BD:35:LYS:HE3	26:BD:65:ILE:CA	2.46	0.45
4:AG:4:TYR:HE2	4:AG:8:VAL:HG12	1.82	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:10:G:C2	24:DA:2629:A:N7	2.85	0.45
24:DA:2809:A:C2	24:DA:2892:A:C2	3.05	0.45
27:DE:64:LYS:O	27:DE:66:HIS:N	2.48	0.45
2:AE:97:TRP:HZ2	2:AE:102:LEU:HD13	1.81	0.45
2:AE:74:LYS:CE	2:AE:166:ASP:HB3	2.47	0.45
24:BA:1059:G:H2'	24:BA:1060:U:C5	2.51	0.45
40:D2:35:LEU:CG	40:D2:37:VAL:CG2	2.94	0.45
46:BZ:92:LYS:HA	46:BZ:95:LEU:HD12	1.99	0.45
2:CE:189:ASP:OD2	2:CE:191:ASP:HB3	2.17	0.45
2:CE:29:ALA:HA	2:CE:32:ILE:HG12	1.99	0.45
1:CA:255:G:H1'	17:CT:16:GLN:NE2	2.32	0.45
24:DA:1062:G:C6	24:DA:1075:C:N4	2.85	0.45
44:DV:152:ALA:N	44:DV:171:ILE:HD13	2.32	0.45
1:CA:1014:A:H5'	19:CV:15:LEU:CG	2.45	0.45
38:BR:53:ARG:O	38:BR:59:THR:HG23	2.17	0.45
24:BA:2123:G:C5	24:BA:2124:G:N7	2.84	0.45
27:DE:8:LYS:HE3	27:DE:188:VAL:HG13	1.98	0.45
1:AA:1286:A:H4'	21:AX:26:LYS:CD	2.38	0.45
49:D4:16:CYS:C	49:D4:18:CYS:H	2.20	0.45
1:AA:1126:U:C5	1:AA:1127:G:C8	3.05	0.45
1:AA:1106:G:H4'	3:AF:171:GLY:O	2.16	0.45
1:AA:625:G:H2'	1:AA:626:U:C6	2.52	0.45
16:AS:14:ASN:N	16:AS:15:PRO:HD3	2.31	0.45
22:AC:18:G:C6	22:AC:57:A:C6	3.05	0.45
24:BA:2579:C:O5'	24:BA:2579:C:H6	2.00	0.45
1:AA:271:C:O2'	1:AA:272:C:H5'	2.17	0.45
1:CA:1028:C:H42	1:CA:1033:G:H1	1.65	0.45
27:BE:65:GLY:N	27:BE:73:GLU:OE1	2.50	0.45
30:BH:10:PRO:HD2	30:BH:50:VAL:H	1.81	0.45
40:D2:48:GLY:HA3	40:D2:52:VAL:CG2	2.47	0.45
24:BA:1312:U:H6	24:BA:1312:U:O5'	2.00	0.45
49:B4:10:VAL:HG13	49:B4:11:PRO:N	2.31	0.45
49:B4:14:ILE:HG13	49:B4:24:THR:HG22	1.98	0.45
4:CG:53:ASP:HB3	4:CG:57:ARG:NH1	2.32	0.45
24:BA:444:C:H2'	24:BA:445:C:O5'	2.17	0.45
24:DA:2095:C:H2'	24:DA:2096:U:O4'	2.17	0.45
24:BA:1265:A:H3'	50:B5:19:ARG:NH1	2.31	0.45
25:BB:104:A:OP1	44:BV:72:ARG:NH1	2.50	0.45
1:CA:300:A:H2'	1:CA:301:G:O4'	2.17	0.45
24:BA:274:G:C2	24:BA:276:A:C2	3.04	0.45
1:AA:712:A:O2'	1:AA:713:G:H5'	2.17	0.45
24:DA:1266:G:O5'	41:DS:15:ARG:NH2	2.50	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:14:PRO:HB3	41:DS:18:ARG:HH21	1.81	0.45
24:DA:2211:G:C1'	24:DA:2212:A:P	3.05	0.45
24:DA:1419:A:C6	24:DA:1421:G:C4	3.05	0.45
24:DA:1614:A:C6	41:DS:91:GLY:HA2	2.52	0.45
24:DA:2533:A:H2'	24:DA:2534:A:O4'	2.17	0.45
12:AO:18:VAL:HG23	12:AO:19:ARG:H	1.81	0.45
24:DA:2224:G:H4'	24:DA:2226:C:C2	2.52	0.45
1:AA:1317:C:H2'	1:AA:1318:A:H5'	1.99	0.45
24:BA:2590:A:O2'	24:BA:2591:C:H5'	2.17	0.45
27:BE:144:ARG:HB3	27:BE:145:LYS:H	1.40	0.45
24:DA:205:G:O2'	24:DA:206:U:OP2	2.35	0.45
24:BA:422:A:N6	24:BA:423:A:N6	2.65	0.45
24:DA:162:U:H4'	24:DA:171:G:N7	2.31	0.45
29:BG:48:GLU:O	29:BG:49:ASP:C	2.54	0.45
47:DW:16:LEU:O	47:DW:20:GLU:HB2	2.17	0.45
24:BA:2016:U:H1'	50:B5:6:VAL:CG1	2.47	0.45
4:AG:206:PHE:CD2	4:AG:207:TYR:CE1	3.05	0.45
6:CI:80:ARG:HG2	6:CI:88:VAL:HG21	1.98	0.45
24:BA:1348:G:C2'	24:BA:1349:A:H5''	2.46	0.45
24:DA:6:A:C6	24:DA:7:G:C5	3.04	0.45
19:AV:6:LYS:O	19:AV:7:LYS:HB3	2.17	0.45
10:CM:23:ILE:HG22	10:CM:23:ILE:O	2.17	0.45
24:BA:951:C:C2'	24:BA:952:G:H5'	2.47	0.45
24:BA:2682:U:C5	27:BE:11:MET:HE2	2.52	0.45
12:AO:86:ARG:HG3	12:AO:101:VAL:HG22	1.97	0.45
34:DO:46:LYS:HB3	34:DO:46:LYS:HE3	1.89	0.45
1:AA:294:U:H2'	1:AA:295:C:C6	2.52	0.45
9:AL:128:ARG:NH1	9:AL:128:ARG:HB2	2.31	0.45
24:DA:1306:C:H2'	24:DA:1307:A:H5'	1.98	0.45
2:AE:92:TYR:CD2	2:AE:151:GLY:HA3	2.52	0.45
26:BD:239:ARG:O	26:BD:240:ALA:HB2	2.17	0.45
24:DA:311:A:C8	24:DA:332:A:N7	2.85	0.45
24:BA:2271:G:OP1	45:B3:18:ALA:HB1	2.17	0.45
24:DA:603:A:H3'	34:DO:90:ARG:NH1	2.32	0.45
28:BF:181:LEU:HD23	28:BF:181:LEU:HA	1.78	0.45
1:AA:1075:C:O2'	1:AA:1076:C:H5'	2.17	0.45
24:DA:1228:G:OP2	39:D1:16:LYS:NZ	2.50	0.45
4:CG:41:GLY:C	4:CG:43:HIS:H	2.19	0.44
1:CA:1135:U:O2'	1:CA:1138:G:O6	2.35	0.44
24:DA:2376:A:C2	37:DQ:112:PHE:CD1	3.05	0.44
51:D6:36:LEU:HD11	51:D6:50:ARG:NH1	2.32	0.44
24:BA:2419:U:C1'	51:B6:21:TYR:OH	2.64	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2286:A:OP2	51:B6:27:LYS:NZ	2.44	0.44
26:BD:28:GLU:CB	26:BD:29:PRO:HD2	2.45	0.44
4:AG:8:VAL:HB	4:AG:21:LEU:CD2	2.47	0.44
24:DA:1113:U:H2'	24:DA:1114:G:C8	2.52	0.44
24:DA:2751:G:O4'	24:DA:2751:G:N3	2.50	0.44
24:BA:2751:G:C4	30:BH:3:ARG:HG2	2.52	0.44
46:BZ:71:TYR:O	46:BZ:74:VAL:HG12	2.17	0.44
2:CE:152:PHE:O	2:CE:154:LEU:N	2.51	0.44
44:DV:150:LEU:HD22	44:DV:154:ASP:HB3	1.97	0.44
1:AA:1028(A):C:O2	1:AA:1032(B):G:O6	2.35	0.44
30:DH:152:ARG:CG	30:DH:153:LYS:HG2	2.46	0.44
3:CF:148:GLY:HA2	3:CF:171:GLY:HA3	2.00	0.44
24:BA:247:G:H4'	24:BA:386:G:C4	2.52	0.44
24:BA:620:G:H2'	24:BA:620:G:N3	2.32	0.44
1:AA:1146:A:H2'	1:AA:1147:C:O4'	2.17	0.44
8:CK:44:PHE:CE2	8:CK:109:ILE:HG21	2.53	0.44
10:CM:54:PHE:CD1	10:CM:55:LYS:HG3	2.52	0.44
38:BR:3:ARG:CB	38:BR:6:LEU:HB2	2.32	0.44
25:DB:30:C:C5	25:DB:31:C:C6	3.04	0.44
25:DB:6:C:H4'	25:DB:28:C:H5'	1.98	0.44
16:AS:20:VAL:CG2	16:AS:21:VAL:N	2.80	0.44
16:AS:22:THR:HB	16:AS:32:TYR:HA	1.99	0.44
30:BH:11:VAL:HA	30:BH:12:PRO:HD3	1.85	0.44
27:BE:200:GLU:H	27:BE:200:GLU:CD	2.19	0.44
24:DA:93:C:H2'	24:DA:93:C:O2	2.16	0.44
27:DE:67:PHE:C	27:DE:69:LYS:H	2.16	0.44
24:DA:803:U:H2'	24:DA:804:A:C5'	2.47	0.44
24:BA:1535:U:C5'	24:BA:1537:C:C4	3.01	0.44
1:AA:1342:C:H1'	9:AL:124:GLN:NE2	2.31	0.44
43:DU:88:LYS:HB3	43:DU:89:PHE:CD1	2.52	0.44
33:DN:68:GLU:HB3	33:DN:78:ARG:HH12	1.76	0.44
38:BR:42:ILE:C	38:BR:42:ILE:CD1	2.86	0.44
20:AW:50:GLU:HB2	20:AW:99:LEU:CD2	2.42	0.44
24:BA:370:G:C4'	24:BA:371:A:OP2	2.59	0.44
50:B5:45:VAL:HG13	50:B5:50:GLY:HA3	1.98	0.44
43:DU:47:LYS:CA	43:DU:60:PHE:HB3	2.47	0.44
1:CA:658:G:C1'	15:CR:22:THR:HB	2.47	0.44
8:CK:86:ILE:CG1	8:CK:133:LEU:HD22	2.45	0.44
24:BA:654:A:C8	24:BA:654(A):A:N7	2.85	0.44
24:BA:654(S):G:H4'	24:BA:654(T):A:OP1	2.17	0.44
1:CA:574:A:N3	1:CA:883:C:H1'	2.32	0.44
28:BF:129:PHE:O	28:BF:130:ALA:CB	2.65	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:D0:53:HIS:HB2	36:D0:94:TYR:HE2	1.82	0.44
25:DB:69:G:C6	25:DB:70:C:C4	3.04	0.44
36:D0:58:GLY:HA2	36:D0:80:PHE:HE2	1.81	0.44
44:DV:125:LEU:HG	44:DV:164:ALA:HB3	1.99	0.44
1:CA:130:A:O2'	1:CA:131:C:O5'	2.31	0.44
44:BV:6:LYS:CD	44:BV:8:TYR:HE1	2.30	0.44
24:BA:888:C:C4	24:BA:889:C:H5	2.35	0.44
29:BG:48:GLU:CG	29:BG:49:ASP:N	2.74	0.44
24:BA:271(A):C:O2'	24:BA:271(B):G:O5'	2.35	0.44
29:DG:43:LEU:H	29:DG:88:ILE:HD13	1.82	0.44
1:AA:1430:C:H2'	1:AA:1431:C:C6	2.52	0.44
31:DK:7:GLU:C	31:DK:15:VAL:HG22	2.38	0.44
17:AT:90:ILE:O	17:AT:93:GLN:HB3	2.16	0.44
1:AA:587:G:N2	1:AA:755:G:C5	2.85	0.44
24:DA:564:C:O2'	24:DA:565:C:H5'	2.17	0.44
1:CA:29:G:C5	1:CA:30:U:C5	3.03	0.44
31:DK:133:HIS:ND1	31:DK:134:PRO:HD3	2.32	0.44
6:AI:52:ILE:O	6:AI:53:ALA:HB3	2.16	0.44
24:BA:1423:G:H2'	24:BA:1424:G:H8	1.82	0.44
35:DP:20:ALA:O	35:DP:21:THR:HG22	2.17	0.44
35:DP:47:ILE:HG22	35:DP:48:GLU:N	2.31	0.44
1:CA:522:C:H2'	1:CA:523:A:O4'	2.16	0.44
24:DA:319:C:H2'	24:DA:320:A:O4'	2.17	0.44
1:CA:359:U:H2'	1:CA:360:A:C8	2.52	0.44
24:BA:383:U:H2'	24:BA:385:C:H5	1.82	0.44
24:BA:844:C:H2'	24:BA:845:G:O4'	2.17	0.44
24:DA:729:G:H5'	24:DA:730:C:H5''	1.98	0.44
24:DA:274:G:C5	24:DA:275:G:C6	3.05	0.44
24:BA:868:U:C4	24:BA:869:G:N7	2.85	0.44
26:DD:169:GLU:HA	26:DD:169:GLU:OE1	2.17	0.44
24:DA:2436:G:C6	24:DA:2437:U:C4	3.05	0.44
1:AA:1440:C:H2'	1:AA:1441:G:O4'	2.17	0.44
1:AA:1459:C:P	20:AW:31:SER:OG	2.75	0.44
1:CA:1243:C:OP1	21:CX:8:THR:HG21	2.17	0.44
1:CA:1254:C:C4'	1:CA:1356:G:H5''	2.47	0.44
9:CL:17:VAL:CG2	9:CL:80:GLY:O	2.63	0.44
9:CL:85:LEU:HD11	9:CL:96:LEU:HD21	1.98	0.44
49:D4:57:GLU:HA	49:D4:60:GLN:NE2	2.32	0.44
1:AA:1177:G:O6	1:AA:1178:G:C6	2.70	0.44
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.53	0.44
51:D6:25:LYS:CB	53:D8:34:TRP:CZ3	2.77	0.44
51:B6:15:GLU:HB2	51:B6:20:ASN:HB3	1.98	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AV:41:VAL:HG13	19:AV:67:VAL:HG13	1.99	0.44
43:BU:76:CYS:O	43:BU:77:PRO:C	2.55	0.44
43:BU:76:CYS:C	43:BU:81:LYS:NZ	2.71	0.44
30:BH:58:GLU:O	30:BH:60:ARG:N	2.51	0.44
52:B7:49:ARG:NH1	52:B7:49:ARG:HG3	2.32	0.44
26:BD:95:LEU:HD13	26:BD:97:TYR:CE1	2.53	0.44
26:BD:77:ALA:HB2	26:BD:97:TYR:CG	2.53	0.44
1:AA:411:A:C6	1:AA:429:U:C5	3.05	0.44
1:AA:509:A:H2'	1:AA:510:A:C8	2.52	0.44
24:BA:1113:U:H5'	30:BH:2:SER:CA	2.48	0.44
1:AA:1226:C:N4	13:AP:104:ARG:HG3	2.33	0.44
19:AV:51:VAL:O	19:AV:58:VAL:HG22	2.17	0.44
1:AA:1226:C:O2	19:AV:83:HIS:HE1	2.01	0.44
24:BA:631:A:OP1	34:BO:64:LYS:CE	2.66	0.44
2:AE:98:LEU:HG	2:AE:101:MET:HE3	1.99	0.44
24:BA:1066:U:H2'	24:BA:1068:G:OP2	2.18	0.44
40:B2:39:LEU:HD12	40:B2:39:LEU:N	2.30	0.44
49:D4:38:LYS:CE	49:D4:38:LYS:HA	2.44	0.44
3:CF:131:ARG:O	3:CF:135:LYS:HG3	2.17	0.44
34:BO:17:LYS:HG2	34:BO:18:ARG:H	1.82	0.44
2:AE:67:THR:HG21	2:AE:155:LEU:HD21	2.00	0.44
30:DH:94:TYR:CD2	30:DH:107:VAL:HG12	2.52	0.44
24:DA:322:A:H3'	28:DF:169:ASN:HD21	1.81	0.44
25:DB:37:C:H2'	25:DB:38:C:H5'	1.99	0.44
24:BA:2141:G:H2'	24:BA:2142:C:O4'	2.18	0.44
24:BA:654(G):C:H2'	24:BA:654(H):G:C8	2.53	0.44
36:B0:74:LYS:O	36:B0:75:LEU:C	2.55	0.44
30:DH:116:GLU:HG2	30:DH:117:PRO:HD2	1.99	0.44
24:BA:464:U:H2'	24:BA:465:G:O4'	2.17	0.44
1:AA:467:G:OP2	1:AA:467:G:H3'	2.16	0.44
17:AT:41:LYS:HD3	17:AT:88:TYR:OH	2.17	0.44
35:BP:66:ILE:N	35:BP:104:PHE:HA	2.32	0.44
31:DK:70:GLU:O	31:DK:72:LEU:N	2.50	0.44
24:DA:2836:U:H2'	24:DA:2837:G:H8	1.77	0.44
32:BM:46:VAL:O	32:BM:47:ALA:CB	2.65	0.44
1:AA:90:C:C4	1:AA:91:C:C5	3.04	0.44
24:BA:1535:U:O2'	24:BA:1536:A:OP1	2.24	0.44
9:AL:25:LYS:O	9:AL:61:ALA:N	2.36	0.44
24:BA:1478:G:H1'	24:BA:1557:C:O2'	2.16	0.44
24:BA:2100:G:O6	24:BA:2189:U:C4	2.70	0.44
3:CF:182:ILE:HG12	3:CF:203:PHE:HA	1.99	0.44
24:BA:1541:U:H2'	24:BA:1542:G:C5'	2.46	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:48:ILE:CG2	38:DR:49:VAL:N	2.80	0.44
8:CK:84:ARG:HG2	8:CK:85:ARG:H	1.80	0.44
30:BH:41:MET:CE	30:BH:64:LEU:CB	2.94	0.44
1:AA:1115:C:C1'	14:AQ:61:TRP:HB2	2.46	0.44
24:BA:278:A:O2'	24:BA:279:C:C6	2.69	0.44
16:CS:40:ASP:HB3	16:CS:48:TRP:CB	2.48	0.44
1:AA:1337:G:H5''	1:AA:1338:G:OP1	2.17	0.44
37:DQ:34:HIS:HE1	37:DQ:54:LEU:HD13	1.82	0.44
1:CA:854:G:C6	1:CA:855:G:N7	2.85	0.44
25:BB:15:A:H2'	25:BB:16:G:OP1	2.17	0.44
2:CE:144:ARG:HG3	2:CE:144:ARG:H	1.52	0.44
17:CT:63:ARG:HG2	17:CT:64:PRO:CD	2.45	0.44
24:DA:83:G:N2	24:DA:102:G:H2'	2.32	0.44
24:BA:1206:G:C6	24:BA:1207:C:C4	3.05	0.44
28:BF:124:LEU:HD12	28:BF:125:LEU:N	2.31	0.44
24:DA:2280:G:C2'	24:DA:2281:C:H5'	2.48	0.44
24:BA:2197:U:C5	24:BA:2224:G:C6	3.06	0.44
6:CI:97:PHE:HD1	18:CU:31:LEU:HD21	1.83	0.44
24:DA:1551:C:C2'	24:DA:1552:G:H5'	2.47	0.44
48:BX:54:VAL:HG22	48:BX:55:ARG:H	1.81	0.44
36:D0:70:LEU:C	36:D0:72:ASP:H	2.18	0.44
46:BZ:67:ILE:H	46:BZ:68:PRO:HD2	1.81	0.44
3:CF:6:HIS:CD2	3:CF:7:PRO:HD2	2.49	0.44
24:DA:1889:A:C1'	24:DA:2087:G:H5'	2.47	0.44
24:BA:2250:G:N2	35:BP:84:GLY:CA	2.80	0.44
24:BA:475:U:C4	24:BA:481:G:O6	2.70	0.44
1:AA:1353:G:O2'	1:AA:1354:C:H5'	2.17	0.44
24:BA:2584:U:H2'	24:BA:2585:U:C6	2.52	0.44
1:CA:764:C:H2'	1:CA:765:G:O4'	2.17	0.44
24:DA:1669:A:C2'	24:DA:1669:A:N3	2.79	0.44
24:BA:698:C:O2'	24:BA:734:A:N6	2.50	0.44
32:BM:9:VAL:O	32:BM:11:PRO:HD3	2.17	0.44
24:DA:2596:U:H2'	24:DA:2597:G:O4'	2.17	0.44
35:BP:57:HIS:CG	35:BP:57:HIS:O	2.70	0.44
2:AE:35:GLU:HG2	2:AE:35:GLU:O	2.17	0.44
13:CP:11:ARG:O	13:CP:13:LYS:N	2.50	0.44
1:AA:514:C:H2'	1:AA:515:G:H8	1.82	0.44
24:BA:2093:G:C6	24:BA:2225:A:C8	3.05	0.44
36:D0:30:THR:OG1	36:D0:75:LEU:HD21	2.17	0.44
1:CA:1124:G:H3'	1:CA:1145:C:C4	2.52	0.44
1:CA:947:G:N2	1:CA:1235:U:C2	2.86	0.44
9:CL:114:TYR:HD1	9:CL:114:TYR:H	1.65	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:D6:47:THR:HG23	51:D6:49:HIS:CE1	2.52	0.44
9:AL:9:ARG:HG3	9:AL:14:VAL:HG23	1.95	0.44
24:DA:2392:A:H2	24:DA:2424:C:N4	2.08	0.44
24:BA:2346:A:H5''	24:BA:2383:G:C1'	2.47	0.44
10:AM:54:PHE:C	10:AM:54:PHE:HD1	2.19	0.44
35:DP:6:ARG:C	35:DP:7:MET:HG2	2.38	0.44
1:CA:1067:A:N3	1:CA:1068:G:H1'	2.31	0.44
24:DA:1048:A:N6	24:DA:1112:G:O2'	2.51	0.44
24:DA:2749:A:N6	24:DA:2750:A:N6	2.66	0.44
7:AJ:16:LEU:HD22	9:AL:44:VAL:CG2	2.46	0.44
2:AE:174:VAL:O	2:AE:178:ARG:HB2	2.17	0.44
2:AE:74:LYS:HZ3	2:AE:165:VAL:HG13	1.82	0.44
40:D2:36:PRO:C	40:D2:37:VAL:HG13	2.38	0.44
2:AE:219:VAL:HA	2:AE:222:ILE:CG1	2.45	0.44
29:DG:108:ASN:CG	49:D4:38:LYS:HG3	2.38	0.44
29:DG:173:LEU:O	29:DG:178:PHE:CD1	2.70	0.44
10:CM:27:ALA:HA	10:CM:84:GLN:CD	2.37	0.44
13:AP:11:ARG:CB	13:AP:46:LYS:NZ	2.77	0.44
5:CH:71:LEU:HD23	5:CH:114:GLY:O	2.18	0.44
31:DK:77:LEU:CD1	31:DK:78:THR:N	2.79	0.44
36:B0:62:ALA:O	36:B0:66:VAL:HG23	2.16	0.44
24:DA:2320:A:O2'	24:DA:2321:G:C4	2.70	0.44
24:DA:2321:G:N3	24:DA:2321:G:C2'	2.79	0.44
25:DB:43:C:C4	25:DB:45:A:N6	2.85	0.44
24:BA:2110:G:H3'	24:BA:2111:C:C4'	2.43	0.44
24:BA:2143:C:C2	24:BA:2148:G:N2	2.84	0.44
24:BA:2162:G:P	24:BA:2164:C:H42	2.40	0.44
39:D1:90:VAL:HG22	40:D2:39:LEU:CD2	2.48	0.44
34:BO:15:ARG:HG3	34:BO:16:ARG:H	1.82	0.44
27:BE:203:LYS:C	27:BE:203:LYS:HD2	2.38	0.44
38:BR:23:ARG:HB3	38:BR:24:PRO:HD2	1.98	0.44
1:AA:1126:U:C5	1:AA:1127:G:C5	3.06	0.44
6:CI:37:VAL:CG1	6:CI:38:GLU:H	2.23	0.44
24:BA:1797:C:H4'	26:BD:257:LEU:O	2.16	0.44
12:CO:111:LYS:HD3	12:CO:111:LYS:N	2.12	0.44
24:DA:2063:C:O2	24:DA:2450:A:N1	2.50	0.44
1:AA:848:C:O5'	1:AA:848:C:H6	2.00	0.44
38:DR:3:ARG:NE	38:DR:6:LEU:HD13	2.33	0.44
1:CA:250:A:H5'	1:CA:252:U:C1'	2.47	0.44
35:DP:75:THR:HA	35:DP:90:VAL:N	2.32	0.44
12:CO:25:PRO:O	12:CO:27:LEU:N	2.50	0.44
24:DA:2134:A:C6	24:DA:2158:A:O4'	2.70	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:76:ARG:CD	46:DZ:94:LEU:HD22	2.40	0.44
42:BT:31:HIS:ND1	42:BT:32:PRO:HD2	2.32	0.44
47:BW:53:LEU:HD22	47:BW:57:ILE:HG13	1.99	0.44
24:BA:1512:G:H2'	24:BA:1513:C:C6	2.53	0.44
35:BP:79:LEU:HD12	35:BP:80:GLU:CB	2.47	0.44
14:CQ:4:LYS:CA	14:CQ:7:ILE:HG12	2.43	0.44
30:DH:99:VAL:HG21	30:DH:104:GLU:OE2	2.18	0.44
25:DB:88:C:H3'	25:DB:88:C:H6	1.83	0.44
15:CR:2:PRO:HB2	15:CR:3:ILE:H	1.62	0.44
24:DA:2211:G:C4'	24:DA:2212:A:OP2	2.66	0.44
18:AU:25:THR:HG22	18:AU:25:THR:O	2.18	0.44
24:DA:2574:G:O2'	27:DE:143:ASN:HB3	2.17	0.44
24:DA:1000:A:C6	24:DA:1001:A:C6	3.05	0.44
24:DA:1154:G:O5'	24:DA:1154:G:H8	2.01	0.44
24:BA:764:A:H5'	26:BD:210:GLY:HA2	1.99	0.44
29:BG:57:ALA:CB	29:BG:90:LEU:HD21	2.44	0.44
1:AA:599:C:H4'	8:AK:130:GLY:O	2.17	0.44
1:AA:217:C:O2'	1:AA:218:C:H5'	2.17	0.44
26:DD:123:ALA:O	26:DD:131:LEU:HD21	2.17	0.44
1:CA:853:G:O2'	1:CA:854:G:H5'	2.17	0.44
24:BA:2332:U:H5'	24:BA:2336:A:N6	2.32	0.44
42:DT:26:TYR:HB3	42:DT:92:LEU:CD1	2.48	0.44
24:DA:863:A:H2'	24:DA:864:G:C8	2.53	0.44
1:AA:644:G:H2'	1:AA:645:C:H5'	1.96	0.44
1:AA:1195:C:H5''	1:AA:1196:U:OP2	2.16	0.44
22:CC:24:U:H2'	22:CC:25:C:H6	1.83	0.44
24:BA:2016:U:H1'	50:B5:6:VAL:HG13	1.98	0.44
26:BD:68:LYS:HB2	26:BD:70:TRP:CE2	2.52	0.44
1:AA:724:G:C2	1:AA:725:G:N9	2.85	0.44
24:DA:2563:U:O2	24:DA:2565:A:H8	1.98	0.44
17:AT:83:ASP:HA	17:AT:86:GLU:HG2	1.99	0.44
24:DA:1547:C:H2'	24:DA:1548:C:C6	2.53	0.44
1:CA:787:A:O2'	1:CA:788:U:H5'	2.18	0.44
24:BA:644:A:O3'	24:BA:645:C:H6	2.00	0.44
1:AA:1428:A:H2'	1:AA:1429:C:H6	1.79	0.44
8:AK:46:LYS:HD2	8:AK:62:TYR:HB3	1.98	0.44
1:AA:890:G:O2'	1:AA:891:U:P	2.76	0.44
24:DA:1838:C:H4'	24:DA:1839:G:H8	1.82	0.44
24:DA:2693:A:H2'	24:DA:2694:G:H8	1.82	0.44
1:AA:1187:G:H21	14:AQ:60:SER:HB3	1.82	0.44
13:CP:44:ARG:HB3	13:CP:46:LYS:HG2	1.99	0.44
24:DA:2556:C:C2'	24:DA:2557:G:H5'	2.47	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:10:GLY:O	43:BU:26:LYS:HG3	2.18	0.44
24:DA:269:U:C4	24:DA:270(Z):U:C2	3.05	0.44
24:DA:1642:G:C2'	24:DA:1643:G:H5'	2.47	0.44
32:BM:10:GLU:N	32:BM:10:GLU:OE1	2.50	0.44
1:AA:348:G:O2'	1:AA:349:A:H5'	2.17	0.44
1:CA:1180:A:H5''	1:CA:1181:G:OP1	2.18	0.44
1:CA:1309:G:N1	1:CA:1329:A:C2	2.85	0.44
1:CA:1330:U:C4	1:CA:1331:G:C4	3.05	0.44
7:CJ:25:ALA:HA	7:CJ:28:ASN:HD22	1.80	0.44
10:CM:47:PHE:O	10:CM:47:PHE:HD1	2.01	0.44
9:AL:9:ARG:CD	9:AL:14:VAL:HG23	2.47	0.44
34:DO:52:GLU:OE1	34:DO:53:GLY:C	2.56	0.44
34:DO:56:SER:HB2	34:DO:61:ARG:NH2	2.32	0.44
51:B6:15:GLU:OE2	51:B6:44:ARG:NH2	2.50	0.44
26:BD:30:GLU:CG	26:BD:63:ARG:NH2	2.80	0.44
4:AG:8:VAL:CG1	4:AG:115:ARG:NH2	2.36	0.44
30:DH:3:ARG:HH12	30:DH:4:ILE:HG13	1.75	0.44
1:AA:1314:C:N4	19:AV:5:LEU:HA	2.31	0.44
3:CF:64:VAL:HG22	3:CF:66:VAL:HG23	1.99	0.44
24:BA:270(N):G:H2'	24:BA:270(P):C:OP2	2.18	0.44
49:D4:36:CYS:O	49:D4:37:SER:CB	2.65	0.44
29:DG:114:ILE:HD13	29:DG:140:ILE:CG2	2.48	0.44
2:CE:28:PHE:CE2	2:CE:190:THR:HG22	2.52	0.44
24:DA:1075:C:C4	24:DA:1076:C:N4	2.85	0.44
31:BK:95:LYS:HZ1	31:BK:99:GLU:HB2	1.80	0.44
9:CL:3:GLN:HE21	9:CL:20:ARG:HD2	1.81	0.44
3:CF:71:ALA:CA	3:CF:106:VAL:HB	2.48	0.44
24:DA:607:U:C2	24:DA:621:A:N1	2.86	0.44
1:AA:1027:C:H4'	1:AA:1028:C:OP1	2.16	0.44
5:CH:66:MET:HB3	5:CH:67:VAL:H	1.61	0.44
5:CH:96:PRO:HA	5:CH:117:ASP:OD1	2.18	0.44
19:CV:22:LEU:HD13	19:CV:27:GLU:HA	1.97	0.44
33:DN:15:GLY:O	33:DN:47:ILE:HG22	2.18	0.44
33:DN:47:ILE:CG1	33:DN:48:PRO:CD	2.89	0.44
39:D1:91:ASP:OD1	39:D1:96:ALA:CB	2.66	0.44
9:AL:5:TYR:HA	9:AL:17:VAL:O	2.18	0.44
6:CI:39:LYS:H	6:CI:64:GLN:HB3	1.81	0.44
14:AQ:10:ALA:HB2	14:AQ:23:ARG:NH2	2.30	0.44
1:AA:448:A:N1	1:AA:449:C:C4	2.86	0.44
41:DS:59:VAL:O	41:DS:63:ASP:HA	2.18	0.44
41:DS:59:VAL:HA	41:DS:64:MET:H	1.82	0.44
20:AW:84:LEU:C	20:AW:86:ARG:H	2.20	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:48:GLN:C	27:DE:49:LEU:HG	2.36	0.44
24:DA:2576:G:N3	24:DA:2576:G:H3'	2.32	0.44
32:BM:42:TRP:HA	32:BM:48:MET:SD	2.58	0.44
1:AA:96:G:H2'	1:AA:97:U:O4'	2.17	0.44
24:BA:2789:C:C2'	24:BA:2790:A:H4'	2.45	0.44
24:DA:592:G:N2	53:D8:4:MET:CE	2.71	0.44
24:BA:164:U:P	24:BA:165:U:C4	3.11	0.44
24:DA:1171:G:C8	24:DA:1173:G:N3	2.85	0.44
16:AS:67:THR:HB	16:AS:70:ALA:H	1.82	0.44
1:CA:392:G:P	16:CS:8:ARG:NH2	2.91	0.44
24:DA:1541:U:H2'	24:DA:1542:G:O4'	2.17	0.44
3:CF:8:ILE:HG22	14:CQ:49:HIS:O	2.18	0.44
31:BK:37:VAL:HG22	31:BK:38:LEU:HD12	2.00	0.44
1:CA:745:C:H4'	1:CA:836:G:H21	1.82	0.44
24:DA:444:C:H4'	28:DF:49:ALA:HB2	1.99	0.44
6:CI:2:ARG:NH2	15:CR:2:PRO:CD	2.78	0.44
24:DA:1496:A:H1'	24:DA:1577:C:HO2'	1.81	0.44
24:DA:494:G:P	41:DS:8:ARG:HH11	2.40	0.44
47:BW:13:ALA:O	47:BW:16:LEU:HB3	2.18	0.44
27:BE:2:LYS:HD2	27:BE:95:ILE:HG22	1.99	0.44
53:D8:40:GLU:H	53:D8:43:GLN:HG2	1.83	0.44
52:D7:34:ARG:NH1	52:D7:39:ARG:HG3	2.33	0.44
24:DA:467:G:H2'	24:DA:468:G:O4'	2.18	0.44
47:DW:53:LEU:O	47:DW:57:ILE:HG13	2.17	0.44
40:B2:24:LYS:HZ3	40:B2:24:LYS:HB3	1.80	0.44
13:AP:69:GLU:CD	49:B4:48:ARG:HH22	2.20	0.44
1:CA:505:G:H2'	1:CA:506:G:C8	2.53	0.44
1:AA:645:C:C4	1:AA:646:U:C4	3.05	0.44
1:AA:475:G:H2'	1:AA:476:G:C8	2.52	0.44
24:BA:2745:C:C4	24:BA:2746:U:C4	3.06	0.44
25:BB:33:G:C2'	25:BB:34:U:H5'	2.48	0.44
24:DA:2401:U:O2	24:DA:2402:C:H5	1.99	0.44
24:DA:125:G:H4'	24:DA:126:A:OP2	2.17	0.44
24:BA:10:G:N1	24:BA:2629:A:N1	2.66	0.44
25:DB:78:A:H2'	25:DB:79:C:O4'	2.18	0.44
25:BB:12:C:OP2	25:BB:12:C:C6	2.70	0.44
1:AA:131:C:O2	1:AA:132:C:C6	2.71	0.44
29:BG:144:ILE:HG22	29:BG:146:TYR:H	1.83	0.44
24:DA:718:A:C2'	24:DA:719:C:H5'	2.47	0.44
1:AA:370:C:H2'	1:AA:371:G:C8	2.53	0.44
1:AA:521:G:O6	1:AA:529:G:C6	2.71	0.44
13:AP:116:THR:C	13:AP:117:VAL:HG13	2.38	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1000:A:C6	24:BA:1001:A:C6	3.05	0.44
24:DA:729:G:O2'	24:DA:763:G:H4'	2.16	0.44
33:DN:40:VAL:HG12	33:DN:41:ALA:N	2.33	0.44
31:DK:84:GLY:O	31:DK:85:GLU:HB3	2.17	0.44
1:AA:658:G:C6	1:AA:659:U:C4	3.04	0.44
41:BS:41:LYS:O	41:BS:43:GLY:N	2.51	0.44
24:BA:924:C:N4	24:BA:925:C:N4	2.65	0.44
38:DR:31:SER:OG	38:DR:85:LYS:HE2	2.17	0.44
24:BA:2877:G:H2'	24:BA:2878:U:O4'	2.17	0.44
3:AF:139:GLN:OE1	3:AF:139:GLN:HA	2.17	0.44
24:DA:1644:C:O2	24:DA:1644:C:H2'	2.16	0.44
26:DD:108:PRO:HA	26:DD:195:ALA:O	2.16	0.44
24:DA:82:G:H5'	24:DA:295:G:O2'	2.17	0.44
1:CA:1279:A:C2'	1:CA:1282:C:N4	2.80	0.44
1:CA:1277:C:H1'	1:CA:1282:C:H1'	2.00	0.44
1:CA:1299:A:N6	1:CA:1301:U:C2	2.86	0.44
1:CA:1319:A:H61	1:CA:1361:G:N2	2.15	0.44
1:CA:1327:C:H5''	21:CX:20:LYS:CB	2.47	0.44
1:AA:1178:G:OP1	9:AL:93:ARG:NH1	2.51	0.44
9:AL:9:ARG:O	9:AL:104:ARG:CD	2.64	0.44
9:AL:14:VAL:CG2	9:AL:15:ALA:N	2.79	0.44
9:AL:96:LEU:C	9:AL:99:LEU:HD11	2.36	0.44
51:B6:29:ASN:HB2	51:B6:32:ASN:HD22	1.83	0.44
19:AV:28:LYS:HD3	19:AV:47:HIS:CD2	2.53	0.44
43:BU:94:LYS:CD	43:BU:101:LYS:NZ	2.80	0.44
1:AA:1381:U:C1'	7:AJ:79:ARG:HG2	2.45	0.44
26:BD:32:SER:HA	26:BD:36:PRO:CD	2.45	0.44
1:AA:408:A:H2'	1:AA:409:G:O4'	2.18	0.44
24:DA:1050:A:H2	24:DA:2751:G:H3'	1.82	0.44
30:DH:137:ASP:O	30:DH:138:LYS:HB2	2.17	0.44
1:AA:977:A:H2'	1:AA:978:A:H5''	1.99	0.44
24:DA:774:A:HO2'	24:DA:775:G:P	2.40	0.44
2:AE:74:LYS:CE	2:AE:166:ASP:CB	2.96	0.44
24:BA:1060:U:C5	24:BA:1062:G:H4'	2.52	0.44
2:AE:212:GLN:CD	2:AE:216:SER:OG	2.53	0.44
30:DH:9:ILE:CG2	30:DH:51:ARG:HA	2.47	0.44
2:CE:54:THR:O	2:CE:58:ILE:HG13	2.17	0.44
24:DA:1060:U:H4'	24:DA:1061:U:H3'	1.99	0.44
3:CF:112:SER:OG	3:CF:115:LEU:HB2	2.18	0.44
44:BV:139:VAL:O	44:BV:144:LEU:HD11	2.18	0.44
44:BV:169:GLU:OE2	44:BV:171:ILE:HD11	2.18	0.44
24:BA:747:U:C4	24:BA:2613:U:C4	3.05	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CH:69:VAL:O	5:CH:71:LEU:CD1	2.66	0.44
1:CA:1213:A:N6	1:CA:1215:G:C4	2.86	0.44
1:CA:994:A:N7	1:CA:1216:G:H4'	2.32	0.44
24:BA:2870:C:H5''	36:B0:65:LEU:HD21	1.99	0.44
24:BA:2210:G:H5'	24:BA:2211:G:C5	2.53	0.44
44:BV:112:ARG:O	44:BV:112:ARG:CG	2.66	0.44
29:DG:105:LYS:HZ2	49:D4:26:SER:HB3	1.82	0.44
10:AM:38:ILE:CG2	10:AM:71:LEU:HB3	2.47	0.44
10:AM:7:LYS:HG2	10:AM:71:LEU:HD13	2.00	0.44
24:BA:1021:A:C8	24:BA:1022:G:H5''	2.52	0.44
1:AA:262:A:H2'	1:AA:263:A:C8	2.52	0.44
42:DT:84:ALA:O	42:DT:85:PRO:C	2.56	0.44
30:BH:89:ILE:O	30:BH:89:ILE:HG12	2.17	0.44
22:CC:8:U:C4'	22:CC:48:C:O2'	2.66	0.44
32:DM:28:THR:HA	32:DM:106:MET:CE	2.47	0.44
32:DM:28:THR:HA	32:DM:106:MET:HE2	1.99	0.44
32:DM:35:ARG:C	32:DM:37:LYS:N	2.71	0.44
24:DA:1313:U:H3'	24:DA:1313:U:O2	2.18	0.44
24:BA:1434:A:C6	24:BA:1435:G:C6	3.05	0.44
24:BA:910:A:C6	24:BA:911:A:C6	3.06	0.44
50:B5:33:CYS:SG	50:B5:46:CYS:SG	3.00	0.44
24:DA:1416:G:N2	24:DA:1582:C:N3	2.48	0.44
8:CK:33:GLU:HG3	8:CK:48:TYR:HE2	1.75	0.44
47:DW:66:GLU:HA	47:DW:69:ARG:CZ	2.47	0.44
24:BA:654(R):C:N4	24:BA:654(S):G:O6	2.51	0.44
27:BE:172:VAL:HG13	27:BE:182:LEU:HD11	1.98	0.44
3:AF:115:LEU:H	3:AF:115:LEU:HD12	1.82	0.44
4:AG:134:ASP:O	4:AG:135:LEU:HD12	2.17	0.44
24:DA:828:U:H4'	24:DA:831:G:N1	2.33	0.44
1:CA:616:G:C2	1:CA:617:G:N7	2.86	0.44
24:BA:2511:U:O4	24:BA:2575:C:N3	2.50	0.44
25:DB:13:A:H2'	25:DB:14:U:H5''	1.99	0.44
24:DA:1507:A:N3	24:DA:1508:A:H1'	2.33	0.44
50:D5:57:VAL:CG1	50:D5:58:LEU:N	2.80	0.44
24:DA:2758:A:H2'	24:DA:2759:G:O4'	2.16	0.44
43:DU:8:LYS:HG2	43:DU:9:LYS:H	1.82	0.44
47:DW:6:VAL:O	47:DW:7:ARG:C	2.56	0.44
32:DM:39:ARG:HH11	32:DM:41:ASP:HB3	1.82	0.44
44:DV:3:TYR:HH	44:DV:55:HIS:CE1	2.30	0.44
38:BR:111:ARG:C	38:BR:113:LYS:H	2.21	0.44
2:AE:149:LEU:O	2:AE:153:ARG:HB2	2.17	0.44
24:BA:2836:U:H2'	24:BA:2837:G:C8	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:590:A:H2'	24:BA:591:C:O4'	2.18	0.44
1:CA:865:A:C2	1:CA:918:A:C4'	2.99	0.44
24:BA:1300:U:H4'	24:BA:1301:A:H5'	1.98	0.44
47:BW:64:LEU:O	47:BW:64:LEU:HD23	2.18	0.44
24:BA:205:G:O2'	24:BA:206:U:P	2.75	0.44
1:CA:788:U:C5	1:CA:789:U:C5	3.04	0.44
1:AA:1353:G:C2	1:AA:1370:G:C2	3.06	0.44
33:BN:20:MET:CE	33:BN:44:LYS:HE3	2.48	0.44
1:AA:652:U:H2'	1:AA:653:A:H5''	2.00	0.44
24:BA:2715:C:H2'	24:BA:2716:U:H6	1.82	0.44
24:BA:944:G:H5''	24:BA:945:A:H5'	2.00	0.44
1:CA:1430:C:H2'	1:CA:1431:C:H6	1.83	0.44
24:BA:686:G:O5'	52:B7:11:LYS:NZ	2.51	0.44
7:AJ:36:LYS:HB2	7:AJ:36:LYS:HZ2	1.82	0.44
39:D1:24:TYR:O	39:D1:29:SER:HB3	2.17	0.44
33:DN:69:ILE:O	33:DN:76:ALA:HA	2.17	0.44
1:CA:62:U:O2'	1:CA:379:C:H1'	2.16	0.44
24:BA:531:C:H4'	24:BA:532:A:H5''	1.99	0.44
46:BZ:45:ASN:O	46:BZ:63:ALA:HA	2.18	0.44
24:BA:1545(A):A:C2'	24:BA:1546:C:H5'	2.48	0.44
6:AI:101:ALA:HB2	18:AU:28:GLU:HG3	1.98	0.44
42:DT:90:GLU:HA	42:DT:93:GLU:HB2	2.00	0.44
24:DA:2828:C:O2'	24:DA:2829:C:H5'	2.17	0.44
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.17	0.44
1:CA:1148:U:O2'	9:CL:66:ARG:NH2	2.51	0.44
1:CA:1236:A:H4'	1:CA:1304:G:H5''	2.00	0.44
1:CA:1358:U:C5'	1:CA:1359:C:OP2	2.64	0.44
1:CA:977:A:H2	1:CA:1224:G:C6	2.35	0.44
13:CP:25:ILE:HD11	13:CP:66:LEU:CD2	2.48	0.44
24:DA:2286:A:H5''	51:D6:28:ARG:HH11	1.61	0.44
24:DA:2343:C:H4'	24:DA:2373:G:O3'	2.17	0.44
24:DA:2416:C:C4'	34:DO:64:LYS:HZ1	2.30	0.44
24:BA:2399:G:O2'	51:B6:19:ARG:NE	2.50	0.44
24:DA:1050:A:H2'	24:DA:1051:G:O4'	2.17	0.44
29:BG:135:LEU:HD23	29:BG:141:PHE:HE1	1.82	0.44
12:AO:46:LYS:HD2	12:AO:94:PRO:HG3	1.99	0.44
7:CJ:54:THR:HG23	7:CJ:54:THR:O	2.18	0.44
5:AH:13:ILE:N	5:AH:13:ILE:HD12	2.31	0.44
24:BA:1063:G:C5	24:BA:1064:C:C4	3.06	0.44
26:DD:61:LEU:HD13	26:DD:61:LEU:HA	1.84	0.44
32:DM:127:ASP:O	32:DM:128:HIS:HB3	2.18	0.44
24:DA:875:G:H5'	44:DV:173:ALA:CB	2.48	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AP:11:ARG:NE	13:AP:46:LYS:CE	2.75	0.44
4:CG:93:PHE:CE1	4:CG:97:LEU:HD12	2.52	0.44
24:BA:1176:G:H2'	24:BA:1178:C:C4	2.53	0.44
24:BA:1838:C:C4	24:BA:1899:G:C6	3.06	0.44
2:AE:31:TYR:C	2:AE:42:ILE:CD1	2.86	0.44
40:D2:15:GLU:HB3	40:D2:16:PRO:HD2	2.00	0.44
34:BO:62:LEU:HD23	34:BO:63:PRO:C	2.38	0.44
29:DG:143:GLU:N	29:DG:143:GLU:OE2	2.40	0.44
1:AA:1106:G:H5''	3:AF:172:ARG:HG2	1.99	0.44
24:BA:1019:U:H2'	24:BA:1020:A:H8	1.82	0.44
1:CA:1023:G:C2'	1:CA:1024:G:OP1	2.66	0.44
31:DK:63:ALA:O	31:DK:67:ARG:NH1	2.50	0.44
29:DG:60:LEU:CD2	29:DG:60:LEU:O	2.65	0.44
1:CA:686:U:H1'	11:CN:42:TRP:NE1	2.20	0.44
24:DA:2151:G:C6	24:DA:2152:G:C5	3.06	0.44
9:AL:125:TYR:HD1	9:AL:126:SER:N	2.05	0.44
24:BA:1728:G:H5'	24:BA:1729:A:OP2	2.17	0.44
24:BA:141:A:H8	24:BA:1408:C:H1'	1.79	0.44
1:CA:689:C:O2'	1:CA:690:G:H5'	2.18	0.44
30:BH:30:LYS:CD	30:BH:81:GLU:H	2.30	0.44
30:DH:127:GLU:HG2	30:DH:128:PRO:CD	2.41	0.44
24:DA:1815:A:C6	24:DA:1817:G:C6	3.06	0.44
24:DA:2273:A:O2'	24:DA:2274:A:H5'	2.18	0.44
34:BO:6:LEU:HA	34:BO:6:LEU:HD12	1.69	0.44
39:D1:108:GLU:CD	40:D2:45:THR:HA	2.38	0.44
24:DA:1494:A:C6	24:DA:1495:A:C6	3.06	0.44
31:BK:79:ILE:HA	31:BK:79:ILE:HD13	1.86	0.44
41:BS:66:GLU:O	41:BS:67:ASP:HB3	2.18	0.44
18:AU:29:PHE:CD1	18:AU:29:PHE:O	2.70	0.44
1:AA:176:C:H2'	1:AA:177:C:C6	2.52	0.44
1:AA:530:G:H3'	1:AA:531:U:C5'	2.48	0.44
27:BE:33:VAL:HG12	27:BE:90:THR:H	1.83	0.44
39:D1:83:LEU:HD21	39:D1:88:ILE:HG13	1.99	0.44
15:CR:53:HIS:O	15:CR:56:LEU:HB3	2.16	0.44
31:BK:67:ARG:HH21	31:BK:68:LEU:HB2	1.83	0.44
49:D4:39:CYS:O	49:D4:40:HIS:CB	2.65	0.44
1:AA:143:A:H5''	1:AA:144:G:O5'	2.17	0.44
24:BA:2303:G:C2'	24:BA:2304:G:H5'	2.48	0.44
24:DA:2531:A:C5'	30:DH:157:TYR:CZ	3.01	0.44
26:BD:217:ARG:HG2	26:BD:217:ARG:NH1	2.32	0.44
24:DA:1348:G:C2'	24:DA:1349:A:H5''	2.48	0.44
24:BA:1374:G:H2'	24:BA:1375:C:C6	2.52	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:600:G:H2'	24:BA:601:C:C6	2.51	0.44
43:DU:2:ARG:HA	43:DU:2:ARG:HH11	1.83	0.44
40:B2:95:LEU:HD13	40:B2:95:LEU:C	2.37	0.44
24:BA:72:U:N3	47:BW:62:THR:HG23	2.32	0.44
24:DA:2652:C:H2'	24:DA:2653:U:O4'	2.17	0.44
24:BA:2728:U:H2'	24:BA:2729:G:H8	1.81	0.44
24:DA:866:A:N6	24:DA:914:C:C5	2.85	0.44
44:DV:124:ILE:HG23	44:DV:124:ILE:O	2.17	0.44
1:AA:1112:C:O2	3:AF:179:ARG:HG2	2.16	0.44
34:BO:81:GLN:HG3	34:BO:82:GLY:N	2.33	0.44
2:CE:140:HIS:O	2:CE:143:GLU:HB3	2.17	0.44
24:DA:969:U:O3'	48:DX:14:GLY:HA2	2.17	0.44
2:AE:139:LYS:O	2:AE:143:GLU:HG3	2.17	0.44
1:CA:528:C:O2'	1:CA:529:G:H5'	2.18	0.44
7:AJ:76:ARG:N	7:AJ:87:VAL:O	2.51	0.44
24:BA:2880:C:H1'	36:B0:91:GLN:O	2.17	0.44
1:AA:1230:C:O2'	1:AA:1231:G:H5'	2.18	0.44
24:DA:2578:G:H4'	24:DA:2578:G:OP2	2.16	0.44
51:B6:9:LEU:HB3	51:B6:26:ASN:O	2.17	0.44
4:CG:39:PRO:HA	4:CG:40:PRO:HD3	1.81	0.44
1:CA:598:U:C4'	8:CK:94:TYR:CE2	3.00	0.44
1:CA:1237:C:C4'	1:CA:1334:G:N2	2.81	0.44
1:CA:978:A:O2'	1:CA:1322:C:N4	2.47	0.44
9:CL:28:VAL:CG1	9:CL:29:ASN:N	2.81	0.44
13:CP:80:ARG:HD2	49:D4:55:ARG:HD3	1.97	0.44
24:DA:2287:A:N1	24:DA:2289:G:H1'	2.32	0.44
13:AP:81:LEU:CD2	13:AP:88:ARG:HH11	2.30	0.44
1:AA:1381:U:O2'	7:AJ:79:ARG:CG	2.64	0.44
26:BD:33:LEU:N	26:BD:35:LYS:O	2.48	0.44
24:DA:1111:A:C2'	24:DA:1112:G:C4'	2.91	0.44
24:BA:1050:A:C5	24:BA:2751:G:N7	2.86	0.44
34:DO:15:ARG:HA	34:DO:15:ARG:HD3	1.63	0.44
2:AE:180:LEU:C	2:AE:182:ILE:H	2.21	0.44
24:DA:2638:G:P	27:DE:82:ARG:HH22	2.41	0.44
39:B1:58:ARG:HH11	39:B1:93:LYS:NZ	2.14	0.44
2:CE:28:PHE:CE2	2:CE:31:TYR:C	2.91	0.44
29:DG:9:ARG:O	29:DG:12:TYR:N	2.50	0.44
1:CA:255:G:O3'	17:CT:17:LYS:HD2	2.18	0.44
1:CA:1057:G:C2'	1:CA:1058:G:H5'	2.48	0.44
24:DA:2317:C:C2'	24:DA:2318:G:H5'	2.48	0.44
24:BA:2212:A:H1'	24:BA:2215:G:C4	2.52	0.44
31:BK:131:LYS:HA	31:BK:135:GLU:CB	2.44	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CI:99:ALA:O	6:CI:100:ASN:HB3	2.17	0.44
26:BD:85:ASP:OD1	26:BD:86:PRO:HD2	2.18	0.44
34:DO:143:GLY:O	34:DO:144:GLU:CB	2.64	0.44
6:CI:38:GLU:HB3	6:CI:64:GLN:O	2.18	0.44
4:CG:153:ARG:NH1	4:CG:181:MET:SD	2.90	0.44
24:BA:1521:G:H5'	24:BA:1522:G:OP1	2.18	0.44
6:AI:87:ARG:HD3	18:AU:75:ILE:O	2.18	0.44
24:DA:78:A:C4	24:DA:79:G:N7	2.86	0.44
8:AK:87:SER:OG	8:AK:92:ARG:HA	2.17	0.44
24:DA:2881:C:C4	24:DA:2882:A:N7	2.85	0.44
32:BM:99:LEU:O	32:BM:103:VAL:HG23	2.18	0.44
34:BO:138:LEU:HD11	34:BO:144:GLU:HG2	2.00	0.44
1:CA:34:C:H1'	12:CO:32:PHE:HE2	1.82	0.44
24:BA:2683:C:H4'	27:BE:13:ARG:HH21	1.83	0.44
1:CA:1260:C:OP1	1:CA:1284:C:H4'	2.18	0.44
24:DA:1006:C:O2'	24:DA:1007:C:H5'	2.17	0.44
20:AW:43:LEU:HB3	20:AW:52:ALA:HB2	1.98	0.44
24:DA:2190:G:H2'	24:DA:2191:G:O4'	2.18	0.44
35:BP:79:LEU:CD1	35:BP:80:GLU:HB2	2.47	0.44
24:DA:498:G:N2	43:DU:47:LYS:HZ1	2.14	0.44
28:BF:126:VAL:HG23	28:BF:127:GLU:N	2.32	0.44
24:DA:945:A:C4	24:DA:2448:A:C2	3.06	0.44
24:DA:458:G:O2'	52:D7:39:ARG:HD3	2.17	0.44
24:DA:2266:A:H4'	24:DA:2267:A:N3	2.33	0.44
24:BA:2732:G:H3'	24:BA:2733:A:O4'	2.18	0.44
31:BK:127:VAL:HA	31:BK:139:GLN:HA	2.00	0.44
1:CA:188:U:O2'	1:CA:189:U:C5'	2.64	0.44
24:BA:1878:G:H2'	24:BA:1879:C:H6	1.83	0.44
5:AH:59:GLY:O	5:AH:63:ARG:HG3	2.17	0.44
38:DR:99:LEU:C	38:DR:101:PHE:H	2.21	0.44
29:DG:135:LEU:O	29:DG:154:GLY:HA3	2.18	0.44
47:DW:16:LEU:O	47:DW:16:LEU:HD12	2.18	0.44
43:BU:6:HIS:CE1	43:BU:7:VAL:HG13	2.53	0.44
24:DA:192:C:C2'	24:DA:193:U:H5'	2.47	0.44
24:BA:1458:C:C4'	24:BA:1459:G:H5'	2.47	0.44
24:DA:2859:G:O2'	24:DA:2860:A:P	2.76	0.44
1:AA:950:U:H1'	1:AA:971:G:C5	2.53	0.44
25:BB:21:G:H1	25:BB:62:C:H42	1.65	0.44
24:BA:2259:G:C2	24:BA:2282:G:C6	3.06	0.44
24:DA:2520:C:C6	24:DA:2567:G:H1'	2.53	0.44
24:DA:1373:A:H2'	24:DA:1374:G:O4'	2.17	0.44
24:DA:708:C:H5'	24:DA:709:U:OP2	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:577:G:H1'	1:AA:816:A:C4	2.53	0.44
13:AP:96:LEU:HB3	13:AP:97:PRO:CD	2.48	0.44
2:AE:92:TYR:CG	2:AE:151:GLY:HA3	2.53	0.44
35:BP:69:PHE:HA	35:BP:70:PRO:HD3	1.79	0.44
17:AT:25:ARG:NH1	17:AT:27:PHE:CE2	2.85	0.44
4:AG:94:LEU:HA	4:AG:97:LEU:HD12	1.99	0.44
39:B1:24:TYR:HB2	39:B1:29:SER:HB3	1.98	0.44
17:CT:26:GLN:O	17:CT:27:PHE:HB3	2.17	0.44
1:CA:554:C:H2'	1:CA:555:C:C6	2.52	0.44
48:BX:4:LEU:HD23	48:BX:4:LEU:HA	1.84	0.44
1:CA:511:C:C2	1:CA:512:U:C5	3.06	0.44
4:CG:18:LYS:O	4:CG:19:LEU:HD23	2.17	0.44
1:CA:1120:G:C2	1:CA:1154:G:N3	2.86	0.44
1:CA:1236:A:H2'	1:CA:1237:C:C6	2.52	0.44
1:CA:1326:C:H2'	1:CA:1327:C:C6	2.53	0.44
1:CA:1348:U:H5''	9:CL:119:ALA:HB1	2.00	0.44
13:CP:23:TYR:O	13:CP:66:LEU:HB2	2.18	0.44
19:CV:8:GLY:O	19:CV:9:VAL:HB	2.17	0.44
21:CX:6:ARG:O	21:CX:8:THR:N	2.51	0.44
24:DA:2378:A:H4'	37:DQ:23:ARG:CZ	2.48	0.44
24:BA:2400:G:C8	51:B6:19:ARG:NH2	2.86	0.44
26:BD:35:LYS:HE2	26:BD:104:TYR:CB	2.48	0.44
53:B8:23:VAL:CG1	53:B8:46:ARG:HB3	2.48	0.44
24:BA:1060:U:N3	24:BA:1062:G:H4'	2.33	0.44
24:BA:1084:A:C5	24:BA:1085:A:N7	2.86	0.44
46:BZ:74:VAL:C	46:BZ:76:ARG:H	2.21	0.44
13:CP:48:LEU:HB2	13:CP:52:GLU:OE1	2.17	0.44
30:BH:148:ILE:O	30:BH:151:ILE:HG13	2.18	0.44
1:CA:1013:G:OP1	19:CV:18:LYS:HE2	2.17	0.44
1:CA:987:G:N2	1:CA:1219:U:C2	2.85	0.44
35:BP:58:PHE:CE1	35:BP:117:ALA:HB2	2.53	0.44
36:B0:63:ARG:O	36:B0:67:LEU:HD23	2.18	0.44
29:DG:105:LYS:CE	49:D4:26:SER:HB3	2.48	0.44
24:BA:1755:A:H2'	24:BA:1756:G:H5'	2.00	0.44
1:AA:1151:A:OP1	1:AA:1151:A:H4'	2.18	0.44
9:AL:79:LEU:O	9:AL:81:ILE:N	2.51	0.44
1:AA:1125:U:H3	10:AM:5:ARG:NH1	2.16	0.44
24:DA:638:G:H2'	24:DA:639:U:C6	2.53	0.44
34:DO:125:VAL:HG13	34:DO:125:VAL:O	2.18	0.44
37:BQ:60:GLY:O	37:BQ:65:VAL:HG23	2.17	0.44
25:DB:6:C:H3'	25:DB:7:G:H5''	1.99	0.44
28:BF:185:ASP:HA	28:BF:188:ARG:CD	2.37	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:48:PHE:HE1	44:BV:71:VAL:HG21	1.83	0.44
1:AA:264:U:O2'	17:AT:64:PRO:O	2.17	0.44
4:AG:196:LEU:C	4:AG:198:VAL:H	2.20	0.44
24:DA:2876:G:O3'	38:DR:2:ASN:ND2	2.51	0.44
43:DU:52:SER:HB2	43:DU:57:GLN:H	1.83	0.44
24:BA:1312:U:C4'	24:BA:1313:U:O5'	2.65	0.44
24:DA:2123:G:O6	24:DA:2174:C:N4	2.51	0.44
24:BA:1538:G:N3	24:BA:1539:G:C8	2.86	0.44
1:CA:184:G:N2	1:CA:194:C:C2	2.85	0.44
24:DA:270(S):G:N1	24:DA:270(T):G:C5	2.85	0.44
24:DA:1171:G:N3	24:DA:1173:G:O4'	2.51	0.44
16:AS:19:ILE:HA	16:AS:19:ILE:HD13	1.81	0.44
42:DT:59:VAL:O	42:DT:60:ARG:C	2.56	0.44
1:AA:246:A:H3'	17:AT:100:LYS:HB3	1.99	0.44
1:AA:1452:C:H2'	1:AA:1453:G:OP2	2.18	0.44
1:CA:1102:A:H2	2:CE:104:ASN:ND2	2.16	0.44
1:CA:672:U:H2'	1:CA:673:G:H8	1.83	0.44
24:BA:2283:C:C6	24:BA:2389:G:H2'	2.53	0.44
38:DR:24:PRO:HD3	38:DR:52:ILE:CG1	2.48	0.44
24:BA:1027:A:N6	24:BA:1126:A:C4	2.85	0.44
1:AA:43:C:O2'	1:AA:623:C:O2'	2.36	0.44
24:BA:2562:U:C2'	24:BA:2563:U:H5'	2.48	0.44
24:BA:1585:C:OP2	24:BA:1585:C:C4'	2.65	0.44
7:AJ:78:ARG:NH2	7:AJ:154:TYR:CA	2.79	0.44
1:CA:923:A:H5''	5:CH:21:ALA:HB2	1.98	0.44
25:DB:70:C:H42	25:DB:106:G:H1	1.66	0.44
24:BA:1934:C:H2'	24:BA:1934:C:O2	2.18	0.44
48:DX:10:LYS:HB3	48:DX:53:LEU:HB2	2.00	0.44
42:DT:17:ALA:HB1	42:DT:27:THR:OG1	2.18	0.44
20:AW:48:LYS:HD2	20:AW:48:LYS:N	2.30	0.44
26:BD:255:LYS:HA	26:BD:255:LYS:HD3	1.86	0.44
1:AA:353:A:C2'	1:AA:354:G:OP2	2.64	0.44
24:DA:2563:U:H2'	24:DA:2565:A:OP2	2.18	0.44
1:CA:1387:G:C4	1:CA:1388:C:C5	3.06	0.44
24:DA:1179:C:H2'	24:DA:1180:C:C6	2.52	0.44
24:BA:1633:G:C5	24:BA:1635:G:C5	3.06	0.44
5:AH:72:GLN:O	5:AH:73:ASN:CB	2.66	0.44
1:AA:46:G:O2'	1:AA:365:U:H1'	2.18	0.44
32:BM:71:ILE:HG21	32:BM:84:LYS:HB3	2.00	0.44
35:DP:26:TYR:O	35:DP:27:VAL:O	2.36	0.44
25:BB:92:G:C2	25:BB:93:C:C6	3.06	0.44
1:CA:894:G:H2'	1:CA:895:G:C8	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AX:10:ARG:HA	21:AX:13:ILE:HD12	2.00	0.44
24:BA:886:C:H3'	24:BA:887:A:H5''	1.99	0.44
24:BA:1167:U:C2	24:BA:1183:G:N2	2.86	0.44
1:CA:355:C:C4	1:CA:356:A:N7	2.85	0.44
1:CA:54:C:H2'	1:CA:352:C:H41	1.82	0.44
9:AL:114:TYR:HE1	10:AM:59:SER:HA	1.83	0.44
24:DA:920:G:H2'	24:DA:921:G:H8	1.82	0.44
2:AE:52:GLU:O	2:AE:56:ARG:HB2	2.17	0.44
7:AJ:12:LEU:N	7:AJ:12:LEU:HD22	2.32	0.44
49:D4:46:GLN:NE2	49:D4:46:GLN:O	2.51	0.44
6:CI:81:ILE:HG22	6:CI:82:ARG:N	2.33	0.44
1:CA:1228:C:P	13:CP:115:LYS:HG2	2.58	0.44
1:CA:1330:U:O4	1:CA:1331:G:N1	2.51	0.44
9:CL:93:ARG:HG3	9:CL:102:LEU:HD21	1.99	0.44
9:CL:69:GLY:O	9:CL:73:GLN:HG3	2.17	0.44
13:CP:55:ARG:O	13:CP:59:TYR:N	2.51	0.44
24:DA:2291:U:H5''	24:DA:2380:C:O2'	2.18	0.44
1:AA:1178:G:C5'	9:AL:93:ARG:HH12	2.28	0.44
24:DA:250:G:O5'	34:DO:60:MET:HE2	2.18	0.44
51:B6:30:THR:N	51:B6:31:PRO:O	2.50	0.44
1:AA:1199:U:H5'	10:AM:54:PHE:CE2	2.52	0.44
26:BD:34:VAL:C	26:BD:35:LYS:O	2.56	0.44
24:DA:1047:G:O3'	24:DA:1048:A:O4'	2.35	0.44
24:BA:1058:U:H2'	24:BA:1059:G:H8	1.82	0.44
29:DG:106:LEU:HD12	29:DG:110:ALA:HB3	2.00	0.44
2:CE:166:ASP:CB	2:CE:169:LYS:HB2	2.47	0.44
27:BE:78:LEU:O	27:BE:79:ARG:O	2.36	0.44
1:CA:254:G:O2'	1:CA:255:G:H5'	2.17	0.44
1:AA:102:G:C4	1:AA:103:C:C5	3.06	0.44
20:AW:14:LYS:HD3	20:AW:17:ARG:HH21	1.83	0.44
24:DA:1071:G:C6	24:DA:1072:C:N4	2.86	0.44
44:DV:148:ASP:HB3	44:DV:172:ALA:C	2.38	0.44
24:DA:620:G:H2'	24:DA:620:G:N3	2.33	0.44
31:DK:83:ALA:CB	31:DK:123:LEU:HD11	2.48	0.44
24:BA:2175:C:C3'	24:BA:2176:A:C5'	2.92	0.44
34:BO:49:ARG:HD2	53:B8:58:ILE:CG2	2.47	0.44
24:BA:654(M):C:H2'	24:BA:654(N):G:N7	2.29	0.44
24:BA:1756:G:H1'	24:BA:1758:G:C2	2.53	0.44
1:AA:1128:C:HO2'	1:AA:1130:A:H8	1.65	0.44
5:CH:132:ALA:O	5:CH:136:MET:HG2	2.18	0.44
6:CI:58:GLY:O	6:CI:60:PHE:CE1	2.71	0.44
1:AA:626:U:H5''	16:AS:38:TYR:CE1	2.49	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:186:C:H2'	1:AA:186(A):C:C6	2.53	0.44
32:DM:7:LYS:O	32:DM:9:VAL:N	2.51	0.44
1:CA:481:G:O2'	1:CA:483:C:N4	2.51	0.44
22:CC:18:G:C2	22:CC:58:A:C4	3.06	0.44
24:DA:2817:G:P	36:D0:99:LYS:NZ	2.91	0.44
1:AA:89:U:O2'	1:AA:90:C:C6	2.67	0.44
35:DP:87:LYS:O	35:DP:88:GLY:O	2.36	0.44
24:BA:880:G:O2'	24:BA:881:G:P	2.70	0.44
24:DA:2153:G:N2	24:DA:2154:G:C8	2.86	0.44
24:BA:153:C:O2'	24:BA:154:G:H5'	2.18	0.44
24:BA:164:U:H6	24:BA:165:U:C6	2.35	0.44
24:BA:153:C:OP2	46:BZ:88:LYS:NZ	2.50	0.44
30:DH:68:THR:O	30:DH:72:ILE:CD1	2.66	0.44
16:AS:74:LEU:HB3	16:AS:80:PHE:HE1	1.82	0.44
24:DA:1309:G:H4'	52:D7:7:PRO:HB2	1.99	0.44
24:DA:1665:A:C2'	24:DA:1666:G:C5'	2.88	0.44
47:BW:31:GLU:HB3	47:BW:53:LEU:HD11	2.00	0.44
24:BA:594:U:C5'	53:B8:61:LEU:HD11	2.47	0.44
24:DA:2712:U:H1'	24:DA:2712(A):A:H8	1.75	0.44
14:CQ:27:CYS:O	14:CQ:28:GLY:C	2.57	0.44
44:BV:7:ALA:HB3	44:BV:61:LEU:HB2	2.00	0.44
1:CA:673:G:H4'	6:CI:87:ARG:HH21	1.82	0.44
45:D3:72:ARG:HH21	45:D3:75:LEU:HD13	1.80	0.44
9:AL:47:LEU:CD1	9:AL:47:LEU:H	2.23	0.44
41:DS:12:ILE:HD13	41:DS:17:VAL:CG1	2.48	0.44
28:DF:157:VAL:HG12	28:DF:198:ALA:HB1	2.00	0.44
39:D1:112:ARG:HH12	40:D2:47:VAL:CG1	2.30	0.44
15:AR:17:ARG:HG2	15:AR:21:ASP:OD2	2.18	0.44
16:CS:48:TRP:O	16:CS:48:TRP:CE3	2.71	0.44
27:BE:134:ILE:HA	27:BE:137:HIS:CD2	2.53	0.44
13:AP:56:LEU:O	13:AP:60:VAL:HG23	2.17	0.44
45:B3:42:GLY:C	45:B3:57:PHE:HD2	2.21	0.44
36:B0:94:TYR:N	36:B0:94:TYR:CD1	2.84	0.44
8:CK:38:ILE:CD1	8:CK:118:VAL:CG1	2.94	0.44
1:AA:644:G:H2'	1:AA:645:C:C5'	2.48	0.44
2:CE:118:LEU:CD1	2:CE:142:LEU:HB2	2.47	0.44
24:DA:1249:U:C4'	39:D1:4:ALA:HB3	2.48	0.44
22:CC:24:U:O2'	24:DA:1923:U:H5''	2.18	0.44
24:BA:627:A:C6	34:BO:115:LEU:HD13	2.53	0.44
26:BD:175:LEU:HD12	26:BD:185:VAL:HG21	2.00	0.44
30:BH:117:PRO:HD3	30:BH:123:PHE:HE2	1.82	0.44
27:BE:14:ILE:HD12	38:BR:14:TYR:CZ	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:30:LYS:HB2	4:CG:30:LYS:NZ	2.23	0.44
24:DA:581:C:H2'	24:DA:582:G:H8	1.81	0.44
1:AA:652:U:C2'	1:AA:653:A:H5''	2.48	0.44
32:BM:133:GLN:HG2	32:BM:135:PRO:HD3	2.00	0.44
1:AA:889:A:O3'	1:AA:890:G:H4'	2.18	0.44
1:AA:1306:A:C2	1:AA:1307:U:H1'	2.53	0.44
3:AF:45:LYS:NZ	3:AF:45:LYS:CB	2.81	0.44
15:AR:11:VAL:HG13	15:AR:15:PHE:CE1	2.53	0.44
24:DA:1228:G:OP1	39:D1:13:LYS:HG2	2.18	0.44
1:AA:657:G:O2'	1:AA:658:G:H5'	2.18	0.44
29:DG:25:TYR:CD1	29:DG:30:GLU:HB3	2.52	0.44
39:B1:17:ILE:HG23	39:B1:39:LEU:HD12	1.99	0.44
24:DA:1255:U:H5''	24:DA:1256:G:H5''	2.00	0.44
27:BE:152:LYS:HG2	32:BM:78:TYR:CE1	2.53	0.44
30:BH:33:LEU:HD11	30:BH:136:ILE:O	2.18	0.44
41:DS:107:LEU:HA	41:DS:107:LEU:HD12	1.81	0.44
24:BA:1854:A:C2	24:BA:2087:G:N3	2.86	0.44
2:AE:7:VAL:HG13	2:AE:7:VAL:O	2.17	0.44
24:BA:954:G:O2'	24:BA:2274:A:N1	2.37	0.44
24:BA:2825:C:H2'	24:BA:2826:A:H5'	2.00	0.44
1:CA:538:G:OP2	12:CO:115:LYS:HB2	2.19	0.43
1:CA:1131:G:H22	1:CA:1144:G:H1'	1.83	0.43
1:CA:1330:U:O4	1:CA:1331:G:C2	2.71	0.43
9:CL:78:LYS:HG2	9:CL:101:PHE:CE1	2.53	0.43
9:CL:79:LEU:O	9:CL:81:ILE:N	2.51	0.43
1:CA:1150:U:O2'	10:CM:39:PRO:O	2.26	0.43
1:CA:947:G:O3'	13:CP:109:THR:HG23	2.19	0.43
1:AA:1199:U:O4'	10:AM:54:PHE:CD2	2.67	0.43
19:AV:36:ARG:HD3	19:AV:51:VAL:HG12	2.00	0.43
19:AV:58:VAL:O	19:AV:58:VAL:HG23	2.18	0.43
25:BB:45:A:H1'	29:BG:95:ARG:HH22	1.83	0.43
1:AA:191:G:HO2'	20:AW:103:GLY:H	1.53	0.43
24:DA:9:U:C4	24:DA:2629:A:N1	2.85	0.43
24:BA:1063:G:C2	24:BA:1064:C:C2	3.06	0.43
40:D2:83:ARG:HB3	40:D2:84:LYS:H	1.44	0.43
24:DA:1085:A:H1'	24:DA:1086:A:O5'	2.18	0.43
1:AA:973:G:OP1	10:AM:57:LYS:HD3	2.18	0.43
44:DV:150:LEU:CD1	44:DV:154:ASP:HB3	2.48	0.43
3:CF:135:LYS:O	3:CF:139:GLN:N	2.39	0.43
1:CA:402:G:C6	1:CA:403:C:C4	3.06	0.43
1:CA:1214:C:H6	1:CA:1214:C:OP1	2.00	0.43
24:BA:2111:C:H5'	24:BA:2145:C:N3	2.33	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:12:VAL:CG1	42:BT:27:THR:O	2.66	0.43
4:CG:125:HIS:HA	4:CG:152:SER:OG	2.18	0.43
4:CG:154:ASN:ND2	4:CG:154:ASN:O	2.51	0.43
25:DB:7:G:H4'	37:DQ:29:PHE:CE2	2.53	0.43
24:DA:2816:C:O2	24:DA:2883:A:O2'	2.34	0.43
24:BA:1778:U:C4	24:BA:1784:A:C4	3.06	0.43
32:DM:103:VAL:HG11	32:DM:120:LEU:CD1	2.47	0.43
24:DA:1011:G:C2	24:DA:1013:C:C2	3.06	0.43
4:CG:85:LYS:N	4:CG:85:LYS:HD2	2.33	0.43
24:BA:1408:C:N3	24:BA:1595:G:C2	2.85	0.43
1:CA:9:G:OP2	5:CH:121:LYS:HD2	2.18	0.43
24:BA:2712:U:O2'	24:BA:2712(A):A:P	2.76	0.43
1:CA:737:A:H2'	1:CA:738:C:H6	1.81	0.43
42:DT:44:GLU:HG2	42:DT:49:VAL:O	2.18	0.43
25:BB:38:C:C4'	37:BQ:95:HIS:CE1	3.00	0.43
3:CF:181:ASN:O	3:CF:204:LEU:HB2	2.17	0.43
12:CO:20:LYS:CD	12:CO:20:LYS:N	2.72	0.43
39:D1:58:ARG:HA	39:D1:61:TRP:CE3	2.53	0.43
24:DA:977:G:N3	24:DA:1001:A:H2	2.16	0.43
29:BG:16:ARG:NH2	29:BG:31:VAL:HG11	2.32	0.43
24:BA:304:G:N3	24:BA:314:A:C2	2.85	0.43
33:DN:10:VAL:HG22	33:DN:17:ARG:O	2.18	0.43
24:DA:796:C:H2'	24:DA:797:C:H6	1.75	0.43
1:AA:1015:A:C6	1:AA:1016:A:C5	3.06	0.43
24:DA:2709:G:C6	24:DA:2710:C:C4	3.05	0.43
7:AJ:5:ARG:HG2	7:AJ:6:ARG:H	1.82	0.43
29:BG:53:LEU:O	29:BG:57:ALA:N	2.38	0.43
24:BA:547:A:C5	24:BA:548:A:N6	2.86	0.43
25:DB:70:C:H2'	25:DB:71:C:H6	1.82	0.43
24:BA:613:U:H5'	24:BA:616:A:N6	2.33	0.43
1:AA:874:G:C6	1:AA:875:C:C4	3.06	0.43
1:CA:264:U:O2'	17:CT:63:ARG:HD3	2.18	0.43
34:DO:45:LEU:CD1	34:DO:45:LEU:N	2.81	0.43
24:DA:84:A:OP2	43:DU:8:LYS:HE2	2.17	0.43
24:BA:889:C:C2'	24:BA:889:C:O2	2.66	0.43
26:BD:202:LYS:HG3	26:BD:203:ASN:OD1	2.17	0.43
24:BA:514:A:O2'	24:BA:515:A:H5'	2.17	0.43
31:BK:64:GLU:OE1	31:BK:64:GLU:N	2.51	0.43
24:BA:470:A:H2'	24:BA:471:A:O4'	2.17	0.43
29:DG:101:ILE:C	29:DG:101:ILE:CD1	2.87	0.43
15:AR:87:ILE:HG22	15:AR:88:ARG:H	1.82	0.43
1:CA:1387:G:H2'	1:CA:1388:C:H6	1.83	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1471:G:O2'	1:CA:1472:U:H5'	2.17	0.43
24:DA:557:U:C2	24:DA:558:G:C8	3.06	0.43
24:DA:866:A:N3	24:DA:866:A:H2'	2.33	0.43
24:DA:2745:C:H1'	30:DH:143:GLN:HG2	2.00	0.43
24:BA:806:C:H2'	24:BA:807:U:H6	1.80	0.43
7:CJ:47:CYS:O	7:CJ:58:PRO:HG3	2.18	0.43
24:BA:1010:A:N3	24:BA:1153:C:H1'	2.32	0.43
25:BB:94:C:H2'	25:BB:95:U:C6	2.53	0.43
46:DZ:40:ARG:CZ	46:DZ:42:GLN:HG2	2.48	0.43
1:CA:76:G:C6	1:CA:77:C:C4	3.06	0.43
1:AA:1237:C:H4'	1:AA:1334:G:N2	2.33	0.43
24:DA:1778:U:H2'	24:DA:1784:A:N6	2.32	0.43
1:AA:303:A:C5	1:AA:304:U:C5	3.05	0.43
24:BA:414:C:H2'	24:BA:415:A:C8	2.53	0.43
24:DA:2050:C:C2'	24:DA:2051:A:O5'	2.66	0.43
1:CA:1321:C:C5	1:CA:1322:C:C5	3.06	0.43
1:CA:1226:C:C6	13:CP:103:THR:O	2.71	0.43
24:BA:2347:C:O2'	24:BA:2348:U:H5'	2.18	0.43
1:AA:412:A:C1'	1:AA:413:G:OP2	2.64	0.43
25:BB:42:C:OP1	29:BG:67:LYS:CE	2.66	0.43
29:BG:98:ARG:HA	29:BG:101:ILE:HD12	1.99	0.43
29:BG:61:ALA:HB2	29:BG:68:PRO:HD3	2.00	0.43
27:DE:63:LEU:HD23	27:DE:63:LEU:HA	1.43	0.43
2:AE:103:THR:HG22	2:AE:180:LEU:HD21	2.00	0.43
2:AE:167:PRO:HD2	2:AE:188:ALA:HB2	1.96	0.43
24:BA:1062:G:H2'	24:BA:1077:A:H61	1.82	0.43
24:BA:1063:G:C4	24:BA:1064:C:C6	3.06	0.43
1:CA:270:A:H2'	1:CA:271:C:C6	2.53	0.43
24:DA:1057:A:OP2	24:DA:1089:G:N2	2.51	0.43
24:DA:511:U:O4	24:DA:512:G:N1	2.50	0.43
1:AA:1007:C:N3	1:AA:1008:C:N4	2.65	0.43
4:CG:98:GLU:OE2	4:CG:107:ARG:HG3	2.17	0.43
5:CH:7:GLU:O	5:CH:34:VAL:HA	2.18	0.43
19:CV:39:THR:CG2	19:CV:40:ILE:H	2.29	0.43
24:BA:1171:G:H2'	24:BA:1174:A:N6	2.33	0.43
1:CA:1103:C:C4	1:CA:1104:G:N7	2.86	0.43
29:BG:82:LEU:CA	29:BG:86:MET:CE	2.96	0.43
25:BB:80:U:C2'	25:BB:81:G:H5"	2.47	0.43
24:BA:2428:G:H5"	24:BA:2429:G:P	2.58	0.43
10:AM:7:LYS:O	10:AM:8:LEU:HD23	2.18	0.43
1:AA:403:C:H2'	1:AA:404:U:H6	1.84	0.43
24:DA:78:A:C4	24:DA:79:G:C8	3.06	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CC:19:G:C4	22:CC:57:A:H2	2.36	0.43
24:DA:1459:G:H2'	24:DA:1460:A:H5'	1.99	0.43
1:AA:1000:A:H2'	1:AA:1001:G:O4'	2.18	0.43
37:BQ:106:ARG:C	37:BQ:107:GLU:CD	2.77	0.43
24:DA:1676:A:C2	24:DA:1993:U:H5'	2.53	0.43
24:DA:1543:A:H2	24:DA:1545:A:C5	2.36	0.43
6:AI:19:LEU:CD2	6:AI:23:LYS:HE2	2.39	0.43
24:DA:2732:G:H3'	24:DA:2733:A:O4'	2.18	0.43
24:DA:442:G:C2	24:DA:444:C:C5	3.06	0.43
1:CA:1207:G:C6	1:CA:1208:C:C4	3.06	0.43
3:AF:134:ILE:HD11	3:AF:153:VAL:CG2	2.48	0.43
24:DA:1686:C:O2'	24:DA:1687:G:H5'	2.19	0.43
2:CE:22:LYS:HD3	2:CE:22:LYS:HA	1.80	0.43
11:CN:32:ILE:HD12	11:CN:41:THR:CG2	2.49	0.43
12:AO:113:ARG:O	12:AO:114:LYS:HD2	2.17	0.43
26:DD:172:TYR:CD1	26:DD:186:HIS:CA	3.02	0.43
24:BA:1281:G:C4	24:BA:1282:U:C5	3.06	0.43
30:DH:35:VAL:HG13	30:DH:36:PRO:CD	2.44	0.43
30:DH:35:VAL:HG11	30:DH:71:LEU:HD23	1.99	0.43
24:DA:2262:U:H2'	24:DA:2263:C:C6	2.49	0.43
1:CA:407:G:H1	1:CA:435:C:N4	2.16	0.43
1:CA:261:U:OP2	20:CW:79:ARG:NH2	2.51	0.43
1:AA:730:G:C5	1:AA:731:G:H1'	2.53	0.43
29:DG:44:GLY:N	29:DG:88:ILE:HD11	2.33	0.43
2:AE:14:GLY:C	2:AE:15:VAL:CG2	2.86	0.43
24:BA:2094:G:C2'	24:BA:2095:C:H5'	2.48	0.43
28:DF:158:THR:OG1	28:DF:159:GLY:N	2.51	0.43
24:DA:1287:A:N7	36:D0:107:ASP:HB2	2.33	0.43
19:AV:30:LEU:C	19:AV:30:LEU:CD1	2.86	0.43
24:BA:1301:A:N3	24:BA:1301:A:H2'	2.33	0.43
24:DA:1527:G:H5''	24:DA:1528:A:OP1	2.18	0.43
24:DA:1766:U:H2'	24:DA:1767:C:H6	1.82	0.43
24:DA:2820:A:O5'	36:D0:4:LEU:HD23	2.19	0.43
24:BA:1131:G:C8	24:BA:2025:C:H4'	2.53	0.43
24:DA:316:C:H2'	24:DA:317:G:O5'	2.18	0.43
29:DG:91:ARG:C	29:DG:91:ARG:CD	2.87	0.43
5:CH:50:GLU:OE2	5:CH:50:GLU:HA	2.17	0.43
1:CA:860:A:H2'	1:CA:861:G:O4'	2.18	0.43
24:BA:2457:U:H2'	24:BA:2458:G:H5'	2.00	0.43
1:AA:781:A:C3'	1:AA:782:A:H5'	2.48	0.43
50:B5:58:LEU:HG	50:B5:59:GLU:N	2.33	0.43
22:AC:29:G:H2'	22:AC:30:G:O4'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AE:156:LYS:O	2:AE:157:ARG:HB2	2.18	0.43
24:BA:569:U:C4	24:BA:570:G:C6	3.06	0.43
24:DA:459:U:H5''	52:D7:40:TRP:CD2	2.53	0.43
20:AW:32:ALA:O	20:AW:36:LEU:HB2	2.18	0.43
24:BA:1850:G:C6	24:BA:1851:U:C4	3.06	0.43
1:CA:1339:A:H2	22:CC:31:G:O4'	2.01	0.43
2:AE:114:ARG:HH11	2:AE:114:ARG:HG2	1.82	0.43
14:CQ:46:GLU:CD	14:CQ:46:GLU:H	2.22	0.43
3:CF:143:GLU:OE1	3:CF:143:GLU:HA	2.18	0.43
1:AA:789:U:O5'	1:AA:789:U:O2	2.36	0.43
28:DF:170:LEU:HD13	28:DF:172:TRP:CZ2	2.53	0.43
6:CI:89:MET:HB3	18:CU:76:LEU:HD21	2.00	0.43
1:CA:1132:C:N4	1:CA:1133:G:O6	2.52	0.43
1:CA:1226:C:C5'	19:CV:80:TYR:CE1	3.01	0.43
1:CA:1240:U:H1'	7:CJ:38:LEU:HD21	2.01	0.43
13:CP:30:ALA:O	13:CP:32:GLU:N	2.51	0.43
1:CA:1309:G:C3'	13:CP:77:ASN:HD21	2.32	0.43
7:CJ:78:ARG:NH1	7:CJ:85:TYR:CE1	2.70	0.43
37:DQ:26:LEU:HD22	37:DQ:87:PHE:CE1	2.51	0.43
3:AF:8:ILE:C	3:AF:10:PHE:N	2.71	0.43
9:AL:10:ARG:HA	9:AL:104:ARG:CZ	2.47	0.43
9:AL:9:ARG:CD	9:AL:14:VAL:HB	2.48	0.43
24:DA:2393:A:C3'	53:D8:30:ARG:HE	2.31	0.43
49:B4:56:VAL:C	49:B4:60:GLN:HG2	2.38	0.43
24:DA:870:A:C3'	35:DP:6:ARG:CZ	2.89	0.43
24:BA:1999:C:H4'	24:BA:2723:C:O2	2.18	0.43
12:CO:47:LYS:HD2	12:CO:47:LYS:HA	1.77	0.43
4:AG:9:CYS:HA	4:AG:22:LYS:HZ2	1.83	0.43
29:BG:61:ALA:O	49:B4:7:PRO:HG3	2.17	0.43
27:DE:65:GLY:O	27:DE:66:HIS:C	2.56	0.43
7:CJ:50:ILE:O	7:CJ:54:THR:HG22	2.17	0.43
24:BA:1065:U:O4	24:BA:1066:U:H6	2.01	0.43
27:DE:52:LEU:O	27:DE:75:VAL:N	2.48	0.43
2:AE:6:THR:O	2:AE:217:ARG:CZ	2.65	0.43
26:DD:43:ARG:HH11	26:DD:49:ILE:HB	1.84	0.43
24:DA:1083:U:C2	24:DA:1085:A:H3'	2.54	0.43
31:BK:99:GLU:O	31:BK:102:SER:HB3	2.17	0.43
43:DU:19:LYS:HG3	43:DU:20:TYR:N	2.33	0.43
3:CF:140:ARG:HG3	3:CF:141:VAL:N	2.32	0.43
1:AA:1027:C:C1'	1:AA:1028:C:OP1	2.66	0.43
1:AA:1036:G:H3'	1:AA:1037:C:C6	2.53	0.43
30:DH:94:TYR:CD1	30:DH:107:VAL:HA	2.54	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:185:PHE:CE1	4:CG:187:ARG:O	2.70	0.43
5:CH:75:THR:HB	5:CH:117:ASP:HB2	2.00	0.43
24:BA:2698:U:H2'	24:BA:2699:C:C6	2.53	0.43
24:BA:2128:C:H1'	24:BA:2173:A:C2	2.53	0.43
24:BA:2168:G:N3	24:BA:2168:G:C3'	2.78	0.43
20:AW:26:ASN:ND2	20:AW:26:ASN:H	2.00	0.43
24:BA:918:A:H1'	25:BB:80:U:H1'	2.00	0.43
36:B0:75:LEU:O	36:B0:79:LEU:HB2	2.19	0.43
25:DB:50:G:P	37:DQ:62:LYS:HB2	2.58	0.43
1:AA:1121:U:N3	1:AA:1122:U:C4	2.86	0.43
1:AA:1152:A:OP1	10:AM:70:ARG:NH2	2.42	0.43
1:AA:468:A:H2'	1:AA:474:G:H5'	2.00	0.43
1:AA:734:G:H21	18:AU:75:ILE:HD11	1.81	0.43
1:AA:277:C:H2'	1:AA:278:G:H8	1.83	0.43
28:DF:68:LYS:HB3	28:DF:69:HIS:CD2	2.53	0.43
24:BA:242:G:H5'	53:B8:62:LEU:HD22	2.01	0.43
1:AA:690:G:H2'	1:AA:691:G:O4'	2.18	0.43
24:DA:2069:G:C2'	24:DA:2070:G:H5'	2.48	0.43
24:BA:449:A:O2'	24:BA:450:G:H5'	2.18	0.43
24:DA:881:G:N3	24:DA:881:G:H2'	2.32	0.43
24:BA:880:G:C2'	24:BA:881:G:O5'	2.66	0.43
7:CJ:75:VAL:HG13	7:CJ:145:ALA:CA	2.40	0.43
20:CW:104:LEU:HB3	20:CW:105:SER:H	1.60	0.43
42:BT:31:HIS:HA	42:BT:32:PRO:HD3	1.85	0.43
16:AS:19:ILE:HG22	16:AS:36:ILE:HG13	1.99	0.43
24:DA:2185:C:O2'	24:DA:2186:G:H5'	2.19	0.43
24:BA:2785:C:C2'	27:BE:64:LYS:NZ	2.81	0.43
24:BA:2190:G:H2'	24:BA:2190:G:N3	2.33	0.43
24:BA:1465:G:O4'	24:BA:1528:A:H8	2.01	0.43
32:DM:14:VAL:CG2	32:DM:15:LEU:H	2.32	0.43
2:AE:59:GLU:OE1	2:AE:221:LEU:HD21	2.18	0.43
41:DS:21:VAL:C	41:DS:23:LEU:N	2.71	0.43
30:DH:26:VAL:O	30:DH:26:VAL:HG22	2.18	0.43
24:DA:654(S):G:O4'	24:DA:654(T):A:OP1	2.35	0.43
41:DS:8:ARG:HA	41:DS:102:HIS:ND1	2.33	0.43
24:BA:1564:C:O2'	24:BA:1565:C:H5'	2.18	0.43
3:AF:99:VAL:O	3:AF:99:VAL:HG23	2.19	0.43
1:CA:474:G:H2'	1:CA:475:G:C8	2.53	0.43
38:BR:16:ARG:NH2	38:BR:84:GLN:O	2.51	0.43
24:DA:1418:G:H8	24:DA:1418:G:O5'	2.01	0.43
24:BA:2219:G:H2'	24:BA:2224:G:H5'	1.99	0.43
24:BA:761:A:H8	24:BA:761:A:O5'	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AG:57:ARG:NE	4:AG:205:GLU:OE2	2.40	0.43
24:DA:1287:A:C6	24:DA:1288:U:C4	3.06	0.43
4:CG:169:LYS:HG3	4:CG:170:VAL:N	2.33	0.43
24:BA:2294:C:C2	24:BA:2295:C:C6	3.06	0.43
10:AM:65:LEU:CD1	14:AQ:55:GLY:O	2.66	0.43
24:DA:524:U:H2'	24:DA:525:U:C6	2.53	0.43
24:DA:2622:C:H5''	27:DE:159:HIS:ND1	2.33	0.43
24:DA:644:A:H2'	24:DA:645:C:H5''	2.00	0.43
24:DA:185:U:H4'	24:DA:218:A:H4'	1.99	0.43
24:DA:1712:C:C4	24:DA:1716:U:C5	3.06	0.43
48:DX:23:LEU:HD23	48:DX:50:VAL:HG11	1.99	0.43
1:AA:11:G:C6	1:AA:12:U:C4	3.06	0.43
24:DA:2604:U:H2'	24:DA:2605:U:H5'	2.01	0.43
24:BA:1685:C:H2'	24:BA:1686:C:C6	2.53	0.43
24:BA:2473:U:C4	24:BA:2474:C:C4	3.06	0.43
3:AF:137:ALA:HA	3:AF:140:ARG:CZ	2.48	0.43
24:DA:2736:G:C4	24:DA:2737:G:C8	3.05	0.43
24:BA:2305:A:N1	29:BG:154:GLY:N	2.59	0.43
24:DA:754:C:H2'	24:DA:755:C:H6	1.83	0.43
1:AA:317:G:C6	1:AA:318:G:C5	3.07	0.43
27:BE:104:VAL:HG11	27:BE:188:VAL:HB	2.00	0.43
27:BE:30:PRO:O	27:BE:32:PRO:HD3	2.18	0.43
26:DD:171:ASP:N	26:DD:171:ASP:OD1	2.50	0.43
24:BA:2308:G:N3	24:BA:2308:G:H2'	2.34	0.43
24:DA:2509:G:C6	24:DA:2510:C:C5	3.07	0.43
4:CG:18:LYS:CG	4:CG:19:LEU:N	2.78	0.43
1:CA:1277:C:H2'	1:CA:1279:A:C8	2.54	0.43
1:CA:1314:C:OP2	19:CV:7:LYS:NZ	2.37	0.43
1:CA:1357:A:C8	1:CA:1358:U:C5	3.06	0.43
37:DQ:102:ALA:C	37:DQ:104:GLY:N	2.71	0.43
24:DA:2287:A:C2	24:DA:2289:G:C8	3.07	0.43
1:AA:937:A:H2	1:AA:1377:A:HO2'	1.64	0.43
1:AA:937:A:H2	1:AA:1377:A:O2'	2.00	0.43
1:AA:1179:A:O3'	9:AL:103:THR:OG1	2.35	0.43
24:DA:1115:G:H2'	24:DA:1116:C:C6	2.53	0.43
1:AA:1316:G:C6	19:AV:5:LEU:HD11	2.47	0.43
29:BG:102:PHE:HE1	29:BG:141:PHE:HE2	1.66	0.43
2:AE:97:TRP:HZ3	2:AE:172:ILE:CG1	2.31	0.43
24:BA:2611:U:O2	50:B5:3:LYS:HG3	2.19	0.43
27:DE:84:PHE:CZ	27:DE:86:PRO:HB3	2.53	0.43
19:CV:28:LYS:HE2	19:CV:30:LEU:HB2	2.00	0.43
2:CE:32:ILE:HG22	2:CE:190:THR:HG22	1.99	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BK:121:LYS:HG3	31:BK:122:GLU:H	1.82	0.43
1:CA:1070:U:P	5:CH:25:ARG:NH1	2.91	0.43
1:AA:194:C:H5''	1:AA:195:A:OP1	2.18	0.43
1:AA:974:A:OP2	14:AQ:29:ARG:NH2	2.51	0.43
44:DV:111:VAL:HG13	44:DV:145:GLU:CD	2.39	0.43
34:BO:21:ARG:HB3	34:BO:22:GLY:H	1.64	0.43
35:DP:66:ILE:O	35:DP:67:ARG:CB	2.64	0.43
5:CH:76:ILE:CG2	5:CH:77:PRO:N	2.81	0.43
6:AI:58:GLY:O	6:AI:60:PHE:CD1	2.71	0.43
6:AI:64:GLN:HE21	6:AI:65:VAL:N	2.16	0.43
44:DV:30:ASN:CB	44:DV:89:PHE:HE1	2.30	0.43
24:BA:2111:C:C6	24:BA:2145:C:N3	2.87	0.43
24:BA:2122:U:H2'	24:BA:2123:G:C8	2.53	0.43
24:BA:2140:C:C2'	24:BA:2141:G:H5'	2.49	0.43
24:BA:2119:A:H61	24:BA:2171:A:H2	1.67	0.43
34:BO:50:ARG:CD	53:B8:7:HIS:HE2	2.31	0.43
39:D1:102:GLU:HG3	40:D2:2:PHE:CE1	2.53	0.43
24:DA:997:G:C2	24:DA:998:C:C6	3.07	0.43
1:CA:1459:C:H2'	1:CA:1460:A:C8	2.53	0.43
28:BF:101:LEU:CD1	28:BF:102:PRO:HD2	2.49	0.43
1:AA:1130:A:H62	1:AA:1144:G:N2	2.15	0.43
1:AA:1106:G:C4	1:AA:1107:C:C5	3.07	0.43
4:AG:73:ARG:O	4:AG:75:PHE:N	2.51	0.43
24:BA:1021:A:C3'	24:BA:1022:G:C5'	2.85	0.43
24:BA:1471:A:C2	24:BA:1472:A:N9	2.86	0.43
11:AN:37:GLY:O	11:AN:39:PRO:HD3	2.18	0.43
28:DF:11:VAL:CG2	28:DF:12:LEU:H	2.13	0.43
24:BA:1798:U:O2	24:BA:1802:A:H2	2.00	0.43
25:DB:56:G:H4'	25:DB:57:A:C8	2.54	0.43
24:DA:2001:A:C5'	24:DA:2689:U:O2'	2.65	0.43
28:BF:63:LYS:HE3	28:BF:67:GLN:HB2	1.98	0.43
1:AA:689:C:H3'	1:AA:690:G:N2	2.26	0.43
11:CN:29:ILE:HG22	11:CN:44:SER:CB	2.48	0.43
3:CF:47:LEU:C	3:CF:47:LEU:CD1	2.87	0.43
3:AF:151:VAL:C	3:AF:152:ILE:HD12	2.38	0.43
24:DA:953:A:OP2	35:DP:16:ARG:HD2	2.18	0.43
4:AG:177:ASP:HB3	4:AG:182:LYS:CG	2.40	0.43
39:D1:112:ARG:NH2	40:D2:47:VAL:HG11	2.34	0.43
28:BF:170:LEU:HB2	28:BF:173:VAL:HB	2.01	0.43
11:CN:32:ILE:HD12	11:CN:41:THR:HG23	2.00	0.43
1:CA:961:U:O2'	1:CA:962:C:H5'	2.18	0.43
1:AA:1317:C:C6	14:AQ:16:PHE:CD1	3.06	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:57:G:C6	1:CA:58:C:C4	3.06	0.43
4:AG:98:GLU:OE2	4:AG:107:ARG:NH2	2.49	0.43
1:AA:148:G:C2	1:AA:175:C:C2	3.06	0.43
1:CA:617:G:N2	1:CA:618:C:C2	2.86	0.43
38:BR:15:VAL:HG22	38:BR:16:ARG:H	1.82	0.43
53:D8:52:LYS:O	53:D8:54:GLU:N	2.45	0.43
50:D5:57:VAL:CA	50:D5:58:LEU:HD12	2.48	0.43
1:CA:190:G:H4'	1:CA:191(A):G:OP2	2.18	0.43
24:DA:101:G:HO2'	24:DA:102:G:P	2.41	0.43
2:CE:113:HIS:O	2:CE:117:GLU:CB	2.65	0.43
36:D0:96:ARG:NH2	36:D0:117:VAL:HG23	2.34	0.43
24:BA:1859:A:C6	24:BA:1884:A:C8	3.06	0.43
1:CA:864:A:H2'	1:CA:865:A:C8	2.54	0.43
38:DR:89:VAL:O	38:DR:90:GLN:HB2	2.18	0.43
4:AG:200:GLU:HG2	4:AG:201:GLN:N	2.34	0.43
1:CA:1387:G:C5	1:CA:1388:C:C5	3.06	0.43
24:BA:2244:U:O2'	24:BA:2245:U:H5'	2.18	0.43
31:BK:57:ARG:O	31:BK:61:ARG:HG2	2.17	0.43
24:DA:2030:A:H5''	24:DA:2031:A:OP1	2.18	0.43
1:CA:895:G:C6	1:CA:896:C:N4	2.86	0.43
29:DG:25:TYR:CD1	29:DG:30:GLU:CB	3.02	0.43
50:D5:27:PRO:HA	50:D5:28:PRO:HD3	1.90	0.43
24:DA:824:A:H1'	24:DA:2358:G:N7	2.34	0.43
4:CG:63:LYS:O	4:CG:67:ILE:HG13	2.18	0.43
24:BA:453:C:H4'	24:BA:472:A:N6	2.33	0.43
3:CF:138:VAL:O	3:CF:142:MET:HB2	2.17	0.43
28:BF:33:LEU:HA	28:BF:33:LEU:HD12	1.91	0.43
43:BU:90:LEU:HB2	43:BU:91:GLU:H	1.61	0.43
4:CG:12:CYS:HB3	4:CG:33:MET:CE	2.49	0.43
1:CA:1321:C:C4	1:CA:1322:C:C4	3.07	0.43
7:CJ:40:ALA:HB1	9:CL:41:VAL:CG2	2.49	0.43
3:AF:11:ARG:O	3:AF:12:LEU:C	2.56	0.43
24:DA:2287:A:N1	24:DA:2346:A:N1	2.67	0.43
24:BA:1653:G:C6	36:B0:9:LYS:HG3	2.54	0.43
24:DA:2398:U:O2'	24:DA:2399:G:H5'	2.19	0.43
35:DP:4:PRO:HG3	35:DP:71:ASP:HA	2.00	0.43
29:BG:103:LEU:HA	29:BG:106:LEU:HB3	2.00	0.43
30:BH:58:GLU:C	30:BH:60:ARG:N	2.71	0.43
4:AG:7:PRO:CB	4:AG:10:ARG:HG2	2.48	0.43
24:DA:2793:G:H1	24:DA:2803:C:H42	1.66	0.43
27:DE:58:ARG:O	27:DE:59:VAL:C	2.57	0.43
27:DE:68:ALA:C	27:DE:71:GLY:H	2.20	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1071:G:H5'	24:BA:1088:A:O2'	2.18	0.43
24:BA:270(N):G:O6	24:BA:270(P):C:N4	2.51	0.43
26:DD:31:LYS:O	26:DD:31:LYS:CG	2.66	0.43
19:CV:29:ARG:HB2	19:CV:30:LEU:H	1.56	0.43
28:DF:25:PRO:CG	28:DF:26:ALA:H	2.31	0.43
24:DA:1069:A:O2'	24:DA:1096:A:O3'	2.36	0.43
1:AA:972:C:O3'	10:AM:57:LYS:HB2	2.19	0.43
24:BA:1359:A:C2'	24:BA:1360:A:C5'	2.81	0.43
43:DU:97:ARG:HH21	43:DU:98:VAL:CG1	2.32	0.43
5:CH:71:LEU:HD21	5:CH:113:ALA:O	2.18	0.43
19:CV:15:LEU:O	19:CV:18:LYS:N	2.51	0.43
24:DA:1335:U:H2'	24:DA:1336:A:C8	2.53	0.43
25:DB:102:G:H1'	44:DV:73:GLN:HE22	1.84	0.43
31:BK:133:HIS:HD2	31:BK:134:PRO:HD2	1.79	0.43
29:DG:47:LYS:HG3	29:DG:81:LYS:HB3	1.99	0.43
24:BA:248:G:H5'	24:BA:250:G:N7	2.33	0.43
38:BR:88:ILE:HD12	38:BR:88:ILE:C	2.38	0.43
13:CP:14:ARG:NH2	13:CP:16:ASP:OD2	2.51	0.43
1:AA:438:G:C5'	1:AA:439:A:OP1	2.65	0.43
22:CC:13:C:C2'	22:CC:14:A:H5'	2.48	0.43
27:BE:106:GLY:CA	27:BE:189:PRO:HB2	2.42	0.43
8:AK:85:ARG:HD3	8:AK:86:ILE:N	2.34	0.43
29:DG:63:ILE:HG13	29:DG:64:THR:H	1.83	0.43
2:AE:185:ILE:HA	2:AE:199:TYR:O	2.18	0.43
24:DA:71:A:H4'	24:DA:72:U:O5'	2.18	0.43
6:AI:69:GLU:HG2	6:AI:70:ASP:N	2.33	0.43
24:DA:2142:C:H2'	24:DA:2143:C:C5	2.54	0.43
32:DM:99:LEU:HD13	32:DM:103:VAL:HG23	2.00	0.43
37:DQ:42:ASP:O	37:DQ:43:GLU:CB	2.66	0.43
1:CA:191(F):U:H2'	1:CA:191:G:O4'	2.18	0.43
1:CA:195:A:C6	1:CA:196:A:N1	2.87	0.43
34:BO:41:ARG:HD2	34:BO:41:ARG:N	2.32	0.43
34:BO:39:LYS:HA	34:BO:45:LEU:HD22	2.00	0.43
11:AN:51:LYS:HA	11:AN:55:LYS:HZ2	1.82	0.43
1:CA:327:A:H1'	1:CA:329:A:O4'	2.19	0.43
35:BP:8:LYS:O	35:BP:9:TYR:CD1	2.72	0.43
24:DA:2106:G:O6	24:DA:2183:C:N4	2.46	0.43
11:CN:114:VAL:O	11:CN:114:VAL:HG13	2.18	0.43
8:AK:77:GLU:HG2	8:AK:78:GLN:N	2.33	0.43
1:AA:82:U:HO2'	1:AA:84:U:P	2.37	0.43
1:AA:714:G:H2'	1:AA:715:A:C8	2.53	0.43
30:DH:33:LEU:HD21	30:DH:136:ILE:HD13	1.99	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BP:26:TYR:C	35:BP:26:TYR:CD1	2.92	0.43
24:BA:673:C:C2'	24:BA:674:G:H5'	2.49	0.43
24:BA:2646:C:H2'	24:BA:2647:U:O4'	2.18	0.43
1:AA:631:G:H2'	1:AA:632:A:H8	1.84	0.43
1:CA:937:A:C2	1:CA:1379:G:C6	3.06	0.43
24:BA:2320:A:C2'	24:BA:2320:A:N3	2.79	0.43
1:AA:806:C:O2'	1:AA:807:A:H5'	2.17	0.43
10:AM:31:GLY:HA3	10:AM:81:THR:HG23	2.00	0.43
24:DA:2553:G:C2	24:DA:2554:U:H1'	2.53	0.43
1:AA:107:G:H2'	1:AA:108:G:H5'	1.99	0.43
8:AK:37:ARG:HH21	8:AK:38:ILE:HD13	1.84	0.43
45:B3:74:ARG:HB3	45:B3:74:ARG:HH11	1.81	0.43
24:BA:2615:U:C2	50:B5:7:PRO:HA	2.54	0.43
26:BD:3:VAL:O	26:BD:3:VAL:HG13	2.19	0.43
24:BA:984:A:O5'	24:BA:985:C:H5	2.01	0.43
1:AA:142:G:H1	1:AA:221:C:N4	2.17	0.43
24:BA:189:G:H1	24:BA:205:G:HO2'	1.67	0.43
1:CA:1197:G:H5''	55:CA:1805:TAC:O12	2.19	0.43
1:CA:814:A:H2'	1:CA:816:A:H5''	2.00	0.43
24:DA:547:A:H2'	24:DA:548:A:C8	2.53	0.43
53:B8:39:LYS:HG2	53:B8:39:LYS:O	2.17	0.43
24:DA:1999:C:H4'	24:DA:2723:C:O2	2.18	0.43
44:DV:28:MET:CE	44:DV:37:VAL:HG11	2.48	0.43
24:DA:1126:A:H8	24:DA:1126:A:OP1	2.02	0.43
1:AA:659:U:H2'	1:AA:660:G:C8	2.53	0.43
24:BA:1545(A):A:H2'	24:BA:1546:C:H5'	2.00	0.43
1:AA:37:U:O2'	1:AA:38:G:H5'	2.17	0.43
24:BA:363(B):G:H2'	24:BA:363(C):G:H8	1.83	0.43
41:BS:35:ILE:HG23	50:B5:28:PRO:HD3	2.00	0.43
7:AJ:55:GLY:O	7:AJ:56:GLN:NE2	2.50	0.43
26:BD:247:ALA:HA	26:BD:254:THR:HG22	1.99	0.43
38:DR:19:LEU:HA	38:DR:20:PRO:HD3	1.82	0.43
24:DA:579:G:N2	24:DA:1262:A:C4	2.86	0.43
24:DA:461:C:O2'	24:DA:462:C:H5'	2.18	0.43
27:BE:7:VAL:HG23	27:BE:7:VAL:O	2.19	0.43
45:B3:19:LYS:HD3	45:B3:19:LYS:HA	1.65	0.43
25:BB:79:C:O5'	25:BB:79:C:H6	2.01	0.43
1:AA:707:C:O2'	1:AA:708:C:H5'	2.17	0.43
24:DA:2485:G:O2'	24:DA:2486:G:H5'	2.18	0.43
1:CA:1151:A:N6	1:CA:1152:A:N6	2.66	0.43
1:CA:1240:U:O3'	7:CJ:38:LEU:HD21	2.19	0.43
1:CA:1329:A:H4'	13:CP:24:GLY:CA	2.46	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CL:112:LYS:HG2	9:CL:118:LYS:CA	2.47	0.43
9:CL:5:TYR:HD1	9:CL:6:GLY:N	2.17	0.43
1:CA:1226:C:N4	13:CP:104:ARG:HD2	2.34	0.43
14:CQ:24:CYS:HB2	14:CQ:29:ARG:CD	2.41	0.43
14:CQ:6:LEU:C	14:CQ:6:LEU:CD2	2.86	0.43
1:CA:957:U:C3'	19:CV:79:THR:HG21	2.49	0.43
49:D4:57:GLU:HG2	49:D4:60:GLN:HE21	1.84	0.43
24:BA:2287:A:N1	24:BA:2346:A:C2	2.86	0.43
24:BA:1050:A:C5	24:BA:2751:G:O6	2.72	0.43
27:DE:64:LYS:HZ1	27:DE:66:HIS:CA	2.31	0.43
27:DE:52:LEU:O	27:DE:74:PRO:CB	2.66	0.43
51:D6:26:ASN:O	51:D6:27:LYS:HB3	2.19	0.43
40:B2:38:LEU:CA	40:B2:39:LEU:HD12	2.49	0.43
2:AE:88:ALA:HB2	2:AE:219:VAL:CG1	2.49	0.43
2:CE:84:GLU:OE1	2:CE:216:SER:HA	2.19	0.43
24:DA:1055:G:O2'	24:DA:1086:A:N3	2.51	0.43
24:DA:1093:G:H1	24:DA:1097:U:P	2.42	0.43
24:DA:26:G:C6	24:DA:27:G:C6	3.06	0.43
24:DA:511:U:H2'	24:DA:512:G:H5''	2.00	0.43
32:BM:28:THR:HA	32:BM:106:MET:HE2	2.00	0.43
46:DZ:86:SER:H	46:DZ:87:PRO:HD2	1.76	0.43
10:CM:4:ILE:HD13	10:CM:100:THR:HG22	1.92	0.43
44:DV:118:GLN:OE1	44:DV:173:ALA:HB3	2.19	0.43
1:CA:1213:A:N7	1:CA:1215:G:C5	2.86	0.43
1:CA:988:G:C5	1:CA:989:C:C4	3.06	0.43
19:CV:13:ASP:OD1	19:CV:13:ASP:N	2.52	0.43
19:CV:40:ILE:CG1	19:CV:71:LEU:HD23	2.47	0.43
31:DK:77:LEU:O	31:DK:78:THR:C	2.57	0.43
6:AI:6:VAL:HB	6:AI:63:TYR:HB2	2.01	0.43
49:D4:1:MET:HG2	49:D4:3:GLU:HG2	2.01	0.43
25:DB:40:U:O4	25:DB:43:C:C5'	2.67	0.43
24:BA:2109:U:H4'	24:BA:2143:C:H1'	2.00	0.43
38:DR:8:LYS:C	38:DR:10:VAL:N	2.72	0.43
24:BA:654(J):A:C8	24:BA:654(K):C:H5	2.37	0.43
24:BA:1246:A:P	34:BO:15:ARG:HH21	2.40	0.43
29:DG:142:PRO:HG2	29:DG:143:GLU:OE2	2.19	0.43
37:DQ:68:GLN:O	37:DQ:72:ALA:N	2.41	0.43
25:DB:49:C:OP1	37:DQ:97:ARG:CG	2.67	0.43
2:CE:25:ASN:OD1	2:CE:27:LYS:CG	2.52	0.43
10:AM:35:SER:N	10:AM:73:ASP:O	2.50	0.43
5:AH:91:LEU:HD13	5:AH:120:THR:HG22	2.01	0.43
42:BT:12:VAL:CG1	42:BT:27:THR:HB	2.48	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CI:58:GLY:O	6:CI:60:PHE:CD1	2.72	0.43
28:DF:10:PRO:HD2	28:DF:13:SER:OG	2.18	0.43
1:AA:716:A:N3	11:AN:118:GLY:HA2	2.34	0.43
44:BV:53:ILE:HG13	44:BV:54:HIS:CD2	2.53	0.43
24:DA:108:U:C2	24:DA:109:G:C8	3.06	0.43
1:CA:1038:C:H2'	1:CA:1039:C:C6	2.53	0.43
22:CC:16:C:H4'	22:CC:60:U:O2	2.19	0.43
32:BM:37:LYS:HB3	32:BM:37:LYS:HE2	1.87	0.43
24:DA:2115:G:H4'	24:DA:2166:G:O2'	2.18	0.43
31:DK:54:GLN:O	31:DK:57:ARG:HG2	2.19	0.43
1:CA:392:G:H3'	16:CS:12:LYS:HZ3	1.83	0.43
1:AA:1492:A:C5	24:BA:1913:A:C6	3.07	0.43
6:AI:14:LEU:HD23	6:AI:15:ASP:H	1.83	0.43
24:BA:782:A:H5'	24:BA:783:A:C2	2.53	0.43
24:DA:2688:U:OP1	24:DA:2713:A:N6	2.50	0.43
3:CF:150:LYS:HB3	3:CF:201:TYR:HB2	2.01	0.43
24:DA:475:U:C4	24:DA:481:G:O6	2.71	0.43
41:DS:12:ILE:HD12	41:DS:46:PHE:CE2	2.53	0.43
1:CA:754:C:H1'	15:CR:69:TYR:CG	2.53	0.43
13:CP:96:LEU:HB3	13:CP:97:PRO:CD	2.45	0.43
31:DK:38:LEU:HB2	31:DK:40:THR:CG2	2.49	0.43
24:DA:539:G:H2'	24:DA:540:G:H8	1.82	0.43
1:AA:983:A:C2	1:AA:984:C:C6	3.00	0.43
32:BM:118:LYS:HE3	32:BM:118:LYS:HB2	1.84	0.43
1:CA:458:C:C4	1:CA:464:G:C6	3.07	0.43
29:BG:91:ARG:HH11	29:BG:91:ARG:HG3	1.82	0.43
2:CE:137:ARG:NH1	2:CE:141:GLU:HB2	2.33	0.43
31:BK:93:THR:HG22	31:BK:119:PRO:HG3	2.01	0.43
33:DN:43:VAL:CG1	33:DN:54:GLU:HA	2.47	0.43
28:DF:96:ASP:OD1	28:DF:98:SER:OG	2.35	0.43
24:BA:2262:U:H4'	24:BA:2328:A:C2	2.54	0.43
24:DA:2619:C:H2'	24:DA:2620:C:C6	2.53	0.43
1:AA:186(D):C:O2'	1:AA:186(E):C:H5'	2.18	0.43
24:BA:463:G:C6	24:BA:467:G:O6	2.71	0.43
24:BA:2558:C:H2'	24:BA:2559:C:C6	2.54	0.43
35:DP:27:VAL:HG12	35:DP:28:ALA:N	2.34	0.43
24:BA:566:U:H5''	34:BO:29:LYS:HE3	2.00	0.43
44:DV:9:TYR:CD1	44:DV:35:ARG:NH1	2.86	0.43
34:BO:42:SER:O	34:BO:43:GLY:C	2.57	0.43
24:DA:1008:C:N4	24:DA:1136:G:C6	2.87	0.43
1:AA:1441:G:N2	1:AA:1459:C:C5	2.87	0.43
34:BO:79:ARG:HE	34:BO:110:TYR:HE1	1.65	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CT:12:SER:HB3	17:CT:20:THR:HB	2.00	0.43
24:DA:244:A:C2	24:DA:255:A:C4	3.07	0.43
24:DA:2074:U:H4'	24:DA:2598:A:O4'	2.18	0.43
33:BN:2:ILE:HG21	33:BN:8:LEU:HD21	2.00	0.43
4:CG:25:ARG:O	4:CG:31:CYS:HB2	2.18	0.43
9:CL:5:TYR:CD1	9:CL:6:GLY:N	2.86	0.43
10:CM:50:ILE:HD11	14:CQ:41:ARG:HE	1.83	0.43
19:CV:9:VAL:CG1	19:CV:10:PHE:N	2.80	0.43
24:BA:2419:U:C5'	51:B6:23:THR:HG21	2.45	0.43
24:BA:2419:U:H2'	24:BA:2420:C:H6	1.83	0.43
26:BD:35:LYS:CE	26:BD:104:TYR:CD1	3.01	0.43
12:AO:47:LYS:HA	12:AO:47:LYS:CE	2.30	0.43
12:AO:69:TYR:HB3	12:AO:99:HIS:ND1	2.34	0.43
2:AE:172:ILE:O	2:AE:176:GLU:OE1	2.36	0.43
46:BZ:92:LYS:HA	46:BZ:95:LEU:CD1	2.48	0.43
31:BK:123:LEU:HA	31:BK:142:VAL:HG21	2.00	0.43
1:CA:1292:U:C4'	9:CL:38:GLN:OE1	2.67	0.43
24:DA:25:U:C4	24:DA:26:G:C6	3.07	0.43
44:DV:146:ILE:HD12	44:DV:147:GLY:H	1.83	0.43
30:DH:107:VAL:HG21	30:DH:152:ARG:HG2	1.99	0.43
43:DU:97:ARG:HH21	43:DU:98:VAL:HB	1.82	0.43
4:CG:94:LEU:H	4:CG:94:LEU:HD12	1.84	0.43
24:BA:2870:C:C2'	24:BA:2871:C:H5'	2.49	0.43
24:BA:2138:C:C4	24:BA:2139:C:C5	3.07	0.43
24:BA:2133:G:O2'	24:BA:2158:A:C6	2.66	0.43
24:BA:2166:G:C2	24:BA:2171:A:N6	2.83	0.43
44:BV:105:VAL:CG2	44:BV:106:GLY:H	2.21	0.43
44:BV:108:PRO:CD	44:BV:113:ALA:HA	2.49	0.43
44:BV:108:PRO:CB	44:BV:114:GLY:HA3	2.49	0.43
39:D1:95:LEU:HD13	40:D2:4:ILE:CG2	2.48	0.43
53:D8:50:LEU:O	53:D8:51:ALA:HB3	2.17	0.43
1:AA:8:A:H5'	5:AH:120:THR:O	2.19	0.43
5:AH:148:VAL:HG12	5:AH:149:GLU:N	2.34	0.43
24:BA:1311:G:C8	52:B7:47:ARG:NH2	2.87	0.43
16:AS:15:PRO:HB3	16:AS:17:TYR:CE1	2.54	0.43
4:CG:148:VAL:HG11	4:CG:152:SER:O	2.18	0.43
41:DS:110:LYS:HD2	41:DS:110:LYS:HA	1.76	0.43
1:CA:1005:A:N7	1:CA:1026:G:N1	2.65	0.43
27:BE:51:PHE:O	27:BE:74:PRO:HB3	2.19	0.43
1:CA:250:A:H5'	1:CA:252:U:H1'	2.00	0.43
1:AA:797:C:O2'	1:AA:798:G:H5'	2.19	0.43
24:BA:2809:A:C6	24:BA:2810:A:C6	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1303:C:C2'	1:AA:1304:G:H5'	2.49	0.43
20:CW:53:LEU:HD22	20:CW:104:LEU:HD13	2.01	0.43
24:DA:270(E):G:C6	24:DA:270(F):U:C4	3.07	0.43
31:DK:58:LEU:CD2	31:DK:59:ALA:N	2.80	0.43
24:DA:270(S):G:OP1	46:DZ:76:ARG:NH1	2.52	0.43
4:CG:199:ASN:O	4:CG:199:ASN:ND2	2.39	0.43
42:DT:3:THR:HA	47:DW:29:LYS:NZ	2.33	0.43
25:BB:37:C:H2'	25:BB:38:C:C5'	2.41	0.43
27:DE:102:VAL:HA	27:DE:201:THR:OG1	2.19	0.43
45:D3:72:ARG:NH2	45:D3:75:LEU:CD1	2.73	0.43
1:CA:658:G:C6	1:CA:659:U:C4	3.06	0.43
27:DE:116:VAL:O	27:DE:118:LYS:N	2.48	0.43
28:DF:192:LEU:HD11	28:DF:194:MET:HE3	1.99	0.43
1:AA:616:G:C2	1:AA:617:G:C8	3.07	0.43
9:CL:108:VAL:CG2	9:CL:109:VAL:N	2.82	0.43
36:D0:53:HIS:CD2	36:D0:94:TYR:OH	2.71	0.43
25:BB:54:G:H2'	25:BB:55:U:H6	1.84	0.43
1:CA:999:U:O4	1:CA:1000:A:N6	2.51	0.43
1:AA:1499:A:O2'	1:AA:1520:G:H5'	2.19	0.43
12:AO:18:VAL:CG2	12:AO:19:ARG:H	2.31	0.43
24:BA:674:G:C1'	28:BF:74:ARG:HD3	2.49	0.43
8:CK:46:LYS:HD2	8:CK:62:TYR:HB3	2.00	0.43
24:BA:289:A:C4	24:BA:290:G:C8	3.06	0.43
1:CA:263:A:OP2	20:CW:79:ARG:NH1	2.51	0.43
45:D3:48:GLY:HA3	45:D3:80:HIS:CE1	2.54	0.43
24:DA:1204:A:N1	24:DA:1241:A:C2	2.86	0.43
24:BA:27:G:H22	24:BA:512:G:H1'	1.80	0.43
24:BA:2290:G:H2'	24:BA:2291:U:O4'	2.18	0.43
44:DV:3:TYR:N	44:DV:3:TYR:CD2	2.87	0.43
24:DA:1379:A:N3	24:DA:1379:A:O4'	2.51	0.43
31:DK:29:TYR:O	31:DK:32:PRO:HG2	2.18	0.43
31:DK:6:LEU:O	31:DK:7:GLU:HB2	2.19	0.43
24:DA:1278:A:H2'	24:DA:1279:G:C8	2.53	0.43
1:CA:1492:A:C6	24:DA:1913:A:N7	2.87	0.43
24:BA:1296:G:C4	24:BA:1297:C:C5	3.07	0.43
26:BD:68:LYS:HB2	26:BD:70:TRP:CZ2	2.53	0.43
24:BA:932:G:OP1	48:BX:29:ARG:CZ	2.66	0.43
47:DW:22:GLU:CG	47:DW:64:LEU:HD11	2.49	0.43
24:BA:9:U:H2'	24:BA:10:G:C8	2.53	0.43
24:DA:1151:G:H4'	39:D1:81:HIS:CG	2.54	0.43
6:CI:12:PRO:HD2	6:CI:13:ASN:ND2	2.33	0.43
24:BA:480:A:C2'	24:BA:481:G:OP1	2.67	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2243:U:O2'	24:BA:2244:U:H5'	2.19	0.43
24:BA:1636:C:H2'	24:BA:1637:A:C8	2.53	0.43
26:DD:106:ILE:HG23	26:DD:106:ILE:O	2.18	0.43
24:BA:1161:C:H1'	40:B2:8:GLY:O	2.19	0.43
25:BB:32:C:C6	25:BB:51:G:N2	2.87	0.43
44:DV:23:LYS:HD2	44:DV:40:ASP:HB2	2.01	0.43
24:BA:118:A:C8	24:BA:119:A:C8	3.07	0.43
48:DX:23:LEU:CD2	48:DX:50:VAL:HG21	2.49	0.43
1:AA:834:C:C2	1:AA:853:G:C2	3.06	0.43
24:DA:654(J):A:C2'	24:DA:654(J):A:N3	2.82	0.43
24:DA:2362:G:C2'	24:DA:2363:C:H5'	2.49	0.43
24:BA:504:U:H5''	24:BA:505:A:OP1	2.18	0.43
24:BA:848:G:O6	24:BA:929:G:H2'	2.19	0.43
12:CO:101:VAL:HG12	12:CO:104:VAL:CG2	2.48	0.43
1:CA:777:A:H2'	1:CA:778:G:C8	2.53	0.43
24:BA:2387:U:OP1	45:B3:55:ARG:NH1	2.50	0.43
4:AG:86:LYS:O	4:AG:87:GLY:C	2.57	0.43
5:AH:152:ARG:HA	8:AK:64:LYS:NZ	2.33	0.43
24:BA:2509:G:C5	24:BA:2510:C:C5	3.07	0.43
26:DD:248:SER:HB2	26:DD:249:PRO:HD2	2.01	0.43
24:DA:825:C:H2'	24:DA:826:U:O4'	2.19	0.43
36:B0:111:LEU:HD12	36:B0:111:LEU:N	2.34	0.43
24:BA:1402:C:O5'	24:BA:1402:C:H6	2.02	0.43
3:CF:158:GLY:C	3:CF:160:ALA:H	2.20	0.43
24:DA:1037:G:H1	24:DA:1118:C:H42	1.65	0.43
38:DR:94:ALA:O	38:DR:95:ARG:CB	2.65	0.43
1:CA:409:G:N2	1:CA:434:U:C2	2.86	0.43
1:CA:1154:G:C4	1:CA:1155:G:N7	2.87	0.43
9:CL:16:ARG:HG2	9:CL:16:ARG:O	2.18	0.43
19:CV:77:THR:O	19:CV:78:ARG:HD3	2.18	0.43
21:CX:24:ARG:HG3	21:CX:24:ARG:NH1	2.29	0.43
24:DA:2286:A:P	51:D6:28:ARG:HD2	2.55	0.43
51:D6:38:LYS:O	51:D6:46:HIS:CD2	2.63	0.43
51:D6:44:ARG:O	51:D6:45:LYS:CB	2.58	0.43
1:AA:1348:U:H4'	9:AL:120:ARG:HD2	2.00	0.43
1:AA:1379:G:C6	1:AA:1380:U:O4	2.72	0.43
51:B6:12:GLU:CB	51:B6:23:THR:HA	2.47	0.43
24:DA:1047:G:C1'	24:DA:1110:G:H22	2.24	0.43
24:BA:1049:C:C4	24:BA:1050:A:C2	3.07	0.43
1:AA:1221:G:O2'	1:AA:1222:G:H5'	2.18	0.43
1:AA:193:C:OP2	20:AW:57:ARG:NH2	2.52	0.43
24:DA:2811:G:N2	24:DA:2891:G:H1'	2.34	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DD:257:LEU:C	26:DD:257:LEU:HD22	2.39	0.43
2:AE:187:LEU:HD23	2:AE:188:ALA:N	2.34	0.43
2:AE:178:ARG:HH12	2:AE:196:LEU:CA	2.32	0.43
24:BA:1101:U:H2'	24:BA:1102:C:H6	1.84	0.43
40:D2:35:LEU:HA	40:D2:36:PRO:HD2	1.90	0.43
29:DG:107:LEU:CD2	29:DG:111:LEU:HD11	2.44	0.43
1:CA:1291:G:H2'	9:CL:38:GLN:OE1	2.19	0.43
13:AP:22:ILE:HG22	13:AP:23:TYR:N	2.33	0.43
24:BA:2612:C:C4	24:BA:2613:U:C5	3.07	0.43
4:CG:3:ARG:CZ	4:CG:118:ARG:HD3	2.49	0.43
1:CA:991:U:H2'	1:CA:992:U:OP2	2.19	0.43
1:CA:1014:A:OP2	19:CV:15:LEU:CD1	2.67	0.43
31:DK:83:ALA:O	31:DK:89:TYR:CE2	2.71	0.43
24:BA:1332:G:N2	24:BA:1610:A:N7	2.66	0.43
24:DA:2313:C:O2'	24:DA:2314:C:H5'	2.18	0.43
2:AE:17:PHE:HB2	2:AE:42:ILE:HG22	2.00	0.43
1:AA:1286:A:O3'	21:AX:26:LYS:HE3	2.18	0.43
25:DB:33:G:C2'	25:DB:34:U:H5'	2.48	0.43
1:AA:1057:G:H4'	3:AF:196:LEU:HA	2.01	0.43
1:AA:1057:G:C4	1:AA:1204:A:C2	3.07	0.43
1:AA:458:C:C4	1:AA:464:G:N7	2.86	0.43
32:BM:22:THR:O	32:BM:60:ILE:HG22	2.19	0.43
28:BF:57:VAL:CG1	28:BF:59:TYR:CD1	2.85	0.43
1:CA:1033:G:C2	1:CA:1034:G:N7	2.87	0.43
31:DK:68:LEU:O	31:DK:69:LYS:C	2.56	0.43
24:BA:242:G:H5'	53:B8:62:LEU:HD13	1.94	0.43
1:AA:97:U:H2'	1:AA:99:C:C5	2.54	0.43
2:AE:127:ILE:CG2	2:AE:128:GLU:H	2.31	0.43
24:DA:1654:A:OP1	36:D0:2:ARG:HG2	2.19	0.43
24:DA:2542:A:O2'	24:DA:2543:G:C8	2.69	0.43
24:DA:2173:A:H2'	24:DA:2174:C:H5'	2.01	0.43
24:DA:1142(A):A:C5	24:DA:1144:G:C5	3.07	0.43
24:DA:214:G:H2'	24:DA:215:G:O4'	2.18	0.43
24:BA:2469:A:N6	24:BA:2481:G:H1'	2.26	0.43
10:AM:26:ALA:CA	10:AM:29:ARG:HE	2.23	0.43
25:BB:69:G:C5	25:BB:70:C:C5	3.07	0.43
35:DP:16:ARG:HB2	35:DP:18:LYS:HZ3	1.84	0.43
1:CA:648:A:H2'	1:CA:649:G:C8	2.54	0.43
3:AF:134:ILE:HD11	3:AF:153:VAL:HG21	2.00	0.43
41:DS:17:VAL:C	41:DS:19:LEU:H	2.22	0.43
15:CR:78:TYR:O	15:CR:81:LEU:HB3	2.19	0.43
24:DA:2211:G:H4'	24:DA:2212:A:OP2	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1773:A:N7	24:BA:1829:A:C1'	2.82	0.43
1:CA:1499:A:OP1	1:CA:1500:A:OP2	2.37	0.43
1:AA:1420:C:C2'	1:AA:1421:G:H5'	2.49	0.43
24:BA:764:A:O4'	26:BD:213:ARG:HG3	2.18	0.43
4:CG:159:ARG:O	4:CG:161:ASN:N	2.52	0.43
12:AO:126:LYS:HE2	12:AO:129:ALA:O	2.18	0.43
16:CS:5:ARG:NH1	16:CS:22:THR:HG23	2.34	0.43
1:AA:827:U:O2'	8:AK:19:VAL:HG11	2.19	0.43
24:DA:2704:C:H2'	24:DA:2705:A:O4'	2.19	0.43
32:DM:36:GLY:O	32:DM:39:ARG:HB2	2.19	0.43
29:BG:48:GLU:OE1	29:BG:48:GLU:HA	2.18	0.43
53:D8:15:LYS:HG2	53:D8:16:ILE:N	2.32	0.43
24:BA:533:G:C2	39:B1:45:TYR:CE2	3.07	0.43
10:CM:3:LYS:CE	10:CM:77:PRO:HG3	2.49	0.43
24:DA:2859:G:H4'	24:DA:2860:A:OP1	2.19	0.43
24:BA:2294:C:C2	24:BA:2295:C:C5	3.07	0.43
24:BA:905:U:H2'	24:BA:906:G:H5'	2.00	0.43
32:BM:73:THR:HA	32:BM:83:LYS:O	2.18	0.43
48:BX:11:SER:OG	48:BX:13:ILE:HG12	2.19	0.43
26:DD:142:VAL:HG12	26:DD:193:VAL:HA	2.01	0.43
1:CA:1197:G:H2'	1:CA:1197:G:N3	2.33	0.43
24:DA:2842:G:C2'	24:DA:2843:G:H5'	2.48	0.43
24:BA:18:C:O3'	39:B1:23:GLY:HA2	2.19	0.43
18:AU:73:ALA:HB1	18:AU:79:LEU:HG	1.99	0.43
1:AA:12:U:H4'	1:AA:526:C:H4'	2.00	0.43
24:DA:332:A:C2	24:DA:335:C:C5	3.06	0.43
34:BO:80:TYR:CE1	34:BO:111:ARG:HD3	2.54	0.43
24:BA:1776:G:C2	24:BA:1777:U:C6	3.06	0.43
24:BA:1325:G:OP2	24:BA:1616:A:H2'	2.19	0.43
44:BV:35:ARG:HB3	44:BV:35:ARG:NH1	2.34	0.43
24:BA:705:A:C2	24:BA:706:A:C4	3.06	0.43
1:CA:427:U:OP1	4:CG:40:PRO:HB3	2.19	0.43
14:CQ:6:LEU:HD22	14:CQ:23:ARG:CZ	2.49	0.43
1:CA:1188:A:O3'	14:CQ:58:LYS:HE3	2.19	0.43
3:AF:17:ASP:O	3:AF:54:ARG:NH2	2.52	0.43
51:D6:41:PRO:HD2	51:D6:46:HIS:H	1.82	0.43
24:DA:248:G:H5'	24:DA:250:G:N7	2.34	0.43
53:B8:34:TRP:CD2	53:B8:35:GLN:N	2.86	0.43
19:AV:13:ASP:C	19:AV:15:LEU:H	2.22	0.43
24:DA:1047:G:C4	24:DA:1110:G:N1	2.87	0.43
1:AA:1360:A:H2'	1:AA:1361:G:O4'	2.18	0.43
24:DA:2801:A:H4'	24:DA:2895:U:H5''	1.98	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:483:A:O2'	43:BU:59:GLY:HA2	2.19	0.43
2:AE:173:ALA:O	2:AE:176:GLU:OE1	2.37	0.43
40:D2:5:VAL:HB	40:D2:37:VAL:HG11	2.01	0.43
39:B1:92:ARG:CD	39:B1:95:LEU:CD1	2.91	0.43
2:CE:12:GLU:O	2:CE:13:ALA:C	2.57	0.43
43:BU:50:ARG:H	43:BU:50:ARG:NE	2.16	0.43
24:DA:1084:A:N6	24:DA:1085:A:H62	2.16	0.43
24:DA:26:G:H1'	24:DA:515:A:H61	1.83	0.43
34:DO:47:ASP:CB	34:DO:48:PRO:O	2.43	0.43
44:BV:109:ALA:C	44:BV:144:LEU:H	2.22	0.43
24:BA:2112:G:H22	24:BA:2169:A:H61	1.66	0.43
24:BA:606:U:H4'	24:BA:658:C:C4'	2.42	0.43
9:AL:56:LEU:C	9:AL:56:LEU:HD23	2.39	0.43
9:AL:85:LEU:HD12	9:AL:86:VAL:N	2.32	0.43
1:AA:1068:G:C5	1:AA:1069:C:C5	3.07	0.43
4:AG:72:GLU:O	4:AG:73:ARG:O	2.37	0.43
1:AA:438:G:C2'	1:AA:494:U:O4	2.58	0.43
11:AN:40:ILE:CG2	11:AN:75:TYR:HD2	2.30	0.43
40:D2:80:GLN:HE21	40:D2:80:GLN:HA	1.83	0.43
44:DV:139:VAL:O	44:DV:140:ASP:HB3	2.18	0.43
1:AA:263:A:P	20:AW:79:ARG:NH1	2.92	0.43
1:AA:186(B):C:C1'	20:AW:89:ARG:HH22	2.32	0.43
40:D2:71:LEU:O	40:D2:71:LEU:CD1	2.54	0.43
1:CA:1034:G:H2'	1:CA:1035:A:C8	2.48	0.43
1:AA:74:C:O2'	1:AA:75:C:H5'	2.18	0.43
24:DA:67:U:O2'	24:DA:68:G:H5'	2.19	0.43
28:DF:63:LYS:CE	28:DF:67:GLN:HB2	2.49	0.43
3:CF:43:LEU:O	3:CF:47:LEU:HB2	2.18	0.43
24:DA:2118:U:O4	24:DA:2147:G:O2'	2.33	0.43
24:DA:2127:G:C8	24:DA:2128:C:C6	3.06	0.43
34:DO:112:LEU:HD23	34:DO:113:LYS:CA	2.49	0.43
24:BA:1408:C:O2	24:BA:1595:G:C2	2.72	0.43
32:DM:135:PRO:HB2	32:DM:137:LYS:NZ	2.34	0.43
15:CR:84:LYS:O	15:CR:85:LEU:HG	2.19	0.43
24:BA:363:G:C2	24:BA:363(A):A:N7	2.87	0.43
24:BA:528:A:O2'	24:BA:529:A:H5''	2.18	0.43
41:BS:51:LEU:HA	41:BS:51:LEU:HD23	1.67	0.43
31:DK:110:ASP:N	31:DK:110:ASP:OD1	2.48	0.43
31:DK:110:ASP:OD1	31:DK:130:TYR:CE1	2.72	0.43
36:B0:33:ARG:HH22	50:B5:55:ARG:CG	2.32	0.43
1:CA:617:G:C2	1:CA:618:C:C5	3.07	0.43
1:CA:616:G:H1'	1:CA:625:G:N2	2.34	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1329:A:OP2	13:AP:28:ALA:HB3	2.19	0.43
36:D0:48:VAL:O	36:D0:51:LEU:N	2.51	0.43
8:CK:67:PRO:O	8:CK:69:ARG:N	2.52	0.43
24:DA:2516:G:C5	24:DA:2517:C:C4	3.05	0.43
24:DA:1412:A:H2'	24:DA:1413:G:O4'	2.18	0.43
24:DA:2351:G:H2'	24:DA:2352:A:OP2	2.19	0.43
11:AN:104:GLN:O	11:AN:106:LYS:N	2.52	0.43
31:BK:64:GLU:HA	31:BK:67:ARG:HB3	2.01	0.43
26:DD:73:VAL:HA	26:DD:119:ALA:O	2.18	0.43
1:CA:325:A:N6	1:CA:326:G:N1	2.67	0.43
24:DA:1907:G:C2'	24:DA:1908:C:H5'	2.48	0.43
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.19	0.43
4:CG:176:LEU:N	4:CG:176:LEU:HD23	2.34	0.43
26:DD:265:PRO:O	26:DD:267:SER:O	2.37	0.43
1:CA:721:G:OP1	1:CA:721:G:H8	2.02	0.43
24:BA:651:G:H4'	53:B8:18:ALA:HB3	1.99	0.43
24:BA:1955:U:H2'	24:BA:1955:U:O2	2.19	0.43
24:BA:928:G:H2'	24:BA:929:G:O4'	2.18	0.43
1:AA:514:C:H2'	1:AA:515:G:C8	2.53	0.43
24:BA:924:C:H2'	24:BA:925:C:C6	2.53	0.43
24:BA:1109:C:N4	24:BA:1110:G:N1	2.66	0.43
39:B1:65:ILE:HD11	39:B1:96:ALA:HB2	2.01	0.43
46:DZ:95:LEU:O	46:DZ:95:LEU:HD23	2.19	0.43
18:CU:44:LEU:HD12	18:CU:44:LEU:N	2.34	0.43
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.54	0.43
24:BA:2642:G:OP1	32:BM:76:SER:OG	2.23	0.43
24:DA:1600:C:C2'	52:D7:49:ARG:NH2	2.77	0.43
1:CA:1251:A:H1'	1:CA:1369:C:O2'	2.19	0.43
1:CA:976:G:C5'	14:CQ:31:ARG:NH1	2.71	0.43
1:CA:1288:A:C4'	21:CX:13:ILE:CD1	2.90	0.43
7:CJ:78:ARG:CZ	7:CJ:85:TYR:HD1	2.09	0.43
37:DQ:106:ARG:CA	37:DQ:110:LEU:HD21	2.49	0.43
51:D6:17:LYS:O	51:D6:18:ARG:CB	2.67	0.43
24:BA:2287:A:OP1	51:B6:30:THR:HG22	2.18	0.43
26:BD:62:TYR:CE2	26:BD:64:ILE:HA	2.54	0.43
4:AG:17:VAL:HG12	4:AG:18:LYS:O	2.19	0.43
24:DA:2748:A:C8	24:DA:2753:A:N6	2.86	0.43
5:CH:51:VAL:O	5:CH:54:ALA:HB3	2.19	0.43
53:B8:17:THR:HG21	53:B8:23:VAL:CG2	2.48	0.43
24:DA:2786:U:O2'	27:DE:62:PRO:HA	2.19	0.43
4:AG:50:ARG:HH12	5:AH:10:MET:CE	2.32	0.43
39:B1:108:GLU:CD	39:B1:112:ARG:NH1	2.67	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:233:SER:O	2:CE:234:PRO:C	2.56	0.43
2:CE:7:VAL:O	2:CE:8:LYS:HB3	2.18	0.43
1:CA:271:C:H2'	1:CA:272:C:C6	2.54	0.43
9:CL:20:ARG:O	9:CL:60:ASP:HB2	2.19	0.43
3:CF:50:ALA:HA	3:CF:75:VAL:HG21	1.99	0.43
30:BH:152:ARG:O	30:BH:153:LYS:HB2	2.18	0.43
30:DH:89:ILE:HD13	30:DH:91:GLY:H	1.84	0.43
14:CQ:12:ARG:HB2	14:CQ:14:PRO:HD3	2.00	0.43
24:BA:2156:G:H5''	24:BA:2157:G:OP2	2.19	0.43
24:BA:2175:C:H3'	24:BA:2176:A:C5'	2.29	0.43
20:AW:26:ASN:ND2	20:AW:26:ASN:N	2.65	0.43
29:BG:77:ILE:HG23	29:BG:77:ILE:O	2.19	0.43
1:AA:1131:G:O2'	1:AA:1132:C:H5'	2.19	0.43
10:AM:35:SER:CB	10:AM:73:ASP:HB2	2.48	0.43
3:AF:50:ALA:HA	3:AF:72:LYS:HB2	2.01	0.43
1:AA:626:U:C4'	16:AS:38:TYR:CZ	3.01	0.43
1:CA:1037:C:H5''	1:CA:1038:C:OP1	2.19	0.43
1:CA:250:A:OP1	1:CA:250:A:H3'	2.19	0.43
28:BF:29:ASN:HA	28:BF:30:PRO:HD2	1.94	0.43
1:CA:843:U:C3'	1:CA:848:C:H5'	2.49	0.43
24:DA:2817:G:O2'	24:DA:2836:U:O2	2.31	0.43
42:BT:47:PHE:O	42:BT:49:VAL:HG23	2.19	0.43
36:B0:85:PRO:C	36:B0:87:TYR:N	2.73	0.43
12:CO:62:SER:O	12:CO:63:GLY:C	2.57	0.43
24:BA:880:G:C2	24:BA:898:C:C2	3.06	0.43
24:DA:2172:U:H2'	24:DA:2173:A:C5'	2.49	0.43
24:DA:2172:U:H2'	24:DA:2173:A:H5'	2.00	0.43
32:DM:120:LEU:C	32:DM:120:LEU:CD2	2.80	0.43
1:CA:186(B):C:C4'	20:CW:89:ARG:HH22	2.32	0.43
4:CG:53:ASP:OD1	4:CG:53:ASP:N	2.52	0.43
24:DA:1341:U:P	24:DA:1397:U:H3	2.38	0.43
1:AA:624:C:C3'	16:AS:10:GLY:HA2	2.49	0.43
28:BF:195:ASP:O	28:BF:198:ALA:N	2.49	0.43
24:DA:1434:A:C5	24:DA:1560:G:N2	2.87	0.43
6:AI:24:GLU:HA	6:AI:27:GLN:HG3	1.99	0.43
35:BP:78:PRO:HG2	35:BP:81:VAL:CG1	2.45	0.43
25:BB:72:G:N2	25:BB:103:U:C5	2.87	0.43
1:CA:162:A:N3	1:CA:348:G:H4'	2.34	0.43
18:CU:48:GLY:HA3	18:CU:82:THR:HA	2.01	0.43
25:DB:87:G:H3'	25:DB:88:C:C5'	2.48	0.43
8:AK:20:TYR:CE1	8:AK:78:GLN:NE2	2.87	0.43
1:CA:1206:G:C5	1:CA:1207:G:C8	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:654:A:C3'	24:BA:654:A:N3	2.79	0.43
24:BA:99:U:C6	24:BA:102:G:C2	3.07	0.43
3:CF:60:ALA:O	3:CF:61:ALA:HB2	2.19	0.43
1:CA:998(A):C:H2'	1:CA:999:U:O4'	2.18	0.43
1:AA:1498:U:H4'	1:AA:1499:A:O5'	2.19	0.43
1:AA:1336:C:C2'	1:AA:1337:G:OP2	2.66	0.43
24:BA:92:G:H2'	24:BA:93:C:H6	1.78	0.43
24:BA:612:G:N2	24:BA:616:A:O2'	2.52	0.43
12:AO:82:VAL:CG1	12:AO:83:VAL:N	2.82	0.43
26:BD:79:VAL:O	26:BD:79:VAL:HG12	2.19	0.43
44:DV:125:LEU:HB3	44:DV:165:VAL:CG1	2.46	0.43
1:CA:129(A):G:C2	1:CA:191(A):G:N7	2.87	0.43
42:DT:12:VAL:HG22	42:DT:27:THR:CB	2.49	0.43
26:DD:231:HIS:ND1	26:DD:232:PRO:CD	2.81	0.43
1:AA:791:G:H2'	1:AA:792:A:H5'	2.00	0.43
4:CG:146:ILE:N	4:CG:146:ILE:CD1	2.81	0.43
24:DA:1834:U:O2	24:DA:1834:U:C2'	2.65	0.43
38:BR:113:LYS:O	38:BR:114:LEU:HD23	2.19	0.43
24:DA:1184:G:H5'	48:DX:29:ARG:HH21	1.84	0.43
31:DK:25:TYR:CE1	31:DK:29:TYR:CD2	3.07	0.43
41:DS:75:TYR:CD1	41:DS:104:THR:HB	2.54	0.43
1:CA:1494:G:HO2'	24:DA:1913:A:P	2.42	0.43
24:BA:1115:G:H2'	24:BA:1116:C:C6	2.54	0.43
1:CA:1160:G:C2'	1:CA:1161:C:O5'	2.66	0.43
24:BA:905:U:C2'	24:BA:906:G:H5'	2.48	0.43
26:BD:227:ASN:HB3	26:BD:228:PRO:HD2	2.00	0.43
24:BA:1137:G:O2'	24:BA:2039:C:H5'	2.19	0.43
30:BH:97:ARG:O	30:BH:125:VAL:HG21	2.19	0.43
7:AJ:69:VAL:O	7:AJ:138:LYS:HB2	2.18	0.43
1:AA:1462:G:H2'	1:AA:1463:C:C6	2.54	0.43
24:DA:2627:G:N3	24:DA:2781:A:H2	2.17	0.43
24:BA:945:A:C4	24:BA:2448:A:C2	3.06	0.43
7:CJ:70:LYS:O	7:CJ:138:LYS:HE2	2.18	0.43
27:DE:111:ARG:HH11	27:DE:111:ARG:HG2	1.84	0.43
1:AA:349:A:O2'	1:AA:350:G:H5'	2.19	0.43
24:DA:1798:U:H5'	26:DD:259:THR:OG1	2.19	0.43
1:AA:1101:A:H4'	1:AA:1102:A:O5'	2.19	0.43
22:AC:40:C:O2'	22:AC:41:C:H5'	2.18	0.43
2:AE:25:ASN:O	2:AE:27:LYS:N	2.52	0.43
8:AK:81:HIS:HB2	8:AK:138:TRP:CE3	2.54	0.43
8:CK:56:LYS:HA	8:CK:57:PRO:HD2	1.88	0.43
8:CK:111:ILE:O	8:CK:134:ILE:HB	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1125:U:P	1:CA:1145:C:H42	2.42	0.42
1:CA:1238:A:OP1	1:CA:1335:C:O2'	2.17	0.42
1:CA:978:A:C6	1:CA:1318:A:C5	3.07	0.42
1:CA:1326:C:O2'	1:CA:1327:C:H5'	2.18	0.42
1:CA:1329:A:P	13:CP:28:ALA:HB3	2.58	0.42
1:CA:1367:C:C5'	10:CM:60:ARG:NH2	2.80	0.42
49:D4:55:ARG:HG3	49:D4:56:VAL:H	1.77	0.42
37:DQ:109:GLY:O	37:DQ:110:LEU:C	2.57	0.42
51:D6:18:ARG:NE	51:D6:43:CYS:HB2	2.34	0.42
9:AL:9:ARG:CD	9:AL:14:VAL:CG2	2.96	0.42
34:DO:63:PRO:HB3	53:D8:13:ARG:CG	2.49	0.42
24:BA:2348:U:H4'	51:B6:42:TRP:HE1	1.84	0.42
24:DA:2789:C:C4	24:DA:2790:A:N6	2.87	0.42
29:DG:110:ALA:CB	29:DG:140:ILE:CD1	2.96	0.42
2:CE:185:ILE:CG2	2:CE:199:TYR:CD2	3.01	0.42
2:CE:80:ILE:HG12	2:CE:215:LEU:HD12	2.00	0.42
28:DF:24:LEU:HB3	28:DF:25:PRO:HD3	1.85	0.42
1:CA:1292:U:H5'	9:CL:38:GLN:CD	2.40	0.42
43:DU:42:VAL:HG22	43:DU:65:ALA:CB	2.39	0.42
1:AA:972:C:H4'	10:AM:57:LYS:HB3	2.01	0.42
14:AQ:41:ARG:HG3	14:AQ:42:ILE:N	2.34	0.42
34:BO:75:ILE:O	34:BO:75:ILE:HG12	2.19	0.42
44:DV:117:LEU:HB3	44:DV:119:GLU:OE1	2.19	0.42
13:AP:11:ARG:HE	13:AP:46:LYS:CE	2.15	0.42
21:AX:4:GLY:O	21:AX:6:ARG:N	2.51	0.42
30:DH:152:ARG:NH2	30:DH:153:LYS:HE2	2.34	0.42
1:CA:1014:A:OP2	19:CV:15:LEU:HD11	2.18	0.42
24:BA:860:U:C4	24:BA:917:A:H2	2.37	0.42
39:D1:65:ILE:HD11	39:D1:96:ALA:HB2	2.01	0.42
5:AH:67:VAL:CG2	5:AH:69:VAL:CG2	2.97	0.42
1:AA:500:G:H1'	1:AA:547:A:N1	2.34	0.42
24:BA:1471:A:N1	24:BA:1472:A:C4	2.87	0.42
24:BA:818:G:H4'	24:BA:838:C:O3'	2.18	0.42
1:AA:704:A:OP2	1:AA:704:A:H8	2.01	0.42
1:CA:1167:A:H2'	1:CA:1169:A:C8	2.54	0.42
34:BO:126:VAL:HG13	34:BO:145:PRO:HG2	2.01	0.42
33:BN:68:GLU:CD	33:BN:68:GLU:H	2.22	0.42
20:CW:89:ARG:O	20:CW:91:LEU:N	2.52	0.42
24:DA:1023:U:H2'	24:DA:1024:G:H5'	2.00	0.42
24:DA:602:G:H2'	24:DA:655:A:N6	2.33	0.42
11:AN:54:ARG:O	11:AN:55:LYS:C	2.58	0.42
26:DD:67:PHE:HD1	26:DD:153:ALA:HB3	1.82	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1265:A:C8	24:BA:1267:U:C2	3.07	0.42
30:DH:104:GLU:C	30:DH:105:LEU:HD13	2.39	0.42
24:DA:2405:G:P	34:DO:77:ARG:HH21	2.42	0.42
24:BA:1541:U:H2'	24:BA:1542:G:O4'	2.18	0.42
50:D5:56:LYS:HE3	50:D5:56:LYS:HB3	1.87	0.42
41:DS:20:VAL:O	41:DS:23:LEU:CB	2.66	0.42
24:DA:820:A:N3	24:DA:943:U:H4'	2.34	0.42
35:BP:87:LYS:O	35:BP:88:GLY:C	2.58	0.42
24:DA:2884:U:O2'	24:DA:2885:C:H5'	2.19	0.42
1:AA:148:G:O2'	1:AA:149:A:H5'	2.19	0.42
45:D3:37:LEU:CD1	45:D3:60:PHE:HA	2.46	0.42
25:DB:71:C:H2'	25:DB:71:C:O2	2.19	0.42
36:B0:53:HIS:HA	36:B0:56:LYS:HD3	2.01	0.42
24:BA:2517:C:C6	24:BA:2542:A:C5	3.07	0.42
38:BR:31:SER:CB	38:BR:84:GLN:HG2	2.47	0.42
24:BA:1206:G:N2	24:BA:1207:C:H1'	2.34	0.42
3:AF:206:GLU:O	3:AF:206:GLU:CG	2.66	0.42
31:BK:11:ASN:HB3	31:BK:12:LEU:HD22	2.00	0.42
46:BZ:64:ALA:HA	46:BZ:67:ILE:HD11	2.01	0.42
24:BA:2630:G:O2'	24:BA:2631:G:H5'	2.19	0.42
15:CR:10:LYS:HD2	15:CR:10:LYS:C	2.40	0.42
24:BA:1443:G:N2	24:BA:1549:C:C2	2.86	0.42
1:CA:1388:C:H2'	1:CA:1389:C:C6	2.52	0.42
1:AA:297:G:N2	1:AA:300:A:OP2	2.52	0.42
18:CU:20:ALA:C	18:CU:21:LYS:HD2	2.39	0.42
1:AA:816:A:OP1	1:AA:1526:G:O2'	2.31	0.42
44:BV:40:ASP:HB3	44:BV:43:GLU:HG2	1.99	0.42
24:BA:2092:U:H4'	24:BA:2093:G:O5'	2.19	0.42
1:CA:528:C:C2'	1:CA:529:G:H5'	2.49	0.42
14:AQ:24:CYS:HB3	14:AQ:27:CYS:HB2	1.98	0.42
1:AA:234:C:H2'	1:AA:235:C:H6	1.83	0.42
4:CG:31:CYS:O	4:CG:33:MET:N	2.49	0.42
1:CA:1120:G:O6	1:CA:1152:A:N6	2.52	0.42
1:CA:1240:U:O2'	1:CA:1241:G:H5'	2.19	0.42
1:CA:1320:C:C2'	1:CA:1321:C:C5'	2.97	0.42
1:CA:1327:C:O2'	1:CA:1328:C:H5'	2.19	0.42
10:CM:70:ARG:CG	10:CM:70:ARG:NH1	2.73	0.42
19:CV:36:ARG:CG	19:CV:72:GLY:CA	2.97	0.42
49:D4:49:PHE:O	49:D4:51:ASP:N	2.50	0.42
9:AL:88:TYR:O	9:AL:89:ASN:HB2	2.19	0.42
51:B6:48:VAL:O	51:B6:49:HIS:HB2	2.18	0.42
53:B8:34:TRP:CG	53:B8:35:GLN:N	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1198:G:H2'	1:AA:1199:U:O4'	2.19	0.42
13:AP:81:LEU:C	13:AP:84:ILE:HG22	2.39	0.42
1:AA:509:A:H1'	1:AA:543:C:O2'	2.18	0.42
1:AA:960:U:C5	1:AA:1225:A:H1'	2.54	0.42
27:DE:57:LYS:HD3	27:DE:57:LYS:HA	1.81	0.42
2:AE:170:GLU:O	2:AE:171:ALA:C	2.57	0.42
27:DE:37:ARG:N	27:DE:46:ALA:O	2.52	0.42
39:B1:92:ARG:NE	40:B2:11:GLN:H	2.17	0.42
2:CE:57:PHE:CZ	2:CE:183:PRO:HG2	2.54	0.42
2:CE:44:LEU:N	2:CE:44:LEU:HD23	2.34	0.42
28:DF:2:LYS:CD	28:DF:2:LYS:N	2.82	0.42
43:BU:50:ARG:H	43:BU:50:ARG:CD	2.31	0.42
10:CM:24:VAL:HG13	10:CM:25:GLU:HG2	2.01	0.42
13:AP:23:TYR:CZ	13:AP:71:ARG:HG3	2.54	0.42
4:CG:173:TRP:HA	4:CG:187:ARG:HD3	2.01	0.42
1:AA:57:G:C5	1:AA:58:C:C4	3.07	0.42
25:DB:44:G:H1'	25:DB:47:C:N4	2.34	0.42
29:DG:95:ARG:O	29:DG:96:ARG:C	2.57	0.42
31:BK:130:TYR:O	31:BK:135:GLU:HG2	2.18	0.42
1:AA:559:A:H5''	1:AA:560:U:C3'	2.48	0.42
24:BA:2167:U:H6	24:BA:2167:U:P	2.43	0.42
4:AG:173:TRP:C	4:AG:186:LEU:CG	2.84	0.42
24:BA:919:G:H5'	25:BB:81:G:H1'	2.01	0.42
24:DA:996:A:O3'	39:D1:92:ARG:HB2	2.18	0.42
25:DB:32:C:C4	25:DB:33:G:N7	2.87	0.42
9:AL:24:GLY:CA	9:AL:57:GLY:HA3	2.49	0.42
34:DO:86:LYS:HB2	34:DO:117:GLU:O	2.19	0.42
5:AH:103:GLY:C	5:AH:106:PRO:HD2	2.39	0.42
25:DB:27:C:N4	25:DB:28:C:C4	2.87	0.42
1:AA:262:A:C6	1:AA:263:A:N6	2.87	0.42
24:DA:2061:G:H5''	24:DA:2503:A:C2	2.54	0.42
20:AW:71:THR:HG22	20:AW:72:LEU:N	2.34	0.42
22:CC:7:G:N2	22:CC:67:C:C2	2.87	0.42
43:DU:54:LYS:CD	43:DU:55:TYR:CZ	3.02	0.42
32:BM:35:ARG:O	32:BM:37:LYS:HG3	2.19	0.42
1:AA:739:C:O2'	15:AR:42:HIS:ND1	2.49	0.42
24:DA:2123:G:H1	24:DA:2174:C:H42	1.66	0.42
24:BA:1535:U:C6	24:BA:1537:C:H1'	2.52	0.42
24:BA:164:U:OP1	24:BA:165:U:N3	2.52	0.42
37:BQ:74:ALA:HB1	37:BQ:107:GLU:O	2.19	0.42
20:CW:87:LYS:O	20:CW:90:GLN:N	2.52	0.42
1:CA:490:G:H2'	1:CA:491:G:C8	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2712:U:OP1	24:BA:2714:G:H4'	2.19	0.42
28:BF:195:ASP:OD1	28:BF:197:ASP:HB2	2.18	0.42
17:AT:75:ARG:NH1	17:AT:76:LEU:O	2.52	0.42
35:DP:79:LEU:O	35:DP:80:GLU:HB2	2.19	0.42
25:DB:89(A):A:H8	25:DB:90:C:O4'	2.03	0.42
24:BA:1420:U:OP1	24:BA:1420:U:C5	2.72	0.42
30:DH:33:LEU:HD11	30:DH:136:ILE:O	2.19	0.42
24:BA:654(S):G:C1'	24:BA:654(T):A:P	3.06	0.42
24:BA:2488:A:H2'	24:BA:2489:G:O4'	2.18	0.42
44:BV:126:VAL:CA	44:BV:164:ALA:HB2	2.49	0.42
44:BV:125:LEU:C	44:BV:164:ALA:HB3	2.38	0.42
24:BA:439:G:HO2'	24:BA:440:G:H5'	1.84	0.42
16:CS:51:VAL:O	16:CS:51:VAL:HG12	2.19	0.42
28:DF:29:ASN:O	28:DF:33:LEU:HD23	2.19	0.42
50:D5:57:VAL:HA	50:D5:58:LEU:HD12	2.01	0.42
24:DA:171:G:N2	24:DA:172:C:C2	2.87	0.42
24:DA:1380:G:N2	24:DA:1570:A:C2	2.87	0.42
24:DA:769:G:H5'	24:DA:1379:A:N6	2.34	0.42
11:AN:32:ILE:HD12	11:AN:72:ALA:CB	2.46	0.42
1:CA:1423:G:H2'	1:CA:1424:C:H6	1.84	0.42
32:DM:90:MET:HA	32:DM:90:MET:HE2	1.99	0.42
30:DH:95:ARG:HG3	30:DH:96:ALA:N	2.34	0.42
24:DA:152:G:H2'	24:DA:153:C:O4'	2.20	0.42
1:CA:611:A:H61	1:CA:629:G:H1	1.65	0.42
24:BA:456:C:C4	42:BT:69:TYR:CE1	3.06	0.42
24:DA:1465:G:C4	24:DA:1466:G:C8	3.06	0.42
37:DQ:67:ARG:HH11	37:DQ:67:ARG:CB	2.32	0.42
24:BA:1443:G:C2'	24:BA:1444:G:H5'	2.49	0.42
24:DA:2526:G:C5	24:DA:2527:C:C5	3.06	0.42
14:CQ:8:GLU:C	14:CQ:10:ALA:N	2.73	0.42
24:DA:1348:G:H2'	24:DA:1349:A:H5''	2.01	0.42
24:BA:1705:G:C2'	24:BA:1706:U:H5'	2.49	0.42
1:AA:300:A:H2'	1:AA:564:C:H42	1.84	0.42
24:DA:49:A:H5'	24:DA:51:G:O4'	2.19	0.42
28:DF:202:PHE:CE1	28:DF:206:ILE:HG21	2.54	0.42
39:B1:25:TRP:O	39:B1:28:ARG:HB2	2.19	0.42
32:BM:127:ASP:O	32:BM:128:HIS:HB3	2.19	0.42
5:AH:47:LYS:HE2	5:AH:47:LYS:HB2	1.91	0.42
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.18	0.42
1:AA:109:A:C6	1:AA:326:G:C6	3.07	0.42
1:CA:902:G:H2'	1:CA:903:G:H8	1.84	0.42
24:BA:106:C:H2'	24:BA:107:C:H6	1.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:2695:C:H2'	24:BA:2696:U:C6	2.54	0.42
24:DA:2660:A:H2'	24:DA:2661:G:O4'	2.19	0.42
33:DN:52:VAL:HG12	33:DN:94:ARG:HH22	1.85	0.42
24:BA:299:A:N6	24:BA:300:A:N1	2.67	0.42
24:DA:2593:U:H2'	24:DA:2594:C:C6	2.54	0.42
12:AO:5:PRO:HA	12:AO:9:GLN:OE1	2.19	0.42
5:CH:88:LYS:HB3	5:CH:88:LYS:HE2	1.82	0.42
1:CA:697:U:H2'	1:CA:698:G:O4'	2.19	0.42
1:AA:1085:U:H3'	1:AA:1086:U:C5	2.54	0.42
1:CA:1281:U:H3'	1:CA:1282:C:H5	1.84	0.42
1:CA:1301:U:H2'	1:CA:1301:U:O2	2.18	0.42
1:CA:1324:A:O4'	1:CA:1362:C:H4'	2.19	0.42
9:CL:117:HIS:O	9:CL:118:LYS:CB	2.65	0.42
13:CP:67:GLU:HG3	13:CP:68:GLY:N	2.34	0.42
51:D6:30:THR:HA	51:D6:31:PRO:HA	1.79	0.42
24:DA:2392:A:C2'	53:D8:30:ARG:NH2	2.82	0.42
53:B8:33:ASN:O	53:B8:34:TRP:C	2.56	0.42
30:BH:55:PRO:CG	30:BH:61:HIS:CD2	3.02	0.42
1:AA:409:G:N2	1:AA:433:C:O2	2.52	0.42
24:DA:2789:C:H5'	24:DA:2790:A:OP1	2.19	0.42
2:AE:97:TRP:CH2	2:AE:173:ALA:HA	2.55	0.42
2:AE:74:LYS:O	2:AE:78:GLN:HB2	2.20	0.42
27:DE:50:GLY:HA2	27:DE:78:LEU:HD22	2.01	0.42
2:CE:15:VAL:HG12	2:CE:15:VAL:O	2.19	0.42
1:AA:103:C:OP2	20:AW:14:LYS:CE	2.65	0.42
24:DA:1091:G:C6	24:DA:1092:C:N4	2.88	0.42
24:BA:1138:G:O2'	32:BM:106:MET:HG3	2.19	0.42
4:CG:187:ARG:O	4:CG:189:PRO:HD3	2.18	0.42
4:CG:89:THR:H	5:CH:97:GLY:HA3	1.83	0.42
5:CH:66:MET:C	5:CH:67:VAL:HG12	2.40	0.42
34:DO:21:ARG:HB3	34:DO:22:GLY:H	1.65	0.42
29:BG:77:ILE:HG23	29:BG:80:PHE:CE1	2.53	0.42
29:DG:80:PHE:HB2	29:DG:81:LYS:H	1.63	0.42
44:BV:111:VAL:O	44:BV:112:ARG:HD3	2.19	0.42
9:CL:97:LYS:HE3	9:CL:97:LYS:HB2	1.79	0.42
25:DB:32:C:C2	25:DB:51:G:N2	2.87	0.42
38:BR:95:ARG:HD2	38:BR:95:ARG:HA	1.52	0.42
24:DA:77:C:H42	24:DA:109:G:H1	1.67	0.42
1:AA:688:G:H2'	1:AA:689:C:C6	2.55	0.42
24:DA:2837:G:C4	24:DA:2838:G:C8	3.07	0.42
29:DG:56:ALA:O	29:DG:60:LEU:HB2	2.19	0.42
2:AE:51:LEU:HD22	2:AE:55:PHE:CD2	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CF:84:ILE:CG2	3:CF:85:ARG:NH1	2.82	0.42
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.53	0.42
20:CW:89:ARG:HE	20:CW:104:LEU:HD23	1.84	0.42
47:DW:41:ILE:CD1	47:DW:44:LEU:HD12	2.48	0.42
4:AG:38:TYR:HB2	4:AG:39:PRO:CD	2.49	0.42
1:CA:490:G:C5	1:CA:491:G:N7	2.87	0.42
47:DW:51:ARG:CA	47:DW:54:LYS:HG2	2.42	0.42
1:AA:1080:A:H5''	1:AA:1081:G:OP2	2.20	0.42
1:AA:14:U:H2'	1:AA:16:A:OP2	2.19	0.42
6:CI:50:TYR:CZ	18:CU:77:GLY:HA2	2.55	0.42
32:DM:14:VAL:CG2	32:DM:15:LEU:N	2.81	0.42
4:CG:195:ALA:O	4:CG:196:LEU:HD23	2.19	0.42
22:AC:14:A:H2'	22:AC:15:G:O4'	2.19	0.42
36:D0:101:ALA:HB2	50:D5:44:THR:CB	2.50	0.42
24:BA:2021:C:H4'	24:BA:2022:U:OP2	2.19	0.42
34:BO:6:LEU:HB3	34:BO:7:ARG:H	1.72	0.42
28:BF:126:VAL:HG22	28:BF:194:MET:O	2.19	0.42
1:CA:515:G:N3	1:CA:537:G:C2	2.87	0.42
33:DN:17:ARG:HA	33:DN:17:ARG:HD3	1.85	0.42
40:B2:64:HIS:CE1	40:B2:92:THR:CG2	3.03	0.42
29:BG:142:PRO:HG2	29:BG:143:GLU:OE2	2.20	0.42
8:AK:97:VAL:HG21	8:AK:128:GLY:HA2	2.01	0.42
24:BA:1812:A:O2'	26:BD:45:ASN:HB2	2.19	0.42
25:DB:15:A:H1'	25:DB:109:G:C4	2.53	0.42
29:DG:146:TYR:C	29:DG:148:MET:H	2.21	0.42
24:DA:2582:G:C2	24:DA:2583:G:C8	3.08	0.42
17:CT:59:ILE:HG22	17:CT:71:PHE:HD1	1.78	0.42
1:CA:36:C:C2'	1:CA:37:U:H5'	2.49	0.42
5:CH:148:VAL:HG21	8:CK:107:LEU:HD12	2.00	0.42
17:AT:89:LEU:O	17:AT:93:GLN:HB2	2.19	0.42
24:DA:1527:G:C5'	24:DA:1528:A:OP1	2.67	0.42
16:CS:58:TYR:C	16:CS:58:TYR:CD2	2.92	0.42
1:AA:292:G:C5	1:AA:293:G:H1'	2.54	0.42
27:BE:204:ALA:O	27:BE:205:ALA:CB	2.67	0.42
44:DV:44:PHE:CE1	44:DV:48:PHE:CD2	3.07	0.42
24:DA:2340:G:O2'	24:DA:2341:G:H5'	2.18	0.42
39:D1:19:LYS:C	39:D1:21:ALA:H	2.22	0.42
28:DF:93:LYS:HB3	28:DF:94:PRO:HD2	2.01	0.42
24:DA:1642:G:O2'	24:DA:1643:G:H5'	2.20	0.42
4:AG:94:LEU:H	4:AG:94:LEU:HD12	1.84	0.42
1:AA:707:C:H2'	1:AA:708:C:C6	2.54	0.42
24:DA:526:A:N3	24:DA:2044:C:H1'	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BB:28:C:H2'	25:BB:29:A:O4'	2.19	0.42
24:DA:2699:C:H2'	24:DA:2700:C:O4'	2.19	0.42
24:BA:394:A:C6	24:BA:395:U:N3	2.88	0.42
3:CF:91:LEU:C	3:CF:93:LYS:H	2.22	0.42
5:AH:60:TYR:C	5:AH:60:TYR:CD1	2.92	0.42
1:AA:1290:G:N3	1:AA:1290:G:H2'	2.34	0.42
40:B2:13:ARG:HG2	40:B2:13:ARG:O	2.19	0.42
7:AJ:64:GLN:OE1	7:AJ:64:GLN:HA	2.19	0.42
3:CF:94:LEU:C	3:CF:94:LEU:HD12	2.40	0.42
17:CT:52:LYS:HD3	17:CT:52:LYS:H	1.84	0.42
1:AA:511:C:O3'	4:AG:43:HIS:NE2	2.52	0.42
1:CA:1123:A:N3	10:CM:39:PRO:HD2	2.34	0.42
1:CA:1124:G:C2'	1:CA:1145:C:N3	2.82	0.42
1:CA:1148:U:O2'	9:CL:66:ARG:NE	2.51	0.42
1:CA:1254:C:H5'	1:CA:1356:G:H4'	2.01	0.42
1:CA:1370:G:C2	1:CA:1371:G:N7	2.87	0.42
1:CA:957:U:H2'	1:CA:959:A:OP2	2.19	0.42
7:CJ:149:ARG:HB3	7:CJ:150:ALA:H	1.55	0.42
51:D6:31:PRO:HB2	51:D6:33:LYS:HG2	2.01	0.42
1:AA:1379:G:C4	1:AA:1380:U:C5	3.08	0.42
24:DA:2393:A:O3'	34:DO:63:PRO:HD3	2.19	0.42
49:B4:37:SER:OG	49:B4:43:TYR:CE2	2.70	0.42
26:BD:33:LEU:HD22	26:BD:34:VAL:N	2.35	0.42
34:DO:15:ARG:HB3	34:DO:16:ARG:H	1.44	0.42
25:BB:45:A:C4	25:BB:46:A:C8	3.08	0.42
2:AE:102:LEU:HB3	2:AE:180:LEU:HD12	2.00	0.42
24:BA:1069:A:C4'	24:BA:1070:A:H5''	2.42	0.42
24:DA:2636:U:H1'	24:DA:2783:G:N2	2.34	0.42
39:B1:97:ASP:O	39:B1:100:VAL:HG23	2.20	0.42
31:BK:90:GLY:O	31:BK:91:SER:HB3	2.19	0.42
24:DA:1096:A:C5	24:DA:1097:U:C2	3.07	0.42
43:DU:42:VAL:HG13	43:DU:42:VAL:O	2.19	0.42
44:BV:148:ASP:OD1	44:BV:173:ALA:CA	2.58	0.42
24:DA:483:A:N7	24:DA:497:A:H2	2.17	0.42
13:AP:11:ARG:HA	13:AP:45:VAL:CG1	2.48	0.42
5:CH:78:HIS:HA	8:CK:105:ARG:HG3	2.00	0.42
19:CV:15:LEU:C	19:CV:17:GLU:N	2.70	0.42
31:DK:123:LEU:HA	31:DK:142:VAL:HG13	2.02	0.42
31:DK:142:VAL:O	31:DK:143:SER:HB2	2.18	0.42
2:CE:111:ARG:HA	2:CE:111:ARG:HD3	1.60	0.42
24:BA:2213:U:H2'	24:BA:2215:G:H5'	2.02	0.42
24:BA:2156:G:H5''	24:BA:2157:G:P	2.59	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DE:24:THR:O	27:DE:25:VAL:CB	2.68	0.42
24:BA:662:G:H4'	34:BO:15:ARG:O	2.19	0.42
24:BA:662:G:H5'	34:BO:15:ARG:CA	2.48	0.42
34:BO:16:ARG:HD3	34:BO:16:ARG:HA	1.72	0.42
3:AF:190:ARG:CB	3:AF:195:VAL:HG12	2.49	0.42
24:BA:2867:G:O6	38:BR:23:ARG:HD2	2.19	0.42
53:D8:23:VAL:HG22	53:D8:48:PHE:H	1.84	0.42
24:BA:606:U:C4'	24:BA:658:C:H4'	2.43	0.42
30:DH:117:PRO:CB	30:DH:123:PHE:CZ	3.02	0.42
3:AF:72:LYS:HB3	3:AF:75:VAL:HB	2.01	0.42
40:D2:80:GLN:CA	40:D2:80:GLN:NE2	2.76	0.42
24:DA:363:G:H5'	24:DA:363(A):A:OP2	2.20	0.42
27:BE:54:GLN:O	27:BE:72:VAL:HG11	2.18	0.42
27:BE:108:SER:HB3	27:BE:165:VAL:HG21	2.00	0.42
8:AK:121:ASP:OD1	8:AK:125:ARG:CZ	2.68	0.42
1:AA:691:G:O2'	1:AA:692:U:H5'	2.19	0.42
1:AA:171:A:H2'	1:AA:172:A:N9	2.34	0.42
24:DA:892:G:C8	24:DA:893:C:C5	3.08	0.42
24:DA:2170:A:H2'	24:DA:2171:A:H5'	2.00	0.42
24:DA:2163:C:OP1	24:DA:2172:U:H5	2.01	0.42
24:BA:2061:G:H2'	24:BA:2501:C:O2'	2.20	0.42
20:CW:56:MET:HA	20:CW:59:ALA:HB3	2.02	0.42
24:DA:2294:C:OP1	37:DQ:89:ARG:NH2	2.49	0.42
1:CA:738:C:OP2	6:CI:92:LYS:HE3	2.18	0.42
24:BA:1507:A:N6	24:BA:1508:A:C6	2.87	0.42
28:BF:201:VAL:CG1	28:BF:202:PHE:N	2.81	0.42
17:AT:74:LEU:HD13	17:AT:74:LEU:C	2.40	0.42
24:BA:604:G:C5	24:BA:625:G:C2	3.07	0.42
18:CU:50:ILE:HG13	18:CU:74:ARG:NH2	2.34	0.42
24:DA:953:A:N3	24:DA:954:G:C8	2.87	0.42
15:CR:22:THR:HG1	15:CR:23:GLY:N	2.17	0.42
41:BS:9:TYR:HA	41:BS:100:THR:HG23	2.00	0.42
8:CK:70:GLN:CG	8:CK:71:GLY:H	2.27	0.42
24:DA:1688:U:H1'	24:DA:1701:A:C6	2.54	0.42
3:AF:113:ALA:N	3:AF:114:PRO:CD	2.83	0.42
1:AA:619:U:N3	4:AG:135:LEU:CD1	2.82	0.42
24:BA:545:G:C3'	24:BA:546:C:H5''	2.49	0.42
1:CA:572:A:O2'	1:CA:916:G:O2'	2.21	0.42
29:BG:16:ARG:NH2	29:BG:31:VAL:HG13	2.33	0.42
29:BG:44:GLY:C	29:BG:46:ALA:N	2.72	0.42
30:DH:42:ARG:HA	30:DH:42:ARG:HH11	1.80	0.42
42:DT:28:PHE:CZ	42:DT:92:LEU:HD11	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:270:ILE:CG2	26:BD:271:ILE:N	2.82	0.42
24:BA:301:G:H1'	24:BA:302:C:C6	2.54	0.42
43:BU:17:SER:OG	43:BU:71:LYS:HE2	2.19	0.42
24:BA:2819:G:H2'	24:BA:2821:A:N7	2.33	0.42
6:CI:94:GLN:NE2	6:CI:94:GLN:HA	2.31	0.42
26:DD:139:GLY:H	26:DD:165:ILE:HB	1.84	0.42
40:B2:65:GLY:HA3	40:B2:91:TYR:CE1	2.54	0.42
26:BD:163:ALA:HB1	26:BD:175:LEU:HD22	2.01	0.42
1:AA:1266:G:N2	1:AA:1270:C:C2	2.88	0.42
24:BA:952:G:C6	24:BA:953:A:N7	2.87	0.42
11:AN:67:ASP:OD1	11:AN:71:LYS:HE3	2.19	0.42
7:AJ:69:VAL:HG12	7:AJ:69:VAL:O	2.19	0.42
8:AK:83:ILE:HG13	8:AK:137:VAL:HG22	2.01	0.42
24:BA:1657:C:H2'	24:BA:1658:C:C6	2.54	0.42
24:BA:2258:C:H4'	24:BA:2259:G:OP2	2.19	0.42
24:BA:199:A:C8	24:BA:2433:A:C6	3.08	0.42
36:B0:34:ILE:HA	36:B0:34:ILE:HD13	1.90	0.42
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.55	0.42
24:BA:1379:A:H4'	24:BA:1380:G:OP1	2.14	0.42
29:DG:68:PRO:HB2	29:DG:90:LEU:HB3	2.01	0.42
24:BA:225:A:C2'	24:BA:226:G:H5'	2.50	0.42
2:AE:139:LYS:N	2:AE:139:LYS:HD2	2.35	0.42
8:AK:43:GLY:O	8:AK:64:LYS:HE2	2.19	0.42
32:DM:67:LEU:O	32:DM:88:GLU:HG3	2.19	0.42
24:BA:459:U:H5''	52:B7:40:TRP:CD2	2.55	0.42
24:DA:1149:G:H2'	24:DA:1150:C:C6	2.54	0.42
24:BA:468:G:H5''	28:BF:60:SER:HB2	2.01	0.42
24:DA:1705:G:C2'	24:DA:1706:U:H5'	2.50	0.42
46:DZ:41:ARG:HG3	46:DZ:43:TYR:CE1	2.54	0.42
19:CV:64:GLU:H	19:CV:64:GLU:CD	2.22	0.42
24:BA:1971:A:C5	26:BD:241:PRO:HD3	2.54	0.42
16:CS:6:LEU:N	16:CS:6:LEU:HD22	2.34	0.42
1:CA:945:G:H2'	1:CA:945:G:N3	2.35	0.42
28:DF:161:GLU:HG2	28:DF:165:ARG:HG3	2.01	0.42
24:DA:2615:U:H2'	24:DA:2616:C:C6	2.55	0.42
24:DA:2432:A:C8	46:DZ:33:LYS:HD2	2.54	0.42
1:CA:542:G:H2'	1:CA:543:C:C6	2.55	0.42
1:CA:1238:A:H62	1:CA:1301:U:H3	1.64	0.42
1:CA:978:A:C5	1:CA:1318:A:C6	3.07	0.42
7:CJ:24:THR:O	7:CJ:27:ILE:CG2	2.57	0.42
1:CA:1367:C:H5''	9:CL:114:TYR:HA	2.00	0.42
14:CQ:21:TYR:HE2	14:CQ:23:ARG:NH2	2.14	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1320:C:C6	19:CV:70:LYS:HD3	2.54	0.42
11:CN:48:ILE:HD13	11:CN:64:ALA:HA	2.00	0.42
9:AL:4:TYR:CE1	9:AL:88:TYR:CA	3.02	0.42
9:AL:88:TYR:O	9:AL:89:ASN:CB	2.68	0.42
1:AA:428:G:H4'	1:AA:429:U:OP1	2.17	0.42
30:BH:2:SER:CB	30:BH:3:ARG:CZ	2.97	0.42
12:AO:46:LYS:HE2	12:AO:47:LYS:CE	2.48	0.42
27:DE:28:ALA:O	27:DE:93:VAL:HG22	2.20	0.42
27:DE:31:CYS:HB2	27:DE:91:VAL:CG2	2.50	0.42
2:AE:239:VAL:O	2:AE:240:GLN:CG	2.67	0.42
13:CP:78:ILE:HG23	13:CP:92:HIS:NE2	2.32	0.42
1:AA:973:G:H3'	1:AA:974:A:H5''	2.00	0.42
35:DP:31:ASP:OD1	35:DP:134:ARG:NH1	2.52	0.42
3:CF:111:LEU:HD22	3:CF:146:ALA:HB2	2.01	0.42
30:BH:153:LYS:HB3	30:BH:162:ILE:N	2.19	0.42
4:CG:75:PHE:O	4:CG:75:PHE:CD1	2.73	0.42
39:D1:92:ARG:O	39:D1:94:ASN:N	2.43	0.42
37:DQ:69:VAL:O	37:DQ:72:ALA:HB3	2.19	0.42
38:BR:22:PHE:HD2	38:BR:49:VAL:HG11	1.84	0.42
2:CE:119:GLU:CA	2:CE:122:PHE:HB2	2.35	0.42
1:CA:383:A:OP1	1:CA:454:C:O2'	2.24	0.42
1:CA:1022:G:H2'	1:CA:1023:G:C8	2.54	0.42
39:D1:87:GLY:HA3	40:D2:50:PRO:HD3	2.02	0.42
22:CC:7:G:N2	22:CC:67:C:O2	2.52	0.42
26:DD:104:TYR:O	26:DD:105:ILE:HD13	2.20	0.42
3:AF:14:ILE:HG13	3:AF:15:THR:N	2.33	0.42
29:BG:94:LEU:N	29:BG:94:LEU:CD2	2.80	0.42
24:BA:880:G:C4	24:BA:881:G:C8	3.08	0.42
24:DA:2163:C:H3'	24:DA:2164:C:C6	2.54	0.42
33:BN:22:ILE:HA	33:BN:22:ILE:HD12	1.77	0.42
9:CL:54:ASP:O	9:CL:56:LEU:N	2.46	0.42
24:DA:1538:G:OP2	24:DA:1538:G:H8	2.02	0.42
24:DA:2296:U:C4'	24:DA:2297:C:OP1	2.57	0.42
1:AA:16:A:N1	1:AA:919:A:H2	2.17	0.42
1:AA:223:U:H2'	1:AA:224:C:C6	2.54	0.42
30:DH:46:GLU:N	30:DH:49:VAL:O	2.52	0.42
3:AF:113:ALA:N	3:AF:114:PRO:HD2	2.34	0.42
3:AF:115:LEU:O	3:AF:116:VAL:C	2.57	0.42
44:BV:100:VAL:CG2	44:BV:126:VAL:CG2	2.98	0.42
30:DH:55:PRO:HG2	30:DH:61:HIS:ND1	2.34	0.42
1:CA:961:U:H2'	1:CA:962:C:H5'	2.01	0.42
33:BN:17:ARG:HE	33:BN:47:ILE:HD11	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:531:U:H6	1:CA:531:U:OP2	2.02	0.42
41:BS:10:VAL:O	41:BS:12:ILE:N	2.53	0.42
29:BG:105:LYS:HD2	49:B4:26:SER:HB2	1.98	0.42
24:DA:229:A:C2	24:DA:417:C:O2'	2.66	0.42
1:CA:458:C:H42	1:CA:474:G:H1	1.67	0.42
1:CA:465:A:N6	1:CA:467:G:N1	2.68	0.42
24:DA:600:G:O3'	28:DF:108:LYS:NZ	2.53	0.42
24:DA:1989:G:C2'	24:DA:1990:C:H5'	2.50	0.42
15:CR:56:LEU:HD21	24:DA:715:G:C2	2.55	0.42
9:AL:11:LYS:C	9:AL:13:ALA:H	2.22	0.42
26:DD:73:VAL:HG13	26:DD:120:GLY:CA	2.49	0.42
1:AA:1432:G:OP1	38:BR:108:ARG:N	2.53	0.42
1:AA:356:A:C2'	1:AA:368:U:O2'	2.67	0.42
43:BU:6:HIS:CE1	43:BU:69:ALA:O	2.69	0.42
29:BG:125:PHE:HZ	29:BG:170:ARG:HA	1.83	0.42
22:AC:24:U:O2'	24:BA:1923:U:OP1	2.35	0.42
7:CJ:104:LEU:O	7:CJ:108:ALA:HB2	2.19	0.42
46:BZ:64:ALA:HA	46:BZ:67:ILE:HG13	2.00	0.42
1:AA:929:G:C6	1:AA:930:C:N4	2.87	0.42
30:BH:85:LYS:HA	30:BH:85:LYS:HD3	1.55	0.42
1:AA:1270:C:H4'	1:AA:1313:U:O2'	2.19	0.42
19:AV:6:LYS:HG3	19:AV:7:LYS:N	2.33	0.42
24:BA:753:C:H2'	24:BA:754:C:C6	2.54	0.42
43:BU:38:ILE:HD11	43:BU:64:GLU:CG	2.49	0.42
1:AA:307:C:C5	1:AA:308:C:C5	3.07	0.42
24:BA:1647:G:H3'	24:BA:1647:G:OP2	2.20	0.42
1:AA:1253:G:P	10:AM:46:ARG:HH12	2.43	0.42
24:BA:2802:G:C5	24:BA:2803:C:C5	3.08	0.42
5:AH:137:GLU:HA	5:AH:140:ARG:HH11	1.85	0.42
26:BD:146:GLU:HB2	26:BD:189:CYS:HB3	2.02	0.42
1:AA:1187:G:P	9:AL:113:LYS:HZ3	2.42	0.42
1:CA:890:G:O2'	1:CA:906:G:O6	2.37	0.42
24:BA:954:G:N3	24:BA:2274:A:C2	2.87	0.42
24:BA:2825:C:H6	24:BA:2825:C:O5'	2.02	0.42
1:CA:1339:A:C2	22:CC:31:G:O4'	2.72	0.42
24:DA:1028:A:H2	24:DA:2486:G:N3	2.17	0.42
51:D6:12:GLU:HB2	51:D6:21:TYR:HB3	2.01	0.42
18:AU:52:PRO:O	18:AU:56:THR:HG23	2.19	0.42
43:DU:37:VAL:HG23	43:DU:37:VAL:O	2.19	0.42
52:D7:18:PHE:C	52:D7:18:PHE:CD1	2.92	0.42
2:AE:9:GLU:OE1	2:AE:9:GLU:N	2.53	0.42
24:BA:2360:A:H2'	24:BA:2361:A:O4'	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:41:GLY:C	4:CG:43:HIS:N	2.73	0.42
1:CA:1127:G:C2	1:CA:1145:C:H1'	2.54	0.42
1:CA:1240:U:H3'	1:CA:1241:G:H8	1.85	0.42
1:CA:1327:C:H5''	21:CX:20:LYS:HB2	2.01	0.42
1:CA:1367:C:H5'	10:CM:60:ARG:CZ	2.49	0.42
1:CA:946:A:OP2	13:CP:114:ARG:NH1	2.50	0.42
1:CA:1128:C:C5'	9:CL:16:ARG:HH12	2.33	0.42
19:CV:50:ALA:HB1	19:CV:57:HIS:CB	2.50	0.42
9:AL:4:TYR:CE1	9:AL:88:TYR:N	2.87	0.42
49:B4:38:LYS:HA	49:B4:38:LYS:HD2	1.88	0.42
49:B4:38:LYS:NZ	49:B4:43:TYR:HE1	2.18	0.42
40:B2:35:LEU:O	40:B2:37:VAL:N	2.52	0.42
2:AE:170:GLU:HA	2:AE:170:GLU:OE1	2.18	0.42
24:DA:2284:C:OP2	51:D6:27:LYS:CE	2.67	0.42
46:BZ:73:LEU:HD21	46:BZ:95:LEU:HD23	2.01	0.42
29:DG:110:ALA:HA	29:DG:140:ILE:CG1	2.48	0.42
5:CH:16:THR:HG22	5:CH:27:ARG:O	2.19	0.42
24:DA:1061:U:H4'	24:DA:1070:A:C2'	2.49	0.42
24:DA:329:G:H4'	24:DA:330:A:OP2	2.19	0.42
32:BM:28:THR:HA	32:BM:106:MET:CE	2.50	0.42
44:BV:146:ILE:HD13	44:BV:146:ILE:C	2.39	0.42
10:AM:50:ILE:HG22	10:AM:52:GLY:H	1.84	0.42
1:CA:1202:G:H2'	1:CA:1203:C:H5'	2.01	0.42
44:DV:24:LEU:HA	44:DV:25:PRO:HD3	1.88	0.42
30:BH:86:GLU:CB	30:BH:165:ALA:HB2	2.49	0.42
5:CH:75:THR:HG23	5:CH:76:ILE:N	2.34	0.42
24:DA:389:G:H1	34:DO:72:PRO:HD3	1.85	0.42
29:BG:161:THR:HG22	29:BG:163:ALA:N	2.00	0.42
24:BA:2162:G:O2'	24:BA:2173:A:OP2	2.38	0.42
24:BA:2166:G:C2'	24:BA:2167:U:OP1	2.67	0.42
39:D1:92:ARG:HG3	39:D1:94:ASN:HB3	2.02	0.42
1:CA:1460:A:H2'	1:CA:1461:G:H5'	2.01	0.42
49:D4:16:CYS:O	49:D4:19:GLY:HA3	2.19	0.42
9:AL:56:LEU:HD22	9:AL:57:GLY:N	2.35	0.42
5:AH:91:LEU:HD13	5:AH:120:THR:CG2	2.49	0.42
1:CA:1053:G:N7	1:CA:1199:U:H3'	2.34	0.42
6:CI:61:LEU:N	6:CI:61:LEU:HD12	2.35	0.42
1:AA:189:U:C2	17:AT:63:ARG:NH2	2.88	0.42
28:BF:64:ILE:HA	28:BF:64:ILE:HD13	1.81	0.42
28:BF:67:GLN:CG	28:BF:67:GLN:O	2.66	0.42
44:DV:103:ARG:O	44:DV:104:PHE:HB2	2.19	0.42
24:DA:2128:C:H1'	24:DA:2173:A:N6	2.35	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2134:A:O2'	24:DA:2159:G:N2	2.52	0.42
24:DA:1021:A:C3'	24:DA:1021:A:C8	3.01	0.42
24:DA:1025:G:C4	24:DA:1135:C:H1'	2.54	0.42
16:AS:68:ASP:CG	16:AS:71:ARG:NH2	2.72	0.42
3:AF:132:ARG:O	3:AF:133:ALA:C	2.57	0.42
8:CK:86:ILE:HG21	8:CK:133:LEU:HD22	2.01	0.42
1:CA:913:A:C1'	1:CA:914:A:OP2	2.63	0.42
24:DA:1686:C:H2'	24:DA:1687:G:O4'	2.20	0.42
1:AA:1245:A:C2	1:AA:1293:G:C2	3.07	0.42
39:B1:66:ASN:CA	39:B1:76:TYR:HB2	2.42	0.42
24:BA:2249:U:N3	24:BA:2253:G:OP2	2.43	0.42
12:AO:113:ARG:C	12:AO:114:LYS:HD2	2.40	0.42
1:AA:5:U:O2'	1:AA:6:G:P	2.76	0.42
29:BG:105:LYS:HE3	29:BG:105:LYS:HB2	1.87	0.42
16:CS:14:ASN:N	16:CS:15:PRO:HD3	2.34	0.42
1:AA:649:G:H2'	1:AA:650:G:H8	1.84	0.42
36:D0:44:LEU:O	36:D0:45:ARG:C	2.58	0.42
1:AA:136:C:N4	1:AA:227:G:H1	2.17	0.42
22:CC:40:C:O2'	22:CC:41:C:H5'	2.19	0.42
32:DM:6:PRO:HB3	32:DM:41:ASP:OD1	2.20	0.42
1:CA:32:A:H3'	1:CA:33:A:H8	1.84	0.42
1:CA:106:C:O2'	1:CA:107:G:H5'	2.20	0.42
24:DA:1184:G:C2'	24:DA:1185:C:H5'	2.49	0.42
24:BA:1871:A:H2'	24:BA:1872:A:H8	1.83	0.42
24:DA:1655:A:H4'	27:DE:115:GLY:H	1.83	0.42
1:CA:563:A:N3	1:CA:563:A:C2'	2.82	0.42
24:DA:609(A):G:N2	24:DA:619:G:H1'	2.34	0.42
24:DA:1819:A:H4'	24:DA:1820:U:O5'	2.20	0.42
24:BA:807:U:C2	24:BA:808:G:C8	3.07	0.42
24:DA:2833:G:OP1	24:DA:2833:G:C8	2.72	0.42
24:DA:448:U:H1'	28:DF:84:VAL:HG13	2.01	0.42
27:BE:49:LEU:HD12	27:BE:49:LEU:H	1.84	0.42
1:AA:10:A:H2'	1:AA:11:G:H8	1.85	0.42
6:AI:44:GLY:HA2	6:AI:59:TYR:CE1	2.55	0.42
1:AA:127:G:O2'	1:AA:128:G:H5'	2.19	0.42
24:DA:392:C:H5''	24:DA:409:C:H5''	2.02	0.42
24:BA:305:U:H2'	24:BA:306:U:C6	2.54	0.42
24:BA:1122:G:C6	24:BA:1123:C:C5	3.08	0.42
24:BA:1400:G:H2'	24:BA:1401:G:C8	2.55	0.42
24:BA:1149:G:H2'	24:BA:1150:C:C6	2.54	0.42
36:D0:105:ARG:O	36:D0:106:GLY:C	2.57	0.42
43:BU:87:LYS:HD2	43:BU:92:ASN:HB3	2.00	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:11:LEU:HG	4:CG:11:LEU:H	1.72	0.42
4:CG:18:LYS:HG3	4:CG:33:MET:CE	2.47	0.42
4:CG:33:MET:O	4:CG:34:GLU:HG2	2.20	0.42
1:CA:1137:C:H5'	1:CA:1138:G:C4	2.55	0.42
1:CA:977:A:C8	1:CA:982:U:O4	2.73	0.42
1:CA:977:A:O2'	1:CA:981:U:N3	2.53	0.42
9:CL:28:VAL:CG2	9:CL:63:ILE:HB	2.49	0.42
37:DQ:78:LEU:HD21	37:DQ:107:GLU:HG3	2.01	0.42
51:D6:37:ARG:HA	51:D6:37:ARG:HD2	1.67	0.42
24:BA:2371:G:C4'	51:B6:45:LYS:CD	2.89	0.42
43:BU:75:ILE:N	43:BU:75:ILE:HD13	2.35	0.42
49:B4:43:TYR:CD1	49:B4:44:THR:N	2.83	0.42
1:AA:411:A:N7	1:AA:413:G:N3	2.67	0.42
4:AG:9:CYS:SG	4:AG:22:LYS:NZ	2.93	0.42
24:DA:2751:G:C5'	24:DA:2752:C:OP2	2.65	0.42
34:DO:15:ARG:O	34:DO:16:ARG:C	2.57	0.42
24:DA:777:A:N3	24:DA:778:G:C8	2.87	0.42
24:DA:2788:C:P	27:DE:61:ARG:NH1	2.92	0.42
37:BQ:83:LYS:O	37:BQ:110:LEU:HA	2.19	0.42
2:AE:28:PHE:CG	2:AE:190:THR:HA	2.54	0.42
24:BA:1060:U:N1	24:BA:1062:G:H5'	2.34	0.42
24:BA:1079:C:N3	24:BA:1088:A:C5	2.88	0.42
46:BZ:76:ARG:CB	46:BZ:94:LEU:HD13	2.48	0.42
24:BA:270(I):G:C1'	46:BZ:78:LYS:NZ	2.82	0.42
2:CE:87:ARG:NH2	2:CE:233:SER:N	2.67	0.42
28:DF:25:PRO:C	28:DF:27:GLU:H	2.22	0.42
2:CE:237:ALA:N	2:CE:239:VAL:HG23	2.28	0.42
10:CM:28:ARG:CG	10:CM:28:ARG:NH1	2.76	0.42
24:DA:875:G:C5'	44:DV:173:ALA:CB	2.98	0.42
44:BV:150:LEU:CB	44:BV:172:ALA:HB3	2.42	0.42
2:AE:67:THR:HG21	2:AE:155:LEU:CG	2.48	0.42
5:CH:34:VAL:O	5:CH:42:GLY:N	2.50	0.42
5:CH:95:ALA:HB1	5:CH:96:PRO:HD2	2.01	0.42
8:CK:104:ARG:HB2	8:CK:104:ARG:HH11	1.83	0.42
24:BA:2136:C:N3	24:BA:2137:C:C4	2.87	0.42
29:BG:83:ARG:HA	29:BG:83:ARG:HD3	1.90	0.42
39:B1:74:LEU:CD1	39:B1:79:PHE:CB	2.91	0.42
39:B1:78:THR:O	39:B1:79:PHE:C	2.58	0.42
49:D4:16:CYS:HA	49:D4:33:VAL:O	2.20	0.42
47:BW:48:HIS:O	47:BW:52:ASP:N	2.42	0.42
30:DH:121:ILE:HG22	30:DH:133:VAL:HB	2.02	0.42
18:CU:35:ARG:O	18:CU:37:VAL:N	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1019:U:H2'	24:BA:1020:A:C8	2.54	0.42
24:BA:1409:C:C2'	24:BA:1410:G:C5'	2.96	0.42
17:AT:22:LEU:CD2	17:AT:88:TYR:HD2	2.32	0.42
28:BF:65:TRP:HB3	28:BF:66:PRO:HD2	2.01	0.42
24:DA:2876:G:O5'	38:DR:3:ARG:HA	2.20	0.42
40:D2:44:LYS:C	40:D2:46:VAL:N	2.71	0.42
1:AA:76:G:C4	1:AA:95:G:N2	2.87	0.42
24:DA:2154:G:C2	24:DA:2155:G:C8	3.08	0.42
15:AR:39:LEU:HD22	15:AR:43:LEU:HG	2.02	0.42
44:BV:68:PRO:O	44:BV:91:LEU:HB2	2.19	0.42
1:CA:1074:G:O3'	2:CE:103:THR:HG21	2.20	0.42
2:CE:182:ILE:O	2:CE:184:VAL:N	2.53	0.42
1:CA:423:G:N3	1:CA:423:G:H3'	2.34	0.42
1:CA:672:U:O2'	1:CA:673:G:H5'	2.20	0.42
45:D3:72:ARG:NH2	45:D3:75:LEU:HD12	2.33	0.42
24:DA:780:G:N2	24:DA:783:A:H62	2.17	0.42
15:AR:78:TYR:CZ	15:AR:82:ILE:CD1	3.03	0.42
14:AQ:2:ALA:HB1	14:AQ:6:LEU:CD1	2.44	0.42
1:CA:574:A:H1'	1:CA:883:C:C1'	2.50	0.42
1:CA:1502:A:N3	1:CA:1502:A:C2'	2.82	0.42
24:DA:668:G:H3'	24:DA:669:G:H5''	2.02	0.42
35:BP:88:GLY:O	35:BP:89:ASN:HB2	2.18	0.42
24:BA:2591:C:H2'	24:BA:2592:G:H8	1.77	0.42
24:BA:289:A:C5	24:BA:290:G:C8	3.08	0.42
24:BA:1324:G:C4	24:BA:1328:G:O6	2.72	0.42
1:CA:467:G:C6	1:CA:468:A:C5	3.08	0.42
36:D0:55:ALA:HB1	36:D0:80:PHE:CD1	2.55	0.42
35:DP:137:TYR:C	35:DP:139:GLU:H	2.23	0.42
1:AA:728:A:H2'	1:AA:729:A:H8	1.78	0.42
24:DA:649:G:C5	24:DA:650:C:C4	3.08	0.42
39:B1:57:PHE:HA	39:B1:57:PHE:HD1	1.69	0.42
38:DR:50:ILE:HG23	38:DR:99:LEU:HB2	2.02	0.42
24:DA:2312:U:O3'	29:DG:71:THR:HG21	2.20	0.42
1:CA:109:A:C6	1:CA:326:G:C5	3.07	0.42
24:DA:1165:U:H2'	24:DA:1166:C:C6	2.55	0.42
31:BK:8:PRO:HA	31:BK:14:ASP:HA	2.02	0.42
30:DH:155:SER:O	30:DH:156:ALA:CB	2.65	0.42
28:BF:89:VAL:O	28:BF:90:PHE:C	2.58	0.42
24:BA:273(A):G:C2	24:BA:364:C:C2	3.07	0.42
24:DA:361:G:C2	24:DA:362:U:C2	3.08	0.42
31:BK:58:LEU:C	31:BK:60:GLU:N	2.73	0.42
32:BM:34:LEU:O	32:BM:116:LEU:HD22	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1665:A:H2'	24:BA:1666:G:O4'	2.20	0.42
24:DA:853:G:O2'	24:DA:854:G:H5'	2.19	0.42
24:BA:1266:G:O4'	41:BS:15:ARG:NH2	2.51	0.42
26:DD:210:GLY:HA2	26:DD:213:ARG:HG2	2.02	0.42
1:CA:21:G:C2	1:CA:22:G:C5	3.07	0.42
47:BW:62:THR:O	47:BW:66:GLU:HG3	2.20	0.42
41:BS:20:VAL:CG2	41:BS:21:VAL:N	2.82	0.42
29:BG:58:GLN:O	29:BG:62:LEU:HB2	2.19	0.42
24:DA:2030:A:H4'	24:DA:2031:A:C8	2.54	0.42
24:BA:504:U:H6	24:BA:504:U:H3'	1.85	0.42
24:DA:118:A:OP2	24:DA:119:A:H2'	2.19	0.42
1:CA:1416:G:C6	1:CA:1417:G:C5	3.08	0.42
24:BA:693:C:O2'	24:BA:694:U:H5'	2.19	0.42
20:CW:66:ALA:HB1	20:CW:71:THR:HB	2.01	0.42
24:BA:2857:G:N2	24:BA:2859:G:H3'	2.34	0.42
15:CR:33:THR:O	15:CR:36:ILE:HB	2.20	0.42
7:AJ:120:ILE:HG22	7:AJ:124:LEU:CD1	2.49	0.42
24:DA:1376:C:H2'	24:DA:1377:G:O4'	2.19	0.42
42:BT:67:GLY:O	42:BT:68:ARG:HB3	2.20	0.42
27:DE:120:TRP:HB3	27:DE:155:LYS:HD3	2.00	0.42
28:DF:148:LEU:HD21	28:DF:191:ARG:HE	1.85	0.42
31:BK:85:GLU:OE2	31:BK:85:GLU:HA	2.20	0.42
1:CA:135:C:H2'	1:CA:136:C:H5'	2.02	0.42
1:AA:778:G:O2'	11:AN:120:ARG:O	2.30	0.42
24:DA:1401:G:H2'	24:DA:1402:C:C6	2.55	0.42
1:CA:601:C:H2'	1:CA:602:A:C8	2.54	0.42
1:CA:430:A:OP1	4:CG:9:CYS:HB2	2.19	0.42
1:CA:598:U:O2'	8:CK:94:TYR:CE1	2.63	0.42
1:CA:1320:C:H2'	1:CA:1321:C:C5'	2.50	0.42
1:CA:964:A:N6	1:CA:965:A:N6	2.67	0.42
7:CJ:30:ILE:O	7:CJ:30:ILE:HG22	2.19	0.42
19:CV:31:ILE:CG1	19:CV:32:LYS:N	2.83	0.42
49:D4:48:ARG:NH1	49:D4:51:ASP:CB	2.83	0.42
7:CJ:78:ARG:CZ	7:CJ:85:TYR:CD1	2.84	0.42
51:D6:37:ARG:CG	51:D6:39:TYR:CE1	3.01	0.42
53:D8:31:HIS:O	53:D8:32:LEU:O	2.38	0.42
26:BD:31:LYS:HE2	26:BD:102:LYS:CD	2.49	0.42
26:BD:31:LYS:CD	26:BD:94:LEU:HD11	2.24	0.42
4:AG:20:TYR:CD1	4:AG:26:CYS:O	2.72	0.42
24:BA:1050:A:N9	24:BA:2751:G:C8	2.87	0.42
1:AA:954:G:C5	1:AA:955:U:C4	3.08	0.42
24:DA:2802:G:C6	24:DA:2803:C:C4	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2889:C:H3'	24:DA:2891:G:C8	2.55	0.42
27:DE:64:LYS:HG2	27:DE:66:HIS:HA	2.01	0.42
27:DE:64:LYS:HZ2	27:DE:68:ALA:CB	2.32	0.42
7:CJ:45:ASP:O	7:CJ:49:ILE:HG12	2.19	0.42
2:AE:187:LEU:HD22	2:AE:205:ASP:CA	2.50	0.42
4:AG:50:ARG:HH12	5:AH:10:MET:HE3	1.84	0.42
24:BA:1062:G:C3'	24:BA:1063:G:C8	3.03	0.42
24:BA:1063:G:H22	24:BA:1076:C:C1'	2.31	0.42
24:BA:1064:C:C5	24:BA:1065:U:C4	3.08	0.42
2:CE:83:MET:HG2	2:CE:234:PRO:HG2	2.01	0.42
24:DA:666:G:OP1	34:DO:47:ASP:O	2.37	0.42
10:CM:25:GLU:HA	10:CM:28:ARG:HB2	2.02	0.42
17:CT:45:HIS:O	17:CT:47:PRO:HD3	2.20	0.42
17:CT:45:HIS:CD2	17:CT:47:PRO:HG3	2.55	0.42
19:CV:12:ASP:O	19:CV:16:LEU:CD1	2.68	0.42
1:AA:56:U:H2'	1:AA:57:G:C8	2.54	0.42
31:DK:79:ILE:HG22	31:DK:142:VAL:HG23	2.00	0.42
2:AE:17:PHE:HA	2:AE:42:ILE:HG21	2.00	0.42
24:BA:2128:C:H3'	24:BA:2129:C:C6	2.55	0.42
24:BA:195:A:H5''	34:BO:46:LYS:NZ	2.35	0.42
24:BA:654(J):A:H3'	24:BA:654(K):C:H5''	2.01	0.42
1:CA:1446:A:C6	38:DR:118:ARG:NH2	2.87	0.42
36:B0:74:LYS:O	36:B0:77:ARG:N	2.48	0.42
24:BA:1753:G:N1	24:BA:1756:G:C2	2.88	0.42
1:AA:465:A:N7	1:AA:467:G:C5	2.87	0.42
1:AA:186:C:O4'	20:AW:81:LYS:HE3	2.20	0.42
20:AW:81:LYS:O	20:AW:82:SER:C	2.57	0.42
1:CA:452:A:H1'	16:CS:72:ARG:NH2	2.33	0.42
1:CA:451:A:N6	1:CA:480:U:H2'	2.35	0.42
29:DG:133:LEU:CG	29:DG:157:ILE:HB	2.49	0.42
22:CC:19:G:C2	22:CC:57:A:N3	2.88	0.42
43:DU:54:LYS:HG2	43:DU:55:TYR:CE1	2.53	0.42
24:DA:2141:G:C6	24:DA:2151:G:C6	3.08	0.42
24:DA:2154:G:O2'	24:DA:2155:G:H5'	2.20	0.42
37:DQ:48:LEU:O	37:DQ:49:VAL:CG2	2.68	0.42
24:DA:1006:C:O2'	32:DM:106:MET:O	2.36	0.42
24:DA:270(T):G:OP2	46:DZ:98:LEU:C	2.58	0.42
9:CL:95:LYS:O	9:CL:99:LEU:HD23	2.19	0.42
11:AN:50:TYR:CD2	11:AN:54:ARG:HB3	2.55	0.42
6:AI:12:PRO:HG2	6:AI:13:ASN:H	1.85	0.42
6:AI:14:LEU:HD22	6:AI:15:ASP:O	2.20	0.42
24:DA:1543:A:H2'	24:DA:1544:C:H3'	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:B2:14:VAL:O	40:B2:15:GLU:HB2	2.20	0.42
28:DF:182:ASN:OD1	28:DF:185:ASP:HB2	2.20	0.42
25:DB:89(A):A:C8	25:DB:90:C:C1'	3.03	0.42
24:DA:481:G:C4	24:DA:507:A:C2	3.07	0.42
12:AO:36:VAL:N	12:AO:59:ARG:O	2.52	0.42
24:DA:2212:A:O2'	24:DA:2215:G:C8	2.60	0.42
8:CK:112:LEU:HB3	8:CK:133:LEU:HA	2.02	0.42
1:AA:1257:U:C5	3:AF:27:LYS:HD2	2.55	0.42
25:BB:59:A:H2'	25:BB:60:C:H6	1.85	0.42
1:CA:12:U:H4'	1:CA:526:C:C4'	2.46	0.42
44:DV:102:LEU:HD12	44:DV:102:LEU:N	2.34	0.42
24:DA:458:G:H8	52:D7:37:LYS:O	2.03	0.42
5:CH:20:GLN:O	5:CH:21:ALA:C	2.58	0.42
37:DQ:34:HIS:ND1	37:DQ:53:SER:O	2.52	0.42
1:CA:407:G:H4'	4:CG:115:ARG:O	2.20	0.42
1:AA:1218:C:OP2	14:AQ:9:LYS:NZ	2.52	0.42
24:DA:1411:C:H2'	24:DA:1412:A:C8	2.54	0.42
1:CA:129(A):G:N2	1:CA:191(A):G:N7	2.67	0.42
30:BH:67:LEU:O	30:BH:71:LEU:HB2	2.19	0.42
20:AW:30:LYS:HD2	20:AW:30:LYS:HA	1.93	0.42
24:DA:924:C:C4	24:DA:925:C:N4	2.88	0.42
38:BR:107:ASP:O	38:BR:110:ILE:HG22	2.20	0.42
27:BE:47:VAL:HG13	27:BE:84:PHE:O	2.20	0.42
24:BA:846:C:C4	24:BA:930:U:C4	3.08	0.42
24:DA:1519:G:H2'	24:DA:1520:U:H5'	2.02	0.42
40:B2:18:LEU:HD12	40:B2:20:LEU:HB2	2.02	0.42
1:AA:1229:A:OP2	13:AP:114:ARG:HD3	2.20	0.42
1:CA:1009:G:N2	1:CA:1020:U:O2	2.40	0.42
40:B2:29:PRO:HA	40:B2:61:VAL:HG12	2.01	0.42
41:BS:82:LEU:HA	41:BS:82:LEU:HD12	1.72	0.42
24:BA:857:C:H4'	45:B3:23:VAL:HG21	2.02	0.42
24:BA:2853:C:H2'	24:BA:2854:G:C8	2.54	0.42
42:BT:51:VAL:CG1	42:BT:81:VAL:HG23	2.49	0.42
24:DA:271(B):G:N7	24:DA:421:U:H2'	2.34	0.42
25:BB:73:A:H2'	25:BB:74:U:H5'	2.01	0.42
24:BA:1357:U:O4	24:BA:1358:G:C6	2.73	0.42
24:DA:754:C:H2'	24:DA:755:C:C6	2.55	0.42
24:BA:57:C:H2'	24:BA:58:G:O4'	2.19	0.42
24:BA:494:G:H5'	41:BS:8:ARG:HD3	2.01	0.42
24:BA:1306:C:C2'	24:BA:1307:A:H5'	2.49	0.42
53:B8:48:PHE:N	53:B8:48:PHE:CD1	2.87	0.42
26:DD:16:MET:HB2	26:DD:16:MET:HE3	1.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1157:A:C2	1:CA:1180:A:C4	3.07	0.42
1:CA:1317:C:N4	14:CQ:19:ARG:NH1	2.61	0.42
1:CA:955:U:H3	1:CA:1225:A:N6	2.17	0.42
9:CL:28:VAL:CG1	9:CL:63:ILE:O	2.56	0.42
9:CL:114:TYR:HE2	10:CM:60:ARG:N	2.17	0.42
13:CP:8:GLU:OE1	13:CP:22:ILE:HG12	2.19	0.42
37:DQ:107:GLU:N	37:DQ:110:LEU:HD23	2.33	0.42
24:DA:2344:U:C2'	24:DA:2344:U:O5'	2.68	0.42
9:AL:53:VAL:HA	9:AL:95:LYS:CE	2.50	0.42
19:AV:41:VAL:CG1	19:AV:67:VAL:HG22	2.49	0.42
30:BH:6:ARG:HB3	30:BH:66:GLY:N	2.34	0.42
1:AA:193:C:C1'	20:AW:57:ARG:NH1	2.82	0.42
2:AE:168:THR:OG1	2:AE:192:SER:CB	2.68	0.42
2:CE:33:TYR:HB2	2:CE:43:ASP:N	2.34	0.42
1:CA:1291:G:C5'	7:CJ:37:ASN:OD1	2.67	0.42
24:DA:1057:A:N3	24:DA:1057:A:H2'	2.33	0.42
24:DA:1070:A:H2'	24:DA:1096:A:C2	2.55	0.42
14:AQ:29:ARG:HD3	14:AQ:40:CYS:HB2	2.02	0.42
1:AA:1002:G:C2	1:AA:1003:G:C4	3.08	0.42
1:AA:1305:G:C8	1:AA:1305:G:OP2	2.73	0.42
4:CG:96:LEU:N	4:CG:96:LEU:HD22	2.34	0.42
24:DA:1336:A:P	42:DT:64:LYS:HZ1	2.43	0.42
36:B0:51:LEU:HD22	36:B0:66:VAL:HG13	2.02	0.42
24:BA:2870:C:C5	24:BA:2871:C:C5	3.08	0.42
37:DQ:95:HIS:ND1	37:DQ:96:GLY:N	2.67	0.42
25:DB:72:G:H1'	25:DB:104:A:H61	1.85	0.42
44:DV:89:PHE:O	44:DV:91:LEU:N	2.53	0.42
34:BO:61:ARG:HB3	53:B8:13:ARG:HD3	2.00	0.42
31:BK:144:VAL:HG22	31:BK:145:VAL:H	1.85	0.42
24:DA:637:A:OP2	34:DO:115:LEU:HB3	2.20	0.42
1:AA:626:U:H2'	1:AA:627:G:O4'	2.20	0.42
1:AA:438:G:H5''	1:AA:439:A:P	2.60	0.42
1:AA:247:G:O6	1:AA:278:G:C6	2.73	0.42
24:DA:107:C:N3	24:DA:108:U:C4	2.87	0.42
20:AW:72:LEU:HG	20:AW:76:ALA:CB	2.50	0.42
8:AK:111:ILE:O	8:AK:134:ILE:HB	2.19	0.42
8:AK:86:ILE:HG22	8:AK:93:VAL:HG21	2.02	0.42
12:CO:24:VAL:CG1	12:CO:24:VAL:O	2.63	0.42
12:CO:85:ILE:HD12	12:CO:85:ILE:N	2.35	0.42
1:AA:1492:A:N7	24:BA:1913:A:N6	2.67	0.42
1:AA:918:A:H2'	1:AA:919:A:C8	2.55	0.42
24:DA:2099:U:H3'	24:DA:2100:G:H5''	1.98	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:138:G:H1	1:AA:225:C:H42	1.68	0.42
24:DA:2106:G:O6	24:DA:2183:C:N3	2.53	0.42
25:BB:71:C:H2'	25:BB:72:G:C5'	2.49	0.42
18:CU:70:ILE:O	18:CU:74:ARG:HG3	2.19	0.42
24:DA:654(I):C:O2	24:DA:654(I):C:C2'	2.60	0.42
3:AF:132:ARG:O	3:AF:134:ILE:N	2.53	0.42
30:DH:26:VAL:HG22	30:DH:79:VAL:HG21	2.02	0.42
46:DZ:11:ARG:HB2	46:DZ:12:PRO:CD	2.49	0.42
10:CM:8:LEU:HG	10:CM:96:ILE:CG1	2.50	0.42
1:AA:1047:G:H2'	1:AA:1048:G:H5'	2.01	0.42
24:DA:1002:G:H2'	24:DA:1003:G:O4'	2.20	0.42
24:DA:827:U:OP2	24:DA:828:U:C5	2.73	0.42
24:DA:2697:G:H2'	24:DA:2698:U:O4'	2.20	0.42
1:CA:782:A:C2'	1:CA:783:C:H5'	2.50	0.42
41:BS:89:ALA:O	41:BS:92:ARG:HG3	2.20	0.42
1:CA:853:G:C4	1:CA:854:G:C8	3.08	0.42
1:CA:855:G:C2	1:CA:856:C:C6	3.08	0.42
1:CA:464:G:N1	1:CA:466:C:H5'	2.34	0.42
16:CS:82:GLN:H	16:CS:82:GLN:CD	2.23	0.42
24:BA:500:G:H22	24:BA:502:A:H3'	1.82	0.42
44:DV:14:LYS:H	44:DV:14:LYS:CE	2.33	0.42
47:DW:70:GLN:O	47:DW:72:ALA:N	2.53	0.42
16:AS:62:VAL:CG1	16:AS:62:VAL:O	2.68	0.42
1:CA:938:A:C2	1:CA:1376:U:H1'	2.55	0.42
24:BA:26:G:C6	24:BA:27:G:C6	3.08	0.42
24:DA:1472:A:N6	24:DA:1521:G:O2'	2.53	0.42
24:DA:1167:U:O2	24:DA:1183:G:N2	2.53	0.42
24:DA:1952:A:C5	33:DN:22:ILE:CD1	3.02	0.42
24:BA:142:G:C1'	42:BT:37:THR:HG21	2.48	0.42
24:BA:588:U:H2'	24:BA:589:C:C6	2.55	0.42
24:BA:270(Y):G:H4'	24:BA:273:G:O2'	2.20	0.42
1:AA:587:G:C2	1:AA:755:G:C6	3.07	0.42
24:DA:901:A:H2'	24:DA:901:A:N3	2.34	0.42
24:DA:2821:A:OP2	27:DE:110:GLY:CA	2.68	0.42
24:BA:2243:U:O2	24:BA:2434:A:C2	2.73	0.42
2:AE:142:LEU:HD23	2:AE:142:LEU:C	2.40	0.42
39:B1:116:ALA:O	39:B1:117:GLN:HB3	2.19	0.42
24:BA:828:U:H3	24:BA:2247:A:H4'	1.85	0.42
24:DA:583:G:OP2	39:D1:10:ARG:HD3	2.19	0.42
1:AA:46:G:H2'	1:AA:366:C:H5	1.85	0.42
44:DV:76:LEU:CD2	44:DV:76:LEU:N	2.83	0.42
24:DA:1670:C:C5	24:DA:1671:U:C4	3.07	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1669:A:OP2	24:DA:1670:C:OP2	2.38	0.42
1:AA:943:U:H2'	1:AA:944:G:H5'	2.01	0.42
24:DA:1657:C:H2'	24:DA:1658:C:H6	1.85	0.42
24:BA:229:A:C1'	24:BA:230:U:P	3.08	0.42
53:B8:37:SER:C	53:B8:39:LYS:N	2.73	0.42
53:B8:37:SER:O	53:B8:39:LYS:N	2.53	0.42
24:DA:706:A:H2'	24:DA:707:G:O4'	2.19	0.42
24:DA:118:A:N3	24:DA:178:G:H1'	2.35	0.42
24:DA:1798:U:O2	24:DA:1802:A:H2	2.03	0.42
27:BE:147:PRO:HB2	27:BE:149:ARG:HG2	2.02	0.42
4:CG:64:LEU:HD11	4:CG:68:TYR:HE2	1.85	0.42
47:BW:18:PRO:O	47:BW:21:LEU:HB2	2.18	0.42
25:BB:4:C:H2'	25:BB:5:C:O4'	2.19	0.42
24:BA:2607:G:H2'	24:BA:2608:G:O4'	2.20	0.42
48:BX:15:TYR:CZ	48:BX:53:LEU:HD21	2.55	0.42
40:B2:47:VAL:O	40:B2:48:GLY:O	2.38	0.42
1:AA:1070:U:O2'	1:AA:1071:C:H5'	2.19	0.42
13:CP:62:ASN:OD1	13:CP:62:ASN:N	2.52	0.42
24:DA:2290:G:C2	24:DA:2343:C:O2	2.72	0.42
24:BA:2287:A:N6	24:BA:2344:U:C2	2.88	0.42
1:AA:412:A:H4'	1:AA:413:G:C5'	2.49	0.42
4:AG:16:GLY:O	4:AG:17:VAL:HG23	2.20	0.42
1:CA:1067:A:H1'	1:CA:1068:G:H1'	2.02	0.42
24:DA:1114:G:OP1	24:DA:2750:A:O2'	2.35	0.42
1:AA:1314:C:H2'	1:AA:1315:U:H6	1.84	0.42
25:BB:40:U:H2'	25:BB:41:U:OP1	2.19	0.42
1:AA:191:G:O2'	1:AA:192:U:O4'	2.38	0.42
34:BO:66:GLY:O	34:BO:67:MET:O	2.38	0.42
24:BA:2439:A:O2'	24:BA:2440:C:OP2	2.30	0.42
24:DA:10:G:N1	24:DA:2629:A:C5	2.88	0.42
24:DA:2630:G:H1'	24:DA:2894:G:N9	2.34	0.42
37:BQ:86:ALA:O	37:BQ:87:PHE:HB3	2.20	0.42
24:BA:1065:U:C4	24:BA:1066:U:H1'	2.54	0.42
30:DH:9:ILE:HB	30:DH:50:VAL:O	2.19	0.42
13:CP:3:ARG:HH12	13:CP:7:VAL:HG12	1.85	0.42
24:DA:1068:G:C6	24:DA:1069:A:C5	3.08	0.42
24:DA:309:G:H1'	24:DA:329:G:N3	2.35	0.42
24:DA:330:A:HO2'	24:DA:331:A:H2'	1.85	0.42
1:AA:972:C:H4'	10:AM:57:LYS:HB2	2.02	0.42
30:DH:106:THR:O	30:DH:107:VAL:HG13	2.20	0.42
1:CA:406:G:C6	1:CA:495:A:C8	3.06	0.42
4:CG:108:LEU:O	4:CG:110:PHE:HD1	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:90:GLY:HA2	4:CG:93:PHE:CB	2.50	0.42
1:CA:1216:G:C6	1:CA:1217:C:N4	2.88	0.42
24:BA:1899:G:HO2'	24:BA:1900:A:C5'	2.32	0.42
1:AA:56:U:C4'	31:DK:82:ARG:NH2	2.83	0.42
6:AI:46:ARG:HB3	6:AI:60:PHE:CD1	2.55	0.42
24:DA:2320:A:H1'	24:DA:2321:G:C6	2.55	0.42
24:BA:2140:C:H2'	24:BA:2141:G:O4'	2.20	0.42
24:BA:2155:G:H3'	24:BA:2156:G:C8	2.51	0.42
24:BA:2180:U:O4	24:BA:2181:G:N1	2.53	0.42
39:D1:65:ILE:HD11	39:D1:93:LYS:HA	2.00	0.42
24:BA:2392:A:H2	24:BA:2424:C:N4	2.18	0.42
24:DA:660:G:C2'	24:DA:661:C:H5'	2.50	0.42
37:DQ:64:GLU:O	37:DQ:64:GLU:HG2	2.20	0.42
37:DQ:61:ASN:O	37:DQ:65:VAL:HG23	2.20	0.42
3:AF:5:ILE:HD13	3:AF:5:ILE:N	2.34	0.42
1:AA:130:A:C8	17:AT:63:ARG:HB2	2.55	0.42
24:BA:839:U:H1'	24:BA:1191:G:H1'	2.01	0.42
1:AA:687:A:N3	1:AA:688:G:H1'	2.34	0.42
1:AA:689:C:O2'	1:AA:690:G:H5'	2.20	0.42
32:BM:94:HIS:O	32:BM:95:PRO:O	2.38	0.42
10:CM:31:GLY:O	10:CM:32:ALA:HB2	2.20	0.42
35:DP:89:ASN:C	35:DP:90:VAL:HG12	2.40	0.42
12:CO:27:LEU:CD1	12:CO:62:SER:HB2	2.50	0.42
24:BA:2443:C:O2'	24:BA:2444:G:H5'	2.19	0.42
24:BA:165:U:C4	24:BA:171:G:C5	3.08	0.42
37:BQ:106:ARG:O	37:BQ:107:GLU:C	2.57	0.42
1:CA:186(B):C:H4'	20:CW:89:ARG:HH22	1.85	0.42
46:DZ:75:GLU:O	46:DZ:76:ARG:CG	2.67	0.42
8:CK:120:THR:N	8:CK:123:GLU:OE1	2.53	0.42
24:DA:2295:C:H41	37:DQ:13:ARG:HH22	1.62	0.42
32:DM:13:TRP:CB	32:DM:134:ARG:HB2	2.48	0.42
2:CE:164:VAL:HB	2:CE:186:ALA:HB1	2.01	0.42
1:CA:391:G:O3'	16:CS:8:ARG:NH2	2.46	0.42
37:DQ:25:ARG:HD2	37:DQ:88:ASP:CB	2.44	0.42
24:BA:1912:A:H8	24:BA:1917:U:O4	2.03	0.42
24:BA:2277:G:C3'	24:BA:2278:A:H5''	2.50	0.42
24:DA:2183:C:H2'	24:DA:2184:G:H8	1.84	0.42
24:DA:2721:A:H2'	24:DA:2722:G:O4'	2.20	0.42
24:DA:1416:G:H2'	24:DA:1417:C:H6	1.79	0.42
1:AA:1291:G:P	7:AJ:37:ASN:ND2	2.93	0.42
13:CP:85:GLY:O	13:CP:86:CYS:CB	2.67	0.42
1:CA:841:U:H6	1:CA:841:U:O5'	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:979:G:N7	24:DA:981:A:OP1	2.53	0.42
7:AJ:57:GLU:HB3	7:AJ:59:LEU:HD23	2.02	0.42
24:BA:2520:C:C6	24:BA:2567:G:H1'	2.54	0.42
44:BV:14:LYS:HA	44:BV:15:PRO:HD3	1.95	0.42
24:BA:314:A:O2'	24:BA:315:G:H5'	2.20	0.42
24:BA:2252:G:H2'	24:BA:2253:G:O4'	2.19	0.42
1:AA:983:A:H1'	1:AA:1049:U:O2	2.19	0.42
1:CA:644:G:C5	1:CA:645:C:C5	3.08	0.42
1:AA:1182:G:H8	1:AA:1182:G:OP2	2.02	0.42
24:DA:2845:G:C2	24:DA:2846:G:C5	3.08	0.42
1:CA:339:C:H2'	1:CA:340:U:H5'	1.99	0.42
24:BA:547:A:H2'	24:BA:548:A:N9	2.35	0.42
24:BA:2331:G:C4'	45:B3:42:GLY:HA3	2.50	0.42
24:BA:616:A:H8	28:BF:176:LEU:HD11	1.79	0.42
1:CA:532:A:O2'	1:CA:533:A:P	2.78	0.42
1:AA:820:U:H4'	1:AA:821:G:OP2	2.20	0.42
1:AA:731:G:OP1	1:AA:766:A:H1'	2.20	0.42
35:BP:39:PRO:HD3	35:BP:99:PRO:CG	2.50	0.42
24:DA:753:C:OP2	24:DA:753:C:C6	2.73	0.42
24:DA:1182:A:H2'	24:DA:1183:G:O4'	2.20	0.42
18:CU:31:LEU:H	18:CU:31:LEU:CD2	2.31	0.42
31:BK:33:ARG:O	31:BK:35:LEU:CD2	2.68	0.42
1:AA:607:A:C2	1:AA:608:A:H1'	2.55	0.42
1:CA:181:G:H4'	1:CA:182:U:H5'	2.01	0.42
24:BA:2263:C:H2'	24:BA:2264:C:C6	2.55	0.42
19:AV:49:ILE:O	19:AV:60:VAL:HG12	2.19	0.42
24:DA:1320:C:C5	24:DA:1329:U:H5'	2.55	0.42
24:BA:78:A:C2	24:BA:109:G:C2	3.07	0.42
24:DA:2336:A:C2	24:DA:2385:C:H1'	2.55	0.42
37:BQ:37:ALA:CB	37:BQ:73:LEU:HD12	2.50	0.42
37:DQ:67:ARG:HH11	37:DQ:67:ARG:HB2	1.84	0.42
14:CQ:8:GLU:C	14:CQ:10:ALA:H	2.23	0.42
24:DA:2528:U:H2'	24:DA:2530:A:O5'	2.20	0.42
37:BQ:62:LYS:CB	37:BQ:97:ARG:CD	2.98	0.42
25:BB:52:A:H62	37:BQ:33:LYS:HG3	1.85	0.42
1:CA:22:G:H4'	1:CA:885:G:C8	2.55	0.42
1:AA:851:G:O2'	1:AA:852:G:H5'	2.20	0.42
24:BA:828:U:H2'	24:BA:828:U:O2	2.18	0.42
29:DG:53:LEU:C	29:DG:53:LEU:HD23	2.40	0.42
26:DD:85:ASP:OD2	26:DD:88:ARG:HD2	2.20	0.42
25:DB:93:C:H2'	25:DB:94:C:C6	2.55	0.42
24:BA:425:G:H2'	24:BA:426:C:H6	1.85	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DN:35:VAL:HG22	33:DN:69:ILE:HD13	2.02	0.42
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.54	0.42
24:BA:712:G:C6	24:BA:713:G:C5	3.07	0.42
25:BB:10:C:C2'	25:BB:11:C:H5'	2.49	0.42
25:BB:10:C:O2'	25:BB:11:C:H5'	2.20	0.42
40:B2:1:MET:SD	40:B2:43:GLU:HG2	2.60	0.42
29:BG:10:LYS:HE2	29:BG:175:LEU:O	2.20	0.42
24:BA:679:C:O2'	24:BA:680:G:H5'	2.20	0.42
24:DA:1555:G:C2	24:DA:1556:C:C6	3.08	0.42
24:BA:85:G:OP2	43:BU:9:LYS:HB2	2.19	0.42
53:D8:56:GLU:N	53:D8:56:GLU:OE1	2.53	0.42
12:AO:20:LYS:HE2	12:AO:20:LYS:HB3	1.86	0.42
45:B3:33:ALA:HB2	45:B3:63:VAL:HA	2.01	0.42
35:DP:136:ALA:HB2	44:DV:52:SER:HB3	2.02	0.42
1:CA:1299:A:C5	1:CA:1301:U:C2	3.07	0.41
1:CA:1224:G:C6	1:CA:1322:C:H1'	2.55	0.41
1:CA:948:C:OP1	13:CP:109:THR:OG1	2.33	0.41
9:CL:16:ARG:CD	9:CL:64:THR:CG2	2.98	0.41
19:CV:31:ILE:HD11	19:CV:33:THR:CA	2.50	0.41
19:CV:66:MET:CA	19:CV:67:VAL:O	2.62	0.41
1:CA:1226:C:H4'	19:CV:80:TYR:CZ	2.54	0.41
24:DA:2285:C:C3'	51:D6:28:ARG:HH11	2.12	0.41
51:D6:37:ARG:HE	51:D6:39:TYR:HE1	1.68	0.41
24:DA:2393:A:OP1	53:D8:27:THR:C	2.56	0.41
19:AV:67:VAL:CG1	49:B4:63:TYR:CE2	3.03	0.41
24:DA:868:U:C4	24:DA:869:G:N7	2.89	0.41
43:BU:76:CYS:CA	43:BU:81:LYS:NZ	2.82	0.41
26:BD:65:ILE:CD1	26:BD:67:PHE:CE1	2.95	0.41
13:AP:57:ARG:HB2	13:AP:57:ARG:HH11	1.85	0.41
27:DE:68:ALA:O	27:DE:71:GLY:N	2.47	0.41
40:B2:34:GLU:O	40:B2:36:PRO:CD	2.57	0.41
2:AE:167:PRO:O	2:AE:171:ALA:N	2.53	0.41
24:BA:1088:A:H4'	24:BA:1089:G:H8	1.85	0.41
2:CE:90:MET:SD	2:CE:222:ILE:HD11	2.60	0.41
31:BK:86:THR:HG22	31:BK:86:THR:O	2.20	0.41
44:DV:121:HIS:CE1	44:DV:169:GLU:HG2	2.55	0.41
24:BA:875:G:O3'	44:BV:149:SER:HB2	2.19	0.41
1:AA:1296:C:O3'	13:AP:13:LYS:HE2	2.20	0.41
1:AA:1299:A:H5'	1:AA:1300:G:OP1	2.20	0.41
43:DU:4:LYS:CA	43:DU:4:LYS:CE	2.92	0.41
30:BH:149:ARG:C	30:BH:151:ILE:N	2.74	0.41
30:BH:87:LEU:HA	30:BH:87:LEU:HD23	1.71	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:97:ARG:CD	43:DU:97:ARG:H	2.31	0.41
24:BA:1608:A:H1'	24:BA:1610:A:OP2	2.19	0.41
2:AE:42:ILE:HD12	2:AE:43:ASP:H	1.84	0.41
24:BA:2181:G:C6	24:BA:2182:G:C6	3.08	0.41
27:DE:8:LYS:HG2	27:DE:8:LYS:O	2.20	0.41
38:DR:1:MET:CA	38:DR:1:MET:CE	2.98	0.41
1:AA:1285:A:H1'	1:AA:1286:A:OP2	2.20	0.41
37:DQ:57:LYS:C	37:DQ:58:LEU:HD23	2.41	0.41
34:DO:144:GLU:O	34:DO:144:GLU:OE2	2.38	0.41
1:AA:980:C:C5	1:AA:981:U:C2	3.08	0.41
1:AA:981:U:H5	1:AA:982:U:HO2'	1.61	0.41
4:CG:154:ASN:O	4:CG:155:LEU:HD23	2.20	0.41
24:BA:1470:G:C6	24:BA:1521:G:N7	2.88	0.41
20:CW:10:LEU:HG	20:CW:11:SER:N	2.35	0.41
24:DA:68:G:C2'	24:DA:69:C:O5'	2.68	0.41
42:DT:32:PRO:HB2	42:DT:33:LYS:HD2	2.01	0.41
3:CF:84:ILE:HD11	3:CF:88:ARG:HE	1.85	0.41
1:CA:197:A:C1'	1:CA:198:G:P	3.08	0.41
24:DA:676:A:C8	24:DA:2069:G:N2	2.57	0.41
24:DA:2168:G:H2'	24:DA:2169:A:C8	2.55	0.41
1:AA:376:G:H5''	16:AS:5:ARG:CB	2.49	0.41
24:DA:959:A:N6	35:DP:83:MET:HE1	2.35	0.41
1:CA:690:G:C6	1:CA:691:G:C6	3.07	0.41
37:DQ:15:ARG:HH11	37:DQ:90:GLY:HA2	1.84	0.41
10:CM:48:THR:HA	10:CM:62:HIS:CB	2.44	0.41
17:AT:76:LEU:CD1	17:AT:78:GLU:H	2.33	0.41
24:BA:2189:U:H3'	24:BA:2190:G:H8	1.85	0.41
5:CH:105:VAL:N	5:CH:106:PRO:HD2	2.35	0.41
1:CA:6:G:N3	1:CA:6:G:H3'	2.35	0.41
14:AQ:33:VAL:HA	14:AQ:39:LEU:O	2.20	0.41
50:D5:41:PRO:HA	50:D5:42:PRO:HD3	1.97	0.41
1:CA:883:C:N3	1:CA:884:U:C4	2.88	0.41
1:AA:1244:C:H2'	1:AA:1245:A:C8	2.55	0.41
1:AA:619:U:O2	4:AG:133:VAL:HA	2.19	0.41
24:DA:1569:A:O2'	26:DD:38:LYS:CG	2.63	0.41
1:AA:157:G:C4	1:AA:158:G:C8	3.08	0.41
31:BK:117:GLU:O	31:BK:118:LYS:CB	2.67	0.41
48:DX:8:LEU:O	48:DX:32:GLN:N	2.53	0.41
25:BB:15:A:C2'	25:BB:16:G:OP1	2.68	0.41
24:BA:1329:U:H5''	24:BA:1330:C:H5	1.85	0.41
24:BA:2331:G:H4'	45:B3:43:THR:N	2.33	0.41
36:D0:81:ASP:O	36:D0:82:GLU:CB	2.64	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1511:A:N7	24:DA:1512:G:N7	2.68	0.41
27:BE:33:VAL:HG11	27:BE:89:ASP:OD1	2.20	0.41
45:D3:49:LYS:HE3	45:D3:80:HIS:HB3	2.02	0.41
24:DA:327:G:N2	24:DA:336:C:C2	2.87	0.41
24:BA:222:A:H1'	24:BA:223:A:OP1	2.20	0.41
24:DA:395:U:H2'	24:DA:396:G:C8	2.54	0.41
24:BA:1206:G:C5	24:BA:1207:C:C5	3.07	0.41
31:BK:68:LEU:C	31:BK:68:LEU:HD23	2.40	0.41
31:DK:31:LEU:N	31:DK:32:PRO:CD	2.82	0.41
24:BA:1882:C:O2	24:BA:1882:C:H2'	2.20	0.41
12:CO:55:VAL:CG2	12:CO:56:ALA:N	2.82	0.41
24:BA:978:G:H2'	24:BA:979:G:H5'	1.99	0.41
1:AA:220:G:H2'	1:AA:221:C:H5'	2.01	0.41
24:BA:752:A:H4'	24:BA:753:C:O5'	2.20	0.41
30:BH:97:ARG:HB3	30:BH:98:LEU:H	1.59	0.41
1:AA:289:G:C6	1:AA:290:C:N4	2.88	0.41
30:DH:98:LEU:H	30:DH:98:LEU:HD12	1.85	0.41
1:AA:397:A:H5'	1:AA:398:C:P	2.60	0.41
44:DV:7:ALA:C	44:DV:8:TYR:HD1	2.23	0.41
24:DA:1198:U:C2	24:DA:1199:U:C5	3.07	0.41
24:DA:1648:C:H2'	24:DA:1649:G:O5'	2.20	0.41
6:CI:95:GLU:HA	6:CI:96:PRO:HD3	1.96	0.41
5:AH:45:PHE:CE2	5:AH:47:LYS:HD2	2.55	0.41
36:B0:91:GLN:HG2	36:B0:91:GLN:H	1.76	0.41
28:DF:143:ALA:HB1	28:DF:148:LEU:HB2	2.02	0.41
24:DA:1955:U:O2'	24:DA:2552:U:H4'	2.19	0.41
1:CA:1394:A:H4'	1:CA:1395:C:OP2	2.20	0.41
53:D8:58:ILE:HG22	53:D8:58:ILE:O	2.20	0.41
24:DA:691:C:H6	24:DA:691:C:O5'	2.02	0.41
24:BA:2766:G:N3	24:BA:2766:G:H2'	2.33	0.41
26:BD:38:LYS:HB2	26:BD:38:LYS:HE3	1.90	0.41
20:CW:31:SER:O	20:CW:34:LYS:HB2	2.20	0.41
1:AA:1255:G:OP1	10:AM:45:ARG:NH2	2.51	0.41
6:AI:39:LYS:O	6:AI:40:VAL:HB	2.20	0.41
1:CA:539:A:N6	1:CA:540:G:O6	2.52	0.41
4:CG:14:ARG:C	4:CG:16:GLY:H	2.24	0.41
1:CA:1122:U:H2'	1:CA:1123:A:H8	1.86	0.41
1:CA:1288:A:H2'	1:CA:1289:A:C8	2.55	0.41
1:CA:1330:U:OP1	13:CP:22:ILE:O	2.37	0.41
10:CM:63:PHE:HD1	14:CQ:57:ARG:O	2.03	0.41
37:DQ:74:ALA:HB2	37:DQ:107:GLU:HB2	2.01	0.41
51:B6:45:LYS:O	51:B6:45:LYS:HG2	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:B4:36:CYS:O	49:B4:37:SER:C	2.58	0.41
30:DH:7:LEU:N	30:DH:8:PRO:CD	2.83	0.41
1:AA:1316:G:H5''	14:AQ:17:LYS:HZ1	1.85	0.41
24:DA:777:A:C2	24:DA:778:G:C8	3.08	0.41
24:DA:792:G:C5'	24:DA:793:A:H5'	2.48	0.41
24:DA:2809:A:C4	24:DA:2892:A:C6	3.08	0.41
27:DE:73:GLU:OE1	27:DE:73:GLU:CA	2.67	0.41
40:B2:34:GLU:HA	40:B2:58:VAL:HA	2.02	0.41
5:AH:12:LEU:HB3	5:AH:31:LEU:CB	2.49	0.41
24:DA:1568:G:H5'	26:DD:60:ARG:HA	2.01	0.41
1:AA:101:A:C4	1:AA:102:G:C8	3.08	0.41
24:DA:1059:G:O6	24:DA:1079:C:N3	2.53	0.41
24:DA:1068:G:O2'	24:DA:1096:A:O4'	2.38	0.41
31:BK:95:LYS:HZ2	31:BK:99:GLU:HB2	1.84	0.41
30:BH:151:ILE:CG2	30:BH:151:ILE:O	2.62	0.41
4:CG:75:PHE:O	4:CG:75:PHE:HD1	2.02	0.41
1:CA:1213:A:H5'	1:CA:1214:C:OP2	2.20	0.41
24:BA:2869:G:C2	24:BA:2870:C:C2	3.08	0.41
35:BP:24:GLY:CA	35:BP:25:ASP:CB	2.84	0.41
25:DB:33:G:N1	25:DB:34:U:C2	2.87	0.41
25:DB:49:C:OP1	37:DQ:97:ARG:HG2	2.19	0.41
9:AL:16:ARG:HD2	9:AL:64:THR:HG22	2.02	0.41
10:AM:33:GLN:HG2	10:AM:34:VAL:N	2.35	0.41
5:AH:103:GLY:O	5:AH:106:PRO:HD2	2.20	0.41
16:AS:42:ARG:C	16:AS:43:LYS:HD2	2.39	0.41
20:AW:78:ALA:O	20:AW:82:SER:HB2	2.20	0.41
24:DA:78:A:N6	24:DA:109:G:O6	2.53	0.41
1:CA:1022:G:H2'	1:CA:1023:G:O4'	2.19	0.41
43:DU:54:LYS:CD	43:DU:55:TYR:CE1	3.03	0.41
42:BT:49:VAL:HA	42:BT:87:GLN:NE2	2.34	0.41
24:DA:675:A:N3	24:DA:2443:C:O2'	2.45	0.41
1:AA:1351:U:C4'	7:AJ:33:ASP:HB3	2.50	0.41
1:CA:1061:G:C5	1:CA:1062:U:C5	3.08	0.41
10:CM:58:ASP:OD1	10:CM:58:ASP:N	2.53	0.41
24:DA:2128:C:H1'	24:DA:2173:A:C6	2.55	0.41
38:BR:104:ASN:C	38:BR:105:LEU:HD12	2.40	0.41
37:DQ:24:LEU:N	37:DQ:24:LEU:HD22	2.35	0.41
24:BA:2444:G:OP2	28:BF:68:LYS:HE2	2.20	0.41
24:DA:270(R):G:C4	24:DA:270(S):G:C8	3.08	0.41
29:BG:7:LEU:N	29:BG:104:GLU:OE1	2.40	0.41
1:CA:328:C:C1'	1:CA:329:A:OP2	2.67	0.41
1:AA:862:C:C2'	1:AA:863:U:C5'	2.97	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2873:A:N3	24:DA:2873:A:C2'	2.83	0.41
25:BB:14:U:OP2	25:BB:71:C:H5'	2.20	0.41
1:CA:716:A:C2'	1:CA:717:C:O5'	2.68	0.41
1:CA:718:G:N2	18:CU:82:THR:OG1	2.53	0.41
24:DA:2679:A:C4'	27:DE:165:VAL:HG11	2.42	0.41
32:DM:14:VAL:HG12	32:DM:52:VAL:HA	2.02	0.41
14:AQ:26:ARG:NH1	14:AQ:43:CYS:HB2	2.26	0.41
24:DA:2213:U:C4'	46:DZ:52:ARG:NH2	2.83	0.41
6:AI:91:VAL:HG11	18:AU:72:ARG:HH12	1.85	0.41
24:DA:1700:A:H2'	24:DA:1701:A:C5'	2.47	0.41
24:DA:654(A):A:C2	24:DA:654(T):A:N1	2.88	0.41
24:DA:1385:G:O2'	24:DA:1396:U:H6	2.01	0.41
31:DK:38:LEU:C	31:DK:40:THR:H	2.23	0.41
24:DA:2846:G:H2'	24:DA:2847:U:C6	2.55	0.41
35:BP:54:MET:HE2	35:BP:118:LEU:HA	2.02	0.41
1:CA:354:G:N3	1:CA:354:G:H2'	2.34	0.41
1:AA:594:G:C6	1:AA:595:G:C2	3.09	0.41
11:CN:109:VAL:HG12	11:CN:110:ASP:N	2.35	0.41
44:BV:3:TYR:HE2	44:BV:55:HIS:HD1	1.68	0.41
24:DA:2716:U:H2'	24:DA:2717:G:H5'	2.01	0.41
1:CA:862:C:H1'	1:CA:874:G:C5'	2.50	0.41
24:BA:1957:C:H2'	24:BA:1958:C:H6	1.85	0.41
1:AA:352:C:H4'	1:AA:354:G:OP1	2.20	0.41
25:DB:76:G:H2'	25:DB:77:U:O4'	2.20	0.41
2:CE:155:LEU:CD1	2:CE:157:ARG:HB3	2.48	0.41
18:CU:31:LEU:N	18:CU:31:LEU:HD23	2.31	0.41
6:CI:80:ARG:HA	6:CI:85:VAL:HG11	2.02	0.41
24:BA:1039:G:H1	24:BA:1116:C:H42	1.67	0.41
39:D1:25:TRP:CD1	39:D1:26:GLY:N	2.87	0.41
1:CA:1160:G:O2'	1:CA:1161:C:O5'	2.38	0.41
7:AJ:22:LEU:C	7:AJ:22:LEU:HD23	2.40	0.41
28:BF:45:ARG:CD	28:BF:97:TYR:CD2	3.03	0.41
24:BA:2302:G:C2'	24:BA:2303:G:H5'	2.50	0.41
31:BK:62:LYS:O	31:BK:66:GLU:CG	2.67	0.41
24:BA:754:C:H2'	24:BA:755:C:C6	2.55	0.41
24:DA:225:A:C2'	24:DA:226:G:H5'	2.50	0.41
24:BA:2855:C:H2'	24:BA:2856:C:C6	2.54	0.41
1:AA:939:G:H5''	7:AJ:102:ARG:NH2	2.34	0.41
1:AA:288:A:H2'	1:AA:289:G:H4'	2.01	0.41
1:AA:809:G:H2'	1:AA:810:C:O5'	2.20	0.41
11:CN:17:GLY:HA3	11:CN:77:MET:SD	2.59	0.41
1:CA:860:A:H3'	1:CA:861:G:H8	1.86	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1306:A:C2	1:AA:1307:U:N1	2.88	0.41
24:DA:719:C:H2'	24:DA:720:C:H6	1.85	0.41
28:BF:39:TRP:CZ2	28:BF:106:ARG:NH1	2.84	0.41
41:BS:41:LYS:C	41:BS:43:GLY:N	2.72	0.41
24:BA:2880:C:O3'	36:B0:90:ARG:NH1	2.53	0.41
45:B3:32:ARG:O	45:B3:33:ALA:C	2.58	0.41
24:DA:794:G:H2'	24:DA:795:C:C6	2.55	0.41
1:CA:996:A:H2'	1:CA:997:U:O4'	2.20	0.41
7:CJ:9:VAL:HB	7:CJ:10:ARG:H	1.71	0.41
5:AH:127:ASN:HA	5:AH:128:PRO:HD2	1.91	0.41
24:BA:116:C:H2'	24:BA:117:G:C8	2.55	0.41
35:DP:109:VAL:HG23	35:DP:114:ALA:HB2	2.01	0.41
24:DA:1929:G:H4'	24:DA:1930:G:OP1	2.20	0.41
50:B5:26:THR:O	50:B5:26:THR:HG23	2.20	0.41
39:B1:72:HIS:CD2	39:B1:72:HIS:N	2.88	0.41
4:AG:60:GLU:HA	4:AG:60:GLU:OE1	2.20	0.41
1:AA:73:G:N3	1:AA:73:G:H3'	2.34	0.41
38:DR:30:VAL:HG13	38:DR:30:VAL:O	2.21	0.41
42:BT:66:LEU:HD12	42:BT:66:LEU:C	2.39	0.41
32:DM:31:ALA:C	32:DM:33:LEU:H	2.24	0.41
4:CG:8:VAL:HG11	4:CG:21:LEU:CB	2.50	0.41
1:CA:1289:A:H8	1:CA:1289:A:O5'	2.02	0.41
1:CA:1362:C:C2'	1:CA:1362(A):C:H5''	2.50	0.41
1:CA:946:A:C2	1:CA:1236:A:C2	3.08	0.41
1:CA:1118:C:H4'	9:CL:83:ARG:NH2	2.34	0.41
49:D4:55:ARG:O	49:D4:59:PHE:HD2	2.03	0.41
7:CJ:73:MET:HG2	7:CJ:90:GLU:HB3	2.01	0.41
49:B4:42:PHE:CD2	49:B4:43:TYR:HD2	2.38	0.41
26:BD:94:LEU:CD2	26:BD:94:LEU:C	2.87	0.41
24:DA:2748:A:O3'	30:DH:6:ARG:NH2	2.53	0.41
24:BA:1112:G:O3'	30:BH:2:SER:N	2.53	0.41
24:BA:2415:G:C4'	34:BO:66:GLY:HA3	2.48	0.41
24:BA:2436:G:C6	24:BA:2437:U:C4	3.08	0.41
26:DD:257:LEU:HD22	26:DD:258:LYS:N	2.35	0.41
2:AE:98:LEU:HB2	2:AE:101:MET:HG3	2.02	0.41
24:BA:1071:G:H4'	24:BA:1088:A:O3'	2.21	0.41
24:BA:1077:A:C2'	24:BA:1077:A:N3	2.83	0.41
24:BA:1092:C:N4	24:BA:1099:G:C6	2.85	0.41
40:D2:6:LYS:H	40:D2:37:VAL:HG12	1.85	0.41
51:D6:11:LEU:HD23	51:D6:26:ASN:HB3	2.02	0.41
39:B1:90:VAL:HG12	39:B1:91:ASP:H	1.83	0.41
2:CE:12:GLU:CD	2:CE:14:GLY:H	2.23	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CE:16:HIS:CG	2:CE:209:ARG:HB2	2.55	0.41
17:CT:67:LYS:HG2	17:CT:68:ARG:N	2.34	0.41
44:BV:116:VAL:HG23	44:BV:174:VAL:CG1	2.50	0.41
24:DA:300:A:P	43:DU:84:ARG:HH12	2.43	0.41
1:CA:40:C:N4	1:CA:402:G:H1	2.16	0.41
8:CK:106:GLY:C	8:CK:122:ARG:HH22	2.23	0.41
1:CA:1014:A:H4'	19:CV:14:HIS:ND1	2.35	0.41
19:CV:16:LEU:HA	19:CV:19:VAL:HB	2.02	0.41
31:DK:75:LEU:HD12	31:DK:139:GLN:O	2.20	0.41
6:CI:100:ASN:CB	18:CU:23:LYS:HE2	2.48	0.41
24:BA:2153:G:C2	24:BA:2154:G:H1'	2.55	0.41
24:BA:2169:A:C6	24:BA:2170:A:C2	3.09	0.41
44:BV:112:ARG:N	44:BV:112:ARG:HD3	2.34	0.41
36:B0:26:LYS:HG2	36:B0:70:LEU:HD22	2.00	0.41
37:DQ:57:LYS:O	37:DQ:58:LEU:HB3	2.20	0.41
37:DQ:65:VAL:O	37:DQ:69:VAL:HG12	2.20	0.41
38:BR:23:ARG:HH21	38:BR:120:ARG:HD3	1.84	0.41
30:DH:118:PRO:HD2	30:DH:121:ILE:HG13	2.02	0.41
3:AF:77:ILE:HA	3:AF:84:ILE:HB	2.03	0.41
24:BA:797:C:H2'	24:BA:798:G:O4'	2.21	0.41
1:AA:493:G:H2'	1:AA:494:U:C5	2.55	0.41
1:CA:437:U:O2'	1:CA:438:G:H5'	2.20	0.41
5:CH:13:ILE:HG22	5:CH:30:ALA:CB	2.50	0.41
22:CC:18:G:N2	22:CC:58:A:C4	2.87	0.41
28:BF:29:ASN:N	28:BF:112:MET:HE3	2.23	0.41
43:DU:51:VAL:O	43:DU:52:SER:CB	2.68	0.41
53:B8:62:LEU:HA	53:B8:62:LEU:HD23	1.96	0.41
42:BT:50:LYS:HB3	42:BT:84:ALA:HB3	2.02	0.41
1:AA:89:U:O2'	1:AA:90:C:O5'	2.38	0.41
1:AA:93:U:C4	1:AA:95:G:C8	3.09	0.41
1:CA:66:G:N2	1:CA:172:A:N3	2.66	0.41
1:CA:197:A:N6	1:CA:221:C:C4'	2.83	0.41
8:AK:70:GLN:OE1	8:AK:70:GLN:HA	2.20	0.41
12:CO:58:VAL:HG21	12:CO:83:VAL:HG11	2.03	0.41
24:BA:880:G:C4'	24:BA:880:G:OP1	2.68	0.41
32:DM:120:LEU:O	32:DM:120:LEU:HD23	2.20	0.41
8:CK:119:LEU:HD21	8:CK:124:ALA:N	2.35	0.41
49:B4:24:THR:O	49:B4:25:TYR:HB2	2.19	0.41
24:DA:1991:U:H2'	24:DA:1992:G:H5''	2.02	0.41
24:DA:1535:U:H6	24:DA:1535:U:OP1	2.03	0.41
24:DA:1538:G:H2'	24:DA:1539:G:H8	1.85	0.41
24:BA:1364:G:C8	46:BZ:2:SER:HB3	2.52	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:223:U:O2	1:AA:224:C:C6	2.74	0.41
26:DD:65:ILE:HG13	26:DD:66:ASP:N	2.35	0.41
1:AA:191(C):G:C2'	1:AA:191(D):U:H5'	2.50	0.41
1:AA:166:G:C2	1:AA:167:G:C5	3.07	0.41
25:BB:54:G:O2'	25:BB:55:U:H5'	2.20	0.41
32:BM:15:LEU:CD1	32:BM:15:LEU:C	2.88	0.41
4:AG:162:LEU:O	4:AG:165:MET:HB2	2.20	0.41
24:DA:2692:C:O2'	24:DA:2847:U:O2'	2.25	0.41
27:BE:55:ASN:C	27:BE:57:LYS:N	2.74	0.41
24:BA:1614:A:N7	41:BS:93:ALA:HB2	2.35	0.41
33:BN:78:ARG:NH1	38:BR:73:GLU:OE1	2.49	0.41
1:CA:475:G:C2	1:CA:476:G:C5	3.08	0.41
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.85	0.41
1:AA:1095:U:C5'	1:AA:1109:C:O2	2.68	0.41
1:AA:406:G:H5'	4:AG:5:ILE:HD13	2.02	0.41
38:DR:99:LEU:C	38:DR:101:PHE:N	2.73	0.41
44:DV:2:GLU:C	44:DV:3:TYR:CD2	2.93	0.41
1:CA:107:G:H2'	1:CA:108:G:O5'	2.19	0.41
24:BA:2196:C:C2'	24:BA:2197:U:H5'	2.51	0.41
4:AG:126:ILE:HG22	4:AG:127:THR:N	2.35	0.41
1:CA:1158:C:C3'	1:CA:1158:C:O2	2.69	0.41
1:CA:1158:C:O2	1:CA:1160:G:C8	2.73	0.41
1:CA:865:A:H2'	1:CA:866:C:O4'	2.20	0.41
25:BB:65:C:C5	25:BB:108:C:C5	3.08	0.41
1:CA:867:G:N1	1:CA:868:C:C4	2.88	0.41
24:BA:773:U:H5''	26:BD:47:GLY:HA2	2.02	0.41
1:AA:118:U:H3'	1:AA:288:A:H61	1.85	0.41
1:CA:1009:G:C2	1:CA:1010:G:C8	3.08	0.41
24:BA:143:C:C2	24:BA:144:C:C5	3.09	0.41
24:BA:1260:G:O2'	24:BA:1261:C:H5'	2.20	0.41
1:AA:785:G:H2'	1:AA:786:G:H5'	2.01	0.41
24:BA:864:G:H21	24:BA:866:A:H61	1.68	0.41
35:BP:61:GLY:HA2	35:BP:62:GLY:HA3	1.87	0.41
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.84	0.41
27:BE:111:ARG:H	27:BE:111:ARG:HD2	1.85	0.41
8:CK:121:ASP:HB2	8:CK:125:ARG:HH21	1.85	0.41
24:DA:334:C:OP1	24:DA:335:C:N4	2.52	0.41
13:CP:44:ARG:CB	13:CP:46:LYS:HG2	2.50	0.41
24:BA:569:U:O2'	24:BA:983:A:N1	2.43	0.41
24:BA:2577:A:H5''	24:BA:2578:G:H5'	2.01	0.41
24:DA:672:C:H5	34:DO:42:SER:HB2	1.86	0.41
24:DA:841:A:C2	24:DA:938:G:C2	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:652:C:N4	24:BA:653:A:H61	2.19	0.41
24:BA:2794:C:N3	24:BA:2795:G:N7	2.68	0.41
18:CU:46:GLU:O	18:CU:47:THR:HG23	2.19	0.41
12:CO:46:LYS:HB2	12:CO:46:LYS:HE3	1.81	0.41
41:BS:103:ILE:HG13	41:BS:103:ILE:H	1.69	0.41
24:BA:253:C:H2'	24:BA:254:G:O4'	2.20	0.41
1:CA:1122:U:H2'	1:CA:1123:A:C8	2.55	0.41
1:CA:1281:U:H3'	1:CA:1282:C:C5	2.55	0.41
1:CA:1238:A:H62	1:CA:1299:A:N6	2.18	0.41
1:CA:1303:C:C4	1:CA:1304:G:C5	3.08	0.41
1:CA:1321:C:OP1	1:CA:1322:C:O3'	2.38	0.41
1:CA:1365:G:N2	1:CA:1366:C:H1'	2.36	0.41
1:CA:1371:G:O3'	9:CL:69:GLY:HA3	2.21	0.41
1:CA:953:G:H2'	1:CA:954:G:O4'	2.21	0.41
14:CQ:40:CYS:SG	14:CQ:41:ARG:N	2.93	0.41
24:BA:2346:A:O2'	51:B6:24:GLU:OE2	2.36	0.41
51:B6:39:TYR:O	51:B6:46:HIS:HA	2.20	0.41
24:DA:910:A:N1	24:DA:2277:G:H1'	2.36	0.41
24:DA:869:G:C2	24:DA:909:A:C2	3.08	0.41
29:BG:108:ASN:HA	49:B4:38:LYS:CG	2.51	0.41
30:BH:58:GLU:C	30:BH:60:ARG:H	2.23	0.41
24:DA:1050:A:C6	24:DA:2751:G:C6	3.08	0.41
24:DA:1115:G:C2	24:DA:1116:C:C2	3.08	0.41
27:DE:60:ASN:O	27:DE:61:ARG:HB2	2.20	0.41
37:BQ:11:LYS:O	37:BQ:15:ARG:HB2	2.20	0.41
37:BQ:26:LEU:C	37:BQ:26:LEU:HD23	2.41	0.41
2:AE:74:LYS:HZ3	2:AE:166:ASP:CB	2.29	0.41
24:BA:1060:U:N3	24:BA:1062:G:C4'	2.83	0.41
24:BA:1066:U:H2'	24:BA:1068:G:P	2.60	0.41
24:BA:1085:A:O2'	24:BA:1086:A:N1	2.52	0.41
24:BA:1107:G:O2'	24:BA:1108:U:H5'	2.20	0.41
17:CT:100:LYS:CB	17:CT:100:LYS:HZ2	2.31	0.41
1:CA:277:C:P	17:CT:41:LYS:HZ2	2.40	0.41
35:DP:134:ARG:HH21	44:DV:122:ARG:HD2	1.81	0.41
24:BA:1174:A:C2'	24:BA:1176:G:H4'	2.51	0.41
31:DK:77:LEU:HD12	31:DK:78:THR:H	1.83	0.41
26:BD:231:HIS:CE1	26:BD:232:PRO:HD2	2.50	0.41
24:BA:2123:G:C4	24:BA:2124:G:C8	3.09	0.41
24:BA:2146:C:H4'	24:BA:2147:G:C2	2.55	0.41
24:BA:2162:G:P	24:BA:2164:C:N4	2.93	0.41
1:AA:1133:G:C4	1:AA:1134:G:C8	3.08	0.41
1:CA:1446:A:C6	38:DR:118:ARG:CZ	3.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1446:A:N3	1:CA:1446:A:H3'	2.35	0.41
49:D4:29:PRO:C	49:D4:30:GLU:HG3	2.40	0.41
30:DH:122:THR:CG2	30:DH:134:SER:CB	2.96	0.41
1:AA:189:U:O2	17:AT:63:ARG:NH2	2.53	0.41
17:AT:63:ARG:HG3	17:AT:64:PRO:N	2.34	0.41
41:DS:113:LYS:N	41:DS:113:LYS:HZ2	2.19	0.41
24:DA:2061:G:H2'	24:DA:2501:C:O2'	2.19	0.41
2:AE:184:VAL:N	2:AE:198:ASP:OD2	2.47	0.41
12:CO:85:ILE:HG23	12:CO:98:TYR:HB3	2.01	0.41
24:BA:898:C:C5	24:BA:899:A:C8	3.08	0.41
24:DA:2119:A:N6	24:DA:2171:A:H1'	2.33	0.41
4:AG:108:LEU:O	4:AG:110:PHE:N	2.53	0.41
24:DA:270(I):G:C4	24:DA:270(R):G:N2	2.88	0.41
31:DK:52:ARG:O	31:DK:56:LYS:HB3	2.20	0.41
46:DZ:74:VAL:C	46:DZ:76:ARG:H	2.23	0.41
16:AS:57:ARG:HH21	16:AS:79:VAL:CA	2.32	0.41
16:AS:71:ARG:O	16:AS:74:LEU:N	2.54	0.41
24:DA:464:U:H2'	24:DA:465:G:O4'	2.20	0.41
2:CE:164:VAL:CG1	2:CE:165:VAL:H	2.16	0.41
24:DA:2190:G:H2'	24:DA:2191:G:H1'	2.02	0.41
1:CA:736:C:OP1	18:CU:68:LYS:HD2	2.20	0.41
42:DT:52:VAL:HG13	42:DT:53:LYS:H	1.85	0.41
24:DA:1544:C:C2'	24:DA:1544:C:O2	2.68	0.41
6:AI:24:GLU:HA	6:AI:27:GLN:CB	2.51	0.41
24:BA:1528:A:N6	24:BA:1543:A:H2	2.18	0.41
43:DU:60:PHE:N	43:DU:60:PHE:CD1	2.87	0.41
41:BS:9:TYR:H	41:BS:102:HIS:CE1	2.38	0.41
28:DF:123:LEU:O	28:DF:192:LEU:O	2.37	0.41
28:BF:170:LEU:HD12	28:BF:172:TRP:HE1	1.84	0.41
24:BA:1024:G:H8	24:BA:1024:G:O5'	2.02	0.41
41:BS:1:MET:HG3	41:BS:2:GLU:N	2.35	0.41
30:DH:56:SER:HG	30:DH:61:HIS:CE1	2.38	0.41
24:BA:439:G:C2'	24:BA:440:G:H5'	2.51	0.41
24:BA:673:C:O2'	28:BF:82:ILE:HD11	2.21	0.41
1:AA:149:A:O2'	1:AA:150:C:H5'	2.21	0.41
1:CA:682:G:C4	1:CA:683:G:C8	3.08	0.41
29:BG:63:ILE:HG22	29:BG:143:GLU:HB2	2.03	0.41
1:AA:599:C:H2'	1:AA:600:C:H6	1.85	0.41
8:AK:98:LYS:N	8:AK:98:LYS:HD3	2.35	0.41
4:CG:112:VAL:HG13	4:CG:113:SER:N	2.34	0.41
11:AN:99:GLN:HG2	11:AN:105:VAL:HG11	2.02	0.41
36:D0:52:ILE:O	36:D0:55:ALA:N	2.52	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1511:A:C6	24:DA:1512:G:C5	3.08	0.41
1:AA:880:C:OP1	12:AO:8:ASN:ND2	2.51	0.41
24:DA:1580:A:OP2	24:DA:1580:A:H8	2.03	0.41
1:CA:1475:G:H4'	24:DA:1689:A:H4'	2.02	0.41
1:AA:545:C:O2'	1:AA:549:C:H5''	2.21	0.41
1:AA:187:C:H2'	1:AA:188:U:O4'	2.20	0.41
24:DA:1423:G:C4	24:DA:1424:G:C8	3.08	0.41
24:DA:125:G:H5''	52:D7:19:ARG:HD3	2.02	0.41
24:DA:957:A:N6	24:DA:2459:A:C8	2.88	0.41
1:CA:143:A:O3'	1:CA:144:G:H8	2.02	0.41
1:AA:587:G:N2	1:AA:755:G:C8	2.88	0.41
22:AC:17:C:H5'	22:AC:61:C:OP1	2.20	0.41
24:DA:315:G:H2'	24:DA:316:C:C6	2.55	0.41
1:CA:386:C:H2'	1:CA:387:U:H5'	2.01	0.41
24:BA:2864:G:OP1	38:BR:119:LYS:HD2	2.21	0.41
25:BB:51:G:H2'	25:BB:52:A:O4'	2.20	0.41
24:BA:1405:U:H2'	24:BA:1406:U:C6	2.54	0.41
26:DD:126:GLN:O	26:DD:193:VAL:CG2	2.68	0.41
24:BA:2663:G:C6	24:BA:2664:G:C4	3.09	0.41
24:BA:1270:C:H5''	24:BA:1271:G:H5'	2.00	0.41
24:DA:58:G:N2	24:DA:70:G:C4	2.88	0.41
18:CU:19:LYS:HG3	18:CU:20:ALA:N	2.36	0.41
24:BA:686:G:N2	24:BA:788:A:H61	2.18	0.41
27:DE:172:VAL:HG13	27:DE:182:LEU:CD1	2.51	0.41
33:BN:102:VAL:HG23	33:BN:121:VAL:HG22	2.03	0.41
32:BM:55:VAL:HB	32:BM:126:PRO:HA	2.02	0.41
38:DR:31:SER:HB2	38:DR:85:LYS:HG3	2.02	0.41
41:BS:31:GLU:O	41:BS:35:ILE:HG13	2.20	0.41
29:BG:10:LYS:HD3	29:BG:10:LYS:O	2.20	0.41
24:BA:2492:U:H2'	24:BA:2493:U:H6	1.84	0.41
35:DP:111:GLU:HG3	35:DP:112:GLU:N	2.35	0.41
34:DO:132:LYS:HE2	34:DO:136:GLU:OE1	2.19	0.41
24:DA:930:U:O4'	24:DA:930:U:O2	2.37	0.41
11:CN:31:THR:HG23	11:CN:31:THR:O	2.20	0.41
24:DA:141(A):C:O5'	24:DA:141(A):C:H6	2.03	0.41
47:DW:5:GLU:CD	47:DW:5:GLU:H	2.23	0.41
26:DD:204:ILE:O	26:DD:204:ILE:HG13	2.21	0.41
24:DA:569:U:H1'	24:DA:947:G:O4'	2.20	0.41
24:BA:969:U:H2'	24:BA:970:C:C6	2.56	0.41
1:AA:59:A:H3'	1:AA:331:G:H22	1.85	0.41
24:DA:1600:C:O3'	52:D7:49:ARG:NE	2.52	0.41
1:CA:513:C:N3	1:CA:539:A:C2	2.88	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CG:13:ARG:HB2	4:CG:14:ARG:H	1.60	0.41
1:CA:1223:C:OP2	1:CA:1224:G:H2'	2.21	0.41
1:CA:960:U:N3	1:CA:1225:A:N3	2.68	0.41
9:CL:111:ARG:O	9:CL:113:LYS:HE2	2.21	0.41
19:CV:49:ILE:HG13	19:CV:60:VAL:CG2	2.51	0.41
1:AA:1375:A:C5	1:AA:1376:U:C5	3.09	0.41
9:AL:77:ILE:O	9:AL:78:LYS:C	2.58	0.41
24:DA:2393:A:OP2	53:D8:30:ARG:NH1	2.53	0.41
24:BA:2400:G:C4'	51:B6:19:ARG:NE	2.83	0.41
24:BA:2286:A:C8	24:BA:2287:A:C6	3.09	0.41
19:AV:21:GLU:O	19:AV:25:LYS:HG3	2.21	0.41
19:AV:22:LEU:HD21	19:AV:29:ARG:CD	2.49	0.41
35:DP:69:PHE:HA	35:DP:70:PRO:HD3	1.78	0.41
49:B4:40:HIS:N	49:B4:41:PRO:HD2	2.30	0.41
34:DO:16:ARG:HE	34:DO:16:ARG:HA	1.85	0.41
31:BK:69:LYS:NZ	31:BK:73:GLU:OE2	2.33	0.41
26:DD:257:LEU:C	26:DD:257:LEU:CD2	2.88	0.41
24:BA:1069:A:C5	24:BA:1073:A:N7	2.89	0.41
24:BA:1098:A:H3'	24:BA:1099:G:H8	1.84	0.41
2:CE:208:ILE:HG23	2:CE:209:ARG:N	2.36	0.41
1:CA:266:G:C2'	1:CA:266:G:N3	2.80	0.41
24:DA:1057:A:H2	24:DA:1081:U:N3	2.16	0.41
24:BA:875:G:OP1	44:BV:175:VAL:CG2	2.64	0.41
44:BV:146:ILE:HA	44:BV:174:VAL:HB	2.03	0.41
13:AP:17:VAL:O	13:AP:20:THR:CG2	2.47	0.41
13:AP:12:ASN:CB	13:AP:46:LYS:CE	2.82	0.41
30:BH:86:GLU:O	30:BH:87:LEU:CB	2.68	0.41
4:CG:121:VAL:O	4:CG:134:ASP:HA	2.20	0.41
4:CG:65:ARG:CD	4:CG:75:PHE:HD2	2.33	0.41
8:CK:104:ARG:CB	8:CK:104:ARG:HH11	2.33	0.41
1:CA:1046:A:H2'	1:CA:1047:G:O4'	2.21	0.41
24:BA:2162:G:C5	24:BA:2163:C:C4	3.08	0.41
1:AA:1287:A:P	21:AX:26:LYS:NZ	2.91	0.41
39:D1:100:VAL:O	39:D1:101:ARG:CG	2.67	0.41
44:DV:156:LYS:O	44:DV:157:LEU:HB2	2.20	0.41
53:B8:10:ALA:O	53:B8:12:LYS:N	2.54	0.41
24:BA:1677:A:H2'	24:BA:1678:G:O5'	2.20	0.41
29:BG:131:TYR:HB3	29:BG:159:VAL:HG21	2.02	0.41
38:BR:24:PRO:O	38:BR:94:ALA:HB2	2.21	0.41
1:AA:1127:G:H21	1:AA:1146:A:H62	1.68	0.41
5:AH:149:GLU:O	5:AH:150:ARG:C	2.57	0.41
1:AA:981:U:H2'	1:AA:982:U:C5	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:675:A:N1	1:AA:716:A:H2	2.17	0.41
32:BM:43:THR:HB	32:BM:48:MET:CE	2.49	0.41
24:DA:71:A:N1	42:DT:31:HIS:CE1	2.83	0.41
1:AA:1351:U:C1'	7:AJ:33:ASP:HB3	2.50	0.41
24:DA:885:C:C4	24:DA:886:C:C4	3.08	0.41
24:DA:2134:A:N6	24:DA:2157:G:C2'	2.82	0.41
24:BA:1535:U:C4	24:BA:1537:C:H1'	2.54	0.41
37:DQ:14:VAL:HG22	37:DQ:18:ILE:HD11	1.99	0.41
4:AG:106:TYR:CE1	4:AG:112:VAL:O	2.72	0.41
47:BW:29:LYS:HD3	47:BW:57:ILE:HD13	2.02	0.41
1:AA:346:G:N3	1:AA:346:G:C2'	2.83	0.41
24:BA:729:G:C2	24:BA:1775:U:H1'	2.56	0.41
24:BA:2661:G:C6	24:BA:2662:A:C6	3.09	0.41
5:AH:95:ALA:HA	5:AH:96:PRO:HD3	1.89	0.41
24:BA:1668:A:O2'	24:BA:1674:G:N7	2.44	0.41
50:B5:33:CYS:HB2	50:B5:38:ALA:O	2.21	0.41
24:DA:479:A:HO2'	24:DA:481:G:H8	1.68	0.41
24:DA:654(H):G:O6	24:DA:654(M):C:C6	2.73	0.41
24:DA:1484:G:C2'	24:DA:1485:G:H5'	2.51	0.41
24:DA:1419:A:C5	24:DA:1421:G:C5	3.08	0.41
1:CA:652:U:O4	1:CA:752:G:H1'	2.20	0.41
8:CK:97:VAL:HG22	8:CK:129:VAL:O	2.19	0.41
20:CW:72:LEU:HD23	20:CW:77:ALA:HB2	2.03	0.41
24:DA:999:U:H5''	24:DA:1154:G:O6	2.20	0.41
1:AA:1049:U:OP1	14:AQ:3:ARG:CG	2.67	0.41
4:AG:82:ALA:C	4:AG:89:THR:HG23	2.40	0.41
29:BG:90:LEU:HD12	29:BG:90:LEU:HA	1.88	0.41
36:B0:97:VAL:HA	36:B0:113:LEU:O	2.20	0.41
10:AM:6:ILE:HG22	10:AM:98:ILE:HG22	2.01	0.41
24:BA:1328:G:OP2	24:BA:1328:G:H8	2.03	0.41
2:AE:230:VAL:HB	2:AE:231:GLU:H	1.64	0.41
24:DA:2348:U:H2'	24:DA:2349:G:C5'	2.50	0.41
24:DA:1418:G:H2'	24:DA:1579:A:N6	2.35	0.41
24:BA:511:U:C3'	24:BA:512:G:H5'	2.51	0.41
24:DA:1513:C:C4	24:DA:1514:U:C5	3.09	0.41
9:AL:11:LYS:HB3	9:AL:11:LYS:HE2	1.80	0.41
24:BA:1487:G:H2'	24:BA:1488:G:H8	1.85	0.41
4:AG:126:ILE:CG2	4:AG:127:THR:N	2.84	0.41
31:BK:9:LEU:HD21	31:BK:35:LEU:HD12	2.03	0.41
24:DA:2199:A:N7	24:DA:2205:C:C4	2.89	0.41
24:BA:1184:G:H5'	48:BX:29:ARG:HH21	1.86	0.41
44:DV:136:PHE:CD2	44:DV:137:ILE:N	2.89	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:144:C:H2'	24:DA:145:G:H8	1.85	0.41
24:DA:2336:A:N3	24:DA:2385:C:H1'	2.35	0.41
1:CA:1161:C:H2'	1:CA:1162:C:C6	2.55	0.41
40:B2:89:GLN:HA	40:B2:90:PRO:HD2	1.95	0.41
24:BA:1615:C:C5	24:BA:1617:C:C5	3.09	0.41
24:DA:2821:A:C2	24:DA:2822:G:C4	3.07	0.41
17:CT:51:TYR:CD1	17:CT:57:VAL:HG11	2.56	0.41
26:DD:5:LYS:HZ3	26:DD:5:LYS:CB	2.32	0.41
24:DA:1179:C:H2'	24:DA:1180:C:H6	1.86	0.41
22:CC:62:C:H2'	22:CC:63:G:C8	2.55	0.41
24:BA:2757:A:N3	24:BA:2757:A:H2'	2.35	0.41
4:AG:63:LYS:HB2	4:AG:63:LYS:HE3	1.86	0.41
24:DA:1695:G:H2'	24:DA:1696:G:O4'	2.21	0.41
35:DP:54:MET:HE2	35:DP:118:LEU:HD23	2.01	0.41
1:CA:1469:G:H2'	1:CA:1470:G:H8	1.85	0.41
24:BA:503:A:H4'	24:BA:504:U:C5'	2.50	0.41
24:BA:1693:U:H4'	24:BA:1694:C:OP2	2.20	0.41
24:DA:2510:C:O2'	24:DA:2511:U:H5'	2.20	0.41
24:BA:1562:A:H2'	24:BA:1563:G:C8	2.56	0.41
24:BA:1936:A:N6	24:BA:1963:U:O2	2.54	0.41
1:CA:120:A:C6	1:CA:122:G:C2	3.08	0.41
8:CK:4:ASP:OD2	8:CK:7:ALA:HB2	2.20	0.41
46:DZ:88:LYS:HE2	46:DZ:88:LYS:HB3	1.84	0.41
7:CJ:80:VAL:O	7:CJ:80:VAL:HG13	2.20	0.41
24:BA:2192:G:N3	24:BA:2192:G:H2'	2.36	0.41
30:BH:24:VAL:HG12	30:BH:37:VAL:HG21	2.03	0.41
1:AA:29:G:O2'	1:AA:30:U:H5'	2.20	0.41
4:CG:10:ARG:HH11	4:CG:10:ARG:CG	2.33	0.41
4:CG:18:LYS:HD3	4:CG:20:TYR:CD1	2.56	0.41
1:CA:1277:C:C2'	1:CA:1279:A:H8	2.33	0.41
7:CJ:30:ILE:HG23	7:CJ:32:ARG:NH2	2.36	0.41
13:CP:112:GLY:HA3	13:CP:113:PRO:HD3	1.85	0.41
1:CA:1227:A:O3'	13:CP:115:LYS:HE3	2.20	0.41
19:CV:49:ILE:HD13	19:CV:51:VAL:CG2	2.50	0.41
24:DA:2378:A:C8	37:DQ:112:PHE:CZ	3.04	0.41
9:AL:36:TYR:CD2	9:AL:37:PHE:CE1	3.09	0.41
9:AL:48:GLU:O	9:AL:52:ALA:HB2	2.21	0.41
24:DA:2393:A:H3'	53:D8:30:ARG:HE	1.84	0.41
13:AP:70:LEU:HD23	13:AP:70:LEU:C	2.41	0.41
4:AG:16:GLY:O	4:AG:17:VAL:CG2	2.68	0.41
4:AG:8:VAL:HG11	4:AG:115:ARG:CZ	2.35	0.41
24:DA:527:C:N4	24:DA:2779:U:OP2	2.54	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1319:A:H3'	19:AV:3:ARG:HH22	1.74	0.41
19:AV:51:VAL:HB	19:AV:75:ALA:HB2	2.01	0.41
7:AJ:15:ASP:H	7:AJ:20:ASP:H	1.68	0.41
24:BA:1065:U:C4	24:BA:1066:U:C6	3.09	0.41
40:D2:38:LEU:HD13	40:D2:56:SER:HA	2.01	0.41
40:B2:38:LEU:HD23	40:B2:39:LEU:H	1.77	0.41
2:AE:6:THR:O	2:AE:217:ARG:NH1	2.54	0.41
2:CE:92:TYR:CZ	2:CE:151:GLY:HA3	2.50	0.41
28:DF:3:GLU:O	28:DF:19:GLU:HA	2.19	0.41
44:DV:144:LEU:CD2	44:DV:148:ASP:HA	2.47	0.41
34:BO:36:LYS:HB3	34:BO:40:SER:CB	2.25	0.41
2:AE:154:LEU:N	2:AE:154:LEU:HD23	2.31	0.41
1:AA:1023:G:N3	1:AA:1023:G:H2'	2.35	0.41
24:BA:1651:G:P	36:B0:37:THR:HG21	2.60	0.41
5:CH:139:LEU:CD2	5:CH:142:LEU:HD11	2.51	0.41
1:AA:55:A:C5	1:AA:56:U:C5	3.09	0.41
24:BA:2216:G:O2'	24:BA:2217:G:H5'	2.21	0.41
24:BA:196:A:O4'	34:BO:46:LYS:HD2	2.20	0.41
37:DQ:66:ALA:HA	37:DQ:69:VAL:CG1	2.50	0.41
53:D8:50:LEU:HG	53:D8:51:ALA:N	2.33	0.41
22:AC:18:G:N2	22:AC:58:A:C8	2.88	0.41
6:AI:87:ARG:NH1	6:AI:87:ARG:CG	2.83	0.41
24:DA:2063:C:N4	24:DA:2064:C:N4	2.68	0.41
24:DA:2064:C:C2'	24:DA:2065:C:H5'	2.50	0.41
24:DA:2503:A:O2'	24:DA:2505:G:OP1	2.38	0.41
24:DA:2579:C:H2'	24:DA:2580:U:O4'	2.21	0.41
2:AE:24:TRP:H	2:AE:24:TRP:HD1	1.67	0.41
20:AW:73:HIS:ND1	20:AW:74:LYS:HD3	2.35	0.41
1:CA:843:U:H3'	1:CA:848:C:O4'	2.20	0.41
42:BT:49:VAL:CA	42:BT:87:GLN:HE22	2.33	0.41
32:BM:99:LEU:HD13	32:BM:99:LEU:C	2.41	0.41
24:DA:2070:G:H2'	24:DA:2071:A:O4'	2.20	0.41
34:BO:125:VAL:HG23	34:BO:144:GLU:HB3	2.03	0.41
24:BA:879:G:C6	24:BA:898:C:N4	2.89	0.41
1:AA:1042:G:O2'	24:DA:2155:G:C2	2.71	0.41
24:DA:2137:C:N4	24:DA:2155:G:O6	2.51	0.41
24:BA:1534:G:O6	24:BA:1539:G:H1'	2.21	0.41
24:BA:212:G:C2'	24:BA:213:A:C5'	2.87	0.41
1:AA:1342:C:H2'	1:AA:1343:G:H8	1.86	0.41
37:BQ:71:ARG:NH2	37:BQ:106:ARG:NH2	2.67	0.41
24:DA:2295:C:OP2	37:DQ:10:ARG:CG	2.69	0.41
1:AA:376:G:OP2	16:AS:67:THR:HG21	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:704:A:N3	1:CA:704:A:H2'	2.36	0.41
24:DA:974:G:H1'	24:DA:975:G:N7	2.35	0.41
25:BB:69:G:C4	25:BB:70:C:C6	3.09	0.41
24:DA:1406:U:N3	24:DA:1597:A:C2	2.88	0.41
1:AA:715:A:H1'	1:AA:777:A:N1	2.36	0.41
3:CF:159:GLY:HA2	3:CF:193:TYR:CZ	2.55	0.41
30:DH:27:LYS:HD2	30:DH:28:GLY:N	2.35	0.41
24:DA:111:A:H4'	47:DW:69:ARG:NH2	2.35	0.41
24:BA:1773:A:C5	24:BA:1829:A:H1'	2.56	0.41
1:CA:1112:C:N4	3:CF:178:LEU:HD23	2.35	0.41
24:DA:1910:G:C2'	24:DA:1911:U:H5'	2.49	0.41
43:DU:48:ALA:O	43:DU:59:GLY:HA2	2.21	0.41
40:B2:25:LEU:H	40:B2:92:THR:HG21	1.85	0.41
4:CG:163:GLU:HG2	4:CG:166:LYS:HZ2	1.82	0.41
25:BB:15:A:O2'	25:BB:109:G:C8	2.68	0.41
24:DA:1204:A:HO2'	24:DA:1205:U:P	2.43	0.41
24:DA:323:G:O2'	24:DA:1205:U:N3	2.47	0.41
24:DA:2547:U:O2'	24:DA:2548:G:H5'	2.20	0.41
31:BK:11:ASN:CG	31:BK:12:LEU:H	2.24	0.41
24:DA:221:A:C8	24:DA:266:G:C6	3.09	0.41
1:CA:181:G:N2	1:CA:183:G:C2	2.89	0.41
24:DA:1270:C:H5''	24:DA:1271:G:C5'	2.50	0.41
6:CI:12:PRO:HG2	6:CI:13:ASN:HD21	1.84	0.41
35:BP:35:VAL:HG22	35:BP:36:ALA:N	2.35	0.41
24:DA:839:U:H1'	24:DA:1191:G:H1'	2.02	0.41
32:BM:90:MET:HA	32:BM:90:MET:HE3	2.03	0.41
31:DK:133:HIS:CG	31:DK:134:PRO:N	2.88	0.41
24:DA:2396:G:C2'	24:DA:2397:G:H5'	2.50	0.41
32:BM:85:ILE:O	32:BM:85:ILE:HG13	2.20	0.41
25:BB:51:G:H2'	25:BB:52:A:H1'	2.01	0.41
24:DA:2765:A:H2	24:DA:2766:G:O4'	2.03	0.41
1:AA:652:U:O2'	1:AA:653:A:O5'	2.37	0.41
7:AJ:8:GLU:O	7:AJ:9:VAL:C	2.57	0.41
24:BA:425:G:C2	24:BA:426:C:C6	3.08	0.41
33:DN:19:ILE:HA	33:DN:42:SER:O	2.21	0.41
33:DN:35:VAL:O	33:DN:35:VAL:HG23	2.20	0.41
24:BA:1694:C:H1'	24:BA:1695:G:OP2	2.21	0.41
1:CA:102:G:H2'	1:CA:103:C:C6	2.55	0.41
32:BM:8:GLN:O	32:BM:9:VAL:HG22	2.20	0.41
25:BB:29:A:OP2	37:BQ:31:SER:HB2	2.21	0.41
1:AA:778:G:O5'	1:AA:778:G:H8	2.03	0.41
24:BA:751:A:C6	24:BA:789:A:C5	3.08	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DG:138:GLN:OE1	29:DG:138:GLN:N	2.48	0.41
24:BA:1516:U:C2	24:BA:1517:G:C8	3.09	0.41
1:CA:412:A:C2'	1:CA:413:G:OP2	2.68	0.41
14:CQ:22:THR:CG2	14:CQ:33:VAL:CG1	2.64	0.41
24:DA:2375:G:H2'	24:DA:2377:A:N7	2.36	0.41
24:BA:1652:A:H2'	24:BA:1653:G:H5'	2.03	0.41
24:BA:2000:G:O2'	24:BA:2001:A:H5'	2.21	0.41
9:AL:99:LEU:CB	9:AL:101:PHE:CE2	2.60	0.41
19:AV:72:GLY:C	19:AV:74:PHE:H	2.24	0.41
19:AV:74:PHE:O	19:AV:76:PRO:HD3	2.21	0.41
24:DA:2277:G:H2'	24:DA:2278:A:H5''	2.01	0.41
24:DA:871:U:H5''	35:DP:69:PHE:CZ	2.56	0.41
26:BD:35:LYS:HZ3	26:BD:104:TYR:HD1	1.69	0.41
26:BD:96:HIS:NE2	26:BD:102:LYS:HE2	2.35	0.41
24:DA:1038:C:H2'	24:DA:1039:G:O4'	2.21	0.41
24:DA:2793:G:N2	24:DA:2804:C:C2	2.89	0.41
27:DE:56:PRO:O	27:DE:57:LYS:HB2	2.20	0.41
27:DE:56:PRO:HD2	27:DE:58:ARG:NH2	2.36	0.41
2:AE:98:LEU:H	2:AE:101:MET:CE	2.32	0.41
49:D4:35:VAL:O	49:D4:36:CYS:C	2.59	0.41
2:CE:82:ARG:O	2:CE:86:GLU:HG3	2.19	0.41
31:BK:92:VAL:HG11	31:BK:142:VAL:HG11	2.03	0.41
20:AW:18:GLN:C	20:AW:20:LEU:N	2.73	0.41
10:CM:21:GLN:NE2	10:CM:24:VAL:HG12	2.35	0.41
24:DA:483:A:H4'	43:DU:49:VAL:CA	2.39	0.41
24:DA:2532:G:N2	24:DA:2663:G:C2'	2.83	0.41
43:DU:95:LYS:HB2	43:DU:95:LYS:HE2	1.78	0.41
4:CG:190:ASP:O	4:CG:194:LEU:HD23	2.20	0.41
4:CG:75:PHE:C	4:CG:75:PHE:CD1	2.92	0.41
30:BH:77:LYS:HE2	30:BH:138:LYS:CD	2.28	0.41
24:BA:2700:C:O2'	24:BA:2701:C:H5'	2.20	0.41
24:BA:2134:A:C5	24:BA:2157:G:H1'	2.56	0.41
1:AA:1288:A:C6	1:AA:1289:A:C6	3.08	0.41
24:DA:2056:G:H2'	24:DA:2056:G:N3	2.35	0.41
39:D1:95:LEU:CD1	40:D2:11:GLN:HB2	2.50	0.41
34:BO:15:ARG:CG	34:BO:16:ARG:N	2.83	0.41
31:DK:101:LEU:O	31:DK:102:SER:CB	2.69	0.41
24:BA:1817:G:C5	24:BA:1818:U:C5	3.09	0.41
24:BA:1498:C:O4'	24:BA:1577:C:H4'	2.20	0.41
30:DH:121:ILE:HG22	30:DH:122:THR:H	1.86	0.41
1:AA:484:G:H1'	1:AA:485:G:P	2.61	0.41
1:AA:547:A:N3	1:AA:548:G:H1'	2.36	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1022:G:C5	24:BA:1140:C:N4	2.89	0.41
25:DB:66:A:N1	25:DB:108:C:C6	2.88	0.41
44:DV:108:PRO:HB2	44:DV:109:ALA:H	1.71	0.41
31:DK:109:ILE:N	31:DK:109:ILE:CD1	2.82	0.41
8:AK:112:LEU:HB3	8:AK:133:LEU:HA	2.02	0.41
8:AK:120:THR:CG2	8:AK:122:ARG:HB2	2.51	0.41
24:DA:2129:C:C2	24:DA:2173:A:H2	2.39	0.41
24:BA:1535:U:H5'	24:BA:1537:C:C4	2.56	0.41
24:BA:321:G:OP2	28:BF:135:LYS:HA	2.20	0.41
34:DO:148:LEU:C	34:DO:148:LEU:HD12	2.41	0.41
24:DA:1022:G:C2'	24:DA:1023:U:OP2	2.68	0.41
24:BA:1952:A:C6	24:BA:1953:A:N1	2.88	0.41
24:DA:270(N):G:O2'	24:DA:270(P):C:O4'	2.36	0.41
1:CA:691:G:P	11:CN:26:ASN:HD22	2.44	0.41
1:AA:246:A:C2	1:AA:282:A:C5	3.09	0.41
24:DA:2192:G:C2	24:DA:2193:G:C5	3.08	0.41
1:AA:160:A:O2'	1:AA:344:A:C6	2.65	0.41
24:BA:784:A:C8	24:BA:792:G:C5	3.09	0.41
24:DA:1607:C:N4	24:DA:1622:G:OP2	2.50	0.41
24:BA:1262:A:N3	50:B5:10:LYS:HE3	2.35	0.41
3:CF:188:LEU:HD23	3:CF:190:ARG:HH21	1.85	0.41
15:AR:37:ASN:H	15:AR:37:ASN:HD22	1.68	0.41
33:BN:11:ALA:O	33:BN:98:VAL:HG23	2.21	0.41
1:CA:659:U:C4	1:CA:660:G:N7	2.88	0.41
24:BA:1833:U:O2	24:BA:1969:A:H2	2.03	0.41
24:BA:1834:U:C2'	24:BA:1834:U:O2	2.62	0.41
24:BA:1420:U:O2'	24:BA:1421:G:P	2.79	0.41
24:BA:530:G:C5	24:BA:2022:U:H5''	2.56	0.41
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.82	0.41
30:DH:18:GLU:OE2	30:DH:25:LYS:HD2	2.21	0.41
1:CA:754:C:P	15:CR:72:ARG:HH22	2.43	0.41
40:D2:87:HIS:HE1	40:D2:89:GLN:HB2	1.85	0.41
40:D2:87:HIS:CE1	40:D2:89:GLN:HB2	2.55	0.41
8:CK:12:ARG:CD	8:CK:26:VAL:HG12	2.45	0.41
1:AA:165:C:O2'	1:AA:166:G:H5'	2.20	0.41
1:CA:572:A:C5'	1:CA:917:G:H4'	2.45	0.41
11:AN:121:PRO:HG2	11:AN:126:ARG:HG3	2.01	0.41
1:AA:175:C:O2'	1:AA:176:C:H5'	2.19	0.41
45:D3:83:PRO:O	45:D3:85:ALA:N	2.53	0.41
1:AA:821:G:C2	1:AA:880:C:C2	3.08	0.41
39:D1:83:LEU:HD23	39:D1:83:LEU:C	2.40	0.41
34:BO:94:GLU:O	34:BO:95:VAL:CB	2.62	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DM:39:ARG:C	32:DM:41:ASP:N	2.74	0.41
24:BA:184:C:H2'	24:BA:185:U:H6	1.84	0.41
24:DA:2121:G:H2'	24:DA:2122:U:H5	1.86	0.41
24:BA:1799:G:C2'	24:BA:1800:C:OP2	2.69	0.41
43:BU:73:ARG:HA	43:BU:74:PRO:HD3	1.84	0.41
1:CA:35:G:C5	1:CA:36:C:C4	3.09	0.41
24:DA:2401:U:C2'	24:DA:2402:C:C6	3.03	0.41
24:DA:265:A:C2	24:DA:428:A:C2	3.09	0.41
24:BA:337:C:C2	24:BA:338:G:C1'	3.03	0.41
45:B3:15:ASP:OD1	45:B3:16:SER:N	2.51	0.41
1:CA:614:A:C6	1:CA:615:C:C4	3.09	0.41
1:CA:786:G:C2	1:CA:797:C:C2	3.08	0.41
11:CN:112:THR:CG2	11:CN:113:PRO:HD2	2.50	0.41
44:DV:23:LYS:HB3	44:DV:39:VAL:O	2.21	0.41
8:AK:6:ILE:H	8:AK:6:ILE:CD1	2.33	0.41
31:DK:127:VAL:CG1	31:DK:137:PRO:HB3	2.49	0.41
24:DA:547:A:C6	24:DA:548:A:C5	3.09	0.41
32:DM:42:TRP:O	39:D1:64:ARG:NH2	2.53	0.41
32:DM:42:TRP:CD1	39:D1:63:VAL:HG11	2.55	0.41
27:BE:31:CYS:HB3	27:BE:49:LEU:HB3	2.03	0.41
24:DA:651:G:C6	24:DA:652:C:C4	3.09	0.41
1:AA:665:A:C5	1:AA:733:A:C5	3.09	0.41
27:DE:155:LYS:O	27:DE:156:MET:HG3	2.20	0.41
24:DA:789:A:H4'	24:DA:790:C:OP2	2.21	0.41
24:DA:1248:G:C2	39:D1:3:ARG:HD3	2.56	0.41
24:BA:2768:C:O2'	32:BM:89:LYS:NZ	2.49	0.41
1:CA:186(C):G:H2'	1:CA:186(D):C:C6	2.56	0.41
24:DA:807:U:O2'	24:DA:808:G:H5'	2.20	0.41
50:D5:19:ARG:O	50:D5:19:ARG:HG2	2.21	0.41
11:CN:105:VAL:O	11:CN:105:VAL:HG12	2.21	0.41
38:BR:82:LEU:N	38:BR:82:LEU:HD12	2.35	0.41
24:BA:1774:C:H6	24:BA:1774:C:O5'	2.04	0.41
20:CW:47:GLY:O	20:CW:49:ALA:N	2.54	0.41
11:CN:54:ARG:HA	11:CN:57:THR:HG23	2.02	0.41
45:B3:46:LYS:HD3	45:B3:78:TYR:CZ	2.56	0.41
1:CA:428:G:O4'	1:CA:430:A:C8	2.74	0.41
1:CA:983:A:O2'	1:CA:1050:G:OP2	2.29	0.41
1:CA:1129:C:OP2	9:CL:62:TYR:OH	2.27	0.41
1:CA:1144:G:H2'	1:CA:1145:C:C5'	2.50	0.41
1:CA:959:A:H1'	1:CA:985:C:H1'	2.02	0.41
13:CP:30:ALA:C	13:CP:32:GLU:H	2.24	0.41
21:CX:13:ILE:HG23	21:CX:14:TRP:N	2.35	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:CX:6:ARG:CZ	21:CX:15:ARG:HH12	2.34	0.41
11:CN:59:TYR:CZ	11:CN:63:LEU:HD11	2.56	0.41
24:DA:2393:A:C4'	53:D8:30:ARG:NE	2.76	0.41
34:DO:61:ARG:O	34:DO:62:LEU:CB	2.68	0.41
7:CJ:73:MET:CG	7:CJ:90:GLU:HA	2.46	0.41
24:BA:2286:A:O2'	51:B6:37:ARG:NH2	2.53	0.41
35:DP:23:GLY:HA2	35:DP:24:GLY:HA3	1.75	0.41
26:BD:35:LYS:CG	26:BD:64:ILE:CG2	2.90	0.41
4:AG:31:CYS:SG	4:AG:33:MET:HE3	2.61	0.41
3:CF:39:ILE:HD11	3:CF:64:VAL:HG21	2.02	0.41
2:AE:168:THR:OG1	2:AE:192:SER:HB2	2.20	0.41
46:BZ:83:GLU:N	46:BZ:83:GLU:OE2	2.46	0.41
46:BZ:58:ILE:HG23	46:BZ:87:PRO:HG3	2.03	0.41
2:CE:10:LEU:O	2:CE:13:ALA:HB2	2.20	0.41
2:CE:201:ILE:HA	2:CE:202:PRO:HD2	1.90	0.41
24:DA:1061:U:H5''	24:DA:1062:G:OP2	2.21	0.41
24:DA:1059:G:N7	24:DA:1080:A:C2	2.88	0.41
24:BA:1005:C:H1'	24:BA:1012:U:N3	2.36	0.41
44:DV:119:GLU:CB	44:DV:122:ARG:HH12	2.27	0.41
44:DV:145:GLU:OE1	44:DV:177:PRO:CD	2.69	0.41
1:AA:1298:C:H4'	1:AA:1299:A:O4'	2.20	0.41
1:AA:1330:U:H4'	13:AP:23:TYR:HE1	1.85	0.41
1:CA:992:U:C4'	1:CA:993:G:O5'	2.69	0.41
14:CQ:12:ARG:HH11	14:CQ:12:ARG:HB2	1.84	0.41
1:CA:1014:A:C4	19:CV:34:TRP:CE3	3.08	0.41
24:DA:2298:A:C2	24:DA:2299:G:H1'	2.56	0.41
24:BA:2111:C:H5	24:BA:2147:G:N2	2.19	0.41
29:BG:81:LYS:O	29:BG:82:LEU:HB3	2.21	0.41
25:BB:82:G:H2'	25:BB:83:G:H5'	2.03	0.41
5:AH:67:VAL:HG22	5:AH:69:VAL:CG2	2.50	0.41
25:DB:50:G:OP1	37:DQ:62:LYS:HB2	2.20	0.41
10:AM:51:ARG:CZ	10:AM:61:GLU:HB2	2.51	0.41
10:AM:83:GLU:O	10:AM:84:GLN:C	2.59	0.41
1:AA:674:G:H2'	1:AA:675:A:C8	2.56	0.41
27:BE:68:ALA:C	27:BE:70:ALA:N	2.74	0.41
22:CC:18:G:O6	22:CC:55:U:H1'	2.20	0.41
32:DM:2:LYS:CG	32:DM:2:LYS:O	2.69	0.41
2:AE:127:ILE:CG2	2:AE:128:GLU:N	2.82	0.41
24:DA:32:C:O2'	24:DA:33:U:H5'	2.21	0.41
24:BA:898:C:H3'	24:BA:899:A:H8	1.86	0.41
24:DA:2134:A:N1	24:DA:2156:G:N2	2.68	0.41
29:BG:36:LYS:CG	29:BG:38:VAL:HG23	2.51	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DO:147:LEU:HB2	34:DO:148:LEU:H	1.61	0.41
24:BA:2061:G:OP1	28:BF:68:LYS:NZ	2.47	0.41
1:CA:357:G:OP1	1:CA:367:U:H5''	2.21	0.41
11:AN:28:THR:HG21	11:AN:61:ALA:HB1	2.03	0.41
40:B2:15:GLU:O	40:B2:96:ILE:HB	2.21	0.41
24:BA:1543:A:O4'	24:BA:1545:A:H1'	2.20	0.41
24:DA:479:A:H1'	24:DA:481:G:H5'	2.02	0.41
8:AK:63:LEU:HB2	8:AK:65:TYR:CE1	2.55	0.41
24:BA:1420:U:OP1	24:BA:1420:U:C6	2.74	0.41
1:AA:677:U:H3	1:AA:713:G:N2	2.10	0.41
24:BA:1125:G:C6	24:BA:1126:A:N6	2.89	0.41
12:AO:62:SER:O	12:AO:64:TYR:N	2.54	0.41
24:DA:669:G:H2'	24:DA:670:A:C8	2.55	0.41
1:AA:157:G:H1	1:AA:164:U:H3	1.69	0.41
4:AG:150:GLU:C	4:AG:152:SER:N	2.73	0.41
53:D8:40:GLU:H	53:D8:43:GLN:HG3	1.86	0.41
2:AE:115:LEU:HD13	2:AE:145:LEU:CB	2.50	0.41
16:CS:53:VAL:O	16:CS:57:ARG:HG3	2.21	0.41
49:B4:27:THR:HG22	49:B4:28:LYS:N	2.36	0.41
41:BS:92:ARG:O	41:BS:93:ALA:HB3	2.21	0.41
24:BA:1441:G:H4'	24:BA:1628:G:OP1	2.20	0.41
13:AP:39:ILE:HD12	13:AP:56:LEU:HD21	2.03	0.41
22:CC:35:A:C4	23:C1:18:G:N2	2.89	0.41
23:C1:18:G:O2'	23:C1:19:U:OP2	2.33	0.41
1:CA:261:U:N3	1:CA:264:U:OP2	2.43	0.41
44:BV:4:ARG:CD	44:BV:58:VAL:HG11	2.50	0.41
44:DV:59:LEU:O	44:DV:60:GLU:HB2	2.21	0.41
24:DA:1166:C:O2	24:DA:1184:G:C2	2.74	0.41
43:BU:15:VAL:HG12	43:BU:17:SER:O	2.21	0.41
1:CA:35:G:C2	1:CA:550:G:C4	3.09	0.41
24:DA:1439:A:H2'	24:DA:1440:G:C5'	2.49	0.41
24:DA:1914:C:O4'	24:DA:1914:C:O2	2.38	0.41
7:CJ:100:ALA:O	7:CJ:104:LEU:CD2	2.68	0.41
1:CA:833:U:C2	1:CA:834:C:C5	3.09	0.41
38:DR:90:GLN:OE1	38:DR:90:GLN:HA	2.21	0.41
50:B5:31:VAL:CG1	50:B5:42:PRO:HG3	2.49	0.41
10:CM:15:THR:O	10:CM:16:LEU:HD23	2.21	0.41
24:DA:1466:G:N2	24:DA:1547:C:N3	2.69	0.41
26:DD:270:ILE:O	26:DD:271:ILE:HG12	2.21	0.41
24:DA:588:U:H1'	28:DF:90:PHE:HB3	2.03	0.41
1:CA:29:G:C6	1:CA:30:U:C5	3.08	0.41
24:DA:553:U:C2'	24:DA:554:U:H5'	2.51	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CI:65:VAL:HG12	6:CI:66:GLU:N	2.36	0.41
24:DA:1848:A:H2'	24:DA:1849:G:O4'	2.21	0.41
24:DA:1849:G:H2'	24:DA:1850:G:H8	1.85	0.41
24:BA:2583:G:C6	24:BA:2584:U:C4	3.08	0.41
44:DV:39:VAL:HG21	44:DV:44:PHE:HB2	2.02	0.41
1:AA:1216:G:O3'	14:AQ:5:ALA:HB1	2.20	0.41
24:DA:1869:G:C5'	24:DA:1870:C:OP2	2.69	0.41
24:BA:2729:G:H2'	24:BA:2730:C:C6	2.56	0.41
1:AA:294:U:H2'	1:AA:295:C:H6	1.85	0.41
1:AA:555:C:H2'	1:AA:556:C:C6	2.55	0.41
41:BS:20:VAL:O	41:BS:23:LEU:HB3	2.20	0.41
31:BK:1:MET:O	31:BK:20:ASP:HA	2.20	0.41
1:AA:380:G:N2	1:AA:384:G:C5	2.89	0.41
1:AA:371:G:N2	1:AA:372:C:N3	2.68	0.41
24:DA:422:A:C2	24:DA:423:A:C4	3.09	0.41
52:B7:30:VAL:O	52:B7:34:ARG:HG3	2.20	0.41
34:BO:80:TYR:CZ	34:BO:111:ARG:HD3	2.56	0.41
27:BE:150:VAL:CG1	27:BE:154:LYS:HG3	2.51	0.41
24:BA:962:G:H2'	24:BA:963:U:O4'	2.21	0.41
24:DA:563:G:C4	24:DA:2018:G:C2	3.09	0.41
47:BW:8:LYS:HE3	47:BW:8:LYS:HB2	1.83	0.41
10:CM:88:LEU:N	10:CM:88:LEU:HD12	2.36	0.41
11:CN:81:ASP:N	11:CN:81:ASP:OD1	2.54	0.41
1:AA:774:G:N3	1:AA:774:G:H2'	2.36	0.41
4:CG:132:ARG:HH11	4:CG:132:ARG:HB2	1.86	0.41
24:BA:2831:G:P	27:BE:58:ARG:HH11	2.41	0.41
1:CA:1145:C:H4'	1:CA:1146:A:N7	2.36	0.41
1:CA:1128:C:C4'	9:CL:16:ARG:NH1	2.69	0.41
9:CL:13:ALA:HB2	9:CL:68:GLY:HA3	2.02	0.41
13:CP:67:GLU:CG	13:CP:68:GLY:H	2.33	0.41
19:CV:53:ASN:O	19:CV:77:THR:HG22	2.21	0.41
1:CA:980:C:H2'	14:CQ:21:TYR:CE1	2.56	0.41
9:CL:82:ALA:HA	9:CL:85:LEU:HG	2.03	0.41
13:CP:25:ILE:O	13:CP:29:ARG:HB2	2.21	0.41
1:CA:1309:G:O2'	13:CP:77:ASN:ND2	2.54	0.41
13:CP:79:LYS:HD3	13:CP:80:ARG:N	2.36	0.41
37:DQ:70:GLY:O	37:DQ:105:ALA:HA	2.21	0.41
3:AF:16:ARG:HG3	3:AF:17:ASP:N	2.34	0.41
51:D6:18:ARG:NH2	51:D6:44:ARG:NH1	2.68	0.41
51:D6:34:LEU:CD1	51:D6:50:ARG:NH1	2.79	0.41
24:BA:2001:A:H2'	24:BA:2002:G:O4'	2.21	0.41
9:AL:48:GLU:N	9:AL:49:PRO:HD3	2.35	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AL:49:PRO:HA	9:AL:52:ALA:CB	2.51	0.41
9:AL:9:ARG:HD3	9:AL:14:VAL:HG23	2.03	0.41
24:BA:2344:U:C4	51:B6:37:ARG:NH1	2.89	0.41
24:BA:2417:C:N4	24:BA:2418:A:N6	2.69	0.41
19:AV:62:ILE:HG22	19:AV:63:THR:N	2.35	0.41
26:BD:63:ARG:HG2	26:BD:92:ILE:HD13	2.01	0.41
26:BD:94:LEU:CD2	26:BD:95:LEU:N	2.84	0.41
4:AG:11:LEU:O	4:AG:12:CYS:C	2.59	0.41
4:AG:25:ARG:NH1	4:AG:30:LYS:HE3	2.36	0.41
4:AG:12:CYS:CA	4:AG:19:LEU:HD21	2.25	0.41
30:DH:137:ASP:CG	30:DH:138:LYS:N	2.74	0.41
24:DA:1050:A:H2'	24:DA:1051:G:C1'	2.51	0.41
24:DA:2749:A:H1'	30:DH:63:SER:CB	2.46	0.41
24:BA:1048:A:C5	24:BA:1049:C:C5	3.09	0.41
19:AV:2:PRO:O	19:AV:3:ARG:HB3	2.21	0.41
25:BB:42:C:P	29:BG:67:LYS:HE3	2.60	0.41
1:AA:193:C:C6	20:AW:57:ARG:CZ	2.96	0.41
53:B8:22:VAL:HG21	53:B8:53:PRO:HB2	2.03	0.41
24:DA:2801:A:H5''	24:DA:2895:U:H5''	1.99	0.41
24:DA:2788:C:O2'	24:DA:2809:A:N3	2.42	0.41
12:AO:53:ARG:CB	12:AO:93:LEU:HD11	2.50	0.41
34:DO:105:LEU:O	34:DO:106:LEU:CB	2.68	0.41
24:DA:1795:C:H2'	24:DA:1796:U:H6	1.84	0.41
7:CJ:116:ALA:O	7:CJ:120:ILE:HG12	2.21	0.41
24:BA:2376:A:C2	24:BA:2377:A:H1'	2.55	0.41
24:BA:2293:C:OP1	37:BQ:89:ARG:NH1	2.53	0.41
2:AE:93:VAL:HG11	2:AE:97:TRP:HD1	1.86	0.41
2:AE:28:PHE:CE1	2:AE:190:THR:HA	2.56	0.41
50:B5:3:LYS:HB3	50:B5:4:HIS:H	1.71	0.41
24:BA:536:A:P	39:B1:53:ARG:HH11	2.43	0.41
13:CP:15:VAL:HA	13:CP:18:ALA:HB3	2.03	0.41
2:CE:74:LYS:HZ3	2:CE:166:ASP:HB2	1.84	0.41
29:DG:28:VAL:HG12	29:DG:28:VAL:O	2.21	0.41
1:AA:152:A:N6	1:AA:170:U:C2	2.89	0.41
24:DA:1093:G:H1'	24:DA:1099:G:N2	2.36	0.41
24:DA:27:G:C2	24:DA:512:G:N3	2.89	0.41
24:DA:25:U:H2'	24:DA:26:G:O4'	2.21	0.41
44:DV:151:HIS:C	44:DV:171:ILE:HD13	2.41	0.41
3:CF:116:VAL:HG13	3:CF:140:ARG:HH12	1.86	0.41
44:BV:167:PRO:HB2	44:BV:168:GLU:H	1.66	0.41
34:BO:18:ARG:HB3	34:BO:19:VAL:H	1.65	0.41
1:AA:1007:C:C4	1:AA:1008:C:N4	2.89	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1057:G:C4	1:CA:1204:A:C2	3.09	0.41
30:BH:154:PRO:HB2	30:BH:155:SER:H	1.63	0.41
1:CA:1217:C:O2'	1:CA:1218:C:H5'	2.20	0.41
1:CA:990:C:C2	1:CA:1216:G:C2	3.09	0.41
19:CV:14:HIS:H	19:CV:14:HIS:CD2	2.37	0.41
24:DA:2318:G:N2	37:DQ:3:ARG:HB2	2.36	0.41
30:BH:77:LYS:HE3	30:BH:138:LYS:HB2	2.03	0.41
24:BA:2212:A:H1'	24:BA:2215:G:C8	2.55	0.41
31:BK:132:PRO:O	31:BK:133:HIS:C	2.59	0.41
18:CU:25:THR:O	18:CU:25:THR:HG22	2.21	0.41
44:BV:108:PRO:HB2	44:BV:114:GLY:CA	2.51	0.41
5:AH:69:VAL:O	5:AH:71:LEU:HG	2.21	0.41
36:B0:55:ALA:HB1	36:B0:80:PHE:CD1	2.56	0.41
49:D4:14:ILE:CD1	49:D4:24:THR:CG2	2.99	0.41
1:AA:1130:A:P	9:AL:20:ARG:HH22	2.44	0.41
9:AL:57:GLY:C	9:AL:59:PHE:N	2.72	0.41
1:AA:1121:U:C2	1:AA:1122:U:C6	3.08	0.41
1:AA:1128:C:C4	1:AA:1139:G:C5	3.09	0.41
1:AA:1127:G:C2	1:AA:1145:C:O2	2.73	0.41
9:AL:16:ARG:O	9:AL:16:ARG:HG3	2.21	0.41
8:CK:103:VAL:HB	8:CK:108:GLY:HA3	2.03	0.41
5:CH:43:LEU:HB3	5:CH:65:ASN:ND2	2.36	0.41
3:AF:79:ARG:HH21	11:CN:99:GLN:HG2	1.86	0.41
1:CA:963:G:H1	1:CA:972:C:N4	2.04	0.41
1:AA:449:C:O2	1:AA:449:C:O4'	2.38	0.41
1:AA:625:G:H2'	1:AA:626:U:H6	1.86	0.41
22:AC:20:U:H3'	22:AC:20:U:OP2	2.21	0.41
38:BR:3:ARG:O	38:BR:6:LEU:HD22	2.21	0.41
24:BA:1798:U:HO2'	24:BA:1802:A:HO2'	1.67	0.41
30:DH:12:PRO:O	30:DH:15:VAL:HG22	2.20	0.41
31:DK:70:GLU:O	31:DK:73:GLU:N	2.53	0.41
40:D2:51:VAL:HG12	40:D2:52:VAL:N	2.36	0.41
2:AE:51:LEU:CD2	2:AE:55:PHE:CZ	3.03	0.41
24:BA:2791:C:OP1	24:BA:2893:G:C2	2.74	0.41
1:CA:67:C:H2'	1:CA:68:G:C8	2.56	0.41
24:DA:1653:G:O3'	36:D0:2:ARG:CZ	2.69	0.41
24:DA:881:G:O6	24:DA:882:G:C6	2.74	0.41
1:CA:685:G:C2	1:CA:686:U:C4	3.09	0.41
24:BA:880:G:N2	24:BA:898:C:O2	2.54	0.41
24:DA:2141:G:C2'	24:DA:2142:C:H5'	2.51	0.41
24:DA:2168:G:C6	24:DA:2170:A:H5''	2.55	0.41
24:BA:1952:A:OP1	33:BN:42:SER:OG	2.35	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:270(E):G:C2	24:DA:270(V):G:C2	3.09	0.41
24:DA:1177:A:H1'	24:DA:1178:C:C5	2.56	0.41
24:DA:1171:G:C8	24:DA:1173:G:C2	3.09	0.41
24:DA:1331:A:O2'	24:DA:1332:G:H8	2.03	0.41
16:AS:19:ILE:HG22	16:AS:19:ILE:O	2.21	0.41
42:DT:60:ARG:HG2	42:DT:60:ARG:NH1	2.36	0.41
24:BA:1567:A:C4'	26:BD:58:HIS:CD2	3.03	0.41
1:AA:16:A:H2'	1:AA:17:U:H5'	2.03	0.41
24:BA:594:U:P	53:B8:61:LEU:HD13	2.60	0.41
6:AI:12:PRO:CB	6:AI:57:GLN:HG3	2.51	0.41
24:BA:2100:G:HO2'	24:BA:2101:G:H5'	1.81	0.41
24:DA:2646:C:H2'	24:DA:2647:U:O4'	2.20	0.41
24:DA:2733:A:H2	27:DE:204:ALA:N	2.12	0.41
27:BE:116:VAL:CG1	27:BE:122:PHE:CG	3.03	0.41
24:BA:1544:C:C2'	24:BA:1544:C:O2	2.67	0.41
14:AQ:25:VAL:CG2	14:AQ:26:ARG:N	2.84	0.41
24:DA:1488:G:C6	24:DA:1489:U:C2	3.08	0.41
8:AK:63:LEU:N	8:AK:63:LEU:HD22	2.36	0.41
27:DE:116:VAL:O	27:DE:117:MET:CG	2.66	0.41
1:CA:587:G:N2	1:CA:754:C:OP2	2.41	0.41
24:DA:478:A:N1	24:DA:500:G:H4'	2.36	0.41
24:DA:2728:U:H5'	33:DN:70:LYS:HZ3	1.85	0.41
24:BA:1209:G:N2	24:BA:1210:A:H62	2.14	0.41
1:AA:617:G:N1	1:AA:618:C:C4	2.88	0.41
44:BV:123:ASP:O	44:BV:124:ILE:HB	2.21	0.41
1:CA:651:C:H2'	1:CA:652:U:H6	1.85	0.41
20:CW:72:LEU:HG	20:CW:76:ALA:HB3	2.03	0.41
1:CA:1498:U:C2'	1:CA:1499:A:OP2	2.69	0.41
24:BA:1500:G:C6	24:BA:1501:C:C4	3.09	0.41
24:DA:1003:G:C2	24:DA:1153:C:C2	3.09	0.41
44:BV:13:GLU:HB3	44:BV:14:LYS:H	1.75	0.41
44:DV:54:HIS:CB	44:DV:101:PRO:HD3	2.50	0.41
1:CA:1398:A:N6	5:CH:21:ALA:HA	2.35	0.41
1:AA:176:C:H2'	1:AA:177:C:H6	1.85	0.41
33:DN:87:ILE:HD12	33:DN:92:GLU:O	2.20	0.41
35:BP:54:MET:HE3	35:BP:121:ALA:CB	2.51	0.41
11:AN:103:LEU:HD22	11:AN:103:LEU:H	1.84	0.41
1:CA:475:G:C4	1:CA:476:G:C8	3.08	0.41
24:BA:2517:C:C2	24:BA:2542:A:N6	2.89	0.41
24:BA:2519:U:C4	24:BA:2542:A:C5	3.08	0.41
1:CA:506:G:C6	1:CA:507:C:C4	3.09	0.41
40:B2:76:LYS:HG2	40:B2:81:TYR:HD2	1.84	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BD:25:THR:OG1	26:BD:113:VAL:HG21	2.21	0.41
4:AG:146:ILE:CD1	4:AG:146:ILE:N	2.80	0.41
24:DA:1592:C:H2'	24:DA:1593:G:H8	1.86	0.41
44:BV:5:LEU:HD23	44:BV:47:VAL:HG11	2.03	0.41
42:DT:80:ILE:CG1	42:DT:80:ILE:O	2.69	0.41
22:CC:40:C:N3	22:CC:41:C:C5	2.89	0.41
24:BA:2758:A:C4	30:BH:67:LEU:CD2	3.03	0.41
24:DA:1471:A:OP2	24:DA:1521:G:N1	2.38	0.41
24:DA:769:G:H2'	24:DA:770:G:H8	1.86	0.41
24:DA:1748:G:H2'	24:DA:1749:A:H8	1.86	0.41
24:DA:2401:U:C2'	24:DA:2402:C:H5''	2.50	0.41
24:BA:2817:G:O2'	24:BA:2836:U:O2	2.33	0.41
19:AV:48:THR:C	19:AV:49:ILE:HG13	2.41	0.41
24:BA:442:G:N3	28:BF:48:THR:HG21	2.35	0.41
1:AA:251:G:N2	1:AA:253:U:C4	2.88	0.41
24:DA:6:A:C2	24:DA:7:G:C4	3.08	0.41
24:DA:2409:G:H2'	24:DA:2410:G:O4'	2.21	0.41
4:AG:88:VAL:HG21	4:AG:91:SER:CB	2.50	0.41
25:DB:99:A:C6	25:DB:100:G:C5	3.09	0.41
24:DA:839:U:H2'	24:DA:840:C:C6	2.56	0.41
1:AA:613:C:N4	1:AA:614:A:H62	2.19	0.41
1:CA:892:A:C6	1:CA:893:C:C4	3.09	0.41
24:BA:2365:G:H2'	24:BA:2366:A:C8	2.55	0.41
7:AJ:69:VAL:HG22	7:AJ:135:VAL:HG22	2.02	0.41
7:AJ:69:VAL:O	7:AJ:71:PRO:HD3	2.21	0.41
24:BA:828:U:C3'	24:BA:828:U:O2	2.69	0.41
26:BD:196:VAL:CG1	26:BD:196:VAL:O	2.69	0.41
1:AA:27:G:H2'	1:AA:28:G:H8	1.86	0.41
1:AA:556:C:C2	1:AA:557:G:C8	3.08	0.41
24:BA:799:G:C6	24:BA:800:A:C6	3.09	0.41
32:BM:70:LYS:HB3	32:BM:87:LEU:HB2	2.02	0.41
32:BM:87:LEU:HD21	32:BM:98:VAL:HG21	2.02	0.41
24:BA:6:A:H2'	24:BA:7:G:O4'	2.21	0.41
24:BA:1570:A:H2'	24:BA:1571:A:C8	2.54	0.41
1:AA:380:G:N2	1:AA:384:G:C6	2.89	0.41
24:DA:1015:G:C2	24:DA:1148:A:C2	3.09	0.41
34:BO:106:LEU:O	34:BO:107:LYS:HB2	2.21	0.41
30:DH:83:TYR:HB3	30:DH:84:SER:H	1.57	0.41
24:DA:2452:C:O2'	24:DA:2453:A:H5'	2.20	0.41
30:DH:131:VAL:HG12	30:DH:132:ARG:N	2.36	0.41
24:BA:1357:U:H2'	24:BA:1358:G:O4'	2.21	0.41
1:AA:718:G:C8	11:AN:116:HIS:HB3	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:2556:C:H2'	24:DA:2557:G:O4'	2.20	0.41
24:DA:1641:A:H2'	24:DA:1642:G:O4'	2.21	0.41
28:DF:139:PHE:CE1	28:DF:143:ALA:HB2	2.55	0.41
24:DA:1955:U:O2	24:DA:1955:U:H2'	2.20	0.41
24:DA:617:G:OP1	28:DF:40:GLN:NE2	2.54	0.41
24:BA:1003:G:N2	24:BA:1004:C:C2	2.89	0.41
6:CI:53:ALA:O	6:CI:54:LYS:HB2	2.21	0.41
22:AC:64:G:C2	22:AC:65:C:C2	3.09	0.41
24:DA:2025:C:H2'	24:DA:2026:C:C6	2.56	0.41
10:AM:80:LYS:HD2	10:AM:80:LYS:O	2.21	0.41
50:B5:9:LYS:HA	50:B5:9:LYS:HD3	1.87	0.41
24:BA:29:U:O5'	24:BA:29:U:H6	2.04	0.41
24:DA:2654:A:H8	24:DA:2654:A:OP1	2.04	0.41
36:D0:60:LEU:O	36:D0:64:ARG:HG3	2.21	0.41
3:AF:182:ILE:HA	3:AF:202:ILE:O	2.21	0.41
27:BE:131:ALA:O	27:BE:132:HIS:CB	2.68	0.41
24:DA:2097:C:H2'	24:DA:2098:U:H6	1.86	0.41
48:DX:57:GLU:HG2	48:DX:58:VAL:N	2.35	0.41
24:DA:1997:G:C2'	24:DA:1998:G:H5'	2.51	0.41
35:DP:35:VAL:HG12	35:DP:102:VAL:HG22	2.02	0.41
24:BA:396:G:O3'	46:BZ:44:PRO:HA	2.21	0.41
1:AA:682:G:C2	1:AA:683:G:C4	3.09	0.41
24:BA:2058:A:N6	24:BA:2059:A:N6	2.69	0.41
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.56	0.41
7:AJ:148:ASN:C	7:AJ:150:ALA:N	2.74	0.41
28:DF:135:LYS:HA	28:DF:135:LYS:HD2	1.85	0.41
33:BN:35:VAL:HA	33:BN:62:VAL:HG12	2.02	0.41
15:AR:32:LEU:O	15:AR:35:ARG:N	2.54	0.41
1:CA:1130:A:H5''	1:CA:1131:G:OP2	2.21	0.41
1:CA:1310:G:N2	1:CA:1328:C:C2	2.89	0.41
51:D6:37:ARG:CZ	51:D6:38:LYS:H	2.33	0.41
24:DA:2345:G:H1'	24:DA:2381:C:H2'	2.02	0.41
9:AL:53:VAL:CG1	9:AL:92:TYR:CE1	3.04	0.41
30:BH:4:ILE:O	30:BH:6:ARG:N	2.45	0.41
26:BD:35:LYS:CA	26:BD:64:ILE:HG23	2.51	0.41
26:BD:83:GLU:HB2	26:BD:92:ILE:HG13	2.03	0.41
24:DA:2760:C:H1'	30:DH:139:GLN:NE2	2.35	0.41
24:DA:2751:G:O6	30:DH:2:SER:HB3	2.21	0.41
1:AA:978:A:OP2	1:AA:1362(A):C:N4	2.54	0.41
27:DE:61:ARG:HD3	27:DE:61:ARG:HA	1.92	0.41
37:BQ:87:PHE:CD2	37:BQ:88:ASP:O	2.74	0.41
50:B5:4:HIS:HB3	50:B5:5:PRO:HD3	2.00	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1056:G:H8	24:BA:1056:G:OP2	2.04	0.41
13:CP:49:THR:O	13:CP:52:GLU:HB2	2.21	0.41
2:AE:239:VAL:O	2:AE:240:GLN:HG2	2.21	0.41
2:CE:162:ILE:O	2:CE:185:ILE:HD13	2.20	0.41
2:CE:205:ASP:C	2:CE:211:ILE:HD11	2.41	0.41
10:CM:84:GLN:HG3	10:CM:85:LEU:HG	2.03	0.41
1:AA:1036:G:N7	1:AA:1037:C:C4	2.89	0.41
13:AP:11:ARG:C	13:AP:46:LYS:NZ	2.72	0.41
1:CA:989:C:HO2'	1:CA:1016:A:H2	1.65	0.41
19:CV:13:ASP:O	19:CV:15:LEU:N	2.54	0.41
1:AA:57:G:C6	1:AA:58:C:C4	3.09	0.41
49:D4:5:ILE:HG13	49:D4:6:HIS:CD2	2.56	0.41
4:AG:171:GLY:HA3	4:AG:173:TRP:CZ3	2.56	0.41
24:BA:248:G:H5''	24:BA:386:G:N2	2.35	0.41
49:D4:25:TYR:O	49:D4:27:THR:N	2.54	0.41
53:D8:48:PHE:CD2	53:D8:49:VAL:N	2.89	0.41
34:DO:85:LEU:HA	34:DO:88:LEU:HB3	2.03	0.41
1:AA:375:U:H5''	16:AS:6:LEU:HD23	2.02	0.41
25:DB:114:G:H2'	25:DB:115:G:C8	2.56	0.41
25:DB:4:C:H2'	25:DB:5:C:C6	2.56	0.41
1:AA:273:A:N6	1:AA:274:A:N6	2.69	0.41
24:DA:107:C:C2	24:DA:108:U:C5	3.08	0.41
1:CA:1005:A:OP2	1:CA:1006:C:C5	2.75	0.41
43:DU:54:LYS:O	43:DU:55:TYR:CB	2.68	0.41
24:BA:2807:G:C6	24:BA:2808:U:C2	3.09	0.41
1:AA:738:C:H5''	6:AI:69:GLU:HB2	2.03	0.41
8:CK:6:ILE:O	8:CK:10:LEU:HG	2.21	0.41
24:DA:892:G:N7	24:DA:893:C:C5	2.88	0.41
24:DA:2139:C:C4	24:DA:2153:G:N2	2.89	0.41
8:CK:119:LEU:HG	8:CK:120:THR:H	1.85	0.41
49:B4:12:ALA:O	49:B4:24:THR:OG1	2.33	0.41
49:B4:14:ILE:HB	49:B4:21:VAL:HB	2.03	0.41
49:B4:14:ILE:CG1	49:B4:24:THR:HG22	2.51	0.41
24:DA:1993:U:C2'	24:DA:1994:C:O5'	2.69	0.41
1:CA:689:C:C1'	1:CA:704:A:H2	2.34	0.41
11:AN:50:TYR:HB3	11:AN:54:ARG:HB2	2.01	0.41
1:AA:1494:G:H21	24:BA:1912:A:H2	1.64	0.41
27:DE:173:VAL:N	27:DE:183:LEU:O	2.53	0.41
6:CI:69:GLU:O	6:CI:72:VAL:HG12	2.21	0.41
2:CE:121:LEU:HA	2:CE:124:SER:OG	2.21	0.41
24:DA:1531:C:C2'	24:DA:1532:C:H5'	2.50	0.41
12:AO:30:ALA:HB1	12:AO:31:PRO:CD	2.45	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1100:C:O2'	1:CA:1102:A:OP1	2.37	0.41
1:CA:672:U:H2'	1:CA:673:G:C8	2.55	0.41
24:BA:1464:C:H2'	24:BA:1465:G:C8	2.56	0.41
1:CA:836:G:C6	1:CA:851:G:C5	3.09	0.41
22:AC:47:U:O2'	22:AC:48:C:H6	2.04	0.41
1:AA:1291:G:P	7:AJ:37:ASN:HD22	2.44	0.41
24:BA:303:U:C2	24:BA:315:G:N2	2.89	0.41
35:DP:58:PHE:CE1	35:DP:117:ALA:HB2	2.56	0.41
43:DU:48:ALA:CB	43:DU:59:GLY:O	2.66	0.41
1:AA:1317:C:N1	14:AQ:16:PHE:CE1	2.89	0.41
24:BA:2341:G:H2'	24:BA:2342:C:O4'	2.21	0.41
24:BA:278:A:C2'	24:BA:279:C:C6	3.02	0.41
1:CA:616:G:C4	1:CA:617:G:C8	3.09	0.41
30:DH:86:GLU:CD	30:DH:86:GLU:N	2.75	0.41
1:CA:474:G:H4'	16:CS:81:ARG:HH12	1.85	0.41
24:DA:386:G:H4'	24:DA:387:U:OP2	2.21	0.41
24:DA:1967:C:H2'	24:DA:1968:G:C5'	2.48	0.41
26:BD:154:LYS:C	26:BD:155:LEU:HD12	2.41	0.41
1:AA:729:A:H2'	1:AA:730:G:H8	1.85	0.41
10:AM:27:ALA:O	10:AM:31:GLY:N	2.54	0.41
24:DA:2715:C:H2'	24:DA:2716:U:C6	2.54	0.41
46:DZ:51:VAL:HG23	46:DZ:58:ILE:HB	2.03	0.41
32:DM:43:THR:HG22	32:DM:45:ASN:HD22	1.85	0.41
27:BE:81:ILE:HG21	27:BE:84:PHE:CD2	2.56	0.41
53:D8:14:VAL:HG22	53:D8:15:LYS:N	2.36	0.41
32:BM:137:LYS:CG	32:BM:138:LEU:N	2.80	0.41
7:CJ:100:ALA:O	7:CJ:104:LEU:HD23	2.21	0.41
24:BA:336:C:C2	24:BA:337:C:C5	3.09	0.41
12:CO:55:VAL:CG2	12:CO:56:ALA:H	2.32	0.41
31:BK:4:ILE:HD11	31:BK:44:LEU:CD1	2.49	0.41
28:BF:46:ARG:NH1	28:BF:46:ARG:HG2	2.36	0.41
10:CM:3:LYS:NZ	10:CM:75:ILE:O	2.54	0.41
38:BR:14:TYR:N	38:BR:14:TYR:CD1	2.88	0.41
24:BA:950:G:C5	24:BA:951:C:C5	3.09	0.41
3:AF:32:LEU:HD22	3:AF:32:LEU:N	2.36	0.41
24:DA:1655:A:O2'	27:DE:115:GLY:HA2	2.20	0.41
1:AA:575:G:H4'	1:AA:576:G:H5''	2.02	0.41
1:CA:797:C:OP1	11:CN:124:LYS:HG3	2.21	0.41
24:DA:1651:G:H2'	24:DA:1652:A:O4'	2.21	0.41
24:DA:529:A:C2'	24:DA:529:A:N3	2.84	0.41
24:DA:572:A:H5''	24:DA:573:G:OP2	2.21	0.41
24:BA:2839:G:C5	24:BA:2840:C:C4	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1072:G:C6	1:AA:1073:U:C4	3.09	0.41
10:CM:35:SER:OG	10:CM:73:ASP:HB2	2.21	0.41
24:BA:1571:A:H2'	24:BA:1572:A:C8	2.56	0.41
24:DA:48:G:H4'	24:DA:52:A:O4'	2.21	0.41
24:DA:1297:C:H2'	24:DA:1298:C:C6	2.56	0.41
36:B0:18:LEU:HD22	36:B0:22:ARG:NE	2.36	0.41
24:BA:1725:G:H2'	24:BA:1726:G:H8	1.85	0.41
50:D5:29:THR:O	50:D5:30:LEU:HD23	2.21	0.41
24:BA:182:A:C6	24:BA:183:C:C4	3.09	0.41
24:DA:899:A:O2'	24:DA:900:A:H5'	2.21	0.41
24:BA:841:A:H2'	24:BA:842:G:C8	2.57	0.41
41:BS:69:LEU:HA	41:BS:108:GLY:O	2.21	0.41
24:DA:1276:A:H61	24:DA:1294:U:H3	1.69	0.41
4:AG:58:LEU:HD23	4:AG:58:LEU:O	2.21	0.41
41:DS:36:LEU:HD12	41:DS:51:LEU:HD12	2.03	0.41
1:CA:428:G:C5	1:CA:430:A:C6	3.09	0.40
1:CA:430:A:OP2	4:CG:8:VAL:N	2.45	0.40
1:CA:1187:G:P	9:CL:113:LYS:HZ2	2.43	0.40
1:CA:1297:C:C1'	1:CA:1298:C:OP2	2.68	0.40
1:CA:1318:A:H5''	19:CV:10:PHE:CB	2.51	0.40
1:CA:1321:C:N4	1:CA:1322:C:N4	2.69	0.40
1:CA:978:A:HO2'	1:CA:1322:C:N4	2.19	0.40
13:CP:77:ASN:HA	13:CP:80:ARG:HE	1.85	0.40
24:BA:2001:A:H2'	24:BA:2002:G:C8	2.56	0.40
9:AL:95:LYS:CD	9:AL:96:LEU:HD12	2.44	0.40
24:DA:777:A:N7	24:DA:793:A:H2	2.19	0.40
27:DE:61:ARG:HB2	27:DE:62:PRO:CD	2.52	0.40
2:AE:74:LYS:NZ	2:AE:166:ASP:HB2	2.33	0.40
27:DE:80:GLU:O	27:DE:81:ILE:CB	2.64	0.40
2:AE:218:ALA:O	2:AE:222:ILE:HG13	2.21	0.40
2:AE:212:GLN:NE2	2:AE:235:SER:HA	2.36	0.40
2:CE:152:PHE:C	2:CE:154:LEU:N	2.74	0.40
2:CE:83:MET:O	2:CE:84:GLU:C	2.59	0.40
24:DA:1054:A:O2'	24:DA:1055:G:O4'	2.30	0.40
24:DA:1088:A:O3'	24:DA:1089:G:C8	2.64	0.40
10:CM:24:VAL:O	10:CM:28:ARG:HD2	2.21	0.40
3:CF:109:PRO:O	3:CF:115:LEU:HD13	2.22	0.40
1:AA:1028(B):C:N4	1:AA:1032(A):G:N1	2.69	0.40
4:CG:65:ARG:HG3	4:CG:75:PHE:HD2	1.77	0.40
24:BA:2718:G:O2'	24:BA:2847:U:OP1	2.31	0.40
10:AM:48:THR:CG2	10:AM:62:HIS:HB3	2.51	0.40
3:CF:171:GLY:O	3:CF:172:ARG:HG2	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BP:134:ARG:HH21	44:BV:122:ARG:HE	1.68	0.40
24:BA:2136:C:N3	24:BA:2137:C:N4	2.68	0.40
27:DE:25:VAL:HG12	27:DE:26:ILE:H	1.83	0.40
44:BV:106:GLY:C	44:BV:107:THR:HG23	2.41	0.40
34:BO:46:LYS:HE2	34:BO:46:LYS:HB3	1.82	0.40
39:B1:75:ASN:OD1	39:B1:78:THR:HG23	2.22	0.40
24:DA:2525:G:N2	24:DA:2538:C:O2	2.54	0.40
24:DA:631:A:H2'	24:DA:632:A:O4'	2.21	0.40
28:BF:64:ILE:HG22	28:BF:65:TRP:CD2	2.56	0.40
1:CA:1007:C:C2	1:CA:1023:G:N2	2.89	0.40
20:AW:73:HIS:HB3	20:AW:74:LYS:HE2	2.04	0.40
47:DW:47:ASN:C	47:DW:49:LYS:N	2.69	0.40
1:AA:691:G:O2'	1:AA:797:C:H4'	2.22	0.40
1:AA:67:C:HO2'	1:AA:171:A:H1'	1.85	0.40
24:BA:2791:C:C2	24:BA:2792:G:C8	3.08	0.40
36:D0:2:ARG:HA	36:D0:2:ARG:HD3	1.82	0.40
5:CH:15:ARG:O	5:CH:15:ARG:CG	2.69	0.40
1:AA:998:G:C6	1:AA:998(A):C:N4	2.89	0.40
1:AA:279:A:OP1	1:AA:280:C:O2'	2.27	0.40
20:AW:39:LYS:O	20:AW:43:LEU:HG	2.21	0.40
1:AA:1077:G:N1	1:AA:1081:G:C6	2.90	0.40
20:CW:86:ARG:HB2	20:CW:86:ARG:CZ	2.49	0.40
24:BA:729:G:O2'	24:BA:763:G:H4'	2.21	0.40
6:AI:23:LYS:NZ	6:AI:42:GLU:OE1	2.54	0.40
44:BV:61:LEU:C	44:BV:61:LEU:HD12	2.41	0.40
24:DA:952:G:C6	24:DA:953:A:N7	2.89	0.40
24:DA:499:U:C1'	43:DU:47:LYS:HZ1	2.33	0.40
1:CA:750:G:N2	15:CR:23:GLY:O	2.52	0.40
24:BA:273(F):C:O2	24:BA:273(F):C:H2'	2.20	0.40
34:DO:9:ASN:CB	34:DO:10:PRO:CD	2.98	0.40
24:BA:1335:U:OP1	42:BT:65:ARG:HG2	2.21	0.40
24:BA:2801:A:O5'	24:BA:2895:U:H4'	2.20	0.40
41:BS:65:LEU:HB3	41:BS:67:ASP:OD1	2.20	0.40
24:DA:986:C:H2'	24:DA:987:G:C5'	2.50	0.40
24:BA:2228:G:C6	24:BA:2229:C:C4	3.09	0.40
29:BG:44:GLY:O	29:BG:46:ALA:N	2.48	0.40
4:AG:158:ILE:O	4:AG:162:LEU:HG	2.19	0.40
20:AW:96:GLY:O	20:AW:97:ALA:HB3	2.21	0.40
29:BG:53:LEU:CD2	29:BG:87:PRO:HB2	2.51	0.40
27:BE:57:LYS:HB3	27:BE:57:LYS:HZ3	1.86	0.40
4:CG:23:GLY:HA3	4:CG:112:VAL:CG2	2.50	0.40
13:AP:34:LEU:N	13:AP:34:LEU:HD22	2.36	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:D0:41:ALA:O	36:D0:44:LEU:N	2.54	0.40
24:BA:1187:G:H5''	40:B2:81:TYR:CE1	2.56	0.40
1:CA:261:U:H2'	1:CA:263:A:OP2	2.20	0.40
24:DA:138:G:O2'	24:DA:139:G:H5'	2.20	0.40
24:DA:99:U:C4'	24:DA:102:G:H1'	2.52	0.40
1:AA:549:C:H2'	1:AA:550:G:O5'	2.21	0.40
24:DA:2584:U:C5	24:DA:2585:U:C6	3.08	0.40
39:B1:49:HIS:HA	39:B1:52:ARG:CG	2.47	0.40
38:DR:100:TYR:HD1	38:DR:101:PHE:N	2.19	0.40
44:DV:58:VAL:O	44:DV:59:LEU:HB2	2.20	0.40
27:BE:81:ILE:HD13	27:BE:81:ILE:HA	1.94	0.40
24:DA:2898:U:O2'	24:DA:2899:G:H5'	2.20	0.40
36:B0:41:ALA:O	36:B0:42:LYS:C	2.59	0.40
24:BA:930:U:H4'	24:BA:931:G:O4'	2.21	0.40
24:BA:2760:C:C2'	24:BA:2761:G:H5'	2.51	0.40
17:AT:85:VAL:O	17:AT:89:LEU:HB2	2.21	0.40
15:AR:87:ILE:O	15:AR:88:ARG:HB2	2.20	0.40
36:B0:12:ARG:HG2	36:B0:16:HIS:CD2	2.56	0.40
27:DE:161:GLY:O	27:DE:162:ALA:CB	2.69	0.40
1:CA:565:U:OP2	1:CA:566:G:O2'	2.28	0.40
32:BM:90:MET:HA	32:BM:90:MET:HE2	2.03	0.40
1:AA:898:G:N2	1:AA:901:A:OP2	2.53	0.40
26:BD:183:ARG:NH1	26:BD:183:ARG:CG	2.84	0.40
26:BD:158:ALA:O	26:BD:159:ALA:C	2.59	0.40
1:AA:1155:G:C6	1:AA:1156:G:C4	3.09	0.40
1:AA:370:C:H2'	1:AA:371:G:H8	1.85	0.40
43:DU:30:VAL:O	43:DU:31:LEU:HB2	2.20	0.40
24:BA:2492:U:H2'	24:BA:2493:U:C6	2.57	0.40
44:DV:65:GLN:O	44:DV:66:SER:HB2	2.21	0.40
46:DZ:21:ARG:HB2	46:DZ:35:THR:HG23	2.04	0.40
1:AA:932:C:OP1	7:AJ:4:ARG:HG3	2.20	0.40
24:DA:519:U:H2'	24:DA:520:G:H8	1.84	0.40
1:AA:767:A:H2'	1:AA:768:A:O4'	2.20	0.40
24:DA:1265:A:O4'	24:DA:1267:U:C6	2.74	0.40
36:D0:18:LEU:HD22	36:D0:22:ARG:CD	2.51	0.40
30:DH:58:GLU:C	30:DH:60:ARG:N	2.75	0.40
24:BA:200:U:H2'	24:BA:201:C:H5'	2.03	0.40
26:DD:10:THR:OG1	26:DD:13:ARG:HB2	2.20	0.40
24:BA:2083:G:H2'	24:BA:2084:C:C6	2.56	0.40
44:DV:72:ARG:HA	44:DV:72:ARG:HD2	1.79	0.40
15:CR:31:LEU:HD12	15:CR:31:LEU:HA	1.95	0.40
29:DG:3:LEU:N	29:DG:3:LEU:HD12	2.36	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:1314:C:C6	24:BA:1314:C:OP2	2.74	0.40
42:BT:70:LEU:C	42:BT:70:LEU:HD12	2.42	0.40
46:BZ:18:ILE:HG22	46:BZ:20:ARG:HG3	2.04	0.40
4:CG:22:LYS:HB2	4:CG:26:CYS:HB2	2.02	0.40
1:CA:1124:G:H8	1:CA:1124:G:OP2	2.05	0.40
1:CA:1277:C:C2'	1:CA:1279:A:C8	3.04	0.40
1:CA:1320:C:N4	1:CA:1321:C:C4	2.88	0.40
24:DA:2376:A:C2	37:DQ:112:PHE:CG	3.09	0.40
37:DQ:98:VAL:HG23	37:DQ:99:LYS:N	2.36	0.40
24:DA:250:G:C6	24:DA:251:A:C6	3.09	0.40
51:B6:15:GLU:HB2	51:B6:20:ASN:CB	2.51	0.40
24:BA:2371:G:C5'	51:B6:45:LYS:CE	2.99	0.40
13:AP:81:LEU:HD23	13:AP:88:ARG:HD2	2.03	0.40
13:AP:78:ILE:HG22	13:AP:82:MET:CE	2.52	0.40
13:AP:82:MET:HE2	13:AP:92:HIS:CB	2.46	0.40
24:DA:907:U:O2'	35:DP:101:ARG:NH2	2.33	0.40
1:AA:1381:U:H1'	7:AJ:79:ARG:CG	2.51	0.40
24:DA:2755:C:O2'	24:DA:2756:U:H2'	2.22	0.40
29:BG:113:ARG:NH2	49:B4:34:GLU:OE1	2.53	0.40
24:DA:2788:C:H3'	24:DA:2789:C:O4'	2.20	0.40
24:DA:1901:A:O2'	24:DA:1902:C:H5'	2.21	0.40
27:DE:37:ARG:HA	27:DE:42:ASP:OD2	2.21	0.40
40:D2:84:LYS:O	40:D2:85:LYS:O	2.39	0.40
32:DM:124:ALA:O	32:DM:125:GLY:O	2.39	0.40
17:CT:95:TYR:HA	17:CT:95:TYR:HD1	1.68	0.40
1:AA:181:G:O6	1:AA:194:C:C2	2.74	0.40
24:DA:1085:A:O4'	24:DA:1086:A:OP1	2.38	0.40
3:CF:111:LEU:HD21	3:CF:146:ALA:H	1.86	0.40
44:BV:140:ASP:O	44:BV:144:LEU:CD2	2.67	0.40
24:DA:298:G:OP1	43:DU:84:ARG:O	2.39	0.40
36:B0:50:HIS:O	36:B0:54:LEU:HB2	2.21	0.40
24:BA:2119:A:N1	24:BA:2170:A:C5	2.89	0.40
24:BA:2128:C:O2	24:BA:2173:A:C2	2.74	0.40
24:BA:919:G:H2'	24:BA:920:G:O4'	2.22	0.40
44:DV:159:PRO:O	44:DV:161:VAL:HG22	2.22	0.40
1:AA:1133:G:N3	1:AA:1134:G:C8	2.89	0.40
1:CA:1460:A:C2'	1:CA:1461:G:H5'	2.51	0.40
39:B1:74:LEU:HD11	39:B1:79:PHE:CA	2.51	0.40
6:CI:62:TRP:CH2	6:CI:64:GLN:HB2	2.56	0.40
1:AA:625:G:O2'	1:AA:626:U:H5'	2.20	0.40
2:AE:22:LYS:C	2:AE:24:TRP:H	2.24	0.40
30:BH:13:LYS:HD3	30:BH:13:LYS:HA	1.91	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:197:A:C1'	1:CA:198:G:OP2	2.64	0.40
35:DP:87:LYS:O	35:DP:88:GLY:C	2.59	0.40
24:BA:1534:G:HO2'	24:BA:1535:U:C4'	2.34	0.40
37:DQ:10:ARG:O	37:DQ:14:VAL:HG12	2.21	0.40
4:CG:60:GLU:HG2	4:CG:202:LEU:CB	2.47	0.40
24:DA:1666:G:H2'	24:DA:1667:G:H5'	2.03	0.40
37:DQ:88:ASP:OD1	37:DQ:90:GLY:N	2.37	0.40
42:DT:23:GLU:CG	42:DT:24:GLY:N	2.84	0.40
24:BA:910:A:N1	24:BA:2277:G:H1'	2.36	0.40
26:DD:173:VAL:HG23	26:DD:174:ILE:N	2.36	0.40
2:CE:193:ASP:HA	2:CE:194:PRO:HD2	1.79	0.40
2:CE:196:LEU:HD12	2:CE:197:VAL:CG2	2.42	0.40
3:CF:11:ARG:HB3	3:CF:15:THR:HB	2.03	0.40
25:DB:89(A):A:C8	25:DB:90:C:O4'	2.74	0.40
36:D0:101:ALA:HB1	50:D5:41:PRO:CG	2.51	0.40
24:DA:111:A:C2	24:DA:112:U:C2	3.10	0.40
1:AA:243:A:C2	1:AA:245:C:C2	3.10	0.40
45:B3:70:GLN:O	45:B3:77:ARG:HA	2.20	0.40
24:DA:832:G:OP1	34:DO:38:GLN:HB3	2.21	0.40
24:DA:2226:C:H6	24:DA:2226:C:OP2	2.04	0.40
24:DA:469:G:O6	52:D7:37:LYS:HE2	2.22	0.40
24:DA:177:G:N3	24:DA:177:G:H2'	2.36	0.40
25:DB:15:A:H3'	25:DB:16:G:H5'	2.02	0.40
8:CK:69:ARG:HH11	8:CK:69:ARG:HB2	1.86	0.40
7:CJ:59:LEU:CD2	7:CJ:59:LEU:C	2.89	0.40
1:CA:115:G:C1'	1:CA:116:A:OP2	2.69	0.40
47:BW:40:SER:C	47:BW:42:GLY:H	2.24	0.40
24:DA:1407:C:C2	24:DA:1596:A:C2	3.08	0.40
29:DG:170:ARG:O	29:DG:174:GLU:HB2	2.21	0.40
1:CA:179:A:C4	1:CA:180:U:C5	3.09	0.40
2:CE:109:SER:O	2:CE:112:VAL:HB	2.21	0.40
24:BA:470:A:C2'	24:BA:471:A:O5'	2.70	0.40
36:D0:117:VAL:O	36:D0:118:GLU:HB2	2.21	0.40
1:CA:1492:A:C3'	1:CA:1493:A:H5''	2.50	0.40
1:CA:1492:A:N7	24:DA:1913:A:N6	2.70	0.40
24:DA:414:C:H1'	24:DA:1864:U:H1'	2.03	0.40
29:BG:173:LEU:O	29:BG:178:PHE:HD1	2.03	0.40
24:BA:192:C:C5	24:BA:193:U:C6	3.09	0.40
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.57	0.40
1:AA:1137:C:O2'	1:AA:1138:G:H5''	2.21	0.40
35:BP:84:GLY:O	35:BP:85:LYS:HB3	2.20	0.40
24:BA:2294:C:N3	24:BA:2295:C:C5	2.89	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:BA:605:C:H1'	24:BA:657:U:H1'	2.03	0.40
1:AA:424:G:H2'	1:AA:425:G:H8	1.86	0.40
34:DO:100:LEU:CD2	34:DO:100:LEU:H	2.34	0.40
1:AA:300:A:O2'	1:AA:564:C:N3	2.47	0.40
24:BA:1392:A:N6	24:BA:1393:A:N1	2.69	0.40
24:DA:2010:G:C5	24:DA:2011:U:C5	3.10	0.40
28:DF:110:LEU:HD13	28:DF:205:ARG:HG2	2.04	0.40
1:CA:241:C:O2'	1:CA:242:C:H5'	2.22	0.40
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.21	0.40
5:AH:74:GLY:O	5:AH:116:THR:N	2.54	0.40
29:DG:22:ARG:NH2	29:DG:171:ALA:HB2	2.36	0.40
41:BS:41:LYS:C	41:BS:43:GLY:H	2.25	0.40
1:CA:554:C:H2'	1:CA:555:C:H6	1.87	0.40
1:AA:789:U:O2	1:AA:789:U:H3'	2.21	0.40
24:DA:2736:G:H2'	24:DA:2737:G:H8	1.86	0.40
24:BA:253:C:OP2	53:B8:5:LYS:NZ	2.47	0.40
24:BA:254:G:O2'	24:BA:384:U:H5'	2.22	0.40
6:CI:25:ILE:HA	6:CI:28:ARG:HB2	2.03	0.40
24:DA:2812:G:H2'	24:DA:2813:A:O4'	2.21	0.40
1:CA:800:G:H2'	1:CA:801:U:C6	2.56	0.40
32:DM:76:SER:HB3	32:DM:81:GLY:HA3	2.03	0.40
24:BA:552:G:H2'	24:BA:553:U:O4'	2.20	0.40
24:DA:1525:G:H2'	24:DA:1526:G:H8	1.87	0.40
24:DA:430:G:H5''	24:DA:431:U:OP2	2.20	0.40
24:BA:1389:G:N2	24:BA:1399:C:C2	2.90	0.40
31:BK:47:LEU:O	31:BK:51:ILE:HG13	2.22	0.40
24:DA:991:C:OP2	24:DA:1186:G:H5'	2.21	0.40
24:DA:30:G:C5	24:DA:31:C:C4	3.09	0.40
18:CU:34:TYR:HA	18:CU:40:LEU:HD11	2.03	0.40
24:DA:2238:G:N3	24:DA:2238:G:H2'	2.36	0.40
39:B1:20:LEU:HD23	39:B1:20:LEU:HA	1.92	0.40
24:DA:471:A:O5'	24:DA:471:A:H8	2.03	0.40
1:CA:92:G:H2'	1:CA:93:U:O4'	2.22	0.40
24:DA:1040:C:O2'	24:DA:1041:C:H5'	2.20	0.40
1:AA:35:G:H2'	1:AA:36:C:C6	2.56	0.40
1:CA:605:U:H2'	1:CA:606:G:O4'	2.21	0.40
1:CA:430:A:OP1	4:CG:9:CYS:CB	2.69	0.40
1:CA:1324:A:H4'	1:CA:1362:C:C4'	2.49	0.40
1:CA:976:G:N7	1:CA:1358:U:H2'	2.36	0.40
1:CA:976:G:P	1:CA:1358:U:HO2'	2.44	0.40
9:CL:78:LYS:CG	9:CL:101:PHE:CE1	3.04	0.40
1:CA:1329:A:C4'	13:CP:24:GLY:HA2	2.48	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CV:62:ILE:N	19:CV:62:ILE:CD1	2.83	0.40
19:CV:78:ARG:O	19:CV:79:THR:CB	2.69	0.40
24:DA:2376:A:N1	37:DQ:87:PHE:CD2	2.90	0.40
3:AF:9:GLY:O	14:AQ:58:LYS:HD2	2.21	0.40
24:DA:2287:A:HO2'	24:DA:2288:A:P	2.44	0.40
9:AL:105:ASP:OD1	9:AL:105:ASP:O	2.38	0.40
24:BA:2285:C:P	51:B6:28:ARG:CD	3.08	0.40
24:BA:2400:G:C8	24:BA:2401:U:C5	3.09	0.40
24:DA:869:G:N2	24:DA:870:A:H1'	2.37	0.40
26:BD:27:THR:CG2	26:BD:30:GLU:OE1	2.69	0.40
4:AG:12:CYS:HB3	4:AG:33:MET:CE	2.52	0.40
24:BA:1050:A:N6	24:BA:2751:G:O6	2.55	0.40
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.22	0.40
40:B2:35:LEU:O	40:B2:36:PRO:C	2.60	0.40
3:CF:36:ASP:OD1	3:CF:57:ILE:HD13	2.21	0.40
2:AE:20:GLU:HG3	2:AE:191:ASP:OD1	2.20	0.40
24:BA:1106:G:H2'	24:BA:1107:G:H8	1.85	0.40
40:D2:5:VAL:HA	40:D2:37:VAL:HB	2.02	0.40
13:CP:3:ARG:CG	13:CP:9:ILE:CG2	2.85	0.40
32:DM:55:VAL:HB	32:DM:125:GLY:HA3	2.03	0.40
1:CA:277:C:OP1	17:CT:41:LYS:HE3	2.22	0.40
3:CF:71:ALA:HB2	3:CF:109:PRO:HB3	1.98	0.40
24:DA:298:G:O2'	24:DA:322:A:N1	2.43	0.40
1:AA:55:A:N1	31:DK:89:TYR:CG	2.90	0.40
26:BD:244:ARG:HB2	26:BD:245:PRO:CD	2.52	0.40
3:CF:170:GLN:HG2	3:CF:171:GLY:N	2.37	0.40
44:DV:30:ASN:ND2	44:DV:32:HIS:H	2.19	0.40
29:BG:3:LEU:HD12	29:BG:3:LEU:N	2.02	0.40
24:BA:860:U:C2	24:BA:2268:A:O4'	2.74	0.40
40:D2:98:GLU:O	40:D2:99:ILE:CB	2.68	0.40
24:BA:2393:A:O3'	34:BO:62:LEU:HA	2.21	0.40
24:DA:2536:G:C6	24:DA:2537:U:C4	3.08	0.40
24:BA:618(A):C:N4	24:BA:619:G:C6	2.90	0.40
9:AL:16:ARG:CD	9:AL:64:THR:HG22	2.49	0.40
10:AM:36:GLY:O	10:AM:38:ILE:N	2.54	0.40
38:DR:120:ARG:O	38:DR:124:ASP:OD1	2.40	0.40
22:AC:19:G:C4	22:AC:57:A:C2	3.09	0.40
24:BA:1018:C:H2'	24:BA:1019:U:H5'	2.03	0.40
14:CQ:26:ARG:CZ	14:CQ:43:CYS:SG	3.07	0.40
1:CA:453:A:C5	1:CA:454:C:C4	3.09	0.40
8:AK:133:LEU:CD2	8:AK:133:LEU:C	2.89	0.40
24:BA:242:G:H5"	53:B8:62:LEU:CD1	2.35	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CF:82:GLU:O	3:CF:86:VAL:HG13	2.21	0.40
1:CA:197:A:N6	1:CA:221:C:H4'	2.36	0.40
28:DF:63:LYS:HE3	28:DF:65:TRP:O	2.22	0.40
24:BA:197:A:N6	24:BA:2430:A:H2'	2.36	0.40
49:B4:58:ARG:CZ	49:B4:62:ARG:HD2	2.51	0.40
24:DA:2355:C:C4'	45:D3:36:ILE:CD1	2.91	0.40
24:BA:880:G:N2	24:BA:898:C:H1'	2.34	0.40
24:DA:2119:A:C2	24:DA:2171:A:H4'	2.56	0.40
24:DA:2159:G:H8	24:DA:2159:G:OP2	2.05	0.40
28:BF:132:VAL:O	28:BF:138:GLU:OE1	2.39	0.40
24:DA:1011:G:H2'	24:DA:1013:C:O4'	2.21	0.40
24:DA:270(T):G:C6	24:DA:270(U):C:C4	3.09	0.40
34:BO:38:GLN:O	34:BO:41:ARG:HB2	2.21	0.40
9:CL:95:LYS:CB	9:CL:95:LYS:NZ	2.83	0.40
24:DA:1602:U:OP1	42:DT:60:ARG:NH2	2.54	0.40
40:D2:29:PRO:HB2	40:D2:30:GLY:H	1.68	0.40
24:BA:1557:C:P	24:BA:1558:A:O2'	2.79	0.40
38:BR:39:ARG:HG2	38:BR:40:THR:H	1.86	0.40
26:BD:10:THR:HB	26:BD:11:PRO:HD2	2.03	0.40
47:DW:33:MET:HE3	47:DW:37:PHE:HE1	1.87	0.40
24:BA:2850:A:H2'	24:BA:2851:A:H8	1.84	0.40
25:BB:37:C:C5	25:BB:38:C:C5	3.09	0.40
24:DA:1542:G:O5'	24:DA:1543:A:H5''	2.20	0.40
6:CI:52:ILE:HD13	6:CI:87:ARG:HD2	2.04	0.40
6:CI:2:ARG:HH22	15:CR:2:PRO:CD	2.34	0.40
24:DA:500:G:N1	24:DA:503:A:OP2	2.51	0.40
1:CA:881:G:C5	1:CA:882:C:C5	3.09	0.40
1:AA:616:G:O2'	1:AA:617:G:H5'	2.22	0.40
25:BB:59:A:C5	25:BB:60:C:C5	3.09	0.40
31:DK:38:LEU:H	31:DK:38:LEU:CD1	2.26	0.40
47:BW:9:GLN:O	47:BW:13:ALA:HB2	2.22	0.40
1:AA:1015:A:C6	1:AA:1016:A:C6	3.09	0.40
24:BA:359:A:H2'	24:BA:360:G:O4'	2.20	0.40
1:AA:631:G:HO2'	1:AA:632:A:H8	1.69	0.40
32:BM:113:GLY:C	32:BM:114:ARG:O	2.57	0.40
44:DV:19:ARG:NH1	44:DV:84:GLU:CA	2.82	0.40
1:AA:217:C:H2'	1:AA:218:C:O4'	2.21	0.40
1:AA:988:G:C1'	1:AA:1014:A:H61	2.35	0.40
20:CW:18:GLN:O	20:CW:22:ARG:HG3	2.22	0.40
14:AQ:44:LEU:HD12	14:AQ:45:ARG:N	2.35	0.40
16:AS:23:ASP:OD1	16:AS:24:ALA:N	2.54	0.40
35:BP:21:THR:HG21	35:BP:100:GLY:HA3	2.02	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:310:G:P	16:AS:27:LYS:NZ	2.94	0.40
24:DA:2110:G:O2'	24:DA:2120:G:OP1	2.23	0.40
30:BH:90:LYS:HB3	30:BH:91:GLY:H	1.68	0.40
29:BG:178:PHE:HA	29:BG:179:PRO:HD2	1.93	0.40
7:AJ:73:MET:HG2	7:AJ:90:GLU:HA	2.02	0.40
1:AA:392:G:C5	1:AA:393:A:N7	2.90	0.40
1:AA:881:G:H2'	1:AA:882:C:O4'	2.21	0.40
24:BA:1034:G:C5	24:BA:1035:U:C5	3.10	0.40
15:AR:29:VAL:HG11	15:AR:67:LEU:HD11	2.04	0.40
24:BA:1635:G:C6	24:BA:1636:C:C4	3.09	0.40
25:BB:6:C:HO2'	37:BQ:29:PHE:HE2	1.68	0.40
27:BE:35:GLN:HB2	27:BE:48:GLN:HB2	2.03	0.40
39:D1:6:THR:HG21	39:D1:10:ARG:HB2	2.02	0.40
24:DA:582:G:C6	24:DA:583:G:C6	3.08	0.40
1:AA:296:U:H2'	1:AA:297:G:H8	1.85	0.40
44:DV:6:LYS:O	44:DV:7:ALA:HB3	2.21	0.40
24:DA:1996:C:H5	33:DN:32:TYR:OH	2.04	0.40
24:BA:1144:G:C5	24:BA:1145:C:C5	3.10	0.40
5:AH:137:GLU:HA	5:AH:140:ARG:NH1	2.36	0.40
24:DA:1425:G:H2'	24:DA:1426:G:O4'	2.21	0.40
34:BO:106:LEU:HD13	34:BO:107:LYS:O	2.21	0.40
24:DA:1709:U:H2'	24:DA:1710:C:C6	2.56	0.40
1:AA:1508:G:O2'	1:AA:1509:C:H5'	2.22	0.40
32:BM:128:HIS:HB2	32:BM:129:PRO:CD	2.52	0.40
24:DA:1258:C:H2'	24:DA:1259:G:C8	2.56	0.40
1:AA:1071:C:C2	1:AA:1105:A:C2	3.09	0.40
1:CA:166:G:H2'	1:CA:167:G:H8	1.87	0.40
24:BA:1224:G:C5	24:BA:1226:G:OP2	2.74	0.40
24:DA:703:U:H2'	24:DA:704:G:H5'	2.02	0.40
24:DA:994:C:OP2	39:D1:54:LYS:NZ	2.43	0.40
6:AI:82:ARG:HB2	6:AI:85:VAL:HG23	2.03	0.40
1:CA:1464:G:O2'	1:CA:1465:C:H5'	2.22	0.40
24:BA:1216:G:OP1	39:B1:8:VAL:HG23	2.22	0.40
24:DA:531:C:OP1	24:DA:561:G:N2	2.54	0.40
1:AA:1344:C:O2'	1:AA:1345:U:H5'	2.22	0.40
1:AA:1344:C:C2'	1:AA:1345:U:H5'	2.52	0.40
24:DA:950:G:C5	24:DA:951:C:C4	3.09	0.40
1:CA:1229:A:H2'	1:CA:1230:C:C6	2.56	0.40
1:CA:607:A:H2'	1:CA:608:A:O4'	2.20	0.40
1:CA:1154:G:N3	1:CA:1155:G:C8	2.89	0.40
9:CL:28:VAL:HG22	9:CL:63:ILE:H	1.86	0.40
1:CA:946:A:P	13:CP:114:ARG:NH1	2.94	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DQ:110:LEU:CG	37:DQ:111:GLU:H	2.35	0.40
51:D6:36:LEU:HD11	51:D6:50:ARG:CZ	2.52	0.40
53:D8:9:GLY:O	53:D8:13:ARG:HD2	2.21	0.40
51:B6:11:LEU:CD2	51:B6:51:GLU:CD	2.90	0.40
13:AP:87:TYR:CD2	13:AP:88:ARG:N	2.90	0.40
30:BH:54:ARG:NH1	30:BH:65:HIS:ND1	2.70	0.40
26:BD:77:ALA:HB2	26:BD:97:TYR:CD2	2.57	0.40
24:BA:1045:A:C8	24:BA:1047:G:N1	2.89	0.40
19:AV:5:LEU:CD1	19:AV:5:LEU:O	2.69	0.40
24:BA:1093:G:O2'	24:BA:1099:G:N2	2.55	0.40
27:DE:31:CYS:SG	27:DE:51:PHE:HB2	2.61	0.40
44:BV:57:ILE:HD12	44:BV:57:ILE:N	2.37	0.40
24:BA:270(J):G:H1	24:BA:270(P):C:H42	1.68	0.40
2:CE:57:PHE:CZ	2:CE:183:PRO:HB2	2.55	0.40
10:CM:81:THR:CG2	10:CM:84:GLN:HE21	2.34	0.40
24:DA:1063:G:C2	24:DA:1076:C:C2	3.10	0.40
1:AA:975:A:H5''	1:AA:976:G:H5''	2.03	0.40
9:CL:4:TYR:CD1	9:CL:88:TYR:CE1	3.10	0.40
24:DA:875:G:C5'	44:DV:173:ALA:HB1	2.51	0.40
34:BO:17:LYS:HB2	34:BO:17:LYS:HE2	1.91	0.40
1:AA:1032(B):G:N1	1:AA:1033:G:C2	2.89	0.40
44:DV:41:LEU:HA	44:DV:41:LEU:HD12	1.88	0.40
4:CG:108:LEU:HB3	4:CG:110:PHE:HD1	1.85	0.40
1:CA:1015:A:C6	1:CA:1016:A:C5	3.10	0.40
19:CV:40:ILE:HG12	19:CV:71:LEU:HD23	2.04	0.40
24:BA:2845:G:O2'	24:BA:2846:G:H5'	2.21	0.40
24:DA:746:A:C5	24:DA:2611:U:H5''	2.56	0.40
40:D2:2:PHE:HA	40:D2:15:GLU:HG2	2.04	0.40
5:AH:67:VAL:CG2	5:AH:68:GLU:N	2.81	0.40
24:BA:654(N):G:C6	24:BA:654(O):G:N1	2.89	0.40
3:AF:155:GLY:O	3:AF:157:ILE:N	2.54	0.40
34:DO:19:VAL:CG2	34:DO:20:GLY:N	2.75	0.40
24:BA:49:A:N6	24:BA:177:G:C4	2.89	0.40
24:BA:1022:G:C1'	24:BA:1023:U:OP2	2.66	0.40
1:CA:451:A:N6	1:CA:481:G:C8	2.89	0.40
4:CG:178:VAL:C	4:CG:180:GLY:N	2.75	0.40
16:AS:20:VAL:HG21	16:AS:32:TYR:CD2	2.53	0.40
26:DD:80:ALA:O	26:DD:81:ALA:HB2	2.22	0.40
2:AE:54:THR:O	2:AE:58:ILE:HG13	2.21	0.40
42:DT:30:VAL:HG21	42:DT:79:ALA:CB	2.51	0.40
1:AA:1351:U:H5'	7:AJ:33:ASP:OD1	2.22	0.40
7:AJ:32:ARG:O	7:AJ:33:ASP:HB2	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BR:51:ARG:HD3	38:BR:100:TYR:OH	2.21	0.40
24:DA:2542:A:HO2'	24:DA:2543:G:P	2.37	0.40
1:CA:706:A:C1'	11:CN:29:ILE:HD11	2.52	0.40
20:CW:87:LYS:HD2	20:CW:87:LYS:HA	1.94	0.40
1:CA:1069:C:C5	1:CA:1094:G:O6	2.74	0.40
24:DA:1173:G:N2	24:DA:1176:G:H22	2.20	0.40
1:CA:374:A:C6	1:CA:375:U:C4	3.09	0.40
11:AN:48:ILE:HG13	11:AN:63:LEU:HB2	2.04	0.40
24:DA:2101:G:C6	24:DA:2102:U:N3	2.90	0.40
42:DT:46:ALA:O	47:DW:30:ARG:NH2	2.55	0.40
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.22	0.40
5:CH:151:LEU:HD21	8:CK:79:VAL:HA	2.02	0.40
1:CA:671:G:H2'	1:CA:672:U:C6	2.56	0.40
15:CR:84:LYS:HG2	15:CR:84:LYS:O	2.21	0.40
27:DE:116:VAL:C	27:DE:118:LYS:H	2.25	0.40
27:DE:21:VAL:HA	27:DE:22:PRO:HD2	1.96	0.40
24:DA:993:G:N3	40:D2:89:GLN:OE1	2.54	0.40
39:B1:34:LYS:HA	39:B1:34:LYS:HD3	1.77	0.40
24:DA:1003:G:N3	24:DA:1010:A:H2	2.20	0.40
1:CA:644:G:H2'	1:CA:645:C:O4'	2.21	0.40
24:DA:1638:C:H1'	24:DA:2698:U:O2'	2.22	0.40
2:AE:141:GLU:O	2:AE:145:LEU:CD2	2.70	0.40
31:BK:116:LEU:CD1	31:BK:117:GLU:N	2.79	0.40
38:BR:85:LYS:C	38:BR:85:LYS:HD2	2.42	0.40
24:BA:476:G:H4'	24:BA:502:A:N1	2.37	0.40
24:DA:1678:G:N2	24:DA:1989:G:N1	2.69	0.40
24:BA:1878:G:C6	24:BA:1879:C:C4	3.09	0.40
1:AA:107:G:H2'	1:AA:108:G:C5'	2.51	0.40
29:DG:135:LEU:N	29:DG:135:LEU:CD1	2.85	0.40
5:AH:7:GLU:O	5:AH:112:LEU:HD13	2.21	0.40
4:AG:206:PHE:CD2	4:AG:207:TYR:CD1	3.09	0.40
24:BA:588:U:H1'	28:BF:90:PHE:CB	2.51	0.40
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.56	0.40
32:BM:36:GLY:H	32:BM:49:GLY:CA	2.34	0.40
24:BA:2244:U:H2'	24:BA:2245:U:C5'	2.50	0.40
46:DZ:67:ILE:N	46:DZ:68:PRO:HD2	2.36	0.40
1:AA:445:G:H2'	1:AA:446:G:H8	1.87	0.40
43:DU:2:ARG:O	43:DU:3:VAL:CG2	2.69	0.40
24:BA:1691:C:C2'	24:BA:1692:U:H5'	2.52	0.40
24:DA:1671:U:H2'	24:DA:1673:U:OP2	2.22	0.40
46:BZ:80:LEU:HB2	46:BZ:82:LEU:CD2	2.51	0.40
24:DA:455:C:N3	24:DA:472:A:H2'	2.36	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1072:G:C6	1:AA:1073:U:N3	2.89	0.40
24:BA:454:A:H4'	24:BA:455:C:OP2	2.20	0.40
30:DH:85:LYS:HD2	30:DH:145:ALA:HB1	2.04	0.40
1:CA:62:U:O2'	1:CA:379:C:O2	2.27	0.40
26:DD:107:ALA:HA	26:DD:108:PRO:HD3	1.72	0.40
35:BP:4:PRO:HD3	35:BP:70:PRO:O	2.22	0.40
24:BA:2086:U:H2'	24:BA:2087:G:C8	2.57	0.40
24:DA:14:A:C6	24:DA:526:A:C2	3.10	0.40
26:DD:58:HIS:ND1	26:DD:59:LYS:N	2.70	0.40
41:BS:29:LEU:HD21	41:BS:33:ARG:NH2	2.36	0.40
1:AA:1495:U:O2'	24:BA:1919:A:N1	2.41	0.40
24:DA:571:A:C6	24:DA:575:A:C8	3.10	0.40
44:BV:102:LEU:HB2	44:BV:104:PHE:CE1	2.56	0.40
24:BA:685:A:C2	24:BA:689:A:C6	3.09	0.40
38:DR:61:PHE:CD1	38:DR:61:PHE:N	2.88	0.40
24:BA:2793:G:OP2	24:BA:2793:G:H8	2.04	0.40
3:AF:48:TYR:O	3:AF:48:TYR:HD1	2.04	0.40
4:AG:49:ARG:O	4:AG:51:PRO:HD3	2.21	0.40
1:AA:1164:G:C6	1:AA:1165:C:C4	3.10	0.40
38:DR:121:ILE:O	38:DR:125:ARG:HG2	2.21	0.40
1:CA:1309:G:N1	1:CA:1329:A:C4	2.88	0.40
1:CA:1349:A:P	9:CL:118:LYS:NZ	2.94	0.40
37:DQ:71:ARG:O	37:DQ:74:ALA:HB3	2.21	0.40
51:D6:15:GLU:OE1	51:D6:18:ARG:NE	2.52	0.40
24:BA:2000:G:P	36:B0:2:ARG:NH1	2.95	0.40
34:DO:62:LEU:CD1	34:DO:64:LYS:H	2.35	0.40
24:BA:2285:C:C5	51:B6:27:LYS:HE2	2.56	0.40
24:BA:2284:C:OP1	51:B6:28:ARG:NH2	2.55	0.40
24:BA:2419:U:H2'	24:BA:2420:C:C6	2.56	0.40
24:DA:1111:A:HO2'	24:DA:1112:G:H4'	1.74	0.40
1:AA:1314:C:H2'	1:AA:1315:U:C6	2.56	0.40
1:AA:955:U:O2'	19:AV:83:HIS:CD2	2.74	0.40
29:BG:97:ASP:N	29:BG:100:TRP:HD1	2.16	0.40
37:BQ:83:LYS:HG3	37:BQ:109:GLY:HA3	1.97	0.40
40:D2:37:VAL:HB	40:D2:38:LEU:H	1.75	0.40
24:BA:270(T):G:OP1	46:BZ:97:LEU:HD22	2.21	0.40
29:DG:173:LEU:C	29:DG:178:PHE:HB2	2.42	0.40
2:CE:102:LEU:CD2	2:CE:162:ILE:HD11	2.52	0.40
2:CE:169:LYS:HE3	2:CE:169:LYS:HB3	1.84	0.40
2:CE:19:HIS:HE2	2:CE:20:GLU:CG	2.32	0.40
2:CE:33:TYR:HB3	2:CE:41:ILE:CG2	2.42	0.40
20:AW:14:LYS:HG3	20:AW:18:GLN:CG	2.47	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:DA:1062:G:H1	24:DA:1076:C:H42	1.69	0.40
24:DA:1070:A:H3'	24:DA:1096:A:O2'	2.21	0.40
46:DZ:83:GLU:C	46:DZ:83:GLU:OE2	2.60	0.40
44:DV:148:ASP:OD2	44:DV:173:ALA:C	2.60	0.40
42:DT:64:LYS:HZ2	42:DT:73:ARG:NH2	2.19	0.40
29:DG:77:ILE:HD12	29:DG:77:ILE:N	2.36	0.40
39:D1:76:TYR:OH	39:D1:93:LYS:HE3	2.20	0.40
1:AA:663:A:C2'	1:AA:664:G:H5'	2.51	0.40
37:DQ:59:LYS:HD2	37:DQ:60:GLY:H	1.86	0.40
37:DQ:66:ALA:HA	37:DQ:69:VAL:HG13	2.03	0.40
24:BA:51:G:N2	24:BA:120:U:C6	2.85	0.40
5:AH:102:ALA:CB	5:AH:120:THR:OG1	2.65	0.40
1:AA:464:G:C5	1:AA:466:C:OP2	2.75	0.40
24:BA:1021:A:C2	24:BA:1023:U:C2	3.09	0.40
24:BA:1403:C:H5''	24:BA:1471:A:C1'	2.36	0.40
1:AA:673:G:H5''	6:AI:87:ARG:HH12	1.82	0.40
35:BP:29:PHE:HB3	35:BP:65:PHE:CE1	2.56	0.40
1:CA:382:A:H2'	1:CA:383:A:H8	1.86	0.40
1:CA:451:A:C5	1:CA:481:G:C5	3.10	0.40
1:AA:93:U:C2'	1:AA:95:G:O4'	2.64	0.40
1:AA:64:G:N7	1:AA:97:U:H5	2.19	0.40
24:DA:1451:C:N4	24:DA:1459:G:H1	2.18	0.40
36:B0:85:PRO:C	36:B0:87:TYR:H	2.24	0.40
28:BF:68:LYS:HG2	28:BF:69:HIS:ND1	2.36	0.40
24:DA:1005:C:O2	24:DA:1143:A:C6	2.75	0.40
24:DA:270(I):G:H2'	24:DA:270(J):G:H8	1.86	0.40
36:D0:28:LEU:HD13	36:D0:116:LEU:HD21	2.03	0.40
29:BG:7:LEU:HB2	29:BG:104:GLU:OE1	2.22	0.40
1:AA:426:G:H2'	1:AA:427:U:C6	2.57	0.40
1:CA:89:U:H1'	1:CA:90:C:O5'	2.21	0.40
24:BA:1790:C:H6	24:BA:1790:C:O5'	2.04	0.40
24:BA:1790:C:C5'	24:BA:1791:A:OP1	2.62	0.40
24:BA:2661:G:C5	24:BA:2662:A:C5	3.09	0.40
28:BF:198:ALA:C	28:BF:201:VAL:HG12	2.42	0.40
1:AA:1275:A:H2'	1:AA:1276:G:O4'	2.22	0.40
25:BB:71:C:C2'	25:BB:72:G:H5'	2.51	0.40
25:BB:71:C:N3	25:BB:72:G:C8	2.89	0.40
25:BB:71:C:O2'	25:BB:72:G:H5'	2.21	0.40
38:DR:49:VAL:HG13	38:DR:49:VAL:O	2.22	0.40
24:DA:2213:U:H4'	46:DZ:52:ARG:CZ	2.50	0.40
24:DA:1729:A:N3	24:DA:1730:U:C5	2.90	0.40
1:AA:617:G:C6	1:AA:618:C:C5	3.10	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AR:31:LEU:HD12	15:AR:31:LEU:HA	1.91	0.40
44:BV:100:VAL:HG23	44:BV:126:VAL:HG22	2.03	0.40
1:AA:1412:C:C2	1:AA:1489:G:N2	2.89	0.40
38:DR:129:ARG:C	38:DR:131:ALA:H	2.25	0.40
27:BE:97:LYS:O	27:BE:100:GLU:HG3	2.21	0.40
1:CA:792:A:H4'	1:CA:793:U:C5'	2.50	0.40
1:AA:604:G:C6	1:AA:605:U:C4	3.09	0.40
24:BA:572:A:H3'	24:BA:573:G:O4'	2.22	0.40
1:CA:1378:C:C5	1:CA:1379:G:N9	2.89	0.40
50:B5:56:LYS:O	50:B5:57:VAL:C	2.59	0.40
1:AA:599:C:H2'	1:AA:600:C:C6	2.56	0.40
1:AA:1218:C:P	14:AQ:9:LYS:NZ	2.94	0.40
24:BA:287:C:H2'	24:BA:288:C:C6	2.56	0.40
11:CN:58:PRO:HA	11:CN:90:GLY:CA	2.50	0.40
26:BD:79:VAL:CG2	26:BD:111:LEU:HD11	2.50	0.40
1:AA:646:U:H2'	1:AA:647:C:C6	2.56	0.40
1:CA:1173:G:H5'	7:CJ:5:ARG:NH2	2.37	0.40
20:AW:58:LYS:HD2	20:AW:58:LYS:HA	1.78	0.40
24:DA:2249:U:N3	24:DA:2253:G:OP2	2.46	0.40
24:DA:924:C:N4	24:DA:925:C:N4	2.69	0.40
24:BA:2776:A:O4'	24:BA:2778:A:C8	2.74	0.40
29:DG:42:GLY:HA2	29:DG:88:ILE:O	2.21	0.40
24:BA:1485:G:O2'	24:BA:1486:A:H5'	2.22	0.40
1:CA:104:G:N2	1:CA:105:G:C4	2.89	0.40
43:BU:17:SER:OG	43:BU:71:LYS:CD	2.69	0.40
24:BA:1882:C:N4	24:BA:1883:G:C6	2.89	0.40
32:DM:90:MET:HA	32:DM:90:MET:HE3	2.02	0.40
1:AA:669:U:N3	1:AA:670:G:N7	2.69	0.40
25:BB:66:A:C6	25:BB:108:C:C6	3.10	0.40
10:CM:10:GLY:H	10:CM:16:LEU:HD11	1.87	0.40
1:AA:1403:C:N4	23:A1:18:G:OP1	2.52	0.40
24:BA:2749:A:O2'	30:BH:59:ARG:HD3	2.21	0.40
1:AA:1350:A:OP1	9:AL:121:ARG:HG3	2.21	0.40
24:BA:1663:C:O2'	24:BA:1664:A:H8	2.04	0.40
1:AA:901:A:C5	1:AA:902:G:H1'	2.56	0.40
4:AG:45:GLN:H	4:AG:45:GLN:HG2	1.70	0.40
25:BB:20:C:C2'	25:BB:21:G:H5'	2.52	0.40
24:BA:830:G:C4	24:BA:2448:A:C5	3.09	0.40
24:DA:301:G:C4	24:DA:302:C:C5	3.10	0.40
24:DA:118:A:H1'	24:DA:178:G:O4'	2.22	0.40
24:BA:924:C:H2'	24:BA:925:C:H6	1.87	0.40
3:AF:136:GLN:HG3	3:AF:137:ALA:N	2.37	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CF:158:GLY:O	3:CF:160:ALA:N	2.54	0.40
1:CA:624:C:O2'	16:CS:10:GLY:HA2	2.20	0.40
24:DA:365:C:O2'	24:DA:366:C:H5'	2.22	0.40
24:BA:1248:G:C8	39:B1:3:ARG:HB2	2.56	0.40
31:BK:75:LEU:HG	31:BK:76:THR:H	1.87	0.40
10:AM:79:ARG:HD3	10:AM:79:ARG:HA	1.78	0.40
44:DV:174:VAL:O	44:DV:174:VAL:HG12	2.20	0.40
3:AF:55:VAL:O	3:AF:55:VAL:HG12	2.20	0.40
35:DP:55:VAL:O	35:DP:55:VAL:HG12	2.20	0.40
25:DB:23:G:O6	25:DB:59:A:N6	2.54	0.40
33:BN:115:VAL:HG23	33:BN:116:SER:N	2.36	0.40
5:AH:48:ALA:HB2	5:AH:57:LYS:HD3	2.03	0.40

All (4) 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)
31:BK:89:TYR:O	1:CA:357:G:O2'[4_555]	2.01	0.19
1:CA:86:U:O2'	24:DA:276:A:OP2[3_545]	2.09	0.11
1:AA:1175:G:O2'	10:CM:80:LYS:NZ[4_555]	2.18	0.02
1:CA:84:U:O2'	24:DA:273:G:OP1[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	235/256 (92%)	162 (69%)	47 (20%)	26 (11%)	1	5
2	CE	235/256 (92%)	166 (71%)	44 (19%)	25 (11%)	1	6
3	AF	203/239 (85%)	150 (74%)	36 (18%)	17 (8%)	1	12
3	CF	204/239 (85%)	138 (68%)	51 (25%)	15 (7%)	2	15
4	AG	206/208 (99%)	157 (76%)	35 (17%)	14 (7%)	2	18
4	CG	206/208 (99%)	140 (68%)	44 (21%)	22 (11%)	1	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	AH	149/162 (92%)	127 (85%)	17 (11%)	5 (3%)	6	42
5	CH	149/162 (92%)	112 (75%)	31 (21%)	6 (4%)	5	36
6	AI	99/101 (98%)	81 (82%)	14 (14%)	4 (4%)	5	36
6	CI	99/101 (98%)	82 (83%)	11 (11%)	6 (6%)	2	22
7	AJ	153/156 (98%)	126 (82%)	17 (11%)	10 (6%)	2	19
7	CJ	153/156 (98%)	112 (73%)	33 (22%)	8 (5%)	3	27
8	AK	136/138 (99%)	103 (76%)	27 (20%)	6 (4%)	4	32
8	CK	136/138 (99%)	114 (84%)	15 (11%)	7 (5%)	3	28
9	AL	125/128 (98%)	93 (74%)	26 (21%)	6 (5%)	4	30
9	CL	125/128 (98%)	93 (74%)	21 (17%)	11 (9%)	1	11
10	AM	97/105 (92%)	75 (77%)	17 (18%)	5 (5%)	3	27
10	CM	97/105 (92%)	69 (71%)	23 (24%)	5 (5%)	3	27
11	AN	117/129 (91%)	88 (75%)	20 (17%)	9 (8%)	1	14
11	CN	117/129 (91%)	94 (80%)	17 (14%)	6 (5%)	3	28
12	AO	123/128 (96%)	96 (78%)	17 (14%)	10 (8%)	1	13
12	CO	123/128 (96%)	91 (74%)	23 (19%)	9 (7%)	2	16
13	AP	114/126 (90%)	87 (76%)	15 (13%)	12 (10%)	1	6
13	CP	115/126 (91%)	82 (71%)	19 (16%)	14 (12%)	1	4
14	AQ	58/61 (95%)	43 (74%)	11 (19%)	4 (7%)	2	17
14	CQ	58/61 (95%)	40 (69%)	12 (21%)	6 (10%)	1	7
15	AR	86/89 (97%)	71 (83%)	9 (10%)	6 (7%)	2	17
15	CR	86/89 (97%)	72 (84%)	13 (15%)	1 (1%)	19	71
16	AS	82/88 (93%)	61 (74%)	18 (22%)	3 (4%)	5	39
16	CS	82/88 (93%)	59 (72%)	17 (21%)	6 (7%)	2	16
17	AT	98/105 (93%)	78 (80%)	16 (16%)	4 (4%)	4	35
17	CT	98/105 (93%)	76 (78%)	15 (15%)	7 (7%)	2	17
18	AU	70/88 (80%)	58 (83%)	7 (10%)	5 (7%)	2	17
18	CU	70/88 (80%)	53 (76%)	13 (19%)	4 (6%)	3	24
19	AV	81/93 (87%)	53 (65%)	19 (24%)	9 (11%)	1	5
19	CV	76/93 (82%)	48 (63%)	19 (25%)	9 (12%)	1	4
20	AW	97/106 (92%)	67 (69%)	17 (18%)	13 (13%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
20	CW	97/106 (92%)	64 (66%)	22 (23%)	11 (11%)	1	5
21	AX	23/27 (85%)	17 (74%)	4 (17%)	2 (9%)	1	11
21	CX	23/27 (85%)	14 (61%)	5 (22%)	4 (17%)	0	1
26	BD	270/276 (98%)	227 (84%)	31 (12%)	12 (4%)	4	32
26	DD	270/276 (98%)	223 (83%)	35 (13%)	12 (4%)	4	32
27	BE	203/206 (98%)	151 (74%)	35 (17%)	17 (8%)	1	12
27	DE	203/206 (98%)	133 (66%)	40 (20%)	30 (15%)	0	2
28	BF	200/210 (95%)	171 (86%)	21 (10%)	8 (4%)	5	36
28	DF	206/210 (98%)	155 (75%)	33 (16%)	18 (9%)	1	11
29	BG	179/182 (98%)	132 (74%)	32 (18%)	15 (8%)	1	12
29	DG	179/182 (98%)	128 (72%)	35 (20%)	16 (9%)	1	10
30	BH	168/180 (93%)	107 (64%)	30 (18%)	31 (18%)	0	1
30	DH	168/180 (93%)	103 (61%)	30 (18%)	35 (21%)	0	1
31	BK	144/148 (97%)	102 (71%)	28 (19%)	14 (10%)	1	8
31	DK	144/148 (97%)	98 (68%)	31 (22%)	15 (10%)	1	7
32	BM	136/140 (97%)	101 (74%)	24 (18%)	11 (8%)	1	13
32	DM	136/140 (97%)	103 (76%)	22 (16%)	11 (8%)	1	13
33	BN	120/122 (98%)	106 (88%)	12 (10%)	2 (2%)	14	62
33	DN	120/122 (98%)	107 (89%)	10 (8%)	3 (2%)	9	51
34	BO	148/150 (99%)	99 (67%)	27 (18%)	22 (15%)	0	2
34	DO	148/150 (99%)	85 (57%)	31 (21%)	32 (22%)	0	1
35	BP	139/141 (99%)	104 (75%)	21 (15%)	14 (10%)	1	8
35	DP	139/141 (99%)	100 (72%)	24 (17%)	15 (11%)	1	6
36	B0	116/118 (98%)	91 (78%)	14 (12%)	11 (10%)	1	9
36	D0	115/118 (98%)	85 (74%)	21 (18%)	9 (8%)	1	14
37	BQ	109/112 (97%)	82 (75%)	15 (14%)	12 (11%)	1	6
37	DQ	109/112 (97%)	74 (68%)	22 (20%)	13 (12%)	1	4
38	BR	135/146 (92%)	101 (75%)	25 (18%)	9 (7%)	2	18
38	DR	135/146 (92%)	105 (78%)	19 (14%)	11 (8%)	1	13
39	B1	115/118 (98%)	92 (80%)	17 (15%)	6 (5%)	3	27
39	D1	115/118 (98%)	89 (77%)	20 (17%)	6 (5%)	3	27

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
40	B2	99/101 (98%)	74 (75%)	17 (17%)	8 (8%)	1	13
40	D2	99/101 (98%)	68 (69%)	16 (16%)	15 (15%)	0	1
41	BS	111/113 (98%)	91 (82%)	14 (13%)	6 (5%)	3	26
41	DS	111/113 (98%)	86 (78%)	17 (15%)	8 (7%)	2	16
42	BT	90/96 (94%)	75 (83%)	13 (14%)	2 (2%)	10	55
42	DT	90/96 (94%)	67 (74%)	13 (14%)	10 (11%)	1	5
43	BU	100/110 (91%)	64 (64%)	18 (18%)	18 (18%)	0	1
43	DU	100/110 (91%)	57 (57%)	18 (18%)	25 (25%)	0	0
44	BV	173/206 (84%)	105 (61%)	47 (27%)	21 (12%)	1	4
44	DV	177/206 (86%)	110 (62%)	37 (21%)	30 (17%)	0	1
45	B3	74/85 (87%)	57 (77%)	15 (20%)	2 (3%)	8	49
45	D3	75/85 (88%)	63 (84%)	9 (12%)	3 (4%)	5	36
46	BZ	95/98 (97%)	72 (76%)	17 (18%)	6 (6%)	2	20
46	DZ	95/98 (97%)	69 (73%)	12 (13%)	14 (15%)	0	2
47	BW	64/72 (89%)	54 (84%)	5 (8%)	5 (8%)	1	14
47	DW	67/72 (93%)	51 (76%)	9 (13%)	7 (10%)	1	7
48	BX	57/60 (95%)	51 (90%)	5 (9%)	1 (2%)	13	61
48	DX	57/60 (95%)	46 (81%)	9 (16%)	2 (4%)	6	41
49	B4	64/71 (90%)	33 (52%)	21 (33%)	10 (16%)	0	1
49	D4	61/71 (86%)	22 (36%)	23 (38%)	16 (26%)	0	0
50	B5	57/60 (95%)	42 (74%)	10 (18%)	5 (9%)	1	11
50	D5	57/60 (95%)	41 (72%)	6 (10%)	10 (18%)	0	1
51	B6	43/54 (80%)	24 (56%)	12 (28%)	7 (16%)	0	1
51	D6	43/54 (80%)	24 (56%)	13 (30%)	6 (14%)	0	2
52	B7	47/49 (96%)	42 (89%)	4 (8%)	1 (2%)	11	56
52	D7	47/49 (96%)	42 (89%)	5 (11%)	0	100	100
53	B8	59/65 (91%)	44 (75%)	10 (17%)	5 (8%)	1	11
53	D8	59/65 (91%)	38 (64%)	8 (14%)	13 (22%)	0	0
All	All	11341/12044 (94%)	8378 (74%)	1945 (17%)	1018 (9%)	1	10

All (1018) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AE	135	GLN
2	AE	136	VAL
2	AE	194	PRO
2	AE	195	ASP
2	AE	214	ILE
2	AE	236	TYR
2	AE	237	ALA
3	AF	12	LEU
3	AF	98	ASN
4	AG	28	SER
4	AG	73	ARG
4	AG	74	GLN
4	AG	85	LYS
4	AG	87	GLY
4	AG	153	ARG
4	AG	155	LEU
6	AI	40	VAL
8	AK	50	ARG
9	AL	42	ARG
9	AL	56	LEU
9	AL	94	ALA
10	AM	75	ILE
10	AM	92	THR
11	AN	55	LYS
11	AN	104	GLN
11	AN	105	VAL
11	AN	127	LYS
12	AO	51	ALA
12	AO	91	LYS
13	AP	5	ALA
13	AP	13	LYS
13	AP	31	LYS
14	AQ	14	PRO
17	AT	49	GLU
17	AT	78	GLU
18	AU	18	ARG
18	AU	22	VAL
18	AU	41	LYS
19	AV	14	HIS
19	AV	31	ILE
19	AV	41	VAL
20	AW	15	ARG
20	AW	19	SER

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Mol	Chain	Res	Type
20	AW	48	LYS
20	AW	71	THR
20	AW	96	GLY
20	AW	102	GLY
26	BD	28	GLU
26	BD	33	LEU
27	BE	54	GLN
27	BE	60	ASN
27	BE	69	LYS
27	BE	74	PRO
27	BE	79	ARG
27	BE	117	MET
27	BE	132	HIS
28	BF	130	ALA
28	BF	134	GLY
29	BG	3	LEU
29	BG	46	ALA
30	BH	3	ARG
30	BH	12	PRO
30	BH	83	TYR
30	BH	86	GLU
30	BH	110	SER
30	BH	153	LYS
30	BH	154	PRO
30	BH	155	SER
30	BH	156	ALA
30	BH	169	VAL
31	BK	87	LYS
31	BK	133	HIS
31	BK	145	VAL
32	BM	9	VAL
32	BM	22	THR
32	BM	36	GLY
32	BM	95	PRO
32	BM	96	GLU
32	BM	135	PRO
33	BN	97	ARG
34	BO	14	LYS
34	BO	19	VAL
34	BO	21	ARG
34	BO	42	SER
34	BO	65	ARG

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Mol	Chain	Res	Type
34	BO	141	ALA
35	BP	89	ASN
35	BP	134	ARG
36	B0	74	LYS
36	B0	75	LEU
37	BQ	3	ARG
37	BQ	4	LEU
37	BQ	13	ARG
37	BQ	88	ASP
37	BQ	89	ARG
37	BQ	106	ARG
37	BQ	109	GLY
37	BQ	111	GLU
38	BR	2	ASN
38	BR	8	LYS
38	BR	38	ASN
38	BR	124	ASP
39	B1	91	ASP
39	B1	99	ALA
40	B2	37	VAL
40	B2	45	THR
40	B2	47	VAL
40	B2	48	GLY
40	B2	49	THR
42	BT	91	ALA
43	BU	42	VAL
43	BU	50	ARG
43	BU	53	PRO
43	BU	77	PRO
43	BU	78	ALA
44	BV	6	LYS
44	BV	53	ILE
44	BV	63	ASP
44	BV	107	THR
44	BV	118	GLN
44	BV	150	LEU
44	BV	151	HIS
44	BV	165	VAL
44	BV	167	PRO
44	BV	168	GLU
46	BZ	91	LYS
46	BZ	93	GLU

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Mol	Chain	Res	Type
46	BZ	95	LEU
47	BW	43	GLN
47	BW	44	LEU
47	BW	48	HIS
49	B4	5	ILE
49	B4	7	PRO
49	B4	40	HIS
49	B4	43	TYR
50	B5	4	HIS
50	B5	57	VAL
51	B6	46	HIS
53	B8	52	LYS
2	CE	13	ALA
2	CE	39	ILE
2	CE	83	MET
2	CE	154	LEU
2	CE	233	SER
3	CF	48	TYR
3	CF	66	VAL
4	CG	12	CYS
4	CG	14	ARG
4	CG	33	MET
4	CG	34	GLU
4	CG	101	LEU
4	CG	200	GLU
5	CH	85	GLY
5	CH	151	LEU
6	CI	40	VAL
7	CJ	54	THR
7	CJ	149	ARG
7	CJ	150	ALA
9	CL	54	ASP
9	CL	70	LYS
9	CL	118	LYS
10	CM	57	LYS
11	CN	89	ALA
11	CN	90	GLY
11	CN	100	ALA
11	CN	101	SER
12	CO	47	LYS
13	CP	5	ALA
13	CP	42	ALA

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Mol	Chain	Res	Type
14	CQ	30	ALA
19	CV	9	VAL
19	CV	67	VAL
20	CW	9	ASN
20	CW	88	VAL
20	CW	99	LEU
21	CX	3	LYS
21	CX	9	ARG
26	DD	27	THR
26	DD	32	SER
27	DE	25	VAL
27	DE	49	LEU
27	DE	51	PHE
27	DE	61	ARG
27	DE	66	HIS
27	DE	68	ALA
27	DE	71	GLY
27	DE	77	ILE
27	DE	131	ALA
27	DE	200	GLU
28	DF	3	GLU
28	DF	5	ALA
28	DF	6	VAL
28	DF	23	ASP
28	DF	25	PRO
28	DF	66	PRO
28	DF	123	LEU
28	DF	132	VAL
28	DF	133	ASN
29	DG	6	ALA
29	DG	84	LYS
30	DH	16	SER
30	DH	22	GLY
30	DH	83	TYR
30	DH	89	ILE
30	DH	92	ILE
30	DH	127	GLU
30	DH	167	GLU
31	DK	102	SER
31	DK	117	GLU
31	DK	144	VAL
32	DM	98	VAL

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Mol	Chain	Res	Type
32	DM	133	GLN
34	DO	14	LYS
34	DO	19	VAL
34	DO	21	ARG
34	DO	49	ARG
34	DO	50	ARG
34	DO	62	LEU
34	DO	63	PRO
34	DO	103	ALA
34	DO	108	LYS
35	DP	7	MET
35	DP	13	GLN
35	DP	21	THR
35	DP	25	ASP
35	DP	27	VAL
35	DP	89	ASN
36	D0	82	GLU
37	DQ	4	LEU
37	DQ	58	LEU
37	DQ	59	LYS
37	DQ	74	ALA
37	DQ	94	TYR
37	DQ	106	ARG
37	DQ	110	LEU
38	DR	3	ARG
38	DR	94	ALA
38	DR	105	LEU
38	DR	107	ASP
39	D1	91	ASP
40	D2	29	PRO
40	D2	45	THR
40	D2	46	VAL
40	D2	50	PRO
40	D2	80	GLN
41	DS	11	ARG
41	DS	66	GLU
41	DS	67	ASP
42	DT	41	ASN
42	DT	45	THR
42	DT	68	ARG
43	DU	17	SER
43	DU	19	LYS

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Mol	Chain	Res	Type
43	DU	44	ILE
43	DU	57	GLN
43	DU	61	ILE
43	DU	77	PRO
43	DU	78	ALA
43	DU	89	PHE
44	DV	105	VAL
44	DV	106	GLY
44	DV	108	PRO
44	DV	119	GLU
44	DV	120	ILE
44	DV	128	VAL
44	DV	140	ASP
44	DV	141	VAL
44	DV	161	VAL
44	DV	171	ILE
45	D3	84	LEU
46	DZ	3	LYS
46	DZ	27	GLU
46	DZ	81	LYS
46	DZ	90	ILE
46	DZ	92	LYS
47	DW	16	LEU
47	DW	48	HIS
49	D4	5	ILE
49	D4	22	ILE
49	D4	31	ILE
49	D4	32	TYR
49	D4	40	HIS
50	D5	4	HIS
51	D6	21	TYR
51	D6	45	LYS
53	D8	30	ARG
53	D8	31	HIS
53	D8	32	LEU
53	D8	34	TRP
53	D8	49	VAL
53	D8	50	LEU
53	D8	51	ALA
2	AE	15	VAL
2	AE	18	GLY
2	AE	38	GLY

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Mol	Chain	Res	Type
2	AE	171	ALA
2	AE	190	THR
2	AE	218	ALA
2	AE	235	SER
3	AF	4	LYS
3	AF	78	GLY
3	AF	79	ARG
3	AF	99	VAL
3	AF	110	ASN
3	AF	116	VAL
4	AG	26	CYS
4	AG	108	LEU
5	AH	69	VAL
5	AH	73	ASN
6	AI	13	ASN
7	AJ	7	ALA
7	AJ	8	GLU
7	AJ	9	VAL
7	AJ	35	LYS
7	AJ	81	GLY
8	AK	68	ARG
8	AK	101	PRO
8	AK	102	ARG
11	AN	82	VAL
11	AN	91	ARG
11	AN	99	GLN
11	AN	103	LEU
12	AO	47	LYS
12	AO	96	VAL
12	AO	127	GLU
12	AO	128	ALA
13	AP	21	TYR
13	AP	67	GLU
15	AR	23	GLY
16	AS	81	ARG
19	AV	5	LEU
19	AV	7	LYS
20	AW	61	SER
21	AX	5	ASP
21	AX	7	ARG
26	BD	26	LYS
26	BD	122	ASP

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Mol	Chain	Res	Type
26	BD	271	ILE
27	BE	78	LEU
29	BG	5	VAL
29	BG	14	GLU
29	BG	48	GLU
29	BG	79	ASN
30	BH	8	PRO
30	BH	55	PRO
30	BH	81	GLU
30	BH	84	SER
30	BH	92	ILE
30	BH	138	LYS
30	BH	150	ALA
30	BH	151	ILE
30	BH	152	ARG
30	BH	167	GLU
31	BK	12	LEU
31	BK	15	VAL
32	BM	23	LEU
35	BP	21	THR
35	BP	25	ASP
35	BP	27	VAL
35	BP	59	ARG
35	BP	63	LYS
35	BP	88	GLY
36	B0	11	ASN
36	B0	45	ARG
36	B0	86	ARG
36	B0	107	ASP
37	BQ	61	ASN
38	BR	117	ASP
38	BR	123	GLN
40	B2	50	PRO
41	BS	67	ASP
43	BU	34	LYS
43	BU	51	VAL
43	BU	98	VAL
43	BU	99	CYS
44	BV	51	ALA
44	BV	52	SER
44	BV	112	ARG
44	BV	153	SER

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Mol	Chain	Res	Type
45	B3	84	LEU
46	BZ	79	GLY
46	BZ	92	LYS
47	BW	47	ASN
48	BX	38	GLU
49	B4	26	SER
50	B5	55	ARG
50	B5	56	LYS
51	B6	21	TYR
52	B7	48	LYS
53	B8	11	LYS
53	B8	31	HIS
2	CE	7	VAL
2	CE	22	LYS
2	CE	26	PRO
2	CE	48	MET
2	CE	153	ARG
2	CE	183	PRO
2	CE	191	ASP
2	CE	239	VAL
3	CF	15	THR
3	CF	61	ALA
3	CF	96	GLY
3	CF	134	ILE
3	CF	146	ALA
4	CG	89	THR
4	CG	102	ASP
4	CG	109	GLY
4	CG	178	VAL
5	CH	98	THR
6	CI	38	GLU
6	CI	81	ILE
7	CJ	9	VAL
7	CJ	55	GLY
8	CK	50	ARG
8	CK	68	ARG
9	CL	80	GLY
9	CL	100	GLY
10	CM	20	ALA
10	CM	31	GLY
10	CM	93	GLY
11	CN	105	VAL

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Mol	Chain	Res	Type
12	CO	26	ALA
13	CP	4	ILE
13	CP	12	ASN
13	CP	20	THR
13	CP	41	PRO
13	CP	116	THR
14	CQ	9	LYS
14	CQ	15	LYS
14	CQ	28	GLY
16	CS	52	ASP
16	CS	78	GLY
16	CS	81	ARG
18	CU	22	VAL
19	CV	30	LEU
19	CV	70	LYS
20	CW	71	THR
20	CW	90	GLN
20	CW	101	GLY
21	CX	7	ARG
26	DD	31	LYS
26	DD	34	VAL
26	DD	45	ASN
26	DD	271	ILE
27	DE	9	VAL
27	DE	62	PRO
27	DE	78	LEU
27	DE	186	GLY
28	DF	17	ARG
28	DF	62	ARG
28	DF	89	VAL
28	DF	124	LEU
29	DG	80	PHE
29	DG	124	SER
30	DH	14	GLY
30	DH	55	PRO
30	DH	88	LEU
30	DH	96	ALA
30	DH	99	VAL
30	DH	138	LYS
30	DH	164	TYR
31	DK	51	ILE
31	DK	71	ILE

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Mol	Chain	Res	Type
31	DK	100	ALA
32	DM	51	PHE
32	DM	125	GLY
33	DN	5	GLN
33	DN	14	THR
33	DN	49	ARG
34	DO	18	ARG
34	DO	24	GLY
34	DO	36	LYS
34	DO	64	LYS
34	DO	107	LYS
34	DO	109	GLY
34	DO	110	TYR
34	DO	141	ALA
35	DP	28	ALA
35	DP	88	GLY
36	D0	53	HIS
37	DQ	35	ILE
37	DQ	51	ALA
39	D1	98	LEU
39	D1	99	ALA
39	D1	101	ARG
39	D1	117	GLN
40	D2	37	VAL
40	D2	85	LYS
40	D2	87	HIS
41	DS	63	ASP
42	DT	44	GLU
42	DT	62	LYS
43	DU	42	VAL
43	DU	53	PRO
43	DU	58	GLY
43	DU	80	GLY
43	DU	85	VAL
43	DU	91	GLU
43	DU	98	VAL
44	DV	60	GLU
44	DV	90	VAL
44	DV	93	ASP
44	DV	142	SER
44	DV	150	LEU
44	DV	174	VAL

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Mol	Chain	Res	Type
46	DZ	28	GLY
46	DZ	55	GLY
46	DZ	82	LEU
46	DZ	97	LEU
49	D4	33	VAL
49	D4	37	SER
49	D4	50	VAL
50	D5	36	CYS
50	D5	38	ALA
50	D5	55	ARG
51	D6	42	TRP
51	D6	46	HIS
53	D8	33	ASN
53	D8	48	PHE
2	AE	14	GLY
2	AE	126	GLU
2	AE	191	ASP
2	AE	207	ALA
3	AF	107	GLN
3	AF	131	ARG
3	AF	133	ALA
4	AG	193	ASP
5	AH	115	VAL
10	AM	37	PRO
12	AO	115	LYS
13	AP	101	GLN
16	AS	41	PRO
18	AU	19	LYS
19	AV	3	ARG
19	AV	11	VAL
20	AW	14	LYS
20	AW	95	ALA
20	AW	97	ALA
26	BD	123	ALA
26	BD	134	ARG
26	BD	239	ARG
27	BE	2	LYS
27	BE	53	PRO
27	BE	82	ARG
28	BF	128	ALA
29	BG	49	ASP
29	BG	84	LYS

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Mol	Chain	Res	Type
29	BG	96	ARG
29	BG	110	ALA
30	BH	10	PRO
30	BH	87	LEU
30	BH	168	PRO
31	BK	116	LEU
32	BM	136	GLU
33	BN	5	GLN
34	BO	24	GLY
34	BO	67	MET
34	BO	95	VAL
34	BO	107	LYS
34	BO	117	GLU
35	BP	6	ARG
35	BP	90	VAL
36	B0	4	LEU
38	BR	107	ASP
40	B2	100	ARG
41	BS	42	ARG
41	BS	111	HIS
43	BU	52	SER
43	BU	56	PRO
43	BU	84	ARG
43	BU	90	LEU
44	BV	162	GLU
49	B4	24	THR
49	B4	55	ARG
50	B5	34	PRO
51	B6	15	GLU
51	B6	49	HIS
53	B8	61	LEU
2	CE	5	ILE
2	CE	20	GLU
2	CE	143	GLU
2	CE	181	PHE
2	CE	234	PRO
3	CF	22	TRP
3	CF	25	GLY
3	CF	53	ALA
3	CF	60	ALA
4	CG	93	PHE
4	CG	159	ARG

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Mol	Chain	Res	Type
6	CI	62	TRP
8	CK	2	LEU
9	CL	44	VAL
9	CL	56	LEU
9	CL	79	LEU
12	CO	63	GLY
12	CO	105	TYR
13	CP	7	VAL
13	CP	86	CYS
16	CS	49	LEU
17	CT	33	GLY
17	CT	55	ASP
18	CU	36	ASN
18	CU	87	ARG
19	CV	59	PRO
19	CV	66	MET
19	CV	79	THR
20	CW	28	ALA
20	CW	48	LYS
20	CW	84	LEU
26	DD	30	GLU
26	DD	267	SER
27	DE	59	VAL
27	DE	86	PRO
27	DE	90	THR
27	DE	117	MET
27	DE	144	ARG
28	DF	10	PRO
28	DF	15	SER
29	DG	7	LEU
29	DG	96	ARG
30	DH	13	LYS
30	DH	62	LYS
30	DH	84	SER
30	DH	128	PRO
30	DH	136	ILE
30	DH	159	GLU
30	DH	168	PRO
31	DK	119	PRO
31	DK	135	GLU
32	DM	23	LEU
32	DM	108	PRO

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Mol	Chain	Res	Type
34	DO	47	ASP
34	DO	67	MET
34	DO	106	LEU
35	DP	63	LYS
35	DP	79	LEU
36	D0	71	GLN
36	D0	80	PHE
36	D0	107	ASP
37	DQ	20	ARG
38	DR	17	THR
40	D2	44	LYS
40	D2	84	LYS
41	DS	18	ARG
42	DT	60	ARG
43	DU	47	LYS
43	DU	50	ARG
43	DU	52	SER
44	DV	6	LYS
44	DV	51	ALA
44	DV	146	ILE
46	DZ	64	ALA
46	DZ	78	LYS
47	DW	41	ILE
47	DW	71	ASN
49	D4	26	SER
49	D4	43	TYR
53	D8	41	ILE
53	D8	61	LEU
2	AE	43	ASP
2	AE	224	GLN
3	AF	80	GLY
7	AJ	33	ASP
8	AK	20	TYR
9	AL	80	GLY
13	AP	107	ALA
14	AQ	24	CYS
15	AR	19	PRO
15	AR	33	THR
16	AS	72	ARG
18	AU	20	ALA
20	AW	62	LEU
20	AW	85	MET

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Mol	Chain	Res	Type
27	BE	72	VAL
27	BE	189	PRO
29	BG	45	GLU
29	BG	86	MET
30	BH	51	ARG
30	BH	82	GLY
31	BK	10	GLU
31	BK	74	ASN
34	BO	12	ALA
34	BO	62	LEU
34	BO	70	GLN
35	BP	11	LYS
36	B0	3	HIS
36	B0	71	GLN
37	BQ	78	LEU
37	BQ	87	PHE
38	BR	4	GLY
38	BR	116	ALA
39	B1	92	ARG
39	B1	93	LYS
41	BS	11	ARG
41	BS	63	ASP
42	BT	93	GLU
43	BU	40	GLU
44	BV	61	LEU
44	BV	85	HIS
46	BZ	97	LEU
49	B4	18	CYS
49	B4	42	PHE
51	B6	19	ARG
51	B6	33	LYS
2	CE	34	ALA
2	CE	84	GLU
2	CE	205	ASP
4	CG	25	ARG
4	CG	42	GLN
4	CG	150	GLU
4	CG	160	GLN
5	CH	51	VAL
5	CH	60	TYR
8	CK	105	ARG
9	CL	55	ALA

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Mol	Chain	Res	Type
9	CL	119	ALA
11	CN	128	ALA
12	CO	18	VAL
12	CO	65	GLU
13	CP	28	ALA
13	CP	106	ASN
14	CQ	58	LYS
17	CT	31	LEU
17	CT	99	SER
20	CW	100	ILE
26	DD	272	ALA
27	DE	175	VAL
28	DF	22	ALA
29	DG	24	GLY
29	DG	82	LEU
29	DG	109	VAL
29	DG	116	ASP
30	DH	6	ARG
30	DH	8	PRO
30	DH	85	LYS
30	DH	107	VAL
30	DH	118	PRO
30	DH	156	ALA
31	DK	30	LEU
31	DK	78	THR
31	DK	84	GLY
31	DK	104	GLN
31	DK	115	ALA
32	DM	3	THR
32	DM	36	GLY
34	DO	12	ALA
34	DO	23	PRO
34	DO	35	HIS
34	DO	48	PRO
34	DO	59	LEU
34	DO	104	GLY
35	DP	90	VAL
35	DP	134	ARG
36	D0	14	SER
36	D0	58	GLY
37	DQ	13	ARG
37	DQ	42	ASP

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Mol	Chain	Res	Type
38	DR	82	LEU
39	D1	90	VAL
40	D2	99	ILE
41	DS	93	ALA
42	DT	87	GLN
43	DU	94	LYS
43	DU	96	ILE
43	DU	99	CYS
43	DU	102	CYS
44	DV	15	PRO
44	DV	116	VAL
44	DV	131	ARG
44	DV	176	PRO
45	D3	33	ALA
45	D3	64	ASP
46	DZ	30	VAL
47	DW	17	SER
47	DW	43	GLN
48	DX	13	ILE
48	DX	38	GLU
49	D4	10	VAL
49	D4	51	ASP
50	D5	3	LYS
50	D5	49	CYS
50	D5	51	TYR
51	D6	35	GLU
53	D8	35	GLN
2	AE	125	PRO
2	AE	202	PRO
3	AF	22	TRP
3	AF	82	GLU
3	AF	114	PRO
4	AG	42	GLN
4	AG	109	GLY
4	AG	156	GLU
5	AH	22	GLY
6	AI	19	LEU
7	AJ	55	GLY
7	AJ	131	LYS
8	AK	129	VAL
9	AL	88	TYR
9	AL	89	ASN

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Mol	Chain	Res	Type
10	AM	84	GLN
10	AM	91	PRO
12	AO	18	VAL
12	AO	62	SER
13	AP	8	GLU
13	AP	32	GLU
13	AP	116	THR
15	AR	73	GLU
17	AT	16	GLN
17	AT	100	LYS
19	AV	78	ARG
20	AW	47	GLY
26	BD	125	ILE
26	BD	169	GLU
27	BE	56	PRO
27	BE	178	GLU
28	BF	78	ILE
28	BF	126	VAL
28	BF	129	PHE
28	BF	132	VAL
28	BF	133	ASN
29	BG	116	ASP
30	BH	13	LYS
30	BH	27	LYS
30	BH	107	VAL
30	BH	127	GLU
31	BK	34	GLY
31	BK	118	LYS
31	BK	134	PRO
32	BM	131	GLN
34	BO	11	GLY
34	BO	23	PRO
35	BP	2	LEU
36	B0	52	ILE
37	BQ	57	LYS
39	B1	117	GLN
43	BU	11	ASP
43	BU	76	CYS
45	B3	83	PRO
51	B6	25	LYS
2	CE	8	LYS
3	CF	27	LYS

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Mol	Chain	Res	Type
3	CF	141	VAL
3	CF	159	GLY
4	CG	35	ARG
4	CG	151	LYS
5	CH	77	PRO
6	CI	19	LEU
7	CJ	86	GLN
8	CK	73	ASP
8	CK	100	ILE
9	CL	71	SER
12	CO	51	ALA
12	CO	128	ALA
13	CP	63	THR
13	CP	84	ILE
15	CR	73	GLU
16	CS	63	GLY
17	CT	34	LYS
17	CT	40	LYS
19	CV	56	GLN
20	CW	89	ARG
26	DD	3	VAL
26	DD	26	LYS
27	DE	11	MET
27	DE	52	LEU
27	DE	56	PRO
27	DE	82	ARG
27	DE	89	ASP
27	DE	187	ALA
27	DE	189	PRO
28	DF	28	ILE
29	DG	5	VAL
29	DG	36	LYS
29	DG	110	ALA
30	DH	17	VAL
30	DH	41	MET
30	DH	160	LYS
31	DK	70	GLU
31	DK	143	SER
32	DM	134	ARG
34	DO	117	GLU
35	DP	44	ALA
35	DP	47	ILE

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Mol	Chain	Res	Type
35	DP	60	ARG
36	D0	15	SER
37	DQ	105	ALA
38	DR	9	LEU
38	DR	11	GLU
38	DR	55	ASN
40	D2	71	LEU
40	D2	83	ARG
42	DT	40	LYS
42	DT	51	VAL
42	DT	85	PRO
43	DU	63	LYS
44	DV	7	ALA
44	DV	165	VAL
44	DV	169	GLU
46	DZ	96	LYS
47	DW	18	PRO
49	D4	24	THR
49	D4	27	THR
49	D4	52	THR
50	D5	56	LYS
50	D5	57	VAL
50	D5	58	LEU
51	D6	36	LEU
53	D8	53	PRO
2	AE	22	LYS
2	AE	233	SER
3	AF	9	GLY
3	AF	51	GLY
5	AH	148	VAL
7	AJ	30	ILE
11	AN	118	GLY
13	AP	7	VAL
13	AP	68	GLY
14	AQ	16	PHE
14	AQ	23	ARG
15	AR	88	ARG
19	AV	9	VAL
27	BE	90	THR
29	BG	97	ASP
29	BG	126	ASP
31	BK	7	GLU

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Mol	Chain	Res	Type
31	BK	17	GLN
32	BM	128	HIS
34	BO	6	LEU
34	BO	16	ARG
34	BO	17	LYS
34	BO	43	GLY
34	BO	108	LYS
35	BP	79	LEU
41	BS	74	ALA
43	BU	3	VAL
43	BU	66	PRO
44	BV	124	ILE
53	B8	38	GLY
4	CG	5	ILE
12	CO	19	ARG
14	CQ	8	GLU
17	CT	87	LYS
28	DF	21	ALA
29	DG	81	LYS
29	DG	117	PHE
29	DG	154	GLY
30	DH	95	ARG
30	DH	108	GLY
32	DM	64	GLY
34	DO	34	GLY
34	DO	144	GLU
36	D0	117	VAL
38	DR	104	ASN
40	D2	36	PRO
44	DV	66	SER
44	DV	157	LEU
49	D4	42	PHE
2	AE	26	PRO
7	AJ	82	GLY
27	BE	55	ASN
30	BH	7	LEU
35	BP	66	ILE
44	BV	141	VAL
44	BV	159	PRO
4	CG	7	PRO
6	CI	37	VAL
10	CM	53	PRO

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Mol	Chain	Res	Type
27	DE	72	VAL
30	DH	24	VAL
2	AE	230	VAL
39	B1	90	VAL
44	BV	39	VAL
49	B4	56	VAL
13	CP	15	VAL
16	CS	79	VAL
18	CU	57	GLY
26	DD	28	GLU
34	DO	66	GLY
43	DU	39	VAL
44	DV	61	LEU
44	DV	159	PRO
46	DZ	31	GLY
4	AG	197	PRO
15	AR	86	GLY
2	CE	194	PRO
7	CJ	19	GLY
19	CV	42	PRO
27	DE	26	ILE
30	DH	7	LEU
30	DH	169	VAL
34	DO	7	ARG
38	DR	24	PRO
40	D2	5	VAL
43	DU	3	VAL
6	AI	12	PRO
12	AO	63	GLY
26	BD	3	VAL
26	BD	238	GLY
30	BH	9	ILE
31	BK	84	GLY
34	BO	7	ARG
36	B0	117	VAL
40	B2	36	PRO
2	CE	165	VAL
2	CE	232	PRO
3	CF	103	VAL
4	CG	69	GLY
4	CG	170	VAL
7	CJ	14	PRO

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Mol	Chain	Res	Type
8	CK	53	VAL
34	DO	20	GLY
41	DS	35	ILE
32	BM	113	GLY
47	BW	41	ILE
21	CX	23	PRO
27	DE	29	GLY
41	DS	71	VAL
32	DM	126	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	205/220 (93%)	182 (89%)	23 (11%)	9	37
2	CE	205/220 (93%)	176 (86%)	29 (14%)	5	24
3	AF	159/188 (85%)	147 (92%)	12 (8%)	19	62
3	CF	160/188 (85%)	146 (91%)	14 (9%)	14	52
4	AG	180/180 (100%)	166 (92%)	14 (8%)	18	60
4	CG	180/180 (100%)	161 (89%)	19 (11%)	10	40
5	AH	116/123 (94%)	105 (90%)	11 (10%)	12	46
5	CH	116/123 (94%)	104 (90%)	12 (10%)	10	41
6	AI	90/90 (100%)	85 (94%)	5 (6%)	30	75
6	CI	90/90 (100%)	81 (90%)	9 (10%)	11	43
7	AJ	126/127 (99%)	118 (94%)	8 (6%)	25	70
7	CJ	126/127 (99%)	116 (92%)	10 (8%)	18	59
8	AK	119/119 (100%)	108 (91%)	11 (9%)	13	48
8	CK	119/119 (100%)	108 (91%)	11 (9%)	13	48
9	AL	98/99 (99%)	86 (88%)	12 (12%)	7	32
9	CL	98/99 (99%)	79 (81%)	19 (19%)	2	10
10	AM	89/92 (97%)	82 (92%)	7 (8%)	18	59
10	CM	89/92 (97%)	82 (92%)	7 (8%)	18	59

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	AN	90/99 (91%)	86 (96%)	4 (4%)	39	81
11	CN	90/99 (91%)	85 (94%)	5 (6%)	30	75
12	AO	104/107 (97%)	97 (93%)	7 (7%)	23	67
12	CO	104/107 (97%)	97 (93%)	7 (7%)	23	67
13	AP	94/101 (93%)	89 (95%)	5 (5%)	32	76
13	CP	94/101 (93%)	78 (83%)	16 (17%)	3	15
14	AQ	49/50 (98%)	44 (90%)	5 (10%)	11	42
14	CQ	49/50 (98%)	45 (92%)	4 (8%)	17	57
15	AR	79/80 (99%)	73 (92%)	6 (8%)	19	61
15	CR	79/80 (99%)	76 (96%)	3 (4%)	44	84
16	AS	72/74 (97%)	62 (86%)	10 (14%)	5	25
16	CS	72/74 (97%)	68 (94%)	4 (6%)	30	75
17	AT	95/97 (98%)	90 (95%)	5 (5%)	32	76
17	CT	95/97 (98%)	92 (97%)	3 (3%)	51	88
18	AU	63/77 (82%)	60 (95%)	3 (5%)	35	79
18	CU	63/77 (82%)	59 (94%)	4 (6%)	25	70
19	AV	72/80 (90%)	63 (88%)	9 (12%)	7	31
19	CV	67/80 (84%)	56 (84%)	11 (16%)	3	16
20	AW	76/82 (93%)	70 (92%)	6 (8%)	18	59
20	CW	76/82 (93%)	69 (91%)	7 (9%)	13	48
21	AX	20/22 (91%)	20 (100%)	0	100	100
21	CX	20/22 (91%)	18 (90%)	2 (10%)	11	43
26	BD	214/218 (98%)	192 (90%)	22 (10%)	10	41
26	DD	214/218 (98%)	197 (92%)	17 (8%)	18	59
27	BE	165/166 (99%)	149 (90%)	16 (10%)	12	45
27	DE	165/166 (99%)	150 (91%)	15 (9%)	14	49
28	BF	161/166 (97%)	150 (93%)	11 (7%)	22	67
28	DF	165/166 (99%)	156 (94%)	9 (6%)	30	75
29	BG	155/156 (99%)	145 (94%)	10 (6%)	24	69
29	DG	155/156 (99%)	141 (91%)	14 (9%)	14	50
30	BH	142/148 (96%)	119 (84%)	23 (16%)	3	17

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	DH	142/148 (96%)	128 (90%)	14 (10%)	11	44
31	BK	122/124 (98%)	110 (90%)	12 (10%)	12	45
31	DK	122/124 (98%)	109 (89%)	13 (11%)	10	39
32	BM	117/119 (98%)	113 (97%)	4 (3%)	49	87
32	DM	117/119 (98%)	109 (93%)	8 (7%)	22	67
33	BN	100/100 (100%)	95 (95%)	5 (5%)	34	78
33	DN	100/100 (100%)	95 (95%)	5 (5%)	34	78
34	BO	116/116 (100%)	101 (87%)	15 (13%)	6	29
34	DO	116/116 (100%)	102 (88%)	14 (12%)	7	33
35	BP	111/111 (100%)	102 (92%)	9 (8%)	17	58
35	DP	111/111 (100%)	102 (92%)	9 (8%)	17	58
36	B0	101/101 (100%)	94 (93%)	7 (7%)	22	67
36	D0	100/101 (99%)	95 (95%)	5 (5%)	34	78
37	BQ	87/88 (99%)	82 (94%)	5 (6%)	29	74
37	DQ	87/88 (99%)	78 (90%)	9 (10%)	10	41
38	BR	120/127 (94%)	111 (92%)	9 (8%)	19	62
38	DR	120/127 (94%)	107 (89%)	13 (11%)	9	39
39	B1	93/94 (99%)	87 (94%)	6 (6%)	24	69
39	D1	93/94 (99%)	88 (95%)	5 (5%)	31	76
40	B2	82/82 (100%)	75 (92%)	7 (8%)	15	54
40	D2	82/82 (100%)	71 (87%)	11 (13%)	6	27
41	BS	92/92 (100%)	82 (89%)	10 (11%)	9	38
41	DS	92/92 (100%)	82 (89%)	10 (11%)	9	38
42	BT	74/78 (95%)	69 (93%)	5 (7%)	22	67
42	DT	74/78 (95%)	69 (93%)	5 (7%)	22	67
43	BU	85/91 (93%)	70 (82%)	15 (18%)	3	13
43	DU	85/91 (93%)	73 (86%)	12 (14%)	5	24
44	BV	154/179 (86%)	135 (88%)	19 (12%)	7	32
44	DV	158/179 (88%)	144 (91%)	14 (9%)	14	51
45	B3	61/67 (91%)	58 (95%)	3 (5%)	35	78
45	D3	62/67 (92%)	57 (92%)	5 (8%)	17	58

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
46	BZ	82/83 (99%)	77 (94%)	5 (6%)	26	71
46	DZ	82/83 (99%)	65 (79%)	17 (21%)	2	8
47	BW	62/67 (92%)	55 (89%)	7 (11%)	9	36
47	DW	64/67 (96%)	62 (97%)	2 (3%)	52	88
48	BX	51/52 (98%)	47 (92%)	4 (8%)	18	60
48	DX	51/52 (98%)	48 (94%)	3 (6%)	28	73
49	B4	59/63 (94%)	51 (86%)	8 (14%)	5	26
49	D4	57/63 (90%)	51 (90%)	6 (10%)	10	40
50	B5	51/52 (98%)	44 (86%)	7 (14%)	5	26
50	D5	51/52 (98%)	44 (86%)	7 (14%)	5	26
51	B6	44/52 (85%)	40 (91%)	4 (9%)	14	49
51	D6	44/52 (85%)	38 (86%)	6 (14%)	5	26
52	B7	42/42 (100%)	38 (90%)	4 (10%)	12	46
52	D7	42/42 (100%)	36 (86%)	6 (14%)	5	23
53	B8	51/55 (93%)	43 (84%)	8 (16%)	4	19
53	D8	51/55 (93%)	45 (88%)	6 (12%)	8	34
All	All	9584/9992 (96%)	8705 (91%)	879 (9%)	13	48

All (879) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AE	4	GLU
2	AE	8	LYS
2	AE	9	GLU
2	AE	15	VAL
2	AE	16	HIS
2	AE	21	ARG
2	AE	28	PHE
2	AE	44	LEU
2	AE	51	LEU
2	AE	75	LYS
2	AE	96	ARG
2	AE	154	LEU
2	AE	163	PHE
2	AE	168	THR
2	AE	172	ILE

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Mol	Chain	Res	Type
2	AE	174	VAL
2	AE	176	GLU
2	AE	193	ASP
2	AE	196	LEU
2	AE	204	ASN
2	AE	212	GLN
2	AE	226	ARG
2	AE	236	TYR
3	AF	4	LYS
3	AF	5	ILE
3	AF	17	ASP
3	AF	48	TYR
3	AF	89	GLU
3	AF	94	LEU
3	AF	111	LEU
3	AF	126	ARG
3	AF	167	TRP
3	AF	188	LEU
3	AF	192	THR
3	AF	196	LEU
4	AG	3	ARG
4	AG	10	ARG
4	AG	12	CYS
4	AG	18	LYS
4	AG	19	LEU
4	AG	26	CYS
4	AG	30	LYS
4	AG	33	MET
4	AG	53	ASP
4	AG	73	ARG
4	AG	84	LYS
4	AG	98	GLU
4	AG	122	ARG
4	AG	155	LEU
5	AH	10	MET
5	AH	11	ILE
5	AH	20	GLN
5	AH	31	LEU
5	AH	50	GLU
5	AH	60	TYR
5	AH	64	ARG
5	AH	67	VAL

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Mol	Chain	Res	Type
5	AH	68	GLU
5	AH	144	THR
5	AH	153	LYS
6	AI	45	LEU
6	AI	64	GLN
6	AI	74	ASP
6	AI	83	ASP
6	AI	98	LEU
7	AJ	35	LYS
7	AJ	54	THR
7	AJ	56	GLN
7	AJ	79	ARG
7	AJ	90	GLU
7	AJ	104	LEU
7	AJ	113	GLU
7	AJ	155	ARG
8	AK	12	ARG
8	AK	25	ASP
8	AK	44	PHE
8	AK	54	ASP
8	AK	63	LEU
8	AK	68	ARG
8	AK	85	ARG
8	AK	98	LYS
8	AK	112	LEU
8	AK	118	VAL
8	AK	120	THR
9	AL	10	ARG
9	AL	12	GLU
9	AL	47	LEU
9	AL	53	VAL
9	AL	78	LYS
9	AL	85	LEU
9	AL	92	TYR
9	AL	95	LYS
9	AL	99	LEU
9	AL	121	ARG
9	AL	124	GLN
9	AL	125	TYR
10	AM	40	LEU
10	AM	54	PHE
10	AM	62	HIS

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Mol	Chain	Res	Type
10	AM	75	ILE
10	AM	87	THR
10	AM	92	THR
10	AM	96	ILE
11	AN	25	TYR
11	AN	36	ASP
11	AN	116	HIS
11	AN	119	CYS
12	AO	21	LYS
12	AO	44	THR
12	AO	59	ARG
12	AO	60	LEU
12	AO	99	HIS
12	AO	114	LYS
12	AO	119	LYS
13	AP	61	GLU
13	AP	64	TRP
13	AP	81	LEU
13	AP	88	ARG
13	AP	108	ARG
14	AQ	3	ARG
14	AQ	8	GLU
14	AQ	17	LYS
14	AQ	23	ARG
14	AQ	44	LEU
15	AR	6	GLU
15	AR	39	LEU
15	AR	47	LYS
15	AR	53	HIS
15	AR	66	LEU
15	AR	77	ARG
16	AS	2	VAL
16	AS	6	LEU
16	AS	19	ILE
16	AS	25	ARG
16	AS	29	ASP
16	AS	32	TYR
16	AS	48	TRP
16	AS	55	ARG
16	AS	62	VAL
16	AS	79	VAL
17	AT	31	LEU

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Mol	Chain	Res	Type
17	AT	38	ARG
17	AT	52	LYS
17	AT	63	ARG
17	AT	89	LEU
18	AU	29	PHE
18	AU	36	ASN
18	AU	42	ARG
19	AV	3	ARG
19	AV	15	LEU
19	AV	29	ARG
19	AV	30	LEU
19	AV	37	ARG
19	AV	43	GLU
19	AV	61	TYR
19	AV	65	ASN
19	AV	69	HIS
20	AW	10	LEU
20	AW	13	LEU
20	AW	26	ASN
20	AW	36	LEU
20	AW	48	LYS
20	AW	75	ASN
26	BD	30	GLU
26	BD	43	ARG
26	BD	44	ASN
26	BD	46	GLN
26	BD	61	LEU
26	BD	64	ILE
26	BD	65	ILE
26	BD	70	TRP
26	BD	94	LEU
26	BD	95	LEU
26	BD	99	ASP
26	BD	105	ILE
26	BD	122	ASP
26	BD	166	GLN
26	BD	192	THR
26	BD	193	VAL
26	BD	220	HIS
26	BD	221	VAL
26	BD	242	ARG
26	BD	254	THR

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Mol	Chain	Res	Type
26	BD	257	LEU
26	BD	258	LYS
27	BE	14	ILE
27	BE	26	ILE
27	BE	47	VAL
27	BE	48	GLN
27	BE	51	PHE
27	BE	61	ARG
27	BE	66	HIS
27	BE	78	LEU
27	BE	87	GLU
27	BE	111	ARG
27	BE	119	ARG
27	BE	144	ARG
27	BE	154	LYS
27	BE	188	VAL
27	BE	200	GLU
27	BE	203	LYS
28	BF	7	TYR
28	BF	8	GLN
28	BF	9	ILE
28	BF	27	GLU
28	BF	33	LEU
28	BF	67	GLN
28	BF	74	ARG
28	BF	82	ILE
28	BF	158	THR
28	BF	174	VAL
28	BF	197	ASP
29	BG	3	LEU
29	BG	33	ARG
29	BG	43	LEU
29	BG	45	GLU
29	BG	80	PHE
29	BG	81	LYS
29	BG	94	LEU
29	BG	101	ILE
29	BG	133	LEU
29	BG	165	THR
30	BH	3	ARG
30	BH	6	ARG
30	BH	7	LEU

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Mol	Chain	Res	Type
30	BH	9	ILE
30	BH	11	VAL
30	BH	23	ARG
30	BH	24	VAL
30	BH	59	ARG
30	BH	81	GLU
30	BH	83	TYR
30	BH	85	LYS
30	BH	87	LEU
30	BH	88	LEU
30	BH	89	ILE
30	BH	101	ARG
30	BH	105	LEU
30	BH	107	VAL
30	BH	109	PHE
30	BH	133	VAL
30	BH	139	GLN
30	BH	153	LYS
30	BH	155	SER
30	BH	169	VAL
31	BK	15	VAL
31	BK	18	VAL
31	BK	25	TYR
31	BK	38	LEU
31	BK	41	GLU
31	BK	44	LEU
31	BK	96	ASP
31	BK	123	LEU
31	BK	130	TYR
31	BK	135	GLU
31	BK	136	VAL
31	BK	140	LEU
32	BM	34	LEU
32	BM	87	LEU
32	BM	90	MET
32	BM	131	GLN
33	BN	22	ILE
33	BN	23	ARG
33	BN	32	TYR
33	BN	53	LYS
33	BN	96	THR
34	BO	6	LEU

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Mol	Chain	Res	Type
34	BO	21	ARG
34	BO	36	LYS
34	BO	41	ARG
34	BO	45	LEU
34	BO	58	THR
34	BO	59	LEU
34	BO	61	ARG
34	BO	65	ARG
34	BO	75	ILE
34	BO	88	LEU
34	BO	112	LEU
34	BO	135	LEU
34	BO	138	LEU
34	BO	144	GLU
35	BP	5	ARG
35	BP	26	TYR
35	BP	45	GLN
35	BP	55	VAL
35	BP	79	LEU
35	BP	83	MET
35	BP	96	VAL
35	BP	105	GLU
35	BP	110	THR
36	B0	16	HIS
36	B0	18	LEU
36	B0	28	LEU
36	B0	37	THR
36	B0	59	ASP
36	B0	79	LEU
36	B0	105	ARG
37	BQ	36	TYR
37	BQ	58	LEU
37	BQ	69	VAL
37	BQ	110	LEU
37	BQ	112	PHE
38	BR	6	LEU
38	BR	21	GLU
38	BR	22	PHE
38	BR	84	GLN
38	BR	85	LYS
38	BR	86	ILE
38	BR	88	ILE

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Mol	Chain	Res	Type
38	BR	107	ASP
38	BR	118	ARG
39	B1	49	HIS
39	B1	52	ARG
39	B1	57	PHE
39	B1	74	LEU
39	B1	95	LEU
39	B1	100	VAL
40	B2	7	THR
40	B2	21	ARG
40	B2	24	LYS
40	B2	35	LEU
40	B2	40	LEU
40	B2	62	LEU
40	B2	82	ARG
41	BS	1	MET
41	BS	11	ARG
41	BS	51	LEU
41	BS	69	LEU
41	BS	70	TYR
41	BS	76	VAL
41	BS	88	ARG
41	BS	96	ILE
41	BS	106	ILE
41	BS	111	HIS
42	BT	12	VAL
42	BT	53	LYS
42	BT	65	ARG
42	BT	76	ARG
42	BT	80	ILE
43	BU	6	HIS
43	BU	13	VAL
43	BU	27	VAL
43	BU	40	GLU
43	BU	50	ARG
43	BU	55	TYR
43	BU	57	GLN
43	BU	64	GLU
43	BU	75	ILE
43	BU	76	CYS
43	BU	81	LYS
43	BU	90	LEU

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Mol	Chain	Res	Type
43	BU	97	ARG
43	BU	101	LYS
43	BU	102	CYS
44	BV	5	LEU
44	BV	19	ARG
44	BV	59	LEU
44	BV	61	LEU
44	BV	76	LEU
44	BV	86	VAL
44	BV	87	ASP
44	BV	112	ARG
44	BV	116	VAL
44	BV	122	ARG
44	BV	144	LEU
44	BV	145	GLU
44	BV	146	ILE
44	BV	153	SER
44	BV	163	LEU
44	BV	165	VAL
44	BV	169	GLU
44	BV	171	ILE
44	BV	175	VAL
45	B3	41	ARG
45	B3	64	ASP
45	B3	84	LEU
46	BZ	40	ARG
46	BZ	41	ARG
46	BZ	82	LEU
46	BZ	83	GLU
46	BZ	91	LYS
47	BW	24	LEU
47	BW	32	LEU
47	BW	47	ASN
47	BW	50	ILE
47	BW	53	LEU
47	BW	55	ARG
47	BW	62	THR
48	BX	8	LEU
48	BX	30	ARG
48	BX	32	GLN
48	BX	55	ARG
49	B4	23	GLU

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Mol	Chain	Res	Type
49	B4	35	VAL
49	B4	36	CYS
49	B4	38	LYS
49	B4	42	PHE
49	B4	53	GLU
49	B4	61	ARG
49	B4	63	TYR
50	B5	11	THR
50	B5	16	ARG
50	B5	35	GLU
50	B5	51	TYR
50	B5	52	TYR
50	B5	55	ARG
50	B5	56	LYS
51	B6	27	LYS
51	B6	39	TYR
51	B6	44	ARG
51	B6	45	LYS
52	B7	4	THR
52	B7	14	LYS
52	B7	24	THR
52	B7	46	VAL
53	B8	8	LYS
53	B8	26	LYS
53	B8	29	LYS
53	B8	34	TRP
53	B8	41	ILE
53	B8	44	LYS
53	B8	48	PHE
53	B8	58	ILE
2	CE	10	LEU
2	CE	11	LEU
2	CE	16	HIS
2	CE	20	GLU
2	CE	23	ARG
2	CE	24	TRP
2	CE	33	TYR
2	CE	40	HIS
2	CE	51	LEU
2	CE	75	LYS
2	CE	96	ARG
2	CE	106	LYS

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Mol	Chain	Res	Type
2	CE	107	THR
2	CE	112	VAL
2	CE	114	ARG
2	CE	122	PHE
2	CE	137	ARG
2	CE	139	LYS
2	CE	144	ARG
2	CE	155	LEU
2	CE	172	ILE
2	CE	178	ARG
2	CE	185	ILE
2	CE	187	LEU
2	CE	193	ASP
2	CE	196	LEU
2	CE	212	GLN
2	CE	230	VAL
2	CE	236	TYR
3	CF	5	ILE
3	CF	17	ASP
3	CF	27	LYS
3	CF	28	GLN
3	CF	29	TYR
3	CF	47	LEU
3	CF	48	TYR
3	CF	57	ILE
3	CF	59	ARG
3	CF	79	ARG
3	CF	85	ARG
3	CF	94	LEU
3	CF	104	GLN
3	CF	127	ARG
4	CG	9	CYS
4	CG	13	ARG
4	CG	21	LEU
4	CG	26	CYS
4	CG	30	LYS
4	CG	33	MET
4	CG	53	ASP
4	CG	70	ILE
4	CG	75	PHE
4	CG	84	LYS
4	CG	93	PHE

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Mol	Chain	Res	Type
4	CG	94	LEU
4	CG	97	LEU
4	CG	127	THR
4	CG	135	LEU
4	CG	138	TYR
4	CG	187	ARG
4	CG	191	ARG
4	CG	199	ASN
5	CH	13	ILE
5	CH	18	ARG
5	CH	26	PHE
5	CH	56	GLN
5	CH	67	VAL
5	CH	68	GLU
5	CH	76	ILE
5	CH	78	HIS
5	CH	79	GLU
5	CH	116	THR
5	CH	144	THR
5	CH	151	LEU
6	CI	14	LEU
6	CI	19	LEU
6	CI	21	LEU
6	CI	36	ARG
6	CI	46	ARG
6	CI	78	GLU
6	CI	83	ASP
6	CI	87	ARG
6	CI	94	GLN
7	CJ	8	GLU
7	CJ	32	ARG
7	CJ	43	PHE
7	CJ	60	LYS
7	CJ	63	LYS
7	CJ	72	ARG
7	CJ	85	TYR
7	CJ	87	VAL
7	CJ	149	ARG
7	CJ	156	TRP
8	CK	1	MET
8	CK	25	ASP
8	CK	80	ILE

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Mol	Chain	Res	Type
8	CK	83	ILE
8	CK	102	ARG
8	CK	103	VAL
8	CK	104	ARG
8	CK	109	ILE
8	CK	112	LEU
8	CK	115	SER
8	CK	138	TRP
9	CL	4	TYR
9	CL	5	TYR
9	CL	16	ARG
9	CL	17	VAL
9	CL	29	ASN
9	CL	36	TYR
9	CL	78	LYS
9	CL	87	GLN
9	CL	88	TYR
9	CL	89	ASN
9	CL	91	ASP
9	CL	95	LYS
9	CL	104	ARG
9	CL	108	VAL
9	CL	112	LYS
9	CL	113	LYS
9	CL	114	TYR
9	CL	117	HIS
9	CL	118	LYS
10	CM	22	LYS
10	CM	54	PHE
10	CM	62	HIS
10	CM	72	VAL
10	CM	73	ASP
10	CM	79	ARG
10	CM	101	VAL
11	CN	12	ARG
11	CN	18	ARG
11	CN	70	LYS
11	CN	81	ASP
11	CN	127	LYS
12	CO	20	LYS
12	CO	41	ARG
12	CO	47	LYS

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Mol	Chain	Res	Type
12	CO	64	TYR
12	CO	66	VAL
12	CO	111	LYS
12	CO	127	GLU
13	CP	4	ILE
13	CP	9	ILE
13	CP	19	LEU
13	CP	23	TYR
13	CP	36	LYS
13	CP	48	LEU
13	CP	54	VAL
13	CP	62	ASN
13	CP	64	TRP
13	CP	66	LEU
13	CP	74	VAL
13	CP	79	LYS
13	CP	94	ARG
13	CP	105	THR
13	CP	108	ARG
13	CP	115	LYS
14	CQ	6	LEU
14	CQ	12	ARG
14	CQ	18	VAL
14	CQ	40	CYS
15	CR	3	ILE
15	CR	82	ILE
15	CR	88	ARG
16	CS	2	VAL
16	CS	49	LEU
16	CS	55	ARG
16	CS	82	GLN
17	CT	52	LYS
17	CT	100	LYS
17	CT	101	ARG
18	CU	21	LYS
18	CU	23	LYS
18	CU	36	ASN
18	CU	54	ARG
19	CV	14	HIS
19	CV	22	LEU
19	CV	33	THR
19	CV	34	TRP

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Mol	Chain	Res	Type
19	CV	43	GLU
19	CV	56	GLN
19	CV	58	VAL
19	CV	60	VAL
19	CV	67	VAL
19	CV	70	LYS
19	CV	81	ARG
20	CW	10	LEU
20	CW	31	SER
20	CW	56	MET
20	CW	64	ASP
20	CW	75	ASN
20	CW	80	ARG
20	CW	84	LEU
21	CX	7	ARG
21	CX	24	ARG
26	DD	31	LYS
26	DD	33	LEU
26	DD	35	LYS
26	DD	44	ASN
26	DD	49	ILE
26	DD	61	LEU
26	DD	65	ILE
26	DD	69	ARG
26	DD	87	ASN
26	DD	88	ARG
26	DD	94	LEU
26	DD	103	ARG
26	DD	171	ASP
26	DD	211	ARG
26	DD	244	ARG
26	DD	257	LEU
26	DD	271	ILE
27	DE	12	THR
27	DE	52	LEU
27	DE	58	ARG
27	DE	64	LYS
27	DE	76	ARG
27	DE	77	ILE
27	DE	78	LEU
27	DE	79	ARG
27	DE	81	ILE

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Mol	Chain	Res	Type
27	DE	111	ARG
27	DE	119	ARG
27	DE	135	HIS
27	DE	144	ARG
27	DE	200	GLU
27	DE	203	LYS
28	DF	2	LYS
28	DF	3	GLU
28	DF	18	ARG
28	DF	24	LEU
28	DF	63	LYS
28	DF	64	ILE
28	DF	74	ARG
28	DF	107	LYS
28	DF	181	LEU
29	DG	27	ASN
29	DG	33	ARG
29	DG	34	LEU
29	DG	45	GLU
29	DG	47	LYS
29	DG	51	ARG
29	DG	53	LEU
29	DG	71	THR
29	DG	88	ILE
29	DG	94	LEU
29	DG	118	ARG
29	DG	139	LEU
29	DG	148	MET
29	DG	164	GLU
30	DH	25	LYS
30	DH	30	LYS
30	DH	41	MET
30	DH	59	ARG
30	DH	65	HIS
30	DH	83	TYR
30	DH	86	GLU
30	DH	89	ILE
30	DH	103	LEU
30	DH	105	LEU
30	DH	124	GLU
30	DH	157	TYR
30	DH	158	HIS

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Mol	Chain	Res	Type
30	DH	164	TYR
31	DK	9	LEU
31	DK	38	LEU
31	DK	44	LEU
31	DK	52	ARG
31	DK	56	LYS
31	DK	57	ARG
31	DK	67	ARG
31	DK	77	LEU
31	DK	101	LEU
31	DK	105	HIS
31	DK	109	ILE
31	DK	117	GLU
31	DK	145	VAL
32	DM	7	LYS
32	DM	28	THR
32	DM	33	LEU
32	DM	38	HIS
32	DM	45	ASN
32	DM	60	ILE
32	DM	131	GLN
32	DM	134	ARG
33	DN	24	VAL
33	DN	49	ARG
33	DN	78	ARG
33	DN	94	ARG
33	DN	117	LEU
34	DO	15	ARG
34	DO	21	ARG
34	DO	41	ARG
34	DO	45	LEU
34	DO	46	LYS
34	DO	52	GLU
34	DO	61	ARG
34	DO	62	LEU
34	DO	75	ILE
34	DO	79	ARG
34	DO	85	LEU
34	DO	98	GLU
34	DO	110	TYR
34	DO	114	ILE
35	DP	6	ARG

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Mol	Chain	Res	Type
35	DP	26	TYR
35	DP	45	GLN
35	DP	59	ARG
35	DP	64	ILE
35	DP	66	ILE
35	DP	83	MET
35	DP	89	ASN
35	DP	133	ARG
36	D0	16	HIS
36	D0	18	LEU
36	D0	44	LEU
36	D0	75	LEU
36	D0	79	LEU
37	DQ	15	ARG
37	DQ	32	LEU
37	DQ	36	TYR
37	DQ	69	VAL
37	DQ	73	LEU
37	DQ	83	LYS
37	DQ	89	ARG
37	DQ	106	ARG
37	DQ	107	GLU
38	DR	1	MET
38	DR	7	ILE
38	DR	8	LYS
38	DR	38	ASN
38	DR	41	ARG
38	DR	44	ASP
38	DR	55	ASN
38	DR	65	LYS
38	DR	85	LYS
38	DR	86	ILE
38	DR	93	ARG
38	DR	98	LYS
38	DR	100	TYR
39	D1	33	ARG
39	D1	64	ARG
39	D1	74	LEU
39	D1	75	ASN
39	D1	98	LEU
40	D2	12	TYR
40	D2	28	GLU

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Mol	Chain	Res	Type
40	D2	35	LEU
40	D2	61	VAL
40	D2	66	ARG
40	D2	76	LYS
40	D2	80	GLN
40	D2	81	TYR
40	D2	84	LYS
40	D2	91	TYR
40	D2	97	LYS
41	DS	11	ARG
41	DS	40	ASN
41	DS	51	LEU
41	DS	52	GLU
41	DS	59	VAL
41	DS	88	ARG
41	DS	98	LYS
41	DS	107	LEU
41	DS	111	HIS
41	DS	113	LYS
42	DT	63	LYS
42	DT	66	LEU
42	DT	69	TYR
42	DT	80	ILE
42	DT	81	VAL
43	DU	2	ARG
43	DU	5	MET
43	DU	6	HIS
43	DU	35	TYR
43	DU	55	TYR
43	DU	60	PHE
43	DU	62	GLU
43	DU	75	ILE
43	DU	76	CYS
43	DU	88	LYS
43	DU	95	LYS
43	DU	97	ARG
44	DV	5	LEU
44	DV	8	TYR
44	DV	14	LYS
44	DV	41	LEU
44	DV	71	VAL
44	DV	72	ARG

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Mol	Chain	Res	Type
44	DV	76	LEU
44	DV	80	ARG
44	DV	81	ARG
44	DV	89	PHE
44	DV	91	LEU
44	DV	131	ARG
44	DV	150	LEU
44	DV	151	HIS
45	D3	12	ASN
45	D3	14	ARG
45	D3	36	ILE
45	D3	50	ASN
45	D3	60	PHE
46	DZ	21	ARG
46	DZ	30	VAL
46	DZ	40	ARG
46	DZ	41	ARG
46	DZ	56	GLN
46	DZ	75	GLU
46	DZ	78	LYS
46	DZ	80	LEU
46	DZ	81	LYS
46	DZ	82	LEU
46	DZ	83	GLU
46	DZ	90	ILE
46	DZ	91	LYS
46	DZ	92	LYS
46	DZ	94	LEU
46	DZ	97	LEU
46	DZ	98	LEU
47	DW	30	ARG
47	DW	53	LEU
48	DX	8	LEU
48	DX	9	VAL
48	DX	38	GLU
49	D4	1	MET
49	D4	9	LEU
49	D4	18	CYS
49	D4	20	ASN
49	D4	46	GLN
49	D4	59	PHE
50	D5	6	VAL

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Mol	Chain	Res	Type
50	D5	29	THR
50	D5	35	GLU
50	D5	37	LYS
50	D5	48	GLU
50	D5	52	TYR
50	D5	58	LEU
51	D6	20	ASN
51	D6	28	ARG
51	D6	30	THR
51	D6	32	ASN
51	D6	39	TYR
51	D6	53	LYS
52	D7	1	MET
52	D7	9	ARG
52	D7	24	THR
52	D7	43	THR
52	D7	47	ARG
52	D7	49	ARG
53	D8	8	LYS
53	D8	30	ARG
53	D8	33	ASN
53	D8	34	TRP
53	D8	40	GLU
53	D8	61	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (125) such sidechains are listed below:

Mol	Chain	Res	Type
2	AE	204	ASN
3	AF	6	HIS
3	AF	123	GLN
3	AF	136	GLN
3	AF	176	HIS
4	AG	103	ASN
4	AG	123	HIS
4	AG	125	HIS
5	AH	20	GLN
5	AH	78	HIS
6	AI	64	GLN
6	AI	84	ASN
7	AJ	37	ASN
7	AJ	56	GLN

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Mol	Chain	Res	Type
8	AK	78	GLN
8	AK	82	HIS
9	AL	23	ASN
10	AM	69	ASN
16	AS	14	ASN
18	AU	36	ASN
19	AV	47	HIS
19	AV	65	ASN
20	AW	26	ASN
26	BD	46	GLN
26	BD	58	HIS
26	BD	96	HIS
26	BD	143	HIS
27	BE	35	GLN
27	BE	143	ASN
28	BF	8	GLN
28	BF	67	GLN
30	BH	74	ASN
31	BK	133	HIS
32	BM	131	GLN
33	BN	3	GLN
34	BO	9	ASN
35	BP	13	GLN
36	B0	16	HIS
36	B0	24	GLN
37	BQ	95	HIS
38	BR	84	GLN
39	B1	44	ASN
40	B2	11	GLN
41	BS	57	ASN
42	BT	31	HIS
42	BT	87	GLN
44	BV	151	HIS
47	BW	46	GLN
48	BX	19	GLN
48	BX	52	HIS
49	B4	46	GLN
50	B5	22	HIS
50	B5	23	HIS
51	B6	32	ASN
2	CE	16	HIS
2	CE	19	HIS

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Mol	Chain	Res	Type
2	CE	25	ASN
2	CE	78	GLN
2	CE	94	ASN
2	CE	135	GLN
3	CF	6	HIS
3	CF	123	GLN
4	CG	42	GLN
4	CG	43	HIS
4	CG	116	GLN
5	CH	20	GLN
6	CI	32	ASN
6	CI	94	GLN
7	CJ	28	ASN
8	CK	82	HIS
9	CL	3	GLN
9	CL	89	ASN
10	CM	21	GLN
10	CM	56	HIS
10	CM	76	ASN
10	CM	84	GLN
11	CN	117	ASN
13	CP	40	ASN
13	CP	77	ASN
13	CP	92	HIS
14	CQ	49	HIS
15	CR	9	GLN
16	CS	82	GLN
17	CT	16	GLN
19	CV	47	HIS
19	CV	56	GLN
19	CV	57	HIS
26	DD	116	GLN
26	DD	186	HIS
27	DE	48	GLN
27	DE	60	ASN
27	DE	137	HIS
28	DF	75	HIS
28	DF	169	ASN
29	DG	132	ASN
30	DH	139	GLN
30	DH	143	GLN
32	DM	45	ASN

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Mol	Chain	Res	Type
34	DO	9	ASN
34	DO	13	ASN
34	DO	128	HIS
36	D0	16	HIS
36	D0	31	HIS
36	D0	53	HIS
38	DR	2	ASN
39	D1	72	HIS
39	D1	81	HIS
39	D1	117	GLN
40	D2	64	HIS
40	D2	80	GLN
40	D2	87	HIS
40	D2	89	GLN
41	DS	57	ASN
41	DS	61	ASN
42	DT	31	HIS
43	DU	6	HIS
45	D3	50	ASN
45	D3	70	GLN
47	DW	9	GLN
48	DX	19	GLN
48	DX	52	HIS
49	D4	6	HIS
49	D4	47	GLN
49	D4	60	GLN
53	D8	31	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1506/1506 (100%)	279 (18%)	29 (1%)
1	CA	1505/1506 (99%)	284 (18%)	32 (2%)
22	AC	76/77 (98%)	5 (6%)	1 (1%)
22	CC	77/77 (100%)	9 (11%)	2 (2%)
23	A1	3/4 (75%)	1 (33%)	0
23	C1	3/4 (75%)	0	0
24	BA	2911/2912 (99%)	552 (18%)	37 (1%)
24	DA	2908/2912 (99%)	571 (19%)	43 (1%)
25	BB	121/122 (99%)	21 (17%)	0
25	DB	121/122 (99%)	25 (20%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
All	All	9231/9242 (99%)	1747 (18%)	144 (1%)

All (1747) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	6	G
1	AA	9	G
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	49	U
1	AA	51	A
1	AA	61	G
1	AA	65	U
1	AA	66	G
1	AA	76	G
1	AA	78	G
1	AA	79	G
1	AA	81	G
1	AA	84	U
1	AA	85	U
1	AA	86	U
1	AA	87	A
1	AA	89	U
1	AA	90	C
1	AA	91	C
1	AA	95	G
1	AA	97	U
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	144	G
1	AA	163	C
1	AA	172	A
1	AA	174	C
1	AA	181	G
1	AA	183	G
1	AA	190	G
1	AA	191(A)	G
1	AA	195	A

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Mol	Chain	Res	Type
1	AA	196	A
1	AA	197	A
1	AA	199	G
1	AA	201	C
1	AA	208	U
1	AA	209	U
1	AA	210	U
1	AA	216	G
1	AA	225	C
1	AA	231	G
1	AA	245	C
1	AA	247	G
1	AA	251	G
1	AA	256	U
1	AA	266	G
1	AA	267	C
1	AA	281	G
1	AA	289	G
1	AA	321	A
1	AA	328	C
1	AA	330	C
1	AA	332	G
1	AA	345	C
1	AA	346	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	390	C
1	AA	392	G
1	AA	397	A
1	AA	398	C
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	419	C
1	AA	422	C
1	AA	424	G
1	AA	429	U
1	AA	430	A
1	AA	439	A

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Mol	Chain	Res	Type
1	AA	452	A
1	AA	466	C
1	AA	467	G
1	AA	485	G
1	AA	496	A
1	AA	497	U
1	AA	500	G
1	AA	505	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	524	G
1	AA	527	G
1	AA	531	U
1	AA	533	A
1	AA	547	A
1	AA	559	A
1	AA	561	U
1	AA	564	C
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	577	G
1	AA	592	G
1	AA	607	A
1	AA	614	A
1	AA	630	G
1	AA	631	G
1	AA	632	A
1	AA	642	A
1	AA	653	A
1	AA	665	A
1	AA	686	U
1	AA	687	A
1	AA	688	G
1	AA	701	C
1	AA	702	A
1	AA	704	A
1	AA	723	U
1	AA	724	G
1	AA	731	G

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Mol	Chain	Res	Type
1	AA	748	C
1	AA	749	C
1	AA	755	G
1	AA	759	A
1	AA	774	G
1	AA	777	A
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	812	C
1	AA	813	U
1	AA	817	C
1	AA	821	G
1	AA	828	A
1	AA	836	G
1	AA	841	U
1	AA	842	C
1	AA	848	C
1	AA	859	A
1	AA	872	A
1	AA	885	G
1	AA	889	A
1	AA	902	G
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	936	C
1	AA	960	U
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	983	A
1	AA	991	U
1	AA	992	U
1	AA	993	G

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Mol	Chain	Res	Type
1	AA	1002	G
1	AA	1004	A
1	AA	1008	C
1	AA	1009	G
1	AA	1010	G
1	AA	1020	U
1	AA	1022	G
1	AA	1024	G
1	AA	1025	U
1	AA	1026	G
1	AA	1027	C
1	AA	1028	C
1	AA	1029	G
1	AA	1030	C
1	AA	1031	G
1	AA	1032(B)	G
1	AA	1033	G
1	AA	1036	G
1	AA	1038	C
1	AA	1039	C
1	AA	1042	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1081	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1121	U
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1127	G
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1140	C

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Mol	Chain	Res	Type
1	AA	1146	A
1	AA	1151	A
1	AA	1152	A
1	AA	1154	G
1	AA	1157	A
1	AA	1158	C
1	AA	1159	U
1	AA	1178	G
1	AA	1181	G
1	AA	1182	G
1	AA	1184	G
1	AA	1196	U
1	AA	1197	G
1	AA	1212	U
1	AA	1213	A
1	AA	1215	G
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1238	A
1	AA	1240	U
1	AA	1241	G
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	1282	C
1	AA	1286	A
1	AA	1287	A
1	AA	1290	G
1	AA	1300	G
1	AA	1302	U
1	AA	1303	C
1	AA	1305	G
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1334	G

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Mol	Chain	Res	Type
1	AA	1335	C
1	AA	1336	C
1	AA	1337	G
1	AA	1346	A
1	AA	1347	G
1	AA	1350	A
1	AA	1359	C
1	AA	1362(A)	C
1	AA	1363	A
1	AA	1370	G
1	AA	1379	G
1	AA	1397	C
1	AA	1419	G
1	AA	1442	G
1	AA	1443	G
1	AA	1446	A
1	AA	1450	U
1	AA	1452	C
1	AA	1453	G
1	AA	1454	G
1	AA	1487	G
1	AA	1492	A
1	AA	1493	A
1	AA	1499	A
1	AA	1502	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1529	G
1	AA	1530	G
1	AA	1533	C
22	AC	9	G
22	AC	20	U
22	AC	47	U
22	AC	48	C
22	AC	49	G
23	A1	19	U
24	BA	5	A
24	BA	10	G
24	BA	34	C
24	BA	35	G

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Mol	Chain	Res	Type
24	BA	46	C
24	BA	51	G
24	BA	63	U
24	BA	64	A
24	BA	71	A
24	BA	74	A
24	BA	75	G
24	BA	85	G
24	BA	95	G
24	BA	101	G
24	BA	102	G
24	BA	118	A
24	BA	120	U
24	BA	155	C
24	BA	163	U
24	BA	164	U
24	BA	165	U
24	BA	181	A
24	BA	196	A
24	BA	199	A
24	BA	204	A
24	BA	215	G
24	BA	216	A
24	BA	222	A
24	BA	223	A
24	BA	227	A
24	BA	228	A
24	BA	229	A
24	BA	230	U
24	BA	233	A
24	BA	248	G
24	BA	249	C
24	BA	250	G
24	BA	252	G
24	BA	261	G
24	BA	266	G
24	BA	270(K)	C
24	BA	270(L)	U
24	BA	270(M)	U
24	BA	270(N)	G
24	BA	270(P)	C
24	BA	270(Q)	C

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Mol	Chain	Res	Type
24	BA	271(C)	U
24	BA	271	G
24	BA	274	G
24	BA	277	C
24	BA	278	A
24	BA	279	C
24	BA	299	A
24	BA	311	A
24	BA	315	G
24	BA	323	G
24	BA	324	A
24	BA	329	G
24	BA	330	A
24	BA	352	G
24	BA	364	C
24	BA	386	G
24	BA	405	U
24	BA	406	G
24	BA	411	G
24	BA	412	A
24	BA	428	A
24	BA	441	U
24	BA	443	A
24	BA	444	C
24	BA	448	U
24	BA	454	A
24	BA	457	A
24	BA	470	A
24	BA	471	A
24	BA	481	G
24	BA	482	A
24	BA	504	U
24	BA	505	A
24	BA	508	G
24	BA	509	C
24	BA	528	A
24	BA	529	A
24	BA	530	G
24	BA	531	C
24	BA	532	A
24	BA	533	G
24	BA	537	C

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Mol	Chain	Res	Type
24	BA	539	G
24	BA	540	G
24	BA	546	C
24	BA	556	G
24	BA	563	G
24	BA	573	G
24	BA	575	A
24	BA	586	A
24	BA	603	A
24	BA	607	U
24	BA	614	U
24	BA	617	G
24	BA	622	G
24	BA	627	A
24	BA	637	A
24	BA	644	A
24	BA	645	C
24	BA	646	A
24	BA	653	A
24	BA	654	A
24	BA	654(A)	A
24	BA	654(G)	C
24	BA	654(H)	G
24	BA	654(I)	C
24	BA	654(J)	A
24	BA	654(K)	C
24	BA	654(L)	G
24	BA	654(N)	G
24	BA	654(T)	A
24	BA	686	G
24	BA	717	G
24	BA	730	C
24	BA	739	G
24	BA	753	C
24	BA	764	A
24	BA	776	G
24	BA	779	U
24	BA	782	A
24	BA	784	A
24	BA	785	G
24	BA	790	C
24	BA	791	C

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Mol	Chain	Res	Type
24	BA	792	G
24	BA	805	G
24	BA	812	C
24	BA	819	A
24	BA	827	U
24	BA	828	U
24	BA	831	G
24	BA	855	G
24	BA	859	G
24	BA	866	A
24	BA	877	U
24	BA	880	G
24	BA	881	G
24	BA	882	G
24	BA	883	G
24	BA	885	C
24	BA	887	A
24	BA	888	C
24	BA	890	A
24	BA	893	C
24	BA	895	U
24	BA	897	C
24	BA	898	C
24	BA	900	A
24	BA	901	A
24	BA	910	A
24	BA	915	C
24	BA	917	A
24	BA	932	G
24	BA	933	A
24	BA	941	A
24	BA	946	G
24	BA	959	A
24	BA	961	C
24	BA	974	G
24	BA	974(A)	C
24	BA	975	G
24	BA	983	A
24	BA	996	A
24	BA	1005	C
24	BA	1010	A
24	BA	1011	G

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Mol	Chain	Res	Type
24	BA	1012	U
24	BA	1013	C
24	BA	1015	G
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	1037	G
24	BA	1045	A
24	BA	1046	A
24	BA	1047	G
24	BA	1050	A
24	BA	1056	G
24	BA	1057	A
24	BA	1060	U
24	BA	1061	U
24	BA	1062	G
24	BA	1065	U
24	BA	1066	U
24	BA	1067	A
24	BA	1068	G
24	BA	1070	A
24	BA	1071	G
24	BA	1072	C
24	BA	1077	A
24	BA	1078	U
24	BA	1079	C
24	BA	1083	U
24	BA	1085	A
24	BA	1088	A
24	BA	1089	G
24	BA	1090	U
24	BA	1092	C
24	BA	1095	A
24	BA	1096	A
24	BA	1097	U
24	BA	1105	U
24	BA	1111	A
24	BA	1112	G
24	BA	1122	G

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Mol	Chain	Res	Type
24	BA	1129	A
24	BA	1130	U
24	BA	1135	C
24	BA	1136	G
24	BA	1142	U
24	BA	1142(A)	A
24	BA	1143	A
24	BA	1174	A
24	BA	1176	G
24	BA	1178	C
24	BA	1179	C
24	BA	1180	C
24	BA	1181	C
24	BA	1195	G
24	BA	1204	A
24	BA	1205	U
24	BA	1210	A
24	BA	1211	U
24	BA	1212	G
24	BA	1220	A
24	BA	1228	G
24	BA	1236	G
24	BA	1244	G
24	BA	1250	G
24	BA	1252	G
24	BA	1253	A
24	BA	1256	G
24	BA	1265	A
24	BA	1271	G
24	BA	1272	A
24	BA	1273	U
24	BA	1274	A
24	BA	1300	U
24	BA	1301	A
24	BA	1313	U
24	BA	1314	C
24	BA	1321	A
24	BA	1329	U
24	BA	1332	G
24	BA	1344	G
24	BA	1349	A
24	BA	1352	U

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Mol	Chain	Res	Type
24	BA	1359	A
24	BA	1360	A
24	BA	1365	A
24	BA	1368	G
24	BA	1380	G
24	BA	1384	A
24	BA	1385	G
24	BA	1386	C
24	BA	1388	G
24	BA	1395	A
24	BA	1416	G
24	BA	1420	U
24	BA	1421	G
24	BA	1428	C
24	BA	1429	G
24	BA	1444(A)	A
24	BA	1449	A
24	BA	1449(A)	G
24	BA	1454	U
24	BA	1455	G
24	BA	1459	G
24	BA	1460	A
24	BA	1461	G
24	BA	1467	C
24	BA	1471	A
24	BA	1483	G
24	BA	1493	C
24	BA	1497	U
24	BA	1506	C
24	BA	1508	A
24	BA	1509	C
24	BA	1510	A
24	BA	1511	A
24	BA	1522	G
24	BA	1526	G
24	BA	1534	G
24	BA	1535	U
24	BA	1536	A
24	BA	1537	C
24	BA	1543	A
24	BA	1544	C
24	BA	1545	A

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Mol	Chain	Res	Type
24	BA	1558	A
24	BA	1559	G
24	BA	1566	A
24	BA	1569	A
24	BA	1578	U
24	BA	1579	A
24	BA	1580	A
24	BA	1586	A
24	BA	1601	G
24	BA	1608	A
24	BA	1609	A
24	BA	1616	A
24	BA	1617	C
24	BA	1640	C
24	BA	1648	C
24	BA	1654	A
24	BA	1674	G
24	BA	1678	G
24	BA	1695	G
24	BA	1729	A
24	BA	1730	U
24	BA	1731	G
24	BA	1733	G
24	BA	1742	C
24	BA	1743	G
24	BA	1750	G
24	BA	1756	G
24	BA	1762	A
24	BA	1763	G
24	BA	1764	G
24	BA	1773	A
24	BA	1782	C
24	BA	1791	A
24	BA	1798	U
24	BA	1799	G
24	BA	1800	C
24	BA	1801	G
24	BA	1802	A
24	BA	1816	G
24	BA	1820	U
24	BA	1829	A
24	BA	1834	U

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Mol	Chain	Res	Type
24	BA	1835	G
24	BA	1847	A
24	BA	1848	A
24	BA	1858	G
24	BA	1869	G
24	BA	1870	C
24	BA	1878	G
24	BA	1882	C
24	BA	1889	A
24	BA	1900	A
24	BA	1904	G
24	BA	1906	G
24	BA	1913	A
24	BA	1914	C
24	BA	1919	A
24	BA	1929	G
24	BA	1930	G
24	BA	1936	A
24	BA	1938	A
24	BA	1955	U
24	BA	1963	U
24	BA	1964	G
24	BA	1967	C
24	BA	1969	A
24	BA	1970	A
24	BA	1971	A
24	BA	1972	A
24	BA	1982	C
24	BA	1993	U
24	BA	1999	C
24	BA	2000	G
24	BA	2020	A
24	BA	2023	G
24	BA	2030	A
24	BA	2031	A
24	BA	2032	G
24	BA	2033	A
24	BA	2034	U
24	BA	2039	C
24	BA	2043	C
24	BA	2052	G
24	BA	2055	C

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Mol	Chain	Res	Type
24	BA	2056	G
24	BA	2060	A
24	BA	2061	G
24	BA	2062	A
24	BA	2069	G
24	BA	2099	U
24	BA	2107	C
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	2116	G
24	BA	2118	U
24	BA	2123	G
24	BA	2126	A
24	BA	2127	G
24	BA	2128	C
24	BA	2131	G
24	BA	2132	U
24	BA	2133	G
24	BA	2134	A
24	BA	2136	C
24	BA	2137	C
24	BA	2138	C
24	BA	2145	C
24	BA	2146	C
24	BA	2147	G
24	BA	2148	G
24	BA	2151	G
24	BA	2153	G
24	BA	2157	G
24	BA	2159	G
24	BA	2161	C
24	BA	2165	G
24	BA	2167	U
24	BA	2168	G
24	BA	2169	A
24	BA	2170	A
24	BA	2171	A
24	BA	2176	A

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Mol	Chain	Res	Type
24	BA	2178	C
24	BA	2181	G
24	BA	2182	G
24	BA	2186	G
24	BA	2189	U
24	BA	2190	G
24	BA	2191	G
24	BA	2192	G
24	BA	2198	A
24	BA	2199	A
24	BA	2210	G
24	BA	2211	G
24	BA	2212	A
24	BA	2213	U
24	BA	2215	G
24	BA	2225	A
24	BA	2238	G
24	BA	2239	G
24	BA	2268	A
24	BA	2273	A
24	BA	2275	C
24	BA	2278	A
24	BA	2283	C
24	BA	2287	A
24	BA	2288	A
24	BA	2307	G
24	BA	2308	G
24	BA	2309	A
24	BA	2319	G
24	BA	2320	A
24	BA	2325	G
24	BA	2327	A
24	BA	2334	G
24	BA	2336	A
24	BA	2346	A
24	BA	2347	C
24	BA	2350	C
24	BA	2376	A
24	BA	2383	G
24	BA	2385	C
24	BA	2402	C
24	BA	2403	C

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Mol	Chain	Res	Type
24	BA	2406	U
24	BA	2410	G
24	BA	2419	U
24	BA	2422	A
24	BA	2423	U
24	BA	2424	C
24	BA	2425	A
24	BA	2428	G
24	BA	2429	G
24	BA	2430	A
24	BA	2434	A
24	BA	2435	A
24	BA	2439	A
24	BA	2440	C
24	BA	2441	C
24	BA	2448	A
24	BA	2464	C
24	BA	2468	G
24	BA	2476	A
24	BA	2482	G
24	BA	2502	G
24	BA	2503	A
24	BA	2505	G
24	BA	2518	A
24	BA	2520	C
24	BA	2529	G
24	BA	2554	U
24	BA	2555	U
24	BA	2567	G
24	BA	2572	A
24	BA	2573	C
24	BA	2585	U
24	BA	2602	A
24	BA	2609	U
24	BA	2611	U
24	BA	2612	C
24	BA	2615	U
24	BA	2629	A
24	BA	2636	U
24	BA	2654	A
24	BA	2665	A
24	BA	2673	G

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Mol	Chain	Res	Type
24	BA	2682	U
24	BA	2689	U
24	BA	2690	C
24	BA	2691	C
24	BA	2702	U
24	BA	2703	C
24	BA	2707	G
24	BA	2712(A)	A
24	BA	2713	A
24	BA	2714	G
24	BA	2726	U
24	BA	2733	A
24	BA	2752	C
24	BA	2758	A
24	BA	2764	A
24	BA	2765	A
24	BA	2766	G
24	BA	2778	A
24	BA	2779	U
24	BA	2789	C
24	BA	2790	A
24	BA	2791	C
24	BA	2793	G
24	BA	2794	C
24	BA	2795	G
24	BA	2797	U
24	BA	2798	C
24	BA	2801	A
24	BA	2802	G
24	BA	2808	U
24	BA	2818	G
24	BA	2820	A
24	BA	2821	A
24	BA	2833	G
24	BA	2834	G
24	BA	2835	A
24	BA	2848	G
24	BA	2850	A
24	BA	2851	A
24	BA	2872	G
24	BA	2891	G
24	BA	2892	A

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Mol	Chain	Res	Type
24	BA	2894	G
24	BA	2901	C
25	BB	7	G
25	BB	12	C
25	BB	13	A
25	BB	15	A
25	BB	16	G
25	BB	24	G
25	BB	27	C
25	BB	40	U
25	BB	41	U
25	BB	45	A
25	BB	52	A
25	BB	53	A
25	BB	56	G
25	BB	67	G
25	BB	73	A
25	BB	75	G
25	BB	81	G
25	BB	82	G
25	BB	105	G
25	BB	109	G
25	BB	118	G
1	CA	9	G
1	CA	22	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	65	U
1	CA	66	G
1	CA	76	G
1	CA	79	G
1	CA	81	G
1	CA	84	U
1	CA	85	U
1	CA	86	U
1	CA	87	A
1	CA	90	C
1	CA	91	C

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Mol	Chain	Res	Type
1	CA	95	G
1	CA	101	A
1	CA	116	A
1	CA	121	C
1	CA	131	C
1	CA	163	C
1	CA	169	C
1	CA	174	C
1	CA	182	U
1	CA	186	C
1	CA	189	U
1	CA	190	G
1	CA	191(D)	U
1	CA	195	A
1	CA	197	A
1	CA	198	G
1	CA	209	U
1	CA	210	U
1	CA	231	G
1	CA	244	U
1	CA	247	G
1	CA	250	A
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	268	C
1	CA	270	A
1	CA	281	G
1	CA	289	G
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	332	G
1	CA	340	U
1	CA	345	C
1	CA	346	G
1	CA	347	G
1	CA	350	G
1	CA	351	G
1	CA	352	C
1	CA	353	A
1	CA	354	G

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Mol	Chain	Res	Type
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	422	C
1	CA	423	G
1	CA	429	U
1	CA	435	C
1	CA	439	A
1	CA	442	C
1	CA	466	C
1	CA	467	G
1	CA	478	A
1	CA	482	A
1	CA	485	G
1	CA	486	U
1	CA	496	A
1	CA	497	U
1	CA	505	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	518	C
1	CA	521	G
1	CA	527	G
1	CA	530	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	535	A
1	CA	547	A
1	CA	559	A
1	CA	561	U
1	CA	562	C
1	CA	572	A
1	CA	575	G

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Mol	Chain	Res	Type
1	CA	576	G
1	CA	577	G
1	CA	596	C
1	CA	598	U
1	CA	618	C
1	CA	630	G
1	CA	632	A
1	CA	633	G
1	CA	653	A
1	CA	661	G
1	CA	665	A
1	CA	666	G
1	CA	686	U
1	CA	688	G
1	CA	702	A
1	CA	704	A
1	CA	723	U
1	CA	724	G
1	CA	731	G
1	CA	749	C
1	CA	755	G
1	CA	778	G
1	CA	793	U
1	CA	794	A
1	CA	801	U
1	CA	802	A
1	CA	813	U
1	CA	816	A
1	CA	817	C
1	CA	828	A
1	CA	841	U
1	CA	842	C
1	CA	843	U
1	CA	848	C
1	CA	858	G
1	CA	859	A
1	CA	885	G
1	CA	889	A
1	CA	914	A
1	CA	916	G
1	CA	922	G
1	CA	926	G

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Mol	Chain	Res	Type
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	971	G
1	CA	974	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	979	C
1	CA	980	C
1	CA	982	U
1	CA	989	C
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	994	A
1	CA	1002	G
1	CA	1004	A
1	CA	1005	A
1	CA	1006	C
1	CA	1009	G
1	CA	1024	G
1	CA	1025	U
1	CA	1028	C
1	CA	1029	G
1	CA	1030	C
1	CA	1032	A
1	CA	1033	G
1	CA	1036	G
1	CA	1038	C
1	CA	1039	C
1	CA	1040	U
1	CA	1045	C
1	CA	1046	A
1	CA	1052	U
1	CA	1054	C
1	CA	1066	C

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Mol	Chain	Res	Type
1	CA	1067	A
1	CA	1086	U
1	CA	1091	U
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1118	C
1	CA	1124	G
1	CA	1127	G
1	CA	1129	C
1	CA	1131	G
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1146	A
1	CA	1157	A
1	CA	1158	C
1	CA	1159	U
1	CA	1160	G
1	CA	1161	C
1	CA	1178	G
1	CA	1181	G
1	CA	1182	G
1	CA	1184	G
1	CA	1187	G
1	CA	1191	A
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1201	A
1	CA	1211	U
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1220	G
1	CA	1227	A
1	CA	1238	A
1	CA	1240	U
1	CA	1241	G
1	CA	1253	G
1	CA	1256	A

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Mol	Chain	Res	Type
1	CA	1257	U
1	CA	1258	G
1	CA	1260	C
1	CA	1269	A
1	CA	1279	A
1	CA	1280	A
1	CA	1281	U
1	CA	1285	A
1	CA	1286	A
1	CA	1287	A
1	CA	1297	C
1	CA	1298	C
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G
1	CA	1320	C
1	CA	1322	C
1	CA	1323	G
1	CA	1324	A
1	CA	1331	G
1	CA	1335	C
1	CA	1338	G
1	CA	1346	A
1	CA	1347	G
1	CA	1353	G
1	CA	1362(A)	C
1	CA	1363	A
1	CA	1364	U
1	CA	1367	C
1	CA	1378	C
1	CA	1379	G
1	CA	1397	C
1	CA	1419	G
1	CA	1442	G
1	CA	1443	G
1	CA	1446	A
1	CA	1450	U
1	CA	1452	C
1	CA	1453	G
1	CA	1454	G

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Mol	Chain	Res	Type
1	CA	1492	A
1	CA	1493	A
1	CA	1494	G
1	CA	1499	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1517	G
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
22	CC	2	G
22	CC	8	U
22	CC	18	G
22	CC	19	G
22	CC	20	U
22	CC	46	G
22	CC	47	U
22	CC	49	G
22	CC	76	A
24	DA	3	U
24	DA	9	U
24	DA	10	G
24	DA	34	C
24	DA	46	C
24	DA	49	A
24	DA	50	U
24	DA	51	G
24	DA	55	G
24	DA	69	C
24	DA	71	A
24	DA	72	U
24	DA	74	A
24	DA	75	G
24	DA	90	U
24	DA	91	A
24	DA	93	C
24	DA	95	G
24	DA	102	G
24	DA	118	A

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Mol	Chain	Res	Type
24	DA	120	U
24	DA	125	G
24	DA	129	C
24	DA	140	A
24	DA	153	C
24	DA	155	C
24	DA	161	U
24	DA	171	G
24	DA	174	C
24	DA	175	G
24	DA	181	A
24	DA	182	A
24	DA	196	A
24	DA	199	A
24	DA	205	G
24	DA	215	G
24	DA	216	A
24	DA	221	A
24	DA	222	A
24	DA	229	A
24	DA	233	A
24	DA	248	G
24	DA	252	G
24	DA	266	G
24	DA	270(K)	C
24	DA	270(M)	U
24	DA	270(N)	G
24	DA	270(O)	U
24	DA	271(C)	U
24	DA	271	G
24	DA	273(D)	C
24	DA	274	G
24	DA	275	G
24	DA	278	A
24	DA	279	C
24	DA	289	A
24	DA	311	A
24	DA	329	G
24	DA	330	A
24	DA	333	G
24	DA	352	G
24	DA	356	G

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Mol	Chain	Res	Type
24	DA	357	A
24	DA	363	G
24	DA	363(A)	A
24	DA	363(E)	U
24	DA	363(F)	A
24	DA	386	G
24	DA	395	U
24	DA	405	U
24	DA	406	G
24	DA	411	G
24	DA	412	A
24	DA	428	A
24	DA	443	A
24	DA	444	C
24	DA	448	U
24	DA	455	C
24	DA	457	A
24	DA	470	A
24	DA	477	A
24	DA	480	A
24	DA	481	G
24	DA	489	G
24	DA	496	G
24	DA	505	A
24	DA	509	C
24	DA	512	G
24	DA	528	A
24	DA	529	A
24	DA	530	G
24	DA	531	C
24	DA	532	A
24	DA	533	G
24	DA	537	C
24	DA	556	G
24	DA	563	G
24	DA	573	G
24	DA	575	A
24	DA	603	A
24	DA	607	U
24	DA	614	U
24	DA	615	G
24	DA	617	G

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Mol	Chain	Res	Type
24	DA	621	A
24	DA	622	G
24	DA	627	A
24	DA	637	A
24	DA	645	C
24	DA	646	A
24	DA	647	G
24	DA	651	G
24	DA	654	A
24	DA	654(A)	A
24	DA	654(G)	C
24	DA	654(H)	G
24	DA	654(I)	C
24	DA	654(K)	C
24	DA	654(M)	C
24	DA	654(N)	G
24	DA	654(Q)	C
24	DA	654(T)	A
24	DA	668	G
24	DA	669	G
24	DA	670	A
24	DA	686	G
24	DA	708	C
24	DA	730	C
24	DA	739	G
24	DA	748	G
24	DA	753	C
24	DA	764	A
24	DA	775	G
24	DA	782	A
24	DA	784	A
24	DA	785	G
24	DA	789	A
24	DA	790	C
24	DA	792	G
24	DA	805	G
24	DA	812	C
24	DA	819	A
24	DA	827	U
24	DA	828	U
24	DA	831	G
24	DA	832	G

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Mol	Chain	Res	Type
24	DA	857	C
24	DA	859	G
24	DA	866	A
24	DA	869	G
24	DA	878	A
24	DA	881	G
24	DA	882	G
24	DA	883	G
24	DA	887	A
24	DA	888	C
24	DA	889	C
24	DA	894	C
24	DA	896	A
24	DA	897	C
24	DA	898	C
24	DA	899	A
24	DA	901	A
24	DA	907	U
24	DA	910	A
24	DA	914	C
24	DA	915	C
24	DA	917	A
24	DA	932	G
24	DA	941	A
24	DA	943	U
24	DA	945	A
24	DA	946	G
24	DA	953	A
24	DA	959	A
24	DA	961	C
24	DA	974	G
24	DA	974(A)	C
24	DA	980	A
24	DA	983	A
24	DA	990	A
24	DA	991	C
24	DA	996	A
24	DA	1011	G
24	DA	1012	U
24	DA	1013	C
24	DA	1015	G
24	DA	1016	G

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Mol	Chain	Res	Type
24	DA	1022	G
24	DA	1023	U
24	DA	1024	G
24	DA	1025	G
24	DA	1026	U
24	DA	1027	A
24	DA	1039	G
24	DA	1044	G
24	DA	1045	A
24	DA	1048	A
24	DA	1049	C
24	DA	1051	G
24	DA	1054	A
24	DA	1057	A
24	DA	1059	G
24	DA	1061	U
24	DA	1062	G
24	DA	1063	G
24	DA	1067	A
24	DA	1069	A
24	DA	1070	A
24	DA	1071	G
24	DA	1073	A
24	DA	1074	G
24	DA	1075	C
24	DA	1076	C
24	DA	1083	U
24	DA	1085	A
24	DA	1086	A
24	DA	1087	G
24	DA	1088	A
24	DA	1094	U
24	DA	1096	A
24	DA	1099	G
24	DA	1105	U
24	DA	1111	A
24	DA	1112	G
24	DA	1122	G
24	DA	1129	A
24	DA	1130	U
24	DA	1135	C
24	DA	1136	G

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Mol	Chain	Res	Type
24	DA	1142(A)	A
24	DA	1143	A
24	DA	1144	G
24	DA	1170	G
24	DA	1173	G
24	DA	1174	A
24	DA	1175	U
24	DA	1177	A
24	DA	1204	A
24	DA	1205	U
24	DA	1212	G
24	DA	1220	A
24	DA	1250	G
24	DA	1253	A
24	DA	1255	U
24	DA	1256	G
24	DA	1271	G
24	DA	1272	A
24	DA	1273	U
24	DA	1300	U
24	DA	1301	A
24	DA	1307	A
24	DA	1314	C
24	DA	1318	C
24	DA	1320	C
24	DA	1321	A
24	DA	1325	G
24	DA	1329	U
24	DA	1332	G
24	DA	1349	A
24	DA	1359	A
24	DA	1360	A
24	DA	1365	A
24	DA	1368	G
24	DA	1379	A
24	DA	1384	A
24	DA	1385	G
24	DA	1386	C
24	DA	1389	G
24	DA	1395	A
24	DA	1396	U
24	DA	1406	U

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Mol	Chain	Res	Type
24	DA	1416	G
24	DA	1419	A
24	DA	1420	U
24	DA	1421	G
24	DA	1428	C
24	DA	1437	C
24	DA	1444(A)	A
24	DA	1449	A
24	DA	1449(A)	G
24	DA	1455	G
24	DA	1460	A
24	DA	1461	G
24	DA	1467	C
24	DA	1471	A
24	DA	1475	G
24	DA	1479	G
24	DA	1483	G
24	DA	1488	G
24	DA	1490	A
24	DA	1493	C
24	DA	1508	A
24	DA	1509	C
24	DA	1510	A
24	DA	1522	G
24	DA	1526	G
24	DA	1534	G
24	DA	1535	U
24	DA	1536	A
24	DA	1537	C
24	DA	1543	A
24	DA	1547	C
24	DA	1558	A
24	DA	1559	G
24	DA	1560	G
24	DA	1566	A
24	DA	1569	A
24	DA	1578	U
24	DA	1580	A
24	DA	1581	G
24	DA	1585	C
24	DA	1586	A
24	DA	1588	C

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Mol	Chain	Res	Type
24	DA	1598	C
24	DA	1608	A
24	DA	1609	A
24	DA	1612	C
24	DA	1640	C
24	DA	1648	C
24	DA	1654	A
24	DA	1674	G
24	DA	1675	C
24	DA	1678	G
24	DA	1700	A
24	DA	1701	A
24	DA	1718	G
24	DA	1725	G
24	DA	1728	G
24	DA	1729	A
24	DA	1730	U
24	DA	1731	G
24	DA	1742	C
24	DA	1743	G
24	DA	1756	G
24	DA	1763	G
24	DA	1764	G
24	DA	1773	A
24	DA	1780	A
24	DA	1782	C
24	DA	1791	A
24	DA	1800	C
24	DA	1801	G
24	DA	1802	A
24	DA	1812	A
24	DA	1816	G
24	DA	1820	U
24	DA	1829	A
24	DA	1834	U
24	DA	1835	G
24	DA	1847	A
24	DA	1848	A
24	DA	1858	G
24	DA	1870	C
24	DA	1871	A
24	DA	1878	G

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Mol	Chain	Res	Type
24	DA	1889	A
24	DA	1895	C
24	DA	1900	A
24	DA	1906	G
24	DA	1912	A
24	DA	1913	A
24	DA	1914	C
24	DA	1917	U
24	DA	1929	G
24	DA	1930	G
24	DA	1936	A
24	DA	1938	A
24	DA	1955	U
24	DA	1956	U
24	DA	1963	U
24	DA	1965	C
24	DA	1967	C
24	DA	1970	A
24	DA	1971	A
24	DA	1972	A
24	DA	1983	C
24	DA	1992	G
24	DA	1993	U
24	DA	1994	C
24	DA	2020	A
24	DA	2023	G
24	DA	2031	A
24	DA	2032	G
24	DA	2033	A
24	DA	2036	C
24	DA	2039	C
24	DA	2043	C
24	DA	2052	G
24	DA	2055	C
24	DA	2056	G
24	DA	2059	A
24	DA	2060	A
24	DA	2061	G
24	DA	2062	A
24	DA	2067	G
24	DA	2069	G
24	DA	2082	A

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Mol	Chain	Res	Type
24	DA	2099	U
24	DA	2100	G
24	DA	2108	C
24	DA	2111	C
24	DA	2112	G
24	DA	2113	U
24	DA	2114	A
24	DA	2116	G
24	DA	2117	A
24	DA	2119	A
24	DA	2125	G
24	DA	2126	A
24	DA	2127	G
24	DA	2128	C
24	DA	2131	G
24	DA	2132	U
24	DA	2133	G
24	DA	2134	A
24	DA	2136	C
24	DA	2137	C
24	DA	2145	C
24	DA	2146	C
24	DA	2147	G
24	DA	2148	G
24	DA	2157	G
24	DA	2158	A
24	DA	2159	G
24	DA	2166	G
24	DA	2167	U
24	DA	2168	G
24	DA	2169	A
24	DA	2171	A
24	DA	2172	U
24	DA	2173	A
24	DA	2175	C
24	DA	2189	U
24	DA	2191	G
24	DA	2192	G
24	DA	2198	A
24	DA	2210	G
24	DA	2211	G
24	DA	2212	A

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Mol	Chain	Res	Type
24	DA	2213	U
24	DA	2215	G
24	DA	2225	A
24	DA	2226	C
24	DA	2238	G
24	DA	2239	G
24	DA	2245	U
24	DA	2275	C
24	DA	2278	A
24	DA	2280	G
24	DA	2283	C
24	DA	2286	A
24	DA	2287	A
24	DA	2305	A
24	DA	2307	G
24	DA	2308	G
24	DA	2309	A
24	DA	2311	A
24	DA	2316	C
24	DA	2319	G
24	DA	2325	G
24	DA	2334	G
24	DA	2335	A
24	DA	2336	A
24	DA	2342	C
24	DA	2345	G
24	DA	2346	A
24	DA	2347	C
24	DA	2350	C
24	DA	2352	A
24	DA	2383	G
24	DA	2385	C
24	DA	2392	A
24	DA	2394	C
24	DA	2402	C
24	DA	2403	C
24	DA	2406	U
24	DA	2410	G
24	DA	2422	A
24	DA	2424	C
24	DA	2425	A
24	DA	2428	G

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Mol	Chain	Res	Type
24	DA	2429	G
24	DA	2430	A
24	DA	2431	U
24	DA	2434	A
24	DA	2435	A
24	DA	2439	A
24	DA	2440	C
24	DA	2441	C
24	DA	2448	A
24	DA	2468	G
24	DA	2469	A
24	DA	2475	C
24	DA	2476	A
24	DA	2477	C
24	DA	2478	A
24	DA	2482	G
24	DA	2500	U
24	DA	2502	G
24	DA	2503	A
24	DA	2505	G
24	DA	2506	U
24	DA	2518	A
24	DA	2542	A
24	DA	2543	G
24	DA	2554	U
24	DA	2555	U
24	DA	2564	A
24	DA	2566	A
24	DA	2567	G
24	DA	2572	A
24	DA	2585	U
24	DA	2601	C
24	DA	2602	A
24	DA	2603	G
24	DA	2609	U
24	DA	2611	U
24	DA	2612	C
24	DA	2615	U
24	DA	2629	A
24	DA	2630	G
24	DA	2636	U
24	DA	2665	A

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Mol	Chain	Res	Type
24	DA	2673	G
24	DA	2682	U
24	DA	2689	U
24	DA	2690	C
24	DA	2700	C
24	DA	2702	U
24	DA	2712(A)	A
24	DA	2713	A
24	DA	2717	G
24	DA	2726	U
24	DA	2733	A
24	DA	2744	G
24	DA	2750	A
24	DA	2751	G
24	DA	2752	C
24	DA	2758	A
24	DA	2762	G
24	DA	2764	A
24	DA	2765	A
24	DA	2766	G
24	DA	2769	C
24	DA	2777	G
24	DA	2778	A
24	DA	2779	U
24	DA	2786	U
24	DA	2789	C
24	DA	2790	A
24	DA	2791	C
24	DA	2797	U
24	DA	2799	A
24	DA	2802	G
24	DA	2808	U
24	DA	2818	G
24	DA	2820	A
24	DA	2821	A
24	DA	2833	G
24	DA	2834	G
24	DA	2835	A
24	DA	2846	G
24	DA	2860	A
24	DA	2872	G
24	DA	2873	A

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Mol	Chain	Res	Type
24	DA	2880	C
24	DA	2892	A
24	DA	2893	G
24	DA	2894	G
24	DA	2896	C
25	DB	0	A
25	DB	3	C
25	DB	4	C
25	DB	7	G
25	DB	14	U
25	DB	15	A
25	DB	16	G
25	DB	22	U
25	DB	25	A
25	DB	30	C
25	DB	40	U
25	DB	41	U
25	DB	42	C
25	DB	44	G
25	DB	45	A
25	DB	47	C
25	DB	67	G
25	DB	73	A
25	DB	81	G
25	DB	88	C
25	DB	89(A)	A
25	DB	90	C
25	DB	105	G
25	DB	109	G
25	DB	115	G

All (144) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	5	U
1	AA	82	U
1	AA	115	G
1	AA	190	G
1	AA	210	U
1	AA	244	U
1	AA	266	G
1	AA	412	A

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Mol	Chain	Res	Type
1	AA	428	G
1	AA	429	U
1	AA	484	G
1	AA	509	A
1	AA	560	U
1	AA	687	A
1	AA	703	G
1	AA	748	C
1	AA	812	C
1	AA	913	A
1	AA	974	A
1	AA	992	U
1	AA	1025	U
1	AA	1027	C
1	AA	1065	U
1	AA	1183	A
1	AA	1256	A
1	AA	1285	A
1	AA	1336	C
1	AA	1452	C
1	AA	1498	U
22	AC	47	U
24	BA	222	A
24	BA	229	A
24	BA	271(B)	G
24	BA	271(C)	U
24	BA	404	C
24	BA	654(S)	G
24	BA	880	G
24	BA	974(A)	C
24	BA	1022	G
24	BA	1026	U
24	BA	1060	U
24	BA	1069	A
24	BA	1178	C
24	BA	1210	A
24	BA	1312	U
24	BA	1379	A
24	BA	1420	U
24	BA	1427	A
24	BA	1508	A
24	BA	1509	C

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Mol	Chain	Res	Type
24	BA	1558	A
24	BA	1653	G
24	BA	1694	C
24	BA	1799	G
24	BA	1819	A
24	BA	1899	G
24	BA	1912	A
24	BA	1992	G
24	BA	2166	G
24	BA	2211	G
24	BA	2212	A
24	BA	2439	A
24	BA	2481	G
24	BA	2566	A
24	BA	2610	C
24	BA	2689	U
24	BA	2751	G
1	CA	89	U
1	CA	115	G
1	CA	197	A
1	CA	243	A
1	CA	250	A
1	CA	266	G
1	CA	328	C
1	CA	345	C
1	CA	412	A
1	CA	413	G
1	CA	421	U
1	CA	485	G
1	CA	509	A
1	CA	560	U
1	CA	632	A
1	CA	687	A
1	CA	748	C
1	CA	812	C
1	CA	913	A
1	CA	991	U
1	CA	992	U
1	CA	1126	U
1	CA	1183	A
1	CA	1196	U
1	CA	1285	A

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Mol	Chain	Res	Type
1	CA	1297	C
1	CA	1300	G
1	CA	1301	U
1	CA	1322	C
1	CA	1346	A
1	CA	1453	G
1	CA	1498	U
22	CC	1	C
22	CC	48	C
24	DA	49	A
24	DA	71	A
24	DA	101	G
24	DA	128	C
24	DA	278	A
24	DA	653	A
24	DA	654(S)	G
24	DA	669	G
24	DA	752	A
24	DA	774	A
24	DA	856	C
24	DA	877	U
24	DA	888	C
24	DA	974	G
24	DA	1022	G
24	DA	1085	A
24	DA	1171	G
24	DA	1427	A
24	DA	1460	A
24	DA	1558	A
24	DA	1653	G
24	DA	1730	U
24	DA	1819	A
24	DA	1913	A
24	DA	1992	G
24	DA	2107	C
24	DA	2166	G
24	DA	2211	G
24	DA	2225	A
24	DA	2344	U
24	DA	2345	G
24	DA	2351	G
24	DA	2439	A

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Mol	Chain	Res	Type
24	DA	2447	G
24	DA	2542	A
24	DA	2602	A
24	DA	2610	C
24	DA	2689	U
24	DA	2751	G
24	DA	2776	A
24	DA	2790	A
24	DA	2859	G
24	DA	2893	G

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

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

Of 1693 ligands modelled in this entry, 1691 are monoatomic - leaving 2 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	$\# Z > 2$
55	TAC	AA	1833	54	35,35,35	1.36	5 (14%)	58,58,58	1.69	9 (15%)
55	TAC	CA	1805	54	35,35,35	1.33	5 (14%)	58,58,58	1.58	8 (13%)

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
55	TAC	AA	1833	54	-	0/8/74/74	0/4/4/4
55	TAC	CA	1805	54	-	0/8/74/74	0/4/4/4

All (10) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	AA	1833	TAC	C1A-C10	4.39	1.49	1.41
55	CA	1805	TAC	C1A-C10	4.10	1.48	1.41
55	AA	1833	TAC	C1A-C61	3.49	1.49	1.41
55	CA	1805	TAC	C6-C61	-3.42	1.50	1.53
55	CA	1805	TAC	C1A-C61	3.28	1.48	1.41
55	AA	1833	TAC	C6-C61	-2.87	1.50	1.53
55	AA	1833	TAC	C1C-C1	-2.82	1.50	1.55
55	CA	1805	TAC	C1C-C1	-2.53	1.51	1.55
55	AA	1833	TAC	C2-C3	-2.28	1.34	1.40
55	CA	1805	TAC	C2-C3	-2.26	1.34	1.40

All (17) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	AA	1833	TAC	O12-C12-C1B	-5.96	118.37	123.88
55	CA	1805	TAC	O12-C12-C1B	-5.65	118.66	123.88
55	AA	1833	TAC	C41-C1C-C1	-5.03	105.24	111.12
55	CA	1805	TAC	C41-C1C-C1	-4.82	105.49	111.12
55	AA	1833	TAC	O12-C12-C1C	4.11	120.03	113.42
55	CA	1805	TAC	O12-C12-C1C	3.77	119.48	113.42
55	AA	1833	TAC	C5-C41-C4	-3.53	108.04	112.48
55	CA	1805	TAC	C1-C1C-C12	3.24	113.51	109.79
55	CA	1805	TAC	C43-N4-C4	-2.56	108.58	114.11
55	AA	1833	TAC	C61-C1A-C11	-2.46	118.01	121.19
55	AA	1833	TAC	C43-N4-C4	-2.30	109.13	114.11
55	AA	1833	TAC	C5-C41-C1C	-2.30	106.98	109.21
55	CA	1805	TAC	O3-C3-C2	-2.28	119.12	122.78
55	CA	1805	TAC	C42-N4-C4	-2.27	109.20	114.11
55	AA	1833	TAC	O3-C3-C2	-2.19	119.26	122.78
55	CA	1805	TAC	C62-C6-C61	-2.15	108.12	111.75
55	AA	1833	TAC	C3-C4-N4	-2.06	108.70	113.34

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2		OWAB(Å ²)	Q<0.9
1	AA	1506/1506 (100%)	-0.68	8 (0%)	88 51	89, 141, 216, 277	0
1	CA	1506/1506 (100%)	-0.73	5 (0%)	91 63	103, 152, 218, 275	0
2	AE	237/256 (92%)	0.42	13 (5%)	24 6	139, 172, 204, 216	0
2	CE	237/256 (92%)	0.98	31 (13%)	4 2	160, 191, 219, 228	0
3	AF	205/239 (85%)	1.52	63 (30%)	1 1	116, 151, 183, 201	0
3	CF	206/239 (86%)	0.95	33 (16%)	3 1	148, 179, 201, 211	0
4	AG	208/208 (100%)	0.24	3 (1%)	72 25	112, 149, 172, 183	0
4	CG	208/208 (100%)	-0.02	1 (0%)	88 51	128, 153, 171, 180	0
5	AH	151/162 (93%)	0.70	14 (9%)	9 3	111, 139, 161, 195	0
5	CH	151/162 (93%)	0.29	10 (6%)	18 4	129, 154, 177, 196	0
6	AI	101/101 (100%)	1.69	39 (38%)	1 0	116, 141, 162, 167	0
6	CI	101/101 (100%)	0.92	16 (15%)	3 1	128, 149, 163, 178	0
7	AJ	155/156 (99%)	-0.02	7 (4%)	32 7	129, 151, 187, 211	0
7	CJ	155/156 (99%)	1.09	23 (14%)	3 1	146, 167, 195, 204	0
8	AK	138/138 (100%)	0.17	2 (1%)	72 25	118, 148, 162, 170	0
8	CK	138/138 (100%)	0.14	2 (1%)	72 25	131, 159, 174, 180	0
9	AL	127/128 (99%)	-0.49	0	100 100	119, 169, 186, 192	0
9	CL	127/128 (99%)	0.39	10 (7%)	13 4	133, 185, 199, 208	0
10	AM	99/105 (94%)	0.48	4 (4%)	36 8	119, 170, 197, 210	0
10	CM	99/105 (94%)	0.14	2 (2%)	62 19	149, 191, 204, 209	0
11	AN	119/129 (92%)	0.55	10 (8%)	11 3	115, 137, 170, 198	0
11	CN	119/129 (92%)	0.74	9 (7%)	14 4	124, 149, 178, 196	0
12	AO	125/128 (97%)	0.64	10 (8%)	12 4	106, 128, 150, 192	0
12	CO	125/128 (97%)	0.09	3 (2%)	56 15	111, 134, 159, 205	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AP	116/126 (92%)	-0.56	0 100 100	103, 153, 174, 184	0
13	CP	117/126 (92%)	0.24	12 (10%) 7 2	143, 179, 196, 205	0
14	AQ	60/61 (98%)	-0.00	2 (3%) 44 10	123, 143, 159, 161	0
14	CQ	60/61 (98%)	0.14	2 (3%) 44 10	148, 176, 188, 191	0
15	AR	88/89 (98%)	-0.11	0 100 100	109, 136, 155, 162	0
15	CR	88/89 (98%)	0.72	11 (12%) 5 2	121, 151, 168, 172	0
16	AS	84/88 (95%)	-0.40	0 100 100	135, 156, 179, 198	0
16	CS	84/88 (95%)	-0.50	0 100 100	121, 143, 167, 203	0
17	AT	100/105 (95%)	0.12	0 100 100	123, 147, 162, 173	0
17	CT	100/105 (95%)	0.83	13 (13%) 4 2	122, 145, 159, 182	0
18	AU	72/88 (81%)	0.66	6 (8%) 11 3	118, 142, 168, 195	0
18	CU	72/88 (81%)	0.50	7 (9%) 8 2	134, 157, 181, 199	0
19	AV	83/93 (89%)	-0.37	0 100 100	133, 158, 180, 191	0
19	CV	78/93 (83%)	-0.14	0 100 100	169, 195, 210, 221	0
20	AW	99/106 (93%)	-0.32	0 100 100	137, 159, 187, 196	0
20	CW	99/106 (93%)	-0.31	0 100 100	112, 142, 177, 194	0
21	AX	25/27 (92%)	-0.56	0 100 100	120, 150, 170, 187	0
21	CX	25/27 (92%)	-0.54	0 100 100	144, 171, 192, 209	0
22	AC	77/77 (100%)	-0.60	0 100 100	102, 125, 153, 175	0
22	CC	77/77 (100%)	0.13	10 (12%) 4 2	106, 145, 175, 205	0
23	A1	4/4 (100%)	-0.50	0 100 100	106, 109, 114, 165	0
23	C1	4/4 (100%)	-0.14	0 100 100	127, 131, 143, 184	0
24	BA	2912/2912 (100%)	-0.33	69 (2%) 56 15	68, 102, 240, 278	0
24	DA	2909/2912 (99%)	-0.42	76 (2%) 53 13	79, 114, 258, 279	0
25	BB	122/122 (100%)	-0.60	1 (0%) 83 39	92, 122, 145, 211	0
25	DB	122/122 (100%)	-0.05	8 (6%) 18 4	115, 152, 178, 226	0
26	BD	272/276 (98%)	0.39	11 (4%) 36 8	69, 96, 117, 140	0
26	DD	272/276 (98%)	0.71	17 (6%) 19 5	72, 106, 130, 155	0
27	BE	205/206 (99%)	0.91	32 (15%) 3 1	73, 117, 163, 177	0
27	DE	205/206 (99%)	0.38	9 (4%) 33 7	79, 122, 168, 196	0
28	BF	202/210 (96%)	0.27	8 (3%) 36 8	74, 108, 149, 175	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	DF	208/210 (99%)	0.74	13 (6%) 19 5	82, 125, 187, 213	0
29	BG	181/182 (99%)	-0.15	0 100 100	105, 127, 167, 186	0
29	DG	181/182 (99%)	2.13	96 (53%) 0 0	136, 166, 194, 204	0
30	BH	170/180 (94%)	0.22	5 (2%) 49 12	103, 135, 159, 175	0
30	DH	170/180 (94%)	0.58	19 (11%) 6 2	154, 222, 249, 262	0
31	BK	146/148 (98%)	-0.19	0 100 100	103, 151, 170, 179	0
31	DK	146/148 (98%)	-0.02	4 (2%) 52 13	111, 159, 178, 185	0
32	BM	138/140 (98%)	0.77	13 (9%) 9 3	90, 115, 153, 183	0
32	DM	138/140 (98%)	0.52	11 (7%) 12 4	93, 129, 168, 189	0
33	BN	122/122 (100%)	0.14	1 (0%) 83 39	83, 111, 132, 139	0
33	DN	122/122 (100%)	0.32	0 100 100	86, 116, 130, 140	0
34	BO	150/150 (100%)	1.02	39 (26%) 1 1	70, 113, 143, 207	0
34	DO	150/150 (100%)	0.85	17 (11%) 6 2	85, 129, 167, 206	0
35	BP	141/141 (100%)	0.24	3 (2%) 60 17	85, 107, 132, 163	0
35	DP	141/141 (100%)	0.57	6 (4%) 34 8	95, 126, 152, 177	0
36	B0	118/118 (100%)	0.47	4 (3%) 43 10	90, 110, 131, 148	0
36	D0	117/118 (99%)	-0.01	1 (0%) 81 37	88, 111, 135, 146	0
37	BQ	111/112 (99%)	0.43	8 (7%) 15 4	90, 119, 148, 164	0
37	DQ	111/112 (99%)	0.98	15 (13%) 4 2	114, 146, 168, 190	0
38	BR	137/146 (93%)	-0.04	3 (2%) 59 16	104, 125, 173, 202	0
38	DR	137/146 (93%)	0.09	1 (0%) 84 42	103, 121, 177, 212	0
39	B1	117/118 (99%)	0.13	3 (2%) 53 13	77, 106, 141, 168	0
39	D1	117/118 (99%)	0.41	7 (5%) 21 5	90, 122, 155, 178	0
40	B2	101/101 (100%)	0.81	11 (10%) 6 2	79, 122, 154, 181	0
40	D2	101/101 (100%)	1.79	45 (44%) 1 0	95, 149, 165, 181	0
41	BS	113/113 (100%)	1.07	16 (14%) 3 1	81, 102, 141, 191	0
41	DS	113/113 (100%)	0.96	8 (7%) 16 4	83, 107, 140, 194	0
42	BT	92/96 (95%)	0.18	1 (1%) 77 30	81, 98, 126, 145	0
42	DT	92/96 (95%)	0.84	10 (10%) 6 2	96, 117, 140, 159	0
43	BU	102/110 (92%)	0.56	9 (8%) 10 3	95, 123, 171, 190	0
43	DU	102/110 (92%)	1.43	23 (22%) 1 1	104, 142, 195, 212	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	BV	175/206 (84%)	0.92	32 (18%) 2 1	104, 142, 218, 229	0
44	DV	179/206 (86%)	1.01	31 (17%) 2 1	132, 174, 237, 251	0
45	B3	76/85 (89%)	0.34	2 (2%) 53 13	85, 101, 121, 163	0
45	D3	77/85 (90%)	1.79	29 (37%) 1 0	98, 117, 141, 175	0
46	BZ	97/98 (98%)	0.54	5 (5%) 26 6	83, 106, 149, 195	0
46	DZ	97/98 (98%)	1.38	21 (21%) 1 1	87, 116, 159, 191	0
47	BW	66/72 (91%)	0.17	1 (1%) 70 24	80, 108, 133, 171	0
47	DW	69/72 (95%)	0.73	7 (10%) 7 2	106, 138, 163, 196	0
48	BX	59/60 (98%)	1.01	13 (22%) 1 1	85, 106, 148, 160	0
48	DX	59/60 (98%)	1.69	21 (35%) 1 0	97, 126, 159, 194	0
49	B4	66/71 (92%)	-0.01	0 100 100	127, 176, 209, 219	0
49	D4	63/71 (88%)	4.06	54 (85%) 0 0	181, 212, 226, 235	0
50	B5	59/60 (98%)	1.43	15 (25%) 1 1	78, 115, 194, 210	0
50	D5	59/60 (98%)	0.81	6 (10%) 7 2	87, 114, 191, 218	0
51	B6	45/54 (83%)	3.97	35 (77%) 0 0	149, 184, 197, 201	0
51	D6	45/54 (83%)	8.77	43 (95%) 0 0	158, 195, 212, 215	0
52	B7	49/49 (100%)	0.29	1 (2%) 62 19	73, 83, 124, 154	0
52	D7	49/49 (100%)	1.12	7 (14%) 3 1	78, 91, 134, 156	0
53	B8	61/65 (93%)	0.22	1 (1%) 68 22	81, 96, 116, 145	0
53	D8	61/65 (93%)	1.06	8 (13%) 4 2	94, 109, 131, 161	0
All	All	20772/21286 (97%)	0.11	1336 (6%) 19 5	68, 133, 207, 279	0

All (1336) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
24	BA	1	G	23.1
51	D6	13	CYS	21.9
24	DA	2901	C	21.9
24	DA	2902	C	17.8
24	BA	654(K)	C	17.6
51	D6	12	GLU	16.9
51	D6	22	ALA	16.8
50	D5	59	GLU	16.5
24	BA	2901	C	16.3
51	D6	50	ARG	16.1

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Mol	Chain	Res	Type	RSRZ
51	D6	49	HIS	15.6
24	BA	2902	C	15.5
51	D6	9	LEU	15.0
51	D6	51	GLU	14.3
24	DA	2146	C	14.1
51	D6	52	VAL	13.9
24	BA	2900	A	13.8
24	BA	2	G	13.8
24	BA	654(H)	G	13.7
24	DA	2900	A	13.6
51	D6	11	LEU	13.6
24	BA	4	C	13.6
51	D6	53	LYS	13.5
51	D6	14	THR	13.5
51	B6	16	CYS	13.0
34	BO	149	GLU	12.8
24	BA	3	U	12.4
51	D6	23	THR	12.2
51	D6	10	LEU	12.1
51	D6	21	TYR	11.5
24	BA	654(J)	A	11.5
51	D6	33	LYS	10.8
24	BA	654(L)	G	10.7
51	D6	31	PRO	10.7
51	B6	15	GLU	10.6
51	D6	25	LYS	10.5
24	DA	2797	U	10.5
24	BA	654(I)	C	10.1
51	D6	26	ASN	10.0
24	BA	2899	G	10.0
51	D6	24	GLU	9.7
41	DS	113	LYS	9.6
50	D5	60	VAL	9.6
24	DA	654(J)	A	9.6
51	B6	17	LYS	9.4
24	DA	654(K)	C	9.4
34	BO	94	GLU	9.3
51	D6	36	LEU	9.2
51	B6	50	ARG	9.2
51	D6	35	GLU	9.2
48	DX	60	GLU	8.9
24	BA	654(R)	C	8.9

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Mol	Chain	Res	Type	RSRZ
49	D4	28	LYS	8.8
50	B5	59	GLU	8.7
24	DA	2899	G	8.6
12	AO	129	ALA	8.6
24	DA	2898	U	8.6
49	D4	8	LYS	8.5
24	BA	654	A	8.5
24	DA	1509	C	8.4
45	D3	85	ALA	8.3
11	CN	11	LYS	8.3
49	D4	47	GLN	8.3
45	B3	85	ALA	8.2
17	CT	101	ARG	8.2
51	D6	34	LEU	8.2
24	BA	654(P)	G	8.2
24	DA	2144	U	8.1
24	DA	2145	C	8.1
41	BS	113	LYS	8.0
24	BA	654(Q)	C	8.0
51	D6	32	ASN	7.8
24	BA	654(N)	G	7.8
41	DS	112	GLY	7.8
24	BA	654(O)	G	7.7
51	D6	19	ARG	7.7
51	D6	27	LYS	7.6
24	BA	2169	A	7.5
24	BA	654(F)	C	7.4
24	BA	5	A	7.4
28	DF	1	MET	7.4
24	DA	2798	C	7.4
49	D4	13	ARG	7.3
24	DA	2147	G	7.3
41	BS	111	HIS	7.3
41	BS	112	GLY	7.2
5	AH	155	GLU	7.2
49	D4	5	ILE	7.0
51	D6	43	CYS	7.0
50	B5	55	ARG	7.0
45	D3	84	LEU	6.9
24	BA	654(G)	C	6.9
28	DF	208	GLY	6.8
24	BA	2898	U	6.8

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Mol	Chain	Res	Type	RSRZ
51	B6	53	LYS	6.7
29	DG	138	GLN	6.7
24	BA	1536	A	6.7
7	CJ	78	ARG	6.6
24	BA	2113	U	6.5
51	B6	18	ARG	6.5
49	D4	46	GLN	6.5
24	DA	654(L)	G	6.4
51	D6	16	CYS	6.4
49	D4	9	LEU	6.4
46	BZ	97	LEU	6.4
49	D4	7	PRO	6.4
51	D6	30	THR	6.4
24	BA	2112	G	6.3
49	D4	24	THR	6.3
24	DA	2112	G	6.3
50	D5	58	LEU	6.3
24	BA	2798	C	6.2
24	DA	2795	G	6.2
46	BZ	98	LEU	6.2
2	CE	240	GLN	6.2
51	B6	49	HIS	6.2
49	D4	29	PRO	6.2
51	D6	48	VAL	6.1
43	DU	50	ARG	6.1
40	D2	34	GLU	6.1
51	B6	51	GLU	6.1
7	CJ	80	VAL	6.1
34	BO	124	LYS	6.1
40	D2	1	MET	6.0
24	DA	2109	U	6.0
24	DA	2168	G	6.0
22	CC	1	C	6.0
3	AF	201	TYR	5.9
49	D4	48	ARG	5.9
29	DG	182	LYS	5.9
44	DV	9	TYR	5.9
24	DA	1177	A	5.8
45	D3	82	ARG	5.8
12	AO	128	ALA	5.8
24	BA	654(M)	C	5.8
2	CE	231	GLU	5.8

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Mol	Chain	Res	Type	RSRZ
51	D6	15	GLU	5.7
51	B6	20	ASN	5.7
51	B6	13	CYS	5.7
49	D4	50	VAL	5.7
24	BA	2146	C	5.7
51	D6	18	ARG	5.7
24	DA	2169	A	5.6
49	D4	31	ILE	5.6
24	BA	2799	A	5.6
24	DA	1	G	5.6
49	D4	22	ILE	5.6
50	B5	60	VAL	5.6
11	AN	11	LYS	5.6
27	BE	69	LYS	5.6
24	BA	2793	G	5.5
48	BX	2	PRO	5.5
7	CJ	79	ARG	5.5
24	DA	2166	G	5.5
51	D6	47	THR	5.5
50	B5	53	ALA	5.4
29	DG	137	GLU	5.4
24	DA	4	C	5.4
48	BX	3	ARG	5.4
34	BO	150	ALA	5.4
51	B6	34	LEU	5.4
49	D4	42	PHE	5.4
24	BA	654(T)	A	5.4
49	D4	32	TYR	5.3
34	DO	150	ALA	5.3
6	AI	47	ARG	5.3
24	BA	2797	U	5.3
24	DA	2804	C	5.3
24	DA	91	A	5.3
24	BA	2897	U	5.3
50	B5	54	GLY	5.3
51	D6	29	ASN	5.2
49	D4	10	VAL	5.2
11	CN	12	ARG	5.2
49	D4	40	HIS	5.2
24	BA	654(D)	G	5.2
24	DA	3	U	5.2
40	D2	98	GLU	5.2

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Mol	Chain	Res	Type	RSRZ
7	CJ	81	GLY	5.2
11	AN	12	ARG	5.2
24	BA	654(S)	G	5.1
24	BA	2795	G	5.1
49	D4	30	GLU	5.1
24	BA	654(E)	C	5.1
29	DG	35	GLU	5.1
51	B6	12	GLU	5.1
47	DW	43	GLN	5.1
49	D4	18	CYS	5.1
29	DG	34	LEU	5.0
6	CI	39	LYS	5.0
25	DB	1(M)	A	5.0
49	D4	3	GLU	5.0
29	DG	39	ILE	5.0
29	DG	104	GLU	5.0
43	DU	53	PRO	5.0
24	DA	2139	C	5.0
48	BX	60	GLU	5.0
51	B6	36	LEU	5.0
27	BE	204	ALA	5.0
3	CF	139	GLN	5.0
49	D4	4	GLY	5.0
6	AI	46	ARG	5.0
24	BA	163	U	4.9
29	DG	155	MET	4.9
24	BA	2794	C	4.9
2	CE	68	ILE	4.9
7	AJ	78	ARG	4.9
24	BA	654(A)	A	4.9
24	DA	2	G	4.8
49	D4	23	GLU	4.8
24	BA	2790	A	4.8
3	AF	168	ALA	4.8
12	AO	127	GLU	4.8
46	DZ	92	LYS	4.8
43	DU	29	GLU	4.8
28	BF	17	ARG	4.8
51	D6	20	ASN	4.7
50	B5	49	CYS	4.6
51	B6	43	CYS	4.6
10	AM	80	LYS	4.6

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Mol	Chain	Res	Type	RSRZ
30	DH	34	GLU	4.6
34	DO	149	GLU	4.6
43	DU	79	CYS	4.6
42	DT	68	ARG	4.6
39	B1	117	GLN	4.6
51	B6	44	ARG	4.6
49	D4	25	TYR	4.6
29	DG	41	GLN	4.5
7	CJ	82	GLY	4.5
7	CJ	85	TYR	4.5
1	CA	1030	C	4.5
46	DZ	11	ARG	4.5
40	D2	36	PRO	4.5
2	CE	4	GLU	4.5
3	CF	143	GLU	4.5
30	DH	33	LEU	4.4
24	DA	2143	C	4.4
24	DA	2167	U	4.4
37	DQ	2	ALA	4.4
45	D3	70	GLN	4.4
2	AE	228	GLY	4.4
29	DG	139	LEU	4.4
44	DV	112	ARG	4.4
49	D4	45	GLY	4.4
27	BE	205	ALA	4.4
3	AF	199	LYS	4.4
40	B2	45	THR	4.4
26	DD	26	LYS	4.4
29	DG	75	LYS	4.3
43	DU	58	GLY	4.3
24	DA	2113	U	4.3
5	AH	9	LYS	4.3
29	DG	2	PRO	4.3
34	BO	98	GLU	4.3
24	DA	2799	A	4.3
24	DA	2897	U	4.3
37	DQ	108	GLY	4.3
12	AO	19	ARG	4.3
7	CJ	83	ALA	4.3
42	DT	92	LEU	4.3
49	D4	11	PRO	4.3
50	B5	58	LEU	4.3

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Mol	Chain	Res	Type	RSRZ
3	AF	60	ALA	4.2
51	D6	44	ARG	4.2
42	DT	87	GLN	4.2
9	CL	21	PRO	4.2
24	BA	2804	C	4.2
45	D3	68	GLU	4.2
50	B5	2	ALA	4.2
3	CF	39	ILE	4.2
29	DG	58	GLN	4.2
22	CC	5	G	4.2
24	BA	654(C)	G	4.2
49	D4	19	GLY	4.2
51	B6	9	LEU	4.2
6	AI	57	GLN	4.2
11	AN	129	SER	4.2
3	CF	79	ARG	4.2
29	DG	86	MET	4.2
48	DX	2	PRO	4.2
2	AE	63	MET	4.2
24	BA	2168	G	4.2
49	D4	60	GLN	4.1
38	BR	1	MET	4.1
51	D6	42	TRP	4.1
49	D4	55	ARG	4.1
11	CN	13	GLN	4.1
3	AF	122	GLU	4.1
3	AF	166	GLU	4.1
40	D2	96	ILE	4.1
44	DV	11	GLU	4.1
41	DS	111	HIS	4.1
51	B6	52	VAL	4.1
30	DH	103	LEU	4.1
3	AF	128	PHE	4.1
24	BA	2145	C	4.1
40	B2	97	LYS	4.1
40	D2	60	GLU	4.1
24	DA	1535	U	4.1
34	BO	148	LEU	4.1
24	DA	5	A	4.1
49	D4	2	LYS	4.0
6	AI	54	LYS	4.0
24	DA	2114	A	4.0

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Mol	Chain	Res	Type	RSRZ
3	AF	200	ALA	4.0
24	DA	1175	U	4.0
29	DG	32	PRO	4.0
3	AF	126	ARG	4.0
48	DX	35	ARG	4.0
2	CE	232	PRO	3.9
51	B6	26	ASN	4.0
40	D2	45	THR	3.9
34	BO	138	LEU	3.9
41	BS	68	ARG	3.9
45	D3	65	GLY	3.9
6	AI	87	ARG	3.9
30	DH	19	VAL	3.9
51	B6	42	TRP	3.9
43	BU	103	GLY	3.9
34	BO	90	ARG	3.9
2	AE	229	VAL	3.9
1	CA	1031	G	3.9
25	DB	0	A	3.9
49	D4	21	VAL	3.9
3	AF	135	LYS	3.9
12	CO	19	ARG	3.9
29	DG	59	GLU	3.9
52	D7	1	MET	3.8
2	AE	227	GLY	3.8
49	D4	41	PRO	3.8
35	DP	91	GLU	3.8
44	BV	20	ARG	3.8
15	CR	88	ARG	3.8
34	BO	119	GLU	3.8
24	DA	2180	U	3.8
24	DA	2165	G	3.8
37	DQ	60	GLY	3.8
40	D2	101	GLY	3.8
3	AF	169	ALA	3.8
40	D2	97	LYS	3.8
34	BO	145	PRO	3.8
29	DG	84	LYS	3.8
41	BS	110	LYS	3.8
6	AI	41	GLU	3.8
34	BO	92	GLU	3.8
7	CJ	86	GLN	3.8

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Mol	Chain	Res	Type	RSRZ
26	DD	4	LYS	3.8
51	B6	48	VAL	3.7
41	DS	92	ARG	3.7
3	CF	126	ARG	3.7
3	AF	132	ARG	3.7
48	DX	57	GLU	3.7
1	CA	1032	A	3.7
3	AF	53	ALA	3.7
15	CR	84	LYS	3.7
51	B6	22	ALA	3.7
24	DA	2110	G	3.7
29	DG	72	ARG	3.7
51	B6	14	THR	3.7
2	AE	4	GLU	3.7
38	DR	1	MET	3.7
6	AI	82	ARG	3.7
49	D4	52	THR	3.7
29	DG	83	ARG	3.7
30	DH	23	ARG	3.7
6	CI	101	ALA	3.6
32	BM	135	PRO	3.6
49	D4	6	HIS	3.6
41	BS	109	GLU	3.6
11	AN	128	ALA	3.6
3	AF	123	GLN	3.6
32	DM	8	GLN	3.6
40	D2	18	LEU	3.6
43	DU	59	GLY	3.6
10	AM	86	MET	3.6
12	AO	20	LYS	3.6
40	D2	95	LEU	3.6
24	BA	1534	G	3.6
17	CT	75	ARG	3.6
6	AI	83	ASP	3.6
34	BO	95	VAL	3.6
24	DA	1176	G	3.6
26	DD	5	LYS	3.6
29	DG	48	GLU	3.6
40	B2	36	PRO	3.6
44	BV	38	TYR	3.5
29	DG	90	LEU	3.5
40	D2	35	LEU	3.5

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Mol	Chain	Res	Type	RSRZ
36	B0	118	GLU	3.5
24	BA	615	G	3.5
24	BA	654(U)	A	3.5
27	DE	69	LYS	3.5
43	DU	46	LYS	3.5
50	D5	2	ALA	3.5
24	DA	654(M)	C	3.5
29	DG	142	PRO	3.5
44	DV	36	LYS	3.5
40	D2	38	LEU	3.5
1	CA	1029	G	3.5
3	AF	52	LEU	3.5
49	D4	12	ALA	3.5
29	DG	67	LYS	3.5
46	DZ	22	GLY	3.5
6	AI	84	ASN	3.5
34	DO	110	TYR	3.5
3	AF	184	TYR	3.5
40	D2	15	GLU	3.5
44	DV	8	TYR	3.5
49	D4	43	TYR	3.5
34	BO	136	GLU	3.5
51	B6	23	THR	3.5
29	DG	74	LYS	3.4
2	AE	231	GLU	3.4
27	DE	205	ALA	3.4
50	B5	35	GLU	3.4
51	D6	37	ARG	3.4
13	CP	63	THR	3.4
51	D6	41	PRO	3.4
26	BD	168	ARG	3.4
44	BV	9	TYR	3.4
51	B6	10	LEU	3.4
44	BV	112	ARG	3.4
6	AI	59	TYR	3.4
29	DG	92	VAL	3.4
2	CE	5	ILE	3.4
7	CJ	153	HIS	3.4
44	DV	63	ASP	3.4
50	B5	51	TYR	3.4
3	AF	91	LEU	3.4
34	BO	97	PRO	3.4

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Mol	Chain	Res	Type	RSRZ
44	BV	60	GLU	3.4
29	DG	36	LYS	3.4
40	D2	53	GLU	3.4
43	DU	33	LYS	3.4
49	D4	14	ILE	3.4
48	DX	59	VAL	3.4
29	DG	159	VAL	3.4
47	DW	70	GLN	3.4
51	D6	17	LYS	3.4
5	CH	8	GLU	3.4
18	CU	88	LYS	3.4
34	BO	121	LYS	3.4
24	DA	2140	C	3.3
25	DB	11	C	3.3
44	DV	162	GLU	3.3
6	AI	86	ARG	3.3
45	D3	29	GLN	3.3
47	BW	43	GLN	3.3
5	AH	88	LYS	3.3
44	DV	38	TYR	3.3
48	DX	3	ARG	3.3
34	BO	125	VAL	3.3
29	DG	94	LEU	3.3
51	B6	47	THR	3.3
51	D6	40	CYS	3.3
40	D2	94	LEU	3.3
32	BM	10	GLU	3.3
3	AF	100	ALA	3.3
43	DU	51	VAL	3.3
47	DW	72	ALA	3.3
43	BU	57	GLN	3.3
53	D8	57	ARG	3.3
18	CU	28	GLU	3.3
52	D7	47	ARG	3.3
30	DH	99	VAL	3.3
48	BX	56	VAL	3.3
34	DO	1	MET	3.3
44	DV	70	LEU	3.3
10	AM	87	THR	3.2
3	AF	131	ARG	3.2
29	DG	152	LEU	3.2
43	DU	49	VAL	3.2

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Mol	Chain	Res	Type	RSRZ
44	BV	140	ASP	3.2
34	DO	95	VAL	3.2
40	B2	1	MET	3.2
46	DZ	61	ARG	3.2
15	CR	85	LEU	3.2
24	DA	2181	G	3.2
42	DT	88	LYS	3.2
46	BZ	96	LYS	3.2
45	D3	9	SER	3.2
30	DH	25	LYS	3.2
43	DU	55	TYR	3.2
6	AI	1	MET	3.2
24	BA	546	C	3.2
37	DQ	34	HIS	3.2
52	B7	1	MET	3.2
24	BA	645	C	3.2
34	BO	96	THR	3.2
3	CF	145	GLY	3.2
29	DG	62	LEU	3.2
14	CQ	55	GLY	3.2
39	D1	118	GLY	3.2
25	BB	1(M)	A	3.2
51	B6	41	PRO	3.2
40	D2	100	ARG	3.2
41	BS	66	GLU	3.2
15	CR	87	ILE	3.2
48	DX	39	ASP	3.2
49	D4	51	ASP	3.2
6	AI	53	ALA	3.2
12	CO	128	ALA	3.2
51	B6	35	GLU	3.2
5	CH	12	LEU	3.2
24	DA	1174	A	3.2
29	DG	22	ARG	3.2
30	DH	32	GLU	3.2
34	BO	144	GLU	3.2
34	BO	122	PRO	3.2
37	BQ	44	LYS	3.2
44	DV	7	ALA	3.2
6	AI	89	MET	3.2
49	D4	1	MET	3.2
2	AE	157	ARG	3.1

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Mol	Chain	Res	Type	RSRZ
7	CJ	155	ARG	3.1
22	CC	17(A)	C	3.2
49	D4	49	PHE	3.1
34	BO	137	LYS	3.1
3	AF	119	ARG	3.1
22	CC	17	C	3.1
28	DF	133	ASN	3.1
3	AF	151	VAL	3.1
34	BO	126	VAL	3.1
49	D4	20	ASN	3.1
49	D4	36	CYS	3.1
6	AI	48	LEU	3.1
34	DO	2	LYS	3.1
24	DA	2138	C	3.1
6	CI	8	ILE	3.1
44	BV	2	GLU	3.1
29	DG	28	VAL	3.1
3	CF	87	LEU	3.1
30	BH	27	LYS	3.1
13	CP	7	VAL	3.1
44	DV	64	GLY	3.1
6	CI	63	TYR	3.1
43	BU	99	CYS	3.1
45	D3	69	PHE	3.1
18	CU	87	ARG	3.1
30	DH	114	VAL	3.1
29	DG	108	ASN	3.1
48	BX	57	GLU	3.1
34	BO	147	LEU	3.1
40	D2	44	LYS	3.1
41	BS	69	LEU	3.1
7	CJ	152	ALA	3.1
40	D2	19	LYS	3.1
24	DA	614	U	3.1
42	DT	69	TYR	3.1
27	BE	27	LEU	3.0
29	DG	37	VAL	3.0
26	BD	167	GLY	3.0
44	BV	10	ARG	3.0
29	DG	143	GLU	3.0
40	D2	32	THR	3.0
3	AF	150	LYS	3.0

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Mol	Chain	Res	Type	RSRZ
15	CR	83	GLU	3.0
24	BA	2803	C	3.0
24	DA	654(I)	C	3.0
40	D2	40	LEU	3.0
51	B6	33	LYS	3.0
52	D7	48	LYS	3.0
32	DM	136	GLU	3.0
49	D4	57	GLU	3.0
40	D2	26	ASP	3.0
43	BU	50	ARG	3.0
24	DA	2170	A	3.0
44	BV	13	GLU	3.0
13	CP	6	GLY	3.0
49	D4	58	ARG	3.0
1	CA	843	U	3.0
34	BO	146	VAL	3.0
24	DA	2111	C	3.0
34	DO	148	LEU	3.0
45	D3	75	LEU	3.0
40	B2	98	GLU	3.0
13	CP	2	ALA	3.0
28	DF	72	ARG	3.0
1	AA	1032	A	3.0
2	CE	236	TYR	3.0
12	CO	129	ALA	3.0
2	CE	202	PRO	3.0
7	AJ	81	GLY	3.0
29	DG	82	LEU	3.0
51	D6	28	ARG	3.0
53	D8	59	LYS	3.0
5	CH	10	MET	3.0
2	AE	232	PRO	3.0
24	DA	2153	G	3.0
24	DA	2154	G	3.0
45	B3	84	LEU	3.0
48	DX	5	LYS	3.0
6	AI	10	LEU	2.9
45	D3	80	HIS	2.9
29	DG	148	MET	2.9
35	BP	1	MET	2.9
2	CE	237	ALA	2.9
29	DG	91	ARG	2.9

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Mol	Chain	Res	Type	RSRZ
24	DA	2156	G	2.9
8	AK	46	LYS	2.9
44	BV	8	TYR	2.9
13	CP	5	ALA	2.9
24	BA	2896	C	2.9
34	DO	119	GLU	2.9
3	CF	199	LYS	2.9
29	DG	26	GLN	2.9
29	DG	89	GLY	2.9
35	DP	130	LYS	2.9
6	AI	88	VAL	2.9
29	DG	6	ALA	2.9
34	BO	102	ARG	2.9
34	BO	123	LEU	2.9
44	DV	155	LEU	2.9
52	D7	45	ALA	2.9
49	D4	56	VAL	2.9
6	AI	55	ASP	2.9
24	DA	2142	C	2.9
24	DA	2179	C	2.9
6	AI	42	GLU	2.9
18	CU	42	ARG	2.9
41	BS	72	LYS	2.9
43	BU	2	ARG	2.9
48	BX	59	VAL	2.9
44	BV	113	ALA	2.9
48	DX	10	LYS	2.9
24	BA	654(B)	C	2.9
3	AF	79	ARG	2.9
44	DV	10	ARG	2.9
48	BX	55	ARG	2.9
50	B5	56	LYS	2.9
2	CE	33	TYR	2.9
27	BE	90	THR	2.9
44	BV	142	SER	2.9
3	AF	85	ARG	2.9
29	DG	51	ARG	2.9
3	CF	48	TYR	2.9
44	BV	23	LYS	2.9
5	AH	10	MET	2.8
40	D2	39	LEU	2.8
48	DX	44	ARG	2.8

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Mol	Chain	Res	Type	RSRZ
47	DW	41	ILE	2.8
49	D4	63	TYR	2.8
2	CE	163	PHE	2.8
41	BS	108	GLY	2.8
30	DH	115	VAL	2.8
49	D4	27	THR	2.8
6	AI	101	ALA	2.8
39	B1	118	GLY	2.8
3	AF	48	TYR	2.8
18	AU	31	LEU	2.8
48	DX	34	GLU	2.8
3	AF	37	GLN	2.8
51	B6	40	CYS	2.8
34	BO	120	ALA	2.8
44	BV	127	LYS	2.8
46	DZ	93	GLU	2.8
6	AI	85	VAL	2.8
24	DA	2120	G	2.8
49	D4	53	GLU	2.8
3	AF	185	GLY	2.8
34	DO	108	LYS	2.8
29	DG	97	ASP	2.8
34	BO	93	GLY	2.8
7	CJ	76	ARG	2.8
46	DZ	6	GLU	2.8
43	DU	63	LYS	2.8
3	AF	152	ILE	2.8
3	AF	198	VAL	2.8
3	AF	186	PHE	2.8
6	CI	61	LEU	2.8
11	CN	96	ARG	2.8
27	BE	173	VAL	2.8
29	DG	93	THR	2.8
53	D8	34	TRP	2.8
40	D2	99	ILE	2.8
6	AI	63	TYR	2.8
6	CI	38	GLU	2.8
27	BE	171	GLU	2.8
29	DG	63	ILE	2.8
30	BH	21	PRO	2.8
27	BE	96	PHE	2.7
15	CR	86	GLY	2.7

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Mol	Chain	Res	Type	RSRZ
26	BD	176	ARG	2.7
27	DE	1	MET	2.7
3	AF	97	LYS	2.7
29	DG	54	GLU	2.7
34	DO	94	GLU	2.7
24	BA	2144	U	2.7
5	AH	91	LEU	2.7
40	D2	20	LEU	2.7
30	BH	32	GLU	2.7
46	DZ	7	ILE	2.7
24	DA	6	A	2.7
3	CF	45	LYS	2.7
32	DM	133	GLN	2.7
46	DZ	21	ARG	2.7
27	BE	54	GLN	2.7
7	AJ	80	VAL	2.7
28	DF	27	GLU	2.7
50	D5	3	LYS	2.7
40	B2	57	VAL	2.7
29	DG	103	LEU	2.7
29	DG	176	LEU	2.7
44	DV	91	LEU	2.7
7	CJ	73	MET	2.7
29	DG	136	ARG	2.7
24	DA	1173	G	2.7
29	DG	85	GLY	2.7
37	DQ	43	GLU	2.7
43	DU	62	GLU	2.7
49	D4	34	GLU	2.7
11	AN	82	VAL	2.7
43	DU	61	ILE	2.7
29	DG	161	THR	2.7
12	AO	126	LYS	2.7
46	DZ	39	LYS	2.7
51	B6	45	LYS	2.7
3	CF	46	GLU	2.7
37	BQ	108	GLY	2.7
40	D2	61	VAL	2.7
44	BV	82	ARG	2.7
29	DG	160	VAL	2.7
32	DM	137	LYS	2.7
6	CI	36	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
45	D3	72	ARG	2.7
13	CP	66	LEU	2.7
29	DG	52	ILE	2.7
29	DG	177	GLY	2.7
40	D2	16	PRO	2.7
6	AI	61	LEU	2.7
24	DA	2793	G	2.7
53	D8	56	GLU	2.7
34	DO	50	ARG	2.7
40	D2	4	ILE	2.7
46	DZ	23	LYS	2.7
2	CE	63	MET	2.6
24	BA	2167	U	2.6
7	AJ	155	ARG	2.6
11	AN	18	ARG	2.6
51	D6	46	HIS	2.6
2	CE	90	MET	2.6
4	AG	47	ARG	2.6
29	DG	181	ARG	2.6
29	DG	80	PHE	2.6
43	DU	34	LYS	2.6
2	CE	67	THR	2.6
3	CF	201	TYR	2.6
46	BZ	95	LEU	2.6
13	CP	3	ARG	2.6
26	DD	34	VAL	2.6
27	BE	72	VAL	2.6
32	DM	13	TRP	2.6
44	DV	35	ARG	2.6
35	DP	92	GLY	2.6
2	CE	201	ILE	2.6
11	AN	98	LEU	2.6
32	BM	15	LEU	2.6
34	BO	100	LEU	2.6
43	DU	35	TYR	2.6
30	DH	21	PRO	2.6
2	AE	61	LEU	2.6
25	DB	52	A	2.6
22	CC	69	C	2.6
39	D1	88	ILE	2.6
3	CF	82	GLU	2.6
3	CF	103	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
28	BF	8	GLN	2.6
29	DG	105	LYS	2.6
37	BQ	76	LYS	2.6
43	DU	86	ARG	2.6
7	CJ	77	SER	2.6
9	CL	91	ASP	2.6
38	BR	38	ASN	2.6
7	CJ	60	LYS	2.6
18	AU	28	GLU	2.6
48	DX	38	GLU	2.6
32	BM	53	VAL	2.6
3	CF	53	ALA	2.6
27	BE	68	ALA	2.6
1	AA	1030	C	2.6
29	DG	179	PRO	2.6
41	BS	31	GLU	2.6
3	CF	37	GLN	2.6
44	DV	68	PRO	2.6
29	DG	133	LEU	2.6
24	BA	653	A	2.6
29	DG	40	ASN	2.6
45	D3	83	PRO	2.6
5	AH	100	VAL	2.6
3	AF	158	GLY	2.6
27	BE	48	GLN	2.6
24	BA	2805	G	2.6
27	BE	195	LEU	2.6
26	DD	112	GLN	2.6
29	DG	25	TYR	2.6
34	BO	139	LYS	2.6
44	DV	127	LYS	2.6
2	CE	116	GLU	2.6
7	CJ	88	PRO	2.6
17	CT	86	GLU	2.6
30	DH	20	ALA	2.6
44	BV	84	GLU	2.6
44	BV	6	LYS	2.5
51	D6	38	LYS	2.5
32	DM	134	ARG	2.5
41	BS	67	ASP	2.5
32	DM	1	MET	2.5
46	DZ	60	PHE	2.5

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Mol	Chain	Res	Type	RSRZ
6	AI	7	ASN	2.5
22	CC	70	G	2.5
6	AI	6	VAL	2.5
32	DM	14	VAL	2.5
29	DG	8	LYS	2.5
2	CE	37	ASN	2.5
44	BV	81	ARG	2.5
27	BE	73	GLU	2.5
44	DV	13	GLU	2.5
6	CI	6	VAL	2.5
24	DA	1508	A	2.5
30	DH	28	GLY	2.5
34	DO	118	GLY	2.5
2	AE	64	ARG	2.5
12	AO	64	TYR	2.5
30	BH	23	ARG	2.5
3	AF	87	LEU	2.5
3	CF	44	GLU	2.5
14	CQ	36	PHE	2.5
47	DW	71	ASN	2.5
24	DA	2121	G	2.5
7	CJ	63	LYS	2.5
13	CP	4	ILE	2.5
50	D5	56	LYS	2.5
27	BE	74	PRO	2.5
40	D2	17	GLY	2.5
18	AU	26	LEU	2.5
3	AF	90	GLU	2.5
6	CI	66	GLU	2.5
6	CI	59	TYR	2.5
46	DZ	18	ILE	2.5
2	CE	70	PHE	2.5
3	CF	80	GLY	2.5
34	BO	91	PHE	2.5
29	DG	68	PRO	2.5
6	AI	49	ALA	2.5
45	D3	77	ARG	2.5
25	DB	51	G	2.5
44	DV	131	ARG	2.5
5	AH	11	ILE	2.5
29	DG	3	LEU	2.5
48	BX	4	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
2	CE	239	VAL	2.5
44	DV	12	GLY	2.5
29	DG	102	PHE	2.5
22	CC	68	C	2.5
27	BE	10	GLY	2.5
45	D3	49	LYS	2.5
29	DG	13	GLU	2.5
43	BU	86	ARG	2.5
3	AF	95	THR	2.5
29	DG	7	LEU	2.5
6	AI	60	PHE	2.5
7	AJ	77	SER	2.5
24	DA	2115	G	2.5
49	D4	39	CYS	2.5
46	BZ	91	LYS	2.5
36	D0	102	GLU	2.5
40	D2	64	HIS	2.5
44	DV	31	ARG	2.5
9	CL	56	LEU	2.5
10	AM	85	LEU	2.5
27	BE	2	LYS	2.5
15	CR	17	ARG	2.5
41	DS	38	TYR	2.5
49	D4	44	THR	2.4
29	DG	98	ARG	2.4
29	DG	146	TYR	2.4
32	BM	61	ARG	2.4
24	BA	654(V)	A	2.4
46	DZ	70	VAL	2.4
12	AO	17	LYS	2.4
6	AI	8	ILE	2.4
34	BO	110	TYR	2.4
3	AF	98	ASN	2.4
6	AI	67	MET	2.4
32	BM	136	GLU	2.4
36	B0	115	GLU	2.4
13	CP	65	LYS	2.4
17	CT	14	LYS	2.4
27	BE	66	HIS	2.4
3	CF	33	LEU	2.4
26	DD	36	PRO	2.4
42	DT	86	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
3	CF	146	ALA	2.4
26	BD	184	LYS	2.4
11	AN	81	ASP	2.4
45	D3	11	ARG	2.4
29	DG	23	PHE	2.4
44	BV	62	PRO	2.4
3	AF	83	ARG	2.4
44	DV	143	GLY	2.4
3	CF	184	TYR	2.4
29	DG	107	LEU	2.4
44	DV	5	LEU	2.4
43	DU	91	GLU	2.4
2	CE	230	VAL	2.4
48	DX	4	LEU	2.4
3	CF	206	GLU	2.4
24	DA	2118	U	2.4
39	D1	85	LYS	2.4
3	AF	142	MET	2.4
27	BE	67	PHE	2.4
40	D2	55	ALA	2.4
44	DV	97	GLU	2.4
6	AI	3	ARG	2.4
34	BO	106	LEU	2.4
40	D2	66	ARG	2.4
3	AF	78	GLY	2.4
29	DG	131	TYR	2.4
7	CJ	103	TRP	2.4
41	DS	2	GLU	2.4
17	CT	91	ARG	2.4
40	B2	94	LEU	2.4
44	BV	4	ARG	2.4
47	DW	56	GLN	2.4
29	DG	55	LYS	2.4
44	DV	14	LYS	2.4
27	BE	75	VAL	2.4
40	D2	31	ALA	2.4
47	DW	23	LYS	2.4
1	AA	416	G	2.4
3	AF	149	ALA	2.4
8	AK	62	TYR	2.4
50	B5	3	LYS	2.4
26	DD	115	GLN	2.4

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Mol	Chain	Res	Type	RSRZ
44	DV	159	PRO	2.4
34	DO	51	PHE	2.4
27	BE	1	MET	2.4
39	D1	89	GLU	2.4
46	DZ	28	GLY	2.4
29	DG	33	ARG	2.4
29	DG	158	ALA	2.4
39	B1	104	GLN	2.4
43	DU	23	ARG	2.4
52	D7	32	LYS	2.4
40	D2	27	ALA	2.4
2	CE	229	VAL	2.4
37	DQ	57	LYS	2.4
41	BS	38	TYR	2.4
28	BF	22	ALA	2.4
6	AI	64	GLN	2.4
32	BM	133	GLN	2.4
3	AF	62	ASP	2.4
43	DU	26	LYS	2.4
3	AF	196	LEU	2.4
4	CG	168	ARG	2.4
40	D2	58	VAL	2.4
40	D2	63	GLY	2.4
2	CE	53	ARG	2.3
28	BF	16	GLY	2.3
3	CF	147	LYS	2.3
24	BA	2792	G	2.3
37	DQ	33	LYS	2.3
6	CI	10	LEU	2.3
45	D3	31	VAL	2.3
30	DH	96	ALA	2.3
45	D3	62	LEU	2.3
24	BA	2180	U	2.3
40	B2	56	SER	2.3
41	DS	72	LYS	2.3
6	AI	52	ILE	2.3
6	CI	45	LEU	2.3
27	BE	32	PRO	2.3
28	DF	28	ILE	2.3
3	CF	62	ASP	2.3
29	DG	149	VAL	2.3
48	DX	56	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
51	B6	25	LYS	2.3
53	D8	2	PRO	2.3
45	D3	71	ASP	2.3
53	D8	40	GLU	2.3
32	DM	51	PHE	2.3
3	AF	72	LYS	2.3
37	BQ	43	GLU	2.3
7	CJ	125	MET	2.3
24	DA	654(P)	G	2.3
53	B8	21	LYS	2.3
27	BE	5	LEU	2.3
44	BV	28	MET	2.3
48	DX	58	VAL	2.3
29	DG	178	PHE	2.3
7	CJ	53	LYS	2.3
26	DD	23	GLU	2.3
35	BP	32	TYR	2.3
3	CF	128	PHE	2.3
8	CK	54	ASP	2.3
24	DA	546	C	2.3
3	CF	35	GLU	2.3
40	D2	93	GLU	2.3
3	AF	84	ILE	2.3
6	CI	48	LEU	2.3
24	BA	2181	G	2.3
24	DA	2159	G	2.3
6	AI	56	PRO	2.3
2	CE	152	PHE	2.3
27	BE	55	ASN	2.3
29	DG	113	ARG	2.3
40	D2	5	VAL	2.3
11	CN	95	ILE	2.3
22	CC	2	G	2.3
29	DG	69	ALA	2.3
42	DT	83	VAL	2.3
46	DZ	32	LYS	2.3
3	CF	78	GLY	2.3
24	BA	790	C	2.3
24	DA	2794	C	2.3
26	BD	169	GLU	2.3
24	BA	2807	G	2.3
17	CT	82	MET	2.3

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Mol	Chain	Res	Type	RSRZ
18	CU	26	LEU	2.3
44	BV	88	PHE	2.3
51	B6	31	PRO	2.3
26	BD	111	LEU	2.3
26	BD	173	VAL	2.3
46	DZ	48	LYS	2.3
1	AA	85	U	2.3
26	DD	2	ALA	2.3
29	DG	53	LEU	2.3
44	BV	24	LEU	2.3
7	CJ	56	GLN	2.3
24	DA	2148	G	2.3
28	DF	2	LYS	2.3
41	BS	92	ARG	2.3
45	D3	66	VAL	2.3
9	CL	92	TYR	2.3
3	CF	190	ARG	2.3
26	DD	196	VAL	2.3
27	BE	6	GLY	2.3
27	BE	51	PHE	2.3
31	DK	4	ILE	2.3
44	DV	93	ASP	2.3
3	AF	188	LEU	2.3
33	BN	84	ALA	2.3
7	AJ	156	TRP	2.3
42	DT	90	GLU	2.3
49	D4	16	CYS	2.3
26	DD	3	VAL	2.3
2	CE	39	ILE	2.3
3	AF	170	GLN	2.3
26	DD	111	LEU	2.3
42	BT	92	LEU	2.3
43	BU	46	LYS	2.3
10	CM	101	VAL	2.3
29	DG	70	VAL	2.3
29	DG	166	ASP	2.3
31	DK	1	MET	2.3
3	CF	132	ARG	2.3
4	AG	201	GLN	2.3
32	BM	127	ASP	2.3
45	D3	26	TYR	2.3
28	DF	205	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
29	DG	21	ARG	2.3
40	D2	13	ARG	2.3
3	AF	129	ALA	2.3
48	DX	7	LYS	2.3
3	AF	167	TRP	2.3
3	CF	142	MET	2.2
6	AI	71	ARG	2.2
24	DA	654(D)	G	2.2
5	CH	31	LEU	2.2
9	CL	47	LEU	2.2
38	BR	135	ALA	2.2
44	BV	70	LEU	2.2
24	BA	2062	A	2.2
29	DG	14	GLU	2.2
3	AF	190	ARG	2.2
12	AO	26	ALA	2.2
22	CC	20	U	2.2
26	DD	6	PHE	2.2
26	DD	35	LYS	2.2
40	D2	33	VAL	2.2
13	CP	61	GLU	2.2
24	DA	1171	G	2.2
27	BE	4	ILE	2.2
6	AI	14	LEU	2.2
27	DE	2	LYS	2.2
45	D3	81	VAL	2.2
14	AQ	26	ARG	2.2
34	BO	112	LEU	2.2
28	DF	23	ASP	2.2
5	CH	11	ILE	2.2
37	DQ	35	ILE	2.2
45	D3	50	ASN	2.2
24	BA	2166	G	2.2
34	BO	113	LYS	2.2
6	CI	40	VAL	2.2
34	DO	96	THR	2.2
6	AI	31	GLU	2.2
43	DU	64	GLU	2.2
3	AF	153	VAL	2.2
40	D2	37	VAL	2.2
45	D3	24	LYS	2.2
34	BO	108	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
36	B0	33	ARG	2.2
44	BV	161	VAL	2.2
51	B6	11	LEU	2.2
3	AF	202	ILE	2.2
5	AH	89	ILE	2.2
27	BE	174	ASP	2.2
29	DG	141	PHE	2.2
31	DK	35	LEU	2.2
37	DQ	37	ALA	2.2
44	BV	11	GLU	2.2
46	DZ	5	CYS	2.2
6	CI	9	VAL	2.2
2	CE	217	ARG	2.2
27	BE	52	LEU	2.2
29	DG	150	ASP	2.2
37	BQ	75	GLU	2.2
39	D1	72	HIS	2.2
1	AA	421	U	2.2
29	DG	81	LYS	2.2
31	DK	2	LYS	2.2
3	AF	127	ARG	2.2
30	DH	27	LYS	2.2
44	DV	27	VAL	2.2
7	AJ	86	GLN	2.2
43	DU	66	PRO	2.2
2	CE	238	LEU	2.2
3	AF	88	ARG	2.2
12	AO	21	LYS	2.2
43	BU	88	LYS	2.2
44	DV	138	GLU	2.2
48	BX	38	GLU	2.2
17	CT	88	TYR	2.2
27	BE	61	ARG	2.2
3	AF	96	GLY	2.2
24	DA	1536	A	2.2
24	DA	2157	G	2.2
6	AI	9	VAL	2.2
28	BF	66	PRO	2.2
26	DD	68	LYS	2.2
48	BX	5	LYS	2.2
3	CF	200	ALA	2.2
3	AF	93	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
24	DA	2311	A	2.2
34	BO	127	ALA	2.2
40	D2	59	ALA	2.2
3	CF	101	LEU	2.2
11	CN	75	TYR	2.2
34	DO	137	LYS	2.2
43	BU	101	LYS	2.2
6	AI	58	GLY	2.2
30	DH	24	VAL	2.2
48	DX	55	ARG	2.2
13	CP	8	GLU	2.2
17	CT	24	GLU	2.2
28	BF	14	PRO	2.2
11	CN	104	GLN	2.2
9	CL	33	PHE	2.2
13	CP	11	ARG	2.2
26	BD	270	ILE	2.2
35	DP	104	PHE	2.2
40	D2	54	GLY	2.2
50	B5	50	GLY	2.2
3	AF	136	GLN	2.2
6	CI	89	MET	2.2
17	CT	8	GLY	2.2
34	DO	121	LYS	2.2
35	BP	130	LYS	2.2
53	D8	16	ILE	2.2
30	DH	18	GLU	2.1
44	BV	141	VAL	2.1
3	CF	170	GLN	2.1
5	CH	56	GLN	2.1
18	AU	76	LEU	2.1
9	CL	51	ARG	2.1
26	BD	174	ILE	2.1
29	DG	88	ILE	2.1
1	AA	86	U	2.1
27	DE	70	ALA	2.1
28	DF	10	PRO	2.1
48	DX	6	VAL	2.1
34	DO	144	GLU	2.1
14	AQ	50	LYS	2.1
32	DM	135	PRO	2.1
5	AH	81	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
45	D3	64	ASP	2.1
46	DZ	94	LEU	2.1
9	CL	4	TYR	2.1
45	D3	55	ARG	2.1
18	CU	78	LEU	2.1
37	DQ	54	LEU	2.1
3	AF	42	LEU	2.1
6	AI	39	LYS	2.1
34	BO	88	LEU	2.1
42	DT	48	LYS	2.1
41	BS	70	TYR	2.1
24	BA	2801	A	2.1
11	AN	127	LYS	2.1
40	B2	35	LEU	2.1
39	D1	117	GLN	2.1
43	DU	48	ALA	2.1
5	AH	118	ILE	2.1
5	AH	7	GLU	2.1
27	BE	87	GLU	2.1
15	CR	79	ARG	2.1
48	DX	28	LEU	2.1
1	AA	1031	G	2.1
2	CE	164	VAL	2.1
8	CK	22	GLU	2.1
3	AF	61	ALA	2.1
44	BV	80	ARG	2.1
32	BM	60	ILE	2.1
27	DE	155	LYS	2.1
35	DP	103	MET	2.1
41	DS	1	MET	2.1
17	CT	81	ARG	2.1
26	DD	195	ALA	2.1
28	DF	164	ARG	2.1
41	BS	33	ARG	2.1
37	DQ	58	LEU	2.1
18	CU	76	LEU	2.1
27	BE	14	ILE	2.1
29	DG	145	THR	2.1
36	B0	82	GLU	2.1
15	CR	15	PHE	2.1
17	CT	10	VAL	2.1
29	DG	15	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
25	DB	53	A	2.1
37	DQ	61	ASN	2.1
37	BQ	109	GLY	2.1
34	BO	105	LEU	2.1
44	DV	150	LEU	2.1
29	DG	11	TYR	2.1
32	BM	59	LYS	2.1
2	AE	96	ARG	2.1
2	AE	230	VAL	2.1
3	AF	182	ILE	2.1
5	CH	7	GLU	2.1
5	CH	13	ILE	2.1
37	DQ	64	GLU	2.1
39	D1	20	LEU	2.1
17	CT	73	VAL	2.1
28	BF	7	TYR	2.1
44	DV	99	TYR	2.1
1	AA	1032(A)	G	2.1
3	AF	89	GLU	2.1
29	DG	157	ILE	2.1
40	B2	34	GLU	2.1
40	D2	25	LEU	2.1
10	CM	98	ILE	2.1
49	D4	37	SER	2.1
3	AF	101	LEU	2.1
5	AH	90	VAL	2.1
15	CR	89	GLY	2.1
30	DH	37	VAL	2.1
24	BA	2114	A	2.1
37	DQ	7	TYR	2.1
48	DX	51	ALA	2.1
48	DX	29	ARG	2.1
5	CH	43	LEU	2.1
7	CJ	55	GLY	2.1
46	DZ	42	GLN	2.1
25	DB	35	U	2.1
4	AG	179	GLU	2.1
32	DM	15	LEU	2.1
42	DT	93	GLU	2.1
45	D3	76	GLY	2.1
29	DG	151	ALA	2.0
9	CL	115	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
3	AF	58	GLU	2.0
27	DE	195	LEU	2.0
5	CH	9	LYS	2.0
25	DB	42	C	2.0
5	AH	32	VAL	2.0
44	BV	21	ALA	2.0
30	BH	18	GLU	2.0
28	DF	63	LYS	2.0
32	BM	121	LYS	2.0
52	D7	29	LYS	2.0
37	DQ	82	ILE	2.0
18	AU	79	LEU	2.0
18	AU	85	LEU	2.0
29	DG	106	LEU	2.0
45	D3	74	ARG	2.0
48	BX	37	LEU	2.0
48	BX	44	ARG	2.0
53	D8	13	ARG	2.0
2	CE	7	VAL	2.0
22	CC	4	G	2.0
2	CE	227	GLY	2.0
15	CR	47	LYS	2.0
45	D3	30	VAL	2.0
29	DG	38	VAL	2.0
44	BV	111	VAL	2.0
40	D2	65	GLY	2.0
2	CE	146	GLN	2.0
32	BM	72	TYR	2.0
34	BO	135	LEU	2.0
44	BV	59	LEU	2.0
2	CE	18	GLY	2.0
24	DA	654(Q)	C	2.0
24	DA	857	C	2.0
27	DE	4	ILE	2.0
28	BF	27	GLU	2.0
11	AN	13	GLN	2.0
50	B5	57	VAL	2.0
3	AF	197	GLY	2.0
46	DZ	41	ARG	2.0
49	D4	17	GLY	2.0
26	DD	39	LYS	2.0
27	DE	31	CYS	2.0

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Mol	Chain	Res	Type	RSRZ
30	DH	29	PRO	2.0
44	BV	1	MET	2.0
48	BX	53	LEU	2.0
51	B6	19	ARG	2.0
2	AE	62	ALA	2.0
37	BQ	111	GLU	2.0
40	B2	60	GLU	2.0
5	AH	77	PRO	2.0
7	CJ	62	PHE	2.0
9	CL	20	ARG	2.0
26	BD	182	LEU	2.0
51	B6	29	ASN	2.0
11	CN	72	ALA	2.0
17	CT	11	VAL	2.0
37	BQ	82	ILE	2.0
46	DZ	4	VAL	2.0
50	B5	52	TYR	2.0
52	D7	46	VAL	2.0
11	CN	98	LEU	2.0
26	BD	183	ARG	2.0
28	DF	12	LEU	2.0
29	DG	43	LEU	2.0
32	BM	130	HIS	2.0
35	DP	73	PRO	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
54	MG	BA	3151	1/1	0.30	-	103,103,103,103	0
54	MG	BA	3287	1/1	0.22	-	95,95,95,95	0
54	MG	DA	3295	1/1	0.14	-	105,105,105,105	0
54	MG	AC	107	1/1	0.27	-	111,111,111,111	0
54	MG	BA	3523	1/1	0.17	-	64,64,64,64	0
54	MG	BA	3371	1/1	0.38	-	81,81,81,81	0
54	MG	CA	1779	1/1	0.28	-	112,112,112,112	0
54	MG	BA	3556	1/1	0.13	-	91,91,91,91	0
54	MG	AA	1718	1/1	0.33	-	124,124,124,124	0
54	MG	AA	1794	1/1	0.18	-	116,116,116,116	0
54	MG	BA	3399	1/1	0.43	-	90,90,90,90	0
54	MG	BA	3291	1/1	0.45	-	99,99,99,99	0
54	MG	BA	3349	1/1	0.46	-	69,69,69,69	0
54	MG	AA	1617	1/1	0.41	-	91,91,91,91	0
54	MG	BB	204	1/1	0.40	-	86,86,86,86	0
54	MG	BA	3459	1/1	0.34	-	91,91,91,91	0
54	MG	CA	1737	1/1	0.37	-	97,97,97,97	0
54	MG	DA	3264	1/1	0.30	-	80,80,80,80	0
54	MG	DA	3227	1/1	0.28	-	83,83,83,83	0
54	MG	BB	202	1/1	0.32	-	92,92,92,92	0
54	MG	DA	3313	1/1	0.36	-	122,122,122,122	0
54	MG	BA	3426	1/1	0.29	-	77,77,77,77	0
54	MG	CS	101	1/1	0.38	-	115,115,115,115	0
54	MG	BA	3364	1/1	0.30	-	137,137,137,137	0
54	MG	BA	3547	1/1	0.49	-	108,108,108,108	0
54	MG	BA	3363	1/1	0.32	-	73,73,73,73	0
54	MG	DA	3468	1/1	0.36	-	126,126,126,126	0
54	MG	DA	3233	1/1	0.33	-	79,79,79,79	0
54	MG	BA	3599	1/1	0.42	-	115,115,115,115	0
54	MG	BA	3155	1/1	0.20	-	113,113,113,113	0
54	MG	AA	1799	1/1	0.42	-	79,79,79,79	0
54	MG	DA	3340	1/1	0.14	-	89,89,89,89	0
54	MG	BA	3093	1/1	0.34	-	154,154,154,154	0
54	MG	BA	3600	1/1	0.54	-	97,97,97,97	0
54	MG	AA	1769	1/1	0.26	-	124,124,124,124	0
54	MG	BA	3411	1/1	0.49	-	110,110,110,110	0
54	MG	AA	1770	1/1	0.50	-	98,98,98,98	0
54	MG	BA	3152	1/1	0.39	-	90,90,90,90	0
54	MG	DA	3344	1/1	0.07	-	124,124,124,124	0
54	MG	DA	3199	1/1	0.17	-	77,77,77,77	0
54	MG	DA	3402	1/1	0.38	-	105,105,105,105	0
54	MG	DA	3382	1/1	0.43	-	80,80,80,80	0
54	MG	AA	1667	1/1	0.47	-	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	BA	3493	1/1	0.35	-	116,116,116,116	0
54	MG	BA	3168	1/1	0.30	-	52,52,52,52	0
54	MG	AA	1745	1/1	0.17	-	128,128,128,128	0
54	MG	AA	1611	1/1	0.21	-	138,138,138,138	0
54	MG	AA	1657	1/1	0.44	-	63,63,63,63	0
54	MG	DA	3365	1/1	0.14	-	100,100,100,100	0
54	MG	BA	3460	1/1	0.21	-	90,90,90,90	0
54	MG	BA	3249	1/1	0.28	-	84,84,84,84	0
54	MG	BA	3140	1/1	0.31	-	84,84,84,84	0
54	MG	DA	3510	1/1	0.19	-	77,77,77,77	0
54	MG	DA	3269	1/1	0.21	-	78,78,78,78	0
54	MG	CA	1800	1/1	0.09	-	145,145,145,145	0
54	MG	B7	102	1/1	0.28	-	75,75,75,75	0
54	MG	CA	1725	1/1	0.36	-	106,106,106,106	0
54	MG	BA	3321	1/1	0.23	-	71,71,71,71	0
54	MG	DA	3026	1/1	0.21	-	122,122,122,122	0
54	MG	DA	3448	1/1	0.25	-	89,89,89,89	0
54	MG	BA	3383	1/1	0.35	-	95,95,95,95	0
54	MG	BA	3236	1/1	0.51	-	97,97,97,97	0
54	MG	CA	1674	1/1	0.67	-	117,117,117,117	0
54	MG	BA	3427	1/1	0.39	-	91,91,91,91	0
54	MG	DA	3281	1/1	0.25	-	74,74,74,74	0
54	MG	BA	3583	1/1	0.27	-	59,59,59,59	0
54	MG	AA	1810	1/1	0.61	-	126,126,126,126	0
54	MG	CA	1708	1/1	0.26	-	143,143,143,143	0
54	MG	BA	3302	1/1	0.25	-	101,101,101,101	0
54	MG	BA	3568	1/1	0.72	-	105,105,105,105	0
54	MG	BA	3331	1/1	0.49	-	74,74,74,74	0
54	MG	DA	3272	1/1	0.24	-	92,92,92,92	0
54	MG	CA	1718	1/1	0.58	-	114,114,114,114	0
54	MG	BA	3585	1/1	0.23	-	62,62,62,62	0
54	MG	DA	3506	1/1	0.25	-	61,61,61,61	0
54	MG	DA	3369	1/1	0.38	-	76,76,76,76	0
54	MG	DA	3035	1/1	0.10	-	93,93,93,93	0
54	MG	BA	3565	1/1	0.36	-	86,86,86,86	0
54	MG	DA	3326	1/1	0.30	-	82,82,82,82	0
54	MG	BA	3612	1/1	0.48	-	99,99,99,99	0
54	MG	DA	3008	1/1	0.48	-	93,93,93,93	0
54	MG	DA	3213	1/1	0.26	-	67,67,67,67	0
54	MG	AC	106	1/1	0.23	-	119,119,119,119	0
54	MG	DA	3287	1/1	0.24	-	67,67,67,67	0
54	MG	AA	1647	1/1	0.39	-	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	BA	3464	1/1	0.43	-	80,80,80,80	0
54	MG	BA	3368	1/1	0.39	-	93,93,93,93	0
54	MG	DA	3025	1/1	0.35	-	88,88,88,88	0
54	MG	CA	1695	1/1	0.47	-	111,111,111,111	0
54	MG	BA	3333	1/1	0.49	-	99,99,99,99	0
54	MG	BA	3111	1/1	0.20	-	68,68,68,68	0
54	MG	CA	1612	1/1	0.12	-	122,122,122,122	0
54	MG	DA	3058	1/1	0.25	-	109,109,109,109	0
54	MG	BA	3421	1/1	0.76	-	106,106,106,106	0
54	MG	BA	3013	1/1	0.27	-	63,63,63,63	0
54	MG	DA	3192	1/1	0.28	-	64,64,64,64	0
54	MG	BA	3201	1/1	0.12	-	122,122,122,122	0
54	MG	DA	3525	1/1	0.40	-	103,103,103,103	0
54	MG	AA	1744	1/1	0.20	-	180,180,180,180	0
54	MG	DA	3404	1/1	0.18	-	66,66,66,66	0
54	MG	CA	1683	1/1	0.21	-	113,113,113,113	0
54	MG	CA	1754	1/1	0.44	-	97,97,97,97	0
54	MG	AA	1626	1/1	0.25	-	80,80,80,80	0
54	MG	DA	3235	1/1	0.31	-	89,89,89,89	0
54	MG	BA	3322	1/1	0.28	-	78,78,78,78	0
54	MG	AA	1757	1/1	0.10	-	118,118,118,118	0
54	MG	CA	1676	1/1	0.31	-	102,102,102,102	0
54	MG	DA	3244	1/1	0.19	-	84,84,84,84	0
54	MG	BA	3011	1/1	0.41	-	72,72,72,72	0
54	MG	AA	1614	1/1	0.38	-	114,114,114,114	0
54	MG	BA	3484	1/1	0.30	-	116,116,116,116	0
54	MG	BA	3391	1/1	0.27	-	103,103,103,103	0
54	MG	CA	1634	1/1	0.13	-	110,110,110,110	0
54	MG	DA	3001	1/1	0.29	-	83,83,83,83	0
54	MG	DA	3407	1/1	0.31	-	114,114,114,114	0
54	MG	BA	3271	1/1	0.37	-	96,96,96,96	0
54	MG	CA	1791	1/1	0.33	-	78,78,78,78	0
54	MG	DA	3306	1/1	0.23	-	92,92,92,92	0
54	MG	BA	3088	1/1	0.45	-	97,97,97,97	0
54	MG	CA	1787	1/1	0.28	-	129,129,129,129	0
54	MG	CA	1789	1/1	0.44	-	121,121,121,121	0
54	MG	BA	3539	1/1	0.53	-	99,99,99,99	0
54	MG	BA	3415	1/1	0.54	-	90,90,90,90	0
54	MG	BA	3557	1/1	0.15	-	92,92,92,92	0
54	MG	BA	3312	1/1	0.39	-	98,98,98,98	0
54	MG	BA	3588	1/1	0.38	-	109,109,109,109	0
54	MG	BA	3626	1/1	0.35	-	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	AA	1785	1/1	0.18	-	131,131,131,131	0
54	MG	BA	3220	1/1	0.24	-	76,76,76,76	0
54	MG	BA	3061	1/1	0.43	-	64,64,64,64	0
54	MG	CA	1624	1/1	0.26	-	129,129,129,129	0
54	MG	DA	3505	1/1	0.13	-	72,72,72,72	0
54	MG	BA	3569	1/1	0.50	-	79,79,79,79	0
54	MG	D5	101	1/1	0.09	-	63,63,63,63	0
54	MG	BA	3264	1/1	0.41	-	75,75,75,75	0
54	MG	BA	3297	1/1	0.38	-	78,78,78,78	0
54	MG	DA	3091	1/1	0.14	-	87,87,87,87	0
54	MG	DA	3131	1/1	0.20	-	94,94,94,94	0
54	MG	DA	3368	1/1	0.85	-	95,95,95,95	0
54	MG	BA	3009	1/1	0.25	-	53,53,53,53	0
54	MG	DA	3090	1/1	0.32	-	90,90,90,90	0
54	MG	BA	3422	1/1	0.25	-	120,120,120,120	0
54	MG	BB	206	1/1	0.38	-	97,97,97,97	0
56	ZN	CG	303	1/1	0.17	-	161,161,161,161	0
54	MG	CA	1623	1/1	0.04	-	180,180,180,180	0
54	MG	CA	1742	1/1	0.37	-	98,98,98,98	0
54	MG	CA	1705	1/1	0.56	-	114,114,114,114	0
54	MG	BA	3208	1/1	0.48	-	91,91,91,91	0
54	MG	DA	3393	1/1	0.28	-	76,76,76,76	0
54	MG	AA	1690	1/1	0.34	-	128,128,128,128	0
54	MG	DA	3189	1/1	0.27	-	65,65,65,65	0
54	MG	CA	1724	1/1	0.12	-	98,98,98,98	0
54	MG	BA	3272	1/1	0.27	-	52,52,52,52	0
54	MG	CA	1616	1/1	0.26	-	108,108,108,108	0
54	MG	AA	1791	1/1	0.23	-	104,104,104,104	0
54	MG	AA	1705	1/1	0.28	-	98,98,98,98	0
54	MG	AS	101	1/1	0.27	-	106,106,106,106	0
54	MG	AA	1621	1/1	0.46	-	147,147,147,147	0
54	MG	CC	103	1/1	0.10	-	150,150,150,150	0
54	MG	DA	3055	1/1	0.25	-	59,59,59,59	0
54	MG	BA	3285	1/1	0.49	-	114,114,114,114	0
54	MG	DA	3507	1/1	0.18	-	79,79,79,79	0
54	MG	BA	3310	1/1	0.28	-	103,103,103,103	0
54	MG	BE	303	1/1	0.26	-	72,72,72,72	0
54	MG	DA	3208	1/1	0.28	-	94,94,94,94	0
54	MG	AA	1808	1/1	0.14	-	139,139,139,139	0
54	MG	DA	3252	1/1	0.21	-	108,108,108,108	0
54	MG	BA	3130	1/1	0.15	-	92,92,92,92	0
54	MG	CA	1604	1/1	0.49	-	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3047	1/1	0.12	-	124,124,124,124	0
54	MG	BA	3245	1/1	0.49	-	120,120,120,120	0
54	MG	DA	3162	1/1	0.23	-	108,108,108,108	0
54	MG	BA	3400	1/1	0.22	-	101,101,101,101	0
54	MG	BA	3385	1/1	0.38	-	72,72,72,72	0
54	MG	DA	3182	1/1	0.28	-	62,62,62,62	0
54	MG	CA	1629	1/1	0.09	-	164,164,164,164	0
54	MG	BA	3229	1/1	0.35	-	89,89,89,89	0
54	MG	BA	3589	1/1	0.28	-	77,77,77,77	0
54	MG	DA	3321	1/1	0.22	-	89,89,89,89	0
54	MG	DA	3427	1/1	0.29	-	114,114,114,114	0
54	MG	AA	1764	1/1	0.19	-	118,118,118,118	0
54	MG	BB	213	1/1	0.35	-	72,72,72,72	0
54	MG	DA	3475	1/1	0.54	-	121,121,121,121	0
54	MG	BA	3619	1/1	0.20	-	88,88,88,88	0
54	MG	BA	3350	1/1	0.55	-	115,115,115,115	0
54	MG	BA	3373	1/1	0.10	-	131,131,131,131	0
54	MG	AA	1722	1/1	0.22	-	109,109,109,109	0
54	MG	BA	3381	1/1	0.52	-	65,65,65,65	0
54	MG	DA	3300	1/1	0.40	-	107,107,107,107	0
54	MG	DA	3194	1/1	0.35	-	91,91,91,91	0
54	MG	DA	3486	1/1	1.14	-	112,112,112,112	0
54	MG	BA	3002	1/1	0.39	-	63,63,63,63	0
54	MG	AA	1635	1/1	0.32	-	122,122,122,122	0
54	MG	CA	1804	1/1	0.15	-	119,119,119,119	0
54	MG	DA	3217	1/1	0.22	-	89,89,89,89	0
54	MG	BA	3625	1/1	0.25	-	99,99,99,99	0
54	MG	BA	3445	1/1	0.18	-	156,156,156,156	0
54	MG	AA	1664	1/1	0.29	-	96,96,96,96	0
54	MG	CA	1626	1/1	0.27	-	117,117,117,117	0
54	MG	AA	1734	1/1	0.41	-	146,146,146,146	0
54	MG	DA	3286	1/1	0.36	-	115,115,115,115	0
54	MG	CA	1744	1/1	0.36	-	97,97,97,97	0
54	MG	BA	3386	1/1	0.12	-	117,117,117,117	0
54	MG	AA	1817	1/1	0.19	-	101,101,101,101	0
54	MG	AA	1700	1/1	0.13	-	123,123,123,123	0
54	MG	BA	3486	1/1	0.27	-	108,108,108,108	0
54	MG	DA	3339	1/1	0.47	-	152,152,152,152	0
54	MG	BA	3406	1/1	0.55	-	86,86,86,86	0
54	MG	AA	1658	1/1	0.22	-	79,79,79,79	0
54	MG	BA	3004	1/1	0.27	-	79,79,79,79	0
54	MG	BA	3342	1/1	0.57	-	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
54	MG	AA	1709	1/1	0.09	-	155,155,155,155	0
54	MG	CA	1636	1/1	0.31	-	91,91,91,91	0
54	MG	BA	3078	1/1	0.35	-	106,106,106,106	0
54	MG	BA	3075	1/1	0.54	-	97,97,97,97	0
54	MG	CA	1740	1/1	0.13	-	109,109,109,109	0
54	MG	BA	3016	1/1	0.06	-	143,143,143,143	0
54	MG	AA	1821	1/1	0.27	-	110,110,110,110	0
54	MG	DA	3034	1/1	0.17	-	91,91,91,91	0
54	MG	BA	3309	1/1	0.30	-	84,84,84,84	0
54	MG	BA	3479	1/1	0.34	-	72,72,72,72	0
54	MG	BA	3242	1/1	0.54	-	115,115,115,115	0
54	MG	BA	3524	1/1	0.40	-	90,90,90,90	0
54	MG	DA	3165	1/1	0.18	-	59,59,59,59	0
54	MG	BA	3416	1/1	0.13	-	70,70,70,70	0
54	MG	BA	3499	1/1	0.12	-	103,103,103,103	0
54	MG	DA	3450	1/1	0.30	-	130,130,130,130	0
54	MG	BA	3163	1/1	0.21	-	104,104,104,104	0
54	MG	BA	3461	1/1	0.29	-	79,79,79,79	0
54	MG	BA	3222	1/1	0.32	-	57,57,57,57	0
54	MG	BA	3611	1/1	0.30	-	101,101,101,101	0
54	MG	BA	3623	1/1	0.18	-	86,86,86,86	0
54	MG	BA	3463	1/1	0.28	-	77,77,77,77	0
54	MG	CA	1762	1/1	0.42	-	116,116,116,116	0
54	MG	BA	3273	1/1	0.36	-	70,70,70,70	0
54	MG	BA	3158	1/1	0.51	-	67,67,67,67	0
54	MG	CA	1682	1/1	0.24	-	101,101,101,101	0
54	MG	AA	1641	1/1	0.17	-	90,90,90,90	0
54	MG	CA	1731	1/1	0.51	-	110,110,110,110	0
54	MG	AA	1679	1/1	0.30	-	105,105,105,105	0
54	MG	BA	3170	1/1	0.22	-	90,90,90,90	0
54	MG	BA	3188	1/1	0.61	-	120,120,120,120	0
54	MG	DA	3290	1/1	0.21	-	107,107,107,107	0
54	MG	DA	3425	1/1	0.28	-	122,122,122,122	0
54	MG	BA	3529	1/1	0.31	-	89,89,89,89	0
54	MG	AA	1775	1/1	0.34	-	80,80,80,80	0
54	MG	BA	3179	1/1	0.64	-	108,108,108,108	0
54	MG	DA	3210	1/1	0.21	-	63,63,63,63	0
54	MG	BA	3010	1/1	0.15	-	128,128,128,128	0
54	MG	BA	3327	1/1	0.17	-	117,117,117,117	0
54	MG	BA	3255	1/1	0.76	-	110,110,110,110	0
54	MG	CA	1646	1/1	0.21	-	101,101,101,101	0
54	MG	AA	1616	1/1	0.27	-	158,158,158,158	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3297	1/1	0.18	-	71,71,71,71	0
54	MG	DA	3077	1/1	0.11	-	96,96,96,96	0
54	MG	AA	1783	1/1	0.10	-	125,125,125,125	0
54	MG	CA	1667	1/1	0.28	-	139,139,139,139	0
54	MG	BA	3438	1/1	0.44	-	62,62,62,62	0
54	MG	BA	3478	1/1	0.14	-	155,155,155,155	0
54	MG	DA	3174	1/1	0.16	-	81,81,81,81	0
54	MG	DA	3285	1/1	0.14	-	67,67,67,67	0
54	MG	BA	3458	1/1	0.39	-	96,96,96,96	0
54	MG	DA	3303	1/1	0.23	-	140,140,140,140	0
54	MG	BA	3372	1/1	0.65	-	99,99,99,99	0
54	MG	BA	3365	1/1	0.54	-	104,104,104,104	0
54	MG	CA	1684	1/1	0.26	-	115,115,115,115	0
54	MG	AA	1601	1/1	0.28	-	80,80,80,80	0
54	MG	AA	1693	1/1	0.41	-	123,123,123,123	0
54	MG	DA	3442	1/1	0.15	-	112,112,112,112	0
54	MG	BA	3108	1/1	0.46	-	82,82,82,82	0
54	MG	BA	3316	1/1	0.28	-	82,82,82,82	0
54	MG	BA	3444	1/1	0.11	-	186,186,186,186	0
54	MG	AA	1797	1/1	0.38	-	82,82,82,82	0
54	MG	DA	3173	1/1	0.17	-	92,92,92,92	0
54	MG	AA	1643	1/1	0.15	-	112,112,112,112	0
54	MG	BA	3069	1/1	0.65	-	115,115,115,115	0
54	MG	BA	3423	1/1	0.54	-	89,89,89,89	0
54	MG	BA	3044	1/1	0.15	-	58,58,58,58	0
54	MG	DA	3126	1/1	0.12	-	58,58,58,58	0
54	MG	AA	1751	1/1	0.38	-	102,102,102,102	0
54	MG	BA	3180	1/1	0.51	-	73,73,73,73	0
54	MG	CA	1640	1/1	0.27	-	92,92,92,92	0
54	MG	AA	1762	1/1	0.12	-	124,124,124,124	0
54	MG	CA	1778	1/1	0.51	-	118,118,118,118	0
54	MG	BA	3148	1/1	0.22	-	59,59,59,59	0
54	MG	DA	3268	1/1	0.16	-	63,63,63,63	0
54	MG	DA	3124	1/1	0.18	-	69,69,69,69	0
54	MG	BA	3254	1/1	0.29	-	70,70,70,70	0
54	MG	BA	3621	1/1	0.31	-	66,66,66,66	0
54	MG	DA	3410	1/1	0.47	-	118,118,118,118	0
54	MG	BA	3563	1/1	0.41	-	96,96,96,96	0
54	MG	CA	1795	1/1	0.23	-	112,112,112,112	0
54	MG	BA	3198	1/1	0.39	-	70,70,70,70	0
54	MG	BA	3392	1/1	0.36	-	110,110,110,110	0
54	MG	BA	3092	1/1	0.22	-	111,111,111,111	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	AA	1675	1/1	0.16	-	93,93,93,93	0
54	MG	DA	3046	1/1	0.12	-	82,82,82,82	0
54	MG	AA	1755	1/1	0.15	-	143,143,143,143	0
54	MG	BA	3522	1/1	0.17	-	106,106,106,106	0
54	MG	BA	3555	1/1	0.10	-	67,67,67,67	0
54	MG	DA	3314	1/1	0.23	-	83,83,83,83	0
54	MG	BA	3516	1/1	0.18	-	80,80,80,80	0
54	MG	DA	3518	1/1	0.61	-	94,94,94,94	0
54	MG	BA	3181	1/1	0.22	-	79,79,79,79	0
54	MG	BA	3129	1/1	0.16	-	92,92,92,92	0
54	MG	BA	3341	1/1	0.33	-	71,71,71,71	0
54	MG	AH	202	1/1	0.12	-	108,108,108,108	0
54	MG	DA	3374	1/1	0.27	-	106,106,106,106	0
54	MG	BA	3284	1/1	0.13	-	121,121,121,121	0
54	MG	AA	1627	1/1	0.31	-	87,87,87,87	0
54	MG	DA	3027	1/1	0.15	-	115,115,115,115	0
54	MG	BA	3531	1/1	0.33	-	101,101,101,101	0
54	MG	BA	3283	1/1	0.13	-	108,108,108,108	0
54	MG	DA	3186	1/1	0.13	-	60,60,60,60	0
54	MG	DA	3397	1/1	0.35	-	96,96,96,96	0
54	MG	CA	1729	1/1	0.33	-	115,115,115,115	0
54	MG	AA	1726	1/1	0.34	-	132,132,132,132	0
54	MG	AA	1715	1/1	0.31	-	115,115,115,115	0
54	MG	DA	3312	1/1	0.22	-	87,87,87,87	0
54	MG	DA	3063	1/1	0.19	-	76,76,76,76	0
54	MG	BA	3104	1/1	0.34	-	70,70,70,70	0
54	MG	BA	3314	1/1	0.23	-	104,104,104,104	0
54	MG	AA	1651	1/1	0.16	-	108,108,108,108	0
54	MG	AA	1742	1/1	0.26	-	108,108,108,108	0
54	MG	BA	3057	1/1	0.38	-	93,93,93,93	0
54	MG	BA	3437	1/1	0.23	-	81,81,81,81	0
54	MG	DA	3453	1/1	0.25	-	104,104,104,104	0
54	MG	AA	1790	1/1	0.50	-	115,115,115,115	0
54	MG	CA	1678	1/1	0.06	-	140,140,140,140	0
54	MG	BA	3579	1/1	0.48	-	85,85,85,85	0
54	MG	BA	3586	1/1	0.35	-	62,62,62,62	0
54	MG	DA	3458	1/1	0.09	-	115,115,115,115	0
54	MG	AA	1804	1/1	0.12	-	130,130,130,130	0
54	MG	DA	3212	1/1	0.29	-	59,59,59,59	0
54	MG	DA	3426	1/1	0.18	-	159,159,159,159	0
54	MG	BB	201	1/1	0.41	-	99,99,99,99	0
54	MG	AH	201	1/1	0.28	-	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3226	1/1	0.28	-	81,81,81,81	0
54	MG	BA	3147	1/1	0.35	-	64,64,64,64	0
54	MG	AA	1801	1/1	0.27	-	97,97,97,97	0
54	MG	CA	1690	1/1	0.25	-	102,102,102,102	0
54	MG	CA	1645	1/1	0.09	-	103,103,103,103	0
54	MG	B7	101	1/1	0.37	-	67,67,67,67	0
54	MG	B7	103	1/1	0.18	-	88,88,88,88	0
54	MG	BA	3360	1/1	0.34	-	110,110,110,110	0
54	MG	BA	3378	1/1	0.27	-	129,129,129,129	0
54	MG	CA	1774	1/1	0.26	-	110,110,110,110	0
54	MG	BA	3606	1/1	0.41	-	84,84,84,84	0
54	MG	AA	1695	1/1	0.06	-	152,152,152,152	0
54	MG	DA	3168	1/1	0.16	-	95,95,95,95	0
54	MG	DA	3405	1/1	0.32	-	121,121,121,121	0
54	MG	DA	3345	1/1	0.35	-	107,107,107,107	0
54	MG	CA	1650	1/1	0.57	-	151,151,151,151	0
54	MG	CA	1727	1/1	0.21	-	113,113,113,113	0
54	MG	CA	1673	1/1	0.14	-	89,89,89,89	0
54	MG	CA	1733	1/1	0.34	-	124,124,124,124	0
54	MG	CA	1697	1/1	0.11	-	185,185,185,185	0
54	MG	DA	3111	1/1	0.20	-	64,64,64,64	0
54	MG	CC	106	1/1	0.16	-	112,112,112,112	0
54	MG	AA	1741	1/1	0.38	-	130,130,130,130	0
54	MG	DA	3161	1/1	0.27	-	77,77,77,77	0
54	MG	CA	1771	1/1	0.30	-	92,92,92,92	0
54	MG	AA	1637	1/1	0.54	-	115,115,115,115	0
54	MG	BA	3235	1/1	0.34	-	128,128,128,128	0
54	MG	BA	3519	1/1	0.37	-	75,75,75,75	0
54	MG	DA	3304	1/1	0.30	-	83,83,83,83	0
54	MG	DA	3456	1/1	0.32	-	138,138,138,138	0
54	MG	AA	1789	1/1	0.20	-	79,79,79,79	0
54	MG	DA	3129	1/1	0.29	-	115,115,115,115	0
54	MG	DA	3185	1/1	0.19	-	66,66,66,66	0
54	MG	BA	3451	1/1	0.17	-	102,102,102,102	0
54	MG	BA	3538	1/1	0.66	-	111,111,111,111	0
54	MG	BA	3202	1/1	0.24	-	65,65,65,65	0
54	MG	CA	1706	1/1	0.27	-	126,126,126,126	0
54	MG	BA	3566	1/1	0.38	-	100,100,100,100	0
54	MG	DA	3503	1/1	0.72	-	105,105,105,105	0
54	MG	BA	3413	1/1	0.43	-	120,120,120,120	0
54	MG	BA	3338	1/1	0.25	-	103,103,103,103	0
54	MG	BA	3256	1/1	0.25	-	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
54	MG	BA	3288	1/1	0.61	-	100,100,100,100	0
54	MG	CA	1763	1/1	0.34	-	94,94,94,94	0
54	MG	DA	3040	1/1	0.13	-	98,98,98,98	0
54	MG	BB	209	1/1	0.45	-	116,116,116,116	0
54	MG	BA	3384	1/1	0.23	-	107,107,107,107	0
54	MG	BA	3319	1/1	0.58	-	129,129,129,129	0
54	MG	BA	3032	1/1	0.32	-	69,69,69,69	0
54	MG	DA	3232	1/1	0.24	-	78,78,78,78	0
54	MG	BA	3187	1/1	0.36	-	56,56,56,56	0
54	MG	BA	3485	1/1	0.32	-	90,90,90,90	0
54	MG	BA	3332	1/1	0.33	-	83,83,83,83	0
54	MG	BA	3225	1/1	0.57	-	92,92,92,92	0
54	MG	DA	3352	1/1	0.32	-	81,81,81,81	0
54	MG	BA	3119	1/1	0.44	-	78,78,78,78	0
54	MG	AA	1768	1/1	0.16	-	126,126,126,126	0
54	MG	BA	3394	1/1	0.45	-	85,85,85,85	0
54	MG	AC	102	1/1	0.35	-	123,123,123,123	0
54	MG	CA	1660	1/1	0.05	-	118,118,118,118	0
54	MG	BA	3308	1/1	0.44	-	110,110,110,110	0
54	MG	DA	3119	1/1	0.31	-	65,65,65,65	0
54	MG	BA	3156	1/1	0.89	-	108,108,108,108	0
54	MG	BA	3052	1/1	0.34	-	107,107,107,107	0
54	MG	BA	3025	1/1	0.35	-	65,65,65,65	0
54	MG	BA	3574	1/1	0.33	-	60,60,60,60	0
54	MG	DA	3429	1/1	0.18	-	97,97,97,97	0
54	MG	AA	1669	1/1	0.29	-	79,79,79,79	0
54	MG	CA	1723	1/1	0.46	-	111,111,111,111	0
54	MG	CA	1692	1/1	0.18	-	104,104,104,104	0
54	MG	BA	3196	1/1	0.29	-	109,109,109,109	0
54	MG	DA	3440	1/1	0.47	-	83,83,83,83	0
54	MG	AA	1630	1/1	0.22	-	105,105,105,105	0
54	MG	BA	3608	1/1	0.21	-	108,108,108,108	0
54	MG	AA	1782	1/1	0.24	-	168,168,168,168	0
54	MG	BA	3219	1/1	0.22	-	123,123,123,123	0
54	MG	BA	3357	1/1	0.90	-	119,119,119,119	0
54	MG	BA	3377	1/1	0.13	-	109,109,109,109	0
54	MG	CA	1661	1/1	0.28	-	98,98,98,98	0
54	MG	BA	3567	1/1	0.48	-	114,114,114,114	0
54	MG	DA	3359	1/1	0.34	-	102,102,102,102	0
54	MG	DA	3021	1/1	0.14	-	77,77,77,77	0
54	MG	CA	1611	1/1	0.45	-	114,114,114,114	0
54	MG	BA	3545	1/1	0.25	-	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
54	MG	BA	3334	1/1	0.12	-	115,115,115,115	0
54	MG	BP	201	1/1	1.49	-	115,115,115,115	0
54	MG	CA	1657	1/1	0.20	-	142,142,142,142	0
54	MG	CA	1739	1/1	0.24	-	112,112,112,112	0
54	MG	BA	3237	1/1	0.56	-	117,117,117,117	0
54	MG	DA	3274	1/1	0.23	-	83,83,83,83	0
54	MG	BA	3262	1/1	0.31	-	63,63,63,63	0
54	MG	BA	3051	1/1	0.20	-	72,72,72,72	0
54	MG	AA	1767	1/1	0.41	-	100,100,100,100	0
54	MG	DA	3112	1/1	0.26	-	71,71,71,71	0
54	MG	CA	1701	1/1	0.52	-	92,92,92,92	0
54	MG	BA	3157	1/1	0.34	-	74,74,74,74	0
54	MG	DA	3364	1/1	0.20	-	112,112,112,112	0
54	MG	BA	3022	1/1	0.43	-	65,65,65,65	0
54	MG	BA	3182	1/1	0.21	-	101,101,101,101	0
54	MG	BA	3072	1/1	0.42	-	87,87,87,87	0
54	MG	CA	1714	1/1	0.27	-	94,94,94,94	0
54	MG	BA	3150	1/1	0.20	-	90,90,90,90	0
54	MG	DA	3305	1/1	0.42	-	91,91,91,91	0
54	MG	DA	3266	1/1	0.10	-	110,110,110,110	0
54	MG	CA	1798	1/1	0.42	-	84,84,84,84	0
54	MG	BA	3110	1/1	0.36	-	92,92,92,92	0
54	MG	DA	3466	1/1	0.31	-	94,94,94,94	0
54	MG	CA	1801	1/1	0.25	-	139,139,139,139	0
54	MG	DA	3331	1/1	0.09	-	116,116,116,116	0
54	MG	BA	3154	1/1	0.32	-	104,104,104,104	0
54	MG	BA	3573	1/1	0.37	-	96,96,96,96	0
54	MG	CC	104	1/1	0.39	-	95,95,95,95	0
54	MG	DA	3134	1/1	0.16	-	105,105,105,105	0
54	MG	BA	3091	1/1	0.36	-	103,103,103,103	0
54	MG	CA	1633	1/1	0.40	-	107,107,107,107	0
54	MG	BA	3431	1/1	0.45	-	96,96,96,96	0
54	MG	DA	3409	1/1	0.45	-	132,132,132,132	0
54	MG	CA	1745	1/1	0.35	-	132,132,132,132	0
54	MG	AA	1677	1/1	0.31	-	125,125,125,125	0
54	MG	DA	3083	1/1	0.51	-	117,117,117,117	0
54	MG	CC	101	1/1	0.14	-	130,130,130,130	0
54	MG	BA	3269	1/1	0.21	-	85,85,85,85	0
54	MG	BA	3330	1/1	0.17	-	102,102,102,102	0
54	MG	AA	1620	1/1	0.21	-	105,105,105,105	0
54	MG	BA	3131	1/1	0.22	-	101,101,101,101	0
54	MG	BA	3216	1/1	0.18	-	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	BA	3127	1/1	0.35	-	109,109,109,109	0
54	MG	BA	3164	1/1	0.43	-	80,80,80,80	0
54	MG	DA	3521	1/1	0.07	-	111,111,111,111	0
54	MG	AA	1639	1/1	0.44	-	91,91,91,91	0
54	MG	BA	3442	1/1	0.46	-	112,112,112,112	0
54	MG	DA	3020	1/1	0.12	-	62,62,62,62	0
54	MG	AA	1608	1/1	0.17	-	111,111,111,111	0
54	MG	BA	3166	1/1	0.33	-	86,86,86,86	0
54	MG	DA	3102	1/1	0.12	-	150,150,150,150	0
54	MG	DA	3241	1/1	0.23	-	69,69,69,69	0
54	MG	DA	3062	1/1	0.36	-	112,112,112,112	0
54	MG	DA	3370	1/1	0.13	-	96,96,96,96	0
54	MG	DA	3099	1/1	0.29	-	74,74,74,74	0
54	MG	DA	3516	1/1	0.21	-	92,92,92,92	0
54	MG	BA	3509	1/1	0.50	-	104,104,104,104	0
54	MG	AA	1628	1/1	0.43	-	142,142,142,142	0
54	MG	BA	3607	1/1	0.17	-	94,94,94,94	0
54	MG	DA	3464	1/1	0.21	-	101,101,101,101	0
54	MG	AA	1618	1/1	0.22	-	98,98,98,98	0
54	MG	BE	304	1/1	0.88	-	112,112,112,112	0
54	MG	CA	1635	1/1	0.27	-	78,78,78,78	0
54	MG	BA	3409	1/1	0.43	-	86,86,86,86	0
54	MG	CA	1614	1/1	0.19	-	121,121,121,121	0
54	MG	DB	202	1/1	0.10	-	113,113,113,113	0
54	MG	CA	1663	1/1	0.19	-	105,105,105,105	0
54	MG	CA	1622	1/1	0.51	-	122,122,122,122	0
54	MG	AA	1750	1/1	0.37	-	110,110,110,110	0
54	MG	BA	3153	1/1	0.38	-	89,89,89,89	0
54	MG	DA	3438	1/1	0.24	-	134,134,134,134	0
54	MG	BA	3528	1/1	0.56	-	104,104,104,104	0
54	MG	BA	3134	1/1	0.45	-	130,130,130,130	0
54	MG	DA	3179	1/1	0.09	-	85,85,85,85	0
54	MG	DA	3254	1/1	0.45	-	74,74,74,74	0
54	MG	BA	3295	1/1	0.47	-	70,70,70,70	0
54	MG	AG	301	1/1	0.11	-	114,114,114,114	0
54	MG	B5	101	1/1	0.14	-	61,61,61,61	0
54	MG	BA	3627	1/1	0.27	-	89,89,89,89	0
54	MG	CA	1728	1/1	0.37	-	144,144,144,144	0
54	MG	DA	3524	1/1	0.42	-	86,86,86,86	0
54	MG	BA	3214	1/1	0.65	-	93,93,93,93	0
54	MG	DA	3096	1/1	0.33	-	125,125,125,125	0
54	MG	DA	3435	1/1	0.23	-	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
54	MG	CA	1803	1/1	0.39	-	123,123,123,123	0
54	MG	DA	3341	1/1	0.52	-	107,107,107,107	0
54	MG	AA	1758	1/1	0.38	-	111,111,111,111	0
54	MG	BE	305	1/1	0.35	-	111,111,111,111	0
54	MG	BA	3274	1/1	0.45	-	93,93,93,93	0
54	MG	CA	1671	1/1	0.39	-	75,75,75,75	0
54	MG	DA	3512	1/1	0.39	-	81,81,81,81	0
54	MG	DA	3228	1/1	0.09	-	80,80,80,80	0
54	MG	BB	214	1/1	0.58	-	108,108,108,108	0
54	MG	CA	1608	1/1	0.25	-	103,103,103,103	0
54	MG	BO	203	1/1	0.14	-	70,70,70,70	0
54	MG	B3	102	1/1	0.28	-	93,93,93,93	0
54	MG	BA	3128	1/1	0.58	-	99,99,99,99	0
54	MG	DA	3258	1/1	0.34	-	98,98,98,98	0
54	MG	BU	202	1/1	0.18	-	80,80,80,80	0
54	MG	DA	3041	1/1	0.22	-	142,142,142,142	0
54	MG	AA	1632	1/1	0.27	-	116,116,116,116	0
54	MG	DA	3140	1/1	0.18	-	74,74,74,74	0
54	MG	BA	3587	1/1	0.33	-	102,102,102,102	0
54	MG	DA	3237	1/1	0.14	-	63,63,63,63	0
54	MG	DA	3103	1/1	0.13	-	117,117,117,117	0
54	MG	DA	3482	1/1	0.12	-	120,120,120,120	0
54	MG	BA	3041	1/1	0.06	-	142,142,142,142	0
54	MG	BA	3161	1/1	0.16	-	101,101,101,101	0
54	MG	BA	3172	1/1	0.43	-	93,93,93,93	0
54	MG	BA	3434	1/1	0.64	-	107,107,107,107	0
54	MG	DA	3184	1/1	0.21	-	68,68,68,68	0
54	MG	AA	1826	1/1	0.13	-	94,94,94,94	0
54	MG	AA	1823	1/1	0.09	-	138,138,138,138	0
54	MG	CA	1602	1/1	0.58	-	115,115,115,115	0
54	MG	DA	3030	1/1	0.17	-	89,89,89,89	0
54	MG	BA	3345	1/1	0.16	-	95,95,95,95	0
54	MG	BA	3289	1/1	0.23	-	83,83,83,83	0
54	MG	BA	3382	1/1	0.49	-	78,78,78,78	0
54	MG	DA	3325	1/1	0.45	-	74,74,74,74	0
54	MG	DA	3400	1/1	0.25	-	105,105,105,105	0
54	MG	BA	3230	1/1	0.32	-	97,97,97,97	0
54	MG	BA	3615	1/1	0.30	-	92,92,92,92	0
54	MG	BA	3375	1/1	0.48	-	80,80,80,80	0
54	MG	AA	1716	1/1	0.42	-	107,107,107,107	0
54	MG	DA	3200	1/1	0.13	-	112,112,112,112	0
54	MG	BA	3527	1/1	0.39	-	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3216	1/1	0.16	-	77,77,77,77	0
54	MG	DA	3218	1/1	0.33	-	77,77,77,77	0
54	MG	BA	3591	1/1	0.44	-	57,57,57,57	0
54	MG	BA	3424	1/1	0.60	-	111,111,111,111	0
54	MG	DA	3421	1/1	0.26	-	141,141,141,141	0
54	MG	DA	3193	1/1	0.20	-	69,69,69,69	0
54	MG	DA	3461	1/1	0.12	-	102,102,102,102	0
54	MG	BA	3185	1/1	0.69	-	112,112,112,112	0
54	MG	DA	3479	1/1	0.30	-	106,106,106,106	0
54	MG	AA	1609	1/1	0.37	-	87,87,87,87	0
54	MG	BA	3465	1/1	0.65	-	107,107,107,107	0
54	MG	BA	3352	1/1	0.38	-	87,87,87,87	0
54	MG	DA	3081	1/1	0.40	-	116,116,116,116	0
54	MG	CA	1749	1/1	0.23	-	120,120,120,120	0
54	MG	B8	101	1/1	0.19	-	101,101,101,101	0
54	MG	CA	1716	1/1	0.47	-	126,126,126,126	0
54	MG	BA	3211	1/1	0.43	-	77,77,77,77	0
54	MG	DA	3439	1/1	0.06	-	84,84,84,84	0
54	MG	BA	3602	1/1	0.49	-	66,66,66,66	0
54	MG	DA	3223	1/1	0.23	-	54,54,54,54	0
54	MG	DA	3260	1/1	0.49	-	128,128,128,128	0
54	MG	BA	3247	1/1	0.48	-	80,80,80,80	0
54	MG	CA	1659	1/1	0.12	-	158,158,158,158	0
54	MG	DA	3012	1/1	0.64	-	129,129,129,129	0
54	MG	DA	3377	1/1	0.38	-	102,102,102,102	0
54	MG	DA	3346	1/1	0.30	-	93,93,93,93	0
54	MG	DA	3398	1/1	0.40	-	130,130,130,130	0
54	MG	BA	3138	1/1	0.20	-	81,81,81,81	0
54	MG	DA	3408	1/1	0.19	-	107,107,107,107	0
54	MG	BA	3038	1/1	0.29	-	67,67,67,67	0
54	MG	DA	3075	1/1	0.32	-	105,105,105,105	0
54	MG	BA	3232	1/1	0.30	-	93,93,93,93	0
54	MG	BA	3325	1/1	0.22	-	89,89,89,89	0
54	MG	CA	1790	1/1	0.39	-	118,118,118,118	0
54	MG	AA	1623	1/1	0.33	-	81,81,81,81	0
54	MG	AA	1743	1/1	0.26	-	136,136,136,136	0
54	MG	CA	1668	1/1	0.34	-	145,145,145,145	0
54	MG	BA	3124	1/1	0.43	-	110,110,110,110	0
54	MG	BA	3077	1/1	0.36	-	77,77,77,77	0
54	MG	BO	202	1/1	0.24	-	98,98,98,98	0
54	MG	BA	3292	1/1	0.49	-	113,113,113,113	0
54	MG	DA	3276	1/1	0.24	-	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	BA	3581	1/1	0.35	-	82,82,82,82	0
54	MG	DA	3299	1/1	1.50	-	105,105,105,105	0
54	MG	BA	3548	1/1	0.28	-	96,96,96,96	0
54	MG	AA	1676	1/1	0.45	-	132,132,132,132	0
54	MG	DA	3445	1/1	0.24	-	89,89,89,89	0
54	MG	DA	3487	1/1	0.25	-	108,108,108,108	0
54	MG	BA	3603	1/1	1.14	-	113,113,113,113	0
54	MG	AA	1731	1/1	0.52	-	90,90,90,90	0
54	MG	BA	3117	1/1	0.28	-	102,102,102,102	0
54	MG	DE	303	1/1	0.16	-	70,70,70,70	0
54	MG	CA	1639	1/1	0.27	-	129,129,129,129	0
54	MG	DA	3310	1/1	0.44	-	111,111,111,111	0
54	MG	DA	3010	1/1	0.14	-	103,103,103,103	0
54	MG	BA	3098	1/1	0.47	-	75,75,75,75	0
54	MG	CA	1631	1/1	0.21	-	134,134,134,134	0
54	MG	BA	3429	1/1	0.51	-	129,129,129,129	0
54	MG	B1	201	1/1	0.24	-	61,61,61,61	0
54	MG	AA	1802	1/1	0.32	-	136,136,136,136	0
54	MG	AA	1720	1/1	0.19	-	101,101,101,101	0
54	MG	BA	3026	1/1	0.25	-	66,66,66,66	0
54	MG	BA	3278	1/1	0.33	-	101,101,101,101	0
54	MG	DA	3363	1/1	0.06	-	125,125,125,125	0
54	MG	AA	1727	1/1	0.17	-	110,110,110,110	0
54	MG	DA	3060	1/1	0.14	-	101,101,101,101	0
54	MG	BA	3257	1/1	0.30	-	70,70,70,70	0
54	MG	BA	3552	1/1	0.16	-	98,98,98,98	0
54	MG	DA	3322	1/1	0.35	-	110,110,110,110	0
54	MG	BB	207	1/1	0.54	-	131,131,131,131	0
54	MG	AA	1634	1/1	0.29	-	97,97,97,97	0
54	MG	BA	3387	1/1	0.10	-	135,135,135,135	0
54	MG	CA	1681	1/1	0.30	-	96,96,96,96	0
54	MG	AA	1796	1/1	0.29	-	109,109,109,109	0
54	MG	AA	1706	1/1	0.09	-	134,134,134,134	0
54	MG	DA	3476	1/1	0.45	-	99,99,99,99	0
54	MG	DA	3023	1/1	0.27	-	86,86,86,86	0
54	MG	DA	3116	1/1	0.21	-	77,77,77,77	0
54	MG	DB	213	1/1	0.17	-	91,91,91,91	0
54	MG	BA	3244	1/1	0.06	-	112,112,112,112	0
54	MG	BA	3039	1/1	0.39	-	98,98,98,98	0
54	MG	CA	1617	1/1	0.24	-	140,140,140,140	0
54	MG	AC	109	1/1	0.12	-	105,105,105,105	0
54	MG	BA	3275	1/1	0.50	-	111,111,111,111	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	BA	3480	1/1	0.14	-	187,187,187,187	0
54	MG	DA	3316	1/1	0.56	-	124,124,124,124	0
54	MG	BA	3543	1/1	0.29	-	90,90,90,90	0
54	MG	BA	3605	1/1	0.17	-	82,82,82,82	0
54	MG	BA	3067	1/1	0.98	-	108,108,108,108	0
54	MG	BA	3205	1/1	0.28	-	88,88,88,88	0
54	MG	DA	3463	1/1	0.40	-	109,109,109,109	0
54	MG	BA	3252	1/1	0.27	-	70,70,70,70	0
54	MG	DA	3056	1/1	0.15	-	86,86,86,86	0
54	MG	CA	1687	1/1	0.43	-	106,106,106,106	0
54	MG	BA	3561	1/1	0.20	-	86,86,86,86	0
54	MG	BF	302	1/1	0.53	-	127,127,127,127	0
54	MG	CA	1784	1/1	0.15	-	94,94,94,94	0
54	MG	CA	1699	1/1	0.33	-	81,81,81,81	0
54	MG	AA	1756	1/1	0.17	-	86,86,86,86	0
54	MG	CA	1694	1/1	0.25	-	108,108,108,108	0
54	MG	AA	1619	1/1	0.22	-	96,96,96,96	0
54	MG	DA	3220	1/1	0.23	-	70,70,70,70	0
54	MG	AA	1713	1/1	0.13	-	107,107,107,107	0
54	MG	DA	3292	1/1	0.18	-	129,129,129,129	0
54	MG	AA	1717	1/1	0.05	-	137,137,137,137	0
54	MG	BA	3443	1/1	0.46	-	124,124,124,124	0
54	MG	DA	3133	1/1	0.18	-	74,74,74,74	0
54	MG	DA	3067	1/1	0.14	-	97,97,97,97	0
54	MG	CA	1760	1/1	0.26	-	135,135,135,135	0
54	MG	DA	3517	1/1	0.25	-	106,106,106,106	0
54	MG	AA	1654	1/1	0.40	-	113,113,113,113	0
54	MG	DB	207	1/1	0.17	-	114,114,114,114	0
54	MG	DA	3515	1/1	0.10	-	94,94,94,94	0
54	MG	DA	3115	1/1	0.18	-	75,75,75,75	0
54	MG	DA	3366	1/1	0.43	-	103,103,103,103	0
54	MG	BA	3218	1/1	0.35	-	75,75,75,75	0
54	MG	BA	3200	1/1	0.11	-	149,149,149,149	0
54	MG	BA	3021	1/1	0.42	-	72,72,72,72	0
54	MG	BA	3495	1/1	0.30	-	73,73,73,73	0
54	MG	DA	3044	1/1	0.14	-	96,96,96,96	0
54	MG	DA	3383	1/1	0.36	-	84,84,84,84	0
54	MG	BA	3343	1/1	0.32	-	86,86,86,86	0
54	MG	DA	3064	1/1	0.29	-	79,79,79,79	0
54	MG	CA	1776	1/1	0.34	-	125,125,125,125	0
54	MG	BA	3096	1/1	0.62	-	129,129,129,129	0
54	MG	CA	1751	1/1	0.67	-	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	AA	1723	1/1	0.27	-	92,92,92,92	0
54	MG	BA	3369	1/1	0.52	-	94,94,94,94	0
54	MG	DA	3007	1/1	0.18	-	116,116,116,116	0
54	MG	DA	3499	1/1	0.15	-	103,103,103,103	0
54	MG	BA	3267	1/1	0.11	-	126,126,126,126	0
54	MG	AA	1822	1/1	0.11	-	144,144,144,144	0
54	MG	BA	3562	1/1	0.32	-	97,97,97,97	0
54	MG	DA	3180	1/1	0.30	-	82,82,82,82	0
54	MG	DA	3086	1/1	0.12	-	84,84,84,84	0
54	MG	CA	1758	1/1	0.50	-	110,110,110,110	0
54	MG	BA	3224	1/1	0.25	-	101,101,101,101	0
54	MG	CA	1679	1/1	0.16	-	94,94,94,94	0
54	MG	BA	3260	1/1	0.12	-	126,126,126,126	0
54	MG	AA	1749	1/1	0.21	-	112,112,112,112	0
54	MG	DA	3330	1/1	0.25	-	82,82,82,82	0
54	MG	BA	3060	1/1	0.23	-	105,105,105,105	0
54	MG	DA	3051	1/1	0.28	-	81,81,81,81	0
54	MG	CA	1712	1/1	0.25	-	105,105,105,105	0
54	MG	BA	3276	1/1	0.32	-	90,90,90,90	0
54	MG	DA	3467	1/1	0.09	-	159,159,159,159	0
54	MG	BA	3417	1/1	0.15	-	78,78,78,78	0
54	MG	BA	3358	1/1	0.33	-	108,108,108,108	0
54	MG	BA	3380	1/1	0.32	-	91,91,91,91	0
54	MG	BA	3020	1/1	0.40	-	109,109,109,109	0
54	MG	BA	3471	1/1	0.46	-	91,91,91,91	0
54	MG	BA	3544	1/1	0.43	-	77,77,77,77	0
54	MG	CA	1658	1/1	0.49	-	120,120,120,120	0
54	MG	BA	3305	1/1	0.35	-	80,80,80,80	0
54	MG	DA	3296	1/1	0.37	-	114,114,114,114	0
54	MG	DA	3011	1/1	0.27	-	128,128,128,128	0
54	MG	DA	3477	1/1	0.25	-	93,93,93,93	0
54	MG	BA	3403	1/1	0.39	-	114,114,114,114	0
54	MG	BA	3167	1/1	0.40	-	95,95,95,95	0
54	MG	BA	3507	1/1	0.55	-	127,127,127,127	0
54	MG	AA	1819	1/1	0.16	-	81,81,81,81	0
54	MG	BA	3139	1/1	0.30	-	66,66,66,66	0
54	MG	B6	101	1/1	0.43	-	128,128,128,128	0
54	MG	DA	3367	1/1	0.92	-	125,125,125,125	0
54	MG	BA	3344	1/1	0.24	-	93,93,93,93	0
54	MG	DA	3433	1/1	0.23	-	66,66,66,66	0
54	MG	DA	3204	1/1	0.16	-	126,126,126,126	0
54	MG	DA	3078	1/1	0.08	-	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
54	MG	BA	3300	1/1	0.38	-	102,102,102,102	0
54	MG	DA	3338	1/1	0.39	-	95,95,95,95	0
54	MG	BA	3313	1/1	0.23	-	61,61,61,61	0
54	MG	BA	3282	1/1	0.53	-	107,107,107,107	0
54	MG	CA	1654	1/1	0.18	-	128,128,128,128	0
54	MG	BA	3601	1/1	0.47	-	52,52,52,52	0
54	MG	DA	3110	1/1	0.29	-	75,75,75,75	0
54	MG	BA	3353	1/1	0.23	-	93,93,93,93	0
54	MG	BA	3456	1/1	0.22	-	108,108,108,108	0
54	MG	CA	1652	1/1	0.49	-	120,120,120,120	0
54	MG	DA	3394	1/1	0.65	-	106,106,106,106	0
54	MG	DA	3423	1/1	0.23	-	123,123,123,123	0
54	MG	CA	1621	1/1	0.36	-	84,84,84,84	0
54	MG	BA	3223	1/1	0.49	-	84,84,84,84	0
54	MG	AA	1753	1/1	0.10	-	143,143,143,143	0
54	MG	BA	3501	1/1	0.43	-	99,99,99,99	0
54	MG	DA	3139	1/1	0.27	-	67,67,67,67	0
54	MG	B1	202	1/1	0.28	-	100,100,100,100	0
54	MG	BA	3149	1/1	0.27	-	110,110,110,110	0
54	MG	DA	3373	1/1	0.17	-	112,112,112,112	0
54	MG	DA	3336	1/1	0.19	-	115,115,115,115	0
54	MG	AA	1780	1/1	0.07	-	154,154,154,154	0
54	MG	DA	3277	1/1	0.34	-	77,77,77,77	0
54	MG	BA	3346	1/1	0.31	-	112,112,112,112	0
54	MG	AA	1735	1/1	0.50	-	91,91,91,91	0
54	MG	DA	3127	1/1	0.19	-	66,66,66,66	0
54	MG	CA	1704	1/1	0.62	-	95,95,95,95	0
54	MG	DA	3270	1/1	0.19	-	63,63,63,63	0
54	MG	DA	3247	1/1	0.25	-	89,89,89,89	0
54	MG	DA	3105	1/1	0.09	-	110,110,110,110	0
54	MG	BB	208	1/1	0.48	-	90,90,90,90	0
54	MG	AA	1738	1/1	0.33	-	117,117,117,117	0
54	MG	BA	3076	1/1	0.08	-	74,74,74,74	0
54	MG	DA	3443	1/1	0.20	-	103,103,103,103	0
54	MG	DA	3413	1/1	0.41	-	115,115,115,115	0
54	MG	BA	3467	1/1	0.10	-	102,102,102,102	0
54	MG	DA	3335	1/1	0.20	-	78,78,78,78	0
54	MG	AA	1610	1/1	0.32	-	71,71,71,71	0
54	MG	BA	3178	1/1	0.50	-	78,78,78,78	0
54	MG	BA	3040	1/1	0.20	-	88,88,88,88	0
54	MG	BA	3541	1/1	0.53	-	120,120,120,120	0
54	MG	DA	3384	1/1	0.15	-	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	CA	1734	1/1	0.09	-	93,93,93,93	0
54	MG	BA	3095	1/1	0.38	-	92,92,92,92	0
54	MG	BA	3537	1/1	0.35	-	124,124,124,124	0
54	MG	AA	1763	1/1	0.17	-	110,110,110,110	0
54	MG	CA	1670	1/1	0.23	-	91,91,91,91	0
54	MG	AA	1642	1/1	0.18	-	103,103,103,103	0
54	MG	AA	1665	1/1	0.27	-	84,84,84,84	0
54	MG	BA	3393	1/1	0.21	-	108,108,108,108	0
54	MG	BA	3005	1/1	0.20	-	61,61,61,61	0
54	MG	CA	1649	1/1	0.24	-	113,113,113,113	0
54	MG	BA	3094	1/1	0.39	-	97,97,97,97	0
54	MG	AA	1825	1/1	0.17	-	93,93,93,93	0
54	MG	DA	3416	1/1	0.25	-	100,100,100,100	0
54	MG	BA	3428	1/1	0.44	-	80,80,80,80	0
54	MG	DA	3106	1/1	1.27	-	122,122,122,122	0
54	MG	B2	201	1/1	0.13	-	90,90,90,90	0
54	MG	DB	201	1/1	0.13	-	88,88,88,88	0
54	MG	DA	3095	1/1	0.10	-	121,121,121,121	0
54	MG	BA	3337	1/1	0.15	-	75,75,75,75	0
54	MG	AA	1673	1/1	0.22	-	133,133,133,133	0
54	MG	CA	1601	1/1	0.21	-	108,108,108,108	0
54	MG	BA	3469	1/1	0.56	-	125,125,125,125	0
54	MG	BA	3290	1/1	0.24	-	78,78,78,78	0
54	MG	DA	3053	1/1	0.38	-	100,100,100,100	0
54	MG	DA	3118	1/1	0.24	-	61,61,61,61	0
54	MG	DB	211	1/1	0.25	-	107,107,107,107	0
54	MG	DA	3294	1/1	0.29	-	64,64,64,64	0
54	MG	DA	3172	1/1	0.82	-	110,110,110,110	0
54	MG	BA	3034	1/1	0.37	-	69,69,69,69	0
54	MG	CA	1665	1/1	0.51	-	103,103,103,103	0
54	MG	AA	1629	1/1	0.08	-	186,186,186,186	0
54	MG	DA	3436	1/1	0.18	-	120,120,120,120	0
54	MG	DA	3183	1/1	0.33	-	92,92,92,92	0
54	MG	DB	204	1/1	0.25	-	111,111,111,111	0
54	MG	AA	1754	1/1	0.14	-	85,85,85,85	0
54	MG	CA	1672	1/1	0.25	-	101,101,101,101	0
54	MG	DA	3496	1/1	0.11	-	72,72,72,72	0
54	MG	CA	1793	1/1	0.38	-	115,115,115,115	0
54	MG	DA	3120	1/1	0.14	-	75,75,75,75	0
54	MG	DA	3071	1/1	0.91	-	123,123,123,123	0
54	MG	BA	3177	1/1	1.52	-	101,101,101,101	0
54	MG	BA	3622	1/1	0.23	-	120,120,120,120	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3520	1/1	0.13	-	100,100,100,100	0
54	MG	DA	3395	1/1	0.31	-	87,87,87,87	0
54	MG	AA	1622	1/1	0.35	-	96,96,96,96	0
54	MG	AA	1671	1/1	0.36	-	110,110,110,110	0
54	MG	AA	1776	1/1	0.26	-	116,116,116,116	0
54	MG	AA	1818	1/1	0.23	-	156,156,156,156	0
54	MG	CA	1736	1/1	0.54	-	85,85,85,85	0
54	MG	DA	3122	1/1	0.24	-	67,67,67,67	0
54	MG	BA	3049	1/1	0.31	-	88,88,88,88	0
54	MG	AA	1740	1/1	0.40	-	75,75,75,75	0
54	MG	AC	103	1/1	0.41	-	75,75,75,75	0
54	MG	BA	3194	1/1	0.13	-	113,113,113,113	0
54	MG	CA	1628	1/1	0.07	-	149,149,149,149	0
54	MG	BA	3530	1/1	0.38	-	110,110,110,110	0
54	MG	DA	3005	1/1	0.21	-	86,86,86,86	0
54	MG	BA	3250	1/1	0.35	-	87,87,87,87	0
54	MG	DA	3428	1/1	0.19	-	89,89,89,89	0
54	MG	DB	210	1/1	0.20	-	73,73,73,73	0
54	MG	DA	3045	1/1	0.17	-	67,67,67,67	0
54	MG	DA	3149	1/1	0.19	-	112,112,112,112	0
54	MG	BA	3210	1/1	0.52	-	78,78,78,78	0
54	MG	BA	3207	1/1	0.81	-	116,116,116,116	0
54	MG	BA	3441	1/1	0.28	-	95,95,95,95	0
54	MG	AA	1772	1/1	0.38	-	155,155,155,155	0
54	MG	BA	3473	1/1	0.44	-	82,82,82,82	0
54	MG	BA	3496	1/1	0.41	-	108,108,108,108	0
54	MG	BA	3045	1/1	0.41	-	66,66,66,66	0
54	MG	DA	3446	1/1	0.19	-	92,92,92,92	0
54	MG	BA	3115	1/1	0.33	-	68,68,68,68	0
54	MG	BA	3614	1/1	1.68	-	109,109,109,109	0
54	MG	AA	1685	1/1	0.37	-	95,95,95,95	0
54	MG	DA	3283	1/1	0.25	-	114,114,114,114	0
54	MG	CA	1675	1/1	0.12	-	111,111,111,111	0
54	MG	BA	3033	1/1	0.39	-	75,75,75,75	0
54	MG	DA	3437	1/1	0.21	-	96,96,96,96	0
54	MG	AA	1827	1/1	0.14	-	82,82,82,82	0
54	MG	BA	3162	1/1	0.26	-	72,72,72,72	0
54	MG	DA	3170	1/1	0.28	-	80,80,80,80	0
54	MG	CA	1632	1/1	0.48	-	111,111,111,111	0
54	MG	BA	3120	1/1	0.52	-	97,97,97,97	0
54	MG	BA	3031	1/1	0.34	-	63,63,63,63	0
54	MG	BA	3251	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
54	MG	BA	3047	1/1	0.22	-	64,64,64,64	0
54	MG	BA	3430	1/1	0.16	-	87,87,87,87	0
54	MG	DA	3169	1/1	0.39	-	76,76,76,76	0
54	MG	BF	301	1/1	0.76	-	100,100,100,100	0
54	MG	CA	1770	1/1	0.11	-	106,106,106,106	0
54	MG	BA	3109	1/1	0.45	-	94,94,94,94	0
54	MG	AA	1687	1/1	0.43	-	99,99,99,99	0
54	MG	BA	3504	1/1	0.58	-	88,88,88,88	0
54	MG	AA	1655	1/1	0.47	-	106,106,106,106	0
54	MG	BA	3259	1/1	0.30	-	53,53,53,53	0
54	MG	DA	3375	1/1	0.29	-	127,127,127,127	0
54	MG	CA	1693	1/1	0.41	-	117,117,117,117	0
54	MG	CC	108	1/1	0.26	-	129,129,129,129	0
54	MG	BA	3012	1/1	0.25	-	70,70,70,70	0
54	MG	DA	3356	1/1	0.24	-	64,64,64,64	0
54	MG	DA	3038	1/1	0.33	-	122,122,122,122	0
54	MG	BA	3510	1/1	0.28	-	118,118,118,118	0
54	MG	AA	1701	1/1	0.44	-	115,115,115,115	0
54	MG	AA	1781	1/1	0.49	-	120,120,120,120	0
54	MG	DA	3449	1/1	0.41	-	106,106,106,106	0
54	MG	CA	1677	1/1	0.14	-	114,114,114,114	0
54	MG	BA	3206	1/1	0.36	-	99,99,99,99	0
54	MG	DA	3248	1/1	0.38	-	112,112,112,112	0
54	MG	BA	3086	1/1	0.22	-	88,88,88,88	0
54	MG	BA	3054	1/1	0.43	-	91,91,91,91	0
54	MG	DA	3018	1/1	0.32	-	83,83,83,83	0
54	MG	BA	3454	1/1	0.40	-	103,103,103,103	0
54	MG	BA	3286	1/1	0.26	-	98,98,98,98	0
54	MG	BA	3197	1/1	0.21	-	66,66,66,66	0
54	MG	AA	1674	1/1	0.52	-	119,119,119,119	0
54	MG	CA	1797	1/1	0.19	-	127,127,127,127	0
54	MG	BA	3142	1/1	0.42	-	48,48,48,48	0
54	MG	DA	3009	1/1	0.34	-	74,74,74,74	0
54	MG	DA	3318	1/1	0.18	-	91,91,91,91	0
54	MG	DA	3234	1/1	0.17	-	92,92,92,92	0
54	MG	CA	1644	1/1	0.46	-	133,133,133,133	0
54	MG	CA	1773	1/1	0.19	-	114,114,114,114	0
54	MG	BA	3526	1/1	0.56	-	115,115,115,115	0
54	MG	AA	1682	1/1	0.07	-	113,113,113,113	0
54	MG	BA	3502	1/1	0.48	-	90,90,90,90	0
54	MG	BA	3116	1/1	0.34	-	137,137,137,137	0
54	MG	CA	1767	1/1	0.37	-	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	AA	1747	1/1	0.23	-	159,159,159,159	0
54	MG	DA	3471	1/1	0.11	-	102,102,102,102	0
54	MG	BA	3487	1/1	0.06	-	116,116,116,116	0
54	MG	CA	1765	1/1	0.20	-	126,126,126,126	0
54	MG	BA	3003	1/1	0.34	-	78,78,78,78	0
54	MG	DA	3420	1/1	0.10	-	108,108,108,108	0
54	MG	BA	3560	1/1	0.35	-	91,91,91,91	0
54	MG	DA	3459	1/1	0.29	-	108,108,108,108	0
54	MG	BA	3440	1/1	0.30	-	79,79,79,79	0
54	MG	BA	3512	1/1	0.27	-	97,97,97,97	0
54	MG	AA	1787	1/1	0.20	-	115,115,115,115	0
54	MG	BA	3048	1/1	0.14	-	70,70,70,70	0
54	MG	DA	3441	1/1	0.20	-	116,116,116,116	0
54	MG	DA	3349	1/1	0.23	-	88,88,88,88	0
54	MG	BA	3114	1/1	0.44	-	83,83,83,83	0
54	MG	AA	1606	1/1	0.08	-	155,155,155,155	0
54	MG	BA	3336	1/1	0.25	-	109,109,109,109	0
54	MG	BA	3351	1/1	0.55	-	84,84,84,84	0
54	MG	DA	3236	1/1	0.34	-	60,60,60,60	0
54	MG	CA	1735	1/1	0.09	-	103,103,103,103	0
54	MG	AA	1670	1/1	0.17	-	83,83,83,83	0
54	MG	BA	3241	1/1	0.37	-	91,91,91,91	0
54	MG	DU	201	1/1	0.21	-	103,103,103,103	0
54	MG	BA	3617	1/1	0.38	-	134,134,134,134	0
54	MG	DA	3262	1/1	0.13	-	112,112,112,112	0
54	MG	BA	3015	1/1	0.27	-	61,61,61,61	0
54	MG	AA	1724	1/1	0.42	-	115,115,115,115	0
54	MG	BA	3006	1/1	0.19	-	50,50,50,50	0
54	MG	BB	203	1/1	0.39	-	73,73,73,73	0
54	MG	DA	3360	1/1	0.27	-	85,85,85,85	0
54	MG	BA	3046	1/1	0.42	-	86,86,86,86	0
54	MG	AC	108	1/1	1.38	-	112,112,112,112	0
54	MG	BA	3324	1/1	0.29	-	101,101,101,101	0
54	MG	AA	1803	1/1	0.27	-	133,133,133,133	0
54	MG	BB	205	1/1	0.50	-	93,93,93,93	0
54	MG	DA	3207	1/1	0.21	-	86,86,86,86	0
54	MG	DA	3163	1/1	0.17	-	120,120,120,120	0
54	MG	DB	208	1/1	0.10	-	105,105,105,105	0
54	MG	DA	3147	1/1	0.35	-	82,82,82,82	0
54	MG	DA	3087	1/1	0.16	-	111,111,111,111	0
54	MG	DA	3222	1/1	0.27	-	62,62,62,62	0
54	MG	AA	1815	1/1	0.26	-	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	BA	3056	1/1	0.55	-	101,101,101,101	0
54	MG	DA	3014	1/1	0.36	-	69,69,69,69	0
54	MG	AC	104	1/1	0.32	-	107,107,107,107	0
54	MG	DA	3092	1/1	0.32	-	80,80,80,80	0
54	MG	CA	1721	1/1	0.13	-	128,128,128,128	0
54	MG	BA	3595	1/1	0.45	-	105,105,105,105	0
54	MG	CA	1717	1/1	0.29	-	135,135,135,135	0
54	MG	AA	1792	1/1	0.46	-	93,93,93,93	0
54	MG	DA	3353	1/1	0.41	-	108,108,108,108	0
54	MG	CG	301	1/1	0.35	-	115,115,115,115	0
54	MG	BA	3597	1/1	0.30	-	69,69,69,69	0
54	MG	BA	3398	1/1	0.60	-	105,105,105,105	0
54	MG	CA	1700	1/1	0.28	-	92,92,92,92	0
54	MG	DA	3362	1/1	0.21	-	120,120,120,120	0
54	MG	BA	3554	1/1	0.33	-	99,99,99,99	0
54	MG	DA	3481	1/1	0.44	-	101,101,101,101	0
54	MG	BA	3433	1/1	0.17	-	107,107,107,107	0
54	MG	BA	3410	1/1	0.32	-	120,120,120,120	0
54	MG	DZ	101	1/1	0.31	-	113,113,113,113	0
54	MG	CA	1768	1/1	0.14	-	106,106,106,106	0
54	MG	CA	1753	1/1	0.18	-	95,95,95,95	0
54	MG	DA	3255	1/1	0.19	-	87,87,87,87	0
54	MG	DA	3176	1/1	0.14	-	112,112,112,112	0
54	MG	DA	3351	1/1	0.38	-	90,90,90,90	0
54	MG	AA	1721	1/1	0.29	-	115,115,115,115	0
54	MG	DA	3089	1/1	0.13	-	117,117,117,117	0
54	MG	AA	1680	1/1	0.38	-	104,104,104,104	0
54	MG	DA	3114	1/1	0.19	-	82,82,82,82	0
54	MG	AA	1668	1/1	0.33	-	105,105,105,105	0
54	MG	AA	1696	1/1	0.24	-	104,104,104,104	0
54	MG	DA	3231	1/1	0.24	-	74,74,74,74	0
54	MG	BA	3065	1/1	0.16	-	135,135,135,135	0
54	MG	BA	3258	1/1	0.43	-	74,74,74,74	0
54	MG	AA	1633	1/1	0.36	-	80,80,80,80	0
54	MG	BA	3517	1/1	0.16	-	121,121,121,121	0
54	MG	CA	1641	1/1	0.16	-	135,135,135,135	0
54	MG	DA	3513	1/1	0.25	-	95,95,95,95	0
54	MG	AA	1663	1/1	0.15	-	76,76,76,76	0
54	MG	BA	3106	1/1	0.24	-	52,52,52,52	0
54	MG	BA	3549	1/1	0.12	-	140,140,140,140	0
54	MG	AA	1805	1/1	0.32	-	108,108,108,108	0
54	MG	DA	3337	1/1	0.16	-	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	AA	1773	1/1	0.55	-	137,137,137,137	0
54	MG	BA	3141	1/1	0.22	-	63,63,63,63	0
54	MG	BA	3212	1/1	0.52	-	124,124,124,124	0
54	MG	DA	3123	1/1	0.20	-	106,106,106,106	0
54	MG	BA	3240	1/1	0.38	-	93,93,93,93	0
54	MG	BA	3136	1/1	0.28	-	62,62,62,62	0
54	MG	DA	3238	1/1	0.11	-	117,117,117,117	0
54	MG	BA	3080	1/1	0.22	-	125,125,125,125	0
54	MG	BA	3014	1/1	0.34	-	68,68,68,68	0
54	MG	DA	3155	1/1	0.13	-	80,80,80,80	0
54	MG	AA	1625	1/1	0.13	-	110,110,110,110	0
54	MG	DA	3319	1/1	0.24	-	77,77,77,77	0
54	MG	BA	3303	1/1	0.13	-	119,119,119,119	0
54	MG	AA	1759	1/1	0.28	-	87,87,87,87	0
54	MG	AA	1806	1/1	0.42	-	100,100,100,100	0
54	MG	CA	1610	1/1	0.16	-	147,147,147,147	0
54	MG	DA	3504	1/1	0.44	-	67,67,67,67	0
54	MG	CA	1656	1/1	0.25	-	129,129,129,129	0
54	MG	DA	3201	1/1	0.26	-	73,73,73,73	0
54	MG	DA	3104	1/1	0.34	-	107,107,107,107	0
54	MG	AA	1766	1/1	0.19	-	94,94,94,94	0
54	MG	CA	1696	1/1	0.40	-	98,98,98,98	0
54	MG	CH	201	1/1	0.36	-	114,114,114,114	0
54	MG	DA	3082	1/1	0.14	-	99,99,99,99	0
54	MG	DA	3265	1/1	0.42	-	115,115,115,115	0
54	MG	BA	3027	1/1	0.25	-	69,69,69,69	0
54	MG	AA	1820	1/1	1.41	-	130,130,130,130	0
54	MG	BA	3420	1/1	0.38	-	70,70,70,70	0
54	MG	AA	1719	1/1	0.22	-	110,110,110,110	0
54	MG	BA	3090	1/1	0.18	-	78,78,78,78	0
56	ZN	CQ	101	1/1	0.04	-	188,188,188,188	0
54	MG	BA	3455	1/1	0.72	-	107,107,107,107	0
54	MG	BA	3476	1/1	0.48	-	59,59,59,59	0
54	MG	BA	3215	1/1	0.33	-	119,119,119,119	0
54	MG	A1	101	1/1	0.33	-	72,72,72,72	0
54	MG	BA	3137	1/1	0.27	-	105,105,105,105	0
54	MG	AA	1816	1/1	0.11	-	115,115,115,115	0
54	MG	DA	3198	1/1	0.36	-	95,95,95,95	0
54	MG	CA	1662	1/1	0.28	-	120,120,120,120	0
54	MG	BA	3594	1/1	0.67	-	94,94,94,94	0
54	MG	BA	3542	1/1	0.56	-	100,100,100,100	0
54	MG	CA	1609	1/1	0.38	-	119,119,119,119	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	CA	1780	1/1	0.11	-	137,137,137,137	0
54	MG	AA	1613	1/1	0.18	-	144,144,144,144	0
54	MG	BA	3462	1/1	0.17	-	113,113,113,113	0
54	MG	BA	3176	1/1	0.09	-	89,89,89,89	0
54	MG	AA	1831	1/1	0.16	-	124,124,124,124	0
54	MG	DA	3048	1/1	0.16	-	84,84,84,84	0
54	MG	DA	3376	1/1	0.23	-	87,87,87,87	0
54	MG	AA	1746	1/1	0.22	-	92,92,92,92	0
54	MG	DA	3250	1/1	0.91	-	105,105,105,105	0
54	MG	BA	3598	1/1	0.34	-	84,84,84,84	0
54	MG	BA	3577	1/1	0.28	-	61,61,61,61	0
54	MG	BA	3505	1/1	0.49	-	108,108,108,108	0
54	MG	DA	3522	1/1	0.19	-	113,113,113,113	0
54	MG	CG	302	1/1	0.47	-	180,180,180,180	0
54	MG	BA	3062	1/1	0.23	-	70,70,70,70	0
54	MG	BA	3122	1/1	0.27	-	114,114,114,114	0
54	MG	DA	3424	1/1	0.45	-	115,115,115,115	0
54	MG	DA	3029	1/1	0.24	-	87,87,87,87	0
54	MG	AA	1649	1/1	0.13	-	90,90,90,90	0
54	MG	BA	3028	1/1	0.39	-	57,57,57,57	0
54	MG	DA	3225	1/1	0.11	-	89,89,89,89	0
54	MG	DA	3069	1/1	0.21	-	101,101,101,101	0
54	MG	BA	3425	1/1	0.07	-	137,137,137,137	0
54	MG	BA	3169	1/1	0.40	-	104,104,104,104	0
54	MG	BA	3317	1/1	0.45	-	99,99,99,99	0
54	MG	DA	3498	1/1	0.11	-	106,106,106,106	0
54	MG	BA	3540	1/1	0.52	-	122,122,122,122	0
54	MG	BA	3239	1/1	0.38	-	82,82,82,82	0
54	MG	CA	1625	1/1	0.14	-	142,142,142,142	0
54	MG	BB	210	1/1	0.41	-	78,78,78,78	0
54	MG	BA	3449	1/1	0.58	-	118,118,118,118	0
54	MG	DA	3452	1/1	0.45	-	91,91,91,91	0
54	MG	BA	3515	1/1	0.58	-	112,112,112,112	0
54	MG	DA	3308	1/1	0.24	-	94,94,94,94	0
54	MG	BA	3123	1/1	0.35	-	73,73,73,73	0
54	MG	DA	3158	1/1	0.59	-	113,113,113,113	0
54	MG	DA	3431	1/1	0.58	-	101,101,101,101	0
54	MG	BA	3103	1/1	0.31	-	93,93,93,93	0
54	MG	DA	3215	1/1	0.18	-	80,80,80,80	0
54	MG	BA	3171	1/1	0.25	-	87,87,87,87	0
54	MG	DA	3209	1/1	0.21	-	100,100,100,100	0
54	MG	AQ	102	1/1	0.14	-	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	BA	3189	1/1	0.28	-	88,88,88,88	0
54	MG	BA	3265	1/1	0.33	-	96,96,96,96	0
54	MG	DA	3470	1/1	0.31	-	124,124,124,124	0
54	MG	CA	1747	1/1	0.50	-	122,122,122,122	0
54	MG	BA	3570	1/1	0.23	-	82,82,82,82	0
54	MG	CA	1703	1/1	0.24	-	93,93,93,93	0
54	MG	DA	3153	1/1	0.16	-	145,145,145,145	0
54	MG	BZ	101	1/1	0.21	-	69,69,69,69	0
54	MG	BA	3008	1/1	0.45	-	58,58,58,58	0
54	MG	DA	3242	1/1	0.33	-	64,64,64,64	0
54	MG	CA	1802	1/1	0.47	-	136,136,136,136	0
54	MG	BA	3367	1/1	0.39	-	124,124,124,124	0
54	MG	CA	1605	1/1	0.45	-	131,131,131,131	0
54	MG	AA	1603	1/1	0.25	-	109,109,109,109	0
54	MG	CA	1689	1/1	0.38	-	122,122,122,122	0
54	MG	DA	3004	1/1	0.40	-	120,120,120,120	0
54	MG	CA	1769	1/1	0.27	-	136,136,136,136	0
54	MG	CA	1638	1/1	0.24	-	128,128,128,128	0
54	MG	BA	3315	1/1	0.33	-	91,91,91,91	0
54	MG	BA	3432	1/1	0.18	-	126,126,126,126	0
54	MG	BA	3174	1/1	0.19	-	61,61,61,61	0
54	MG	DB	206	1/1	0.37	-	142,142,142,142	0
54	MG	DA	3084	1/1	0.11	-	98,98,98,98	0
54	MG	CA	1669	1/1	0.16	-	130,130,130,130	0
54	MG	DA	3465	1/1	0.39	-	111,111,111,111	0
54	MG	DA	3016	1/1	0.36	-	123,123,123,123	0
54	MG	BA	3079	1/1	0.55	-	99,99,99,99	0
54	MG	DA	3462	1/1	0.10	-	102,102,102,102	0
54	MG	BA	3402	1/1	0.24	-	81,81,81,81	0
54	MG	BA	3280	1/1	0.31	-	106,106,106,106	0
54	MG	DA	3432	1/1	0.28	-	91,91,91,91	0
54	MG	AA	1650	1/1	0.26	-	85,85,85,85	0
54	MG	BA	3070	1/1	0.40	-	119,119,119,119	0
54	MG	DA	3151	1/1	0.27	-	113,113,113,113	0
54	MG	BA	3439	1/1	0.43	-	109,109,109,109	0
54	MG	AA	1737	1/1	0.35	-	132,132,132,132	0
54	MG	DA	3324	1/1	0.33	-	109,109,109,109	0
54	MG	BA	3296	1/1	0.52	-	93,93,93,93	0
54	MG	BA	3209	1/1	0.34	-	79,79,79,79	0
54	MG	BA	3448	1/1	0.34	-	95,95,95,95	0
54	MG	BA	3576	1/1	0.26	-	120,120,120,120	0
54	MG	BA	3609	1/1	0.24	-	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	BA	3294	1/1	0.52	-	79,79,79,79	0
54	MG	CA	1748	1/1	0.22	-	81,81,81,81	0
54	MG	DA	3036	1/1	0.32	-	108,108,108,108	0
54	MG	BA	3571	1/1	0.45	-	85,85,85,85	0
54	MG	BA	3396	1/1	0.50	-	101,101,101,101	0
54	MG	BA	3481	1/1	0.38	-	99,99,99,99	0
54	MG	DA	3342	1/1	0.30	-	114,114,114,114	0
54	MG	BA	3511	1/1	0.23	-	80,80,80,80	0
54	MG	DA	3028	1/1	0.43	-	122,122,122,122	0
54	MG	DA	3379	1/1	0.47	-	64,64,64,64	0
54	MG	DA	3019	1/1	0.25	-	84,84,84,84	0
54	MG	CA	1794	1/1	0.46	-	109,109,109,109	0
54	MG	AA	1646	1/1	0.08	-	150,150,150,150	0
54	MG	BA	3213	1/1	0.24	-	69,69,69,69	0
54	MG	BA	3261	1/1	0.18	-	90,90,90,90	0
54	MG	BA	3036	1/1	0.28	-	63,63,63,63	0
54	MG	BA	3435	1/1	0.11	-	109,109,109,109	0
54	MG	CA	1620	1/1	0.27	-	73,73,73,73	0
54	MG	CA	1619	1/1	0.15	-	111,111,111,111	0
54	MG	AA	1728	1/1	0.12	-	85,85,85,85	0
54	MG	AA	1698	1/1	0.20	-	132,132,132,132	0
54	MG	CA	1764	1/1	0.34	-	110,110,110,110	0
54	MG	DA	3457	1/1	0.15	-	102,102,102,102	0
54	MG	AA	1689	1/1	0.32	-	153,153,153,153	0
54	MG	BA	3190	1/1	0.32	-	93,93,93,93	0
54	MG	DA	3072	1/1	0.32	-	94,94,94,94	0
54	MG	BA	3270	1/1	0.19	-	87,87,87,87	0
54	MG	AA	1786	1/1	0.31	-	131,131,131,131	0
54	MG	BA	3534	1/1	0.45	-	95,95,95,95	0
54	MG	AA	1612	1/1	0.23	-	135,135,135,135	0
54	MG	DA	3391	1/1	0.11	-	94,94,94,94	0
54	MG	DA	3347	1/1	0.40	-	116,116,116,116	0
54	MG	BA	3613	1/1	0.20	-	111,111,111,111	0
54	MG	AJ	201	1/1	0.68	-	108,108,108,108	0
54	MG	DA	3291	1/1	0.43	-	85,85,85,85	0
54	MG	DA	3380	1/1	0.35	-	94,94,94,94	0
54	MG	AA	1692	1/1	0.22	-	108,108,108,108	0
54	MG	CA	1707	1/1	0.50	-	109,109,109,109	0
54	MG	DA	3196	1/1	0.29	-	101,101,101,101	0
54	MG	DA	3271	1/1	0.26	-	62,62,62,62	0
54	MG	DA	3113	1/1	0.30	-	105,105,105,105	0
54	MG	BA	3019	1/1	0.30	-	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3372	1/1	0.26	-	101,101,101,101	0
54	MG	DA	3469	1/1	0.25	-	107,107,107,107	0
54	MG	AA	1703	1/1	0.24	-	87,87,87,87	0
54	MG	BA	3087	1/1	0.07	-	142,142,142,142	0
54	MG	DD	301	1/1	0.59	-	119,119,119,119	0
54	MG	DA	3451	1/1	0.19	-	90,90,90,90	0
54	MG	BA	3135	1/1	0.17	-	90,90,90,90	0
54	MG	CA	1732	1/1	0.22	-	144,144,144,144	0
54	MG	DA	3132	1/1	0.21	-	78,78,78,78	0
54	MG	DA	3109	1/1	0.26	-	63,63,63,63	0
54	MG	AA	1644	1/1	0.26	-	72,72,72,72	0
54	MG	BA	3326	1/1	0.29	-	89,89,89,89	0
54	MG	BA	3203	1/1	0.37	-	86,86,86,86	0
54	MG	BA	3186	1/1	0.35	-	62,62,62,62	0
54	MG	AA	1752	1/1	0.26	-	121,121,121,121	0
54	MG	BA	3299	1/1	0.49	-	78,78,78,78	0
54	MG	AA	1624	1/1	0.12	-	98,98,98,98	0
54	MG	CA	1642	1/1	0.17	-	105,105,105,105	0
54	MG	BB	211	1/1	0.40	-	102,102,102,102	0
54	MG	DA	3191	1/1	0.36	-	103,103,103,103	0
54	MG	DA	3160	1/1	0.47	-	84,84,84,84	0
54	MG	BA	3470	1/1	0.50	-	117,117,117,117	0
54	MG	BA	3195	1/1	0.14	-	82,82,82,82	0
54	MG	DA	3511	1/1	0.74	-	111,111,111,111	0
54	MG	DA	3332	1/1	0.25	-	120,120,120,120	0
54	MG	BA	3355	1/1	0.52	-	90,90,90,90	0
54	MG	BA	3447	1/1	0.30	-	116,116,116,116	0
54	MG	BE	301	1/1	0.28	-	61,61,61,61	0
54	MG	AA	1748	1/1	0.27	-	130,130,130,130	0
54	MG	DB	212	1/1	0.46	-	102,102,102,102	0
54	MG	BA	3099	1/1	0.44	-	74,74,74,74	0
54	MG	CA	1759	1/1	0.08	-	157,157,157,157	0
54	MG	DA	3135	1/1	0.46	-	99,99,99,99	0
54	MG	AA	1684	1/1	0.40	-	123,123,123,123	0
54	MG	AA	1761	1/1	0.12	-	152,152,152,152	0
54	MG	BA	3231	1/1	0.44	-	93,93,93,93	0
54	MG	BA	3592	1/1	0.28	-	112,112,112,112	0
54	MG	DA	3137	1/1	0.27	-	74,74,74,74	0
54	MG	BA	3323	1/1	0.52	-	116,116,116,116	0
54	MG	BA	3620	1/1	0.17	-	72,72,72,72	0
54	MG	DZ	102	1/1	0.11	-	88,88,88,88	0
54	MG	DA	3022	1/1	0.21	-	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3317	1/1	0.45	-	131,131,131,131	0
54	MG	CA	1686	1/1	0.42	-	79,79,79,79	0
54	MG	CA	1792	1/1	0.15	-	160,160,160,160	0
54	MG	DA	3003	1/1	0.27	-	130,130,130,130	0
54	MG	BA	3112	1/1	0.35	-	97,97,97,97	0
54	MG	DB	203	1/1	0.22	-	95,95,95,95	0
54	MG	DA	3490	1/1	0.14	-	120,120,120,120	0
54	MG	DA	3284	1/1	0.33	-	100,100,100,100	0
54	MG	BA	3604	1/1	0.22	-	97,97,97,97	0
54	MG	DA	3251	1/1	0.14	-	91,91,91,91	0
54	MG	BA	3037	1/1	0.46	-	71,71,71,71	0
54	MG	BA	3165	1/1	0.17	-	119,119,119,119	0
54	MG	AA	1605	1/1	0.32	-	108,108,108,108	0
54	MG	BA	3084	1/1	0.82	-	110,110,110,110	0
54	MG	BA	3450	1/1	0.25	-	99,99,99,99	0
54	MG	BA	3482	1/1	0.46	-	88,88,88,88	0
54	MG	DA	3267	1/1	0.15	-	79,79,79,79	0
54	MG	CA	1785	1/1	0.32	-	83,83,83,83	0
54	MG	BA	3085	1/1	0.45	-	95,95,95,95	0
54	MG	BA	3263	1/1	0.30	-	50,50,50,50	0
54	MG	AA	1777	1/1	0.04	-	141,141,141,141	0
54	MG	DA	3164	1/1	0.49	-	136,136,136,136	0
54	MG	BA	3318	1/1	0.34	-	88,88,88,88	0
54	MG	BA	3564	1/1	0.29	-	116,116,116,116	0
54	MG	BA	3518	1/1	0.20	-	86,86,86,86	0
54	MG	CA	1613	1/1	0.38	-	94,94,94,94	0
54	MG	BA	3279	1/1	0.48	-	74,74,74,74	0
54	MG	AA	1710	1/1	0.33	-	116,116,116,116	0
54	MG	CA	1788	1/1	0.32	-	87,87,87,87	0
54	MG	DA	3177	1/1	0.30	-	99,99,99,99	0
54	MG	AA	1704	1/1	0.42	-	112,112,112,112	0
54	MG	BA	3559	1/1	0.37	-	105,105,105,105	0
54	MG	DA	3488	1/1	0.55	-	105,105,105,105	0
54	MG	BA	3521	1/1	0.25	-	123,123,123,123	0
54	MG	AA	1828	1/1	0.38	-	94,94,94,94	0
54	MG	DA	3181	1/1	0.15	-	74,74,74,74	0
54	MG	BA	3593	1/1	0.35	-	57,57,57,57	0
54	MG	BA	3097	1/1	0.40	-	83,83,83,83	0
54	MG	CA	1688	1/1	0.41	-	101,101,101,101	0
54	MG	BA	3492	1/1	0.49	-	76,76,76,76	0
54	MG	BA	3173	1/1	0.32	-	62,62,62,62	0
54	MG	CA	1775	1/1	0.12	-	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3327	1/1	0.23	-	70,70,70,70	0
54	MG	DA	3202	1/1	0.27	-	88,88,88,88	0
54	MG	DA	3385	1/1	0.19	-	95,95,95,95	0
54	MG	DA	3061	1/1	0.25	-	64,64,64,64	0
54	MG	BA	3407	1/1	0.42	-	105,105,105,105	0
54	MG	DA	3329	1/1	0.08	-	110,110,110,110	0
54	MG	AA	1653	1/1	0.24	-	91,91,91,91	0
54	MG	DA	3017	1/1	0.24	-	111,111,111,111	0
54	MG	DA	3418	1/1	0.35	-	61,61,61,61	0
54	MG	DA	3068	1/1	0.36	-	122,122,122,122	0
54	MG	BA	3304	1/1	0.23	-	90,90,90,90	0
54	MG	DA	3059	1/1	0.18	-	68,68,68,68	0
54	MG	DA	3444	1/1	0.18	-	100,100,100,100	0
54	MG	AA	1683	1/1	0.39	-	116,116,116,116	0
54	MG	BA	3253	1/1	0.10	-	89,89,89,89	0
54	MG	BA	3452	1/1	0.25	-	131,131,131,131	0
54	MG	DA	3417	1/1	0.16	-	110,110,110,110	0
54	MG	DB	209	1/1	0.19	-	131,131,131,131	0
54	MG	BA	3359	1/1	0.16	-	92,92,92,92	0
54	MG	DA	3107	1/1	0.25	-	100,100,100,100	0
54	MG	BA	3017	1/1	0.25	-	67,67,67,67	0
54	MG	BA	3584	1/1	0.39	-	100,100,100,100	0
54	MG	CA	1648	1/1	0.14	-	96,96,96,96	0
54	MG	AA	1795	1/1	0.24	-	102,102,102,102	0
54	MG	DA	3472	1/1	0.53	-	102,102,102,102	0
54	MG	AA	1739	1/1	0.54	-	99,99,99,99	0
54	MG	BA	3491	1/1	0.41	-	84,84,84,84	0
54	MG	BA	3475	1/1	0.07	-	270,270,270,270	0
54	MG	DA	3500	1/1	0.10	-	88,88,88,88	0
54	MG	AA	1732	1/1	0.39	-	112,112,112,112	0
54	MG	DB	214	1/1	0.13	-	118,118,118,118	0
54	MG	DA	3175	1/1	0.20	-	101,101,101,101	0
54	MG	DA	3334	1/1	0.10	-	136,136,136,136	0
54	MG	BA	3089	1/1	0.52	-	77,77,77,77	0
54	MG	BA	3107	1/1	0.54	-	76,76,76,76	0
54	MG	BA	3483	1/1	0.15	-	89,89,89,89	0
54	MG	CA	1603	1/1	0.56	-	93,93,93,93	0
54	MG	DA	3052	1/1	0.22	-	120,120,120,120	0
54	MG	DA	3388	1/1	0.07	-	152,152,152,152	0
54	MG	DA	3447	1/1	0.12	-	87,87,87,87	0
54	MG	BA	3535	1/1	0.46	-	116,116,116,116	0
54	MG	BA	3362	1/1	0.61	-	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
54	MG	AA	1702	1/1	0.44	-	77,77,77,77	0
54	MG	AA	1784	1/1	0.34	-	91,91,91,91	0
54	MG	CA	1630	1/1	0.47	-	120,120,120,120	0
54	MG	DA	3249	1/1	0.30	-	65,65,65,65	0
54	MG	AA	1824	1/1	0.18	-	120,120,120,120	0
54	MG	DA	3323	1/1	0.14	-	79,79,79,79	0
54	MG	DA	3302	1/1	0.37	-	79,79,79,79	0
54	MG	DA	3279	1/1	0.31	-	125,125,125,125	0
54	MG	DA	3454	1/1	0.14	-	94,94,94,94	0
54	MG	DA	3497	1/1	0.17	-	50,50,50,50	0
54	MG	DA	3243	1/1	0.17	-	86,86,86,86	0
54	MG	DA	3043	1/1	0.19	-	106,106,106,106	0
54	MG	DA	3142	1/1	0.15	-	99,99,99,99	0
54	MG	DA	3378	1/1	0.20	-	100,100,100,100	0
54	MG	BA	3035	1/1	0.27	-	70,70,70,70	0
54	MG	DA	3148	1/1	0.24	-	70,70,70,70	0
54	MG	DA	3333	1/1	0.28	-	128,128,128,128	0
54	MG	AA	1788	1/1	0.30	-	124,124,124,124	0
54	MG	BA	3397	1/1	0.35	-	92,92,92,92	0
54	MG	BA	3436	1/1	0.22	-	118,118,118,118	0
54	MG	DA	3125	1/1	0.18	-	105,105,105,105	0
54	MG	DA	3348	1/1	0.24	-	108,108,108,108	0
54	MG	DA	3509	1/1	0.19	-	93,93,93,93	0
54	MG	DA	3057	1/1	0.15	-	104,104,104,104	0
54	MG	BA	3395	1/1	0.54	-	105,105,105,105	0
54	MG	BA	3293	1/1	0.37	-	77,77,77,77	0
54	MG	BA	3145	1/1	0.38	-	83,83,83,83	0
54	MG	DA	3501	1/1	0.23	-	73,73,73,73	0
54	MG	CA	1796	1/1	0.24	-	115,115,115,115	0
54	MG	BA	3298	1/1	0.35	-	73,73,73,73	0
54	MG	BA	3340	1/1	0.59	-	95,95,95,95	0
54	MG	AA	1809	1/1	0.43	-	108,108,108,108	0
54	MG	DA	3483	1/1	0.21	-	88,88,88,88	0
54	MG	DA	3275	1/1	0.19	-	93,93,93,93	0
54	MG	BA	3457	1/1	0.34	-	112,112,112,112	0
54	MG	AA	1733	1/1	0.25	-	120,120,120,120	0
54	MG	DA	3145	1/1	0.15	-	110,110,110,110	0
54	MG	DA	3031	1/1	0.29	-	70,70,70,70	0
54	MG	AA	1832	1/1	0.28	-	102,102,102,102	0
54	MG	AA	1771	1/1	0.24	-	117,117,117,117	0
54	MG	DA	3037	1/1	0.29	-	117,117,117,117	0
54	MG	BA	3348	1/1	0.38	-	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3097	1/1	0.37	-	74,74,74,74	0
54	MG	DA	3412	1/1	0.20	-	110,110,110,110	0
54	MG	DA	3484	1/1	0.20	-	81,81,81,81	0
54	MG	DA	3230	1/1	0.33	-	65,65,65,65	0
54	MG	DA	3288	1/1	0.16	-	95,95,95,95	0
54	MG	DA	3100	1/1	0.40	-	100,100,100,100	0
54	MG	BA	3217	1/1	0.25	-	92,92,92,92	0
54	MG	AA	1730	1/1	0.81	-	116,116,116,116	0
54	MG	DA	3389	1/1	0.27	-	94,94,94,94	0
54	MG	BA	3024	1/1	0.23	-	81,81,81,81	0
54	MG	CA	1680	1/1	0.25	-	94,94,94,94	0
54	MG	BA	3532	1/1	0.36	-	100,100,100,100	0
54	MG	BA	3301	1/1	0.28	-	85,85,85,85	0
54	MG	BA	3023	1/1	0.21	-	66,66,66,66	0
54	MG	DE	301	1/1	0.16	-	73,73,73,73	0
54	MG	DA	3480	1/1	0.16	-	84,84,84,84	0
54	MG	DA	3430	1/1	0.18	-	105,105,105,105	0
54	MG	BA	3466	1/1	0.24	-	92,92,92,92	0
54	MG	BA	3366	1/1	0.38	-	95,95,95,95	0
54	MG	DA	3473	1/1	0.11	-	157,157,157,157	0
54	MG	AA	1678	1/1	0.44	-	108,108,108,108	0
54	MG	BA	3472	1/1	0.34	-	114,114,114,114	0
54	MG	AA	1661	1/1	0.35	-	94,94,94,94	0
54	MG	BA	3268	1/1	0.41	-	87,87,87,87	0
54	MG	BA	3572	1/1	0.26	-	113,113,113,113	0
54	MG	DA	3094	1/1	0.12	-	85,85,85,85	0
54	MG	CA	1655	1/1	0.43	-	125,125,125,125	0
54	MG	BA	3199	1/1	0.10	-	78,78,78,78	0
54	MG	AA	1714	1/1	0.21	-	115,115,115,115	0
54	MG	AA	1814	1/1	0.06	-	152,152,152,152	0
54	MG	AA	1699	1/1	0.26	-	122,122,122,122	0
54	MG	BA	3453	1/1	0.40	-	85,85,85,85	0
54	MG	BA	3347	1/1	0.24	-	72,72,72,72	0
54	MG	BA	3376	1/1	0.49	-	96,96,96,96	0
54	MG	BA	3281	1/1	0.65	-	106,106,106,106	0
54	MG	DA	3070	1/1	0.27	-	76,76,76,76	0
54	MG	DA	3128	1/1	0.25	-	65,65,65,65	0
54	MG	DA	3150	1/1	0.42	-	96,96,96,96	0
54	MG	DA	3519	1/1	0.23	-	94,94,94,94	0
54	MG	CA	1643	1/1	0.08	-	148,148,148,148	0
54	MG	DA	3154	1/1	0.21	-	111,111,111,111	0
54	MG	BA	3146	1/1	0.47	-	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	CA	1685	1/1	0.12	-	121,121,121,121	0
54	MG	DA	3256	1/1	1.20	-	103,103,103,103	0
54	MG	AA	1736	1/1	0.15	-	122,122,122,122	0
54	MG	BA	3066	1/1	0.28	-	97,97,97,97	0
54	MG	BA	3055	1/1	0.49	-	69,69,69,69	0
54	MG	BA	3126	1/1	0.20	-	89,89,89,89	0
54	MG	DA	3492	1/1	0.19	-	111,111,111,111	0
54	MG	DA	3054	1/1	0.31	-	88,88,88,88	0
54	MG	AA	1659	1/1	0.15	-	71,71,71,71	0
54	MG	AA	1691	1/1	0.36	-	105,105,105,105	0
54	MG	CA	1782	1/1	0.42	-	98,98,98,98	0
54	MG	AA	1725	1/1	0.23	-	111,111,111,111	0
54	MG	CA	1666	1/1	0.35	-	120,120,120,120	0
54	MG	CA	1755	1/1	0.15	-	97,97,97,97	0
54	MG	DA	3221	1/1	0.26	-	61,61,61,61	0
54	MG	AC	101	1/1	0.17	-	78,78,78,78	0
54	MG	DA	3390	1/1	0.18	-	144,144,144,144	0
54	MG	BA	3488	1/1	0.51	-	109,109,109,109	0
54	MG	CC	105	1/1	0.08	-	125,125,125,125	0
54	MG	DA	3307	1/1	0.48	-	102,102,102,102	0
54	MG	AA	1662	1/1	0.95	-	111,111,111,111	0
54	MG	DA	3419	1/1	0.22	-	100,100,100,100	0
54	MG	BA	3074	1/1	0.12	-	142,142,142,142	0
54	MG	BA	3160	1/1	0.55	-	109,109,109,109	0
54	MG	CA	1726	1/1	0.28	-	111,111,111,111	0
54	MG	BA	3361	1/1	0.48	-	123,123,123,123	0
54	MG	DA	3328	1/1	0.04	-	138,138,138,138	0
54	MG	DA	3298	1/1	0.11	-	96,96,96,96	0
54	MG	BA	3043	1/1	0.35	-	83,83,83,83	0
54	MG	DA	3422	1/1	0.28	-	93,93,93,93	0
54	MG	BA	3328	1/1	0.25	-	119,119,119,119	0
54	MG	DA	3187	1/1	0.18	-	70,70,70,70	0
54	MG	BA	3063	1/1	0.23	-	121,121,121,121	0
54	MG	DA	3146	1/1	0.63	-	87,87,87,87	0
54	MG	DA	3121	1/1	0.26	-	68,68,68,68	0
54	MG	BA	3132	1/1	0.42	-	127,127,127,127	0
54	MG	DA	3396	1/1	0.20	-	95,95,95,95	0
54	MG	BA	3192	1/1	0.30	-	67,67,67,67	0
54	MG	AA	1652	1/1	0.34	-	91,91,91,91	0
54	MG	DA	3495	1/1	0.30	-	78,78,78,78	0
54	MG	DA	3489	1/1	0.22	-	98,98,98,98	0
54	MG	BA	3520	1/1	0.48	-	129,129,129,129	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3282	1/1	0.15	-	88,88,88,88	0
54	MG	AA	1711	1/1	0.26	-	118,118,118,118	0
54	MG	DA	3080	1/1	0.25	-	114,114,114,114	0
54	MG	BU	201	1/1	0.14	-	105,105,105,105	0
54	MG	BE	302	1/1	1.17	-	104,104,104,104	0
54	MG	DA	3024	1/1	0.11	-	112,112,112,112	0
54	MG	BA	3059	1/1	0.13	-	144,144,144,144	0
54	MG	AA	1640	1/1	0.18	-	82,82,82,82	0
54	MG	AA	1708	1/1	0.41	-	104,104,104,104	0
54	MG	DA	3320	1/1	0.34	-	110,110,110,110	0
54	MG	AC	105	1/1	0.12	-	107,107,107,107	0
54	MG	BA	3311	1/1	0.37	-	100,100,100,100	0
54	MG	BA	3497	1/1	0.36	-	78,78,78,78	0
54	MG	DA	3293	1/1	2.00	-	112,112,112,112	0
54	MG	BB	215	1/1	0.08	-	129,129,129,129	0
54	MG	BA	3405	1/1	0.19	-	73,73,73,73	0
54	MG	B3	101	1/1	0.29	-	77,77,77,77	0
54	MG	DA	3399	1/1	0.16	-	126,126,126,126	0
54	MG	BB	212	1/1	0.28	-	103,103,103,103	0
54	MG	CA	1761	1/1	0.20	-	170,170,170,170	0
54	MG	AA	1686	1/1	0.24	-	120,120,120,120	0
54	MG	DA	3166	1/1	0.26	-	65,65,65,65	0
54	MG	AA	1830	1/1	0.09	-	135,135,135,135	0
54	MG	DA	3494	1/1	0.31	-	45,45,45,45	0
54	MG	BA	3050	1/1	0.47	-	75,75,75,75	0
54	MG	BA	3243	1/1	0.29	-	122,122,122,122	0
54	MG	DA	3013	1/1	0.23	-	69,69,69,69	0
54	MG	DA	3136	1/1	0.24	-	64,64,64,64	0
55	TAC	CA	1805	32/32	0.12	-	126,153,170,174	0
54	MG	DA	3206	1/1	0.35	-	58,58,58,58	0
54	MG	DA	3315	1/1	0.25	-	125,125,125,125	0
54	MG	AA	1697	1/1	0.31	-	143,143,143,143	0
54	MG	AA	1760	1/1	0.30	-	122,122,122,122	0
54	MG	CA	1627	1/1	0.53	-	112,112,112,112	0
54	MG	BA	3064	1/1	0.28	-	113,113,113,113	0
54	MG	AA	1829	1/1	0.15	-	112,112,112,112	0
54	MG	DA	3143	1/1	0.11	-	117,117,117,117	0
54	MG	CA	1777	1/1	0.28	-	133,133,133,133	0
54	MG	DA	3141	1/1	0.20	-	85,85,85,85	0
54	MG	AA	1812	1/1	0.30	-	124,124,124,124	0
54	MG	DA	3411	1/1	0.16	-	68,68,68,68	0
54	MG	CA	1799	1/1	0.28	-	150,150,150,150	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3259	1/1	0.46	-	76,76,76,76	0
54	MG	BA	3183	1/1	0.27	-	110,110,110,110	0
54	MG	BA	3335	1/1	0.25	-	96,96,96,96	0
54	MG	DA	3032	1/1	0.47	-	127,127,127,127	0
54	MG	BA	3221	1/1	0.33	-	89,89,89,89	0
54	MG	DA	3076	1/1	0.32	-	75,75,75,75	0
54	MG	BA	3536	1/1	0.40	-	96,96,96,96	0
54	MG	AA	1811	1/1	0.16	-	154,154,154,154	0
54	MG	BA	3101	1/1	0.39	-	58,58,58,58	0
54	MG	AA	1638	1/1	0.38	-	104,104,104,104	0
54	MG	DA	3211	1/1	0.18	-	71,71,71,71	0
54	MG	DA	3514	1/1	0.12	-	71,71,71,71	0
54	MG	CA	1730	1/1	0.39	-	121,121,121,121	0
54	MG	BA	3121	1/1	0.30	-	87,87,87,87	0
54	MG	BA	3306	1/1	0.35	-	81,81,81,81	0
54	MG	BA	3175	1/1	0.10	-	80,80,80,80	0
54	MG	DA	3350	1/1	0.30	-	82,82,82,82	0
54	MG	AA	1800	1/1	0.40	-	92,92,92,92	0
54	MG	DA	3101	1/1	0.43	-	94,94,94,94	0
54	MG	AA	1645	1/1	0.36	-	93,93,93,93	0
54	MG	CA	1738	1/1	0.33	-	114,114,114,114	0
54	MG	DA	3050	1/1	0.13	-	108,108,108,108	0
54	MG	DA	3239	1/1	0.45	-	105,105,105,105	0
54	MG	DA	3455	1/1	0.31	-	147,147,147,147	0
54	MG	CA	1713	1/1	0.14	-	137,137,137,137	0
54	MG	DA	3309	1/1	0.09	-	145,145,145,145	0
54	MG	BA	3551	1/1	0.37	-	105,105,105,105	0
54	MG	BA	3558	1/1	0.38	-	118,118,118,118	0
54	MG	AA	1604	1/1	0.08	-	135,135,135,135	0
54	MG	BA	3446	1/1	0.49	-	127,127,127,127	0
54	MG	CA	1715	1/1	0.39	-	128,128,128,128	0
54	MG	BA	3525	1/1	0.26	-	96,96,96,96	0
54	MG	DA	3066	1/1	0.18	-	79,79,79,79	0
54	MG	BA	3042	1/1	0.17	-	94,94,94,94	0
54	MG	CC	107	1/1	0.52	-	120,120,120,120	0
54	MG	BA	3227	1/1	0.32	-	82,82,82,82	0
54	MG	DA	3195	1/1	0.37	-	104,104,104,104	0
54	MG	CA	1786	1/1	0.07	-	192,192,192,192	0
54	MG	DA	3355	1/1	0.15	-	89,89,89,89	0
54	MG	DA	3406	1/1	0.16	-	103,103,103,103	0
54	MG	BA	3379	1/1	0.43	-	106,106,106,106	0
54	MG	BA	3307	1/1	0.29	-	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
54	MG	DA	3357	1/1	0.23	-	105,105,105,105	0
54	MG	DA	3130	1/1	0.34	-	92,92,92,92	0
54	MG	AA	1656	1/1	0.23	-	71,71,71,71	0
54	MG	DA	3502	1/1	0.24	-	64,64,64,64	0
54	MG	BA	3246	1/1	0.38	-	78,78,78,78	0
54	MG	DA	3039	1/1	0.38	-	116,116,116,116	0
54	MG	BA	3418	1/1	0.26	-	98,98,98,98	0
54	MG	BA	3339	1/1	0.35	-	115,115,115,115	0
54	MG	BA	3248	1/1	0.43	-	74,74,74,74	0
54	MG	DA	3415	1/1	0.12	-	84,84,84,84	0
54	MG	CA	1709	1/1	0.34	-	110,110,110,110	0
54	MG	CA	1750	1/1	0.45	-	122,122,122,122	0
54	MG	CA	1719	1/1	0.08	-	116,116,116,116	0
54	MG	DA	3167	1/1	0.08	-	75,75,75,75	0
56	ZN	AG	303	1/1	0.25	-	153,153,153,153	0
54	MG	AA	1793	1/1	0.43	-	103,103,103,103	0
54	MG	BA	3068	1/1	0.20	-	71,71,71,71	0
54	MG	B5	102	1/1	0.10	-	92,92,92,92	0
54	MG	BA	3596	1/1	0.19	-	88,88,88,88	0
54	MG	DA	3401	1/1	0.22	-	103,103,103,103	0
54	MG	BA	3500	1/1	0.14	-	129,129,129,129	0
54	MG	DA	3371	1/1	0.24	-	111,111,111,111	0
54	MG	BA	3184	1/1	0.20	-	70,70,70,70	0
54	MG	DA	3257	1/1	0.35	-	88,88,88,88	0
54	MG	DA	3403	1/1	0.17	-	84,84,84,84	0
54	MG	DE	302	1/1	0.14	-	97,97,97,97	0
54	MG	DA	3156	1/1	0.55	-	113,113,113,113	0
54	MG	DA	3280	1/1	0.24	-	94,94,94,94	0
54	MG	AA	1807	1/1	0.24	-	101,101,101,101	0
54	MG	BA	3001	1/1	0.40	-	53,53,53,53	0
54	MG	AA	1765	1/1	0.23	-	137,137,137,137	0
54	MG	BA	3388	1/1	0.45	-	100,100,100,100	0
54	MG	AA	1602	1/1	0.23	-	95,95,95,95	0
54	MG	DA	3093	1/1	0.23	-	106,106,106,106	0
54	MG	BA	3513	1/1	0.24	-	112,112,112,112	0
54	MG	CA	1698	1/1	0.30	-	96,96,96,96	0
54	MG	BA	3514	1/1	0.55	-	90,90,90,90	0
54	MG	AA	1648	1/1	0.29	-	123,123,123,123	0
54	MG	DA	3015	1/1	0.12	-	98,98,98,98	0
54	MG	BA	3490	1/1	0.38	-	100,100,100,100	0
54	MG	AA	1712	1/1	0.42	-	97,97,97,97	0
54	MG	CA	1618	1/1	0.55	-	123,123,123,123	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	BB	217	1/1	0.25	-	132,132,132,132	0
54	MG	BA	3624	1/1	0.42	-	92,92,92,92	0
54	MG	BA	3553	1/1	0.23	-	99,99,99,99	0
54	MG	CA	1720	1/1	0.31	-	98,98,98,98	0
54	MG	DA	3273	1/1	0.28	-	83,83,83,83	0
54	MG	DA	3246	1/1	0.09	-	103,103,103,103	0
54	MG	BA	3618	1/1	0.56	-	107,107,107,107	0
54	MG	CA	1691	1/1	0.34	-	95,95,95,95	0
54	MG	CA	1702	1/1	0.21	-	156,156,156,156	0
54	MG	CA	1781	1/1	0.23	-	126,126,126,126	0
54	MG	DA	3240	1/1	0.19	-	89,89,89,89	0
54	MG	BA	3082	1/1	0.40	-	109,109,109,109	0
54	MG	CA	1637	1/1	0.19	-	121,121,121,121	0
54	MG	DA	3261	1/1	0.21	-	78,78,78,78	0
54	MG	BA	3370	1/1	0.50	-	111,111,111,111	0
54	MG	AA	1778	1/1	0.20	-	136,136,136,136	0
54	MG	DA	3263	1/1	0.14	-	129,129,129,129	0
54	MG	CC	102	1/1	0.14	-	83,83,83,83	0
54	MG	DA	3386	1/1	0.42	-	102,102,102,102	0
54	MG	DA	3229	1/1	0.40	-	94,94,94,94	0
54	MG	DA	3065	1/1	0.24	-	103,103,103,103	0
54	MG	BA	3390	1/1	0.27	-	81,81,81,81	0
54	MG	DA	3508	1/1	0.22	-	68,68,68,68	0
54	MG	DA	3188	1/1	0.34	-	69,69,69,69	0
54	MG	BA	3007	1/1	0.19	-	63,63,63,63	0
54	MG	BA	3610	1/1	0.23	-	85,85,85,85	0
54	MG	DB	205	1/1	0.21	-	85,85,85,85	0
54	MG	DA	3205	1/1	0.17	-	106,106,106,106	0
54	MG	BA	3053	1/1	0.62	-	92,92,92,92	0
54	MG	BA	3029	1/1	0.31	-	74,74,74,74	0
54	MG	DA	3361	1/1	0.12	-	93,93,93,93	0
54	MG	DA	3006	1/1	0.40	-	69,69,69,69	0
54	MG	BA	3389	1/1	0.22	-	102,102,102,102	0
54	MG	BA	3578	1/1	0.19	-	88,88,88,88	0
54	MG	BA	3226	1/1	0.44	-	87,87,87,87	0
54	MG	BA	3081	1/1	0.31	-	88,88,88,88	0
54	MG	DA	3387	1/1	0.41	-	106,106,106,106	0
54	MG	BA	3133	1/1	0.37	-	92,92,92,92	0
54	MG	BA	3356	1/1	0.17	-	128,128,128,128	0
54	MG	BA	3404	1/1	0.30	-	93,93,93,93	0
54	MG	DA	3108	1/1	0.23	-	67,67,67,67	0
54	MG	CA	1664	1/1	0.27	-	110,110,110,110	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3144	1/1	0.44	-	85,85,85,85	0
56	ZN	AQ	103	1/1	0.10	-	186,186,186,186	0
54	MG	BA	3468	1/1	0.21	-	84,84,84,84	0
54	MG	AG	302	1/1	0.22	-	162,162,162,162	0
54	MG	BA	3419	1/1	0.22	-	129,129,129,129	0
54	MG	BA	3083	1/1	0.32	-	108,108,108,108	0
54	MG	BA	3412	1/1	0.23	-	94,94,94,94	0
54	MG	BA	3546	1/1	0.28	-	97,97,97,97	0
54	MG	DR	201	1/1	0.20	-	86,86,86,86	0
54	MG	BA	3266	1/1	0.35	-	77,77,77,77	0
54	MG	DA	3381	1/1	0.33	-	97,97,97,97	0
54	MG	AA	1681	1/1	0.10	-	146,146,146,146	0
54	MG	BA	3191	1/1	0.62	-	111,111,111,111	0
54	MG	DA	3171	1/1	0.37	-	87,87,87,87	0
54	MG	AA	1636	1/1	0.39	-	92,92,92,92	0
54	MG	CA	1757	1/1	0.11	-	149,149,149,149	0
54	MG	BA	3408	1/1	0.12	-	109,109,109,109	0
54	MG	DA	3392	1/1	1.38	-	97,97,97,97	0
54	MG	BA	3494	1/1	0.22	-	97,97,97,97	0
54	MG	BA	3058	1/1	0.25	-	103,103,103,103	0
54	MG	CA	1607	1/1	0.41	-	83,83,83,83	0
54	MG	DA	3354	1/1	0.66	-	105,105,105,105	0
54	MG	DA	3278	1/1	0.10	-	80,80,80,80	0
54	MG	BA	3401	1/1	0.36	-	91,91,91,91	0
54	MG	DA	3460	1/1	0.19	-	96,96,96,96	0
54	MG	AA	1798	1/1	0.45	-	100,100,100,100	0
54	MG	BA	3354	1/1	0.41	-	113,113,113,113	0
54	MG	CA	1746	1/1	0.33	-	92,92,92,92	0
54	MG	DA	3073	1/1	0.10	-	102,102,102,102	0
55	TAC	AA	1833	32/32	0.19	-	99,129,142,143	0
54	MG	AA	1660	1/1	0.15	-	126,126,126,126	0
54	MG	DA	3491	1/1	0.30	-	65,65,65,65	0
54	MG	DA	3253	1/1	0.27	-	103,103,103,103	0
54	MG	CA	1710	1/1	0.38	-	104,104,104,104	0
54	MG	BA	3414	1/1	0.23	-	98,98,98,98	0
54	MG	D1	201	1/1	0.21	-	87,87,87,87	0
54	MG	DA	3493	1/1	0.14	-	64,64,64,64	0
54	MG	DA	3033	1/1	0.22	-	89,89,89,89	0
54	MG	BA	3503	1/1	0.20	-	105,105,105,105	0
54	MG	AA	1631	1/1	0.42	-	96,96,96,96	0
54	MG	AQ	101	1/1	0.39	-	84,84,84,84	0
54	MG	BA	3508	1/1	0.40	-	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3301	1/1	0.59	-	124,124,124,124	0
54	MG	BA	3580	1/1	0.33	-	64,64,64,64	0
54	MG	CA	1783	1/1	0.48	-	97,97,97,97	0
54	MG	AA	1813	1/1	0.17	-	131,131,131,131	0
54	MG	BA	3550	1/1	0.21	-	99,99,99,99	0
54	MG	BO	201	1/1	0.15	-	90,90,90,90	0
54	MG	DA	3474	1/1	0.32	-	107,107,107,107	0
54	MG	BA	3489	1/1	0.34	-	104,104,104,104	0
54	MG	CA	1653	1/1	0.24	-	122,122,122,122	0
54	MG	CA	1615	1/1	0.34	-	106,106,106,106	0
54	MG	BA	3071	1/1	0.31	-	103,103,103,103	0
54	MG	CA	1741	1/1	0.22	-	136,136,136,136	0
54	MG	BA	3329	1/1	0.46	-	106,106,106,106	0
54	MG	BA	3228	1/1	0.53	-	85,85,85,85	0
54	MG	CA	1743	1/1	0.47	-	117,117,117,117	0
54	MG	AA	1688	1/1	0.10	-	146,146,146,146	0
54	MG	AA	1729	1/1	0.42	-	108,108,108,108	0
54	MG	BA	3018	1/1	0.28	-	53,53,53,53	0
54	MG	DA	3159	1/1	0.16	-	128,128,128,128	0
54	MG	DA	3203	1/1	0.23	-	90,90,90,90	0
54	MG	CA	1722	1/1	0.15	-	109,109,109,109	0
54	MG	BA	3238	1/1	0.27	-	112,112,112,112	0
54	MG	AA	1607	1/1	0.38	-	99,99,99,99	0
54	MG	BA	3105	1/1	0.28	-	68,68,68,68	0
54	MG	BA	3533	1/1	0.59	-	106,106,106,106	0
54	MG	DA	3088	1/1	0.17	-	99,99,99,99	0
54	MG	BA	3277	1/1	0.30	-	97,97,97,97	0
54	MG	CA	1766	1/1	0.26	-	107,107,107,107	0
54	MG	BA	3030	1/1	0.30	-	66,66,66,66	0
54	MG	DA	3197	1/1	0.33	-	103,103,103,103	0
54	MG	CA	1606	1/1	0.41	-	100,100,100,100	0
54	MG	BA	3498	1/1	0.53	-	107,107,107,107	0
54	MG	BA	3506	1/1	0.24	-	92,92,92,92	0
54	MG	BA	3233	1/1	0.26	-	106,106,106,106	0
54	MG	DA	3214	1/1	0.16	-	63,63,63,63	0
54	MG	DA	3358	1/1	0.33	-	73,73,73,73	0
54	MG	BA	3143	1/1	0.39	-	52,52,52,52	0
54	MG	DA	3049	1/1	0.17	-	105,105,105,105	0
54	MG	DA	3434	1/1	0.39	-	110,110,110,110	0
54	MG	AA	1672	1/1	0.35	-	112,112,112,112	0
54	MG	DA	3098	1/1	0.12	-	139,139,139,139	0
54	MG	DA	3523	1/1	0.30	-	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	AA	1779	1/1	0.48	-	88,88,88,88	0
54	MG	AA	1707	1/1	0.12	-	94,94,94,94	0
54	MG	DA	3219	1/1	0.29	-	71,71,71,71	0
54	MG	AR	101	1/1	0.42	-	98,98,98,98	0
54	MG	CA	1651	1/1	0.27	-	116,116,116,116	0
54	MG	DP	201	1/1	0.20	-	102,102,102,102	0
54	MG	DA	3311	1/1	0.16	-	92,92,92,92	0
54	MG	DA	3157	1/1	0.17	-	90,90,90,90	0
54	MG	CA	1752	1/1	0.40	-	106,106,106,106	0
54	MG	BA	3575	1/1	0.26	-	109,109,109,109	0
54	MG	BA	3204	1/1	0.48	-	98,98,98,98	0
54	MG	AA	1694	1/1	0.59	-	105,105,105,105	0
54	MG	AA	1774	1/1	0.31	-	72,72,72,72	0
54	MG	DA	3245	1/1	0.45	-	83,83,83,83	0
54	MG	DA	3085	1/1	0.25	-	113,113,113,113	0
54	MG	DA	3178	1/1	0.23	-	100,100,100,100	0
54	MG	BA	3113	1/1	0.14	-	72,72,72,72	0
54	MG	DA	3485	1/1	0.14	-	104,104,104,104	0
54	MG	CA	1756	1/1	0.28	-	111,111,111,111	0
54	MG	CA	1647	1/1	0.32	-	83,83,83,83	0
54	MG	DA	3289	1/1	0.19	-	83,83,83,83	0
54	MG	DA	3138	1/1	0.26	-	79,79,79,79	0
54	MG	AA	1615	1/1	0.25	-	95,95,95,95	0
54	MG	BA	3144	1/1	0.36	-	73,73,73,73	0
54	MG	BA	3477	1/1	0.42	-	93,93,93,93	0
54	MG	BA	3590	1/1	0.52	-	116,116,116,116	0
54	MG	BA	3320	1/1	0.29	-	104,104,104,104	0
54	MG	CA	1711	1/1	0.20	-	119,119,119,119	0
54	MG	BA	3102	1/1	0.19	-	98,98,98,98	0
54	MG	BB	216	1/1	0.38	-	111,111,111,111	0
54	MG	DA	3074	1/1	0.26	-	109,109,109,109	0
54	MG	BA	3159	1/1	0.24	-	101,101,101,101	0
54	MG	BA	3193	1/1	0.53	-	76,76,76,76	0
54	MG	BA	3125	1/1	0.32	-	88,88,88,88	0
54	MG	BA	3374	1/1	0.15	-	104,104,104,104	0
54	MG	DA	3414	1/1	0.10	-	95,95,95,95	0
54	MG	BA	3073	1/1	0.91	-	108,108,108,108	0
54	MG	DA	3190	1/1	0.38	-	80,80,80,80	0
54	MG	BA	3616	1/1	0.40	-	92,92,92,92	0
54	MG	DA	3152	1/1	0.18	-	112,112,112,112	0
54	MG	DA	3117	1/1	0.30	-	72,72,72,72	0
54	MG	CA	1772	1/1	0.32	-	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
54	MG	DA	3042	1/1	0.35	-	111,111,111,111	0
54	MG	DA	3478	1/1	0.41	-	114,114,114,114	0
54	MG	DA	3224	1/1	0.18	-	61,61,61,61	0
54	MG	DA	3079	1/1	0.22	-	97,97,97,97	0
54	MG	AA	1666	1/1	0.20	-	123,123,123,123	0
54	MG	BA	3234	1/1	0.47	-	84,84,84,84	0
54	MG	BA	3474	1/1	0.25	-	102,102,102,102	0
54	MG	BA	3100	1/1	0.46	-	100,100,100,100	0
54	MG	BA	3118	1/1	0.43	-	90,90,90,90	0
54	MG	BA	3582	1/1	0.25	-	68,68,68,68	0
54	MG	DA	3002	1/1	0.42	-	109,109,109,109	0
54	MG	DA	3343	1/1	0.34	-	95,95,95,95	0

6.5 Other polymers ⓘ

There are no such residues in this entry.