



Full wwPDB X-ray Structure Validation Report ⓘ

Jun 16, 2014 – 06:59 PM BST

PDB ID : 4V51
Title : Structure of the *Thermus thermophilus* 70S ribosome complexed with mRNA, tRNA and paromomycin
Authors : Selmer, M.; Dunham, C.M.; Murphy, F.V.; Weixlbaumer, A.; Petry, S.; Weir, J.R.; Kelley, A.C.; Ramakrishnan, V.
Deposited on : 2006-07-31
Resolution : 2.80 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>

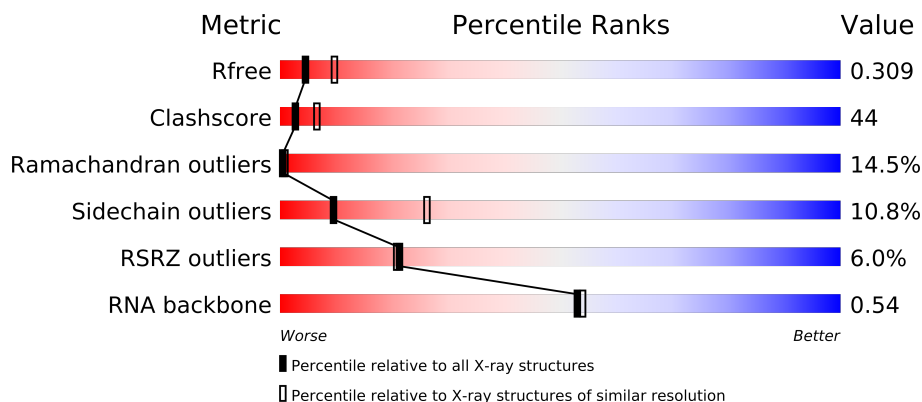
The following versions of software and data (see [references](#)) were used in the production of this report:

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 2.80 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	1799 (2.80-2.80)
Clashscore	79885	2295 (2.80-2.80)
Ramachandran outliers	78287	2252 (2.80-2.80)
Sidechain outliers	78261	2254 (2.80-2.80)
RSRZ outliers	66119	1802 (2.80-2.80)
RNA backbone	1838	1076 (3.30-2.30)

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	1522	
1	CA	1522	
2	AB	256	
2	CB	256	
3	AC	239	
3	CC	239	
4	AD	209	
4	CD	209	
5	AE	162	
5	CE	162	
6	AF	101	
6	CF	101	

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Mol	Chain	Length	Quality of chain
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	135	
12	CL	135	
13	AM	126	
13	CM	126	
14	AN	61	
14	CN	61	
15	AO	89	
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AV	77	
22	CV	77	
23	AW	76	
23	AY	76	
23	CW	76	
23	CY	76	
24	AX	24	
24	CX	24	
25	B0	85	
25	D0	85	
26	B1	98	
26	D1	98	

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Mol	Chain	Length	Quality of chain
27	B2	72	
27	D2	72	
28	B3	60	
28	D3	60	
29	B4	71	
29	D4	71	
30	B5	60	
30	D5	60	
31	B6	54	
31	D6	54	
32	B7	49	
32	D7	49	
33	B8	65	
33	D8	65	
34	BA	2787	
34	DA	2787	
35	BB	122	
35	DB	122	
36	BC	229	
36	DC	229	
37	BD	276	
37	DD	276	
38	BE	206	
38	DE	206	
39	BF	210	
39	DF	210	
40	BG	182	
40	DG	182	
41	BH	180	
41	DH	180	
42	BI	148	
42	DI	148	
43	BN	140	
43	DN	140	
44	BO	122	
44	DO	122	
45	BP	150	
45	DP	150	
46	BQ	141	
46	DQ	141	
47	BR	118	
47	DR	118	

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Mol	Chain	Length	Quality of chain
48	BS	112	
48	DS	112	
49	BT	146	
49	DT	146	
50	BU	118	
50	DU	118	
51	BV	101	
51	DV	101	
52	BW	113	
52	DW	113	
53	BX	96	
53	DX	96	
54	BY	110	
54	DY	110	
55	BZ	206	
55	DZ	206	

2 Entry composition

There are 58 unique types of molecules in this entry. The entry contains 291077 atoms, of which 0 are hydrogen and 0 are deuterium.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1504	Total	C	N	O	P	0	0	0
			32329	14390	5992	10444	1503			
1	CA	1504	Total	C	N	O	P	0	0	0
			32329	14390	5992	10444	1503			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	235	Total	C	N	O	S	0	0	1
			1901	1213	342	341	5			
2	CB	235	Total	C	N	O	S	0	0	1
			1901	1213	342	341	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	207	Total	C	N	O	S	0	0	1
			1613	1016	315	281	1			
3	CC	207	Total	C	N	O	S	0	0	1
			1613	1016	315	281	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
4	CD	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	AE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			
5	CE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
6	CF	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	AG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
7	CG	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	AH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
8	CH	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	AI	127	Total	C	N	O		0	0	0
			1011	639	198	174				
9	CI	127	Total	C	N	O		0	0	0
			1011	639	198	174				

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	99	Total	C	N	O	S	0	0	1
			795	499	157	138	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	CJ	99	Total	C	N	O	S	0	0	1
			795	499	157	138	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	CK	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	AL	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			
12	CL	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	125	Total	C	N	O	S	0	0	1
			988	611	206	169	2			
13	CM	125	Total	C	N	O	S	0	0	1
			988	611	206	169	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
14	CN	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	AO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
15	CO	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	AP	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			
16	CP	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			
17	CQ	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	79	Total	C	N	O	S	0	0	1
			630	403	115	110	2			
19	CS	79	Total	C	N	O	S	0	0	1
			630	403	115	110	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
20	CT	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	AU	25	Total	C	N	O	0	0	1
			209	128	51	30			
21	CU	25	Total	C	N	O	0	0	1
			209	128	51	30			

- Molecule 22 is a RNA chain called P-SITE TRNA FMET (UNMODIFIED BASES EXCEPT FOR THYMINE 54).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	77	Total	C	N	O	P	0	0	0
			1645	733	297	538	77			
22	CV	77	Total	C	N	O	P	0	0	0
			1645	733	297	538	77			

- Molecule 23 is a RNA chain called E-SITE TRNA PHE OR A-SITE TRNA PHE (UNMODIFIED BASES).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AW	76	Total	C	N	O	P	0	0	0
			1623	723	290	534	76			
23	AY	19	Total	C	N	O	P	0	0	0
			407	183	78	128	18			
23	CW	76	Total	C	N	O	P	0	0	0
			1623	723	290	534	76			
23	CY	19	Total	C	N	O	P	0	0	0
			407	183	78	128	18			

- Molecule 24 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	11	Total	C	N	O	P	0	0	0
			236	106	44	75	11			
24	CX	11	Total	C	N	O	P	0	0	0
			236	106	44	75	11			

- Molecule 25 is a protein called 50S RIBOSOMAL PROTEIN L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	B0	85	Total	C	N	O	S	0	0	0
			650	401	137	111	1			
25	D0	85	Total	C	N	O	S	0	0	0
			650	401	137	111	1			

- Molecule 26 is a protein called 50S RIBOSOMAL PROTEIN L28.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	B1	89	Total	C	N	O	0	0	1
			693	435	140	118			
26	D1	89	Total	C	N	O	0	0	1
			693	435	140	118			

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	B2	51	Total	C	N	O	S	0	0	1
			421	263	85	72	1			
27	D2	51	Total	C	N	O	S	0	0	1
			421	263	85	72	1			

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	B3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			
28	D3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			

- Molecule 29 is a protein called 50S RIBOSOMAL PROTEIN L31.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
29	B4	50	Total	C	N	O	0	0	1
			242	143	50	49			
29	D4	50	Total	C	N	O	0	0	1
			242	143	50	49			

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L32.

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

- Molecule 31 is a protein called 50S RIBOSOMAL PROTEIN L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	B6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			
31	D6	45	Total	C	N	O	S	0	0	1
			381	235	78	64	4			

- Molecule 32 is a protein called 50S RIBOSOMAL PROTEIN L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	B7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			
32	D7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			

- Molecule 33 is a protein called 50S RIBOSOMAL PROTEIN L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	B8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			
33	D8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			

- Molecule 34 is a RNA chain called 23S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BA	2772	Total	C	N	O	P	0	0	0
			59708	26573	11171	19193	2771			
34	DA	2772	Total	C	N	O	P	0	0	0
			59708	26573	11171	19193	2771			

- Molecule 35 is a RNA chain called 5S RIBOSOMAL RNA.

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

- Molecule 36 is a protein called 50S RIBOSOMAL PROTEIN L1.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
36	BC	191	Total	C	N	O	0	0	1
			1142	691	221	230			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
36	DC	191	Total	C	N	O	0	0	1
			1142	691	221	230			

- Molecule 37 is a protein called 50S RIBOSOMAL PROTEIN L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BD	272	Total	C	N	O	S	0	0	1
			2105	1329	417	356	3			
37	DD	272	Total	C	N	O	S	0	0	1
			2105	1329	417	356	3			

- Molecule 38 is a protein called 50S RIBOSOMAL PROTEIN L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BE	205	Total	C	N	O	S	0	0	1
			1564	988	300	270	6			
38	DE	205	Total	C	N	O	S	0	0	1
			1564	988	300	270	6			

- Molecule 39 is a protein called 50S RIBOSOMAL PROTEIN L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BF	208	Total	C	N	O	S	0	0	1
			1624	1035	304	282	3			
39	DF	208	Total	C	N	O	S	0	0	1
			1624	1035	304	282	3			

- Molecule 40 is a protein called 50S RIBOSOMAL PROTEIN L5.

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

- Molecule 41 is a protein called 50S RIBOSOMAL PROTEIN L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			
41	DH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			

- Molecule 42 is a protein called 50S RIBOSOMAL PROTEIN L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BI	146	Total	C	N	O	S	0	0	1
			1132	723	201	207	1			
42	DI	146	Total	C	N	O	S	0	0	1
			1132	723	201	207	1			

- Molecule 43 is a protein called 50S RIBOSOMAL PROTEIN L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BN	139	Total	C	N	O	S	0	0	1
			1105	712	207	182	4			
43	DN	139	Total	C	N	O	S	0	0	1
			1105	712	207	182	4			

- Molecule 44 is a protein called 50S RIBOSOMAL PROTEIN L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
44	DO	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 45 is a protein called 50S RIBOSOMAL PROTEIN L15.

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

- Molecule 46 is a protein called 50S RIBOSOMAL PROTEIN L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BQ	136	Total	C	N	O	S	0	0	0
			1080	688	204	183	5			
46	DQ	136	Total	C	N	O	S	0	0	0
			1080	688	204	183	5			

- Molecule 47 is a protein called 50S RIBOSOMAL PROTEIN L17.

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

- Molecule 48 is a protein called 50S RIBOSOMAL PROTEIN L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	BS	99	Total	C	N	O	0	0	1
			771	486	155	130			
48	DS	99	Total	C	N	O	0	0	1
			771	486	155	130			

- Molecule 49 is a protein called 50S RIBOSOMAL PROTEIN L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	BT	138	Total	C	N	O	S	0	0	1
			1142	710	235	196	1			
49	DT	138	Total	C	N	O	S	0	0	1
			1142	710	235	196	1			

- Molecule 50 is a protein called 50S RIBOSOMAL PROTEIN L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	BU	117	Total	C	N	O	S	0	0	0
			958	604	202	151	1			
50	DU	117	Total	C	N	O	S	0	0	0
			958	604	202	151	1			

- Molecule 51 is a protein called 50S RIBOSOMAL PROTEIN L21.

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

- Molecule 52 is a protein called 50S RIBOSOMAL PROTEIN L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	BW	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	DW	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			

- Molecule 53 is a protein called 50S RIBOSOMAL PROTEIN L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	BX	93	Total	C	N	O		0	0	1
			726	471	132	123				
53	DX	93	Total	C	N	O		0	0	1
			726	471	132	123				

- Molecule 54 is a protein called 50S RIBOSOMAL PROTEIN L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	BY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			
54	DY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			

- Molecule 55 is a protein called 50S RIBOSOMAL PROTEIN L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	BZ	177	Total	C	N	O	S	0	0	1
			1404	897	253	252	2			
55	DZ	177	Total	C	N	O	S	0	0	1
			1404	897	253	252	2			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	BA	454	Total	Mg	0	0
			454	454		
56	CA	189	Total	Mg	0	0
			189	189		
56	DF	1	Total	Mg	0	0
			1	1		
56	CV	4	Total	Mg	0	0
			4	4		
56	BE	1	Total	Mg	0	0
			1	1		
56	AW	22	Total	Mg	0	0
			22	22		

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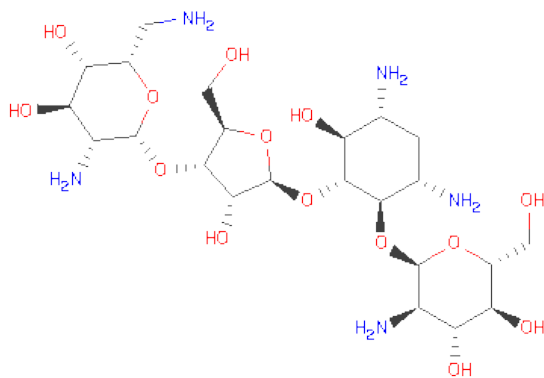
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	DU	1	Total 1	Mg 1	0	0
56	B1	1	Total 1	Mg 1	0	0
56	DZ	1	Total 1	Mg 1	0	0
56	AX	4	Total 4	Mg 4	0	0
56	DD	2	Total 2	Mg 2	0	0
56	B5	2	Total 2	Mg 2	0	0
56	BB	19	Total 19	Mg 19	0	0
56	DO	1	Total 1	Mg 1	0	0
56	AE	1	Total 1	Mg 1	0	0
56	CU	1	Total 1	Mg 1	0	0
56	BF	2	Total 2	Mg 2	0	0
56	AV	7	Total 7	Mg 7	0	0
56	BX	1	Total 1	Mg 1	0	0
56	B2	5	Total 5	Mg 5	0	0
56	AA	215	Total 215	Mg 215	0	0
56	CX	6	Total 6	Mg 6	0	0
56	BN	1	Total 1	Mg 1	0	0
56	DH	1	Total 1	Mg 1	0	0
56	DS	1	Total 1	Mg 1	0	0
56	DE	1	Total 1	Mg 1	0	0
56	B3	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	CJ	1	Total 1	Mg 1	0	0
56	DA	398	Total 398	Mg 398	0	0
56	B7	2	Total 2	Mg 2	0	0
56	CF	1	Total 1	Mg 1	0	0
56	BV	1	Total 1	Mg 1	0	0
56	CM	1	Total 1	Mg 1	0	0
56	BO	1	Total 1	Mg 1	0	0
56	CW	13	Total 13	Mg 13	0	0
56	D5	2	Total 2	Mg 2	0	0
56	DN	1	Total 1	Mg 1	0	0
56	AY	1	Total 1	Mg 1	0	0
56	DB	12	Total 12	Mg 12	0	0

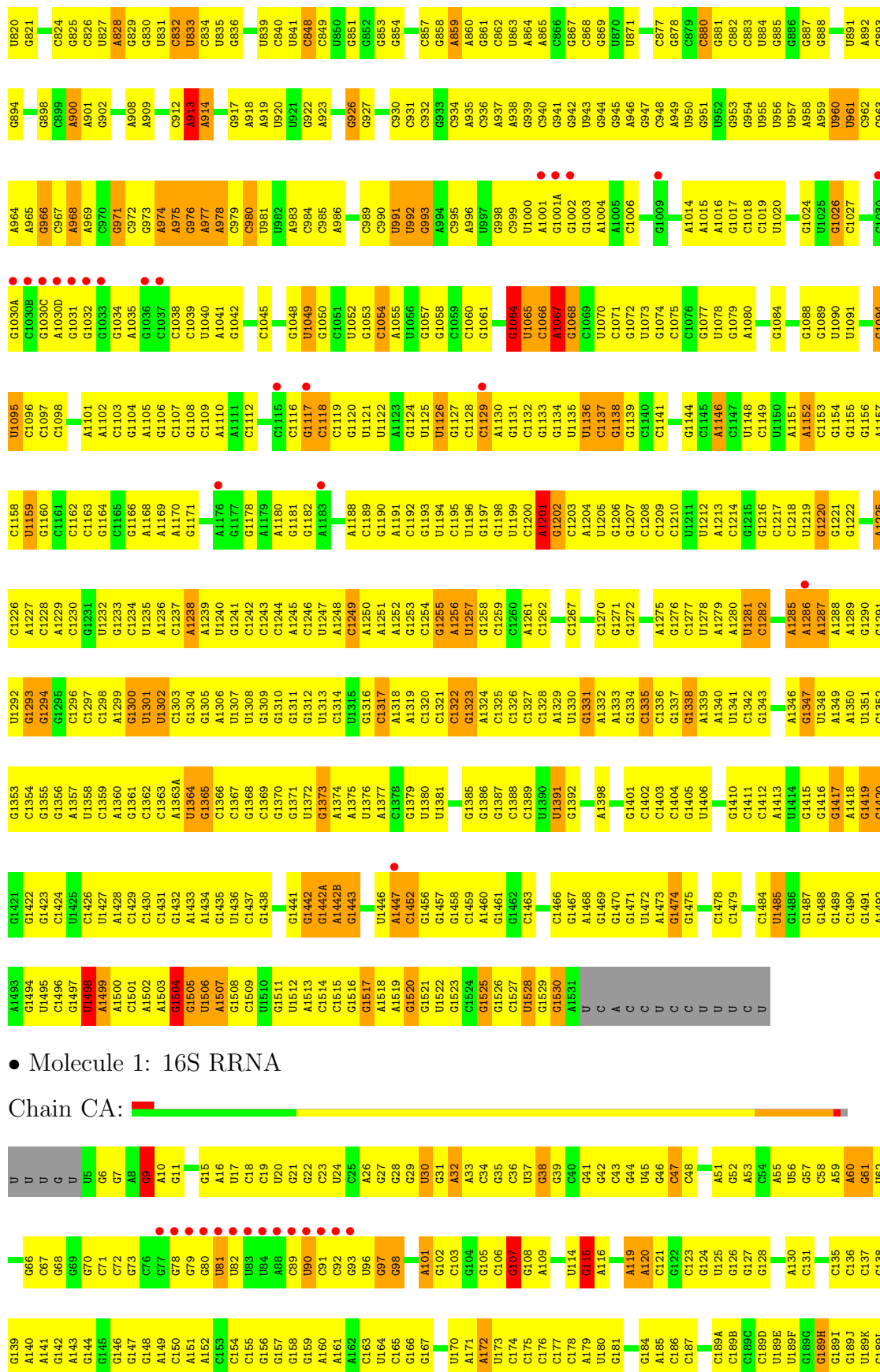
- Molecule 57 is PAROMOMYCIN (three-letter code: PAR) (formula: $C_{23}H_{45}N_5O_{14}$).



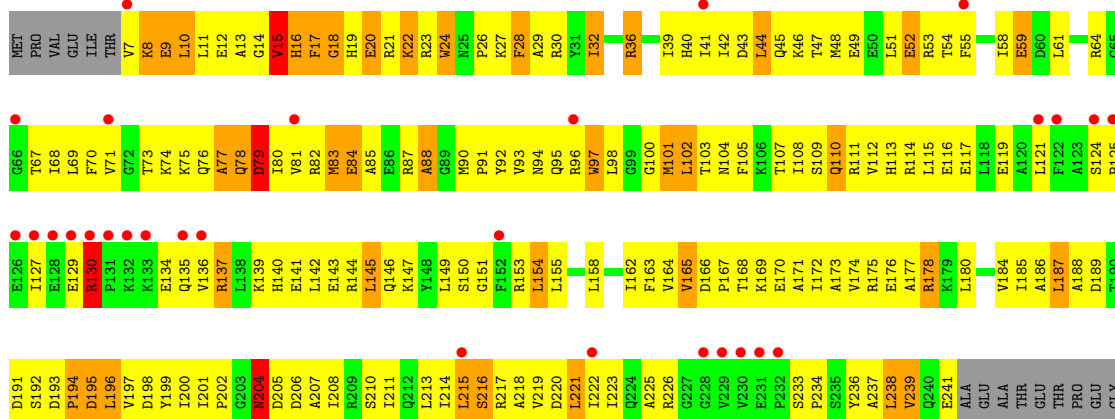
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
57	AA	1	Total	C	N	O	0	0
			42	23	5	14		
57	CA	1	Total	C	N	O	0	0
			42	23	5	14		

- Molecule 58 is ZINC ION (three-letter code: ZN) (formula: Zn).

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



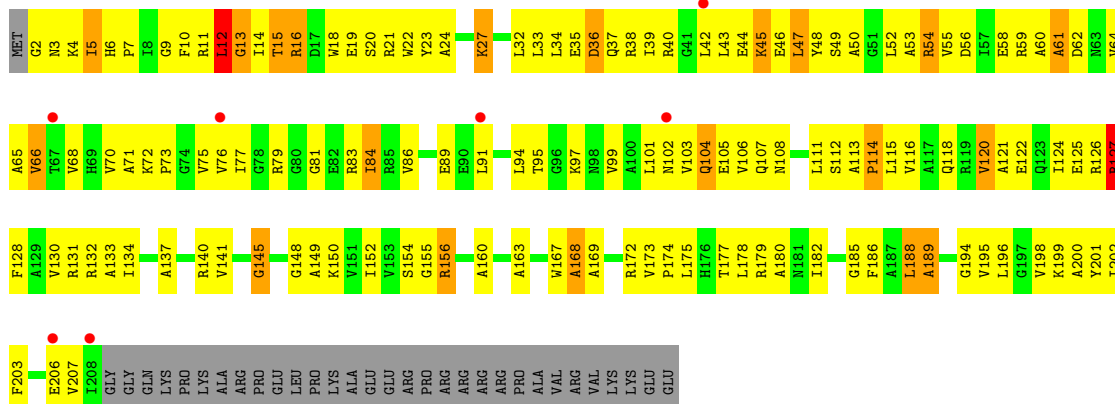
G1220	A1151	G1088	G1026	A959	G888	G618	A753	C680	G617	G546	G475	G399	C336	C268	U190
G1221	A1152	G1089	C1027	U960	U891	A819	C754	G683	C618	A547	G476	C403	C337	C269	G191
G1222	G1153	U1090	C1028	U961	G755	U820	C756	A684	U619	U551	A477	U404	A338	A270	U192
C1223	G1154	C1029	C1030	C962	C756	G821	U757	G685	C620	U552	C479	U405	C339	C271	C193
A1224	G1155	C1031	C1030A	A964	G758	C824	G758	U686	A621	A553	A482	U406	C341	A272	C194
C1226	A1157	A1093	G1030B	A965	G759	G825	G759	A687	C623	C554	C483	A409	C342	A273	A195
A1227	C1158	G1094	G1030C	G966	G760	C826	G760	G688	C624	C555	G484	C410	C345	A274	A196
C1228	U1159	U1095	G1031	A968	G763	U827	C763	G689	C625	C556	G485	C411	C346	A275	A197
A1229	C1160	A1096	G1032	A969	C764	A828	C764	G690	U626	C557	U486	A412	G277	G276	G198
C1230	C1161	A1097	G1032	A970	G765	G829	G765	G691	G627	C558	A487	A413	G278	G278	G200
G1231	C1162	C1098	G1033	C970	G766	G830	A766	U692	G628	A559	C488	G414	G348	C283	C201
U1232	C1163	G1034	G1034	G971	A767	U831	A767	U693	G629	U560	G491	A414	A349	G284	U202
G1233	G1164	A1035	A1035	C972	A767	C832	A767	A694	G630	U561	G492	A415	G350	G285	U203
C1234	C1165	G1036	C1036	G973	A768	U833	A768	A695	G631	C562	G492	G416	G351	G286	U204
U1235	C1103	G1037	C1038	A974	G769	C834	G769	A696	A632	A563	A496	C417	C352	G287	G216
A1236	A1168	A1038	C1038	A975	G770	U835	C770	A696	G633	C564	A496	C418	A353	U287	C218
C1237	A1169	A1039	C1039	G976	G771	U836	G771	A706	G634	U565	U498	C419	G354	C219	C217
A1238	A1170	A1040	U1040	A977	G772	G836	U772	A707	G635	C566	C567	C422	C355	G290	C219
U1239	G1171	U1041	U1041	A978	G773	U839	G773	C708	U636	C567	G502	C423	A356	G221	G220
U1240	G1172	G1042	G1042	A979	G774	U840	G774	G709	G637	C568	G502	C424	A364	G297	G221
G1241	G1173	C1045	C1045	A980	G775	C940	G775	G710	G638	A572	G503	G425	U365	A298	C220
C1242	A1180	U1043	U1043	C980	G776	U841	G776	G711	G639	A573	C504	G426	C366	G299	U222
C1243	G1181	G1044	U1044	A981	G777	C949	A777	G712	A640	A574	G505	U427	C367	U294	U223
A1244	G1182	G1045	C1045	U981	G778	U850	G778	G713	U641	G575	C505	U428	C368	C295	C224
A1245	A1183	G1046	G1046	C985	G779	G851	C779	G714	A642	C576	A509	C428	C369	U296	G226
C1246	C1116	U1049	U1049	A986	G780	G852	G780	A715	G643	C577	A510	U429	C370	U297	G227
U1247	G1117	C1050	C1051	A986	A781	G853	A781	A716	G644	C578	C511	U430	C371	G297	A228
A1248	C1118	U1052	G1053	C989	A782	G854	G782	G717	G645	C579	U512	A431	C372	A298	C233
C1249	C1119	G1053	U1053	C990	A783	G855	G783	G718	U646	C580	C513	A432	C373	A300	C234
A1250	G1120	C1054	C1054	U991	G784	C857	G784	C719	G647	U580	C514	C433	C374	G301	C235
A1251	U1121	A1055	A1055	U992	G785	G858	G785	C720	A648	C581	G515	U434	C375	G302	C236
C1252	U1122	G993	G993	C993	G786	A859	G786	U723	G649	U582	C518	C435	C376	C308	G237
G1253	A1123	A994	G994	C994	A787	A860	A787	G724	G650	A583	C519	U437	C377	G309	C238
C1254	G1124	C995	G995	A996	G788	G861	G788	G725	G651	C584	A520	U438	C378	G310	C241
A1255	U1125	A996	A996	A996	G789	C862	G789	G726	U652	C585	A521	C439	C379	C311	C242
U1256	G1059	C999	C999	C999	G790	C863	G790	G727	A653	C586	G522	A441	C380	C312	C243
C1257	G1061	U1000	U1000	U1000	A792	A864	A792	A728	G658	C587	G523	C442	C381	C313	C244
A1258	U1062	A1001	A1001	A1001	A793	C865	A793	A729	U659	C588	G524	C443	C382	A243	A243
C1259	C1063	G1001A	G1001A	G1001A	C795	C866	C795	G730	U660	C589	G525	C444	C383	U252	U252
A1260	U1064	G1002	G1002	G1002	C796	C867	C796	G731	G661	C590	C526	C445	C384	U253	G246
C1261	C1065	C940	C940	C940	C797	C868	C797	G732	G662	U591	G527	C446	C385	G254	A246
C1262	C1066	G941	G941	G941	C798	C869	C798	G733	A663	C600	G528	C447	C386	G255	G247
A1263	A1067	A1004	A1004	A1004	G798	U870	G798	C735	G663	C601	C536	C454	C387	U266	G247
C1203	G1068	A1005	A1005	A1005	U801	U871	U801	C736	G664	C594	U531	A448	C388	U267	A260
U1205	C1069	C1006	C1006	C1006	A802	G874	A802	C737	A665	C596	A532	C449	A382	G257	A260
G1206	U1070	G945	G945	G945	C803	C875	C803	C738	G666	C597	A533	C450	A383	U251	G251
C1207	C1071	A946	A946	A946	G804	G876	G804	C739	G667	U598	U534	A451	C384	G252	U252
G1208	G1072	G1010	G1010	G1010	C805	G877	C805	U740	G668	C599	A452	A452	C385	G253	U253
C1209	U1073	C948	C948	C948	C806	C878	C806	G741	U669	C600	A453	C454	C386	G254	G254
C1210	G1074	A949	A949	A949	C807	G879	C807	G742	G670	C601	C537	C454	C387	G255	G255
U1211	A1014	U950	U950	U950	A807	C880	A807	U743	G671	A602	G537	C454	C388	U266	U266
U1212	A1015	U951	U951	U951	C808	C881	C808	G744	U672	G603	G538	C458	A389	G257	G257
A1213	G1017	G952	G952	G952	U881	C882	U881	C745	G673	U604	A539	C460	C390	C328	U261
C1214	C1018	G953	G953	G953	C811	C883	C811	G746	A674	G604	G541	C461	C391	G330	A262
G1215	A1146	C1019	C1019	C1019	A814	C884	A814	C747	G675	C612	G542	C470	C392	C331	A263
A1216	G1147	U1020	U1020	U1020	A815	U885	A815	C748	A676	C613	G543	C471	C393	G332	U264
U1217	U1148	U956	U956	U956	A816	G886	A816	C749	A677	A614	C544	C472	C394	G333	G265
C1218	G1081	U957	U957	U957	A817	G887	A817	G750	U678	C615	G544	C473	A397	C334	C266
U1219	G1084	U1025	U1025	U1025	C817	G887	C817	G751	C679	G616	C545	C474	C398	G335	C267



GLU
SER
GLU
VAL
GLU
ALA

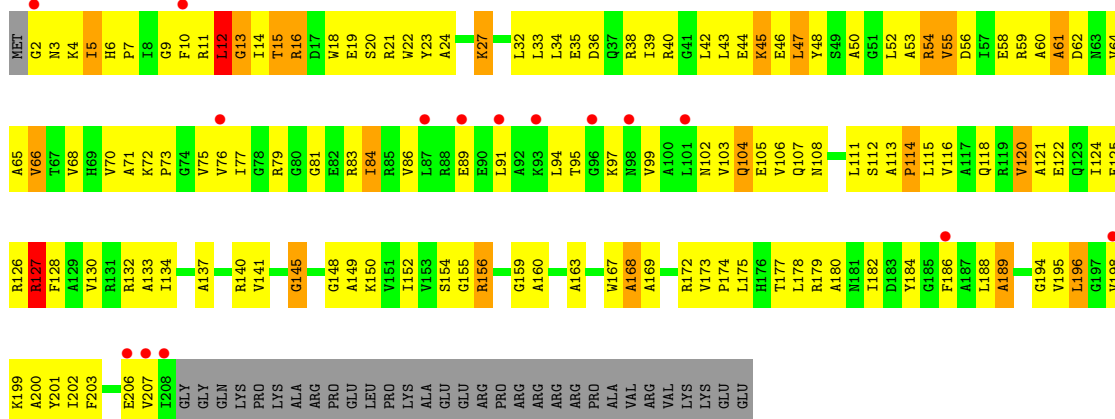
• Molecule 3: 30S RIBOSOMAL PROTEIN S3

Chain AC:



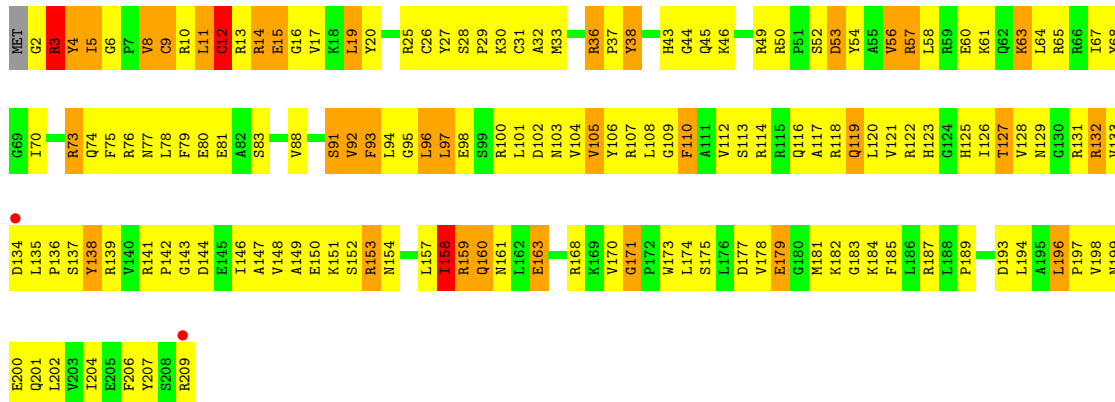
• Molecule 3: 30S RIBOSOMAL PROTEIN S3

Chain CC:



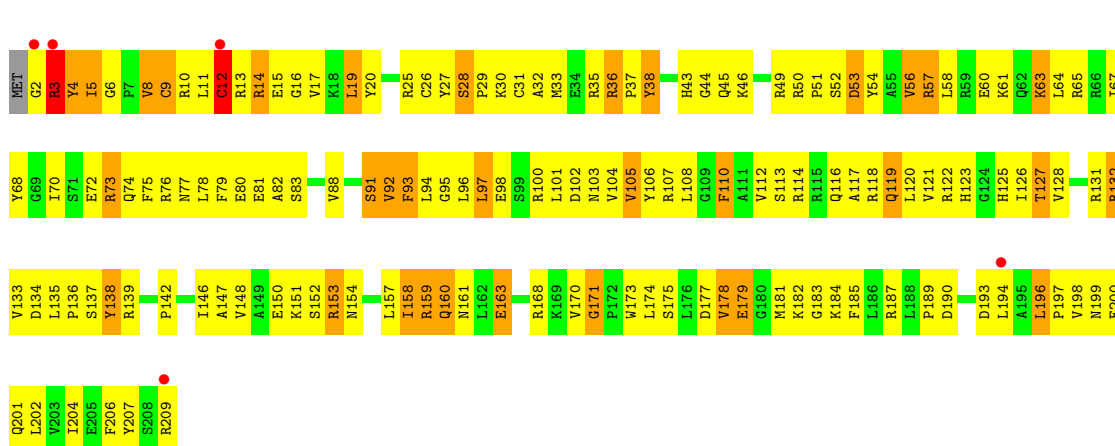
• Molecule 4: 30S RIBOSOMAL PROTEIN S4

Chain AD:



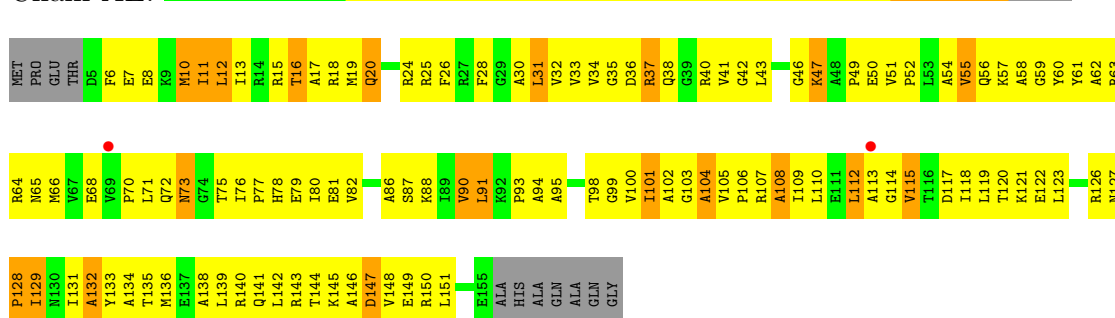
• Molecule 4: 30S RIBOSOMAL PROTEIN S4

Chain CD:



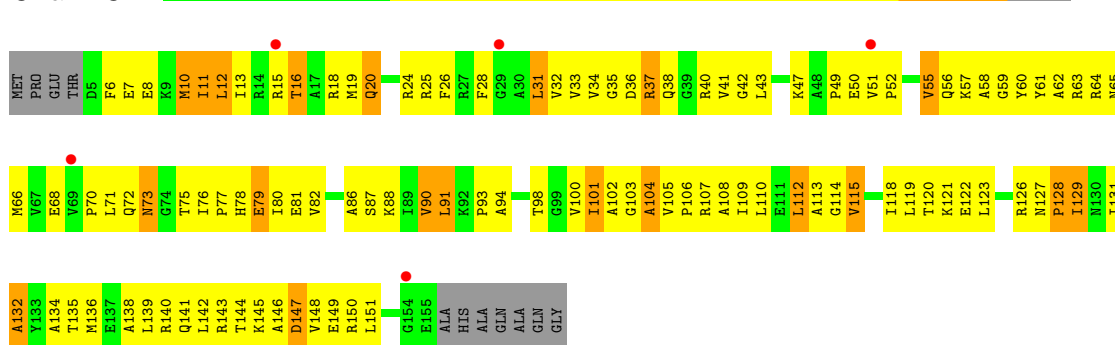
• Molecule 5: 30S RIBOSOMAL PROTEIN S5

Chain AE:



• Molecule 5: 30S RIBOSOMAL PROTEIN S5

Chain CE:



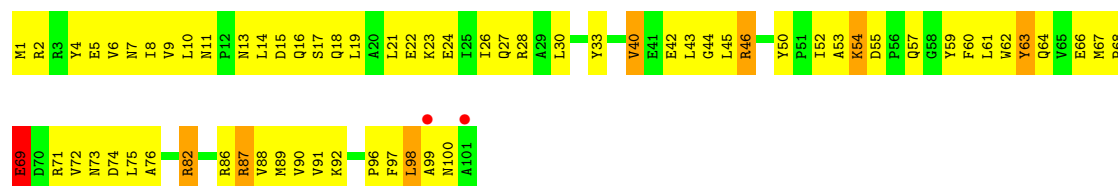
• Molecule 6: 30S RIBOSOMAL PROTEIN S6

Chain AF:



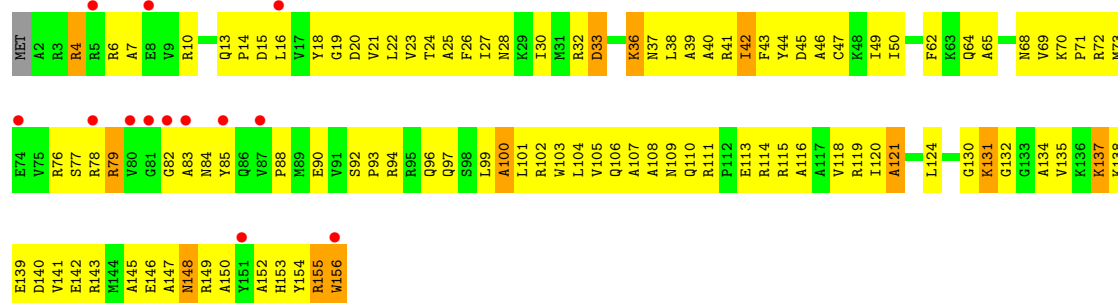
- Molecule 6: 30S RIBOSOMAL PROTEIN S6

Chain CF: 



- Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain AG: 



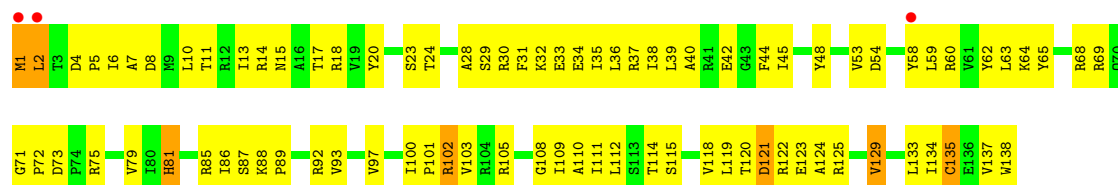
- Molecule 7: 30S RIBOSOMAL PROTEIN S7

Chain CG: 



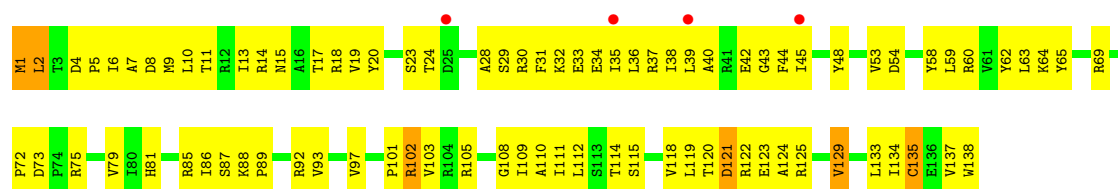
- Molecule 8: 30S RIBOSOMAL PROTEIN S8

Chain AH: 



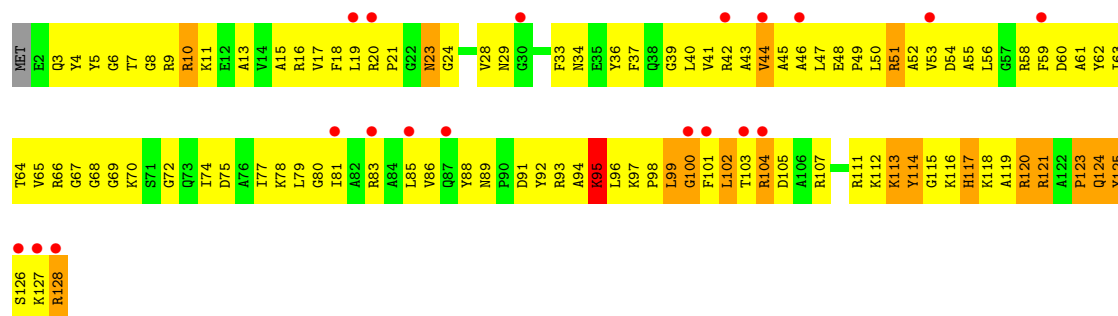
- Molecule 8: 30S RIBOSOMAL PROTEIN S8

Chain CH: 



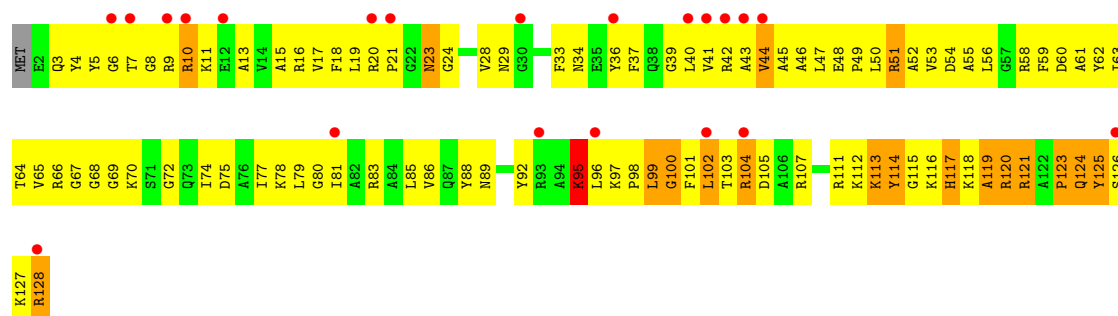
• Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain AI:



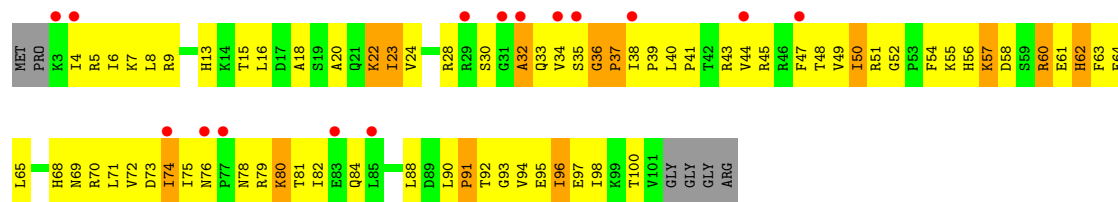
• Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain CI:



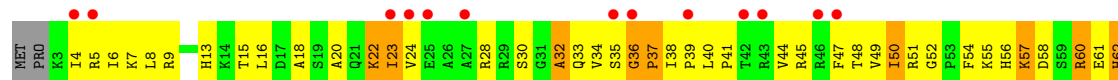
• Molecule 10: 30S RIBOSOMAL PROTEIN S10

Chain AJ:



• Molecule 10: 30S RIBOSOMAL PROTEIN S10

Chain CJ:

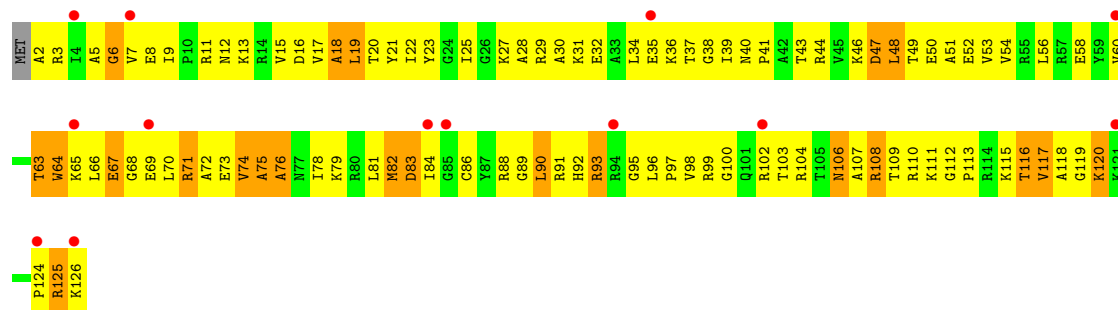






• Molecule 13: 30S RIBOSOMAL PROTEIN S13

Chain CM:



• Molecule 14: 30S RIBOSOMAL PROTEIN S14

Chain AN:



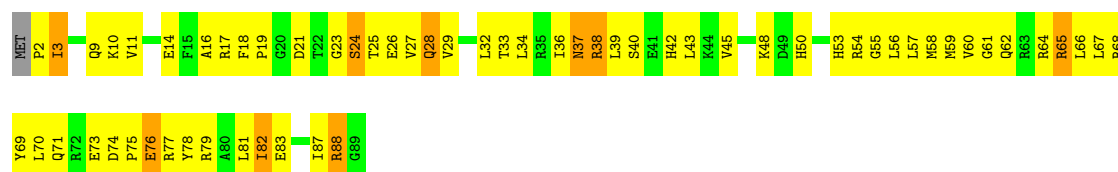
• Molecule 14: 30S RIBOSOMAL PROTEIN S14

Chain CN:



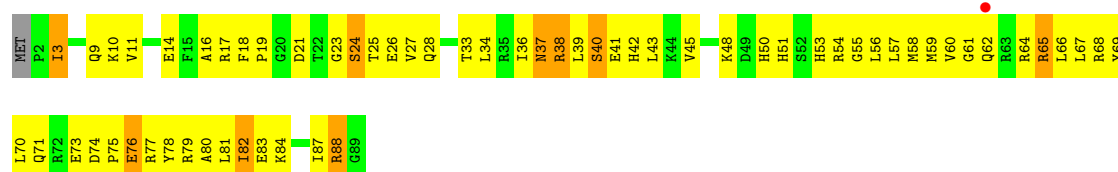
• Molecule 15: 30S RIBOSOMAL PROTEIN S15

Chain AO:



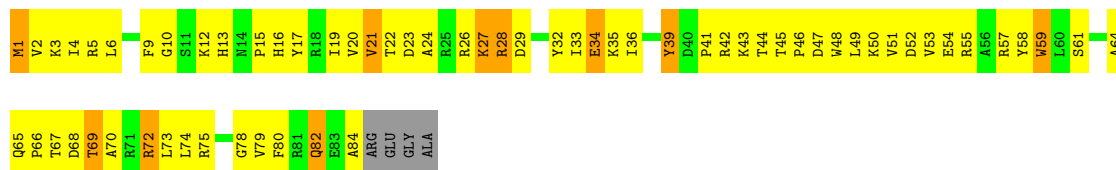
• Molecule 15: 30S RIBOSOMAL PROTEIN S15

Chain CO:



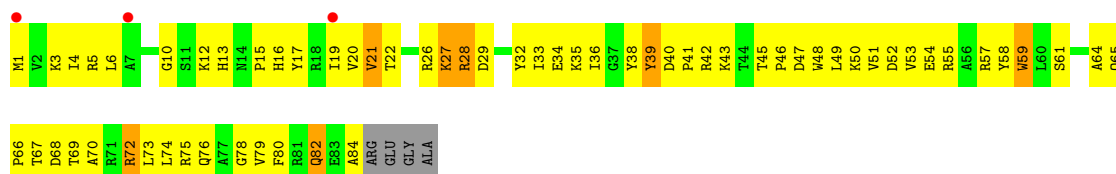
- Molecule 16: 30S RIBOSOMAL PROTEIN S16

Chain AP:



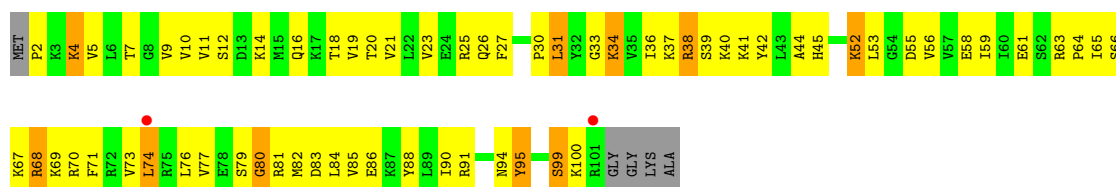
- Molecule 16: 30S RIBOSOMAL PROTEIN S16

Chain CP:



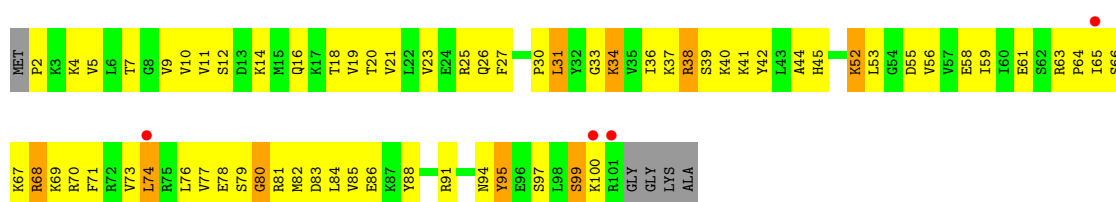
- Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain AQ:



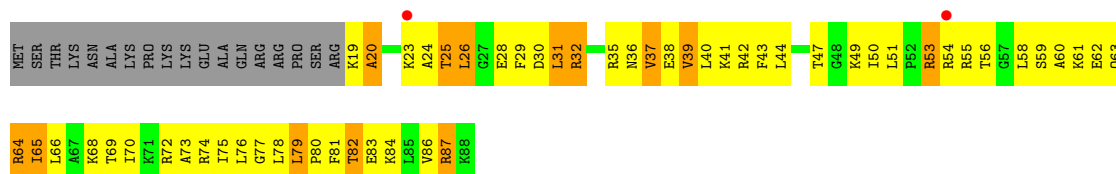
- Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain CQ:



- Molecule 18: 30S RIBOSOMAL PROTEIN S18

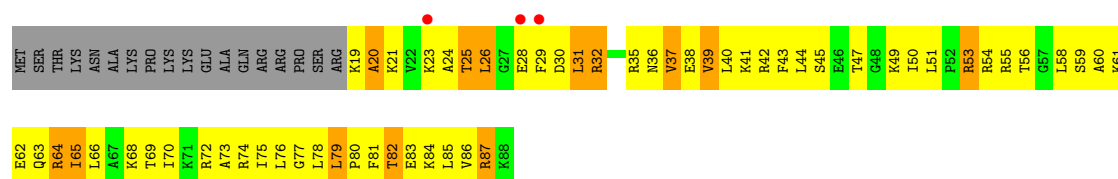
Chain AR:



- Molecule 18: 30S RIBOSOMAL PROTEIN S18

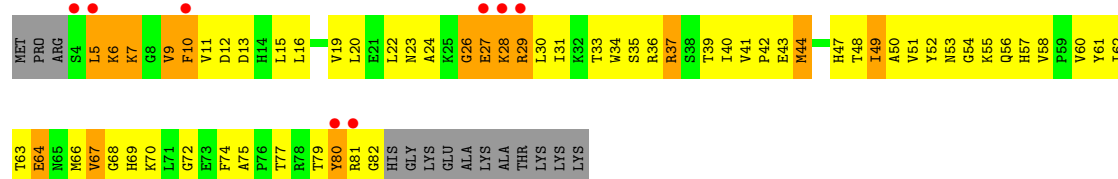
Chain CR:





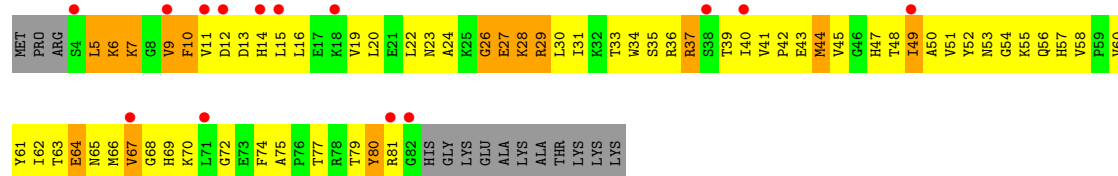
• Molecule 19: 30S RIBOSOMAL PROTEIN S19

Chain AS:



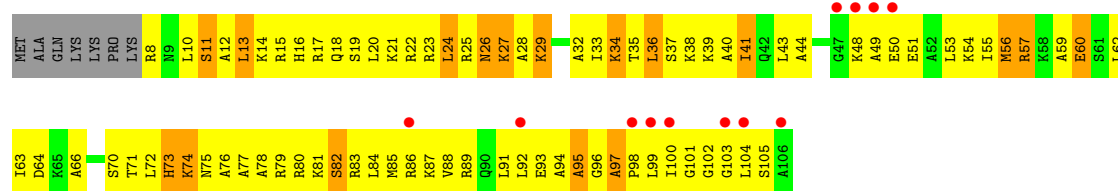
• Molecule 19: 30S RIBOSOMAL PROTEIN S19

Chain CS:



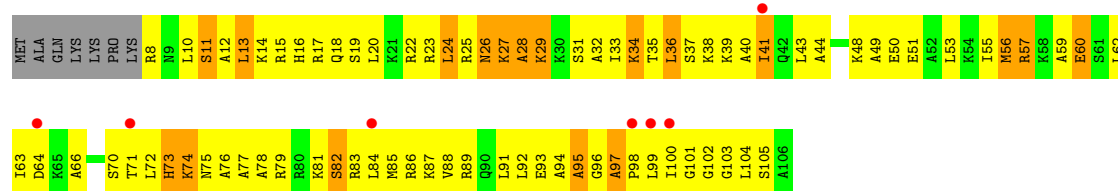
• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain AT:



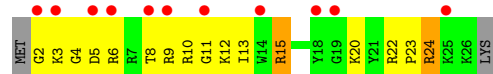
• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain CT:



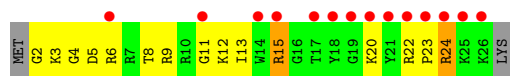
• Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain AU:



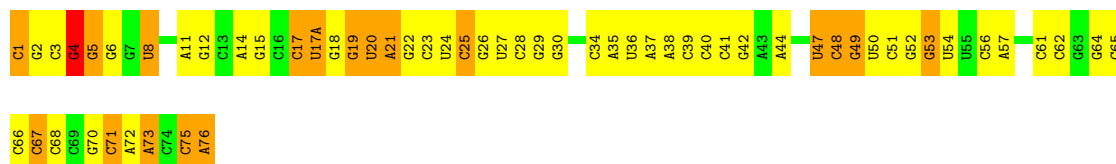
- Molecule 21: 30S RIBOSOMAL PROTEIN THX

Chain CU: 



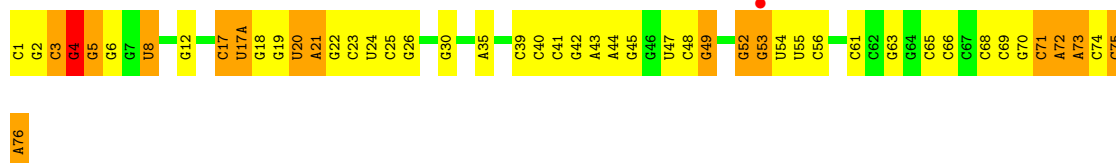
- Molecule 22: P-SITE TRNA FMET (UNMODIFIED BASES EXCEPT FOR THYMINE 54)

Chain AV: 



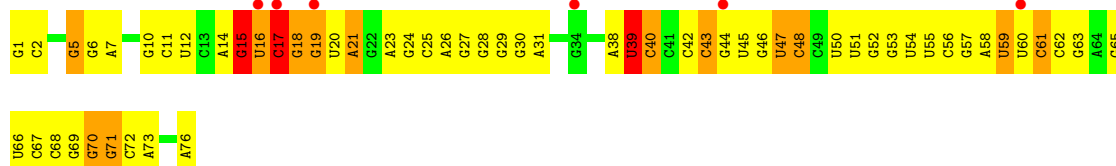
- Molecule 22: P-SITE TRNA FMET (UNMODIFIED BASES EXCEPT FOR THYMINE 54)

Chain CV: 



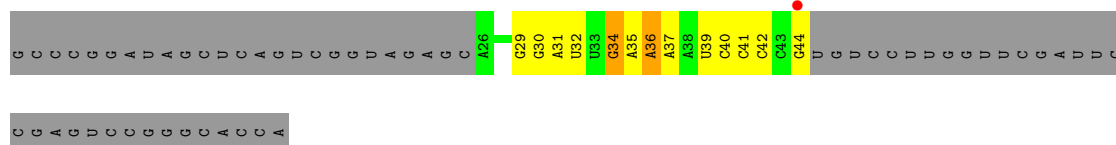
- Molecule 23: E-SITE TRNA PHE OR A-SITE TRNA PHE (UNMODIFIED BASES)

Chain AW: 



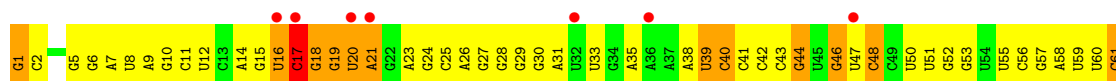
- Molecule 23: E-SITE TRNA PHE OR A-SITE TRNA PHE (UNMODIFIED BASES)

Chain AY: 



- Molecule 23: E-SITE TRNA PHE OR A-SITE TRNA PHE (UNMODIFIED BASES)

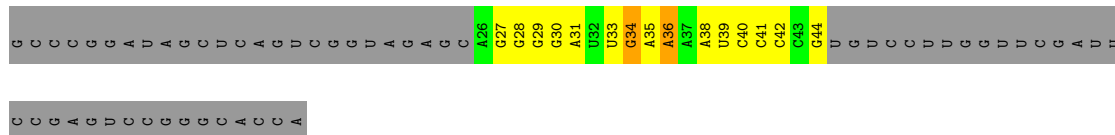
Chain CW: 





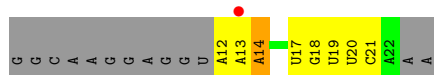
- Molecule 23: E-SITE TRNA PHE OR A-SITE TRNA PHE (UNMODIFIED BASES)

Chain CY:



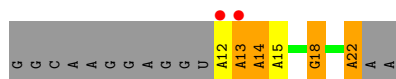
- Molecule 24: mRNA

Chain AX:



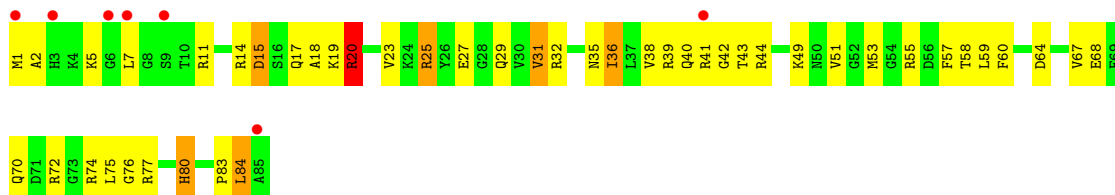
- Molecule 24: mRNA

Chain CX:



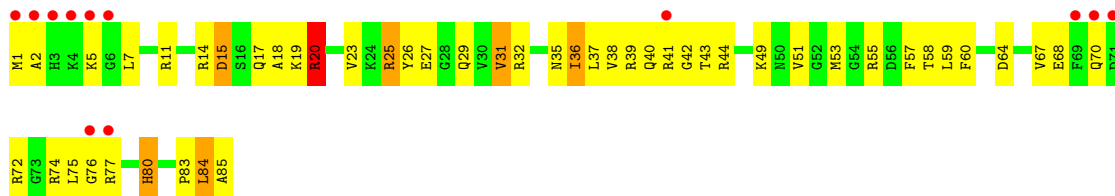
- Molecule 25: 50S RIBOSOMAL PROTEIN L27

Chain B0:



- Molecule 25: 50S RIBOSOMAL PROTEIN L27

Chain D0:



- Molecule 26: 50S RIBOSOMAL PROTEIN L28

Chain B1:





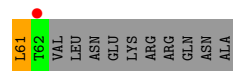
• Molecule 26: 50S RIBOSOMAL PROTEIN L28

Chain D1:



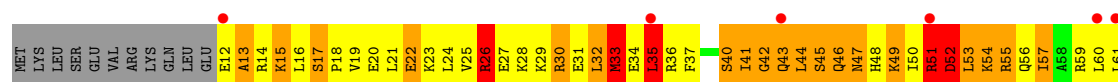
• Molecule 27: 50S RIBOSOMAL PROTEIN L29

Chain B2:



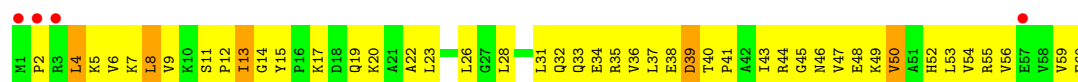
• Molecule 27: 50S RIBOSOMAL PROTEIN L29

Chain D2:



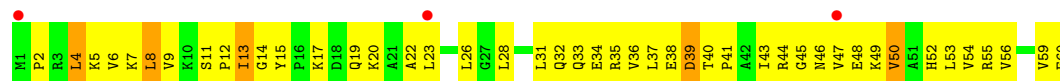
• Molecule 28: 50S RIBOSOMAL PROTEIN L30

Chain B3:



• Molecule 28: 50S RIBOSOMAL PROTEIN L30

Chain D3:



• Molecule 29: 50S RIBOSOMAL PROTEIN L31


Chain B4:



LYS
GLY
ARG

• Molecule 29: 50S RIBOSOMAL PROTEIN L31

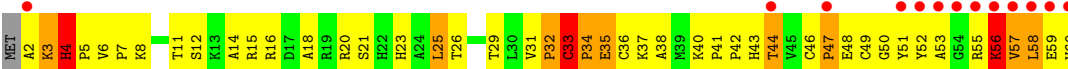
Chain D4: 



TYR
ARG
LYS
GLY
ARG

• Molecule 30: 50S RIBOSOMAL PROTEIN L32

Chain B5: 




• Molecule 30: 50S RIBOSOMAL PROTEIN L32

Chain D5: 



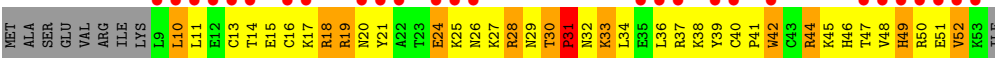
• Molecule 31: 50S RIBOSOMAL PROTEIN L33

Chain B6: 



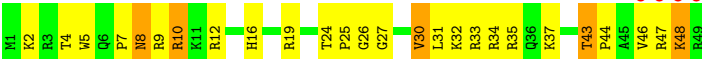
• Molecule 31: 50S RIBOSOMAL PROTEIN L33

Chain D6: 



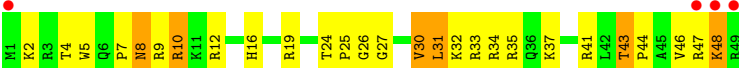
• Molecule 32: 50S RIBOSOMAL PROTEIN L34

Chain B7: 



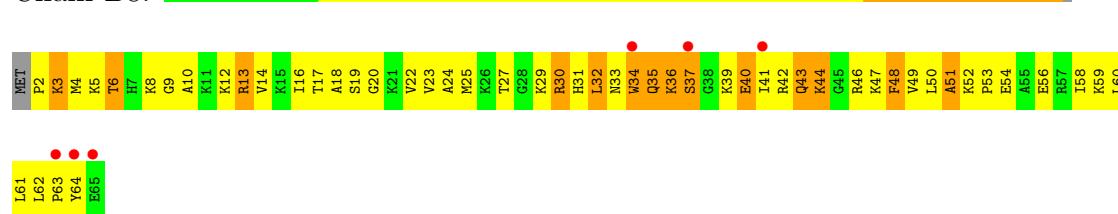
• Molecule 32: 50S RIBOSOMAL PROTEIN L34

Chain D7: 



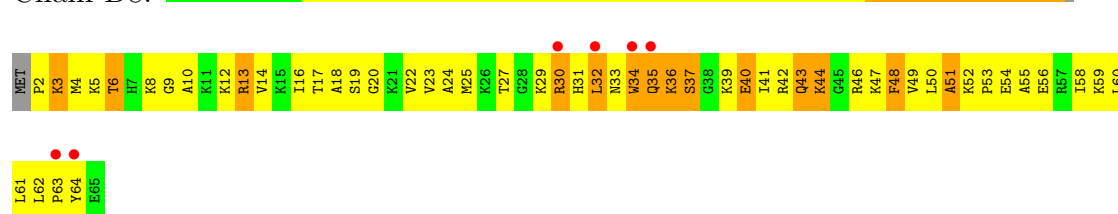
● Molecule 33: 50S RIBOSOMAL PROTEIN L35

Chain B8:



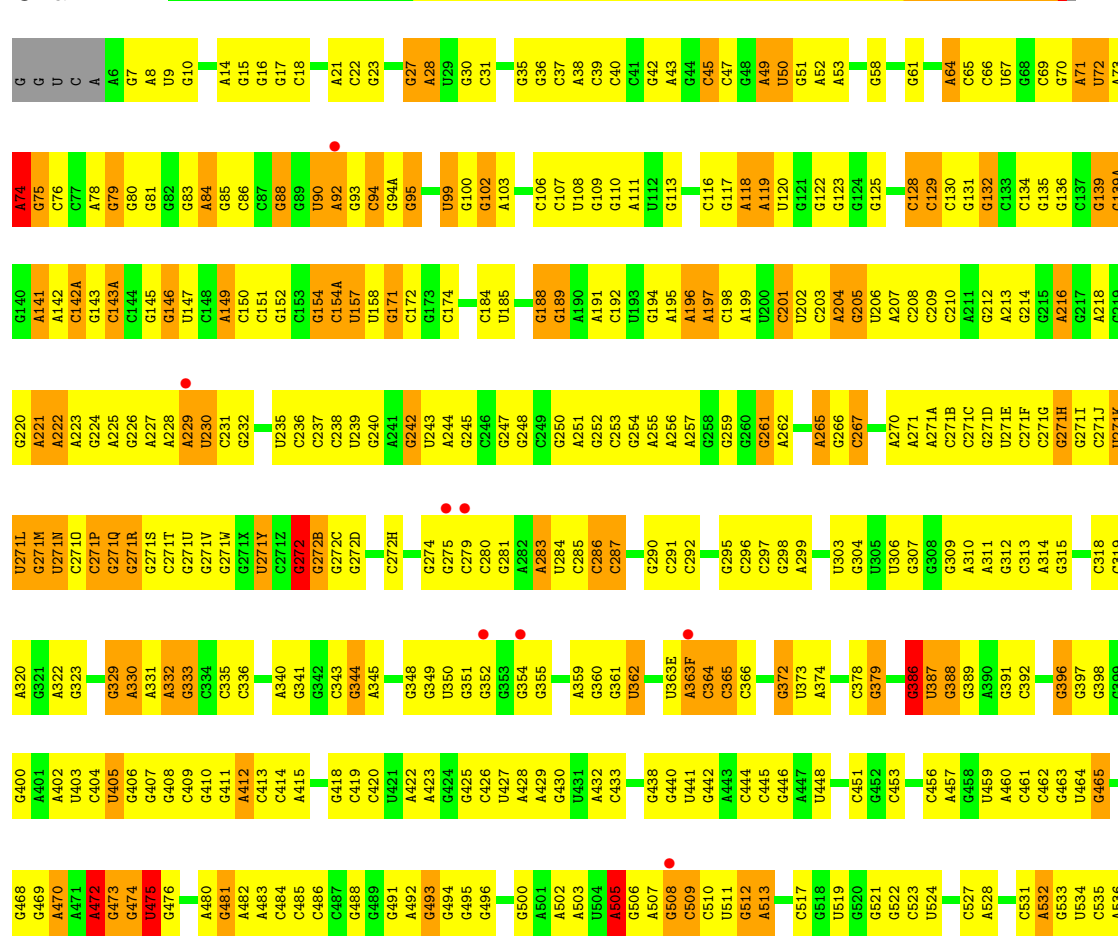
● Molecule 33: 50S RIBOSOMAL PROTEIN L35

Chain D8:



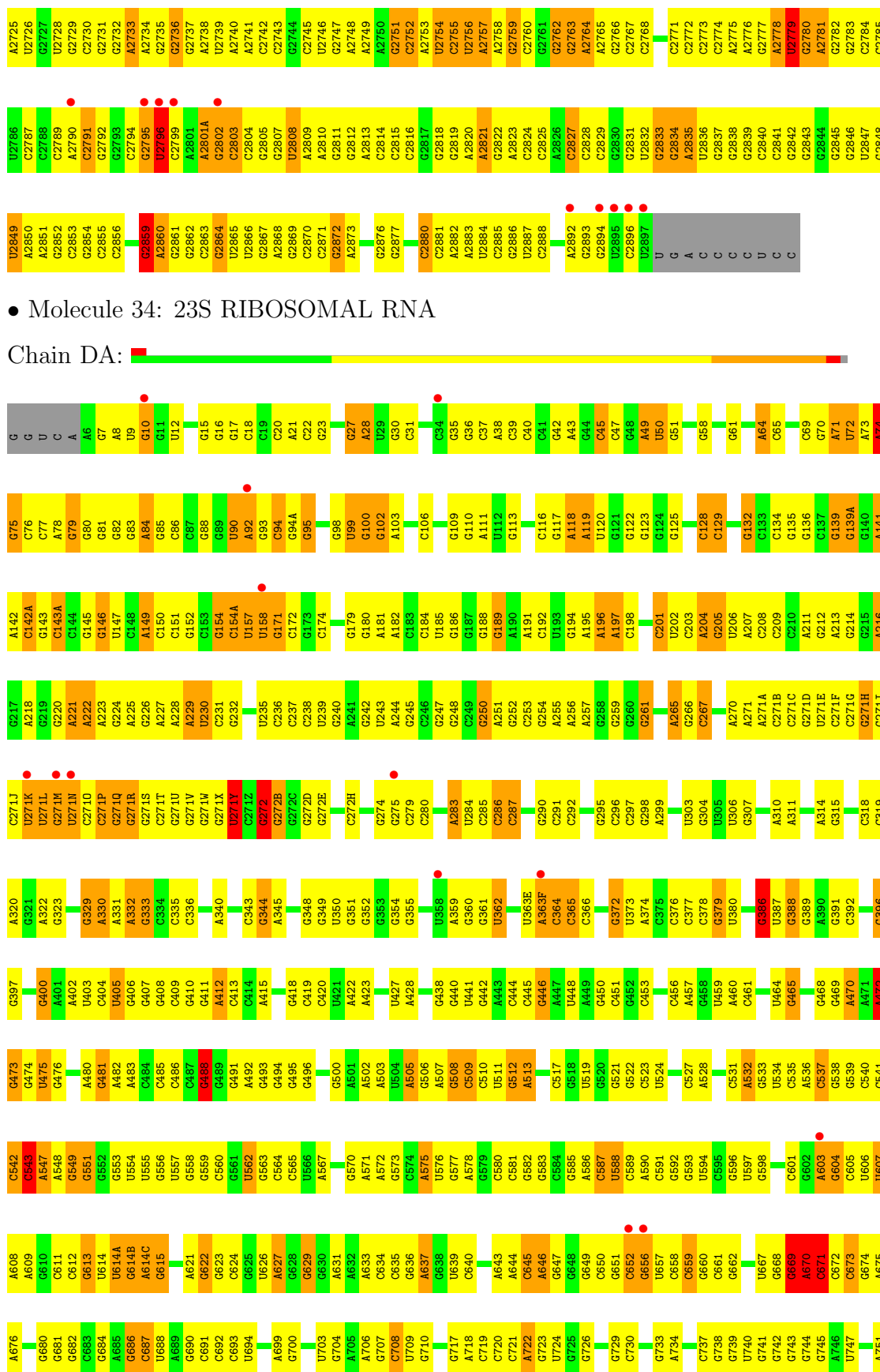
● Molecule 34: 23S RIBOSOMAL RNA

Chain BA:



C1548	C1549	C1550	C1551	A1554	A1558	G1559	A1562	G1563	C1564	G1568	A1569	A1570	A1571	A1572	G1573	C1574	C1577	A1578	A1579	C1582	C1583	C1584	C1585	C1586	C1587	C1588	C1589	C1590	C1591	C1592	C1593	C1594	G1595	A1596	A1597	C1598	U1602	A1603	C1607	A1609	A1610	C1611	A1614	C1615	A1616	C1617	A1618	G1619	U1620																																																																																																																																																																																																																												
	A1471	A1472	G1473	C1474	G1475	C1476	C1477	G1478		U1481	G1482	G1483	G1484	G1485	A1490	A1491	G1492	C1493	A1494	A1495	A1496	U1497	C1498		C1501	C1502	C1503	C1504	C1505	C1506	A1507	C1508	C1509	A1509A	C1509B	C1510	G1511		G1517	A1518	C1519	G1520	C1523	G1524	A1525	G1526	C1527	A1528	A1529A	C1529	C1530	C1531	C1532	G1533	C1534	A1544	G1545	G1546	C1547																																																																																																																																																																																																																		
U1405	A1406	C1407	C1408	C1409	G1410	C1411	A1412	G1413	G1414	U1415	G1416	G1417	G1418	G1485	U1420	G1421		G1424	G1425	A1426	A1427	C1428	G1429		C1430	U1431	C1432	C1433	C1434	G1435	G1436	C1437	U1438	A1439	G1440	G1441	G1442	G1443	G1444	C1445A	C1446	G1447	G1448	A1449	G1450		U1453	G1455	G1456	A1457	C1458	C1459	A1460	G1461		C1464	G1465	G1466	C1467																																																																																																																																																																																																																		
G1337	G1338	G1339	U1340	U1341		G1344	C1345	G1346	G1347	G1348	A1349	C1350	C1351	U1352	A1353	A1354	G1355	G1356	U1357	G1358	A1359	C1360	C1361	C1362	C1363	G1364	A1365	A1366	A1367	G1368	G1369	C1370		C1376	G1377	A1378	A1379	G1380	G1381	C1382	C1383	A1384	G1385	G1386	C1387	G1388	G1389		U1394	A1395	U1396	U1397	C1398	C1399	G1400	G1401	C1402	C1403	C1404																																																																																																																																																																																																																		
A1268	A1269	C1270	C1271	G1272	U1273	A1274	A1275	A1276	G1277	A1278	G1279	C1280	G1281		A1284	C1285	A1286	A1287	U1288	C1289	C1290	C1291	U1292	C1293	U1294	C1295		C1298	G1299	U1300	A1301	A1302		G1309	G1310	G1311	G1312	U1313	C1314	C1315	U1316	A1317	C1318	G1319		A1322	U1323	G1324	G1325	U1326	C1327	C1328	C1329	C1330	C1331	G1332	U1335	A1336																																																																																																																																																																																																																			
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C814	C815	C816	C817	A818	C819	C820	C821	C822	C823	C824	C825	C826	C827	C828	C829	C830	C831	C832	C833	C834	C835	C836	C837	C838	C839	C840	C841	C842	C843	C844	C845	C846	C847	C848	C849	C850	C851	C852	C853	C854	C855	C856	C857	C858	C859	C860	C861	C862		G601	G602	A603	G604	C605																																																																																																																																																																																																																							
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G1622	G1623	G1624	G1625	G1626																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		</

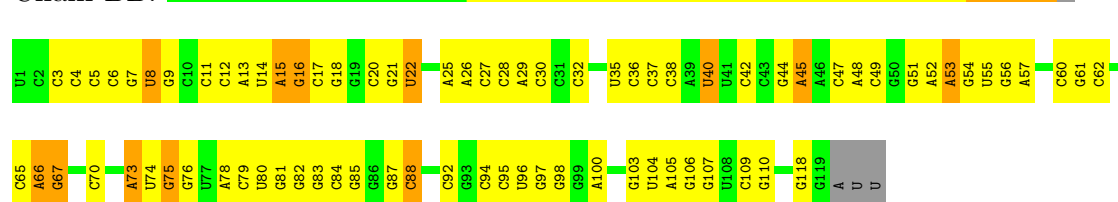


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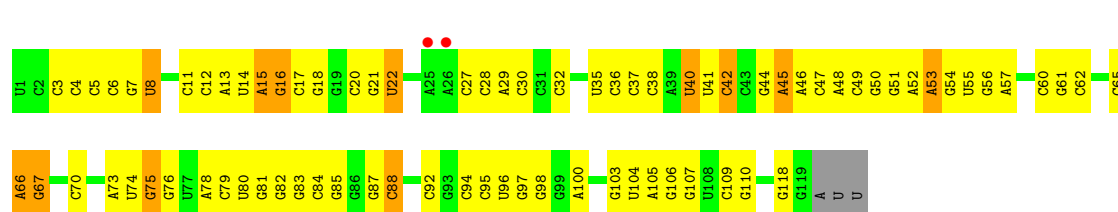
- Molecule 35: 5S RIBOSOMAL RNA

Chain BB:



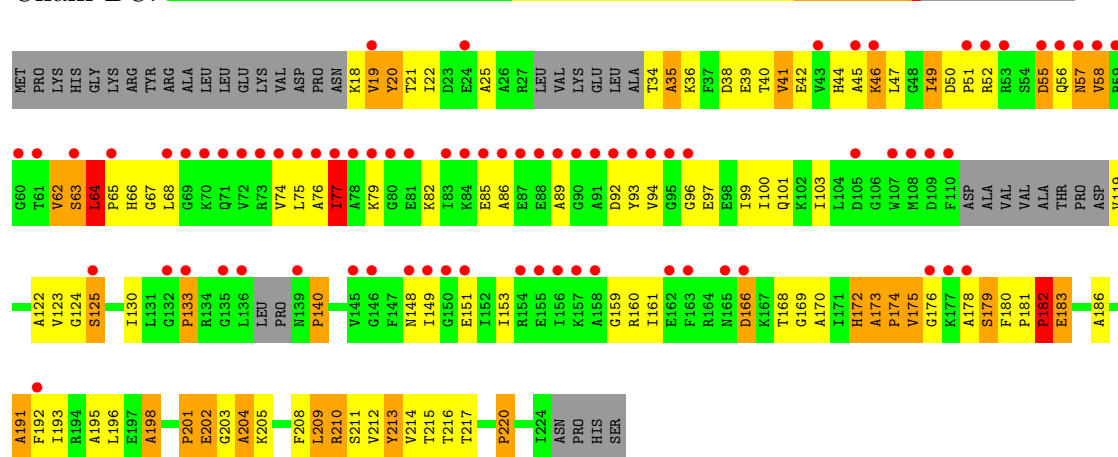
- Molecule 35: 5S RIBOSOMAL RNA

Chain DB:



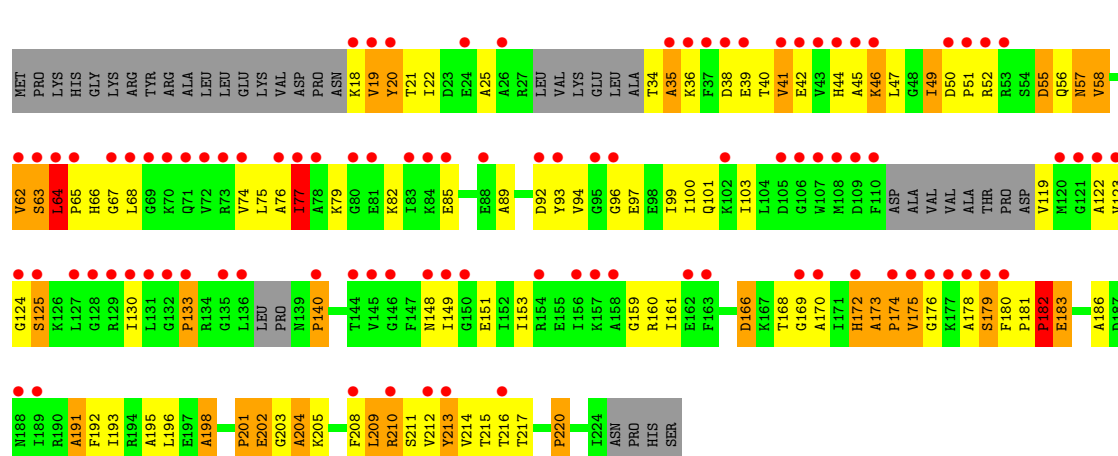
- Molecule 36: 50S RIBOSOMAL PROTEIN L1

Chain BC:



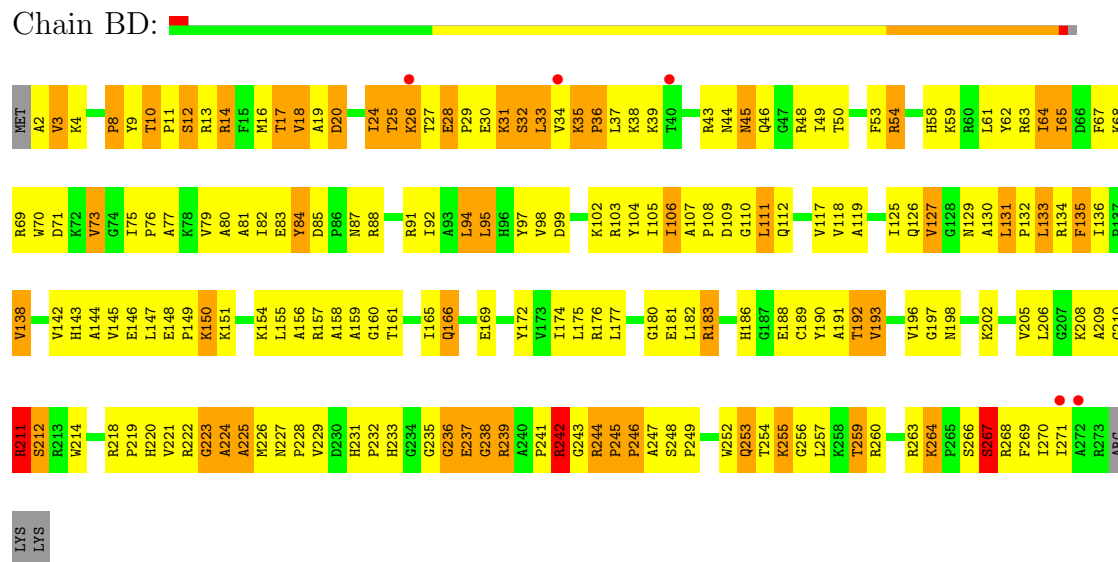
- Molecule 36: 50S RIBOSOMAL PROTEIN L1

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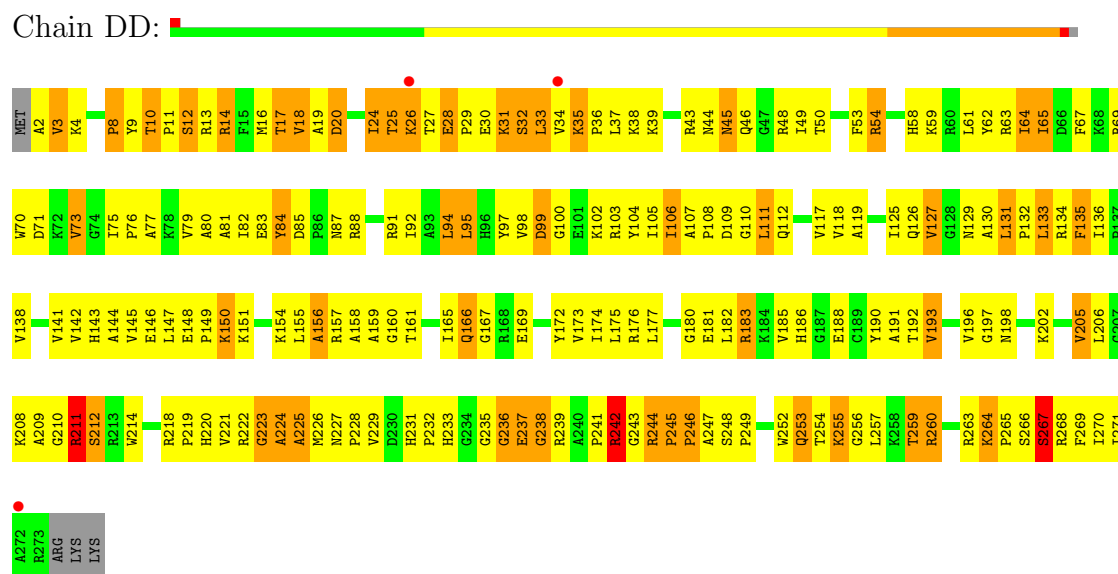
• Molecule 37: 50S RIBOSOMAL PROTEIN L2

Chain BD:



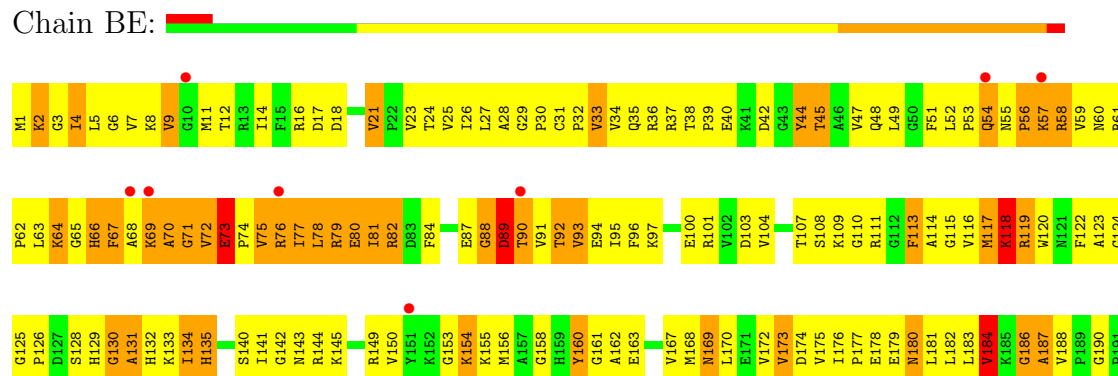
• Molecule 37: 50S RIBOSOMAL PROTEIN L2

Chain DD:



• Molecule 38: 50S RIBOSOMAL PROTEIN L3

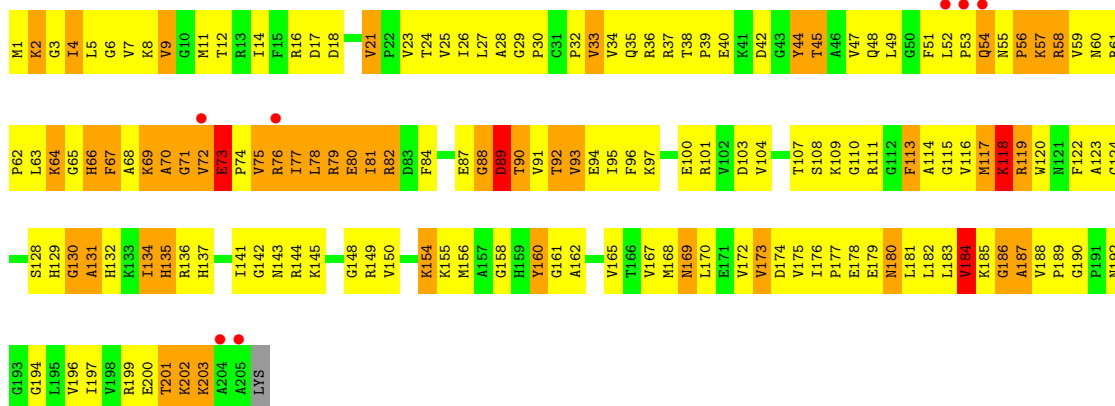
Chain BE:





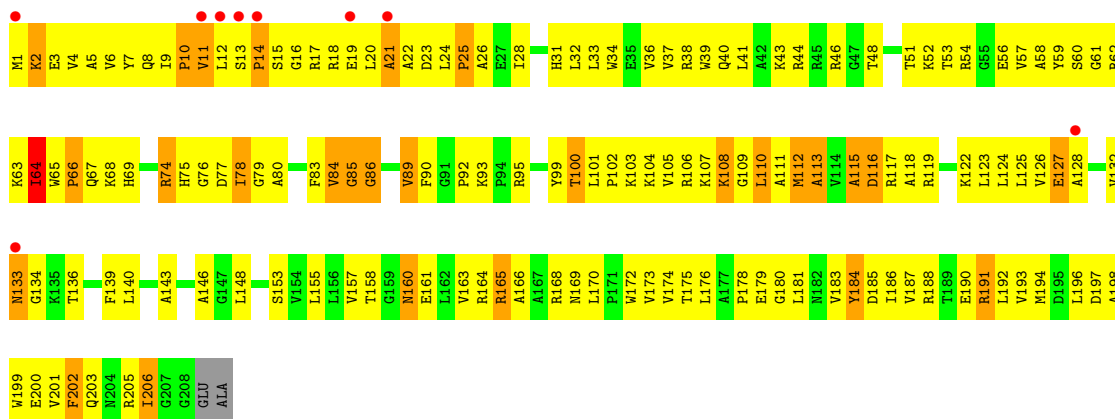
• Molecule 38: 50S RIBOSOMAL PROTEIN L3

Chain DE:



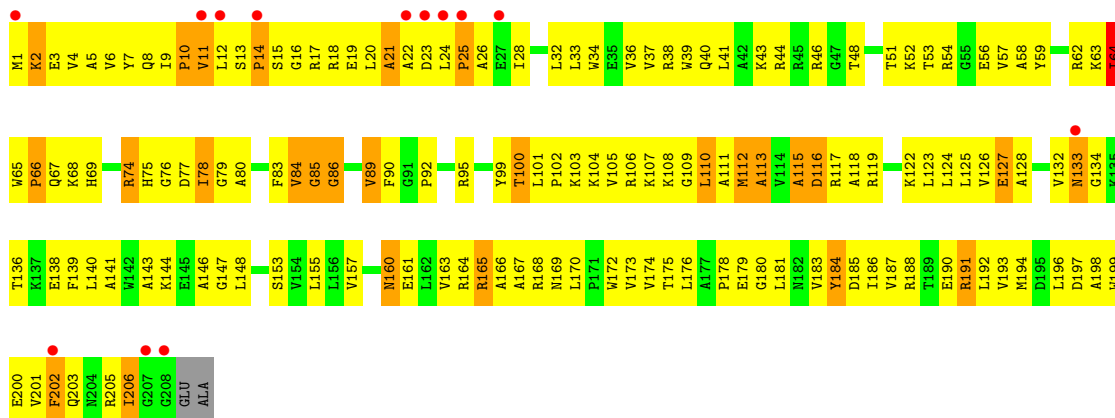
• Molecule 39: 50S RIBOSOMAL PROTEIN L4

Chain BF:



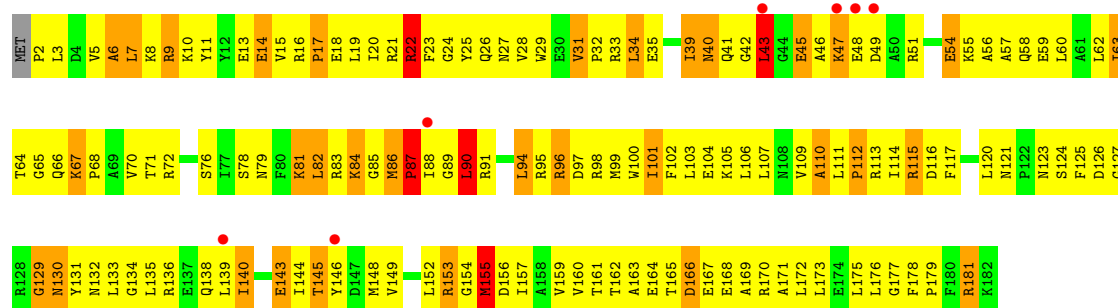
• Molecule 39: 50S RIBOSOMAL PROTEIN L4

Chain DF:



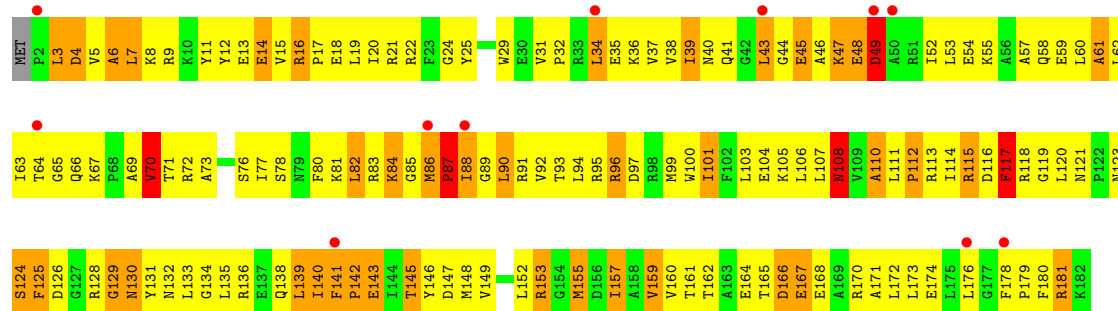
- Molecule 40: 50S RIBOSOMAL PROTEIN L5

Chain BG:



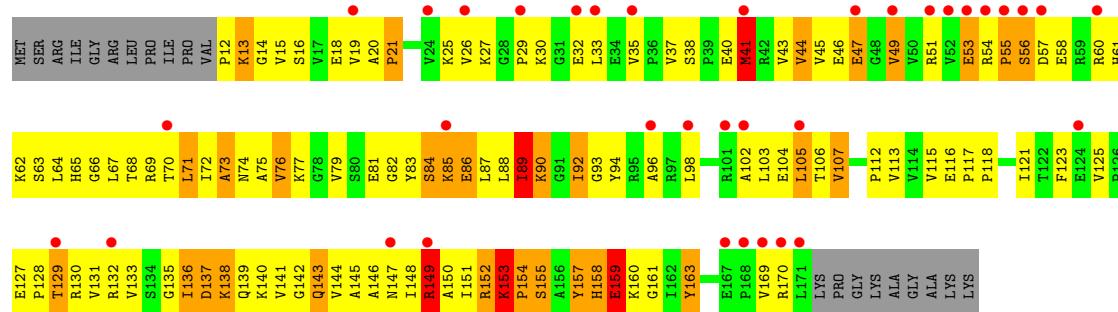
- Molecule 40: 50S RIBOSOMAL PROTEIN L5

Chain DG:



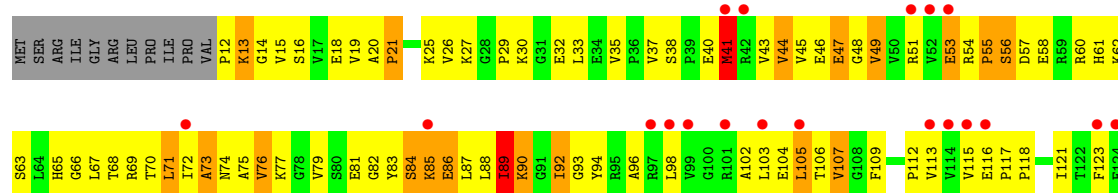
- Molecule 41: 50S RIBOSOMAL PROTEIN L6

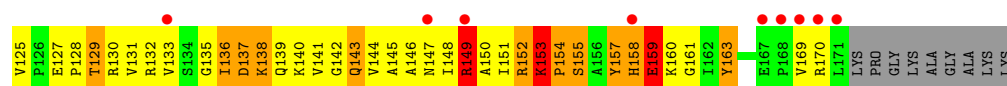
Chain BH:



- Molecule 41: 50S RIBOSOMAL PROTEIN L6

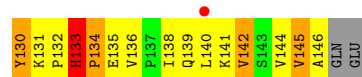
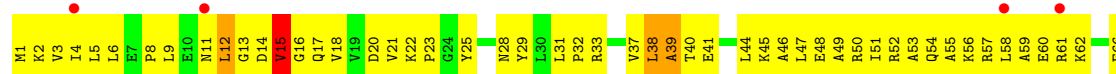
Chain DH:





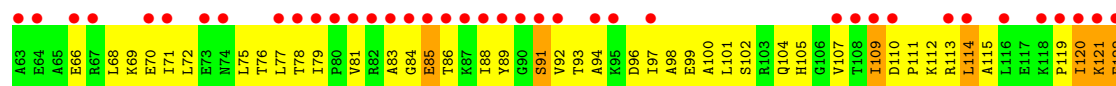
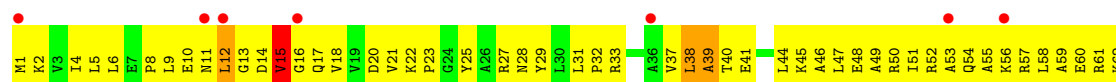
• Molecule 42: 50S RIBOSOMAL PROTEIN L9

Chain BI:



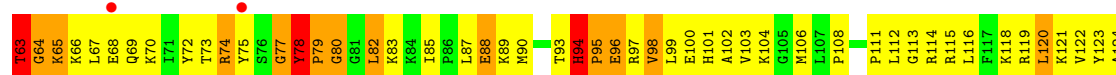
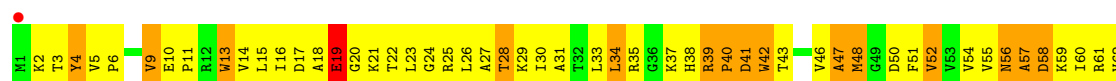
• Molecule 42: 50S RIBOSOMAL PROTEIN L9

Chain DI:



• Molecule 43: 50S RIBOSOMAL PROTEIN L13

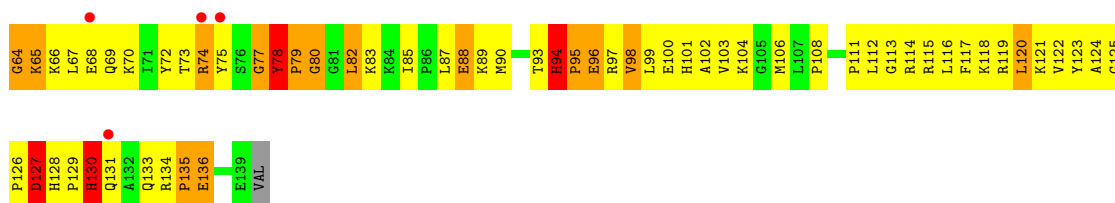
Chain BN:



• Molecule 43: 50S RIBOSOMAL PROTEIN L13

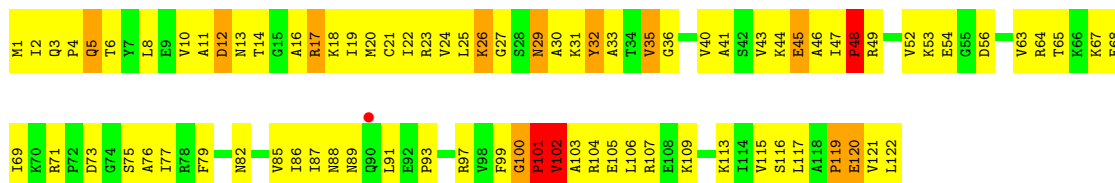
Chain DN:





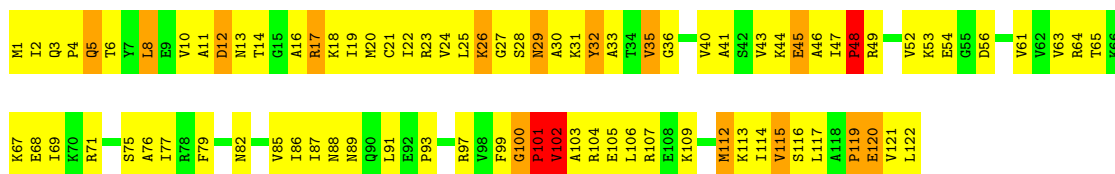
• Molecule 44: 50S RIBOSOMAL PROTEIN L14

Chain BO:



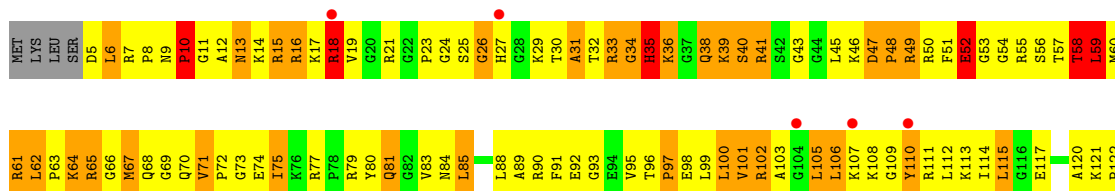
• Molecule 44: 50S RIBOSOMAL PROTEIN L14

Chain DO:



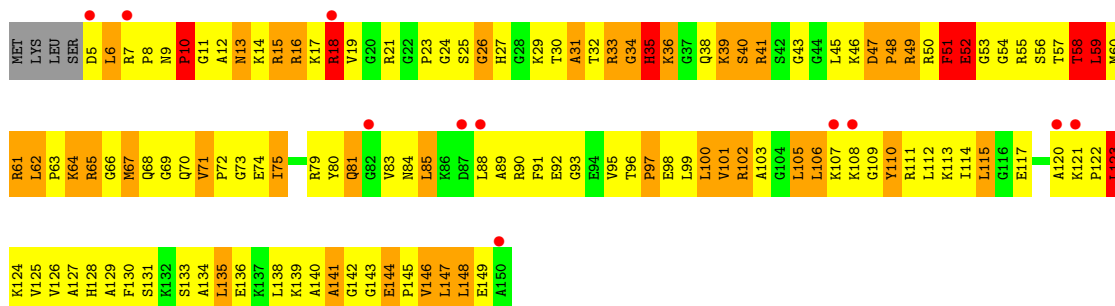
• Molecule 45: 50S RIBOSOMAL PROTEIN L15

Chain BP:



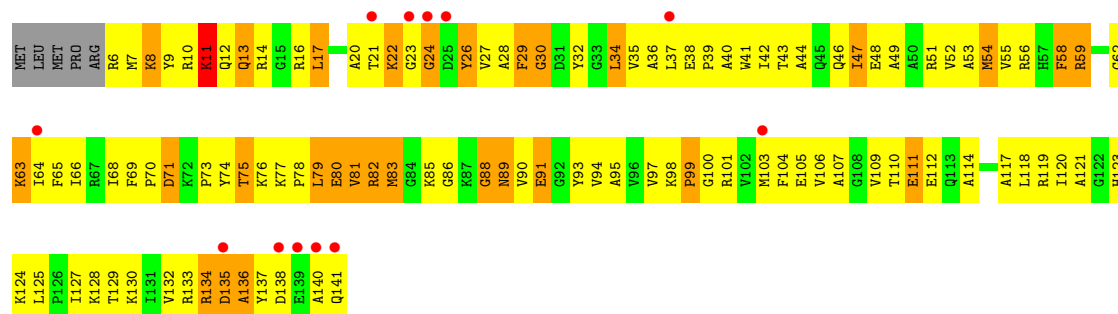
• Molecule 45: 50S RIBOSOMAL PROTEIN L15

Chain DP:



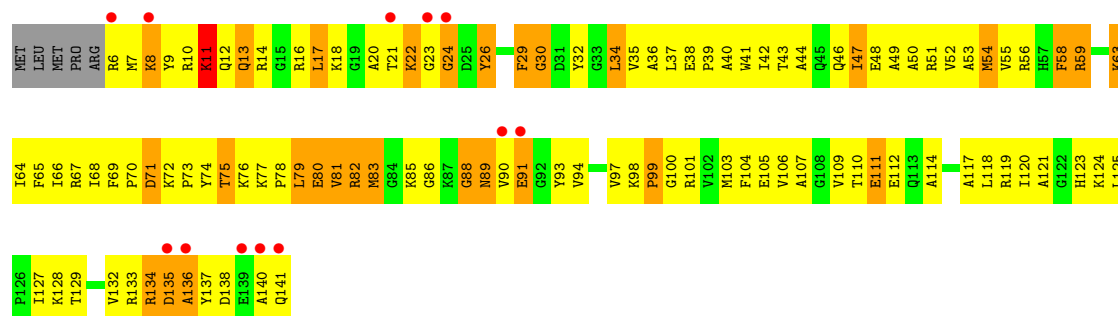
- Molecule 46: 50S RIBOSOMAL PROTEIN L16

Chain BQ:



- Molecule 46: 50S RIBOSOMAL PROTEIN L16

Chain DQ:



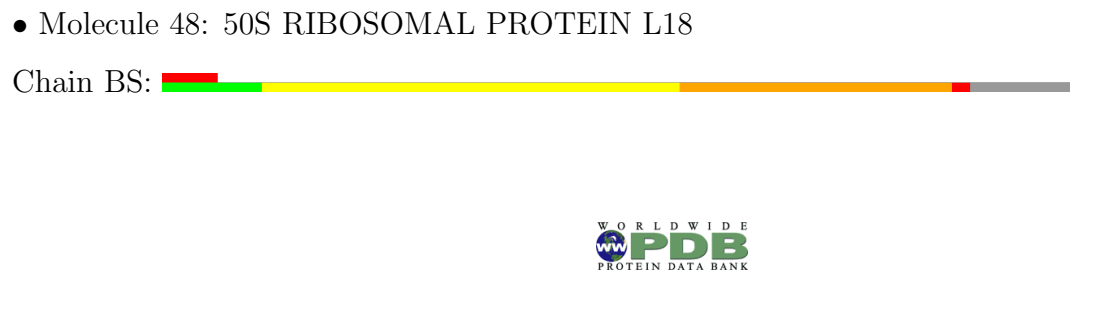
- Molecule 47: 50S RIBOSOMAL PROTEIN L17

Chain BR:



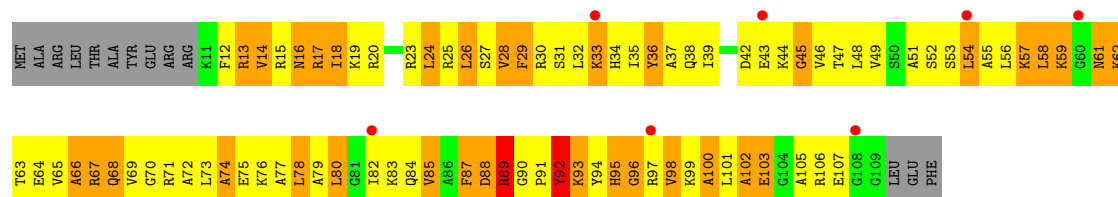
- Molecule 47: 50S RIBOSOMAL PROTEIN L17

Chain DR:



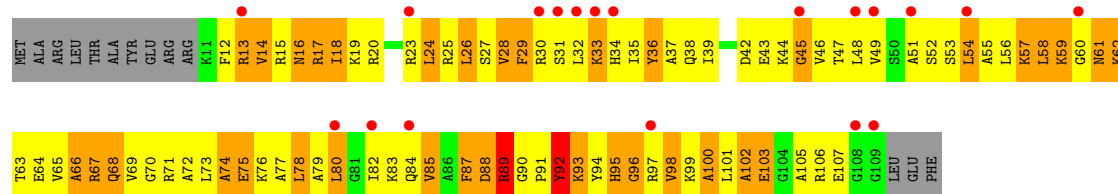
- Molecule 48: 50S RIBOSOMAL PROTEIN L18

Chain BS:



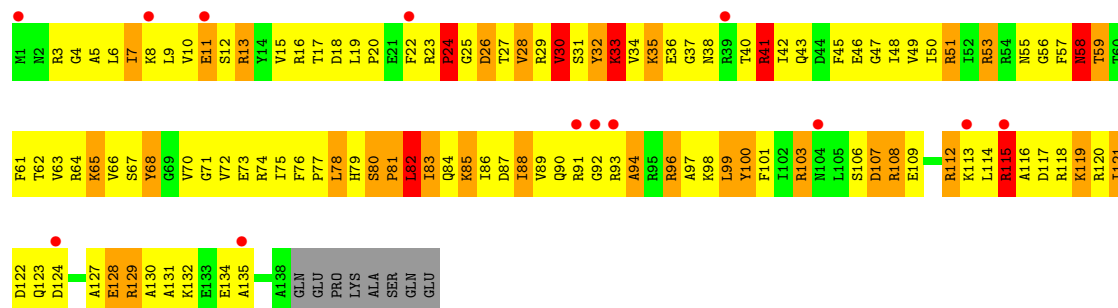
• Molecule 48: 50S RIBOSOMAL PROTEIN L18

Chain DS:



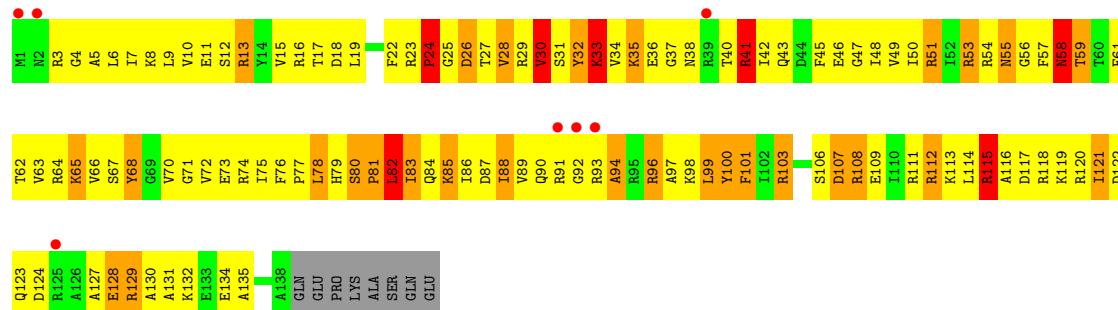
• Molecule 49: 50S RIBOSOMAL PROTEIN L19

Chain BT:



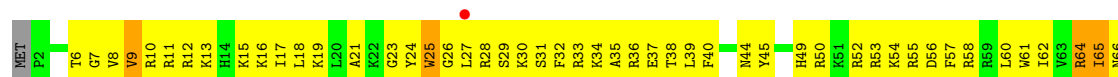
• Molecule 49: 50S RIBOSOMAL PROTEIN L19

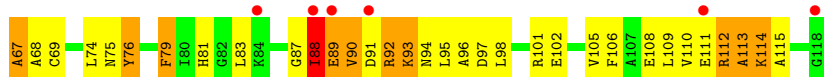
Chain DT:



• Molecule 50: 50S RIBOSOMAL PROTEIN L20

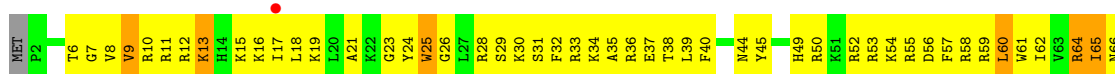
Chain BU:





• Molecule 50: 50S RIBOSOMAL PROTEIN L20

Chain DU:



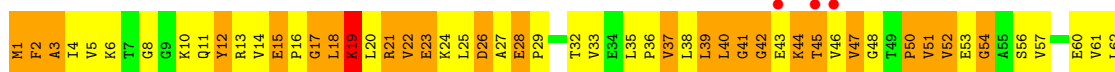
• Molecule 51: 50S RIBOSOMAL PROTEIN L21

Chain BV:



• Molecule 51: 50S RIBOSOMAL PROTEIN L21

Chain DV:



• Molecule 52: 50S RIBOSOMAL PROTEIN L22

Chain BW:



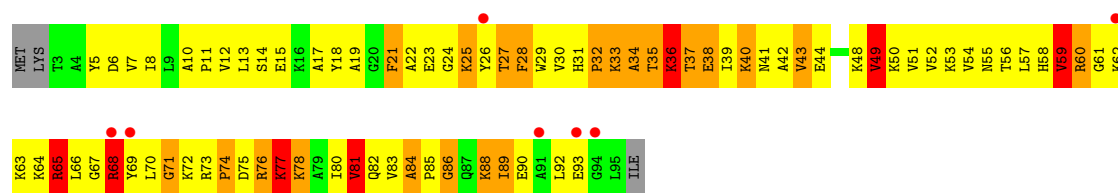
• Molecule 52: 50S RIBOSOMAL PROTEIN L22

Chain DW:



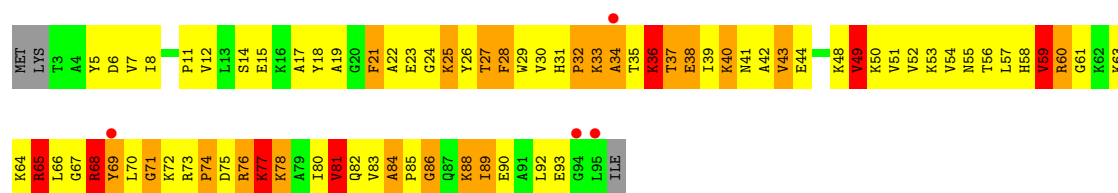
- Molecule 53: 50S RIBOSOMAL PROTEIN L23

Chain BX:



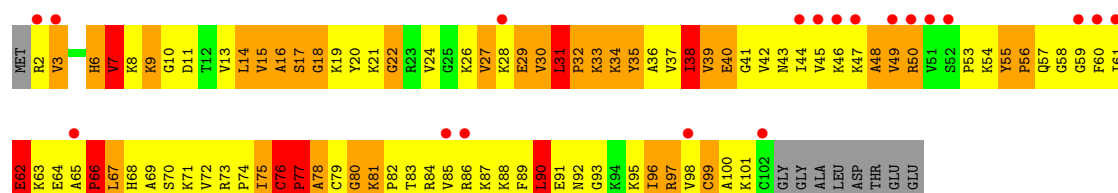
- Molecule 53: 50S RIBOSOMAL PROTEIN L23

Chain DX:



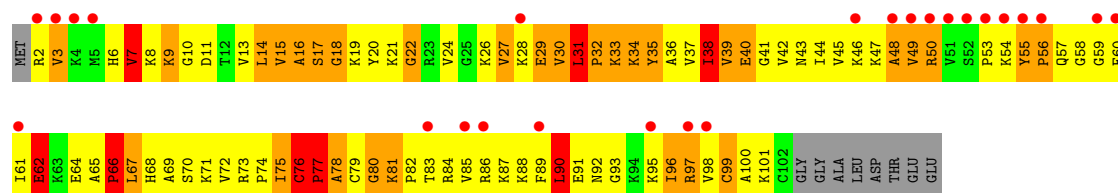
- Molecule 54: 50S RIBOSOMAL PROTEIN L24

Chain BY:



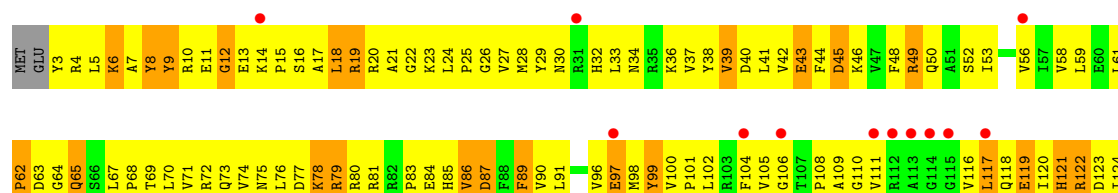
- Molecule 54: 50S RIBOSOMAL PROTEIN L24

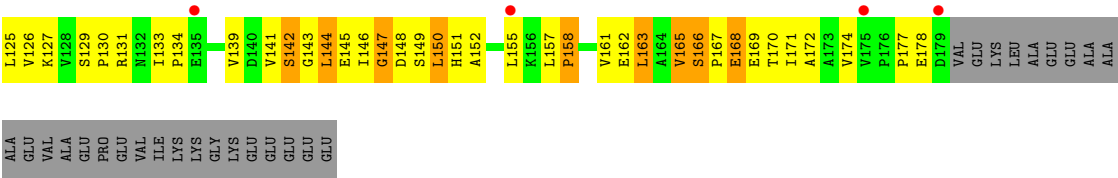
Chain DY:



- Molecule 55: 50S RIBOSOMAL PROTEIN L25

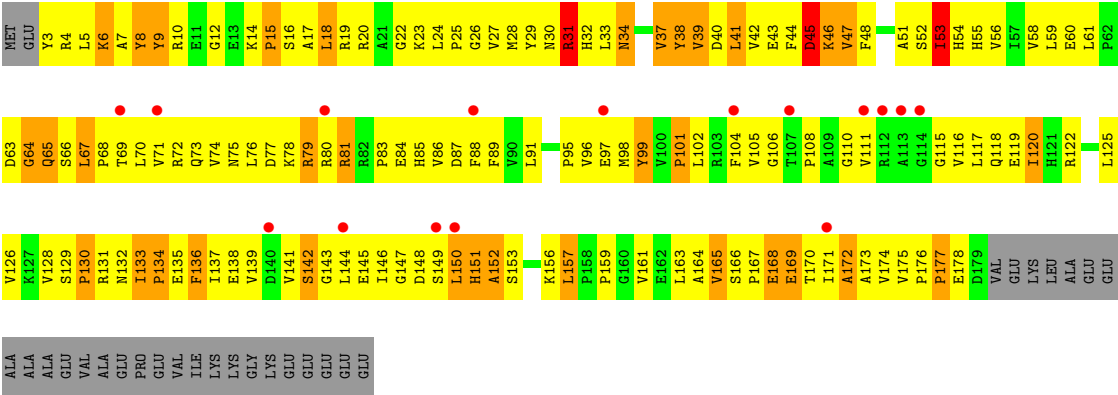
Chain BZ:





● Molecule 55: 50S RIBOSOMAL PROTEIN L25

Chain DZ:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	213.32Å 452.95Å 631.36Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 2.80 49.96 – 2.80	Depositor EDS
% Data completeness (in resolution range)	90.7 (50.00-2.80) 90.7 (49.96-2.80)	Depositor EDS
R_{merge}	0.28	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.84 (at 2.81Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.272 , 0.313 0.268 , 0.309	Depositor DCC
R_{free} test set	64102 reflections (5.01%)	DCC
Wilson B-factor (Å ²)	36.9	Xtriage
Anisotropy	0.160	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.19 , 44.6	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.35$, $\langle L^2 \rangle = 0.17$	Xtriage
Outliers	0 of 1342659 reflections	Xtriage
F_o, F_c correlation	0.86	EDS
Total number of atoms	291077	wwPDB-VP
Average B, all atoms (Å ²)	58.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.24% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: 5MU, ZN, MG, PAR

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	0.50	0/36190	0.71	20/56486 (0.0%)
1	CA	0.47	0/36190	0.71	24/56486 (0.0%)
2	AB	0.33	0/1936	0.59	0/2611
2	CB	0.33	0/1936	0.59	0/2611
3	AC	0.35	0/1637	0.58	0/2207
3	CC	0.34	0/1637	0.58	0/2207
4	AD	0.42	0/1733	0.67	0/2318
4	CD	0.41	0/1733	0.66	0/2318
5	AE	0.41	0/1163	0.66	0/1566
5	CE	0.39	0/1163	0.65	0/1566
6	AF	0.37	0/856	0.64	0/1154
6	CF	0.38	0/856	0.65	0/1154
7	AG	0.34	0/1276	0.54	0/1709
7	CG	0.33	0/1276	0.54	0/1709
8	AH	0.35	0/1136	0.62	0/1527
8	CH	0.34	0/1136	0.62	0/1527
9	AI	0.32	0/1027	0.55	0/1372
9	CI	0.32	0/1027	0.55	0/1372
10	AJ	0.36	0/808	0.62	0/1087
10	CJ	0.34	0/808	0.62	0/1087
11	AK	0.38	0/900	0.64	0/1213
11	CK	0.35	0/900	0.63	0/1213
12	AL	0.42	0/987	0.71	0/1322
12	CL	0.43	0/987	0.73	0/1322
13	AM	0.34	0/994	0.62	0/1322
13	CM	0.32	0/994	0.61	0/1322
14	AN	0.39	0/501	0.66	0/664
14	CN	0.38	0/501	0.64	0/664
15	AO	0.38	0/745	0.63	0/992
15	CO	0.36	0/745	0.61	0/992
16	AP	0.43	0/717	0.69	0/965
16	CP	0.42	0/717	0.68	0/965

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.41	0/837	0.67	0/1119
17	CQ	0.38	0/837	0.66	0/1119
18	AR	0.39	0/579	0.70	0/768
18	CR	0.38	0/579	0.70	0/768
19	AS	0.37	0/643	0.61	0/867
19	CS	0.36	0/643	0.60	0/867
20	AT	0.33	0/765	0.59	0/1007
20	CT	0.32	0/765	0.59	0/1007
21	AU	0.45	0/213	0.56	0/279
21	CU	0.44	0/213	0.55	0/279
22	AV	0.51	1/1814 (0.1%)	0.72	0/2825
22	CV	0.50	1/1814 (0.1%)	0.72	0/2825
23	AW	0.43	1/1813 (0.1%)	0.77	6/2823 (0.2%)
23	AY	0.36	0/456	0.72	0/710
23	CW	0.45	1/1813 (0.1%)	0.76	2/2823 (0.1%)
23	CY	0.35	0/456	0.68	0/710
24	AX	0.73	1/264 (0.4%)	0.84	0/407
24	CX	0.73	1/264 (0.4%)	0.81	1/407 (0.2%)
25	B0	0.38	0/658	0.65	0/878
25	D0	0.39	0/658	0.65	0/878
26	B1	0.61	0/700	1.04	1/931 (0.1%)
26	D1	0.52	0/700	0.99	1/931 (0.1%)
27	B2	0.45	0/423	0.99	3/560 (0.5%)
27	D2	0.45	0/423	0.89	2/560 (0.4%)
28	B3	0.37	0/473	0.61	0/636
28	D3	0.39	0/473	0.61	0/636
29	B4	0.47	0/241	0.88	4/334 (1.2%)
29	D4	0.44	0/241	0.88	4/334 (1.2%)
30	B5	0.42	0/473	0.74	0/639
30	D5	0.40	0/473	0.73	0/639
31	B6	0.39	0/387	0.62	0/517
31	D6	0.39	0/387	0.62	0/517
32	B7	0.51	0/427	0.73	0/563
32	D7	0.53	0/427	0.70	0/563
33	B8	0.50	0/516	0.81	0/681
33	D8	0.48	0/516	0.80	0/681
34	BA	0.62	4/66876 (0.0%)	0.77	56/104407 (0.1%)
34	DA	0.62	5/66876 (0.0%)	0.77	53/104407 (0.1%)
35	BB	0.39	0/2853	0.70	0/4451
35	DB	0.38	0/2853	0.70	0/4451
36	BC	0.38	0/1145	0.68	7/1556 (0.4%)
36	DC	0.40	0/1145	0.68	7/1556 (0.4%)
37	BD	0.52	0/2155	0.87	3/2907 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
37	DD	0.51	0/2155	0.86	3/2907 (0.1%)
38	BE	0.43	0/1597	0.76	0/2155
38	DE	0.45	0/1597	0.77	0/2155
39	BF	0.45	0/1659	0.70	0/2246
39	DF	0.44	0/1659	0.69	0/2246
40	BG	0.39	0/1498	0.72	1/2013 (0.0%)
40	DG	0.35	0/1498	0.73	0/2013
41	BH	0.33	0/1246	0.69	0/1684
41	DH	0.35	0/1246	0.69	0/1684
42	BI	0.35	0/1147	0.66	0/1553
42	DI	0.34	0/1147	0.66	0/1553
43	BN	0.40	0/1132	0.78	0/1527
43	DN	0.45	0/1132	0.79	0/1527
44	BO	0.48	0/943	0.74	0/1269
44	DO	0.49	0/943	0.75	0/1269
45	BP	0.42	0/1131	1.00	6/1504 (0.4%)
45	DP	0.41	0/1131	1.00	7/1504 (0.5%)
46	BQ	0.37	0/1100	0.72	1/1470 (0.1%)
46	DQ	0.37	0/1100	0.72	1/1470 (0.1%)
47	BR	0.40	0/974	0.74	1/1302 (0.1%)
47	DR	0.38	0/974	0.74	1/1302 (0.1%)
48	BS	0.40	0/779	0.73	0/1038
48	DS	0.39	0/779	0.73	0/1038
49	BT	0.42	0/1156	0.77	2/1544 (0.1%)
49	DT	0.42	0/1156	0.77	1/1544 (0.1%)
50	BU	0.37	0/975	0.68	0/1297
50	DU	0.40	0/975	0.69	0/1297
51	BV	0.38	0/789	0.73	0/1054
51	DV	0.40	0/789	0.73	0/1054
52	BW	0.43	0/907	0.72	0/1216
52	DW	0.45	0/907	0.72	0/1216
53	BX	0.53	0/740	0.89	3/995 (0.3%)
53	DX	0.50	0/740	0.89	3/995 (0.3%)
54	BY	0.41	0/789	0.78	0/1053
54	DY	0.43	0/789	0.78	0/1053
55	BZ	0.35	0/1436	0.64	0/1951
55	DZ	0.36	0/1436	0.62	0/1951
All	All	0.52	15/314630 (0.0%)	0.74	224/470502 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	2	37
1	CA	2	29
22	AV	0	2
22	CV	0	2
23	AW	3	1
23	CW	2	0
24	CX	0	1
26	B1	0	1
34	BA	30	81
34	DA	28	79
All	All	67	233

All (15) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	CX	12	A	OP3-P	-7.28	1.52	1.61
23	CW	1	G	OP3-P	-7.25	1.52	1.61
23	AW	1	G	OP3-P	-7.19	1.52	1.61
22	CV	1	C	OP3-P	-7.12	1.52	1.61
24	AX	12	A	OP3-P	-7.08	1.52	1.61
22	AV	1	C	OP3-P	-6.95	1.52	1.61
34	BA	783	A	C5-C6	-6.34	1.35	1.41
34	BA	774	A	C5-C6	-6.20	1.35	1.41
34	DA	783	A	C5-C6	-6.18	1.35	1.41
34	DA	656	G	O5'-C5'	5.50	1.53	1.44
34	DA	652	C	C3'-O3'	5.42	1.49	1.42
34	BA	652	C	C3'-O3'	5.41	1.49	1.42
34	DA	768	G	C5-C6	-5.33	1.37	1.42
34	BA	656	G	O5'-C5'	5.32	1.52	1.44
34	DA	1786	A	C5-C6	-5.16	1.36	1.41

All (224) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	CW	17	C	N1-C1'-C2'	10.99	128.28	114.00
34	DA	1962	C	N1-C1'-C2'	10.90	128.18	114.00
34	BA	1962	C	N1-C1'-C2'	10.48	127.62	114.00
34	BA	669	G	N9-C1'-C2'	10.36	127.47	114.00
34	DA	669	G	N9-C1'-C2'	10.24	127.32	114.00
34	BA	1722	A	N9-C1'-C2'	9.93	126.91	114.00
34	BA	1397	U	C2'-C3'-O3'	9.86	131.19	109.50
34	DA	1397	U	C2'-C3'-O3'	9.86	131.20	109.50
34	DA	1722	A	N9-C1'-C2'	9.68	126.58	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	DA	1250	G	C2'-C3'-O3'	9.46	130.32	109.50
34	DA	283	A	C2'-C3'-O3'	9.28	129.93	109.50
34	BA	1250	G	C2'-C3'-O3'	9.26	129.88	109.50
45	DP	53	GLY	N-CA-C	-9.17	90.18	113.10
34	BA	283	A	C2'-C3'-O3'	9.06	129.44	109.50
45	BP	53	GLY	N-CA-C	-8.99	90.63	113.10
34	DA	1819	A	C2'-C3'-O3'	8.82	128.91	109.50
34	BA	2360	A	N9-C1'-C2'	-8.80	102.32	112.00
34	BA	1300	U	N1-C1'-C2'	8.75	125.38	114.00
34	DA	1300	U	N1-C1'-C2'	8.65	125.24	114.00
1	AA	1498	U	C2'-C3'-O3'	8.62	128.47	109.50
34	BA	1819	A	C2'-C3'-O3'	8.58	128.37	109.50
34	DA	2360	A	N9-C1'-C2'	-8.46	102.69	112.00
34	BA	1544	A	N9-C1'-C2'	8.45	124.99	114.00
34	DA	1544	A	N9-C1'-C2'	8.42	124.94	114.00
1	CA	412	A	N9-C1'-C2'	8.32	124.82	114.00
23	CW	70	G	C2'-C3'-O3'	8.30	127.77	109.50
1	AA	412	A	N9-C1'-C2'	8.28	124.77	114.00
34	DA	2662	A	N9-C1'-C2'	8.02	124.43	114.00
34	BA	2662	A	N9-C1'-C2'	7.96	124.34	114.00
34	DA	1820	U	C2'-C3'-O3'	7.93	126.94	109.50
45	DP	41	ARG	N-CA-C	-7.83	89.87	111.00
45	DP	52	GLU	N-CA-C	7.81	132.09	111.00
45	BP	52	GLU	N-CA-C	7.77	131.98	111.00
1	CA	575	G	C2'-C3'-O3'	7.70	126.45	109.50
1	AA	575	G	C2'-C3'-O3'	7.70	126.44	109.50
27	D2	53	LEU	N-CA-C	-7.68	90.26	111.00
23	AW	47	U	N1-C1'-C2'	7.68	123.98	114.00
45	BP	41	ARG	N-CA-C	-7.63	90.40	111.00
1	CA	1498	U	C2'-C3'-O3'	7.61	126.25	109.50
34	BA	1652	A	C2'-C3'-O3'	7.61	126.25	109.50
34	BA	1458	C	N1-C1'-C2'	7.61	123.89	114.00
34	DA	2191	G	C2'-C3'-O3'	7.61	126.24	109.50
45	BP	59	LEU	N-CA-C	-7.60	90.47	111.00
1	AA	410	G	C2'-C3'-O3'	7.54	126.08	109.50
1	AA	366	C	C2'-C3'-O3'	7.52	126.05	109.50
45	DP	59	LEU	N-CA-C	-7.51	90.73	111.00
34	BA	2191	G	C2'-C3'-O3'	7.51	126.02	109.50
37	BD	238	GLY	N-CA-C	-7.49	94.37	113.10
1	CA	410	G	C2'-C3'-O3'	7.49	125.98	109.50
34	BA	783	A	N9-C1'-C2'	-7.47	103.78	112.00
34	BA	1786	A	N9-C1'-C2'	7.44	123.68	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	DA	1458	C	N1-C1'-C2'	7.43	123.65	114.00
34	BA	472	A	C2'-C3'-O3'	7.41	125.80	109.50
34	DA	472	A	C2'-C3'-O3'	7.38	125.73	109.50
34	DA	1484	G	C2'-C3'-O3'	7.36	125.70	109.50
34	DA	1652	A	C2'-C3'-O3'	7.34	125.64	109.50
34	DA	783	A	N9-C1'-C2'	-7.31	103.95	112.00
1	CA	366	C	C2'-C3'-O3'	7.28	125.52	109.50
1	CA	1064	G	C2'-C3'-O3'	7.27	125.49	109.50
37	DD	238	GLY	N-CA-C	-7.26	94.96	113.10
34	BA	1484	G	C2'-C3'-O3'	7.23	125.41	109.50
34	DA	1694	C	C2'-C3'-O3'	7.22	125.39	109.50
23	AW	70	G	C2'-C3'-O3'	7.22	125.38	109.50
1	CA	115	G	C2'-C3'-O3'	7.21	125.37	109.50
1	AA	1064	G	C2'-C3'-O3'	7.17	125.28	109.50
1	AA	115	G	C2'-C3'-O3'	7.05	125.01	109.50
34	DA	2796	U	N1-C1'-C2'	7.03	123.13	114.00
34	DA	1786	A	N9-C1'-C2'	6.99	123.09	114.00
45	DP	54	GLY	N-CA-C	-6.95	95.72	113.10
37	DD	237	GLU	N-CA-C	6.93	129.72	111.00
34	BA	2796	U	N1-C1'-C2'	6.91	122.98	114.00
45	BP	54	GLY	N-CA-C	-6.85	95.98	113.10
37	BD	237	GLU	N-CA-C	6.82	129.40	111.00
34	BA	1379	A	N9-C1'-C2'	6.81	122.85	114.00
34	BA	1694	C	C2'-C3'-O3'	6.80	124.58	113.70
34	BA	1820	U	C2'-C3'-O3'	6.71	124.43	113.70
23	AW	17	C	N1-C1'-C2'	6.71	122.72	114.00
34	DA	2033	A	N9-C1'-C2'	6.68	122.69	114.00
27	B2	51	ARG	N-CA-C	-6.62	93.11	111.00
1	AA	1504	G	C2'-C3'-O3'	6.62	124.30	113.70
26	D1	9	GLY	N-CA-C	-6.59	96.61	113.10
34	BA	2033	A	N9-C1'-C2'	6.54	122.50	114.00
34	BA	1992	G	N9-C1'-C2'	6.54	122.50	114.00
34	DA	1379	A	N9-C1'-C2'	6.46	122.40	114.00
34	DA	2225	A	C2'-C3'-O3'	6.38	123.90	113.70
34	DA	1616	A	N9-C1'-C2'	6.32	122.22	114.00
37	BD	267	SER	N-CA-C	-6.29	94.03	111.00
34	DA	1992	G	N9-C1'-C2'	6.29	122.17	114.00
34	DA	1773	A	N9-C1'-C2'	-6.29	105.09	112.00
23	AW	5	G	N9-C1'-C2'	-6.27	105.10	112.00
1	AA	913	A	C2'-C3'-O3'	6.25	123.71	113.70
23	AW	47	U	O4'-C1'-N1	6.23	113.19	108.20
1	CA	760	G	N9-C1'-C2'	-6.21	105.17	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	1616	A	N9-C1'-C2'	6.18	122.04	114.00
53	DX	75	ASP	N-CA-C	-6.15	94.41	111.00
34	BA	1773	A	N9-C1'-C2'	-6.13	105.26	112.00
37	DD	267	SER	N-CA-C	-6.12	94.46	111.00
34	DA	2286	A	N9-C1'-C2'	6.12	121.95	114.00
1	AA	760	G	N9-C1'-C2'	-6.09	105.30	112.00
1	CA	428	G	C2'-C3'-O3'	6.09	123.45	113.70
34	DA	562	U	N1-C1'-C2'	6.09	121.91	114.00
36	BC	174	PRO	N-CA-CB	6.05	110.56	103.30
34	BA	1934	C	C2'-C3'-O3'	6.03	123.34	113.70
34	BA	1301	A	N9-C1'-C2'	6.02	121.83	114.00
34	BA	1970	A	C5'-C4'-O4'	6.00	116.30	109.10
34	DA	1301	A	N9-C1'-C2'	5.98	121.77	114.00
1	AA	428	G	C2'-C3'-O3'	5.98	123.26	113.70
34	BA	671	C	C5'-C4'-O4'	-5.93	101.98	109.10
36	DC	174	PRO	N-CA-CB	5.92	110.41	103.30
1	CA	266	G	C2'-C3'-O3'	5.88	123.11	113.70
34	BA	562	U	N1-C1'-C2'	5.87	121.63	114.00
45	DP	58	THR	N-CA-C	-5.86	95.18	111.00
34	BA	2286	A	N9-C1'-C2'	5.85	121.61	114.00
53	BX	75	ASP	N-CA-C	-5.85	95.20	111.00
34	BA	2225	A	C2'-C3'-O3'	5.85	123.06	113.70
29	D4	41	PRO	N-CA-CB	5.82	110.29	103.30
34	BA	265	A	N9-C1'-C2'	5.82	121.56	114.00
29	B4	41	PRO	N-CA-CB	5.81	110.27	103.30
34	DA	1934	C	C2'-C3'-O3'	5.80	122.98	113.70
34	BA	1820	U	C4'-C3'-C2'	5.80	108.40	102.60
1	CA	533	A	C2'-C3'-O3'	5.76	122.92	113.70
40	BG	54	GLU	N-CA-C	-5.75	95.47	111.00
34	DA	671	C	C5'-C4'-O4'	-5.74	102.21	109.10
34	DA	673	C	C5'-C4'-C3'	-5.73	106.83	116.00
1	CA	913	A	C2'-C3'-O3'	5.71	122.84	113.70
34	DA	265	A	N9-C1'-C2'	5.71	121.43	114.00
1	AA	266	G	C2'-C3'-O3'	5.69	122.81	113.70
46	BQ	11	LYS	N-CA-C	-5.68	95.66	111.00
34	BA	386	G	N9-C1'-C2'	5.68	121.38	114.00
34	DA	2796	U	O4'-C1'-N1	5.66	112.73	108.20
34	DA	272	G	C2'-C3'-O3'	5.66	122.75	113.70
34	BA	1694	C	N1-C1'-C2'	5.64	121.33	114.00
29	D4	29	PRO	N-CA-CB	5.62	110.05	103.30
29	B4	29	PRO	N-CA-CB	5.62	110.04	103.30
1	AA	412	A	O4'-C1'-N9	5.61	112.69	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	B2	55	ARG	N-CA-C	-5.61	95.86	111.00
45	BP	58	THR	N-CA-C	-5.61	95.86	111.00
1	CA	1335	C	N1-C1'-C2'	5.61	121.29	114.00
46	DQ	11	LYS	N-CA-C	-5.60	95.88	111.00
34	BA	2796	U	O4'-C1'-N1	5.59	112.67	108.20
36	BC	133	PRO	N-CA-CB	5.59	110.01	103.30
34	BA	673	C	C5'-C4'-C3'	-5.59	107.06	116.00
34	BA	272	G	C2'-C3'-O3'	5.58	122.62	113.70
34	BA	2859	G	C2'-C3'-O3'	5.57	122.60	113.70
1	CA	1504	G	C2'-C3'-O3'	5.56	122.60	113.70
34	DA	2859	G	C2'-C3'-O3'	5.56	122.59	113.70
27	D2	51	ARG	N-CA-C	-5.55	96.00	111.00
1	CA	1529	G	N9-C1'-C2'	5.55	121.22	114.00
34	DA	386	G	N9-C1'-C2'	5.47	121.11	114.00
36	DC	133	PRO	N-CA-CB	5.47	109.86	103.30
29	B4	11	PRO	N-CA-CB	5.47	109.86	103.30
27	B2	52	ASP	N-CA-C	-5.45	96.30	111.00
34	DA	1987	G	C5'-C4'-O4'	-5.45	102.56	109.10
1	CA	412	A	O4'-C1'-N9	5.44	112.56	108.20
34	BA	1722	A	O4'-C1'-N9	5.44	112.55	108.20
36	DC	220	PRO	N-CA-CB	5.43	109.82	103.30
29	D4	11	PRO	N-CA-CB	5.42	109.81	103.30
34	DA	488	G	N9-C1'-C2'	-5.41	106.05	112.00
34	BA	1992	G	C2'-C3'-O3'	5.41	122.36	113.70
36	BC	220	PRO	N-CA-CB	5.40	109.78	103.30
34	BA	387	U	C2'-C3'-O3'	5.40	122.33	113.70
36	BC	140	PRO	N-CA-CB	5.38	109.76	103.30
34	DA	1992	G	C2'-C3'-O3'	5.37	122.30	113.70
36	DC	140	PRO	N-CA-CB	5.37	109.74	103.30
49	BT	30	VAL	N-CA-C	5.36	125.48	111.00
34	DA	1495	A	N9-C1'-C2'	5.36	120.96	114.00
34	BA	2346	A	N9-C1'-C2'	5.35	120.96	114.00
34	DA	1722	A	O4'-C1'-N9	5.34	112.48	108.20
1	AA	533	A	C2'-C3'-O3'	5.34	122.24	113.70
1	CA	920	U	C5'-C4'-C3'	-5.33	107.47	116.00
1	AA	1335	C	N1-C1'-C2'	5.33	120.93	114.00
1	CA	509	A	C2'-C3'-O3'	5.32	122.20	113.70
1	CA	586	C	N1-C1'-C2'	-5.31	106.16	112.00
34	DA	1694	C	N1-C1'-C2'	5.31	120.91	114.00
53	BX	77	LYS	N-CA-C	5.31	125.34	111.00
29	D4	7	PRO	N-CA-CB	5.30	109.66	103.30
36	BC	182	PRO	N-CA-CB	5.30	109.66	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	DC	182	PRO	N-CA-CB	5.30	109.66	103.30
34	DA	1822	G	C5'-C4'-O4'	-5.29	102.75	109.10
26	B1	65	SER	N-CA-C	-5.29	96.72	111.00
34	BA	1822	G	C5'-C4'-O4'	-5.28	102.77	109.10
34	DA	629	G	C5'-C4'-C3'	-5.26	107.59	116.00
49	DT	30	VAL	N-CA-C	5.25	125.18	111.00
34	BA	493	G	C5'-C4'-C3'	-5.25	107.60	116.00
34	BA	1495	A	N9-C1'-C2'	5.23	120.80	114.00
34	BA	1987	G	C5'-C4'-O4'	-5.22	102.83	109.10
23	AW	15	G	C2'-C3'-O3'	5.22	122.05	113.70
1	CA	410	G	C4'-C3'-O3'	5.21	123.43	113.00
53	DX	77	LYS	N-CA-C	5.21	125.08	111.00
34	DA	1970	A	C5'-C4'-O4'	5.21	115.35	109.10
1	AA	410	G	C4'-C3'-O3'	5.21	123.41	113.00
36	BC	201	PRO	N-CA-CB	5.20	109.54	103.30
36	DC	201	PRO	N-CA-CB	5.20	109.54	103.30
36	DC	181	PRO	N-CA-CB	5.18	109.52	103.30
29	B4	7	PRO	N-CA-CB	5.16	109.49	103.30
1	CA	1201	A	C2'-C3'-O3'	5.16	121.95	113.70
34	DA	1819	A	C4'-C3'-C2'	5.15	107.75	102.60
47	BR	8	ARG	N-CA-C	5.13	124.84	111.00
34	DA	2346	A	N9-C1'-C2'	5.13	120.66	114.00
1	CA	1067	A	C2'-C3'-O3'	5.12	121.89	113.70
34	BA	1000	A	C5'-C4'-C3'	-5.12	107.81	116.00
24	CX	22	A	C2'-C3'-O3'	5.12	121.89	113.70
53	DX	59	VAL	N-CA-C	5.11	124.80	111.00
34	BA	1286	A	N9-C1'-C2'	5.11	120.64	114.00
36	BC	181	PRO	N-CA-CB	5.10	109.42	103.30
1	AA	1067	A	C2'-C3'-O3'	5.09	121.84	113.70
34	BA	629	G	C5'-C4'-C3'	-5.08	107.86	116.00
34	BA	669	G	C5'-C4'-C3'	5.08	124.12	116.00
49	BT	82	LEU	CA-CB-CG	5.08	126.98	115.30
34	BA	1458	C	O4'-C1'-N1	5.07	112.25	108.20
1	AA	1201	A	C2'-C3'-O3'	5.06	121.79	113.70
34	DA	1458	C	O4'-C1'-N1	5.06	112.25	108.20
1	CA	572	A	N9-C1'-C2'	5.05	120.57	114.00
34	DA	1635	G	C5'-C4'-O4'	-5.05	103.04	109.10
47	DR	8	ARG	N-CA-C	5.05	124.64	111.00
1	CA	107	G	N9-C1'-C2'	-5.05	106.45	112.00
53	BX	59	VAL	N-CA-C	5.05	124.63	111.00
1	AA	920	U	C5'-C4'-C3'	-5.04	107.94	116.00
1	AA	509	A	C2'-C3'-O3'	5.02	121.74	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BA	283	A	C4'-C3'-O3'	5.01	123.02	113.00
45	DP	51	PHE	N-CA-C	5.01	124.53	111.00
34	DA	1000	A	C5'-C4'-C3'	-5.01	107.99	116.00
34	DA	100	G	O4'-C1'-N9	5.01	112.20	108.20
34	BA	1250	G	C4'-C3'-C2'	5.00	107.61	102.60

All (67) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	AA	410	G	C3'
1	AA	412	A	C1'
23	AW	17	C	C1'
23	AW	47	U	C1'
23	AW	70	G	C3'
34	BA	100	G	C1'
34	BA	283	A	C3'
34	BA	472	A	C3'
34	BA	669	G	C4',C3',C1'
34	BA	945	A	C1'
34	BA	1250	G	C3'
34	BA	1300	U	C4',C3',C1'
34	BA	1379	A	C1'
34	BA	1397	U	C3'
34	BA	1458	C	C1'
34	BA	1484	G	C3'
34	BA	1544	A	C1'
34	BA	1609	A	C2'
34	BA	1652	A	C3'
34	BA	1694	C	C4',C3'
34	BA	1697	G	C3'
34	BA	1722	A	C1'
34	BA	1819	A	C3'
34	BA	1934	C	C3'
34	BA	1962	C	C4',C1'
34	BA	2191	G	C3'
34	BA	2286	A	C1'
34	BA	2662	A	C1'
34	BA	2796	U	C1'
1	CA	410	G	C3'
1	CA	412	A	C1'
23	CW	17	C	C1'
23	CW	70	G	C3'

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Mol	Chain	Res	Type	Atom
34	DA	100	G	C1'
34	DA	283	A	C3'
34	DA	472	A	C3'
34	DA	669	G	C4',C3',C1'
34	DA	945	A	C1'
34	DA	1300	U	C4',C3',C1'
34	DA	1379	A	C1'
34	DA	1458	C	C1'
34	DA	1484	G	C3'
34	DA	1544	A	C1'
34	DA	1609	A	C2'
34	DA	1652	A	C3'
34	DA	1694	C	C4',C3'
34	DA	1697	G	C3'
34	DA	1722	A	C1'
34	DA	1819	A	C3'
34	DA	1934	C	C3'
34	DA	1962	C	C4',C1'
34	DA	2191	G	C3'
34	DA	2286	A	C1'
34	DA	2662	A	C1'
34	DA	2796	U	C1'

All (233) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	107	G	Sidechain
1	AA	1077	G	Sidechain
1	AA	1220	G	Sidechain
1	AA	1293	G	Sidechain
1	AA	1373	G	Sidechain
1	AA	1391	U	Sidechain
1	AA	1417	G	Sidechain
1	AA	1418	A	Sidechain
1	AA	1420	C	Sidechain
1	AA	1434	A	Sidechain
1	AA	1463	C	Sidechain
1	AA	1474	G	Sidechain
1	AA	1485	U	Sidechain
1	AA	1525	G	Sidechain
1	AA	1528	U	Sidechain
1	AA	253	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	371	G	Sidechain
1	AA	38	G	Sidechain
1	AA	438	G	Sidechain
1	AA	541	G	Sidechain
1	AA	575	G	Sidechain
1	AA	587	G	Sidechain
1	AA	622	A	Sidechain
1	AA	682	G	Sidechain
1	AA	691	G	Sidechain
1	AA	724	G	Sidechain
1	AA	740	U	Sidechain
1	AA	760	G	Sidechain
1	AA	773	G	Sidechain
1	AA	801	U	Sidechain
1	AA	832	C	Sidechain
1	AA	880	C	Sidechain
1	AA	884	U	Sidechain
1	AA	898	G	Sidechain
1	AA	9	G	Sidechain
1	AA	900	A	Sidechain
1	AA	991	U	Sidechain
22	AV	25	C	Sidechain
22	AV	4	G	Sidechain
23	AW	39	U	Sidechain
26	B1	43	TYR	Sidechain
34	BA	1023	U	Sidechain
34	BA	1132	A	Sidechain
34	BA	1158	C	Sidechain
34	BA	1161	C	Sidechain
34	BA	1188	U	Sidechain
34	BA	1192	G	Sidechain
34	BA	1340	U	Sidechain
34	BA	1352	U	Sidechain
34	BA	1370	C	Sidechain
34	BA	1611	C	Sidechain
34	BA	1647	G	Sidechain
34	BA	1675	C	Sidechain
34	BA	1692	U	Sidechain
34	BA	1758	G	Sidechain
34	BA	1772	G	Sidechain
34	BA	1773	A	Sidechain
34	BA	1775	U	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	1807	G	Sidechain
34	BA	1808	U	Sidechain
34	BA	1820	U	Sidechain
34	BA	1834	U	Sidechain
34	BA	188	G	Sidechain
34	BA	189	G	Sidechain
34	BA	1898	U	Sidechain
34	BA	1940	U	Sidechain
34	BA	1980	G	Sidechain
34	BA	1985	G	Sidechain
34	BA	1992	G	Sidechain
34	BA	2004	G	Sidechain
34	BA	2009	G	Sidechain
34	BA	201	C	Sidechain
34	BA	2010	G	Sidechain
34	BA	2017	U	Sidechain
34	BA	2033	A	Sidechain
34	BA	2079	U	Sidechain
34	BA	2090	G	Sidechain
34	BA	2306	C	Sidechain
34	BA	2360	A	Sidechain
34	BA	242	G	Sidechain
34	BA	2454	G	Sidechain
34	BA	2464	C	Sidechain
34	BA	2517	C	Sidechain
34	BA	2564	A	Sidechain
34	BA	2569	G	Sidechain
34	BA	2582	G	Sidechain
34	BA	2597	G	Sidechain
34	BA	2603	G	Sidechain
34	BA	2605	U	Sidechain
34	BA	2682	U	Sidechain
34	BA	271(H)	G	Sidechain
34	BA	271(Q)	G	Sidechain
34	BA	271(Y)	U	Sidechain
34	BA	2764	A	Sidechain
34	BA	2779	U	Sidechain
34	BA	379	G	Sidechain
34	BA	398	G	Sidechain
34	BA	459	U	Sidechain
34	BA	463	G	Sidechain
34	BA	465	G	Sidechain

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Mol	Chain	Res	Type	Group
34	BA	475	U	Sidechain
34	BA	476	G	Sidechain
34	BA	488	G	Sidechain
34	BA	505	A	Sidechain
34	BA	532	A	Sidechain
34	BA	542	C	Sidechain
34	BA	543	C	Sidechain
34	BA	562	U	Sidechain
34	BA	570	G	Sidechain
34	BA	588	U	Sidechain
34	BA	669	G	Sidechain
34	BA	670	A	Sidechain
34	BA	692	C	Sidechain
34	BA	700	G	Sidechain
34	BA	734	A	Sidechain
34	BA	74	A	Sidechain
34	BA	79	G	Sidechain
34	BA	802	A	Sidechain
34	BA	810	U	Sidechain
34	BA	939	G	Sidechain
34	BA	968	G	Sidechain
34	BA	987	G	Sidechain
1	CA	107	G	Sidechain
1	CA	1077	G	Sidechain
1	CA	1293	G	Sidechain
1	CA	1364	U	Sidechain
1	CA	1373	G	Sidechain
1	CA	1393	U	Sidechain
1	CA	1486	G	Sidechain
1	CA	1495	U	Sidechain
1	CA	1498	U	Sidechain
1	CA	1502	A	Sidechain
1	CA	1522	U	Sidechain
1	CA	24	U	Sidechain
1	CA	253	U	Sidechain
1	CA	266	G	Sidechain
1	CA	38	G	Sidechain
1	CA	438	G	Sidechain
1	CA	587	G	Sidechain
1	CA	691	G	Sidechain
1	CA	724	G	Sidechain
1	CA	740	U	Sidechain

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Mol	Chain	Res	Type	Group
1	CA	760	G	Sidechain
1	CA	773	G	Sidechain
1	CA	801	U	Sidechain
1	CA	832	C	Sidechain
1	CA	879	C	Sidechain
1	CA	880	C	Sidechain
1	CA	884	U	Sidechain
1	CA	9	G	Sidechain
1	CA	900	A	Sidechain
22	CV	4	G	Sidechain
22	CV	52	G	Sidechain
24	CX	18	G	Sidechain
34	DA	1023	U	Sidechain
34	DA	1025	G	Sidechain
34	DA	1132	A	Sidechain
34	DA	1158	C	Sidechain
34	DA	1161	C	Sidechain
34	DA	1188	U	Sidechain
34	DA	1192	G	Sidechain
34	DA	1340	U	Sidechain
34	DA	1349	A	Sidechain
34	DA	1352	U	Sidechain
34	DA	1438	U	Sidechain
34	DA	1629	U	Sidechain
34	DA	1647	G	Sidechain
34	DA	1675	C	Sidechain
34	DA	1692	U	Sidechain
34	DA	1758	G	Sidechain
34	DA	1772	G	Sidechain
34	DA	1773	A	Sidechain
34	DA	1775	U	Sidechain
34	DA	1807	G	Sidechain
34	DA	1834	U	Sidechain
34	DA	189	G	Sidechain
34	DA	1940	U	Sidechain
34	DA	1985	G	Sidechain
34	DA	1992	G	Sidechain
34	DA	2004	G	Sidechain
34	DA	201	C	Sidechain
34	DA	2010	G	Sidechain
34	DA	2017	U	Sidechain
34	DA	2031	A	Sidechain

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Mol	Chain	Res	Type	Group
34	DA	2033	A	Sidechain
34	DA	2059	A	Sidechain
34	DA	2079	U	Sidechain
34	DA	2090	G	Sidechain
34	DA	2201	C	Sidechain
34	DA	2360	A	Sidechain
34	DA	2434	A	Sidechain
34	DA	2454	G	Sidechain
34	DA	2464	C	Sidechain
34	DA	250	G	Sidechain
34	DA	2517	C	Sidechain
34	DA	2564	A	Sidechain
34	DA	2569	G	Sidechain
34	DA	2581	G	Sidechain
34	DA	2582	G	Sidechain
34	DA	2597	G	Sidechain
34	DA	2603	G	Sidechain
34	DA	2604	U	Sidechain
34	DA	2605	U	Sidechain
34	DA	261	G	Sidechain
34	DA	2682	U	Sidechain
34	DA	271(H)	G	Sidechain
34	DA	271(Q)	G	Sidechain
34	DA	271(Y)	U	Sidechain
34	DA	2764	A	Sidechain
34	DA	2779	U	Sidechain
34	DA	379	G	Sidechain
34	DA	400	G	Sidechain
34	DA	446	G	Sidechain
34	DA	459	U	Sidechain
34	DA	465	G	Sidechain
34	DA	475	U	Sidechain
34	DA	476	G	Sidechain
34	DA	488	G	Sidechain
34	DA	532	A	Sidechain
34	DA	543	C	Sidechain
34	DA	562	U	Sidechain
34	DA	567	A	Sidechain
34	DA	669	G	Sidechain
34	DA	670	A	Sidechain
34	DA	682	G	Sidechain
34	DA	726	G	Sidechain

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Mol	Chain	Res	Type	Group
34	DA	734	A	Sidechain
34	DA	74	A	Sidechain
34	DA	787	U	Sidechain
34	DA	79	G	Sidechain
34	DA	802	A	Sidechain
34	DA	963	U	Sidechain
34	DA	968	G	Sidechain

5.2 Close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32329	0	16314	1351	0
1	CA	32329	0	16316	1334	0
2	AB	1901	0	1951	258	0
2	CB	1901	0	1951	256	0
3	AC	1613	0	1677	209	0
3	CC	1613	0	1677	203	0
4	AD	1703	0	1764	192	0
4	CD	1703	0	1766	191	0
5	AE	1147	0	1207	161	0
5	CE	1147	0	1206	159	0
6	AF	843	0	857	98	0
6	CF	843	0	857	101	0
7	AG	1257	0	1296	125	0
7	CG	1257	0	1296	122	0
8	AH	1116	0	1177	128	0
8	CH	1116	0	1177	130	0
9	AI	1011	0	1041	140	0
9	CI	1011	0	1041	140	0
10	AJ	795	0	840	147	0
10	CJ	795	0	840	144	0
11	AK	885	0	904	104	0
11	CK	885	0	904	96	0
12	AL	971	0	1057	122	0
12	CL	971	0	1057	120	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
13	AM	988	0	1055	156	0
13	CM	988	0	1055	151	0
14	AN	492	0	530	62	0
14	CN	492	0	529	61	0
15	AO	734	0	771	70	0
15	CO	734	0	771	76	0
16	AP	701	0	720	83	0
16	CP	701	0	720	75	0
17	AQ	824	0	891	91	0
17	CQ	824	0	891	90	0
18	AR	574	0	644	97	0
18	CR	574	0	644	94	0
19	AS	630	0	652	106	0
19	CS	630	0	652	106	0
20	AT	763	0	861	106	0
20	CT	763	0	861	102	0
21	AU	209	0	221	23	0
21	CU	209	0	221	22	0
22	AV	1645	0	838	62	0
22	CV	1645	0	838	51	0
23	AW	1623	0	821	83	0
23	AY	407	0	208	16	0
23	CW	1623	0	821	82	0
23	CY	407	0	208	13	0
24	AX	236	0	119	6	0
24	CX	236	0	119	5	0
25	B0	650	0	654	72	0
25	D0	650	0	654	78	0
26	B1	693	0	764	182	0
26	D1	693	0	764	197	0
27	B2	421	0	460	124	0
27	D2	421	0	461	125	0
28	B3	468	0	523	53	0
28	D3	468	0	523	52	0
29	B4	242	0	103	22	0
29	D4	242	0	103	23	0
30	B5	459	0	480	75	0
30	D5	459	0	480	70	0
31	B6	381	0	390	59	0
31	D6	381	0	390	56	0
32	B7	419	0	467	35	0
32	D7	419	0	467	35	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
33	B8	508	0	576	110	0
33	D8	508	0	576	114	0
34	BA	59708	0	30096	2498	0
34	DA	59708	0	30096	2502	0
35	BB	2551	0	1294	106	0
35	DB	2551	0	1294	100	0
36	BC	1142	0	865	109	0
36	DC	1142	0	865	106	0
37	BD	2105	0	2182	357	0
37	DD	2105	0	2182	362	0
38	BE	1564	0	1629	325	0
38	DE	1564	0	1629	323	0
39	BF	1624	0	1677	237	0
39	DF	1624	0	1677	235	0
40	BG	1474	0	1534	237	0
40	DG	1474	0	1534	242	0
41	BH	1223	0	1282	199	0
41	DH	1223	0	1282	211	0
42	BI	1132	0	1218	198	0
42	DI	1132	0	1218	200	0
43	BN	1105	0	1180	209	0
43	DN	1105	0	1180	215	0
44	BO	933	0	996	139	0
44	DO	933	0	996	139	0
45	BP	1114	0	1187	322	0
45	DP	1114	0	1187	322	0
46	BQ	1080	0	1127	224	0
46	DQ	1080	0	1127	214	0
47	BR	960	0	1021	171	0
47	DR	960	0	1021	170	0
48	BS	771	0	832	182	0
48	DS	771	0	831	186	0
49	BT	1142	0	1202	219	0
49	DT	1142	0	1202	231	0
50	BU	958	0	1015	183	0
50	DU	958	0	1014	186	0
51	BV	779	0	851	212	0
51	DV	779	0	851	216	0
52	BW	896	0	953	111	0
52	DW	896	0	953	110	0
53	BX	726	0	778	203	0
53	DX	726	0	778	200	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	BY	776	0	870	220	0
54	DY	776	0	870	216	0
55	BZ	1404	0	1432	219	0
55	DZ	1404	0	1432	241	0
56	AA	215	0	0	0	0
56	AE	1	0	0	0	0
56	AV	7	0	0	0	0
56	AW	22	0	0	0	0
56	AX	4	0	0	0	0
56	AY	1	0	0	0	0
56	B1	1	0	0	0	0
56	B2	5	0	0	0	0
56	B3	1	0	0	0	0
56	B5	2	0	0	0	0
56	B7	2	0	0	0	0
56	BA	454	0	0	0	0
56	BB	19	0	0	0	0
56	BE	1	0	0	0	0
56	BF	2	0	0	0	0
56	BN	1	0	0	0	0
56	BO	1	0	0	0	0
56	BV	1	0	0	0	0
56	BX	1	0	0	0	0
56	CA	189	0	0	0	0
56	CF	1	0	0	0	0
56	CJ	1	0	0	0	0
56	CM	1	0	0	0	0
56	CU	1	0	0	0	0
56	CV	4	0	0	0	0
56	CW	13	0	0	0	0
56	CX	6	0	0	0	0
56	D5	2	0	0	0	0
56	DA	398	0	0	0	0
56	DB	12	0	0	0	0
56	DD	2	0	0	0	0
56	DE	1	0	0	0	0
56	DF	1	0	0	0	0
56	DH	1	0	0	0	0
56	DN	1	0	0	0	0
56	DO	1	0	0	0	0
56	DS	1	0	0	0	0
56	DU	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	DZ	1	0	0	0	0
57	AA	42	0	45	3	0
57	CA	42	0	45	0	0
58	AD	1	0	0	0	0
58	AN	1	0	0	0	0
58	CD	1	0	0	0	0
58	CN	1	0	0	0	0
All	All	291077	0	196199	21272	0

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 44.

All (21272) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:DV:70:ILE:HB	51:DV:90:PRO:HB2	1.21	1.18
3:CC:20:SER:HB2	3:CC:40:ARG:HH22	1.00	1.17
42:BI:79:ILE:HG12	42:BI:140:LEU:HD11	1.21	1.17
37:DD:35:LYS:HD3	37:DD:63:ARG:HB3	1.24	1.17
34:DA:2491:U:H5'	34:DA:2570:G:H5''	1.26	1.16
34:BA:2128:C:H2'	34:BA:2129:C:H5''	1.28	1.16
1:AA:950:U:H3'	13:AM:102:ARG:HH12	1.03	1.16
34:BA:1590:U:H2'	34:BA:1591:G:H5''	1.29	1.15
34:DA:612:C:H2'	34:DA:613:G:H5''	1.25	1.15
34:BA:2701:C:H3'	34:BA:2702:U:H5''	1.24	1.15
51:BV:70:ILE:HB	51:BV:90:PRO:HB2	1.20	1.15
53:BX:72:LYS:HG3	53:BX:74:PRO:HD3	1.23	1.14
48:DS:28:VAL:HG12	48:DS:29:PHE:H	1.12	1.14
34:DA:2781:A:H5'	34:DA:2782:G:H5'	1.19	1.14
37:BD:79:VAL:HG21	37:BD:111:LEU:HD11	1.28	1.14
48:DS:89:ARG:HA	48:DS:89:ARG:HE	1.04	1.14
34:BA:1332:G:H22	34:BA:1609:A:H2'	1.05	1.14
38:DE:52:LEU:HB2	38:DE:76:ARG:HB2	1.26	1.14
53:DX:60:ARG:HG2	53:DX:74:PRO:HD2	1.26	1.14
54:BY:46:LYS:H	54:BY:62:GLU:HG2	1.02	1.14
28:D3:6:VAL:HG13	28:D3:54:VAL:HG11	1.23	1.13
43:DN:65:LYS:HE2	43:DN:65:LYS:HA	1.26	1.13
3:AC:148:GLY:HA3	3:AC:203:PHE:HB3	1.29	1.13
49:DT:28:VAL:HG22	49:DT:47:GLY:H	1.08	1.13
53:DX:36:LYS:HZ2	53:DX:39:ILE:HA	0.99	1.13
37:DD:79:VAL:HG21	37:DD:111:LEU:HD11	1.28	1.12
51:BV:28:GLU:HG3	51:BV:29:PRO:HD3	1.25	1.12
45:BP:146:VAL:HG22	45:BP:147:LEU:H	1.11	1.12

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1441:G:H5''	1:AA:1442:G:H5''	1.25	1.12
45:BP:126:VAL:HA	45:BP:145:PRO:HB2	1.25	1.12
48:BS:89:ARG:HA	48:BS:89:ARG:HE	1.02	1.12
53:DX:72:LYS:HG3	53:DX:74:PRO:HD3	1.23	1.12
48:BS:28:VAL:HG12	48:BS:29:PHE:H	1.11	1.11
34:DA:2175:C:H2'	34:DA:2176:A:H5''	1.29	1.11
49:BT:28:VAL:HG22	49:BT:47:GLY:H	1.11	1.11
1:CA:950:U:H3'	13:CM:102:ARG:HH12	1.03	1.11
2:AB:22:LYS:HZ3	2:AB:22:LYS:HA	1.09	1.11
23:AW:39:U:H2'	23:AW:40:C:H5''	1.25	1.11
26:B1:20:ARG:HD3	26:B1:41:ARG:HD3	1.33	1.11
3:CC:14:ILE:HG12	3:CC:15:THR:H	1.12	1.11
34:BA:2491:U:H5'	34:BA:2570:G:H5''	1.24	1.11
43:BN:65:LYS:HE2	43:BN:65:LYS:HA	1.25	1.11
10:AJ:80:LYS:HE3	1:CA:1162:C:H4'	1.29	1.11
34:BA:1826:G:H4'	37:BD:242:ARG:HH21	0.95	1.10
34:BA:2781:A:H5'	34:BA:2782:G:H5'	1.19	1.10
1:CA:1363(A):A:H4'	1:CA:1364:U:H5''	1.33	1.10
45:DP:146:VAL:HG22	45:DP:147:LEU:H	1.10	1.10
34:DA:2562:U:H1'	44:DO:23:ARG:HH12	1.13	1.10
54:BY:15:VAL:HG12	54:BY:16:ALA:H	1.07	1.10
34:BA:996:A:H4'	50:BU:92:ARG:HE	0.97	1.10
34:BA:612:C:H2'	34:BA:613:G:H5''	1.26	1.10
34:DA:145:G:H2'	34:DA:146:G:H5''	1.31	1.10
3:AC:14:ILE:HG12	3:AC:15:THR:H	1.12	1.10
34:DA:996:A:H4'	50:DU:92:ARG:HE	0.95	1.10
45:BP:45:LEU:HD23	45:BP:46:LYS:H	1.10	1.10
48:BS:17:ARG:HA	48:BS:20:ARG:HE	1.15	1.09
3:CC:148:GLY:HA3	3:CC:203:PHE:HB3	1.32	1.09
37:BD:35:LYS:HD3	37:BD:63:ARG:HB3	1.21	1.09
51:DV:28:GLU:HG3	51:DV:29:PRO:HD3	1.24	1.09
53:BX:60:ARG:HG2	53:BX:74:PRO:HD2	1.26	1.09
39:BF:53:THR:HG22	39:BF:56:GLU:HB2	1.32	1.09
54:DY:46:LYS:H	54:DY:62:GLU:HG2	1.03	1.09
26:B1:16:ASN:HB3	26:B1:46:LEU:HG	1.35	1.09
28:B3:6:VAL:HG13	28:B3:54:VAL:HG11	1.25	1.09
34:BA:1484:G:H2'	34:BA:1485:G:H5''	1.34	1.09
36:DC:58:VAL:HG21	36:DC:166:ASP:H	0.96	1.09
34:BA:2562:U:H1'	44:BO:23:ARG:NH1	1.68	1.08
46:DQ:82:ARG:HG2	46:DQ:82:ARG:HH11	1.16	1.08
45:DP:45:LEU:HD23	45:DP:46:LYS:H	1.11	1.08
26:B1:13:ILE:HG21	26:B1:63:ALA:HB2	1.27	1.08

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2562:U:H1'	44:BO:23:ARG:HH12	1.14	1.08
34:BA:2175:C:H2'	34:BA:2176:A:H5''	1.29	1.08
48:DS:17:ARG:HA	48:DS:20:ARG:HE	1.13	1.08
27:B2:16:LEU:H	27:B2:18:PRO:HD2	1.11	1.08
45:DP:126:VAL:HA	45:DP:145:PRO:HB2	1.23	1.08
34:DA:1484:G:H2'	34:DA:1485:G:H5''	1.35	1.08
34:DA:49:A:H4'	34:DA:50:U:H5'	1.35	1.08
34:DA:1590:U:H2'	34:DA:1591:G:H5''	1.30	1.08
36:BC:58:VAL:HG21	36:BC:166:ASP:H	0.95	1.08
39:BF:3:GLU:HG3	39:BF:19:GLU:HB2	1.34	1.08
38:BE:52:LEU:HB2	38:BE:76:ARG:HB2	1.26	1.08
42:DI:77:LEU:HD21	42:DI:101:LEU:HD13	1.36	1.08
54:DY:15:VAL:HG12	54:DY:16:ALA:H	1.04	1.08
33:B8:62:LEU:HD13	34:BA:242:G:H5''	1.33	1.08
34:DA:2701:C:H3'	34:DA:2702:U:H5''	1.24	1.08
34:DA:2758:A:H2'	34:DA:2759:G:H5''	1.33	1.08
34:DA:2128:C:H2'	34:DA:2129:C:H5''	1.28	1.08
20:AT:50:GLU:HB3	20:AT:100:ILE:HG12	1.36	1.07
1:AA:1363(A):A:H4'	1:AA:1364:U:H5''	1.35	1.07
55:DZ:97:GLU:HB3	55:DZ:125:LEU:HD21	1.30	1.07
35:DB:42:C:H4'	40:DG:67:LYS:HB2	1.36	1.07
49:BT:91:ARG:HB3	49:BT:116:ALA:HA	1.36	1.07
42:DI:79:ILE:HG12	42:DI:140:LEU:HD11	1.19	1.07
2:CB:22:LYS:HZ3	2:CB:22:LYS:HA	1.14	1.07
3:AC:20:SER:HB2	3:AC:40:ARG:HH22	0.98	1.07
34:DA:2415:G:H4'	45:DP:67:MET:H	0.94	1.07
39:DF:53:THR:HG22	39:DF:56:GLU:HB2	1.35	1.07
45:BP:45:LEU:HD23	45:BP:46:LYS:N	1.70	1.07
7:AG:64:GLN:HG3	7:AG:68:ASN:HD21	1.20	1.07
34:DA:1332:G:H22	34:DA:1609:A:H2'	1.09	1.07
27:B2:49:LYS:HD2	27:B2:53:LEU:HD13	1.34	1.06
45:BP:59:LEU:HA	45:BP:61:ARG:NH1	1.70	1.06
2:CB:22:LYS:NZ	2:CB:22:LYS:HA	1.70	1.06
34:DA:2415:G:H4'	45:DP:67:MET:N	1.70	1.06
34:BA:145:G:H2'	34:BA:146:G:H5''	1.33	1.06
38:DE:201:THR:HG22	38:DE:203:LYS:H	1.20	1.06
34:DA:2762:G:H2'	34:DA:2763:G:H5''	1.35	1.06
42:BI:77:LEU:HD21	42:BI:101:LEU:HD13	1.33	1.06
28:D3:8:LEU:HD11	28:D3:31:LEU:HD23	1.38	1.06
34:DA:1826:G:H4'	37:DD:242:ARG:HH21	0.95	1.06
34:BA:2415:G:H4'	45:BP:67:MET:H	0.95	1.05
46:BQ:82:ARG:HG2	46:BQ:82:ARG:HH11	1.14	1.05

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:BX:36:LYS:HZ2	53:BX:39:ILE:HA	1.10	1.05
55:BZ:151:HIS:HB3	55:BZ:170:THR:HA	1.36	1.05
2:AB:22:LYS:HA	2:AB:22:LYS:NZ	1.69	1.05
34:BA:2415:G:H4'	45:BP:67:MET:N	1.71	1.05
34:BA:954:G:H4'	46:BQ:13:GLN:HE21	1.21	1.05
20:CT:13:LEU:H	20:CT:13:LEU:HD12	1.21	1.05
34:DA:145:G:C2'	34:DA:146:G:H5''	1.85	1.04
22:CV:70:G:H2'	22:CV:71:C:H5''	1.34	1.04
34:DA:2562:U:H1'	44:DO:23:ARG:NH1	1.69	1.04
34:BA:49:A:H4'	34:BA:50:U:H5'	1.35	1.04
12:AL:46:LYS:HG2	12:AL:47:LYS:H	1.20	1.04
33:D8:62:LEU:HD13	34:DA:242:G:H5''	1.34	1.04
54:DY:37:VAL:HG23	54:DY:38:ILE:H	1.22	1.04
34:BA:145:G:C2'	34:BA:146:G:H5''	1.87	1.04
11:AK:127:LYS:HE2	11:AK:127:LYS:HA	1.39	1.04
40:BG:111:LEU:HA	40:BG:114:ILE:HG12	1.38	1.04
48:DS:74:ALA:HB1	48:DS:103:GLU:HG3	1.36	1.04
34:BA:2758:A:H2'	34:BA:2759:G:H5''	1.35	1.04
48:BS:74:ALA:HB1	48:BS:103:GLU:HG3	1.36	1.04
20:CT:50:GLU:HB3	20:CT:100:ILE:HG12	1.35	1.04
44:DO:47:ILE:HG13	44:DO:48:PRO:HD2	1.39	1.04
52:BW:25:ARG:HB2	52:BW:25:ARG:HH11	1.23	1.04
53:BX:36:LYS:NZ	53:BX:39:ILE:HA	1.72	1.03
10:CJ:4:ILE:HB	10:CJ:74:ILE:HD11	1.37	1.03
43:DN:39:ARG:HE	43:DN:41:ASP:HB2	1.21	1.03
54:BY:8:LYS:H	54:BY:8:LYS:HD2	1.23	1.03
45:DP:45:LEU:HD23	45:DP:46:LYS:N	1.72	1.03
55:BZ:145:GLU:HG3	55:BZ:146:ILE:H	1.18	1.03
49:DT:29:ARG:HD3	49:DT:86:ILE:HG22	1.41	1.03
53:BX:65:ARG:HE	53:BX:65:ARG:HA	1.22	1.03
47:BR:56:LYS:HD2	47:BR:88:ARG:HA	1.39	1.03
16:AP:45:THR:HG22	16:AP:47:ASP:H	1.23	1.03
34:DA:612:C:C2'	34:DA:613:G:H5''	1.89	1.03
34:DA:1884:A:H2'	34:DA:1885:A:H5''	1.40	1.03
55:DZ:151:HIS:HB3	55:DZ:170:THR:HA	1.41	1.03
30:D5:4:HIS:HB3	30:D5:5:PRO:HD3	1.41	1.03
34:BA:2712:U:O2'	34:BA:2712(A):A:H5''	1.59	1.03
22:CV:71:C:H6	22:CV:71:C:H5'	1.20	1.02
34:DA:954:G:H4'	46:DQ:13:GLN:HE21	1.17	1.02
48:BS:89:ARG:HA	48:BS:89:ARG:NE	1.72	1.02
49:BT:27:THR:O	49:BT:28:VAL:HG23	1.59	1.02
34:DA:2129:C:H2'	34:DA:2130:U:H4'	1.37	1.02

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CV:70:G:C2'	22:CV:71:C:H5''	1.89	1.02
1:AA:1347:G:H22	1:AA:1373:G:H2'	1.25	1.02
39:DF:3:GLU:HG3	39:DF:19:GLU:HB2	1.35	1.02
45:DP:59:LEU:HA	45:DP:61:ARG:NH1	1.74	1.02
34:BA:2762:G:H2'	34:BA:2763:G:H5''	1.37	1.02
47:DR:56:LYS:HD2	47:DR:88:ARG:HA	1.40	1.02
41:DH:41:MET:HB3	41:DH:43:VAL:HG13	1.39	1.02
18:AR:56:THR:HB	18:AR:58:LEU:HD13	1.39	1.02
41:DH:96:ALA:HB2	41:DH:105:LEU:HB3	1.41	1.02
54:BY:28:LYS:O	54:BY:38:ILE:HB	1.59	1.02
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.41	1.02
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.25	1.02
49:DT:91:ARG:HB3	49:DT:116:ALA:HA	1.37	1.02
53:BX:65:ARG:NE	53:BX:65:ARG:HA	1.74	1.02
18:CR:56:THR:HB	18:CR:58:LEU:HD13	1.40	1.02
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG22	1.40	1.02
48:BS:89:ARG:CA	48:BS:89:ARG:HE	1.73	1.01
54:BY:37:VAL:HG23	54:BY:38:ILE:H	1.21	1.01
42:DI:76:THR:HG22	42:DI:139:GLN:HB3	1.40	1.01
11:CK:127:LYS:HA	11:CK:127:LYS:HE2	1.39	1.01
44:BO:47:ILE:HG13	44:BO:48:PRO:HD2	1.37	1.01
34:BA:2103:C:H3'	34:BA:2104:G:H5''	1.41	1.01
47:BR:38:VAL:HB	47:BR:39:PRO:HD3	1.40	1.01
23:AW:16:U:C5	23:AW:18:G:H5'	1.95	1.01
34:DA:571:A:H5'	34:DA:2030:A:H62	1.24	1.01
34:BA:2129:C:H2'	34:BA:2130:U:H4'	1.39	1.01
48:DS:89:ARG:CA	48:DS:89:ARG:HE	1.74	1.01
46:BQ:11:LYS:HE2	46:BQ:85:LYS:HG2	1.42	1.01
53:DX:65:ARG:HA	53:DX:65:ARG:HE	1.20	1.01
26:D1:9:GLY:O	26:D1:10:LYS:HG3	1.59	1.01
43:BN:39:ARG:HE	43:BN:41:ASP:HB2	1.24	1.01
40:BG:161:THR:HG22	40:BG:163:ALA:H	1.18	1.01
27:D2:33:MET:HG2	53:DX:11:PRO:HD2	1.42	1.01
34:DA:1879:C:H2'	34:DA:1880:C:H5''	1.42	1.01
43:DN:42:TRP:HB2	50:DU:64:ARG:CZ	1.90	1.01
20:AT:57:ARG:HH11	20:AT:57:ARG:HB2	1.26	1.01
34:BA:1879:C:H2'	34:BA:1880:C:H5''	1.41	1.01
34:DA:2103:C:H3'	34:DA:2104:G:H5''	1.41	1.01
35:DB:7:G:H3'	35:DB:8:U:H5''	1.43	1.01
26:B1:64:ALA:HA	26:B1:67:ILE:HG13	1.40	1.00
55:DZ:165:VAL:HG12	55:DZ:166:SER:H	1.23	1.00
34:BA:571:A:H5'	34:BA:2030:A:H62	1.20	1.00

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:46:LYS:HG2	12:CL:47:LYS:H	1.21	1.00
34:BA:1578:U:H2'	34:BA:1579:A:H5''	1.41	1.00
28:B3:8:LEU:HD11	28:B3:31:LEU:HD23	1.41	1.00
10:AJ:4:ILE:HB	10:AJ:74:ILE:HD11	1.38	1.00
41:BH:41:MET:HB3	41:BH:43:VAL:HG13	1.39	1.00
16:CP:45:THR:HG22	16:CP:47:ASP:H	1.25	1.00
7:CG:64:GLN:HG3	7:CG:68:ASN:HD21	1.21	1.00
55:BZ:69:THR:HG22	55:BZ:90:VAL:HA	1.42	1.00
10:CJ:37:PRO:HA	10:CJ:72:VAL:HG22	1.42	1.00
42:BI:9:LEU:H	42:BI:13:GLY:HA2	1.24	1.00
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.43	1.00
34:BA:612:C:C2'	34:BA:613:G:H5''	1.91	1.00
38:BE:117:MET:HA	38:BE:122:PHE:H	1.26	1.00
34:BA:2464:C:HO2'	34:BA:2465:C:H6	1.02	1.00
23:AW:39:U:C2'	23:AW:40:C:H5''	1.92	1.00
1:AA:382:A:H2'	1:AA:383:A:H8	1.25	1.00
1:CA:382:A:H2'	1:CA:383:A:H8	1.24	1.00
1:AA:585:G:H4'	12:AL:8:ASN:HD21	1.26	1.00
45:BP:24:GLY:HA3	45:BP:33:ARG:HH21	1.27	1.00
34:DA:2712:U:O2'	34:DA:2712(A):A:H5''	1.61	0.99
36:BC:58:VAL:HG21	36:BC:166:ASP:N	1.77	0.99
47:DR:38:VAL:HB	47:DR:39:PRO:HD3	1.40	0.99
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.42	0.99
53:DX:36:LYS:NZ	53:DX:39:ILE:HA	1.76	0.99
49:BT:29:ARG:HD3	49:BT:86:ILE:HG22	1.40	0.99
1:CA:382:A:H2'	1:CA:383:A:C8	1.96	0.99
44:BO:64:ARG:HD3	44:BO:101:PRO:HB2	1.44	0.99
45:DP:24:GLY:HA3	45:DP:33:ARG:HH21	1.26	0.99
1:CA:950:U:H3'	13:CM:102:ARG:NH1	1.78	0.99
27:D2:30:ARG:HH21	53:DX:11:PRO:HG3	1.24	0.99
5:AE:76:ILE:HG12	5:AE:77:PRO:HD2	1.45	0.99
49:DT:27:THR:O	49:DT:28:VAL:HG23	1.61	0.99
43:BN:42:TRP:HB2	50:BU:64:ARG:CZ	1.91	0.99
41:BH:13:LYS:HA	41:BH:13:LYS:HE2	1.45	0.99
34:DA:1578:U:H2'	34:DA:1579:A:H5''	1.40	0.99
53:DX:65:ARG:HA	53:DX:65:ARG:NE	1.73	0.99
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.44	0.99
20:AT:13:LEU:HD12	20:AT:13:LEU:H	1.22	0.99
1:AA:950:U:H3'	13:AM:102:ARG:NH1	1.77	0.99
38:BE:201:THR:HG22	38:BE:203:LYS:H	1.20	0.99
54:DY:28:LYS:O	54:DY:38:ILE:HB	1.63	0.99
34:DA:2533:A:H2'	34:DA:2534:A:H5''	1.42	0.99

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:598:G:H5'	45:DP:15:ARG:HD2	1.40	0.99
42:DI:9:LEU:H	42:DI:13:GLY:HA2	1.24	0.99
26:D1:19:GLN:HG3	26:D1:44:PRO:HG3	1.40	0.99
26:B1:19:GLN:HE21	34:BA:379:G:H21	1.05	0.98
34:DA:1779:U:H5	34:DA:1784:A:N7	1.60	0.98
36:BC:168:THR:HA	36:BC:173:ALA:HB2	1.45	0.98
34:BA:2533:A:H2'	34:BA:2534:A:H5''	1.41	0.98
30:B5:4:HIS:HB3	30:B5:5:PRO:HD3	1.43	0.98
1:CA:585:G:H4'	12:CL:8:ASN:HD21	1.24	0.98
26:B1:47:GLN:HG2	34:BA:2230:G:H1'	1.02	0.98
1:CA:1347:G:N2	1:CA:1373:G:H2'	1.79	0.98
54:DY:90:LEU:HG	54:DY:91:GLU:H	1.22	0.98
34:BA:1884:A:H2'	34:BA:1885:A:H5''	1.40	0.98
37:DD:147:LEU:HD13	37:DD:155:LEU:HD11	1.41	0.98
1:CA:1256:A:H61	1:CA:1278:U:H1'	1.28	0.98
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.45	0.98
3:AC:14:ILE:HG12	3:AC:15:THR:N	1.77	0.98
10:CJ:70:ARG:HH11	10:CJ:70:ARG:HG3	1.28	0.98
42:BI:110:ASP:HB2	42:BI:113:ARG:HB2	1.45	0.98
49:DT:28:VAL:CG2	49:DT:47:GLY:H	1.75	0.98
42:BI:76:THR:HG22	42:BI:139:GLN:HB3	1.44	0.98
36:DC:58:VAL:HG21	36:DC:166:ASP:N	1.77	0.98
41:BH:96:ALA:HB2	41:BH:105:LEU:HB3	1.43	0.98
10:AJ:70:ARG:HG3	10:AJ:70:ARG:HH11	1.29	0.98
34:DA:2262:U:C2'	34:DA:2263:C:H5''	1.94	0.98
52:DW:25:ARG:HH11	52:DW:25:ARG:HB2	1.24	0.98
34:BA:2262:U:C2'	34:BA:2263:C:H5''	1.93	0.98
1:CA:180:U:H2'	1:CA:181:G:H5''	1.46	0.98
20:CT:57:ARG:HH11	20:CT:57:ARG:HB2	1.27	0.98
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.43	0.97
26:D1:26:ARG:HH21	26:D1:28:GLY:HA2	1.28	0.97
26:B1:47:GLN:CG	34:BA:2230:G:H1'	1.94	0.97
37:DD:17:THR:HG23	37:DD:205:VAL:H	1.30	0.97
34:BA:92:A:H2'	34:BA:93:G:H8	1.27	0.97
23:CW:39:U:H2'	23:CW:40:C:H5''	1.45	0.97
48:DS:89:ARG:HA	48:DS:89:ARG:NE	1.73	0.97
54:BY:90:LEU:HG	54:BY:91:GLU:H	1.25	0.97
36:BC:46:LYS:HA	36:BC:46:LYS:HE2	1.47	0.97
26:D1:46:LEU:O	26:D1:46:LEU:HD22	1.64	0.97
34:DA:2359:C:H2'	34:DA:2360:A:H5'	1.46	0.97
44:DO:64:ARG:HD3	44:DO:101:PRO:HB2	1.44	0.97
38:DE:117:MET:HA	38:DE:122:PHE:H	1.26	0.97

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DY:8:LYS:H	54:DY:8:LYS:HD2	1.28	0.97
1:AA:382:A:H2'	1:AA:383:A:C8	1.98	0.97
1:AA:1256:A:H61	1:AA:1278:U:H1'	1.28	0.97
1:AA:180:U:H2'	1:AA:181:G:H5''	1.47	0.97
35:BB:7:G:H3'	35:BB:8:U:H5''	1.43	0.97
39:BF:22:ALA:HA	39:BF:26:ALA:HB2	1.47	0.97
1:CA:78:G:H22	1:CA:91:C:H42	1.12	0.97
40:BG:82:LEU:HD22	40:BG:87:PRO:HG3	1.47	0.97
37:BD:174:ILE:H	37:BD:174:ILE:HD12	1.30	0.97
34:DA:996:A:H4'	50:DU:92:ARG:NE	1.79	0.97
41:DH:16:SER:HB2	41:DH:27:LYS:HB2	1.46	0.97
34:DA:2639:A:H2'	34:DA:2640:G:H5''	1.46	0.97
55:BZ:151:HIS:HA	55:BZ:171:ILE:HG12	1.46	0.96
5:CE:76:ILE:HG12	5:CE:77:PRO:HD2	1.44	0.96
34:BA:598:G:H5'	45:BP:15:ARG:HD2	1.43	0.96
39:DF:78:ILE:H	39:DF:78:ILE:HD13	1.28	0.96
36:DC:168:THR:HA	36:DC:173:ALA:HB2	1.47	0.96
39:BF:78:ILE:H	39:BF:78:ILE:HD13	1.26	0.96
34:BA:2681:C:H5	34:BA:2725:A:H62	1.12	0.96
46:DQ:11:LYS:HE2	46:DQ:85:LYS:HG2	1.42	0.96
1:AA:1347:G:N2	1:AA:1373:G:H2'	1.81	0.96
26:D1:10:LYS:HG2	26:D1:15:ALA:N	1.80	0.96
34:DA:92:A:H2'	34:DA:93:G:H8	1.26	0.96
41:DH:13:LYS:HA	41:DH:13:LYS:HE2	1.45	0.96
1:AA:975:A:H4'	1:AA:976:G:H5''	1.47	0.96
45:BP:16:ARG:HH11	45:BP:18:ARG:HB2	1.31	0.96
42:DI:110:ASP:HB2	42:DI:113:ARG:HB2	1.46	0.96
55:DZ:27:VAL:HG12	55:DZ:28:MET:H	1.26	0.96
55:BZ:39:VAL:HG23	55:BZ:40:ASP:N	1.80	0.96
41:BH:152:ARG:HB3	41:BH:161:GLY:HA2	1.46	0.96
40:BG:76:SER:HB3	40:BG:84:LYS:H	1.29	0.96
34:BA:2679:A:O2'	34:BA:2680:C:H5'	1.66	0.96
34:BA:1948:G:H8	34:BA:1948:G:H5'	1.30	0.96
14:AN:13:THR:N	14:AN:14:PRO:HD2	1.81	0.96
1:CA:532:A:H2	1:CA:1206:G:H21	1.10	0.96
46:DQ:30:GLY:HA2	46:DQ:107:ALA:HB2	1.47	0.96
51:DV:19:LYS:NZ	51:DV:20:LEU:H	1.64	0.95
34:BA:1590:U:C2'	34:BA:1591:G:H5''	1.95	0.95
49:BT:28:VAL:CG2	49:BT:47:GLY:H	1.78	0.95
34:BA:1689:A:H62	34:BA:1698:A:H2	0.98	0.95
34:BA:1826:G:H4'	37:BD:242:ARG:NH2	1.81	0.95
12:AL:47:LYS:HB3	12:AL:48:PRO:HD3	1.47	0.95

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:BZ:6:LYS:HD3	55:BZ:6:LYS:H	1.28	0.95
37:BD:147:LEU:HD13	37:BD:155:LEU:HD11	1.47	0.95
53:BX:60:ARG:HE	53:BX:74:PRO:HG3	1.31	0.95
36:DC:46:LYS:HA	36:DC:46:LYS:HE2	1.46	0.95
34:DA:287:C:N4	34:DA:354:G:H1	1.63	0.95
51:DV:15:GLU:HB3	51:DV:16:PRO:CD	1.96	0.95
53:BX:77:LYS:HD3	53:BX:78:LYS:HD2	1.49	0.95
46:DQ:127:ILE:HG22	46:DQ:128:LYS:H	1.30	0.95
1:AA:78:G:H22	1:AA:91:C:H42	1.12	0.95
34:BA:1717:G:H2'	34:BA:1718:G:H5''	1.48	0.95
55:BZ:79:ARG:H	55:BZ:79:ARG:HD2	1.30	0.95
34:DA:1826:G:H4'	37:DD:242:ARG:NH2	1.80	0.95
18:AR:56:THR:HB	18:AR:58:LEU:CD1	1.96	0.95
53:BX:12:VAL:HG11	53:BX:27:THR:HG23	1.45	0.95
45:DP:75:ILE:N	45:DP:75:ILE:HD13	1.80	0.95
27:B2:23:LYS:HB2	53:BX:5:TYR:HE1	1.31	0.95
34:BA:2175:C:C2'	34:BA:2176:A:H5''	1.96	0.95
55:DZ:116:VAL:HG12	55:DZ:117:LEU:H	1.31	0.95
34:BA:1779:U:H5	34:BA:1784:A:N7	1.63	0.95
34:DA:1590:U:C2'	34:DA:1591:G:H5''	1.97	0.95
33:D8:59:LYS:HD3	45:DP:50:ARG:HB3	1.49	0.95
43:BN:43:THR:O	43:BN:46:VAL:HG12	1.66	0.95
55:BZ:152:ALA:HB1	55:BZ:167:PRO:HB2	1.48	0.95
4:CD:73:ARG:HH11	4:CD:73:ARG:HA	1.31	0.95
37:DD:186:HIS:HD2	37:DD:188:GLU:H	1.13	0.95
33:D8:32:LEU:C	33:D8:34:TRP:H	1.67	0.95
43:DN:43:THR:O	43:DN:46:VAL:HG12	1.67	0.95
37:DD:17:THR:CG2	37:DD:205:VAL:HB	1.96	0.95
14:CN:13:THR:N	14:CN:14:PRO:HD2	1.82	0.95
45:DP:16:ARG:HH11	45:DP:18:ARG:HB2	1.30	0.95
53:DX:60:ARG:HE	53:DX:74:PRO:HG3	1.32	0.95
54:BY:46:LYS:N	54:BY:62:GLU:HG2	1.81	0.95
1:CA:975:A:H4'	1:CA:976:G:H5''	1.49	0.95
18:CR:56:THR:HB	18:CR:58:LEU:CD1	1.96	0.95
26:D1:27:GLU:HG2	26:D1:32:LYS:HB2	1.48	0.95
12:AL:6:THR:H	12:AL:9:GLN:HE21	1.13	0.95
34:BA:2359:C:H2'	34:BA:2360:A:H5'	1.46	0.95
49:DT:40:THR:O	49:DT:41:ARG:HB2	1.66	0.94
26:D1:62:VAL:HG13	26:D1:64:ALA:H	1.32	0.94
40:DG:112:PRO:C	40:DG:113:ARG:HA	1.88	0.94
1:CA:1117:G:H4'	9:CI:104:ARG:CZ	1.97	0.94
34:BA:2036:C:H6	34:BA:2036:C:H5'	1.31	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2175:C:C2'	34:DA:2176:A:H5''	1.96	0.94
34:BA:2893:G:H5'	34:BA:2894:G:H5'	1.49	0.94
51:BV:15:GLU:HB3	51:BV:16:PRO:CD	1.97	0.94
45:DP:16:ARG:HG2	45:DP:18:ARG:H	1.31	0.94
45:BP:95:VAL:HA	45:BP:99:LEU:HD23	1.49	0.94
54:DY:46:LYS:N	54:DY:62:GLU:HG2	1.83	0.94
3:AC:20:SER:HB2	3:AC:40:ARG:NH2	1.82	0.94
27:B2:55:ARG:NH1	34:BA:72:U:H5'	1.82	0.94
26:D1:78:LYS:NZ	26:D1:93:GLU:HB2	1.82	0.94
1:CA:979:C:H3'	1:CA:980:C:H5''	1.49	0.94
1:AA:1117:G:H4'	9:AI:104:ARG:CZ	1.96	0.94
34:DA:2358:G:H1	45:DP:55:ARG:HH22	1.15	0.94
34:BA:996:A:H4'	50:BU:92:ARG:NE	1.81	0.94
42:DI:129:THR:HG23	42:DI:135:GLU:HB3	1.49	0.94
54:BY:95:LYS:HG2	54:BY:101:LYS:H	1.33	0.94
2:AB:18:GLY:H	2:AB:42:ILE:HG22	1.32	0.94
37:BD:35:LYS:HG2	37:BD:64:ILE:N	1.82	0.94
34:DA:2206:G:H21	34:DA:2207:G:H5'	1.31	0.94
41:BH:16:SER:HB2	41:BH:27:LYS:HB2	1.47	0.94
51:DV:19:LYS:HG3	51:DV:20:LEU:N	1.81	0.94
39:DF:24:LEU:HB3	39:DF:25:PRO:HD2	1.48	0.94
39:DF:22:ALA:HA	39:DF:26:ALA:HB2	1.50	0.94
51:BV:19:LYS:NZ	51:BV:20:LEU:H	1.65	0.94
53:DX:12:VAL:HG11	53:DX:27:THR:HG23	1.47	0.94
41:DH:127:GLU:HB3	41:DH:128:PRO:HD2	1.50	0.94
4:AD:73:ARG:HH11	4:AD:73:ARG:HA	1.31	0.94
43:BN:55:VAL:HG12	43:BN:126:PRO:HA	1.49	0.94
34:DA:1301:A:O2'	34:DA:1302:A:H2'	1.67	0.94
34:DA:2893:G:H5'	34:DA:2894:G:H5'	1.49	0.94
39:BF:3:GLU:HB2	39:BF:20:LEU:H	1.33	0.94
41:DH:152:ARG:HB3	41:DH:161:GLY:HA2	1.47	0.94
34:DA:2012:G:H4'	52:DW:96:ILE:HD11	1.49	0.94
43:BN:73:THR:O	43:BN:75:TYR:N	2.01	0.94
23:AW:16:U:H5	23:AW:18:G:H5'	1.31	0.94
1:AA:979:C:H3'	1:AA:980:C:H5''	1.49	0.94
34:BA:287:C:N4	34:BA:354:G:H1	1.65	0.94
42:DI:38:LEU:H	42:DI:38:LEU:HD12	1.32	0.94
39:BF:24:LEU:HB3	39:BF:25:PRO:HD2	1.47	0.94
34:BA:2206:G:H21	34:BA:2207:G:H5'	1.32	0.94
1:CA:1441:G:H5''	1:CA:1442:G:H5''	1.50	0.94
38:BE:14:ILE:HD11	38:BE:173:VAL:HG11	1.49	0.94
44:DO:22:ILE:HG12	44:DO:41:ALA:HA	1.50	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BP:16:ARG:HG2	45:BP:18:ARG:H	1.31	0.93
33:B8:59:LYS:HD3	45:BP:50:ARG:HB3	1.50	0.93
5:AE:101:ILE:HG13	5:AE:119:LEU:HD23	1.49	0.93
27:B2:32:LEU:HG	27:B2:33:MET:H	1.28	0.93
37:BD:17:THR:CG2	37:BD:205:VAL:HB	1.99	0.93
34:BA:1019:U:H3	34:BA:1142(A):A:H62	1.11	0.93
1:CA:442:C:H42	1:CA:492:G:H1	1.15	0.93
18:AR:53:ARG:HG3	18:AR:63:GLN:HE21	1.29	0.93
37:DD:174:ILE:HD12	37:DD:174:ILE:H	1.33	0.93
34:BA:2639:A:H2'	34:BA:2640:G:H5''	1.48	0.93
30:B5:55:ARG:HG3	30:B5:56:LYS:H	1.33	0.93
44:BO:22:ILE:HG12	44:BO:41:ALA:HA	1.50	0.93
34:DA:2464:C:HO2'	34:DA:2465:C:H6	1.02	0.93
1:AA:442:C:H42	1:AA:492:G:H1	1.13	0.93
37:BD:27:THR:HG23	37:BD:28:GLU:H	1.34	0.93
12:CL:47:LYS:HB3	12:CL:48:PRO:HD3	1.51	0.93
34:DA:286:C:H2'	34:DA:287:C:H5''	1.49	0.93
52:BW:6:ILE:HG12	52:BW:104:THR:HG23	1.50	0.93
34:DA:2636:U:O2'	34:DA:2637:U:H5''	1.68	0.93
27:D2:32:LEU:HG	27:D2:33:MET:N	1.83	0.93
43:DN:73:THR:O	43:DN:75:TYR:N	2.01	0.93
34:BA:286:C:H2'	34:BA:287:C:H5''	1.51	0.93
46:BQ:30:GLY:HA2	46:BQ:107:ALA:HB2	1.47	0.93
49:DT:32:TYR:HD2	49:DT:32:TYR:N	1.65	0.93
51:DV:15:GLU:HB3	51:DV:16:PRO:HD2	1.51	0.93
52:DW:6:ILE:HG12	52:DW:104:THR:HG23	1.48	0.93
49:DT:28:VAL:HG22	49:DT:47:GLY:N	1.83	0.93
45:DP:101:VAL:HG23	45:DP:107:LYS:HA	1.51	0.93
54:DY:95:LYS:HG2	54:DY:101:LYS:H	1.32	0.93
47:DR:45:ARG:HG3	47:DR:46:GLY:H	1.34	0.93
20:AT:56:MET:HG3	20:AT:88:VAL:HG21	1.51	0.93
1:AA:818:G:O2'	1:AA:819:A:H5''	1.69	0.93
46:BQ:75:THR:HG21	46:BQ:85:LYS:HE3	1.51	0.93
50:DU:64:ARG:HA	50:DU:64:ARG:NE	1.84	0.93
54:BY:95:LYS:HB3	54:BY:100:ALA:HA	1.49	0.93
22:CV:72:A:H3'	22:CV:73:A:H5''	1.50	0.93
50:DU:31:SER:HB3	50:DU:34:LYS:HB2	1.50	0.93
39:DF:139:PHE:HB2	39:DF:166:ALA:HB1	1.51	0.93
37:DD:27:THR:O	37:DD:29:PRO:HD2	1.69	0.93
55:DZ:126:VAL:HG12	55:DZ:163:LEU:HA	1.48	0.93
27:B2:41:ILE:HG12	34:BA:94(A):G:N2	1.84	0.93
55:BZ:39:VAL:HG23	55:BZ:40:ASP:H	1.32	0.93

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1321:C:C5'	1:AA:1322:C:H5''	1.99	0.93
12:AL:32:PHE:HB3	12:AL:84:LEU:HD21	1.51	0.93
1:AA:1293:G:HO2'	1:AA:1294:G:H8	0.98	0.93
1:CA:1057:G:H5''	3:CC:154:SER:HB2	1.51	0.92
38:DE:77:ILE:HG22	38:DE:78:LEU:H	1.32	0.92
45:DP:95:VAL:HA	45:DP:99:LEU:HD23	1.48	0.92
33:B8:32:LEU:C	33:B8:34:TRP:H	1.68	0.92
37:DD:35:LYS:HG2	37:DD:64:ILE:N	1.84	0.92
34:BA:2128:C:C2'	34:BA:2129:C:H5''	1.99	0.92
2:CB:18:GLY:H	2:CB:42:ILE:HG22	1.33	0.92
54:DY:95:LYS:HB3	54:DY:100:ALA:HA	1.50	0.92
46:DQ:43:THR:HA	46:DQ:94:VAL:HG12	1.47	0.92
1:AA:1057:G:H5''	3:AC:154:SER:HB2	1.48	0.92
3:CC:20:SER:HB2	3:CC:40:ARG:NH2	1.84	0.92
43:DN:65:LYS:HD3	43:DN:67:LEU:HG	1.52	0.92
50:BU:64:ARG:NE	50:BU:64:ARG:HA	1.83	0.92
46:DQ:43:THR:OG1	46:DQ:46:GLN:HG3	1.68	0.92
51:BV:19:LYS:HG3	51:BV:20:LEU:N	1.81	0.92
22:AV:52:G:HO2'	22:AV:53:G:H8	1.00	0.92
34:BA:329:G:H1	54:BY:19:LYS:HE3	1.35	0.92
34:DA:1689:A:H62	34:DA:1698:A:H2	1.04	0.92
42:BI:144:VAL:HG12	42:BI:145:VAL:H	1.35	0.92
50:BU:90:VAL:HG12	50:BU:91:ASP:H	1.35	0.92
34:DA:2128:C:C2'	34:DA:2129:C:H5''	1.99	0.92
43:DN:9:VAL:HG12	43:DN:10:GLU:H	1.33	0.92
53:BX:53:LYS:HE3	53:BX:55:ASN:HD21	1.32	0.92
5:CE:101:ILE:HG13	5:CE:119:LEU:HD23	1.49	0.92
34:DA:1717:G:H2'	34:DA:1718:G:H5''	1.49	0.92
3:AC:105:GLU:HG2	3:AC:106:VAL:H	1.35	0.92
34:DA:2175:C:H1'	36:DC:215:THR:HA	1.52	0.92
38:BE:77:ILE:HG22	38:BE:78:LEU:H	1.35	0.92
39:DF:3:GLU:HB2	39:DF:20:LEU:H	1.34	0.92
30:D5:55:ARG:HG3	30:D5:56:LYS:H	1.32	0.92
43:DN:55:VAL:HG12	43:DN:126:PRO:HA	1.49	0.92
50:DU:90:VAL:HG12	50:DU:91:ASP:H	1.34	0.92
45:BP:58:THR:O	45:BP:61:ARG:NE	2.02	0.92
34:DA:1494:A:O2'	34:DA:1495:A:H5''	1.70	0.92
46:BQ:43:THR:HA	46:BQ:94:VAL:HG12	1.51	0.92
1:CA:954:G:H4'	13:CM:120:LYS:HG3	1.52	0.92
55:BZ:158:PRO:HG2	55:BZ:161:VAL:HG21	1.51	0.92
34:BA:2781:A:C5'	34:BA:2782:G:H5'	2.00	0.92
37:BD:27:THR:HG21	37:BD:83:GLU:HG2	1.50	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DF:32:LEU:HD21	39:DF:105:VAL:HG13	1.52	0.92
34:DA:2681:C:H5	34:DA:2725:A:H62	1.13	0.92
54:DY:15:VAL:HG12	54:DY:16:ALA:N	1.85	0.92
53:BX:12:VAL:HG12	53:BX:27:THR:O	1.70	0.92
41:BH:44:VAL:HG12	41:BH:45:VAL:H	1.34	0.92
34:DA:2781:A:C5'	34:DA:2782:G:H5'	1.99	0.91
53:DX:77:LYS:HD3	53:DX:78:LYS:HD2	1.50	0.91
13:AM:97:PRO:C	13:AM:98:VAL:HA	1.89	0.91
55:BZ:10:ARG:HH21	55:BZ:26:GLY:H	1.13	0.91
11:AK:29:ILE:HB	11:AK:44:SER:HB3	1.52	0.91
34:DA:329:G:H1	54:DY:19:LYS:HE3	1.35	0.91
18:CR:65:ILE:HD12	18:CR:66:LEU:N	1.84	0.91
44:BO:101:PRO:O	44:BO:102:VAL:HG13	1.70	0.91
14:CN:13:THR:H	14:CN:14:PRO:HD2	1.34	0.91
43:DN:24:GLY:O	43:DN:28:THR:HG22	1.69	0.91
34:BA:2012:G:H4'	52:BW:96:ILE:HD11	1.53	0.91
34:DA:2068:U:H3	34:DA:2430:A:H2	1.14	0.91
34:DA:27:G:HO2'	34:DA:28:A:H8	0.92	0.91
41:BH:92:ILE:HG22	41:BH:93:GLY:H	1.34	0.91
26:B1:26:ARG:HB2	26:B1:34:THR:HA	1.50	0.91
4:AD:43:HIS:HA	4:AD:46:LYS:HE3	1.52	0.91
22:AV:2:G:H4'	25:B0:7:LEU:CB	2.01	0.91
1:AA:1054:C:H42	23:AY:34:G:H1'	1.35	0.91
18:CR:53:ARG:HG3	18:CR:63:GLN:HE21	1.32	0.91
1:CA:16:A:O2'	1:CA:17:U:H5'	1.68	0.91
50:BU:24:TYR:HB2	50:BU:29:SER:HB3	1.52	0.91
37:BD:186:HIS:HD2	37:BD:188:GLU:H	1.16	0.91
45:DP:62:LEU:H	45:DP:62:LEU:HD13	1.34	0.91
30:D5:20:ARG:HH12	52:DW:15:ARG:CZ	1.83	0.91
45:DP:131:SER:H	45:DP:134:ALA:HB3	1.33	0.91
39:BF:101:LEU:HD12	39:BF:102:PRO:HD2	1.51	0.91
3:CC:14:ILE:HG12	3:CC:15:THR:N	1.78	0.91
18:AR:65:ILE:HD12	18:AR:66:LEU:N	1.86	0.91
34:BA:860:U:H5	34:BA:917:A:N7	1.69	0.91
39:BF:139:PHE:HB2	39:BF:166:ALA:HB1	1.49	0.91
3:CC:105:GLU:HG2	3:CC:106:VAL:H	1.34	0.91
1:AA:16:A:O2'	1:AA:17:U:H5'	1.70	0.91
26:B1:47:GLN:HG2	34:BA:2230:G:C1'	1.98	0.91
44:BO:19:ILE:HG22	44:BO:43:VAL:HA	1.52	0.91
34:DA:1131:G:HO2'	34:DA:1132:A:H8	0.95	0.91
34:DA:676:A:H8	34:DA:2069:G:H21	1.10	0.91
31:B6:33:LYS:HA	31:B6:33:LYS:HE2	1.51	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1224:C:O3'	51:BV:88:ARG:HB3	1.69	0.91
45:DP:58:THR:O	45:DP:61:ARG:NE	2.04	0.91
44:DO:19:ILE:HG22	44:DO:43:VAL:HA	1.53	0.91
34:BA:914:C:H2'	34:BA:915:C:H5'	1.52	0.91
13:CM:97:PRO:C	13:CM:98:VAL:HA	1.91	0.91
34:BA:1301:A:O2'	34:BA:1302:A:H2'	1.68	0.91
52:BW:59:VAL:HG12	52:BW:60:ASN:N	1.86	0.91
34:BA:1332:G:H22	34:BA:1609:A:C2'	1.83	0.91
48:BS:85:VAL:HG23	48:BS:106:ARG:HB2	1.52	0.91
49:BT:40:THR:O	49:BT:41:ARG:HB2	1.68	0.91
4:CD:96:LEU:H	4:CD:96:LEU:HD22	1.35	0.91
34:BA:2636:U:O2'	34:BA:2637:U:H5''	1.71	0.91
37:BD:34:VAL:HG21	37:BD:103:ARG:HA	1.49	0.91
26:B1:13:ILE:HG21	26:B1:63:ALA:CB	2.00	0.91
12:CL:6:THR:H	12:CL:9:GLN:HE21	1.12	0.91
37:DD:34:VAL:HG21	37:DD:103:ARG:HA	1.52	0.90
28:D3:8:LEU:CD1	28:D3:31:LEU:HD23	2.01	0.90
49:DT:32:TYR:CD2	49:DT:32:TYR:N	2.36	0.90
37:BD:27:THR:O	37:BD:29:PRO:HD2	1.71	0.90
45:DP:101:VAL:HG13	45:DP:102:ARG:H	1.36	0.90
5:AE:101:ILE:H	5:AE:101:ILE:HD13	1.35	0.90
53:DX:27:THR:HB	53:DX:78:LYS:N	1.86	0.90
42:BI:38:LEU:HD12	42:BI:38:LEU:H	1.35	0.90
11:CK:29:ILE:HB	11:CK:44:SER:HB3	1.53	0.90
1:CA:9:G:H5''	5:CE:122:GLU:OE2	1.71	0.90
45:BP:75:ILE:N	45:BP:75:ILE:HD13	1.86	0.90
1:CA:579:G:H5'	1:CA:728:A:H1'	1.50	0.90
34:BA:27:G:HO2'	34:BA:28:A:H8	0.97	0.90
34:DA:1453:U:H5'	47:DR:63:ARG:HE	1.35	0.90
41:DH:92:ILE:HG22	41:DH:93:GLY:H	1.36	0.90
55:BZ:15:PRO:O	55:BZ:19:ARG:HG3	1.71	0.90
7:CG:47:CYS:HA	7:CG:50:ILE:HG12	1.53	0.90
41:BH:127:GLU:HB3	41:BH:128:PRO:HD2	1.50	0.90
43:BN:57:ALA:HB3	43:BN:124:ALA:HA	1.53	0.90
34:DA:2036:C:H6	34:DA:2036:C:H5'	1.34	0.90
55:DZ:130:PRO:HA	55:DZ:133:ILE:HD11	1.52	0.90
54:BY:15:VAL:HG12	54:BY:16:ALA:N	1.87	0.90
34:BA:1453:U:H5'	47:BR:63:ARG:HE	1.35	0.90
55:DZ:151:HIS:HA	55:DZ:171:ILE:HG12	1.53	0.90
43:BN:9:VAL:HG12	43:BN:10:GLU:H	1.34	0.90
26:D1:26:ARG:HG2	26:D1:34:THR:OG1	1.71	0.90
14:CN:3:ARG:HB3	14:CN:3:ARG:HH11	1.36	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:BU:31:SER:HB3	50:BU:34:LYS:HB2	1.52	0.90
34:DA:191:A:O2'	34:DA:192:C:H5'	1.71	0.90
34:DA:1024:G:H3'	34:DA:1025:G:H5''	1.52	0.90
45:BP:101:VAL:HG23	45:BP:107:LYS:HA	1.53	0.90
37:BD:35:LYS:HD3	37:BD:63:ARG:CB	2.00	0.90
1:CA:1321:C:C5'	1:CA:1322:C:H5''	1.99	0.90
3:CC:54:ARG:HH12	3:CC:56:ASP:HB2	1.35	0.90
34:DA:914:C:H2'	34:DA:915:C:H5'	1.52	0.90
49:BT:32:TYR:N	49:BT:32:TYR:HD2	1.68	0.90
23:CW:39:U:H2'	23:CW:40:C:C5'	2.01	0.90
50:BU:34:LYS:HA	50:BU:34:LYS:HE2	1.54	0.90
47:BR:45:ARG:HG3	47:BR:46:GLY:H	1.37	0.90
1:AA:954:G:H4'	13:AM:120:LYS:HG3	1.51	0.90
42:DI:144:VAL:HG12	42:DI:145:VAL:H	1.37	0.90
10:CJ:6:ILE:HD11	10:CJ:72:VAL:HB	1.53	0.90
31:D6:33:LYS:HA	31:D6:33:LYS:HE2	1.51	0.90
49:BT:32:TYR:CD2	49:BT:32:TYR:N	2.40	0.90
45:BP:23:PRO:HB2	45:BP:33:ARG:HG3	1.53	0.90
26:B1:27:GLU:HG2	26:B1:32:LYS:HB2	1.54	0.90
39:BF:66:PRO:O	39:BF:67:GLN:HB3	1.70	0.90
34:BA:676:A:H8	34:BA:2069:G:H21	1.15	0.90
46:DQ:52:VAL:HG13	46:DQ:53:ALA:H	1.36	0.90
34:BA:1494:A:O2'	34:BA:1495:A:H5''	1.71	0.90
20:CT:56:MET:HG3	20:CT:88:VAL:HG21	1.51	0.90
34:BA:2781:A:H5'	34:BA:2782:G:C5'	2.02	0.90
34:DA:2758:A:C2'	34:DA:2759:G:H5''	2.01	0.90
45:DP:23:PRO:HB2	45:DP:33:ARG:HG3	1.52	0.90
34:DA:658:C:H2'	34:DA:659:C:H5''	1.54	0.90
54:DY:75:ILE:HD13	54:DY:76:CYS:H	1.37	0.90
2:AB:137:ARG:HA	2:AB:137:ARG:HH11	1.37	0.90
34:DA:1948:G:H5'	34:DA:1948:G:H8	1.33	0.90
54:BY:45:VAL:HA	54:BY:62:GLU:HB2	1.53	0.89
43:BN:65:LYS:HD3	43:BN:67:LEU:HG	1.53	0.89
26:B1:47:GLN:HB2	34:BA:397:G:H5''	1.53	0.89
44:DO:101:PRO:O	44:DO:102:VAL:HG13	1.71	0.89
34:DA:389:G:H22	45:DP:71:VAL:HG12	1.36	0.89
42:BI:129:THR:HG23	42:BI:135:GLU:HB3	1.51	0.89
49:BT:29:ARG:HB3	49:BT:85:LYS:HA	1.50	0.89
22:CV:70:G:H2'	22:CV:71:C:C5'	2.02	0.89
10:AJ:6:ILE:HG22	10:AJ:98:ILE:HG13	1.54	0.89
53:BX:27:THR:HB	53:BX:78:LYS:N	1.86	0.89
34:BA:389:G:H22	45:BP:71:VAL:HG12	1.37	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:9:G:H5''	5:AE:122:GLU:OE2	1.72	0.89
37:DD:35:LYS:HD3	37:DD:63:ARG:CB	2.01	0.89
49:BT:28:VAL:HG22	49:BT:47:GLY:N	1.87	0.89
46:DQ:75:THR:HG21	46:DQ:85:LYS:HE3	1.52	0.89
41:BH:118:PRO:HG2	41:BH:121:ILE:HB	1.55	0.89
52:DW:59:VAL:HG12	52:DW:60:ASN:N	1.83	0.89
48:BS:98:VAL:HG13	48:BS:100:ALA:H	1.37	0.89
14:AN:3:ARG:HB3	14:AN:3:ARG:NH1	1.88	0.89
55:BZ:33:LEU:HD23	55:BZ:90:VAL:HG21	1.53	0.89
51:BV:22:VAL:O	51:BV:23:GLU:HB2	1.72	0.89
34:DA:2348:U:C2'	34:DA:2349:G:H5''	2.02	0.89
45:BP:131:SER:H	45:BP:134:ALA:HB3	1.34	0.89
38:DE:14:ILE:HD11	38:DE:173:VAL:HG11	1.53	0.89
23:AW:39:U:H2'	23:AW:40:C:C5'	2.03	0.89
1:CA:17:U:H2'	1:CA:18:C:C6	2.08	0.89
36:BC:49:ILE:HD12	36:BC:49:ILE:H	1.37	0.89
37:DD:44:ASN:HB2	37:DD:48:ARG:O	1.72	0.89
34:BA:286:C:H42	34:BA:355:G:H1	1.20	0.89
46:BQ:127:ILE:HG22	46:BQ:128:LYS:H	1.36	0.89
46:BQ:43:THR:OG1	46:BQ:46:GLN:HG3	1.71	0.89
34:DA:2723:C:H5''	47:DR:2:ARG:CD	2.02	0.89
27:D2:47:ASN:HA	27:D2:50:ILE:O	1.71	0.89
34:DA:814:C:H5''	51:DV:86:GLY:HA3	1.54	0.89
28:B3:8:LEU:CD1	28:B3:31:LEU:HD23	2.03	0.89
34:DA:2640:G:H5'	34:DA:2640:G:H8	1.38	0.89
34:BA:1528(A):A:H3'	34:BA:1529:G:H5''	1.55	0.89
54:DY:28:LYS:HA	54:DY:39:VAL:H	1.38	0.89
51:BV:15:GLU:HB3	51:BV:16:PRO:HD2	1.52	0.89
51:BV:21:ARG:HD3	51:BV:21:ARG:H	1.36	0.89
34:DA:2472:G:H2'	34:DA:2529:G:N2	1.88	0.89
34:BA:1024:G:H3'	34:BA:1025:G:H5''	1.53	0.89
34:BA:2348:U:C2'	34:BA:2349:G:H5''	2.02	0.89
2:CB:137:ARG:HA	2:CB:137:ARG:HH11	1.38	0.89
34:DA:2753:A:O2'	34:DA:2754:U:H5'	1.72	0.89
43:DN:54:VAL:HB	43:DN:122:VAL:HG22	1.55	0.89
8:AH:102:ARG:H	8:AH:102:ARG:HE	1.20	0.89
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.72	0.89
34:DA:1019:U:H3	34:DA:1142(A):A:H62	1.13	0.89
37:DD:27:THR:HG23	37:DD:28:GLU:H	1.35	0.89
34:BA:1594:G:H5'	34:BA:1594:G:H8	1.37	0.89
54:BY:46:LYS:H	54:BY:62:GLU:CG	1.86	0.89
40:BG:76:SER:HB2	40:BG:83:ARG:HB3	1.54	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BP:115:LEU:HA	45:BP:134:ALA:HB2	1.54	0.89
42:BI:71:ILE:HG13	42:BI:72:LEU:HD22	1.55	0.89
49:BT:55:ASN:HD22	49:BT:58:ASN:HD21	1.21	0.89
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.07	0.89
50:DU:88:ILE:C	50:DU:90:VAL:H	1.76	0.88
48:DS:13:ARG:O	48:DS:15:ARG:HG2	1.74	0.88
53:DX:36:LYS:HD2	53:DX:36:LYS:O	1.73	0.88
34:DA:451:C:H4'	39:DF:52:LYS:NZ	1.86	0.88
55:BZ:74:VAL:HG22	55:BZ:86:VAL:HG13	1.53	0.88
45:DP:115:LEU:HA	45:DP:134:ALA:HB2	1.55	0.88
1:AA:1190:G:H3'	3:AC:3:ASN:ND2	1.88	0.88
3:CC:73:PRO:O	3:CC:76:VAL:HG22	1.73	0.88
1:AA:1442:G:C8	1:AA:1442:G:H5'	2.08	0.88
45:BP:101:VAL:HG13	45:BP:102:ARG:H	1.36	0.88
34:DA:2701:C:H3'	34:DA:2702:U:C5'	2.03	0.88
33:D8:30:ARG:HH21	45:DP:62:LEU:HB2	1.38	0.88
34:DA:2762:G:C2'	34:DA:2763:G:H5''	2.03	0.88
55:BZ:4:ARG:HG2	55:BZ:58:VAL:HB	1.53	0.88
43:DN:57:ALA:HB3	43:DN:124:ALA:HA	1.55	0.88
34:DA:27:G:H22	34:DA:512:G:H2'	1.38	0.88
53:BX:63:LYS:HE3	53:BX:70:LEU:HD22	1.55	0.88
38:DE:77:ILE:HG22	38:DE:78:LEU:N	1.88	0.88
35:DB:75:G:H1'	55:DZ:27:VAL:HG21	1.55	0.88
27:B2:47:ASN:C	27:B2:49:LYS:H	1.75	0.88
35:BB:74:U:H2'	35:BB:75:G:H5''	1.54	0.88
39:DF:101:LEU:HD12	39:DF:102:PRO:HD2	1.54	0.88
43:BN:54:VAL:HB	43:BN:122:VAL:HG22	1.55	0.88
34:BA:259:G:H21	34:BA:621:A:H8	1.21	0.88
47:DR:10:LEU:HB3	47:DR:17:ARG:HD2	1.55	0.88
53:DX:63:LYS:HE3	53:DX:70:LEU:HD22	1.53	0.88
4:AD:96:LEU:H	4:AD:96:LEU:HD22	1.37	0.88
51:DV:21:ARG:H	51:DV:21:ARG:HD3	1.38	0.88
26:B1:13:ILE:HG23	26:B1:14:VAL:H	1.34	0.88
53:DX:53:LYS:HE3	53:DX:55:ASN:HD21	1.36	0.88
12:CL:32:PHE:HB3	12:CL:84:LEU:HD21	1.55	0.88
34:BA:1332:G:N2	34:BA:1609:A:H2'	1.88	0.88
34:DA:1332:G:H22	34:DA:1609:A:C2'	1.87	0.88
41:DH:118:PRO:HG2	41:DH:121:ILE:HB	1.53	0.88
34:DA:1879:C:C2'	34:DA:1880:C:H5''	2.03	0.88
37:BD:17:THR:HG23	37:BD:205:VAL:H	1.35	0.88
5:CE:101:ILE:H	5:CE:101:ILE:HD13	1.36	0.88
34:DA:1614:A:H62	52:DW:93:ALA:HB2	1.37	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1293:G:HO2'	1:CA:1294:G:H8	0.96	0.88
4:CD:43:HIS:HA	4:CD:46:LYS:HE3	1.54	0.88
34:BA:1614:A:H62	52:BW:93:ALA:HB2	1.38	0.88
38:DE:35:GLN:HE21	38:DE:37:ARG:HE	1.22	0.88
28:B3:8:LEU:HA	28:B3:54:VAL:HG22	1.56	0.88
34:DA:1594:G:H5'	34:DA:1594:G:H8	1.36	0.88
34:BA:191:A:O2'	34:BA:192:C:H5'	1.74	0.88
41:DH:44:VAL:HG12	41:DH:45:VAL:H	1.37	0.88
3:AC:54:ARG:HH12	3:AC:56:ASP:HB2	1.36	0.88
1:AA:579:G:H5'	1:AA:728:A:H1'	1.53	0.88
34:DA:1224:C:O3'	51:DV:88:ARG:HB3	1.71	0.88
38:BE:75:VAL:C	38:BE:77:ILE:H	1.76	0.88
37:BD:64:ILE:O	37:BD:64:ILE:HG12	1.73	0.88
3:AC:73:PRO:O	3:AC:76:VAL:HG22	1.73	0.88
37:DD:35:LYS:HG2	37:DD:64:ILE:H	1.37	0.88
34:BA:2701:C:H3'	34:BA:2702:U:C5'	2.03	0.88
10:AJ:5:ARG:HA	10:AJ:73:ASP:OD1	1.72	0.88
1:CA:1277:C:HO2'	1:CA:1279:A:H8	1.20	0.88
50:DU:24:TYR:HB2	50:DU:29:SER:HB3	1.53	0.88
42:DI:71:ILE:HG13	42:DI:72:LEU:HD22	1.55	0.88
34:BA:1826:G:C4'	37:BD:242:ARG:HH21	1.85	0.88
37:BD:35:LYS:HG2	37:BD:64:ILE:H	1.34	0.88
33:B8:30:ARG:HH21	45:BP:62:LEU:HB2	1.38	0.88
26:D1:46:LEU:HD21	26:D1:48:LYS:HE3	1.55	0.88
34:BA:571:A:H5'	34:BA:2030:A:N6	1.89	0.88
1:AA:552:U:O2'	1:AA:553:A:H5'	1.74	0.88
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.08	0.88
25:B0:36:ILE:HD11	34:BA:2355:C:H5'	1.55	0.88
34:DA:860:U:H5	34:DA:917:A:N7	1.70	0.88
34:BA:2377:A:H4'	48:BS:107:GLU:HB3	1.56	0.88
40:DG:88:ILE:HG13	40:DG:89:GLY:H	1.38	0.88
48:DS:98:VAL:HG13	48:DS:100:ALA:H	1.38	0.88
43:BN:46:VAL:HG13	43:BN:47:ALA:H	1.38	0.88
10:CJ:5:ARG:HA	10:CJ:73:ASP:OD1	1.73	0.88
37:DD:267:SER:C	37:DD:269:PHE:H	1.77	0.88
14:AN:3:ARG:HB3	14:AN:3:ARG:HH11	1.35	0.88
37:DD:27:THR:HG21	37:DD:83:GLU:HG2	1.55	0.87
33:B8:32:LEU:HB3	33:B8:35:GLN:H	1.37	0.87
14:AN:13:THR:H	14:AN:14:PRO:HD2	1.35	0.87
34:DA:286:C:H42	34:DA:355:G:H1	1.19	0.87
34:BA:365:C:H6	34:BA:365:C:H5'	1.39	0.87
54:BY:28:LYS:HA	54:BY:39:VAL:H	1.38	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:6:ILE:HD11	10:AJ:72:VAL:HB	1.56	0.87
14:CN:3:ARG:NH1	14:CN:3:ARG:HB3	1.89	0.87
45:DP:38:GLN:HG3	45:DP:39:LYS:H	1.37	0.87
40:BG:145:THR:HG23	40:BG:148:MET:HB2	1.56	0.87
48:DS:85:VAL:HG23	48:DS:106:ARG:HB2	1.55	0.87
42:DI:79:ILE:HG12	42:DI:140:LEU:CD1	2.05	0.87
55:DZ:18:LEU:HD12	55:DZ:18:LEU:H	1.38	0.87
34:BA:2758:A:C2'	34:BA:2759:G:H5''	2.04	0.87
43:BN:46:VAL:HG11	43:BN:48:MET:HG3	1.56	0.87
34:BA:1879:C:C2'	34:BA:1880:C:H5''	2.04	0.87
34:BA:2068:U:H3	34:BA:2430:A:H2	1.17	0.87
34:DA:2377:A:H4'	48:DS:107:GLU:HB3	1.57	0.87
34:DA:2348:U:H2'	34:DA:2349:G:H5''	1.55	0.87
34:DA:673:C:H5'	39:DF:54:ARG:HH12	1.38	0.87
34:BA:2358:G:H1	45:BP:55:ARG:HH22	1.18	0.87
36:DC:49:ILE:HD12	36:DC:49:ILE:H	1.38	0.87
34:BA:1484:G:H2'	34:BA:1485:G:C5'	2.05	0.87
34:BA:2175:C:H1'	36:BC:215:THR:HA	1.53	0.87
53:DX:65:ARG:CZ	53:DX:66:LEU:H	1.87	0.87
40:DG:60:LEU:O	40:DG:63:ILE:HG13	1.74	0.87
34:BA:2472:G:H2'	34:BA:2529:G:N2	1.90	0.87
54:BY:48:ALA:HB3	54:BY:59:GLY:H	1.37	0.87
34:DA:2415:G:C4'	45:DP:67:MET:H	1.84	0.87
34:BA:2415:G:C4'	45:BP:67:MET:H	1.85	0.87
34:DA:956:G:OP2	46:DQ:85:LYS:HD2	1.74	0.87
30:B5:20:ARG:HH12	52:BW:15:ARG:CZ	1.87	0.87
45:BP:112:LEU:H	45:BP:128:HIS:CD2	1.92	0.87
38:DE:154:LYS:HA	38:DE:154:LYS:HE3	1.56	0.87
33:D8:35:GLN:HA	34:DA:2420:C:OP2	1.74	0.87
34:BA:956:G:OP2	46:BQ:85:LYS:HD2	1.73	0.87
53:BX:64:LYS:HG2	53:BX:65:ARG:N	1.89	0.87
34:BA:27:G:H22	34:BA:512:G:H2'	1.40	0.87
22:AV:15:G:H22	22:AV:48:C:H42	1.23	0.87
51:BV:83:ARG:HG2	51:BV:83:ARG:HH11	1.39	0.87
26:D1:20:ARG:HD3	26:D1:41:ARG:HD3	1.54	0.87
28:D3:6:VAL:CG1	28:D3:54:VAL:HG11	2.05	0.87
40:DG:125:PHE:HB3	40:DG:166:ASP:HB2	1.56	0.87
1:CA:1190:G:H3'	3:CC:3:ASN:ND2	1.88	0.87
34:DA:171:G:H2'	34:DA:172:C:O4'	1.75	0.87
13:AM:69:GLU:HB3	13:AM:72:ALA:HB3	1.56	0.87
34:DA:2201:C:O2'	34:DA:2202:C:H5'	1.75	0.87
37:BD:102:LYS:O	37:BD:103:ARG:HG2	1.75	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DZ:10:ARG:HH21	55:DZ:26:GLY:N	1.72	0.87
43:BN:24:GLY:O	43:BN:28:THR:HG22	1.74	0.87
1:AA:1190:G:P	3:AC:5:ILE:HG23	2.14	0.87
28:D3:4:LEU:HD21	28:D3:56:VAL:HG13	1.57	0.87
1:CA:818:G:O2'	1:CA:819:A:H5''	1.75	0.87
41:BH:87:LEU:HD13	41:BH:148:ILE:HG21	1.55	0.87
34:BA:171:G:H2'	34:BA:172:C:O4'	1.75	0.87
38:DE:75:VAL:C	38:DE:77:ILE:H	1.78	0.86
36:BC:58:VAL:CG2	36:BC:166:ASP:H	1.86	0.86
37:BD:227:ASN:HB3	37:BD:228:PRO:HD2	1.56	0.86
37:DD:227:ASN:HB3	37:DD:228:PRO:HD2	1.55	0.86
34:DA:1840:G:H1	34:DA:1902:C:H42	1.22	0.86
8:CH:102:ARG:H	8:CH:102:ARG:HE	1.21	0.86
40:BG:67:LYS:H	40:BG:67:LYS:HD2	1.36	0.86
34:BA:1902:C:H1'	37:BD:244:ARG:HD3	1.56	0.86
27:B2:47:ASN:HA	27:B2:50:ILE:O	1.74	0.86
34:BA:2640:G:H8	34:BA:2640:G:H5'	1.37	0.86
34:DA:2679:A:O2'	34:DA:2680:C:H5'	1.73	0.86
38:DE:109:LYS:HB3	47:DR:2:ARG:HH12	1.40	0.86
34:DA:1528(A):A:H3'	34:DA:1529:G:H5''	1.56	0.86
7:AG:47:CYS:HA	7:AG:50:ILE:HG12	1.57	0.86
22:CV:2:G:H4'	25:D0:7:LEU:CB	2.05	0.86
27:B2:14:ARG:CZ	27:B2:57:ILE:HG21	2.05	0.86
34:BA:2762:G:C2'	34:BA:2763:G:H5''	2.04	0.86
12:CL:41:ARG:HH11	12:CL:41:ARG:HB3	1.39	0.86
45:BP:62:LEU:H	45:BP:62:LEU:HD13	1.38	0.86
39:DF:206:ILE:O	39:DF:206:ILE:HD12	1.76	0.86
5:AE:78:HIS:HE1	5:AE:143:ARG:H	1.20	0.86
50:DU:34:LYS:HE2	50:DU:34:LYS:HA	1.58	0.86
43:DN:126:PRO:O	43:DN:127:ASP:HB2	1.74	0.86
13:CM:69:GLU:HB3	13:CM:72:ALA:HB3	1.56	0.86
25:D0:20:ARG:N	25:D0:20:ARG:HD3	1.90	0.86
22:CV:52:G:HO2'	22:CV:53:G:H8	0.94	0.86
48:BS:88:ASP:CG	48:BS:89:ARG:H	1.76	0.86
53:BX:65:ARG:CZ	53:BX:66:LEU:H	1.87	0.86
43:BN:126:PRO:O	43:BN:127:ASP:HB2	1.75	0.86
43:DN:14:VAL:HA	43:DN:135:PRO:HG2	1.55	0.86
34:BA:2348:U:H2'	34:BA:2349:G:H5''	1.55	0.86
46:BQ:52:VAL:HG13	46:BQ:53:ALA:H	1.39	0.86
44:DO:4:PRO:O	44:DO:5:GLN:HB2	1.75	0.86
7:CG:69:VAL:HA	7:CG:138:LYS:HD2	1.57	0.86
37:DD:64:ILE:O	37:DD:64:ILE:HG12	1.75	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BS:13:ARG:O	48:BS:15:ARG:HG2	1.74	0.86
3:AC:16:ARG:NH1	3:AC:16:ARG:HB2	1.90	0.86
28:B3:6:VAL:CG1	28:B3:54:VAL:HG11	2.06	0.86
53:DX:12:VAL:HG12	53:DX:27:THR:O	1.75	0.86
34:DA:1902:C:H1'	37:DD:244:ARG:HD3	1.55	0.86
4:AD:11:LEU:C	4:AD:13:ARG:N	2.24	0.86
42:DI:133:HIS:HB2	42:DI:134:PRO:CD	2.06	0.86
33:B8:35:GLN:HA	34:BA:2420:C:OP2	1.75	0.86
34:BA:141:A:H8	34:BA:1408:C:HO2'	1.19	0.86
23:AW:16:U:H3'	23:AW:17:C:H5'	1.58	0.86
43:BN:14:VAL:HA	43:BN:135:PRO:HG2	1.56	0.86
34:DA:106:C:H1'	54:DY:2:ARG:HE	1.40	0.86
23:AW:20:U:H2'	23:AW:21:A:H4'	1.56	0.86
42:BI:88:ILE:HG22	42:BI:89:TYR:H	1.41	0.86
48:DS:17:ARG:HA	48:DS:20:ARG:NE	1.90	0.86
42:DI:81:VAL:HG11	42:DI:88:ILE:HD12	1.58	0.86
54:DY:15:VAL:CG1	54:DY:16:ALA:H	1.89	0.86
53:BX:36:LYS:HD2	53:BX:36:LYS:O	1.75	0.86
51:DV:89:GLN:HE21	51:DV:90:PRO:HD2	1.41	0.86
3:CC:16:ARG:NH1	3:CC:16:ARG:HB2	1.91	0.86
53:BX:33:LYS:C	53:BX:35:THR:H	1.77	0.86
44:BO:1:MET:HE3	44:BO:67:LYS:HE2	1.57	0.86
49:DT:109:GLU:HB3	49:DT:113:LYS:HE3	1.58	0.86
37:BD:44:ASN:HB2	37:BD:48:ARG:O	1.75	0.86
51:BV:89:GLN:HE21	51:BV:90:PRO:HD2	1.39	0.86
49:DT:29:ARG:HB3	49:DT:85:LYS:HA	1.56	0.86
54:DY:45:VAL:HA	54:DY:62:GLU:HB2	1.54	0.86
34:DA:1484:G:H2'	34:DA:1485:G:C5'	2.06	0.86
38:BE:51:PHE:HB3	38:BE:76:ARG:HB3	1.58	0.86
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HG13	1.56	0.86
34:BA:2262:U:H2'	34:BA:2263:C:H5''	1.58	0.86
41:BH:19:VAL:HG21	41:BH:44:VAL:HG13	1.58	0.86
39:BF:32:LEU:HD21	39:BF:105:VAL:HG13	1.56	0.86
42:DI:72:LEU:HB3	42:DI:138:ILE:HG12	1.57	0.86
8:CH:33:GLU:HA	8:CH:36:LEU:HD12	1.56	0.86
42:BI:133:HIS:HB2	42:BI:134:PRO:CD	2.06	0.85
49:DT:30:VAL:HG21	49:DT:84:GLN:H	1.40	0.85
53:DX:33:LYS:C	53:DX:35:THR:H	1.78	0.85
54:BY:8:LYS:NZ	54:BY:74:PRO:HD3	1.91	0.85
37:BD:35:LYS:NZ	37:BD:104:TYR:HB2	1.91	0.85
37:BD:27:THR:HG23	37:BD:28:GLU:N	1.89	0.85
34:BA:451:C:H4'	39:BF:52:LYS:NZ	1.90	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1190:G:P	3:CC:5:ILE:HG23	2.15	0.85
9:AI:47:LEU:C	9:AI:49:PRO:HD2	1.96	0.85
39:DF:181:LEU:HD11	39:DF:186:ILE:HD11	1.56	0.85
38:BE:154:LYS:HE3	38:BE:154:LYS:HA	1.56	0.85
40:DG:145:THR:HG23	40:DG:148:MET:HB2	1.58	0.85
38:DE:51:PHE:HB3	38:DE:76:ARG:HB3	1.56	0.85
10:AJ:80:LYS:HE3	1:CA:1162:C:C4'	2.06	0.85
34:BA:1840:G:H1	34:BA:1902:C:H42	1.24	0.85
33:D8:32:LEU:HB3	33:D8:35:GLN:H	1.38	0.85
43:DN:42:TRP:N	50:DU:64:ARG:HH21	1.74	0.85
34:DA:1884:A:C2'	34:DA:1885:A:H5''	2.04	0.85
49:DT:55:ASN:HD22	49:DT:58:ASN:HD21	1.24	0.85
34:BA:925:C:H2'	34:BA:926:A:H5''	1.57	0.85
34:BA:658:C:H2'	34:BA:659:C:H5''	1.55	0.85
22:AV:70:G:H2'	22:AV:71:C:H5'	1.58	0.85
9:AI:95:LYS:HD3	9:AI:96:LEU:N	1.91	0.85
2:AB:48:MET:HA	2:AB:51:LEU:HD12	1.57	0.85
10:CJ:74:ILE:H	10:CJ:74:ILE:HD13	1.40	0.85
34:BA:1884:A:C2'	34:BA:1885:A:H5''	2.05	0.85
5:CE:78:HIS:HE1	5:CE:143:ARG:H	1.24	0.85
27:B2:23:LYS:HB2	53:BX:5:TYR:CE1	2.10	0.85
34:BA:807:U:H2'	34:BA:808:G:H8	1.39	0.85
34:DA:807:U:H2'	34:DA:808:G:H8	1.39	0.85
27:B2:14:ARG:NH2	27:B2:57:ILE:HG21	1.91	0.85
16:AP:22:THR:HG22	16:AP:32:TYR:HA	1.58	0.85
34:DA:287:C:H42	34:DA:354:G:H1	0.87	0.85
51:BV:19:LYS:HZ3	51:BV:20:LEU:N	1.74	0.85
38:DE:24:THR:HG23	38:DE:184:VAL:HG23	1.58	0.85
44:DO:1:MET:HE3	44:DO:67:LYS:HG2	1.58	0.85
34:BA:2308:G:O6	34:BA:2310:A:H2'	1.76	0.85
12:CL:18:VAL:HG23	12:CL:19:ARG:H	1.41	0.85
34:DA:271(D):G:H1	34:DA:271(T):C:H42	1.23	0.85
50:BU:88:ILE:C	50:BU:90:VAL:H	1.76	0.85
2:AB:187:LEU:HD23	2:AB:201:ILE:HG22	1.58	0.85
54:DY:46:LYS:H	54:DY:62:GLU:CG	1.87	0.85
39:BF:206:ILE:HD12	39:BF:206:ILE:O	1.76	0.85
42:DI:115:ALA:HB2	42:DI:131:LYS:HE3	1.55	0.85
33:B8:14:VAL:HG11	33:B8:22:VAL:HG13	1.59	0.85
35:DB:74:U:H2'	35:DB:75:G:H5''	1.57	0.85
2:CB:187:LEU:HD23	2:CB:201:ILE:HG22	1.56	0.85
34:DA:1826:G:C4'	37:DD:242:ARG:HH21	1.85	0.85
53:DX:64:LYS:HG2	53:DX:65:ARG:N	1.91	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DB:7:G:C3'	35:DB:8:U:H5''	2.07	0.85
26:B1:26:ARG:CB	26:B1:34:THR:HA	2.06	0.85
41:DH:87:LEU:HD13	41:DH:148:ILE:HG21	1.57	0.85
28:B3:4:LEU:HD21	28:B3:56:VAL:HG13	1.59	0.85
9:CI:95:LYS:HD3	9:CI:96:LEU:N	1.91	0.85
45:BP:38:GLN:HG3	45:BP:39:LYS:H	1.39	0.85
34:BA:2864:G:H5'	34:BA:2864:G:H8	1.42	0.85
49:BT:30:VAL:HG21	49:BT:84:GLN:H	1.40	0.85
38:BE:35:GLN:HE21	38:BE:37:ARG:HE	1.20	0.85
38:BE:77:ILE:HG22	38:BE:78:LEU:N	1.91	0.85
34:DA:481:G:H1'	34:DA:506:G:H21	1.41	0.85
42:BI:72:LEU:HB3	42:BI:138:ILE:HG12	1.59	0.85
40:DG:86:MET:HB2	40:DG:87:PRO:HD3	1.57	0.85
12:AL:18:VAL:HG23	12:AL:19:ARG:H	1.42	0.85
25:B0:20:ARG:HD3	25:B0:20:ARG:N	1.89	0.85
48:DS:61:ASN:HD22	48:DS:61:ASN:C	1.80	0.85
34:BA:287:C:H42	34:BA:354:G:H1	0.87	0.85
1:AA:184:G:H2'	1:AA:185:A:H8	1.42	0.85
34:DA:259:G:H21	34:DA:621:A:H8	1.22	0.85
34:DA:2781:A:H5'	34:DA:2782:G:C5'	2.03	0.85
41:BH:43:VAL:HG11	41:BH:53:GLU:H	1.41	0.85
16:CP:22:THR:HG22	16:CP:32:TYR:HA	1.59	0.85
34:BA:1948:G:C8	34:BA:1948:G:H5'	2.12	0.85
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.39	0.85
12:AL:60:LEU:HD21	12:AL:66:VAL:HG22	1.57	0.85
34:DA:1722:A:C2'	34:DA:1739:U:H5''	2.07	0.85
38:BE:36:ARG:HH21	38:BE:88:GLY:HA3	1.42	0.85
43:DN:39:ARG:HE	43:DN:41:ASP:CB	1.90	0.85
46:BQ:20:ALA:HB2	46:BQ:99:PRO:HG2	1.59	0.85
34:BA:814:C:H5''	51:BV:86:GLY:HA3	1.58	0.85
53:DX:60:ARG:HB2	53:DX:72:LYS:O	1.77	0.85
37:BD:267:SER:C	37:BD:269:PHE:H	1.79	0.85
1:AA:1117:G:H4'	9:AI:104:ARG:NH1	1.90	0.85
34:BA:1131:G:HO2'	34:BA:1132:A:H8	0.89	0.85
6:CF:9:VAL:C	6:CF:10:LEU:HD12	1.97	0.85
55:BZ:12:GLY:O	55:BZ:13:GLU:HG3	1.77	0.85
51:BV:72:VAL:HG12	51:BV:73:SER:H	1.41	0.84
53:BX:60:ARG:HG2	53:BX:74:PRO:CD	2.07	0.84
48:DS:88:ASP:CG	48:DS:89:ARG:H	1.77	0.84
48:BS:28:VAL:N	48:BS:89:ARG:HD2	1.91	0.84
40:BG:111:LEU:HA	40:BG:114:ILE:CG1	2.07	0.84
12:AL:41:ARG:HH11	12:AL:41:ARG:HB3	1.41	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2308:G:O6	34:DA:2310:A:H2'	1.77	0.84
34:BA:106:C:H1'	54:BY:2:ARG:HE	1.41	0.84
45:DP:6:LEU:HG	45:DP:8:PRO:O	1.76	0.84
33:B8:51:ALA:C	33:B8:53:PRO:HD2	1.97	0.84
54:DY:48:ALA:HB3	54:DY:59:GLY:H	1.40	0.84
50:DU:92:ARG:HB2	51:DV:11:GLN:NE2	1.92	0.84
51:DV:19:LYS:HZ2	51:DV:20:LEU:H	1.24	0.84
37:DD:102:LYS:O	37:DD:103:ARG:HG2	1.78	0.84
37:BD:27:THR:CG2	37:BD:28:GLU:H	1.89	0.84
43:DN:46:VAL:HG11	43:DN:48:MET:HG3	1.58	0.84
27:B2:32:LEU:HG	27:B2:33:MET:N	1.90	0.84
34:BA:676:A:H2	34:BA:802:A:H61	1.24	0.84
53:DX:30:VAL:HG12	53:DX:31:HIS:H	1.42	0.84
34:BA:2599:G:C8	37:BD:236:GLY:HA2	2.13	0.84
45:DP:112:LEU:H	45:DP:128:HIS:CD2	1.94	0.84
46:DQ:133:ARG:O	46:DQ:134:ARG:HB2	1.76	0.84
44:BO:4:PRO:O	44:BO:5:GLN:HB2	1.75	0.84
47:BR:63:ARG:HA	47:BR:80:PHE:CE2	2.12	0.84
10:AJ:74:ILE:HD13	10:AJ:74:ILE:H	1.41	0.84
4:CD:11:LEU:C	4:CD:13:ARG:N	2.26	0.84
4:CD:11:LEU:C	4:CD:13:ARG:H	1.80	0.84
49:BT:109:GLU:HB3	49:BT:113:LYS:HE3	1.59	0.84
4:CD:199:ASN:OD1	4:CD:201:GLN:HB2	1.77	0.84
33:D8:51:ALA:C	33:D8:53:PRO:HD2	1.96	0.84
34:BA:2729:G:H2'	34:BA:2730:C:H6	1.41	0.84
2:AB:51:LEU:HD23	2:AB:201:ILE:HD12	1.58	0.84
1:CA:1117:G:H4'	9:CI:104:ARG:NH1	1.91	0.84
3:AC:53:ALA:O	3:AC:54:ARG:HB2	1.77	0.84
38:DE:60:ASN:OD1	38:DE:62:PRO:HD2	1.76	0.84
48:DS:28:VAL:N	48:DS:89:ARG:HD2	1.93	0.84
34:BA:481:G:H1'	34:BA:506:G:H21	1.41	0.84
48:BS:28:VAL:HG12	48:BS:29:PHE:N	1.92	0.84
26:B1:89:GLU:H	26:B1:89:GLU:CD	1.78	0.84
41:BH:55:PRO:HG2	41:BH:56:SER:H	1.43	0.84
27:B2:30:ARG:H	27:B2:30:ARG:HD2	1.43	0.84
38:BE:24:THR:HG23	38:BE:184:VAL:HG23	1.60	0.84
3:AC:179:ARG:HB2	3:AC:207:VAL:HA	1.58	0.84
32:D7:19:ARG:HG2	32:D7:19:ARG:HH11	1.42	0.84
51:DV:83:ARG:HG2	51:DV:83:ARG:HH11	1.42	0.84
51:DV:72:VAL:HG12	51:DV:73:SER:H	1.41	0.84
42:BI:115:ALA:HB2	42:BI:131:LYS:HE3	1.57	0.84
35:BB:7:G:C3'	35:BB:8:U:H5''	2.07	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DD:267:SER:HA	37:DD:270:ILE:HG13	1.60	0.84
34:BA:2723:C:H5''	47:BR:2:ARG:CD	2.07	0.84
37:BD:267:SER:HA	37:BD:270:ILE:HG13	1.60	0.84
4:AD:119:GLN:HG3	4:AD:123:HIS:CD2	2.13	0.84
40:BG:31:VAL:HG22	40:BG:32:PRO:CD	2.07	0.84
34:DA:483:A:H8	54:DY:47:LYS:HZ3	1.24	0.84
43:DN:46:VAL:HG13	43:DN:47:ALA:H	1.42	0.84
43:BN:42:TRP:N	50:BU:64:ARG:HH21	1.74	0.84
25:D0:36:ILE:HD11	34:DA:2355:C:H5'	1.57	0.84
34:DA:2555:U:H2'	34:DA:2556:C:H5'	1.60	0.84
34:BA:1722:A:C2'	34:BA:1739:U:H5''	2.06	0.84
1:CA:184:G:H2'	1:CA:185:A:H8	1.43	0.84
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.42	0.84
12:CL:60:LEU:HD21	12:CL:66:VAL:HG22	1.59	0.84
34:DA:925:C:H2'	34:DA:926:A:H5''	1.58	0.84
44:DO:69:ILE:HD13	44:DO:77:ILE:HG23	1.58	0.84
42:DI:88:ILE:HG22	42:DI:89:TYR:H	1.43	0.84
46:DQ:140:ALA:HB3	55:DZ:53:ILE:HG12	1.60	0.84
1:AA:17:U:H2'	1:AA:18:C:C6	2.13	0.84
55:BZ:108:PRO:HB3	55:BZ:142:SER:HA	1.59	0.84
53:BX:60:ARG:HB2	53:BX:72:LYS:O	1.78	0.84
33:B8:6:THR:CG2	33:B8:63:PRO:HD3	2.08	0.84
41:BH:105:LEU:H	41:BH:105:LEU:HD13	1.43	0.84
34:DA:2359:C:C2'	34:DA:2360:A:H5'	2.07	0.84
39:DF:46:ARG:HG3	39:DF:46:ARG:HH11	1.43	0.84
13:AM:49:THR:HB	13:AM:52:GLU:HG3	1.59	0.84
47:BR:10:LEU:HB3	47:BR:17:ARG:HD2	1.58	0.84
34:DA:2712:U:H1'	34:DA:2712(A):A:C8	2.13	0.83
10:CJ:8:LEU:HB3	10:CJ:16:LEU:HD21	1.59	0.83
1:AA:1057:G:H5''	3:AC:154:SER:CB	2.07	0.83
37:DD:27:THR:HG23	37:DD:28:GLU:N	1.90	0.83
38:DE:91:VAL:HG13	38:DE:95:ILE:HD11	1.59	0.83
48:BS:17:ARG:HA	48:BS:20:ARG:NE	1.93	0.83
34:BA:2747:G:O6	34:BA:2755:C:H5''	1.78	0.83
45:DP:23:PRO:CB	45:DP:33:ARG:HG3	2.08	0.83
46:DQ:20:ALA:HB2	46:DQ:99:PRO:HG2	1.60	0.83
34:DA:2206:G:N2	34:DA:2207:G:H5'	1.91	0.83
1:CA:1057:G:H5''	3:CC:154:SER:CB	2.08	0.83
6:AF:55:ASP:HB2	6:AF:86:ARG:HH12	1.43	0.83
47:DR:63:ARG:HA	47:DR:80:PHE:CE2	2.13	0.83
40:DG:41:GLN:HB3	40:DG:43:LEU:CD1	2.08	0.83
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.13	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1747(A):G:H2'	34:BA:1748:G:H5''	1.59	0.83
1:CA:189(H):G:H2'	1:CA:189(I):G:H8	1.42	0.83
46:BQ:133:ARG:O	46:BQ:134:ARG:HB2	1.77	0.83
34:DA:2426:A:H3'	34:DA:2427:C:H5'	1.60	0.83
34:DA:1332:G:N2	34:DA:1609:A:H2'	1.92	0.83
53:BX:30:VAL:HG12	53:BX:31:HIS:H	1.40	0.83
47:BR:28:LEU:HD12	47:BR:48:VAL:HG21	1.60	0.83
47:DR:95:THR:HA	47:DR:116:LEU:O	1.77	0.83
34:BA:1717:G:C2'	34:BA:1718:G:H5''	2.08	0.83
3:CC:53:ALA:O	3:CC:54:ARG:HB2	1.77	0.83
34:DA:1747(A):G:H2'	34:DA:1748:G:H5''	1.59	0.83
28:D3:8:LEU:HA	28:D3:54:VAL:HG22	1.58	0.83
51:BV:28:GLU:CG	51:BV:29:PRO:HD3	2.07	0.83
43:DN:39:ARG:NE	43:DN:41:ASP:HB2	1.92	0.83
34:BA:571:A:C5'	34:BA:2030:A:H62	1.90	0.83
1:CA:1104:G:H4'	2:CB:111:ARG:NH1	1.94	0.83
36:DC:58:VAL:CG2	36:DC:166:ASP:H	1.87	0.83
47:BR:95:THR:HA	47:BR:116:LEU:O	1.78	0.83
41:DH:105:LEU:HD13	41:DH:105:LEU:H	1.44	0.83
34:DA:571:A:H5'	34:DA:2030:A:N6	1.93	0.83
43:BN:28:THR:HG23	43:BN:29:LYS:H	1.44	0.83
41:DH:19:VAL:HG21	41:DH:44:VAL:HG13	1.58	0.83
4:AD:11:LEU:C	4:AD:13:ARG:H	1.79	0.83
39:BF:143:ALA:HA	39:BF:146:ALA:HB3	1.59	0.83
3:CC:179:ARG:HB2	3:CC:207:VAL:HA	1.59	0.83
37:DD:35:LYS:NZ	37:DD:104:TYR:HB2	1.94	0.83
42:DI:79:ILE:HB	42:DI:142:VAL:HG13	1.61	0.83
33:D8:25:MET:HG3	45:DP:64:LYS:HB2	1.60	0.83
41:DH:136:ILE:O	41:DH:137:ASP:HB2	1.78	0.83
34:BA:2206:G:N2	34:BA:2207:G:H5'	1.92	0.83
34:DA:106:C:H1'	54:DY:2:ARG:NE	1.93	0.83
49:DT:109:GLU:O	49:DT:112:ARG:HG3	1.79	0.83
39:BF:181:LEU:HD11	39:BF:186:ILE:HD11	1.59	0.83
36:DC:44:HIS:CD2	36:DC:175:VAL:HA	2.14	0.83
37:DD:35:LYS:HZ1	37:DD:104:TYR:HB2	1.42	0.83
51:DV:28:GLU:CG	51:DV:29:PRO:HD3	2.06	0.83
40:BG:86:MET:HG3	40:BG:87:PRO:HD2	1.58	0.83
34:BA:2359:C:C2'	34:BA:2360:A:H5'	2.07	0.83
13:CM:23:TYR:HE1	13:CM:70:LEU:HD22	1.43	0.83
34:BA:271(D):G:H1	34:BA:271(T):C:H42	1.23	0.83
34:DA:2298:A:H2'	34:DA:2299:G:O4'	1.79	0.83
18:AR:31:LEU:HG	18:AR:65:ILE:HD13	1.61	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BR:73:VAL:O	47:BR:76:VAL:HG12	1.79	0.83
51:BV:47:VAL:HG22	51:BV:48:GLY:H	1.44	0.83
4:AD:199:ASN:OD1	4:AD:201:GLN:HB2	1.77	0.83
53:BX:55:ASN:O	53:BX:77:LYS:HB3	1.79	0.83
22:CV:72:A:C3'	22:CV:73:A:H5''	2.09	0.83
43:BN:33:LEU:HD23	43:BN:52:VAL:HG22	1.61	0.83
34:DA:1948:G:H5'	34:DA:1948:G:C8	2.13	0.83
49:DT:109:GLU:HA	49:DT:112:ARG:HG2	1.60	0.83
34:BA:536:A:H2'	34:BA:537:C:C6	2.14	0.83
51:BV:70:ILE:CB	51:BV:90:PRO:HB2	2.08	0.83
34:BA:1348:G:H2'	34:BA:1349:A:H5''	1.61	0.83
34:BA:2753:A:O2'	34:BA:2754:U:H5'	1.77	0.83
34:DA:1578:U:C2'	34:DA:1579:A:H5''	2.08	0.83
26:D1:26:ARG:NH2	26:D1:28:GLY:HA2	1.94	0.83
1:AA:882:C:O2'	1:AA:883:C:H5'	1.79	0.83
36:BC:49:ILE:HG22	36:BC:50:ASP:H	1.44	0.83
34:BA:2599:G:H8	37:BD:236:GLY:HA2	1.41	0.83
29:B4:10:VAL:O	40:BG:2:PRO:HG2	1.79	0.83
34:DA:639:U:H2'	34:DA:640:C:C6	2.13	0.83
34:BA:673:C:H5'	39:BF:54:ARG:HH12	1.42	0.83
34:DA:2599:G:H8	37:DD:236:GLY:HA2	1.43	0.83
1:CA:353:A:H5'	1:CA:353:A:H8	1.44	0.83
15:CO:39:LEU:HD12	15:CO:56:LEU:HD13	1.61	0.83
7:AG:69:VAL:HA	7:AG:138:LYS:HD2	1.59	0.83
48:BS:85:VAL:CG2	48:BS:106:ARG:HB2	2.09	0.82
39:DF:18:ARG:HG2	39:DF:19:GLU:H	1.42	0.82
43:BN:39:ARG:HE	43:BN:41:ASP:CB	1.92	0.82
34:BA:2189:U:H3'	34:BA:2190:G:H5''	1.60	0.82
54:DY:8:LYS:NZ	54:DY:74:PRO:HD3	1.93	0.82
48:BS:67:ARG:H	48:BS:69:VAL:HG12	1.44	0.82
43:BN:39:ARG:NE	43:BN:41:ASP:HB2	1.94	0.82
5:AE:76:ILE:HD11	5:AE:142:LEU:HD11	1.60	0.82
19:AS:48:THR:HG22	19:AS:61:TYR:HA	1.61	0.82
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.61	0.82
8:AH:103:VAL:HG21	8:AH:109:ILE:O	1.79	0.82
9:CI:47:LEU:C	9:CI:49:PRO:HD2	1.99	0.82
50:DU:92:ARG:O	50:DU:94:ASN:N	2.12	0.82
50:BU:92:ARG:HB2	51:BV:11:GLN:NE2	1.93	0.82
54:BY:15:VAL:CG1	54:BY:16:ALA:H	1.89	0.82
54:BY:8:LYS:HB2	54:BY:28:LYS:HZ3	1.44	0.82
34:DA:482:A:H4'	54:DY:47:LYS:NZ	1.95	0.82
39:BF:18:ARG:HG2	39:BF:19:GLU:H	1.42	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:48:MET:HA	2:CB:51:LEU:HD12	1.59	0.82
27:B2:47:ASN:O	27:B2:49:LYS:N	2.13	0.82
48:DS:61:ASN:HD22	48:DS:62:LYS:N	1.77	0.82
27:D2:32:LEU:HG	27:D2:33:MET:H	1.40	0.82
45:BP:23:PRO:CB	45:BP:33:ARG:HG3	2.09	0.82
46:BQ:140:ALA:HB3	55:BZ:53:ILE:HG13	1.60	0.82
6:CF:55:ASP:HB2	6:CF:86:ARG:HH12	1.45	0.82
49:BT:109:GLU:HA	49:BT:112:ARG:HG2	1.61	0.82
33:D8:49:VAL:O	33:D8:53:PRO:HD3	1.79	0.82
33:B8:18:ALA:HB3	34:BA:651:G:H5''	1.60	0.82
34:DA:2729:G:H2'	34:DA:2730:C:H6	1.43	0.82
36:BC:44:HIS:CD2	36:BC:175:VAL:HA	2.13	0.82
5:AE:126:ARG:HG3	5:AE:126:ARG:HH11	1.44	0.82
34:BA:1353:A:H4'	37:BD:38:LYS:HZ1	1.45	0.82
27:B2:48:HIS:NE2	34:BA:75:G:H4'	1.94	0.82
41:DH:55:PRO:HG2	41:DH:56:SER:H	1.44	0.82
34:DA:2787:C:H1'	38:DE:61:ARG:HB2	1.60	0.82
34:BA:2189:U:C3'	34:BA:2190:G:H5''	2.10	0.82
1:CA:438:G:H4'	1:CA:439:A:OP1	1.77	0.82
34:DA:2864:G:H8	34:DA:2864:G:H5'	1.44	0.82
50:BU:92:ARG:O	50:BU:94:ASN:N	2.11	0.82
51:BV:70:ILE:HB	51:BV:90:PRO:CB	2.08	0.82
34:DA:1348:G:H2'	34:DA:1349:A:H5''	1.61	0.82
45:DP:48:PRO:HG2	45:DP:49:ARG:H	1.44	0.82
41:DH:43:VAL:HG11	41:DH:53:GLU:H	1.43	0.82
34:BA:1578:U:C2'	34:BA:1579:A:H5''	2.09	0.82
40:DG:63:ILE:HD12	40:DG:64:THR:N	1.93	0.82
3:AC:189:ALA:HB3	3:AC:196:LEU:HB2	1.61	0.82
55:BZ:10:ARG:HH21	55:BZ:26:GLY:N	1.78	0.82
34:BA:2201:C:O2'	34:BA:2202:C:H5'	1.79	0.82
34:BA:543:C:H42	34:BA:551:G:H1	1.27	0.82
34:BA:1846:G:H5'	34:BA:1847:A:OP2	1.79	0.82
1:AA:438:G:H4'	1:AA:439:A:OP1	1.79	0.82
43:DN:66:LYS:HA	43:DN:69:GLN:HB2	1.61	0.82
46:DQ:52:VAL:HG13	46:DQ:53:ALA:N	1.93	0.82
34:DA:2348:U:H2'	34:DA:2349:G:C5'	2.09	0.82
40:DG:82:LEU:HD22	40:DG:87:PRO:HG2	1.61	0.82
34:DA:2599:G:C8	37:DD:236:GLY:HA2	2.14	0.82
1:AA:1152:A:H5''	10:AJ:13:HIS:HD2	1.45	0.82
48:BS:61:ASN:HD22	48:BS:62:LYS:N	1.76	0.82
34:BA:2787:C:H1'	38:BE:61:ARG:HB2	1.59	0.82
1:AA:1031:G:H2'	1:AA:1032:G:H8	1.44	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DS:28:VAL:HG12	48:DS:29:PHE:N	1.93	0.82
34:DA:2189:U:H3'	34:DA:2190:G:H5''	1.61	0.82
50:DU:83:LEU:HB3	50:DU:88:ILE:CD1	2.10	0.82
43:DN:33:LEU:HD23	43:DN:52:VAL:HG22	1.61	0.82
55:BZ:10:ARG:NH2	55:BZ:26:GLY:N	2.28	0.82
34:DA:676:A:H2	34:DA:802:A:H61	1.25	0.82
33:D8:14:VAL:HG11	33:D8:22:VAL:HG13	1.59	0.82
34:BA:871:U:H4'	46:BQ:69:PHE:CE2	2.15	0.82
19:CS:48:THR:HG22	19:CS:61:TYR:HA	1.60	0.82
25:D0:41:ARG:H	25:D0:41:ARG:HD2	1.45	0.82
34:BA:2712:U:H1'	34:BA:2712(A):A:C8	2.15	0.82
34:BA:2533:A:C2'	34:BA:2534:A:H5''	2.09	0.82
34:DA:1717:G:C2'	34:DA:1718:G:H5''	2.09	0.82
55:BZ:10:ARG:HD2	55:BZ:36:LYS:HB3	1.62	0.82
1:AA:1527:C:O2'	1:AA:1528:U:H5'	1.78	0.82
37:DD:118:VAL:HG22	37:DD:119:ALA:H	1.45	0.82
34:BA:481:G:H1'	34:BA:506:G:N2	1.94	0.82
46:DQ:82:ARG:HG2	46:DQ:82:ARG:NH1	1.95	0.82
5:AE:78:HIS:CE1	5:AE:143:ARG:H	1.97	0.82
35:BB:80:U:H2'	35:BB:81:G:H21	1.44	0.82
4:CD:119:GLN:HG3	4:CD:123:HIS:CD2	2.13	0.82
23:AW:62:C:H2'	23:AW:63:G:H8	1.44	0.82
38:DE:36:ARG:HH21	38:DE:88:GLY:HA3	1.43	0.81
55:DZ:125:LEU:HD23	55:DZ:126:VAL:N	1.94	0.81
5:AE:76:ILE:HG22	5:AE:93:PRO:HB3	1.60	0.81
26:D1:85:LEU:HB3	26:D1:87:PRO:HD3	1.62	0.81
36:DC:49:ILE:HG22	36:DC:50:ASP:H	1.44	0.81
49:BT:109:GLU:O	49:BT:112:ARG:HG3	1.80	0.81
25:B0:41:ARG:H	25:B0:41:ARG:HD2	1.45	0.81
1:AA:624:C:O3'	16:AP:10:GLY:HA2	1.80	0.81
2:CB:51:LEU:HD23	2:CB:201:ILE:HD12	1.60	0.81
41:BH:92:ILE:HG22	41:BH:93:GLY:N	1.94	0.81
50:BU:6:THR:HG21	50:BU:10:ARG:NH2	1.95	0.81
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.60	0.81
34:BA:2287:A:H62	34:BA:2344:U:H3	1.25	0.81
39:DF:143:ALA:HA	39:DF:146:ALA:HB3	1.62	0.81
37:BD:76:PRO:HG2	37:BD:98:VAL:HG21	1.62	0.81
25:D0:70:GLN:OE1	25:D0:72:ARG:HD3	1.81	0.81
51:DV:19:LYS:NZ	51:DV:20:LEU:N	2.29	0.81
51:DV:22:VAL:O	51:DV:23:GLU:HB2	1.77	0.81
42:BI:81:VAL:HG11	42:BI:88:ILE:HD12	1.62	0.81
38:DE:77:ILE:CG2	38:DE:78:LEU:H	1.93	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DZ:151:HIS:CB	55:DZ:170:THR:HA	2.10	0.81
13:CM:49:THR:HB	13:CM:52:GLU:HG3	1.61	0.81
29:B4:6:HIS:HA	40:BG:67:LYS:HE3	1.61	0.81
1:AA:735:C:O2'	1:AA:736:C:H5'	1.80	0.81
39:DF:66:PRO:O	39:DF:67:GLN:HB3	1.79	0.81
25:B0:70:GLN:OE1	25:B0:72:ARG:HD3	1.81	0.81
5:CE:51:VAL:HB	5:CE:52:PRO:HD3	1.61	0.81
34:BA:2312:U:H4'	40:BG:71:THR:HG21	1.61	0.81
41:BH:136:ILE:O	41:BH:137:ASP:HB2	1.78	0.81
51:BV:19:LYS:HB3	51:BV:96:ILE:O	1.80	0.81
34:BA:2426:A:H3'	34:BA:2427:C:H5'	1.61	0.81
34:DA:2245:U:H5'	34:DA:2246:G:H5'	1.61	0.81
37:DD:25:THR:HG21	37:DD:81:ALA:HB1	1.59	0.81
45:BP:146:VAL:HG22	45:BP:147:LEU:N	1.95	0.81
33:D8:35:GLN:HE21	33:D8:36:LYS:HZ2	1.27	0.81
33:D8:6:THR:CG2	33:D8:63:PRO:HD3	2.09	0.81
45:BP:48:PRO:HG2	45:BP:49:ARG:H	1.44	0.81
55:BZ:149:SER:HB2	55:BZ:172:ALA:O	1.80	0.81
34:DA:571:A:C5'	34:DA:2030:A:H62	1.92	0.81
34:DA:2639:A:C2'	34:DA:2640:G:H5''	2.10	0.81
1:AA:1116:C:H3'	1:AA:1117:G:H5''	1.62	0.81
43:DN:57:ALA:HB2	43:DN:123:TYR:O	1.81	0.81
40:BG:31:VAL:HG22	40:BG:32:PRO:HD2	1.63	0.81
39:DF:65:TRP:HZ3	39:DF:75:HIS:HD2	1.25	0.81
1:AA:189(H):G:H2'	1:AA:189(I):G:H8	1.43	0.81
23:CW:12:U:H3	23:CW:23:A:H61	1.28	0.81
49:DT:89:VAL:CG1	49:DT:91:ARG:HE	1.92	0.81
40:DG:111:LEU:HB2	40:DG:112:PRO:HD3	1.63	0.81
51:BV:62:LEU:HD22	51:BV:98:GLU:HA	1.62	0.81
46:BQ:52:VAL:HG13	46:BQ:53:ALA:N	1.94	0.81
34:DA:2189:U:C3'	34:DA:2190:G:H5''	2.10	0.81
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.16	0.81
34:DA:1846:G:H5'	34:DA:1847:A:OP2	1.81	0.81
37:BD:4:LYS:NZ	37:BD:20:ASP:HA	1.96	0.81
3:CC:20:SER:CB	3:CC:40:ARG:HH22	1.91	0.81
33:B8:25:MET:HG3	45:BP:64:LYS:HB2	1.61	0.81
46:BQ:82:ARG:NH1	46:BQ:82:ARG:HG2	1.93	0.81
6:CF:10:LEU:HD12	6:CF:10:LEU:N	1.96	0.81
34:BA:106:C:H1'	54:BY:2:ARG:NE	1.96	0.81
1:CA:1152:A:H5''	10:CJ:13:HIS:HD2	1.46	0.81
35:BB:44:G:H1'	35:BB:47:C:H42	1.46	0.81
53:DX:36:LYS:HZ2	53:DX:39:ILE:CA	1.88	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BT:89:VAL:CG1	49:BT:91:ARG:HE	1.93	0.81
37:BD:35:LYS:HZ1	37:BD:104:TYR:HB2	1.46	0.81
26:D1:87:PRO:HB2	26:D1:91:LYS:NZ	1.95	0.81
44:DO:87:ILE:HG23	44:DO:91:LEU:HA	1.62	0.81
33:B8:49:VAL:O	33:B8:53:PRO:HD3	1.81	0.81
5:CE:76:ILE:HG22	5:CE:93:PRO:HB3	1.62	0.81
35:BB:74:U:C2'	35:BB:75:G:H5''	2.10	0.81
46:DQ:23:GLY:O	46:DQ:100:GLY:HA3	1.79	0.81
1:CA:1116:C:H3'	1:CA:1117:G:H5''	1.62	0.81
5:CE:43:LEU:HD21	5:CE:132:ALA:HB1	1.63	0.81
14:AN:24:CYS:HB3	14:AN:27:CYS:O	1.81	0.81
8:AH:29:SER:HB3	8:AH:32:LYS:HD2	1.62	0.81
34:BA:2645:G:H3'	34:BA:2646:C:H5'	1.61	0.81
51:DV:71:LEU:HD13	51:DV:72:VAL:N	1.96	0.81
48:DS:101:LEU:HD22	48:DS:102:ALA:H	1.46	0.81
3:CC:16:ARG:HB2	3:CC:16:ARG:HH11	1.46	0.81
52:BW:25:ARG:HB2	52:BW:25:ARG:NH1	1.96	0.81
34:BA:1747(A):G:C2'	34:BA:1748:G:H5''	2.11	0.81
1:CA:434:U:H2'	1:CA:435:C:C6	2.16	0.81
34:BA:2298:A:H2'	34:BA:2299:G:O4'	1.80	0.81
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.17	0.81
34:DA:365:C:H5'	34:DA:365:C:H6	1.43	0.81
36:DC:18:LYS:HD2	36:DC:19:VAL:HG23	1.63	0.81
6:AF:9:VAL:C	6:AF:10:LEU:HD12	2.00	0.81
51:BV:71:LEU:HD13	51:BV:72:VAL:N	1.96	0.80
53:DX:60:ARG:HG2	53:DX:74:PRO:CD	2.08	0.80
45:BP:100:LEU:O	45:BP:102:ARG:N	2.14	0.80
2:CB:44:LEU:H	2:CB:44:LEU:HD12	1.45	0.80
27:B2:44:LEU:C	27:B2:46:GLN:H	1.80	0.80
34:DA:2746:U:H4'	41:DH:138:LYS:HD3	1.63	0.80
34:DA:2533:A:C2'	34:DA:2534:A:H5''	2.10	0.80
5:CE:78:HIS:CE1	5:CE:143:ARG:H	1.99	0.80
23:CW:51:U:H3	23:CW:63:G:H1	1.28	0.80
12:CL:24:VAL:HG13	12:CL:98:TYR:CE2	2.16	0.80
34:DA:543:C:H42	34:DA:551:G:H1	1.26	0.80
32:B7:19:ARG:HH11	32:B7:19:ARG:HG2	1.44	0.80
34:BA:1987:G:H5'	34:BA:1987:G:H8	1.45	0.80
51:DV:19:LYS:HB3	51:DV:96:ILE:O	1.80	0.80
46:DQ:75:THR:HB	46:DQ:88:GLY:HA2	1.63	0.80
52:DW:25:ARG:HB2	52:DW:25:ARG:NH1	1.96	0.80
55:BZ:53:ILE:HG22	55:BZ:71:VAL:HB	1.62	0.80
19:CS:20:LEU:O	19:CS:23:ASN:HB3	1.80	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BP:71:VAL:HG12	45:BP:72:PRO:HD3	1.62	0.80
34:DA:622:G:O2'	34:DA:623:G:H5'	1.80	0.80
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	1.63	0.80
31:D6:20:ASN:ND2	31:D6:21:TYR:H	1.79	0.80
1:CA:552:U:O2'	1:CA:553:A:H5'	1.82	0.80
8:AH:33:GLU:HA	8:AH:36:LEU:HD12	1.61	0.80
42:BI:79:ILE:HG12	42:BI:140:LEU:CD1	2.07	0.80
45:DP:100:LEU:O	45:DP:102:ARG:N	2.14	0.80
33:B8:25:MET:HB2	45:BP:62:LEU:CD2	2.11	0.80
20:CT:12:ALA:H	20:CT:13:LEU:HD12	1.44	0.80
53:BX:64:LYS:HG2	53:BX:65:ARG:H	1.45	0.80
45:DP:35:HIS:O	45:DP:36:LYS:HG3	1.81	0.80
38:BE:109:LYS:HB3	47:BR:2:ARG:HH12	1.44	0.80
53:BX:27:THR:HB	53:BX:78:LYS:H	1.46	0.80
43:DN:55:VAL:HG12	43:DN:56:ASN:H	1.47	0.80
55:BZ:10:ARG:NH2	55:BZ:26:GLY:H	1.79	0.80
30:D5:20:ARG:NH1	52:DW:15:ARG:CZ	2.44	0.80
34:BA:919:G:H5''	35:BB:81:G:H1'	1.63	0.80
41:DH:92:ILE:HG22	41:DH:93:GLY:N	1.96	0.80
27:D2:47:ASN:HB2	27:D2:51:ARG:HD2	1.64	0.80
1:AA:625:G:H2'	1:AA:626:U:H6	1.47	0.80
3:AC:116:VAL:HG21	3:AC:202:ILE:HD11	1.62	0.80
50:DU:112:ARG:HG2	50:DU:112:ARG:HH11	1.46	0.80
34:DA:481:G:H1'	34:DA:506:G:N2	1.96	0.80
33:B8:35:GLN:HE21	33:B8:36:LYS:HZ2	1.26	0.80
6:CF:97:PHE:O	18:CR:31:LEU:HD23	1.80	0.80
34:DA:2262:U:H2'	34:DA:2263:C:H5''	1.62	0.80
53:DX:27:THR:HB	53:DX:78:LYS:H	1.45	0.80
19:AS:20:LEU:O	19:AS:23:ASN:HB3	1.79	0.80
34:DA:1141:U:H2'	43:DN:63:THR:HG22	1.63	0.80
1:AA:1190:G:OP1	3:AC:5:ILE:HD12	1.81	0.80
34:BA:1175:U:H4'	34:BA:1176:G:H5'	1.63	0.80
25:D0:27:GLU:HG3	25:D0:68:GLU:HA	1.63	0.80
30:B5:32:PRO:O	30:B5:33:CYS:HB3	1.80	0.80
37:DD:27:THR:CG2	37:DD:28:GLU:H	1.93	0.80
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	1.95	0.80
1:CA:1347:G:C8	9:CI:107:ARG:HB3	2.17	0.80
18:CR:31:LEU:HG	18:CR:65:ILE:HD13	1.63	0.80
42:DI:69:LYS:HA	42:DI:136:VAL:CG2	2.12	0.80
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.64	0.80
35:DB:80:U:H2'	35:DB:81:G:H21	1.44	0.80
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.17	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1468:A:H2'	1:AA:1469:G:O4'	1.80	0.80
34:BA:639:U:H2'	34:BA:640:C:C6	2.16	0.80
34:DA:1353:A:H4'	37:DD:38:LYS:HZ1	1.45	0.80
34:DA:1365:A:H2'	34:DA:1366:A:H8	1.45	0.80
53:DX:50:LYS:HB3	53:DX:82:GLN:HB2	1.63	0.80
53:BX:50:LYS:HB3	53:BX:82:GLN:HB2	1.64	0.80
51:DV:47:VAL:HG22	51:DV:48:GLY:H	1.43	0.80
54:BY:8:LYS:HB2	54:BY:28:LYS:NZ	1.97	0.80
54:BY:37:VAL:O	54:BY:38:ILE:HB	1.82	0.80
33:D8:25:MET:HB2	45:DP:62:LEU:CD2	2.12	0.80
10:CJ:40:LEU:HD23	10:CJ:40:LEU:H	1.45	0.80
26:D1:40:ARG:HD3	26:D1:41:ARG:N	1.96	0.80
34:DA:1665:A:C2'	34:DA:1666:G:H5'	2.11	0.80
34:DA:871:U:H4'	46:DQ:69:PHE:CE2	2.15	0.80
34:BA:780:G:H21	34:BA:783:A:H62	1.29	0.80
3:CC:116:VAL:HG21	3:CC:202:ILE:HD11	1.63	0.80
53:DX:34:ALA:O	53:DX:36:LYS:HG3	1.81	0.80
38:BE:60:ASN:OD1	38:BE:62:PRO:HD2	1.82	0.80
4:CD:119:GLN:HG3	4:CD:123:HIS:HD2	1.43	0.80
39:DF:65:TRP:CZ3	39:DF:75:HIS:HD2	1.99	0.80
34:DA:780:G:H21	34:DA:783:A:H62	1.26	0.80
8:CH:29:SER:HB3	8:CH:32:LYS:HD2	1.63	0.80
34:DA:1822:G:H8	34:DA:1822:G:H5'	1.46	0.80
34:BA:229:A:H3'	34:BA:230:U:H5'	1.64	0.80
1:CA:1502:A:H5'	1:CA:1504:G:N7	1.95	0.80
48:DS:17:ARG:C	48:DS:19:LYS:H	1.84	0.80
3:AC:16:ARG:HH11	3:AC:16:ARG:HB2	1.47	0.80
34:BA:2394:C:OP1	45:BP:63:PRO:HD2	1.81	0.80
40:BG:43:LEU:HD23	40:BG:88:ILE:HG22	1.62	0.80
10:AJ:8:LEU:HB3	10:AJ:16:LEU:HD21	1.62	0.80
34:BA:1341:U:C2	53:BX:77:LYS:HE2	2.17	0.80
53:DX:56:THR:C	53:DX:57:LEU:HD12	2.02	0.80
53:DX:76:ARG:O	53:DX:77:LYS:HB2	1.82	0.80
5:CE:126:ARG:HH11	5:CE:126:ARG:HG3	1.47	0.80
34:BA:2348:U:H2'	34:BA:2349:G:C5'	2.11	0.80
34:BA:1378:A:O2'	34:BA:1379:A:H5''	1.81	0.80
36:BC:18:LYS:HD2	36:BC:19:VAL:HG23	1.63	0.80
2:CB:67:THR:HG21	2:CB:155:LEU:HG	1.63	0.80
34:DA:536:A:H2'	34:DA:537:C:C6	2.15	0.80
42:BI:79:ILE:HB	42:BI:142:VAL:HG13	1.63	0.80
49:BT:80:SER:CB	49:BT:81:PRO:HD3	2.11	0.80
10:AJ:80:LYS:CE	1:CA:1162:C:H4'	2.11	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:48:THR:CA	10:AJ:62:HIS:HB3	2.11	0.80
27:D2:47:ASN:C	27:D2:49:LYS:H	1.82	0.80
4:AD:119:GLN:HG3	4:AD:123:HIS:HD2	1.43	0.80
34:DA:1747(A):G:C2'	34:DA:1748:G:H5''	2.10	0.80
34:BA:541:C:H2'	34:BA:542:C:C6	2.16	0.80
49:BT:98:LYS:HB3	49:BT:100:TYR:CE1	2.17	0.80
34:BA:2577:A:H5''	34:BA:2578:G:H5'	1.64	0.80
50:BU:112:ARG:HG2	50:BU:112:ARG:HH11	1.46	0.80
1:CA:114:U:H2'	1:CA:115:G:C8	2.16	0.80
34:DA:132:G:H5'	34:DA:132:G:H8	1.47	0.80
1:CA:328:C:H4'	1:CA:329:A:H5'	1.62	0.80
26:D1:10:LYS:HE2	26:D1:14:VAL:HG23	1.64	0.80
48:BS:101:LEU:HD22	48:BS:102:ALA:H	1.46	0.80
6:AF:10:LEU:HD12	6:AF:10:LEU:N	1.97	0.80
33:D8:18:ALA:HB3	34:DA:651:G:H5''	1.63	0.80
48:BS:54:LEU:C	48:BS:56:LEU:H	1.82	0.80
34:BA:2245:U:H5'	34:BA:2246:G:H5'	1.63	0.80
44:BO:25:LEU:O	44:BO:26:LYS:HG3	1.80	0.80
38:BE:77:ILE:CG2	38:BE:78:LEU:H	1.96	0.79
54:DY:37:VAL:O	54:DY:38:ILE:HB	1.80	0.79
46:BQ:75:THR:HB	46:BQ:88:GLY:HA2	1.63	0.79
26:D1:10:LYS:HB3	26:D1:13:ILE:O	1.83	0.79
51:BV:19:LYS:NZ	51:BV:20:LEU:N	2.28	0.79
30:B5:57:VAL:HG23	30:B5:58:LEU:H	1.46	0.79
3:AC:104:GLN:CD	3:AC:105:GLU:H	1.85	0.79
13:AM:91:ARG:HB2	13:AM:98:VAL:HG21	1.64	0.79
1:CA:1321:C:H5'	1:CA:1322:C:H5''	1.64	0.79
34:DA:621:A:H2'	34:DA:622:G:H5'	1.64	0.79
34:DA:2645:G:H3'	34:DA:2646:C:H5'	1.64	0.79
48:BS:35:ILE:H	48:BS:53:SER:HB2	1.47	0.79
48:DS:54:LEU:C	48:DS:56:LEU:H	1.82	0.79
48:DS:85:VAL:CG2	48:DS:106:ARG:HB2	2.12	0.79
43:BN:83:LYS:HE2	43:BN:85:ILE:HD11	1.63	0.79
10:AJ:33:GLN:H	10:AJ:75:ILE:HD11	1.45	0.79
45:DP:105:LEU:O	45:DP:106:LEU:HB2	1.83	0.79
40:BG:60:LEU:O	40:BG:64:THR:HG22	1.82	0.79
45:BP:30:THR:HG22	45:BP:31:ALA:H	1.46	0.79
48:BS:61:ASN:HD22	48:BS:61:ASN:C	1.82	0.79
34:DA:1353:A:H4'	37:DD:38:LYS:NZ	1.97	0.79
55:DZ:61:LEU:HB2	55:DZ:65:GLN:HB2	1.64	0.79
1:AA:434:U:H2'	1:AA:435:C:C6	2.16	0.79
51:DV:62:LEU:HD22	51:DV:98:GLU:HA	1.64	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BD:255:LYS:H	37:BD:255:LYS:HE3	1.48	0.79
45:BP:6:LEU:HG	45:BP:8:PRO:O	1.80	0.79
34:DA:528:A:C2	34:DA:2043:C:H4'	2.17	0.79
1:AA:1347:G:C8	9:AI:107:ARG:HB3	2.18	0.79
26:D1:19:GLN:HE21	34:DA:379:G:H21	1.30	0.79
1:CA:179:A:H2'	1:CA:180:U:H6	1.47	0.79
27:B2:30:ARG:HG3	27:B2:30:ARG:HH11	1.48	0.79
4:AD:9:CYS:HA	4:AD:12:CYS:HB2	1.64	0.79
34:BA:2729:G:H2'	34:BA:2730:C:C6	2.17	0.79
34:BA:1722:A:H2'	34:BA:1739:U:H5''	1.63	0.79
19:CS:63:THR:O	19:CS:66:MET:HG2	1.83	0.79
34:BA:2317:C:C2'	34:BA:2318:G:H5'	2.12	0.79
15:AO:87:ILE:HG22	15:AO:88:ARG:H	1.47	0.79
20:AT:32:ALA:O	20:AT:36:LEU:HB2	1.83	0.79
34:DA:1175:U:H4'	34:DA:1176:G:H5'	1.62	0.79
1:AA:353:A:H5'	1:AA:353:A:H8	1.47	0.79
53:DX:64:LYS:HG2	53:DX:65:ARG:H	1.47	0.79
45:DP:30:THR:HG22	45:DP:31:ALA:H	1.46	0.79
53:BX:76:ARG:O	53:BX:77:LYS:HB2	1.82	0.79
51:BV:19:LYS:HG3	51:BV:20:LEU:H	1.47	0.79
3:CC:83:ARG:O	3:CC:86:VAL:HG22	1.82	0.79
35:DB:44:G:H1'	35:DB:47:C:H42	1.47	0.79
1:AA:1281:U:H4'	1:AA:1282:C:OP2	1.82	0.79
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.47	0.79
26:B1:19:GLN:HG3	26:B1:44:PRO:HG3	1.64	0.79
26:B1:18:ILE:HA	26:B1:44:PRO:HD2	1.64	0.79
45:DP:146:VAL:HG22	45:DP:147:LEU:N	1.94	0.79
34:BA:1485:G:H1'	34:BA:1505:C:N4	1.98	0.79
34:DA:528:A:H5''	43:DN:114:ARG:HH12	1.47	0.79
30:B5:4:HIS:HB3	30:B5:5:PRO:CD	2.13	0.79
53:DX:55:ASN:O	53:DX:77:LYS:HB3	1.82	0.79
45:DP:131:SER:HB2	45:DP:134:ALA:H	1.47	0.79
27:D2:47:ASN:HD22	27:D2:48:HIS:N	1.79	0.79
34:BA:2530:A:H2'	34:BA:2531:A:H5'	1.63	0.79
34:DA:229:A:H3'	34:DA:230:U:H5'	1.64	0.79
39:DF:57:VAL:HG12	39:DF:58:ALA:N	1.96	0.79
52:BW:50:VAL:HG13	52:BW:51:LEU:H	1.47	0.79
1:CA:1031:G:H2'	1:CA:1032:G:H8	1.45	0.79
31:B6:15:GLU:OE1	31:B6:18:ARG:HG3	1.83	0.79
2:AB:67:THR:HG21	2:AB:155:LEU:HG	1.63	0.79
51:DV:19:LYS:HG3	51:DV:20:LEU:H	1.47	0.79
38:BE:91:VAL:HG13	38:BE:95:ILE:HD11	1.62	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DP:47:ASP:HB3	45:DP:48:PRO:CA	2.13	0.79
45:BP:35:HIS:O	45:BP:36:LYS:HG3	1.83	0.79
44:DO:63:VAL:HG23	44:DO:64:ARG:N	1.98	0.79
53:DX:61:GLY:O	53:DX:70:LEU:HB3	1.82	0.79
51:BV:43:GLU:HA	51:BV:48:GLY:CA	2.13	0.79
19:CS:40:ILE:HB	19:CS:67:VAL:O	1.83	0.79
2:AB:36:ARG:HB2	2:AB:41:ILE:HD11	1.65	0.79
37:DD:176:ARG:HH11	37:DD:176:ARG:HG2	1.45	0.79
1:CA:882:C:O2'	1:CA:883:C:H5'	1.83	0.79
42:BI:133:HIS:HB2	42:BI:134:PRO:HD3	1.65	0.79
45:BP:89:ALA:HB1	45:BP:121:LYS:NZ	1.98	0.79
2:AB:44:LEU:HD12	2:AB:44:LEU:H	1.45	0.79
27:B2:46:GLN:HG2	27:B2:50:ILE:HG13	1.65	0.79
40:BG:111:LEU:CA	40:BG:114:ILE:HG12	2.11	0.79
34:DA:2262:U:O2'	34:DA:2263:C:H5''	1.82	0.79
34:BA:1947:C:C2'	34:BA:1948:G:H5''	2.13	0.79
43:DN:28:THR:HG23	43:DN:29:LYS:H	1.48	0.79
46:BQ:68:ILE:HG23	46:BQ:103:MET:HA	1.65	0.79
1:CA:1190:G:OP1	3:CC:5:ILE:HD12	1.83	0.79
37:DD:14:ARG:HG2	37:DD:14:ARG:HH11	1.45	0.79
39:BF:46:ARG:HH11	39:BF:46:ARG:HG3	1.46	0.79
51:BV:70:ILE:HG12	51:BV:71:LEU:N	1.97	0.79
34:BA:1365:A:H2'	34:BA:1366:A:H8	1.47	0.79
54:DY:10:GLY:HA2	54:DY:27:VAL:HG13	1.63	0.79
55:DZ:53:ILE:HG22	55:DZ:71:VAL:HB	1.63	0.79
40:BG:41:GLN:HG2	40:BG:155:MET:HB3	1.65	0.79
13:CM:91:ARG:HB2	13:CM:98:VAL:HG21	1.64	0.79
41:BH:148:ILE:O	41:BH:151:ILE:HG12	1.83	0.79
1:CA:735:C:O2'	1:CA:736:C:H5'	1.83	0.79
39:DF:46:ARG:HG3	39:DF:46:ARG:NH1	1.96	0.79
34:BA:1652:A:OP1	47:BR:9:LYS:HD2	1.83	0.79
25:D0:72:ARG:HB3	25:D0:75:LEU:HB2	1.65	0.79
34:DA:969:U:H2'	34:DA:970:C:C6	2.17	0.79
37:DD:4:LYS:NZ	37:DD:20:ASP:HA	1.97	0.79
1:AA:1316:G:H2'	1:AA:1317:C:H5''	1.65	0.79
14:AN:39:LEU:HD13	14:AN:47:LEU:HD12	1.64	0.79
49:BT:50:ILE:HD12	49:BT:50:ILE:N	1.98	0.79
23:CW:16:U:C5	23:CW:18:G:H5'	2.18	0.79
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.82	0.79
45:DP:89:ALA:HB1	45:DP:121:LYS:NZ	1.97	0.79
3:AC:20:SER:CB	3:AC:40:ARG:HH22	1.90	0.79
34:DA:2415:G:O3'	45:DP:66:GLY:HA3	1.83	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:B2:41:ILE:HG12	34:BA:94(A):G:H21	1.45	0.79
34:BA:2415:G:O3'	45:BP:66:GLY:HA3	1.83	0.79
7:CG:64:GLN:HG3	7:CG:68:ASN:ND2	1.97	0.79
26:D1:26:ARG:CB	26:D1:34:THR:HA	2.13	0.79
43:BN:55:VAL:HG12	43:BN:56:ASN:H	1.47	0.79
34:BA:2639:A:C2'	34:BA:2640:G:H5''	2.12	0.79
43:BN:120:LEU:HD11	43:BN:122:VAL:HG23	1.65	0.79
1:AA:1497:G:O2'	1:AA:1498:U:H5'	1.82	0.79
34:DA:2317:C:C2'	34:DA:2318:G:H5'	2.13	0.79
34:DA:1805:U:O2	37:DD:50:THR:HB	1.82	0.79
37:DD:76:PRO:HG2	37:DD:98:VAL:HG21	1.63	0.79
37:BD:118:VAL:HG22	37:BD:119:ALA:H	1.47	0.79
52:DW:29:LEU:HD21	52:DW:33:ARG:HH21	1.47	0.79
54:DY:37:VAL:HG23	54:DY:38:ILE:N	1.97	0.79
34:DA:954:G:H4'	46:DQ:13:GLN:NE2	1.97	0.79
43:DN:120:LEU:HD11	43:DN:122:VAL:HG23	1.65	0.79
25:D0:23:VAL:HA	25:D0:38:VAL:HG22	1.62	0.79
34:DA:2287:A:H62	34:DA:2344:U:H3	1.26	0.79
44:BO:87:ILE:HG23	44:BO:91:LEU:HA	1.64	0.79
34:BA:2876:G:H4'	49:BT:3:ARG:HD3	1.65	0.79
39:BF:8:GLN:HB3	39:BF:126:VAL:HA	1.65	0.79
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.18	0.79
26:B1:19:GLN:H	26:B1:44:PRO:HD3	1.48	0.78
34:BA:1453:U:H5'	47:BR:63:ARG:NE	1.97	0.78
26:D1:46:LEU:H	26:D1:46:LEU:HD13	1.47	0.78
27:D2:30:ARG:NH2	53:DX:11:PRO:HG3	1.99	0.78
20:AT:12:ALA:H	20:AT:13:LEU:HD12	1.46	0.78
44:BO:69:ILE:HD13	44:BO:77:ILE:HG23	1.65	0.78
54:DY:15:VAL:HG12	54:DY:17:SER:H	1.48	0.78
45:BP:47:ASP:HB3	45:BP:48:PRO:CA	2.11	0.78
34:BA:1577:C:H2'	34:BA:1578:U:C6	2.18	0.78
1:AA:179:A:H2'	1:AA:180:U:H6	1.47	0.78
26:D1:89:GLU:O	26:D1:93:GLU:HG2	1.84	0.78
27:D2:54:LYS:C	27:D2:56:GLN:H	1.86	0.78
34:DA:1019:U:H3	34:DA:1142(A):A:N6	1.82	0.78
34:BA:528:A:C2	34:BA:2043:C:H4'	2.18	0.78
34:DA:1378:A:O2'	34:DA:1379:A:H5''	1.83	0.78
37:BD:25:THR:HG21	37:BD:81:ALA:HB1	1.66	0.78
34:BA:1484:G:C2'	34:BA:1485:G:H5''	2.13	0.78
48:DS:78:LEU:HD11	48:DS:103:GLU:HB3	1.65	0.78
42:BI:9:LEU:HB2	42:BI:12:LEU:O	1.84	0.78
1:AA:376:G:H2'	1:AA:377:G:H8	1.49	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BV:19:LYS:HG2	51:BV:96:ILE:HB	1.65	0.78
34:DA:1453:U:H5'	47:DR:63:ARG:NE	1.97	0.78
45:BP:131:SER:HB2	45:BP:134:ALA:H	1.47	0.78
31:D6:15:GLU:OE1	31:D6:18:ARG:HG3	1.84	0.78
34:BA:482:A:H4'	54:BY:47:LYS:NZ	1.97	0.78
43:DN:83:LYS:HE2	43:DN:85:ILE:HD11	1.64	0.78
34:BA:1902:C:O2'	37:BD:244:ARG:HB2	1.83	0.78
54:BY:8:LYS:HZ1	54:BY:74:PRO:HD3	1.46	0.78
33:D8:32:LEU:C	33:D8:34:TRP:N	2.36	0.78
26:D1:46:LEU:C	26:D1:46:LEU:HD22	2.04	0.78
34:BA:2746:U:H4'	41:BH:138:LYS:HD3	1.64	0.78
30:D5:57:VAL:HG23	30:D5:58:LEU:H	1.47	0.78
3:CC:104:GLN:CD	3:CC:105:GLU:H	1.85	0.78
34:DA:1899:G:H22	34:DA:1902:C:H41	1.31	0.78
34:DA:2845:G:O2'	34:DA:2846:G:H5'	1.83	0.78
25:B0:23:VAL:HA	25:B0:38:VAL:HG22	1.66	0.78
1:CA:328:C:H4'	1:CA:329:A:C5'	2.13	0.78
44:BO:35:VAL:HG11	44:BO:103:ALA:HB3	1.63	0.78
47:DR:11:ASN:OD1	47:DR:12:ARG:N	2.17	0.78
34:BA:2579:C:H4'	38:BE:134:ILE:HD12	1.63	0.78
2:CB:158:LEU:H	2:CB:158:LEU:HD12	1.48	0.78
1:CA:1316:G:H2'	1:CA:1317:C:H5''	1.63	0.78
48:BS:92:TYR:CD1	48:BS:93:LYS:N	2.52	0.78
26:B1:19:GLN:OE1	26:B1:44:PRO:HB3	1.82	0.78
40:DG:67:LYS:HD2	40:DG:67:LYS:N	1.98	0.78
45:BP:59:LEU:HA	45:BP:61:ARG:CZ	2.14	0.78
33:B8:27:THR:HA	45:BP:62:LEU:HD11	1.65	0.78
1:AA:386:C:C2'	1:AA:387:U:H5'	2.14	0.78
34:DA:1141:U:H2'	43:DN:63:THR:CG2	2.13	0.78
3:AC:83:ARG:O	3:AC:86:VAL:HG22	1.83	0.78
41:DH:148:ILE:O	41:DH:151:ILE:HG12	1.84	0.78
17:AQ:67:LYS:O	17:AQ:69:LYS:N	2.16	0.78
34:BA:2729:G:H1'	38:BE:187:ALA:HB2	1.64	0.78
51:DV:43:GLU:HA	51:DV:48:GLY:CA	2.13	0.78
33:B8:43:GLN:C	33:B8:44:LYS:HD2	2.04	0.78
1:AA:114:U:H2'	1:AA:115:G:C8	2.18	0.78
25:D0:32:ARG:H	25:D0:35:ASN:ND2	1.82	0.78
32:B7:12:ARG:HD3	32:B7:46:VAL:HG21	1.65	0.78
47:DR:64:ARG:HA	47:DR:67:LEU:HD23	1.64	0.78
53:BX:58:HIS:O	53:BX:59:VAL:HG13	1.83	0.78
37:BD:79:VAL:HG21	37:BD:111:LEU:CD1	2.13	0.78
45:DP:146:VAL:CG2	45:DP:147:LEU:H	1.91	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:89:ARG:NH1	12:AL:89:ARG:HB2	1.99	0.78
34:DA:2747:G:O6	34:DA:2755:C:H5''	1.81	0.78
43:BN:46:VAL:HG13	43:BN:47:ALA:N	1.98	0.78
1:CA:1442:G:H5'	1:CA:1442:G:C8	2.19	0.78
34:DA:1722:A:H2'	34:DA:1739:U:H5''	1.64	0.78
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.18	0.78
34:BA:969:U:H2'	34:BA:970:C:C6	2.18	0.78
1:AA:328:C:H4'	1:AA:329:A:H5'	1.64	0.78
37:BD:176:ARG:HG2	37:BD:176:ARG:HH11	1.48	0.78
8:CH:13:ILE:O	8:CH:17:THR:HG23	1.84	0.78
34:DA:1485:G:H1'	34:DA:1505:C:N4	1.99	0.78
41:BH:85:LYS:HD3	41:BH:133:VAL:HB	1.66	0.78
37:DD:17:THR:HG22	37:DD:205:VAL:HB	1.66	0.78
1:CA:979:C:C3'	1:CA:980:C:H5''	2.14	0.78
13:AM:23:TYR:HE1	13:AM:70:LEU:HD22	1.47	0.78
34:BA:1353:A:H4'	37:BD:38:LYS:NZ	1.97	0.78
17:CQ:26:GLN:HB3	17:CQ:37:LYS:HG2	1.64	0.78
1:CA:1442(A):G:H3'	1:CA:1442(B):A:C5'	2.14	0.78
39:BF:65:TRP:HZ3	39:BF:75:HIS:HD2	1.32	0.78
17:AQ:26:GLN:HB3	17:AQ:37:LYS:HG2	1.66	0.78
34:BA:2283:C:H2'	34:BA:2284:C:H5'	1.64	0.78
38:BE:100:GLU:O	38:BE:172:VAL:HG23	1.84	0.78
54:BY:28:LYS:HB2	54:BY:37:VAL:C	2.04	0.78
45:DP:65:ARG:HB2	45:DP:65:ARG:NH1	1.99	0.78
33:B8:32:LEU:C	33:B8:34:TRP:N	2.36	0.78
40:DG:114:ILE:HD11	40:DG:140:ILE:HD13	1.66	0.78
19:AS:40:ILE:HB	19:AS:67:VAL:O	1.83	0.78
34:DA:1947:C:C2'	34:DA:1948:G:H5''	2.14	0.78
34:DA:2530:A:H2'	34:DA:2531:A:H5'	1.64	0.78
34:BA:622:G:O2'	34:BA:623:G:H5'	1.83	0.78
26:D1:22:GLY:H	26:D1:39:LYS:HA	1.48	0.78
36:DC:64:LEU:HD13	36:DC:65:PRO:HD2	1.66	0.78
1:CA:1281:U:H4'	1:CA:1282:C:OP2	1.81	0.78
34:DA:2468:G:N2	34:DA:2481:G:H2'	1.99	0.78
25:B0:27:GLU:HG3	25:B0:68:GLU:HA	1.64	0.78
34:DA:1639:U:O2'	34:DA:1640:C:H5''	1.84	0.78
1:CA:584:G:H1	1:CA:757:U:H3	1.30	0.78
31:B6:20:ASN:ND2	31:B6:21:TYR:H	1.80	0.78
50:BU:83:LEU:HB3	50:BU:88:ILE:CD1	2.13	0.78
37:BD:79:VAL:CG2	37:BD:111:LEU:HD11	2.10	0.78
1:AA:1442:G:H2'	1:AA:1442(A):G:H5''	1.65	0.78
37:BD:25:THR:O	37:BD:27:THR:N	2.17	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:64:GLN:HG3	7:AG:68:ASN:ND2	1.96	0.78
43:DN:42:TRP:N	50:DU:64:ARG:NH2	2.31	0.78
26:D1:26:ARG:HB2	26:D1:34:THR:HA	1.64	0.78
35:BB:74:U:C3'	35:BB:75:G:H5''	2.14	0.78
39:BF:39:TRP:O	39:BF:43:LYS:HG2	1.83	0.78
37:BD:4:LYS:HZ1	37:BD:20:ASP:HA	1.49	0.78
1:CA:1501:C:OP2	1:CA:1504:G:H2'	1.84	0.78
34:BA:1805:U:O2	37:BD:50:THR:HB	1.84	0.78
34:BA:2052:G:H4'	38:BE:143:ASN:O	1.84	0.78
10:CJ:33:GLN:H	10:CJ:75:ILE:HD11	1.49	0.78
5:AE:7:GLU:HB3	5:AE:112:LEU:HD13	1.66	0.78
53:DX:58:HIS:O	53:DX:59:VAL:HG13	1.83	0.78
45:BP:65:ARG:HB2	45:BP:65:ARG:NH1	1.98	0.78
1:AA:1321:C:H5'	1:AA:1322:C:H5''	1.64	0.78
19:AS:63:THR:O	19:AS:66:MET:HG2	1.83	0.78
43:DN:33:LEU:HD23	43:DN:52:VAL:CG2	2.14	0.78
1:CA:834:C:H2'	1:CA:835:U:H6	1.49	0.78
36:BC:64:LEU:HD13	36:BC:65:PRO:HD2	1.64	0.78
15:AO:39:LEU:HD12	15:AO:56:LEU:HD13	1.65	0.78
52:BW:10:VAL:O	52:BW:11:ARG:HB2	1.82	0.78
1:CA:1054:C:H42	23:CY:34:G:H1'	1.49	0.78
51:DV:70:ILE:CB	51:DV:90:PRO:HB2	2.10	0.77
45:DP:17:LYS:C	45:DP:19:VAL:H	1.86	0.77
45:BP:17:LYS:C	45:BP:19:VAL:H	1.87	0.77
54:DY:8:LYS:HZ1	54:DY:74:PRO:HD3	1.50	0.77
41:DH:37:VAL:HG12	41:DH:38:SER:H	1.48	0.77
54:BY:87:LYS:O	54:BY:88:LYS:HB2	1.85	0.77
34:DA:658:C:C2'	34:DA:659:C:H5''	2.13	0.77
53:BX:61:GLY:O	53:BX:70:LEU:HB3	1.83	0.77
36:BC:44:HIS:HD2	36:BC:175:VAL:HA	1.49	0.77
1:AA:1490:C:O2'	1:AA:1491:G:H5'	1.84	0.77
34:BA:1665:A:C2'	34:BA:1666:G:H5'	2.14	0.77
34:DA:2110:G:H1	34:DA:2179:C:H42	1.30	0.77
2:CB:36:ARG:HB2	2:CB:41:ILE:HD11	1.65	0.77
14:CN:39:LEU:HD13	14:CN:47:LEU:HD12	1.65	0.77
51:DV:70:ILE:HG12	51:DV:71:LEU:N	1.98	0.77
37:DD:25:THR:O	37:DD:27:THR:N	2.16	0.77
54:DY:28:LYS:HB2	54:DY:37:VAL:C	2.04	0.77
10:AJ:40:LEU:HB2	10:AJ:41:PRO:HD2	1.66	0.77
34:BA:2262:U:O2'	34:BA:2263:C:H5''	1.84	0.77
37:DD:255:LYS:HE3	37:DD:255:LYS:H	1.49	0.77
1:AA:737:A:H2'	1:AA:738:C:C6	2.19	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BD:24:ILE:O	37:BD:24:ILE:HG23	1.84	0.77
34:DA:1987:G:H5'	34:DA:1987:G:H8	1.48	0.77
34:BA:1639:U:O2'	34:BA:1640:C:H5''	1.84	0.77
3:CC:58:GLU:H	3:CC:65:ALA:HB3	1.49	0.77
39:DF:157:VAL:HG12	39:DF:176:LEU:O	1.85	0.77
3:CC:52:LEU:HD23	3:CC:52:LEU:H	1.50	0.77
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.65	0.77
48:DS:37:ALA:HB2	48:DS:99:LYS:NZ	1.99	0.77
48:DS:92:TYR:CD1	48:DS:93:LYS:N	2.53	0.77
48:BS:17:ARG:C	48:BS:19:LYS:H	1.83	0.77
39:BF:205:ARG:O	39:BF:206:ILE:HG23	1.84	0.77
2:CB:69:LEU:HB3	2:CB:162:ILE:HG22	1.66	0.77
41:BH:43:VAL:CG1	41:BH:53:GLU:H	1.97	0.77
48:BS:37:ALA:HB2	48:BS:99:LYS:NZ	1.99	0.77
22:AV:70:G:C2'	22:AV:71:C:H5'	2.14	0.77
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.20	0.77
27:B2:34:GLU:O	27:B2:36:ARG:N	2.18	0.77
34:BA:1518:U:H2'	34:BA:1519:G:O4'	1.85	0.77
47:BR:11:ASN:OD1	47:BR:12:ARG:N	2.17	0.77
45:DP:7:ARG:HB3	45:DP:8:PRO:HD3	1.65	0.77
48:BS:27:SER:HB3	48:BS:89:ARG:NH1	1.99	0.77
28:B3:8:LEU:CD1	28:B3:31:LEU:HA	2.14	0.77
53:BX:34:ALA:O	53:BX:36:LYS:HG3	1.84	0.77
6:AF:97:PHE:O	18:AR:31:LEU:HD23	1.84	0.77
34:BA:286:C:C2'	34:BA:287:C:H5''	2.15	0.77
34:BA:1019:U:H3	34:BA:1142(A):A:N6	1.80	0.77
45:DP:71:VAL:HG12	45:DP:72:PRO:HD3	1.63	0.77
37:BD:106:ILE:HD11	37:BD:196:VAL:HG13	1.66	0.77
37:BD:8:PRO:HB3	37:BD:14:ARG:HB2	1.65	0.77
34:DA:2052:G:H4'	38:DE:143:ASN:O	1.84	0.77
37:BD:102:LYS:C	37:BD:103:ARG:HG2	2.05	0.77
55:BZ:151:HIS:HB3	55:BZ:170:THR:CA	2.14	0.77
34:BA:955:C:H5'	34:BA:956:G:OP2	1.84	0.77
41:BH:40:GLU:O	41:BH:41:MET:HB2	1.85	0.77
44:BO:64:ARG:CZ	49:BT:70:VAL:HG21	2.14	0.77
34:DA:286:C:C2'	34:DA:287:C:H5''	2.14	0.77
19:AS:16:LEU:H	19:AS:16:LEU:HD12	1.50	0.77
19:AS:9:VAL:O	19:AS:11:VAL:N	2.18	0.77
34:DA:541:C:H2'	34:DA:542:C:C6	2.18	0.77
34:BA:271(U):G:O2'	34:BA:271(V):G:H5'	1.85	0.77
44:DO:35:VAL:HG11	44:DO:103:ALA:HB3	1.65	0.77
1:AA:584:G:H1	1:AA:757:U:H3	1.30	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:6:PHE:HB2	5:CE:34:VAL:HG13	1.67	0.77
1:AA:630:G:H2'	1:AA:631:G:H5''	1.66	0.77
26:B1:17:SER:C	26:B1:18:ILE:HD12	2.05	0.77
26:B1:13:ILE:CG2	26:B1:63:ALA:HB2	2.11	0.77
42:DI:127:VAL:HG22	42:DI:139:GLN:HG3	1.66	0.77
54:DY:8:LYS:HB2	54:DY:28:LYS:NZ	2.00	0.77
54:DY:28:LYS:HE2	54:DY:30:VAL:HG22	1.65	0.77
35:DB:74:U:C2'	35:DB:75:G:H5''	2.14	0.77
45:BP:66:GLY:O	45:BP:67:MET:C	2.23	0.77
20:CT:13:LEU:CD1	20:CT:13:LEU:H	1.98	0.77
41:DH:68:THR:HA	41:DH:71:LEU:HB2	1.66	0.77
43:BN:42:TRP:N	50:BU:64:ARG:NH2	2.32	0.77
42:DI:9:LEU:HB2	42:DI:12:LEU:O	1.85	0.77
10:CJ:40:LEU:HB2	10:CJ:41:PRO:HD2	1.65	0.77
27:D2:48:HIS:NE2	34:DA:75:G:H4'	1.99	0.77
34:DA:2729:G:H2'	34:DA:2730:C:C6	2.19	0.77
48:DS:35:ILE:H	48:DS:53:SER:HB2	1.47	0.77
55:DZ:9:TYR:CE1	55:DZ:61:LEU:HD13	2.20	0.77
34:BA:528:A:H5''	43:BN:114:ARG:HH12	1.50	0.77
34:DA:2468:G:H22	34:DA:2481:G:H2'	1.50	0.77
34:DA:2579:C:H4'	38:DE:134:ILE:HD12	1.67	0.77
30:B5:29:THR:HG21	34:BA:2814:C:O2'	1.85	0.77
23:CW:29:G:H1	23:CW:41:C:H42	1.31	0.77
42:BI:127:VAL:HG22	42:BI:139:GLN:HG3	1.65	0.77
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.67	0.77
54:BY:10:GLY:HA2	54:BY:27:VAL:HG13	1.67	0.77
27:B2:16:LEU:N	27:B2:18:PRO:HD2	1.95	0.77
45:BP:47:ASP:OD1	45:BP:49:ARG:HB2	1.84	0.77
12:CL:89:ARG:HB2	12:CL:89:ARG:NH1	2.00	0.77
55:BZ:126:VAL:HG12	55:BZ:163:LEU:HA	1.66	0.77
1:AA:979:C:C3'	1:AA:980:C:H5''	2.15	0.77
40:DG:41:GLN:HB3	40:DG:43:LEU:HD11	1.66	0.77
51:BV:43:GLU:HA	51:BV:48:GLY:HA3	1.66	0.77
8:AH:103:VAL:CG2	8:AH:110:ALA:HB2	2.14	0.77
37:DD:106:ILE:HD11	37:DD:196:VAL:HG13	1.66	0.77
34:BA:1490:A:H5'	34:BA:1491:G:OP2	1.84	0.77
39:DF:157:VAL:HG23	39:DF:194:MET:HB3	1.65	0.77
1:AA:1118:C:H42	1:AA:1155:G:H1	1.31	0.77
30:D5:29:THR:HG21	34:DA:2814:C:O2'	1.84	0.77
34:DA:1169:G:H1	34:DA:1180:C:H42	1.30	0.77
37:DD:24:ILE:O	37:DD:24:ILE:HG23	1.85	0.77
50:DU:6:THR:HG21	50:DU:10:ARG:NH2	1.98	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:DV:70:ILE:HB	51:DV:90:PRO:CB	2.10	0.77
34:BA:483:A:H8	54:BY:47:LYS:HZ3	1.32	0.77
2:AB:19:HIS:O	2:AB:39:ILE:HG23	1.84	0.77
23:AW:38:A:H2'	23:AW:39:U:H5''	1.67	0.77
43:DN:46:VAL:HG13	43:DN:47:ALA:N	1.99	0.77
30:D5:4:HIS:HB3	30:D5:5:PRO:CD	2.12	0.77
43:BN:46:VAL:CG1	43:BN:48:MET:HG3	2.15	0.77
46:DQ:68:ILE:HG23	46:DQ:103:MET:HA	1.67	0.77
34:DA:1341:U:C2	53:DX:77:LYS:HE2	2.19	0.77
34:BA:1141:U:H2'	43:BN:63:THR:HG22	1.64	0.77
13:AM:13:LYS:HA	13:AM:44:ARG:HH11	1.49	0.77
25:D0:51:VAL:HG21	25:D0:80:HIS:HA	1.67	0.77
34:DA:2180:U:H2'	34:DA:2181:G:C8	2.20	0.77
55:DZ:76:LEU:HD23	55:DZ:83:PRO:HA	1.65	0.77
34:DA:2822:G:H2'	34:DA:2823:A:H5''	1.65	0.77
34:DA:2577:A:H5''	34:DA:2578:G:H5'	1.66	0.77
34:DA:271(U):G:O2'	34:DA:271(V):G:H5'	1.84	0.77
34:BA:292:C:H42	34:BA:348:G:H1	1.32	0.77
42:BI:98:ALA:HB1	42:BI:109:ILE:HD13	1.67	0.77
2:CB:20:GLU:HG3	2:CB:191:ASP:HB2	1.66	0.77
33:D8:43:GLN:C	33:D8:44:LYS:HD2	2.05	0.77
41:DH:85:LYS:HD3	41:DH:133:VAL:HB	1.65	0.77
41:BH:68:THR:HA	41:BH:71:LEU:HB2	1.67	0.77
5:CE:76:ILE:HD11	5:CE:142:LEU:HD11	1.66	0.77
1:AA:1522:U:H2'	1:AA:1523:G:H8	1.49	0.77
30:B5:20:ARG:NH1	52:BW:15:ARG:CZ	2.48	0.77
34:BA:658:C:C2'	34:BA:659:C:H5''	2.14	0.77
34:DA:61:G:H1	34:DA:94:C:H42	1.32	0.77
40:DG:48:GLU:HG2	40:DG:49:ASP:H	1.50	0.77
47:DR:73:VAL:O	47:DR:76:VAL:HG12	1.85	0.77
34:BA:784:A:H5'	34:BA:785:G:OP1	1.85	0.77
15:AO:69:TYR:CZ	15:AO:73:GLU:HG3	2.19	0.77
51:DV:69:LYS:HG3	51:DV:70:ILE:H	1.50	0.77
51:DV:73:SER:HB2	51:DV:75:PHE:CE1	2.21	0.77
40:BG:64:THR:HG23	40:BG:65:GLY:H	1.50	0.77
10:CJ:38:ILE:HD11	10:CJ:71:LEU:HD23	1.67	0.77
43:BN:33:LEU:HD23	43:BN:52:VAL:CG2	2.14	0.77
19:CS:16:LEU:HD12	19:CS:16:LEU:H	1.48	0.77
34:DA:2283:C:H2'	34:DA:2284:C:H5'	1.67	0.77
34:DA:2729:G:H1'	38:DE:187:ALA:HB2	1.65	0.77
39:BF:65:TRP:CZ3	39:BF:75:HIS:HD2	2.02	0.77
34:BA:2009:G:N3	47:BR:107:ASP:HA	1.99	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:32:ALA:O	20:CT:36:LEU:HB2	1.84	0.77
5:AE:6:PHE:HB2	5:AE:34:VAL:HG13	1.66	0.77
22:CV:17:C:H5'	22:CV:17(A):U:C6	2.20	0.77
34:BA:811:U:H3'	45:BP:25:SER:O	1.84	0.77
52:BW:29:LEU:HD21	52:BW:33:ARG:HH21	1.49	0.77
34:DA:2009:G:N3	47:DR:107:ASP:HA	2.00	0.77
39:BF:57:VAL:HG12	39:BF:58:ALA:N	1.98	0.77
34:BA:1899:G:H22	34:BA:1902:C:H41	1.33	0.76
37:BD:63:ARG:HH11	37:BD:63:ARG:HG3	1.49	0.76
13:AM:19:LEU:HB3	13:AM:25:ILE:HG21	1.66	0.76
53:BX:56:THR:HA	53:BX:77:LYS:HB2	1.67	0.76
34:BA:621:A:H2'	34:BA:622:G:H5'	1.66	0.76
34:DA:1902:C:O2'	37:DD:244:ARG:HB2	1.83	0.76
49:DT:98:LYS:HB3	49:DT:100:TYR:CE1	2.19	0.76
34:DA:2810:A:H2'	38:DE:61:ARG:NH2	1.99	0.76
48:BS:34:HIS:HB3	48:BS:53:SER:HB3	1.68	0.76
37:DD:8:PRO:HB3	37:DD:14:ARG:HB2	1.68	0.76
52:DW:40:ASN:O	52:DW:41:LYS:HG2	1.84	0.76
42:BI:88:ILE:HG22	42:BI:89:TYR:N	2.00	0.76
37:DD:102:LYS:C	37:DD:103:ARG:HG2	2.05	0.76
43:BN:66:LYS:HA	43:BN:69:GLN:HB2	1.67	0.76
54:BY:37:VAL:HG23	54:BY:38:ILE:N	1.99	0.76
26:B1:46:LEU:H	26:B1:46:LEU:HD12	1.49	0.76
42:DI:93:THR:HG22	42:DI:119:PRO:HB3	1.66	0.76
26:D1:9:GLY:H	26:D1:48:LYS:NZ	1.83	0.76
1:CA:386:C:C2'	1:CA:387:U:H5'	2.14	0.76
45:BP:24:GLY:CA	45:BP:33:ARG:HH21	1.98	0.76
1:AA:186:C:H5'	20:AT:78:ALA:HB1	1.68	0.76
7:AG:79:ARG:NE	7:AG:84:ASN:HD21	1.82	0.76
32:D7:43:THR:HG23	32:D7:44:PRO:HD2	1.65	0.76
39:DF:148:LEU:HD21	39:DF:191:ARG:HH11	1.49	0.76
7:CG:79:ARG:NE	7:CG:84:ASN:HD21	1.82	0.76
39:BF:148:LEU:HD21	39:BF:191:ARG:HH11	1.49	0.76
32:D7:48:LYS:HE3	34:DA:125:G:H21	1.51	0.76
34:BA:2555:U:H2'	34:BA:2556:C:H5'	1.65	0.76
45:BP:7:ARG:HB3	45:BP:8:PRO:HD3	1.67	0.76
1:CA:383:A:H2'	1:CA:384:G:H5'	1.67	0.76
14:AN:13:THR:H	14:AN:14:PRO:CD	1.98	0.76
3:CC:70:VAL:HG12	3:CC:71:ALA:N	2.01	0.76
1:CA:1321:C:H5'	1:CA:1322:C:C5'	2.15	0.76
3:AC:77:ILE:O	3:AC:83:ARG:HB3	1.85	0.76
34:DA:2307:G:H21	34:DA:2308:G:C5'	1.97	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2801(A):A:HO2'	34:BA:2803:C:H5	1.31	0.76
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.20	0.76
8:AH:13:ILE:O	8:AH:17:THR:HG23	1.85	0.76
35:DB:45:A:H1'	40:DG:95:ARG:NH2	2.00	0.76
38:DE:93:VAL:C	38:DE:95:ILE:H	1.88	0.76
53:DX:59:VAL:HG23	53:DX:74:PRO:HG2	1.67	0.76
35:BB:6:C:HO2'	48:BS:29:PHE:HE1	1.29	0.76
2:AB:20:GLU:HG3	2:AB:191:ASP:HB2	1.65	0.76
44:BO:63:VAL:HG23	44:BO:64:ARG:N	1.99	0.76
10:AJ:40:LEU:HD23	10:AJ:40:LEU:H	1.49	0.76
1:CA:979:C:H3'	1:CA:980:C:C5'	2.14	0.76
19:AS:36:ARG:HH12	19:AS:75:ALA:HB3	1.50	0.76
34:DA:1652:A:OP1	47:DR:9:LYS:HD2	1.85	0.76
34:DA:2311:A:H2	40:DG:82:LEU:HD12	1.51	0.76
17:CQ:67:LYS:O	17:CQ:69:LYS:N	2.18	0.76
1:CA:521:G:O2'	1:CA:522:C:H5'	1.85	0.76
34:DA:1751:C:O2'	34:DA:1752:C:H5'	1.85	0.76
40:BG:23:PHE:HZ	40:BG:171:ALA:HB3	1.50	0.76
34:DA:1635:G:H8	34:DA:1635:G:H5'	1.51	0.76
34:DA:2876:G:H4'	49:DT:3:ARG:HD3	1.66	0.76
34:DA:212:G:O2'	34:DA:213:A:H5'	1.86	0.76
51:BV:73:SER:HB2	51:BV:75:PHE:CE1	2.20	0.76
48:DS:27:SER:HB3	48:DS:89:ARG:NH1	2.00	0.76
38:DE:2:LYS:HD3	38:DE:95:ILE:HG22	1.68	0.76
49:BT:65:LYS:HA	49:BT:65:LYS:NZ	2.00	0.76
28:B3:6:VAL:HG13	28:B3:54:VAL:CG1	2.13	0.76
39:DF:25:PRO:HB3	39:DF:119:ARG:HB2	1.68	0.76
1:AA:979:C:H3'	1:AA:980:C:C5'	2.15	0.76
41:BH:44:VAL:HG12	41:BH:45:VAL:N	2.01	0.76
4:CD:96:LEU:N	4:CD:96:LEU:HD22	2.01	0.76
43:BN:57:ALA:HB2	43:BN:123:TYR:O	1.85	0.76
32:B7:43:THR:HG23	32:B7:44:PRO:HD2	1.68	0.76
4:AD:17:VAL:HG11	4:AD:197:PRO:HB2	1.68	0.76
15:CO:82:ILE:O	15:CO:82:ILE:HD13	1.85	0.76
1:CA:630:G:H2'	1:CA:631:G:H5''	1.66	0.76
13:AM:118:ALA:HB1	13:AM:119:GLY:N	2.00	0.76
34:BA:1169:G:H1	34:BA:1180:C:H42	1.30	0.76
51:DV:19:LYS:HG2	51:DV:96:ILE:HB	1.65	0.76
42:DI:109:ILE:H	42:DI:109:ILE:HD12	1.50	0.76
20:CT:50:GLU:HB3	20:CT:100:ILE:CG1	2.16	0.76
41:DH:40:GLU:O	41:DH:41:MET:HB2	1.84	0.76
5:CE:101:ILE:CG1	5:CE:119:LEU:HD23	2.14	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:9:VAL:O	19:CS:11:VAL:N	2.19	0.76
13:AM:65:LYS:HA	13:AM:66:LEU:HD12	1.67	0.76
1:CA:1118:C:H42	1:CA:1155:G:H1	1.32	0.76
34:BA:539:G:H2'	34:BA:540:C:H6	1.51	0.76
25:B0:32:ARG:H	25:B0:35:ASN:ND2	1.84	0.76
51:BV:2:PHE:HB3	51:BV:42:GLY:HA2	1.68	0.76
34:DA:1484:G:C2'	34:DA:1485:G:H5''	2.14	0.76
48:DS:67:ARG:H	48:DS:69:VAL:HG12	1.50	0.76
41:DH:144:VAL:O	41:DH:144:VAL:HG12	1.86	0.76
41:DH:43:VAL:CG1	41:DH:53:GLU:H	1.98	0.76
34:BA:2180:U:H2'	34:BA:2181:G:C8	2.20	0.76
55:BZ:5:LEU:HD13	55:BZ:43:GLU:HB3	1.66	0.76
34:BA:1947:C:H2'	34:BA:1948:G:H5''	1.68	0.76
53:BX:56:THR:C	53:BX:57:LEU:HD12	2.05	0.76
46:DQ:47:ILE:HG12	46:DQ:68:ILE:HD11	1.66	0.76
13:CM:19:LEU:HB3	13:CM:25:ILE:HG21	1.66	0.76
43:BN:131:GLN:HE22	43:BN:134:ARG:HA	1.51	0.76
13:CM:118:ALA:HB1	13:CM:119:GLY:N	2.00	0.76
34:BA:2307:G:H21	34:BA:2308:G:C5'	1.97	0.76
1:CA:189(H):G:H2'	1:CA:189(I):G:C8	2.21	0.76
34:BA:2810:A:H2'	38:BE:61:ARG:NH2	2.01	0.76
1:AA:189(H):G:H2'	1:AA:189(I):G:C8	2.20	0.76
23:AW:27:G:H1	23:AW:43:C:H42	1.33	0.76
13:CM:13:LYS:HA	13:CM:44:ARG:HH11	1.48	0.76
38:BE:26:ILE:HD12	38:BE:196:VAL:HG21	1.66	0.76
11:AK:23:ALA:HB3	11:AK:86:GLY:O	1.86	0.76
22:CV:49:G:H1	22:CV:65:C:H42	1.31	0.76
30:D5:32:PRO:O	30:D5:33:CYS:HB3	1.84	0.76
34:DA:1484:G:H21	34:DA:1505:C:H41	1.34	0.76
42:DI:133:HIS:HB2	42:DI:134:PRO:HD3	1.66	0.76
2:CB:19:HIS:O	2:CB:39:ILE:HG23	1.86	0.76
53:DX:56:THR:O	53:DX:57:LEU:HD12	1.84	0.76
47:DR:28:LEU:HD12	47:DR:48:VAL:HG21	1.65	0.76
13:CM:65:LYS:HA	13:CM:66:LEU:HD12	1.68	0.76
37:BD:76:PRO:HG2	37:BD:98:VAL:CG2	2.15	0.76
51:DV:43:GLU:HA	51:DV:48:GLY:HA3	1.67	0.76
34:DA:1509(A):A:H2'	34:DA:1509(B):A:H8	1.51	0.76
34:DA:1518:U:H2'	34:DA:1519:G:O4'	1.86	0.76
34:DA:292:C:H42	34:DA:348:G:H1	1.32	0.76
40:BG:42:GLY:C	40:BG:43:LEU:HD22	2.06	0.76
14:CN:13:THR:H	14:CN:14:PRO:CD	1.98	0.76
34:DA:1899:G:N2	34:DA:1902:C:H41	1.84	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:AW:61:C:H2'	23:AW:62:C:C6	2.21	0.76
15:CO:87:ILE:HG22	15:CO:88:ARG:H	1.51	0.76
1:CA:336:C:H2'	1:CA:337:C:H6	1.49	0.76
34:DA:1221(A):C:O2'	34:DA:1222:C:H5'	1.86	0.76
19:AS:6:LYS:HD2	19:AS:6:LYS:H	1.51	0.76
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.20	0.76
45:DP:24:GLY:CA	45:DP:33:ARG:HH21	1.98	0.76
1:AA:1321:C:H5'	1:AA:1322:C:C5'	2.15	0.76
43:DN:55:VAL:CG1	43:DN:126:PRO:HA	2.16	0.76
46:BQ:47:ILE:HG12	46:BQ:68:ILE:HD11	1.67	0.76
8:AH:102:ARG:N	8:AH:102:ARG:HE	1.84	0.76
33:D8:52:LYS:N	33:D8:53:PRO:CD	2.48	0.76
36:DC:44:HIS:HD2	36:DC:175:VAL:HA	1.50	0.76
34:DA:1937:A:O2'	34:DA:1938:A:H5'	1.85	0.76
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.66	0.76
26:B1:53:VAL:HG21	26:B1:74:VAL:HG21	1.67	0.76
2:AB:158:LEU:H	2:AB:158:LEU:HD12	1.51	0.76
49:DT:50:ILE:N	49:DT:50:ILE:HD12	2.01	0.76
14:CN:24:CYS:HB3	14:CN:27:CYS:O	1.85	0.76
51:BV:69:LYS:HG3	51:BV:70:ILE:H	1.50	0.75
28:D3:8:LEU:CD1	28:D3:31:LEU:HA	2.15	0.75
49:DT:80:SER:CB	49:DT:81:PRO:HD3	2.15	0.75
39:BF:25:PRO:HB3	39:BF:119:ARG:HB2	1.68	0.75
27:B2:55:ARG:H	27:B2:56:GLN:HE21	1.32	0.75
46:BQ:85:LYS:HG3	46:BQ:86:GLY:N	2.00	0.75
34:DA:955:C:H5'	34:DA:956:G:OP2	1.86	0.75
41:BH:37:VAL:HG12	41:BH:38:SER:H	1.49	0.75
20:AT:13:LEU:CD1	20:AT:13:LEU:H	1.99	0.75
40:DG:114:ILE:HB	40:DG:117:PHE:HD1	1.51	0.75
34:BA:1141:U:H2'	43:BN:63:THR:CG2	2.15	0.75
51:BV:43:GLU:H	51:BV:48:GLY:HA2	1.51	0.75
34:BA:2845:G:O2'	34:BA:2846:G:H5'	1.85	0.75
49:BT:100:TYR:HD2	49:BT:103:ARG:HH21	1.34	0.75
26:D1:37:ILE:HG21	34:DA:2080:G:O5'	1.86	0.75
7:AG:148:ASN:N	7:AG:148:ASN:HD22	1.84	0.75
38:DE:79:ARG:HH11	38:DE:79:ARG:HG2	1.51	0.75
34:BA:451:C:H4'	39:BF:52:LYS:HZ2	1.49	0.75
1:CA:376:G:H2'	1:CA:377:G:H8	1.51	0.75
23:CW:38:A:H3'	23:CW:39:U:H5''	1.68	0.75
55:BZ:125:LEU:HD23	55:BZ:126:VAL:N	2.01	0.75
43:BN:55:VAL:CG1	43:BN:126:PRO:HA	2.16	0.75
27:B2:33:MET:HG2	53:BX:11:PRO:HD2	1.66	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BQ:23:GLY:O	46:BQ:100:GLY:HA3	1.85	0.75
34:BA:2632:A:H1'	38:BE:61:ARG:NH1	2.01	0.75
19:AS:6:LYS:HG2	19:AS:7:LYS:HD3	1.69	0.75
1:AA:1458:G:H2'	1:AA:1459:C:H6	1.51	0.75
1:CA:673:G:H2'	1:CA:674:G:C8	2.21	0.75
40:DG:124:SER:HB2	40:DG:131:TYR:CD1	2.21	0.75
34:BA:1799:G:H4'	34:BA:1800:C:O5'	1.86	0.75
7:CG:15:ASP:HB3	7:CG:19:GLY:N	2.00	0.75
34:DA:1593:G:C2'	34:DA:1594:G:H5''	2.16	0.75
27:B2:44:LEU:C	27:B2:46:GLN:N	2.39	0.75
27:B2:52:ASP:O	27:B2:53:LEU:C	2.25	0.75
53:DX:56:THR:HA	53:DX:77:LYS:HB2	1.67	0.75
31:B6:20:ASN:HD22	31:B6:21:TYR:H	1.34	0.75
25:B0:32:ARG:H	25:B0:35:ASN:HD21	1.35	0.75
1:AA:336:C:H2'	1:AA:337:C:H6	1.51	0.75
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.67	0.75
1:CA:625:G:H2'	1:CA:626:U:H6	1.51	0.75
3:AC:94:LEU:HD12	3:AC:95:THR:N	2.01	0.75
34:BA:1509(A):A:H2'	34:BA:1509(B):A:H8	1.51	0.75
15:CO:37:ASN:N	15:CO:37:ASN:HD22	1.83	0.75
34:DA:141:A:H8	34:DA:1408:C:HO2'	1.34	0.75
33:D8:27:THR:HA	45:DP:62:LEU:HD11	1.67	0.75
18:AR:29:PHE:CE1	18:AR:31:LEU:HB3	2.22	0.75
41:BH:85:LYS:NZ	41:BH:145:ALA:HA	2.02	0.75
19:CS:36:ARG:HH12	19:CS:75:ALA:HB3	1.49	0.75
45:BP:71:VAL:CG1	45:BP:72:PRO:HD3	2.16	0.75
34:DA:2810:A:H2'	38:DE:61:ARG:HH21	1.52	0.75
25:D0:41:ARG:HD3	25:D0:44:ARG:HD2	1.67	0.75
2:AB:67:THR:C	2:AB:68:ILE:HD12	2.07	0.75
39:BF:46:ARG:NH1	39:BF:46:ARG:HG3	2.00	0.75
1:CA:337:C:H2'	1:CA:338:A:H8	1.51	0.75
3:CC:94:LEU:HD12	3:CC:95:THR:N	2.00	0.75
34:DA:361:G:H2'	34:DA:362:U:H5''	1.69	0.75
34:DA:2884:U:H2'	34:DA:2885:C:H5'	1.68	0.75
34:DA:1038:C:H42	34:DA:1117:G:H1	1.34	0.75
49:BT:92:GLY:HA2	49:BT:114:LEU:HA	1.69	0.75
1:AA:349:A:O2'	1:AA:350:G:H5'	1.87	0.75
50:DU:83:LEU:HB3	50:DU:88:ILE:HG12	1.67	0.75
38:DE:26:ILE:HD12	38:DE:196:VAL:HG21	1.68	0.75
45:DP:59:LEU:HA	45:DP:61:ARG:CZ	2.16	0.75
53:BX:33:LYS:C	53:BX:35:THR:N	2.38	0.75
53:DX:21:PHE:HD1	53:DX:21:PHE:H	1.35	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DH:46:GLU:O	41:DH:47:GLU:HB2	1.86	0.75
34:DA:2632:A:H1'	38:DE:61:ARG:HH12	1.52	0.75
30:B5:40:LYS:CD	30:B5:46:CYS:HB3	2.16	0.75
2:AB:36:ARG:H	2:AB:41:ILE:HD13	1.52	0.75
40:DG:48:GLU:HG2	40:DG:49:ASP:N	2.01	0.75
34:BA:1038:C:H42	34:BA:1117:G:H1	1.33	0.75
34:DA:320:A:H2'	39:DF:136:THR:OG1	1.85	0.75
2:CB:7:VAL:O	2:CB:11:LEU:HG	1.87	0.75
27:D2:35:LEU:H	27:D2:35:LEU:HD23	1.52	0.75
53:BX:59:VAL:HG23	53:BX:74:PRO:HG2	1.68	0.75
26:B1:86:SER:N	26:B1:87:PRO:HD3	2.01	0.75
20:AT:50:GLU:HG3	20:AT:51:GLU:H	1.50	0.75
34:DA:2394:C:OP1	45:DP:63:PRO:HD2	1.87	0.75
43:DN:46:VAL:CG1	43:DN:48:MET:HG3	2.15	0.75
40:BG:161:THR:HG22	40:BG:163:ALA:N	1.97	0.75
34:DA:1779:U:C5	34:DA:1784:A:N7	2.51	0.75
55:BZ:53:ILE:CG2	55:BZ:71:VAL:HB	2.15	0.75
38:DE:11:MET:HB3	38:DE:24:THR:HA	1.68	0.75
38:DE:111:ARG:HA	47:DR:2:ARG:HB3	1.69	0.75
1:CA:737:A:H2'	1:CA:738:C:C6	2.21	0.75
37:BD:14:ARG:HG2	37:BD:14:ARG:HH11	1.50	0.75
23:CW:19:G:H1	23:CW:56:C:H42	1.32	0.75
5:CE:7:GLU:HB3	5:CE:112:LEU:HD13	1.68	0.75
34:BA:2468:G:H22	34:BA:2481:G:H2'	1.50	0.75
15:AO:23:GLY:O	15:AO:24:SER:HB3	1.85	0.75
34:DA:271(P):C:H2'	34:DA:271(Q):G:C8	2.21	0.75
45:BP:105:LEU:O	45:BP:106:LEU:HB2	1.85	0.75
45:BP:95:VAL:HG23	45:BP:125:VAL:HG23	1.68	0.75
41:DH:85:LYS:NZ	41:DH:145:ALA:HA	2.01	0.75
34:DA:782:A:H5'	34:DA:783:A:C2	2.22	0.75
34:BA:2468:G:N2	34:BA:2481:G:H2'	2.00	0.75
31:B6:41:PRO:HG2	31:B6:44:ARG:O	1.86	0.75
34:DA:1799:G:H4'	34:DA:1800:C:O5'	1.85	0.75
1:AA:834:C:H2'	1:AA:835:U:H6	1.50	0.75
8:CH:73:ASP:OD2	8:CH:75:ARG:HG3	1.87	0.75
38:BE:79:ARG:HH11	38:BE:79:ARG:HG2	1.52	0.75
37:DD:142:VAL:HG23	37:DD:192:THR:C	2.07	0.75
49:DT:65:LYS:HA	49:DT:65:LYS:NZ	2.01	0.75
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	1.86	0.75
33:B8:35:GLN:HE21	33:B8:36:LYS:NZ	1.84	0.75
43:DN:42:TRP:H	50:DU:64:ARG:HH21	1.33	0.75
18:CR:29:PHE:CE1	18:CR:31:LEU:HB3	2.22	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1577:C:H2'	34:DA:1578:U:C6	2.22	0.75
43:DN:131:GLN:HE22	43:DN:134:ARG:HA	1.52	0.75
39:DF:103:LYS:HA	39:DF:106:ARG:HG3	1.68	0.75
34:BA:807:U:H2'	34:BA:808:G:C8	2.21	0.75
55:BZ:116:VAL:HG13	55:BZ:117:LEU:HD23	1.69	0.75
34:DA:1286:A:H2'	34:DA:1288:U:OP2	1.87	0.75
54:DY:8:LYS:HB2	54:DY:28:LYS:HZ3	1.51	0.75
45:DP:62:LEU:N	45:DP:62:LEU:HD22	2.02	0.75
13:AM:3:ARG:HG2	13:AM:9:ILE:CG1	2.17	0.75
1:AA:383:A:H2'	1:AA:384:G:H5'	1.69	0.75
1:AA:179:A:H2'	1:AA:180:U:C6	2.22	0.75
26:D1:68:PRO:O	26:D1:70:VAL:N	2.20	0.75
34:DA:807:U:H2'	34:DA:808:G:C8	2.21	0.75
8:CH:30:ARG:NH1	8:CH:30:ARG:HB3	2.01	0.75
37:BD:75:ILE:O	37:BD:118:VAL:HG23	1.87	0.75
4:CD:17:VAL:HG11	4:CD:197:PRO:HB2	1.68	0.75
34:DA:2707:G:H5''	47:DR:68:ARG:NH2	2.02	0.75
44:DO:25:LEU:O	44:DO:26:LYS:HG3	1.87	0.75
34:DA:1598:C:H5'	53:DX:37:THR:HB	1.69	0.74
35:BB:29:A:H2'	35:BB:30:C:C6	2.22	0.74
54:DY:17:SER:CB	54:DY:71:LYS:HD2	2.17	0.74
45:DP:62:LEU:N	45:DP:62:LEU:HD13	2.02	0.74
1:CA:179:A:H2'	1:CA:180:U:C6	2.21	0.74
30:D5:55:ARG:HG3	30:D5:56:LYS:N	2.02	0.74
38:DE:109:LYS:CB	47:DR:2:ARG:HH12	2.00	0.74
25:B0:36:ILE:HD11	34:BA:2355:C:C5'	2.17	0.74
34:BA:782:A:H5'	34:BA:783:A:C2	2.22	0.74
2:CB:36:ARG:H	2:CB:41:ILE:HD13	1.52	0.74
2:AB:204:ASN:HD21	2:AB:207:ALA:N	1.85	0.74
41:BH:98:LEU:HD13	41:BH:125:VAL:HG23	1.68	0.74
38:DE:38:THR:HG22	38:DE:40:GLU:H	1.52	0.74
48:BS:78:LEU:HD11	48:BS:103:GLU:HB3	1.68	0.74
50:DU:64:ARG:HE	50:DU:64:ARG:CA	2.00	0.74
23:CW:39:U:H4'	23:CW:39:U:OP1	1.87	0.74
47:DR:9:LYS:O	47:DR:10:LEU:HG	1.86	0.74
4:AD:96:LEU:N	4:AD:96:LEU:HD22	2.02	0.74
53:DX:31:HIS:ND1	53:DX:32:PRO:HD2	2.02	0.74
15:CO:56:LEU:O	15:CO:60:VAL:HG23	1.87	0.74
34:DA:1490:A:H5'	34:DA:1491:G:OP2	1.85	0.74
25:B0:51:VAL:HG21	25:B0:80:HIS:HA	1.67	0.74
34:BA:1639:U:C2'	34:BA:1640:C:H5''	2.17	0.74
2:CB:77:ALA:HB2	2:CB:211:ILE:HD13	1.67	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:26:PHE:O	7:CG:30:ILE:HG12	1.86	0.74
34:BA:2506:U:H4'	34:BA:2507:C:OP1	1.86	0.74
34:BA:2707:G:H5''	47:BR:68:ARG:NH2	2.02	0.74
42:DI:58:LEU:O	42:DI:58:LEU:HD23	1.87	0.74
11:CK:23:ALA:HB3	11:CK:86:GLY:O	1.85	0.74
49:DT:80:SER:HB3	49:DT:81:PRO:HD3	1.69	0.74
20:CT:50:GLU:HG3	20:CT:51:GLU:H	1.51	0.74
10:AJ:38:ILE:HD11	10:AJ:71:LEU:HD23	1.68	0.74
5:AE:101:ILE:CG1	5:AE:119:LEU:HD23	2.16	0.74
10:CJ:48:THR:CA	10:CJ:62:HIS:HB3	2.15	0.74
34:BA:271(P):C:H2'	34:BA:271(Q):G:C8	2.21	0.74
42:BI:69:LYS:HA	42:BI:136:VAL:CG2	2.16	0.74
34:BA:2645:G:H3'	34:BA:2646:C:C5'	2.14	0.74
23:CW:16:U:H3'	23:CW:17:C:H5'	1.67	0.74
52:DW:10:VAL:O	52:DW:11:ARG:HB2	1.85	0.74
45:BP:85:LEU:CD2	45:BP:85:LEU:H	2.00	0.74
7:AG:15:ASP:HB3	7:AG:19:GLY:N	2.02	0.74
20:AT:104:LEU:HD23	20:AT:105:SER:N	2.01	0.74
39:DF:8:GLN:HB3	39:DF:126:VAL:HA	1.67	0.74
34:BA:1899:G:N2	34:BA:1902:C:H41	1.85	0.74
34:BA:2635:C:OP1	38:BE:77:ILE:HG21	1.87	0.74
41:DH:102:ALA:HB2	41:DH:117:PRO:HB3	1.68	0.74
16:AP:20:VAL:HG23	16:AP:35:LYS:HA	1.68	0.74
34:DA:598:G:H5'	45:DP:15:ARG:CD	2.17	0.74
26:D1:33:LYS:HG2	26:D1:34:THR:H	1.51	0.74
1:AA:1308:U:H5''	13:AM:98:VAL:N	2.02	0.74
1:AA:1392:G:N2	1:AA:1502:A:H8	1.85	0.74
34:DA:171:G:H2'	34:DA:172:C:C4'	2.17	0.74
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.70	0.74
34:DA:1821:A:H2'	34:DA:1822:G:H5''	1.69	0.74
35:DB:29:A:H2'	35:DB:30:C:C6	2.22	0.74
37:DD:76:PRO:HG2	37:DD:98:VAL:CG2	2.17	0.74
15:AO:56:LEU:O	15:AO:60:VAL:HG23	1.87	0.74
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.68	0.74
41:DH:98:LEU:HD13	41:DH:125:VAL:HG23	1.69	0.74
34:BA:361:G:H2'	34:BA:362:U:H5''	1.69	0.74
8:AH:73:ASP:OD2	8:AH:75:ARG:HG3	1.86	0.74
34:BA:1396:U:H2'	34:BA:1396:U:O2	1.88	0.74
34:BA:1887:C:C3'	34:BA:1888:G:H5''	2.17	0.74
48:DS:37:ALA:HB2	48:DS:99:LYS:HZ1	1.50	0.74
38:BE:93:VAL:C	38:BE:95:ILE:H	1.87	0.74
35:DB:74:U:C3'	35:DB:75:G:H5''	2.16	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DZ:10:ARG:HH21	55:DZ:26:GLY:H	1.33	0.74
22:CV:71:C:C6	22:CV:71:C:H5'	2.13	0.74
50:DU:64:ARG:CA	50:DU:64:ARG:NE	2.51	0.74
23:AW:16:U:H4'	23:AW:16:U:OP1	1.87	0.74
34:BA:1689:A:N6	34:BA:1698:A:H2	1.81	0.74
13:AM:91:ARG:HG3	13:AM:98:VAL:HG11	1.68	0.74
45:BP:84:ASN:HA	45:BP:115:LEU:O	1.88	0.74
51:DV:43:GLU:H	51:DV:48:GLY:HA2	1.50	0.74
48:DS:34:HIS:HB3	48:DS:53:SER:HB3	1.68	0.74
1:CA:524:G:H2'	1:CA:525:C:C6	2.23	0.74
54:BY:75:ILE:CD1	54:BY:76:CYS:H	2.00	0.74
7:AG:102:ARG:HG2	7:AG:106:GLN:HE21	1.51	0.74
1:AA:521:G:O2'	1:AA:522:C:H5'	1.87	0.74
19:CS:6:LYS:HG2	19:CS:7:LYS:HD3	1.68	0.74
23:AY:29:G:H2'	23:AY:30:G:H8	1.53	0.74
53:DX:33:LYS:C	53:DX:35:THR:N	2.38	0.74
54:DY:17:SER:HB2	54:DY:71:LYS:HD2	1.69	0.74
12:CL:46:LYS:CG	12:CL:47:LYS:H	1.99	0.74
53:BX:21:PHE:H	53:BX:21:PHE:HD1	1.34	0.74
34:BA:858:U:O2	34:BA:2268:A:H2'	1.88	0.74
39:BF:157:VAL:HG23	39:BF:194:MET:HB3	1.67	0.74
34:BA:2810:A:H2'	38:BE:61:ARG:HH21	1.53	0.74
31:D6:20:ASN:HD22	31:D6:21:TYR:H	1.32	0.74
34:BA:1798:U:H5'	37:BD:259:THR:HG22	1.67	0.74
1:AA:328:C:H4'	1:AA:329:A:C5'	2.17	0.74
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.68	0.74
52:DW:50:VAL:HG13	52:DW:51:LEU:H	1.53	0.74
9:CI:15:ALA:HA	9:CI:65:VAL:HA	1.69	0.74
37:DD:30:GLU:HG3	37:DD:63:ARG:CZ	2.18	0.74
53:BX:60:ARG:NE	53:BX:74:PRO:HG3	2.01	0.74
34:BA:1484:G:H21	34:BA:1505:C:H41	1.34	0.74
45:DP:95:VAL:HG23	45:DP:125:VAL:HG23	1.70	0.74
42:DI:98:ALA:HB1	42:DI:109:ILE:HD13	1.69	0.74
34:DA:451:C:H4'	39:DF:52:LYS:HZ1	1.50	0.74
13:CM:120:LYS:HE3	13:CM:120:LYS:HA	1.68	0.74
34:BA:2327:A:H2'	34:BA:2328:A:C8	2.23	0.74
1:AA:337:C:H2'	1:AA:338:A:H8	1.51	0.74
1:CA:1381:U:H1'	7:CG:78:ARG:NH1	2.03	0.74
53:DX:60:ARG:NE	53:DX:74:PRO:HG3	2.02	0.74
54:BY:28:LYS:HE2	54:BY:30:VAL:HG22	1.68	0.74
33:B8:52:LYS:N	33:B8:53:PRO:CD	2.50	0.74
45:DP:64:LYS:O	45:DP:66:GLY:N	2.21	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:D1:46:LEU:HD22	26:D1:48:LYS:H	1.53	0.74
34:DA:1190:G:H5'	45:DP:35:HIS:HB3	1.70	0.74
45:DP:74:GLU:C	45:DP:75:ILE:HD13	2.08	0.74
34:DA:1639:U:C2'	34:DA:1640:C:H5''	2.17	0.74
1:AA:1154:G:H2'	1:AA:1155:G:H8	1.53	0.74
41:BH:102:ALA:HB2	41:BH:117:PRO:HB3	1.68	0.74
34:DA:811:U:H3'	45:DP:25:SER:O	1.88	0.74
32:D7:12:ARG:HD3	32:D7:46:VAL:HG21	1.69	0.74
50:DU:87:GLY:O	50:DU:88:ILE:HG23	1.88	0.74
2:CB:201:ILE:HG21	2:CB:214:ILE:HG21	1.69	0.74
53:DX:65:ARG:CA	53:DX:65:ARG:NE	2.51	0.74
43:BN:128:HIS:CD2	43:BN:131:GLN:HB2	2.23	0.74
45:DP:71:VAL:CG1	45:DP:72:PRO:HD3	2.18	0.74
30:D5:40:LYS:CE	30:D5:46:CYS:HB3	2.18	0.74
34:BA:2110:G:H1	34:BA:2179:C:H42	1.32	0.74
15:CO:69:TYR:CZ	15:CO:73:GLU:HG3	2.22	0.74
34:DA:847:U:H2'	34:DA:848:G:H5''	1.69	0.74
55:DZ:5:LEU:HG	55:DZ:47:VAL:HG21	1.70	0.74
7:CG:102:ARG:HG2	7:CG:106:GLN:HE21	1.51	0.74
1:AA:524:G:H2'	1:AA:525:C:C6	2.23	0.74
51:DV:2:PHE:HB3	51:DV:42:GLY:HA2	1.68	0.74
45:DP:17:LYS:O	45:DP:19:VAL:N	2.20	0.74
50:BU:87:GLY:O	50:BU:88:ILE:HG23	1.88	0.74
34:DA:2635:C:OP1	38:DE:77:ILE:HG21	1.88	0.74
37:DD:79:VAL:CG2	37:DD:111:LEU:HD11	2.13	0.74
13:AM:3:ARG:HG2	13:AM:9:ILE:HG12	1.69	0.74
46:DQ:75:THR:HA	46:DQ:88:GLY:HA2	1.69	0.74
50:BU:64:ARG:CA	50:BU:64:ARG:NE	2.51	0.74
38:BE:111:ARG:HA	47:BR:2:ARG:HB3	1.68	0.74
13:AM:120:LYS:HE3	13:AM:120:LYS:HA	1.69	0.74
3:AC:206:GLU:HG2	3:AC:207:VAL:HG23	1.68	0.74
39:BF:84:VAL:HG12	39:BF:85:GLY:N	2.03	0.74
5:CE:144:THR:O	5:CE:148:VAL:HG23	1.88	0.74
41:DH:106:THR:HG22	41:DH:112:PRO:HB3	1.70	0.74
1:CA:197:A:N7	1:CA:221:C:H4'	2.03	0.74
38:DE:100:GLU:O	38:DE:172:VAL:HG23	1.87	0.73
37:BD:142:VAL:HG23	37:BD:192:THR:C	2.08	0.73
45:DP:47:ASP:OD1	45:DP:49:ARG:HB2	1.88	0.73
18:AR:29:PHE:HE1	18:AR:31:LEU:HB3	1.52	0.73
34:BA:1879:C:C3'	34:BA:1880:C:H5''	2.18	0.73
34:BA:587:C:C5	45:BP:33:ARG:HG2	2.23	0.73
46:BQ:130:LYS:HD2	55:BZ:80:ARG:NH1	2.03	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:17:G:H4'	50:BU:25:TRP:CH2	2.23	0.73
43:BN:58:ASP:C	43:BN:60:ILE:H	1.90	0.73
53:BX:63:LYS:HD2	53:BX:70:LEU:HD13	1.67	0.73
1:AA:728:A:H2'	1:AA:729:A:C8	2.23	0.73
34:BA:2632:A:H1'	38:BE:61:ARG:HH12	1.52	0.73
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.53	0.73
2:AB:204:ASN:HD21	2:AB:207:ALA:H	1.36	0.73
38:BE:38:THR:HG22	38:BE:40:GLU:H	1.51	0.73
20:AT:71:THR:HG22	20:AT:72:LEU:N	2.02	0.73
45:DP:85:LEU:CD2	45:DP:85:LEU:H	2.01	0.73
3:AC:52:LEU:HD23	3:AC:52:LEU:H	1.53	0.73
34:DA:2502:G:H5''	34:DA:2503:A:H5''	1.70	0.73
37:DD:92:ILE:HD13	37:DD:104:TYR:HD2	1.53	0.73
10:AJ:32:ALA:HB1	10:AJ:75:ILE:HG13	1.69	0.73
54:BY:15:VAL:HG12	54:BY:17:SER:H	1.53	0.73
1:AA:976:G:H5'	1:AA:1358:U:O2'	1.88	0.73
34:BA:1598:C:H5'	53:BX:37:THR:HB	1.69	0.73
18:CR:29:PHE:HE1	18:CR:31:LEU:HB3	1.52	0.73
13:CM:3:ARG:HG2	13:CM:9:ILE:CG1	2.17	0.73
4:CD:96:LEU:CD2	4:CD:96:LEU:H	2.00	0.73
1:CA:255:G:H1'	17:CQ:16:GLN:NE2	2.01	0.73
37:DD:118:VAL:HG22	37:DD:119:ALA:N	2.03	0.73
1:AA:735:C:H2'	1:AA:736:C:H6	1.53	0.73
10:CJ:33:GLN:O	10:CJ:75:ILE:HG12	1.88	0.73
45:BP:85:LEU:HD23	45:BP:85:LEU:H	1.53	0.73
9:AI:50:LEU:O	9:AI:53:VAL:HG22	1.88	0.73
2:AB:178:ARG:HB2	2:AB:178:ARG:HH11	1.53	0.73
32:B7:48:LYS:HE3	34:BA:125:G:H21	1.53	0.73
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.70	0.73
8:CH:103:VAL:CG2	8:CH:110:ALA:HB2	2.17	0.73
34:BA:1751:C:O2'	34:BA:1752:C:H5'	1.88	0.73
9:CI:115:GLY:O	9:CI:116:LYS:HG2	1.88	0.73
54:BY:17:SER:CB	54:BY:71:LYS:HD2	2.18	0.73
23:CW:76:A:O2'	34:DA:2394:C:N3	2.18	0.73
34:BA:61:G:H1	34:BA:94:C:H42	1.35	0.73
16:CP:20:VAL:HG23	16:CP:35:LYS:HA	1.69	0.73
9:CI:10:ARG:HH21	9:CI:11:LYS:HB2	1.53	0.73
54:DY:75:ILE:CD1	54:DY:76:CYS:H	2.00	0.73
34:DA:154:G:H1	34:DA:172:C:N4	1.87	0.73
34:BA:925:C:C2'	34:BA:926:A:H5''	2.17	0.73
38:BE:11:MET:HB3	38:BE:24:THR:HA	1.70	0.73
25:D0:32:ARG:H	25:D0:35:ASN:HD21	1.33	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:BY:76:CYS:O	54:BY:78:ALA:N	2.22	0.73
34:BA:1708:C:H2'	34:BA:1709:U:H6	1.53	0.73
18:CR:36:ASN:HD22	18:CR:39:VAL:HG21	1.53	0.73
34:DA:2672:G:H2'	34:DA:2673:G:H5''	1.70	0.73
2:AB:10:LEU:H	2:AB:10:LEU:HD23	1.54	0.73
1:AA:539:A:H2'	1:AA:540:G:C8	2.23	0.73
55:DZ:27:VAL:HG12	55:DZ:28:MET:N	2.01	0.73
46:DQ:141:GLN:NE2	55:DZ:72:ARG:HG2	2.03	0.73
45:DP:66:GLY:O	45:DP:67:MET:C	2.26	0.73
27:B2:55:ARG:N	27:B2:56:GLN:HE21	1.86	0.73
53:DX:89:ILE:HA	53:DX:92:LEU:HD12	1.68	0.73
34:DA:1879:C:C3'	34:DA:1880:C:H5''	2.17	0.73
37:DD:267:SER:C	37:DD:269:PHE:N	2.40	0.73
44:DO:64:ARG:CZ	49:DT:70:VAL:HG21	2.17	0.73
43:BN:55:VAL:HG12	43:BN:56:ASN:N	2.03	0.73
43:DN:58:ASP:C	43:DN:60:ILE:H	1.90	0.73
34:BA:171:G:H2'	34:BA:172:C:C4'	2.18	0.73
25:D0:51:VAL:CG2	25:D0:80:HIS:HA	2.18	0.73
34:DA:2196:C:O2'	34:DA:2197:U:H5'	1.88	0.73
55:BZ:139:VAL:HG12	55:BZ:141:VAL:HG12	1.71	0.73
8:CH:11:THR:HG22	8:CH:15:ASN:HD21	1.53	0.73
49:BT:61:PHE:CE2	49:BT:76:PHE:HB2	2.23	0.73
53:BX:40:LYS:O	53:BX:42:ALA:N	2.20	0.73
55:BZ:18:LEU:O	55:BZ:21:ALA:N	2.22	0.73
41:BH:46:GLU:O	41:BH:47:GLU:HB2	1.86	0.73
8:CH:102:ARG:N	8:CH:102:ARG:HE	1.86	0.73
1:AA:255:G:H1'	17:AQ:16:GLN:NE2	2.02	0.73
22:CV:49:G:H1	22:CV:65:C:N4	1.86	0.73
34:DA:1887:C:C3'	34:DA:1888:G:H5''	2.19	0.73
45:BP:138:LEU:HD13	45:BP:142:GLY:HA3	1.70	0.73
35:BB:20:C:C2'	35:BB:21:G:H5''	2.18	0.73
15:CO:23:GLY:O	15:CO:24:SER:HB3	1.88	0.73
34:BA:997:G:OP1	50:BU:93:LYS:HD3	1.88	0.73
45:BP:102:ARG:HD2	45:BP:102:ARG:O	1.87	0.73
3:CC:14:ILE:CG1	3:CC:15:THR:H	1.98	0.73
26:B1:67:ILE:N	26:B1:68:PRO:HD2	2.04	0.73
42:DI:91:SER:H	42:DI:121:LYS:HE3	1.52	0.73
33:D8:35:GLN:HE21	33:D8:36:LYS:NZ	1.86	0.73
33:D8:25:MET:CG	45:DP:64:LYS:HB2	2.18	0.73
50:BU:64:ARG:CA	50:BU:64:ARG:HE	2.00	0.73
46:BQ:140:ALA:CB	55:BZ:99:TYR:HB2	2.19	0.73
53:BX:89:ILE:HA	53:BX:92:LEU:HD12	1.69	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1292:U:O2'	1:AA:1293:G:H5'	1.88	0.73
34:DA:1012:U:O4	43:DN:28:THR:HG21	1.88	0.73
34:DA:27:G:O2'	34:DA:28:A:H8	1.71	0.73
45:DP:84:ASN:HA	45:DP:115:LEU:O	1.89	0.73
27:D2:20:GLU:O	27:D2:23:LYS:HB3	1.87	0.73
3:CC:77:ILE:O	3:CC:83:ARG:HB3	1.87	0.73
34:DA:2632:A:H1'	38:DE:61:ARG:NH1	2.03	0.73
25:B0:72:ARG:HB3	25:B0:75:LEU:HB2	1.67	0.73
2:CB:74:LYS:NZ	2:CB:76:GLN:HB2	2.03	0.73
30:B5:29:THR:O	30:B5:42:PRO:HD3	1.88	0.73
1:CA:626:U:H2'	1:CA:627:G:H8	1.54	0.73
1:AA:1244:C:H2'	1:AA:1245:A:H8	1.54	0.73
19:AS:42:PRO:O	19:AS:43:GLU:HB3	1.87	0.73
1:CA:186:C:H5'	20:CT:78:ALA:HB1	1.69	0.73
1:AA:197:A:N7	1:AA:221:C:H4'	2.04	0.73
34:DA:2859:G:H2'	34:DA:2860:A:C8	2.24	0.73
34:DA:1396:U:H2'	34:DA:1396:U:O2	1.88	0.73
8:AH:30:ARG:HB3	8:AH:30:ARG:NH1	2.03	0.73
54:BY:31:LEU:HB3	54:BY:32:PRO:HA	1.70	0.73
20:CT:104:LEU:HD23	20:CT:105:SER:N	2.04	0.73
52:DW:35:ILE:HG22	52:DW:36:LEU:N	2.04	0.73
28:D3:6:VAL:HG13	28:D3:54:VAL:CG1	2.10	0.73
49:BT:80:SER:HB3	49:BT:81:PRO:HD3	1.70	0.73
38:BE:2:LYS:HD3	38:BE:95:ILE:HG22	1.69	0.73
27:B2:49:LYS:HB3	27:B2:53:LEU:HD22	1.69	0.73
46:DQ:85:LYS:HG3	46:DQ:86:GLY:N	2.04	0.73
13:CM:3:ARG:HG2	13:CM:9:ILE:HG12	1.69	0.73
9:AI:10:ARG:HH21	9:AI:11:LYS:HB2	1.51	0.73
34:BA:8:A:H2'	34:BA:9:U:C6	2.23	0.73
1:CA:1440:C:H2'	1:CA:1441:G:O4'	1.87	0.73
43:DN:55:VAL:HG12	43:DN:56:ASN:N	2.03	0.73
11:CK:44:SER:O	11:CK:47:VAL:HB	1.87	0.73
34:BA:1012:U:O4	43:BN:28:THR:HG21	1.89	0.73
1:AA:1392:G:H21	1:AA:1502:A:H8	1.37	0.73
4:AD:96:LEU:CD2	4:AD:96:LEU:H	2.01	0.73
3:CC:206:GLU:HG2	3:CC:207:VAL:HG23	1.71	0.73
34:DA:1821:A:C2'	34:DA:1822:G:H5''	2.19	0.73
52:BW:29:LEU:O	52:BW:33:ARG:HG3	1.87	0.73
41:DH:154:PRO:HG2	41:DH:155:SER:H	1.53	0.73
1:CA:1244:C:H2'	1:CA:1245:A:H8	1.54	0.73
40:BG:112:PRO:C	40:BG:113:ARG:HA	2.09	0.73
4:AD:4:TYR:O	4:AD:5:ILE:HB	1.88	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:107:G:H2'	1:CA:108:G:H5'	1.70	0.73
34:BA:212:G:O2'	34:BA:213:A:H5'	1.89	0.73
34:DA:1658:C:OP1	38:DE:132:HIS:ND1	2.22	0.73
34:BA:1635:G:H8	34:BA:1635:G:H5'	1.54	0.73
26:B1:85:LEU:C	26:B1:87:PRO:HD3	2.09	0.73
53:BX:31:HIS:ND1	53:BX:32:PRO:HD2	2.03	0.73
34:BA:143:G:H2'	34:BA:143(A):C:H6	1.53	0.73
54:DY:87:LYS:O	54:DY:88:LYS:HB2	1.86	0.73
10:CJ:70:ARG:HH11	10:CJ:70:ARG:CG	2.01	0.73
10:AJ:70:ARG:CG	10:AJ:70:ARG:HH11	2.01	0.73
38:BE:109:LYS:CB	47:BR:2:ARG:HH12	2.00	0.73
40:DG:114:ILE:HB	40:DG:117:PHE:CD1	2.23	0.73
34:DA:8:A:H2'	34:DA:9:U:C6	2.23	0.73
31:B6:32:ASN:CG	31:B6:33:LYS:H	1.91	0.73
34:DA:1947:C:H2'	34:DA:1948:G:H5''	1.69	0.73
34:DA:1899:G:H22	34:DA:1902:C:N4	1.85	0.73
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.71	0.73
34:DA:2645:G:H3'	34:DA:2646:C:C5'	2.17	0.73
34:DA:2682:U:O4	34:DA:2728:U:H1'	1.89	0.73
2:AB:178:ARG:HH22	2:AB:196:LEU:C	1.91	0.73
1:CA:1343:G:H1'	9:CI:121:ARG:HH12	1.54	0.73
1:CA:19:C:H5''	5:CE:86:ALA:HB2	1.68	0.73
34:BA:2822:G:H2'	34:BA:2823:A:H5''	1.69	0.73
2:CB:178:ARG:HH22	2:CB:196:LEU:C	1.92	0.73
34:DA:1188:U:C2'	34:DA:1189:A:H5'	2.19	0.73
35:DB:20:C:C2'	35:DB:21:G:H5''	2.18	0.73
1:AA:19:C:H5''	5:AE:86:ALA:HB2	1.69	0.73
25:D0:77:ARG:HH22	34:DA:857:C:H5'	1.53	0.73
37:DD:35:LYS:CD	37:DD:63:ARG:HB3	2.14	0.73
45:DP:126:VAL:HA	45:DP:145:PRO:CB	2.13	0.73
45:BP:62:LEU:N	45:BP:62:LEU:HD22	2.04	0.73
39:BF:103:LYS:HA	39:BF:106:ARG:HG3	1.71	0.73
13:CM:91:ARG:HG3	13:CM:98:VAL:HG11	1.70	0.73
50:DU:12:ARG:O	50:DU:15:LYS:HG2	1.88	0.73
40:BG:19:LEU:HD22	40:BG:23:PHE:CE1	2.24	0.73
8:AH:58:TYR:O	8:AH:59:LEU:HD23	1.88	0.73
1:AA:673:G:H2'	1:AA:674:G:C8	2.22	0.73
34:BA:2502:G:H5''	34:BA:2503:A:H5''	1.69	0.73
28:D3:31:LEU:HD12	34:DA:1157:G:O2'	1.89	0.73
49:DT:89:VAL:HG11	49:DT:91:ARG:HE	1.52	0.73
26:B1:92:LYS:C	26:B1:94:LEU:H	1.90	0.73
33:D8:32:LEU:HD11	33:D8:41:ILE:HG22	1.71	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DZ:150:LEU:H	55:DZ:150:LEU:HD13	1.51	0.73
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.23	0.73
1:CA:1441:G:C5'	1:CA:1442:G:H5''	2.19	0.73
31:D6:32:ASN:CG	31:D6:33:LYS:H	1.92	0.73
3:CC:76:VAL:HG23	3:CC:77:ILE:N	2.04	0.73
40:DG:135:LEU:HD11	40:DG:157:ILE:HG23	1.71	0.73
40:BG:67:LYS:N	40:BG:67:LYS:HD2	2.04	0.73
49:DT:100:TYR:HD2	49:DT:103:ARG:HH21	1.33	0.73
8:AH:103:VAL:HG21	8:AH:110:ALA:HB2	1.71	0.73
37:DD:75:ILE:O	37:DD:118:VAL:HG23	1.87	0.73
34:BA:1822:G:H5'	34:BA:1822:G:H8	1.52	0.73
49:DT:61:PHE:CE2	49:DT:76:PHE:HB2	2.24	0.73
2:AB:97:TRP:CH2	2:AB:173:ALA:HA	2.23	0.73
11:AK:21:ILE:HB	11:AK:84:VAL:HG12	1.70	0.73
1:AA:1381:U:H1'	7:AG:78:ARG:NH1	2.02	0.73
34:BA:847:U:H2'	34:BA:848:G:H5''	1.69	0.73
34:BA:2884:U:H2'	34:BA:2885:C:H5'	1.68	0.73
34:BA:1221(A):C:O2'	34:BA:1222:C:H5'	1.89	0.73
51:DV:75:PHE:CE1	51:DV:89:GLN:HB3	2.24	0.72
34:BA:1903:G:OP2	37:BD:241:PRO:HB2	1.89	0.72
55:DZ:18:LEU:HB3	55:DZ:23:LYS:HB2	1.71	0.72
40:BG:39:ILE:HD13	40:BG:155:MET:CE	2.19	0.72
41:DH:141:VAL:HG12	41:DH:142:GLY:N	2.04	0.72
41:BH:141:VAL:HG12	41:BH:142:GLY:N	2.04	0.72
26:D1:30:VAL:O	26:D1:30:VAL:HG12	1.89	0.72
37:DD:186:HIS:CD2	37:DD:188:GLU:H	2.02	0.72
40:DG:133:LEU:HD11	40:DG:157:ILE:HG12	1.70	0.72
23:AW:19:G:H22	23:AW:56:C:H42	1.33	0.72
25:B0:41:ARG:HD3	25:B0:44:ARG:HD2	1.69	0.72
34:DA:1798:U:H5'	37:DD:259:THR:HG22	1.69	0.72
9:AI:15:ALA:HA	9:AI:65:VAL:HA	1.71	0.72
31:D6:41:PRO:HG2	31:D6:44:ARG:O	1.88	0.72
19:CS:42:PRO:O	19:CS:43:GLU:HB3	1.88	0.72
55:DZ:7:ALA:HB2	55:DZ:59:LEU:HD22	1.71	0.72
3:CC:6:HIS:ND1	14:CN:49:HIS:HB3	2.04	0.72
34:DA:2506:U:H4'	34:DA:2507:C:OP1	1.88	0.72
42:BI:93:THR:HG22	42:BI:119:PRO:HB3	1.71	0.72
27:D2:33:MET:HG2	53:DX:11:PRO:CD	2.17	0.72
26:D1:78:LYS:HZ2	26:D1:93:GLU:HB2	1.51	0.72
34:DA:15:G:O2'	34:DA:16:G:H5'	1.89	0.72
12:CL:24:VAL:HG13	12:CL:98:TYR:HE2	1.54	0.72
34:DA:1803:A:H4'	37:DD:259:THR:CG2	2.19	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:32:ALA:HB1	10:CJ:75:ILE:HG13	1.69	0.72
30:D5:29:THR:O	30:D5:42:PRO:HD3	1.89	0.72
34:DA:1509(A):A:H2'	34:DA:1509(B):A:C8	2.25	0.72
2:CB:97:TRP:CH2	2:CB:173:ALA:HA	2.23	0.72
2:AB:7:VAL:O	2:AB:11:LEU:HG	1.88	0.72
33:D8:23:VAL:HG12	33:D8:46:ARG:HH11	1.54	0.72
34:BA:132:G:H5'	34:BA:132:G:H8	1.52	0.72
54:BY:8:LYS:HD2	54:BY:8:LYS:N	2.03	0.72
45:BP:16:ARG:NH1	45:BP:18:ARG:HB2	2.04	0.72
42:DI:88:ILE:HG22	42:DI:89:TYR:N	2.04	0.72
45:BP:64:LYS:O	45:BP:66:GLY:N	2.20	0.72
1:AA:1277:C:HO2'	1:AA:1279:A:H8	1.35	0.72
3:AC:70:VAL:HG12	3:AC:71:ALA:N	2.04	0.72
25:B0:36:ILE:HD11	34:BA:2355:C:C4'	2.19	0.72
34:BA:344:G:H8	34:BA:344:G:H5'	1.54	0.72
4:CD:9:CYS:HA	4:CD:12:CYS:HB2	1.71	0.72
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.71	0.72
30:B5:2:ALA:HA	34:BA:2015:A:C1'	2.20	0.72
34:BA:2749:A:H1'	41:BH:63:SER:OG	1.89	0.72
40:BG:94:LEU:N	40:BG:94:LEU:HD23	2.05	0.72
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.03	0.72
1:AA:1422:G:H2'	1:AA:1423:G:H8	1.53	0.72
37:BD:30:GLU:HG3	37:BD:63:ARG:CZ	2.19	0.72
20:AT:50:GLU:HB3	20:AT:100:ILE:CG1	2.17	0.72
13:CM:3:ARG:HH21	40:DG:146:TYR:HD1	1.37	0.72
44:DO:16:ALA:HA	44:DO:46:ALA:HA	1.71	0.72
26:B1:26:ARG:NH2	26:B1:28:GLY:HA2	2.04	0.72
53:DX:63:LYS:O	53:DX:68:ARG:HA	1.88	0.72
34:BA:1509(A):A:H2'	34:BA:1509(B):A:C8	2.24	0.72
34:BA:1188:U:C2'	34:BA:1189:A:H5'	2.19	0.72
50:BU:12:ARG:O	50:BU:15:LYS:HG2	1.89	0.72
1:CA:67:C:H2'	1:CA:68:G:C8	2.24	0.72
22:AV:20:U:H5'	22:AV:21:A:OP2	1.89	0.72
51:DV:80:GLN:O	51:DV:81:TYR:N	2.22	0.72
34:DA:2834:G:H5'	34:DA:2835:A:OP2	1.89	0.72
34:DA:539:G:H2'	34:DA:540:C:H6	1.54	0.72
34:BA:1937:A:O2'	34:BA:1938:A:H5'	1.88	0.72
1:AA:135:C:H2'	1:AA:136:C:H5'	1.72	0.72
41:BH:154:PRO:HG2	41:BH:155:SER:H	1.54	0.72
3:CC:150:LYS:HB3	3:CC:201:TYR:HB2	1.71	0.72
50:DU:91:ASP:O	50:DU:95:LEU:HB2	1.89	0.72
34:BA:1593:G:C2'	34:BA:1594:G:H5''	2.19	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:BY:27:VAL:HG12	54:BY:29:GLU:H	1.54	0.72
2:CB:204:ASN:HD21	2:CB:207:ALA:N	1.87	0.72
34:BA:2313:C:H2'	34:BA:2314:C:H6	1.55	0.72
55:BZ:61:LEU:HB2	55:BZ:65:GLN:HB2	1.71	0.72
30:B5:55:ARG:HG3	30:B5:56:LYS:N	2.03	0.72
34:DA:1689:A:N6	34:DA:1698:A:H2	1.83	0.72
27:D2:49:LYS:HG2	27:D2:53:LEU:HD13	1.72	0.72
30:B5:40:LYS:CE	30:B5:46:CYS:HB3	2.19	0.72
8:CH:11:THR:HA	8:CH:14:ARG:NH1	2.04	0.72
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.55	0.72
36:BC:45:ALA:CB	36:BC:210:ARG:HA	2.19	0.72
7:CG:148:ASN:HD22	7:CG:148:ASN:N	1.87	0.72
45:DP:16:ARG:NH1	45:DP:18:ARG:HB2	2.03	0.72
34:DA:2784:C:H2'	34:DA:2785:C:H6	1.55	0.72
34:BA:1899:G:H22	34:BA:1902:C:N4	1.87	0.72
27:B2:41:ILE:O	27:B2:42:GLY:C	2.28	0.72
12:AL:47:LYS:CB	12:AL:48:PRO:HD3	2.19	0.72
5:AE:71:LEU:O	5:AE:72:GLN:HG3	1.90	0.72
26:D1:17:SER:O	26:D1:44:PRO:HD2	1.89	0.72
39:DF:39:TRP:O	39:DF:43:LYS:HG2	1.89	0.72
39:BF:101:LEU:HD12	39:BF:102:PRO:CD	2.20	0.72
34:DA:2313:C:H2'	34:DA:2314:C:H6	1.53	0.72
47:BR:78:LYS:O	47:BR:82:GLU:HB3	1.89	0.72
23:AW:30:G:O2'	23:AW:31:A:H5'	1.90	0.72
2:AB:74:LYS:NZ	2:AB:76:GLN:HB2	2.05	0.72
16:CP:50:LYS:HD3	16:CP:51:VAL:N	2.04	0.72
1:AA:1208:C:H2'	1:AA:1209:C:H6	1.53	0.72
30:D5:2:ALA:HA	34:DA:2015:A:H1'	1.72	0.72
1:CA:963:G:H1	1:CA:972:C:H42	1.37	0.72
34:BA:1594:G:H5'	34:BA:1594:G:C8	2.24	0.72
34:DA:1503:U:H2'	34:DA:1504:C:C6	2.25	0.72
53:BX:65:ARG:CZ	53:BX:66:LEU:N	2.52	0.72
26:D1:85:LEU:C	26:D1:87:PRO:HD3	2.10	0.72
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.25	0.72
52:BW:75:TYR:HD1	52:BW:75:TYR:N	1.88	0.72
46:BQ:34:LEU:HD12	46:BQ:34:LEU:C	2.10	0.72
41:BH:106:THR:HG22	41:BH:112:PRO:HB3	1.70	0.72
1:AA:1189:C:H5''	3:AC:5:ILE:HG21	1.71	0.72
41:DH:44:VAL:HG12	41:DH:45:VAL:N	2.04	0.72
3:AC:76:VAL:HG23	3:AC:77:ILE:HG13	1.72	0.72
25:D0:25:ARG:HD2	25:D0:29:GLN:HE22	1.55	0.72
30:D5:40:LYS:CD	30:D5:46:CYS:HB3	2.19	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.71	0.72
34:DA:271(G):C:H2'	34:DA:271(H):G:H8	1.54	0.72
34:BA:2836:U:H2'	34:BA:2837:G:H8	1.55	0.72
8:AH:11:THR:HG22	8:AH:15:ASN:HD21	1.52	0.72
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.25	0.72
45:DP:138:LEU:HD13	45:DP:142:GLY:HA3	1.70	0.72
1:AA:1249:C:H5'	1:AA:1249:C:H6	1.54	0.72
34:DA:1162:G:H1'	51:DV:91:TYR:OH	1.89	0.72
37:DD:35:LYS:HD2	37:DD:104:TYR:CD1	2.25	0.72
37:DD:35:LYS:HD2	37:DD:104:TYR:CE1	2.24	0.72
37:DD:35:LYS:HE3	37:DD:64:ILE:C	2.10	0.72
34:DA:143:G:H2'	34:DA:143(A):C:H6	1.53	0.72
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.70	0.72
33:D8:25:MET:HB2	45:DP:62:LEU:HD23	1.72	0.72
50:BU:64:ARG:HE	50:BU:64:ARG:HA	1.54	0.72
43:BN:42:TRP:H	50:BU:64:ARG:HH21	1.36	0.72
27:B2:32:LEU:O	27:B2:33:MET:HB2	1.87	0.72
34:DA:676:A:H8	34:DA:2069:G:N2	1.87	0.72
3:CC:76:VAL:HG23	3:CC:77:ILE:HG13	1.72	0.72
1:CA:1291:G:H4'	9:CI:39:GLY:HA3	1.70	0.72
34:DA:17:G:H4'	50:DU:25:TRP:CH2	2.25	0.72
55:DZ:9:TYR:HE1	55:DZ:61:LEU:HD13	1.53	0.72
15:AO:82:ILE:O	15:AO:82:ILE:HD13	1.89	0.72
1:AA:1443:G:N2	1:AA:1460:A:H1'	2.04	0.72
8:CH:58:TYR:O	8:CH:59:LEU:HD23	1.88	0.72
34:BA:1262:A:P	52:BW:99:ARG:HH12	2.13	0.72
42:BI:58:LEU:O	42:BI:58:LEU:HD23	1.89	0.72
8:AH:86:ILE:HG21	8:AH:133:LEU:HD22	1.70	0.72
52:DW:27:LYS:O	52:DW:70:TYR:HB2	1.90	0.72
34:BA:419:C:H2'	34:BA:420:C:H6	1.54	0.72
50:DU:83:LEU:HB3	50:DU:88:ILE:CG1	2.20	0.72
50:BU:83:LEU:HB3	50:BU:88:ILE:HG12	1.70	0.72
45:BP:122:PRO:HB3	45:BP:141:ALA:HB1	1.72	0.72
49:BT:89:VAL:HG11	49:BT:91:ARG:HE	1.53	0.72
23:AW:38:A:H3'	23:AW:39:U:H5''	1.72	0.72
33:B8:25:MET:HB2	45:BP:62:LEU:HD23	1.71	0.72
47:DR:116:LEU:O	47:DR:117:VAL:HB	1.89	0.72
54:DY:90:LEU:CG	54:DY:91:GLU:H	2.02	0.72
37:BD:154:LYS:C	37:BD:155:LEU:HD12	2.10	0.72
34:BA:1779:U:C5	34:BA:1784:A:N7	2.53	0.72
43:DN:15:LEU:HB2	43:DN:134:ARG:HB2	1.72	0.72
1:CA:1292:U:O2'	1:CA:1293:G:H5'	1.90	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BR:9:LYS:O	47:BR:10:LEU:HG	1.88	0.72
38:DE:167:VAL:HG11	38:DE:187:ALA:O	1.90	0.72
45:DP:85:LEU:HD23	45:DP:85:LEU:H	1.54	0.72
5:AE:144:THR:O	5:AE:148:VAL:HG23	1.90	0.72
1:AA:922:G:N3	1:AA:1398:A:H2	1.88	0.72
50:DU:17:ILE:HG23	50:DU:39:LEU:HD12	1.72	0.72
10:CJ:96:ILE:H	10:CJ:96:ILE:HD13	1.53	0.72
46:BQ:75:THR:HA	46:BQ:88:GLY:HA2	1.71	0.72
55:DZ:165:VAL:HG12	55:DZ:166:SER:N	2.02	0.72
45:BP:30:THR:HG22	45:BP:31:ALA:N	2.04	0.72
45:DP:30:THR:HG22	45:DP:31:ALA:N	2.03	0.72
46:DQ:47:ILE:CG1	46:DQ:68:ILE:HD11	2.20	0.72
43:DN:128:HIS:CD2	43:DN:131:GLN:HB2	2.24	0.72
43:DN:31:ALA:HA	43:DN:34:LEU:HD23	1.71	0.72
1:CA:728:A:H2'	1:CA:729:A:C8	2.25	0.72
54:DY:76:CYS:O	54:DY:78:ALA:N	2.22	0.72
19:CS:31:ILE:HG23	19:CS:49:ILE:HG23	1.72	0.72
2:CB:67:THR:C	2:CB:68:ILE:HD12	2.11	0.72
31:B6:45:LYS:HZ1	34:BA:2370:G:H21	1.37	0.72
35:BB:15:A:H3'	35:BB:16:G:H5'	1.71	0.72
34:DA:1434:A:H61	34:DA:1558:A:H62	1.36	0.72
34:DA:784:A:H5'	34:DA:785:G:OP1	1.89	0.72
23:AW:57:G:H2'	23:AW:58:A:H5'	1.72	0.72
42:BI:109:ILE:H	42:BI:109:ILE:HD12	1.55	0.71
37:DD:35:LYS:HG2	37:DD:64:ILE:HG23	1.70	0.71
45:BP:146:VAL:CG2	45:BP:147:LEU:H	1.93	0.71
38:BE:36:ARG:HH21	38:BE:88:GLY:CA	2.03	0.71
26:B1:60:PHE:HD1	26:B1:70:VAL:HG22	1.54	0.71
53:BX:65:ARG:NH2	53:BX:66:LEU:H	1.87	0.71
37:DD:154:LYS:C	37:DD:155:LEU:HD12	2.11	0.71
19:AS:49:ILE:HD12	19:AS:49:ILE:H	1.54	0.71
27:D2:53:LEU:O	27:D2:54:LYS:HG2	1.90	0.71
53:DX:63:LYS:HD2	53:DX:70:LEU:HD13	1.72	0.71
2:CB:178:ARG:HB2	2:CB:178:ARG:HH11	1.53	0.71
34:BA:1188:U:O2'	34:BA:1189:A:H5'	1.89	0.71
40:DG:8:LYS:O	40:DG:11:TYR:HB3	1.88	0.71
15:CO:54:ARG:NH1	15:CO:58:MET:HE2	2.05	0.71
31:D6:45:LYS:HZ1	34:DA:2370:G:H21	1.34	0.71
34:BA:2859:G:H2'	34:BA:2860:A:C8	2.25	0.71
34:BA:1502:C:H2'	34:BA:1502:C:O2	1.90	0.71
31:B6:28:ARG:HG2	31:B6:28:ARG:HH11	1.55	0.71
41:BH:20:ALA:HB1	41:BH:21:PRO:CD	2.19	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1291:G:H4'	9:AI:39:GLY:HA3	1.72	0.71
50:DU:92:ARG:HD2	51:DV:11:GLN:CG	2.20	0.71
34:DA:613:G:H8	34:DA:613:G:H5'	1.55	0.71
51:BV:75:PHE:CE1	51:BV:89:GLN:HB3	2.25	0.71
1:CA:975:A:H5'	1:CA:975:A:H8	1.55	0.71
45:DP:144:GLU:N	45:DP:145:PRO:HD3	2.05	0.71
41:DH:41:MET:SD	41:DH:55:PRO:HD3	2.30	0.71
41:BH:144:VAL:O	41:BH:144:VAL:HG12	1.88	0.71
41:BH:67:LEU:O	41:BH:71:LEU:HD13	1.90	0.71
48:BS:101:LEU:HD13	48:BS:102:ALA:N	2.05	0.71
3:AC:76:VAL:HG23	3:AC:77:ILE:N	2.05	0.71
12:AL:24:VAL:HG13	12:AL:98:TYR:HE2	1.54	0.71
23:CW:62:C:H2'	23:CW:63:G:H8	1.54	0.71
40:BG:16:ARG:O	40:BG:20:ILE:HG13	1.89	0.71
8:CH:103:VAL:HG21	8:CH:110:ALA:HB2	1.71	0.71
12:AL:115:LYS:O	12:AL:117:ARG:HG3	1.90	0.71
47:DR:18:LEU:HD13	47:DR:18:LEU:C	2.10	0.71
6:AF:99:ALA:HB1	18:AR:23:LYS:NZ	2.05	0.71
55:BZ:150:LEU:HD13	55:BZ:150:LEU:H	1.55	0.71
46:BQ:75:THR:HA	46:BQ:89:ASN:H	1.55	0.71
47:BR:116:LEU:O	47:BR:117:VAL:HB	1.90	0.71
34:BA:2180:U:H2'	34:BA:2181:G:H8	1.55	0.71
44:DO:46:ALA:H	44:DO:54:GLU:HG2	1.55	0.71
27:B2:32:LEU:CG	27:B2:33:MET:H	1.99	0.71
52:BW:84:ARG:HB2	52:BW:96:ILE:HG22	1.72	0.71
30:D5:20:ARG:HB3	30:D5:23:HIS:HD2	1.53	0.71
43:BN:31:ALA:HA	43:BN:34:LEU:HD23	1.72	0.71
25:B0:51:VAL:CG2	25:B0:80:HIS:HA	2.19	0.71
55:BZ:117:LEU:HA	55:BZ:174:VAL:HA	1.72	0.71
25:D0:77:ARG:NH2	34:DA:857:C:H5'	2.04	0.71
1:CA:450:G:H4'	16:CP:41:PRO:O	1.91	0.71
3:AC:36:ASP:HA	3:AC:39:ILE:HD12	1.72	0.71
10:AJ:49:VAL:O	10:AJ:60:ARG:HB2	1.89	0.71
37:DD:223:GLY:O	37:DD:226:MET:HG3	1.90	0.71
32:D7:7:PRO:HB2	34:DA:1309:G:H4'	1.73	0.71
15:AO:37:ASN:HD22	15:AO:37:ASN:N	1.88	0.71
11:CK:124:LYS:HD2	11:CK:125:PHE:CE1	2.26	0.71
16:AP:50:LYS:HD3	16:AP:51:VAL:N	2.04	0.71
34:DA:997:G:OP1	50:DU:93:LYS:HD3	1.89	0.71
48:DS:87:PHE:O	48:DS:88:ASP:HB2	1.90	0.71
1:CA:950:U:H4'	1:CA:971:G:N2	2.05	0.71
3:AC:14:ILE:CG1	3:AC:15:THR:H	1.97	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1594:G:H5'	34:DA:1594:G:C8	2.22	0.71
53:BX:33:LYS:O	53:BX:35:THR:N	2.24	0.71
34:DA:528:A:H5''	43:DN:114:ARG:NH1	2.04	0.71
53:BX:65:ARG:CA	53:BX:65:ARG:NE	2.52	0.71
55:DZ:166:SER:HB2	55:DZ:167:PRO:C	2.11	0.71
53:DX:65:ARG:CZ	53:DX:66:LEU:N	2.53	0.71
43:BN:41:ASP:N	50:BU:64:ARG:HH21	1.89	0.71
41:BH:41:MET:SD	41:BH:55:PRO:HD3	2.30	0.71
5:CE:71:LEU:O	5:CE:72:GLN:HG3	1.90	0.71
34:BA:2680:C:H2'	34:BA:2681:C:O2	1.90	0.71
1:CA:1308:U:H5''	13:CM:98:VAL:N	2.05	0.71
5:AE:43:LEU:HD21	5:AE:132:ALA:HB1	1.71	0.71
34:BA:2362:G:O2'	34:BA:2363:C:H5'	1.90	0.71
1:AA:626:U:H2'	1:AA:627:G:H8	1.56	0.71
52:DW:29:LEU:O	52:DW:33:ARG:HG3	1.89	0.71
25:B0:25:ARG:HD2	25:B0:29:GLN:HE22	1.54	0.71
34:DA:2709:G:O2'	34:DA:2710:C:H5'	1.91	0.71
9:AI:18:PHE:HB3	9:AI:20:ARG:NH1	2.05	0.71
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.26	0.71
30:B5:2:ALA:HA	34:BA:2015:A:H1'	1.70	0.71
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.72	0.71
10:CJ:49:VAL:O	10:CJ:60:ARG:HB2	1.90	0.71
34:DA:879:G:H1	34:DA:898:C:N4	1.88	0.71
1:AA:1003:G:H2'	1:AA:1004:A:H4'	1.73	0.71
34:DA:1708:C:H2'	34:DA:1709:U:H6	1.55	0.71
1:CA:1003:G:H2'	1:CA:1004:A:H4'	1.73	0.71
15:AO:54:ARG:NH1	15:AO:58:MET:HE1	2.06	0.71
18:AR:36:ASN:HD22	18:AR:39:VAL:HG21	1.55	0.71
51:BV:69:LYS:HG3	51:BV:70:ILE:N	2.05	0.71
2:AB:18:GLY:H	2:AB:42:ILE:CG2	2.03	0.71
26:B1:15:ALA:O	26:B1:46:LEU:HD23	1.90	0.71
28:B3:31:LEU:HD12	34:BA:1157:G:O2'	1.90	0.71
54:DY:28:LYS:HD2	54:DY:37:VAL:HG12	1.72	0.71
54:DY:8:LYS:HD2	54:DY:8:LYS:N	2.05	0.71
1:AA:1302:U:C5	13:AM:17:VAL:HG21	2.25	0.71
1:AA:107:G:H2'	1:AA:108:G:H5'	1.72	0.71
55:DZ:116:VAL:O	55:DZ:174:VAL:HG13	1.91	0.71
46:BQ:47:ILE:CG1	46:BQ:68:ILE:HD11	2.20	0.71
47:DR:2:ARG:HD3	47:DR:5:LYS:HZ2	1.55	0.71
6:AF:11:ASN:O	6:AF:14:LEU:HG	1.91	0.71
26:B1:26:ARG:HH21	26:B1:28:GLY:HA2	1.55	0.71
34:BA:271(G):C:H2'	34:BA:271(H):G:H8	1.54	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:87:SER:HB3	5:AE:131:ILE:HD13	1.72	0.71
40:DG:40:ASN:O	40:DG:155:MET:HB2	1.89	0.71
40:DG:34:LEU:HD11	40:DG:103:LEU:HD11	1.72	0.71
34:BA:541:C:H2'	34:BA:542:C:C5	2.24	0.71
34:DA:549:G:C3'	34:DA:551:G:H5''	2.20	0.71
8:AH:85:ARG:NE	8:AH:87:SER:O	2.23	0.71
33:B8:23:VAL:HG12	33:B8:46:ARG:HH11	1.55	0.71
52:BW:40:ASN:O	52:BW:41:LYS:HG2	1.89	0.71
34:BA:1286:A:H2'	34:BA:1288:U:OP2	1.90	0.71
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.71	0.71
25:B0:77:ARG:NH2	34:BA:857:C:H5'	2.06	0.71
36:DC:45:ALA:CB	36:DC:210:ARG:HA	2.20	0.71
54:BY:17:SER:HB2	54:BY:71:LYS:HD2	1.69	0.71
37:BD:35:LYS:HD2	37:BD:104:TYR:CD1	2.26	0.71
45:DP:102:ARG:O	45:DP:102:ARG:HD2	1.90	0.71
42:DI:88:ILE:CD1	42:DI:123:LEU:HG	2.20	0.71
33:B8:25:MET:CG	45:BP:64:LYS:HB2	2.20	0.71
55:BZ:118:GLN:O	55:BZ:120:ILE:HG12	1.91	0.71
45:DP:33:ARG:O	45:DP:34:GLY:C	2.27	0.71
38:BE:111:ARG:HA	47:BR:2:ARG:CG	2.21	0.71
55:DZ:116:VAL:HG12	55:DZ:117:LEU:N	2.04	0.71
52:DW:75:TYR:HD1	52:DW:75:TYR:N	1.87	0.71
1:AA:706:A:H1'	11:AK:29:ILE:HD11	1.72	0.71
27:D2:15:LYS:C	27:D2:17:SER:H	1.94	0.71
27:D2:54:LYS:O	27:D2:56:GLN:N	2.24	0.71
1:CA:1189:C:H5''	3:CC:5:ILE:HG21	1.73	0.71
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.70	0.71
34:DA:2307:G:H21	34:DA:2308:G:H5'	1.54	0.71
34:DA:925:C:C2'	34:DA:926:A:H5''	2.19	0.71
39:DF:57:VAL:CG1	39:DF:58:ALA:N	2.53	0.71
34:DA:2836:U:H2'	34:DA:2837:G:H8	1.56	0.71
54:BY:31:LEU:HB3	54:BY:32:PRO:CA	2.19	0.71
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.71	0.71
41:DH:20:ALA:HB1	41:DH:21:PRO:CD	2.20	0.71
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	2.04	0.71
34:BA:884:C:O2'	34:BA:892:G:C8	2.42	0.71
1:AA:1428:A:H2'	1:AA:1429:C:C6	2.26	0.71
34:BA:1503:U:H2'	34:BA:1504:C:C6	2.25	0.71
54:DY:8:LYS:CE	54:DY:72:VAL:HG23	2.20	0.71
55:DZ:48:PHE:CD2	55:DZ:52:SER:HA	2.26	0.71
34:BA:2312:U:O3'	40:BG:71:THR:HG21	1.90	0.71
26:D1:26:ARG:HB3	26:D1:35:THR:H	1.55	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DG:41:GLN:HE21	40:DG:155:MET:HG3	1.56	0.71
34:BA:2307:G:H21	34:BA:2308:G:H5'	1.55	0.71
51:DV:47:VAL:HG22	51:DV:48:GLY:N	2.05	0.71
1:CA:107:G:C2'	1:CA:108:G:H5'	2.20	0.71
1:AA:674:G:H2'	1:AA:675:A:H8	1.56	0.71
34:BA:2834:G:H5'	34:BA:2835:A:OP2	1.90	0.71
25:B0:77:ARG:HH22	34:BA:857:C:H5'	1.55	0.71
49:DT:48:ILE:O	49:DT:63:VAL:HA	1.91	0.71
1:CA:1478:C:H2'	1:CA:1479:C:H6	1.55	0.71
1:CA:474:G:H2'	1:CA:475:G:H8	1.56	0.71
1:AA:811:C:O2'	1:AA:901:A:N1	2.24	0.71
37:DD:63:ARG:HG3	37:DD:63:ARG:HH11	1.56	0.71
38:DE:36:ARG:HH21	38:DE:88:GLY:CA	2.04	0.71
37:BD:35:LYS:HD2	37:BD:104:TYR:CE1	2.25	0.71
54:DY:28:LYS:HD2	54:DY:37:VAL:CG1	2.21	0.71
34:BA:142:A:C8	34:BA:1408:C:H1'	2.25	0.71
1:AA:107:G:C2'	1:AA:108:G:H5'	2.20	0.71
54:BY:90:LEU:HG	54:BY:91:GLU:N	2.04	0.71
37:BD:267:SER:C	37:BD:269:PHE:N	2.43	0.71
53:BX:77:LYS:CD	53:BX:78:LYS:HD2	2.20	0.71
1:CA:1302:U:C5	13:CM:17:VAL:HG21	2.26	0.71
34:BA:154:G:H1	34:BA:172:C:N4	1.87	0.71
44:BO:87:ILE:CG2	44:BO:91:LEU:HA	2.21	0.71
1:AA:1423:G:H5'	44:BO:49:ARG:HH21	1.54	0.71
9:CI:83:ARG:O	9:CI:86:VAL:HG12	1.91	0.71
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.25	0.71
49:BT:48:ILE:O	49:BT:63:VAL:HA	1.90	0.71
1:CA:349:A:O2'	1:CA:350:G:H5'	1.90	0.71
1:AA:1343:G:H1'	9:AI:121:ARG:HH12	1.54	0.71
2:CB:10:LEU:H	2:CB:10:LEU:HD23	1.55	0.71
51:DV:73:SER:N	51:DV:88:ARG:HH22	1.88	0.71
42:BI:91:SER:H	42:BI:121:LYS:HE3	1.56	0.71
50:BU:91:ASP:O	50:BU:95:LEU:HB2	1.90	0.71
51:BV:73:SER:N	51:BV:88:ARG:HH22	1.87	0.71
37:BD:35:LYS:HG2	37:BD:64:ILE:HG23	1.73	0.71
2:CB:18:GLY:H	2:CB:42:ILE:CG2	2.03	0.71
34:DA:2712:U:HO2'	34:DA:2712(A):A:H5''	1.54	0.71
44:DO:64:ARG:NH1	49:DT:70:VAL:HG21	2.06	0.71
43:DN:58:ASP:O	43:DN:60:ILE:HG13	1.91	0.71
37:BD:186:HIS:CD2	37:BD:188:GLU:H	2.06	0.71
19:CS:5:LEU:HG	19:CS:10:PHE:CD1	2.25	0.71
44:DO:87:ILE:CG2	44:DO:91:LEU:HA	2.19	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1423:G:H5'	44:BO:49:ARG:NH2	2.04	0.71
34:DA:419:C:H2'	34:DA:420:C:H6	1.55	0.71
1:AA:155:C:H2'	1:AA:156:G:C8	2.25	0.71
34:DA:2454:G:O2'	34:DA:2455:G:H5'	1.90	0.71
43:DN:95:PRO:O	43:DN:97:ARG:N	2.24	0.71
26:B1:21:ARG:HD3	26:B1:22:GLY:H	1.56	0.71
39:DF:84:VAL:HG12	39:DF:85:GLY:N	2.06	0.71
6:CF:82:ARG:HB3	6:CF:82:ARG:HH11	1.55	0.71
34:DA:80:G:O2'	34:DA:81:G:H5'	1.90	0.71
1:AA:67:C:H2'	1:AA:68:G:C8	2.25	0.71
34:BA:2736:G:H5'	34:BA:2736:G:H8	1.56	0.71
51:DV:35:LEU:HD22	51:DV:61:VAL:HA	1.73	0.71
51:DV:69:LYS:HG3	51:DV:70:ILE:N	2.05	0.71
50:BU:92:ARG:HD2	51:BV:11:GLN:CG	2.20	0.71
53:DX:33:LYS:O	53:DX:35:THR:N	2.24	0.71
1:AA:1442(A):G:H3'	1:AA:1442(B):A:H5''	1.71	0.71
37:BD:92:ILE:HD13	37:BD:104:TYR:HD2	1.53	0.71
20:AT:50:GLU:HG3	20:AT:51:GLU:N	2.05	0.71
45:BP:58:THR:O	45:BP:61:ARG:CZ	2.38	0.71
20:CT:50:GLU:HG3	20:CT:51:GLU:N	2.05	0.71
34:DA:587:C:C5	45:DP:33:ARG:HG2	2.26	0.71
26:D1:19:GLN:OE1	26:D1:44:PRO:HB3	1.91	0.71
37:DD:155:LEU:HD23	37:DD:177:LEU:HD22	1.73	0.71
1:CA:194:C:H2'	1:CA:195:A:H5''	1.72	0.71
13:CM:116:THR:HG22	13:CM:117:VAL:N	2.05	0.71
3:CC:105:GLU:HG2	3:CC:106:VAL:N	2.04	0.71
4:CD:133:VAL:HG11	4:CD:138:TYR:HD1	1.56	0.71
17:AQ:68:ARG:HG2	17:AQ:68:ARG:HH11	1.55	0.71
1:CA:266:G:H5''	1:CA:268:C:H41	1.54	0.71
34:BA:549:G:C3'	34:BA:551:G:H5''	2.20	0.71
35:BB:44:G:H1'	35:BB:47:C:N4	2.06	0.71
34:DA:536:A:H2'	34:DA:537:C:H6	1.55	0.71
9:CI:18:PHE:HB3	9:CI:20:ARG:NH1	2.05	0.71
23:AW:59:U:H2'	23:AW:60:U:O4'	1.90	0.71
23:AY:39:U:H2'	23:AY:40:C:H6	1.54	0.71
34:BA:1358:G:O2'	34:BA:1359:A:H5''	1.90	0.71
54:DY:31:LEU:HB3	54:DY:32:PRO:CA	2.19	0.71
34:BA:2689:U:H5''	34:BA:2690:C:H5'	1.72	0.71
34:DA:2749:A:H1'	41:DH:63:SER:OG	1.91	0.71
34:BA:80:G:O2'	34:BA:81:G:H5'	1.91	0.71
34:BA:2023:G:H5'	34:BA:2617:C:H4'	1.73	0.71
48:DS:101:LEU:HD13	48:DS:102:ALA:N	2.06	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:DT:92:GLY:HA2	49:DT:114:LEU:HA	1.71	0.70
46:DQ:75:THR:HA	46:DQ:89:ASN:H	1.54	0.70
54:BY:81:LYS:CD	54:BY:96:ILE:HB	2.21	0.70
53:DX:76:ARG:C	53:DX:76:ARG:HD3	2.11	0.70
38:DE:111:ARG:HA	47:DR:2:ARG:CG	2.21	0.70
34:BA:154:G:H1	34:BA:172:C:H42	1.39	0.70
22:CV:52:G:O2'	22:CV:53:G:H8	1.71	0.70
34:DA:344:G:H5'	34:DA:344:G:H8	1.55	0.70
51:BV:47:VAL:HG22	51:BV:48:GLY:N	2.05	0.70
34:DA:1665:A:H2'	34:DA:1666:G:H5'	1.72	0.70
9:CI:50:LEU:O	9:CI:53:VAL:HG22	1.90	0.70
7:AG:20:ASP:HB3	7:AG:23:VAL:HG23	1.73	0.70
1:CA:155:C:H2'	1:CA:156:G:C8	2.26	0.70
34:DA:1358:G:O2'	34:DA:1359:A:H5''	1.91	0.70
27:B2:25:VAL:C	27:B2:27:GLU:H	1.91	0.70
55:DZ:79:ARG:H	55:DZ:79:ARG:HD2	1.56	0.70
34:DA:296:C:O2'	34:DA:297:C:H5'	1.90	0.70
48:BS:28:VAL:CG1	48:BS:29:PHE:H	1.95	0.70
54:BY:8:LYS:CE	54:BY:72:VAL:HG23	2.21	0.70
37:BD:35:LYS:CD	37:BD:63:ARG:HB3	2.12	0.70
50:DU:64:ARG:HA	50:DU:64:ARG:HE	1.55	0.70
34:DA:598:G:C5'	45:DP:15:ARG:HD2	2.19	0.70
10:AJ:96:ILE:HD13	10:AJ:96:ILE:H	1.56	0.70
34:DA:27:G:N2	34:DA:512:G:H2'	2.05	0.70
19:CS:16:LEU:O	19:CS:20:LEU:HG	1.91	0.70
34:DA:1903:G:OP2	37:DD:241:PRO:HB2	1.91	0.70
13:CM:23:TYR:CE1	13:CM:70:LEU:HD22	2.26	0.70
25:D0:36:ILE:HD11	34:DA:2355:C:C5'	2.20	0.70
41:BH:20:ALA:HB1	41:BH:21:PRO:HD2	1.73	0.70
31:D6:28:ARG:HG2	31:D6:28:ARG:HH11	1.56	0.70
19:CS:29:ARG:HD2	19:CS:30:LEU:H	1.56	0.70
9:AI:83:ARG:O	9:AI:86:VAL:HG12	1.91	0.70
8:CH:112:LEU:HD11	8:CH:114:THR:HG22	1.74	0.70
3:AC:127:ARG:HD2	3:AC:127:ARG:N	2.06	0.70
53:BX:60:ARG:HG3	53:BX:72:LYS:H	1.56	0.70
54:DY:27:VAL:HG12	54:DY:29:GLU:H	1.55	0.70
29:D4:1:MET:N	40:DG:67:LYS:NZ	2.38	0.70
45:DP:50:ARG:HH21	45:DP:50:ARG:HG2	1.56	0.70
41:DH:136:ILE:H	41:DH:136:ILE:HD12	1.56	0.70
54:DY:97:ARG:O	54:DY:97:ARG:HG3	1.91	0.70
14:AN:13:THR:N	14:AN:14:PRO:CD	2.54	0.70
44:BO:16:ALA:HA	44:BO:46:ALA:HA	1.72	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DR:62:ALA:O	47:DR:66:VAL:HG23	1.91	0.70
48:BS:37:ALA:HB2	48:BS:99:LYS:HZ1	1.52	0.70
34:BA:2591:C:H2'	34:BA:2592:G:C8	2.26	0.70
1:CA:1031:G:H2'	1:CA:1032:G:C8	2.26	0.70
8:CH:103:VAL:HG21	8:CH:109:ILE:O	1.90	0.70
34:DA:1188:U:O2'	34:DA:1189:A:H5'	1.91	0.70
42:DI:1:MET:HG3	42:DI:23:PRO:HA	1.72	0.70
35:DB:15:A:H3'	35:DB:16:G:H5'	1.71	0.70
23:AW:66:U:H2'	23:AW:67:C:C6	2.26	0.70
34:DA:2866:U:C6	34:DA:2868:A:H1'	2.26	0.70
45:BP:144:GLU:N	45:BP:145:PRO:HD3	2.05	0.70
2:AB:21:ARG:HB3	2:AB:39:ILE:HA	1.73	0.70
34:BA:146:G:H2'	34:BA:147:U:O4'	1.91	0.70
46:BQ:82:ARG:O	46:BQ:83:MET:HB2	1.91	0.70
13:AM:19:LEU:O	13:AM:22:ILE:HD12	1.90	0.70
34:BA:879:G:H1	34:BA:898:C:N4	1.90	0.70
45:BP:33:ARG:O	45:BP:34:GLY:C	2.29	0.70
45:DP:24:GLY:HA2	45:DP:33:ARG:HE	1.56	0.70
54:DY:81:LYS:CD	54:DY:96:ILE:HB	2.21	0.70
40:DG:139:LEU:HD23	40:DG:149:VAL:HG21	1.71	0.70
34:BA:27:G:N2	34:BA:512:G:H2'	2.05	0.70
34:BA:676:A:H8	34:BA:2069:G:N2	1.89	0.70
34:BA:1131:G:O2'	34:BA:1132:A:H8	1.68	0.70
34:DA:2180:U:H2'	34:DA:2181:G:H8	1.55	0.70
38:DE:38:THR:HG23	38:DE:39:PRO:HD2	1.71	0.70
1:AA:155:C:H2'	1:AA:156:G:H8	1.56	0.70
37:BD:131:LEU:HB2	37:BD:136:ILE:HD11	1.73	0.70
34:DA:603:A:H4'	34:DA:604:G:O5'	1.91	0.70
34:DA:2736:G:H5'	34:DA:2736:G:H8	1.55	0.70
1:CA:556:C:O2'	1:CA:557:G:H5'	1.90	0.70
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.73	0.70
1:CA:1388:C:H2'	1:CA:1389:C:H6	1.55	0.70
34:DA:1112:G:H1'	34:DA:1113:U:OP1	1.90	0.70
34:DA:1114:G:H2'	34:DA:1115:G:H5''	1.74	0.70
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.27	0.70
54:BY:43:ASN:ND2	54:BY:64:GLU:HG3	2.05	0.70
42:BI:78:THR:HA	42:BI:141:LYS:O	1.92	0.70
45:BP:17:LYS:O	45:BP:19:VAL:N	2.23	0.70
26:B1:78:LYS:NZ	26:B1:93:GLU:HB2	2.07	0.70
55:DZ:24:LEU:HD21	55:DZ:86:VAL:HG23	1.73	0.70
6:AF:89:MET:SD	18:AR:76:LEU:HD21	2.31	0.70
1:AA:1256:A:H61	1:AA:1278:U:C1'	2.04	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:16:LEU:O	19:AS:20:LEU:HG	1.92	0.70
19:AS:31:ILE:HG23	19:AS:49:ILE:HG23	1.73	0.70
27:D2:41:ILE:HG22	27:D2:42:GLY:N	2.06	0.70
1:CA:1352:C:H2'	1:CA:1353:G:H8	1.54	0.70
1:CA:939:G:H5''	7:CG:102:ARG:NH2	2.06	0.70
35:BB:15:A:H5'	35:BB:16:G:C8	2.26	0.70
54:DY:31:LEU:HB3	54:DY:32:PRO:HA	1.70	0.70
51:BV:80:GLN:O	51:BV:81:TYR:N	2.24	0.70
1:CA:72:C:H2'	1:CA:73:G:H8	1.56	0.70
6:CF:99:ALA:HB1	18:CR:23:LYS:HZ1	1.57	0.70
7:AG:132:GLY:H	7:AG:135:VAL:CG2	2.03	0.70
34:DA:1820:U:C2	37:DD:202:LYS:HB3	2.26	0.70
2:AB:121:LEU:O	2:AB:121:LEU:HD23	1.92	0.70
45:BP:124:LYS:HA	45:BP:143:GLY:HA3	1.73	0.70
26:B1:19:GLN:NE2	34:BA:379:G:H21	1.85	0.70
23:AW:17:C:H5	34:BA:2180:U:O3'	1.74	0.70
5:AE:71:LEU:HD11	5:AE:114:GLY:HA3	1.73	0.70
26:D1:19:GLN:NE2	34:DA:379:G:H21	1.88	0.70
11:AK:43:SER:HA	11:AK:47:VAL:HG21	1.74	0.70
19:CS:49:ILE:HD12	19:CS:49:ILE:H	1.56	0.70
35:DB:44:G:H1'	35:DB:47:C:N4	2.06	0.70
34:DA:1987:G:C8	34:DA:1987:G:H5'	2.27	0.70
1:CA:674:G:H2'	1:CA:675:A:H8	1.56	0.70
35:DB:20:C:H2'	35:DB:21:G:H5''	1.74	0.70
42:BI:1:MET:HG3	42:BI:23:PRO:HA	1.72	0.70
34:BA:1112:G:H1'	34:BA:1113:U:OP1	1.91	0.70
50:DU:91:ASP:O	50:DU:92:ARG:O	2.08	0.70
50:DU:92:ARG:HD2	51:DV:11:GLN:HG3	1.73	0.70
37:DD:25:THR:HG22	37:DD:82:ILE:O	1.92	0.70
37:DD:95:LEU:HD12	37:DD:95:LEU:O	1.91	0.70
49:BT:91:ARG:CB	49:BT:116:ALA:HA	2.19	0.70
45:BP:16:ARG:HH11	45:BP:16:ARG:HG3	1.56	0.70
45:DP:122:PRO:HB3	45:DP:141:ALA:HB1	1.73	0.70
45:BP:62:LEU:N	45:BP:62:LEU:HD13	2.05	0.70
53:BX:36:LYS:HD3	53:BX:38:GLU:HB2	1.72	0.70
44:BO:64:ARG:NH1	49:BT:70:VAL:HG21	2.06	0.70
47:BR:2:ARG:HD2	47:BR:2:ARG:O	1.92	0.70
26:D1:86:SER:N	26:D1:87:PRO:HD3	2.05	0.70
51:BV:35:LEU:HD22	51:BV:61:VAL:HA	1.73	0.70
39:DF:161:GLU:O	39:DF:165:ARG:HG2	1.92	0.70
46:BQ:43:THR:HG1	46:BQ:46:GLN:HG3	1.56	0.70
34:DA:2314:C:O2'	34:DA:2315:G:H5'	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:266:G:H5''	1:AA:268:C:H41	1.57	0.70
34:DA:2591:C:H2'	34:DA:2592:G:C8	2.27	0.70
1:CA:1435:G:H2'	1:CA:1436:U:H6	1.57	0.70
34:DA:1666:G:O3'	44:DO:6:THR:HG23	1.91	0.70
34:BA:1666:G:O3'	44:BO:6:THR:HG23	1.91	0.70
34:DA:2873:A:C2	47:DR:6:SER:HB2	2.27	0.70
1:AA:1244:C:H2'	1:AA:1245:A:C8	2.26	0.70
31:D6:45:LYS:NZ	34:DA:2370:G:H21	1.90	0.70
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	1.72	0.70
3:CC:130:VAL:O	3:CC:134:ILE:HG12	1.90	0.70
32:B7:7:PRO:HB2	34:BA:1309:G:H4'	1.73	0.70
42:BI:75:LEU:HD21	42:BI:105:HIS:ND1	2.06	0.70
11:CK:21:ILE:HB	11:CK:84:VAL:HG12	1.73	0.70
34:DA:1502:C:H2'	34:DA:1502:C:O2	1.91	0.70
50:BU:91:ASP:O	50:BU:92:ARG:O	2.08	0.70
53:DX:11:PRO:HB3	53:DX:26:TYR:HE2	1.57	0.70
34:DA:858:U:O2	34:DA:2268:A:H2'	1.92	0.70
36:DC:49:ILE:HG22	36:DC:50:ASP:N	2.06	0.70
38:BE:167:VAL:HG11	38:BE:187:ALA:O	1.91	0.70
46:BQ:132:VAL:HG11	55:BZ:81:ARG:CZ	2.22	0.70
40:BG:165:THR:HB	40:BG:167:GLU:OE1	1.91	0.70
55:BZ:141:VAL:HG23	55:BZ:144:LEU:HD23	1.73	0.70
35:BB:20:C:H2'	35:BB:21:G:H5''	1.74	0.70
2:CB:102:LEU:CD1	2:CB:102:LEU:H	2.04	0.70
1:AA:963:G:H1	1:AA:972:C:H42	1.37	0.70
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	1.73	0.70
47:BR:64:ARG:HA	47:BR:67:LEU:HD23	1.72	0.70
8:CH:122:ARG:HH11	8:CH:122:ARG:HB2	1.57	0.70
45:DP:13:ASN:HD22	45:DP:13:ASN:H	1.39	0.70
2:CB:121:LEU:O	2:CB:121:LEU:HD23	1.91	0.70
23:CW:20:U:H2'	23:CW:21:A:H4'	1.74	0.70
50:DU:83:LEU:HB3	50:DU:88:ILE:HD11	1.74	0.70
50:BU:83:LEU:HB3	50:BU:88:ILE:CG1	2.22	0.70
48:DS:90:GLY:O	48:DS:92:TYR:HD1	1.74	0.70
48:BS:90:GLY:O	48:BS:92:TYR:HD1	1.75	0.70
54:BY:8:LYS:H	54:BY:8:LYS:CD	1.98	0.70
26:B1:62:VAL:HG13	26:B1:64:ALA:H	1.56	0.70
42:DI:83:ALA:HA	42:DI:89:TYR:CD1	2.26	0.70
33:B8:30:ARG:NH2	45:BP:62:LEU:HB2	2.07	0.70
34:BA:911:A:H2'	46:BQ:9:TYR:OH	1.92	0.70
47:BR:62:ALA:O	47:BR:66:VAL:HG23	1.91	0.70
47:BR:38:VAL:HB	47:BR:39:PRO:CD	2.19	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:D2:32:LEU:CG	27:D2:33:MET:N	2.51	0.70
47:DR:38:VAL:HB	47:DR:39:PRO:CD	2.19	0.70
1:AA:194:C:H2'	1:AA:195:A:H5''	1.74	0.70
34:BA:598:G:C5'	45:BP:15:ARG:HD2	2.22	0.70
55:BZ:162:GLU:O	55:BZ:162:GLU:HG3	1.90	0.70
46:DQ:66:ILE:HG22	46:DQ:104:PHE:CD2	2.26	0.70
1:CA:1116:C:C3'	1:CA:1117:G:H5''	2.21	0.70
52:DW:84:ARG:HB2	52:DW:96:ILE:HG22	1.73	0.70
1:AA:1352:C:H2'	1:AA:1353:G:H8	1.54	0.70
4:AD:133:VAL:HG11	4:AD:138:TYR:HD1	1.57	0.70
4:AD:138:TYR:HD2	4:AD:139:ARG:N	1.90	0.70
6:CF:33:TYR:CE1	6:CF:75:LEU:HA	2.27	0.70
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.11	0.70
1:AA:625:G:H2'	1:AA:626:U:C6	2.26	0.70
2:AB:218:ALA:O	2:AB:222:ILE:HG13	1.92	0.70
1:CA:963:G:N3	10:CJ:55:LYS:NZ	2.39	0.70
45:BP:80:TYR:CZ	45:BP:111:ARG:HG2	2.27	0.70
1:AA:474:G:H2'	1:AA:475:G:H8	1.55	0.70
17:CQ:76:LEU:HG	17:CQ:77:VAL:N	2.05	0.70
34:BA:320:A:H2'	39:BF:136:THR:OG1	1.91	0.70
52:BW:34:ASN:O	52:BW:37:ARG:HB3	1.92	0.70
34:BA:2784:C:H2'	34:BA:2785:C:H6	1.56	0.70
12:CL:102:ARG:HG2	12:CL:102:ARG:HH11	1.56	0.70
50:BU:92:ARG:HD2	51:BV:11:GLN:HG3	1.73	0.70
34:DA:141:A:H8	34:DA:1408:C:O2'	1.73	0.70
49:BT:33:LYS:HZ2	49:BT:33:LYS:HA	1.57	0.70
34:BA:1240:U:O2'	34:BA:1241:A:H5'	1.92	0.70
34:DA:482:A:H4'	54:DY:47:LYS:HZ1	1.57	0.70
42:DI:109:ILE:HD12	42:DI:109:ILE:N	2.07	0.70
1:AA:975:A:H5'	1:AA:975:A:H8	1.56	0.70
2:CB:21:ARG:HB3	2:CB:39:ILE:HA	1.74	0.70
27:B2:46:GLN:NE2	27:B2:47:ASN:HA	2.06	0.70
1:CA:1256:A:N6	1:CA:1278:U:H1'	2.05	0.70
4:AD:11:LEU:O	4:AD:13:ARG:N	2.23	0.70
22:AV:73:A:H8	22:AV:73:A:H5'	1.56	0.70
34:BA:1722:A:C2	34:BA:1740:G:H2'	2.27	0.70
34:DA:2327:A:H2'	34:DA:2328:A:C8	2.27	0.70
1:CA:939:G:H5''	7:CG:102:ARG:NH1	2.07	0.70
2:CB:30:ARG:HH21	2:CB:194:PRO:CG	2.05	0.70
35:DB:15:A:H5'	35:DB:16:G:C8	2.26	0.70
34:BA:2866:U:C6	34:BA:2868:A:H1'	2.27	0.70
40:BG:96:ARG:O	40:BG:99:MET:HB3	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BH:12:PRO:O	41:BH:15:VAL:HG22	1.91	0.70
48:BS:87:PHE:O	48:BS:88:ASP:HB2	1.92	0.69
45:DP:146:VAL:HG13	45:DP:147:LEU:HG	1.72	0.69
45:DP:106:LEU:O	45:DP:107:LYS:HG2	1.92	0.69
55:DZ:98:MET:O	55:DZ:125:LEU:HA	1.91	0.69
45:DP:58:THR:O	45:DP:61:ARG:CZ	2.40	0.69
55:DZ:151:HIS:HD2	55:DZ:170:THR:HG22	1.56	0.69
41:BH:136:ILE:HD12	41:BH:136:ILE:H	1.57	0.69
45:BP:24:GLY:HA2	45:BP:33:ARG:HE	1.56	0.69
52:BW:75:TYR:N	52:BW:75:TYR:CD1	2.60	0.69
14:CN:7:ILE:HG13	14:CN:8:GLU:N	2.06	0.69
1:CA:818:G:C2'	1:CA:819:A:H5''	2.21	0.69
34:BA:1987:G:C8	34:BA:1987:G:H5'	2.25	0.69
13:AM:116:THR:HG22	13:AM:117:VAL:N	2.07	0.69
1:AA:1003:G:H2'	1:AA:1004:A:C4'	2.22	0.69
34:DA:2455:G:H2'	34:DA:2456:C:C6	2.27	0.69
5:CE:56:GLN:HE22	5:CE:60:TYR:HB2	1.56	0.69
41:DH:12:PRO:O	41:DH:15:VAL:HG22	1.91	0.69
34:DA:893:C:H2'	34:DA:894:C:H5'	1.72	0.69
5:AE:56:GLN:HE22	5:AE:60:TYR:HB2	1.56	0.69
11:CK:24:SER:HB3	11:CK:27:ASN:O	1.92	0.69
54:DY:43:ASN:ND2	54:DY:64:GLU:HG3	2.06	0.69
34:BA:1140:C:H1'	34:BA:1143:A:C2	2.27	0.69
34:DA:2771:C:O2	34:DA:2771:C:H2'	1.90	0.69
34:DA:1914:C:H2'	34:DA:1915:U:O4'	1.92	0.69
20:CT:71:THR:HG22	20:CT:72:LEU:N	2.06	0.69
19:AS:29:ARG:HD2	19:AS:30:LEU:H	1.56	0.69
34:BA:2197:U:O2'	34:BA:2198:A:H5''	1.91	0.69
45:DP:16:ARG:HG3	45:DP:16:ARG:HH11	1.57	0.69
48:BS:89:ARG:O	48:BS:92:TYR:HB3	1.91	0.69
23:AW:38:A:C3'	23:AW:39:U:H5''	2.22	0.69
10:AJ:75:ILE:HG13	10:AJ:76:ASN:H	1.56	0.69
39:BF:34:TRP:HB2	45:BP:10:PRO:O	1.92	0.69
26:B1:13:ILE:O	26:B1:14:VAL:HB	1.91	0.69
39:BF:23:ASP:O	39:BF:24:LEU:HD22	1.91	0.69
54:DY:14:LEU:HG	54:DY:15:VAL:O	1.91	0.69
33:B8:61:LEU:HB3	34:BA:593:G:H4'	1.74	0.69
1:CA:706:A:H1'	11:CK:29:ILE:HD11	1.74	0.69
40:DG:88:ILE:HG13	40:DG:89:GLY:N	2.05	0.69
34:BA:2317:C:H2'	34:BA:2318:G:H5'	1.74	0.69
34:BA:1803:A:H4'	37:BD:259:THR:CG2	2.22	0.69
1:CA:626:U:H2'	1:CA:627:G:C8	2.26	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BE:38:THR:HG23	38:BE:39:PRO:HD2	1.73	0.69
2:AB:30:ARG:HH21	2:AB:194:PRO:CG	2.05	0.69
42:DI:1:MET:O	42:DI:20:ASP:HA	1.92	0.69
34:BA:1547:C:O2'	34:BA:1548:C:H5'	1.92	0.69
3:AC:130:VAL:O	3:AC:134:ILE:HG12	1.92	0.69
1:AA:450:G:H4'	16:AP:41:PRO:O	1.91	0.69
49:DT:29:ARG:HH21	49:DT:84:GLN:NE2	1.90	0.69
45:BP:146:VAL:HG13	45:BP:147:LEU:HG	1.74	0.69
1:AA:1442(A):G:O6	34:BA:2863:C:H4'	1.91	0.69
54:BY:28:LYS:HD2	54:BY:37:VAL:HG12	1.72	0.69
26:B1:64:ALA:HA	26:B1:67:ILE:CG1	2.20	0.69
33:D8:29:LYS:O	33:D8:32:LEU:N	2.24	0.69
53:DX:57:LEU:HD13	53:DX:77:LYS:HG3	1.74	0.69
53:DX:77:LYS:CD	53:DX:78:LYS:HD2	2.22	0.69
53:BX:18:TYR:HA	53:BX:21:PHE:CE1	2.27	0.69
46:BQ:47:ILE:HD12	46:BQ:47:ILE:H	1.57	0.69
11:AK:44:SER:O	11:AK:47:VAL:HB	1.92	0.69
34:BA:27:G:H1'	34:BA:513:A:H62	1.57	0.69
36:BC:49:ILE:HG22	36:BC:50:ASP:N	2.06	0.69
37:DD:48:ARG:HG3	37:DD:48:ARG:HH11	1.56	0.69
27:D2:47:ASN:C	27:D2:49:LYS:N	2.45	0.69
1:CA:1293:G:O2'	1:CA:1294:G:H8	1.74	0.69
34:BA:2682:U:O4	34:BA:2728:U:H1'	1.92	0.69
38:DE:168:MET:O	38:DE:170:LEU:HD12	1.93	0.69
34:BA:203:C:H3'	34:BA:204:A:H5''	1.74	0.69
53:DX:14:SER:H	53:DX:17:ALA:HB3	1.57	0.69
23:CY:28:G:H2'	23:CY:29:G:H8	1.55	0.69
42:BI:83:ALA:HA	42:BI:89:TYR:CD1	2.26	0.69
1:AA:950:U:H4'	1:AA:971:G:N2	2.07	0.69
34:BA:1162:G:H1'	51:BV:91:TYR:OH	1.92	0.69
45:BP:96:THR:O	45:BP:99:LEU:HB3	1.92	0.69
34:DA:2178:C:H4'	36:DC:46:LYS:NZ	2.08	0.69
39:BF:123:LEU:HD12	39:BF:124:LEU:N	2.08	0.69
54:DY:60:PHE:C	54:DY:61:ILE:HD12	2.13	0.69
45:DP:96:THR:O	45:DP:99:LEU:HB3	1.93	0.69
45:DP:62:LEU:CD1	45:DP:62:LEU:H	1.99	0.69
1:AA:1116:C:C3'	1:AA:1117:G:H5''	2.21	0.69
1:AA:818:G:C2'	1:AA:819:A:H5''	2.22	0.69
34:DA:2444:G:OP2	39:DF:68:LYS:HE2	1.92	0.69
27:D2:52:ASP:OD1	34:DA:76:C:H4'	1.92	0.69
12:AL:41:ARG:CG	12:AL:42:THR:H	2.05	0.69
38:BE:11:MET:CB	38:BE:24:THR:HA	2.23	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:63:THR:HG22	19:CS:66:MET:HE2	1.74	0.69
12:AL:24:VAL:O	12:AL:24:VAL:HG12	1.92	0.69
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.11	0.69
1:CA:1503:A:O2'	1:CA:1504:G:O5'	2.09	0.69
34:BA:528:A:H5''	43:BN:114:ARG:NH1	2.06	0.69
54:BY:75:ILE:HD13	54:BY:76:CYS:H	1.57	0.69
1:CA:221:C:O2'	1:CA:222:U:H5'	1.92	0.69
34:DA:784:A:N7	37:DD:229:VAL:HG21	2.06	0.69
44:DO:76:ALA:HB3	49:DT:75:ILE:HB	1.74	0.69
34:DA:1262:A:P	52:DW:99:ARG:HH12	2.15	0.69
34:DA:2023:G:H5'	34:DA:2617:C:H4'	1.74	0.69
5:AE:135:THR:O	5:AE:138:ALA:HB3	1.93	0.69
39:BF:9:ILE:HG12	39:BF:14:PRO:C	2.12	0.69
54:BY:14:LEU:HG	54:BY:15:VAL:O	1.92	0.69
34:DA:1504:C:O2'	34:DA:1505:C:H5'	1.93	0.69
33:D8:30:ARG:NH2	45:DP:62:LEU:HB2	2.07	0.69
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.27	0.69
5:CE:71:LEU:HD11	5:CE:114:GLY:HA3	1.73	0.69
38:BE:111:ARG:HA	47:BR:2:ARG:HG3	1.75	0.69
47:BR:5:LYS:H	47:BR:5:LYS:HD2	1.57	0.69
53:BX:76:ARG:C	53:BX:76:ARG:HD3	2.13	0.69
26:D1:85:LEU:CB	26:D1:87:PRO:HD3	2.22	0.69
5:CE:135:THR:O	5:CE:138:ALA:HB3	1.93	0.69
25:B0:49:LYS:N	25:B0:80:HIS:HB3	2.07	0.69
34:BA:2836:U:H2'	34:BA:2837:G:C8	2.28	0.69
30:D5:2:ALA:HA	34:DA:2015:A:C1'	2.22	0.69
7:CG:116:ALA:O	7:CG:120:ILE:HG12	1.92	0.69
1:AA:556:C:O2'	1:AA:557:G:H5'	1.92	0.69
50:BU:17:ILE:HG23	50:BU:39:LEU:HD12	1.72	0.69
7:CG:132:GLY:H	7:CG:135:VAL:CG2	2.05	0.69
43:DN:78:TYR:HD1	43:DN:79:PRO:N	1.90	0.69
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.27	0.69
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.73	0.69
44:DO:13:ASN:ND2	44:DO:97:ARG:HB2	2.06	0.69
34:BA:1434:A:H61	34:BA:1558:A:H62	1.39	0.69
51:DV:19:LYS:CG	51:DV:20:LEU:N	2.56	0.69
37:BD:35:LYS:HE3	37:BD:64:ILE:C	2.12	0.69
34:BA:2178:C:H4'	36:BC:46:LYS:NZ	2.08	0.69
45:DP:47:ASP:HB3	45:DP:48:PRO:O	1.93	0.69
45:BP:47:ASP:HB3	45:BP:48:PRO:HA	1.74	0.69
33:B8:32:LEU:HD11	33:B8:41:ILE:HG22	1.74	0.69
40:BG:76:SER:CB	40:BG:84:LYS:H	2.04	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DN:41:ASP:N	50:DU:64:ARG:HH21	1.91	0.69
34:DA:2712:U:H1'	34:DA:2712(A):A:H8	1.56	0.69
12:CL:41:ARG:HH11	12:CL:41:ARG:CB	2.05	0.69
37:DD:176:ARG:NH1	37:DD:176:ARG:HG2	2.05	0.69
40:BG:6:ALA:HB3	40:BG:104:GLU:OE1	1.91	0.69
19:CS:6:LYS:HD2	19:CS:6:LYS:H	1.55	0.69
9:AI:3:GLN:C	9:AI:4:TYR:HD1	1.96	0.69
1:CA:939:G:H2'	1:CA:940:C:H6	1.57	0.69
39:DF:84:VAL:O	39:DF:86:GLY:N	2.25	0.69
44:DO:13:ASN:HD21	44:DO:97:ARG:H	1.40	0.69
7:AG:118:VAL:O	7:AG:121:ALA:HB3	1.91	0.69
34:BA:2672:G:H2'	34:BA:2673:G:H5''	1.73	0.69
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.27	0.69
23:AW:25:C:H2'	23:AW:26:A:H8	1.56	0.69
1:CA:32:A:H2'	1:CA:33:A:C8	2.27	0.69
50:DU:95:LEU:C	50:DU:97:ASP:H	1.96	0.69
45:BP:106:LEU:O	45:BP:107:LYS:HG2	1.93	0.69
49:BT:29:ARG:CB	49:BT:85:LYS:HA	2.23	0.69
37:BD:71:ASP:HB2	37:BD:103:ARG:HH22	1.58	0.69
45:DP:50:ARG:O	45:DP:57:THR:HG23	1.92	0.69
44:BO:47:ILE:CG1	44:BO:48:PRO:HD2	2.20	0.69
10:CJ:39:PRO:HA	10:CJ:70:ARG:NH1	2.08	0.69
53:BX:11:PRO:HB3	53:BX:26:TYR:HE2	1.57	0.69
29:B4:11:PRO:C	29:B4:13:ARG:H	1.96	0.69
2:CB:218:ALA:O	2:CB:222:ILE:HG13	1.92	0.69
42:DI:58:LEU:HA	42:DI:61:ARG:HH11	1.58	0.69
34:DA:784:A:C5	37:DD:229:VAL:HG21	2.28	0.69
18:CR:79:LEU:HD23	18:CR:80:PRO:HD2	1.75	0.69
37:DD:131:LEU:HB2	37:DD:136:ILE:HD11	1.75	0.69
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	2.28	0.69
34:BA:408:G:H2'	34:BA:409:C:H6	1.57	0.69
34:BA:1679:U:H2'	34:BA:1680:U:H5'	1.73	0.69
3:CC:127:ARG:HD2	3:CC:127:ARG:N	2.08	0.69
45:BP:13:ASN:HD22	45:BP:13:ASN:H	1.40	0.69
38:DE:5:LEU:HB2	38:DE:51:PHE:HD2	1.58	0.69
54:BY:60:PHE:C	54:BY:61:ILE:HD12	2.13	0.69
43:DN:66:LYS:HB3	43:DN:70:LYS:HB2	1.74	0.69
49:BT:91:ARG:HA	49:BT:117:ASP:H	1.56	0.69
26:B1:62:VAL:C	26:B1:64:ALA:H	1.96	0.69
38:DE:203:LYS:HD2	38:DE:203:LYS:O	1.93	0.69
12:AL:46:LYS:CG	12:AL:47:LYS:H	1.98	0.69
1:AA:375:U:H2'	1:AA:376:G:H8	1.57	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:376:G:OP2	16:AP:67:THR:HG21	1.93	0.69
34:DA:1784:A:H4'	34:DA:1785:A:O5'	1.93	0.69
12:CL:8:ASN:ND2	17:CQ:34:LYS:HE2	2.07	0.69
54:DY:95:LYS:HG2	54:DY:101:LYS:N	2.08	0.69
37:DD:147:LEU:HD13	37:DD:155:LEU:CD1	2.20	0.69
54:BY:97:ARG:O	54:BY:97:ARG:HG3	1.92	0.69
34:DA:92:A:H2'	34:DA:93:G:C8	2.19	0.69
53:BX:56:THR:O	53:BX:57:LEU:HD12	1.91	0.69
13:CM:19:LEU:HA	13:CM:22:ILE:HD12	1.74	0.69
26:D1:89:GLU:CD	26:D1:89:GLU:N	2.46	0.69
50:DU:31:SER:O	50:DU:33:ARG:N	2.26	0.69
43:DN:15:LEU:O	43:DN:136:GLU:HA	1.93	0.69
55:DZ:130:PRO:CA	55:DZ:133:ILE:HD11	2.22	0.69
3:AC:73:PRO:HA	3:AC:76:VAL:HG13	1.74	0.69
12:CL:41:ARG:CG	12:CL:42:THR:H	2.06	0.69
25:B0:20:ARG:HD3	25:B0:20:ARG:H	1.57	0.69
1:AA:1031:G:H2'	1:AA:1032:G:C8	2.25	0.69
1:AA:626:U:H2'	1:AA:627:G:C8	2.28	0.69
34:DA:2182:G:H2'	34:DA:2183:C:H6	1.58	0.69
28:D3:17:LYS:HG2	34:DA:969:U:OP1	1.93	0.69
1:CA:1015:A:H2'	1:CA:1016:A:H8	1.57	0.69
34:DA:1635:G:H5'	34:DA:1635:G:C8	2.27	0.69
9:AI:46:ALA:HB2	9:AI:74:ILE:HG23	1.74	0.69
8:CH:86:ILE:HG21	8:CH:133:LEU:HD22	1.74	0.69
34:BA:893:C:H2'	34:BA:894:C:H5'	1.73	0.69
41:DH:20:ALA:HB1	41:DH:21:PRO:HD2	1.73	0.69
17:AQ:56:VAL:O	17:AQ:77:VAL:HB	1.93	0.69
40:BG:131:TYR:HB3	40:BG:159:VAL:CG1	2.23	0.69
53:BX:14:SER:H	53:BX:17:ALA:HB3	1.57	0.69
29:D4:11:PRO:C	29:D4:13:ARG:H	1.96	0.69
39:DF:9:ILE:HG12	39:DF:14:PRO:C	2.12	0.69
47:BR:18:LEU:HD13	47:BR:18:LEU:C	2.13	0.69
1:AA:724:G:O2'	1:AA:725:G:H5'	1.93	0.69
17:AQ:76:LEU:HG	17:AQ:77:VAL:N	2.07	0.69
52:BW:27:LYS:O	52:BW:70:TYR:HB2	1.93	0.69
1:AA:1318:A:H1'	19:AS:37:ARG:NH2	2.08	0.69
2:CB:233:SER:HB2	2:CB:234:PRO:HD2	1.75	0.69
34:BA:1820:U:C2	37:BD:202:LYS:HB3	2.27	0.69
10:AJ:47:PHE:CE1	10:AJ:63:PHE:HB2	2.27	0.69
34:BA:1925:C:O2'	34:BA:1926:U:H5'	1.92	0.69
1:CA:295:C:H2'	1:CA:296:U:C6	2.28	0.69
6:CF:89:MET:SD	18:CR:76:LEU:HD21	2.32	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:BX:60:ARG:CG	53:BX:74:PRO:HD2	2.15	0.69
53:DX:60:ARG:HG3	53:DX:72:LYS:H	1.55	0.69
49:DT:81:PRO:C	49:DT:82:LEU:HD12	2.13	0.69
34:DA:142:A:C8	34:DA:1408:C:H1'	2.28	0.69
38:BE:203:LYS:O	38:BE:203:LYS:HD2	1.93	0.69
29:D4:6:HIS:N	40:DG:67:LYS:HE3	2.08	0.69
40:BG:134:GLY:HA2	40:BG:156:ASP:HA	1.74	0.69
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.28	0.69
1:CA:373:A:O2'	1:CA:374:A:H5'	1.93	0.69
1:CA:1255:G:H5'	1:CA:1256:A:OP1	1.93	0.69
38:BE:111:ARG:HA	47:BR:2:ARG:CB	2.23	0.69
37:BD:270:ILE:HD12	37:BD:270:ILE:O	1.92	0.69
43:BN:15:LEU:HB2	43:BN:134:ARG:HB2	1.75	0.69
34:DA:581:C:O2'	34:DA:582:G:H5'	1.91	0.69
43:DN:134:ARG:HG3	43:DN:134:ARG:O	1.92	0.69
3:CC:70:VAL:O	3:CC:106:VAL:HG23	1.93	0.69
25:D0:36:ILE:HD11	34:DA:2355:C:C4'	2.22	0.69
25:D0:49:LYS:N	25:D0:80:HIS:HB3	2.07	0.69
2:AB:36:ARG:H	2:AB:41:ILE:CD1	2.06	0.69
39:BF:57:VAL:CG1	39:BF:58:ALA:N	2.56	0.69
34:DA:1231:G:H2'	34:DA:1232:G:H8	1.57	0.69
1:AA:32:A:H2'	1:AA:33:A:C8	2.27	0.69
34:DA:2292:C:O2'	34:DA:2293:C:H5'	1.92	0.69
51:DV:25:LEU:H	51:DV:94:LEU:HD12	1.58	0.69
34:BA:1914:C:H2'	34:BA:1915:U:O4'	1.92	0.69
34:DA:2689:U:H4'	34:DA:2690:C:H6	1.58	0.69
1:AA:72:C:H2'	1:AA:73:G:H8	1.57	0.69
34:BA:2538:C:O2'	34:BA:2539:C:H5'	1.92	0.69
34:BA:1114:G:H2'	34:BA:1115:G:H5''	1.74	0.69
34:DA:1925:C:O2'	34:DA:1926:U:H5'	1.93	0.69
4:AD:127:THR:HA	4:AD:132:ARG:HA	1.75	0.69
9:AI:115:GLY:O	9:AI:116:LYS:HG2	1.93	0.69
34:DA:1773:A:C2'	34:DA:1774:C:H5'	2.23	0.69
50:DU:88:ILE:C	50:DU:90:VAL:N	2.46	0.69
50:BU:83:LEU:HB3	50:BU:88:ILE:HD11	1.75	0.69
26:B1:41:ARG:HH12	34:BA:189:G:P	2.16	0.69
26:B1:48:LYS:HG3	26:B1:49:VAL:H	1.57	0.69
26:B1:88:LYS:O	26:B1:92:LYS:N	2.26	0.69
55:DZ:39:VAL:HG21	55:DZ:44:PHE:CD2	2.27	0.69
18:CR:53:ARG:HA	18:CR:56:THR:OG1	1.93	0.69
43:BN:13:TRP:O	43:BN:14:VAL:HG23	1.93	0.69
27:B2:30:ARG:HA	27:B2:33:MET:SD	2.33	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BO:46:ALA:H	44:BO:54:GLU:HG2	1.55	0.69
47:DR:45:ARG:HG3	47:DR:46:GLY:N	2.08	0.69
3:AC:105:GLU:HG2	3:AC:106:VAL:N	2.06	0.69
43:DN:133:GLN:O	43:DN:135:PRO:HD3	1.92	0.69
13:AM:96:LEU:O	13:AM:98:VAL:HG22	1.93	0.69
53:BX:63:LYS:O	53:BX:68:ARG:HA	1.92	0.69
34:DA:2312:U:H2'	34:DA:2313:C:H5''	1.75	0.69
4:AD:33:MET:HE2	4:AD:37:PRO:HA	1.75	0.69
31:D6:20:ASN:ND2	31:D6:21:TYR:N	2.41	0.69
39:BF:8:GLN:CB	39:BF:126:VAL:HA	2.23	0.69
10:CJ:75:ILE:HG13	10:CJ:76:ASN:H	1.57	0.69
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.74	0.69
1:AA:939:G:H2'	1:AA:940:C:H6	1.58	0.69
1:AA:19:C:H5''	5:AE:86:ALA:CB	2.23	0.69
44:BO:2:ILE:HD11	44:BO:82:ASN:ND2	2.08	0.69
12:CL:115:LYS:O	12:CL:117:ARG:HG3	1.91	0.69
1:AA:1388:C:H2'	1:AA:1389:C:H6	1.57	0.69
34:BA:296:C:O2'	34:BA:297:C:H5'	1.93	0.69
1:CA:1249:C:H6	1:CA:1249:C:H5'	1.57	0.69
9:CI:46:ALA:HB2	9:CI:74:ILE:HG23	1.75	0.69
51:DV:35:LEU:CD2	51:DV:61:VAL:HA	2.23	0.68
37:DD:70:TRP:CH2	37:DD:150:LYS:HA	2.28	0.68
43:BN:65:LYS:HE2	43:BN:65:LYS:CA	2.16	0.68
54:BY:28:LYS:HD2	54:BY:37:VAL:CG1	2.23	0.68
41:DH:67:LEU:O	41:DH:71:LEU:HD13	1.93	0.68
34:BA:598:G:H5'	45:BP:15:ARG:CD	2.19	0.68
37:BD:155:LEU:HD23	37:BD:177:LEU:HD22	1.75	0.68
46:DQ:22:LYS:HZ3	46:DQ:22:LYS:HA	1.58	0.68
43:BN:134:ARG:O	43:BN:134:ARG:HG3	1.93	0.68
27:D2:14:ARG:NH2	27:D2:57:ILE:HG21	2.08	0.68
26:D1:37:ILE:HG21	34:DA:2080:G:P	2.32	0.68
5:AE:147:ASP:HA	5:AE:150:ARG:HB3	1.75	0.68
8:AH:122:ARG:HB2	8:AH:122:ARG:HH11	1.58	0.68
46:BQ:78:PRO:O	46:BQ:79:LEU:CB	2.41	0.68
1:CA:1423:G:O2'	1:CA:1424:C:H5'	1.93	0.68
1:CA:135:C:H2'	1:CA:136:C:H5'	1.74	0.68
34:BA:1345:C:O2'	34:BA:1346:G:H5'	1.93	0.68
34:DA:993:G:OP1	50:DU:50:ARG:NH2	2.27	0.68
34:BA:536:A:H2'	34:BA:537:C:H6	1.55	0.68
37:BD:27:THR:CG2	37:BD:28:GLU:N	2.52	0.68
2:CB:204:ASN:HD21	2:CB:207:ALA:H	1.38	0.68
33:D8:61:LEU:HB3	34:DA:593:G:H4'	1.74	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DO:47:ILE:CG1	44:DO:48:PRO:HD2	2.21	0.68
34:BA:2741:A:H2'	34:BA:2742:C:O4'	1.93	0.68
18:AR:53:ARG:HA	18:AR:56:THR:OG1	1.92	0.68
39:DF:78:ILE:CD1	39:DF:78:ILE:H	2.05	0.68
55:BZ:16:SER:HA	55:BZ:19:ARG:HD2	1.74	0.68
50:DU:29:SER:OG	50:DU:30:LYS:HE3	1.93	0.68
1:CA:735:C:H2'	1:CA:736:C:H6	1.56	0.68
6:CF:23:LYS:O	6:CF:27:GLN:HG2	1.93	0.68
31:B6:45:LYS:NZ	34:BA:2370:G:H21	1.90	0.68
43:BN:78:TYR:HD1	43:BN:79:PRO:N	1.90	0.68
7:CG:118:VAL:O	7:CG:121:ALA:HB3	1.92	0.68
34:BA:128:C:H2'	34:BA:129:C:H6	1.58	0.68
52:BW:82:LEU:HD12	52:BW:82:LEU:N	2.08	0.68
47:DR:78:LYS:O	47:DR:83:ILE:HG12	1.92	0.68
53:DX:36:LYS:HD3	53:DX:38:GLU:HB2	1.75	0.68
49:BT:29:ARG:HH21	49:BT:84:GLN:NE2	1.91	0.68
49:BT:80:SER:OG	49:BT:81:PRO:HD3	1.92	0.68
45:BP:50:ARG:O	45:BP:57:THR:HG23	1.92	0.68
33:B8:29:LYS:O	33:B8:32:LEU:N	2.25	0.68
34:BA:954:G:H4'	46:BQ:13:GLN:NE2	2.02	0.68
34:BA:2312:U:H2'	34:BA:2313:C:H5''	1.74	0.68
10:AJ:39:PRO:HA	10:AJ:70:ARG:NH1	2.07	0.68
12:AL:6:THR:OG1	12:AL:9:GLN:HG3	1.93	0.68
43:BN:15:LEU:O	43:BN:136:GLU:HA	1.93	0.68
41:BH:46:GLU:CG	41:BH:51:ARG:HB2	2.24	0.68
1:AA:954:G:H4'	13:AM:120:LYS:CG	2.24	0.68
1:CA:736:C:H2'	1:CA:737:A:C8	2.28	0.68
39:BF:157:VAL:HG12	39:BF:176:LEU:O	1.94	0.68
8:AH:109:ILE:HG12	8:AH:110:ALA:N	2.07	0.68
6:AF:99:ALA:HB1	18:AR:23:LYS:HZ2	1.59	0.68
18:AR:79:LEU:HD23	18:AR:80:PRO:HD2	1.76	0.68
4:AD:146:ILE:HD12	4:AD:146:ILE:N	2.09	0.68
7:AG:97:GLN:HG2	7:AG:101:LEU:HD11	1.75	0.68
42:BI:145:VAL:HG12	42:BI:146:ALA:N	2.08	0.68
42:BI:79:ILE:HB	42:BI:142:VAL:CG1	2.24	0.68
34:DA:2569:G:O2'	34:DA:2570:G:H5'	1.94	0.68
43:DN:70:LYS:HG3	43:DN:72:TYR:HE1	1.58	0.68
45:DP:124:LYS:HA	45:DP:143:GLY:HA3	1.74	0.68
1:CA:376:G:OP2	16:CP:67:THR:HG21	1.93	0.68
54:BY:86:ARG:HB3	54:BY:88:LYS:HZ2	1.58	0.68
1:AA:1256:A:N6	1:AA:1278:U:H1'	2.05	0.68
34:BA:2725:A:O2'	34:BA:2726:U:H2'	1.94	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DR:2:ARG:HD2	47:DR:2:ARG:O	1.93	0.68
1:AA:1054:C:H42	23:AY:34:G:C1'	2.06	0.68
5:CE:122:GLU:O	5:CE:123:LEU:HD23	1.94	0.68
34:DA:814:C:O2'	34:DA:815:C:H5'	1.93	0.68
3:CC:73:PRO:HA	3:CC:76:VAL:HG13	1.75	0.68
39:DF:63:LYS:CE	39:DF:67:GLN:HB2	2.22	0.68
34:BA:2689:U:H4'	34:BA:2690:C:H6	1.58	0.68
34:DA:2538:C:O2'	34:DA:2539:C:H5'	1.93	0.68
1:AA:295:C:H2'	1:AA:296:U:C6	2.28	0.68
1:CA:59:A:H1'	1:CA:354:G:N2	2.09	0.68
42:BI:52:ARG:HG3	42:BI:53:ALA:H	1.58	0.68
48:BS:90:GLY:O	48:BS:92:TYR:CD1	2.47	0.68
34:BA:1504:C:O2'	34:BA:1505:C:H5'	1.92	0.68
54:DY:28:LYS:CE	54:DY:30:VAL:HG22	2.23	0.68
53:BX:64:LYS:CG	53:BX:65:ARG:H	2.07	0.68
53:DX:65:ARG:NH2	53:DX:66:LEU:H	1.90	0.68
10:CJ:38:ILE:HG12	10:CJ:71:LEU:O	1.94	0.68
20:AT:13:LEU:HD12	20:AT:13:LEU:N	2.04	0.68
19:AS:5:LEU:HG	19:AS:10:PHE:CD1	2.27	0.68
43:BN:57:ALA:CB	43:BN:124:ALA:HA	2.23	0.68
43:BN:58:ASP:O	43:BN:60:ILE:HG13	1.94	0.68
34:DA:1899:G:O2'	34:DA:1900:A:H5''	1.93	0.68
46:DQ:134:ARG:HG2	46:DQ:135:ASP:H	1.59	0.68
46:BQ:134:ARG:HG2	46:BQ:135:ASP:H	1.58	0.68
37:BD:118:VAL:HG22	37:BD:119:ALA:N	2.07	0.68
9:AI:18:PHE:HB3	9:AI:20:ARG:HH11	1.58	0.68
1:CA:67:C:O2'	1:CA:171:A:H1'	1.94	0.68
3:CC:32:LEU:HD22	3:CC:59:ARG:NH1	2.08	0.68
40:BG:173:LEU:HB3	40:BG:178:PHE:CG	2.29	0.68
34:DA:270:A:O2'	34:DA:271:A:H5'	1.93	0.68
34:DA:1140:C:H1'	34:DA:1143:A:C2	2.29	0.68
34:BA:603:A:H4'	34:BA:604:G:O5'	1.93	0.68
37:DD:35:LYS:NZ	37:DD:64:ILE:O	2.24	0.68
34:BA:2701:C:C3'	34:BA:2702:U:H5''	2.15	0.68
34:DA:626:U:C2	45:DP:105:LEU:HG	2.28	0.68
27:B2:41:ILE:CG1	34:BA:94(A):G:N2	2.57	0.68
34:BA:2461:C:H2'	34:BA:2462:U:C6	2.27	0.68
26:D1:73:LEU:HD13	26:D1:90:ILE:HG22	1.76	0.68
39:DF:164:ARG:HD3	39:DF:175:THR:OG1	1.93	0.68
19:AS:63:THR:HG22	19:AS:66:MET:HE2	1.75	0.68
3:AC:70:VAL:O	3:AC:106:VAL:HG23	1.94	0.68
34:DA:2720:U:O2	34:DA:2720:U:H2'	1.93	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:13:ARG:O	4:CD:15:GLU:N	2.27	0.68
17:CQ:68:ARG:HH11	17:CQ:68:ARG:HG2	1.57	0.68
1:CA:1104:G:O2'	1:CA:1105:A:H5'	1.93	0.68
34:BA:784:A:N7	37:BD:229:VAL:HG21	2.08	0.68
7:AG:140:ASP:HA	7:AG:143:ARG:HH11	1.59	0.68
10:CJ:96:ILE:HD13	10:CJ:96:ILE:N	2.08	0.68
34:BA:78:A:H2'	34:BA:79:G:C8	2.29	0.68
47:DR:78:LYS:O	47:DR:82:GLU:HB3	1.94	0.68
39:BF:132:VAL:HG22	39:BF:133:ASN:H	1.59	0.68
1:CA:811:C:O2'	1:CA:901:A:N1	2.25	0.68
1:CA:724:G:O2'	1:CA:725:G:H5'	1.94	0.68
22:AV:40:C:H2'	22:AV:41:C:C6	2.29	0.68
22:AV:40:C:H2'	22:AV:41:C:H6	1.58	0.68
16:CP:75:ARG:O	16:CP:78:GLY:N	2.27	0.68
14:AN:36:PHE:O	14:AN:38:GLY:N	2.27	0.68
34:DA:271(E):U:H2'	34:DA:271(F):C:C6	2.29	0.68
35:BB:103:G:H1'	55:BZ:73:GLN:HE22	1.58	0.68
4:CD:32:ALA:O	4:CD:36:ARG:N	2.21	0.68
16:CP:27:LYS:H	16:CP:27:LYS:HD2	1.59	0.68
4:CD:4:TYR:O	4:CD:5:ILE:HB	1.92	0.68
40:DG:13:GLU:O	40:DG:14:GLU:HB2	1.94	0.68
50:DU:95:LEU:HD11	51:DV:11:GLN:O	1.94	0.68
37:DD:79:VAL:HG21	37:DD:111:LEU:CD1	2.15	0.68
27:B2:14:ARG:CD	27:B2:57:ILE:HB	2.23	0.68
33:D8:43:GLN:O	33:D8:44:LYS:HD2	1.94	0.68
34:BA:2314:C:O2'	34:BA:2315:G:H5'	1.94	0.68
1:AA:386:C:H2'	1:AA:387:U:H5'	1.75	0.68
1:CA:375:U:H2'	1:CA:376:G:H8	1.58	0.68
44:DO:63:VAL:HB	44:DO:102:VAL:HG12	1.76	0.68
43:BN:133:GLN:O	43:BN:135:PRO:HD3	1.94	0.68
34:DA:27:G:H1'	34:DA:513:A:H62	1.58	0.68
39:BF:164:ARG:HD3	39:BF:175:THR:OG1	1.93	0.68
6:CF:11:ASN:O	6:CF:14:LEU:HG	1.94	0.68
47:DR:10:LEU:HB3	47:DR:17:ARG:CD	2.23	0.68
34:DA:1722:A:C2	34:DA:1740:G:H2'	2.28	0.68
34:BA:271(D):G:H1	34:BA:271(T):C:N4	1.91	0.68
25:B0:38:VAL:HB	25:B0:59:LEU:HD12	1.76	0.68
1:AA:1015:A:H2'	1:AA:1016:A:H8	1.58	0.68
9:CI:18:PHE:HB3	9:CI:20:ARG:HH11	1.58	0.68
54:BY:75:ILE:HD11	54:BY:79:CYS:CA	2.24	0.68
14:CN:41:ARG:HG3	14:CN:42:ILE:N	2.07	0.68
14:AN:41:ARG:HG3	14:AN:42:ILE:N	2.09	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BI:1:MET:O	42:BI:20:ASP:HA	1.94	0.68
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.29	0.68
1:AA:389:A:H2'	1:AA:390:C:C5'	2.24	0.68
51:DV:12:TYR:N	51:DV:12:TYR:CD2	2.60	0.68
42:DI:127:VAL:HG13	42:DI:139:GLN:HB2	1.75	0.68
42:DI:83:ALA:HA	42:DI:89:TYR:CE1	2.29	0.68
53:BX:37:THR:HG23	53:BX:54:VAL:HB	1.74	0.68
46:BQ:75:THR:HG21	46:BQ:85:LYS:CE	2.23	0.68
55:BZ:145:GLU:HG3	55:BZ:146:ILE:N	2.01	0.68
20:AT:57:ARG:HH11	20:AT:57:ARG:CB	2.06	0.68
37:BD:17:THR:HG22	37:BD:205:VAL:HB	1.74	0.68
47:DR:5:LYS:HD2	47:DR:5:LYS:H	1.56	0.68
34:BA:1448:G:H5'	34:BA:1449:A:OP1	1.94	0.68
40:DG:170:ARG:O	40:DG:174:GLU:HG3	1.94	0.68
34:DA:1448:G:H5'	34:DA:1449:A:OP1	1.94	0.68
34:BA:925:C:C3'	34:BA:926:A:H5''	2.24	0.68
9:CI:48:GLU:N	9:CI:49:PRO:HD2	2.09	0.68
34:BA:1821:A:C2'	34:BA:1822:G:H5''	2.24	0.68
34:BA:2579:C:O3'	38:BE:131:ALA:HB2	1.93	0.68
45:BP:85:LEU:HB2	45:BP:120:ALA:HB2	1.75	0.68
34:BA:2873:A:C2	47:BR:6:SER:HB2	2.28	0.68
1:CA:1003:G:H2'	1:CA:1004:A:C4'	2.23	0.68
1:CA:539:A:H2'	1:CA:540:G:C8	2.28	0.68
34:DA:2689:U:H5''	34:DA:2690:C:H5'	1.75	0.68
46:BQ:78:PRO:O	46:BQ:79:LEU:HB2	1.94	0.68
1:AA:59:A:H1'	1:AA:354:G:N2	2.08	0.68
13:CM:76:ALA:HA	13:CM:79:LYS:HD2	1.75	0.68
34:BA:2121:G:H2'	34:BA:2122:U:C6	2.28	0.68
45:DP:80:TYR:CZ	45:DP:111:ARG:HG2	2.28	0.68
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.29	0.68
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.58	0.68
52:DW:82:LEU:N	52:DW:82:LEU:HD12	2.08	0.68
50:DU:95:LEU:HD12	51:DV:11:GLN:HE21	1.58	0.68
37:DD:71:ASP:HB2	37:DD:103:ARG:HH22	1.58	0.68
34:DA:1240:U:O2'	34:DA:1241:A:H5'	1.94	0.68
45:DP:16:ARG:HG2	45:DP:17:LYS:N	2.09	0.68
50:BU:95:LEU:C	50:BU:97:ASP:H	1.98	0.68
49:BT:88:ILE:HG22	49:BT:89:VAL:HG23	1.73	0.68
34:BA:195:A:H5''	34:BA:196:A:OP2	1.93	0.68
42:DI:145:VAL:HG12	42:DI:146:ALA:N	2.08	0.68
34:BA:141:A:H8	34:BA:1408:C:O2'	1.75	0.68
27:D2:26:ARG:HA	27:D2:29:LYS:HE2	1.76	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DN:30:ILE:HG23	43:DN:52:VAL:HG11	1.76	0.68
39:BF:63:LYS:CE	39:BF:67:GLN:HB2	2.24	0.68
12:CL:58:VAL:O	12:CL:65:GLU:HA	1.94	0.68
37:DD:158:ALA:HB3	37:DD:161:THR:HG21	1.76	0.68
1:CA:1152:A:H5''	10:CJ:13:HIS:CD2	2.29	0.68
34:BA:539:G:H2'	34:BA:540:C:C6	2.29	0.68
9:CI:3:GLN:C	9:CI:4:TYR:HD1	1.98	0.68
34:BA:1887:C:H3'	34:BA:1888:G:H5''	1.74	0.68
11:CK:21:ILE:HD12	11:CK:21:ILE:N	2.09	0.68
44:BO:113:LYS:O	44:BO:117:LEU:HG	1.94	0.68
17:CQ:58:GLU:O	17:CQ:59:ILE:HD13	1.94	0.68
13:AM:76:ALA:HA	13:AM:79:LYS:HD2	1.76	0.68
34:BA:2127:G:H2'	34:BA:2128:C:C6	2.29	0.68
50:BU:88:ILE:C	50:BU:90:VAL:N	2.47	0.68
48:DS:90:GLY:O	48:DS:92:TYR:CD1	2.47	0.68
2:AB:163:PHE:HA	2:AB:185:ILE:HG13	1.75	0.68
3:CC:7:PRO:O	3:CC:11:ARG:HG2	1.94	0.68
34:DA:483:A:O4'	54:DY:47:LYS:HD3	1.94	0.68
26:B1:49:VAL:HB	26:B1:64:ALA:HB2	1.76	0.68
34:BA:2312:U:H4'	40:BG:71:THR:CG2	2.24	0.68
34:BA:2312:U:C2'	34:BA:2313:C:H5''	2.24	0.68
39:BF:78:ILE:CD1	39:BF:78:ILE:H	2.03	0.68
53:BX:57:LEU:HD13	53:BX:77:LYS:HG3	1.75	0.68
51:BV:35:LEU:CD2	51:BV:61:VAL:HA	2.24	0.68
46:BQ:66:ILE:HG22	46:BQ:104:PHE:CD2	2.29	0.68
38:DE:111:ARG:HA	47:DR:2:ARG:HG3	1.75	0.68
34:BA:919:G:C5'	35:BB:81:G:H1'	2.24	0.68
11:CK:43:SER:HA	11:CK:47:VAL:HG21	1.75	0.68
41:BH:127:GLU:HB3	41:BH:128:PRO:CD	2.24	0.68
27:D2:15:LYS:HA	27:D2:18:PRO:HD2	1.76	0.68
34:DA:1748:G:H8	34:DA:1748:G:H5'	1.59	0.68
34:DA:541:C:H2'	34:DA:542:C:C5	2.28	0.68
34:DA:2286:A:H5''	34:DA:2287:A:O4'	1.94	0.68
1:CA:1442(A):G:H3'	1:CA:1442(B):A:H5''	1.76	0.68
36:DC:191:ALA:O	36:DC:195:ALA:HB3	1.94	0.68
2:AB:102:LEU:CD1	2:AB:102:LEU:H	2.06	0.68
6:CF:100:ASN:O	18:CR:28:GLU:HG2	1.94	0.68
37:BD:231:HIS:ND1	37:BD:232:PRO:HD2	2.08	0.68
32:D7:37:LYS:HE2	34:DA:469:G:O6	1.93	0.68
34:DA:1280:G:C3'	34:DA:1281:G:H5''	2.24	0.68
1:CA:1129:C:H4'	1:CA:1130:A:H5'	1.75	0.68
37:DD:27:THR:CG2	37:DD:28:GLU:N	2.55	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BF:3:GLU:CG	39:BF:19:GLU:HB2	2.19	0.67
45:DP:47:ASP:HB3	45:DP:48:PRO:HA	1.75	0.67
46:BQ:89:ASN:O	46:BQ:91:GLU:N	2.27	0.67
13:AM:19:LEU:HA	13:AM:22:ILE:HD12	1.75	0.67
46:DQ:75:THR:HG21	46:DQ:85:LYS:CE	2.24	0.67
34:DA:2029:G:H2'	34:DA:2031:A:OP2	1.94	0.67
41:BH:84:SER:O	41:BH:85:LYS:HB2	1.93	0.67
26:D1:87:PRO:CD	26:D1:88:LYS:H	2.07	0.67
34:DA:2461:C:H2'	34:DA:2462:U:C6	2.29	0.67
14:AN:7:ILE:HG13	14:AN:8:GLU:N	2.08	0.67
3:CC:77:ILE:HA	3:CC:84:ILE:HG22	1.77	0.67
4:AD:32:ALA:O	4:AD:36:ARG:N	2.22	0.67
12:CL:24:VAL:HG12	12:CL:24:VAL:O	1.94	0.67
26:B1:71:TYR:O	26:B1:74:VAL:N	2.27	0.67
52:BW:88:ARG:HB3	52:BW:92:ARG:HB3	1.76	0.67
10:CJ:47:PHE:CE1	10:CJ:63:PHE:HB2	2.29	0.67
34:DA:419:C:O2'	34:DA:420:C:H5'	1.94	0.67
2:AB:233:SER:HB2	2:AB:234:PRO:HD2	1.74	0.67
52:DW:79:GLY:HA3	52:DW:100:THR:HG23	1.76	0.67
1:CA:1318:A:H1'	19:CS:37:ARG:NH2	2.08	0.67
1:AA:1129:C:H4'	1:AA:1130:A:H5'	1.75	0.67
22:AV:50:U:H2'	22:AV:51:C:C6	2.29	0.67
34:BA:626:U:C2	45:BP:105:LEU:HG	2.30	0.67
41:DH:118:PRO:HB2	41:DH:121:ILE:HD12	1.76	0.67
41:DH:137:ASP:O	41:DH:138:LYS:HG3	1.94	0.67
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.22	0.67
27:D2:30:ARG:HH11	27:D2:30:ARG:HG3	1.59	0.67
34:BA:587:C:H5	45:BP:33:ARG:HH11	1.42	0.67
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.30	0.67
39:DF:78:ILE:N	39:DF:78:ILE:HD13	2.08	0.67
34:BA:2036:C:H5'	34:BA:2036:C:C6	2.22	0.67
34:BA:8:A:H2'	34:BA:9:U:C5	2.29	0.67
1:AA:1502:A:H5'	1:AA:1504:G:N7	2.09	0.67
1:CA:1305:G:H5'	21:CU:4:GLY:HA3	1.75	0.67
12:AL:58:VAL:O	12:AL:65:GLU:HA	1.93	0.67
33:D8:54:GLU:O	33:D8:58:ILE:HG12	1.94	0.67
1:AA:1152:A:H5''	10:AJ:13:HIS:CD2	2.28	0.67
6:AF:33:TYR:CE1	6:AF:75:LEU:HA	2.29	0.67
34:BA:1986:A:C2'	34:BA:1987:G:H5''	2.24	0.67
25:D0:80:HIS:N	25:D0:80:HIS:CD2	2.63	0.67
31:B6:20:ASN:ND2	31:B6:21:TYR:N	2.42	0.67
55:DZ:40:ASP:HB3	55:DZ:43:GLU:HB2	1.77	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1658:C:OP1	38:DE:132:HIS:CE1	2.48	0.67
8:AH:112:LEU:HD11	8:AH:114:THR:HG22	1.75	0.67
34:BA:2208:A:H1'	34:BA:2219:G:N3	2.09	0.67
37:BD:138:VAL:HA	37:BD:165:ILE:HG21	1.75	0.67
11:CK:22:HIS:O	11:CK:28:THR:HG23	1.93	0.67
35:BB:65:C:H41	35:BB:109:C:H2'	1.59	0.67
34:DA:2121:G:H2'	34:DA:2122:U:C6	2.29	0.67
1:CA:853:G:O2'	1:CA:854:G:H5'	1.94	0.67
22:CV:4:G:HO2'	22:CV:5:G:H8	1.40	0.67
34:DA:1679:U:H2'	34:DA:1680:U:H5'	1.76	0.67
44:DO:24:VAL:HG23	44:DO:33:ALA:HB2	1.75	0.67
39:DF:34:TRP:HB2	45:DP:10:PRO:O	1.94	0.67
45:BP:105:LEU:HD12	45:BP:105:LEU:N	2.09	0.67
23:AW:40:C:H5'	23:AW:40:C:H6	1.58	0.67
37:BD:245:PRO:O	37:BD:246:PRO:C	2.33	0.67
38:BE:75:VAL:O	38:BE:77:ILE:N	2.26	0.67
27:B2:14:ARG:O	27:B2:18:PRO:HD3	1.95	0.67
42:DI:78:THR:HA	42:DI:141:LYS:O	1.94	0.67
54:DY:71:LYS:HB2	54:DY:71:LYS:NZ	2.10	0.67
34:BA:1348:G:C2'	34:BA:1349:A:H5''	2.23	0.67
41:DH:84:SER:O	41:DH:85:LYS:HB2	1.93	0.67
38:BE:111:ARG:CG	47:BR:2:ARG:HG3	2.25	0.67
46:DQ:47:ILE:H	46:DQ:47:ILE:HD12	1.59	0.67
4:AD:43:HIS:O	4:AD:45:GLN:N	2.27	0.67
54:DY:75:ILE:CD1	54:DY:76:CYS:N	2.56	0.67
34:DA:2317:C:H2'	34:DA:2318:G:H5'	1.76	0.67
34:DA:1639:U:H2'	34:DA:1640:C:H5''	1.77	0.67
34:DA:1986:A:C2'	34:DA:1987:G:H5''	2.24	0.67
34:BA:2709:G:O2'	34:BA:2710:C:H5'	1.93	0.67
5:CE:147:ASP:HA	5:CE:150:ARG:HB3	1.75	0.67
3:AC:32:LEU:HD22	3:AC:59:ARG:NH1	2.10	0.67
52:BW:35:ILE:HG22	52:BW:36:LEU:N	2.09	0.67
7:AG:116:ALA:O	7:AG:120:ILE:HG12	1.94	0.67
32:B7:30:VAL:O	32:B7:31:LEU:C	2.33	0.67
1:AA:532:A:H2	1:AA:1206:G:H21	1.43	0.67
54:BY:20:TYR:CE1	54:BY:42:VAL:HG22	2.29	0.67
46:BQ:22:LYS:NZ	46:BQ:22:LYS:HA	2.09	0.67
14:CN:36:PHE:O	14:CN:38:GLY:N	2.27	0.67
34:BA:994:C:O2	51:BV:10:LYS:HE2	1.95	0.67
49:DT:31:SER:C	49:DT:32:TYR:HD2	1.98	0.67
34:BA:2491:U:H4'	34:BA:2570:G:OP1	1.95	0.67
34:BA:195:A:OP1	45:BP:46:LYS:HE2	1.95	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BD:70:TRP:CH2	37:BD:150:LYS:HA	2.28	0.67
39:DF:205:ARG:O	39:DF:206:ILE:HG23	1.94	0.67
1:CA:1277:C:H2'	1:CA:1278:U:H5'	1.76	0.67
26:D1:34:THR:HG21	34:DA:388:G:P	2.33	0.67
1:AA:1255:G:H5'	1:AA:1256:A:OP1	1.93	0.67
46:DQ:30:GLY:CA	46:DQ:107:ALA:HB2	2.25	0.67
38:DE:109:LYS:HB3	47:DR:2:ARG:NH1	2.08	0.67
1:CA:17:U:H2'	1:CA:18:C:H6	1.58	0.67
40:DG:88:ILE:CG1	40:DG:89:GLY:H	2.06	0.67
40:DG:107:LEU:HD11	40:DG:178:PHE:CE1	2.28	0.67
34:DA:154:G:H1	34:DA:172:C:H42	1.39	0.67
41:DH:89:ILE:HD11	41:DH:129:THR:HB	1.75	0.67
34:DA:621:A:H2'	34:DA:622:G:C5'	2.25	0.67
34:BA:814:C:O2'	34:BA:815:C:H5'	1.94	0.67
4:CD:33:MET:CE	4:CD:37:PRO:HA	2.25	0.67
1:AA:737:A:H2'	1:AA:738:C:H6	1.60	0.67
23:AW:27:G:H2'	23:AW:28:G:C8	2.29	0.67
8:CH:109:ILE:HG12	8:CH:110:ALA:N	2.09	0.67
44:DO:13:ASN:HD22	44:DO:97:ARG:HB2	1.59	0.67
48:DS:14:VAL:HG12	48:DS:15:ARG:N	2.08	0.67
38:DE:75:VAL:O	38:DE:77:ILE:N	2.28	0.67
49:DT:91:ARG:HA	49:DT:117:ASP:H	1.59	0.67
48:BS:14:VAL:HG12	48:BS:15:ARG:N	2.09	0.67
2:AB:18:GLY:N	2:AB:42:ILE:HG22	2.08	0.67
34:BA:2569:G:O2'	34:BA:2570:G:H5'	1.95	0.67
38:BE:5:LEU:HB2	38:BE:51:PHE:HD2	1.59	0.67
46:DQ:89:ASN:O	46:DQ:91:GLU:N	2.27	0.67
26:D1:94:LEU:CD2	26:D1:95:LEU:H	2.08	0.67
53:DX:57:LEU:HD22	53:DX:76:ARG:HD2	1.77	0.67
43:DN:131:GLN:NE2	43:DN:134:ARG:HA	2.10	0.67
38:DE:11:MET:CB	38:DE:24:THR:HA	2.24	0.67
6:AF:86:ARG:O	6:AF:87:ARG:HG2	1.94	0.67
4:CD:100:ARG:NH1	4:CD:137:SER:HA	2.10	0.67
27:D2:14:ARG:CZ	27:D2:57:ILE:HG21	2.24	0.67
4:CD:11:LEU:O	4:CD:13:ARG:N	2.28	0.67
4:CD:33:MET:HE2	4:CD:37:PRO:HA	1.75	0.67
34:DA:2362:G:O2'	34:DA:2363:C:H5'	1.93	0.67
39:BF:155:LEU:HD23	39:BF:186:ILE:HD13	1.76	0.67
34:DA:2836:U:H2'	34:DA:2837:G:C8	2.29	0.67
1:CA:155:C:H2'	1:CA:156:G:H8	1.57	0.67
40:DG:101:ILE:O	40:DG:101:ILE:HG13	1.94	0.67
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.58	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BO:13:ASN:ND2	44:BO:97:ARG:HB2	2.09	0.67
9:CI:21:PRO:HA	9:CI:58:ARG:O	1.95	0.67
12:CL:28:LYS:O	12:CL:29:GLY:C	2.33	0.67
1:CA:389:A:H2'	1:CA:390:C:C5'	2.24	0.67
37:BD:45:ASN:CG	37:BD:46:GLN:H	1.98	0.67
46:DQ:78:PRO:O	46:DQ:79:LEU:HB2	1.94	0.67
46:BQ:26:TYR:HD1	46:BQ:26:TYR:O	1.78	0.67
38:BE:108:SER:O	38:BE:162:ALA:HA	1.95	0.67
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.30	0.67
39:DF:117:ARG:NH2	39:DF:187:VAL:HA	2.09	0.67
39:DF:123:LEU:HD12	39:DF:124:LEU:N	2.09	0.67
49:BT:91:ARG:HB3	49:BT:116:ALA:CA	2.21	0.67
34:DA:2129:C:H2'	34:DA:2130:U:C4'	2.21	0.67
45:BP:50:ARG:HG2	45:BP:50:ARG:HH21	1.59	0.67
12:AL:92:ASP:O	12:AL:93:LEU:HD23	1.93	0.67
34:BA:587:C:H5	45:BP:33:ARG:NH1	1.91	0.67
54:DY:90:LEU:HG	54:DY:91:GLU:N	2.01	0.67
38:DE:111:ARG:HA	47:DR:2:ARG:CB	2.24	0.67
34:BA:581:C:O2'	34:BA:582:G:H5'	1.94	0.67
34:BA:1528(A):A:C3'	34:BA:1529:G:H5''	2.25	0.67
34:BA:2631:G:N2	38:BE:61:ARG:NH1	2.42	0.67
6:AF:23:LYS:O	6:AF:27:GLN:HG2	1.94	0.67
1:AA:1426:C:O2'	1:AA:1427:U:H5'	1.94	0.67
34:DA:2579:C:O3'	38:DE:131:ALA:HB2	1.95	0.67
34:BA:1231:G:H2'	34:BA:1232:G:H8	1.58	0.67
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.76	0.67
37:DD:58:HIS:CD2	37:DD:59:LYS:N	2.63	0.67
34:DA:1170:G:H1	34:DA:1179:C:H42	1.43	0.67
45:BP:92:GLU:HG3	45:BP:123:LEU:HD22	1.77	0.67
26:B1:92:LYS:C	26:B1:94:LEU:N	2.44	0.67
23:AW:18:G:H1	23:AW:55:U:H1'	1.59	0.67
34:BA:2029:G:H2'	34:BA:2031:A:OP2	1.94	0.67
1:CA:386:C:H2'	1:CA:387:U:H5'	1.76	0.67
54:BY:95:LYS:HG2	54:BY:101:LYS:N	2.08	0.67
43:DN:16:ILE:O	43:DN:54:VAL:HA	1.95	0.67
35:BB:78:A:O2'	46:BQ:21:THR:HG21	1.93	0.67
40:DG:134:GLY:C	40:DG:135:LEU:HD12	2.14	0.67
40:DG:86:MET:HB2	40:DG:87:PRO:CD	2.24	0.67
17:AQ:67:LYS:CA	17:AQ:70:ARG:HH12	2.07	0.67
15:CO:39:LEU:O	15:CO:42:HIS:HB3	1.95	0.67
34:BA:2286:A:H5''	34:BA:2287:A:O4'	1.94	0.67
44:BO:91:LEU:N	44:BO:91:LEU:HD22	2.09	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:B6:19:ARG:HE	31:B6:19:ARG:N	1.92	0.67
47:DR:4:LEU:O	47:DR:4:LEU:HD13	1.94	0.67
1:CA:627:G:H2'	1:CA:628:G:H8	1.59	0.67
34:DA:271(G):C:H2'	34:DA:271(H):G:C8	2.29	0.67
34:DA:1887:C:H3'	34:DA:1888:G:H5''	1.75	0.67
16:CP:50:LYS:C	16:CP:50:LYS:HD3	2.15	0.67
52:DW:88:ARG:HB3	52:DW:92:ARG:HB3	1.76	0.67
34:DA:78:A:H2'	34:DA:79:G:C8	2.29	0.67
35:DB:15:A:H3'	35:DB:16:G:C5'	2.24	0.67
41:BH:104:GLU:HA	41:BH:113:VAL:O	1.95	0.67
44:BO:24:VAL:HG23	44:BO:33:ALA:HB2	1.76	0.67
2:AB:135:GLN:O	2:AB:139:LYS:HB2	1.95	0.67
6:AF:46:ARG:HH12	18:AR:37:VAL:HG21	1.60	0.67
43:BN:95:PRO:O	43:BN:97:ARG:N	2.28	0.67
34:BA:1997:G:O2'	34:BA:1998:G:H5'	1.95	0.67
42:BI:127:VAL:HG13	42:BI:139:GLN:HB2	1.76	0.67
45:BP:89:ALA:HB1	45:BP:121:LYS:HZ1	1.59	0.67
54:DY:8:LYS:CD	54:DY:8:LYS:H	2.00	0.67
55:DZ:97:GLU:CB	55:DZ:125:LEU:HD21	2.19	0.67
2:CB:163:PHE:HA	2:CB:185:ILE:HG13	1.76	0.67
33:B8:32:LEU:HD23	33:B8:35:GLN:O	1.94	0.67
53:DX:18:TYR:HA	53:DX:21:PHE:CE1	2.30	0.67
1:CA:1250:A:H2	1:CA:1370:G:H1'	1.60	0.67
30:D5:55:ARG:CG	30:D5:56:LYS:H	2.08	0.67
51:BV:78:LYS:HD3	51:BV:78:LYS:C	2.16	0.67
4:CD:138:TYR:HD2	4:CD:139:ARG:N	1.92	0.67
34:BA:271(P):C:H2'	34:BA:271(Q):G:H8	1.59	0.67
4:AD:100:ARG:NH1	4:AD:137:SER:HA	2.10	0.67
25:D0:20:ARG:H	25:D0:20:ARG:HD3	1.58	0.67
38:DE:167:VAL:HG22	38:DE:170:LEU:HD11	1.77	0.67
1:CA:1437:C:O2'	1:CA:1438:G:H5'	1.94	0.67
6:AF:8:ILE:HD12	6:AF:26:ILE:HD13	1.77	0.67
37:DD:4:LYS:HZ1	37:DD:20:ASP:HA	1.57	0.67
34:BA:784:A:C5	37:BD:229:VAL:HG21	2.30	0.67
45:DP:85:LEU:HB2	45:DP:120:ALA:HB2	1.76	0.67
35:BB:15:A:H3'	35:BB:16:G:C5'	2.24	0.67
42:BI:48:GLU:O	42:BI:51:ILE:HB	1.95	0.67
34:BA:2653:U:C5'	34:BA:2654:A:H5''	2.25	0.67
3:AC:27:LYS:HA	3:AC:27:LYS:NZ	2.10	0.67
34:BA:2771:C:O2	34:BA:2771:C:H2'	1.94	0.67
34:BA:2455:G:H2'	34:BA:2456:C:C6	2.30	0.67
53:DX:40:LYS:O	53:DX:42:ALA:N	2.23	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:B1:11:ARG:HB3	26:B1:12:PRO:HD2	1.75	0.67
53:BX:40:LYS:HG3	53:BX:41:ASN:H	1.60	0.67
34:DA:911:A:H2'	46:DQ:9:TYR:OH	1.93	0.67
34:DA:2745:C:O2'	41:DH:142:GLY:HA3	1.95	0.67
18:AR:43:PHE:C	18:AR:44:LEU:HD12	2.15	0.67
1:CA:192:U:H2'	1:CA:193:C:H6	1.60	0.67
34:BA:2681:C:H5	34:BA:2725:A:N6	1.91	0.67
13:CM:19:LEU:O	13:CM:22:ILE:HD12	1.95	0.67
34:DA:2680:C:H2'	34:DA:2681:C:O2	1.94	0.67
26:B1:26:ARG:HG2	26:B1:34:THR:OG1	1.95	0.67
41:DH:46:GLU:HG2	41:DH:51:ARG:HB2	1.77	0.67
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.10	0.67
41:DH:88:LEU:O	41:DH:89:ILE:HG23	1.95	0.67
37:DD:106:ILE:C	37:DD:106:ILE:HD13	2.15	0.67
38:BE:134:ILE:H	38:BE:134:ILE:HD13	1.58	0.67
9:CI:63:ILE:HG22	9:CI:64:THR:N	2.10	0.67
7:CG:140:ASP:HA	7:CG:143:ARG:HH11	1.58	0.67
6:CF:82:ARG:HB3	6:CF:82:ARG:NH1	2.09	0.67
1:AA:67:C:O2'	1:AA:171:A:H1'	1.95	0.67
6:CF:99:ALA:HB1	18:CR:23:LYS:NZ	2.08	0.67
51:DV:25:LEU:N	51:DV:94:LEU:HD12	2.10	0.67
36:BC:82:LYS:NZ	36:BC:151:GLU:HA	2.10	0.67
11:CK:17:GLY:HA3	11:CK:77:MET:SD	2.35	0.67
34:DA:2693:A:H2'	34:DA:2694:G:H8	1.60	0.67
1:CA:867:G:O2'	1:CA:868:C:H5'	1.95	0.67
7:CG:76:ARG:HH11	7:CG:76:ARG:HG2	1.59	0.67
34:DA:203:C:H3'	34:DA:204:A:H5''	1.76	0.67
35:DB:65:C:H41	35:DB:109:C:H2'	1.58	0.67
34:DA:994:C:O2	51:DV:10:LYS:HE2	1.94	0.67
42:BI:83:ALA:HA	42:BI:89:TYR:CE1	2.30	0.67
50:BU:95:LEU:HD11	51:BV:11:GLN:O	1.95	0.67
1:AA:1442(A):G:C3'	1:AA:1442(B):A:H5''	2.25	0.67
34:DA:2127:G:H2'	34:DA:2128:C:C6	2.30	0.67
2:CB:165:VAL:HG23	2:CB:166:ASP:H	1.60	0.67
53:BX:40:LYS:C	53:BX:42:ALA:H	1.98	0.67
39:DF:23:ASP:O	39:DF:24:LEU:HD22	1.94	0.67
50:BU:56:ASP:O	50:BU:60:LEU:HG	1.95	0.67
46:DQ:52:VAL:CG1	46:DQ:53:ALA:H	2.08	0.67
29:B4:6:HIS:N	40:BG:67:LYS:HE2	2.09	0.67
4:AD:13:ARG:O	4:AD:15:GLU:N	2.28	0.67
8:CH:33:GLU:O	8:CH:36:LEU:HB2	1.95	0.67
37:BD:176:ARG:HG2	37:BD:176:ARG:NH1	2.08	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:11:VAL:HG21	15:AO:34:LEU:HD22	1.77	0.67
2:CB:36:ARG:H	2:CB:41:ILE:CD1	2.06	0.67
7:CG:20:ASP:HB3	7:CG:23:VAL:HG23	1.77	0.67
51:DV:79:VAL:O	51:DV:80:GLN:HB3	1.94	0.67
37:DD:58:HIS:HD2	37:DD:59:LYS:N	1.93	0.67
34:BA:2292:C:O2'	34:BA:2293:C:H5'	1.94	0.67
34:BA:2796:U:O2'	34:BA:2799:C:H5'	1.95	0.67
26:D1:61:ARG:HG2	26:D1:61:ARG:HH11	1.59	0.67
42:DI:52:ARG:HG3	42:DI:53:ALA:H	1.60	0.67
17:CQ:9:VAL:HG21	17:CQ:84:LEU:HD13	1.77	0.67
22:AV:66:C:H2'	22:AV:67:C:C6	2.30	0.67
34:BA:993:G:OP1	50:BU:50:ARG:NH2	2.28	0.66
34:DA:146:G:H2'	34:DA:147:U:O4'	1.95	0.66
33:B8:52:LYS:N	33:B8:53:PRO:HD2	2.10	0.66
33:B8:54:GLU:O	33:B8:58:ILE:HG12	1.95	0.66
35:DB:106:G:H5''	55:DZ:31:ARG:HB3	1.78	0.66
34:BA:2312:U:H2'	34:BA:2313:C:C5'	2.25	0.66
39:DF:24:LEU:HB3	39:DF:25:PRO:CD	2.22	0.66
44:BO:99:PHE:O	44:BO:100:GLY:O	2.13	0.66
1:AA:1277:C:H2'	1:AA:1278:U:H5'	1.76	0.66
39:DF:101:LEU:HD12	39:DF:102:PRO:CD	2.23	0.66
34:BA:271(G):C:H2'	34:BA:271(H):G:C8	2.29	0.66
19:CS:50:ALA:HA	19:CS:58:VAL:O	1.95	0.66
1:AA:1190:G:H3'	3:AC:3:ASN:HD22	1.60	0.66
31:D6:19:ARG:N	31:D6:19:ARG:HE	1.93	0.66
8:AH:35:ILE:O	8:AH:39:LEU:HB2	1.96	0.66
3:AC:64:VAL:CG2	3:AC:99:VAL:HG12	2.25	0.66
44:DO:24:VAL:CG2	44:DO:33:ALA:HB2	2.25	0.66
34:DA:1384:A:N3	34:DA:1405:U:H1'	2.09	0.66
34:BA:1658:C:OP1	38:BE:132:HIS:ND1	2.27	0.66
34:DA:2653:U:C5'	34:DA:2654:A:H5''	2.25	0.66
32:D7:8:ASN:C	32:D7:8:ASN:HD22	1.98	0.66
7:CG:97:GLN:HG2	7:CG:101:LEU:HD11	1.76	0.66
39:BF:178:PRO:HG2	39:BF:179:GLU:OE1	1.94	0.66
34:BA:298:G:H5'	34:BA:299:A:OP1	1.95	0.66
7:AG:76:ARG:HH11	7:AG:76:ARG:HG2	1.60	0.66
42:BI:88:ILE:CD1	42:BI:123:LEU:HG	2.24	0.66
34:DA:2784:C:H2'	34:DA:2785:C:C6	2.31	0.66
42:DI:113:ARG:NH1	42:DI:132:PRO:HG3	2.11	0.66
47:BR:60:LEU:HD23	47:BR:60:LEU:C	2.15	0.66
18:CR:53:ARG:HH21	18:CR:60:ALA:N	1.93	0.66
26:D1:46:LEU:O	26:D1:48:LYS:N	2.28	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:383:A:C2'	1:CA:384:G:H5'	2.25	0.66
34:BA:1190:G:H5'	45:BP:35:HIS:HB3	1.76	0.66
1:CA:1250:A:H4'	9:CI:68:GLY:H	1.60	0.66
47:DR:45:ARG:CG	47:DR:46:GLY:H	2.07	0.66
34:DA:580:C:O2'	34:DA:581:C:H5'	1.96	0.66
43:DN:58:ASP:C	43:DN:60:ILE:HG13	2.15	0.66
1:CA:957:U:H3	1:CA:960:U:H5''	1.60	0.66
13:AM:23:TYR:CE1	13:AM:70:LEU:HD22	2.29	0.66
1:CA:1106:G:H5''	3:CC:172:ARG:HG2	1.76	0.66
37:BD:158:ALA:HB3	37:BD:161:THR:HG21	1.77	0.66
10:CJ:30:SER:OG	10:CJ:81:THR:HG22	1.95	0.66
9:CI:116:LYS:O	9:CI:118:LYS:N	2.28	0.66
41:BH:153:LYS:HD3	41:BH:153:LYS:H	1.59	0.66
1:AA:963:G:N3	10:AJ:55:LYS:NZ	2.41	0.66
1:CA:1477:C:O2'	1:CA:1478:C:H5'	1.94	0.66
34:DA:2772:C:H2'	34:DA:2773:C:C6	2.31	0.66
34:BA:1170:G:H1	34:BA:1179:C:H42	1.43	0.66
6:CF:46:ARG:HH12	18:CR:37:VAL:HG21	1.60	0.66
11:AK:24:SER:HB3	11:AK:27:ASN:O	1.96	0.66
32:D7:30:VAL:O	32:D7:31:LEU:C	2.33	0.66
26:B1:37:ILE:HG21	34:BA:2080:G:O5'	1.95	0.66
41:DH:104:GLU:HA	41:DH:113:VAL:O	1.96	0.66
39:DF:132:VAL:HG22	39:DF:133:ASN:H	1.59	0.66
34:BA:1773:A:C2'	34:BA:1774:C:H5'	2.24	0.66
48:DS:89:ARG:O	48:DS:92:TYR:HB3	1.95	0.66
53:DX:40:LYS:HG3	53:DX:41:ASN:H	1.60	0.66
26:B1:19:GLN:HE21	34:BA:379:G:N2	1.88	0.66
43:BN:70:LYS:HG3	43:BN:72:TYR:HE1	1.60	0.66
37:BD:35:LYS:NZ	37:BD:64:ILE:O	2.27	0.66
55:DZ:19:ARG:HH11	55:DZ:19:ARG:HG2	1.58	0.66
55:DZ:28:MET:HA	55:DZ:88:PHE:O	1.96	0.66
55:DZ:74:VAL:HG22	55:DZ:86:VAL:HG13	1.76	0.66
48:BS:77:ALA:O	48:BS:80:LEU:HD12	1.95	0.66
46:DQ:75:THR:CB	46:DQ:88:GLY:HA2	2.26	0.66
18:CR:53:ARG:HH21	18:CR:60:ALA:H	1.43	0.66
5:AE:110:LEU:HD21	5:AE:139:LEU:HD21	1.78	0.66
54:DY:86:ARG:HB3	54:DY:88:LYS:HZ2	1.60	0.66
55:BZ:52:SER:OG	55:BZ:53:ILE:N	2.28	0.66
53:BX:57:LEU:CD1	53:BX:77:LYS:HD2	2.25	0.66
1:AA:1250:A:H4'	9:AI:68:GLY:H	1.59	0.66
43:BN:131:GLN:NE2	43:BN:134:ARG:HA	2.08	0.66
1:CA:706:A:N7	1:CA:707:C:H5	1.93	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BP:74:GLU:C	45:BP:75:ILE:HD13	2.14	0.66
40:DG:41:GLN:HA	40:DG:155:MET:HB3	1.77	0.66
34:DA:271(D):G:H1	34:DA:271(T):C:N4	1.92	0.66
38:BE:168:MET:O	38:BE:170:LEU:HD12	1.94	0.66
9:CI:18:PHE:HB2	9:CI:62:TYR:O	1.95	0.66
29:B4:29:PRO:C	29:B4:31:ILE:H	1.98	0.66
34:BA:271(E):U:H2'	34:BA:271(F):C:C6	2.31	0.66
1:CA:644:G:C2'	1:CA:645:C:H5'	2.26	0.66
44:DO:23:ARG:HH11	44:DO:23:ARG:HG2	1.61	0.66
26:B1:85:LEU:CB	26:B1:87:PRO:HD3	2.26	0.66
41:DH:85:LYS:O	41:DH:132:ARG:HA	1.96	0.66
10:CJ:6:ILE:O	10:CJ:71:LEU:HD12	1.95	0.66
1:CA:375:U:H4'	16:CP:17:TYR:CE2	2.29	0.66
13:CM:9:ILE:N	13:CM:9:ILE:HD12	2.10	0.66
53:BX:23:GLU:HG3	53:BX:24:GLY:N	2.11	0.66
13:CM:96:LEU:O	13:CM:98:VAL:HG22	1.94	0.66
47:DR:28:LEU:HD13	47:DR:28:LEU:O	1.96	0.66
36:BC:191:ALA:O	36:BC:195:ALA:HB3	1.95	0.66
40:BG:171:ALA:O	40:BG:175:LEU:HD12	1.95	0.66
6:AF:100:ASN:O	18:AR:28:GLU:HG2	1.95	0.66
27:B2:24:LEU:O	27:B2:27:GLU:HB3	1.95	0.66
36:DC:82:LYS:NZ	36:DC:151:GLU:HA	2.10	0.66
34:DA:2852:G:H2'	34:DA:2853:C:C6	2.30	0.66
34:BA:235:U:H2'	34:BA:236:C:H6	1.60	0.66
34:DA:128:C:H2'	34:DA:129:C:H6	1.59	0.66
34:DA:2491:U:H4'	34:DA:2570:G:OP1	1.95	0.66
34:DA:2636:U:C2'	34:DA:2637:U:H5''	2.26	0.66
53:DX:60:ARG:CG	53:DX:74:PRO:HD2	2.16	0.66
49:BT:81:PRO:C	49:BT:82:LEU:HD12	2.15	0.66
54:BY:71:LYS:NZ	54:BY:71:LYS:HB2	2.11	0.66
37:BD:63:ARG:NH1	37:BD:63:ARG:HG3	2.10	0.66
27:B2:14:ARG:NE	27:B2:57:ILE:HB	2.11	0.66
40:BG:45:GLU:HB2	40:BG:47:LYS:HG3	1.77	0.66
55:DZ:166:SER:HB2	55:DZ:168:GLU:N	2.11	0.66
34:BA:2182:G:H2'	34:BA:2183:C:H6	1.59	0.66
12:CL:47:LYS:CB	12:CL:48:PRO:HD3	2.24	0.66
41:BH:137:ASP:O	41:BH:138:LYS:HG3	1.96	0.66
1:AA:373:A:O2'	1:AA:374:A:H5'	1.95	0.66
34:DA:587:C:H5	45:DP:33:ARG:NH1	1.92	0.66
1:CA:1256:A:H61	1:CA:1278:U:C1'	2.05	0.66
1:CA:180:U:C2'	1:CA:181:G:H5''	2.24	0.66
23:CW:30:G:H2'	23:CW:31:A:H8	1.60	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:285:C:C3'	34:DA:286:C:H5''	2.26	0.66
46:DQ:34:LEU:C	46:DQ:34:LEU:HD12	2.16	0.66
34:DA:2513:G:H2'	34:DA:2514:U:C6	2.31	0.66
38:DE:173:VAL:HG12	38:DE:174:ASP:N	2.11	0.66
27:D2:52:ASP:OD1	27:D2:53:LEU:N	2.29	0.66
34:BA:2732:G:O2'	34:BA:2733:A:H5'	1.95	0.66
48:BS:54:LEU:C	48:BS:56:LEU:N	2.49	0.66
51:BV:79:VAL:O	51:BV:80:GLN:HB3	1.93	0.66
43:DN:78:TYR:CD1	43:DN:79:PRO:N	2.64	0.66
12:CL:27:LEU:O	12:CL:29:GLY:N	2.29	0.66
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.29	0.66
34:DA:2801(A):A:HO2'	34:DA:2803:C:H5	1.44	0.66
47:BR:8:ARG:NE	47:BR:8:ARG:HA	2.11	0.66
4:AD:110:PHE:H	4:AD:110:PHE:HD1	1.44	0.66
37:DD:25:THR:O	37:DD:25:THR:HG23	1.94	0.66
38:DE:91:VAL:HG13	38:DE:95:ILE:CD1	2.24	0.66
49:DT:91:ARG:CB	49:DT:116:ALA:HA	2.21	0.66
34:DA:1348:G:C2'	34:DA:1349:A:H5''	2.24	0.66
53:DX:37:THR:HG23	53:DX:54:VAL:HB	1.77	0.66
49:BT:65:LYS:HA	49:BT:65:LYS:HZ3	1.58	0.66
1:AA:1105:A:H2'	1:AA:1106:G:H8	1.61	0.66
26:B1:46:LEU:N	26:B1:46:LEU:HD12	2.05	0.66
54:DY:71:LYS:HB2	54:DY:71:LYS:HZ2	1.60	0.66
55:DZ:27:VAL:CG1	55:DZ:28:MET:H	2.07	0.66
45:BP:65:ARG:HB2	45:BP:65:ARG:HH11	1.59	0.66
34:BA:142:A:H8	34:BA:1408:C:H1'	1.60	0.66
13:AM:9:ILE:HD12	13:AM:9:ILE:N	2.11	0.66
48:DS:77:ALA:O	48:DS:80:LEU:HD12	1.95	0.66
26:D1:10:LYS:HG2	26:D1:15:ALA:H	1.57	0.66
34:BA:92:A:H2'	34:BA:93:G:C8	2.20	0.66
55:BZ:18:LEU:O	55:BZ:20:ARG:N	2.28	0.66
46:DQ:20:ALA:CB	46:DQ:99:PRO:HG2	2.25	0.66
46:DQ:22:LYS:HA	46:DQ:22:LYS:NZ	2.11	0.66
34:DA:2725:A:O2'	34:DA:2726:U:H2'	1.95	0.66
34:DA:510:C:H2'	34:DA:511:U:O4'	1.96	0.66
4:CD:133:VAL:HG12	4:CD:135:LEU:H	1.60	0.66
19:CS:36:ARG:HH12	19:CS:75:ALA:CB	2.07	0.66
34:BA:2444:G:OP2	39:BF:68:LYS:HE2	1.95	0.66
27:D2:44:LEU:C	27:D2:46:GLN:H	1.97	0.66
49:DT:58:ASN:C	49:DT:58:ASN:HD22	1.98	0.66
1:AA:337:C:H2'	1:AA:338:A:C8	2.31	0.66
34:DA:2197:U:O2'	34:DA:2198:A:H5''	1.95	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:DW:34:ASN:O	52:DW:37:ARG:HB3	1.94	0.66
1:CA:19:C:H5''	5:CE:86:ALA:CB	2.24	0.66
34:DA:539:G:H2'	34:DA:540:C:C6	2.30	0.66
1:CA:922:G:H2'	1:CA:923:A:C8	2.31	0.66
44:BO:24:VAL:CG2	44:BO:33:ALA:HB2	2.26	0.66
1:AA:659:U:O2'	1:AA:660:G:H5'	1.95	0.66
1:CA:1443:G:N2	1:CA:1460:A:H1'	2.11	0.66
6:CF:28:ARG:HG3	6:CF:28:ARG:HH11	1.61	0.66
34:BA:1493:C:H2'	34:BA:1493:C:O2	1.95	0.66
34:BA:2543:G:H2'	34:BA:2544:G:O4'	1.96	0.66
34:BA:1153:C:H2'	34:BA:1154:G:O4'	1.95	0.66
50:BU:69:CYS:SG	50:BU:79:PHE:HD1	2.18	0.66
38:DE:7:VAL:HA	38:DE:194:GLY:O	1.96	0.66
38:DE:52:LEU:H	38:DE:76:ARG:HB3	1.61	0.66
34:BA:482:A:H4'	54:BY:47:LYS:HZ2	1.58	0.66
38:BE:180:ASN:C	38:BE:181:LEU:HD22	2.16	0.66
34:BA:613:G:H5'	34:BA:613:G:H8	1.58	0.66
39:BF:123:LEU:HD12	39:BF:124:LEU:H	1.60	0.66
10:CJ:40:LEU:H	10:CJ:40:LEU:CD2	2.08	0.66
38:DE:117:MET:CA	38:DE:122:PHE:H	2.07	0.66
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.78	0.66
53:BX:55:ASN:ND2	53:BX:78:LYS:HE2	2.10	0.66
4:CD:43:HIS:O	4:CD:45:GLN:N	2.29	0.66
41:DH:19:VAL:CG2	41:DH:44:VAL:HG13	2.26	0.66
51:DV:78:LYS:C	51:DV:78:LYS:HD3	2.15	0.66
39:DF:155:LEU:HD23	39:DF:186:ILE:HD13	1.78	0.66
40:DG:124:SER:HB2	40:DG:131:TYR:CE1	2.30	0.66
34:DA:271(P):C:H2'	34:DA:271(Q):G:H8	1.59	0.66
9:AI:63:ILE:HG22	9:AI:64:THR:N	2.11	0.66
32:D7:12:ARG:HH11	32:D7:12:ARG:HG3	1.60	0.66
1:CA:939:G:H2'	1:CA:940:C:C6	2.30	0.66
34:BA:1635:G:C8	34:BA:1635:G:H5'	2.31	0.66
41:BH:153:LYS:HB2	41:BH:154:PRO:CD	2.26	0.66
44:DO:2:ILE:HD11	44:DO:82:ASN:ND2	2.11	0.66
34:BA:1786:A:H2	34:BA:2606:C:H1'	1.60	0.66
45:DP:16:ARG:CG	45:DP:18:ARG:H	2.07	0.66
50:BU:69:CYS:HG	50:BU:79:PHE:HD1	1.44	0.66
2:AB:21:ARG:CB	2:AB:39:ILE:HA	2.26	0.66
34:BA:2636:U:C2'	34:BA:2637:U:H5''	2.25	0.66
54:BY:28:LYS:CE	54:BY:30:VAL:HG22	2.25	0.66
37:BD:25:THR:HG22	37:BD:82:ILE:O	1.96	0.66
34:BA:2415:G:H2'	34:BA:2416:C:C6	2.31	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BP:62:LEU:H	45:BP:62:LEU:HD22	1.61	0.66
34:BA:143(A):C:H2'	34:BA:143(A):C:O2	1.94	0.66
50:DU:57:PHE:HA	50:DU:60:LEU:HB2	1.78	0.66
34:DA:2230:G:H2'	34:DA:2231:C:H6	1.60	0.66
10:AJ:39:PRO:HA	10:AJ:70:ARG:HH12	1.59	0.66
38:DE:120:TRP:CE3	38:DE:155:LYS:HD3	2.30	0.66
40:DG:111:LEU:HA	40:DG:114:ILE:HD13	1.78	0.66
19:AS:50:ALA:HA	19:AS:58:VAL:O	1.96	0.66
46:BQ:20:ALA:CB	46:BQ:99:PRO:HG2	2.25	0.66
5:CE:87:SER:HB3	5:CE:131:ILE:HD13	1.78	0.66
41:BH:90:LYS:HB2	41:BH:159:GLU:O	1.95	0.66
1:AA:736:C:H2'	1:AA:737:A:C8	2.31	0.66
28:B3:17:LYS:HG2	34:BA:969:U:OP1	1.96	0.66
1:CA:1054:C:O2'	1:CA:1055:A:H5''	1.96	0.66
34:BA:1639:U:H2'	34:BA:1640:C:H5''	1.77	0.66
39:DF:157:VAL:HG23	39:DF:194:MET:CB	2.25	0.66
5:CE:112:LEU:HD23	5:CE:112:LEU:N	2.11	0.66
20:CT:89:ARG:HB2	20:CT:104:LEU:HD11	1.77	0.66
34:DA:78:A:H2'	34:DA:79:G:H8	1.61	0.66
34:BA:945:A:H5''	34:BA:946:G:OP2	1.95	0.66
43:DN:89:LYS:O	43:DN:93:THR:HG22	1.96	0.66
42:DI:75:LEU:HD21	42:DI:105:HIS:ND1	2.10	0.66
15:CO:17:ARG:HG3	15:CO:17:ARG:HH11	1.59	0.66
50:DU:102:GLU:HB2	50:DU:105:VAL:HG23	1.77	0.66
34:DA:1162:G:N3	51:DV:91:TYR:HE1	1.94	0.66
34:BA:2703:C:H2'	34:BA:2704:C:H6	1.61	0.66
48:BS:89:ARG:CB	48:BS:97:ARG:HH12	2.09	0.66
1:AA:1104:G:O2'	1:AA:1105:A:H5'	1.95	0.66
55:DZ:58:VAL:HA	55:DZ:67:LEU:O	1.95	0.66
34:DA:2741:A:H2'	34:DA:2742:C:O4'	1.95	0.66
33:B8:32:LEU:O	33:B8:33:ASN:HB3	1.95	0.66
46:DQ:75:THR:CA	46:DQ:88:GLY:HA2	2.25	0.66
43:BN:42:TRP:HB2	50:BU:64:ARG:NE	2.10	0.66
34:DA:587:C:H5	45:DP:33:ARG:HH11	1.43	0.66
34:BA:285:C:C3'	34:BA:286:C:H5''	2.26	0.66
52:BW:75:TYR:CE1	52:BW:104:THR:HB	2.31	0.66
19:AS:36:ARG:HH12	19:AS:75:ALA:CB	2.09	0.66
43:DN:15:LEU:HG	43:DN:134:ARG:HD2	1.76	0.66
43:BN:58:ASP:C	43:BN:60:ILE:N	2.49	0.66
3:AC:54:ARG:NH1	3:AC:56:ASP:HB2	2.10	0.66
34:BA:1748:G:H8	34:BA:1748:G:H5'	1.59	0.66
1:CA:434:U:H2'	1:CA:435:C:H6	1.61	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:B7:12:ARG:HH11	32:B7:12:ARG:HG3	1.61	0.66
1:AA:1458:G:H2'	1:AA:1459:C:C6	2.31	0.66
49:BT:92:GLY:HA2	49:BT:114:LEU:CA	2.25	0.66
11:CK:57:THR:HG22	11:CK:59:TYR:H	1.61	0.66
49:BT:67:SER:O	49:BT:68:TYR:HB2	1.96	0.66
16:AP:82:GLN:HE21	16:AP:82:GLN:N	1.93	0.66
34:DA:576:U:O2'	34:DA:577:G:H5'	1.95	0.66
51:DV:71:LEU:O	51:DV:90:PRO:HA	1.96	0.66
38:BE:35:GLN:NE2	38:BE:37:ARG:HE	1.93	0.66
3:AC:7:PRO:O	3:AC:11:ARG:HG2	1.96	0.66
46:DQ:82:ARG:O	46:DQ:83:MET:HB2	1.94	0.66
34:DA:195:A:H5''	34:DA:196:A:OP2	1.96	0.66
42:DI:79:ILE:HB	42:DI:142:VAL:CG1	2.25	0.66
46:BQ:75:THR:CA	46:BQ:88:GLY:HA2	2.26	0.66
46:BQ:75:THR:CB	46:BQ:88:GLY:HA2	2.26	0.66
34:DA:528:A:N1	34:DA:2042:A:H2'	2.11	0.66
49:BT:53:ARG:HG2	49:BT:53:ARG:HH11	1.61	0.66
26:D1:75:GLU:O	26:D1:76:ARG:HD3	1.96	0.66
53:DX:57:LEU:CD1	53:DX:77:LYS:HD2	2.25	0.66
41:DH:152:ARG:CB	41:DH:161:GLY:HA2	2.25	0.66
41:BH:19:VAL:CG2	41:BH:44:VAL:HG13	2.26	0.66
6:CF:52:ILE:HG22	6:CF:52:ILE:O	1.96	0.66
37:DD:48:ARG:NH1	37:DD:48:ARG:HG3	2.11	0.66
41:DH:46:GLU:CG	41:DH:51:ARG:HB2	2.26	0.66
40:DG:41:GLN:HE21	40:DG:155:MET:CG	2.09	0.66
40:DG:70:VAL:CA	40:DG:88:ILE:HD11	2.25	0.66
34:BA:1131:G:OP1	43:BN:80:GLY:HA2	1.96	0.66
30:B5:40:LYS:HD3	30:B5:46:CYS:HB3	1.78	0.66
34:DA:1986:A:H2'	34:DA:1987:G:H5''	1.78	0.66
2:CB:75:LYS:HG2	2:CB:78:GLN:NE2	2.11	0.66
38:BE:7:VAL:HA	38:BE:194:GLY:O	1.96	0.66
39:DF:8:GLN:CB	39:DF:126:VAL:HA	2.25	0.66
41:DH:153:LYS:HB2	41:DH:154:PRO:CD	2.26	0.66
34:BA:78:A:H2'	34:BA:79:G:H8	1.60	0.66
13:AM:81:LEU:HB3	13:AM:89:GLY:HA2	1.77	0.66
52:BW:79:GLY:HA3	52:BW:100:THR:HG23	1.78	0.66
37:BD:58:HIS:CD2	37:BD:59:LYS:N	2.64	0.66
34:BA:1384:A:N3	34:BA:1405:U:H1'	2.11	0.66
7:CG:62:PHE:HA	7:CG:124:LEU:HD22	1.78	0.66
34:DA:1547:C:O2'	34:DA:1548:C:H5'	1.95	0.66
1:AA:319:G:O2'	1:AA:320:C:H5'	1.95	0.66
34:DA:64:A:O2'	34:DA:65:C:H5'	1.96	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DD:83:GLU:HB2	37:DD:92:ILE:HD11	1.79	0.65
34:DA:2562:U:C1'	44:DO:23:ARG:HH12	2.01	0.65
26:B1:13:ILE:HG12	26:B1:14:VAL:N	2.10	0.65
45:BP:47:ASP:HB3	45:BP:48:PRO:C	2.16	0.65
46:BQ:85:LYS:HG3	46:BQ:86:GLY:H	1.61	0.65
48:BS:74:ALA:HB1	48:BS:103:GLU:CG	2.21	0.65
1:AA:192:U:H2'	1:AA:193:C:H6	1.60	0.65
34:BA:2745:C:O2'	41:BH:142:GLY:HA3	1.97	0.65
55:BZ:28:MET:SD	55:BZ:33:LEU:HD21	2.36	0.65
43:DN:58:ASP:C	43:DN:60:ILE:N	2.50	0.65
34:BA:271(P):C:H5''	42:BI:45:LYS:HE3	1.79	0.65
6:CF:86:ARG:O	6:CF:87:ARG:HG2	1.96	0.65
7:CG:47:CYS:HA	7:CG:50:ILE:CG1	2.25	0.65
37:BD:48:ARG:HH11	37:BD:48:ARG:HG3	1.61	0.65
51:DV:43:GLU:N	51:DV:48:GLY:HA2	2.11	0.65
37:BD:106:ILE:HD11	37:BD:196:VAL:CG1	2.26	0.65
34:BA:1665:A:H2'	34:BA:1666:G:H5'	1.77	0.65
1:CA:628:G:O2'	1:CA:629:G:H5'	1.96	0.65
1:AA:939:G:H5''	7:AG:102:ARG:NH2	2.10	0.65
1:CA:1348:U:H2'	1:CA:1349:A:H8	1.61	0.65
11:AK:21:ILE:N	11:AK:21:ILE:HD12	2.10	0.65
8:CH:85:ARG:NE	8:CH:87:SER:O	2.30	0.65
8:CH:119:LEU:HD12	8:CH:124:ALA:HA	1.79	0.65
17:CQ:56:VAL:O	17:CQ:77:VAL:HB	1.96	0.65
34:BA:1925:C:C2'	34:BA:1926:U:H5'	2.26	0.65
1:CA:1473:A:O2'	1:CA:1474:G:H5'	1.97	0.65
1:AA:340:U:O2'	1:AA:341:C:H5'	1.96	0.65
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.61	0.65
1:CA:430:A:C2'	1:CA:431:A:H5'	2.26	0.65
36:BC:56:GLN:O	36:BC:57:ASN:HB2	1.97	0.65
34:BA:774:A:O2'	34:BA:775:G:OP2	2.12	0.65
46:BQ:10:ARG:NH1	46:BQ:10:ARG:HB2	2.11	0.65
38:BE:182:LEU:C	38:BE:183:LEU:HD12	2.17	0.65
50:DU:69:CYS:HG	50:DU:79:PHE:HD1	1.41	0.65
51:DV:69:LYS:HB3	51:DV:93:GLU:HB3	1.79	0.65
42:BI:131:LYS:CG	42:BI:132:PRO:HA	2.26	0.65
51:BV:69:LYS:HB3	51:BV:93:GLU:HB3	1.76	0.65
45:BP:16:ARG:HG2	45:BP:17:LYS:N	2.10	0.65
37:BD:25:THR:HG23	37:BD:25:THR:O	1.95	0.65
42:DI:131:LYS:CG	42:DI:132:PRO:HA	2.25	0.65
45:DP:47:ASP:HB3	45:DP:48:PRO:C	2.16	0.65
43:BN:41:ASP:N	50:BU:64:ARG:NH2	2.43	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:DX:23:GLU:HG3	53:DX:24:GLY:N	2.11	0.65
41:BH:85:LYS:O	41:BH:132:ARG:HA	1.96	0.65
38:BE:111:ARG:HG2	47:BR:2:ARG:HG3	1.77	0.65
27:B2:33:MET:HG3	53:BX:10:ALA:HB1	1.76	0.65
53:BX:26:TYR:OH	53:BX:89:ILE:HG21	1.96	0.65
1:CA:954:G:H4'	13:CM:120:LYS:CG	2.24	0.65
43:BN:30:ILE:HG23	43:BN:52:VAL:HG11	1.77	0.65
27:D2:49:LYS:O	27:D2:53:LEU:N	2.29	0.65
41:DH:90:LYS:HB2	41:DH:159:GLU:O	1.95	0.65
34:DA:2555:U:C2'	34:DA:2556:C:H5'	2.26	0.65
39:BF:157:VAL:HG23	39:BF:194:MET:CB	2.26	0.65
1:AA:627:G:H2'	1:AA:628:G:H8	1.61	0.65
1:CA:1151:A:HO2'	1:CA:1152:A:H8	1.44	0.65
34:BA:1678:G:N2	34:BA:1989:G:H22	1.93	0.65
34:BA:2580:U:H5'	38:BE:131:ALA:H	1.60	0.65
10:CJ:80:LYS:HB2	10:CJ:80:LYS:HZ3	1.61	0.65
40:BG:20:ILE:O	40:BG:24:GLY:HA2	1.96	0.65
1:CA:625:G:H2'	1:CA:626:U:C6	2.31	0.65
7:AG:26:PHE:O	7:AG:30:ILE:HG12	1.97	0.65
1:CA:782:A:C2'	1:CA:783:C:H5'	2.27	0.65
34:BA:743:G:O2'	34:BA:744:G:H5'	1.95	0.65
17:AQ:81:ARG:NH1	17:AQ:84:LEU:HD11	2.11	0.65
36:BC:47:LEU:HD21	36:BC:172:HIS:CB	2.27	0.65
4:CD:146:ILE:HD12	4:CD:146:ILE:N	2.11	0.65
51:BV:24:LYS:HA	51:BV:94:LEU:HD12	1.77	0.65
34:DA:2796:U:O2'	34:DA:2799:C:H5'	1.95	0.65
34:BA:2334:G:H21	48:BS:18:ILE:HD11	1.60	0.65
45:BP:16:ARG:CG	45:BP:18:ARG:H	2.08	0.65
26:B1:87:PRO:O	26:B1:91:LYS:N	2.28	0.65
12:AL:47:LYS:HB3	12:AL:48:PRO:CD	2.25	0.65
23:AW:16:U:C4	23:AW:18:G:H3'	2.32	0.65
55:BZ:6:LYS:H	55:BZ:6:LYS:CD	2.06	0.65
1:AA:442:C:N4	1:AA:492:G:H1	1.91	0.65
43:DN:13:TRP:O	43:DN:14:VAL:HG23	1.96	0.65
49:DT:53:ARG:HG2	49:DT:53:ARG:HH11	1.61	0.65
34:BA:15:G:O2'	34:BA:16:G:H5'	1.96	0.65
1:CA:1321:C:H5''	1:CA:1322:C:H5''	1.78	0.65
36:BC:51:PRO:HG3	36:BC:204:ALA:HB3	1.78	0.65
34:DA:2426:A:H3'	34:DA:2427:C:C5'	2.25	0.65
1:CA:1105:A:H2'	1:CA:1106:G:H8	1.62	0.65
34:BA:2343:C:H2'	34:BA:2344:U:C6	2.32	0.65
34:DA:549:G:H3'	34:DA:551:G:H5''	1.77	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:551:U:H2'	1:CA:552:U:C6	2.30	0.65
33:B8:43:GLN:O	33:B8:44:LYS:HD2	1.95	0.65
34:BA:686:G:N2	34:BA:788:A:H61	1.94	0.65
1:CA:1423:G:H5'	44:DO:49:ARG:NH2	2.12	0.65
16:AP:75:ARG:O	16:AP:78:GLY:N	2.27	0.65
34:DA:792:G:H5''	34:DA:793:A:H5'	1.78	0.65
1:CA:341:C:O2'	1:CA:342:C:H5'	1.96	0.65
34:BA:633:A:H2'	34:BA:634:C:H5'	1.77	0.65
12:AL:27:LEU:O	12:AL:29:GLY:N	2.29	0.65
34:BA:270:A:O2'	34:BA:271:A:H5'	1.95	0.65
1:AA:15:G:H4'	5:AE:24:ARG:NH2	2.11	0.65
1:CA:659:U:O2'	1:CA:660:G:H5'	1.97	0.65
34:DA:322:A:H3'	39:DF:169:ASN:HD21	1.61	0.65
34:DA:774:A:O2'	34:DA:775:G:OP2	2.12	0.65
49:DT:65:LYS:HZ3	49:DT:65:LYS:HA	1.61	0.65
49:DT:88:ILE:HG22	49:DT:89:VAL:HG23	1.79	0.65
53:DX:64:LYS:CG	53:DX:65:ARG:H	2.10	0.65
55:BZ:69:THR:HG22	55:BZ:90:VAL:CA	2.24	0.65
19:AS:63:THR:HG22	19:AS:66:MET:CE	2.27	0.65
44:DO:91:LEU:N	44:DO:91:LEU:HD22	2.12	0.65
48:DS:54:LEU:C	48:DS:56:LEU:N	2.50	0.65
40:BG:7:LEU:HB2	40:BG:104:GLU:OE2	1.97	0.65
1:AA:1460:A:H2'	1:AA:1461:G:O4'	1.95	0.65
1:AA:501:C:H2'	1:AA:502:G:H8	1.62	0.65
34:BA:2840:C:H4'	47:BR:53:HIS:CD2	2.31	0.65
12:AL:28:LYS:O	12:AL:29:GLY:C	2.34	0.65
34:DA:298:G:H5'	34:DA:299:A:OP1	1.95	0.65
17:AQ:58:GLU:O	17:AQ:59:ILE:HD13	1.97	0.65
1:AA:430:A:C2'	1:AA:431:A:H5'	2.26	0.65
50:BU:102:GLU:HB2	50:BU:105:VAL:HG23	1.77	0.65
34:DA:1493:C:O2	34:DA:1493:C:H2'	1.96	0.65
23:AW:38:A:C2'	23:AW:39:U:H5''	2.26	0.65
45:DP:143:GLY:C	45:DP:145:PRO:HD3	2.16	0.65
45:DP:65:ARG:HH11	45:DP:65:ARG:HB2	1.60	0.65
27:B2:50:ILE:O	27:B2:51:ARG:HB3	1.96	0.65
27:B2:52:ASP:OD1	27:B2:53:LEU:N	2.29	0.65
34:BA:2712:U:H1'	34:BA:2712(A):A:H8	1.60	0.65
10:CJ:8:LEU:HD22	10:CJ:20:ALA:HB2	1.79	0.65
34:BA:1784:A:H4'	34:BA:1785:A:O5'	1.96	0.65
1:AA:1250:A:H2	1:AA:1370:G:H1'	1.61	0.65
52:DW:75:TYR:CE1	52:DW:104:THR:HB	2.31	0.65
39:BF:161:GLU:O	39:BF:165:ARG:HG2	1.95	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:131:ILE:O	5:AE:134:ALA:HB3	1.95	0.65
49:BT:57:PHE:C	49:BT:59:THR:H	2.00	0.65
34:DA:860:U:C5	34:DA:917:A:N7	2.61	0.65
1:CA:1064:G:N2	1:CA:1190:G:H2'	2.11	0.65
41:DH:89:ILE:N	41:DH:89:ILE:HD13	2.10	0.65
34:BA:2425:A:H5''	34:BA:2427:C:O4'	1.96	0.65
34:BA:1986:A:H2'	34:BA:1987:G:H5''	1.78	0.65
1:CA:337:C:H2'	1:CA:338:A:C8	2.32	0.65
1:AA:939:G:H5''	7:AG:102:ARG:NH1	2.12	0.65
34:DA:2735:G:C2'	34:DA:2736:G:H5''	2.27	0.65
41:BH:14:GLY:O	41:BH:29:PRO:HD3	1.97	0.65
34:BA:2454:G:O2'	34:BA:2455:G:H5'	1.97	0.65
11:AK:22:HIS:O	11:AK:28:THR:HG23	1.96	0.65
4:CD:127:THR:HA	4:CD:132:ARG:HA	1.77	0.65
36:DC:77:ILE:O	36:DC:77:ILE:HD13	1.96	0.65
34:DA:1654:A:C2	38:DE:113:PHE:CD1	2.84	0.65
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.32	0.65
34:DA:1314:C:H6	34:DA:1314:C:H5'	1.61	0.65
2:AB:23:ARG:HG3	2:AB:23:ARG:HH11	1.61	0.65
37:DD:34:VAL:O	37:DD:34:VAL:HG13	1.96	0.65
50:BU:74:LEU:HD21	50:BU:110:VAL:HG13	1.78	0.65
34:BA:483:A:O4'	54:BY:47:LYS:HD3	1.95	0.65
34:BA:2864:G:H5'	34:BA:2864:G:C8	2.28	0.65
45:DP:105:LEU:HD12	45:DP:105:LEU:N	2.11	0.65
33:B8:6:THR:HG22	33:B8:63:PRO:HD3	1.78	0.65
30:D5:4:HIS:CB	30:D5:5:PRO:HD3	2.24	0.65
18:AR:53:ARG:HH21	18:AR:60:ALA:H	1.44	0.65
18:AR:74:ARG:HG2	18:AR:81:PHE:CD1	2.32	0.65
47:BR:41:ALA:C	47:BR:43:GLU:H	2.00	0.65
51:BV:63:GLY:O	51:BV:64:HIS:HB3	1.97	0.65
53:DX:12:VAL:CG1	53:DX:27:THR:HG23	2.24	0.65
34:BA:2640:G:C8	34:BA:2640:G:H5'	2.27	0.65
27:B2:26:ARG:HA	27:B2:29:LYS:HE2	1.77	0.65
34:DA:8:A:H2'	34:DA:9:U:C5	2.29	0.65
12:CL:6:THR:OG1	12:CL:9:GLN:HG3	1.96	0.65
54:DY:75:ILE:HD13	54:DY:76:CYS:N	2.09	0.65
34:DA:74:A:H4'	34:DA:75:G:O5'	1.96	0.65
30:B5:20:ARG:HB3	30:B5:23:HIS:HD2	1.60	0.65
51:BV:83:ARG:HG2	51:BV:83:ARG:NH1	2.09	0.65
51:BV:47:VAL:HG13	51:BV:48:GLY:N	2.12	0.65
34:BA:549:G:H3'	34:BA:551:G:H5''	1.77	0.65
41:DH:98:LEU:HB2	41:DH:125:VAL:CG2	2.26	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BV:80:GLN:C	51:BV:80:GLN:OE1	2.34	0.65
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.32	0.65
1:AA:341:C:O2'	1:AA:342:C:H5'	1.97	0.65
38:DE:108:SER:O	38:DE:162:ALA:HA	1.96	0.65
34:BA:1280:G:C3'	34:BA:1281:G:H5''	2.26	0.65
1:CA:26:A:N6	1:CA:558:G:H1'	2.12	0.65
34:DA:2208:A:H1'	34:DA:2219:G:N3	2.12	0.65
39:BF:10:PRO:HG2	39:BF:11:VAL:H	1.61	0.65
51:BV:12:TYR:N	51:BV:12:TYR:CD2	2.64	0.65
13:AM:90:LEU:O	13:AM:92:HIS:N	2.28	0.65
26:B1:73:LEU:HD22	26:B1:90:ILE:HG23	1.78	0.65
45:DP:46:LYS:HG2	45:DP:52:GLU:HG2	1.79	0.65
33:D8:32:LEU:O	33:D8:33:ASN:HB3	1.96	0.65
34:BA:74:A:H4'	34:BA:75:G:O5'	1.97	0.65
34:DA:2757:A:N1	41:DH:67:LEU:HD22	2.12	0.65
1:CA:1278:U:H5''	1:CA:1279:A:O4'	1.97	0.65
1:AA:957:U:H3	1:AA:960:U:H5''	1.61	0.65
38:DE:111:ARG:HG2	47:DR:2:ARG:HG3	1.78	0.65
38:DE:111:ARG:CG	47:DR:2:ARG:HG3	2.26	0.65
41:BH:46:GLU:HG2	41:BH:51:ARG:HB2	1.77	0.65
4:AD:96:LEU:HD12	4:AD:139:ARG:NH1	2.11	0.65
34:DA:2312:U:C2'	34:DA:2313:C:H5''	2.26	0.65
34:DA:1528(A):A:C3'	34:DA:1529:G:H5''	2.27	0.65
12:AL:41:ARG:HH11	12:AL:41:ARG:CB	2.07	0.65
34:DA:833:U:H2'	34:DA:834:C:C6	2.31	0.65
31:D6:15:GLU:CD	31:D6:18:ARG:HG3	2.17	0.65
23:AW:27:G:H1	23:AW:43:C:N4	1.93	0.65
34:DA:2672:G:C2'	34:DA:2673:G:H5''	2.27	0.65
16:AP:50:LYS:HD3	16:AP:50:LYS:C	2.17	0.65
34:BA:2735:G:C2'	34:BA:2736:G:H5''	2.27	0.65
9:AI:116:LYS:O	9:AI:118:LYS:N	2.29	0.65
34:DA:408:G:H2'	34:DA:409:C:H6	1.61	0.65
37:BD:223:GLY:O	37:BD:226:MET:HG3	1.96	0.65
36:BC:85:GLU:HB3	36:BC:153:ILE:CB	2.27	0.65
49:DT:67:SER:O	49:DT:68:TYR:HB2	1.97	0.65
42:DI:48:GLU:O	42:DI:51:ILE:HB	1.94	0.65
49:DT:108:ARG:HH11	49:DT:108:ARG:CB	2.10	0.65
3:CC:27:LYS:NZ	3:CC:27:LYS:HA	2.11	0.65
39:BF:192:LEU:HD23	39:BF:193:VAL:N	2.11	0.65
1:CA:1406:U:O2'	1:CA:1407:C:H5'	1.96	0.65
50:DU:88:ILE:O	50:DU:90:VAL:N	2.29	0.65
42:BI:114:LEU:HD23	42:BI:130:TYR:CE1	2.32	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1106:G:H5''	3:AC:172:ARG:HG2	1.78	0.65
33:B8:32:LEU:HG	33:B8:34:TRP:CE3	2.32	0.65
34:BA:1349:A:N6	34:BA:1598:C:N4	2.44	0.65
22:CV:71:C:H6	22:CV:71:C:C5'	2.02	0.65
18:AR:64:ARG:O	18:AR:66:LEU:N	2.30	0.65
34:DA:2030:A:H5''	34:DA:2031:A:OP1	1.97	0.65
41:BH:41:MET:SD	41:BH:54:ARG:HA	2.37	0.65
44:DO:99:PHE:O	44:DO:100:GLY:O	2.14	0.65
53:BX:57:LEU:HD11	53:BX:77:LYS:HD2	1.78	0.65
34:BA:860:U:C5	34:BA:917:A:N7	2.60	0.65
27:D2:49:LYS:O	27:D2:50:ILE:C	2.35	0.65
1:AA:551:U:H2'	1:AA:552:U:C6	2.32	0.65
34:DA:2312:U:H2'	34:DA:2313:C:C5'	2.27	0.65
22:AV:72:A:C3'	22:AV:73:A:H5''	2.27	0.65
34:DA:2317:C:O2'	34:DA:2318:G:H5'	1.97	0.65
15:CO:11:VAL:HG21	15:CO:34:LEU:HD22	1.77	0.65
34:DA:2181:G:H2'	34:DA:2182:G:H8	1.61	0.65
34:BA:1821:A:H2'	34:BA:1822:G:H5''	1.77	0.65
8:AH:11:THR:HA	8:AH:14:ARG:HH12	1.59	0.65
12:CL:102:ARG:CG	12:CL:102:ARG:HH11	2.10	0.65
46:DQ:78:PRO:O	46:DQ:79:LEU:CB	2.42	0.65
17:AQ:10:VAL:HG23	17:AQ:55:ASP:O	1.96	0.65
36:DC:74:VAL:HA	36:DC:119:VAL:CB	2.26	0.65
32:B7:37:LYS:HE2	34:BA:469:G:O6	1.96	0.65
1:AA:644:G:C2'	1:AA:645:C:H5'	2.27	0.65
9:AI:21:PRO:HA	9:AI:58:ARG:O	1.96	0.65
17:CQ:27:PHE:CZ	17:CQ:36:ILE:HD11	2.32	0.65
34:BA:2511:U:O3'	38:BE:123:ALA:HB3	1.97	0.65
12:AL:102:ARG:HH11	12:AL:102:ARG:HG2	1.60	0.65
34:BA:2863:C:C2'	34:BA:2864:G:H5''	2.27	0.65
45:BP:101:VAL:C	45:BP:103:ALA:H	1.99	0.65
54:DY:47:LYS:O	54:DY:49:VAL:HG23	1.97	0.65
34:DA:252:G:OP2	45:DP:50:ARG:NH1	2.29	0.65
48:DS:61:ASN:C	48:DS:61:ASN:ND2	2.51	0.65
43:DN:42:TRP:HB2	50:DU:64:ARG:NE	2.10	0.65
27:D2:33:MET:CG	53:DX:11:PRO:HD2	2.22	0.65
12:AL:8:ASN:ND2	17:AQ:34:LYS:HE2	2.12	0.65
10:CJ:7:LYS:C	10:CJ:8:LEU:HD12	2.17	0.65
10:AJ:96:ILE:HD13	10:AJ:96:ILE:N	2.11	0.65
53:BX:12:VAL:CG1	53:BX:27:THR:HG23	2.24	0.65
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.32	0.65
1:AA:579:G:H2'	1:AA:580:U:C6	2.32	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:63:THR:HG22	19:CS:66:MET:CE	2.27	0.65
31:B6:15:GLU:CD	31:B6:18:ARG:HG3	2.17	0.65
38:DE:134:ILE:H	38:DE:134:ILE:HD13	1.62	0.65
7:CG:27:ILE:HD12	7:CG:27:ILE:H	1.62	0.65
17:AQ:9:VAL:HG21	17:AQ:84:LEU:HD13	1.79	0.65
11:AK:17:GLY:HA3	11:AK:77:MET:SD	2.37	0.65
10:AJ:92:THR:HG23	10:AJ:93:GLY:H	1.62	0.65
47:DR:8:ARG:HA	47:DR:8:ARG:NE	2.11	0.65
17:AQ:27:PHE:CZ	17:AQ:36:ILE:HD11	2.32	0.65
2:CB:135:GLN:O	2:CB:139:LYS:HB2	1.95	0.65
50:BU:95:LEU:HD12	51:BV:11:GLN:HE21	1.60	0.65
54:BY:37:VAL:CG2	54:BY:38:ILE:H	2.05	0.65
34:BA:2177:C:O2'	36:BC:46:LYS:HE3	1.97	0.65
45:BP:47:ASP:HB3	45:BP:48:PRO:O	1.97	0.65
43:DN:41:ASP:N	50:DU:64:ARG:NH2	2.45	0.65
50:DU:62:ILE:HA	50:DU:65:ILE:HD12	1.79	0.65
34:BA:2712:U:HO2'	34:BA:2712(A):A:H5''	1.60	0.65
10:CJ:40:LEU:HD23	10:CJ:40:LEU:N	2.12	0.65
34:DA:2639:A:H2'	34:DA:2640:G:C5'	2.26	0.65
38:BE:109:LYS:HB3	47:BR:2:ARG:NH1	2.11	0.65
51:BV:22:VAL:O	51:BV:23:GLU:CB	2.45	0.65
52:DW:75:TYR:N	52:DW:75:TYR:CD1	2.60	0.65
1:AA:1054:C:O2'	1:AA:1055:A:H5''	1.97	0.65
34:BA:621:A:H2'	34:BA:622:G:C5'	2.26	0.65
37:DD:246:PRO:HB2	37:DD:255:LYS:CG	2.26	0.65
4:AD:33:MET:CE	4:AD:37:PRO:HA	2.27	0.65
41:DH:87:LEU:N	41:DH:131:VAL:O	2.30	0.65
34:BA:2202:C:H1'	37:BD:151:LYS:HZ1	1.62	0.65
25:B0:41:ARG:H	25:B0:41:ARG:CD	2.10	0.65
39:DF:57:VAL:CG1	39:DF:58:ALA:H	2.10	0.65
25:B0:80:HIS:N	25:B0:80:HIS:CD2	2.63	0.65
13:CM:11:ARG:O	13:CM:13:LYS:N	2.30	0.65
1:AA:936:C:H2'	1:AA:937:A:O4'	1.97	0.65
1:AA:34:C:O2'	1:AA:35:G:H5'	1.97	0.65
34:BA:2693:A:H2'	34:BA:2694:G:H8	1.62	0.65
42:BI:58:LEU:HA	42:BI:61:ARG:HH11	1.61	0.65
8:AH:112:LEU:C	8:AH:112:LEU:HD12	2.17	0.65
3:AC:27:LYS:HZ3	3:AC:27:LYS:HA	1.62	0.65
34:BA:2852:G:H2'	34:BA:2853:C:C6	2.31	0.65
34:BA:18:C:O3'	50:BU:23:GLY:HA2	1.97	0.65
37:DD:45:ASN:CG	37:DD:46:GLN:H	1.99	0.65
34:BA:2230:G:H2'	34:BA:2231:C:H6	1.62	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:B2:16:LEU:H	27:B2:18:PRO:CD	2.01	0.64
42:DI:78:THR:H	42:DI:140:LEU:HD12	1.61	0.64
54:DY:37:VAL:O	54:DY:38:ILE:CB	2.44	0.64
55:DZ:71:VAL:HG11	55:DZ:74:VAL:HG23	1.77	0.64
2:CB:92:TYR:CE2	2:CB:151:GLY:HA3	2.32	0.64
7:AG:62:PHE:HA	7:AG:124:LEU:HD22	1.78	0.64
33:B8:35:GLN:HA	34:BA:2420:C:P	2.37	0.64
40:BG:43:LEU:HD12	40:BG:153:ARG:HD2	1.78	0.64
55:DZ:120:ILE:HG12	55:DZ:172:ALA:HA	1.78	0.64
41:DH:41:MET:HA	41:DH:41:MET:HE3	1.78	0.64
43:BN:42:TRP:H	50:BU:64:ARG:HD2	1.61	0.64
34:BA:809:G:O4'	34:BA:1254:A:H1'	1.97	0.64
54:DY:97:ARG:HH21	54:DY:98:VAL:CG2	2.10	0.64
43:BN:15:LEU:HG	43:BN:134:ARG:HD2	1.77	0.64
4:CD:121:VAL:O	4:CD:134:ASP:HA	1.97	0.64
1:CA:707:C:O2'	1:CA:708:C:H5'	1.97	0.64
34:DA:2345:G:H5''	34:DA:2347:C:O4'	1.97	0.64
27:D2:24:LEU:O	27:D2:27:GLU:HB3	1.96	0.64
27:D2:49:LYS:HD3	27:D2:53:LEU:HD22	1.77	0.64
54:BY:48:ALA:O	54:BY:58:GLY:HA3	1.97	0.64
38:DE:154:LYS:HE3	38:DE:154:LYS:CA	2.27	0.64
41:BH:88:LEU:O	41:BH:89:ILE:HG23	1.96	0.64
37:DD:253:GLN:HB3	37:DD:255:LYS:HE2	1.79	0.64
34:DA:2863:C:C2'	34:DA:2864:G:H5''	2.26	0.64
34:BA:2317:C:O2'	34:BA:2318:G:H5'	1.97	0.64
3:CC:64:VAL:CG2	3:CC:99:VAL:HG12	2.27	0.64
41:DH:153:LYS:H	41:DH:153:LYS:HD3	1.62	0.64
3:AC:18:TRP:HE3	3:AC:18:TRP:H	1.46	0.64
34:DA:604:G:H2'	34:DA:605:C:H6	1.62	0.64
34:DA:2772:C:H2'	34:DA:2773:C:H6	1.62	0.64
13:CM:81:LEU:HB3	13:CM:89:GLY:HA2	1.78	0.64
17:CQ:10:VAL:HG23	17:CQ:55:ASP:O	1.97	0.64
34:DA:2543:G:H2'	34:DA:2544:G:O4'	1.95	0.64
1:CA:392:G:H2'	1:CA:393:A:H8	1.62	0.64
34:BA:404:C:H4'	34:BA:405:U:H5'	1.79	0.64
42:DI:62:LYS:O	42:DI:62:LYS:HD3	1.97	0.64
17:AQ:65:ILE:N	17:AQ:65:ILE:HD12	2.13	0.64
16:AP:4:ILE:HB	16:AP:66:PRO:HB3	1.78	0.64
42:BI:113:ARG:NH1	42:BI:132:PRO:HG3	2.13	0.64
38:DE:92:THR:O	38:DE:93:VAL:HG23	1.97	0.64
49:DT:65:LYS:CE	49:DT:66:VAL:H	2.10	0.64
49:BT:65:LYS:CE	49:BT:66:VAL:H	2.10	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DP:101:VAL:C	45:DP:103:ALA:H	1.99	0.64
42:DI:114:LEU:HD23	42:DI:130:TYR:CE1	2.32	0.64
38:BE:120:TRP:CE3	38:BE:155:LYS:HD3	2.31	0.64
5:CE:76:ILE:CG1	5:CE:77:PRO:HD2	2.23	0.64
40:DG:57:ALA:O	40:DG:60:LEU:HB3	1.97	0.64
34:DA:1131:G:OP1	43:DN:80:GLY:HA2	1.97	0.64
48:BS:99:LYS:O	48:BS:101:LEU:N	2.30	0.64
27:D2:49:LYS:CD	27:D2:53:LEU:HD22	2.26	0.64
41:BH:89:ILE:N	41:BH:89:ILE:HD13	2.11	0.64
37:DD:126:GLN:O	37:DD:193:VAL:HG11	1.97	0.64
54:BY:75:ILE:CD1	54:BY:76:CYS:N	2.61	0.64
34:DA:743:G:O2'	34:DA:744:G:H5'	1.98	0.64
10:CJ:63:PHE:C	14:CN:59:ALA:HB2	2.18	0.64
40:DG:16:ARG:N	40:DG:17:PRO:HD2	2.12	0.64
1:AA:1348:U:H2'	1:AA:1349:A:H8	1.62	0.64
1:CA:1424:C:O2'	1:CA:1425:U:H5'	1.97	0.64
34:BA:322:A:OP2	39:BF:169:ASN:HB2	1.97	0.64
51:BV:25:LEU:H	51:BV:94:LEU:HD12	1.62	0.64
55:DZ:156:LYS:O	55:DZ:156:LYS:HG2	1.98	0.64
34:DA:235:U:H2'	34:DA:236:C:H6	1.60	0.64
34:DA:1419:A:O2'	34:DA:1420:U:H5''	1.96	0.64
46:DQ:63:LYS:HG2	46:DQ:65:PHE:CZ	2.33	0.64
36:DC:47:LEU:HD21	36:DC:172:HIS:CB	2.27	0.64
55:DZ:145:GLU:HG3	55:DZ:146:ILE:H	1.63	0.64
34:DA:1786:A:H2	34:DA:2606:C:H1'	1.63	0.64
37:DD:94:LEU:HD13	37:DD:94:LEU:C	2.18	0.64
34:DA:2177:C:O2'	36:DC:46:LYS:HE3	1.96	0.64
37:BD:246:PRO:HB2	37:BD:255:LYS:HG3	1.80	0.64
54:DY:10:GLY:HA2	54:DY:27:VAL:CG1	2.26	0.64
2:CB:21:ARG:CB	2:CB:39:ILE:HA	2.27	0.64
33:D8:35:GLN:HA	34:DA:2420:C:P	2.38	0.64
34:DA:451:C:H4'	39:DF:52:LYS:HZ2	1.59	0.64
20:CT:13:LEU:HD12	20:CT:13:LEU:N	2.03	0.64
12:AL:91:LYS:O	12:AL:92:ASP:HB2	1.97	0.64
40:BG:39:ILE:HD13	40:BG:155:MET:SD	2.37	0.64
26:D1:46:LEU:N	26:D1:46:LEU:HD13	2.11	0.64
34:BA:2757:A:N1	41:BH:67:LEU:HD22	2.12	0.64
34:BA:941:A:H4'	45:BP:35:HIS:CE1	2.31	0.64
10:AJ:9:ARG:HG2	10:AJ:69:ASN:OD1	1.98	0.64
54:BY:90:LEU:CG	54:BY:91:GLU:H	2.04	0.64
54:BY:97:ARG:HH21	54:BY:98:VAL:CG2	2.10	0.64
26:D1:94:LEU:HD22	26:D1:95:LEU:H	1.61	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DQ:55:VAL:HG23	55:DZ:178:GLU:HB3	1.78	0.64
27:D2:49:LYS:CG	27:D2:53:LEU:HD22	2.28	0.64
1:AA:728:A:H2'	1:AA:729:A:H8	1.62	0.64
1:CA:1353:G:O2'	1:CA:1354:C:H5'	1.98	0.64
34:DA:2864:G:O2'	34:DA:2865:U:H5'	1.98	0.64
55:DZ:63:ASP:O	55:DZ:65:GLN:N	2.28	0.64
49:BT:92:GLY:C	49:BT:94:ALA:H	2.00	0.64
8:CH:11:THR:HG22	8:CH:15:ASN:ND2	2.11	0.64
34:DA:1654:A:H2	38:DE:113:PHE:CD1	2.14	0.64
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.32	0.64
34:BA:2116:G:H5'	34:BA:2117:A:OP2	1.98	0.64
34:DA:1997:G:O2'	34:DA:1998:G:H5'	1.96	0.64
1:AA:779:C:O2'	1:AA:780:A:H5'	1.96	0.64
39:DF:10:PRO:HG2	39:DF:11:VAL:H	1.63	0.64
12:CL:75:HIS:CD2	12:CL:77:LEU:H	2.16	0.64
49:BT:31:SER:C	49:BT:32:TYR:HD2	1.99	0.64
38:BE:91:VAL:HG13	38:BE:95:ILE:CD1	2.27	0.64
28:B3:7:LYS:C	28:B3:54:VAL:HG13	2.17	0.64
41:DH:41:MET:SD	41:DH:54:ARG:HA	2.37	0.64
1:CA:585:G:H4'	12:CL:8:ASN:ND2	2.07	0.64
33:D8:52:LYS:N	33:D8:53:PRO:HD2	2.10	0.64
47:BR:10:LEU:HB3	47:BR:17:ARG:CD	2.26	0.64
8:AH:137:VAL:O	8:AH:138:TRP:HB3	1.98	0.64
25:B0:43:THR:H	34:BA:2331:G:H4'	1.63	0.64
1:CA:624:C:O3'	16:CP:10:GLY:HA2	1.97	0.64
34:DA:2840:C:H4'	47:DR:53:HIS:CD2	2.32	0.64
1:AA:939:G:H2'	1:AA:940:C:C6	2.31	0.64
1:CA:939:G:H5''	7:CG:102:ARG:HH22	1.62	0.64
1:CA:302:G:H21	1:CA:556:C:C4'	2.10	0.64
1:AA:797:C:OP1	11:AK:124:LYS:HE2	1.97	0.64
13:CM:79:LYS:O	13:CM:82:MET:HB3	1.97	0.64
34:DA:1280:G:H3'	34:DA:1281:G:H5''	1.80	0.64
34:BA:1173:G:H5'	34:BA:1174:A:OP2	1.98	0.64
36:DC:85:GLU:HB3	36:DC:153:ILE:CB	2.27	0.64
34:DA:633:A:H2'	34:DA:634:C:H5'	1.78	0.64
22:CV:39:C:O2'	22:CV:40:C:H5'	1.98	0.64
16:AP:27:LYS:H	16:AP:27:LYS:HD2	1.62	0.64
1:CA:414:A:H2'	1:CA:415:A:O4'	1.97	0.64
51:DV:19:LYS:CG	51:DV:20:LEU:H	2.10	0.64
37:DD:28:GLU:HB2	37:DD:29:PRO:CD	2.28	0.64
48:DS:12:PHE:O	48:DS:12:PHE:HD1	1.81	0.64
39:BF:24:LEU:CB	39:BF:25:PRO:HD2	2.25	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:18:GLY:N	2:CB:42:ILE:HG22	2.08	0.64
43:DN:40:PRO:HA	50:DU:64:ARG:NH2	2.13	0.64
16:AP:45:THR:HG22	16:AP:47:ASP:N	2.06	0.64
18:AR:53:ARG:HH21	18:AR:60:ALA:N	1.95	0.64
26:D1:13:ILE:HG23	26:D1:14:VAL:N	2.11	0.64
8:AH:89:PRO:HA	8:AH:92:ARG:NH1	2.13	0.64
44:BO:63:VAL:HG23	44:BO:64:ARG:H	1.61	0.64
10:CJ:39:PRO:HA	10:CJ:70:ARG:HH12	1.61	0.64
23:CW:38:A:H2'	23:CW:39:U:O4'	1.98	0.64
34:DA:286:C:C3'	34:DA:287:C:H5''	2.27	0.64
34:DA:2681:C:H5	34:DA:2725:A:N6	1.91	0.64
34:DA:2036:C:C6	34:DA:2036:C:H5'	2.26	0.64
5:AE:122:GLU:O	5:AE:123:LEU:HD23	1.97	0.64
34:DA:2658:C:H2'	34:DA:2658:C:O2	1.97	0.64
34:BA:2345:G:H5''	34:BA:2347:C:O4'	1.97	0.64
42:BI:71:ILE:CG1	42:BI:72:LEU:HD22	2.25	0.64
1:AA:1353:G:O2'	1:AA:1354:C:H5'	1.97	0.64
1:CA:1190:G:H3'	3:CC:3:ASN:HD22	1.60	0.64
41:BH:89:ILE:N	41:BH:89:ILE:CD1	2.61	0.64
34:DA:2863:C:C3'	34:DA:2864:G:H5''	2.28	0.64
34:BA:1803:A:H2	34:BA:1822:G:N3	1.95	0.64
37:BD:106:ILE:C	37:BD:106:ILE:HD13	2.17	0.64
1:AA:630:G:C2'	1:AA:631:G:H5''	2.28	0.64
34:DA:2580:U:C5'	38:DE:131:ALA:H	2.11	0.64
34:BA:2884:U:C2'	34:BA:2885:C:H5'	2.27	0.64
23:AY:39:U:H2'	23:AY:40:C:C6	2.31	0.64
1:CA:35:G:H2'	1:CA:36:C:C6	2.32	0.64
10:AJ:63:PHE:C	14:AN:59:ALA:HB2	2.17	0.64
34:DA:1049:C:H2'	34:DA:1050:A:H8	1.62	0.64
1:CA:1466:C:H2'	1:CA:1467:G:O4'	1.97	0.64
34:BA:1844:C:O2'	34:BA:1845:G:H5'	1.97	0.64
40:BG:18:GLU:O	40:BG:22:ARG:HB2	1.96	0.64
1:AA:867:G:O2'	1:AA:868:C:H5'	1.97	0.64
3:AC:118:GLN:O	3:AC:122:GLU:HG3	1.97	0.64
12:AL:75:HIS:CD2	12:AL:77:LEU:H	2.15	0.64
34:DA:207:A:H2'	34:DA:208:C:O4'	1.96	0.64
42:BI:78:THR:H	42:BI:140:LEU:HD12	1.62	0.64
34:DA:2175:C:C3'	34:DA:2176:A:H5''	2.28	0.64
42:DI:110:ASP:O	42:DI:114:LEU:HG	1.98	0.64
33:B8:62:LEU:N	33:B8:63:PRO:HD2	2.13	0.64
34:DA:588:U:H2'	34:DA:589:C:C6	2.31	0.64
34:BA:2036:C:C5'	34:BA:2036:C:H6	2.07	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BV:19:LYS:CG	51:BV:20:LEU:N	2.55	0.64
41:DH:92:ILE:HD12	41:DH:92:ILE:N	2.12	0.64
36:BC:49:ILE:CD1	36:BC:49:ILE:H	2.10	0.64
34:BA:64:A:O2'	34:BA:65:C:H5'	1.98	0.64
47:DR:10:LEU:HD22	47:DR:17:ARG:HD2	1.80	0.64
8:CH:35:ILE:O	8:CH:39:LEU:HB2	1.98	0.64
34:BA:2308:G:H2'	34:BA:2309:A:C8	2.32	0.64
34:BA:943:U:OP2	45:BP:38:GLN:CD	2.36	0.64
34:BA:1227:G:O2'	34:BA:1228:G:H5'	1.97	0.64
1:CA:1502:A:H2'	1:CA:1502:A:N3	2.13	0.64
1:AA:434:U:H2'	1:AA:435:C:H6	1.61	0.64
20:AT:89:ARG:HB2	20:AT:104:LEU:HD11	1.78	0.64
34:BA:1658:C:OP1	38:BE:132:HIS:O	2.16	0.64
34:DA:412:A:H2'	34:DA:413:C:H5'	1.80	0.64
16:CP:53:VAL:HG23	16:CP:54:GLU:N	2.13	0.64
34:DA:2379:G:H2'	34:DA:2380:C:C6	2.33	0.64
44:DO:104:ARG:NH1	49:DT:35:LYS:HD3	2.13	0.64
16:CP:82:GLN:HE21	16:CP:82:GLN:N	1.96	0.64
1:AA:414:A:H2'	1:AA:415:A:O4'	1.97	0.64
16:AP:53:VAL:HG23	16:AP:54:GLU:N	2.13	0.64
1:AA:26:A:N6	1:AA:558:G:H1'	2.12	0.64
34:DA:142:A:H5'	34:DA:142(A):C:OP2	1.98	0.64
48:BS:17:ARG:CZ	48:BS:89:ARG:NH2	2.61	0.64
26:B1:89:GLU:O	26:B1:93:GLU:N	2.30	0.64
55:DZ:15:PRO:O	55:DZ:19:ARG:HG3	1.96	0.64
34:DA:2742:C:O2'	34:DA:2743:C:H5'	1.97	0.64
42:DI:14:ASP:O	42:DI:17:GLN:HB2	1.98	0.64
55:BZ:166:SER:HB2	55:BZ:168:GLU:N	2.11	0.64
51:BV:19:LYS:CG	51:BV:20:LEU:H	2.10	0.64
34:BA:914:C:C2'	34:BA:915:C:H5'	2.26	0.64
7:AG:47:CYS:HA	7:AG:50:ILE:CG1	2.26	0.64
39:DF:181:LEU:CD1	39:DF:186:ILE:HD11	2.28	0.64
48:DS:58:LEU:CD2	48:DS:68:GLN:HB2	2.27	0.64
34:BA:2580:U:C5'	38:BE:131:ALA:H	2.09	0.64
7:AG:27:ILE:HD12	7:AG:27:ILE:H	1.61	0.64
1:AA:1060:C:H2'	1:AA:1061:G:H8	1.62	0.64
23:AW:68:C:O2'	23:AW:69:G:H5'	1.98	0.64
32:B7:8:ASN:HD22	32:B7:8:ASN:C	2.01	0.64
32:B7:9:ARG:NH1	34:BA:1310:G:OP2	2.31	0.64
1:AA:797:C:O2'	1:AA:798:G:H5'	1.97	0.64
34:BA:2208:A:H1'	34:BA:2219:G:C4	2.32	0.64
34:BA:322:A:H3'	39:BF:169:ASN:HD21	1.61	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BD:58:HIS:HD2	37:BD:59:LYS:N	1.94	0.64
34:DA:322:A:OP2	39:DF:169:ASN:HB2	1.97	0.64
13:AM:90:LEU:HA	13:AM:93:ARG:HB2	1.80	0.64
16:AP:74:LEU:O	16:AP:79:VAL:HG23	1.97	0.64
37:DD:77:ALA:HB2	37:DD:97:TYR:CD2	2.32	0.64
34:BA:2772:C:H2'	34:BA:2773:C:C6	2.33	0.64
7:AG:150:ALA:HA	11:AK:57:THR:HG21	1.80	0.64
11:AK:57:THR:HG22	11:AK:59:TYR:H	1.62	0.64
30:D5:59:GLU:O	30:D5:60:VAL:HG23	1.98	0.64
35:BB:3:C:H42	35:BB:118:G:H1	1.46	0.64
34:BA:1049:C:H2'	34:BA:1050:A:H8	1.62	0.64
34:DA:945:A:H5''	34:DA:946:G:OP2	1.97	0.64
39:DF:178:PRO:HG2	39:DF:179:GLU:OE1	1.97	0.64
37:DD:92:ILE:HD12	37:DD:92:ILE:O	1.96	0.64
37:BD:28:GLU:HB2	37:BD:29:PRO:CD	2.27	0.64
54:DY:16:ALA:HA	54:DY:21:LYS:HD2	1.78	0.64
26:D1:46:LEU:N	26:D1:46:LEU:CD1	2.61	0.64
34:BA:2720:U:H2'	34:BA:2720:U:O2	1.96	0.64
26:D1:89:GLU:O	26:D1:93:GLU:N	2.23	0.64
53:DX:57:LEU:HD11	53:DX:77:LYS:HD2	1.79	0.64
6:AF:52:ILE:O	6:AF:52:ILE:HG22	1.95	0.64
47:DR:60:LEU:HD23	47:DR:60:LEU:C	2.17	0.64
13:AM:11:ARG:O	13:AM:13:LYS:N	2.30	0.64
41:BH:89:ILE:HD11	41:BH:129:THR:HB	1.79	0.64
49:DT:57:PHE:C	49:DT:59:THR:H	1.99	0.64
41:DH:89:ILE:N	41:DH:89:ILE:CD1	2.61	0.64
47:BR:78:LYS:O	47:BR:83:ILE:HG12	1.98	0.64
34:DA:2730:C:O2'	34:DA:2731:G:H5'	1.97	0.64
6:AF:60:PHE:CZ	18:AR:78:LEU:HD21	2.33	0.64
47:BR:4:LEU:O	47:BR:4:LEU:HD13	1.97	0.64
34:BA:1188:U:H2'	34:BA:1189:A:H5'	1.79	0.64
1:CA:782:A:H2'	1:CA:783:C:H5'	1.80	0.64
8:CH:6:ILE:N	8:CH:6:ILE:HD12	2.13	0.64
34:DA:884:C:O2'	34:DA:892:G:C8	2.43	0.64
34:BA:2672:G:C2'	34:BA:2673:G:H5''	2.28	0.64
1:AA:782:A:C2'	1:AA:783:C:H5'	2.27	0.64
43:BN:78:TYR:CD1	43:BN:79:PRO:N	2.65	0.64
34:DA:404:C:H4'	34:DA:405:U:H5'	1.79	0.64
29:D4:29:PRO:C	29:D4:31:ILE:H	2.00	0.64
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.63	0.64
34:BA:1419:A:O2'	34:BA:1420:U:H5''	1.97	0.64
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.32	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DQ:10:ARG:HB2	46:DQ:10:ARG:NH1	2.13	0.64
51:DV:19:LYS:HZ2	51:DV:20:LEU:N	1.93	0.64
42:BI:77:LEU:HD11	42:BI:101:LEU:HD22	1.79	0.64
34:DA:2637:U:H5'	34:DA:2637:U:H6	1.63	0.64
2:AB:42:ILE:HD11	2:AB:202:PRO:HB2	1.80	0.64
34:BA:2175:C:C3'	34:BA:2176:A:H5''	2.27	0.64
34:DA:1593:G:H2'	34:DA:1594:G:H5''	1.78	0.64
55:DZ:96:VAL:HG22	55:DZ:97:GLU:N	2.13	0.64
2:CB:115:LEU:HD13	2:CB:145:LEU:HD12	1.79	0.64
12:AL:46:LYS:HG2	12:AL:47:LYS:N	2.04	0.64
10:AJ:38:ILE:HG12	10:AJ:71:LEU:O	1.96	0.64
10:CJ:9:ARG:HG2	10:CJ:69:ASN:OD1	1.98	0.64
10:AJ:40:LEU:HD21	10:AJ:69:ASN:HB3	1.79	0.64
46:DQ:23:GLY:C	46:DQ:100:GLY:HA3	2.18	0.64
53:DX:78:LYS:HD3	53:DX:78:LYS:O	1.98	0.64
43:BN:58:ASP:C	43:BN:60:ILE:HG13	2.18	0.64
49:BT:58:ASN:C	49:BT:58:ASN:HD22	2.01	0.64
4:AD:133:VAL:HG12	4:AD:135:LEU:H	1.63	0.64
37:DD:106:ILE:HD11	37:DD:196:VAL:CG1	2.27	0.64
23:CW:17:C:C5	34:DA:2180:U:H4'	2.32	0.64
34:DA:1678:G:N2	34:DA:1989:G:H22	1.95	0.64
34:BA:2801(A):A:H4'	34:BA:2802:G:H5'	1.79	0.64
52:DW:10:VAL:HG23	52:DW:101:SER:O	1.97	0.64
1:CA:939:G:H5''	7:CG:102:ARG:HH12	1.63	0.64
3:CC:18:TRP:HE3	3:CC:18:TRP:H	1.44	0.64
34:DA:1925:C:C2'	34:DA:1926:U:H5'	2.28	0.64
44:BO:13:ASN:HD21	44:BO:97:ARG:H	1.44	0.64
34:DA:2801(A):A:H4'	34:DA:2802:G:H5'	1.80	0.64
17:AQ:10:VAL:O	17:AQ:53:LEU:HD12	1.98	0.64
30:D5:43:HIS:HD2	34:DA:2815:C:O2'	1.81	0.64
34:DA:608:A:OP1	39:DF:100:THR:HG21	1.97	0.64
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.32	0.64
5:AE:12:LEU:O	5:AE:13:ILE:HD12	1.97	0.64
37:DD:231:HIS:ND1	37:DD:232:PRO:HD2	2.13	0.64
43:DN:18:ALA:HB1	43:DN:21:LYS:HG2	1.80	0.64
1:CA:226:G:O2'	1:CA:227:G:H5'	1.98	0.64
39:BF:51:THR:HG21	39:BF:92:PRO:HD2	1.80	0.64
42:BI:109:ILE:N	42:BI:109:ILE:HD12	2.12	0.64
42:BI:77:LEU:HD11	42:BI:101:LEU:HB2	1.79	0.64
37:DD:35:LYS:NZ	37:DD:65:ILE:HA	2.13	0.64
50:BU:50:ARG:HG2	50:BU:53:ARG:NH2	2.13	0.64
38:DE:75:VAL:C	38:DE:77:ILE:N	2.51	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BP:97:PRO:O	45:BP:98:GLU:HB3	1.98	0.64
37:BD:246:PRO:HB2	37:BD:255:LYS:CG	2.27	0.64
38:BE:92:THR:O	38:BE:93:VAL:HG23	1.98	0.64
40:BG:60:LEU:O	40:BG:63:ILE:HG13	1.98	0.64
55:DZ:151:HIS:HA	55:DZ:171:ILE:CG1	2.28	0.64
11:CK:127:LYS:CE	11:CK:127:LYS:HA	2.24	0.64
34:BA:2181:G:H2'	34:BA:2182:G:H8	1.62	0.64
1:AA:383:A:C2'	1:AA:384:G:H5'	2.27	0.64
10:AJ:8:LEU:HD22	10:AJ:20:ALA:HB2	1.79	0.64
13:CM:15:VAL:O	13:CM:19:LEU:HD23	1.98	0.64
50:BU:29:SER:OG	50:BU:30:LYS:HE3	1.96	0.64
1:AA:1305:G:H5'	21:AU:4:GLY:HA3	1.77	0.64
46:BQ:63:LYS:HG2	46:BQ:65:PHE:CZ	2.33	0.64
34:DA:2590:A:O2'	34:DA:2591:C:H5'	1.98	0.64
5:AE:50:GLU:OE2	5:AE:51:VAL:HG23	1.98	0.64
34:DA:1227:G:O2'	34:DA:1228:G:H5'	1.96	0.64
47:DR:4:LEU:O	47:DR:6:SER:N	2.29	0.64
1:CA:1038:C:H2'	1:CA:1039:C:C6	2.33	0.64
43:BN:78:TYR:CD1	43:BN:79:PRO:HD3	2.33	0.64
34:DA:1153:C:H2'	34:DA:1154:G:O4'	1.98	0.64
1:AA:853:G:O2'	1:AA:854:G:H5'	1.97	0.64
25:D0:17:GLN:O	25:D0:19:LYS:HD3	1.96	0.64
34:DA:247:G:H4'	34:DA:386:G:C5	2.33	0.64
27:B2:58:ALA:O	27:B2:60:LEU:N	2.31	0.64
6:AF:28:ARG:HH11	6:AF:28:ARG:HG3	1.61	0.64
9:CI:113:LYS:HD2	9:CI:113:LYS:N	2.13	0.64
39:BF:198:ALA:O	39:BF:201:VAL:HG12	1.97	0.64
25:B0:18:ALA:HB1	34:BA:2271:G:OP1	1.98	0.64
51:DV:2:PHE:O	51:DV:3:ALA:HB2	1.98	0.63
51:BV:71:LEU:O	51:BV:90:PRO:HA	1.98	0.63
51:BV:72:VAL:HG12	51:BV:73:SER:N	2.13	0.63
49:DT:29:ARG:CB	49:DT:85:LYS:HA	2.28	0.63
34:BA:2863:C:C3'	34:BA:2864:G:H5''	2.29	0.63
54:BY:37:VAL:O	54:BY:38:ILE:CB	2.47	0.63
37:BD:92:ILE:O	37:BD:92:ILE:HD12	1.98	0.63
34:DA:2703:C:H2'	34:DA:2704:C:H6	1.63	0.63
55:DZ:99:TYR:HA	55:DZ:125:LEU:HA	1.80	0.63
40:BG:70:VAL:HA	40:BG:90:LEU:CD1	2.28	0.63
43:DN:112:LEU:O	43:DN:115:ARG:N	2.31	0.63
50:BU:62:ILE:HA	50:BU:65:ILE:HD12	1.80	0.63
10:CJ:94:VAL:HG12	10:CJ:95:GLU:N	2.13	0.63
47:BR:5:LYS:N	47:BR:5:LYS:HD2	2.13	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:B1:32:LYS:HG2	34:BA:2396:G:O2'	1.98	0.63
43:BN:16:ILE:O	43:BN:54:VAL:HA	1.97	0.63
20:CT:56:MET:O	20:CT:59:ALA:HB3	1.97	0.63
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.13	0.63
1:AA:579:G:H2'	1:AA:580:U:H6	1.62	0.63
34:DA:925:C:C3'	34:DA:926:A:H5''	2.27	0.63
48:BS:61:ASN:ND2	48:BS:61:ASN:C	2.52	0.63
25:D0:41:ARG:CD	25:D0:41:ARG:H	2.10	0.63
37:DD:161:THR:O	37:DD:196:VAL:HG23	1.98	0.63
15:AO:39:LEU:O	15:AO:42:HIS:HB3	1.98	0.63
34:DA:359:A:H2'	34:DA:360:G:O4'	1.98	0.63
34:BA:1887:C:H2'	34:BA:1888:G:H5''	1.80	0.63
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	2.11	0.63
10:AJ:50:ILE:HA	10:AJ:60:ARG:HB3	1.79	0.63
1:CA:1388:C:H2'	1:CA:1389:C:C6	2.33	0.63
34:BA:2653:U:H5'	34:BA:2654:A:H5''	1.80	0.63
1:CA:340:U:O2'	1:CA:341:C:H5'	1.98	0.63
34:DA:1844:C:H5'	37:DD:256:GLY:O	1.98	0.63
10:AJ:45:ARG:HB2	10:AJ:65:LEU:HB3	1.80	0.63
42:BI:62:LYS:O	42:BI:62:LYS:HD3	1.97	0.63
44:BO:76:ALA:HB3	49:BT:75:ILE:HB	1.79	0.63
48:BS:12:PHE:HD1	48:BS:12:PHE:O	1.81	0.63
48:BS:48:LEU:N	48:BS:48:LEU:HD12	2.13	0.63
1:AA:250:A:H4'	1:AA:251:G:O5'	1.98	0.63
1:CA:319:G:O2'	1:CA:320:C:H5'	1.99	0.63
1:AA:27:G:O2'	1:AA:28:G:H5'	1.99	0.63
37:DD:35:LYS:HZ3	37:DD:104:TYR:HD1	1.46	0.63
48:DS:87:PHE:HB2	48:DS:106:ARG:HD3	1.80	0.63
49:DT:29:ARG:HG3	49:DT:30:VAL:HG13	1.79	0.63
45:BP:101:VAL:HG13	45:BP:102:ARG:N	2.11	0.63
1:CA:950:U:H2'	1:CA:951:G:H8	1.64	0.63
2:AB:92:TYR:CE2	2:AB:151:GLY:HA3	2.33	0.63
26:B1:19:GLN:CD	26:B1:44:PRO:HB3	2.18	0.63
37:BD:25:THR:CG2	37:BD:82:ILE:H	2.11	0.63
37:BD:25:THR:HG21	37:BD:82:ILE:N	2.12	0.63
28:B3:7:LYS:O	28:B3:54:VAL:HG13	1.97	0.63
44:BO:23:ARG:HG2	44:BO:23:ARG:HH11	1.62	0.63
23:AW:16:U:O4	23:AW:18:G:H3'	1.98	0.63
45:DP:26:GLY:HA2	45:DP:30:THR:HG21	1.80	0.63
34:DA:941:A:H4'	45:DP:35:HIS:CE1	2.33	0.63
54:BY:97:ARG:HH21	54:BY:98:VAL:HG21	1.63	0.63
46:BQ:30:GLY:CA	46:BQ:107:ALA:HB2	2.24	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:954:G:H2'	1:CA:955:U:H6	1.63	0.63
4:CD:96:LEU:HD12	4:CD:139:ARG:NH1	2.14	0.63
27:D2:14:ARG:NE	27:D2:57:ILE:HB	2.13	0.63
34:DA:943:U:OP2	45:DP:38:GLN:CD	2.37	0.63
34:BA:1276:A:H1'	47:BR:16:HIS:HE1	1.63	0.63
25:D0:43:THR:H	34:DA:2331:G:H4'	1.63	0.63
25:B0:43:THR:HG22	34:BA:2331:G:O2'	1.96	0.63
34:BA:528:A:N1	34:BA:2042:A:H2'	2.12	0.63
2:AB:75:LYS:HG2	2:AB:78:GLN:NE2	2.12	0.63
39:BF:80:ALA:O	39:BF:83:PHE:HB2	1.99	0.63
34:DA:1188:U:H2'	34:DA:1189:A:H5'	1.79	0.63
10:CJ:49:VAL:HG13	14:CN:41:ARG:HB2	1.80	0.63
8:CH:6:ILE:H	8:CH:6:ILE:HD12	1.63	0.63
36:DC:45:ALA:HB2	36:DC:210:ARG:HA	1.80	0.63
9:AI:126:SER:O	9:AI:127:LYS:HB3	1.97	0.63
41:DH:14:GLY:O	41:DH:29:PRO:HD3	1.98	0.63
13:CM:90:LEU:O	13:CM:92:HIS:N	2.26	0.63
1:CA:1492:A:H2'	1:CA:1493:A:C8	2.33	0.63
34:BA:2379:G:H2'	34:BA:2380:C:C6	2.33	0.63
34:DA:500:G:N2	34:DA:502:A:H3'	2.13	0.63
43:BN:89:LYS:O	43:BN:93:THR:HG22	1.97	0.63
39:DF:51:THR:HG21	39:DF:92:PRO:HD2	1.79	0.63
1:AA:1049:U:H1'	1:AA:1201:A:N7	2.13	0.63
34:BA:70:G:H2'	34:BA:113:G:O2'	1.98	0.63
1:CA:15:G:H4'	5:CE:24:ARG:NH2	2.13	0.63
50:DU:69:CYS:SG	50:DU:79:PHE:HD1	2.20	0.63
34:BA:189:G:H2'	34:BA:205:G:N2	2.13	0.63
39:BF:117:ARG:NH2	39:BF:187:VAL:HA	2.12	0.63
34:DA:49:A:H4'	34:DA:50:U:C5'	2.22	0.63
54:DY:38:ILE:N	54:DY:66:PRO:O	2.31	0.63
55:DZ:67:LEU:N	55:DZ:67:LEU:HD12	2.12	0.63
55:BZ:145:GLU:CG	55:BZ:146:ILE:H	1.96	0.63
41:BH:41:MET:HA	41:BH:41:MET:HE3	1.81	0.63
1:AA:1278:U:H5''	1:AA:1279:A:O4'	1.99	0.63
51:BV:19:LYS:C	51:BV:20:LEU:HD12	2.19	0.63
34:DA:2068:U:N3	34:DA:2430:A:H2	1.91	0.63
5:CE:126:ARG:NH1	5:CE:126:ARG:HG3	2.12	0.63
30:B5:46:CYS:SG	30:B5:47:PRO:HD2	2.38	0.63
40:BG:23:PHE:HZ	40:BG:171:ALA:CB	2.12	0.63
1:CA:630:G:C2'	1:CA:631:G:H5''	2.28	0.63
3:CC:95:THR:HG21	3:CC:99:VAL:CG1	2.28	0.63
42:BI:75:LEU:HD21	42:BI:105:HIS:CE1	2.34	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1773:A:H2'	34:DA:1774:C:H5'	1.81	0.63
1:AA:389:A:H2'	1:AA:390:C:H5'	1.79	0.63
34:DA:2653:U:H5'	34:DA:2654:A:H5''	1.80	0.63
34:BA:1280:G:H3'	34:BA:1281:G:H5''	1.79	0.63
34:DA:1220:A:O2'	34:DA:1221:C:H5''	1.98	0.63
25:B0:74:ARG:HH12	35:BB:13:A:H8	1.46	0.63
31:B6:36:LEU:HD13	31:B6:50:ARG:NH1	2.12	0.63
34:DA:149:A:H2'	34:DA:150:C:C6	2.34	0.63
9:AI:113:LYS:N	9:AI:113:LYS:HD2	2.12	0.63
34:DA:2824:C:H2'	34:DA:2825:C:O4'	1.98	0.63
1:AA:392:G:H2'	1:AA:393:A:H8	1.62	0.63
34:BA:576:U:O2'	34:BA:577:G:H5'	1.98	0.63
37:DD:31:LYS:NZ	37:DD:31:LYS:HA	2.13	0.63
34:BA:149:A:H2'	34:BA:150:C:C6	2.32	0.63
51:DV:19:LYS:C	51:DV:20:LEU:HD12	2.18	0.63
39:DF:123:LEU:HD12	39:DF:124:LEU:H	1.63	0.63
34:DA:2295:C:O2'	34:DA:2296:U:H5'	1.99	0.63
38:BE:93:VAL:HG21	38:BE:180:ASN:OD1	1.98	0.63
45:DP:62:LEU:H	45:DP:62:LEU:HD22	1.61	0.63
11:AK:127:LYS:CE	11:AK:127:LYS:HA	2.24	0.63
39:DF:3:GLU:O	39:DF:19:GLU:HA	1.98	0.63
16:CP:20:VAL:HG21	16:CP:32:TYR:CB	2.28	0.63
46:BQ:29:PHE:O	46:BQ:30:GLY:O	2.16	0.63
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.13	0.63
54:DY:76:CYS:SG	54:DY:77:PRO:CD	2.86	0.63
41:DH:19:VAL:HG11	41:DH:44:VAL:HG22	1.81	0.63
40:DG:71:THR:HG22	40:DG:89:GLY:CA	2.28	0.63
34:DA:154(A):C:H5	34:DA:171:G:H1	1.45	0.63
37:DD:246:PRO:HB2	37:DD:255:LYS:HG3	1.80	0.63
49:DT:100:TYR:HD2	49:DT:103:ARG:NH2	1.97	0.63
34:DA:833:U:H2'	34:DA:834:C:H6	1.63	0.63
8:AH:103:VAL:HG21	8:AH:109:ILE:C	2.18	0.63
48:DS:36:TYR:HD1	48:DS:36:TYR:N	1.96	0.63
34:BA:1798:U:C5'	37:BD:259:THR:HG22	2.28	0.63
23:CW:27:G:H2'	23:CW:28:G:C8	2.33	0.63
9:CI:112:LYS:HG2	9:CI:119:ALA:H	1.64	0.63
36:BC:45:ALA:HB2	36:BC:210:ARG:HA	1.80	0.63
1:AA:1038:C:H2'	1:AA:1039:C:C6	2.33	0.63
34:BA:2784:C:H2'	34:BA:2785:C:C6	2.32	0.63
44:BO:13:ASN:HD22	44:BO:97:ARG:HB2	1.63	0.63
2:AB:169:LYS:HD2	2:AB:170:GLU:OE2	1.97	0.63
37:BD:77:ALA:HB2	37:BD:97:TYR:CD2	2.33	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1173:G:H5'	34:DA:1174:A:OP2	1.97	0.63
13:AM:46:LYS:HG3	13:AM:47:ASP:N	2.14	0.63
34:BA:491:G:H2'	34:BA:492:A:C8	2.34	0.63
40:DG:22:ARG:HH11	40:DG:22:ARG:HG2	1.63	0.63
3:AC:107:GLN:H	3:AC:107:GLN:CD	2.02	0.63
34:DA:2323:G:H2'	34:DA:2324:C:O4'	1.99	0.63
36:DC:56:GLN:O	36:DC:57:ASN:HB2	1.97	0.63
1:CA:501:C:H2'	1:CA:502:G:H8	1.64	0.63
51:DV:5:VAL:HG21	51:DV:36:PRO:HB2	1.80	0.63
34:DA:2334:G:H21	48:DS:18:ILE:HD11	1.64	0.63
48:DS:88:ASP:CG	48:DS:89:ARG:N	2.52	0.63
38:DE:69:LYS:O	38:DE:70:ALA:C	2.37	0.63
28:D3:54:VAL:HG12	28:D3:55:ARG:N	2.14	0.63
49:DT:28:VAL:CG2	49:DT:46:GLU:HA	2.29	0.63
45:BP:126:VAL:HA	45:BP:145:PRO:CB	2.14	0.63
49:BT:80:SER:CB	49:BT:81:PRO:CD	2.76	0.63
38:BE:75:VAL:C	38:BE:77:ILE:N	2.49	0.63
37:BD:25:THR:HG21	37:BD:82:ILE:H	1.64	0.63
54:DY:37:VAL:CG2	54:DY:38:ILE:H	2.05	0.63
34:BA:833:U:H2'	34:BA:834:C:C6	2.33	0.63
34:DA:2758:A:C3'	34:DA:2759:G:H5''	2.29	0.63
33:D8:32:LEU:HG	33:D8:34:TRP:CE3	2.33	0.63
33:D8:6:THR:HG22	33:D8:63:PRO:HD3	1.80	0.63
34:DA:2040:C:H2'	34:DA:2041:U:H6	1.63	0.63
10:AJ:6:ILE:O	10:AJ:6:ILE:HD12	1.98	0.63
10:CJ:6:ILE:HD12	10:CJ:6:ILE:O	1.99	0.63
1:AA:376:G:O2'	1:AA:377:G:H5'	1.99	0.63
45:DP:75:ILE:N	45:DP:75:ILE:CD1	2.51	0.63
38:BE:173:VAL:HG12	38:BE:174:ASP:N	2.13	0.63
1:AA:706:A:N7	1:AA:707:C:H5	1.96	0.63
50:DU:28:ARG:NH1	50:DU:38:THR:OG1	2.31	0.63
42:DI:69:LYS:HA	42:DI:136:VAL:HG21	1.81	0.63
34:DA:189:G:H2'	34:DA:205:G:N2	2.13	0.63
34:BA:154(A):C:H5	34:BA:171:G:H1	1.47	0.63
51:BV:43:GLU:N	51:BV:48:GLY:HA2	2.12	0.63
34:BA:2631:G:N2	38:BE:61:ARG:HH12	1.97	0.63
34:DA:2287:A:N6	34:DA:2344:U:H3	1.96	0.63
1:AA:186:C:C5'	20:AT:78:ALA:HB1	2.28	0.63
41:BH:98:LEU:HB2	41:BH:125:VAL:CG2	2.29	0.63
1:CA:939:G:H5''	7:CG:102:ARG:CZ	2.28	0.63
8:CH:137:VAL:O	8:CH:138:TRP:HB3	1.98	0.63
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.64	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DG:11:TYR:O	40:DG:15:VAL:HB	1.99	0.63
34:DA:1710:C:O2'	34:DA:1711:C:H5'	1.98	0.63
8:CH:112:LEU:C	8:CH:112:LEU:HD12	2.19	0.63
35:DB:15:A:C3'	35:DB:16:G:H5'	2.28	0.63
40:BG:133:LEU:HD12	40:BG:133:LEU:C	2.19	0.63
34:DA:1828:G:O6	37:DD:222:ARG:HD3	1.97	0.63
18:CR:32:ARG:HA	18:CR:69:THR:HG21	1.80	0.63
43:BN:18:ALA:HB1	43:BN:21:LYS:HG2	1.79	0.63
36:BC:76:ALA:HB3	36:BC:94:VAL:CG1	2.28	0.63
48:DS:99:LYS:O	48:DS:101:LEU:N	2.30	0.63
49:DT:33:LYS:HA	49:DT:33:LYS:HZ2	1.64	0.63
34:DA:143(A):C:H2'	34:DA:143(A):C:O2	1.97	0.63
48:BS:88:ASP:CG	48:BS:89:ARG:N	2.51	0.63
26:B1:9:GLY:O	26:B1:10:LYS:HB3	1.98	0.63
45:DP:92:GLU:HG3	45:DP:123:LEU:HD22	1.79	0.63
39:BF:199:TRP:CZ3	39:BF:203:GLN:HG3	2.33	0.63
39:BF:3:GLU:O	39:BF:19:GLU:HA	1.98	0.63
42:DI:77:LEU:HD11	42:DI:101:LEU:HB2	1.80	0.63
54:DY:8:LYS:HE3	54:DY:72:VAL:HG23	1.81	0.63
39:DF:3:GLU:CG	39:DF:19:GLU:HB2	2.20	0.63
53:DX:26:TYR:OH	53:DX:89:ILE:HG21	1.98	0.63
16:AP:20:VAL:HG21	16:AP:32:TYR:CB	2.29	0.63
54:DY:97:ARG:HH21	54:DY:98:VAL:HG21	1.63	0.63
10:CJ:40:LEU:HD21	10:CJ:69:ASN:HB3	1.81	0.63
10:AJ:7:LYS:C	10:AJ:8:LEU:HD12	2.18	0.63
3:AC:188:LEU:HD22	3:AC:188:LEU:N	2.13	0.63
41:BH:92:ILE:HD12	41:BH:92:ILE:N	2.12	0.63
36:BC:49:ILE:HD12	36:BC:49:ILE:N	2.12	0.63
1:AA:1064:G:H5'	1:AA:1066:C:H1'	1.80	0.63
40:DG:41:GLN:HA	40:DG:155:MET:CB	2.28	0.63
1:CA:1064:G:H5'	1:CA:1066:C:H1'	1.80	0.63
37:DD:245:PRO:O	37:DD:246:PRO:C	2.35	0.63
34:DA:621:A:C2'	34:DA:622:G:H5'	2.29	0.63
46:DQ:26:TYR:HD1	46:DQ:26:TYR:O	1.80	0.63
17:CQ:19:VAL:CG2	17:CQ:44:ALA:HB3	2.28	0.63
34:DA:2732:G:O2'	34:DA:2733:A:H5'	1.99	0.63
5:CE:50:GLU:OE2	5:CE:51:VAL:HG23	1.99	0.63
2:CB:41:ILE:N	2:CB:41:ILE:HD12	2.14	0.63
39:DF:192:LEU:HD23	39:DF:193:VAL:N	2.12	0.63
19:CS:44:MET:N	19:CS:44:MET:SD	2.72	0.63
34:BA:1658:C:OP1	38:BE:132:HIS:CE1	2.52	0.63
4:CD:110:PHE:HD1	4:CD:110:PHE:H	1.45	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:717:G:H2'	34:DA:718:A:O4'	1.99	0.63
14:AN:6:LEU:HB3	14:AN:23:ARG:NH2	2.13	0.63
34:DA:1264:G:H3'	34:DA:1265:A:H5''	1.79	0.63
2:AB:114:ARG:HA	2:AB:117:GLU:HG3	1.81	0.63
4:AD:58:LEU:HD23	4:AD:206:PHE:CE1	2.34	0.63
7:CG:93:PRO:HA	7:CG:96:GLN:HB2	1.80	0.63
1:CA:685:G:O2'	1:CA:686:U:H5'	1.98	0.63
1:CA:1310:G:O2'	1:CA:1311:G:H5'	1.98	0.63
41:BH:30:LYS:NZ	41:BH:81:GLU:HG2	2.14	0.63
1:AA:950:U:H2'	1:AA:951:G:H8	1.64	0.63
34:DA:136:G:H1	34:DA:143(A):C:H42	1.45	0.63
37:BD:253:GLN:HB3	37:BD:255:LYS:HE2	1.81	0.63
54:BY:10:GLY:HA2	54:BY:27:VAL:CG1	2.29	0.63
54:BY:37:VAL:HG13	54:BY:69:ALA:HA	1.81	0.63
54:BY:38:ILE:HG22	54:BY:39:VAL:N	2.14	0.63
40:BG:60:LEU:C	40:BG:60:LEU:HD13	2.18	0.63
34:BA:2742:C:O2'	34:BA:2743:C:H5'	1.99	0.63
42:BI:14:ASP:O	42:BI:17:GLN:HB2	1.99	0.63
10:CJ:48:THR:HA	10:CJ:62:HIS:CB	2.25	0.63
26:D1:28:GLY:C	26:D1:30:VAL:H	2.01	0.63
40:DG:112:PRO:O	40:DG:113:ARG:HA	1.99	0.63
30:B5:55:ARG:CG	30:B5:56:LYS:H	2.08	0.63
1:AA:1293:G:O2'	1:AA:1294:G:H8	1.74	0.63
5:AE:129:ILE:O	5:AE:132:ALA:HB3	1.99	0.63
34:BA:2377:A:H4'	48:BS:107:GLU:CB	2.28	0.63
17:AQ:45:HIS:HB2	17:AQ:69:LYS:HE2	1.80	0.63
1:CA:736:C:H2'	1:CA:737:A:H8	1.63	0.63
6:CF:60:PHE:CZ	18:CR:78:LEU:HD21	2.34	0.63
6:CF:8:ILE:HD12	6:CF:26:ILE:HD13	1.81	0.63
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.63	0.63
47:BR:10:LEU:HD22	47:BR:17:ARG:HD2	1.81	0.63
37:DD:235:GLY:O	37:DD:236:GLY:C	2.35	0.63
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.34	0.63
9:AI:18:PHE:HB2	9:AI:62:TYR:O	1.98	0.63
3:CC:152:ILE:HB	3:CC:199:LYS:HB2	1.81	0.63
19:AS:35:SER:C	19:AS:37:ARG:H	2.01	0.63
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.32	0.63
34:DA:2543:G:H5'	34:DA:2543:G:H8	1.63	0.63
34:DA:1844:C:O2'	34:DA:1845:G:H5'	1.98	0.63
31:D6:36:LEU:HD13	31:D6:50:ARG:NH1	2.12	0.63
34:DA:1278:A:O2'	34:DA:1279:G:H5'	1.98	0.63
34:BA:1220:A:O2'	34:BA:1221:C:H5''	1.98	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:55:VAL:HG12	3:CC:55:VAL:O	1.99	0.63
17:CQ:65:ILE:HD12	17:CQ:65:ILE:N	2.13	0.63
49:DT:92:GLY:HA2	49:DT:114:LEU:CA	2.27	0.63
43:BN:66:LYS:HB3	43:BN:70:LYS:HB2	1.79	0.63
13:AM:15:VAL:O	13:AM:19:LEU:HD23	1.99	0.63
1:CA:376:G:O2'	1:CA:377:G:H5'	1.99	0.63
37:DD:270:ILE:O	37:DD:270:ILE:HD12	1.98	0.63
38:DE:117:MET:HA	38:DE:122:PHE:N	2.06	0.63
46:BQ:140:ALA:HB1	55:BZ:99:TYR:HB2	1.80	0.63
53:DX:55:ASN:ND2	53:DX:78:LYS:HE2	2.14	0.63
6:AF:50:TYR:CZ	18:AR:77:GLY:HA2	2.34	0.63
45:BP:131:SER:N	45:BP:134:ALA:HB3	2.12	0.63
36:BC:50:ASP:CG	36:BC:55:ASP:HA	2.19	0.63
13:AM:70:LEU:HD23	13:AM:70:LEU:C	2.18	0.63
4:AD:11:LEU:O	4:AD:13:ARG:O	2.17	0.63
34:DA:2308:G:H2'	34:DA:2309:A:C8	2.34	0.63
34:BA:2051:A:OP2	34:BA:2051:A:H8	1.82	0.63
48:BS:36:TYR:HD1	48:BS:36:TYR:N	1.95	0.63
23:CW:17:C:C4	34:DA:2180:U:H4'	2.34	0.63
1:CA:336:C:H2'	1:CA:337:C:C6	2.33	0.63
3:AC:64:VAL:HG21	3:AC:99:VAL:HG12	1.81	0.63
8:AH:28:ALA:HA	8:AH:59:LEU:HD21	1.81	0.63
34:DA:604:G:O2'	34:DA:605:C:H5'	1.98	0.63
39:DF:9:ILE:HG23	39:DF:13:SER:O	1.98	0.63
34:BA:1656:C:H2'	34:BA:1657:C:H6	1.63	0.63
2:AB:167:PRO:HG2	2:AB:168:THR:H	1.64	0.63
34:BA:492:A:H2'	34:BA:493:G:O4'	1.99	0.63
25:B0:17:GLN:O	25:B0:19:LYS:HD3	1.98	0.63
1:AA:662:G:H2'	1:AA:663:A:C8	2.34	0.63
34:DA:18:C:O3'	50:DU:23:GLY:HA2	1.98	0.63
42:DI:25:TYR:HE2	42:DI:29:TYR:CD2	2.16	0.63
16:CP:74:LEU:O	16:CP:79:VAL:HG23	1.98	0.63
1:CA:662:G:H2'	1:CA:663:A:C8	2.34	0.63
4:AD:67:ILE:HG22	4:AD:68:TYR:CD1	2.34	0.63
34:BA:152:G:H1	34:BA:174:C:H42	1.46	0.63
34:BA:247:G:H4'	34:BA:386:G:C5	2.33	0.63
2:AB:101:MET:HA	2:AB:108:ILE:HG13	1.81	0.63
50:DU:74:LEU:HD21	50:DU:110:VAL:HG13	1.80	0.63
53:BX:73:ARG:N	53:BX:74:PRO:CD	2.61	0.63
48:DS:17:ARG:O	48:DS:18:ILE:HG22	1.99	0.63
38:DE:52:LEU:H	38:DE:76:ARG:CB	2.12	0.63
49:BT:65:LYS:HZ2	49:BT:66:VAL:N	1.97	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BF:117:ARG:HH21	39:BF:187:VAL:HA	1.64	0.63
38:DE:101:ARG:HB3	38:DE:201:THR:OG1	1.99	0.63
34:BA:136:G:H1	34:BA:143(A):C:H42	1.46	0.63
39:DF:24:LEU:CB	39:DF:25:PRO:HD2	2.27	0.63
18:CR:43:PHE:C	18:CR:44:LEU:HD12	2.19	0.63
26:D1:47:GLN:OE1	34:DA:2230:G:H1'	1.98	0.63
34:DA:1497:U:H5'	34:DA:1498:C:H5	1.64	0.63
44:DO:63:VAL:HG23	44:DO:64:ARG:H	1.61	0.63
52:DW:83:LYS:O	52:DW:84:ARG:HD3	1.99	0.63
1:AA:1321:C:H5''	1:AA:1322:C:H5''	1.77	0.63
46:BQ:42:ILE:HG22	46:BQ:47:ILE:CD1	2.29	0.63
1:CA:579:G:H2'	1:CA:580:U:H6	1.64	0.63
47:DR:50:HIS:O	47:DR:54:LEU:HB2	1.98	0.63
19:CS:10:PHE:HZ	19:CS:70:LYS:HE2	1.64	0.63
34:DA:914:C:C2'	34:DA:915:C:H5'	2.26	0.63
9:CI:3:GLN:HG2	9:CI:20:ARG:NH2	2.14	0.63
34:BA:359:A:H2'	34:BA:360:G:O4'	1.98	0.63
20:AT:71:THR:HG22	20:AT:72:LEU:H	1.64	0.63
41:BH:153:LYS:N	41:BH:153:LYS:HD3	2.13	0.63
1:AA:922:G:H2'	1:AA:923:A:C8	2.33	0.63
1:AA:1435:G:H2'	1:AA:1436:U:H6	1.63	0.63
8:AH:119:LEU:HD12	8:AH:124:ALA:HA	1.79	0.63
13:AM:83:ASP:CG	13:AM:84:ILE:H	2.00	0.63
51:BV:25:LEU:N	51:BV:94:LEU:HD12	2.14	0.63
1:CA:250:A:H4'	1:CA:251:G:O5'	1.98	0.63
34:DA:2116:G:H5'	34:DA:2117:A:OP2	1.99	0.63
34:DA:2571:C:C5'	34:DA:2572:A:H5''	2.29	0.63
1:CA:1049:U:H1'	1:CA:1201:A:N7	2.13	0.63
51:BV:89:GLN:NE2	51:BV:90:PRO:HD2	2.14	0.62
53:DX:73:ARG:N	53:DX:74:PRO:CD	2.62	0.62
53:DX:40:LYS:C	53:DX:42:ALA:H	2.01	0.62
10:AJ:30:SER:OG	10:AJ:81:THR:HG22	1.98	0.62
34:BA:1899:G:O2'	34:BA:1900:A:H5''	1.98	0.62
26:B1:84:GLY:O	26:B1:85:LEU:HD23	1.98	0.62
34:DA:310:A:OP1	54:DY:18:GLY:HA2	1.99	0.62
55:DZ:30:ASN:C	55:DZ:32:HIS:H	2.03	0.62
29:D4:6:HIS:CA	40:DG:67:LYS:HE3	2.29	0.62
2:CB:115:LEU:HD23	2:CB:153:ARG:CZ	2.28	0.62
39:DF:20:LEU:O	39:DF:24:LEU:HD23	1.99	0.62
18:AR:58:LEU:HD23	18:AR:62:GLU:HB3	1.81	0.62
18:CR:26:LEU:HD21	18:CR:42:ARG:HD2	1.81	0.62
47:DR:41:ALA:C	47:DR:43:GLU:H	2.02	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:178:C:O2'	1:CA:179:A:H5'	1.99	0.62
1:AA:1370:G:O2'	1:AA:1371:G:H5'	1.99	0.62
41:DH:127:GLU:HB3	41:DH:128:PRO:CD	2.24	0.62
50:BU:26:GLY:C	50:BU:28:ARG:N	2.50	0.62
42:BI:37:VAL:HG12	42:BI:38:LEU:N	2.14	0.62
1:CA:728:A:H2'	1:CA:729:A:H8	1.63	0.62
34:BA:510:C:H2'	34:BA:511:U:O4'	1.98	0.62
41:BH:87:LEU:N	41:BH:131:VAL:O	2.32	0.62
4:AD:25:ARG:C	4:AD:27:TYR:H	2.02	0.62
34:DA:2631:G:N2	38:DE:61:ARG:NH1	2.47	0.62
25:D0:39:ARG:HH21	34:DA:2355:C:H1'	1.64	0.62
34:DA:2283:C:H2'	34:DA:2284:C:C5'	2.29	0.62
34:DA:2864:G:C8	34:DA:2864:G:H5'	2.30	0.62
34:BA:2426:A:H3'	34:BA:2427:C:C5'	2.28	0.62
3:CC:112:SER:HB3	3:CC:115:LEU:HD12	1.81	0.62
34:BA:2283:C:H2'	34:BA:2284:C:C5'	2.29	0.62
23:CY:33:U:H5'	23:CY:34:G:OP2	1.99	0.62
1:CA:1054:C:N4	23:CY:34:G:H1'	2.12	0.62
41:DH:153:LYS:N	41:DH:153:LYS:HD3	2.14	0.62
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.64	0.62
35:BB:16:G:O2'	35:BB:17:C:H5'	1.98	0.62
23:AW:6:G:O2'	23:AW:7:A:H5'	1.99	0.62
1:CA:1241:G:H2'	1:CA:1242:C:H6	1.64	0.62
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.34	0.62
13:AM:79:LYS:O	13:AM:82:MET:HB3	1.99	0.62
1:AA:644:G:H2'	1:AA:645:C:H5'	1.81	0.62
2:CB:101:MET:HA	2:CB:108:ILE:HG13	1.79	0.62
39:DF:198:ALA:O	39:DF:201:VAL:HG12	1.99	0.62
34:DA:485:C:O2'	34:DA:486:C:H5'	1.99	0.62
34:BA:307:G:H21	34:BA:330:A:H62	1.47	0.62
40:BG:91:ARG:C	40:BG:91:ARG:HD2	2.19	0.62
51:DV:19:LYS:HZ3	51:DV:20:LEU:N	1.96	0.62
28:D3:8:LEU:HB2	28:D3:28:LEU:HD13	1.79	0.62
45:DP:97:PRO:O	45:DP:98:GLU:HB3	1.97	0.62
42:DI:91:SER:HB3	42:DI:121:LYS:HE3	1.79	0.62
54:DY:9:LYS:HG3	54:DY:11:ASP:OD2	1.99	0.62
31:B6:10:LEU:HD22	31:B6:10:LEU:H	1.64	0.62
46:BQ:11:LYS:HE2	46:BQ:85:LYS:CG	2.26	0.62
47:BR:113:LEU:HD12	47:BR:114:VAL:H	1.64	0.62
10:AJ:6:ILE:O	10:AJ:71:LEU:HD12	1.98	0.62
41:BH:118:PRO:HB2	41:BH:121:ILE:HD12	1.81	0.62
16:CP:45:THR:HG22	16:CP:47:ASP:N	2.08	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DD:268:ARG:NH1	37:DD:269:PHE:HE1	1.96	0.62
46:DQ:29:PHE:O	46:DQ:30:GLY:O	2.16	0.62
53:BX:78:LYS:HD3	53:BX:78:LYS:O	1.98	0.62
40:DG:60:LEU:HD22	40:DG:63:ILE:HD11	1.80	0.62
43:DN:16:ILE:HG23	43:DN:54:VAL:HG22	1.81	0.62
38:DE:23:VAL:HA	38:DE:184:VAL:O	1.98	0.62
55:DZ:95:PRO:HA	55:DZ:130:PRO:HD3	1.81	0.62
54:DY:76:CYS:SG	54:DY:77:PRO:HD3	2.39	0.62
27:D2:15:LYS:O	27:D2:16:LEU:HB3	1.99	0.62
3:AC:77:ILE:HA	3:AC:84:ILE:HG22	1.79	0.62
40:DG:47:LYS:HE2	40:DG:82:LEU:HG	1.82	0.62
36:DC:49:ILE:CD1	36:DC:49:ILE:H	2.11	0.62
26:D1:40:ARG:NH1	26:D1:42:GLN:HA	2.13	0.62
4:AD:30:LYS:C	4:AD:32:ALA:H	2.03	0.62
38:BE:167:VAL:HG22	38:BE:170:LEU:HD11	1.79	0.62
34:DA:2182:G:H2'	34:DA:2183:C:C6	2.34	0.62
44:BO:89:ASN:O	44:BO:91:LEU:HD22	1.98	0.62
47:DR:4:LEU:C	47:DR:6:SER:H	2.01	0.62
47:BR:4:LEU:O	47:BR:6:SER:N	2.32	0.62
19:CS:41:VAL:HB	19:CS:44:MET:HG2	1.80	0.62
37:DD:223:GLY:O	37:DD:225:ALA:N	2.32	0.62
1:AA:302:G:H21	1:AA:556:C:C4'	2.12	0.62
34:BA:604:G:H2'	34:BA:605:C:H6	1.64	0.62
1:CA:644:G:H2'	1:CA:645:C:H5'	1.80	0.62
34:DA:1789:A:OP1	37:DD:222:ARG:HG3	1.98	0.62
51:DV:50:PRO:O	51:DV:51:VAL:HB	1.98	0.62
12:CL:82:VAL:HB	12:CL:106:ASP:OD1	2.00	0.62
34:BA:30:G:O2'	34:BA:31:C:H5'	1.99	0.62
34:BA:207:A:H2'	34:BA:208:C:O4'	1.99	0.62
36:DC:41:VAL:HB	36:DC:178:ALA:HB3	1.81	0.62
34:DA:70:G:H2'	34:DA:113:G:O2'	1.98	0.62
12:AL:119:LYS:C	12:AL:120:TYR:HD1	2.02	0.62
48:DS:17:ARG:HG3	48:DS:18:ILE:N	2.14	0.62
38:DE:93:VAL:HG21	38:DE:180:ASN:OD1	1.98	0.62
44:DO:69:ILE:N	44:DO:69:ILE:HD12	2.15	0.62
44:BO:69:ILE:HD12	44:BO:69:ILE:N	2.15	0.62
39:BF:53:THR:CG2	39:BF:56:GLU:HB2	2.21	0.62
54:DY:37:VAL:HG13	54:DY:69:ALA:HA	1.81	0.62
31:D6:10:LEU:H	31:D6:10:LEU:HD22	1.65	0.62
33:B8:13:ARG:NH2	34:BA:250:G:OP2	2.32	0.62
20:CT:18:GLN:O	20:CT:22:ARG:HG3	1.99	0.62
40:BG:70:VAL:HA	40:BG:90:LEU:HD12	1.79	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:D1:10:LYS:HG2	26:D1:14:VAL:HA	1.80	0.62
13:CM:49:THR:HG22	13:CM:51:ALA:H	1.64	0.62
37:BD:172:TYR:CD1	37:BD:186:HIS:HA	2.33	0.62
34:DA:389:G:N2	45:DP:71:VAL:HG12	2.13	0.62
42:DI:71:ILE:CG1	42:DI:72:LEU:HD22	2.27	0.62
13:AM:68:GLY:O	13:AM:70:LEU:N	2.32	0.62
34:BA:2513:G:H2'	34:BA:2514:U:C6	2.33	0.62
34:DA:1747:G:H2'	34:DA:1747(A):G:H8	1.63	0.62
34:DA:2330:G:O2'	34:DA:2331:G:H5'	1.99	0.62
1:AA:628:G:O2'	1:AA:629:G:H5'	1.99	0.62
30:B5:32:PRO:HD2	34:BA:2886:G:O2'	1.99	0.62
51:DV:47:VAL:HG13	51:DV:48:GLY:N	2.13	0.62
48:BS:58:LEU:CD2	48:BS:68:GLN:HB2	2.29	0.62
34:DA:2580:U:H5'	38:DE:131:ALA:H	1.63	0.62
35:DB:40:U:H1'	35:DB:45:A:H61	1.64	0.62
51:BV:5:VAL:HG21	51:BV:36:PRO:CG	2.28	0.62
9:AI:3:GLN:HG2	9:AI:20:ARG:NH2	2.14	0.62
34:BA:1710:C:O2'	34:BA:1711:C:H5'	1.99	0.62
54:BY:31:LEU:HB2	54:BY:36:ALA:H	1.64	0.62
11:AK:38:ASN:HD22	11:AK:38:ASN:N	1.96	0.62
35:BB:15:A:C3'	35:BB:16:G:H5'	2.28	0.62
35:BB:15:A:H5'	35:BB:16:G:H8	1.63	0.62
1:AA:1346:A:H5''	9:AI:120:ARG:HH12	1.63	0.62
37:BD:138:VAL:HA	37:BD:165:ILE:CG2	2.28	0.62
4:AD:110:PHE:CE2	4:AD:148:VAL:HG23	2.34	0.62
34:BA:1844:C:H5'	37:BD:256:GLY:O	1.99	0.62
34:BA:2772:C:H2'	34:BA:2773:C:H6	1.64	0.62
1:CA:1060:C:H2'	1:CA:1061:G:H8	1.63	0.62
34:BA:717:G:H2'	34:BA:718:A:O4'	2.00	0.62
34:DA:2092:U:H4'	34:DA:2093:G:O5'	2.00	0.62
3:AC:43:LEU:O	3:AC:47:LEU:HB3	1.99	0.62
34:DA:2024:G:O2'	34:DA:2025:C:H5'	1.99	0.62
3:CC:107:GLN:CD	3:CC:107:GLN:H	2.02	0.62
15:CO:3:ILE:HG12	15:CO:3:ILE:O	1.99	0.62
49:BT:108:ARG:HH11	49:BT:108:ARG:CB	2.11	0.62
7:CG:13:GLN:O	7:CG:24:THR:HG21	1.98	0.62
1:CA:779:C:O2'	1:CA:780:A:H5'	1.99	0.62
34:DA:2511:U:O3'	38:DE:123:ALA:HB3	1.99	0.62
18:AR:32:ARG:HA	18:AR:69:THR:HG21	1.80	0.62
34:BA:1162:G:N3	51:BV:91:TYR:HE1	1.96	0.62
50:BU:88:ILE:O	50:BU:90:VAL:N	2.31	0.62
54:BY:47:LYS:O	54:BY:49:VAL:HG23	1.98	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BP:143:GLY:C	45:BP:145:PRO:HD3	2.19	0.62
49:BT:28:VAL:CG2	49:BT:46:GLU:HA	2.30	0.62
49:BT:82:LEU:O	49:BT:83:ILE:C	2.37	0.62
2:AB:165:VAL:HG23	2:AB:166:ASP:H	1.62	0.62
38:BE:101:ARG:HB3	38:BE:201:THR:OG1	1.98	0.62
26:B1:89:GLU:HG2	26:B1:90:ILE:H	1.64	0.62
2:CB:185:ILE:HG22	2:CB:199:TYR:CB	2.25	0.62
27:B2:49:LYS:HA	27:B2:53:LEU:HB3	1.80	0.62
50:BU:57:PHE:HA	50:BU:60:LEU:HB2	1.80	0.62
34:BA:2722:G:H2'	34:BA:2723:C:C6	2.34	0.62
55:BZ:85:HIS:ND1	55:BZ:86:VAL:N	2.47	0.62
40:DG:140:ILE:HD12	40:DG:140:ILE:O	1.99	0.62
43:DN:57:ALA:CB	43:DN:124:ALA:HA	2.27	0.62
1:CA:955:U:O2'	1:CA:956:U:H5'	1.99	0.62
3:CC:70:VAL:HG12	3:CC:71:ALA:H	1.65	0.62
34:DA:1131:G:O2'	34:DA:1132:A:H8	1.73	0.62
34:BA:27:G:H1'	34:BA:513:A:N6	2.14	0.62
43:BN:120:LEU:CD1	43:BN:122:VAL:HG23	2.29	0.62
34:BA:2348:U:C2'	34:BA:2349:G:C5'	2.75	0.62
40:BG:25:TYR:CE2	40:BG:32:PRO:HD3	2.35	0.62
1:CA:353:A:H5'	1:CA:353:A:C8	2.32	0.62
1:AA:625:G:O2'	1:AA:626:U:H5'	1.99	0.62
1:CA:1504:G:OP1	1:CA:1507:A:H4'	2.00	0.62
38:BE:26:ILE:HG22	38:BE:27:LEU:N	2.13	0.62
30:D5:40:LYS:HE2	30:D5:46:CYS:HB3	1.82	0.62
34:DA:2884:U:C2'	34:DA:2885:C:H5'	2.29	0.62
9:CI:126:SER:O	9:CI:127:LYS:HB3	1.98	0.62
34:BA:893:C:H2'	34:BA:894:C:C5'	2.29	0.62
34:DA:893:C:H2'	34:DA:894:C:C5'	2.29	0.62
17:AQ:63:ARG:HG2	17:AQ:64:PRO:HD2	1.82	0.62
40:BG:127:GLY:HA2	40:BG:166:ASP:HB3	1.80	0.62
36:BC:41:VAL:HB	36:BC:178:ALA:HB3	1.81	0.62
34:BA:2162:G:H5'	34:BA:2171:A:H5''	1.82	0.62
30:B5:43:HIS:HD2	34:BA:2815:C:O2'	1.82	0.62
17:CQ:63:ARG:HG2	17:CQ:64:PRO:HD2	1.81	0.62
4:CD:58:LEU:HD23	4:CD:206:PHE:CE1	2.33	0.62
1:CA:417:C:O2'	1:CA:418:C:H5'	2.00	0.62
20:AT:18:GLN:O	20:AT:22:ARG:HG3	1.99	0.62
51:DV:72:VAL:HG12	51:DV:73:SER:N	2.14	0.62
37:DD:35:LYS:CG	37:DD:64:ILE:HG23	2.30	0.62
38:DE:55:ASN:CG	38:DE:75:VAL:HG13	2.20	0.62
10:AJ:32:ALA:H	10:AJ:78:ASN:HD21	1.47	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1204:A:N1	34:BA:1241:A:H2	1.97	0.62
28:B3:54:VAL:HG12	28:B3:55:ARG:N	2.12	0.62
54:DY:38:ILE:HG22	54:DY:39:VAL:N	2.12	0.62
2:CB:144:ARG:HG3	2:CB:145:LEU:N	2.15	0.62
50:DU:56:ASP:O	50:DU:60:LEU:HG	1.99	0.62
18:AR:53:ARG:HG3	18:AR:63:GLN:NE2	2.09	0.62
34:BA:1497:U:H5'	34:BA:1498:C:H5	1.64	0.62
41:BH:140:LYS:O	41:BH:144:VAL:HG23	1.99	0.62
5:AE:71:LEU:CD2	5:AE:115:VAL:HG13	2.29	0.62
10:AJ:94:VAL:HG12	10:AJ:95:GLU:N	2.14	0.62
5:CE:110:LEU:HD21	5:CE:139:LEU:HD21	1.79	0.62
47:BR:2:ARG:HD3	47:BR:5:LYS:HZ2	1.64	0.62
55:BZ:166:SER:HB2	55:BZ:167:PRO:C	2.19	0.62
51:BV:19:LYS:HZ2	51:BV:20:LEU:H	1.48	0.62
47:DR:5:LYS:HD2	47:DR:5:LYS:N	2.13	0.62
5:CE:129:ILE:O	5:CE:132:ALA:HB3	2.00	0.62
19:CS:9:VAL:HG12	19:CS:9:VAL:O	1.99	0.62
34:BA:2345:G:N3	34:BA:2381:C:H2'	2.14	0.62
34:DA:2311:A:C2	40:DG:82:LEU:HD12	2.32	0.62
38:BE:154:LYS:HE3	38:BE:154:LYS:CA	2.27	0.62
41:DH:158:HIS:O	41:DH:159:GLU:HB2	2.00	0.62
1:AA:277:C:O2'	1:AA:278:G:H5'	2.00	0.62
38:BE:11:MET:H	49:BT:8:LYS:HE3	1.63	0.62
1:CA:551:U:H2'	1:CA:552:U:H6	1.64	0.62
34:DA:1803:A:H2	34:DA:1822:G:N3	1.97	0.62
23:CW:28:G:H1	23:CW:42:C:H42	1.46	0.62
1:CA:936:C:H2'	1:CA:937:A:O4'	1.98	0.62
1:CA:1346:A:H5''	9:CI:120:ARG:HH12	1.65	0.62
1:AA:1096:C:O2'	1:AA:1097:C:H5'	2.00	0.62
8:AH:6:ILE:N	8:AH:6:ILE:HD12	2.14	0.62
34:BA:870:A:H5''	46:BQ:7:MET:HB2	1.81	0.62
36:BC:47:LEU:HD23	36:BC:47:LEU:N	2.14	0.62
1:AA:648:A:H2'	1:AA:649:G:H8	1.64	0.62
36:DC:76:ALA:HB3	36:DC:94:VAL:CG1	2.30	0.62
30:B5:59:GLU:O	30:B5:60:VAL:HG23	1.99	0.62
34:BA:1195:G:O2'	34:BA:1196:C:H5'	2.00	0.62
1:AA:1401:G:H2'	1:AA:1402:C:O4'	1.99	0.62
1:AA:1310:G:O2'	1:AA:1311:G:H5'	1.99	0.62
34:DA:671:C:O2'	34:DA:672:C:H5'	2.00	0.62
34:BA:608:A:OP1	39:BF:100:THR:HG21	1.99	0.62
15:AO:75:PRO:O	15:AO:78:TYR:HB3	1.99	0.62
5:CE:57:LYS:O	5:CE:61:TYR:HD2	1.81	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BE:30:PRO:HD3	38:BE:180:ASN:ND2	2.13	0.62
55:DZ:70:LEU:HG	55:DZ:91:LEU:HD11	1.81	0.62
12:AL:89:ARG:HH11	12:AL:89:ARG:HB2	1.65	0.62
34:BA:2870:C:H2'	34:BA:2871:C:O4'	1.99	0.62
1:AA:180:U:C2'	1:AA:181:G:H5''	2.24	0.62
55:BZ:40:ASP:HB3	55:BZ:43:GLU:HG3	1.80	0.62
26:D1:78:LYS:NZ	26:D1:90:ILE:HA	2.15	0.62
46:BQ:44:ALA:HA	46:BQ:47:ILE:HD13	1.81	0.62
34:DA:2723:C:H5''	47:DR:2:ARG:NE	2.15	0.62
50:BU:31:SER:O	50:BU:33:ARG:N	2.32	0.62
3:CC:54:ARG:NH1	3:CC:56:ASP:HB2	2.10	0.62
40:DG:45:GLU:HB2	40:DG:47:LYS:HG3	1.81	0.62
34:DA:806:C:OP2	45:DP:39:LYS:HD2	1.99	0.62
12:CL:18:VAL:HG23	12:CL:19:ARG:N	2.14	0.62
34:DA:2728:U:O2'	34:DA:2729:G:H5'	1.99	0.62
36:DC:21:THR:O	36:DC:22:ILE:HD13	1.99	0.62
5:AE:112:LEU:HD23	5:AE:112:LEU:N	2.13	0.62
1:AA:1118:C:N4	1:AA:1155:G:H1	1.98	0.62
51:BV:5:VAL:HG21	51:BV:36:PRO:HB2	1.80	0.62
9:AI:5:TYR:OH	9:AI:7:THR:HA	1.99	0.62
19:AS:41:VAL:HB	19:AS:44:MET:HG2	1.79	0.62
1:AA:221:C:O2'	1:AA:222:U:H5'	1.98	0.62
1:AA:1342:C:H1'	9:AI:124:GLN:HE22	1.64	0.62
54:DY:31:LEU:HG	54:DY:34:LYS:HB2	1.81	0.62
11:CK:70:LYS:O	11:CK:73:MET:HB2	1.98	0.62
34:BA:491:G:O2'	34:BA:492:A:H5'	2.00	0.62
4:CD:110:PHE:CE2	4:CD:148:VAL:HG23	2.35	0.62
51:BV:50:PRO:O	51:BV:51:VAL:HB	1.99	0.62
34:BA:2571:C:C5'	34:BA:2572:A:H5''	2.30	0.62
2:CB:169:LYS:HD2	2:CB:170:GLU:OE2	1.99	0.62
36:BC:34:THR:O	36:BC:35:ALA:CB	2.48	0.62
1:CA:1121:U:H2'	1:CA:1122:U:H6	1.64	0.62
34:BA:2323:G:H2'	34:BA:2324:C:O4'	1.98	0.62
2:CB:23:ARG:HH11	2:CB:23:ARG:HG3	1.63	0.62
38:DE:182:LEU:C	38:DE:183:LEU:HD12	2.20	0.62
37:DD:92:ILE:HD13	37:DD:104:TYR:CD2	2.35	0.62
38:DE:35:GLN:NE2	38:DE:37:ARG:HE	1.95	0.62
38:DE:55:ASN:HD21	38:DE:75:VAL:CG2	2.12	0.62
2:AB:44:LEU:HA	2:AB:47:THR:OG1	1.99	0.62
54:BY:26:LYS:HG2	54:BY:27:VAL:H	1.65	0.62
54:BY:17:SER:HA	54:BY:71:LYS:HD2	1.81	0.62
26:B1:11:ARG:HH11	26:B1:60:PHE:HA	1.65	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:B8:50:LEU:O	33:B8:52:LYS:N	2.28	0.62
34:BA:142:A:H5'	34:BA:142(A):C:OP2	1.99	0.62
34:BA:896:A:H5''	55:BZ:146:ILE:HD12	1.80	0.62
23:AW:17:C:C5	34:BA:2180:U:H4'	2.34	0.62
20:CT:57:ARG:HH11	20:CT:57:ARG:CB	2.06	0.62
41:BH:152:ARG:CB	41:BH:161:GLY:HA2	2.23	0.62
37:DD:172:TYR:CD1	37:DD:186:HIS:HA	2.34	0.62
34:BA:2893:G:H5'	34:BA:2894:G:C5'	2.27	0.62
51:BV:62:LEU:CD2	51:BV:98:GLU:HA	2.30	0.62
43:DN:120:LEU:CD1	43:DN:122:VAL:HG23	2.29	0.62
42:BI:71:ILE:HG13	42:BI:72:LEU:N	2.15	0.62
36:DC:49:ILE:HD12	36:DC:49:ILE:N	2.13	0.62
23:AW:51:U:H3	23:AW:63:G:H1	1.48	0.62
36:DC:18:LYS:HB3	36:DC:22:ILE:HD11	1.81	0.62
36:BC:18:LYS:HB3	36:BC:22:ILE:HD11	1.80	0.62
50:BU:112:ARG:O	50:BU:115:ALA:HB3	1.99	0.62
48:DS:36:TYR:CD1	48:DS:36:TYR:N	2.67	0.62
43:DN:78:TYR:CD1	43:DN:79:PRO:HD3	2.34	0.62
1:CA:541:G:O2'	1:CA:542:G:H5'	2.00	0.62
13:CM:83:ASP:CG	13:CM:84:ILE:H	2.02	0.62
1:CA:1514:C:O2'	1:CA:1515:C:H5'	2.00	0.62
34:BA:1842:G:H2'	34:BA:1843:C:C6	2.34	0.62
28:D3:23:LEU:HD11	28:D3:50:VAL:HG11	1.82	0.62
1:CA:1458:G:H2'	1:CA:1459:C:H6	1.65	0.62
34:DA:2387:U:H5'	34:DA:2388:A:OP2	2.00	0.62
34:DA:30:G:H2'	34:DA:31:C:C6	2.34	0.62
34:DA:30:G:O2'	34:DA:31:C:H5'	1.98	0.62
13:CM:46:LYS:HG3	13:CM:47:ASP:N	2.14	0.62
28:B3:23:LEU:HD11	28:B3:50:VAL:HG11	1.81	0.62
34:BA:792:G:H5''	34:BA:793:A:H5'	1.80	0.62
34:BA:2824:C:H2'	34:BA:2825:C:O4'	2.00	0.62
50:DU:91:ASP:OD2	50:DU:96:ALA:HB2	1.99	0.62
53:DX:58:HIS:C	53:DX:59:VAL:HG22	2.20	0.62
49:DT:65:LYS:HZ2	49:DT:66:VAL:N	1.98	0.62
23:AW:39:U:C2'	23:AW:40:C:C5'	2.72	0.62
26:B1:11:ARG:HB3	26:B1:12:PRO:CD	2.30	0.62
26:B1:13:ILE:HG23	26:B1:14:VAL:N	2.12	0.62
2:CB:91:PRO:HG3	2:CB:154:LEU:HD12	1.82	0.62
27:B2:52:ASP:O	27:B2:53:LEU:O	2.17	0.62
34:BA:2758:A:C3'	34:BA:2759:G:H5''	2.29	0.62
41:DH:37:VAL:HG12	41:DH:38:SER:N	2.14	0.62
41:DH:85:LYS:HZ1	41:DH:145:ALA:HA	1.65	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BE:117:MET:HA	38:BE:122:PHE:N	2.06	0.62
1:CA:78:G:H22	1:CA:91:C:N4	1.92	0.62
35:BB:74:U:H2'	35:BB:75:G:O4'	2.00	0.62
53:DX:29:TRP:CZ3	53:DX:76:ARG:HG2	2.35	0.62
34:BA:286:C:C3'	34:BA:287:C:H5''	2.29	0.62
41:BH:19:VAL:HG11	41:BH:44:VAL:HG22	1.80	0.62
34:BA:1322:A:O3'	52:BW:84:ARG:NH2	2.33	0.62
1:AA:1053:G:N7	1:AA:1200:C:H5''	2.14	0.62
1:CA:579:G:H2'	1:CA:580:U:C6	2.35	0.62
4:AD:65:ARG:HG3	4:AD:75:PHE:CD1	2.35	0.62
1:AA:253:U:H2'	1:AA:254:G:H8	1.65	0.62
32:D7:19:ARG:HG2	32:D7:19:ARG:NH1	2.13	0.62
5:CE:51:VAL:O	5:CE:55:VAL:HG23	2.00	0.62
49:BT:3:ARG:O	49:BT:7:ILE:HG12	1.99	0.62
25:D0:32:ARG:N	25:D0:35:ASN:ND2	2.47	0.62
2:CB:36:ARG:HB2	2:CB:41:ILE:CD1	2.30	0.62
34:DA:2887:U:H2'	34:DA:2888:C:H6	1.65	0.62
1:AA:336:C:H2'	1:AA:337:C:C6	2.33	0.62
3:AC:95:THR:HG21	3:AC:99:VAL:CG1	2.29	0.62
34:DA:2672:G:C3'	34:DA:2673:G:H5''	2.30	0.62
8:CH:86:ILE:HG12	8:CH:135:CYS:HA	1.82	0.62
36:DC:47:LEU:N	36:DC:47:LEU:HD23	2.15	0.62
34:BA:2832:U:H4'	34:BA:2833:G:H5''	1.81	0.62
1:CA:1431:C:H2'	1:CA:1432:G:O4'	1.99	0.62
34:DA:2828:C:O2'	34:DA:2829:C:H5'	1.99	0.62
44:DO:113:LYS:O	44:DO:117:LEU:HG	2.00	0.62
12:CL:45:PRO:HD3	12:CL:51:ALA:O	1.99	0.62
34:BA:1324:G:H3'	34:BA:1325:G:C5'	2.30	0.62
48:DS:48:LEU:N	48:DS:48:LEU:HD12	2.14	0.62
34:DA:491:G:O2'	34:DA:492:A:H5'	1.99	0.62
20:CT:82:SER:O	20:CT:86:ARG:HB2	1.99	0.62
51:DV:72:VAL:HA	51:DV:88:ARG:NH2	2.15	0.62
48:DS:89:ARG:CB	48:DS:97:ARG:HH12	2.12	0.62
34:BA:2295:C:O2'	34:BA:2296:U:H5'	1.99	0.62
48:BS:89:ARG:HB2	48:BS:97:ARG:HH22	1.64	0.62
34:BA:1245:G:OP1	45:BP:16:ARG:HD2	2.00	0.62
45:DP:33:ARG:O	45:DP:35:HIS:N	2.33	0.62
8:CH:89:PRO:HA	8:CH:92:ARG:NH1	2.15	0.62
26:D1:26:ARG:N	26:D1:26:ARG:HD3	2.13	0.62
37:BD:267:SER:HA	37:BD:270:ILE:CG1	2.29	0.62
30:D5:57:VAL:HB	30:D5:58:LEU:HD12	1.82	0.62
34:DA:27:G:H1'	34:DA:513:A:N6	2.13	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:B1:26:ARG:HB2	26:B1:34:THR:CA	2.28	0.62
40:DG:166:ASP:O	40:DG:170:ARG:N	2.26	0.62
13:CM:70:LEU:C	13:CM:70:LEU:HD23	2.20	0.62
34:DA:2590:A:H2'	34:DA:2591:C:H6	1.64	0.62
51:BV:2:PHE:O	51:BV:3:ALA:HB2	2.00	0.62
10:CJ:50:ILE:HA	10:CJ:60:ARG:HB3	1.82	0.62
34:BA:604:G:O2'	34:BA:605:C:H5'	1.99	0.62
51:DV:12:TYR:N	51:DV:12:TYR:HD2	1.97	0.62
28:D3:23:LEU:CD1	28:D3:50:VAL:HG11	2.30	0.62
7:AG:32:ARG:O	7:AG:33:ASP:HB2	1.99	0.62
34:BA:271(M):G:H2'	34:BA:271(N):U:C5'	2.30	0.62
1:AA:403:C:O2'	1:AA:404:U:H5'	2.00	0.62
34:DA:1642:G:O2'	34:DA:1643:G:H5'	2.00	0.62
5:CE:12:LEU:O	5:CE:13:ILE:HD12	1.99	0.62
40:DG:153:ARG:O	40:DG:153:ARG:HG2	2.00	0.62
10:CJ:92:THR:HG23	10:CJ:93:GLY:H	1.62	0.62
50:DU:95:LEU:HD12	51:DV:11:GLN:HG3	1.82	0.62
42:BI:110:ASP:C	42:BI:112:LYS:H	2.03	0.62
48:DS:17:ARG:CZ	48:DS:89:ARG:NH2	2.62	0.62
38:DE:57:LYS:C	38:DE:59:VAL:H	2.03	0.62
49:DT:92:GLY:C	49:DT:94:ALA:H	2.02	0.62
34:BA:1899:G:N2	34:BA:1902:C:N4	2.47	0.62
38:BE:69:LYS:O	38:BE:70:ALA:C	2.39	0.62
38:BE:55:ASN:HD21	38:BE:75:VAL:CG2	2.12	0.62
54:BY:9:LYS:HG3	54:BY:11:ASP:OD2	2.00	0.62
54:BY:71:LYS:HZ2	54:BY:71:LYS:HB2	1.65	0.62
26:D1:10:LYS:HG2	26:D1:14:VAL:C	2.20	0.62
43:BN:42:TRP:HE3	43:BN:48:MET:HE1	1.65	0.62
12:CL:46:LYS:HG2	12:CL:47:LYS:N	2.05	0.62
10:AJ:16:LEU:HD23	10:AJ:94:VAL:HG13	1.82	0.62
35:BB:74:U:H2'	35:BB:75:G:C5'	2.30	0.62
46:DQ:20:ALA:HB2	46:DQ:99:PRO:CG	2.30	0.62
26:D1:82:LEU:HG	26:D1:83:GLU:N	2.15	0.62
46:BQ:42:ILE:N	46:BQ:42:ILE:HD12	2.15	0.62
30:D5:20:ARG:HH12	52:DW:15:ARG:NE	1.97	0.62
5:CE:131:ILE:O	5:CE:134:ALA:HB3	2.00	0.62
34:DA:1722:A:H2	34:DA:1740:G:H2'	1.65	0.62
34:BA:2730:C:O2'	34:BA:2731:G:H5'	1.99	0.62
34:DA:2283:C:C2'	34:DA:2284:C:H5'	2.30	0.62
19:CS:39:THR:HG22	19:CS:40:ILE:N	2.15	0.62
34:BA:2287:A:C2	34:BA:2346:A:C2	2.88	0.62
12:AL:88:GLY:H	12:AL:98:TYR:HA	1.64	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:88:GLY:H	12:CL:98:TYR:HA	1.65	0.62
34:BA:2283:C:C2'	34:BA:2284:C:H5'	2.28	0.62
8:CH:11:THR:HA	8:CH:14:ARG:HH12	1.63	0.62
11:CK:18:ARG:HB3	11:CK:33:THR:OG1	2.00	0.62
13:CM:90:LEU:HA	13:CM:93:ARG:HB2	1.82	0.62
37:BD:31:LYS:HA	37:BD:31:LYS:NZ	2.14	0.62
3:CC:102:ASN:O	3:CC:103:VAL:HG23	1.99	0.62
1:AA:805:C:H2'	1:AA:806:C:H6	1.64	0.62
34:BA:1703:G:H2'	34:BA:1704:G:C8	2.35	0.62
37:DD:30:GLU:CD	37:DD:63:ARG:HE	2.03	0.61
48:DS:106:ARG:HD2	48:DS:106:ARG:O	2.00	0.61
53:DX:5:TYR:C	53:DX:7:VAL:H	2.03	0.61
1:AA:1442(A):G:H3'	1:AA:1442(B):A:C5'	2.30	0.61
49:BT:29:ARG:HG3	49:BT:30:VAL:HG13	1.80	0.61
37:BD:94:LEU:C	37:BD:94:LEU:HD13	2.21	0.61
33:D8:62:LEU:N	33:D8:63:PRO:HD2	2.14	0.61
10:AJ:97:GLU:C	10:AJ:98:ILE:HD12	2.20	0.61
12:CL:47:LYS:HB3	12:CL:48:PRO:CD	2.29	0.61
12:CL:91:LYS:O	12:CL:92:ASP:HB2	1.99	0.61
41:BH:105:LEU:HD22	41:BH:105:LEU:O	2.00	0.61
53:BX:57:LEU:HD22	53:BX:76:ARG:HD2	1.82	0.61
53:BX:5:TYR:C	53:BX:7:VAL:H	2.03	0.61
34:DA:2720:U:H5'	34:DA:2721:A:OP2	2.00	0.61
3:CC:77:ILE:HG22	3:CC:81:GLY:HA2	1.82	0.61
3:AC:77:ILE:HG22	3:AC:81:GLY:HA2	1.81	0.61
40:DG:125:PHE:HA	40:DG:130:ASN:O	1.99	0.61
28:D3:2:PRO:O	28:D3:39:ASP:HB3	2.00	0.61
4:AD:19:LEU:HD12	4:AD:19:LEU:H	1.64	0.61
49:DT:57:PHE:O	49:DT:59:THR:N	2.33	0.61
44:DO:32:TYR:N	44:DO:32:TYR:HD1	1.98	0.61
17:AQ:66:SER:OG	17:AQ:69:LYS:HB3	2.00	0.61
34:DA:1847:A:H3'	34:DA:1848:A:H5'	1.82	0.61
36:DC:18:LYS:O	36:DC:20:TYR:N	2.33	0.61
34:DA:292:C:N4	34:DA:348:G:H1	1.97	0.61
9:CI:53:VAL:HB	9:CI:92:TYR:CE2	2.35	0.61
37:DD:142:VAL:HG23	37:DD:193:VAL:N	2.14	0.61
32:D7:12:ARG:HG3	34:DA:686:G:O6	2.00	0.61
34:DA:686:G:N2	34:DA:788:A:H61	1.98	0.61
9:CI:126:SER:O	9:CI:128:ARG:HD2	2.00	0.61
35:DB:16:G:O2'	35:DB:17:C:H5'	2.00	0.61
34:DA:1114:G:H2'	34:DA:1115:G:C5'	2.29	0.61
49:DT:108:ARG:HB3	49:DT:108:ARG:HH11	1.64	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BC:76:ALA:HB3	36:BC:94:VAL:HG13	1.82	0.61
34:DA:2074:U:H2'	34:DA:2075:U:C6	2.35	0.61
46:BQ:109:VAL:HG12	46:BQ:110:THR:H	1.65	0.61
5:AE:47:LYS:N	5:AE:47:LYS:HD3	2.14	0.61
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.00	0.61
6:AF:82:ARG:HB3	6:AF:82:ARG:HH11	1.63	0.61
34:BA:1317:A:H2'	34:BA:1318:C:H6	1.65	0.61
34:DA:2377:A:H4'	48:DS:107:GLU:CB	2.29	0.61
49:BT:29:ARG:HG2	49:BT:86:ILE:H	1.66	0.61
54:BY:17:SER:CA	54:BY:71:LYS:HD2	2.30	0.61
37:BD:35:LYS:NZ	37:BD:65:ILE:HA	2.15	0.61
38:BE:52:LEU:H	38:BE:76:ARG:HB3	1.63	0.61
55:DZ:48:PHE:O	55:DZ:52:SER:N	2.32	0.61
2:CB:42:ILE:HD11	2:CB:202:PRO:HB2	1.80	0.61
33:D8:13:ARG:HB3	45:DP:63:PRO:HA	1.81	0.61
27:B2:47:ASN:C	27:B2:49:LYS:N	2.46	0.61
40:BG:115:ARG:NH2	40:BG:136:ARG:HG3	2.14	0.61
18:AR:26:LEU:HD21	18:AR:42:ARG:HD2	1.81	0.61
43:BN:40:PRO:HA	50:BU:64:ARG:NH2	2.14	0.61
41:BH:37:VAL:HG12	41:BH:38:SER:N	2.15	0.61
41:BH:85:LYS:HZ1	41:BH:145:ALA:HA	1.65	0.61
10:CJ:98:ILE:HD12	10:CJ:98:ILE:N	2.15	0.61
1:AA:386:C:O2'	1:AA:387:U:H5'	1.99	0.61
46:BQ:23:GLY:C	46:BQ:100:GLY:HA3	2.20	0.61
34:DA:2722:G:H2'	34:DA:2723:C:C6	2.35	0.61
26:B1:32:LYS:HA	34:BA:2396:G:O2'	2.00	0.61
43:DN:82:LEU:H	43:DN:82:LEU:HD12	1.65	0.61
47:BR:45:ARG:HG3	47:BR:46:GLY:N	2.11	0.61
36:DC:51:PRO:HG3	36:DC:204:ALA:HB3	1.81	0.61
1:CA:737:A:H2'	1:CA:738:C:H6	1.62	0.61
5:AE:126:ARG:NH1	5:AE:126:ARG:HG3	2.10	0.61
37:BD:148:GLU:HB2	37:BD:151:LYS:HD2	1.82	0.61
48:BS:30:ARG:NH2	48:BS:62:LYS:HD2	2.15	0.61
36:DC:22:ILE:CG2	36:DC:25:ALA:HB2	2.30	0.61
34:DA:919:G:H5''	35:DB:81:G:H1'	1.81	0.61
36:BC:22:ILE:CG2	36:BC:25:ALA:HB2	2.31	0.61
34:BA:292:C:N4	34:BA:348:G:H1	1.96	0.61
39:BF:57:VAL:CG1	39:BF:58:ALA:H	2.12	0.61
30:D5:40:LYS:HD3	30:D5:46:CYS:HB3	1.82	0.61
49:DT:108:ARG:NH1	49:DT:108:ARG:HB3	2.15	0.61
34:BA:1171:G:H3'	34:BA:1173:G:O4'	2.01	0.61
1:CA:603:U:O2'	1:CA:604:G:H5'	2.00	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:237:C:O2'	34:DA:238:C:H5'	1.99	0.61
34:DA:1430:C:H2'	34:DA:1431:U:H6	1.66	0.61
1:AA:1121:U:H2'	1:AA:1122:U:H6	1.65	0.61
34:DA:185:U:H4'	34:DA:218:A:H4'	1.81	0.61
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.35	0.61
35:BB:73:A:H2	55:BZ:34:ASN:HD21	1.48	0.61
4:AD:49:ARG:HE	4:AD:49:ARG:HA	1.65	0.61
35:DB:3:C:H42	35:DB:118:G:H1	1.48	0.61
4:CD:49:ARG:HE	4:CD:49:ARG:HA	1.64	0.61
53:DX:39:ILE:O	53:DX:42:ALA:HB3	2.00	0.61
37:BD:255:LYS:N	37:BD:255:LYS:HE3	2.15	0.61
38:BE:30:PRO:O	38:BE:32:PRO:HD3	2.00	0.61
34:BA:1204:A:N1	34:BA:1241:A:C2	2.68	0.61
54:DY:15:VAL:O	54:DY:16:ALA:HB2	1.99	0.61
54:DY:20:TYR:CE1	54:DY:42:VAL:HG22	2.35	0.61
55:DZ:10:ARG:NH2	55:DZ:26:GLY:N	2.47	0.61
53:BX:39:ILE:O	53:BX:42:ALA:HB3	2.00	0.61
34:BA:2697:G:O2'	34:BA:2698:U:H5'	2.00	0.61
38:BE:117:MET:CA	38:BE:122:PHE:H	2.08	0.61
34:BA:2677:G:H2'	34:BA:2678:C:H6	1.65	0.61
37:BD:147:LEU:HD13	37:BD:155:LEU:CD1	2.27	0.61
46:DQ:127:ILE:HG22	46:DQ:128:LYS:N	2.09	0.61
40:DG:139:LEU:HD12	40:DG:140:ILE:N	2.15	0.61
12:AL:32:PHE:CB	12:AL:84:LEU:HD21	2.29	0.61
50:DU:26:GLY:C	50:DU:28:ARG:N	2.51	0.61
36:DC:50:ASP:CG	36:DC:55:ASP:HA	2.21	0.61
4:AD:8:VAL:O	4:AD:10:ARG:N	2.32	0.61
47:BR:79:LEU:HD23	47:BR:83:ILE:HB	1.82	0.61
6:AF:9:VAL:HA	6:AF:59:TYR:O	2.00	0.61
34:DA:549:G:H2'	34:DA:551:G:H5''	1.82	0.61
8:AH:33:GLU:O	8:AH:36:LEU:HB2	1.99	0.61
1:CA:1505:G:H5''	1:CA:1506:U:H5''	1.83	0.61
36:BC:18:LYS:O	36:BC:20:TYR:N	2.32	0.61
49:BT:98:LYS:HB3	49:BT:100:TYR:HE1	1.64	0.61
2:AB:41:ILE:HD12	2:AB:41:ILE:N	2.14	0.61
52:BW:10:VAL:HG23	52:BW:101:SER:O	2.00	0.61
1:CA:1053:G:N7	1:CA:1200:C:H5''	2.15	0.61
9:AI:5:TYR:HA	9:AI:17:VAL:O	2.01	0.61
19:AS:44:MET:SD	19:AS:44:MET:N	2.73	0.61
51:DV:80:GLN:C	51:DV:80:GLN:OE1	2.38	0.61
1:CA:797:C:OP1	11:CK:124:LYS:HE2	2.00	0.61
34:BA:892:G:C8	34:BA:893:C:C4	2.88	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BE:57:LYS:C	38:BE:59:VAL:H	2.03	0.61
16:CP:4:ILE:HB	16:CP:66:PRO:HB3	1.81	0.61
1:CA:271:C:H2'	1:CA:272:C:H6	1.65	0.61
34:BA:412:A:H2'	34:BA:413:C:H5'	1.80	0.61
17:AQ:25:ARG:HG3	17:AQ:25:ARG:O	1.99	0.61
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.35	0.61
14:CN:6:LEU:HB3	14:CN:23:ARG:NH2	2.15	0.61
50:DU:92:ARG:C	50:DU:94:ASN:N	2.54	0.61
51:DV:73:SER:HB2	51:DV:75:PHE:CZ	2.36	0.61
45:DP:17:LYS:C	45:DP:19:VAL:N	2.54	0.61
48:DS:89:ARG:O	48:DS:92:TYR:CG	2.54	0.61
48:BS:85:VAL:HG23	48:BS:106:ARG:CB	2.28	0.61
26:B1:89:GLU:N	26:B1:89:GLU:CD	2.50	0.61
27:B2:14:ARG:CZ	27:B2:57:ILE:CG2	2.76	0.61
34:DA:2701:C:C3'	34:DA:2702:U:H5''	2.15	0.61
46:DQ:140:ALA:CB	55:DZ:99:TYR:HB2	2.30	0.61
2:CB:141:GLU:O	2:CB:145:LEU:HB2	2.01	0.61
34:DA:2415:G:H2'	34:DA:2416:C:C6	2.35	0.61
39:BF:78:ILE:N	39:BF:78:ILE:HD13	2.08	0.61
46:DQ:42:ILE:N	46:DQ:42:ILE:HD12	2.16	0.61
34:BA:2807:G:H1	34:BA:2892:A:H62	1.48	0.61
43:BN:15:LEU:HD21	43:BN:55:VAL:CG2	2.30	0.61
12:AL:32:PHE:HB3	12:AL:84:LEU:CD2	2.27	0.61
34:DA:2870:C:H2'	34:DA:2871:C:O4'	1.99	0.61
47:BR:45:ARG:CG	47:BR:46:GLY:H	2.09	0.61
54:DY:75:ILE:HD11	54:DY:79:CYS:CA	2.31	0.61
46:BQ:55:VAL:HG23	55:BZ:178:GLU:HB3	1.80	0.61
43:BN:82:LEU:H	43:BN:82:LEU:HD12	1.66	0.61
4:CD:8:VAL:O	4:CD:10:ARG:N	2.30	0.61
1:AA:1151:A:HO2'	1:AA:1152:A:H8	1.47	0.61
34:BA:2330:G:O2'	34:BA:2331:G:H5'	2.00	0.61
34:BA:2040:C:H2'	34:BA:2041:U:H6	1.66	0.61
7:CG:84:ASN:OD1	23:CW:33:U:H5''	2.01	0.61
8:CH:28:ALA:HA	8:CH:59:LEU:HD21	1.82	0.61
1:CA:797:C:O2'	1:CA:798:G:H5'	1.99	0.61
54:DY:31:LEU:HB2	54:DY:36:ALA:H	1.65	0.61
34:DA:2735:G:O2'	34:DA:2736:G:H5''	2.00	0.61
34:BA:1773:A:H2'	34:BA:1774:C:H5'	1.81	0.61
46:DQ:6:ARG:O	46:DQ:6:ARG:HG3	2.00	0.61
34:BA:1441:G:O2'	34:BA:1442:G:H5'	1.99	0.61
34:BA:1278:A:O2'	34:BA:1279:G:H5'	2.00	0.61
34:BA:1642:G:O2'	34:BA:1643:G:H5'	2.01	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BC:74:VAL:HA	36:BC:119:VAL:CB	2.30	0.61
1:CA:403:C:O2'	1:CA:404:U:H5'	2.00	0.61
34:BA:2186:G:H2'	34:BA:2187:G:H5''	1.82	0.61
48:DS:89:ARG:HB2	48:DS:97:ARG:HH22	1.64	0.61
38:DE:30:PRO:HD3	38:DE:180:ASN:ND2	2.14	0.61
34:BA:2864:G:O2'	34:BA:2865:U:H5'	1.99	0.61
34:BA:2779:U:H1'	34:BA:2781:A:C5	2.35	0.61
34:DA:2523:G:H8	34:DA:2523:G:H5'	1.66	0.61
37:BD:35:LYS:HZ1	37:BD:65:ILE:HA	1.63	0.61
37:BD:83:GLU:HB2	37:BD:92:ILE:HD11	1.81	0.61
42:DI:127:VAL:HG22	42:DI:139:GLN:CG	2.31	0.61
47:BR:54:LEU:HD21	47:BR:65:LEU:HB3	1.81	0.61
10:AJ:98:ILE:N	10:AJ:98:ILE:HD12	2.15	0.61
34:DA:2103:C:C3'	34:DA:2104:G:H5''	2.25	0.61
44:BO:63:VAL:CG2	44:BO:64:ARG:N	2.63	0.61
55:BZ:40:ASP:HB3	55:BZ:43:GLU:CG	2.30	0.61
37:BD:268:ARG:NH1	37:BD:269:PHE:HE1	1.99	0.61
34:DA:285:C:H3'	34:DA:286:C:H5''	1.82	0.61
34:DA:2807:G:H1	34:DA:2892:A:H62	1.48	0.61
30:B5:50:GLY:HA3	30:B5:56:LYS:HG2	1.82	0.61
1:AA:1320:C:H5'	19:AS:70:LYS:HG3	1.83	0.61
19:AS:9:VAL:HG12	19:AS:9:VAL:O	1.99	0.61
1:CA:1227:A:H2'	1:CA:1228:C:O5'	2.00	0.61
1:AA:707:C:O2'	1:AA:708:C:H5'	2.00	0.61
1:CA:707:C:OP1	11:CK:85:ARG:NH1	2.33	0.61
34:DA:674:G:P	39:DF:54:ARG:HH22	2.24	0.61
41:BH:158:HIS:O	41:BH:159:GLU:HB2	1.99	0.61
34:DA:2845:G:OP1	49:DT:56:GLY:N	2.33	0.61
9:AI:103:THR:HG22	9:AI:105:ASP:N	2.15	0.61
34:BA:2728:U:O2'	34:BA:2729:G:H5'	2.00	0.61
1:AA:1431:C:C2'	1:AA:1432:G:H5'	2.31	0.61
40:BG:19:LEU:HD22	40:BG:23:PHE:HE1	1.64	0.61
34:DA:1230:C:H2'	34:DA:1231:G:H8	1.65	0.61
34:DA:271(P):C:H5''	42:DI:45:LYS:HE3	1.80	0.61
1:AA:35:G:H2'	1:AA:36:C:C6	2.36	0.61
2:CB:197:VAL:CG1	2:CB:200:ILE:HG12	2.31	0.61
23:AW:48:C:H2'	23:AW:59:U:H4'	1.81	0.61
39:DF:80:ALA:O	39:DF:83:PHE:HB2	2.00	0.61
39:BF:9:ILE:HG23	39:BF:13:SER:O	2.00	0.61
1:CA:389:A:H2'	1:CA:390:C:H5'	1.81	0.61
44:DO:104:ARG:HH12	49:DT:35:LYS:HD3	1.65	0.61
35:BB:3:C:N4	35:BB:118:G:H1	1.99	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:113:LYS:H	9:CI:113:LYS:HD2	1.65	0.61
9:AI:113:LYS:H	9:AI:113:LYS:HD2	1.64	0.61
30:B5:6:VAL:HG13	30:B5:7:PRO:HD2	1.81	0.61
36:DC:34:THR:O	36:DC:35:ALA:CB	2.49	0.61
34:BA:1000:A:H5'	34:BA:1001:A:OP2	2.00	0.61
1:CA:1019:C:O2'	1:CA:1020:U:H5'	2.01	0.61
46:DQ:109:VAL:HG12	46:DQ:110:THR:H	1.65	0.61
1:CA:683:G:H2'	1:CA:684:A:C8	2.35	0.61
7:AG:38:LEU:O	7:AG:42:ILE:HG13	2.01	0.61
34:BA:2277:G:C2'	34:BA:2278:A:H5'	2.29	0.61
1:CA:1418:A:C2	1:CA:1483:A:C2	2.88	0.61
34:BA:706:A:H2'	34:BA:707:G:O4'	2.00	0.61
48:DS:89:ARG:CB	48:DS:97:ARG:HH22	2.13	0.61
38:DE:30:PRO:O	38:DE:32:PRO:HD3	2.01	0.61
48:BS:17:ARG:O	48:BS:18:ILE:HG22	2.00	0.61
48:BS:87:PHE:HB2	48:BS:106:ARG:HD3	1.81	0.61
3:CC:10:PHE:HD2	3:CC:11:ARG:NH1	1.99	0.61
38:BE:176:ILE:N	38:BE:176:ILE:HD12	2.15	0.61
38:BE:4:ILE:O	38:BE:4:ILE:HG23	2.00	0.61
54:BY:16:ALA:HA	54:BY:21:LYS:HD2	1.80	0.61
54:BY:38:ILE:N	54:BY:66:PRO:O	2.34	0.61
31:D6:10:LEU:CD1	33:D8:36:LYS:HD3	2.31	0.61
33:B8:13:ARG:HB3	45:BP:63:PRO:HA	1.82	0.61
52:BW:25:ARG:HH11	52:BW:25:ARG:CB	2.08	0.61
18:CR:53:ARG:HG3	18:CR:63:GLN:NE2	2.10	0.61
20:AT:56:MET:O	20:AT:59:ALA:HB3	2.00	0.61
22:AV:52:G:O2'	22:AV:53:G:H8	1.77	0.61
6:AF:18:GLN:O	6:AF:21:LEU:HB2	2.00	0.61
1:CA:1320:C:H5'	19:CS:70:LYS:HG3	1.81	0.61
52:DW:59:VAL:CG1	52:DW:60:ASN:N	2.53	0.61
25:D0:38:VAL:HB	25:D0:59:LEU:HD12	1.81	0.61
54:BY:75:ILE:HD12	54:BY:76:CYS:N	2.14	0.61
34:BA:1259:G:O2'	34:BA:1260:G:H5'	2.01	0.61
1:AA:782:A:H2'	1:AA:783:C:H5'	1.83	0.61
34:BA:742:G:O2'	34:BA:743:G:H5'	1.99	0.61
34:DA:870:A:H5''	46:DQ:7:MET:HB2	1.82	0.61
1:AA:123:C:H42	1:AA:238:G:H1	1.48	0.61
34:DA:1403:C:H5''	34:DA:1471:A:H1'	1.82	0.61
34:BA:2290:G:H5'	34:BA:2290:G:H8	1.66	0.61
34:BA:1907:G:O2'	34:BA:1908:C:H5'	2.00	0.61
1:CA:27:G:O2'	1:CA:28:G:H5'	1.99	0.61
48:BS:42:ASP:C	48:BS:44:LYS:H	2.04	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2774:C:H2'	34:DA:2775:A:O4'	2.00	0.61
17:CQ:14:LYS:HB2	17:CQ:14:LYS:NZ	2.15	0.61
13:CM:31:LYS:HA	13:CM:34:LEU:HD12	1.83	0.61
50:DU:79:PHE:C	50:DU:79:PHE:HD2	2.03	0.61
51:DV:72:VAL:O	51:DV:73:SER:HB3	2.01	0.61
50:BU:92:ARG:O	50:BU:95:LEU:N	2.33	0.61
51:BV:73:SER:HB2	51:BV:75:PHE:CZ	2.35	0.61
2:AB:115:LEU:HD23	2:AB:153:ARG:CZ	2.30	0.61
54:BY:15:VAL:O	54:BY:16:ALA:HB2	2.01	0.61
45:BP:16:ARG:HG3	45:BP:16:ARG:NH1	2.14	0.61
34:BA:661:C:H4'	45:BP:18:ARG:HG2	1.83	0.61
42:DI:77:LEU:HD11	42:DI:101:LEU:HD22	1.81	0.61
12:AL:45:PRO:HD3	12:AL:51:ALA:O	2.01	0.61
47:BR:113:LEU:HD12	47:BR:114:VAL:N	2.15	0.61
41:DH:61:HIS:O	41:DH:65:HIS:N	2.31	0.61
41:DH:103:LEU:H	41:DH:103:LEU:HD23	1.65	0.61
10:AJ:40:LEU:CD2	10:AJ:40:LEU:H	2.12	0.61
1:AA:178:C:O2'	1:AA:179:A:H5'	2.00	0.61
44:DO:20:MET:O	44:DO:41:ALA:HB1	2.01	0.61
52:BW:59:VAL:CG1	52:BW:60:ASN:N	2.56	0.61
12:CL:6:THR:N	12:CL:9:GLN:HE21	1.92	0.61
54:DY:48:ALA:O	54:DY:58:GLY:HA3	1.99	0.61
37:BD:235:GLY:O	37:BD:237:GLU:HG2	2.01	0.61
4:CD:11:LEU:O	4:CD:13:ARG:O	2.18	0.61
38:BE:11:MET:N	49:BT:8:LYS:HE3	2.16	0.61
12:CL:23:LYS:O	12:CL:24:VAL:HG23	2.01	0.61
51:BV:5:VAL:CG2	51:BV:36:PRO:HB2	2.31	0.61
30:D5:32:PRO:HD2	34:DA:2886:G:O2'	2.01	0.61
42:DI:58:LEU:HA	42:DI:61:ARG:NH1	2.15	0.61
43:DN:96:GLU:HG2	43:DN:97:ARG:H	1.65	0.61
51:DV:24:LYS:HA	51:DV:94:LEU:HD12	1.82	0.61
34:BA:1114:G:H2'	34:BA:1115:G:C5'	2.31	0.61
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.36	0.61
34:DA:2571:C:H5'	34:DA:2572:A:H5''	1.83	0.61
34:DA:492:A:H2'	34:DA:493:G:O4'	2.01	0.61
22:AV:17:C:H5''	22:AV:17(A):U:C6	2.35	0.61
5:AE:57:LYS:O	5:AE:61:TYR:HD2	1.84	0.61
34:BA:237:C:O2'	34:BA:238:C:H5'	2.00	0.61
17:AQ:38:ARG:HA	17:AQ:38:ARG:HE	1.65	0.61
2:AB:103:THR:HA	2:AB:180:LEU:HD11	1.83	0.61
51:BV:72:VAL:HA	51:BV:88:ARG:NH2	2.15	0.61
38:DE:26:ILE:HG22	38:DE:27:LEU:N	2.15	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:D3:7:LYS:C	28:D3:54:VAL:HG13	2.21	0.61
38:BE:55:ASN:CG	38:BE:75:VAL:HG13	2.21	0.61
34:BA:1504:C:O2'	34:BA:1505:C:C5'	2.48	0.61
43:DN:42:TRP:HA	43:DN:48:MET:HE1	1.83	0.61
55:DZ:152:ALA:HB1	55:DZ:167:PRO:HB2	1.83	0.61
34:BA:2030:A:H5''	34:BA:2031:A:OP1	2.01	0.61
10:CJ:97:GLU:C	10:CJ:98:ILE:HD12	2.20	0.61
16:AP:34:GLU:OE2	16:AP:55:ARG:HD3	2.00	0.61
1:CA:386:C:O2'	1:CA:387:U:H5'	2.00	0.61
34:BA:588:U:H2'	34:BA:589:C:C6	2.35	0.61
5:AE:102:ALA:HB1	5:AE:106:PRO:HG2	1.82	0.61
34:DA:2640:G:C8	34:DA:2640:G:H5'	2.28	0.61
34:DA:659:C:H5'	34:DA:659:C:H6	1.65	0.61
11:AK:43:SER:OG	11:AK:47:VAL:HG11	2.01	0.61
34:DA:2345:G:N3	34:DA:2381:C:H2'	2.15	0.61
45:BP:115:LEU:HA	45:BP:134:ALA:CB	2.29	0.61
34:DA:1019:U:HO2'	34:DA:1021:A:H2	1.47	0.61
1:AA:1192:C:H2'	1:AA:1193:G:O4'	2.01	0.61
34:BA:2658:C:O2	34:BA:2658:C:H2'	1.99	0.61
34:BA:659:C:H6	34:BA:659:C:C5'	2.14	0.61
12:AL:18:VAL:HG23	12:AL:19:ARG:N	2.15	0.61
8:CH:20:TYR:HD1	8:CH:65:TYR:CD2	2.19	0.61
2:CB:114:ARG:HA	2:CB:117:GLU:HG3	1.82	0.61
34:DA:2863:C:H2'	34:DA:2864:G:H5''	1.83	0.61
25:D0:43:THR:HG22	34:DA:2331:G:O2'	2.00	0.61
34:BA:1227:G:OP1	50:BU:13:LYS:HD3	2.01	0.61
34:DA:1665:A:O2'	34:DA:1666:G:H5'	2.00	0.61
5:CE:36:ASP:O	5:CE:37:ARG:HB2	2.00	0.61
34:DA:1221(A):C:H2'	34:DA:1222:C:H6	1.65	0.61
49:DT:50:ILE:HD11	49:DT:64:ARG:CB	2.31	0.61
3:CC:64:VAL:HG21	3:CC:99:VAL:HG12	1.83	0.61
45:BP:80:TYR:CE2	45:BP:111:ARG:HG2	2.35	0.61
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.16	0.61
51:DV:51:VAL:HG12	51:DV:52:VAL:N	2.15	0.61
41:DH:76:VAL:HG12	41:DH:77:LYS:N	2.16	0.61
34:DA:2186:G:H2'	34:DA:2187:G:H5''	1.82	0.61
47:DR:100:LEU:HD23	47:DR:112:ALA:HA	1.82	0.61
34:DA:473:G:H5''	34:DA:508:G:N2	2.15	0.61
34:BA:1654:A:C2	38:BE:113:PHE:CD1	2.88	0.61
37:DD:35:LYS:HZ1	37:DD:65:ILE:HA	1.66	0.61
45:DP:16:ARG:NH1	45:DP:16:ARG:HG3	2.16	0.61
37:BD:126:GLN:O	37:BD:193:VAL:HG11	2.00	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BS:89:ARG:O	48:BS:92:TYR:CG	2.54	0.61
34:BA:145:G:H2'	34:BA:146:G:C5'	2.21	0.61
47:BR:63:ARG:HA	47:BR:80:PHE:CZ	2.35	0.61
34:DA:1496:A:H8	34:DA:1577:C:HO2'	1.47	0.61
5:CE:71:LEU:CD2	5:CE:115:VAL:HG13	2.31	0.61
53:BX:55:ASN:HB2	53:BX:78:LYS:HD2	1.83	0.61
51:BV:21:ARG:CD	51:BV:21:ARG:H	2.10	0.61
34:DA:1697:G:C5'	34:DA:1698:A:H5''	2.31	0.61
1:CA:1320:C:H5'	19:CS:70:LYS:CG	2.31	0.61
1:AA:1520:G:O2'	1:AA:1521:G:H5'	2.01	0.61
1:AA:1522:U:H2'	1:AA:1523:G:C8	2.32	0.61
46:BQ:52:VAL:CG1	46:BQ:53:ALA:H	2.10	0.61
23:AW:45:U:O2'	23:AW:46:G:H5'	2.00	0.61
44:DO:89:ASN:O	44:DO:91:LEU:HD22	2.01	0.61
34:DA:542:C:N4	34:DA:543:C:H41	1.98	0.61
32:B7:19:ARG:NH1	32:B7:19:ARG:HG2	2.15	0.61
34:BA:2051:A:H5'	34:BA:2578:G:O4'	2.00	0.61
35:DB:30:C:OP2	48:DS:32:LEU:HD11	1.99	0.61
47:BR:11:ASN:O	47:BR:12:ARG:HB2	2.01	0.61
7:AG:13:GLN:O	7:AG:24:THR:HG21	2.00	0.61
34:BA:1750:G:O2'	34:BA:1751:C:H5'	2.01	0.61
34:DA:1887:C:H2'	34:DA:1888:G:H5''	1.82	0.61
1:AA:1003:G:C2	1:AA:1004:A:H1'	2.36	0.61
34:BA:2735:G:O2'	34:BA:2736:G:H5''	2.01	0.61
34:DA:2208:A:H1'	34:DA:2219:G:C4	2.35	0.61
31:B6:36:LEU:HD13	31:B6:50:ARG:CZ	2.31	0.61
49:BT:108:ARG:NH1	49:BT:108:ARG:HB3	2.16	0.61
34:BA:1001:A:H2'	34:BA:1002:G:O4'	2.00	0.61
1:AA:1070:U:O2'	1:AA:1071:C:H5'	2.01	0.61
7:CG:38:LEU:O	7:CG:42:ILE:HG13	2.01	0.61
12:AL:82:VAL:HB	12:AL:106:ASP:OD1	2.00	0.61
38:BE:197:ILE:HD11	38:BE:199:ARG:HH22	1.66	0.61
55:DZ:128:VAL:CG2	55:DZ:161:VAL:HG22	2.31	0.61
7:AG:93:PRO:HA	7:AG:96:GLN:HB2	1.81	0.61
1:AA:683:G:H2'	1:AA:684:A:C8	2.36	0.61
34:BA:1045:A:H3'	34:BA:1045:A:N3	2.15	0.61
34:DA:993:G:H5''	51:DV:75:PHE:CE2	2.36	0.61
42:BI:77:LEU:O	42:BI:78:THR:HB	2.01	0.61
37:DD:35:LYS:HG2	37:DD:64:ILE:CG2	2.31	0.61
37:DD:25:THR:HG21	37:DD:82:ILE:N	2.15	0.61
34:DA:1204:A:N1	34:DA:1241:A:H2	1.98	0.61
34:DA:2779:U:H1'	34:DA:2781:A:C5	2.36	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DE:197:ILE:O	38:DE:197:ILE:HG13	2.01	0.61
10:AJ:80:LYS:HZ3	10:AJ:80:LYS:HB2	1.66	0.61
34:BA:2637:U:H6	34:BA:2637:U:H5'	1.65	0.61
3:AC:11:ARG:HG2	3:AC:11:ARG:HH11	1.65	0.61
37:BD:34:VAL:O	37:BD:34:VAL:HG13	2.01	0.61
26:B1:66:HIS:C	26:B1:68:PRO:HD2	2.21	0.61
39:DF:199:TRP:CZ3	39:DF:203:GLN:HG3	2.35	0.61
12:CL:92:ASP:O	12:CL:93:LEU:HD23	2.00	0.61
46:DQ:35:VAL:HG23	46:DQ:100:GLY:O	2.00	0.61
9:AI:10:ARG:HD3	9:AI:75:ASP:HB3	1.83	0.61
52:BW:83:LYS:O	52:BW:84:ARG:HD3	2.01	0.61
11:CK:44:SER:H	11:CK:47:VAL:CG2	2.14	0.61
34:BA:1464:C:HO2'	34:BA:1528:A:H8	1.49	0.61
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.35	0.61
34:DA:1840:G:H1	34:DA:1902:C:N4	1.96	0.61
17:CQ:66:SER:OG	17:CQ:69:LYS:HB3	2.01	0.61
49:BT:50:ILE:N	49:BT:50:ILE:CD1	2.62	0.61
5:AE:36:ASP:OD2	5:AE:38:GLN:HB2	2.01	0.61
4:AD:17:VAL:HG11	4:AD:197:PRO:CB	2.31	0.61
25:B0:32:ARG:N	25:B0:35:ASN:ND2	2.48	0.61
30:D5:31:VAL:HB	30:D5:32:PRO:HD2	1.82	0.61
41:BH:103:LEU:HD23	41:BH:103:LEU:H	1.65	0.61
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.14	0.61
1:AA:539:A:H2'	1:AA:540:G:H8	1.64	0.61
2:CB:193:ASP:OD2	2:CB:196:LEU:HD11	2.00	0.61
10:AJ:49:VAL:HG13	14:AN:41:ARG:HB2	1.82	0.61
34:BA:1114:G:C2'	34:BA:1115:G:H5''	2.31	0.61
19:CS:35:SER:C	19:CS:37:ARG:H	2.02	0.61
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.33	0.61
34:DA:491:G:H2'	34:DA:492:A:C8	2.35	0.61
21:AU:5:ASP:O	21:AU:11:GLY:HA3	2.01	0.61
1:CA:805:C:H2'	1:CA:806:C:H6	1.65	0.61
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	1.83	0.61
44:BO:18:LYS:HB2	44:BO:45:GLU:HG2	1.83	0.61
34:DA:307:G:H21	34:DA:330:A:H62	1.48	0.61
1:CA:1144:G:H21	1:CA:1146:A:H62	1.49	0.61
51:DV:63:GLY:O	51:DV:64:HIS:HB3	1.99	0.60
42:BI:98:ALA:CB	42:BI:109:ILE:HD13	2.30	0.60
50:BU:91:ASP:OD2	50:BU:96:ALA:HB2	2.01	0.60
39:BF:125:LEU:HD21	39:BF:199:TRP:CD1	2.36	0.60
33:D8:32:LEU:HD23	33:D8:35:GLN:O	2.01	0.60
43:DN:42:TRP:H	50:DU:64:ARG:HD2	1.65	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1785:A:OP2	34:DA:1982:C:H5'	2.00	0.60
23:CW:39:U:H2'	23:CW:40:C:H5'	1.83	0.60
46:DQ:44:ALA:HA	46:DQ:47:ILE:HD13	1.82	0.60
9:CI:10:ARG:HD3	9:CI:75:ASP:HB3	1.82	0.60
19:AS:58:VAL:HG23	19:AS:58:VAL:O	2.00	0.60
34:DA:659:C:C5'	34:DA:659:C:H6	2.13	0.60
49:DT:53:ARG:O	49:DT:53:ARG:HD3	2.00	0.60
4:CD:117:ALA:O	4:CD:121:VAL:HG23	2.00	0.60
6:CF:18:GLN:O	6:CF:21:LEU:HB2	2.00	0.60
1:AA:1288:A:H2'	1:AA:1289:A:C8	2.36	0.60
40:DG:41:GLN:HB3	40:DG:43:LEU:HD13	1.83	0.60
39:DF:155:LEU:HD12	39:DF:174:VAL:O	2.01	0.60
34:DA:71:A:H5'	34:DA:71:A:H8	1.64	0.60
45:DP:83:VAL:CG1	45:DP:112:LEU:HD21	2.31	0.60
34:BA:1747:G:H2'	34:BA:1747(A):G:H8	1.66	0.60
48:DS:34:HIS:CD2	48:DS:54:LEU:HB2	2.35	0.60
36:BC:191:ALA:O	36:BC:193:ILE:N	2.33	0.60
34:BA:1665:A:O2'	34:BA:1666:G:H5'	2.01	0.60
1:CA:1118:C:N4	1:CA:1155:G:H1	1.98	0.60
8:AH:30:ARG:HB3	8:AH:30:ARG:HH11	1.65	0.60
34:BA:419:C:O2'	34:BA:420:C:H5'	2.00	0.60
34:DA:1114:G:C2'	34:DA:1115:G:H5''	2.30	0.60
34:DA:1259:G:O2'	34:DA:1260:G:H5'	2.01	0.60
43:BN:78:TYR:CD1	43:BN:79:PRO:CD	2.84	0.60
34:DA:1314:C:C6	34:DA:1314:C:H5'	2.35	0.60
14:CN:21:TYR:OH	14:CN:23:ARG:NH2	2.34	0.60
1:AA:271:C:H2'	1:AA:272:C:H6	1.66	0.60
34:DA:1411:C:H2'	34:DA:1412:A:C8	2.35	0.60
22:AV:23:C:H2'	22:AV:24:U:C6	2.36	0.60
3:CC:43:LEU:O	3:CC:47:LEU:HB3	2.01	0.60
3:CC:120:VAL:O	3:CC:124:ILE:HD12	2.00	0.60
50:BU:79:PHE:C	50:BU:79:PHE:HD2	2.04	0.60
49:BT:80:SER:HB3	49:BT:81:PRO:CD	2.31	0.60
26:B1:62:VAL:HG21	26:B1:67:ILE:HA	1.82	0.60
45:DP:101:VAL:CG2	45:DP:107:LYS:HA	2.29	0.60
33:B8:14:VAL:HG22	33:B8:24:ALA:HB2	1.83	0.60
34:BA:879:G:H1	34:BA:898:C:H42	1.49	0.60
18:CR:50:ILE:HD11	18:CR:74:ARG:NH1	2.17	0.60
54:BY:95:LYS:HD3	54:BY:100:ALA:CB	2.31	0.60
44:DO:63:VAL:CG2	44:DO:64:ARG:N	2.63	0.60
34:BA:2720:U:H5'	34:BA:2721:A:OP2	2.01	0.60
26:D1:86:SER:N	26:D1:87:PRO:CD	2.64	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:10:ARG:NH2	9:CI:11:LYS:HB2	2.16	0.60
34:DA:2892:A:C4	34:DA:2893:G:H1'	2.35	0.60
34:BA:271(R):G:O2'	34:BA:271(S):G:H5'	2.01	0.60
47:DR:113:LEU:HD12	47:DR:114:VAL:H	1.65	0.60
5:AE:10:MET:HB2	5:AE:32:VAL:HG22	1.83	0.60
34:BA:621:A:C2'	34:BA:622:G:H5'	2.30	0.60
42:DI:72:LEU:O	42:DI:138:ILE:HA	2.01	0.60
22:CV:53:G:O2'	22:CV:54:5MU:H5''	2.01	0.60
37:BD:235:GLY:O	37:BD:236:GLY:C	2.38	0.60
51:DV:83:ARG:HG2	51:DV:83:ARG:NH1	2.12	0.60
29:B4:13:ARG:CB	40:BG:2:PRO:HG3	2.32	0.60
48:BS:34:HIS:CD2	48:BS:54:LEU:HB2	2.36	0.60
30:B5:25:LEU:HD12	52:BW:19:LEU:HB3	1.83	0.60
34:BA:2580:U:H5'	38:BE:131:ALA:HB2	1.83	0.60
10:CJ:75:ILE:HG13	10:CJ:76:ASN:N	2.16	0.60
1:AA:1456:G:H2'	1:AA:1457:G:O4'	2.01	0.60
37:DD:129:ASN:O	37:DD:193:VAL:HG12	2.01	0.60
1:AA:1095:U:H2'	1:AA:1096:C:H6	1.65	0.60
47:DR:18:LEU:HD11	47:DR:22:ARG:CZ	2.31	0.60
9:AI:112:LYS:HG2	9:AI:119:ALA:H	1.67	0.60
17:CQ:10:VAL:O	17:CQ:53:LEU:HD12	2.01	0.60
31:B6:36:LEU:O	31:B6:37:ARG:HG3	2.02	0.60
41:DH:30:LYS:NZ	41:DH:81:GLU:HG2	2.15	0.60
22:CV:74:C:H2'	22:CV:75:C:H5'	1.84	0.60
34:BA:738:G:O2'	34:BA:739:G:H5'	2.01	0.60
34:BA:2774:C:H2'	34:BA:2775:A:O4'	2.01	0.60
1:AA:685:G:O2'	1:AA:686:U:H5'	2.01	0.60
34:DA:646:A:H2'	34:DA:647:G:O4'	2.02	0.60
34:BA:1688:U:H1'	34:BA:1701:A:C6	2.36	0.60
35:BB:87:G:H2'	35:BB:88:C:H5''	1.83	0.60
34:BA:473:G:H5''	34:BA:508:G:N2	2.16	0.60
1:CA:668:G:O2'	1:CA:669:U:H5'	2.01	0.60
51:DV:5:VAL:HG21	51:DV:36:PRO:CG	2.30	0.60
38:DE:176:ILE:HD12	38:DE:176:ILE:N	2.15	0.60
44:DO:69:ILE:HD12	44:DO:69:ILE:H	1.66	0.60
49:DT:65:LYS:HE3	49:DT:66:VAL:H	1.65	0.60
39:BF:183:VAL:O	39:BF:187:VAL:HG23	2.02	0.60
28:B3:8:LEU:HB2	28:B3:28:LEU:HD13	1.83	0.60
34:DA:1504:C:O2'	34:DA:1505:C:C5'	2.49	0.60
45:DP:50:ARG:NH2	45:DP:50:ARG:HG2	2.15	0.60
40:BG:76:SER:HB3	40:BG:84:LYS:N	2.09	0.60
55:DZ:165:VAL:CG1	55:DZ:166:SER:H	2.08	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BP:26:GLY:HA2	45:BP:30:THR:HG21	1.83	0.60
34:DA:809:G:O4'	34:DA:1254:A:H1'	2.01	0.60
10:AJ:40:LEU:N	10:AJ:40:LEU:HD23	2.16	0.60
26:D1:87:PRO:HD2	26:D1:88:LYS:H	1.66	0.60
53:DX:55:ASN:HB2	53:DX:78:LYS:HD2	1.83	0.60
1:CA:442:C:N4	1:CA:492:G:H1	1.93	0.60
38:DE:24:THR:CG2	38:DE:184:VAL:HG23	2.30	0.60
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.01	0.60
3:AC:76:VAL:HG23	3:AC:77:ILE:H	1.67	0.60
13:AM:69:GLU:HB2	13:AM:70:LEU:N	2.16	0.60
6:CF:9:VAL:HA	6:CF:59:TYR:O	2.01	0.60
19:CS:60:VAL:HG22	19:CS:61:TYR:O	2.01	0.60
49:DT:3:ARG:O	49:DT:7:ILE:HG12	2.01	0.60
15:CO:75:PRO:O	15:CO:78:TYR:HB3	2.01	0.60
9:CI:5:TYR:HA	9:CI:17:VAL:O	2.00	0.60
9:AI:53:VAL:HB	9:AI:92:TYR:CE2	2.36	0.60
1:CA:1003:G:N3	1:CA:1004:A:H1'	2.17	0.60
43:BN:96:GLU:HG2	43:BN:97:ARG:H	1.66	0.60
1:CA:645:C:O2'	1:CA:646:U:H5'	2.01	0.60
46:BQ:6:ARG:O	46:BQ:6:ARG:HG3	2.00	0.60
49:BT:108:ARG:HH11	49:BT:108:ARG:HB3	1.65	0.60
34:DA:2716:U:O2'	34:DA:2717:G:H5'	2.02	0.60
34:BA:266:G:H2'	34:BA:267:C:H5''	1.83	0.60
34:DA:1045:A:H3'	34:DA:1045:A:N3	2.16	0.60
31:B6:42:TRP:CE3	31:B6:42:TRP:HA	2.35	0.60
42:BI:133:HIS:CB	42:BI:134:PRO:CD	2.79	0.60
34:BA:2129:C:H2'	34:BA:2130:U:C4'	2.22	0.60
34:DA:662:G:OP1	45:DP:18:ARG:HD2	2.01	0.60
39:DF:117:ARG:HH21	39:DF:187:VAL:HA	1.65	0.60
49:DT:82:LEU:O	49:DT:83:ILE:C	2.39	0.60
34:DA:1349:A:N6	34:DA:1598:C:N4	2.49	0.60
2:AB:141:GLU:O	2:AB:145:LEU:HB2	2.02	0.60
26:B1:20:ARG:HD3	26:B1:41:ARG:CD	2.20	0.60
34:BA:2779:U:H1'	34:BA:2781:A:N7	2.17	0.60
37:BD:92:ILE:HD13	37:BD:104:TYR:CD2	2.34	0.60
26:B1:86:SER:N	26:B1:87:PRO:CD	2.64	0.60
34:DA:195:A:OP1	45:DP:46:LYS:HE2	2.00	0.60
55:DZ:30:ASN:HD21	55:DZ:32:HIS:HB2	1.66	0.60
33:D8:59:LYS:CD	45:DP:50:ARG:HB3	2.29	0.60
34:BA:955:C:OP1	46:BQ:13:GLN:HG3	2.01	0.60
55:BZ:6:LYS:HB3	55:BZ:8:TYR:CE1	2.37	0.60
4:AD:73:ARG:HH11	4:AD:73:ARG:CA	2.09	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:B5:57:VAL:HB	30:B5:58:LEU:HD12	1.81	0.60
50:DU:31:SER:C	50:DU:33:ARG:H	2.04	0.60
5:CE:101:ILE:HG12	5:CE:119:LEU:HA	1.83	0.60
6:CF:50:TYR:CE1	18:CR:77:GLY:HA2	2.36	0.60
1:AA:255:G:O6	1:AA:266:G:O6	2.20	0.60
34:BA:1847:A:H3'	34:BA:1848:A:H5'	1.82	0.60
3:AC:112:SER:HB3	3:AC:115:LEU:HD12	1.82	0.60
34:DA:1798:U:C5'	37:DD:259:THR:HG22	2.30	0.60
34:DA:1986:A:C3'	34:DA:1987:G:H5''	2.31	0.60
5:CE:36:ASP:OD2	5:CE:38:GLN:HB2	2.01	0.60
9:CI:28:VAL:HA	9:CI:63:ILE:O	2.01	0.60
54:BY:31:LEU:HG	54:BY:34:LYS:HB2	1.83	0.60
1:CA:1342:C:H1'	9:CI:124:GLN:HE22	1.67	0.60
1:CA:473:G:H2'	1:CA:474:G:H8	1.66	0.60
40:BG:131:TYR:CG	40:BG:132:ASN:N	2.68	0.60
46:DQ:109:VAL:HG12	46:DQ:110:THR:N	2.16	0.60
1:AA:693:G:H1'	7:AG:82:GLY:HA3	1.83	0.60
34:BA:185:U:H4'	34:BA:218:A:H4'	1.83	0.60
28:D3:11:SER:OG	28:D3:13:ILE:HG12	2.01	0.60
1:AA:417:C:O2'	1:AA:418:C:H5'	2.01	0.60
44:DO:18:LYS:HB2	44:DO:45:GLU:HG2	1.83	0.60
17:AQ:40:LYS:HD2	17:AQ:42:TYR:CZ	2.36	0.60
42:BI:25:TYR:HE2	42:BI:29:TYR:CD2	2.19	0.60
51:DV:22:VAL:O	51:DV:23:GLU:CB	2.46	0.60
48:DS:85:VAL:HG23	48:DS:106:ARG:CB	2.31	0.60
48:DS:85:VAL:O	48:DS:106:ARG:HA	2.00	0.60
38:DE:4:ILE:HG23	38:DE:4:ILE:O	2.01	0.60
34:DA:58:G:OP1	53:DX:72:LYS:HA	2.01	0.60
48:BS:17:ARG:C	48:BS:19:LYS:N	2.54	0.60
49:BT:65:LYS:HZ2	49:BT:66:VAL:H	1.49	0.60
2:AB:144:ARG:HG3	2:AB:145:LEU:N	2.15	0.60
26:B1:11:ARG:HE	26:B1:61:ARG:H	1.48	0.60
45:DP:89:ALA:HB1	45:DP:121:LYS:HZ1	1.67	0.60
38:BE:52:LEU:H	38:BE:76:ARG:CB	2.15	0.60
34:DA:2039:C:O2'	34:DA:2040:C:H5'	2.02	0.60
34:BA:2182:G:H2'	34:BA:2183:C:C6	2.35	0.60
34:DA:2030:A:H4'	34:DA:2031:A:H8	1.66	0.60
55:BZ:18:LEU:HB3	55:BZ:23:LYS:HB2	1.84	0.60
34:BA:1785:A:OP2	34:BA:1982:C:H5'	2.02	0.60
46:BQ:35:VAL:HG23	46:BQ:100:GLY:O	2.00	0.60
1:CA:954:G:H2'	1:CA:955:U:C6	2.36	0.60
47:DR:63:ARG:HA	47:DR:80:PHE:CZ	2.36	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DQ:52:VAL:CG1	46:DQ:53:ALA:N	2.63	0.60
34:DA:2425:A:H5''	34:DA:2427:C:O4'	2.01	0.60
34:BA:549:G:H2'	34:BA:551:G:H5''	1.84	0.60
8:CH:30:ARG:HH11	8:CH:30:ARG:HB3	1.64	0.60
23:CW:41:C:H2'	23:CW:42:C:H5'	1.81	0.60
20:AT:82:SER:O	20:AT:86:ARG:HB2	2.01	0.60
7:AG:145:ALA:O	7:AG:147:ALA:N	2.31	0.60
34:DA:271(R):G:O2'	34:DA:271(S):G:H5'	2.01	0.60
34:DA:2502:G:H5''	34:DA:2503:A:C5'	2.32	0.60
8:AH:6:ILE:H	8:AH:6:ILE:HD12	1.67	0.60
34:DA:879:G:H1	34:DA:898:C:H42	1.47	0.60
34:BA:2672:G:C3'	34:BA:2673:G:H5''	2.31	0.60
1:AA:1374:A:H2'	1:AA:1375:A:H8	1.66	0.60
8:AH:119:LEU:HB2	8:AH:124:ALA:HB2	1.83	0.60
45:DP:108:LYS:C	45:DP:110:TYR:H	2.05	0.60
1:CA:1452:C:H4'	1:CA:1456:G:C5'	2.31	0.60
46:BQ:109:VAL:HG12	46:BQ:110:THR:N	2.15	0.60
3:AC:155:GLY:O	3:AC:156:ARG:HB2	2.02	0.60
34:DA:2162:G:H5'	34:DA:2171:A:H5''	1.83	0.60
17:CQ:40:LYS:HD2	17:CQ:42:TYR:CZ	2.36	0.60
34:DA:1907:G:O2'	34:DA:1908:C:H5'	2.02	0.60
12:CL:39:VAL:HG12	12:CL:40:VAL:N	2.17	0.60
25:B0:11:ARG:NH1	25:B0:11:ARG:HB3	2.17	0.60
12:CL:119:LYS:C	12:CL:120:TYR:HD1	2.04	0.60
42:BI:127:VAL:HG22	42:BI:139:GLN:CG	2.31	0.60
34:DA:661:C:H4'	45:DP:18:ARG:HG2	1.82	0.60
2:AB:115:LEU:HD13	2:AB:145:LEU:HD12	1.82	0.60
3:AC:172:ARG:HH11	3:AC:172:ARG:HB3	1.67	0.60
34:BA:83:G:N1	34:BA:102:G:H2'	2.17	0.60
26:B1:10:LYS:HD2	26:B1:15:ALA:H	1.65	0.60
34:BA:2562:U:C1'	44:BO:23:ARG:HH12	2.02	0.60
55:DZ:69:THR:O	55:DZ:70:LEU:HD23	2.00	0.60
29:D4:1:MET:N	40:DG:67:LYS:HZ1	1.97	0.60
34:DA:956:G:H5'	34:DA:957:A:OP2	2.02	0.60
5:AE:76:ILE:CG1	5:AE:77:PRO:HD2	2.26	0.60
37:DD:267:SER:HA	37:DD:270:ILE:CG1	2.31	0.60
1:AA:710:G:OP1	6:AF:54:LYS:HE3	2.01	0.60
35:BB:81:G:H5'	35:BB:82:G:OP2	2.02	0.60
1:AA:1497:G:C2'	1:AA:1498:U:H5'	2.32	0.60
34:DA:1276:A:H1'	47:DR:16:HIS:HE1	1.65	0.60
4:AD:117:ALA:O	4:AD:121:VAL:HG23	2.02	0.60
13:CM:68:GLY:O	13:CM:70:LEU:N	2.34	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1722:A:H2	34:BA:1740:G:H2'	1.64	0.60
37:BD:161:THR:O	37:BD:196:VAL:HG23	2.01	0.60
34:DA:2343:C:H2'	34:DA:2344:U:C6	2.37	0.60
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.37	0.60
1:AA:350:G:O2'	1:AA:351:G:H5'	2.02	0.60
42:DI:46:ALA:O	42:DI:49:ALA:HB3	2.01	0.60
49:BT:63:VAL:O	49:BT:73:GLU:HA	2.01	0.60
46:BQ:22:LYS:CE	46:BQ:22:LYS:HA	2.31	0.60
1:CA:777:A:H2'	1:CA:778:G:H8	1.67	0.60
28:B3:23:LEU:CD1	28:B3:50:VAL:HG11	2.30	0.60
34:BA:1654:A:H2	38:BE:113:PHE:CD1	2.19	0.60
7:CG:32:ARG:O	7:CG:33:ASP:HB2	2.00	0.60
2:CB:14:GLY:O	2:CB:15:VAL:HG13	2.01	0.60
4:AD:52:SER:O	4:AD:54:TYR:N	2.35	0.60
10:CJ:45:ARG:HB2	10:CJ:65:LEU:HB3	1.82	0.60
34:DA:1582:C:H2'	34:DA:1583:A:H8	1.66	0.60
50:DU:83:LEU:C	50:DU:88:ILE:HD11	2.21	0.60
34:DA:1204:A:N1	34:DA:1241:A:C2	2.70	0.60
38:DE:180:ASN:C	38:DE:181:LEU:HD22	2.21	0.60
38:DE:6:GLY:HA2	38:DE:51:PHE:CE2	2.37	0.60
28:D3:28:LEU:HA	28:D3:33:GLN:OE1	2.02	0.60
49:DT:66:VAL:HA	49:DT:71:GLY:HA2	1.83	0.60
34:BA:2863:C:H2'	34:BA:2864:G:H5''	1.83	0.60
45:BP:121:LYS:HB3	45:BP:122:PRO:HD2	1.83	0.60
48:BS:17:ARG:HG3	48:BS:18:ILE:N	2.17	0.60
34:BA:662:G:OP1	45:BP:18:ARG:HD2	2.02	0.60
39:BF:2:LYS:HG3	39:BF:25:PRO:HG2	1.83	0.60
27:B2:47:ASN:HD22	27:B2:47:ASN:N	1.99	0.60
55:BZ:151:HIS:HA	55:BZ:171:ILE:CG1	2.29	0.60
10:CJ:4:ILE:CB	10:CJ:74:ILE:HD11	2.23	0.60
18:CR:26:LEU:HD12	18:CR:29:PHE:CE2	2.37	0.60
44:BO:63:VAL:HB	44:BO:102:VAL:HG12	1.82	0.60
30:B5:4:HIS:CB	30:B5:5:PRO:HD3	2.27	0.60
37:DD:267:SER:O	37:DD:269:PHE:N	2.34	0.60
34:BA:1947:C:C3'	34:BA:1948:G:H5''	2.31	0.60
34:BA:2892:A:H2'	34:BA:2893:G:O4'	2.01	0.60
43:DN:56:ASN:ND2	43:DN:126:PRO:HD3	2.17	0.60
43:BN:16:ILE:HG23	43:BN:54:VAL:HG22	1.82	0.60
1:AA:954:G:H2'	1:AA:955:U:C6	2.37	0.60
5:AE:10:MET:CB	5:AE:32:VAL:HG22	2.32	0.60
40:DG:70:VAL:CB	40:DG:88:ILE:HD11	2.32	0.60
28:B3:2:PRO:O	28:B3:39:ASP:HB3	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:22:GLU:O	6:CF:26:ILE:HG13	2.01	0.60
38:BE:11:MET:H	49:BT:8:LYS:CE	2.14	0.60
37:DD:11:PRO:C	37:DD:13:ARG:H	2.05	0.60
54:BY:75:ILE:HG12	54:BY:80:GLY:N	2.16	0.60
1:AA:939:G:H5''	7:AG:102:ARG:HH22	1.66	0.60
47:BR:4:LEU:C	47:BR:6:SER:H	2.04	0.60
34:BA:1230:C:O2'	34:BA:1231:G:H5'	2.01	0.60
42:DI:1:MET:HB2	42:DI:21:VAL:O	2.02	0.60
1:CA:1070:U:O2'	1:CA:1071:C:H5'	2.02	0.60
34:DA:1171:G:H3'	34:DA:1173:G:O4'	2.01	0.60
31:D6:36:LEU:HD13	31:D6:50:ARG:CZ	2.31	0.60
51:BV:51:VAL:HG12	51:BV:52:VAL:N	2.16	0.60
20:CT:81:LYS:O	20:CT:83:ARG:N	2.35	0.60
7:CG:43:PHE:O	7:CG:46:ALA:HB3	2.01	0.60
1:CA:447:G:H2'	1:CA:485:G:N2	2.15	0.60
55:DZ:33:LEU:HG	55:DZ:34:ASN:H	1.64	0.60
34:DA:1441:G:O2'	34:DA:1442:G:H5'	2.01	0.60
34:DA:271(M):G:H2'	34:DA:271(N):U:C5'	2.31	0.60
1:CA:862:C:O2'	1:CA:863:U:H5'	2.02	0.60
42:BI:110:ASP:O	42:BI:114:LEU:HG	2.02	0.60
34:DA:1245:G:OP1	45:DP:16:ARG:HD2	2.01	0.60
53:DX:59:VAL:CG2	53:DX:74:PRO:HG2	2.31	0.60
48:BS:89:ARG:HB3	48:BS:97:ARG:HH12	1.65	0.60
37:BD:244:ARG:HG2	37:BD:245:PRO:HG3	1.83	0.60
42:DI:129:THR:CG2	42:DI:135:GLU:HB3	2.27	0.60
54:DY:17:SER:HA	54:DY:71:LYS:HD2	1.83	0.60
2:CB:44:LEU:HA	2:CB:47:THR:OG1	2.02	0.60
34:BA:957:A:H5'	46:BQ:76:LYS:HG3	1.83	0.60
47:BR:50:HIS:O	47:BR:54:LEU:HB2	2.02	0.60
34:DA:955:C:OP1	46:DQ:13:GLN:HG3	2.01	0.60
46:DQ:85:LYS:HG3	46:DQ:86:GLY:H	1.65	0.60
39:DF:2:LYS:HG3	39:DF:25:PRO:HG2	1.84	0.60
12:CL:89:ARG:NE	12:CL:91:LYS:HE2	2.17	0.60
38:DE:116:VAL:O	38:DE:117:MET:HB3	2.02	0.60
46:DQ:34:LEU:HD11	46:DQ:129:THR:CG2	2.31	0.60
37:DD:174:ILE:H	37:DD:174:ILE:CD1	2.09	0.60
34:DA:2893:G:H5'	34:DA:2894:G:C5'	2.27	0.60
34:DA:2011:U:C2'	34:DA:2012:G:H5'	2.32	0.60
19:AS:10:PHE:HZ	19:AS:70:LYS:HE2	1.66	0.60
54:DY:77:PRO:O	54:DY:78:ALA:HB2	2.01	0.60
1:CA:1190:G:H3'	3:CC:3:ASN:HD21	1.66	0.60
37:BD:43:ARG:HB3	37:BD:54:ARG:HB2	1.82	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:D8:14:VAL:HG22	33:D8:24:ALA:HB2	1.83	0.60
17:CQ:67:LYS:CA	17:CQ:70:ARG:HH12	2.12	0.60
34:BA:2383:G:O2'	34:BA:2384:G:H5'	2.01	0.60
39:DF:65:TRP:HZ3	39:DF:75:HIS:CD2	2.14	0.60
8:AH:44:PHE:HD1	8:AH:79:VAL:HG12	1.66	0.60
52:BW:50:VAL:HG13	52:BW:51:LEU:N	2.15	0.60
2:AB:36:ARG:HB2	2:AB:41:ILE:CD1	2.31	0.60
34:DA:2051:A:H8	34:DA:2051:A:OP2	1.84	0.60
2:AB:219:VAL:HA	2:AB:222:ILE:HD12	1.84	0.60
2:AB:193:ASP:OD2	2:AB:196:LEU:HD11	2.02	0.60
55:BZ:143:GLY:O	55:BZ:144:LEU:HD13	2.02	0.60
1:CA:973:G:H3'	1:CA:974:A:H5''	1.84	0.60
34:DA:892:G:C8	34:DA:893:C:C4	2.90	0.60
43:BN:77:GLY:O	43:BN:78:TYR:HB3	2.02	0.60
4:CD:30:LYS:C	4:CD:32:ALA:H	2.02	0.60
1:AA:1241:G:H2'	1:AA:1242:C:H6	1.67	0.60
34:DA:692:C:O2'	34:DA:693:C:H5'	2.02	0.60
54:BY:54:LYS:O	54:BY:55:TYR:O	2.20	0.60
21:AU:6:ARG:NH2	21:AU:15:ARG:NH2	2.50	0.60
3:AC:186:PHE:HA	3:AC:198:VAL:O	2.02	0.60
34:DA:391:G:O2'	34:DA:392:C:H5'	2.02	0.60
4:CD:64:LEU:O	4:CD:67:ILE:HB	2.01	0.60
37:DD:63:ARG:HG3	37:DD:63:ARG:NH1	2.14	0.60
34:BA:1593:G:H2'	34:BA:1594:G:H5''	1.82	0.60
48:DS:88:ASP:OD2	48:DS:89:ARG:N	2.35	0.60
53:DX:35:THR:O	53:DX:36:LYS:C	2.39	0.60
48:BS:89:ARG:CB	48:BS:97:ARG:HH22	2.13	0.60
43:BN:67:LEU:O	43:BN:68:GLU:HB2	2.02	0.60
34:DA:145:G:C3'	34:DA:146:G:H5''	2.31	0.60
55:DZ:48:PHE:CE2	55:DZ:52:SER:HA	2.36	0.60
48:DS:71:ARG:O	48:DS:74:ALA:HB3	2.02	0.60
55:DZ:150:LEU:CD2	55:DZ:171:ILE:HG13	2.32	0.60
18:AR:50:ILE:HD11	18:AR:74:ARG:NH1	2.17	0.60
12:CL:89:ARG:HB2	12:CL:89:ARG:HH11	1.66	0.60
34:BA:1497:U:C5'	34:BA:1498:C:H5	2.15	0.60
45:DP:34:GLY:O	45:DP:35:HIS:O	2.20	0.60
55:BZ:163:LEU:HD23	55:BZ:163:LEU:H	1.67	0.60
12:AL:6:THR:N	12:AL:9:GLN:HE21	1.93	0.60
34:DA:1322:A:O3'	52:DW:84:ARG:NH2	2.33	0.60
46:BQ:42:ILE:HG22	46:BQ:47:ILE:HD12	1.82	0.60
1:CA:710:G:OP1	6:CF:54:LYS:HE3	2.01	0.60
19:CS:58:VAL:HG23	19:CS:58:VAL:O	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:389:G:H22	45:DP:71:VAL:CG1	2.11	0.60
27:D2:54:LYS:C	27:D2:56:GLN:N	2.54	0.60
46:BQ:52:VAL:CG1	46:BQ:53:ALA:N	2.65	0.60
34:DA:2846:G:H2'	34:DA:2847:U:O4'	2.02	0.60
1:AA:1431:C:H2'	1:AA:1432:G:H5'	1.82	0.60
36:BC:21:THR:O	36:BC:22:ILE:HD13	2.01	0.60
36:DC:191:ALA:O	36:DC:193:ILE:N	2.34	0.60
10:CJ:32:ALA:H	10:CJ:78:ASN:HD21	1.48	0.60
10:CJ:30:SER:HB2	10:CJ:80:LYS:HG3	1.84	0.60
1:AA:1313:U:OP2	19:AS:6:LYS:HB3	2.02	0.60
7:AG:26:PHE:CE2	7:AG:30:ILE:HD11	2.37	0.60
1:AA:33:A:H2'	1:AA:34:C:C6	2.37	0.60
1:CA:186:C:C5'	20:CT:78:ALA:HB1	2.32	0.60
34:DA:1658:C:OP1	38:DE:132:HIS:O	2.20	0.60
44:DO:65:THR:HA	44:DO:82:ASN:HA	1.83	0.60
34:BA:2849:U:O4	49:BT:23:ARG:NH2	2.29	0.60
37:BD:223:GLY:O	37:BD:224:ALA:C	2.39	0.60
12:AL:102:ARG:CG	12:AL:102:ARG:HH11	2.15	0.60
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.67	0.60
34:BA:472:A:H2'	34:BA:473:G:H5'	1.84	0.60
35:DB:87:G:H2'	35:DB:88:C:H5''	1.83	0.60
34:DA:1817:G:OP1	37:DD:88:ARG:NH2	2.34	0.60
34:DA:1195:G:O2'	34:DA:1196:C:H5'	2.00	0.60
40:DG:128:ARG:O	40:DG:129:GLY:O	2.19	0.60
34:DA:1001:A:H2'	34:DA:1002:G:O4'	2.02	0.60
3:AC:120:VAL:O	3:AC:124:ILE:HD12	2.02	0.60
4:CD:147:ALA:HB2	4:CD:182:LYS:CB	2.32	0.60
50:BU:92:ARG:O	50:BU:93:LYS:C	2.40	0.60
50:BU:92:ARG:HH22	51:BV:10:LYS:HB3	1.67	0.60
53:BX:59:VAL:CG2	53:BX:74:PRO:HG2	2.32	0.60
34:DA:2779:U:H1'	34:DA:2781:A:N7	2.17	0.60
38:DE:33:VAL:HG11	38:DE:88:GLY:HA2	1.82	0.60
42:DI:123:LEU:CD1	42:DI:144:VAL:HG22	2.32	0.60
33:D8:29:LYS:O	33:D8:30:ARG:C	2.40	0.60
33:D8:13:ARG:NH2	34:DA:250:G:OP2	2.35	0.60
55:BZ:101:PRO:HA	55:BZ:123:ASP:HB3	1.83	0.60
48:BS:71:ARG:O	48:BS:74:ALA:HB3	2.02	0.60
16:AP:21:VAL:O	16:AP:21:VAL:CG2	2.50	0.60
5:CE:110:LEU:O	5:CE:115:VAL:HG23	2.02	0.60
46:BQ:141:GLN:HG3	55:BZ:72:ARG:NH1	2.17	0.60
40:DG:115:ARG:NH2	40:DG:136:ARG:HG3	2.17	0.60
40:DG:117:PHE:O	40:DG:118:ARG:HG3	2.02	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BN:56:ASN:ND2	43:BN:126:PRO:HD3	2.17	0.60
34:DA:2463:C:O2'	34:DA:2464:C:H5'	2.02	0.60
34:DA:2036:C:H6	34:DA:2036:C:C5'	2.12	0.60
49:BT:57:PHE:O	49:BT:59:THR:N	2.35	0.60
13:CM:69:GLU:HB2	13:CM:70:LEU:N	2.16	0.60
38:BE:23:VAL:HA	38:BE:184:VAL:O	2.02	0.60
38:BE:11:MET:H	49:BT:8:LYS:NZ	2.00	0.60
48:DS:31:SER:HB3	48:DS:34:HIS:O	2.02	0.60
37:BD:11:PRO:C	37:BD:13:ARG:H	2.05	0.60
37:BD:13:ARG:NH1	37:BD:16:MET:SD	2.75	0.60
30:D5:25:LEU:HD12	52:DW:19:LEU:HB3	1.83	0.60
5:CE:150:ARG:HB2	5:CE:150:ARG:HH11	1.67	0.60
37:DD:223:GLY:O	37:DD:224:ALA:C	2.40	0.60
44:BO:65:THR:HA	44:BO:82:ASN:HA	1.82	0.60
23:CY:28:G:H2'	23:CY:29:G:C8	2.36	0.60
1:AA:556:C:C2'	1:AA:557:G:H5'	2.32	0.60
47:BR:18:LEU:HD11	47:BR:22:ARG:CZ	2.32	0.60
11:CK:73:MET:O	11:CK:76:GLY:N	2.35	0.60
17:CQ:81:ARG:NH1	17:CQ:84:LEU:HD11	2.16	0.60
18:CR:35:ARG:O	18:CR:37:VAL:HG13	2.00	0.60
1:AA:15:G:H4'	5:AE:24:ARG:HH22	1.65	0.60
11:AK:70:LYS:O	11:AK:73:MET:HB2	2.01	0.60
41:DH:30:LYS:HB2	41:DH:79:VAL:HA	1.84	0.60
34:DA:472:A:H2'	34:DA:473:G:H5'	1.84	0.60
41:DH:86:GLU:OE1	41:DH:86:GLU:N	2.35	0.60
1:AA:603:U:O2'	1:AA:604:G:H5'	2.02	0.60
3:CC:118:GLN:O	3:CC:122:GLU:HG3	2.02	0.60
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.02	0.60
50:DU:50:ARG:HG2	50:DU:53:ARG:NH2	2.17	0.59
50:BU:74:LEU:HD12	50:BU:74:LEU:O	2.02	0.59
50:BU:95:LEU:HD12	51:BV:11:GLN:HG3	1.83	0.59
28:D3:7:LYS:O	28:D3:54:VAL:HG13	2.02	0.59
43:DN:72:TYR:N	43:DN:85:ILE:O	2.34	0.59
48:BS:106:ARG:O	48:BS:106:ARG:HD2	2.02	0.59
45:BP:17:LYS:C	45:BP:19:VAL:N	2.55	0.59
45:DP:91:PHE:CE2	45:DP:95:VAL:HG12	2.37	0.59
42:DI:94:ALA:HB1	42:DI:114:LEU:HD12	1.84	0.59
54:DY:17:SER:CA	54:DY:71:LYS:HD2	2.32	0.59
33:B8:12:LYS:O	45:BP:65:ARG:HB3	2.02	0.59
35:DB:50:G:OP2	48:DS:62:LYS:HG3	2.00	0.59
34:DA:2756:U:H4'	34:DA:2757:A:OP1	2.01	0.59
41:DH:66:GLY:HA2	41:DH:69:ARG:HB2	1.84	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2103:C:H3'	34:BA:2104:G:C5'	2.25	0.59
38:BE:116:VAL:O	38:BE:117:MET:HB3	1.99	0.59
23:CW:39:U:C2'	23:CW:40:C:C5'	2.77	0.59
53:BX:92:LEU:O	53:BX:93:GLU:HB3	2.02	0.59
34:BA:1141:U:O5'	43:BN:63:THR:HG21	2.02	0.59
46:BQ:37:LEU:O	46:BQ:99:PRO:HB3	2.02	0.59
1:AA:1191:A:P	3:AC:3:ASN:HD21	2.25	0.59
4:AD:103:ASN:O	4:AD:106:TYR:HB3	2.01	0.59
13:AM:11:ARG:NH2	40:BG:146:TYR:HD2	1.99	0.59
45:BP:83:VAL:CG1	45:BP:112:LEU:HD21	2.32	0.59
44:DO:32:TYR:CD1	44:DO:32:TYR:N	2.69	0.59
6:AF:30:LEU:HD23	6:AF:75:LEU:HD11	1.84	0.59
49:BT:100:TYR:HD2	49:BT:103:ARG:NH2	2.00	0.59
34:DA:1656:C:H2'	34:DA:1657:C:H6	1.66	0.59
34:BA:1230:C:H2'	34:BA:1231:G:H8	1.67	0.59
19:CS:29:ARG:HD2	19:CS:30:LEU:N	2.16	0.59
44:DO:13:ASN:HD21	44:DO:97:ARG:N	2.00	0.59
45:DP:80:TYR:CE2	45:DP:111:ARG:HG2	2.37	0.59
13:AM:82:MET:SD	13:AM:83:ASP:N	2.75	0.59
34:BA:491:G:H2'	34:BA:492:A:H8	1.66	0.59
34:DA:1151:G:H5''	50:DU:81:HIS:CE1	2.37	0.59
1:AA:763:G:O2'	1:AA:764:C:H5'	2.01	0.59
11:AK:105:VAL:HG23	11:AK:105:VAL:O	2.02	0.59
25:D0:11:ARG:NH1	25:D0:11:ARG:HB3	2.17	0.59
39:DF:140:LEU:HD13	39:DF:170:LEU:HD21	1.84	0.59
48:BS:85:VAL:O	48:BS:106:ARG:HA	2.01	0.59
48:BS:88:ASP:OD2	48:BS:89:ARG:N	2.35	0.59
38:BE:200:GLU:OE2	38:BE:200:GLU:N	2.34	0.59
54:DY:13:VAL:HG12	54:DY:14:LEU:H	1.66	0.59
46:BQ:82:ARG:CG	46:BQ:82:ARG:HH11	1.98	0.59
35:DB:7:G:H3'	35:DB:8:U:C5'	2.27	0.59
10:CJ:6:ILE:HG13	10:CJ:72:VAL:O	2.01	0.59
26:D1:64:ALA:O	26:D1:67:ILE:HG13	2.02	0.59
1:CA:1370:G:O2'	1:CA:1371:G:H5'	2.02	0.59
38:DE:111:ARG:NE	38:DE:160:TYR:HE1	2.01	0.59
38:DE:114:ALA:HB3	38:DE:160:TYR:HB3	1.83	0.59
38:DE:11:MET:H	49:DT:8:LYS:NZ	2.00	0.59
34:DA:27:G:H22	34:DA:512:G:C2'	2.13	0.59
13:CM:91:ARG:NH1	19:CS:81:ARG:NH2	2.50	0.59
37:DD:148:GLU:HB2	37:DD:151:LYS:HD2	1.83	0.59
37:BD:48:ARG:NH1	37:BD:48:ARG:HG3	2.15	0.59
55:BZ:108:PRO:CB	55:BZ:142:SER:HA	2.30	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:674:G:P	39:BF:54:ARG:HH22	2.25	0.59
12:AL:23:LYS:O	12:AL:24:VAL:HG23	2.01	0.59
28:B3:15:TYR:O	28:B3:20:LYS:HE2	2.02	0.59
34:BA:2707:G:H5''	47:BR:68:ARG:HH21	1.68	0.59
9:AI:53:VAL:HG23	9:AI:55:ALA:HB3	1.83	0.59
2:AB:197:VAL:CG1	2:AB:200:ILE:HG12	2.32	0.59
8:AH:58:TYR:C	8:AH:59:LEU:HD23	2.22	0.59
43:DN:78:TYR:CD1	43:DN:79:PRO:CD	2.84	0.59
32:D7:30:VAL:HG12	32:D7:31:LEU:N	2.17	0.59
34:DA:2852:G:H2'	34:DA:2853:C:H6	1.64	0.59
34:BA:2543:G:H8	34:BA:2543:G:H5'	1.67	0.59
2:CB:167:PRO:HG2	2:CB:168:THR:H	1.66	0.59
34:DA:752:A:O2'	34:DA:753:C:OP2	2.18	0.59
3:CC:155:GLY:O	3:CC:156:ARG:HB2	2.03	0.59
54:DY:54:LYS:O	54:DY:55:TYR:O	2.20	0.59
25:D0:18:ALA:HB1	34:DA:2271:G:OP1	2.01	0.59
3:CC:186:PHE:HA	3:CC:198:VAL:O	2.02	0.59
34:DA:1464:C:HO2'	34:DA:1528:A:H8	1.49	0.59
40:BG:135:LEU:N	40:BG:135:LEU:HD12	2.17	0.59
17:AQ:14:LYS:NZ	17:AQ:14:LYS:HB2	2.16	0.59
37:BD:108:PRO:HG2	37:BD:111:LEU:HB2	1.82	0.59
1:AA:1441:G:C5'	1:AA:1442:G:H5''	2.17	0.59
49:BT:82:LEU:O	49:BT:84:GLN:N	2.35	0.59
39:BF:20:LEU:O	39:BF:24:LEU:HD23	2.02	0.59
39:BF:24:LEU:HB3	39:BF:25:PRO:CD	2.21	0.59
38:BE:51:PHE:HD1	38:BE:52:LEU:HD12	1.67	0.59
42:DI:77:LEU:O	42:DI:78:THR:HB	2.03	0.59
54:DY:26:LYS:HG2	54:DY:27:VAL:H	1.65	0.59
12:AL:89:ARG:NE	12:AL:91:LYS:HE2	2.17	0.59
39:DF:205:ARG:C	39:DF:206:ILE:HG13	2.21	0.59
41:BH:70:THR:HG22	41:BH:74:ASN:HD21	1.67	0.59
1:AA:585:G:H4'	12:AL:8:ASN:ND2	2.08	0.59
34:DA:2533:A:C3'	34:DA:2534:A:H5''	2.32	0.59
9:AI:10:ARG:NH2	9:AI:11:LYS:HB2	2.15	0.59
42:DI:38:LEU:H	42:DI:38:LEU:CD1	2.11	0.59
30:D5:50:GLY:HA3	30:D5:56:LYS:HG2	1.84	0.59
46:BQ:20:ALA:HB2	46:BQ:99:PRO:CG	2.29	0.59
55:BZ:158:PRO:CG	55:BZ:161:VAL:HG21	2.31	0.59
45:DP:115:LEU:HA	45:DP:134:ALA:CB	2.30	0.59
3:CC:70:VAL:HG12	3:CC:72:LYS:H	1.67	0.59
54:DY:75:ILE:HG12	54:DY:80:GLY:N	2.17	0.59
1:CA:1191:A:P	3:CC:3:ASN:HD21	2.24	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DH:89:ILE:O	41:DH:90:LYS:HB2	2.02	0.59
34:BA:2590:A:H2'	34:BA:2591:C:H6	1.67	0.59
34:BA:2887:U:H2'	34:BA:2888:C:H6	1.66	0.59
8:AH:20:TYR:HD1	8:AH:65:TYR:CD2	2.20	0.59
53:DX:50:LYS:O	53:DX:82:GLN:N	2.35	0.59
34:DA:1230:C:O2'	34:DA:1231:G:H5'	2.01	0.59
9:CI:5:TYR:OH	9:CI:7:THR:HA	2.02	0.59
9:CI:18:PHE:HD1	9:CI:62:TYR:HD2	1.50	0.59
41:DH:98:LEU:HB2	41:DH:125:VAL:HG21	1.84	0.59
7:CG:115:ARG:HB2	7:CG:118:VAL:HG22	1.84	0.59
34:DA:1324:G:H3'	34:DA:1325:G:H4'	1.84	0.59
34:BA:1314:C:H5'	34:BA:1314:C:H6	1.66	0.59
34:DA:2296:U:H2'	48:DS:13:ARG:NH2	2.18	0.59
38:DE:200:GLU:N	38:DE:200:GLU:OE2	2.35	0.59
39:BF:115:ALA:O	39:BF:116:ASP:C	2.40	0.59
45:BP:46:LYS:HG2	45:BP:52:GLU:HG2	1.83	0.59
37:BD:95:LEU:O	37:BD:95:LEU:HD12	2.02	0.59
53:BX:37:THR:CG2	53:BX:54:VAL:HB	2.32	0.59
34:BA:2463:C:O2'	34:BA:2464:C:H5'	2.03	0.59
34:DA:2697:G:O2'	34:DA:2698:U:H5'	2.02	0.59
10:CJ:16:LEU:HD23	10:CJ:94:VAL:HG13	1.82	0.59
53:BX:29:TRP:CZ3	53:BX:76:ARG:HG2	2.37	0.59
46:DQ:68:ILE:HD12	46:DQ:68:ILE:C	2.22	0.59
55:DZ:116:VAL:CG1	55:DZ:117:LEU:H	2.11	0.59
34:BA:2892:A:C4	34:BA:2893:G:H1'	2.36	0.59
34:BA:1141:U:H5''	34:BA:1142(A):A:O4'	2.02	0.59
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.67	0.59
6:AF:53:ALA:O	6:AF:54:LYS:HB2	2.03	0.59
34:BA:364:C:H2'	34:BA:365:C:H5''	1.85	0.59
6:CF:19:LEU:HD11	6:CF:59:TYR:CE2	2.38	0.59
6:CF:30:LEU:HD23	6:CF:75:LEU:HD11	1.83	0.59
33:D8:50:LEU:O	33:D8:52:LYS:N	2.31	0.59
53:BX:83:VAL:O	53:BX:84:ALA:HB3	2.02	0.59
34:BA:2845:G:OP1	49:BT:56:GLY:N	2.34	0.59
44:BO:86:ILE:H	44:BO:86:ILE:HD12	1.66	0.59
9:CI:53:VAL:HG23	9:CI:55:ALA:HB3	1.85	0.59
15:CO:37:ASN:N	15:CO:37:ASN:ND2	2.48	0.59
1:CA:1003:G:C2	1:CA:1004:A:H1'	2.36	0.59
1:CA:556:C:C2'	1:CA:557:G:H5'	2.33	0.59
1:CA:1096:C:O2'	1:CA:1097:C:H5'	2.01	0.59
34:BA:1679:U:C2'	34:BA:1680:U:H5'	2.32	0.59
39:BF:132:VAL:HG22	39:BF:133:ASN:N	2.16	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:62:PHE:HA	7:CG:124:LEU:CD2	2.33	0.59
34:DA:152:G:H1	34:DA:174:C:H42	1.48	0.59
36:DC:76:ALA:HB3	36:DC:94:VAL:HG13	1.85	0.59
34:DA:1324:G:H3'	34:DA:1325:G:C5'	2.32	0.59
34:BA:1264:G:H3'	34:BA:1265:A:H5''	1.84	0.59
34:DA:2277:G:C2'	34:DA:2278:A:H5'	2.33	0.59
4:AD:147:ALA:HB2	4:AD:182:LYS:CB	2.32	0.59
13:AM:31:LYS:HA	13:AM:34:LEU:HD12	1.83	0.59
20:CT:33:ILE:HD12	20:CT:63:ILE:HG12	1.84	0.59
31:B6:11:LEU:HG	31:B6:26:ASN:ND2	2.17	0.59
34:DA:2657:A:H1'	34:DA:2665:A:N6	2.18	0.59
4:CD:25:ARG:C	4:CD:27:TYR:H	2.05	0.59
6:AF:45:LEU:HD11	6:AF:57:GLN:HB3	1.85	0.59
37:BD:125:ILE:O	37:BD:125:ILE:HG22	2.02	0.59
55:DZ:132:ASN:O	55:DZ:134:PRO:HD3	2.01	0.59
17:AQ:19:VAL:CG2	17:AQ:44:ALA:HB3	2.32	0.59
38:BE:33:VAL:HG11	38:BE:88:GLY:HA2	1.84	0.59
26:B1:11:ARG:CB	26:B1:12:PRO:HD2	2.32	0.59
42:DI:98:ALA:CB	42:DI:109:ILE:HD13	2.32	0.59
2:CB:47:THR:HG23	2:CB:202:PRO:HG2	1.84	0.59
34:BA:252:G:OP2	45:BP:50:ARG:NH1	2.34	0.59
34:BA:910:A:N7	46:BQ:13:GLN:HB2	2.18	0.59
53:DX:92:LEU:O	53:DX:93:GLU:HB3	2.02	0.59
34:DA:2696:U:H2'	34:DA:2697:G:H8	1.65	0.59
46:DQ:42:ILE:HA	46:DQ:46:GLN:OE1	2.03	0.59
46:DQ:42:ILE:HG22	46:DQ:47:ILE:CD1	2.32	0.59
34:DA:2011:U:O2'	34:DA:2012:G:H5'	2.02	0.59
52:DW:84:ARG:HB2	52:DW:96:ILE:CG2	2.33	0.59
47:DR:97:VAL:HG22	47:DR:114:VAL:HG22	1.84	0.59
34:BA:1449:A:H1'	34:BA:1529:G:H8	1.68	0.59
34:BA:2287:A:N6	34:BA:2344:U:H3	1.96	0.59
25:B0:72:ARG:CB	25:B0:75:LEU:HB2	2.33	0.59
15:AO:82:ILE:HD13	15:AO:87:ILE:H	1.67	0.59
39:DF:157:VAL:CG2	39:DF:194:MET:HB3	2.32	0.59
39:BF:122:LYS:HB3	39:BF:191:ARG:HG2	1.83	0.59
13:AM:117:VAL:O	13:AM:118:ALA:HB2	2.03	0.59
39:BF:84:VAL:O	39:BF:86:GLY:N	2.34	0.59
45:DP:85:LEU:HA	45:DP:88:LEU:CB	2.32	0.59
1:AA:197:A:C6	1:AA:221:C:H5'	2.37	0.59
9:AI:8:GLY:O	9:AI:15:ALA:N	2.31	0.59
41:BH:153:LYS:CD	41:BH:153:LYS:H	2.15	0.59
35:DB:15:A:H5'	35:DB:16:G:H8	1.64	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1095:U:H2'	1:CA:1096:C:H6	1.67	0.59
1:CA:33:A:H2'	1:CA:34:C:C6	2.36	0.59
1:AA:389:A:C2'	1:AA:390:C:H5'	2.33	0.59
34:DA:1679:U:C2'	34:DA:1680:U:H5'	2.31	0.59
16:CP:28:ARG:NH1	16:CP:29:ASP:OD2	2.36	0.59
7:AG:92:SER:OG	7:AG:93:PRO:HD2	2.03	0.59
6:AF:6:VAL:C	6:AF:7:ASN:HD22	2.05	0.59
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.37	0.59
37:DD:210:GLY:O	37:DD:212:SER:N	2.35	0.59
1:CA:648:A:H2'	1:CA:649:G:H8	1.66	0.59
49:DT:13:ARG:NE	49:DT:13:ARG:HA	2.17	0.59
37:DD:125:ILE:O	37:DD:125:ILE:HG22	2.02	0.59
36:BC:77:ILE:O	36:BC:77:ILE:HD13	2.02	0.59
32:B7:24:THR:OG1	32:B7:25:PRO:HD2	2.03	0.59
44:BO:107:ARG:NH2	49:BT:35:LYS:HD2	2.16	0.59
51:DV:62:LEU:CD2	51:DV:98:GLU:HA	2.32	0.59
49:DT:80:SER:CB	49:DT:81:PRO:CD	2.80	0.59
10:AJ:75:ILE:HG13	10:AJ:76:ASN:N	2.17	0.59
38:BE:3:GLY:CA	38:BE:81:ILE:HG21	2.33	0.59
26:B1:15:ALA:C	26:B1:46:LEU:HD23	2.22	0.59
34:DA:1484:G:N2	34:DA:1505:C:H41	2.00	0.59
2:CB:32:ILE:HD13	2:CB:40:HIS:HB3	1.84	0.59
33:B8:59:LYS:CD	45:BP:50:ARG:HB3	2.29	0.59
45:BP:66:GLY:O	45:BP:68:GLN:HB3	2.01	0.59
43:DN:46:VAL:O	43:DN:47:ALA:CB	2.50	0.59
47:BR:87:TYR:HE1	47:BR:117:VAL:HG13	1.68	0.59
41:BH:66:GLY:HA2	41:BH:69:ARG:HB2	1.84	0.59
43:BN:55:VAL:CG1	43:BN:56:ASN:H	2.15	0.59
46:BQ:30:GLY:HA2	46:BQ:107:ALA:CB	2.26	0.59
9:CI:103:THR:HG22	9:CI:105:ASP:N	2.17	0.59
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.21	0.59
44:DO:88:ASN:O	44:DO:91:LEU:N	2.35	0.59
38:BE:27:LEU:O	38:BE:27:LEU:HG	2.01	0.59
3:AC:66:VAL:HG11	3:AC:91:LEU:HD13	1.84	0.59
34:BA:1887:C:C2'	34:BA:1888:G:H5''	2.33	0.59
45:DP:85:LEU:HD21	45:DP:117:GLU:O	2.03	0.59
9:AI:126:SER:O	9:AI:128:ARG:HD2	2.01	0.59
1:CA:302:G:N3	1:CA:556:C:H4'	2.17	0.59
37:BD:18:VAL:HG13	37:BD:19:ALA:O	2.02	0.59
34:BA:1582:C:H2'	34:BA:1583:A:H8	1.68	0.59
34:DA:2855:C:H2'	34:DA:2856:C:H6	1.67	0.59
53:BX:52:VAL:O	53:BX:52:VAL:HG12	2.03	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:196:LEU:HD12	4:AD:196:LEU:H	1.67	0.59
4:CD:168:ARG:HH11	4:CD:168:ARG:HG3	1.67	0.59
34:DA:855:G:H2'	34:DA:856:C:C6	2.38	0.59
1:CA:1135:U:H4'	1:CA:1136:U:H5	1.66	0.59
50:DU:79:PHE:C	50:DU:79:PHE:CD2	2.75	0.59
50:DU:92:ARG:O	50:DU:93:LYS:C	2.40	0.59
51:DV:89:GLN:NE2	51:DV:90:PRO:HD2	2.16	0.59
50:BU:90:VAL:HG12	50:BU:91:ASP:N	2.12	0.59
49:BT:65:LYS:HE3	49:BT:66:VAL:H	1.66	0.59
34:BA:1840:G:H1	34:BA:1902:C:N4	1.97	0.59
42:DI:133:HIS:CB	42:DI:134:PRO:CD	2.79	0.59
34:BA:145:G:C3'	34:BA:146:G:H5''	2.32	0.59
18:CR:58:LEU:HD23	18:CR:62:GLU:HB3	1.85	0.59
41:BH:61:HIS:O	41:BH:65:HIS:N	2.32	0.59
8:AH:89:PRO:HA	8:AH:92:ARG:HH11	1.68	0.59
26:D1:17:SER:C	26:D1:18:ILE:HD12	2.23	0.59
26:D1:19:GLN:CG	26:D1:44:PRO:HG3	2.26	0.59
26:D1:26:ARG:HB3	26:D1:34:THR:HA	1.85	0.59
45:DP:131:SER:N	45:DP:134:ALA:HB3	2.12	0.59
27:D2:14:ARG:O	27:D2:15:LYS:O	2.21	0.59
27:D2:41:ILE:HG12	34:DA:94(A):G:N2	2.17	0.59
8:CH:44:PHE:HD1	8:CH:79:VAL:HG12	1.67	0.59
1:CA:255:G:O6	1:CA:266:G:O6	2.21	0.59
53:BX:50:LYS:O	53:BX:82:GLN:N	2.36	0.59
48:BS:58:LEU:HD11	48:BS:68:GLN:OE1	2.02	0.59
28:D3:15:TYR:O	28:D3:20:LYS:HE2	2.02	0.59
35:DB:45:A:H1'	40:DG:95:ARG:CZ	2.31	0.59
40:BG:16:ARG:N	40:BG:17:PRO:HD2	2.17	0.59
45:BP:85:LEU:HD23	45:BP:85:LEU:N	2.18	0.59
1:AA:501:C:H2'	1:AA:502:G:C8	2.37	0.59
1:AA:541:G:O2'	1:AA:542:G:H5'	2.03	0.59
40:BG:106:LEU:HD12	40:BG:110:ALA:HB3	1.85	0.59
1:CA:1343:G:H1'	9:CI:121:ARG:NH1	2.16	0.59
1:AA:226:G:O2'	1:AA:227:G:H5'	2.01	0.59
1:AA:1003:G:N3	1:AA:1004:A:H1'	2.17	0.59
1:AA:1343:G:C1'	9:AI:121:ARG:HH12	2.16	0.59
1:AA:1343:G:H1'	9:AI:121:ARG:NH1	2.16	0.59
9:AI:125:TYR:HD2	9:AI:126:SER:N	2.00	0.59
3:CC:22:TRP:NE1	3:CC:36:ASP:OD1	2.36	0.59
8:CH:119:LEU:HB2	8:CH:124:ALA:HB2	1.85	0.59
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.16	0.59
34:BA:1434:A:O2'	34:BA:1435:G:H5'	2.03	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BG:133:LEU:HD12	40:BG:133:LEU:O	2.03	0.59
39:DF:132:VAL:HG22	39:DF:133:ASN:N	2.17	0.59
4:AD:108:LEU:HD21	4:AD:183:GLY:HA3	1.84	0.59
35:DB:3:C:N4	35:DB:118:G:H1	2.01	0.59
1:AA:862:C:O2'	1:AA:863:U:H5'	2.02	0.59
22:CV:23:C:H2'	22:CV:24:U:C6	2.37	0.59
1:AA:1144:G:H21	1:AA:1146:A:H62	1.50	0.59
11:CK:105:VAL:HG23	11:CK:105:VAL:O	2.03	0.59
1:CA:123:C:H42	1:CA:238:G:H1	1.51	0.59
34:BA:1151:G:H5''	50:BU:81:HIS:CE1	2.38	0.59
37:DD:25:THR:CG2	37:DD:82:ILE:H	2.14	0.59
38:DE:179:GLU:OE1	38:DE:179:GLU:HA	2.02	0.59
35:BB:6:C:O2'	48:BS:29:PHE:HE1	1.85	0.59
3:CC:182:ILE:HG12	3:CC:203:PHE:HA	1.84	0.59
34:BA:2175:C:H2'	34:BA:2176:A:C5'	2.20	0.59
35:DB:74:U:H2'	35:DB:75:G:O4'	2.02	0.59
27:B2:46:GLN:HE21	27:B2:47:ASN:HA	1.67	0.59
34:BA:2392:A:H2	34:BA:2424:C:H42	1.49	0.59
40:BG:138:GLN:OE1	40:BG:153:ARG:N	2.36	0.59
1:AA:664:G:H22	1:AA:741:G:H1	1.51	0.59
18:AR:31:LEU:HG	18:AR:65:ILE:CD1	2.31	0.59
55:BZ:39:VAL:CG2	55:BZ:40:ASP:N	2.53	0.59
53:BX:55:ASN:HB2	53:BX:77:LYS:HD3	1.85	0.59
34:BA:285:C:H3'	34:BA:286:C:H5''	1.84	0.59
19:AS:60:VAL:HG22	19:AS:61:TYR:O	2.03	0.59
11:CK:29:ILE:CB	11:CK:44:SER:HB3	2.31	0.59
5:CE:10:MET:CB	5:CE:32:VAL:HG22	2.33	0.59
1:CA:958:A:H2'	1:CA:959:A:C8	2.37	0.59
1:AA:954:G:H2'	1:AA:955:U:H6	1.66	0.59
34:BA:659:C:H6	34:BA:659:C:H5'	1.68	0.59
41:DH:87:LEU:C	41:DH:88:LEU:HD22	2.22	0.59
38:DE:61:ARG:CG	38:DE:62:PRO:HD3	2.33	0.59
37:DD:13:ARG:NH1	37:DD:16:MET:SD	2.76	0.59
1:AA:1169:A:H2'	1:AA:1170:A:H8	1.67	0.59
34:DA:271(U):G:C2'	34:DA:271(V):G:H5'	2.33	0.59
1:AA:261:U:H2'	1:AA:263:A:OP2	2.02	0.59
1:AA:834:C:H2'	1:AA:835:U:C6	2.36	0.59
1:AA:939:G:H5''	7:AG:102:ARG:CZ	2.32	0.59
9:AI:18:PHE:HD1	9:AI:62:TYR:HD2	1.50	0.59
8:AH:86:ILE:HG12	8:AH:135:CYS:HA	1.82	0.59
34:DA:2849:U:O4	49:DT:23:ARG:NH2	2.31	0.59
3:CC:22:TRP:CH2	3:CC:32:LEU:HB2	2.38	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:D7:8:ASN:HD22	32:D7:9:ARG:N	2.00	0.59
34:BA:2852:G:H2'	34:BA:2853:C:H6	1.66	0.59
34:DA:908:C:O2'	34:DA:909:A:H5'	2.03	0.59
1:CA:418:C:H2'	1:CA:419:C:H6	1.68	0.59
34:BA:1150:C:O2'	34:BA:1151:G:H5'	2.03	0.59
49:BT:13:ARG:NE	49:BT:13:ARG:HA	2.18	0.59
34:BA:729:G:C4	34:BA:1775:U:O2	2.56	0.59
23:CW:2:C:H42	23:CW:71:G:H1	1.50	0.59
40:DG:66:GLN:OE1	40:DG:94:LEU:HD23	2.03	0.59
35:BB:54:G:O2'	35:BB:55:U:H5'	2.03	0.59
22:CV:12:G:H1'	34:DA:1923:U:O2'	2.03	0.59
51:DV:5:VAL:CG2	51:DV:36:PRO:HB2	2.32	0.59
49:DT:27:THR:O	49:DT:28:VAL:CG2	2.46	0.59
38:BE:36:ARG:NH2	38:BE:88:GLY:CA	2.65	0.59
28:B3:28:LEU:HA	28:B3:33:GLN:OE1	2.01	0.59
34:BA:2523:G:H5'	34:BA:2523:G:H8	1.66	0.59
45:DP:101:VAL:HG13	45:DP:102:ARG:N	2.11	0.59
54:DY:38:ILE:HG12	54:DY:66:PRO:HA	1.84	0.59
35:DB:106:G:O2'	35:DB:107:G:H5'	2.02	0.59
27:B2:46:GLN:NE2	27:B2:47:ASN:CA	2.66	0.59
43:DN:40:PRO:HA	50:DU:64:ARG:CZ	2.33	0.59
18:AR:26:LEU:HD12	18:AR:29:PHE:CE2	2.38	0.59
26:D1:9:GLY:H	26:D1:48:LYS:HZ1	1.49	0.59
43:BN:42:TRP:HA	43:BN:48:MET:HE1	1.84	0.59
34:BA:2756:U:H4'	34:BA:2757:A:OP1	2.02	0.59
16:AP:55:ARG:HE	16:AP:55:ARG:HA	1.67	0.59
38:DE:120:TRP:CE2	38:DE:155:LYS:HB3	2.38	0.59
37:BD:266:SER:O	37:BD:267:SER:CB	2.50	0.59
26:D1:73:LEU:O	26:D1:76:ARG:HG2	2.03	0.59
53:DX:57:LEU:HD13	53:DX:77:LYS:CG	2.32	0.59
43:BN:63:THR:O	43:BN:64:GLY:O	2.19	0.59
37:BD:172:TYR:HD1	37:BD:186:HIS:HA	1.67	0.59
42:BI:46:ALA:O	42:BI:49:ALA:HB3	2.02	0.59
34:BA:389:G:H22	45:BP:71:VAL:CG1	2.13	0.59
5:AE:51:VAL:O	5:AE:55:VAL:HG23	2.02	0.59
30:B5:40:LYS:HE2	30:B5:46:CYS:HB3	1.84	0.59
49:BT:50:ILE:HD11	49:BT:64:ARG:CB	2.32	0.59
36:DC:191:ALA:C	36:DC:193:ILE:H	2.07	0.59
1:CA:222:U:H2'	1:CA:223:U:H6	1.68	0.59
35:DB:60:C:O2'	35:DB:61:G:H5'	2.03	0.59
5:AE:147:ASP:HA	5:AE:150:ARG:HH11	1.68	0.59
47:DR:79:LEU:HD23	47:DR:83:ILE:HB	1.84	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:35:SER:C	19:CS:37:ARG:N	2.57	0.59
32:D7:9:ARG:HG3	32:D7:9:ARG:HH11	1.68	0.59
42:DI:75:LEU:HD21	42:DI:105:HIS:CE1	2.38	0.59
41:BH:30:LYS:HB2	41:BH:79:VAL:HA	1.85	0.59
1:AA:1103:C:H5''	2:AB:98:LEU:HD13	1.85	0.59
12:AL:120:TYR:N	12:AL:120:TYR:HD1	2.01	0.59
6:AF:82:ARG:HB3	6:AF:82:ARG:NH1	2.17	0.59
1:CA:807:A:H2'	1:CA:808:C:C6	2.38	0.59
34:DA:754:C:H2'	34:DA:755:C:H6	1.67	0.59
34:DA:1695:G:H2'	34:DA:1696:G:H5'	1.85	0.59
1:AA:1327:C:OP2	21:AU:12:LYS:NZ	2.36	0.59
17:CQ:38:ARG:HA	17:CQ:38:ARG:HE	1.67	0.59
1:CA:47:C:C6	1:CA:365:U:H2'	2.37	0.59
1:AA:1019:C:O2'	1:AA:1020:U:H5'	2.02	0.59
34:BA:751:A:H5'	52:BW:90:ARG:HG2	1.84	0.59
11:AK:110:ASP:O	18:AR:84:LYS:HD2	2.03	0.59
34:BA:2098:U:H2'	34:BA:2099:U:H6	1.68	0.59
12:CL:70:ILE:N	12:CL:70:ILE:HD12	2.17	0.59
45:DP:5:ASP:O	45:DP:6:LEU:HB3	2.03	0.59
49:DT:91:ARG:HB3	49:DT:116:ALA:CA	2.22	0.59
49:BT:66:VAL:HA	49:BT:71:GLY:HA2	1.84	0.59
10:AJ:30:SER:HB2	10:AJ:80:LYS:HG3	1.84	0.59
39:BF:18:ARG:HG2	39:BF:19:GLU:N	2.17	0.59
45:DP:66:GLY:O	45:DP:68:GLN:HB3	2.03	0.59
53:BX:36:LYS:O	53:BX:38:GLU:N	2.36	0.59
48:BS:65:VAL:O	48:BS:67:ARG:N	2.36	0.59
39:DF:125:LEU:HD21	39:DF:199:TRP:CD1	2.38	0.59
26:D1:13:ILE:HG13	26:D1:14:VAL:H	1.66	0.59
54:DY:95:LYS:HD3	54:DY:100:ALA:CB	2.33	0.59
46:BQ:140:ALA:N	55:BZ:53:ILE:HD12	2.18	0.59
46:DQ:22:LYS:HA	46:DQ:22:LYS:CE	2.33	0.59
4:CD:73:ARG:HH11	4:CD:73:ARG:CA	2.08	0.59
1:AA:1320:C:H5'	19:AS:70:LYS:CG	2.33	0.59
34:DA:2677:G:H2'	34:DA:2678:C:H6	1.66	0.59
1:AA:708:C:H2'	1:AA:709:G:H8	1.67	0.59
47:DR:113:LEU:HD12	47:DR:114:VAL:N	2.18	0.59
1:AA:1190:G:H3'	3:AC:3:ASN:HD21	1.66	0.59
40:DG:82:LEU:HD22	40:DG:87:PRO:CG	2.33	0.59
34:BA:806:C:OP2	45:BP:39:LYS:HD2	2.02	0.59
34:DA:1796:U:H2'	34:DA:1797:C:C6	2.38	0.59
34:BA:2846:G:H2'	34:BA:2847:U:O4'	2.03	0.59
39:BF:64:ILE:HD11	39:BF:65:TRP:CZ2	2.38	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:53:ARG:HG2	12:CL:53:ARG:HH11	1.68	0.59
1:CA:625:G:O2'	1:CA:626:U:H5'	2.03	0.59
1:AA:1249:C:H4'	9:AI:36:TYR:OH	2.03	0.59
8:AH:120:THR:HG23	8:AH:123:GLU:OE1	2.02	0.59
13:CM:82:MET:SD	13:CM:83:ASP:N	2.76	0.59
55:DZ:145:GLU:CG	55:DZ:146:ILE:H	2.16	0.59
2:AB:171:ALA:O	2:AB:174:VAL:HB	2.03	0.59
37:BD:77:ALA:CB	37:BD:97:TYR:HA	2.33	0.59
34:BA:30:G:H2'	34:BA:31:C:C6	2.37	0.59
1:AA:103:C:OP2	20:AT:14:LYS:HD3	2.02	0.59
34:DA:646:A:H3'	34:DA:647:G:H8	1.66	0.59
34:DA:1000:A:H5'	34:DA:1001:A:OP2	2.02	0.59
34:DA:1695:G:C2'	34:DA:1696:G:H5'	2.33	0.59
34:BA:2098:U:H2'	34:BA:2099:U:C6	2.38	0.59
8:AH:1:MET:H3	8:AH:1:MET:HE2	1.68	0.59
20:AT:87:LYS:HG3	20:AT:91:LEU:HD11	1.84	0.59
34:BA:646:A:H3'	34:BA:647:G:H8	1.68	0.59
34:DA:1703:G:H2'	34:DA:1704:G:C8	2.37	0.59
34:DA:2832:U:H4'	34:DA:2833:G:H5''	1.84	0.59
11:CK:34:ASP:HB2	11:CK:35:PRO:HD2	1.85	0.59
1:AA:1135:U:H4'	1:AA:1136:U:H5	1.66	0.59
1:AA:447:G:H2'	1:AA:485:G:N2	2.18	0.59
34:DA:1682:G:H2'	34:DA:1683:C:C6	2.38	0.59
42:BI:94:ALA:HB1	42:BI:114:LEU:HD12	1.85	0.58
34:BA:993:G:H5''	51:BV:75:PHE:CE2	2.37	0.58
53:BX:58:HIS:C	53:BX:59:VAL:HG22	2.21	0.58
48:DS:15:ARG:HH11	48:DS:15:ARG:HG3	1.68	0.58
2:AB:43:ASP:OD2	2:AB:46:LYS:HB2	2.03	0.58
54:DY:45:VAL:HA	54:DY:62:GLU:CB	2.28	0.58
26:B1:10:LYS:HD2	26:B1:15:ALA:N	2.18	0.58
54:DY:28:LYS:HD2	54:DY:37:VAL:CB	2.32	0.58
1:AA:975:A:C4'	1:AA:976:G:H5''	2.26	0.58
45:BP:34:GLY:O	45:BP:35:HIS:O	2.20	0.58
34:BA:2533:A:C3'	34:BA:2534:A:H5''	2.32	0.58
10:CJ:70:ARG:HG3	10:CJ:70:ARG:NH1	2.09	0.58
37:DD:172:TYR:HD1	37:DD:186:HIS:HA	1.66	0.58
40:DG:63:ILE:HA	40:DG:143:GLU:HG3	1.85	0.58
3:CC:188:LEU:HD22	3:CC:188:LEU:N	2.18	0.58
43:DN:15:LEU:HD21	43:DN:55:VAL:CG2	2.33	0.58
13:CM:117:VAL:O	13:CM:118:ALA:HB2	2.02	0.58
4:CD:103:ASN:O	4:CD:106:TYR:HB3	2.02	0.58
1:CA:708:C:H2'	1:CA:709:G:H8	1.68	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:27:G:O2'	34:BA:28:A:H8	1.75	0.58
1:CA:1320:C:OP1	19:CS:70:LYS:NZ	2.36	0.58
44:DO:4:PRO:O	44:DO:5:GLN:CB	2.50	0.58
38:BE:186:GLY:O	38:BE:188:VAL:HG12	2.03	0.58
17:CQ:45:HIS:HB2	17:CQ:69:LYS:HE2	1.85	0.58
3:AC:58:GLU:HB2	3:AC:65:ALA:HB2	1.85	0.58
34:DA:1227:G:OP1	50:DU:13:LYS:HD3	2.02	0.58
49:DT:50:ILE:N	49:DT:50:ILE:CD1	2.65	0.58
2:AB:194:PRO:HG2	2:AB:195:ASP:H	1.67	0.58
34:BA:2502:G:H5''	34:BA:2503:A:C5'	2.32	0.58
33:D8:23:VAL:HG12	33:D8:46:ARG:NH1	2.18	0.58
20:CT:71:THR:HG22	20:CT:72:LEU:H	1.68	0.58
1:AA:302:G:N3	1:AA:556:C:H4'	2.17	0.58
2:CB:103:THR:HA	2:CB:180:LEU:HD11	1.84	0.58
51:DV:51:VAL:CG1	51:DV:52:VAL:N	2.66	0.58
34:DA:646:A:C8	34:DA:647:G:H1'	2.38	0.58
36:BC:77:ILE:HG21	36:BC:122:ALA:C	2.23	0.58
6:CF:1:MET:HB3	6:CF:66:GLU:HG2	1.85	0.58
34:BA:908:C:O2'	34:BA:909:A:H5'	2.03	0.58
37:DD:135:PHE:CD1	37:DD:135:PHE:N	2.71	0.58
34:BA:1411:C:H2'	34:BA:1412:A:C8	2.38	0.58
39:BF:140:LEU:HD13	39:BF:170:LEU:HD21	1.85	0.58
21:CU:6:ARG:NH2	21:CU:15:ARG:NH2	2.50	0.58
25:D0:74:ARG:HH12	35:DB:13:A:H8	1.48	0.58
42:BI:129:THR:CG2	42:BI:135:GLU:HB3	2.29	0.58
42:BI:77:LEU:HB2	42:BI:140:LEU:HD13	1.84	0.58
42:BI:91:SER:HB3	42:BI:121:LYS:HE3	1.85	0.58
34:DA:2777:G:H5''	34:DA:2778:A:C5'	2.33	0.58
37:BD:129:ASN:O	37:BD:193:VAL:HG12	2.03	0.58
37:BD:127:VAL:HA	37:BD:193:VAL:HG13	1.85	0.58
45:BP:91:PHE:CE2	45:BP:95:VAL:HG12	2.38	0.58
34:BA:310:A:OP1	54:BY:18:GLY:HA2	2.03	0.58
37:BD:94:LEU:HD22	37:BD:95:LEU:N	2.18	0.58
45:DP:127:ALA:HB3	45:DP:130:PHE:CZ	2.38	0.58
38:BE:6:GLY:HA2	38:BE:51:PHE:CE2	2.37	0.58
42:DI:110:ASP:C	42:DI:112:LYS:H	2.06	0.58
45:DP:50:ARG:HG3	45:DP:51:PHE:N	2.17	0.58
34:BA:2415:G:H2'	34:BA:2416:C:H6	1.64	0.58
34:BA:2392:A:C8	45:BP:60:MET:HG3	2.38	0.58
45:BP:62:LEU:H	45:BP:62:LEU:CD1	2.02	0.58
22:CV:70:G:O2'	22:CV:71:C:H5''	2.02	0.58
48:BS:67:ARG:O	48:BS:70:GLY:N	2.36	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BO:63:VAL:CG2	44:BO:64:ARG:H	2.16	0.58
45:DP:24:GLY:HA3	45:DP:33:ARG:NH2	2.08	0.58
1:CA:194:C:C2'	1:CA:195:A:H5''	2.33	0.58
23:CW:74:C:O3'	26:D1:27:GLU:HG3	2.02	0.58
26:D1:87:PRO:HB2	26:D1:91:LYS:HZ1	1.68	0.58
53:DX:76:ARG:O	53:DX:77:LYS:CB	2.50	0.58
26:B1:27:GLU:HB2	26:B1:33:LYS:O	2.02	0.58
34:BA:607:U:OP1	39:BF:102:PRO:HA	2.03	0.58
34:BA:1301:A:O2'	34:BA:1302:A:C2'	2.48	0.58
34:DA:1947:C:C3'	34:DA:1948:G:H5''	2.32	0.58
27:D2:51:ARG:O	27:D2:52:ASP:HB3	2.02	0.58
34:BA:64:A:H2'	34:BA:65:C:H6	1.68	0.58
42:DI:71:ILE:HG13	42:DI:72:LEU:N	2.17	0.58
34:DA:2202:C:H1'	37:DD:151:LYS:HZ1	1.69	0.58
41:BH:89:ILE:O	41:BH:90:LYS:HB2	2.02	0.58
34:DA:1713:U:O2'	34:DA:1714:G:H5'	2.04	0.58
39:BF:181:LEU:CD1	39:BF:186:ILE:HD11	2.31	0.58
39:BF:157:VAL:CG2	39:BF:194:MET:HB3	2.33	0.58
35:DB:78:A:O2'	46:DQ:21:THR:HG21	2.04	0.58
37:DD:16:MET:HG3	37:DD:206:LEU:O	2.03	0.58
34:DA:2287:A:C2	34:DA:2346:A:C2	2.91	0.58
1:AA:880:C:O2'	1:AA:881:G:H5'	2.03	0.58
7:CG:15:ASP:HB3	7:CG:19:GLY:H	1.65	0.58
1:CA:626:U:H5''	16:CP:38:TYR:CD2	2.38	0.58
34:BA:1510:G:H2'	34:BA:1511:C:C6	2.38	0.58
34:BA:1221(A):C:H2'	34:BA:1222:C:H6	1.68	0.58
3:CC:149:ALA:HA	3:CC:201:TYR:O	2.03	0.58
1:CA:350:G:O2'	1:CA:351:G:H5'	2.03	0.58
38:BE:57:LYS:HG3	38:BE:57:LYS:O	2.03	0.58
43:DN:77:GLY:O	43:DN:78:TYR:HB3	2.04	0.58
37:DD:133:LEU:HA	37:DD:136:ILE:HD13	1.84	0.58
1:CA:1425:U:O2'	1:CA:1426:C:H5'	2.03	0.58
42:BI:52:ARG:HG3	42:BI:53:ALA:N	2.17	0.58
36:BC:89:ALA:HB2	36:BC:153:ILE:HA	1.84	0.58
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.38	0.58
1:AA:1075:C:H5'	2:AB:103:THR:HG21	1.86	0.58
20:CT:87:LYS:HG3	20:CT:91:LEU:HD11	1.85	0.58
43:BN:99:LEU:O	43:BN:103:VAL:HG23	2.02	0.58
40:DG:3:LEU:O	40:DG:4:ASP:HB3	2.01	0.58
34:BA:1963:U:H4'	34:BA:1964:G:OP1	2.02	0.58
34:BA:585:G:C5	34:BA:1251:C:C5	2.91	0.58
2:CB:59:GLU:HB2	2:CB:221:LEU:HD11	1.85	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:168:ARG:HH11	4:AD:168:ARG:HG3	1.68	0.58
31:D6:42:TRP:HA	31:D6:42:TRP:CE3	2.36	0.58
1:CA:1327:C:OP2	21:CU:12:LYS:NZ	2.35	0.58
36:BC:97:GLU:HA	36:BC:100:ILE:HG12	1.85	0.58
42:BI:77:LEU:CD1	42:BI:101:LEU:HB2	2.33	0.58
37:DD:35:LYS:HA	37:DD:64:ILE:HG22	1.84	0.58
49:DT:80:SER:HB3	49:DT:81:PRO:CD	2.33	0.58
34:DA:142:A:H8	34:DA:1408:C:H1'	1.64	0.58
45:BP:5:ASP:O	45:BP:6:LEU:HB3	2.02	0.58
39:BF:3:GLU:CA	39:BF:24:LEU:HG	2.33	0.58
45:DP:47:ASP:OD1	45:DP:48:PRO:O	2.20	0.58
48:DS:30:ARG:NH2	48:DS:62:LYS:HD2	2.18	0.58
41:DH:105:LEU:HD22	41:DH:105:LEU:O	2.03	0.58
27:D2:34:GLU:O	27:D2:36:ARG:N	2.37	0.58
27:D2:28:LYS:HE2	27:D2:43:GLN:HB3	1.85	0.58
34:BA:1254:A:H5'	34:BA:1255:U:H5'	1.84	0.58
34:DA:1254:A:H5'	34:DA:1255:U:H5'	1.85	0.58
5:AE:101:ILE:N	5:AE:101:ILE:HD13	2.13	0.58
37:DD:17:THR:HG23	37:DD:205:VAL:N	2.11	0.58
46:DQ:42:ILE:HG22	46:DQ:47:ILE:HD12	1.85	0.58
1:AA:958:A:H2'	1:AA:959:A:C8	2.39	0.58
6:CF:50:TYR:CZ	18:CR:77:GLY:HA2	2.37	0.58
3:AC:5:ILE:O	3:AC:5:ILE:HD13	2.04	0.58
3:CC:76:VAL:HG23	3:CC:77:ILE:H	1.66	0.58
1:CA:253:U:H2'	1:CA:254:G:H8	1.68	0.58
1:CA:277:C:O2'	1:CA:278:G:H5'	2.03	0.58
38:BE:61:ARG:CG	38:BE:62:PRO:HD3	2.33	0.58
34:BA:1986:A:C3'	34:BA:1987:G:H5''	2.31	0.58
48:BS:36:TYR:N	48:BS:36:TYR:CD1	2.66	0.58
2:CB:74:LYS:HZ1	2:CB:76:GLN:HB2	1.69	0.58
2:AB:74:LYS:HZ1	2:AB:76:GLN:HB2	1.68	0.58
11:CK:38:ASN:N	11:CK:38:ASN:HD22	2.00	0.58
34:BA:128:C:H2'	34:BA:129:C:C6	2.38	0.58
1:CA:658:G:H2'	1:CA:659:U:H6	1.67	0.58
4:CD:52:SER:O	4:CD:54:TYR:N	2.36	0.58
34:DA:2186:G:C2'	34:DA:2187:G:H5''	2.33	0.58
4:CD:120:LEU:HD23	4:CD:125:HIS:HD2	1.68	0.58
52:BW:86:LEU:HD12	52:BW:87:PRO:HD2	1.86	0.58
1:CA:261:U:H2'	1:CA:263:A:OP2	2.04	0.58
34:BA:2619:C:O2'	34:BA:2620:C:H5'	2.03	0.58
42:BI:120:ILE:HD13	42:BI:126:TYR:CD1	2.37	0.58
34:BA:1590:U:C3'	34:BA:1591:G:H5''	2.32	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DS:89:ARG:HB3	48:DS:97:ARG:HH12	1.69	0.58
49:DT:83:ILE:HG13	49:DT:84:GLN:N	2.18	0.58
37:DD:108:PRO:HG2	37:DD:111:LEU:HB2	1.85	0.58
49:BT:28:VAL:CG2	49:BT:47:GLY:N	2.59	0.58
38:BE:201:THR:HG22	38:BE:203:LYS:N	2.05	0.58
37:BD:35:LYS:HZ3	37:BD:104:TYR:HD1	1.47	0.58
26:B1:78:LYS:HZ1	26:B1:93:GLU:HB2	1.68	0.58
45:DP:121:LYS:HB3	45:DP:122:PRO:HD2	1.83	0.58
55:DZ:23:LYS:HD2	55:DZ:38:TYR:HE1	1.68	0.58
55:BZ:101:PRO:O	55:BZ:102:LEU:HD23	2.03	0.58
34:BA:49:A:H4'	34:BA:50:U:C5'	2.22	0.58
40:BG:76:SER:CB	40:BG:83:ARG:HB3	2.30	0.58
55:DZ:150:LEU:N	55:DZ:150:LEU:HD13	2.18	0.58
38:BE:120:TRP:CE2	38:BE:155:LYS:HB3	2.38	0.58
45:BP:30:THR:O	45:BP:32:THR:N	2.36	0.58
5:CE:101:ILE:CD1	5:CE:119:LEU:HD23	2.34	0.58
52:BW:84:ARG:HB2	52:BW:96:ILE:CG2	2.34	0.58
23:AW:62:C:H2'	23:AW:63:G:C8	2.32	0.58
47:DR:11:ASN:O	47:DR:12:ARG:HB2	2.03	0.58
36:BC:191:ALA:C	36:BC:193:ILE:H	2.05	0.58
52:BW:10:VAL:O	52:BW:11:ARG:CB	2.51	0.58
20:AT:81:LYS:O	20:AT:83:ARG:N	2.37	0.58
51:BV:4:ILE:O	51:BV:39:LEU:HB2	2.03	0.58
34:DA:1040:C:H42	34:DA:1116:C:N4	2.01	0.58
7:AG:15:ASP:HB3	7:AG:19:GLY:H	1.66	0.58
34:DA:742:G:O2'	34:DA:743:G:H5'	2.03	0.58
3:CC:199:LYS:HB3	3:CC:201:TYR:HE1	1.68	0.58
11:CK:30:VAL:HG23	11:CK:68:ALA:HB2	1.85	0.58
1:AA:473:G:H2'	1:AA:474:G:H8	1.69	0.58
34:BA:1789:A:OP1	37:BD:222:ARG:HG3	2.03	0.58
1:CA:766:A:H2	1:CA:1525:G:N3	2.02	0.58
46:DQ:7:MET:O	46:DQ:10:ARG:NE	2.36	0.58
36:DC:75:LEU:HD23	36:DC:76:ALA:N	2.18	0.58
36:BC:77:ILE:HD12	36:BC:123:VAL:N	2.18	0.58
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.84	0.58
52:DW:9:TYR:H	52:DW:102:HIS:HD2	1.51	0.58
1:AA:163:C:H2'	1:AA:164:U:C6	2.39	0.58
43:BN:4:TYR:CD1	43:BN:4:TYR:N	2.71	0.58
50:DU:92:ARG:O	50:DU:95:LEU:N	2.36	0.58
50:BU:110:VAL:O	50:BU:113:ALA:HB3	2.04	0.58
48:DS:28:VAL:CG1	48:DS:29:PHE:H	1.97	0.58
38:DE:197:ILE:HD11	38:DE:199:ARG:HH22	1.68	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DE:27:LEU:HG	38:DE:27:LEU:O	2.03	0.58
35:DB:103:G:H1'	55:DZ:73:GLN:HE22	1.68	0.58
55:DZ:38:TYR:CG	55:DZ:38:TYR:O	2.57	0.58
12:AL:45:PRO:HB3	12:AL:49:ASN:HB2	1.85	0.58
10:CJ:74:ILE:CD1	10:CJ:74:ILE:H	2.14	0.58
39:DF:3:GLU:CA	39:DF:24:LEU:HG	2.33	0.58
16:CP:45:THR:HG23	16:CP:46:PRO:HD2	1.86	0.58
44:DO:101:PRO:C	44:DO:102:VAL:HG22	2.24	0.58
53:BX:57:LEU:HD13	53:BX:77:LYS:CG	2.33	0.58
46:DQ:43:THR:HG1	46:DQ:46:GLN:HG3	1.67	0.58
34:BA:1717:G:C3'	34:BA:1718:G:H5''	2.34	0.58
50:BU:29:SER:O	50:BU:30:LYS:HD3	2.03	0.58
47:DR:54:LEU:HD21	47:DR:65:LEU:HB3	1.85	0.58
50:BU:34:LYS:CE	50:BU:34:LYS:HA	2.32	0.58
41:BH:87:LEU:C	41:BH:88:LEU:HD22	2.24	0.58
37:DD:255:LYS:HE3	37:DD:255:LYS:N	2.17	0.58
34:BA:673:C:H5'	39:BF:54:ARG:NH1	2.16	0.58
34:BA:542:C:N4	34:BA:543:C:H41	2.02	0.58
39:DF:64:ILE:HD11	39:DF:65:TRP:CZ2	2.38	0.58
6:AF:8:ILE:CD1	6:AF:26:ILE:HD13	2.32	0.58
37:DD:14:ARG:HH11	37:DD:14:ARG:CG	2.16	0.58
1:AA:1316:G:O3'	14:AN:18:VAL:HG22	2.03	0.58
38:BE:128:SER:OG	38:BE:129:HIS:N	2.34	0.58
40:BG:11:TYR:O	40:BG:15:VAL:HB	2.02	0.58
30:D5:46:CYS:SG	30:D5:47:PRO:HD2	2.43	0.58
37:DD:127:VAL:HA	37:DD:193:VAL:HG13	1.85	0.58
7:AG:108:ALA:O	7:AG:111:ARG:HB2	2.02	0.58
9:AI:28:VAL:HA	9:AI:63:ILE:O	2.03	0.58
11:AK:18:ARG:HB3	11:AK:33:THR:OG1	2.02	0.58
23:AW:25:C:H2'	23:AW:26:A:C8	2.38	0.58
19:AS:35:SER:C	19:AS:37:ARG:N	2.55	0.58
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.19	0.58
36:DC:77:ILE:HG21	36:DC:122:ALA:C	2.24	0.58
51:BV:51:VAL:CG1	51:BV:52:VAL:N	2.67	0.58
34:DA:491:G:H2'	34:DA:492:A:H8	1.69	0.58
2:CB:171:ALA:O	2:CB:174:VAL:HB	2.03	0.58
44:BO:104:ARG:HH12	49:BT:35:LYS:HD3	1.69	0.58
16:CP:55:ARG:HE	16:CP:55:ARG:HA	1.68	0.58
34:BA:855:G:H2'	34:BA:856:C:C6	2.38	0.58
35:BB:40:U:H1'	35:BB:45:A:H61	1.67	0.58
40:BG:172:LEU:O	40:BG:176:LEU:HG	2.03	0.58
34:BA:752:A:O2'	34:BA:753:C:OP2	2.18	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:137:LYS:O	7:CG:141:VAL:HG23	2.03	0.58
4:CD:175:SER:OG	4:CD:184:LYS:HB2	2.04	0.58
11:CK:115:PRO:C	11:CK:117:ASN:H	2.07	0.58
34:BA:1603:A:H5'	34:BA:1603:A:H8	1.69	0.58
43:BN:74:ARG:NH1	43:BN:101:HIS:ND1	2.52	0.58
34:BA:1424:G:H2'	34:BA:1425:G:O4'	2.04	0.58
34:BA:2092:U:H4'	34:BA:2093:G:O5'	2.04	0.58
5:CE:47:LYS:N	5:CE:47:LYS:HD3	2.17	0.58
51:BV:72:VAL:O	51:BV:73:SER:HB3	2.04	0.58
49:DT:29:ARG:NE	49:DT:30:VAL:HG13	2.19	0.58
45:BP:101:VAL:C	45:BP:103:ALA:N	2.56	0.58
34:DA:145:G:H2'	34:DA:146:G:C5'	2.19	0.58
45:DP:46:LYS:HG2	45:DP:52:GLU:CG	2.33	0.58
33:D8:34:TRP:O	33:D8:35:GLN:HB2	2.04	0.58
38:DE:201:THR:CG2	38:DE:203:LYS:H	2.07	0.58
10:AJ:4:ILE:CB	10:AJ:74:ILE:HD11	2.25	0.58
1:AA:107:G:N7	20:AT:15:ARG:NH2	2.50	0.58
26:D1:18:ILE:HA	26:D1:44:PRO:HD2	1.85	0.58
26:D1:27:GLU:CG	26:D1:32:LYS:HB2	2.29	0.58
44:BO:32:TYR:N	44:BO:32:TYR:HD1	2.00	0.58
1:AA:959:A:C2	1:AA:1222:G:O4'	2.56	0.58
3:AC:188:LEU:O	3:AC:189:ALA:HB2	2.04	0.58
46:BQ:42:ILE:HA	46:BQ:46:GLN:OE1	2.04	0.58
34:DA:2723:C:H5''	47:DR:2:ARG:HD2	1.86	0.58
3:CC:68:VAL:HG12	3:CC:70:VAL:HG23	1.86	0.58
27:D2:51:ARG:O	27:D2:52:ASP:CB	2.51	0.58
6:CF:8:ILE:HG22	6:CF:9:VAL:N	2.18	0.58
34:DA:2555:U:H2'	34:DA:2556:C:C5'	2.34	0.58
37:DD:235:GLY:O	37:DD:237:GLU:HG2	2.03	0.58
6:AF:19:LEU:HD11	6:AF:59:TYR:CE2	2.39	0.58
34:DA:543:C:N4	34:DA:551:G:N1	2.48	0.58
34:BA:1176:G:H1'	34:BA:1177:A:OP1	2.03	0.58
35:DB:28:C:O2'	35:DB:29:A:H5'	2.04	0.58
1:CA:834:C:H2'	1:CA:835:U:C6	2.35	0.58
34:DA:1169:G:H1	34:DA:1180:C:N4	2.01	0.58
32:D7:47:ARG:C	32:D7:48:LYS:HD3	2.24	0.58
40:BG:6:ALA:O	40:BG:7:LEU:C	2.41	0.58
8:CH:69:ARG:HD3	8:CH:75:ARG:O	2.04	0.58
1:AA:939:G:H5''	7:AG:102:ARG:HH12	1.68	0.58
9:CI:125:TYR:HD2	9:CI:126:SER:N	2.00	0.58
1:CA:430:A:H2'	1:CA:431:A:H5'	1.85	0.58
11:AK:32:ILE:HD12	11:AK:72:ALA:HB2	1.84	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:414:A:H8	1:AA:414:A:H5'	1.69	0.58
1:CA:15:G:H4'	5:CE:24:ARG:HH22	1.68	0.58
34:DA:855:G:H1	34:DA:922:U:H3	1.50	0.58
1:CA:311:C:HO2'	1:CA:312:C:H5'	1.68	0.58
16:CP:34:GLU:OE2	16:CP:55:ARG:HD3	2.04	0.58
1:AA:668:G:O2'	1:AA:669:U:H5'	2.04	0.58
32:D7:24:THR:OG1	32:D7:25:PRO:HD2	2.04	0.58
34:DA:2392:A:C8	45:DP:60:MET:HG3	2.38	0.58
34:BA:2050:C:H1'	38:BE:156:MET:CE	2.33	0.58
50:DU:74:LEU:HD12	50:DU:74:LEU:O	2.03	0.58
1:AA:1112:C:N3	3:AC:178:LEU:HD23	2.18	0.58
49:DT:80:SER:OG	49:DT:81:PRO:HD3	2.02	0.58
3:CC:11:ARG:HH11	3:CC:11:ARG:HG2	1.68	0.58
38:BE:93:VAL:C	38:BE:95:ILE:N	2.57	0.58
45:BP:45:LEU:CD2	45:BP:46:LYS:N	2.56	0.58
37:BD:35:LYS:CG	37:BD:64:ILE:HG23	2.33	0.58
34:BA:833:U:H2'	34:BA:834:C:H6	1.67	0.58
55:DZ:14:LYS:O	55:DZ:16:SER:N	2.35	0.58
55:DZ:30:ASN:O	55:DZ:32:HIS:N	2.37	0.58
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.19	0.58
53:BX:35:THR:O	53:BX:36:LYS:C	2.41	0.58
50:BU:55:ARG:HA	50:BU:58:ARG:HG3	1.86	0.58
40:BG:130:ASN:OD1	40:BG:160:VAL:HG13	2.04	0.58
38:BE:117:MET:CE	38:BE:124:GLY:HA3	2.33	0.58
34:DA:2262:U:H2'	34:DA:2263:C:C5'	2.34	0.58
34:BA:2723:C:H5''	47:BR:2:ARG:NE	2.18	0.58
55:BZ:39:VAL:HG21	55:BZ:44:PHE:HB2	1.86	0.58
55:BZ:56:VAL:HA	55:BZ:70:LEU:HD21	1.86	0.58
34:DA:2892:A:H2'	34:DA:2893:G:O4'	2.02	0.58
38:DE:119:ARG:HG2	38:DE:160:TYR:HB2	1.85	0.58
2:AB:134:GLU:HA	2:AB:137:ARG:HB2	1.85	0.58
27:D2:50:ILE:O	27:D2:51:ARG:HB3	2.03	0.58
34:DA:1141:U:O5'	43:DN:63:THR:HG21	2.03	0.58
1:CA:1288:A:H2'	1:CA:1289:A:C8	2.38	0.58
25:D0:60:PHE:CZ	34:DA:2365:G:H4'	2.39	0.58
19:CS:62:ILE:HD12	19:CS:66:MET:SD	2.44	0.58
1:AA:736:C:H2'	1:AA:737:A:H8	1.66	0.58
34:BA:229:A:H3'	34:BA:230:U:C5'	2.32	0.58
34:DA:1510:G:H2'	34:DA:1511:C:C6	2.38	0.58
7:CG:108:ALA:O	7:CG:111:ARG:HB2	2.02	0.58
1:CA:197:A:C6	1:CA:221:C:H5'	2.37	0.58
1:CA:1374:A:H2'	1:CA:1375:A:H8	1.68	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.72	0.58
23:AW:5:G:H2'	23:AW:6:G:O4'	2.03	0.58
11:CK:84:VAL:CG1	11:CK:95:ILE:HD11	2.34	0.58
1:CA:1097:C:H2'	1:CA:1098:C:C6	2.39	0.58
17:CQ:59:ILE:CG2	17:CQ:71:PHE:HB3	2.34	0.58
18:AR:37:VAL:HG23	18:AR:38:GLU:N	2.18	0.58
34:BA:741:G:H2'	34:BA:742:G:H8	1.68	0.58
1:AA:430:A:H2'	1:AA:431:A:H5'	1.86	0.58
1:CA:15:G:H4'	5:CE:24:ARG:NH1	2.19	0.58
1:CA:1452:C:H4'	1:CA:1456:G:H5''	1.86	0.58
22:AV:17:C:H5''	22:AV:17(A):U:C5	2.39	0.58
34:BA:646:A:C8	34:BA:647:G:H1'	2.38	0.58
34:BA:2657:A:H1'	34:BA:2665:A:N6	2.17	0.58
34:BA:21:A:O2'	34:BA:22:C:H5'	2.04	0.58
34:DA:2260:C:O2'	34:DA:2261:C:H5'	2.04	0.58
43:DN:4:TYR:CD1	43:DN:4:TYR:N	2.72	0.58
1:AA:1297:C:O2'	7:AG:114:ARG:NH2	2.36	0.58
34:DA:1339:G:N2	34:DA:1603:A:H1'	2.19	0.58
34:DA:1603:A:H8	34:DA:1603:A:H5'	1.68	0.58
34:BA:1403:C:H5''	34:BA:1471:A:H1'	1.84	0.58
9:AI:56:LEU:HD23	9:AI:56:LEU:C	2.24	0.58
34:DA:1215:G:O2'	34:DA:1216:G:H5'	2.04	0.58
50:DU:106:PHE:O	50:DU:109:LEU:HB2	2.03	0.58
50:BU:79:PHE:C	50:BU:79:PHE:CD2	2.76	0.58
51:BV:69:LYS:HB2	51:BV:93:GLU:OE2	2.03	0.58
54:BY:28:LYS:HD2	54:BY:37:VAL:CB	2.34	0.58
54:BY:8:LYS:HE3	54:BY:72:VAL:HG23	1.85	0.58
42:DI:77:LEU:HB2	42:DI:140:LEU:HD13	1.84	0.58
55:DZ:99:TYR:CE2	55:DZ:125:LEU:HD12	2.39	0.58
27:B2:53:LEU:O	27:B2:54:LYS:HB2	2.04	0.58
34:BA:71:A:H5'	34:BA:71:A:H8	1.67	0.58
53:BX:36:LYS:HZ2	53:BX:39:ILE:CA	2.01	0.58
47:BR:28:LEU:CD2	47:BR:114:VAL:HG12	2.34	0.58
47:BR:28:LEU:HD13	47:BR:28:LEU:O	2.03	0.58
34:BA:2103:C:C3'	34:BA:2104:G:H5''	2.25	0.58
43:BN:46:VAL:CG1	43:BN:47:ALA:H	2.13	0.58
50:BU:66:ASN:C	50:BU:68:ALA:H	2.06	0.58
16:CP:15:PRO:O	16:CP:16:HIS:ND1	2.36	0.58
34:DA:1497:U:C5'	34:DA:1498:C:H5	2.17	0.58
44:DO:63:VAL:CG2	44:DO:64:ARG:H	2.17	0.58
35:BB:74:U:H3'	35:BB:75:G:H5''	1.84	0.58
34:DA:1301:A:H2'	34:DA:1302:A:H3'	1.85	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2641:G:OP1	43:BN:75:TYR:HB3	2.04	0.58
1:AA:1221:G:O2'	1:AA:1222:G:H5'	2.04	0.58
43:DN:14:VAL:HA	43:DN:135:PRO:CG	2.32	0.58
41:BH:19:VAL:HG21	41:BH:44:VAL:CG1	2.31	0.58
5:CE:10:MET:HB2	5:CE:32:VAL:HG22	1.85	0.58
19:CS:16:LEU:CD1	19:CS:16:LEU:H	2.15	0.58
34:DA:2347:C:H2'	34:DA:2348:U:H6	1.69	0.58
36:BC:49:ILE:CG2	36:BC:50:ASP:H	2.16	0.58
34:DA:2472:G:H2'	34:DA:2529:G:H22	1.65	0.58
42:BI:69:LYS:HA	42:BI:136:VAL:HG21	1.85	0.58
53:BX:70:LEU:HG	53:BX:71:GLY:N	2.19	0.58
41:DH:19:VAL:HG21	41:DH:44:VAL:CG1	2.31	0.58
36:DC:50:ASP:OD1	36:DC:55:ASP:HA	2.04	0.58
34:BA:2202:C:H1'	37:BD:151:LYS:NZ	2.19	0.58
25:D0:72:ARG:CB	25:D0:75:LEU:HB2	2.31	0.58
35:DB:79:C:C2'	35:DB:80:U:H5'	2.34	0.58
34:BA:1796:U:H2'	34:BA:1797:C:C6	2.38	0.58
47:DR:106:GLY:O	47:DR:107:ASP:HB3	2.04	0.58
15:CO:82:ILE:HD13	15:CO:87:ILE:H	1.68	0.58
4:CD:17:VAL:HG11	4:CD:197:PRO:CB	2.32	0.58
12:AL:53:ARG:HG2	12:AL:53:ARG:HH11	1.69	0.58
7:CG:145:ALA:O	7:CG:147:ALA:N	2.34	0.58
9:AI:78:LYS:NZ	9:AI:78:LYS:HB2	2.19	0.58
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.72	0.58
3:AC:149:ALA:HA	3:AC:201:TYR:O	2.04	0.58
3:AC:152:ILE:HB	3:AC:199:LYS:HB2	1.84	0.58
23:AW:5:G:O2'	23:AW:6:G:H5'	2.04	0.58
1:AA:1513:A:H2'	1:AA:1514:C:H6	1.66	0.58
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.18	0.58
51:BV:12:TYR:N	51:BV:12:TYR:HD2	2.01	0.58
16:CP:53:VAL:HG23	16:CP:54:GLU:H	1.69	0.58
1:CA:1508:G:H2'	1:CA:1509:C:C6	2.39	0.58
31:D6:36:LEU:O	31:D6:37:ARG:HG3	2.03	0.58
3:CC:156:ARG:HH21	3:CC:160:ALA:C	2.07	0.58
1:CA:1463:C:OP1	49:DT:111:ARG:HD2	2.03	0.58
27:B2:28:LYS:HG2	27:B2:43:GLN:O	2.04	0.58
27:B2:28:LYS:O	27:B2:31:GLU:HB3	2.03	0.58
34:BA:754:C:H2'	34:BA:755:C:H6	1.69	0.58
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.39	0.58
9:CI:56:LEU:C	9:CI:56:LEU:HD23	2.24	0.58
51:DV:75:PHE:HE1	51:DV:89:GLN:HB3	1.68	0.58
50:BU:92:ARG:C	50:BU:94:ASN:N	2.55	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:58:G:OP1	53:BX:72:LYS:HA	2.03	0.58
48:DS:25:ARG:HG2	48:DS:88:ASP:OD1	2.03	0.58
38:DE:51:PHE:HD1	38:DE:52:LEU:HD12	1.68	0.58
34:BA:1484:G:N2	34:BA:1505:C:H41	2.00	0.58
27:B2:17:SER:O	27:B2:20:GLU:HB2	2.04	0.58
34:DA:1590:U:C3'	34:DA:1591:G:H5''	2.33	0.58
42:DI:114:LEU:HA	42:DI:130:TYR:CD1	2.39	0.58
33:B8:35:GLN:NE2	33:B8:36:LYS:NZ	2.51	0.58
34:BA:519:U:H4'	52:BW:25:ARG:HH21	1.69	0.58
50:DU:62:ILE:HG13	50:DU:76:TYR:CE1	2.39	0.58
34:BA:2696:U:H2'	34:BA:2697:G:H8	1.68	0.58
34:DA:957:A:H5'	46:DQ:76:LYS:HG3	1.84	0.58
47:DR:87:TYR:HE1	47:DR:117:VAL:HG13	1.69	0.58
53:DX:24:GLY:O	53:DX:25:LYS:O	2.22	0.58
16:AP:22:THR:HG22	16:AP:32:TYR:CA	2.33	0.58
37:DD:183:ARG:HD2	37:DD:270:ILE:HG22	1.86	0.58
13:CM:2:ALA:C	13:CM:9:ILE:HG23	2.24	0.58
1:AA:491:G:H2'	1:AA:492:G:H8	1.69	0.58
3:AC:70:VAL:HG12	3:AC:71:ALA:H	1.67	0.58
30:D5:57:VAL:HG23	30:D5:58:LEU:N	2.19	0.58
34:BA:1301:A:H4'	34:BA:1302:A:OP1	2.03	0.58
34:BA:1301:A:H2'	34:BA:1302:A:H3'	1.84	0.58
34:BA:389:G:N2	45:BP:71:VAL:HG12	2.14	0.58
34:DA:74:A:O2'	34:DA:75:G:OP2	2.22	0.58
34:BA:2347:C:H2'	34:BA:2348:U:H6	1.69	0.58
12:CL:32:PHE:HB3	12:CL:84:LEU:CD2	2.31	0.58
30:B5:20:ARG:HH12	52:BW:15:ARG:NE	2.02	0.58
34:DA:1449:A:H1'	34:DA:1529:G:H8	1.68	0.58
34:BA:2308:G:H21	40:BG:79:ASN:ND2	2.02	0.58
12:AL:60:LEU:HD22	12:AL:60:LEU:N	2.18	0.58
38:BE:11:MET:HB2	38:BE:23:VAL:O	2.04	0.58
1:CA:1105:A:O2'	1:CA:1106:G:H5'	2.03	0.58
25:B0:53:MET:HB3	25:B0:59:LEU:HD23	1.86	0.58
34:DA:549:G:C2'	34:DA:551:G:H5''	2.34	0.58
53:DX:83:VAL:O	53:DX:84:ALA:HB3	2.02	0.58
55:DZ:61:LEU:HD12	55:DZ:65:GLN:HG3	1.86	0.58
37:BD:9:TYR:CD2	37:BD:10:THR:HG22	2.38	0.58
44:DO:105:GLU:N	44:DO:105:GLU:OE1	2.36	0.58
54:BY:32:PRO:C	54:BY:34:LYS:H	2.07	0.58
19:CS:43:GLU:O	19:CS:43:GLU:HG2	2.03	0.58
3:AC:199:LYS:HB3	3:AC:201:TYR:HE1	1.69	0.58
38:BE:64:LYS:HG2	38:BE:64:LYS:O	2.04	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BI:54:GLN:HA	42:BI:57:ARG:NH1	2.19	0.58
1:CA:414:A:H5'	1:CA:414:A:H8	1.68	0.58
34:DA:1411:C:H2'	34:DA:1412:A:H8	1.69	0.58
34:BA:855:G:H1	34:BA:922:U:H3	1.51	0.58
1:CA:1297:C:O2'	7:CG:114:ARG:NH2	2.37	0.58
34:DA:2290:G:H8	34:DA:2290:G:H5'	1.68	0.58
47:BR:100:LEU:HD23	47:BR:112:ALA:HA	1.85	0.58
34:BA:485:C:O2'	34:BA:486:C:H5'	2.04	0.58
34:BA:2260:C:O2'	34:BA:2261:C:H5'	2.03	0.58
34:BA:1215:G:O2'	34:BA:1216:G:H5'	2.02	0.58
4:CD:142:PRO:HA	4:CD:185:PHE:HD2	1.68	0.58
21:CU:5:ASP:O	21:CU:11:GLY:HA3	2.02	0.58
34:DA:1208:C:C4	34:DA:1209:G:N7	2.72	0.58
55:DZ:144:LEU:HD12	55:DZ:148:ASP:OD1	2.03	0.58
37:DD:25:THR:HG21	37:DD:82:ILE:H	1.68	0.58
50:BU:83:LEU:C	50:BU:88:ILE:HD11	2.24	0.58
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.84	0.58
26:B1:48:LYS:HG3	26:B1:49:VAL:N	2.18	0.58
45:DP:45:LEU:CD2	45:DP:46:LYS:N	2.59	0.58
45:DP:121:LYS:O	45:DP:123:LEU:HD23	2.03	0.58
34:DA:83:G:N1	34:DA:102:G:H2'	2.18	0.58
55:DZ:10:ARG:HG2	55:DZ:12:GLY:H	1.68	0.58
33:D8:35:GLN:NE2	33:D8:36:LYS:NZ	2.52	0.58
7:AG:62:PHE:HA	7:AG:124:LEU:CD2	2.33	0.58
40:BG:55:LYS:C	40:BG:57:ALA:H	2.06	0.58
47:BR:97:VAL:HG22	47:BR:114:VAL:HG22	1.84	0.58
34:BA:2030:A:H4'	34:BA:2031:A:H8	1.69	0.58
41:BH:85:LYS:HD2	41:BH:141:VAL:HG13	1.86	0.58
44:BO:101:PRO:C	44:BO:102:VAL:HG22	2.24	0.58
8:CH:89:PRO:HA	8:CH:92:ARG:HH11	1.68	0.58
55:BZ:19:ARG:HH12	55:BZ:84:GLU:HA	1.69	0.58
55:BZ:40:ASP:OD1	55:BZ:42:VAL:HG12	2.03	0.58
1:CA:1250:A:C2	1:CA:1370:G:H1'	2.38	0.58
27:B2:29:LYS:O	27:B2:33:MET:SD	2.62	0.58
38:DE:11:MET:H	49:DT:8:LYS:HE3	1.68	0.58
35:BB:79:C:C2'	35:BB:80:U:H5'	2.34	0.58
50:BU:31:SER:C	50:BU:33:ARG:H	2.07	0.58
19:CS:5:LEU:HG	19:CS:10:PHE:HD1	1.67	0.58
37:DD:43:ARG:HB3	37:DD:54:ARG:HB2	1.86	0.58
34:DA:1141:U:H5''	34:DA:1142(A):A:O4'	2.04	0.58
1:AA:1288:A:H2'	1:AA:1289:A:H8	1.69	0.58
40:DG:41:GLN:OE1	40:DG:43:LEU:HD11	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DG:71:THR:HG22	40:DG:89:GLY:O	2.03	0.58
22:AV:72:A:H2'	22:AV:73:A:H5''	1.84	0.58
17:AQ:67:LYS:HA	17:AQ:70:ARG:NH1	2.17	0.58
1:CA:436:C:O2'	1:CA:437:U:P	2.61	0.58
34:DA:543:C:N3	34:DA:551:G:C2	2.72	0.58
48:BS:35:ILE:H	48:BS:53:SER:CB	2.16	0.58
48:DS:58:LEU:HD11	48:DS:68:GLN:OE1	2.03	0.58
44:BO:86:ILE:N	44:BO:86:ILE:HD12	2.19	0.58
1:CA:834:C:O2'	1:CA:835:U:H5'	2.04	0.58
34:DA:2580:U:H5'	38:DE:131:ALA:HB2	1.85	0.58
54:BY:77:PRO:O	54:BY:78:ALA:HB2	2.03	0.58
1:CA:1313:U:OP2	19:CS:6:LYS:HB3	2.04	0.58
5:AE:146:ALA:C	5:AE:148:VAL:H	2.07	0.58
34:DA:892:G:N3	34:DA:892:G:H3'	2.19	0.58
1:AA:1437:C:O2'	1:AA:1438:G:H5'	2.03	0.58
1:CA:1249:C:H4'	9:CI:36:TYR:OH	2.04	0.58
1:CA:868:C:H2'	1:CA:869:G:O4'	2.04	0.58
34:DA:150:C:H2'	34:DA:151:C:H6	1.69	0.58
1:CA:418:C:H2'	1:CA:419:C:C6	2.39	0.58
34:BA:2571:C:H5'	34:BA:2572:A:H5''	1.85	0.58
12:CL:45:PRO:HB3	12:CL:49:ASN:HB2	1.85	0.58
40:DG:138:GLN:NE2	40:DG:153:ARG:HB3	2.18	0.58
37:BD:31:LYS:HA	37:BD:31:LYS:HZ1	1.68	0.58
36:DC:39:GLU:HG2	36:DC:180:PHE:CB	2.34	0.58
34:DA:2619:C:O2'	34:DA:2620:C:H5'	2.04	0.58
23:CW:57:G:H2'	23:CW:58:A:H5'	1.84	0.58
34:DA:1166:C:H2'	34:DA:1167:U:H6	1.68	0.58
34:DA:738:G:O2'	34:DA:739:G:H5'	2.04	0.58
15:AO:3:ILE:HG12	15:AO:3:ILE:O	2.03	0.58
4:CD:209:ARG:HH11	4:CD:209:ARG:HG3	1.69	0.58
1:CA:880:C:O2'	1:CA:881:G:H5'	2.03	0.58
50:DU:93:LYS:CD	50:DU:93:LYS:H	2.17	0.57
51:DV:4:ILE:O	51:DV:39:LEU:HB2	2.04	0.57
51:BV:69:LYS:CG	51:BV:70:ILE:H	2.17	0.57
34:DA:2777:G:H4'	34:DA:2778:A:H5'	1.86	0.57
38:DE:57:LYS:O	38:DE:57:LYS:HG3	2.03	0.57
38:DE:64:LYS:HG2	38:DE:64:LYS:O	2.03	0.57
34:BA:481:G:HO2'	34:BA:482:A:P	2.27	0.57
3:AC:182:ILE:HG12	3:AC:203:PHE:HD1	1.68	0.57
48:BS:28:VAL:H	48:BS:89:ARG:HD2	1.69	0.57
34:BA:615:G:OP1	39:BF:40:GLN:NE2	2.37	0.57
36:BC:40:THR:HG21	36:BC:215:THR:CB	2.34	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BF:206:ILE:CD1	39:BF:206:ILE:O	2.50	0.57
1:AA:356:A:H2	1:AA:368:U:O2	1.86	0.57
42:DI:120:ILE:O	42:DI:121:LYS:HB3	2.03	0.57
2:CB:69:LEU:HD13	2:CB:91:PRO:HB2	1.86	0.57
40:BG:63:ILE:HD12	40:BG:63:ILE:O	2.04	0.57
50:DU:57:PHE:O	50:DU:58:ARG:C	2.42	0.57
50:DU:66:ASN:C	50:DU:68:ALA:H	2.06	0.57
34:DA:1884:A:C3'	34:DA:1885:A:H5''	2.33	0.57
39:DF:18:ARG:HG2	39:DF:19:GLU:N	2.17	0.57
18:CR:64:ARG:O	18:CR:66:LEU:N	2.37	0.57
43:BN:46:VAL:O	43:BN:47:ALA:CB	2.51	0.57
41:BH:41:MET:CE	41:BH:41:MET:HA	2.33	0.57
45:DP:34:GLY:O	45:DP:35:HIS:HD2	1.86	0.57
54:DY:99:CYS:O	54:DY:100:ALA:HB3	2.04	0.57
34:BA:1697:G:C5'	34:BA:1698:A:H5''	2.34	0.57
55:BZ:161:VAL:O	55:BZ:161:VAL:HG12	2.03	0.57
34:DA:1754:C:OP1	49:DT:96:ARG:NH1	2.37	0.57
34:DA:2383:G:O2'	34:DA:2384:G:H5'	2.04	0.57
34:DA:2707:G:H5''	47:DR:68:ARG:HH21	1.67	0.57
54:BY:76:CYS:SG	54:BY:77:PRO:CD	2.91	0.57
32:D7:12:ARG:NH1	32:D7:12:ARG:HG3	2.19	0.57
40:BG:110:ALA:C	40:BG:112:PRO:HD2	2.24	0.57
11:AK:30:VAL:HG23	11:AK:68:ALA:HB2	1.86	0.57
8:CH:120:THR:HG23	8:CH:123:GLU:OE1	2.04	0.57
34:BA:319:C:O2'	34:BA:320:A:H5'	2.03	0.57
9:CI:78:LYS:HB2	9:CI:78:LYS:NZ	2.19	0.57
17:AQ:59:ILE:HG22	17:AQ:71:PHE:CD1	2.39	0.57
1:AA:868:C:H2'	1:AA:869:G:O4'	2.03	0.57
1:CA:1103:C:H4'	2:CB:98:LEU:HD13	1.86	0.57
12:CL:82:VAL:O	12:CL:106:ASP:HB2	2.04	0.57
31:B6:42:TRP:HA	31:B6:42:TRP:HE3	1.69	0.57
2:CB:167:PRO:O	2:CB:171:ALA:N	2.37	0.57
34:DA:754:C:H2'	34:DA:755:C:C6	2.39	0.57
34:BA:646:A:H2'	34:BA:647:G:O4'	2.04	0.57
34:DA:2350:C:H2'	34:DA:2351:G:O4'	2.04	0.57
1:CA:356:A:H2	1:CA:368:U:O2	1.87	0.57
1:AA:1006:C:H42	1:AA:1024:G:H21	1.51	0.57
2:CB:24:TRP:H	2:CB:24:TRP:HD1	1.52	0.57
28:B3:11:SER:OG	28:B3:13:ILE:HG12	2.04	0.57
1:AA:1126:U:H2'	1:AA:1127:G:O4'	2.03	0.57
48:DS:42:ASP:C	48:DS:44:LYS:H	2.06	0.57
6:AF:1:MET:HB3	6:AF:66:GLU:HG2	1.85	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DC:97:GLU:HA	36:DC:100:ILE:HG12	1.85	0.57
4:CD:65:ARG:HG3	4:CD:75:PHE:CD1	2.38	0.57
39:DF:183:VAL:O	39:DF:187:VAL:HG23	2.04	0.57
48:DS:28:VAL:O	48:DS:29:PHE:HB2	2.04	0.57
48:BS:15:ARG:HH11	48:BS:15:ARG:HG3	1.69	0.57
34:BA:2334:G:H21	48:BS:18:ILE:CD1	2.17	0.57
54:BY:13:VAL:HG12	54:BY:14:LEU:H	1.69	0.57
35:DB:74:U:H3'	35:DB:75:G:H5''	1.85	0.57
33:B8:34:TRP:O	33:B8:35:GLN:HB2	2.04	0.57
40:BG:139:LEU:C	40:BG:139:LEU:HD12	2.24	0.57
46:DQ:75:THR:HB	46:DQ:88:GLY:CA	2.34	0.57
10:AJ:6:ILE:HG13	10:AJ:72:VAL:O	2.04	0.57
47:BR:41:ALA:O	47:BR:43:GLU:N	2.37	0.57
10:AJ:74:ILE:CD1	10:AJ:74:ILE:H	2.15	0.57
37:DD:266:SER:O	37:DD:267:SER:CB	2.51	0.57
38:DE:117:MET:O	38:DE:118:LYS:HB2	2.02	0.57
53:DX:55:ASN:HB2	53:DX:77:LYS:HD3	1.85	0.57
42:DI:37:VAL:HG12	42:DI:38:LEU:N	2.18	0.57
19:CS:16:LEU:N	19:CS:16:LEU:HD12	2.19	0.57
25:B0:39:ARG:HH21	34:BA:2355:C:H1'	1.69	0.57
41:DH:87:LEU:CD1	41:DH:148:ILE:HG21	2.31	0.57
34:DA:2631:G:N2	38:DE:61:ARG:HH12	2.01	0.57
12:CL:60:LEU:HD22	12:CL:60:LEU:N	2.18	0.57
39:BF:157:VAL:HA	39:BF:176:LEU:O	2.04	0.57
37:DD:8:PRO:CB	37:DD:14:ARG:HB2	2.33	0.57
49:BT:50:ILE:H	49:BT:50:ILE:CD1	2.17	0.57
5:AE:35:GLY:HA2	5:AE:40:ARG:O	2.04	0.57
34:BA:2555:U:C2'	34:BA:2556:C:H5'	2.31	0.57
1:AA:1227:A:H2'	1:AA:1228:C:O5'	2.04	0.57
34:DA:1040:C:H42	34:DA:1116:C:H42	1.50	0.57
45:BP:85:LEU:HA	45:BP:88:LEU:CB	2.32	0.57
1:AA:222:U:H2'	1:AA:223:U:H6	1.69	0.57
14:CN:41:ARG:HG3	14:CN:42:ILE:H	1.69	0.57
3:AC:22:TRP:CH2	3:AC:32:LEU:HB2	2.38	0.57
1:AA:900:A:H2'	1:AA:901:A:C8	2.39	0.57
36:DC:89:ALA:HB2	36:DC:153:ILE:HA	1.86	0.57
40:DG:35:GLU:OE2	40:DG:35:GLU:N	2.37	0.57
8:CH:1:MET:HE2	8:CH:1:MET:H3	1.69	0.57
1:CA:1006:C:H42	1:CA:1024:G:H21	1.51	0.57
34:BA:500:G:N2	34:BA:502:A:H3'	2.18	0.57
1:CA:1126:U:H2'	1:CA:1127:G:O4'	2.04	0.57
34:DA:554:U:C2'	34:DA:555:U:H5'	2.35	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2033:A:H4'	34:DA:2034:U:OP1	2.04	0.57
41:BH:86:GLU:N	41:BH:86:GLU:OE1	2.36	0.57
50:DU:110:VAL:O	50:DU:113:ALA:HB3	2.04	0.57
45:BP:127:ALA:HB3	45:BP:130:PHE:CZ	2.39	0.57
36:DC:46:LYS:CE	36:DC:46:LYS:HA	2.26	0.57
2:AB:91:PRO:HG3	2:AB:154:LEU:HD12	1.86	0.57
34:BA:451:C:H4'	39:BF:52:LYS:HZ1	1.67	0.57
53:BX:36:LYS:C	53:BX:38:GLU:N	2.57	0.57
55:BZ:150:LEU:CD2	55:BZ:171:ILE:HG13	2.34	0.57
41:DH:141:VAL:CG1	41:DH:142:GLY:N	2.68	0.57
1:AA:719:C:O2	18:AR:50:ILE:HG12	2.04	0.57
26:D1:12:PRO:CD	26:D1:13:ILE:H	2.16	0.57
50:BU:57:PHE:O	50:BU:58:ARG:C	2.43	0.57
5:AE:101:ILE:CD1	5:AE:119:LEU:HD23	2.34	0.57
45:DP:14:LYS:O	45:DP:15:ARG:HG3	2.05	0.57
46:BQ:140:ALA:H	55:BZ:53:ILE:CD1	2.17	0.57
1:AA:1250:A:C2	1:AA:1370:G:H1'	2.40	0.57
46:BQ:127:ILE:HG22	46:BQ:128:LYS:N	2.15	0.57
46:BQ:17:LEU:HD21	46:BQ:41:TRP:HE1	1.69	0.57
38:DE:11:MET:N	49:DT:8:LYS:HE3	2.19	0.57
6:AF:11:ASN:HB3	6:AF:14:LEU:HD21	1.86	0.57
26:B1:26:ARG:HE	26:B1:34:THR:CB	2.17	0.57
35:BB:78:A:C2	35:BB:100:A:C4	2.91	0.57
4:CD:134:ASP:O	4:CD:136:PRO:HD3	2.04	0.57
42:BI:38:LEU:O	42:BI:40:THR:N	2.36	0.57
5:CE:82:VAL:HG21	5:CE:138:ALA:HA	1.86	0.57
2:CB:134:GLU:HA	2:CB:137:ARG:HB2	1.86	0.57
43:DN:63:THR:O	43:DN:64:GLY:O	2.22	0.57
34:DA:1614:A:H62	52:DW:93:ALA:CB	2.15	0.57
25:B0:60:PHE:CZ	34:BA:2365:G:H4'	2.38	0.57
34:DA:2202:C:H1'	37:DD:151:LYS:NZ	2.20	0.57
38:BE:24:THR:CG2	38:BE:184:VAL:HG23	2.32	0.57
34:BA:1275:A:C4	47:BR:16:HIS:CE1	2.92	0.57
34:DA:1747:G:H2'	34:DA:1747(A):G:C8	2.39	0.57
25:D0:41:ARG:HD2	25:D0:41:ARG:N	2.17	0.57
37:DD:75:ILE:HG21	37:DD:99:ASP:HB2	1.86	0.57
34:BA:2287:A:H2	34:BA:2346:A:C2	2.22	0.57
14:AN:48:ALA:N	14:AN:53:LEU:HD12	2.20	0.57
10:CJ:32:ALA:HB2	10:CJ:76:ASN:HB3	1.85	0.57
39:DF:122:LYS:HB3	39:DF:191:ARG:HG2	1.85	0.57
39:DF:126:VAL:O	39:DF:196:LEU:HG	2.04	0.57
8:CH:103:VAL:HG21	8:CH:109:ILE:C	2.23	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DH:155:SER:O	41:DH:157:TYR:N	2.36	0.57
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.39	0.57
54:DY:32:PRO:C	54:DY:34:LYS:H	2.07	0.57
7:AG:115:ARG:HB2	7:AG:118:VAL:HG22	1.86	0.57
1:AA:683:G:H2'	1:AA:684:A:H8	1.68	0.57
4:CD:67:ILE:HG22	4:CD:68:TYR:CD1	2.38	0.57
34:BA:1314:C:C6	34:BA:1314:C:H5'	2.38	0.57
1:AA:930:C:O2'	1:AA:931:C:H5'	2.03	0.57
34:BA:1376:C:O2'	34:BA:1377:G:H5'	2.04	0.57
1:AA:966:G:H2'	1:AA:967:C:C6	2.39	0.57
2:AB:59:GLU:HB2	2:AB:221:LEU:HD11	1.85	0.57
1:CA:671:G:O2'	1:CA:672:U:H5'	2.04	0.57
34:BA:1247:A:OP1	39:BF:95:ARG:NH2	2.37	0.57
22:CV:56:C:O2	40:DG:78:SER:HB2	2.03	0.57
34:DA:1348:G:H2'	34:DA:1349:A:C5'	2.33	0.57
34:BA:2636:U:OP1	38:BE:80:GLU:N	2.37	0.57
54:BY:28:LYS:O	54:BY:29:GLU:HB2	2.04	0.57
38:BE:52:LEU:CB	38:BE:76:ARG:HB2	2.18	0.57
55:DZ:125:LEU:O	55:DZ:164:ALA:HB3	2.03	0.57
46:BQ:8:LYS:HG3	46:BQ:9:TYR:N	2.19	0.57
1:CA:103:C:OP2	20:CT:14:LYS:HD3	2.05	0.57
34:BA:2181:G:H2'	34:BA:2182:G:C8	2.39	0.57
34:DA:2639:A:C3'	34:DA:2640:G:C5'	2.83	0.57
40:DG:55:LYS:C	40:DG:57:ALA:N	2.56	0.57
46:BQ:34:LEU:HD11	46:BQ:129:THR:CG2	2.33	0.57
4:CD:102:ASP:HA	4:CD:121:VAL:HG21	1.86	0.57
6:CF:53:ALA:O	6:CF:54:LYS:HB2	2.04	0.57
1:AA:1168:A:H2'	1:AA:1169:A:C8	2.39	0.57
1:CA:1316:G:O3'	14:CN:18:VAL:HG22	2.04	0.57
32:D7:43:THR:HG23	32:D7:44:PRO:CD	2.34	0.57
34:BA:2481:G:HO2'	34:BA:2482:G:P	2.28	0.57
41:BH:102:ALA:HB2	41:BH:117:PRO:CB	2.34	0.57
35:BB:60:C:O2'	35:BB:61:G:H5'	2.04	0.57
11:AK:21:ILE:HA	11:AK:30:VAL:HG12	1.86	0.57
1:AA:973:G:H3'	1:AA:974:A:H5''	1.84	0.57
37:DD:131:LEU:N	37:DD:131:LEU:HD12	2.19	0.57
35:BB:105:A:H2'	35:BB:106:G:O4'	2.03	0.57
51:BV:94:LEU:C	51:BV:94:LEU:HD23	2.25	0.57
1:CA:658:G:H2'	1:CA:659:U:C6	2.40	0.57
34:BA:1828:G:O6	37:BD:222:ARG:HD3	2.05	0.57
16:AP:53:VAL:O	16:AP:57:ARG:N	2.29	0.57
2:AB:167:PRO:O	2:AB:171:ALA:N	2.37	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:108:LEU:HD21	4:CD:183:GLY:HA3	1.85	0.57
34:DA:30:G:H2'	34:DA:31:C:H6	1.69	0.57
1:CA:620:C:H2'	1:CA:621:A:O4'	2.03	0.57
43:DN:74:ARG:NH1	43:DN:101:HIS:ND1	2.52	0.57
36:BC:39:GLU:HG2	36:BC:180:PHE:CB	2.34	0.57
34:BA:671:C:O2'	34:BA:672:C:H5'	2.03	0.57
34:DA:1550:C:H2'	34:DA:1551:C:H6	1.69	0.57
34:BA:122:G:O2'	34:BA:123:G:H5'	2.03	0.57
34:BA:1336:A:O2'	34:BA:1337:G:H5'	2.05	0.57
34:BA:314:A:O2'	34:BA:315:G:H5'	2.05	0.57
48:DS:87:PHE:CG	48:DS:88:ASP:N	2.73	0.57
38:DE:52:LEU:CB	38:DE:76:ARG:HB2	2.17	0.57
53:DX:37:THR:CG2	53:DX:54:VAL:HB	2.34	0.57
49:BT:118:ARG:O	49:BT:121:ILE:N	2.37	0.57
2:AB:47:THR:HG23	2:AB:202:PRO:HG2	1.85	0.57
34:BA:2491:U:O2'	34:BA:2492:U:H5'	2.04	0.57
34:BA:83:G:H1	34:BA:102:G:H2'	1.69	0.57
54:BY:8:LYS:HZ2	54:BY:74:PRO:HD3	1.70	0.57
33:B8:6:THR:HG21	34:BA:243:U:OP1	2.04	0.57
27:B2:41:ILE:HG22	27:B2:42:GLY:N	2.19	0.57
46:DQ:74:TYR:HD2	46:DQ:91:GLU:CD	2.08	0.57
45:BP:24:GLY:HA3	45:BP:33:ARG:NH2	2.09	0.57
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	1.84	0.57
10:CJ:94:VAL:HG12	10:CJ:95:GLU:H	1.69	0.57
55:BZ:25:PRO:HG2	55:BZ:84:GLU:O	2.04	0.57
46:DQ:37:LEU:O	46:DQ:99:PRO:HB3	2.05	0.57
19:AS:47:HIS:O	19:AS:49:ILE:HG13	2.05	0.57
1:AA:1054:C:N4	23:AY:34:G:H1'	2.15	0.57
1:CA:1321:C:C3'	1:CA:1322:C:H5''	2.34	0.57
31:D6:33:LYS:O	31:D6:34:LEU:HB2	2.05	0.57
34:DA:2348:U:C2'	34:DA:2349:G:C5'	2.74	0.57
40:DG:41:GLN:HB2	40:DG:90:LEU:HB2	1.87	0.57
40:DG:87:PRO:O	40:DG:88:ILE:HB	2.04	0.57
29:B4:5:ILE:C	40:BG:67:LYS:HE2	2.25	0.57
34:BA:2307:G:N2	34:BA:2308:G:H5''	2.19	0.57
34:DA:1722:A:O2'	34:DA:1739:U:H5''	2.04	0.57
45:DP:83:VAL:HG11	45:DP:112:LEU:HD21	1.87	0.57
34:BA:1847:A:H3'	34:BA:1848:A:C5'	2.35	0.57
34:DA:1847:A:H3'	34:DA:1848:A:C5'	2.34	0.57
34:BA:2886:G:H2'	34:BA:2887:U:H6	1.70	0.57
49:BT:50:ILE:HA	49:BT:99:LEU:CD1	2.35	0.57
23:CW:16:U:C3'	23:CW:17:C:H5'	2.35	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:B7:12:ARG:HG3	34:BA:686:G:O6	2.04	0.57
3:CC:58:GLU:HB2	3:CC:65:ALA:HB2	1.86	0.57
38:DE:128:SER:OG	38:DE:129:HIS:N	2.36	0.57
2:AB:75:LYS:HA	2:AB:78:GLN:HG3	1.86	0.57
34:DA:2838:G:O2'	34:DA:2839:G:H5'	2.05	0.57
34:DA:1292:U:H2'	34:DA:1293:C:C6	2.39	0.57
54:BY:75:ILE:HD11	54:BY:79:CYS:N	2.18	0.57
9:CI:8:GLY:O	9:CI:15:ALA:N	2.33	0.57
39:BF:84:VAL:HG12	39:BF:85:GLY:H	1.70	0.57
2:CB:102:LEU:HD12	2:CB:102:LEU:N	2.20	0.57
34:BA:2735:G:H2'	34:BA:2736:G:C5'	2.35	0.57
35:BB:106:G:O2'	35:BB:107:G:H5'	2.04	0.57
11:AK:52:GLY:H	11:AK:55:LYS:HG3	1.70	0.57
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.68	0.57
34:DA:1842:G:H2'	34:DA:1843:C:C6	2.39	0.57
37:DD:31:LYS:HZ1	37:DD:31:LYS:HA	1.70	0.57
34:BA:754:C:H2'	34:BA:755:C:C6	2.40	0.57
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.39	0.57
40:DG:52:ILE:HG22	40:DG:54:GLU:HG3	1.87	0.57
22:AV:37:A:H3'	22:AV:38:A:H8	1.70	0.57
34:BA:2350:C:H2'	34:BA:2351:G:O4'	2.04	0.57
1:CA:477:A:O2'	1:CA:479:C:H5'	2.05	0.57
4:CD:173:TRP:CD2	4:CD:189:PRO:HB3	2.39	0.57
12:CL:34:ARG:HG2	12:CL:35:GLY:N	2.19	0.57
34:DA:1376:C:O2'	34:DA:1377:G:H5'	2.05	0.57
1:CA:1410:G:H2'	1:CA:1411:C:H6	1.69	0.57
51:BV:75:PHE:HE1	51:BV:89:GLN:HB3	1.69	0.57
38:DE:36:ARG:NH2	38:DE:88:GLY:CA	2.67	0.57
43:DN:67:LEU:O	43:DN:68:GLU:HB2	2.03	0.57
3:AC:182:ILE:HG12	3:AC:203:PHE:HA	1.85	0.57
54:BY:27:VAL:HG12	54:BY:28:LYS:N	2.20	0.57
34:BA:1203:G:H4'	45:BP:7:ARG:HG2	1.86	0.57
33:B8:6:THR:HG21	33:B8:63:PRO:HD3	1.87	0.57
35:DB:74:U:H2'	35:DB:75:G:C5'	2.32	0.57
34:BA:956:G:H5'	34:BA:957:A:OP2	2.05	0.57
34:BA:877:U:O2'	34:BA:878:A:H5''	2.04	0.57
18:CR:31:LEU:HG	18:CR:65:ILE:CD1	2.34	0.57
18:CR:53:ARG:HB3	18:CR:53:ARG:HH11	1.68	0.57
34:BA:1884:A:C3'	34:BA:1885:A:H5''	2.34	0.57
1:AA:194:C:C2'	1:AA:195:A:H5''	2.35	0.57
3:CC:188:LEU:O	3:CC:189:ALA:HB2	2.05	0.57
34:DA:607:U:OP1	39:DF:102:PRO:HA	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:707:C:OP1	11:AK:85:ARG:NH1	2.35	0.57
45:DP:115:LEU:HB3	45:DP:131:SER:OG	2.03	0.57
1:CA:1221:G:O2'	1:CA:1222:G:H5'	2.04	0.57
40:DG:173:LEU:O	40:DG:178:PHE:HB2	2.04	0.57
3:CC:5:ILE:O	3:CC:5:ILE:HD13	2.05	0.57
44:BO:4:PRO:O	44:BO:5:GLN:CB	2.49	0.57
4:CD:19:LEU:HD12	4:CD:19:LEU:H	1.68	0.57
40:BG:102:PHE:HA	40:BG:105:LYS:NZ	2.19	0.57
34:DA:2181:G:H2'	34:DA:2182:G:C8	2.38	0.57
10:CJ:78:ASN:O	10:CJ:82:ILE:HG12	2.04	0.57
44:DO:71:ARG:HH11	44:DO:71:ARG:HG3	1.69	0.57
34:DA:1750:G:O2'	34:DA:1751:C:H5'	2.04	0.57
27:D2:35:LEU:HD23	27:D2:35:LEU:N	2.19	0.57
1:CA:190:U:H2'	1:CA:191:G:H8	1.69	0.57
14:CN:44:LEU:C	14:CN:44:LEU:HD12	2.24	0.57
44:DO:76:ALA:HB3	49:DT:75:ILE:HD12	1.85	0.57
1:AA:294:U:H2'	1:AA:295:C:H6	1.69	0.57
42:DI:52:ARG:HG3	42:DI:53:ALA:N	2.19	0.57
16:CP:53:VAL:O	16:CP:57:ARG:N	2.30	0.57
15:CO:3:ILE:HD13	15:CO:3:ILE:H	1.68	0.57
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.69	0.57
31:D6:42:TRP:HA	31:D6:42:TRP:HE3	1.70	0.57
1:AA:1238:A:N7	1:AA:1303:C:H1'	2.19	0.57
1:CA:1238:A:N7	1:CA:1303:C:H1'	2.19	0.57
23:CW:5:G:O2'	23:CW:6:G:H5'	2.05	0.57
34:DA:2098:U:H2'	34:DA:2099:U:C6	2.40	0.57
40:BG:121:ASN:OD1	40:BG:123:ASN:HB2	2.04	0.57
34:DA:1345:C:O2'	34:DA:1346:G:H5'	2.05	0.57
1:CA:458:C:H2'	1:CA:460:G:H8	1.69	0.57
1:CA:41:G:H2'	1:CA:42:G:H8	1.69	0.57
34:DA:460:A:H2'	34:DA:461:C:O4'	2.05	0.57
3:AC:55:VAL:HG12	3:AC:55:VAL:O	2.02	0.57
2:AB:14:GLY:O	2:AB:15:VAL:HG13	2.04	0.57
40:DG:165:THR:OG1	40:DG:168:GLU:HG3	2.04	0.57
34:DA:1203:G:H4'	45:DP:7:ARG:HG2	1.87	0.57
49:BT:121:ILE:HG22	49:BT:122:ASP:N	2.18	0.57
49:BT:83:ILE:HG13	49:BT:84:GLN:N	2.20	0.57
1:CA:975:A:C4'	1:CA:976:G:H5''	2.29	0.57
3:CC:182:ILE:HG12	3:CC:203:PHE:HD1	1.70	0.57
45:DP:101:VAL:C	45:DP:103:ALA:N	2.56	0.57
45:BP:47:ASP:OD1	45:BP:48:PRO:O	2.23	0.57
34:DA:1010:A:H5'	50:DU:62:ILE:HG21	1.86	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DN:42:TRP:HE3	43:DN:48:MET:HE1	1.70	0.57
55:DZ:151:HIS:HB2	55:DZ:169:GLU:O	2.05	0.57
41:DH:41:MET:HA	41:DH:41:MET:CE	2.33	0.57
16:CP:20:VAL:HG22	16:CP:21:VAL:H	1.70	0.57
34:BA:2262:U:H2'	34:BA:2263:C:C5'	2.33	0.57
20:CT:57:ARG:NH1	20:CT:57:ARG:HB2	2.10	0.57
34:BA:7:G:H1	34:BA:2896:C:H42	1.52	0.57
34:DA:2059:A:H5'	34:DA:2060:A:OP2	2.04	0.57
45:BP:131:SER:C	45:BP:133:SER:N	2.58	0.57
42:DI:72:LEU:HD12	42:DI:138:ILE:CG2	2.34	0.57
40:DG:73:ALA:HB3	40:DG:85:GLY:HA2	1.85	0.57
34:BA:2068:U:N3	34:BA:2430:A:H2	1.95	0.57
1:CA:1192:C:H2'	1:CA:1193:G:O4'	2.04	0.57
12:AL:18:VAL:O	12:AL:19:ARG:HB3	2.04	0.57
3:CC:172:ARG:HH11	3:CC:172:ARG:HB3	1.70	0.57
35:DB:29:A:H2'	35:DB:30:C:H6	1.66	0.57
15:CO:37:ASN:H	15:CO:37:ASN:ND2	2.02	0.57
52:DW:10:VAL:O	52:DW:11:ARG:CB	2.53	0.57
15:CO:23:GLY:O	15:CO:24:SER:CB	2.53	0.57
41:DH:153:LYS:H	41:DH:153:LYS:CD	2.16	0.57
9:CI:114:TYR:HD1	10:CJ:60:ARG:HG3	1.68	0.57
10:CJ:64:GLU:HG2	14:CN:59:ALA:HA	1.86	0.57
42:BI:58:LEU:HA	42:BI:61:ARG:NH1	2.19	0.57
34:BA:408:G:O2'	34:BA:409:C:H5'	2.04	0.57
1:AA:295:C:H2'	1:AA:296:U:H6	1.69	0.57
11:CK:32:ILE:HD12	11:CK:72:ALA:HB2	1.87	0.57
34:DA:128:C:H2'	34:DA:129:C:C6	2.39	0.57
37:BD:224:ALA:O	37:BD:225:ALA:HB2	2.05	0.57
29:D4:29:PRO:C	29:D4:31:ILE:N	2.58	0.57
1:CA:1075:C:H5'	2:CB:103:THR:HG21	1.86	0.57
34:DA:271(M):G:H2'	34:DA:271(N):U:H5'	1.87	0.57
39:DF:33:LEU:HD13	39:DF:112:MET:HB3	1.86	0.57
8:AH:60:ARG:HG3	8:AH:60:ARG:HH11	1.69	0.57
23:CY:41:C:H2'	23:CY:42:C:H6	1.70	0.57
11:AK:34:ASP:HB2	11:AK:35:PRO:HD2	1.87	0.57
34:DA:706:A:H2'	34:DA:707:G:O4'	2.04	0.57
30:D5:52:TYR:O	30:D5:53:ALA:HB3	2.04	0.57
55:DZ:3:TYR:CD2	55:DZ:51:ALA:HB2	2.38	0.57
34:BA:1683:C:H2'	34:BA:1684:C:H6	1.70	0.57
42:DI:100:ALA:O	42:DI:104:GLN:HB2	2.04	0.57
34:BA:2321:G:H2'	34:BA:2321:G:N3	2.20	0.57
23:AY:41:C:O2'	23:AY:42:C:H5'	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1242:A:H5'	34:BA:1243:G:OP2	2.05	0.57
1:CA:790:A:C6	1:CA:791:G:C6	2.93	0.57
51:DV:99:ILE:HG22	51:DV:100:ARG:N	2.20	0.57
42:BI:92:VAL:O	42:BI:92:VAL:HG13	2.04	0.57
53:DX:60:ARG:HE	53:DX:74:PRO:CG	2.13	0.57
49:DT:33:LYS:HB2	49:DT:41:ARG:HB3	1.86	0.57
45:BP:100:LEU:HB2	45:BP:106:LEU:HD22	1.87	0.57
2:AB:32:ILE:HA	2:AB:42:ILE:HA	1.86	0.57
23:AW:38:A:H2'	23:AW:39:U:C5'	2.35	0.57
54:DY:28:LYS:HD2	54:DY:37:VAL:HB	1.86	0.57
55:DZ:67:LEU:H	55:DZ:67:LEU:HD12	1.68	0.57
34:BA:141:A:C8	34:BA:1408:C:O2'	2.55	0.57
40:BG:57:ALA:O	40:BG:60:LEU:HB3	2.05	0.57
41:DH:102:ALA:HB2	41:DH:117:PRO:CB	2.34	0.57
1:AA:374:A:C6	1:AA:375:U:C4	2.93	0.57
34:DA:2534:A:H5'	34:DA:2534:A:H8	1.70	0.57
34:DA:519:U:H4'	52:DW:25:ARG:HH21	1.69	0.57
47:BR:2:ARG:HD3	47:BR:5:LYS:NZ	2.20	0.57
34:BA:2808:U:H2'	34:BA:2809:A:H5'	1.87	0.57
39:DF:163:VAL:O	39:DF:166:ALA:HB3	2.04	0.57
39:BF:163:VAL:O	39:BF:166:ALA:HB3	2.05	0.57
1:CA:1307:U:H2'	1:CA:1308:U:C6	2.40	0.57
34:BA:2531:A:N3	34:BA:2531:A:H2'	2.20	0.57
45:BP:83:VAL:HG11	45:BP:112:LEU:HD21	1.86	0.57
1:AA:254:G:O2'	1:AA:255:G:H5'	2.04	0.57
33:D8:51:ALA:O	33:D8:54:GLU:HG2	2.04	0.57
8:AH:110:ALA:HB3	8:AH:121:ASP:HB3	1.86	0.57
30:B5:31:VAL:HB	30:B5:32:PRO:HD2	1.86	0.57
3:CC:112:SER:OG	3:CC:115:LEU:HG	2.05	0.57
34:DA:1175:U:O4'	34:DA:1176:G:H2'	2.05	0.57
34:DA:1176:G:H1'	34:DA:1177:A:OP1	2.04	0.57
34:DA:2579:C:H2'	34:DA:2580:U:O4'	2.05	0.57
34:BA:2801(A):A:C4'	34:BA:2802:G:H5'	2.34	0.57
1:AA:190:U:H2'	1:AA:191:G:H8	1.68	0.57
8:AH:69:ARG:HD3	8:AH:75:ARG:O	2.05	0.57
32:B7:10:ARG:HG3	34:BA:125:G:C6	2.40	0.57
1:AA:542:G:H2'	1:AA:543:C:H6	1.69	0.57
19:AS:43:GLU:O	19:AS:43:GLU:HG2	2.04	0.57
23:AW:65:G:H2'	23:AW:66:U:C6	2.40	0.57
37:BD:133:LEU:HA	37:BD:136:ILE:HD13	1.87	0.57
32:B7:4:THR:OG1	32:B7:5:TRP:N	2.37	0.57
34:BA:2196:C:O2'	34:BA:2197:U:H5'	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.69	0.57
34:DA:64:A:H2'	34:DA:65:C:H6	1.70	0.57
11:AK:73:MET:O	11:AK:76:GLY:N	2.37	0.57
42:BI:60:GLU:C	42:BI:62:LYS:H	2.08	0.57
14:AN:21:TYR:OH	14:AN:23:ARG:NH2	2.38	0.57
12:AL:119:LYS:C	12:AL:120:TYR:CD1	2.77	0.57
34:BA:2186:G:C2'	34:BA:2187:G:H5''	2.34	0.57
11:CK:34:ASP:HB2	11:CK:35:PRO:CD	2.33	0.57
37:DD:2:ALA:O	37:DD:3:VAL:HB	2.04	0.57
1:CA:163:C:H2'	1:CA:164:U:C6	2.39	0.57
37:DD:110:GLY:O	37:DD:112:GLN:HG3	2.05	0.57
1:AA:560:U:H4'	1:AA:561:U:H5''	1.85	0.57
31:D6:11:LEU:HG	31:D6:26:ASN:ND2	2.19	0.57
34:DA:1424:G:H2'	34:DA:1425:G:O4'	2.04	0.57
20:AT:33:ILE:HD12	20:AT:63:ILE:HG12	1.87	0.57
20:AT:74:LYS:H	20:AT:74:LYS:HD3	1.69	0.57
1:CA:1112:C:N3	3:CC:178:LEU:HD23	2.18	0.57
1:CA:947:G:H2'	1:CA:948:C:O4'	2.04	0.57
3:CC:140:ARG:HG3	3:CC:140:ARG:HH11	1.70	0.57
1:AA:1332:A:H2'	1:AA:1333:A:C8	2.40	0.57
50:DU:92:ARG:HH22	51:DV:10:LYS:HB3	1.70	0.57
38:DE:3:GLY:HA3	38:DE:81:ILE:HG21	1.86	0.57
49:DT:82:LEU:O	49:DT:84:GLN:N	2.38	0.57
53:DX:36:LYS:O	53:DX:38:GLU:N	2.37	0.57
45:BP:101:VAL:CG2	45:BP:107:LYS:HA	2.30	0.57
36:BC:46:LYS:HA	36:BC:46:LYS:CE	2.27	0.57
2:CB:70:PHE:CE2	2:CB:163:PHE:HD1	2.22	0.57
33:D8:6:THR:HG21	34:DA:243:U:OP1	2.05	0.57
40:BG:59:GLU:O	40:BG:63:ILE:HG23	2.05	0.57
34:DA:910:A:N7	46:DQ:13:GLN:HB2	2.19	0.57
1:CA:664:G:H22	1:CA:741:G:H1	1.53	0.57
34:DA:2103:C:H3'	34:DA:2104:G:C5'	2.26	0.57
5:AE:101:ILE:HG12	5:AE:119:LEU:HA	1.86	0.57
37:DD:267:SER:O	37:DD:268:ARG:HB2	2.05	0.57
38:BE:111:ARG:NE	38:BE:160:TYR:HE1	2.02	0.57
44:BO:32:TYR:N	44:BO:32:TYR:CD1	2.71	0.57
40:DG:111:LEU:HB2	40:DG:112:PRO:CD	2.35	0.57
1:CA:1251:A:H2'	1:CA:1252:A:H8	1.70	0.57
19:AS:49:ILE:HD12	19:AS:49:ILE:N	2.20	0.57
12:AL:84:LEU:HD23	12:AL:85:ILE:N	2.20	0.57
34:DA:7:G:H1	34:DA:2896:C:H42	1.52	0.57
3:CC:70:VAL:CG1	3:CC:71:ALA:N	2.67	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:D2:25:VAL:C	27:D2:27:GLU:H	2.06	0.57
26:D1:41:ARG:HH12	34:DA:189:G:P	2.28	0.57
41:BH:89:ILE:HG12	41:BH:90:LYS:N	2.19	0.57
34:BA:549:G:C2'	34:BA:551:G:H5'	2.35	0.57
46:BQ:69:PHE:CD1	46:BQ:70:PRO:HD2	2.40	0.57
34:BA:2286:A:H8	34:BA:2286:A:HO2'	1.52	0.57
1:CA:1168:A:H2'	1:CA:1169:A:C8	2.39	0.57
10:AJ:50:ILE:HA	10:AJ:60:ARG:CB	2.35	0.57
15:AO:37:ASN:N	15:AO:37:ASN:ND2	2.53	0.57
1:AA:783:C:O2'	1:AA:784:C:H5'	2.05	0.57
1:AA:390:C:H2'	1:AA:391:G:C8	2.40	0.57
39:DF:51:THR:CG2	39:DF:92:PRO:HD2	2.35	0.57
2:AB:113:HIS:O	2:AB:117:GLU:HG2	2.04	0.57
44:BO:104:ARG:NH1	49:BT:35:LYS:HD3	2.19	0.57
34:DA:402:A:O2'	34:DA:403:U:H5'	2.05	0.57
1:AA:458:C:H2'	1:AA:460:G:H8	1.69	0.57
31:D6:16:CYS:O	31:D6:17:LYS:HB2	2.03	0.57
21:AU:9:ARG:HH11	21:AU:22:ARG:HG3	1.70	0.57
30:D5:6:VAL:HG13	30:D5:7:PRO:HD2	1.86	0.57
34:BA:2410:G:H2'	34:BA:2411:A:O4'	2.05	0.57
37:DD:138:VAL:HA	37:DD:165:ILE:HG21	1.85	0.57
34:DA:1563:G:O2'	34:DA:1564:C:H5'	2.05	0.57
7:AG:43:PHE:O	7:AG:46:ALA:HB3	2.05	0.57
37:DD:25:THR:HG23	37:DD:27:THR:HB	1.87	0.57
39:DF:115:ALA:O	39:DF:116:ASP:C	2.43	0.57
50:BU:92:ARG:NH2	51:BV:10:LYS:HB3	2.20	0.57
53:BX:60:ARG:HG3	53:BX:72:LYS:N	2.20	0.57
1:CA:950:U:H4'	1:CA:971:G:C2	2.40	0.57
2:AB:32:ILE:HD13	2:AB:40:HIS:HB3	1.87	0.57
54:DY:28:LYS:O	54:DY:29:GLU:HB2	2.05	0.57
54:DY:39:VAL:O	54:DY:40:GLU:CD	2.43	0.57
2:CB:213:LEU:C	2:CB:213:LEU:HD23	2.25	0.57
33:D8:4:MET:SD	33:D8:61:LEU:HD12	2.44	0.57
33:D8:6:THR:HG21	33:D8:63:PRO:HD3	1.87	0.57
16:AP:45:THR:HG23	16:AP:46:PRO:HD2	1.86	0.57
39:DF:22:ALA:C	39:DF:24:LEU:H	2.07	0.57
43:BN:40:PRO:HA	50:BU:64:ARG:CZ	2.34	0.57
45:DP:30:THR:CG2	45:DP:31:ALA:H	2.18	0.57
34:DA:1190:G:OP1	45:DP:35:HIS:HA	2.05	0.57
46:DQ:34:LEU:HD11	46:DQ:129:THR:HB	1.85	0.57
3:CC:189:ALA:CB	3:CC:196:LEU:HB2	2.34	0.57
46:BQ:38:GLU:HB2	46:BQ:127:ILE:HG23	1.87	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:706:A:C1'	11:AK:29:ILE:HD11	2.35	0.57
11:AK:29:ILE:CB	11:AK:44:SER:HB3	2.30	0.57
34:BA:2059:A:H5'	34:BA:2060:A:OP2	2.04	0.57
40:DG:70:VAL:HA	40:DG:88:ILE:HD11	1.85	0.57
41:BH:87:LEU:CD1	41:BH:148:ILE:HG21	2.30	0.57
34:DA:2307:G:N2	34:DA:2308:G:H5''	2.20	0.57
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.88	0.57
34:BA:1988:C:H2'	34:BA:1989:G:H8	1.70	0.57
48:BS:58:LEU:HD21	48:BS:68:GLN:OE1	2.05	0.57
14:AN:47:LEU:HB2	14:AN:53:LEU:HD11	1.87	0.57
34:BA:1991:U:O2'	34:BA:1992:G:H5''	2.05	0.57
37:BD:8:PRO:CB	37:BD:14:ARG:HB2	2.32	0.57
2:CB:194:PRO:HG2	2:CB:195:ASP:H	1.70	0.57
2:AB:100:GLY:O	2:AB:104:ASN:N	2.38	0.57
2:CB:102:LEU:CD1	2:CB:102:LEU:N	2.66	0.57
33:B8:23:VAL:HG12	33:B8:46:ARG:NH1	2.19	0.57
34:BA:1292:U:H2'	34:BA:1293:C:C6	2.40	0.57
34:BA:2025:C:H2'	34:BA:2026:C:H6	1.70	0.57
5:AE:82:VAL:HG21	5:AE:138:ALA:HA	1.87	0.57
1:AA:296:U:H2'	1:AA:297:G:C8	2.40	0.57
18:CR:37:VAL:HG23	18:CR:38:GLU:N	2.19	0.57
12:AL:39:VAL:HG12	12:AL:40:VAL:N	2.20	0.57
34:DA:1661:G:O2'	34:DA:1662:C:H5'	2.05	0.57
34:DA:266:G:H2'	34:DA:267:C:H5''	1.86	0.57
24:AX:20:U:H2'	24:AX:21:C:H6	1.69	0.57
1:CA:748:C:H1'	1:CA:749:C:OP2	2.05	0.57
1:CA:573:A:O2'	1:CA:574:A:H5'	2.04	0.57
2:CB:87:ARG:HD2	2:CB:87:ARG:O	2.04	0.57
51:DV:69:LYS:CG	51:DV:70:ILE:H	2.17	0.56
38:DE:55:ASN:HB2	38:DE:72:VAL:HG12	1.87	0.56
38:DE:51:PHE:CD1	38:DE:52:LEU:HD12	2.41	0.56
43:BN:65:LYS:CE	43:BN:65:LYS:HA	2.13	0.56
43:BN:72:TYR:N	43:BN:85:ILE:O	2.36	0.56
35:DB:105:A:H2'	35:DB:106:G:O4'	2.05	0.56
33:D8:60:LEU:HB3	33:D8:63:PRO:HG2	1.87	0.56
27:B2:51:ARG:O	27:B2:52:ASP:CB	2.53	0.56
34:BA:94(A):G:H2'	34:BA:95:G:O4'	2.04	0.56
46:DQ:12:GLN:HG2	46:DQ:73:PRO:HD2	1.85	0.56
26:D1:10:LYS:O	26:D1:12:PRO:HD2	2.04	0.56
27:D2:32:LEU:O	27:D2:34:GLU:N	2.37	0.56
53:DX:89:ILE:HD12	53:DX:89:ILE:N	2.20	0.56
41:BH:141:VAL:CG1	41:BH:142:GLY:N	2.68	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BD:267:SER:O	37:BD:268:ARG:HB2	2.04	0.56
37:BD:267:SER:O	37:BD:269:PHE:N	2.38	0.56
37:BD:183:ARG:HD2	37:BD:270:ILE:HG22	1.86	0.56
26:D1:86:SER:O	26:D1:90:ILE:HG12	2.04	0.56
27:B2:26:ARG:NE	27:B2:29:LYS:NZ	2.53	0.56
1:AA:1321:C:H5'	1:AA:1322:C:H5'	1.87	0.56
13:AM:91:ARG:NH1	19:AS:81:ARG:NH2	2.52	0.56
45:BP:115:LEU:HB3	45:BP:131:SER:OG	2.04	0.56
40:DG:103:LEU:O	40:DG:106:LEU:HB3	2.04	0.56
34:BA:1815:A:OP2	37:BD:54:ARG:NH2	2.37	0.56
12:CL:18:VAL:O	12:CL:19:ARG:HB3	2.05	0.56
37:DD:9:TYR:CD2	37:DD:10:THR:HG22	2.40	0.56
1:CA:1316:G:C2'	1:CA:1317:C:H5''	2.35	0.56
32:B7:12:ARG:NH1	32:B7:12:ARG:HG3	2.20	0.56
44:DO:71:ARG:NH2	44:DO:122:LEU:OXT	2.38	0.56
5:CE:147:ASP:HA	5:CE:150:ARG:HH11	1.69	0.56
40:BG:112:PRO:CB	40:BG:113:ARG:HG2	2.35	0.56
34:DA:2735:G:H2'	34:DA:2736:G:C5'	2.35	0.56
1:AA:555:C:H2'	1:AA:556:C:H6	1.70	0.56
1:CA:900:A:H2'	1:CA:901:A:C8	2.40	0.56
26:B1:23:LYS:HE3	26:B1:23:LYS:HA	1.87	0.56
34:DA:2801(A):A:C4'	34:DA:2802:G:H5'	2.34	0.56
36:BC:89:ALA:HB2	36:BC:153:ILE:CB	2.35	0.56
44:DO:107:ARG:NH2	49:DT:35:LYS:HD2	2.20	0.56
1:CA:683:G:H2'	1:CA:684:A:H8	1.67	0.56
55:BZ:105:VAL:HG22	55:BZ:106:GLY:N	2.20	0.56
24:AX:17:U:H2'	24:AX:18:G:O4'	2.05	0.56
34:DA:2668:G:O2'	34:DA:2669:G:H5'	2.05	0.56
27:D2:12:GLU:O	27:D2:13:ALA:O	2.23	0.56
4:AD:112:VAL:HG12	4:AD:116:GLN:OE1	2.05	0.56
16:AP:26:ARG:HG2	16:AP:26:ARG:HH11	1.70	0.56
1:AA:620:C:H2'	1:AA:621:A:O4'	2.05	0.56
23:AW:2:C:H42	23:AW:71:G:H1	1.51	0.56
44:DO:11:ALA:O	44:DO:12:ASP:HB3	2.04	0.56
50:DU:112:ARG:O	50:DU:115:ALA:HB3	2.04	0.56
10:AJ:80:LYS:HA	10:AJ:80:LYS:HZ2	1.70	0.56
38:BE:201:THR:CG2	38:BE:202:LYS:N	2.68	0.56
54:BY:38:ILE:HG12	54:BY:66:PRO:HA	1.87	0.56
34:DA:1410:G:H1	34:DA:1592:C:H42	1.53	0.56
39:BF:205:ARG:C	39:BF:206:ILE:HG13	2.24	0.56
42:DI:120:ILE:HD13	42:DI:126:TYR:CD1	2.40	0.56
54:DY:8:LYS:HZ2	54:DY:74:PRO:HD3	1.70	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:43:ASP:OD2	2:CB:46:LYS:HB2	2.04	0.56
48:DS:74:ALA:HB1	48:DS:103:GLU:CG	2.21	0.56
41:DH:140:LYS:O	41:DH:144:VAL:HG23	2.06	0.56
34:DA:2641:G:OP1	43:DN:75:TYR:HB3	2.04	0.56
38:DE:11:MET:HB2	38:DE:23:VAL:O	2.05	0.56
34:DA:27:G:N2	34:DA:512:G:C2'	2.66	0.56
11:CK:43:SER:OG	11:CK:47:VAL:HG11	2.04	0.56
34:BA:27:G:N2	34:BA:512:G:C2'	2.68	0.56
30:B5:20:ARG:HA	30:B5:23:HIS:CD2	2.41	0.56
6:CF:33:TYR:HD1	6:CF:75:LEU:HD12	1.69	0.56
34:DA:2591:C:P	37:DD:239:ARG:HG3	2.45	0.56
53:BX:82:GLN:OE1	53:BX:83:VAL:N	2.37	0.56
34:DA:229:A:H3'	34:DA:230:U:C5'	2.31	0.56
34:BA:440:G:H22	39:BF:46:ARG:HH21	1.54	0.56
34:DA:1987:G:O2'	34:DA:1988:C:H5'	2.05	0.56
5:AE:36:ASP:O	5:AE:37:ARG:HB2	2.05	0.56
35:DB:40:U:H1'	35:DB:45:A:N6	2.19	0.56
34:BA:1169:G:H1	34:BA:1180:C:N4	2.01	0.56
15:AO:23:GLY:O	15:AO:24:SER:CB	2.52	0.56
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.38	0.56
1:AA:973:G:H1'	10:AJ:55:LYS:HE3	1.86	0.56
37:BD:132:PRO:HG3	37:BD:190:TYR:CE1	2.40	0.56
11:CK:21:ILE:HA	11:CK:30:VAL:HG12	1.86	0.56
1:AA:782:A:O2'	1:AA:783:C:H5'	2.06	0.56
1:AA:294:U:H2'	1:AA:295:C:C6	2.40	0.56
44:BO:13:ASN:HD21	44:BO:97:ARG:N	2.02	0.56
42:DI:54:GLN:HA	42:DI:57:ARG:NH1	2.19	0.56
12:AL:120:TYR:N	12:AL:120:TYR:CD1	2.72	0.56
34:DA:2025:C:H2'	34:DA:2026:C:H6	1.70	0.56
34:DA:1150:C:O2'	34:DA:1151:G:H5'	2.05	0.56
17:CQ:25:ARG:O	17:CQ:25:ARG:HG3	2.03	0.56
1:CA:47:C:H5''	1:CA:365:U:C6	2.40	0.56
1:CA:460:G:O6	1:CA:470:C:H5''	2.05	0.56
24:AX:20:U:H2'	24:AX:21:C:C6	2.40	0.56
34:DA:1963:U:H4'	34:DA:1964:G:OP1	2.02	0.56
34:BA:373:U:H2'	34:BA:374:A:H8	1.70	0.56
34:DA:751:A:H5'	52:DW:90:ARG:HA	1.87	0.56
3:AC:102:ASN:O	3:AC:103:VAL:HG23	2.05	0.56
1:CA:1299:A:C8	1:CA:1301:U:H1'	2.40	0.56
11:CK:110:ASP:O	18:CR:84:LYS:HD2	2.05	0.56
50:BU:92:ARG:HD2	51:BV:11:GLN:HG2	1.88	0.56
34:BA:993:G:N2	51:BV:91:TYR:OH	2.39	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DE:91:VAL:HG12	38:DE:91:VAL:O	2.04	0.56
49:DT:28:VAL:CG2	49:DT:47:GLY:N	2.55	0.56
53:DX:36:LYS:C	53:DX:38:GLU:N	2.57	0.56
48:BS:87:PHE:CG	48:BS:88:ASP:N	2.73	0.56
45:BP:121:LYS:O	45:BP:123:LEU:HD23	2.05	0.56
44:BO:69:ILE:HD12	44:BO:69:ILE:H	1.69	0.56
3:AC:172:ARG:NH1	3:AC:172:ARG:HB3	2.21	0.56
2:AB:144:ARG:HA	2:AB:147:LYS:HB3	1.87	0.56
34:DA:2496:C:OP1	46:DQ:81:VAL:HG13	2.06	0.56
39:BF:2:LYS:O	39:BF:25:PRO:HG2	2.05	0.56
39:BF:22:ALA:C	39:BF:24:LEU:H	2.07	0.56
54:DY:26:LYS:HG2	54:DY:27:VAL:N	2.21	0.56
34:DA:2702:U:OP1	34:DA:2702:U:O4'	2.23	0.56
55:DZ:22:GLY:HA2	55:DZ:41:LEU:HD12	1.87	0.56
33:D8:13:ARG:HD2	45:DP:61:ARG:HH11	1.70	0.56
33:D8:4:MET:HE2	34:DA:592:G:N3	2.20	0.56
27:B2:46:GLN:HG2	27:B2:50:ILE:CG1	2.35	0.56
34:BA:2496:C:OP1	46:BQ:81:VAL:HG13	2.06	0.56
40:BG:153:ARG:HG2	40:BG:153:ARG:O	2.06	0.56
13:AM:2:ALA:C	13:AM:9:ILE:HG23	2.25	0.56
46:DQ:11:LYS:HE2	46:DQ:85:LYS:CG	2.25	0.56
41:DH:70:THR:HG22	41:DH:74:ASN:HD21	1.69	0.56
5:AE:91:LEU:HD12	5:AE:120:THR:HG22	1.87	0.56
38:BE:114:ALA:HB3	38:BE:160:TYR:HB3	1.88	0.56
55:BZ:99:TYR:HE2	55:BZ:125:LEU:HD12	1.70	0.56
46:DQ:30:GLY:HA2	46:DQ:107:ALA:CB	2.26	0.56
50:DU:34:LYS:HA	50:DU:34:LYS:CE	2.33	0.56
31:B6:33:LYS:O	31:B6:34:LEU:HB2	2.05	0.56
36:BC:50:ASP:OD1	36:BC:55:ASP:HA	2.04	0.56
27:D2:53:LEU:O	27:D2:54:LYS:CG	2.53	0.56
34:DA:94(A):G:H2'	34:DA:95:G:O4'	2.04	0.56
42:BI:72:LEU:O	42:BI:138:ILE:HA	2.04	0.56
3:CC:77:ILE:HA	3:CC:84:ILE:CG2	2.35	0.56
53:DX:70:LEU:HG	53:DX:71:GLY:N	2.21	0.56
40:DG:43:LEU:HD12	40:DG:43:LEU:N	2.21	0.56
40:DG:76:SER:HB3	40:DG:84:LYS:H	1.70	0.56
34:BA:2472:G:H2'	34:BA:2529:G:H22	1.66	0.56
38:DE:154:LYS:HA	38:DE:154:LYS:CE	2.34	0.56
34:DA:1899:G:N2	34:DA:1902:C:N4	2.46	0.56
34:BA:2590:A:O2'	34:BA:2591:C:H5'	2.04	0.56
4:CD:31:CYS:C	4:CD:33:MET:H	2.06	0.56
38:DE:60:ASN:OD1	38:DE:62:PRO:CD	2.52	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:254:G:O2'	1:CA:255:G:H5'	2.04	0.56
34:DA:2591:C:H2'	34:DA:2592:G:H8	1.70	0.56
34:DA:635:C:H2'	34:DA:636:G:H8	1.69	0.56
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.88	0.56
25:D0:53:MET:HB3	25:D0:59:LEU:HD23	1.86	0.56
37:DD:159:ALA:H	37:DD:196:VAL:HG11	1.70	0.56
6:AF:33:TYR:HD1	6:AF:75:LEU:HD12	1.69	0.56
34:DA:542:C:C4	34:DA:543:C:N4	2.74	0.56
25:D0:29:GLN:O	25:D0:67:VAL:HG23	2.06	0.56
35:DB:81:G:H5'	35:DB:82:G:OP2	2.05	0.56
48:BS:31:SER:HB3	48:BS:34:HIS:O	2.06	0.56
34:DA:1175:U:C4'	34:DA:1176:G:H2'	2.35	0.56
34:BA:39:C:O2	39:BF:46:ARG:NH2	2.39	0.56
44:BO:71:ARG:NH2	44:BO:122:LEU:OXT	2.38	0.56
47:DR:67:LEU:H	47:DR:67:LEU:HD22	1.69	0.56
11:AK:23:ALA:HB1	11:AK:88:GLY:HA3	1.87	0.56
45:BP:85:LEU:HD21	45:BP:117:GLU:O	2.05	0.56
1:CA:1343:G:C1'	9:CI:121:ARG:HH12	2.17	0.56
1:AA:1202:G:C2	14:AN:42:ILE:HG21	2.40	0.56
45:BP:13:ASN:HD22	45:BP:13:ASN:N	2.02	0.56
18:AR:35:ARG:O	18:AR:37:VAL:HG13	2.05	0.56
32:D7:9:ARG:NH1	34:DA:1310:G:OP2	2.38	0.56
46:BQ:7:MET:O	46:BQ:10:ARG:NE	2.37	0.56
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.20	0.56
16:AP:53:VAL:HG23	16:AP:54:GLU:H	1.69	0.56
1:CA:1074:G:H2'	1:CA:1075:C:C6	2.40	0.56
1:CA:1103:C:H5''	2:CB:98:LEU:HD13	1.88	0.56
10:CJ:92:THR:HG23	10:CJ:93:GLY:N	2.20	0.56
34:BA:1682:G:H2'	34:BA:1683:C:C6	2.41	0.56
30:B5:52:TYR:O	30:B5:53:ALA:HB3	2.05	0.56
34:BA:38:A:H1'	39:BF:48:THR:HB	1.86	0.56
34:BA:554:U:C2'	34:BA:555:U:H5'	2.35	0.56
43:DN:99:LEU:O	43:DN:103:VAL:HG23	2.05	0.56
1:AA:575:G:OP1	1:AA:575:G:H4'	2.04	0.56
34:BA:1438:U:O2'	34:BA:1439:A:H5'	2.04	0.56
34:BA:2387:U:H5'	34:BA:2388:A:OP2	2.05	0.56
38:DE:9:VAL:HG13	38:DE:25:VAL:O	2.05	0.56
1:AA:947:G:H2'	1:AA:948:C:O4'	2.05	0.56
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.41	0.56
34:DA:2410:G:H2'	34:DA:2411:A:O4'	2.05	0.56
50:DU:74:LEU:HD23	50:DU:114:LYS:HE3	1.87	0.56
34:DA:615:G:OP1	39:DF:40:GLN:NE2	2.38	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2296:U:H2'	48:BS:13:ARG:NH2	2.21	0.56
2:AB:69:LEU:HD13	2:AB:91:PRO:HB2	1.87	0.56
39:BF:33:LEU:HD13	39:BF:112:MET:HB3	1.88	0.56
54:DY:13:VAL:HG11	54:DY:72:VAL:HB	1.87	0.56
34:DA:2703:C:H2'	34:DA:2704:C:C6	2.41	0.56
2:CB:32:ILE:HA	2:CB:42:ILE:HA	1.88	0.56
33:D8:25:MET:SD	45:DP:64:LYS:HG3	2.46	0.56
31:B6:10:LEU:HD22	31:B6:10:LEU:N	2.21	0.56
46:BQ:74:TYR:HD2	46:BQ:91:GLU:CD	2.09	0.56
46:BQ:75:THR:HA	46:BQ:89:ASN:N	2.20	0.56
34:DA:2040:C:H2'	34:DA:2041:U:C6	2.38	0.56
46:DQ:8:LYS:HG3	46:DQ:9:TYR:N	2.20	0.56
43:BN:48:MET:O	43:BN:48:MET:SD	2.64	0.56
27:D2:28:LYS:HG2	27:D2:43:GLN:O	2.04	0.56
12:CL:90:VAL:O	12:CL:90:VAL:HG12	2.05	0.56
45:BP:34:GLY:O	45:BP:35:HIS:HD2	1.89	0.56
46:DQ:17:LEU:HD21	46:DQ:41:TRP:HE1	1.70	0.56
26:D1:83:GLU:C	26:D1:85:LEU:H	2.09	0.56
43:BN:128:HIS:O	43:BN:130:HIS:N	2.38	0.56
42:DI:38:LEU:O	42:DI:40:THR:N	2.38	0.56
50:DU:31:SER:C	50:DU:33:ARG:N	2.59	0.56
19:AS:16:LEU:H	19:AS:16:LEU:CD1	2.16	0.56
47:DR:28:LEU:CD2	47:DR:114:VAL:HG12	2.36	0.56
40:DG:34:LEU:HD11	40:DG:103:LEU:CD1	2.35	0.56
22:CV:2:G:H2'	22:CV:3:C:C6	2.40	0.56
34:BA:2514:U:H2'	34:BA:2515:C:H6	1.70	0.56
34:BA:2591:C:P	37:BD:239:ARG:HG3	2.45	0.56
25:D0:36:ILE:N	25:D0:36:ILE:HD13	2.21	0.56
6:AF:61:LEU:HD12	6:AF:61:LEU:N	2.21	0.56
1:CA:328:C:H2'	1:CA:328:C:O2	2.05	0.56
2:CB:158:LEU:CD1	2:CB:158:LEU:H	2.18	0.56
40:DG:48:GLU:O	40:DG:49:ASP:HB2	2.04	0.56
1:AA:186:C:H5'	20:AT:78:ALA:CB	2.34	0.56
32:D7:10:ARG:HG3	34:DA:125:G:C6	2.40	0.56
32:B7:47:ARG:C	32:B7:48:LYS:HD3	2.25	0.56
3:CC:173:VAL:HG12	3:CC:175:LEU:HG	1.87	0.56
9:CI:114:TYR:N	9:CI:114:TYR:CD2	2.70	0.56
8:CH:134:ILE:HG22	8:CH:135:CYS:SG	2.45	0.56
42:BI:1:MET:HB2	42:BI:21:VAL:O	2.05	0.56
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.35	0.56
34:BA:271(M):G:H2'	34:BA:271(N):U:H5'	1.86	0.56
34:BA:2277:G:H2'	34:BA:2278:A:H5'	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2289:G:H2'	34:BA:2290:G:H5''	1.88	0.56
42:BI:28:ASN:HA	42:BI:32:PRO:HG2	1.88	0.56
3:AC:156:ARG:HH21	3:AC:160:ALA:C	2.08	0.56
1:AA:460:G:O6	1:AA:470:C:H5''	2.05	0.56
1:AA:671:G:O2'	1:AA:672:U:H5'	2.05	0.56
34:BA:2716:U:O2'	34:BA:2717:G:H5'	2.05	0.56
41:BH:139:GLN:O	41:BH:143:GLN:HB2	2.06	0.56
34:BA:402:A:O2'	34:BA:403:U:H5'	2.05	0.56
43:BN:2:LYS:HD2	43:BN:2:LYS:N	2.20	0.56
23:CY:44:G:H3'	23:CY:44:G:N3	2.20	0.56
52:BW:1:MET:HE2	52:BW:2:GLU:H	1.70	0.56
34:BA:1257:C:H2'	34:BA:1258:C:C6	2.41	0.56
42:BI:98:ALA:CA	42:BI:109:ILE:HD13	2.35	0.56
1:AA:950:U:H4'	1:AA:971:G:C2	2.41	0.56
34:BA:2704:C:C2	34:BA:2705:A:C8	2.94	0.56
10:AJ:32:ALA:HB2	10:AJ:76:ASN:HB3	1.87	0.56
37:BD:241:PRO:O	37:BD:243:GLY:N	2.38	0.56
34:BA:2777:G:H4'	34:BA:2778:A:H5'	1.86	0.56
38:BE:179:GLU:OE1	38:BE:179:GLU:HA	2.04	0.56
38:BE:180:ASN:O	38:BE:181:LEU:HD22	2.06	0.56
38:BE:3:GLY:O	38:BE:4:ILE:CB	2.54	0.56
1:CA:975:A:H5'	1:CA:975:A:C8	2.40	0.56
34:DA:2563:U:H2'	34:DA:2565:A:OP2	2.05	0.56
26:B1:90:ILE:O	26:B1:94:LEU:HB2	2.05	0.56
38:BE:51:PHE:CD1	38:BE:52:LEU:HD12	2.40	0.56
42:DI:77:LEU:CD1	42:DI:101:LEU:HB2	2.35	0.56
33:B8:60:LEU:HB3	33:B8:63:PRO:HG2	1.88	0.56
55:DZ:44:PHE:CE1	55:DZ:48:PHE:HB2	2.41	0.56
40:DG:67:LYS:CD	40:DG:67:LYS:N	2.68	0.56
45:BP:48:PRO:HG2	45:BP:49:ARG:N	2.19	0.56
40:BG:55:LYS:C	40:BG:57:ALA:N	2.58	0.56
18:AR:53:ARG:HB3	18:AR:53:ARG:HH11	1.71	0.56
23:CW:38:A:H2'	23:CW:39:U:C4'	2.36	0.56
1:AA:175:C:O2'	1:AA:176:C:H5'	2.06	0.56
45:BP:14:LYS:O	45:BP:15:ARG:HG3	2.05	0.56
34:DA:2808:U:H2'	34:DA:2809:A:H5'	1.88	0.56
3:AC:189:ALA:CB	3:AC:196:LEU:HB2	2.35	0.56
47:DR:2:ARG:HD3	47:DR:5:LYS:NZ	2.18	0.56
1:AA:17:U:H2'	1:AA:18:C:H6	1.65	0.56
22:AV:1:C:H42	22:AV:72:A:H61	1.53	0.56
41:DH:89:ILE:CD1	41:DH:129:THR:HB	2.36	0.56
19:CS:49:ILE:O	19:CS:60:VAL:HG12	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1365:A:H2'	34:DA:1366:A:C8	2.35	0.56
34:BA:1675:C:C2	38:BE:129:HIS:HD2	2.24	0.56
5:AE:6:PHE:HB2	5:AE:34:VAL:CG1	2.35	0.56
8:AH:14:ARG:NH1	8:AH:14:ARG:HB3	2.20	0.56
8:AH:14:ARG:HH11	8:AH:14:ARG:HB3	1.69	0.56
1:AA:1208:C:H2'	1:AA:1209:C:C6	2.37	0.56
5:AE:150:ARG:HB2	5:AE:150:ARG:HH11	1.68	0.56
32:D7:4:THR:OG1	32:D7:5:TRP:N	2.38	0.56
34:DA:877:U:O2'	34:DA:878:A:H5''	2.05	0.56
3:AC:173:VAL:HG12	3:AC:175:LEU:HG	1.87	0.56
44:BO:65:THR:O	44:BO:79:PHE:HB2	2.05	0.56
45:BP:108:LYS:C	45:BP:110:TYR:H	2.06	0.56
38:BE:63:LEU:O	38:BE:63:LEU:HD23	2.05	0.56
25:B0:74:ARG:HG2	35:BB:12:C:O2'	2.05	0.56
12:CL:69:TYR:C	12:CL:70:ILE:HD12	2.26	0.56
34:BA:1684:C:O2'	34:BA:1685:C:H5'	2.05	0.56
8:CH:60:ARG:HH11	8:CH:60:ARG:HG3	1.71	0.56
44:BO:11:ALA:O	44:BO:12:ASP:HB3	2.04	0.56
4:AD:209:ARG:HH11	4:AD:209:ARG:HG3	1.68	0.56
26:D1:54:ALA:C	26:D1:56:GLN:N	2.59	0.56
34:DA:2404:C:H2'	34:DA:2405:G:O4'	2.05	0.56
34:BA:1695:G:C2'	34:BA:1696:G:H5'	2.36	0.56
51:DV:19:LYS:HE2	51:DV:19:LYS:HA	1.87	0.56
51:BV:72:VAL:C	51:BV:88:ARG:HH22	2.09	0.56
38:DE:3:GLY:CA	38:DE:81:ILE:HG21	2.35	0.56
3:AC:148:GLY:CA	3:AC:203:PHE:HB3	2.21	0.56
49:BT:33:LYS:HB2	49:BT:41:ARG:HB3	1.86	0.56
10:AJ:33:GLN:N	10:AJ:75:ILE:HD11	2.19	0.56
10:AJ:78:ASN:O	10:AJ:82:ILE:HG12	2.06	0.56
54:BY:28:LYS:O	54:BY:38:ILE:CB	2.45	0.56
26:B1:66:HIS:O	26:B1:67:ILE:C	2.43	0.56
26:B1:87:PRO:HB2	26:B1:91:LYS:HD2	1.87	0.56
26:B1:94:LEU:HD22	26:B1:95:LEU:N	2.20	0.56
39:BF:20:LEU:HD22	39:BF:23:ASP:OD2	2.06	0.56
18:CR:74:ARG:HG2	18:CR:81:PHE:CD1	2.40	0.56
19:AS:67:VAL:C	19:AS:69:HIS:H	2.08	0.56
38:DE:111:ARG:NE	38:DE:160:TYR:CE1	2.73	0.56
34:BA:2011:U:C2'	34:BA:2012:G:H5'	2.35	0.56
50:BU:28:ARG:NH1	50:BU:38:THR:OG1	2.38	0.56
45:BP:74:GLU:HG3	45:BP:75:ILE:N	2.20	0.56
43:BN:16:ILE:HG12	43:BN:17:ASP:N	2.21	0.56
34:BA:2591:C:H2'	34:BA:2592:G:H8	1.70	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1722:A:O2'	34:BA:1739:U:H5''	2.05	0.56
1:AA:436:C:O2'	1:AA:437:U:P	2.63	0.56
37:BD:75:ILE:HG21	37:BD:99:ASP:HB2	1.86	0.56
44:BO:71:ARG:HH11	44:BO:71:ARG:HG3	1.70	0.56
41:BH:98:LEU:HB2	41:BH:125:VAL:HG21	1.87	0.56
5:CE:146:ALA:C	5:CE:148:VAL:H	2.09	0.56
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.71	0.56
55:BZ:144:LEU:N	55:BZ:144:LEU:HD22	2.20	0.56
34:DA:744:G:OP1	38:DE:132:HIS:HB3	2.06	0.56
9:AI:114:TYR:HD1	10:AJ:60:ARG:HG3	1.70	0.56
11:CK:124:LYS:HD2	11:CK:125:PHE:HE1	1.71	0.56
3:CC:35:GLU:O	3:CC:39:ILE:HG13	2.05	0.56
29:B4:29:PRO:C	29:B4:31:ILE:N	2.57	0.56
44:DO:18:LYS:HB2	44:DO:45:GLU:CG	2.35	0.56
12:CL:119:LYS:C	12:CL:120:TYR:CD1	2.79	0.56
2:CB:236:TYR:HA	2:CB:239:VAL:HG23	1.88	0.56
34:BA:460:A:H2'	34:BA:461:C:O4'	2.06	0.56
34:DA:1688:U:H1'	34:DA:1701:A:C6	2.41	0.56
1:AA:1484:C:H2'	1:AA:1485:U:H6	1.70	0.56
7:AG:137:LYS:O	7:AG:141:VAL:HG23	2.05	0.56
52:DW:86:LEU:HD12	52:DW:87:PRO:HD2	1.87	0.56
1:CA:560:U:H4'	1:CA:561:U:H5''	1.88	0.56
1:AA:310:G:H2'	1:AA:311:C:H6	1.71	0.56
37:DD:18:VAL:HG13	37:DD:19:ALA:O	2.05	0.56
34:DA:2050:C:H1'	38:DE:156:MET:CE	2.36	0.56
53:DX:52:VAL:HG12	53:DX:52:VAL:O	2.05	0.56
52:BW:52:GLU:O	52:BW:55:ALA:HB3	2.05	0.56
50:DU:90:VAL:HG12	50:DU:91:ASP:N	2.11	0.56
51:DV:5:VAL:HG23	51:DV:37:VAL:O	2.06	0.56
48:DS:26:LEU:O	48:DS:88:ASP:HB3	2.06	0.56
45:BP:122:PRO:HB3	45:BP:141:ALA:CB	2.35	0.56
48:BS:28:VAL:O	48:BS:29:PHE:HB2	2.06	0.56
49:BT:29:ARG:NE	49:BT:30:VAL:HG13	2.20	0.56
1:AA:1105:A:O2'	1:AA:1106:G:H5'	2.06	0.56
39:BF:117:ARG:NH2	45:BP:5:ASP:N	2.53	0.56
37:BD:30:GLU:CD	37:BD:63:ARG:HE	2.09	0.56
28:B3:8:LEU:HD12	28:B3:31:LEU:HA	1.87	0.56
34:BA:2178:C:H4'	36:BC:46:LYS:HZ3	1.69	0.56
33:B8:50:LEU:HD12	33:B8:51:ALA:H	1.71	0.56
20:AT:51:GLU:O	20:AT:55:ILE:HG12	2.06	0.56
35:DB:103:G:O2'	35:DB:104:U:H5'	2.05	0.56
45:BP:50:ARG:NH2	45:BP:50:ARG:HG2	2.18	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DS:66:ALA:HA	48:DS:69:VAL:CG1	2.36	0.56
23:AW:18:G:H22	23:AW:55:U:H6	1.53	0.56
50:BU:64:ARG:HE	50:BU:64:ARG:N	2.04	0.56
37:DD:154:LYS:O	37:DD:155:LEU:HD12	2.05	0.56
49:BT:53:ARG:O	49:BT:53:ARG:HD3	2.05	0.56
55:BZ:18:LEU:O	55:BZ:19:ARG:C	2.43	0.56
53:BX:77:LYS:HD3	53:BX:78:LYS:CD	2.31	0.56
44:BO:10:VAL:HG21	44:BO:16:ALA:O	2.06	0.56
34:DA:2684:U:O2'	44:DO:68:GLU:HG3	2.05	0.56
14:CN:3:ARG:CB	14:CN:3:ARG:HH11	2.16	0.56
37:DD:244:ARG:HG2	37:DD:245:PRO:HG3	1.87	0.56
44:DO:85:VAL:HG12	44:DO:86:ILE:O	2.06	0.56
34:BA:1175:U:C4'	34:BA:1176:G:H2'	2.36	0.56
35:DB:78:A:C2	35:DB:100:A:C4	2.94	0.56
53:BX:83:VAL:O	53:BX:85:PRO:HD3	2.06	0.56
52:BW:18:ARG:HG2	52:BW:76:VAL:CG1	2.36	0.56
37:BD:16:MET:HG3	37:BD:206:LEU:O	2.05	0.56
49:BT:92:GLY:C	49:BT:94:ALA:N	2.59	0.56
54:BY:33:LYS:O	54:BY:34:LYS:HG3	2.05	0.56
2:AB:102:LEU:CD1	2:AB:102:LEU:N	2.68	0.56
14:AN:41:ARG:HG3	14:AN:42:ILE:H	1.70	0.56
1:AA:1003:G:C2'	1:AA:1004:A:H4'	2.35	0.56
3:AC:173:VAL:HG12	3:AC:173:VAL:O	2.05	0.56
3:CC:27:LYS:HZ3	3:CC:27:LYS:HA	1.71	0.56
1:CA:501:C:H2'	1:CA:502:G:C8	2.40	0.56
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.41	0.56
28:D3:13:ILE:HD12	34:DA:989:G:N7	2.20	0.56
27:B2:28:LYS:HE2	27:B2:43:GLN:CB	2.35	0.56
40:DG:168:GLU:O	40:DG:171:ALA:HB3	2.05	0.56
17:CQ:99:SER:O	17:CQ:100:LYS:HD3	2.06	0.56
34:DA:790:C:O2'	34:DA:791:C:OP1	2.21	0.56
55:DZ:129:SER:C	55:DZ:131:ARG:H	2.09	0.56
12:AL:34:ARG:HG2	12:AL:35:GLY:H	1.71	0.56
47:DR:24:GLN:HB2	47:DR:44:LEU:HD23	1.87	0.56
10:CJ:22:LYS:O	10:CJ:22:LYS:HD2	2.06	0.56
53:DX:60:ARG:HG3	53:DX:72:LYS:N	2.21	0.56
45:BP:101:VAL:O	45:BP:103:ALA:N	2.39	0.56
36:DC:40:THR:HG21	36:DC:215:THR:CB	2.36	0.56
38:BE:55:ASN:HB2	38:BE:72:VAL:HG12	1.87	0.56
37:BD:39:LYS:HB2	37:BD:62:TYR:HB2	1.88	0.56
26:B1:88:LYS:O	26:B1:89:GLU:C	2.42	0.56
26:B1:94:LEU:CD2	26:B1:95:LEU:N	2.69	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DY:42:VAL:HB	54:DY:65:ALA:HB3	1.87	0.56
40:BG:114:ILE:CD1	40:BG:140:ILE:HD12	2.36	0.56
40:BG:129:GLY:O	40:BG:130:ASN:HB2	2.06	0.56
34:BA:2464:C:O2'	34:BA:2465:C:H6	1.79	0.56
45:DP:30:THR:O	45:DP:32:THR:N	2.38	0.56
5:AE:100:VAL:O	5:AE:107:ARG:NH2	2.37	0.56
1:CA:877:C:H5''	8:CH:88:LYS:HD2	1.87	0.56
54:BY:99:CYS:O	54:BY:100:ALA:HB3	2.06	0.56
1:AA:78:G:H22	1:AA:91:C:N4	1.93	0.56
40:DG:111:LEU:CA	40:DG:114:ILE:HD13	2.36	0.56
42:DI:38:LEU:HB2	42:DI:40:THR:HG23	1.88	0.56
27:B2:33:MET:HG2	53:BX:11:PRO:CD	2.33	0.56
38:DE:11:MET:H	49:DT:8:LYS:CE	2.18	0.56
41:BH:106:THR:HG22	41:BH:112:PRO:CB	2.35	0.56
3:CC:106:VAL:HG12	3:CC:108:ASN:H	1.71	0.56
45:DP:71:VAL:HG13	45:DP:72:PRO:N	2.20	0.56
27:D2:17:SER:O	27:D2:21:LEU:N	2.26	0.56
3:CC:76:VAL:CG2	3:CC:77:ILE:N	2.68	0.56
1:AA:551:U:H2'	1:AA:552:U:H6	1.67	0.56
36:DC:49:ILE:CG2	36:DC:50:ASP:H	2.16	0.56
40:DG:107:LEU:O	40:DG:108:ASN:HB2	2.06	0.56
34:DA:622:G:C2'	34:DA:623:G:H5'	2.36	0.56
34:BA:343:C:O2	34:BA:343:C:H2'	2.06	0.56
34:BA:1713:U:O2'	34:BA:1714:G:H5'	2.06	0.56
34:BA:543:C:N4	34:BA:551:G:H1	2.01	0.56
19:CS:49:ILE:N	19:CS:49:ILE:HD12	2.21	0.56
34:BA:1175:U:O4'	34:BA:1176:G:H2'	2.06	0.56
34:BA:440:G:H22	39:BF:46:ARG:NH2	2.04	0.56
1:AA:328:C:O2	1:AA:328:C:H2'	2.05	0.56
5:CE:6:PHE:HB2	5:CE:34:VAL:CG1	2.36	0.56
34:BA:2801(A):A:C3'	34:BA:2802:G:H5'	2.36	0.56
34:DA:1116:C:H2'	34:DA:1117:G:H5'	1.88	0.56
54:BY:76:CYS:SG	54:BY:77:PRO:HD3	2.46	0.56
37:BD:136:ILE:HD12	37:BD:136:ILE:N	2.21	0.56
16:AP:28:ARG:NH1	16:AP:29:ASP:OD2	2.39	0.56
32:D7:8:ASN:C	32:D7:8:ASN:ND2	2.58	0.56
34:DA:2801(A):A:C3'	34:DA:2802:G:H5'	2.36	0.56
50:DU:101:ARG:O	50:DU:102:GLU:HG2	2.06	0.56
36:DC:77:ILE:HD12	36:DC:123:VAL:N	2.20	0.56
34:DA:1771:C:H1'	34:DA:1786:A:C8	2.40	0.56
34:DA:1582:C:H2'	34:DA:1583:A:C8	2.40	0.56
34:DA:2392:A:H2	34:DA:2424:C:H42	1.52	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2392:A:H8	45:DP:60:MET:HG3	1.69	0.56
34:DA:751:A:H5'	52:DW:90:ARG:HG2	1.88	0.56
2:CB:100:GLY:O	2:CB:104:ASN:N	2.38	0.56
34:BA:790:C:O2'	34:BA:791:C:OP1	2.18	0.56
34:BA:2062:A:O2'	34:BA:2063:C:H5'	2.06	0.56
10:AJ:22:LYS:O	10:AJ:22:LYS:HD2	2.06	0.56
4:AD:142:PRO:HA	4:AD:185:PHE:HD2	1.70	0.56
48:DS:28:VAL:H	48:DS:89:ARG:HD2	1.69	0.56
26:B1:47:GLN:OE1	26:B1:47:GLN:O	2.24	0.56
20:AT:100:ILE:HD12	20:AT:100:ILE:N	2.21	0.56
31:D6:10:LEU:HD12	33:D8:36:LYS:HD3	1.88	0.56
34:DA:2415:G:H2'	34:DA:2416:C:H6	1.71	0.56
53:BX:36:LYS:NZ	53:BX:39:ILE:CA	2.59	0.56
53:BX:40:LYS:C	53:BX:42:ALA:N	2.58	0.56
34:BA:2312:U:C4'	40:BG:71:THR:HG21	2.33	0.56
41:DH:103:LEU:HD23	41:DH:115:VAL:HB	1.88	0.56
10:AJ:38:ILE:HD11	10:AJ:71:LEU:HB3	1.88	0.56
55:BZ:69:THR:CG2	55:BZ:90:VAL:HA	2.28	0.56
37:DD:183:ARG:HG2	37:DD:183:ARG:HH11	1.71	0.56
38:BE:111:ARG:NE	38:BE:160:TYR:CE1	2.74	0.56
34:DA:285:C:H2'	34:DA:286:C:H5''	1.88	0.56
34:BA:2808:U:C2'	34:BA:2809:A:H5'	2.36	0.56
51:BV:64:HIS:HB2	51:BV:95:LEU:O	2.06	0.56
1:CA:491:G:H2'	1:CA:492:G:H8	1.69	0.56
55:BZ:158:PRO:HG2	55:BZ:161:VAL:CG2	2.32	0.56
27:D2:53:LEU:O	27:D2:54:LYS:CB	2.53	0.56
4:AD:134:ASP:O	4:AD:136:PRO:HD3	2.05	0.56
25:D0:36:ILE:HA	25:D0:60:PHE:HB3	1.87	0.56
34:BA:543:C:N3	34:BA:551:G:C2	2.73	0.56
53:DX:82:GLN:OE1	53:DX:83:VAL:HG22	2.06	0.56
53:DX:83:VAL:O	53:DX:85:PRO:HD3	2.06	0.56
1:AA:1154:G:H2'	1:AA:1155:G:C8	2.38	0.56
7:AG:20:ASP:HB3	7:AG:23:VAL:CG2	2.35	0.56
52:DW:18:ARG:HG2	52:DW:76:VAL:CG1	2.35	0.56
34:BA:2692:C:O2'	34:BA:2693:A:H5'	2.06	0.56
41:BH:155:SER:O	41:BH:157:TYR:N	2.35	0.56
3:CC:173:VAL:O	3:CC:173:VAL:HG12	2.04	0.56
9:CI:114:TYR:HE1	10:CJ:60:ARG:O	1.89	0.56
1:CA:1003:G:C2'	1:CA:1004:A:H4'	2.36	0.56
37:BD:223:GLY:O	37:BD:225:ALA:N	2.39	0.56
41:BH:76:VAL:HG12	41:BH:77:LYS:N	2.20	0.56
15:AO:62:GLN:O	15:AO:66:LEU:HD13	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:237:C:H4'	17:AQ:25:ARG:NH1	2.20	0.56
34:BA:2102:U:C5	34:BA:2187:G:O6	2.59	0.56
34:DA:1550:C:O2'	34:DA:1551:C:H5'	2.06	0.56
17:AQ:7:THR:O	17:AQ:23:VAL:HG13	2.06	0.56
1:AA:748:C:H1'	1:AA:749:C:OP2	2.05	0.56
1:AA:477:A:O2'	1:AA:479:C:H5'	2.06	0.56
2:AB:236:TYR:HA	2:AB:239:VAL:CG2	2.36	0.56
40:DG:91:ARG:C	40:DG:91:ARG:HD2	2.27	0.56
34:DA:1444:G:H2'	34:DA:1445(A):C:C5	2.40	0.56
34:BA:1756:G:H4'	34:BA:1758:G:O4'	2.05	0.56
1:AA:777:A:H2'	1:AA:778:G:H8	1.70	0.56
11:AK:115:PRO:C	11:AK:117:ASN:H	2.09	0.56
1:AA:146:G:N2	1:AA:147:G:H1'	2.20	0.56
38:BE:9:VAL:HG13	38:BE:25:VAL:O	2.05	0.56
28:D3:46:ASN:ND2	34:DA:851:U:H5'	2.20	0.56
34:DA:2064:C:H2'	34:DA:2065:C:C6	2.41	0.56
1:AA:807:A:H2'	1:AA:808:C:C6	2.41	0.56
1:CA:140:A:O2'	1:CA:141:A:H5'	2.05	0.56
47:BR:24:GLN:HB2	47:BR:44:LEU:HD23	1.88	0.56
50:DU:92:ARG:HD2	51:DV:11:GLN:HG2	1.87	0.56
51:DV:5:VAL:HG21	51:DV:36:PRO:HG2	1.88	0.56
51:DV:69:LYS:HB2	51:DV:93:GLU:OE2	2.06	0.56
42:BI:123:LEU:CD1	42:BI:144:VAL:HG22	2.35	0.56
42:BI:131:LYS:HG2	42:BI:132:PRO:HA	1.87	0.56
50:BU:93:LYS:H	50:BU:93:LYS:CD	2.19	0.56
53:DX:44:GLU:HB2	53:DX:49:VAL:O	2.06	0.56
1:AA:1441:G:H5''	1:AA:1442:G:C5'	2.18	0.56
48:BS:25:ARG:HG2	48:BS:88:ASP:OD1	2.06	0.56
37:BD:35:LYS:HG2	37:BD:64:ILE:CG2	2.35	0.56
26:B1:46:LEU:O	26:B1:47:GLN:C	2.44	0.56
34:DA:2702:U:HO2'	34:DA:2703:C:H6	1.52	0.56
48:BS:66:ALA:HA	48:BS:69:VAL:CG1	2.36	0.56
34:BA:2534:A:H5'	34:BA:2534:A:H8	1.69	0.56
53:BX:55:ASN:HB2	53:BX:78:LYS:CD	2.36	0.56
26:D1:63:ALA:O	26:D1:64:ALA:HB3	2.04	0.56
26:D1:67:ILE:N	26:D1:68:PRO:HD2	2.21	0.56
41:BH:26:VAL:O	41:BH:32:GLU:HA	2.06	0.56
34:BA:285:C:H2'	34:BA:286:C:H5''	1.87	0.56
53:BX:21:PHE:O	53:BX:22:ALA:C	2.44	0.56
34:DA:2461:C:H2'	34:DA:2462:U:H6	1.71	0.56
34:DA:7:G:H4'	43:DN:13:TRP:HH2	1.71	0.56
43:DN:55:VAL:CG1	43:DN:56:ASN:H	2.15	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1498:U:O2'	1:AA:1499:A:OP2	2.21	0.56
46:BQ:62:GLY:O	55:BZ:178:GLU:HG2	2.05	0.56
38:BE:154:LYS:CE	38:BE:154:LYS:HA	2.34	0.56
34:DA:635:C:H2'	34:DA:636:G:C8	2.40	0.56
25:B0:41:ARG:N	25:B0:41:ARG:HD2	2.18	0.56
34:DA:1988:C:H2'	34:DA:1989:G:H8	1.72	0.56
9:CI:117:HIS:CD2	9:CI:123:PRO:HA	2.41	0.56
1:AA:538:G:OP2	12:AL:115:LYS:HG3	2.06	0.56
34:BA:2822:G:O6	47:BR:4:LEU:HD12	2.06	0.56
11:AK:84:VAL:CG1	11:AK:95:ILE:HD11	2.35	0.56
1:CA:973:G:H1'	10:CJ:55:LYS:HE3	1.86	0.56
8:CH:58:TYR:C	8:CH:59:LEU:HD23	2.25	0.56
32:B7:9:ARG:HG3	32:B7:9:ARG:HH11	1.70	0.56
10:AJ:64:GLU:HG2	14:AN:59:ALA:HA	1.87	0.56
34:BA:1771:C:H1'	34:BA:1786:A:C8	2.41	0.56
12:AL:70:ILE:HD12	12:AL:70:ILE:N	2.21	0.56
37:DD:45:ASN:CG	37:DD:46:GLN:N	2.58	0.56
44:BO:18:LYS:HB2	44:BO:45:GLU:CG	2.36	0.56
1:CA:310:G:O2'	1:CA:311:C:H5'	2.05	0.56
37:DD:138:VAL:HA	37:DD:165:ILE:CG2	2.35	0.56
34:BA:1817:G:OP1	37:BD:88:ARG:NH2	2.38	0.56
34:DA:1317:A:H2'	34:DA:1318:C:H6	1.71	0.56
23:CY:38:A:O2'	23:CY:39:U:H5'	2.06	0.56
34:DA:585:G:C5	34:DA:1251:C:C5	2.94	0.56
34:BA:1298:C:H2'	34:BA:1298:C:O2	2.06	0.56
55:DZ:45:ASP:O	55:DZ:46:LYS:C	2.44	0.56
34:BA:2074:U:H2'	34:BA:2075:U:C6	2.40	0.56
1:CA:999:C:H2'	1:CA:1000:U:C6	2.40	0.56
34:DA:45:C:O2'	34:DA:47:C:H5'	2.06	0.56
1:AA:1237:C:H2'	1:AA:1336:C:C5	2.41	0.56
23:AW:53:G:O2'	23:AW:54:U:H5'	2.06	0.56
34:DA:2320:A:N3	34:DA:2320:A:H2'	2.21	0.56
42:BI:114:LEU:HA	42:BI:130:TYR:CD1	2.42	0.55
37:DD:150:LYS:HA	37:DD:150:LYS:HE3	1.88	0.55
50:BU:106:PHE:O	50:BU:109:LEU:HB2	2.05	0.55
38:DE:63:LEU:HD23	38:DE:63:LEU:O	2.05	0.55
34:BA:2864:G:H2'	34:BA:2865:U:O4'	2.06	0.55
2:AB:70:PHE:CE2	2:AB:163:PHE:HD1	2.24	0.55
37:BD:25:THR:HG23	37:BD:27:THR:HB	1.86	0.55
33:D8:12:LYS:O	45:DP:65:ARG:HB3	2.07	0.55
45:BP:50:ARG:HG3	45:BP:51:PHE:N	2.20	0.55
47:BR:54:LEU:HD23	47:BR:66:VAL:HG22	1.88	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DF:2:LYS:O	39:DF:25:PRO:HG2	2.05	0.55
41:DH:102:ALA:HB2	41:DH:117:PRO:HD3	1.88	0.55
34:BA:587:C:C5	45:BP:33:ARG:NH1	2.73	0.55
34:BA:2726:U:H6	44:BO:67:LYS:HZ3	1.53	0.55
38:BE:119:ARG:HG2	38:BE:160:TYR:HB2	1.87	0.55
34:DA:1301:A:HO2'	34:DA:1302:A:P	2.29	0.55
53:BX:18:TYR:HA	53:BX:21:PHE:CD1	2.40	0.55
1:AA:818:G:C3'	1:AA:819:A:C5'	2.84	0.55
46:BQ:34:LEU:HD12	46:BQ:35:VAL:N	2.21	0.55
39:BF:101:LEU:HB3	39:BF:106:ARG:HD3	1.88	0.55
34:DA:2514:U:H2'	34:DA:2515:C:H6	1.72	0.55
47:DR:9:LYS:O	47:DR:10:LEU:CG	2.54	0.55
6:CF:22:GLU:HA	6:CF:22:GLU:OE2	2.06	0.55
34:BA:2040:C:H2'	34:BA:2041:U:C6	2.41	0.55
44:BO:105:GLU:OE1	44:BO:105:GLU:N	2.37	0.55
49:DT:121:ILE:HG22	49:DT:122:ASP:N	2.22	0.55
34:DA:583:G:OP2	50:DU:10:ARG:NH1	2.39	0.55
47:BR:106:GLY:O	47:BR:107:ASP:HB3	2.06	0.55
2:AB:158:LEU:N	2:AB:158:LEU:HD12	2.20	0.55
7:CG:23:VAL:HG12	7:CG:27:ILE:CD1	2.36	0.55
34:DA:319:C:O2'	34:DA:320:A:H5'	2.06	0.55
34:BA:2836:U:C4	34:BA:2883:A:N6	2.75	0.55
1:CA:72:C:H2'	1:CA:73:G:C8	2.40	0.55
12:CL:27:LEU:HD22	12:CL:27:LEU:N	2.21	0.55
37:BD:45:ASN:CG	37:BD:46:GLN:N	2.56	0.55
1:AA:645:C:O2'	1:AA:646:U:H5'	2.05	0.55
3:AC:107:GLN:N	3:AC:107:GLN:CD	2.59	0.55
3:CC:107:GLN:N	3:CC:107:GLN:CD	2.59	0.55
12:CL:34:ARG:HG2	12:CL:35:GLY:H	1.70	0.55
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.36	0.55
34:BA:1298:C:H3'	34:BA:1299:G:C8	2.41	0.55
18:AR:47:THR:HB	18:AR:49:LYS:HG2	1.88	0.55
23:CW:72:C:O2'	23:CW:73:A:H5'	2.06	0.55
9:CI:13:ALA:HA	9:CI:67:GLY:O	2.06	0.55
1:AA:1404:C:H2'	1:AA:1405:G:C8	2.40	0.55
1:CA:127:G:O2'	1:CA:128:G:H5'	2.06	0.55
1:CA:770:C:O2'	1:CA:771:G:H5'	2.06	0.55
4:AD:120:LEU:HD23	4:AD:125:HIS:HD2	1.71	0.55
4:CD:196:LEU:HD12	4:CD:196:LEU:H	1.71	0.55
43:BN:108:PRO:O	43:BN:113:GLY:HA3	2.07	0.55
39:BF:107:LYS:O	39:BF:109:GLY:N	2.39	0.55
51:DV:61:VAL:HG21	51:DV:100:ARG:HE	1.70	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:DV:64:HIS:HB2	51:DV:95:LEU:O	2.06	0.55
34:DA:2636:U:OP1	38:DE:80:GLU:N	2.36	0.55
49:DT:33:LYS:HD2	49:DT:43:GLN:OE1	2.06	0.55
34:BA:2777:G:H5'	34:BA:2778:A:C5'	2.36	0.55
38:BE:37:ARG:HB3	38:BE:42:ASP:HB2	1.88	0.55
26:B1:13:ILE:CG2	26:B1:14:VAL:H	2.10	0.55
45:DP:122:PRO:HB3	45:DP:141:ALA:CB	2.36	0.55
45:DP:144:GLU:N	45:DP:145:PRO:CD	2.69	0.55
27:B2:54:LYS:H	27:B2:56:GLN:HG2	1.70	0.55
33:B8:29:LYS:O	33:B8:30:ARG:C	2.43	0.55
46:DQ:86:GLY:C	46:DQ:88:GLY:N	2.57	0.55
41:BH:43:VAL:HG11	41:BH:53:GLU:N	2.19	0.55
8:AH:88:LYS:HB3	8:AH:89:PRO:HD2	1.88	0.55
16:CP:22:THR:HG22	16:CP:32:TYR:CA	2.34	0.55
55:BZ:99:TYR:CE2	55:BZ:125:LEU:HD12	2.41	0.55
46:DQ:20:ALA:HB1	46:DQ:23:GLY:HA3	1.89	0.55
26:D1:70:VAL:O	26:D1:74:VAL:HG23	2.06	0.55
51:BV:61:VAL:HG21	51:BV:100:ARG:HE	1.70	0.55
34:DA:1301:A:H4'	34:DA:1302:A:OP1	2.04	0.55
53:BX:24:GLY:O	53:BX:25:LYS:O	2.23	0.55
35:BB:79:C:O2'	35:BB:80:U:H5'	2.06	0.55
7:CG:49:ILE:O	7:CG:49:ILE:HG22	2.07	0.55
45:DP:71:VAL:CG1	45:DP:72:PRO:CD	2.85	0.55
12:CL:84:LEU:HD23	12:CL:85:ILE:N	2.21	0.55
34:DA:440:G:H22	39:DF:46:ARG:NH2	2.04	0.55
34:DA:2579:C:H5'	38:DE:134:ILE:HG21	1.87	0.55
22:CV:17:C:OP1	22:CV:61:C:H5'	2.06	0.55
26:B1:53:VAL:HG12	26:B1:58:ILE:HB	1.87	0.55
49:DT:50:ILE:HA	49:DT:99:LEU:CD1	2.36	0.55
39:DF:7:TYR:HB3	39:DF:16:GLY:C	2.26	0.55
8:AH:86:ILE:CG2	8:AH:133:LEU:HD22	2.36	0.55
34:BA:892:G:H3'	34:BA:892:G:N3	2.21	0.55
1:CA:389:A:C2'	1:CA:390:C:H5'	2.35	0.55
34:DA:2694:G:O2'	34:DA:2695:C:H5'	2.06	0.55
35:DB:65:C:N4	35:DB:109:C:H2'	2.20	0.55
36:BC:75:LEU:HD23	36:BC:76:ALA:N	2.21	0.55
42:DI:28:ASN:HA	42:DI:32:PRO:HG2	1.88	0.55
1:CA:777:A:H2'	1:CA:778:G:C8	2.41	0.55
34:BA:1324:G:H3'	34:BA:1325:G:H4'	1.87	0.55
34:DA:491:G:H2'	34:DA:492:A:O4'	2.06	0.55
35:BB:57:A:H5'	40:BG:27:ASN:HD22	1.70	0.55
39:BF:170:LEU:HD23	39:BF:172:TRP:CZ2	2.42	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BB:40:U:H1'	35:BB:45:A:N6	2.21	0.55
34:BA:1339:G:N2	34:BA:1603:A:H1'	2.21	0.55
34:DA:2098:U:H2'	34:DA:2099:U:H6	1.70	0.55
34:BA:559:G:H22	50:BU:49:HIS:CD2	2.24	0.55
34:DA:38:A:H1'	39:DF:48:THR:HB	1.88	0.55
34:BA:2111:C:H1'	34:BA:2118:U:H1'	1.88	0.55
4:AD:175:SER:OG	4:AD:184:LYS:HB2	2.05	0.55
1:CA:930:C:O2'	1:CA:931:C:H5'	2.06	0.55
35:DB:54:G:O2'	35:DB:55:U:H5'	2.06	0.55
1:CA:1400:C:H4'	1:CA:1401:G:OP2	2.06	0.55
34:BA:2828:C:O2'	34:BA:2829:C:H5'	2.05	0.55
34:BA:1166:C:H2'	34:BA:1167:U:H6	1.69	0.55
42:BI:101:LEU:HD12	42:BI:101:LEU:O	2.06	0.55
48:DS:89:ARG:CA	48:DS:89:ARG:NE	2.48	0.55
49:DT:65:LYS:HZ2	49:DT:66:VAL:H	1.52	0.55
45:BP:107:LYS:HG3	45:BP:107:LYS:O	2.06	0.55
35:BB:7:G:H3'	35:BB:8:U:C5'	2.26	0.55
38:BE:201:THR:HG22	38:BE:202:LYS:N	2.21	0.55
38:BE:3:GLY:O	38:BE:4:ILE:HB	2.07	0.55
45:DP:101:VAL:O	45:DP:103:ALA:N	2.39	0.55
42:DI:88:ILE:HD11	42:DI:123:LEU:N	2.20	0.55
42:DI:131:LYS:HG2	42:DI:132:PRO:HA	1.87	0.55
54:DY:28:LYS:O	54:DY:38:ILE:CB	2.48	0.55
31:D6:10:LEU:HD22	31:D6:10:LEU:N	2.21	0.55
12:AL:90:VAL:O	12:AL:90:VAL:HG12	2.06	0.55
40:BG:57:ALA:HA	40:BG:90:LEU:CD2	2.36	0.55
50:DU:64:ARG:N	50:DU:64:ARG:HE	2.03	0.55
45:BP:30:THR:CG2	45:BP:31:ALA:H	2.18	0.55
55:BZ:48:PHE:CE1	55:BZ:52:SER:HA	2.42	0.55
26:D1:78:LYS:CE	26:D1:93:GLU:HB2	2.36	0.55
34:BA:2639:A:C3'	34:BA:2640:G:C5'	2.84	0.55
34:DA:1717:G:C3'	34:DA:1718:G:H5''	2.35	0.55
34:DA:1815:A:OP2	37:DD:54:ARG:NH2	2.39	0.55
37:DD:44:ASN:HB3	37:DD:49:ILE:HA	1.87	0.55
27:D2:48:HIS:NE2	34:DA:75:G:O3'	2.39	0.55
40:DG:71:THR:HG22	40:DG:89:GLY:HA3	1.88	0.55
1:CA:818:G:C3'	1:CA:819:A:C5'	2.84	0.55
1:AA:266:G:H5'	1:AA:266:G:C8	2.41	0.55
1:AA:438:G:C4'	1:AA:439:A:OP1	2.54	0.55
8:AH:35:ILE:HG23	8:AH:111:ILE:HD13	1.88	0.55
53:BX:82:GLN:OE1	53:BX:83:VAL:HG22	2.06	0.55
39:BF:65:TRP:HZ3	39:BF:75:HIS:CD2	2.18	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:62:ASP:O	3:AC:97:LYS:HB3	2.05	0.55
15:CO:37:ASN:H	15:CO:37:ASN:HD22	1.54	0.55
1:CA:222:U:H2'	1:CA:223:U:C6	2.42	0.55
35:DB:61:G:O2'	35:DB:62:C:H5'	2.07	0.55
11:CK:84:VAL:HG11	11:CK:95:ILE:HD11	1.88	0.55
1:AA:390:C:H2'	1:AA:391:G:H8	1.70	0.55
1:CA:644:G:O2'	1:CA:645:C:H5'	2.05	0.55
34:BA:1786:A:C2	34:BA:2606:C:H1'	2.40	0.55
7:CG:92:SER:OG	7:CG:93:PRO:HD2	2.06	0.55
4:CD:52:SER:C	4:CD:54:TYR:H	2.09	0.55
34:DA:2270:G:H3'	34:DA:2271:G:H8	1.71	0.55
1:CA:409:G:H5'	4:CD:25:ARG:HB2	1.88	0.55
1:AA:163:C:H2'	1:AA:164:U:H6	1.72	0.55
1:CA:356:A:H2'	1:CA:357:G:H8	1.70	0.55
34:BA:1531:C:H2'	34:BA:1532:C:H4'	1.88	0.55
6:CF:45:LEU:HD11	6:CF:57:GLN:HB3	1.87	0.55
1:AA:999:C:H2'	1:AA:1000:U:C6	2.41	0.55
34:DA:110:G:O2'	34:DA:111:A:H5'	2.07	0.55
1:CA:189(A):C:H2'	1:CA:189(B):C:C6	2.41	0.55
34:DA:1242:A:H5'	34:DA:1243:G:OP2	2.05	0.55
34:DA:1427:A:C2	34:DA:1570:A:OP2	2.59	0.55
54:DY:68:HIS:CE1	54:DY:70:SER:H	2.23	0.55
43:DN:2:LYS:N	43:DN:2:LYS:HD2	2.21	0.55
2:AB:87:ARG:HD2	2:AB:87:ARG:O	2.06	0.55
36:BC:212:VAL:O	36:BC:213:TYR:CB	2.55	0.55
31:B6:27:LYS:HD2	34:BA:2285:C:OP2	2.06	0.55
11:AK:61:ALA:CB	11:AK:90:GLY:HA3	2.36	0.55
1:CA:146:G:N2	1:CA:147:G:H1'	2.21	0.55
34:BA:2703:C:H2'	34:BA:2704:C:C6	2.41	0.55
38:DE:37:ARG:HB3	38:DE:42:ASP:HB2	1.89	0.55
38:DE:77:ILE:CG2	38:DE:78:LEU:N	2.54	0.55
37:BD:108:PRO:CG	37:BD:111:LEU:HD23	2.37	0.55
37:DD:108:PRO:CG	37:DD:111:LEU:HD23	2.36	0.55
23:AW:39:U:O2	23:AW:39:U:H5'	2.06	0.55
45:DP:146:VAL:O	45:DP:147:LEU:O	2.25	0.55
26:B1:67:ILE:O	26:B1:70:VAL:HB	2.06	0.55
26:B1:87:PRO:HB2	26:B1:91:LYS:CE	2.36	0.55
46:DQ:140:ALA:CB	55:DZ:53:ILE:HG12	2.32	0.55
27:B2:46:GLN:NE2	27:B2:47:ASN:N	2.54	0.55
33:B8:13:ARG:HD2	45:BP:61:ARG:HH11	1.71	0.55
34:BA:2392:A:H8	45:BP:60:MET:HG3	1.70	0.55
34:BA:1348:G:H2'	34:BA:1349:A:C5'	2.34	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BR:49:ASP:O	47:BR:52:ILE:N	2.40	0.55
41:DH:54:ARG:HB3	41:DH:65:HIS:CD2	2.41	0.55
41:DH:85:LYS:HD3	41:DH:133:VAL:CB	2.36	0.55
16:AP:55:ARG:HA	16:AP:55:ARG:NE	2.21	0.55
45:BP:33:ARG:O	45:BP:35:HIS:N	2.39	0.55
55:BZ:152:ALA:HB2	55:BZ:168:GLU:N	2.21	0.55
55:BZ:96:VAL:HG22	55:BZ:97:GLU:N	2.22	0.55
53:BX:27:THR:OG1	53:BX:77:LYS:HA	2.05	0.55
40:DG:55:LYS:C	40:DG:57:ALA:H	2.10	0.55
1:CA:1117:G:H4'	9:CI:104:ARG:NH2	2.21	0.55
53:BX:21:PHE:CD1	53:BX:21:PHE:N	2.75	0.55
34:BA:1021:A:H8	34:BA:1021:A:H3'	1.72	0.55
30:B5:57:VAL:HG23	30:B5:58:LEU:N	2.18	0.55
3:AC:106:VAL:HG12	3:AC:108:ASN:H	1.71	0.55
38:DE:111:ARG:HD2	38:DE:160:TYR:HE1	1.71	0.55
39:BF:101:LEU:CD1	39:BF:102:PRO:HD2	2.33	0.55
37:DD:44:ASN:CB	37:DD:49:ILE:HA	2.36	0.55
12:CL:86:ARG:HB2	12:CL:101:VAL:HG22	1.89	0.55
49:DT:98:LYS:HB3	49:DT:100:TYR:HE1	1.66	0.55
34:BA:1192:G:O2'	34:BA:1193:G:H5'	2.06	0.55
6:CF:8:ILE:CD1	6:CF:26:ILE:HD13	2.36	0.55
34:DA:2307:G:N2	34:DA:2308:G:C5'	2.68	0.55
1:CA:1106:G:OP1	3:CC:172:ARG:HD3	2.06	0.55
48:DS:58:LEU:HD21	48:DS:68:GLN:OE1	2.06	0.55
1:AA:1494:G:N7	57:AA:1816:PAR:N32	2.55	0.55
5:CE:35:GLY:HA2	5:CE:40:ARG:O	2.06	0.55
34:DA:2051:A:H5'	34:DA:2578:G:O4'	2.06	0.55
54:BY:75:ILE:HD12	54:BY:76:CYS:H	1.72	0.55
34:DA:1887:C:C2'	34:DA:1888:G:H5''	2.35	0.55
1:CA:107:G:N7	20:CT:15:ARG:NH2	2.52	0.55
7:CG:143:ARG:O	7:CG:145:ALA:O	2.24	0.55
10:CJ:50:ILE:HA	10:CJ:60:ARG:CB	2.36	0.55
1:AA:963:G:H21	10:AJ:55:LYS:HD3	1.71	0.55
49:DT:23:ARG:HG2	49:DT:120:ARG:HH12	1.71	0.55
34:BA:1568:G:H4'	37:BD:59:LYS:HG2	1.89	0.55
12:AL:27:LEU:HD22	12:AL:27:LEU:N	2.21	0.55
5:AE:12:LEU:HD22	5:AE:12:LEU:C	2.26	0.55
34:DA:473:G:H5''	34:DA:508:G:H22	1.70	0.55
3:AC:155:GLY:HA3	3:AC:163:ALA:HB1	1.89	0.55
34:BA:1403:C:H2'	34:BA:1404:C:O5'	2.06	0.55
2:CB:142:LEU:O	2:CB:142:LEU:HD23	2.06	0.55
55:DZ:175:VAL:HB	55:DZ:176:PRO:CD	2.36	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.06	0.55
20:CT:34:LYS:O	20:CT:37:SER:N	2.39	0.55
16:CP:26:ARG:HH11	16:CP:26:ARG:HG2	1.72	0.55
12:AL:21:LYS:HD2	12:AL:21:LYS:N	2.21	0.55
39:BF:28:ILE:O	39:BF:28:ILE:HD12	2.06	0.55
49:BT:78:LEU:O	49:BT:79:HIS:ND1	2.40	0.55
34:BA:23:G:H1	34:BA:517:C:H42	1.53	0.55
50:DU:79:PHE:O	50:DU:83:LEU:HD13	2.07	0.55
51:BV:72:VAL:CA	51:BV:88:ARG:HH22	2.19	0.55
38:DE:93:VAL:C	38:DE:95:ILE:N	2.59	0.55
34:BA:2334:G:H5'	48:BS:13:ARG:HB3	1.89	0.55
2:AB:185:ILE:HG22	2:AB:199:TYR:CB	2.26	0.55
54:BY:26:LYS:HG2	54:BY:27:VAL:N	2.20	0.55
34:BA:612:C:C3'	34:BA:613:G:H5''	2.36	0.55
42:DI:101:LEU:O	42:DI:101:LEU:HD12	2.06	0.55
53:BX:36:LYS:HZ3	53:BX:38:GLU:C	2.09	0.55
34:BA:2305:A:N7	40:BG:155:MET:HA	2.22	0.55
41:DH:85:LYS:HD2	41:DH:141:VAL:HG13	1.89	0.55
40:BG:161:THR:CG2	40:BG:163:ALA:HB3	2.37	0.55
34:DA:587:C:C4	45:DP:33:ARG:HG2	2.41	0.55
45:DP:34:GLY:O	45:DP:35:HIS:CD2	2.60	0.55
35:BB:78:A:H4'	46:BQ:21:THR:HG23	1.87	0.55
47:DR:49:ASP:O	47:DR:52:ILE:N	2.39	0.55
45:BP:71:VAL:HG13	45:BP:72:PRO:N	2.21	0.55
34:DA:2529:G:OP2	34:DA:2530:A:H5''	2.07	0.55
1:CA:1288:A:H1'	1:CA:1352:C:O2'	2.07	0.55
40:DG:133:LEU:CD1	40:DG:157:ILE:HG12	2.37	0.55
41:BH:89:ILE:O	41:BH:90:LYS:CB	2.54	0.55
46:BQ:48:GLU:O	46:BQ:52:VAL:HG12	2.06	0.55
34:DA:343:C:O2	34:DA:343:C:H2'	2.06	0.55
41:DH:89:ILE:HG12	41:DH:90:LYS:N	2.21	0.55
41:DH:89:ILE:O	41:DH:90:LYS:CB	2.54	0.55
34:DA:2810:A:C2'	38:DE:61:ARG:NH2	2.68	0.55
34:DA:2787:C:O2	38:DE:61:ARG:HD3	2.07	0.55
39:BF:155:LEU:HD12	39:BF:174:VAL:O	2.06	0.55
46:DQ:106:VAL:HG13	46:DQ:118:LEU:HD21	1.89	0.55
34:DA:1678:G:N2	34:DA:1989:G:N2	2.54	0.55
51:BV:5:VAL:HG23	51:BV:37:VAL:O	2.07	0.55
34:BA:1116:C:H2'	34:BA:1117:G:H5'	1.89	0.55
1:CA:783:C:O2'	1:CA:784:C:H5'	2.05	0.55
8:CH:87:SER:HA	8:CH:93:VAL:CG2	2.36	0.55
49:DT:72:VAL:HG12	49:DT:73:GLU:N	2.21	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BD:131:LEU:N	37:BD:131:LEU:HD12	2.22	0.55
2:CB:121:LEU:O	2:CB:127:ILE:HD11	2.07	0.55
51:DV:94:LEU:C	51:DV:94:LEU:HD23	2.26	0.55
54:BY:42:VAL:HB	54:BY:65:ALA:HB3	1.87	0.55
34:BA:1568:G:H4'	37:BD:59:LYS:CG	2.36	0.55
10:AJ:45:ARG:HH11	10:AJ:45:ARG:HG3	1.72	0.55
1:CA:503:C:H2'	1:CA:504:C:H6	1.70	0.55
12:CL:119:LYS:O	12:CL:120:TYR:HB2	2.07	0.55
34:BA:1582:C:H2'	34:BA:1583:A:C8	2.41	0.55
34:BA:729:G:C5	37:BD:208:LYS:HB2	2.42	0.55
36:DC:39:GLU:HA	36:DC:180:PHE:HA	1.88	0.55
2:AB:236:TYR:HA	2:AB:239:VAL:HG23	1.88	0.55
34:DA:2437:U:H2'	34:DA:2438:U:C6	2.40	0.55
34:DA:796:C:H2'	34:DA:797:C:C6	2.42	0.55
1:AA:7:G:H5'	1:AA:298:A:O4'	2.06	0.55
47:DR:13:HIS:O	47:DR:14:SER:C	2.45	0.55
18:CR:47:THR:HB	18:CR:49:LYS:HG2	1.88	0.55
31:B6:16:CYS:O	31:B6:17:LYS:HB2	2.06	0.55
1:CA:7:G:H5'	1:CA:298:A:O4'	2.07	0.55
26:B1:54:ALA:O	26:B1:55:GLY:C	2.43	0.55
34:DA:1298:C:H2'	34:DA:1298:C:O2	2.06	0.55
1:CA:966:G:H2'	1:CA:967:C:C6	2.41	0.55
52:BW:9:TYR:H	52:BW:102:HIS:HD2	1.54	0.55
49:DT:29:ARG:HG2	49:DT:86:ILE:H	1.72	0.55
34:DA:141:A:C8	34:DA:1408:C:O2'	2.54	0.55
2:AB:112:VAL:HG22	2:AB:149:LEU:HD13	1.88	0.55
2:AB:19:HIS:CE1	2:AB:206:ASP:HB2	2.42	0.55
54:BY:17:SER:OG	54:BY:18:GLY:N	2.39	0.55
26:B1:87:PRO:HG2	26:B1:88:LYS:H	1.71	0.55
42:DI:120:ILE:HG21	42:DI:126:TYR:CE1	2.42	0.55
34:DA:2704:C:H2'	34:DA:2705:A:H8	1.71	0.55
40:BG:136:ARG:O	40:BG:154:GLY:HA3	2.05	0.55
43:DN:46:VAL:O	43:DN:47:ALA:HB3	2.06	0.55
53:DX:18:TYR:HA	53:DX:21:PHE:CD1	2.42	0.55
1:AA:377:G:OP1	16:AP:3:LYS:HD2	2.06	0.55
47:DR:41:ALA:O	47:DR:43:GLU:N	2.39	0.55
10:CJ:62:HIS:H	10:CJ:62:HIS:CD2	2.25	0.55
23:CW:30:G:H2'	23:CW:31:A:C8	2.39	0.55
53:BX:23:GLU:HG3	53:BX:24:GLY:H	1.71	0.55
3:AC:68:VAL:HG12	3:AC:70:VAL:HG23	1.87	0.55
46:BQ:68:ILE:HD12	46:BQ:68:ILE:C	2.27	0.55
1:AA:1307:U:H2'	1:AA:1308:U:C6	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2059:A:C5'	34:DA:2060:A:OP2	2.55	0.55
31:B6:32:ASN:ND2	31:B6:33:LYS:H	2.04	0.55
1:CA:959:A:C2	1:CA:1222:G:O4'	2.59	0.55
14:AN:3:ARG:CB	14:AN:3:ARG:HH11	2.14	0.55
1:CA:1253:G:H1'	1:CA:1355:G:O2'	2.07	0.55
37:BD:44:ASN:HB3	37:BD:49:ILE:HG22	1.89	0.55
34:DA:2864:G:H2'	34:DA:2865:U:O4'	2.06	0.55
48:BS:30:ARG:HH21	48:BS:62:LYS:HD2	1.71	0.55
6:AF:10:LEU:CD1	6:AF:10:LEU:N	2.68	0.55
34:DA:543:C:N4	34:DA:551:G:H1	1.99	0.55
34:BA:1987:G:O2'	34:BA:1988:C:H5'	2.07	0.55
53:DX:82:GLN:CD	53:DX:83:VAL:H	2.10	0.55
48:DS:56:LEU:O	48:DS:57:LYS:HB2	2.06	0.55
34:BA:2579:C:H2'	34:BA:2580:U:O4'	2.07	0.55
25:B0:25:ARG:HD2	25:B0:29:GLN:NE2	2.22	0.55
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.39	0.55
19:AS:6:LYS:CD	19:AS:6:LYS:H	2.18	0.55
26:B1:75:GLU:O	26:B1:76:ARG:HD3	2.07	0.55
8:CH:14:ARG:HB3	8:CH:14:ARG:NH1	2.22	0.55
1:CA:186:C:H2'	1:CA:187:C:H6	1.71	0.55
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.10	0.55
1:CA:963:G:H21	10:CJ:55:LYS:HD3	1.71	0.55
14:AN:44:LEU:C	14:AN:44:LEU:HD12	2.27	0.55
42:BI:44:LEU:O	42:BI:47:LEU:HB3	2.07	0.55
1:AA:790:A:C6	1:AA:791:G:C6	2.93	0.55
46:DQ:63:LYS:HZ3	46:DQ:63:LYS:HB2	1.70	0.55
34:DA:1786:A:C2	34:DA:2606:C:H1'	2.42	0.55
4:CD:49:ARG:NE	4:CD:49:ARG:HA	2.21	0.55
34:BA:473:G:H5''	34:BA:508:G:H22	1.71	0.55
34:DA:523:C:C2'	34:DA:524:U:H5'	2.37	0.55
1:AA:946:A:H2'	1:AA:947:G:C8	2.41	0.55
1:CA:514:C:O2'	1:CA:515:G:H5'	2.07	0.55
1:AA:119:A:O2'	1:AA:120:A:OP2	2.20	0.55
52:DW:52:GLU:O	52:DW:55:ALA:HB3	2.06	0.55
23:AW:11:C:H2'	23:AW:12:U:C6	2.41	0.55
34:BA:2404:C:H2'	34:BA:2405:G:O4'	2.06	0.55
34:BA:596:G:H2'	34:BA:597:U:O4'	2.05	0.55
1:AA:793:U:H5'	1:AA:794:A:O5'	2.07	0.55
11:AK:25:TYR:H	11:AK:25:TYR:HD1	1.52	0.55
1:CA:588:G:H2'	1:CA:589:C:C6	2.41	0.55
34:BA:690:G:H2'	34:BA:691:C:C6	2.42	0.55
37:DD:32:SER:O	37:DD:33:LEU:CB	2.55	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BT:45:PHE:CE1	49:BT:74:ARG:HG3	2.42	0.55
2:AB:165:VAL:HG23	2:AB:166:ASP:N	2.21	0.55
54:BY:39:VAL:O	54:BY:40:GLU:CD	2.45	0.55
37:BD:28:GLU:HB2	37:BD:29:PRO:HD3	1.89	0.55
54:DY:61:ILE:HG22	54:DY:61:ILE:O	2.07	0.55
45:DP:100:LEU:HB2	45:DP:106:LEU:HD22	1.88	0.55
45:DP:95:VAL:HA	45:DP:99:LEU:CD2	2.31	0.55
54:DY:14:LEU:HD12	54:DY:15:VAL:N	2.22	0.55
33:B8:51:ALA:O	33:B8:54:GLU:HG2	2.07	0.55
27:B2:49:LYS:CA	27:B2:53:LEU:HB3	2.36	0.55
46:BQ:12:GLN:HG2	46:BQ:73:PRO:HD2	1.89	0.55
38:BE:109:LYS:HE2	47:BR:2:ARG:HH12	1.71	0.55
51:BV:64:HIS:HB3	51:BV:96:ILE:HA	1.88	0.55
41:DH:127:GLU:OE1	41:DH:127:GLU:HA	2.07	0.55
34:DA:2808:U:C2'	34:DA:2809:A:H5'	2.36	0.55
39:DF:164:ARG:HG2	39:DF:164:ARG:HH11	1.71	0.55
1:AA:1321:C:C3'	1:AA:1322:C:H5''	2.37	0.55
43:DN:121:LYS:HG3	43:DN:123:TYR:CE1	2.41	0.55
1:CA:708:C:O2'	1:CA:709:G:H5'	2.06	0.55
41:BH:127:GLU:OE1	41:BH:127:GLU:HA	2.07	0.55
34:BA:580:C:O2'	34:BA:581:C:H5'	2.07	0.55
40:DG:135:LEU:CD1	40:DG:157:ILE:HG23	2.37	0.55
34:DA:154(A):C:H5	34:DA:171:G:N1	2.05	0.55
34:BA:1747:G:H2'	34:BA:1747(A):G:C8	2.42	0.55
19:CS:67:VAL:HG21	29:D4:42:PHE:CB	2.36	0.55
19:CS:67:VAL:C	19:CS:69:HIS:H	2.09	0.55
1:CA:1152:A:H2'	1:CA:1153:C:H6	1.72	0.55
10:CJ:78:ASN:HB2	10:CJ:81:THR:HG23	1.89	0.55
37:DD:24:ILE:O	37:DD:24:ILE:CG2	2.54	0.55
22:CV:65:C:C2'	22:CV:66:C:H5'	2.37	0.55
7:CG:26:PHE:CE2	7:CG:30:ILE:HD11	2.41	0.55
11:CK:23:ALA:HB1	11:CK:88:GLY:HA3	1.87	0.55
8:CH:110:ALA:HB3	8:CH:121:ASP:HB3	1.89	0.55
9:CI:117:HIS:NE2	9:CI:123:PRO:HA	2.21	0.55
11:AK:95:ILE:HG21	11:AK:108:ILE:HD13	1.89	0.55
1:CA:1202:G:C2	14:CN:42:ILE:HG21	2.42	0.55
1:AA:67:C:H2'	1:AA:68:G:H8	1.67	0.55
34:DA:86:C:OP1	54:DY:32:PRO:HD2	2.07	0.55
34:DA:2022:U:O2'	34:DA:2617:C:H5'	2.07	0.55
8:AH:122:ARG:NH1	8:AH:122:ARG:HB2	2.21	0.55
37:BD:231:HIS:ND1	37:BD:232:PRO:CD	2.69	0.55
35:BB:65:C:N4	35:BB:109:C:H2'	2.20	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2270:G:H3'	34:BA:2271:G:H8	1.72	0.55
5:CE:12:LEU:C	5:CE:12:LEU:HD22	2.27	0.55
1:AA:418:C:H2'	1:AA:419:C:C6	2.41	0.55
34:BA:751:A:H5'	52:BW:90:ARG:HA	1.87	0.55
34:BA:585:G:H2'	34:BA:1251:C:N4	2.22	0.55
1:AA:1405:G:O2'	1:AA:1406:U:H5'	2.07	0.55
20:AT:94:ALA:O	20:AT:95:ALA:HB3	2.07	0.55
34:DA:23:G:H1	34:DA:517:C:H42	1.55	0.55
34:BA:45:C:H2'	34:BA:47:C:H6	1.71	0.55
34:BA:1108:U:H2'	34:BA:1109:C:H5'	1.89	0.55
34:BA:110:G:O2'	34:BA:111:A:H5'	2.07	0.55
34:BA:760:G:H2'	34:BA:761:A:O4'	2.07	0.55
20:CT:74:LYS:H	20:CT:74:LYS:HD3	1.70	0.55
34:DA:122:G:O2'	34:DA:123:G:H5'	2.07	0.55
51:DV:72:VAL:CA	51:DV:88:ARG:HH22	2.19	0.55
34:BA:2702:U:OP1	34:BA:2702:U:O4'	2.24	0.55
49:DT:89:VAL:HG12	49:DT:91:ARG:HG2	1.88	0.55
45:BP:144:GLU:N	45:BP:145:PRO:CD	2.69	0.55
38:BE:3:GLY:HA3	38:BE:81:ILE:HG21	1.87	0.55
46:DQ:141:GLN:OXT	55:DZ:98:MET:HB2	2.07	0.55
39:DF:1:MET:O	39:DF:2:LYS:O	2.25	0.55
34:DA:2498:C:O2'	34:DA:2499:C:H5'	2.06	0.55
1:AA:375:U:H2'	1:AA:376:G:C8	2.39	0.55
1:CA:377:G:OP1	16:CP:3:LYS:HD2	2.07	0.55
10:AJ:9:ARG:HH21	10:AJ:95:GLU:HG2	1.71	0.55
38:BE:109:LYS:HE2	47:BR:2:ARG:NH1	2.20	0.55
26:D1:82:LEU:HD12	26:D1:84:GLY:H	1.72	0.55
51:BV:99:ILE:HG22	51:BV:100:ARG:N	2.21	0.55
43:BN:55:VAL:HG22	43:BN:128:HIS:HB3	1.88	0.55
39:DF:101:LEU:HB3	39:DF:106:ARG:HD3	1.88	0.55
1:AA:708:C:O2'	1:AA:709:G:H5'	2.07	0.55
45:DP:131:SER:C	45:DP:133:SER:N	2.58	0.55
34:DA:1946:U:H2'	34:DA:1947:C:H6	1.72	0.55
1:AA:1253:G:H1'	1:AA:1355:G:O2'	2.07	0.55
3:AC:76:VAL:CG2	3:AC:77:ILE:N	2.69	0.55
25:B0:36:ILE:HA	25:B0:60:PHE:HB3	1.87	0.55
41:BH:89:ILE:H	41:BH:89:ILE:HD13	1.71	0.55
29:B4:13:ARG:HA	40:BG:101:ILE:HD12	1.88	0.55
25:D0:41:ARG:HD3	25:D0:44:ARG:CD	2.35	0.55
1:CA:1438:G:H2'	1:CA:1439:C:C6	2.42	0.55
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.07	0.55
48:DS:35:ILE:H	48:DS:53:SER:CB	2.18	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:353:A:H5'	1:AA:353:A:C8	2.35	0.55
1:AA:186:C:H2'	1:AA:187:C:H6	1.71	0.55
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.42	0.55
15:CO:62:GLN:O	15:CO:66:LEU:HD13	2.06	0.55
2:AB:194:PRO:O	2:AB:196:LEU:N	2.40	0.55
1:AA:539:A:OP1	12:AL:114:LYS:HE2	2.06	0.55
22:AV:67:C:O2	22:AV:67:C:H2'	2.05	0.55
47:BR:8:ARG:HE	47:BR:8:ARG:HA	1.72	0.55
10:AJ:92:THR:HG23	10:AJ:93:GLY:N	2.21	0.55
4:AD:64:LEU:O	4:AD:67:ILE:HB	2.07	0.55
38:BE:197:ILE:O	38:BE:197:ILE:HG13	2.06	0.55
12:AL:34:ARG:HG2	12:AL:35:GLY:N	2.22	0.55
1:AA:46:G:O2'	1:AA:365:U:H1'	2.07	0.55
1:AA:189(A):C:H2'	1:AA:189(B):C:C6	2.42	0.55
1:CA:241:C:O2'	1:CA:242:C:H5'	2.07	0.55
34:DA:2228:G:H2'	34:DA:2229:C:C6	2.42	0.55
1:CA:445:G:H2'	1:CA:446:G:H8	1.72	0.55
1:AA:828:A:H5''	1:AA:859:A:C2	2.42	0.55
42:BI:66:GLU:O	42:BI:70:GLU:HG2	2.07	0.55
34:BA:391:G:O2'	34:BA:392:C:H5'	2.06	0.55
38:BE:16:ARG:O	38:BE:18:ASP:N	2.39	0.55
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.07	0.55
51:DV:36:PRO:HD2	51:DV:60:GLU:O	2.07	0.55
42:BI:120:ILE:O	42:BI:121:LYS:HB3	2.07	0.55
34:DA:612:C:C3'	34:DA:613:G:H5''	2.36	0.55
10:AJ:32:ALA:HB1	10:AJ:75:ILE:CG1	2.34	0.55
45:DP:107:LYS:HG3	45:DP:107:LYS:O	2.07	0.55
31:B6:25:LYS:HD3	33:B8:36:LYS:HD2	1.89	0.55
43:DN:115:ARG:O	43:DN:118:LYS:HB2	2.07	0.55
43:BN:112:LEU:O	43:BN:115:ARG:N	2.40	0.55
12:CL:89:ARG:HE	12:CL:91:LYS:HE2	1.71	0.55
38:DE:117:MET:HB2	38:DE:122:PHE:HB2	1.88	0.55
38:DE:117:MET:CE	38:DE:124:GLY:HA3	2.37	0.55
1:AA:1256:A:H5'	1:AA:1257:U:OP1	2.07	0.55
53:BX:77:LYS:HE3	53:BX:78:LYS:CG	2.37	0.55
55:BZ:79:ARG:H	55:BZ:79:ARG:CD	2.08	0.55
53:BX:88:LYS:O	53:BX:89:ILE:HB	2.07	0.55
19:AS:36:ARG:NH1	19:AS:75:ALA:HB3	2.21	0.55
43:DN:128:HIS:O	43:DN:130:HIS:N	2.40	0.55
30:D5:20:ARG:HA	30:D5:23:HIS:CD2	2.42	0.55
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.07	0.55
1:CA:579:G:C5'	1:CA:728:A:H1'	2.32	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:67:LYS:HA	17:CQ:70:ARG:NH1	2.17	0.55
34:BA:1427:A:C2	34:BA:1570:A:OP2	2.60	0.55
34:BA:542:C:C4	34:BA:543:C:N4	2.75	0.55
34:DA:2286:A:HO2'	34:DA:2286:A:H8	1.54	0.55
34:DA:2287:A:H2	34:DA:2346:A:C2	2.25	0.55
34:DA:2469:A:H2	34:DA:2481:G:H21	1.54	0.55
37:BD:10:THR:HG23	37:BD:13:ARG:HB3	1.88	0.55
32:B7:43:THR:HG23	32:B7:44:PRO:CD	2.36	0.55
3:CC:62:ASP:O	3:CC:97:LYS:HB3	2.07	0.55
34:DA:1290:C:O2'	34:DA:1291:C:H5'	2.07	0.55
44:DO:26:LYS:HB2	44:DO:30:ALA:HB2	1.88	0.55
1:CA:963:G:H2'	1:CA:964:A:H8	1.71	0.55
34:DA:2617:C:C2'	34:DA:2618:G:H5'	2.36	0.55
1:CA:1108:G:H2'	1:CA:1109:C:H5'	1.89	0.55
16:AP:28:ARG:HG2	16:AP:28:ARG:NH1	2.21	0.55
1:CA:1072:G:H2'	1:CA:1073:U:H6	1.72	0.55
43:DN:18:ALA:C	43:DN:20:GLY:H	2.09	0.55
1:AA:514:C:O2'	1:AA:515:G:H5'	2.06	0.55
37:DD:134:ARG:HB2	37:DD:135:PHE:CD1	2.42	0.55
20:CT:44:ALA:HB1	20:CT:91:LEU:HB2	1.88	0.55
52:DW:55:ALA:HA	52:DW:107:LEU:CD2	2.37	0.55
34:DA:2811:G:C2'	34:DA:2812:G:H5'	2.37	0.55
34:BA:2855:C:H2'	34:BA:2856:C:H6	1.71	0.55
34:BA:1550:C:H2'	34:BA:1551:C:H6	1.71	0.55
34:BA:1831:G:H2'	34:BA:1832:C:H6	1.72	0.55
51:DV:64:HIS:HB3	51:DV:96:ILE:HA	1.88	0.55
34:DA:1238:G:O2'	34:DA:1239:G:H5'	2.06	0.55
53:BX:60:ARG:HE	53:BX:74:PRO:CG	2.12	0.55
48:DS:12:PHE:O	48:DS:12:PHE:CD1	2.60	0.55
37:BD:142:VAL:HG23	37:BD:193:VAL:N	2.21	0.55
35:BB:29:A:H2'	35:BB:30:C:H6	1.68	0.55
49:BT:33:LYS:HD2	49:BT:43:GLN:OE1	2.07	0.55
1:CA:950:U:H2'	1:CA:951:G:C8	2.42	0.55
38:BE:169:ASN:HA	38:BE:201:THR:OG1	2.07	0.55
54:DY:27:VAL:HG12	54:DY:28:LYS:N	2.22	0.55
54:DY:29:GLU:N	54:DY:29:GLU:OE1	2.40	0.55
34:DA:2704:C:C2	34:DA:2705:A:C8	2.95	0.55
33:D8:29:LYS:O	33:D8:31:HIS:N	2.40	0.55
31:B6:10:LEU:CD1	33:B8:36:LYS:HD3	2.36	0.55
43:DN:48:MET:SD	43:DN:48:MET:O	2.64	0.55
54:BY:81:LYS:HG2	54:BY:96:ILE:HB	1.89	0.55
34:DA:2512:C:H4'	38:DE:122:PHE:CE2	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DQ:38:GLU:HB2	46:DQ:127:ILE:HG23	1.88	0.55
51:BV:64:HIS:CB	51:BV:96:ILE:HA	2.37	0.55
19:AS:49:ILE:O	19:AS:60:VAL:HG12	2.07	0.55
11:AK:44:SER:H	11:AK:47:VAL:CG2	2.19	0.55
1:AA:955:U:O2'	1:AA:956:U:H5'	2.06	0.55
34:BA:2059:A:C5'	34:BA:2060:A:OP2	2.55	0.55
45:BP:71:VAL:CG1	45:BP:72:PRO:CD	2.84	0.55
49:BT:57:PHE:C	49:BT:59:THR:N	2.61	0.55
3:AC:77:ILE:HA	3:AC:84:ILE:CG2	2.37	0.55
34:BA:2475:C:H42	34:BA:2529:G:H22	1.53	0.55
37:BD:44:ASN:CB	37:BD:49:ILE:HA	2.37	0.55
12:AL:41:ARG:HG2	12:AL:42:THR:H	1.72	0.55
4:CD:12:CYS:HA	4:CD:19:LEU:HD12	1.88	0.55
36:DC:18:LYS:HD3	36:DC:19:VAL:H	1.71	0.55
39:BF:7:TYR:HB3	39:BF:16:GLY:C	2.28	0.55
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.89	0.55
47:DR:3:HIS:O	47:DR:4:LEU:CB	2.55	0.55
7:CG:15:ASP:HB3	7:CG:19:GLY:CA	2.37	0.55
1:AA:834:C:O2'	1:AA:835:U:H5'	2.07	0.55
54:BY:75:ILE:HD11	54:BY:78:ALA:C	2.26	0.55
45:DP:85:LEU:HD12	45:DP:120:ALA:HB3	1.89	0.55
41:DH:154:PRO:CG	41:DH:155:SER:H	2.20	0.55
2:CB:97:TRP:HH2	2:CB:176:GLU:CD	2.11	0.55
34:DA:1434:A:O2'	34:DA:1435:G:H5'	2.06	0.55
44:BO:8:LEU:N	44:BO:8:LEU:HD22	2.21	0.55
1:CA:1428:A:H2'	1:CA:1429:C:C6	2.42	0.55
54:BY:20:TYR:CD1	54:BY:42:VAL:HG22	2.42	0.55
46:BQ:22:LYS:HZ3	46:BQ:22:LYS:HA	1.71	0.55
34:DA:1568:G:H4'	37:DD:59:LYS:CG	2.36	0.55
34:BA:491:G:H2'	34:BA:492:A:O4'	2.06	0.55
38:DE:144:ARG:O	38:DE:145:LYS:C	2.46	0.55
1:AA:264:U:O2'	17:AQ:64:PRO:HB2	2.07	0.55
1:CA:1006:C:H42	1:CA:1024:G:N2	2.05	0.55
1:CA:749:C:O2'	1:CA:750:G:H5'	2.07	0.55
4:CD:112:VAL:HG12	4:CD:116:GLN:OE1	2.06	0.55
20:AT:34:LYS:O	20:AT:37:SER:N	2.40	0.55
2:AB:142:LEU:HD23	2:AB:142:LEU:C	2.26	0.55
1:CA:826:C:H2'	1:CA:827:U:C6	2.41	0.55
11:CK:62:GLN:O	11:CK:65:ALA:N	2.39	0.55
46:BQ:137:TYR:CD1	46:BQ:138:ASP:N	2.75	0.55
1:AA:235:C:H1'	17:AQ:61:GLU:OE1	2.07	0.55
20:AT:8:ARG:HG3	20:AT:8:ARG:HH11	1.71	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:DV:96:ILE:CG2	51:DV:97:LYS:N	2.70	0.54
42:BI:88:ILE:HD11	42:BI:123:LEU:N	2.21	0.54
37:DD:94:LEU:HD22	37:DD:95:LEU:N	2.21	0.54
34:DA:612:C:H2'	34:DA:613:G:C5'	2.17	0.54
38:DE:72:VAL:O	38:DE:73:GLU:C	2.45	0.54
1:AA:1442:G:C2'	1:AA:1442(A):G:H5''	2.36	0.54
49:BT:28:VAL:CG2	49:BT:88:ILE:HD11	2.36	0.54
54:BY:13:VAL:HG11	54:BY:72:VAL:HB	1.88	0.54
54:BY:68:HIS:CE1	54:BY:70:SER:H	2.25	0.54
34:BA:661:C:H5'	39:BF:38:ARG:HH12	1.72	0.54
37:BD:35:LYS:HA	37:BD:64:ILE:CG2	2.38	0.54
28:B3:8:LEU:HD13	28:B3:31:LEU:HA	1.89	0.54
2:CB:19:HIS:CE1	2:CB:206:ASP:HB2	2.42	0.54
33:D8:32:LEU:HD11	33:D8:41:ILE:CG2	2.37	0.54
34:BA:94(A):G:H2'	34:BA:95:G:H5''	1.89	0.54
38:DE:101:ARG:HD3	38:DE:169:ASN:HD22	1.72	0.54
45:BP:64:LYS:O	45:BP:65:ARG:C	2.46	0.54
34:BA:142(A):C:O2'	34:BA:143:G:H5'	2.07	0.54
12:AL:89:ARG:HE	12:AL:91:LYS:HE2	1.72	0.54
23:AW:16:U:H3'	23:AW:17:C:C5'	2.35	0.54
26:D1:10:LYS:CG	26:D1:14:VAL:HA	2.37	0.54
50:BU:62:ILE:HG13	50:BU:76:TYR:CE1	2.42	0.54
42:BI:5:LEU:C	42:BI:6:LEU:HD23	2.27	0.54
10:AJ:39:PRO:CA	10:AJ:70:ARG:HH12	2.19	0.54
34:BA:1952:A:C6	34:BA:1953:A:N1	2.74	0.54
44:BO:20:MET:O	44:BO:41:ALA:HB1	2.07	0.54
13:AM:97:PRO:O	13:AM:98:VAL:HG13	2.07	0.54
26:B1:34:THR:HG21	34:BA:388:G:P	2.47	0.54
42:BI:37:VAL:CG1	42:BI:38:LEU:N	2.70	0.54
38:DE:14:ILE:HG12	38:DE:21:VAL:HG23	1.89	0.54
34:BA:1448:G:N3	34:BA:1528(A):A:H2	2.05	0.54
1:AA:1288:A:H1'	1:AA:1352:C:O2'	2.07	0.54
34:DA:2313:C:H5''	40:DG:40:ASN:ND2	2.22	0.54
34:DA:1448:G:N3	34:DA:1528(A):A:H2	2.06	0.54
13:CM:68:GLY:O	13:CM:69:GLU:CB	2.55	0.54
34:DA:106:C:C1'	54:DY:2:ARG:HE	2.16	0.54
37:BD:44:ASN:HB3	37:BD:49:ILE:HA	1.89	0.54
46:BQ:132:VAL:HG12	46:BQ:133:ARG:N	2.22	0.54
53:BX:82:GLN:CD	53:BX:83:VAL:H	2.10	0.54
49:BT:50:ILE:H	49:BT:50:ILE:HD12	1.71	0.54
39:BF:126:VAL:O	39:BF:196:LEU:HG	2.07	0.54
34:BA:271(U):G:C2'	34:BA:271(V):G:H5'	2.37	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1228:C:H4'	13:AM:116:THR:O	2.07	0.54
51:BV:37:VAL:HG12	51:BV:38:LEU:H	1.72	0.54
1:CA:191:G:H1'	20:CT:105:SER:HB3	1.89	0.54
49:DT:23:ARG:HG2	49:DT:120:ARG:NH1	2.22	0.54
12:CL:102:ARG:NH1	12:CL:102:ARG:CG	2.69	0.54
9:CI:43:ALA:HA	9:CI:74:ILE:HD13	1.89	0.54
34:BA:1344:G:H4'	34:BA:1384:A:C5	2.42	0.54
16:AP:74:LEU:HD22	16:AP:79:VAL:HG21	1.89	0.54
1:CA:921:U:O2'	5:CE:19:MET:O	2.23	0.54
1:CA:1458:G:H2'	1:CA:1459:C:C6	2.42	0.54
4:AD:52:SER:C	4:AD:54:TYR:H	2.10	0.54
34:BA:1695:G:H2'	34:BA:1696:G:H5'	1.87	0.54
34:DA:45:C:H2'	34:DA:47:C:H6	1.72	0.54
2:CB:142:LEU:HD23	2:CB:142:LEU:C	2.27	0.54
12:CL:126:LYS:HE2	12:CL:128:ALA:H	1.72	0.54
1:CA:1332:A:H2'	1:CA:1333:A:C8	2.42	0.54
34:BA:1808:U:C5	34:BA:1809:A:N7	2.75	0.54
9:AI:13:ALA:HA	9:AI:67:GLY:O	2.07	0.54
37:DD:12:SER:HB2	37:DD:208:LYS:HB3	1.88	0.54
1:CA:299:G:H2'	1:CA:300:A:C8	2.42	0.54
34:BA:1661:G:O2'	34:BA:1662:C:H5'	2.07	0.54
1:AA:1041:A:H2'	1:AA:1042:G:C8	2.42	0.54
1:CA:932:C:H4'	7:CG:4:ARG:CZ	2.36	0.54
38:DE:16:ARG:O	38:DE:18:ASP:N	2.40	0.54
1:CA:200:G:H1	1:CA:217:C:H42	1.54	0.54
12:AL:126:LYS:HE2	12:AL:128:ALA:H	1.71	0.54
1:CA:764:C:H2'	1:CA:765:G:O4'	2.06	0.54
1:CA:1496:C:H1'	1:CA:1517:G:H22	1.72	0.54
37:BD:2:ALA:O	37:BD:3:VAL:HB	2.06	0.54
48:DS:24:LEU:HB3	48:DS:85:VAL:HG12	1.88	0.54
26:B1:11:ARG:O	26:B1:12:PRO:C	2.46	0.54
2:CB:70:PHE:O	2:CB:92:TYR:HA	2.06	0.54
43:DN:39:ARG:O	50:DU:64:ARG:NH2	2.38	0.54
43:DN:9:VAL:HG12	43:DN:10:GLU:N	2.13	0.54
46:DQ:75:THR:HA	46:DQ:89:ASN:N	2.21	0.54
18:CR:53:ARG:NH2	18:CR:59:SER:HA	2.22	0.54
1:CA:375:U:H2'	1:CA:376:G:C8	2.40	0.54
5:AE:78:HIS:HE1	5:AE:143:ARG:N	1.96	0.54
10:CJ:9:ARG:HH21	10:CJ:95:GLU:HG2	1.72	0.54
1:AA:1371:G:O3'	9:AI:69:GLY:HA3	2.07	0.54
53:DX:27:THR:OG1	53:DX:77:LYS:HA	2.06	0.54
1:AA:1205:U:O2'	3:AC:195:VAL:HG23	2.06	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BF:161:GLU:HA	39:BF:164:ARG:HB2	1.89	0.54
1:CA:1308:U:H2'	1:CA:1309:G:H8	1.72	0.54
1:AA:1505:G:H5''	1:AA:1506:U:H5''	1.88	0.54
3:CC:79:ARG:HG3	3:CC:79:ARG:O	2.08	0.54
22:AV:15:G:N2	22:AV:48:C:H42	1.99	0.54
1:CA:818:G:C3'	1:CA:819:A:H5''	2.38	0.54
13:CM:23:TYR:HB3	13:CM:67:GLU:HB2	1.89	0.54
22:AV:72:A:C2'	22:AV:73:A:H5''	2.38	0.54
17:AQ:67:LYS:HG2	17:AQ:68:ARG:N	2.22	0.54
46:DQ:134:ARG:C	46:DQ:136:ALA:H	2.11	0.54
1:CA:266:G:H5'	1:CA:266:G:C8	2.42	0.54
2:CB:113:HIS:O	2:CB:117:GLU:HG2	2.06	0.54
1:CA:1438:G:H2'	1:CA:1439:C:H6	1.72	0.54
49:DT:118:ARG:O	49:DT:121:ILE:N	2.41	0.54
51:BV:37:VAL:HG12	51:BV:38:LEU:N	2.21	0.54
7:AG:15:ASP:OD2	7:AG:16:LEU:N	2.38	0.54
9:CI:112:LYS:HA	9:CI:119:ALA:HB2	1.89	0.54
1:CA:67:C:H2'	1:CA:68:G:H8	1.66	0.54
3:AC:22:TRP:NE1	3:AC:36:ASP:OD1	2.40	0.54
1:AA:973:G:O4'	10:AJ:55:LYS:HG2	2.07	0.54
40:BG:132:ASN:O	40:BG:133:LEU:HB3	2.07	0.54
8:AH:120:THR:H	8:AH:123:GLU:HB2	1.72	0.54
37:BD:231:HIS:CE1	37:BD:232:PRO:HD2	2.42	0.54
34:DA:1344:G:H4'	34:DA:1384:A:N7	2.22	0.54
51:BV:25:LEU:N	51:BV:94:LEU:CD1	2.71	0.54
55:DZ:145:GLU:HG3	55:DZ:146:ILE:N	2.21	0.54
7:AG:88:PRO:HD2	7:AG:152:ALA:HA	1.88	0.54
34:DA:2102:U:C5	34:DA:2187:G:O6	2.60	0.54
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.36	0.54
1:AA:47:C:H5''	1:AA:365:U:C6	2.41	0.54
34:BA:687:C:H42	34:BA:787:U:H4'	1.72	0.54
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.42	0.54
34:DA:2193:G:H5'	34:DA:2193:G:H8	1.72	0.54
40:DG:5:VAL:HG12	40:DG:6:ALA:N	2.22	0.54
1:CA:650:G:O2'	1:CA:651:C:H5'	2.07	0.54
40:DG:120:LEU:H	40:DG:181:ARG:H	1.55	0.54
34:BA:2437:U:H2'	34:BA:2438:U:C6	2.43	0.54
41:DH:139:GLN:O	41:DH:143:GLN:HB2	2.06	0.54
46:DQ:137:TYR:CD1	46:DQ:138:ASP:N	2.75	0.54
34:BA:2818:G:O2'	34:BA:2819:G:H5'	2.07	0.54
37:BD:110:GLY:O	37:BD:112:GLN:HG3	2.07	0.54
50:DU:112:ARG:CG	50:DU:112:ARG:HH11	2.18	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:DV:96:ILE:HG22	51:DV:97:LYS:N	2.22	0.54
48:DS:13:ARG:H	48:DS:13:ARG:HD2	1.72	0.54
49:DT:29:ARG:HG3	49:DT:30:VAL:N	2.22	0.54
49:BT:27:THR:O	49:BT:28:VAL:CG2	2.45	0.54
45:BP:46:LYS:HG2	45:BP:52:GLU:CG	2.36	0.54
34:DA:482:A:H4'	54:DY:47:LYS:HZ2	1.73	0.54
46:DQ:82:ARG:HH11	46:DQ:82:ARG:CG	2.00	0.54
46:DQ:81:VAL:HG12	46:DQ:82:ARG:N	2.21	0.54
27:B2:17:SER:N	27:B2:18:PRO:CD	2.71	0.54
45:DP:126:VAL:HG22	45:DP:145:PRO:HB3	1.89	0.54
42:DI:101:LEU:HD23	42:DI:109:ILE:HG12	1.88	0.54
33:B8:25:MET:SD	45:BP:64:LYS:HG3	2.48	0.54
33:B8:29:LYS:O	33:B8:31:HIS:N	2.40	0.54
13:AM:3:ARG:NH1	13:AM:7:VAL:HG13	2.22	0.54
40:BG:136:ARG:O	40:BG:154:GLY:N	2.41	0.54
48:DS:66:ALA:O	48:DS:67:ARG:HG3	2.07	0.54
48:DS:65:VAL:O	48:DS:67:ARG:N	2.39	0.54
20:CT:51:GLU:O	20:CT:55:ILE:HG12	2.06	0.54
1:AA:1347:G:H22	1:AA:1373:G:C2'	2.11	0.54
18:AR:73:ALA:O	18:AR:76:LEU:N	2.40	0.54
16:AP:15:PRO:O	16:AP:16:HIS:ND1	2.41	0.54
34:DA:2712:U:O2'	34:DA:2713:A:H5'	2.07	0.54
16:CP:21:VAL:O	16:CP:21:VAL:CG2	2.54	0.54
5:CE:78:HIS:HE1	5:CE:143:ARG:N	1.99	0.54
46:DQ:104:PHE:HE1	46:DQ:125:LEU:HD11	1.72	0.54
51:BV:96:ILE:CG2	51:BV:97:LYS:N	2.71	0.54
53:DX:77:LYS:HE3	53:DX:78:LYS:CG	2.38	0.54
46:BQ:20:ALA:HB1	46:BQ:23:GLY:HA3	1.89	0.54
26:B1:26:ARG:CB	26:B1:34:THR:CA	2.84	0.54
30:D5:20:ARG:HH12	52:DW:15:ARG:NH1	2.04	0.54
43:BN:28:THR:HG23	43:BN:29:LYS:N	2.18	0.54
27:D2:51:ARG:C	27:D2:51:ARG:HD3	2.28	0.54
40:DG:38:VAL:HG13	40:DG:92:VAL:O	2.07	0.54
6:CF:61:LEU:N	6:CF:61:LEU:HD12	2.22	0.54
34:DA:364:C:H2'	34:DA:365:C:H5''	1.88	0.54
25:D0:25:ARG:HD2	25:D0:29:GLN:NE2	2.22	0.54
35:DB:79:C:O2'	35:DB:80:U:H5'	2.08	0.54
2:CB:158:LEU:HD12	2:CB:158:LEU:N	2.18	0.54
10:CJ:32:ALA:HB1	10:CJ:75:ILE:CG1	2.35	0.54
3:CC:66:VAL:HG11	3:CC:91:LEU:HD13	1.88	0.54
8:CH:73:ASP:C	8:CH:75:ARG:H	2.11	0.54
34:BA:280:C:H42	34:BA:360:G:H1	1.55	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DH:106:THR:HG22	41:DH:112:PRO:CB	2.35	0.54
1:CA:106:C:O2'	1:CA:107:G:H5'	2.06	0.54
2:AB:102:LEU:N	2:AB:102:LEU:HD12	2.22	0.54
9:AI:114:TYR:HE1	10:AJ:60:ARG:O	1.88	0.54
8:CH:86:ILE:HG22	8:CH:87:SER:N	2.22	0.54
49:DT:63:VAL:O	49:DT:73:GLU:HA	2.07	0.54
34:DA:2736:G:C8	34:DA:2736:G:H5'	2.39	0.54
1:CA:555:C:H2'	1:CA:556:C:H6	1.71	0.54
34:BA:741:G:O2'	34:BA:742:G:H5'	2.07	0.54
55:DZ:33:LEU:CG	55:DZ:34:ASN:H	2.20	0.54
3:CC:155:GLY:HA3	3:CC:163:ALA:HB1	1.89	0.54
8:AH:1:MET:CE	8:AH:1:MET:H3	2.20	0.54
36:DC:212:VAL:O	36:DC:213:TYR:CB	2.54	0.54
34:BA:1910:G:O2'	34:BA:1911:U:H5'	2.07	0.54
34:DA:1456:G:H2'	34:DA:1457:A:H8	1.71	0.54
34:DA:1910:G:O2'	34:DA:1911:U:H5'	2.06	0.54
1:CA:398:C:O2'	1:CA:399:G:H5'	2.07	0.54
40:BG:170:ARG:HG2	40:BG:170:ARG:HH11	1.71	0.54
34:DA:534:U:O2'	50:DU:49:HIS:CD2	2.61	0.54
1:AA:636:U:H2'	1:AA:637:G:H8	1.71	0.54
51:DV:21:ARG:H	51:DV:21:ARG:CD	2.12	0.54
51:DV:64:HIS:CB	51:DV:96:ILE:HA	2.38	0.54
50:BU:110:VAL:O	50:BU:114:LYS:HD2	2.07	0.54
51:BV:90:PRO:CD	51:BV:91:TYR:H	2.20	0.54
3:AC:178:LEU:N	3:AC:178:LEU:HD22	2.22	0.54
49:DT:92:GLY:C	49:DT:94:ALA:N	2.61	0.54
38:BE:201:THR:CG2	38:BE:203:LYS:H	2.08	0.54
38:BE:72:VAL:O	38:BE:73:GLU:C	2.45	0.54
34:BA:2563:U:H2'	34:BA:2565:A:OP2	2.07	0.54
42:DI:79:ILE:CG2	42:DI:81:VAL:HG23	2.37	0.54
33:B8:62:LEU:CD1	34:BA:242:G:H5''	2.23	0.54
55:DZ:26:GLY:HA2	55:DZ:85:HIS:NE2	2.22	0.54
33:B8:35:GLN:NE2	33:B8:36:LYS:HZ2	2.02	0.54
46:BQ:82:ARG:CG	46:BQ:82:ARG:NH1	2.65	0.54
46:BQ:86:GLY:C	46:BQ:88:GLY:N	2.58	0.54
18:AR:50:ILE:CD1	18:AR:70:ILE:HG21	2.38	0.54
53:DX:21:PHE:O	53:DX:22:ALA:C	2.44	0.54
41:BH:54:ARG:HB3	41:BH:65:HIS:CD2	2.42	0.54
20:AT:16:HIS:O	20:AT:19:SER:HB3	2.07	0.54
54:DY:88:LYS:O	54:DY:90:LEU:HD23	2.08	0.54
10:AJ:94:VAL:HG12	10:AJ:95:GLU:H	1.72	0.54
5:CE:100:VAL:O	5:CE:107:ARG:NH2	2.38	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DP:74:GLU:HG3	45:DP:75:ILE:N	2.22	0.54
13:CM:3:ARG:NH1	13:CM:7:VAL:HG13	2.21	0.54
53:DX:55:ASN:HB2	53:DX:78:LYS:CD	2.38	0.54
53:DX:53:LYS:H	53:DX:80:ILE:HG22	1.73	0.54
1:AA:1320:C:OP1	19:AS:70:LYS:NZ	2.41	0.54
5:CE:101:ILE:N	5:CE:101:ILE:HD13	2.15	0.54
6:AF:55:ASP:HB2	6:AF:86:ARG:NH1	2.20	0.54
1:CA:716:A:N3	11:CK:118:GLY:HA2	2.23	0.54
48:BS:98:VAL:O	48:BS:99:LYS:HD3	2.07	0.54
34:DA:94(A):G:H2'	34:DA:95:G:H5''	1.90	0.54
1:CA:1068:G:OP2	1:CA:1068:G:H8	1.90	0.54
34:BA:2810:A:C2'	38:BE:61:ARG:NH2	2.70	0.54
5:CE:36:ASP:O	5:CE:37:ARG:CB	2.56	0.54
34:DA:2822:G:O6	47:DR:4:LEU:HD12	2.07	0.54
1:AA:186:C:H2'	1:AA:187:C:C6	2.43	0.54
51:BV:5:VAL:HG21	51:BV:36:PRO:CB	2.37	0.54
45:DP:85:LEU:HA	45:DP:88:LEU:HB2	1.90	0.54
1:AA:503:C:H2'	1:AA:504:C:H6	1.72	0.54
1:AA:222:U:H2'	1:AA:223:U:C6	2.42	0.54
4:AD:4:TYR:O	4:AD:5:ILE:CB	2.55	0.54
2:CB:194:PRO:O	2:CB:196:LEU:N	2.41	0.54
34:BA:2024:G:O2'	34:BA:2025:C:H5'	2.07	0.54
8:CH:122:ARG:NH1	8:CH:122:ARG:HB2	2.20	0.54
1:CA:34:C:O2'	1:CA:35:G:H5'	2.07	0.54
1:CA:539:A:H2'	1:CA:540:G:H8	1.71	0.54
54:BY:20:TYR:CZ	54:BY:42:VAL:HA	2.42	0.54
34:BA:1568:G:H21	37:BD:58:HIS:HE1	1.55	0.54
1:AA:15:G:H4'	5:AE:24:ARG:CZ	2.37	0.54
4:AD:49:ARG:HA	4:AD:49:ARG:NE	2.21	0.54
42:BI:33:ARG:HG2	42:BI:33:ARG:HH11	1.73	0.54
10:CJ:45:ARG:HG3	10:CJ:45:ARG:HH11	1.72	0.54
32:B7:25:PRO:HG2	32:B7:26:GLY:H	1.73	0.54
35:BB:55:U:O2'	35:BB:56:G:H5'	2.07	0.54
23:CW:6:G:O2'	23:CW:7:A:H5'	2.08	0.54
39:BF:107:LYS:C	39:BF:109:GLY:N	2.58	0.54
34:BA:1532:C:O2	34:BA:1532:C:H2'	2.08	0.54
34:BA:1444:G:H2'	34:BA:1445(A):C:C5	2.42	0.54
34:BA:2574:G:O2'	34:BA:2575:C:H5'	2.07	0.54
1:AA:1299:A:C8	1:AA:1301:U:H1'	2.41	0.54
1:AA:932:C:H4'	7:AG:4:ARG:CZ	2.38	0.54
42:BI:4:ILE:HG12	42:BI:18:VAL:HG22	1.90	0.54
34:DA:998:C:H2'	34:DA:999:U:O4'	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:B8:2:PRO:O	33:B8:3:LYS:C	2.45	0.54
34:BA:1506:C:H2'	34:BA:1507:A:H5'	1.90	0.54
34:BA:2065:C:H2'	34:BA:2066:C:C6	2.43	0.54
34:BA:2320:A:H2'	34:BA:2320:A:N3	2.21	0.54
26:D1:16:ASN:HB3	26:D1:45:ASN:HA	1.88	0.54
37:BD:210:GLY:O	37:BD:212:SER:N	2.39	0.54
1:CA:1234:C:O2'	1:CA:1235:U:H5'	2.06	0.54
51:DV:72:VAL:C	51:DV:88:ARG:HH22	2.11	0.54
37:DD:35:LYS:HA	37:DD:64:ILE:CG2	2.37	0.54
1:AA:950:U:H2'	1:AA:951:G:C8	2.42	0.54
34:DA:661:C:H5'	39:DF:38:ARG:HH12	1.73	0.54
38:DE:49:LEU:O	38:DE:78:LEU:HB3	2.07	0.54
34:DA:1157:G:H2'	34:DA:1158:C:H5'	1.89	0.54
43:DN:66:LYS:HB3	43:DN:70:LYS:CB	2.36	0.54
26:B1:87:PRO:CG	26:B1:88:LYS:H	2.20	0.54
34:BA:1157:G:H2'	34:BA:1158:C:H5'	1.89	0.54
42:DI:129:THR:HG21	42:DI:135:GLU:HG2	1.90	0.54
34:DA:84:A:H5'	54:DY:9:LYS:HB3	1.90	0.54
33:B8:32:LEU:CD2	33:B8:35:GLN:O	2.56	0.54
53:DX:25:LYS:HG3	53:DX:26:TYR:H	1.73	0.54
20:AT:57:ARG:HB2	20:AT:57:ARG:NH1	2.09	0.54
1:AA:386:C:H2'	1:AA:387:U:C5'	2.38	0.54
34:BA:2461:C:H2'	34:BA:2462:U:H6	1.69	0.54
34:DA:587:C:C5	45:DP:33:ARG:NH1	2.74	0.54
38:BE:14:ILE:HG13	38:BE:21:VAL:CG2	2.38	0.54
19:AS:13:ASP:C	19:AS:15:LEU:H	2.10	0.54
3:AC:70:VAL:CG1	3:AC:71:ALA:N	2.71	0.54
43:DN:13:TRP:HD1	43:DN:13:TRP:H	1.55	0.54
46:BQ:68:ILE:CG2	46:BQ:103:MET:HA	2.36	0.54
38:DE:186:GLY:O	38:DE:188:VAL:HG12	2.07	0.54
47:DR:51:LEU:HD23	47:DR:66:VAL:HG13	1.90	0.54
34:DA:2475:C:H42	34:DA:2529:G:H22	1.55	0.54
34:DA:2531:A:H2'	34:DA:2531:A:N3	2.22	0.54
34:DA:1021:A:H3'	34:DA:1021:A:H8	1.71	0.54
34:BA:2514:U:H2'	34:BA:2515:C:C6	2.42	0.54
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.71	0.54
36:DC:22:ILE:HG22	36:DC:25:ALA:HB2	1.89	0.54
6:AF:8:ILE:HG22	6:AF:9:VAL:N	2.21	0.54
37:DD:11:PRO:O	37:DD:13:ARG:N	2.38	0.54
38:BE:131:ALA:HB3	38:BE:134:ILE:CD1	2.38	0.54
2:CB:83:MET:O	2:CB:85:ALA:N	2.40	0.54
5:AE:36:ASP:OD1	5:AE:40:ARG:HB2	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2886:G:H2'	34:DA:2887:U:H6	1.70	0.54
45:DP:85:LEU:HD23	45:DP:85:LEU:N	2.18	0.54
1:AA:973:G:C4	10:AJ:55:LYS:HE2	2.42	0.54
34:DA:2735:G:H2'	34:DA:2736:G:H5'	1.89	0.54
10:AJ:47:PHE:HE1	10:AJ:63:PHE:HD2	1.56	0.54
4:CD:4:TYR:HE2	4:CD:6:GLY:O	1.91	0.54
34:BA:405:U:H3'	34:BA:406:G:H5'	1.88	0.54
34:DA:405:U:H3'	34:DA:406:G:H5'	1.89	0.54
1:CA:1121:U:H2'	1:CA:1122:U:C6	2.42	0.54
34:DA:2277:G:H2'	34:DA:2278:A:H5'	1.90	0.54
1:AA:1327:C:P	21:AU:12:LYS:NZ	2.80	0.54
20:AT:44:ALA:HB1	20:AT:91:LEU:HB2	1.88	0.54
52:DW:9:TYR:H	52:DW:102:HIS:CD2	2.26	0.54
31:D6:11:LEU:O	31:D6:24:GLU:N	2.40	0.54
1:CA:763:G:O2'	1:CA:764:C:H5'	2.07	0.54
37:BD:134:ARG:HB2	37:BD:135:PHE:CD1	2.42	0.54
1:CA:1237:C:H2'	1:CA:1336:C:C5	2.42	0.54
34:BA:1181:C:O2'	34:BA:1182:A:H5'	2.07	0.54
1:AA:398:C:O2'	1:AA:399:G:H5'	2.06	0.54
1:AA:588:G:H2'	1:AA:589:C:C6	2.42	0.54
21:CU:9:ARG:HH11	21:CU:22:ARG:HG3	1.73	0.54
1:AA:89:C:H3'	1:AA:90:U:H5'	1.89	0.54
42:DI:66:GLU:O	42:DI:70:GLU:HG2	2.07	0.54
13:AM:5:ALA:O	13:AM:6:GLY:C	2.46	0.54
34:BA:1037:G:H1	34:BA:1118:C:H42	1.56	0.54
40:BG:33:ARG:HD3	40:BG:162:THR:HG21	1.88	0.54
8:CH:10:LEU:HD23	8:CH:10:LEU:N	2.23	0.54
30:B5:16:ARG:HG2	30:B5:16:ARG:HH11	1.72	0.54
51:DV:17:GLY:HA2	51:DV:98:GLU:O	2.07	0.54
37:DD:32:SER:O	37:DD:33:LEU:HB2	2.07	0.54
37:DD:65:ILE:HD11	37:DD:67:PHE:CE1	2.43	0.54
37:DD:92:ILE:C	37:DD:92:ILE:HD12	2.28	0.54
51:BV:88:ARG:HH11	51:BV:88:ARG:HG3	1.73	0.54
48:DS:17:ARG:C	48:DS:19:LYS:N	2.55	0.54
45:BP:126:VAL:HG22	45:BP:145:PRO:HB3	1.89	0.54
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.08	0.54
10:AJ:78:ASN:HB2	10:AJ:81:THR:HG23	1.88	0.54
34:DA:2521:C:H1'	34:DA:2545:G:N2	2.23	0.54
54:BY:29:GLU:N	54:BY:29:GLU:OE1	2.41	0.54
39:BF:2:LYS:HG3	39:BF:25:PRO:O	2.08	0.54
33:B8:62:LEU:H	33:B8:63:PRO:HD2	1.72	0.54
55:DZ:18:LEU:CD1	55:DZ:18:LEU:H	2.17	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:D8:30:ARG:O	33:D8:31:HIS:C	2.46	0.54
33:D8:62:LEU:H	33:D8:63:PRO:HD2	1.72	0.54
34:BA:143:G:H2'	34:BA:143(A):C:C6	2.38	0.54
20:CT:11:SER:HA	20:CT:13:LEU:CD1	2.36	0.54
40:BG:54:GLU:HA	40:BG:57:ALA:HB2	1.88	0.54
41:DH:85:LYS:HE3	41:DH:141:VAL:O	2.08	0.54
1:CA:1347:G:H22	1:CA:1373:G:C2'	2.10	0.54
10:CJ:38:ILE:CG1	10:CJ:71:LEU:HB3	2.37	0.54
5:AE:110:LEU:O	5:AE:115:VAL:HG23	2.06	0.54
20:AT:11:SER:HA	20:AT:13:LEU:CD1	2.37	0.54
46:DQ:39:PRO:N	46:DQ:99:PRO:HD3	2.23	0.54
13:CM:3:ARG:HA	13:CM:9:ILE:HG13	1.90	0.54
53:DX:53:LYS:N	53:DX:80:ILE:HG22	2.23	0.54
19:AS:16:LEU:O	19:AS:20:LEU:N	2.23	0.54
46:DQ:48:GLU:O	46:DQ:52:VAL:HG12	2.08	0.54
27:D2:41:ILE:HG13	34:DA:95:G:H21	1.73	0.54
50:DU:29:SER:O	50:DU:30:LYS:HD3	2.08	0.54
4:AD:31:CYS:C	4:AD:33:MET:H	2.10	0.54
12:CL:60:LEU:N	12:CL:64:TYR:O	2.34	0.54
47:BR:9:LYS:O	47:BR:10:LEU:CG	2.56	0.54
51:BV:47:VAL:HG13	51:BV:48:GLY:H	1.71	0.54
34:BA:2787:C:O2	38:BE:61:ARG:HD3	2.07	0.54
44:DO:86:ILE:H	44:DO:86:ILE:HD12	1.71	0.54
44:DO:86:ILE:N	44:DO:86:ILE:HD12	2.23	0.54
34:BA:2317:C:H2'	34:BA:2318:G:C5'	2.37	0.54
34:DA:1665:A:H2'	34:DA:1666:G:C5'	2.38	0.54
36:BC:18:LYS:HD3	36:BC:19:VAL:H	1.72	0.54
48:DS:54:LEU:HD13	48:DS:57:LYS:O	2.08	0.54
34:BA:2039:C:O2'	34:BA:2040:C:H5'	2.08	0.54
37:BD:24:ILE:CG2	37:BD:24:ILE:O	2.55	0.54
37:BD:11:PRO:O	37:BD:13:ARG:N	2.41	0.54
34:BA:2468:G:OP1	46:BQ:119:ARG:NH2	2.39	0.54
7:AG:23:VAL:HG12	7:AG:27:ILE:CD1	2.37	0.54
45:DP:90:ARG:O	45:DP:90:ARG:HD3	2.07	0.54
8:CH:14:ARG:HB3	8:CH:14:ARG:HH11	1.72	0.54
35:BB:20:C:H2'	35:BB:21:G:C5'	2.38	0.54
15:CO:21:ASP:OD2	15:CO:23:GLY:O	2.26	0.54
6:CF:82:ARG:CB	6:CF:82:ARG:HH11	2.21	0.54
54:DY:31:LEU:HD23	54:DY:36:ALA:HB3	1.89	0.54
34:DA:1568:G:H4'	37:DD:59:LYS:HG2	1.89	0.54
1:AA:648:A:H2'	1:AA:649:G:C8	2.43	0.54
34:DA:1430:C:H2'	34:DA:1431:U:C6	2.42	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1121:U:H2'	1:AA:1122:U:C6	2.43	0.54
34:BA:1644:C:O2	34:BA:1644:C:H2'	2.06	0.54
12:AL:82:VAL:O	12:AL:106:ASP:HB2	2.08	0.54
1:CA:237:C:H4'	17:CQ:25:ARG:NH1	2.22	0.54
1:AA:458:C:H2'	1:AA:460:G:C8	2.42	0.54
11:CK:61:ALA:CB	11:CK:90:GLY:HA3	2.37	0.54
37:BD:135:PHE:N	37:BD:135:PHE:CD1	2.73	0.54
34:DA:1417:C:H2'	34:DA:1418:G:O4'	2.08	0.54
1:AA:200:G:H1	1:AA:217:C:H42	1.55	0.54
1:AA:986:A:H1'	19:AS:54:GLY:O	2.06	0.54
13:AM:27:LYS:O	13:AM:30:ALA:HB3	2.08	0.54
5:AE:18:ARG:HE	5:AE:25:ARG:HB3	1.72	0.54
34:DA:1644:C:O2	34:DA:1644:C:H2'	2.07	0.54
1:AA:93:G:H2'	1:AA:96:U:H5'	1.90	0.54
11:CK:25:TYR:H	11:CK:25:TYR:HD1	1.53	0.54
1:CA:1041:A:H2'	1:CA:1042:G:C8	2.43	0.54
34:BA:703:U:H2'	34:BA:704:G:H5'	1.88	0.54
42:BI:120:ILE:HG21	42:BI:126:TYR:CE1	2.42	0.54
37:DD:67:PHE:CE1	37:DD:157:ARG:NH2	2.76	0.54
48:DS:24:LEU:CB	48:DS:85:VAL:HG12	2.38	0.54
54:BY:45:VAL:HA	54:BY:62:GLU:CB	2.29	0.54
48:BS:26:LEU:O	48:BS:88:ASP:HB3	2.07	0.54
37:BD:35:LYS:CG	37:BD:64:ILE:H	2.15	0.54
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.07	0.54
46:BQ:8:LYS:HE3	46:BQ:9:TYR:CE1	2.43	0.54
34:BA:2313:C:H2'	34:BA:2314:C:C6	2.41	0.54
34:DA:528:A:C5'	43:DN:114:ARG:HH12	2.19	0.54
34:BA:1190:G:OP1	45:BP:35:HIS:HA	2.07	0.54
54:BY:88:LYS:O	54:BY:90:LEU:HD23	2.08	0.54
55:BZ:6:LYS:CB	55:BZ:8:TYR:CE1	2.91	0.54
34:DA:1301:A:O2'	34:DA:1302:A:C2'	2.47	0.54
53:BX:89:ILE:HD12	53:BX:89:ILE:N	2.22	0.54
34:BA:1021:A:C8	34:BA:1021:A:H3'	2.43	0.54
43:DN:16:ILE:HG12	43:DN:17:ASP:N	2.22	0.54
34:BA:2011:U:O2'	34:BA:2012:G:H5'	2.07	0.54
6:CF:52:ILE:O	6:CF:53:ALA:HB3	2.07	0.54
1:CA:1048:G:OP1	14:CN:4:LYS:HB2	2.07	0.54
27:D2:14:ARG:HE	27:D2:57:ILE:HD12	1.72	0.54
22:AV:8:U:H1'	22:AV:48:C:O2	2.07	0.54
26:D1:20:ARG:NH2	26:D1:41:ARG:HE	2.04	0.54
40:DG:160:VAL:HG12	40:DG:161:THR:N	2.23	0.54
46:BQ:134:ARG:C	46:BQ:136:ALA:H	2.11	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:735:C:H2'	1:AA:736:C:C6	2.39	0.54
53:DX:85:PRO:O	53:DX:86:GLY:C	2.45	0.54
44:BO:88:ASN:O	44:BO:91:LEU:N	2.38	0.54
25:B0:29:GLN:O	25:B0:67:VAL:HG23	2.08	0.54
47:BR:107:ASP:C	47:BR:107:ASP:OD2	2.45	0.54
15:CO:67:LEU:HD22	15:CO:78:TYR:HE1	1.72	0.54
8:CH:103:VAL:HG12	8:CH:108:GLY:HA3	1.90	0.54
1:CA:973:G:C4	10:CJ:55:LYS:HE2	2.43	0.54
1:CA:973:G:O4'	10:CJ:55:LYS:HG2	2.07	0.54
34:DA:80:G:C2'	34:DA:81:G:H5'	2.37	0.54
7:AG:132:GLY:H	7:AG:135:VAL:HG21	1.73	0.54
2:AB:121:LEU:O	2:AB:127:ILE:HD11	2.08	0.54
34:DA:2340:G:O2'	34:DA:2341:G:H5'	2.07	0.54
34:BA:2208:A:H1'	34:BA:2219:G:C2	2.43	0.54
32:B7:30:VAL:HG12	32:B7:31:LEU:N	2.22	0.54
1:CA:390:C:H2'	1:CA:391:G:C8	2.42	0.54
12:AL:71:PRO:HD2	12:AL:102:ARG:NH1	2.23	0.54
36:DC:89:ALA:HB2	36:DC:153:ILE:CB	2.37	0.54
1:CA:1525:G:O2'	1:CA:1526:G:H5'	2.07	0.54
48:BS:12:PHE:CD1	48:BS:12:PHE:O	2.61	0.54
41:BH:76:VAL:O	41:BH:79:VAL:HG22	2.08	0.54
12:AL:119:LYS:O	12:AL:120:TYR:HB2	2.07	0.54
51:BV:50:PRO:O	51:BV:51:VAL:CB	2.56	0.54
12:CL:120:TYR:N	12:CL:120:TYR:HD1	2.05	0.54
1:CA:310:G:H2'	1:CA:311:C:H6	1.73	0.54
34:BA:523:C:C2'	34:BA:524:U:H5'	2.38	0.54
34:BA:703:U:C2'	34:BA:704:G:H5'	2.38	0.54
1:CA:986:A:H1'	19:CS:54:GLY:O	2.08	0.54
49:DT:128:GLU:O	49:DT:130:ALA:N	2.41	0.54
34:DA:2574:G:O2'	34:DA:2575:C:H5'	2.08	0.54
6:CF:6:VAL:C	6:CF:7:ASN:HD22	2.11	0.54
34:DA:2687:U:O2'	34:DA:2688:U:H5'	2.08	0.54
45:DP:148:LEU:HD13	45:DP:148:LEU:N	2.22	0.54
44:DO:8:LEU:HD22	44:DO:8:LEU:N	2.22	0.54
45:BP:148:LEU:N	45:BP:148:LEU:HD13	2.23	0.54
8:AH:10:LEU:HD23	8:AH:10:LEU:N	2.22	0.54
20:CT:8:ARG:HH11	20:CT:8:ARG:HG3	1.73	0.54
55:DZ:104:PHE:CD1	55:DZ:139:VAL:HG11	2.43	0.54
37:DD:39:LYS:HB2	37:DD:62:TYR:HB2	1.90	0.54
51:BV:89:GLN:HE21	51:BV:90:PRO:CD	2.16	0.54
54:BY:61:ILE:HG22	54:BY:61:ILE:O	2.07	0.54
45:BP:114:ILE:HG12	45:BP:130:PHE:CD1	2.43	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:188:ALA:O	2:AB:202:PRO:HA	2.08	0.54
54:BY:28:LYS:HD2	54:BY:37:VAL:HB	1.88	0.54
37:BD:150:LYS:HE3	37:BD:150:LYS:HA	1.89	0.54
33:B8:22:VAL:HB	33:B8:53:PRO:HB3	1.90	0.54
2:CB:144:ARG:HA	2:CB:147:LYS:HB3	1.89	0.54
34:DA:451:C:N4	34:DA:453:C:H3'	2.23	0.54
34:BA:74:A:O2'	34:BA:75:G:OP2	2.25	0.54
34:BA:2392:A:H2'	34:BA:2393:A:O4'	2.08	0.54
55:BZ:120:ILE:O	55:BZ:120:ILE:HG22	2.07	0.54
41:DH:102:ALA:HB1	41:DH:115:VAL:O	2.08	0.54
10:CJ:38:ILE:HG13	10:CJ:71:LEU:HB3	1.90	0.54
38:BE:117:MET:O	38:BE:118:LYS:HB2	2.08	0.54
43:BN:55:VAL:CG1	43:BN:56:ASN:N	2.71	0.54
55:BZ:157:LEU:HB3	55:BZ:161:VAL:CG1	2.38	0.54
13:AM:91:ARG:CG	13:AM:98:VAL:HG11	2.37	0.54
1:CA:1307:U:H2'	1:CA:1308:U:H6	1.73	0.54
14:CN:3:ARG:O	14:CN:7:ILE:HG23	2.08	0.54
1:CA:1321:C:H5'	1:CA:1322:C:H5'	1.88	0.54
27:D2:15:LYS:C	27:D2:17:SER:N	2.60	0.54
50:DU:21:ALA:HB1	50:DU:24:TYR:CD1	2.42	0.54
25:B0:36:ILE:N	25:B0:36:ILE:HD13	2.21	0.54
34:DA:295:G:H1	34:DA:343:C:H42	1.55	0.54
1:AA:253:U:H2'	1:AA:254:G:C8	2.41	0.54
46:DQ:132:VAL:HG12	46:DQ:133:ARG:N	2.22	0.54
34:BA:1754:C:OP1	49:BT:96:ARG:NH1	2.41	0.54
1:CA:253:U:H2'	1:CA:254:G:C8	2.43	0.54
25:B0:41:ARG:HB3	34:BA:2330:G:H1'	1.90	0.54
25:B0:41:ARG:HD3	25:B0:44:ARG:CD	2.37	0.54
37:BD:76:PRO:O	37:BD:98:VAL:HG23	2.07	0.54
34:BA:635:C:H2'	34:BA:636:G:H8	1.73	0.54
34:BA:440:G:H2'	34:BA:441:U:C6	2.43	0.54
1:CA:1169:A:H2'	1:CA:1170:A:H8	1.67	0.54
39:DF:157:VAL:HA	39:DF:176:LEU:O	2.08	0.54
39:DF:176:LEU:HD21	39:DF:180:GLY:O	2.08	0.54
51:BV:5:VAL:HG21	51:BV:36:PRO:HG2	1.88	0.54
42:DI:41:GLU:O	42:DI:45:LYS:HG2	2.08	0.54
34:DA:741:G:O2'	34:DA:742:G:H5'	2.07	0.54
34:BA:2022:U:O2'	34:BA:2617:C:H5'	2.07	0.54
8:CH:120:THR:H	8:CH:123:GLU:HB2	1.73	0.54
34:BA:2673:G:O2'	34:BA:2674:G:H5'	2.08	0.54
1:CA:542:G:H2'	1:CA:543:C:H6	1.73	0.54
1:CA:294:U:H2'	1:CA:295:C:C6	2.43	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:59:ILE:HG22	17:CQ:71:PHE:CD1	2.42	0.54
17:CQ:83:ASP:O	17:CQ:86:GLU:HB2	2.08	0.54
34:BA:1656:C:H2'	34:BA:1657:C:C6	2.42	0.54
34:BA:744:G:O2'	34:BA:745:G:H5'	2.08	0.54
18:CR:35:ARG:C	18:CR:37:VAL:H	2.12	0.54
11:AK:52:GLY:N	11:AK:55:LYS:HG3	2.22	0.54
1:AA:644:G:O2'	1:AA:645:C:H5'	2.08	0.54
3:AC:120:VAL:HG12	3:AC:121:ALA:N	2.22	0.54
34:DA:1683:C:H2'	34:DA:1684:C:H6	1.73	0.54
34:DA:2289:G:H2'	34:DA:2290:G:H5''	1.88	0.54
1:AA:559:A:H4'	1:AA:560:U:H5''	1.90	0.54
52:BW:55:ALA:HA	52:BW:107:LEU:CD2	2.37	0.54
55:DZ:175:VAL:HB	55:DZ:176:PRO:HD2	1.89	0.54
34:DA:797:C:H2'	34:DA:798:G:H8	1.72	0.54
1:AA:573:A:O2'	1:AA:574:A:H5'	2.08	0.54
25:B0:1:MET:O	25:B0:2:ALA:HB3	2.08	0.54
55:DZ:8:TYR:H	55:DZ:8:TYR:HD1	1.53	0.54
34:DA:1524:G:O2'	34:DA:1525:G:H5'	2.08	0.54
34:DA:1037:G:H1	34:DA:1118:C:H42	1.56	0.54
1:CA:977:A:H2'	1:CA:978:A:H5'	1.90	0.54
37:DD:25:THR:HG22	37:DD:82:ILE:C	2.28	0.54
34:DA:2175:C:H2'	34:DA:2176:A:C5'	2.20	0.54
34:DA:2178:C:O5'	36:DC:46:LYS:HD2	2.08	0.54
38:BE:49:LEU:O	38:BE:78:LEU:HB3	2.08	0.54
37:BD:65:ILE:HD11	37:BD:67:PHE:CE1	2.42	0.54
37:BD:92:ILE:C	37:BD:92:ILE:HD12	2.28	0.54
26:B1:8:SER:HA	34:BA:1365:A:OP2	2.08	0.54
39:BF:1:MET:O	39:BF:2:LYS:O	2.25	0.54
42:DI:144:VAL:HG12	42:DI:145:VAL:N	2.16	0.54
34:DA:83:G:H1	34:DA:102:G:H2'	1.73	0.54
55:DZ:29:TYR:O	55:DZ:89:PHE:HD2	1.90	0.54
33:D8:25:MET:HB2	45:DP:62:LEU:HD21	1.90	0.54
34:BA:2419:U:O2'	34:BA:2420:C:H5'	2.08	0.54
55:BZ:169:GLU:O	55:BZ:171:ILE:HG23	2.08	0.54
40:BG:136:ARG:O	40:BG:154:GLY:CA	2.56	0.54
50:DU:55:ARG:HA	50:DU:58:ARG:HG3	1.89	0.54
53:BX:64:LYS:O	53:BX:65:ARG:HB2	2.08	0.54
10:AJ:34:VAL:HG12	10:AJ:35:SER:N	2.23	0.54
43:BN:115:ARG:O	43:BN:118:LYS:HB2	2.07	0.54
53:DX:21:PHE:N	53:DX:21:PHE:CD1	2.75	0.54
52:DW:25:ARG:HH11	52:DW:25:ARG:CB	2.08	0.54
54:BY:95:LYS:CB	54:BY:100:ALA:HA	2.31	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DH:26:VAL:O	41:DH:32:GLU:HA	2.08	0.54
55:BZ:40:ASP:O	55:BZ:43:GLU:HB2	2.08	0.54
27:B2:30:ARG:C	27:B2:32:LEU:N	2.59	0.54
37:BD:17:THR:HG23	37:BD:205:VAL:N	2.15	0.54
6:AF:14:LEU:HB3	6:AF:18:GLN:HE21	1.73	0.54
26:B1:34:THR:CG2	34:BA:388:G:P	2.96	0.54
39:BF:164:ARG:HH11	39:BF:164:ARG:HG2	1.73	0.54
47:DR:54:LEU:HD23	47:DR:66:VAL:HG22	1.88	0.54
46:DQ:51:ARG:O	46:DQ:54:MET:HB3	2.08	0.54
54:DY:75:ILE:HD11	54:DY:78:ALA:C	2.28	0.54
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.26	0.54
33:D8:58:ILE:HG22	33:D8:58:ILE:O	2.07	0.54
8:AH:103:VAL:HG12	8:AH:108:GLY:HA3	1.90	0.54
37:DD:106:ILE:HD13	37:DD:107:ALA:N	2.23	0.54
5:CE:36:ASP:OD1	5:CE:40:ARG:HB2	2.08	0.54
26:B1:58:ILE:HG22	26:B1:59:THR:N	2.21	0.54
1:AA:191:G:H1'	20:AT:105:SER:HB3	1.90	0.54
41:BH:103:LEU:HD23	41:BH:115:VAL:HB	1.88	0.54
55:BZ:104:PHE:CD1	55:BZ:139:VAL:HG21	2.43	0.54
1:AA:1422:G:H2'	1:AA:1423:G:C8	2.40	0.54
9:AI:43:ALA:HA	9:AI:74:ILE:HD13	1.89	0.54
34:DA:604:G:H2'	34:DA:605:C:C6	2.43	0.54
1:CA:392:G:H2'	1:CA:393:A:C8	2.43	0.54
42:DI:31:LEU:HB3	42:DI:32:PRO:HD3	1.90	0.54
17:AQ:38:ARG:HG3	17:AQ:39:SER:H	1.73	0.54
16:CP:55:ARG:NE	16:CP:55:ARG:HA	2.23	0.54
1:AA:1006:C:H42	1:AA:1024:G:N2	2.06	0.54
8:AH:48:TYR:HB2	8:AH:60:ARG:O	2.07	0.54
1:CA:163:C:H2'	1:CA:164:U:H6	1.72	0.54
1:CA:1300:G:H1'	1:CA:1301:U:H5	1.71	0.54
2:AB:142:LEU:HD23	2:AB:142:LEU:O	2.07	0.54
23:CW:66:U:H2'	23:CW:67:C:C6	2.43	0.54
34:DA:1336:A:O2'	34:DA:1337:G:H5'	2.07	0.54
34:DA:979:G:H3'	34:DA:980:A:H5''	1.89	0.54
1:CA:1329:A:P	13:CM:28:ALA:HB3	2.48	0.54
5:AE:68:GLU:O	5:AE:68:GLU:HG3	2.08	0.54
34:DA:2402:C:H2'	34:DA:2403:C:H5'	1.90	0.54
50:BU:74:LEU:HD23	50:BU:114:LYS:HE3	1.89	0.54
34:DA:2334:G:H5'	48:DS:13:ARG:HB3	1.88	0.54
49:DT:28:VAL:CG1	49:DT:46:GLU:HA	2.38	0.54
45:BP:146:VAL:O	45:BP:147:LEU:O	2.25	0.54
48:BS:13:ARG:HD2	48:BS:13:ARG:H	1.72	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:B1:19:GLN:HG3	26:B1:44:PRO:CG	2.34	0.54
3:AC:10:PHE:HD2	3:AC:11:ARG:NH1	2.06	0.54
2:CB:112:VAL:O	2:CB:115:LEU:HB3	2.08	0.54
40:BG:47:LYS:HE2	40:BG:81:LYS:HB2	1.89	0.54
43:DN:42:TRP:H	50:DU:64:ARG:NH2	1.99	0.54
39:DF:20:LEU:HD22	39:DF:23:ASP:OD2	2.07	0.54
18:AR:53:ARG:NH2	18:AR:59:SER:HA	2.22	0.54
10:AJ:38:ILE:CG1	10:AJ:71:LEU:HB3	2.38	0.54
34:BA:2746:U:O2'	34:BA:2747:G:H5'	2.08	0.54
1:CA:374:A:C6	1:CA:375:U:C4	2.95	0.54
38:BE:111:ARG:HD2	38:BE:160:TYR:HE1	1.73	0.54
40:DG:141:PHE:CD1	40:DG:142:PRO:HD2	2.43	0.54
34:DA:2807:G:H2'	34:DA:2808:U:C4'	2.38	0.54
53:BX:25:LYS:HG3	53:BX:26:TYR:CD1	2.43	0.54
34:BA:1019:U:HO2'	34:BA:1021:A:H2	1.54	0.54
19:AS:39:THR:CG2	19:AS:40:ILE:N	2.71	0.54
6:AF:52:ILE:HD11	6:AF:87:ARG:NH2	2.23	0.54
26:B1:26:ARG:HE	26:B1:34:THR:HB	1.73	0.54
13:CM:97:PRO:O	13:CM:98:VAL:HG13	2.08	0.54
34:BA:389:G:H1	45:BP:71:VAL:CG1	2.21	0.54
34:DA:1021:A:C8	34:DA:1021:A:H3'	2.42	0.54
4:AD:100:ARG:HB3	4:AD:102:ASP:OD1	2.08	0.54
4:AD:25:ARG:O	4:AD:27:TYR:N	2.37	0.54
49:DT:57:PHE:C	49:DT:59:THR:N	2.61	0.54
34:BA:2307:G:N2	34:BA:2308:G:C5'	2.68	0.54
17:AQ:68:ARG:HG2	17:AQ:68:ARG:NH1	2.23	0.54
43:BN:82:LEU:HD13	43:BN:82:LEU:O	2.08	0.54
33:D8:22:VAL:HB	33:D8:53:PRO:HB3	1.90	0.54
34:BA:1720:U:H2'	34:BA:1721:G:O4'	2.08	0.54
13:AM:53:VAL:O	13:AM:56:LEU:HB3	2.08	0.54
34:DA:639:U:H2'	34:DA:640:C:H6	1.72	0.54
19:CS:47:HIS:O	19:CS:49:ILE:HG13	2.07	0.54
51:DV:47:VAL:HG13	51:DV:48:GLY:H	1.73	0.54
48:BS:56:LEU:O	48:BS:57:LYS:HB2	2.07	0.54
34:BA:2579:C:H5'	38:BE:134:ILE:HG21	1.90	0.54
15:AO:50:HIS:O	15:AO:53:HIS:N	2.41	0.54
9:CI:17:VAL:HA	9:CI:63:ILE:HG13	1.89	0.54
34:DA:2884:U:H2'	34:DA:2885:C:C5'	2.38	0.54
41:BH:102:ALA:HB2	41:BH:117:PRO:HD3	1.89	0.54
2:CB:178:ARG:HH22	2:CB:196:LEU:CA	2.21	0.54
49:BT:23:ARG:HG2	49:BT:120:ARG:NH1	2.23	0.54
34:BA:2735:G:H2'	34:BA:2736:G:H5'	1.90	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:295:C:H2'	1:CA:296:U:H6	1.70	0.54
8:AH:112:LEU:CD1	8:AH:114:THR:HG22	2.38	0.54
1:AA:658:G:H2'	1:AA:659:U:C6	2.43	0.54
17:AQ:83:ASP:O	17:AQ:86:GLU:HB2	2.08	0.54
42:DI:60:GLU:C	42:DI:62:LYS:H	2.10	0.54
31:B6:50:ARG:HB3	31:B6:51:GLU:OE1	2.08	0.54
55:DZ:33:LEU:HG	55:DZ:34:ASN:N	2.22	0.54
34:DA:1464:C:O2'	34:DA:1528:A:H8	1.89	0.54
1:CA:357:G:C2	1:CA:358:U:C5	2.95	0.54
8:CH:1:MET:CE	8:CH:1:MET:H3	2.21	0.54
1:CA:946:A:H2'	1:CA:947:G:C8	2.42	0.54
34:DA:1298:C:H3'	34:DA:1299:G:C8	2.43	0.54
1:AA:47:C:C6	1:AA:365:U:H2'	2.42	0.54
1:AA:241:C:O2'	1:AA:242:C:H5'	2.08	0.54
39:DF:185:ASP:OD1	39:DF:188:ARG:NH1	2.41	0.54
34:BA:2485:G:O2'	34:BA:2486:G:H5'	2.08	0.54
34:BA:1184:G:O2'	34:BA:1185:C:H5'	2.08	0.54
6:CF:40:VAL:HA	6:CF:62:TRP:O	2.08	0.54
34:DA:1531:C:H2'	34:DA:1532:C:H4'	1.89	0.54
34:DA:1438:U:O2'	34:DA:1439:A:H5'	2.07	0.54
1:AA:309:G:O2'	1:AA:607:A:N1	2.41	0.54
42:DI:4:ILE:HG12	42:DI:18:VAL:HG22	1.88	0.54
1:AA:977:A:C2'	1:AA:978:A:H5'	2.38	0.54
22:CV:68:C:H2'	22:CV:69:C:C6	2.42	0.54
34:BA:998:C:H2'	34:BA:999:U:O4'	2.07	0.54
35:BB:28:C:O2'	35:BB:29:A:H5'	2.07	0.53
49:BT:89:VAL:HG12	49:BT:91:ARG:HG2	1.90	0.53
39:BF:41:LEU:HD11	39:BF:184:TYR:CE1	2.43	0.53
37:BD:35:LYS:HA	37:BD:64:ILE:HG22	1.89	0.53
45:DP:114:ILE:HG12	45:DP:130:PHE:CD1	2.43	0.53
42:DI:98:ALA:CA	42:DI:109:ILE:HD13	2.38	0.53
38:DE:201:THR:CG2	38:DE:202:LYS:N	2.70	0.53
53:BX:44:GLU:HB2	53:BX:49:VAL:O	2.08	0.53
20:CT:25:ARG:HG3	20:CT:25:ARG:HH11	1.73	0.53
43:DN:46:VAL:CG1	43:DN:47:ALA:H	2.16	0.53
30:D5:4:HIS:O	34:DA:2056:G:N2	2.41	0.53
10:AJ:38:ILE:HG13	10:AJ:71:LEU:HB3	1.91	0.53
34:BA:1010:A:H5'	50:BU:62:ILE:HG21	1.89	0.53
10:CJ:38:ILE:HD11	10:CJ:71:LEU:HB3	1.89	0.53
53:BX:76:ARG:O	53:BX:77:LYS:CB	2.52	0.53
26:D1:62:VAL:HG11	26:D1:67:ILE:HG12	1.90	0.53
1:AA:1117:G:H4'	9:AI:104:ARG:NH2	2.21	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BQ:39:PRO:N	46:BQ:99:PRO:HD3	2.22	0.53
19:CS:13:ASP:C	19:CS:15:LEU:H	2.12	0.53
31:D6:32:ASN:ND2	31:D6:33:LYS:H	2.06	0.53
13:AM:13:LYS:HA	13:AM:44:ARG:NH1	2.22	0.53
12:CL:41:ARG:NH1	12:CL:41:ARG:CB	2.70	0.53
21:CU:2:GLY:C	21:CU:4:GLY:H	2.12	0.53
49:DT:55:ASN:HD22	49:DT:58:ASN:ND2	2.02	0.53
34:BA:343:C:H2'	34:BA:344:G:H5''	1.89	0.53
33:D8:50:LEU:HD12	33:D8:51:ALA:H	1.71	0.53
34:DA:440:G:H22	39:DF:46:ARG:HH21	1.55	0.53
34:DA:1803:A:O2'	37:DD:259:THR:HG21	2.08	0.53
2:CB:75:LYS:HA	2:CB:78:GLN:HG3	1.88	0.53
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.43	0.53
2:AB:84:GLU:HB3	2:AB:219:VAL:CG2	2.38	0.53
26:B1:53:VAL:CG2	26:B1:74:VAL:HG21	2.37	0.53
19:CS:6:LYS:CD	19:CS:6:LYS:H	2.22	0.53
9:AI:63:ILE:CG2	9:AI:64:THR:N	2.71	0.53
41:BH:154:PRO:CG	41:BH:155:SER:H	2.20	0.53
8:AH:85:ARG:HG2	8:AH:86:ILE:N	2.22	0.53
40:DG:16:ARG:HB3	40:DG:16:ARG:HH11	1.72	0.53
49:BT:23:ARG:HG2	49:BT:120:ARG:HH12	1.73	0.53
34:BA:2736:G:H5'	34:BA:2736:G:C8	2.39	0.53
40:BG:95:ARG:O	40:BG:96:ARG:O	2.26	0.53
34:DA:2023:G:H4'	34:DA:2617:C:O3'	2.08	0.53
34:BA:1434:A:H61	34:BA:1558:A:N6	2.05	0.53
1:AA:659:U:C2'	1:AA:660:G:H5'	2.38	0.53
47:DR:8:ARG:HE	47:DR:8:ARG:HA	1.73	0.53
34:DA:235:U:H2'	34:DA:236:C:C6	2.43	0.53
30:D5:43:HIS:CD2	34:DA:2815:C:O2'	2.60	0.53
43:BN:18:ALA:C	43:BN:20:GLY:H	2.10	0.53
1:AA:418:C:H2'	1:AA:419:C:H6	1.71	0.53
34:DA:271(K):U:H3'	34:DA:271(L):U:C5'	2.37	0.53
36:BC:39:GLU:HA	36:BC:180:PHE:HA	1.91	0.53
34:BA:1107:G:O2'	34:BA:1108:U:H5'	2.08	0.53
34:DA:415:A:C2	34:DA:2409:G:C2	2.96	0.53
25:B0:14:ARG:O	25:B0:15:ASP:HB2	2.08	0.53
34:BA:2668:G:O2'	34:BA:2669:G:H5'	2.09	0.53
4:AD:173:TRP:CD2	4:AD:189:PRO:HB3	2.43	0.53
34:DA:699:A:O2'	34:DA:700:G:H5'	2.08	0.53
34:DA:1108:U:H2'	34:DA:1109:C:H5'	1.89	0.53
5:AE:64:ARG:HG3	5:AE:64:ARG:HH11	1.73	0.53
1:CA:575:G:OP1	1:CA:575:G:H4'	2.07	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:324:G:OP1	20:CT:70:SER:HB2	2.07	0.53
34:BA:1430:C:H2'	34:BA:1431:U:H6	1.73	0.53
34:DA:993:G:N2	51:DV:91:TYR:OH	2.41	0.53
46:DQ:140:ALA:HB3	55:DZ:53:ILE:CG1	2.36	0.53
34:DA:558:G:P	43:DN:111:PRO:HD2	2.49	0.53
47:BR:51:LEU:HD23	47:BR:66:VAL:HG13	1.89	0.53
34:DA:1190:G:H5'	45:DP:35:HIS:CB	2.35	0.53
45:DP:23:PRO:HB3	45:DP:34:GLY:H	1.73	0.53
34:BA:2360:A:O2'	34:BA:2361:A:O5'	2.27	0.53
43:BN:25:ARG:HH11	43:BN:25:ARG:HG3	1.73	0.53
46:BQ:38:GLU:HB2	46:BQ:127:ILE:CG2	2.38	0.53
39:DF:68:LYS:O	39:DF:68:LYS:HG3	2.09	0.53
1:CA:706:A:C1'	11:CK:29:ILE:HD11	2.37	0.53
27:D2:14:ARG:HE	27:D2:57:ILE:HB	1.71	0.53
4:AD:12:CYS:HA	4:AD:19:LEU:HD12	1.90	0.53
41:DH:89:ILE:HG13	41:DH:129:THR:HA	1.90	0.53
1:AA:184:G:H2'	1:AA:185:A:C8	2.34	0.53
2:CB:114:ARG:O	2:CB:117:GLU:HB2	2.08	0.53
4:CD:119:GLN:NE2	4:CD:123:HIS:NE2	2.54	0.53
7:CG:83:ALA:C	7:CG:84:ASN:HD22	2.11	0.53
26:B1:72:GLU:HA	26:B1:75:GLU:OE1	2.08	0.53
49:DT:50:ILE:H	49:DT:50:ILE:CD1	2.22	0.53
7:CG:20:ASP:HB3	7:CG:23:VAL:CG2	2.38	0.53
1:AA:336:C:O2'	1:AA:337:C:H5'	2.08	0.53
34:BA:2469:A:H2	34:BA:2481:G:H21	1.55	0.53
34:DA:1396:U:C2'	34:DA:1396:U:O2	2.57	0.53
35:BB:103:G:O2'	35:BB:104:U:H5'	2.08	0.53
34:BA:740:U:H2'	34:BA:741:G:C8	2.43	0.53
36:DC:82:LYS:HZ1	36:DC:151:GLU:HA	1.73	0.53
34:BA:1344:G:H4'	34:BA:1384:A:N7	2.23	0.53
34:BA:150:C:H2'	34:BA:151:C:H6	1.73	0.53
2:AB:114:ARG:O	2:AB:117:GLU:HB2	2.08	0.53
51:DV:50:PRO:O	51:DV:51:VAL:CB	2.55	0.53
42:BI:31:LEU:HB3	42:BI:32:PRO:HD3	1.90	0.53
34:BA:1411:C:H2'	34:BA:1412:A:H8	1.72	0.53
20:CT:44:ALA:HB1	20:CT:91:LEU:CB	2.38	0.53
1:CA:458:C:H2'	1:CA:460:G:C8	2.42	0.53
52:BW:1:MET:CE	52:BW:2:GLU:H	2.22	0.53
1:CA:977:A:C2'	1:CA:978:A:H5'	2.38	0.53
1:AA:831:U:O2'	1:AA:832:C:H5'	2.07	0.53
34:BA:912:C:O2'	34:BA:913:U:H5'	2.08	0.53
34:BA:979:G:H3'	34:BA:980:A:H5''	1.89	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BB:32:C:C2	35:BB:51:G:N2	2.76	0.53
1:AA:766:A:H2'	1:AA:767:A:O4'	2.08	0.53
1:CA:370:C:O2'	1:CA:371:G:H5'	2.08	0.53
30:D5:16:ARG:HG2	30:D5:16:ARG:HH11	1.72	0.53
34:BA:796:C:H2'	34:BA:797:C:C6	2.42	0.53
1:AA:20:U:H2'	1:AA:21:G:O4'	2.09	0.53
50:DU:87:GLY:C	50:DU:88:ILE:HG13	2.29	0.53
34:BA:1410:G:H1	34:BA:1592:C:H42	1.56	0.53
50:BU:69:CYS:HB3	50:BU:106:PHE:HZ	1.73	0.53
38:DE:48:GLN:NE2	38:DE:78:LEU:HD12	2.23	0.53
34:DA:143:G:O4'	53:DX:38:GLU:HG3	2.08	0.53
1:AA:1106:G:OP1	3:AC:172:ARG:HD3	2.08	0.53
37:BD:32:SER:O	37:BD:33:LEU:CB	2.56	0.53
37:BD:70:TRP:O	37:BD:73:VAL:HG22	2.09	0.53
39:BF:20:LEU:HD12	39:BF:199:TRP:HH2	1.73	0.53
39:BF:20:LEU:HB3	39:BF:23:ASP:HB2	1.89	0.53
42:DI:124:GLY:O	42:DI:142:VAL:HG23	2.09	0.53
55:BZ:102:LEU:HG	55:BZ:122:ARG:O	2.09	0.53
26:D1:47:GLN:HA	26:D1:47:GLN:OE1	2.08	0.53
26:D1:46:LEU:HB2	34:DA:396:G:O3'	2.08	0.53
1:AA:376:G:H2'	1:AA:377:G:C8	2.38	0.53
38:BE:117:MET:HB2	38:BE:122:PHE:HB2	1.91	0.53
1:CA:385:C:O2'	1:CA:386:C:H5'	2.08	0.53
16:CP:67:THR:HB	16:CP:70:ALA:HB2	1.90	0.53
44:BO:100:GLY:O	44:BO:101:PRO:O	2.26	0.53
38:BE:111:ARG:H	38:BE:161:GLY:HA3	1.74	0.53
55:BZ:4:ARG:O	55:BZ:5:LEU:HG	2.06	0.53
53:BX:5:TYR:O	53:BX:7:VAL:N	2.40	0.53
51:BV:32:THR:HB	51:BV:64:HIS:CE1	2.42	0.53
43:DN:82:LEU:O	43:DN:82:LEU:HD13	2.07	0.53
27:D2:44:LEU:C	27:D2:46:GLN:N	2.62	0.53
1:AA:1068:G:H8	1:AA:1068:G:OP2	1.92	0.53
45:DP:38:GLN:CG	45:DP:39:LYS:H	2.13	0.53
1:CA:1067:A:H1'	1:CA:1068:G:C8	2.44	0.53
34:DA:343:C:H2'	34:DA:344:G:H5''	1.90	0.53
9:AI:95:LYS:N	9:AI:98:PRO:HD2	2.23	0.53
51:BV:47:VAL:CG2	51:BV:48:GLY:H	2.13	0.53
1:CA:438:G:C4'	1:CA:439:A:OP1	2.52	0.53
34:DA:542:C:N4	34:DA:543:C:N4	2.55	0.53
35:DB:5:C:H2'	35:DB:6:C:H6	1.74	0.53
1:AA:525:C:O2'	1:AA:526:C:H5'	2.07	0.53
34:BA:848:G:N3	34:BA:933:A:H1'	2.23	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:974:A:OP1	14:AN:31:ARG:HD3	2.09	0.53
34:DA:1820:U:O2	37:DD:202:LYS:HB3	2.07	0.53
11:CK:52:GLY:H	11:CK:55:LYS:HG3	1.73	0.53
2:AB:23:ARG:O	2:AB:23:ARG:HG2	2.08	0.53
1:CA:1508:G:H2'	1:CA:1509:C:H6	1.73	0.53
5:CE:57:LYS:O	5:CE:61:TYR:CD2	2.61	0.53
38:BE:144:ARG:O	38:BE:145:LYS:C	2.46	0.53
1:AA:271:C:H2'	1:AA:272:C:C6	2.43	0.53
44:BO:107:ARG:CZ	49:BT:35:LYS:HD2	2.37	0.53
17:CQ:38:ARG:HG3	17:CQ:39:SER:H	1.73	0.53
27:B2:28:LYS:HE2	27:B2:43:GLN:HB3	1.91	0.53
34:BA:2402:C:H2'	34:BA:2403:C:H5'	1.90	0.53
1:AA:140:A:O2'	1:AA:141:A:H5'	2.08	0.53
39:DF:28:ILE:O	39:DF:28:ILE:HD12	2.08	0.53
34:DA:733:G:H8	34:DA:733:G:O5'	1.91	0.53
7:AG:49:ILE:HG22	7:AG:49:ILE:O	2.08	0.53
23:AW:72:C:O2'	23:AW:73:A:H5'	2.08	0.53
34:BA:2193:G:H8	34:BA:2193:G:H5'	1.73	0.53
50:DU:95:LEU:CD1	51:DV:11:GLN:HG3	2.38	0.53
37:DD:28:GLU:HB2	37:DD:29:PRO:HD3	1.89	0.53
37:DD:35:LYS:HB3	37:DD:63:ARG:HA	1.90	0.53
37:DD:62:TYR:CE1	37:DD:64:ILE:HA	2.43	0.53
34:BA:188:G:N2	34:BA:209:C:C2	2.76	0.53
34:BA:85:G:N3	34:BA:103:A:H2	2.06	0.53
37:BD:32:SER:O	37:BD:33:LEU:HB2	2.07	0.53
26:B1:49:VAL:HG11	34:BA:2091:U:O2'	2.07	0.53
42:DI:114:LEU:O	42:DI:115:ALA:HB3	2.08	0.53
33:B8:4:MET:SD	33:B8:61:LEU:HD12	2.49	0.53
2:CB:112:VAL:HG22	2:CB:149:LEU:HD13	1.90	0.53
38:DE:201:THR:HG22	38:DE:202:LYS:N	2.24	0.53
33:B8:31:HIS:CG	34:BA:2419:U:O4	2.61	0.53
40:BG:45:GLU:HG2	40:BG:47:LYS:H	1.74	0.53
26:D1:13:ILE:HG23	26:D1:14:VAL:H	1.73	0.53
26:D1:9:GLY:N	26:D1:48:LYS:NZ	2.56	0.53
10:CJ:39:PRO:CA	10:CJ:70:ARG:HH12	2.19	0.53
53:BX:25:LYS:HG3	53:BX:26:TYR:H	1.71	0.53
46:BQ:39:PRO:HA	46:BQ:97:VAL:O	2.08	0.53
38:DE:111:ARG:CD	38:DE:160:TYR:HE1	2.21	0.53
34:DA:637:A:OP2	45:DP:115:LEU:HB2	2.07	0.53
34:DA:389:G:H1	45:DP:71:VAL:CG1	2.21	0.53
27:D2:15:LYS:O	27:D2:17:SER:N	2.38	0.53
27:D2:49:LYS:O	27:D2:52:ASP:HB3	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:76:VAL:CG2	3:AC:77:ILE:H	2.21	0.53
40:DG:161:THR:HG22	40:DG:162:THR:N	2.22	0.53
1:CA:1188:A:C2'	1:CA:1189:C:H5'	2.38	0.53
21:AU:2:GLY:C	21:AU:4:GLY:H	2.11	0.53
49:DT:109:GLU:O	49:DT:113:LYS:HG3	2.08	0.53
17:CQ:44:ALA:HB1	17:CQ:73:VAL:HG22	1.90	0.53
40:BG:101:ILE:HG12	40:BG:102:PHE:N	2.23	0.53
34:BA:2189:U:C2'	34:BA:2190:G:H5''	2.39	0.53
1:AA:1431:C:H2'	1:AA:1432:G:C5'	2.39	0.53
48:DS:31:SER:OG	48:DS:32:LEU:N	2.39	0.53
1:CA:1442(A):G:C3'	1:CA:1442(B):A:H5''	2.37	0.53
51:BV:38:LEU:HD23	51:BV:39:LEU:N	2.22	0.53
7:AG:148:ASN:ND2	7:AG:148:ASN:N	2.55	0.53
49:BT:92:GLY:O	49:BT:93:ARG:HB3	2.09	0.53
3:AC:52:LEU:CD2	3:AC:52:LEU:H	2.21	0.53
3:AC:24:ALA:HB2	3:AC:32:LEU:HD12	1.89	0.53
1:AA:1060:C:O2'	1:AA:1061:G:H5'	2.07	0.53
39:DF:84:VAL:HG12	39:DF:85:GLY:H	1.72	0.53
11:CK:95:ILE:HG21	11:CK:108:ILE:HD13	1.90	0.53
9:AI:117:HIS:NE2	9:AI:123:PRO:HA	2.23	0.53
52:DW:79:GLY:CA	52:DW:100:THR:HG23	2.36	0.53
1:CA:390:C:H2'	1:CA:391:G:H8	1.72	0.53
1:CA:858:G:O6	1:CA:869:G:H3'	2.09	0.53
34:DA:409:C:O2'	34:DA:410:G:H5'	2.08	0.53
36:DC:75:LEU:C	36:DC:75:LEU:HD23	2.29	0.53
34:BA:2101:G:C6	34:BA:2102:U:C5	2.96	0.53
21:CU:6:ARG:CZ	21:CU:15:ARG:NH2	2.72	0.53
23:CW:58:A:H1'	23:CW:60:U:H5	1.73	0.53
43:DN:74:ARG:HH12	43:DN:101:HIS:CG	2.26	0.53
3:CC:178:LEU:HD22	3:CC:178:LEU:N	2.24	0.53
10:CJ:22:LYS:NZ	10:CJ:88:LEU:HD23	2.24	0.53
40:DG:69:ALA:HB3	40:DG:91:ARG:O	2.08	0.53
34:DA:1573:G:H2'	34:DA:1574:C:H5'	1.90	0.53
34:BA:1550:C:O2'	34:BA:1551:C:H5'	2.07	0.53
11:AK:99:GLN:C	11:AK:101:SER:H	2.12	0.53
34:DA:690:G:H2'	34:DA:691:C:C6	2.43	0.53
34:DA:2648:C:O2'	34:DA:2649:U:H5'	2.08	0.53
17:AQ:82:MET:O	17:AQ:85:VAL:HB	2.09	0.53
55:DZ:75:ASN:O	55:DZ:84:GLU:N	2.35	0.53
34:DA:21:A:O2'	34:DA:22:C:H5'	2.08	0.53
34:DA:2485:G:O2'	34:DA:2486:G:H5'	2.09	0.53
15:CO:38:ARG:HG2	15:CO:38:ARG:HH11	1.73	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DR:70:LEU:HD13	47:DR:75:LEU:CD1	2.38	0.53
34:BA:2273:A:H2'	34:BA:2274:A:C8	2.43	0.53
28:D3:36:VAL:O	28:D3:37:LEU:HD23	2.08	0.53
42:BI:144:VAL:HG12	42:BI:145:VAL:N	2.14	0.53
49:BT:28:VAL:HG21	49:BT:88:ILE:HD11	1.90	0.53
1:AA:1106:G:H2'	1:AA:1107:C:H6	1.72	0.53
2:AB:213:LEU:C	2:AB:213:LEU:HD23	2.29	0.53
54:BY:39:VAL:HG12	54:BY:40:GLU:N	2.23	0.53
39:BF:34:TRP:CD1	45:BP:11:GLY:HA2	2.43	0.53
27:B2:16:LEU:O	27:B2:20:GLU:HG3	2.08	0.53
20:AT:97:ALA:O	20:AT:99:LEU:N	2.37	0.53
1:AA:975:A:H5'	1:AA:975:A:C8	2.39	0.53
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.89	0.53
40:BG:88:ILE:CG2	40:BG:89:GLY:N	2.71	0.53
41:DH:43:VAL:HG11	41:DH:53:GLU:N	2.20	0.53
10:AJ:62:HIS:H	10:AJ:62:HIS:CD2	2.26	0.53
47:BR:41:ALA:C	47:BR:43:GLU:N	2.62	0.53
26:D1:46:LEU:H	26:D1:46:LEU:CD1	2.16	0.53
43:BN:46:VAL:O	43:BN:47:ALA:HB3	2.08	0.53
55:BZ:30:ASN:OD1	55:BZ:33:LEU:HB3	2.09	0.53
54:DY:89:PHE:C	54:DY:90:LEU:HD23	2.28	0.53
54:BY:83:THR:HG22	54:BY:84:ARG:N	2.24	0.53
38:BE:14:ILE:HG12	38:BE:21:VAL:HG23	1.91	0.53
1:AA:716:A:N3	11:AK:118:GLY:HA2	2.23	0.53
48:BS:101:LEU:HD22	48:BS:102:ALA:N	2.20	0.53
34:BA:637:A:OP2	45:BP:115:LEU:HB2	2.08	0.53
37:DD:43:ARG:NH1	37:DD:49:ILE:HG22	2.23	0.53
27:D2:51:ARG:O	27:D2:51:ARG:HD3	2.08	0.53
34:BA:1464:C:O2'	34:BA:1528:A:H8	1.91	0.53
3:CC:76:VAL:CG2	3:CC:77:ILE:H	2.21	0.53
4:AD:102:ASP:HA	4:AD:121:VAL:HG21	1.88	0.53
1:CA:1287:A:H2'	1:CA:1288:A:C8	2.43	0.53
1:CA:818:G:H3'	1:CA:819:A:C5'	2.39	0.53
37:DD:243:GLY:O	37:DD:244:ARG:HB3	2.08	0.53
13:CM:68:GLY:O	13:CM:69:GLU:HB2	2.09	0.53
34:BA:295:G:H1	34:BA:343:C:H42	1.55	0.53
8:AH:137:VAL:HG12	8:AH:138:TRP:N	2.22	0.53
53:DX:82:GLN:OE1	53:DX:83:VAL:N	2.36	0.53
48:BS:54:LEU:HD13	48:BS:57:LYS:O	2.09	0.53
34:DA:1988:C:H2'	34:DA:1989:G:C8	2.44	0.53
3:CC:52:LEU:CD2	3:CC:52:LEU:H	2.19	0.53
2:CB:215:LEU:O	2:CB:218:ALA:HB3	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1675:C:C2	38:DE:129:HIS:HD2	2.27	0.53
7:AG:83:ALA:C	7:AG:84:ASN:HD22	2.12	0.53
9:CI:16:ARG:O	9:CI:63:ILE:HG23	2.08	0.53
34:DA:2831:G:H1'	34:DA:2883:A:H2'	1.90	0.53
46:BQ:106:VAL:HG13	46:BQ:118:LEU:HD21	1.90	0.53
8:AH:73:ASP:C	8:AH:75:ARG:H	2.12	0.53
52:DW:47:VAL:HA	52:DW:50:VAL:CG1	2.38	0.53
34:DA:2673:G:O2'	34:DA:2674:G:H5'	2.08	0.53
34:BA:2694:G:O2'	34:BA:2695:C:H5'	2.08	0.53
34:BA:79:G:O2'	34:BA:80:G:H5'	2.09	0.53
54:BY:43:ASN:HA	54:BY:64:GLU:HA	1.91	0.53
1:CA:538:G:OP2	12:CL:115:LYS:HG3	2.08	0.53
34:BA:409:C:O2'	34:BA:410:G:H5'	2.09	0.53
34:DA:2208:A:H1'	34:DA:2219:G:C2	2.44	0.53
31:D6:50:ARG:HB3	31:D6:51:GLU:OE1	2.08	0.53
1:AA:1103:C:C5'	2:AB:98:LEU:HD13	2.38	0.53
36:DC:41:VAL:HB	36:DC:178:ALA:CB	2.38	0.53
34:BA:271(K):U:H3'	34:BA:271(L):U:C5'	2.39	0.53
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.72	0.53
12:CL:120:TYR:N	12:CL:120:TYR:CD1	2.76	0.53
1:AA:484:G:H4'	1:AA:485:G:O5'	2.09	0.53
6:AF:1:MET:O	6:AF:2:ARG:HG3	2.08	0.53
34:DA:2050:C:H1'	38:DE:156:MET:HE2	1.89	0.53
33:D8:2:PRO:O	33:D8:3:LYS:C	2.47	0.53
34:BA:2033:A:H4'	34:BA:2034:U:OP1	2.08	0.53
1:CA:1490:C:O2'	1:CA:1491:G:H5'	2.09	0.53
43:DN:108:PRO:O	43:DN:113:GLY:HA3	2.08	0.53
1:CA:640:A:O2'	1:CA:641:U:H5'	2.09	0.53
1:CA:690:G:H2'	1:CA:691:G:C8	2.43	0.53
34:BA:680:G:H2'	34:BA:681:G:H8	1.73	0.53
1:AA:1329:A:P	13:AM:28:ALA:HB3	2.49	0.53
3:AC:140:ARG:HH11	3:AC:140:ARG:HG3	1.72	0.53
34:BA:645:C:H3'	34:BA:645:C:O2	2.09	0.53
12:CL:21:LYS:N	12:CL:21:LYS:HD2	2.22	0.53
34:BA:2184:G:H2'	34:BA:2185:C:C6	2.43	0.53
1:CA:235:C:H1'	17:CQ:61:GLU:OE1	2.09	0.53
37:DD:94:LEU:HD13	37:DD:94:LEU:O	2.09	0.53
37:BD:35:LYS:HB3	37:BD:63:ARG:HA	1.90	0.53
36:BC:46:LYS:HB2	36:BC:209:LEU:CB	2.39	0.53
27:B2:18:PRO:O	27:B2:19:VAL:C	2.46	0.53
42:DI:78:THR:HA	42:DI:141:LYS:C	2.28	0.53
46:BQ:81:VAL:HG12	46:BQ:82:ARG:N	2.24	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2305:A:H5''	40:BG:134:GLY:HA3	1.90	0.53
40:BG:85:GLY:O	40:BG:87:PRO:HD2	2.08	0.53
41:DH:103:LEU:CD2	41:DH:115:VAL:HB	2.38	0.53
43:BN:39:ARG:O	50:BU:64:ARG:NH2	2.34	0.53
34:BA:587:C:O2'	34:BA:588:U:OP2	2.22	0.53
16:CP:20:VAL:HG22	16:CP:21:VAL:N	2.24	0.53
45:DP:35:HIS:O	45:DP:36:LYS:CG	2.56	0.53
42:DI:5:LEU:C	42:DI:6:LEU:HD23	2.29	0.53
1:CA:1256:A:H5'	1:CA:1257:U:OP1	2.09	0.53
44:DO:100:GLY:O	44:DO:101:PRO:O	2.26	0.53
5:CE:75:THR:HA	5:CE:115:VAL:HG12	1.90	0.53
55:BZ:48:PHE:CD1	55:BZ:52:SER:HA	2.43	0.53
37:BD:154:LYS:O	37:BD:155:LEU:HD12	2.08	0.53
13:CM:53:VAL:O	13:CM:56:LEU:HB3	2.09	0.53
1:AA:1308:U:H2'	1:AA:1309:G:H8	1.71	0.53
19:CS:36:ARG:NH1	19:CS:75:ALA:HB3	2.20	0.53
46:DQ:55:VAL:HG13	46:DQ:56:ARG:H	1.74	0.53
27:D2:14:ARG:HH21	27:D2:57:ILE:HD13	1.73	0.53
34:BA:1614:A:H62	52:BW:93:ALA:CB	2.16	0.53
13:AM:23:TYR:HB3	13:AM:67:GLU:HB2	1.90	0.53
8:CH:35:ILE:HG23	8:CH:111:ILE:HD13	1.90	0.53
41:DH:89:ILE:H	41:DH:89:ILE:HD13	1.72	0.53
34:BA:1573:G:H2'	34:BA:1574:C:H5'	1.91	0.53
3:AC:112:SER:OG	3:AC:115:LEU:HG	2.09	0.53
38:BE:26:ILE:CG2	38:BE:27:LEU:N	2.72	0.53
34:BA:1116:C:C2'	34:BA:1117:G:H5'	2.39	0.53
1:AA:939:G:C4	1:AA:940:C:C5	2.97	0.53
41:BH:103:LEU:CD2	41:BH:115:VAL:HB	2.38	0.53
34:BA:1708:C:H2'	34:BA:1709:U:C6	2.38	0.53
34:BA:2691:C:H5'	34:BA:2691:C:H6	1.74	0.53
2:CB:30:ARG:HH21	2:CB:194:PRO:HG2	1.72	0.53
34:BA:2023:G:H4'	34:BA:2617:C:O3'	2.08	0.53
1:AA:450:G:H1	1:AA:483:C:H42	1.57	0.53
51:DV:66:ARG:CD	51:DV:67:GLY:N	2.72	0.53
36:BC:82:LYS:HZ2	36:BC:151:GLU:HA	1.73	0.53
22:AV:3:C:H2'	22:AV:4:G:H5'	1.90	0.53
39:DF:167:ALA:O	39:DF:169:ASN:N	2.42	0.53
7:AG:149:ARG:HD3	11:AK:59:TYR:CE1	2.44	0.53
34:BA:1049:C:H2'	34:BA:1050:A:C8	2.43	0.53
4:CD:108:LEU:HB3	4:CD:110:PHE:CE1	2.44	0.53
1:CA:1103:C:C5'	2:CB:98:LEU:HD13	2.39	0.53
21:AU:5:ASP:HB3	21:AU:8:THR:CG2	2.38	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BO:104:ARG:C	44:BO:106:LEU:N	2.62	0.53
20:AT:44:ALA:HB1	20:AT:91:LEU:CB	2.39	0.53
1:CA:1327:C:P	21:CU:12:LYS:NZ	2.81	0.53
34:BA:1532:C:O2	34:BA:1532:C:C2'	2.57	0.53
5:AE:18:ARG:NE	5:AE:25:ARG:HB3	2.24	0.53
1:AA:731:G:OP1	1:AA:766:A:H1'	2.08	0.53
20:CT:94:ALA:O	20:CT:95:ALA:HB3	2.07	0.53
34:BA:1625:C:H2'	34:BA:1626:G:H5'	1.90	0.53
1:AA:912:C:O2'	1:AA:913:A:H5'	2.08	0.53
11:CK:99:GLN:C	11:CK:101:SER:H	2.12	0.53
34:BA:1744:C:C2'	34:BA:1745:C:H5'	2.38	0.53
34:DA:1625:C:H2'	34:DA:1626:G:H5'	1.91	0.53
34:DA:2111:C:H1'	34:DA:2118:U:H1'	1.88	0.53
34:DA:2321:G:N3	34:DA:2321:G:H2'	2.23	0.53
28:B3:36:VAL:O	28:B3:37:LEU:HD23	2.09	0.53
1:CA:1397:C:H42	24:CX:22:A:H3'	1.74	0.53
50:DU:83:LEU:HD12	50:DU:83:LEU:N	2.22	0.53
50:DU:95:LEU:C	50:DU:97:ASP:N	2.61	0.53
34:BA:2704:C:H2'	34:BA:2705:A:H8	1.74	0.53
48:DS:17:ARG:O	48:DS:19:LYS:N	2.42	0.53
34:DA:143:G:H2'	34:DA:143(A):C:C6	2.39	0.53
2:AB:70:PHE:O	2:AB:92:TYR:HA	2.09	0.53
34:BA:451:C:N4	34:BA:453:C:H3'	2.23	0.53
34:BA:2562:U:C2'	34:BA:2563:U:H5'	2.38	0.53
34:BA:2562:U:H2'	34:BA:2563:U:H5'	1.91	0.53
34:DA:1593:G:H2'	34:DA:1594:G:C5'	2.38	0.53
42:DI:114:LEU:HA	42:DI:130:TYR:HD1	1.72	0.53
47:BR:28:LEU:HD21	47:BR:114:VAL:HG12	1.90	0.53
50:BU:55:ARG:HA	50:BU:58:ARG:CG	2.39	0.53
34:BA:587:C:C4	45:BP:33:ARG:HG2	2.43	0.53
34:DA:596:G:H2'	34:DA:597:U:O4'	2.09	0.53
37:DD:147:LEU:HG	37:DD:183:ARG:HH12	1.74	0.53
46:BQ:140:ALA:H	55:BZ:53:ILE:HD12	1.73	0.53
46:DQ:68:ILE:CG2	46:DQ:103:MET:HA	2.36	0.53
40:DG:116:ASP:O	40:DG:117:PHE:HB2	2.09	0.53
41:BH:106:THR:O	41:BH:107:VAL:HG13	2.09	0.53
27:D2:41:ILE:HG13	34:DA:95:G:N2	2.24	0.53
53:DX:70:LEU:HD12	53:DX:71:GLY:H	1.74	0.53
3:AC:73:PRO:HA	3:AC:76:VAL:CG1	2.38	0.53
25:B0:36:ILE:CD1	34:BA:2355:C:H5'	2.34	0.53
46:BQ:55:VAL:HG13	46:BQ:56:ARG:H	1.73	0.53
34:BA:543:C:N4	34:BA:551:G:N1	2.50	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:BX:85:PRO:O	53:BX:86:GLY:C	2.46	0.53
23:CW:27:G:H1	23:CW:43:C:H42	1.57	0.53
47:DR:104:ARG:CG	47:DR:104:ARG:HH11	2.22	0.53
1:AA:335:C:H2'	1:AA:336:C:C6	2.44	0.53
1:CA:939:G:C4	1:CA:940:C:C5	2.96	0.53
1:CA:186:C:H2'	1:CA:187:C:C6	2.43	0.53
1:AA:474:G:H2'	1:AA:475:G:C8	2.41	0.53
1:CA:271:C:H2'	1:CA:272:C:C6	2.43	0.53
4:CD:60:GLU:O	4:CD:63:LYS:HB3	2.09	0.53
49:DT:13:ARG:HD3	49:DT:13:ARG:O	2.09	0.53
34:BA:1234:U:O2'	34:BA:1235:G:H5'	2.09	0.53
34:DA:2687:U:C4	34:DA:2688:U:C5	2.97	0.53
34:DA:1532:C:O2	34:DA:1532:C:H2'	2.07	0.53
34:DA:1506:C:H2'	34:DA:1507:A:H5'	1.91	0.53
34:BA:363(E):U:O2'	34:BA:363(F):A:H4'	2.09	0.53
42:BI:56:LYS:HA	42:BI:59:ALA:HB3	1.91	0.53
18:AR:86:VAL:O	18:AR:87:ARG:O	2.27	0.53
35:DB:14:U:H4'	35:DB:70:C:O2	2.09	0.53
34:BA:201:C:C2'	34:BA:202:U:H5'	2.39	0.53
34:BA:239:U:H2'	34:BA:240:G:O4'	2.09	0.53
25:D0:1:MET:O	25:D0:2:ALA:HB3	2.08	0.53
1:CA:793:U:H5'	1:CA:794:A:O5'	2.08	0.53
50:DU:93:LYS:HD3	50:DU:93:LYS:H	1.73	0.53
51:DV:88:ARG:HG3	51:DV:88:ARG:HH11	1.74	0.53
37:DD:80:ALA:HB3	37:DD:94:LEU:CD1	2.38	0.53
50:BU:79:PHE:O	50:BU:83:LEU:HD13	2.09	0.53
34:DA:2334:G:H21	48:DS:18:ILE:CD1	2.21	0.53
43:DN:65:LYS:HE2	43:DN:65:LYS:CA	2.17	0.53
49:DT:65:LYS:HG3	49:DT:66:VAL:N	2.24	0.53
26:B1:19:GLN:H	26:B1:44:PRO:CD	2.18	0.53
38:BE:91:VAL:HG12	38:BE:91:VAL:O	2.07	0.53
1:AA:356:A:H2'	1:AA:357:G:H8	1.74	0.53
40:BG:40:ASN:O	40:BG:155:MET:HB2	2.09	0.53
47:BR:47:PHE:O	47:BR:51:LEU:HD12	2.09	0.53
45:BP:34:GLY:O	45:BP:35:HIS:CD2	2.62	0.53
37:BD:174:ILE:N	37:BD:174:ILE:HD12	2.13	0.53
46:DQ:38:GLU:OE2	46:DQ:128:LYS:HB2	2.08	0.53
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.38	0.53
4:CD:100:ARG:HB3	4:CD:102:ASP:OD1	2.09	0.53
4:CD:91:SER:O	4:CD:92:VAL:C	2.47	0.53
6:CF:11:ASN:HB3	6:CF:14:LEU:HD21	1.91	0.53
50:BU:31:SER:C	50:BU:33:ARG:N	2.62	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:171:G:H2'	34:BA:172:C:H4'	1.91	0.53
37:DD:241:PRO:O	37:DD:243:GLY:N	2.41	0.53
12:CL:41:ARG:HG2	12:CL:42:THR:H	1.73	0.53
49:DT:51:ARG:HB2	49:DT:98:LYS:HG3	1.91	0.53
15:CO:56:LEU:HG	15:CO:60:VAL:CG2	2.39	0.53
25:B0:42:GLY:HA3	34:BA:2331:G:O4'	2.08	0.53
23:CW:11:C:O2'	23:CW:12:U:H5'	2.08	0.53
30:B5:33:CYS:SG	30:B5:40:LYS:HE3	2.49	0.53
53:DX:82:GLN:CG	53:DX:83:VAL:H	2.22	0.53
44:BO:26:LYS:HB2	44:BO:30:ALA:HB2	1.90	0.53
54:BY:31:LEU:HD23	54:BY:36:ALA:HB3	1.91	0.53
15:AO:37:ASN:H	15:AO:37:ASN:ND2	2.07	0.53
34:DA:1112:G:C1'	34:DA:1113:U:OP1	2.57	0.53
47:BR:67:LEU:HD22	47:BR:67:LEU:H	1.74	0.53
1:CA:1509:C:O2'	1:CA:1510:U:H5'	2.07	0.53
9:AI:111:ARG:HG3	14:AN:61:TRP:HE1	1.74	0.53
6:AF:98:LEU:HB3	18:AR:30:ASP:HA	1.89	0.53
13:CM:47:ASP:O	13:CM:48:LEU:HB3	2.09	0.53
1:AA:749:C:O2'	1:AA:750:G:H5'	2.08	0.53
11:CK:90:GLY:O	11:CK:94:ALA:HB2	2.08	0.53
5:AE:20:GLN:HE22	5:AE:25:ARG:NH2	2.07	0.53
55:DZ:105:VAL:HG12	55:DZ:139:VAL:O	2.09	0.53
34:DA:1107:G:O2'	34:DA:1108:U:H5'	2.09	0.53
34:DA:2062:A:O2'	34:DA:2063:C:H5'	2.09	0.53
17:CQ:7:THR:O	17:CQ:23:VAL:HG13	2.08	0.53
2:CB:184:VAL:O	2:CB:198:ASP:HB2	2.08	0.53
5:CE:64:ARG:HH11	5:CE:64:ARG:HG3	1.73	0.53
34:BA:962:G:O2'	34:BA:963:U:H5'	2.08	0.53
28:D3:38:GLU:O	28:D3:40:THR:HG23	2.09	0.53
48:DS:84:GLN:O	48:DS:85:VAL:HG13	2.09	0.53
43:DN:65:LYS:HA	43:DN:65:LYS:CE	2.14	0.53
49:DT:29:ARG:HE	49:DT:84:GLN:HG3	1.74	0.53
35:BB:5:C:H2'	35:BB:6:C:H6	1.74	0.53
3:AC:11:ARG:O	3:AC:12:LEU:C	2.46	0.53
37:BD:62:TYR:CE1	37:BD:64:ILE:HA	2.44	0.53
45:DP:96:THR:HB	45:DP:126:VAL:HB	1.91	0.53
34:DA:310:A:P	54:DY:18:GLY:HA2	2.49	0.53
33:D8:10:ALA:HB2	33:D8:59:LYS:NZ	2.23	0.53
27:B2:52:ASP:O	27:B2:55:ARG:CB	2.57	0.53
33:B8:10:ALA:HB2	33:B8:59:LYS:NZ	2.24	0.53
45:BP:48:PRO:O	45:BP:49:ARG:C	2.46	0.53
33:B8:25:MET:HB2	45:BP:62:LEU:HD21	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:50:SER:O	12:AL:51:ALA:HB2	2.07	0.53
34:DA:955:C:H5'	46:DQ:14:ARG:HH21	1.73	0.53
54:DY:81:LYS:HG2	54:DY:96:ILE:HB	1.90	0.53
54:DY:98:VAL:HG12	54:DY:98:VAL:O	2.08	0.53
44:DO:64:ARG:CD	44:DO:101:PRO:HB2	2.30	0.53
34:DA:285:C:H2'	34:DA:286:C:O4'	2.08	0.53
13:CM:19:LEU:CD2	13:CM:19:LEU:H	2.22	0.53
43:BN:14:VAL:HA	43:BN:135:PRO:CG	2.31	0.53
34:BA:285:C:H2'	34:BA:286:C:O4'	2.09	0.53
38:BE:14:ILE:CD1	38:BE:173:VAL:HG11	2.33	0.53
43:DN:55:VAL:HG22	43:DN:128:HIS:HB3	1.91	0.53
1:AA:1307:U:H2'	1:AA:1308:U:H6	1.73	0.53
14:AN:3:ARG:O	14:AN:7:ILE:HG23	2.09	0.53
34:DA:2313:C:H2'	34:DA:2314:C:C6	2.40	0.53
29:B4:5:ILE:O	29:B4:6:HIS:O	2.27	0.53
1:AA:266:G:O2'	1:AA:267:C:OP2	2.26	0.53
17:AQ:67:LYS:C	17:AQ:69:LYS:H	2.13	0.53
34:DA:1720:U:H2'	34:DA:1721:G:O4'	2.09	0.53
12:AL:41:ARG:NH1	12:AL:41:ARG:CB	2.72	0.53
17:CQ:67:LYS:C	17:CQ:69:LYS:H	2.11	0.53
34:BA:1571:A:H2'	34:BA:1572:A:C8	2.44	0.53
19:CS:40:ILE:HD13	19:CS:62:ILE:HD11	1.91	0.53
3:AC:113:ALA:HA	3:AC:116:VAL:HG23	1.91	0.53
34:DA:1354:A:H2'	34:DA:1355:G:O4'	2.09	0.53
34:DA:1821:A:H2'	34:DA:1822:G:C5'	2.37	0.53
49:BT:51:ARG:HB2	49:BT:98:LYS:HG3	1.91	0.53
3:AC:58:GLU:N	3:AC:65:ALA:HB3	2.22	0.53
15:CO:75:PRO:HG2	15:CO:76:GLU:H	1.73	0.53
9:CI:16:ARG:O	9:CI:63:ILE:HA	2.09	0.53
3:AC:61:ALA:O	3:AC:62:ASP:HB2	2.09	0.53
9:CI:111:ARG:HG3	14:CN:61:TRP:HE1	1.74	0.53
9:CI:118:LYS:CB	9:CI:118:LYS:NZ	2.72	0.53
34:DA:744:G:O2'	34:DA:745:G:H5'	2.09	0.53
41:BH:153:LYS:CB	41:BH:154:PRO:CD	2.87	0.53
3:CC:24:ALA:HB2	3:CC:32:LEU:HD12	1.90	0.53
3:CC:23:TYR:CG	3:CC:24:ALA:N	2.77	0.53
11:CK:52:GLY:N	11:CK:55:LYS:HG3	2.24	0.53
40:BG:124:SER:HB2	40:BG:131:TYR:CE1	2.44	0.53
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.91	0.53
17:CQ:52:LYS:N	17:CQ:52:LYS:HD2	2.24	0.53
43:DN:93:THR:O	43:DN:93:THR:HG23	2.09	0.53
1:AA:431:A:O2'	1:AA:432:A:H5'	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BC:89:ALA:HB2	36:BC:153:ILE:CA	2.37	0.53
34:DA:633:A:C2'	34:DA:634:C:H5'	2.39	0.53
2:CB:23:ARG:HG2	2:CB:23:ARG:O	2.09	0.53
35:BB:87:G:C2'	35:BB:88:C:H5''	2.38	0.53
34:DA:585:G:H2'	34:DA:1251:C:H42	1.73	0.53
52:BW:9:TYR:H	52:BW:102:HIS:CD2	2.27	0.53
34:DA:729:G:C5	37:DD:208:LYS:HB2	2.44	0.53
34:BA:198:C:H5'	34:BA:2244:U:OP1	2.09	0.53
14:AN:29:ARG:HD3	14:AN:40:CYS:HB2	1.90	0.53
47:BR:70:LEU:HD13	47:BR:75:LEU:CD1	2.39	0.53
34:BA:1208:C:C4	34:BA:1209:G:N7	2.77	0.53
1:AA:324:G:OP1	20:AT:70:SER:HB2	2.09	0.53
34:DA:1192:G:O2'	34:DA:1193:G:H5'	2.08	0.53
34:DA:1762:A:H8	34:DA:1762:A:O5'	1.92	0.53
34:BA:2811:G:C2'	34:BA:2812:G:H5'	2.38	0.53
34:DA:1854:A:H3'	34:DA:1855:G:H8	1.73	0.53
1:CA:93:G:H2'	1:CA:96:U:H5'	1.91	0.53
50:DU:92:ARG:NH2	51:DV:10:LYS:HB3	2.24	0.53
45:BP:125:VAL:O	45:BP:145:PRO:HD2	2.09	0.53
48:BS:24:LEU:HB3	48:BS:85:VAL:HG12	1.91	0.53
49:BT:65:LYS:NZ	49:BT:66:VAL:H	2.06	0.53
45:DP:62:LEU:H	45:DP:62:LEU:CD2	2.17	0.53
33:B8:36:LYS:O	33:B8:37:SER:O	2.27	0.53
20:CT:100:ILE:HD12	20:CT:100:ILE:N	2.23	0.53
55:DZ:149:SER:CB	55:DZ:173:ALA:HA	2.39	0.53
18:AR:40:LEU:O	18:AR:43:PHE:HD1	1.92	0.53
53:DX:64:LYS:O	53:DX:65:ARG:HB2	2.07	0.53
34:DA:2230:G:H2'	34:DA:2231:C:C6	2.42	0.53
53:DX:88:LYS:O	53:DX:89:ILE:HB	2.09	0.53
55:BZ:85:HIS:HD1	55:BZ:86:VAL:N	2.05	0.53
40:DG:115:ARG:HH21	40:DG:136:ARG:HG3	1.73	0.53
1:CA:1441:G:H5''	1:CA:1442:G:C5'	2.33	0.53
46:BQ:29:PHE:CD1	46:BQ:29:PHE:N	2.76	0.53
34:DA:7:G:H1	34:DA:2896:C:N4	2.07	0.53
46:BQ:39:PRO:HB3	46:BQ:99:PRO:CD	2.39	0.53
19:CS:10:PHE:CZ	19:CS:70:LYS:HE2	2.44	0.53
27:D2:49:LYS:CA	27:D2:53:LEU:HB2	2.38	0.53
3:CC:73:PRO:HA	3:CC:76:VAL:CG1	2.39	0.53
34:DA:1275:A:C4	47:DR:16:HIS:CE1	2.97	0.53
4:AD:91:SER:O	4:AD:92:VAL:C	2.47	0.53
13:AM:68:GLY:O	13:AM:69:GLU:CB	2.57	0.53
34:BA:815:C:H2'	34:BA:816:C:H6	1.74	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2317:C:H2'	34:DA:2318:G:C5'	2.38	0.53
1:AA:439:A:C4	1:AA:496:A:C2	2.97	0.53
53:BX:82:GLN:HB3	53:BX:85:PRO:HG2	1.91	0.53
34:DA:132:G:H5'	34:DA:132:G:C8	2.36	0.53
23:CW:18:G:H1	23:CW:55:U:H1'	1.74	0.53
34:BA:558:G:P	43:BN:111:PRO:HD2	2.48	0.53
34:DA:2468:G:OP1	46:DQ:119:ARG:NH2	2.41	0.53
47:BR:107:ASP:OD2	47:BR:108:GLY:N	2.42	0.53
40:BG:165:THR:OG1	40:BG:168:GLU:HG3	2.08	0.53
51:BV:2:PHE:HB3	51:BV:42:GLY:CA	2.39	0.53
13:CM:11:ARG:HH22	40:DG:147:ASP:HB3	1.74	0.53
9:CI:63:ILE:CG2	9:CI:64:THR:N	2.71	0.53
34:DA:320:A:C5	39:DF:136:THR:HG21	2.44	0.53
27:B2:25:VAL:O	27:B2:27:GLU:N	2.41	0.53
54:DY:43:ASN:HD21	54:DY:64:GLU:HG3	1.74	0.53
16:AP:39:TYR:HA	16:AP:48:TRP:O	2.09	0.53
34:DA:2292:C:H42	34:DA:2340:G:H1	1.56	0.53
1:AA:72:C:H2'	1:AA:73:G:C8	2.40	0.53
38:BE:132:HIS:HA	38:BE:135:HIS:CE1	2.44	0.53
13:AM:47:ASP:O	13:AM:48:LEU:HB3	2.09	0.53
31:D6:14:THR:HG22	31:D6:51:GLU:O	2.09	0.53
1:AA:1103:C:H4'	2:AB:98:LEU:HD13	1.89	0.53
1:CA:484:G:H4'	1:CA:485:G:O5'	2.09	0.53
2:CB:168:THR:HG21	2:CB:192:SER:HA	1.91	0.53
1:AA:1126:U:O2'	1:AA:1127:G:H5'	2.08	0.53
52:BW:55:ALA:O	52:BW:56:ALA:C	2.47	0.53
1:CA:932:C:H5'	7:CG:4:ARG:HG2	1.90	0.53
32:D7:16:HIS:ND1	34:DA:684:G:OP1	2.41	0.53
1:AA:1017:G:H2'	1:AA:1018:C:C6	2.44	0.53
47:DR:101:ALA:O	47:DR:102:GLU:HB2	2.09	0.53
22:AV:26:G:H1	22:AV:44:A:H61	1.57	0.53
42:BI:100:ALA:O	42:BI:104:GLN:HB2	2.08	0.53
25:D0:14:ARG:O	25:D0:15:ASP:HB2	2.09	0.53
34:DA:760:G:H2'	34:DA:761:A:O4'	2.09	0.53
13:CM:27:LYS:O	13:CM:30:ALA:HB3	2.09	0.53
35:DB:32:C:C2	35:DB:51:G:N2	2.77	0.53
49:BT:132:LYS:C	49:BT:134:GLU:H	2.13	0.53
51:DV:19:LYS:HG3	51:DV:20:LEU:O	2.08	0.52
34:BA:2705:A:H2'	34:BA:2706:G:H8	1.73	0.52
38:DE:44:TYR:O	38:DE:45:THR:CB	2.57	0.52
36:DC:46:LYS:HB2	36:DC:209:LEU:CB	2.38	0.52
49:BT:61:PHE:CE2	49:BT:76:PHE:CB	2.92	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BE:3:GLY:O	38:BE:4:ILE:HG22	2.09	0.52
38:BE:52:LEU:O	38:BE:74:PRO:HA	2.10	0.52
42:DI:92:VAL:HG22	42:DI:97:ILE:CG1	2.39	0.52
55:DZ:22:GLY:O	55:DZ:23:LYS:HD3	2.09	0.52
13:AM:3:ARG:HA	13:AM:9:ILE:HG13	1.91	0.52
34:DA:2747:G:O6	34:DA:2754:U:H2'	2.09	0.52
41:BH:85:LYS:HD3	41:BH:133:VAL:CB	2.38	0.52
54:BY:98:VAL:O	54:BY:98:VAL:HG12	2.09	0.52
55:BZ:19:ARG:NH1	55:BZ:19:ARG:HG2	2.24	0.52
26:D1:86:SER:C	26:D1:89:GLU:OE2	2.47	0.52
40:DG:139:LEU:C	40:DG:141:PHE:H	2.13	0.52
12:AL:86:ARG:HB2	12:AL:101:VAL:HG22	1.90	0.52
1:CA:1057:G:H5''	3:CC:154:SER:OG	2.10	0.52
50:BU:18:LEU:O	50:BU:19:LYS:C	2.46	0.52
34:DA:2514:U:H2'	34:DA:2515:C:C6	2.43	0.52
47:DR:97:VAL:HA	47:DR:113:LEU:O	2.10	0.52
34:DA:2531:A:H2	34:DA:2658:C:O2	1.92	0.52
42:BI:72:LEU:HD12	42:BI:138:ILE:CG2	2.38	0.52
26:D1:20:ARG:CD	26:D1:41:ARG:HD3	2.33	0.52
4:CD:12:CYS:HA	4:CD:19:LEU:CD1	2.39	0.52
34:DA:2364:C:H2'	34:DA:2365:G:O4'	2.08	0.52
34:BA:2645:G:H8	34:BA:2645:G:OP2	1.93	0.52
1:CA:1170:A:H2'	1:CA:1171:G:H5'	1.91	0.52
14:CN:47:LEU:HB2	14:CN:53:LEU:HD11	1.91	0.52
23:CW:33:U:H2'	23:CW:35:A:OP2	2.09	0.52
7:AG:143:ARG:O	7:AG:145:ALA:O	2.26	0.52
3:CC:95:THR:C	3:CC:97:LYS:H	2.12	0.52
45:BP:85:LEU:HA	45:BP:88:LEU:HB2	1.90	0.52
9:CI:118:LYS:HZ2	9:CI:118:LYS:HB2	1.74	0.52
1:AA:542:G:H2'	1:AA:543:C:C6	2.43	0.52
1:AA:224:C:H2'	1:AA:225:C:C6	2.45	0.52
11:AK:20:TYR:O	11:AK:30:VAL:HA	2.09	0.52
34:BA:2831:G:H1'	34:BA:2883:A:H2'	1.90	0.52
49:DT:23:ARG:NH2	49:DT:120:ARG:HD3	2.23	0.52
54:DY:33:LYS:O	54:DY:34:LYS:HG3	2.09	0.52
8:CH:112:LEU:CD1	8:CH:114:THR:HG22	2.38	0.52
38:BE:59:VAL:CG2	38:BE:63:LEU:HA	2.40	0.52
38:BE:65:GLY:C	38:BE:67:PHE:H	2.12	0.52
34:BA:1680:U:O2	34:BA:1763:G:H3'	2.08	0.52
7:AG:97:GLN:O	7:AG:101:LEU:HG	2.09	0.52
43:BN:97:ARG:HA	43:BN:100:GLU:HB2	1.91	0.52
36:BC:89:ALA:CB	36:BC:153:ILE:HA	2.39	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.43	0.52
1:CA:1074:G:H2'	1:CA:1075:C:H6	1.73	0.52
43:BN:93:THR:HG23	43:BN:93:THR:O	2.09	0.52
36:BC:41:VAL:HB	36:BC:178:ALA:CB	2.38	0.52
35:DB:87:G:C2'	35:DB:88:C:H5''	2.39	0.52
21:CU:5:ASP:HB3	21:CU:8:THR:CG2	2.39	0.52
1:CA:42:G:H2'	1:CA:43:C:C6	2.44	0.52
30:D5:7:PRO:HB2	34:DA:2016:U:O2	2.09	0.52
47:DR:24:GLN:HB2	47:DR:44:LEU:CD2	2.39	0.52
1:AA:1337:G:H5''	1:AA:1338:G:OP1	2.09	0.52
34:DA:1625:C:H2'	34:DA:1626:G:C5'	2.39	0.52
34:BA:692:C:O2'	34:BA:693:C:H5'	2.09	0.52
35:BB:14:U:H4'	35:BB:70:C:O2	2.08	0.52
37:DD:218:ARG:HG3	37:DD:218:ARG:HH11	1.74	0.52
34:DA:703:U:H2'	34:DA:704:G:H5'	1.91	0.52
34:BA:1563:G:O2'	34:BA:1564:C:H5'	2.09	0.52
34:BA:1417:C:H2'	34:BA:1418:G:O4'	2.08	0.52
40:DG:164:GLU:N	40:DG:164:GLU:OE1	2.42	0.52
1:CA:594:G:C2'	1:CA:595:G:H5'	2.39	0.52
34:BA:2649:U:H2'	34:BA:2650:U:C6	2.43	0.52
51:DV:22:VAL:O	51:DV:22:VAL:HG12	2.10	0.52
28:D3:8:LEU:HD12	28:D3:31:LEU:HA	1.88	0.52
2:AB:162:ILE:O	2:AB:185:ILE:HG12	2.09	0.52
37:BD:67:PHE:CE1	37:BD:157:ARG:NH2	2.77	0.52
26:B1:8:SER:N	26:B1:46:LEU:HD11	2.25	0.52
54:DY:26:LYS:O	54:DY:27:VAL:O	2.27	0.52
55:DZ:58:VAL:HG22	55:DZ:68:PRO:HA	1.91	0.52
40:BG:139:LEU:HA	40:BG:144:ILE:HG21	1.89	0.52
34:DA:2273:A:H2'	34:DA:2274:A:C8	2.44	0.52
39:DF:3:GLU:CB	39:DF:24:LEU:HG	2.39	0.52
1:CA:719:C:O2	18:CR:50:ILE:HG12	2.09	0.52
26:D1:15:ALA:HA	26:D1:46:LEU:HG	1.90	0.52
42:BI:8:PRO:HA	42:BI:13:GLY:O	2.09	0.52
34:BA:2512:C:H4'	38:BE:122:PHE:CE2	2.45	0.52
5:CE:41:VAL:HG13	5:CE:113:ALA:HA	1.90	0.52
1:CA:1371:G:O3'	9:CI:69:GLY:HA3	2.10	0.52
34:BA:2807:G:H2'	34:BA:2808:U:C4'	2.38	0.52
53:DX:76:ARG:O	53:DX:76:ARG:HD3	2.08	0.52
34:BA:7:G:H1	34:BA:2896:C:N4	2.07	0.52
34:BA:2639:A:H2'	34:BA:2640:G:C5'	2.29	0.52
44:DO:46:ALA:H	44:DO:54:GLU:CG	2.22	0.52
30:B5:58:LEU:HD12	30:B5:58:LEU:N	2.24	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:D5:55:ARG:HH21	47:DR:33:ARG:HH22	1.58	0.52
46:BQ:38:GLU:OE2	46:BQ:128:LYS:HB2	2.09	0.52
46:BQ:39:PRO:HB3	46:BQ:99:PRO:HD3	1.92	0.52
6:CF:52:ILE:HD11	6:CF:87:ARG:NH2	2.25	0.52
19:CS:36:ARG:HB2	19:CS:72:GLY:HA2	1.91	0.52
50:DU:18:LEU:O	50:DU:19:LYS:C	2.48	0.52
1:CA:1288:A:O4'	1:CA:1353:G:H4'	2.08	0.52
40:DG:76:SER:CB	40:DG:84:LYS:H	2.23	0.52
39:DF:107:LYS:C	39:DF:109:GLY:N	2.62	0.52
34:BA:925:C:H2'	34:BA:926:A:O4'	2.10	0.52
45:BP:38:GLN:HG3	45:BP:39:LYS:N	2.18	0.52
53:DX:30:VAL:HG12	53:DX:31:HIS:N	2.19	0.52
34:BA:2599:G:C8	37:BD:236:GLY:CA	2.90	0.52
37:DD:160:GLY:H	37:DD:196:VAL:HB	1.74	0.52
34:BA:1988:C:H2'	34:BA:1989:G:C8	2.44	0.52
34:BA:1678:G:N2	34:BA:1989:G:N2	2.56	0.52
53:BX:82:GLN:CG	53:BX:83:VAL:H	2.22	0.52
50:BU:112:ARG:NH1	50:BU:112:ARG:HG2	2.21	0.52
44:BO:87:ILE:HG21	44:BO:91:LEU:HD13	1.90	0.52
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.40	0.52
47:BR:104:ARG:CG	47:BR:104:ARG:HH11	2.22	0.52
7:CG:79:ARG:HH11	7:CG:79:ARG:HG3	1.74	0.52
1:AA:1458:G:O2'	1:AA:1459:C:H5'	2.08	0.52
41:BH:102:ALA:HB1	41:BH:115:VAL:O	2.09	0.52
9:CI:118:LYS:CB	9:CI:118:LYS:HZ2	2.22	0.52
11:AK:84:VAL:HG11	11:AK:95:ILE:HD11	1.90	0.52
1:AA:1108:G:H2'	1:AA:1109:C:H5'	1.90	0.52
34:BA:945:A:O3'	34:BA:946:G:H4'	2.10	0.52
5:CE:19:MET:SD	5:CE:24:ARG:HB3	2.50	0.52
35:DB:87:G:C3'	35:DB:88:C:H5''	2.39	0.52
11:CK:61:ALA:HB2	11:CK:90:GLY:HA3	1.91	0.52
1:CA:425:G:O2'	1:CA:426:G:H5'	2.10	0.52
1:CA:1337:G:H5''	1:CA:1338:G:OP1	2.10	0.52
15:CO:74:ASP:OD2	15:CO:77:ARG:HG2	2.09	0.52
34:DA:373:U:H2'	34:DA:374:A:H8	1.73	0.52
34:BA:951:C:O2'	34:BA:952:G:H5'	2.09	0.52
49:BT:17:THR:HG23	49:BT:17:THR:O	2.10	0.52
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.45	0.52
6:AF:40:VAL:HA	6:AF:62:TRP:O	2.09	0.52
34:BA:1866:C:H2'	34:BA:1876:A:O4'	2.09	0.52
1:CA:695:A:H2'	1:CA:696:A:C8	2.44	0.52
51:DV:2:PHE:HB3	51:DV:42:GLY:CA	2.38	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DD:30:GLU:HG3	37:DD:63:ARG:NE	2.24	0.52
49:BT:29:ARG:HG3	49:BT:30:VAL:N	2.25	0.52
26:B1:48:LYS:CG	26:B1:49:VAL:H	2.17	0.52
34:BA:2178:C:O5'	36:BC:46:LYS:HD2	2.09	0.52
42:DI:91:SER:H	42:DI:121:LYS:CE	2.21	0.52
54:DY:20:TYR:CZ	54:DY:42:VAL:HA	2.44	0.52
33:B8:30:ARG:O	33:B8:31:HIS:C	2.47	0.52
48:BS:66:ALA:O	48:BS:67:ARG:HG3	2.09	0.52
34:DA:558:G:OP1	43:DN:111:PRO:HD2	2.10	0.52
53:DX:25:LYS:HG3	53:DX:26:TYR:CD1	2.43	0.52
1:AA:384:G:C2	1:AA:385:C:N3	2.77	0.52
16:AP:6:LEU:HB3	16:AP:17:TYR:HD2	1.74	0.52
42:DI:9:LEU:H	42:DI:13:GLY:CA	2.11	0.52
34:BA:2684:U:O2'	44:BO:68:GLU:HG3	2.09	0.52
55:BZ:48:PHE:O	55:BZ:50:GLN:N	2.43	0.52
46:DQ:39:PRO:HB3	46:DQ:99:PRO:CD	2.39	0.52
34:BA:2360:A:O2'	34:BA:2361:A:P	2.67	0.52
51:BV:19:LYS:HG3	51:BV:20:LEU:O	2.08	0.52
53:DX:56:THR:C	53:DX:57:LEU:CD1	2.74	0.52
43:BN:126:PRO:O	43:BN:127:ASP:CB	2.55	0.52
39:DF:161:GLU:HA	39:DF:164:ARG:HB2	1.90	0.52
1:CA:1205:U:O2'	3:CC:195:VAL:HG23	2.08	0.52
39:BF:68:LYS:O	39:BF:68:LYS:HG3	2.10	0.52
27:D2:49:LYS:HB3	27:D2:53:LEU:HD22	1.91	0.52
40:DG:130:ASN:OD1	40:DG:160:VAL:HG13	2.09	0.52
9:CI:95:LYS:N	9:CI:98:PRO:HD2	2.24	0.52
25:D0:41:ARG:HB3	34:DA:2330:G:H1'	1.92	0.52
39:DF:143:ALA:CA	39:DF:146:ALA:HB3	2.38	0.52
36:BC:22:ILE:HG22	36:BC:25:ALA:HB2	1.90	0.52
28:D3:19:GLN:O	28:D3:22:ALA:HB3	2.10	0.52
31:D6:15:GLU:CG	31:D6:18:ARG:HG3	2.39	0.52
47:BR:12:ARG:HG3	47:BR:12:ARG:HH11	1.74	0.52
22:CV:17:C:H5''	22:CV:17(A):U:H6	1.73	0.52
38:BE:7:VAL:HA	38:BE:196:VAL:HG22	1.92	0.52
3:AC:95:THR:C	3:AC:97:LYS:H	2.12	0.52
34:DA:1116:C:C2'	34:DA:1117:G:H5'	2.38	0.52
34:DA:740:U:H2'	34:DA:741:G:C8	2.45	0.52
49:DT:61:PHE:CE2	49:DT:76:PHE:CB	2.92	0.52
34:BA:2884:U:H2'	34:BA:2885:C:C5'	2.38	0.52
8:CH:85:ARG:HG2	8:CH:86:ILE:N	2.24	0.52
23:AW:67:C:O2'	23:AW:68:C:H5'	2.09	0.52
34:BA:1112:G:Cl'	34:BA:1113:U:OP1	2.57	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:52:GLY:H	11:CK:55:LYS:NZ	2.07	0.52
34:DA:1257:C:C2	34:DA:1258:C:C5	2.97	0.52
17:AQ:76:LEU:CG	17:AQ:77:VAL:N	2.72	0.52
51:DV:25:LEU:N	51:DV:94:LEU:CD1	2.71	0.52
11:AK:15:ALA:HA	11:AK:76:GLY:O	2.09	0.52
7:AG:150:ALA:CA	11:AK:57:THR:HG21	2.39	0.52
1:AA:392:G:H2'	1:AA:393:A:C8	2.44	0.52
34:DA:1278:A:OP1	47:DR:36:THR:HG22	2.09	0.52
42:DI:25:TYR:CE2	42:DI:29:TYR:CD2	2.96	0.52
2:AB:98:LEU:O	2:AB:101:MET:HG3	2.09	0.52
1:CA:264:U:O2'	17:CQ:64:PRO:HB2	2.09	0.52
10:AJ:22:LYS:NZ	10:AJ:88:LEU:HD23	2.23	0.52
34:BA:2064:C:H2'	34:BA:2065:C:C6	2.45	0.52
40:DG:19:LEU:C	40:DG:21:ARG:H	2.13	0.52
5:AE:81:GLU:HG2	5:AE:90:VAL:HG13	1.92	0.52
34:BA:445:C:O2'	34:BA:446:G:H5'	2.09	0.52
5:CE:68:GLU:O	5:CE:68:GLU:HG3	2.09	0.52
31:D6:13:CYS:HB3	31:D6:49:HIS:HB3	1.90	0.52
34:BA:2408:U:H2'	34:BA:2409:G:C8	2.45	0.52
1:AA:687:A:N3	1:AA:688:G:H1'	2.24	0.52
55:DZ:106:GLY:HA3	55:DZ:142:SER:HB3	1.90	0.52
1:AA:690:G:H2'	1:AA:691:G:C8	2.44	0.52
37:BD:218:ARG:HG3	37:BD:218:ARG:HH11	1.74	0.52
50:DU:95:LEU:O	50:DU:98:LEU:HG	2.10	0.52
42:BI:88:ILE:HG12	42:BI:122:GLU:N	2.24	0.52
48:DS:98:VAL:O	48:DS:99:LYS:HD3	2.09	0.52
38:DE:7:VAL:HA	38:DE:196:VAL:HG22	1.92	0.52
28:D3:8:LEU:HD22	28:D3:9:VAL:N	2.25	0.52
26:B1:18:ILE:N	26:B1:18:ILE:HD12	2.23	0.52
38:BE:47:VAL:HG23	38:BE:84:PHE:O	2.10	0.52
34:BA:85:G:N3	34:BA:103:A:C2	2.78	0.52
34:BA:1238:G:O2'	34:BA:1239:G:H5'	2.10	0.52
2:CB:109:SER:O	2:CB:112:VAL:N	2.42	0.52
1:CA:101:A:O2'	1:CA:102:G:H5'	2.10	0.52
40:BG:115:ARG:HH22	40:BG:136:ARG:HG3	1.72	0.52
1:CA:664:G:P	18:CR:64:ARG:HH21	2.33	0.52
34:BA:570:G:H2'	34:BA:2030:A:N7	2.24	0.52
42:BI:15:VAL:HG23	42:BI:16:GLY:N	2.23	0.52
26:D1:27:GLU:HB2	26:D1:33:LYS:O	2.10	0.52
34:DA:2360:A:O2'	34:DA:2361:A:P	2.68	0.52
43:BN:15:LEU:HD21	43:BN:55:VAL:HG23	1.91	0.52
30:D5:20:ARG:CB	30:D5:23:HIS:HD2	2.19	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BN:121:LYS:HG3	43:BN:123:TYR:CE1	2.44	0.52
1:AA:1048:G:OP1	14:AN:4:LYS:HB2	2.08	0.52
12:CL:32:PHE:CB	12:CL:84:LEU:HD21	2.33	0.52
34:BA:827:U:H4'	34:BA:828:U:O2	2.09	0.52
34:DA:2201:C:H2'	34:DA:2202:C:C6	2.45	0.52
46:BQ:51:ARG:O	46:BQ:54:MET:HB3	2.09	0.52
46:BQ:63:LYS:HG3	46:BQ:64:ILE:N	2.24	0.52
8:AH:63:LEU:N	8:AH:63:LEU:HD22	2.24	0.52
48:BS:31:SER:OG	48:BS:32:LEU:N	2.39	0.52
48:BS:35:ILE:N	48:BS:53:SER:HB2	2.22	0.52
2:AB:68:ILE:HD12	2:AB:68:ILE:N	2.24	0.52
51:BV:38:LEU:C	51:BV:38:LEU:HD23	2.29	0.52
7:CG:15:ASP:OD2	7:CG:16:LEU:N	2.39	0.52
15:AO:21:ASP:OD2	15:AO:23:GLY:O	2.27	0.52
8:CH:137:VAL:HG12	8:CH:138:TRP:N	2.24	0.52
1:AA:33:A:H2'	1:AA:34:C:H6	1.74	0.52
40:DG:11:TYR:HA	40:DG:15:VAL:CG2	2.39	0.52
32:B7:8:ASN:HD22	32:B7:9:ARG:N	2.07	0.52
34:BA:2784:C:O2'	34:BA:2785:C:H5'	2.09	0.52
37:BD:231:HIS:ND1	37:BD:232:PRO:N	2.58	0.52
1:AA:658:G:H2'	1:AA:659:U:H6	1.75	0.52
5:AE:19:MET:SD	5:AE:24:ARG:HB3	2.50	0.52
37:DD:77:ALA:CB	37:DD:97:TYR:HA	2.40	0.52
27:B2:60:LEU:O	27:B2:61:LEU:CB	2.57	0.52
12:CL:50:SER:O	12:CL:51:ALA:HB2	2.09	0.52
34:DA:2101:G:C6	34:DA:2102:U:C5	2.98	0.52
21:AU:6:ARG:CZ	21:AU:15:ARG:NH2	2.72	0.52
49:BT:13:ARG:HD3	49:BT:13:ARG:O	2.09	0.52
35:BB:57:A:C4	40:BG:29:TRP:CB	2.93	0.52
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.10	0.52
34:DA:1662:C:O2'	34:DA:1663:C:H5'	2.10	0.52
34:BA:1257:C:H2'	34:BA:1258:C:H6	1.74	0.52
34:DA:2408:U:H2'	34:DA:2409:G:C8	2.44	0.52
34:BA:1430:C:H2'	34:BA:1431:U:C6	2.44	0.52
34:BA:797:C:H2'	34:BA:798:G:H8	1.75	0.52
34:DA:2649:U:H2'	34:DA:2650:U:C6	2.45	0.52
4:AD:150:GLU:HA	4:AD:153:ARG:HD2	1.92	0.52
18:CR:19:LYS:O	18:CR:20:ALA:HB2	2.09	0.52
49:DT:132:LYS:C	49:DT:134:GLU:H	2.13	0.52
1:AA:291:C:O2'	1:AA:292:G:H5'	2.10	0.52
34:BA:2228:G:H2'	34:BA:2229:C:C6	2.44	0.52
34:BA:768:G:O2'	34:BA:769:G:H5'	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1831:G:H2'	34:DA:1832:C:H6	1.75	0.52
34:BA:2525:G:O2'	34:BA:2526:G:H5'	2.09	0.52
34:BA:1762:A:H8	34:BA:1762:A:O5'	1.92	0.52
34:DA:680:G:H2'	34:DA:681:G:H8	1.74	0.52
14:CN:29:ARG:HD3	14:CN:40:CYS:HB2	1.91	0.52
51:DV:38:LEU:HD23	51:DV:38:LEU:C	2.29	0.52
51:DV:90:PRO:CD	51:DV:91:TYR:H	2.21	0.52
34:BA:1591:G:O2'	34:BA:1592:C:H5'	2.09	0.52
26:B1:18:ILE:HD13	34:BA:188:G:OP1	2.09	0.52
43:BN:66:LYS:HB3	43:BN:70:LYS:CB	2.40	0.52
34:BA:2779:U:H4'	34:BA:2780:G:O5'	2.09	0.52
54:BY:26:LYS:O	54:BY:27:VAL:O	2.27	0.52
45:DP:96:THR:O	45:DP:100:LEU:HD22	2.09	0.52
40:BG:68:PRO:HB2	40:BG:90:LEU:HG	1.91	0.52
48:DS:67:ARG:O	48:DS:70:GLY:N	2.40	0.52
43:DN:40:PRO:C	50:DU:64:ARG:NH2	2.63	0.52
34:DA:875:G:H4'	55:DZ:170:THR:CG2	2.40	0.52
39:DF:2:LYS:HG3	39:DF:25:PRO:O	2.08	0.52
18:CR:59:SER:H	18:CR:62:GLU:CD	2.13	0.52
16:AP:67:THR:HB	16:AP:70:ALA:HB2	1.90	0.52
54:BY:89:PHE:C	54:BY:90:LEU:HD23	2.30	0.52
26:D1:82:LEU:CG	26:D1:83:GLU:N	2.73	0.52
44:DO:10:VAL:HG21	44:DO:16:ALA:O	2.08	0.52
1:AA:818:G:H3'	1:AA:819:A:C5'	2.40	0.52
19:AS:5:LEU:HG	19:AS:10:PHE:HD1	1.70	0.52
38:DE:119:ARG:HG2	38:DE:160:TYR:CB	2.40	0.52
54:DY:77:PRO:O	54:DY:78:ALA:CB	2.58	0.52
40:DG:41:GLN:HG2	40:DG:155:MET:HG2	1.91	0.52
34:BA:271(A):A:N7	34:BA:271(W):G:N2	2.57	0.52
29:B4:5:ILE:CB	40:BG:67:LYS:HE2	2.39	0.52
8:AH:103:VAL:HG11	8:AH:109:ILE:O	2.08	0.52
34:DA:2189:U:C2'	34:DA:2190:G:H5''	2.39	0.52
34:DA:271(A):A:N7	34:DA:271(W):G:N2	2.57	0.52
37:DD:4:LYS:HZ2	37:DD:20:ASP:HA	1.72	0.52
14:AN:26:ARG:NH1	14:AN:47:LEU:HD21	2.25	0.52
34:BA:1821:A:H2'	34:BA:1822:G:C5'	2.39	0.52
34:BA:528:A:C5'	43:BN:114:ARG:HH12	2.21	0.52
44:BO:121:VAL:HG12	44:BO:122:LEU:N	2.24	0.52
47:DR:4:LEU:HD22	47:DR:4:LEU:O	2.10	0.52
15:CO:82:ILE:C	15:CO:82:ILE:HD13	2.29	0.52
2:AB:158:LEU:H	2:AB:158:LEU:CD1	2.20	0.52
1:AA:1457:G:C2	1:AA:1458:G:C8	2.97	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:30:ILE:HD13	7:CG:105:VAL:HG22	1.91	0.52
7:AG:15:ASP:OD2	7:AG:44:TYR:OH	2.27	0.52
7:AG:102:ARG:HG2	7:AG:106:GLN:NE2	2.23	0.52
9:AI:17:VAL:HA	9:AI:63:ILE:HG13	1.90	0.52
55:DZ:42:VAL:HG13	55:DZ:43:GLU:N	2.24	0.52
34:BA:86:C:OP1	54:BY:32:PRO:HD2	2.09	0.52
34:DA:1656:C:H2'	34:DA:1657:C:C6	2.44	0.52
34:DA:878:A:H2'	34:DA:879:G:H5'	1.92	0.52
34:DA:1257:C:H2'	34:DA:1258:C:C6	2.44	0.52
13:AM:75:ALA:HB1	13:AM:79:LYS:HE3	1.92	0.52
1:CA:389:A:H2'	1:CA:390:C:O4'	2.09	0.52
11:CK:15:ALA:HA	11:CK:76:GLY:O	2.10	0.52
34:BA:633:A:C2'	34:BA:634:C:H5'	2.39	0.52
34:DA:2605:U:H2'	34:DA:2606:C:C6	2.45	0.52
34:DA:2855:C:H2'	34:DA:2856:C:C6	2.44	0.52
34:BA:729:G:H2'	34:BA:1775:U:O2	2.08	0.52
34:BA:585:G:H2'	34:BA:1251:C:H42	1.74	0.52
43:BN:74:ARG:HH12	43:BN:101:HIS:CG	2.27	0.52
34:DA:2392:A:H2'	34:DA:2393:A:O4'	2.10	0.52
8:CH:48:TYR:HB2	8:CH:60:ARG:O	2.08	0.52
31:B6:27:LYS:HE3	34:BA:2285:C:C5	2.44	0.52
11:AK:62:GLN:O	11:AK:65:ALA:N	2.42	0.52
35:BB:52:A:HO2'	35:BB:53:A:H8	1.57	0.52
34:DA:314:A:O2'	34:DA:315:G:H5'	2.09	0.52
49:DT:78:LEU:O	49:DT:79:HIS:ND1	2.43	0.52
4:AD:170:VAL:HG22	4:AD:171:GLY:N	2.25	0.52
34:BA:422:A:H2'	34:BA:423:A:C8	2.45	0.52
6:CF:91:VAL:CG1	6:CF:92:LYS:N	2.73	0.52
34:DA:934:G:N3	34:DA:934:G:H2'	2.25	0.52
1:CA:89:C:H3'	1:CA:90:U:H5'	1.90	0.52
34:DA:768:G:O2'	34:DA:769:G:H5'	2.10	0.52
42:BI:88:ILE:CG2	42:BI:89:TYR:H	2.19	0.52
34:DA:2626:C:H2'	34:DA:2627:G:O4'	2.09	0.52
28:D3:8:LEU:HD13	28:D3:31:LEU:HA	1.90	0.52
34:DA:2178:C:H4'	36:DC:46:LYS:HZ3	1.74	0.52
34:BA:661:C:O2'	34:BA:662:G:H5'	2.09	0.52
37:BD:27:THR:O	37:BD:28:GLU:HB2	2.10	0.52
2:CB:162:ILE:O	2:CB:185:ILE:HG12	2.09	0.52
45:DP:64:LYS:O	45:DP:65:ARG:C	2.45	0.52
27:B2:41:ILE:O	27:B2:42:GLY:O	2.27	0.52
38:DE:201:THR:HG21	38:DE:203:LYS:HB3	1.92	0.52
20:CT:97:ALA:O	20:CT:99:LEU:N	2.36	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DN:39:ARG:HE	43:DN:41:ASP:CG	2.13	0.52
18:CR:58:LEU:HB3	18:CR:62:GLU:HB2	1.92	0.52
26:D1:12:PRO:HD2	26:D1:13:ILE:H	1.75	0.52
34:DA:1980:G:O2'	34:DA:1982:C:OP2	2.26	0.52
54:DY:95:LYS:CB	54:DY:100:ALA:HA	2.32	0.52
46:BQ:140:ALA:O	55:BZ:53:ILE:HB	2.10	0.52
53:BX:53:LYS:N	53:BX:80:ILE:HG22	2.24	0.52
4:AD:73:ARG:HD2	4:AD:77:ASN:HD21	1.74	0.52
1:AA:818:G:H3'	1:AA:819:A:H5'	1.92	0.52
55:BZ:10:ARG:NH2	55:BZ:26:GLY:O	2.43	0.52
42:BI:38:LEU:HB2	42:BI:40:THR:HG23	1.91	0.52
43:BN:19:GLU:HB2	43:BN:59:LYS:HB2	1.92	0.52
34:BA:2069:G:C2'	34:BA:2070:G:H5'	2.40	0.52
34:BA:2443:C:O2'	34:BA:2444:G:H5'	2.09	0.52
45:BP:71:VAL:HG13	45:BP:72:PRO:CD	2.40	0.52
5:AE:32:VAL:O	5:AE:43:LEU:HD12	2.10	0.52
34:DA:2348:U:O2'	34:DA:2349:G:H5''	2.10	0.52
34:BA:2348:U:H2'	34:BA:2349:G:H5'	1.90	0.52
1:AA:1288:A:O4'	1:AA:1353:G:H4'	2.09	0.52
53:BX:70:LEU:HD12	53:BX:71:GLY:H	1.73	0.52
40:DG:135:LEU:HD22	40:DG:155:MET:CE	2.40	0.52
34:DA:2312:U:O2'	40:DG:71:THR:HG21	2.09	0.52
34:BA:106:C:C1'	54:BY:2:ARG:HE	2.18	0.52
38:BE:60:ASN:OD1	38:BE:62:PRO:CD	2.56	0.52
19:CS:39:THR:CG2	19:CS:40:ILE:N	2.72	0.52
31:D6:20:ASN:HD22	31:D6:21:TYR:N	2.02	0.52
3:CC:58:GLU:N	3:CC:65:ALA:HB3	2.23	0.52
34:DA:1993:U:H4'	38:DE:128:SER:HB3	1.91	0.52
50:DU:10:ARG:O	50:DU:11:ARG:C	2.47	0.52
2:AB:88:ALA:HB2	2:AB:219:VAL:CG1	2.39	0.52
27:D2:35:LEU:H	27:D2:35:LEU:CD2	2.20	0.52
7:AG:15:ASP:HB3	7:AG:19:GLY:CA	2.39	0.52
35:BB:61:G:O2'	35:BB:62:C:H5'	2.09	0.52
34:BA:1230:C:H2'	34:BA:1231:G:C8	2.45	0.52
3:AC:175:LEU:HD21	3:AC:201:TYR:CD2	2.45	0.52
49:DT:72:VAL:CG1	49:DT:73:GLU:N	2.72	0.52
34:DA:1357:U:H2'	34:DA:1358:G:O4'	2.09	0.52
45:BP:108:LYS:C	45:BP:110:TYR:N	2.63	0.52
1:CA:33:A:H2'	1:CA:34:C:H6	1.75	0.52
32:B7:31:LEU:O	32:B7:32:LYS:C	2.48	0.52
16:CP:28:ARG:NH1	16:CP:28:ARG:HG2	2.23	0.52
1:CA:411:A:C6	1:CA:429:U:C5	2.98	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:659:U:C2'	1:CA:660:G:H5'	2.39	0.52
39:DF:169:ASN:OD1	39:DF:169:ASN:O	2.27	0.52
36:DC:89:ALA:HB2	36:DC:153:ILE:CA	2.39	0.52
44:BO:76:ALA:HB3	49:BT:75:ILE:HD12	1.91	0.52
1:AA:662:G:H2'	1:AA:663:A:H8	1.75	0.52
34:BA:30:G:H2'	34:BA:31:C:H6	1.72	0.52
35:BB:87:G:C3'	35:BB:88:C:H5''	2.39	0.52
34:BA:729:G:C4	34:BA:1775:U:C2	2.97	0.52
31:D6:27:LYS:HE3	34:DA:2285:C:C5	2.45	0.52
1:AA:1332:A:H2'	1:AA:1333:A:H8	1.72	0.52
35:DB:55:U:O2'	35:DB:56:G:H5'	2.09	0.52
49:BT:78:LEU:C	49:BT:79:HIS:ND1	2.62	0.52
34:BA:1053:C:N4	34:BA:1107:G:H22	2.08	0.52
34:DA:559:G:H22	50:DU:49:HIS:CD2	2.27	0.52
1:AA:1300:G:H1'	1:AA:1301:U:H5	1.73	0.52
34:DA:1035:U:H2'	34:DA:1036:G:C8	2.45	0.52
22:CV:68:C:H2'	22:CV:69:C:H6	1.75	0.52
34:BA:1431:U:O2'	34:BA:1432:C:H5'	2.10	0.52
1:AA:452:A:O2'	1:AA:453:A:H8	1.93	0.52
49:DT:90:GLN:HE22	49:DT:124:ASP:CG	2.13	0.52
34:DA:1607:C:H4'	34:DA:1608:A:O5'	2.09	0.52
34:BA:649:G:H2'	34:BA:650:C:C6	2.45	0.52
55:DZ:20:ARG:HH11	55:DZ:20:ARG:HG3	1.75	0.52
49:BT:128:GLU:O	49:BT:130:ALA:N	2.41	0.52
51:DV:5:VAL:HG21	51:DV:36:PRO:CB	2.38	0.52
42:BI:129:THR:HG21	42:BI:135:GLU:HG2	1.91	0.52
42:BI:79:ILE:CG2	42:BI:81:VAL:HG23	2.40	0.52
39:DF:40:GLN:O	39:DF:44:ARG:HG2	2.10	0.52
45:DP:17:LYS:C	45:DP:19:VAL:HG22	2.30	0.52
34:BA:1331:A:O2'	34:BA:1332:G:H5''	2.10	0.52
2:AB:109:SER:O	2:AB:112:VAL:N	2.42	0.52
37:BD:255:LYS:CE	37:BD:255:LYS:H	2.20	0.52
54:BY:35:TYR:HD2	54:BY:68:HIS:CE1	2.28	0.52
42:DI:93:THR:O	42:DI:97:ILE:HG13	2.10	0.52
55:DZ:126:VAL:CG1	55:DZ:163:LEU:HA	2.31	0.52
46:BQ:81:VAL:O	46:BQ:82:ARG:NH1	2.43	0.52
46:BQ:75:THR:HB	46:BQ:88:GLY:CA	2.35	0.52
34:BA:1496:A:H8	34:BA:1577:C:HO2'	1.54	0.52
41:BH:85:LYS:HE3	41:BH:141:VAL:O	2.10	0.52
42:BI:9:LEU:H	42:BI:13:GLY:CA	2.12	0.52
1:AA:585:G:C6	1:AA:586:C:C4	2.98	0.52
34:DA:587:C:O2'	34:DA:588:U:OP2	2.25	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:71:LEU:HD11	5:AE:114:GLY:CA	2.40	0.52
1:AA:105:G:H2'	1:AA:106:C:C6	2.45	0.52
34:DA:2532:G:H2'	34:DA:2533:A:C8	2.45	0.52
34:BA:2685:G:N3	34:BA:2725:A:C2	2.77	0.52
55:BZ:5:LEU:HD22	55:BZ:6:LYS:HE2	1.91	0.52
4:CD:73:ARG:HD2	4:CD:77:ASN:HD21	1.75	0.52
51:BV:96:ILE:HG22	51:BV:97:LYS:N	2.24	0.52
34:BA:7:G:H4'	43:BN:13:TRP:HH2	1.75	0.52
27:B2:30:ARG:HG3	27:B2:30:ARG:NH1	2.21	0.52
43:DN:55:VAL:HG11	43:DN:127:ASP:H	1.74	0.52
1:CA:954:G:C4'	13:CM:120:LYS:HG3	2.34	0.52
38:DE:109:LYS:HE2	47:DR:2:ARG:NH1	2.25	0.52
31:B6:32:ASN:CG	31:B6:33:LYS:N	2.62	0.52
34:DA:815:C:H2'	34:DA:816:C:H6	1.73	0.52
4:AD:104:VAL:HG12	4:AD:105:VAL:N	2.23	0.52
50:DU:26:GLY:C	50:DU:28:ARG:H	2.12	0.52
41:BH:89:ILE:CD1	41:BH:129:THR:HB	2.39	0.52
8:AH:29:SER:HB3	8:AH:32:LYS:HB2	1.90	0.52
28:B3:19:GLN:O	28:B3:22:ALA:HB3	2.09	0.52
14:CN:48:ALA:N	14:CN:53:LEU:HD12	2.24	0.52
40:BG:16:ARG:NH1	40:BG:16:ARG:HG3	2.24	0.52
22:CV:65:C:H2'	22:CV:66:C:H5'	1.92	0.52
34:DA:361:G:C2'	34:DA:362:U:H5''	2.38	0.52
34:BA:2467:C:H2'	34:BA:2468:G:O4'	2.10	0.52
9:AI:16:ARG:O	9:AI:63:ILE:HG23	2.10	0.52
2:AB:30:ARG:HH21	2:AB:194:PRO:HG2	1.73	0.52
2:AB:178:ARG:HG3	8:AH:72:PRO:N	2.24	0.52
5:CE:18:ARG:NE	5:CE:25:ARG:HB3	2.25	0.52
17:CQ:76:LEU:CG	17:CQ:77:VAL:N	2.70	0.52
38:BE:63:LEU:O	38:BE:64:LYS:C	2.47	0.52
37:DD:132:PRO:HG3	37:DD:190:TYR:CE1	2.45	0.52
1:CA:1423:G:H5'	44:DO:49:ARG:HH21	1.73	0.52
45:DP:10:PRO:CD	45:DP:11:GLY:N	2.73	0.52
32:D7:31:LEU:O	32:D7:32:LYS:C	2.48	0.52
34:BA:235:U:H2'	34:BA:236:C:C6	2.43	0.52
42:DI:33:ARG:HG2	42:DI:33:ARG:HH11	1.75	0.52
34:DA:1431:U:O2'	34:DA:1432:C:H5'	2.09	0.52
34:DA:1403:C:H2'	34:DA:1404:C:O5'	2.09	0.52
5:AE:57:LYS:O	5:AE:61:TYR:CD2	2.63	0.52
41:DH:76:VAL:O	41:DH:79:VAL:HG22	2.09	0.52
49:DT:13:ARG:HE	49:DT:13:ARG:HA	1.75	0.52
34:DA:585:G:H2'	34:DA:1251:C:N4	2.23	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:795:C:H2'	34:DA:796:C:H6	1.74	0.52
34:DA:729:G:C4	34:DA:1775:U:O2	2.62	0.52
6:CF:7:ASN:O	6:CF:88:VAL:HA	2.10	0.52
34:DA:1532:C:O2	34:DA:1532:C:C2'	2.57	0.52
1:CA:639:G:O2'	1:CA:640:A:H5'	2.09	0.52
20:CT:94:ALA:O	20:CT:95:ALA:CB	2.58	0.52
35:DB:52:A:HO2'	35:DB:53:A:H8	1.57	0.52
1:CA:594:G:O2'	1:CA:595:G:H5'	2.09	0.52
34:DA:962:G:O2'	34:DA:963:U:H5'	2.09	0.52
1:CA:152:A:N6	1:CA:170:U:C2	2.78	0.52
1:AA:639:G:O2'	1:AA:640:A:H5'	2.10	0.52
49:BT:90:GLN:HE22	49:BT:124:ASP:CG	2.13	0.52
11:AK:41:THR:HG22	11:AK:42:TRP:N	2.25	0.52
1:CA:582:U:H2'	1:CA:583:A:C8	2.45	0.52
34:DA:614(A):U:H4'	34:DA:614(B):G:H5''	1.92	0.52
34:BA:1742:G:N7	34:BA:1743:C:C2	2.77	0.52
34:DA:1184:G:O2'	34:DA:1185:C:H5'	2.10	0.52
5:AE:42:GLY:HA3	5:AE:66:MET:HG2	1.91	0.52
37:BD:109:ASP:HB2	37:BD:197:GLY:HA2	1.92	0.52
28:B3:38:GLU:O	28:B3:40:THR:HG23	2.10	0.52
42:BI:114:LEU:HA	42:BI:130:TYR:HD1	1.75	0.52
37:DD:108:PRO:HB3	37:DD:143:HIS:CE1	2.45	0.52
48:BS:84:GLN:O	48:BS:85:VAL:HG13	2.09	0.52
34:DA:2522:U:H2'	34:DA:2523:G:H5''	1.92	0.52
34:DA:2562:U:H2'	34:DA:2563:U:H5'	1.92	0.52
34:BA:84:A:H5'	54:BY:9:LYS:HB3	1.91	0.52
28:B3:54:VAL:CG1	28:B3:55:ARG:N	2.72	0.52
42:DI:92:VAL:O	42:DI:92:VAL:HG13	2.10	0.52
55:DZ:14:LYS:O	55:DZ:18:LEU:HD12	2.10	0.52
39:DF:53:THR:CG2	39:DF:56:GLU:HB2	2.24	0.52
34:BA:878:A:H2'	34:BA:879:G:H5'	1.92	0.52
55:DZ:151:HIS:CA	55:DZ:171:ILE:HG12	2.33	0.52
34:DA:954:G:H5'	46:DQ:13:GLN:HG2	1.92	0.52
41:BH:55:PRO:CG	41:BH:56:SER:H	2.15	0.52
38:DE:117:MET:HG3	38:DE:122:PHE:O	2.10	0.52
34:BA:2723:C:H5''	47:BR:2:ARG:HD2	1.91	0.52
34:BA:1141:U:C5'	34:BA:1142(A):A:O4'	2.58	0.52
19:AS:16:LEU:N	19:AS:16:LEU:HD12	2.21	0.52
43:DN:126:PRO:O	43:DN:127:ASP:CB	2.54	0.52
1:CA:1228:C:H4'	13:CM:116:THR:O	2.10	0.52
26:B1:34:THR:HG21	34:BA:388:G:OP2	2.09	0.52
30:D5:20:ARG:HB3	30:D5:23:HIS:CD2	2.41	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:D2:47:ASN:HD22	27:D2:47:ASN:C	2.09	0.52
34:DA:2472:G:H2'	34:DA:2529:G:H21	1.72	0.52
1:AA:1391:U:H2'	1:AA:1392:G:H8	1.75	0.52
1:AA:1502:A:H2	1:AA:1505:G:N1	2.07	0.52
34:BA:2362:G:C2'	34:BA:2363:C:H5'	2.40	0.52
17:CQ:68:ARG:HG2	17:CQ:68:ARG:NH1	2.24	0.52
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.75	0.52
25:D0:53:MET:HA	25:D0:58:THR:O	2.10	0.52
6:AF:63:TYR:N	6:AF:63:TYR:CD2	2.78	0.52
34:DA:542:C:H2'	34:DA:543:C:OP1	2.10	0.52
34:BA:635:C:H2'	34:BA:636:G:C8	2.45	0.52
34:DA:1428:C:O2'	34:DA:1429:G:H5'	2.09	0.52
3:CC:113:ALA:HA	3:CC:116:VAL:HG23	1.91	0.52
20:AT:81:LYS:C	20:AT:83:ARG:N	2.63	0.52
7:AG:79:ARG:HH11	7:AG:79:ARG:HG3	1.74	0.52
15:CO:67:LEU:HD22	15:CO:78:TYR:CE1	2.45	0.52
45:BP:85:LEU:HD12	45:BP:120:ALA:HB3	1.90	0.52
8:AH:6:ILE:CG2	8:AH:85:ARG:HH12	2.23	0.52
34:BA:80:G:C2'	34:BA:81:G:H5'	2.39	0.52
2:CB:124:SER:OG	2:CB:125:PRO:HD2	2.09	0.52
34:DA:468:G:H2'	34:DA:469:G:O4'	2.09	0.52
34:BA:2292:C:H42	34:BA:2340:G:H1	1.57	0.52
17:AQ:81:ARG:CZ	17:AQ:84:LEU:HD11	2.39	0.52
50:BU:101:ARG:O	50:BU:102:GLU:HG2	2.09	0.52
39:BF:51:THR:CG2	39:BF:92:PRO:HD2	2.39	0.52
6:CF:98:LEU:HB3	18:CR:30:ASP:HA	1.92	0.52
40:DG:152:LEU:O	40:DG:153:ARG:HB2	2.10	0.52
12:CL:113:ARG:HH11	12:CL:113:ARG:HG2	1.74	0.52
34:BA:45:C:O2'	34:BA:47:C:H5'	2.09	0.52
11:CK:91:ARG:O	11:CK:94:ALA:HB3	2.10	0.52
40:DG:119:GLY:HA3	40:DG:181:ARG:HB2	1.92	0.52
1:AA:932:C:H5'	7:AG:4:ARG:HG2	1.92	0.52
34:BA:1865:G:H5'	34:BA:1866:C:OP2	2.10	0.52
8:CH:40:ALA:C	8:CH:42:GLU:N	2.62	0.52
18:AR:19:LYS:O	18:AR:20:ALA:HB2	2.09	0.52
13:AM:35:GLU:HG3	13:AM:36:LYS:HG2	1.92	0.52
19:AS:79:THR:O	19:AS:80:TYR:HB3	2.10	0.52
1:AA:695:A:H2'	1:AA:696:A:C8	2.45	0.52
34:DA:1187:G:H8	34:DA:1187:G:O5'	1.93	0.52
34:DA:1766:U:O2'	34:DA:1767:C:H5'	2.09	0.52
50:DU:110:VAL:O	50:DU:114:LYS:HD2	2.10	0.52
51:DV:19:LYS:HG2	51:DV:96:ILE:CB	2.38	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BI:78:THR:HA	42:BI:141:LYS:C	2.30	0.52
42:BI:81:VAL:CG1	42:BI:88:ILE:HD12	2.39	0.52
38:DE:3:GLY:O	38:DE:4:ILE:CB	2.57	0.52
49:BT:28:VAL:CG1	49:BT:46:GLU:HA	2.40	0.52
2:AB:112:VAL:O	2:AB:115:LEU:HB3	2.10	0.52
2:AB:54:THR:HG23	2:AB:199:TYR:HB3	1.92	0.52
38:BE:201:THR:HG21	38:BE:203:LYS:HB3	1.91	0.52
38:BE:44:TYR:O	38:BE:45:THR:CB	2.57	0.52
54:BY:26:LYS:HG2	54:BY:27:VAL:HG23	1.91	0.52
51:DV:26:ASP:C	51:DV:28:GLU:H	2.14	0.52
27:B2:57:ILE:O	27:B2:57:ILE:HG23	2.09	0.52
40:BG:114:ILE:O	40:BG:116:ASP:N	2.43	0.52
46:DQ:8:LYS:HE3	46:DQ:9:TYR:CE1	2.44	0.52
26:D1:13:ILE:HG13	26:D1:14:VAL:N	2.24	0.52
43:BN:42:TRP:H	50:BU:64:ARG:NH2	2.01	0.52
34:BA:1880:C:H6	34:BA:1880:C:H5'	1.75	0.52
34:DA:2184:G:H2'	34:DA:2185:C:C6	2.44	0.52
34:BA:589:C:H2'	34:BA:590:A:H8	1.75	0.52
34:DA:2713:A:H3'	34:DA:2714:G:H5'	1.90	0.52
1:CA:192:U:O4'	20:CT:103:GLY:HA2	2.10	0.52
46:DQ:39:PRO:HA	46:DQ:97:VAL:O	2.10	0.52
43:BN:55:VAL:HG11	43:BN:127:ASP:H	1.75	0.52
1:AA:818:G:C3'	1:AA:819:A:H5''	2.39	0.52
13:CM:96:LEU:C	13:CM:110:ARG:HE	2.13	0.52
6:CF:18:GLN:HA	6:CF:21:LEU:HD23	1.92	0.52
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.92	0.52
1:CA:1288:A:H2'	1:CA:1289:A:H8	1.72	0.52
40:DG:125:PHE:HD1	40:DG:125:PHE:H	1.58	0.52
37:DD:10:THR:HG23	37:DD:13:ARG:HB3	1.92	0.52
34:BA:1822:G:H5'	34:BA:1822:G:C8	2.40	0.52
10:CJ:80:LYS:HA	10:CJ:80:LYS:HZ2	1.75	0.52
1:AA:582:U:H2'	1:AA:583:A:C8	2.45	0.52
34:DA:2813:A:C2'	34:DA:2814:C:H5'	2.40	0.52
19:AS:6:LYS:CD	19:AS:6:LYS:N	2.73	0.52
19:AS:6:LYS:HG2	19:AS:7:LYS:CD	2.39	0.52
52:DW:48:ALA:O	52:DW:49:LYS:C	2.49	0.52
2:AB:178:ARG:HH22	2:AB:196:LEU:CA	2.22	0.52
38:DE:132:HIS:HA	38:DE:135:HIS:CE1	2.44	0.52
47:BR:3:HIS:O	47:BR:4:LEU:CB	2.58	0.52
35:DB:20:C:H2'	35:DB:21:G:C5'	2.38	0.52
2:CB:97:TRP:CH2	2:CB:176:GLU:OE2	2.63	0.52
41:BH:155:SER:C	41:BH:157:TYR:N	2.63	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:DW:70:TYR:N	52:DW:70:TYR:CD2	2.78	0.52
23:AW:23:A:H2'	23:AW:24:G:H8	1.75	0.52
15:AO:17:ARG:NH1	15:AO:17:ARG:HG3	2.25	0.52
1:CA:857:C:H2'	1:CA:858:G:O4'	2.10	0.52
36:DC:82:LYS:HZ2	36:DC:151:GLU:HA	1.75	0.52
1:CA:431:A:O2'	1:CA:432:A:H5'	2.10	0.52
7:CG:70:LYS:HB3	7:CG:96:GLN:OE1	2.10	0.52
3:AC:126:ARG:O	3:AC:128:PHE:HD1	1.92	0.52
43:BN:3:THR:C	43:BN:4:TYR:CG	2.83	0.52
47:BR:24:GLN:HB2	47:BR:44:LEU:CD2	2.40	0.52
1:AA:832:C:O2'	1:AA:833:U:O5'	2.27	0.52
1:AA:189(E):U:O2'	1:AA:189(F):U:H5'	2.10	0.52
2:AB:24:TRP:HD1	2:AB:24:TRP:H	1.55	0.52
7:CG:88:PRO:HD2	7:CG:152:ALA:HA	1.91	0.52
52:DW:1:MET:CE	52:DW:2:GLU:H	2.23	0.52
34:DA:422:A:H2'	34:DA:423:A:C8	2.44	0.52
39:BF:185:ASP:OD1	39:BF:188:ARG:NH1	2.39	0.52
1:CA:814:A:N7	1:CA:816:A:C4	2.78	0.52
1:CA:544:G:H2'	1:CA:545:C:H6	1.74	0.52
1:CA:544:G:H2'	1:CA:545:C:C6	2.44	0.52
55:BZ:75:ASN:O	55:BZ:76:LEU:HD23	2.10	0.52
46:DQ:16:ARG:HB2	46:DQ:16:ARG:HH11	1.75	0.52
34:BA:977:G:O2'	34:BA:978:G:H5'	2.09	0.52
51:DV:18:LEU:O	51:DV:19:LYS:HB2	2.10	0.52
51:DV:37:VAL:HG12	51:DV:38:LEU:N	2.25	0.52
51:DV:8:GLY:O	51:DV:10:LYS:HG3	2.10	0.52
37:DD:35:LYS:CG	37:DD:64:ILE:N	2.66	0.52
38:DE:3:GLY:O	38:DE:4:ILE:HB	2.10	0.52
49:DT:33:LYS:NZ	49:DT:33:LYS:HA	2.24	0.52
49:DT:92:GLY:O	49:DT:93:ARG:HB3	2.09	0.52
53:DX:36:LYS:C	53:DX:38:GLU:H	2.13	0.52
45:BP:122:PRO:HA	45:BP:141:ALA:O	2.09	0.52
49:BT:29:ARG:HE	49:BT:84:GLN:HG3	1.74	0.52
2:AB:144:ARG:O	2:AB:147:LYS:HB3	2.10	0.52
38:BE:47:VAL:O	38:BE:80:GLU:HA	2.10	0.52
34:DA:2562:U:C2'	34:DA:2563:U:H5'	2.39	0.52
1:AA:358:U:H2'	1:AA:359:U:C6	2.45	0.52
55:DZ:14:LYS:O	55:DZ:17:ALA:N	2.42	0.52
33:D8:36:LYS:O	33:D8:37:SER:O	2.26	0.52
45:DP:48:PRO:CG	45:DP:49:ARG:H	2.21	0.52
45:DP:50:ARG:CG	45:DP:51:PHE:N	2.73	0.52
38:DE:169:ASN:HA	38:DE:201:THR:OG1	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:B8:32:LEU:HD11	33:B8:41:ILE:CG2	2.39	0.52
34:BA:955:C:H5'	46:BQ:14:ARG:HH21	1.75	0.52
40:BG:86:MET:CG	40:BG:87:PRO:HD2	2.35	0.52
47:BR:60:LEU:HD23	47:BR:61:HIS:N	2.25	0.52
39:DF:20:LEU:HB3	39:DF:23:ASP:HB2	1.91	0.52
43:BN:42:TRP:H	50:BU:64:ARG:CD	2.22	0.52
26:D1:19:GLN:HG3	26:D1:44:PRO:CG	2.28	0.52
38:DE:117:MET:HE3	38:DE:124:GLY:HA3	1.92	0.52
55:BZ:67:LEU:N	55:BZ:67:LEU:HD12	2.24	0.52
34:BA:1947:C:H2'	34:BA:1948:G:C5'	2.36	0.52
46:DQ:39:PRO:O	46:DQ:40:ALA:HB2	2.10	0.52
37:DD:186:HIS:HD2	37:DD:188:GLU:N	1.95	0.52
26:D1:78:LYS:NZ	26:D1:90:ILE:O	2.43	0.52
50:BU:26:GLY:C	50:BU:28:ARG:H	2.13	0.52
27:D2:14:ARG:HE	27:D2:57:ILE:CB	2.22	0.52
12:CL:83:VAL:HG13	12:CL:84:LEU:N	2.25	0.52
40:DG:39:ILE:HD12	40:DG:39:ILE:C	2.30	0.52
1:AA:409:G:H5'	4:AD:25:ARG:HB2	1.91	0.52
4:AD:9:CYS:SG	4:AD:31:CYS:SG	3.07	0.52
9:AI:44:VAL:HB	9:AI:51:ARG:HH22	1.75	0.52
34:BA:812:C:O2'	34:BA:813:U:H5'	2.10	0.52
9:CI:44:VAL:HB	9:CI:51:ARG:HH22	1.75	0.52
1:CA:439:A:C4	1:CA:496:A:C2	2.98	0.52
34:BA:542:C:N4	34:BA:543:C:N4	2.57	0.52
37:DD:106:ILE:CD1	37:DD:196:VAL:HG13	2.40	0.52
23:CW:23:A:H2'	23:CW:24:G:C8	2.44	0.52
46:DQ:69:PHE:CD1	46:DQ:70:PRO:HD2	2.45	0.52
44:BO:85:VAL:HG12	44:BO:86:ILE:O	2.10	0.52
40:BG:6:ALA:O	40:BG:9:ARG:N	2.43	0.52
34:DA:2842:G:O2'	34:DA:2843:G:H5'	2.10	0.52
1:CA:625:G:C4	1:CA:626:U:C5	2.98	0.52
7:AG:26:PHE:CD2	7:AG:30:ILE:HD11	2.45	0.52
19:CS:6:LYS:HG2	19:CS:7:LYS:CD	2.38	0.52
9:AI:17:VAL:HG21	9:AI:80:GLY:HA3	1.92	0.52
2:AB:194:PRO:O	2:AB:195:ASP:C	2.47	0.52
1:CA:186:C:H5'	20:CT:78:ALA:CB	2.37	0.52
1:AA:1248:A:H2'	1:AA:1249:C:H5'	1.92	0.52
34:BA:1290:C:O2'	34:BA:1291:C:H5'	2.10	0.52
49:BT:72:VAL:HG12	49:BT:73:GLU:N	2.25	0.52
34:BA:2617:C:C2'	34:BA:2618:G:H5'	2.40	0.52
3:CC:167:TRP:O	3:CC:168:ALA:HB2	2.10	0.52
45:DP:13:ASN:HD22	45:DP:13:ASN:N	2.02	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:118:LYS:NZ	9:AI:118:LYS:CB	2.73	0.52
1:AA:390:C:O5'	1:AA:390:C:H6	1.93	0.52
1:AA:1356:G:H2'	1:AA:1357:A:H8	1.73	0.52
22:AV:5:G:O2'	22:AV:6:G:H5'	2.10	0.52
34:DA:1344:G:H4'	34:DA:1384:A:C5	2.44	0.52
26:B1:37:ILE:HG21	34:BA:2080:G:P	2.49	0.52
1:AA:983:A:HO2'	1:AA:1049:U:HO2'	1.57	0.52
31:B6:51:GLU:O	31:B6:52:VAL:HB	2.10	0.52
31:D6:51:GLU:O	31:D6:52:VAL:HB	2.10	0.52
1:AA:793:U:O2	1:AA:1516:G:H4'	2.09	0.52
23:CW:67:C:O2'	23:CW:68:C:H5'	2.10	0.52
19:AS:33:THR:OG1	19:AS:34:TRP:N	2.43	0.52
48:DS:95:HIS:CG	48:DS:96:GLY:H	2.27	0.52
26:B1:31:GLY:O	34:BA:2397:G:H5'	2.10	0.52
34:BA:2222:G:O2'	34:BA:2223:G:H5'	2.10	0.52
48:BS:95:HIS:CG	48:BS:96:GLY:H	2.27	0.52
34:DA:1744:C:O2'	34:DA:1745:C:H5'	2.10	0.52
9:AI:85:LEU:C	9:AI:85:LEU:HD12	2.31	0.52
49:DT:17:THR:O	49:DT:17:THR:HG23	2.10	0.52
44:BO:36:GLY:HA3	44:BO:109:LYS:HG3	1.92	0.52
51:DV:38:LEU:HD23	51:DV:39:LEU:N	2.25	0.51
45:DP:16:ARG:HG2	45:DP:18:ARG:N	2.14	0.51
50:BU:87:GLY:C	50:BU:88:ILE:HG13	2.30	0.51
51:BV:8:GLY:O	51:BV:10:LYS:HG3	2.10	0.51
34:DA:2777:G:C4'	34:DA:2778:A:H5'	2.39	0.51
53:DX:40:LYS:C	53:DX:42:ALA:N	2.61	0.51
49:BT:65:LYS:HG3	49:BT:66:VAL:N	2.25	0.51
39:BF:115:ALA:O	39:BF:118:ALA:N	2.40	0.51
37:BD:25:THR:HG22	37:BD:82:ILE:C	2.30	0.51
26:B1:46:LEU:O	26:B1:48:LYS:N	2.43	0.51
45:DP:125:VAL:O	45:DP:145:PRO:HD2	2.10	0.51
54:DY:26:LYS:HG2	54:DY:27:VAL:HG23	1.92	0.51
55:DZ:126:VAL:HG12	55:DZ:163:LEU:CA	2.33	0.51
2:CB:188:ALA:O	2:CB:202:PRO:HA	2.10	0.51
33:D8:62:LEU:CD1	34:DA:242:G:H5''	2.23	0.51
48:DS:77:ALA:O	48:DS:79:ALA:N	2.43	0.51
34:DA:2030:A:H4'	34:DA:2031:A:C8	2.45	0.51
26:D1:12:PRO:CD	26:D1:13:ILE:N	2.72	0.51
27:D2:33:MET:N	27:D2:33:MET:SD	2.83	0.51
55:BZ:27:VAL:HG12	55:BZ:87:ASP:HA	1.92	0.51
5:AE:103:GLY:O	5:AE:104:ALA:C	2.48	0.51
54:BY:81:LYS:HD2	54:BY:96:ILE:HB	1.92	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DQ:29:PHE:CD1	46:DQ:29:PHE:N	2.77	0.51
51:BV:32:THR:HB	51:BV:64:HIS:HE1	1.73	0.51
53:DX:76:ARG:CD	53:DX:76:ARG:O	2.58	0.51
19:AS:15:LEU:O	19:AS:19:VAL:HG23	2.10	0.51
19:AS:66:MET:HB2	19:AS:74:PHE:CZ	2.45	0.51
12:AL:83:VAL:HG13	12:AL:84:LEU:N	2.25	0.51
50:BU:21:ALA:HB1	50:BU:24:TYR:CD1	2.45	0.51
3:CC:70:VAL:CG1	3:CC:71:ALA:H	2.23	0.51
6:CF:14:LEU:HB3	6:CF:18:GLN:HE21	1.75	0.51
6:CF:55:ASP:HB2	6:CF:86:ARG:NH1	2.21	0.51
42:BI:68:LEU:O	42:BI:71:ILE:HG12	2.10	0.51
3:AC:79:ARG:O	3:AC:79:ARG:HG3	2.09	0.51
40:DG:85:GLY:O	40:DG:87:PRO:HD2	2.08	0.51
26:D1:41:ARG:NH2	34:DA:189:G:OP2	2.43	0.51
44:DO:1:MET:HB2	44:DO:32:TYR:HD2	1.75	0.51
34:DA:39:C:O2	39:DF:46:ARG:NH2	2.43	0.51
8:CH:63:LEU:N	8:CH:63:LEU:HD22	2.25	0.51
50:BU:10:ARG:O	50:BU:11:ARG:C	2.46	0.51
53:BX:82:GLN:CG	53:BX:83:VAL:N	2.73	0.51
5:AE:8:GLU:HA	5:AE:34:VAL:HG22	1.93	0.51
35:DB:45:A:H2'	35:DB:45:A:N3	2.25	0.51
1:CA:335:C:H2'	1:CA:336:C:C6	2.45	0.51
9:CI:53:VAL:H	9:CI:54:ASP:N	2.08	0.51
55:BZ:143:GLY:C	55:BZ:144:LEU:HD22	2.29	0.51
19:CS:42:PRO:O	19:CS:44:MET:SD	2.68	0.51
31:B6:28:ARG:HG2	31:B6:28:ARG:NH1	2.23	0.51
3:AC:35:GLU:O	3:AC:39:ILE:HG13	2.10	0.51
5:CE:18:ARG:HE	5:CE:25:ARG:HB3	1.74	0.51
7:AG:100:ALA:O	7:AG:104:LEU:HD23	2.10	0.51
4:CD:4:TYR:O	4:CD:5:ILE:CB	2.59	0.51
34:DA:1680:U:O2	34:DA:1763:G:H3'	2.10	0.51
51:BV:66:ARG:CD	51:BV:67:GLY:N	2.73	0.51
34:DA:945:A:O3'	34:DA:946:G:H4'	2.10	0.51
34:BA:150:C:H2'	34:BA:151:C:C6	2.46	0.51
12:AL:113:ARG:HG2	12:AL:113:ARG:HH11	1.76	0.51
34:DA:670:A:H4'	34:DA:671:C:OP1	2.10	0.51
34:BA:271(M):G:H2'	34:BA:271(N):U:H5''	1.92	0.51
34:BA:2290:G:H5'	34:BA:2290:G:C8	2.43	0.51
6:CF:1:MET:O	6:CF:2:ARG:HG3	2.10	0.51
34:BA:2827:C:H5'	34:BA:2828:C:OP2	2.10	0.51
4:CD:112:VAL:O	4:CD:112:VAL:HG22	2.10	0.51
34:DA:2063:C:O2	34:DA:2450:A:N1	2.43	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:AQ:99:SER:O	17:AQ:100:LYS:HD3	2.09	0.51
34:BA:1270:C:H5''	34:BA:1271:G:O5'	2.10	0.51
34:DA:1983:C:O2'	34:DA:1984:G:H5'	2.09	0.51
11:AK:66:LEU:O	11:AK:67:ASP:C	2.48	0.51
34:DA:36:G:O2'	34:DA:37:C:H5'	2.10	0.51
13:AM:106:ASN:O	13:AM:107:ALA:HB3	2.10	0.51
34:BA:1524:G:O2'	34:BA:1525:G:H5'	2.10	0.51
1:AA:425:G:O2'	1:AA:426:G:H5'	2.09	0.51
51:DV:2:PHE:CZ	51:DV:13:ARG:HD2	2.45	0.51
50:BU:92:ARG:HB2	51:BV:11:GLN:HE21	1.73	0.51
51:BV:69:LYS:CB	51:BV:93:GLU:OE2	2.58	0.51
54:BY:49:VAL:CG1	54:BY:53:PRO:HG3	2.40	0.51
45:BP:95:VAL:HA	45:BP:99:LEU:CD2	2.33	0.51
38:BE:176:ILE:HG22	38:BE:179:GLU:H	1.74	0.51
34:BA:2545:G:N3	34:BA:2565:A:H2	2.09	0.51
54:DY:39:VAL:HG12	54:DY:40:GLU:N	2.25	0.51
29:D4:1:MET:H1	40:DG:67:LYS:NZ	2.08	0.51
55:BZ:151:HIS:CB	55:BZ:170:THR:HA	2.24	0.51
41:DH:38:SER:C	41:DH:40:GLU:H	2.13	0.51
1:CA:384:G:C2	1:CA:385:C:N3	2.78	0.51
1:CA:175:C:O2'	1:CA:176:C:H5'	2.11	0.51
51:BV:17:GLY:HA2	51:BV:98:GLU:O	2.10	0.51
34:DA:1697:G:H5'	34:DA:1698:A:H5''	1.92	0.51
47:DR:54:LEU:HD23	47:DR:66:VAL:CG2	2.40	0.51
45:DP:71:VAL:HG13	45:DP:72:PRO:CD	2.40	0.51
52:DW:59:VAL:HG12	52:DW:60:ASN:H	1.70	0.51
27:D2:18:PRO:O	27:D2:22:GLU:N	2.34	0.51
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.91	0.51
1:AA:1067:A:H1'	1:AA:1068:G:C8	2.46	0.51
34:BA:191:A:C2'	34:BA:192:C:H5'	2.41	0.51
34:DA:2312:U:H4'	40:DG:71:THR:HG23	1.92	0.51
34:BA:154(A):C:H5	34:BA:171:G:N1	2.06	0.51
22:AV:73:A:H5'	22:AV:73:A:C8	2.41	0.51
25:B0:20:ARG:NH1	34:BA:2357:U:OP1	2.43	0.51
34:DA:2307:G:N3	34:DA:2307:G:H3'	2.25	0.51
38:DE:61:ARG:HG3	38:DE:62:PRO:HD3	1.92	0.51
17:CQ:68:ARG:O	17:CQ:68:ARG:HG3	2.09	0.51
3:CC:172:ARG:NH1	3:CC:172:ARG:HB3	2.25	0.51
38:BE:142:GLY:C	38:BE:143:ASN:ND2	2.64	0.51
34:DA:2873:A:N3	47:DR:6:SER:HB2	2.24	0.51
2:AB:216:SER:O	2:AB:218:ALA:N	2.43	0.51
3:AC:66:VAL:HG11	3:AC:91:LEU:CD1	2.40	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:61:ALA:O	3:CC:62:ASP:HB2	2.10	0.51
34:BA:2467:C:H4'	46:BQ:123:HIS:CE1	2.45	0.51
1:AA:940:C:H2'	1:AA:941:G:H8	1.74	0.51
34:DA:849:A:C8	34:DA:850:C:C5	2.98	0.51
5:CE:150:ARG:HB2	5:CE:150:ARG:NH1	2.25	0.51
30:B5:2:ALA:HA	34:BA:2015:A:O4'	2.09	0.51
9:CI:114:TYR:HD2	9:CI:114:TYR:N	2.08	0.51
34:BA:2025:C:H2'	34:BA:2026:C:C6	2.46	0.51
2:AB:124:SER:OG	2:AB:125:PRO:HD2	2.10	0.51
3:AC:167:TRP:O	3:AC:168:ALA:HB2	2.10	0.51
14:CN:36:PHE:HD1	14:CN:37:PHE:CD2	2.29	0.51
1:CA:390:C:O5'	1:CA:390:C:H6	1.93	0.51
7:CG:97:GLN:HG2	7:CG:101:LEU:CD1	2.39	0.51
1:CA:15:G:H4'	5:CE:24:ARG:CZ	2.38	0.51
1:AA:101:A:O2'	1:AA:102:G:H5'	2.10	0.51
34:BA:1195:G:C2'	34:BA:1196:C:H5'	2.40	0.51
7:AG:70:LYS:HB3	7:AG:96:GLN:OE1	2.11	0.51
34:BA:265:A:H4'	34:BA:266:G:O5'	2.10	0.51
2:CB:15:VAL:H	2:CB:16:HIS:CE1	2.28	0.51
35:BB:57:A:C4	40:BG:29:TRP:HB3	2.45	0.51
35:BB:45:A:N3	35:BB:45:A:H2'	2.23	0.51
34:DA:1603:A:C8	34:DA:1603:A:H5'	2.44	0.51
34:BA:2063:C:O2	34:BA:2450:A:N1	2.43	0.51
34:BA:2111:C:H5'	34:BA:2112:G:OP1	2.10	0.51
52:DW:55:ALA:O	52:DW:56:ALA:C	2.48	0.51
1:CA:893:C:H2'	1:CA:894:G:H8	1.75	0.51
34:DA:2804:C:H2'	34:DA:2805:G:C8	2.45	0.51
1:AA:152:A:N6	1:AA:170:U:C2	2.78	0.51
34:DA:1247:A:OP1	39:DF:95:ARG:NH2	2.41	0.51
34:BA:2687:U:C2'	34:BA:2688:U:H5'	2.41	0.51
34:DA:1181:C:O2'	34:DA:1182:A:H5'	2.10	0.51
34:BA:483:A:H8	54:BY:47:LYS:NZ	2.07	0.51
34:DA:1159:U:O2'	34:DA:1160:G:H5'	2.11	0.51
34:BA:84:A:H2'	34:BA:99:U:O4	2.10	0.51
54:BY:28:LYS:HA	54:BY:39:VAL:N	2.18	0.51
26:B1:87:PRO:CD	26:B1:88:LYS:H	2.24	0.51
40:BG:115:ARG:CZ	40:BG:136:ARG:HG3	2.41	0.51
40:BG:56:ALA:HB2	40:BG:153:ARG:NH2	2.26	0.51
43:DN:39:ARG:HD3	43:DN:41:ASP:H	1.75	0.51
41:DH:85:LYS:HZ3	41:DH:145:ALA:HA	1.75	0.51
23:AW:18:G:H1	23:AW:55:U:H6	1.58	0.51
34:DA:570:G:H2'	34:DA:2030:A:N7	2.26	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:DX:23:GLU:HG3	53:DX:24:GLY:H	1.72	0.51
34:DA:2696:U:H2'	34:DA:2697:G:C8	2.44	0.51
54:DY:81:LYS:HD2	54:DY:96:ILE:HB	1.92	0.51
55:BZ:6:LYS:HB2	55:BZ:8:TYR:HE1	1.75	0.51
26:D1:68:PRO:O	26:D1:71:TYR:N	2.38	0.51
53:DX:77:LYS:HD3	53:DX:78:LYS:CD	2.33	0.51
34:DA:1952:A:C6	34:DA:1953:A:N1	2.79	0.51
30:B5:55:ARG:HH21	47:BR:33:ARG:HH22	1.57	0.51
30:D5:58:LEU:N	30:D5:58:LEU:HD12	2.25	0.51
42:BI:41:GLU:O	42:BI:45:LYS:HG2	2.10	0.51
11:CK:44:SER:N	11:CK:47:VAL:HG21	2.24	0.51
47:DR:47:PHE:O	47:DR:51:LEU:HD12	2.10	0.51
19:CS:15:LEU:O	19:CS:19:VAL:HG23	2.11	0.51
37:DD:44:ASN:HB3	37:DD:49:ILE:HG22	1.91	0.51
34:BA:622:G:C2'	34:BA:623:G:H5'	2.39	0.51
37:DD:255:LYS:CE	37:DD:255:LYS:H	2.19	0.51
6:CF:63:TYR:N	6:CF:63:TYR:CD2	2.78	0.51
12:CL:61:THR:OG1	12:CL:62:SER:N	2.42	0.51
37:DD:235:GLY:O	37:DD:237:GLU:N	2.43	0.51
34:BA:2202:C:H2'	34:BA:2203:U:H6	1.75	0.51
34:BA:547:A:C8	34:BA:549:G:C6	2.98	0.51
1:AA:625:G:C4	1:AA:626:U:C5	2.99	0.51
8:AH:29:SER:HB3	8:AH:32:LYS:CD	2.36	0.51
53:DX:82:GLN:CG	53:DX:83:VAL:N	2.73	0.51
2:CB:67:THR:HA	2:CB:90:MET:HE1	1.93	0.51
52:BW:47:VAL:HA	52:BW:50:VAL:CG1	2.40	0.51
1:AA:1316:G:C2'	1:AA:1317:C:H5''	2.38	0.51
23:CW:16:U:H4'	23:CW:16:U:OP1	2.10	0.51
13:CM:13:LYS:HA	13:CM:44:ARG:NH1	2.22	0.51
34:DA:1230:C:H2'	34:DA:1231:G:C8	2.43	0.51
2:AB:178:ARG:HD2	8:AH:71:GLY:CA	2.40	0.51
8:CH:86:ILE:CG2	8:CH:133:LEU:HD22	2.40	0.51
1:CA:1478:C:H2'	1:CA:1479:C:C6	2.40	0.51
8:AH:119:LEU:CD1	8:AH:124:ALA:HA	2.40	0.51
45:DP:108:LYS:C	45:DP:110:TYR:N	2.63	0.51
26:D1:61:ARG:NH1	26:D1:61:ARG:HG2	2.22	0.51
1:CA:1356:G:H2'	1:CA:1357:A:H8	1.76	0.51
34:BA:2186:G:C3'	34:BA:2187:G:H5''	2.41	0.51
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.45	0.51
34:DA:1695:G:H2'	34:DA:1696:G:C5'	2.40	0.51
20:AT:33:ILE:HD12	20:AT:63:ILE:CG1	2.41	0.51
34:BA:1257:C:C2	34:BA:1258:C:C5	2.99	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1404:C:H6	1:AA:1404:C:O5'	1.94	0.51
34:DA:1571:A:H2'	34:DA:1572:A:C8	2.45	0.51
11:AK:61:ALA:HB2	11:AK:90:GLY:HA3	1.90	0.51
34:BA:1625:C:H2'	34:BA:1626:G:C5'	2.40	0.51
26:D1:65:SER:OG	26:D1:66:HIS:HD2	1.92	0.51
1:CA:243:A:C2	1:CA:246:A:C8	2.99	0.51
41:DH:18:GLU:HB2	41:DH:25:LYS:HB2	1.92	0.51
1:AA:41:G:H2'	1:AA:42:G:H8	1.74	0.51
11:CK:66:LEU:O	11:CK:67:ASP:C	2.48	0.51
1:CA:828:A:H5''	1:CA:859:A:C2	2.45	0.51
43:DN:25:ARG:HG3	43:DN:25:ARG:HH11	1.75	0.51
34:DA:201:C:C2'	34:DA:202:U:H5'	2.39	0.51
34:DA:1865:G:H5'	34:DA:1866:C:OP2	2.10	0.51
34:DA:1876:A:H2'	34:DA:1877:A:C8	2.45	0.51
51:DV:18:LEU:HD22	51:DV:18:LEU:C	2.31	0.51
34:DA:661:C:O2'	34:DA:662:G:H5'	2.11	0.51
49:BT:29:ARG:HE	49:BT:84:GLN:CG	2.24	0.51
3:CC:12:LEU:O	3:CC:16:ARG:O	2.28	0.51
34:BA:2777:G:C4'	34:BA:2778:A:H5'	2.41	0.51
26:B1:11:ARG:CB	26:B1:12:PRO:CD	2.88	0.51
26:B1:60:PHE:CD2	26:B1:91:LYS:HE2	2.44	0.51
26:B1:92:LYS:O	26:B1:94:LEU:N	2.42	0.51
34:DA:1591:G:O2'	34:DA:1592:C:H5'	2.10	0.51
42:DI:131:LYS:HG3	42:DI:132:PRO:HA	1.93	0.51
42:DI:94:ALA:O	42:DI:98:ALA:N	2.43	0.51
20:CT:16:HIS:O	20:CT:19:SER:HB3	2.10	0.51
41:DH:102:ALA:HB2	41:DH:117:PRO:CD	2.40	0.51
18:CR:40:LEU:O	18:CR:43:PHE:HD1	1.93	0.51
18:CR:65:ILE:HD12	18:CR:65:ILE:C	2.29	0.51
34:BA:1980:G:O2'	34:BA:1982:C:OP2	2.25	0.51
42:DI:37:VAL:CG1	42:DI:38:LEU:N	2.74	0.51
47:DR:28:LEU:HD21	47:DR:114:VAL:HG12	1.92	0.51
34:DA:1948:G:O2'	34:DA:1949:G:H5'	2.10	0.51
27:D2:47:ASN:O	27:D2:49:LYS:N	2.44	0.51
1:AA:1508:G:H2'	1:AA:1509:C:C6	2.46	0.51
1:AA:1525:G:O2'	1:AA:1526:G:H5'	2.11	0.51
42:DI:68:LEU:O	42:DI:71:ILE:HG12	2.10	0.51
26:D1:41:ARG:NH1	26:D1:41:ARG:HG3	2.26	0.51
34:BA:2306:C:C5	34:BA:2307:G:H1'	2.45	0.51
41:DH:87:LEU:HD12	41:DH:131:VAL:HG12	1.91	0.51
4:CD:8:VAL:O	4:CD:11:LEU:HG	2.10	0.51
12:AL:22:SER:C	12:AL:24:VAL:H	2.14	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:328:C:H4'	1:CA:329:A:O5'	2.09	0.51
31:B6:15:GLU:CG	31:B6:18:ARG:HG3	2.39	0.51
34:DA:2107:C:H42	34:DA:2182:G:H1	1.58	0.51
34:DA:1668:A:H4'	34:DA:1669:A:O5'	2.10	0.51
51:BV:5:VAL:HG22	51:BV:6:LYS:N	2.26	0.51
38:BE:8:LYS:HG2	38:BE:192:ASN:HD22	1.75	0.51
38:DE:79:ARG:NH1	38:DE:79:ARG:HG2	2.24	0.51
7:AG:25:ALA:O	7:AG:28:ASN:HB2	2.11	0.51
52:DW:50:VAL:HG13	52:DW:51:LEU:N	2.21	0.51
41:DH:106:THR:O	41:DH:107:VAL:HG13	2.10	0.51
41:DH:155:SER:C	41:DH:157:TYR:N	2.64	0.51
14:CN:43:CYS:O	14:CN:46:GLU:HB2	2.10	0.51
8:AH:6:ILE:HG12	8:AH:31:PHE:HE2	1.75	0.51
1:CA:782:A:H2'	1:CA:783:C:C5'	2.40	0.51
1:CA:542:G:H2'	1:CA:543:C:C6	2.46	0.51
37:DD:136:ILE:N	37:DD:136:ILE:HD12	2.24	0.51
34:BA:1924:C:O2'	34:BA:1925:C:H5'	2.11	0.51
1:CA:294:U:H2'	1:CA:295:C:H6	1.75	0.51
9:AI:117:HIS:CD2	9:AI:123:PRO:HA	2.44	0.51
34:DA:1005:C:C2	34:DA:1143:A:C5	2.99	0.51
1:AA:389:A:H2'	1:AA:390:C:O4'	2.10	0.51
11:CK:15:ALA:HA	11:CK:77:MET:HA	1.92	0.51
7:CG:97:GLN:O	7:CG:101:LEU:HG	2.11	0.51
29:B4:29:PRO:O	29:B4:31:ILE:N	2.43	0.51
4:AD:108:LEU:HB3	4:AD:110:PHE:CE1	2.44	0.51
34:BA:1827:C:O2'	34:BA:1828:G:H5'	2.10	0.51
44:DO:107:ARG:CZ	49:DT:35:LYS:HD2	2.40	0.51
2:CB:98:LEU:O	2:CB:101:MET:HG3	2.11	0.51
1:CA:1060:C:O2'	1:CA:1061:G:H5'	2.11	0.51
20:AT:22:ARG:O	20:AT:25:ARG:HB3	2.10	0.51
3:CC:126:ARG:O	3:CC:128:PHE:HD1	1.93	0.51
17:AQ:44:ALA:HB1	17:AQ:73:VAL:HG22	1.92	0.51
49:BT:13:ARG:HA	49:BT:13:ARG:HE	1.74	0.51
34:DA:524:U:H4'	34:DA:555:U:H4'	1.92	0.51
34:DA:265:A:H4'	34:DA:266:G:O5'	2.10	0.51
34:DA:1573:G:C2'	34:DA:1574:C:H5'	2.40	0.51
34:BA:2855:C:O2'	34:BA:2856:C:H5'	2.10	0.51
40:BG:33:ARG:HB2	40:BG:162:THR:OG1	2.10	0.51
14:AN:29:ARG:HG3	14:AN:29:ARG:HH11	1.76	0.51
34:BA:1876:A:H2'	34:BA:1877:A:C8	2.46	0.51
1:AA:1090:U:O2'	1:AA:1091:U:H5'	2.10	0.51
5:CE:42:GLY:HA3	5:CE:66:MET:HG2	1.92	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:721:C:H2'	34:BA:722:A:C8	2.46	0.51
1:AA:650:G:O2'	1:AA:651:C:H5'	2.09	0.51
48:BS:45:GLY:O	48:BS:46:VAL:HG23	2.10	0.51
34:DA:1756:G:H4'	34:DA:1758:G:O4'	2.09	0.51
34:DA:2303:G:H1'	40:DG:132:ASN:HD22	1.75	0.51
41:BH:18:GLU:HB2	41:BH:25:LYS:HB2	1.92	0.51
37:DD:27:THR:O	37:DD:28:GLU:HB2	2.10	0.51
34:DA:661:C:C4'	45:DP:18:ARG:HG2	2.41	0.51
45:BP:96:THR:O	45:BP:100:LEU:HD22	2.09	0.51
38:BE:3:GLY:HA3	38:BE:81:ILE:HG13	1.92	0.51
3:AC:16:ARG:CB	3:AC:16:ARG:HH11	2.21	0.51
39:BF:3:GLU:CB	39:BF:24:LEU:HG	2.40	0.51
1:AA:357:G:C2	1:AA:358:U:C5	2.98	0.51
42:DI:91:SER:HB2	42:DI:119:PRO:O	2.10	0.51
55:DZ:56:VAL:HG22	55:DZ:70:LEU:HD21	1.91	0.51
55:DZ:29:TYR:HE2	55:DZ:87:ASP:HB2	1.75	0.51
29:D4:5:ILE:O	29:D4:6:HIS:O	2.28	0.51
34:DA:1331:A:C2'	34:DA:1332:G:H5''	2.41	0.51
34:BA:143:G:O4'	53:BX:38:GLU:HG3	2.10	0.51
55:DZ:151:HIS:HB3	55:DZ:170:THR:CA	2.29	0.51
18:AR:53:ARG:CG	18:AR:63:GLN:HE21	2.14	0.51
34:BA:2031:A:C6	34:BA:2498:C:H1'	2.46	0.51
34:BA:2498:C:O2'	34:BA:2499:C:H5'	2.10	0.51
10:CJ:34:VAL:HG12	10:CJ:35:SER:N	2.24	0.51
5:AE:139:LEU:O	5:AE:141:GLN:N	2.42	0.51
38:BE:111:ARG:CD	38:BE:160:TYR:HE1	2.23	0.51
26:D1:87:PRO:CD	26:D1:88:LYS:N	2.73	0.51
19:AS:40:ILE:HD13	19:AS:62:ILE:HD11	1.92	0.51
13:AM:96:LEU:C	13:AM:110:ARG:HE	2.14	0.51
3:CC:105:GLU:CG	3:CC:106:VAL:H	2.17	0.51
1:CA:1321:C:C5'	1:CA:1322:C:C5'	2.77	0.51
1:AA:1190:G:OP1	3:AC:5:ILE:HG23	2.10	0.51
13:AM:68:GLY:O	13:AM:69:GLU:HB2	2.11	0.51
9:AI:96:LEU:HG	9:AI:102:LEU:HB2	1.92	0.51
9:CI:96:LEU:HG	9:CI:102:LEU:HB2	1.92	0.51
34:DA:2306:C:C5	34:DA:2307:G:H1'	2.46	0.51
34:DA:2364:C:O2'	34:DA:2365:G:H5'	2.11	0.51
51:BV:45:THR:HG22	51:BV:45:THR:O	2.11	0.51
29:B4:12:ALA:O	40:BG:101:ILE:HD11	2.11	0.51
34:BA:1354:A:H2'	34:BA:1355:G:O4'	2.11	0.51
6:AF:22:GLU:HA	6:AF:22:GLU:OE2	2.10	0.51
25:D0:27:GLU:HG3	25:D0:67:VAL:O	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1822:G:H5'	34:DA:1822:G:C8	2.35	0.51
44:BO:14:THR:HG21	44:BO:86:ILE:HG12	1.92	0.51
37:BD:14:ARG:CG	37:BD:14:ARG:HH11	2.21	0.51
34:BA:2813:A:C2'	34:BA:2814:C:H5'	2.40	0.51
34:DA:2691:C:H6	34:DA:2691:C:H5'	1.75	0.51
49:DT:6:LEU:C	49:DT:6:LEU:HD23	2.30	0.51
25:B0:31:VAL:HB	25:B0:35:ASN:HD22	1.75	0.51
2:AB:215:LEU:O	2:AB:218:ALA:HB3	2.10	0.51
7:CG:15:ASP:OD2	7:CG:44:TYR:OH	2.29	0.51
34:DA:318:C:H2'	34:DA:319:C:H6	1.75	0.51
9:AI:53:VAL:H	9:AI:54:ASP:N	2.08	0.51
20:CT:89:ARG:HB2	20:CT:104:LEU:CD1	2.40	0.51
34:BA:320:A:C5	39:BF:136:THR:HG21	2.46	0.51
5:CE:59:GLY:O	5:CE:62:ALA:HB3	2.11	0.51
34:BA:1140:C:H1'	34:BA:1143:A:N3	2.25	0.51
9:CI:45:ALA:O	9:CI:78:LYS:HE3	2.10	0.51
8:AH:122:ARG:HH11	8:AH:122:ARG:CB	2.23	0.51
14:AN:36:PHE:HD1	14:AN:37:PHE:CD2	2.28	0.51
43:BN:96:GLU:HG2	43:BN:97:ARG:N	2.25	0.51
34:DA:1771:C:O2'	34:DA:1786:A:H8	1.93	0.51
1:CA:1466:C:O2'	1:CA:1467:G:H5'	2.10	0.51
37:DD:231:HIS:CE1	37:DD:232:PRO:HD2	2.46	0.51
1:CA:15:G:H4'	5:CE:24:ARG:HH12	1.75	0.51
2:AB:168:THR:HG21	2:AB:192:SER:HA	1.92	0.51
15:AO:67:LEU:HD22	15:AO:78:TYR:HE1	1.76	0.51
20:CT:81:LYS:C	20:CT:83:ARG:N	2.63	0.51
34:BA:1278:A:OP1	47:BR:36:THR:HG22	2.10	0.51
1:CA:46:G:O2'	1:CA:365:U:H1'	2.10	0.51
34:BA:1603:A:C8	34:BA:1603:A:H5'	2.46	0.51
21:AU:9:ARG:NH1	21:AU:22:ARG:HA	2.25	0.51
22:AV:35:A:O2'	22:AV:36:U:H5'	2.09	0.51
55:DZ:129:SER:O	55:DZ:131:ARG:N	2.44	0.51
11:AK:91:ARG:O	11:AK:94:ALA:HB3	2.10	0.51
20:AT:94:ALA:O	20:AT:95:ALA:CB	2.58	0.51
1:AA:977:A:H2'	1:AA:978:A:H5'	1.91	0.51
8:CH:40:ALA:C	8:CH:42:GLU:H	2.13	0.51
1:AA:243:A:C2	1:AA:246:A:C8	2.99	0.51
28:D3:59:VAL:CG1	28:D3:60:GLU:N	2.74	0.51
34:DA:977:G:O2'	34:DA:978:G:H5'	2.09	0.51
1:AA:1132:C:O2'	1:AA:1133:G:H5'	2.11	0.51
2:AB:130:ARG:HA	2:AB:130:ARG:HE	1.76	0.51
52:BW:95:ILE:O	52:BW:95:ILE:HG13	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:645:C:O2	34:DA:645:C:H3'	2.10	0.51
34:DA:2516:G:H2'	34:DA:2517:C:C6	2.45	0.51
34:BA:709:U:H2'	34:BA:710:G:H8	1.76	0.51
50:BU:95:LEU:CD1	51:BV:11:GLN:HG3	2.40	0.51
49:DT:65:LYS:NZ	49:DT:66:VAL:H	2.09	0.51
54:BY:14:LEU:HD12	54:BY:15:VAL:N	2.25	0.51
55:DZ:24:LEU:HD23	55:DZ:24:LEU:C	2.30	0.51
34:BA:2762:G:C3'	34:BA:2763:G:H5''	2.40	0.51
47:DR:87:TYR:O	47:DR:89:ASP:N	2.41	0.51
18:AR:58:LEU:HB3	18:AR:62:GLU:HB2	1.91	0.51
18:AR:65:ILE:HD12	18:AR:65:ILE:C	2.30	0.51
43:BN:9:VAL:HG12	43:BN:10:GLU:N	2.14	0.51
16:AP:20:VAL:HG22	16:AP:21:VAL:H	1.76	0.51
38:BE:120:TRP:CD1	38:BE:155:LYS:HB3	2.46	0.51
42:DI:15:VAL:HG23	42:DI:16:GLY:N	2.26	0.51
34:DA:580:C:H2'	34:DA:581:C:C6	2.46	0.51
1:AA:1221:G:OP1	19:AS:36:ARG:HD3	2.10	0.51
46:BQ:20:ALA:HA	46:BQ:98:LYS:HB3	1.92	0.51
30:D5:20:ARG:NH1	52:DW:15:ARG:NE	2.58	0.51
34:BA:2364:C:H2'	34:BA:2365:G:O4'	2.10	0.51
30:B5:20:ARG:CB	30:B5:23:HIS:HD2	2.23	0.51
41:BH:130:ARG:O	41:BH:131:VAL:HG23	2.11	0.51
6:CF:73:ASN:O	6:CF:74:ASP:C	2.49	0.51
4:CD:31:CYS:SG	4:CD:31:CYS:O	2.68	0.51
49:BT:109:GLU:O	49:BT:113:LYS:HG3	2.09	0.51
34:DA:440:G:H2'	34:DA:441:U:C6	2.45	0.51
9:CI:48:GLU:N	9:CI:49:PRO:CD	2.74	0.51
8:AH:36:LEU:O	8:AH:37:ARG:C	2.49	0.51
34:BA:686:G:H21	34:BA:788:A:H61	1.59	0.51
1:CA:1198:G:H2'	1:CA:1199:U:C6	2.46	0.51
49:DT:6:LEU:HD23	49:DT:6:LEU:O	2.11	0.51
1:CA:336:C:O2'	1:CA:337:C:H5'	2.11	0.51
7:AG:23:VAL:HG12	7:AG:27:ILE:HD11	1.93	0.51
1:CA:224:C:H2'	1:CA:225:C:C6	2.45	0.51
41:DH:153:LYS:CB	41:DH:154:PRO:CD	2.87	0.51
50:BU:15:LYS:HG3	50:BU:16:LYS:N	2.26	0.51
43:DN:96:GLU:HG2	43:DN:97:ARG:N	2.24	0.51
53:DX:14:SER:O	53:DX:15:GLU:C	2.49	0.51
13:CM:75:ALA:O	13:CM:78:ILE:N	2.44	0.51
13:CM:75:ALA:HB1	13:CM:79:LYS:HE3	1.92	0.51
52:BW:79:GLY:CA	52:BW:100:THR:HG23	2.40	0.51
16:CP:74:LEU:HD22	16:CP:79:VAL:HG21	1.92	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:D6:27:LYS:HD2	34:DA:2285:C:OP2	2.10	0.51
34:DA:2065:C:H2'	34:DA:2066:C:C6	2.45	0.51
34:DA:1109:C:H5	34:DA:1110:G:C5	2.29	0.51
34:BA:1744:C:O2'	34:BA:1745:C:H5'	2.10	0.51
34:DA:2111:C:H5'	34:DA:2112:G:OP1	2.11	0.51
1:CA:160:A:H2'	1:CA:161:A:O4'	2.11	0.51
34:BA:1456:G:H2'	34:BA:1457:A:H8	1.75	0.51
34:BA:36:G:O2'	34:BA:37:C:H5'	2.11	0.51
11:CK:41:THR:HG22	11:CK:42:TRP:N	2.25	0.51
1:AA:1226:C:H2'	13:AM:103:THR:OG1	2.10	0.51
39:DF:153:SER:OG	39:DF:190:GLU:N	2.40	0.51
9:AI:41:VAL:O	9:AI:41:VAL:HG12	2.11	0.51
1:CA:590:C:H2'	1:CA:591:U:C6	2.45	0.51
34:BA:1839:G:H5'	34:BA:1839:G:H8	1.75	0.51
27:B2:35:LEU:HD23	27:B2:35:LEU:N	2.26	0.51
51:DV:89:GLN:HE21	51:DV:90:PRO:CD	2.17	0.51
50:BU:95:LEU:O	50:BU:98:LEU:HG	2.11	0.51
49:DT:30:VAL:HG11	49:DT:84:GLN:HG2	1.92	0.51
51:BV:26:ASP:C	51:BV:28:GLU:H	2.14	0.51
45:BP:100:LEU:O	45:BP:101:VAL:C	2.49	0.51
34:BA:2636:U:C2'	34:BA:2637:U:C5'	2.88	0.51
38:BE:48:GLN:NE2	38:BE:78:LEU:HD12	2.25	0.51
38:BE:70:ALA:O	38:BE:72:VAL:N	2.44	0.51
26:B1:65:SER:OG	26:B1:66:HIS:HD2	1.93	0.51
28:B3:8:LEU:HD22	28:B3:9:VAL:N	2.26	0.51
42:DI:123:LEU:CD2	42:DI:142:VAL:HB	2.41	0.51
34:DA:85:G:N3	34:DA:103:A:C2	2.79	0.51
34:BA:135:G:O2'	34:BA:136:G:H5'	2.10	0.51
55:DZ:118:GLN:N	55:DZ:173:ALA:O	2.40	0.51
39:DF:3:GLU:HB2	39:DF:20:LEU:N	2.15	0.51
18:CR:56:THR:O	18:CR:58:LEU:HD12	2.10	0.51
41:BH:55:PRO:HG2	41:BH:56:SER:N	2.21	0.51
1:AA:877:C:H5''	8:AH:88:LYS:HD2	1.92	0.51
1:CA:1254:C:H2'	1:CA:1255:G:C8	2.46	0.51
5:CE:102:ALA:HB1	5:CE:106:PRO:CG	2.41	0.51
55:BZ:127:LYS:HD3	55:BZ:162:GLU:OE1	2.11	0.51
53:BX:56:THR:C	53:BX:57:LEU:CD1	2.77	0.51
46:DQ:20:ALA:HA	46:DQ:98:LYS:HB3	1.92	0.51
46:DQ:39:PRO:HB3	46:DQ:99:PRO:HD3	1.92	0.51
37:DD:174:ILE:HD12	37:DD:174:ILE:N	2.15	0.51
19:AS:36:ARG:HB2	19:AS:72:GLY:HA2	1.92	0.51
43:DN:15:LEU:HD21	43:DN:55:VAL:HG23	1.92	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BQ:34:LEU:HD11	46:BQ:129:THR:HB	1.92	0.51
54:DY:75:ILE:HD11	54:DY:79:CYS:N	2.25	0.51
3:AC:53:ALA:O	3:AC:54:ARG:CB	2.54	0.51
40:DG:135:LEU:HD22	40:DG:155:MET:HE1	1.93	0.51
40:DG:71:THR:N	40:DG:89:GLY:O	2.37	0.51
34:BA:364:C:C2'	34:BA:365:C:H5''	2.40	0.51
30:B5:20:ARG:HH12	52:BW:15:ARG:NH1	2.06	0.51
5:AE:55:VAL:O	5:AE:58:ALA:HB3	2.10	0.51
37:BD:106:ILE:HD13	37:BD:107:ALA:N	2.25	0.51
1:AA:1170:A:H2'	1:AA:1171:G:H5'	1.93	0.51
44:BO:71:ARG:HB2	44:BO:75:SER:O	2.11	0.51
15:AO:69:TYR:CE2	15:AO:73:GLU:HG3	2.46	0.51
9:CI:17:VAL:HG21	9:CI:80:GLY:HA3	1.92	0.51
34:BA:1396:U:O2	34:BA:1396:U:C2'	2.56	0.51
54:BY:75:ILE:HD12	54:BY:76:CYS:O	2.11	0.51
1:AA:1207:G:O2'	1:AA:1208:C:H5'	2.11	0.51
10:CJ:47:PHE:HE1	10:CJ:63:PHE:HD2	1.57	0.51
47:DR:18:LEU:HD11	47:DR:22:ARG:NE	2.25	0.51
8:CH:6:ILE:H	8:CH:6:ILE:CD1	2.23	0.51
44:DO:13:ASN:ND2	44:DO:97:ARG:H	2.06	0.51
34:BA:604:G:H2'	34:BA:605:C:C6	2.43	0.51
1:AA:858:G:O6	1:AA:869:G:H3'	2.10	0.51
5:AE:28:PHE:O	5:AE:47:LYS:HA	2.10	0.51
11:CK:58:PRO:O	11:CK:61:ALA:HB3	2.11	0.51
1:CA:1332:A:H2'	1:CA:1333:A:H8	1.76	0.51
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.11	0.51
1:AA:93:G:C2'	1:AA:96:U:H5'	2.40	0.51
25:B0:2:ALA:HB1	34:BA:2494:G:P	2.51	0.51
34:BA:795:C:H2'	34:BA:796:C:H6	1.75	0.51
13:CM:35:GLU:HG3	13:CM:36:LYS:HG2	1.93	0.51
1:CA:60:A:O3'	20:CT:10:LEU:HD21	2.11	0.51
20:CT:26:ASN:HA	20:CT:29:LYS:HG2	1.92	0.51
34:DA:2660:A:H3'	34:DA:2661:G:O4'	2.11	0.51
1:AA:590:C:H2'	1:AA:591:U:C6	2.45	0.51
15:AO:25:THR:O	15:AO:26:GLU:C	2.49	0.51
4:CD:28:SER:HB3	4:CD:29:PRO:HD2	1.93	0.51
9:CI:85:LEU:HD12	9:CI:85:LEU:C	2.31	0.51
1:CA:687:A:N3	1:CA:688:G:H1'	2.25	0.51
13:CM:5:ALA:O	13:CM:6:GLY:C	2.48	0.51
6:AF:73:ASN:O	6:AF:74:ASP:C	2.49	0.51
51:DV:32:THR:HB	51:DV:64:HIS:CE1	2.45	0.51
42:BI:110:ASP:HB2	42:BI:113:ARG:CB	2.31	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1158:C:O2'	34:DA:1159:U:H5''	2.11	0.51
45:BP:97:PRO:O	45:BP:99:LEU:N	2.40	0.51
48:BS:24:LEU:CB	48:BS:85:VAL:HG12	2.41	0.51
48:BS:89:ARG:CA	48:BS:89:ARG:NE	2.47	0.51
36:DC:46:LYS:HB2	36:DC:208:PHE:O	2.11	0.51
3:CC:16:ARG:HH11	3:CC:16:ARG:CB	2.20	0.51
3:AC:14:ILE:CG1	3:AC:15:THR:N	2.58	0.51
54:DY:49:VAL:CG1	54:DY:53:PRO:HG3	2.41	0.51
26:B1:62:VAL:C	26:B1:64:ALA:N	2.61	0.51
34:BA:2230:G:H2'	34:BA:2231:C:C6	2.44	0.51
27:B2:12:GLU:C	27:B2:14:ARG:N	2.64	0.51
46:DQ:140:ALA:HB1	55:DZ:99:TYR:HB2	1.92	0.51
40:BG:47:LYS:HD3	40:BG:81:LYS:HD2	1.92	0.51
48:BS:77:ALA:O	48:BS:79:ALA:N	2.43	0.51
47:BR:54:LEU:HD23	47:BR:66:VAL:CG2	2.41	0.51
41:DH:144:VAL:CG1	41:DH:144:VAL:O	2.58	0.51
18:AR:59:SER:H	18:AR:62:GLU:CD	2.13	0.51
40:BG:129:GLY:O	40:BG:130:ASN:CB	2.59	0.51
26:D1:18:ILE:N	26:D1:18:ILE:HD12	2.26	0.51
1:CA:585:G:C6	1:CA:586:C:C4	2.99	0.51
53:BX:76:ARG:O	53:BX:76:ARG:HD3	2.11	0.51
19:AS:10:PHE:CZ	19:AS:70:LYS:HE2	2.46	0.51
34:DA:8:A:H2	34:DA:2896:C:N3	2.09	0.51
34:DA:1141:U:C5'	34:DA:1142(A):A:O4'	2.59	0.51
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.46	0.51
1:AA:1068:G:N3	1:AA:1191:A:C2	2.79	0.51
34:BA:365:C:H2'	34:BA:366:C:O4'	2.10	0.51
49:DT:101:PHE:HE2	49:DT:113:LYS:HD3	1.76	0.51
34:BA:2307:G:H3'	34:BA:2307:G:N3	2.26	0.51
34:BA:814:C:H5''	51:BV:86:GLY:CA	2.37	0.51
27:D2:55:ARG:NH1	34:DA:72:U:OP1	2.44	0.51
33:D8:52:LYS:NZ	34:DA:834:C:H4'	2.25	0.51
51:BV:44:LYS:C	51:BV:46:VAL:H	2.14	0.51
4:AD:60:GLU:O	4:AD:63:LYS:HB3	2.10	0.51
34:DA:2599:G:C8	37:DD:236:GLY:CA	2.91	0.51
38:BE:61:ARG:HG3	38:BE:62:PRO:HD3	1.93	0.51
2:AB:67:THR:HA	2:AB:90:MET:HE1	1.92	0.51
38:DE:131:ALA:HB3	38:DE:134:ILE:CD1	2.41	0.51
40:BG:16:ARG:HB2	40:BG:17:PRO:CD	2.41	0.51
49:BT:92:GLY:O	49:BT:94:ALA:N	2.36	0.51
45:BP:90:ARG:HD3	45:BP:90:ARG:O	2.11	0.51
23:AY:29:G:H2'	23:AY:30:G:C8	2.40	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:178:ARG:NH2	2:AB:196:LEU:HA	2.26	0.51
2:CB:194:PRO:O	2:CB:195:ASP:C	2.49	0.51
1:CA:973:G:H4'	10:CJ:54:PHE:O	2.11	0.51
40:DG:16:ARG:CB	40:DG:16:ARG:HH11	2.24	0.51
34:BA:1357:U:H2'	34:BA:1358:G:O4'	2.11	0.51
5:CE:20:GLN:HE22	5:CE:25:ARG:NH2	2.09	0.51
1:AA:781:A:H2'	1:AA:782:A:H5'	1.93	0.51
7:AG:97:GLN:HG2	7:AG:101:LEU:CD1	2.39	0.51
34:BA:1568:G:H21	37:BD:58:HIS:CE1	2.28	0.51
34:BA:870:A:H5''	46:BQ:7:MET:CB	2.41	0.51
17:AQ:52:LYS:HD2	17:AQ:52:LYS:N	2.25	0.51
1:AA:411:A:O2'	1:AA:412:A:H5'	2.10	0.51
1:AA:430:A:O2'	1:AA:431:A:H5'	2.10	0.51
13:AM:93:ARG:HA	13:AM:93:ARG:HE	1.76	0.51
34:DA:1771:C:C1'	34:DA:1786:A:H8	2.24	0.51
1:CA:1483:A:H2'	1:CA:1484:C:O4'	2.11	0.51
1:AA:1074:G:H2'	1:AA:1075:C:C6	2.46	0.51
34:DA:2186:G:C3'	34:DA:2187:G:H5''	2.41	0.51
28:B3:13:ILE:HD12	34:BA:989:G:N7	2.25	0.51
2:AB:15:VAL:H	2:AB:16:HIS:CE1	2.28	0.51
20:AT:75:ASN:O	20:AT:76:ALA:C	2.48	0.51
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.46	0.51
20:AT:24:LEU:C	20:AT:24:LEU:HD13	2.30	0.51
2:AB:184:VAL:O	2:AB:198:ASP:HB2	2.11	0.51
1:AA:893:C:H2'	1:AA:894:G:H8	1.76	0.51
34:DA:350:U:H2'	34:DA:351:G:O4'	2.11	0.51
16:AP:19:ILE:HG22	16:AP:36:ILE:HD11	1.92	0.51
10:CJ:23:ILE:HG22	10:CJ:23:ILE:O	2.11	0.51
1:AA:802:A:H2'	1:AA:803:G:O4'	2.11	0.51
34:DA:2247:A:O2'	34:DA:2248:C:H5'	2.10	0.51
51:DV:70:ILE:O	51:DV:71:LEU:HB2	2.11	0.51
34:DA:1225:G:OP1	51:DV:88:ARG:HB2	2.11	0.51
50:BU:69:CYS:HB3	50:BU:106:PHE:CZ	2.45	0.51
49:DT:45:PHE:CE1	49:DT:74:ARG:HG3	2.46	0.51
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.76	0.51
27:B2:14:ARG:NE	27:B2:57:ILE:CB	2.74	0.51
39:BF:3:GLU:HA	39:BF:24:LEU:HG	1.93	0.51
42:DI:79:ILE:HG13	42:DI:140:LEU:HD21	1.92	0.51
42:DI:88:ILE:HD13	42:DI:123:LEU:HG	1.93	0.51
45:BP:65:ARG:HH11	45:BP:65:ARG:CB	2.24	0.51
53:BX:36:LYS:C	53:BX:38:GLU:H	2.14	0.51
50:DU:55:ARG:HA	50:DU:58:ARG:CG	2.41	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2747:G:P	41:DH:138:LYS:HZ3	2.33	0.51
18:AR:74:ARG:HE	18:AR:81:PHE:HA	1.76	0.51
43:BN:39:ARG:HE	43:BN:41:ASP:CG	2.13	0.51
41:BH:85:LYS:HZ3	41:BH:145:ALA:HA	1.76	0.51
30:B5:4:HIS:O	34:BA:2056:G:N2	2.44	0.51
26:D1:26:ARG:HB2	26:D1:34:THR:CA	2.38	0.51
55:BZ:20:ARG:HG3	55:BZ:20:ARG:HH11	1.76	0.51
55:DZ:117:LEU:HA	55:DZ:174:VAL:HA	1.93	0.51
34:DA:1697:G:H5''	34:DA:1698:A:H5''	1.92	0.51
1:CA:709:G:H2'	1:CA:710:G:H8	1.75	0.51
5:CE:32:VAL:HG12	5:CE:33:VAL:N	2.25	0.51
34:DA:2348:U:H2'	34:DA:2349:G:H5'	1.87	0.51
1:AA:1188:A:C2'	1:AA:1189:C:H5'	2.41	0.51
40:DG:43:LEU:N	40:DG:43:LEU:CD1	2.74	0.51
34:BA:271(A):A:H5'	34:BA:271(B):C:OP2	2.11	0.51
8:AH:137:VAL:HG12	8:AH:138:TRP:H	1.76	0.51
25:B0:53:MET:HA	25:B0:58:THR:O	2.10	0.51
34:DA:2467:C:H2'	34:DA:2468:G:O4'	2.11	0.51
1:AA:1494:G:O6	57:AA:1816:PAR:H42	2.11	0.51
51:BV:36:PRO:HD2	51:BV:60:GLU:O	2.10	0.51
2:CB:178:ARG:NH2	2:CB:196:LEU:HA	2.26	0.51
1:CA:66:G:N2	1:CA:172:A:H2	2.09	0.51
41:BH:155:SER:C	41:BH:157:TYR:H	2.15	0.51
8:AH:87:SER:HA	8:AH:93:VAL:CG2	2.40	0.51
44:DO:79:PHE:CD2	49:DT:72:VAL:HG22	2.46	0.51
1:CA:474:G:H2'	1:CA:475:G:C8	2.42	0.51
43:DN:97:ARG:HA	43:DN:100:GLU:HB2	1.92	0.51
12:CL:71:PRO:HD2	12:CL:102:ARG:NH1	2.26	0.51
1:AA:1240:U:OP2	7:AG:116:ALA:HB2	2.11	0.51
38:BE:182:LEU:O	38:BE:183:LEU:HD12	2.11	0.51
51:BV:66:ARG:HD2	51:BV:67:GLY:N	2.26	0.51
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.72	0.51
11:AK:15:ALA:HA	11:AK:77:MET:HA	1.92	0.51
34:BA:2115:G:H5'	34:BA:2116:G:OP2	2.10	0.51
46:DQ:6:ARG:O	46:DQ:7:MET:HG2	2.11	0.51
34:BA:2289:G:C2'	34:BA:2290:G:H5''	2.41	0.51
48:BS:42:ASP:O	48:BS:43:GLU:HB2	2.11	0.51
34:DA:1684:C:O2'	34:DA:1685:C:H5'	2.10	0.51
34:DA:2289:G:C2'	34:DA:2290:G:H5''	2.40	0.51
34:DA:1164:G:H2'	34:DA:1165:U:H6	1.76	0.51
1:CA:758:G:H5''	1:CA:880:C:H1'	1.93	0.51
34:BA:1243:G:O2'	45:BP:9:ASN:HA	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1338:G:O2'	1:AA:1339:A:H5'	2.11	0.51
34:DA:1053:C:N4	34:DA:1107:G:H22	2.09	0.51
4:AD:150:GLU:HG2	4:AD:151:LYS:N	2.25	0.51
1:AA:42:G:H2'	1:AA:43:C:C6	2.46	0.51
1:AA:127:G:O2'	1:AA:128:G:H5'	2.11	0.51
1:AA:594:G:C2'	1:AA:595:G:H5'	2.41	0.51
1:CA:1132:C:O2'	1:CA:1133:G:H5'	2.11	0.51
39:DF:41:LEU:HD11	39:DF:184:TYR:CE1	2.46	0.51
34:BA:1225:G:OP1	51:BV:88:ARG:HB2	2.11	0.51
49:DT:117:ASP:OD1	49:DT:119:LYS:HB3	2.11	0.51
49:DT:28:VAL:CG2	49:DT:88:ILE:HD11	2.41	0.51
34:BA:2626:C:H2'	34:BA:2627:G:O4'	2.11	0.51
37:BD:94:LEU:HA	37:BD:104:TYR:HA	1.93	0.51
34:BA:2522:U:H2'	34:BA:2523:G:H5''	1.92	0.51
2:CB:144:ARG:O	2:CB:147:LYS:HB3	2.11	0.51
13:AM:19:LEU:H	13:AM:19:LEU:CD2	2.23	0.51
40:BG:81:LYS:O	40:BG:82:LEU:O	2.29	0.51
41:DH:41:MET:HE1	41:DH:55:PRO:HD3	1.93	0.51
18:CR:29:PHE:CD1	18:CR:29:PHE:O	2.64	0.51
43:BN:42:TRP:HB2	50:BU:64:ARG:NH2	2.26	0.51
27:D2:31:GLU:HA	27:D2:31:GLU:OE1	2.11	0.51
1:CA:376:G:H2'	1:CA:377:G:C8	2.40	0.51
26:D1:26:ARG:CB	26:D1:34:THR:CA	2.88	0.51
34:BA:92:A:O2'	34:BA:93:G:H5'	2.11	0.51
5:CE:139:LEU:O	5:CE:141:GLN:N	2.44	0.51
46:BQ:141:GLN:O	55:BZ:70:LEU:HD22	2.10	0.51
55:BZ:163:LEU:HD23	55:BZ:163:LEU:N	2.26	0.51
34:BA:285:C:C2'	34:BA:286:C:H5''	2.40	0.51
38:BE:14:ILE:CG1	38:BE:21:VAL:HG23	2.41	0.51
34:DA:1952:A:OP1	44:DO:44:LYS:NZ	2.38	0.51
44:BO:10:VAL:HG23	44:BO:10:VAL:O	2.11	0.51
41:BH:44:VAL:CG1	41:BH:45:VAL:H	2.05	0.51
1:AA:1052:U:H2'	1:AA:1055:A:OP1	2.11	0.51
23:AY:34:G:H2'	23:AY:35:A:C8	2.45	0.51
4:CD:138:TYR:CD2	4:CD:138:TYR:C	2.84	0.51
4:AD:138:TYR:CD2	4:AD:138:TYR:C	2.84	0.51
34:DA:673:C:H5'	39:DF:54:ARG:NH1	2.16	0.51
40:DG:167:GLU:O	40:DG:170:ARG:HB3	2.11	0.51
1:CA:817:C:H1'	1:CA:819:A:H5'	1.93	0.51
12:AL:61:THR:OG1	12:AL:62:SER:N	2.44	0.51
34:DA:925:C:H2'	34:DA:926:A:O4'	2.11	0.51
3:CC:172:ARG:HH12	3:CC:174:PRO:CG	2.24	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1573:G:C2'	34:BA:1574:C:H5'	2.41	0.51
3:CC:113:ALA:O	3:CC:115:LEU:N	2.44	0.51
2:CB:68:ILE:N	2:CB:68:ILE:HD12	2.26	0.51
15:AO:82:ILE:HD11	15:AO:87:ILE:C	2.31	0.51
2:AB:68:ILE:H	2:AB:90:MET:HE2	1.75	0.51
36:BC:64:LEU:HD13	36:BC:65:PRO:CD	2.36	0.51
34:DA:1991:U:O2'	34:DA:1992:G:H5''	2.10	0.51
34:DA:1287:A:N7	47:DR:106:GLY:O	2.44	0.51
1:AA:503:C:O2'	1:AA:504:C:H5'	2.11	0.51
9:CI:128:ARG:OXT	9:CI:128:ARG:HG2	2.11	0.51
8:AH:101:PRO:HG2	8:AH:133:LEU:HD11	1.93	0.51
15:AO:37:ASN:O	15:AO:40:SER:HB3	2.11	0.51
44:DO:65:THR:O	44:DO:79:PHE:HB2	2.10	0.51
1:AA:949:A:C2	1:AA:1233:G:N3	2.79	0.51
34:BA:2735:G:C2'	34:BA:2736:G:C5'	2.89	0.51
51:BV:79:VAL:O	51:BV:80:GLN:CB	2.59	0.51
1:CA:539:A:OP1	12:CL:114:LYS:HE2	2.11	0.51
1:AA:296:U:H2'	1:AA:297:G:H8	1.76	0.51
17:CQ:5:VAL:HA	17:CQ:59:ILE:O	2.11	0.51
45:DP:10:PRO:CD	45:DP:11:GLY:H	2.23	0.51
22:AV:66:C:H2'	22:AV:67:C:H6	1.74	0.51
34:BA:2605:U:H2'	34:BA:2606:C:C6	2.46	0.51
12:AL:69:TYR:C	12:AL:70:ILE:HD12	2.31	0.51
1:AA:857:C:H2'	1:AA:858:G:O4'	2.11	0.51
34:BA:493:G:N2	34:BA:494:G:H1'	2.26	0.51
1:AA:661:G:O2'	1:AA:662:G:H5'	2.10	0.51
20:AT:25:ARG:HG3	20:AT:25:ARG:HH11	1.76	0.51
47:DR:100:LEU:HD23	47:DR:112:ALA:CA	2.40	0.51
39:DF:170:LEU:HD23	39:DF:172:TRP:CZ2	2.45	0.51
2:CB:61:LEU:HA	2:CB:64:ARG:HG2	1.93	0.51
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.46	0.51
21:CU:9:ARG:NH1	21:CU:22:ARG:HA	2.25	0.51
34:BA:2687:U:C4	34:BA:2688:U:C5	2.99	0.51
34:DA:756:C:C2'	34:DA:757:U:H5'	2.41	0.51
1:AA:770:C:O2'	1:AA:771:G:H5'	2.11	0.51
2:AB:107:THR:HG23	2:AB:110:GLN:OE1	2.11	0.51
1:CA:1017:G:H2'	1:CA:1018:C:C6	2.45	0.51
34:DA:1742:G:N7	34:DA:1743:C:C2	2.79	0.51
1:AA:445:G:H2'	1:AA:446:G:H8	1.75	0.51
50:BU:95:LEU:C	50:BU:97:ASP:N	2.63	0.50
51:BV:72:VAL:HA	51:BV:88:ARG:HH22	1.76	0.50
34:DA:2636:U:C2'	34:DA:2637:U:C5'	2.89	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BS:27:SER:HA	48:BS:88:ASP:OD1	2.11	0.50
49:BT:30:VAL:HG11	49:BT:84:GLN:HG2	1.94	0.50
1:AA:1106:G:O2'	1:AA:1107:C:H5'	2.10	0.50
38:BE:176:ILE:HG22	38:BE:176:ILE:O	2.11	0.50
34:DA:84:A:H2'	34:DA:99:U:O4	2.11	0.50
45:BP:61:ARG:H	45:BP:61:ARG:HD2	1.75	0.50
13:AM:3:ARG:NH2	40:BG:139:LEU:HD13	2.26	0.50
55:DZ:166:SER:HB2	55:DZ:167:PRO:CA	2.42	0.50
39:DF:20:LEU:HD12	39:DF:199:TRP:HH2	1.76	0.50
18:AR:29:PHE:CD1	18:AR:29:PHE:O	2.64	0.50
34:BA:1190:G:H5'	45:BP:35:HIS:CB	2.41	0.50
54:BY:81:LYS:HE2	54:BY:97:ARG:CG	2.41	0.50
44:DO:101:PRO:O	44:DO:102:VAL:CG1	2.53	0.50
55:BZ:8:TYR:N	55:BZ:8:TYR:CD1	2.79	0.50
1:AA:1475:G:OP1	34:BA:1689:A:H1'	2.12	0.50
53:BX:56:THR:HA	53:BX:77:LYS:CB	2.40	0.50
51:BV:19:LYS:HG2	51:BV:96:ILE:CB	2.38	0.50
1:AA:958:A:C8	19:AS:55:LYS:HD3	2.46	0.50
38:DE:111:ARG:H	38:DE:161:GLY:HA3	1.75	0.50
4:CD:106:TYR:CE1	4:CD:113:SER:HA	2.46	0.50
3:CC:19:GLU:O	3:CC:56:ASP:HA	2.11	0.50
34:BA:2406:U:O4	45:BP:70:GLN:HB3	2.10	0.50
26:D1:41:ARG:NH1	34:DA:189:G:P	2.84	0.50
40:DG:125:PHE:HB2	40:DG:166:ASP:OD2	2.10	0.50
12:CL:41:ARG:CG	12:CL:42:THR:N	2.73	0.50
12:CL:41:ARG:HG2	12:CL:42:THR:N	2.27	0.50
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.73	0.50
54:DY:48:ALA:CB	54:DY:59:GLY:H	2.18	0.50
33:D8:51:ALA:CA	33:D8:53:PRO:HD2	2.40	0.50
17:CQ:67:LYS:HG2	17:CQ:68:ARG:N	2.25	0.50
34:BA:542:C:H2'	34:BA:543:C:OP1	2.11	0.50
34:BA:2298:A:H62	34:BA:2318:G:H8	1.56	0.50
34:DA:365:C:H2'	34:DA:366:C:O4'	2.11	0.50
1:AA:1473:A:H2'	1:AA:1474:G:C8	2.47	0.50
34:DA:360:G:H2'	34:DA:361:G:C8	2.46	0.50
1:CA:525:C:O2'	1:CA:526:C:H5'	2.11	0.50
41:DH:153:LYS:HG2	41:DH:154:PRO:N	2.27	0.50
47:DR:21:TYR:O	47:DR:22:ARG:C	2.48	0.50
1:CA:450:G:H1	1:CA:483:C:H42	1.58	0.50
9:AI:128:ARG:HG2	9:AI:128:ARG:OXT	2.10	0.50
34:DA:79:G:O2'	34:DA:80:G:H5'	2.12	0.50
13:AM:123:ALA:HB2	23:AY:39:U:O4'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1005:C:C2	34:BA:1143:A:C5	2.99	0.50
29:D4:11:PRO:C	29:D4:13:ARG:N	2.65	0.50
10:AJ:63:PHE:HA	14:AN:59:ALA:H	1.75	0.50
22:CV:4:G:O2'	22:CV:5:G:H8	1.92	0.50
40:BG:21:ARG:HG2	40:BG:22:ARG:N	2.26	0.50
5:AE:12:LEU:C	5:AE:13:ILE:HD12	2.31	0.50
34:DA:150:C:H2'	34:DA:151:C:C6	2.45	0.50
6:AF:98:LEU:H	6:AF:98:LEU:HD12	1.75	0.50
34:BA:2277:G:O2'	34:BA:2278:A:H5'	2.11	0.50
4:AD:52:SER:C	4:AD:54:TYR:N	2.65	0.50
34:BA:1695:G:H2'	34:BA:1696:G:C5'	2.40	0.50
34:BA:1109:C:H5	34:BA:1110:G:C5	2.29	0.50
1:AA:89:C:H3'	1:AA:90:U:C5'	2.41	0.50
19:AS:79:THR:O	19:AS:80:TYR:CB	2.58	0.50
34:DA:1744:C:C2'	34:DA:1745:C:H5'	2.41	0.50
39:BF:89:VAL:HG12	39:BF:90:PHE:N	2.25	0.50
5:AE:62:ALA:O	5:AE:65:ASN:N	2.34	0.50
34:BA:756:C:C2'	34:BA:757:U:H5'	2.42	0.50
34:BA:1394:U:C4	34:BA:1395:A:C6	2.99	0.50
12:CL:55:VAL:HG12	12:CL:56:ALA:N	2.26	0.50
4:CD:177:ASP:O	4:CD:179:GLU:N	2.43	0.50
46:BQ:16:ARG:HH11	46:BQ:16:ARG:HB2	1.76	0.50
34:DA:949:C:H2'	34:DA:950:G:H8	1.77	0.50
2:CB:130:ARG:HE	2:CB:130:ARG:HA	1.75	0.50
49:DT:28:VAL:HG21	49:DT:88:ILE:HD11	1.93	0.50
49:DT:89:VAL:HG21	49:DT:91:ARG:HH21	1.77	0.50
49:BT:28:VAL:O	49:BT:29:ARG:HB2	2.10	0.50
49:BT:46:GLU:O	49:BT:65:LYS:HB2	2.11	0.50
38:BE:51:PHE:HB3	38:BE:76:ARG:CB	2.38	0.50
42:DI:88:ILE:CG2	42:DI:89:TYR:H	2.20	0.50
55:DZ:30:ASN:C	55:DZ:32:HIS:N	2.64	0.50
31:B6:10:LEU:HD12	33:B8:36:LYS:HD3	1.94	0.50
40:BG:115:ARG:NH1	40:BG:136:ARG:HG3	2.27	0.50
34:DA:528:A:C2	34:DA:2043:C:C4'	2.92	0.50
41:DH:144:VAL:HG22	41:DH:147:ASN:OD1	2.11	0.50
18:CR:40:LEU:O	18:CR:42:ARG:N	2.45	0.50
26:D1:10:LYS:HG2	26:D1:14:VAL:CA	2.41	0.50
10:AJ:70:ARG:NH1	10:AJ:70:ARG:CG	2.65	0.50
38:DE:120:TRP:CD2	38:DE:155:LYS:HD3	2.46	0.50
40:DG:116:ASP:O	40:DG:117:PHE:CB	2.59	0.50
34:BA:2894:G:H2'	34:BA:2894:G:N3	2.26	0.50
39:DF:39:TRP:CD1	39:DF:101:LEU:HB2	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BH:44:VAL:CG1	41:BH:45:VAL:N	2.69	0.50
19:CS:16:LEU:O	19:CS:20:LEU:N	2.24	0.50
54:DY:75:ILE:HD12	54:DY:76:CYS:N	2.26	0.50
1:AA:1501:C:OP2	1:AA:1504:G:H2'	2.11	0.50
1:AA:1499:A:H1'	1:AA:1520:G:H5'	1.92	0.50
40:DG:47:LYS:CE	40:DG:82:LEU:HG	2.40	0.50
40:DG:71:THR:HG22	40:DG:89:GLY:C	2.32	0.50
4:AD:12:CYS:HA	4:AD:19:LEU:CD1	2.41	0.50
34:BA:1131:G:OP2	34:BA:2515:C:H4'	2.11	0.50
39:BF:143:ALA:CA	39:BF:146:ALA:HB3	2.34	0.50
50:BU:8:VAL:HG12	50:BU:9:VAL:N	2.25	0.50
44:DO:87:ILE:HG21	44:DO:91:LEU:HD13	1.93	0.50
28:D3:12:PRO:O	28:D3:15:TYR:HD1	1.95	0.50
34:BA:1990:C:H2'	34:BA:1991:U:O4'	2.11	0.50
38:BE:142:GLY:C	38:BE:143:ASN:HD22	2.15	0.50
30:D5:33:CYS:SG	30:D5:40:LYS:HE3	2.51	0.50
7:CG:23:VAL:HG12	7:CG:27:ILE:HD11	1.93	0.50
34:DA:2836:U:C4	34:DA:2883:A:N6	2.80	0.50
20:AT:89:ARG:HB2	20:AT:104:LEU:CD1	2.40	0.50
9:AI:4:TYR:HA	9:AI:88:TYR:CE1	2.46	0.50
1:CA:974:A:OP1	14:CN:31:ARG:HD3	2.11	0.50
16:CP:39:TYR:HA	16:CP:48:TRP:O	2.11	0.50
1:AA:973:G:H4'	10:AJ:54:PHE:O	2.10	0.50
15:AO:37:ASN:HD22	15:AO:37:ASN:H	1.59	0.50
1:AA:1004:A:H2'	1:AA:1038:C:O2	2.12	0.50
43:DN:97:ARG:O	43:DN:98:VAL:C	2.50	0.50
3:AC:127:ARG:H	3:AC:127:ARG:HD2	1.75	0.50
38:BE:63:LEU:O	38:BE:65:GLY:N	2.44	0.50
34:BA:1005:C:H2'	34:BA:1006:C:C6	2.46	0.50
7:CG:132:GLY:H	7:CG:135:VAL:HG21	1.75	0.50
35:BB:106:G:C2	35:BB:107:G:C8	2.99	0.50
44:BO:13:ASN:ND2	44:BO:97:ARG:H	2.08	0.50
1:CA:411:A:O2'	1:CA:412:A:H5'	2.11	0.50
9:CI:113:LYS:H	9:CI:113:LYS:CD	2.25	0.50
41:DH:30:LYS:HZ1	41:DH:81:GLU:HG2	1.76	0.50
34:BA:2656:U:C4	34:BA:2657:A:H2	2.29	0.50
1:CA:559:A:H4'	1:CA:560:U:H5''	1.93	0.50
1:AA:777:A:H2'	1:AA:778:G:C8	2.46	0.50
1:CA:93:G:C2'	1:CA:96:U:H5'	2.41	0.50
34:BA:2408:U:H2'	34:BA:2409:G:H8	1.77	0.50
20:CT:26:ASN:H	20:CT:26:ASN:ND2	2.07	0.50
18:CR:86:VAL:O	18:CR:87:ARG:O	2.29	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:52:G:O2'	1:AA:53:A:H5'	2.11	0.50
7:CG:85:TYR:HD1	7:CG:154:TYR:HE1	1.59	0.50
34:DA:1824:G:O2'	34:DA:1825:A:H5'	2.11	0.50
42:DI:56:LYS:HA	42:DI:59:ALA:HB3	1.93	0.50
32:B7:16:HIS:ND1	34:BA:684:G:OP1	2.44	0.50
38:BE:56:PRO:O	38:BE:58:ARG:N	2.44	0.50
13:CM:106:ASN:O	13:CM:107:ALA:HB3	2.11	0.50
34:BA:244:A:C2	34:BA:255:A:C4	2.99	0.50
51:DV:4:ILE:HG12	51:DV:13:ARG:CB	2.42	0.50
42:BI:123:LEU:CD2	42:BI:142:VAL:HB	2.41	0.50
34:DA:2779:U:H4'	34:DA:2780:G:O5'	2.11	0.50
38:DE:63:LEU:O	38:DE:64:LYS:C	2.49	0.50
49:DT:46:GLU:O	49:DT:65:LYS:HB2	2.11	0.50
49:DT:29:ARG:HE	49:DT:84:GLN:CG	2.23	0.50
53:DX:35:THR:O	53:DX:36:LYS:O	2.29	0.50
49:BT:89:VAL:HG21	49:BT:91:ARG:HH21	1.76	0.50
2:AB:166:ASP:HB2	2:AB:205:ASP:OD2	2.11	0.50
3:AC:172:ARG:HH12	3:AC:174:PRO:CG	2.24	0.50
45:BP:17:LYS:C	45:BP:19:VAL:HG22	2.31	0.50
26:B1:9:GLY:O	26:B1:10:LYS:CB	2.59	0.50
48:DS:78:LEU:HD23	48:DS:82:ILE:O	2.11	0.50
38:DE:120:TRP:CD1	38:DE:155:LYS:HB3	2.46	0.50
34:BA:2678:C:C2	34:BA:2679:A:C8	2.99	0.50
51:BV:19:LYS:HE2	51:BV:19:LYS:HA	1.93	0.50
19:AS:11:VAL:HG22	19:AS:16:LEU:HD11	1.94	0.50
5:CE:101:ILE:CG1	5:CE:119:LEU:HA	2.42	0.50
34:DA:624:C:O2	34:DA:657:U:H4'	2.11	0.50
47:DR:5:LYS:CD	47:DR:5:LYS:H	2.24	0.50
6:AF:18:GLN:HA	6:AF:21:LEU:HD23	1.92	0.50
39:BF:39:TRP:CD1	39:BF:101:LEU:HB2	2.47	0.50
34:BA:271(Q):G:HO2'	34:BA:271(R):G:H8	1.59	0.50
19:CS:53:ASN:HD21	19:CS:55:LYS:HB3	1.76	0.50
34:DA:1947:C:H2'	34:DA:1948:G:C5'	2.41	0.50
5:AE:122:GLU:OE1	5:AE:131:ILE:HG13	2.11	0.50
41:BH:148:ILE:O	41:BH:150:ALA:N	2.44	0.50
3:AC:179:ARG:HD2	3:AC:207:VAL:HG22	1.92	0.50
34:BA:1713:U:O2	34:BA:1747:G:C2	2.64	0.50
19:CS:40:ILE:HG21	19:CS:62:ILE:HD11	1.94	0.50
34:BA:1767:C:O2'	34:BA:1768:U:H5'	2.12	0.50
34:DA:863:A:OP1	46:DQ:21:THR:HB	2.11	0.50
1:CA:1503:A:C6	24:CX:13:A:C8	2.99	0.50
2:CB:55:PHE:HE1	2:CB:218:ALA:HA	1.76	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DR:3:HIS:O	47:DR:4:LEU:HB3	2.11	0.50
40:BG:11:TYR:HA	40:BG:15:VAL:CG2	2.40	0.50
15:CO:37:ASN:O	15:CO:40:SER:HB3	2.12	0.50
1:CA:940:C:H2'	1:CA:941:G:H8	1.76	0.50
3:AC:32:LEU:HD22	3:AC:59:ARG:HH11	1.76	0.50
15:AO:58:MET:O	15:AO:59:MET:C	2.49	0.50
26:B1:21:ARG:HD3	26:B1:22:GLY:N	2.23	0.50
37:BD:132:PRO:O	37:BD:133:LEU:C	2.50	0.50
1:AA:1436:U:O2'	1:AA:1437:C:H5'	2.11	0.50
1:CA:1248:A:H2'	1:CA:1249:C:H5'	1.93	0.50
1:AA:791:G:C6	1:AA:792:A:N7	2.80	0.50
34:DA:1680:U:H2'	34:DA:1681:G:O4'	2.11	0.50
1:AA:411:A:C6	1:AA:429:U:C5	2.99	0.50
36:DC:89:ALA:CB	36:DC:153:ILE:HA	2.41	0.50
44:DO:104:ARG:C	44:DO:106:LEU:N	2.65	0.50
34:DA:2115:G:H5'	34:DA:2116:G:OP2	2.11	0.50
34:DA:2025:C:H2'	34:DA:2026:C:C6	2.46	0.50
1:AA:102:G:O2'	1:AA:103:C:H5'	2.11	0.50
1:CA:1456:G:H2'	1:CA:1457:G:O4'	2.11	0.50
25:B0:11:ARG:CB	25:B0:11:ARG:HH11	2.24	0.50
37:BD:12:SER:HB2	37:BD:208:LYS:HB3	1.93	0.50
43:DN:3:THR:C	43:DN:4:TYR:CG	2.84	0.50
28:D3:49:LYS:NZ	34:DA:851:U:OP1	2.38	0.50
1:AA:1237:C:H3'	1:AA:1336:C:H41	1.76	0.50
1:AA:1040:U:O2'	1:AA:1041:A:H5'	2.11	0.50
40:BG:162:THR:HG22	40:BG:162:THR:O	2.11	0.50
34:DA:1625:C:C2'	34:DA:1626:G:H5'	2.41	0.50
34:DA:680:G:H2'	34:DA:681:G:C8	2.46	0.50
34:DA:422:A:C6	34:DA:423:A:C6	2.99	0.50
20:AT:26:ASN:HA	20:AT:29:LYS:HG2	1.93	0.50
31:B6:13:CYS:HB3	31:B6:49:HIS:HB3	1.93	0.50
1:CA:245:C:O2	1:CA:283:C:N3	2.45	0.50
34:DA:1361:G:O2'	34:DA:1362:C:H5'	2.10	0.50
34:BA:2086:U:H2'	34:BA:2087:G:C8	2.47	0.50
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.45	0.50
52:DW:13:SER:O	52:DW:16:LYS:HB2	2.10	0.50
1:AA:1163:C:H2'	1:AA:1164:G:H8	1.77	0.50
34:DA:1022:G:O2'	34:DA:1023:U:P	2.69	0.50
34:BA:2078:C:O2'	34:BA:2079:U:H5'	2.12	0.50
1:CA:961:U:O2'	1:CA:962:C:H5'	2.11	0.50
1:AA:1517:G:H2'	1:AA:1518:A:C8	2.46	0.50
34:BA:256:A:H2'	34:BA:257:A:C8	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DD:94:LEU:HA	37:DD:104:TYR:HA	1.93	0.50
34:BA:1593:G:H2'	34:BA:1594:G:C5'	2.42	0.50
34:DA:615:G:H5'	39:DF:40:GLN:NE2	2.26	0.50
48:DS:49:VAL:HG12	48:DS:73:LEU:CD2	2.42	0.50
37:BD:243:GLY:O	37:BD:244:ARG:HB3	2.12	0.50
34:BA:2175:C:H1'	36:BC:215:THR:CA	2.34	0.50
36:BC:46:LYS:HB2	36:BC:208:PHE:O	2.11	0.50
54:DY:28:LYS:HA	54:DY:39:VAL:N	2.19	0.50
55:DZ:19:ARG:HG2	55:DZ:19:ARG:NH1	2.25	0.50
33:D8:62:LEU:HD13	34:DA:242:G:C5'	2.25	0.50
45:DP:61:ARG:HD2	45:DP:61:ARG:N	2.26	0.50
34:BA:954:G:H5'	46:BQ:13:GLN:HG2	1.93	0.50
12:AL:89:ARG:HA	12:AL:97:ARG:HA	1.92	0.50
12:AL:90:VAL:O	12:AL:92:ASP:N	2.45	0.50
34:DA:1155:A:O3'	50:DU:55:ARG:NH1	2.44	0.50
47:BR:85:PRO:O	47:BR:87:TYR:N	2.45	0.50
55:DZ:151:HIS:O	55:DZ:152:ALA:HB3	2.11	0.50
18:CR:25:THR:C	18:CR:26:LEU:HD23	2.32	0.50
10:AJ:72:VAL:O	10:AJ:73:ASP:OD1	2.30	0.50
23:AW:17:C:C5	34:BA:2180:U:O3'	2.61	0.50
41:BH:38:SER:C	41:BH:40:GLU:H	2.14	0.50
45:BP:35:HIS:O	45:BP:36:LYS:CG	2.58	0.50
5:AE:75:THR:HA	5:AE:115:VAL:HG12	1.93	0.50
23:CW:38:A:C3'	23:CW:39:U:H5''	2.39	0.50
4:CD:57:ARG:NH2	5:CE:107:ARG:HH11	2.08	0.50
5:CE:71:LEU:HD11	5:CE:114:GLY:CA	2.42	0.50
37:BD:147:LEU:HG	37:BD:183:ARG:HH12	1.76	0.50
34:BA:1341:U:N1	53:BX:77:LYS:HE2	2.25	0.50
46:DQ:38:GLU:HB2	46:DQ:127:ILE:CG2	2.42	0.50
34:BA:8:A:H2	34:BA:2896:C:N3	2.10	0.50
43:BN:56:ASN:CG	43:BN:126:PRO:HD3	2.32	0.50
43:BN:15:LEU:HD21	43:BN:55:VAL:HG21	1.93	0.50
19:AS:51:VAL:O	19:AS:57:HIS:HA	2.11	0.50
34:DA:7:G:H4'	43:DN:13:TRP:CH2	2.47	0.50
1:CA:1227:A:C2'	1:CA:1228:C:O5'	2.60	0.50
1:CA:1078:U:H2'	1:CA:1079:G:O4'	2.11	0.50
34:DA:1131:G:C2	34:DA:1132:A:C5	3.00	0.50
34:DA:1132:A:C2	34:DA:1133:U:C2	3.00	0.50
25:B0:36:ILE:CD1	34:BA:2354:G:O2'	2.59	0.50
1:CA:1190:G:OP1	3:CC:5:ILE:HG23	2.11	0.50
41:BH:89:ILE:HG13	41:BH:129:THR:HA	1.92	0.50
37:BD:43:ARG:NH1	37:BD:49:ILE:HG22	2.27	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DH:130:ARG:O	41:DH:131:VAL:HG23	2.11	0.50
8:CH:20:TYR:HA	8:CH:65:TYR:CZ	2.46	0.50
34:BA:583:G:OP2	50:BU:10:ARG:NH1	2.45	0.50
53:DX:82:GLN:HB3	53:DX:85:PRO:HG2	1.92	0.50
44:BO:103:ALA:HB1	44:BO:105:GLU:CD	2.32	0.50
2:CB:208:ILE:HA	2:CB:211:ILE:HD12	1.94	0.50
50:DU:8:VAL:HG12	50:DU:9:VAL:N	2.25	0.50
34:DA:2887:U:H2'	34:DA:2888:C:C6	2.45	0.50
10:AJ:54:PHE:CZ	10:AJ:55:LYS:NZ	2.79	0.50
34:DA:1708:C:H2'	34:DA:1709:U:C6	2.40	0.50
34:DA:2735:G:C2'	34:DA:2736:G:C5'	2.89	0.50
11:CK:20:TYR:O	11:CK:30:VAL:HA	2.12	0.50
16:AP:43:LYS:HD2	16:AP:43:LYS:N	2.26	0.50
34:BA:1820:U:O2	37:BD:202:LYS:HB3	2.11	0.50
1:CA:1426:C:O2'	1:CA:1427:U:H5'	2.11	0.50
34:DA:1140:C:H1'	34:DA:1143:A:N3	2.26	0.50
37:BD:231:HIS:CG	37:BD:232:PRO:HD2	2.46	0.50
34:BA:2340:G:O2'	34:BA:2341:G:H5'	2.10	0.50
39:BF:169:ASN:OD1	39:BF:169:ASN:O	2.30	0.50
34:DA:1654:A:C2	38:DE:113:PHE:HD1	2.30	0.50
34:BA:2511:U:H5''	38:BE:123:ALA:CB	2.42	0.50
36:BC:75:LEU:HD23	36:BC:75:LEU:C	2.31	0.50
40:DG:138:GLN:HE22	40:DG:153:ARG:N	2.09	0.50
34:DA:2270:G:H3'	34:DA:2271:G:C8	2.46	0.50
32:D7:25:PRO:HG2	32:D7:26:GLY:H	1.75	0.50
1:CA:1298:C:H4'	1:CA:1299:A:O4'	2.12	0.50
1:CA:560:U:O2'	1:CA:561:U:OP2	2.24	0.50
34:DA:729:G:H2'	34:DA:1775:U:O2	2.11	0.50
34:DA:2687:U:C2'	34:DA:2688:U:H5'	2.40	0.50
23:CW:68:C:O2'	23:CW:69:G:H5'	2.12	0.50
1:CA:582:U:H2'	1:CA:583:A:H8	1.77	0.50
2:CB:73:THR:HG22	2:CB:95:GLN:O	2.12	0.50
1:CA:158:G:O2'	1:CA:159:G:H5'	2.12	0.50
1:AA:245:C:O2	1:AA:283:C:N3	2.44	0.50
20:AT:38:LYS:O	20:AT:41:ILE:HG13	2.12	0.50
17:CQ:82:MET:O	17:CQ:85:VAL:HB	2.11	0.50
23:AW:14:A:H2'	23:AW:14:A:N3	2.26	0.50
13:CM:39:ILE:O	13:CM:41:PRO:HD3	2.10	0.50
47:BR:101:ALA:O	47:BR:102:GLU:HB2	2.10	0.50
1:AA:544:G:H2'	1:AA:545:C:C6	2.47	0.50
51:DV:32:THR:HG22	51:DV:33:VAL:N	2.27	0.50
37:DD:70:TRP:O	37:DD:73:VAL:HG22	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2127:G:N1	34:BA:2161:C:H1'	2.26	0.50
1:AA:951:G:OP2	13:AM:102:ARG:CZ	2.60	0.50
38:DE:8:LYS:HG2	38:DE:192:ASN:HD22	1.77	0.50
38:DE:52:LEU:O	38:DE:74:PRO:HA	2.10	0.50
48:BS:15:ARG:O	48:BS:17:ARG:O	2.29	0.50
48:BS:17:ARG:O	48:BS:19:LYS:N	2.42	0.50
49:BT:33:LYS:NZ	49:BT:33:LYS:HA	2.25	0.50
54:BY:28:LYS:CA	54:BY:39:VAL:H	2.16	0.50
26:B1:47:GLN:C	26:B1:47:GLN:OE1	2.50	0.50
39:BF:4:VAL:HA	39:BF:18:ARG:O	2.12	0.50
39:BF:200:GLU:O	39:BF:203:GLN:HB2	2.11	0.50
42:DI:115:ALA:CB	42:DI:131:LYS:HE3	2.34	0.50
42:DI:78:THR:OG1	42:DI:141:LYS:HB2	2.11	0.50
34:DA:85:G:N3	34:DA:103:A:H2	2.08	0.50
54:DY:7:VAL:HB	54:DY:8:LYS:NZ	2.27	0.50
45:BP:61:ARG:N	45:BP:61:ARG:HD2	2.26	0.50
40:BG:111:LEU:O	40:BG:114:ILE:HG12	2.11	0.50
40:BG:114:ILE:O	40:BG:115:ARG:C	2.50	0.50
18:CR:50:ILE:CD1	18:CR:70:ILE:HG21	2.41	0.50
10:AJ:34:VAL:HG13	10:AJ:73:ASP:O	2.11	0.50
43:BN:112:LEU:O	43:BN:116:LEU:N	2.38	0.50
12:CL:89:ARG:HA	12:CL:97:ARG:HA	1.94	0.50
45:BP:23:PRO:HB3	45:BP:34:GLY:H	1.75	0.50
45:BP:14:LYS:O	45:BP:15:ARG:CB	2.60	0.50
38:BE:119:ARG:HG2	38:BE:160:TYR:CB	2.42	0.50
46:DQ:34:LEU:CD1	46:DQ:129:THR:HB	2.41	0.50
40:DG:60:LEU:HD13	40:DG:60:LEU:C	2.32	0.50
43:BN:13:TRP:HD1	43:BN:13:TRP:H	1.57	0.50
34:BA:1141:U:H2'	43:BN:63:THR:HG21	1.93	0.50
22:AV:52:G:N3	22:AV:53:G:C8	2.80	0.50
38:DE:109:LYS:HE2	47:DR:2:ARG:HH12	1.77	0.50
39:BF:161:GLU:O	39:BF:164:ARG:HB3	2.11	0.50
34:BA:271(Q):G:O2'	34:BA:271(R):G:H8	1.94	0.50
43:BN:34:LEU:HD21	43:BN:120:LEU:HD23	1.94	0.50
19:CS:51:VAL:O	19:CS:57:HIS:HA	2.12	0.50
31:D6:32:ASN:CG	31:D6:33:LYS:N	2.63	0.50
4:CD:38:TYR:CD2	4:CD:45:GLN:HB3	2.47	0.50
41:BH:88:LEU:O	41:BH:89:ILE:CG2	2.59	0.50
49:DT:58:ASN:C	49:DT:58:ASN:ND2	2.65	0.50
1:AA:256:U:O2'	1:AA:257:G:H5'	2.12	0.50
1:CA:255:G:H2'	1:CA:256:U:C6	2.46	0.50
1:CA:266:G:O2'	1:CA:267:C:OP2	2.28	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1747(A):G:H2'	34:DA:1748:G:C5'	2.37	0.50
34:DA:364:C:C2'	34:DA:365:C:H5''	2.41	0.50
34:DA:1175:U:H4'	34:DA:1176:G:H2'	1.94	0.50
44:BO:103:ALA:HB1	44:BO:105:GLU:OE1	2.11	0.50
36:DC:64:LEU:HD13	36:DC:65:PRO:CD	2.38	0.50
3:CC:52:LEU:HD23	3:CC:52:LEU:N	2.22	0.50
51:BV:3:ALA:O	51:BV:13:ARG:HA	2.12	0.50
26:D1:23:LYS:O	26:D1:37:ILE:HB	2.11	0.50
9:CI:88:TYR:O	9:CI:89:ASN:CG	2.50	0.50
41:BH:102:ALA:HB2	41:BH:117:PRO:CD	2.41	0.50
2:CB:102:LEU:HD13	2:CB:102:LEU:H	1.74	0.50
47:DR:18:LEU:HD13	47:DR:18:LEU:O	2.11	0.50
49:BT:23:ARG:NH2	49:BT:120:ARG:HD3	2.26	0.50
34:DA:1112:G:O2'	34:DA:1113:U:H5''	2.11	0.50
11:CK:17:GLY:O	11:CK:80:VAL:HA	2.11	0.50
11:AK:72:ALA:O	11:AK:77:MET:HB2	2.11	0.50
5:CE:12:LEU:C	5:CE:13:ILE:HD12	2.32	0.50
12:CL:52:LEU:O	12:CL:54:LYS:HD2	2.11	0.50
2:AB:61:LEU:HA	2:AB:64:ARG:HG2	1.94	0.50
1:AA:1216:G:O2'	1:AA:1217:C:H5'	2.12	0.50
34:DA:1570:A:H2'	34:DA:1571:A:C8	2.46	0.50
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.47	0.50
34:DA:1866:C:H2'	34:DA:1876:A:O4'	2.10	0.50
1:AA:1517:G:H2'	1:AA:1518:A:H8	1.76	0.50
34:DA:1388:G:O2'	34:DA:1389:G:H5'	2.11	0.50
28:B3:46:ASN:ND2	34:BA:851:U:H5'	2.26	0.50
1:AA:826:C:H2'	1:AA:827:U:C6	2.47	0.50
7:AG:72:ARG:O	7:AG:73:MET:HG3	2.10	0.50
34:DA:239:U:H2'	34:DA:240:G:O4'	2.12	0.50
49:DT:129:ARG:NH1	49:DT:131:ALA:H	2.09	0.50
1:CA:1325:C:H2'	1:CA:1325:C:O2	2.11	0.50
34:DA:721:C:H2'	34:DA:722:A:C8	2.47	0.50
1:AA:692:U:H2'	1:AA:694:A:OP2	2.12	0.50
46:DQ:111:GLU:HG3	46:DQ:112:GLU:N	2.27	0.50
34:BA:733:G:H8	34:BA:733:G:O5'	1.94	0.50
1:AA:945:G:N3	1:AA:945:G:H2'	2.26	0.50
1:CA:945:G:H2'	1:CA:945:G:N3	2.27	0.50
1:CA:138:G:H2'	1:CA:139:G:C8	2.47	0.50
37:DD:109:ASP:HB2	37:DD:197:GLY:HA2	1.94	0.50
50:DU:69:CYS:HB3	50:DU:106:PHE:HZ	1.76	0.50
50:DU:112:ARG:HG2	50:DU:112:ARG:NH1	2.21	0.50
38:DE:180:ASN:O	38:DE:181:LEU:HD22	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:D3:54:VAL:CG1	28:D3:55:ARG:N	2.74	0.50
34:BA:84:A:H5''	54:BY:9:LYS:NZ	2.25	0.50
34:BA:85:G:O5'	54:BY:30:VAL:HB	2.12	0.50
26:B1:46:LEU:CD1	26:B1:46:LEU:H	2.14	0.50
39:BF:21:ALA:C	39:BF:23:ASP:H	2.14	0.50
40:DG:67:LYS:HD2	40:DG:67:LYS:H	1.76	0.50
2:CB:204:ASN:C	2:CB:204:ASN:ND2	2.65	0.50
34:DA:2762:G:C3'	34:DA:2763:G:H5''	2.41	0.50
13:AM:19:LEU:HA	13:AM:22:ILE:CD1	2.40	0.50
40:BG:57:ALA:HA	40:BG:90:LEU:HD21	1.93	0.50
48:DS:65:VAL:O	48:DS:69:VAL:HG12	2.11	0.50
18:AR:31:LEU:H	18:AR:31:LEU:CD2	2.25	0.50
18:CR:62:GLU:O	18:CR:65:ILE:HG13	2.10	0.50
34:BA:2747:G:O6	34:BA:2754:U:H2'	2.12	0.50
16:AP:15:PRO:HB3	16:AP:17:TYR:HE1	1.76	0.50
23:CW:31:A:C2	23:CW:39:U:O4	2.65	0.50
55:BZ:71:VAL:HG13	55:BZ:86:VAL:HG12	1.93	0.50
46:DQ:42:ILE:HG23	46:DQ:46:GLN:OE1	2.11	0.50
26:D1:82:LEU:CG	26:D1:83:GLU:H	2.25	0.50
40:DG:139:LEU:HD12	40:DG:140:ILE:HG23	1.94	0.50
34:DA:2358:G:H1	45:DP:55:ARG:NH2	1.98	0.50
34:DA:1341:U:N1	53:DX:77:LYS:HE2	2.27	0.50
39:DF:32:LEU:O	39:DF:36:VAL:HG23	2.11	0.50
1:CA:710:G:O2'	1:CA:711:G:H5'	2.11	0.50
43:BN:26:LEU:HG	43:BN:30:ILE:HD11	1.93	0.50
14:CN:4:LYS:O	14:CN:7:ILE:HG12	2.12	0.50
38:DE:14:ILE:HG13	38:DE:21:VAL:CG2	2.42	0.50
1:AA:1285:A:H8	1:AA:1285:A:OP1	1.94	0.50
34:DA:1614:A:H2'	34:DA:1615:C:H5'	1.93	0.50
50:DU:18:LEU:O	50:DU:21:ALA:N	2.44	0.50
13:AM:13:LYS:O	13:AM:44:ARG:HA	2.12	0.50
40:DG:130:ASN:CG	40:DG:160:VAL:HG13	2.31	0.50
37:DD:227:ASN:CB	37:DD:228:PRO:HD2	2.31	0.50
41:DH:88:LEU:O	41:DH:89:ILE:CG2	2.57	0.50
1:AA:255:G:H2'	1:AA:256:U:C6	2.47	0.50
1:CA:256:U:O2'	1:CA:257:G:H5'	2.11	0.50
15:CO:36:ILE:HG23	15:CO:56:LEU:HD11	1.94	0.50
19:CS:66:MET:HB2	19:CS:74:PHE:CZ	2.47	0.50
25:D0:42:GLY:HA3	34:DA:2331:G:O4'	2.12	0.50
1:AA:624:C:H2'	1:AA:625:G:H8	1.77	0.50
3:AC:113:ALA:O	3:AC:115:LEU:N	2.44	0.50
53:DX:83:VAL:O	53:DX:84:ALA:CB	2.59	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:DV:44:LYS:C	51:DV:46:VAL:H	2.15	0.50
37:BD:158:ALA:O	37:BD:159:ALA:HB3	2.10	0.50
25:D0:31:VAL:HB	25:D0:35:ASN:HD22	1.77	0.50
44:DO:121:VAL:HG12	44:DO:122:LEU:N	2.27	0.50
50:DU:15:LYS:HG3	50:DU:16:LYS:N	2.25	0.50
51:BV:4:ILE:HG12	51:BV:13:ARG:CB	2.42	0.50
13:CM:13:LYS:O	13:CM:44:ARG:HA	2.12	0.50
1:AA:348:G:O2'	1:AA:349:A:H5'	2.11	0.50
34:DA:2708:G:O2'	34:DA:2709:G:H5'	2.11	0.50
45:BP:88:LEU:C	45:BP:90:ARG:H	2.15	0.50
9:AI:16:ARG:O	9:AI:63:ILE:HA	2.11	0.50
51:DV:79:VAL:O	51:DV:80:GLN:CB	2.59	0.50
45:DP:138:LEU:C	45:DP:138:LEU:HD12	2.32	0.50
8:AH:6:ILE:H	8:AH:6:ILE:CD1	2.25	0.50
34:DA:1434:A:H61	34:DA:1558:A:N6	2.04	0.50
15:AO:54:ARG:HG2	15:AO:58:MET:HE1	1.93	0.50
1:CA:1387:G:C6	1:CA:1388:C:N4	2.79	0.50
1:AA:1436:U:H2'	1:AA:1437:C:H6	1.76	0.50
1:CA:37:U:O2'	1:CA:38:G:H5'	2.11	0.50
11:AK:124:LYS:HD2	11:AK:125:PHE:HE1	1.73	0.50
51:DV:25:LEU:C	51:DV:27:ALA:H	2.14	0.50
7:CG:101:LEU:O	7:CG:104:LEU:HB2	2.12	0.50
15:CO:17:ARG:NH1	15:CO:17:ARG:HG3	2.26	0.50
34:DA:1049:C:H2'	34:DA:1050:A:C8	2.43	0.50
34:DA:945:A:C4	34:DA:2448:A:C2	2.99	0.50
7:CG:113:GLU:HB2	7:CG:119:ARG:CG	2.42	0.50
25:D0:11:ARG:CB	25:D0:11:ARG:HH11	2.25	0.50
37:DD:210:GLY:O	37:DD:211:ARG:HB3	2.12	0.50
1:CA:1401:G:H2'	1:CA:1402:C:O4'	2.11	0.50
25:D0:2:ALA:HB1	34:DA:2494:G:P	2.52	0.50
34:BA:415:A:C2	34:BA:2409:G:C2	2.99	0.50
49:DT:78:LEU:C	49:DT:79:HIS:ND1	2.64	0.50
34:DA:765:G:H2'	34:DA:766:C:C6	2.47	0.50
23:CW:52:G:C2	23:CW:53:G:C4	2.99	0.50
15:CO:43:LEU:C	15:CO:45:VAL:H	2.15	0.50
5:CE:81:GLU:HG2	5:CE:90:VAL:HG13	1.92	0.50
12:AL:55:VAL:HG12	12:AL:56:ALA:N	2.27	0.50
2:AB:28:PHE:O	2:AB:28:PHE:CD1	2.65	0.50
45:DP:29:LYS:N	45:DP:29:LYS:HD2	2.26	0.50
34:BA:1187:G:O5'	34:BA:1187:G:H8	1.95	0.50
26:B1:30:VAL:O	26:B1:30:VAL:HG12	2.11	0.50
1:AA:1078:U:H2'	1:AA:1079:G:O4'	2.10	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:611:C:O2'	34:DA:612:C:H5'	2.12	0.50
34:BA:994:C:H1'	51:BV:10:LYS:NZ	2.26	0.50
38:DE:3:GLY:O	38:DE:4:ILE:HG22	2.11	0.50
38:DE:70:ALA:O	38:DE:72:VAL:N	2.45	0.50
45:BP:96:THR:HB	45:BP:126:VAL:HB	1.94	0.50
35:BB:4:C:H2'	35:BB:5:C:C6	2.47	0.50
49:BT:42:ILE:O	49:BT:43:GLN:C	2.50	0.50
49:BT:65:LYS:HZ2	49:BT:65:LYS:HA	1.77	0.50
2:AB:19:HIS:HD2	2:AB:189:ASP:OD2	1.95	0.50
38:BE:101:ARG:HD3	38:BE:169:ASN:HD22	1.76	0.50
34:BA:612:C:H2'	34:BA:613:G:C5'	2.19	0.50
34:BA:615:G:H5'	39:BF:40:GLN:NE2	2.27	0.50
45:DP:140:ALA:O	45:DP:141:ALA:HB2	2.12	0.50
54:DY:15:VAL:O	54:DY:16:ALA:CB	2.59	0.50
2:CB:22:LYS:H	2:CB:40:HIS:CE1	2.30	0.50
39:DF:52:LYS:HB3	39:DF:56:GLU:HB3	1.93	0.50
48:DS:30:ARG:HH21	48:DS:62:LYS:HD2	1.75	0.50
38:BE:120:TRP:CD2	38:BE:155:LYS:HD3	2.46	0.50
1:CA:386:C:H2'	1:CA:387:U:C5'	2.41	0.50
34:BA:941:A:H2'	34:BA:942:G:C8	2.47	0.50
34:BA:2533:A:H2'	34:BA:2534:A:C5'	2.28	0.50
34:DA:2639:A:C3'	34:DA:2640:G:H5''	2.42	0.50
26:D1:82:LEU:CD1	26:D1:84:GLY:H	2.24	0.50
26:D1:87:PRO:HB2	26:D1:91:LYS:CE	2.41	0.50
46:BQ:104:PHE:HE1	46:BQ:125:LEU:HD11	1.77	0.50
34:DA:827:U:H4'	34:DA:828:U:O2	2.12	0.50
52:BW:59:VAL:HG12	52:BW:60:ASN:H	1.74	0.50
34:DA:2406:U:O4	45:DP:70:GLN:HB3	2.12	0.50
34:DA:188:G:N2	34:DA:209:C:C2	2.80	0.50
34:DA:1899:G:H21	34:DA:1902:C:H5	1.58	0.50
25:D0:20:ARG:CD	25:D0:20:ARG:N	2.61	0.50
53:DX:31:HIS:O	53:DX:32:PRO:C	2.50	0.50
25:D0:36:ILE:HD13	25:D0:36:ILE:H	1.77	0.50
15:CO:57:LEU:O	15:CO:60:VAL:HB	2.11	0.50
8:AH:40:ALA:C	8:AH:42:GLU:N	2.65	0.50
8:AH:39:LEU:O	8:AH:44:PHE:HB2	2.12	0.50
40:BG:7:LEU:HB2	40:BG:104:GLU:CD	2.32	0.50
49:DT:3:ARG:C	49:DT:5:ALA:N	2.63	0.50
34:DA:2887:U:O2'	34:DA:2888:C:H5'	2.12	0.50
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.71	0.50
1:CA:1414:U:H2'	1:CA:1415:G:H8	1.77	0.50
9:CI:23:ASN:HB2	9:CI:60:ASP:OD1	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BF:83:PHE:O	39:BF:85:GLY:N	2.44	0.50
9:CI:112:LYS:HE3	9:CI:116:LYS:O	2.11	0.50
34:BA:1708:C:O2'	34:BA:1709:U:H5'	2.12	0.50
8:AH:86:ILE:CB	8:AH:133:LEU:HD22	2.41	0.50
5:AE:150:ARG:HB2	5:AE:150:ARG:NH1	2.26	0.50
34:DA:418:G:O2'	34:DA:419:C:H5'	2.11	0.50
1:CA:296:U:H2'	1:CA:297:G:C8	2.47	0.50
34:BA:1345:C:H2'	34:BA:1346:G:H8	1.77	0.50
13:CM:93:ARG:HE	13:CM:93:ARG:HA	1.77	0.50
26:B1:23:LYS:O	26:B1:37:ILE:HB	2.10	0.50
17:AQ:5:VAL:HA	17:AQ:59:ILE:O	2.11	0.50
1:CA:766:A:H2'	1:CA:767:A:O4'	2.12	0.50
15:AO:75:PRO:HG2	15:AO:76:GLU:H	1.76	0.50
34:BA:2050:C:H1'	38:BE:156:MET:HE2	1.92	0.50
34:DA:1602:U:H3'	34:DA:1603:A:C5'	2.42	0.50
1:CA:358:U:H2'	1:CA:359:U:C6	2.47	0.50
34:DA:523:C:O2'	34:DA:524:U:H5'	2.12	0.50
34:BA:554:U:O2'	34:BA:555:U:H5'	2.11	0.50
55:DZ:104:PHE:HD1	55:DZ:139:VAL:HG11	1.76	0.50
34:BA:1268:A:H2'	34:BA:1269:A:O4'	2.11	0.50
34:DA:2086:U:H2'	34:DA:2087:G:C8	2.47	0.50
4:AD:28:SER:HB3	4:AD:29:PRO:HD2	1.94	0.50
1:AA:597:G:H2'	1:AA:598:U:H5'	1.93	0.50
34:BA:1022:G:O2'	34:BA:1023:U:P	2.70	0.50
22:AV:34:C:H2'	22:AV:34:C:O2	2.10	0.50
52:DW:95:ILE:O	52:DW:95:ILE:HG13	2.11	0.50
17:CQ:94:ASN:O	17:CQ:95:TYR:C	2.50	0.50
34:BA:614(A):U:H4'	34:BA:614(B):G:H5''	1.93	0.50
34:DA:2525:G:O2'	34:DA:2526:G:H5'	2.11	0.50
50:DU:50:ARG:CZ	51:DV:75:PHE:CE2	2.95	0.50
42:BI:120:ILE:HG22	42:BI:121:LYS:N	2.26	0.50
34:BA:2160:G:H3'	34:BA:2161:C:H5''	1.94	0.50
34:DA:613:G:C8	34:DA:613:G:H5'	2.43	0.50
34:DA:2777:G:H5''	34:DA:2778:A:H5''	1.94	0.50
38:DE:176:ILE:HG22	38:DE:179:GLU:H	1.76	0.50
38:DE:48:GLN:HE21	38:DE:78:LEU:CD1	2.25	0.50
38:DE:47:VAL:O	38:DE:80:GLU:HA	2.12	0.50
53:DX:44:GLU:HB3	53:DX:51:VAL:HG23	1.94	0.50
45:BP:123:LEU:O	45:BP:124:LYS:C	2.50	0.50
36:DC:208:PHE:O	36:DC:209:LEU:CB	2.59	0.50
38:BE:201:THR:CG2	38:BE:203:LYS:HB3	2.42	0.50
34:DA:626:U:O2	45:DP:105:LEU:HG	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DY:11:ASP:N	54:DY:27:VAL:HG22	2.27	0.50
34:DA:2127:G:N1	34:DA:2161:C:H1'	2.26	0.50
55:DZ:24:LEU:HB2	55:DZ:41:LEU:HD23	1.94	0.50
40:BG:39:ILE:HG12	40:BG:60:LEU:HD21	1.94	0.50
12:CL:90:VAL:O	12:CL:92:ASP:N	2.44	0.50
1:AA:385:C:O2'	1:AA:386:C:H5'	2.12	0.50
45:DP:14:LYS:O	45:DP:15:ARG:CB	2.60	0.50
10:CJ:39:PRO:CA	10:CJ:70:ARG:NH1	2.75	0.50
34:BA:1718:G:H8	34:BA:1718:G:H5'	1.77	0.50
13:CM:15:VAL:HA	13:CM:18:ALA:HB3	1.94	0.50
19:AS:62:ILE:HD12	19:AS:66:MET:SD	2.51	0.50
1:AA:714:G:H2'	1:AA:715:A:C8	2.47	0.50
41:BH:92:ILE:CG2	41:BH:93:GLY:N	2.64	0.50
26:B1:26:ARG:N	26:B1:26:ARG:HD3	2.25	0.50
47:DR:48:VAL:O	47:DR:51:LEU:HB2	2.11	0.50
40:BG:145:THR:OG1	40:BG:146:TYR:N	2.45	0.50
34:BA:2531:A:H2	34:BA:2658:C:O2	1.94	0.50
37:DD:246:PRO:HB2	37:DD:255:LYS:HG2	1.94	0.50
1:CA:1305:G:OP1	21:CU:2:GLY:HA3	2.12	0.50
41:DH:87:LEU:HA	41:DH:163:TYR:O	2.12	0.50
6:CF:71:ARG:HA	6:CF:74:ASP:OD2	2.11	0.50
45:DP:112:LEU:HD22	45:DP:113:LYS:N	2.27	0.50
12:CL:58:VAL:O	12:CL:60:LEU:HD22	2.11	0.50
1:CA:1106:G:O2'	1:CA:1107:C:H5'	2.12	0.50
34:BA:2645:G:C3'	34:BA:2646:C:H5'	2.39	0.50
34:BA:1175:U:H4'	34:BA:1176:G:H2'	1.93	0.50
34:BA:2842:G:O2'	34:BA:2843:G:H5'	2.12	0.50
1:AA:1168:A:H2'	1:AA:1169:A:H8	1.76	0.50
15:AO:39:LEU:C	15:AO:39:LEU:HD13	2.32	0.50
5:AE:36:ASP:O	5:AE:37:ARG:CB	2.59	0.50
40:BG:6:ALA:O	40:BG:10:LYS:N	2.44	0.50
2:AB:84:GLU:OE1	2:AB:216:SER:HA	2.12	0.50
1:CA:673:G:H2'	1:CA:674:G:H8	1.74	0.50
34:BA:360:G:H2'	34:BA:361:G:C8	2.47	0.50
1:CA:107:G:H2'	1:CA:108:G:C5'	2.41	0.50
34:BA:2872:G:C2	34:BA:2873:A:N6	2.79	0.50
34:BA:2873:A:N3	47:BR:6:SER:HB2	2.27	0.50
47:BR:4:LEU:HD22	47:BR:4:LEU:O	2.11	0.50
2:AB:97:TRP:CH2	2:AB:176:GLU:OE2	2.65	0.50
1:AA:227:G:H2'	1:AA:228:A:H8	1.76	0.50
3:CC:175:LEU:HD21	3:CC:201:TYR:CD2	2.47	0.50
1:CA:1207:G:O2'	1:CA:1208:C:H5'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1209:C:O2'	1:CA:1210:C:H5'	2.12	0.50
8:CH:6:ILE:HG12	8:CH:31:PHE:HE2	1.76	0.50
32:B7:8:ASN:C	32:B7:8:ASN:ND2	2.61	0.50
16:AP:43:LYS:HG3	16:AP:48:TRP:CG	2.46	0.50
13:AM:75:ALA:O	13:AM:78:ILE:N	2.45	0.50
1:CA:1406:U:C2'	1:CA:1407:C:H5'	2.41	0.50
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.73	0.50
29:D4:29:PRO:O	29:D4:31:ILE:N	2.44	0.50
46:DQ:7:MET:O	46:DQ:10:ARG:NH2	2.45	0.50
30:B5:43:HIS:CD2	34:BA:2815:C:O2'	2.63	0.50
51:BV:52:VAL:O	51:BV:53:GLU:HB3	2.12	0.50
28:B3:23:LEU:H	28:B3:23:LEU:HD12	1.77	0.50
4:CD:52:SER:C	4:CD:54:TYR:N	2.65	0.50
4:AD:147:ALA:HB2	4:AD:182:LYS:HB2	1.94	0.50
1:AA:1296:C:H5'	1:AA:1297:C:OP2	2.11	0.50
34:BA:1335:U:O2'	34:BA:1336:A:H5'	2.12	0.50
55:BZ:105:VAL:HG22	55:BZ:106:GLY:H	1.77	0.50
39:BF:110:LEU:O	39:BF:113:ALA:HB3	2.12	0.50
54:DY:35:TYR:HD2	54:DY:68:HIS:CE1	2.29	0.50
33:B8:2:PRO:O	33:B8:3:LYS:O	2.29	0.50
45:BP:148:LEU:HD22	45:BP:148:LEU:O	2.12	0.50
34:BA:1523:U:H2'	34:BA:1524:G:C8	2.46	0.50
34:DA:687:C:H42	34:DA:787:U:H4'	1.77	0.50
34:DA:1509:C:H4'	34:DA:1509:C:OP1	2.12	0.50
34:DA:1328:G:O2'	34:DA:1329:U:H5''	2.11	0.50
7:AG:85:TYR:HD1	7:AG:154:TYR:HE1	1.59	0.50
1:CA:908:A:H2'	1:CA:909:A:H8	1.77	0.50
34:DA:363(E):U:O2'	34:DA:363(F):A:H4'	2.11	0.50
34:BA:118:A:H5'	34:BA:119:A:H8	1.77	0.50
34:BA:1509:C:OP1	34:BA:1509:C:H4'	2.12	0.50
30:B5:35:GLU:HB2	30:B5:49:CYS:SG	2.51	0.50
51:DV:40:LEU:O	51:DV:41:GLY:C	2.48	0.50
51:DV:5:VAL:HG22	51:DV:6:LYS:N	2.27	0.50
51:DV:63:GLY:O	51:DV:96:ILE:HG23	2.12	0.50
37:DD:35:LYS:HE3	37:DD:65:ILE:N	2.27	0.50
49:DT:83:ILE:HG13	49:DT:84:GLN:HG2	1.94	0.50
38:BE:101:ARG:HH11	38:BE:169:ASN:HD22	1.58	0.50
34:BA:1203:G:H3'	34:BA:1204:A:H5''	1.94	0.50
39:BF:41:LEU:HD23	39:BF:44:ARG:HD3	1.94	0.50
45:DP:100:LEU:O	45:DP:101:VAL:C	2.49	0.50
34:DA:2160:G:H3'	34:DA:2161:C:H5''	1.94	0.50
55:DZ:28:MET:HE3	55:DZ:37:VAL:HG21	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DZ:91:LEU:HD12	55:DZ:91:LEU:H	1.77	0.50
2:CB:92:TYR:CE2	2:CB:151:GLY:CA	2.95	0.50
33:D8:30:ARG:HH21	45:DP:62:LEU:CB	2.19	0.50
33:D8:32:LEU:HB3	33:D8:35:GLN:N	2.19	0.50
34:BA:139:G:H1	34:BA:142(A):C:H42	1.60	0.50
43:DN:42:TRP:HB2	50:DU:64:ARG:NH2	2.25	0.50
47:DR:96:ARG:HE	47:DR:117:VAL:HG23	1.76	0.50
41:DH:55:PRO:HG2	41:DH:56:SER:N	2.22	0.50
18:CR:31:LEU:H	18:CR:31:LEU:CD2	2.24	0.50
1:AA:192:U:O4'	20:AT:103:GLY:HA2	2.12	0.50
41:BH:65:HIS:C	41:BH:67:LEU:H	2.16	0.50
1:AA:586:C:O2'	1:AA:587:G:H5'	2.12	0.50
55:BZ:166:SER:HB2	55:BZ:167:PRO:CA	2.42	0.50
55:BZ:44:PHE:CE2	55:BZ:86:VAL:HG11	2.47	0.50
55:BZ:48:PHE:O	55:BZ:52:SER:N	2.43	0.50
34:DA:285:C:C2'	34:DA:286:C:H5''	2.41	0.50
53:BX:53:LYS:H	53:BX:80:ILE:HG22	1.77	0.50
53:BX:55:ASN:HD22	53:BX:78:LYS:HE2	1.75	0.50
26:D1:78:LYS:O	26:D1:80:LEU:N	2.45	0.50
34:DA:2807:G:H3'	34:DA:2808:U:H5''	1.94	0.50
44:BO:46:ALA:H	44:BO:54:GLU:CG	2.23	0.50
19:AS:66:MET:HB2	19:AS:74:PHE:HZ	1.77	0.50
1:AA:1203:C:O2'	1:AA:1204:A:H5'	2.12	0.50
46:BQ:47:ILE:HD12	46:BQ:47:ILE:N	2.26	0.50
39:BF:103:LYS:O	39:BF:105:VAL:N	2.45	0.50
4:CD:104:VAL:HG12	4:CD:105:VAL:N	2.27	0.50
4:CD:134:ASP:OD2	4:CD:135:LEU:HD22	2.12	0.50
27:D2:14:ARG:NE	27:D2:57:ILE:CB	2.74	0.50
34:BA:2348:U:O2'	34:BA:2349:G:H5''	2.11	0.50
40:DG:39:ILE:HG13	40:DG:92:VAL:CG1	2.42	0.50
1:CA:1305:G:C2	1:CA:1331:G:N3	2.80	0.50
4:AD:11:LEU:O	4:AD:12:CYS:C	2.49	0.50
12:AL:41:ARG:HG2	12:AL:42:THR:N	2.26	0.50
33:D8:14:VAL:CG1	33:D8:22:VAL:HG13	2.37	0.50
34:BA:2201:C:H2'	34:BA:2202:C:C6	2.46	0.50
1:CA:1502:A:C2	1:CA:1505:G:N1	2.80	0.50
50:BU:108:GLU:O	50:BU:112:ARG:HB2	2.12	0.50
2:CB:84:GLU:HB3	2:CB:219:VAL:CG2	2.37	0.50
2:AB:208:ILE:HA	2:AB:211:ILE:HD12	1.93	0.50
3:CC:95:THR:HG22	3:CC:97:LYS:H	1.77	0.50
34:DA:280:C:H42	34:DA:360:G:H1	1.59	0.50
1:AA:940:C:H2'	1:AA:941:G:C8	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:848:G:N3	34:DA:933:A:H1'	2.27	0.50
34:DA:741:G:H2'	34:DA:742:G:H8	1.77	0.50
2:CB:197:VAL:HG12	2:CB:200:ILE:HG12	1.93	0.50
31:D6:45:LYS:HZ1	34:DA:2370:G:N2	2.06	0.50
39:DF:83:PHE:O	39:DF:84:VAL:HB	2.12	0.50
11:CK:21:ILE:HG13	11:CK:30:VAL:HG12	1.93	0.50
8:CH:119:LEU:CD1	8:CH:124:ALA:HA	2.41	0.50
34:DA:2771:C:O2	34:DA:2771:C:C2'	2.60	0.50
32:B7:27:GLY:O	32:B7:30:VAL:HB	2.11	0.50
11:AK:52:GLY:H	11:AK:55:LYS:NZ	2.10	0.50
1:AA:26:A:H61	1:AA:558:G:H1'	1.75	0.50
34:DA:608:A:C2	34:DA:609:A:C4	2.98	0.50
38:DE:182:LEU:O	38:DE:183:LEU:HD12	2.12	0.50
30:B5:7:PRO:HB2	34:BA:2016:U:O2	2.11	0.50
34:DA:271(M):G:H2'	34:DA:271(N):U:H5''	1.93	0.50
46:BQ:137:TYR:O	46:BQ:138:ASP:CG	2.50	0.50
45:DP:148:LEU:O	45:DP:148:LEU:HD22	2.12	0.50
1:CA:20:U:H2'	1:CA:21:G:O4'	2.12	0.50
34:BA:2861:G:O2'	34:BA:2862:G:H5'	2.12	0.50
1:CA:635:G:C6	1:CA:636:U:C4	3.00	0.50
34:BA:1388:G:O2'	34:BA:1389:G:H5'	2.11	0.50
4:CD:152:SER:O	4:CD:154:ASN:N	2.45	0.50
40:DG:61:ALA:O	40:DG:65:GLY:N	2.45	0.50
48:DS:45:GLY:O	48:DS:46:VAL:HG23	2.11	0.50
12:AL:20:LYS:H	12:AL:20:LYS:HD3	1.77	0.50
55:BZ:131:ARG:HH11	55:BZ:131:ARG:HG2	1.77	0.50
19:CS:79:THR:O	19:CS:80:TYR:HB3	2.12	0.50
50:DU:106:PHE:HA	50:DU:109:LEU:HD12	1.94	0.49
50:DU:109:LEU:O	50:DU:113:ALA:N	2.42	0.49
42:BI:124:GLY:O	42:BI:142:VAL:HG23	2.12	0.49
48:DS:101:LEU:HD22	48:DS:102:ALA:N	2.21	0.49
48:DS:15:ARG:HG3	48:DS:15:ARG:NH1	2.27	0.49
38:DE:59:VAL:CG2	38:DE:63:LEU:HA	2.42	0.49
34:BA:482:A:H4'	54:BY:47:LYS:HZ1	1.76	0.49
49:DT:29:ARG:CG	49:DT:30:VAL:H	2.25	0.49
49:DT:89:VAL:CB	49:DT:91:ARG:HE	2.24	0.49
37:DD:108:PRO:HG3	37:DD:111:LEU:HD23	1.94	0.49
54:BY:8:LYS:HZ1	54:BY:74:PRO:CD	2.22	0.49
54:DY:20:TYR:CD1	54:DY:42:VAL:HG22	2.46	0.49
33:B8:14:VAL:CG1	33:B8:22:VAL:HG13	2.37	0.49
45:DP:48:PRO:HG2	45:DP:49:ARG:N	2.20	0.49
27:B2:41:ILE:CG1	34:BA:94(A):G:H22	2.25	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:B2:48:HIS:O	27:B2:49:LYS:HG2	2.11	0.49
38:DE:201:THR:CG2	38:DE:203:LYS:HB3	2.42	0.49
47:BR:96:ARG:HE	47:BR:117:VAL:HG23	1.77	0.49
55:DZ:167:PRO:O	55:DZ:168:GLU:HB2	2.12	0.49
30:D5:4:HIS:CB	30:D5:5:PRO:CD	2.88	0.49
47:DR:85:PRO:O	47:DR:87:TYR:N	2.45	0.49
41:DH:35:VAL:O	41:DH:37:VAL:HG23	2.11	0.49
34:BA:1155:A:O3'	50:BU:55:ARG:NH1	2.45	0.49
1:AA:374:A:O2'	1:AA:375:U:H5'	2.12	0.49
38:BE:120:TRP:NE1	38:BE:155:LYS:HB3	2.27	0.49
34:BA:578:A:OP1	34:BA:1255:U:O2'	2.26	0.49
34:DA:589:C:H2'	34:DA:590:A:H8	1.77	0.49
5:AE:41:VAL:HG13	5:AE:113:ALA:HA	1.93	0.49
37:DD:205:VAL:O	37:DD:205:VAL:HG12	2.11	0.49
1:CA:78:G:N2	1:CA:91:C:H42	1.95	0.49
34:BA:2684:U:OP2	49:BT:53:ARG:NH2	2.43	0.49
46:BQ:140:ALA:O	55:BZ:53:ILE:HD12	2.11	0.49
40:DG:105:LYS:HE2	40:DG:143:GLU:OE1	2.11	0.49
51:BV:18:LEU:HD22	51:BV:18:LEU:C	2.32	0.49
53:DX:53:LYS:HE3	53:DX:55:ASN:ND2	2.16	0.49
19:AS:16:LEU:HA	19:AS:19:VAL:HB	1.94	0.49
47:DR:48:VAL:HA	47:DR:51:LEU:HD12	1.93	0.49
1:AA:1392:G:N2	1:AA:1502:A:C8	2.74	0.49
25:D0:20:ARG:NH1	34:DA:2357:U:OP1	2.45	0.49
34:BA:624:C:O2	34:BA:657:U:H4'	2.13	0.49
34:DA:438:G:O2'	34:DA:440:G:H5'	2.12	0.49
34:BA:1350:C:O2'	34:BA:1351:C:H5'	2.12	0.49
1:AA:439:A:C5	1:AA:441:A:H1'	2.48	0.49
53:BX:83:VAL:O	53:BX:84:ALA:CB	2.59	0.49
38:BE:134:ILE:O	38:BE:134:ILE:HG12	2.11	0.49
44:DO:71:ARG:HB2	44:DO:75:SER:O	2.12	0.49
23:AW:27:G:H2'	23:AW:28:G:H8	1.72	0.49
9:AI:88:TYR:O	9:AI:89:ASN:CG	2.50	0.49
1:CA:940:C:H2'	1:CA:941:G:C8	2.47	0.49
7:CG:102:ARG:HG2	7:CG:106:GLN:NE2	2.24	0.49
41:DH:155:SER:C	41:DH:157:TYR:H	2.16	0.49
32:D7:5:TRP:NE1	32:D7:7:PRO:HG3	2.27	0.49
34:DA:601:C:O2'	34:DA:605:C:H5''	2.12	0.49
8:CH:122:ARG:HH11	8:CH:122:ARG:CB	2.23	0.49
1:CA:1240:U:OP2	7:CG:116:ALA:HB2	2.12	0.49
23:AW:23:A:H2'	23:AW:24:G:C8	2.46	0.49
34:DA:270:A:C2'	34:DA:271:A:H5'	2.42	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:468:G:H2'	34:BA:469:G:O4'	2.12	0.49
43:DN:18:ALA:C	43:DN:20:GLY:N	2.65	0.49
27:B2:60:LEU:O	27:B2:61:LEU:HB2	2.12	0.49
9:AI:113:LYS:H	9:AI:113:LYS:CD	2.24	0.49
51:DV:52:VAL:O	51:DV:53:GLU:HB3	2.11	0.49
40:DG:138:GLN:HE22	40:DG:152:LEU:C	2.15	0.49
20:CT:33:ILE:HD12	20:CT:63:ILE:CG1	2.40	0.49
4:CD:25:ARG:O	4:CD:27:TYR:N	2.44	0.49
34:DA:523:C:H2'	34:DA:524:U:H5'	1.94	0.49
11:AK:58:PRO:O	11:AK:61:ALA:HB3	2.12	0.49
34:DA:703:U:C2'	34:DA:704:G:H5'	2.41	0.49
1:AA:243:A:O2'	1:AA:244:U:OP2	2.29	0.49
28:D3:59:VAL:HG12	28:D3:60:GLU:N	2.27	0.49
20:CT:24:LEU:C	20:CT:24:LEU:HD13	2.32	0.49
1:CA:636:U:H2'	1:CA:637:G:H8	1.77	0.49
38:DE:56:PRO:O	38:DE:58:ARG:N	2.45	0.49
34:DA:256:A:H2'	34:DA:257:A:C8	2.47	0.49
34:BA:660:G:H5'	39:BF:99:TYR:CE2	2.47	0.49
34:DA:1268:A:H2'	34:DA:1269:A:O4'	2.12	0.49
40:DG:96:ARG:O	40:DG:99:MET:HB3	2.11	0.49
1:AA:160:A:H2'	1:AA:161:A:O4'	2.11	0.49
4:AD:80:GLU:O	4:AD:83:SER:N	2.45	0.49
34:BA:1607:C:H4'	34:BA:1608:A:O5'	2.12	0.49
50:DU:69:CYS:HB3	50:DU:106:PHE:CZ	2.48	0.49
42:BI:79:ILE:HG13	42:BI:140:LEU:HD21	1.94	0.49
34:DA:614:U:H4'	34:DA:614(C):A:H62	1.77	0.49
48:DS:93:LYS:HE3	48:DS:93:LYS:HA	1.94	0.49
38:DE:96:PHE:HA	38:DE:100:GLU:OE1	2.12	0.49
49:DT:33:LYS:HZ3	49:DT:33:LYS:H	1.60	0.49
49:DT:89:VAL:HG12	49:DT:91:ARG:CG	2.42	0.49
49:BT:89:VAL:CB	49:BT:91:ARG:HE	2.24	0.49
34:BA:2776:A:C6	34:BA:2782:G:H1'	2.47	0.49
34:DA:2545:G:N3	34:DA:2565:A:H2	2.10	0.49
45:DP:122:PRO:HA	45:DP:141:ALA:O	2.12	0.49
45:DP:126:VAL:HG12	45:DP:127:ALA:N	2.28	0.49
2:CB:149:LEU:O	2:CB:153:ARG:HG3	2.13	0.49
31:D6:25:LYS:HD3	33:D8:36:LYS:HD2	1.94	0.49
50:DU:65:ILE:O	50:DU:68:ALA:HB3	2.12	0.49
47:BR:97:VAL:CG2	47:BR:114:VAL:HG22	2.42	0.49
47:BR:84:ALA:N	47:BR:85:PRO:CD	2.75	0.49
34:BA:2747:G:P	41:BH:138:LYS:HZ3	2.35	0.49
1:AA:1254:C:H2'	1:AA:1255:G:C8	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:BZ:98:MET:O	55:BZ:125:LEU:HA	2.11	0.49
55:BZ:99:TYR:HD2	55:BZ:99:TYR:N	2.10	0.49
34:DA:2894:G:H2'	34:DA:2894:G:N3	2.27	0.49
39:DF:161:GLU:O	39:DF:164:ARG:HB3	2.12	0.49
34:DA:1131:G:OP2	34:DA:2515:C:H4'	2.11	0.49
5:AE:32:VAL:HG12	5:AE:33:VAL:N	2.27	0.49
53:DX:67:GLY:C	53:DX:68:ARG:HG2	2.31	0.49
12:CL:86:ARG:HB2	12:CL:101:VAL:CG2	2.42	0.49
42:DI:72:LEU:HD12	42:DI:138:ILE:HG23	1.93	0.49
34:BA:2529:G:OP2	34:BA:2530:A:H5''	2.12	0.49
4:AD:8:VAL:O	4:AD:11:LEU:HG	2.11	0.49
49:BT:101:PHE:HE2	49:BT:113:LYS:HD3	1.76	0.49
39:BF:176:LEU:HD21	39:BF:180:GLY:O	2.12	0.49
4:AD:60:GLU:OE2	4:AD:198:VAL:HA	2.13	0.49
34:BA:1766:U:O2'	34:BA:1767:C:H5'	2.12	0.49
15:AO:56:LEU:HG	15:AO:60:VAL:CG2	2.42	0.49
34:BA:1665:A:H2'	34:BA:1666:G:C5'	2.41	0.49
1:CA:1216:G:O2'	1:CA:1217:C:H5'	2.12	0.49
47:DR:104:ARG:O	47:DR:108:GLY:HA2	2.13	0.49
34:BA:1510:G:H2'	34:BA:1511:C:O4'	2.11	0.49
34:DA:360:G:H2'	34:DA:361:G:H8	1.77	0.49
9:AI:20:ARG:O	9:AI:60:ASP:N	2.42	0.49
9:AI:23:ASN:HB2	9:AI:60:ASP:OD1	2.12	0.49
11:AK:33:THR:HB	11:AK:38:ASN:O	2.13	0.49
30:B5:2:ALA:N	34:BA:747:U:C4	2.80	0.49
7:CG:148:ASN:N	7:CG:148:ASN:ND2	2.58	0.49
34:BA:1140:C:C1'	34:BA:1143:A:C2	2.96	0.49
16:AP:39:TYR:CZ	16:AP:41:PRO:HB3	2.46	0.49
34:DA:1257:C:H2'	34:DA:1258:C:H6	1.77	0.49
4:CD:2:GLY:O	4:CD:4:TYR:N	2.45	0.49
13:AM:83:ASP:CG	13:AM:84:ILE:N	2.65	0.49
34:DA:2801(A):A:O2'	34:DA:2803:C:H5	1.94	0.49
51:BV:25:LEU:C	51:BV:27:ALA:H	2.16	0.49
37:DD:231:HIS:ND1	37:DD:232:PRO:CD	2.74	0.49
34:BA:2815:C:H2'	34:BA:2816:C:H6	1.77	0.49
1:AA:237:C:O2'	1:AA:238:G:H5'	2.12	0.49
42:BI:25:TYR:CE2	42:BI:29:TYR:CD2	3.00	0.49
31:B6:11:LEU:O	31:B6:24:GLU:N	2.45	0.49
1:CA:1126:U:O2'	1:CA:1127:G:H5'	2.12	0.49
39:BF:107:LYS:O	39:BF:110:LEU:N	2.45	0.49
26:B1:54:ALA:C	26:B1:56:GLN:N	2.63	0.49
26:B1:54:ALA:O	26:B1:56:GLN:N	2.44	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1108:U:C2'	34:BA:1109:C:H5'	2.43	0.49
34:BA:2066:C:O2'	34:BA:2067:G:H5'	2.12	0.49
55:DZ:8:TYR:CD1	55:DZ:8:TYR:N	2.80	0.49
5:CE:68:GLU:O	5:CE:70:PRO:HD3	2.12	0.49
1:AA:1271:G:H2'	1:AA:1272:G:H8	1.78	0.49
1:CA:1159:U:O4'	1:CA:1182:G:N2	2.45	0.49
1:AA:1198:G:H2'	1:AA:1199:U:C6	2.47	0.49
1:AA:299:G:H2'	1:AA:300:A:C8	2.47	0.49
34:DA:1350:C:O2'	34:DA:1351:C:H5'	2.11	0.49
7:CG:72:ARG:O	7:CG:73:MET:HG3	2.13	0.49
34:BA:2164:C:H5''	34:BA:2165:G:N7	2.27	0.49
1:AA:600:C:O2'	1:AA:601:C:H5'	2.13	0.49
15:AO:38:ARG:HG2	15:AO:38:ARG:HH11	1.75	0.49
40:BG:34:LEU:HD22	40:BG:35:GLU:N	2.27	0.49
50:DU:108:GLU:O	50:DU:112:ARG:HB2	2.12	0.49
42:BI:110:ASP:O	42:BI:112:LYS:N	2.44	0.49
42:BI:114:LEU:O	42:BI:115:ALA:HB3	2.11	0.49
37:DD:30:GLU:CD	37:DD:63:ARG:NE	2.66	0.49
34:DA:1203:G:H3'	34:DA:1204:A:H5''	1.95	0.49
34:DA:2777:G:H5''	34:DA:2778:A:H5'	1.95	0.49
49:DT:28:VAL:O	49:DT:28:VAL:HG12	2.12	0.49
35:BB:7:G:H4'	48:BS:29:PHE:CD1	2.48	0.49
48:BS:28:VAL:O	48:BS:89:ARG:HD2	2.11	0.49
2:AB:187:LEU:HD13	2:AB:187:LEU:O	2.12	0.49
26:B1:94:LEU:O	26:B1:95:LEU:HG	2.13	0.49
42:DI:88:ILE:HG12	42:DI:122:GLU:N	2.26	0.49
34:BA:2392:A:H1'	45:BP:60:MET:HG2	1.93	0.49
55:BZ:118:GLN:O	55:BZ:120:ILE:N	2.45	0.49
48:DS:52:SER:O	48:DS:69:VAL:HG23	2.12	0.49
34:DA:2746:U:O2'	34:DA:2747:G:H5'	2.11	0.49
43:BN:40:PRO:C	50:BU:64:ARG:NH2	2.65	0.49
34:DA:1880:C:H6	34:DA:1880:C:H5'	1.77	0.49
34:DA:1982:C:OP1	34:DA:1982:C:H3'	2.12	0.49
10:CJ:39:PRO:CB	10:CJ:70:ARG:HH12	2.24	0.49
26:D1:34:THR:CG2	34:DA:388:G:P	2.99	0.49
37:DD:17:THR:CG2	37:DD:205:VAL:H	2.13	0.49
1:AA:1277:C:O2'	1:AA:1279:A:H8	1.95	0.49
44:BO:1:MET:HB2	44:BO:32:TYR:HD2	1.77	0.49
34:DA:92:A:O2'	34:DA:93:G:H5'	2.12	0.49
35:BB:76:G:C4'	55:BZ:85:HIS:HD2	2.25	0.49
55:BZ:16:SER:O	55:BZ:17:ALA:C	2.51	0.49
46:DQ:34:LEU:HD12	46:DQ:35:VAL:N	2.26	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:D4:28:LYS:O	40:DG:113:ARG:NH2	2.45	0.49
40:DG:114:ILE:O	40:DG:115:ARG:C	2.50	0.49
51:BV:32:THR:HG22	51:BV:33:VAL:N	2.27	0.49
19:AS:53:ASN:HD21	19:AS:55:LYS:HB3	1.76	0.49
6:AF:52:ILE:O	6:AF:53:ALA:HB3	2.11	0.49
6:CF:21:LEU:O	6:CF:24:GLU:HB3	2.12	0.49
19:CS:11:VAL:HG22	19:CS:16:LEU:HD11	1.95	0.49
27:D2:14:ARG:NE	27:D2:57:ILE:HG21	2.28	0.49
49:BT:55:ASN:HD22	49:BT:58:ASN:ND2	1.99	0.49
41:DH:19:VAL:CB	41:DH:44:VAL:HG13	2.43	0.49
12:AL:41:ARG:CG	12:AL:42:THR:N	2.73	0.49
3:CC:179:ARG:HD2	3:CC:207:VAL:HG22	1.94	0.49
34:BA:2189:U:H2'	34:BA:2190:G:H5''	1.95	0.49
34:BA:2632:A:O2'	38:BE:61:ARG:CZ	2.60	0.49
34:BA:2887:U:H2'	34:BA:2888:C:C6	2.46	0.49
2:CB:216:SER:O	2:CB:218:ALA:N	2.45	0.49
2:CB:88:ALA:HB2	2:CB:219:VAL:CG1	2.42	0.49
51:BV:2:PHE:CZ	51:BV:13:ARG:HD2	2.47	0.49
9:CI:19:LEU:HB3	9:CI:59:PHE:HD2	1.78	0.49
34:DA:1289:C:H2'	34:DA:1290:C:C6	2.47	0.49
3:AC:52:LEU:HD23	3:AC:52:LEU:N	2.25	0.49
1:CA:66:G:N2	1:CA:172:A:C2	2.81	0.49
1:AA:227:G:H2'	1:AA:228:A:C8	2.48	0.49
1:AA:963:G:H2'	1:AA:964:A:H8	1.75	0.49
37:DD:224:ALA:O	37:DD:225:ALA:HB2	2.11	0.49
8:CH:101:PRO:HG2	8:CH:133:LEU:HD11	1.94	0.49
1:AA:782:A:H2'	1:AA:783:C:C5'	2.42	0.49
1:CA:430:A:O2'	1:CA:431:A:H5'	2.11	0.49
34:BA:493:G:O2'	52:BW:7:ALA:HA	2.12	0.49
6:CF:98:LEU:H	6:CF:98:LEU:HD12	1.76	0.49
1:AA:861:G:O2'	1:AA:862:C:H5'	2.11	0.49
34:DA:2290:G:C8	34:DA:2290:G:H5'	2.45	0.49
23:CW:58:A:H1'	23:CW:60:U:C5	2.46	0.49
55:DZ:3:TYR:CE2	55:DZ:51:ALA:HB2	2.47	0.49
38:BE:25:VAL:O	38:BE:25:VAL:HG12	2.11	0.49
11:AK:90:GLY:O	11:AK:94:ALA:HB2	2.13	0.49
52:DW:54:ALA:C	52:DW:107:LEU:HD22	2.33	0.49
1:CA:1040:U:O2'	1:CA:1041:A:H5'	2.12	0.49
5:AE:68:GLU:O	5:AE:70:PRO:HD3	2.12	0.49
34:BA:2019:A:C2'	34:BA:2020:A:O5'	2.61	0.49
34:BA:2184:G:H2'	34:BA:2185:C:H6	1.77	0.49
1:AA:652:U:H1'	1:AA:653:A:H2	1.76	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:26:ASN:ND2	20:AT:26:ASN:H	2.10	0.49
1:AA:594:G:O2'	1:AA:595:G:H5'	2.13	0.49
34:DA:2078:C:O2'	34:DA:2079:U:H5'	2.13	0.49
34:BA:350:U:H2'	34:BA:351:G:O4'	2.12	0.49
34:DA:244:A:C2	34:DA:255:A:C4	3.01	0.49
55:BZ:24:LEU:HD11	55:BZ:83:PRO:HB2	1.94	0.49
34:DA:1270:C:H5''	34:DA:1271:G:O5'	2.12	0.49
34:BA:2881:C:C2	34:BA:2882:A:C8	3.00	0.49
34:BA:765:G:H2'	34:BA:766:C:C6	2.46	0.49
12:CL:20:LYS:H	12:CL:20:LYS:HD3	1.78	0.49
1:AA:60:A:O3'	20:AT:10:LEU:HD21	2.12	0.49
50:DU:92:ARG:NH1	51:DV:11:GLN:H	2.10	0.49
51:DV:4:ILE:HD12	51:DV:40:LEU:HD21	1.94	0.49
37:BD:108:PRO:HB3	37:BD:143:HIS:CE1	2.47	0.49
49:DT:28:VAL:O	49:DT:29:ARG:HB2	2.12	0.49
45:BP:126:VAL:HG12	45:BP:127:ALA:N	2.26	0.49
26:B1:62:VAL:HG13	26:B1:64:ALA:N	2.27	0.49
34:BA:1365:A:H2'	34:BA:1366:A:C8	2.37	0.49
34:BA:1158:C:O2'	34:BA:1159:U:H5''	2.12	0.49
34:DA:84:A:H5''	54:DY:9:LYS:NZ	2.27	0.49
35:DB:75:G:H1'	55:DZ:27:VAL:CG2	2.36	0.49
55:DZ:68:PRO:O	55:DZ:91:LEU:HD12	2.12	0.49
33:B8:32:LEU:HD23	33:B8:35:GLN:C	2.32	0.49
53:BX:44:GLU:HB3	53:BX:51:VAL:HG23	1.94	0.49
34:BA:910:A:C8	46:BQ:13:GLN:HB2	2.47	0.49
34:BA:2696:U:H2'	34:BA:2697:G:C8	2.45	0.49
1:AA:1372:U:O2'	1:AA:1373:G:H5'	2.12	0.49
47:DR:84:ALA:N	47:DR:85:PRO:CD	2.75	0.49
41:DH:65:HIS:C	41:DH:67:LEU:H	2.15	0.49
18:AR:55:ARG:HG3	18:AR:55:ARG:HH11	1.78	0.49
55:BZ:29:TYR:CZ	55:BZ:87:ASP:HB2	2.47	0.49
1:CA:379:C:O2'	1:CA:380:G:H5'	2.12	0.49
34:DA:2263:C:C2'	34:DA:2264:C:H5'	2.41	0.49
54:BY:81:LYS:CG	54:BY:96:ILE:HB	2.42	0.49
54:BY:96:ILE:HG13	54:BY:99:CYS:HB2	1.93	0.49
34:BA:2720:U:C2	34:BA:2721:A:C8	3.00	0.49
51:BV:61:VAL:O	51:BV:62:LEU:HD23	2.12	0.49
1:AA:1251:A:H2'	1:AA:1252:A:H8	1.72	0.49
1:CA:16:A:N1	1:CA:919:A:H2	2.10	0.49
34:BA:860:U:O4'	34:BA:860:U:O2	2.30	0.49
34:DA:2443:C:O2'	34:DA:2444:G:H5'	2.11	0.49
13:CM:98:VAL:C	13:CM:99:ARG:HG3	2.32	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DY:76:CYS:SG	54:DY:77:PRO:HD2	2.53	0.49
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	1.93	0.49
36:DC:49:ILE:CG2	36:DC:50:ASP:N	2.75	0.49
1:CA:819:A:N7	1:CA:1529:G:C2	2.81	0.49
34:BA:813:U:H2'	34:BA:814:C:C6	2.47	0.49
34:DA:2282:G:C4	34:DA:2425:A:N6	2.81	0.49
39:DF:62:ARG:HH21	39:DF:64:ILE:HA	1.77	0.49
1:AA:1470:G:O2'	1:AA:1471:G:H5'	2.12	0.49
34:BA:2580:U:H4'	38:BE:130:GLY:CA	2.41	0.49
51:BV:40:LEU:O	51:BV:41:GLY:C	2.50	0.49
34:DA:1510:G:H2'	34:DA:1511:C:O4'	2.12	0.49
19:AS:6:LYS:N	19:AS:6:LYS:HE3	2.28	0.49
34:DA:2839:G:H2'	34:DA:2840:C:C6	2.47	0.49
42:DI:61:ARG:HD2	42:DI:61:ARG:H	1.77	0.49
45:BP:85:LEU:HA	45:BP:88:LEU:HB3	1.93	0.49
52:DW:17:VAL:O	52:DW:18:ARG:C	2.49	0.49
2:AB:102:LEU:H	2:AB:102:LEU:HD13	1.76	0.49
10:CJ:63:PHE:HA	14:CN:59:ALA:H	1.76	0.49
16:CP:39:TYR:CZ	16:CP:41:PRO:HB3	2.47	0.49
54:DY:43:ASN:HA	54:DY:64:GLU:HA	1.92	0.49
53:BX:14:SER:H	53:BX:17:ALA:CB	2.25	0.49
34:DA:1773:A:H2'	34:DA:1774:C:C5'	2.42	0.49
34:BA:1771:C:C1'	34:BA:1786:A:H8	2.24	0.49
55:DZ:156:LYS:O	55:DZ:157:LEU:C	2.51	0.49
1:CA:861:G:O2'	1:CA:862:C:H5'	2.12	0.49
34:BA:670:A:H4'	34:BA:671:C:OP1	2.10	0.49
34:BA:524:U:H4'	34:BA:555:U:H4'	1.94	0.49
1:CA:652:U:H1'	1:CA:653:A:H2	1.78	0.49
34:DA:2408:U:H2'	34:DA:2409:G:H8	1.78	0.49
1:CA:92:C:H2'	1:CA:93:G:C8	2.48	0.49
1:CA:545:C:O2'	1:CA:546:G:H5'	2.12	0.49
39:BF:60:SER:OG	39:BF:61:GLY:N	2.46	0.49
1:CA:22:G:H2'	1:CA:23:C:C6	2.48	0.49
34:DA:1526:G:H1	34:DA:1546:C:H42	1.59	0.49
1:CA:189(E):U:O2'	1:CA:189(F):U:H5'	2.12	0.49
52:BW:48:ALA:O	52:BW:49:LYS:C	2.50	0.49
1:CA:775:G:O2'	1:CA:776:G:H5'	2.12	0.49
34:BA:934:G:H2'	34:BA:934:G:N3	2.28	0.49
34:DA:118:A:H5'	34:DA:119:A:H8	1.76	0.49
1:AA:814:A:H2'	1:AA:816:A:H5''	1.95	0.49
51:DV:32:THR:HB	51:DV:64:HIS:HE1	1.76	0.49
38:DE:5:LEU:HB2	38:DE:51:PHE:CD2	2.44	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BP:101:VAL:HG23	45:BP:107:LYS:CA	2.35	0.49
45:BP:140:ALA:O	45:BP:141:ALA:HB2	2.12	0.49
34:DA:2175:C:H1'	36:DC:215:THR:CA	2.33	0.49
2:AB:144:ARG:HG3	2:AB:145:LEU:H	1.78	0.49
26:B1:41:ARG:HG3	26:B1:41:ARG:NH1	2.27	0.49
34:BA:188:G:C6	34:BA:189:G:C4	3.00	0.49
37:BD:30:GLU:HG3	37:BD:63:ARG:NE	2.28	0.49
39:BF:3:GLU:HB2	39:BF:20:LEU:N	2.14	0.49
54:DY:28:LYS:CA	54:DY:39:VAL:H	2.17	0.49
33:D8:31:HIS:CG	34:DA:2419:U:O4	2.66	0.49
45:DP:61:ARG:HD2	45:DP:61:ARG:H	1.77	0.49
53:BX:30:VAL:HG12	53:BX:31:HIS:N	2.18	0.49
53:BX:35:THR:O	53:BX:36:LYS:O	2.30	0.49
43:DN:43:THR:HG21	43:DN:46:VAL:HB	1.94	0.49
34:BA:2713:A:H3'	34:BA:2714:G:H5'	1.94	0.49
18:AR:62:GLU:O	18:AR:65:ILE:HG13	2.12	0.49
16:AP:17:TYR:CD1	16:AP:17:TYR:N	2.79	0.49
4:AD:57:ARG:NH2	5:AE:107:ARG:HH11	2.10	0.49
10:CJ:70:ARG:CG	10:CJ:70:ARG:NH1	2.66	0.49
46:BQ:141:GLN:N	55:BZ:53:ILE:O	2.46	0.49
26:D1:78:LYS:HZ3	26:D1:93:GLU:HB2	1.70	0.49
51:BV:63:GLY:O	51:BV:64:HIS:CB	2.60	0.49
34:DA:2011:U:H2'	34:DA:2012:G:H5'	1.95	0.49
53:BX:18:TYR:O	53:BX:19:ALA:C	2.49	0.49
34:BA:1020:A:N1	34:BA:1141:U:H1'	2.27	0.49
19:AS:9:VAL:C	19:AS:11:VAL:H	2.16	0.49
34:DA:511:U:O4	34:DA:512:G:C2	2.65	0.49
11:CK:44:SER:N	11:CK:47:VAL:CG2	2.76	0.49
11:CK:44:SER:H	11:CK:47:VAL:HG21	1.76	0.49
5:CE:33:VAL:HG11	5:CE:109:ILE:HA	1.93	0.49
39:BF:63:LYS:HE3	39:BF:67:GLN:HB2	1.94	0.49
5:AE:87:SER:HB3	5:AE:131:ILE:CD1	2.40	0.49
27:D2:14:ARG:CD	27:D2:57:ILE:HB	2.42	0.49
27:D2:14:ARG:NE	27:D2:57:ILE:CG2	2.75	0.49
53:DX:67:GLY:O	53:DX:68:ARG:HG2	2.12	0.49
34:BA:1131:G:C2	34:BA:1132:A:C5	3.00	0.49
34:BA:1131:G:H4'	43:BN:82:LEU:HG	1.95	0.49
8:AH:137:VAL:O	8:AH:138:TRP:CB	2.61	0.49
5:CE:51:VAL:HB	5:CE:52:PRO:CD	2.37	0.49
34:DA:1803:A:C2	34:DA:1822:G:N3	2.80	0.49
52:BW:17:VAL:O	52:BW:18:ARG:C	2.49	0.49
49:BT:50:ILE:HD11	49:BT:64:ARG:HB3	1.94	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1803:A:C2	34:BA:1822:G:N3	2.79	0.49
37:BD:159:ALA:H	37:BD:196:VAL:HG11	1.77	0.49
1:AA:881:G:OP2	12:AL:12:ARG:NH2	2.45	0.49
50:DU:6:THR:O	50:DU:9:VAL:HG23	2.13	0.49
22:CV:17:C:H5"	22:CV:17(A):U:C5	2.47	0.49
7:CG:26:PHE:CD2	7:CG:30:ILE:HD11	2.48	0.49
9:AI:50:LEU:C	9:AI:52:ALA:H	2.16	0.49
45:DP:85:LEU:HD12	45:DP:120:ALA:CB	2.42	0.49
10:CJ:54:PHE:CZ	10:CJ:55:LYS:NZ	2.78	0.49
8:AH:86:ILE:HG22	8:AH:87:SER:N	2.27	0.49
1:AA:166:G:O2'	1:AA:167:G:H5'	2.12	0.49
54:BY:43:ASN:HD21	54:BY:64:GLU:HG3	1.75	0.49
3:CC:18:TRP:NE1	14:CN:55:GLY:N	2.61	0.49
51:DV:66:ARG:HD2	51:DV:67:GLY:N	2.27	0.49
36:BC:82:LYS:HZ1	36:BC:151:GLU:HA	1.76	0.49
34:BA:2240:C:O2'	34:BA:2241:A:H5'	2.12	0.49
43:DN:90:MET:O	43:DN:93:THR:O	2.31	0.49
1:AA:123:C:OP1	1:AA:312:C:H5'	2.12	0.49
3:CC:120:VAL:HG12	3:CC:121:ALA:N	2.27	0.49
1:CA:448:A:P	1:CA:485:G:H22	2.36	0.49
34:DA:2656:U:C4	34:DA:2657:A:H2	2.30	0.49
1:CA:648:A:H2'	1:CA:649:G:C8	2.45	0.49
34:DA:2392:A:H1'	45:DP:60:MET:HG2	1.94	0.49
11:AK:34:ASP:OD2	11:AK:34:ASP:C	2.51	0.49
26:D1:53:VAL:HG13	26:D1:55:GLY:H	1.78	0.49
1:CA:1237:C:H3'	1:CA:1336:C:H41	1.76	0.49
34:BA:680:G:H2'	34:BA:681:G:C8	2.46	0.49
6:AF:71:ARG:HA	6:AF:74:ASP:OD2	2.13	0.49
34:DA:951:C:O2'	34:DA:952:G:H5'	2.13	0.49
1:AA:545:C:O2'	1:AA:546:G:H5'	2.13	0.49
34:DA:2164:C:H5"	34:DA:2165:G:N7	2.27	0.49
37:BD:145:VAL:HG12	37:BD:146:GLU:N	2.27	0.49
4:CD:80:GLU:O	4:CD:83:SER:N	2.45	0.49
13:AM:38:GLY:C	13:AM:39:ILE:HG13	2.33	0.49
34:DA:660:G:H5'	39:DF:99:TYR:CE2	2.47	0.49
15:AO:43:LEU:C	15:AO:45:VAL:H	2.15	0.49
1:CA:679:C:O2'	1:CA:680:C:H5'	2.11	0.49
37:DD:36:PRO:O	37:DD:37:LEU:HD23	2.11	0.49
39:DF:117:ARG:NH2	45:DP:5:ASP:N	2.61	0.49
50:BU:50:ARG:CZ	51:BV:75:PHE:CE2	2.96	0.49
38:DE:54:GLN:O	38:DE:55:ASN:CG	2.51	0.49
38:DE:65:GLY:C	38:DE:67:PHE:H	2.15	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BD:108:PRO:HG3	37:BD:111:LEU:HD23	1.95	0.49
39:BF:52:LYS:HB3	39:BF:56:GLU:HB3	1.94	0.49
34:BA:2521:C:H1'	34:BA:2545:G:N2	2.28	0.49
45:DP:97:PRO:O	45:DP:99:LEU:N	2.43	0.49
42:DI:140:LEU:HD12	42:DI:141:LYS:N	2.27	0.49
55:DZ:125:LEU:HD23	55:DZ:125:LEU:C	2.32	0.49
2:CB:166:ASP:HB2	2:CB:205:ASP:OD2	2.13	0.49
34:DA:2762:G:H2'	34:DA:2763:G:C5'	2.25	0.49
1:CA:102:G:O2'	1:CA:103:C:H5'	2.12	0.49
53:BX:64:LYS:CG	53:BX:65:ARG:N	2.60	0.49
43:BN:38:HIS:O	50:BU:67:ALA:O	2.31	0.49
34:DA:2184:G:H2'	34:DA:2185:C:H6	1.78	0.49
41:BH:41:MET:HB3	41:BH:43:VAL:CG1	2.28	0.49
34:DA:1190:G:C5'	45:DP:35:HIS:HB3	2.40	0.49
54:DY:83:THR:HG22	54:DY:84:ARG:N	2.28	0.49
38:BE:119:ARG:HH11	38:BE:160:TYR:HB2	1.78	0.49
42:DI:38:LEU:HD12	42:DI:38:LEU:N	2.15	0.49
43:DN:28:THR:HG23	43:DN:29:LYS:N	2.22	0.49
34:BA:863:A:OP1	46:BQ:21:THR:HB	2.12	0.49
34:DA:1899:G:N2	34:DA:1902:C:C5	2.79	0.49
4:AD:30:LYS:C	4:AD:32:ALA:N	2.66	0.49
34:DA:2847:U:OP1	49:DT:98:LYS:HD3	2.13	0.49
4:AD:119:GLN:NE2	4:AD:123:HIS:NE2	2.57	0.49
15:CO:50:HIS:O	15:CO:53:HIS:N	2.45	0.49
34:DA:2645:G:OP2	34:DA:2645:G:H8	1.95	0.49
34:BA:2329:G:H2'	34:BA:2330:G:C8	2.48	0.49
51:DV:45:THR:O	51:DV:45:THR:HG22	2.13	0.49
49:BT:6:LEU:HD23	49:BT:6:LEU:C	2.32	0.49
34:BA:558:G:OP1	43:BN:111:PRO:HD2	2.13	0.49
34:DA:2467:C:H4'	46:DQ:123:HIS:CE1	2.47	0.49
34:BA:2555:U:H2'	34:BA:2556:C:C5'	2.39	0.49
49:DT:50:ILE:HD11	49:DT:64:ARG:HB3	1.94	0.49
9:CI:63:ILE:HD12	9:CI:63:ILE:N	2.28	0.49
9:CI:4:TYR:HA	9:CI:88:TYR:CE1	2.48	0.49
34:DA:271(Q):G:HO2'	34:DA:271(R):G:H8	1.55	0.49
34:BA:1385:G:C4	34:BA:1386:C:C5	3.01	0.49
1:CA:524:G:H2'	1:CA:525:C:C5	2.48	0.49
1:AA:522:C:H2'	1:AA:523:A:C8	2.47	0.49
19:AS:42:PRO:O	19:AS:44:MET:SD	2.70	0.49
30:D5:2:ALA:N	34:DA:747:U:C4	2.81	0.49
30:D5:2:ALA:HA	34:DA:2015:A:O4'	2.12	0.49
10:CJ:55:LYS:O	10:CJ:56:HIS:CG	2.65	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:51:ARG:HE	10:AJ:61:GLU:HB2	1.77	0.49
1:CA:348:G:O2'	1:CA:349:A:H5'	2.12	0.49
34:BA:318:C:H2'	34:BA:319:C:H6	1.76	0.49
16:AP:43:LYS:HG3	16:AP:48:TRP:CD2	2.47	0.49
1:AA:784:C:H2'	1:AA:785:G:H8	1.77	0.49
17:CQ:79:SER:O	17:CQ:81:ARG:HG3	2.13	0.49
11:AK:17:GLY:O	11:AK:80:VAL:HA	2.12	0.49
34:BA:2270:G:H3'	34:BA:2271:G:C8	2.47	0.49
31:B6:14:THR:HG22	31:B6:51:GLU:O	2.12	0.49
34:BA:608:A:H3'	34:BA:609:A:H8	1.77	0.49
40:DG:138:GLN:NE2	40:DG:153:ARG:N	2.61	0.49
1:AA:1072:G:H2'	1:AA:1073:U:H6	1.76	0.49
11:CK:34:ASP:OD2	11:CK:34:ASP:C	2.51	0.49
34:BA:1403:C:C2'	34:BA:1404:C:O5'	2.61	0.49
20:AT:73:HIS:O	20:AT:74:LYS:C	2.51	0.49
52:DW:55:ALA:O	52:DW:58:ALA:HB3	2.13	0.49
34:BA:1035:U:H2'	34:BA:1036:G:C8	2.48	0.49
1:AA:151:A:C2'	1:AA:152:A:H5'	2.43	0.49
28:B3:49:LYS:NZ	34:BA:851:U:OP1	2.39	0.49
34:BA:2660:A:H3'	34:BA:2661:G:O4'	2.11	0.49
1:AA:1478:C:O2'	1:AA:1479:C:H5'	2.13	0.49
1:CA:1090:U:O2'	1:CA:1091:U:H5'	2.12	0.49
34:BA:2804:C:H2'	34:BA:2805:G:C8	2.47	0.49
12:AL:52:LEU:O	12:AL:54:LYS:HD2	2.12	0.49
1:CA:831:U:O2'	1:CA:832:C:H5'	2.12	0.49
1:AA:961:U:O2'	1:AA:962:C:H5'	2.12	0.49
34:DA:649:G:H2'	34:DA:650:C:C6	2.48	0.49
25:B0:84:LEU:N	25:B0:84:LEU:HD12	2.27	0.49
34:BA:2584:U:O5'	34:BA:2584:U:O2	2.30	0.49
1:AA:505:G:C6	1:AA:535:A:C2	3.01	0.49
47:BR:13:HIS:O	47:BR:14:SER:C	2.51	0.49
34:DA:996:A:C4'	50:DU:92:ARG:HH21	2.26	0.49
50:DU:95:LEU:HD12	51:DV:11:GLN:NE2	2.27	0.49
51:DV:37:VAL:HG12	51:DV:38:LEU:H	1.76	0.49
34:DA:2491:U:O2'	34:DA:2492:U:H5'	2.12	0.49
38:DE:63:LEU:O	38:DE:65:GLY:N	2.45	0.49
49:DT:29:ARG:HG3	49:DT:30:VAL:H	1.76	0.49
48:BS:89:ARG:HE	48:BS:89:ARG:N	2.10	0.49
2:AB:19:HIS:HE1	2:AB:206:ASP:HB2	1.77	0.49
34:BA:614:U:O4'	34:BA:614:U:O2	2.31	0.49
54:DY:61:ILE:N	54:DY:61:ILE:HD12	2.28	0.49
26:B1:85:LEU:HB2	26:B1:87:PRO:HD3	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2705:A:H2'	34:DA:2706:G:H8	1.77	0.49
34:DA:2127:G:H2'	34:DA:2128:C:N1	2.28	0.49
2:CB:144:ARG:HG3	2:CB:145:LEU:H	1.77	0.49
45:BP:48:PRO:CG	45:BP:49:ARG:H	2.21	0.49
34:DA:2762:G:C3'	34:DA:2763:G:C5'	2.91	0.49
33:B8:30:ARG:HH21	45:BP:62:LEU:CB	2.20	0.49
40:BG:43:LEU:CD2	40:BG:88:ILE:HG22	2.36	0.49
43:DN:42:TRP:H	50:DU:64:ARG:CD	2.25	0.49
50:DU:64:ARG:O	50:DU:68:ALA:HB2	2.13	0.49
47:BR:48:VAL:O	47:BR:51:LEU:HB2	2.12	0.49
20:AT:53:LEU:O	20:AT:57:ARG:N	2.36	0.49
5:AE:107:ARG:O	5:AE:110:LEU:N	2.45	0.49
5:AE:101:ILE:CG1	5:AE:119:LEU:HA	2.43	0.49
1:AA:333:G:H4'	20:AT:16:HIS:CE1	2.48	0.49
5:CE:105:VAL:HB	5:CE:106:PRO:CD	2.43	0.49
55:BZ:99:TYR:CD2	55:BZ:99:TYR:N	2.81	0.49
46:DQ:39:PRO:CD	46:DQ:99:PRO:HD3	2.43	0.49
51:BV:63:GLY:O	51:BV:96:ILE:HG23	2.13	0.49
4:AD:38:TYR:CD2	4:AD:45:GLN:HB3	2.48	0.49
50:BU:40:PHE:CD1	51:BV:78:LYS:NZ	2.81	0.49
1:CA:619:U:N3	4:CD:135:LEU:HD21	2.28	0.49
1:CA:1220:G:O3'	19:CS:36:ARG:HD3	2.12	0.49
20:CT:85:MET:HA	20:CT:88:VAL:HG23	1.94	0.49
27:D2:15:LYS:CA	27:D2:18:PRO:HD2	2.42	0.49
27:D2:46:GLN:HE21	27:D2:47:ASN:HA	1.77	0.49
1:AA:619:U:C2	4:AD:135:LEU:HD21	2.47	0.49
41:DH:148:ILE:O	41:DH:150:ALA:N	2.45	0.49
12:AL:58:VAL:O	12:AL:60:LEU:HD22	2.13	0.49
38:BE:61:ARG:HG2	38:BE:62:PRO:HD3	1.93	0.49
1:AA:1433:A:C6	1:AA:1468:A:C4	3.00	0.49
50:BU:112:ARG:CG	50:BU:112:ARG:HH11	2.19	0.49
34:BA:2041:U:C2	34:BA:2042:A:C8	3.01	0.49
34:DA:2469:A:H3'	34:DA:2470:G:O4'	2.13	0.49
15:AO:33:THR:O	15:AO:34:LEU:C	2.51	0.49
23:CY:34:G:H2'	23:CY:35:A:C8	2.48	0.49
34:DA:2876:G:H4'	49:DT:3:ARG:CD	2.41	0.49
15:CO:82:ILE:HD11	15:CO:87:ILE:C	2.33	0.49
3:AC:95:THR:HG22	3:AC:97:LYS:H	1.77	0.49
1:AA:522:C:H2'	1:AA:523:A:O4'	2.13	0.49
19:CS:6:LYS:N	19:CS:6:LYS:CD	2.75	0.49
52:DW:47:VAL:O	52:DW:48:ALA:O	2.30	0.49
45:DP:85:LEU:HA	45:DP:88:LEU:HB3	1.93	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:2:GLY:O	4:AD:4:TYR:N	2.45	0.49
10:CJ:51:ARG:HE	10:CJ:61:GLU:HB2	1.77	0.49
49:BT:72:VAL:CG1	49:BT:73:GLU:N	2.75	0.49
55:DZ:79:ARG:HG3	55:DZ:79:ARG:HH11	1.77	0.49
34:DA:203:C:C3'	34:DA:204:A:H5''	2.42	0.49
51:BV:25:LEU:H	51:BV:94:LEU:CD1	2.25	0.49
44:DO:120:GLU:HG2	49:DT:67:SER:OG	2.12	0.49
1:CA:346:G:OP1	49:DT:35:LYS:HE3	2.12	0.49
1:CA:503:C:O2'	1:CA:504:C:H5'	2.13	0.49
1:AA:1402:C:H2'	1:AA:1403:C:H6	1.78	0.49
55:DZ:128:VAL:HG21	55:DZ:161:VAL:HG22	1.93	0.49
34:BA:1602:U:H3'	34:BA:1603:A:C5'	2.42	0.49
34:DA:2019:A:H2'	34:DA:2020:A:O5'	2.13	0.49
16:AP:26:ARG:NH1	16:AP:26:ARG:HG2	2.27	0.49
34:BA:2855:C:H2'	34:BA:2856:C:C6	2.48	0.49
37:BD:209:ALA:C	37:BD:210:GLY:O	2.47	0.49
6:CF:5:GLU:HG2	6:CF:62:TRP:CZ2	2.47	0.49
1:CA:1490:C:O2'	12:CL:94:PRO:HG2	2.12	0.49
47:BR:75:LEU:C	47:BR:75:LEU:HD13	2.33	0.49
1:AA:640:A:O2'	1:AA:641:U:H5'	2.13	0.49
20:AT:23:ARG:O	20:AT:24:LEU:C	2.51	0.49
48:DS:46:VAL:HG12	48:DS:47:THR:N	2.27	0.49
1:CA:829:G:O2'	1:CA:830:G:H5'	2.11	0.49
1:AA:1159:U:O4'	1:AA:1182:G:N2	2.45	0.49
52:BW:13:SER:O	52:BW:16:LYS:HB2	2.12	0.49
1:CA:1001(A):G:O2'	1:CA:1002:G:H5'	2.13	0.49
1:CA:125:U:H2'	1:CA:126:G:C8	2.47	0.49
8:AH:23:SER:HB3	8:AH:62:TYR:CD1	2.48	0.49
15:AO:74:ASP:OD2	15:AO:77:ARG:HG2	2.12	0.49
50:DU:110:VAL:O	50:DU:113:ALA:N	2.46	0.49
50:BU:93:LYS:H	50:BU:93:LYS:HD3	1.76	0.49
53:BX:73:ARG:O	53:BX:74:PRO:C	2.51	0.49
38:DE:47:VAL:HG23	38:DE:84:PHE:O	2.11	0.49
34:DA:142:A:N6	34:DA:1596:A:H5'	2.27	0.49
34:BA:310:A:OP1	54:BY:17:SER:O	2.31	0.49
37:BD:35:LYS:CG	37:BD:64:ILE:N	2.65	0.49
42:DI:88:ILE:CG2	42:DI:89:TYR:N	2.75	0.49
34:DA:84:A:H5''	54:DY:9:LYS:HZ2	1.76	0.49
33:B8:52:LYS:NZ	34:BA:834:C:H4'	2.28	0.49
35:DB:106:G:C2	35:DB:107:G:C8	3.01	0.49
55:DZ:125:LEU:HD22	55:DZ:164:ALA:CB	2.43	0.49
2:CB:187:LEU:HD13	2:CB:187:LEU:O	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:22:LYS:HA	2:CB:22:LYS:HZ2	1.71	0.49
13:AM:15:VAL:HA	13:AM:18:ALA:HB3	1.93	0.49
39:DF:206:ILE:CD1	39:DF:206:ILE:O	2.55	0.49
41:BH:136:ILE:HD12	41:BH:136:ILE:N	2.28	0.49
10:CJ:72:VAL:O	10:CJ:73:ASP:OD1	2.31	0.49
5:AE:102:ALA:HB1	5:AE:106:PRO:CG	2.42	0.49
51:BV:18:LEU:O	51:BV:19:LYS:HB2	2.12	0.49
53:DX:76:ARG:CD	53:DX:76:ARG:C	2.80	0.49
53:DX:80:ILE:HG23	53:DX:81:VAL:N	2.27	0.49
39:DF:103:LYS:O	39:DF:105:VAL:N	2.45	0.49
13:AM:91:ARG:O	13:AM:95:GLY:N	2.45	0.49
36:BC:49:ILE:CG2	36:BC:50:ASP:N	2.75	0.49
27:D2:22:GLU:O	27:D2:23:LYS:C	2.49	0.49
34:BA:2349:G:H5'	34:BA:2349:G:H8	1.78	0.49
47:DR:17:ARG:O	47:DR:20:LEU:HB3	2.13	0.49
34:DA:188:G:C6	34:DA:189:G:C4	3.01	0.49
1:CA:818:G:H3'	1:CA:819:A:H5'	1.95	0.49
38:DE:61:ARG:HG2	38:DE:62:PRO:HD3	1.93	0.49
39:DF:63:LYS:HE2	39:DF:67:GLN:HB2	1.94	0.49
53:BX:82:GLN:CD	53:BX:83:VAL:HG22	2.33	0.49
1:CA:1391:U:H2'	1:CA:1392:G:H8	1.74	0.49
44:BO:91:LEU:N	44:BO:91:LEU:CD2	2.75	0.49
10:CJ:80:LYS:HB2	10:CJ:80:LYS:NZ	2.28	0.49
2:CB:75:LYS:C	2:CB:77:ALA:H	2.17	0.49
34:DA:1990:C:H2'	34:DA:1991:U:O4'	2.12	0.49
2:AB:75:LYS:C	2:AB:77:ALA:H	2.16	0.49
1:AA:1459:C:O2'	1:AA:1460:A:H5'	2.11	0.49
3:CC:91:LEU:O	3:CC:95:THR:HB	2.13	0.49
8:CH:137:VAL:O	8:CH:138:TRP:CB	2.61	0.49
47:BR:3:HIS:O	47:BR:4:LEU:HB3	2.12	0.49
1:AA:673:G:H2'	1:AA:674:G:H8	1.74	0.49
34:BA:132:G:C8	34:BA:132:G:H5'	2.41	0.49
10:CJ:50:ILE:N	10:CJ:50:ILE:HD13	2.28	0.49
15:CO:58:MET:O	15:CO:59:MET:C	2.51	0.49
1:AA:1514:C:O2'	1:AA:1515:C:H5'	2.13	0.49
43:BN:97:ARG:O	43:BN:98:VAL:C	2.51	0.49
32:D7:27:GLY:O	32:D7:30:VAL:HB	2.13	0.49
46:DQ:63:LYS:HG3	46:DQ:64:ILE:N	2.26	0.49
1:CA:472:A:H4'	16:CP:82:GLN:HE22	1.78	0.49
1:CA:662:G:H2'	1:CA:663:A:H8	1.76	0.49
34:DA:493:G:O2'	52:DW:7:ALA:HA	2.12	0.49
1:AA:764:C:H2'	1:AA:765:G:O4'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:7:ASN:O	6:AF:88:VAL:HA	2.13	0.49
1:CA:237:C:O2'	1:CA:238:G:H5'	2.13	0.49
17:CQ:38:ARG:CA	17:CQ:38:ARG:HE	2.25	0.49
4:AD:112:VAL:O	4:AD:112:VAL:HG22	2.13	0.49
1:AA:310:G:O2'	1:AA:311:C:H5'	2.12	0.49
34:BA:2574:G:H2'	34:BA:2575:C:C6	2.48	0.49
34:DA:1108:U:C2'	34:DA:1109:C:H5'	2.42	0.49
14:CN:29:ARG:HG3	14:CN:29:ARG:HH11	1.78	0.49
1:CA:89:C:H3'	1:CA:90:U:C5'	2.41	0.49
4:AD:157:LEU:O	4:AD:159:ARG:N	2.46	0.49
34:BA:839:U:H1'	34:BA:1191:G:H1'	1.94	0.49
1:AA:1325:C:H2'	1:AA:1325:C:O2	2.11	0.49
34:DA:564:C:O2'	34:DA:565:C:H5'	2.12	0.49
48:DS:92:TYR:CG	48:DS:93:LYS:N	2.81	0.49
48:BS:13:ARG:O	48:BS:14:VAL:C	2.50	0.49
45:BP:8:PRO:C	45:BP:10:PRO:HD3	2.33	0.49
55:DZ:37:VAL:O	55:DZ:38:TYR:HB3	2.12	0.49
45:DP:48:PRO:O	45:DP:49:ARG:C	2.51	0.49
38:DE:101:ARG:HH11	38:DE:169:ASN:HD22	1.61	0.49
55:DZ:119:GLU:O	55:DZ:120:ILE:C	2.51	0.49
11:CK:127:LYS:CA	11:CK:127:LYS:HE2	2.27	0.49
34:BA:2107:C:H42	34:BA:2182:G:H1	1.59	0.49
34:DA:1862:G:O2'	34:DA:1863:G:H5'	2.13	0.49
34:DA:1878:G:H2'	34:DA:1879:C:C6	2.48	0.49
34:DA:2713:A:H3'	34:DA:2714:G:C5'	2.42	0.49
1:CA:878:G:C5'	8:CH:89:PRO:HG2	2.42	0.49
54:DY:81:LYS:CG	54:DY:96:ILE:HB	2.43	0.49
38:DE:120:TRP:NE1	38:DE:155:LYS:HB3	2.28	0.49
34:BA:2807:G:H3'	34:BA:2808:U:H5''	1.94	0.49
27:B2:33:MET:CG	53:BX:11:PRO:HD2	2.38	0.49
34:DA:2464:C:O2'	34:DA:2465:C:H6	1.81	0.49
1:AA:817:C:H1'	1:AA:819:A:H5'	1.95	0.49
19:AS:52:TYR:HB2	19:AS:57:HIS:CE1	2.47	0.49
34:DA:8:A:C2	34:DA:2896:C:N3	2.81	0.49
46:BQ:39:PRO:CD	46:BQ:99:PRO:HD3	2.43	0.49
1:CA:1321:C:H3'	1:CA:1322:C:H6	1.77	0.49
27:D2:56:GLN:O	27:D2:57:ILE:O	2.30	0.49
41:DH:44:VAL:O	41:DH:46:GLU:OE2	2.31	0.49
49:DT:55:ASN:H	49:DT:59:THR:HB	1.78	0.49
12:AL:62:SER:O	12:AL:64:TYR:HD1	1.95	0.49
46:DQ:134:ARG:HG2	46:DQ:135:ASP:N	2.27	0.49
25:D0:36:ILE:CD1	34:DA:2355:C:H5'	2.36	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2282:G:O2'	34:DA:2283:C:OP2	2.29	0.49
5:CE:55:VAL:O	5:CE:58:ALA:HB3	2.13	0.49
8:CH:30:ARG:CB	8:CH:30:ARG:HH11	2.25	0.49
1:CA:1392:G:N2	1:CA:1502:A:H8	2.11	0.49
34:DA:470:A:OP1	39:DF:59:TYR:HE2	1.96	0.49
15:AO:57:LEU:O	15:AO:60:VAL:HB	2.12	0.49
40:BG:13:GLU:O	40:BG:14:GLU:HB2	2.13	0.49
51:BV:13:ARG:HG3	51:BV:13:ARG:HH11	1.78	0.49
34:BA:1510:G:O2'	34:BA:1511:C:H5'	2.13	0.49
9:AI:5:TYR:HB2	9:AI:18:PHE:CE2	2.48	0.49
45:BP:138:LEU:C	45:BP:138:LEU:HD12	2.33	0.49
1:CA:166:G:O2'	1:CA:167:G:H5'	2.13	0.49
1:CA:555:C:H2'	1:CA:556:C:C6	2.48	0.49
34:DA:1005:C:H2'	34:DA:1006:C:C6	2.48	0.49
34:DA:1568:G:H21	37:DD:58:HIS:CE1	2.31	0.49
18:AR:37:VAL:HG23	18:AR:38:GLU:H	1.78	0.49
1:CA:429:U:H1'	1:CA:430:A:H5''	1.95	0.49
2:AB:23:ARG:HG3	2:AB:23:ARG:NH1	2.27	0.49
40:BG:127:GLY:CA	40:BG:166:ASP:HB3	2.43	0.49
20:CT:81:LYS:C	20:CT:83:ARG:H	2.16	0.49
1:CA:404:U:H2'	1:CA:405:U:C6	2.48	0.49
47:DR:14:SER:O	47:DR:15:SER:C	2.51	0.49
11:CK:92:GLU:C	11:CK:94:ALA:H	2.16	0.49
34:DA:729:G:C4	34:DA:1775:U:C2	3.01	0.49
1:AA:636:U:H2'	1:AA:637:G:C8	2.48	0.49
34:BA:422:A:C6	34:BA:423:A:C6	3.00	0.49
7:CG:149:ARG:O	7:CG:152:ALA:HB3	2.13	0.49
20:CT:23:ARG:O	20:CT:24:LEU:C	2.51	0.49
34:BA:2087:G:C2'	34:BA:2088:G:H5'	2.43	0.49
34:DA:1051:G:C2	34:DA:1052:C:N4	2.81	0.49
2:AB:8:LYS:O	2:AB:9:GLU:C	2.51	0.49
4:CD:150:GLU:HG2	4:CD:151:LYS:N	2.27	0.49
35:BB:84:C:H2'	35:BB:85:G:H8	1.77	0.49
34:DA:836:G:H2'	34:DA:837:C:C6	2.48	0.49
9:AI:79:LEU:O	9:AI:79:LEU:HD13	2.13	0.49
37:BD:257:LEU:HD23	37:BD:257:LEU:C	2.33	0.49
9:CI:41:VAL:HG12	9:CI:41:VAL:O	2.13	0.49
33:D8:48:PHE:CD1	33:D8:48:PHE:N	2.77	0.49
1:AA:1267:C:O2	21:AU:20:LYS:HD2	2.12	0.49
42:BI:115:ALA:CB	42:BI:131:LYS:HE3	2.36	0.49
42:BI:94:ALA:O	42:BI:98:ALA:N	2.46	0.49
38:DE:34:VAL:O	38:DE:35:GLN:HB2	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:DT:33:LYS:N	49:DT:33:LYS:HZ3	2.11	0.49
48:BS:92:TYR:CG	48:BS:93:LYS:N	2.81	0.49
49:BT:117:ASP:OD1	49:BT:119:LYS:HB3	2.13	0.49
49:BT:76:PHE:HA	49:BT:77:PRO:HD3	1.68	0.49
38:BE:4:ILE:CG1	38:BE:28:ALA:HB1	2.43	0.49
39:BF:117:ARG:HH22	45:BP:5:ASP:N	2.09	0.49
37:BD:70:TRP:O	37:BD:71:ASP:C	2.51	0.49
42:DI:81:VAL:CG1	42:DI:88:ILE:HD12	2.35	0.49
55:DZ:53:ILE:O	55:DZ:53:ILE:HG12	2.13	0.49
55:DZ:96:VAL:HG22	55:DZ:97:GLU:H	1.75	0.49
2:CB:54:THR:HG23	2:CB:199:TYR:HB3	1.94	0.49
45:BP:50:ARG:CG	45:BP:51:PHE:N	2.75	0.49
40:BG:111:LEU:C	40:BG:114:ILE:HG12	2.33	0.49
1:AA:664:G:P	18:AR:64:ARG:HH21	2.36	0.49
26:D1:46:LEU:CD2	26:D1:46:LEU:C	2.78	0.49
38:BE:117:MET:HG3	38:BE:122:PHE:O	2.13	0.49
5:CE:103:GLY:O	5:CE:106:PRO:HD2	2.13	0.49
37:BD:183:ARG:HH11	37:BD:183:ARG:HG2	1.77	0.49
26:D1:94:LEU:CD2	26:D1:95:LEU:N	2.75	0.49
44:BO:16:ALA:HB1	44:BO:43:VAL:HG13	1.95	0.49
46:BQ:43:THR:HG23	46:BQ:46:GLN:CD	2.33	0.49
1:CA:1227:A:OP2	13:CM:111:LYS:HE2	2.12	0.49
34:DA:2723:C:H5''	47:DR:2:ARG:HD3	1.88	0.49
4:CD:114:ARG:O	4:CD:117:ALA:HB3	2.12	0.49
34:BA:271(H):G:C6	34:BA:271(Q):G:N1	2.81	0.49
6:CF:21:LEU:O	6:CF:24:GLU:N	2.46	0.49
55:DZ:130:PRO:C	55:DZ:133:ILE:HD11	2.33	0.49
1:CA:958:A:C8	19:CS:55:LYS:HD3	2.48	0.49
34:BA:1024:G:H8	34:BA:1024:G:O5'	1.96	0.49
45:BP:112:LEU:HD22	45:BP:113:LYS:N	2.27	0.49
26:D1:21:ARG:O	26:D1:22:GLY:C	2.51	0.49
26:D1:41:ARG:HH11	26:D1:41:ARG:CG	2.26	0.49
1:AA:1305:G:OP1	21:AU:2:GLY:HA3	2.13	0.49
41:BH:87:LEU:HD12	41:BH:131:VAL:HG12	1.95	0.49
6:CF:10:LEU:N	6:CF:10:LEU:CD1	2.66	0.49
34:BA:1569:A:O2'	37:BD:38:LYS:HE2	2.13	0.49
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.47	0.49
34:BA:2287:A:C2	34:BA:2346:A:H2	2.30	0.49
23:CW:12:U:H3	23:CW:23:A:N6	2.06	0.49
36:DC:20:TYR:CG	36:DC:21:THR:N	2.81	0.49
8:AH:35:ILE:HG23	8:AH:111:ILE:CD1	2.43	0.49
53:DX:82:GLN:CD	53:DX:83:VAL:HG22	2.34	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:D3:17:LYS:O	28:D3:20:LYS:HB2	2.12	0.49
37:BD:8:PRO:C	37:BD:10:THR:H	2.15	0.49
47:DR:104:ARG:HB3	47:DR:107:ASP:OD2	2.13	0.49
34:DA:1040:C:N4	34:DA:1116:C:H42	2.10	0.49
54:BY:77:PRO:O	54:BY:78:ALA:CB	2.60	0.49
41:DH:106:THR:CG2	41:DH:112:PRO:HB3	2.41	0.49
1:CA:1232:U:O3'	9:CI:124:GLN:HB2	2.13	0.49
34:BA:2838:G:O2'	34:BA:2839:G:H5'	2.13	0.49
1:AA:1060:C:H4'	10:AJ:52:GLY:N	2.28	0.49
1:CA:1004:A:H2'	1:CA:1038:C:O2	2.12	0.49
40:BG:95:ARG:O	40:BG:96:ARG:C	2.51	0.49
34:BA:2197:U:H1'	34:BA:2198:A:C8	2.48	0.49
18:CR:73:ALA:O	18:CR:76:LEU:N	2.46	0.49
1:CA:853:G:H2'	1:CA:854:G:H8	1.78	0.49
4:AD:110:PHE:CD2	4:AD:148:VAL:HG23	2.47	0.49
46:BQ:6:ARG:O	46:BQ:7:MET:HG2	2.13	0.49
34:DA:554:U:O2'	34:DA:555:U:H5'	2.12	0.49
16:CP:26:ARG:NH1	16:CP:26:ARG:HG2	2.28	0.49
46:DQ:137:TYR:O	46:DQ:138:ASP:CG	2.51	0.49
52:DW:1:MET:HG3	52:DW:2:GLU:N	2.28	0.49
1:AA:1181:G:O2'	1:AA:1182:G:H5'	2.13	0.49
37:BD:130:ALA:HA	37:BD:191:ALA:O	2.13	0.49
28:D3:44:ARG:O	28:D3:48:GLU:HG2	2.13	0.49
46:BQ:111:GLU:HG3	46:BQ:112:GLU:N	2.27	0.49
34:DA:991:C:H2'	34:DA:992:C:H6	1.76	0.49
34:DA:1368:G:O2'	34:DA:1369:G:H5'	2.13	0.49
1:AA:138:G:H2'	1:AA:139:G:C8	2.47	0.49
34:BA:2247:A:O2'	34:BA:2248:C:H5'	2.13	0.49
34:DA:2861:G:O2'	34:DA:2862:G:H5'	2.12	0.49
51:BV:85:LYS:O	51:BV:87:HIS:N	2.39	0.49
51:DV:63:GLY:O	51:DV:64:HIS:CB	2.61	0.48
51:DV:69:LYS:CB	51:DV:93:GLU:OE2	2.61	0.48
42:BI:123:LEU:HD23	42:BI:142:VAL:HB	1.94	0.48
42:BI:131:LYS:HG3	42:BI:132:PRO:HA	1.95	0.48
37:DD:25:THR:O	37:DD:25:THR:CG2	2.61	0.48
48:DS:14:VAL:HG12	48:DS:16:ASN:H	1.78	0.48
38:DE:75:VAL:O	38:DE:77:ILE:HG12	2.13	0.48
53:DX:5:TYR:O	53:DX:7:VAL:N	2.43	0.48
48:BS:14:VAL:HG12	48:BS:16:ASN:H	1.78	0.48
49:BT:121:ILE:CG2	49:BT:122:ASP:N	2.76	0.48
38:BE:54:GLN:O	38:BE:55:ASN:CG	2.50	0.48
55:DZ:58:VAL:HG13	55:DZ:67:LEU:C	2.33	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:B2:52:ASP:C	27:B2:56:GLN:NE2	2.66	0.48
46:BQ:73:PRO:HG3	46:BQ:93:TYR:CE2	2.48	0.48
34:DA:874:G:O2'	34:DA:875:G:H5'	2.12	0.48
1:AA:740:U:O2'	1:AA:741:G:H5'	2.13	0.48
41:BH:41:MET:HE1	41:BH:55:PRO:HD3	1.95	0.48
45:DP:23:PRO:O	45:DP:33:ARG:NE	2.46	0.48
34:DA:2533:A:H2'	34:DA:2534:A:C5'	2.29	0.48
1:CA:878:G:H5''	8:CH:89:PRO:HG2	1.95	0.48
23:CW:39:U:C3'	23:CW:40:C:H5'	2.43	0.48
4:CD:73:ARG:HA	4:CD:73:ARG:NH1	2.14	0.48
13:CM:19:LEU:HD22	13:CM:19:LEU:H	1.77	0.48
34:BA:8:A:C2	34:BA:2896:C:N3	2.81	0.48
20:AT:85:MET:HA	20:AT:88:VAL:HG23	1.95	0.48
1:AA:959:A:H2	1:AA:1222:G:O4'	1.95	0.48
1:CA:1203:C:O2'	1:CA:1204:A:H5'	2.12	0.48
34:DA:1718:G:H5'	34:DA:1718:G:H8	1.78	0.48
43:DN:56:ASN:CG	43:DN:126:PRO:HD3	2.33	0.48
43:DN:17:ASP:OD1	43:DN:19:GLU:HG3	2.12	0.48
46:BQ:39:PRO:O	46:BQ:40:ALA:HB2	2.13	0.48
34:DA:2680:C:OP1	38:DE:109:LYS:HG3	2.12	0.48
1:AA:709:G:H2'	1:AA:710:G:H8	1.77	0.48
1:CA:994:A:H2'	14:CN:8:GLU:OE1	2.12	0.48
19:CS:53:ASN:OD1	19:CS:56:GLN:O	2.30	0.48
4:AD:114:ARG:O	4:AD:117:ALA:HB3	2.12	0.48
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.13	0.48
40:DG:39:ILE:O	40:DG:39:ILE:HG13	2.11	0.48
34:DA:2312:U:H4'	40:DG:71:THR:CG2	2.42	0.48
34:BA:826:U:OP1	34:BA:2428:G:H3'	2.12	0.48
41:BH:148:ILE:HG22	41:BH:149:ARG:N	2.28	0.48
29:B4:6:HIS:HA	40:BG:67:LYS:CE	2.39	0.48
41:DH:148:ILE:HG22	41:DH:149:ARG:N	2.28	0.48
25:D0:36:ILE:CD1	34:DA:2354:G:O2'	2.61	0.48
47:BR:79:LEU:HA	47:BR:83:ILE:HB	1.95	0.48
34:BA:2298:A:N6	34:BA:2318:G:C8	2.81	0.48
34:DA:364:C:H2'	34:DA:365:C:C5'	2.43	0.48
34:DA:1569:A:O2'	37:DD:38:LYS:HE2	2.13	0.48
53:BX:82:GLN:HG3	53:BX:83:VAL:N	2.28	0.48
36:BC:20:TYR:CG	36:BC:21:THR:N	2.81	0.48
37:BD:160:GLY:H	37:BD:196:VAL:HB	1.78	0.48
2:CB:80:ILE:HG13	2:CB:81:VAL:H	1.77	0.48
38:DE:142:GLY:C	38:DE:143:ASN:ND2	2.67	0.48
1:AA:582:U:H2'	1:AA:583:A:H8	1.78	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DE:134:ILE:HG12	38:DE:134:ILE:O	2.13	0.48
20:AT:81:LYS:C	20:AT:83:ARG:H	2.16	0.48
2:AB:216:SER:C	2:AB:218:ALA:H	2.17	0.48
1:AA:190:U:O2'	1:AA:191:G:H5'	2.13	0.48
45:DP:88:LEU:C	45:DP:90:ARG:H	2.14	0.48
1:CA:1350:A:C6	1:CA:1351:U:C4	3.01	0.48
19:AS:42:PRO:O	19:AS:43:GLU:CB	2.59	0.48
4:AD:4:TYR:HE2	4:AD:6:GLY:O	1.96	0.48
9:AI:45:ALA:O	9:AI:78:LYS:HE3	2.13	0.48
8:CH:86:ILE:CB	8:CH:133:LEU:HD22	2.43	0.48
46:BQ:26:TYR:O	46:BQ:26:TYR:CD1	2.63	0.48
1:CA:1514:C:H2'	1:CA:1515:C:H6	1.77	0.48
1:CA:393:A:C2	1:CA:394:G:C8	3.01	0.48
46:DQ:65:PHE:HB2	46:DQ:105:GLU:HG3	1.94	0.48
1:CA:731:G:OP1	1:CA:766:A:H1'	2.13	0.48
34:BA:2162:G:H3'	34:BA:2162:G:OP2	2.13	0.48
34:DA:493:G:N2	34:DA:494:G:H1'	2.27	0.48
37:DD:210:GLY:O	37:DD:211:ARG:CB	2.60	0.48
1:CA:41:G:H2'	1:CA:42:G:C8	2.48	0.48
1:CA:947:G:O3'	13:CM:109:THR:OG1	2.31	0.48
34:BA:523:C:O2'	34:BA:524:U:H5'	2.13	0.48
23:CY:39:U:H2'	23:CY:40:C:H6	1.78	0.48
20:AT:8:ARG:NH1	20:AT:8:ARG:HG3	2.28	0.48
34:BA:692:C:H2'	34:BA:693:C:H6	1.78	0.48
1:CA:1338:G:H2'	1:CA:1339:A:C8	2.48	0.48
34:DA:1767:C:O2'	34:DA:1768:U:H5'	2.13	0.48
34:BA:2687:U:O2'	34:BA:2688:U:H5'	2.13	0.48
19:CS:79:THR:O	19:CS:80:TYR:CB	2.60	0.48
5:CE:91:LEU:HD12	5:CE:120:THR:HG22	1.95	0.48
34:DA:927:G:H3'	34:DA:928:G:H8	1.78	0.48
34:BA:335:C:H2'	34:BA:336:C:C6	2.48	0.48
50:DU:83:LEU:CB	50:DU:88:ILE:HG12	2.39	0.48
51:DV:13:ARG:HG3	51:DV:13:ARG:HH11	1.78	0.48
50:BU:83:LEU:HD12	50:BU:83:LEU:N	2.29	0.48
50:BU:92:ARG:NH1	51:BV:11:GLN:O	2.42	0.48
48:DS:88:ASP:OD1	48:DS:89:ARG:NH2	2.46	0.48
49:BT:89:VAL:HG12	49:BT:91:ARG:CG	2.44	0.48
38:BE:69:LYS:N	38:BE:69:LYS:HE2	2.27	0.48
34:BA:2638:G:P	38:BE:82:ARG:HH21	2.36	0.48
3:AC:12:LEU:O	3:AC:16:ARG:O	2.30	0.48
45:DP:123:LEU:O	45:DP:124:LYS:C	2.50	0.48
34:DA:310:A:OP1	54:DY:17:SER:O	2.31	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DZ:16:SER:HA	55:DZ:19:ARG:HD2	1.95	0.48
45:DP:65:ARG:HH11	45:DP:65:ARG:CB	2.25	0.48
27:B2:50:ILE:H	27:B2:50:ILE:HD13	1.77	0.48
55:BZ:150:LEU:HD22	55:BZ:150:LEU:O	2.13	0.48
34:BA:2759:G:O2'	34:BA:2760:C:H5'	2.13	0.48
10:CJ:74:ILE:N	10:CJ:74:ILE:HD13	2.20	0.48
43:DN:38:HIS:O	50:DU:67:ALA:O	2.30	0.48
39:DF:3:GLU:HA	39:DF:24:LEU:HG	1.94	0.48
53:DX:23:GLU:CG	53:DX:24:GLY:N	2.76	0.48
1:AA:378:G:O2'	1:AA:379:C:H5'	2.13	0.48
16:AP:22:THR:CG2	16:AP:32:TYR:HA	2.38	0.48
16:CP:6:LEU:HB3	16:CP:17:TYR:HD2	1.77	0.48
37:DD:268:ARG:HH12	37:DD:269:PHE:HE1	1.58	0.48
23:CW:39:U:O4'	23:CW:39:U:O2	2.31	0.48
46:BQ:141:GLN:NE2	55:BZ:72:ARG:HG2	2.28	0.48
55:BZ:7:ALA:HB3	55:BZ:61:LEU:HD23	1.95	0.48
55:BZ:7:ALA:O	55:BZ:8:TYR:O	2.32	0.48
34:BA:1697:G:H5''	34:BA:1698:A:H5''	1.94	0.48
53:BX:80:ILE:HG23	53:BX:81:VAL:N	2.28	0.48
46:DQ:39:PRO:CB	46:DQ:99:PRO:HD3	2.43	0.48
26:D1:74:VAL:C	26:D1:76:ARG:H	2.16	0.48
20:AT:84:LEU:HD13	20:AT:84:LEU:C	2.33	0.48
43:DN:34:LEU:HD21	43:DN:120:LEU:HD23	1.94	0.48
50:BU:37:GLU:O	50:BU:40:PHE:HB2	2.13	0.48
43:BN:27:ALA:HA	43:BN:30:ILE:HD12	1.94	0.48
1:AA:954:G:C4'	13:AM:120:LYS:HG3	2.33	0.48
40:DG:7:LEU:HD12	40:DG:104:GLU:HB2	1.93	0.48
49:DT:100:TYR:CD2	49:DT:103:ARG:NH2	2.81	0.48
41:DH:158:HIS:NE2	41:DH:169:VAL:O	2.46	0.48
17:AQ:68:ARG:O	17:AQ:68:ARG:HG3	2.13	0.48
34:BA:814:C:H5	45:BP:27:HIS:CD2	2.31	0.48
37:BD:235:GLY:O	37:BD:237:GLU:N	2.47	0.48
1:CA:184:G:H2'	1:CA:185:A:C8	2.34	0.48
3:CC:174:PRO:HB2	3:CC:177:THR:HB	1.94	0.48
34:BA:1848:A:C4	34:BA:1849:G:C8	3.01	0.48
34:BA:1227:G:C2'	34:BA:1228:G:H5'	2.43	0.48
20:CT:38:LYS:O	20:CT:41:ILE:HG13	2.13	0.48
34:DA:547:A:C8	34:DA:549:G:C6	3.00	0.48
33:D8:18:ALA:C	33:D8:20:GLY:H	2.16	0.48
34:BA:440:G:H2'	34:BA:441:U:H6	1.77	0.48
37:DD:76:PRO:O	37:DD:98:VAL:HG23	2.14	0.48
39:BF:7:TYR:HE1	39:BF:196:LEU:HD11	1.78	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:197:PRO:HD3	6:CF:16:GLN:HG3	1.95	0.48
2:AB:55:PHE:HE1	2:AB:218:ALA:HA	1.78	0.48
34:BA:2469:A:H3'	34:BA:2470:G:O4'	2.12	0.48
34:BA:2708:G:O2'	34:BA:2709:G:H5'	2.13	0.48
55:DZ:5:LEU:CG	55:DZ:47:VAL:HG21	2.41	0.48
34:DA:1188:U:H2'	34:DA:1189:A:C5'	2.44	0.48
34:BA:2783:G:H2'	34:BA:2784:C:H6	1.78	0.48
1:CA:540:G:O2'	1:CA:541:G:H5'	2.13	0.48
53:BX:14:SER:O	53:BX:17:ALA:HB3	2.12	0.48
34:BA:1115:G:H8	34:BA:1115:G:H5'	1.77	0.48
34:BA:740:U:H2'	34:BA:741:G:H8	1.78	0.48
1:AA:472:A:H4'	16:AP:82:GLN:HE22	1.78	0.48
4:CD:127:THR:OG1	4:CD:128:VAL:N	2.45	0.48
34:DA:1653:G:O2'	34:DA:1654:A:OP2	2.27	0.48
1:CA:26:A:H61	1:CA:558:G:H1'	1.76	0.48
1:CA:802:A:H2'	1:CA:803:G:O4'	2.12	0.48
1:CA:404:U:H2'	1:CA:405:U:H6	1.77	0.48
1:AA:860:A:H2'	1:AA:861:G:O4'	2.13	0.48
23:CY:39:U:H2'	23:CY:40:C:C6	2.47	0.48
20:AT:37:SER:O	20:AT:40:ALA:HB3	2.14	0.48
34:BA:201:C:H2'	34:BA:202:U:H5'	1.94	0.48
4:AD:150:GLU:HG2	4:AD:151:LYS:H	1.78	0.48
5:AE:59:GLY:O	5:AE:62:ALA:HB3	2.12	0.48
1:AA:138:G:H2'	1:AA:139:G:H8	1.78	0.48
1:AA:274:A:H4'	1:AA:275:G:OP1	2.13	0.48
34:BA:699:A:O2'	34:BA:700:G:H5'	2.13	0.48
30:D5:35:GLU:HB2	30:D5:49:CYS:SG	2.54	0.48
34:DA:709:U:H2'	34:DA:710:G:H8	1.77	0.48
1:AA:109:A:H2'	1:AA:326:G:N2	2.28	0.48
34:BA:1312:U:H4'	34:BA:1313:U:O5'	2.14	0.48
50:DU:92:ARG:NH1	51:DV:11:GLN:O	2.44	0.48
34:DA:2296:U:H2'	48:DS:13:ARG:HH22	1.77	0.48
34:DA:2783:G:H2'	34:DA:2784:C:H6	1.78	0.48
38:DE:26:ILE:CG2	38:DE:27:LEU:N	2.75	0.48
54:BY:61:ILE:N	54:BY:61:ILE:HD12	2.28	0.48
49:BT:83:ILE:HG13	49:BT:84:GLN:HG2	1.94	0.48
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.49	0.48
3:CC:11:ARG:O	3:CC:12:LEU:C	2.51	0.48
45:DP:101:VAL:CG1	45:DP:102:ARG:H	2.18	0.48
38:BE:52:LEU:N	38:BE:76:ARG:HB3	2.28	0.48
48:BS:52:SER:CB	48:BS:55:ALA:HB3	2.43	0.48
43:DN:43:THR:CG2	43:DN:46:VAL:HB	2.42	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BR:87:TYR:O	47:BR:89:ASP:N	2.43	0.48
55:DZ:149:SER:HB3	55:DZ:173:ALA:HA	1.95	0.48
41:DH:41:MET:CE	41:DH:55:PRO:HD3	2.43	0.48
47:DR:41:ALA:C	47:DR:43:GLU:N	2.64	0.48
51:BV:15:GLU:CB	51:BV:16:PRO:CD	2.82	0.48
13:CM:116:THR:O	13:CM:117:VAL:HB	2.13	0.48
50:BU:25:TRP:CD1	50:BU:26:GLY:N	2.82	0.48
1:CA:1321:C:H3'	1:CA:1322:C:H5''	1.94	0.48
34:DA:814:C:H5	45:DP:27:HIS:CD2	2.31	0.48
26:D1:40:ARG:HH11	26:D1:42:GLN:HA	1.75	0.48
17:AQ:67:LYS:HG2	17:AQ:68:ARG:H	1.79	0.48
34:DA:1719:G:O2'	34:DA:1720:U:H5'	2.14	0.48
46:BQ:134:ARG:HG2	46:BQ:135:ASP:N	2.26	0.48
25:B0:42:GLY:HA2	25:B0:57:PHE:CE2	2.49	0.48
1:CA:1152:A:H2'	1:CA:1153:C:C6	2.48	0.48
1:AA:1431:C:H42	1:AA:1469:G:H1	1.61	0.48
34:DA:1355:G:H2'	34:DA:1356:G:H8	1.78	0.48
53:DX:82:GLN:HG3	53:DX:83:VAL:N	2.28	0.48
31:D6:15:GLU:HG2	31:D6:18:ARG:HG3	1.96	0.48
34:BA:2580:U:C5'	38:BE:131:ALA:N	2.76	0.48
34:DA:2580:U:H4'	38:DE:130:GLY:CA	2.44	0.48
47:DR:104:ARG:HG2	47:DR:104:ARG:NH1	2.28	0.48
23:AW:29:G:O2'	23:AW:30:G:H5'	2.14	0.48
49:DT:50:ILE:H	49:DT:50:ILE:HD12	1.75	0.48
46:BQ:121:ALA:O	46:BQ:124:LYS:N	2.43	0.48
7:AG:30:ILE:HD13	7:AG:105:VAL:HG22	1.94	0.48
54:BY:75:ILE:HD11	54:BY:79:CYS:HA	1.95	0.48
19:CS:6:LYS:HD2	19:CS:6:LYS:N	2.27	0.48
9:AI:19:LEU:HB3	9:AI:59:PHE:HD2	1.78	0.48
1:AA:36:C:O2'	1:AA:37:U:H5'	2.12	0.48
1:CA:105:G:H2'	1:CA:106:C:C6	2.48	0.48
34:DA:2014:A:C2	34:DA:2015:A:N1	2.81	0.48
1:AA:1387:G:C6	1:AA:1388:C:N4	2.81	0.48
7:CG:100:ALA:O	7:CG:104:LEU:HD23	2.13	0.48
34:DA:608:A:H3'	34:DA:609:A:H8	1.78	0.48
38:BE:197:ILE:HG13	38:BE:199:ARG:NH1	2.28	0.48
34:DA:1602:U:H3'	34:DA:1603:A:H5''	1.95	0.48
1:AA:560:U:H4'	1:AA:561:U:C5'	2.43	0.48
1:AA:560:U:O2'	1:AA:561:U:OP2	2.24	0.48
1:CA:1239:A:H2'	1:CA:1298:C:H42	1.78	0.48
1:AA:946:A:C2	1:AA:1236:A:C2	3.01	0.48
20:CT:37:SER:O	20:CT:40:ALA:HB3	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:636:U:H5'	17:AQ:2:PRO:HG3	1.95	0.48
21:CU:9:ARG:O	21:CU:13:ILE:HG13	2.13	0.48
1:CA:893:C:H2'	1:CA:894:G:C8	2.48	0.48
34:DA:2087:G:C2'	34:DA:2088:G:H5'	2.43	0.48
1:AA:814:A:N7	1:AA:816:A:C4	2.82	0.48
16:CP:19:ILE:HG22	16:CP:36:ILE:HD11	1.95	0.48
55:DZ:135:GLU:O	55:DZ:136:PHE:HB3	2.12	0.48
15:AO:9:GLN:O	15:AO:10:LYS:C	2.51	0.48
7:AG:71:PRO:HD3	7:AG:103:TRP:CZ3	2.49	0.48
51:DV:69:LYS:CG	51:DV:70:ILE:N	2.72	0.48
54:BY:27:VAL:HG12	54:BY:29:GLU:N	2.25	0.48
39:BF:37:VAL:O	39:BF:38:ARG:C	2.51	0.48
45:DP:46:LYS:CG	45:DP:52:GLU:HG2	2.43	0.48
34:DA:2759:G:O2'	34:DA:2760:C:H5'	2.13	0.48
34:DA:593:G:O2'	34:DA:594:U:H5'	2.12	0.48
27:B2:53:LEU:HD12	34:BA:76:C:O3'	2.13	0.48
13:AM:19:LEU:HD22	13:AM:19:LEU:H	1.78	0.48
34:BA:2762:G:C3'	34:BA:2763:G:C5'	2.92	0.48
18:CR:66:LEU:O	18:CR:70:ILE:HG12	2.13	0.48
43:BN:38:HIS:CE1	43:BN:50:ASP:OD2	2.66	0.48
50:BU:64:ARG:NH1	50:BU:67:ALA:HB3	2.29	0.48
41:BH:37:VAL:HG11	41:BH:68:THR:HG21	1.95	0.48
16:CP:17:TYR:N	16:CP:17:TYR:CD1	2.81	0.48
1:CA:586:C:H1'	1:CA:878:G:O2'	2.13	0.48
54:DY:90:LEU:CG	54:DY:91:GLU:N	2.70	0.48
10:AJ:39:PRO:CB	10:AJ:70:ARG:HH12	2.25	0.48
19:AS:53:ASN:OD1	19:AS:56:GLN:O	2.31	0.48
34:DA:2720:U:C2	34:DA:2721:A:C8	3.01	0.48
34:DA:826:U:OP1	34:DA:2428:G:H3'	2.13	0.48
34:DA:675:A:O2'	34:DA:676:A:H5'	2.13	0.48
41:DH:92:ILE:CG2	41:DH:93:GLY:N	2.66	0.48
43:BN:19:GLU:HB2	43:BN:59:LYS:CB	2.43	0.48
34:DA:917:A:H2'	34:DA:918:A:O4'	2.13	0.48
40:DG:76:SER:HB2	40:DG:83:ARG:HB2	1.96	0.48
34:BA:364:C:H2'	34:BA:365:C:C5'	2.42	0.48
39:DF:107:LYS:O	39:DF:109:GLY:N	2.47	0.48
49:DT:57:PHE:O	49:DT:58:ASN:ND2	2.46	0.48
38:BE:104:VAL:HG11	38:BE:188:VAL:HG23	1.94	0.48
34:DA:1712:C:O2'	34:DA:1713:U:H5'	2.14	0.48
25:B0:53:MET:CE	25:B0:57:PHE:HD1	2.26	0.48
5:CE:8:GLU:HA	5:CE:34:VAL:HG22	1.94	0.48
1:AA:1227:A:C2'	1:AA:1228:C:O5'	2.61	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:95:THR:HG21	3:CC:99:VAL:HG11	1.96	0.48
37:DD:144:ALA:HB3	37:DD:192:THR:CG2	2.43	0.48
39:DF:7:TYR:HE1	39:DF:196:LEU:HD11	1.78	0.48
41:BH:153:LYS:HG2	41:BH:154:PRO:N	2.28	0.48
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.77	0.48
16:CP:43:LYS:HG3	16:CP:48:TRP:CD2	2.48	0.48
1:AA:1060:C:C5	3:AC:2:GLY:HA3	2.48	0.48
8:CH:4:ASP:OD2	8:CH:7:ALA:HB2	2.14	0.48
31:D6:28:ARG:NH1	31:D6:28:ARG:HG2	2.24	0.48
42:BI:75:LEU:HD11	42:BI:105:HIS:HE1	1.79	0.48
1:AA:1436:U:H2'	1:AA:1437:C:C6	2.48	0.48
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.78	0.48
34:BA:1680:U:H2'	34:BA:1681:G:O4'	2.13	0.48
3:CC:127:ARG:HD2	3:CC:127:ARG:H	1.78	0.48
34:DA:2692:C:O2'	34:DA:2693:A:H5'	2.12	0.48
34:BA:774:A:HO2'	34:BA:775:G:P	2.33	0.48
1:AA:853:G:H2'	1:AA:854:G:H8	1.79	0.48
34:DA:494:G:OP1	52:DW:8:ARG:NH1	2.46	0.48
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.48	0.48
5:CE:28:PHE:O	5:CE:47:LYS:HA	2.14	0.48
34:DA:1339:G:H21	34:DA:1603:A:H1'	1.78	0.48
2:AB:12:GLU:C	2:AB:14:GLY:N	2.66	0.48
37:BD:211:ARG:O	37:BD:212:SER:C	2.50	0.48
55:DZ:77:ASP:HB2	55:DZ:84:GLU:OE2	2.12	0.48
1:CA:284:G:H2'	1:CA:285:G:H8	1.77	0.48
41:BH:58:GLU:C	41:BH:60:ARG:N	2.67	0.48
52:DW:66:GLU:O	52:DW:69:LEU:HG	2.12	0.48
44:DO:36:GLY:HA3	44:DO:109:LYS:HG3	1.94	0.48
1:CA:912:C:O2'	1:CA:913:A:H5'	2.14	0.48
4:CD:159:ARG:O	4:CD:161:ASN:N	2.46	0.48
1:CA:291:C:O2'	1:CA:292:G:H5'	2.14	0.48
34:BA:1939:U:OP1	34:BA:2604:U:O2'	2.31	0.48
37:DD:271:ILE:N	37:DD:271:ILE:HD12	2.28	0.48
51:DV:62:LEU:HD22	51:DV:98:GLU:CA	2.41	0.48
48:DS:13:ARG:O	48:DS:14:VAL:C	2.51	0.48
48:DS:15:ARG:O	48:DS:17:ARG:O	2.30	0.48
38:DE:4:ILE:CG1	38:DE:28:ALA:HB1	2.43	0.48
38:DE:51:PHE:HB3	38:DE:76:ARG:CB	2.35	0.48
38:BE:34:VAL:HG23	38:BE:34:VAL:O	2.12	0.48
38:BE:36:ARG:NH2	38:BE:88:GLY:H	2.11	0.48
34:BA:661:C:C4'	45:BP:18:ARG:HG2	2.43	0.48
37:BD:33:LEU:O	37:BD:35:LYS:N	2.46	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DQ:82:ARG:NH1	46:DQ:82:ARG:CG	2.67	0.48
42:DI:127:VAL:HA	42:DI:139:GLN:HA	1.96	0.48
42:DI:81:VAL:CG1	42:DI:88:ILE:HG23	2.44	0.48
33:B8:58:ILE:HG22	33:B8:58:ILE:O	2.12	0.48
53:BX:40:LYS:HG3	53:BX:41:ASN:N	2.28	0.48
48:DS:76:LYS:O	48:DS:79:ALA:HB3	2.14	0.48
18:CR:59:SER:HB3	18:CR:62:GLU:OE2	2.14	0.48
45:BP:24:GLY:CA	45:BP:33:ARG:NH2	2.74	0.48
47:DR:38:VAL:O	47:DR:41:ALA:N	2.44	0.48
5:AE:105:VAL:HB	5:AE:106:PRO:CD	2.42	0.48
1:AA:107:G:H2'	1:AA:108:G:C5'	2.41	0.48
54:DY:81:LYS:HE2	54:DY:97:ARG:CG	2.43	0.48
5:CE:142:LEU:O	5:CE:143:ARG:NE	2.46	0.48
34:BA:2677:G:H2'	34:BA:2678:C:C6	2.48	0.48
34:BA:2683:C:P	49:BT:53:ARG:HH22	2.36	0.48
55:BZ:4:ARG:CG	55:BZ:58:VAL:HB	2.34	0.48
34:BA:1697:G:H5'	34:BA:1698:A:H5''	1.95	0.48
1:CA:1251:A:O2'	1:CA:1252:A:H5'	2.13	0.48
43:BN:13:TRP:O	43:BN:135:PRO:HG3	2.14	0.48
27:B2:32:LEU:CG	27:B2:33:MET:N	2.62	0.48
5:CE:101:ILE:HG13	5:CE:119:LEU:CD2	2.33	0.48
43:DN:19:GLU:HB2	43:DN:59:LYS:HB2	1.94	0.48
46:BQ:39:PRO:CB	46:BQ:99:PRO:HD3	2.43	0.48
34:DA:1815:A:H8	34:DA:1815:A:OP1	1.96	0.48
34:DA:813:U:H2'	34:DA:814:C:C6	2.48	0.48
34:BA:2347:C:H2'	34:BA:2348:U:C6	2.48	0.48
34:DA:1020:A:N1	34:DA:1141:U:H1'	2.28	0.48
53:BX:67:GLY:C	53:BX:68:ARG:HG2	2.32	0.48
34:DA:2202:C:H2'	34:DA:2203:U:H6	1.78	0.48
8:AH:40:ALA:C	8:AH:42:GLU:H	2.16	0.48
49:BT:50:ILE:O	49:BT:99:LEU:HD12	2.14	0.48
30:D5:25:LEU:HB3	52:DW:23:LEU:HD13	1.96	0.48
2:AB:197:VAL:HG12	2:AB:200:ILE:HG12	1.94	0.48
34:DA:1385:G:H1'	34:DA:1386:C:C6	2.48	0.48
1:AA:1209:C:O2'	1:AA:1210:C:H5'	2.13	0.48
34:DA:2737:G:O2'	34:DA:2738:A:H5'	2.14	0.48
1:AA:555:C:H2'	1:AA:556:C:C6	2.47	0.48
37:DD:133:LEU:CA	37:DD:136:ILE:HD13	2.44	0.48
1:AA:15:G:H4'	5:AE:24:ARG:HH12	1.77	0.48
42:DI:44:LEU:O	42:DI:47:LEU:HB3	2.13	0.48
12:AL:102:ARG:NH1	12:AL:102:ARG:CG	2.73	0.48
12:AL:71:PRO:HD2	12:AL:102:ARG:HH11	1.78	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DN:18:ALA:CB	43:DN:21:LYS:HG2	2.43	0.48
40:DG:22:ARG:NH1	40:DG:22:ARG:HG2	2.27	0.48
34:BA:266:G:H2'	34:BA:267:C:C5'	2.44	0.48
42:BI:29:TYR:C	42:BI:32:PRO:HD2	2.33	0.48
17:AQ:74:LEU:HD13	17:AQ:74:LEU:C	2.34	0.48
34:DA:2855:C:O2'	34:DA:2856:C:H5'	2.12	0.48
1:CA:791:G:C6	1:CA:792:A:N7	2.81	0.48
52:BW:1:MET:HG3	52:BW:2:GLU:N	2.27	0.48
1:CA:148:G:O2'	1:CA:149:A:H5'	2.14	0.48
25:B0:2:ALA:HB1	34:BA:2494:G:OP2	2.13	0.48
1:CA:235:C:H2'	1:CA:236:G:H8	1.79	0.48
6:CF:91:VAL:HG12	6:CF:92:LYS:N	2.29	0.48
6:CF:91:VAL:HG12	6:CF:92:LYS:O	2.14	0.48
34:BA:2199:A:H5'	34:BA:2200:C:OP2	2.14	0.48
34:BA:2200:C:H42	34:BA:2223:G:H1	1.61	0.48
34:BA:719:C:O2'	34:BA:720:C:H5'	2.13	0.48
4:AD:152:SER:O	4:AD:154:ASN:N	2.47	0.48
3:CC:137:ALA:O	3:CC:141:VAL:HG23	2.13	0.48
28:D3:52:HIS:ND1	28:D3:53:LEU:HG	2.27	0.48
4:CD:160:GLN:O	4:CD:163:GLU:HB3	2.13	0.48
34:DA:272:G:H1'	34:DA:272(B):G:O5'	2.14	0.48
1:CA:487:A:H2'	1:CA:488:C:O4'	2.14	0.48
1:AA:723:U:H2'	1:AA:723:U:O2	2.14	0.48
34:BA:2114:A:H2'	34:BA:2114:A:N3	2.29	0.48
36:DC:99:ILE:O	36:DC:99:ILE:HG22	2.14	0.48
34:DA:2240:C:O2'	34:DA:2241:A:H5'	2.14	0.48
53:BX:8:ILE:HG12	53:BX:43:VAL:HG23	1.95	0.48
34:DA:535:C:O3'	50:DU:53:ARG:NH1	2.46	0.48
37:DD:35:LYS:CG	37:DD:64:ILE:H	2.17	0.48
1:AA:951:G:OP2	13:AM:102:ARG:NH2	2.46	0.48
34:BA:1331:A:C2'	34:BA:1332:G:H5''	2.43	0.48
48:BS:88:ASP:OD1	48:BS:89:ARG:NH2	2.47	0.48
38:BE:75:VAL:O	38:BE:77:ILE:HG12	2.13	0.48
34:DA:329:G:OP2	54:DY:71:LYS:HE3	2.14	0.48
33:B8:51:ALA:CA	33:B8:53:PRO:HD2	2.43	0.48
2:CB:44:LEU:H	2:CB:44:LEU:CD1	2.22	0.48
33:B8:13:ARG:NE	45:BP:61:ARG:NH1	2.61	0.48
18:CR:74:ARG:HE	18:CR:81:PHE:HA	1.79	0.48
10:AJ:38:ILE:CD1	10:AJ:71:LEU:HB3	2.43	0.48
10:CJ:38:ILE:CD1	10:CJ:71:LEU:HB3	2.44	0.48
1:CA:378:G:O2'	1:CA:379:C:H5'	2.13	0.48
5:AE:103:GLY:O	5:AE:106:PRO:HD2	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:192:U:C1'	20:CT:103:GLY:HA2	2.44	0.48
53:BX:76:ARG:CD	53:BX:76:ARG:O	2.62	0.48
26:D1:82:LEU:HD12	26:D1:83:GLU:H	1.78	0.48
51:BV:19:LYS:HD3	51:BV:22:VAL:CG2	2.43	0.48
34:DA:1341:U:P	34:DA:1397:U:H3	2.36	0.48
34:DA:191:A:C2'	34:DA:192:C:H5'	2.43	0.48
34:DA:2347:C:H2'	34:DA:2348:U:C6	2.48	0.48
34:BA:1266:G:C8	52:BW:15:ARG:NH2	2.82	0.48
34:DA:171:G:H2'	34:DA:172:C:H4'	1.91	0.48
34:DA:2631:G:N3	34:DA:2810:A:H2	2.12	0.48
39:BF:157:VAL:HG12	39:BF:176:LEU:HB3	1.95	0.48
34:DA:2189:U:H2'	34:DA:2190:G:H5''	1.95	0.48
44:DO:14:THR:HG21	44:DO:86:ILE:HG12	1.94	0.48
34:BA:2646:C:OP2	34:BA:2732:G:O2'	2.31	0.48
1:CA:1392:G:H21	1:CA:1502:A:H8	1.61	0.48
37:BD:106:ILE:CD1	37:BD:196:VAL:HG13	2.39	0.48
1:CA:989:C:O2'	1:CA:990:C:H5'	2.13	0.48
2:AB:204:ASN:ND2	2:AB:204:ASN:C	2.67	0.48
2:AB:194:PRO:O	2:AB:197:VAL:N	2.46	0.48
52:DW:35:ILE:CG2	52:DW:36:LEU:N	2.74	0.48
16:CP:43:LYS:HD2	16:CP:43:LYS:N	2.28	0.48
1:CA:782:A:O2'	1:CA:783:C:H5'	2.14	0.48
1:CA:784:C:H2'	1:CA:785:G:H8	1.78	0.48
1:CA:785:G:N2	1:CA:798:G:C4	2.82	0.48
1:CA:1242:C:O2'	1:CA:1243:C:H5'	2.13	0.48
1:AA:785:G:N2	1:AA:798:G:C4	2.81	0.48
52:BW:26:GLY:HA2	52:BW:71:VAL:O	2.12	0.48
7:CG:99:LEU:O	7:CG:100:ALA:C	2.51	0.48
55:DZ:145:GLU:CG	55:DZ:146:ILE:N	2.76	0.48
6:AF:28:ARG:HG3	6:AF:28:ARG:NH1	2.27	0.48
1:AA:1041:A:H2'	1:AA:1042:G:H8	1.78	0.48
1:CA:651:C:H2'	1:CA:652:U:C6	2.48	0.48
47:DR:75:LEU:HD13	47:DR:75:LEU:C	2.34	0.48
34:DA:1854:A:H3'	34:DA:1855:G:C8	2.49	0.48
1:CA:61:G:OP1	20:CT:10:LEU:HD11	2.14	0.48
13:CM:38:GLY:C	13:CM:39:ILE:HG13	2.33	0.48
35:DB:84:C:H2'	35:DB:85:G:H8	1.78	0.48
34:DA:1234:U:O2'	34:DA:1235:G:H5'	2.13	0.48
4:AD:160:GLN:O	4:AD:163:GLU:HB3	2.14	0.48
34:DA:290:G:O2'	34:DA:291:C:H5'	2.13	0.48
42:BI:133:HIS:O	42:BI:134:PRO:C	2.52	0.48
42:BI:91:SER:HB2	42:BI:119:PRO:O	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BI:91:SER:H	42:BI:121:LYS:CE	2.26	0.48
51:BV:70:ILE:O	51:BV:71:LEU:HB2	2.14	0.48
38:DE:69:LYS:N	38:DE:69:LYS:HE2	2.28	0.48
45:BP:126:VAL:HG22	45:BP:145:PRO:CB	2.44	0.48
2:AB:187:LEU:HA	2:AB:201:ILE:O	2.14	0.48
2:AB:213:LEU:HD22	2:AB:214:ILE:HD13	1.94	0.48
2:AB:22:LYS:H	2:AB:40:HIS:CE1	2.32	0.48
3:AC:174:PRO:HB2	3:AC:177:THR:HB	1.95	0.48
10:AJ:80:LYS:NZ	10:AJ:80:LYS:HB2	2.28	0.48
39:BF:40:GLN:O	39:BF:44:ARG:HG2	2.13	0.48
36:BC:208:PHE:O	36:BC:209:LEU:CB	2.61	0.48
42:DI:86:THR:HG22	42:DI:122:GLU:HG2	1.95	0.48
55:DZ:29:TYR:CE2	55:DZ:87:ASP:HB2	2.48	0.48
39:DF:25:PRO:HB3	39:DF:119:ARG:HD3	1.96	0.48
34:DA:2230:G:C4	34:DA:2231:C:C5	3.01	0.48
43:BN:43:THR:CG2	43:BN:46:VAL:HB	2.44	0.48
10:CJ:34:VAL:HG13	10:CJ:73:ASP:O	2.14	0.48
26:D1:19:GLN:CD	26:D1:44:PRO:HB3	2.32	0.48
34:DA:378:C:C2'	34:DA:379:G:H5'	2.44	0.48
34:BA:2263:C:C2'	34:BA:2264:C:H5'	2.44	0.48
1:AA:177:C:H2'	1:AA:178:C:H6	1.79	0.48
5:CE:103:GLY:O	5:CE:104:ALA:C	2.52	0.48
36:DC:168:THR:CA	36:DC:173:ALA:HB2	2.33	0.48
55:DZ:117:LEU:CB	55:DZ:174:VAL:HG22	2.44	0.48
13:CM:7:VAL:HG12	13:CM:7:VAL:O	2.14	0.48
1:AA:1220:G:O3'	19:AS:36:ARG:HD3	2.13	0.48
6:AF:21:LEU:O	6:AF:24:GLU:HB3	2.13	0.48
39:BF:32:LEU:O	39:BF:36:VAL:HG23	2.14	0.48
3:CC:70:VAL:C	3:CC:106:VAL:HG23	2.33	0.48
13:CM:91:ARG:O	13:CM:95:GLY:N	2.47	0.48
43:BN:33:LEU:O	43:BN:34:LEU:C	2.52	0.48
1:CA:1221:G:OP1	19:CS:36:ARG:HD3	2.13	0.48
48:BS:98:VAL:HG13	48:BS:100:ALA:N	2.18	0.48
34:DA:2349:G:H8	34:DA:2349:G:H5'	1.78	0.48
1:AA:1285:A:H1'	1:AA:1286:A:OP2	2.14	0.48
34:BA:2363:C:O2'	34:BA:2364:C:H5'	2.13	0.48
51:BV:83:ARG:CG	51:BV:83:ARG:NH1	2.77	0.48
41:BH:158:HIS:NE2	41:BH:169:VAL:O	2.46	0.48
41:BH:159:GLU:OE1	41:BH:159:GLU:HA	2.13	0.48
34:DA:2363:C:O2'	34:DA:2364:C:H5'	2.14	0.48
1:CA:439:A:C5	1:CA:441:A:H1'	2.48	0.48
25:D0:53:MET:CE	25:D0:57:PHE:HD1	2.26	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2847:U:C2'	34:BA:2848:G:H5'	2.43	0.48
50:DU:15:LYS:CG	50:DU:16:LYS:N	2.76	0.48
34:DA:2872:G:C2	34:DA:2873:A:N6	2.82	0.48
34:BA:360:G:H2'	34:BA:361:G:H8	1.78	0.48
39:BF:83:PHE:O	39:BF:84:VAL:HB	2.13	0.48
8:AH:134:ILE:HG22	8:AH:135:CYS:SG	2.54	0.48
16:CP:39:TYR:CD2	16:CP:73:LEU:HD11	2.49	0.48
8:CH:6:ILE:CG2	8:CH:85:ARG:HH12	2.25	0.48
44:DO:79:PHE:HD2	49:DT:72:VAL:HG22	1.78	0.48
52:BW:27:LYS:H	52:BW:71:VAL:HB	1.77	0.48
34:DA:2653:U:H5'	34:DA:2654:A:C5'	2.44	0.48
34:BA:1773:A:H2'	34:BA:1774:C:C5'	2.43	0.48
16:AP:82:GLN:NE2	16:AP:82:GLN:N	2.61	0.48
17:AQ:4:LYS:HG3	17:AQ:5:VAL:N	2.29	0.48
35:BB:11:C:OP2	35:BB:12:C:H5	1.97	0.48
34:BA:2162:G:H5'	34:BA:2171:A:C5'	2.43	0.48
4:CD:56:VAL:O	4:CD:58:LEU:N	2.47	0.48
34:BA:608:A:C2	34:BA:609:A:C4	3.02	0.48
34:DA:307:G:H21	34:DA:330:A:N6	2.12	0.48
2:CB:12:GLU:C	2:CB:14:GLY:N	2.65	0.48
3:AC:120:VAL:HG13	3:AC:124:ILE:HD11	1.96	0.48
11:AK:92:GLU:C	11:AK:94:ALA:H	2.17	0.48
20:CT:75:ASN:O	20:CT:76:ALA:C	2.50	0.48
55:DZ:6:LYS:HD3	55:DZ:6:LYS:N	2.29	0.48
34:DA:1523:U:H2'	34:DA:1524:G:C8	2.48	0.48
34:BA:912:C:H2'	34:BA:913:U:H6	1.78	0.48
28:D3:35:ARG:NE	28:D3:37:LEU:HD21	2.28	0.48
34:DA:1300:U:O2'	34:DA:1626:G:C2	2.61	0.48
52:DW:1:MET:HG3	52:DW:2:GLU:H	1.79	0.48
34:BA:900:A:H3'	34:BA:901:A:H8	1.79	0.48
34:BA:901:A:H2'	34:BA:901:A:N3	2.28	0.48
40:DG:77:ILE:HG22	40:DG:80:PHE:H	1.78	0.48
34:DA:839:U:H1'	34:DA:1191:G:H1'	1.95	0.48
10:CJ:28:ARG:HG2	10:CJ:28:ARG:HH11	1.79	0.48
1:CA:723:U:O2	1:CA:723:U:H2'	2.14	0.48
49:BT:36:GLU:HG2	49:BT:36:GLU:O	2.13	0.48
13:AM:58:GLU:OE1	13:AM:58:GLU:HA	2.14	0.48
34:DA:1201:C:O2'	34:DA:1202:C:H5'	2.13	0.48
34:DA:994:C:H1'	51:DV:10:LYS:NZ	2.28	0.48
34:BA:1899:G:N2	34:BA:1902:C:C5	2.81	0.48
1:CA:976:G:N2	1:CA:1362:C:H2'	2.29	0.48
34:BA:614:U:H4'	34:BA:614(C):A:H62	1.79	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DI:93:THR:CG2	42:DI:119:PRO:HB3	2.40	0.48
42:DI:123:LEU:HD23	42:DI:142:VAL:HB	1.95	0.48
42:DI:145:VAL:CG1	42:DI:146:ALA:N	2.76	0.48
1:AA:1347:G:H8	9:AI:107:ARG:HB3	1.76	0.48
39:DF:200:GLU:O	39:DF:203:GLN:HB2	2.14	0.48
40:BG:130:ASN:OD1	40:BG:161:THR:N	2.41	0.48
41:BH:137:ASP:HB3	41:BH:140:LYS:HB2	1.96	0.48
5:AE:77:PRO:HG2	5:AE:142:LEU:HD22	1.96	0.48
42:DI:8:PRO:HA	42:DI:13:GLY:O	2.13	0.48
10:CJ:40:LEU:HD21	10:CJ:69:ASN:C	2.34	0.48
34:DA:2639:A:C2'	34:DA:2640:G:C5'	2.89	0.48
26:D1:64:ALA:HA	26:D1:67:ILE:HG13	1.96	0.48
53:DX:56:THR:HA	53:DX:77:LYS:CB	2.40	0.48
1:CA:1308:U:H2'	1:CA:1309:G:C8	2.48	0.48
1:CA:1308:U:OP1	13:CM:98:VAL:N	2.47	0.48
43:BN:120:LEU:HD13	43:BN:121:LYS:N	2.28	0.48
34:DA:812:C:O2'	34:DA:813:U:H5'	2.13	0.48
50:DU:35:ALA:O	50:DU:36:ARG:C	2.52	0.48
34:BA:2377:A:H4'	48:BS:107:GLU:CG	2.43	0.48
40:DG:34:LEU:HD21	40:DG:159:VAL:HG23	1.95	0.48
41:BH:87:LEU:HA	41:BH:163:TYR:O	2.13	0.48
46:BQ:65:PHE:HB2	46:BQ:105:GLU:HG3	1.95	0.48
49:DT:101:PHE:CE2	49:DT:113:LYS:HD3	2.49	0.48
39:DF:110:LEU:O	39:DF:113:ALA:HB3	2.14	0.48
34:DA:2847:U:C2'	34:DA:2848:G:H5'	2.43	0.48
34:BA:657:U:C2	34:BA:658:C:C5	3.02	0.48
46:DQ:26:TYR:HA	55:DZ:81:ARG:HH21	1.78	0.48
4:CD:11:LEU:O	4:CD:12:CYS:C	2.52	0.48
34:DA:2362:G:C2'	34:DA:2363:C:H5'	2.43	0.48
34:DA:39:C:H2'	34:DA:40:C:C6	2.49	0.48
34:BA:1747(A):G:H2'	34:BA:1748:G:C5'	2.38	0.48
25:D0:42:GLY:HA2	25:D0:57:PHE:CE2	2.48	0.48
34:DA:271(A):A:H5'	34:DA:271(B):C:OP2	2.14	0.48
6:AF:26:ILE:O	6:AF:30:LEU:HG	2.13	0.48
8:CH:29:SER:HB3	8:CH:32:LYS:CD	2.38	0.48
8:CH:29:SER:HB3	8:CH:32:LYS:HB2	1.96	0.48
40:BG:8:LYS:O	40:BG:11:TYR:HB3	2.14	0.48
2:AB:83:MET:O	2:AB:85:ALA:N	2.46	0.48
26:B1:74:VAL:C	26:B1:76:ARG:H	2.17	0.48
9:CI:50:LEU:O	9:CI:54:ASP:N	2.46	0.48
34:BA:1040:C:H42	34:BA:1116:C:H42	1.61	0.48
34:DA:2671:A:H2'	34:DA:2672:G:H8	1.77	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BB:61:G:C6	35:BB:62:C:C4	3.02	0.48
40:BG:112:PRO:C	40:BG:113:ARG:HG2	2.34	0.48
19:CS:41:VAL:O	19:CS:44:MET:HB2	2.14	0.48
1:CA:963:G:N2	10:CJ:55:LYS:HZ3	2.11	0.48
34:DA:784:A:N6	34:DA:2072:G:O2'	2.46	0.48
47:BR:18:LEU:HD11	47:BR:22:ARG:NE	2.29	0.48
10:AJ:47:PHE:HE1	10:AJ:63:PHE:CD2	2.32	0.48
47:DR:79:LEU:HA	47:DR:83:ILE:HB	1.95	0.48
39:BF:10:PRO:HG2	39:BF:11:VAL:N	2.28	0.48
1:CA:1070:U:H2'	1:CA:1071:C:C6	2.47	0.48
15:AO:67:LEU:HD22	15:AO:78:TYR:CE1	2.48	0.48
34:DA:1195:G:C2'	34:DA:1196:C:H5'	2.44	0.48
20:CT:63:ILE:O	20:CT:66:ALA:N	2.45	0.48
34:BA:1602:U:H3'	34:BA:1603:A:H5''	1.96	0.48
34:DA:1165:U:O2'	34:DA:1166:C:H5'	2.13	0.48
34:DA:1243:G:O2'	45:DP:9:ASN:HA	2.13	0.48
20:CT:34:LYS:O	20:CT:35:THR:C	2.51	0.48
34:DA:2228:G:H2'	34:DA:2229:C:H6	1.78	0.48
1:AA:92:C:H2'	1:AA:93:G:C8	2.49	0.48
34:BA:1625:C:C2'	34:BA:1626:G:H5'	2.43	0.48
1:CA:544:G:C4	1:CA:545:C:C5	3.02	0.48
1:AA:651:C:H2'	1:AA:652:U:C6	2.49	0.48
1:CA:138:G:H2'	1:CA:139:G:H8	1.78	0.48
34:DA:723:G:H2'	34:DA:724:U:O4'	2.13	0.48
8:CH:45:ILE:HB	8:CH:62:TYR:O	2.13	0.48
36:DC:183:GLU:CB	36:DC:186:ALA:HB3	2.44	0.48
1:AA:1001(A):G:O2'	1:AA:1002:G:H5'	2.12	0.48
35:DB:97:G:C2	35:DB:98:G:C8	3.02	0.48
22:AV:14:A:C6	22:AV:22:G:C5	3.02	0.48
34:DA:901:A:H2'	34:DA:901:A:N3	2.29	0.48
46:DQ:114:ALA:O	46:DQ:117:ALA:HB3	2.13	0.48
54:BY:3:VAL:HG12	54:BY:3:VAL:O	2.14	0.48
37:DD:166:GLN:HE21	37:DD:166:GLN:CA	2.27	0.48
34:BA:1526:G:H1	34:BA:1546:C:H42	1.62	0.48
50:DU:50:ARG:CZ	51:DV:75:PHE:HE2	2.27	0.48
34:BA:2127:G:H2'	34:BA:2128:C:N1	2.27	0.48
39:DF:115:ALA:O	39:DF:118:ALA:N	2.47	0.48
48:DS:15:ARG:C	48:DS:17:ARG:N	2.66	0.48
1:AA:1442:G:N9	1:AA:1442:G:H5'	2.28	0.48
48:BS:15:ARG:HG3	48:BS:15:ARG:NH1	2.28	0.48
1:CA:951:G:OP2	13:CM:102:ARG:CZ	2.61	0.48
1:CA:1162:C:H2'	1:CA:1163:C:C6	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:BY:9:LYS:HA	54:BY:30:VAL:HG21	1.95	0.48
37:BD:80:ALA:HB3	37:BD:94:LEU:CD1	2.44	0.48
42:DI:79:ILE:CG1	42:DI:140:LEU:HD21	2.44	0.48
54:DY:17:SER:OG	54:DY:18:GLY:N	2.41	0.48
46:DQ:141:GLN:NE2	55:DZ:70:LEU:HB2	2.28	0.48
29:D4:1:MET:H2	40:DG:67:LYS:NZ	2.12	0.48
2:CB:19:HIS:HE1	2:CB:206:ASP:HB2	1.78	0.48
31:D6:10:LEU:HD13	33:D8:36:LYS:HD3	1.96	0.48
33:D8:13:ARG:HB3	45:DP:63:PRO:CA	2.42	0.48
45:BP:47:ASP:CB	45:BP:48:PRO:CA	2.89	0.48
33:B8:12:LYS:HA	45:BP:65:ARG:HD2	1.96	0.48
12:AL:45:PRO:HG2	12:AL:51:ALA:N	2.28	0.48
40:BG:86:MET:HG3	40:BG:87:PRO:CD	2.38	0.48
43:DN:112:LEU:O	43:DN:116:LEU:N	2.37	0.48
41:DH:85:LYS:HE3	41:DH:144:VAL:C	2.34	0.48
10:AJ:48:THR:CB	10:AJ:62:HIS:HB3	2.43	0.48
26:D1:47:GLN:O	26:D1:48:LYS:C	2.51	0.48
26:D1:9:GLY:O	26:D1:10:LYS:CG	2.47	0.48
38:BE:117:MET:HE1	38:BE:124:GLY:HA3	1.96	0.48
1:AA:106:C:O2'	1:AA:107:G:H5'	2.14	0.48
10:AJ:39:PRO:CA	10:AJ:70:ARG:NH1	2.74	0.48
5:CE:71:LEU:HD22	5:CE:115:VAL:HG13	1.95	0.48
46:DQ:34:LEU:HD11	46:DQ:129:THR:CB	2.44	0.48
26:D1:73:LEU:CD1	26:D1:90:ILE:HG22	2.42	0.48
26:D1:85:LEU:HB3	26:D1:87:PRO:CD	2.39	0.48
34:BA:1952:A:N3	34:BA:2560:C:O2'	2.38	0.48
1:AA:1321:C:H3'	1:AA:1322:C:H6	1.78	0.48
19:CS:16:LEU:HA	19:CS:19:VAL:HB	1.96	0.48
34:DA:1948:G:H8	34:DA:1948:G:C5'	2.17	0.48
45:BP:70:GLN:HG3	45:BP:71:VAL:H	1.79	0.48
27:D2:45:SER:O	27:D2:48:HIS:HB3	2.14	0.48
27:D2:14:ARG:HD3	27:D2:57:ILE:HB	1.96	0.48
1:AA:1526:G:C6	1:AA:1527:C:N4	2.82	0.48
34:BA:64:A:H2'	34:BA:65:C:C6	2.47	0.48
53:BX:70:LEU:CG	53:BX:71:GLY:N	2.77	0.48
47:DR:10:LEU:CB	47:DR:17:ARG:HD2	2.36	0.48
22:AV:47:U:H3'	22:AV:48:C:C5'	2.44	0.48
54:DY:2:ARG:HH11	54:DY:2:ARG:HG2	1.79	0.48
34:BA:295:G:OP1	54:BY:2:ARG:HD3	2.14	0.48
46:DQ:26:TYR:O	46:DQ:67:ARG:NH1	2.47	0.48
1:AA:738:C:H5'	6:AF:72:VAL:HG11	1.96	0.48
34:DA:537:C:C2	34:DA:538:G:C8	3.02	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1668:A:H4'	34:BA:1669:A:O5'	2.13	0.48
34:BA:2801(A):A:O2'	34:BA:2803:C:H5	1.93	0.48
13:CM:13:LYS:CA	13:CM:44:ARG:HH11	2.23	0.48
1:CA:674:G:O2'	1:CA:675:A:H5'	2.14	0.48
9:CI:50:LEU:C	9:CI:52:ALA:H	2.17	0.48
15:CO:69:TYR:CE2	15:CO:73:GLU:HG3	2.48	0.48
5:CE:147:ASP:HA	5:CE:150:ARG:CB	2.42	0.48
1:AA:501:C:O2'	1:AA:502:G:H5'	2.13	0.48
55:BZ:104:PHE:HA	55:BZ:139:VAL:HB	1.96	0.48
40:BG:112:PRO:HB2	40:BG:113:ARG:HG2	1.96	0.48
40:BG:131:TYR:HB3	40:BG:159:VAL:HG13	1.95	0.48
34:DA:1568:G:H21	37:DD:58:HIS:HE1	1.60	0.48
44:BO:120:GLU:HG2	49:BT:67:SER:OG	2.13	0.48
34:BA:869:G:O2'	34:BA:870:A:H5'	2.13	0.48
37:DD:45:ASN:OD1	37:DD:46:GLN:N	2.47	0.48
55:DZ:145:GLU:HG3	55:DZ:146:ILE:HG12	1.96	0.48
42:DI:29:TYR:C	42:DI:32:PRO:HD2	2.34	0.48
1:AA:237:C:H4'	17:AQ:25:ARG:HH12	1.78	0.48
10:CJ:45:ARG:HG3	10:CJ:45:ARG:NH1	2.28	0.48
34:DA:2019:A:C2'	34:DA:2020:A:O5'	2.60	0.48
52:BW:1:MET:HG3	52:BW:2:GLU:H	1.79	0.48
34:DA:1445:A:C5'	34:DA:1445(A):C:H5	2.27	0.48
1:AA:573:A:C2	1:AA:574:A:C2	3.02	0.48
34:BA:2192:G:C2	34:BA:2193:G:C8	3.02	0.48
33:D8:2:PRO:O	33:D8:3:LYS:O	2.31	0.48
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.48	0.48
1:AA:487:A:H2'	1:AA:488:C:O4'	2.14	0.48
34:DA:719:C:O2'	34:DA:720:C:H5'	2.14	0.48
1:AA:125:U:H2'	1:AA:126:G:C8	2.49	0.48
34:BA:1146:C:O2'	34:BA:1147:C:H5'	2.14	0.48
37:DD:149:PRO:O	37:DD:150:LYS:HB2	2.14	0.48
48:DS:89:ARG:N	48:DS:89:ARG:HE	2.10	0.48
38:DE:52:LEU:N	38:DE:76:ARG:HB3	2.27	0.48
53:DX:40:LYS:HG3	53:DX:41:ASN:N	2.28	0.48
48:BS:15:ARG:C	48:BS:17:ARG:N	2.64	0.48
48:BS:97:ARG:HG3	48:BS:97:ARG:O	2.14	0.48
38:BE:35:GLN:NE2	38:BE:37:ARG:HH21	2.11	0.48
46:DQ:82:ARG:O	46:DQ:83:MET:CB	2.62	0.48
45:DP:101:VAL:HG23	45:DP:107:LYS:CA	2.33	0.48
33:B8:31:HIS:O	33:B8:33:ASN:N	2.47	0.48
46:BQ:8:LYS:HE3	46:BQ:9:TYR:CD1	2.49	0.48
48:BS:77:ALA:O	48:BS:78:LEU:C	2.53	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BS:78:LEU:HD23	48:BS:82:ILE:O	2.13	0.48
34:BA:2030:A:H4'	34:BA:2031:A:C8	2.47	0.48
34:DA:578:A:OP1	34:DA:1255:U:O2'	2.26	0.48
54:DY:86:ARG:NH2	54:DY:95:LYS:HZ3	2.12	0.48
40:DG:110:ALA:O	40:DG:113:ARG:N	2.47	0.48
3:AC:70:VAL:CG1	3:AC:71:ALA:H	2.26	0.48
13:AM:97:PRO:HA	13:AM:110:ARG:HD3	1.95	0.48
34:DA:826:U:H2'	34:DA:828:U:O4'	2.13	0.48
34:BA:863:A:O2'	34:BA:864:G:H5'	2.14	0.48
13:CM:91:ARG:CG	13:CM:98:VAL:HG11	2.39	0.48
5:CE:122:GLU:OE1	5:CE:131:ILE:HG13	2.14	0.48
47:DR:60:LEU:HD23	47:DR:61:HIS:N	2.29	0.48
27:D2:47:ASN:O	27:D2:51:ARG:O	2.32	0.48
34:DA:813:U:C2	34:DA:814:C:C5	3.02	0.48
1:AA:1495:U:H2'	1:AA:1496:C:H6	1.79	0.48
1:AA:1065:U:H5''	1:AA:1190:G:N2	2.29	0.48
3:AC:19:GLU:O	3:AC:56:ASP:HA	2.14	0.48
1:CA:1285:A:H8	1:CA:1285:A:OP1	1.96	0.48
54:BY:48:ALA:CB	54:BY:59:GLY:H	2.16	0.48
34:DA:1449:A:N3	34:DA:1529:G:H1'	2.29	0.48
34:BA:2306:C:OP2	34:BA:2307:G:C8	2.67	0.48
34:DA:2646:C:OP2	34:DA:2732:G:O2'	2.32	0.48
19:CS:31:ILE:O	19:CS:31:ILE:HG23	2.14	0.48
37:DD:69:ARG:HD2	37:DD:119:ALA:HB2	1.96	0.48
5:AE:50:GLU:HG3	5:AE:52:PRO:CD	2.41	0.48
8:AH:36:LEU:O	8:AH:39:LEU:N	2.47	0.48
34:BA:2886:G:H2'	34:BA:2887:U:C6	2.49	0.48
55:DZ:60:GLU:HA	55:DZ:65:GLN:O	2.13	0.48
1:CA:1168:A:H2'	1:CA:1169:A:H8	1.76	0.48
2:AB:80:ILE:HG13	2:AB:81:VAL:H	1.78	0.48
34:BA:2707:G:H2'	34:BA:2708:G:H8	1.79	0.48
1:AA:34:C:HO2'	1:AA:35:G:H5'	1.79	0.48
10:CJ:96:ILE:N	10:CJ:96:ILE:CD1	2.76	0.48
15:CO:54:ARG:HG2	15:CO:58:MET:HE2	1.96	0.48
6:AF:100:ASN:HD21	18:AR:23:LYS:HE3	1.78	0.48
3:AC:18:TRP:NE1	14:AN:55:GLY:N	2.62	0.48
18:AR:36:ASN:HD22	18:AR:39:VAL:CG2	2.26	0.48
19:CS:29:ARG:O	19:CS:30:LEU:C	2.52	0.48
34:DA:1115:G:H8	34:DA:1115:G:H5'	1.77	0.48
34:BA:1112:G:O2'	34:BA:1113:U:H5''	2.14	0.48
23:AW:24:G:O2'	23:AW:25:C:H5'	2.13	0.48
7:AG:101:LEU:O	7:AG:104:LEU:HB2	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:30:LYS:C	4:CD:32:ALA:N	2.66	0.48
46:BQ:22:LYS:HE2	46:BQ:22:LYS:HA	1.96	0.48
18:AR:35:ARG:C	18:AR:37:VAL:H	2.14	0.48
34:BA:235:U:O2'	34:BA:236:C:H5'	2.14	0.48
28:D3:23:LEU:H	28:D3:23:LEU:HD12	1.78	0.48
17:AQ:38:ARG:HE	17:AQ:38:ARG:CA	2.24	0.48
34:DA:646:A:H3'	34:DA:647:G:C8	2.48	0.48
34:DA:2277:G:O2'	34:DA:2278:A:H5'	2.14	0.48
36:BC:77:ILE:HG21	36:BC:122:ALA:CA	2.44	0.48
1:CA:824:C:H4'	8:CH:1:MET:H1	1.78	0.48
31:D6:27:LYS:HE3	34:DA:2285:C:H5	1.79	0.48
28:D3:26:LEU:HD21	28:D3:46:ASN:HB2	1.96	0.48
39:BF:107:LYS:C	39:BF:109:GLY:H	2.16	0.48
20:CT:73:HIS:O	20:CT:74:LYS:C	2.52	0.48
1:AA:1298:C:H4'	1:AA:1299:A:O4'	2.13	0.48
34:BA:2065:C:H2'	34:BA:2066:C:H6	1.79	0.48
1:CA:908:A:H2'	1:CA:909:A:C8	2.49	0.48
8:CH:23:SER:HB3	8:CH:62:TYR:CD1	2.49	0.48
40:BG:120:LEU:HB2	40:BG:179:PRO:O	2.14	0.48
3:CC:111:LEU:HD21	3:CC:145:GLY:O	2.14	0.48
38:DE:35:GLN:NE2	38:DE:37:ARG:HH21	2.11	0.47
48:BS:89:ARG:O	48:BS:92:TYR:CB	2.59	0.47
34:BA:2636:U:H2'	34:BA:2637:U:C5'	2.44	0.47
38:BE:96:PHE:HA	38:BE:100:GLU:OE1	2.14	0.47
54:DY:28:LYS:CB	54:DY:37:VAL:HB	2.44	0.47
55:DZ:24:LEU:CD2	55:DZ:86:VAL:HG23	2.43	0.47
38:DE:201:THR:HG22	38:DE:203:LYS:N	2.05	0.47
55:BZ:120:ILE:O	55:BZ:121:HIS:HB2	2.14	0.47
40:BG:71:THR:HB	40:BG:89:GLY:C	2.35	0.47
43:DN:38:HIS:CE1	43:DN:50:ASP:OD2	2.67	0.47
41:DH:72:ILE:O	41:DH:75:ALA:N	2.46	0.47
43:BN:39:ARG:HD3	43:BN:41:ASP:H	1.79	0.47
37:BD:174:ILE:CD1	37:BD:174:ILE:H	2.07	0.47
47:BR:5:LYS:H	47:BR:5:LYS:CD	2.24	0.47
34:BA:1341:U:P	34:BA:1397:U:H3	2.37	0.47
53:BX:77:LYS:CE	53:BX:78:LYS:HD2	2.44	0.47
46:DQ:17:LEU:HD23	46:DQ:17:LEU:N	2.29	0.47
34:BA:2639:A:C3'	34:BA:2640:G:H5''	2.43	0.47
30:B5:57:VAL:C	30:B5:58:LEU:HD12	2.34	0.47
1:AA:1308:U:H2'	1:AA:1309:G:C8	2.48	0.47
1:CA:16:A:C2'	1:CA:17:U:H5'	2.43	0.47
1:AA:16:A:C2'	1:AA:17:U:H5'	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:13:ASN:O	6:CF:14:LEU:HD23	2.14	0.47
11:CK:44:SER:OG	11:CK:47:VAL:HG23	2.13	0.47
34:DA:1024:G:O5'	34:DA:1024:G:H8	1.96	0.47
14:AN:4:LYS:O	14:AN:7:ILE:HG12	2.14	0.47
38:DE:14:ILE:CG1	38:DE:21:VAL:HG23	2.43	0.47
53:BX:67:GLY:O	53:BX:68:ARG:HG2	2.12	0.47
34:BA:1614:A:H2'	34:BA:1615:C:H5'	1.96	0.47
1:CA:1285:A:H1'	1:CA:1286:A:OP2	2.14	0.47
25:B0:36:ILE:H	25:B0:36:ILE:HD13	1.78	0.47
29:B4:6:HIS:N	40:BG:67:LYS:CE	2.76	0.47
41:DH:130:ARG:HB3	41:DH:130:ARG:NH1	2.28	0.47
49:BT:101:PHE:CE2	49:BT:113:LYS:HD3	2.49	0.47
1:AA:1469:G:H2'	1:AA:1470:G:H8	1.79	0.47
44:DO:103:ALA:HB1	44:DO:105:GLU:CD	2.33	0.47
5:CE:6:PHE:HB3	5:CE:35:GLY:O	2.14	0.47
34:DA:2576:G:O2'	34:DA:2579:C:OP2	2.31	0.47
47:BR:104:ARG:HG2	47:BR:104:ARG:NH1	2.28	0.47
40:BG:5:VAL:O	40:BG:8:LYS:HB3	2.14	0.47
51:BV:13:ARG:HG3	51:BV:13:ARG:NH1	2.30	0.47
54:BY:31:LEU:CB	54:BY:32:PRO:HA	2.42	0.47
34:BA:2748:A:H2'	34:BA:2749:A:O4'	2.14	0.47
1:AA:482:A:H2'	1:AA:483:C:O4'	2.14	0.47
29:D4:13:ARG:HA	40:DG:101:ILE:HD12	1.95	0.47
10:AJ:63:PHE:HZ	14:AN:45:ARG:HG3	1.79	0.47
13:CM:82:MET:O	13:CM:83:ASP:C	2.52	0.47
13:CM:83:ASP:CG	13:CM:84:ILE:N	2.66	0.47
51:BV:66:ARG:HG3	51:BV:66:ARG:HH11	1.79	0.47
37:BD:224:ALA:O	37:BD:225:ALA:CB	2.62	0.47
39:BF:192:LEU:C	39:BF:192:LEU:HD23	2.34	0.47
3:CC:121:ALA:O	3:CC:125:GLU:HG3	2.14	0.47
2:CB:12:GLU:O	2:CB:14:GLY:N	2.47	0.47
40:DG:35:GLU:HG2	40:DG:36:LYS:N	2.28	0.47
1:CA:946:A:C2	1:CA:1236:A:C2	3.02	0.47
34:BA:1439:A:H2'	34:BA:1440:G:O4'	2.14	0.47
1:CA:1000:U:H2'	1:CA:1001:A:H8	1.79	0.47
1:CA:1402:C:O2	1:CA:1500:A:N1	2.47	0.47
34:BA:1662:C:O2'	34:BA:1663:C:H5'	2.14	0.47
34:BA:1445:A:C5'	34:BA:1445(A):C:H5	2.27	0.47
1:AA:1300:G:O2'	1:AA:1301:U:P	2.72	0.47
37:BD:210:GLY:O	37:BD:211:ARG:HB3	2.13	0.47
1:AA:830:G:O2'	1:AA:831:U:H5'	2.14	0.47
1:AA:832:C:O2'	1:AA:833:U:P	2.71	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2648:C:O2'	34:BA:2649:U:H5'	2.13	0.47
4:AD:150:GLU:H	4:AD:150:GLU:CD	2.18	0.47
34:BA:256:A:H2'	34:BA:257:A:H8	1.79	0.47
13:AM:39:ILE:O	13:AM:41:PRO:HD3	2.13	0.47
4:AD:157:LEU:C	4:AD:159:ARG:N	2.66	0.47
4:CD:150:GLU:CD	4:CD:150:GLU:H	2.16	0.47
1:CA:600:C:O2'	1:CA:601:C:H5'	2.13	0.47
49:DT:36:GLU:HG2	49:DT:36:GLU:O	2.13	0.47
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.14	0.47
1:AA:158:G:O2'	1:AA:159:G:H5'	2.12	0.47
1:AA:218:C:O2'	1:AA:219:C:H5'	2.14	0.47
2:AB:73:THR:HG22	2:AB:95:GLN:O	2.14	0.47
10:CJ:79:ARG:HH11	10:CJ:79:ARG:HG2	1.79	0.47
1:AA:1511:G:O2'	1:AA:1512:U:H5'	2.14	0.47
28:B3:59:VAL:CG1	28:B3:60:GLU:N	2.77	0.47
1:CA:692:U:H2'	1:CA:694:A:OP2	2.14	0.47
42:BI:78:THR:OG1	42:BI:141:LYS:HB2	2.13	0.47
42:BI:92:VAL:HG22	42:BI:97:ILE:CG1	2.44	0.47
37:DD:70:TRP:O	37:DD:71:ASP:C	2.51	0.47
48:DS:27:SER:HA	48:DS:88:ASP:OD1	2.14	0.47
34:DA:2776:A:C6	34:DA:2782:G:H1'	2.48	0.47
49:DT:28:VAL:HG22	49:DT:46:GLU:HA	1.96	0.47
34:BA:626:U:O2	45:BP:105:LEU:HG	2.13	0.47
49:BT:29:ARG:HG3	49:BT:30:VAL:H	1.79	0.47
49:BT:29:ARG:HG2	49:BT:86:ILE:N	2.29	0.47
2:AB:164:VAL:CG1	2:AB:165:VAL:N	2.76	0.47
2:AB:19:HIS:CG	2:AB:20:GLU:H	2.32	0.47
2:AB:49:GLU:O	2:AB:52:GLU:HB3	2.14	0.47
43:BN:67:LEU:O	43:BN:68:GLU:CB	2.62	0.47
34:BA:310:A:P	54:BY:18:GLY:HA2	2.54	0.47
34:DA:2495:G:H5''	46:DQ:81:VAL:HG22	1.96	0.47
42:DI:139:GLN:HG2	42:DI:140:LEU:N	2.29	0.47
2:CB:19:HIS:HD2	2:CB:189:ASP:OD2	1.97	0.47
33:D8:32:LEU:CD2	33:D8:35:GLN:O	2.61	0.47
22:CV:70:G:C2'	22:CV:71:C:C5'	2.73	0.47
48:DS:72:ALA:O	48:DS:76:LYS:HB2	2.14	0.47
43:DN:39:ARG:HD3	43:DN:39:ARG:O	2.14	0.47
47:BR:60:LEU:O	47:BR:61:HIS:C	2.52	0.47
42:BI:12:LEU:N	42:BI:12:LEU:HD23	2.30	0.47
5:AE:139:LEU:C	5:AE:141:GLN:H	2.16	0.47
34:DA:1496:A:H5'	34:DA:1497:U:OP2	2.14	0.47
1:AA:107:G:O2'	1:AA:108:G:H5'	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DH:32:GLU:O	41:DH:33:LEU:HD23	2.13	0.47
34:BA:1718:G:C8	34:BA:1718:G:H5'	2.49	0.47
13:CM:19:LEU:HA	13:CM:22:ILE:CD1	2.40	0.47
40:DG:115:ARG:HH21	40:DG:136:ARG:CB	2.27	0.47
34:DA:2011:U:H2'	34:DA:2012:G:C5'	2.44	0.47
34:BA:1952:A:C5	44:BO:22:ILE:HD12	2.49	0.47
19:AS:15:LEU:N	19:AS:15:LEU:HD22	2.30	0.47
19:AS:31:ILE:O	19:AS:31:ILE:HG23	2.14	0.47
3:AC:188:LEU:CD2	3:AC:188:LEU:N	2.76	0.47
46:BQ:103:MET:HE1	46:BQ:125:LEU:HD13	1.95	0.47
34:DA:2684:U:O2'	34:DA:2685:G:H5'	2.14	0.47
1:CA:995:C:O2'	1:CA:996:A:H5'	2.14	0.47
1:CA:958:A:C6	1:CA:959:A:C6	3.02	0.47
3:CC:53:ALA:O	3:CC:54:ARG:CB	2.54	0.47
27:D2:49:LYS:HA	27:D2:53:LEU:HB2	1.96	0.47
34:BA:1449:A:N3	34:BA:1529:G:H1'	2.29	0.47
34:DA:1141:U:H2'	43:DN:63:THR:HG21	1.91	0.47
34:DA:1142(A):A:C4	34:DA:1144:G:N7	2.83	0.47
25:B0:36:ILE:HD13	34:BA:2354:G:O2'	2.14	0.47
35:DB:41:U:C4	40:DG:70:VAL:O	2.67	0.47
40:DG:81:LYS:O	40:DG:82:LEU:O	2.32	0.47
26:D1:42:GLN:HG3	26:D1:43:TYR:N	2.29	0.47
34:BA:1131:G:N3	34:BA:1132:A:C8	2.82	0.47
17:CQ:74:LEU:HD13	17:CQ:74:LEU:C	2.34	0.47
12:CL:62:SER:O	12:CL:64:TYR:HD1	1.97	0.47
34:DA:1713:U:O2	34:DA:1747:G:C2	2.67	0.47
15:CO:56:LEU:C	15:CO:60:VAL:HG23	2.35	0.47
34:BA:1572:A:O2'	34:BA:1573:G:H5'	2.14	0.47
34:BA:1993:U:H4'	38:BE:128:SER:HB3	1.95	0.47
34:DA:1991:U:H2'	34:DA:1992:G:H5'	1.96	0.47
5:AE:40:ARG:HH11	5:AE:40:ARG:HG2	1.80	0.47
34:BA:811:U:C3'	45:BP:25:SER:O	2.58	0.47
7:CG:84:ASN:HD22	7:CG:84:ASN:N	2.12	0.47
1:CA:522:C:H2'	1:CA:523:A:C8	2.48	0.47
13:AM:108:ARG:HH11	13:AM:108:ARG:HG3	1.79	0.47
51:BV:4:ILE:HD12	51:BV:40:LEU:HD21	1.95	0.47
7:AG:147:ALA:C	7:AG:148:ASN:HD22	2.16	0.47
34:BA:1386:C:OP2	34:BA:1396:U:H5	1.97	0.47
9:CI:118:LYS:HB3	9:CI:118:LYS:NZ	2.29	0.47
55:BZ:141:VAL:CG2	55:BZ:144:LEU:HD23	2.42	0.47
1:AA:1423:G:O2'	1:AA:1424:C:H5'	2.14	0.47
13:AM:82:MET:O	13:AM:83:ASP:C	2.52	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:B1:37:ILE:HG22	26:B1:38:SER:N	2.29	0.47
34:DA:322:A:H5'	34:DA:340:A:H1'	1.97	0.47
10:AJ:45:ARG:NH1	10:AJ:45:ARG:HG3	2.28	0.47
4:CD:147:ALA:HB2	4:CD:182:LYS:HB2	1.95	0.47
27:B2:31:GLU:OE1	27:B2:31:GLU:HA	2.14	0.47
34:BA:523:C:H2'	34:BA:524:U:H5'	1.96	0.47
52:BW:55:ALA:O	52:BW:58:ALA:HB3	2.15	0.47
20:AT:92:LEU:C	20:AT:94:ALA:H	2.17	0.47
37:BD:210:GLY:O	37:BD:211:ARG:CB	2.62	0.47
55:BZ:75:ASN:C	55:BZ:76:LEU:HD23	2.34	0.47
1:AA:802:A:H2'	1:AA:803:G:C5'	2.44	0.47
1:AA:601:C:H2'	1:AA:602:A:C8	2.49	0.47
13:AM:38:GLY:O	13:AM:39:ILE:HG13	2.14	0.47
34:DA:2200:C:H42	34:DA:2223:G:H1	1.62	0.47
15:CO:9:GLN:O	15:CO:10:LYS:C	2.52	0.47
31:D6:30:THR:O	31:D6:31:PRO:C	2.52	0.47
1:CA:452:A:O2'	1:CA:453:A:H8	1.96	0.47
34:BA:1475:G:H2'	34:BA:1475:G:N3	2.30	0.47
19:CS:33:THR:OG1	19:CS:34:TRP:N	2.46	0.47
17:AQ:94:ASN:O	17:AQ:95:TYR:C	2.51	0.47
34:BA:1011:G:OP1	50:BU:75:ASN:HB3	2.13	0.47
1:AA:81:U:H2'	1:AA:82:U:C6	2.50	0.47
1:CA:218:C:O2'	1:CA:219:C:H5'	2.14	0.47
45:BP:29:LYS:HD2	45:BP:29:LYS:N	2.28	0.47
45:DP:149:GLU:O	45:DP:149:GLU:HG3	2.14	0.47
36:BC:99:ILE:HG22	36:BC:99:ILE:O	2.13	0.47
49:BT:129:ARG:NH1	49:BT:131:ALA:H	2.11	0.47
34:BA:1983:C:O2'	34:BA:1984:G:H5'	2.13	0.47
1:AA:22:G:H2'	1:AA:23:C:C6	2.49	0.47
52:BW:66:GLU:O	52:BW:69:LEU:HG	2.14	0.47
34:BA:521:G:H2'	34:BA:522:G:H8	1.79	0.47
51:DV:72:VAL:HA	51:DV:88:ARG:HH22	1.75	0.47
37:DD:35:LYS:CE	37:DD:64:ILE:C	2.81	0.47
34:DA:2784:C:O2'	34:DA:2785:C:H5'	2.13	0.47
45:BP:91:PHE:N	45:BP:91:PHE:CD1	2.82	0.47
48:BS:93:LYS:HE3	48:BS:93:LYS:HA	1.96	0.47
49:BT:115:ARG:HD3	49:BT:115:ARG:HA	1.67	0.47
38:BE:49:LEU:HD22	38:BE:49:LEU:N	2.29	0.47
54:BY:15:VAL:O	54:BY:16:ALA:CB	2.62	0.47
54:BY:28:LYS:O	54:BY:37:VAL:O	2.32	0.47
26:B1:87:PRO:CG	26:B1:88:LYS:N	2.76	0.47
34:BA:1484:G:H8	34:BA:1484:G:O5'	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DQ:81:VAL:HG12	46:DQ:82:ARG:HG2	1.96	0.47
1:AA:976:G:N2	1:AA:1362:C:H2'	2.29	0.47
55:DZ:10:ARG:HD3	55:DZ:12:GLY:HA2	1.95	0.47
2:CB:43:ASP:OD1	2:CB:45:GLN:HB3	2.14	0.47
27:B2:40:SER:OG	27:B2:41:ILE:N	2.45	0.47
27:B2:45:SER:O	27:B2:48:HIS:HB2	2.13	0.47
33:B8:13:ARG:HB3	45:BP:63:PRO:CA	2.44	0.47
13:AM:7:VAL:CG2	40:BG:115:ARG:HA	2.44	0.47
40:BG:63:ILE:HD12	40:BG:63:ILE:C	2.35	0.47
34:BA:2713:A:H3'	34:BA:2714:G:C5'	2.44	0.47
39:DF:21:ALA:C	39:DF:23:ASP:H	2.18	0.47
41:BH:35:VAL:O	41:BH:37:VAL:HG23	2.14	0.47
16:AP:20:VAL:HG22	16:AP:21:VAL:N	2.28	0.47
1:AA:878:G:H5''	8:AH:89:PRO:HG2	1.96	0.47
1:AA:585:G:C4'	12:AL:8:ASN:HD21	2.11	0.47
54:DY:88:LYS:NZ	54:DY:93:GLY:O	2.48	0.47
54:DY:86:ARG:NH1	54:DY:95:LYS:HZ2	2.12	0.47
10:AJ:70:ARG:HG3	10:AJ:70:ARG:NH1	2.09	0.47
45:BP:14:LYS:O	45:BP:15:ARG:CG	2.63	0.47
27:B2:30:ARG:CZ	27:B2:30:ARG:HB3	2.43	0.47
52:DW:4:LYS:HE3	52:DW:6:ILE:HD11	1.95	0.47
1:AA:1057:G:O2'	1:AA:1058:G:H5'	2.15	0.47
43:DN:28:THR:O	43:DN:31:ALA:N	2.48	0.47
34:BA:2011:U:H2'	34:BA:2012:G:C5'	2.44	0.47
1:CA:865:A:H5'	1:CA:1078:U:C4	2.49	0.47
35:BB:78:A:H2'	35:BB:79:C:O4'	2.14	0.47
31:B6:33:LYS:HA	31:B6:33:LYS:CE	2.35	0.47
5:CE:128:PRO:O	5:CE:129:ILE:C	2.53	0.47
34:DA:1024:G:C3'	34:DA:1025:G:H5''	2.34	0.47
19:CS:9:VAL:C	19:CS:11:VAL:H	2.16	0.47
1:AA:1068:G:N7	1:AA:1094:G:C8	2.82	0.47
3:AC:79:ARG:C	3:AC:81:GLY:H	2.17	0.47
34:DA:2312:U:C2'	34:DA:2313:C:C5'	2.90	0.47
34:DA:1902:C:H4'	37:DD:244:ARG:HA	1.95	0.47
34:DA:1449:A:OP2	34:DA:1449:A:H8	1.97	0.47
8:CH:64:LYS:HD2	8:CH:79:VAL:HG21	1.96	0.47
41:DH:159:GLU:HA	41:DH:159:GLU:OE1	2.13	0.47
6:CF:59:TYR:HD2	6:CF:61:LEU:HD11	1.80	0.47
34:BA:1712:C:O2'	34:BA:1713:U:H5'	2.14	0.47
51:DV:47:VAL:CG2	51:DV:48:GLY:H	2.13	0.47
1:CA:1502:A:N3	1:CA:1502:A:C2'	2.76	0.47
14:AN:26:ARG:HH11	14:AN:47:LEU:HD21	1.79	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:528:A:C2	34:BA:2043:C:C4'	2.94	0.47
34:BA:1992:G:O2'	34:BA:1993:U:P	2.73	0.47
34:BA:2580:U:H5'	38:BE:131:ALA:CB	2.44	0.47
34:BA:686:G:N2	34:BA:788:A:N6	2.62	0.47
39:DF:157:VAL:HG12	39:DF:176:LEU:HB3	1.95	0.47
34:DA:2886:G:H2'	34:DA:2887:U:C6	2.50	0.47
1:CA:1128:C:H5'	9:CI:16:ARG:NH1	2.28	0.47
9:CI:5:TYR:HB2	9:CI:18:PHE:CE2	2.48	0.47
34:DA:271(H):G:C6	34:DA:271(Q):G:N1	2.83	0.47
23:AY:30:G:O2'	23:AY:31:A:H5'	2.14	0.47
7:CG:71:PRO:HD3	7:CG:103:TRP:CZ3	2.49	0.47
7:CG:140:ASP:HA	7:CG:143:ARG:NH1	2.28	0.47
52:DW:26:GLY:HA2	52:DW:71:VAL:O	2.15	0.47
34:BA:418:G:O2'	34:BA:419:C:H5'	2.14	0.47
19:AS:29:ARG:O	19:AS:30:LEU:C	2.52	0.47
46:BQ:78:PRO:O	46:BQ:79:LEU:CG	2.62	0.47
38:BE:132:HIS:CD2	38:BE:135:HIS:NE2	2.82	0.47
34:BA:323:G:H2'	39:BF:169:ASN:OD1	2.14	0.47
12:AL:75:HIS:CG	12:AL:76:ASN:N	2.80	0.47
2:AB:98:LEU:H	2:AB:101:MET:HE3	1.79	0.47
12:CL:45:PRO:HG2	12:CL:51:ALA:N	2.30	0.47
37:DD:209:ALA:C	37:DD:210:GLY:O	2.50	0.47
1:AA:824:C:H4'	8:AH:1:MET:H1	1.77	0.47
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.49	0.47
26:D1:53:VAL:CG1	26:D1:55:GLY:H	2.27	0.47
52:BW:56:ALA:O	52:BW:57:ASN:C	2.50	0.47
31:B6:27:LYS:HE3	34:BA:2285:C:H5	1.78	0.47
6:AF:62:TRP:CH2	6:AF:64:GLN:HB2	2.49	0.47
34:BA:1467:C:H42	34:BA:1525:G:H1	1.61	0.47
1:CA:993:G:N3	1:CA:993:G:H2'	2.30	0.47
1:CA:274:A:H4'	1:CA:275:G:OP1	2.14	0.47
52:DW:73:ALA:HB3	52:DW:106:ILE:HD11	1.96	0.47
22:AV:75:C:H2'	22:AV:76:A:O4'	2.15	0.47
22:AV:64:G:H2'	22:AV:65:C:C6	2.48	0.47
34:DA:1284:A:H2'	34:DA:1285:G:O4'	2.15	0.47
34:DA:1476:C:H2'	34:DA:1477:A:H8	1.80	0.47
37:BD:166:GLN:CA	37:BD:166:GLN:HE21	2.25	0.47
54:DY:3:VAL:HG12	54:DY:3:VAL:O	2.14	0.47
34:DA:2114:A:N3	34:DA:2114:A:H2'	2.29	0.47
1:CA:81:U:H2'	1:CA:82:U:C6	2.49	0.47
34:BA:996:A:H2'	34:BA:997:G:H8	1.78	0.47
38:DE:34:VAL:HG23	38:DE:34:VAL:O	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:951:G:OP2	13:CM:102:ARG:NH2	2.48	0.47
34:BA:614(C):A:O2'	34:BA:615:G:O4'	2.32	0.47
33:D8:40:GLU:OE1	33:D8:44:LYS:HE3	2.14	0.47
48:DS:64:GLU:N	48:DS:64:GLU:OE2	2.48	0.47
48:BS:75:GLU:O	48:BS:76:LYS:C	2.53	0.47
55:DZ:150:LEU:HD23	55:DZ:171:ILE:HG13	1.96	0.47
41:DH:61:HIS:O	41:DH:62:LYS:C	2.51	0.47
18:AR:25:THR:C	18:AR:26:LEU:HD23	2.34	0.47
18:CR:61:LYS:O	18:CR:65:ILE:HG13	2.14	0.47
27:D2:28:LYS:O	27:D2:31:GLU:HB3	2.15	0.47
23:CW:39:U:C2'	23:CW:40:C:H5'	2.44	0.47
54:BY:83:THR:HG22	54:BY:84:ARG:H	1.79	0.47
53:BX:76:ARG:CD	53:BX:76:ARG:C	2.82	0.47
53:BX:92:LEU:O	53:BX:93:GLU:CB	2.62	0.47
46:BQ:17:LEU:HD21	46:BQ:41:TRP:NE1	2.29	0.47
1:CA:18:C:H4'	1:CA:1078:U:O2	2.14	0.47
5:CE:32:VAL:O	5:CE:43:LEU:HD12	2.14	0.47
20:CT:84:LEU:HD13	20:CT:84:LEU:C	2.35	0.47
49:BT:58:ASN:C	49:BT:58:ASN:ND2	2.67	0.47
3:CC:79:ARG:C	3:CC:81:GLY:H	2.18	0.47
34:DA:859:G:O3'	34:DA:860:U:O2	2.32	0.47
34:DA:71:A:O2'	34:DA:72:U:OP2	2.26	0.47
33:D8:53:PRO:HA	33:D8:56:GLU:HB2	1.96	0.47
25:D0:36:ILE:HD13	34:DA:2354:G:O2'	2.14	0.47
34:BA:1352:U:O2'	34:BA:1353:A:H5'	2.15	0.47
34:BA:2631:G:N3	34:BA:2810:A:H2	2.12	0.47
19:CS:62:ILE:HD12	19:CS:66:MET:HG3	1.96	0.47
34:DA:2329:G:H2'	34:DA:2330:G:C8	2.48	0.47
37:DD:158:ALA:O	37:DD:159:ALA:HB3	2.15	0.47
12:AL:88:GLY:O	12:AL:99:HIS:ND1	2.48	0.47
1:CA:1030(D):A:H2'	1:CA:1031:G:H5'	1.97	0.47
1:CA:1442(A):G:C8	49:DT:118:ARG:NH1	2.83	0.47
15:AO:36:ILE:HG23	15:AO:56:LEU:HD11	1.96	0.47
2:CB:41:ILE:N	2:CB:41:ILE:CD1	2.78	0.47
34:BA:1040:C:H42	34:BA:1116:C:N4	2.11	0.47
34:DA:271(Q):G:O2'	34:DA:271(R):G:H8	1.97	0.47
1:AA:524:G:H2'	1:AA:525:C:C5	2.48	0.47
45:DP:88:LEU:C	45:DP:90:ARG:N	2.67	0.47
50:BU:15:LYS:CG	50:BU:16:LYS:N	2.77	0.47
39:DF:83:PHE:O	39:DF:85:GLY:N	2.47	0.47
1:AA:66:G:N2	1:AA:172:A:H2	2.13	0.47
37:BD:133:LEU:CA	37:BD:136:ILE:HD13	2.45	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:124:SER:O	2:AB:127:ILE:HG12	2.14	0.47
11:CK:24:SER:O	11:CK:26:ASN:N	2.48	0.47
23:AW:10:G:N2	23:AW:26:A:H1'	2.29	0.47
9:AI:112:LYS:HE3	9:AI:116:LYS:O	2.14	0.47
34:BA:744:G:OP1	38:BE:132:HIS:HB3	2.14	0.47
16:CP:82:GLN:NE2	16:CP:82:GLN:N	2.62	0.47
4:AD:56:VAL:O	4:AD:58:LEU:N	2.47	0.47
7:CG:93:PRO:O	7:CG:94:ARG:C	2.53	0.47
34:BA:2571:C:H5''	34:BA:2572:A:H5''	1.97	0.47
3:AC:121:ALA:O	3:AC:125:GLU:HG3	2.14	0.47
47:DR:44:LEU:HD13	47:DR:44:LEU:O	2.15	0.47
10:CJ:22:LYS:C	10:CJ:22:LYS:HD2	2.34	0.47
10:AJ:22:LYS:C	10:AJ:22:LYS:HD2	2.34	0.47
20:AT:34:LYS:O	20:AT:35:THR:C	2.52	0.47
1:AA:635:G:C6	1:AA:636:U:C4	3.02	0.47
6:AF:5:GLU:HG2	6:AF:62:TRP:CZ2	2.49	0.47
1:AA:544:G:H2'	1:AA:545:C:H6	1.79	0.47
1:CA:1522:U:O2'	1:CA:1523:G:H5'	2.14	0.47
4:AD:14:ARG:C	4:AD:16:GLY:N	2.67	0.47
37:BD:247:ALA:HA	37:BD:254:THR:HG22	1.96	0.47
34:DA:1272:A:H3'	34:DA:1273:U:C5'	2.44	0.47
34:DA:2124:G:C2'	34:DA:2125:G:H5'	2.44	0.47
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.30	0.47
34:BA:1051:G:C2	34:BA:1052:C:N4	2.81	0.47
15:AO:70:LEU:O	15:AO:71:GLN:C	2.52	0.47
30:D5:15:ARG:HA	30:D5:18:ALA:HB3	1.97	0.47
51:DV:3:ALA:O	51:DV:13:ARG:HA	2.14	0.47
42:BI:101:LEU:HD12	42:BI:101:LEU:C	2.35	0.47
42:BI:101:LEU:HD23	42:BI:109:ILE:HG12	1.95	0.47
37:DD:35:LYS:HG2	37:DD:64:ILE:CA	2.44	0.47
1:AA:951:G:OP2	13:AM:102:ARG:NH1	2.47	0.47
34:DA:614:U:O2	34:DA:614:U:O4'	2.31	0.47
53:BX:60:ARG:NE	53:BX:74:PRO:CG	2.74	0.47
2:AB:185:ILE:HG22	2:AB:199:TYR:CD1	2.49	0.47
43:BN:83:LYS:CE	43:BN:85:ILE:HD11	2.41	0.47
37:BD:242:ARG:HD2	37:BD:242:ARG:N	2.29	0.47
37:BD:246:PRO:HB2	37:BD:255:LYS:HG2	1.96	0.47
38:BE:48:GLN:HE21	38:BE:78:LEU:CD1	2.28	0.47
38:BE:68:ALA:O	38:BE:70:ALA:N	2.48	0.47
42:DI:101:LEU:C	42:DI:101:LEU:HD12	2.35	0.47
29:D4:6:HIS:HA	40:DG:67:LYS:HE3	1.96	0.47
29:D4:1:MET:N	40:DG:67:LYS:HZ3	2.12	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:D8:31:HIS:O	33:D8:33:ASN:N	2.47	0.47
27:B2:40:SER:HB2	34:BA:61:G:H1'	1.96	0.47
55:BZ:102:LEU:HG	55:BZ:123:ASP:HA	1.97	0.47
34:BA:2312:U:C2'	34:BA:2313:C:C5'	2.89	0.47
48:DS:75:GLU:O	48:DS:76:LYS:C	2.52	0.47
48:BS:65:VAL:O	48:BS:69:VAL:HG12	2.15	0.47
41:DH:138:LYS:C	41:DH:140:LYS:N	2.65	0.47
1:AA:719:C:C2	18:AR:50:ILE:HG12	2.49	0.47
43:BN:47:ALA:HB2	43:BN:112:LEU:HD11	1.96	0.47
50:BU:55:ARG:HA	50:BU:58:ARG:CD	2.44	0.47
16:CP:15:PRO:HB3	16:CP:17:TYR:HE1	1.79	0.47
16:CP:67:THR:HG22	16:CP:68:ASP:N	2.30	0.47
23:CW:74:C:C2'	23:CW:75:C:H5'	2.44	0.47
54:BY:86:ARG:NH1	54:BY:95:LYS:HZ2	2.13	0.47
55:BZ:14:LYS:O	55:BZ:17:ALA:HB3	2.15	0.47
46:DQ:47:ILE:N	46:DQ:47:ILE:HD12	2.27	0.47
26:D1:92:LYS:C	26:D1:94:LEU:H	2.18	0.47
13:CM:8:GLU:C	13:CM:9:ILE:HD12	2.35	0.47
51:BV:62:LEU:HD22	51:BV:98:GLU:CA	2.39	0.47
1:AA:1057:G:H5''	3:AC:154:SER:OG	2.15	0.47
41:BH:19:VAL:CB	41:BH:44:VAL:HG13	2.44	0.47
53:BX:63:LYS:HE3	53:BX:70:LEU:CD2	2.36	0.47
47:DR:16:HIS:O	47:DR:17:ARG:C	2.53	0.47
4:AD:92:VAL:CG1	4:AD:96:LEU:HD21	2.44	0.47
40:DG:41:GLN:NE2	40:DG:155:MET:HB3	2.30	0.47
1:CA:1068:G:N7	1:CA:1094:G:C8	2.82	0.47
21:AU:2:GLY:O	21:AU:4:GLY:N	2.47	0.47
34:DA:295:G:OP1	54:DY:2:ARG:HD3	2.14	0.47
34:BA:1132:A:C2	34:BA:1133:U:C2	3.02	0.47
6:CF:26:ILE:O	6:CF:30:LEU:HG	2.14	0.47
54:BY:2:ARG:HG2	54:BY:2:ARG:HH11	1.79	0.47
34:BA:1719:G:O2'	34:BA:1720:U:H5'	2.14	0.47
34:DA:2599:G:OP2	37:DD:236:GLY:N	2.47	0.47
34:BA:1428:C:O2'	34:BA:1429:G:H5'	2.15	0.47
8:AH:63:LEU:H	8:AH:63:LEU:HD22	1.79	0.47
47:BR:104:ARG:O	47:BR:108:GLY:HA2	2.13	0.47
1:AA:522:C:H41	12:AL:53:ARG:NH2	2.12	0.47
19:CS:6:LYS:HE3	19:CS:6:LYS:N	2.30	0.47
35:BB:21:G:N3	35:BB:21:G:H2'	2.30	0.47
34:DA:1914:C:O4'	34:DA:1914:C:O2	2.32	0.47
7:AG:99:LEU:O	7:AG:100:ALA:C	2.52	0.47
34:DA:870:A:H5''	46:DQ:7:MET:CB	2.42	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1060:C:H4'	10:CJ:52:GLY:N	2.28	0.47
38:BE:197:ILE:CG1	38:BE:199:ARG:HH12	2.27	0.47
38:BE:197:ILE:HD11	38:BE:199:ARG:HH12	1.78	0.47
37:DD:211:ARG:O	37:DD:212:SER:C	2.50	0.47
12:CL:54:LYS:O	12:CL:70:ILE:HD13	2.13	0.47
7:AG:113:GLU:HB2	7:AG:119:ARG:CG	2.44	0.47
1:AA:1000:U:H2'	1:AA:1001:A:H8	1.79	0.47
11:AK:61:ALA:O	11:AK:65:ALA:HB2	2.14	0.47
1:CA:601:C:H2'	1:CA:602:A:C8	2.48	0.47
1:AA:759:A:H61	17:AQ:94:ASN:HD22	1.61	0.47
1:CA:992:U:H4'	1:CA:993:G:O5'	2.14	0.47
1:AA:1466:C:H2'	1:AA:1467:G:H5'	1.97	0.47
34:BA:1272:A:H3'	34:BA:1273:U:H5'	1.96	0.47
1:CA:189(J):G:O2'	1:CA:189(K):U:H5'	2.15	0.47
34:BA:667:U:H2'	34:BA:668:G:O4'	2.13	0.47
34:DA:667:U:H2'	34:DA:668:G:O4'	2.15	0.47
1:AA:953:G:H5'	1:AA:965:A:H61	1.80	0.47
34:DA:832:G:OP1	45:DP:40:SER:HB3	2.15	0.47
34:DA:2584:U:O5'	34:DA:2584:U:O2	2.32	0.47
9:CI:79:LEU:HD13	9:CI:79:LEU:O	2.14	0.47
1:AA:993:G:N3	1:AA:993:G:H2'	2.30	0.47
1:AA:908:A:H2'	1:AA:909:A:H8	1.78	0.47
51:DV:13:ARG:HG3	51:DV:13:ARG:NH1	2.29	0.47
48:DS:28:VAL:O	48:DS:89:ARG:HD2	2.15	0.47
38:DE:55:ASN:ND2	38:DE:75:VAL:HG13	2.29	0.47
38:DE:84:PHE:HE1	38:DE:91:VAL:HG21	1.79	0.47
44:DO:77:ILE:HD12	49:DT:74:ARG:HG2	1.96	0.47
49:DT:92:GLY:O	49:DT:94:ALA:N	2.37	0.47
34:DA:135:G:O2'	34:DA:136:G:H5'	2.14	0.47
34:BA:1902:C:H4'	37:BD:244:ARG:HA	1.95	0.47
38:BE:84:PHE:HE1	38:BE:91:VAL:HG21	1.79	0.47
55:DZ:99:TYR:N	55:DZ:99:TYR:CD2	2.83	0.47
35:DB:50:G:OP1	48:DS:63:THR:HG23	2.13	0.47
34:DA:528:A:H2	34:DA:2043:C:H4'	1.76	0.47
47:BR:116:LEU:O	47:BR:117:VAL:CB	2.60	0.47
47:BR:97:VAL:HA	47:BR:113:LEU:O	2.13	0.47
18:CR:53:ARG:HH11	18:CR:53:ARG:CB	2.28	0.47
1:AA:375:U:C4'	16:AP:17:TYR:CE2	2.97	0.47
10:AJ:15:THR:OG1	10:AJ:16:LEU:N	2.48	0.47
10:AJ:40:LEU:HD21	10:AJ:69:ASN:C	2.35	0.47
46:DQ:37:LEU:HB2	46:DQ:128:LYS:O	2.15	0.47
1:AA:78:G:N2	1:AA:91:C:H42	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:DX:29:TRP:CE3	53:DX:76:ARG:HB3	2.49	0.47
34:BA:2639:A:H3'	34:BA:2640:G:H5'	1.97	0.47
43:DN:26:LEU:HG	43:DN:30:ILE:HD11	1.97	0.47
46:BQ:20:ALA:HB2	46:BQ:99:PRO:CD	2.45	0.47
13:AM:98:VAL:C	13:AM:99:ARG:HG3	2.35	0.47
34:DA:2658:C:C2'	34:DA:2658:C:O2	2.62	0.47
49:BT:57:PHE:O	49:BT:58:ASN:ND2	2.47	0.47
46:BQ:55:VAL:CG2	55:BZ:178:GLU:HB3	2.45	0.47
4:AD:8:VAL:C	4:AD:10:ARG:N	2.68	0.47
44:DO:1:MET:CB	44:DO:32:TYR:HD2	2.27	0.47
12:AL:60:LEU:H	12:AL:60:LEU:HD22	1.79	0.47
13:AM:49:THR:HG22	13:AM:51:ALA:N	2.29	0.47
8:CH:63:LEU:H	8:CH:63:LEU:HD22	1.80	0.47
8:AH:109:ILE:CG1	8:AH:110:ALA:N	2.74	0.47
19:CS:61:TYR:HE2	19:CS:63:THR:HB	1.80	0.47
37:DD:106:ILE:CD1	37:DD:106:ILE:C	2.81	0.47
23:CW:12:U:O2	23:CW:24:G:N2	2.48	0.47
6:AF:75:LEU:O	6:AF:76:ALA:C	2.53	0.47
34:DA:1822:G:O2'	34:DA:1823:G:H5'	2.15	0.47
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.34	0.47
34:BA:39:C:H2'	34:BA:40:C:C6	2.50	0.47
25:B0:68:GLU:O	25:B0:80:HIS:HD2	1.96	0.47
51:BV:5:VAL:CG2	51:BV:6:LYS:N	2.78	0.47
34:DA:1510:G:O2'	34:DA:1511:C:H5'	2.15	0.47
34:DA:1385:G:C4	34:DA:1386:C:C5	3.02	0.47
7:AG:155:ARG:O	7:AG:156:TRP:HD1	1.98	0.47
34:BA:1188:U:H2'	34:BA:1189:A:C5'	2.42	0.47
37:DD:224:ALA:HB2	37:DD:233:HIS:HB3	1.96	0.47
1:AA:1232:U:O3'	9:AI:124:GLN:HB2	2.15	0.47
6:CF:100:ASN:HD21	18:CR:23:LYS:HE3	1.80	0.47
34:BA:2671:A:H2'	34:BA:2672:G:H8	1.79	0.47
47:BR:21:TYR:O	47:BR:22:ARG:C	2.50	0.47
34:BA:601:C:O2'	34:BA:605:C:H5''	2.14	0.47
1:CA:725:G:O2'	1:CA:726:C:H5'	2.14	0.47
44:BO:113:LYS:HA	44:BO:116:SER:OG	2.14	0.47
1:CA:502:G:O2'	1:CA:503:C:H5'	2.14	0.47
43:BN:18:ALA:C	43:BN:20:GLY:N	2.68	0.47
43:BN:18:ALA:CB	43:BN:21:LYS:HG2	2.43	0.47
1:CA:1060:C:C5	3:CC:2:GLY:HA3	2.49	0.47
40:DG:126:ASP:O	40:DG:128:ARG:N	2.40	0.47
1:AA:448:A:P	1:AA:485:G:H22	2.37	0.47
48:DS:42:ASP:O	48:DS:43:GLU:HB2	2.13	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:63:ILE:O	20:AT:66:ALA:N	2.46	0.47
1:AA:146:G:C2	1:AA:147:G:H1'	2.49	0.47
47:DR:13:HIS:HE1	47:DR:15:SER:OG	1.97	0.47
1:CA:198:G:H2'	1:CA:199:G:C8	2.49	0.47
34:BA:2019:A:H2'	34:BA:2020:A:O5'	2.13	0.47
1:CA:151:A:C2'	1:CA:152:A:H5'	2.44	0.47
1:CA:243:A:H4'	1:CA:244:U:O5'	2.14	0.47
1:CA:1181:G:O2'	1:CA:1182:G:H5'	2.15	0.47
47:BR:14:SER:O	47:BR:15:SER:C	2.52	0.47
1:AA:1323:G:H4'	1:AA:1363:C:N3	2.29	0.47
34:BA:1272:A:H3'	34:BA:1273:U:C5'	2.44	0.47
34:BA:2651:C:O2'	34:BA:2652:C:H5'	2.13	0.47
25:D0:84:LEU:N	25:D0:84:LEU:HD12	2.29	0.47
34:DA:1011:G:OP1	50:DU:75:ASN:HB3	2.14	0.47
34:BA:927:G:H3'	34:BA:928:G:H8	1.79	0.47
34:BA:836:G:H2'	34:BA:837:C:C6	2.50	0.47
38:DE:89:ASP:O	38:DE:90:THR:HB	2.14	0.47
39:DF:77:ASP:C	39:DF:79:GLY:H	2.18	0.47
4:AD:76:ARG:HH11	4:AD:76:ARG:HG2	1.79	0.47
34:BA:1970:A:H5''	34:BA:1971:A:OP1	2.14	0.47
24:AX:14:A:H8	24:AX:14:A:OP2	1.97	0.47
50:DU:92:ARG:HB2	51:DV:11:GLN:HE21	1.72	0.47
51:DV:61:VAL:O	51:DV:99:ILE:HB	2.14	0.47
51:DV:32:THR:O	51:DV:63:GLY:HA2	2.15	0.47
42:BI:140:LEU:HD12	42:BI:141:LYS:N	2.29	0.47
42:BI:81:VAL:CG1	42:BI:88:ILE:HG23	2.44	0.47
39:DF:41:LEU:HD23	39:DF:44:ARG:HD3	1.96	0.47
51:BV:73:SER:CB	51:BV:75:PHE:CE1	2.97	0.47
38:DE:97:LYS:N	38:DE:100:GLU:OE1	2.48	0.47
38:DE:55:ASN:ND2	38:DE:75:VAL:CG1	2.78	0.47
38:DE:68:ALA:O	38:DE:70:ALA:N	2.48	0.47
49:DT:115:ARG:HA	49:DT:115:ARG:HD3	1.67	0.47
49:DT:26:ASP:HB3	49:DT:89:VAL:O	2.15	0.47
49:DT:27:THR:HG23	49:DT:28:VAL:N	2.30	0.47
45:BP:101:VAL:CG1	45:BP:102:ARG:H	2.18	0.47
34:DA:2176:A:H2'	34:DA:2177:C:C6	2.49	0.47
49:BT:28:VAL:HG22	49:BT:46:GLU:HA	1.97	0.47
2:AB:92:TYR:CE2	2:AB:151:GLY:CA	2.97	0.47
3:AC:174:PRO:HB3	3:AC:177:THR:OG1	2.14	0.47
37:BD:255:LYS:HE3	37:BD:255:LYS:C	2.35	0.47
34:BA:2777:G:H5''	34:BA:2778:A:H5''	1.96	0.47
38:BE:169:ASN:HD21	38:BE:203:LYS:HB3	1.80	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2545:G:H2'	34:DA:2546:U:O4'	2.15	0.47
54:BY:7:VAL:HB	54:BY:8:LYS:NZ	2.30	0.47
34:BA:613:G:C6	34:BA:614:U:C5	3.02	0.47
37:BD:25:THR:CG2	37:BD:25:THR:O	2.61	0.47
26:B1:67:ILE:N	26:B1:68:PRO:CD	2.77	0.47
42:DI:94:ALA:HA	42:DI:97:ILE:HB	1.95	0.47
54:DY:71:LYS:CB	54:DY:71:LYS:NZ	2.77	0.47
33:B8:4:MET:HE2	34:BA:592:G:N3	2.29	0.47
55:DZ:14:LYS:C	55:DZ:16:SER:N	2.68	0.47
55:DZ:99:TYR:N	55:DZ:99:TYR:HD2	2.13	0.47
55:DZ:30:ASN:HA	55:DZ:89:PHE:HE2	1.80	0.47
2:CB:185:ILE:HG22	2:CB:199:TYR:CD1	2.50	0.47
33:D8:13:ARG:NE	45:DP:61:ARG:NH1	2.63	0.47
34:BA:2416:C:OP1	45:BP:64:LYS:O	2.33	0.47
13:AM:3:ARG:HH22	40:BG:139:LEU:CD1	2.27	0.47
40:BG:56:ALA:HA	40:BG:59:GLU:HB3	1.97	0.47
48:DS:69:VAL:O	48:DS:72:ALA:HB3	2.15	0.47
34:BA:2312:U:O2'	34:BA:2313:C:H5''	2.14	0.47
48:BS:72:ALA:O	48:BS:76:LYS:HB2	2.15	0.47
43:DN:42:TRP:HA	43:DN:42:TRP:HE3	1.80	0.47
43:DN:38:HIS:NE2	43:DN:50:ASP:OD2	2.48	0.47
50:DU:55:ARG:HA	50:DU:58:ARG:CD	2.45	0.47
55:BZ:145:GLU:C	55:BZ:147:GLY:H	2.17	0.47
39:DF:20:LEU:HD12	39:DF:199:TRP:CH2	2.50	0.47
39:DF:4:VAL:HA	39:DF:18:ARG:O	2.14	0.47
41:DH:37:VAL:HG11	41:DH:68:THR:HG21	1.96	0.47
47:BR:38:VAL:O	47:BR:41:ALA:N	2.48	0.47
43:BN:38:HIS:NE2	43:BN:50:ASP:OD2	2.46	0.47
34:BA:1878:G:H2'	34:BA:1879:C:C6	2.49	0.47
1:AA:878:G:C5'	8:AH:89:PRO:HG2	2.45	0.47
44:BO:64:ARG:HD3	44:BO:101:PRO:CB	2.31	0.47
34:DA:941:A:H2'	34:DA:942:G:C8	2.49	0.47
5:AE:110:LEU:O	5:AE:113:ALA:HB3	2.15	0.47
20:AT:13:LEU:O	20:AT:16:HIS:N	2.48	0.47
37:DD:267:SER:O	37:DD:269:PHE:HD1	1.98	0.47
34:DA:2360:A:O2'	34:DA:2361:A:O5'	2.32	0.47
34:DA:2639:A:H3'	34:DA:2640:G:H5'	1.96	0.47
44:BO:1:MET:CB	44:BO:32:TYR:HD2	2.28	0.47
55:BZ:56:VAL:HA	55:BZ:70:LEU:CD2	2.44	0.47
53:BX:53:LYS:HE3	53:BX:55:ASN:ND2	2.13	0.47
46:DQ:42:ILE:HD11	46:DQ:127:ILE:HD11	1.97	0.47
34:BA:1982:C:H3'	34:BA:1982:C:OP1	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:BV:20:LEU:HB3	51:BV:21:ARG:HD3	1.97	0.47
1:AA:1251:A:O2'	1:AA:1252:A:H5'	2.15	0.47
34:DA:1952:A:C5	44:DO:22:ILE:HD12	2.49	0.47
27:B2:33:MET:SD	27:B2:33:MET:N	2.86	0.47
30:B5:50:GLY:HA3	30:B5:56:LYS:CG	2.45	0.47
34:DA:2464:C:O2'	34:DA:2465:C:P	2.73	0.47
22:AV:53:G:C8	22:AV:54:5MU:H72	2.49	0.47
3:AC:71:ALA:HA	3:AC:106:VAL:HB	1.96	0.47
43:DN:120:LEU:HD13	43:DN:121:LYS:N	2.29	0.47
43:DN:27:ALA:HA	43:DN:30:ILE:HD12	1.96	0.47
6:AF:21:LEU:O	6:AF:24:GLU:N	2.48	0.47
34:BA:2011:U:H2'	34:BA:2012:G:H5'	1.96	0.47
41:BH:92:ILE:CD1	41:BH:92:ILE:N	2.78	0.47
34:DA:1131:G:N3	34:DA:1132:A:C8	2.83	0.47
13:CM:110:ARG:HH11	13:CM:110:ARG:HG2	1.80	0.47
4:CD:105:VAL:HG12	4:CD:105:VAL:O	2.15	0.47
5:CE:132:ALA:O	5:CE:134:ALA:N	2.48	0.47
43:BN:58:ASP:O	43:BN:59:LYS:HB2	2.15	0.47
19:CS:52:TYR:HB2	19:CS:57:HIS:CE1	2.49	0.47
46:DQ:51:ARG:O	46:DQ:54:MET:CB	2.62	0.47
54:DY:75:ILE:HD11	54:DY:79:CYS:HA	1.97	0.47
54:DY:76:CYS:CB	54:DY:77:PRO:CD	2.93	0.47
27:D2:44:LEU:O	27:D2:46:GLN:N	2.47	0.47
34:BA:1024:G:C3'	34:BA:1025:G:H5''	2.35	0.47
4:AD:92:VAL:HG12	4:AD:96:LEU:CD2	2.45	0.47
1:CA:1354:C:O2'	1:CA:1355:G:H5'	2.14	0.47
41:BH:130:ARG:NH1	41:BH:130:ARG:HB3	2.29	0.47
44:DO:31:LYS:C	44:DO:32:TYR:HD1	2.18	0.47
1:CA:735:C:H2'	1:CA:736:C:C6	2.42	0.47
1:CA:738:C:H5'	6:CF:72:VAL:HG11	1.96	0.47
34:DA:440:G:H2'	34:DA:441:U:H6	1.78	0.47
34:BA:1652:A:C2	34:BA:2006:C:N3	2.82	0.47
8:AH:64:LYS:HD2	8:AH:79:VAL:HG21	1.96	0.47
25:D0:68:GLU:O	25:D0:80:HIS:HD2	1.97	0.47
35:DB:4:C:H2'	35:DB:5:C:C6	2.49	0.47
14:AN:48:ALA:CA	14:AN:53:LEU:HD12	2.45	0.47
23:CW:17:C:O2	23:CW:17:C:O2'	2.30	0.47
34:DA:2346:A:H5'	34:DA:2383:G:O4'	2.14	0.47
44:BO:87:ILE:HD12	44:BO:91:LEU:O	2.15	0.47
36:DC:64:LEU:HD12	36:DC:66:HIS:HB2	1.95	0.47
36:BC:64:LEU:HD12	36:BC:66:HIS:HB2	1.96	0.47
37:BD:84:TYR:CD2	37:BD:84:TYR:C	2.88	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:80:ILE:HG13	2:CB:81:VAL:N	2.30	0.47
44:DO:103:ALA:HB1	44:DO:105:GLU:OE1	2.14	0.47
34:DA:1668:A:N3	34:DA:1670:C:C4	2.83	0.47
34:DA:583:G:H5''	50:DU:10:ARG:HH12	1.79	0.47
40:BG:10:LYS:HD3	40:BG:14:GLU:OE1	2.15	0.47
13:AM:108:ARG:HG3	13:AM:108:ARG:NH1	2.29	0.47
3:CC:66:VAL:HG11	3:CC:91:LEU:CD1	2.45	0.47
34:BA:1385:G:H1'	34:BA:1386:C:C6	2.49	0.47
1:AA:1128:C:H5'	9:AI:16:ARG:NH1	2.29	0.47
34:DA:686:G:H21	34:DA:788:A:H61	1.63	0.47
34:DA:848:G:H2'	34:DA:849:A:C8	2.50	0.47
20:AT:71:THR:HG22	20:AT:72:LEU:HG	1.97	0.47
18:CR:36:ASN:HD22	18:CR:39:VAL:CG2	2.24	0.47
19:AS:41:VAL:O	19:AS:44:MET:HB2	2.15	0.47
2:CB:194:PRO:O	2:CB:197:VAL:N	2.48	0.47
34:BA:2061:G:H5''	34:BA:2503:A:C2	2.50	0.47
11:AK:95:ILE:O	11:AK:98:LEU:N	2.48	0.47
7:AG:155:ARG:O	7:AG:156:TRP:CD1	2.68	0.47
7:CG:147:ALA:C	7:CG:148:ASN:HD22	2.18	0.47
42:BI:61:ARG:HD2	42:BI:61:ARG:H	1.80	0.47
52:DW:27:LYS:H	52:DW:71:VAL:HB	1.79	0.47
5:AE:146:ALA:C	5:AE:148:VAL:N	2.68	0.47
16:CP:43:LYS:HG3	16:CP:48:TRP:CG	2.49	0.47
9:AI:114:TYR:N	9:AI:114:TYR:HD2	2.09	0.47
8:CH:134:ILE:O	8:CH:135:CYS:HB3	2.15	0.47
54:DY:31:LEU:HD11	54:DY:34:LYS:HD3	1.96	0.47
3:CC:32:LEU:HD22	3:CC:59:ARG:HH11	1.76	0.47
40:BG:99:MET:O	40:BG:100:TRP:C	2.53	0.47
53:DX:14:SER:H	53:DX:17:ALA:CB	2.26	0.47
49:DT:62:THR:HG22	49:DT:75:ILE:HG12	1.97	0.47
7:CG:134:ALA:O	7:CG:135:VAL:C	2.52	0.47
40:BG:124:SER:HB2	40:BG:131:TYR:HE1	1.78	0.47
1:AA:1350:A:C6	1:AA:1351:U:C4	3.03	0.47
34:DA:1763:G:OP1	34:DA:1763:G:H4'	2.15	0.47
46:DQ:78:PRO:O	46:DQ:79:LEU:CG	2.63	0.47
17:CQ:81:ARG:CZ	17:CQ:84:LEU:HD11	2.45	0.47
34:BA:1657:C:H2'	34:BA:1658:C:C6	2.49	0.47
36:DC:77:ILE:HG21	36:DC:122:ALA:CA	2.45	0.47
42:DI:47:LEU:HD12	42:DI:50:ARG:HH21	1.80	0.47
12:CL:75:HIS:CG	12:CL:76:ASN:N	2.79	0.47
7:AG:146:GLU:O	7:AG:149:ARG:HB2	2.14	0.47
1:CA:227:G:H2'	1:CA:228:A:C8	2.50	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BN:90:MET:O	43:BN:93:THR:O	2.32	0.47
31:B6:14:THR:HG23	31:B6:14:THR:O	2.15	0.47
37:BD:77:ALA:HB2	37:BD:97:TYR:HA	1.96	0.47
1:CA:802:A:H2'	1:CA:803:G:C5'	2.44	0.47
34:BA:1703:G:H2'	34:BA:1704:G:H8	1.78	0.47
7:AG:41:ARG:O	7:AG:42:ILE:C	2.53	0.47
21:AU:5:ASP:HB3	21:AU:8:THR:HG23	1.95	0.47
7:CG:32:ARG:HH11	7:CG:32:ARG:HG2	1.80	0.47
13:AM:34:LEU:HA	13:AM:37:THR:OG1	2.15	0.47
34:DA:2033:A:H2'	34:DA:2035:G:OP2	2.15	0.47
2:CB:100:GLY:O	2:CB:104:ASN:HB3	2.15	0.47
1:AA:148:G:O2'	1:AA:149:A:H5'	2.15	0.47
34:DA:2066:C:O2'	34:DA:2067:G:H5'	2.14	0.47
38:DE:17:ASP:O	38:DE:18:ASP:CG	2.53	0.47
1:CA:198:G:H2'	1:CA:199:G:H8	1.80	0.47
40:DG:120:LEU:HG	40:DG:179:PRO:HG2	1.96	0.47
1:AA:588:G:O6	1:AA:753:A:H2'	2.14	0.47
34:DA:1036:G:O2'	34:DA:1037:G:H5'	2.15	0.47
34:DA:1335:U:O2'	34:DA:1336:A:H5'	2.15	0.47
34:DA:979:G:H3'	34:DA:980:A:C5'	2.45	0.47
28:B3:35:ARG:NE	28:B3:37:LEU:HD21	2.29	0.47
22:AV:25:C:H2'	22:AV:26:G:O4'	2.15	0.47
7:CG:146:GLU:O	7:CG:149:ARG:HB2	2.15	0.47
34:DA:201:C:H2'	34:DA:202:U:H5'	1.95	0.47
34:BA:708:C:H5'	34:BA:709:U:OP2	2.15	0.47
34:DA:1362:C:C2'	34:DA:1363:C:H5'	2.44	0.47
28:B3:26:LEU:HD21	28:B3:46:ASN:HB2	1.96	0.47
1:AA:300:A:H1'	1:AA:565:U:O2	2.15	0.47
1:CA:22:G:H2'	1:CA:23:C:H6	1.80	0.47
34:DA:2199:A:H5'	34:DA:2200:C:OP2	2.15	0.47
22:AV:49:G:H1	22:AV:65:C:H42	1.63	0.47
34:DA:2818:G:O2'	34:DA:2819:G:H5'	2.13	0.47
1:AA:564:C:C5	17:AQ:31:LEU:HD11	2.49	0.47
34:BA:303:U:H2'	34:BA:304:G:C8	2.50	0.47
45:BP:81:GLN:HE21	45:BP:81:GLN:HA	1.78	0.47
2:CB:172:ILE:HD12	2:CB:172:ILE:N	2.30	0.47
34:DA:2881:C:C2	34:DA:2882:A:C8	3.02	0.47
1:AA:995:C:O2'	1:AA:996:A:H5'	2.14	0.47
31:B6:30:THR:O	31:B6:31:PRO:C	2.53	0.47
52:DW:28:SER:OG	52:DW:31:GLU:HB2	2.14	0.47
1:CA:1267:C:O2	21:CU:20:LYS:HD2	2.15	0.47
34:DA:2552:U:H3'	34:DA:2554:U:OP2	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DF:108:LYS:O	39:DF:111:ALA:HB3	2.15	0.47
1:AA:679:C:O2'	1:AA:680:C:H5'	2.14	0.47
36:BC:183:GLU:CB	36:BC:186:ALA:HB3	2.45	0.47
34:DA:912:C:O2'	34:DA:913:U:H5'	2.15	0.47
39:DF:89:VAL:HG12	39:DF:90:PHE:N	2.29	0.47
52:BW:28:SER:OG	52:BW:31:GLU:HB2	2.15	0.47
13:CM:40:ASN:O	13:CM:43:THR:HG23	2.14	0.47
13:AM:112:GLY:C	13:AM:113:PRO:HG2	2.35	0.47
34:BA:221:A:H4'	34:BA:222:A:O5'	2.15	0.47
34:DA:1860:G:H2'	34:DA:1861:G:H8	1.80	0.47
50:DU:92:ARG:HB2	51:DV:11:GLN:CD	2.35	0.47
42:BI:120:ILE:HD13	42:BI:126:TYR:CE1	2.49	0.47
38:DE:3:GLY:C	38:DE:4:ILE:HG22	2.35	0.47
38:DE:49:LEU:N	38:DE:49:LEU:HD22	2.29	0.47
34:DA:2638:G:P	38:DE:82:ARG:HH21	2.38	0.47
28:D3:32:GLN:HB2	34:DA:1158:C:H4'	1.97	0.47
34:DA:49:A:C4'	34:DA:50:U:H5'	2.25	0.47
42:DI:121:LYS:O	42:DI:122:GLU:HB2	2.15	0.47
29:D4:1:MET:H1	40:DG:67:LYS:HZ1	1.60	0.47
27:B2:39:ALA:O	27:B2:40:SER:C	2.53	0.47
34:BA:142:A:N6	34:BA:1596:A:H5'	2.29	0.47
50:BU:61:TRP:O	50:BU:62:ILE:C	2.52	0.47
5:AE:142:LEU:O	5:AE:143:ARG:NE	2.48	0.47
34:BA:1948:G:O2'	34:BA:1949:G:H5'	2.14	0.47
44:DO:16:ALA:HB1	44:DO:43:VAL:HG13	1.97	0.47
34:BA:1019:U:N3	34:BA:1142(A):A:N6	2.57	0.47
34:BA:1951:U:H2'	34:BA:1953:A:OP2	2.15	0.47
34:DA:2683:C:P	49:DT:53:ARG:HH22	2.38	0.47
19:CS:10:PHE:HZ	19:CS:70:LYS:CE	2.26	0.47
38:DE:173:VAL:HG12	38:DE:174:ASP:H	1.78	0.47
42:BI:72:LEU:HD12	42:BI:138:ILE:HG23	1.95	0.47
4:AD:106:TYR:CE1	4:AD:113:SER:HA	2.50	0.47
34:BA:271(A):A:N1	34:BA:272(D):G:O2'	2.43	0.47
8:CH:35:ILE:HG23	8:CH:111:ILE:CD1	2.44	0.47
39:DF:107:LYS:O	39:DF:110:LEU:N	2.48	0.47
34:DA:2632:A:O2'	38:DE:61:ARG:CZ	2.62	0.47
15:CO:33:THR:O	15:CO:34:LEU:C	2.52	0.47
35:BB:48:A:H2'	35:BB:49:C:C6	2.49	0.47
12:CL:22:SER:C	12:CL:24:VAL:H	2.17	0.47
39:DF:57:VAL:HG11	39:DF:59:TYR:CD1	2.50	0.47
34:BA:442:G:O4'	39:BF:46:ARG:HD3	2.15	0.47
1:CA:1052:U:H2'	1:CA:1055:A:OP1	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:522:C:H41	12:CL:53:ARG:NH2	2.12	0.47
1:CA:630:G:C3'	1:CA:631:G:H5''	2.45	0.47
38:BE:8:LYS:HA	38:BE:26:ILE:HD13	1.96	0.47
46:BQ:118:LEU:O	46:BQ:119:ARG:C	2.53	0.47
8:CH:137:VAL:HG12	8:CH:138:TRP:H	1.80	0.47
8:AH:30:ARG:CB	8:AH:30:ARG:HH11	2.26	0.47
34:BA:848:G:H2'	34:BA:849:A:C8	2.49	0.47
34:BA:2859:G:O2'	34:BA:2860:A:C5'	2.63	0.47
14:AN:43:CYS:O	14:AN:46:GLU:HB2	2.14	0.47
1:CA:796:C:O2'	1:CA:797:C:H5'	2.15	0.47
34:DA:2642:G:O2'	34:DA:2643:G:H5'	2.15	0.47
1:AA:1437:C:H2'	1:AA:1438:G:H8	1.80	0.47
34:DA:1140:C:C1'	34:DA:1143:A:C2	2.96	0.47
1:AA:59:A:H3'	1:AA:331:G:H22	1.80	0.47
43:BN:97:ARG:O	43:BN:100:GLU:N	2.47	0.47
39:BF:11:VAL:HG12	39:BF:12:LEU:HG	1.97	0.47
16:CP:80:PHE:O	16:CP:82:GLN:NE2	2.48	0.47
42:BI:60:GLU:C	42:BI:62:LYS:N	2.68	0.47
49:BT:62:THR:HG22	49:BT:75:ILE:HG12	1.97	0.47
4:CD:110:PHE:CD2	4:CD:148:VAL:HG23	2.49	0.47
41:BH:30:LYS:HZ3	41:BH:81:GLU:HG2	1.78	0.47
34:DA:2511:U:H5''	38:DE:123:ALA:CB	2.44	0.47
34:DA:1215:G:C2'	34:DA:1216:G:H5'	2.44	0.47
34:BA:1215:G:C2'	34:BA:1216:G:H5'	2.45	0.47
4:CD:65:ARG:NH1	4:CD:70:ILE:O	2.47	0.47
8:AH:60:ARG:NH1	8:AH:60:ARG:HG3	2.29	0.47
28:D3:46:ASN:ND2	34:DA:851:U:C4'	2.78	0.47
11:CK:61:ALA:O	11:CK:65:ALA:HB2	2.15	0.47
20:CT:8:ARG:HG3	20:CT:8:ARG:NH1	2.29	0.47
34:BA:979:G:H3'	34:BA:980:A:C5'	2.44	0.47
34:BA:1562:A:O2'	34:BA:1563:G:H5'	2.15	0.47
1:CA:601:C:H2'	1:CA:602:A:H8	1.80	0.47
13:CM:112:GLY:C	13:CM:113:PRO:HG2	2.36	0.47
32:B7:34:ARG:O	32:B7:35:ARG:C	2.52	0.47
39:BF:77:ASP:C	39:BF:79:GLY:H	2.18	0.47
34:BA:272:G:H1'	34:BA:272(B):G:O5'	2.14	0.47
35:DB:11:C:OP2	35:DB:12:C:H5	1.98	0.47
3:AC:137:ALA:O	3:AC:141:VAL:HG23	2.15	0.47
4:AD:61:LYS:HE3	4:AD:207:TYR:OH	2.15	0.47
2:AB:238:LEU:HD23	2:AB:238:LEU:N	2.29	0.47
42:BI:128:LEU:HB3	42:BI:129:THR:H	1.50	0.47
39:DF:118:ALA:HA	39:DF:123:LEU:HB3	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:996:A:C4'	50:BU:92:ARG:HH21	2.28	0.47
37:BD:142:VAL:HG23	37:BD:192:THR:O	2.15	0.47
43:DN:70:LYS:HG3	43:DN:72:TYR:CE1	2.45	0.47
2:AB:149:LEU:O	2:AB:153:ARG:HG3	2.14	0.47
38:BE:36:ARG:NH2	38:BE:88:GLY:N	2.63	0.47
38:BE:4:ILE:HD11	38:BE:28:ALA:HB1	1.96	0.47
38:BE:55:ASN:ND2	38:BE:75:VAL:HG13	2.30	0.47
28:B3:32:GLN:HB2	34:BA:1158:C:H4'	1.96	0.47
35:DB:103:G:H1'	55:DZ:73:GLN:NE2	2.29	0.47
53:BX:31:HIS:O	53:BX:32:PRO:C	2.50	0.47
38:DE:169:ASN:OD1	38:DE:201:THR:HG23	2.14	0.47
13:AM:7:VAL:HG12	13:AM:7:VAL:O	2.14	0.47
34:BA:2312:U:H2'	34:BA:2313:C:H5'	1.97	0.47
48:BS:67:ARG:C	48:BS:69:VAL:N	2.69	0.47
34:DA:910:A:C8	46:DQ:13:GLN:HB2	2.50	0.47
43:BN:9:VAL:CG1	43:BN:39:ARG:HH22	2.28	0.47
53:DX:89:ILE:CD1	53:DX:89:ILE:N	2.78	0.47
1:AA:192:U:C1'	20:AT:103:GLY:HA2	2.45	0.47
41:BH:54:ARG:HB3	41:BH:65:HIS:HD2	1.80	0.47
55:BZ:29:TYR:HA	55:BZ:33:LEU:O	2.15	0.47
26:D1:87:PRO:O	26:D1:90:ILE:HB	2.15	0.47
34:BA:7:G:H4'	43:BN:13:TRP:CH2	2.49	0.47
1:AA:959:A:C2	1:AA:1222:G:C4'	2.98	0.47
34:DA:1718:G:H5'	34:DA:1718:G:C8	2.50	0.47
13:CM:108:ARG:HG3	13:CM:108:ARG:NH1	2.30	0.47
34:DA:2678:C:C2	34:DA:2679:A:C8	3.02	0.47
11:AK:44:SER:N	11:AK:47:VAL:HG21	2.29	0.47
3:CC:71:ALA:HA	3:CC:106:VAL:HB	1.97	0.47
13:CM:91:ARG:CB	13:CM:98:VAL:HG11	2.45	0.47
34:BA:27:G:O2'	34:BA:28:A:P	2.72	0.47
1:AA:1287:A:N6	1:AA:1288:A:N6	2.62	0.47
3:CC:77:ILE:C	3:CC:83:ARG:HB3	2.35	0.47
53:DX:70:LEU:O	53:DX:71:GLY:C	2.53	0.47
40:DG:107:LEU:HD22	40:DG:178:PHE:HA	1.96	0.47
13:AM:70:LEU:CD2	13:AM:70:LEU:C	2.83	0.47
6:CF:42:GLU:C	6:CF:44:GLY:H	2.18	0.47
34:DA:2306:C:OP2	34:DA:2307:G:C8	2.67	0.47
12:CL:60:LEU:HD22	12:CL:60:LEU:H	1.78	0.47
1:AA:1030(D):A:H2'	1:AA:1031:G:H5'	1.97	0.47
6:AF:69:GLU:O	6:AF:72:VAL:HG12	2.14	0.47
39:DF:67:GLN:O	39:DF:67:GLN:HG3	2.14	0.47
44:DO:87:ILE:HD12	44:DO:91:LEU:O	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:88:GLY:O	12:CL:99:HIS:ND1	2.46	0.47
48:DS:58:LEU:HD22	48:DS:68:GLN:HB2	1.97	0.47
37:BD:117:VAL:HG22	37:BD:118:VAL:N	2.29	0.47
36:BC:191:ALA:C	36:BC:193:ILE:N	2.68	0.47
2:CB:78:GLN:HB3	2:CB:94:ASN:HD21	1.80	0.47
13:AM:118:ALA:O	13:AM:119:GLY:N	2.48	0.47
37:DD:142:VAL:HG23	37:DD:193:VAL:CA	2.44	0.47
52:DW:21:VAL:HG23	52:DW:47:VAL:HG21	1.97	0.47
34:DA:811:U:C3'	45:DP:25:SER:O	2.61	0.47
2:AB:178:ARG:CB	2:AB:178:ARG:HH11	2.24	0.47
8:CH:109:ILE:CG1	8:CH:110:ALA:N	2.77	0.47
1:CA:1349:A:P	9:CI:118:LYS:HZ3	2.38	0.47
1:AA:37:U:O2'	1:AA:38:G:H5'	2.14	0.47
1:CA:949:A:C2	1:CA:1233:G:N3	2.83	0.47
35:DB:20:C:O2'	35:DB:21:G:H5''	2.15	0.47
2:AB:100:GLY:O	2:AB:104:ASN:HB3	2.15	0.47
16:CP:49:LEU:HD12	16:CP:50:LYS:H	1.79	0.47
3:AC:22:TRP:CZ2	14:AN:54:PRO:HG2	2.50	0.47
34:DA:2748:A:H2'	34:DA:2749:A:O4'	2.14	0.47
34:DA:2736:G:O2'	34:DA:2737:G:H5'	2.15	0.47
34:DA:2617:C:H2'	34:DA:2618:G:H5'	1.97	0.47
1:AA:796:C:O2'	1:AA:797:C:H5'	2.15	0.47
34:DA:2291:U:H2'	34:DA:2292:C:H6	1.80	0.47
34:DA:2653:U:C3'	34:DA:2654:A:H5''	2.44	0.47
50:DU:101:ARG:HB3	50:DU:102:GLU:OE2	2.15	0.47
34:BA:270:A:C2'	34:BA:271:A:H5'	2.45	0.47
1:CA:227:G:H2'	1:CA:228:A:H8	1.79	0.47
34:DA:1827:C:O2'	34:DA:1828:G:H5'	2.15	0.47
18:AR:68:LYS:O	18:AR:69:THR:C	2.53	0.47
6:AF:82:ARG:HH11	6:AF:82:ARG:CB	2.27	0.47
34:BA:1653:G:O2'	34:BA:1654:A:OP2	2.28	0.47
34:BA:737:C:O2'	34:BA:738:G:H5'	2.15	0.47
4:CD:60:GLU:OE2	4:CD:198:VAL:HA	2.15	0.47
34:DA:752:A:HO2'	34:DA:753:C:P	2.37	0.47
2:CB:221:LEU:O	2:CB:221:LEU:HD13	2.15	0.47
15:AO:3:ILE:H	15:AO:3:ILE:HD13	1.80	0.47
34:DA:1572:A:O2'	34:DA:1573:G:H5'	2.15	0.47
1:CA:588:G:H2'	1:CA:589:C:H6	1.80	0.47
38:BE:17:ASP:O	38:BE:18:ASP:CG	2.53	0.47
1:AA:397:A:H5'	1:AA:398:C:OP1	2.14	0.47
1:CA:1338:G:O2'	1:CA:1339:A:H5'	2.15	0.47
40:DG:19:LEU:C	40:DG:21:ARG:N	2.68	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1088:G:N1	1:AA:1089:G:C5	2.83	0.47
48:BS:39:ILE:O	48:BS:47:THR:HG23	2.15	0.47
1:AA:1271:G:H2'	1:AA:1272:G:C8	2.50	0.47
38:BE:89:ASP:O	38:BE:90:THR:HB	2.15	0.47
34:BA:1361:G:O2'	34:BA:1362:C:H5'	2.15	0.47
37:DD:53:PHE:CE1	37:DD:220:HIS:HA	2.50	0.47
45:BP:136:GLU:O	45:BP:139:LYS:HB3	2.14	0.47
34:DA:1808:U:C5	34:DA:1809:A:N7	2.82	0.47
12:AL:7:ILE:O	12:AL:10:LEU:N	2.48	0.47
34:BA:224:G:N2	34:BA:225:A:H1'	2.30	0.47
38:DE:87:GLU:HG3	38:DE:87:GLU:O	2.15	0.47
37:BD:271:ILE:N	37:BD:271:ILE:HD12	2.30	0.47
45:DP:81:GLN:HE21	45:DP:81:GLN:HA	1.79	0.47
42:BI:94:ALA:CB	42:BI:114:LEU:HD12	2.45	0.47
42:BI:127:VAL:HA	42:BI:139:GLN:HA	1.96	0.47
34:BA:1225:G:OP1	51:BV:88:ARG:HD2	2.15	0.47
49:DT:31:SER:CA	49:DT:32:TYR:HD2	2.28	0.47
49:BT:26:ASP:HB3	49:BT:89:VAL:O	2.15	0.47
37:BD:35:LYS:HE3	37:BD:65:ILE:N	2.29	0.47
45:DP:96:THR:HG22	45:DP:126:VAL:HG23	1.97	0.47
34:DA:1484:G:H8	34:DA:1484:G:O5'	1.98	0.47
33:B8:53:PRO:HA	33:B8:56:GLU:HB2	1.96	0.47
2:CB:19:HIS:CD2	2:CB:205:ASP:OD1	2.68	0.47
46:BQ:81:VAL:HG12	46:BQ:82:ARG:HG2	1.96	0.47
48:DS:52:SER:CB	48:DS:55:ALA:HB3	2.45	0.47
34:BA:2712:U:O2'	34:BA:2713:A:H5'	2.15	0.47
53:DX:92:LEU:O	53:DX:93:GLU:CB	2.63	0.47
55:BZ:30:ASN:HD21	55:BZ:32:HIS:HB2	1.80	0.47
54:BY:87:LYS:HG3	54:BY:88:LYS:N	2.30	0.47
54:BY:81:LYS:CE	54:BY:97:ARG:HG3	2.45	0.47
5:CE:139:LEU:HA	5:CE:142:LEU:HD12	1.97	0.47
37:BD:267:SER:O	37:BD:269:PHE:HD1	1.97	0.47
27:B2:30:ARG:CG	27:B2:30:ARG:NH1	2.74	0.47
19:AS:61:TYR:HE2	19:AS:63:THR:HB	1.80	0.47
46:BQ:42:ILE:HG23	46:BQ:46:GLN:OE1	2.15	0.47
46:BQ:47:ILE:HG13	46:BQ:68:ILE:HD11	1.95	0.47
13:AM:91:ARG:CB	13:AM:98:VAL:HG11	2.45	0.47
1:CA:918:A:H2'	1:CA:919:A:O4'	2.15	0.47
13:CM:97:PRO:HA	13:CM:110:ARG:HD3	1.97	0.47
5:AE:31:LEU:CD2	5:AE:43:LEU:HD11	2.45	0.47
1:AA:1501:C:H5''	1:AA:1502:A:OP2	2.14	0.47
49:BT:55:ASN:H	49:BT:59:THR:HB	1.80	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:DU:40:PHE:CD1	51:DV:78:LYS:NZ	2.83	0.47
34:DA:2201:C:H2'	34:DA:2202:C:H6	1.79	0.47
34:BA:2306:C:H5	34:BA:2307:G:H1'	1.80	0.47
17:AQ:67:LYS:CA	17:AQ:70:ARG:NH1	2.76	0.47
4:CD:10:ARG:C	4:CD:11:LEU:HD23	2.35	0.47
34:DA:1748:G:H2'	34:DA:1749:A:O4'	2.16	0.47
37:DD:69:ARG:NH2	37:DD:105:ILE:CD1	2.78	0.47
23:CW:25:C:H2'	23:CW:26:A:H8	1.78	0.47
34:BA:2298:A:N6	34:BA:2318:G:H8	2.12	0.47
8:AH:63:LEU:HB2	8:AH:65:TYR:CE1	2.50	0.47
34:DA:1803:A:H4'	37:DD:259:THR:HG21	1.97	0.47
3:AC:33:LEU:HD21	14:AN:39:LEU:HD11	1.95	0.47
49:BT:50:ILE:HA	49:BT:99:LEU:HD11	1.97	0.47
34:BA:1675:C:C2	38:BE:129:HIS:CD2	3.03	0.47
34:DA:2481:G:HO2'	34:DA:2482:G:P	2.38	0.47
46:DQ:121:ALA:O	46:DQ:124:LYS:N	2.42	0.47
25:B0:27:GLU:HG3	25:B0:67:VAL:O	2.14	0.47
10:CJ:33:GLN:N	10:CJ:75:ILE:HD11	2.23	0.47
2:CB:84:GLU:OE1	2:CB:216:SER:HA	2.14	0.47
1:AA:1155:G:O2'	1:AA:1156:G:H5'	2.15	0.47
50:DU:8:VAL:O	50:DU:9:VAL:C	2.53	0.47
34:BA:1287:A:N7	47:BR:106:GLY:O	2.48	0.47
2:AB:78:GLN:HB3	2:AB:94:ASN:HD21	1.80	0.47
34:BA:361:G:C2'	34:BA:362:U:H5''	2.39	0.47
2:AB:178:ARG:HD2	8:AH:71:GLY:HA2	1.97	0.47
34:DA:1260:G:C6	34:DA:1261:C:C4	3.03	0.47
51:DV:25:LEU:H	51:DV:94:LEU:CD1	2.25	0.47
1:CA:59:A:H3'	1:CA:331:G:H22	1.80	0.47
22:AV:4:G:O2'	22:AV:5:G:OP2	2.32	0.47
34:DA:323:G:H2'	39:DF:169:ASN:OD1	2.15	0.47
12:AL:70:ILE:HA	12:AL:71:PRO:HD3	1.75	0.47
1:CA:1073:U:O2'	1:CA:1074:G:H5'	2.16	0.47
34:DA:500:G:H22	34:DA:502:A:H3'	1.79	0.47
34:BA:149:A:H2'	34:BA:150:C:O4'	2.15	0.47
7:CG:25:ALA:O	7:CG:28:ASN:HB2	2.14	0.47
34:DA:2170:A:HO2'	34:DA:2171:A:H8	1.56	0.47
37:DD:85:ASP:OD2	37:DD:88:ARG:NH1	2.42	0.47
23:CW:2:C:N4	23:CW:71:G:H1	2.13	0.47
1:AA:1327:C:P	21:AU:12:LYS:HZ1	2.38	0.47
34:BA:974:G:C5	34:BA:989:G:C2	3.03	0.47
1:CA:243:A:O2'	1:CA:244:U:OP2	2.29	0.47
34:BA:723:G:H2'	34:BA:724:U:O4'	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:900:A:H3'	34:DA:901:A:H8	1.78	0.47
1:AA:992:U:H4'	1:AA:993:G:O5'	2.15	0.47
1:AA:360:A:O2'	1:AA:361:G:H5'	2.15	0.47
1:AA:189(J):G:O2'	1:AA:189(K):U:H5'	2.15	0.47
7:CG:36:LYS:HA	7:CG:39:ALA:HB3	1.95	0.47
34:DA:521:G:H2'	34:DA:522:G:H8	1.80	0.47
34:BA:1854:A:H3'	34:BA:1855:G:H8	1.80	0.47
11:CK:114:VAL:O	11:CK:114:VAL:HG13	2.15	0.47
10:AJ:23:ILE:HG22	10:AJ:23:ILE:O	2.14	0.47
10:AJ:79:ARG:HH11	10:AJ:79:ARG:HG2	1.80	0.47
45:BP:149:GLU:HG3	45:BP:149:GLU:O	2.15	0.47
49:DT:106:SER:O	49:DT:107:ASP:HB3	2.15	0.47
8:CH:97:VAL:HB	8:CH:129:VAL:O	2.15	0.47
34:DA:1162:G:N3	51:DV:91:TYR:CE1	2.81	0.46
34:BA:2705:A:H2'	34:BA:2706:G:C8	2.50	0.46
38:DE:36:ARG:NH2	38:DE:88:GLY:H	2.14	0.46
34:BA:482:A:C4'	54:BY:47:LYS:HZ2	2.25	0.46
48:BS:90:GLY:C	48:BS:92:TYR:N	2.65	0.46
49:BT:29:ARG:CG	49:BT:30:VAL:H	2.27	0.46
45:BP:16:ARG:HG2	45:BP:18:ARG:N	2.14	0.46
37:BD:35:LYS:HD3	37:BD:63:ARG:CA	2.45	0.46
36:BC:40:THR:O	36:BC:40:THR:HG23	2.15	0.46
42:DI:79:ILE:HG22	42:DI:81:VAL:HG23	1.97	0.46
54:DY:65:ALA:O	54:DY:67:LEU:N	2.48	0.46
35:DB:75:G:H2'	35:DB:76:G:H5'	1.97	0.46
46:DQ:141:GLN:N	55:DZ:53:ILE:O	2.49	0.46
55:DZ:24:LEU:HD23	55:DZ:25:PRO:O	2.16	0.46
2:CB:164:VAL:CG1	2:CB:165:VAL:N	2.78	0.46
53:BX:37:THR:C	53:BX:39:ILE:H	2.18	0.46
43:DN:47:ALA:HB2	43:DN:112:LEU:HD11	1.97	0.46
43:DN:9:VAL:CG1	43:DN:39:ARG:HH22	2.28	0.46
50:DU:64:ARG:O	50:DU:68:ALA:CB	2.63	0.46
41:DH:137:ASP:HB3	41:DH:140:LYS:HB2	1.97	0.46
41:DH:57:ASP:O	41:DH:62:LYS:HE3	2.15	0.46
43:BN:43:THR:HG21	43:BN:46:VAL:HB	1.97	0.46
10:CJ:38:ILE:HG13	10:CJ:38:ILE:O	2.15	0.46
34:BA:810:U:O2'	45:BP:33:ARG:CZ	2.63	0.46
34:DA:2713:A:C3'	34:DA:2714:G:C5'	2.93	0.46
34:DA:941:A:H4'	45:DP:35:HIS:HE1	1.78	0.46
47:BR:2:ARG:HG2	47:BR:5:LYS:HZ1	1.80	0.46
53:DX:27:THR:CB	53:DX:77:LYS:HA	2.45	0.46
22:CV:72:A:C2'	22:CV:73:A:H5''	2.44	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:70:VAL:C	3:AC:106:VAL:HG23	2.34	0.46
1:CA:1226:C:H2'	13:CM:103:THR:OG1	2.14	0.46
26:B1:33:LYS:C	26:B1:34:THR:HG22	2.34	0.46
26:B1:26:ARG:NE	26:B1:34:THR:OG1	2.48	0.46
34:DA:389:G:H1	45:DP:71:VAL:HG12	1.79	0.46
45:BP:131:SER:C	45:BP:133:SER:H	2.18	0.46
27:D2:49:LYS:O	27:D2:51:ARG:C	2.54	0.46
1:AA:1507:A:C2	1:AA:1508:G:C4	3.03	0.46
53:DX:70:LEU:CG	53:DX:71:GLY:N	2.78	0.46
4:AD:92:VAL:O	4:AD:93:PHE:C	2.54	0.46
3:AC:86:VAL:O	3:AC:89:GLU:HB3	2.15	0.46
34:DA:860:U:O2	34:DA:860:U:O4'	2.32	0.46
34:BA:827:U:H5'	34:BA:828:U:O5'	2.15	0.46
1:CA:1065:U:H5''	1:CA:1190:G:N2	2.30	0.46
1:CA:1068:G:N3	1:CA:1191:A:C2	2.83	0.46
55:BZ:178:GLU:OE2	55:BZ:178:GLU:HA	2.15	0.46
8:CH:36:LEU:O	8:CH:37:ARG:C	2.51	0.46
9:AI:47:LEU:N	9:AI:47:LEU:HD12	2.30	0.46
34:DA:2308:G:C8	34:DA:2309:A:H3'	2.50	0.46
34:BA:1748:G:H2'	34:BA:1749:A:O4'	2.15	0.46
34:BA:2201:C:H2'	34:BA:2202:C:H6	1.80	0.46
1:AA:1030(A):G:H1'	1:AA:1031:G:H22	1.81	0.46
1:AA:627:G:O2'	1:AA:628:G:H5'	2.15	0.46
1:CA:114:U:H2'	1:CA:115:G:H8	1.77	0.46
35:DB:38:C:O2	35:DB:48:A:H1'	2.15	0.46
23:CW:16:U:H6	23:CW:17:C:H5'	1.80	0.46
33:B8:40:GLU:OE1	33:B8:44:LYS:HE3	2.15	0.46
38:DE:142:GLY:C	38:DE:143:ASN:HD22	2.18	0.46
34:BA:1799:G:H2'	37:BD:181:GLU:OE2	2.15	0.46
9:CI:20:ARG:O	9:CI:60:ASP:N	2.42	0.46
2:AB:204:ASN:C	2:AB:204:ASN:HD22	2.19	0.46
35:BB:21:G:O6	35:BB:62:C:N3	2.48	0.46
2:CB:178:ARG:HH11	2:CB:178:ARG:CB	2.23	0.46
34:BA:1231:G:O2'	34:BA:1232:G:H5'	2.15	0.46
34:BA:2370:G:H2'	34:BA:2371:G:C8	2.50	0.46
1:AA:973:G:OP1	10:AJ:57:LYS:NZ	2.48	0.46
53:BX:14:SER:O	53:BX:17:ALA:N	2.48	0.46
16:CP:28:ARG:HG2	16:CP:29:ASP:OD2	2.15	0.46
50:DU:102:GLU:HB2	50:DU:105:VAL:CG2	2.42	0.46
34:DA:235:U:O2'	34:DA:236:C:H5'	2.15	0.46
1:AA:1411:C:O2'	1:AA:1412:C:H5'	2.14	0.46
13:CM:34:LEU:HA	13:CM:37:THR:OG1	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1296:C:H5'	1:CA:1297:C:OP2	2.15	0.46
34:DA:266:G:H2'	34:DA:267:C:C5'	2.45	0.46
2:CB:239:VAL:O	2:CB:241:GLU:N	2.48	0.46
40:DG:91:ARG:HH11	40:DG:91:ARG:HG3	1.80	0.46
1:CA:424:G:H2'	1:CA:425:G:H8	1.80	0.46
34:BA:709:U:H2'	34:BA:710:G:C8	2.51	0.46
20:CT:26:ASN:N	20:CT:26:ASN:ND2	2.61	0.46
34:BA:1811:G:H2'	34:BA:1812:A:H8	1.79	0.46
15:CO:65:ARG:O	15:CO:68:ARG:HB3	2.15	0.46
34:DA:2651:C:O2'	34:DA:2652:C:H5'	2.15	0.46
34:BA:2516:G:H2'	34:BA:2517:C:C6	2.50	0.46
1:CA:597:G:H2'	1:CA:598:U:H5'	1.97	0.46
36:BC:68:LEU:CD2	36:BC:179:SER:HA	2.45	0.46
35:BB:97:G:C2	35:BB:98:G:C8	3.02	0.46
34:BA:1783:A:C2	34:BA:2587:A:C4	3.03	0.46
51:DV:21:ARG:HG3	51:DV:93:GLU:OE1	2.15	0.46
37:DD:61:LEU:O	37:DD:63:ARG:NH1	2.48	0.46
38:DE:45:THR:HG22	38:DE:45:THR:O	2.15	0.46
1:CA:951:G:OP2	13:CM:102:ARG:NH1	2.48	0.46
2:AB:162:ILE:O	2:AB:162:ILE:HG13	2.14	0.46
54:BY:11:ASP:N	54:BY:27:VAL:HG22	2.29	0.46
37:BD:30:GLU:CD	37:BD:63:ARG:NE	2.68	0.46
26:B1:73:LEU:HG	26:B1:94:LEU:HG	1.95	0.46
26:B1:87:PRO:HG2	26:B1:88:LYS:N	2.31	0.46
26:B1:88:LYS:O	26:B1:92:LYS:CB	2.63	0.46
54:DY:7:VAL:HB	54:DY:8:LYS:HD2	1.96	0.46
55:DZ:71:VAL:CG1	55:DZ:74:VAL:HG23	2.45	0.46
33:D8:13:ARG:HD2	45:DP:61:ARG:NH1	2.30	0.46
27:B2:52:ASP:C	27:B2:56:GLN:HE22	2.18	0.46
34:BA:1596:A:O2'	34:BA:1597:A:H5'	2.15	0.46
41:DH:136:ILE:HD12	41:DH:136:ILE:N	2.28	0.46
18:AR:56:THR:O	18:AR:58:LEU:HD12	2.15	0.46
18:CR:55:ARG:HH11	18:CR:55:ARG:HG3	1.79	0.46
53:DX:65:ARG:NE	53:DX:66:LEU:N	2.63	0.46
54:DY:91:GLU:HB3	54:DY:92:ASN:H	1.44	0.46
10:CJ:15:THR:OG1	10:CJ:16:LEU:N	2.48	0.46
46:DQ:47:ILE:HG13	46:DQ:68:ILE:HD11	1.97	0.46
26:D1:82:LEU:CD1	26:D1:83:GLU:H	2.29	0.46
34:DA:1301:A:HO2'	34:DA:1302:A:H2'	1.75	0.46
34:DA:2808:U:O2'	34:DA:2809:A:H5'	2.16	0.46
30:D5:57:VAL:C	30:D5:58:LEU:HD12	2.35	0.46
43:DN:33:LEU:O	43:DN:34:LEU:C	2.53	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DE:119:ARG:HH11	38:DE:160:TYR:HB2	1.79	0.46
39:BF:165:ARG:HG2	39:BF:165:ARG:H	1.59	0.46
39:DF:68:LYS:O	39:DF:69:HIS:CD2	2.68	0.46
12:CL:5:PRO:HA	12:CL:9:GLN:NE2	2.31	0.46
27:D2:17:SER:HB3	27:D2:18:PRO:HD3	1.97	0.46
4:AD:105:VAL:O	4:AD:105:VAL:HG12	2.15	0.46
4:AD:92:VAL:O	4:AD:95:GLY:N	2.48	0.46
44:DO:3:GLN:HG3	44:DO:4:PRO:HD2	1.96	0.46
12:CL:60:LEU:HD23	12:CL:64:TYR:HB3	1.97	0.46
34:BA:1848:A:C5	34:BA:1849:G:C8	3.03	0.46
48:BS:33:LYS:HA	48:BS:62:LYS:NZ	2.30	0.46
19:CS:66:MET:HB2	19:CS:74:PHE:HZ	1.80	0.46
34:BA:1767:C:H2'	34:BA:1768:U:O4'	2.15	0.46
35:DB:79:C:H2'	35:DB:80:U:H5'	1.97	0.46
51:DV:1:MET:HE3	51:DV:44:LYS:HB3	1.98	0.46
8:CH:29:SER:O	8:CH:32:LYS:N	2.49	0.46
47:DR:12:ARG:HH11	47:DR:12:ARG:HG3	1.79	0.46
38:BE:134:ILE:H	38:BE:134:ILE:CD1	2.26	0.46
34:BA:292:C:C2	34:BA:349:G:C2	3.03	0.46
52:DW:40:ASN:C	52:DW:41:LYS:HG2	2.36	0.46
12:CL:53:ARG:NH1	12:CL:53:ARG:HG2	2.30	0.46
2:AB:211:ILE:O	2:AB:215:LEU:HB2	2.15	0.46
39:BF:83:PHE:O	39:BF:84:VAL:C	2.52	0.46
2:AB:10:LEU:CD2	2:AB:10:LEU:H	2.21	0.46
34:BA:2883:A:C5'	34:BA:2884:U:H5'	2.45	0.46
2:CB:124:SER:O	2:CB:127:ILE:HG12	2.15	0.46
4:AD:127:THR:OG1	4:AD:128:VAL:N	2.48	0.46
9:AI:118:LYS:NZ	9:AI:118:LYS:HB3	2.30	0.46
40:BG:173:LEU:HB3	40:BG:178:PHE:CD1	2.49	0.46
34:BA:2653:U:C3'	34:BA:2654:A:H5''	2.45	0.46
34:BA:945:A:C4	34:BA:2448:A:C2	3.03	0.46
17:AQ:79:SER:O	17:AQ:81:ARG:HG3	2.16	0.46
39:DF:167:ALA:C	39:DF:169:ASN:H	2.18	0.46
34:DA:322:A:H3'	39:DF:169:ASN:ND2	2.27	0.46
37:DD:231:HIS:ND1	37:DD:232:PRO:N	2.63	0.46
44:DO:113:LYS:HA	44:DO:116:SER:OG	2.15	0.46
3:CC:120:VAL:HG13	3:CC:124:ILE:HD11	1.96	0.46
34:BA:184:C:H2'	34:BA:185:U:C6	2.50	0.46
42:BI:29:TYR:HE1	42:BI:33:ARG:HE	1.55	0.46
34:DA:2162:G:H3'	34:DA:2162:G:OP2	2.14	0.46
4:CD:68:TYR:CD2	4:CD:97:LEU:HD22	2.50	0.46
2:CB:59:GLU:C	2:CB:61:LEU:H	2.18	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:922:U:H2'	34:BA:923:C:C6	2.50	0.46
34:BA:1339:G:H21	34:BA:1603:A:H1'	1.79	0.46
4:CD:173:TRP:CE3	4:CD:189:PRO:HB3	2.50	0.46
40:BG:121:ASN:OD1	40:BG:123:ASN:N	2.39	0.46
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.96	0.46
1:AA:617:G:H1	1:AA:623:C:H42	1.63	0.46
1:AA:1484:C:H2'	1:AA:1485:U:C6	2.47	0.46
34:DA:2811:G:O2'	34:DA:2812:G:H5'	2.16	0.46
16:AP:19:ILE:HG22	16:AP:36:ILE:CG1	2.45	0.46
34:DA:256:A:H2'	34:DA:257:A:H8	1.80	0.46
4:CD:150:GLU:HG2	4:CD:151:LYS:H	1.80	0.46
1:CA:1522:U:H2'	1:CA:1523:G:H8	1.79	0.46
34:DA:1312:U:H4'	34:DA:1313:U:O5'	2.14	0.46
34:BA:2004:G:H2'	34:BA:2005:A:O4'	2.15	0.46
40:BG:58:GLN:O	40:BG:62:LEU:HD12	2.15	0.46
34:DA:507:A:O4'	34:DA:509:C:C2	2.67	0.46
34:DA:335:C:H2'	34:DA:336:C:C6	2.51	0.46
3:AC:111:LEU:HD21	3:AC:145:GLY:O	2.14	0.46
34:DA:2382:G:O5'	34:DA:2382:G:H8	1.99	0.46
51:DV:70:ILE:HG12	51:DV:71:LEU:H	1.76	0.46
42:BI:121:LYS:O	42:BI:122:GLU:HB2	2.15	0.46
37:BD:144:ALA:HB3	37:BD:192:THR:CG2	2.45	0.46
2:AB:43:ASP:OD1	2:AB:45:GLN:HB3	2.14	0.46
37:BD:35:LYS:HG2	37:BD:64:ILE:CA	2.45	0.46
26:B1:47:GLN:CB	34:BA:397:G:H5''	2.37	0.46
34:BA:1158:C:O2'	34:BA:1159:U:P	2.73	0.46
34:BA:242:G:N2	34:BA:254:G:H2'	2.30	0.46
55:DZ:15:PRO:HA	55:DZ:18:LEU:HD13	1.97	0.46
2:CB:91:PRO:CG	2:CB:154:LEU:HD12	2.44	0.46
45:DP:58:THR:O	45:DP:58:THR:HG22	2.15	0.46
27:B2:51:ARG:HD3	27:B2:51:ARG:C	2.36	0.46
38:DE:169:ASN:HD21	38:DE:203:LYS:HB3	1.80	0.46
55:DZ:149:SER:HB2	55:DZ:172:ALA:O	2.15	0.46
34:DA:910:A:H62	46:DQ:12:GLN:HA	1.81	0.46
1:CA:719:C:C2	18:CR:50:ILE:HG12	2.50	0.46
50:BU:66:ASN:O	50:BU:68:ALA:N	2.48	0.46
27:D2:29:LYS:O	27:D2:32:LEU:HB3	2.16	0.46
34:BA:589:C:H2'	34:BA:590:A:C8	2.50	0.46
45:BP:23:PRO:O	45:BP:33:ARG:NE	2.48	0.46
5:AE:107:ARG:HG2	5:AE:108:ALA:N	2.30	0.46
45:DP:14:LYS:O	45:DP:15:ARG:CG	2.63	0.46
17:CQ:33:GLY:O	17:CQ:34:LYS:C	2.53	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:139:LEU:C	5:CE:141:GLN:H	2.17	0.46
38:BE:109:LYS:CB	47:BR:2:ARG:NH1	2.72	0.46
55:BZ:152:ALA:CB	55:BZ:167:PRO:HB2	2.33	0.46
55:BZ:7:ALA:HB2	55:BZ:59:LEU:HB3	1.98	0.46
46:DQ:22:LYS:HA	46:DQ:22:LYS:HE2	1.97	0.46
53:BX:5:TYR:C	53:BX:7:VAL:N	2.69	0.46
40:DG:111:LEU:O	40:DG:112:PRO:C	2.53	0.46
27:B2:26:ARG:NE	27:B2:29:LYS:HZ1	2.13	0.46
12:AL:86:ARG:HB2	12:AL:101:VAL:CG2	2.45	0.46
3:CC:194:GLY:O	3:CC:195:VAL:HG23	2.15	0.46
43:DN:15:LEU:HD21	43:DN:55:VAL:HG21	1.97	0.46
34:DA:2681:C:O2	34:DA:2681:C:O4'	2.33	0.46
13:AM:110:ARG:HH11	13:AM:110:ARG:HG2	1.80	0.46
34:DA:197:A:H5'	34:DA:197:A:C8	2.51	0.46
34:DA:2060:A:OP1	39:DF:68:LYS:O	2.33	0.46
41:DH:92:ILE:CD1	41:DH:92:ILE:N	2.78	0.46
1:CA:1221:G:P	19:CS:36:ARG:HD3	2.54	0.46
34:BA:271(A):A:H62	34:BA:271(W):G:H21	1.63	0.46
45:DP:38:GLN:HG3	45:DP:39:LYS:N	2.17	0.46
40:BG:145:THR:HG23	40:BG:148:MET:CB	2.38	0.46
41:BH:146:ALA:C	41:BH:148:ILE:N	2.69	0.46
46:BQ:52:VAL:O	46:BQ:55:VAL:HG13	2.16	0.46
39:BF:173:VAL:HG12	39:BF:174:VAL:N	2.31	0.46
34:BA:1428:C:C5	34:BA:1569:A:H5''	2.51	0.46
37:DD:118:VAL:CG2	37:DD:119:ALA:H	2.22	0.46
8:AH:20:TYR:HA	8:AH:65:TYR:CZ	2.49	0.46
2:CB:68:ILE:H	2:CB:90:MET:HE2	1.80	0.46
34:BA:2876:G:H4'	49:BT:3:ARG:CD	2.40	0.46
1:AA:630:G:C3'	1:AA:631:G:H5''	2.45	0.46
34:DA:1227:G:C2'	34:DA:1228:G:H5'	2.45	0.46
47:DR:106:GLY:O	47:DR:107:ASP:CB	2.62	0.46
1:CA:624:C:H2'	1:CA:625:G:H8	1.81	0.46
1:CA:627:G:O2'	1:CA:628:G:H5'	2.16	0.46
34:DA:2707:G:H2'	34:DA:2708:G:H8	1.81	0.46
7:CG:71:PRO:HG3	7:CG:103:TRP:CH2	2.51	0.46
20:CT:89:ARG:HH21	20:CT:89:ARG:HG3	1.80	0.46
9:CI:124:GLN:HB3	9:CI:125:TYR:H	1.61	0.46
18:CR:37:VAL:HG23	18:CR:38:GLU:H	1.80	0.46
26:B1:37:ILE:O	26:B1:38:SER:HB2	2.14	0.46
34:DA:575:A:O2'	34:DA:576:U:H5'	2.15	0.46
1:AA:15:G:C4'	5:AE:24:ARG:NH2	2.77	0.46
50:BU:102:GLU:HB2	50:BU:105:VAL:CG2	2.42	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:D4:30:GLU:O	29:D4:31:ILE:CB	2.62	0.46
34:DA:2815:C:H2'	34:DA:2816:C:H6	1.79	0.46
37:DD:231:HIS:CG	37:DD:232:PRO:HD2	2.50	0.46
1:AA:250:A:HO2'	1:AA:251:G:P	2.38	0.46
31:D6:14:THR:O	31:D6:14:THR:HG23	2.15	0.46
4:AD:67:ILE:HG22	4:AD:68:TYR:N	2.29	0.46
1:AA:101:A:C2	1:AA:102:G:C8	3.04	0.46
55:DZ:33:LEU:CG	55:DZ:34:ASN:N	2.79	0.46
36:DC:97:GLU:CA	36:DC:100:ILE:HG12	2.46	0.46
34:BA:1337:G:H2'	34:BA:1338:G:O4'	2.15	0.46
20:AT:73:HIS:O	20:AT:74:LYS:O	2.33	0.46
9:AI:9:ARG:HA	9:AI:13:ALA:O	2.16	0.46
34:DA:1775:U:C2'	34:DA:1776:G:O5'	2.63	0.46
1:AA:198:G:H2'	1:AA:199:G:C8	2.50	0.46
1:CA:1041:A:H2'	1:CA:1042:G:H8	1.79	0.46
55:DZ:6:LYS:HB3	55:DZ:8:TYR:HE1	1.79	0.46
47:BR:75:LEU:O	47:BR:75:LEU:HD13	2.15	0.46
30:D5:44:THR:HG21	47:DR:101:ALA:CA	2.45	0.46
8:CH:40:ALA:O	8:CH:43:GLY:N	2.30	0.46
39:BF:185:ASP:HA	39:BF:188:ARG:HB3	1.97	0.46
2:AB:198:ASP:N	2:AB:198:ASP:OD2	2.48	0.46
17:AQ:91:ARG:O	17:AQ:94:ASN:HB2	2.16	0.46
8:CH:97:VAL:CB	8:CH:129:VAL:O	2.64	0.46
5:AE:95:ALA:O	5:AE:98:THR:OG1	2.26	0.46
34:BA:42:G:H2'	34:BA:43:A:O4'	2.16	0.46
34:DA:1811:G:H2'	34:DA:1812:A:H8	1.80	0.46
41:DH:58:GLU:C	41:DH:60:ARG:N	2.66	0.46
2:CB:238:LEU:N	2:CB:238:LEU:HD23	2.30	0.46
44:DO:61:VAL:O	44:DO:61:VAL:HG13	2.15	0.46
2:CB:28:PHE:CD1	2:CB:28:PHE:O	2.69	0.46
40:BG:143:GLU:H	40:BG:143:GLU:HG2	1.31	0.46
34:DA:1839:G:H8	34:DA:1839:G:H5'	1.80	0.46
34:DA:1121:C:H2'	34:DA:1122:G:O4'	2.15	0.46
50:BU:92:ARG:NH1	51:BV:11:GLN:H	2.12	0.46
38:DE:52:LEU:HD22	38:DE:76:ARG:HD2	1.97	0.46
38:BE:169:ASN:OD1	38:BE:201:THR:HG23	2.14	0.46
42:DI:88:ILE:HD11	42:DI:123:LEU:HG	1.98	0.46
2:CB:189:ASP:OD1	2:CB:205:ASP:HB3	2.15	0.46
2:CB:204:ASN:C	2:CB:204:ASN:HD22	2.18	0.46
33:D8:42:ARG:O	33:D8:44:LYS:N	2.47	0.46
33:B8:13:ARG:HD2	45:BP:61:ARG:NH1	2.30	0.46
50:DU:61:TRP:O	50:DU:62:ILE:C	2.54	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BR:48:VAL:HA	47:BR:51:LEU:HD12	1.97	0.46
34:BA:2869:G:O3'	47:BR:61:HIS:HE1	1.98	0.46
46:DQ:8:LYS:HE3	46:DQ:9:TYR:CD1	2.51	0.46
41:DH:35:VAL:HG12	41:DH:35:VAL:O	2.14	0.46
43:BN:42:TRP:HE3	43:BN:42:TRP:HA	1.81	0.46
53:DX:89:ILE:HG22	53:DX:89:ILE:O	2.16	0.46
34:BA:570:G:H2'	34:BA:2030:A:C5	2.50	0.46
41:BH:41:MET:CE	41:BH:55:PRO:HD3	2.45	0.46
42:BI:9:LEU:N	42:BI:13:GLY:HA2	2.09	0.46
5:AE:101:ILE:HG13	5:AE:119:LEU:CD2	2.34	0.46
1:AA:321:A:C2	1:AA:333:G:C2	3.04	0.46
20:CT:53:LEU:O	20:CT:57:ARG:N	2.37	0.46
5:CE:41:VAL:CG1	5:CE:113:ALA:HA	2.45	0.46
26:D1:78:LYS:HZ1	26:D1:90:ILE:HA	1.80	0.46
4:AD:73:ARG:NH1	4:AD:73:ARG:HA	2.15	0.46
44:DO:40:VAL:HG12	44:DO:41:ALA:N	2.29	0.46
44:BO:21:CYS:SG	44:BO:22:ILE:N	2.88	0.46
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.96	0.46
47:DR:2:ARG:HG2	47:DR:5:LYS:HZ1	1.80	0.46
39:BF:103:LYS:C	39:BF:105:VAL:H	2.19	0.46
34:DA:2069:G:C2'	34:DA:2070:G:H5'	2.45	0.46
1:CA:714:G:H2'	1:CA:715:A:C8	2.50	0.46
34:BA:580:C:H2'	34:BA:581:C:C6	2.50	0.46
27:D2:41:ILE:O	27:D2:42:GLY:C	2.54	0.46
4:AD:92:VAL:HG12	4:AD:96:LEU:HD21	1.97	0.46
42:DI:72:LEU:HD12	42:DI:138:ILE:HG21	1.98	0.46
13:CM:65:LYS:HA	13:CM:66:LEU:CD1	2.44	0.46
41:DH:89:ILE:CG1	41:DH:90:LYS:N	2.79	0.46
6:CF:69:GLU:O	6:CF:72:VAL:HG12	2.15	0.46
34:BA:343:C:C2'	34:BA:344:G:H5''	2.45	0.46
46:DQ:134:ARG:CG	46:DQ:135:ASP:H	2.23	0.46
47:BR:17:ARG:O	47:BR:20:LEU:HB3	2.16	0.46
15:CO:33:THR:O	15:CO:36:ILE:N	2.49	0.46
35:DB:5:C:H2'	35:DB:6:C:C6	2.50	0.46
23:CW:16:U:H3'	23:CW:17:C:C5'	2.41	0.46
1:AA:758:G:H5''	1:AA:880:C:H1'	1.98	0.46
2:AB:80:ILE:HG13	2:AB:81:VAL:N	2.30	0.46
37:DD:142:VAL:CG2	37:DD:192:THR:C	2.80	0.46
45:BP:85:LEU:HD12	45:BP:120:ALA:CB	2.45	0.46
12:AL:53:ARG:NH1	12:AL:53:ARG:HG2	2.29	0.46
1:CA:197:A:C5	1:CA:221:C:H4'	2.50	0.46
1:CA:190:U:O2'	1:CA:191:G:H5'	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1657:C:H2'	34:DA:1658:C:C6	2.50	0.46
35:DB:21:G:O6	35:DB:62:C:N3	2.48	0.46
34:BA:849:A:C8	34:BA:850:C:C5	3.03	0.46
52:DW:92:ARG:HG2	52:DW:92:ARG:HH11	1.81	0.46
1:CA:974:A:P	14:CN:41:ARG:HH12	2.39	0.46
34:BA:1289:C:H2'	34:BA:1290:C:C6	2.50	0.46
11:CK:18:ARG:HG2	11:CK:20:TYR:CE1	2.51	0.46
34:DA:2291:U:H2'	34:DA:2292:C:C6	2.49	0.46
17:CQ:59:ILE:HG23	17:CQ:71:PHE:HB3	1.98	0.46
22:AV:4:G:O2'	22:AV:5:G:P	2.74	0.46
17:AQ:59:ILE:HG23	17:AQ:71:PHE:HB3	1.96	0.46
34:DA:408:G:O2'	34:DA:409:C:H5'	2.15	0.46
16:CP:82:GLN:O	16:CP:84:ALA:N	2.49	0.46
34:BA:575:A:O2'	34:BA:576:U:H5'	2.15	0.46
41:BH:30:LYS:HZ1	41:BH:81:GLU:HG2	1.78	0.46
12:CL:113:ARG:NH1	12:CL:120:TYR:CD2	2.83	0.46
20:CT:60:GLU:O	20:CT:63:ILE:HB	2.15	0.46
34:DA:1694:C:O2'	34:DA:1695:G:C4	2.66	0.46
20:AT:73:HIS:HB3	20:AT:74:LYS:H	1.42	0.46
22:AV:35:A:C2	24:AX:18:G:C2	3.04	0.46
34:BA:1164:G:H2'	34:BA:1165:U:H6	1.79	0.46
34:BA:1165:U:O2'	34:BA:1166:C:H5'	2.15	0.46
1:CA:146:G:C2	1:CA:147:G:H1'	2.50	0.46
28:D3:5:LYS:HE2	28:D3:34:GLU:OE1	2.14	0.46
1:CA:689:C:C2'	1:CA:690:G:H5'	2.46	0.46
34:BA:2881:C:H2'	34:BA:2882:A:H8	1.80	0.46
1:AA:61:G:OP1	20:AT:10:LEU:HD11	2.15	0.46
4:CD:150:GLU:HA	4:CD:153:ARG:HD2	1.97	0.46
34:DA:2222:G:O2'	34:DA:2223:G:H5'	2.16	0.46
34:DA:1272:A:H3'	34:DA:1273:U:H5'	1.97	0.46
34:DA:1146:C:O2'	34:DA:1147:C:H5'	2.14	0.46
7:CG:155:ARG:O	7:CG:156:TRP:HD1	1.99	0.46
53:DX:8:ILE:HG12	53:DX:43:VAL:HG23	1.97	0.46
34:BA:564:C:O2'	34:BA:565:C:H5'	2.15	0.46
37:DD:130:ALA:HA	37:DD:191:ALA:O	2.15	0.46
1:CA:308:C:H2'	1:CA:309:G:H8	1.80	0.46
4:CD:14:ARG:C	4:CD:16:GLY:N	2.68	0.46
1:CA:564:C:C5	17:CQ:31:LEU:HD11	2.51	0.46
34:BA:1121:C:H2'	34:BA:1122:G:O4'	2.16	0.46
22:CV:8:U:O2	22:CV:21:A:H2	1.98	0.46
1:AA:887:G:H2'	1:AA:888:G:H5'	1.97	0.46
30:D5:8:LYS:O	30:D5:8:LYS:HG3	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.31	0.46
1:AA:511:C:HO2'	1:AA:512:U:H6	1.62	0.46
34:DA:303:U:H2'	34:DA:304:G:C8	2.50	0.46
34:DA:996:A:H2'	34:DA:997:G:H8	1.80	0.46
51:DV:5:VAL:CG2	51:DV:6:LYS:N	2.78	0.46
50:BU:50:ARG:CZ	51:BV:75:PHE:HE2	2.29	0.46
50:BU:92:ARG:C	50:BU:94:ASN:H	2.19	0.46
51:BV:70:ILE:HG12	51:BV:71:LEU:H	1.75	0.46
48:DS:89:ARG:O	48:DS:92:TYR:CB	2.62	0.46
53:DX:73:ARG:O	53:DX:74:PRO:C	2.54	0.46
26:B1:17:SER:OG	26:B1:44:PRO:HG3	2.15	0.46
38:BE:37:ARG:HD3	38:BE:44:TYR:CE2	2.51	0.46
54:BY:15:VAL:CG1	54:BY:16:ALA:N	2.59	0.46
34:BA:84:A:H5''	54:BY:9:LYS:HZ2	1.81	0.46
34:BA:1159:U:O2'	34:BA:1160:G:H5'	2.16	0.46
45:DP:93:GLY:O	45:DP:123:LEU:HB2	2.15	0.46
39:BF:20:LEU:HD12	39:BF:199:TRP:CH2	2.49	0.46
42:DI:92:VAL:HG22	42:DI:97:ILE:HG13	1.98	0.46
54:DY:28:LYS:O	54:DY:37:VAL:O	2.33	0.46
55:DZ:39:VAL:HG21	55:DZ:44:PHE:HD2	1.74	0.46
55:DZ:96:VAL:CG2	55:DZ:97:GLU:N	2.77	0.46
46:BQ:82:ARG:O	46:BQ:83:MET:CB	2.58	0.46
43:DN:40:PRO:C	50:DU:64:ARG:HH21	2.19	0.46
18:AR:59:SER:HB3	18:AR:62:GLU:OE2	2.15	0.46
43:BN:40:PRO:CA	50:BU:64:ARG:NH2	2.79	0.46
41:BH:61:HIS:O	41:BH:62:LYS:C	2.54	0.46
16:AP:67:THR:HG22	16:AP:68:ASP:N	2.30	0.46
54:BY:90:LEU:CG	54:BY:91:GLU:N	2.72	0.46
34:BA:2678:C:O2'	34:BA:2679:A:H5'	2.15	0.46
26:D1:71:TYR:CE1	42:DI:27:ARG:HD3	2.50	0.46
19:AS:10:PHE:HZ	19:AS:70:LYS:CE	2.26	0.46
19:AS:40:ILE:HG21	19:AS:62:ILE:HD11	1.95	0.46
1:AA:1308:U:OP1	13:AM:98:VAL:N	2.48	0.46
34:DA:198:C:H5'	34:DA:2244:U:OP1	2.15	0.46
5:CE:87:SER:HB3	5:CE:131:ILE:CD1	2.46	0.46
5:AE:10:MET:HA	5:AE:32:VAL:HA	1.98	0.46
34:DA:1019:U:O2'	34:DA:1021:A:H2	1.97	0.46
1:AA:1385:G:O2'	1:AA:1386:G:H5'	2.15	0.46
13:CM:67:GLU:HG3	13:CM:68:GLY:N	2.31	0.46
46:BQ:63:LYS:HA	55:BZ:178:GLU:OE1	2.15	0.46
4:AD:10:ARG:C	4:AD:11:LEU:HD23	2.35	0.46
34:DA:343:C:C2'	34:DA:344:G:H5''	2.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1722:A:H2'	34:DA:1739:U:C5'	2.42	0.46
34:BA:813:U:C2	34:BA:814:C:C5	3.02	0.46
34:BA:1275:A:N1	34:BA:1295:C:O2'	2.41	0.46
25:D0:43:THR:O	25:D0:43:THR:HG23	2.15	0.46
34:BA:2287:A:C2	34:BA:2346:A:N1	2.84	0.46
1:AA:735:C:O2'	1:AA:736:C:C5'	2.59	0.46
1:AA:1430:C:O2'	1:AA:1431:C:H5'	2.15	0.46
2:AB:41:ILE:CD1	2:AB:41:ILE:N	2.77	0.46
34:BA:1803:A:O2'	37:BD:259:THR:HG21	2.16	0.46
37:BD:69:ARG:HD2	37:BD:119:ALA:HB2	1.98	0.46
14:CN:51:GLY:C	14:CN:53:LEU:H	2.18	0.46
2:CB:216:SER:C	2:CB:218:ALA:H	2.18	0.46
40:BG:23:PHE:CZ	40:BG:171:ALA:CB	2.97	0.46
23:AW:28:G:H2'	23:AW:29:G:H8	1.80	0.46
15:CO:27:VAL:O	15:CO:28:GLN:C	2.54	0.46
1:AA:197:A:N6	1:AA:221:C:H5'	2.30	0.46
34:DA:1657:C:O2'	34:DA:1658:C:H5'	2.15	0.46
5:AE:147:ASP:HA	5:AE:150:ARG:CB	2.41	0.46
1:AA:66:G:N2	1:AA:172:A:C2	2.84	0.46
1:CA:302:G:H21	1:CA:556:C:H4'	1.79	0.46
7:AG:134:ALA:O	7:AG:135:VAL:C	2.53	0.46
8:CH:120:THR:O	8:CH:122:ARG:N	2.49	0.46
38:BE:59:VAL:HG21	38:BE:63:LEU:HA	1.98	0.46
16:AP:39:TYR:CD2	16:AP:73:LEU:HD11	2.50	0.46
1:AA:1346:A:C4	7:AG:10:ARG:NH1	2.84	0.46
9:CI:36:TYR:CD2	9:CI:37:PHE:CE2	3.04	0.46
17:CQ:83:ASP:CG	17:CQ:84:LEU:H	2.18	0.46
6:CF:28:ARG:HG3	6:CF:28:ARG:NH1	2.27	0.46
1:AA:318:G:O2'	1:AA:319:G:H5'	2.16	0.46
34:DA:1653:G:HO2'	34:DA:1654:A:P	2.39	0.46
1:CA:766:A:C2	1:CA:1525:G:N3	2.83	0.46
43:DN:18:ALA:O	43:DN:20:GLY:N	2.49	0.46
1:CA:661:G:O2'	1:CA:662:G:H5'	2.16	0.46
15:AO:66:LEU:O	15:AO:67:LEU:C	2.53	0.46
34:DA:2827:C:H5'	34:DA:2828:C:OP2	2.16	0.46
22:CV:75:C:H2'	22:CV:76:A:O4'	2.15	0.46
34:DA:692:C:H2'	34:DA:693:C:H6	1.81	0.46
8:CH:60:ARG:HG3	8:CH:60:ARG:NH1	2.30	0.46
28:D3:46:ASN:HD21	34:DA:851:U:H5'	1.79	0.46
34:BA:534:U:O2'	50:BU:49:HIS:CD2	2.68	0.46
22:CV:25:C:O2'	22:CV:26:G:H5'	2.15	0.46
22:AV:25:C:H2'	22:AV:26:G:C8	2.50	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:38:GLY:O	13:CM:39:ILE:HG13	2.15	0.46
1:CA:453:A:H2'	1:CA:454:C:C6	2.51	0.46
6:CF:15:ASP:OD1	6:CF:17:SER:HB2	2.16	0.46
1:CA:519:C:O2'	1:CA:520:A:H5'	2.15	0.46
6:AF:91:VAL:CG1	6:AF:92:LYS:N	2.78	0.46
4:AD:177:ASP:O	4:AD:179:GLU:N	2.48	0.46
5:AE:16:THR:OG1	5:AE:17:ALA:N	2.49	0.46
36:BC:62:VAL:O	36:BC:63:SER:C	2.53	0.46
49:BT:106:SER:O	49:BT:107:ASP:HB3	2.16	0.46
1:CA:109:A:H2'	1:CA:326:G:N2	2.30	0.46
42:BI:86:THR:HG22	42:BI:122:GLU:HG2	1.96	0.46
34:DA:2377:A:H4'	48:DS:107:GLU:CG	2.44	0.46
34:DA:2779:U:H4'	34:DA:2780:G:C5'	2.45	0.46
34:DA:2779:U:O4'	34:DA:2779:U:O2	2.32	0.46
34:BA:481:G:C2'	34:BA:482:A:OP2	2.63	0.46
49:BT:43:GLN:NE2	49:BT:74:ARG:HH21	2.14	0.46
54:BY:7:VAL:HB	54:BY:8:LYS:HD2	1.97	0.46
3:AC:11:ARG:HG2	3:AC:11:ARG:NH1	2.31	0.46
26:B1:87:PRO:HB2	26:B1:91:LYS:CD	2.45	0.46
45:DP:91:PHE:N	45:DP:91:PHE:CD1	2.83	0.46
54:DY:40:GLU:HA	54:DY:40:GLU:OE2	2.16	0.46
34:DA:2704:C:H2'	34:DA:2705:A:C8	2.51	0.46
34:DA:557:U:H2'	34:DA:558:G:H8	1.81	0.46
43:DN:42:TRP:HA	43:DN:42:TRP:CE3	2.50	0.46
50:DU:64:ARG:NH1	50:DU:67:ALA:HB3	2.31	0.46
55:DZ:141:VAL:HG21	55:DZ:150:LEU:HD11	1.96	0.46
41:DH:54:ARG:HB3	41:DH:65:HIS:HD2	1.78	0.46
12:CL:47:LYS:CB	12:CL:48:PRO:CD	2.93	0.46
34:DA:589:C:H2'	34:DA:590:A:C8	2.50	0.46
34:BA:2532:G:H2'	34:BA:2533:A:C8	2.51	0.46
10:CJ:39:PRO:HB3	10:CJ:70:ARG:NH1	2.31	0.46
34:BA:1021:A:C3'	34:BA:1021:A:C8	2.98	0.46
1:AA:1221:G:P	19:AS:36:ARG:HD3	2.56	0.46
1:CA:1228:C:P	13:CM:108:ARG:HH22	2.38	0.46
34:DA:606:U:H4'	34:DA:658:C:H4'	1.98	0.46
38:DE:114:ALA:CB	38:DE:160:TYR:HB3	2.45	0.46
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.15	0.46
39:BF:103:LYS:C	39:BF:105:VAL:N	2.67	0.46
5:CE:31:LEU:CD2	5:CE:43:LEU:HD11	2.46	0.46
1:AA:1305:G:C2	1:AA:1331:G:N3	2.84	0.46
9:AI:48:GLU:HA	9:AI:51:ARG:HD2	1.97	0.46
1:AA:10:A:OP2	5:AE:126:ARG:HD3	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DO:91:LEU:N	44:DO:91:LEU:CD2	2.77	0.46
23:CW:62:C:H2'	23:CW:63:G:C8	2.41	0.46
51:DV:46:VAL:O	51:DV:47:VAL:HB	2.16	0.46
48:BS:58:LEU:HD22	48:BS:68:GLN:HB2	1.97	0.46
1:CA:1030(A):G:H1'	1:CA:1031:G:H22	1.81	0.46
14:AN:51:GLY:C	14:AN:53:LEU:H	2.19	0.46
44:BO:121:VAL:O	44:BO:122:LEU:HD23	2.15	0.46
34:DA:1639:U:H2'	34:DA:1640:C:C5'	2.43	0.46
15:AO:56:LEU:C	15:AO:60:VAL:HG23	2.35	0.46
3:CC:21:ARG:HG3	3:CC:58:GLU:HG2	1.97	0.46
1:CA:1155:G:O2'	1:CA:1156:G:H5'	2.15	0.46
3:AC:95:THR:HG21	3:AC:99:VAL:HG11	1.96	0.46
34:DA:1290:C:H2'	34:DA:1291:C:H6	1.81	0.46
34:BA:2707:G:O2'	34:BA:2708:G:H5'	2.16	0.46
45:BP:88:LEU:C	45:BP:90:ARG:N	2.68	0.46
52:DW:51:LEU:C	52:DW:51:LEU:HD13	2.35	0.46
2:CB:178:ARG:HH22	2:CB:196:LEU:HA	1.80	0.46
23:AW:59:U:H3'	23:AW:60:U:C6	2.51	0.46
10:AJ:55:LYS:O	10:AJ:56:HIS:CG	2.69	0.46
1:CA:781:A:H2'	1:CA:782:A:H5'	1.98	0.46
42:DI:60:GLU:C	42:DI:62:LYS:N	2.69	0.46
1:CA:1493:A:H2	23:CY:36:A:N3	2.14	0.46
34:BA:494:G:OP1	52:BW:8:ARG:NH1	2.48	0.46
34:DA:2571:C:H5''	34:DA:2572:A:H5''	1.98	0.46
7:AG:32:ARG:HH11	7:AG:32:ARG:HG2	1.80	0.46
1:AA:1074:G:H2'	1:AA:1075:C:H6	1.80	0.46
1:AA:270:A:C5	1:AA:271:C:C4	3.04	0.46
54:BY:54:LYS:O	54:BY:55:TYR:CD1	2.69	0.46
40:DG:123:ASN:O	40:DG:126:ASP:HB2	2.16	0.46
34:DA:1149:G:O2'	34:DA:1150:C:H5'	2.16	0.46
20:AT:87:LYS:HG3	20:AT:91:LEU:CD1	2.45	0.46
34:BA:2050:C:H1'	38:BE:156:MET:HE1	1.96	0.46
34:DA:737:C:O2'	34:DA:738:G:H5'	2.15	0.46
8:CH:1:MET:O	8:CH:2:LEU:HB2	2.16	0.46
34:DA:1345:C:H2'	34:DA:1346:G:H8	1.80	0.46
34:DA:1562:A:O2'	34:DA:1563:G:H5'	2.16	0.46
34:DA:1317:A:H2'	34:DA:1318:C:C6	2.51	0.46
34:DA:978:G:C2	34:DA:986:C:C2	3.03	0.46
4:CD:179:GLU:C	4:CD:181:MET:H	2.17	0.46
47:BR:13:HIS:HE1	47:BR:15:SER:OG	1.98	0.46
6:AF:91:VAL:HG12	6:AF:92:LYS:O	2.16	0.46
4:AD:179:GLU:C	4:AD:181:MET:H	2.19	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:78:LEU:O	4:CD:79:PHE:C	2.54	0.46
1:AA:1488:G:O2'	1:AA:1489:G:H5'	2.16	0.46
13:AM:40:ASN:O	13:AM:43:THR:HG23	2.16	0.46
38:DE:136:ARG:O	38:DE:137:HIS:CD2	2.69	0.46
34:DA:643:A:O2'	34:DA:644:A:H5'	2.15	0.46
10:AJ:90:LEU:N	10:AJ:91:PRO:HD3	2.30	0.46
34:BA:949:C:H2'	34:BA:950:G:H8	1.80	0.46
34:BA:2256:G:O2'	34:BA:2257:U:H5'	2.16	0.46
34:BA:991:C:H2'	34:BA:992:C:H6	1.79	0.46
51:DV:19:LYS:HD3	51:DV:22:VAL:CG2	2.46	0.46
34:DA:1157:G:C2'	34:DA:1158:C:H5'	2.46	0.46
43:DN:67:LEU:O	43:DN:68:GLU:CB	2.63	0.46
34:DA:139:G:H1	34:DA:142(A):C:H42	1.61	0.46
35:BB:5:C:H2'	35:BB:6:C:C6	2.51	0.46
49:BT:38:ASN:ND2	49:BT:40:THR:OG1	2.46	0.46
34:BA:2637:U:O2'	34:BA:2638:G:H5'	2.16	0.46
34:BA:2779:U:H4'	34:BA:2780:G:C5'	2.46	0.46
54:BY:8:LYS:HG2	54:BY:13:VAL:HG13	1.97	0.46
46:DQ:81:VAL:O	46:DQ:82:ARG:NH1	2.47	0.46
27:B2:17:SER:HB3	27:B2:18:PRO:HD3	1.97	0.46
54:DY:27:VAL:HG12	54:DY:29:GLU:N	2.26	0.46
54:DY:7:VAL:HB	54:DY:8:LYS:H	1.57	0.46
34:BA:593:G:O2'	34:BA:594:U:H5'	2.15	0.46
2:CB:46:LYS:HA	2:CB:49:GLU:OE1	2.16	0.46
34:DA:2418:A:H2'	34:DA:2419:U:C6	2.50	0.46
27:B2:55:ARG:CZ	34:BA:72:U:H5'	2.43	0.46
40:BG:60:LEU:O	40:BG:60:LEU:HD22	2.16	0.46
18:CR:44:LEU:O	18:CR:45:SER:C	2.50	0.46
53:DX:88:LYS:HB3	53:DX:89:ILE:HD13	1.97	0.46
54:DY:87:LYS:HG3	54:DY:88:LYS:N	2.31	0.46
1:CA:979:C:C2'	1:CA:980:C:H5''	2.46	0.46
34:DA:1341:U:OP1	34:DA:1397:U:N3	2.43	0.46
34:DA:1341:U:O4'	53:DX:57:LEU:HD11	2.16	0.46
20:AT:84:LEU:O	20:AT:88:VAL:HG23	2.15	0.46
34:DA:2721:A:C4	34:DA:2722:G:C8	3.04	0.46
38:DE:104:VAL:HG11	38:DE:188:VAL:HG23	1.96	0.46
34:BA:1301:A:O2'	34:BA:1302:A:O5'	2.34	0.46
4:CD:92:VAL:O	4:CD:93:PHE:C	2.54	0.46
4:CD:98:GLU:HG3	4:CD:103:ASN:HD21	1.81	0.46
45:DP:70:GLN:HA	45:DP:70:GLN:OE1	2.16	0.46
45:DP:70:GLN:HG3	45:DP:71:VAL:H	1.80	0.46
1:AA:1502:A:H2	1:AA:1505:G:H1	1.63	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:859:G:O4'	34:DA:2268:A:H1'	2.16	0.46
34:DA:2312:U:O2'	34:DA:2313:C:H5''	2.15	0.46
34:BA:826:U:H2'	34:BA:828:U:O4'	2.16	0.46
46:BQ:51:ARG:O	46:BQ:54:MET:CB	2.63	0.46
34:BA:925:C:H2'	34:BA:926:A:C5'	2.37	0.46
6:CF:61:LEU:HB3	6:CF:63:TYR:HE2	1.81	0.46
54:BY:2:ARG:HG2	54:BY:2:ARG:NH1	2.31	0.46
46:DQ:26:TYR:O	46:DQ:26:TYR:CD1	2.65	0.46
3:AC:179:ARG:HG3	3:AC:179:ARG:O	2.16	0.46
50:BU:8:VAL:O	50:BU:9:VAL:C	2.53	0.46
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.36	0.46
34:BA:2282:G:C4	34:BA:2425:A:N6	2.83	0.46
6:AF:61:LEU:HB3	6:AF:63:TYR:HE2	1.81	0.46
35:DB:78:A:H2'	35:DB:79:C:O4'	2.15	0.46
2:CB:155:LEU:N	2:CB:155:LEU:HD22	2.31	0.46
48:DS:35:ILE:N	48:DS:53:SER:HB2	2.23	0.46
31:B6:15:GLU:HG2	31:B6:18:ARG:HG3	1.96	0.46
28:B3:12:PRO:O	28:B3:14:GLY:N	2.49	0.46
28:B3:17:LYS:O	28:B3:20:LYS:HB2	2.15	0.46
27:B2:34:GLU:O	27:B2:34:GLU:HG2	2.15	0.46
47:BR:11:ASN:O	47:BR:12:ARG:CB	2.64	0.46
40:BG:14:GLU:O	40:BG:17:PRO:HG2	2.15	0.46
1:AA:1227:A:OP2	13:AM:111:LYS:HE2	2.16	0.46
38:BE:79:ARG:NH1	38:BE:79:ARG:HG2	2.25	0.46
9:AI:50:LEU:O	9:AI:54:ASP:N	2.48	0.46
9:AI:18:PHE:O	9:AI:61:ALA:HA	2.16	0.46
9:AI:63:ILE:N	9:AI:63:ILE:HD12	2.31	0.46
2:AB:195:ASP:O	8:AH:68:ARG:NH2	2.44	0.46
8:CH:103:VAL:HG11	8:CH:109:ILE:O	2.16	0.46
40:BG:106:LEU:HD12	40:BG:110:ALA:CB	2.46	0.46
49:BT:48:ILE:HD12	49:BT:48:ILE:N	2.31	0.46
45:DP:108:LYS:O	45:DP:110:TYR:N	2.48	0.46
14:CN:36:PHE:CG	14:CN:37:PHE:N	2.83	0.46
32:D7:30:VAL:O	32:D7:33:ARG:N	2.48	0.46
1:AA:867:G:N2	1:AA:868:C:C2	2.84	0.46
4:AD:68:TYR:CD2	4:AD:97:LEU:HD22	2.51	0.46
1:AA:537:G:OP1	12:AL:113:ARG:NH2	2.48	0.46
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	1.98	0.46
21:CU:5:ASP:HB3	21:CU:8:THR:HG23	1.97	0.46
1:CA:360:A:O2'	1:CA:361:G:H5'	2.15	0.46
34:DA:751:A:H8	34:DA:751:A:O5'	1.99	0.46
1:CA:588:G:O6	1:CA:753:A:H2'	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:300:A:H1'	1:CA:565:U:O2	2.16	0.46
34:BA:1036:G:O2'	34:BA:1037:G:H5'	2.15	0.46
28:B3:5:LYS:HE2	28:B3:34:GLU:OE1	2.16	0.46
34:BA:629:G:H4'	34:BA:650:C:O2	2.16	0.46
34:BA:1742:G:N7	34:BA:1743:C:N3	2.63	0.46
40:BG:35:GLU:OE2	40:BG:35:GLU:N	2.49	0.46
4:AD:14:ARG:O	4:AD:16:GLY:N	2.48	0.46
1:AA:1178:G:N2	1:AA:1180:A:H3'	2.30	0.46
1:CA:1271:G:H2'	1:CA:1272:G:H8	1.81	0.46
1:CA:1178:G:N2	1:CA:1180:A:H3'	2.31	0.46
13:AM:29:ARG:HA	13:AM:32:GLU:HB3	1.97	0.46
37:DD:145:VAL:HG12	37:DD:146:GLU:N	2.30	0.46
48:BS:64:GLU:N	48:BS:64:GLU:OE2	2.49	0.46
34:DA:42:G:H2'	34:DA:43:A:O4'	2.16	0.46
33:B8:39:LYS:HE3	33:B8:39:LYS:O	2.15	0.46
4:AD:187:ARG:HH11	4:AD:187:ARG:HG2	1.80	0.46
48:DS:14:VAL:HG11	48:DS:90:GLY:C	2.36	0.46
38:DE:51:PHE:C	38:DE:74:PRO:HB2	2.36	0.46
43:DN:83:LYS:CE	43:DN:85:ILE:HD11	2.42	0.46
49:DT:22:PHE:N	49:DT:22:PHE:CD2	2.84	0.46
49:BT:32:TYR:O	49:BT:41:ARG:O	2.34	0.46
3:AC:12:LEU:O	3:AC:13:GLY:C	2.53	0.46
37:BD:94:LEU:O	37:BD:94:LEU:HD13	2.16	0.46
34:BA:1485:G:H1'	34:BA:1505:C:H42	1.79	0.46
39:BF:25:PRO:HB3	39:BF:119:ARG:HD3	1.97	0.46
39:BF:25:PRO:HB3	39:BF:119:ARG:CB	2.43	0.46
42:DI:133:HIS:O	42:DI:134:PRO:C	2.53	0.46
42:DI:94:ALA:HB1	42:DI:114:LEU:CD1	2.45	0.46
54:DY:10:GLY:C	54:DY:27:VAL:HG22	2.36	0.46
2:CB:187:LEU:HA	2:CB:201:ILE:O	2.15	0.46
2:CB:19:HIS:CG	2:CB:20:GLU:H	2.32	0.46
2:CB:49:GLU:O	2:CB:52:GLU:HB3	2.16	0.46
3:AC:40:ARG:O	3:AC:44:GLU:HG3	2.15	0.46
27:B2:56:GLN:NE2	27:B2:56:GLN:N	2.64	0.46
33:B8:8:LYS:HE3	34:BA:245:G:O6	2.16	0.46
13:AM:16:ASP:N	13:AM:16:ASP:OD2	2.49	0.46
53:BX:65:ARG:NE	53:BX:66:LEU:N	2.63	0.46
18:CR:50:ILE:HG22	18:CR:51:LEU:N	2.31	0.46
41:BH:138:LYS:C	41:BH:140:LYS:N	2.65	0.46
55:BZ:29:TYR:OH	55:BZ:87:ASP:HB2	2.15	0.46
47:DR:39:PRO:O	47:DR:40:LYS:C	2.54	0.46
5:AE:106:PRO:O	5:AE:110:LEU:HG	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:BY:88:LYS:NZ	54:BY:93:GLY:O	2.49	0.46
54:BY:81:LYS:HG2	54:BY:96:ILE:CB	2.46	0.46
55:BZ:53:ILE:HG22	55:BZ:71:VAL:CB	2.42	0.46
34:BA:2807:G:C3'	34:BA:2808:U:H5''	2.46	0.46
46:BQ:42:ILE:HD11	46:BQ:127:ILE:HD11	1.97	0.46
1:AA:1054:C:N4	23:AY:34:G:C1'	2.77	0.46
34:BA:917:A:H2'	34:BA:918:A:O4'	2.15	0.46
34:DA:2870:C:O2'	34:DA:2871:C:H5'	2.16	0.46
47:DR:97:VAL:CG2	47:DR:114:VAL:HG22	2.46	0.46
43:BN:17:ASP:OD1	43:BN:19:GLU:HG3	2.15	0.46
34:BA:1464:C:O2'	34:BA:1528:A:C8	2.62	0.46
1:AA:1354:C:O2'	1:AA:1355:G:H5'	2.15	0.46
34:BA:827:U:N3	34:BA:2430:A:C6	2.84	0.46
41:BH:89:ILE:HG12	41:BH:90:LYS:H	1.80	0.46
40:BG:25:TYR:O	40:BG:26:GLN:HG2	2.15	0.46
55:BZ:108:PRO:O	55:BZ:109:ALA:C	2.54	0.46
47:BR:16:HIS:O	47:BR:17:ARG:C	2.54	0.46
51:BV:1:MET:HE3	51:BV:44:LYS:HB3	1.96	0.46
34:BA:2346:A:H5'	34:BA:2383:G:O4'	2.15	0.46
34:BA:2732:G:C3'	34:BA:2733:A:H5'	2.46	0.46
34:DA:537:C:O2	34:DA:537:C:H2'	2.15	0.46
34:BA:1803:A:H4'	37:BD:259:THR:HG21	1.97	0.46
37:BD:24:ILE:HD11	37:BD:84:TYR:N	2.31	0.46
2:CB:211:ILE:O	2:CB:215:LEU:HB2	2.16	0.46
2:CB:219:VAL:O	2:CB:222:ILE:HB	2.15	0.46
37:BD:206:LEU:HA	37:BD:206:LEU:HD23	1.76	0.46
2:AB:216:SER:C	2:AB:218:ALA:N	2.68	0.46
1:CA:223:U:H2'	1:CA:224:C:H6	1.81	0.46
34:BA:1502:C:C2'	34:BA:1502:C:O2	2.60	0.46
9:AI:124:GLN:HB3	9:AI:125:TYR:H	1.61	0.46
23:CW:9:A:C4	23:CW:46:G:N2	2.83	0.46
52:BW:34:ASN:O	52:BW:35:ILE:C	2.54	0.46
23:AW:26:A:H61	23:AW:44:G:H1	1.62	0.46
34:BA:129:C:O2'	34:BA:130:C:H5'	2.16	0.46
55:DZ:143:GLY:C	55:DZ:144:LEU:HD22	2.36	0.46
1:CA:560:U:H4'	1:CA:561:U:C5'	2.45	0.46
2:AB:239:VAL:O	2:AB:241:GLU:N	2.49	0.46
34:DA:1439:A:H2'	34:DA:1440:G:O4'	2.16	0.46
1:AA:426:G:H2'	1:AA:427:U:C6	2.50	0.46
1:AA:918:A:N6	1:AA:919:A:C6	2.84	0.46
34:DA:629:G:H4'	34:DA:650:C:O2	2.15	0.46
1:CA:993:G:O6	1:CA:1045:C:N4	2.44	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:155:ARG:O	7:CG:156:TRP:CD1	2.68	0.46
1:CA:1081:G:P	5:CE:16:THR:HG1	2.39	0.46
46:DQ:58:PHE:O	46:DQ:59:ARG:C	2.54	0.46
34:BA:116:C:O2'	34:BA:117:G:H5'	2.16	0.46
34:DA:1475:G:N3	34:DA:1475:G:H2'	2.31	0.46
10:AJ:28:ARG:HH11	10:AJ:28:ARG:HG2	1.79	0.46
4:CD:76:ARG:HH11	4:CD:76:ARG:HG2	1.80	0.46
10:CJ:90:LEU:N	10:CJ:91:PRO:HD3	2.31	0.46
45:DP:136:GLU:O	45:DP:139:LYS:HB3	2.16	0.46
50:DU:83:LEU:CD1	50:DU:83:LEU:N	2.79	0.46
42:BI:94:ALA:HB1	42:BI:114:LEU:CD1	2.46	0.46
37:DD:35:LYS:NZ	37:DD:104:TYR:CD1	2.79	0.46
48:DS:97:ARG:HG3	48:DS:97:ARG:O	2.16	0.46
34:BA:2296:U:H2'	48:BS:13:ARG:HH22	1.80	0.46
2:AB:19:HIS:CD2	2:AB:205:ASP:OD1	2.68	0.46
34:BA:1204:A:C2	34:BA:1241:A:N1	2.84	0.46
26:B1:48:LYS:O	26:B1:49:VAL:HB	2.15	0.46
54:DY:9:LYS:HA	54:DY:30:VAL:HG21	1.97	0.46
45:BP:57:THR:HB	45:BP:58:THR:H	1.33	0.46
45:BP:58:THR:O	45:BP:58:THR:HG22	2.15	0.46
33:B8:34:TRP:O	33:B8:35:GLN:CB	2.64	0.46
20:CT:13:LEU:O	20:CT:16:HIS:N	2.49	0.46
48:DS:77:ALA:O	48:DS:78:LEU:C	2.53	0.46
34:DA:2031:A:C6	34:DA:2498:C:H1'	2.50	0.46
42:BI:15:VAL:O	42:BI:17:GLN:N	2.49	0.46
5:CE:107:ARG:O	5:CE:110:LEU:N	2.49	0.46
26:D1:62:VAL:HG22	26:D1:63:ALA:N	2.30	0.46
26:D1:88:LYS:O	26:D1:89:GLU:C	2.54	0.46
43:BN:13:TRP:CD1	43:BN:13:TRP:N	2.84	0.46
19:AS:36:ARG:NH1	19:AS:52:TYR:O	2.49	0.46
43:DN:13:TRP:O	43:DN:135:PRO:HG3	2.16	0.46
46:BQ:37:LEU:HB2	46:BQ:128:LYS:O	2.15	0.46
46:BQ:42:ILE:HG22	46:BQ:47:ILE:HD11	1.98	0.46
34:DA:657:U:C2	34:DA:658:C:C5	3.03	0.46
34:BA:1301:A:O2'	34:BA:1302:A:P	2.74	0.46
34:BA:271(G):C:O2'	34:BA:271(H):G:H5'	2.15	0.46
42:BI:38:LEU:H	42:BI:38:LEU:CD1	2.14	0.46
1:CA:715:A:H2'	1:CA:716:A:C8	2.50	0.46
7:CG:45:ASP:O	7:CG:49:ILE:HG12	2.16	0.46
3:CC:86:VAL:O	3:CC:89:GLU:HB3	2.15	0.46
41:DH:44:VAL:CG1	41:DH:45:VAL:N	2.71	0.46
49:DT:57:PHE:CG	49:DT:58:ASN:N	2.84	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DH:146:ALA:C	41:DH:148:ILE:N	2.68	0.46
33:D8:53:PRO:HG2	33:D8:54:GLU:N	2.31	0.46
38:BE:186:GLY:O	38:BE:188:VAL:N	2.48	0.46
17:CQ:66:SER:OG	17:CQ:69:LYS:CB	2.64	0.46
34:DA:2298:A:H62	34:DA:2318:G:H8	1.59	0.46
34:DA:863:A:O2'	34:DA:864:G:H5'	2.15	0.46
34:DA:1992:G:O2'	34:DA:1993:U:OP2	2.33	0.46
52:DW:70:TYR:HD2	52:DW:70:TYR:N	2.12	0.46
23:AW:15:G:H8	23:AW:15:G:O5'	1.99	0.46
34:BA:1326:U:O2'	34:BA:1327:C:H5'	2.16	0.46
1:AA:171:A:C2	1:AA:172:A:C2	3.04	0.46
52:BW:70:TYR:N	52:BW:70:TYR:CD2	2.83	0.46
34:DA:1924:C:O2'	34:DA:1925:C:H5'	2.15	0.46
39:DF:34:TRP:CD1	45:DP:11:GLY:HA2	2.51	0.46
17:CQ:83:ASP:CG	17:CQ:84:LEU:N	2.69	0.46
29:B4:30:GLU:O	29:B4:31:ILE:CB	2.64	0.46
16:AP:80:PHE:O	16:AP:82:GLN:NE2	2.48	0.46
34:DA:1771:C:C1'	34:DA:1786:A:C8	2.99	0.46
43:DN:18:ALA:O	43:DN:21:LYS:HG2	2.16	0.46
9:AI:113:LYS:N	9:AI:113:LYS:CD	2.79	0.46
44:DO:112:MET:O	44:DO:115:VAL:N	2.49	0.46
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.78	0.46
34:BA:751:A:C5'	52:BW:90:ARG:HA	2.45	0.46
37:DD:134:ARG:HB2	37:DD:135:PHE:HD1	1.81	0.46
11:CK:115:PRO:C	11:CK:117:ASN:N	2.70	0.46
1:CA:758:G:C5'	1:CA:880:C:H1'	2.46	0.46
1:AA:621:A:O2'	1:AA:622:A:H5'	2.16	0.46
1:AA:947:G:O3'	13:AM:109:THR:OG1	2.32	0.46
1:AA:243:A:H4'	1:AA:244:U:O5'	2.15	0.46
17:CQ:91:ARG:O	17:CQ:94:ASN:HB2	2.16	0.46
1:CA:634:C:O2'	1:CA:635:G:H5'	2.16	0.46
1:CA:832:C:O2'	1:CA:833:U:O5'	2.30	0.46
8:AH:4:ASP:OD2	8:AH:7:ALA:HB2	2.16	0.46
34:DA:221:A:H4'	34:DA:222:A:O5'	2.16	0.46
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.16	0.46
34:BA:1284:A:H2'	34:BA:1285:G:O4'	2.15	0.46
34:BA:1476:C:H2'	34:BA:1477:A:H8	1.79	0.46
39:BF:153:SER:OG	39:BF:190:GLU:N	2.42	0.46
34:DA:830:G:H4'	34:DA:831:G:OP2	2.16	0.46
2:CB:8:LYS:O	2:CB:9:GLU:C	2.54	0.46
23:CW:10:G:H2'	23:CW:10:G:N3	2.31	0.46
55:DZ:137:ILE:HG22	55:DZ:138:GLU:N	2.29	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:26:PHE:N	5:CE:26:PHE:CD1	2.84	0.46
34:DA:1028:A:N6	34:DA:1125:G:H2'	2.31	0.46
42:BI:99:GLU:C	42:BI:101:LEU:H	2.19	0.46
37:DD:35:LYS:HD3	37:DD:63:ARG:CA	2.44	0.46
34:DA:613:G:C6	34:DA:614:U:C5	3.04	0.46
34:DA:614:U:H4'	34:DA:614(C):A:N6	2.31	0.46
38:DE:179:GLU:HB3	38:DE:181:LEU:CD2	2.46	0.46
45:BP:107:LYS:C	45:BP:109:GLY:H	2.20	0.46
45:BP:126:VAL:CA	45:BP:145:PRO:HB2	2.18	0.46
44:BO:77:ILE:HD12	49:BT:74:ARG:HG2	1.98	0.46
2:AB:189:ASP:OD1	2:AB:205:ASP:HB3	2.16	0.46
38:BE:55:ASN:ND2	38:BE:75:VAL:CG1	2.78	0.46
26:B1:73:LEU:HD21	26:B1:90:ILE:O	2.16	0.46
33:D8:9:GLY:O	33:D8:13:ARG:HG2	2.16	0.46
1:CA:333:G:H4'	20:CT:16:HIS:CE1	2.51	0.46
43:DN:40:PRO:CA	50:DU:64:ARG:NH2	2.78	0.46
50:DU:57:PHE:HB3	50:DU:61:TRP:CZ2	2.51	0.46
50:DU:62:ILE:HG13	50:DU:76:TYR:CZ	2.51	0.46
41:DH:55:PRO:CG	41:DH:56:SER:N	2.79	0.46
41:DH:72:ILE:O	41:DH:74:ASN:N	2.49	0.46
34:BA:1496:A:H5'	34:BA:1497:U:OP2	2.16	0.46
42:BI:11:ASN:C	42:BI:12:LEU:HD23	2.36	0.46
54:DY:96:ILE:HG13	54:DY:99:CYS:HB2	1.96	0.46
44:DO:64:ARG:HD3	44:DO:101:PRO:CB	2.30	0.46
46:DQ:20:ALA:HB2	46:DQ:99:PRO:CD	2.46	0.46
26:D1:82:LEU:HG	26:D1:83:GLU:H	1.78	0.46
53:DX:55:ASN:HD22	53:DX:78:LYS:HE2	1.81	0.46
52:BW:4:LYS:HE3	52:BW:6:ILE:HD11	1.97	0.46
1:CA:706:A:C5	1:CA:707:C:H5	2.33	0.46
1:CA:9:G:OP1	5:CE:122:GLU:HG3	2.15	0.46
34:BA:27:G:C2'	34:BA:28:A:OP2	2.63	0.46
1:CA:959:A:H2	1:CA:1222:G:O4'	1.98	0.46
34:DA:271(C):C:H2'	34:DA:271(D):G:H8	1.81	0.46
12:AL:42:THR:O	12:AL:42:THR:HG23	2.15	0.46
37:BD:238:GLY:O	37:BD:239:ARG:O	2.34	0.46
45:DP:113:LYS:HA	45:DP:129:ALA:O	2.16	0.46
51:BV:43:GLU:CA	51:BV:48:GLY:CA	2.91	0.46
9:CI:48:GLU:HA	9:CI:51:ARG:HD2	1.98	0.46
25:D0:53:MET:HE1	25:D0:57:PHE:HD1	1.81	0.46
1:CA:114:U:O2'	1:CA:115:G:H5'	2.15	0.46
47:DR:11:ASN:CG	47:DR:12:ARG:H	2.18	0.46
34:BA:1991:U:H2'	34:BA:1992:G:H5'	1.96	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CN:26:ARG:NH1	14:CN:47:LEU:HD21	2.30	0.46
39:DF:192:LEU:C	39:DF:192:LEU:HD23	2.36	0.46
1:CA:1218:C:OP2	14:CN:9:LYS:NZ	2.43	0.46
34:DA:2508:G:H2'	34:DA:2509:G:H8	1.80	0.46
47:BR:104:ARG:HB3	47:BR:107:ASP:OD2	2.16	0.46
15:CO:66:LEU:N	15:CO:66:LEU:CD1	2.79	0.46
26:B1:71:TYR:O	26:B1:72:GLU:C	2.54	0.46
54:BY:76:CYS:SG	54:BY:77:PRO:HD2	2.57	0.46
1:CA:1374:A:O2'	1:CA:1375:A:H5'	2.16	0.46
34:DA:819:A:C4	34:DA:1189:A:C2	3.04	0.46
34:BA:2014:A:C2	34:BA:2015:A:N1	2.84	0.46
52:BW:92:ARG:HH11	52:BW:92:ARG:HG2	1.81	0.46
1:AA:974:A:P	14:AN:41:ARG:HH12	2.39	0.46
8:CH:6:ILE:N	8:CH:6:ILE:CD1	2.80	0.46
54:BY:64:GLU:H	54:BY:64:GLU:CD	2.20	0.46
20:CT:71:THR:HG22	20:CT:72:LEU:HG	1.97	0.46
34:BA:203:C:C3'	34:BA:204:A:H5''	2.43	0.46
37:BD:232:PRO:HG2	37:BD:248:SER:O	2.16	0.46
1:CA:1460:A:H2'	1:CA:1461:G:O4'	2.16	0.46
34:DA:774:A:O2'	34:DA:775:G:P	2.73	0.46
38:DE:113:PHE:CE2	38:DE:158:GLY:HA2	2.51	0.46
43:BN:18:ALA:HB1	43:BN:21:LYS:CG	2.46	0.46
7:AG:40:ALA:O	7:AG:41:ARG:C	2.52	0.46
7:CG:40:ALA:O	7:CG:41:ARG:C	2.54	0.46
7:CG:41:ARG:O	7:CG:42:ILE:C	2.53	0.46
34:DA:2162:G:H5'	34:DA:2171:A:C5'	2.44	0.46
55:DZ:33:LEU:O	55:DZ:34:ASN:HB2	2.15	0.46
1:CA:790:A:H2'	1:CA:791:G:C8	2.51	0.46
52:BW:1:MET:O	52:BW:2:GLU:HB3	2.16	0.46
1:AA:977:A:O2'	1:AA:978:A:H5'	2.16	0.46
1:AA:453:A:H2'	1:AA:454:C:C6	2.51	0.46
52:DW:1:MET:HE2	52:DW:2:GLU:H	1.81	0.46
20:AT:26:ASN:ND2	20:AT:26:ASN:N	2.64	0.46
2:CB:129:GLU:O	2:CB:130:ARG:HB2	2.16	0.46
30:B5:44:THR:HG21	47:BR:101:ALA:CA	2.46	0.46
34:BA:1226:A:OP1	51:BV:85:LYS:NZ	2.44	0.46
34:BA:2603:G:C6	34:BA:2604:U:C5	3.04	0.46
1:AA:124:G:C6	1:AA:125:U:C4	3.05	0.46
1:AA:908:A:H2'	1:AA:909:A:C8	2.51	0.46
43:DN:104:LYS:HG3	43:DN:117:PHE:CD1	2.51	0.46
1:AA:1416:G:H2'	1:AA:1417:G:O4'	2.16	0.46
37:DD:257:LEU:C	37:DD:257:LEU:HD23	2.36	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:36:LYS:HA	7:AG:39:ALA:HB3	1.97	0.46
28:B3:52:HIS:ND1	28:B3:53:LEU:HG	2.31	0.46
50:DU:92:ARG:C	50:DU:94:ASN:H	2.19	0.45
42:BI:79:ILE:CG1	42:BI:140:LEU:HD21	2.46	0.45
48:DS:90:GLY:C	48:DS:92:TYR:N	2.66	0.45
38:DE:197:ILE:CG1	38:DE:199:ARG:HH12	2.29	0.45
38:DE:197:ILE:HG13	38:DE:199:ARG:NH1	2.31	0.45
38:DE:74:PRO:O	38:DE:76:ARG:N	2.49	0.45
43:DN:66:LYS:HB2	43:DN:87:LEU:HD12	1.98	0.45
49:DT:42:ILE:O	49:DT:43:GLN:C	2.52	0.45
53:DX:36:LYS:NZ	53:DX:38:GLU:O	2.37	0.45
36:DC:40:THR:HG23	36:DC:40:THR:O	2.15	0.45
2:AB:153:ARG:O	2:AB:154:LEU:C	2.54	0.45
34:BA:1899:G:H21	34:BA:1902:C:H5	1.63	0.45
34:BA:2779:U:O4'	34:BA:2779:U:O2	2.33	0.45
34:BA:2545:G:H2'	34:BA:2546:U:O4'	2.15	0.45
38:BE:52:LEU:HD22	38:BE:76:ARG:HD2	1.98	0.45
38:BE:51:PHE:C	38:BE:74:PRO:HB2	2.36	0.45
1:AA:358:U:H2'	1:AA:359:U:H6	1.82	0.45
2:CB:162:ILE:O	2:CB:162:ILE:HG13	2.16	0.45
2:CB:213:LEU:HD22	2:CB:214:ILE:HD13	1.98	0.45
33:D8:12:LYS:HA	45:DP:65:ARG:HD2	1.98	0.45
34:BA:94:C:O2	34:BA:94:C:H2'	2.15	0.45
40:BG:153:ARG:CZ	40:BG:153:ARG:HB3	2.45	0.45
40:BG:154:GLY:O	40:BG:155:MET:HB3	2.16	0.45
48:BS:76:LYS:O	48:BS:79:ALA:HB3	2.16	0.45
1:CA:1372:U:O2'	1:CA:1373:G:H5'	2.16	0.45
10:AJ:36:GLY:O	10:AJ:38:ILE:HG23	2.16	0.45
43:BN:39:ARG:HD3	43:BN:39:ARG:O	2.16	0.45
10:CJ:36:GLY:O	10:CJ:38:ILE:HG23	2.16	0.45
34:DA:1495:A:C2	34:DA:1496:A:C2	3.04	0.45
1:CA:192:U:C4'	20:CT:103:GLY:HA2	2.46	0.45
46:DQ:43:THR:HG23	46:DQ:46:GLN:CD	2.36	0.45
1:CA:980:C:H3'	1:CA:981:U:H6	1.80	0.45
43:DN:15:LEU:CB	43:DN:134:ARG:HB2	2.41	0.45
34:DA:2723:C:O2'	34:DA:2724:C:H5'	2.16	0.45
34:BA:27:G:H22	34:BA:512:G:C2'	2.16	0.45
1:AA:1064:G:OP2	1:AA:1386:G:H4'	2.15	0.45
1:AA:619:U:C2	4:AD:135:LEU:CD2	2.99	0.45
3:AC:77:ILE:C	3:AC:83:ARG:HB3	2.35	0.45
22:AV:15:G:H22	22:AV:48:C:N4	2.03	0.45
1:CA:1064:G:H21	1:CA:1190:G:H2'	1.79	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2328:A:H2'	34:DA:2329:G:C8	2.51	0.45
36:DC:18:LYS:HD3	36:DC:19:VAL:N	2.31	0.45
8:AH:38:ILE:HG21	8:AH:111:ILE:HG12	1.98	0.45
55:DZ:61:LEU:HD12	55:DZ:65:GLN:CG	2.47	0.45
35:DB:48:A:H2'	35:DB:49:C:C6	2.50	0.45
49:BT:3:ARG:C	49:BT:5:ALA:N	2.68	0.45
39:BF:62:ARG:HH21	39:BF:64:ILE:HA	1.81	0.45
34:DA:1992:G:O2'	34:DA:1993:U:P	2.75	0.45
37:DD:24:ILE:HD11	37:DD:84:TYR:N	2.31	0.45
34:BA:784:A:N6	34:BA:2072:G:O2'	2.49	0.45
47:DR:107:ASP:C	47:DR:107:ASP:OD2	2.53	0.45
40:BG:15:VAL:HG12	40:BG:19:LEU:CD1	2.46	0.45
7:AG:140:ASP:HA	7:AG:143:ARG:NH1	2.28	0.45
15:AO:27:VAL:O	15:AO:28:GLN:C	2.54	0.45
11:CK:87:THR:HG22	11:CK:88:GLY:N	2.32	0.45
1:CA:1348:U:H4'	9:CI:120:ARG:HH11	1.80	0.45
1:AA:135:C:H6	1:AA:135:C:O5'	1.99	0.45
34:DA:1435:G:H2'	34:DA:1436:G:O4'	2.16	0.45
32:B7:5:TRP:NE1	32:B7:7:PRO:HG3	2.31	0.45
11:CK:33:THR:HB	11:CK:38:ASN:O	2.16	0.45
34:BA:1478:G:O2'	34:BA:1558:A:H2	1.99	0.45
34:BA:1763:G:H4'	34:BA:1763:G:OP1	2.16	0.45
42:BI:47:LEU:HD12	42:BI:50:ARG:HH21	1.81	0.45
22:AV:39:C:O2'	22:AV:40:C:H5'	2.16	0.45
4:CD:126:ILE:CG2	4:CD:127:THR:N	2.79	0.45
17:CQ:36:ILE:HG13	17:CQ:36:ILE:O	2.16	0.45
22:CV:39:C:H2'	22:CV:40:C:H6	1.81	0.45
1:CA:15:G:C4'	5:CE:24:ARG:NH2	2.79	0.45
34:DA:149:A:H2'	34:DA:150:C:O4'	2.16	0.45
42:DI:29:TYR:CE1	42:DI:33:ARG:NE	2.78	0.45
1:CA:537:G:OP1	12:CL:113:ARG:NH2	2.48	0.45
7:AG:109:ASN:HA	7:AG:119:ARG:HE	1.81	0.45
1:CA:360:A:H2'	1:CA:361:G:O4'	2.16	0.45
34:DA:2193:G:C4	34:DA:2194:G:C8	3.04	0.45
1:CA:397:A:H5'	1:CA:398:C:OP1	2.16	0.45
1:AA:1239:A:H2'	1:AA:1298:C:H42	1.80	0.45
1:AA:198:G:H2'	1:AA:199:G:H8	1.81	0.45
35:BB:32:C:C2	35:BB:51:G:C2	3.04	0.45
48:BS:46:VAL:HG12	48:BS:47:THR:N	2.31	0.45
1:AA:285:G:O2'	1:AA:286:G:H5'	2.15	0.45
34:DA:1508:A:H2'	34:DA:1509:C:OP1	2.16	0.45
1:AA:601:C:H2'	1:AA:602:A:H8	1.80	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:708:C:H42	34:DA:723:G:H1	1.63	0.45
34:DA:2881:C:H2'	34:DA:2882:A:H8	1.81	0.45
43:DN:104:LYS:C	43:DN:106:MET:H	2.19	0.45
36:DC:62:VAL:O	36:DC:63:SER:C	2.54	0.45
16:CP:58:TYR:O	16:CP:61:SER:N	2.49	0.45
6:AF:15:ASP:OD1	6:AF:17:SER:HB2	2.16	0.45
34:BA:1028:A:N6	34:BA:1125:G:H2'	2.31	0.45
34:BA:2610:C:O2'	34:BA:2611:U:P	2.74	0.45
38:BE:87:GLU:O	38:BE:87:GLU:HG3	2.17	0.45
46:DQ:32:TYR:N	46:DQ:32:TYR:CD1	2.85	0.45
1:CA:693:G:H1'	7:CG:82:GLY:HA3	1.98	0.45
52:BW:73:ALA:HB3	52:BW:106:ILE:HD11	1.97	0.45
28:B3:44:ARG:O	28:B3:48:GLU:HG2	2.15	0.45
51:DV:22:VAL:O	51:DV:22:VAL:CG1	2.64	0.45
42:BI:94:ALA:HA	42:BI:97:ILE:HB	1.98	0.45
34:BA:535:C:O3'	50:BU:53:ARG:NH1	2.49	0.45
50:BU:79:PHE:HE1	50:BU:106:PHE:CZ	2.34	0.45
50:BU:74:LEU:HD12	50:BU:74:LEU:C	2.37	0.45
51:BV:88:ARG:NH1	51:BV:88:ARG:HG3	2.32	0.45
48:DS:89:ARG:HB3	48:DS:92:TYR:HB3	1.97	0.45
38:DE:197:ILE:HG13	38:DE:199:ARG:HH12	1.81	0.45
34:DA:1596:A:O2'	34:DA:1597:A:H5'	2.16	0.45
45:BP:93:GLY:O	45:BP:123:LEU:HB2	2.16	0.45
48:BS:28:VAL:C	48:BS:89:ARG:HD2	2.37	0.45
39:BF:118:ALA:HA	39:BF:123:LEU:HB3	1.97	0.45
45:BP:10:PRO:CD	45:BP:11:GLY:H	2.29	0.45
34:DA:329:G:N1	54:DY:19:LYS:HE3	2.17	0.45
54:DY:28:LYS:C	54:DY:29:GLU:OE1	2.55	0.45
34:DA:85:G:O5'	54:DY:30:VAL:HB	2.15	0.45
35:DB:75:G:N2	55:DZ:87:ASP:OD2	2.49	0.45
46:BQ:8:LYS:HG3	46:BQ:9:TYR:H	1.81	0.45
34:BA:2711:A:H5''	34:BA:2712:U:H5'	1.97	0.45
39:DF:18:ARG:O	39:DF:19:GLU:HB3	2.17	0.45
43:BN:42:TRP:HA	43:BN:42:TRP:CE3	2.52	0.45
53:DX:21:PHE:CE1	53:DX:26:TYR:HB3	2.52	0.45
1:AA:192:U:C4'	20:AT:103:GLY:HA2	2.47	0.45
16:AP:21:VAL:HG23	16:AP:21:VAL:O	2.16	0.45
42:DI:5:LEU:HD11	42:DI:12:LEU:HB2	1.97	0.45
10:CJ:48:THR:CB	10:CJ:62:HIS:HB3	2.45	0.45
26:D1:28:GLY:C	26:D1:30:VAL:N	2.69	0.45
5:CE:78:HIS:CE1	5:CE:142:LEU:HD23	2.52	0.45
46:BQ:141:GLN:OXT	55:BZ:98:MET:HB2	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DG:63:ILE:HD12	40:DG:63:ILE:C	2.37	0.45
34:BA:2808:U:H2'	34:BA:2809:A:C5'	2.46	0.45
3:AC:70:VAL:O	3:AC:105:GLU:HA	2.16	0.45
46:BQ:127:ILE:CG2	46:BQ:128:LYS:H	2.16	0.45
41:BH:106:THR:CG2	41:BH:112:PRO:HB3	2.41	0.45
39:DF:68:LYS:O	39:DF:69:HIS:HD2	2.00	0.45
20:CT:84:LEU:O	20:CT:88:VAL:HG23	2.15	0.45
34:DA:2406:U:C2	45:DP:72:PRO:HB2	2.50	0.45
34:DA:1019:U:N3	34:DA:1142(A):A:N6	2.58	0.45
50:DU:37:GLU:O	50:DU:40:PHE:HB2	2.16	0.45
34:DA:2313:C:C4'	40:DG:40:ASN:ND2	2.79	0.45
34:BA:2531:A:C2	34:BA:2658:C:O2	2.70	0.45
41:BH:158:HIS:NE2	41:BH:169:VAL:C	2.70	0.45
13:CM:70:LEU:C	13:CM:70:LEU:CD2	2.85	0.45
7:CG:69:VAL:CA	7:CG:138:LYS:HD2	2.39	0.45
12:AL:60:LEU:HD23	12:AL:64:TYR:HB3	1.98	0.45
34:DA:71:A:C8	34:DA:71:A:H5'	2.49	0.45
33:B8:18:ALA:C	33:B8:20:GLY:H	2.20	0.45
34:BA:1570:A:H2'	34:BA:1571:A:C8	2.51	0.45
39:DF:63:LYS:HE3	39:DF:67:GLN:HB2	1.98	0.45
34:DA:2287:A:C2	34:DA:2346:A:H2	2.33	0.45
34:BA:528:A:H2	34:BA:2043:C:H4'	1.75	0.45
34:BA:2468:G:H5'	46:BQ:120:ILE:HD12	1.98	0.45
1:AA:197:A:N6	1:AA:221:C:C5'	2.79	0.45
1:AA:197:A:C5	1:AA:221:C:H4'	2.50	0.45
35:DB:21:G:O2'	35:DB:22:U:P	2.74	0.45
34:BA:1262:A:OP1	52:BW:99:ARG:NH1	2.46	0.45
3:AC:127:ARG:HH11	3:AC:127:ARG:HG2	1.81	0.45
13:AM:83:ASP:OD2	13:AM:84:ILE:N	2.48	0.45
17:CQ:52:LYS:O	17:CQ:55:ASP:OD2	2.34	0.45
34:DA:2853:C:O2'	34:DA:2854:G:H5'	2.16	0.45
46:BQ:7:MET:O	46:BQ:10:ARG:NH2	2.48	0.45
34:DA:322:A:P	39:DF:169:ASN:HD22	2.39	0.45
14:AN:6:LEU:HB3	14:AN:23:ARG:HH22	1.81	0.45
1:CA:1121:U:O2'	1:CA:1122:U:H5'	2.16	0.45
34:DA:974:G:C5	34:DA:989:G:C2	3.04	0.45
20:CT:87:LYS:HG3	20:CT:91:LEU:CD1	2.46	0.45
1:AA:1218:C:OP1	14:AN:9:LYS:HE3	2.16	0.45
52:DW:86:LEU:HD12	52:DW:87:PRO:CD	2.46	0.45
52:BW:54:ALA:C	52:BW:107:LEU:HD22	2.37	0.45
34:DA:795:C:H2'	34:DA:796:C:C6	2.51	0.45
34:DA:2574:G:H2'	34:DA:2575:C:C6	2.51	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1467:C:H42	34:DA:1525:G:H1	1.63	0.45
7:AG:45:ASP:O	7:AG:49:ILE:HG12	2.16	0.45
20:CT:23:ARG:O	20:CT:26:ASN:ND2	2.49	0.45
8:AH:45:ILE:HB	8:AH:62:TYR:O	2.17	0.45
4:AD:159:ARG:O	4:AD:161:ASN:N	2.49	0.45
28:B3:59:VAL:HG12	28:B3:60:GLU:N	2.31	0.45
34:DA:2124:G:O2'	34:DA:2125:G:H5'	2.16	0.45
34:BA:303:U:H2'	34:BA:304:G:H8	1.82	0.45
7:CG:36:LYS:O	7:CG:39:ALA:N	2.49	0.45
34:DA:221:A:O2'	34:DA:222:A:OP2	2.34	0.45
15:CO:18:PHE:HD1	15:CO:19:PRO:O	1.98	0.45
1:CA:505:G:C6	1:CA:535:A:C2	3.04	0.45
52:DW:62:HIS:O	52:DW:63:ASP:C	2.54	0.45
5:CE:94:ALA:CB	5:CE:98:THR:HG21	2.46	0.45
34:DA:1394:U:C4	34:DA:1395:A:C6	3.04	0.45
34:DA:2586:C:C5	34:DA:2608:G:N2	2.84	0.45
36:DC:68:LEU:CD2	36:DC:179:SER:HA	2.45	0.45
2:AB:172:ILE:HD12	2:AB:172:ILE:N	2.31	0.45
1:AA:1084:G:H5'	1:AA:1102:A:OP2	2.16	0.45
52:BW:62:HIS:O	52:BW:63:ASP:C	2.54	0.45
42:BI:139:GLN:HG2	42:BI:140:LEU:N	2.31	0.45
38:DE:197:ILE:HD11	38:DE:199:ARG:HH12	1.80	0.45
49:DT:38:ASN:ND2	49:DT:40:THR:OG1	2.48	0.45
54:BY:28:LYS:CB	54:BY:37:VAL:HB	2.46	0.45
34:BA:329:G:OP2	54:BY:71:LYS:HE3	2.16	0.45
34:BA:613:G:H5'	34:BA:613:G:C8	2.45	0.45
45:BP:46:LYS:CG	45:BP:52:GLU:HG2	2.46	0.45
42:DI:115:ALA:HB3	42:DI:129:THR:O	2.16	0.45
42:DI:120:ILE:HG22	42:DI:121:LYS:N	2.31	0.45
2:CB:153:ARG:O	2:CB:154:LEU:C	2.54	0.45
18:AR:31:LEU:H	18:AR:31:LEU:HD23	1.82	0.45
41:BH:118:PRO:CG	41:BH:121:ILE:HB	2.38	0.45
38:BE:117:MET:HE3	38:BE:124:GLY:HA3	1.99	0.45
44:BO:101:PRO:O	44:BO:102:VAL:CG1	2.52	0.45
34:DA:1494:A:OP1	34:DA:1494:A:H4'	2.17	0.45
26:D1:44:PRO:O	26:D1:44:PRO:HG2	2.15	0.45
30:B5:4:HIS:CB	30:B5:5:PRO:CD	2.90	0.45
54:DY:81:LYS:CE	54:DY:97:ARG:HG3	2.46	0.45
46:DQ:36:ALA:O	46:DQ:100:GLY:N	2.49	0.45
51:BV:32:THR:O	51:BV:63:GLY:HA2	2.17	0.45
30:B5:57:VAL:CG2	30:B5:58:LEU:H	2.18	0.45
3:AC:105:GLU:CG	3:AC:106:VAL:H	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DN:31:ALA:O	43:DN:34:LEU:HB2	2.16	0.45
39:DF:103:LYS:C	39:DF:105:VAL:N	2.68	0.45
26:B1:27:GLU:OE2	26:B1:33:LYS:N	2.50	0.45
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.51	0.45
1:CA:9:G:O2'	1:CA:10:A:H5'	2.17	0.45
34:DA:2869:G:O3'	47:DR:61:HIS:HE1	1.98	0.45
55:DZ:177:PRO:C	55:DZ:178:GLU:HG2	2.37	0.45
27:D2:49:LYS:HE3	27:D2:53:LEU:HD13	1.98	0.45
34:DA:2531:A:C2	34:DA:2658:C:O2	2.68	0.45
1:AA:1496:C:H2'	1:AA:1497:G:C8	2.51	0.45
34:DA:1021:A:C3'	34:DA:1021:A:C8	2.98	0.45
40:DG:86:MET:CB	40:DG:87:PRO:CD	2.91	0.45
1:CA:1191:A:H2'	1:CA:1192:C:C6	2.52	0.45
13:AM:67:GLU:CG	13:AM:68:GLY:N	2.79	0.45
37:DD:255:LYS:C	37:DD:255:LYS:HE3	2.37	0.45
12:CL:42:THR:HG23	12:CL:42:THR:O	2.15	0.45
21:CU:2:GLY:O	21:CU:4:GLY:N	2.48	0.45
44:DO:1:MET:HB2	44:DO:32:TYR:CD2	2.51	0.45
34:BA:2599:G:OP2	37:BD:236:GLY:N	2.50	0.45
34:DA:440:G:N2	39:DF:46:ARG:NH2	2.64	0.45
1:CA:433:C:O2'	1:CA:434:U:H5'	2.16	0.45
34:BA:1678:G:H22	34:BA:1989:G:H22	1.63	0.45
34:DA:1365:A:C4	34:DA:1366:A:C8	3.04	0.45
2:AB:155:LEU:HD22	2:AB:155:LEU:N	2.32	0.45
37:BD:106:ILE:CD1	37:BD:106:ILE:C	2.83	0.45
47:BR:104:ARG:HD3	47:BR:111:LEU:HD11	1.99	0.45
34:DA:292:C:C2	34:DA:349:G:C2	3.04	0.45
3:AC:91:LEU:O	3:AC:95:THR:HB	2.15	0.45
55:DZ:5:LEU:HA	55:DZ:5:LEU:HD23	1.76	0.45
5:CE:146:ALA:C	5:CE:148:VAL:N	2.69	0.45
34:BA:1708:C:C2	34:BA:1709:U:C5	3.05	0.45
34:BA:2839:G:H2'	34:BA:2840:C:C6	2.51	0.45
1:CA:1202:G:C4	14:CN:42:ILE:HG21	2.52	0.45
9:AI:36:TYR:CD2	9:AI:37:PHE:CE2	3.05	0.45
8:AH:6:ILE:HB	8:AH:85:ARG:HH12	1.82	0.45
54:DY:31:LEU:CB	54:DY:32:PRO:HA	2.42	0.45
3:CC:22:TRP:CZ2	14:CN:54:PRO:HG2	2.52	0.45
8:CH:119:LEU:HB3	8:CH:123:GLU:HB2	1.99	0.45
34:BA:1435:G:H2'	34:BA:1436:G:O4'	2.16	0.45
34:BA:407:G:O2'	34:BA:408:G:H5'	2.16	0.45
40:BG:173:LEU:O	40:BG:178:PHE:HB2	2.17	0.45
13:CM:75:ALA:CB	13:CM:79:LYS:HE3	2.47	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:75:ALA:CB	13:AM:79:LYS:HE3	2.46	0.45
15:CO:3:ILE:N	15:CO:3:ILE:HD13	2.31	0.45
1:CA:1456:G:H3'	1:CA:1456:G:N3	2.31	0.45
17:AQ:18:THR:HG22	17:AQ:19:VAL:N	2.31	0.45
47:BR:100:LEU:HD23	47:BR:112:ALA:CA	2.45	0.45
1:CA:824:C:O2'	1:CA:825:G:H5'	2.17	0.45
1:AA:967:C:H2'	1:AA:968:A:N7	2.31	0.45
1:CA:445:G:H2'	1:CA:446:G:C8	2.50	0.45
1:CA:763:G:H2'	1:CA:764:C:H6	1.81	0.45
1:AA:200:G:H1	1:AA:217:C:N4	2.14	0.45
20:CT:92:LEU:C	20:CT:94:ALA:H	2.19	0.45
1:AA:423:G:H2'	1:AA:424:G:O4'	2.16	0.45
2:AB:129:GLU:O	2:AB:130:ARG:HB2	2.16	0.45
16:AP:19:ILE:HG22	16:AP:36:ILE:HG13	1.97	0.45
34:BA:756:C:O2'	34:BA:757:U:H5'	2.16	0.45
1:CA:830:G:O2'	1:CA:831:U:H5'	2.17	0.45
1:CA:832:C:O2'	1:CA:833:U:P	2.74	0.45
34:DA:912:C:H2'	34:DA:913:U:H6	1.79	0.45
34:DA:2004:G:H2'	34:DA:2005:A:O4'	2.16	0.45
5:CE:145:LYS:O	5:CE:149:GLU:HG2	2.16	0.45
34:BA:1967:C:H2'	34:BA:1968:G:H5'	1.98	0.45
42:BI:92:VAL:HG22	42:BI:97:ILE:HG13	1.98	0.45
34:BA:2702:U:HO2'	34:BA:2703:C:H6	1.63	0.45
3:AC:180:ALA:HB1	3:AC:182:ILE:HG13	1.98	0.45
49:DT:29:ARG:CG	49:DT:30:VAL:N	2.79	0.45
45:BP:95:VAL:HG23	45:BP:95:VAL:O	2.15	0.45
49:BT:65:LYS:NZ	49:BT:66:VAL:HG23	2.32	0.45
38:BE:97:LYS:N	38:BE:100:GLU:OE1	2.47	0.45
54:BY:11:ASP:O	54:BY:27:VAL:HA	2.16	0.45
37:BD:25:THR:CB	37:BD:82:ILE:H	2.30	0.45
26:B1:47:GLN:NE2	34:BA:2090:G:N3	2.65	0.45
34:BA:1365:A:C4	34:BA:1366:A:C8	3.04	0.45
54:DY:14:LEU:HD11	54:DY:22:GLY:HA2	1.98	0.45
33:B8:53:PRO:HG2	33:B8:54:GLU:N	2.30	0.45
33:D8:32:LEU:HD23	33:D8:35:GLN:C	2.37	0.45
34:BA:2393:A:O5'	45:BP:62:LEU:HD12	2.17	0.45
45:BP:66:GLY:O	45:BP:68:GLN:N	2.49	0.45
12:AL:89:ARG:HB2	12:AL:89:ARG:CZ	2.47	0.45
34:DA:2041:U:C2	34:DA:2042:A:C8	3.05	0.45
34:DA:2040:C:C2	34:DA:2041:U:C6	3.05	0.45
50:DU:66:ASN:O	50:DU:68:ALA:N	2.49	0.45
41:DH:70:THR:O	41:DH:73:ALA:HB3	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:570:G:H2'	34:DA:2030:A:C5	2.52	0.45
34:BA:2723:C:H5''	47:BR:2:ARG:HD3	1.91	0.45
55:BZ:97:GLU:CB	55:BZ:125:LEU:HD21	2.47	0.45
34:BA:1341:U:C1'	53:BX:77:LYS:HE2	2.46	0.45
13:CM:8:GLU:OE1	13:CM:22:ILE:HA	2.17	0.45
34:BA:2808:U:O2'	34:BA:2809:A:H5'	2.16	0.45
1:CA:1204:A:H2'	1:CA:1205:U:O4'	2.16	0.45
1:AA:1057:G:C5	1:AA:1204:A:C2	3.04	0.45
3:AC:48:TYR:C	3:AC:50:ALA:H	2.19	0.45
43:DN:128:HIS:O	43:DN:128:HIS:CG	2.69	0.45
43:DN:19:GLU:HB2	43:DN:59:LYS:CB	2.46	0.45
1:CA:1226:C:OP2	13:CM:103:THR:HG21	2.17	0.45
1:CA:953:G:H5'	1:CA:965:A:H61	1.81	0.45
41:BH:44:VAL:O	41:BH:46:GLU:OE2	2.35	0.45
3:CC:48:TYR:C	3:CC:50:ALA:H	2.19	0.45
43:BN:33:LEU:HD23	43:BN:52:VAL:HG21	1.95	0.45
27:D2:49:LYS:HG2	27:D2:53:LEU:HB2	1.99	0.45
41:DH:47:GLU:C	41:DH:49:VAL:H	2.19	0.45
1:CA:1287:A:N6	1:CA:1288:A:N6	2.64	0.45
40:DG:135:LEU:HB2	40:DG:155:MET:O	2.17	0.45
34:BA:2658:C:O2	34:BA:2658:C:C2'	2.63	0.45
40:DG:125:PHE:CB	40:DG:166:ASP:HB2	2.38	0.45
40:DG:125:PHE:CZ	40:DG:173:LEU:HD12	2.51	0.45
22:AV:72:A:H3'	22:AV:73:A:H5''	1.99	0.45
12:AL:58:VAL:N	12:AL:66:VAL:O	2.48	0.45
1:CA:737:A:O2'	6:CF:72:VAL:HG11	2.15	0.45
34:BA:1748:G:C8	34:BA:1748:G:H5'	2.47	0.45
37:DD:117:VAL:HG22	37:DD:118:VAL:N	2.32	0.45
48:BS:53:SER:O	48:BS:56:LEU:HB3	2.16	0.45
48:DS:56:LEU:C	48:DS:56:LEU:HD23	2.37	0.45
35:DB:38:C:H42	35:DB:44:G:H1	1.64	0.45
3:AC:58:GLU:H	3:AC:65:ALA:CB	2.25	0.45
37:BD:105:ILE:O	37:BD:106:ILE:C	2.55	0.45
52:DW:29:LEU:CD2	52:DW:33:ARG:HH21	2.24	0.45
34:BA:528:A:C2	34:BA:2043:C:C5'	3.00	0.45
34:BA:2508:G:H2'	34:BA:2509:G:H8	1.82	0.45
1:AA:328:C:H4'	1:AA:329:A:O5'	2.15	0.45
31:B6:20:ASN:HD22	31:B6:21:TYR:N	2.04	0.45
22:CV:17:C:H3'	22:CV:17(A):U:C6	2.52	0.45
1:AA:1228:C:P	13:AM:108:ARG:HH22	2.39	0.45
2:AB:77:ALA:HB2	2:AB:211:ILE:CD1	2.44	0.45
34:DA:320:A:C4	39:DF:136:THR:HG21	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:271(G):C:O2'	34:DA:271(H):G:H5'	2.15	0.45
1:CA:197:A:N6	1:CA:221:C:C5'	2.80	0.45
1:CA:1349:A:C4	1:CA:1350:A:C8	3.05	0.45
9:CI:115:GLY:C	9:CI:116:LYS:HG2	2.37	0.45
38:DE:132:HIS:CD2	38:DE:135:HIS:NE2	2.84	0.45
34:BA:2821:A:O2'	34:BA:2822:G:H5'	2.17	0.45
11:AK:18:ARG:HG2	11:AK:20:TYR:CE1	2.51	0.45
34:BA:1232:G:H2'	34:BA:1233:C:C6	2.52	0.45
40:DG:11:TYR:HA	40:DG:15:VAL:HG23	1.98	0.45
53:DX:14:SER:O	53:DX:17:ALA:HB3	2.16	0.45
53:BX:14:SER:O	53:BX:15:GLU:C	2.55	0.45
51:DV:66:ARG:HH11	51:DV:66:ARG:HG3	1.81	0.45
51:DV:67:GLY:O	51:DV:68:LYS:C	2.55	0.45
34:BA:322:A:H3'	39:BF:169:ASN:ND2	2.28	0.45
39:DF:11:VAL:HG12	39:DF:12:LEU:HG	1.99	0.45
1:AA:404:U:H2'	1:AA:405:U:C6	2.52	0.45
34:BA:1317:A:H2'	34:BA:1318:C:C6	2.46	0.45
1:CA:860:A:H2'	1:CA:861:G:O4'	2.17	0.45
34:BA:1775:U:C2'	34:BA:1776:G:O5'	2.65	0.45
34:DA:1703:G:H2'	34:DA:1704:G:H8	1.79	0.45
1:CA:1300:G:O2'	1:CA:1301:U:P	2.73	0.45
1:AA:588:G:H2'	1:AA:589:C:H6	1.81	0.45
34:BA:2193:G:C4	34:BA:2194:G:C8	3.05	0.45
47:DR:75:LEU:HD13	47:DR:75:LEU:O	2.17	0.45
25:D0:2:ALA:HB1	34:DA:2494:G:OP2	2.15	0.45
30:D5:44:THR:HG21	47:DR:101:ALA:HB2	1.99	0.45
35:DB:52:A:O2'	35:DB:53:A:H8	2.00	0.45
34:DA:986:C:O2'	34:DA:987:G:H5'	2.17	0.45
1:AA:1226:C:OP2	13:AM:103:THR:HG21	2.16	0.45
34:DA:2087:G:O2'	34:DA:2088:G:H5'	2.16	0.45
7:AG:71:PRO:HG3	7:AG:103:TRP:CH2	2.52	0.45
34:BA:2516:G:C5	34:BA:2517:C:C4	3.04	0.45
34:BA:1783:A:C2	34:BA:2587:A:C5	3.04	0.45
4:CD:61:LYS:HE3	4:CD:207:TYR:OH	2.17	0.45
33:B8:39:LYS:HG2	33:B8:39:LYS:O	2.17	0.45
34:BA:1446:C:O2'	34:BA:1447:G:H5'	2.16	0.45
46:BQ:114:ALA:O	46:BQ:117:ALA:HB3	2.16	0.45
2:CB:27:LYS:C	2:CB:29:ALA:H	2.20	0.45
1:CA:287:U:O2'	1:CA:288:A:H5'	2.16	0.45
1:CA:1470:G:O2'	1:CA:1471:G:H5'	2.15	0.45
52:DW:24:ILE:HD12	52:DW:24:ILE:C	2.37	0.45
13:CM:58:GLU:HA	13:CM:58:GLU:OE1	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:D8:39:LYS:HG2	33:D8:39:LYS:O	2.16	0.45
4:CD:187:ARG:HH11	4:CD:187:ARG:HG2	1.81	0.45
36:DC:196:LEU:C	36:DC:198:ALA:N	2.70	0.45
51:DV:61:VAL:O	51:DV:62:LEU:HD23	2.16	0.45
37:DD:35:LYS:CD	37:DD:104:TYR:CD1	2.98	0.45
49:BT:28:VAL:HG12	49:BT:28:VAL:O	2.15	0.45
37:BD:34:VAL:O	37:BD:35:LYS:CB	2.64	0.45
34:BA:1484:G:H2'	34:BA:1485:G:C4'	2.46	0.45
45:DP:126:VAL:HG22	45:DP:145:PRO:CB	2.47	0.45
34:DA:1484:G:H2'	34:DA:1485:G:C4'	2.46	0.45
33:B8:32:LEU:HB3	33:B8:35:GLN:N	2.18	0.45
55:BZ:121:HIS:O	55:BZ:122:ARG:C	2.54	0.45
40:BG:149:VAL:O	40:BG:149:VAL:HG23	2.15	0.45
39:DF:25:PRO:CB	39:DF:119:ARG:HD3	2.46	0.45
41:DH:118:PRO:CG	41:DH:121:ILE:HB	2.37	0.45
18:AR:40:LEU:O	18:AR:42:ARG:N	2.50	0.45
43:BN:46:VAL:CG1	43:BN:47:ALA:N	2.69	0.45
34:DA:1629:U:O2	34:DA:2698:U:H5''	2.16	0.45
36:BC:168:THR:CA	36:BC:173:ALA:HB2	2.31	0.45
54:BY:86:ARG:NH2	54:BY:95:LYS:HZ3	2.15	0.45
55:BZ:19:ARG:HH11	55:BZ:19:ARG:HG2	1.80	0.45
13:CM:49:THR:HG22	13:CM:51:ALA:N	2.30	0.45
9:CI:10:ARG:HG2	9:CI:104:ARG:O	2.16	0.45
1:CA:1057:G:O2'	1:CA:1058:G:H5'	2.17	0.45
3:AC:195:VAL:C	3:AC:196:LEU:HD22	2.36	0.45
34:DA:9:U:HO2'	34:DA:10:G:P	2.40	0.45
34:DA:2685:G:N3	34:DA:2725:A:C2	2.84	0.45
38:DE:109:LYS:CB	47:DR:2:ARG:NH1	2.72	0.45
45:DP:131:SER:C	45:DP:133:SER:H	2.19	0.45
6:CF:13:ASN:ND2	6:CF:55:ASP:OD1	2.50	0.45
34:DA:2869:G:H2'	34:DA:2870:C:O4'	2.16	0.45
46:DQ:55:VAL:CG2	55:DZ:178:GLU:HB3	2.46	0.45
34:DA:2475:C:H42	34:DA:2529:G:N2	2.15	0.45
4:AD:134:ASP:OD2	4:AD:135:LEU:HD22	2.16	0.45
34:DA:2312:U:H2'	34:DA:2313:C:H5'	1.98	0.45
30:B5:20:ARG:NH1	52:BW:15:ARG:NE	2.64	0.45
34:DA:157:U:H5''	34:DA:171:G:H22	1.81	0.45
41:DH:158:HIS:NE2	41:DH:169:VAL:C	2.70	0.45
3:CC:206:GLU:HG2	3:CC:207:VAL:CG2	2.45	0.45
34:BA:271(C):C:H2'	34:BA:271(D):G:H8	1.82	0.45
35:BB:38:C:O2	35:BB:48:A:H1'	2.17	0.45
1:AA:1471:G:O2'	1:AA:1472:U:H5'	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BC:18:LYS:HD3	36:BC:19:VAL:N	2.31	0.45
34:BA:440:G:N2	39:BF:46:ARG:NH2	2.64	0.45
49:BT:6:LEU:HD23	49:BT:6:LEU:O	2.17	0.45
31:B6:19:ARG:O	31:B6:20:ASN:HB3	2.16	0.45
14:CN:48:ALA:CA	14:CN:53:LEU:HD12	2.47	0.45
34:BA:1639:U:H2'	34:BA:1640:C:C5'	2.46	0.45
2:CB:216:SER:C	2:CB:218:ALA:N	2.69	0.45
40:DG:48:GLU:CG	40:DG:49:ASP:N	2.76	0.45
7:AG:84:ASN:N	7:AG:84:ASN:HD22	2.13	0.45
2:AB:219:VAL:O	2:AB:222:ILE:HB	2.16	0.45
2:AB:74:LYS:HG3	2:AB:77:ALA:HB3	1.99	0.45
20:AT:89:ARG:HH21	20:AT:89:ARG:HG3	1.81	0.45
1:AA:938:A:C6	1:AA:939:G:C5	3.04	0.45
40:DG:8:LYS:HZ2	40:DG:12:TYR:HE1	1.60	0.45
16:AP:49:LEU:HD12	16:AP:50:LYS:H	1.80	0.45
44:BO:79:PHE:CD2	49:BT:72:VAL:HG22	2.52	0.45
54:DY:31:LEU:HA	54:DY:31:LEU:HD22	1.65	0.45
11:CK:95:ILE:O	11:CK:98:LEU:N	2.50	0.45
45:BP:108:LYS:O	45:BP:110:TYR:N	2.50	0.45
34:DA:1262:A:OP1	52:DW:99:ARG:NH1	2.48	0.45
14:AN:36:PHE:CG	14:AN:37:PHE:N	2.84	0.45
1:AA:389:A:C2'	1:AA:390:C:C5'	2.94	0.45
34:BA:2291:U:H2'	34:BA:2292:C:C6	2.51	0.45
4:AD:110:PHE:N	4:AD:110:PHE:CD1	2.84	0.45
42:DI:29:TYR:HE1	42:DI:33:ARG:HE	1.54	0.45
55:DZ:132:ASN:O	55:DZ:134:PRO:CD	2.64	0.45
39:BF:108:LYS:HD3	39:BF:108:LYS:HA	1.82	0.45
20:CT:73:HIS:O	20:CT:74:LYS:O	2.34	0.45
1:CA:977:A:HO2'	1:CA:978:A:H5'	1.82	0.45
1:CA:1397:C:N4	24:CX:22:A:H3'	2.31	0.45
15:CO:43:LEU:C	15:CO:45:VAL:N	2.70	0.45
1:CA:636:U:H2'	1:CA:637:G:C8	2.51	0.45
1:AA:1466:C:C2'	1:AA:1467:G:H5'	2.46	0.45
34:DA:825:C:H42	34:DA:832:G:H1	1.65	0.45
34:DA:1122:G:C2	34:DA:1123:C:C6	3.04	0.45
37:BD:85:ASP:OD1	37:BD:87:ASN:ND2	2.49	0.45
34:BA:1622:G:C2	34:BA:1623:G:C8	3.04	0.45
34:DA:503:A:H4'	34:DA:505:A:H5''	1.98	0.45
49:BT:10:VAL:O	49:BT:11:GLU:C	2.54	0.45
34:BA:832:G:OP1	45:BP:40:SER:HB3	2.16	0.45
34:BA:290:G:O2'	34:BA:291:C:H5'	2.16	0.45
15:CO:25:THR:O	15:CO:26:GLU:C	2.54	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:D7:34:ARG:O	32:D7:35:ARG:C	2.55	0.45
34:BA:2588:G:O6	34:BA:2607:G:C6	2.69	0.45
1:CA:1119:C:O2'	1:CA:1120:G:H5'	2.17	0.45
39:DF:74:ARG:HG2	39:DF:74:ARG:O	2.15	0.45
11:AK:114:VAL:O	11:AK:114:VAL:HG13	2.17	0.45
22:CV:44:A:H2'	22:CV:45:G:O4'	2.17	0.45
38:BE:107:THR:O	38:BE:190:GLY:HA2	2.16	0.45
3:CC:40:ARG:O	3:CC:44:GLU:HG3	2.17	0.45
42:BI:132:PRO:O	42:BI:133:HIS:O	2.35	0.45
37:DD:36:PRO:HG3	37:DD:61:LEU:HD23	1.98	0.45
50:BU:110:VAL:O	50:BU:113:ALA:N	2.49	0.45
48:DS:37:ALA:HB1	48:DS:73:LEU:HD11	1.98	0.45
48:DS:37:ALA:CB	48:DS:73:LEU:HD11	2.47	0.45
38:DE:48:GLN:HE21	38:DE:78:LEU:HD12	1.81	0.45
54:BY:49:VAL:O	54:BY:50:ARG:HB2	2.17	0.45
48:BS:89:ARG:HB3	48:BS:92:TYR:HB3	1.99	0.45
49:BT:29:ARG:HD3	49:BT:86:ILE:CG2	2.29	0.45
1:CA:950:U:H3'	13:CM:102:ARG:CZ	2.45	0.45
2:AB:91:PRO:CG	2:AB:154:LEU:HD12	2.47	0.45
38:BE:28:ALA:O	38:BE:180:ASN:OD1	2.35	0.45
38:BE:179:GLU:HB3	38:BE:181:LEU:CD2	2.46	0.45
38:BE:34:VAL:O	38:BE:35:GLN:HB2	2.16	0.45
46:DQ:140:ALA:O	55:DZ:53:ILE:HB	2.16	0.45
33:B8:8:LYS:O	33:B8:12:LYS:HG3	2.16	0.45
45:BP:62:LEU:H	45:BP:62:LEU:CD2	2.19	0.45
20:CT:22:ARG:O	20:CT:25:ARG:HB3	2.16	0.45
55:BZ:145:GLU:C	55:BZ:147:GLY:N	2.70	0.45
39:DF:25:PRO:HB3	39:DF:119:ARG:CB	2.43	0.45
47:DR:56:LYS:HE2	47:DR:88:ARG:H	1.80	0.45
18:CR:56:THR:C	18:CR:58:LEU:HD12	2.37	0.45
50:BU:61:TRP:O	50:BU:64:ARG:N	2.50	0.45
34:DA:1951:U:H2'	34:DA:1953:A:OP2	2.16	0.45
19:AS:62:ILE:HD12	19:AS:66:MET:HG3	1.97	0.45
13:CM:108:ARG:HG3	13:CM:108:ARG:HH11	1.81	0.45
34:DA:2677:G:H2'	34:DA:2678:C:C6	2.49	0.45
1:AA:710:G:O2'	1:AA:711:G:H5'	2.16	0.45
5:CE:127:ASN:O	5:CE:131:ILE:HG12	2.17	0.45
27:D2:14:ARG:HH21	27:D2:57:ILE:CD1	2.30	0.45
34:DA:2313:C:C6	34:DA:2314:C:H5	2.34	0.45
8:CH:39:LEU:O	8:CH:44:PHE:HB2	2.17	0.45
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.51	0.45
8:AH:29:SER:O	8:AH:32:LYS:HB2	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1505:G:H4'	1:CA:1506:U:H5'	1.99	0.45
37:DD:206:LEU:HD23	37:DD:206:LEU:HA	1.72	0.45
1:CA:171:A:C2	1:CA:172:A:C2	3.04	0.45
52:DW:70:TYR:H	52:DW:70:TYR:HD2	1.63	0.45
5:AE:150:ARG:CB	5:AE:150:ARG:HH11	2.30	0.45
1:CA:482:A:H2'	1:CA:483:C:O4'	2.17	0.45
16:CP:41:PRO:O	16:CP:42:ARG:HG2	2.16	0.45
27:B2:21:LEU:O	27:B2:24:LEU:HB3	2.16	0.45
34:DA:2617:C:O2'	34:DA:2618:G:H5'	2.17	0.45
17:CQ:4:LYS:HG3	17:CQ:5:VAL:N	2.31	0.45
1:AA:1242:C:O2'	1:AA:1243:C:H5'	2.17	0.45
34:DA:2693:A:H2'	34:DA:2694:G:C8	2.46	0.45
50:DU:101:ARG:C	50:DU:102:GLU:HG2	2.37	0.45
1:AA:393:A:C2	1:AA:394:G:C8	3.04	0.45
13:AM:48:LEU:N	13:AM:48:LEU:HD23	2.32	0.45
2:AB:114:ARG:HA	2:AB:117:GLU:CG	2.46	0.45
34:BA:2170:A:O2'	34:BA:2171:A:C8	2.67	0.45
1:CA:404:U:C2	1:CA:405:U:C5	3.05	0.45
52:BW:86:LEU:HD12	52:BW:87:PRO:CD	2.46	0.45
2:AB:16:HIS:HB3	2:AB:210:SER:CB	2.47	0.45
34:BA:1109:C:C5	34:BA:1110:G:C5	3.05	0.45
34:BA:2228:G:H2'	34:BA:2229:C:H6	1.81	0.45
52:DW:1:MET:O	52:DW:2:GLU:HB3	2.16	0.45
34:BA:1270:C:H5''	34:BA:1271:G:C5'	2.46	0.45
20:AT:27:LYS:O	20:AT:27:LYS:HD3	2.16	0.45
1:CA:908:A:C2	1:CA:909:A:C5	3.05	0.45
15:AO:43:LEU:C	15:AO:45:VAL:N	2.70	0.45
34:DA:927:G:H3'	34:DA:928:G:C8	2.52	0.45
34:BA:1122:G:C2	34:BA:1123:C:C6	3.05	0.45
1:CA:864:A:H2	1:CA:917:G:N3	2.15	0.45
4:CD:170:VAL:HG22	4:CD:171:GLY:N	2.32	0.45
2:AB:220:ASP:O	2:AB:223:ILE:N	2.49	0.45
34:BA:2382:G:O5'	34:BA:2382:G:H8	2.00	0.45
34:BA:874:G:O2'	34:BA:875:G:H5'	2.17	0.45
42:DI:84:GLY:O	42:DI:85:GLU:HB2	2.17	0.45
1:AA:533:A:O2'	1:AA:534:U:H5''	2.16	0.45
50:DU:79:PHE:HE1	50:DU:106:PHE:CZ	2.34	0.45
34:DA:1225:G:P	51:DV:88:ARG:HB3	2.57	0.45
42:BI:77:LEU:O	42:BI:78:THR:CB	2.65	0.45
37:DD:36:PRO:C	37:DD:37:LEU:HD23	2.37	0.45
34:DA:614(C):A:O2'	34:DA:615:G:O4'	2.35	0.45
34:DA:2637:U:H5'	34:DA:2637:U:C6	2.48	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DE:37:ARG:HD3	38:DE:44:TYR:CE2	2.51	0.45
37:BD:142:VAL:CG2	37:BD:192:THR:C	2.83	0.45
23:AW:38:A:H2'	23:AW:39:U:O4'	2.17	0.45
39:BF:33:LEU:O	39:BF:37:VAL:HG23	2.16	0.45
45:DP:107:LYS:C	45:DP:109:GLY:H	2.20	0.45
42:DI:120:ILE:HD13	42:DI:126:TYR:CE1	2.52	0.45
55:DZ:52:SER:O	55:DZ:54:HIS:N	2.47	0.45
2:CB:19:HIS:CD2	2:CB:20:GLU:HG2	2.51	0.45
13:AM:8:GLU:C	13:AM:9:ILE:HD12	2.37	0.45
34:BA:2313:C:C6	34:BA:2314:C:H5	2.35	0.45
34:BA:896:A:H5''	55:BZ:146:ILE:CD1	2.45	0.45
47:BR:56:LYS:HE2	47:BR:88:ARG:H	1.82	0.45
34:BA:2697:G:C2	34:BA:2711:A:C2	3.05	0.45
34:BA:2713:A:C3'	34:BA:2714:G:C5'	2.94	0.45
27:D2:30:ARG:HH11	27:D2:30:ARG:CG	2.25	0.45
42:DI:15:VAL:O	42:DI:17:GLN:N	2.49	0.45
1:CA:177:C:H2'	1:CA:178:C:H6	1.82	0.45
34:BA:2680:C:OP1	38:BE:109:LYS:HG3	2.17	0.45
55:BZ:163:LEU:CD1	55:BZ:167:PRO:HB3	2.47	0.45
55:BZ:23:LYS:HD2	55:BZ:38:TYR:CD1	2.52	0.45
40:DG:55:LYS:HD3	40:DG:55:LYS:C	2.36	0.45
34:DA:2808:U:H2'	34:DA:2809:A:C5'	2.46	0.45
44:DO:20:MET:O	44:DO:41:ALA:CB	2.63	0.45
53:BX:89:ILE:O	53:BX:89:ILE:HG22	2.17	0.45
34:DA:2464:C:O2'	34:DA:2465:C:O5'	2.35	0.45
50:DU:31:SER:HB3	50:DU:34:LYS:CB	2.35	0.45
1:CA:918:A:N6	1:CA:919:A:C6	2.85	0.45
34:DA:1266:G:C8	52:DW:15:ARG:NH2	2.84	0.45
20:CT:85:MET:HA	20:CT:88:VAL:CG2	2.46	0.45
1:AA:9:G:OP1	5:AE:122:GLU:HG3	2.16	0.45
34:DA:2472:G:H2'	34:DA:2475:C:H42	1.82	0.45
1:AA:1065:U:OP2	1:AA:1190:G:N2	2.40	0.45
4:AD:70:ILE:HD11	4:AD:74:GLN:HB3	1.98	0.45
45:BP:112:LEU:HD13	45:BP:112:LEU:O	2.17	0.45
1:CA:1064:G:OP2	1:CA:1386:G:H4'	2.16	0.45
34:BA:2308:G:C8	34:BA:2309:A:H3'	2.52	0.45
2:CB:111:ARG:HG2	2:CB:111:ARG:HH11	1.81	0.45
34:DA:2298:A:N6	34:DA:2318:G:H8	2.15	0.45
19:CS:64:GLU:O	19:CS:67:VAL:HG23	2.17	0.45
30:B5:40:LYS:HD3	30:B5:46:CYS:CB	2.45	0.45
8:CH:29:SER:O	8:CH:32:LYS:HB2	2.17	0.45
1:CA:328:C:O2'	1:CA:329:A:OP2	2.35	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BS:57:LYS:O	48:BS:58:LEU:O	2.34	0.45
2:AB:68:ILE:H	2:AB:90:MET:CE	2.29	0.45
34:BA:1668:A:N3	34:BA:1670:C:C4	2.83	0.45
34:BA:686:G:H21	34:BA:788:A:N6	2.15	0.45
1:CA:1218:C:OP1	14:CN:9:LYS:HE3	2.16	0.45
13:AM:116:THR:O	13:AM:117:VAL:HB	2.16	0.45
7:CG:22:LEU:O	7:CG:22:LEU:HG	2.16	0.45
35:BB:21:G:O2'	35:BB:22:U:P	2.75	0.45
1:CA:67:C:HO2'	1:CA:171:A:H1'	1.81	0.45
34:DA:1558:A:H1'	34:DA:1559:G:OP2	2.16	0.45
3:AC:35:GLU:O	3:AC:37:GLN:N	2.50	0.45
38:BE:57:LYS:C	38:BE:59:VAL:N	2.69	0.45
12:CL:71:PRO:HD2	12:CL:102:ARG:HH11	1.82	0.45
1:AA:784:C:H2'	1:AA:785:G:C8	2.52	0.45
3:CC:127:ARG:HG2	3:CC:127:ARG:HH11	1.81	0.45
34:BA:1914:C:O4'	34:BA:1914:C:O2	2.34	0.45
43:BN:78:TYR:H	43:BN:79:PRO:HD2	1.81	0.45
1:AA:389:A:O2'	1:AA:390:C:H5'	2.17	0.45
36:BC:47:LEU:HD21	36:BC:172:HIS:CA	2.47	0.45
4:CD:110:PHE:HE2	4:CD:148:VAL:HG23	1.81	0.45
4:CD:58:LEU:HD23	4:CD:206:PHE:CZ	2.51	0.45
20:AT:14:LYS:O	20:AT:18:GLN:HG3	2.16	0.45
1:CA:270:A:C5	1:CA:271:C:C4	3.05	0.45
37:DD:211:ARG:O	37:DD:214:TRP:N	2.50	0.45
44:BO:104:ARG:C	44:BO:106:LEU:H	2.18	0.45
36:BC:97:GLU:CA	36:BC:100:ILE:HG12	2.46	0.45
2:AB:239:VAL:HG12	2:AB:239:VAL:O	2.17	0.45
25:B0:1:MET:H3	34:BA:2602:A:H61	1.63	0.45
35:DB:32:C:C2	35:DB:51:G:C2	3.04	0.45
34:BA:977:G:O6	34:BA:987:G:C6	2.70	0.45
34:BA:335:C:H2'	34:BA:336:C:H6	1.82	0.45
1:CA:1271:G:H2'	1:CA:1272:G:C8	2.52	0.45
31:D6:46:HIS:HB3	31:D6:47:THR:N	2.32	0.45
8:AH:97:VAL:CB	8:AH:129:VAL:O	2.65	0.45
5:AE:30:ALA:O	5:AE:46:GLY:N	2.42	0.45
26:B1:42:GLN:HG2	26:B1:43:TYR:H	1.81	0.45
45:DP:135:LEU:HD22	45:DP:135:LEU:HA	1.72	0.45
34:BA:2766:G:N3	34:BA:2766:G:H2'	2.32	0.45
13:CM:16:ASP:OD2	13:CM:16:ASP:N	2.50	0.45
47:BR:99:LYS:HB3	47:BR:99:LYS:HE3	1.83	0.45
50:BU:83:LEU:CB	50:BU:88:ILE:HG12	2.41	0.45
48:DS:16:ASN:HB2	48:DS:90:GLY:HA2	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2637:U:C2'	34:DA:2638:G:H5'	2.47	0.45
48:BS:14:VAL:HG11	48:BS:90:GLY:C	2.37	0.45
49:BT:31:SER:CA	49:BT:32:TYR:HD2	2.30	0.45
34:BA:2637:U:C2'	34:BA:2638:G:H5'	2.46	0.45
37:BD:35:LYS:NZ	37:BD:104:TYR:CD1	2.79	0.45
34:BA:2522:U:O2'	34:BA:2647:U:H5''	2.16	0.45
39:BF:25:PRO:CB	39:BF:119:ARG:HD3	2.47	0.45
54:DY:13:VAL:HG12	54:DY:14:LEU:N	2.31	0.45
54:DY:37:VAL:HG21	54:DY:72:VAL:HG11	1.99	0.45
33:D8:6:THR:CG2	34:DA:243:U:OP1	2.64	0.45
34:BA:911:A:C2'	46:BQ:9:TYR:OH	2.63	0.45
48:BS:52:SER:O	48:BS:69:VAL:HG23	2.16	0.45
48:BS:69:VAL:O	48:BS:72:ALA:HB3	2.16	0.45
34:BA:2870:C:C2'	34:BA:2871:C:H5'	2.47	0.45
1:CA:375:U:C4'	16:CP:17:TYR:CE2	2.97	0.45
5:AE:78:HIS:CE1	5:AE:143:ARG:N	2.76	0.45
34:DA:2263:C:O2'	34:DA:2264:C:H5'	2.17	0.45
34:BA:1947:C:C3'	34:BA:1948:G:C5'	2.95	0.45
34:BA:1341:U:O4'	53:BX:57:LEU:HD11	2.17	0.45
46:DQ:39:PRO:CA	46:DQ:99:PRO:HD3	2.47	0.45
13:CM:19:LEU:CA	13:CM:22:ILE:HD12	2.45	0.45
40:DG:140:ILE:HD12	40:DG:140:ILE:C	2.37	0.45
1:AA:980:C:H3'	1:AA:981:U:H6	1.81	0.45
44:DO:10:VAL:O	44:DO:10:VAL:HG23	2.17	0.45
53:BX:88:LYS:HB3	53:BX:89:ILE:HD13	1.98	0.45
43:DN:28:THR:O	43:DN:29:LYS:C	2.54	0.45
39:DF:103:LYS:C	39:DF:105:VAL:H	2.20	0.45
34:DA:2684:U:OP2	49:DT:53:ARG:NH2	2.43	0.45
34:DA:27:G:C2'	34:DA:28:A:OP2	2.65	0.45
41:BH:94:TYR:CG	41:BH:107:VAL:HG12	2.52	0.45
1:CA:10:A:H2'	1:CA:11:G:H8	1.82	0.45
1:CA:10:A:OP2	5:CE:126:ARG:HD3	2.17	0.45
34:BA:389:G:H1	45:BP:71:VAL:HG12	1.80	0.45
27:D2:47:ASN:C	27:D2:47:ASN:ND2	2.70	0.45
52:BW:14:PRO:O	52:BW:15:ARG:C	2.54	0.45
13:AM:67:GLU:HG3	13:AM:68:GLY:N	2.31	0.45
46:BQ:55:VAL:HG13	46:BQ:56:ARG:N	2.31	0.45
34:DA:1754:C:H4'	49:DT:101:PHE:CD2	2.52	0.45
9:AI:47:LEU:CD1	9:AI:47:LEU:N	2.79	0.45
41:DH:130:ARG:HB3	41:DH:130:ARG:HH11	1.81	0.45
34:DA:440:G:N2	39:DF:46:ARG:HH21	2.15	0.45
51:BV:46:VAL:O	51:BV:47:VAL:HB	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2259:G:H1'	34:BA:2427:C:C2	2.51	0.45
34:BA:2732:G:C2'	34:BA:2733:A:H5'	2.45	0.45
35:DB:78:A:H4'	46:DQ:21:THR:HG23	1.98	0.45
34:DA:1797:C:O2'	37:DD:259:THR:HB	2.17	0.45
3:AC:21:ARG:HG3	3:AC:58:GLU:HG2	1.97	0.45
34:DA:1791:A:O3'	37:DD:206:LEU:HB2	2.17	0.45
34:BA:1797:C:O2'	37:BD:259:THR:HB	2.17	0.45
38:BE:129:HIS:O	38:BE:130:GLY:O	2.34	0.45
34:DA:271(U):G:HO2'	34:DA:271(V):G:H5'	1.81	0.45
34:DA:2837:G:H2'	34:DA:2838:G:H8	1.82	0.45
7:AG:26:PHE:O	7:AG:27:ILE:C	2.54	0.45
1:AA:674:G:O2'	1:AA:675:A:H5'	2.17	0.45
10:CJ:47:PHE:HE1	10:CJ:63:PHE:CD2	2.34	0.45
40:DG:15:VAL:O	40:DG:16:ARG:C	2.55	0.45
54:DY:64:GLU:H	54:DY:64:GLU:CD	2.20	0.45
34:BA:1925:C:H2'	34:BA:1926:U:H5'	1.96	0.45
34:DA:2339:G:O2'	34:DA:2340:G:H5'	2.16	0.45
16:AP:28:ARG:HG2	16:AP:29:ASP:OD2	2.17	0.45
34:BA:2653:U:H5'	34:BA:2654:A:C5'	2.44	0.45
34:BA:1493:C:C2'	34:BA:1493:C:O2	2.62	0.45
7:CG:150:ALA:HA	11:CK:57:THR:HG21	1.98	0.45
17:AQ:83:ASP:CG	17:AQ:84:LEU:H	2.20	0.45
39:DF:167:ALA:C	39:DF:169:ASN:N	2.69	0.45
43:DN:18:ALA:HB1	43:DN:21:LYS:CG	2.46	0.45
36:BC:34:THR:O	36:BC:35:ALA:HB2	2.17	0.45
22:CV:74:C:O5'	22:CV:74:C:H6	2.00	0.45
4:CD:67:ILE:HG22	4:CD:68:TYR:N	2.32	0.45
38:DE:25:VAL:O	38:DE:25:VAL:HG12	2.16	0.45
34:BA:2574:G:H2'	34:BA:2575:C:H6	1.81	0.45
34:BA:964:C:O2'	34:BA:2273:A:N3	2.41	0.45
1:CA:96:U:HO2'	1:CA:97:G:P	2.40	0.45
34:DA:766:C:H2'	34:DA:767:U:C6	2.52	0.45
1:AA:1089:G:O2'	1:AA:1090:U:H5'	2.16	0.45
34:BA:2087:G:O2'	34:BA:2088:G:H5'	2.17	0.45
1:CA:1088:G:N1	1:CA:1089:G:C5	2.85	0.45
34:DA:708:C:H5'	34:DA:709:U:OP2	2.17	0.45
52:DW:28:SER:OG	52:DW:31:GLU:CB	2.65	0.45
52:BW:28:SER:OG	52:BW:31:GLU:CB	2.64	0.45
34:DA:2256:G:O2'	34:DA:2257:U:H5'	2.17	0.45
46:BQ:58:PHE:O	46:BQ:59:ARG:C	2.55	0.45
3:AC:34:LEU:HD23	3:AC:34:LEU:C	2.38	0.45
18:AR:82:THR:HG23	18:AR:83:GLU:N	2.31	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1860:G:H2'	34:BA:1861:G:H8	1.82	0.45
30:B5:26:THR:O	30:B5:26:THR:HG23	2.17	0.45
34:BA:1328:G:O2'	34:BA:1329:U:H5''	2.16	0.45
51:DV:82:ARG:CD	51:DV:82:ARG:C	2.85	0.45
2:CB:220:ASP:O	2:CB:223:ILE:N	2.49	0.45
34:DA:661:C:O3'	45:DP:18:ARG:HA	2.17	0.45
34:BA:2705:A:C4	34:BA:2706:G:C8	3.05	0.45
38:DE:47:VAL:O	38:DE:49:LEU:HD22	2.17	0.45
49:DT:65:LYS:HA	49:DT:65:LYS:HZ2	1.77	0.45
34:DA:139:G:H2'	34:DA:139(A):G:H5''	1.98	0.45
34:BA:2777:G:H5''	34:BA:2778:A:H5'	1.98	0.45
38:BE:45:THR:O	38:BE:45:THR:HG22	2.17	0.45
34:BA:614:U:H4'	34:BA:614(C):A:N6	2.32	0.45
45:BP:10:PRO:CD	45:BP:11:GLY:N	2.78	0.45
26:B1:78:LYS:NZ	26:B1:89:GLU:O	2.50	0.45
27:B2:18:PRO:C	27:B2:20:GLU:N	2.68	0.45
38:BE:51:PHE:HD1	38:BE:52:LEU:N	2.15	0.45
42:DI:83:ALA:HA	42:DI:89:TYR:HD1	1.81	0.45
33:D8:31:HIS:O	33:D8:32:LEU:C	2.55	0.45
34:BA:49:A:C4'	34:BA:50:U:H5'	2.26	0.45
34:DA:910:A:C6	34:DA:911:A:C6	3.04	0.45
34:DA:955:C:C5'	46:DQ:14:ARG:HH21	2.29	0.45
46:DQ:93:TYR:CD1	46:DQ:93:TYR:N	2.85	0.45
41:BH:55:PRO:CG	41:BH:56:SER:N	2.78	0.45
34:BA:1190:G:C5'	45:BP:35:HIS:HB3	2.44	0.45
34:DA:810:U:O2'	45:DP:33:ARG:CZ	2.65	0.45
5:AE:41:VAL:CG1	5:AE:113:ALA:HA	2.47	0.45
1:CA:1277:C:C2'	1:CA:1278:U:H5'	2.45	0.45
10:CJ:8:LEU:HB3	10:CJ:16:LEU:CD2	2.40	0.45
51:BV:61:VAL:C	51:BV:62:LEU:HD23	2.37	0.45
43:BN:128:HIS:O	43:BN:128:HIS:CG	2.70	0.45
44:DO:21:CYS:SG	44:DO:22:ILE:N	2.89	0.45
1:AA:715:A:H2'	1:AA:716:A:C8	2.52	0.45
34:DA:1131:G:H4'	43:DN:82:LEU:HG	1.98	0.45
39:BF:63:LYS:HE2	39:BF:67:GLN:HB2	1.95	0.45
36:BC:51:PRO:HB2	36:BC:202:GLU:CB	2.47	0.45
1:AA:552:U:C2'	1:AA:553:A:H5'	2.47	0.45
34:BA:2475:C:H42	34:BA:2529:G:N2	2.14	0.45
13:CM:67:GLU:CG	13:CM:68:GLY:N	2.79	0.45
4:AD:19:LEU:HD12	4:AD:19:LEU:N	2.31	0.45
49:DT:96:ARG:HG2	49:DT:96:ARG:HH11	1.82	0.45
37:BD:238:GLY:C	37:BD:239:ARG:O	2.53	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BR:10:LEU:CB	47:BR:17:ARG:HD2	2.39	0.45
2:CB:114:ARG:HA	2:CB:117:GLU:CG	2.47	0.45
3:CC:179:ARG:O	3:CC:179:ARG:HG3	2.16	0.45
34:DA:2732:G:C2'	34:DA:2733:A:H5'	2.47	0.45
50:BU:9:VAL:O	50:BU:13:LYS:HG2	2.17	0.45
50:BU:6:THR:O	50:BU:9:VAL:HG23	2.17	0.45
37:BD:76:PRO:HG2	37:BD:98:VAL:HG23	1.94	0.45
35:BB:37:C:H2'	35:BB:38:C:O4'	2.16	0.45
34:BA:2732:G:H3'	34:BA:2733:A:C5'	2.47	0.45
1:CA:1030(A):G:O2'	1:CA:1030(C):G:N7	2.49	0.45
34:BA:438:G:O2'	34:BA:440:G:H5'	2.17	0.45
28:B3:15:TYR:HB3	28:B3:19:GLN:NE2	2.32	0.45
47:BR:11:ASN:CG	47:BR:12:ARG:H	2.19	0.45
37:DD:84:TYR:CD2	37:DD:84:TYR:C	2.91	0.45
47:DR:4:LEU:C	47:DR:6:SER:N	2.69	0.45
15:CO:82:ILE:HG23	15:CO:83:GLU:N	2.32	0.45
1:AA:540:G:O2'	1:AA:541:G:H5'	2.16	0.45
34:DA:2197:U:H1'	34:DA:2198:A:C8	2.52	0.45
1:AA:223:U:H2'	1:AA:224:C:H6	1.82	0.45
3:CC:199:LYS:HB3	3:CC:201:TYR:CE1	2.50	0.45
1:CA:963:G:H1	1:CA:972:C:N4	2.10	0.45
8:AH:86:ILE:HG13	8:AH:133:LEU:CD2	2.47	0.45
10:AJ:50:ILE:N	10:AJ:50:ILE:HD13	2.31	0.45
49:DT:48:ILE:HD12	49:DT:48:ILE:N	2.31	0.45
39:DF:84:VAL:O	39:DF:85:GLY:C	2.54	0.45
42:DI:22:LYS:O	42:DI:23:PRO:C	2.55	0.45
1:CA:36:C:O2'	1:CA:37:U:H5'	2.17	0.45
1:CA:854:G:H3'	1:CA:871:U:O4	2.17	0.45
46:DQ:77:LYS:HA	46:DQ:78:PRO:HD3	1.70	0.45
18:CR:35:ARG:O	18:CR:37:VAL:N	2.37	0.45
16:AP:82:GLN:O	16:AP:84:ALA:N	2.48	0.45
17:AQ:9:VAL:HG12	17:AQ:10:VAL:N	2.31	0.45
1:AA:429:U:H1'	1:AA:430:A:H5''	1.97	0.45
36:BC:41:VAL:O	36:BC:178:ALA:HB3	2.17	0.45
13:CM:48:LEU:N	13:CM:48:LEU:HD23	2.31	0.45
34:DA:2170:A:O2'	34:DA:2171:A:C8	2.67	0.45
12:CL:119:LYS:O	12:CL:120:TYR:CB	2.64	0.45
34:DA:1002:G:H2'	34:DA:1003:G:O4'	2.17	0.45
54:DY:54:LYS:O	54:DY:55:TYR:CD1	2.70	0.45
6:CF:2:ARG:O	6:CF:66:GLU:HA	2.17	0.45
34:BA:1935:G:H1'	34:BA:1964:G:N2	2.32	0.45
4:CD:70:ILE:HD11	4:CD:74:GLN:HB3	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1236:A:O2'	1:CA:1304:G:H4'	2.17	0.45
1:CA:826:C:H2'	1:CA:827:U:H6	1.82	0.45
34:DA:2192:G:H2'	34:DA:2193:G:H5''	1.98	0.45
40:BG:33:ARG:HB2	40:BG:162:THR:CB	2.47	0.45
34:DA:1109:C:C5	34:DA:1110:G:C5	3.05	0.45
1:AA:689:C:C2'	1:AA:690:G:H5'	2.47	0.45
28:B3:26:LEU:HD21	28:B3:46:ASN:CB	2.46	0.45
1:AA:918:A:H2'	1:AA:919:A:O4'	2.17	0.45
34:DA:649:G:C5	34:DA:650:C:C4	3.05	0.45
22:CV:20:U:H5'	22:CV:21:A:OP2	2.16	0.45
55:DZ:102:LEU:CD2	55:DZ:137:ILE:HB	2.47	0.45
23:CY:30:G:O2'	23:CY:31:A:H5'	2.17	0.45
40:DG:172:LEU:HG	40:DG:176:LEU:HD11	1.98	0.45
22:AV:27:U:H2'	22:AV:28:C:H6	1.81	0.45
34:DA:935:C:H2'	34:DA:936:C:H6	1.81	0.45
34:DA:2739:U:O2'	34:DA:2740:A:H5'	2.17	0.45
5:AE:26:PHE:CD1	5:AE:26:PHE:N	2.85	0.45
1:AA:773:G:O2'	1:AA:774:G:H5'	2.17	0.45
1:CA:55:A:C6	1:CA:56:U:C2	3.05	0.45
1:AA:1229:A:H2'	1:AA:1230:C:C6	2.52	0.45
30:B5:15:ARG:HA	30:B5:18:ALA:HB3	1.99	0.45
34:BA:507:A:O4'	34:BA:509:C:C2	2.70	0.45
1:CA:786:G:C2	1:CA:787:A:C4	3.05	0.45
51:DV:20:LEU:HB3	51:DV:21:ARG:HD3	1.98	0.45
34:DA:1204:A:C2	34:DA:1241:A:N1	2.85	0.45
38:DE:36:ARG:NH2	38:DE:88:GLY:N	2.65	0.45
38:DE:51:PHE:HD1	38:DE:52:LEU:N	2.15	0.45
49:DT:32:TYR:O	49:DT:41:ARG:O	2.35	0.45
34:BA:661:C:O3'	45:BP:18:ARG:HG2	2.16	0.45
45:DP:46:LYS:HB3	45:DP:52:GLU:HG2	1.99	0.45
33:B8:4:MET:O	33:B8:62:LEU:HD12	2.17	0.45
33:D8:8:LYS:HE3	34:DA:245:G:O6	2.17	0.45
27:B2:44:LEU:HD13	27:B2:44:LEU:HA	1.71	0.45
33:B8:31:HIS:O	33:B8:32:LEU:C	2.55	0.45
34:BA:2418:A:H2'	34:BA:2419:U:C6	2.52	0.45
48:BS:67:ARG:N	48:BS:69:VAL:HG12	2.23	0.45
48:BS:78:LEU:HD11	48:BS:103:GLU:CB	2.42	0.45
47:BR:55:ALA:HA	47:BR:80:PHE:CE1	2.52	0.45
34:DA:875:G:C4'	55:DZ:170:THR:HG21	2.47	0.45
34:BA:1629:U:O2	34:BA:2698:U:H5''	2.16	0.45
41:DH:41:MET:HE1	41:DH:55:PRO:CD	2.47	0.45
18:AR:72:ARG:O	18:AR:75:ILE:HB	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:741:G:H2'	1:CA:742:G:O4'	2.17	0.45
18:CR:58:LEU:N	18:CR:58:LEU:HD12	2.32	0.45
53:DX:88:LYS:N	53:DX:88:LYS:HD2	2.32	0.45
34:BA:2464:C:O2'	34:BA:2465:C:O5'	2.35	0.45
44:BO:101:PRO:O	44:BO:102:VAL:HG22	2.17	0.45
37:DD:17:THR:HG21	37:DD:205:VAL:HB	1.92	0.45
37:BD:268:ARG:HH12	37:BD:269:PHE:HE1	1.62	0.45
51:DV:15:GLU:CB	51:DV:16:PRO:CD	2.81	0.45
46:DQ:17:LEU:HD21	46:DQ:41:TRP:NE1	2.31	0.45
26:D1:91:LYS:O	26:D1:94:LEU:HB2	2.17	0.45
9:AI:72:GLY:O	9:AI:75:ASP:HB2	2.17	0.45
53:DX:27:THR:HA	53:DX:78:LYS:HA	1.99	0.45
43:BN:15:LEU:CB	43:BN:134:ARG:HB2	2.44	0.45
34:DA:2807:G:C3'	34:DA:2808:U:H5''	2.46	0.45
34:BA:1952:A:C2	34:BA:1953:A:C2	3.05	0.45
34:DA:2678:C:O2'	34:DA:2679:A:H5'	2.17	0.45
11:AK:44:SER:N	11:AK:47:VAL:CG2	2.80	0.45
4:CD:104:VAL:O	4:CD:106:TYR:N	2.50	0.45
34:BA:675:A:O2'	34:BA:676:A:H5'	2.17	0.45
34:BA:2368:C:O2'	34:BA:2369:A:H5'	2.16	0.45
49:BT:57:PHE:CG	49:BT:58:ASN:N	2.84	0.45
3:CC:77:ILE:O	3:CC:84:ILE:HG22	2.17	0.45
4:AD:135:LEU:O	4:AD:136:PRO:C	2.54	0.45
4:AD:65:ARG:NH1	4:AD:70:ILE:O	2.49	0.45
54:DY:2:ARG:HG2	54:DY:2:ARG:NH1	2.31	0.45
34:BA:606:U:H4'	34:BA:658:C:H4'	1.99	0.45
17:AQ:66:SER:OG	17:AQ:69:LYS:CB	2.64	0.45
3:AC:206:GLU:HG2	3:AC:207:VAL:CG2	2.43	0.45
15:CO:56:LEU:HD12	15:CO:56:LEU:HA	1.72	0.45
44:DO:87:ILE:HD13	44:DO:93:PRO:HA	1.99	0.45
6:AF:33:TYR:CD1	6:AF:75:LEU:HB2	2.51	0.45
52:BW:12:ILE:HD13	52:BW:17:VAL:CG1	2.47	0.45
30:B5:25:LEU:HB3	52:BW:23:LEU:HD13	1.99	0.45
37:DD:11:PRO:C	37:DD:13:ARG:N	2.70	0.45
37:BD:118:VAL:CG2	37:BD:119:ALA:H	2.24	0.45
44:BO:86:ILE:CD1	44:BO:86:ILE:H	2.29	0.45
49:BT:6:LEU:HA	49:BT:9:LEU:HD12	1.98	0.45
13:AM:125:ARG:NH1	34:BA:1913:A:N7	2.65	0.45
37:BD:11:PRO:C	37:BD:13:ARG:N	2.70	0.45
49:DT:3:ARG:O	49:DT:4:GLY:C	2.56	0.45
15:CO:87:ILE:HG22	15:CO:88:ARG:N	2.25	0.45
34:DA:1232:G:H2'	34:DA:1233:C:C6	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:35:G:H21	12:AL:118:SER:HB2	1.82	0.45
35:BB:20:C:O2'	35:BB:21:G:H5''	2.15	0.45
54:BY:31:LEU:HD11	54:BY:34:LYS:HD3	1.99	0.45
2:AB:97:TRP:CZ3	2:AB:173:ALA:HA	2.51	0.45
1:CA:963:G:H2'	1:CA:964:A:C8	2.50	0.45
1:AA:1038:C:H2'	1:AA:1039:C:H6	1.81	0.45
34:BA:319:C:C2'	34:BA:320:A:H5'	2.47	0.45
41:BH:12:PRO:O	41:BH:14:GLY:N	2.50	0.45
34:DA:2642:G:H5''	43:DN:79:PRO:HG3	1.99	0.45
46:BQ:77:LYS:HA	46:BQ:78:PRO:HD3	1.68	0.45
1:CA:1427:U:O2'	1:CA:1428:A:H5'	2.17	0.45
38:BE:110:GLY:HA2	38:BE:162:ALA:N	2.32	0.45
1:CA:1461:G:O2'	1:CA:1462:G:H5'	2.17	0.45
42:DI:75:LEU:HD11	42:DI:105:HIS:HE1	1.82	0.45
34:DA:64:A:H2'	34:DA:65:C:C6	2.49	0.45
36:DC:41:VAL:O	36:DC:178:ALA:HB3	2.18	0.45
1:AA:1121:U:O2'	1:AA:1122:U:H5'	2.17	0.45
34:DA:184:C:H2'	34:DA:185:U:C6	2.52	0.45
34:DA:1403:C:C2'	34:DA:1404:C:O5'	2.64	0.45
17:CQ:14:LYS:HB2	17:CQ:14:LYS:HZ2	1.82	0.45
41:DH:30:LYS:HG2	41:DH:79:VAL:O	2.17	0.45
38:BE:197:ILE:O	38:BE:197:ILE:CG1	2.65	0.45
38:BE:197:ILE:HG13	38:BE:199:ARG:HH12	1.82	0.45
1:CA:805:C:O2'	1:CA:806:C:H5'	2.17	0.45
10:CJ:44:VAL:HG12	10:CJ:45:ARG:N	2.32	0.45
37:DD:85:ASP:OD1	37:DD:87:ASN:ND2	2.46	0.45
22:CV:22:G:O2'	22:CV:23:C:H5'	2.17	0.45
20:AT:74:LYS:HB2	20:AT:75:ASN:H	1.49	0.45
1:AA:617:G:H4'	16:AP:44:THR:HB	1.98	0.45
1:AA:149:A:HO2'	1:AA:150:C:H6	1.62	0.45
1:AA:829:G:O2'	1:AA:830:G:H5'	2.16	0.45
34:BA:2192:G:H2'	34:BA:2193:G:H5''	1.98	0.45
47:BR:70:LEU:HD13	47:BR:75:LEU:HD11	1.98	0.45
13:CM:27:LYS:HD2	13:CM:27:LYS:HA	1.80	0.45
1:AA:689:C:P	11:AK:46:GLY:HA3	2.57	0.45
1:CA:453:A:H4'	16:CP:72:ARG:HG3	1.99	0.45
1:CA:273:A:N6	1:CA:274:A:C6	2.85	0.45
34:BA:949:C:O2'	34:BA:950:G:H5'	2.17	0.45
7:AG:36:LYS:O	7:AG:39:ALA:N	2.50	0.45
34:BA:825:C:H42	34:BA:832:G:H1	1.63	0.45
1:CA:891:U:O2'	1:CA:892:A:H5'	2.16	0.45
34:BA:2124:G:C2'	34:BA:2125:G:H5'	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1401:G:H2'	34:BA:1402:C:C6	2.52	0.45
34:BA:206:U:O2	34:BA:206:U:H2'	2.16	0.45
28:B3:43:ILE:HG22	28:B3:47:VAL:CG2	2.47	0.45
51:DV:2:PHE:O	51:DV:3:ALA:CB	2.64	0.44
37:DD:80:ALA:HB3	37:DD:94:LEU:HD11	1.99	0.44
50:BU:106:PHE:HA	50:BU:109:LEU:HD12	1.98	0.44
50:BU:109:LEU:O	50:BU:113:ALA:N	2.42	0.44
34:DA:2777:G:C5'	34:DA:2778:A:H5'	2.46	0.44
34:DA:1156:A:H4'	34:DA:1157:G:OP2	2.16	0.44
34:DA:142(A):C:O2'	34:DA:143:G:H5'	2.17	0.44
34:BA:378:C:C2'	34:BA:379:G:H5'	2.47	0.44
34:BA:2625:G:H2'	34:BA:2626:C:O4'	2.18	0.44
54:DY:44:ILE:HG22	54:DY:45:VAL:N	2.32	0.44
34:DA:1593:G:C2'	34:DA:1594:G:C5'	2.93	0.44
39:BF:21:ALA:C	39:BF:23:ASP:N	2.71	0.44
39:BF:24:LEU:HD12	39:BF:25:PRO:HD2	1.98	0.44
42:DI:94:ALA:CB	42:DI:114:LEU:HD12	2.45	0.44
2:CB:163:PHE:O	2:CB:164:VAL:HG23	2.17	0.44
33:D8:32:LEU:O	33:D8:34:TRP:N	2.49	0.44
34:BA:250:G:H2'	34:BA:251:A:C8	2.52	0.44
53:BX:40:LYS:O	53:BX:44:GLU:HG2	2.17	0.44
55:BZ:121:HIS:CE1	55:BZ:124:ILE:HG22	2.52	0.44
50:BU:64:ARG:O	50:BU:65:ILE:C	2.55	0.44
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.16	0.44
34:BA:2464:C:O2'	34:BA:2465:C:P	2.74	0.44
34:DA:2713:A:C3'	34:DA:2714:G:H5'	2.47	0.44
34:DA:2532:G:H2'	34:DA:2533:A:H8	1.83	0.44
26:D1:27:GLU:OE2	26:D1:33:LYS:N	2.50	0.44
5:CE:139:LEU:HA	5:CE:142:LEU:CD1	2.47	0.44
5:CE:77:PRO:HG2	5:CE:142:LEU:HD22	1.98	0.44
13:CM:17:VAL:O	13:CM:20:THR:HB	2.17	0.44
51:BV:19:LYS:CE	51:BV:20:LEU:H	2.30	0.44
43:BN:128:HIS:HD2	43:BN:131:GLN:HB2	1.80	0.44
27:B2:30:ARG:O	27:B2:32:LEU:O	2.36	0.44
34:BA:1142(A):A:C4	34:BA:1144:G:N7	2.85	0.44
19:AS:64:GLU:O	19:AS:67:VAL:HG23	2.17	0.44
43:DN:58:ASP:O	43:DN:60:ILE:N	2.50	0.44
39:DF:36:VAL:HA	39:DF:101:LEU:CD2	2.47	0.44
50:BU:38:THR:C	50:BU:40:PHE:N	2.70	0.44
34:BA:859:G:O4'	34:BA:2268:A:H1'	2.16	0.44
4:CD:100:ARG:O	4:CD:103:ASN:HB3	2.18	0.44
6:CF:53:ALA:O	6:CF:54:LYS:CB	2.65	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BN:19:GLU:O	43:BN:59:LYS:O	2.35	0.44
34:BA:2060:A:OP1	39:BF:68:LYS:O	2.35	0.44
27:D2:41:ILE:O	27:D2:42:GLY:O	2.34	0.44
41:DH:44:VAL:C	41:DH:46:GLU:OE2	2.56	0.44
50:DU:25:TRP:CD1	50:DU:26:GLY:N	2.85	0.44
34:BA:2377:A:H2'	34:BA:2378:A:C8	2.52	0.44
40:DG:76:SER:HA	40:DG:83:ARG:HA	1.99	0.44
34:DA:189:G:H2'	34:DA:205:G:H22	1.80	0.44
37:DD:252:TRP:O	37:DD:253:GLN:C	2.54	0.44
41:DH:89:ILE:HG12	41:DH:90:LYS:H	1.81	0.44
12:AL:60:LEU:N	12:AL:64:TYR:O	2.36	0.44
34:BA:814:C:C5	45:BP:27:HIS:CD2	3.05	0.44
34:DA:2306:C:H5	34:DA:2307:G:H1'	1.81	0.44
45:DP:112:LEU:O	45:DP:112:LEU:HD13	2.16	0.44
46:DQ:132:VAL:HG11	55:DZ:81:ARG:NH1	2.32	0.44
34:DA:2632:A:C1'	38:DE:61:ARG:NH1	2.79	0.44
12:CL:38:THR:HG21	12:CL:65:GLU:OE2	2.18	0.44
8:AH:109:ILE:HG12	8:AH:110:ALA:H	1.80	0.44
31:D6:19:ARG:O	31:D6:20:ASN:HB3	2.17	0.44
48:DS:53:SER:O	48:DS:56:LEU:HB3	2.17	0.44
34:BA:1798:U:H5'	37:BD:259:THR:CG2	2.42	0.44
1:CA:522:C:H2'	1:CA:523:A:O4'	2.18	0.44
34:DA:686:G:N2	34:DA:788:A:N6	2.65	0.44
1:CA:197:A:N6	1:CA:221:C:H5'	2.31	0.44
1:AA:538:G:OP2	12:AL:115:LYS:CG	2.65	0.44
55:DZ:59:LEU:O	55:DZ:66:SER:HA	2.16	0.44
30:B5:2:ALA:HB3	34:BA:747:U:N1	2.31	0.44
30:B5:2:ALA:CA	34:BA:2015:A:H1'	2.43	0.44
34:BA:817:C:H2'	34:BA:818:G:O4'	2.18	0.44
35:BB:17:C:O2'	35:BB:18:G:H5'	2.17	0.44
23:AW:15:G:N2	23:AW:59:U:C2	2.85	0.44
1:AA:1202:G:C4	14:AN:42:ILE:HG21	2.51	0.44
34:DA:2849:U:N3	34:DA:2867:G:N3	2.65	0.44
34:DA:2455:G:H2'	34:DA:2456:C:H6	1.79	0.44
34:BA:2734:A:H5'	34:BA:2735:G:OP2	2.17	0.44
34:DA:2734:A:H5'	34:DA:2735:G:OP2	2.18	0.44
23:AW:24:G:H2'	23:AW:25:C:H6	1.81	0.44
1:AA:1374:A:O2'	1:AA:1375:A:H5'	2.17	0.44
1:CA:135:C:H6	1:CA:135:C:O5'	2.00	0.44
34:BA:2771:C:O2	34:BA:2771:C:C2'	2.62	0.44
34:BA:2455:G:H2'	34:BA:2456:C:H6	1.82	0.44
34:BA:2292:C:N4	34:BA:2340:G:H1	2.15	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1771:C:O2'	34:BA:1786:A:H8	2.00	0.44
34:BA:1843:C:O2'	34:BA:1844:C:H5'	2.16	0.44
43:BN:18:ALA:O	43:BN:21:LYS:HG2	2.17	0.44
12:AL:119:LYS:O	12:AL:120:TYR:CB	2.64	0.44
1:CA:1457:G:O2'	1:CA:1458:G:H5'	2.17	0.44
22:AV:11:A:O2'	22:AV:12:G:H5'	2.16	0.44
41:DH:30:LYS:HZ3	41:DH:81:GLU:HG2	1.82	0.44
3:AC:120:VAL:HG13	3:AC:124:ILE:CD1	2.47	0.44
1:AA:1484:C:O2'	1:AA:1485:U:H5'	2.18	0.44
20:CT:73:HIS:HB3	20:CT:74:LYS:H	1.42	0.44
1:AA:235:C:H2'	1:AA:236:G:H8	1.81	0.44
1:AA:984:C:H2'	1:AA:985:C:H6	1.81	0.44
34:BA:2811:G:O2'	34:BA:2812:G:H5'	2.17	0.44
34:DA:1742:G:N7	34:DA:1743:C:N3	2.65	0.44
2:CB:95:GLN:HB3	2:CB:96:ARG:H	1.65	0.44
34:DA:1368:G:C2	34:DA:1369:G:C8	3.05	0.44
37:DD:53:PHE:CD1	37:DD:220:HIS:HA	2.52	0.44
1:AA:511:C:C2	1:AA:512:U:C5	3.05	0.44
37:BD:53:PHE:CE1	37:BD:220:HIS:HA	2.53	0.44
34:DA:332:A:H4'	34:DA:333:G:OP1	2.16	0.44
34:DA:1446:C:O2'	34:DA:1447:G:H5'	2.17	0.44
1:AA:864:A:H2	1:AA:917:G:N3	2.15	0.44
1:CA:743:U:O2'	1:CA:744:C:H5'	2.16	0.44
34:DA:2319:G:H4'	34:DA:2319:G:OP2	2.17	0.44
46:BQ:32:TYR:CD1	46:BQ:32:TYR:N	2.85	0.44
16:CP:59:TRP:CE3	16:CP:59:TRP:HA	2.52	0.44
34:BA:2084:C:O2'	34:BA:2085:C:H5'	2.17	0.44
34:DA:613:G:C2	34:DA:615:G:C5	3.06	0.44
48:DS:14:VAL:O	48:DS:15:ARG:C	2.55	0.44
49:DT:29:ARG:CG	49:DT:30:VAL:HG13	2.47	0.44
53:DX:37:THR:C	53:DX:39:ILE:H	2.21	0.44
45:BP:102:ARG:HH21	45:BP:102:ARG:HG3	1.82	0.44
45:BP:105:LEU:O	45:BP:106:LEU:CB	2.59	0.44
38:BE:3:GLY:C	38:BE:4:ILE:HG22	2.37	0.44
37:BD:35:LYS:CD	37:BD:104:TYR:CD1	3.00	0.44
37:BD:70:TRP:CD2	37:BD:150:LYS:HE2	2.53	0.44
54:DY:49:VAL:HG12	54:DY:53:PRO:HG3	1.99	0.44
26:B1:46:LEU:HD13	26:B1:48:LYS:HE3	1.99	0.44
34:DA:1485:G:H1'	34:DA:1505:C:H42	1.79	0.44
42:DI:132:PRO:O	42:DI:133:HIS:O	2.34	0.44
54:DY:29:GLU:O	54:DY:30:VAL:O	2.36	0.44
34:DA:2700:C:O2'	34:DA:2701:C:H5'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2126:A:O2'	34:DA:2127:G:P	2.76	0.44
34:BA:143(A):C:C2'	34:BA:143(A):C:O2	2.62	0.44
40:BG:139:LEU:HB3	40:BG:149:VAL:HG11	1.99	0.44
43:DN:41:ASP:N	43:DN:41:ASP:OD1	2.50	0.44
1:AA:741:G:H2'	1:AA:742:G:O4'	2.17	0.44
1:CA:1347:G:H8	9:CI:107:ARG:HB3	1.76	0.44
27:D2:29:LYS:O	27:D2:33:MET:SD	2.75	0.44
12:CL:89:ARG:CZ	12:CL:89:ARG:HB2	2.46	0.44
34:BA:2756:U:H1'	34:BA:2757:A:H5''	1.99	0.44
41:BH:144:VAL:HG22	41:BH:147:ASN:OD1	2.17	0.44
41:BH:70:THR:O	41:BH:73:ALA:HB3	2.18	0.44
42:BI:5:LEU:HD11	42:BI:12:LEU:HB2	1.98	0.44
34:BA:1254:A:H5'	34:BA:1255:U:C5'	2.46	0.44
45:BP:30:THR:CG2	45:BP:31:ALA:N	2.73	0.44
16:CP:3:LYS:O	16:CP:21:VAL:HA	2.17	0.44
5:CE:76:ILE:HG23	5:CE:78:HIS:H	1.82	0.44
53:BX:27:THR:CB	53:BX:77:LYS:HA	2.47	0.44
46:DQ:103:MET:HE1	46:DQ:125:LEU:HD13	1.99	0.44
43:BN:13:TRP:HZ3	43:BN:130:HIS:CE1	2.36	0.44
53:BX:89:ILE:N	53:BX:89:ILE:CD1	2.80	0.44
19:AS:13:ASP:C	19:AS:15:LEU:N	2.71	0.44
19:AS:62:ILE:HG23	19:AS:62:ILE:O	2.17	0.44
30:D5:56:LYS:CD	30:D5:57:VAL:N	2.80	0.44
46:BQ:39:PRO:CA	46:BQ:99:PRO:HD3	2.46	0.44
41:BH:47:GLU:C	41:BH:49:VAL:H	2.20	0.44
6:AF:14:LEU:HA	6:AF:18:GLN:NE2	2.33	0.44
6:AF:53:ALA:O	6:AF:54:LYS:CB	2.65	0.44
5:AE:128:PRO:O	5:AE:129:ILE:C	2.55	0.44
34:BA:627:A:C6	34:BA:637:A:C8	3.06	0.44
34:BA:1448:G:H21	34:BA:1528(A):A:H2	1.65	0.44
34:BA:2364:C:O2'	34:BA:2365:G:H5'	2.17	0.44
34:DA:2312:U:OP1	40:DG:73:ALA:HA	2.17	0.44
40:DG:72:ARG:HG2	40:DG:86:MET:O	2.16	0.44
21:AU:2:GLY:C	21:AU:4:GLY:N	2.71	0.44
17:AQ:67:LYS:C	17:AQ:69:LYS:N	2.71	0.44
37:BD:239:ARG:HG3	37:BD:239:ARG:HH21	1.83	0.44
38:BE:24:THR:HG21	38:BE:188:VAL:CG1	2.47	0.44
37:DD:69:ARG:HG2	37:DD:69:ARG:O	2.17	0.44
34:BA:2847:U:OP1	49:BT:98:LYS:HD3	2.17	0.44
1:AA:758:G:C5'	1:AA:880:C:H1'	2.47	0.44
38:DE:134:ILE:H	38:DE:134:ILE:CD1	2.29	0.44
34:DA:2821:A:O2'	34:DA:2822:G:H5'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:263:A:OP2	20:AT:79:ARG:NH1	2.50	0.44
3:AC:95:THR:HG21	3:AC:99:VAL:HG13	2.00	0.44
37:DD:193:VAL:HG13	37:DD:193:VAL:O	2.18	0.44
54:BY:76:CYS:CB	54:BY:77:PRO:CD	2.96	0.44
9:AI:17:VAL:CG2	9:AI:80:GLY:HA3	2.47	0.44
34:DA:740:U:H2'	34:DA:741:G:H8	1.81	0.44
7:AG:155:ARG:O	7:AG:156:TRP:O	2.35	0.44
10:CJ:63:PHE:HZ	14:CN:45:ARG:HG3	1.82	0.44
9:AI:43:ALA:C	9:AI:45:ALA:H	2.20	0.44
34:BA:1260:G:C6	34:BA:1261:C:C4	3.05	0.44
47:DR:18:LEU:CD1	47:DR:18:LEU:C	2.81	0.44
34:BA:2849:U:N3	34:BA:2867:G:N3	2.65	0.44
1:AA:154:C:O2'	1:AA:155:C:H5'	2.17	0.44
34:BA:2737:G:O2'	34:BA:2738:A:H5'	2.17	0.44
41:DH:12:PRO:O	41:DH:14:GLY:N	2.50	0.44
1:AA:556:C:H2'	1:AA:557:G:H5'	1.99	0.44
40:BG:131:TYR:CE2	40:BG:133:LEU:HD23	2.52	0.44
18:AR:35:ARG:O	18:AR:37:VAL:N	2.41	0.44
34:BA:2339:G:O2'	34:BA:2340:G:H5'	2.17	0.44
34:BA:1844:C:C2'	34:BA:1845:G:H5'	2.47	0.44
4:AD:50:ARG:NH1	4:AD:52:SER:HA	2.33	0.44
34:DA:1935:G:H1'	34:DA:1964:G:N2	2.33	0.44
26:D1:56:GLN:O	26:D1:57:GLU:HG2	2.17	0.44
34:BA:461:C:O2'	34:BA:462:C:H5'	2.17	0.44
34:DA:2436:G:C6	34:DA:2437:U:C4	3.06	0.44
34:DA:2192:G:C2	34:DA:2193:G:C8	3.04	0.44
34:BA:1209:G:O2'	34:BA:1237:A:N1	2.49	0.44
34:BA:978:G:C2	34:BA:986:C:C2	3.05	0.44
1:CA:636:U:H5'	17:CQ:2:PRO:HG3	2.00	0.44
4:AD:157:LEU:O	4:AD:158:ILE:C	2.54	0.44
1:AA:22:G:H2'	1:AA:23:C:H6	1.82	0.44
36:BC:67:GLY:O	36:BC:68:LEU:HB2	2.18	0.44
7:CG:155:ARG:O	7:CG:156:TRP:O	2.36	0.44
34:BA:1120:G:C6	34:BA:1121:C:C4	3.05	0.44
1:CA:519:C:H2'	1:CA:520:A:O4'	2.18	0.44
52:BW:72:LYS:HB3	52:BW:106:ILE:O	2.18	0.44
40:DG:25:TYR:CD2	40:DG:31:VAL:HG22	2.52	0.44
8:CH:8:ASP:O	8:CH:9:MET:C	2.56	0.44
4:CD:194:LEU:N	4:CD:194:LEU:HD22	2.32	0.44
8:CH:125:ARG:HH11	8:CH:125:ARG:HG3	1.81	0.44
42:BI:88:ILE:HD13	42:BI:123:LEU:HG	1.98	0.44
37:DD:25:THR:CG2	37:DD:82:ILE:N	2.77	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1239:G:H2'	34:DA:1240:U:O4'	2.17	0.44
48:DS:18:ILE:HD12	48:DS:18:ILE:HA	1.76	0.44
34:BA:614(C):A:H4'	34:BA:615:G:OP1	2.17	0.44
34:BA:1159:U:C2'	34:BA:1160:G:H5'	2.47	0.44
45:DP:125:VAL:O	45:DP:125:VAL:HG13	2.16	0.44
39:BF:3:GLU:HB2	39:BF:24:LEU:HG	1.99	0.44
33:B8:6:THR:CG2	34:BA:243:U:OP1	2.65	0.44
34:DA:250:G:C6	34:DA:251:A:C6	3.05	0.44
27:B2:40:SER:O	27:B2:41:ILE:O	2.35	0.44
34:BA:139:G:H2'	34:BA:139(A):G:H5''	1.99	0.44
40:BG:138:GLN:OE1	40:BG:152:LEU:HA	2.16	0.44
50:DU:66:ASN:C	50:DU:68:ALA:N	2.70	0.44
34:BA:879:G:N1	34:BA:898:C:N4	2.63	0.44
39:DF:3:GLU:HB2	39:DF:24:LEU:HG	1.98	0.44
39:DF:24:LEU:HD12	39:DF:25:PRO:HD2	1.99	0.44
18:AR:24:ALA:O	18:AR:26:LEU:N	2.50	0.44
18:AR:61:LYS:O	18:AR:65:ILE:HG13	2.17	0.44
18:AR:73:ALA:O	18:AR:74:ARG:C	2.55	0.44
34:BA:1577:C:H2'	34:BA:1578:U:H6	1.78	0.44
55:BZ:28:MET:CE	55:BZ:37:VAL:HG11	2.48	0.44
34:BA:941:A:H4'	45:BP:35:HIS:HE1	1.77	0.44
4:AD:57:ARG:CZ	5:AE:107:ARG:NH1	2.80	0.44
26:D1:34:THR:HG21	34:DA:388:G:OP2	2.18	0.44
1:AA:174:C:H2'	1:AA:175:C:C6	2.53	0.44
5:CE:110:LEU:O	5:CE:113:ALA:HB3	2.17	0.44
38:BE:173:VAL:HG12	38:BE:174:ASP:H	1.80	0.44
43:DN:58:ASP:O	43:DN:59:LYS:HB2	2.17	0.44
13:CM:118:ALA:O	13:CM:119:GLY:N	2.51	0.44
38:DE:186:GLY:O	38:DE:188:VAL:N	2.50	0.44
1:AA:706:A:C5	1:AA:707:C:H5	2.34	0.44
50:BU:26:GLY:O	50:BU:30:LYS:HG2	2.17	0.44
43:BN:57:ALA:O	43:BN:58:ASP:C	2.55	0.44
1:CA:957:U:H2'	1:CA:959:A:OP2	2.18	0.44
19:CS:15:LEU:HD22	19:CS:15:LEU:N	2.31	0.44
1:CA:1321:C:O2	19:CS:77:THR:HG21	2.18	0.44
5:AE:132:ALA:O	5:AE:134:ALA:N	2.51	0.44
48:BS:101:LEU:HD13	48:BS:102:ALA:O	2.17	0.44
34:DA:814:C:C5	45:DP:27:HIS:CD2	3.05	0.44
1:AA:1064:G:H21	1:AA:1190:G:H2'	1.80	0.44
40:DG:39:ILE:HA	40:DG:157:ILE:HA	2.00	0.44
8:CH:36:LEU:O	8:CH:39:LEU:N	2.50	0.44
9:AI:96:LEU:HG	9:AI:102:LEU:HD12	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:19:LEU:HD21	6:CF:23:LYS:HD2	1.99	0.44
49:BT:96:ARG:HH11	49:BT:96:ARG:HG2	1.83	0.44
34:DA:2259:G:H1'	34:DA:2427:C:C2	2.51	0.44
34:DA:271(A):A:H62	34:DA:271(W):G:H21	1.65	0.44
1:CA:1502:A:H2	1:CA:1505:G:C2	2.35	0.44
49:BT:100:TYR:CD1	49:BT:100:TYR:N	2.84	0.44
48:DS:35:ILE:C	48:DS:36:TYR:HD1	2.21	0.44
1:CA:1030(A):G:H2'	1:CA:1030(C):G:OP2	2.18	0.44
47:DR:67:LEU:N	47:DR:67:LEU:HD22	2.33	0.44
47:DR:107:ASP:OD2	47:DR:108:GLY:N	2.49	0.44
34:DA:1510:G:H2'	34:DA:1511:C:H6	1.80	0.44
41:BH:20:ALA:CB	41:BH:21:PRO:CD	2.92	0.44
3:AC:23:TYR:CD2	3:AC:24:ALA:N	2.85	0.44
1:CA:782:A:N7	1:CA:783:C:C2	2.85	0.44
34:DA:896:A:C2	34:DA:898:C:H5''	2.52	0.44
23:AW:5:G:C2'	23:AW:6:G:H5'	2.47	0.44
1:AA:1349:A:P	9:AI:118:LYS:HZ3	2.40	0.44
13:CM:75:ALA:O	13:CM:76:ALA:C	2.55	0.44
34:BA:1771:C:C1'	34:BA:1786:A:C8	2.99	0.44
46:BQ:10:ARG:HH11	46:BQ:10:ARG:CB	2.31	0.44
43:DN:18:ALA:O	43:DN:21:LYS:N	2.44	0.44
7:AG:93:PRO:O	7:AG:94:ARG:C	2.56	0.44
3:CC:120:VAL:HG13	3:CC:124:ILE:CD1	2.47	0.44
2:CB:16:HIS:HB3	2:CB:210:SER:CB	2.46	0.44
49:BT:15:VAL:O	49:BT:16:ARG:HG2	2.17	0.44
52:BW:89:ALA:O	52:BW:90:ARG:HB2	2.17	0.44
34:DA:751:A:C5'	52:DW:90:ARG:HA	2.47	0.44
1:CA:967:C:H2'	1:CA:968:A:N7	2.32	0.44
34:BA:1047:G:H2'	34:BA:1110:G:N1	2.32	0.44
1:CA:44:G:H2'	1:CA:45:U:O4'	2.17	0.44
34:DA:1337:G:H2'	34:DA:1338:G:O4'	2.18	0.44
34:BA:795:C:H2'	34:BA:796:C:C6	2.51	0.44
1:CA:689:C:O2'	1:CA:690:G:H5'	2.17	0.44
2:CB:198:ASP:OD2	2:CB:198:ASP:N	2.49	0.44
1:AA:893:C:H2'	1:AA:894:G:C8	2.51	0.44
34:BA:1508:A:H2'	34:BA:1509:C:OP1	2.18	0.44
36:BC:68:LEU:HD22	36:BC:179:SER:HA	2.00	0.44
5:AE:94:ALA:CB	5:AE:98:THR:HG21	2.48	0.44
34:DA:1120:G:C6	34:DA:1121:C:C4	3.05	0.44
1:AA:1488:G:H2'	1:AA:1489:G:H8	1.82	0.44
51:DV:82:ARG:HD2	51:DV:82:ARG:O	2.17	0.44
1:AA:57:G:O2'	1:AA:58:C:H5'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:935:C:H2'	34:BA:936:C:C6	2.53	0.44
22:CV:41:C:O2'	22:CV:42:G:H5'	2.17	0.44
4:CD:20:TYR:N	4:CD:20:TYR:CD1	2.85	0.44
1:AA:1446:U:H4'	1:AA:1447:A:N7	2.32	0.44
34:DA:1225:G:OP1	51:DV:88:ARG:HD2	2.17	0.44
50:DU:114:LYS:HE2	50:DU:114:LYS:HB3	1.89	0.44
48:DS:84:GLN:HE21	48:DS:105:ALA:HB1	1.82	0.44
43:DN:87:LEU:O	43:DN:88:GLU:C	2.56	0.44
38:BE:55:ASN:HD21	38:BE:75:VAL:HG21	1.82	0.44
34:DA:483:A:C4'	54:DY:47:LYS:HD3	2.47	0.44
34:BA:2176:A:H2'	34:BA:2177:C:C6	2.52	0.44
1:AA:368:U:C5	42:DI:89:TYR:HB3	2.52	0.44
34:DA:2758:A:C3'	34:DA:2759:G:C5'	2.95	0.44
53:BX:40:LYS:CG	53:BX:41:ASN:N	2.81	0.44
46:BQ:93:TYR:N	46:BQ:93:TYR:CD1	2.85	0.44
18:CR:24:ALA:O	18:CR:26:LEU:N	2.50	0.44
34:BA:2103:C:H5'	34:BA:2104:G:OP2	2.18	0.44
34:BA:2745:C:O2'	34:BA:2746:U:H5'	2.17	0.44
5:AE:102:ALA:HB2	5:AE:120:THR:OG1	2.17	0.44
42:DI:13:GLY:O	42:DI:14:ASP:C	2.56	0.44
26:D1:26:ARG:HB3	26:D1:35:THR:N	2.28	0.44
4:CD:57:ARG:CZ	5:CE:107:ARG:NH1	2.81	0.44
5:CE:106:PRO:O	5:CE:110:LEU:HG	2.17	0.44
34:BA:2681:C:O4'	34:BA:2681:C:O2	2.32	0.44
53:BX:29:TRP:CE3	53:BX:76:ARG:HB3	2.52	0.44
55:DZ:117:LEU:HD23	55:DZ:117:LEU:H	1.82	0.44
53:DX:77:LYS:CE	53:DX:78:LYS:HD2	2.46	0.44
53:BX:88:LYS:HD2	53:BX:88:LYS:N	2.32	0.44
1:AA:958:A:C6	1:AA:959:A:C6	3.06	0.44
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.98	0.44
39:DF:101:LEU:CD1	39:DF:102:PRO:HD2	2.36	0.44
38:DE:24:THR:HG21	38:DE:188:VAL:CG1	2.47	0.44
1:CA:865:A:H5'	1:CA:1078:U:O4	2.17	0.44
31:B6:32:ASN:O	31:B6:33:LYS:HB2	2.17	0.44
1:CA:711:G:O2'	1:CA:712:A:H5'	2.17	0.44
34:BA:676:A:C8	34:BA:2069:G:N2	2.67	0.44
36:BC:51:PRO:HB3	36:BC:203:GLY:C	2.38	0.44
4:AD:138:TYR:HD2	4:AD:138:TYR:C	2.21	0.44
1:CA:1065:U:O2'	1:CA:1066:C:OP2	2.31	0.44
1:CA:1305:G:N2	1:CA:1331:G:O2'	2.43	0.44
4:AD:25:ARG:C	4:AD:27:TYR:N	2.68	0.44
34:BA:1815:A:H8	34:BA:1815:A:OP1	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:277:C:P	17:AQ:41:LYS:HZ1	2.40	0.44
34:DA:2732:G:H3'	34:DA:2733:A:C5'	2.48	0.44
34:BA:2287:A:H2	34:BA:2346:A:N1	2.15	0.44
34:BA:2343:C:H2'	34:BA:2344:U:H6	1.82	0.44
6:AF:61:LEU:HB3	6:AF:63:TYR:CE2	2.52	0.44
34:DA:770:G:N3	34:DA:1354:A:H2	2.16	0.44
34:DA:1355:G:C4	34:DA:1356:G:C8	3.05	0.44
34:DA:1428:C:C5	34:DA:1569:A:H5''	2.52	0.44
2:CB:74:LYS:HG3	2:CB:77:ALA:HB3	2.00	0.44
38:DE:129:HIS:O	38:DE:130:GLY:O	2.36	0.44
40:BG:16:ARG:HH11	40:BG:16:ARG:HG3	1.82	0.44
1:CA:624:C:H4'	16:CP:10:GLY:HA2	2.00	0.44
34:BA:1509(B):A:H2'	34:BA:1510:G:O4'	2.17	0.44
32:D7:12:ARG:NH2	34:DA:465:G:OP1	2.49	0.44
1:CA:939:G:C6	1:CA:940:C:N4	2.85	0.44
35:DB:61:G:C6	35:DB:62:C:C4	3.05	0.44
18:CR:72:ARG:O	18:CR:76:LEU:HD23	2.18	0.44
32:D7:9:ARG:CG	32:D7:9:ARG:HH11	2.29	0.44
44:DO:119:PRO:O	49:DT:68:TYR:HE1	2.01	0.44
34:BA:2853:C:O2'	34:BA:2854:G:H5'	2.18	0.44
16:AP:53:VAL:O	16:AP:54:GLU:C	2.56	0.44
34:DA:271(K):U:H3'	34:DA:271(L):U:H5'	1.99	0.44
1:CA:1327:C:P	21:CU:12:LYS:HZ1	2.40	0.44
23:CW:60:U:H2'	23:CW:61:C:H5	1.83	0.44
43:DN:74:ARG:HH22	43:DN:101:HIS:HB3	1.82	0.44
2:CB:239:VAL:O	2:CB:239:VAL:HG12	2.17	0.44
17:CQ:12:SER:HB3	17:CQ:20:THR:OG1	2.17	0.44
2:AB:27:LYS:C	2:AB:29:ALA:H	2.19	0.44
18:CR:82:THR:HG23	18:CR:83:GLU:N	2.32	0.44
34:DA:2081:C:O2'	34:DA:2082:A:H5'	2.17	0.44
1:AA:891:U:O2'	1:AA:892:A:H5'	2.17	0.44
1:AA:1119:C:O2'	1:AA:1120:G:H5'	2.18	0.44
14:AN:33:VAL:HG12	14:AN:34:TYR:H	1.82	0.44
42:BI:84:GLY:O	42:BI:85:GLU:HB2	2.17	0.44
34:BA:2319:G:OP2	34:BA:2319:G:H4'	2.18	0.44
34:DA:2335:A:C8	34:DA:2337:G:C5	3.06	0.44
50:DU:92:ARG:NH1	51:DV:11:GLN:N	2.66	0.44
38:DE:55:ASN:HD21	38:DE:75:VAL:HG22	1.82	0.44
43:DN:65:LYS:C	43:DN:66:LYS:HD3	2.38	0.44
49:DT:29:ARG:HD3	49:DT:86:ILE:CG2	2.30	0.44
45:BP:96:THR:HG22	45:BP:126:VAL:HG23	1.99	0.44
49:BT:33:LYS:H	49:BT:33:LYS:HZ3	1.66	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:12:LEU:O	3:CC:13:GLY:C	2.56	0.44
34:DA:2521:C:C4	34:DA:2522:U:C4	3.05	0.44
54:BY:37:VAL:HG11	54:BY:72:VAL:HG21	1.98	0.44
54:BY:40:GLU:HA	54:BY:40:GLU:OE2	2.16	0.44
34:DA:480:A:H3'	34:DA:481:G:H5''	1.99	0.44
34:BA:1157:G:C2'	34:BA:1158:C:H5'	2.47	0.44
2:CB:164:VAL:O	2:CB:186:ALA:HB1	2.17	0.44
33:D8:34:TRP:O	33:D8:35:GLN:CB	2.64	0.44
34:DA:631:A:O2'	45:DP:67:MET:HB3	2.18	0.44
55:BZ:120:ILE:HG21	55:BZ:170:THR:OG1	2.17	0.44
20:CT:16:HIS:O	20:CT:17:ARG:C	2.56	0.44
13:AM:19:LEU:CA	13:AM:22:ILE:HD12	2.44	0.44
13:AM:8:GLU:OE1	13:AM:22:ILE:HA	2.17	0.44
48:DS:67:ARG:C	48:DS:69:VAL:N	2.71	0.44
10:CJ:4:ILE:O	10:CJ:74:ILE:HD13	2.17	0.44
23:AW:17:C:H6	34:BA:2180:U:HO2'	1.62	0.44
50:BU:62:ILE:HG13	50:BU:76:TYR:CZ	2.52	0.44
50:BU:66:ASN:C	50:BU:68:ALA:N	2.70	0.44
41:BH:57:ASP:O	41:BH:62:LYS:HE3	2.17	0.44
1:AA:1279:A:H2	10:AJ:43:ARG:HH12	1.65	0.44
34:DA:90:U:H1'	34:DA:92:A:H8	1.81	0.44
46:BQ:140:ALA:HA	55:BZ:99:TYR:CG	2.53	0.44
34:BA:1341:U:OP1	34:BA:1397:U:N3	2.45	0.44
13:CM:18:ALA:O	13:CM:20:THR:N	2.51	0.44
1:CA:1250:A:H2'	1:CA:1251:A:C8	2.53	0.44
41:BH:32:GLU:O	41:BH:33:LEU:HD23	2.17	0.44
3:AC:50:ALA:HB1	3:AC:70:VAL:HG11	1.98	0.44
34:BA:861:A:C2	34:BA:917:A:C4	3.06	0.44
34:BA:271(P):C:O2'	34:BA:271(Q):G:H5'	2.17	0.44
42:BI:3:VAL:HG12	42:BI:38:LEU:HA	1.99	0.44
1:CA:713:G:H2'	1:CA:714:G:C8	2.52	0.44
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.98	0.44
34:BA:1494:A:H4'	34:BA:1494:A:OP1	2.17	0.44
48:BS:49:VAL:HG12	48:BS:73:LEU:CD2	2.47	0.44
4:AD:133:VAL:HG12	4:AD:134:ASP:N	2.32	0.44
12:CL:32:PHE:HD1	12:CL:86:ARG:HA	1.81	0.44
3:AC:75:VAL:O	3:AC:83:ARG:HG2	2.17	0.44
36:DC:51:PRO:HB2	36:DC:202:GLU:CB	2.48	0.44
34:BA:2308:G:N7	34:BA:2310:A:H5'	2.32	0.44
4:AD:118:ARG:HG3	4:AD:118:ARG:HH21	1.82	0.44
25:D0:60:PHE:CE2	34:DA:2365:G:H4'	2.51	0.44
4:AD:60:GLU:HG2	4:AD:202:LEU:HD12	1.99	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:CW:25:C:H2'	23:CW:26:A:C8	2.52	0.44
34:DA:271(A):A:N1	34:DA:272(D):G:O2'	2.43	0.44
1:CA:1502:A:C2	1:CA:1505:G:N2	2.85	0.44
1:AA:1491:G:C5	57:AA:1816:PAR:H21	2.52	0.44
34:DA:1675:C:C2	38:DE:129:HIS:CD2	3.06	0.44
34:DA:2842:G:C6	34:DA:2876:G:C6	3.06	0.44
7:CG:105:VAL:O	7:CG:108:ALA:HB3	2.18	0.44
7:CG:27:ILE:HD12	7:CG:27:ILE:N	2.31	0.44
34:DA:2838:G:H2'	34:DA:2839:G:H8	1.82	0.44
7:AG:27:ILE:N	7:AG:27:ILE:HD12	2.31	0.44
5:CE:147:ASP:O	5:CE:151:LEU:HG	2.17	0.44
41:DH:94:TYR:CG	41:DH:107:VAL:HG12	2.51	0.44
1:CA:1342:C:H2'	1:CA:1343:G:C8	2.52	0.44
35:DB:21:G:O2'	35:DB:22:U:C5'	2.66	0.44
52:BW:88:ARG:HD2	52:BW:88:ARG:HA	1.46	0.44
8:CH:87:SER:HB2	8:CH:93:VAL:HB	2.00	0.44
39:DF:83:PHE:O	39:DF:84:VAL:C	2.54	0.44
1:CA:35:G:H21	12:CL:118:SER:HB2	1.82	0.44
9:CI:43:ALA:C	9:CI:45:ALA:H	2.20	0.44
17:CQ:9:VAL:HG12	17:CQ:10:VAL:N	2.33	0.44
34:BA:741:G:H2'	34:BA:742:G:C8	2.50	0.44
34:DA:1771:C:HO2'	34:DA:1786:A:H8	1.65	0.44
37:BD:77:ALA:HB2	37:BD:97:TYR:CG	2.52	0.44
2:AB:101:MET:O	2:AB:105:PHE:N	2.51	0.44
15:AO:66:LEU:N	15:AO:66:LEU:CD1	2.79	0.44
44:BO:17:ARG:O	44:BO:18:LYS:HG3	2.16	0.44
36:BC:77:ILE:HD12	36:BC:123:VAL:H	1.81	0.44
2:AB:59:GLU:C	2:AB:61:LEU:H	2.20	0.44
34:BA:314:A:C2'	34:BA:315:G:H5'	2.47	0.44
1:CA:200:G:H1	1:CA:217:C:N4	2.14	0.44
13:AM:27:LYS:HD2	13:AM:27:LYS:HA	1.79	0.44
1:AA:1328:C:O2'	1:AA:1329:A:H5'	2.17	0.44
34:BA:649:G:C5	34:BA:650:C:C4	3.06	0.44
48:DS:95:HIS:CD2	48:DS:96:GLY:H	2.35	0.44
4:AD:80:GLU:O	4:AD:81:GLU:C	2.54	0.44
7:AG:71:PRO:HD3	7:AG:103:TRP:HZ3	1.83	0.44
34:BA:1474:C:H3'	34:BA:1475:G:H8	1.82	0.44
1:AA:993:G:O6	1:AA:1045:C:N4	2.44	0.44
5:AE:145:LYS:O	5:AE:149:GLU:HG2	2.17	0.44
1:AA:743:U:O2'	1:AA:744:C:H5'	2.17	0.44
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.17	0.44
22:AV:29:G:O2'	22:AV:30:G:H5'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:179:G:O2'	34:DA:180:G:H5'	2.17	0.44
1:AA:316:G:H2'	1:AA:317:G:H8	1.82	0.44
1:CA:1480:G:O2'	1:CA:1481:U:H5'	2.17	0.44
13:CM:29:ARG:HA	13:CM:32:GLU:HB3	1.99	0.44
1:AA:1160:G:N3	1:AA:1160:G:H2'	2.33	0.44
5:AE:73:ASN:ND2	5:AE:73:ASN:O	2.51	0.44
30:D5:26:THR:O	30:D5:26:THR:HG23	2.17	0.44
1:CA:887:G:H2'	1:CA:888:G:H5'	1.99	0.44
50:DU:74:LEU:HD12	50:DU:74:LEU:C	2.38	0.44
50:DU:74:LEU:HD23	50:DU:114:LYS:CE	2.47	0.44
42:BI:88:ILE:CG2	42:BI:89:TYR:N	2.71	0.44
37:DD:30:GLU:HG3	37:DD:63:ARG:NH2	2.32	0.44
38:DE:77:ILE:C	38:DE:78:LEU:HD23	2.38	0.44
34:DA:1159:U:C2'	34:DA:1160:G:H5'	2.47	0.44
53:DX:40:LYS:CG	53:DX:41:ASN:N	2.81	0.44
45:BP:95:VAL:HG23	45:BP:125:VAL:CG2	2.42	0.44
2:AB:19:HIS:CD2	2:AB:20:GLU:HG2	2.52	0.44
38:BE:3:GLY:O	38:BE:4:ILE:CG2	2.66	0.44
2:CB:165:VAL:O	2:CB:187:LEU:O	2.35	0.44
2:CB:42:ILE:CD1	2:CB:202:PRO:HB2	2.48	0.44
33:D8:4:MET:O	33:D8:62:LEU:HD12	2.18	0.44
34:BA:71:A:H2	53:BX:31:HIS:HE1	1.66	0.44
37:DD:242:ARG:N	37:DD:242:ARG:HD2	2.32	0.44
33:B8:32:LEU:O	33:B8:34:TRP:N	2.50	0.44
34:BA:910:A:H62	46:BQ:12:GLN:HA	1.83	0.44
40:BG:155:MET:SD	40:BG:156:ASP:N	2.91	0.44
48:DS:33:LYS:HA	48:DS:62:LYS:NZ	2.33	0.44
47:BR:49:ASP:O	47:BR:51:LEU:N	2.51	0.44
46:DQ:88:GLY:O	46:DQ:89:ASN:CB	2.64	0.44
18:AR:53:ARG:C	18:AR:55:ARG:H	2.21	0.44
10:AJ:38:ILE:O	10:AJ:38:ILE:HG13	2.16	0.44
41:BH:144:VAL:O	41:BH:144:VAL:CG1	2.61	0.44
38:BE:116:VAL:HG22	38:BE:122:PHE:CG	2.53	0.44
54:DY:81:LYS:HD3	54:DY:97:ARG:N	2.33	0.44
38:DE:116:VAL:HG22	38:DE:122:PHE:CG	2.52	0.44
55:DZ:116:VAL:HG12	55:DZ:117:LEU:HD23	1.99	0.44
53:DX:57:LEU:CD1	53:DX:57:LEU:N	2.81	0.44
43:DN:13:TRP:N	43:DN:13:TRP:CD1	2.83	0.44
46:BQ:47:ILE:H	46:BQ:47:ILE:CD1	2.28	0.44
1:AA:713:G:H2'	1:AA:714:G:C8	2.52	0.44
11:AK:44:SER:H	11:AK:47:VAL:HG21	1.82	0.44
50:BU:18:LEU:O	50:BU:21:ALA:N	2.47	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1306:A:O2'	1:CA:1307:U:H5'	2.18	0.44
1:CA:707:C:O2'	1:CA:708:C:C5'	2.64	0.44
34:DA:2870:C:C2'	34:DA:2871:C:H5'	2.47	0.44
43:BN:30:ILE:O	43:BN:33:LEU:HB3	2.18	0.44
5:AE:31:LEU:HD22	5:AE:43:LEU:HD11	1.99	0.44
27:D2:49:LYS:O	27:D2:51:ARG:N	2.50	0.44
34:BA:1449:A:H8	34:BA:1449:A:OP2	1.99	0.44
53:DX:68:ARG:HB2	53:DX:69:TYR:H	1.63	0.44
13:CM:66:LEU:O	13:CM:67:GLU:O	2.35	0.44
21:CU:2:GLY:C	21:CU:4:GLY:N	2.71	0.44
8:CH:38:ILE:HD11	8:CH:118:VAL:O	2.18	0.44
34:DA:271(C):C:H2'	34:DA:271(D):G:C8	2.52	0.44
6:CF:61:LEU:HD23	6:CF:63:TYR:OH	2.17	0.44
34:BA:1754:C:H4'	49:BT:101:PHE:CD2	2.53	0.44
17:CQ:18:THR:HG22	17:CQ:19:VAL:N	2.32	0.44
34:DA:442:G:O4'	39:DF:46:ARG:HD3	2.18	0.44
47:BR:78:LYS:O	47:BR:83:ILE:N	2.50	0.44
29:B4:11:PRO:C	29:B4:13:ARG:N	2.65	0.44
34:DA:2732:G:C3'	34:DA:2733:A:H5'	2.48	0.44
34:BA:2287:A:N6	34:BA:2344:U:N3	2.63	0.44
25:D0:72:ARG:HB2	25:D0:76:GLY:O	2.17	0.44
48:BS:56:LEU:C	48:BS:56:LEU:HD23	2.38	0.44
35:DB:37:C:H2'	35:DB:38:C:O4'	2.17	0.44
1:CA:1169:A:C2	1:CA:1170:A:C4	3.05	0.44
49:DT:121:ILE:CG2	49:DT:122:ASP:N	2.80	0.44
34:DA:1678:G:H22	34:DA:1989:G:H22	1.63	0.44
2:CB:75:LYS:HG2	2:CB:78:GLN:HE21	1.82	0.44
34:DA:94:C:O2	34:DA:94:C:H2'	2.17	0.44
40:DG:48:GLU:CG	40:DG:49:ASP:H	2.24	0.44
9:CI:5:TYR:CG	9:CI:6:GLY:N	2.85	0.44
34:DA:2707:G:O2'	34:DA:2708:G:H5'	2.17	0.44
9:AI:5:TYR:CG	9:AI:6:GLY:N	2.85	0.44
35:DB:21:G:N3	35:DB:21:G:H2'	2.32	0.44
11:AK:38:ASN:ND2	11:AK:38:ASN:N	2.64	0.44
34:BA:2837:G:H2'	34:BA:2838:G:H8	1.81	0.44
52:DW:88:ARG:HA	52:DW:88:ARG:HD2	1.48	0.44
14:CN:42:ILE:O	14:CN:46:GLU:HG3	2.18	0.44
1:AA:973:G:H5''	10:AJ:57:LYS:NZ	2.33	0.44
20:CT:71:THR:CG2	20:CT:72:LEU:H	2.29	0.44
1:AA:1348:U:H4'	9:AI:120:ARG:HH11	1.82	0.44
1:CA:1428:A:C2	1:CA:1473:A:C2	3.05	0.44
18:AR:79:LEU:HD23	18:AR:80:PRO:CD	2.46	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BI:53:ALA:O	42:BI:57:ARG:HB2	2.17	0.44
34:BA:322:A:P	39:BF:169:ASN:HD22	2.40	0.44
14:AN:22:THR:O	14:AN:23:ARG:HB2	2.17	0.44
38:BE:113:PHE:CE2	38:BE:158:GLY:HA2	2.53	0.44
1:AA:763:G:H2'	1:AA:764:C:H6	1.82	0.44
1:CA:311:C:O2'	1:CA:312:C:H5'	2.18	0.44
11:CK:115:PRO:O	11:CK:117:ASN:N	2.43	0.44
36:DC:38:ASP:O	36:DC:180:PHE:HA	2.18	0.44
1:AA:967:C:H2'	1:AA:968:A:C8	2.52	0.44
34:DA:1274:A:H2	34:DA:1644:C:O2	2.00	0.44
1:CA:423:G:H2'	1:CA:424:G:O4'	2.18	0.44
1:CA:426:G:H2'	1:CA:427:U:C6	2.52	0.44
34:BA:977:G:C6	34:BA:987:G:C6	3.06	0.44
48:BS:95:HIS:CD2	48:BS:96:GLY:H	2.35	0.44
1:CA:1323:G:H4'	1:CA:1363:C:N3	2.32	0.44
30:B5:34:PRO:O	30:B5:35:GLU:C	2.56	0.44
48:DS:39:ILE:O	48:DS:47:THR:HG23	2.17	0.44
34:DA:709:U:O2'	34:DA:710:G:H5'	2.18	0.44
1:CA:81:U:H2'	1:CA:82:U:C5	2.53	0.44
34:DA:2124:G:H2'	34:DA:2125:G:O4'	2.17	0.44
1:AA:360:A:H2'	1:AA:361:G:O4'	2.17	0.44
41:DH:58:GLU:O	41:DH:60:ARG:N	2.51	0.44
38:DE:107:THR:O	38:DE:190:GLY:HA2	2.17	0.44
34:DA:2368:C:O2'	34:DA:2369:A:H5'	2.17	0.44
34:DA:2567:G:H2'	34:DA:2568:C:C6	2.52	0.44
9:AI:77:ILE:O	9:AI:81:ILE:HG12	2.16	0.44
34:BA:1201:C:O2'	34:BA:1202:C:H5'	2.17	0.44
34:BA:503:A:H4'	34:BA:505:A:H5''	1.99	0.44
34:DA:560:C:H4'	50:DU:52:ARG:CZ	2.48	0.44
26:B1:80:LEU:HA	26:B1:80:LEU:HD23	1.84	0.44
1:AA:612:C:O2'	1:AA:613:C:H5'	2.17	0.44
43:BN:104:LYS:C	43:BN:106:MET:H	2.21	0.44
1:AA:519:C:O2'	1:AA:520:A:H5'	2.18	0.44
2:AB:71:VAL:HG13	2:AB:93:VAL:HB	2.00	0.44
38:BE:36:ARG:O	38:BE:37:ARG:HG3	2.18	0.44
44:DO:23:ARG:NH1	44:DO:23:ARG:HG2	2.30	0.44
39:BF:38:ARG:NH1	45:BP:16:ARG:HH22	2.16	0.44
3:CC:180:ALA:HB1	3:CC:182:ILE:HG13	1.99	0.44
1:AA:1358:U:H3'	1:AA:1359:C:C6	2.53	0.44
55:DZ:163:LEU:HD12	55:DZ:163:LEU:O	2.18	0.44
13:AM:20:THR:C	13:AM:22:ILE:H	2.21	0.44
13:AM:3:ARG:HG2	13:AM:9:ILE:HG13	1.97	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BS:66:ALA:HA	48:BS:69:VAL:HG11	1.99	0.44
34:BA:2870:C:O2'	34:BA:2871:C:H5'	2.18	0.44
34:DA:956:G:C5'	34:DA:957:A:OP2	2.65	0.44
18:AR:50:ILE:HG22	18:AR:51:LEU:N	2.32	0.44
18:AR:59:SER:O	18:AR:60:ALA:C	2.56	0.44
18:CR:59:SER:O	18:CR:60:ALA:C	2.56	0.44
23:AW:18:G:N1	23:AW:55:U:H1'	2.29	0.44
34:DA:809:G:O2'	34:DA:810:U:H5'	2.18	0.44
46:DQ:42:ILE:HD13	46:DQ:97:VAL:HG23	1.99	0.44
13:CM:56:LEU:C	13:CM:56:LEU:HD13	2.37	0.44
1:AA:1368:G:O2'	1:AA:1369:C:H5'	2.18	0.44
1:AA:980:C:H5'	1:AA:980:C:H6	1.83	0.44
38:BE:14:ILE:CG1	38:BE:21:VAL:CG2	2.96	0.44
44:BO:40:VAL:HG12	44:BO:41:ALA:N	2.33	0.44
46:BQ:17:LEU:HD23	46:BQ:17:LEU:N	2.33	0.44
39:DF:39:TRP:CB	39:DF:101:LEU:HD22	2.48	0.44
45:DP:115:LEU:HD12	45:DP:115:LEU:C	2.38	0.44
39:BF:36:VAL:HA	39:BF:101:LEU:CD2	2.48	0.44
13:CM:91:ARG:CB	13:CM:98:VAL:HG21	2.41	0.44
5:CE:10:MET:HA	5:CE:32:VAL:HA	1.98	0.44
34:BA:511:U:O4	34:BA:512:G:C2	2.70	0.44
50:DU:36:ARG:HG2	50:DU:40:PHE:CZ	2.53	0.44
40:DG:73:ALA:O	40:DG:85:GLY:HA2	2.17	0.44
1:CA:1065:U:OP2	1:CA:1190:G:N2	2.40	0.44
1:AA:1331:G:OP2	13:AM:23:TYR:CD2	2.70	0.44
9:CI:96:LEU:HG	9:CI:102:LEU:HD12	1.99	0.44
4:CD:199:ASN:O	4:CD:201:GLN:N	2.51	0.44
9:CI:47:LEU:N	9:CI:47:LEU:HD12	2.32	0.44
34:DA:2863:C:C3'	34:DA:2864:G:C5'	2.95	0.44
37:DD:105:ILE:O	37:DD:106:ILE:C	2.56	0.44
25:B0:40:GLN:NE2	25:B0:43:THR:HA	2.33	0.44
5:CE:50:GLU:HG3	5:CE:52:PRO:CD	2.40	0.44
35:BB:38:C:H42	35:BB:44:G:H1	1.66	0.44
1:AA:1431:C:O2'	1:AA:1432:G:H5'	2.17	0.44
37:DD:8:PRO:C	37:DD:10:THR:H	2.21	0.44
44:BO:103:ALA:C	44:BO:105:GLU:N	2.70	0.44
39:BF:64:ILE:HG22	39:BF:76:GLY:O	2.18	0.44
1:CA:1014:A:H4'	19:CS:14:HIS:CD2	2.53	0.44
40:BG:23:PHE:CZ	40:BG:168:GLU:HA	2.53	0.44
6:CF:16:GLN:H	6:CF:16:GLN:CD	2.20	0.44
1:AA:1443:G:H22	1:AA:1460:A:H1'	1.76	0.44
34:DA:2839:G:H2'	34:DA:2840:C:H6	1.82	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1038:C:N4	34:DA:1117:G:H1	2.09	0.44
15:AO:27:VAL:O	15:AO:29:VAL:N	2.51	0.44
7:AG:21:VAL:HG23	7:AG:22:LEU:N	2.32	0.44
9:AI:5:TYR:HB2	9:AI:18:PHE:CD2	2.53	0.44
1:CA:937:A:C5	1:CA:938:A:N7	2.85	0.44
34:BA:2691:C:H2'	34:BA:2692:C:H6	1.83	0.44
40:BG:94:LEU:N	40:BG:94:LEU:CD2	2.75	0.44
1:AA:135:C:C2'	1:AA:136:C:H5'	2.46	0.44
8:AH:86:ILE:HG13	8:AH:133:LEU:HD22	2.00	0.44
23:AW:58:A:O2'	23:AW:60:U:OP2	2.35	0.44
6:AF:99:ALA:HB1	18:AR:23:LYS:HZ3	1.81	0.44
32:D7:5:TRP:HE1	32:D7:7:PRO:HG3	1.82	0.44
49:BT:25:GLY:O	49:BT:48:ILE:HG23	2.18	0.44
1:AA:302:G:H21	1:AA:556:C:H4'	1.81	0.44
1:AA:785:G:C2'	1:AA:786:G:H5'	2.48	0.44
34:DA:2292:C:N4	34:DA:2340:G:H1	2.15	0.44
7:CG:115:ARG:HB2	7:CG:118:VAL:CG2	2.48	0.44
32:B7:30:VAL:O	32:B7:33:ARG:N	2.51	0.44
37:BD:45:ASN:OD1	37:BD:46:GLN:N	2.51	0.44
47:BR:8:ARG:CA	47:BR:8:ARG:NE	2.80	0.44
1:AA:1365:G:O2'	1:AA:1366:C:H5'	2.18	0.44
34:DA:271(J):C:C3'	34:DA:271(K):U:H5''	2.48	0.44
1:CA:409:G:C5'	4:CD:25:ARG:HB2	2.47	0.44
1:CA:237:C:H4'	17:CQ:25:ARG:HH12	1.82	0.44
1:CA:621:A:O2'	1:CA:622:A:H5'	2.17	0.44
2:AB:12:GLU:O	2:AB:14:GLY:N	2.50	0.44
34:BA:1683:C:H2'	34:BA:1684:C:C6	2.52	0.44
34:DA:2408:U:O5'	34:DA:2408:U:H6	2.00	0.44
34:BA:332:A:H4'	34:BA:333:G:OP1	2.17	0.44
22:CV:43:A:O2'	22:CV:44:A:H5'	2.17	0.44
34:DA:935:C:H2'	34:DA:936:C:C6	2.52	0.44
34:DA:2084:C:O2'	34:DA:2085:C:H5'	2.17	0.44
34:BA:643:A:O2'	34:BA:644:A:H5'	2.17	0.44
1:AA:848:C:H2'	1:AA:849:C:C6	2.52	0.44
15:CO:70:LEU:O	15:CO:71:GLN:C	2.55	0.44
8:CH:53:VAL:O	8:CH:54:ASP:HB2	2.18	0.44
38:BE:141:ILE:HG13	38:BE:150:VAL:HG22	2.00	0.44
51:DV:85:LYS:O	51:DV:87:HIS:N	2.45	0.44
15:AO:18:PHE:HD1	15:AO:19:PRO:O	2.00	0.44
7:CG:139:GLU:O	7:CG:142:GLU:HB2	2.18	0.44
34:BA:688:U:H5'	34:BA:1780:A:C2	2.53	0.44
34:BA:2699:C:O2'	34:BA:2700:C:H5'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:372:G:N2	34:BA:400:G:H2'	2.33	0.44
51:BV:82:ARG:CD	51:BV:82:ARG:C	2.86	0.44
8:AH:125:ARG:HH11	8:AH:125:ARG:HG3	1.82	0.44
27:B2:37:PHE:O	27:B2:37:PHE:CD2	2.71	0.44
42:BI:89:TYR:N	42:BI:89:TYR:CD1	2.86	0.44
37:DD:80:ALA:O	37:DD:81:ALA:HB2	2.18	0.44
39:DF:37:VAL:O	39:DF:38:ARG:C	2.56	0.44
51:BV:69:LYS:CG	51:BV:70:ILE:N	2.73	0.44
38:DE:70:ALA:O	38:DE:71:GLY:C	2.56	0.44
38:DE:69:LYS:O	38:DE:71:GLY:N	2.51	0.44
34:DA:1158:C:O2'	34:DA:1159:U:C5'	2.66	0.44
34:DA:143(A):C:C2'	34:DA:143(A):C:O2	2.64	0.44
49:BT:29:ARG:CG	49:BT:30:VAL:N	2.81	0.44
2:AB:46:LYS:HA	2:AB:49:GLU:OE1	2.17	0.44
2:AB:46:LYS:O	2:AB:47:THR:C	2.55	0.44
43:BN:65:LYS:C	43:BN:66:LYS:HD3	2.38	0.44
34:BA:2175:C:C1'	36:BC:215:THR:HA	2.38	0.44
45:DP:102:ARG:HH21	45:DP:102:ARG:HG3	1.83	0.44
39:BF:18:ARG:O	39:BF:19:GLU:HB3	2.18	0.44
54:DY:11:ASP:O	54:DY:27:VAL:HA	2.18	0.44
20:AT:99:LEU:HB2	20:AT:100:ILE:HD12	2.00	0.44
55:DZ:48:PHE:CZ	55:DZ:53:ILE:HG23	2.52	0.44
45:DP:47:ASP:CB	45:DP:48:PRO:CA	2.90	0.44
34:BA:631:A:O2'	45:BP:67:MET:HB3	2.17	0.44
34:BA:896:A:C2	34:BA:898:C:H5''	2.52	0.44
55:DZ:151:HIS:HA	55:DZ:171:ILE:CD1	2.47	0.44
18:AR:64:ARG:O	18:AR:65:ILE:C	2.56	0.44
27:D2:30:ARG:CZ	27:D2:30:ARG:HB3	2.46	0.44
41:BH:72:ILE:O	41:BH:75:ALA:N	2.50	0.44
1:AA:379:C:O2'	1:AA:380:G:H5'	2.18	0.44
34:DA:2711:A:H5''	34:DA:2712:U:H5'	2.00	0.44
34:DA:1254:A:H5'	34:DA:1255:U:C5'	2.47	0.44
5:AE:71:LEU:HD22	5:AE:115:VAL:HG13	1.98	0.44
20:CT:57:ARG:CZ	20:CT:102:GLY:HA2	2.48	0.44
1:AA:176:C:H2'	1:AA:177:C:C6	2.53	0.44
55:BZ:64:GLY:O	55:BZ:65:GLN:O	2.36	0.44
34:DA:285:C:H2'	34:DA:286:C:C4'	2.48	0.44
40:DG:115:ARG:HB2	40:DG:116:ASP:H	1.42	0.44
43:DN:57:ALA:O	43:DN:58:ASP:C	2.55	0.44
46:BQ:36:ALA:O	46:BQ:100:GLY:N	2.50	0.44
1:CA:1226:C:N4	13:CM:104:ARG:HD2	2.33	0.44
34:DA:2722:G:H2'	34:DA:2723:C:H6	1.81	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2243:U:H2'	34:DA:2244:U:C6	2.52	0.44
26:B1:26:ARG:HG2	26:B1:34:THR:C	2.38	0.44
4:CD:135:LEU:O	4:CD:136:PRO:C	2.53	0.44
4:CD:94:LEU:O	4:CD:98:GLU:N	2.51	0.44
46:DQ:52:VAL:O	46:DQ:55:VAL:HG13	2.18	0.44
45:BP:70:GLN:HA	45:BP:70:GLN:OE1	2.17	0.44
27:D2:20:GLU:O	27:D2:24:LEU:HD13	2.17	0.44
1:AA:926:G:C6	1:AA:1505:G:C6	3.06	0.44
1:CA:1294:G:O2'	1:CA:1295:G:H5'	2.17	0.44
25:B0:36:ILE:HA	25:B0:60:PHE:CB	2.48	0.44
13:AM:23:TYR:CZ	13:AM:71:ARG:HD3	2.53	0.44
1:CA:819:A:H4'	1:CA:820:U:OP2	2.17	0.44
55:DZ:80:ARG:O	55:DZ:81:ARG:C	2.56	0.44
4:CD:8:VAL:C	4:CD:10:ARG:N	2.68	0.44
44:DO:87:ILE:HD12	44:DO:91:LEU:C	2.38	0.44
6:AF:42:GLU:C	6:AF:44:GLY:H	2.20	0.44
34:BA:2887:U:O2'	34:BA:2888:C:H5'	2.18	0.44
53:DX:83:VAL:C	53:DX:85:PRO:HD3	2.38	0.44
36:BC:18:LYS:CD	36:BC:19:VAL:HG23	2.41	0.44
48:BS:35:ILE:C	48:BS:36:TYR:HD1	2.21	0.44
37:DD:76:PRO:HG2	37:DD:98:VAL:HG23	1.97	0.44
47:DR:11:ASN:O	47:DR:12:ARG:CB	2.66	0.44
38:DE:131:ALA:HB3	38:DE:134:ILE:HD12	2.00	0.44
22:CV:65:C:O2'	22:CV:66:C:H5'	2.17	0.44
3:CC:95:THR:HG22	3:CC:97:LYS:HB2	2.00	0.44
34:BA:280:C:N4	34:BA:360:G:H1	2.15	0.44
23:AY:31:A:H2'	23:AY:32:U:O4'	2.18	0.44
41:DH:94:TYR:N	41:DH:94:TYR:CD1	2.86	0.44
9:CI:116:LYS:O	9:CI:117:HIS:C	2.55	0.44
54:BY:31:LEU:HA	54:BY:31:LEU:HD22	1.64	0.44
40:BG:103:LEU:O	40:BG:106:LEU:HB3	2.18	0.44
2:AB:175:ARG:O	2:AB:176:GLU:C	2.55	0.44
30:D5:2:ALA:CA	34:DA:2015:A:H1'	2.45	0.44
41:DH:12:PRO:HB2	41:DH:15:VAL:CG2	2.47	0.44
51:DV:25:LEU:HG	51:DV:94:LEU:HD13	1.98	0.44
1:AA:1349:A:C4	1:AA:1350:A:C8	3.06	0.44
18:CR:35:ARG:C	18:CR:37:VAL:N	2.72	0.44
51:BV:67:GLY:O	51:BV:68:LYS:C	2.56	0.44
4:AD:58:LEU:HA	4:AD:206:PHE:CE1	2.52	0.44
2:CB:101:MET:O	2:CB:105:PHE:N	2.51	0.44
1:AA:1312:G:C2	1:AA:1326:C:C2	3.06	0.44
44:DO:112:MET:O	44:DO:113:LYS:C	2.56	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:168:ARG:NH1	4:CD:168:ARG:HG3	2.33	0.44
34:BA:2092:U:H4'	34:BA:2093:G:C5'	2.48	0.44
34:DA:1047:G:H2'	34:DA:1110:G:N1	2.33	0.44
37:BD:109:ASP:HB2	37:BD:197:GLY:CA	2.47	0.44
34:DA:987:G:H2'	34:DA:988:A:O4'	2.18	0.44
1:AA:445:G:H2'	1:AA:446:G:C8	2.53	0.44
37:DD:197:GLY:O	37:DD:198:ASN:HB3	2.18	0.44
1:AA:528:C:H5'	1:AA:535:A:C6	2.53	0.44
34:DA:709:U:H2'	34:DA:710:G:C8	2.51	0.44
4:CD:107:ARG:O	4:CD:170:VAL:HG21	2.18	0.44
8:AH:97:VAL:HB	8:AH:129:VAL:O	2.18	0.44
34:DA:231:C:H2'	34:DA:232:G:O4'	2.17	0.44
55:BZ:130:PRO:O	55:BZ:133:ILE:HG13	2.18	0.44
11:AK:120:ARG:HA	11:AK:121:PRO:HD3	1.79	0.44
3:CC:34:LEU:HD23	3:CC:34:LEU:C	2.39	0.44
2:CB:107:THR:HG23	2:CB:110:GLN:OE1	2.18	0.44
34:BA:1414:G:H1	34:BA:1588:C:H42	1.65	0.44
42:DI:102:SER:HA	42:DI:107:VAL:O	2.18	0.44
47:DR:103:ARG:HB3	47:DR:109:ALA:C	2.37	0.44
13:AM:63:THR:HG22	13:AM:64:TRP:N	2.33	0.44
34:DA:206:U:O2	34:DA:206:U:H2'	2.16	0.44
53:DX:28:PHE:CD1	53:DX:28:PHE:N	2.85	0.44
34:DA:2476:A:N3	34:DA:2476:A:H3'	2.32	0.44
1:CA:1229:A:H2'	1:CA:1230:C:C6	2.52	0.44
13:CM:50:GLU:O	13:CM:54:VAL:HG23	2.18	0.44
45:DP:6:LEU:O	45:DP:6:LEU:HG	2.18	0.44
54:BY:49:VAL:HG12	54:BY:53:PRO:HG3	1.99	0.44
2:AB:39:ILE:CG2	2:AB:40:HIS:N	2.80	0.44
34:DA:146:G:H5'	34:DA:146:G:H8	1.83	0.44
37:BD:30:GLU:HG3	37:BD:63:ARG:NH2	2.33	0.44
45:DP:95:VAL:HG22	45:DP:123:LEU:HD12	2.00	0.44
42:DI:99:GLU:C	42:DI:101:LEU:H	2.20	0.44
54:DY:13:VAL:CG1	54:DY:72:VAL:HB	2.48	0.44
34:DA:2702:U:O2'	34:DA:2703:C:H6	2.00	0.44
2:CB:39:ILE:CG2	2:CB:40:HIS:N	2.81	0.44
2:CB:46:LYS:O	2:CB:47:THR:C	2.56	0.44
33:B8:9:GLY:O	33:B8:13:ARG:HG2	2.18	0.44
38:DE:103:ASP:OD2	38:DE:201:THR:HA	2.18	0.44
34:BA:2313:C:C5	34:BA:2314:C:H5	2.36	0.44
34:DA:1885:A:C8	34:DA:1885:A:H5'	2.52	0.44
47:DR:85:PRO:C	47:DR:87:TYR:N	2.72	0.44
50:BU:57:PHE:HB3	50:BU:61:TRP:CZ2	2.52	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BG:161:THR:HG21	40:BG:163:ALA:HB3	2.00	0.44
1:AA:192:U:O3'	20:AT:57:ARG:HD2	2.17	0.44
20:AT:57:ARG:CZ	20:AT:102:GLY:HA2	2.48	0.44
41:BH:85:LYS:HE3	41:BH:144:VAL:C	2.38	0.44
1:AA:586:C:H1'	1:AA:878:G:O2'	2.18	0.44
34:BA:90:U:H1'	34:BA:92:A:H8	1.83	0.44
54:BY:85:VAL:HG13	54:BY:92:ASN:OD1	2.18	0.44
1:AA:979:C:C2'	1:AA:980:C:H5''	2.47	0.44
34:BA:285:C:H2'	34:BA:286:C:C4'	2.48	0.44
37:BD:205:VAL:HG12	37:BD:205:VAL:O	2.18	0.44
34:BA:1144:G:C4	34:BA:1145:C:C5	3.06	0.44
20:AT:85:MET:HA	20:AT:88:VAL:CG2	2.48	0.44
3:CC:188:LEU:N	3:CC:188:LEU:CD2	2.81	0.44
43:DN:30:ILE:O	43:DN:33:LEU:HB3	2.18	0.44
34:DA:627:A:N7	45:DP:84:ASN:ND2	2.66	0.44
39:BF:163:VAL:O	39:BF:164:ARG:C	2.56	0.44
45:BP:75:ILE:N	45:BP:75:ILE:CD1	2.56	0.44
38:DE:14:ILE:CG1	38:DE:21:VAL:CG2	2.96	0.44
27:D2:40:SER:O	27:D2:41:ILE:C	2.57	0.44
34:DA:1142(A):A:C5	34:DA:1144:G:C5	3.06	0.44
34:BA:1614:A:N1	52:BW:91:GLY:HA2	2.33	0.44
41:BH:130:ARG:HH11	41:BH:130:ARG:HB3	1.83	0.44
34:BA:154:G:H2'	34:BA:154(A):C:O2	2.18	0.44
17:AQ:45:HIS:CB	17:AQ:69:LYS:HE2	2.46	0.44
25:D0:36:ILE:HA	25:D0:60:PHE:CB	2.48	0.44
1:AA:625:G:OP1	16:AP:9:PHE:HB3	2.18	0.44
3:AC:131:ARG:HD3	5:AE:50:GLU:HG2	1.99	0.44
39:DF:65:TRP:CZ3	39:DF:75:HIS:CD2	2.90	0.44
34:DA:1352:U:O2'	34:DA:1353:A:H5'	2.18	0.44
50:BU:112:ARG:NH1	50:BU:112:ARG:CG	2.77	0.44
52:BW:17:VAL:C	52:BW:19:LEU:N	2.68	0.44
36:DC:191:ALA:C	36:DC:193:ILE:N	2.70	0.44
2:CB:77:ALA:HB2	2:CB:211:ILE:CD1	2.42	0.44
1:AA:1313:U:P	19:AS:6:LYS:HG3	2.58	0.44
26:D1:23:LYS:HB3	26:D1:23:LYS:HE3	1.79	0.44
34:DA:271(P):C:O2'	34:DA:271(Q):G:H5'	2.18	0.44
37:DD:144:ALA:HB3	37:DD:192:THR:HG22	2.00	0.44
1:AA:939:G:C6	1:AA:940:C:N4	2.86	0.44
20:AT:71:THR:CG2	20:AT:72:LEU:H	2.26	0.44
1:AA:502:G:O2'	1:AA:503:C:H5'	2.18	0.44
2:AB:97:TRP:CH2	2:AB:176:GLU:CD	2.91	0.44
2:CB:97:TRP:CZ3	2:CB:173:ALA:HA	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1423:G:H2'	1:AA:1424:C:H6	1.82	0.44
1:CA:974:A:OP2	14:CN:41:ARG:NH1	2.50	0.44
1:CA:963:G:H21	10:CJ:55:LYS:CD	2.31	0.44
49:DT:23:ARG:O	49:DT:25:GLY:N	2.50	0.44
1:AA:66:G:H4'	1:AA:173:U:C5	2.52	0.44
32:B7:9:ARG:CG	32:B7:9:ARG:HH11	2.30	0.44
41:BH:12:PRO:HB2	41:BH:15:VAL:CG2	2.48	0.44
41:DH:12:PRO:HB2	41:DH:15:VAL:CG1	2.48	0.44
39:DF:9:ILE:O	39:DF:128:ALA:HB2	2.18	0.44
45:DP:110:TYR:CD2	45:DP:111:ARG:HD3	2.53	0.44
44:DO:104:ARG:C	44:DO:106:LEU:H	2.19	0.44
7:AG:149:ARG:O	7:AG:152:ALA:HB3	2.18	0.44
43:BN:93:THR:O	43:BN:94:HIS:HD2	2.00	0.44
43:BN:18:ALA:O	43:BN:20:GLY:N	2.51	0.44
3:CC:124:ILE:C	3:CC:126:ARG:N	2.71	0.44
25:D0:11:ARG:CB	25:D0:11:ARG:NH1	2.81	0.44
11:CK:34:ASP:CB	11:CK:35:PRO:CD	2.96	0.44
4:CD:120:LEU:HD23	4:CD:125:HIS:CD2	2.50	0.44
43:BN:74:ARG:HH22	43:BN:101:HIS:HB3	1.82	0.44
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.52	0.44
1:AA:119:A:C5	1:AA:288:A:C2	3.05	0.44
20:CT:74:LYS:HB2	20:CT:75:ASN:H	1.49	0.44
34:BA:1744:C:H2'	34:BA:1745:C:H5'	2.00	0.44
55:DZ:108:PRO:HA	55:DZ:142:SER:O	2.17	0.44
31:B6:39:TYR:HB3	31:B6:49:HIS:CE1	2.53	0.44
1:AA:284:G:H2'	1:AA:285:G:H8	1.83	0.44
48:DS:46:VAL:CG1	48:DS:47:THR:N	2.80	0.44
34:BA:1362:C:O2'	34:BA:1363:C:H5'	2.17	0.44
1:AA:887:G:C2'	1:AA:888:G:H5'	2.48	0.44
1:CA:1270:C:O2'	1:CA:1271:G:H5'	2.17	0.44
1:CA:119:A:C5	1:CA:288:A:C2	3.06	0.44
1:AA:13:U:O2	1:AA:914:A:H3'	2.17	0.44
42:BI:2:LYS:HB2	42:BI:39:ALA:HB3	1.99	0.44
1:AA:55:A:C6	1:AA:56:U:C2	3.06	0.44
35:BB:35:U:O2'	35:BB:36:C:H5'	2.18	0.44
36:BC:169:GLY:O	36:BC:170:ALA:HB3	2.18	0.44
34:DA:907:U:O2'	46:DQ:101:ARG:NH2	2.51	0.44
1:CA:848:C:H2'	1:CA:849:C:C6	2.53	0.44
43:DN:119:ARG:HH11	43:DN:119:ARG:HG3	1.82	0.44
4:AD:194:LEU:N	4:AD:194:LEU:HD22	2.33	0.44
37:DD:25:THR:CB	37:DD:82:ILE:H	2.31	0.43
34:DA:2625:G:H2'	34:DA:2626:C:O4'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2783:G:H2'	34:DA:2784:C:C6	2.53	0.43
49:BT:27:THR:HG23	49:BT:28:VAL:N	2.32	0.43
10:AJ:30:SER:CB	10:AJ:80:LYS:HG3	2.48	0.43
34:BA:2635:C:H2'	34:BA:2636:U:O5'	2.18	0.43
1:CA:1358:U:H3'	1:CA:1359:C:C6	2.53	0.43
34:BA:1239:G:H2'	34:BA:1240:U:O4'	2.17	0.43
37:BD:25:THR:CG2	37:BD:82:ILE:N	2.75	0.43
42:DI:77:LEU:O	42:DI:78:THR:CB	2.66	0.43
55:DZ:99:TYR:HE2	55:DZ:125:LEU:HD12	1.79	0.43
2:CB:58:ILE:HD11	2:CB:185:ILE:HD12	2.00	0.43
33:D8:8:LYS:O	33:D8:12:LYS:HG3	2.18	0.43
45:BP:48:PRO:CG	45:BP:49:ARG:N	2.81	0.43
40:BG:111:LEU:HD22	40:BG:117:PHE:HE1	1.82	0.43
40:BG:139:LEU:HA	40:BG:144:ILE:CG2	2.48	0.43
48:DS:78:LEU:HD11	48:DS:103:GLU:CB	2.40	0.43
20:CT:50:GLU:CG	20:CT:51:GLU:N	2.80	0.43
46:DQ:73:PRO:HG3	46:DQ:93:TYR:CE2	2.53	0.43
41:DH:105:LEU:H	41:DH:105:LEU:CD1	2.24	0.43
54:DY:85:VAL:HG13	54:DY:92:ASN:OD1	2.18	0.43
10:AJ:39:PRO:HB3	10:AJ:70:ARG:NH1	2.33	0.43
1:CA:176:C:H2'	1:CA:177:C:C6	2.53	0.43
26:D1:32:LYS:HA	34:DA:2396:G:O2'	2.18	0.43
34:DA:2359:C:H2'	34:DA:2360:A:C8	2.53	0.43
55:BZ:48:PHE:O	55:BZ:49:ARG:C	2.56	0.43
55:BZ:7:ALA:O	55:BZ:8:TYR:C	2.55	0.43
37:BD:266:SER:O	37:BD:267:SER:OG	2.31	0.43
37:BD:270:ILE:C	37:BD:270:ILE:HD12	2.39	0.43
43:BN:56:ASN:HA	43:BN:125:GLY:C	2.39	0.43
34:DA:1301:A:O2'	34:DA:1302:A:P	2.76	0.43
30:B5:56:LYS:CD	30:B5:57:VAL:N	2.81	0.43
39:DF:139:PHE:C	39:DF:139:PHE:CD2	2.91	0.43
43:DN:13:TRP:HZ3	43:DN:130:HIS:CE1	2.36	0.43
43:DN:55:VAL:CG1	43:DN:56:ASN:N	2.71	0.43
5:CE:32:VAL:CG1	5:CE:33:VAL:N	2.81	0.43
45:BP:74:GLU:HG3	45:BP:75:ILE:H	1.83	0.43
1:AA:619:U:N3	4:AD:134:ASP:OD2	2.47	0.43
36:DC:49:ILE:O	36:DC:51:PRO:HD3	2.17	0.43
45:BP:113:LYS:HA	45:BP:129:ALA:O	2.18	0.43
1:AA:1331:G:OP2	13:AM:23:TYR:HD2	2.01	0.43
1:CA:1331:G:OP2	13:CM:23:TYR:CD2	2.71	0.43
34:DA:344:G:C8	34:DA:344:G:H5'	2.44	0.43
9:AI:102:LEU:O	9:AI:103:THR:OG1	2.31	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:72:VAL:HG13	6:CF:73:ASN:N	2.33	0.43
8:CH:63:LEU:HB2	8:CH:65:TYR:CE1	2.52	0.43
44:DO:87:ILE:HD13	44:DO:93:PRO:N	2.33	0.43
1:CA:1436:U:O2'	1:CA:1437:C:H5'	2.18	0.43
34:BA:1381:G:O2'	34:BA:1382:G:H5'	2.18	0.43
2:CB:68:ILE:H	2:CB:90:MET:CE	2.31	0.43
52:BW:51:LEU:C	52:BW:51:LEU:HD13	2.38	0.43
37:DD:9:TYR:CZ	37:DD:13:ARG:HD3	2.53	0.43
37:BD:69:ARG:NH2	37:BD:105:ILE:CD1	2.81	0.43
47:DR:11:ASN:CG	47:DR:12:ARG:N	2.71	0.43
38:BE:131:ALA:HB3	38:BE:134:ILE:HD12	1.99	0.43
1:AA:881:G:P	12:AL:12:ARG:HH22	2.40	0.43
5:CE:36:ASP:OD2	5:CE:38:GLN:CB	2.66	0.43
5:CE:40:ARG:HH11	5:CE:40:ARG:HG2	1.82	0.43
39:BF:57:VAL:HG11	39:BF:59:TYR:CD1	2.53	0.43
40:BG:112:PRO:C	40:BG:113:ARG:CA	2.83	0.43
1:AA:136:C:H42	1:AA:227:G:H1	1.66	0.43
8:AH:134:ILE:O	8:AH:135:CYS:HB3	2.18	0.43
34:DA:2370:G:H2'	34:DA:2371:G:C8	2.53	0.43
49:BT:23:ARG:O	49:BT:25:GLY:N	2.51	0.43
1:AA:1342:C:H2'	1:AA:1343:G:C8	2.53	0.43
34:BA:2023:G:C2	34:BA:2024:G:C8	3.05	0.43
42:BI:22:LYS:O	42:BI:23:PRO:C	2.56	0.43
11:CK:82:VAL:HG12	11:CK:108:ILE:HG23	1.99	0.43
34:DA:2642:G:N2	34:DA:2773:C:C2	2.85	0.43
43:DN:78:TYR:H	43:DN:79:PRO:HD2	1.83	0.43
1:CA:1109:C:O2'	1:CA:1110:A:H5'	2.18	0.43
1:AA:1388:C:O2'	1:AA:1389:C:H5'	2.18	0.43
52:BW:82:LEU:CD1	52:BW:82:LEU:N	2.80	0.43
44:BO:119:PRO:O	49:BT:68:TYR:HE1	2.02	0.43
34:DA:1493:C:O2	34:DA:1493:C:C2'	2.63	0.43
46:DQ:63:LYS:NZ	46:DQ:63:LYS:HB2	2.33	0.43
34:DA:1844:C:C2'	34:DA:1845:G:H5'	2.48	0.43
36:BC:76:ALA:HB3	36:BC:94:VAL:HG11	2.00	0.43
2:CB:23:ARG:HG3	2:CB:23:ARG:NH1	2.28	0.43
1:AA:404:U:H2'	1:AA:405:U:H6	1.83	0.43
40:DG:138:GLN:OE1	40:DG:152:LEU:HA	2.18	0.43
1:CA:807:A:H2'	1:CA:808:C:H6	1.81	0.43
2:CB:174:VAL:O	2:CB:177:ALA:HB3	2.18	0.43
1:CA:123:C:OP1	1:CA:312:C:H5'	2.17	0.43
1:CA:312:C:O2'	1:CA:313:A:H5'	2.18	0.43
40:DG:66:GLN:NE2	40:DG:93:THR:O	2.45	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:751:A:H8	34:BA:751:A:O5'	2.00	0.43
1:AA:824:C:O2'	1:AA:825:G:H5'	2.17	0.43
1:CA:359:U:O2'	1:CA:360:A:H5'	2.18	0.43
34:DA:554:U:H2'	34:DA:555:U:H5'	2.00	0.43
35:BB:52:A:O2'	35:BB:53:A:H8	2.00	0.43
1:CA:285:G:O2'	1:CA:286:G:H5'	2.18	0.43
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.52	0.43
7:AG:153:HIS:O	7:AG:154:TYR:HD2	2.00	0.43
4:CD:80:GLU:O	4:CD:81:GLU:C	2.56	0.43
16:CP:19:ILE:HG22	16:CP:36:ILE:HG13	2.00	0.43
1:AA:81:U:H2'	1:AA:82:U:C5	2.52	0.43
36:DC:68:LEU:HD22	36:DC:179:SER:HA	2.00	0.43
15:CO:26:GLU:HA	15:CO:81:LEU:HD22	2.00	0.43
34:DA:1401:G:H2'	34:DA:1402:C:C6	2.53	0.43
1:CA:511:C:HO2'	1:CA:512:U:H6	1.60	0.43
28:D3:43:ILE:HG22	28:D3:47:VAL:CG2	2.47	0.43
34:BA:2476:A:N3	34:BA:2476:A:H3'	2.32	0.43
40:BG:48:GLU:O	40:BG:51:ARG:HG2	2.18	0.43
51:DV:19:LYS:CE	51:DV:20:LEU:H	2.29	0.43
50:BU:92:ARG:HB2	51:BV:11:GLN:CD	2.36	0.43
38:DE:176:ILE:HG22	38:DE:176:ILE:O	2.16	0.43
38:DE:199:ARG:HH11	38:DE:199:ARG:HG3	1.83	0.43
53:DX:5:TYR:C	53:DX:7:VAL:N	2.69	0.43
49:BT:29:ARG:CG	49:BT:30:VAL:HG13	2.48	0.43
49:BT:65:LYS:HZ2	49:BT:66:VAL:HG23	1.82	0.43
34:BA:209:C:O2'	34:BA:210:C:H5'	2.18	0.43
39:BF:116:ASP:OD2	45:BP:5:ASP:HA	2.18	0.43
34:DA:480:A:P	54:DY:46:LYS:HE2	2.59	0.43
38:BE:5:LEU:HB2	38:BE:51:PHE:CD2	2.46	0.43
55:DZ:14:LYS:C	55:DZ:16:SER:H	2.21	0.43
55:DZ:30:ASN:ND2	55:DZ:32:HIS:HB2	2.31	0.43
34:DA:2419:U:O2'	34:DA:2420:C:H5'	2.17	0.43
53:BX:36:LYS:O	53:BX:37:THR:C	2.56	0.43
12:AL:89:ARG:NH2	12:AL:91:LYS:HD3	2.33	0.43
48:BS:52:SER:OG	48:BS:55:ALA:HB3	2.17	0.43
53:BX:65:ARG:NE	53:BX:66:LEU:H	2.15	0.43
39:DF:203:GLN:O	39:DF:206:ILE:C	2.56	0.43
18:CR:43:PHE:HA	18:CR:51:LEU:HD12	1.99	0.43
18:CR:74:ARG:O	18:CR:81:PHE:HE1	2.01	0.43
41:BH:41:MET:HE1	41:BH:55:PRO:CD	2.48	0.43
38:BE:116:VAL:HG21	38:BE:122:PHE:CD2	2.53	0.43
20:AT:12:ALA:O	20:AT:15:ARG:HB2	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:586:C:O2'	1:CA:587:G:H5'	2.18	0.43
26:D1:88:LYS:O	26:D1:91:LYS:N	2.51	0.43
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.53	0.43
1:CA:979:C:C3'	1:CA:980:C:C5'	2.88	0.43
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.52	0.43
44:DO:16:ALA:HA	44:DO:46:ALA:CA	2.45	0.43
53:BX:23:GLU:CG	53:BX:24:GLY:N	2.75	0.43
39:DF:163:VAL:O	39:DF:164:ARG:C	2.56	0.43
22:AV:53:G:C5	22:AV:54:5MU:H72	2.53	0.43
43:DN:33:LEU:HD23	43:DN:52:VAL:HG21	1.95	0.43
46:BQ:17:LEU:CD2	46:BQ:41:TRP:HE1	2.29	0.43
34:DA:2723:C:H4'	47:DR:2:ARG:O	2.18	0.43
1:AA:676:A:O2'	1:AA:677:U:H5'	2.17	0.43
34:DA:827:U:H5'	34:DA:828:U:O5'	2.18	0.43
34:BA:859:G:O3'	34:BA:860:U:O2	2.36	0.43
35:BB:79:C:H2'	35:BB:80:U:H5'	1.99	0.43
34:BA:1464:C:O2'	34:BA:1465:G:H5'	2.18	0.43
1:AA:1500:A:OP2	1:AA:1505:G:OP1	2.37	0.43
53:BX:70:LEU:O	53:BX:71:GLY:C	2.56	0.43
40:DG:83:ARG:O	40:DG:85:GLY:N	2.51	0.43
13:AM:13:LYS:CA	13:AM:44:ARG:HH11	2.24	0.43
34:BA:2472:G:H2'	34:BA:2475:C:H42	1.82	0.43
34:BA:157:U:H5''	34:BA:171:G:H22	1.83	0.43
6:CF:33:TYR:CD1	6:CF:75:LEU:HB2	2.53	0.43
17:CQ:67:LYS:HG2	17:CQ:68:ARG:H	1.83	0.43
37:DD:237:GLU:OE2	37:DD:239:ARG:N	2.48	0.43
34:DA:2189:U:H3'	34:DA:2190:G:C5'	2.41	0.43
44:DO:86:ILE:HG22	44:DO:87:ILE:N	2.33	0.43
6:AF:19:LEU:HD23	6:AF:19:LEU:C	2.39	0.43
34:DA:1353:A:H2'	34:DA:1354:A:C8	2.53	0.43
37:DD:14:ARG:CG	37:DD:14:ARG:NH1	2.79	0.43
23:CW:16:U:C4	23:CW:18:G:H3'	2.53	0.43
34:DA:2883:A:H3'	34:DA:2884:U:H5'	1.98	0.43
1:CA:1313:U:P	19:CS:6:LYS:HG3	2.58	0.43
9:AI:53:VAL:HB	9:AI:92:TYR:HE2	1.83	0.43
52:DW:21:VAL:C	52:DW:23:LEU:N	2.71	0.43
34:BA:1707:G:N2	34:BA:1708:C:C2	2.86	0.43
52:DW:88:ARG:HB3	52:DW:92:ARG:CB	2.47	0.43
1:AA:1095:U:H5''	1:AA:1109:C:O2	2.19	0.43
1:CA:782:A:N6	1:CA:801:U:C5	2.86	0.43
34:DA:1708:C:O2'	34:DA:1709:U:H5'	2.18	0.43
3:AC:175:LEU:HD21	3:AC:201:TYR:CE2	2.53	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1232:U:H2'	1:AA:1233:G:O4'	2.18	0.43
45:BP:79:ARG:C	45:BP:80:TYR:HD2	2.21	0.43
13:CM:83:ASP:OD2	13:CM:84:ILE:N	2.51	0.43
11:AK:27:ASN:HB2	11:AK:55:LYS:HB3	1.99	0.43
42:DI:47:LEU:O	42:DI:51:ILE:HG12	2.18	0.43
34:BA:152:G:H1	34:BA:174:C:N4	2.14	0.43
34:BA:307:G:H21	34:BA:330:A:N6	2.13	0.43
17:CQ:40:LYS:HD2	17:CQ:42:TYR:CE1	2.53	0.43
8:AH:1:MET:O	8:AH:2:LEU:HB2	2.17	0.43
1:CA:1328:C:O2'	1:CA:1329:A:H5'	2.18	0.43
34:BA:2033:A:H2'	34:BA:2035:G:OP2	2.18	0.43
1:AA:1133:G:H2'	1:AA:1134:G:C8	2.53	0.43
34:DA:1362:C:O2'	34:DA:1363:C:H5'	2.18	0.43
34:BA:2086:U:O2	34:BA:2234:G:C2	2.72	0.43
34:DA:1474:C:H3'	34:DA:1475:G:H8	1.82	0.43
1:CA:528:C:H5'	1:CA:535:A:C6	2.53	0.43
36:DC:67:GLY:O	36:DC:68:LEU:HB2	2.17	0.43
40:BG:51:ARG:HA	40:BG:51:ARG:HE	1.83	0.43
8:AH:53:VAL:O	8:AH:54:ASP:HB2	2.18	0.43
7:AG:139:GLU:O	7:AG:142:GLU:HB2	2.18	0.43
42:DI:2:LYS:HB2	42:DI:39:ALA:HB3	2.00	0.43
37:BD:36:PRO:HG3	37:BD:61:LEU:HD23	2.00	0.43
34:DA:2588:G:O6	34:DA:2607:G:C6	2.71	0.43
1:CA:1160:G:N3	1:CA:1160:G:H2'	2.32	0.43
34:DA:947:G:N3	34:DA:984:A:H2	2.16	0.43
37:DD:70:TRP:CD2	37:DD:150:LYS:HE2	2.53	0.43
34:BA:2126:A:O2'	34:BA:2127:G:P	2.76	0.43
34:BA:483:A:C4'	54:BY:47:LYS:HD3	2.47	0.43
43:DN:70:LYS:CG	43:DN:72:TYR:HE1	2.30	0.43
3:AC:148:GLY:O	3:AC:203:PHE:N	2.51	0.43
48:BS:14:VAL:O	48:BS:15:ARG:C	2.55	0.43
2:AB:22:LYS:HA	2:AB:22:LYS:HZ2	1.75	0.43
26:B1:20:ARG:CD	26:B1:41:ARG:HD3	2.23	0.43
34:BA:188:G:H2'	34:BA:189:G:H5'	2.00	0.43
34:BA:611:C:O2'	34:BA:612:C:H5'	2.18	0.43
37:BD:35:LYS:CE	37:BD:104:TYR:HB2	2.48	0.43
37:BD:63:ARG:CG	37:BD:63:ARG:HH11	2.24	0.43
34:DA:626:U:N3	45:DP:105:LEU:HG	2.33	0.43
45:DP:95:VAL:HG23	45:DP:95:VAL:O	2.17	0.43
2:CB:163:PHE:CD2	2:CB:186:ALA:HA	2.53	0.43
34:DA:251:A:H2'	34:DA:252:G:O4'	2.18	0.43
34:DA:1331:A:O2'	34:DA:1332:G:H5''	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:B8:35:GLN:CB	34:BA:2420:C:OP1	2.66	0.43
34:BA:955:C:C5'	46:BQ:14:ARG:HH21	2.31	0.43
1:CA:101:A:C2	1:CA:102:G:C8	3.05	0.43
40:BG:86:MET:CB	40:BG:87:PRO:CD	2.96	0.43
43:DN:43:THR:HB	43:DN:46:VAL:CG1	2.47	0.43
41:DH:70:THR:O	41:DH:71:LEU:C	2.55	0.43
41:DH:102:ALA:CB	41:DH:117:PRO:HD3	2.47	0.43
18:CR:53:ARG:CG	18:CR:63:GLN:HE21	2.18	0.43
47:BR:39:PRO:O	47:BR:40:LYS:C	2.56	0.43
41:BH:53:GLU:CD	41:BH:54:ARG:H	2.22	0.43
17:AQ:33:GLY:O	17:AQ:34:LYS:C	2.56	0.43
45:DP:23:PRO:HB3	45:DP:33:ARG:HG3	1.98	0.43
1:AA:6:G:C4	5:AE:119:LEU:HD11	2.54	0.43
5:AE:139:LEU:HA	5:AE:142:LEU:HD12	2.01	0.43
42:DI:15:VAL:C	42:DI:17:GLN:N	2.72	0.43
23:CW:31:A:N1	23:CW:39:U:O4	2.51	0.43
34:BA:2684:U:O2'	34:BA:2685:G:H5'	2.18	0.43
44:BO:1:MET:HB2	44:BO:32:TYR:CD2	2.52	0.43
55:BZ:6:LYS:CB	55:BZ:8:TYR:HE1	2.29	0.43
45:DP:55:ARG:HG2	45:DP:56:SER:N	2.33	0.43
34:BA:1018:C:O2'	34:BA:1019:U:H5'	2.18	0.43
44:BO:16:ALA:HA	44:BO:46:ALA:CA	2.46	0.43
1:AA:957:U:H2'	1:AA:959:A:OP2	2.18	0.43
43:DN:58:ASP:CA	43:DN:60:ILE:HG13	2.49	0.43
46:BQ:34:LEU:CD1	46:BQ:129:THR:HB	2.48	0.43
6:AF:13:ASN:ND2	6:AF:55:ASP:OD1	2.50	0.43
1:CA:918:A:C6	1:CA:919:A:C5	3.06	0.43
50:BU:35:ALA:O	50:BU:36:ARG:C	2.57	0.43
39:BF:139:PHE:C	39:BF:139:PHE:CD2	2.91	0.43
36:BC:49:ILE:O	36:BC:51:PRO:HD3	2.19	0.43
34:BA:66:C:O2'	34:BA:67:U:H5'	2.18	0.43
4:AD:100:ARG:O	4:AD:103:ASN:HB3	2.19	0.43
34:DA:1614:A:N1	52:DW:91:GLY:HA2	2.32	0.43
1:CA:1293:G:O2'	1:CA:1294:G:P	2.76	0.43
50:DU:18:LEU:HD23	50:DU:18:LEU:HA	1.81	0.43
46:BQ:51:ARG:O	46:BQ:52:VAL:C	2.55	0.43
34:BA:344:G:C8	34:BA:344:G:H5'	2.43	0.43
38:BE:24:THR:HB	38:BE:186:GLY:HA2	2.01	0.43
34:BA:1722:A:C6	34:BA:1741:A:N1	2.86	0.43
55:BZ:108:PRO:CA	55:BZ:142:SER:HA	2.48	0.43
8:CH:19:VAL:O	8:CH:20:TYR:HB2	2.18	0.43
47:BR:76:VAL:CG1	47:BR:77:ARG:N	2.80	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:29:SER:O	8:AH:32:LYS:N	2.52	0.43
34:BA:1176:G:O2'	34:BA:1177:A:O5'	2.34	0.43
34:BA:1177:A:H5''	34:BA:1178:C:O5'	2.19	0.43
51:DV:43:GLU:CA	51:DV:48:GLY:CA	2.91	0.43
48:DS:57:LYS:O	48:DS:58:LEU:O	2.36	0.43
55:DZ:61:LEU:HD12	55:DZ:65:GLN:CB	2.48	0.43
44:BO:86:ILE:HG22	44:BO:87:ILE:N	2.32	0.43
44:BO:87:ILE:HD13	44:BO:93:PRO:HA	1.99	0.43
28:B3:12:PRO:O	28:B3:15:TYR:HD1	2.00	0.43
20:AT:78:ALA:O	20:AT:81:LYS:N	2.51	0.43
55:BZ:116:VAL:HG12	55:BZ:117:LEU:O	2.18	0.43
7:AG:20:ASP:O	7:AG:23:VAL:HB	2.18	0.43
41:BH:116:GLU:HG2	41:BH:117:PRO:N	2.33	0.43
34:DA:464:U:H2'	34:DA:465:G:O4'	2.18	0.43
1:AA:503:C:O2	1:AA:510:A:H2	2.01	0.43
2:AB:100:GLY:N	2:AB:176:GLU:OE2	2.36	0.43
11:AK:21:ILE:HG13	11:AK:30:VAL:HG12	2.00	0.43
1:CA:973:G:H5''	10:CJ:57:LYS:NZ	2.34	0.43
5:AE:144:THR:O	5:AE:147:ASP:OD2	2.36	0.43
5:AE:147:ASP:O	5:AE:151:LEU:HG	2.17	0.43
31:B6:45:LYS:HZ1	34:BA:2370:G:N2	2.09	0.43
34:DA:1478:G:O2'	34:DA:1558:A:H2	2.00	0.43
11:CK:124:LYS:HD2	11:CK:125:PHE:CD1	2.54	0.43
39:DF:84:VAL:C	39:DF:86:GLY:N	2.71	0.43
34:BA:2617:C:H2'	34:BA:2618:G:H5'	1.99	0.43
53:DX:14:SER:O	53:DX:17:ALA:N	2.50	0.43
1:CA:1422:G:H2'	1:CA:1423:G:H8	1.83	0.43
34:BA:2642:G:H5''	43:BN:79:PRO:HG3	2.00	0.43
34:BA:2291:U:H2'	34:BA:2292:C:H6	1.82	0.43
26:D1:11:ARG:HG2	26:D1:61:ARG:HB3	2.00	0.43
34:BA:869:G:H2'	34:BA:870:A:O4'	2.19	0.43
17:AQ:83:ASP:CG	17:AQ:84:LEU:N	2.71	0.43
1:CA:1508:G:O2'	1:CA:1509:C:H5'	2.18	0.43
18:CR:30:ASP:C	18:CR:32:ARG:H	2.21	0.43
7:CG:109:ASN:HA	7:CG:119:ARG:HE	1.83	0.43
34:BA:738:G:HO2'	34:BA:739:G:H5'	1.83	0.43
4:CD:60:GLU:HG2	4:CD:202:LEU:HD12	2.00	0.43
3:AC:124:ILE:C	3:AC:126:ARG:N	2.71	0.43
2:CB:168:THR:HG23	2:CB:192:SER:OG	2.19	0.43
34:DA:922:U:H2'	34:DA:923:C:C6	2.53	0.43
34:BA:646:A:H3'	34:BA:647:G:C8	2.50	0.43
34:DA:1775:U:H2'	34:DA:1776:G:O5'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:173:TRP:CE3	4:AD:189:PRO:HB3	2.52	0.43
47:BR:69:ASP:C	47:BR:70:LEU:O	2.56	0.43
37:BD:218:ARG:HB3	37:BD:219:PRO:HD2	2.00	0.43
34:DA:1767:C:H2'	34:DA:1768:U:O4'	2.18	0.43
1:AA:41:G:H2'	1:AA:42:G:C8	2.53	0.43
7:CG:153:HIS:O	7:CG:154:TYR:HD2	2.01	0.43
1:CA:1089:G:O2'	1:CA:1090:U:H5'	2.17	0.43
4:CD:157:LEU:C	4:CD:159:ARG:N	2.71	0.43
1:AA:1229:A:H2'	1:AA:1230:C:H6	1.83	0.43
1:AA:642:A:C5	8:AH:115:SER:HA	2.54	0.43
34:DA:1970:A:H5''	34:DA:1971:A:OP1	2.19	0.43
55:BZ:100:VAL:HG21	55:BZ:134:PRO:HG2	2.00	0.43
9:CI:33:PHE:HD2	9:CI:34:ASN:OD1	2.01	0.43
34:BA:1210:A:H5'	34:BA:1211:U:H2'	2.00	0.43
34:BA:231:C:H2'	34:BA:232:G:O4'	2.18	0.43
9:AI:33:PHE:HD2	9:AI:34:ASN:OD1	2.01	0.43
50:DU:90:VAL:C	50:DU:92:ARG:H	2.21	0.43
53:DX:7:VAL:HG11	53:DX:39:ILE:HG22	2.00	0.43
34:BA:1156:A:H4'	34:BA:1157:G:OP2	2.18	0.43
42:DI:89:TYR:N	42:DI:89:TYR:CD1	2.87	0.43
2:CB:165:VAL:CG2	2:CB:166:ASP:H	2.24	0.43
27:B2:52:ASP:O	27:B2:55:ARG:HB2	2.19	0.43
34:BA:910:A:C6	34:BA:911:A:C6	3.06	0.43
40:BG:139:LEU:C	40:BG:139:LEU:CD1	2.87	0.43
48:DS:52:SER:OG	48:DS:55:ALA:HB3	2.19	0.43
34:DA:528:A:C2	34:DA:2043:C:C5'	3.01	0.43
34:DA:910:A:H2'	34:DA:911:A:C8	2.53	0.43
47:DR:116:LEU:O	47:DR:117:VAL:CB	2.59	0.43
41:DH:53:GLU:CD	41:DH:54:ARG:H	2.21	0.43
18:CR:31:LEU:HD23	18:CR:31:LEU:H	1.82	0.43
53:DX:65:ARG:NE	53:DX:66:LEU:H	2.15	0.43
34:DA:2534:A:H2'	34:DA:2535:G:O4'	2.18	0.43
42:DI:15:VAL:C	42:DI:17:GLN:H	2.22	0.43
1:CA:174:C:H2'	1:CA:175:C:C6	2.53	0.43
23:CW:39:U:C2'	23:CW:40:C:H5''	2.31	0.43
54:BY:81:LYS:HA	54:BY:82:PRO:HD3	1.82	0.43
35:BB:76:G:O4'	55:BZ:85:HIS:CD2	2.71	0.43
55:BZ:48:PHE:C	55:BZ:48:PHE:CD1	2.92	0.43
46:DQ:104:PHE:CD1	46:DQ:104:PHE:N	2.87	0.43
37:DD:185:VAL:HG12	37:DD:186:HIS:N	2.34	0.43
12:AL:5:PRO:HA	12:AL:9:GLN:NE2	2.33	0.43
26:D1:68:PRO:C	26:D1:70:VAL:N	2.72	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:52:GLU:O	13:CM:56:LEU:HB2	2.18	0.43
9:CI:72:GLY:O	9:CI:75:ASP:HB2	2.17	0.43
51:BV:61:VAL:O	51:BV:99:ILE:HB	2.17	0.43
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.53	0.43
43:DN:16:ILE:N	43:DN:53:VAL:O	2.50	0.43
34:DA:198:C:O5'	34:DA:198:C:H6	2.01	0.43
51:BV:78:LYS:C	51:BV:78:LYS:CD	2.83	0.43
43:BN:58:ASP:O	43:BN:60:ILE:N	2.51	0.43
31:D6:32:ASN:O	31:D6:33:LYS:HB2	2.18	0.43
45:DP:71:VAL:O	45:DP:72:PRO:C	2.55	0.43
38:DE:14:ILE:CD1	38:DE:173:VAL:HG11	2.35	0.43
1:AA:1495:U:H2'	1:AA:1496:C:C6	2.53	0.43
3:AC:77:ILE:O	3:AC:84:ILE:HG22	2.18	0.43
42:DI:69:LYS:HB2	42:DI:136:VAL:HB	2.00	0.43
34:BA:2472:G:H2'	34:BA:2529:G:H21	1.75	0.43
40:DG:125:PHE:CD1	40:DG:125:PHE:N	2.85	0.43
46:BQ:63:LYS:HB2	46:BQ:63:LYS:HZ3	1.83	0.43
17:CQ:67:LYS:CA	17:CQ:70:ARG:NH1	2.78	0.43
13:AM:56:LEU:HD13	13:AM:56:LEU:C	2.38	0.43
34:DA:1748:G:C8	34:DA:1748:G:H5'	2.47	0.43
34:BA:271(C):C:H2'	34:BA:271(D):G:C8	2.52	0.43
9:CI:47:LEU:N	9:CI:47:LEU:CD1	2.80	0.43
4:CD:118:ARG:O	4:CD:119:GLN:C	2.56	0.43
25:B0:43:THR:O	25:B0:43:THR:HG23	2.18	0.43
1:AA:1472:U:O2'	1:AA:1473:A:H5'	2.18	0.43
34:DA:1177:A:H5''	34:DA:1178:C:O5'	2.18	0.43
52:BW:21:VAL:C	52:BW:23:LEU:N	2.71	0.43
34:DA:1813:G:H1'	37:DD:50:THR:OG1	2.19	0.43
3:CC:33:LEU:HD21	14:CN:39:LEU:HD11	1.99	0.43
40:BG:23:PHE:CZ	40:BG:171:ALA:HB3	2.41	0.43
49:DT:3:ARG:HB2	49:DT:6:LEU:HB3	1.99	0.43
9:CI:18:PHE:O	9:CI:61:ALA:HA	2.18	0.43
37:DD:142:VAL:HG23	37:DD:192:THR:O	2.17	0.43
9:CI:112:LYS:HA	9:CI:119:ALA:CB	2.49	0.43
1:AA:34:C:H2'	1:AA:35:G:H8	1.84	0.43
34:BA:1231:G:H2'	34:BA:1232:G:C8	2.46	0.43
30:D5:2:ALA:HB3	34:DA:747:U:N1	2.33	0.43
5:AE:146:ALA:O	5:AE:148:VAL:N	2.51	0.43
40:DG:16:ARG:O	40:DG:17:PRO:C	2.57	0.43
10:AJ:51:ARG:HG3	10:AJ:60:ARG:HA	2.00	0.43
34:DA:1707:G:N2	34:DA:1708:C:C2	2.86	0.43
41:DH:20:ALA:CB	41:DH:21:PRO:CD	2.92	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:DY:31:LEU:CD2	54:DY:36:ALA:HB3	2.48	0.43
34:BA:2689:U:H4'	34:BA:2690:C:C6	2.47	0.43
16:AP:39:TYR:OH	16:AP:41:PRO:HB3	2.19	0.43
37:DD:132:PRO:O	37:DD:133:LEU:C	2.55	0.43
9:CI:46:ALA:HA	9:CI:78:LYS:HZ2	1.83	0.43
34:BA:2642:G:O2'	34:BA:2643:G:H5'	2.19	0.43
22:AV:39:C:H2'	22:AV:40:C:H6	1.82	0.43
17:CQ:58:GLU:C	17:CQ:59:ILE:HD13	2.38	0.43
51:BV:66:ARG:NE	51:BV:94:LEU:HG	2.33	0.43
39:BF:10:PRO:CG	39:BF:11:VAL:H	2.30	0.43
34:DA:1843:C:O2'	34:DA:1844:C:H5'	2.19	0.43
14:CN:22:THR:O	14:CN:23:ARG:HB2	2.18	0.43
34:DA:1464:C:O2'	34:DA:1465:G:H5'	2.19	0.43
34:BA:1775:U:H2'	34:BA:1776:G:O5'	2.19	0.43
39:BF:170:LEU:HD23	39:BF:172:TRP:CE2	2.54	0.43
34:BA:855:G:C6	34:BA:856:C:N4	2.86	0.43
20:AT:60:GLU:O	20:AT:63:ILE:HB	2.19	0.43
9:CI:9:ARG:HA	9:CI:13:ALA:O	2.18	0.43
1:CA:967:C:H2'	1:CA:968:A:C8	2.53	0.43
34:BA:1831:G:H2'	34:BA:1832:C:C6	2.51	0.43
25:B0:1:MET:N	34:BA:2602:A:N6	2.67	0.43
1:CA:977:A:O2'	1:CA:978:A:H5'	2.17	0.43
1:AA:977:A:HO2'	1:AA:978:A:H5'	1.83	0.43
4:AD:173:TRP:CZ3	4:AD:193:ASP:HB3	2.54	0.43
34:BA:223:A:C2	34:BA:422:A:C8	3.06	0.43
1:AA:1134:G:N2	1:AA:1141:C:C2	2.87	0.43
20:CT:20:LEU:O	20:CT:23:ARG:HB3	2.18	0.43
5:AE:59:GLY:O	5:AE:63:ARG:HG3	2.19	0.43
31:B6:40:CYS:HB2	31:B6:46:HIS:CE1	2.53	0.43
34:BA:332:A:O2'	34:BA:333:G:P	2.76	0.43
34:BA:521:G:H2'	34:BA:522:G:C8	2.53	0.43
34:BA:1362:C:C2'	34:BA:1363:C:H5'	2.48	0.43
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.18	0.43
34:DA:224:G:N2	34:DA:225:A:H1'	2.33	0.43
34:DA:1967:C:H2'	34:DA:1968:G:H5'	1.98	0.43
3:AC:185:GLY:O	3:AC:200:ALA:N	2.48	0.43
42:BI:102:SER:HA	42:BI:107:VAL:O	2.19	0.43
30:B5:12:SER:C	30:B5:14:ALA:N	2.70	0.43
44:BO:27:GLY:C	44:BO:29:ASN:H	2.22	0.43
39:DF:127:GLU:HA	39:DF:127:GLU:OE1	2.18	0.43
34:DA:1851:U:C2'	34:DA:1852:C:H5'	2.47	0.43
30:D5:12:SER:C	30:D5:14:ALA:N	2.72	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:77:ILE:O	9:CI:81:ILE:HG12	2.18	0.43
50:DU:79:PHE:HE2	50:DU:83:LEU:HD21	1.83	0.43
34:BA:537:C:C2	34:BA:538:G:C8	3.07	0.43
34:DA:2377:A:H2'	34:DA:2378:A:C8	2.53	0.43
34:DA:2636:U:H2'	34:DA:2637:U:C5'	2.48	0.43
38:DE:8:LYS:HA	38:DE:26:ILE:HD13	2.00	0.43
38:DE:36:ARG:O	38:DE:37:ARG:HG3	2.18	0.43
38:DE:59:VAL:HG21	38:DE:63:LEU:HA	2.00	0.43
34:DA:134:C:O2'	34:DA:135:G:H5'	2.19	0.43
48:BS:28:VAL:HB	48:BS:97:ARG:NH1	2.34	0.43
26:B1:17:SER:O	26:B1:44:PRO:HD2	2.18	0.43
34:BA:189:G:H2'	34:BA:205:G:H22	1.82	0.43
38:BE:77:ILE:C	38:BE:78:LEU:HD23	2.38	0.43
34:DA:2565:A:H5''	34:DA:2566:A:OP2	2.18	0.43
54:DY:49:VAL:O	54:DY:50:ARG:HB2	2.18	0.43
55:DZ:96:VAL:CG2	55:DZ:97:GLU:H	2.32	0.43
40:BG:71:THR:HG22	40:BG:72:ARG:N	2.33	0.43
34:DA:528:A:H2	34:DA:2043:C:C4'	2.31	0.43
34:BA:2869:G:H2'	34:BA:2870:C:O4'	2.18	0.43
55:DZ:150:LEU:HD22	55:DZ:171:ILE:HG13	1.99	0.43
41:DH:65:HIS:ND1	41:DH:66:GLY:N	2.66	0.43
12:CL:46:LYS:HB2	12:CL:92:ASP:O	2.18	0.43
41:BH:70:THR:O	41:BH:71:LEU:C	2.56	0.43
34:DA:2697:G:C2	34:DA:2711:A:C2	3.07	0.43
34:DA:590:A:H2'	34:DA:591:C:C6	2.54	0.43
34:BA:1885:A:C8	34:BA:1885:A:H5'	2.54	0.43
44:DO:101:PRO:O	44:DO:102:VAL:HG22	2.18	0.43
46:DQ:23:GLY:HA3	46:DQ:99:PRO:O	2.19	0.43
46:DQ:17:LEU:CD2	46:DQ:41:TRP:HE1	2.31	0.43
53:DX:57:LEU:HB2	53:DX:76:ARG:HD2	2.01	0.43
43:BN:130:HIS:O	43:BN:130:HIS:CG	2.71	0.43
44:DO:19:ILE:HD12	44:DO:41:ALA:HB3	2.01	0.43
27:B2:30:ARG:HB3	53:BX:11:PRO:HD3	2.00	0.43
19:AS:16:LEU:C	19:AS:20:LEU:HG	2.38	0.43
1:CA:1057:G:H2'	1:CA:1058:G:O4'	2.18	0.43
30:D5:50:GLY:HA3	30:D5:56:LYS:CG	2.47	0.43
46:BQ:43:THR:N	46:BQ:46:GLN:OE1	2.51	0.43
50:BU:26:GLY:O	50:BU:27:LEU:C	2.57	0.43
19:CS:13:ASP:C	19:CS:15:LEU:N	2.72	0.43
19:CS:16:LEU:C	19:CS:20:LEU:HG	2.38	0.43
27:D2:49:LYS:CB	27:D2:53:LEU:HD22	2.48	0.43
4:AD:138:TYR:CD2	4:AD:139:ARG:N	2.79	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:344:G:O2'	34:DA:345:A:H5'	2.19	0.43
1:CA:1104:G:O5'	2:CB:111:ARG:HD2	2.18	0.43
34:BA:2189:U:H3'	34:BA:2190:G:C5'	2.40	0.43
1:AA:1030(A):G:H2'	1:AA:1030(C):G:OP2	2.18	0.43
19:CS:62:ILE:O	19:CS:62:ILE:HG23	2.19	0.43
19:CS:67:VAL:C	19:CS:69:HIS:N	2.71	0.43
34:BA:2286:A:O2'	34:BA:2286:A:C8	2.72	0.43
1:AA:189(D):C:H1'	1:AA:189(H):G:N2	2.34	0.43
1:CA:436:C:O2'	1:CA:437:U:O5'	2.36	0.43
3:AC:115:LEU:O	3:AC:116:VAL:C	2.57	0.43
52:BW:21:VAL:C	52:BW:23:LEU:H	2.22	0.43
49:BT:3:ARG:HB2	49:BT:6:LEU:HB3	1.99	0.43
39:BF:16:GLY:O	39:BF:17:ARG:CG	2.67	0.43
39:BF:8:GLN:HB3	39:BF:126:VAL:CA	2.43	0.43
34:BA:2580:U:H4'	38:BE:130:GLY:HA2	2.00	0.43
37:BD:9:TYR:C	37:BD:10:THR:HG22	2.38	0.43
34:DA:1670:C:H2'	34:DA:1671:U:O4'	2.19	0.43
37:DD:142:VAL:HG23	37:DD:193:VAL:HA	2.00	0.43
7:AG:22:LEU:O	7:AG:22:LEU:HG	2.19	0.43
1:CA:1269:A:C2	1:CA:1313:U:O4'	2.71	0.43
2:CB:175:ARG:O	2:CB:176:GLU:C	2.55	0.43
1:CA:972:C:H4'	10:CJ:57:LYS:HG3	2.00	0.43
6:AF:100:ASN:N	6:AF:100:ASN:HD22	2.15	0.43
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.52	0.43
1:CA:1476:G:H2'	1:CA:1477:C:C6	2.54	0.43
7:AG:131:LYS:N	7:AG:135:VAL:HG21	2.34	0.43
45:BP:110:TYR:CD2	45:BP:111:ARG:HD3	2.53	0.43
18:CR:79:LEU:HD23	18:CR:80:PRO:CD	2.46	0.43
1:AA:790:A:H2'	1:AA:791:G:C8	2.53	0.43
42:DI:53:ALA:O	42:DI:57:ARG:HB2	2.18	0.43
4:AD:148:VAL:HG12	4:AD:149:ALA:N	2.33	0.43
34:BA:2851:A:C4	34:BA:2852:G:C8	3.06	0.43
36:DC:47:LEU:HD21	36:DC:172:HIS:CA	2.47	0.43
40:BG:21:ARG:O	40:BG:22:ARG:C	2.57	0.43
1:CA:921:U:O2	5:CE:19:MET:HB2	2.18	0.43
51:DV:51:VAL:CG1	51:DV:52:VAL:H	2.31	0.43
6:AF:98:LEU:HB3	18:AR:30:ASP:CA	2.48	0.43
20:CT:83:ARG:O	20:CT:86:ARG:HB3	2.18	0.43
34:BA:271(J):C:C3'	34:BA:271(K):U:H5''	2.48	0.43
6:AF:2:ARG:O	6:AF:66:GLU:HA	2.17	0.43
1:CA:622:A:C8	1:CA:623:C:C6	3.07	0.43
36:BC:38:ASP:O	36:BC:180:PHE:HA	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:402:A:C2'	34:DA:403:U:H5'	2.49	0.43
1:AA:1236:A:O2'	1:AA:1304:G:H4'	2.18	0.43
47:DR:70:LEU:HD13	47:DR:75:LEU:HD11	1.99	0.43
37:BD:247:ALA:CA	37:BD:254:THR:HG22	2.48	0.43
51:BV:82:ARG:HD2	51:BV:82:ARG:O	2.19	0.43
1:CA:511:C:C2	1:CA:512:U:C5	3.07	0.43
34:BA:2385:C:H2'	34:BA:2386:C:C6	2.53	0.43
34:DA:1326:U:O2'	34:DA:1327:C:H5'	2.18	0.43
37:DD:263:ARG:O	37:DD:264:LYS:C	2.57	0.43
37:DD:264:LYS:CG	37:DD:265:PRO:HD2	2.49	0.43
37:DD:167:GLY:O	37:DD:173:VAL:HG23	2.19	0.43
34:DA:1622:G:C2	34:DA:1623:G:C8	3.07	0.43
36:BC:196:LEU:C	36:BC:198:ALA:N	2.72	0.43
1:CA:928:G:N2	1:CA:1390:U:H1'	2.33	0.43
55:BZ:11:GLU:H	55:BZ:11:GLU:CD	2.21	0.43
34:DA:2399:G:O6	34:DA:2417:C:N3	2.50	0.43
51:DV:88:ARG:HG3	51:DV:88:ARG:NH1	2.32	0.43
42:BI:145:VAL:CG1	42:BI:146:ALA:N	2.76	0.43
37:DD:33:LEU:O	37:DD:35:LYS:N	2.51	0.43
34:DA:613:G:H8	34:DA:613:G:C5'	2.27	0.43
50:BU:90:VAL:C	50:BU:92:ARG:H	2.22	0.43
51:BV:70:ILE:CG1	51:BV:71:LEU:N	2.70	0.43
38:DE:1:MET:O	38:DE:2:LYS:C	2.57	0.43
49:DT:89:VAL:HB	49:DT:91:ARG:HE	1.84	0.43
48:BS:18:ILE:HD12	48:BS:18:ILE:HA	1.80	0.43
54:BY:68:HIS:ND1	54:BY:69:ALA:N	2.67	0.43
37:BD:71:ASP:CB	37:BD:103:ARG:HH22	2.29	0.43
37:BD:80:ALA:O	37:BD:81:ALA:HB2	2.19	0.43
34:DA:481:G:C2'	34:DA:482:A:OP2	2.66	0.43
42:DI:86:THR:HA	42:DI:122:GLU:OE2	2.18	0.43
34:DA:2705:A:C4	34:DA:2706:G:C8	3.06	0.43
46:DQ:141:GLN:CA	55:DZ:53:ILE:O	2.67	0.43
11:AK:127:LYS:HE2	11:AK:127:LYS:CA	2.27	0.43
40:BG:39:ILE:HD12	40:BG:39:ILE:C	2.39	0.43
52:BW:24:ILE:O	52:BW:25:ARG:C	2.56	0.43
46:DQ:89:ASN:N	46:DQ:89:ASN:ND2	2.66	0.43
41:DH:105:LEU:HD13	41:DH:105:LEU:N	2.24	0.43
34:BA:1578:U:OP2	34:BA:1578:U:H6	2.01	0.43
5:AE:80:ILE:HG13	5:AE:91:LEU:HB2	2.01	0.43
13:CM:3:ARG:HG2	13:CM:9:ILE:HG13	1.97	0.43
53:DX:77:LYS:HE3	53:DX:78:LYS:HG3	2.00	0.43
30:B5:50:GLY:HA3	30:B5:56:LYS:CB	2.49	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1319:A:OP2	19:AS:5:LEU:HD21	2.18	0.43
46:BQ:41:TRP:C	46:BQ:42:ILE:HD12	2.39	0.43
1:AA:712:A:O2'	1:AA:713:G:H5'	2.18	0.43
34:DA:827:U:N3	34:DA:2430:A:C6	2.87	0.43
52:DW:14:PRO:O	52:DW:15:ARG:C	2.56	0.43
39:BF:68:LYS:O	39:BF:69:HIS:CD2	2.71	0.43
34:DA:495:G:H21	52:DW:61:ASN:HD21	1.66	0.43
34:BA:627:A:N7	45:BP:84:ASN:ND2	2.64	0.43
27:D2:53:LEU:O	27:D2:54:LYS:HB2	2.18	0.43
1:AA:1505:G:H4'	1:AA:1506:U:H5'	2.01	0.43
40:DG:106:LEU:HD23	40:DG:107:LEU:HG	2.00	0.43
34:DA:154:G:H2'	34:DA:154(A):C:O2	2.19	0.43
39:DF:107:LYS:C	39:DF:109:GLY:H	2.22	0.43
9:CI:102:LEU:O	9:CI:103:THR:OG1	2.31	0.43
17:AQ:21:VAL:O	17:AQ:41:LYS:HA	2.19	0.43
6:CF:33:TYR:CD1	6:CF:75:LEU:HA	2.53	0.43
34:BA:1350:C:H2'	34:BA:1351:C:H6	1.84	0.43
39:DF:64:ILE:HG22	39:DF:76:GLY:O	2.19	0.43
1:CA:1434:A:C2'	1:CA:1435:G:H5'	2.49	0.43
25:D0:25:ARG:HA	25:D0:29:GLN:NE2	2.34	0.43
37:DD:9:TYR:C	37:DD:10:THR:HG22	2.38	0.43
23:CW:18:G:N1	23:CW:55:U:H1'	2.33	0.43
34:BA:1822:G:O2'	34:BA:1823:G:H5'	2.18	0.43
31:B6:19:ARG:HB2	31:B6:20:ASN:H	1.64	0.43
15:AO:39:LEU:HD13	15:AO:39:LEU:O	2.19	0.43
11:AK:87:THR:HG22	11:AK:88:GLY:N	2.34	0.43
49:DT:50:ILE:HA	49:DT:99:LEU:HD11	2.00	0.43
9:CI:5:TYR:HB2	9:CI:18:PHE:CD2	2.53	0.43
3:AC:95:THR:HG22	3:AC:97:LYS:HB2	2.01	0.43
1:AA:937:A:C5	1:AA:938:A:N7	2.87	0.43
9:AI:89:ASN:HB3	9:AI:92:TYR:CD1	2.54	0.43
52:DW:17:VAL:C	52:DW:19:LEU:N	2.71	0.43
34:BA:2883:A:H3'	34:BA:2884:U:H5'	2.01	0.43
34:BA:2859:G:O2'	34:BA:2860:A:O5'	2.37	0.43
6:AF:99:ALA:O	18:AR:28:GLU:HA	2.18	0.43
32:D7:7:PRO:CB	34:DA:1309:G:H4'	2.45	0.43
43:DN:97:ARG:O	43:DN:100:GLU:N	2.50	0.43
1:CA:36:C:C2'	1:CA:37:U:H5'	2.49	0.43
34:DA:1925:C:H2'	34:DA:1926:U:H5'	1.99	0.43
4:CD:2:GLY:O	4:CD:3:ARG:C	2.56	0.43
1:AA:59:A:N3	1:AA:59:A:H2'	2.33	0.43
13:AM:75:ALA:O	13:AM:76:ALA:C	2.57	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BE:108:SER:OG	38:BE:163:GLU:HG2	2.18	0.43
1:CA:644:G:H2'	1:CA:645:C:C5'	2.46	0.43
1:CA:1460:A:C2	1:CA:1461:G:H1'	2.53	0.43
34:BA:2543:G:C2	34:BA:2544:G:C4	3.07	0.43
51:BV:25:LEU:HG	51:BV:94:LEU:HD13	2.00	0.43
16:CP:53:VAL:CG2	16:CP:54:GLU:N	2.81	0.43
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.54	0.43
4:CD:50:ARG:NH1	4:CD:52:SER:HA	2.33	0.43
1:CA:1483:A:H2	34:DA:1959:G:N3	2.17	0.43
34:BA:1013:C:O2'	34:BA:1014:U:H5'	2.18	0.43
11:CK:91:ARG:C	11:CK:91:ARG:HD2	2.39	0.43
37:DD:218:ARG:HB3	37:DD:219:PRO:HD2	2.00	0.43
34:DA:767:U:O2'	34:DA:768:G:H5'	2.18	0.43
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.54	0.43
1:AA:596:C:O2'	1:AA:597:G:H5'	2.19	0.43
34:BA:2861:G:C2'	34:BA:2862:G:H5'	2.48	0.43
1:AA:60:A:H8	1:AA:60:A:O5'	2.02	0.43
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.53	0.43
5:CE:80:ILE:HG13	5:CE:91:LEU:HB2	2.01	0.43
4:CD:157:LEU:O	4:CD:158:ILE:C	2.57	0.43
33:D8:39:LYS:HE3	33:D8:39:LYS:O	2.19	0.43
40:DG:31:VAL:HG13	40:DG:32:PRO:HD2	2.00	0.43
55:BZ:130:PRO:HA	55:BZ:133:ILE:HD11	2.01	0.43
1:AA:370:C:O2'	1:AA:371:G:H5'	2.19	0.43
34:BA:1368:G:O2'	34:BA:1369:G:H5'	2.19	0.43
41:BH:82:GLY:O	41:BH:135:GLY:O	2.37	0.43
34:BA:2236:C:C2'	34:BA:2237:G:H5'	2.49	0.43
34:BA:1851:U:C2'	34:BA:1852:C:H5'	2.48	0.43
1:CA:57:G:O2'	1:CA:58:C:H5'	2.19	0.43
18:CR:21:LYS:HD3	18:CR:21:LYS:HA	1.86	0.43
16:CP:52:ASP:OD2	16:CP:52:ASP:C	2.57	0.43
38:BE:149:ARG:HG3	38:BE:149:ARG:HH11	1.83	0.43
34:BA:616:G:H2'	34:BA:618:C:O4'	2.18	0.43
17:AQ:12:SER:HB3	17:AQ:20:THR:CB	2.49	0.43
34:BA:2702:U:O2'	34:BA:2703:C:H6	2.02	0.43
34:BA:994:C:H3'	50:BU:54:LYS:HE2	2.00	0.43
3:AC:178:LEU:O	3:AC:180:ALA:N	2.48	0.43
3:AC:182:ILE:HG12	3:AC:203:PHE:CD1	2.52	0.43
38:BE:70:ALA:O	38:BE:71:GLY:C	2.57	0.43
37:BD:34:VAL:O	37:BD:35:LYS:HB2	2.19	0.43
26:B1:78:LYS:HZ2	26:B1:90:ILE:HA	1.84	0.43
46:DQ:80:GLU:HB3	46:DQ:81:VAL:H	1.61	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DZ:69:THR:HA	55:DZ:91:LEU:HD12	2.01	0.43
38:DE:203:LYS:HD2	38:DE:203:LYS:C	2.38	0.43
26:D1:10:LYS:HE2	26:D1:15:ALA:H	1.84	0.43
43:BN:43:THR:HB	43:BN:46:VAL:CG1	2.49	0.43
27:D2:26:ARG:NE	27:D2:29:LYS:HZ3	2.17	0.43
41:BH:65:HIS:ND1	41:BH:66:GLY:N	2.67	0.43
20:AT:16:HIS:O	20:AT:17:ARG:C	2.57	0.43
54:BY:81:LYS:HD3	54:BY:97:ARG:N	2.32	0.43
1:AA:177:C:H2'	1:AA:178:C:C6	2.54	0.43
44:BO:31:LYS:C	44:BO:32:TYR:HD1	2.22	0.43
46:BQ:141:GLN:HE22	55:BZ:89:PHE:HB2	1.83	0.43
53:BX:57:LEU:HB2	53:BX:76:ARG:HD2	2.00	0.43
26:D1:89:GLU:O	26:D1:93:GLU:CG	2.61	0.43
40:DG:111:LEU:HD22	40:DG:117:PHE:HZ	1.82	0.43
1:CA:980:C:H5'	1:CA:980:C:H6	1.83	0.43
9:AI:10:ARG:HG2	9:AI:104:ARG:O	2.17	0.43
19:AS:67:VAL:O	19:AS:69:HIS:N	2.51	0.43
43:DN:135:PRO:O	43:DN:136:GLU:C	2.56	0.43
38:DE:24:THR:HB	38:DE:186:GLY:HA2	2.00	0.43
23:AY:35:A:H2'	23:AY:36:A:O4'	2.19	0.43
4:CD:133:VAL:HG12	4:CD:134:ASP:N	2.32	0.43
1:CA:709:G:H2'	1:CA:710:G:C8	2.52	0.43
6:CF:14:LEU:HA	6:CF:18:GLN:NE2	2.33	0.43
39:BF:67:GLN:HG3	39:BF:67:GLN:O	2.15	0.43
34:DA:813:U:H2'	34:DA:814:C:H6	1.84	0.43
1:AA:1503:A:O2'	1:AA:1504:G:O5'	2.28	0.43
1:AA:1288:A:O2'	1:AA:1289:A:H5'	2.18	0.43
25:B0:60:PHE:CE2	34:BA:2365:G:H4'	2.54	0.43
6:CF:61:LEU:HB3	6:CF:63:TYR:CE2	2.53	0.43
34:BA:344:G:O2'	34:BA:345:A:H5'	2.19	0.43
25:D0:36:ILE:HD11	34:DA:2355:C:O4'	2.19	0.43
17:CQ:45:HIS:CB	17:CQ:69:LYS:HE2	2.49	0.43
15:CO:11:VAL:O	15:CO:14:GLU:N	2.51	0.43
34:DA:272(D):G:O2'	34:DA:272(E):G:H5'	2.19	0.43
25:D0:25:ARG:HA	25:D0:29:GLN:HE22	1.83	0.43
34:BA:1380:G:C2	34:BA:1381:G:C8	3.07	0.43
15:AO:87:ILE:HG22	15:AO:88:ARG:N	2.23	0.43
47:BR:11:ASN:CG	47:BR:12:ARG:N	2.72	0.43
38:DE:141:ILE:HG13	38:DE:150:VAL:HG22	2.00	0.43
44:DO:103:ALA:C	44:DO:105:GLU:N	2.72	0.43
34:BA:470:A:OP1	39:BF:59:TYR:HE2	2.01	0.43
9:CI:17:VAL:CG2	9:CI:80:GLY:HA3	2.48	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:66:VAL:O	3:CC:66:VAL:HG12	2.19	0.43
38:BE:79:ARG:NH1	38:BE:79:ARG:CG	2.80	0.43
41:BH:102:ALA:CB	41:BH:117:PRO:HD3	2.49	0.43
1:CA:938:A:C6	1:CA:939:G:C5	3.06	0.43
7:CG:71:PRO:HD3	7:CG:103:TRP:HZ3	1.82	0.43
41:DH:153:LYS:CD	41:DH:153:LYS:N	2.80	0.43
34:BA:2691:C:C6	34:BA:2872:G:N1	2.87	0.43
11:AK:82:VAL:HG12	11:AK:108:ILE:HG23	1.99	0.43
1:CA:66:G:H4'	1:CA:173:U:C5	2.53	0.43
35:BB:15:A:C3'	35:BB:16:G:C5'	2.94	0.43
1:AA:1060:C:O4'	10:AJ:52:GLY:HA2	2.19	0.43
49:BT:120:ARG:HA	49:BT:123:GLN:CD	2.38	0.43
34:DA:2737:G:H2'	34:DA:2738:A:H8	1.83	0.43
5:CE:62:ALA:O	5:CE:65:ASN:N	2.37	0.43
1:CA:1473:A:H2'	1:CA:1474:G:C8	2.53	0.43
1:CA:666:G:H5'	1:CA:726:C:H1'	2.00	0.43
45:DP:79:ARG:C	45:DP:80:TYR:HD2	2.22	0.43
44:BO:119:PRO:O	44:BO:120:GLU:CB	2.66	0.43
50:BU:101:ARG:HB3	50:BU:102:GLU:OE2	2.18	0.43
34:BA:2850:A:H2'	34:BA:2851:A:C8	2.53	0.43
1:AA:1366:C:O2'	1:AA:1367:C:H5'	2.19	0.43
39:BF:201:VAL:HG13	39:BF:202:PHE:N	2.34	0.43
4:CD:110:PHE:CD1	4:CD:110:PHE:N	2.84	0.43
1:CA:233:C:O2'	1:CA:234:C:H5'	2.18	0.43
34:BA:2572:A:C8	38:BE:144:ARG:NE	2.87	0.43
1:AA:123:C:N4	1:AA:238:G:H1	2.15	0.43
12:CL:39:VAL:CG1	12:CL:40:VAL:N	2.82	0.43
25:B0:11:ARG:CB	25:B0:11:ARG:NH1	2.81	0.43
1:CA:358:U:H2'	1:CA:359:U:H6	1.83	0.43
34:BA:1243:G:H4'	45:BP:9:ASN:HD22	1.83	0.43
11:AK:115:PRO:C	11:AK:117:ASN:N	2.72	0.43
34:BA:687:C:H2'	34:BA:687:C:O2	2.19	0.43
5:AE:18:ARG:HH21	5:AE:25:ARG:HG2	1.83	0.43
1:AA:308:C:H2'	1:AA:309:G:H8	1.82	0.43
34:DA:20:C:O2'	34:DA:21:A:H5'	2.19	0.43
51:BV:76:LYS:HG2	51:BV:85:LYS:HG2	2.01	0.43
34:DA:303:U:H2'	34:DA:304:G:H8	1.84	0.43
5:CE:94:ALA:HB1	5:CE:98:THR:HG21	2.01	0.43
1:CA:119:A:O2'	1:CA:120:A:OP2	2.24	0.43
34:DA:1588:C:O2	34:DA:1588:C:H2'	2.18	0.43
40:DG:58:GLN:NE2	40:DG:59:GLU:N	2.67	0.43
34:BA:2841:C:C2	34:BA:2877:G:C2	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:17:PHE:N	2:AB:17:PHE:HD2	2.17	0.43
36:BC:79:LYS:O	36:BC:96:GLY:HA3	2.19	0.43
50:DU:69:CYS:HB2	50:DU:74:LEU:HD11	2.00	0.43
51:DV:18:LEU:O	51:DV:98:GLU:HB3	2.19	0.43
42:BI:127:VAL:C	42:BI:128:LEU:HD12	2.39	0.43
42:BI:79:ILE:HA	42:BI:80:PRO:HD3	1.76	0.43
50:BU:95:LEU:HD12	51:BV:11:GLN:NE2	2.29	0.43
34:DA:2637:U:O2'	34:DA:2638:G:H5'	2.18	0.43
38:DE:197:ILE:CD1	38:DE:199:ARG:HH12	2.32	0.43
38:DE:57:LYS:C	38:DE:59:VAL:N	2.69	0.43
53:DX:58:HIS:O	53:DX:59:VAL:CG1	2.62	0.43
2:AB:21:ARG:HB2	2:AB:39:ILE:HA	1.99	0.43
3:CC:11:ARG:NH1	3:CC:11:ARG:HG2	2.33	0.43
54:BY:71:LYS:CB	54:BY:71:LYS:NZ	2.80	0.43
42:DI:110:ASP:O	42:DI:112:LYS:N	2.49	0.43
42:DI:127:VAL:C	42:DI:128:LEU:HD12	2.38	0.43
33:D8:13:ARG:CD	45:DP:61:ARG:NH1	2.82	0.43
38:DE:101:ARG:HD3	38:DE:169:ASN:ND2	2.33	0.43
34:BA:631:A:OP1	45:BP:64:LYS:CE	2.67	0.43
46:BQ:71:ASP:O	46:BQ:73:PRO:HD3	2.18	0.43
34:BA:2312:U:C3'	40:BG:71:THR:HG21	2.49	0.43
48:DS:66:ALA:HA	48:DS:69:VAL:HG11	2.01	0.43
43:DN:112:LEU:C	43:DN:114:ARG:N	2.71	0.43
47:BR:85:PRO:C	47:BR:87:TYR:N	2.72	0.43
46:DQ:88:GLY:O	46:DQ:89:ASN:HB2	2.18	0.43
46:DQ:8:LYS:HG3	46:DQ:9:TYR:H	1.82	0.43
18:AR:53:ARG:CB	18:AR:53:ARG:HH11	2.31	0.43
18:AR:76:LEU:HD22	18:AR:76:LEU:N	2.34	0.43
34:BA:1862:G:O2'	34:BA:1863:G:H5'	2.19	0.43
1:AA:62:U:O2'	1:AA:379:C:H1'	2.18	0.43
54:BY:95:LYS:HD3	54:BY:100:ALA:HB1	2.01	0.43
40:DG:111:LEU:HD22	40:DG:117:PHE:CZ	2.53	0.43
34:BA:7:G:O2'	34:BA:8:A:H5'	2.19	0.43
1:CA:1057:G:C5	1:CA:1204:A:C2	3.07	0.43
1:AA:1204:A:H2'	1:AA:1205:U:O4'	2.18	0.43
43:DN:56:ASN:HA	43:DN:125:GLY:C	2.38	0.43
46:BQ:43:THR:O	46:BQ:44:ALA:C	2.55	0.43
13:AM:96:LEU:HB3	13:AM:97:PRO:HD2	1.99	0.43
4:CD:92:VAL:O	4:CD:95:GLY:N	2.52	0.43
54:DY:75:ILE:HD12	54:DY:76:CYS:O	2.18	0.43
1:AA:9:G:OP1	5:AE:122:GLU:N	2.37	0.43
45:BP:115:LEU:C	45:BP:115:LEU:HD12	2.39	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:D2:40:SER:O	27:D2:44:LEU:HB2	2.19	0.43
4:AD:94:LEU:O	4:AD:98:GLU:N	2.51	0.43
34:BA:813:U:H2'	34:BA:814:C:H6	1.83	0.43
1:AA:437:U:C5	1:AA:438:G:N7	2.87	0.43
12:AL:22:SER:C	12:AL:24:VAL:N	2.71	0.43
34:DA:1848:A:C4	34:DA:1849:G:C8	3.07	0.43
48:DS:59:LYS:HB3	48:DS:60:GLY:H	1.54	0.43
1:AA:114:U:O2'	1:AA:115:G:H5'	2.19	0.43
1:CA:1166:G:H2'	1:CA:1169:A:OP2	2.18	0.43
40:BG:7:LEU:H	40:BG:104:GLU:CD	2.22	0.43
51:BV:2:PHE:O	51:BV:3:ALA:CB	2.65	0.43
3:AC:64:VAL:HB	3:AC:99:VAL:HG12	2.00	0.43
1:AA:36:C:C2'	1:AA:37:U:H5'	2.48	0.43
34:DA:743:G:C2'	34:DA:744:G:H5'	2.49	0.43
2:CB:97:TRP:CH2	2:CB:176:GLU:CD	2.91	0.43
1:AA:972:C:H4'	10:AJ:57:LYS:HG3	2.00	0.43
15:AO:54:ARG:HG2	15:AO:58:MET:CE	2.49	0.43
34:BA:1288:U:C2	34:BA:1327:C:O2	2.72	0.43
49:DT:48:ILE:HG22	49:DT:49:VAL:N	2.34	0.43
11:CK:24:SER:C	11:CK:26:ASN:N	2.72	0.43
1:AA:666:G:H5'	1:AA:726:C:H1'	2.01	0.43
37:BD:248:SER:HB2	37:BD:249:PRO:CD	2.49	0.43
46:BQ:22:LYS:NZ	46:BQ:22:LYS:CA	2.81	0.43
17:CQ:81:ARG:NH2	17:CQ:83:ASP:OD2	2.46	0.43
34:BA:743:G:C2'	34:BA:744:G:H5'	2.48	0.43
43:DN:89:LYS:C	43:DN:93:THR:HG22	2.37	0.43
37:BD:224:ALA:HB2	37:BD:233:HIS:HB3	2.01	0.43
49:DT:34:VAL:O	49:DT:35:LYS:HB3	2.19	0.43
1:CA:777:A:O2'	1:CA:778:G:H5'	2.19	0.43
1:CA:806:C:O2'	1:CA:807:A:H5'	2.19	0.43
21:AU:22:ARG:N	21:AU:23:PRO:HD3	2.33	0.43
30:D5:6:VAL:HG13	30:D5:7:PRO:CD	2.49	0.43
34:DA:109:G:O2'	34:DA:110:G:H5'	2.18	0.43
11:AK:92:GLU:C	11:AK:94:ALA:N	2.72	0.43
34:DA:2647:U:O2'	34:DA:2648:C:H5'	2.19	0.43
49:DT:134:GLU:O	49:DT:135:ALA:HB3	2.19	0.43
31:B6:46:HIS:HB3	31:B6:47:THR:N	2.34	0.43
1:AA:283:C:C2	1:AA:284:G:C8	3.07	0.43
49:DT:106:SER:O	49:DT:107:ASP:CB	2.66	0.43
34:BA:2517:C:N3	34:BA:2542:A:N6	2.66	0.43
55:BZ:129:SER:HA	55:BZ:130:PRO:HD3	1.89	0.43
34:BA:800:A:H4'	34:BA:801:G:O5'	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:907:U:O2'	46:BQ:101:ARG:NH2	2.50	0.43
43:DN:5:VAL:HG13	43:DN:6:PRO:HD2	2.01	0.43
34:DA:1932:A:H2'	34:DA:1933:G:O4'	2.19	0.43
16:AP:12:LYS:HG2	16:AP:13:HIS:N	2.34	0.43
34:BA:214:G:H1'	34:BA:216:A:O2'	2.19	0.43
55:DZ:122:ARG:O	55:DZ:122:ARG:HG2	2.18	0.43
1:CA:316:G:H2'	1:CA:317:G:H8	1.84	0.43
34:BA:2550:G:O2'	34:BA:2551:C:H5'	2.19	0.43
42:BI:126:TYR:O	42:BI:139:GLN:HG3	2.19	0.43
37:DD:92:ILE:C	37:DD:92:ILE:CD1	2.88	0.43
39:DF:38:ARG:NH1	45:DP:16:ARG:HH22	2.16	0.43
34:BA:537:C:H2'	34:BA:537:C:O2	2.19	0.43
48:DS:28:VAL:C	48:DS:89:ARG:HD2	2.40	0.43
34:DA:2635:C:H2'	34:DA:2636:U:O5'	2.19	0.43
37:BD:193:VAL:HG13	37:BD:193:VAL:O	2.17	0.43
48:BS:28:VAL:O	48:BS:89:ARG:CD	2.67	0.43
34:DA:2178:C:C5'	36:DC:46:LYS:HD2	2.49	0.43
38:BE:203:LYS:C	38:BE:203:LYS:HD2	2.38	0.43
38:BE:69:LYS:O	38:BE:71:GLY:N	2.51	0.43
38:BE:71:GLY:O	38:BE:72:VAL:HB	2.19	0.43
26:B1:47:GLN:NE2	34:BA:2090:G:H21	2.16	0.43
34:DA:194:G:H2'	34:DA:195:A:O4'	2.17	0.43
34:DA:2705:A:H2'	34:DA:2706:G:C8	2.52	0.43
2:CB:17:PHE:N	2:CB:17:PHE:CD2	2.87	0.43
33:D8:5:LYS:HG2	34:DA:242:G:C8	2.54	0.43
40:BG:85:GLY:O	40:BG:87:PRO:CD	2.66	0.43
41:DH:55:PRO:CG	41:DH:56:SER:H	2.15	0.43
34:BA:1863:G:H2'	34:BA:1864:U:O4'	2.18	0.43
16:AP:33:ILE:O	16:AP:34:GLU:HB2	2.18	0.43
5:AE:80:ILE:HG13	5:AE:80:ILE:O	2.19	0.43
42:DI:14:ASP:O	42:DI:17:GLN:CB	2.66	0.43
54:DY:84:ARG:HH11	54:DY:97:ARG:HA	1.84	0.43
34:BA:2263:C:H2'	34:BA:2264:C:H5'	2.01	0.43
1:AA:1321:C:O2	19:AS:77:THR:HG21	2.19	0.43
3:CC:195:VAL:C	3:CC:196:LEU:HD22	2.38	0.43
34:DA:7:G:O2'	34:DA:8:A:H5'	2.19	0.43
46:BQ:104:PHE:N	46:BQ:104:PHE:CD1	2.86	0.43
55:BZ:155:LEU:HB2	55:BZ:157:LEU:HD21	2.01	0.43
34:DA:2684:U:C2'	34:DA:2685:G:H5'	2.49	0.43
13:AM:91:ARG:CB	13:AM:98:VAL:HG21	2.41	0.43
34:BA:16:G:O2'	34:BA:17:G:H5'	2.19	0.43
42:BI:45:LYS:HG3	42:BI:46:ALA:N	2.34	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:BU:31:SER:HB3	50:BU:34:LYS:CB	2.37	0.43
3:CC:75:VAL:O	3:CC:83:ARG:HG2	2.19	0.43
40:DG:86:MET:O	40:DG:87:PRO:O	2.36	0.43
40:DG:86:MET:CB	40:DG:87:PRO:HD3	2.40	0.43
34:DA:188:G:H2'	34:DA:189:G:H5'	2.00	0.43
44:DO:3:GLN:CG	44:DO:4:PRO:HD2	2.48	0.43
23:AW:19:G:H4'	23:AW:20:U:OP2	2.18	0.43
34:DA:2308:G:N7	34:DA:2310:A:H5'	2.33	0.43
33:D8:55:ALA:O	33:D8:56:GLU:C	2.57	0.43
39:BF:143:ALA:HA	39:BF:146:ALA:CB	2.41	0.43
34:DA:2298:A:N6	34:DA:2318:G:C8	2.84	0.43
40:BG:98:ARG:O	40:BG:101:ILE:HG23	2.19	0.43
1:AA:10:A:H2'	1:AA:11:G:H8	1.84	0.43
1:AA:1030(A):G:O2'	1:AA:1030(C):G:N7	2.48	0.43
1:CA:435:C:N4	1:CA:436:C:H41	2.16	0.43
36:DC:19:VAL:HB	36:DC:20:TYR:HD1	1.84	0.43
51:DV:43:GLU:CA	51:DV:48:GLY:HA2	2.48	0.43
49:BT:100:TYR:H	49:BT:100:TYR:HD1	1.63	0.43
48:BS:57:LYS:HG2	48:BS:58:LEU:N	2.33	0.43
34:BA:527:C:H4'	34:BA:528:A:O4'	2.19	0.43
39:DF:157:VAL:CG1	39:DF:176:LEU:HB3	2.49	0.43
23:CW:41:C:C2'	23:CW:42:C:H5'	2.48	0.43
1:CA:522:C:H41	12:CL:53:ARG:HH21	1.67	0.43
15:CO:79:ARG:O	15:CO:82:ILE:HG22	2.18	0.43
1:AA:1452:C:H4'	1:AA:1456:G:C5'	2.48	0.43
34:DA:319:C:C2'	34:DA:320:A:H5'	2.49	0.43
34:BA:280:C:H2'	34:BA:281:G:O5'	2.19	0.43
5:CE:150:ARG:CB	5:CE:150:ARG:HH11	2.29	0.43
1:AA:509:A:H2'	1:AA:510:A:C8	2.54	0.43
34:BA:2013:A:O2'	34:BA:2014:A:H5'	2.18	0.43
52:BW:88:ARG:HH11	52:BW:88:ARG:HG2	1.84	0.43
10:CJ:50:ILE:O	10:CJ:51:ARG:C	2.57	0.43
34:BA:2736:G:O2'	34:BA:2737:G:H5'	2.17	0.43
41:BH:12:PRO:HB2	41:BH:15:VAL:CG1	2.49	0.43
11:CK:27:ASN:HB2	11:CK:55:LYS:HB3	2.00	0.43
39:BF:13:SER:HA	39:BF:14:PRO:HD3	1.89	0.43
18:CR:72:ARG:O	18:CR:75:ILE:HB	2.18	0.43
52:BW:82:LEU:H	52:BW:82:LEU:HD12	1.83	0.43
1:AA:790:A:H5'	22:AV:39:C:OP1	2.18	0.43
45:DP:10:PRO:HD2	45:DP:11:GLY:H	1.84	0.43
13:AM:46:LYS:CG	13:AM:47:ASP:N	2.81	0.43
1:CA:130:A:C8	17:CQ:63:ARG:HG3	2.54	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:271(K):U:H3'	34:BA:271(L):U:H5'	2.00	0.43
1:AA:805:C:O2'	1:AA:806:C:H5'	2.19	0.43
1:AA:237:C:H2'	1:AA:238:G:H8	1.84	0.43
34:BA:1643:G:H2'	34:BA:1644:C:H6	1.83	0.43
21:AU:6:ARG:NH2	21:AU:15:ARG:HH22	2.17	0.43
1:AA:764:C:C2	1:AA:765:G:C8	3.07	0.43
6:AF:6:VAL:HA	6:AF:90:VAL:HA	2.00	0.43
4:CD:173:TRP:CD1	4:CD:174:LEU:HG	2.54	0.43
4:CD:173:TRP:CZ3	4:CD:193:ASP:HB3	2.53	0.43
47:BR:44:LEU:O	47:BR:44:LEU:HD13	2.18	0.43
7:CG:4:ARG:HG2	7:CG:4:ARG:HH11	1.83	0.43
1:CA:932:C:H4'	7:CG:4:ARG:NH2	2.34	0.43
34:BA:2243:U:H2'	34:BA:2244:U:C6	2.54	0.43
34:BA:709:U:O2'	34:BA:710:G:H5'	2.19	0.43
1:AA:544:G:C4	1:AA:545:C:C5	3.06	0.43
35:DB:85:G:H1	35:DB:92:C:H42	1.66	0.43
34:BA:902:C:H2'	34:BA:903:C:H6	1.84	0.43
6:AF:91:VAL:HG12	6:AF:92:LYS:N	2.33	0.43
34:BA:935:C:H2'	34:BA:936:C:H6	1.83	0.43
34:DA:2400:G:N2	34:DA:2417:C:C2	2.87	0.43
36:DC:79:LYS:O	36:DC:96:GLY:HA3	2.18	0.43
34:DA:817:C:H2'	34:DA:818:G:O4'	2.19	0.43
1:CA:1026:G:H2'	1:CA:1027:C:H5'	2.01	0.43
23:AY:44:G:H3'	23:AY:44:G:N3	2.34	0.43
49:BT:22:PHE:CD2	49:BT:22:PHE:N	2.85	0.43
33:B8:48:PHE:CD1	33:B8:48:PHE:N	2.78	0.43
34:DA:2655:G:H2'	34:DA:2655:G:N3	2.33	0.43
6:AF:16:GLN:CD	6:AF:16:GLN:H	2.22	0.43
39:DF:117:ARG:HH22	45:DP:5:ASP:N	2.17	0.43
38:DE:35:GLN:HB3	38:DE:48:GLN:HB3	2.01	0.43
49:DT:43:GLN:NE2	49:DT:74:ARG:HH21	2.17	0.43
45:BP:107:LYS:C	45:BP:109:GLY:N	2.72	0.43
45:BP:95:VAL:HG22	45:BP:123:LEU:HD12	2.01	0.43
38:BE:69:LYS:CA	38:BE:69:LYS:HE2	2.49	0.43
54:BY:14:LEU:HD11	54:BY:22:GLY:HA2	2.01	0.43
45:BP:46:LYS:HB3	45:BP:52:GLU:HG2	2.00	0.43
37:BD:149:PRO:O	37:BD:150:LYS:HB2	2.19	0.43
37:BD:92:ILE:CD1	37:BD:92:ILE:C	2.88	0.43
27:B2:15:LYS:O	27:B2:15:LYS:HG3	2.19	0.43
38:BE:51:PHE:CD1	38:BE:52:LEU:N	2.87	0.43
42:DI:140:LEU:HD12	42:DI:141:LYS:H	1.83	0.43
54:DY:20:TYR:O	54:DY:21:LYS:C	2.56	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2416:C:OP1	45:DP:64:LYS:O	2.37	0.43
34:BA:146:G:H5'	34:BA:146:G:H8	1.84	0.43
47:BR:27:SER:O	47:BR:30:THR:N	2.52	0.43
34:DA:1885:A:H5'	34:DA:1885:A:H8	1.83	0.43
55:DZ:165:VAL:HG11	55:DZ:169:GLU:HB3	2.00	0.43
55:DZ:150:LEU:HD23	55:DZ:171:ILE:CD1	2.49	0.43
55:DZ:171:ILE:O	55:DZ:172:ALA:HB2	2.17	0.43
46:DQ:72:LYS:HA	46:DQ:73:PRO:HD3	1.85	0.43
47:DR:92:GLY:HA2	47:DR:94:TYR:CE1	2.54	0.43
18:CR:25:THR:O	18:CR:25:THR:HG22	2.19	0.43
27:D2:30:ARG:NH1	27:D2:30:ARG:CG	2.82	0.43
53:DX:26:TYR:HD1	53:DX:26:TYR:H	1.66	0.43
41:BH:121:ILE:HD11	41:BH:140:LYS:HB3	2.00	0.43
42:BI:15:VAL:C	42:BI:17:GLN:H	2.22	0.43
42:DI:11:ASN:C	42:DI:12:LEU:HD23	2.39	0.43
54:BY:84:ARG:NH1	54:BY:97:ARG:HB2	2.34	0.43
41:DH:27:LYS:HG2	41:DH:32:GLU:OE1	2.19	0.43
34:BA:2721:A:C4	34:BA:2722:G:C8	3.06	0.43
34:BA:2723:C:O2'	34:BA:2724:C:H5'	2.18	0.43
41:DH:13:LYS:CA	41:DH:13:LYS:HE2	2.31	0.43
34:BA:1946:U:H2'	34:BA:1947:C:H6	1.82	0.43
46:DQ:43:THR:N	46:DQ:46:GLN:OE1	2.51	0.43
26:D1:77:ALA:C	26:D1:79:GLY:H	2.21	0.43
1:AA:1293:G:O2'	1:AA:1294:G:P	2.77	0.43
3:AC:188:LEU:O	3:AC:189:ALA:CB	2.67	0.43
39:DF:102:PRO:O	39:DF:106:ARG:HG2	2.19	0.43
34:DA:197:A:C2	34:DA:198:C:C1'	3.02	0.43
1:CA:619:U:C4	4:CD:135:LEU:HD21	2.53	0.43
1:CA:959:A:C2	1:CA:1222:G:C4'	3.02	0.43
27:D2:49:LYS:HE3	27:D2:53:LEU:CD1	2.49	0.43
34:DA:1144:G:C4	34:DA:1145:C:C5	3.07	0.43
1:AA:1191:A:H2'	1:AA:1192:C:C6	2.54	0.43
36:DC:51:PRO:HB3	36:DC:203:GLY:C	2.38	0.43
1:AA:1330:U:H5'	1:AA:1331:G:OP2	2.19	0.43
1:AA:1305:G:C5'	21:AU:4:GLY:HA3	2.48	0.43
13:CM:64:TRP:HB2	13:CM:65:LYS:H	1.60	0.43
49:DT:100:TYR:HD1	49:DT:100:TYR:H	1.67	0.43
22:AV:72:A:H3'	22:AV:73:A:C5'	2.49	0.43
1:AA:277:C:H5''	17:AQ:68:ARG:NH2	2.34	0.43
6:CF:63:TYR:N	6:CF:63:TYR:HD2	2.17	0.43
6:CF:8:ILE:HG22	6:CF:9:VAL:H	1.84	0.43
3:CC:174:PRO:HB3	3:CC:177:THR:OG1	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:201:GLN:O	4:AD:204:ILE:HB	2.19	0.43
37:DD:161:THR:OG1	37:DD:196:VAL:HG21	2.19	0.43
1:CA:1502:A:H2	1:CA:1505:G:N1	2.17	0.43
2:AB:68:ILE:CD1	2:AB:68:ILE:N	2.82	0.43
34:BA:1798:U:C4	34:BA:1819:A:C2	3.06	0.43
34:BA:528:A:H2	34:BA:2043:C:C4'	2.31	0.43
34:BA:557:U:H2'	34:BA:558:G:H8	1.84	0.43
25:B0:51:VAL:HG23	25:B0:80:HIS:HA	1.98	0.43
34:DA:1509(B):A:H2'	34:DA:1510:G:O4'	2.18	0.43
1:AA:189(L):G:H2'	1:AA:190:U:C6	2.54	0.43
8:CH:109:ILE:HG12	8:CH:110:ALA:H	1.84	0.43
1:CA:1349:A:H2'	1:CA:1350:A:H8	1.83	0.43
40:BG:103:LEU:O	40:BG:106:LEU:N	2.52	0.43
34:BA:1221(A):C:C2	34:BA:1229:G:C2	3.07	0.43
35:DB:17:C:O2'	35:DB:18:G:H5'	2.18	0.43
1:AA:1346:A:C5	7:AG:10:ARG:CZ	3.02	0.43
1:AA:1376:U:O2'	1:AA:1377:A:H5'	2.19	0.43
9:AI:118:LYS:HZ2	9:AI:118:LYS:HB2	1.84	0.43
47:DR:78:LYS:O	47:DR:83:ILE:N	2.52	0.43
13:CM:78:ILE:HG23	13:CM:92:HIS:CD2	2.54	0.43
54:BY:65:ALA:O	54:BY:67:LEU:N	2.51	0.43
34:BA:2795:G:N2	34:BA:2796:U:HO2'	2.16	0.43
26:D1:11:ARG:HE	26:D1:61:ARG:H	1.65	0.43
4:AD:110:PHE:HE2	4:AD:148:VAL:HG23	1.81	0.43
44:BO:119:PRO:O	44:BO:120:GLU:HB2	2.19	0.43
46:BQ:10:ARG:HH11	46:BQ:10:ARG:HB2	1.82	0.43
22:CV:30:G:H1	22:CV:40:C:H42	1.67	0.43
34:BA:1050:A:C2	34:BA:2751:G:C4	3.07	0.43
1:CA:767:A:O2'	1:CA:1524:C:O2	2.31	0.43
41:BH:30:LYS:HG2	41:BH:79:VAL:O	2.18	0.43
34:DA:485:C:N3	34:DA:496:G:C2	2.87	0.43
36:DC:34:THR:O	36:DC:35:ALA:HB2	2.19	0.43
34:DA:306:U:O2'	34:DA:307:G:H5'	2.19	0.43
49:DT:15:VAL:O	49:DT:16:ARG:HG2	2.18	0.43
35:BB:56:G:H5''	40:BG:27:ASN:ND2	2.34	0.43
40:BG:172:LEU:HD12	40:BG:172:LEU:O	2.19	0.43
34:DA:1209:G:O2'	34:DA:1237:A:N1	2.48	0.43
34:DA:2097:C:O2'	34:DA:2098:U:H5'	2.19	0.43
11:CK:92:GLU:C	11:CK:94:ALA:N	2.72	0.43
40:DG:120:LEU:O	40:DG:121:ASN:C	2.57	0.43
1:CA:984:C:H2'	1:CA:985:C:H6	1.84	0.43
39:DF:185:ASP:HA	39:DF:188:ARG:HB3	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:692:C:H2'	34:BA:693:C:C6	2.54	0.43
34:BA:987:G:H2'	34:BA:988:A:O4'	2.19	0.43
34:DA:950:G:H2'	34:DA:951:C:C6	2.54	0.43
1:AA:1270:C:O2'	1:AA:1271:G:H5'	2.19	0.43
1:AA:599:C:O2'	1:AA:600:C:H5'	2.19	0.43
34:DA:1270:C:H5''	34:DA:1271:G:C5'	2.49	0.43
1:AA:273:A:N6	1:AA:274:A:C6	2.87	0.43
16:CP:19:ILE:HG22	16:CP:36:ILE:CG1	2.49	0.43
39:DF:108:LYS:HD3	39:DF:108:LYS:HA	1.83	0.43
4:CD:14:ARG:O	4:CD:16:GLY:N	2.52	0.43
34:DA:1414:G:H1	34:DA:1588:C:H42	1.66	0.43
1:CA:612:C:O2'	1:CA:613:C:H5'	2.18	0.43
32:D7:2:LYS:HG2	34:DA:1620:G:O2'	2.18	0.43
35:BB:66:A:O2'	35:BB:67:G:O5'	2.37	0.43
40:DG:62:LEU:HD12	40:DG:62:LEU:N	2.34	0.43
21:CU:24:ARG:HG2	21:CU:24:ARG:HH11	1.84	0.43
34:BA:226:G:C2	34:BA:227:A:C6	3.06	0.43
16:CP:12:LYS:HG2	16:CP:13:HIS:N	2.34	0.43
34:DA:1029:A:H2'	34:DA:1030:G:O4'	2.19	0.43
11:CK:120:ARG:HA	11:CK:121:PRO:HD3	1.77	0.43
34:DA:661:C:O3'	45:DP:18:ARG:HG2	2.19	0.42
50:BU:92:ARG:NH1	51:BV:11:GLN:N	2.67	0.42
48:DS:101:LEU:HD13	48:DS:102:ALA:O	2.18	0.42
34:DA:2635:C:C2'	34:DA:2636:U:O5'	2.67	0.42
38:DE:29:GLY:O	38:DE:30:PRO:C	2.57	0.42
49:DT:65:LYS:NZ	49:DT:66:VAL:HG23	2.33	0.42
49:BT:89:VAL:HB	49:BT:91:ARG:HE	1.83	0.42
54:BY:10:GLY:C	54:BY:27:VAL:HG22	2.39	0.42
54:BY:27:VAL:HG12	54:BY:29:GLU:OE1	2.19	0.42
54:BY:37:VAL:HG21	54:BY:72:VAL:HG11	2.00	0.42
34:BA:613:G:C2	34:BA:615:G:C5	3.06	0.42
39:BF:203:GLN:O	39:BF:206:ILE:C	2.57	0.42
42:DI:120:ILE:HG21	42:DI:126:TYR:HE1	1.82	0.42
33:B8:58:ILE:O	33:B8:61:LEU:HG	2.19	0.42
34:BA:2313:C:O2'	34:BA:2314:C:H5'	2.19	0.42
40:BG:39:ILE:CD1	40:BG:155:MET:SD	3.06	0.42
34:DA:954:G:O2'	34:DA:2274:A:N1	2.40	0.42
34:BA:2762:G:H2'	34:BA:2763:G:C5'	2.27	0.42
26:D1:10:LYS:CD	26:D1:14:VAL:HA	2.48	0.42
34:BA:571:A:O2'	34:BA:573:G:O5'	2.36	0.42
34:BA:1496:A:H8	34:BA:1577:C:O2'	2.02	0.42
42:BI:14:ASP:O	42:BI:17:GLN:CB	2.66	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DD:268:ARG:HB3	37:DD:268:ARG:CZ	2.49	0.42
11:CK:54:ARG:HH22	23:CW:40:C:P	2.41	0.42
54:BY:87:LYS:HG3	54:BY:88:LYS:H	1.84	0.42
34:BA:1019:U:O2'	34:BA:1021:A:H2	2.01	0.42
44:BO:19:ILE:HD12	44:BO:41:ALA:HB3	2.01	0.42
1:AA:1057:G:C4	1:AA:1204:A:C2	3.07	0.42
5:CE:11:ILE:N	5:CE:31:LEU:O	2.52	0.42
46:DQ:55:VAL:HG13	46:DQ:56:ARG:N	2.34	0.42
34:BA:1494:A:O2'	34:BA:1495:A:OP1	2.36	0.42
48:BS:37:ALA:HB1	48:BS:73:LEU:HD11	2.00	0.42
4:AD:98:GLU:HG3	4:AD:103:ASN:HD21	1.84	0.42
25:B0:36:ILE:HD11	34:BA:2355:C:O4'	2.18	0.42
34:BA:2528:U:O2'	34:BA:2529:G:H3'	2.19	0.42
40:DG:34:LEU:HD12	40:DG:100:TRP:CZ3	2.54	0.42
46:BQ:52:VAL:O	46:BQ:55:VAL:CG1	2.67	0.42
44:BO:3:GLN:HG3	44:BO:4:PRO:HD2	2.01	0.42
13:AM:50:GLU:O	13:AM:54:VAL:HG23	2.19	0.42
1:CA:1105:A:N3	1:CA:1106:G:C8	2.88	0.42
8:AH:109:ILE:CG2	8:AH:137:VAL:HB	2.48	0.42
1:AA:737:A:O2'	6:AF:72:VAL:HG11	2.19	0.42
37:BD:4:LYS:HZ2	37:BD:20:ASP:HA	1.80	0.42
1:CA:328:C:C2'	1:CA:328:C:O2	2.66	0.42
34:BA:1491:G:O4'	37:BD:99:ASP:OD2	2.37	0.42
34:DA:2287:A:N6	34:DA:2344:U:N3	2.63	0.42
1:AA:1166:G:H2'	1:AA:1169:A:OP2	2.19	0.42
1:AA:1169:A:C2	1:AA:1170:A:C4	3.06	0.42
46:DQ:120:ILE:O	46:DQ:121:ALA:C	2.57	0.42
1:CA:756:C:H2'	1:CA:757:U:O4'	2.19	0.42
2:CB:75:LYS:HA	2:CB:78:GLN:HE21	1.84	0.42
47:DR:76:VAL:CG1	47:DR:77:ARG:N	2.82	0.42
40:BG:16:ARG:CG	40:BG:16:ARG:HH11	2.32	0.42
34:DA:686:G:H21	34:DA:788:A:N6	2.17	0.42
20:AT:71:THR:CG2	20:AT:72:LEU:N	2.69	0.42
1:CA:1349:A:P	9:CI:118:LYS:NZ	2.92	0.42
1:CA:1376:U:O2'	1:CA:1377:A:H5'	2.19	0.42
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	2.01	0.42
54:BY:32:PRO:C	54:BY:34:LYS:N	2.73	0.42
52:DW:34:ASN:O	52:DW:35:ILE:C	2.58	0.42
34:BA:2693:A:H2'	34:BA:2694:G:C8	2.47	0.42
3:CC:9:GLY:N	14:CN:49:HIS:O	2.52	0.42
14:CN:31:ARG:HG3	14:CN:31:ARG:HH11	1.84	0.42
8:AH:6:ILE:HB	8:AH:85:ARG:NH1	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:87:SER:HB2	8:AH:93:VAL:HB	2.02	0.42
1:AA:922:G:N3	1:AA:1398:A:C2	2.78	0.42
40:DG:9:ARG:C	40:DG:11:TYR:H	2.21	0.42
1:AA:974:A:OP2	14:AN:41:ARG:NH1	2.50	0.42
1:AA:1343:G:C1'	9:AI:121:ARG:NH1	2.81	0.42
1:CA:556:C:H2'	1:CA:557:G:H5'	2.01	0.42
6:CF:100:ASN:N	6:CF:100:ASN:HD22	2.16	0.42
10:AJ:47:PHE:CE1	10:AJ:63:PHE:HD2	2.37	0.42
34:BA:1657:C:H2'	34:BA:1658:C:H6	1.83	0.42
17:AQ:81:ARG:NH2	17:AQ:83:ASP:OD2	2.47	0.42
36:DC:77:ILE:HD12	36:DC:123:VAL:H	1.84	0.42
9:CI:113:LYS:N	9:CI:113:LYS:CD	2.80	0.42
18:AR:30:ASP:C	18:AR:32:ARG:H	2.22	0.42
36:DC:76:ALA:HB3	36:DC:94:VAL:HG11	2.01	0.42
4:CD:50:ARG:HD2	4:CD:50:ARG:C	2.39	0.42
37:DD:135:PHE:HD1	37:DD:135:PHE:N	2.13	0.42
11:CK:117:ASN:HD22	11:CK:117:ASN:HA	1.59	0.42
2:AB:221:LEU:O	2:AB:221:LEU:HD13	2.18	0.42
34:DA:2065:C:H2'	34:DA:2066:C:H6	1.83	0.42
34:BA:1809:A:H2'	34:BA:1810:A:C8	2.54	0.42
34:DA:980:A:C6	34:DA:981:A:N1	2.87	0.42
25:D0:1:MET:N	34:DA:2602:A:N6	2.67	0.42
1:AA:453:A:H4'	16:AP:72:ARG:HG3	2.00	0.42
34:BA:708:C:H42	34:BA:723:G:H1	1.66	0.42
31:B6:47:THR:HG22	31:B6:48:VAL:N	2.33	0.42
34:BA:311:A:O4'	34:BA:332:A:C4	2.72	0.42
3:CC:141:VAL:O	3:CC:141:VAL:HG12	2.19	0.42
39:BF:77:ASP:C	39:BF:79:GLY:N	2.73	0.42
49:BT:106:SER:O	49:BT:107:ASP:CB	2.67	0.42
1:AA:775:G:O2'	1:AA:776:G:H5'	2.19	0.42
1:AA:1446:U:O2'	1:AA:1447:A:H3'	2.19	0.42
1:CA:1229:A:O2'	1:CA:1230:C:H5'	2.18	0.42
34:BA:2740:A:C6	34:BA:2764:A:C8	3.07	0.42
36:DC:124:GLY:O	36:DC:125:SER:CB	2.67	0.42
24:CX:14:A:H2'	24:CX:15:A:C8	2.54	0.42
34:BA:1932:A:H2'	34:BA:1933:G:O4'	2.19	0.42
37:DD:247:ALA:HA	37:DD:254:THR:HG22	2.00	0.42
38:DE:149:ARG:HH11	38:DE:149:ARG:HG3	1.84	0.42
34:DA:1048:A:H2'	34:DA:1048:A:N3	2.34	0.42
34:BA:220:G:H2'	34:BA:427:U:O4	2.19	0.42
50:DU:111:GLU:HA	50:DU:114:LYS:HD3	2.01	0.42
51:DV:40:LEU:O	51:DV:42:GLY:N	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BI:133:HIS:CD2	42:BI:133:HIS:N	2.87	0.42
39:DF:37:VAL:HG12	39:DF:41:LEU:HD12	2.01	0.42
44:DO:69:ILE:HB	44:DO:77:ILE:HG22	2.02	0.42
45:BP:105:LEU:H	45:BP:105:LEU:HD12	1.83	0.42
35:BB:9:G:P	48:BS:17:ARG:HH11	2.42	0.42
2:AB:163:PHE:O	2:AB:164:VAL:HG23	2.19	0.42
37:BD:68:LYS:HB2	37:BD:70:TRP:CH2	2.54	0.42
1:AA:368:U:O4	42:DI:89:TYR:HD2	2.02	0.42
54:DY:28:LYS:HB2	54:DY:37:VAL:HB	2.00	0.42
2:CB:191:ASP:O	2:CB:191:ASP:OD1	2.38	0.42
2:CB:22:LYS:HZ3	2:CB:40:HIS:HE1	1.67	0.42
33:B8:13:ARG:CD	45:BP:61:ARG:NH1	2.82	0.42
34:BA:2496:C:P	46:BQ:81:VAL:HG13	2.58	0.42
55:BZ:118:GLN:HG2	55:BZ:120:ILE:HD13	2.01	0.42
40:BG:90:LEU:HD12	40:BG:90:LEU:HA	1.77	0.42
48:BS:66:ALA:O	48:BS:67:ARG:CB	2.68	0.42
47:DR:85:PRO:C	47:DR:87:TYR:H	2.22	0.42
18:AR:25:THR:O	18:AR:25:THR:HG22	2.18	0.42
20:AT:57:ARG:HD3	20:AT:103:GLY:N	2.34	0.42
16:CP:22:THR:CG2	16:CP:32:TYR:HA	2.39	0.42
10:AJ:15:THR:O	10:AJ:18:ALA:N	2.52	0.42
34:DA:2263:C:H2'	34:DA:2264:C:H5'	2.00	0.42
23:CW:74:C:O2'	23:CW:75:C:H5'	2.19	0.42
26:D1:33:LYS:C	26:D1:34:THR:HG22	2.39	0.42
34:BA:1697:G:OP2	34:BA:1698:A:H2'	2.19	0.42
53:BX:27:THR:HA	53:BX:78:LYS:HA	2.01	0.42
26:D1:72:GLU:O	26:D1:75:GLU:HB2	2.19	0.42
26:D1:78:LYS:O	26:D1:79:GLY:C	2.58	0.42
27:B2:30:ARG:H	27:B2:30:ARG:CD	2.14	0.42
34:BA:1141:U:OP1	43:BN:25:ARG:NH1	2.52	0.42
1:AA:1321:C:C5'	1:AA:1322:C:C5'	2.77	0.42
46:BQ:42:ILE:CD1	46:BQ:42:ILE:N	2.82	0.42
39:DF:103:LYS:O	39:DF:106:ARG:N	2.52	0.42
55:BZ:10:ARG:HB3	55:BZ:36:LYS:C	2.39	0.42
6:AF:13:ASN:O	6:AF:14:LEU:HD23	2.20	0.42
6:AF:50:TYR:HE2	6:AF:52:ILE:HD11	1.83	0.42
34:DA:27:G:O2'	34:DA:28:A:P	2.77	0.42
37:BD:186:HIS:HD2	37:BD:188:GLU:N	1.99	0.42
3:CC:70:VAL:O	3:CC:105:GLU:HA	2.19	0.42
1:CA:1319:A:OP2	19:CS:5:LEU:HD21	2.20	0.42
19:CS:36:ARG:NH1	19:CS:52:TYR:O	2.52	0.42
39:BF:68:LYS:O	39:BF:69:HIS:HD2	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DI:72:LEU:HB2	42:DI:136:VAL:CG2	2.48	0.42
45:BP:55:ARG:HG2	45:BP:56:SER:N	2.34	0.42
13:AM:65:LYS:HA	13:AM:66:LEU:CD1	2.43	0.42
41:DH:146:ALA:O	41:DH:148:ILE:N	2.51	0.42
28:B3:4:LEU:HB2	28:B3:39:ASP:HB2	2.01	0.42
17:CQ:73:VAL:O	17:CQ:74:LEU:C	2.57	0.42
34:BA:1355:G:C4	34:BA:1356:G:C8	3.07	0.42
34:DA:2330:G:C2'	34:DA:2331:G:H5'	2.49	0.42
8:AH:39:LEU:HD13	8:AH:111:ILE:HD11	2.01	0.42
1:AA:1469:G:H2'	1:AA:1470:G:C8	2.54	0.42
48:BS:54:LEU:HD22	48:BS:57:LYS:O	2.18	0.42
34:BA:1819:A:H5''	37:BD:158:ALA:HB3	2.00	0.42
34:DA:2287:A:C2	34:DA:2346:A:N1	2.86	0.42
2:CB:80:ILE:HD13	2:CB:208:ILE:HG23	2.00	0.42
1:AA:756:C:H2'	1:AA:757:U:O4'	2.20	0.42
47:BR:104:ARG:CG	47:BR:104:ARG:NH1	2.80	0.42
34:BA:1510:G:H2'	34:BA:1511:C:H6	1.81	0.42
52:DW:47:VAL:O	52:DW:50:VAL:HG13	2.19	0.42
8:CH:11:THR:HG23	8:CH:14:ARG:HH12	1.84	0.42
14:CN:44:LEU:HD12	14:CN:44:LEU:O	2.19	0.42
1:AA:963:G:H21	10:AJ:55:LYS:CD	2.31	0.42
1:CA:556:C:H2'	1:CA:557:G:C5'	2.49	0.42
1:CA:1409:C:H4'	34:DA:1915:U:O4	2.19	0.42
3:AC:132:ARG:O	3:AC:134:ILE:N	2.52	0.42
3:AC:134:ILE:HG22	3:AC:168:ALA:HB3	2.01	0.42
47:BR:18:LEU:CD1	47:BR:18:LEU:C	2.84	0.42
47:BR:18:LEU:HD13	47:BR:18:LEU:O	2.19	0.42
1:AA:1349:A:P	9:AI:118:LYS:NZ	2.92	0.42
1:CA:1423:G:C5'	44:DO:49:ARG:HH21	2.31	0.42
34:BA:322:A:H5'	34:BA:340:A:H1'	2.00	0.42
43:DN:93:THR:O	43:DN:94:HIS:HD2	2.02	0.42
13:AM:90:LEU:C	13:AM:92:HIS:N	2.73	0.42
11:AK:69:ALA:O	11:AK:73:MET:HG2	2.19	0.42
44:DO:104:ARG:CZ	44:DO:104:ARG:HB3	2.49	0.42
37:DD:248:SER:HB2	37:DD:249:PRO:CD	2.49	0.42
34:DA:152:G:H1	34:DA:174:C:N4	2.16	0.42
1:CA:1061:G:O2'	1:CA:1062:U:H5'	2.19	0.42
34:DA:2092:U:H4'	34:DA:2093:G:C5'	2.49	0.42
13:CM:47:ASP:C	13:CM:48:LEU:HD23	2.40	0.42
30:B5:6:VAL:HG13	30:B5:7:PRO:CD	2.47	0.42
17:AQ:73:VAL:O	17:AQ:74:LEU:C	2.56	0.42
34:DA:923:C:H2'	34:DA:924:C:H6	1.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BT:13:ARG:NH2	49:BT:15:VAL:HG22	2.33	0.42
1:CA:718:G:H5'	11:CK:117:ASN:HB2	2.01	0.42
36:BC:180:PHE:O	36:BC:182:PRO:N	2.51	0.42
1:CA:573:A:C2	1:CA:574:A:C2	3.07	0.42
28:D3:26:LEU:HD21	28:D3:46:ASN:CB	2.49	0.42
1:AA:93:G:O2'	1:AA:96:U:H5'	2.19	0.42
12:CL:21:LYS:HD2	12:CL:21:LYS:H	1.82	0.42
34:DA:759:G:O2'	34:DA:760:G:H5'	2.20	0.42
1:AA:865:A:C2	1:AA:918:A:H4'	2.54	0.42
30:D5:34:PRO:O	30:D5:35:GLU:C	2.56	0.42
55:DZ:55:HIS:HE1	55:DZ:135:GLU:HA	1.83	0.42
39:DF:77:ASP:C	39:DF:79:GLY:N	2.72	0.42
4:CD:207:TYR:HD2	4:CD:207:TYR:HA	1.66	0.42
10:AJ:90:LEU:N	10:AJ:91:PRO:CD	2.82	0.42
51:DV:82:ARG:CG	51:DV:82:ARG:HH11	2.33	0.42
34:BA:2124:G:O2'	34:BA:2125:G:H5'	2.18	0.42
8:CH:5:PRO:O	8:CH:8:ASP:HB3	2.19	0.42
17:CQ:12:SER:HB3	17:CQ:20:THR:CB	2.49	0.42
34:BA:2385:C:H2'	34:BA:2386:C:H6	1.84	0.42
32:B7:2:LYS:HG2	34:BA:1620:G:O2'	2.19	0.42
44:DO:53:LYS:O	44:DO:56:ASP:CG	2.57	0.42
1:CA:1275:A:O2'	1:CA:1276:G:H5'	2.20	0.42
15:CO:80:ALA:O	15:CO:84:LYS:HG3	2.19	0.42
34:BA:947:G:N3	34:BA:984:A:H2	2.17	0.42
1:CA:943:U:O2'	1:CA:944:G:H5'	2.19	0.42
44:DO:17:ARG:HA	44:DO:17:ARG:HD3	1.82	0.42
1:CA:616:G:H2'	1:CA:616:G:N3	2.34	0.42
5:CE:73:ASN:O	5:CE:73:ASN:ND2	2.52	0.42
1:AA:1261:A:H2'	1:AA:1262:C:H5'	2.01	0.42
26:D1:49:VAL:HG13	26:D1:50:ARG:N	2.34	0.42
34:DA:2610:C:O2'	34:DA:2611:U:P	2.76	0.42
34:DA:994:C:H3'	50:DU:54:LYS:HE2	2.01	0.42
42:BI:83:ALA:HA	42:BI:89:TYR:HD1	1.81	0.42
34:BA:2128:C:C3'	34:BA:2129:C:H5''	2.49	0.42
50:BU:74:LEU:HD23	50:BU:114:LYS:CE	2.49	0.42
53:BX:58:HIS:O	53:BX:59:VAL:HG22	2.19	0.42
38:DE:28:ALA:O	38:DE:180:ASN:OD1	2.36	0.42
49:DT:32:TYR:HB3	49:DT:81:PRO:HB3	2.01	0.42
48:BS:97:ARG:O	48:BS:97:ARG:CG	2.66	0.42
2:AB:111:ARG:HG2	2:AB:111:ARG:HH11	1.84	0.42
2:AB:144:ARG:O	2:AB:147:LYS:N	2.52	0.42
23:AW:38:A:H2'	23:AW:39:U:C4'	2.49	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:80:LYS:NZ	10:AJ:80:LYS:CB	2.82	0.42
38:BE:200:GLU:O	38:BE:201:THR:O	2.37	0.42
1:CA:975:A:H5''	1:CA:1363(A):A:N6	2.34	0.42
37:BD:35:LYS:CE	37:BD:64:ILE:C	2.83	0.42
26:B1:62:VAL:O	26:B1:64:ALA:N	2.52	0.42
34:BA:1158:C:O2'	34:BA:1159:U:C5'	2.66	0.42
45:DP:89:ALA:HB1	45:DP:121:LYS:HZ3	1.77	0.42
55:DZ:10:ARG:NH2	55:DZ:26:GLY:H	2.09	0.42
34:DA:253:C:C2'	34:DA:254:G:H5'	2.49	0.42
7:AG:64:GLN:O	7:AG:65:ALA:C	2.57	0.42
44:DO:47:ILE:HG13	44:DO:48:PRO:CD	2.29	0.42
55:DZ:149:SER:HB2	55:DZ:173:ALA:HA	2.00	0.42
34:BA:414:C:O2	34:BA:1864:U:O2'	2.29	0.42
42:BI:15:VAL:C	42:BI:17:GLN:N	2.73	0.42
5:AE:78:HIS:CE1	5:AE:142:LEU:HD23	2.54	0.42
54:DY:81:LYS:HE2	54:DY:97:ARG:HG2	2.01	0.42
20:CT:57:ARG:HD3	20:CT:103:GLY:N	2.34	0.42
5:CE:110:LEU:HA	5:CE:113:ALA:HB2	2.02	0.42
55:BZ:39:VAL:CG2	55:BZ:40:ASP:H	2.06	0.42
55:BZ:61:LEU:O	55:BZ:63:ASP:N	2.52	0.42
55:BZ:97:GLU:HB3	55:BZ:125:LEU:HD21	2.01	0.42
40:DG:141:PHE:HA	40:DG:142:PRO:HD2	1.71	0.42
40:DG:55:LYS:O	40:DG:57:ALA:N	2.53	0.42
51:BV:18:LEU:O	51:BV:98:GLU:HB3	2.19	0.42
34:DA:1341:U:C1'	53:DX:77:LYS:HE2	2.49	0.42
34:BA:2639:A:C2'	34:BA:2640:G:C5'	2.91	0.42
53:BX:21:PHE:CE1	53:BX:26:TYR:HB3	2.54	0.42
1:CA:1475:G:OP1	34:DA:1689:A:H1'	2.19	0.42
46:BQ:23:GLY:O	55:BZ:78:LYS:HB3	2.18	0.42
46:BQ:42:ILE:HD13	46:BQ:97:VAL:CG2	2.50	0.42
39:DF:32:LEU:HD21	39:DF:105:VAL:CG1	2.36	0.42
1:AA:707:C:O2'	1:AA:708:C:C5'	2.67	0.42
13:CM:91:ARG:HB2	13:CM:98:VAL:CG2	2.44	0.42
4:CD:138:TYR:CD2	4:CD:139:ARG:N	2.81	0.42
5:CE:132:ALA:C	5:CE:134:ALA:N	2.71	0.42
1:AA:1495:U:C2	1:AA:1496:C:C5	3.07	0.42
42:BI:136:VAL:O	42:BI:136:VAL:HG22	2.19	0.42
1:CA:1291:G:O2'	1:CA:1292:U:H5'	2.19	0.42
34:DA:16:G:O2'	34:DA:17:G:H5'	2.19	0.42
30:B5:20:ARG:O	30:B5:21:SER:C	2.57	0.42
40:DG:125:PHE:HZ	40:DG:180:PHE:CZ	2.37	0.42
34:BA:925:C:H3'	34:BA:926:A:H5''	2.00	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2308:G:N7	34:BA:2310:A:O5'	2.51	0.42
34:DA:1722:A:C6	34:DA:1741:A:N1	2.87	0.42
34:DA:71:A:H2	53:DX:31:HIS:HE1	1.65	0.42
34:BA:1722:A:H2'	34:BA:1739:U:C5'	2.41	0.42
15:CO:11:VAL:O	15:CO:14:GLU:HB3	2.20	0.42
34:DA:1491:G:C6	34:DA:1500:G:C2	3.07	0.42
53:BX:83:VAL:C	53:BX:85:PRO:HD3	2.40	0.42
34:BA:1379:A:O2'	34:BA:1380:G:OP1	2.38	0.42
44:BO:89:ASN:C	44:BO:91:LEU:H	2.22	0.42
44:BO:87:ILE:HD13	44:BO:93:PRO:N	2.35	0.42
28:B3:20:LYS:C	28:B3:22:ALA:N	2.72	0.42
10:CJ:80:LYS:CB	10:CJ:80:LYS:NZ	2.82	0.42
39:DF:192:LEU:HD21	39:DF:194:MET:CE	2.49	0.42
27:B2:36:ARG:HD3	27:B2:36:ARG:O	2.17	0.42
34:DA:2580:U:H5'	38:DE:131:ALA:CB	2.48	0.42
39:BF:57:VAL:HG12	39:BF:58:ALA:H	1.73	0.42
20:AT:83:ARG:O	20:AT:86:ARG:HB3	2.19	0.42
34:BA:2802:G:O2'	34:BA:2803:C:H5''	2.18	0.42
40:BG:10:LYS:O	40:BG:11:TYR:C	2.57	0.42
9:CI:89:ASN:HB3	9:CI:92:TYR:CD1	2.54	0.42
2:AB:178:ARG:HH22	2:AB:196:LEU:HA	1.82	0.42
34:BA:747:U:O2'	52:BW:88:ARG:HG3	2.19	0.42
34:BA:819:A:C4	34:BA:1189:A:C2	3.07	0.42
34:BA:419:C:H2'	34:BA:420:C:C6	2.45	0.42
34:BA:1286:A:C6	34:BA:1289:C:C2	3.06	0.42
1:AA:156:G:N1	1:AA:166:G:C6	2.87	0.42
3:CC:132:ARG:O	3:CC:134:ILE:N	2.52	0.42
34:BA:320:A:C4	39:BF:136:THR:HG21	2.53	0.42
16:AP:41:PRO:O	16:AP:42:ARG:HG2	2.19	0.42
7:CG:131:LYS:N	7:CG:135:VAL:HG21	2.34	0.42
9:CI:37:PHE:CE1	9:CI:74:ILE:HG12	2.53	0.42
8:AH:119:LEU:HB3	8:AH:123:GLU:HB2	2.00	0.42
1:CA:59:A:H2'	1:CA:59:A:N3	2.34	0.42
34:BA:298:G:C5'	34:BA:299:A:OP1	2.65	0.42
38:DE:108:SER:HB3	38:DE:165:VAL:HG21	2.01	0.42
37:BD:222:ARG:O	37:BD:223:GLY:O	2.37	0.42
1:AA:644:G:H2'	1:AA:645:C:C5'	2.48	0.42
34:DA:1843:C:HO2'	34:DA:1844:C:H5'	1.84	0.42
2:AB:168:THR:HG23	2:AB:192:SER:OG	2.19	0.42
15:AO:78:TYR:O	15:AO:79:ARG:C	2.56	0.42
34:DA:237:C:H2'	34:DA:238:C:H6	1.83	0.42
38:BE:197:ILE:CD1	38:BE:199:ARG:HH12	2.32	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:50:ARG:C	4:AD:50:ARG:HD2	2.39	0.42
11:CK:105:VAL:O	11:CK:106:LYS:C	2.58	0.42
36:DC:180:PHE:O	36:DC:182:PRO:N	2.52	0.42
34:BA:554:U:H2'	34:BA:555:U:H5'	2.02	0.42
12:AL:21:LYS:H	12:AL:21:LYS:HD2	1.83	0.42
7:AG:4:ARG:HH11	7:AG:4:ARG:HG2	1.83	0.42
6:CF:6:VAL:HA	6:CF:90:VAL:HA	2.01	0.42
31:D6:39:TYR:HB3	31:D6:49:HIS:CE1	2.53	0.42
34:BA:2222:G:C4	34:BA:2223:G:C8	3.08	0.42
30:B5:41:PRO:HG2	30:B5:44:THR:OG1	2.19	0.42
34:DA:708:C:O2	34:DA:708:C:H2'	2.18	0.42
14:AN:33:VAL:C	14:AN:34:TYR:CD1	2.92	0.42
1:CA:1230:C:O2'	1:CA:1231:G:H5'	2.19	0.42
34:DA:220:G:H2'	34:DA:427:U:O4	2.18	0.42
17:AQ:11:VAL:HB	17:AQ:88:TYR:CD2	2.54	0.42
16:AP:59:TRP:HA	16:AP:59:TRP:CE3	2.54	0.42
43:BN:119:ARG:HG3	43:BN:119:ARG:HH11	1.84	0.42
21:AU:24:ARG:HG2	21:AU:24:ARG:HH11	1.84	0.42
35:BB:95:C:H2'	35:BB:96:U:H6	1.84	0.42
34:DA:1210:A:H4'	34:DA:1211:U:O5'	2.19	0.42
50:DU:112:ARG:CG	50:DU:112:ARG:NH1	2.77	0.42
34:DA:614(C):A:H4'	34:DA:615:G:OP1	2.18	0.42
34:DA:615:G:P	39:DF:40:GLN:NE2	2.92	0.42
39:DF:116:ASP:OD2	45:DP:5:ASP:HA	2.20	0.42
51:BV:72:VAL:O	51:BV:73:SER:CB	2.67	0.42
38:DE:67:PHE:O	38:DE:68:ALA:C	2.58	0.42
34:DA:1158:C:O2'	34:DA:1159:U:P	2.77	0.42
49:DT:65:LYS:HZ2	49:DT:66:VAL:HG23	1.84	0.42
34:BA:2863:C:C3'	34:BA:2864:G:C5'	2.96	0.42
48:BS:89:ARG:C	48:BS:92:TYR:HB3	2.40	0.42
2:AB:165:VAL:O	2:AB:187:LEU:O	2.37	0.42
2:AB:189:ASP:OD1	2:AB:189:ASP:N	2.50	0.42
34:BA:2777:G:C5'	34:BA:2778:A:H5'	2.49	0.42
38:BE:1:MET:O	38:BE:2:LYS:C	2.57	0.42
34:BA:1245:G:H5''	45:BP:16:ARG:HH21	1.84	0.42
37:BD:27:THR:O	37:BD:28:GLU:CB	2.66	0.42
26:B1:9:GLY:O	26:B1:10:LYS:HD3	2.20	0.42
26:B1:66:HIS:C	26:B1:68:PRO:CD	2.87	0.42
34:BA:2178:C:C5'	36:BC:46:LYS:HD2	2.50	0.42
45:DP:98:GLU:HA	45:DP:101:VAL:CG1	2.49	0.42
45:DP:127:ALA:HB3	45:DP:130:PHE:CE2	2.55	0.42
34:DA:1410:G:N1	34:DA:1593:G:C6	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:B2:41:ILE:O	27:B2:44:LEU:N	2.50	0.42
33:B8:41:ILE:HG13	33:B8:42:ARG:N	2.34	0.42
53:BX:36:LYS:HZ3	53:BX:39:ILE:HA	1.73	0.42
18:AR:62:GLU:O	18:AR:64:ARG:N	2.52	0.42
10:AJ:62:HIS:N	10:AJ:62:HIS:CD2	2.88	0.42
18:CR:62:GLU:O	18:CR:65:ILE:CD1	2.67	0.42
53:DX:25:LYS:HA	53:DX:25:LYS:HD2	1.80	0.42
1:AA:377:G:P	16:AP:5:ARG:HH11	2.42	0.42
45:BP:32:THR:O	45:BP:33:ARG:HB2	2.19	0.42
34:DA:597:U:O2'	45:DP:15:ARG:HD3	2.18	0.42
34:DA:1778:U:H2'	34:DA:1784:A:N6	2.34	0.42
54:DY:84:ARG:NH1	54:DY:97:ARG:HB2	2.34	0.42
55:BZ:58:VAL:HA	55:BZ:67:LEU:O	2.19	0.42
46:DQ:17:LEU:HD12	46:DQ:39:PRO:HB2	2.02	0.42
1:AA:568:G:O6	12:AL:5:PRO:HD3	2.20	0.42
26:D1:62:VAL:HG13	26:D1:64:ALA:N	2.15	0.42
43:BN:13:TRP:HZ3	43:BN:130:HIS:HE1	1.66	0.42
44:BO:20:MET:O	44:BO:41:ALA:CB	2.68	0.42
1:AA:959:A:H2'	1:AA:960:U:O4'	2.20	0.42
19:AS:9:VAL:C	19:AS:10:PHE:CD1	2.93	0.42
19:AS:67:VAL:C	19:AS:69:HIS:N	2.70	0.42
1:CA:954:G:H21	1:CA:1227:A:H62	1.67	0.42
13:CM:96:LEU:HB3	13:CM:97:PRO:HD2	2.01	0.42
4:CD:101:LEU:O	4:CD:102:ASP:C	2.57	0.42
5:CE:31:LEU:HD22	5:CE:43:LEU:HD11	2.01	0.42
34:BA:512:G:C2'	34:BA:513:A:OP2	2.67	0.42
34:DA:2870:C:H5''	47:DR:65:LEU:HD21	2.00	0.42
43:BN:31:ALA:O	43:BN:34:LEU:HB2	2.18	0.42
1:CA:1320:C:H5'	19:CS:70:LYS:HG2	2.01	0.42
1:CA:1320:C:C2	19:CS:72:GLY:HA3	2.54	0.42
46:DQ:51:ARG:O	46:DQ:52:VAL:C	2.57	0.42
45:DP:71:VAL:C	45:DP:73:GLY:N	2.70	0.42
27:D2:25:VAL:C	27:D2:27:GLU:N	2.72	0.42
41:DH:44:VAL:CG1	41:DH:45:VAL:H	2.08	0.42
40:DG:76:SER:CA	40:DG:84:LYS:H	2.31	0.42
8:CH:39:LEU:HD12	8:CH:39:LEU:HA	1.89	0.42
49:DT:100:TYR:CD1	49:DT:100:TYR:N	2.86	0.42
22:AV:71:C:H2'	22:AV:72:A:H8	1.84	0.42
6:CF:8:ILE:HD12	6:CF:26:ILE:HG21	2.01	0.42
34:BA:583:G:H5''	50:BU:10:ARG:HH12	1.84	0.42
8:AH:38:ILE:HD11	8:AH:118:VAL:O	2.20	0.42
36:BC:19:VAL:HB	36:BC:20:TYR:HD1	1.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:D8:18:ALA:O	33:D8:20:GLY:N	2.53	0.42
28:D3:12:PRO:O	28:D3:14:GLY:N	2.52	0.42
37:BD:117:VAL:HG22	37:BD:118:VAL:H	1.85	0.42
34:BA:1992:G:O2'	34:BA:1993:U:OP2	2.32	0.42
2:CB:80:ILE:O	2:CB:83:MET:HB2	2.19	0.42
47:DR:104:ARG:HD3	47:DR:111:LEU:HD11	2.02	0.42
51:BV:39:LEU:HD13	51:BV:39:LEU:HA	1.87	0.42
5:CE:146:ALA:O	5:CE:148:VAL:N	2.53	0.42
1:AA:503:C:H2'	1:AA:504:C:C6	2.54	0.42
55:BZ:141:VAL:HG13	55:BZ:141:VAL:O	2.17	0.42
15:CO:24:SER:O	15:CO:28:GLN:HG3	2.20	0.42
34:DA:1188:U:C2'	34:DA:1189:A:C5'	2.95	0.42
31:D6:45:LYS:HG3	34:DA:2371:G:C4'	2.50	0.42
1:AA:1060:C:H5''	10:AJ:51:ARG:HB3	2.02	0.42
1:AA:973:G:C4	10:AJ:55:LYS:CE	3.02	0.42
34:BA:1290:C:H2'	34:BA:1291:C:H6	1.82	0.42
34:DA:2735:G:HO2'	34:DA:2736:G:H5''	1.82	0.42
32:B7:9:ARG:HD2	34:BA:1309:G:OP2	2.20	0.42
34:DA:1260:G:O2'	34:DA:1261:C:H5'	2.18	0.42
1:CA:539:A:OP2	12:CL:115:LYS:HE3	2.18	0.42
34:DA:2689:U:H4'	34:DA:2690:C:C6	2.46	0.42
9:CI:78:LYS:HB2	9:CI:78:LYS:HZ2	1.84	0.42
34:BA:1657:C:H5''	38:BE:133:LYS:O	2.19	0.42
34:DA:2802:G:O2'	34:DA:2803:C:H5''	2.19	0.42
7:CG:24:THR:O	7:CG:25:ALA:C	2.58	0.42
17:CQ:63:ARG:HG2	17:CQ:64:PRO:CD	2.47	0.42
44:BO:45:GLU:O	44:BO:45:GLU:HG3	2.19	0.42
17:AQ:14:LYS:HB2	17:AQ:14:LYS:HZ3	1.82	0.42
34:DA:1790:C:O2'	37:DD:209:ALA:HB2	2.20	0.42
34:BA:1755:A:H2'	34:BA:1756:G:H5'	2.01	0.42
40:DG:119:GLY:HA3	40:DG:181:ARG:CB	2.49	0.42
34:BA:703:U:H2'	34:BA:704:G:C5'	2.48	0.42
34:BA:2020:A:C2	34:BA:2035:G:N1	2.86	0.42
1:CA:814:A:H2'	1:CA:816:A:H5''	2.01	0.42
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.54	0.42
34:DA:756:C:H2'	34:DA:757:U:H5'	2.02	0.42
7:AG:85:TYR:CD1	7:AG:154:TYR:HE1	2.36	0.42
35:BB:85:G:H1	35:BB:92:C:H42	1.66	0.42
10:CJ:90:LEU:N	10:CJ:91:PRO:CD	2.82	0.42
7:AG:36:LYS:NZ	7:AG:36:LYS:HB2	2.34	0.42
51:DV:82:ARG:HH11	51:DV:82:ARG:HG2	1.85	0.42
2:AB:17:PHE:N	2:AB:17:PHE:CD2	2.86	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BB:66:A:HO2'	35:BB:67:G:P	2.42	0.42
1:CA:1261:A:H2'	1:CA:1262:C:H5'	2.00	0.42
2:AB:116:GLU:HA	2:AB:119:GLU:CB	2.48	0.42
34:BA:2399:G:O6	34:BA:2417:C:N3	2.53	0.42
1:CA:1341:U:H3'	1:CA:1341:U:H6	1.85	0.42
55:BZ:9:TYR:HD2	55:BZ:9:TYR:HA	1.74	0.42
34:BA:2552:U:H3'	34:BA:2554:U:OP2	2.19	0.42
34:BA:2558:C:H2'	34:BA:2559:C:O4'	2.19	0.42
34:DA:994:C:H1'	51:DV:10:LYS:HZ1	1.84	0.42
51:DV:4:ILE:HG13	51:DV:40:LEU:HD11	2.02	0.42
42:BI:140:LEU:HD12	42:BI:141:LYS:H	1.84	0.42
50:BU:111:GLU:HA	50:BU:114:LYS:HD3	2.01	0.42
1:AA:1104:G:O5'	2:AB:111:ARG:HD2	2.20	0.42
2:AB:143:GLU:O	2:AB:147:LYS:HB2	2.19	0.42
2:AB:42:ILE:CD1	2:AB:202:PRO:HB2	2.47	0.42
38:BE:36:ARG:C	38:BE:37:ARG:HG3	2.40	0.42
34:BA:309:G:N3	34:BA:329:G:O2'	2.52	0.42
34:BA:396:G:O2'	34:BA:397:G:H5'	2.19	0.42
42:DI:93:THR:N	42:DI:96:ASP:OD2	2.51	0.42
55:DZ:4:ARG:HG2	55:DZ:58:VAL:HB	2.00	0.42
2:CB:71:VAL:HG13	2:CB:93:VAL:HB	2.00	0.42
33:D8:41:ILE:HG13	33:D8:42:ARG:N	2.35	0.42
33:B8:25:MET:HG2	45:BP:64:LYS:HB2	2.01	0.42
53:BX:39:ILE:C	53:BX:42:ALA:HB3	2.39	0.42
34:DA:955:C:H5'	34:DA:956:G:P	2.59	0.42
39:DF:21:ALA:C	39:DF:23:ASP:N	2.73	0.42
53:DX:18:TYR:O	53:DX:19:ALA:C	2.56	0.42
34:DA:1863:G:H2'	34:DA:1864:U:O4'	2.19	0.42
12:CL:46:LYS:CG	12:CL:47:LYS:N	2.72	0.42
34:BA:2754:U:H2'	34:BA:2755:C:H5''	2.02	0.42
54:DY:81:LYS:HG2	54:DY:96:ILE:CB	2.48	0.42
1:CA:181:G:O6	1:CA:194:C:H2'	2.20	0.42
55:BZ:44:PHE:CZ	55:BZ:86:VAL:HG11	2.54	0.42
46:DQ:66:ILE:O	46:DQ:66:ILE:HG13	2.19	0.42
1:AA:568:G:N2	1:AA:883:C:C2	2.87	0.42
26:D1:64:ALA:HA	26:D1:67:ILE:CG1	2.49	0.42
34:BA:858:U:C2	34:BA:2268:A:C2	3.07	0.42
1:CA:578:C:O2'	1:CA:579:G:H5'	2.20	0.42
34:BA:676:A:C8	34:BA:2443:C:H1'	2.54	0.42
34:BA:1495:A:H2'	34:BA:1495:A:N3	2.35	0.42
5:AE:11:ILE:N	5:AE:31:LEU:O	2.52	0.42
5:AE:32:VAL:CG1	5:AE:33:VAL:N	2.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:D2:22:GLU:HA	27:D2:25:VAL:HG12	2.02	0.42
40:DG:7:LEU:HD22	40:DG:100:TRP:CZ3	2.55	0.42
1:CA:1192:C:O5'	1:CA:1192:C:H6	2.02	0.42
22:CV:52:G:O2'	22:CV:53:G:O5'	2.38	0.42
4:AD:31:CYS:O	4:AD:31:CYS:SG	2.78	0.42
8:CH:39:LEU:HD13	8:CH:111:ILE:HD11	2.00	0.42
34:DA:2308:G:N7	34:DA:2310:A:O5'	2.53	0.42
37:BD:237:GLU:OE2	37:BD:239:ARG:N	2.51	0.42
40:BG:31:VAL:HG13	40:BG:32:PRO:N	2.33	0.42
34:BA:271(C):C:O2'	34:BA:271(D):G:H5'	2.20	0.42
25:B0:72:ARG:HB2	25:B0:76:GLY:O	2.20	0.42
23:CW:24:G:C6	23:CW:25:C:C4	3.07	0.42
6:AF:44:GLY:HA2	6:AF:59:TYR:CE1	2.55	0.42
6:AF:59:TYR:HD2	6:AF:61:LEU:HD11	1.83	0.42
51:DV:44:LYS:HG2	51:DV:45:THR:H	1.85	0.42
34:DA:1798:U:H5'	37:DD:259:THR:CG2	2.44	0.42
48:DS:57:LYS:HG2	48:DS:58:LEU:N	2.34	0.42
37:BD:118:VAL:CG2	37:BD:119:ALA:N	2.78	0.42
34:BA:2038:G:H2'	34:BA:2039:C:O4'	2.19	0.42
32:B7:12:ARG:NH2	34:BA:465:G:OP1	2.49	0.42
1:CA:1053:G:N7	1:CA:1199:U:H2'	2.35	0.42
44:DO:103:ALA:HA	44:DO:122:LEU:O	2.20	0.42
5:AE:6:PHE:HB3	5:AE:35:GLY:O	2.20	0.42
7:CG:21:VAL:HG23	7:CG:22:LEU:N	2.34	0.42
9:CI:4:TYR:CD1	9:CI:4:TYR:N	2.88	0.42
44:DO:27:GLY:C	44:DO:29:ASN:H	2.23	0.42
9:AI:19:LEU:HB3	9:AI:59:PHE:CD2	2.55	0.42
9:AI:4:TYR:CD1	9:AI:4:TYR:N	2.88	0.42
1:CA:1346:A:C4	7:CG:10:ARG:NH1	2.87	0.42
34:DA:1386:C:OP2	34:DA:1396:U:H5	2.01	0.42
4:AD:2:GLY:O	4:AD:3:ARG:C	2.56	0.42
1:CA:107:G:O2'	1:CA:108:G:H5'	2.19	0.42
34:BA:2748:A:H2'	34:BA:2749:A:C8	2.55	0.42
34:DA:747:U:O2'	52:DW:88:ARG:HG3	2.20	0.42
1:CA:784:C:H2'	1:CA:785:G:C8	2.53	0.42
34:DA:1708:C:C2	34:DA:1709:U:C5	3.07	0.42
34:BA:893:C:C2'	34:BA:894:C:H5'	2.46	0.42
44:BO:2:ILE:HG13	44:BO:8:LEU:HD11	2.01	0.42
34:DA:2454:G:C2'	34:DA:2455:G:H5'	2.49	0.42
23:AW:6:G:C2'	23:AW:7:A:H5'	2.48	0.42
1:AA:556:C:H2'	1:AA:557:G:C5'	2.48	0.42
34:DA:1772:G:N2	34:DA:1774:C:H5''	2.33	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BI:47:LEU:O	42:BI:51:ILE:HG12	2.19	0.42
22:AV:41:C:C2	22:AV:42:G:C8	3.06	0.42
13:CM:90:LEU:C	13:CM:92:HIS:N	2.72	0.42
26:D1:11:ARG:HG3	26:D1:61:ARG:H	1.83	0.42
34:DA:207:A:C8	34:DA:208:C:C5	3.08	0.42
1:AA:414:A:H5'	1:AA:414:A:C8	2.52	0.42
37:DD:77:ALA:HB2	37:DD:97:TYR:CG	2.54	0.42
10:AJ:44:VAL:HG12	10:AJ:45:ARG:N	2.33	0.42
2:CB:98:LEU:H	2:CB:101:MET:HE3	1.84	0.42
34:DA:488:G:H1'	34:DA:492:A:H62	1.85	0.42
3:AC:124:ILE:H	3:AC:124:ILE:HD12	1.83	0.42
6:CF:2:ARG:HB2	6:CF:4:TYR:CE2	2.54	0.42
34:BA:402:A:C2'	34:BA:403:U:H5'	2.49	0.42
26:D1:54:ALA:O	26:D1:55:GLY:C	2.56	0.42
34:DA:797:C:O2'	34:DA:798:G:H5'	2.19	0.42
34:BA:759:G:O2'	34:BA:760:G:H5'	2.20	0.42
1:CA:444:C:H2'	1:CA:445:G:H8	1.84	0.42
2:AB:142:LEU:CD2	2:AB:146:GLN:NE2	2.83	0.42
35:DB:51:G:H2'	35:DB:52:A:O4'	2.19	0.42
34:BA:2408:U:O5'	34:BA:2408:U:H6	2.02	0.42
1:AA:689:C:OP2	11:AK:46:GLY:HA3	2.20	0.42
34:DA:2516:G:C5	34:DA:2517:C:C4	3.08	0.42
20:AT:20:LEU:O	20:AT:23:ARG:HB3	2.18	0.42
34:DA:756:C:O2'	34:DA:757:U:H5'	2.19	0.42
34:DA:1268:A:C5	34:DA:1269:A:C8	3.08	0.42
45:BP:29:LYS:HD2	45:BP:29:LYS:H	1.85	0.42
12:AL:7:ILE:O	12:AL:10:LEU:HB2	2.20	0.42
34:BA:1854:A:H3'	34:BA:1855:G:C8	2.54	0.42
1:CA:1081:G:P	5:CE:16:THR:OG1	2.78	0.42
34:DA:2740:A:C6	34:DA:2764:A:C8	3.06	0.42
1:CA:887:G:C2'	1:CA:888:G:H5'	2.49	0.42
34:BA:1210:A:H4'	34:BA:1211:U:O5'	2.18	0.42
1:CA:902:G:O2'	1:CA:903:G:H5'	2.19	0.42
1:AA:1026:G:H2'	1:AA:1027:C:H5'	2.01	0.42
34:BA:1048:A:H2'	34:BA:1048:A:N3	2.35	0.42
2:CB:116:GLU:HA	2:CB:119:GLU:CB	2.49	0.42
34:BA:1043:C:H6	34:BA:1043:C:O5'	2.02	0.42
34:BA:1691:C:O2'	34:BA:1692:U:H5'	2.20	0.42
1:AA:950:U:H3'	13:AM:102:ARG:CZ	2.45	0.42
48:DS:12:PHE:HB2	48:DS:14:VAL:HG23	2.02	0.42
48:DS:84:GLN:O	48:DS:85:VAL:CG1	2.68	0.42
38:DE:199:ARG:HB3	38:DE:200:GLU:OE2	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DE:57:LYS:O	38:DE:59:VAL:N	2.53	0.42
38:DE:71:GLY:O	38:DE:72:VAL:HB	2.20	0.42
34:BA:480:A:H3'	34:BA:481:G:H5''	2.01	0.42
43:DN:69:GLN:OE1	43:DN:69:GLN:HA	2.19	0.42
53:DX:40:LYS:CG	53:DX:41:ASN:H	2.32	0.42
48:BS:89:ARG:HB3	48:BS:97:ARG:NH1	2.32	0.42
1:AA:1105:A:N3	1:AA:1106:G:C8	2.87	0.42
38:BE:93:VAL:O	38:BE:95:ILE:N	2.53	0.42
54:BY:15:VAL:CG1	54:BY:17:SER:H	2.28	0.42
34:BA:2230:G:C4	34:BA:2231:C:C5	3.08	0.42
54:DY:8:LYS:HG2	54:DY:13:VAL:HG13	2.01	0.42
34:DA:2128:C:C3'	34:DA:2129:C:H5''	2.49	0.42
2:CB:21:ARG:HB2	2:CB:39:ILE:HA	2.00	0.42
34:DA:1332:G:H22	34:DA:1609:A:C1'	2.32	0.42
27:B2:55:ARG:HB3	27:B2:56:GLN:NE2	2.34	0.42
41:DH:85:LYS:NZ	41:DH:144:VAL:O	2.48	0.42
18:AR:62:GLU:O	18:AR:63:GLN:C	2.55	0.42
26:D1:15:ALA:HB1	26:D1:46:LEU:HD11	2.01	0.42
12:CL:89:ARG:NH1	12:CL:91:LYS:N	2.68	0.42
1:CA:374:A:O2'	1:CA:375:U:H5'	2.20	0.42
45:DP:32:THR:O	45:DP:33:ARG:HB2	2.18	0.42
41:BH:13:LYS:CA	41:BH:13:LYS:HE2	2.31	0.42
26:D1:19:GLN:CD	26:D1:44:PRO:CB	2.88	0.42
54:DY:87:LYS:HG3	54:DY:88:LYS:H	1.85	0.42
10:CJ:40:LEU:HD21	10:CJ:70:ARG:N	2.34	0.42
10:AJ:94:VAL:CG1	10:AJ:95:GLU:N	2.81	0.42
55:BZ:65:GLN:HB3	55:BZ:67:LEU:HD11	2.01	0.42
34:BA:2360:A:O2'	34:BA:2361:A:C5'	2.68	0.42
34:BA:2639:A:H3'	34:BA:2640:G:C5'	2.49	0.42
34:DA:1952:A:N3	34:DA:2560:C:O2'	2.39	0.42
38:DE:12:THR:O	38:DE:23:VAL:HG22	2.19	0.42
41:BH:46:GLU:O	41:BH:47:GLU:CB	2.62	0.42
1:AA:709:G:H2'	1:AA:710:G:C8	2.54	0.42
34:BA:607:U:H5	34:BA:619:G:C5	2.37	0.42
4:CD:101:LEU:HD12	4:CD:105:VAL:HG23	2.00	0.42
50:DU:26:GLY:O	50:DU:30:LYS:HG2	2.20	0.42
26:D1:41:ARG:NH1	26:D1:41:ARG:CG	2.82	0.42
40:DG:37:VAL:HG22	40:DG:159:VAL:CB	2.50	0.42
34:BA:154:G:N1	34:BA:154(A):C:N4	2.67	0.42
23:AW:21:A:C6	23:AW:46:G:C2	3.06	0.42
39:DF:113:ALA:HB1	39:DF:186:ILE:HG21	2.02	0.42
34:DA:1721:G:C2	34:DA:1739:U:OP2	2.73	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BT:109:GLU:O	49:BT:112:ARG:CG	2.60	0.42
4:CD:201:GLN:O	4:CD:204:ILE:HB	2.20	0.42
39:BF:180:GLY:O	39:BF:181:LEU:C	2.58	0.42
34:BA:548:A:O2'	34:BA:549:G:OP1	2.31	0.42
34:DA:365:C:C5'	34:DA:365:C:H6	2.23	0.42
25:D0:49:LYS:O	25:D0:80:HIS:HB3	2.19	0.42
34:BA:635:C:O2'	34:BA:639:U:OP1	2.37	0.42
48:BS:58:LEU:HD12	48:BS:59:LYS:H	1.84	0.42
1:AA:433:C:O2'	1:AA:434:U:H5'	2.20	0.42
52:BW:17:VAL:HG23	52:BW:18:ARG:N	2.34	0.42
46:DQ:118:LEU:O	46:DQ:119:ARG:C	2.56	0.42
1:CA:1131:G:H5'	9:CI:3:GLN:NE2	2.35	0.42
55:DZ:5:LEU:HD11	55:DZ:43:GLU:O	2.19	0.42
41:DH:94:TYR:N	41:DH:94:TYR:HD1	2.17	0.42
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.53	0.42
8:AH:100:ILE:HA	8:AH:101:PRO:HD3	1.78	0.42
34:DA:1707:G:H2'	34:DA:1708:C:C6	2.54	0.42
8:CH:7:ALA:HB2	8:CH:85:ARG:HD2	2.01	0.42
43:DN:95:PRO:O	43:DN:96:GLU:HG2	2.20	0.42
34:BA:2783:G:H2'	34:BA:2784:C:C6	2.54	0.42
18:CR:76:LEU:N	18:CR:76:LEU:HD22	2.34	0.42
9:AI:115:GLY:C	9:AI:116:LYS:HG2	2.39	0.42
6:AF:46:ARG:NH1	18:AR:37:VAL:HG21	2.31	0.42
11:CK:72:ALA:O	11:CK:77:MET:HB2	2.19	0.42
22:AV:5:G:N2	22:AV:68:C:O2	2.53	0.42
42:DI:51:ILE:O	42:DI:55:ALA:HB2	2.20	0.42
16:AP:53:VAL:CG2	16:AP:54:GLU:N	2.81	0.42
46:DQ:10:ARG:CB	46:DQ:10:ARG:HH11	2.33	0.42
13:AM:47:ASP:C	13:AM:48:LEU:HD23	2.39	0.42
1:CA:778:G:O2'	1:CA:779:C:H5'	2.19	0.42
34:BA:1002:G:H2'	34:BA:1003:G:O4'	2.19	0.42
49:DT:16:ARG:HD3	49:DT:16:ARG:HA	1.81	0.42
4:AD:168:ARG:HG3	4:AD:168:ARG:NH1	2.34	0.42
34:BA:485:C:N3	34:BA:496:G:C2	2.87	0.42
34:BA:1216:G:N2	34:BA:1234:U:H1'	2.35	0.42
21:AU:9:ARG:O	21:AU:13:ILE:HG13	2.19	0.42
34:BA:1256:G:C4	34:BA:1257:C:C5	3.08	0.42
1:AA:777:A:O2'	1:AA:778:G:H5'	2.19	0.42
34:BA:560:C:H4'	50:BU:52:ARG:CZ	2.49	0.42
52:DW:56:ALA:O	52:DW:57:ASN:C	2.56	0.42
40:BG:170:ARG:HG2	40:BG:170:ARG:NH1	2.33	0.42
37:BD:134:ARG:HB2	37:BD:135:PHE:HD1	1.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:985:C:H2'	1:AA:986:A:C8	2.55	0.42
1:AA:97:G:O2'	1:AA:98:G:P	2.77	0.42
1:AA:918:A:C6	1:AA:919:A:C5	3.08	0.42
48:DS:38:GLN:OE1	48:DS:47:THR:HG21	2.19	0.42
34:DA:1350:C:H2'	34:DA:1351:C:H6	1.83	0.42
34:DA:521:G:H2'	34:DA:522:G:C8	2.54	0.42
34:BA:2256:G:H2'	34:BA:2257:U:O4'	2.20	0.42
32:D7:34:ARG:NH1	32:D7:41:ARG:O	2.53	0.42
1:AA:519:C:H2'	1:AA:520:A:O4'	2.19	0.42
51:BV:82:ARG:CG	51:BV:82:ARG:HH11	2.33	0.42
35:BB:94:C:O2'	35:BB:95:C:H5'	2.20	0.42
13:CM:124:PRO:O	13:CM:126:LYS:N	2.53	0.42
30:D5:36:CYS:C	30:D5:38:ALA:H	2.22	0.42
12:AL:30:ALA:HA	12:AL:31:PRO:HD3	1.98	0.42
55:BZ:68:PRO:O	55:BZ:91:LEU:N	2.49	0.42
1:CA:642:A:C5	8:CH:115:SER:HA	2.55	0.42
34:BA:1029:A:H2'	34:BA:1030:G:O4'	2.19	0.42
4:AD:107:ARG:C	4:AD:109:GLY:H	2.23	0.42
38:BE:66:HIS:O	38:BE:66:HIS:CG	2.72	0.42
39:BF:93:LYS:HD3	39:BF:93:LYS:HA	1.87	0.42
34:BA:432:A:H2'	34:BA:433:C:C6	2.54	0.42
16:AP:58:TYR:O	16:AP:61:SER:N	2.52	0.42
1:AA:1360:A:C2'	1:AA:1361:G:H5'	2.49	0.42
34:DA:1225:G:OP1	51:DV:88:ARG:CB	2.67	0.42
51:DV:13:ARG:HG3	51:DV:13:ARG:O	2.19	0.42
42:BI:98:ALA:HA	42:BI:109:ILE:HD13	2.00	0.42
37:DD:34:VAL:O	37:DD:35:LYS:CB	2.68	0.42
48:DS:14:VAL:HG11	48:DS:90:GLY:HA3	2.00	0.42
38:DE:3:GLY:HA3	38:DE:81:ILE:HG13	2.01	0.42
54:BY:44:ILE:HG22	54:BY:45:VAL:N	2.34	0.42
49:DT:22:PHE:CZ	49:DT:85:LYS:NZ	2.85	0.42
53:DX:40:LYS:O	53:DX:44:GLU:HG2	2.20	0.42
35:BB:9:G:OP1	48:BS:17:ARG:NH1	2.41	0.42
26:B1:62:VAL:HG11	26:B1:67:ILE:HA	2.02	0.42
38:BE:74:PRO:O	38:BE:76:ARG:N	2.52	0.42
42:DI:133:HIS:N	42:DI:133:HIS:CD2	2.88	0.42
54:DY:15:VAL:CG1	54:DY:16:ALA:N	2.58	0.42
54:DY:37:VAL:CG2	54:DY:38:ILE:N	2.70	0.42
2:CB:115:LEU:HD23	2:CB:153:ARG:NE	2.35	0.42
33:B8:35:GLN:HB3	34:BA:2420:C:OP1	2.20	0.42
34:BA:955:C:H5'	34:BA:956:G:P	2.59	0.42
13:AM:18:ALA:O	13:AM:20:THR:N	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BG:115:ARG:NH2	40:BG:136:ARG:CG	2.80	0.42
47:BR:27:SER:O	47:BR:29:LEU:N	2.52	0.42
41:DH:141:VAL:HG12	41:DH:142:GLY:H	1.83	0.42
18:AR:64:ARG:C	18:AR:66:LEU:N	2.72	0.42
43:BN:40:PRO:C	50:BU:64:ARG:HH21	2.21	0.42
42:DI:12:LEU:N	42:DI:12:LEU:HD23	2.35	0.42
54:BY:81:LYS:HE2	54:BY:97:ARG:HG3	2.01	0.42
34:DA:2359:C:C4	34:DA:2360:A:C5	3.07	0.42
38:DE:120:TRP:HB2	38:DE:122:PHE:CD1	2.55	0.42
55:BZ:45:ASP:OD2	55:BZ:49:ARG:HG2	2.20	0.42
53:BX:12:VAL:O	53:BX:13:LEU:HD23	2.20	0.42
46:DQ:42:ILE:HD13	46:DQ:97:VAL:CG2	2.49	0.42
46:DQ:47:ILE:CD1	46:DQ:47:ILE:H	2.30	0.42
26:D1:68:PRO:C	26:D1:70:VAL:H	2.22	0.42
13:CM:20:THR:C	13:CM:22:ILE:H	2.22	0.42
51:BV:22:VAL:O	51:BV:22:VAL:HG12	2.19	0.42
41:BH:27:LYS:HG2	41:BH:32:GLU:OE1	2.20	0.42
30:B5:50:GLY:HA3	30:B5:56:LYS:HB3	2.01	0.42
6:AF:52:ILE:HD13	6:AF:52:ILE:HA	1.91	0.42
34:DA:676:A:C8	34:DA:2443:C:H1'	2.55	0.42
47:DR:60:LEU:O	47:DR:61:HIS:C	2.55	0.42
27:D2:56:GLN:C	27:D2:57:ILE:HG22	2.39	0.42
1:AA:1499:A:C4	1:AA:1500:A:C8	3.08	0.42
4:CD:38:TYR:HD1	4:CD:38:TYR:O	2.03	0.42
50:DU:26:GLY:O	50:DU:28:ARG:N	2.52	0.42
1:CA:1288:A:O2'	1:CA:1289:A:H5'	2.18	0.42
1:CA:1385:G:O2'	1:CA:1386:G:H5'	2.19	0.42
13:AM:67:GLU:CD	13:AM:68:GLY:H	2.23	0.42
49:DT:55:ASN:N	49:DT:59:THR:HB	2.34	0.42
9:AI:94:ALA:O	9:AI:95:LYS:HB3	2.20	0.42
38:BE:12:THR:O	38:BE:23:VAL:HG22	2.19	0.42
34:DA:925:C:H2'	34:DA:926:A:C5'	2.38	0.42
32:B7:19:ARG:NH1	32:B7:19:ARG:CG	2.81	0.42
48:BS:34:HIS:CE1	48:BS:54:LEU:HB2	2.55	0.42
25:B0:49:LYS:O	25:B0:80:HIS:HB3	2.19	0.42
34:BA:1813:G:H1'	37:BD:50:THR:OG1	2.19	0.42
15:AO:53:HIS:CE1	15:AO:57:LEU:HD21	2.54	0.42
44:DO:71:ARG:HG3	44:DO:71:ARG:NH1	2.34	0.42
20:AT:78:ALA:O	20:AT:79:ARG:C	2.58	0.42
15:CO:66:LEU:CD1	15:CO:66:LEU:H	2.33	0.42
15:CO:78:TYR:O	15:CO:79:ARG:C	2.58	0.42
23:AW:42:C:H2'	23:AW:43:C:Cl'	2.50	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1231:G:O2'	34:DA:1232:G:H5'	2.20	0.42
34:DA:2883:A:C5'	34:DA:2884:U:H5'	2.49	0.42
52:DW:47:VAL:HA	52:DW:50:VAL:HG12	2.01	0.42
5:CE:144:THR:O	5:CE:147:ASP:OD2	2.37	0.42
34:DA:2859:G:O2'	34:DA:2860:A:C5'	2.68	0.42
4:AD:4:TYR:CG	4:AD:5:ILE:N	2.88	0.42
1:AA:674:G:H2'	1:AA:675:A:C8	2.45	0.42
1:CA:973:G:C4	10:CJ:55:LYS:CE	3.03	0.42
15:CO:55:GLY:HA2	15:CO:58:MET:HE3	2.02	0.42
1:AA:963:G:H21	10:AJ:55:LYS:CE	2.33	0.42
43:DN:78:TYR:H	43:DN:79:PRO:CD	2.33	0.42
39:DF:9:ILE:HG12	39:DF:14:PRO:O	2.20	0.42
1:AA:725:G:O2'	1:AA:726:C:H5'	2.20	0.42
52:DW:82:LEU:HD12	52:DW:82:LEU:H	1.84	0.42
7:AG:76:ARG:NH1	7:AG:76:ARG:HG2	2.31	0.42
1:CA:1407:C:O2'	1:CA:1408:A:H5'	2.19	0.42
34:DA:869:G:H2'	34:DA:870:A:O4'	2.19	0.42
34:BA:247:G:H4'	34:BA:386:G:C6	2.54	0.42
36:DC:41:VAL:CB	36:DC:178:ALA:HB3	2.50	0.42
1:AA:515:G:N2	1:AA:537:G:C4	2.87	0.42
1:AA:1071:C:H2'	1:AA:1072:G:H8	1.85	0.42
1:AA:1073:U:O2'	1:AA:1074:G:H5'	2.19	0.42
34:DA:752:A:H4'	34:DA:753:C:O5'	2.19	0.42
34:DA:1324:G:H3'	34:DA:1325:G:C4'	2.49	0.42
20:CT:63:ILE:HG22	20:CT:64:ASP:N	2.35	0.42
1:AA:667:G:H2'	1:AA:668:G:C8	2.55	0.42
34:DA:1164:G:H2'	34:DA:1165:U:C6	2.54	0.42
34:DA:2097:C:H2'	34:DA:2098:U:O4'	2.20	0.42
1:AA:1217:C:H2'	1:AA:1218:C:O4'	2.20	0.42
1:CA:769:G:O2'	1:CA:770:C:H5'	2.19	0.42
39:BF:107:LYS:O	39:BF:108:LYS:C	2.58	0.42
34:DA:1243:G:H4'	45:DP:9:ASN:HD22	1.85	0.42
25:B0:1:MET:N	34:BA:2602:A:H61	2.17	0.42
34:BA:912:C:H2'	34:BA:913:U:C6	2.54	0.42
34:BA:981:A:H2	34:BA:2027:G:N3	2.18	0.42
17:CQ:21:VAL:O	17:CQ:41:LYS:HA	2.20	0.42
1:CA:93:G:O2'	1:CA:96:U:H5'	2.20	0.42
30:D5:41:PRO:HG2	30:D5:44:THR:OG1	2.20	0.42
40:DG:18:GLU:O	40:DG:21:ARG:HB3	2.19	0.42
37:DD:109:ASP:HB2	37:DD:197:GLY:CA	2.50	0.42
1:CA:124:G:C6	1:CA:125:U:C4	3.07	0.42
53:BX:8:ILE:HD12	53:BX:8:ILE:N	2.35	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:927:G:H3'	34:BA:928:G:C8	2.53	0.42
49:BT:10:VAL:O	49:BT:12:SER:N	2.52	0.42
2:CB:223:ILE:C	2:CB:225:ALA:N	2.71	0.42
51:DV:76:LYS:HG2	51:DV:85:LYS:HG2	2.01	0.42
17:AQ:12:SER:HB3	17:AQ:20:THR:OG1	2.19	0.42
34:DA:1043:C:H6	34:DA:1043:C:O5'	2.01	0.42
51:DV:56:SER:O	51:DV:57:VAL:HB	2.19	0.42
27:D2:59:ARG:O	27:D2:60:LEU:C	2.57	0.42
27:D2:60:LEU:O	27:D2:61:LEU:HB2	2.20	0.42
11:CK:109:VAL:HG13	18:CR:85:LEU:O	2.19	0.42
34:DA:1013:C:O2'	34:DA:1014:U:H5'	2.19	0.42
34:DA:2550:G:O2'	34:DA:2551:C:H5'	2.20	0.42
1:AA:943:U:O2'	1:AA:944:G:H5'	2.20	0.42
11:AK:122:LYS:O	11:AK:126:ARG:HB2	2.20	0.42
1:CA:137:C:H2'	1:CA:137:C:O2	2.19	0.42
7:AG:6:ARG:O	7:AG:6:ARG:HG2	2.20	0.42
40:DG:20:ILE:O	40:DG:20:ILE:HG22	2.18	0.42
39:BF:127:GLU:OE1	39:BF:127:GLU:HA	2.19	0.42
43:DN:61:ARG:HH11	43:DN:61:ARG:HG3	1.85	0.42
4:AD:20:TYR:N	4:AD:20:TYR:CD1	2.87	0.42
34:DA:116:C:O2'	34:DA:117:G:H5'	2.19	0.42
50:DU:44:ASN:O	50:DU:45:TYR:C	2.58	0.42
36:BC:92:ASP:CG	36:BC:93:TYR:N	2.73	0.42
51:DV:61:VAL:C	51:DV:62:LEU:HD23	2.40	0.42
51:DV:72:VAL:CG1	51:DV:73:SER:H	2.23	0.42
42:BI:79:ILE:HG22	42:BI:81:VAL:HG23	2.00	0.42
37:DD:27:THR:O	37:DD:28:GLU:CB	2.67	0.42
34:BA:1594:G:H2'	34:BA:1595:G:O4'	2.20	0.42
34:BA:535:C:O2'	34:BA:536:A:H5'	2.19	0.42
34:DA:2376:A:H2'	34:DA:2377:A:O4'	2.20	0.42
48:DS:28:VAL:CG1	48:DS:29:PHE:N	2.66	0.42
48:DS:51:ALA:HB3	48:DS:73:LEU:HG	2.02	0.42
23:AW:39:U:C3'	23:AW:40:C:C5'	2.98	0.42
54:BY:13:VAL:CG1	54:BY:72:VAL:HB	2.50	0.42
27:B2:12:GLU:C	27:B2:14:ARG:H	2.22	0.42
34:DA:1594:G:H2'	34:DA:1595:G:O4'	2.20	0.42
54:DY:15:VAL:CG1	54:DY:17:SER:H	2.25	0.42
55:DZ:98:MET:C	55:DZ:125:LEU:HA	2.40	0.42
55:DZ:38:TYR:CD1	55:DZ:38:TYR:O	2.73	0.42
33:D8:62:LEU:N	33:D8:63:PRO:CD	2.82	0.42
45:DP:47:ASP:HB2	45:DP:51:PHE:HB2	2.02	0.42
33:B8:13:ARG:HD2	45:BP:61:ARG:HD3	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:878:A:H2'	34:BA:879:G:C5'	2.50	0.42
34:DA:875:G:H4'	55:DZ:170:THR:HG22	2.02	0.42
34:DA:2745:C:O2'	34:DA:2746:U:H5'	2.19	0.42
18:AR:74:ARG:HG2	18:AR:81:PHE:CE1	2.54	0.42
18:CR:53:ARG:C	18:CR:55:ARG:H	2.21	0.42
27:D2:29:LYS:O	27:D2:32:LEU:N	2.53	0.42
27:D2:32:LEU:CG	27:D2:33:MET:H	2.10	0.42
53:DX:89:ILE:O	53:DX:89:ILE:CG2	2.67	0.42
53:DX:93:GLU:HG3	53:DX:93:GLU:O	2.19	0.42
12:CL:89:ARG:NH2	12:CL:91:LYS:HD3	2.34	0.42
1:AA:375:U:OP1	16:AP:69:THR:HG21	2.20	0.42
34:DA:1496:A:H8	34:DA:1577:C:O2'	2.02	0.42
34:DA:1578:U:OP2	34:DA:1578:U:H6	2.03	0.42
54:DY:83:THR:HG22	54:DY:84:ARG:H	1.85	0.42
10:AJ:40:LEU:HD21	10:AJ:70:ARG:N	2.34	0.42
1:AA:181:G:O6	1:AA:194:C:H2'	2.20	0.42
35:BB:75:G:H2'	35:BB:76:G:H5'	2.00	0.42
37:BD:268:ARG:HB3	37:BD:268:ARG:CZ	2.50	0.42
55:DZ:117:LEU:HD23	55:DZ:117:LEU:O	2.20	0.42
13:CM:9:ILE:N	13:CM:9:ILE:CD1	2.79	0.42
47:DR:45:ARG:O	47:DR:46:GLY:C	2.58	0.42
1:CA:1057:G:C4	1:CA:1204:A:C2	3.08	0.42
34:DA:1697:G:OP2	34:DA:1698:A:H2'	2.19	0.42
5:CE:101:ILE:H	5:CE:101:ILE:CD1	2.10	0.42
43:DN:130:HIS:CG	43:DN:130:HIS:O	2.72	0.42
1:AA:1306:A:O2'	1:AA:1307:U:H5'	2.19	0.42
34:BA:2012:G:H4'	52:BW:96:ILE:CD1	2.38	0.42
41:BH:94:TYR:CD1	41:BH:94:TYR:N	2.87	0.42
50:BU:26:GLY:O	50:BU:28:ARG:N	2.53	0.42
39:BF:164:ARG:HG2	39:BF:164:ARG:NH1	2.35	0.42
4:CD:104:VAL:C	4:CD:106:TYR:N	2.73	0.42
34:BA:271(Q):G:O2'	34:BA:271(R):G:P	2.77	0.42
34:BA:2406:U:C2	45:BP:72:PRO:HB2	2.55	0.42
48:BS:37:ALA:CB	48:BS:73:LEU:HD11	2.49	0.42
36:BC:51:PRO:HB3	36:BC:204:ALA:HB2	2.02	0.42
34:BA:66:C:C2'	34:BA:67:U:H5'	2.49	0.42
13:AM:66:LEU:O	13:AM:67:GLU:O	2.38	0.42
13:CM:23:TYR:CZ	13:CM:71:ARG:HD3	2.54	0.42
39:DF:173:VAL:HG12	39:DF:174:VAL:N	2.35	0.42
6:CF:59:TYR:CD2	6:CF:61:LEU:HD11	2.54	0.42
33:D8:53:PRO:O	33:D8:54:GLU:C	2.57	0.42
51:BV:43:GLU:CA	51:BV:48:GLY:HA2	2.49	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2810:A:C4	38:BE:61:ARG:NH2	2.88	0.42
34:DA:1819:A:H5''	37:DD:158:ALA:HB3	2.01	0.42
34:BA:2328:A:H2'	34:BA:2329:G:C8	2.55	0.42
5:AE:54:ALA:O	5:AE:55:VAL:C	2.58	0.42
6:AF:61:LEU:HD23	6:AF:63:TYR:OH	2.19	0.42
6:AF:63:TYR:HD2	6:AF:63:TYR:N	2.17	0.42
48:DS:58:LEU:HD12	48:DS:59:LYS:H	1.84	0.42
34:BA:440:G:N2	39:BF:46:ARG:HH21	2.15	0.42
37:DD:98:VAL:C	37:DD:100:GLY:N	2.72	0.42
34:DA:2468:G:H5'	46:DQ:120:ILE:HD12	2.00	0.42
15:AO:33:THR:O	15:AO:36:ILE:N	2.53	0.42
23:CW:43:C:O2'	23:CW:44:G:H5'	2.19	0.42
1:AA:261:U:OP2	20:AT:79:ARG:NH2	2.53	0.42
49:DT:6:LEU:HA	49:DT:9:LEU:HD12	2.01	0.42
15:AO:24:SER:O	15:AO:28:GLN:HG3	2.20	0.42
8:CH:73:ASP:O	8:CH:75:ARG:N	2.50	0.42
52:DW:23:LEU:HD22	52:DW:39:THR:HG21	2.02	0.42
1:AA:539:A:OP2	12:AL:115:LYS:HE3	2.19	0.42
41:DH:154:PRO:CG	41:DH:155:SER:N	2.82	0.42
33:D8:23:VAL:CG1	33:D8:46:ARG:HB3	2.50	0.42
3:CC:175:LEU:HD21	3:CC:201:TYR:CE2	2.55	0.42
8:CH:86:ILE:HG13	8:CH:133:LEU:CD2	2.50	0.42
37:BD:133:LEU:HG	37:BD:189:CYS:O	2.20	0.42
34:DA:892:G:H2'	34:DA:893:C:O4'	2.20	0.42
34:DA:893:C:C2'	34:DA:894:C:H5'	2.45	0.42
3:AC:134:ILE:CG2	3:AC:168:ALA:HB3	2.50	0.42
34:DA:1258:C:O2'	34:DA:1259:G:H5'	2.19	0.42
1:CA:1095:U:H5''	1:CA:1109:C:O2	2.19	0.42
43:BN:78:TYR:H	43:BN:79:PRO:CD	2.33	0.42
50:BU:101:ARG:C	50:BU:102:GLU:HG2	2.40	0.42
34:BA:2511:U:H5''	38:BE:123:ALA:HB1	2.02	0.42
17:AQ:36:ILE:HG13	17:AQ:36:ILE:O	2.18	0.42
34:DA:247:G:H4'	34:DA:386:G:C6	2.55	0.42
1:CA:318:G:O2'	1:CA:319:G:H5'	2.20	0.42
2:AB:174:VAL:O	2:AB:177:ALA:HB3	2.20	0.42
4:AD:58:LEU:HD23	4:AD:206:PHE:CZ	2.55	0.42
34:BA:306:U:O2'	34:BA:307:G:H5'	2.20	0.42
1:CA:780:A:C2	1:CA:803:G:N1	2.88	0.42
17:AQ:63:ARG:HG2	17:AQ:64:PRO:CD	2.47	0.42
34:BA:1317:A:H2'	34:BA:1318:C:O4'	2.20	0.42
1:CA:403:C:O2'	1:CA:404:U:C5'	2.67	0.42
44:BO:44:LYS:O	44:BO:45:GLU:HB3	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BI:33:ARG:NH1	42:BI:33:ARG:HG2	2.33	0.42
34:BA:1149:G:O2'	34:BA:1150:C:H5'	2.19	0.42
34:DA:2034:U:H2'	34:DA:2035:G:H5'	2.02	0.42
1:AA:1332:A:C2	1:AA:1333:A:C5	3.07	0.42
34:DA:1317:A:H2'	34:DA:1318:C:O4'	2.20	0.42
11:AK:97:ALA:C	11:AK:99:GLN:H	2.23	0.42
17:CQ:21:VAL:HG12	17:CQ:23:VAL:CG2	2.50	0.42
14:AN:29:ARG:NH1	14:AN:29:ARG:HG3	2.34	0.42
34:DA:703:U:H2'	34:DA:704:G:C5'	2.50	0.42
1:AA:424:G:H2'	1:AA:425:G:H8	1.85	0.42
1:AA:802:A:C2'	1:AA:803:G:H5'	2.50	0.42
34:DA:1809:A:C6	34:DA:1810:A:C6	3.08	0.42
2:AB:223:ILE:C	2:AB:225:ALA:N	2.70	0.42
5:AE:15:ARG:CZ	5:AE:26:PHE:CE2	3.02	0.42
34:BA:2124:G:H2'	34:BA:2125:G:O4'	2.18	0.42
37:BD:53:PHE:CD1	37:BD:220:HIS:HA	2.55	0.42
34:DA:1930:G:N2	34:DA:1968:G:H2'	2.35	0.42
2:AB:116:GLU:HA	2:AB:119:GLU:HB2	2.02	0.42
43:BN:87:LEU:O	43:BN:88:GLU:C	2.57	0.42
1:CA:29:G:O2'	1:CA:30:U:H5'	2.19	0.42
1:AA:836:G:C6	1:AA:851:G:C6	3.08	0.42
37:BD:263:ARG:O	37:BD:264:LYS:C	2.57	0.42
37:BD:175:LEU:HA	37:BD:175:LEU:HD23	1.85	0.42
34:DA:2439:A:H1'	34:DA:2587:A:OP1	2.20	0.42
34:BA:2073:C:H42	34:BA:2436:G:H1	1.67	0.42
8:CH:34:GLU:HA	8:CH:34:GLU:OE1	2.19	0.42
14:CN:33:VAL:HG12	14:CN:34:TYR:H	1.84	0.42
30:B5:36:CYS:C	30:B5:38:ALA:H	2.23	0.42
3:CC:184:TYR:HA	3:CC:200:ALA:O	2.20	0.42
37:DD:25:THR:CG2	37:DD:81:ALA:HB1	2.41	0.42
34:BA:993:G:C4	34:BA:994:C:C5	3.08	0.42
34:BA:536:A:H5'	50:BU:53:ARG:HD3	2.01	0.42
38:DE:197:ILE:O	38:DE:197:ILE:CG1	2.65	0.42
38:DE:69:LYS:CA	38:DE:69:LYS:HE2	2.50	0.42
53:DX:72:LYS:HB2	53:DX:73:ARG:H	1.62	0.42
54:BY:61:ILE:O	54:BY:62:GLU:O	2.37	0.42
48:BS:84:GLN:HE21	48:BS:105:ALA:HB1	1.84	0.42
2:AB:52:GLU:O	2:AB:54:THR:N	2.52	0.42
37:BD:252:TRP:O	37:BD:253:GLN:C	2.57	0.42
38:BE:48:GLN:HE21	38:BE:78:LEU:HD12	1.85	0.42
26:B1:60:PHE:CD1	26:B1:70:VAL:HG22	2.43	0.42
33:B8:62:LEU:HD13	34:BA:242:G:C5'	2.24	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DZ:99:TYR:CD2	55:DZ:125:LEU:HB2	2.55	0.42
1:CA:332:G:O2'	1:CA:333:G:H5'	2.20	0.42
47:BR:85:PRO:C	47:BR:87:TYR:H	2.23	0.42
34:DA:2756:U:H1'	34:DA:2757:A:H5''	2.02	0.42
18:CR:40:LEU:C	18:CR:42:ARG:N	2.71	0.42
16:CP:21:VAL:HG23	16:CP:21:VAL:O	2.19	0.42
5:AE:76:ILE:HB	5:AE:118:ILE:HD13	2.00	0.42
34:DA:1578:U:H2'	34:DA:1579:A:C5'	2.30	0.42
10:AJ:8:LEU:HG	10:AJ:96:ILE:HG22	2.01	0.42
34:DA:2639:A:H3'	34:DA:2640:G:C5'	2.49	0.42
34:BA:2723:C:OP1	47:BR:2:ARG:NH1	2.53	0.42
46:DQ:43:THR:O	46:DQ:44:ALA:C	2.56	0.42
1:CA:1117:G:O2'	9:CI:104:ARG:NH2	2.53	0.42
53:DX:80:ILE:CG2	53:DX:81:VAL:N	2.82	0.42
34:DA:2807:G:H2'	34:DA:2808:U:H5''	2.02	0.42
34:BA:2640:G:C2'	34:BA:2641:G:O5'	2.68	0.42
1:AA:1320:C:C2	19:AS:72:GLY:HA3	2.54	0.42
34:DA:2720:U:O2	34:DA:2720:U:C2'	2.63	0.42
38:DE:184:VAL:HB	38:DE:185:LYS:H	1.72	0.42
34:DA:28:A:N6	34:DA:512:G:H1'	2.35	0.42
6:CF:52:ILE:HA	6:CF:52:ILE:HD13	1.89	0.42
34:DA:1948:G:C2'	34:DA:1949:G:H5'	2.50	0.42
34:DA:2528:U:O2'	34:DA:2529:G:H3'	2.20	0.42
3:CC:75:VAL:O	3:CC:75:VAL:HG12	2.20	0.42
41:BH:146:ALA:O	41:BH:148:ILE:N	2.53	0.42
49:DT:56:GLY:C	49:DT:59:THR:CG2	2.88	0.42
13:AM:54:VAL:C	13:AM:56:LEU:N	2.73	0.42
34:DA:2645:G:C3'	34:DA:2646:C:H5'	2.41	0.42
19:CS:64:GLU:O	19:CS:65:ASN:C	2.58	0.42
25:D0:51:VAL:HG23	25:D0:80:HIS:HA	1.98	0.42
36:BC:20:TYR:N	36:BC:20:TYR:CD1	2.88	0.42
1:CA:568:G:N2	1:CA:883:C:C2	2.87	0.42
44:BO:87:ILE:HD12	44:BO:91:LEU:C	2.40	0.42
15:AO:11:VAL:O	15:AO:14:GLU:N	2.51	0.42
15:AO:53:HIS:HE1	15:AO:57:LEU:HD21	1.84	0.42
13:AM:124:PRO:HG2	13:AM:125:ARG:H	1.85	0.42
34:BA:2813:A:H2'	34:BA:2814:C:H5'	2.02	0.42
15:CO:66:LEU:O	15:CO:67:LEU:C	2.56	0.42
34:DA:1799:G:H2'	37:DD:181:GLU:OE2	2.20	0.42
1:AA:1131:G:H5'	9:AI:3:GLN:NE2	2.35	0.42
1:CA:937:A:C2	1:CA:1379:G:O6	2.73	0.42
30:B5:3:LYS:HA	30:B5:3:LYS:HD2	1.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:D5:2:ALA:O	30:D5:3:LYS:HD2	2.20	0.42
1:CA:156:G:N1	1:CA:166:G:C6	2.88	0.42
23:AW:66:U:H2'	23:AW:67:C:H6	1.81	0.42
3:CC:134:ILE:CG2	3:CC:168:ALA:HB3	2.50	0.42
34:BA:1140:C:OP1	43:BN:23:LEU:HD23	2.19	0.42
1:CA:34:C:H2'	1:CA:35:G:H8	1.84	0.42
4:AD:126:ILE:CG2	4:AD:127:THR:N	2.82	0.42
1:AA:1349:A:H2'	1:AA:1350:A:H8	1.85	0.42
6:CF:46:ARG:NH1	18:CR:37:VAL:HG21	2.31	0.42
4:CD:132:ARG:NH1	4:CD:132:ARG:HG2	2.35	0.42
34:BA:1842:G:H2'	34:BA:1843:C:H6	1.81	0.42
34:BA:1050:A:O2'	34:BA:2752:C:H1'	2.20	0.42
12:AL:113:ARG:NH1	12:AL:120:TYR:CD2	2.88	0.42
34:BA:2097:C:O2'	34:BA:2098:U:H5'	2.19	0.42
21:CU:6:ARG:NH2	21:CU:15:ARG:HH22	2.16	0.42
44:DO:11:ALA:O	44:DO:12:ASP:CB	2.67	0.42
34:DA:851:U:O2'	34:DA:852:G:H5'	2.20	0.42
55:DZ:175:VAL:CB	55:DZ:176:PRO:CD	2.97	0.42
40:DG:5:VAL:O	40:DG:6:ALA:C	2.57	0.42
1:CA:44:G:N2	1:CA:399:G:C4	2.88	0.42
1:AA:96:U:HO2'	1:AA:97:G:P	2.42	0.42
34:DA:2564:A:OP1	34:DA:2648:C:H4'	2.19	0.42
1:CA:689:C:P	11:CK:46:GLY:HA3	2.59	0.42
52:DW:1:MET:HA	52:DW:1:MET:HE3	2.02	0.42
34:BA:978:G:C2	34:BA:986:C:N3	2.88	0.42
20:CT:26:ASN:O	20:CT:27:LYS:C	2.58	0.42
34:DA:2241:A:O2'	34:DA:2242:G:H5'	2.18	0.42
10:CJ:28:ARG:NH1	10:CJ:28:ARG:HG2	2.35	0.42
34:DA:1313:U:C2'	34:DA:1313:U:O2	2.67	0.42
34:BA:1119:C:O2'	34:BA:1120:G:H5'	2.20	0.42
4:CD:79:PHE:O	4:CD:82:ALA:HB3	2.20	0.42
31:D6:47:THR:HG22	31:D6:48:VAL:N	2.33	0.42
2:CB:107:THR:O	2:CB:110:GLN:HB2	2.20	0.42
38:DE:148:GLY:O	38:DE:149:ARG:HB3	2.20	0.42
13:CM:124:PRO:HG2	13:CM:125:ARG:H	1.85	0.42
34:DA:688:U:H5'	34:DA:1780:A:C2	2.55	0.42
34:DA:1969:A:O2'	34:DA:1972:A:N3	2.46	0.42
9:AI:99:LEU:O	9:AI:100:GLY:C	2.58	0.42
35:DB:95:C:H2'	35:DB:96:U:H6	1.84	0.42
34:DA:445:C:O2'	34:DA:446:G:H5'	2.20	0.42
49:DT:10:VAL:O	49:DT:11:GLU:C	2.57	0.42
43:BN:35:ARG:O	43:BN:37:LYS:N	2.53	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1341:U:H3'	1:AA:1341:U:H6	1.84	0.42
49:DT:54:ARG:HG2	49:DT:54:ARG:HH11	1.85	0.42
34:DA:1882:C:H2'	34:DA:1882:C:O2	2.20	0.42
16:CP:76:GLN:HB2	16:CP:76:GLN:HE21	1.63	0.42
34:BA:425:G:O2'	34:BA:426:C:H5'	2.20	0.42
15:AO:65:ARG:O	15:AO:68:ARG:HB3	2.20	0.42
23:CW:48:C:C2	23:CW:59:U:H1'	2.55	0.42
50:DU:109:LEU:HA	50:DU:112:ARG:HB2	2.02	0.42
42:BI:120:ILE:HG21	42:BI:126:TYR:HE1	1.81	0.42
34:BA:1593:G:C2'	34:BA:1594:G:C5'	2.96	0.42
38:DE:1:MET:HB3	38:DE:200:GLU:OE1	2.20	0.42
37:BD:142:VAL:HG22	37:BD:143:HIS:N	2.34	0.42
49:DT:89:VAL:HB	49:DT:91:ARG:NE	2.35	0.42
48:BS:84:GLN:O	48:BS:85:VAL:CG1	2.68	0.42
49:BT:28:VAL:HG21	49:BT:46:GLU:HA	2.01	0.42
2:AB:54:THR:O	2:AB:57:PHE:HB3	2.20	0.42
23:AW:39:U:C5'	23:AW:39:U:O2	2.67	0.42
34:BA:1899:G:HO2'	34:BA:1900:A:H5''	1.85	0.42
38:BE:35:GLN:HE22	38:BE:37:ARG:HH21	1.67	0.42
54:BY:28:LYS:HB2	54:BY:37:VAL:HB	2.02	0.42
3:AC:11:ARG:O	3:AC:14:ILE:O	2.38	0.42
34:BA:194:G:H2'	34:BA:195:A:O4'	2.19	0.42
27:B2:15:LYS:O	27:B2:16:LEU:HB2	2.20	0.42
54:DY:66:PRO:O	54:DY:67:LEU:HB3	2.20	0.42
55:DZ:24:LEU:CD2	55:DZ:24:LEU:C	2.88	0.42
34:DA:2742:C:C4	34:DA:2763:G:N2	2.88	0.42
31:B6:10:LEU:CD2	31:B6:10:LEU:H	2.32	0.42
31:B6:10:LEU:HD13	33:B8:36:LYS:HD3	2.01	0.42
34:BA:2495:G:H5''	46:BQ:81:VAL:HG22	2.02	0.42
34:DA:2038:G:H2'	34:DA:2039:C:O4'	2.19	0.42
34:DA:556:G:C6	34:DA:557:U:C4	3.08	0.42
47:BR:54:LEU:C	47:BR:56:LYS:N	2.73	0.42
34:BA:2713:A:C3'	34:BA:2714:G:H5'	2.50	0.42
46:DQ:8:LYS:CG	46:DQ:9:TYR:N	2.83	0.42
44:BO:47:ILE:HA	44:BO:47:ILE:HD12	1.92	0.42
50:BU:65:ILE:O	50:BU:68:ALA:HB3	2.20	0.42
34:BA:572:A:H5''	34:BA:573:G:OP2	2.20	0.42
41:BH:147:ASN:N	41:BH:147:ASN:HD22	2.18	0.42
47:DR:37:THR:O	47:DR:38:VAL:C	2.59	0.42
45:DP:24:GLY:CA	45:DP:33:ARG:HE	2.29	0.42
10:CJ:15:THR:O	10:CJ:18:ALA:N	2.53	0.42
34:BA:2723:C:OP1	47:BR:2:ARG:CZ	2.68	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BH:152:ARG:HB3	41:BH:161:GLY:CA	2.32	0.42
53:BX:57:LEU:HD21	53:BX:77:LYS:NZ	2.35	0.42
46:DQ:24:GLY:HA2	46:DQ:100:GLY:O	2.20	0.42
26:D1:77:ALA:O	26:D1:79:GLY:N	2.41	0.42
53:DX:27:THR:HB	53:DX:77:LYS:HA	2.02	0.42
43:DN:125:GLY:HA3	43:DN:126:PRO:C	2.39	0.42
34:DA:2726:U:O2'	34:DA:2727:G:H5'	2.20	0.42
34:DA:27:G:N2	34:DA:512:G:O2'	2.53	0.42
41:BH:94:TYR:N	41:BH:94:TYR:HD1	2.18	0.42
1:CA:17:U:C2	1:CA:18:C:C5	3.08	0.42
43:BN:28:THR:O	43:BN:31:ALA:N	2.52	0.42
34:BA:581:C:OP1	50:BU:33:ARG:HG2	2.20	0.42
34:DA:1947:C:C3'	34:DA:1948:G:C5'	2.96	0.42
5:AE:127:ASN:O	5:AE:131:ILE:HG12	2.20	0.42
34:BA:1528:A:O2'	34:BA:1528(A):A:P	2.78	0.42
4:AD:101:LEU:HD12	4:AD:105:VAL:HG23	2.01	0.42
4:AD:104:VAL:O	4:AD:106:TYR:N	2.53	0.42
34:DA:16:G:H2'	34:DA:17:G:H8	1.84	0.42
50:DU:38:THR:C	50:DU:40:PHE:N	2.72	0.42
40:DG:70:VAL:HG12	40:DG:88:ILE:HD11	2.02	0.42
36:DC:51:PRO:O	36:DC:52:ARG:HB2	2.20	0.42
8:CH:38:ILE:HG21	8:CH:111:ILE:HG12	2.01	0.42
1:CA:277:C:H5''	17:CQ:68:ARG:NH2	2.34	0.42
1:CA:189(D):C:H1'	1:CA:189(H):G:N2	2.35	0.42
38:DE:167:VAL:CG2	38:DE:170:LEU:HD11	2.46	0.42
23:CW:23:A:C6	23:CW:24:G:C6	3.07	0.42
30:B5:40:LYS:HE2	30:B5:48:GLU:OE2	2.20	0.42
30:B5:47:PRO:C	30:B5:48:GLU:HG3	2.40	0.42
15:AO:82:ILE:HG23	15:AO:83:GLU:N	2.35	0.42
34:BA:464:U:H2'	34:BA:465:G:O4'	2.20	0.42
34:BA:1517:G:C2'	34:BA:1518:U:H5'	2.50	0.42
1:AA:757:U:H2'	1:AA:758:G:O4'	2.19	0.42
34:DA:2691:C:C6	34:DA:2872:G:N1	2.88	0.42
34:DA:61:G:H1	34:DA:94:C:N4	2.07	0.42
47:DR:104:ARG:HG2	47:DR:104:ARG:HH11	1.84	0.42
13:AM:116:THR:CG2	13:AM:117:VAL:N	2.74	0.42
34:DA:1229:G:C6	34:DA:1230:C:C4	3.07	0.42
1:CA:674:G:H2'	1:CA:675:A:C8	2.46	0.42
7:CG:20:ASP:OD1	7:CG:22:LEU:HB3	2.20	0.42
1:AA:522:C:H41	12:AL:53:ARG:HH21	1.68	0.42
1:AA:538:G:O2'	1:AA:539:A:H5'	2.20	0.42
35:BB:21:G:O2'	35:BB:22:U:C5'	2.67	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:848:G:C2	34:BA:933:A:H1'	2.54	0.42
1:CA:973:G:OP1	10:CJ:57:LYS:NZ	2.53	0.42
16:CP:39:TYR:CD1	16:CP:40:ASP:N	2.87	0.42
3:AC:35:GLU:C	3:AC:37:GLN:N	2.74	0.42
1:AA:1060:C:H5	3:AC:2:GLY:HA3	1.84	0.42
14:AN:42:ILE:O	14:AN:46:GLU:HG3	2.19	0.42
34:DA:1709:U:H2'	34:DA:1710:C:C6	2.55	0.42
52:BW:40:ASN:C	52:BW:41:LYS:HG2	2.38	0.42
34:BA:1006:C:O2'	34:BA:1007:C:H5'	2.20	0.42
4:CD:30:LYS:HB3	4:CD:35:ARG:HD2	2.02	0.42
17:CQ:78:GLU:OE1	17:CQ:81:ARG:HD2	2.20	0.42
44:DO:119:PRO:O	44:DO:120:GLU:HB2	2.19	0.42
11:AK:77:MET:O	11:AK:78:GLN:HG2	2.20	0.42
16:CP:53:VAL:O	16:CP:54:GLU:C	2.56	0.42
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.84	0.42
31:B6:51:GLU:HG2	31:B6:52:VAL:N	2.34	0.42
1:CA:779:C:C2'	1:CA:780:A:H5'	2.50	0.42
1:AA:1310:G:HO2'	1:AA:1311:G:H5'	1.85	0.42
13:CM:46:LYS:CG	13:CM:47:ASP:N	2.81	0.42
34:DA:693:C:O2'	34:DA:694:U:H5'	2.20	0.42
1:CA:617:G:H1	1:CA:623:C:H42	1.67	0.42
1:AA:149:A:O2'	1:AA:150:C:P	2.78	0.42
1:AA:287:U:O2'	1:AA:288:A:H5'	2.20	0.42
11:AK:25:TYR:CD1	11:AK:25:TYR:N	2.77	0.42
34:BA:1106:A:O2'	34:BA:1107:G:O4'	2.32	0.42
7:CG:149:ARG:O	7:CG:152:ALA:CB	2.68	0.42
34:DA:201:C:O2'	34:DA:202:U:H5'	2.19	0.42
34:DA:1755:A:H2'	34:DA:1756:G:H5'	2.00	0.42
1:CA:285:G:H2'	1:CA:286:G:O4'	2.20	0.42
55:BZ:131:ARG:NH1	55:BZ:131:ARG:HG2	2.35	0.42
34:DA:2222:G:C4	34:DA:2223:G:C8	3.07	0.42
34:BA:1473:G:C6	34:BA:1474:C:C4	3.07	0.42
7:CG:36:LYS:HB2	7:CG:36:LYS:NZ	2.34	0.42
52:BW:106:ILE:HG13	52:BW:106:ILE:O	2.20	0.42
34:DA:332:A:O2'	34:DA:333:G:P	2.77	0.42
37:DD:175:LEU:O	37:DD:182:LEU:HA	2.19	0.42
1:CA:1486:G:C6	1:CA:1487:G:C6	3.08	0.42
36:DC:169:GLY:O	36:DC:170:ALA:HB3	2.20	0.42
1:CA:760:G:N2	17:CQ:97:SER:OG	2.52	0.42
41:DH:109:PHE:N	41:DH:109:PHE:CD1	2.88	0.42
19:AS:24:ALA:C	19:AS:26:GLY:H	2.24	0.42
44:BO:53:LYS:O	44:BO:56:ASP:CG	2.58	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:1252:G:C2	34:BA:1253:A:C2	3.08	0.42
42:BI:115:ALA:HB3	42:BI:129:THR:O	2.20	0.41
42:BI:86:THR:HA	42:BI:122:GLU:OE2	2.20	0.41
38:DE:34:VAL:HA	38:DE:67:PHE:CD1	2.54	0.41
38:DE:55:ASN:OD1	38:DE:75:VAL:HG13	2.19	0.41
35:BB:6:C:H4'	35:BB:28:C:H5'	2.02	0.41
35:BB:9:G:P	48:BS:17:ARG:NH1	2.93	0.41
49:BT:91:ARG:HB3	49:BT:115:ARG:O	2.20	0.41
38:BE:176:ILE:N	38:BE:176:ILE:CD1	2.81	0.41
38:BE:29:GLY:O	38:BE:30:PRO:C	2.57	0.41
54:BY:6:HIS:HE1	54:BY:30:VAL:HG11	1.85	0.41
26:B1:48:LYS:O	26:B1:49:VAL:CB	2.68	0.41
26:B1:87:PRO:N	26:B1:89:GLU:OE2	2.53	0.41
34:DA:82:G:N1	34:DA:103:A:OP2	2.48	0.41
2:CB:17:PHE:N	2:CB:17:PHE:HD2	2.18	0.41
45:BP:68:GLN:HG3	45:BP:68:GLN:O	2.20	0.41
20:CT:99:LEU:HB2	20:CT:100:ILE:HD12	2.01	0.41
43:DN:46:VAL:CG1	43:DN:47:ALA:N	2.71	0.41
50:DU:61:TRP:O	50:DU:64:ARG:N	2.53	0.41
50:DU:64:ARG:O	50:DU:65:ILE:C	2.58	0.41
41:DH:118:PRO:CB	41:DH:121:ILE:HD12	2.47	0.41
41:DH:85:LYS:CD	41:DH:133:VAL:HB	2.43	0.41
41:DH:147:ASN:N	41:DH:147:ASN:HD22	2.17	0.41
41:DH:116:GLU:HG2	41:DH:117:PRO:N	2.34	0.41
34:DA:2103:C:H5'	34:DA:2104:G:OP2	2.20	0.41
41:BH:141:VAL:HG12	41:BH:142:GLY:H	1.84	0.41
38:BE:120:TRP:HB2	38:BE:122:PHE:CD1	2.55	0.41
1:CA:62:U:O2'	1:CA:379:C:H1'	2.19	0.41
34:BA:590:A:H2'	34:BA:591:C:C6	2.55	0.41
36:BC:168:THR:HA	36:BC:173:ALA:CB	2.32	0.41
37:DD:177:LEU:O	37:DD:180:GLY:N	2.52	0.41
5:CE:107:ARG:HG2	5:CE:108:ALA:N	2.35	0.41
55:BZ:165:VAL:HG12	55:BZ:166:SER:N	2.35	0.41
34:BA:2359:C:H2'	34:BA:2360:A:C8	2.55	0.41
19:AS:15:LEU:N	19:AS:15:LEU:CD2	2.83	0.41
12:AL:32:PHE:HD1	12:AL:86:ARG:HA	1.85	0.41
1:AA:1057:G:H2'	1:AA:1058:G:O4'	2.20	0.41
34:BA:495:G:H21	52:BW:61:ASN:HD21	1.68	0.41
47:DR:55:ALA:HA	47:DR:80:PHE:CE1	2.55	0.41
34:BA:389:G:H8	34:BA:389:G:O5'	2.02	0.41
45:BP:71:VAL:C	45:BP:73:GLY:N	2.73	0.41
34:DA:815:C:H2'	34:DA:816:C:C6	2.53	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DR:17:ARG:HH11	47:DR:17:ARG:HG2	1.85	0.41
1:AA:728:A:C2	1:AA:729:A:C5	3.08	0.41
42:DI:69:LYS:CB	42:DI:136:VAL:HB	2.50	0.41
38:BE:153:GLY:O	38:BE:154:LYS:C	2.56	0.41
34:DA:271(C):C:O2'	34:DA:271(D):G:H5'	2.18	0.41
34:DA:2309:A:C2	34:DA:2310:A:H2	2.38	0.41
17:CQ:18:THR:HG23	17:CQ:69:LYS:HE3	2.01	0.41
51:BV:44:LYS:HG2	51:BV:45:THR:H	1.85	0.41
9:CI:49:PRO:HA	9:CI:101:PHE:HE1	1.85	0.41
34:BA:1353:A:H2'	34:BA:1354:A:C8	2.55	0.41
25:D0:40:GLN:NE2	25:D0:43:THR:HA	2.35	0.41
44:DO:86:ILE:H	44:DO:86:ILE:CD1	2.33	0.41
8:CH:29:SER:O	8:CH:30:ARG:C	2.59	0.41
44:BO:89:ASN:O	44:BO:91:LEU:CD2	2.66	0.41
34:BA:528:A:H5'	43:BN:111:PRO:HG3	2.01	0.41
13:AM:124:PRO:O	13:AM:126:LYS:N	2.53	0.41
34:DA:2580:U:C5'	38:DE:131:ALA:N	2.80	0.41
15:CO:75:PRO:HG2	15:CO:76:GLU:N	2.35	0.41
38:DE:38:THR:CG2	38:DE:39:PRO:HD2	2.45	0.41
39:DF:16:GLY:O	39:DF:17:ARG:CG	2.68	0.41
8:CH:109:ILE:CG2	8:CH:137:VAL:HB	2.50	0.41
1:CA:189(L):G:H2'	1:CA:190:U:C6	2.55	0.41
19:CS:42:PRO:O	19:CS:43:GLU:CB	2.60	0.41
40:BG:66:GLN:OE1	40:BG:94:LEU:HD22	2.20	0.41
41:BH:153:LYS:CD	41:BH:153:LYS:N	2.79	0.41
39:DF:84:VAL:CG1	39:DF:85:GLY:H	2.31	0.41
23:CW:21:A:N6	23:CW:46:G:N3	2.67	0.41
1:AA:1375:A:H2'	1:AA:1376:U:H6	1.85	0.41
22:CV:4:G:O2'	22:CV:5:G:P	2.77	0.41
44:BO:119:PRO:O	49:BT:68:TYR:CE1	2.73	0.41
44:BO:119:PRO:HB2	49:BT:68:TYR:HE1	1.85	0.41
13:AM:90:LEU:C	13:AM:92:HIS:H	2.21	0.41
47:DR:8:ARG:CA	47:DR:8:ARG:NE	2.80	0.41
10:AJ:45:ARG:CB	10:AJ:65:LEU:HB3	2.48	0.41
31:D6:51:GLU:HG2	31:D6:52:VAL:N	2.35	0.41
4:CD:56:VAL:C	4:CD:58:LEU:N	2.72	0.41
3:CC:124:ILE:HD12	3:CC:124:ILE:H	1.86	0.41
1:CA:364:A:H2'	1:CA:365:U:O2	2.20	0.41
34:DA:523:C:H2'	34:DA:524:U:C5'	2.50	0.41
52:BW:57:ASN:O	52:BW:58:ALA:C	2.57	0.41
11:CK:60:ALA:C	11:CK:62:GLN:N	2.73	0.41
49:BT:134:GLU:O	49:BT:135:ALA:HB3	2.19	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:170:VAL:O	4:AD:171:GLY:C	2.58	0.41
20:CT:28:ALA:O	20:CT:29:LYS:C	2.57	0.41
34:DA:2661:G:O4'	34:DA:2661:G:P	2.78	0.41
20:AT:23:ARG:O	20:AT:26:ASN:ND2	2.53	0.41
1:AA:285:G:H2'	1:AA:286:G:O4'	2.20	0.41
41:BH:60:ARG:O	41:BH:64:LEU:HG	2.20	0.41
34:BA:901:A:H5'	34:BA:902:C:OP2	2.20	0.41
40:BG:120:LEU:H	40:BG:181:ARG:H	1.67	0.41
5:CE:15:ARG:CZ	5:CE:26:PHE:CE2	3.03	0.41
1:CA:1229:A:H2'	1:CA:1230:C:H6	1.85	0.41
1:AA:1275:A:O2'	1:AA:1276:G:H5'	2.20	0.41
34:BA:2567:G:H2'	34:BA:2568:C:C6	2.54	0.41
34:BA:261:G:C2	34:BA:262:A:C8	3.08	0.41
1:AA:44:G:H2'	1:AA:45:U:O4'	2.19	0.41
34:DA:2558:C:H2'	34:DA:2559:C:O4'	2.20	0.41
1:CA:1360:A:C2'	1:CA:1361:G:H5'	2.50	0.41
24:AX:19:U:N3	23:AY:37:A:C2	2.88	0.41
34:BA:1031:G:N2	34:BA:1124:C:C2	2.88	0.41
35:DB:35:U:O2'	35:DB:36:C:H5'	2.20	0.41
34:BA:2880:C:O2	47:BR:93:GLY:N	2.53	0.41
34:BA:1399:C:O2'	34:BA:1400:G:H5'	2.20	0.41
1:AA:616:G:H2'	1:AA:616:G:N3	2.35	0.41
34:DA:975:C:H4'	34:DA:975:C:OP2	2.20	0.41
5:CE:79:GLU:OE1	5:CE:79:GLU:N	2.52	0.41
29:B4:42:PHE:C	29:B4:44:THR:N	2.73	0.41
2:CB:79:ASP:O	2:CB:82:ARG:HB3	2.19	0.41
34:BA:1410:G:N1	34:BA:1593:G:C6	2.88	0.41
48:DS:49:VAL:HG12	48:DS:73:LEU:HD22	2.02	0.41
2:AB:39:ILE:HG22	2:AB:40:HIS:N	2.35	0.41
2:AB:58:ILE:HD11	2:AB:185:ILE:HD12	2.01	0.41
38:BE:35:GLN:HB3	38:BE:48:GLN:HB3	2.01	0.41
39:BF:53:THR:HG23	39:BF:56:GLU:H	1.85	0.41
34:BA:1482:G:H2'	34:BA:1484:G:C8	2.55	0.41
45:DP:107:LYS:C	45:DP:109:GLY:N	2.73	0.41
35:DB:104:U:O2'	35:DB:105:A:H5'	2.19	0.41
46:BQ:11:LYS:CE	46:BQ:86:GLY:O	2.68	0.41
47:BR:65:LEU:HD12	47:BR:65:LEU:HA	1.87	0.41
18:AR:62:GLU:O	18:AR:65:ILE:CD1	2.68	0.41
18:AR:74:ARG:O	18:AR:81:PHE:HE1	2.03	0.41
26:D1:47:GLN:CD	34:DA:2090:G:H21	2.23	0.41
10:AJ:4:ILE:HG12	10:AJ:100:THR:HG22	2.02	0.41
10:CJ:6:ILE:CD1	10:CJ:72:VAL:O	2.69	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:102:ALA:CB	5:AE:120:THR:OG1	2.69	0.41
42:DI:9:LEU:N	42:DI:13:GLY:HA2	2.09	0.41
54:BY:84:ARG:HH11	54:BY:97:ARG:HA	1.84	0.41
13:CM:25:ILE:N	13:CM:25:ILE:HD12	2.34	0.41
40:DG:105:LYS:HG2	40:DG:142:PRO:HG3	2.02	0.41
34:DA:2807:G:H2'	34:DA:2808:U:C5'	2.49	0.41
46:BQ:34:LEU:HD11	46:BQ:129:THR:CB	2.50	0.41
13:CM:117:VAL:O	13:CM:118:ALA:CB	2.67	0.41
26:B1:33:LYS:HB3	34:BA:2395:C:O2'	2.19	0.41
1:AA:1499:A:C2	1:AA:1500:A:C8	3.08	0.41
1:AA:1521:G:O2'	1:AA:1522:U:H5'	2.20	0.41
42:BI:72:LEU:HD12	42:BI:138:ILE:HG21	2.02	0.41
34:BA:65:C:O2'	34:BA:66:C:H5'	2.20	0.41
40:DG:88:ILE:CG1	40:DG:89:GLY:N	2.71	0.41
6:CF:75:LEU:O	6:CF:76:ALA:C	2.57	0.41
4:CD:10:ARG:HH11	4:CD:10:ARG:HG2	1.85	0.41
34:BA:2729:G:C4	34:BA:2730:C:C5	3.08	0.41
6:AF:19:LEU:HD21	6:AF:23:LYS:HD2	2.03	0.41
35:DB:6:C:H4'	35:DB:28:C:H5'	2.02	0.41
1:AA:322:C:H41	1:AA:328:C:H6	1.68	0.41
34:DA:2110:G:H1	34:DA:2179:C:N4	2.09	0.41
15:CO:67:LEU:HA	15:CO:67:LEU:HD23	1.84	0.41
9:CI:19:LEU:HB3	9:CI:59:PHE:CD2	2.55	0.41
3:AC:64:VAL:CB	3:AC:99:VAL:HG12	2.50	0.41
3:CC:64:VAL:HB	3:CC:99:VAL:HG12	2.01	0.41
34:BA:1039:G:O2'	34:BA:1040:C:H5'	2.19	0.41
9:AI:3:GLN:C	9:AI:4:TYR:CD1	2.85	0.41
12:AL:117:ARG:O	12:AL:118:SER:C	2.59	0.41
2:CB:97:TRP:CZ2	2:CB:102:LEU:HD13	2.50	0.41
1:AA:963:G:H2'	1:AA:964:A:C8	2.53	0.41
14:AN:43:CYS:O	14:AN:44:LEU:C	2.58	0.41
49:DT:24:PRO:HA	49:DT:49:VAL:HG13	2.02	0.41
34:DA:2454:G:HO2'	34:DA:2455:G:H5'	1.82	0.41
11:CK:38:ASN:N	11:CK:38:ASN:ND2	2.67	0.41
34:DA:894:C:H2'	34:DA:895:U:C6	2.55	0.41
1:AA:449:C:C5	1:AA:450:G:C4	3.08	0.41
34:BA:1478:G:O2'	34:BA:1558:A:C2	2.74	0.41
13:AM:81:LEU:HD21	13:AM:88:ARG:HH12	1.84	0.41
1:CA:1514:C:C2	1:CA:1515:C:C6	3.07	0.41
34:DA:1653:G:H4'	34:DA:1654:A:O5'	2.19	0.41
34:DA:412:A:C2'	34:DA:413:C:H5'	2.49	0.41
1:AA:405:U:H3'	1:AA:406:G:H5'	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:BY:54:LYS:HG2	54:BY:55:TYR:N	2.35	0.41
3:CC:156:ARG:NH2	3:CC:159:GLY:O	2.54	0.41
34:DA:1464:C:O2'	34:DA:1528:A:C8	2.61	0.41
49:DT:13:ARG:NH2	49:DT:15:VAL:HG22	2.35	0.41
44:BO:104:ARG:CZ	44:BO:104:ARG:HB3	2.50	0.41
34:BA:1014:U:C2	34:BA:1149:G:N2	2.88	0.41
1:CA:261:U:OP2	20:CT:79:ARG:NH2	2.53	0.41
38:DE:9:VAL:HG22	38:DE:25:VAL:HB	2.01	0.41
34:DA:2192:G:C2'	34:DA:2193:G:H5''	2.51	0.41
1:CA:985:C:H2'	1:CA:986:A:C8	2.54	0.41
1:CA:97:G:O2'	1:CA:98:G:P	2.78	0.41
34:DA:314:A:C2'	34:DA:315:G:H5'	2.50	0.41
34:BA:986:C:O2'	34:BA:987:G:H5'	2.21	0.41
34:BA:710:G:O2'	34:BA:711:G:H5'	2.20	0.41
4:CD:177:ASP:O	4:CD:178:VAL:C	2.58	0.41
1:AA:1324:A:C5	1:AA:1325:C:C5	3.09	0.41
37:BD:257:LEU:CD2	37:BD:257:LEU:C	2.89	0.41
12:AL:7:ILE:HD13	12:AL:7:ILE:HA	1.83	0.41
15:CO:61:GLY:O	15:CO:64:ARG:HB3	2.19	0.41
34:DA:335:C:H2'	34:DA:336:C:H6	1.84	0.41
55:DZ:101:PRO:O	55:DZ:102:LEU:HG	2.19	0.41
43:DN:102:ALA:O	43:DN:106:MET:HG3	2.20	0.41
40:BG:51:ARG:NE	40:BG:51:ARG:HA	2.34	0.41
19:CS:27:GLU:HB3	19:CS:28:LYS:H	1.64	0.41
9:AI:40:LEU:HD11	9:AI:70:LYS:HG2	2.03	0.41
54:DY:73:ARG:HH22	54:DY:82:PRO:HD3	1.85	0.41
9:CI:99:LEU:O	9:CI:100:GLY:C	2.57	0.41
29:D4:20:ASN:C	29:D4:22:ILE:N	2.73	0.41
50:DU:90:VAL:HG13	51:DV:39:LEU:HG	2.02	0.41
37:DD:25:THR:HB	37:DD:82:ILE:H	1.85	0.41
53:BX:58:HIS:O	53:BX:59:VAL:CG1	2.62	0.41
48:DS:17:ARG:HG3	48:DS:18:ILE:H	1.83	0.41
38:DE:51:PHE:CD1	38:DE:52:LEU:N	2.88	0.41
49:DT:91:ARG:C	49:DT:93:ARG:H	2.24	0.41
34:BA:626:U:N3	45:BP:105:LEU:HG	2.35	0.41
49:BT:61:PHE:CZ	49:BT:85:LYS:HE2	2.55	0.41
34:BA:188:G:C2'	34:BA:189:G:H5'	2.51	0.41
3:CC:11:ARG:O	3:CC:14:ILE:O	2.39	0.41
38:BE:47:VAL:O	38:BE:49:LEU:HD22	2.21	0.41
38:BE:55:ASN:HD21	38:BE:75:VAL:HG22	1.83	0.41
54:BY:13:VAL:HG12	54:BY:14:LEU:N	2.33	0.41
45:DP:100:LEU:O	45:DP:103:ALA:N	2.54	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:D8:35:GLN:CB	34:DA:2420:C:OP1	2.68	0.41
45:DP:62:LEU:N	45:DP:62:LEU:CD2	2.69	0.41
45:BP:68:GLN:CG	45:BP:68:GLN:O	2.69	0.41
13:AM:25:ILE:N	13:AM:25:ILE:HD12	2.36	0.41
10:AJ:5:ARG:HG3	10:AJ:73:ASP:OD2	2.20	0.41
26:D1:14:VAL:CG2	26:D1:15:ALA:N	2.83	0.41
34:BA:2462:U:O2'	34:BA:2463:C:H5'	2.20	0.41
45:BP:24:GLY:CA	45:BP:33:ARG:HE	2.30	0.41
54:BY:81:LYS:HE2	54:BY:97:ARG:HG2	2.01	0.41
55:BZ:97:GLU:O	55:BZ:98:MET:HB3	2.20	0.41
9:AI:69:GLY:O	9:AI:72:GLY:N	2.54	0.41
34:BA:354:G:H2'	34:BA:355:G:O4'	2.20	0.41
53:BX:89:ILE:O	53:BX:89:ILE:CG2	2.67	0.41
34:BA:1142(A):A:C5	34:BA:1144:G:C5	3.08	0.41
3:CC:188:LEU:O	3:CC:189:ALA:CB	2.69	0.41
1:CA:6:G:C4	5:CE:119:LEU:HD11	2.56	0.41
34:DA:197:A:H62	34:DA:2430:A:H2'	1.83	0.41
41:BH:92:ILE:O	41:BH:94:TYR:N	2.48	0.41
3:CC:50:ALA:HB1	3:CC:70:VAL:HG11	2.03	0.41
6:CF:50:TYR:HE2	6:CF:52:ILE:HD11	1.85	0.41
47:DR:49:ASP:O	47:DR:51:LEU:N	2.52	0.41
31:D6:33:LYS:HA	31:D6:33:LYS:CE	2.36	0.41
4:AD:94:LEU:O	4:AD:95:GLY:C	2.57	0.41
34:DA:2313:C:O2'	34:DA:2314:C:H5'	2.20	0.41
34:DA:2313:C:C5	34:DA:2314:C:H5	2.37	0.41
30:B5:20:ARG:HB3	30:B5:23:HIS:CD2	2.48	0.41
34:BA:1719:G:C6	34:BA:1720:U:C4	3.09	0.41
34:DA:2730:C:C2'	34:DA:2731:G:H5'	2.49	0.41
12:CL:22:SER:C	12:CL:24:VAL:N	2.73	0.41
31:D6:19:ARG:HB2	31:D6:20:ASN:H	1.63	0.41
30:B5:46:CYS:SG	30:B5:47:PRO:CD	3.08	0.41
53:DX:83:VAL:O	53:DX:83:VAL:HG23	2.20	0.41
37:DD:259:THR:O	37:DD:260:ARG:C	2.58	0.41
34:BA:1378:A:C8	34:BA:1380:G:C6	3.08	0.41
48:DS:54:LEU:HD22	48:DS:57:LYS:O	2.19	0.41
34:DA:1791:A:C8	34:DA:1792:G:C8	3.08	0.41
34:BA:2040:C:C2	34:BA:2041:U:C6	3.08	0.41
34:DA:1379:A:O2'	34:DA:1380:G:OP1	2.37	0.41
46:DQ:50:ALA:HA	46:DQ:124:LYS:HG3	2.01	0.41
34:DA:2580:U:H4'	38:DE:130:GLY:HA2	2.02	0.41
50:DU:9:VAL:O	50:DU:13:LYS:HG2	2.19	0.41
5:AE:36:ASP:OD2	5:AE:38:GLN:CB	2.66	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:75:PRO:O	15:CO:76:GLU:C	2.57	0.41
49:DT:50:ILE:O	49:DT:99:LEU:HD12	2.20	0.41
42:DI:45:LYS:HG3	42:DI:46:ALA:N	2.36	0.41
7:AG:15:ASP:CB	7:AG:20:ASP:H	2.34	0.41
1:AA:938:A:O2'	1:AA:939:G:H5'	2.20	0.41
7:AG:78:ARG:NH1	7:AG:156:TRP:CE3	2.88	0.41
34:BA:1229:G:C6	34:BA:1230:C:C4	3.08	0.41
34:BA:131:G:H2'	34:BA:132:G:H5'	2.02	0.41
34:BA:2013:A:C2'	34:BA:2014:A:H5'	2.50	0.41
34:BA:1261:C:C2'	34:BA:1262:A:O5'	2.68	0.41
31:B6:45:LYS:HG3	34:BA:2371:G:C4'	2.50	0.41
47:DR:21:TYR:CD2	47:DR:21:TYR:N	2.88	0.41
34:DA:878:A:H2'	34:DA:879:G:C5'	2.50	0.41
5:CE:18:ARG:HH21	5:CE:25:ARG:HG2	1.85	0.41
5:CE:56:GLN:O	5:CE:59:GLY:N	2.54	0.41
1:CA:32:A:C2	1:CA:33:A:C4	3.08	0.41
34:DA:2292:C:C2'	34:DA:2293:C:H5'	2.51	0.41
42:BI:52:ARG:O	42:BI:55:ALA:N	2.54	0.41
11:AK:24:SER:O	11:AK:26:ASN:N	2.53	0.41
38:DE:110:GLY:HA2	38:DE:162:ALA:N	2.36	0.41
39:DF:10:PRO:CG	39:DF:11:VAL:H	2.31	0.41
1:CA:1509:C:H2'	1:CA:1510:U:O4'	2.20	0.41
34:DA:868:U:C4	34:DA:869:G:N7	2.88	0.41
34:DA:1278:A:H2'	34:DA:1279:G:C8	2.56	0.41
34:BA:412:A:C2'	34:BA:413:C:H5'	2.49	0.41
1:CA:808:C:OP2	15:CO:48:LYS:HE3	2.20	0.41
1:CA:669:U:H2'	1:CA:670:G:H8	1.84	0.41
17:AQ:19:VAL:HG22	17:AQ:44:ALA:HB3	2.00	0.41
1:CA:262:A:C6	1:CA:263:A:C6	3.09	0.41
31:D6:26:ASN:O	31:D6:27:LYS:HD3	2.20	0.41
4:AD:112:VAL:HG12	4:AD:116:GLN:CD	2.40	0.41
1:AA:946:A:H2'	1:AA:947:G:H8	1.83	0.41
34:BA:1817:G:H2'	34:BA:1818:U:H5'	2.02	0.41
34:DA:1298:C:H3'	34:DA:1299:G:H8	1.85	0.41
17:CQ:21:VAL:HG12	17:CQ:23:VAL:HG23	2.01	0.41
11:AK:41:THR:HG22	11:AK:42:TRP:H	1.86	0.41
27:B2:35:LEU:HD23	27:B2:35:LEU:H	1.85	0.41
16:AP:19:ILE:HG22	16:AP:36:ILE:CD1	2.49	0.41
1:AA:444:C:H2'	1:AA:445:G:H8	1.84	0.41
1:AA:1415:G:H2'	1:AA:1416:G:H8	1.84	0.41
1:AA:864:A:C2	1:AA:917:G:N3	2.88	0.41
15:AO:64:ARG:O	15:AO:65:ARG:C	2.58	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1691:C:O2'	34:DA:1692:U:H5'	2.20	0.41
34:BA:1824:G:O2'	34:BA:1825:A:H5'	2.20	0.41
3:AC:42:LEU:O	3:AC:45:LYS:HB2	2.21	0.41
1:CA:746:A:H2'	1:CA:747:C:C6	2.56	0.41
1:CA:1029:C:H2'	1:CA:1030:C:C5	2.55	0.41
44:BO:73:ASP:OD1	44:BO:73:ASP:C	2.59	0.41
7:CG:6:ARG:HG2	7:CG:6:ARG:O	2.19	0.41
8:AH:81:HIS:N	8:AH:81:HIS:ND1	2.69	0.41
3:AC:101:LEU:C	3:AC:101:LEU:HD23	2.41	0.41
1:AA:137:C:H2'	1:AA:137:C:O2	2.20	0.41
34:DA:2766:G:N3	34:DA:2766:G:H2'	2.34	0.41
34:DA:186:G:C2	34:DA:211:A:C2	3.09	0.41
6:AF:78:GLU:O	6:AF:81:ILE:HG13	2.20	0.41
1:AA:451:A:N6	1:AA:480:U:H2'	2.35	0.41
51:DV:62:LEU:HB3	51:DV:96:ILE:CG2	2.50	0.41
42:BI:99:GLU:C	42:BI:101:LEU:N	2.72	0.41
34:DA:1204:A:H2	34:DA:1241:A:N1	2.18	0.41
34:BA:1225:G:OP1	51:BV:88:ARG:CB	2.68	0.41
34:BA:1225:G:P	51:BV:88:ARG:HB3	2.59	0.41
48:DS:17:ARG:CG	48:DS:18:ILE:N	2.79	0.41
38:DE:176:ILE:N	38:DE:176:ILE:CD1	2.80	0.41
38:DE:27:LEU:HD12	38:DE:180:ASN:O	2.19	0.41
49:DT:85:LYS:HG2	49:DT:85:LYS:O	2.20	0.41
45:BP:127:ALA:HB3	45:BP:130:PHE:CE2	2.55	0.41
49:BT:89:VAL:HB	49:BT:91:ARG:NE	2.35	0.41
2:AB:52:GLU:O	2:AB:53:ARG:C	2.57	0.41
38:BE:101:ARG:HH11	38:BE:169:ASN:ND2	2.19	0.41
34:DA:2522:U:H2'	34:DA:2523:G:C5'	2.51	0.41
34:BA:1204:A:H2	34:BA:1241:A:N1	2.17	0.41
26:B1:62:VAL:HG21	26:B1:67:ILE:CA	2.50	0.41
55:DZ:10:ARG:CD	55:DZ:12:GLY:HA2	2.51	0.41
55:DZ:10:ARG:H	55:DZ:37:VAL:HA	1.85	0.41
55:DZ:70:LEU:HD11	55:DZ:91:LEU:HD21	2.01	0.41
34:DA:252:G:O2'	34:DA:253:C:H5'	2.21	0.41
20:CT:14:LYS:HA	20:CT:17:ARG:NE	2.36	0.41
34:BA:2870:C:H5"	47:BR:65:LEU:HD21	2.02	0.41
47:BR:117:VAL:HG22	47:BR:118:GLU:N	2.36	0.41
47:BR:28:LEU:HD13	47:BR:29:LEU:HD12	2.01	0.41
39:DF:197:ASP:O	39:DF:200:GLU:HB3	2.20	0.41
26:D1:10:LYS:CG	26:D1:15:ALA:H	2.27	0.41
50:BU:57:PHE:CD2	50:BU:60:LEU:HD12	2.55	0.41
7:CG:64:GLN:O	7:CG:65:ALA:C	2.59	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BI:13:GLY:O	42:BI:14:ASP:C	2.58	0.41
5:AE:107:ARG:O	5:AE:108:ALA:C	2.57	0.41
10:CJ:62:HIS:N	10:CJ:62:HIS:CD2	2.87	0.41
53:BX:57:LEU:N	53:BX:57:LEU:CD1	2.83	0.41
9:CI:69:GLY:O	9:CI:72:GLY:N	2.53	0.41
53:DX:57:LEU:CD1	53:DX:77:LYS:CD	2.98	0.41
53:BX:26:TYR:H	53:BX:26:TYR:HD1	1.67	0.41
46:BQ:42:ILE:HD13	46:BQ:97:VAL:HG23	2.02	0.41
1:CA:952:U:C4	13:CM:104:ARG:NH2	2.89	0.41
34:DA:657:U:H2'	34:DA:658:C:C6	2.55	0.41
1:CA:712:A:O2'	1:CA:713:G:H5'	2.20	0.41
1:CA:995:C:O4'	14:CN:8:GLU:OE1	2.37	0.41
48:BS:51:ALA:HB3	48:BS:73:LEU:HG	2.02	0.41
53:DX:67:GLY:C	53:DX:68:ARG:CG	2.89	0.41
12:CL:84:LEU:HB3	12:CL:101:VAL:HB	2.03	0.41
34:DA:2313:C:H5''	40:DG:40:ASN:HD21	1.85	0.41
34:DA:2201:C:C2'	34:DA:2202:C:H5'	2.49	0.41
41:BH:88:LEU:C	41:BH:89:ILE:HG23	2.41	0.41
22:CV:54:5MU:O2'	22:CV:55:U:H5'	2.20	0.41
9:AI:49:PRO:HA	9:AI:101:PHE:HE1	1.85	0.41
34:DA:1722:A:HO2'	34:DA:1739:U:H5''	1.84	0.41
44:BO:3:GLN:CG	44:BO:4:PRO:HD2	2.51	0.41
4:AD:199:ASN:O	4:AD:201:GLN:N	2.54	0.41
34:BA:1355:G:H2'	34:BA:1356:G:H8	1.84	0.41
1:AA:734:G:O2'	1:AA:735:C:H5'	2.20	0.41
1:CA:1434:A:N6	1:CA:1435:G:C2	2.89	0.41
20:CT:38:LYS:O	20:CT:39:LYS:C	2.59	0.41
51:DV:43:GLU:H	51:DV:48:GLY:CA	2.28	0.41
51:DV:1:MET:HE3	51:DV:46:VAL:HB	2.01	0.41
34:DA:229:A:H5''	34:DA:230:U:H5'	2.01	0.41
38:BE:143:ASN:ND2	38:BE:143:ASN:N	2.67	0.41
37:BD:14:ARG:NH1	37:BD:14:ARG:CG	2.83	0.41
47:BR:106:GLY:O	47:BR:107:ASP:CB	2.68	0.41
2:AB:80:ILE:HD13	2:AB:208:ILE:HG23	2.01	0.41
7:AG:105:VAL:O	7:AG:108:ALA:HB3	2.21	0.41
7:AG:20:ASP:OD1	7:AG:22:LEU:HB3	2.20	0.41
1:CA:1375:A:H2'	1:CA:1376:U:H6	1.86	0.41
34:DA:1657:C:H2'	34:DA:1658:C:H6	1.85	0.41
34:BA:2691:C:H2'	34:BA:2692:C:C6	2.56	0.41
34:BA:892:G:H2'	34:BA:893:C:O4'	2.20	0.41
34:BA:894:C:H2'	34:BA:895:U:C6	2.55	0.41
49:DT:120:ARG:HA	49:DT:123:GLN:CD	2.41	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BF:9:ILE:HG12	39:BF:14:PRO:O	2.21	0.41
7:AG:115:ARG:HB2	7:AG:118:VAL:CG2	2.50	0.41
1:CA:538:G:OP2	12:CL:115:LYS:CG	2.68	0.41
51:DV:66:ARG:NE	51:DV:94:LEU:HG	2.36	0.41
1:CA:1424:C:C4	1:CA:1425:U:C5	3.08	0.41
42:BI:51:ILE:O	42:BI:55:ALA:HB2	2.20	0.41
40:BG:169:ALA:O	40:BG:173:LEU:HG	2.20	0.41
13:CM:86:CYS:O	13:CM:89:GLY:N	2.53	0.41
1:AA:339:C:H2'	1:AA:340:U:C6	2.55	0.41
17:CQ:9:VAL:CG2	17:CQ:84:LEU:HD13	2.47	0.41
39:BF:178:PRO:HG2	39:BF:179:GLU:CD	2.41	0.41
36:BC:56:GLN:O	36:BC:57:ASN:CB	2.68	0.41
34:BA:868:U:C4	34:BA:869:G:N7	2.88	0.41
44:DO:119:PRO:HB2	49:DT:68:TYR:HE1	1.85	0.41
39:DF:10:PRO:HG2	39:DF:11:VAL:N	2.30	0.41
34:DA:869:G:O2'	34:DA:870:A:H5'	2.21	0.41
34:DA:2572:A:C8	38:DE:144:ARG:NE	2.88	0.41
34:BA:237:C:H2'	34:BA:238:C:H6	1.85	0.41
44:BO:17:ARG:HD3	44:BO:17:ARG:HA	1.82	0.41
10:CJ:45:ARG:CB	10:CJ:65:LEU:HB3	2.49	0.41
4:CD:147:ALA:HB2	4:CD:182:LYS:HB3	2.02	0.41
3:CC:155:GLY:O	3:CC:156:ARG:CB	2.68	0.41
17:AQ:74:LEU:HA	17:AQ:74:LEU:HD22	1.83	0.41
11:AK:111:ASP:HA	18:AR:84:LYS:HG3	2.02	0.41
34:BA:2097:C:H2'	34:BA:2098:U:O4'	2.20	0.41
1:AA:824:C:C4'	8:AH:1:MET:H1	2.33	0.41
34:BA:923:C:H2'	34:BA:924:C:H6	1.86	0.41
34:BA:484:C:O2'	34:BA:485:C:H5'	2.21	0.41
4:CD:190:ASP:O	4:CD:193:ASP:N	2.51	0.41
4:AD:143:GLY:N	4:AD:185:PHE:O	2.53	0.41
1:AA:634:C:O2'	1:AA:635:G:H5'	2.20	0.41
34:DA:2687:U:H2'	34:DA:2688:U:H5'	2.02	0.41
34:DA:768:G:C4	34:DA:769:G:C8	3.08	0.41
1:CA:961:U:OP2	1:CA:1223:C:H4'	2.20	0.41
34:BA:1022:G:O2'	34:BA:1023:U:OP2	2.37	0.41
4:CD:79:PHE:CD1	4:CD:207:TYR:HD1	2.39	0.41
7:AG:36:LYS:O	7:AG:37:ASN:C	2.59	0.41
4:CD:170:VAL:O	4:CD:171:GLY:C	2.59	0.41
1:AA:1229:A:O2'	1:AA:1230:C:H5'	2.20	0.41
34:BA:1588:C:O2	34:BA:1588:C:H2'	2.19	0.41
1:AA:562:C:H4'	1:AA:563:A:O5'	2.20	0.41
19:CS:24:ALA:C	19:CS:26:GLY:H	2.23	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1544:A:O2'	34:DA:1545:A:P	2.78	0.41
1:CA:52:G:O2'	1:CA:53:A:H5'	2.20	0.41
1:AA:799:G:C6	1:AA:800:G:C4	3.08	0.41
47:BR:92:GLY:HA2	47:BR:94:TYR:CE1	2.56	0.41
34:BA:1969:A:O2'	34:BA:1972:A:N3	2.45	0.41
34:BA:971:C:H2'	34:BA:972:G:O4'	2.20	0.41
36:DC:42:GLU:HG2	36:DC:176:GLY:O	2.21	0.41
51:DV:38:LEU:HD21	51:DV:41:GLY:H	1.85	0.41
48:DS:28:VAL:HB	48:DS:97:ARG:NH1	2.35	0.41
45:BP:98:GLU:HA	45:BP:101:VAL:CG1	2.50	0.41
34:BA:2334:G:C4	48:BS:15:ARG:NH1	2.84	0.41
2:AB:19:HIS:O	2:AB:20:GLU:C	2.59	0.41
37:BD:255:LYS:HE3	37:BD:255:LYS:CA	2.50	0.41
38:BE:103:ASP:OD2	38:BE:201:THR:HA	2.21	0.41
54:DY:61:ILE:O	54:DY:62:GLU:O	2.39	0.41
26:B1:11:ARG:NH1	26:B1:60:PHE:HA	2.33	0.41
27:B2:18:PRO:O	27:B2:20:GLU:N	2.54	0.41
34:DA:1485:G:H1'	34:DA:1505:C:H41	1.80	0.41
2:CB:17:PHE:CD1	2:CB:44:LEU:HD21	2.55	0.41
2:CB:69:LEU:HD12	2:CB:92:TYR:HA	2.02	0.41
33:D8:35:GLN:HB3	34:DA:2420:C:OP1	2.20	0.41
45:DP:47:ASP:CB	45:DP:48:PRO:O	2.65	0.41
34:BA:134:C:O2'	34:BA:135:G:H5'	2.19	0.41
47:DR:87:TYR:CE1	47:DR:117:VAL:HG13	2.53	0.41
47:DR:84:ALA:HB3	47:DR:85:PRO:HD3	2.03	0.41
47:DR:92:GLY:CA	47:DR:94:TYR:CE1	3.03	0.41
41:DH:121:ILE:HD11	41:DH:140:LYS:HB3	2.02	0.41
18:AR:43:PHE:HA	18:AR:51:LEU:HD12	2.01	0.41
18:AR:56:THR:C	18:AR:58:LEU:HD12	2.40	0.41
27:D2:30:ARG:O	27:D2:31:GLU:C	2.59	0.41
41:BH:83:TYR:O	41:BH:84:SER:O	2.38	0.41
34:BA:2463:C:C2'	34:BA:2464:C:H5'	2.50	0.41
37:DD:266:SER:O	37:DD:267:SER:OG	2.35	0.41
10:AJ:96:ILE:CD1	10:AJ:96:ILE:N	2.79	0.41
23:CW:39:U:H3'	23:CW:40:C:H5'	2.02	0.41
54:BY:91:GLU:HB3	54:BY:92:ASN:H	1.46	0.41
34:DA:2359:C:H2'	34:DA:2360:A:H8	1.86	0.41
55:BZ:14:LYS:HB2	55:BZ:17:ALA:CB	2.49	0.41
55:BZ:52:SER:OG	55:BZ:53:ILE:HG12	2.21	0.41
26:D1:67:ILE:O	26:D1:68:PRO:C	2.58	0.41
46:BQ:66:ILE:HG13	46:BQ:66:ILE:O	2.20	0.41
34:DA:659:C:H5'	34:DA:659:C:C6	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:BU:36:ARG:HG2	50:BU:40:PHE:CZ	2.55	0.41
4:CD:133:VAL:HG13	4:CD:135:LEU:HD23	2.01	0.41
47:DR:47:PHE:CE2	47:DR:51:LEU:HD11	2.55	0.41
45:BP:71:VAL:CG1	45:BP:72:PRO:N	2.84	0.41
52:DW:60:ASN:OD1	52:DW:61:ASN:ND2	2.53	0.41
1:AA:1188:A:H2'	1:AA:1189:C:O4'	2.20	0.41
34:DA:1651:G:H2'	34:DA:1652:A:O4'	2.21	0.41
4:AD:75:PHE:CE2	4:AD:93:PHE:HZ	2.39	0.41
34:DA:158:U:O3'	34:DA:171:G:O4'	2.38	0.41
29:B4:6:HIS:CA	40:BG:67:LYS:HE3	2.41	0.41
34:BA:657:U:H2'	34:BA:658:C:C6	2.56	0.41
17:CQ:74:LEU:HD22	17:CQ:74:LEU:HA	1.83	0.41
37:DD:238:GLY:C	37:DD:239:ARG:O	2.58	0.41
15:CO:53:HIS:CE1	15:CO:57:LEU:HD21	2.55	0.41
15:CO:53:HIS:HE1	15:CO:57:LEU:HD21	1.85	0.41
1:AA:627:G:H2'	1:AA:628:G:C8	2.48	0.41
36:DC:20:TYR:N	36:DC:20:TYR:CD1	2.88	0.41
34:DA:542:C:C2'	34:DA:543:C:OP1	2.68	0.41
34:BA:1175:U:H5''	34:BA:1176:G:C8	2.56	0.41
1:CA:1392:G:N2	1:CA:1502:A:C8	2.89	0.41
2:CB:68:ILE:HB	2:CB:90:MET:SD	2.61	0.41
48:BS:34:HIS:CG	48:BS:54:LEU:HB2	2.56	0.41
34:DA:2286:A:C5'	34:DA:2287:A:O4'	2.67	0.41
34:BA:2842:G:C6	34:BA:2876:G:C6	3.08	0.41
34:DA:1168:G:O2'	34:DA:1169:G:H5'	2.20	0.41
2:AB:75:LYS:HA	2:AB:78:GLN:HE21	1.85	0.41
9:CI:23:ASN:HD22	9:CI:23:ASN:N	2.18	0.41
46:BQ:120:ILE:O	46:BQ:121:ALA:C	2.58	0.41
9:AI:23:ASN:N	9:AI:23:ASN:HD22	2.18	0.41
52:DW:21:VAL:C	52:DW:23:LEU:H	2.23	0.41
39:BF:84:VAL:O	39:BF:85:GLY:C	2.59	0.41
1:CA:221:C:H2'	1:CA:222:U:H6	1.86	0.41
54:BY:31:LEU:CD2	54:BY:36:ALA:HB3	2.49	0.41
9:AI:78:LYS:HG2	9:AI:78:LYS:O	2.20	0.41
34:BA:1260:G:O2'	34:BA:1261:C:H5'	2.21	0.41
32:B7:7:PRO:CB	34:BA:1309:G:H4'	2.47	0.41
38:BE:59:VAL:HG22	38:BE:63:LEU:HA	2.02	0.41
19:AS:35:SER:O	19:AS:37:ARG:N	2.53	0.41
34:BA:1114:G:C2'	34:BA:1115:G:C5'	2.96	0.41
13:CM:78:ILE:HA	13:CM:81:LEU:HD12	2.03	0.41
1:CA:867:G:N2	1:CA:868:C:C2	2.88	0.41
7:CG:76:ARG:NH1	7:CG:76:ARG:HG2	2.30	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:6:G:H1	22:AV:67:C:H42	1.69	0.41
1:AA:15:G:C4'	5:AE:24:ARG:HH22	2.30	0.41
43:BN:89:LYS:C	43:BN:93:THR:HG22	2.39	0.41
36:BC:86:ALA:HB1	36:BC:94:VAL:HG11	2.02	0.41
34:BA:1324:G:H3'	34:BA:1325:G:C4'	2.49	0.41
34:DA:753:C:H2'	34:DA:754:C:C6	2.55	0.41
4:CD:25:ARG:C	4:CD:27:TYR:N	2.72	0.41
34:BA:1817:G:C2'	34:BA:1818:U:H5'	2.50	0.41
52:DW:55:ALA:HA	52:DW:107:LEU:HD23	2.03	0.41
52:DW:57:ASN:O	52:DW:58:ALA:C	2.59	0.41
34:BA:363(E):U:C2'	34:BA:363(F):A:H4'	2.51	0.41
30:D5:44:THR:CG2	47:DR:101:ALA:HB2	2.50	0.41
14:CN:29:ARG:HG3	14:CN:29:ARG:NH1	2.35	0.41
34:DA:223:A:C2	34:DA:422:A:C8	3.08	0.41
30:B5:44:THR:HG21	47:BR:101:ALA:HB2	2.02	0.41
34:BA:1313:U:C2'	34:BA:1313:U:O2	2.68	0.41
37:BD:166:GLN:HA	37:BD:166:GLN:HE21	1.85	0.41
25:D0:84:LEU:HB2	25:D0:85:ALA:H	1.68	0.41
53:DX:8:ILE:N	53:DX:8:ILE:HD12	2.35	0.41
12:AL:30:ALA:O	12:AL:31:PRO:C	2.59	0.41
35:DB:57:A:C4	40:DG:29:TRP:HB2	2.56	0.41
1:CA:614:A:H2'	1:CA:615:C:O4'	2.21	0.41
34:BA:1544:A:O2'	34:BA:1545:A:P	2.78	0.41
34:BA:2767:C:H2'	34:BA:2768:C:H6	1.85	0.41
2:AB:136:VAL:O	2:AB:140:HIS:HB2	2.21	0.41
39:BF:160:ASN:C	39:BF:160:ASN:HD22	2.22	0.41
34:BA:2791:C:H4'	34:BA:2792:G:O5'	2.20	0.41
22:AV:56:C:O2'	40:BG:78:SER:N	2.46	0.41
34:BA:776:G:H4'	34:BA:777:A:O5'	2.20	0.41
1:AA:720:C:H6	1:AA:720:C:O5'	2.02	0.41
34:BA:2655:G:H2'	34:BA:2655:G:N3	2.35	0.41
1:AA:1419:G:C2	1:AA:1420:C:C2	3.08	0.41
48:DS:24:LEU:HB3	48:DS:85:VAL:CG1	2.50	0.41
48:DS:93:LYS:HE3	48:DS:93:LYS:CA	2.50	0.41
53:DX:60:ARG:NE	53:DX:74:PRO:CG	2.76	0.41
34:DA:2178:C:H4'	36:DC:46:LYS:HZ2	1.82	0.41
23:AW:40:C:H5'	23:AW:40:C:C6	2.47	0.41
34:BA:1902:C:H5'	37:BD:246:PRO:HD3	2.02	0.41
34:BA:2635:C:C2'	34:BA:2636:U:O5'	2.68	0.41
34:BA:615:G:P	39:BF:40:GLN:NE2	2.93	0.41
44:BO:23:ARG:HD2	44:BO:23:ARG:HA	1.87	0.41
42:DI:126:TYR:O	42:DI:139:GLN:HG3	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DZ:89:PHE:HE1	55:DZ:96:VAL:HG21	1.86	0.41
2:CB:144:ARG:O	2:CB:147:LYS:N	2.53	0.41
2:CB:71:VAL:HB	2:CB:164:VAL:HG22	2.03	0.41
33:D8:4:MET:CE	34:DA:593:G:O4'	2.69	0.41
33:D8:13:ARG:HD2	45:DP:61:ARG:HD3	2.02	0.41
27:B2:49:LYS:HD3	34:BA:76:C:H5''	2.03	0.41
33:B8:27:THR:HA	45:BP:62:LEU:CD1	2.45	0.41
34:BA:956:G:C5'	34:BA:957:A:OP2	2.68	0.41
20:CT:14:LYS:O	20:CT:18:GLN:HG3	2.21	0.41
12:AL:48:PRO:C	12:AL:49:ASN:HD22	2.24	0.41
40:BG:72:ARG:HD3	40:BG:86:MET:HA	2.01	0.41
52:BW:24:ILE:HD12	52:BW:24:ILE:C	2.41	0.41
34:BA:2711:A:OP1	34:BA:2712(A):A:P	2.78	0.41
34:DA:2754:U:H1'	34:DA:2756:U:OP1	2.20	0.41
41:DH:83:TYR:O	41:DH:84:SER:O	2.38	0.41
10:AJ:34:VAL:CG1	10:AJ:35:SER:N	2.83	0.41
26:D1:14:VAL:HG22	26:D1:15:ALA:N	2.34	0.41
43:BN:46:VAL:HG13	43:BN:48:MET:HG3	2.00	0.41
35:DB:7:G:C2'	35:DB:8:U:H5''	2.51	0.41
34:BA:2754:U:H1'	34:BA:2756:U:OP1	2.21	0.41
34:BA:1885:A:H5'	34:BA:1885:A:H8	1.86	0.41
49:BT:53:ARG:NH1	49:BT:53:ARG:CG	2.84	0.41
55:BZ:17:ALA:O	55:BZ:18:LEU:O	2.38	0.41
46:DQ:20:ALA:C	46:DQ:22:LYS:N	2.74	0.41
34:BA:1778:U:H2'	34:BA:1784:A:N6	2.35	0.41
37:DD:169:GLU:HB2	37:DD:172:TYR:HB2	2.03	0.41
13:CM:18:ALA:O	13:CM:19:LEU:C	2.59	0.41
34:BA:2807:G:H2'	34:BA:2808:U:H5''	2.03	0.41
53:DX:57:LEU:HD22	53:DX:76:ARG:CD	2.46	0.41
43:BN:125:GLY:HA3	43:BN:126:PRO:C	2.39	0.41
1:AA:819:A:H4'	1:AA:820:U:OP2	2.20	0.41
3:AC:194:GLY:O	3:AC:195:VAL:HG23	2.20	0.41
34:DA:2680:C:H5'	38:DE:189:PRO:HA	2.03	0.41
1:AA:711:G:O2'	1:AA:712:A:H5'	2.20	0.41
39:BF:39:TRP:CB	39:BF:101:LEU:HD22	2.49	0.41
5:CE:132:ALA:O	5:CE:135:THR:N	2.54	0.41
34:BA:64:A:H5'	53:BX:63:LYS:HB2	2.02	0.41
1:AA:579:G:C5'	1:AA:728:A:H1'	2.36	0.41
45:BP:112:LEU:C	45:BP:112:LEU:HD13	2.41	0.41
1:CA:1188:A:H2'	1:CA:1189:C:O4'	2.19	0.41
34:DA:154:G:N1	34:DA:154(A):C:N4	2.68	0.41
6:CF:44:GLY:HA2	6:CF:59:TYR:CE1	2.55	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:58:VAL:N	12:CL:66:VAL:O	2.50	0.41
13:AM:52:GLU:O	13:AM:56:LEU:HB2	2.20	0.41
37:DD:239:ARG:HH21	37:DD:239:ARG:HG3	1.86	0.41
1:AA:436:C:O2'	1:AA:437:U:O5'	2.38	0.41
19:CS:67:VAL:O	19:CS:69:HIS:N	2.53	0.41
3:AC:113:ALA:C	3:AC:115:LEU:N	2.74	0.41
34:BA:639:U:H2'	34:BA:640:C:H6	1.74	0.41
52:BW:47:VAL:HA	52:BW:50:VAL:HG12	2.02	0.41
52:BW:21:VAL:HG23	52:BW:47:VAL:HG21	2.02	0.41
39:BF:16:GLY:O	39:BF:17:ARG:HG3	2.20	0.41
1:AA:1494:G:H4'	34:BA:1913:A:C8	2.55	0.41
39:DF:147:GLY:O	39:DF:148:LEU:HD23	2.20	0.41
49:DT:3:ARG:O	49:DT:5:ALA:N	2.54	0.41
30:D5:40:LYS:HD3	30:D5:46:CYS:CB	2.48	0.41
7:CG:27:ILE:H	7:CG:27:ILE:CD1	2.32	0.41
34:DA:1286:A:C6	34:DA:1289:C:C2	3.09	0.41
34:DA:2859:G:O2'	34:DA:2860:A:O5'	2.38	0.41
49:DT:76:PHE:HA	49:DT:77:PRO:HD3	1.69	0.41
11:AK:38:ASN:HA	11:AK:39:PRO:HD3	1.87	0.41
1:AA:1422:G:C2	1:AA:1423:G:C5	3.08	0.41
8:AH:6:ILE:N	8:AH:6:ILE:CD1	2.80	0.41
10:AJ:50:ILE:O	10:AJ:51:ARG:C	2.58	0.41
34:DA:2454:G:C5	34:DA:2455:G:C8	3.08	0.41
6:CF:99:ALA:O	18:CR:28:GLU:HA	2.20	0.41
39:BF:9:ILE:O	39:BF:128:ALA:HB2	2.20	0.41
12:CL:117:ARG:O	12:CL:118:SER:C	2.57	0.41
6:CF:89:MET:HG2	6:CF:89:MET:O	2.20	0.41
51:DV:68:LYS:HG3	51:DV:68:LYS:O	2.20	0.41
11:CK:69:ALA:O	11:CK:73:MET:HG2	2.20	0.41
17:CQ:52:LYS:HB3	17:CQ:52:LYS:HE3	1.94	0.41
34:DA:945:A:C5	34:DA:2448:A:N3	2.88	0.41
1:AA:854:G:H3'	1:AA:871:U:O4	2.20	0.41
17:AQ:40:LYS:HD2	17:AQ:42:TYR:CE1	2.56	0.41
3:CC:156:ARG:H	3:CC:163:ALA:HA	1.85	0.41
54:DY:54:LYS:HG2	54:DY:55:TYR:N	2.35	0.41
35:BB:57:A:N9	40:BG:29:TRP:HB2	2.34	0.41
1:AA:1125:U:H2'	1:AA:1126:U:OP2	2.20	0.41
1:CA:824:C:C4'	8:CH:1:MET:H1	2.32	0.41
50:BU:49:HIS:O	50:BU:52:ARG:N	2.53	0.41
34:BA:1164:G:H2'	34:BA:1165:U:C6	2.55	0.41
47:DR:13:HIS:O	47:DR:14:SER:O	2.39	0.41
34:BA:1106:A:H1'	34:BA:1107:G:C5	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2633:G:H5'	34:DA:2811:G:O2'	2.21	0.41
37:BD:135:PHE:N	37:BD:135:PHE:HD1	2.17	0.41
34:DA:1054:A:H1'	34:DA:1107:G:C5	2.55	0.41
28:D3:35:ARG:HE	28:D3:37:LEU:HD21	1.85	0.41
25:D0:1:MET:N	34:DA:2602:A:H61	2.17	0.41
1:CA:97:G:HO2'	1:CA:98:G:P	2.43	0.41
34:BA:952:G:C6	34:BA:953:A:N7	2.89	0.41
1:AA:1226:C:N4	13:AM:104:ARG:HD2	2.36	0.41
1:CA:60:A:O5'	1:CA:60:A:H8	2.03	0.41
34:DA:2661:G:N7	34:DA:2662:A:C2	2.89	0.41
34:DA:2248:C:H2'	34:DA:2249:U:H5'	2.03	0.41
20:AT:38:LYS:O	20:AT:39:LYS:C	2.58	0.41
28:B3:46:ASN:HD21	34:BA:851:U:H5'	1.85	0.41
34:BA:766:C:H2'	34:BA:767:U:C6	2.55	0.41
28:D3:44:ARG:O	28:D3:45:GLY:C	2.58	0.41
4:AD:207:TYR:HD2	4:AD:207:TYR:HA	1.65	0.41
34:DA:1119:C:O2'	34:DA:1120:G:H5'	2.20	0.41
28:B3:43:ILE:O	28:B3:47:VAL:HG23	2.20	0.41
34:BA:2739:U:O2'	34:BA:2740:A:H5'	2.20	0.41
34:DA:1210:A:H5'	34:DA:1211:U:H2'	2.02	0.41
34:DA:1042:G:H3'	34:DA:1043:C:O4'	2.21	0.41
38:BE:125:GLY:O	38:BE:126:PRO:C	2.57	0.41
22:AV:19:G:C2	22:AV:57:A:N3	2.88	0.41
7:CG:107:ALA:O	7:CG:110:GLN:HB2	2.20	0.41
34:BA:52:A:O2'	34:BA:53:A:H5'	2.21	0.41
2:AB:79:ASP:O	2:AB:82:ARG:HB3	2.20	0.41
34:DA:376:C:H2'	34:DA:377:C:H6	1.85	0.41
16:AP:23:ASP:O	16:AP:24:ALA:C	2.58	0.41
3:CC:42:LEU:O	3:CC:45:LYS:HB2	2.21	0.41
34:BA:1406:U:H2'	34:BA:1407:C:C6	2.55	0.41
1:CA:991:U:O2	1:CA:991:U:H2'	2.21	0.41
34:DA:2791:C:H4'	34:DA:2792:G:O5'	2.20	0.41
43:BN:5:VAL:HG13	43:BN:6:PRO:HD2	2.02	0.41
34:DA:993:G:C4	34:DA:994:C:C5	3.08	0.41
50:DU:87:GLY:O	50:DU:88:ILE:HG13	2.20	0.41
34:BA:997:G:N3	34:BA:997:G:H2'	2.36	0.41
49:BT:32:TYR:HB3	49:BT:81:PRO:HB3	2.01	0.41
2:AB:109:SER:HA	2:AB:112:VAL:HG23	2.03	0.41
2:AB:163:PHE:CD2	2:AB:186:ALA:HA	2.55	0.41
2:AB:71:VAL:HB	2:AB:164:VAL:HG22	2.03	0.41
38:BE:55:ASN:OD1	38:BE:75:VAL:HG13	2.21	0.41
45:BP:7:ARG:HA	45:BP:7:ARG:HD2	1.71	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:B1:73:LEU:HD13	26:B1:90:ILE:HG22	2.02	0.41
34:BA:2565:A:H5''	34:BA:2566:A:OP2	2.20	0.41
34:DA:1593:G:C3'	34:DA:1594:G:H5''	2.50	0.41
55:DZ:74:VAL:CG2	55:DZ:86:VAL:HG13	2.49	0.41
2:CB:143:GLU:O	2:CB:147:LYS:HB2	2.20	0.41
3:AC:40:ARG:CZ	14:AN:52:GLN:HG2	2.51	0.41
34:BA:251:A:H2'	34:BA:252:G:O4'	2.19	0.41
13:AM:18:ALA:O	13:AM:19:LEU:C	2.59	0.41
40:BG:45:GLU:HG2	40:BG:46:ALA:N	2.36	0.41
34:DA:2754:U:H2'	34:DA:2755:C:H5''	2.02	0.41
41:DH:138:LYS:O	41:DH:140:LYS:N	2.54	0.41
41:DH:141:VAL:O	41:DH:144:VAL:N	2.52	0.41
18:CR:53:ARG:HA	18:CR:56:THR:HG1	1.82	0.41
34:DA:396:G:O2'	34:DA:397:G:H5'	2.21	0.41
42:BI:12:LEU:HG	42:BI:12:LEU:O	2.21	0.41
1:AA:375:U:C4'	16:AP:17:TYR:HE2	2.34	0.41
5:AE:110:LEU:HA	5:AE:113:ALA:HB2	2.02	0.41
34:BA:2726:U:H6	44:BO:67:LYS:NZ	2.19	0.41
55:BZ:99:TYR:HA	55:BZ:125:LEU:HA	2.02	0.41
53:BX:77:LYS:HE3	53:BX:78:LYS:HG3	2.01	0.41
46:DQ:23:GLY:HA3	46:DQ:98:LYS:O	2.21	0.41
1:CA:1368:G:O2'	1:CA:1369:C:H5'	2.21	0.41
1:CA:980:C:H3'	1:CA:981:U:C6	2.56	0.41
46:BQ:35:VAL:HG13	46:BQ:130:LYS:HB3	2.02	0.41
4:CD:135:LEU:N	4:CD:135:LEU:HD22	2.36	0.41
1:CA:706:A:C5	1:CA:707:C:C5	3.09	0.41
19:CS:36:ARG:HB2	19:CS:72:GLY:CA	2.51	0.41
41:DH:46:GLU:O	41:DH:47:GLU:CB	2.62	0.41
26:D1:21:ARG:NH1	34:DA:380:U:OP1	2.53	0.41
40:DG:159:VAL:O	40:DG:159:VAL:HG13	2.21	0.41
1:CA:1188:A:H2'	1:CA:1189:C:H5'	2.02	0.41
13:CM:63:THR:HG22	13:CM:64:TRP:N	2.35	0.41
1:AA:277:C:H5''	17:AQ:68:ARG:HH22	1.86	0.41
17:AQ:66:SER:O	17:AQ:70:ARG:NH1	2.54	0.41
34:BA:815:C:H2'	34:BA:816:C:C6	2.54	0.41
4:CD:31:CYS:C	4:CD:33:MET:N	2.73	0.41
34:DA:2810:A:C4	38:DE:61:ARG:NH2	2.88	0.41
4:AD:118:ARG:O	4:AD:119:GLN:C	2.58	0.41
1:CA:277:C:H5''	17:CQ:68:ARG:HH22	1.86	0.41
34:DA:271(A):A:H1'	34:DA:365:C:O4'	2.21	0.41
1:CA:327:A:C4	1:CA:329:A:C8	3.09	0.41
48:BS:54:LEU:O	48:BS:56:LEU:N	2.53	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DS:34:HIS:CE1	48:DS:54:LEU:HB2	2.56	0.41
48:DS:58:LEU:HD21	48:DS:68:GLN:HB2	2.01	0.41
3:CC:58:GLU:H	3:CC:65:ALA:CB	2.27	0.41
1:AA:186:C:C2	1:AA:187:C:C5	3.08	0.41
40:BG:164:GLU:O	40:BG:165:THR:C	2.59	0.41
51:BV:38:LEU:HD21	51:BV:41:GLY:H	1.86	0.41
1:AA:1313:U:H2'	1:AA:1314:C:C6	2.55	0.41
34:DA:2838:G:C4	34:DA:2839:G:C8	3.09	0.41
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	2.02	0.41
34:BA:1888:G:N3	34:BA:1888:G:H5'	2.36	0.41
34:BA:1707:G:H2'	34:BA:1708:C:C6	2.56	0.41
34:DA:1888:G:N3	34:DA:1888:G:H5'	2.36	0.41
34:BA:2838:G:H2'	34:BA:2839:G:H8	1.85	0.41
14:CN:44:LEU:HG	14:CN:45:ARG:N	2.36	0.41
31:B6:28:ARG:CG	31:B6:28:ARG:NH1	2.84	0.41
15:AO:55:GLY:HA2	15:AO:58:MET:HE2	2.03	0.41
34:BA:2023:G:C5'	34:BA:2617:C:H4'	2.46	0.41
11:CK:21:ILE:CD1	11:CK:21:ILE:N	2.80	0.41
3:CC:18:TRP:CD1	14:CN:54:PRO:HA	2.55	0.41
38:BE:57:LYS:O	38:BE:59:VAL:N	2.53	0.41
1:CA:1093:A:N3	1:CA:1095:U:H5'	2.35	0.41
14:AN:57:ARG:O	14:AN:59:ALA:N	2.53	0.41
18:AR:79:LEU:HA	18:AR:80:PRO:HD3	1.84	0.41
13:AM:78:ILE:HA	13:AM:81:LEU:HD12	2.02	0.41
37:BD:222:ARG:H	37:BD:222:ARG:HG3	1.59	0.41
44:DO:119:PRO:O	49:DT:68:TYR:CE1	2.74	0.41
1:CA:130:A:N1	1:CA:233:C:H1'	2.35	0.41
4:CD:50:ARG:HD2	4:CD:51:PRO:O	2.21	0.41
44:DO:45:GLU:HG3	44:DO:45:GLU:O	2.20	0.41
34:DA:271(L):U:H4'	34:DA:271(M):G:C6	2.56	0.41
49:BT:34:VAL:O	49:BT:35:LYS:HB3	2.20	0.41
30:D5:52:TYR:O	30:D5:53:ALA:CB	2.68	0.41
20:AT:76:ALA:O	20:AT:80:ARG:HG2	2.20	0.41
34:BA:1753:G:N2	34:BA:1755:A:H3'	2.35	0.41
39:BF:108:LYS:O	39:BF:111:ALA:HB3	2.20	0.41
40:DG:119:GLY:O	40:DG:120:LEU:HD23	2.21	0.41
34:BA:2669:G:C2	34:BA:2670:A:C8	3.09	0.41
1:AA:832:C:HO2'	1:AA:833:U:P	2.42	0.41
34:BA:980:A:C6	34:BA:981:A:N1	2.89	0.41
1:CA:689:C:OP2	11:CK:46:GLY:HA3	2.20	0.41
28:B3:5:LYS:HA	28:B3:36:VAL:HG12	2.03	0.41
34:DA:373:U:H2'	34:DA:374:A:C8	2.54	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BD:197:GLY:O	37:BD:198:ASN:HB3	2.21	0.41
1:AA:42:G:H2'	1:AA:43:C:H6	1.85	0.41
31:B6:48:VAL:HG23	31:B6:49:HIS:N	2.36	0.41
48:DS:38:GLN:CG	48:DS:47:THR:HG21	2.51	0.41
34:BA:2881:C:O2'	34:BA:2882:A:H5'	2.20	0.41
1:AA:577:G:C8	1:AA:816:A:C6	3.09	0.41
34:DA:991:C:H2'	34:DA:992:C:C6	2.55	0.41
52:DW:72:LYS:HB3	52:DW:106:ILE:O	2.20	0.41
34:DA:2881:C:O2'	34:DA:2882:A:H5'	2.21	0.41
1:CA:864:A:C2	1:CA:917:G:N3	2.89	0.41
34:DA:2082:A:H2'	34:DA:2083:G:O4'	2.21	0.41
51:BV:82:ARG:HG2	51:BV:82:ARG:HH11	1.85	0.41
3:CC:34:LEU:O	3:CC:38:ARG:HG2	2.21	0.41
37:BD:175:LEU:O	37:BD:182:LEU:HA	2.20	0.41
35:DB:94:C:O2'	35:DB:95:C:H5'	2.20	0.41
34:DA:1406:U:H2'	34:DA:1407:C:C6	2.55	0.41
34:BA:474:G:H4'	34:BA:475:U:OP1	2.20	0.41
50:BU:44:ASN:O	50:BU:45:TYR:C	2.56	0.41
9:AI:66:ARG:HH11	9:AI:66:ARG:HG2	1.85	0.41
51:DV:4:ILE:O	51:DV:39:LEU:N	2.54	0.41
37:DD:61:LEU:HA	37:DD:61:LEU:HD12	1.86	0.41
34:DA:2781:A:C4'	34:DA:2782:G:H5'	2.49	0.41
48:BS:16:ASN:HB2	48:BS:90:GLY:HA2	2.02	0.41
2:AB:69:LEU:HD12	2:AB:92:TYR:HA	2.03	0.41
34:BA:2637:U:C6	34:BA:2637:U:H5'	2.50	0.41
38:BE:4:ILE:HG21	38:BE:96:PHE:HE2	1.86	0.41
34:DA:2563:U:O2'	44:DO:28:SER:HB3	2.21	0.41
3:CC:182:ILE:HG12	3:CC:203:PHE:CD1	2.54	0.41
26:B1:84:GLY:C	26:B1:85:LEU:HD23	2.41	0.41
45:DP:46:LYS:HG2	45:DP:52:GLU:OE2	2.21	0.41
33:B8:5:LYS:HG2	34:BA:242:G:C8	2.56	0.41
55:DZ:31:ARG:HD3	55:DZ:32:HIS:CE1	2.56	0.41
2:CB:204:ASN:ND2	2:CB:206:ASP:H	2.19	0.41
34:DA:631:A:OP1	45:DP:64:LYS:CE	2.69	0.41
53:BX:40:LYS:CG	53:BX:41:ASN:H	2.32	0.41
1:CA:321:A:C2	1:CA:333:G:C2	3.08	0.41
40:BG:41:GLN:HB3	40:BG:43:LEU:HD13	2.03	0.41
48:DS:66:ALA:O	48:DS:67:ARG:CB	2.69	0.41
10:CJ:4:ILE:HG12	10:CJ:100:THR:HG22	2.02	0.41
34:DA:528:A:H5'	43:DN:111:PRO:HG3	2.02	0.41
55:DZ:165:VAL:CG1	55:DZ:169:GLU:HB3	2.51	0.41
46:DQ:11:LYS:CE	46:DQ:86:GLY:O	2.69	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2230:G:C5	34:DA:2231:C:C5	3.08	0.41
50:BU:65:ILE:H	50:BU:65:ILE:HG13	1.74	0.41
1:AA:192:U:H2'	1:AA:193:C:C6	2.48	0.41
34:BA:1497:U:H5'	34:BA:1498:C:C5	2.51	0.41
10:CJ:8:LEU:CD2	10:CJ:20:ALA:HB2	2.49	0.41
10:CJ:8:LEU:HD22	10:CJ:20:ALA:CB	2.49	0.41
10:AJ:8:LEU:HB3	10:AJ:16:LEU:CD2	2.42	0.41
26:D1:26:ARG:HB2	26:D1:34:THR:CB	2.51	0.41
34:BA:2684:U:P	49:BT:53:ARG:HE	2.44	0.41
49:BT:53:ARG:HH11	49:BT:53:ARG:CG	2.28	0.41
55:BZ:162:GLU:O	55:BZ:163:LEU:C	2.59	0.41
55:BZ:8:TYR:HA	55:BZ:62:PRO:HG2	2.02	0.41
34:BA:1948:G:C5'	34:BA:1948:G:C8	2.95	0.41
26:D1:87:PRO:C	26:D1:89:GLU:OE2	2.59	0.41
40:DG:115:ARG:HH21	40:DG:136:ARG:CG	2.33	0.41
51:BV:17:GLY:O	51:BV:18:LEU:HB3	2.21	0.41
34:DA:2462:U:O2'	34:DA:2463:C:H5'	2.21	0.41
46:BQ:27:VAL:HG12	46:BQ:29:PHE:O	2.20	0.41
43:DN:134:ARG:O	43:DN:134:ARG:CG	2.67	0.41
1:CA:953:G:H2'	1:CA:954:G:O4'	2.21	0.41
38:DE:188:VAL:HA	38:DE:189:PRO:HD2	1.81	0.41
1:AA:677:U:H3	1:AA:713:G:H22	1.67	0.41
4:CD:92:VAL:CG1	4:CD:96:LEU:HD21	2.50	0.41
42:BI:40:THR:O	42:BI:41:GLU:C	2.59	0.41
1:CA:1320:C:H2'	1:CA:1321:C:O4'	2.20	0.41
45:DP:71:VAL:CG1	45:DP:72:PRO:N	2.83	0.41
45:BP:131:SER:H	45:BP:134:ALA:CB	2.19	0.41
1:AA:1068:G:N2	1:AA:1191:A:N3	2.62	0.41
1:AA:1190:G:OP2	3:AC:5:ILE:HG23	2.18	0.41
53:BX:63:LYS:CD	53:BX:70:LEU:HD13	2.43	0.41
34:DA:861:A:C2	34:DA:917:A:C4	3.08	0.41
40:DG:71:THR:O	40:DG:88:ILE:HA	2.20	0.41
40:DG:90:LEU:HD13	40:DG:90:LEU:HA	1.81	0.41
34:BA:197:A:H62	34:BA:2430:A:H2'	1.86	0.41
17:AQ:67:LYS:C	17:AQ:70:ARG:NH1	2.74	0.41
34:BA:2591:C:OP2	37:BD:239:ARG:HB2	2.21	0.41
34:BA:1721:G:C2	34:BA:1739:U:OP2	2.74	0.41
17:CQ:19:VAL:HG22	17:CQ:44:ALA:HB3	2.01	0.41
39:DF:63:LYS:HA	39:DF:76:GLY:O	2.20	0.41
34:DA:1848:A:C5	34:DA:1849:G:C8	3.09	0.41
49:BT:100:TYR:CD2	49:BT:103:ARG:NH2	2.84	0.41
1:CA:322:C:H41	1:CA:328:C:H6	1.67	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:DZ:64:GLY:O	55:DZ:65:GLN:C	2.58	0.41
34:DA:2181:G:C2	34:DA:2182:G:C5	3.09	0.41
44:BO:103:ALA:C	44:BO:105:GLU:H	2.24	0.41
34:BA:1992:G:HO2'	34:BA:1993:U:P	2.42	0.41
2:CB:74:LYS:O	2:CB:78:GLN:HG3	2.20	0.41
34:DA:1991:U:H2'	34:DA:1992:G:C5'	2.51	0.41
30:D5:47:PRO:C	30:D5:48:GLU:HG3	2.41	0.41
7:CG:20:ASP:O	7:CG:23:VAL:HB	2.21	0.41
7:CG:26:PHE:O	7:CG:27:ILE:C	2.58	0.41
7:CG:16:LEU:CD1	9:CI:42:ARG:HA	2.51	0.41
7:AG:23:VAL:O	7:AG:24:THR:C	2.58	0.41
34:BA:1709:U:H2'	34:BA:1710:C:C6	2.55	0.41
1:AA:222:U:C2	1:AA:223:U:C5	3.09	0.41
2:AB:97:TRP:CZ2	2:AB:102:LEU:HD13	2.50	0.41
1:CA:963:G:H21	10:CJ:55:LYS:CE	2.34	0.41
3:AC:35:GLU:CG	3:AC:59:ARG:HH22	2.34	0.41
1:AA:963:G:N2	10:AJ:55:LYS:HZ3	2.17	0.41
14:AN:44:LEU:HD12	14:AN:44:LEU:O	2.19	0.41
5:CE:63:ARG:HG2	5:CE:63:ARG:HH11	1.86	0.41
34:DA:1261:C:C2'	34:DA:1262:A:O5'	2.69	0.41
50:BU:17:ILE:HG23	50:BU:39:LEU:CD1	2.46	0.41
1:AA:781:A:C3'	1:AA:782:A:H5'	2.51	0.41
40:BG:133:LEU:CD1	40:BG:157:ILE:HG12	2.51	0.41
34:DA:1773:A:O2'	34:DA:1774:C:H5'	2.20	0.41
4:CD:4:TYR:CG	4:CD:5:ILE:N	2.88	0.41
34:BA:340:A:H2'	34:BA:341:G:O4'	2.21	0.41
17:AQ:80:GLY:O	17:AQ:81:ARG:HG2	2.20	0.41
17:AQ:65:ILE:N	17:AQ:65:ILE:CD1	2.82	0.41
1:CA:1311:G:H2'	1:CA:1312:G:O5'	2.21	0.41
34:BA:1316:U:O2'	34:BA:1317:A:H5'	2.21	0.41
34:BA:1274:A:H2	34:BA:1644:C:O2	2.03	0.41
34:DA:855:G:C6	34:DA:856:C:N4	2.89	0.41
21:CU:6:ARG:HG2	21:CU:15:ARG:NH1	2.35	0.41
11:AK:34:ASP:CB	11:AK:35:PRO:CD	2.97	0.41
4:AD:209:ARG:NH1	4:AD:209:ARG:HG3	2.35	0.41
40:DG:91:ARG:HG3	40:DG:91:ARG:NH1	2.36	0.41
34:DA:1445:A:H5''	34:DA:1445(A):C:H5	1.85	0.41
11:CK:58:PRO:HA	11:CK:90:GLY:HA3	2.03	0.41
21:CU:22:ARG:N	21:CU:23:PRO:HD3	2.35	0.41
30:D5:16:ARG:HG2	30:D5:16:ARG:NH1	2.35	0.41
28:D3:5:LYS:HA	28:D3:36:VAL:HG12	2.03	0.41
34:DA:2111:C:H4'	34:DA:2118:U:O2'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:648:G:O2'	34:BA:649:G:H5'	2.21	0.41
34:BA:2222:G:H2'	34:BA:2223:G:H8	1.85	0.41
34:BA:2687:U:H2'	34:BA:2688:U:H5'	2.02	0.41
26:B1:25:LYS:NZ	34:BA:2079:U:H5''	2.35	0.41
1:AA:865:A:H2	1:AA:918:A:H4'	1.86	0.41
34:DA:687:C:H2'	34:DA:687:C:O2	2.19	0.41
1:CA:20:U:O2'	1:CA:21:G:H5'	2.21	0.41
34:DA:1272:A:C3'	34:DA:1273:U:C5'	2.98	0.41
34:DA:1860:G:H2'	34:DA:1861:G:C8	2.56	0.41
48:BS:63:THR:O	48:BS:64:GLU:C	2.59	0.41
1:AA:520:A:N1	1:AA:536:C:H1'	2.35	0.41
15:AO:61:GLY:O	15:AO:64:ARG:HB3	2.20	0.41
1:AA:29:G:O2'	1:AA:30:U:H5'	2.21	0.41
49:BT:19:LEU:HA	49:BT:20:PRO:HD3	1.91	0.41
9:CI:40:LEU:HD11	9:CI:70:LYS:HG2	2.01	0.41
1:CA:1034:G:N2	1:CA:1035:A:N6	2.69	0.41
22:AV:61:C:O2'	22:AV:62:C:H5'	2.20	0.41
55:BZ:3:TYR:CD1	55:BZ:3:TYR:N	2.89	0.41
38:DE:66:HIS:CG	38:DE:66:HIS:O	2.73	0.41
38:DE:175:VAL:O	38:DE:177:PRO:HD3	2.21	0.41
26:D1:58:ILE:CG2	26:D1:59:THR:N	2.84	0.41
34:DA:997:G:N3	34:DA:997:G:H2'	2.36	0.41
37:DD:28:GLU:CB	37:DD:29:PRO:CD	2.99	0.41
34:DA:613:G:N2	34:DA:615:G:C4	2.89	0.41
50:BU:69:CYS:HB2	50:BU:74:LEU:HD11	2.02	0.41
48:DS:26:LEU:HD21	48:DS:37:ALA:HB1	2.03	0.41
38:DE:35:GLN:HE22	38:DE:37:ARG:HH21	1.69	0.41
34:DA:2785:C:H1'	38:DE:64:LYS:NZ	2.36	0.41
48:DS:97:ARG:O	48:DS:97:ARG:CG	2.68	0.41
48:BS:90:GLY:O	48:BS:91:PRO:C	2.57	0.41
2:AB:109:SER:O	2:AB:111:ARG:N	2.54	0.41
23:AW:39:U:OP1	23:AW:39:U:H4'	2.21	0.41
38:BE:1:MET:HB3	38:BE:200:GLU:OE1	2.21	0.41
38:BE:55:ASN:OD1	38:BE:75:VAL:HG22	2.21	0.41
34:BA:83:G:N2	34:BA:103:A:OP2	2.48	0.41
3:AC:14:ILE:O	3:AC:16:ARG:N	2.54	0.41
3:CC:148:GLY:CA	3:CC:203:PHE:HB3	2.23	0.41
37:BD:28:GLU:CB	37:BD:29:PRO:CD	2.98	0.41
37:BD:68:LYS:HB2	37:BD:70:TRP:CZ2	2.56	0.41
26:B1:10:LYS:O	26:B1:13:ILE:HG22	2.20	0.41
39:BF:22:ALA:HA	39:BF:26:ALA:CB	2.33	0.41
42:DI:98:ALA:HA	42:DI:109:ILE:HD13	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:84:A:N1	34:DA:98:G:O2'	2.45	0.41
55:DZ:29:TYR:O	55:DZ:89:PHE:CD2	2.72	0.41
2:CB:165:VAL:CG2	2:CB:166:ASP:N	2.83	0.41
2:CB:20:GLU:H	2:CB:20:GLU:HG2	1.65	0.41
45:DP:66:GLY:O	45:DP:68:GLN:N	2.52	0.41
27:B2:47:ASN:HB2	27:B2:51:ARG:HD2	2.02	0.41
45:BP:47:ASP:HB2	45:BP:51:PHE:HB2	2.02	0.41
55:BZ:102:LEU:HD11	55:BZ:124:ILE:HG23	2.02	0.41
12:AL:46:LYS:HB2	12:AL:92:ASP:O	2.21	0.41
13:AM:17:VAL:O	13:AM:20:THR:HB	2.21	0.41
40:BG:43:LEU:HD13	40:BG:43:LEU:N	2.35	0.41
48:DS:63:THR:O	48:DS:64:GLU:C	2.60	0.41
34:BA:2758:A:C3'	34:BA:2759:G:C5'	2.97	0.41
34:DA:527:C:H4'	34:DA:528:A:O4'	2.20	0.41
47:BR:87:TYR:O	47:BR:88:ARG:HB3	2.20	0.41
47:DR:117:VAL:HG22	47:DR:118:GLU:N	2.36	0.41
47:DR:87:TYR:O	47:DR:88:ARG:HB3	2.21	0.41
26:D1:10:LYS:HA	26:D1:48:LYS:HE2	2.01	0.41
43:BN:41:ASP:OD1	43:BN:41:ASP:N	2.54	0.41
41:BH:141:VAL:O	41:BH:144:VAL:N	2.51	0.41
38:BE:115:GLY:C	38:BE:116:VAL:O	2.59	0.41
34:DA:589:C:O2'	34:DA:590:A:H5'	2.21	0.41
5:AE:101:ILE:CD1	5:AE:118:ILE:O	2.68	0.41
34:DA:1497:U:H3	34:DA:1578:U:P	2.43	0.41
54:DY:87:LYS:O	54:DY:88:LYS:CB	2.64	0.41
1:CA:192:U:O3'	20:CT:57:ARG:HD2	2.21	0.41
1:AA:1277:C:C2'	1:AA:1278:U:H5'	2.45	0.41
34:DA:2640:G:C2'	34:DA:2641:G:O5'	2.68	0.41
49:BT:53:ARG:NH1	49:BT:53:ARG:HG2	2.32	0.41
55:BZ:8:TYR:HB2	55:BZ:38:TYR:CE1	2.56	0.41
55:BZ:125:LEU:C	55:BZ:125:LEU:HD23	2.41	0.41
55:BZ:8:TYR:HA	55:BZ:62:PRO:CG	2.51	0.41
34:DA:285:C:H2'	34:DA:286:C:C5'	2.51	0.41
4:CD:72:GLU:O	4:CD:73:ARG:C	2.59	0.41
26:D1:86:SER:O	26:D1:90:ILE:CG1	2.69	0.41
26:D1:87:PRO:CG	26:D1:88:LYS:N	2.84	0.41
34:BA:2807:G:N2	34:BA:2808:U:H1'	2.35	0.41
34:BA:2807:G:H2'	34:BA:2808:U:C5'	2.50	0.41
51:BV:62:LEU:HB3	51:BV:96:ILE:CG2	2.51	0.41
9:AI:10:ARG:HD3	9:AI:75:ASP:CB	2.51	0.41
4:AD:73:ARG:CD	4:AD:77:ASN:HD21	2.34	0.41
37:BD:17:THR:HG21	37:BD:205:VAL:HB	1.94	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:49:ILE:CD1	19:AS:49:ILE:N	2.83	0.41
5:CE:101:ILE:HD11	5:CE:119:LEU:HD23	2.03	0.41
43:DN:17:ASP:OD2	43:DN:56:ASN:O	2.39	0.41
1:CA:952:U:O2'	1:CA:953:G:H5'	2.21	0.41
52:BW:60:ASN:OD1	52:BW:61:ASN:ND2	2.54	0.41
43:BN:28:THR:CG2	43:BN:29:LYS:H	2.25	0.41
34:DA:2036:C:O2'	34:DA:2037:G:H5'	2.21	0.41
19:CS:15:LEU:CD2	19:CS:15:LEU:N	2.84	0.41
19:CS:9:VAL:C	19:CS:10:PHE:CD1	2.94	0.41
34:DA:915:C:O2'	34:DA:916:G:H5'	2.21	0.41
27:D2:47:ASN:HD22	27:D2:48:HIS:H	1.62	0.41
34:DA:2530:A:C2'	34:DA:2531:A:H5'	2.42	0.41
53:DX:63:LYS:HE3	53:DX:70:LEU:CD2	2.36	0.41
40:DG:133:LEU:C	40:DG:133:LEU:HD12	2.41	0.41
34:BA:272(C):G:H2'	34:BA:272(D):G:H8	1.85	0.41
34:BA:271(A):A:H1'	34:BA:365:C:O4'	2.20	0.41
26:D1:41:ARG:NH1	34:DA:189:G:OP1	2.52	0.41
26:D1:20:ARG:HB3	26:D1:21:ARG:H	1.71	0.41
1:CA:1331:G:OP2	13:CM:23:TYR:HD2	2.03	0.41
46:BQ:63:LYS:NZ	46:BQ:63:LYS:HB2	2.36	0.41
45:DP:112:LEU:C	45:DP:112:LEU:HD22	2.40	0.41
25:D0:36:ILE:H	25:D0:36:ILE:CD1	2.34	0.41
34:BA:1275:A:C4	47:BR:16:HIS:ND1	2.89	0.41
46:BQ:134:ARG:O	46:BQ:136:ALA:N	2.53	0.41
3:CC:172:ARG:HH12	3:CC:174:PRO:HG2	1.86	0.41
34:DA:635:C:O2'	34:DA:639:U:OP1	2.38	0.41
46:BQ:70:PRO:N	46:BQ:95:ALA:HB2	2.36	0.41
34:DA:1491:G:O4'	37:DD:99:ASP:OD2	2.38	0.41
34:BA:2259:G:C8	34:BA:2427:C:C4	3.09	0.41
6:AF:33:TYR:CD1	6:AF:75:LEU:HA	2.56	0.41
3:CC:113:ALA:C	3:CC:115:LEU:N	2.73	0.41
1:CA:1503:A:C2'	1:CA:1503:A:N3	2.84	0.41
48:DS:34:HIS:NE2	48:DS:54:LEU:HB2	2.35	0.41
23:CW:17:C:N4	34:DA:2180:U:H5''	2.35	0.41
34:DA:2287:A:H2	34:DA:2346:A:N1	2.18	0.41
44:BO:88:ASN:OD1	44:BO:89:ASN:N	2.54	0.41
1:CA:1170:A:C2'	1:CA:1171:G:H5'	2.51	0.41
36:DC:64:LEU:HD22	36:DC:193:ILE:CB	2.50	0.41
10:CJ:30:SER:CB	10:CJ:80:LYS:HG3	2.48	0.41
15:AO:11:VAL:O	15:AO:14:GLU:HB3	2.20	0.41
39:DF:176:LEU:HD21	39:DF:180:GLY:C	2.41	0.41
1:CA:990:C:C2	1:CA:1216:G:C2	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BG:5:VAL:O	40:BG:6:ALA:C	2.59	0.41
34:DA:2841:C:O2'	34:DA:2842:G:H5'	2.21	0.41
51:BV:13:ARG:HG3	51:BV:13:ARG:O	2.21	0.41
51:BV:4:ILE:HG13	51:BV:40:LEU:HD11	2.03	0.41
9:CI:53:VAL:HB	9:CI:92:TYR:HE2	1.81	0.41
1:CA:627:G:H2'	1:CA:628:G:C8	2.47	0.41
2:AB:203:GLY:O	2:AB:204:ASN:C	2.60	0.41
7:AG:16:LEU:CD1	9:AI:42:ARG:HA	2.51	0.41
34:BA:1386:C:OP2	34:BA:1396:U:C5	2.74	0.41
52:DW:23:LEU:CD2	52:DW:39:THR:HG21	2.51	0.41
7:CG:102:ARG:O	7:CG:103:TRP:C	2.59	0.41
1:CA:938:A:O2'	1:CA:939:G:H5'	2.20	0.41
45:DP:90:ARG:HD3	45:DP:90:ARG:C	2.40	0.41
1:CA:1232:U:H2'	1:CA:1233:G:O4'	2.20	0.41
2:AB:102:LEU:HD12	2:AB:102:LEU:H	1.80	0.41
34:BA:818:G:N1	34:BA:1188:U:OP2	2.36	0.41
9:AI:37:PHE:CE1	9:AI:74:ILE:HG12	2.55	0.41
8:AH:6:ILE:HG21	8:AH:85:ARG:HH12	1.86	0.41
3:AC:18:TRP:CD1	14:AN:54:PRO:HA	2.56	0.41
34:BA:1291:C:H2'	34:BA:1292:U:C6	2.56	0.41
3:AC:9:GLY:N	14:AN:49:HIS:O	2.53	0.41
44:BO:8:LEU:N	44:BO:8:LEU:CD2	2.83	0.41
27:B2:25:VAL:C	27:B2:27:GLU:N	2.61	0.41
31:D6:28:ARG:O	31:D6:29:ASN:C	2.59	0.41
23:AW:7:A:C2	23:AW:67:C:N3	2.89	0.41
1:CA:1388:C:O2'	1:CA:1389:C:H5'	2.20	0.41
45:DP:13:ASN:ND2	45:DP:13:ASN:N	2.69	0.41
17:CQ:76:LEU:HD12	17:CQ:77:VAL:H	1.85	0.41
5:CE:59:GLY:O	5:CE:63:ARG:HG3	2.21	0.41
43:BN:23:LEU:O	43:BN:23:LEU:HD23	2.21	0.41
17:AQ:76:LEU:HD12	17:AQ:77:VAL:H	1.86	0.41
52:BW:70:TYR:N	52:BW:70:TYR:HD2	2.18	0.41
4:AD:132:ARG:NH1	4:AD:132:ARG:HG2	2.35	0.41
9:AI:116:LYS:O	9:AI:117:HIS:C	2.59	0.41
43:BN:78:TYR:N	43:BN:79:PRO:CD	2.84	0.41
1:CA:724:G:C2	1:CA:725:G:C8	3.09	0.41
13:CM:81:LEU:HD21	13:CM:88:ARG:HH12	1.85	0.41
1:AA:1240:U:H3'	1:AA:1241:G:H5'	2.03	0.41
18:AR:35:ARG:C	18:AR:37:VAL:N	2.74	0.41
26:B1:23:LYS:O	26:B1:37:ILE:N	2.53	0.41
34:BA:2241:A:O2'	34:BA:2242:G:H5'	2.21	0.41
34:BA:774:A:O2'	34:BA:775:G:P	2.78	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:2850:A:H2'	34:BA:2851:A:H8	1.86	0.41
34:DA:1050:A:C2	34:DA:2751:G:C4	3.09	0.41
1:AA:25:C:C5	1:AA:558:G:N2	2.89	0.41
37:DD:232:PRO:HG2	37:DD:248:SER:O	2.21	0.41
48:BS:48:LEU:N	48:BS:48:LEU:CD1	2.84	0.41
2:AB:167:PRO:O	2:AB:170:GLU:N	2.54	0.41
34:DA:1827:C:H2'	34:DA:1828:G:O4'	2.21	0.41
6:CF:98:LEU:HB3	18:CR:30:ASP:CA	2.50	0.41
1:CA:1060:C:H5	3:CC:2:GLY:HA3	1.86	0.41
34:DA:2025:C:C2	34:DA:2026:C:C6	3.09	0.41
34:BA:2277:G:H2'	34:BA:2278:A:C5'	2.51	0.41
34:BA:1653:G:H4'	34:BA:1654:A:O5'	2.21	0.41
38:BE:199:ARG:HG3	38:BE:199:ARG:HH11	1.84	0.41
3:AC:156:ARG:H	3:AC:163:ALA:HA	1.85	0.41
20:AT:44:ALA:HB3	20:AT:91:LEU:HD13	2.03	0.41
15:AO:2:PRO:HB2	15:AO:3:ILE:H	1.63	0.41
4:CD:209:ARG:NH1	4:CD:209:ARG:HG3	2.35	0.41
34:DA:553:G:H2'	34:DA:554:U:O4'	2.21	0.41
40:BG:123:ASN:O	40:BG:126:ASP:HB2	2.21	0.41
20:AT:63:ILE:HG22	20:AT:64:ASP:N	2.36	0.41
1:AA:622:A:C8	1:AA:623:C:C6	3.09	0.41
34:DA:2669:G:C2	34:DA:2670:A:C8	3.09	0.41
52:BW:52:GLU:HA	52:BW:52:GLU:OE2	2.21	0.41
1:AA:149:A:O2'	1:AA:150:C:H6	2.04	0.41
34:BA:1298:C:H3'	34:BA:1299:G:H8	1.83	0.41
11:AK:91:ARG:C	11:AK:91:ARG:HD2	2.41	0.41
2:CB:142:LEU:CD2	2:CB:146:GLN:NE2	2.84	0.41
34:BA:1445:A:H5''	34:BA:1445(A):C:H5	1.85	0.41
1:AA:1300:G:O2'	1:AA:1301:U:O5'	2.38	0.41
34:DA:2574:G:H2'	34:DA:2575:C:H6	1.85	0.41
34:DA:2402:C:C2'	34:DA:2403:C:H5'	2.51	0.41
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.56	0.41
5:AE:64:ARG:NH1	5:AE:64:ARG:HG3	2.35	0.41
1:CA:424:G:C2	1:CA:425:G:C8	3.08	0.41
34:DA:1608:A:C5	34:DA:1611:C:C4	3.08	0.41
48:BS:38:GLN:OE1	48:BS:47:THR:HG21	2.21	0.41
34:DA:978:G:C2	34:DA:986:C:N3	2.88	0.41
20:CT:28:ALA:O	20:CT:31:SER:N	2.54	0.41
15:AO:26:GLU:HA	15:AO:81:LEU:HD22	2.01	0.41
20:AT:20:LEU:O	20:AT:21:LYS:C	2.59	0.41
34:DA:2248:C:C2'	34:DA:2249:U:H5'	2.51	0.41
16:AP:19:ILE:CG2	16:AP:36:ILE:HG13	2.51	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BQ:16:ARG:HH11	46:BQ:16:ARG:CB	2.34	0.41
7:CG:85:TYR:CD1	7:CG:154:TYR:HE1	2.36	0.41
1:AA:1518:A:C2	1:AA:1519:A:C2	3.09	0.41
1:AA:283:C:H2'	1:AA:284:G:H8	1.86	0.41
28:B3:46:ASN:ND2	34:BA:851:U:C4'	2.84	0.41
34:BA:1268:A:C5	34:BA:1269:A:C8	3.09	0.41
4:CD:158:ILE:HD13	4:CD:158:ILE:HA	1.88	0.41
37:DD:166:GLN:HE21	37:DD:166:GLN:HA	1.86	0.41
22:AV:75:C:H5'	22:AV:75:C:H6	1.86	0.41
34:DA:912:C:H2'	34:DA:913:U:C6	2.55	0.41
10:AJ:28:ARG:NH1	10:AJ:28:ARG:HG2	2.35	0.41
28:B3:44:ARG:O	28:B3:45:GLY:C	2.59	0.41
3:AC:34:LEU:O	3:AC:38:ARG:HG2	2.20	0.41
34:DA:332:A:O2'	34:DA:333:G:O5'	2.39	0.41
37:BD:36:PRO:O	37:BD:37:LEU:HD23	2.21	0.41
21:CU:24:ARG:HD2	21:CU:24:ARG:N	2.36	0.41
1:CA:1486:G:O6	1:CA:1487:G:C6	2.74	0.41
34:DA:2172:U:H2'	34:DA:2174:C:O4'	2.21	0.41
1:AA:989:C:O2'	1:AA:990:C:H5'	2.21	0.41
34:DA:1904:G:O2'	34:DA:1905:C:H5'	2.21	0.41
1:CA:836:G:C6	1:CA:851:G:C6	3.09	0.41
34:BA:2335:A:C8	34:BA:2337:G:C5	3.09	0.41
34:BA:2172:U:H2'	34:BA:2174:C:O4'	2.21	0.41
34:BA:312:G:C2	34:BA:313:C:C2	3.09	0.41
39:DF:160:ASN:C	39:DF:160:ASN:HD22	2.23	0.41
30:B5:8:LYS:O	30:B5:8:LYS:HG3	2.21	0.41
36:BC:124:GLY:O	36:BC:125:SER:CB	2.68	0.41
23:AW:76:A:N6	34:BA:2422:A:O4'	2.54	0.41
17:CQ:11:VAL:HB	17:CQ:88:TYR:CD2	2.55	0.41
13:CM:73:GLU:O	13:CM:74:VAL:C	2.59	0.41
49:BT:24:PRO:HA	49:BT:49:VAL:HG13	2.02	0.41
14:AN:15:LYS:O	14:AN:16:PHE:C	2.59	0.41
1:AA:489:C:H2'	1:AA:490:G:H8	1.86	0.41
29:B4:20:ASN:C	29:B4:22:ILE:N	2.73	0.41
55:BZ:119:GLU:HG3	55:BZ:119:GLU:O	2.21	0.41
34:DA:2236:C:C2'	34:DA:2237:G:H5'	2.51	0.41
34:DA:2053:G:C2	34:DA:2054:A:C8	3.09	0.41
34:DA:1676:A:O2'	34:DA:1677:A:H5'	2.20	0.41
4:AD:141:ARG:N	4:AD:144:ASP:OD2	2.54	0.41
39:DF:183:VAL:HG23	39:DF:184:TYR:N	2.35	0.41
45:DP:17:LYS:HA	45:DP:19:VAL:HG22	2.03	0.41
48:DS:90:GLY:O	48:DS:91:PRO:C	2.57	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:DT:91:ARG:HB3	49:DT:115:ARG:O	2.21	0.41
49:BT:28:VAL:HB	49:BT:88:ILE:HD11	2.02	0.41
54:BY:28:LYS:C	54:BY:29:GLU:OE1	2.60	0.41
34:BA:1245:G:O3'	45:BP:16:ARG:NH2	2.53	0.41
39:BF:183:VAL:HG23	39:BF:184:TYR:N	2.36	0.41
26:B1:64:ALA:C	26:B1:67:ILE:HD11	2.41	0.41
34:BA:1366:A:C2	34:BA:1367:A:H1'	2.56	0.41
55:DZ:22:GLY:HA2	55:DZ:41:LEU:CD1	2.51	0.41
34:BA:250:G:C6	34:BA:251:A:C6	3.09	0.41
46:BQ:8:LYS:CG	46:BQ:9:TYR:N	2.82	0.41
50:DU:59:ARG:O	50:DU:61:TRP:N	2.54	0.41
26:D1:47:GLN:HB2	34:DA:397:G:H5''	2.02	0.41
10:CJ:34:VAL:CG1	10:CJ:35:SER:N	2.84	0.41
1:AA:377:G:C2	1:AA:387:U:O2	2.74	0.41
1:CA:377:G:P	16:CP:5:ARG:HH11	2.44	0.41
54:DY:99:CYS:O	54:DY:100:ALA:CB	2.69	0.41
55:BZ:65:GLN:HB3	55:BZ:67:LEU:CD1	2.51	0.41
37:BD:177:LEU:O	37:BD:180:GLY:N	2.52	0.41
37:DD:169:GLU:HG2	37:DD:174:ILE:HD11	2.02	0.41
26:D1:81:LYS:HB3	26:D1:82:LEU:H	1.46	0.41
34:DA:1301:A:C2'	34:DA:1302:A:H3'	2.51	0.41
30:B5:50:GLY:CA	30:B5:56:LYS:HB3	2.51	0.41
52:BW:6:ILE:HA	52:BW:103:ILE:O	2.21	0.41
34:DA:606:U:H2'	34:DA:607:U:O4'	2.21	0.41
34:DA:2243:U:O2'	34:DA:2244:U:H5'	2.21	0.41
1:CA:865:A:O5'	1:CA:865:A:H8	2.04	0.41
45:DP:131:SER:H	45:DP:134:ALA:CB	2.19	0.41
39:BF:165:ARG:O	39:BF:166:ALA:C	2.58	0.41
5:CE:88:LYS:HB3	5:CE:123:LEU:HB2	2.03	0.41
34:DA:2850:A:C8	34:DA:2869:G:O4'	2.74	0.41
7:CG:47:CYS:C	7:CG:49:ILE:N	2.74	0.41
48:BS:98:VAL:HG13	48:BS:99:LYS:N	2.35	0.41
27:D2:50:ILE:O	27:D2:51:ARG:CB	2.68	0.41
34:DA:814:C:H5''	51:DV:86:GLY:CA	2.35	0.41
34:DA:1142(A):A:C5	34:DA:1144:G:N7	2.89	0.41
40:DG:45:GLU:OE1	40:DG:45:GLU:N	2.54	0.41
34:DA:2203:U:H2'	34:DA:2203:U:O2	2.21	0.41
28:D3:4:LEU:HB2	28:D3:39:ASP:HB2	2.02	0.41
17:AQ:68:ARG:CG	17:AQ:68:ARG:NH1	2.84	0.41
6:CF:19:LEU:HD23	6:CF:19:LEU:C	2.42	0.41
6:CF:73:ASN:O	6:CF:76:ALA:N	2.54	0.41
46:DQ:132:VAL:CG1	46:DQ:133:ARG:N	2.84	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:925:C:H3'	34:DA:926:A:H5''	2.03	0.41
2:CB:111:ARG:O	2:CB:114:ARG:N	2.54	0.41
39:BF:173:VAL:CG1	39:BF:174:VAL:N	2.84	0.41
34:DA:2731:G:C6	34:DA:2732:G:O6	2.74	0.41
34:BA:1569:A:H2'	34:BA:1570:A:C8	2.56	0.41
34:BA:2732:G:C3'	34:BA:2733:A:C5'	2.99	0.41
53:BX:83:VAL:O	53:BX:83:VAL:HG23	2.21	0.41
48:DS:54:LEU:O	48:DS:56:LEU:N	2.54	0.41
37:BD:161:THR:OG1	37:BD:196:VAL:HG21	2.21	0.41
34:DA:2286:A:O2'	34:DA:2286:A:C8	2.73	0.41
44:BO:103:ALA:HA	44:BO:122:LEU:O	2.21	0.41
15:AO:32:LEU:O	15:AO:36:ILE:HG13	2.21	0.41
14:CN:53:LEU:HB3	14:CN:56:VAL:HG21	2.03	0.41
1:CA:1015:A:N3	1:CA:1218:C:O2'	2.51	0.41
40:BG:5:VAL:HG12	40:BG:104:GLU:OE2	2.21	0.41
1:CA:1413:A:H2'	1:CA:1414:U:O4'	2.21	0.41
7:CG:15:ASP:CB	7:CG:20:ASP:H	2.33	0.41
2:CB:178:ARG:HG3	8:CH:72:PRO:N	2.36	0.41
11:AK:21:ILE:CB	11:AK:84:VAL:HG12	2.46	0.41
14:CN:43:CYS:O	14:CN:44:LEU:C	2.59	0.41
9:AI:78:LYS:HZ3	9:AI:78:LYS:HB2	1.85	0.41
10:AJ:54:PHE:C	10:AJ:55:LYS:HG3	2.41	0.41
8:CH:86:ILE:HG13	8:CH:133:LEU:HD22	2.02	0.41
44:BO:2:ILE:HD11	44:BO:82:ASN:CG	2.40	0.41
1:AA:1342:C:H1'	9:AI:124:GLN:NE2	2.33	0.41
1:CA:154:C:O2'	1:CA:155:C:H5'	2.21	0.41
5:CE:20:GLN:HB3	5:CE:20:GLN:HE21	1.55	0.41
34:DA:892:G:N3	34:DA:892:G:C3'	2.84	0.41
1:AA:782:A:N6	1:AA:801:U:C5	2.89	0.41
1:AA:782:A:N7	1:AA:783:C:C2	2.89	0.41
11:AK:124:LYS:HD2	11:AK:125:PHE:CD1	2.55	0.41
1:AA:1346:A:C8	7:AG:10:ARG:NH2	2.89	0.41
4:CD:3:ARG:HD3	4:CD:5:ILE:HG13	2.03	0.41
7:AG:76:ARG:HH11	7:AG:76:ARG:CG	2.30	0.41
34:BA:945:A:H5''	34:BA:946:G:P	2.61	0.41
1:CA:411:A:C5	1:CA:429:U:C5	3.09	0.41
34:DA:2795:G:N2	34:DA:2796:U:HO2'	2.18	0.41
4:CD:132:ARG:HH11	4:CD:132:ARG:HG2	1.86	0.41
34:DA:870:A:C2	34:DA:908:C:C2	3.09	0.41
34:DA:151:C:O2'	34:DA:152:G:H5'	2.21	0.41
34:BA:271(L):U:H4'	34:BA:271(M):G:C6	2.56	0.41
46:BQ:109:VAL:CG1	46:BQ:110:THR:N	2.83	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:12:G:H4'	34:BA:1908:C:O2	2.21	0.41
10:CJ:22:LYS:HZ3	10:CJ:88:LEU:HD23	1.86	0.41
1:AA:808:C:OP2	15:AO:48:LYS:HE3	2.21	0.41
23:CW:1:G:O6	23:CW:72:C:N4	2.54	0.41
1:CA:147:G:C2	1:CA:148:G:C8	3.09	0.41
34:DA:699:A:C2'	34:DA:700:G:H5'	2.51	0.41
1:CA:690:G:C6	1:CA:691:G:N1	2.89	0.41
1:CA:544:G:C5	1:CA:545:C:C5	3.09	0.41
1:AA:652:U:H1'	1:AA:653:A:C2	2.56	0.41
34:DA:949:C:O2'	34:DA:950:G:H5'	2.21	0.41
1:CA:284:G:H2'	1:CA:285:G:C8	2.56	0.41
34:DA:1022:G:HO2'	34:DA:1023:U:P	2.42	0.41
34:DA:1388:G:N2	34:DA:1400:G:C4	2.89	0.41
1:CA:1324:A:C5	1:CA:1325:C:C5	3.09	0.41
47:BR:13:HIS:C	47:BR:13:HIS:ND1	2.74	0.41
34:BA:1272:A:C3'	34:BA:1273:U:C5'	2.99	0.41
31:D6:40:CYS:HB2	31:D6:46:HIS:CE1	2.56	0.41
34:DA:1783:A:C2	34:DA:2587:A:C4	3.09	0.41
14:CN:33:VAL:C	14:CN:34:TYR:CD1	2.94	0.41
29:D4:20:ASN:C	29:D4:22:ILE:H	2.25	0.41
34:BA:803:U:O2'	34:BA:804:A:H5'	2.21	0.41
34:BA:725:G:C6	34:BA:726:G:N1	2.89	0.41
12:CL:30:ALA:O	12:CL:31:PRO:C	2.59	0.41
30:B5:11:THR:OG1	34:BA:1263:U:O3'	2.39	0.41
1:CA:768:A:N3	1:CA:1512:U:O2'	2.48	0.41
8:AH:34:GLU:OE1	8:AH:34:GLU:HA	2.20	0.41
1:AA:1290:G:N3	1:AA:1290:G:H2'	2.35	0.41
1:CA:142:G:H2'	1:CA:143:A:H8	1.86	0.41
51:DV:73:SER:CB	51:DV:75:PHE:CE1	2.98	0.40
42:BI:88:ILE:HD11	42:BI:123:LEU:HG	2.00	0.40
42:BI:96:ASP:C	42:BI:98:ALA:H	2.23	0.40
34:DA:1245:G:H5''	45:DP:16:ARG:HH21	1.86	0.40
48:DS:28:VAL:HA	48:DS:37:ALA:HA	2.03	0.40
34:DA:2776:A:H4'	34:DA:2777:G:H5''	2.02	0.40
38:DE:36:ARG:C	38:DE:37:ARG:HG3	2.41	0.40
38:DE:4:ILE:HD11	38:DE:28:ALA:HB1	2.02	0.40
28:D3:8:LEU:HD13	28:D3:31:LEU:HD23	1.96	0.40
45:BP:97:PRO:C	45:BP:99:LEU:N	2.75	0.40
38:BE:4:ILE:HG13	38:BE:28:ALA:HB1	2.03	0.40
26:B1:8:SER:HB2	26:B1:48:LYS:NZ	2.36	0.40
42:DI:83:ALA:HB3	42:DI:123:LEU:HD11	2.02	0.40
54:DY:27:VAL:HG12	54:DY:29:GLU:OE1	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:B8:62:LEU:N	33:B8:63:PRO:CD	2.82	0.40
23:CW:76:A:C2	33:D8:33:ASN:ND2	2.89	0.40
34:BA:71:A:O2'	34:BA:72:U:OP2	2.26	0.40
46:BQ:89:ASN:N	46:BQ:89:ASN:ND2	2.66	0.40
34:BA:49:A:O2'	34:BA:50:U:OP2	2.29	0.40
46:DQ:71:ASP:O	46:DQ:73:PRO:HD3	2.22	0.40
20:AT:53:LEU:O	20:AT:54:LYS:C	2.58	0.40
34:BA:1497:U:H3	34:BA:1578:U:P	2.44	0.40
34:BA:810:U:O2'	45:BP:33:ARG:NE	2.54	0.40
1:CA:177:C:H2'	1:CA:178:C:C6	2.56	0.40
34:DA:354:G:H2'	34:DA:355:G:O4'	2.21	0.40
46:DQ:42:ILE:HG22	46:DQ:47:ILE:HD11	2.01	0.40
13:CM:19:LEU:HD11	13:CM:56:LEU:HD11	2.04	0.40
34:DA:2807:G:N2	34:DA:2808:U:H1'	2.36	0.40
41:DH:152:ARG:HB3	41:DH:161:GLY:CA	2.34	0.40
46:BQ:28:ALA:HB3	46:BQ:29:PHE:CD1	2.56	0.40
1:AA:1320:C:H2'	1:AA:1321:C:O4'	2.21	0.40
19:AS:36:ARG:HB2	19:AS:72:GLY:CA	2.51	0.40
22:AV:52:G:C2	22:AV:53:G:C8	3.09	0.40
5:CE:101:ILE:CD1	5:CE:118:ILE:O	2.70	0.40
49:DT:53:ARG:CG	49:DT:53:ARG:NH1	2.83	0.40
11:AK:44:SER:H	11:AK:47:VAL:HB	1.86	0.40
1:CA:16:A:N1	1:CA:919:A:C2	2.88	0.40
30:D5:20:ARG:O	30:D5:21:SER:C	2.59	0.40
34:BA:917:A:N1	35:BB:80:U:H4'	2.37	0.40
34:DA:2850:A:C2	34:DA:2851:A:C4	3.08	0.40
47:DR:60:LEU:O	47:DR:63:ARG:HB3	2.20	0.40
27:D2:42:GLY:C	27:D2:44:LEU:H	2.25	0.40
42:BI:69:LYS:HA	42:BI:136:VAL:HG23	2.01	0.40
4:AD:133:VAL:HG13	4:AD:135:LEU:HD23	2.03	0.40
40:DG:44:GLY:O	40:DG:45:GLU:HB3	2.21	0.40
13:CM:65:LYS:HA	13:CM:66:LEU:HB2	2.03	0.40
46:BQ:55:VAL:HG23	55:BZ:178:GLU:CB	2.49	0.40
49:DT:57:PHE:O	49:DT:59:THR:HG22	2.21	0.40
4:CD:11:LEU:HD23	4:CD:11:LEU:N	2.36	0.40
4:AD:198:VAL:CG1	4:AD:199:ASN:N	2.84	0.40
19:CS:45:VAL:HA	19:CS:62:ILE:O	2.22	0.40
44:DO:87:ILE:HD13	44:DO:93:PRO:CA	2.51	0.40
1:CA:1439:C:H5''	20:CT:38:LYS:HZ2	1.85	0.40
53:BX:50:LYS:HD3	53:BX:82:GLN:HE21	1.87	0.40
3:CC:115:LEU:O	3:CC:116:VAL:C	2.59	0.40
2:AB:68:ILE:HB	2:AB:90:MET:SD	2.61	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AN:47:LEU:HB2	14:AN:53:LEU:CD1	2.49	0.40
1:AA:115:G:H1'	1:AA:116:A:N7	2.36	0.40
1:CA:1217:C:H2'	1:CA:1218:C:O4'	2.20	0.40
44:DO:121:VAL:O	44:DO:122:LEU:HD23	2.21	0.40
1:AA:583:A:H2'	1:AA:584:G:O4'	2.21	0.40
47:BR:104:ARG:HG2	47:BR:104:ARG:HH11	1.86	0.40
49:DT:50:ILE:HD11	49:DT:64:ARG:HB2	2.03	0.40
9:CI:3:GLN:C	9:CI:4:TYR:CD1	2.87	0.40
44:DO:26:LYS:HB3	44:DO:27:GLY:H	1.67	0.40
39:DF:16:GLY:O	39:DF:17:ARG:HG3	2.21	0.40
34:BA:1886:C:H2'	34:BA:1887:C:H6	1.86	0.40
1:AA:941:G:C2'	1:AA:942:G:O5'	2.69	0.40
34:DA:2061:G:H5''	34:DA:2503:A:C2	2.56	0.40
54:BY:32:PRO:O	54:BY:34:LYS:N	2.53	0.40
9:CI:125:TYR:CE2	9:CI:127:LYS:HB2	2.56	0.40
14:CN:57:ARG:O	14:CN:59:ALA:N	2.54	0.40
31:B6:28:ARG:O	31:B6:29:ASN:C	2.59	0.40
1:AA:1003:G:H2'	1:AA:1004:A:O4'	2.20	0.40
1:CA:1003:G:H2'	1:CA:1004:A:O4'	2.21	0.40
37:DD:131:LEU:HB2	37:DD:136:ILE:CD1	2.47	0.40
1:AA:786:G:C2	1:AA:787:A:C4	3.08	0.40
4:CD:3:ARG:HG2	4:CD:3:ARG:HH21	1.87	0.40
22:CV:5:G:O2'	22:CV:6:G:H5'	2.20	0.40
17:CQ:80:GLY:O	17:CQ:81:ARG:HG2	2.21	0.40
17:AQ:52:LYS:O	17:AQ:55:ASP:OD2	2.39	0.40
17:AQ:58:GLU:C	17:AQ:59:ILE:HD13	2.41	0.40
4:CD:126:ILE:HG22	4:CD:127:THR:H	1.86	0.40
34:DA:407:G:O2'	34:DA:408:G:H5'	2.21	0.40
46:DQ:65:PHE:HB2	46:DQ:105:GLU:CG	2.52	0.40
39:BF:201:VAL:CG1	39:BF:202:PHE:N	2.84	0.40
34:BA:150:C:O2'	34:BA:151:C:H5'	2.21	0.40
1:AA:1311:G:H2'	1:AA:1312:G:O5'	2.21	0.40
34:BA:608:A:H3'	34:BA:609:A:C8	2.54	0.40
44:DO:113:LYS:O	44:DO:114:ILE:C	2.58	0.40
34:BA:1315:C:H2'	34:BA:1316:U:H6	1.87	0.40
21:AU:10:ARG:O	21:AU:11:GLY:C	2.59	0.40
34:DA:1817:G:H2'	34:DA:1818:U:H5'	2.03	0.40
3:AC:124:ILE:O	3:AC:126:ARG:N	2.54	0.40
34:DA:754:C:O2'	34:DA:755:C:H5'	2.20	0.40
49:BT:35:LYS:O	49:BT:37:GLY:N	2.54	0.40
34:DA:1683:C:H2'	34:DA:1684:C:C6	2.53	0.40
1:CA:356:A:H2'	1:CA:357:G:C8	2.54	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:2033:A:O2'	34:DA:2034:U:P	2.78	0.40
34:DA:2020:A:C2	34:DA:2035:G:N1	2.89	0.40
1:CA:594:G:H2'	1:CA:595:G:H5'	2.03	0.40
34:BA:1270:C:H5''	34:BA:1271:G:H5'	2.03	0.40
1:AA:443:C:H2'	1:AA:444:C:C6	2.56	0.40
1:CA:774:G:O2'	1:CA:775:G:H5'	2.21	0.40
34:DA:901:A:H5'	34:DA:902:C:OP2	2.21	0.40
1:CA:273:A:N6	1:CA:274:A:N6	2.69	0.40
52:BW:3:ALA:O	52:BW:106:ILE:HA	2.21	0.40
1:AA:774:G:O2'	1:AA:775:G:H5'	2.21	0.40
1:CA:1260:C:O2'	1:CA:1261:A:H5'	2.21	0.40
34:BA:1042:G:H3'	34:BA:1043:C:O4'	2.22	0.40
49:DT:10:VAL:O	49:DT:12:SER:N	2.54	0.40
34:BA:1544:A:N3	34:BA:1544:A:O3'	2.55	0.40
26:D1:58:ILE:HG22	26:D1:59:THR:N	2.35	0.40
1:CA:1246:C:H2'	1:CA:1247:U:C6	2.56	0.40
35:BB:25:A:C2	35:BB:26:A:H1'	2.56	0.40
22:CV:35:A:C2	24:CX:18:G:C2	3.09	0.40
1:AA:70:G:H2'	1:AA:71:C:C6	2.56	0.40
34:BA:107:C:H2'	34:BA:108:U:H6	1.86	0.40
34:DA:450:G:OP1	34:DA:1248:G:N1	2.53	0.40
9:AI:91:ASP:C	9:AI:93:ARG:H	2.25	0.40
34:DA:271(X):G:C2	34:DA:271(Y):U:O4	2.74	0.40
29:B4:23:GLU:O	29:B4:24:THR:CB	2.70	0.40
1:AA:1530:G:OP1	1:AA:1530:G:H4'	2.21	0.40
9:CI:66:ARG:HH11	9:CI:66:ARG:HG2	1.86	0.40
41:DH:82:GLY:O	41:DH:135:GLY:O	2.38	0.40
19:AS:27:GLU:HB3	19:AS:28:LYS:H	1.63	0.40
51:BV:71:LEU:HD22	51:BV:71:LEU:HA	1.91	0.40
34:DA:2378:A:H2	48:DS:20:ARG:NH1	2.19	0.40
37:BD:142:VAL:HG23	37:BD:193:VAL:CA	2.51	0.40
54:BY:62:GLU:HB3	54:BY:63:LYS:H	1.43	0.40
49:DT:33:LYS:CB	49:DT:41:ARG:HB3	2.50	0.40
37:DD:143:HIS:HB2	37:DD:156:ALA:O	2.22	0.40
35:BB:4:C:H2'	35:BB:5:C:H6	1.86	0.40
49:BT:118:ARG:O	49:BT:119:LYS:C	2.60	0.40
2:AB:213:LEU:CD2	2:AB:214:ILE:HD13	2.51	0.40
3:AC:172:ARG:HH12	3:AC:174:PRO:HG2	1.86	0.40
34:BA:2776:A:H4'	34:BA:2777:G:H5''	2.03	0.40
38:BE:70:ALA:C	38:BE:72:VAL:N	2.73	0.40
3:CC:148:GLY:O	3:CC:203:PHE:N	2.54	0.40
26:B1:13:ILE:CG2	26:B1:63:ALA:CB	2.85	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:83:G:N2	34:DA:103:A:OP2	2.46	0.40
7:AG:65:ALA:CB	7:AG:124:LEU:HD23	2.52	0.40
34:BA:71:A:H5'	34:BA:71:A:C8	2.52	0.40
13:AM:3:ARG:NH2	40:BG:139:LEU:HD22	2.36	0.40
41:DH:142:GLY:C	41:DH:144:VAL:N	2.74	0.40
18:AR:72:ARG:O	18:AR:76:LEU:HD23	2.21	0.40
26:D1:47:GLN:OE1	34:DA:2230:G:C1'	2.68	0.40
26:D1:9:GLY:N	26:D1:48:LYS:HZ3	2.18	0.40
27:D2:28:LYS:HD2	27:D2:28:LYS:HA	1.80	0.40
5:AE:139:LEU:C	5:AE:141:GLN:N	2.74	0.40
34:BA:2534:A:H2'	34:BA:2535:G:O4'	2.21	0.40
54:DY:86:ARG:CZ	54:DY:95:LYS:HZ2	2.34	0.40
10:CJ:94:VAL:CG1	10:CJ:95:GLU:N	2.80	0.40
38:DE:115:GLY:C	38:DE:116:VAL:O	2.57	0.40
1:AA:1277:C:HO2'	1:AA:1279:A:H1'	1.87	0.40
45:BP:14:LYS:O	45:BP:15:ARG:HB2	2.22	0.40
46:DQ:37:LEU:HA	46:DQ:37:LEU:HD23	1.89	0.40
40:DG:146:TYR:O	40:DG:149:VAL:HG22	2.21	0.40
51:BV:15:GLU:O	51:BV:98:GLU:CD	2.60	0.40
39:DF:164:ARG:HG2	39:DF:164:ARG:NH1	2.34	0.40
43:DN:128:HIS:CE1	43:DN:134:ARG:HD3	2.57	0.40
34:DA:2721:A:H2'	34:DA:2722:G:H8	1.86	0.40
4:AD:38:TYR:HD1	4:AD:38:TYR:O	2.03	0.40
39:BF:31:HIS:O	39:BF:32:LEU:C	2.59	0.40
5:AE:132:ALA:O	5:AE:133:TYR:C	2.59	0.40
34:DA:495:G:N3	52:DW:61:ASN:OD1	2.55	0.40
36:BC:51:PRO:O	36:BC:52:ARG:HB2	2.21	0.40
4:AD:104:VAL:C	4:AD:106:TYR:N	2.74	0.40
40:DG:41:GLN:HE21	40:DG:155:MET:CB	2.34	0.40
1:AA:409:G:C5'	4:AD:25:ARG:HB2	2.50	0.40
41:DH:158:HIS:O	41:DH:159:GLU:CB	2.68	0.40
1:CA:734:G:O2'	1:CA:735:C:H5'	2.21	0.40
47:BR:77:ARG:O	47:BR:78:LYS:C	2.59	0.40
29:D4:42:PHE:C	29:D4:44:THR:N	2.74	0.40
1:AA:624:C:H4'	16:AP:10:GLY:C	2.42	0.40
50:BU:8:VAL:HG22	50:BU:11:ARG:NH2	2.36	0.40
34:DA:1847:A:H2'	34:DA:1847:A:N3	2.36	0.40
6:AF:59:TYR:CD2	6:AF:61:LEU:HD11	2.56	0.40
23:CW:55:U:O2	23:CW:55:U:O5'	2.38	0.40
49:BT:3:ARG:O	49:BT:4:GLY:C	2.60	0.40
34:DA:2052:G:C8	38:DE:141:ILE:HD11	2.57	0.40
34:DA:2813:A:H2'	34:DA:2814:C:H5'	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DB:45:A:C2	35:DB:46:A:C1'	3.05	0.40
3:CC:64:VAL:CB	3:CC:99:VAL:HG12	2.51	0.40
52:DW:12:ILE:HD13	52:DW:17:VAL:CG1	2.50	0.40
45:DP:85:LEU:CD2	45:DP:85:LEU:N	2.71	0.40
9:CI:111:ARG:HG2	9:CI:112:LYS:N	2.35	0.40
30:B5:2:ALA:O	30:B5:3:LYS:HD2	2.22	0.40
10:CJ:47:PHE:CD1	10:CJ:47:PHE:O	2.74	0.40
9:AI:46:ALA:HA	9:AI:78:LYS:HZ2	1.87	0.40
8:CH:6:ILE:HB	8:CH:85:ARG:HH12	1.86	0.40
34:DA:2748:A:H2'	34:DA:2749:A:C8	2.56	0.40
23:AW:50:U:C2	23:AW:65:G:N2	2.89	0.40
40:BG:133:LEU:HD11	40:BG:157:ILE:HG12	2.02	0.40
4:AD:132:ARG:HH11	4:AD:132:ARG:HG2	1.86	0.40
34:BA:601:C:H2'	34:BA:602:G:O4'	2.22	0.40
45:DP:110:TYR:CZ	45:DP:111:ARG:NH2	2.89	0.40
13:AM:86:CYS:O	13:AM:89:GLY:N	2.54	0.40
34:BA:742:G:H2'	34:BA:743:G:C8	2.56	0.40
11:AK:24:SER:C	11:AK:26:ASN:N	2.74	0.40
34:DA:774:A:HO2'	34:DA:775:G:P	2.37	0.40
1:AA:411:A:C5	1:AA:429:U:C5	3.09	0.40
11:AK:69:ALA:O	11:AK:72:ALA:N	2.54	0.40
7:AG:149:ARG:HD3	11:AK:59:TYR:CZ	2.56	0.40
9:AI:111:ARG:O	9:AI:113:LYS:HD2	2.22	0.40
1:CA:1103:C:C4'	2:CB:98:LEU:HD13	2.50	0.40
39:DF:201:VAL:HG13	39:DF:202:PHE:N	2.35	0.40
34:BA:207:A:C8	34:BA:208:C:C5	3.09	0.40
4:CD:58:LEU:HA	4:CD:206:PHE:CE1	2.56	0.40
4:AD:147:ALA:HB2	4:AD:182:LYS:HB3	2.03	0.40
11:AK:111:ASP:HA	18:AR:84:LYS:HE2	2.02	0.40
1:CA:263:A:OP2	20:CT:79:ARG:NH1	2.53	0.40
1:CA:1125:U:H2'	1:CA:1126:U:OP2	2.21	0.40
12:AL:39:VAL:CG1	12:AL:40:VAL:N	2.85	0.40
23:AW:2:C:N4	23:AW:71:G:H1	2.17	0.40
44:BO:11:ALA:O	44:BO:12:ASP:CB	2.68	0.40
1:AA:147:G:C2	1:AA:148:G:C8	3.09	0.40
1:AA:288:A:H2'	1:AA:289:G:H4'	2.04	0.40
1:CA:199:G:O2'	1:CA:200:G:H5'	2.21	0.40
1:CA:638:G:O2'	1:CA:639:G:H5'	2.21	0.40
5:CE:64:ARG:NH1	5:CE:64:ARG:HG3	2.35	0.40
34:DA:765:G:H2'	34:DA:766:C:H6	1.85	0.40
49:DT:124:ASP:O	49:DT:127:ALA:HB3	2.20	0.40
49:BT:124:ASP:O	49:BT:127:ALA:HB3	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:40:ALA:O	8:CH:42:GLU:N	2.54	0.40
34:BA:1839:G:C8	34:BA:1839:G:H5'	2.56	0.40
20:AT:26:ASN:HD22	20:AT:27:LYS:H	1.69	0.40
34:BA:332:A:C5	34:BA:335:C:C4	3.09	0.40
15:CO:64:ARG:O	15:CO:65:ARG:C	2.59	0.40
34:BA:2439:A:H1'	34:BA:2587:A:OP1	2.21	0.40
17:AQ:12:SER:HB3	17:AQ:20:THR:HB	2.03	0.40
39:BF:158:THR:HG23	39:BF:160:ASN:H	1.86	0.40
1:AA:1034:G:N2	1:AA:1035:A:N6	2.69	0.40
34:BA:108:U:C2	34:BA:109:G:C8	3.09	0.40
5:AE:99:GLY:O	5:AE:117:ASP:HA	2.20	0.40
1:CA:70:G:H2'	1:CA:71:C:C6	2.57	0.40
36:BC:42:GLU:HG2	36:BC:176:GLY:O	2.22	0.40
34:DA:2767:C:H2'	34:DA:2768:C:H6	1.86	0.40
1:CA:667:G:H4'	15:CO:51:HIS:ND1	2.37	0.40
16:AP:52:ASP:C	16:AP:52:ASP:OD2	2.60	0.40
34:BA:2082:A:H2'	34:BA:2083:G:O4'	2.21	0.40
53:BX:28:PHE:N	53:BX:28:PHE:CD1	2.89	0.40
1:CA:1494:G:C2	1:CA:1495:U:C6	3.10	0.40
16:AP:1:MET:HG2	16:AP:2:VAL:N	2.37	0.40
29:D4:23:GLU:O	29:D4:24:THR:CB	2.69	0.40
34:DA:1245:G:OP1	45:DP:16:ARG:CD	2.69	0.40
34:DA:2378:A:C2	48:DS:20:ARG:NH1	2.90	0.40
38:DE:4:ILE:HG21	38:DE:96:PHE:HE2	1.86	0.40
34:BA:480:A:P	54:BY:46:LYS:HE2	2.61	0.40
37:BD:241:PRO:C	37:BD:242:ARG:HD2	2.41	0.40
34:BA:2627:G:H21	34:BA:2781:A:H2	1.69	0.40
38:BE:37:ARG:HD3	38:BE:44:TYR:HE2	1.87	0.40
54:BY:8:LYS:HE3	54:BY:73:ARG:HA	2.03	0.40
39:BF:37:VAL:HG12	39:BF:41:LEU:HD12	2.03	0.40
39:BF:20:LEU:O	39:BF:21:ALA:O	2.39	0.40
39:BF:3:GLU:HA	39:BF:24:LEU:CG	2.51	0.40
42:DI:91:SER:N	42:DI:121:LYS:HE3	2.26	0.40
42:DI:99:GLU:C	42:DI:101:LEU:N	2.74	0.40
2:CB:39:ILE:HG22	2:CB:40:HIS:N	2.36	0.40
27:B2:46:GLN:HE21	27:B2:50:ILE:HG12	1.87	0.40
48:BS:77:ALA:C	48:BS:79:ALA:N	2.74	0.40
20:CT:97:ALA:O	20:CT:99:LEU:HG	2.21	0.40
47:BR:60:LEU:O	47:BR:63:ARG:HB3	2.21	0.40
41:DH:85:LYS:HB3	41:DH:133:VAL:HB	2.04	0.40
26:D1:47:GLN:O	26:D1:47:GLN:NE2	2.55	0.40
41:BH:121:ILE:HD13	41:BH:144:VAL:HG21	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:373:A:C2	1:AA:374:A:C8	3.09	0.40
34:DA:1495:A:N3	34:DA:1495:A:H2'	2.36	0.40
10:AJ:8:LEU:CD2	10:AJ:20:ALA:HB2	2.49	0.40
34:BA:2684:U:C2'	34:BA:2685:G:H5'	2.50	0.40
34:DA:1301:A:HO2'	34:DA:1302:A:C5'	2.32	0.40
20:AT:56:MET:HG2	20:AT:84:LEU:CD1	2.52	0.40
19:AS:58:VAL:O	19:AS:60:VAL:N	2.54	0.40
43:DN:15:LEU:HD13	43:DN:16:ILE:N	2.36	0.40
46:BQ:24:GLY:HA2	46:BQ:100:GLY:O	2.21	0.40
46:BQ:37:LEU:HA	46:BQ:37:LEU:HD23	1.88	0.40
3:CC:48:TYR:C	3:CC:50:ALA:N	2.74	0.40
7:CG:47:CYS:C	7:CG:49:ILE:H	2.24	0.40
43:BN:24:GLY:C	43:BN:26:LEU:N	2.73	0.40
34:BA:675:A:N6	34:BA:676:A:N6	2.69	0.40
5:AE:88:LYS:HB3	5:AE:123:LEU:HB2	2.04	0.40
5:AE:129:ILE:H	5:AE:129:ILE:HG13	1.73	0.40
5:AE:132:ALA:C	5:AE:134:ALA:N	2.73	0.40
42:BI:72:LEU:HB2	42:BI:136:VAL:CG2	2.51	0.40
41:DH:47:GLU:HB3	41:DH:48:GLY:H	1.71	0.40
34:BA:197:A:C8	34:BA:197:A:H5'	2.57	0.40
34:BA:2358:G:H1	45:BP:55:ARG:NH2	2.01	0.40
45:BP:112:LEU:C	45:BP:112:LEU:HD22	2.41	0.40
13:AM:65:LYS:C	13:AM:66:LEU:HB2	2.42	0.40
13:AM:70:LEU:O	13:AM:72:ALA:N	2.54	0.40
39:DF:110:LEU:HD23	39:DF:110:LEU:HA	1.87	0.40
12:AL:62:SER:C	12:AL:64:TYR:H	2.24	0.40
46:DQ:134:ARG:O	46:DQ:136:ALA:N	2.54	0.40
38:BE:24:THR:HG21	38:BE:188:VAL:HG12	2.04	0.40
40:BG:31:VAL:CG2	40:BG:32:PRO:CD	2.88	0.40
8:AH:42:GLU:HG3	8:AH:109:ILE:HD12	2.03	0.40
25:D0:37:LEU:N	25:D0:59:LEU:O	2.45	0.40
36:DC:18:LYS:CD	36:DC:19:VAL:HG23	2.42	0.40
34:DA:1366:A:C2	34:DA:1367:A:H1'	2.56	0.40
53:DX:83:VAL:C	53:DX:85:PRO:CD	2.90	0.40
1:CA:926:G:H2'	1:CA:1505:G:N3	2.36	0.40
28:D3:15:TYR:HB3	28:D3:19:GLN:NE2	2.35	0.40
34:DA:1380:G:C2	34:DA:1381:G:C8	3.10	0.40
1:CA:1170:A:H2'	1:CA:1171:G:C5'	2.51	0.40
36:BC:64:LEU:HD22	36:BC:193:ILE:CB	2.51	0.40
34:DA:1987:G:C8	34:DA:1987:G:C5'	3.03	0.40
15:CO:66:LEU:H	15:CO:66:LEU:HD13	1.86	0.40
34:DA:1221(A):C:C2	34:DA:1229:G:C2	3.09	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:4:TYR:HD1	9:CI:4:TYR:N	2.18	0.40
34:DA:280:C:N4	34:DA:360:G:H1	2.18	0.40
1:AA:347:G:H2'	1:AA:348:G:O4'	2.21	0.40
7:AG:24:THR:O	7:AG:25:ALA:C	2.58	0.40
1:CA:1375:A:O2'	1:CA:1376:U:H5'	2.22	0.40
10:CJ:54:PHE:C	10:CJ:55:LYS:HG3	2.42	0.40
10:CJ:51:ARG:HG3	10:CJ:60:ARG:HA	2.02	0.40
1:AA:1109:C:O2'	1:AA:1110:A:H5'	2.21	0.40
40:DG:15:VAL:C	40:DG:17:PRO:HD2	2.41	0.40
6:AF:100:ASN:N	6:AF:100:ASN:ND2	2.69	0.40
49:DT:25:GLY:O	49:DT:48:ILE:HG23	2.21	0.40
55:DZ:79:ARG:HG3	55:DZ:79:ARG:NH1	2.35	0.40
34:BA:2783:G:O2'	34:BA:2784:C:H5'	2.21	0.40
34:BA:2785:C:H1'	38:BE:64:LYS:NZ	2.36	0.40
34:DA:2339:G:H2'	34:DA:2340:G:H8	1.86	0.40
9:AI:112:LYS:HA	9:AI:119:ALA:CB	2.51	0.40
9:CI:78:LYS:CB	9:CI:78:LYS:NZ	2.84	0.40
35:BB:104:U:O2'	35:BB:105:A:H5'	2.22	0.40
34:BA:1657:C:O2'	34:BA:1658:C:H5'	2.21	0.40
39:DF:132:VAL:HG12	39:DF:138:GLU:OE1	2.22	0.40
51:BV:68:LYS:HG3	51:BV:68:LYS:O	2.21	0.40
1:CA:339:C:H2'	1:CA:340:U:C6	2.56	0.40
1:CA:1406:U:H2'	1:CA:1407:C:C5'	2.51	0.40
11:AK:69:ALA:O	11:AK:70:LYS:C	2.58	0.40
49:DT:35:LYS:O	49:DT:37:GLY:N	2.54	0.40
2:CB:103:THR:O	2:CB:103:THR:HG22	2.20	0.40
18:CR:68:LYS:O	18:CR:69:THR:C	2.59	0.40
4:CD:49:ARG:O	4:CD:51:PRO:HD3	2.21	0.40
34:BA:2276:G:O2'	34:BA:2277:G:H5'	2.20	0.40
12:CL:113:ARG:NH1	12:CL:120:TYR:CE2	2.90	0.40
11:AK:105:VAL:O	11:AK:106:LYS:C	2.59	0.40
1:CA:946:A:H2'	1:CA:947:G:H8	1.84	0.40
1:AA:477:A:H2'	1:AA:479:C:H6	1.86	0.40
4:CD:112:VAL:HG12	4:CD:116:GLN:CD	2.41	0.40
34:BA:687:C:C2'	34:BA:687:C:O2	2.69	0.40
37:BD:211:ARG:O	37:BD:214:TRP:N	2.55	0.40
35:BB:51:G:H2'	35:BB:52:A:O4'	2.22	0.40
34:DA:1853:A:H2'	34:DA:1854:A:C8	2.56	0.40
1:AA:865:A:H5'	1:AA:1078:U:C4	2.56	0.40
1:AA:1079:G:C6	1:AA:1080:A:N6	2.89	0.40
34:DA:2256:G:H2'	34:DA:2257:U:O4'	2.21	0.40
34:DA:372:G:N2	34:DA:400:G:H2'	2.36	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:226:G:C2	34:DA:227:A:C6	3.09	0.40
51:BV:56:SER:O	51:BV:57:VAL:HB	2.20	0.40
36:DC:92:ASP:CG	36:DC:93:TYR:N	2.75	0.40
1:CA:676:A:O2'	1:CA:677:U:H5'	2.21	0.40
12:CL:7:ILE:HA	12:CL:7:ILE:HD13	1.83	0.40
43:DN:23:LEU:O	43:DN:23:LEU:HD23	2.22	0.40
39:BF:74:ARG:O	39:BF:74:ARG:HG2	2.20	0.40
34:DA:12:U:O5'	34:DA:12:U:H6	2.05	0.40
7:AG:18:TYR:CD1	7:AG:18:TYR:N	2.89	0.40
34:BA:88:G:N3	34:BA:88:G:H2'	2.36	0.40
34:DA:214:G:H1'	34:DA:216:A:O2'	2.21	0.40
51:DV:17:GLY:O	51:DV:18:LEU:HB3	2.21	0.40
50:BU:79:PHE:HE2	50:BU:83:LEU:HD21	1.86	0.40
34:DA:2627:G:N3	34:DA:2781:A:H2	2.19	0.40
34:DA:2628:C:O2'	34:DA:2781:A:H3'	2.21	0.40
37:BD:126:GLN:C	37:BD:193:VAL:HG11	2.42	0.40
53:DX:39:ILE:C	53:DX:42:ALA:HB3	2.41	0.40
48:BS:89:ARG:CG	48:BS:97:ARG:HH12	2.33	0.40
2:AB:191:ASP:O	2:AB:191:ASP:OD1	2.39	0.40
3:CC:14:ILE:O	3:CC:16:ARG:N	2.54	0.40
34:BA:2628:C:O2'	34:BA:2781:A:H3'	2.22	0.40
38:BE:31:CYS:O	38:BE:32:PRO:C	2.60	0.40
26:B1:87:PRO:CD	26:B1:88:LYS:N	2.84	0.40
39:BF:197:ASP:O	39:BF:200:GLU:HB3	2.22	0.40
55:DZ:163:LEU:C	55:DZ:163:LEU:HD12	2.42	0.40
34:BA:252:G:O2'	34:BA:253:C:H5'	2.22	0.40
53:BX:36:LYS:HD3	53:BX:38:GLU:CB	2.45	0.40
55:BZ:120:ILE:HB	55:BZ:172:ALA:N	2.37	0.40
40:BG:56:ALA:HB2	40:BG:153:ARG:HH21	1.85	0.40
47:BR:84:ALA:HB3	47:BR:85:PRO:HD3	2.01	0.40
47:DR:94:TYR:HA	47:DR:117:VAL:HG11	2.03	0.40
41:DH:65:HIS:O	41:DH:67:LEU:N	2.50	0.40
1:CA:1347:G:C8	9:CI:107:ARG:CB	2.99	0.40
10:CJ:94:VAL:CG1	10:CJ:95:GLU:H	2.34	0.40
54:BY:98:VAL:O	54:BY:99:CYS:SG	2.75	0.40
38:DE:116:VAL:HG21	38:DE:122:PHE:CD2	2.56	0.40
34:BA:2677:G:C4	34:BA:2678:C:C5	3.09	0.40
55:BZ:163:LEU:HD11	55:BZ:167:PRO:HB3	2.03	0.40
1:AA:1117:G:O2'	9:AI:104:ARG:NH2	2.54	0.40
34:DA:2463:C:C2'	34:DA:2464:C:H5'	2.51	0.40
34:DA:581:C:OP1	50:DU:33:ARG:HG2	2.22	0.40
19:AS:11:VAL:O	19:AS:11:VAL:HG13	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:11:VAL:CG2	19:AS:16:LEU:HD11	2.52	0.40
46:BQ:23:GLY:HA3	46:BQ:99:PRO:O	2.21	0.40
55:BZ:77:ASP:O	55:BZ:78:LYS:C	2.59	0.40
37:BD:169:GLU:HB2	37:BD:172:TYR:HB2	2.02	0.40
35:BB:82:G:H2'	35:BB:83:G:H8	1.86	0.40
1:CA:1308:U:C5'	13:CM:98:VAL:N	2.81	0.40
52:BW:61:ASN:N	52:BW:61:ASN:HD22	2.19	0.40
27:D2:53:LEU:CD1	34:DA:77:C:OP1	2.70	0.40
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.21	0.40
34:DA:1652:A:C2	34:DA:2006:C:N3	2.89	0.40
4:AD:135:LEU:HD22	4:AD:135:LEU:N	2.36	0.40
41:BH:146:ALA:O	41:BH:150:ALA:HB3	2.21	0.40
4:AD:25:ARG:NH1	4:AD:30:LYS:O	2.55	0.40
41:DH:149:ARG:HG3	41:DH:150:ALA:N	2.36	0.40
34:DA:1740:G:H4'	34:DA:1741:A:OP1	2.21	0.40
45:DP:112:LEU:HD13	45:DP:112:LEU:C	2.42	0.40
4:AD:118:ARG:HG3	4:AD:118:ARG:NH2	2.37	0.40
37:DD:238:GLY:O	37:DD:239:ARG:HB2	2.22	0.40
34:BA:1351:C:H4'	34:BA:1572:A:O4'	2.21	0.40
23:CW:50:U:C4	23:CW:51:U:C5	3.09	0.40
35:DB:82:G:H2'	35:DB:83:G:H8	1.86	0.40
33:D8:18:ALA:C	33:D8:20:GLY:N	2.74	0.40
34:DA:1175:U:H5''	34:DA:1176:G:H8	1.87	0.40
37:DD:9:TYR:CE2	37:DD:13:ARG:HD3	2.55	0.40
27:B2:34:GLU:N	27:B2:34:GLU:OE2	2.39	0.40
47:BR:104:ARG:CB	47:BR:104:ARG:HH11	2.35	0.40
2:AB:80:ILE:O	2:AB:83:MET:HB2	2.21	0.40
7:AG:13:GLN:HA	7:AG:14:PRO:HD3	1.95	0.40
1:AA:1379:G:O2'	1:AA:1380:U:H5'	2.21	0.40
45:DP:88:LEU:O	45:DP:90:ARG:N	2.54	0.40
1:AA:1061:G:O4'	10:AJ:56:HIS:CE1	2.74	0.40
1:AA:1202:G:C2	14:AN:42:ILE:CG2	3.04	0.40
23:CW:21:A:N6	23:CW:46:G:C4	2.90	0.40
1:CA:1240:U:H3'	1:CA:1241:G:H5'	2.04	0.40
1:AA:1437:C:H2'	1:AA:1438:G:C8	2.56	0.40
4:AD:128:VAL:O	4:AD:129:ASN:C	2.59	0.40
8:AH:120:THR:O	8:AH:122:ARG:N	2.54	0.40
34:BA:1345:C:H2'	34:BA:1346:G:C8	2.54	0.40
11:CK:77:MET:O	11:CK:78:GLN:HG2	2.21	0.40
26:B1:37:ILE:HD13	26:B1:37:ILE:HA	1.89	0.40
42:DI:33:ARG:HG2	42:DI:33:ARG:NH1	2.35	0.40
2:CB:169:LYS:HB3	2:CB:170:GLU:OE2	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:683:G:C6	1:AA:684:A:C5	3.10	0.40
34:DA:2170:A:O2'	34:DA:2171:A:H8	2.04	0.40
21:AU:6:ARG:HG2	21:AU:15:ARG:NH1	2.36	0.40
6:AF:7:ASN:HD22	6:AF:7:ASN:N	2.19	0.40
25:D0:26:TYR:HB3	34:DA:856:C:O2	2.21	0.40
40:DG:35:GLU:CG	40:DG:36:LYS:N	2.84	0.40
34:DA:2667:C:C5	34:DA:2668:G:N7	2.90	0.40
1:AA:998:G:O2'	1:AA:999:C:H5'	2.21	0.40
49:DT:128:GLU:OE1	49:DT:128:GLU:C	2.60	0.40
34:BA:962:G:C2'	34:BA:963:U:H5'	2.50	0.40
48:DS:95:HIS:CG	48:DS:96:GLY:N	2.90	0.40
4:CD:177:ASP:O	4:CD:177:ASP:OD1	2.40	0.40
31:B6:48:VAL:O	31:B6:49:HIS:HB2	2.22	0.40
41:BH:58:GLU:O	41:BH:60:ARG:N	2.54	0.40
34:DA:2222:G:H2'	34:DA:2223:G:H8	1.86	0.40
4:AD:78:LEU:O	4:AD:79:PHE:C	2.59	0.40
15:CO:18:PHE:O	15:CO:19:PRO:C	2.60	0.40
40:DG:172:LEU:HG	40:DG:176:LEU:CD1	2.52	0.40
43:BN:102:ALA:O	43:BN:106:MET:HG3	2.21	0.40
38:BE:140:SER:OG	38:BE:141:ILE:N	2.55	0.40
37:DD:247:ALA:CA	37:DD:254:THR:HG22	2.51	0.40
1:CA:943:U:C2'	1:CA:944:G:H5'	2.51	0.40
1:AA:1360:A:O2'	1:AA:1361:G:H5'	2.22	0.40
51:DV:54:GLY:O	51:DV:56:SER:N	2.51	0.40
1:AA:944:G:C4	1:AA:1340:A:N1	2.89	0.40
34:DA:376:C:H2'	34:DA:377:C:C6	2.56	0.40
1:AA:1246:C:H2'	1:AA:1247:U:C6	2.57	0.40
1:AA:746:A:H2'	1:AA:747:C:C6	2.55	0.40
20:AT:43:LEU:HB3	20:AT:48:LYS:HG3	2.02	0.40
1:CA:562:C:H4'	1:CA:563:A:O5'	2.21	0.40
20:CT:43:LEU:HB3	20:CT:48:LYS:HG3	2.03	0.40
1:CA:1009:G:N2	1:CA:1010:G:H1'	2.37	0.40
39:DF:141:ALA:O	39:DF:144:LYS:HB3	2.21	0.40
34:BA:1882:C:H2'	34:BA:1882:C:O2	2.21	0.40
34:BA:14:A:H8	34:BA:14:A:O5'	2.05	0.40
49:DT:19:LEU:HD23	49:DT:19:LEU:N	2.36	0.40
23:CW:14:A:N3	23:CW:14:A:H2'	2.36	0.40
34:BA:429:A:H2'	34:BA:430:G:C8	2.57	0.40
2:CB:136:VAL:O	2:CB:140:HIS:HB2	2.21	0.40
37:DD:35:LYS:CE	37:DD:104:TYR:HB2	2.51	0.40
37:DD:35:LYS:CA	37:DD:64:ILE:CG2	2.99	0.40
34:BA:1409:C:H2'	34:BA:1410:G:C8	2.56	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BA:993:G:H21	51:BV:91:TYR:HH	1.68	0.40
38:DE:55:ASN:HD21	38:DE:75:VAL:HG21	1.83	0.40
53:DX:58:HIS:O	53:DX:59:VAL:HG22	2.21	0.40
3:AC:178:LEU:CD2	3:AC:178:LEU:N	2.83	0.40
49:DT:28:VAL:HG21	49:DT:46:GLU:HA	2.00	0.40
48:BS:93:LYS:CA	48:BS:93:LYS:HE3	2.52	0.40
34:BA:1902:C:H2'	34:BA:1903:G:O5'	2.22	0.40
26:B1:89:GLU:O	26:B1:93:GLU:HB2	2.22	0.40
34:BA:2521:C:C4	34:BA:2522:U:C4	3.09	0.40
44:BO:23:ARG:HG2	44:BO:23:ARG:NH1	2.31	0.40
34:DA:2496:C:P	46:DQ:81:VAL:HG13	2.61	0.40
38:BE:6:GLY:HA2	38:BE:51:PHE:HE2	1.85	0.40
42:DI:123:LEU:HD11	42:DI:144:VAL:HG22	2.01	0.40
1:AA:975:A:H5''	1:AA:1363(A):A:N6	2.36	0.40
34:DA:242:G:N2	34:DA:254:G:H2'	2.36	0.40
45:DP:68:GLN:O	45:DP:68:GLN:HG3	2.21	0.40
39:DF:53:THR:HG23	39:DF:56:GLU:H	1.85	0.40
46:BQ:80:GLU:HB3	46:BQ:81:VAL:H	1.62	0.40
1:AA:1302:U:C5	13:AM:17:VAL:CG2	3.00	0.40
13:AM:15:VAL:HG23	13:AM:16:ASP:N	2.36	0.40
40:BG:55:LYS:O	40:BG:57:ALA:N	2.54	0.40
40:BG:82:LEU:C	40:BG:83:ARG:HG3	2.41	0.40
48:DS:63:THR:O	48:DS:66:ALA:O	2.39	0.40
34:DA:2039:C:C4	34:DA:2040:C:C5	3.10	0.40
34:DA:911:A:C2'	46:DQ:9:TYR:OH	2.66	0.40
41:DH:103:LEU:HG	41:DH:105:LEU:HD12	2.04	0.40
26:D1:13:ILE:HG13	26:D1:14:VAL:HG12	2.03	0.40
27:D2:30:ARG:NH1	27:D2:30:ARG:HG3	2.32	0.40
41:BH:72:ILE:O	41:BH:74:ASN:N	2.54	0.40
10:CJ:6:ILE:CG1	10:CJ:72:VAL:O	2.68	0.40
1:AA:383:A:H2'	1:AA:384:G:C5'	2.44	0.40
16:AP:15:PRO:HB3	16:AP:17:TYR:CE1	2.57	0.40
34:BA:809:G:O2'	34:BA:810:U:H5'	2.21	0.40
34:DA:1494:A:O2'	34:DA:1495:A:OP1	2.37	0.40
42:DI:10:GLU:O	42:DI:12:LEU:HD23	2.21	0.40
46:BQ:141:GLN:HE21	55:BZ:71:VAL:C	2.24	0.40
53:BX:93:GLU:HG3	53:BX:93:GLU:O	2.21	0.40
37:BD:17:THR:CG2	37:BD:205:VAL:H	2.19	0.40
39:DF:165:ARG:HG2	39:DF:165:ARG:H	1.57	0.40
11:AK:29:ILE:HG22	11:AK:44:SER:HB2	2.03	0.40
4:CD:104:VAL:C	4:CD:106:TYR:H	2.25	0.40
4:CD:98:GLU:O	4:CD:103:ASN:ND2	2.46	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BP:75:ILE:O	45:BP:77:ARG:HG2	2.22	0.40
34:DA:389:G:O5'	34:DA:389:G:H8	2.04	0.40
53:BX:62:LYS:O	53:BX:63:LYS:HG3	2.21	0.40
51:DV:78:LYS:CD	51:DV:78:LYS:C	2.83	0.40
37:DD:255:LYS:CA	37:DD:255:LYS:HE3	2.52	0.40
29:B4:6:HIS:CA	40:BG:67:LYS:CE	3.00	0.40
4:AD:31:CYS:O	4:AD:32:ALA:HB3	2.22	0.40
41:DH:146:ALA:O	41:DH:150:ALA:HB3	2.21	0.40
51:BV:47:VAL:CG1	51:BV:48:GLY:H	2.32	0.40
10:AJ:13:HIS:HB3	10:AJ:68:HIS:CD2	2.57	0.40
1:CA:1030(D):A:C2'	1:CA:1031:G:H5'	2.51	0.40
34:BA:1803:A:C2	34:BA:1822:G:H1'	2.57	0.40
1:AA:116:A:H8	1:AA:116:A:O5'	2.03	0.40
34:DA:1227:G:P	50:DU:16:LYS:NZ	2.95	0.40
15:CO:82:ILE:CD1	15:CO:82:ILE:C	2.90	0.40
13:AM:115:LYS:O	13:AM:116:THR:C	2.60	0.40
34:DA:271(Q):G:O2'	34:DA:271(R):G:P	2.79	0.40
34:DA:1291:C:H2'	34:DA:1292:U:C6	2.56	0.40
1:AA:937:A:C2	1:AA:1379:G:O6	2.74	0.40
34:DA:848:G:N9	34:DA:933:A:H8	2.20	0.40
1:CA:1349:A:OP1	9:CI:118:LYS:O	2.40	0.40
1:CA:875:C:O2'	8:CH:14:ARG:NH1	2.55	0.40
52:BW:88:ARG:HB3	52:BW:92:ARG:CB	2.47	0.40
41:BH:154:PRO:CG	41:BH:155:SER:N	2.83	0.40
31:D6:45:LYS:HG3	34:DA:2371:G:O4'	2.22	0.40
44:DO:79:PHE:HD2	49:DT:72:VAL:CG2	2.35	0.40
42:BI:75:LEU:HD11	42:BI:105:HIS:CE1	2.57	0.40
1:AA:781:A:C2'	1:AA:782:A:H5'	2.51	0.40
1:AA:339:C:OP2	44:BO:97:ARG:NH1	2.54	0.40
34:BA:2292:C:C2'	34:BA:2293:C:H5'	2.50	0.40
39:BF:179:GLU:OE1	39:BF:179:GLU:N	2.31	0.40
44:DO:119:PRO:O	44:DO:120:GLU:CB	2.68	0.40
1:AA:779:C:C2'	1:AA:780:A:H5'	2.51	0.40
1:CA:414:A:H5'	1:CA:414:A:C8	2.52	0.40
4:AD:56:VAL:C	4:AD:58:LEU:N	2.73	0.40
1:AA:1103:C:C4'	2:AB:98:LEU:HD13	2.51	0.40
28:B3:23:LEU:HD12	28:B3:50:VAL:HG11	2.02	0.40
4:CD:63:LYS:O	4:CD:64:LEU:C	2.60	0.40
4:AD:182:LYS:HG3	4:AD:182:LYS:O	2.22	0.40
34:BA:21:A:H2'	34:BA:22:C:C6	2.56	0.40
3:CC:178:LEU:N	3:CC:178:LEU:CD2	2.84	0.40
1:CA:1300:G:H1'	1:CA:1301:U:C5	2.55	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DA:1688:U:O2	34:DA:1700:A:H8	2.04	0.40
1:AA:718:G:H5'	11:AK:117:ASN:HB2	2.02	0.40
1:AA:149:A:C2	1:AA:150:C:C2	3.09	0.40
31:B6:27:LYS:HA	31:B6:27:LYS:HD3	1.90	0.40
34:BA:45:C:H2'	34:BA:47:C:C6	2.54	0.40
42:BI:66:GLU:HA	42:BI:66:GLU:OE1	2.21	0.40
1:AA:199:G:O2'	1:AA:200:G:H5'	2.22	0.40
34:BA:2192:G:C2'	34:BA:2193:G:H5''	2.51	0.40
1:CA:423:G:H2'	1:CA:424:G:C4'	2.52	0.40
1:CA:1134:G:N2	1:CA:1141:C:C2	2.89	0.40
1:CA:283:C:H2'	1:CA:284:G:H8	1.86	0.40
34:BA:851:U:O2'	34:BA:852:G:H5'	2.20	0.40
4:CD:157:LEU:O	4:CD:159:ARG:N	2.54	0.40
40:BG:177:GLY:O	40:BG:179:PRO:HD3	2.21	0.40
1:CA:345:C:H5'	49:DT:36:GLU:HG3	2.02	0.40
17:AQ:90:ILE:O	17:AQ:91:ARG:C	2.60	0.40
1:AA:908:A:C2	1:AA:909:A:C5	3.10	0.40
4:AD:79:PHE:CD1	4:AD:207:TYR:HD1	2.40	0.40
34:BA:1360:A:N7	34:BA:1361:G:N7	2.69	0.40
7:CG:36:LYS:O	7:CG:37:ASN:C	2.60	0.40
4:AD:177:ASP:O	4:AD:177:ASP:OD1	2.40	0.40
34:DA:311:A:O4'	34:DA:332:A:C4	2.74	0.40
38:DE:149:ARG:NH1	38:DE:149:ARG:HG3	2.36	0.40
34:DA:1544:A:O3'	34:DA:1544:A:N3	2.54	0.40
1:CA:1516:G:H2'	1:CA:1518:A:OP2	2.22	0.40
1:CA:157:G:C2	1:CA:165:C:N3	2.90	0.40
34:DA:181:A:C2	34:DA:182:A:C4	3.09	0.40
38:BE:175:VAL:O	38:BE:177:PRO:HD3	2.21	0.40
43:BN:61:ARG:HH11	43:BN:61:ARG:HG3	1.85	0.40
37:DD:141:VAL:O	37:DD:141:VAL:HG23	2.21	0.40
35:DB:66:A:O2'	35:DB:67:G:O5'	2.38	0.40
34:DA:1305:C:O2'	34:DA:1306:C:H5'	2.21	0.40
7:AG:107:ALA:O	7:AG:110:GLN:HB2	2.21	0.40
13:AM:94:ARG:HD3	19:AS:82:GLY:N	2.36	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	233/256 (91%)	147 (63%)	54 (23%)	32 (14%)	0	1
2	CB	233/256 (91%)	149 (64%)	52 (22%)	32 (14%)	0	1
3	AC	205/239 (86%)	130 (63%)	55 (27%)	20 (10%)	1	2
3	CC	205/239 (86%)	130 (63%)	57 (28%)	18 (9%)	1	2
4	AD	206/209 (99%)	130 (63%)	51 (25%)	25 (12%)	1	1
4	CD	206/209 (99%)	128 (62%)	54 (26%)	24 (12%)	1	1
5	AE	149/162 (92%)	108 (72%)	28 (19%)	13 (9%)	1	2
5	CE	149/162 (92%)	107 (72%)	30 (20%)	12 (8%)	1	3
6	AF	99/101 (98%)	72 (73%)	21 (21%)	6 (6%)	2	6
6	CF	99/101 (98%)	72 (73%)	22 (22%)	5 (5%)	3	9
7	AG	153/156 (98%)	100 (65%)	41 (27%)	12 (8%)	1	3
7	CG	153/156 (98%)	100 (65%)	42 (28%)	11 (7%)	2	4
8	AH	136/138 (99%)	103 (76%)	28 (21%)	5 (4%)	5	16
8	CH	136/138 (99%)	102 (75%)	29 (21%)	5 (4%)	5	16
9	AI	121/128 (94%)	80 (66%)	30 (25%)	11 (9%)	1	2
9	CI	121/128 (94%)	81 (67%)	28 (23%)	12 (10%)	1	2
10	AJ	97/105 (92%)	70 (72%)	18 (19%)	9 (9%)	1	2
10	CJ	97/105 (92%)	70 (72%)	18 (19%)	9 (9%)	1	2
11	AK	117/129 (91%)	87 (74%)	25 (21%)	5 (4%)	4	13
11	CK	117/129 (91%)	88 (75%)	24 (20%)	5 (4%)	4	13
12	AL	123/135 (91%)	83 (68%)	22 (18%)	18 (15%)	0	1
12	CL	123/135 (91%)	84 (68%)	20 (16%)	19 (15%)	0	1
13	AM	113/126 (90%)	68 (60%)	26 (23%)	19 (17%)	0	0
13	CM	113/126 (90%)	69 (61%)	23 (20%)	21 (19%)	0	0
14	AN	58/61 (95%)	35 (60%)	17 (29%)	6 (10%)	1	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	CN	58/61 (95%)	35 (60%)	17 (29%)	6 (10%)	1	1
15	AO	86/89 (97%)	48 (56%)	34 (40%)	4 (5%)	4	11
15	CO	86/89 (97%)	50 (58%)	31 (36%)	5 (6%)	3	7
16	AP	82/88 (93%)	53 (65%)	24 (29%)	5 (6%)	2	6
16	CP	82/88 (93%)	53 (65%)	25 (30%)	4 (5%)	3	10
17	AQ	98/105 (93%)	74 (76%)	15 (15%)	9 (9%)	1	2
17	CQ	98/105 (93%)	75 (76%)	15 (15%)	8 (8%)	1	3
18	AR	68/88 (77%)	38 (56%)	21 (31%)	9 (13%)	0	1
18	CR	68/88 (77%)	38 (56%)	21 (31%)	9 (13%)	0	1
19	AS	77/93 (83%)	52 (68%)	14 (18%)	11 (14%)	0	1
19	CS	77/93 (83%)	51 (66%)	15 (20%)	11 (14%)	0	1
20	AT	97/106 (92%)	54 (56%)	29 (30%)	14 (14%)	0	1
20	CT	97/106 (92%)	56 (58%)	27 (28%)	14 (14%)	0	1
21	AU	23/27 (85%)	18 (78%)	4 (17%)	1 (4%)	4	13
21	CU	23/27 (85%)	18 (78%)	4 (17%)	1 (4%)	4	13
25	B0	83/85 (98%)	62 (75%)	16 (19%)	5 (6%)	2	6
25	D0	83/85 (98%)	63 (76%)	15 (18%)	5 (6%)	2	6
26	B1	87/98 (89%)	43 (49%)	25 (29%)	19 (22%)	0	0
26	D1	87/98 (89%)	42 (48%)	21 (24%)	24 (28%)	0	0
27	B2	49/72 (68%)	16 (33%)	16 (33%)	17 (35%)	0	0
27	D2	49/72 (68%)	15 (31%)	15 (31%)	19 (39%)	0	0
28	B3	58/60 (97%)	42 (72%)	12 (21%)	4 (7%)	2	4
28	D3	58/60 (97%)	42 (72%)	12 (21%)	4 (7%)	2	4
29	B4	48/71 (68%)	14 (29%)	11 (23%)	23 (48%)	0	0
29	D4	48/71 (68%)	14 (29%)	11 (23%)	23 (48%)	0	0
30	B5	57/60 (95%)	37 (65%)	13 (23%)	7 (12%)	1	1
30	D5	57/60 (95%)	38 (67%)	12 (21%)	7 (12%)	1	1
31	B6	41/54 (76%)	18 (44%)	16 (39%)	7 (17%)	0	0
31	D6	41/54 (76%)	18 (44%)	16 (39%)	7 (17%)	0	0
32	B7	47/49 (96%)	36 (77%)	10 (21%)	1 (2%)	11	33
32	D7	47/49 (96%)	37 (79%)	8 (17%)	2 (4%)	4	13

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
33	B8	62/65 (95%)	38 (61%)	13 (21%)	11 (18%)	0	0
33	D8	62/65 (95%)	37 (60%)	14 (23%)	11 (18%)	0	0
36	BC	183/229 (80%)	88 (48%)	52 (28%)	43 (24%)	0	0
36	DC	183/229 (80%)	87 (48%)	53 (29%)	43 (24%)	0	0
37	BD	270/276 (98%)	193 (72%)	51 (19%)	26 (10%)	1	2
37	DD	270/276 (98%)	194 (72%)	50 (18%)	26 (10%)	1	2
38	BE	203/206 (98%)	116 (57%)	49 (24%)	38 (19%)	0	0
38	DE	203/206 (98%)	116 (57%)	49 (24%)	38 (19%)	0	0
39	BF	206/210 (98%)	142 (69%)	40 (19%)	24 (12%)	1	1
39	DF	206/210 (98%)	142 (69%)	41 (20%)	23 (11%)	1	1
40	BG	177/182 (97%)	93 (52%)	56 (32%)	28 (16%)	0	1
40	DG	177/182 (97%)	101 (57%)	45 (25%)	31 (18%)	0	0
41	BH	158/180 (88%)	100 (63%)	31 (20%)	27 (17%)	0	0
41	DH	158/180 (88%)	100 (63%)	31 (20%)	27 (17%)	0	0
42	BI	144/148 (97%)	98 (68%)	36 (25%)	10 (7%)	2	4
42	DI	144/148 (97%)	97 (67%)	36 (25%)	11 (8%)	2	3
43	BN	137/140 (98%)	75 (55%)	35 (26%)	27 (20%)	0	0
43	DN	137/140 (98%)	77 (56%)	33 (24%)	27 (20%)	0	0
44	BO	120/122 (98%)	92 (77%)	17 (14%)	11 (9%)	1	2
44	DO	120/122 (98%)	90 (75%)	18 (15%)	12 (10%)	1	2
45	BP	144/150 (96%)	72 (50%)	37 (26%)	35 (24%)	0	0
45	DP	144/150 (96%)	72 (50%)	38 (26%)	34 (24%)	0	0
46	BQ	134/141 (95%)	81 (60%)	34 (25%)	19 (14%)	0	1
46	DQ	134/141 (95%)	79 (59%)	35 (26%)	20 (15%)	0	1
47	BR	115/118 (98%)	74 (64%)	20 (17%)	21 (18%)	0	0
47	DR	115/118 (98%)	72 (63%)	23 (20%)	20 (17%)	0	0
48	BS	97/112 (87%)	49 (50%)	19 (20%)	29 (30%)	0	0
48	DS	97/112 (87%)	49 (50%)	18 (19%)	30 (31%)	0	0
49	BT	136/146 (93%)	77 (57%)	34 (25%)	25 (18%)	0	0
49	DT	136/146 (93%)	79 (58%)	33 (24%)	24 (18%)	0	0
50	BU	115/118 (98%)	61 (53%)	42 (36%)	12 (10%)	1	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
50	DU	115/118 (98%)	61 (53%)	40 (35%)	14 (12%)	1	1
51	BV	97/101 (96%)	47 (48%)	23 (24%)	27 (28%)	0	0
51	DV	97/101 (96%)	47 (48%)	23 (24%)	27 (28%)	0	0
52	BW	111/113 (98%)	74 (67%)	23 (21%)	14 (13%)	0	1
52	DW	111/113 (98%)	77 (69%)	19 (17%)	15 (14%)	0	1
53	BX	91/96 (95%)	45 (50%)	23 (25%)	23 (25%)	0	0
53	DX	91/96 (95%)	45 (50%)	23 (25%)	23 (25%)	0	0
54	BY	99/110 (90%)	41 (41%)	24 (24%)	34 (34%)	0	0
54	DY	99/110 (90%)	41 (41%)	24 (24%)	34 (34%)	0	0
55	BZ	175/206 (85%)	99 (57%)	48 (27%)	28 (16%)	0	1
55	DZ	175/206 (85%)	109 (62%)	33 (19%)	33 (19%)	0	0
All	All	11570/12518 (92%)	7170 (62%)	2726 (24%)	1674 (14%)	0	1

All (1674) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	52	GLU
2	AB	77	ALA
2	AB	84	GLU
2	AB	154	LEU
2	AB	165	VAL
2	AB	195	ASP
2	AB	226	ARG
3	AC	12	LEU
3	AC	47	LEU
3	AC	54	ARG
3	AC	189	ALA
4	AD	3	ARG
4	AD	14	ARG
4	AD	44	GLY
4	AD	92	VAL
4	AD	178	VAL
5	AE	37	ARG
6	AF	40	VAL
7	AG	4	ARG
7	AG	121	ALA
9	AI	23	ASN

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Mol	Chain	Res	Type
9	AI	95	LYS
9	AI	100	GLY
9	AI	117	HIS
9	AI	124	GLN
12	AL	28	LYS
12	AL	47	LYS
12	AL	91	LYS
12	AL	92	ASP
13	AM	12	ASN
13	AM	67	GLU
13	AM	83	ASP
13	AM	106	ASN
13	AM	116	THR
14	AN	37	PHE
15	AO	24	SER
17	AQ	68	ARG
17	AQ	99	SER
18	AR	20	ALA
18	AR	87	ARG
19	AS	10	PHE
19	AS	80	TYR
20	AT	11	SER
20	AT	28	ALA
20	AT	74	LYS
20	AT	95	ALA
26	B1	10	LYS
26	B1	12	PRO
26	B1	13	ILE
26	B1	14	VAL
26	B1	15	ALA
26	B1	33	LYS
26	B1	47	GLN
26	B1	48	LYS
26	B1	49	VAL
26	B1	90	ILE
26	B1	94	LEU
27	B2	16	LEU
27	B2	35	LEU
27	B2	40	SER
27	B2	41	ILE
27	B2	43	GLN
27	B2	48	HIS

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Mol	Chain	Res	Type
27	B2	52	ASP
27	B2	61	LEU
28	B3	13	ILE
29	B4	3	GLU
29	B4	6	HIS
29	B4	7	PRO
29	B4	10	VAL
29	B4	11	PRO
29	B4	16	CYS
29	B4	29	PRO
29	B4	31	ILE
29	B4	37	SER
30	B5	4	HIS
30	B5	34	PRO
30	B5	56	LYS
31	B6	31	PRO
33	B8	17	THR
33	B8	32	LEU
33	B8	37	SER
33	B8	51	ALA
36	BC	19	VAL
36	BC	35	ALA
36	BC	46	LYS
36	BC	57	ASN
36	BC	63	SER
36	BC	160	ARG
36	BC	161	ILE
36	BC	166	ASP
36	BC	172	HIS
36	BC	173	ALA
36	BC	174	PRO
36	BC	179	SER
36	BC	182	PRO
36	BC	191	ALA
36	BC	192	PHE
36	BC	201	PRO
36	BC	205	LYS
36	BC	209	LEU
36	BC	213	TYR
36	BC	216	THR
36	BC	220	PRO
37	BD	25	THR

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Mol	Chain	Res	Type
37	BD	26	LYS
37	BD	28	GLU
37	BD	45	ASN
37	BD	225	ALA
37	BD	267	SER
38	BE	2	LYS
38	BE	4	ILE
38	BE	45	THR
38	BE	53	PRO
38	BE	54	GLN
38	BE	57	LYS
38	BE	77	ILE
38	BE	82	ARG
38	BE	92	THR
38	BE	93	VAL
38	BE	118	LYS
38	BE	131	ALA
38	BE	173	VAL
38	BE	187	ALA
38	BE	201	THR
39	BF	2	LYS
39	BF	14	PRO
39	BF	21	ALA
39	BF	115	ALA
39	BF	133	ASN
39	BF	206	ILE
40	BG	47	LYS
40	BG	81	LYS
40	BG	82	LEU
40	BG	86	MET
40	BG	87	PRO
40	BG	96	ARG
40	BG	97	ASP
40	BG	115	ARG
40	BG	153	ARG
41	BH	13	LYS
41	BH	47	GLU
41	BH	55	PRO
41	BH	84	SER
41	BH	85	LYS
41	BH	89	ILE
41	BH	90	LYS

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Mol	Chain	Res	Type
41	BH	92	ILE
41	BH	137	ASP
41	BH	138	LYS
41	BH	153	LYS
41	BH	154	PRO
41	BH	158	HIS
41	BH	159	GLU
42	BI	133	HIS
42	BI	145	VAL
43	BN	13	TRP
43	BN	47	ALA
43	BN	57	ALA
43	BN	62	VAL
43	BN	63	THR
43	BN	74	ARG
43	BN	78	TYR
43	BN	96	GLU
44	BO	5	GLN
44	BO	12	ASP
44	BO	26	LYS
44	BO	29	ASN
44	BO	100	GLY
44	BO	101	PRO
44	BO	102	VAL
44	BO	120	GLU
45	BP	12	ALA
45	BP	15	ARG
45	BP	34	GLY
45	BP	35	HIS
45	BP	36	LYS
45	BP	47	ASP
45	BP	58	THR
45	BP	101	VAL
45	BP	106	LEU
45	BP	123	LEU
45	BP	146	VAL
45	BP	147	LEU
46	BQ	11	LYS
46	BQ	30	GLY
46	BQ	79	LEU
46	BQ	83	MET
46	BQ	134	ARG

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Mol	Chain	Res	Type
47	BR	5	LYS
47	BR	8	ARG
47	BR	9	LYS
47	BR	14	SER
47	BR	45	ARG
47	BR	107	ASP
47	BR	116	LEU
47	BR	117	VAL
48	BS	14	VAL
48	BS	29	PHE
48	BS	57	LYS
48	BS	58	LEU
48	BS	59	LYS
48	BS	67	ARG
48	BS	74	ALA
48	BS	87	PHE
48	BS	89	ARG
48	BS	100	ALA
48	BS	102	ALA
49	BT	24	PRO
49	BT	28	VAL
49	BT	30	VAL
49	BT	41	ARG
49	BT	58	ASN
49	BT	80	SER
49	BT	97	ALA
49	BT	103	ARG
49	BT	107	ASP
49	BT	115	ARG
50	BU	9	VAL
50	BU	88	ILE
50	BU	92	ARG
50	BU	93	LYS
51	BV	15	GLU
51	BV	28	GLU
51	BV	47	VAL
51	BV	51	VAL
51	BV	52	VAL
51	BV	73	SER
52	BW	11	ARG
52	BW	48	ALA
53	BX	25	LYS

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Mol	Chain	Res	Type
53	BX	59	VAL
53	BX	60	ARG
53	BX	69	TYR
53	BX	81	VAL
53	BX	84	ALA
53	BX	88	LYS
53	BX	89	ILE
54	BY	7	VAL
54	BY	16	ALA
54	BY	17	SER
54	BY	27	VAL
54	BY	30	VAL
54	BY	38	ILE
54	BY	55	TYR
54	BY	56	PRO
54	BY	62	GLU
54	BY	66	PRO
54	BY	77	PRO
54	BY	78	ALA
54	BY	90	LEU
55	BZ	8	TYR
55	BZ	18	LEU
55	BZ	19	ARG
55	BZ	65	GLN
55	BZ	78	LYS
55	BZ	119	GLU
55	BZ	142	SER
55	BZ	148	ASP
55	BZ	168	GLU
2	CB	15	VAL
2	CB	52	GLU
2	CB	77	ALA
2	CB	84	GLU
2	CB	154	LEU
2	CB	165	VAL
2	CB	195	ASP
2	CB	226	ARG
3	CC	12	LEU
3	CC	47	LEU
3	CC	189	ALA
4	CD	3	ARG
4	CD	14	ARG

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Mol	Chain	Res	Type
4	CD	44	GLY
4	CD	92	VAL
4	CD	178	VAL
5	CE	37	ARG
6	CF	40	VAL
7	CG	4	ARG
7	CG	121	ALA
9	CI	23	ASN
9	CI	95	LYS
9	CI	100	GLY
9	CI	117	HIS
9	CI	124	GLN
12	CL	28	LYS
12	CL	47	LYS
12	CL	91	LYS
12	CL	92	ASP
13	CM	12	ASN
13	CM	67	GLU
13	CM	83	ASP
13	CM	106	ASN
13	CM	116	THR
14	CN	37	PHE
15	CO	24	SER
17	CQ	68	ARG
17	CQ	80	GLY
17	CQ	99	SER
18	CR	20	ALA
18	CR	87	ARG
19	CS	10	PHE
19	CS	80	TYR
20	CT	11	SER
20	CT	28	ALA
20	CT	74	LYS
20	CT	95	ALA
26	D1	10	LYS
26	D1	11	ARG
26	D1	16	ASN
26	D1	27	GLU
26	D1	47	GLN
26	D1	69	LYS
26	D1	81	LYS
26	D1	83	GLU

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Mol	Chain	Res	Type
26	D1	88	LYS
27	D2	13	ALA
27	D2	15	LYS
27	D2	32	LEU
27	D2	35	LEU
27	D2	42	GLY
27	D2	52	ASP
27	D2	54	LYS
27	D2	55	ARG
27	D2	57	ILE
28	D3	13	ILE
29	D4	3	GLU
29	D4	6	HIS
29	D4	7	PRO
29	D4	10	VAL
29	D4	11	PRO
29	D4	16	CYS
29	D4	29	PRO
29	D4	31	ILE
29	D4	37	SER
30	D5	4	HIS
30	D5	34	PRO
30	D5	56	LYS
31	D6	31	PRO
33	D8	17	THR
33	D8	32	LEU
33	D8	37	SER
33	D8	51	ALA
36	DC	19	VAL
36	DC	35	ALA
36	DC	46	LYS
36	DC	57	ASN
36	DC	63	SER
36	DC	160	ARG
36	DC	161	ILE
36	DC	166	ASP
36	DC	172	HIS
36	DC	173	ALA
36	DC	174	PRO
36	DC	179	SER
36	DC	182	PRO
36	DC	191	ALA

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Mol	Chain	Res	Type
36	DC	192	PHE
36	DC	201	PRO
36	DC	205	LYS
36	DC	209	LEU
36	DC	213	TYR
36	DC	216	THR
36	DC	220	PRO
37	DD	25	THR
37	DD	26	LYS
37	DD	28	GLU
37	DD	225	ALA
37	DD	267	SER
38	DE	2	LYS
38	DE	4	ILE
38	DE	45	THR
38	DE	53	PRO
38	DE	54	GLN
38	DE	57	LYS
38	DE	77	ILE
38	DE	82	ARG
38	DE	92	THR
38	DE	93	VAL
38	DE	118	LYS
38	DE	131	ALA
38	DE	173	VAL
38	DE	187	ALA
38	DE	201	THR
39	DF	2	LYS
39	DF	14	PRO
39	DF	21	ALA
39	DF	115	ALA
39	DF	133	ASN
39	DF	206	ILE
40	DG	3	LEU
40	DG	4	ASP
40	DG	14	GLU
40	DG	47	LYS
40	DG	82	LEU
40	DG	84	LYS
40	DG	86	MET
40	DG	87	PRO
40	DG	108	ASN

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Mol	Chain	Res	Type
40	DG	110	ALA
40	DG	129	GLY
40	DG	153	ARG
40	DG	159	VAL
41	DH	13	LYS
41	DH	47	GLU
41	DH	55	PRO
41	DH	84	SER
41	DH	85	LYS
41	DH	89	ILE
41	DH	90	LYS
41	DH	92	ILE
41	DH	137	ASP
41	DH	138	LYS
41	DH	153	LYS
41	DH	154	PRO
41	DH	158	HIS
41	DH	159	GLU
42	DI	133	HIS
42	DI	145	VAL
43	DN	13	TRP
43	DN	47	ALA
43	DN	57	ALA
43	DN	62	VAL
43	DN	63	THR
43	DN	74	ARG
43	DN	78	TYR
43	DN	96	GLU
43	DN	130	HIS
44	DO	5	GLN
44	DO	12	ASP
44	DO	29	ASN
44	DO	100	GLY
44	DO	101	PRO
44	DO	102	VAL
44	DO	120	GLU
45	DP	12	ALA
45	DP	15	ARG
45	DP	34	GLY
45	DP	35	HIS
45	DP	36	LYS
45	DP	47	ASP

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Mol	Chain	Res	Type
45	DP	58	THR
45	DP	101	VAL
45	DP	106	LEU
45	DP	123	LEU
45	DP	146	VAL
45	DP	147	LEU
46	DQ	11	LYS
46	DQ	30	GLY
46	DQ	79	LEU
46	DQ	83	MET
46	DQ	134	ARG
47	DR	5	LYS
47	DR	8	ARG
47	DR	9	LYS
47	DR	14	SER
47	DR	45	ARG
47	DR	107	ASP
47	DR	116	LEU
47	DR	117	VAL
48	DS	14	VAL
48	DS	29	PHE
48	DS	57	LYS
48	DS	58	LEU
48	DS	59	LYS
48	DS	67	ARG
48	DS	74	ALA
48	DS	87	PHE
48	DS	89	ARG
48	DS	100	ALA
48	DS	102	ALA
49	DT	24	PRO
49	DT	28	VAL
49	DT	30	VAL
49	DT	41	ARG
49	DT	58	ASN
49	DT	80	SER
49	DT	97	ALA
49	DT	107	ASP
49	DT	115	ARG
50	DU	9	VAL
50	DU	88	ILE
50	DU	92	ARG

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Mol	Chain	Res	Type
50	DU	93	LYS
51	DV	15	GLU
51	DV	28	GLU
51	DV	47	VAL
51	DV	51	VAL
51	DV	52	VAL
51	DV	64	HIS
51	DV	73	SER
52	DW	11	ARG
52	DW	48	ALA
53	DX	25	LYS
53	DX	59	VAL
53	DX	60	ARG
53	DX	69	TYR
53	DX	81	VAL
53	DX	84	ALA
53	DX	89	ILE
54	DY	7	VAL
54	DY	16	ALA
54	DY	17	SER
54	DY	27	VAL
54	DY	30	VAL
54	DY	38	ILE
54	DY	55	TYR
54	DY	56	PRO
54	DY	62	GLU
54	DY	66	PRO
54	DY	77	PRO
54	DY	78	ALA
54	DY	90	LEU
55	DZ	34	ASN
55	DZ	41	LEU
55	DZ	45	ASP
55	DZ	53	ILE
55	DZ	168	GLU
2	AB	8	LYS
2	AB	9	GLU
2	AB	32	ILE
2	AB	78	GLN
2	AB	88	ALA
2	AB	110	GLN
2	AB	194	PRO

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Mol	Chain	Res	Type
2	AB	204	ASN
2	AB	238	LEU
3	AC	60	ALA
3	AC	127	ARG
3	AC	145	GLY
3	AC	168	ALA
4	AD	5	ILE
4	AD	53	ASP
4	AD	153	ARG
4	AD	160	GLN
4	AD	171	GLY
4	AD	179	GLU
4	AD	200	GLU
5	AE	55	VAL
5	AE	128	PRO
5	AE	129	ILE
5	AE	140	ARG
6	AF	69	GLU
7	AG	36	LYS
7	AG	77	SER
7	AG	90	GLU
7	AG	155	ARG
8	AH	121	ASP
10	AJ	57	LYS
10	AJ	60	ARG
10	AJ	84	GLN
12	AL	12	ARG
12	AL	29	GLY
12	AL	62	SER
12	AL	72	GLY
13	AM	6	GLY
13	AM	18	ALA
13	AM	48	LEU
13	AM	60	VAL
13	AM	63	THR
13	AM	100	GLY
13	AM	117	VAL
14	AN	13	THR
14	AN	16	PHE
14	AN	23	ARG
15	AO	76	GLU
16	AP	72	ARG

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Mol	Chain	Res	Type
17	AQ	34	LYS
17	AQ	80	GLY
17	AQ	95	TYR
18	AR	25	THR
18	AR	41	LYS
18	AR	65	ILE
19	AS	26	GLY
19	AS	28	LYS
20	AT	49	ALA
20	AT	82	SER
21	AU	3	LYS
25	B0	5	LYS
25	B0	20	ARG
26	B1	11	ARG
26	B1	81	LYS
26	B1	87	PRO
27	B2	14	ARG
27	B2	42	GLY
27	B2	53	LEU
27	B2	59	ARG
28	B3	39	ASP
29	B4	23	GLU
29	B4	24	THR
30	B5	35	GLU
33	B8	3	LYS
33	B8	30	ARG
33	B8	35	GLN
33	B8	36	LYS
33	B8	43	GLN
36	BC	62	VAL
36	BC	125	SER
36	BC	133	PRO
36	BC	148	ASN
36	BC	211	SER
36	BC	214	VAL
37	BD	3	VAL
37	BD	32	SER
37	BD	33	LEU
37	BD	223	GLY
37	BD	236	GLY
38	BE	64	LYS
38	BE	69	LYS

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Mol	Chain	Res	Type
38	BE	70	ALA
38	BE	71	GLY
38	BE	76	ARG
38	BE	88	GLY
38	BE	89	ASP
38	BE	130	GLY
38	BE	135	HIS
38	BE	184	VAL
38	BE	186	GLY
39	BF	64	ILE
39	BF	85	GLY
39	BF	86	GLY
39	BF	113	ALA
39	BF	134	GLY
40	BG	14	GLU
40	BG	84	LYS
40	BG	107	LEU
40	BG	110	ALA
40	BG	155	MET
41	BH	41	MET
41	BH	76	VAL
41	BH	149	ARG
41	BH	160	LYS
42	BI	120	ILE
42	BI	121	LYS
42	BI	122	GLU
43	BN	19	GLU
43	BN	34	LEU
43	BN	52	VAL
43	BN	58	ASP
43	BN	64	GLY
43	BN	94	HIS
43	BN	95	PRO
43	BN	127	ASP
43	BN	130	HIS
45	BP	6	LEU
45	BP	10	PRO
45	BP	18	ARG
45	BP	31	ALA
45	BP	52	GLU
45	BP	65	ARG
45	BP	67	MET

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Mol	Chain	Res	Type
45	BP	69	GLY
45	BP	102	ARG
45	BP	115	LEU
45	BP	141	ALA
46	BQ	24	GLY
46	BQ	59	ARG
46	BQ	71	ASP
46	BQ	90	VAL
46	BQ	136	ALA
47	BR	4	LEU
47	BR	7	GLY
47	BR	12	ARG
47	BR	42	LYS
47	BR	86	ARG
48	BS	18	ILE
48	BS	23	ARG
48	BS	24	LEU
48	BS	45	GLY
48	BS	62	LYS
48	BS	66	ALA
48	BS	88	ASP
48	BS	92	TYR
49	BT	18	ASP
49	BT	83	ILE
49	BT	85	LYS
50	BU	7	GLY
50	BU	25	TRP
50	BU	32	PHE
50	BU	67	ALA
51	BV	3	ALA
51	BV	23	GLU
51	BV	44	LYS
51	BV	50	PRO
51	BV	64	HIS
51	BV	68	LYS
51	BV	72	VAL
51	BV	91	TYR
52	BW	6	ILE
52	BW	35	ILE
52	BW	93	ALA
53	BX	6	ASP
53	BX	34	ALA

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Mol	Chain	Res	Type
53	BX	36	LYS
53	BX	65	ARG
53	BX	77	LYS
53	BX	86	GLY
53	BX	90	GLU
54	BY	15	VAL
54	BY	80	GLY
55	BZ	49	ARG
55	BZ	110	GLY
55	BZ	121	HIS
55	BZ	122	ARG
55	BZ	147	GLY
55	BZ	158	PRO
55	BZ	165	VAL
2	CB	8	LYS
2	CB	9	GLU
2	CB	32	ILE
2	CB	78	GLN
2	CB	88	ALA
2	CB	101	MET
2	CB	194	PRO
2	CB	204	ASN
2	CB	238	LEU
3	CC	54	ARG
3	CC	60	ALA
3	CC	127	ARG
3	CC	145	GLY
3	CC	168	ALA
4	CD	5	ILE
4	CD	53	ASP
4	CD	153	ARG
4	CD	160	GLN
4	CD	171	GLY
4	CD	179	GLU
4	CD	200	GLU
5	CE	55	VAL
5	CE	128	PRO
5	CE	129	ILE
5	CE	132	ALA
5	CE	140	ARG
7	CG	36	LYS
7	CG	77	SER

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Mol	Chain	Res	Type
7	CG	90	GLU
7	CG	155	ARG
8	CH	121	ASP
10	CJ	57	LYS
10	CJ	60	ARG
10	CJ	84	GLN
12	CL	12	ARG
12	CL	29	GLY
12	CL	62	SER
12	CL	72	GLY
13	CM	6	GLY
13	CM	18	ALA
13	CM	19	LEU
13	CM	60	VAL
13	CM	63	THR
13	CM	100	GLY
13	CM	117	VAL
14	CN	13	THR
14	CN	16	PHE
14	CN	58	LYS
15	CO	76	GLU
16	CP	72	ARG
17	CQ	34	LYS
17	CQ	95	TYR
18	CR	25	THR
18	CR	41	LYS
18	CR	65	ILE
19	CS	26	GLY
19	CS	28	LYS
20	CT	49	ALA
20	CT	82	SER
21	CU	3	LYS
25	D0	20	ARG
26	D1	22	GLY
26	D1	48	LYS
26	D1	79	GLY
27	D2	33	MET
27	D2	37	PHE
27	D2	40	SER
27	D2	41	ILE
27	D2	43	GLN
28	D3	39	ASP

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Mol	Chain	Res	Type
29	D4	8	LYS
29	D4	23	GLU
29	D4	24	THR
30	D5	35	GLU
33	D8	3	LYS
33	D8	30	ARG
33	D8	35	GLN
33	D8	36	LYS
33	D8	43	GLN
36	DC	62	VAL
36	DC	125	SER
36	DC	133	PRO
36	DC	148	ASN
36	DC	211	SER
36	DC	214	VAL
37	DD	3	VAL
37	DD	33	LEU
37	DD	45	ASN
37	DD	223	GLY
37	DD	236	GLY
38	DE	64	LYS
38	DE	69	LYS
38	DE	70	ALA
38	DE	76	ARG
38	DE	88	GLY
38	DE	89	ASP
38	DE	130	GLY
38	DE	169	ASN
38	DE	186	GLY
39	DF	64	ILE
39	DF	85	GLY
39	DF	86	GLY
39	DF	134	GLY
39	DF	168	ARG
40	DG	24	GLY
40	DG	43	LEU
40	DG	48	GLU
40	DG	88	ILE
40	DG	96	ARG
40	DG	181	ARG
41	DH	41	MET
41	DH	73	ALA

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Mol	Chain	Res	Type
41	DH	76	VAL
41	DH	149	ARG
42	DI	120	ILE
42	DI	122	GLU
43	DN	34	LEU
43	DN	52	VAL
43	DN	58	ASP
43	DN	64	GLY
43	DN	94	HIS
43	DN	95	PRO
43	DN	127	ASP
44	DO	26	LYS
44	DO	35	VAL
45	DP	6	LEU
45	DP	10	PRO
45	DP	18	ARG
45	DP	31	ALA
45	DP	39	LYS
45	DP	52	GLU
45	DP	65	ARG
45	DP	67	MET
45	DP	69	GLY
45	DP	102	ARG
45	DP	115	LEU
45	DP	141	ALA
46	DQ	24	GLY
46	DQ	59	ARG
46	DQ	71	ASP
46	DQ	90	VAL
46	DQ	136	ALA
47	DR	4	LEU
47	DR	7	GLY
47	DR	12	ARG
47	DR	42	LYS
47	DR	86	ARG
48	DS	18	ILE
48	DS	23	ARG
48	DS	24	LEU
48	DS	45	GLY
48	DS	62	LYS
48	DS	66	ALA
48	DS	88	ASP

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Mol	Chain	Res	Type
48	DS	92	TYR
49	DT	18	ASP
49	DT	83	ILE
49	DT	85	LYS
49	DT	103	ARG
50	DU	7	GLY
50	DU	25	TRP
50	DU	32	PHE
50	DU	67	ALA
51	DV	3	ALA
51	DV	23	GLU
51	DV	44	LYS
51	DV	50	PRO
51	DV	68	LYS
51	DV	72	VAL
51	DV	91	TYR
52	DW	6	ILE
52	DW	35	ILE
52	DW	44	ALA
52	DW	59	VAL
52	DW	60	ASN
52	DW	93	ALA
53	DX	6	ASP
53	DX	34	ALA
53	DX	36	LYS
53	DX	65	ARG
53	DX	77	LYS
53	DX	86	GLY
53	DX	88	LYS
53	DX	90	GLU
54	DY	15	VAL
54	DY	80	GLY
55	DZ	31	ARG
55	DZ	64	GLY
55	DZ	65	GLN
55	DZ	101	PRO
55	DZ	111	VAL
55	DZ	120	ILE
55	DZ	142	SER
55	DZ	147	GLY
55	DZ	177	PRO
2	AB	20	GLU

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Mol	Chain	Res	Type
2	AB	28	PHE
2	AB	79	ASP
2	AB	83	MET
2	AB	101	MET
2	AB	150	SER
2	AB	217	ARG
2	AB	237	ALA
3	AC	4	LYS
3	AC	15	THR
3	AC	45	LYS
3	AC	46	GLU
3	AC	133	ALA
4	AD	15	GLU
4	AD	26	CYS
4	AD	57	ARG
4	AD	63	LYS
5	AE	104	ALA
5	AE	132	ALA
5	AE	147	ASP
6	AF	54	LYS
7	AG	7	ALA
7	AG	131	LYS
8	AH	135	CYS
9	AI	29	ASN
9	AI	51	ARG
9	AI	120	ARG
10	AJ	23	ILE
10	AJ	32	ALA
10	AJ	36	GLY
11	AK	25	TYR
12	AL	45	PRO
12	AL	96	VAL
12	AL	115	LYS
13	AM	19	LEU
13	AM	71	ARG
13	AM	90	LEU
14	AN	58	LYS
19	AS	12	ASP
19	AS	64	GLU
20	AT	96	GLY
26	B1	27	GLU
26	B1	75	GLU

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Mol	Chain	Res	Type
26	B1	83	GLU
27	B2	33	MET
27	B2	37	PHE
27	B2	49	LYS
29	B4	8	LYS
29	B4	9	LEU
29	B4	30	GLU
29	B4	36	CYS
36	BC	49	ILE
36	BC	140	PRO
36	BC	198	ALA
36	BC	204	ALA
36	BC	210	ARG
36	BC	217	THR
37	BD	133	LEU
37	BD	242	ARG
37	BD	246	PRO
38	BE	169	ASN
39	BF	5	ALA
39	BF	84	VAL
39	BF	89	VAL
39	BF	116	ASP
39	BF	127	GLU
39	BF	184	TYR
41	BH	21	PRO
41	BH	71	LEU
41	BH	73	ALA
42	BI	39	ALA
43	BN	80	GLY
43	BN	136	GLU
44	BO	48	PRO
45	BP	39	LYS
45	BP	41	ARG
45	BP	43	GLY
45	BP	110	TYR
46	BQ	8	LYS
46	BQ	49	ALA
47	BR	80	PHE
47	BR	82	GLU
48	BS	17	ARG
48	BS	78	LEU
48	BS	83	LYS

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Mol	Chain	Res	Type
48	BS	94	TYR
48	BS	103	GLU
49	BT	33	LYS
49	BT	35	LYS
49	BT	68	TYR
49	BT	94	ALA
50	BU	89	GLU
51	BV	19	LYS
51	BV	26	ASP
51	BV	45	THR
51	BV	90	PRO
52	BW	44	ALA
52	BW	60	ASN
53	BX	37	THR
53	BX	48	LYS
53	BX	68	ARG
53	BX	71	GLY
54	BY	31	LEU
54	BY	39	VAL
54	BY	41	GLY
54	BY	48	ALA
54	BY	49	VAL
54	BY	81	LYS
55	BZ	46	LYS
55	BZ	111	VAL
55	BZ	117	LEU
2	CB	28	PHE
2	CB	79	ASP
2	CB	83	MET
2	CB	97	TRP
2	CB	110	GLN
2	CB	217	ARG
2	CB	237	ALA
3	CC	4	LYS
3	CC	15	THR
3	CC	45	LYS
3	CC	46	GLU
3	CC	133	ALA
4	CD	4	TYR
4	CD	26	CYS
4	CD	63	LYS
5	CE	11	ILE

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Mol	Chain	Res	Type
5	CE	104	ALA
5	CE	147	ASP
6	CF	54	LYS
6	CF	69	GLU
7	CG	7	ALA
7	CG	131	LYS
8	CH	135	CYS
9	CI	29	ASN
9	CI	51	ARG
9	CI	120	ARG
10	CJ	23	ILE
10	CJ	32	ALA
10	CJ	36	GLY
11	CK	25	TYR
12	CL	96	VAL
12	CL	115	LYS
13	CM	48	LEU
13	CM	90	LEU
14	CN	23	ARG
19	CS	12	ASP
19	CS	29	ARG
19	CS	64	GLU
20	CT	34	LYS
20	CT	96	GLY
25	D0	5	LYS
25	D0	55	ARG
26	D1	13	ILE
26	D1	31	GLY
26	D1	33	LYS
26	D1	56	GLN
26	D1	87	PRO
27	D2	45	SER
27	D2	49	LYS
29	D4	9	LEU
29	D4	36	CYS
33	D8	19	SER
36	DC	49	ILE
36	DC	140	PRO
36	DC	198	ALA
36	DC	204	ALA
36	DC	210	ARG
36	DC	217	THR

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Mol	Chain	Res	Type
37	DD	32	SER
37	DD	133	LEU
37	DD	193	VAL
37	DD	224	ALA
37	DD	246	PRO
38	DE	71	GLY
38	DE	135	HIS
38	DE	178	GLU
38	DE	184	VAL
39	DF	84	VAL
39	DF	113	ALA
39	DF	116	ASP
39	DF	184	TYR
40	DG	7	LEU
40	DG	46	ALA
40	DG	97	ASP
40	DG	140	ILE
40	DG	142	PRO
41	DH	21	PRO
41	DH	160	LYS
42	DI	39	ALA
42	DI	114	LEU
42	DI	121	LYS
43	DN	19	GLU
43	DN	80	GLY
43	DN	136	GLU
44	DO	48	PRO
45	DP	41	ARG
45	DP	43	GLY
45	DP	110	TYR
46	DQ	8	LYS
46	DQ	49	ALA
46	DQ	89	ASN
47	DR	80	PHE
47	DR	82	GLU
48	DS	78	LEU
48	DS	83	LYS
48	DS	94	TYR
48	DS	103	GLU
49	DT	33	LYS
49	DT	35	LYS
49	DT	68	TYR

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Mol	Chain	Res	Type
49	DT	94	ALA
50	DU	89	GLU
51	DV	19	LYS
51	DV	26	ASP
51	DV	45	THR
51	DV	79	VAL
51	DV	90	PRO
52	DW	45	TYR
52	DW	49	LYS
53	DX	37	THR
53	DX	48	LYS
53	DX	68	ARG
53	DX	71	GLY
54	DY	39	VAL
54	DY	41	GLY
54	DY	48	ALA
54	DY	49	VAL
54	DY	81	LYS
55	DZ	38	TYR
55	DZ	46	LYS
55	DZ	78	LYS
55	DZ	130	PRO
55	DZ	136	PHE
55	DZ	152	ALA
2	AB	18	GLY
2	AB	53	ARG
2	AB	97	TRP
2	AB	130	ARG
2	AB	216	SER
3	AC	36	ASP
4	AD	4	TYR
4	AD	12	CYS
4	AD	56	VAL
5	AE	11	ILE
5	AE	108	ALA
6	AF	96	PRO
7	AG	33	ASP
9	AI	24	GLY
12	AL	51	ALA
12	AL	79	GLU
13	AM	21	TYR
13	AM	75	ALA

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Mol	Chain	Res	Type
13	AM	115	LYS
14	AN	14	PRO
16	AP	28	ARG
16	AP	34	GLU
16	AP	64	ALA
17	AQ	31	LEU
17	AQ	74	LEU
18	AR	39	VAL
18	AR	54	ARG
19	AS	29	ARG
20	AT	34	LYS
20	AT	60	GLU
20	AT	77	ALA
20	AT	97	ALA
25	B0	15	ASP
25	B0	55	ARG
25	B0	83	PRO
26	B1	56	GLN
26	B1	63	ALA
29	B4	2	LYS
29	B4	40	HIS
29	B4	47	GLN
31	B6	24	GLU
31	B6	28	ARG
31	B6	33	LYS
31	B6	52	VAL
33	B8	64	TYR
36	BC	55	ASP
36	BC	64	LEU
36	BC	77	ILE
36	BC	183	GLU
36	BC	202	GLU
37	BD	12	SER
37	BD	127	VAL
37	BD	156	ALA
37	BD	193	VAL
37	BD	224	ALA
37	BD	245	PRO
37	BD	264	LYS
38	BE	80	GLU
38	BE	94	GLU
38	BE	178	GLU

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Mol	Chain	Res	Type
39	BF	10	PRO
39	BF	11	VAL
39	BF	104	LYS
39	BF	108	LYS
39	BF	168	ARG
40	BG	9	ARG
40	BG	49	ASP
40	BG	90	LEU
40	BG	130	ASN
41	BH	44	VAL
41	BH	56	SER
41	BH	107	VAL
41	BH	155	SER
42	BI	15	VAL
42	BI	91	SER
43	BN	98	VAL
43	BN	129	PRO
44	BO	35	VAL
44	BO	45	GLU
45	BP	26	GLY
45	BP	48	PRO
45	BP	49	ARG
45	BP	71	VAL
45	BP	100	LEU
46	BQ	89	ASN
46	BQ	135	ASP
47	BR	28	LEU
47	BR	50	HIS
48	BS	33	LYS
49	BT	11	GLU
49	BT	26	ASP
49	BT	81	PRO
49	BT	82	LEU
49	BT	129	ARG
50	BU	113	ALA
51	BV	42	GLY
51	BV	79	VAL
51	BV	86	GLY
52	BW	2	GLU
52	BW	49	LYS
52	BW	59	VAL
53	BX	74	PRO

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Mol	Chain	Res	Type
54	BY	33	LYS
54	BY	34	LYS
54	BY	40	GLU
54	BY	57	GLN
54	BY	67	LEU
55	BZ	43	GLU
55	BZ	166	SER
2	CB	20	GLU
2	CB	130	ARG
2	CB	150	SER
2	CB	216	SER
4	CD	56	VAL
4	CD	57	ARG
4	CD	159	ARG
4	CD	163	GLU
5	CE	121	LYS
6	CF	96	PRO
7	CG	33	ASP
9	CI	24	GLY
11	CK	105	VAL
12	CL	45	PRO
12	CL	51	ALA
12	CL	79	GLU
13	CM	21	TYR
13	CM	71	ARG
13	CM	75	ALA
14	CN	14	PRO
15	CO	40	SER
15	CO	88	ARG
16	CP	28	ARG
16	CP	59	TRP
16	CP	64	ALA
17	CQ	74	LEU
18	CR	54	ARG
20	CT	60	GLU
20	CT	97	ALA
25	D0	15	ASP
25	D0	83	PRO
26	D1	12	PRO
26	D1	28	GLY
26	D1	78	LYS
26	D1	90	ILE

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Mol	Chain	Res	Type
29	D4	2	LYS
29	D4	30	GLU
29	D4	40	HIS
29	D4	47	GLN
31	D6	28	ARG
31	D6	33	LYS
31	D6	52	VAL
33	D8	64	TYR
36	DC	55	ASP
36	DC	64	LEU
36	DC	77	ILE
36	DC	183	GLU
36	DC	202	GLU
37	DD	12	SER
37	DD	156	ALA
37	DD	242	ARG
37	DD	245	PRO
37	DD	264	LYS
38	DE	80	GLU
38	DE	94	GLU
39	DF	5	ALA
39	DF	10	PRO
39	DF	11	VAL
39	DF	89	VAL
39	DF	104	LYS
39	DF	127	GLU
40	DG	6	ALA
40	DG	61	ALA
40	DG	70	VAL
40	DG	115	ARG
40	DG	117	PHE
40	DG	124	SER
41	DH	44	VAL
41	DH	56	SER
41	DH	71	LEU
41	DH	107	VAL
41	DH	155	SER
42	DI	15	VAL
42	DI	85	GLU
43	DN	40	PRO
43	DN	77	GLY
43	DN	98	VAL

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Mol	Chain	Res	Type
44	DO	45	GLU
45	DP	26	GLY
45	DP	48	PRO
45	DP	49	ARG
45	DP	51	PHE
45	DP	71	VAL
45	DP	100	LEU
46	DQ	135	ASP
47	DR	50	HIS
48	DS	17	ARG
48	DS	33	LYS
49	DT	26	ASP
49	DT	82	LEU
49	DT	129	ARG
50	DU	113	ALA
51	DV	41	GLY
51	DV	42	GLY
51	DV	86	GLY
52	DW	2	GLU
54	DY	31	LEU
54	DY	40	GLU
54	DY	57	GLN
54	DY	67	LEU
55	DZ	81	ARG
55	DZ	134	PRO
55	DZ	153	SER
55	DZ	172	ALA
2	AB	239	VAL
3	AC	61	ALA
3	AC	188	LEU
4	AD	91	SER
4	AD	93	PHE
4	AD	159	ARG
4	AD	163	GLU
5	AE	136	MET
7	AG	100	ALA
8	AH	2	LEU
9	AI	44	VAL
10	AJ	24	VAL
10	AJ	91	PRO
11	AK	27	ASN
11	AK	49	GLY

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Mol	Chain	Res	Type
11	AK	105	VAL
12	AL	13	LYS
12	AL	18	VAL
15	AO	28	GLN
15	AO	88	ARG
16	AP	59	TRP
17	AQ	4	LYS
17	AQ	30	PRO
18	AR	64	ARG
20	AT	29	LYS
20	AT	101	GLY
27	B2	15	LYS
27	B2	26	ARG
29	B4	12	ALA
29	B4	27	THR
30	B5	33	CYS
31	B6	38	LYS
31	B6	49	HIS
33	B8	19	SER
36	BC	159	GLY
38	BE	56	PRO
38	BE	58	ARG
38	BE	72	VAL
38	BE	73	GLU
38	BE	90	THR
38	BE	180	ASN
39	BF	25	PRO
40	BG	3	LEU
40	BG	6	ALA
40	BG	17	PRO
40	BG	22	ARG
40	BG	43	LEU
40	BG	181	ARG
41	BH	129	THR
42	BI	85	GLU
43	BN	9	VAL
43	BN	40	PRO
43	BN	77	GLY
43	BN	88	GLU
45	BP	135	LEU
46	BQ	54	MET
47	BR	17	ARG

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Mol	Chain	Res	Type
48	BS	95	HIS
49	BT	88	ILE
49	BT	119	LYS
51	BV	37	VAL
51	BV	41	GLY
52	BW	45	TYR
52	BW	56	ALA
53	BX	38	GLU
54	BY	50	ARG
54	BY	76	CYS
54	BY	99	CYS
55	BZ	41	LEU
55	BZ	45	ASP
55	BZ	62	PRO
55	BZ	177	PRO
2	CB	18	GLY
2	CB	239	VAL
3	CC	61	ALA
4	CD	105	VAL
5	CE	136	MET
8	CH	2	LEU
8	CH	18	ARG
9	CI	44	VAL
9	CI	123	PRO
10	CJ	24	VAL
10	CJ	91	PRO
11	CK	116	HIS
12	CL	13	LYS
13	CM	115	LYS
17	CQ	30	PRO
17	CQ	31	LEU
18	CR	37	VAL
18	CR	39	VAL
19	CS	9	VAL
20	CT	29	LYS
20	CT	77	ALA
20	CT	101	GLY
26	D1	21	ARG
26	D1	89	GLU
27	D2	26	ARG
29	D4	12	ALA
29	D4	27	THR

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Mol	Chain	Res	Type
30	D5	33	CYS
31	D6	24	GLU
31	D6	49	HIS
36	DC	159	GLY
37	DD	99	ASP
37	DD	127	VAL
37	DD	211	ARG
38	DE	56	PRO
38	DE	58	ARG
38	DE	72	VAL
38	DE	73	GLU
38	DE	75	VAL
38	DE	90	THR
39	DF	25	PRO
40	DG	49	ASP
41	DH	129	THR
42	DI	91	SER
43	DN	9	VAL
43	DN	88	GLU
43	DN	129	PRO
44	DO	112	MET
46	DQ	18	LYS
46	DQ	54	MET
46	DQ	88	GLY
47	DR	10	LEU
47	DR	17	ARG
48	DS	95	HIS
49	DT	55	ASN
49	DT	81	PRO
49	DT	88	ILE
49	DT	101	PHE
50	DU	13	LYS
50	DU	60	LEU
52	DW	63	ASP
53	DX	74	PRO
54	DY	33	LYS
54	DY	34	LYS
54	DY	76	CYS
54	DY	99	CYS
55	DZ	15	PRO
55	DZ	110	GLY
55	DZ	157	LEU

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Mol	Chain	Res	Type
55	DZ	159	PRO
2	AB	181	PHE
3	AC	49	SER
5	AE	121	LYS
7	AG	130	GLY
8	AH	18	ARG
11	AK	126	ARG
13	AM	28	ALA
18	AR	37	VAL
19	AS	5	LEU
19	AS	9	VAL
19	AS	67	VAL
19	AS	68	GLY
20	AT	98	PRO
37	BD	211	ARG
37	BD	239	ARG
37	BD	244	ARG
39	BF	6	VAL
40	BG	109	VAL
45	BP	38	GLN
47	BR	10	LEU
47	BR	102	GLU
52	BW	63	ASP
54	BY	3	VAL
55	BZ	39	VAL
2	CB	13	ALA
2	CB	53	ARG
4	CD	12	CYS
4	CD	91	SER
4	CD	93	PHE
6	CF	43	LEU
8	CH	129	VAL
9	CI	119	ALA
11	CK	27	ASN
11	CK	49	GLY
12	CL	18	VAL
13	CM	76	ALA
13	CM	125	ARG
15	CO	41	GLU
18	CR	64	ARG
19	CS	5	LEU
19	CS	67	VAL

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Mol	Chain	Res	Type
20	CT	98	PRO
26	D1	68	PRO
27	D2	51	ARG
31	D6	38	LYS
32	D7	31	LEU
37	DD	244	ARG
38	DE	180	ASN
39	DF	6	VAL
46	DQ	99	PRO
47	DR	102	GLU
48	DS	28	VAL
48	DS	75	GLU
52	DW	66	GLU
53	DX	38	GLU
54	DY	3	VAL
54	DY	18	GLY
54	DY	50	ARG
55	DZ	115	GLY
55	DZ	133	ILE
5	AE	49	PRO
7	AG	42	ILE
8	AH	129	VAL
28	B3	41	PRO
30	B5	57	VAL
36	BC	175	VAL
38	BE	75	VAL
45	BP	97	PRO
47	BR	38	VAL
48	BS	28	VAL
48	BS	96	GLY
50	BU	65	ILE
51	BV	70	ILE
54	BY	18	GLY
54	BY	22	GLY
55	BZ	22	GLY
7	CG	42	ILE
7	CG	130	GLY
10	CJ	37	PRO
12	CL	74	GLY
12	CL	121	GLY
28	D3	41	PRO
30	D5	57	VAL

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Mol	Chain	Res	Type
36	DC	175	VAL
43	DN	11	PRO
51	DV	22	VAL
51	DV	37	VAL
51	DV	70	ILE
54	DY	22	GLY
4	AD	105	VAL
9	AI	123	PRO
10	AJ	37	PRO
29	B4	19	GLY
36	BC	130	ILE
36	BC	149	ILE
37	BD	35	LYS
42	BI	111	PRO
43	BN	11	PRO
46	BQ	47	ILE
46	BQ	99	PRO
51	BV	22	VAL
52	BW	112	GLY
54	BY	96	ILE
3	CC	114	PRO
12	CL	43	VAL
27	D2	19	VAL
32	D7	30	VAL
36	DC	130	ILE
36	DC	149	ILE
46	DQ	47	ILE
47	DR	38	VAL
48	DS	85	VAL
48	DS	96	GLY
50	DU	65	ILE
52	DW	112	GLY
53	DX	32	PRO
53	DX	49	VAL
54	DY	96	ILE
3	AC	13	GLY
3	AC	114	PRO
6	AF	72	VAL
12	AL	43	VAL
12	AL	48	PRO
28	B3	50	VAL
29	B4	15	ILE

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Mol	Chain	Res	Type
30	B5	47	PRO
32	B7	30	VAL
36	BC	103	ILE
38	BE	81	ILE
43	BN	135	PRO
46	BQ	81	VAL
46	BQ	88	GLY
48	BS	85	VAL
51	BV	17	GLY
53	BX	49	VAL
54	BY	24	VAL
12	CL	48	PRO
19	CS	68	GLY
28	D3	50	VAL
29	D4	19	GLY
30	D5	47	PRO
36	DC	103	ILE
37	DD	35	LYS
38	DE	81	ILE
42	DI	111	PRO
45	DP	97	PRO
46	DQ	81	VAL
51	DV	17	GLY
55	DZ	165	VAL
3	AC	66	VAL
4	AD	158	ILE
6	AF	25	ILE
29	B4	14	ILE
40	BG	28	VAL
40	BG	129	GLY
40	BG	140	ILE
49	BT	7	ILE
50	BU	90	VAL
53	BX	32	PRO
3	CC	13	GLY
3	CC	66	VAL
4	CD	28	SER
5	CE	49	PRO
13	CM	74	VAL
29	D4	15	ILE
37	DD	8	PRO
50	DU	90	VAL

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Mol	Chain	Res	Type
51	DV	54	GLY
12	AL	74	GLY
37	BD	8	PRO
41	BH	49	VAL
51	BV	54	GLY
55	BZ	12	GLY
3	CC	55	VAL
29	D4	14	ILE
41	DH	49	VAL
43	DN	135	PRO
52	DW	14	PRO
54	DY	24	VAL
55	DZ	39	VAL
55	DZ	47	VAL

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	AB	202/220 (92%)	182 (90%)	20 (10%)	11	31
2	CB	202/220 (92%)	182 (90%)	20 (10%)	11	31
3	AC	160/188 (85%)	151 (94%)	9 (6%)	30	64
3	CC	160/188 (85%)	150 (94%)	10 (6%)	25	59
4	AD	180/181 (99%)	159 (88%)	21 (12%)	8	22
4	CD	180/181 (99%)	161 (89%)	19 (11%)	10	27
5	AE	115/123 (94%)	102 (89%)	13 (11%)	9	24
5	CE	115/123 (94%)	103 (90%)	12 (10%)	10	28
6	AF	90/90 (100%)	84 (93%)	6 (7%)	23	55
6	CF	90/90 (100%)	84 (93%)	6 (7%)	23	55
7	AG	126/127 (99%)	122 (97%)	4 (3%)	51	85
7	CG	126/127 (99%)	122 (97%)	4 (3%)	51	85
8	AH	119/119 (100%)	114 (96%)	5 (4%)	40	77
8	CH	119/119 (100%)	114 (96%)	5 (4%)	40	77

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	AI	98/99 (99%)	88 (90%)	10 (10%)	11	29
9	CI	98/99 (99%)	88 (90%)	10 (10%)	11	29
10	AJ	88/92 (96%)	82 (93%)	6 (7%)	22	54
10	CJ	88/92 (96%)	82 (93%)	6 (7%)	22	54
11	AK	90/99 (91%)	85 (94%)	5 (6%)	30	64
11	CK	90/99 (91%)	86 (96%)	4 (4%)	39	75
12	AL	104/111 (94%)	95 (91%)	9 (9%)	15	39
12	CL	104/111 (94%)	96 (92%)	8 (8%)	18	45
13	AM	99/101 (98%)	93 (94%)	6 (6%)	26	61
13	CM	99/101 (98%)	93 (94%)	6 (6%)	26	61
14	AN	49/50 (98%)	47 (96%)	2 (4%)	41	77
14	CN	49/50 (98%)	47 (96%)	2 (4%)	41	77
15	AO	79/80 (99%)	74 (94%)	5 (6%)	25	59
15	CO	79/80 (99%)	74 (94%)	5 (6%)	25	59
16	AP	72/74 (97%)	65 (90%)	7 (10%)	12	32
16	CP	72/74 (97%)	65 (90%)	7 (10%)	12	32
17	AQ	94/97 (97%)	92 (98%)	2 (2%)	66	93
17	CQ	94/97 (97%)	92 (98%)	2 (2%)	66	93
18	AR	61/77 (79%)	55 (90%)	6 (10%)	12	32
18	CR	61/77 (79%)	55 (90%)	6 (10%)	12	32
19	AS	69/80 (86%)	62 (90%)	7 (10%)	11	30
19	CS	69/80 (86%)	62 (90%)	7 (10%)	11	30
20	AT	76/82 (93%)	65 (86%)	11 (14%)	5	13
20	CT	76/82 (93%)	65 (86%)	11 (14%)	5	13
21	AU	19/22 (86%)	17 (90%)	2 (10%)	10	27
21	CU	19/22 (86%)	17 (90%)	2 (10%)	10	27
25	B0	61/67 (91%)	54 (88%)	7 (12%)	8	23
25	D0	61/67 (91%)	54 (88%)	7 (12%)	8	23
26	B1	73/83 (88%)	62 (85%)	11 (15%)	4	12
26	D1	73/83 (88%)	63 (86%)	10 (14%)	5	15
27	B2	46/67 (69%)	35 (76%)	11 (24%)	1	3

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
27	D2	46/67 (69%)	35 (76%)	11 (24%)	1	3
28	B3	51/52 (98%)	49 (96%)	2 (4%)	43	80
28	D3	51/52 (98%)	49 (96%)	2 (4%)	43	80
30	B5	51/52 (98%)	41 (80%)	10 (20%)	2	6
30	D5	51/52 (98%)	41 (80%)	10 (20%)	2	6
31	B6	43/52 (83%)	36 (84%)	7 (16%)	3	10
31	D6	43/52 (83%)	36 (84%)	7 (16%)	3	10
32	B7	41/42 (98%)	37 (90%)	4 (10%)	12	32
32	D7	41/42 (98%)	37 (90%)	4 (10%)	12	32
33	B8	53/55 (96%)	45 (85%)	8 (15%)	4	12
33	D8	53/55 (96%)	45 (85%)	8 (15%)	4	12
36	BC	61/181 (34%)	54 (88%)	7 (12%)	8	23
36	DC	61/181 (34%)	54 (88%)	7 (12%)	8	23
37	BD	213/218 (98%)	179 (84%)	34 (16%)	3	10
37	DD	213/218 (98%)	181 (85%)	32 (15%)	4	12
38	BE	165/166 (99%)	145 (88%)	20 (12%)	7	21
38	DE	165/166 (99%)	145 (88%)	20 (12%)	7	21
39	BF	165/166 (99%)	153 (93%)	12 (7%)	20	49
39	DF	165/166 (99%)	153 (93%)	12 (7%)	20	49
40	BG	155/156 (99%)	135 (87%)	20 (13%)	6	18
40	DG	155/156 (99%)	132 (85%)	23 (15%)	4	13
41	BH	132/148 (89%)	117 (89%)	15 (11%)	8	24
41	DH	132/148 (89%)	117 (89%)	15 (11%)	8	24
42	BI	122/124 (98%)	113 (93%)	9 (7%)	20	48
42	DI	122/124 (98%)	113 (93%)	9 (7%)	20	48
43	BN	117/119 (98%)	98 (84%)	19 (16%)	3	10
43	DN	117/119 (98%)	97 (83%)	20 (17%)	3	8
44	BO	100/100 (100%)	92 (92%)	8 (8%)	17	44
44	DO	100/100 (100%)	91 (91%)	9 (9%)	14	37
45	BP	112/116 (97%)	92 (82%)	20 (18%)	2	7
45	DP	112/116 (97%)	91 (81%)	21 (19%)	2	7

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
46	BQ	106/111 (96%)	93 (88%)	13 (12%)	7	20
46	DQ	106/111 (96%)	93 (88%)	13 (12%)	7	20
47	BR	100/101 (99%)	91 (91%)	9 (9%)	14	37
47	DR	100/101 (99%)	91 (91%)	9 (9%)	14	37
48	BS	77/88 (88%)	65 (84%)	12 (16%)	4	11
48	DS	77/88 (88%)	65 (84%)	12 (16%)	4	11
49	BT	120/127 (94%)	99 (82%)	21 (18%)	3	8
49	DT	120/127 (94%)	99 (82%)	21 (18%)	3	8
50	BU	92/94 (98%)	85 (92%)	7 (8%)	19	46
50	DU	92/94 (98%)	85 (92%)	7 (8%)	19	46
51	BV	82/82 (100%)	64 (78%)	18 (22%)	1	4
51	DV	82/82 (100%)	64 (78%)	18 (22%)	1	4
52	BW	91/92 (99%)	85 (93%)	6 (7%)	24	56
52	DW	91/92 (99%)	84 (92%)	7 (8%)	18	45
53	BX	74/78 (95%)	59 (80%)	15 (20%)	2	5
53	DX	74/78 (95%)	60 (81%)	14 (19%)	2	7
54	BY	84/91 (92%)	67 (80%)	17 (20%)	2	5
54	DY	84/91 (92%)	67 (80%)	17 (20%)	2	5
55	BZ	155/179 (87%)	144 (93%)	11 (7%)	21	51
55	DZ	155/179 (87%)	141 (91%)	14 (9%)	14	37
All	All	9464/10238 (92%)	8444 (89%)	1020 (11%)	9	26

All (1020) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	10	LEU
2	AB	15	VAL
2	AB	16	HIS
2	AB	17	PHE
2	AB	22	LYS
2	AB	24	TRP
2	AB	36	ARG
2	AB	44	LEU
2	AB	59	GLU
2	AB	79	ASP

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Mol	Chain	Res	Type
2	AB	102	LEU
2	AB	130	ARG
2	AB	137	ARG
2	AB	145	LEU
2	AB	178	ARG
2	AB	187	LEU
2	AB	196	LEU
2	AB	204	ASN
2	AB	215	LEU
2	AB	221	LEU
3	AC	5	ILE
3	AC	12	LEU
3	AC	16	ARG
3	AC	27	LYS
3	AC	84	ILE
3	AC	104	GLN
3	AC	120	VAL
3	AC	127	ARG
3	AC	156	ARG
4	AD	3	ARG
4	AD	8	VAL
4	AD	9	CYS
4	AD	11	LEU
4	AD	12	CYS
4	AD	19	LEU
4	AD	36	ARG
4	AD	38	TYR
4	AD	53	ASP
4	AD	73	ARG
4	AD	96	LEU
4	AD	97	LEU
4	AD	110	PHE
4	AD	119	GLN
4	AD	122	ARG
4	AD	127	THR
4	AD	131	ARG
4	AD	132	ARG
4	AD	138	TYR
4	AD	158	ILE
4	AD	196	LEU
5	AE	10	MET
5	AE	12	LEU

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Mol	Chain	Res	Type
5	AE	16	THR
5	AE	20	GLN
5	AE	31	LEU
5	AE	47	LYS
5	AE	73	ASN
5	AE	79	GLU
5	AE	90	VAL
5	AE	91	LEU
5	AE	101	ILE
5	AE	112	LEU
5	AE	115	VAL
6	AF	46	ARG
6	AF	63	TYR
6	AF	69	GLU
6	AF	82	ARG
6	AF	87	ARG
6	AF	98	LEU
7	AG	79	ARG
7	AG	137	LYS
7	AG	148	ASN
7	AG	156	TRP
8	AH	1	MET
8	AH	24	THR
8	AH	81	HIS
8	AH	102	ARG
8	AH	105	ARG
9	AI	10	ARG
9	AI	95	LYS
9	AI	99	LEU
9	AI	102	LEU
9	AI	104	ARG
9	AI	113	LYS
9	AI	114	TYR
9	AI	121	ARG
9	AI	125	TYR
9	AI	128	ARG
10	AJ	22	LYS
10	AJ	50	ILE
10	AJ	62	HIS
10	AJ	74	ILE
10	AJ	80	LYS
10	AJ	96	ILE

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Mol	Chain	Res	Type
11	AK	25	TYR
11	AK	29	ILE
11	AK	38	ASN
11	AK	116	HIS
11	AK	117	ASN
12	AL	20	LYS
12	AL	41	ARG
12	AL	53	ARG
12	AL	62	SER
12	AL	83	VAL
12	AL	84	LEU
12	AL	89	ARG
12	AL	102	ARG
12	AL	120	TYR
13	AM	47	ASP
13	AM	64	TRP
13	AM	82	MET
13	AM	93	ARG
13	AM	108	ARG
13	AM	120	LYS
14	AN	41	ARG
14	AN	44	LEU
15	AO	3	ILE
15	AO	37	ASN
15	AO	38	ARG
15	AO	65	ARG
15	AO	82	ILE
16	AP	1	MET
16	AP	21	VAL
16	AP	27	LYS
16	AP	39	TYR
16	AP	65	GLN
16	AP	69	THR
16	AP	82	GLN
17	AQ	38	ARG
17	AQ	52	LYS
18	AR	26	LEU
18	AR	31	LEU
18	AR	32	ARG
18	AR	53	ARG
18	AR	79	LEU
18	AR	82	THR

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Mol	Chain	Res	Type
19	AS	6	LYS
19	AS	7	LYS
19	AS	22	LEU
19	AS	27	GLU
19	AS	37	ARG
19	AS	44	MET
19	AS	49	ILE
20	AT	13	LEU
20	AT	24	LEU
20	AT	26	ASN
20	AT	27	LYS
20	AT	36	LEU
20	AT	41	ILE
20	AT	56	MET
20	AT	57	ARG
20	AT	62	LEU
20	AT	73	HIS
20	AT	93	GLU
21	AU	15	ARG
21	AU	24	ARG
25	B0	20	ARG
25	B0	25	ARG
25	B0	31	VAL
25	B0	36	ILE
25	B0	64	ASP
25	B0	80	HIS
25	B0	84	LEU
26	B1	12	PRO
26	B1	20	ARG
26	B1	21	ARG
26	B1	26	ARG
26	B1	34	THR
26	B1	46	LEU
26	B1	47	GLN
26	B1	48	LYS
26	B1	53	VAL
26	B1	73	LEU
26	B1	94	LEU
27	B2	23	LYS
27	B2	30	ARG
27	B2	33	MET
27	B2	44	LEU

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Mol	Chain	Res	Type
27	B2	46	GLN
27	B2	47	ASN
27	B2	50	ILE
27	B2	51	ARG
27	B2	53	LEU
27	B2	56	GLN
27	B2	57	ILE
28	B3	4	LEU
28	B3	8	LEU
30	B5	3	LYS
30	B5	4	HIS
30	B5	25	LEU
30	B5	32	PRO
30	B5	33	CYS
30	B5	37	LYS
30	B5	44	THR
30	B5	51	TYR
30	B5	56	LYS
30	B5	58	LEU
31	B6	10	LEU
31	B6	18	ARG
31	B6	19	ARG
31	B6	30	THR
31	B6	31	PRO
31	B6	42	TRP
31	B6	44	ARG
32	B7	8	ASN
32	B7	10	ARG
32	B7	43	THR
32	B7	48	LYS
33	B8	6	THR
33	B8	13	ARG
33	B8	16	ILE
33	B8	34	TRP
33	B8	40	GLU
33	B8	44	LYS
33	B8	47	LYS
33	B8	48	PHE
36	BC	20	TYR
36	BC	36	LYS
36	BC	41	VAL
36	BC	58	VAL

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Mol	Chain	Res	Type
36	BC	64	LEU
36	BC	77	ILE
36	BC	101	GLN
37	BD	10	THR
37	BD	14	ARG
37	BD	17	THR
37	BD	18	VAL
37	BD	20	ASP
37	BD	24	ILE
37	BD	26	LYS
37	BD	31	LYS
37	BD	36	PRO
37	BD	54	ARG
37	BD	64	ILE
37	BD	65	ILE
37	BD	73	VAL
37	BD	84	TYR
37	BD	91	ARG
37	BD	94	LEU
37	BD	95	LEU
37	BD	106	ILE
37	BD	111	LEU
37	BD	131	LEU
37	BD	135	PHE
37	BD	138	VAL
37	BD	150	LYS
37	BD	166	GLN
37	BD	183	ARG
37	BD	192	THR
37	BD	211	ARG
37	BD	212	SER
37	BD	221	VAL
37	BD	242	ARG
37	BD	253	GLN
37	BD	255	LYS
37	BD	259	THR
37	BD	260	ARG
38	BE	9	VAL
38	BE	21	VAL
38	BE	33	VAL
38	BE	44	TYR
38	BE	66	HIS

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Mol	Chain	Res	Type
38	BE	67	PHE
38	BE	73	GLU
38	BE	78	LEU
38	BE	79	ARG
38	BE	89	ASP
38	BE	113	PHE
38	BE	117	MET
38	BE	118	LYS
38	BE	119	ARG
38	BE	134	ILE
38	BE	154	LYS
38	BE	160	TYR
38	BE	184	VAL
38	BE	202	LYS
38	BE	203	LYS
39	BF	15	SER
39	BF	64	ILE
39	BF	66	PRO
39	BF	74	ARG
39	BF	78	ILE
39	BF	100	THR
39	BF	110	LEU
39	BF	112	MET
39	BF	160	ASN
39	BF	165	ARG
39	BF	191	ARG
39	BF	202	PHE
40	BG	7	LEU
40	BG	22	ARG
40	BG	31	VAL
40	BG	34	LEU
40	BG	39	ILE
40	BG	40	ASN
40	BG	43	LEU
40	BG	45	GLU
40	BG	63	ILE
40	BG	67	LYS
40	BG	87	PRO
40	BG	90	LEU
40	BG	94	LEU
40	BG	101	ILE
40	BG	112	PRO

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Mol	Chain	Res	Type
40	BG	125	PHE
40	BG	143	GLU
40	BG	145	THR
40	BG	155	MET
40	BG	166	ASP
41	BH	41	MET
41	BH	53	GLU
41	BH	86	GLU
41	BH	89	ILE
41	BH	105	LEU
41	BH	123	PHE
41	BH	136	ILE
41	BH	143	GLN
41	BH	149	ARG
41	BH	152	ARG
41	BH	153	LYS
41	BH	157	TYR
41	BH	159	GLU
41	BH	163	TYR
41	BH	170	ARG
42	BI	12	LEU
42	BI	15	VAL
42	BI	38	LEU
42	BI	109	ILE
42	BI	129	THR
42	BI	130	TYR
42	BI	133	HIS
42	BI	134	PRO
42	BI	142	VAL
43	BN	4	TYR
43	BN	19	GLU
43	BN	22	THR
43	BN	28	THR
43	BN	39	ARG
43	BN	41	ASP
43	BN	42	TRP
43	BN	48	MET
43	BN	51	PHE
43	BN	56	ASN
43	BN	63	THR
43	BN	65	LYS
43	BN	78	TYR

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Mol	Chain	Res	Type
43	BN	79	PRO
43	BN	82	LEU
43	BN	94	HIS
43	BN	120	LEU
43	BN	127	ASP
43	BN	130	HIS
44	BO	17	ARG
44	BO	32	TYR
44	BO	48	PRO
44	BO	52	VAL
44	BO	101	PRO
44	BO	102	VAL
44	BO	115	VAL
44	BO	119	PRO
45	BP	10	PRO
45	BP	13	ASN
45	BP	16	ARG
45	BP	18	ARG
45	BP	21	ARG
45	BP	33	ARG
45	BP	35	HIS
45	BP	40	SER
45	BP	59	LEU
45	BP	61	ARG
45	BP	62	LEU
45	BP	64	LYS
45	BP	75	ILE
45	BP	81	GLN
45	BP	85	LEU
45	BP	105	LEU
45	BP	123	LEU
45	BP	135	LEU
45	BP	144	GLU
45	BP	148	LEU
46	BQ	13	GLN
46	BQ	17	LEU
46	BQ	22	LYS
46	BQ	26	TYR
46	BQ	29	PHE
46	BQ	34	LEU
46	BQ	58	PHE
46	BQ	63	LYS

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Mol	Chain	Res	Type
46	BQ	75	THR
46	BQ	80	GLU
46	BQ	82	ARG
46	BQ	91	GLU
46	BQ	111	GLU
47	BR	2	ARG
47	BR	5	LYS
47	BR	17	ARG
47	BR	40	LYS
47	BR	49	ASP
47	BR	60	LEU
47	BR	76	VAL
47	BR	79	LEU
47	BR	104	ARG
48	BS	13	ARG
48	BS	16	ASN
48	BS	26	LEU
48	BS	36	TYR
48	BS	54	LEU
48	BS	61	ASN
48	BS	68	GLN
48	BS	80	LEU
48	BS	89	ARG
48	BS	92	TYR
48	BS	93	LYS
48	BS	98	VAL
49	BT	13	ARG
49	BT	24	PRO
49	BT	32	TYR
49	BT	33	LYS
49	BT	41	ARG
49	BT	51	ARG
49	BT	53	ARG
49	BT	58	ASN
49	BT	59	THR
49	BT	65	LYS
49	BT	78	LEU
49	BT	82	LEU
49	BT	87	ASP
49	BT	96	ARG
49	BT	99	LEU
49	BT	100	TYR

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Mol	Chain	Res	Type
49	BT	108	ARG
49	BT	112	ARG
49	BT	115	ARG
49	BT	121	ILE
49	BT	128	GLU
50	BU	64	ARG
50	BU	76	TYR
50	BU	79	PHE
50	BU	88	ILE
50	BU	89	GLU
50	BU	112	ARG
50	BU	114	LYS
51	BV	1	MET
51	BV	2	PHE
51	BV	12	TYR
51	BV	14	VAL
51	BV	18	LEU
51	BV	19	LYS
51	BV	21	ARG
51	BV	39	LEU
51	BV	40	LEU
51	BV	66	ARG
51	BV	70	ILE
51	BV	78	LYS
51	BV	80	GLN
51	BV	82	ARG
51	BV	88	ARG
51	BV	90	PRO
51	BV	92	THR
51	BV	93	GLU
52	BW	11	ARG
52	BW	25	ARG
52	BW	70	TYR
52	BW	75	TYR
52	BW	88	ARG
52	BW	107	LEU
53	BX	21	PHE
53	BX	27	THR
53	BX	28	PHE
53	BX	33	LYS
53	BX	35	THR
53	BX	36	LYS

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Mol	Chain	Res	Type
53	BX	40	LYS
53	BX	43	VAL
53	BX	49	VAL
53	BX	59	VAL
53	BX	65	ARG
53	BX	68	ARG
53	BX	76	ARG
53	BX	78	LYS
53	BX	81	VAL
54	BY	6	HIS
54	BY	7	VAL
54	BY	9	LYS
54	BY	14	LEU
54	BY	29	GLU
54	BY	31	LEU
54	BY	32	PRO
54	BY	35	TYR
54	BY	38	ILE
54	BY	56	PRO
54	BY	62	GLU
54	BY	66	PRO
54	BY	75	ILE
54	BY	76	CYS
54	BY	77	PRO
54	BY	90	LEU
54	BY	97	ARG
55	BZ	6	LYS
55	BZ	9	TYR
55	BZ	79	ARG
55	BZ	86	VAL
55	BZ	87	ASP
55	BZ	89	PHE
55	BZ	97	GLU
55	BZ	99	TYR
55	BZ	144	LEU
55	BZ	150	LEU
55	BZ	163	LEU
2	CB	10	LEU
2	CB	15	VAL
2	CB	16	HIS
2	CB	17	PHE
2	CB	22	LYS

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Mol	Chain	Res	Type
2	CB	24	TRP
2	CB	36	ARG
2	CB	44	LEU
2	CB	59	GLU
2	CB	79	ASP
2	CB	102	LEU
2	CB	130	ARG
2	CB	137	ARG
2	CB	145	LEU
2	CB	178	ARG
2	CB	187	LEU
2	CB	196	LEU
2	CB	204	ASN
2	CB	215	LEU
2	CB	221	LEU
3	CC	5	ILE
3	CC	12	LEU
3	CC	16	ARG
3	CC	27	LYS
3	CC	84	ILE
3	CC	104	GLN
3	CC	120	VAL
3	CC	127	ARG
3	CC	156	ARG
3	CC	196	LEU
4	CD	3	ARG
4	CD	8	VAL
4	CD	9	CYS
4	CD	12	CYS
4	CD	19	LEU
4	CD	36	ARG
4	CD	38	TYR
4	CD	53	ASP
4	CD	73	ARG
4	CD	97	LEU
4	CD	110	PHE
4	CD	119	GLN
4	CD	122	ARG
4	CD	127	THR
4	CD	131	ARG
4	CD	132	ARG
4	CD	138	TYR

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Mol	Chain	Res	Type
4	CD	158	ILE
4	CD	196	LEU
5	CE	10	MET
5	CE	12	LEU
5	CE	16	THR
5	CE	20	GLN
5	CE	31	LEU
5	CE	73	ASN
5	CE	79	GLU
5	CE	90	VAL
5	CE	91	LEU
5	CE	101	ILE
5	CE	112	LEU
5	CE	115	VAL
6	CF	46	ARG
6	CF	63	TYR
6	CF	69	GLU
6	CF	82	ARG
6	CF	87	ARG
6	CF	98	LEU
7	CG	79	ARG
7	CG	137	LYS
7	CG	148	ASN
7	CG	156	TRP
8	CH	1	MET
8	CH	24	THR
8	CH	81	HIS
8	CH	102	ARG
8	CH	105	ARG
9	CI	10	ARG
9	CI	95	LYS
9	CI	99	LEU
9	CI	102	LEU
9	CI	104	ARG
9	CI	113	LYS
9	CI	114	TYR
9	CI	121	ARG
9	CI	125	TYR
9	CI	128	ARG
10	CJ	22	LYS
10	CJ	50	ILE
10	CJ	62	HIS

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Mol	Chain	Res	Type
10	CJ	74	ILE
10	CJ	80	LYS
10	CJ	96	ILE
11	CK	25	TYR
11	CK	29	ILE
11	CK	116	HIS
11	CK	117	ASN
12	CL	20	LYS
12	CL	41	ARG
12	CL	53	ARG
12	CL	62	SER
12	CL	84	LEU
12	CL	89	ARG
12	CL	102	ARG
12	CL	120	TYR
13	CM	47	ASP
13	CM	64	TRP
13	CM	82	MET
13	CM	93	ARG
13	CM	108	ARG
13	CM	120	LYS
14	CN	41	ARG
14	CN	44	LEU
15	CO	3	ILE
15	CO	37	ASN
15	CO	38	ARG
15	CO	65	ARG
15	CO	82	ILE
16	CP	1	MET
16	CP	21	VAL
16	CP	27	LYS
16	CP	39	TYR
16	CP	65	GLN
16	CP	69	THR
16	CP	82	GLN
17	CQ	38	ARG
17	CQ	52	LYS
18	CR	26	LEU
18	CR	31	LEU
18	CR	32	ARG
18	CR	53	ARG
18	CR	79	LEU

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Mol	Chain	Res	Type
18	CR	82	THR
19	CS	6	LYS
19	CS	7	LYS
19	CS	22	LEU
19	CS	27	GLU
19	CS	37	ARG
19	CS	44	MET
19	CS	49	ILE
20	CT	13	LEU
20	CT	24	LEU
20	CT	26	ASN
20	CT	27	LYS
20	CT	36	LEU
20	CT	41	ILE
20	CT	56	MET
20	CT	57	ARG
20	CT	62	LEU
20	CT	73	HIS
20	CT	93	GLU
21	CU	15	ARG
21	CU	24	ARG
25	D0	20	ARG
25	D0	25	ARG
25	D0	31	VAL
25	D0	36	ILE
25	D0	64	ASP
25	D0	80	HIS
25	D0	84	LEU
26	D1	12	PRO
26	D1	26	ARG
26	D1	34	THR
26	D1	41	ARG
26	D1	46	LEU
26	D1	47	GLN
26	D1	49	VAL
26	D1	53	VAL
26	D1	61	ARG
26	D1	89	GLU
27	D2	17	SER
27	D2	22	GLU
27	D2	26	ARG
27	D2	30	ARG

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Mol	Chain	Res	Type
27	D2	33	MET
27	D2	35	LEU
27	D2	44	LEU
27	D2	46	GLN
27	D2	47	ASN
27	D2	51	ARG
27	D2	52	ASP
28	D3	4	LEU
28	D3	8	LEU
30	D5	3	LYS
30	D5	4	HIS
30	D5	25	LEU
30	D5	32	PRO
30	D5	33	CYS
30	D5	37	LYS
30	D5	51	TYR
30	D5	52	TYR
30	D5	56	LYS
30	D5	58	LEU
31	D6	10	LEU
31	D6	18	ARG
31	D6	19	ARG
31	D6	30	THR
31	D6	31	PRO
31	D6	42	TRP
31	D6	44	ARG
32	D7	8	ASN
32	D7	10	ARG
32	D7	43	THR
32	D7	48	LYS
33	D8	6	THR
33	D8	13	ARG
33	D8	16	ILE
33	D8	34	TRP
33	D8	40	GLU
33	D8	44	LYS
33	D8	47	LYS
33	D8	48	PHE
36	DC	20	TYR
36	DC	36	LYS
36	DC	41	VAL
36	DC	58	VAL

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Mol	Chain	Res	Type
36	DC	64	LEU
36	DC	77	ILE
36	DC	101	GLN
37	DD	10	THR
37	DD	14	ARG
37	DD	17	THR
37	DD	18	VAL
37	DD	20	ASP
37	DD	24	ILE
37	DD	26	LYS
37	DD	31	LYS
37	DD	54	ARG
37	DD	64	ILE
37	DD	65	ILE
37	DD	73	VAL
37	DD	84	TYR
37	DD	91	ARG
37	DD	94	LEU
37	DD	95	LEU
37	DD	106	ILE
37	DD	111	LEU
37	DD	131	LEU
37	DD	135	PHE
37	DD	150	LYS
37	DD	166	GLN
37	DD	183	ARG
37	DD	205	VAL
37	DD	211	ARG
37	DD	212	SER
37	DD	221	VAL
37	DD	242	ARG
37	DD	253	GLN
37	DD	255	LYS
37	DD	259	THR
37	DD	260	ARG
38	DE	9	VAL
38	DE	21	VAL
38	DE	33	VAL
38	DE	44	TYR
38	DE	66	HIS
38	DE	67	PHE
38	DE	73	GLU

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Mol	Chain	Res	Type
38	DE	78	LEU
38	DE	79	ARG
38	DE	89	ASP
38	DE	113	PHE
38	DE	117	MET
38	DE	118	LYS
38	DE	119	ARG
38	DE	134	ILE
38	DE	154	LYS
38	DE	160	TYR
38	DE	184	VAL
38	DE	202	LYS
38	DE	203	LYS
39	DF	15	SER
39	DF	64	ILE
39	DF	66	PRO
39	DF	74	ARG
39	DF	78	ILE
39	DF	100	THR
39	DF	110	LEU
39	DF	112	MET
39	DF	160	ASN
39	DF	165	ARG
39	DF	191	ARG
39	DF	202	PHE
40	DG	16	ARG
40	DG	34	LEU
40	DG	39	ILE
40	DG	45	GLU
40	DG	49	ASP
40	DG	53	LEU
40	DG	70	VAL
40	DG	87	PRO
40	DG	90	LEU
40	DG	101	ILE
40	DG	108	ASN
40	DG	112	PRO
40	DG	117	PHE
40	DG	125	PHE
40	DG	130	ASN
40	DG	139	LEU
40	DG	141	PHE

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Mol	Chain	Res	Type
40	DG	143	GLU
40	DG	145	THR
40	DG	155	MET
40	DG	157	ILE
40	DG	166	ASP
40	DG	167	GLU
41	DH	41	MET
41	DH	53	GLU
41	DH	86	GLU
41	DH	89	ILE
41	DH	105	LEU
41	DH	123	PHE
41	DH	136	ILE
41	DH	143	GLN
41	DH	149	ARG
41	DH	152	ARG
41	DH	153	LYS
41	DH	157	TYR
41	DH	159	GLU
41	DH	163	TYR
41	DH	170	ARG
42	DI	12	LEU
42	DI	15	VAL
42	DI	38	LEU
42	DI	109	ILE
42	DI	129	THR
42	DI	130	TYR
42	DI	133	HIS
42	DI	134	PRO
42	DI	142	VAL
43	DN	4	TYR
43	DN	19	GLU
43	DN	22	THR
43	DN	28	THR
43	DN	35	ARG
43	DN	39	ARG
43	DN	41	ASP
43	DN	42	TRP
43	DN	48	MET
43	DN	51	PHE
43	DN	56	ASN
43	DN	63	THR

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Mol	Chain	Res	Type
43	DN	65	LYS
43	DN	78	TYR
43	DN	79	PRO
43	DN	82	LEU
43	DN	94	HIS
43	DN	120	LEU
43	DN	127	ASP
43	DN	130	HIS
44	DO	8	LEU
44	DO	17	ARG
44	DO	32	TYR
44	DO	48	PRO
44	DO	52	VAL
44	DO	101	PRO
44	DO	102	VAL
44	DO	115	VAL
44	DO	119	PRO
45	DP	10	PRO
45	DP	13	ASN
45	DP	16	ARG
45	DP	18	ARG
45	DP	21	ARG
45	DP	33	ARG
45	DP	35	HIS
45	DP	40	SER
45	DP	51	PHE
45	DP	59	LEU
45	DP	61	ARG
45	DP	62	LEU
45	DP	64	LYS
45	DP	75	ILE
45	DP	81	GLN
45	DP	85	LEU
45	DP	105	LEU
45	DP	123	LEU
45	DP	135	LEU
45	DP	144	GLU
45	DP	148	LEU
46	DQ	13	GLN
46	DQ	17	LEU
46	DQ	22	LYS
46	DQ	26	TYR

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Mol	Chain	Res	Type
46	DQ	29	PHE
46	DQ	34	LEU
46	DQ	58	PHE
46	DQ	63	LYS
46	DQ	75	THR
46	DQ	80	GLU
46	DQ	82	ARG
46	DQ	91	GLU
46	DQ	111	GLU
47	DR	2	ARG
47	DR	5	LYS
47	DR	17	ARG
47	DR	40	LYS
47	DR	49	ASP
47	DR	60	LEU
47	DR	76	VAL
47	DR	79	LEU
47	DR	104	ARG
48	DS	13	ARG
48	DS	16	ASN
48	DS	26	LEU
48	DS	36	TYR
48	DS	54	LEU
48	DS	61	ASN
48	DS	68	GLN
48	DS	80	LEU
48	DS	89	ARG
48	DS	92	TYR
48	DS	93	LYS
48	DS	98	VAL
49	DT	13	ARG
49	DT	24	PRO
49	DT	32	TYR
49	DT	33	LYS
49	DT	41	ARG
49	DT	51	ARG
49	DT	53	ARG
49	DT	58	ASN
49	DT	59	THR
49	DT	65	LYS
49	DT	78	LEU
49	DT	82	LEU

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Mol	Chain	Res	Type
49	DT	87	ASP
49	DT	96	ARG
49	DT	99	LEU
49	DT	100	TYR
49	DT	108	ARG
49	DT	112	ARG
49	DT	115	ARG
49	DT	121	ILE
49	DT	128	GLU
50	DU	64	ARG
50	DU	76	TYR
50	DU	79	PHE
50	DU	88	ILE
50	DU	89	GLU
50	DU	112	ARG
50	DU	114	LYS
51	DV	1	MET
51	DV	2	PHE
51	DV	12	TYR
51	DV	14	VAL
51	DV	18	LEU
51	DV	19	LYS
51	DV	21	ARG
51	DV	39	LEU
51	DV	40	LEU
51	DV	66	ARG
51	DV	70	ILE
51	DV	78	LYS
51	DV	80	GLN
51	DV	82	ARG
51	DV	88	ARG
51	DV	90	PRO
51	DV	92	THR
51	DV	93	GLU
52	DW	11	ARG
52	DW	25	ARG
52	DW	51	LEU
52	DW	70	TYR
52	DW	75	TYR
52	DW	88	ARG
52	DW	107	LEU
53	DX	21	PHE

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Mol	Chain	Res	Type
53	DX	27	THR
53	DX	28	PHE
53	DX	33	LYS
53	DX	36	LYS
53	DX	40	LYS
53	DX	43	VAL
53	DX	49	VAL
53	DX	59	VAL
53	DX	65	ARG
53	DX	68	ARG
53	DX	76	ARG
53	DX	78	LYS
53	DX	81	VAL
54	DY	6	HIS
54	DY	7	VAL
54	DY	9	LYS
54	DY	14	LEU
54	DY	29	GLU
54	DY	31	LEU
54	DY	32	PRO
54	DY	35	TYR
54	DY	38	ILE
54	DY	56	PRO
54	DY	62	GLU
54	DY	66	PRO
54	DY	75	ILE
54	DY	76	CYS
54	DY	77	PRO
54	DY	90	LEU
54	DY	97	ARG
55	DZ	6	LYS
55	DZ	8	TYR
55	DZ	9	TYR
55	DZ	18	LEU
55	DZ	31	ARG
55	DZ	37	VAL
55	DZ	45	ASP
55	DZ	53	ILE
55	DZ	67	LEU
55	DZ	79	ARG
55	DZ	99	TYR
55	DZ	150	LEU

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Mol	Chain	Res	Type
55	DZ	151	HIS
55	DZ	169	GLU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (275) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	37	ASN
2	AB	40	HIS
2	AB	78	GLN
2	AB	146	GLN
2	AB	204	ASN
3	AC	3	ASN
3	AC	28	GLN
3	AC	170	GLN
3	AC	181	ASN
4	AD	62	GLN
4	AD	77	ASN
5	AE	20	GLN
5	AE	56	GLN
5	AE	73	ASN
5	AE	78	HIS
6	AF	7	ASN
6	AF	13	ASN
6	AF	18	GLN
6	AF	27	GLN
6	AF	32	ASN
6	AF	64	GLN
6	AF	100	ASN
7	AG	13	GLN
7	AG	64	GLN
7	AG	68	ASN
7	AG	84	ASN
7	AG	106	GLN
7	AG	148	ASN
8	AH	82	HIS
9	AI	23	ASN
9	AI	124	GLN
10	AJ	13	HIS
10	AJ	56	HIS
10	AJ	78	ASN
11	AK	38	ASN
11	AK	117	ASN

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Mol	Chain	Res	Type
12	AL	8	ASN
12	AL	9	GLN
12	AL	49	ASN
12	AL	75	HIS
13	AM	40	ASN
15	AO	37	ASN
15	AO	53	HIS
16	AP	76	GLN
16	AP	82	GLN
17	AQ	16	GLN
17	AQ	94	ASN
18	AR	63	GLN
19	AS	57	HIS
20	AT	16	HIS
20	AT	26	ASN
25	B0	29	GLN
25	B0	35	ASN
26	B1	19	GLN
26	B1	66	HIS
27	B2	46	GLN
27	B2	47	ASN
27	B2	56	GLN
28	B3	19	GLN
28	B3	46	ASN
30	B5	4	HIS
30	B5	23	HIS
30	B5	43	HIS
31	B6	20	ASN
31	B6	26	ASN
32	B7	8	ASN
33	B8	35	GLN
37	BD	58	HIS
37	BD	126	GLN
37	BD	164	GLN
37	BD	166	GLN
37	BD	186	HIS
37	BD	198	ASN
38	BE	48	GLN
38	BE	54	GLN
38	BE	66	HIS
38	BE	132	HIS
38	BE	143	ASN

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Mol	Chain	Res	Type
38	BE	169	ASN
38	BE	192	ASN
39	BF	69	HIS
39	BF	75	HIS
39	BF	160	ASN
39	BF	169	ASN
40	BG	27	ASN
40	BG	40	ASN
40	BG	79	ASN
41	BH	74	ASN
41	BH	147	ASN
42	BI	43	ASN
42	BI	105	HIS
42	BI	133	HIS
43	BN	56	ASN
43	BN	94	HIS
43	BN	128	HIS
44	BO	3	GLN
44	BO	13	ASN
45	BP	9	ASN
45	BP	13	ASN
45	BP	38	GLN
45	BP	81	GLN
45	BP	128	HIS
46	BQ	12	GLN
46	BQ	13	GLN
46	BQ	89	ASN
46	BQ	141	GLN
47	BR	13	HIS
47	BR	16	HIS
47	BR	23	ASN
47	BR	61	HIS
47	BR	91	GLN
48	BS	16	ASN
48	BS	34	HIS
48	BS	61	ASN
48	BS	84	GLN
49	BT	58	ASN
49	BT	84	GLN
49	BT	90	GLN
49	BT	123	GLN
50	BU	14	HIS

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Mol	Chain	Res	Type
50	BU	49	HIS
50	BU	75	ASN
50	BU	81	HIS
51	BV	11	GLN
51	BV	89	GLN
52	BW	57	ASN
52	BW	60	ASN
52	BW	61	ASN
52	BW	62	HIS
53	BX	41	ASN
53	BX	55	ASN
53	BX	87	GLN
54	BY	6	HIS
55	BZ	73	GLN
55	BZ	75	ASN
55	BZ	118	GLN
55	BZ	151	HIS
2	CB	37	ASN
2	CB	40	HIS
2	CB	78	GLN
2	CB	146	GLN
2	CB	204	ASN
3	CC	3	ASN
3	CC	28	GLN
3	CC	170	GLN
3	CC	181	ASN
4	CD	62	GLN
4	CD	77	ASN
5	CE	20	GLN
5	CE	56	GLN
5	CE	73	ASN
5	CE	78	HIS
6	CF	7	ASN
6	CF	13	ASN
6	CF	18	GLN
6	CF	27	GLN
6	CF	32	ASN
6	CF	64	GLN
6	CF	100	ASN
7	CG	13	GLN
7	CG	64	GLN
7	CG	68	ASN

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Mol	Chain	Res	Type
7	CG	84	ASN
7	CG	106	GLN
7	CG	148	ASN
8	CH	82	HIS
9	CI	23	ASN
9	CI	124	GLN
10	CJ	13	HIS
10	CJ	56	HIS
10	CJ	78	ASN
11	CK	38	ASN
11	CK	117	ASN
12	CL	8	ASN
12	CL	9	GLN
12	CL	49	ASN
12	CL	75	HIS
13	CM	40	ASN
15	CO	37	ASN
16	CP	76	GLN
16	CP	82	GLN
17	CQ	16	GLN
17	CQ	94	ASN
18	CR	63	GLN
19	CS	57	HIS
20	CT	16	HIS
20	CT	26	ASN
25	D0	29	GLN
25	D0	35	ASN
26	D1	16	ASN
26	D1	19	GLN
26	D1	66	HIS
27	D2	46	GLN
27	D2	47	ASN
27	D2	56	GLN
28	D3	19	GLN
28	D3	46	ASN
30	D5	4	HIS
30	D5	23	HIS
30	D5	43	HIS
31	D6	20	ASN
31	D6	26	ASN
32	D7	8	ASN
33	D8	35	GLN

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Mol	Chain	Res	Type
37	DD	58	HIS
37	DD	126	GLN
37	DD	164	GLN
37	DD	166	GLN
37	DD	186	HIS
37	DD	198	ASN
38	DE	48	GLN
38	DE	54	GLN
38	DE	66	HIS
38	DE	132	HIS
38	DE	143	ASN
38	DE	169	ASN
38	DE	192	ASN
39	DF	69	HIS
39	DF	75	HIS
39	DF	160	ASN
39	DF	169	ASN
40	DG	40	ASN
40	DG	58	GLN
40	DG	79	ASN
40	DG	108	ASN
40	DG	123	ASN
40	DG	132	ASN
41	DH	74	ASN
41	DH	147	ASN
42	DI	43	ASN
42	DI	105	HIS
42	DI	133	HIS
43	DN	56	ASN
43	DN	94	HIS
43	DN	128	HIS
44	DO	3	GLN
44	DO	13	ASN
45	DP	9	ASN
45	DP	13	ASN
45	DP	38	GLN
45	DP	81	GLN
45	DP	128	HIS
46	DQ	12	GLN
46	DQ	13	GLN
46	DQ	89	ASN
46	DQ	141	GLN

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Mol	Chain	Res	Type
47	DR	13	HIS
47	DR	16	HIS
47	DR	23	ASN
47	DR	61	HIS
47	DR	91	GLN
48	DS	16	ASN
48	DS	34	HIS
48	DS	61	ASN
48	DS	84	GLN
49	DT	58	ASN
49	DT	84	GLN
49	DT	90	GLN
49	DT	123	GLN
50	DU	49	HIS
50	DU	75	ASN
50	DU	81	HIS
51	DV	11	GLN
51	DV	89	GLN
52	DW	57	ASN
52	DW	60	ASN
52	DW	61	ASN
52	DW	62	HIS
53	DX	41	ASN
53	DX	55	ASN
53	DX	87	GLN
54	DY	6	HIS
55	DZ	34	ASN
55	DZ	55	HIS
55	DZ	118	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1522 (98%)	200 (13%)	36 (2%)
1	CA	1503/1522 (98%)	204 (13%)	36 (2%)
22	AV	76/77 (98%)	18 (23%)	0
22	CV	76/77 (98%)	20 (26%)	0
23	AW	75/76 (98%)	15 (20%)	3 (4%)
23	AY	18/76 (23%)	2 (11%)	0
23	CW	75/76 (98%)	16 (21%)	3 (4%)
23	CY	18/76 (23%)	3 (16%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
24	AX	10/24 (41%)	2 (20%)	0
24	CX	10/24 (41%)	2 (20%)	0
34	BA	2771/2787 (99%)	563 (20%)	76 (2%)
34	DA	2771/2787 (99%)	560 (20%)	76 (2%)
35	BB	118/122 (96%)	14 (11%)	1 (0%)
35	DB	118/122 (96%)	14 (11%)	1 (0%)
All	All	9142/9368 (97%)	1633 (17%)	232 (2%)

All (1633) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	51	A
1	AA	60	A
1	AA	61	G
1	AA	80	G
1	AA	81	U
1	AA	90	U
1	AA	97	G
1	AA	98	G
1	AA	101	A
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	144	G
1	AA	150	C
1	AA	172	A
1	AA	189(H)	G
1	AA	195	A
1	AA	197	A
1	AA	220	G
1	AA	244	U
1	AA	247	G
1	AA	251	G
1	AA	266	G
1	AA	267	C

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Mol	Chain	Res	Type
1	AA	289	G
1	AA	301	G
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	345	C
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	397	A
1	AA	406	G
1	AA	410	G
1	AA	411	A
1	AA	412	A
1	AA	414	A
1	AA	422	C
1	AA	423	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	437	U
1	AA	439	A
1	AA	442	C
1	AA	452	A
1	AA	470	C
1	AA	484	G
1	AA	485	G
1	AA	496	A
1	AA	498	U
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	532	A
1	AA	533	A
1	AA	534	U

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Mol	Chain	Res	Type
1	AA	547	A
1	AA	561	U
1	AA	562	C
1	AA	566	G
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	588	G
1	AA	616	G
1	AA	631	G
1	AA	632	A
1	AA	653	A
1	AA	665	A
1	AA	687	A
1	AA	688	G
1	AA	723	U
1	AA	731	G
1	AA	749	C
1	AA	755	G
1	AA	794	A
1	AA	816	A
1	AA	817	C
1	AA	819	A
1	AA	821	G
1	AA	828	A
1	AA	833	U
1	AA	839	U
1	AA	840	C
1	AA	841	U
1	AA	848	C
1	AA	859	A
1	AA	885	G
1	AA	902	G
1	AA	913	A
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	960	U

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Mol	Chain	Res	Type
1	AA	961	U
1	AA	966	G
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	980	C
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	1026	G
1	AA	1050	G
1	AA	1054	C
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1117	G
1	AA	1118	C
1	AA	1124	G
1	AA	1126	U
1	AA	1129	C
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1146	A
1	AA	1152	A
1	AA	1159	U
1	AA	1196	U
1	AA	1197	G
1	AA	1201	A
1	AA	1202	G
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C

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Mol	Chain	Res	Type
1	AA	1225	A
1	AA	1238	A
1	AA	1249	C
1	AA	1255	G
1	AA	1256	A
1	AA	1257	U
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1286	A
1	AA	1287	A
1	AA	1294	G
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1317	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1335	C
1	AA	1338	G
1	AA	1347	G
1	AA	1364	U
1	AA	1365	G
1	AA	1419	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1442(B)	A
1	AA	1443	G
1	AA	1447	A
1	AA	1452	C
1	AA	1487	G
1	AA	1492	A
1	AA	1498	U
1	AA	1499	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1520	G
1	AA	1529	G

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Mol	Chain	Res	Type
1	AA	1530	G
22	AV	4	G
22	AV	5	G
22	AV	8	U
22	AV	17	C
22	AV	17(A)	U
22	AV	18	G
22	AV	19	G
22	AV	20	U
22	AV	21	A
22	AV	47	U
22	AV	48	C
22	AV	49	G
22	AV	53	G
22	AV	67	C
22	AV	71	C
22	AV	73	A
22	AV	75	C
22	AV	76	A
23	AW	15	G
23	AW	16	U
23	AW	17	C
23	AW	18	G
23	AW	19	G
23	AW	21	A
23	AW	39	U
23	AW	40	C
23	AW	43	C
23	AW	48	C
23	AW	52	G
23	AW	59	U
23	AW	61	C
23	AW	70	G
23	AW	71	G
24	AX	13	A
24	AX	14	A
23	AY	34	G
23	AY	36	A
34	BA	10	G
34	BA	28	A
34	BA	35	G
34	BA	45	C

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Mol	Chain	Res	Type
34	BA	49	A
34	BA	50	U
34	BA	51	G
34	BA	64	A
34	BA	69	C
34	BA	71	A
34	BA	72	U
34	BA	73	A
34	BA	75	G
34	BA	84	A
34	BA	88	G
34	BA	90	U
34	BA	92	A
34	BA	94	C
34	BA	95	G
34	BA	99	U
34	BA	100	G
34	BA	102	G
34	BA	118	A
34	BA	119	A
34	BA	120	U
34	BA	129	C
34	BA	132	G
34	BA	139	G
34	BA	139(A)	G
34	BA	141	A
34	BA	142(A)	C
34	BA	143(A)	C
34	BA	146	G
34	BA	149	A
34	BA	154	G
34	BA	154(A)	C
34	BA	157	U
34	BA	158	U
34	BA	171	G
34	BA	196	A
34	BA	197	A
34	BA	199	A
34	BA	204	A
34	BA	205	G
34	BA	216	A
34	BA	221	A

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Mol	Chain	Res	Type
34	BA	222	A
34	BA	228	A
34	BA	229	A
34	BA	230	U
34	BA	248	G
34	BA	261	G
34	BA	267	C
34	BA	271(I)	G
34	BA	271(K)	U
34	BA	271(L)	U
34	BA	271(M)	G
34	BA	271(N)	U
34	BA	271(O)	C
34	BA	271(P)	C
34	BA	271(R)	G
34	BA	271(Y)	U
34	BA	272	G
34	BA	272(B)	G
34	BA	272(H)	C
34	BA	274	G
34	BA	275	G
34	BA	279	C
34	BA	283	A
34	BA	284	U
34	BA	286	C
34	BA	287	C
34	BA	329	G
34	BA	330	A
34	BA	332	A
34	BA	333	G
34	BA	344	G
34	BA	352	G
34	BA	362	U
34	BA	363(F)	A
34	BA	364	C
34	BA	365	C
34	BA	372	G
34	BA	386	G
34	BA	388	G
34	BA	396	G
34	BA	405	U
34	BA	411	G

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Mol	Chain	Res	Type
34	BA	412	A
34	BA	428	A
34	BA	444	C
34	BA	448	U
34	BA	456	C
34	BA	457	A
34	BA	470	A
34	BA	472	A
34	BA	473	G
34	BA	475	U
34	BA	481	G
34	BA	505	A
34	BA	508	G
34	BA	509	C
34	BA	513	A
34	BA	531	C
34	BA	532	A
34	BA	533	G
34	BA	537	C
34	BA	542	C
34	BA	543	C
34	BA	547	A
34	BA	548	A
34	BA	549	G
34	BA	551	G
34	BA	563	G
34	BA	572	A
34	BA	573	G
34	BA	575	A
34	BA	586	A
34	BA	588	U
34	BA	604	G
34	BA	607	U
34	BA	613	G
34	BA	614(A)	U
34	BA	614(B)	G
34	BA	614(C)	A
34	BA	615	G
34	BA	621	A
34	BA	622	G
34	BA	627	A
34	BA	637	A

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Mol	Chain	Res	Type
34	BA	645	C
34	BA	646	A
34	BA	652	C
34	BA	656	G
34	BA	659	C
34	BA	669	G
34	BA	670	A
34	BA	671	C
34	BA	686	G
34	BA	687	C
34	BA	708	C
34	BA	722	A
34	BA	730	C
34	BA	753	C
34	BA	775	G
34	BA	776	G
34	BA	782	A
34	BA	784	A
34	BA	790	C
34	BA	791	C
34	BA	792	G
34	BA	805	G
34	BA	812	C
34	BA	819	A
34	BA	827	U
34	BA	828	U
34	BA	830	G
34	BA	848	G
34	BA	856	C
34	BA	857	C
34	BA	859	G
34	BA	866	A
34	BA	878	A
34	BA	883	G
34	BA	892	G
34	BA	894	C
34	BA	897	C
34	BA	898	C
34	BA	901	A
34	BA	910	A
34	BA	914	C
34	BA	917	A

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Mol	Chain	Res	Type
34	BA	926	A
34	BA	932	G
34	BA	941	A
34	BA	946	G
34	BA	955	C
34	BA	956	G
34	BA	957	A
34	BA	958	U
34	BA	959	A
34	BA	961	C
34	BA	965	C
34	BA	974	G
34	BA	975	C
34	BA	983	A
34	BA	991	C
34	BA	996	A
34	BA	1005	C
34	BA	1011	G
34	BA	1012	U
34	BA	1013	C
34	BA	1022	G
34	BA	1023	U
34	BA	1025	G
34	BA	1026	U
34	BA	1034	G
34	BA	1041	C
34	BA	1044	G
34	BA	1045	A
34	BA	1047	G
34	BA	1049	C
34	BA	1052	C
34	BA	1106	A
34	BA	1107	G
34	BA	1110	G
34	BA	1112	G
34	BA	1113	U
34	BA	1115	G
34	BA	1129	A
34	BA	1130	U
34	BA	1135	C
34	BA	1136	G
34	BA	1142	U

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Mol	Chain	Res	Type
34	BA	1143	A
34	BA	1155	A
34	BA	1156	A
34	BA	1159	U
34	BA	1175	U
34	BA	1176	G
34	BA	1177	A
34	BA	1178	C
34	BA	1195	G
34	BA	1205	U
34	BA	1206	G
34	BA	1210	A
34	BA	1211	U
34	BA	1220	A
34	BA	1221	C
34	BA	1241	A
34	BA	1247	A
34	BA	1248	G
34	BA	1251	C
34	BA	1253	A
34	BA	1254	A
34	BA	1255	U
34	BA	1256	G
34	BA	1265	A
34	BA	1271	G
34	BA	1272	A
34	BA	1276	A
34	BA	1281	G
34	BA	1300	U
34	BA	1301	A
34	BA	1302	A
34	BA	1314	C
34	BA	1319	G
34	BA	1329	U
34	BA	1332	G
34	BA	1345	C
34	BA	1349	A
34	BA	1352	U
34	BA	1359	A
34	BA	1368	G
34	BA	1379	A
34	BA	1380	G

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Mol	Chain	Res	Type
34	BA	1384	A
34	BA	1385	G
34	BA	1398	C
34	BA	1407	C
34	BA	1416	G
34	BA	1417	C
34	BA	1419	A
34	BA	1420	U
34	BA	1421	G
34	BA	1427	A
34	BA	1428	C
34	BA	1437	C
34	BA	1445	A
34	BA	1449	A
34	BA	1450	G
34	BA	1455	G
34	BA	1458	C
34	BA	1459	G
34	BA	1461	G
34	BA	1467	C
34	BA	1471	A
34	BA	1475	G
34	BA	1478	G
34	BA	1481	U
34	BA	1482	G
34	BA	1484	G
34	BA	1485	G
34	BA	1490	A
34	BA	1493	C
34	BA	1494	A
34	BA	1495	A
34	BA	1497	U
34	BA	1498	C
34	BA	1501	C
34	BA	1502	C
34	BA	1505	C
34	BA	1509	C
34	BA	1509(A)	A
34	BA	1520	G
34	BA	1528(A)	A
34	BA	1529	G
34	BA	1530	C

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Mol	Chain	Res	Type
34	BA	1531	C
34	BA	1532	C
34	BA	1533	G
34	BA	1543	C
34	BA	1545	A
34	BA	1554	A
34	BA	1558	A
34	BA	1559	G
34	BA	1569	A
34	BA	1578	U
34	BA	1579	A
34	BA	1584	C
34	BA	1586	A
34	BA	1588	C
34	BA	1591	G
34	BA	1594	G
34	BA	1603	A
34	BA	1608	A
34	BA	1610	A
34	BA	1616	A
34	BA	1617	C
34	BA	1618	A
34	BA	1635	G
34	BA	1636	C
34	BA	1640	C
34	BA	1648	C
34	BA	1652	A
34	BA	1653	G
34	BA	1654	A
34	BA	1674	G
34	BA	1694	C
34	BA	1695	G
34	BA	1697	G
34	BA	1698	A
34	BA	1699	G
34	BA	1718	G
34	BA	1722	A
34	BA	1739	U
34	BA	1742	G
34	BA	1744	C
34	BA	1746	G
34	BA	1748	G

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Mol	Chain	Res	Type
34	BA	1763	G
34	BA	1764	G
34	BA	1773	A
34	BA	1780	A
34	BA	1791	A
34	BA	1799	G
34	BA	1800	C
34	BA	1816	G
34	BA	1820	U
34	BA	1821	A
34	BA	1822	G
34	BA	1829	A
34	BA	1835	G
34	BA	1847	A
34	BA	1858	G
34	BA	1865	G
34	BA	1866	C
34	BA	1877	A
34	BA	1878	G
34	BA	1880	C
34	BA	1882	C
34	BA	1885	A
34	BA	1886	C
34	BA	1888	G
34	BA	1889	A
34	BA	1900	A
34	BA	1903	G
34	BA	1906	G
34	BA	1929	G
34	BA	1934	C
34	BA	1935	G
34	BA	1936	A
34	BA	1938	A
34	BA	1948	G
34	BA	1955	U
34	BA	1962	C
34	BA	1963	U
34	BA	1967	C
34	BA	1969	A
34	BA	1970	A
34	BA	1971	A
34	BA	1972	A

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Mol	Chain	Res	Type
34	BA	1987	G
34	BA	1991	U
34	BA	1993	U
34	BA	2020	A
34	BA	2023	G
34	BA	2027	G
34	BA	2031	A
34	BA	2033	A
34	BA	2034	U
34	BA	2036	C
34	BA	2043	C
34	BA	2051	A
34	BA	2055	C
34	BA	2056	G
34	BA	2060	A
34	BA	2061	G
34	BA	2062	A
34	BA	2069	G
34	BA	2093	G
34	BA	2099	U
34	BA	2103	C
34	BA	2104	G
34	BA	2110	G
34	BA	2111	C
34	BA	2112	G
34	BA	2116	G
34	BA	2118	U
34	BA	2119	A
34	BA	2120	G
34	BA	2122	U
34	BA	2127	G
34	BA	2128	C
34	BA	2129	C
34	BA	2130	U
34	BA	2159	G
34	BA	2161	C
34	BA	2162	G
34	BA	2164	C
34	BA	2165	G
34	BA	2170	A
34	BA	2171	A
34	BA	2172	U

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Mol	Chain	Res	Type
34	BA	2176	A
34	BA	2187	G
34	BA	2190	G
34	BA	2191	G
34	BA	2192	G
34	BA	2193	G
34	BA	2198	A
34	BA	2199	A
34	BA	2200	C
34	BA	2207	G
34	BA	2208	A
34	BA	2218	U
34	BA	2219	G
34	BA	2225	A
34	BA	2226	C
34	BA	2238	G
34	BA	2239	G
34	BA	2263	C
34	BA	2275	C
34	BA	2276	G
34	BA	2283	C
34	BA	2286	A
34	BA	2287	A
34	BA	2288	A
34	BA	2290	G
34	BA	2305	A
34	BA	2307	G
34	BA	2308	G
34	BA	2309	A
34	BA	2311	A
34	BA	2313	C
34	BA	2319	G
34	BA	2320	A
34	BA	2325	G
34	BA	2334	G
34	BA	2336	A
34	BA	2345	G
34	BA	2347	C
34	BA	2349	G
34	BA	2360	A
34	BA	2361	A
34	BA	2383	G

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Mol	Chain	Res	Type
34	BA	2385	C
34	BA	2388	A
34	BA	2399	G
34	BA	2402	C
34	BA	2422	A
34	BA	2423	U
34	BA	2425	A
34	BA	2427	C
34	BA	2429	G
34	BA	2430	A
34	BA	2435	A
34	BA	2439	A
34	BA	2441	C
34	BA	2448	A
34	BA	2465	C
34	BA	2469	A
34	BA	2470	G
34	BA	2476	A
34	BA	2477	C
34	BA	2478	A
34	BA	2482	G
34	BA	2484	G
34	BA	2502	G
34	BA	2505	G
34	BA	2518	A
34	BA	2520	C
34	BA	2523	G
34	BA	2529	G
34	BA	2531	A
34	BA	2534	A
34	BA	2543	G
34	BA	2554	U
34	BA	2566	A
34	BA	2567	G
34	BA	2573	C
34	BA	2582	G
34	BA	2585	U
34	BA	2586	C
34	BA	2602	A
34	BA	2611	U
34	BA	2612	C
34	BA	2615	U

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Mol	Chain	Res	Type
34	BA	2630	G
34	BA	2637	U
34	BA	2640	G
34	BA	2646	C
34	BA	2654	A
34	BA	2655	G
34	BA	2660	A
34	BA	2661	G
34	BA	2662	A
34	BA	2663	G
34	BA	2673	G
34	BA	2682	U
34	BA	2690	C
34	BA	2691	C
34	BA	2702	U
34	BA	2703	C
34	BA	2712	U
34	BA	2712(A)	A
34	BA	2713	A
34	BA	2720	U
34	BA	2733	A
34	BA	2736	G
34	BA	2751	G
34	BA	2752	C
34	BA	2754	U
34	BA	2755	C
34	BA	2757	A
34	BA	2759	G
34	BA	2762	G
34	BA	2763	G
34	BA	2765	A
34	BA	2778	A
34	BA	2779	U
34	BA	2780	G
34	BA	2781	A
34	BA	2789	C
34	BA	2790	A
34	BA	2791	C
34	BA	2794	C
34	BA	2795	G
34	BA	2801(A)	A
34	BA	2802	G

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Mol	Chain	Res	Type
34	BA	2803	C
34	BA	2808	U
34	BA	2820	A
34	BA	2821	A
34	BA	2827	C
34	BA	2833	G
34	BA	2834	G
34	BA	2835	A
34	BA	2849	U
34	BA	2860	A
34	BA	2864	G
34	BA	2872	G
34	BA	2880	C
35	BB	8	U
35	BB	15	A
35	BB	16	G
35	BB	22	U
35	BB	27	C
35	BB	40	U
35	BB	42	C
35	BB	45	A
35	BB	53	A
35	BB	67	G
35	BB	73	A
35	BB	75	G
35	BB	88	C
35	BB	110	G
1	CA	9	G
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	60	A
1	CA	61	G
1	CA	80	G
1	CA	81	U
1	CA	90	U
1	CA	97	G
1	CA	98	G
1	CA	101	A

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Mol	Chain	Res	Type
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	131	C
1	CA	144	G
1	CA	150	C
1	CA	172	A
1	CA	189(H)	G
1	CA	195	A
1	CA	197	A
1	CA	220	G
1	CA	244	U
1	CA	247	G
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	289	G
1	CA	301	G
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	332	G
1	CA	345	C
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	367	U
1	CA	372	C
1	CA	397	A
1	CA	406	G
1	CA	410	G
1	CA	411	A
1	CA	412	A
1	CA	414	A
1	CA	422	C
1	CA	423	G
1	CA	428	G
1	CA	429	U
1	CA	430	A
1	CA	437	U
1	CA	439	A
1	CA	442	C

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Mol	Chain	Res	Type
1	CA	452	A
1	CA	470	C
1	CA	484	G
1	CA	485	G
1	CA	496	A
1	CA	498	U
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	518	C
1	CA	524	G
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	534	U
1	CA	547	A
1	CA	559	A
1	CA	561	U
1	CA	562	C
1	CA	566	G
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	588	G
1	CA	616	G
1	CA	631	G
1	CA	632	A
1	CA	653	A
1	CA	665	A
1	CA	687	A
1	CA	688	G
1	CA	723	U
1	CA	731	G
1	CA	749	C
1	CA	755	G
1	CA	794	A
1	CA	816	A
1	CA	817	C
1	CA	819	A

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Mol	Chain	Res	Type
1	CA	821	G
1	CA	828	A
1	CA	833	U
1	CA	839	U
1	CA	840	C
1	CA	841	U
1	CA	848	C
1	CA	859	A
1	CA	874	G
1	CA	885	G
1	CA	902	G
1	CA	913	A
1	CA	914	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	960	U
1	CA	961	U
1	CA	966	G
1	CA	968	A
1	CA	969	A
1	CA	971	G
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	1026	G
1	CA	1050	G
1	CA	1054	C
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1117	G

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Mol	Chain	Res	Type
1	CA	1118	C
1	CA	1124	G
1	CA	1126	U
1	CA	1129	C
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1146	A
1	CA	1152	A
1	CA	1159	U
1	CA	1196	U
1	CA	1197	G
1	CA	1201	A
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1214	C
1	CA	1225	A
1	CA	1238	A
1	CA	1249	C
1	CA	1255	G
1	CA	1256	A
1	CA	1257	U
1	CA	1280	A
1	CA	1281	U
1	CA	1282	C
1	CA	1286	A
1	CA	1287	A
1	CA	1294	G
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1317	C
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1335	C
1	CA	1338	G
1	CA	1347	G
1	CA	1364	U
1	CA	1365	G

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Mol	Chain	Res	Type
1	CA	1419	G
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1442(B)	A
1	CA	1443	G
1	CA	1452	C
1	CA	1487	G
1	CA	1492	A
1	CA	1497	G
1	CA	1498	U
1	CA	1499	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
22	CV	3	C
22	CV	4	G
22	CV	5	G
22	CV	8	U
22	CV	17	C
22	CV	17(A)	U
22	CV	18	G
22	CV	19	G
22	CV	20	U
22	CV	21	A
22	CV	47	U
22	CV	48	C
22	CV	49	G
22	CV	53	G
22	CV	63	G
22	CV	71	C
22	CV	72	A
22	CV	73	A
22	CV	75	C
22	CV	76	A
23	CW	8	U

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Mol	Chain	Res	Type
23	CW	16	U
23	CW	17	C
23	CW	18	G
23	CW	19	G
23	CW	20	U
23	CW	21	A
23	CW	39	U
23	CW	40	C
23	CW	44	G
23	CW	46	G
23	CW	47	U
23	CW	48	C
23	CW	61	C
23	CW	70	G
23	CW	71	G
24	CX	13	A
24	CX	14	A
23	CY	27	G
23	CY	34	G
23	CY	36	A
34	DA	10	G
34	DA	28	A
34	DA	35	G
34	DA	45	C
34	DA	49	A
34	DA	50	U
34	DA	51	G
34	DA	64	A
34	DA	69	C
34	DA	71	A
34	DA	72	U
34	DA	73	A
34	DA	75	G
34	DA	84	A
34	DA	88	G
34	DA	90	U
34	DA	92	A
34	DA	94	C
34	DA	95	G
34	DA	99	U
34	DA	100	G
34	DA	102	G

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Mol	Chain	Res	Type
34	DA	118	A
34	DA	119	A
34	DA	120	U
34	DA	129	C
34	DA	132	G
34	DA	139	G
34	DA	139(A)	G
34	DA	141	A
34	DA	142(A)	C
34	DA	143(A)	C
34	DA	146	G
34	DA	149	A
34	DA	154	G
34	DA	154(A)	C
34	DA	157	U
34	DA	158	U
34	DA	171	G
34	DA	196	A
34	DA	197	A
34	DA	204	A
34	DA	205	G
34	DA	216	A
34	DA	221	A
34	DA	222	A
34	DA	228	A
34	DA	229	A
34	DA	230	U
34	DA	248	G
34	DA	261	G
34	DA	267	C
34	DA	271(I)	G
34	DA	271(K)	U
34	DA	271(L)	U
34	DA	271(M)	G
34	DA	271(N)	U
34	DA	271(O)	C
34	DA	271(P)	C
34	DA	271(R)	G
34	DA	271(Y)	U
34	DA	272	G
34	DA	272(B)	G
34	DA	272(H)	C

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Mol	Chain	Res	Type
34	DA	274	G
34	DA	275	G
34	DA	279	C
34	DA	283	A
34	DA	284	U
34	DA	286	C
34	DA	287	C
34	DA	329	G
34	DA	330	A
34	DA	332	A
34	DA	333	G
34	DA	344	G
34	DA	352	G
34	DA	362	U
34	DA	363(F)	A
34	DA	364	C
34	DA	365	C
34	DA	372	G
34	DA	386	G
34	DA	388	G
34	DA	396	G
34	DA	405	U
34	DA	411	G
34	DA	412	A
34	DA	428	A
34	DA	444	C
34	DA	448	U
34	DA	456	C
34	DA	457	A
34	DA	470	A
34	DA	472	A
34	DA	473	G
34	DA	475	U
34	DA	481	G
34	DA	505	A
34	DA	508	G
34	DA	509	C
34	DA	513	A
34	DA	531	C
34	DA	532	A
34	DA	533	G
34	DA	537	C

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Mol	Chain	Res	Type
34	DA	542	C
34	DA	543	C
34	DA	547	A
34	DA	548	A
34	DA	549	G
34	DA	551	G
34	DA	563	G
34	DA	572	A
34	DA	573	G
34	DA	575	A
34	DA	586	A
34	DA	588	U
34	DA	604	G
34	DA	607	U
34	DA	613	G
34	DA	614(A)	U
34	DA	614(B)	G
34	DA	614(C)	A
34	DA	615	G
34	DA	622	G
34	DA	627	A
34	DA	637	A
34	DA	645	C
34	DA	646	A
34	DA	652	C
34	DA	656	G
34	DA	659	C
34	DA	669	G
34	DA	670	A
34	DA	671	C
34	DA	686	G
34	DA	687	C
34	DA	708	C
34	DA	722	A
34	DA	730	C
34	DA	753	C
34	DA	775	G
34	DA	776	G
34	DA	782	A
34	DA	784	A
34	DA	790	C
34	DA	791	C

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Mol	Chain	Res	Type
34	DA	792	G
34	DA	805	G
34	DA	812	C
34	DA	819	A
34	DA	827	U
34	DA	828	U
34	DA	830	G
34	DA	848	G
34	DA	856	C
34	DA	857	C
34	DA	859	G
34	DA	866	A
34	DA	878	A
34	DA	883	G
34	DA	892	G
34	DA	894	C
34	DA	897	C
34	DA	898	C
34	DA	901	A
34	DA	910	A
34	DA	914	C
34	DA	917	A
34	DA	926	A
34	DA	932	G
34	DA	933	A
34	DA	941	A
34	DA	946	G
34	DA	955	C
34	DA	956	G
34	DA	957	A
34	DA	958	U
34	DA	959	A
34	DA	961	C
34	DA	965	C
34	DA	974	G
34	DA	975	C
34	DA	983	A
34	DA	991	C
34	DA	996	A
34	DA	1005	C
34	DA	1011	G
34	DA	1012	U

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Mol	Chain	Res	Type
34	DA	1013	C
34	DA	1022	G
34	DA	1023	U
34	DA	1025	G
34	DA	1026	U
34	DA	1034	G
34	DA	1041	C
34	DA	1044	G
34	DA	1045	A
34	DA	1047	G
34	DA	1049	C
34	DA	1052	C
34	DA	1054	A
34	DA	1107	G
34	DA	1110	G
34	DA	1112	G
34	DA	1113	U
34	DA	1115	G
34	DA	1129	A
34	DA	1130	U
34	DA	1135	C
34	DA	1136	G
34	DA	1142	U
34	DA	1143	A
34	DA	1155	A
34	DA	1156	A
34	DA	1159	U
34	DA	1175	U
34	DA	1176	G
34	DA	1177	A
34	DA	1178	C
34	DA	1195	G
34	DA	1205	U
34	DA	1206	G
34	DA	1210	A
34	DA	1211	U
34	DA	1220	A
34	DA	1221	C
34	DA	1241	A
34	DA	1247	A
34	DA	1248	G
34	DA	1251	C

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Mol	Chain	Res	Type
34	DA	1253	A
34	DA	1254	A
34	DA	1255	U
34	DA	1256	G
34	DA	1265	A
34	DA	1271	G
34	DA	1272	A
34	DA	1276	A
34	DA	1281	G
34	DA	1300	U
34	DA	1301	A
34	DA	1302	A
34	DA	1314	C
34	DA	1319	G
34	DA	1329	U
34	DA	1332	G
34	DA	1345	C
34	DA	1349	A
34	DA	1352	U
34	DA	1359	A
34	DA	1368	G
34	DA	1379	A
34	DA	1380	G
34	DA	1384	A
34	DA	1385	G
34	DA	1398	C
34	DA	1407	C
34	DA	1416	G
34	DA	1417	C
34	DA	1419	A
34	DA	1420	U
34	DA	1421	G
34	DA	1427	A
34	DA	1428	C
34	DA	1437	C
34	DA	1445	A
34	DA	1449	A
34	DA	1450	G
34	DA	1455	G
34	DA	1458	C
34	DA	1459	G
34	DA	1461	G

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Mol	Chain	Res	Type
34	DA	1467	C
34	DA	1471	A
34	DA	1475	G
34	DA	1478	G
34	DA	1481	U
34	DA	1482	G
34	DA	1484	G
34	DA	1485	G
34	DA	1490	A
34	DA	1493	C
34	DA	1494	A
34	DA	1495	A
34	DA	1497	U
34	DA	1498	C
34	DA	1501	C
34	DA	1502	C
34	DA	1505	C
34	DA	1509	C
34	DA	1509(A)	A
34	DA	1520	G
34	DA	1528(A)	A
34	DA	1529	G
34	DA	1530	C
34	DA	1531	C
34	DA	1532	C
34	DA	1533	G
34	DA	1543	C
34	DA	1545	A
34	DA	1554	A
34	DA	1558	A
34	DA	1559	G
34	DA	1569	A
34	DA	1578	U
34	DA	1579	A
34	DA	1584	C
34	DA	1586	A
34	DA	1588	C
34	DA	1591	G
34	DA	1594	G
34	DA	1603	A
34	DA	1608	A
34	DA	1610	A

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Mol	Chain	Res	Type
34	DA	1616	A
34	DA	1617	C
34	DA	1618	A
34	DA	1635	G
34	DA	1636	C
34	DA	1640	C
34	DA	1648	C
34	DA	1652	A
34	DA	1653	G
34	DA	1654	A
34	DA	1674	G
34	DA	1694	C
34	DA	1695	G
34	DA	1697	G
34	DA	1698	A
34	DA	1699	G
34	DA	1718	G
34	DA	1722	A
34	DA	1739	U
34	DA	1742	G
34	DA	1744	C
34	DA	1746	G
34	DA	1748	G
34	DA	1763	G
34	DA	1764	G
34	DA	1773	A
34	DA	1780	A
34	DA	1791	A
34	DA	1799	G
34	DA	1800	C
34	DA	1816	G
34	DA	1820	U
34	DA	1821	A
34	DA	1822	G
34	DA	1835	G
34	DA	1847	A
34	DA	1858	G
34	DA	1865	G
34	DA	1866	C
34	DA	1877	A
34	DA	1878	G
34	DA	1880	C

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Mol	Chain	Res	Type
34	DA	1882	C
34	DA	1885	A
34	DA	1886	C
34	DA	1888	G
34	DA	1889	A
34	DA	1900	A
34	DA	1903	G
34	DA	1906	G
34	DA	1929	G
34	DA	1934	C
34	DA	1935	G
34	DA	1936	A
34	DA	1938	A
34	DA	1948	G
34	DA	1955	U
34	DA	1962	C
34	DA	1963	U
34	DA	1967	C
34	DA	1969	A
34	DA	1970	A
34	DA	1971	A
34	DA	1972	A
34	DA	1987	G
34	DA	1991	U
34	DA	1993	U
34	DA	2020	A
34	DA	2023	G
34	DA	2027	G
34	DA	2031	A
34	DA	2033	A
34	DA	2034	U
34	DA	2036	C
34	DA	2043	C
34	DA	2051	A
34	DA	2055	C
34	DA	2056	G
34	DA	2060	A
34	DA	2061	G
34	DA	2062	A
34	DA	2069	G
34	DA	2093	G
34	DA	2099	U

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Mol	Chain	Res	Type
34	DA	2103	C
34	DA	2104	G
34	DA	2110	G
34	DA	2111	C
34	DA	2112	G
34	DA	2116	G
34	DA	2118	U
34	DA	2119	A
34	DA	2120	G
34	DA	2122	U
34	DA	2127	G
34	DA	2128	C
34	DA	2129	C
34	DA	2130	U
34	DA	2159	G
34	DA	2161	C
34	DA	2162	G
34	DA	2164	C
34	DA	2165	G
34	DA	2170	A
34	DA	2171	A
34	DA	2172	U
34	DA	2176	A
34	DA	2187	G
34	DA	2190	G
34	DA	2191	G
34	DA	2192	G
34	DA	2193	G
34	DA	2198	A
34	DA	2199	A
34	DA	2200	C
34	DA	2207	G
34	DA	2208	A
34	DA	2218	U
34	DA	2219	G
34	DA	2225	A
34	DA	2226	C
34	DA	2238	G
34	DA	2239	G
34	DA	2251	G
34	DA	2263	C
34	DA	2275	C

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Mol	Chain	Res	Type
34	DA	2276	G
34	DA	2283	C
34	DA	2286	A
34	DA	2287	A
34	DA	2288	A
34	DA	2290	G
34	DA	2305	A
34	DA	2307	G
34	DA	2308	G
34	DA	2309	A
34	DA	2311	A
34	DA	2313	C
34	DA	2319	G
34	DA	2320	A
34	DA	2325	G
34	DA	2334	G
34	DA	2336	A
34	DA	2345	G
34	DA	2347	C
34	DA	2349	G
34	DA	2360	A
34	DA	2361	A
34	DA	2383	G
34	DA	2385	C
34	DA	2399	G
34	DA	2402	C
34	DA	2422	A
34	DA	2423	U
34	DA	2425	A
34	DA	2427	C
34	DA	2429	G
34	DA	2430	A
34	DA	2435	A
34	DA	2439	A
34	DA	2441	C
34	DA	2448	A
34	DA	2465	C
34	DA	2469	A
34	DA	2470	G
34	DA	2476	A
34	DA	2477	C
34	DA	2478	A

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Mol	Chain	Res	Type
34	DA	2482	G
34	DA	2491	U
34	DA	2502	G
34	DA	2505	G
34	DA	2518	A
34	DA	2520	C
34	DA	2523	G
34	DA	2529	G
34	DA	2531	A
34	DA	2534	A
34	DA	2543	G
34	DA	2554	U
34	DA	2566	A
34	DA	2567	G
34	DA	2573	C
34	DA	2582	G
34	DA	2586	C
34	DA	2602	A
34	DA	2611	U
34	DA	2612	C
34	DA	2615	U
34	DA	2630	G
34	DA	2637	U
34	DA	2640	G
34	DA	2646	C
34	DA	2654	A
34	DA	2655	G
34	DA	2660	A
34	DA	2661	G
34	DA	2662	A
34	DA	2663	G
34	DA	2673	G
34	DA	2682	U
34	DA	2690	C
34	DA	2691	C
34	DA	2702	U
34	DA	2703	C
34	DA	2712	U
34	DA	2712(A)	A
34	DA	2713	A
34	DA	2720	U
34	DA	2733	A

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Mol	Chain	Res	Type
34	DA	2736	G
34	DA	2751	G
34	DA	2752	C
34	DA	2754	U
34	DA	2755	C
34	DA	2757	A
34	DA	2759	G
34	DA	2762	G
34	DA	2763	G
34	DA	2765	A
34	DA	2778	A
34	DA	2779	U
34	DA	2780	G
34	DA	2781	A
34	DA	2789	C
34	DA	2790	A
34	DA	2791	C
34	DA	2794	C
34	DA	2795	G
34	DA	2801(A)	A
34	DA	2802	G
34	DA	2803	C
34	DA	2808	U
34	DA	2820	A
34	DA	2821	A
34	DA	2827	C
34	DA	2833	G
34	DA	2834	G
34	DA	2835	A
34	DA	2849	U
34	DA	2860	A
34	DA	2864	G
34	DA	2872	G
34	DA	2880	C
35	DB	8	U
35	DB	15	A
35	DB	16	G
35	DB	22	U
35	DB	27	C
35	DB	40	U
35	DB	42	C
35	DB	45	A

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Mol	Chain	Res	Type
35	DB	53	A
35	DB	67	G
35	DB	73	A
35	DB	75	G
35	DB	88	C
35	DB	110	G

All (232) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	30	U
1	AA	60	A
1	AA	79	G
1	AA	115	G
1	AA	119	A
1	AA	243	A
1	AA	250	A
1	AA	266	G
1	AA	328	C
1	AA	366	C
1	AA	410	G
1	AA	412	A
1	AA	428	G
1	AA	429	U
1	AA	438	G
1	AA	484	G
1	AA	509	A
1	AA	533	A
1	AA	560	U
1	AA	575	G
1	AA	687	A
1	AA	748	C
1	AA	793	U
1	AA	913	A
1	AA	992	U
1	AA	1049	U
1	AA	1064	G
1	AA	1065	U
1	AA	1067	A
1	AA	1201	A
1	AA	1281	U
1	AA	1285	A

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Mol	Chain	Res	Type
1	AA	1300	G
1	AA	1442	G
1	AA	1498	U
1	AA	1504	G
23	AW	15	G
23	AW	47	U
23	AW	70	G
34	BA	27	G
34	BA	49	A
34	BA	71	A
34	BA	74	A
34	BA	128	C
34	BA	196	A
34	BA	197	A
34	BA	221	A
34	BA	272	G
34	BA	283	A
34	BA	331	A
34	BA	332	A
34	BA	387	U
34	BA	472	A
34	BA	474	G
34	BA	512	G
34	BA	587	C
34	BA	603	A
34	BA	614(C)	A
34	BA	669	G
34	BA	670	A
34	BA	752	A
34	BA	790	C
34	BA	856	C
34	BA	1022	G
34	BA	1112	G
34	BA	1176	G
34	BA	1210	A
34	BA	1250	G
34	BA	1275	A
34	BA	1300	U
34	BA	1301	A
34	BA	1378	A
34	BA	1397	U
34	BA	1427	A

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Mol	Chain	Res	Type
34	BA	1458	C
34	BA	1484	G
34	BA	1494	A
34	BA	1544	A
34	BA	1558	A
34	BA	1608	A
34	BA	1635	G
34	BA	1652	A
34	BA	1653	G
34	BA	1694	C
34	BA	1697	G
34	BA	1722	A
34	BA	1799	G
34	BA	1819	A
34	BA	1820	U
34	BA	1885	A
34	BA	1912	A
34	BA	1934	C
34	BA	1937	A
34	BA	1962	C
34	BA	1970	A
34	BA	1987	G
34	BA	1992	G
34	BA	2031	A
34	BA	2033	A
34	BA	2126	A
34	BA	2191	G
34	BA	2225	A
34	BA	2282	G
34	BA	2290	G
34	BA	2422	A
34	BA	2481	G
34	BA	2610	C
34	BA	2637	U
34	BA	2662	A
34	BA	2689	U
34	BA	2756	U
34	BA	2779	U
34	BA	2796	U
34	BA	2859	G
34	BA	2864	G
35	BB	66	A

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Mol	Chain	Res	Type
1	CA	30	U
1	CA	60	A
1	CA	79	G
1	CA	115	G
1	CA	119	A
1	CA	243	A
1	CA	250	A
1	CA	266	G
1	CA	328	C
1	CA	366	C
1	CA	410	G
1	CA	412	A
1	CA	428	G
1	CA	429	U
1	CA	438	G
1	CA	484	G
1	CA	509	A
1	CA	533	A
1	CA	560	U
1	CA	575	G
1	CA	687	A
1	CA	748	C
1	CA	793	U
1	CA	913	A
1	CA	992	U
1	CA	1049	U
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A
1	CA	1201	A
1	CA	1281	U
1	CA	1285	A
1	CA	1300	G
1	CA	1442	G
1	CA	1498	U
1	CA	1504	G
23	CW	15	G
23	CW	17	C
23	CW	70	G
34	DA	27	G
34	DA	49	A
34	DA	71	A

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Mol	Chain	Res	Type
34	DA	74	A
34	DA	128	C
34	DA	196	A
34	DA	221	A
34	DA	272	G
34	DA	283	A
34	DA	331	A
34	DA	332	A
34	DA	387	U
34	DA	472	A
34	DA	474	G
34	DA	512	G
34	DA	542	C
34	DA	587	C
34	DA	603	A
34	DA	614(C)	A
34	DA	669	G
34	DA	670	A
34	DA	752	A
34	DA	790	C
34	DA	856	C
34	DA	1022	G
34	DA	1112	G
34	DA	1176	G
34	DA	1210	A
34	DA	1250	G
34	DA	1275	A
34	DA	1300	U
34	DA	1301	A
34	DA	1378	A
34	DA	1397	U
34	DA	1427	A
34	DA	1458	C
34	DA	1484	G
34	DA	1494	A
34	DA	1544	A
34	DA	1558	A
34	DA	1608	A
34	DA	1635	G
34	DA	1652	A
34	DA	1653	G
34	DA	1694	C

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Mol	Chain	Res	Type
34	DA	1697	G
34	DA	1722	A
34	DA	1799	G
34	DA	1819	A
34	DA	1820	U
34	DA	1885	A
34	DA	1912	A
34	DA	1934	C
34	DA	1937	A
34	DA	1948	G
34	DA	1962	C
34	DA	1970	A
34	DA	1987	G
34	DA	1992	G
34	DA	2031	A
34	DA	2033	A
34	DA	2126	A
34	DA	2191	G
34	DA	2225	A
34	DA	2282	G
34	DA	2422	A
34	DA	2481	G
34	DA	2610	C
34	DA	2637	U
34	DA	2662	A
34	DA	2689	U
34	DA	2756	U
34	DA	2779	U
34	DA	2796	U
34	DA	2859	G
34	DA	2864	G
35	DB	66	A

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

2 non-standard protein/DNA/RNA residues are modelled in this entry.

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
22	5MU	AV	54	22	20,22,23	1.03	2 (10%)	25,32,35	1.34	3 (12%)
22	5MU	CV	54	22	20,22,23	1.08	3 (15%)	25,32,35	1.28	3 (12%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	5MU	AV	54	22	-	0/6/25/26	0/2/2/2
22	5MU	CV	54	22	-	0/6/25/26	0/2/2/2

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	CV	54	5MU	C6-N1	2.38	1.38	1.34
22	AV	54	5MU	C6-N1	2.22	1.38	1.34
22	AV	54	5MU	C6-C5	-2.20	1.34	1.40
22	CV	54	5MU	C6-C5	-2.17	1.34	1.40
22	CV	54	5MU	C4-C5	2.11	1.45	1.40

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	54	5MU	C6-N1-C2	-4.66	121.08	122.41
22	CV	54	5MU	C6-N1-C2	-4.51	121.12	122.41
22	AV	54	5MU	C5M-C5-C4	-2.11	118.85	121.08
22	AV	54	5MU	C5M-C5-C6	2.07	122.92	118.61
22	CV	54	5MU	C5-C6-N1	2.02	123.83	122.02
22	CV	54	5MU	C5M-C5-C6	2.01	122.78	118.61

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 1385 ligands modelled in this entry, 1383 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	$\# Z > 2$
57	PAR	AA	1816	-	45,45,45	1.44	8 (17%)	67,67,67	1.19	5 (7%)
57	PAR	CA	1790	-	45,45,45	1.43	10 (22%)	67,67,67	1.32	7 (10%)

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
57	PAR	AA	1816	-	-	0/18/94/94	0/4/4/4
57	PAR	CA	1790	-	-	0/18/94/94	0/4/4/4

All (18) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	CA	1790	PAR	C34-C24	4.06	1.59	1.53
57	AA	1816	PAR	C52-C42	3.19	1.58	1.52
57	AA	1816	PAR	C64-C54	2.89	1.59	1.51
57	AA	1816	PAR	O54-C14	2.82	1.49	1.41
57	AA	1816	PAR	C11-C21	2.60	1.57	1.52
57	AA	1816	PAR	C14-C24	2.54	1.57	1.52
57	AA	1816	PAR	O51-C11	2.52	1.48	1.41
57	CA	1790	PAR	C64-C54	2.48	1.58	1.51
57	CA	1790	PAR	O51-C11	2.40	1.48	1.41
57	CA	1790	PAR	C52-C42	2.31	1.56	1.52
57	CA	1790	PAR	C11-C21	2.31	1.57	1.52
57	CA	1790	PAR	O54-C54	2.27	1.50	1.44
57	CA	1790	PAR	O54-C14	2.24	1.47	1.41
57	AA	1816	PAR	C31-C21	2.17	1.56	1.53
57	CA	1790	PAR	C14-C24	2.17	1.56	1.52
57	CA	1790	PAR	O11-C11	2.08	1.47	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	CA	1790	PAR	C42-C32	2.01	1.57	1.53
57	AA	1816	PAR	C44-C54	2.01	1.57	1.53

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	AA	1816	PAR	O33-C14-C24	4.24	116.47	108.08
57	AA	1816	PAR	O52-C13-C23	4.14	114.89	107.50
57	CA	1790	PAR	O33-C14-C24	3.93	115.86	108.08
57	CA	1790	PAR	O54-C54-C64	3.78	113.18	105.97
57	CA	1790	PAR	O52-C13-C23	3.72	114.13	107.50
57	CA	1790	PAR	C14-O54-C54	3.54	120.57	113.73
57	CA	1790	PAR	O52-C13-O43	-3.46	108.22	111.57
57	AA	1816	PAR	C14-O54-C54	2.98	119.50	113.73
57	AA	1816	PAR	O54-C54-C64	2.85	111.40	105.97
57	CA	1790	PAR	C11-O51-C51	2.40	118.38	113.73
57	CA	1790	PAR	O11-C11-C21	2.29	112.60	108.08
57	AA	1816	PAR	C22-C32-C42	2.08	114.52	109.37

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

The following chains have linkage breaks:

Mol	Chain	Number of breaks
13	CM	5
13	AM	5
9	AI	2
9	CI	2
51	DV	1
40	DG	1
40	BG	1

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Mol	Chain	Number of breaks
51	BV	1
31	D6	1
31	B6	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B6	46:HIS	C	47:THR	N	4.89
1	D6	46:HIS	C	47:THR	N	4.87
1	AM	69:GLU	C	70:LEU	N	4.66
1	CM	69:GLU	C	70:LEU	N	4.66
1	CI	53:VAL	C	54:ASP	N	4.02
1	AI	53:VAL	C	54:ASP	N	4.01
1	BG	112:PRO	C	113:ARG	N	4.01
1	CM	97:PRO	C	98:VAL	N	3.75
1	AM	97:PRO	C	98:VAL	N	3.73
1	DG	112:PRO	C	113:ARG	N	3.15
1	AM	112:GLY	C	113:PRO	N	3.07
1	CM	112:GLY	C	113:PRO	N	3.06
1	BV	80:GLN	C	81:TYR	N	3.01
1	DV	80:GLN	C	81:TYR	N	3.00
1	AI	104:ARG	C	105:ASP	N	2.95
1	CM	118:ALA	C	119:GLY	N	2.95
1	AM	118:ALA	C	119:GLY	N	2.93
1	CI	104:ARG	C	105:ASP	N	2.92
1	AM	65:LYS	C	66:LEU	N	2.77
1	CM	65:LYS	C	66:LEU	N	2.76

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	1504/1522 (98%)	-0.21	34 (2%) 57 58	2, 42, 165, 200	0
1	CA	1504/1522 (98%)	-0.11	39 (2%) 53 54	3, 50, 172, 200	0
2	AB	235/256 (91%)	0.25	27 (11%) 5 4	17, 94, 183, 200	0
2	CB	235/256 (91%)	0.49	29 (12%) 5 4	17, 104, 187, 200	0
3	AC	207/239 (86%)	-0.09	7 (3%) 43 44	17, 70, 156, 200	0
3	CC	207/239 (86%)	0.22	15 (7%) 15 14	19, 84, 149, 190	0
4	AD	208/209 (99%)	-0.38	2 (0%) 79 79	1, 43, 127, 198	0
4	CD	208/209 (99%)	-0.25	5 (2%) 56 57	4, 51, 133, 182	0
5	AE	151/162 (93%)	-0.36	2 (1%) 74 75	4, 51, 128, 177	0
5	CE	151/162 (93%)	-0.12	5 (3%) 44 45	3, 56, 140, 185	0
6	AF	101/101 (100%)	-0.35	3 (2%) 48 49	5, 48, 131, 156	0
6	CF	101/101 (100%)	-0.33	2 (1%) 62 63	2, 54, 130, 151	0
7	AG	155/156 (99%)	0.08	13 (8%) 11 9	8, 68, 151, 184	0
7	CG	155/156 (99%)	0.76	26 (16%) 2 2	15, 87, 155, 190	0
8	AH	138/138 (100%)	-0.20	3 (2%) 59 60	3, 52, 120, 173	0
8	CH	138/138 (100%)	-0.11	4 (2%) 49 50	16, 58, 138, 152	0
9	AI	127/128 (99%)	0.74	19 (14%) 3 2	26, 97, 171, 200	0
9	CI	127/128 (99%)	0.71	21 (16%) 2 2	28, 111, 175, 200	0
10	AJ	99/105 (94%)	0.62	15 (15%) 3 2	17, 105, 178, 200	0
10	CJ	99/105 (94%)	1.04	21 (21%) 1 1	34, 123, 176, 197	0
11	AK	119/129 (92%)	-0.27	4 (3%) 43 44	8, 46, 151, 192	0
11	CK	119/129 (92%)	0.08	7 (5%) 22 21	16, 61, 147, 200	0
12	AL	125/135 (92%)	-0.13	7 (5%) 24 23	5, 38, 133, 200	0
12	CL	125/135 (92%)	-0.04	5 (4%) 36 37	1, 38, 132, 200	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AM	125/126 (99%)	0.47	15 (12%) 5 4	13, 74, 159, 196	0
13	CM	125/126 (99%)	0.37	13 (10%) 7 6	19, 91, 160, 191	0
14	AN	60/61 (98%)	0.67	11 (18%) 2 2	14, 66, 161, 184	0
14	CN	60/61 (98%)	0.35	4 (6%) 17 16	19, 73, 143, 182	0
15	AO	88/89 (98%)	-0.53	0 100 100	2, 42, 129, 141	0
15	CO	88/89 (98%)	-0.36	1 (1%) 77 78	2, 56, 124, 167	0
16	AP	84/88 (95%)	-0.22	0 100 100	6, 36, 104, 190	0
16	CP	84/88 (95%)	0.03	3 (3%) 41 41	6, 49, 121, 199	0
17	AQ	100/105 (95%)	-0.35	2 (2%) 62 63	1, 45, 110, 193	0
17	CQ	100/105 (95%)	0.27	4 (4%) 36 37	18, 60, 105, 194	0
18	AR	70/88 (79%)	-0.13	2 (2%) 49 50	10, 50, 140, 172	0
18	CR	70/88 (79%)	0.25	3 (4%) 34 34	7, 56, 144, 179	0
19	AS	79/93 (84%)	0.28	8 (10%) 7 6	22, 79, 186, 200	0
19	CS	79/93 (84%)	0.58	14 (17%) 2 2	25, 83, 175, 197	0
20	AT	99/106 (93%)	0.41	12 (12%) 5 4	5, 60, 152, 180	0
20	CT	99/106 (93%)	0.20	7 (7%) 16 14	17, 77, 141, 183	0
21	AU	25/27 (92%)	2.03	11 (44%) 1 0	27, 72, 128, 141	0
21	CU	25/27 (92%)	2.96	14 (56%) 0 0	40, 74, 127, 139	0
22	AV	77/77 (100%)	-0.44	0 100 100	14, 53, 143, 194	0
22	CV	77/77 (100%)	-0.31	1 (1%) 74 75	21, 55, 146, 198	0
23	AW	76/76 (100%)	0.08	6 (7%) 13 11	30, 103, 164, 199	0
23	AY	19/76 (25%)	0.06	1 (5%) 25 26	23, 72, 190, 196	0
23	CW	76/76 (100%)	0.23	7 (9%) 9 7	35, 116, 165, 196	0
23	CY	19/76 (25%)	-0.12	0 100 100	26, 76, 186, 196	0
24	AX	11/24 (45%)	0.21	1 (9%) 9 8	12, 33, 170, 185	0
24	CX	11/24 (45%)	0.58	2 (18%) 2 2	14, 39, 167, 192	0
25	B0	85/85 (100%)	0.38	7 (8%) 12 10	8, 43, 138, 196	0
25	D0	85/85 (100%)	0.74	12 (14%) 3 3	18, 57, 137, 179	0
26	B1	89/98 (90%)	0.08	5 (5%) 24 23	1, 35, 143, 157	0
26	D1	89/98 (90%)	-0.13	2 (2%) 59 60	1, 44, 145, 200	0
27	B2	51/72 (70%)	-0.03	4 (7%) 13 11	5, 66, 145, 200	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
27	D2	51/72 (70%)	0.56	7 (13%) 4 3	13, 79, 154, 200	0
28	B3	60/60 (100%)	0.32	4 (6%) 17 16	5, 57, 140, 190	0
28	D3	60/60 (100%)	0.35	3 (5%) 28 28	5, 58, 146, 198	0
29	B4	50/71 (70%)	-0.46	1 (2%) 62 63	38, 90, 158, 173	0
29	D4	50/71 (70%)	0.28	7 (14%) 3 3	54, 117, 160, 198	0
30	B5	59/60 (98%)	0.87	13 (22%) 1 1	5, 51, 192, 200	0
30	D5	59/60 (98%)	0.48	7 (11%) 5 4	1, 65, 179, 200	0
31	B6	45/54 (83%)	1.90	21 (46%) 1 0	54, 103, 171, 180	0
31	D6	45/54 (83%)	2.81	27 (60%) 0 0	64, 139, 171, 189	0
32	B7	49/49 (100%)	-0.14	4 (8%) 12 10	1, 19, 115, 165	0
32	D7	49/49 (100%)	-0.03	4 (8%) 12 10	1, 19, 88, 174	0
33	B8	64/65 (98%)	0.55	6 (9%) 9 7	4, 44, 140, 195	0
33	D8	64/65 (98%)	0.32	6 (9%) 9 7	5, 52, 155, 192	0
34	BA	2772/2787 (99%)	-0.34	40 (1%) 72 72	1, 29, 145, 200	0
34	DA	2772/2787 (99%)	-0.30	49 (1%) 65 66	1, 30, 152, 200	0
35	BB	119/122 (97%)	-0.32	0 100 100	22, 64, 108, 197	0
35	DB	119/122 (97%)	-0.12	2 (1%) 67 68	34, 76, 127, 188	0
36	BC	191/229 (83%)	2.04	75 (39%) 1 0	51, 144, 186, 200	0
36	DC	191/229 (83%)	2.67	97 (50%) 0 0	61, 146, 186, 200	0
37	BD	272/276 (98%)	-0.51	5 (1%) 65 66	1, 19, 89, 196	0
37	DD	272/276 (98%)	-0.48	3 (1%) 77 78	1, 21, 89, 200	0
38	BE	205/206 (99%)	0.03	10 (4%) 28 29	1, 46, 141, 193	0
38	DE	205/206 (99%)	-0.13	7 (3%) 43 44	1, 43, 144, 199	0
39	BF	208/210 (99%)	-0.26	9 (4%) 34 34	1, 44, 155, 200	0
39	DF	208/210 (99%)	0.15	13 (6%) 19 18	1, 44, 160, 200	0
40	BG	181/182 (99%)	-0.16	7 (3%) 37 37	8, 65, 142, 188	0
40	DG	181/182 (99%)	0.16	11 (6%) 21 20	10, 82, 149, 195	0
41	BH	160/180 (88%)	1.04	35 (21%) 1 1	51, 124, 175, 200	0
41	DH	160/180 (88%)	0.79	28 (17%) 2 2	10, 102, 174, 194	0
42	BI	146/148 (98%)	0.33	12 (8%) 12 10	5, 78, 148, 187	0
42	DI	146/148 (98%)	2.64	57 (39%) 1 0	9, 124, 184, 200	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
43	BN	139/140 (99%)	-0.09	4 (2%)	49	50	10, 68, 144, 163	0
43	DN	139/140 (99%)	0.10	7 (5%)	28	28	15, 63, 141, 165	0
44	BO	122/122 (100%)	-0.46	1 (0%)	83	83	3, 32, 103, 177	0
44	DO	122/122 (100%)	-0.48	0	100	100	1, 33, 102, 126	0
45	BP	146/150 (97%)	0.20	6 (4%)	35	36	1, 61, 159, 193	0
45	DP	146/150 (97%)	0.32	11 (7%)	14	12	2, 71, 165, 198	0
46	BQ	136/141 (96%)	0.48	12 (8%)	10	8	7, 58, 171, 200	0
46	DQ	136/141 (96%)	0.21	12 (8%)	10	8	7, 54, 164, 200	0
47	BR	117/118 (99%)	-0.19	1 (0%)	81	81	3, 32, 132, 146	0
47	DR	117/118 (99%)	-0.11	1 (0%)	81	81	3, 42, 126, 166	0
48	BS	99/112 (88%)	0.31	7 (7%)	16	14	21, 76, 134, 173	0
48	DS	99/112 (88%)	0.82	19 (19%)	2	1	24, 89, 143, 171	0
49	BT	138/146 (94%)	0.13	13 (9%)	9	7	3, 67, 169, 190	0
49	DT	138/146 (94%)	-0.02	7 (5%)	27	27	7, 65, 171, 200	0
50	BU	117/118 (99%)	-0.01	7 (5%)	21	21	5, 50, 142, 200	0
50	DU	117/118 (99%)	-0.12	3 (2%)	53	54	1, 46, 145, 190	0
51	BV	101/101 (100%)	0.46	8 (7%)	13	11	14, 96, 174, 192	0
51	DV	101/101 (100%)	0.16	5 (4%)	28	28	11, 93, 172, 193	0
52	BW	113/113 (100%)	-0.53	0	100	100	1, 26, 121, 161	0
52	DW	113/113 (100%)	-0.45	0	100	100	3, 28, 126, 200	0
53	BX	93/96 (96%)	-0.24	7 (7%)	14	12	1, 46, 137, 168	0
53	DX	93/96 (96%)	-0.01	4 (4%)	34	34	8, 54, 138, 157	0
54	BY	101/110 (91%)	0.95	19 (18%)	2	2	1, 79, 170, 195	0
54	DY	101/110 (91%)	1.44	25 (24%)	1	1	1, 79, 177, 196	0
55	BZ	177/206 (85%)	0.32	16 (9%)	10	8	19, 96, 177, 200	0
55	DZ	177/206 (85%)	0.40	16 (9%)	10	8	18, 98, 178, 198	0
All	All	20974/21886 (95%)	0.03	1268 (6%)	21	21	1, 51, 163, 200	0

All (1268) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
42	DI	84	GLY	36.6
46	BQ	140	ALA	25.2

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Mol	Chain	Res	Type	RSRZ
17	CQ	101	ARG	24.5
36	DC	145	VAL	22.3
42	DI	120	ILE	22.1
42	DI	143	SER	21.2
42	DI	88	ILE	20.7
38	BE	205	ALA	20.2
12	CL	129	ALA	19.9
36	DC	179	SER	19.2
54	DY	52	SER	18.0
54	DY	61	ILE	17.3
13	AM	84	ILE	16.7
39	DF	133	ASN	15.8
42	DI	130	TYR	15.3
54	DY	50	ARG	15.0
42	DI	92	VAL	14.7
42	DI	125	GLU	14.5
42	DI	144	VAL	14.2
1	AA	82	U	14.0
54	DY	51	VAL	13.9
46	DQ	140	ALA	13.8
46	BQ	141	GLN	13.6
55	BZ	113	ALA	12.9
34	DA	2802	G	12.8
36	BC	80	GLY	12.5
46	BQ	139	GLU	12.1
36	BC	110	PHE	12.1
1	CA	88	A	12.0
28	D3	1	MET	12.0
36	BC	145	VAL	11.9
36	DC	178	ALA	11.6
39	DF	208	GLY	11.5
42	DI	90	GLY	11.2
54	BY	50	ARG	11.0
31	D6	42	TRP	11.0
46	DQ	141	GLN	11.0
1	CA	80	G	10.9
54	DY	49	VAL	10.8
36	BC	90	GLY	10.8
30	D5	53	ALA	10.7
30	B5	54	GLY	10.7
13	CM	84	ILE	10.6
36	DC	108	MET	10.4

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Mol	Chain	Res	Type	RSRZ
39	DF	25	PRO	10.4
36	DC	149	ILE	10.3
39	BF	1	MET	10.3
54	BY	60	PHE	10.1
25	D0	2	ALA	10.0
25	D0	3	HIS	10.0
42	DI	85	GLU	9.8
36	DC	106	GLY	9.6
36	BC	158	ALA	9.5
1	AA	83	U	9.5
2	CB	7	VAL	9.5
26	D1	96	LYS	9.3
7	CG	83	ALA	9.2
19	AS	81	ARG	9.1
1	AA	89	C	9.0
36	DC	84	LYS	9.0
46	DQ	139	GLU	8.9
55	BZ	112	ARG	8.9
2	CB	132	LYS	8.8
39	DF	207	GLY	8.8
36	BC	148	ASN	8.7
34	DA	652	C	8.7
36	DC	45	ALA	8.7
42	BI	109	ILE	8.7
42	DI	145	VAL	8.7
12	AL	129	ALA	8.6
38	BE	204	ALA	8.6
11	CK	129	SER	8.6
36	DC	120	MET	8.6
54	BY	61	ILE	8.3
36	DC	110	PHE	8.3
49	DT	92	GLY	8.3
1	CA	89	C	8.2
43	DN	1	MET	8.2
39	DF	24	LEU	8.1
34	DA	2476	A	8.1
41	BH	52	VAL	8.0
23	AW	17	C	8.0
41	DH	114	VAL	8.0
36	BC	52	ARG	7.9
34	DA	897	C	7.9
36	DC	43	VAL	7.9

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Mol	Chain	Res	Type	RSRZ
19	CS	82	GLY	7.8
38	DE	204	ALA	7.8
54	DY	55	TYR	7.8
11	AK	128	ALA	7.8
2	AB	138	LEU	7.7
1	AA	80	G	7.7
36	DC	69	GLY	7.7
42	DI	80	PRO	7.7
21	CU	24	ARG	7.7
33	B8	65	GLU	7.7
30	D5	60	VAL	7.7
30	B5	53	ALA	7.7
46	BQ	24	GLY	7.6
12	AL	28	LYS	7.6
31	D6	10	LEU	7.6
36	BC	92	ASP	7.6
36	DC	176	GLY	7.5
25	D0	4	LYS	7.5
54	BY	51	VAL	7.5
2	CB	128	GLU	7.5
13	CM	126	LYS	7.4
45	BP	150	ALA	7.4
37	DD	26	LYS	7.3
10	CJ	24	VAL	7.3
1	CA	1032	G	7.3
36	BC	108	MET	7.2
41	DH	171	LEU	7.2
30	B5	60	VAL	7.2
55	BZ	104	PHE	7.1
36	DC	51	PRO	7.1
42	DI	53	ALA	7.1
2	CB	232	PRO	7.1
36	BC	78	ALA	7.1
10	CJ	71	LEU	7.0
36	DC	121	GLY	7.0
1	CA	1129	C	7.0
42	DI	89	TYR	6.9
36	DC	148	ASN	6.9
34	BA	2802	G	6.9
1	CA	1030(B)	C	6.9
13	AM	126	LYS	6.8
2	AB	129	GLU	6.8

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Mol	Chain	Res	Type	RSRZ
36	DC	19	VAL	6.8
31	D6	49	HIS	6.8
11	CK	128	ALA	6.8
54	DY	60	PHE	6.8
1	CA	1001(A)	G	6.7
25	D0	76	GLY	6.7
36	BC	94	VAL	6.7
45	DP	107	LYS	6.7
36	DC	68	LEU	6.7
41	BH	101	ARG	6.7
39	DF	23	ASP	6.7
42	DI	86	THR	6.7
36	BC	91	ALA	6.6
39	DF	1	MET	6.6
21	CU	23	PRO	6.6
25	B0	1	MET	6.6
41	BH	169	VAL	6.6
7	CG	82	GLY	6.6
54	DY	53	PRO	6.6
21	CU	18	TYR	6.6
21	AU	11	GLY	6.5
11	AK	129	SER	6.5
13	AM	7	VAL	6.5
30	B5	59	GLU	6.5
36	BC	71	GLN	6.4
36	DC	216	THR	6.4
13	AM	125	ARG	6.4
51	DV	45	THR	6.4
36	DC	37	PHE	6.4
1	AA	88	A	6.3
1	AA	79	G	6.3
31	D6	20	ASN	6.3
36	DC	122	ALA	6.3
49	BT	92	GLY	6.3
31	D6	25	LYS	6.3
36	BC	19	VAL	6.3
1	CA	1030	C	6.2
2	AB	132	LYS	6.2
31	B6	13	CYS	6.2
36	DC	20	TYR	6.2
7	CG	5	ARG	6.2
36	DC	70	LYS	6.1

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Mol	Chain	Res	Type	RSRZ
41	DH	158	HIS	6.1
36	DC	38	ASP	6.1
31	B6	19	ARG	6.1
1	CA	79	G	6.1
33	B8	63	PRO	6.1
36	DC	71	GLN	6.1
42	DI	63	ALA	6.1
12	CL	28	LYS	6.1
42	DI	67	ARG	6.0
55	DZ	113	ALA	6.0
21	CU	25	LYS	6.0
2	AB	128	GLU	6.0
10	AJ	83	GLU	6.0
2	AB	130	ARG	6.0
34	BA	1173	G	6.0
51	BV	46	VAL	5.9
2	CB	130	ARG	5.9
31	D6	50	ARG	5.9
38	DE	76	ARG	5.9
25	D0	1	MET	5.9
34	BA	652	C	5.9
36	BC	79	LYS	5.8
1	CA	202	U	5.8
42	DI	134	PRO	5.7
51	DV	43	GLU	5.7
51	DV	46	VAL	5.7
13	AM	69	GLU	5.7
36	BC	87	GLU	5.7
36	BC	84	LYS	5.7
36	BC	76	ALA	5.7
25	B0	6	GLY	5.7
7	CG	78	ARG	5.7
36	BC	93	TYR	5.7
53	DX	95	LEU	5.7
10	AJ	29	ARG	5.7
36	BC	56	GLN	5.7
7	CG	8	GLU	5.7
46	DQ	24	GLY	5.7
34	BA	1174	A	5.6
41	BH	53	GLU	5.6
34	BA	1046	A	5.6
34	BA	897	C	5.6

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Mol	Chain	Res	Type	RSRZ
36	DC	63	SER	5.6
23	CW	20	U	5.6
36	BC	165	ASN	5.6
34	BA	1177	A	5.6
7	CG	16	LEU	5.6
55	BZ	175	VAL	5.6
43	DN	68	GLU	5.5
2	CB	127	ILE	5.5
48	DS	54	LEU	5.5
54	DY	2	ARG	5.5
41	DH	147	ASN	5.5
51	BV	68	LYS	5.5
49	DT	39	ARG	5.5
21	CU	22	ARG	5.5
34	DA	2801	A	5.5
1	CA	1033	G	5.5
36	BC	157	LYS	5.5
33	B8	37	SER	5.5
40	DG	88	ILE	5.5
34	DA	2803	C	5.5
10	CJ	39	PRO	5.5
41	DH	167	GLU	5.5
13	AM	124	PRO	5.4
27	D2	61	LEU	5.4
49	BT	115	ARG	5.4
36	BC	53	ARG	5.4
36	DC	35	ALA	5.4
32	D7	48	LYS	5.4
1	CA	1002	G	5.4
34	DA	363(F)	A	5.4
14	CN	61	TRP	5.4
36	BC	162	GLU	5.4
30	D5	59	GLU	5.4
42	DI	119	PRO	5.3
31	D6	14	THR	5.3
36	DC	53	ARG	5.3
34	DA	275	G	5.3
36	BC	95	GLY	5.3
42	DI	87	LYS	5.3
30	D5	54	GLY	5.3
9	CI	128	ARG	5.3
7	AG	80	VAL	5.3

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Mol	Chain	Res	Type	RSRZ
13	AM	119	GLY	5.2
31	B6	9	LEU	5.2
2	CB	125	PRO	5.2
42	BI	4	ILE	5.2
31	D6	39	TYR	5.2
36	BC	83	ILE	5.2
25	B0	85	ALA	5.1
41	BH	96	ALA	5.1
20	AT	98	PRO	5.1
7	CG	85	TYR	5.1
31	B6	42	TRP	5.1
36	BC	69	GLY	5.1
27	D2	43	GLN	5.1
1	AA	1030(B)	C	5.1
2	CB	133	LYS	5.1
20	AT	100	ILE	5.1
32	D7	47	ARG	5.1
41	BH	170	ARG	5.1
54	BY	2	ARG	5.1
7	CG	84	ASN	5.1
14	AN	8	GLU	5.1
13	AM	4	ILE	5.1
36	DC	105	ASP	5.1
34	DA	1174	A	5.1
38	DE	54	GLN	5.1
7	CG	42	ILE	5.1
42	DI	127	VAL	5.0
1	CA	1034	G	5.0
34	BA	275	G	5.0
9	CI	126	SER	5.0
31	D6	9	LEU	5.0
54	BY	44	ILE	5.0
10	AJ	85	LEU	5.0
24	AX	13	A	5.0
32	B7	49	ARG	5.0
1	CA	1030(D)	A	5.0
3	CC	208	ILE	5.0
12	AL	128	ALA	5.0
7	AG	83	ALA	4.9
34	BA	2477	C	4.9
55	DZ	112	ARG	4.9
42	DI	66	GLU	4.9

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Mol	Chain	Res	Type	RSRZ
21	CU	14	TRP	4.9
36	BC	61	THR	4.9
3	CC	2	GLY	4.9
6	CF	101	ALA	4.9
20	AT	99	LEU	4.9
36	DC	52	ARG	4.9
39	DF	14	PRO	4.9
1	AA	1001(A)	G	4.9
7	CG	156	TRP	4.9
36	BC	72	VAL	4.9
29	D4	16	CYS	4.8
32	D7	49	ARG	4.8
2	CB	222	ILE	4.8
36	BC	146	GLY	4.8
9	AI	53	VAL	4.8
49	BT	91	ARG	4.8
55	BZ	111	VAL	4.8
36	DC	64	LEU	4.8
34	DA	2799	C	4.8
10	AJ	74	ILE	4.8
54	DY	89	PHE	4.8
34	DA	2477	C	4.8
41	DH	168	PRO	4.8
21	AU	19	GLY	4.7
36	BC	135	GLY	4.7
36	BC	81	GLU	4.7
13	CM	4	ILE	4.7
54	BY	45	VAL	4.7
48	DS	109	GLY	4.7
9	CI	42	ARG	4.7
41	DH	42	ARG	4.7
49	DT	2	ASN	4.7
1	CA	83	U	4.7
54	DY	46	LYS	4.7
1	AA	81	U	4.7
42	DI	108	THR	4.7
42	BI	58	LEU	4.6
55	DZ	144	LEU	4.6
19	AS	28	LYS	4.6
36	BC	139	ASN	4.6
23	CW	16	U	4.6
9	CI	41	VAL	4.6

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Mol	Chain	Res	Type	RSRZ
10	AJ	34	VAL	4.6
31	B6	26	ASN	4.6
36	BC	45	ALA	4.6
42	DI	113	ARG	4.6
36	DC	213	TYR	4.6
21	CU	11	GLY	4.6
39	DF	12	LEU	4.6
40	BG	49	ASP	4.6
36	BC	150	GLY	4.6
42	DI	107	VAL	4.5
40	DG	141	PHE	4.5
36	BC	109	ASP	4.5
18	CR	29	PHE	4.5
10	CJ	5	ARG	4.5
7	AG	85	TYR	4.5
41	BH	51	ARG	4.5
45	DP	121	LYS	4.5
4	CD	3	ARG	4.5
30	B5	58	LEU	4.5
34	DA	1509	C	4.5
43	BN	1	MET	4.5
50	BU	118	GLY	4.5
42	DI	71	ILE	4.5
24	CX	13	A	4.4
27	B2	43	GLN	4.4
1	CA	92	C	4.4
38	DE	53	PRO	4.4
42	DI	94	ALA	4.4
41	DH	116	GLU	4.4
1	CA	81	U	4.4
48	BS	54	LEU	4.4
23	AW	34	G	4.4
31	D6	26	ASN	4.4
34	BA	1176	G	4.4
25	D0	6	GLY	4.3
33	B8	64	TYR	4.3
36	DC	95	GLY	4.3
1	AA	91	C	4.3
2	CB	96	ARG	4.3
41	BH	47	GLU	4.3
36	BC	70	LYS	4.3
2	CB	131	PRO	4.3

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Mol	Chain	Res	Type	RSRZ
42	DI	56	LYS	4.3
41	DH	170	ARG	4.3
43	BN	75	TYR	4.2
3	CC	93	LYS	4.2
30	B5	2	ALA	4.2
36	BC	149	ILE	4.2
30	B5	56	LYS	4.2
39	BF	21	ALA	4.2
1	CA	412	A	4.2
2	AB	127	ILE	4.2
12	AL	29	GLY	4.2
36	BC	176	GLY	4.2
42	DI	74	ASN	4.2
36	DC	125	SER	4.2
36	BC	75	LEU	4.2
14	AN	2	ALA	4.2
36	DC	80	GLY	4.2
36	DC	172	HIS	4.2
45	DP	7	ARG	4.2
10	CJ	43	ARG	4.1
19	CS	4	SER	4.1
5	AE	113	ALA	4.1
1	CA	91	C	4.1
34	BA	2796	U	4.1
33	B8	34	TRP	4.1
45	BP	18	ARG	4.1
49	BT	39	ARG	4.1
21	CU	21	TYR	4.1
9	CI	102	LEU	4.1
38	BE	69	LYS	4.1
36	BC	166	ASP	4.1
17	AQ	101	ARG	4.1
31	D6	37	ARG	4.1
6	AF	39	LYS	4.1
31	B6	47	THR	4.1
3	CC	207	VAL	4.1
40	BG	88	ILE	4.1
42	DI	110	ASP	4.1
36	BC	89	ALA	4.1
9	CI	104	ARG	4.1
9	AI	46	ALA	4.1
1	CA	93	G	4.0

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Mol	Chain	Res	Type	RSRZ
1	CA	1138	G	4.0
36	DC	107	TRP	4.0
41	DH	99	VAL	4.0
36	BC	57	ASN	4.0
2	AB	131	PRO	4.0
54	DY	59	GLY	4.0
21	CU	6	ARG	4.0
36	BC	107	TRP	4.0
51	BV	60	GLU	4.0
36	BC	60	GLY	4.0
36	DC	67	GLY	4.0
42	DI	95	LYS	4.0
31	D6	13	CYS	4.0
36	DC	76	ALA	4.0
11	CK	12	ARG	4.0
36	BC	59	ARG	4.0
36	DC	77	ILE	4.0
46	DQ	21	THR	4.0
13	AM	120	LYS	4.0
9	CI	30	GLY	4.0
36	BC	177	LYS	4.0
42	DI	83	ALA	4.0
36	BC	68	LEU	4.0
41	BH	33	LEU	4.0
36	BC	43	VAL	3.9
41	DH	52	VAL	3.9
25	B0	9	SER	3.9
41	BH	56	SER	3.9
21	AU	18	TYR	3.9
36	BC	133	PRO	3.9
45	DP	150	ALA	3.9
48	DS	32	LEU	3.9
34	BA	2795	G	3.9
3	AC	208	ILE	3.9
36	DC	83	ILE	3.9
34	BA	1033	U	3.9
34	DA	2172	U	3.9
54	BY	28	LYS	3.9
36	BC	155	GLU	3.9
54	DY	83	THR	3.9
36	DC	93	TYR	3.9
1	AA	412	A	3.9

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Mol	Chain	Res	Type	RSRZ
54	BY	49	VAL	3.9
28	B3	2	PRO	3.9
36	BC	77	ILE	3.9
7	AG	78	ARG	3.8
41	BH	168	PRO	3.8
42	DI	121	LYS	3.8
36	DC	132	GLY	3.8
55	DZ	88	PHE	3.8
36	DC	85	GLU	3.8
26	D1	95	LEU	3.8
45	BP	110	TYR	3.8
13	CM	124	PRO	3.8
36	BC	55	ASP	3.8
48	DS	33	LYS	3.8
3	CC	91	LEU	3.8
1	AA	84	U	3.8
9	CI	6	GLY	3.8
42	DI	139	GLN	3.8
45	DP	108	LYS	3.8
46	DQ	135	ASP	3.8
41	DH	113	VAL	3.8
41	DH	98	LEU	3.8
30	B5	55	ARG	3.8
13	CM	94	ARG	3.8
34	BA	352	G	3.8
31	B6	31	PRO	3.8
36	DC	146	GLY	3.8
10	CJ	46	ARG	3.8
48	BS	108	GLY	3.7
20	AT	86	ARG	3.7
36	DC	136	LEU	3.7
11	AK	127	LYS	3.7
34	DA	2794	C	3.7
2	CB	228	GLY	3.7
42	BI	11	ASN	3.7
48	DS	82	ILE	3.7
2	CB	231	GLU	3.7
36	DC	170	ALA	3.7
4	AD	209	ARG	3.7
32	D7	1	MET	3.7
20	AT	104	LEU	3.7
41	DH	124	GLU	3.7

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Mol	Chain	Res	Type	RSRZ
32	B7	48	LYS	3.7
34	DA	2896	C	3.7
1	AA	1002	G	3.7
1	CA	1030(A)	G	3.7
40	BG	48	GLU	3.7
34	DA	1046	A	3.7
2	AB	152	PHE	3.7
36	DC	24	GLU	3.7
48	BS	43	GLU	3.7
25	D0	5	LYS	3.7
36	DC	36	LYS	3.7
14	AN	37	PHE	3.7
55	DZ	80	ARG	3.7
10	CJ	27	ALA	3.6
40	DG	50	ALA	3.6
1	CA	1286	A	3.6
40	DG	43	LEU	3.6
29	D4	48	ARG	3.6
54	DY	97	ARG	3.6
36	DC	41	VAL	3.6
1	CA	1030(C)	G	3.6
36	DC	109	ASP	3.6
7	CG	4	ARG	3.6
38	DE	52	LEU	3.6
3	AC	76	VAL	3.6
10	CJ	23	ILE	3.6
19	CS	71	LEU	3.6
36	DC	39	GLU	3.6
55	DZ	140	ASP	3.6
26	B1	91	LYS	3.6
28	B3	1	MET	3.6
21	CU	19	GLY	3.6
36	DC	124	GLY	3.6
50	DU	118	GLY	3.6
38	BE	68	ALA	3.6
21	AU	6	ARG	3.6
42	DI	122	GLU	3.6
3	CC	87	LEU	3.6
1	AA	1183	A	3.5
31	D6	47	THR	3.5
17	CQ	100	LYS	3.5
50	DU	117	GLN	3.5

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Mol	Chain	Res	Type	RSRZ
36	DC	133	PRO	3.5
18	CR	23	LYS	3.5
1	AA	1176	A	3.5
9	AI	126	SER	3.5
41	BH	49	VAL	3.5
34	BA	883	G	3.5
1	AA	1030	C	3.5
1	AA	1037	C	3.5
36	BC	163	PHE	3.5
41	DH	169	VAL	3.5
53	BX	91	ALA	3.5
2	AB	229	VAL	3.5
19	CS	12	ASP	3.5
2	CB	122	PHE	3.5
19	CS	81	ARG	3.5
42	DI	78	THR	3.5
38	DE	205	ALA	3.5
9	AI	128	ARG	3.5
32	B7	47	ARG	3.5
40	BG	139	LEU	3.5
1	AA	1117	G	3.5
2	CB	126	GLU	3.4
39	BF	133	ASN	3.4
42	DI	12	LEU	3.4
14	CN	60	SER	3.4
30	D5	51	TYR	3.4
33	D8	34	TRP	3.4
34	DA	2126	A	3.4
41	BH	55	PRO	3.4
13	AM	122	LYS	3.4
34	DA	2473	U	3.4
2	CB	81	VAL	3.4
19	CS	9	VAL	3.4
7	CG	77	SER	3.4
46	BQ	23	GLY	3.4
8	CH	25	ASP	3.4
20	AT	106	ALA	3.4
54	BY	46	LYS	3.4
36	BC	88	GLU	3.4
2	AB	137	ARG	3.4
42	DI	1	MET	3.4
34	BA	1026	U	3.4

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Mol	Chain	Res	Type	RSRZ
45	DP	5	ASP	3.4
2	CB	129	GLU	3.4
33	D8	64	TYR	3.4
2	AB	21	ARG	3.4
34	BA	2894	G	3.4
13	AM	123	ALA	3.4
39	DF	22	ALA	3.4
34	DA	1508	A	3.4
36	BC	58	VAL	3.4
6	AF	101	ALA	3.4
36	DC	177	LYS	3.4
36	BC	85	GLU	3.4
10	AJ	35	SER	3.4
54	DY	86	ARG	3.4
2	AB	136	VAL	3.3
36	DC	73	ARG	3.3
41	DH	53	GLU	3.3
10	AJ	32	ALA	3.3
19	AS	5	LEU	3.3
54	BY	65	ALA	3.3
47	BR	2	ARG	3.3
29	B4	50	VAL	3.3
6	CF	99	ALA	3.3
9	CI	43	ALA	3.3
42	DI	82	ARG	3.3
46	DQ	23	GLY	3.3
2	CB	152	PHE	3.3
7	AG	74	GLU	3.3
23	CW	47	U	3.3
36	DC	212	VAL	3.3
41	BH	124	GLU	3.3
36	BC	63	SER	3.3
20	CT	64	ASP	3.3
9	CI	12	GLU	3.3
3	CC	98	ASN	3.3
49	DT	1	MET	3.3
21	AU	9	ARG	3.3
33	D8	32	LEU	3.3
5	CE	154	GLY	3.3
42	BI	100	ALA	3.3
48	DS	60	GLY	3.3
2	AB	231	GLU	3.3

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Mol	Chain	Res	Type	RSRZ
36	DC	129	ARG	3.3
3	CC	96	GLY	3.3
55	BZ	114	GLY	3.3
9	AI	81	ILE	3.3
1	AA	1129	C	3.3
34	BA	2111	C	3.3
31	B6	21	TYR	3.3
42	DI	118	LYS	3.3
34	DA	2402	C	3.3
55	DZ	97	GLU	3.3
8	AH	2	LEU	3.2
43	DN	74	ARG	3.2
12	CL	111	LYS	3.2
49	BT	11	GLU	3.2
9	AI	30	GLY	3.2
34	BA	363(F)	A	3.2
29	D4	47	GLN	3.2
8	CH	35	ILE	3.2
10	CJ	72	VAL	3.2
2	CB	121	LEU	3.2
2	CB	136	VAL	3.2
36	BC	136	LEU	3.2
27	B2	48	HIS	3.2
48	DS	51	ALA	3.2
37	BD	26	LYS	3.2
36	DC	78	ALA	3.2
42	DI	109	ILE	3.2
36	DC	44	HIS	3.2
38	BE	90	THR	3.2
4	CD	209	ARG	3.2
12	CL	128	ALA	3.2
41	DH	123	PHE	3.2
41	BH	24	VAL	3.2
9	AI	87	GLN	3.2
21	AU	2	GLY	3.2
41	BH	98	LEU	3.2
41	BH	171	LEU	3.2
49	BT	124	ASP	3.1
39	BF	14	PRO	3.1
19	CS	40	ILE	3.1
55	BZ	135	GLU	3.1
19	CS	38	SER	3.1

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Mol	Chain	Res	Type	RSRZ
28	D3	23	LEU	3.1
31	B6	40	CYS	3.1
31	D6	12	GLU	3.1
1	CA	78	G	3.1
8	AH	1	MET	3.1
34	BA	1114	G	3.1
54	DY	98	VAL	3.1
50	BU	91	ASP	3.1
7	CG	53	LYS	3.1
19	AS	4	SER	3.1
27	D2	60	LEU	3.1
40	DG	176	LEU	3.1
27	D2	62	THR	3.1
48	DS	30	ARG	3.1
3	CC	206	GLU	3.1
23	AW	44	G	3.1
7	AG	81	GLY	3.1
10	CJ	75	ILE	3.1
9	AI	20	ARG	3.1
36	BC	192	PHE	3.1
36	BC	156	ILE	3.1
45	DP	120	ALA	3.1
41	BH	35	VAL	3.1
24	CX	12	A	3.1
34	BA	2476	A	3.1
41	DH	97	ARG	3.1
42	DI	11	ASN	3.1
39	BF	12	LEU	3.1
36	DC	65	PRO	3.1
53	BX	93	GLU	3.1
42	BI	72	LEU	3.0
1	CA	1031	G	3.0
23	AW	19	G	3.0
3	AC	206	GLU	3.0
7	AG	151	TYR	3.0
42	DI	141	LYS	3.0
9	AI	19	LEU	3.0
17	CQ	65	ILE	3.0
36	DC	154	ARG	3.0
49	DT	125	ARG	3.0
27	D2	12	GLU	3.0
54	BY	47	LYS	3.0

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Mol	Chain	Res	Type	RSRZ
54	DY	54	LYS	3.0
3	CC	198	VAL	3.0
34	BA	2790	A	3.0
1	CA	82	U	3.0
20	CT	100	ILE	3.0
7	CG	151	TYR	3.0
30	D5	45	VAL	3.0
34	BA	1530	C	3.0
54	BY	3	VAL	3.0
54	DY	85	VAL	3.0
3	AC	42	LEU	3.0
27	D2	35	LEU	3.0
41	DH	41	MET	3.0
36	DC	18	LYS	3.0
36	DC	102	LYS	3.0
34	DA	2795	G	3.0
36	BC	46	LYS	3.0
41	BH	129	THR	3.0
30	B5	51	TYR	3.0
36	DC	150	GLY	3.0
36	DC	26	ALA	3.0
39	BF	11	VAL	3.0
40	DG	178	PHE	3.0
55	DZ	150	LEU	3.0
9	AI	104	ARG	3.0
36	DC	156	ILE	3.0
14	AN	60	SER	3.0
41	BH	29	PRO	3.0
2	AB	36	ARG	3.0
36	DC	72	VAL	3.0
36	DC	42	GLU	3.0
21	AU	25	LYS	3.0
48	DS	31	SER	2.9
36	DC	163	PHE	2.9
42	BI	114	LEU	2.9
40	DG	86	MET	2.9
19	CS	49	ILE	2.9
31	D6	16	CYS	2.9
31	D6	40	CYS	2.9
41	BH	70	THR	2.9
23	CW	32	U	2.9
31	D6	24	GLU	2.9

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Mol	Chain	Res	Type	RSRZ
53	BX	94	GLY	2.9
1	AA	204	U	2.9
9	AI	85	LEU	2.9
10	AJ	3	LYS	2.9
25	B0	7	LEU	2.9
36	BC	86	ALA	2.9
36	DC	169	GLY	2.9
11	CK	11	LYS	2.9
9	AI	101	PHE	2.9
13	CM	7	VAL	2.9
34	BA	1171	G	2.9
41	DH	51	ARG	2.9
34	BA	2896	C	2.9
2	AB	139	LYS	2.9
7	AG	5	ARG	2.9
13	AM	121	LYS	2.9
27	D2	51	ARG	2.9
10	CJ	35	SER	2.9
40	DG	49	ASP	2.9
21	AU	8	THR	2.9
36	BC	178	ALA	2.9
41	DH	85	LYS	2.9
34	DA	2660	A	2.9
3	CC	186	PHE	2.9
36	DC	131	LEU	2.9
34	BA	279	C	2.9
4	CD	2	GLY	2.9
31	B6	20	ASN	2.9
34	DA	2790	A	2.9
10	CJ	63	PHE	2.9
41	BH	105	LEU	2.9
54	DY	4	LYS	2.8
13	CM	102	ARG	2.8
2	AB	126	GLU	2.8
20	CT	71	THR	2.8
36	DC	210	ARG	2.8
34	BA	2473	U	2.8
35	DB	26	A	2.8
25	D0	41	ARG	2.8
49	DT	91	ARG	2.8
54	DY	5	MET	2.8
36	DC	81	GLU	2.8

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Mol	Chain	Res	Type	RSRZ
34	DA	1532	C	2.8
2	AB	135	GLN	2.8
19	AS	80	TYR	2.8
36	DC	144	THR	2.8
49	BT	1	MET	2.8
7	AG	8	GLU	2.8
13	AM	85	GLY	2.8
36	BC	96	GLY	2.8
10	CJ	66	ARG	2.8
25	D0	70	GLN	2.8
48	BS	60	GLY	2.8
53	BX	68	ARG	2.8
1	CA	1128	C	2.8
41	BH	85	LYS	2.8
5	CE	15	ARG	2.8
34	BA	229	A	2.8
34	DA	2801(A)	A	2.8
34	DA	1740	G	2.8
10	CJ	25	GLU	2.8
42	DI	136	VAL	2.8
7	AG	156	TRP	2.8
8	CH	45	ILE	2.8
9	CI	81	ILE	2.8
1	CA	1027	C	2.8
29	D4	49	PHE	2.8
36	DC	208	PHE	2.8
34	BA	2892	A	2.8
34	DA	2895	U	2.8
41	BH	26	VAL	2.8
1	AA	1030(C)	G	2.8
22	CV	53	G	2.8
34	DA	1173	G	2.8
48	BS	82	ILE	2.8
3	AC	91	LEU	2.8
25	D0	71	ASP	2.7
38	BE	54	GLN	2.7
50	BU	89	GLU	2.7
1	CA	204	U	2.7
36	BC	74	VAL	2.7
41	DH	72	ILE	2.7
19	AS	29	ARG	2.7
34	BA	354	G	2.7

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Mol	Chain	Res	Type	RSRZ
55	BZ	115	GLY	2.7
10	AJ	44	VAL	2.7
26	B1	95	LEU	2.7
36	DC	189	ILE	2.7
54	DY	48	ALA	2.7
36	DC	50	ASP	2.7
1	CA	1003	G	2.7
49	BT	113	LYS	2.7
55	DZ	111	VAL	2.7
20	CT	41	ILE	2.7
19	AS	27	GLU	2.7
9	AI	103	THR	2.7
13	CM	121	LYS	2.7
54	DY	3	VAL	2.7
36	BC	151	GLU	2.7
42	DI	114	LEU	2.7
34	BA	2474	C	2.7
25	D0	77	ARG	2.7
20	AT	92	LEU	2.7
31	B6	22	ALA	2.7
41	BH	41	MET	2.7
13	AM	3	ARG	2.7
45	DP	18	ARG	2.7
34	DA	2174	C	2.7
55	DZ	69	THR	2.7
12	AL	126	LYS	2.7
53	DX	69	TYR	2.7
6	AF	38	GLU	2.7
42	DI	70	GLU	2.7
2	CB	230	VAL	2.7
43	DN	46	VAL	2.7
7	CG	62	PHE	2.7
23	AW	16	U	2.7
27	B2	37	PHE	2.7
36	DC	92	ASP	2.7
10	AJ	76	ASN	2.6
4	CD	12	CYS	2.6
19	CS	15	LEU	2.6
45	DP	88	LEU	2.6
31	D6	52	VAL	2.6
37	BD	34	VAL	2.6
11	AK	12	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
54	BY	52	SER	2.6
1	AA	90	U	2.6
46	BQ	135	ASP	2.6
55	BZ	179	ASP	2.6
31	D6	36	LEU	2.6
20	AT	103	GLY	2.6
48	DS	49	VAL	2.6
48	DS	97	ARG	2.6
1	CA	1183	A	2.6
54	BY	86	ARG	2.6
36	DC	123	VAL	2.6
36	DC	140	PRO	2.6
54	DY	56	PRO	2.6
51	DV	68	LYS	2.6
3	CC	76	VAL	2.6
2	CB	124	SER	2.6
39	BF	128	ALA	2.6
48	DS	34	HIS	2.6
54	BY	59	GLY	2.6
33	D8	30	ARG	2.6
2	AB	156	LYS	2.6
43	DN	75	TYR	2.6
3	CC	101	LEU	2.6
9	CI	40	LEU	2.6
10	CJ	73	ASP	2.6
34	DA	34	C	2.6
1	AA	1030(D)	A	2.6
36	DC	127	LEU	2.6
36	DC	128	GLY	2.6
30	B5	57	VAL	2.6
39	DF	11	VAL	2.6
31	B6	16	CYS	2.6
31	B6	17	LYS	2.6
42	BI	61	ARG	2.6
2	AB	232	PRO	2.6
34	BA	547	A	2.6
9	AI	42	ARG	2.6
40	BG	47	LYS	2.6
41	BH	60	ARG	2.6
48	DS	23	ARG	2.6
34	DA	1888	G	2.5
45	DP	87	ASP	2.5

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Mol	Chain	Res	Type	RSRZ
14	AN	14	PRO	2.5
31	D6	21	TYR	2.5
54	DY	28	LYS	2.5
14	AN	7	ILE	2.5
29	D4	42	PHE	2.5
36	DC	180	PHE	2.5
42	DI	79	ILE	2.5
38	DE	72	VAL	2.5
20	CT	98	PRO	2.5
12	CL	64	TYR	2.5
53	DX	34	ALA	2.5
46	BQ	25	ASP	2.5
34	DA	1494	A	2.5
14	AN	35	ARG	2.5
1	AA	1031	G	2.5
10	CJ	47	PHE	2.5
36	DC	130	ILE	2.5
55	DZ	71	VAL	2.5
48	DS	84	GLN	2.5
34	DA	358	U	2.5
12	AL	127	GLU	2.5
25	D0	69	PHE	2.5
42	DI	97	ILE	2.5
42	DI	81	VAL	2.5
42	DI	91	SER	2.5
1	AA	92	C	2.5
46	DQ	136	ALA	2.5
21	CU	17	THR	2.5
31	B6	23	THR	2.5
4	AD	134	ASP	2.5
49	BT	104	ASN	2.5
48	DS	108	GLY	2.5
9	CI	21	PRO	2.5
16	CP	7	ALA	2.5
2	AB	240	GLN	2.5
10	CJ	36	GLY	2.5
19	CS	67	VAL	2.5
7	CG	38	LEU	2.5
25	B0	3	HIS	2.5
2	AB	39	ILE	2.5
34	DA	2108	C	2.5
43	DN	131	GLN	2.5

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Mol	Chain	Res	Type	RSRZ
13	CM	35	GLU	2.5
31	B6	32	ASN	2.5
43	BN	139	GLU	2.5
14	AN	6	LEU	2.5
48	DS	80	LEU	2.5
9	AI	83	ARG	2.4
19	AS	10	PHE	2.4
18	CR	28	GLU	2.4
33	B8	41	ILE	2.4
26	B1	78	LYS	2.4
41	DH	133	VAL	2.4
20	CT	99	LEU	2.4
41	DH	105	LEU	2.4
42	DI	77	LEU	2.4
1	CA	77	G	2.4
1	CA	1127	G	2.4
31	B6	41	PRO	2.4
49	BT	8	LYS	2.4
51	BV	3	ALA	2.4
10	AJ	38	ILE	2.4
36	BC	105	ASP	2.4
2	AB	112	VAL	2.4
32	B7	46	VAL	2.4
36	DC	188	ASN	2.4
41	DH	115	VAL	2.4
40	DG	34	LEU	2.4
28	B3	3	ARG	2.4
55	DZ	104	PHE	2.4
28	D3	47	VAL	2.4
36	BC	154	ARG	2.4
36	DC	96	GLY	2.4
34	BA	508	G	2.4
35	DB	25	A	2.4
36	DC	175	VAL	2.4
2	AB	86	GLU	2.4
14	AN	16	PHE	2.4
2	CB	41	ILE	2.4
16	CP	1	MET	2.4
10	CJ	64	GLU	2.4
1	AA	1033	G	2.4
31	B6	14	THR	2.4
34	BA	2168	G	2.4

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Mol	Chain	Res	Type	RSRZ
39	DF	202	PHE	2.4
21	AU	5	ASP	2.4
7	CG	124	LEU	2.4
31	D6	51	GLU	2.4
42	BI	77	LEU	2.4
21	AU	3	LYS	2.4
38	BE	57	LYS	2.4
55	BZ	106	GLY	2.4
41	BH	149	ARG	2.4
46	DQ	91	GLU	2.4
40	DG	64	THR	2.4
28	B3	57	GLU	2.4
20	CT	84	LEU	2.3
9	AI	44	VAL	2.3
9	CI	44	VAL	2.3
31	B6	29	ASN	2.3
34	BA	656	G	2.3
26	B1	26	ARG	2.3
41	BH	132	ARG	2.3
9	CI	7	THR	2.3
19	CS	14	HIS	2.3
21	AU	14	TRP	2.3
36	DC	174	PRO	2.3
14	CN	2	ALA	2.3
2	CB	135	GLN	2.3
36	DC	74	VAL	2.3
7	CG	74	GLU	2.3
36	BC	24	GLU	2.3
2	AB	133	LYS	2.3
14	CN	14	PRO	2.3
36	BC	65	PRO	2.3
34	BA	2897	U	2.3
9	CI	10	ARG	2.3
37	DD	34	VAL	2.3
46	DQ	90	VAL	2.3
55	BZ	56	VAL	2.3
34	DA	92	A	2.3
41	BH	167	GLU	2.3
29	D4	15	ILE	2.3
2	CB	215	LEU	2.3
42	DI	116	LEU	2.3
7	CG	46	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
9	CI	36	TYR	2.3
20	AT	48	LYS	2.3
46	BQ	138	ASP	2.3
9	CI	20	ARG	2.3
55	BZ	31	ARG	2.3
11	CK	57	THR	2.3
34	DA	1026	U	2.3
46	BQ	21	THR	2.3
9	AI	127	LYS	2.3
41	BH	19	VAL	2.3
46	DQ	8	LYS	2.3
51	BV	14	VAL	2.3
1	CA	1036	G	2.3
55	DZ	114	GLY	2.3
34	DA	1052	C	2.3
13	AM	6	GLY	2.3
49	DT	93	ARG	2.3
1	AA	1036	G	2.3
9	CI	96	LEU	2.3
31	B6	11	LEU	2.3
33	D8	35	GLN	2.3
34	DA	271(K)	U	2.3
1	AA	1001	A	2.3
7	AG	82	GLY	2.3
53	BX	26	TYR	2.3
12	AL	19	ARG	2.3
41	BH	147	ASN	2.3
41	DH	101	ARG	2.3
7	CG	86	GLN	2.3
45	BP	27	HIS	2.3
40	DG	2	PRO	2.3
1	CA	1026	G	2.3
13	CM	85	GLY	2.3
23	AY	44	G	2.3
34	DA	271(N)	U	2.3
2	CB	71	VAL	2.3
5	CE	69	VAL	2.3
40	BG	146	TYR	2.3
53	BX	69	TYR	2.3
23	CW	36	A	2.3
46	BQ	64	ILE	2.2
23	AW	60	U	2.2

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Mol	Chain	Res	Type	RSRZ
7	CG	44	TYR	2.2
7	CG	66	VAL	2.2
13	CM	65	LYS	2.2
42	DI	73	GLU	2.2
2	AB	118	LEU	2.2
15	CO	62	GLN	2.2
2	AB	125	PRO	2.2
31	D6	53	LYS	2.2
53	BX	62	LYS	2.2
1	CA	90	U	2.2
31	B6	12	GLU	2.2
3	AC	67	THR	2.2
1	AA	1115	C	2.2
17	AQ	74	LEU	2.2
41	BH	57	ASP	2.2
9	CI	93	ARG	2.2
55	DZ	149	SER	2.2
39	DF	27	GLU	2.2
34	DA	2796	U	2.2
37	DD	272	ALA	2.2
42	BI	83	ALA	2.2
41	BH	54	ARG	2.2
51	BV	96	ILE	2.2
34	DA	896	A	2.2
20	AT	49	ALA	2.2
30	D5	57	VAL	2.2
37	BD	272	ALA	2.2
44	BO	90	GLN	2.2
55	BZ	155	LEU	2.2
9	CI	9	ARG	2.2
27	B2	62	THR	2.2
36	BC	73	ARG	2.2
13	CM	69	GLU	2.2
36	BC	132	GLY	2.2
45	BP	104	GLY	2.2
7	AG	87	VAL	2.2
11	CK	82	VAL	2.2
31	D6	11	LEU	2.2
20	AT	50	GLU	2.2
30	B5	44	THR	2.2
47	DR	118	GLU	2.2
45	DP	82	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
55	DZ	171	ILE	2.2
19	CS	18	LYS	2.2
10	AJ	47	PHE	2.2
7	CG	135	VAL	2.2
51	BV	47	VAL	2.2
8	AH	58	TYR	2.2
38	BE	151	TYR	2.2
54	BY	102	CYS	2.2
10	AJ	4	ILE	2.2
48	DS	45	GLY	2.2
36	DC	157	LYS	2.2
34	DA	271(M)	G	2.2
30	B5	47	PRO	2.2
33	D8	63	PRO	2.2
13	CM	60	VAL	2.2
48	DS	48	LEU	2.2
2	CB	66	GLY	2.2
3	AC	102	ASN	2.2
7	CG	81	GLY	2.2
31	D6	17	LYS	2.2
34	BA	92	A	2.1
1	CA	1257	U	2.1
8	CH	39	LEU	2.1
34	DA	2897	U	2.1
21	CU	20	LYS	2.1
10	AJ	31	GLY	2.1
53	DX	94	GLY	2.1
50	DU	17	ILE	2.1
40	BG	43	LEU	2.1
36	DC	158	ALA	2.1
42	DI	36	ALA	2.1
1	AA	1032	G	2.1
25	B0	41	ARG	2.1
46	DQ	6	ARG	2.1
49	BT	22	PHE	2.1
34	BA	884	C	2.1
7	AG	16	LEU	2.1
46	BQ	103	MET	2.1
16	CP	19	ILE	2.1
30	B5	52	TYR	2.1
18	AR	54	ARG	2.1
48	BS	97	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
18	AR	23	LYS	2.1
36	DC	162	GLU	2.1
1	AA	1009	G	2.1
2	CB	55	PHE	2.1
9	AI	100	GLY	2.1
49	BT	135	ALA	2.1
48	BS	33	LYS	2.1
54	DY	95	LYS	2.1
7	CG	12	LEU	2.1
38	BE	10	GLY	2.1
14	AN	61	TRP	2.1
34	DA	158	U	2.1
34	DA	1176	G	2.1
41	DH	149	ARG	2.1
31	D6	22	ALA	2.1
31	D6	35	GLU	2.1
39	BF	19	GLU	2.1
29	D4	32	TYR	2.1
41	DH	103	LEU	2.1
7	CG	132	GLY	2.1
20	AT	47	GLY	2.1
45	BP	107	LYS	2.1
31	D6	48	VAL	2.1
36	DC	62	VAL	2.1
54	BY	85	VAL	2.1
1	CA	84	U	2.1
34	BA	2895	U	2.1
2	AB	228	GLY	2.1
5	CE	29	GLY	2.1
17	CQ	74	LEU	2.1
51	BV	95	LEU	2.1
10	CJ	101	VAL	2.1
26	B1	58	ILE	2.1
55	BZ	14	LYS	2.1
38	BE	76	ARG	2.1
49	BT	93	ARG	2.1
34	DA	2807	G	2.1
36	DC	88	GLU	2.1
42	DI	16	GLY	2.1
42	DI	64	GLU	2.1
55	BZ	117	LEU	2.1
2	CB	229	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
19	CS	11	VAL	2.0
36	BC	51	PRO	2.0
23	CW	21	A	2.0
42	BI	78	THR	2.0
10	CJ	4	ILE	2.0
41	BH	102	ALA	2.0
31	B6	25	LYS	2.0
14	AN	12	ARG	2.0
43	BN	68	GLU	2.0
50	BU	111	GLU	2.0
50	BU	27	LEU	2.0
39	BF	13	SER	2.0
5	AE	69	VAL	2.0
5	CE	51	VAL	2.0
23	CW	17	C	2.0
1	AA	1030(A)	G	2.0
50	BU	84	LYS	2.0
55	DZ	107	THR	2.0
37	BD	271	ILE	2.0
3	CC	10	PHE	2.0
3	CC	89	GLU	2.0
4	CD	194	LEU	2.0
42	DI	140	LEU	2.0
46	BQ	37	LEU	2.0
51	DV	86	GLY	2.0
11	CK	14	VAL	2.0
43	DN	11	PRO	2.0
54	BY	98	VAL	2.0
10	CJ	42	THR	2.0
21	CU	15	ARG	2.0
48	DS	13	ARG	2.0
1	AA	1286	A	2.0
1	AA	1447	A	2.0
34	DA	10	G	2.0
34	DA	603	A	2.0
34	DA	656	G	2.0
36	BC	125	SER	2.0
10	AJ	77	PRO	2.0
41	BH	32	GLU	2.0
50	BU	88	ILE	2.0
55	BZ	97	GLU	2.0
37	BD	40	THR	2.0

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Mol	Chain	Res	Type	RSRZ
9	AI	59	PHE	2.0
21	CU	26	LYS	2.0
34	BA	2799	C	2.0
36	DC	46	LYS	2.0
36	DC	135	GLY	2.0
42	BI	140	LEU	2.0

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

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
22	5MU	CV	54	21/22	0.14	-	64,75,79,79	0
22	5MU	AV	54	21/22	0.16	-	75,83,108,108	0

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

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

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	CA	1745	1/1	0.36	-	77,77,77,77	0
56	MG	DA	3105	1/1	0.18	-	6,6,6,6	0
56	MG	AA	1704	1/1	0.07	-	0,0,0,0	0
56	MG	DA	3385	1/1	0.07	-	29,29,29,29	0
56	MG	DA	3028	1/1	0.14	-	0,0,0,0	0
56	MG	DA	3277	1/1	0.22	-	55,55,55,55	0
56	MG	CA	1687	1/1	0.07	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3427	1/1	0.06	-	12,12,12,12	0
56	MG	DA	3357	1/1	0.15	-	26,26,26,26	0
56	MG	BA	3153	1/1	0.12	-	37,37,37,37	0
56	MG	BA	3330	1/1	0.07	-	33,33,33,33	0
56	MG	BA	3304	1/1	0.13	-	35,35,35,35	0
56	MG	AW	118	1/1	0.16	-	46,46,46,46	0
56	MG	BA	3241	1/1	0.17	-	43,43,43,43	0
56	MG	BA	3302	1/1	0.15	-	14,14,14,14	0
56	MG	BA	3406	1/1	0.15	-	18,18,18,18	0
56	MG	BA	3381	1/1	0.10	-	21,21,21,21	0
56	MG	AA	1758	1/1	0.12	-	62,62,62,62	0
56	MG	BA	3442	1/1	0.10	-	29,29,29,29	0
56	MG	DA	3061	1/1	0.24	-	0,0,0,0	0
56	MG	AA	1682	1/1	0.18	-	17,17,17,17	0
56	MG	DA	3175	1/1	0.23	-	30,30,30,30	0
56	MG	AA	1632	1/1	0.10	-	24,24,24,24	0
56	MG	DA	3262	1/1	0.32	-	72,72,72,72	0
56	MG	CA	1770	1/1	0.11	-	14,14,14,14	0
56	MG	AA	1775	1/1	0.11	-	29,29,29,29	0
56	MG	DA	3110	1/1	0.18	-	1,1,1,1	0
56	MG	DA	3129	1/1	0.15	-	6,6,6,6	0
56	MG	DA	3361	1/1	0.25	-	5,5,5,5	0
56	MG	BA	3135	1/1	0.14	-	18,18,18,18	0
56	MG	DA	3317	1/1	0.06	-	11,11,11,11	1
56	MG	CA	1777	1/1	0.16	-	0,0,0,0	0
56	MG	DA	3042	1/1	0.55	-	58,58,58,58	0
56	MG	BA	3129	1/1	0.14	-	21,21,21,21	0
56	MG	CX	105	1/1	0.11	-	41,41,41,41	0
56	MG	CA	1623	1/1	0.10	-	9,9,9,9	0
56	MG	DA	3132	1/1	0.08	-	13,13,13,13	0
56	MG	CA	1643	1/1	0.43	-	48,48,48,48	0
56	MG	BA	3361	1/1	0.21	-	53,53,53,53	0
56	MG	DA	3134	1/1	0.20	-	4,4,4,4	0
56	MG	BA	3084	1/1	0.20	-	0,0,0,0	0
56	MG	DA	3377	1/1	0.12	-	6,6,6,6	1
56	MG	AA	1674	1/1	0.22	-	33,33,33,33	0
56	MG	DA	3185	1/1	0.13	-	8,8,8,8	1
56	MG	DA	3051	1/1	0.16	-	0,0,0,0	0
56	MG	BA	3428	1/1	0.69	-	72,72,72,72	1
56	MG	CA	1751	1/1	0.21	-	81,81,81,81	0
56	MG	CA	1746	1/1	0.25	-	18,18,18,18	0
56	MG	BA	3106	1/1	0.18	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3223	1/1	0.13	-	8,8,8,8	0
56	MG	AA	1712	1/1	0.05	-	22,22,22,22	0
56	MG	BA	3398	1/1	0.07	-	9,9,9,9	1
56	MG	AA	1767	1/1	0.17	-	48,48,48,48	0
56	MG	DA	3235	1/1	0.06	-	39,39,39,39	0
56	MG	BA	3355	1/1	0.10	-	20,20,20,20	0
56	MG	AA	1664	1/1	0.09	-	0,0,0,0	0
56	MG	BA	3298	1/1	0.31	-	25,25,25,25	0
56	MG	BA	3103	1/1	0.17	-	55,55,55,55	0
56	MG	CA	1603	1/1	0.10	-	25,25,25,25	0
56	MG	DA	3102	1/1	0.12	-	0,0,0,0	0
56	MG	BA	3122	1/1	0.13	-	8,8,8,8	0
56	MG	DA	3398	1/1	0.16	-	7,7,7,7	0
56	MG	BA	3375	1/1	0.27	-	42,42,42,42	1
56	MG	BA	3431	1/1	0.12	-	51,51,51,51	0
56	MG	DA	3118	1/1	0.08	-	6,6,6,6	0
56	MG	BA	3230	1/1	0.18	-	36,36,36,36	0
56	MG	CA	1701	1/1	0.09	-	16,16,16,16	0
56	MG	DA	3390	1/1	0.11	-	73,73,73,73	0
56	MG	BA	3157	1/1	0.26	-	39,39,39,39	0
56	MG	B5	101	1/1	0.15	-	6,6,6,6	0
56	MG	AA	1811	1/1	0.11	-	16,16,16,16	0
56	MG	DA	3079	1/1	0.14	-	13,13,13,13	0
56	MG	AA	1748	1/1	0.24	-	59,59,59,59	0
56	MG	DA	3223	1/1	0.32	-	11,11,11,11	0
56	MG	DA	3086	1/1	0.20	-	0,0,0,0	0
56	MG	CA	1658	1/1	0.09	-	40,40,40,40	0
56	MG	DA	3298	1/1	0.13	-	5,5,5,5	0
56	MG	DA	3123	1/1	0.10	-	20,20,20,20	0
56	MG	AA	1680	1/1	0.15	-	30,30,30,30	0
56	MG	AA	1641	1/1	0.07	-	0,0,0,0	0
56	MG	AA	1739	1/1	0.15	-	23,23,23,23	0
56	MG	DA	3328	1/1	0.10	-	27,27,27,27	0
56	MG	CA	1682	1/1	0.13	-	32,32,32,32	0
56	MG	CA	1726	1/1	0.12	-	29,29,29,29	0
56	MG	DA	3217	1/1	0.14	-	62,62,62,62	0
56	MG	AA	1666	1/1	0.18	-	1,1,1,1	0
56	MG	DA	3305	1/1	0.12	-	28,28,28,28	0
56	MG	DA	3092	1/1	0.10	-	4,4,4,4	0
56	MG	DA	3127	1/1	0.10	-	0,0,0,0	0
56	MG	DA	3252	1/1	0.07	-	0,0,0,0	1
56	MG	BA	3104	1/1	0.18	-	12,12,12,12	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3023	1/1	0.27	-	0,0,0,0	0
56	MG	AA	1719	1/1	0.06	-	65,65,65,65	0
56	MG	DA	3066	1/1	0.24	-	0,0,0,0	0
56	MG	B7	102	1/1	0.07	-	11,11,11,11	1
56	MG	AA	1714	1/1	0.26	-	28,28,28,28	0
56	MG	AA	1677	1/1	0.13	-	41,41,41,41	0
56	MG	AA	1809	1/1	0.17	-	40,40,40,40	1
56	MG	DA	3043	1/1	0.14	-	2,2,2,2	0
56	MG	BA	3452	1/1	0.13	-	39,39,39,39	0
56	MG	BA	3040	1/1	0.07	-	22,22,22,22	0
56	MG	BA	3092	1/1	0.17	-	0,0,0,0	0
56	MG	DA	3008	1/1	0.16	-	23,23,23,23	0
56	MG	AW	104	1/1	0.05	-	28,28,28,28	0
56	MG	DA	3108	1/1	0.24	-	0,0,0,0	0
56	MG	DB	207	1/1	0.20	-	52,52,52,52	1
56	MG	CA	1740	1/1	0.05	-	19,19,19,19	0
56	MG	AA	1780	1/1	0.10	-	60,60,60,60	0
56	MG	DA	3347	1/1	0.08	-	34,34,34,34	0
56	MG	BA	3226	1/1	0.09	-	20,20,20,20	0
56	MG	DA	3281	1/1	0.20	-	14,14,14,14	1
56	MG	DA	3331	1/1	0.19	-	42,42,42,42	0
56	MG	DA	3238	1/1	0.26	-	54,54,54,54	0
56	MG	DA	3099	1/1	0.11	-	10,10,10,10	0
56	MG	BA	3364	1/1	0.13	-	35,35,35,35	0
56	MG	AA	1699	1/1	0.14	-	0,0,0,0	0
56	MG	DA	3254	1/1	0.10	-	1,1,1,1	0
56	MG	AA	1754	1/1	0.10	-	16,16,16,16	0
56	MG	BA	3208	1/1	0.11	-	8,8,8,8	0
56	MG	BA	3423	1/1	0.16	-	21,21,21,21	0
56	MG	DA	3002	1/1	0.24	-	38,38,38,38	0
56	MG	BA	3120	1/1	0.06	-	23,23,23,23	0
56	MG	DA	3368	1/1	0.75	-	71,71,71,71	0
56	MG	AA	1631	1/1	0.30	-	21,21,21,21	0
56	MG	BA	3444	1/1	0.09	-	7,7,7,7	0
56	MG	BA	3169	1/1	0.08	-	8,8,8,8	0
56	MG	DA	3321	1/1	0.08	-	45,45,45,45	1
56	MG	BA	3419	1/1	0.27	-	39,39,39,39	0
56	MG	DA	3164	1/1	0.06	-	8,8,8,8	0
56	MG	BA	3306	1/1	0.23	-	20,20,20,20	0
56	MG	AA	1769	1/1	0.20	-	61,61,61,61	0
56	MG	BB	203	1/1	0.14	-	52,52,52,52	0
56	MG	BA	3449	1/1	0.13	-	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3163	1/1	0.13	-	17,17,17,17	0
56	MG	BA	3397	1/1	0.08	-	32,32,32,32	0
56	MG	BA	3115	1/1	0.08	-	0,0,0,0	0
56	MG	DA	3171	1/1	0.18	-	37,37,37,37	0
56	MG	BA	3218	1/1	0.08	-	56,56,56,56	0
56	MG	BA	3128	1/1	0.18	-	18,18,18,18	0
56	MG	CA	1691	1/1	0.23	-	56,56,56,56	0
56	MG	DA	3226	1/1	0.09	-	5,5,5,5	0
56	MG	CA	1604	1/1	0.19	-	45,45,45,45	0
56	MG	DA	3276	1/1	0.36	-	45,45,45,45	0
56	MG	CW	105	1/1	0.04	-	30,30,30,30	0
56	MG	CA	1715	1/1	0.07	-	55,55,55,55	0
56	MG	BA	3312	1/1	0.20	-	0,0,0,0	0
56	MG	AA	1779	1/1	0.19	-	46,46,46,46	0
56	MG	AV	102	1/1	0.05	-	28,28,28,28	0
56	MG	DA	3264	1/1	0.10	-	11,11,11,11	0
56	MG	AA	1798	1/1	0.12	-	36,36,36,36	0
56	MG	CA	1627	1/1	0.14	-	34,34,34,34	0
56	MG	AE	201	1/1	0.10	-	47,47,47,47	0
56	MG	DA	3342	1/1	0.21	-	49,49,49,49	0
56	MG	DA	3022	1/1	0.16	-	37,37,37,37	0
56	MG	BA	3186	1/1	0.14	-	25,25,25,25	0
56	MG	DB	211	1/1	0.06	-	45,45,45,45	0
56	MG	AA	1737	1/1	0.13	-	60,60,60,60	0
56	MG	BA	3184	1/1	0.15	-	1,1,1,1	0
56	MG	BA	3388	1/1	0.23	-	22,22,22,22	0
56	MG	CA	1681	1/1	0.07	-	40,40,40,40	0
56	MG	DA	3009	1/1	0.19	-	3,3,3,3	0
56	MG	BA	3023	1/1	0.26	-	0,0,0,0	0
56	MG	AA	1651	1/1	0.20	-	35,35,35,35	0
56	MG	CA	1743	1/1	0.18	-	1,1,1,1	0
56	MG	AX	104	1/1	0.12	-	44,44,44,44	0
56	MG	CA	1636	1/1	0.15	-	36,36,36,36	0
56	MG	DA	3015	1/1	0.11	-	0,0,0,0	0
56	MG	DA	3351	1/1	0.15	-	16,16,16,16	0
56	MG	DA	3282	1/1	0.15	-	41,41,41,41	0
56	MG	DA	3081	1/1	0.20	-	4,4,4,4	0
56	MG	BA	3097	1/1	0.07	-	2,2,2,2	0
56	MG	DA	3364	1/1	0.09	-	57,57,57,57	0
56	MG	DA	3215	1/1	0.04	-	31,31,31,31	0
56	MG	AA	1727	1/1	0.18	-	40,40,40,40	0
56	MG	DA	3039	1/1	0.18	-	10,10,10,10	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1752	1/1	0.54	-	83,83,83,83	0
56	MG	BA	3170	1/1	0.15	-	0,0,0,0	0
56	MG	CA	1700	1/1	0.13	-	20,20,20,20	0
56	MG	DA	3232	1/1	0.13	-	13,13,13,13	0
56	MG	DA	3203	1/1	0.08	-	58,58,58,58	0
56	MG	BA	3042	1/1	0.06	-	13,13,13,13	0
56	MG	DA	3312	1/1	0.12	-	44,44,44,44	0
56	MG	BA	3450	1/1	0.10	-	55,55,55,55	0
56	MG	BA	3439	1/1	0.27	-	31,31,31,31	0
56	MG	BA	3214	1/1	0.39	-	44,44,44,44	0
56	MG	AA	1725	1/1	0.12	-	53,53,53,53	0
56	MG	CJ	201	1/1	0.12	-	44,44,44,44	0
56	MG	BA	3243	1/1	0.16	-	18,18,18,18	0
56	MG	BA	3066	1/1	0.08	-	0,0,0,0	0
56	MG	BA	3392	1/1	0.10	-	8,8,8,8	0
56	MG	BA	3061	1/1	0.17	-	0,0,0,0	0
56	MG	AA	1740	1/1	0.13	-	40,40,40,40	0
56	MG	DA	3244	1/1	0.28	-	0,0,0,0	0
58	ZN	CD	301	1/1	0.18	-	24,24,24,24	0
56	MG	DA	3141	1/1	0.07	-	0,0,0,0	0
56	MG	AA	1654	1/1	0.23	-	50,50,50,50	0
56	MG	AV	105	1/1	0.10	-	12,12,12,12	0
56	MG	DA	3191	1/1	0.20	-	25,25,25,25	0
56	MG	DA	3340	1/1	0.11	-	30,30,30,30	0
56	MG	CA	1724	1/1	0.08	-	38,38,38,38	0
56	MG	DA	3249	1/1	0.48	-	57,57,57,57	0
56	MG	AA	1609	1/1	0.16	-	44,44,44,44	0
56	MG	DA	3056	1/1	0.14	-	9,9,9,9	0
56	MG	BA	3334	1/1	0.12	-	40,40,40,40	0
56	MG	DA	3396	1/1	0.18	-	27,27,27,27	1
56	MG	DA	3338	1/1	0.09	-	53,53,53,53	0
56	MG	DA	3220	1/1	0.09	-	3,3,3,3	0
56	MG	CA	1660	1/1	0.19	-	22,22,22,22	0
56	MG	BA	3386	1/1	0.07	-	85,85,85,85	0
56	MG	CA	1614	1/1	0.10	-	20,20,20,20	0
56	MG	DA	3005	1/1	0.07	-	13,13,13,13	0
56	MG	BA	3225	1/1	0.16	-	0,0,0,0	0
56	MG	CA	1694	1/1	0.18	-	33,33,33,33	0
56	MG	DA	3324	1/1	0.18	-	56,56,56,56	0
56	MG	DA	3365	1/1	0.09	-	29,29,29,29	0
56	MG	DA	3150	1/1	0.16	-	40,40,40,40	0
56	MG	BB	219	1/1	0.09	-	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3260	1/1	0.10	-	23,23,23,23	0
56	MG	AA	1702	1/1	0.20	-	23,23,23,23	0
56	MG	AA	1672	1/1	0.14	-	0,0,0,0	0
56	MG	DA	3250	1/1	0.07	-	57,57,57,57	0
56	MG	AW	115	1/1	0.12	-	42,42,42,42	0
56	MG	AA	1688	1/1	0.28	-	39,39,39,39	0
56	MG	BA	3148	1/1	0.14	-	37,37,37,37	0
56	MG	DA	3366	1/1	0.13	-	3,3,3,3	0
56	MG	DA	3256	1/1	0.08	-	22,22,22,22	0
56	MG	DA	3346	1/1	0.09	-	29,29,29,29	0
56	MG	BO	201	1/1	0.17	-	13,13,13,13	0
56	MG	CA	1703	1/1	0.07	-	19,19,19,19	0
56	MG	BA	3051	1/1	0.18	-	56,56,56,56	0
56	MG	AA	1770	1/1	0.12	-	16,16,16,16	0
56	MG	DA	3057	1/1	0.26	-	35,35,35,35	0
56	MG	BA	3090	1/1	0.16	-	0,0,0,0	0
56	MG	AA	1637	1/1	0.14	-	0,0,0,0	0
56	MG	BA	3054	1/1	0.11	-	0,0,0,0	0
56	MG	AW	116	1/1	0.14	-	58,58,58,58	0
56	MG	DA	3348	1/1	0.14	-	46,46,46,46	0
56	MG	BA	3111	1/1	0.15	-	27,27,27,27	0
56	MG	BA	3357	1/1	0.07	-	19,19,19,19	0
56	MG	AA	1724	1/1	0.06	-	0,0,0,0	0
56	MG	DA	3394	1/1	0.19	-	66,66,66,66	0
56	MG	AA	1705	1/1	0.06	-	21,21,21,21	0
56	MG	BA	3130	1/1	0.04	-	4,4,4,4	0
56	MG	DA	3275	1/1	0.42	-	75,75,75,75	0
56	MG	DA	3360	1/1	0.25	-	39,39,39,39	0
56	MG	AW	114	1/1	0.13	-	25,25,25,25	1
56	MG	BA	3343	1/1	0.30	-	34,34,34,34	0
56	MG	BA	3048	1/1	0.19	-	0,0,0,0	0
56	MG	DA	3374	1/1	0.14	-	50,50,50,50	0
56	MG	AA	1787	1/1	0.08	-	15,15,15,15	0
56	MG	DA	3139	1/1	0.10	-	28,28,28,28	0
56	MG	DA	3111	1/1	0.25	-	1,1,1,1	0
56	MG	DA	3001	1/1	0.17	-	20,20,20,20	0
56	MG	BA	3204	1/1	0.10	-	0,0,0,0	0
56	MG	BA	3282	1/1	0.33	-	49,49,49,49	0
56	MG	BA	3443	1/1	0.04	-	20,20,20,20	0
56	MG	AA	1736	1/1	0.12	-	19,19,19,19	0
56	MG	DA	3213	1/1	0.37	-	84,84,84,84	0
56	MG	AA	1621	1/1	0.09	-	14,14,14,14	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1721	1/1	0.30	-	57,57,57,57	0
56	MG	BA	3030	1/1	0.13	-	0,0,0,0	0
56	MG	BA	3200	1/1	0.06	-	5,5,5,5	1
56	MG	CA	1686	1/1	0.10	-	57,57,57,57	0
56	MG	DA	3050	1/1	0.32	-	0,0,0,0	0
56	MG	CA	1778	1/1	0.11	-	3,3,3,3	0
56	MG	DB	208	1/1	0.16	-	9,9,9,9	0
56	MG	CW	108	1/1	0.08	-	10,10,10,10	1
56	MG	AA	1692	1/1	0.17	-	0,0,0,0	0
56	MG	BA	3038	1/1	0.19	-	10,10,10,10	0
56	MG	DA	3018	1/1	0.08	-	3,3,3,3	0
56	MG	AW	102	1/1	0.23	-	51,51,51,51	0
56	MG	AA	1650	1/1	0.12	-	31,31,31,31	0
56	MG	BA	3365	1/1	0.14	-	60,60,60,60	0
56	MG	CA	1693	1/1	0.17	-	18,18,18,18	1
56	MG	CA	1667	1/1	0.18	-	41,41,41,41	0
56	MG	BA	3216	1/1	0.20	-	50,50,50,50	0
56	MG	BA	3213	1/1	0.17	-	19,19,19,19	0
56	MG	DA	3011	1/1	0.18	-	11,11,11,11	0
56	MG	CA	1648	1/1	0.12	-	34,34,34,34	0
56	MG	BA	3171	1/1	0.09	-	0,0,0,0	1
56	MG	CA	1733	1/1	0.11	-	31,31,31,31	0
56	MG	DA	3052	1/1	0.17	-	0,0,0,0	0
56	MG	DA	3192	1/1	0.12	-	17,17,17,17	0
56	MG	BA	3314	1/1	0.41	-	47,47,47,47	1
56	MG	DA	3199	1/1	0.10	-	26,26,26,26	0
56	MG	DA	3308	1/1	0.09	-	20,20,20,20	0
56	MG	DA	3314	1/1	0.12	-	16,16,16,16	0
56	MG	AA	1763	1/1	0.30	-	58,58,58,58	1
56	MG	BA	3301	1/1	0.17	-	19,19,19,19	0
56	MG	BA	3083	1/1	0.14	-	20,20,20,20	0
56	MG	BA	3114	1/1	0.18	-	0,0,0,0	0
56	MG	CA	1659	1/1	0.06	-	9,9,9,9	0
56	MG	CA	1699	1/1	0.09	-	0,0,0,0	0
56	MG	AA	1695	1/1	0.16	-	13,13,13,13	1
56	MG	BA	3076	1/1	0.16	-	4,4,4,4	0
56	MG	DA	3309	1/1	0.11	-	6,6,6,6	0
56	MG	BA	3385	1/1	0.07	-	12,12,12,12	0
56	MG	AA	1697	1/1	0.41	-	88,88,88,88	0
56	MG	DA	3126	1/1	0.08	-	29,29,29,29	0
56	MG	DA	3020	1/1	0.27	-	1,1,1,1	0
56	MG	AA	1801	1/1	0.21	-	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3384	1/1	0.11	-	36,36,36,36	0
56	MG	CA	1622	1/1	1.02	-	123,123,123,123	0
56	MG	DA	3300	1/1	0.15	-	13,13,13,13	0
56	MG	CW	107	1/1	0.24	-	63,63,63,63	1
56	MG	CA	1773	1/1	0.08	-	13,13,13,13	0
56	MG	BA	3283	1/1	0.05	-	36,36,36,36	0
56	MG	BA	3376	1/1	0.21	-	47,47,47,47	0
56	MG	BA	3403	1/1	0.46	-	78,78,78,78	0
56	MG	AA	1629	1/1	0.12	-	29,29,29,29	0
56	MG	BA	3440	1/1	0.13	-	33,33,33,33	0
56	MG	BE	301	1/1	0.16	-	8,8,8,8	0
56	MG	DA	3197	1/1	0.17	-	13,13,13,13	0
56	MG	CA	1606	1/1	0.17	-	16,16,16,16	0
56	MG	DA	3323	1/1	0.19	-	31,31,31,31	0
56	MG	CW	103	1/1	0.06	-	45,45,45,45	0
56	MG	BA	3333	1/1	0.14	-	41,41,41,41	0
56	MG	CV	101	1/1	0.13	-	32,32,32,32	0
56	MG	BA	3160	1/1	0.11	-	17,17,17,17	0
56	MG	DA	3376	1/1	0.09	-	25,25,25,25	0
56	MG	AA	1771	1/1	0.06	-	6,6,6,6	0
56	MG	DA	3334	1/1	0.09	-	34,34,34,34	1
56	MG	DA	3257	1/1	0.21	-	27,27,27,27	0
56	MG	BA	3414	1/1	0.34	-	44,44,44,44	0
56	MG	BA	3352	1/1	0.09	-	30,30,30,30	1
56	MG	DA	3332	1/1	0.05	-	45,45,45,45	0
56	MG	BA	3277	1/1	0.21	-	38,38,38,38	0
56	MG	CA	1647	1/1	0.45	-	57,57,57,57	0
56	MG	BA	3143	1/1	0.26	-	21,21,21,21	0
56	MG	DA	3182	1/1	0.08	-	5,5,5,5	0
56	MG	CW	111	1/1	0.19	-	77,77,77,77	0
56	MG	DA	3136	1/1	0.22	-	3,3,3,3	0
56	MG	AW	121	1/1	0.07	-	36,36,36,36	0
56	MG	DA	3370	1/1	0.11	-	22,22,22,22	0
56	MG	CA	1664	1/1	0.17	-	28,28,28,28	0
56	MG	BA	3309	1/1	0.14	-	14,14,14,14	0
56	MG	DA	3071	1/1	0.10	-	18,18,18,18	0
56	MG	BA	3041	1/1	0.15	-	0,0,0,0	0
56	MG	AA	1667	1/1	0.15	-	50,50,50,50	0
56	MG	BB	204	1/1	0.14	-	42,42,42,42	0
56	MG	DA	3040	1/1	0.04	-	45,45,45,45	0
56	MG	BA	3188	1/1	0.19	-	13,13,13,13	0
56	MG	DA	3290	1/1	0.08	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3344	1/1	0.32	-	32,32,32,32	0
56	MG	BA	3404	1/1	0.25	-	17,17,17,17	0
56	MG	CA	1742	1/1	0.15	-	76,76,76,76	0
56	MG	AA	1655	1/1	0.15	-	32,32,32,32	0
56	MG	B1	101	1/1	0.15	-	0,0,0,0	0
56	MG	DA	3229	1/1	0.20	-	1,1,1,1	0
56	MG	BA	3105	1/1	0.19	-	13,13,13,13	0
56	MG	BA	3288	1/1	0.20	-	32,32,32,32	1
56	MG	DD	302	1/1	0.10	-	7,7,7,7	0
56	MG	AA	1728	1/1	0.07	-	2,2,2,2	0
56	MG	CA	1689	1/1	0.08	-	0,0,0,0	0
56	MG	CA	1736	1/1	0.14	-	30,30,30,30	0
56	MG	BA	3140	1/1	0.11	-	10,10,10,10	0
56	MG	BA	3033	1/1	0.19	-	30,30,30,30	0
56	MG	BA	3003	1/1	0.15	-	28,28,28,28	0
56	MG	DA	3168	1/1	0.36	-	56,56,56,56	0
56	MG	DA	3174	1/1	0.24	-	26,26,26,26	0
56	MG	B5	102	1/1	0.30	-	24,24,24,24	0
56	MG	BA	3378	1/1	0.04	-	54,54,54,54	1
56	MG	CA	1631	1/1	0.46	-	48,48,48,48	0
56	MG	AA	1802	1/1	0.11	-	44,44,44,44	0
56	MG	DA	3302	1/1	0.10	-	11,11,11,11	0
56	MG	BA	3296	1/1	0.34	-	75,75,75,75	0
56	MG	AA	1616	1/1	0.12	-	18,18,18,18	0
56	MG	BA	3009	1/1	0.20	-	20,20,20,20	0
56	MG	BA	3127	1/1	0.10	-	8,8,8,8	0
56	MG	BA	3441	1/1	0.08	-	33,33,33,33	0
56	MG	AA	1661	1/1	0.30	-	60,60,60,60	0
56	MG	BA	3254	1/1	0.15	-	48,48,48,48	0
56	MG	DA	3292	1/1	0.07	-	5,5,5,5	0
56	MG	BA	3034	1/1	0.09	-	0,0,0,0	0
56	MG	DA	3316	1/1	0.13	-	7,7,7,7	0
56	MG	CA	1735	1/1	0.16	-	17,17,17,17	0
56	MG	DA	3033	1/1	0.25	-	17,17,17,17	1
56	MG	BA	3116	1/1	0.26	-	12,12,12,12	0
56	MG	CA	1772	1/1	0.17	-	37,37,37,37	0
56	MG	BA	3178	1/1	0.13	-	54,54,54,54	0
56	MG	AX	103	1/1	0.08	-	29,29,29,29	0
56	MG	AA	1747	1/1	0.16	-	37,37,37,37	0
56	MG	BA	3420	1/1	0.26	-	59,59,59,59	1
56	MG	DA	3121	1/1	0.12	-	12,12,12,12	0
56	MG	AA	1610	1/1	0.16	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3093	1/1	0.09	-	16,16,16,16	0
56	MG	DA	3388	1/1	0.16	-	15,15,15,15	0
56	MG	CA	1671	1/1	0.28	-	42,42,42,42	0
56	MG	AA	1804	1/1	0.15	-	31,31,31,31	0
56	MG	CA	1677	1/1	0.12	-	28,28,28,28	0
56	MG	B2	101	1/1	0.11	-	36,36,36,36	0
56	MG	DA	3318	1/1	0.31	-	45,45,45,45	0
56	MG	CA	1759	1/1	0.19	-	68,68,68,68	0
56	MG	DA	3112	1/1	0.08	-	0,0,0,0	0
56	MG	BA	3063	1/1	0.26	-	0,0,0,0	0
56	MG	BA	3453	1/1	0.16	-	49,49,49,49	0
56	MG	BA	3006	1/1	0.27	-	24,24,24,24	0
58	ZN	CN	101	1/1	0.10	-	53,53,53,53	0
56	MG	BA	3299	1/1	0.20	-	22,22,22,22	0
56	MG	BA	3281	1/1	0.10	-	0,0,0,0	0
56	MG	AA	1665	1/1	0.20	-	27,27,27,27	0
56	MG	BA	3138	1/1	0.18	-	12,12,12,12	0
56	MG	BA	3032	1/1	0.08	-	17,17,17,17	0
56	MG	CA	1714	1/1	0.15	-	81,81,81,81	0
56	MG	BA	3152	1/1	0.16	-	45,45,45,45	0
56	MG	DA	3122	1/1	0.16	-	43,43,43,43	0
56	MG	DA	3341	1/1	0.09	-	26,26,26,26	0
56	MG	BA	3257	1/1	0.14	-	55,55,55,55	0
56	MG	DA	3124	1/1	0.14	-	0,0,0,0	0
56	MG	DA	3179	1/1	0.05	-	10,10,10,10	0
56	MG	CA	1787	1/1	0.28	-	39,39,39,39	1
56	MG	CA	1610	1/1	0.24	-	15,15,15,15	0
56	MG	DA	3006	1/1	0.17	-	41,41,41,41	0
56	MG	AA	1796	1/1	0.08	-	10,10,10,10	1
56	MG	BB	201	1/1	0.42	-	54,54,54,54	1
56	MG	CA	1766	1/1	0.22	-	18,18,18,18	0
56	MG	BA	3065	1/1	0.10	-	1,1,1,1	0
56	MG	BA	3317	1/1	0.17	-	50,50,50,50	0
56	MG	BA	3358	1/1	0.13	-	42,42,42,42	0
56	MG	CA	1776	1/1	0.20	-	44,44,44,44	0
56	MG	DA	3297	1/1	0.14	-	23,23,23,23	0
56	MG	BA	3018	1/1	0.23	-	22,22,22,22	0
56	MG	CV	102	1/1	0.08	-	56,56,56,56	0
56	MG	CA	1711	1/1	0.20	-	63,63,63,63	0
56	MG	DA	3327	1/1	0.10	-	6,6,6,6	0
56	MG	DA	3143	1/1	0.17	-	36,36,36,36	0
56	MG	DA	3059	1/1	0.21	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1638	1/1	0.12	-	42,42,42,42	0
56	MG	DA	3345	1/1	0.24	-	17,17,17,17	0
56	MG	CA	1781	1/1	0.15	-	29,29,29,29	0
56	MG	AA	1806	1/1	0.24	-	24,24,24,24	0
56	MG	BA	3022	1/1	0.13	-	25,25,25,25	0
56	MG	BA	3323	1/1	0.11	-	79,79,79,79	0
56	MG	DA	3085	1/1	0.20	-	0,0,0,0	0
56	MG	BA	3438	1/1	0.11	-	25,25,25,25	0
56	MG	BA	3012	1/1	0.12	-	20,20,20,20	0
56	MG	BA	3325	1/1	0.08	-	28,28,28,28	0
56	MG	BA	3371	1/1	0.09	-	15,15,15,15	0
56	MG	CA	1619	1/1	0.19	-	55,55,55,55	0
56	MG	BA	3246	1/1	0.14	-	15,15,15,15	0
56	MG	BA	3354	1/1	0.09	-	35,35,35,35	0
56	MG	BB	213	1/1	0.69	-	71,71,71,71	0
56	MG	CV	103	1/1	0.15	-	56,56,56,56	0
56	MG	BA	3207	1/1	0.12	-	0,0,0,0	0
56	MG	AA	1797	1/1	0.08	-	26,26,26,26	0
56	MG	DA	3135	1/1	0.20	-	7,7,7,7	0
56	MG	AA	1700	1/1	0.19	-	31,31,31,31	0
56	MG	BB	212	1/1	0.14	-	18,18,18,18	1
56	MG	DA	3363	1/1	0.12	-	30,30,30,30	0
56	MG	DZ	301	1/1	0.10	-	27,27,27,27	0
56	MG	AA	1706	1/1	0.07	-	10,10,10,10	0
56	MG	AA	1749	1/1	0.14	-	38,38,38,38	0
56	MG	DA	3243	1/1	0.09	-	3,3,3,3	0
56	MG	DA	3246	1/1	0.15	-	38,38,38,38	0
56	MG	AA	1788	1/1	0.07	-	16,16,16,16	0
56	MG	DA	3383	1/1	0.08	-	32,32,32,32	0
56	MG	DA	3073	1/1	0.09	-	0,0,0,0	0
56	MG	BA	3369	1/1	0.10	-	30,30,30,30	0
56	MG	BA	3426	1/1	0.10	-	3,3,3,3	0
56	MG	BA	3391	1/1	0.06	-	26,26,26,26	0
56	MG	AA	1731	1/1	0.16	-	56,56,56,56	0
56	MG	DA	3224	1/1	0.27	-	2,2,2,2	0
56	MG	CA	1628	1/1	0.13	-	35,35,35,35	0
56	MG	DA	3266	1/1	0.06	-	11,11,11,11	0
56	MG	BA	3201	1/1	0.18	-	21,21,21,21	0
56	MG	AX	102	1/1	0.10	-	32,32,32,32	0
56	MG	BA	3228	1/1	0.12	-	46,46,46,46	0
56	MG	BA	3102	1/1	0.11	-	15,15,15,15	0
56	MG	CA	1786	1/1	0.18	-	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1721	1/1	0.08	-	28,28,28,28	0
56	MG	DA	3152	1/1	0.07	-	17,17,17,17	0
56	MG	CA	1634	1/1	0.11	-	17,17,17,17	0
56	MG	BA	3024	1/1	0.12	-	0,0,0,0	0
56	MG	AA	1772	1/1	0.22	-	73,73,73,73	0
56	MG	D5	102	1/1	0.10	-	6,6,6,6	1
56	MG	CA	1683	1/1	0.11	-	2,2,2,2	0
56	MG	BA	3175	1/1	0.09	-	0,0,0,0	0
56	MG	BA	3172	1/1	0.19	-	22,22,22,22	0
56	MG	DA	3068	1/1	0.14	-	14,14,14,14	0
56	MG	BA	3192	1/1	0.10	-	0,0,0,0	0
56	MG	DA	3107	1/1	0.23	-	12,12,12,12	0
56	MG	AA	1686	1/1	0.19	-	52,52,52,52	0
56	MG	CA	1673	1/1	0.25	-	80,80,80,80	1
56	MG	AA	1696	1/1	0.09	-	0,0,0,0	0
56	MG	BA	3267	1/1	0.10	-	43,43,43,43	0
56	MG	BA	3027	1/1	0.08	-	8,8,8,8	0
56	MG	AA	1620	1/1	0.15	-	28,28,28,28	0
56	MG	CA	1755	1/1	0.23	-	26,26,26,26	1
56	MG	AA	1670	1/1	0.14	-	52,52,52,52	0
56	MG	BA	3141	1/1	0.10	-	20,20,20,20	0
56	MG	AA	1742	1/1	0.36	-	45,45,45,45	0
56	MG	CA	1769	1/1	0.10	-	18,18,18,18	0
56	MG	AA	1720	1/1	0.17	-	29,29,29,29	0
56	MG	BA	3380	1/1	0.37	-	77,77,77,77	0
56	MG	BA	3432	1/1	0.08	-	15,15,15,15	0
56	MG	DA	3188	1/1	0.25	-	42,42,42,42	0
56	MG	BA	3134	1/1	0.12	-	1,1,1,1	0
56	MG	BA	3011	1/1	0.20	-	0,0,0,0	0
56	MG	DA	3094	1/1	0.06	-	10,10,10,10	0
56	MG	DA	3329	1/1	0.16	-	45,45,45,45	0
56	MG	BA	3407	1/1	0.09	-	40,40,40,40	0
56	MG	BA	3069	1/1	0.14	-	36,36,36,36	0
56	MG	BB	206	1/1	0.36	-	78,78,78,78	0
56	MG	DA	3019	1/1	0.25	-	0,0,0,0	0
56	MG	DB	202	1/1	0.21	-	57,57,57,57	0
56	MG	DA	3017	1/1	0.09	-	6,6,6,6	0
56	MG	AA	1723	1/1	0.07	-	9,9,9,9	0
56	MG	DA	3010	1/1	0.12	-	44,44,44,44	0
56	MG	CA	1719	1/1	1.12	-	99,99,99,99	0
56	MG	DA	3320	1/1	0.18	-	70,70,70,70	0
56	MG	BA	3082	1/1	0.08	-	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CU	101	1/1	0.11	-	38,38,38,38	0
56	MG	BA	3307	1/1	0.05	-	7,7,7,7	0
56	MG	BA	3237	1/1	0.31	-	35,35,35,35	0
56	MG	BA	3272	1/1	0.42	-	49,49,49,49	0
56	MG	DA	3151	1/1	0.23	-	46,46,46,46	0
56	MG	BB	207	1/1	0.10	-	23,23,23,23	0
56	MG	AV	103	1/1	0.08	-	28,28,28,28	0
56	MG	CA	1764	1/1	0.11	-	15,15,15,15	0
56	MG	BA	3044	1/1	0.17	-	5,5,5,5	0
56	MG	AA	1690	1/1	0.09	-	48,48,48,48	0
56	MG	AA	1622	1/1	0.08	-	8,8,8,8	0
56	MG	AA	1752	1/1	0.21	-	25,25,25,25	0
56	MG	CA	1656	1/1	0.08	-	14,14,14,14	0
56	MG	BA	3126	1/1	0.09	-	1,1,1,1	0
56	MG	BA	3320	1/1	0.09	-	37,37,37,37	0
56	MG	BA	3405	1/1	0.09	-	11,11,11,11	0
56	MG	BA	3424	1/1	0.09	-	38,38,38,38	0
56	MG	DA	3310	1/1	0.28	-	50,50,50,50	0
56	MG	BA	3270	1/1	0.06	-	0,0,0,0	0
56	MG	BA	3067	1/1	0.16	-	5,5,5,5	0
56	MG	AA	1694	1/1	0.42	-	58,58,58,58	0
56	MG	AA	1815	1/1	0.13	-	36,36,36,36	0
56	MG	BA	3279	1/1	0.18	-	55,55,55,55	0
56	MG	CA	1780	1/1	0.16	-	38,38,38,38	0
56	MG	DA	3137	1/1	0.14	-	62,62,62,62	0
56	MG	BA	3402	1/1	0.19	-	19,19,19,19	0
56	MG	DA	3325	1/1	0.09	-	35,35,35,35	0
56	MG	DA	3157	1/1	0.24	-	34,34,34,34	0
56	MG	CA	1661	1/1	0.17	-	13,13,13,13	0
56	MG	CA	1645	1/1	0.12	-	74,74,74,74	0
56	MG	BA	3379	1/1	0.12	-	39,39,39,39	0
56	MG	BF	302	1/1	0.25	-	46,46,46,46	0
56	MG	CX	103	1/1	0.27	-	40,40,40,40	0
56	MG	DA	3313	1/1	0.12	-	35,35,35,35	1
56	MG	DA	3278	1/1	0.22	-	38,38,38,38	0
56	MG	DA	3115	1/1	0.12	-	16,16,16,16	0
56	MG	DA	3014	1/1	0.20	-	4,4,4,4	0
57	PAR	AA	1816	42/42	0.16	-	15,20,38,42	0
56	MG	BA	3177	1/1	0.10	-	7,7,7,7	0
56	MG	DA	3247	1/1	0.20	-	18,18,18,18	0
56	MG	BA	3064	1/1	0.19	-	30,30,30,30	0
56	MG	BA	3205	1/1	0.11	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3189	1/1	0.09	-	3,3,3,3	0
56	MG	BA	3446	1/1	0.14	-	43,43,43,43	0
56	MG	BA	3203	1/1	0.21	-	14,14,14,14	0
56	MG	DA	3131	1/1	0.17	-	0,0,0,0	0
56	MG	CA	1602	1/1	0.13	-	14,14,14,14	0
56	MG	AA	1755	1/1	0.19	-	47,47,47,47	0
56	MG	BA	3448	1/1	0.06	-	35,35,35,35	0
56	MG	AA	1657	1/1	0.17	-	50,50,50,50	0
56	MG	CA	1744	1/1	0.14	-	64,64,64,64	0
56	MG	DA	3372	1/1	0.06	-	12,12,12,12	0
56	MG	AA	1685	1/1	0.07	-	38,38,38,38	0
56	MG	AA	1602	1/1	0.13	-	39,39,39,39	0
56	MG	DA	3076	1/1	0.13	-	0,0,0,0	0
56	MG	BA	3445	1/1	0.11	-	52,52,52,52	0
56	MG	AA	1627	1/1	0.47	-	39,39,39,39	0
56	MG	CA	1739	1/1	0.13	-	66,66,66,66	0
56	MG	BA	3197	1/1	0.12	-	18,18,18,18	0
56	MG	BA	3238	1/1	0.20	-	0,0,0,0	0
56	MG	AA	1658	1/1	0.18	-	37,37,37,37	0
56	MG	AA	1611	1/1	0.16	-	18,18,18,18	0
56	MG	BA	3271	1/1	0.11	-	33,33,33,33	0
56	MG	BA	3158	1/1	0.21	-	44,44,44,44	0
56	MG	BA	3400	1/1	0.15	-	46,46,46,46	0
56	MG	DA	3047	1/1	0.19	-	0,0,0,0	0
56	MG	DA	3261	1/1	0.85	-	94,94,94,94	0
56	MG	DA	3088	1/1	0.20	-	4,4,4,4	0
56	MG	BA	3250	1/1	0.19	-	22,22,22,22	1
56	MG	CA	1705	1/1	0.14	-	22,22,22,22	0
56	MG	BA	3447	1/1	0.08	-	37,37,37,37	0
56	MG	DA	3155	1/1	0.07	-	50,50,50,50	0
56	MG	AW	122	1/1	0.12	-	37,37,37,37	0
56	MG	AA	1808	1/1	0.07	-	33,33,33,33	0
56	MG	BA	3182	1/1	0.07	-	16,16,16,16	0
56	MG	CA	1646	1/1	0.41	-	62,62,62,62	0
56	MG	BA	3107	1/1	0.18	-	53,53,53,53	0
56	MG	BA	3149	1/1	0.11	-	10,10,10,10	0
56	MG	CA	1635	1/1	0.20	-	19,19,19,19	0
56	MG	BA	3072	1/1	0.18	-	13,13,13,13	0
56	MG	AA	1773	1/1	0.08	-	41,41,41,41	0
56	MG	BA	3293	1/1	0.19	-	51,51,51,51	0
56	MG	DA	3212	1/1	0.22	-	61,61,61,61	0
56	MG	BA	3179	1/1	0.09	-	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1762	1/1	0.14	-	18,18,18,18	0
56	MG	DA	3133	1/1	0.12	-	39,39,39,39	0
56	MG	CA	1620	1/1	0.14	-	32,32,32,32	0
56	MG	BA	3233	1/1	0.28	-	77,77,77,77	0
56	MG	BA	3222	1/1	0.20	-	41,41,41,41	0
56	MG	CA	1765	1/1	0.07	-	38,38,38,38	0
56	MG	AA	1791	1/1	0.31	-	22,22,22,22	1
56	MG	AW	101	1/1	0.26	-	35,35,35,35	0
56	MG	BA	3308	1/1	0.19	-	25,25,25,25	0
56	MG	BA	3313	1/1	0.10	-	21,21,21,21	0
56	MG	AA	1761	1/1	0.14	-	16,16,16,16	0
56	MG	AA	1743	1/1	0.10	-	44,44,44,44	0
56	MG	BA	3359	1/1	0.06	-	75,75,75,75	0
56	MG	CA	1674	1/1	0.09	-	58,58,58,58	0
56	MG	DA	3380	1/1	0.32	-	55,55,55,55	0
56	MG	BA	3319	1/1	0.07	-	0,0,0,0	0
56	MG	BA	3324	1/1	0.11	-	18,18,18,18	1
56	MG	BA	3389	1/1	0.09	-	0,0,0,0	0
56	MG	AA	1760	1/1	0.10	-	48,48,48,48	0
56	MG	BB	218	1/1	0.10	-	36,36,36,36	1
56	MG	CA	1680	1/1	0.18	-	51,51,51,51	0
56	MG	AA	1729	1/1	0.12	-	45,45,45,45	0
56	MG	DA	3116	1/1	0.10	-	10,10,10,10	0
56	MG	CW	102	1/1	0.05	-	52,52,52,52	0
56	MG	AA	1656	1/1	0.15	-	12,12,12,12	0
56	MG	DA	3395	1/1	0.16	-	45,45,45,45	0
56	MG	AA	1615	1/1	0.14	-	33,33,33,33	0
56	MG	DA	3117	1/1	0.05	-	1,1,1,1	0
56	MG	DA	3159	1/1	0.17	-	57,57,57,57	0
56	MG	BA	3351	1/1	0.30	-	78,78,78,78	0
56	MG	DA	3240	1/1	0.11	-	43,43,43,43	0
56	MG	DA	3306	1/1	0.18	-	6,6,6,6	0
56	MG	AA	1792	1/1	0.20	-	74,74,74,74	0
56	MG	BA	3252	1/1	0.16	-	25,25,25,25	0
56	MG	AA	1662	1/1	0.13	-	31,31,31,31	0
56	MG	CA	1669	1/1	0.06	-	0,0,0,0	0
56	MG	CA	1629	1/1	0.11	-	10,10,10,10	0
56	MG	BA	3155	1/1	0.47	-	66,66,66,66	0
56	MG	AA	1707	1/1	0.07	-	2,2,2,2	0
56	MG	BA	3264	1/1	0.23	-	0,0,0,0	0
56	MG	CA	1756	1/1	0.15	-	41,41,41,41	0
56	MG	DA	3100	1/1	0.22	-	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3202	1/1	0.06	-	0,0,0,0	0
56	MG	DA	3307	1/1	0.09	-	34,34,34,34	1
56	MG	DA	3287	1/1	0.23	-	17,17,17,17	0
56	MG	AA	1614	1/1	0.07	-	19,19,19,19	0
56	MG	AA	1649	1/1	0.19	-	0,0,0,0	0
56	MG	DA	3145	1/1	0.12	-	27,27,27,27	0
56	MG	DA	3041	1/1	0.20	-	8,8,8,8	0
56	MG	DA	3339	1/1	0.07	-	17,17,17,17	0
56	MG	BA	3387	1/1	0.12	-	38,38,38,38	0
56	MG	AA	1726	1/1	0.10	-	12,12,12,12	0
56	MG	DA	3271	1/1	0.32	-	7,7,7,7	0
56	MG	DA	3221	1/1	0.10	-	11,11,11,11	0
56	MG	DA	3358	1/1	0.33	-	54,54,54,54	0
56	MG	CA	1613	1/1	0.22	-	4,4,4,4	0
56	MG	DA	3062	1/1	0.28	-	13,13,13,13	0
56	MG	AA	1698	1/1	0.16	-	38,38,38,38	0
56	MG	BA	3345	1/1	0.17	-	59,59,59,59	0
56	MG	CA	1655	1/1	0.11	-	0,0,0,0	0
56	MG	BA	3073	1/1	0.11	-	4,4,4,4	0
56	MG	BA	3335	1/1	0.12	-	45,45,45,45	0
56	MG	CA	1649	1/1	0.12	-	37,37,37,37	0
56	MG	CA	1741	1/1	0.26	-	40,40,40,40	0
56	MG	DA	3311	1/1	0.20	-	53,53,53,53	0
56	MG	CA	1729	1/1	0.44	-	71,71,71,71	0
56	MG	BA	3176	1/1	0.08	-	11,11,11,11	0
56	MG	DA	3183	1/1	0.05	-	0,0,0,0	0
56	MG	BA	3433	1/1	0.17	-	74,74,74,74	0
56	MG	DA	3211	1/1	0.10	-	1,1,1,1	0
56	MG	CA	1697	1/1	0.15	-	49,49,49,49	0
56	MG	DA	3326	1/1	0.31	-	25,25,25,25	0
56	MG	AA	1708	1/1	0.19	-	41,41,41,41	0
56	MG	BA	3366	1/1	0.16	-	27,27,27,27	0
56	MG	BA	3109	1/1	0.27	-	34,34,34,34	0
56	MG	AA	1783	1/1	0.34	-	46,46,46,46	0
56	MG	BV	201	1/1	0.13	-	23,23,23,23	0
56	MG	DA	3096	1/1	0.22	-	21,21,21,21	0
56	MG	AA	1636	1/1	0.15	-	27,27,27,27	1
56	MG	CA	1747	1/1	0.09	-	28,28,28,28	0
56	MG	BA	3144	1/1	0.13	-	8,8,8,8	0
56	MG	DA	3080	1/1	0.17	-	0,0,0,0	0
56	MG	BA	3060	1/1	0.21	-	0,0,0,0	0
56	MG	BA	3353	1/1	0.38	-	42,42,42,42	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3333	1/1	0.26	-	67,67,67,67	0
56	MG	DA	3242	1/1	0.14	-	9,9,9,9	0
56	MG	CA	1725	1/1	0.24	-	56,56,56,56	0
56	MG	BA	3039	1/1	0.28	-	31,31,31,31	0
56	MG	BA	3124	1/1	0.20	-	17,17,17,17	0
56	MG	DB	201	1/1	0.06	-	19,19,19,19	0
56	MG	CW	104	1/1	0.09	-	46,46,46,46	0
56	MG	DA	3201	1/1	0.19	-	7,7,7,7	0
56	MG	AW	103	1/1	0.18	-	51,51,51,51	0
56	MG	AW	106	1/1	0.06	-	26,26,26,26	0
56	MG	BA	3337	1/1	0.05	-	57,57,57,57	0
56	MG	B2	104	1/1	0.09	-	34,34,34,34	0
56	MG	DA	3209	1/1	0.35	-	31,31,31,31	0
56	MG	DA	3216	1/1	0.09	-	34,34,34,34	0
56	MG	BA	3211	1/1	0.13	-	42,42,42,42	0
56	MG	DA	3146	1/1	0.14	-	22,22,22,22	0
56	MG	BA	3263	1/1	0.09	-	4,4,4,4	0
56	MG	DA	3381	1/1	0.21	-	77,77,77,77	0
56	MG	AA	1812	1/1	0.10	-	50,50,50,50	0
56	MG	AA	1735	1/1	0.20	-	84,84,84,84	0
56	MG	CW	106	1/1	0.07	-	50,50,50,50	1
56	MG	CA	1605	1/1	0.09	-	10,10,10,10	0
56	MG	DA	3083	1/1	0.23	-	13,13,13,13	0
56	MG	BA	3344	1/1	0.11	-	17,17,17,17	0
56	MG	DA	3163	1/1	0.17	-	51,51,51,51	0
56	MG	BA	3101	1/1	0.11	-	3,3,3,3	0
56	MG	BA	3004	1/1	0.38	-	77,77,77,77	0
56	MG	DA	3184	1/1	0.09	-	10,10,10,10	0
56	MG	DA	3299	1/1	0.11	-	0,0,0,0	0
56	MG	BA	3434	1/1	0.08	-	28,28,28,28	0
56	MG	BA	3028	1/1	0.35	-	36,36,36,36	0
56	MG	CA	1784	1/1	0.08	-	15,15,15,15	0
56	MG	AA	1691	1/1	0.07	-	11,11,11,11	0
56	MG	CA	1730	1/1	0.12	-	56,56,56,56	0
56	MG	CA	1692	1/1	0.08	-	19,19,19,19	0
56	MG	BA	3183	1/1	0.07	-	18,18,18,18	0
56	MG	DA	3384	1/1	0.08	-	25,25,25,25	0
56	MG	AA	1803	1/1	0.20	-	48,48,48,48	0
56	MG	DA	3030	1/1	0.09	-	0,0,0,0	0
56	MG	DA	3210	1/1	0.10	-	0,0,0,0	0
56	MG	DA	3095	1/1	0.20	-	0,0,0,0	0
56	MG	BA	3374	1/1	0.28	-	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3202	1/1	0.21	-	37,37,37,37	0
56	MG	DA	3149	1/1	0.50	-	84,84,84,84	0
56	MG	BA	3043	1/1	0.30	-	82,82,82,82	0
56	MG	CA	1728	1/1	0.15	-	42,42,42,42	0
56	MG	BA	3362	1/1	0.16	-	58,58,58,58	0
56	MG	BA	3251	1/1	0.15	-	11,11,11,11	0
56	MG	DA	3198	1/1	0.08	-	10,10,10,10	0
56	MG	CA	1608	1/1	0.11	-	0,0,0,0	0
56	MG	BA	3253	1/1	0.10	-	38,38,38,38	0
56	MG	AW	105	1/1	0.12	-	64,64,64,64	0
56	MG	DA	3097	1/1	0.12	-	12,12,12,12	0
56	MG	BA	3377	1/1	0.20	-	43,43,43,43	0
56	MG	CA	1698	1/1	0.36	-	42,42,42,42	0
56	MG	CA	1789	1/1	0.19	-	33,33,33,33	0
56	MG	AA	1663	1/1	0.11	-	24,24,24,24	0
56	MG	BA	3013	1/1	0.12	-	0,0,0,0	0
56	MG	BA	3147	1/1	0.20	-	20,20,20,20	0
56	MG	CA	1637	1/1	0.45	-	81,81,81,81	0
56	MG	BA	3332	1/1	0.19	-	53,53,53,53	1
56	MG	BB	202	1/1	0.10	-	14,14,14,14	0
56	MG	AV	106	1/1	0.07	-	40,40,40,40	0
56	MG	DA	3025	1/1	0.14	-	6,6,6,6	0
56	MG	BA	3133	1/1	0.06	-	11,11,11,11	0
56	MG	DA	3153	1/1	0.30	-	40,40,40,40	0
56	MG	BA	3278	1/1	0.42	-	90,90,90,90	0
56	MG	DA	3013	1/1	0.10	-	1,1,1,1	0
56	MG	BA	3303	1/1	0.17	-	15,15,15,15	0
56	MG	DD	301	1/1	0.11	-	1,1,1,1	0
56	MG	AA	1671	1/1	0.13	-	19,19,19,19	0
56	MG	BA	3305	1/1	0.23	-	30,30,30,30	0
56	MG	BA	3417	1/1	0.26	-	29,29,29,29	0
56	MG	CA	1771	1/1	0.14	-	28,28,28,28	0
56	MG	DA	3274	1/1	0.12	-	53,53,53,53	0
56	MG	DA	3170	1/1	0.10	-	54,54,54,54	0
56	MG	AA	1789	1/1	0.13	-	18,18,18,18	0
56	MG	BB	214	1/1	0.17	-	46,46,46,46	0
56	MG	DA	3355	1/1	0.06	-	7,7,7,7	0
56	MG	DA	3230	1/1	0.20	-	20,20,20,20	0
56	MG	DA	3176	1/1	0.19	-	13,13,13,13	0
56	MG	CA	1732	1/1	0.21	-	43,43,43,43	0
56	MG	AA	1630	1/1	0.10	-	13,13,13,13	0
56	MG	AA	1669	1/1	0.40	-	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1612	1/1	0.11	-	31,31,31,31	0
56	MG	BA	3161	1/1	0.08	-	11,11,11,11	0
56	MG	BA	3247	1/1	0.15	-	0,0,0,0	0
56	MG	DA	3024	1/1	0.19	-	20,20,20,20	0
56	MG	DA	3089	1/1	0.10	-	4,4,4,4	0
56	MG	BA	3367	1/1	0.23	-	50,50,50,50	0
56	MG	BA	3131	1/1	0.17	-	0,0,0,0	0
56	MG	BA	3110	1/1	0.11	-	0,0,0,0	0
56	MG	BA	3287	1/1	0.12	-	46,46,46,46	0
56	MG	DA	3268	1/1	0.20	-	51,51,51,51	0
56	MG	DA	3353	1/1	0.31	-	42,42,42,42	0
56	MG	DA	3144	1/1	0.15	-	31,31,31,31	0
56	MG	BA	3329	1/1	0.10	-	34,34,34,34	0
56	MG	DA	3064	1/1	0.20	-	0,0,0,0	0
56	MG	DA	3016	1/1	0.12	-	52,52,52,52	0
56	MG	D5	101	1/1	0.09	-	7,7,7,7	0
56	MG	AA	1710	1/1	0.20	-	29,29,29,29	0
56	MG	AA	1618	1/1	0.38	-	66,66,66,66	0
56	MG	BA	3221	1/1	0.14	-	49,49,49,49	0
56	MG	CA	1632	1/1	0.07	-	11,11,11,11	0
56	MG	AA	1668	1/1	0.07	-	23,23,23,23	0
56	MG	DA	3228	1/1	0.16	-	19,19,19,19	0
56	MG	AA	1626	1/1	0.28	-	50,50,50,50	0
56	MG	BA	3136	1/1	0.20	-	8,8,8,8	0
56	MG	DF	301	1/1	0.15	-	29,29,29,29	0
56	MG	BA	3190	1/1	0.23	-	49,49,49,49	0
56	MG	BA	3289	1/1	0.17	-	41,41,41,41	0
56	MG	BA	3075	1/1	0.20	-	0,0,0,0	0
56	MG	BA	3268	1/1	0.16	-	24,24,24,24	0
56	MG	AA	1750	1/1	0.13	-	57,57,57,57	0
56	MG	BA	3274	1/1	0.07	-	0,0,0,0	0
56	MG	BA	3435	1/1	0.09	-	52,52,52,52	1
56	MG	AA	1777	1/1	0.13	-	55,55,55,55	0
56	MG	DA	3037	1/1	0.11	-	4,4,4,4	0
56	MG	AV	107	1/1	0.08	-	25,25,25,25	0
56	MG	CA	1713	1/1	0.23	-	93,93,93,93	0
56	MG	DA	3169	1/1	0.26	-	27,27,27,27	0
56	MG	BA	3194	1/1	0.20	-	30,30,30,30	0
56	MG	CA	1761	1/1	0.26	-	26,26,26,26	0
56	MG	DA	3294	1/1	0.17	-	0,0,0,0	0
56	MG	BA	3002	1/1	0.14	-	21,21,21,21	0
56	MG	DA	3048	1/1	0.26	-	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1641	1/1	0.16	-	13,13,13,13	0
56	MG	BA	3401	1/1	0.24	-	48,48,48,48	0
56	MG	BA	3156	1/1	0.06	-	28,28,28,28	0
56	MG	BA	3292	1/1	0.11	-	14,14,14,14	0
56	MG	BA	3008	1/1	0.34	-	22,22,22,22	0
56	MG	DA	3078	1/1	0.18	-	2,2,2,2	0
56	MG	AA	1790	1/1	0.07	-	65,65,65,65	0
56	MG	BA	3165	1/1	0.15	-	0,0,0,0	0
56	MG	AY	101	1/1	0.17	-	56,56,56,56	0
56	MG	CA	1758	1/1	0.15	-	44,44,44,44	0
56	MG	BA	3074	1/1	0.21	-	10,10,10,10	0
56	MG	BA	3015	1/1	0.17	-	0,0,0,0	0
56	MG	BA	3275	1/1	0.18	-	19,19,19,19	0
56	MG	DA	3245	1/1	0.14	-	38,38,38,38	0
56	MG	AA	1813	1/1	0.14	-	25,25,25,25	0
56	MG	DA	3147	1/1	0.12	-	19,19,19,19	0
56	MG	DA	3113	1/1	0.08	-	11,11,11,11	0
56	MG	CA	1708	1/1	0.31	-	43,43,43,43	0
56	MG	DA	3065	1/1	0.24	-	0,0,0,0	0
56	MG	DA	3349	1/1	0.12	-	27,27,27,27	0
56	MG	CA	1663	1/1	0.17	-	32,32,32,32	0
56	MG	AA	1805	1/1	0.17	-	0,0,0,0	0
56	MG	BA	3016	1/1	0.19	-	37,37,37,37	0
56	MG	CA	1712	1/1	0.17	-	19,19,19,19	0
56	MG	DA	3233	1/1	0.11	-	0,0,0,0	0
56	MG	DA	3293	1/1	0.09	-	2,2,2,2	0
56	MG	BA	3300	1/1	0.10	-	6,6,6,6	0
56	MG	CA	1612	1/1	0.10	-	17,17,17,17	0
56	MG	DA	3218	1/1	0.05	-	27,27,27,27	0
56	MG	DA	3103	1/1	0.14	-	9,9,9,9	0
56	MG	BA	3021	1/1	0.24	-	17,17,17,17	0
56	MG	AA	1608	1/1	0.11	-	47,47,47,47	0
56	MG	AA	1733	1/1	0.41	-	63,63,63,63	0
56	MG	BA	3348	1/1	0.14	-	26,26,26,26	0
56	MG	BA	3235	1/1	0.06	-	7,7,7,7	0
56	MG	BA	3276	1/1	0.08	-	6,6,6,6	0
56	MG	BA	3341	1/1	0.15	-	21,21,21,21	0
56	MG	BA	3259	1/1	0.07	-	32,32,32,32	0
56	MG	BA	3244	1/1	0.16	-	19,19,19,19	0
56	MG	AA	1757	1/1	0.06	-	0,0,0,0	0
56	MG	BA	3232	1/1	0.11	-	23,23,23,23	0
56	MG	DN	201	1/1	0.09	-	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3173	1/1	0.16	-	14,14,14,14	0
56	MG	DA	3356	1/1	0.06	-	12,12,12,12	0
56	MG	AA	1766	1/1	0.10	-	23,23,23,23	0
56	MG	BA	3338	1/1	0.07	-	22,22,22,22	1
56	MG	CA	1710	1/1	0.10	-	22,22,22,22	0
56	MG	AA	1635	1/1	0.09	-	16,16,16,16	0
56	MG	BA	3081	1/1	0.14	-	10,10,10,10	0
56	MG	BA	3418	1/1	0.12	-	64,64,64,64	0
56	MG	DA	3035	1/1	0.09	-	0,0,0,0	0
56	MG	BA	3079	1/1	0.14	-	0,0,0,0	0
56	MG	DA	3077	1/1	0.15	-	0,0,0,0	0
56	MG	DE	301	1/1	0.20	-	18,18,18,18	0
56	MG	BA	3290	1/1	0.07	-	2,2,2,2	0
56	MG	BA	3255	1/1	0.14	-	28,28,28,28	0
56	MG	AA	1605	1/1	0.10	-	16,16,16,16	0
56	MG	DA	3173	1/1	0.12	-	41,41,41,41	0
56	MG	BA	3019	1/1	0.32	-	0,0,0,0	0
56	MG	CA	1615	1/1	0.28	-	61,61,61,61	0
56	MG	CA	1618	1/1	0.12	-	25,25,25,25	0
56	MG	DA	3044	1/1	0.12	-	15,15,15,15	0
56	MG	BA	3224	1/1	0.24	-	2,2,2,2	0
56	MG	BA	3151	1/1	0.07	-	2,2,2,2	0
56	MG	BA	3220	1/1	0.07	-	29,29,29,29	0
56	MG	AA	1647	1/1	0.21	-	71,71,71,71	0
56	MG	BB	209	1/1	0.10	-	49,49,49,49	0
56	MG	DA	3027	1/1	0.27	-	39,39,39,39	0
56	MG	DA	3101	1/1	0.14	-	38,38,38,38	0
56	MG	DA	3253	1/1	0.16	-	71,71,71,71	0
56	MG	BA	3036	1/1	0.11	-	25,25,25,25	0
56	MG	BA	3026	1/1	0.23	-	0,0,0,0	0
56	MG	CA	1679	1/1	0.05	-	4,4,4,4	0
56	MG	BA	3068	1/1	0.20	-	0,0,0,0	0
56	MG	BA	3098	1/1	0.05	-	5,5,5,5	0
56	MG	BA	3346	1/1	0.20	-	60,60,60,60	0
56	MG	BA	3370	1/1	0.20	-	28,28,28,28	1
56	MG	BA	3311	1/1	0.07	-	2,2,2,2	0
56	MG	CA	1657	1/1	0.14	-	24,24,24,24	0
56	MG	BA	3236	1/1	0.10	-	3,3,3,3	0
56	MG	CA	1763	1/1	0.18	-	32,32,32,32	0
56	MG	BA	3245	1/1	0.11	-	9,9,9,9	0
56	MG	AA	1745	1/1	0.22	-	56,56,56,56	0
56	MG	BA	3408	1/1	0.17	-	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3350	1/1	0.17	-	37,37,37,37	0
56	MG	BA	3421	1/1	0.06	-	44,44,44,44	0
56	MG	BA	3045	1/1	0.11	-	0,0,0,0	0
56	MG	BA	3123	1/1	0.09	-	6,6,6,6	0
56	MG	BA	3121	1/1	0.12	-	2,2,2,2	0
56	MG	CA	1678	1/1	0.15	-	0,0,0,0	0
56	MG	BA	3258	1/1	0.12	-	70,70,70,70	0
56	MG	BA	3099	1/1	0.20	-	1,1,1,1	0
56	MG	DA	3067	1/1	0.12	-	26,26,26,26	0
56	MG	BA	3295	1/1	0.15	-	16,16,16,16	0
56	MG	DA	3391	1/1	0.21	-	62,62,62,62	1
56	MG	DA	3208	1/1	0.20	-	40,40,40,40	0
56	MG	AA	1715	1/1	0.08	-	24,24,24,24	0
56	MG	CA	1672	1/1	0.14	-	32,32,32,32	0
56	MG	DA	3104	1/1	0.12	-	9,9,9,9	0
56	MG	BA	3080	1/1	0.11	-	0,0,0,0	0
56	MG	BA	3001	1/1	0.19	-	38,38,38,38	0
56	MG	AA	1678	1/1	0.10	-	43,43,43,43	0
56	MG	DA	3196	1/1	0.24	-	18,18,18,18	0
56	MG	BA	3395	1/1	0.19	-	54,54,54,54	1
56	MG	DA	3205	1/1	0.08	-	19,19,19,19	0
56	MG	AA	1810	1/1	0.27	-	47,47,47,47	0
56	MG	CA	1609	1/1	0.10	-	33,33,33,33	0
56	MG	BA	3321	1/1	0.19	-	4,4,4,4	0
56	MG	AA	1732	1/1	0.06	-	3,3,3,3	0
56	MG	DA	3054	1/1	0.13	-	5,5,5,5	0
56	MG	DA	3142	1/1	0.09	-	52,52,52,52	0
56	MG	BA	3415	1/1	0.26	-	38,38,38,38	0
56	MG	BA	3413	1/1	0.53	-	63,63,63,63	0
56	MG	AA	1774	1/1	0.08	-	9,9,9,9	0
56	MG	BA	3242	1/1	0.08	-	4,4,4,4	0
56	MG	CA	1684	1/1	0.21	-	30,30,30,30	0
56	MG	DA	3336	1/1	0.12	-	3,3,3,3	1
56	MG	AA	1717	1/1	0.08	-	21,21,21,21	0
56	MG	DA	3046	1/1	0.28	-	0,0,0,0	0
56	MG	AA	1734	1/1	0.21	-	48,48,48,48	1
56	MG	DA	3190	1/1	0.07	-	2,2,2,2	0
56	MG	DA	3120	1/1	0.10	-	25,25,25,25	0
56	MG	DA	3393	1/1	0.12	-	80,80,80,80	0
56	MG	AA	1673	1/1	0.12	-	26,26,26,26	0
56	MG	BA	3266	1/1	0.25	-	28,28,28,28	0
56	MG	DA	3158	1/1	0.08	-	5,5,5,5	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3316	1/1	0.20	-	49,49,49,49	0
56	MG	DB	206	1/1	0.09	-	0,0,0,0	1
56	MG	CA	1723	1/1	0.36	-	65,65,65,65	0
56	MG	BA	3078	1/1	0.20	-	11,11,11,11	0
56	MG	AA	1681	1/1	0.15	-	21,21,21,21	0
56	MG	DA	3359	1/1	0.18	-	15,15,15,15	0
56	MG	DA	3343	1/1	0.11	-	4,4,4,4	0
56	MG	CA	1665	1/1	0.45	-	71,71,71,71	0
56	MG	BA	3014	1/1	0.26	-	7,7,7,7	0
56	MG	AA	1603	1/1	0.11	-	47,47,47,47	0
56	MG	BA	3191	1/1	0.25	-	23,23,23,23	0
56	MG	CA	1633	1/1	0.21	-	19,19,19,19	0
56	MG	DA	3082	1/1	0.20	-	10,10,10,10	0
56	MG	BA	3113	1/1	0.23	-	14,14,14,14	0
56	MG	BA	3429	1/1	0.22	-	41,41,41,41	0
56	MG	DA	3177	1/1	0.20	-	22,22,22,22	0
56	MG	CA	1750	1/1	0.10	-	50,50,50,50	0
56	MG	DA	3106	1/1	0.15	-	15,15,15,15	0
56	MG	CA	1626	1/1	0.12	-	11,11,11,11	0
56	MG	AA	1676	1/1	0.07	-	7,7,7,7	0
56	MG	DA	3389	1/1	0.11	-	22,22,22,22	0
56	MG	AA	1644	1/1	0.15	-	17,17,17,17	0
56	MG	BA	3142	1/1	0.28	-	66,66,66,66	0
56	MG	BA	3347	1/1	0.16	-	22,22,22,22	1
56	MG	DA	3260	1/1	0.42	-	44,44,44,44	0
56	MG	BA	3088	1/1	0.29	-	35,35,35,35	0
56	MG	BA	3100	1/1	0.20	-	3,3,3,3	0
56	MG	DA	3091	1/1	0.13	-	0,0,0,0	0
56	MG	AA	1617	1/1	0.29	-	24,24,24,24	0
56	MG	AA	1716	1/1	0.42	-	73,73,73,73	0
56	MG	CA	1702	1/1	0.12	-	36,36,36,36	0
56	MG	CA	1639	1/1	0.24	-	71,71,71,71	0
56	MG	DB	209	1/1	0.13	-	20,20,20,20	0
56	MG	AA	1785	1/1	0.13	-	32,32,32,32	0
56	MG	DA	3207	1/1	0.10	-	8,8,8,8	0
56	MG	DA	3166	1/1	0.07	-	0,0,0,0	0
56	MG	BA	3284	1/1	0.21	-	14,14,14,14	0
56	MG	BA	3046	1/1	0.26	-	0,0,0,0	0
56	MG	DA	3239	1/1	0.13	-	39,39,39,39	0
56	MG	CA	1748	1/1	0.07	-	7,7,7,7	0
56	MG	AA	1718	1/1	0.14	-	0,0,0,0	0
56	MG	CA	1650	1/1	0.16	-	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1623	1/1	0.08	-	32,32,32,32	0
56	MG	BA	3193	1/1	0.20	-	8,8,8,8	0
56	MG	DA	3038	1/1	0.12	-	17,17,17,17	0
56	MG	BA	3059	1/1	0.11	-	16,16,16,16	0
56	MG	BA	3219	1/1	0.07	-	45,45,45,45	0
56	MG	AA	1625	1/1	0.07	-	3,3,3,3	0
56	MG	DA	3114	1/1	0.08	-	8,8,8,8	0
56	MG	CX	104	1/1	0.16	-	31,31,31,31	1
56	MG	CA	1617	1/1	0.10	-	25,25,25,25	0
56	MG	AA	1613	1/1	0.23	-	2,2,2,2	0
56	MG	DA	3032	1/1	0.19	-	59,59,59,59	0
56	MG	DA	3140	1/1	0.13	-	22,22,22,22	0
56	MG	BA	3273	1/1	0.14	-	20,20,20,20	0
56	MG	DA	3026	1/1	0.26	-	0,0,0,0	0
56	MG	CA	1718	1/1	0.19	-	47,47,47,47	0
56	MG	CA	1779	1/1	0.18	-	31,31,31,31	0
56	MG	BA	3315	1/1	0.10	-	43,43,43,43	0
56	MG	DA	3148	1/1	0.12	-	5,5,5,5	0
56	MG	DA	3156	1/1	0.14	-	36,36,36,36	0
56	MG	DA	3367	1/1	0.10	-	19,19,19,19	0
56	MG	BA	3328	1/1	0.08	-	30,30,30,30	0
56	MG	AA	1659	1/1	0.13	-	14,14,14,14	1
56	MG	CA	1685	1/1	0.46	-	82,82,82,82	0
56	MG	DA	3189	1/1	0.29	-	34,34,34,34	0
56	MG	DA	3161	1/1	0.12	-	39,39,39,39	0
56	MG	BB	208	1/1	0.06	-	27,27,27,27	0
56	MG	DA	3098	1/1	0.10	-	19,19,19,19	0
56	MG	AA	1645	1/1	0.17	-	25,25,25,25	0
56	MG	DA	3258	1/1	0.49	-	80,80,80,80	0
56	MG	BA	3394	1/1	0.09	-	26,26,26,26	0
56	MG	AA	1643	1/1	0.18	-	22,22,22,22	0
56	MG	CA	1762	1/1	0.19	-	39,39,39,39	0
56	MG	AA	1684	1/1	0.13	-	17,17,17,17	0
56	MG	AA	1793	1/1	0.13	-	71,71,71,71	0
56	MG	CA	1621	1/1	0.19	-	0,0,0,0	0
56	MG	BA	3168	1/1	0.12	-	22,22,22,22	0
56	MG	CA	1688	1/1	0.08	-	46,46,46,46	0
56	MG	DA	3003	1/1	0.07	-	26,26,26,26	0
56	MG	CA	1738	1/1	0.11	-	23,23,23,23	0
56	MG	BA	3240	1/1	0.22	-	15,15,15,15	0
56	MG	DA	3263	1/1	0.17	-	30,30,30,30	0
56	MG	CV	104	1/1	0.20	-	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1676	1/1	0.39	-	46,46,46,46	0
56	MG	DA	3075	1/1	0.21	-	0,0,0,0	0
56	MG	DA	3301	1/1	0.09	-	18,18,18,18	0
56	MG	BA	3047	1/1	0.27	-	0,0,0,0	0
56	MG	BF	301	1/1	0.15	-	17,17,17,17	0
56	MG	BA	3162	1/1	0.18	-	12,12,12,12	0
56	MG	DA	3248	1/1	0.90	-	82,82,82,82	0
56	MG	CA	1731	1/1	0.08	-	32,32,32,32	0
56	MG	BA	3181	1/1	0.07	-	36,36,36,36	0
56	MG	BA	3416	1/1	0.11	-	16,16,16,16	0
56	MG	DB	203	1/1	0.12	-	33,33,33,33	0
56	MG	DA	3241	1/1	0.10	-	12,12,12,12	0
56	MG	BA	3196	1/1	0.07	-	0,0,0,0	0
56	MG	BA	3159	1/1	0.18	-	12,12,12,12	0
56	MG	AA	1601	1/1	0.10	-	35,35,35,35	0
56	MG	BA	3050	1/1	0.14	-	0,0,0,0	0
56	MG	AA	1713	1/1	0.15	-	7,7,7,7	0
56	MG	AA	1687	1/1	0.12	-	10,10,10,10	0
56	MG	DB	205	1/1	0.23	-	51,51,51,51	0
56	MG	AA	1738	1/1	0.18	-	49,49,49,49	0
56	MG	DA	3195	1/1	0.09	-	0,0,0,0	1
56	MG	AA	1786	1/1	0.13	-	31,31,31,31	0
56	MG	BA	3112	1/1	0.13	-	31,31,31,31	0
56	MG	BA	3071	1/1	0.23	-	20,20,20,20	0
56	MG	BB	211	1/1	0.09	-	40,40,40,40	1
56	MG	BA	3396	1/1	0.14	-	15,15,15,15	0
56	MG	CA	1670	1/1	0.14	-	23,23,23,23	0
56	MG	DA	3295	1/1	0.06	-	6,6,6,6	0
56	MG	CA	1607	1/1	0.19	-	15,15,15,15	0
56	MG	DA	3021	1/1	0.22	-	0,0,0,0	0
56	MG	DA	3265	1/1	0.06	-	0,0,0,0	0
56	MG	DA	3060	1/1	0.29	-	0,0,0,0	0
56	MG	DA	3058	1/1	0.18	-	6,6,6,6	0
56	MG	DB	210	1/1	0.05	-	15,15,15,15	0
56	MG	CA	1690	1/1	0.08	-	19,19,19,19	0
56	MG	AW	111	1/1	0.26	-	32,32,32,32	1
56	MG	AA	1652	1/1	0.09	-	7,7,7,7	0
56	MG	DA	3227	1/1	0.06	-	8,8,8,8	0
56	MG	BA	3326	1/1	0.08	-	49,49,49,49	0
56	MG	BA	3108	1/1	0.11	-	0,0,0,0	0
56	MG	BA	3339	1/1	0.08	-	0,0,0,0	1
56	MG	BA	3117	1/1	0.25	-	3,3,3,3	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3212	1/1	0.16	-	47,47,47,47	0
56	MG	BB	216	1/1	0.20	-	11,11,11,11	1
56	MG	BA	3383	1/1	0.06	-	37,37,37,37	0
56	MG	DA	3138	1/1	0.26	-	40,40,40,40	0
56	MG	DA	3193	1/1	0.23	-	35,35,35,35	0
56	MG	AA	1778	1/1	0.14	-	0,0,0,0	0
56	MG	AA	1640	1/1	0.24	-	18,18,18,18	0
56	MG	AA	1794	1/1	0.20	-	56,56,56,56	0
56	MG	BA	3086	1/1	0.12	-	2,2,2,2	0
56	MG	DO	201	1/1	0.16	-	67,67,67,67	0
56	MG	DA	3070	1/1	0.15	-	0,0,0,0	0
56	MG	DA	3289	1/1	0.09	-	18,18,18,18	0
56	MG	DA	3204	1/1	0.11	-	8,8,8,8	0
56	MG	DA	3055	1/1	0.19	-	0,0,0,0	0
56	MG	DA	3206	1/1	0.08	-	47,47,47,47	0
56	MG	BA	3368	1/1	0.06	-	32,32,32,32	0
56	MG	BA	3093	1/1	0.16	-	15,15,15,15	0
56	MG	CA	1666	1/1	0.05	-	41,41,41,41	0
56	MG	BA	3167	1/1	0.15	-	33,33,33,33	0
56	MG	BA	3053	1/1	0.15	-	0,0,0,0	0
56	MG	DA	3231	1/1	0.49	-	72,72,72,72	0
56	MG	BA	3017	1/1	0.11	-	19,19,19,19	0
56	MG	AA	1730	1/1	0.52	-	82,82,82,82	0
56	MG	BA	3393	1/1	0.52	-	60,60,60,60	0
56	MG	DA	3304	1/1	0.07	-	9,9,9,9	0
56	MG	BX	101	1/1	0.11	-	26,26,26,26	0
56	MG	AA	1646	1/1	0.15	-	3,3,3,3	0
56	MG	BA	3231	1/1	0.41	-	45,45,45,45	0
56	MG	DA	3352	1/1	0.11	-	9,9,9,9	0
56	MG	AA	1753	1/1	0.09	-	26,26,26,26	0
56	MG	AA	1768	1/1	0.15	-	14,14,14,14	1
56	MG	DA	3267	1/1	0.11	-	13,13,13,13	0
58	ZN	AD	301	1/1	0.17	-	21,21,21,21	0
56	MG	DA	3354	1/1	0.05	-	2,2,2,2	0
56	MG	DA	3284	1/1	0.11	-	12,12,12,12	0
56	MG	CA	1783	1/1	0.16	-	13,13,13,13	0
56	MG	DA	3012	1/1	0.15	-	27,27,27,27	0
56	MG	BA	3239	1/1	0.26	-	12,12,12,12	0
56	MG	DA	3369	1/1	0.15	-	46,46,46,46	0
56	MG	BA	3399	1/1	0.21	-	27,27,27,27	0
56	MG	BA	3174	1/1	0.10	-	0,0,0,0	0
56	MG	BA	3035	1/1	0.29	-	10,10,10,10	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1741	1/1	0.06	-	38,38,38,38	0
56	MG	CA	1757	1/1	0.15	-	56,56,56,56	0
56	MG	BA	3409	1/1	0.18	-	53,53,53,53	0
56	MG	BA	3262	1/1	0.06	-	20,20,20,20	0
56	MG	AX	101	1/1	0.05	-	0,0,0,0	0
58	ZN	AN	101	1/1	0.05	-	50,50,50,50	0
56	MG	BA	3451	1/1	0.09	-	43,43,43,43	0
57	PAR	CA	1790	42/42	0.18	-	7,11,29,33	0
56	MG	BA	3119	1/1	0.26	-	16,16,16,16	0
56	MG	BA	3154	1/1	0.14	-	28,28,28,28	1
56	MG	AA	1756	1/1	0.21	-	15,15,15,15	0
56	MG	BB	215	1/1	0.10	-	40,40,40,40	0
56	MG	CA	1717	1/1	0.07	-	16,16,16,16	0
56	MG	DA	3379	1/1	0.16	-	31,31,31,31	0
56	MG	DA	3371	1/1	0.12	-	40,40,40,40	0
56	MG	DA	3063	1/1	0.12	-	0,0,0,0	0
56	MG	BA	3234	1/1	0.28	-	29,29,29,29	0
56	MG	BA	3422	1/1	0.24	-	39,39,39,39	0
56	MG	BA	3055	1/1	0.08	-	0,0,0,0	0
56	MG	CA	1704	1/1	0.10	-	5,5,5,5	0
56	MG	DA	3069	1/1	0.23	-	45,45,45,45	0
56	MG	BA	3412	1/1	0.23	-	48,48,48,48	0
56	MG	BA	3294	1/1	0.10	-	6,6,6,6	0
56	MG	BA	3166	1/1	0.06	-	39,39,39,39	0
56	MG	CA	1760	1/1	0.14	-	33,33,33,33	0
56	MG	AW	109	1/1	0.06	-	34,34,34,34	1
56	MG	AA	1638	1/1	0.26	-	24,24,24,24	0
56	MG	AA	1807	1/1	0.10	-	19,19,19,19	1
56	MG	B2	105	1/1	0.12	-	0,0,0,0	0
56	MG	BA	3199	1/1	0.11	-	9,9,9,9	0
56	MG	AA	1764	1/1	0.10	-	6,6,6,6	0
56	MG	DA	3397	1/1	0.14	-	31,31,31,31	0
56	MG	DA	3225	1/1	0.23	-	22,22,22,22	0
56	MG	BA	3215	1/1	0.17	-	30,30,30,30	0
56	MG	BA	3269	1/1	0.33	-	43,43,43,43	0
56	MG	DA	3087	1/1	0.28	-	23,23,23,23	0
56	MG	CX	101	1/1	0.14	-	3,3,3,3	0
56	MG	AW	107	1/1	0.06	-	28,28,28,28	0
56	MG	CA	1601	1/1	0.14	-	26,26,26,26	0
56	MG	AW	117	1/1	0.20	-	24,24,24,24	0
56	MG	BA	3331	1/1	0.09	-	45,45,45,45	0
56	MG	CA	1696	1/1	0.23	-	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3372	1/1	0.22	-	43,43,43,43	1
56	MG	AA	1683	1/1	0.11	-	17,17,17,17	0
56	MG	BA	3373	1/1	0.04	-	39,39,39,39	0
56	MG	CA	1774	1/1	0.18	-	21,21,21,21	0
56	MG	CA	1734	1/1	0.14	-	59,59,59,59	0
56	MG	AV	104	1/1	0.16	-	27,27,27,27	0
56	MG	DA	3337	1/1	0.06	-	4,4,4,4	0
56	MG	DA	3386	1/1	0.28	-	0,0,0,0	0
56	MG	DA	3125	1/1	0.14	-	0,0,0,0	0
56	MG	AA	1701	1/1	0.11	-	18,18,18,18	0
56	MG	BA	3322	1/1	0.14	-	35,35,35,35	0
56	MG	CA	1707	1/1	0.18	-	6,6,6,6	0
56	MG	CA	1753	1/1	0.25	-	33,33,33,33	0
56	MG	BB	210	1/1	0.09	-	33,33,33,33	1
56	MG	DA	3273	1/1	0.56	-	59,59,59,59	0
56	MG	CA	1616	1/1	0.27	-	24,24,24,24	0
56	MG	BA	3410	1/1	0.12	-	41,41,41,41	0
56	MG	BA	3005	1/1	0.13	-	26,26,26,26	0
56	MG	AA	1639	1/1	0.15	-	30,30,30,30	0
56	MG	DA	3237	1/1	0.06	-	15,15,15,15	0
56	MG	CF	201	1/1	0.09	-	44,44,44,44	0
56	MG	DA	3128	1/1	0.10	-	0,0,0,0	0
56	MG	BA	3145	1/1	0.13	-	0,0,0,0	0
56	MG	AA	1660	1/1	0.23	-	61,61,61,61	0
56	MG	BA	3029	1/1	0.21	-	30,30,30,30	0
56	MG	AA	1633	1/1	0.51	-	90,90,90,90	0
56	MG	DA	3234	1/1	0.09	-	33,33,33,33	0
56	MG	DA	3072	1/1	0.06	-	0,0,0,0	0
56	MG	BA	3118	1/1	0.12	-	0,0,0,0	0
56	MG	BA	3437	1/1	0.08	-	4,4,4,4	0
56	MG	CA	1720	1/1	0.14	-	69,69,69,69	0
56	MG	BA	3095	1/1	0.12	-	0,0,0,0	0
56	MG	DA	3162	1/1	0.20	-	35,35,35,35	0
56	MG	BA	3336	1/1	0.09	-	45,45,45,45	0
56	MG	CA	1675	1/1	0.26	-	57,57,57,57	0
56	MG	BA	3349	1/1	0.14	-	28,28,28,28	1
56	MG	CA	1611	1/1	0.20	-	67,67,67,67	0
56	MG	AA	1795	1/1	0.20	-	30,30,30,30	0
56	MG	DA	3392	1/1	0.15	-	47,47,47,47	0
56	MG	BA	3077	1/1	0.22	-	6,6,6,6	0
56	MG	BA	3280	1/1	0.12	-	10,10,10,10	0
56	MG	DA	3180	1/1	0.24	-	0,0,0,0	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3119	1/1	0.12	-	7,7,7,7	0
56	MG	DA	3194	1/1	0.09	-	0,0,0,0	1
56	MG	AA	1648	1/1	0.18	-	86,86,86,86	0
56	MG	AW	120	1/1	0.10	-	52,52,52,52	0
56	MG	BA	3056	1/1	0.16	-	0,0,0,0	0
56	MG	AA	1628	1/1	0.12	-	2,2,2,2	0
56	MG	CA	1767	1/1	0.27	-	67,67,67,67	0
56	MG	AA	1776	1/1	0.09	-	30,30,30,30	0
56	MG	DA	3373	1/1	0.09	-	28,28,28,28	0
56	MG	BA	3091	1/1	0.17	-	20,20,20,20	0
56	MG	BA	3411	1/1	0.19	-	62,62,62,62	0
56	MG	AW	119	1/1	0.07	-	19,19,19,19	0
56	MG	BA	3037	1/1	0.18	-	0,0,0,0	0
56	MG	CW	110	1/1	0.18	-	38,38,38,38	0
56	MG	AA	1782	1/1	0.28	-	68,68,68,68	0
56	MG	BA	3164	1/1	0.06	-	9,9,9,9	0
56	MG	BA	3430	1/1	0.20	-	30,30,30,30	0
56	MG	BA	3217	1/1	0.14	-	37,37,37,37	0
56	MG	AA	1634	1/1	0.25	-	34,34,34,34	0
56	MG	CA	1640	1/1	0.08	-	43,43,43,43	0
56	MG	DH	201	1/1	0.19	-	36,36,36,36	0
56	MG	AA	1759	1/1	0.07	-	5,5,5,5	1
56	MG	BA	3096	1/1	0.07	-	0,0,0,0	0
56	MG	BA	3010	1/1	0.07	-	30,30,30,30	0
56	MG	BA	3256	1/1	0.08	-	22,22,22,22	0
56	MG	BA	3187	1/1	0.16	-	2,2,2,2	0
56	MG	DA	3335	1/1	0.04	-	10,10,10,10	0
56	MG	DA	3200	1/1	0.16	-	26,26,26,26	0
56	MG	DA	3178	1/1	0.07	-	19,19,19,19	0
56	MG	AV	101	1/1	0.05	-	5,5,5,5	0
56	MG	BA	3049	1/1	0.28	-	36,36,36,36	0
56	MG	DA	3160	1/1	0.16	-	37,37,37,37	0
56	MG	AA	1607	1/1	0.07	-	12,12,12,12	0
56	MG	BA	3195	1/1	0.22	-	16,16,16,16	0
56	MG	DA	3036	1/1	0.19	-	43,43,43,43	0
56	MG	CW	112	1/1	0.11	-	53,53,53,53	0
56	MG	DU	201	1/1	0.10	-	45,45,45,45	0
56	MG	CA	1775	1/1	0.25	-	35,35,35,35	0
56	MG	CA	1785	1/1	0.12	-	44,44,44,44	0
56	MG	DA	3084	1/1	0.10	-	29,29,29,29	0
56	MG	DA	3270	1/1	0.10	-	47,47,47,47	0
56	MG	CW	109	1/1	0.18	-	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3087	1/1	0.17	-	16,16,16,16	0
56	MG	AA	1693	1/1	0.40	-	43,43,43,43	0
56	MG	CA	1654	1/1	0.07	-	41,41,41,41	0
56	MG	DA	3187	1/1	0.34	-	86,86,86,86	0
56	MG	BA	3261	1/1	0.10	-	24,24,24,24	0
56	MG	AA	1709	1/1	0.14	-	33,33,33,33	0
56	MG	BA	3206	1/1	0.17	-	25,25,25,25	0
56	MG	DA	3167	1/1	0.11	-	101,101,101,101	0
56	MG	BA	3229	1/1	0.17	-	36,36,36,36	0
56	MG	BA	3310	1/1	0.16	-	22,22,22,22	0
56	MG	AA	1781	1/1	0.20	-	27,27,27,27	0
56	MG	CA	1706	1/1	0.18	-	54,54,54,54	0
56	MG	DA	3214	1/1	0.10	-	32,32,32,32	0
56	MG	BA	3436	1/1	0.12	-	39,39,39,39	1
56	MG	DA	3291	1/1	0.11	-	0,0,0,0	0
56	MG	AA	1604	1/1	0.15	-	52,52,52,52	0
56	MG	DA	3283	1/1	0.19	-	35,35,35,35	0
56	MG	CX	106	1/1	0.35	-	47,47,47,47	0
56	MG	AA	1799	1/1	0.09	-	71,71,71,71	0
56	MG	CM	201	1/1	0.05	-	21,21,21,21	0
56	MG	DA	3222	1/1	0.20	-	24,24,24,24	0
56	MG	BA	3137	1/1	0.14	-	6,6,6,6	0
56	MG	DB	204	1/1	0.13	-	48,48,48,48	0
56	MG	BA	3125	1/1	0.30	-	18,18,18,18	0
56	MG	DA	3181	1/1	0.08	-	17,17,17,17	0
56	MG	B2	103	1/1	0.27	-	46,46,46,46	0
56	MG	DA	3186	1/1	0.25	-	24,24,24,24	0
56	MG	CA	1651	1/1	0.18	-	31,31,31,31	0
56	MG	BA	3360	1/1	0.07	-	25,25,25,25	0
56	MG	BN	201	1/1	0.31	-	25,25,25,25	0
56	MG	CA	1737	1/1	0.15	-	35,35,35,35	0
56	MG	DA	3315	1/1	0.07	-	4,4,4,4	0
56	MG	AA	1619	1/1	0.36	-	41,41,41,41	0
56	MG	DA	3330	1/1	0.44	-	81,81,81,81	0
56	MG	CA	1716	1/1	0.32	-	67,67,67,67	0
56	MG	CA	1630	1/1	0.09	-	0,0,0,0	0
56	MG	BA	3180	1/1	0.09	-	33,33,33,33	0
56	MG	BB	205	1/1	0.36	-	35,35,35,35	1
56	MG	DA	3382	1/1	0.11	-	6,6,6,6	0
56	MG	CA	1749	1/1	0.08	-	7,7,7,7	0
56	MG	CW	113	1/1	0.05	-	24,24,24,24	0
56	MG	DA	3165	1/1	0.17	-	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1695	1/1	0.13	-	70,70,70,70	0
56	MG	BB	217	1/1	0.10	-	34,34,34,34	0
56	MG	CA	1709	1/1	0.07	-	9,9,9,9	0
56	MG	AA	1800	1/1	0.11	-	36,36,36,36	0
56	MG	CA	1625	1/1	0.20	-	19,19,19,19	0
56	MG	DA	3269	1/1	0.35	-	33,33,33,33	0
56	MG	DA	3172	1/1	0.21	-	25,25,25,25	0
56	MG	BA	3265	1/1	0.20	-	37,37,37,37	0
56	MG	DA	3286	1/1	0.12	-	0,0,0,0	0
56	MG	BA	3382	1/1	0.11	-	63,63,63,63	0
56	MG	AA	1784	1/1	0.33	-	41,41,41,41	0
56	MG	DA	3280	1/1	0.07	-	16,16,16,16	0
56	MG	CX	102	1/1	0.32	-	75,75,75,75	0
56	MG	DA	3251	1/1	0.16	-	20,20,20,20	0
56	MG	AA	1765	1/1	0.04	-	43,43,43,43	0
56	MG	BA	3089	1/1	0.15	-	6,6,6,6	0
56	MG	AW	110	1/1	0.21	-	46,46,46,46	0
56	MG	BA	3139	1/1	0.11	-	9,9,9,9	0
56	MG	BA	3031	1/1	0.21	-	11,11,11,11	0
56	MG	BA	3249	1/1	0.07	-	11,11,11,11	0
56	MG	DA	3255	1/1	0.45	-	92,92,92,92	0
56	MG	BA	3070	1/1	0.22	-	24,24,24,24	0
56	MG	BA	3363	1/1	0.09	-	8,8,8,8	0
56	MG	AA	1689	1/1	0.06	-	50,50,50,50	0
56	MG	BA	3150	1/1	0.13	-	35,35,35,35	0
56	MG	DA	3279	1/1	0.20	-	15,15,15,15	0
56	MG	AA	1703	1/1	0.14	-	23,23,23,23	0
56	MG	AW	108	1/1	0.09	-	35,35,35,35	0
56	MG	BA	3007	1/1	0.24	-	0,0,0,0	0
56	MG	DA	3378	1/1	0.10	-	8,8,8,8	0
56	MG	DA	3034	1/1	0.07	-	7,7,7,7	0
56	MG	DA	3031	1/1	0.09	-	0,0,0,0	0
56	MG	B7	101	1/1	0.08	-	7,7,7,7	0
56	MG	DA	3322	1/1	0.09	-	27,27,27,27	0
56	MG	CA	1662	1/1	0.09	-	18,18,18,18	0
56	MG	DA	3272	1/1	0.40	-	47,47,47,47	0
56	MG	BA	3025	1/1	0.14	-	0,0,0,0	0
56	MG	DA	3236	1/1	0.10	-	54,54,54,54	0
56	MG	BA	3052	1/1	0.26	-	0,0,0,0	0
56	MG	DA	3029	1/1	0.16	-	36,36,36,36	0
56	MG	CA	1668	1/1	0.10	-	42,42,42,42	0
56	MG	DA	3387	1/1	0.10	-	11,11,11,11	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3020	1/1	0.22	-	1,1,1,1	0
56	MG	AA	1744	1/1	0.31	-	18,18,18,18	0
56	MG	DA	3045	1/1	0.14	-	1,1,1,1	0
56	MG	BA	3185	1/1	0.04	-	9,9,9,9	0
56	MG	AA	1642	1/1	0.12	-	8,8,8,8	0
56	MG	DA	3154	1/1	0.17	-	31,31,31,31	0
56	MG	BA	3132	1/1	0.14	-	2,2,2,2	0
56	MG	CA	1788	1/1	0.18	-	42,42,42,42	1
56	MG	BA	3248	1/1	0.27	-	33,33,33,33	0
56	MG	BA	3454	1/1	0.12	-	44,44,44,44	0
56	MG	DA	3074	1/1	0.22	-	11,11,11,11	0
56	MG	AW	113	1/1	0.35	-	46,46,46,46	1
56	MG	BA	3318	1/1	0.19	-	30,30,30,30	0
56	MG	CA	1652	1/1	0.15	-	52,52,52,52	0
56	MG	AW	112	1/1	0.15	-	29,29,29,29	0
56	MG	DA	3219	1/1	0.58	-	75,75,75,75	0
56	MG	DA	3296	1/1	0.11	-	59,59,59,59	0
56	MG	DA	3259	1/1	0.14	-	14,14,14,14	0
56	MG	BA	3390	1/1	0.09	-	20,20,20,20	1
56	MG	BA	3356	1/1	0.07	-	37,37,37,37	0
56	MG	B3	101	1/1	0.28	-	48,48,48,48	1
56	MG	BA	3291	1/1	0.05	-	12,12,12,12	0
56	MG	BA	3227	1/1	0.22	-	49,49,49,49	0
56	MG	DA	3303	1/1	0.10	-	11,11,11,11	0
56	MG	BA	3297	1/1	0.24	-	7,7,7,7	0
56	MG	AA	1653	1/1	0.14	-	39,39,39,39	0
56	MG	AA	1722	1/1	0.13	-	20,20,20,20	0
56	MG	DA	3109	1/1	0.14	-	0,0,0,0	0
56	MG	DA	3007	1/1	0.32	-	39,39,39,39	0
56	MG	DA	3375	1/1	0.10	-	42,42,42,42	1
56	MG	BA	3210	1/1	0.16	-	11,11,11,11	0
56	MG	AA	1814	1/1	0.15	-	25,25,25,25	0
56	MG	BA	3340	1/1	0.09	-	28,28,28,28	0
56	MG	DA	3090	1/1	0.10	-	0,0,0,0	0
56	MG	BA	3425	1/1	0.19	-	61,61,61,61	0
56	MG	CA	1768	1/1	0.15	-	37,37,37,37	0
56	MG	DA	3053	1/1	0.15	-	24,24,24,24	0
56	MG	BA	3094	1/1	0.20	-	0,0,0,0	0
56	MG	AA	1751	1/1	0.06	-	19,19,19,19	0
56	MG	BA	3062	1/1	0.27	-	0,0,0,0	0
56	MG	DA	3319	1/1	0.21	-	52,52,52,52	0
56	MG	AA	1711	1/1	0.05	-	8,8,8,8	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DB	212	1/1	0.07	-	27,27,27,27	0
56	MG	BA	3057	1/1	0.24	-	17,17,17,17	0
56	MG	CA	1722	1/1	0.29	-	70,70,70,70	0
56	MG	AA	1606	1/1	0.33	-	53,53,53,53	0
56	MG	CA	1642	1/1	0.13	-	56,56,56,56	0
56	MG	CA	1782	1/1	0.07	-	29,29,29,29	0
56	MG	AA	1675	1/1	0.20	-	4,4,4,4	0
56	MG	DA	3049	1/1	0.20	-	0,0,0,0	0
56	MG	BA	3285	1/1	0.47	-	74,74,74,74	0
56	MG	AA	1746	1/1	0.09	-	11,11,11,11	0
56	MG	BA	3085	1/1	0.16	-	0,0,0,0	0
56	MG	BA	3209	1/1	0.18	-	15,15,15,15	0
56	MG	BA	3327	1/1	0.09	-	30,30,30,30	0
56	MG	DA	3004	1/1	0.41	-	90,90,90,90	0
56	MG	DA	3130	1/1	0.13	-	14,14,14,14	0
56	MG	AA	1679	1/1	0.08	-	5,5,5,5	1
56	MG	B2	102	1/1	0.17	-	44,44,44,44	0
56	MG	CA	1727	1/1	0.23	-	37,37,37,37	0
56	MG	BA	3058	1/1	0.20	-	0,0,0,0	0
56	MG	DA	3362	1/1	0.14	-	10,10,10,10	1
56	MG	AA	1624	1/1	0.10	-	33,33,33,33	0
56	MG	BA	3198	1/1	0.09	-	0,0,0,0	0
56	MG	BA	3342	1/1	0.28	-	52,52,52,52	1
56	MG	BA	3350	1/1	0.16	-	32,32,32,32	0
56	MG	CA	1653	1/1	0.05	-	60,60,60,60	0
56	MG	BA	3286	1/1	0.20	-	38,38,38,38	0
56	MG	DA	3288	1/1	0.08	-	25,25,25,25	1
56	MG	CA	1754	1/1	0.11	-	6,6,6,6	0
56	MG	CA	1624	1/1	0.08	-	16,16,16,16	0
56	MG	DS	201	1/1	0.39	-	14,14,14,14	1
56	MG	DA	3285	1/1	0.22	-	15,15,15,15	0
56	MG	CA	1644	1/1	0.17	-	59,59,59,59	0
56	MG	BA	3146	1/1	0.23	-	0,0,0,0	0
56	MG	CW	101	1/1	0.07	-	36,36,36,36	0

6.5 Other polymers ⓘ

There are no such residues in this entry.