



Full wwPDB X-ray Structure Validation Report

Jun 16, 2014 – 08:12 PM BST

PDB ID : 4V7M
Title : The structures of Capreomycin bound to the 70S ribosome.
Authors : Stanley, R.E.; Blaha, G.
Deposited on : 2009-11-12
Resolution : 3.45 Å(reported)

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

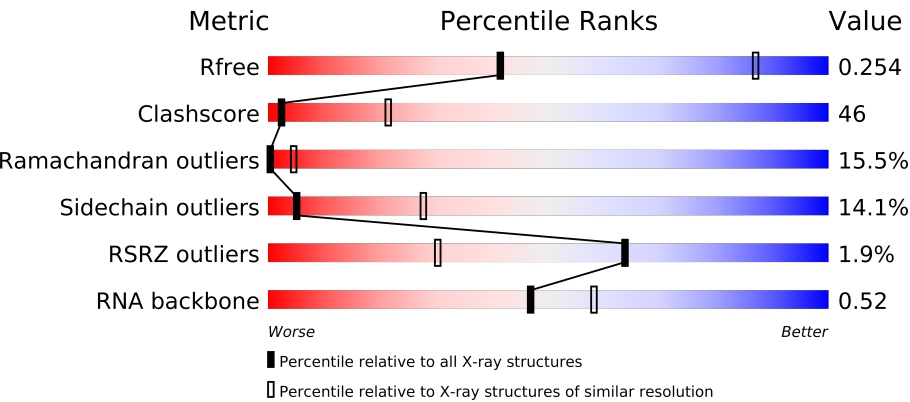
The following versions of software and data (see [references](#)) were used in the production of this report:

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

1 Overall quality at a glance

The reported resolution of this entry is 3.45 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	1149 (3.62-3.30)
Clashscore	79885	1012 (3.60-3.32)
Ramachandran outliers	78287	1401 (3.62-3.30)
Sidechain outliers	78261	1401 (3.62-3.30)
RSRZ outliers	66119	1149 (3.62-3.30)
RNA backbone	1838	1004 (4.10-2.76)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	AA	1508	
1	CA	1508	
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	132	
12	CL	132	
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	30	
22	CV	30	
23	AW	75	
23	CW	75	
24	AX	77	
25	AY	75	
25	CY	75	
26	AZ	6	
26	CZ	6	
27	BA	2915	
27	DA	2915	
28	BB	122	

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Mol	Chain	Length	Quality of chain
28	DB	122	
29	BC	229	
29	DC	229	
30	BD	276	
30	DD	276	
31	BE	206	
31	DE	206	
32	BF	210	
32	DF	210	
33	BG	182	
33	DG	182	
34	BH	180	
34	DH	180	
35	BI	148	
35	DI	148	
36	BN	140	
36	DN	140	
37	BO	122	
37	DO	122	
38	BP	150	
38	DP	150	
39	BQ	141	
39	DQ	141	
40	BR	118	
40	DR	118	
41	BS	112	
41	DS	112	
42	BT	146	
42	DT	146	
43	BU	118	
43	DU	118	
44	BV	101	
44	DV	101	
45	BW	113	
45	DW	113	
46	BX	96	
46	DX	96	
47	BY	110	
47	DY	110	
48	BZ	206	
48	DZ	206	
49	B0	85	

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Mol	Chain	Length	Quality of chain
49	D0	85	
50	B1	98	
50	D1	98	
51	B2	72	
51	D2	72	
52	B3	60	
52	D3	60	
53	B4	71	
53	D4	71	
54	B5	60	
54	D5	60	
55	B6	54	
55	D6	54	
56	B7	49	
56	D7	49	
57	B8	65	
57	D8	65	
58	B9	37	
58	D9	37	
59	CX	77	

2 Entry composition

There are 61 unique types of molecules in this entry. The entry contains 293848 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 ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1495	Total	C	N	O	P	0	0	0
			32132	14303	5953	10382	1494			
1	CA	1493	Total	C	N	O	P	0	0	0
			32098	14287	5956	10363	1492			

- 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	206	Total	C	N	O	S	0	0	1
			1604	1011	314	278	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	154	Total	C	N	O	S	0	0	0
			1249	776	251	217	5			

- 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
			1006	637	195	174				
9	CI	127	Total	C	N	O		0	0	0
			1006	637	195	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	116	Total	C	N	O	S	0	0	0
			864	537	164	160	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	122	Total	C	N	O	S	0	0	1
			965	597	200	166	2			
13	CM	118	Total	C	N	O	S	0	0	0
			937	579	193	163	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 RNA (5'-R(*AP*AP*AP*AP*AP*GP*GP*AP*AP*AP*UP*A*AP*AP*AP*AP*UP*GP*CP*AP*GP*UP*UP*CP*AP*AP*UP*CP*UP*A)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	10	Total	C	N	O	P	0	0	0
			205	93	40	63	9			
22	CV	10	Total	C	N	O	P	0	0	0
			213	97	42	65	9			

- Molecule 23 is a RNA chain called tRNA-Gln.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AW	74	Total	C	N	O	P	0	0	0
			1573	702	279	518	74			
23	CW	74	Total	C	N	O	P	0	0	0
			1573	702	279	518	74			

- Molecule 24 is a RNA chain called tRNA-Met.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	77	Total	C	N	O	P	0	0	0
			1639	732	297	534	76			

- Molecule 25 is a RNA chain called tRNA-Gln.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	AY	75	Total	C	N	O	P	0	0	0
			1591	711	280	526	74			
25	CY	75	Total	C	N	O	P	0	0	0
			1591	711	280	526	74			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AY	33	G	C	CONFLICT	GB CP001790.1
AY	44	U	A	CONFLICT	GB CP001790.1
CY	33	G	C	CONFLICT	GB CP001790.1
CY	44	U	A	CONFLICT	GB CP001790.1

- Molecule 26 is a protein called capreomycin IA.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	AZ	6	Total	C	N	O	0	0	0
			47	25	14	8			
26	CZ	6	Total	C	N	O	0	0	0
			47	25	14	8			

- Molecule 27 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BA	2789	Total	C	N	O	P	0	0	0
			60072	26734	11238	19312	2788			
27	DA	2775	Total	C	N	O	P	0	0	0
			59767	26598	11176	19219	2774			

- Molecule 28 is a RNA chain called 5S ribosomal RNA.

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

- Molecule 29 is a protein called 50S ribosomal protein L1.

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

- Molecule 30 is a protein called 50S ribosomal protein L2.

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

- Molecule 31 is a protein called 50S ribosomal protein L3.

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

- Molecule 32 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BF	206	Total	C	N	O	S	0	0	1
			1607	1024	301	280	2			
32	DF	208	Total	C	N	O	S	0	0	1
			1624	1035	304	282	3			

- Molecule 33 is a protein called 50S ribosomal protein L5.

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

- Molecule 34 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BH	161	Total	C	N	O	S	0	0	0
			1233	783	227	222	1			
34	DH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			

- Molecule 35 is a protein called 50S ribosomal protein L9.

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

- Molecule 36 is a protein called 50S ribosomal protein L13.

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

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

- Molecule 37 is a protein called 50S ribosomal protein L14.

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

- Molecule 38 is a protein called 50S ribosomal protein L15.

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

- Molecule 39 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BQ	139	Total	C	N	O	S	0	0	0
			1107	707	209	184	7			
39	DQ	138	Total	C	N	O	S	0	0	0
			1094	697	205	185	7			

- Molecule 40 is a protein called 50S ribosomal protein L17.

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

- Molecule 41 is a protein called 50S ribosomal protein L18.

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

- Molecule 42 is a protein called 50S ribosomal protein L19.

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

- Molecule 43 is a protein called 50S ribosomal protein L20.

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

- Molecule 44 is a protein called 50S ribosomal protein L21.

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

- Molecule 45 is a protein called 50S ribosomal protein L22.

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

- Molecule 46 is a protein called 50S ribosomal protein L23.

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

- Molecule 47 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BY	88	Total	C	N	O	S	0	0	1
			672	432	131	105	4			
47	DY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			

- Molecule 48 is a protein called 50S ribosomal protein L25.

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

- Molecule 49 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B0	84	Total	C	N	O	S	0	0	0
			662	410	140	111	1			
49	D0	84	Total	C	N	O	S	0	0	0
			662	410	140	111	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B1	94	Total	C	N	O	S	0	0	1
			732	460	146	125	1			
50	D1	94	Total	C	N	O	S	0	0	1
			732	460	146	125	1			

- Molecule 51 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			
51	D2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			

- Molecule 52 is a protein called 50S ribosomal protein L30.

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

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

- Molecule 53 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B4	49	Total	C	N	O	S	0	0	1
			344	215	60	65	4			
53	D4	49	Total	C	N	O	S	0	0	1
			344	215	60	65	4			

- Molecule 54 is a protein called 50S ribosomal protein L32.

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

- Molecule 55 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	B6	48	Total	C	N	O	S	0	0	1
			402	249	83	66	4			
55	D6	46	Total	C	N	O	S	0	0	1
			390	241	80	65	4			

- Molecule 56 is a protein called 50S ribosomal protein L34.

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

- Molecule 57 is a protein called 50S ribosomal protein L35.

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

- Molecule 58 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
58	B9	36	Total	C	N	O	S	0	0	0
			299	183	67	46	3			
58	D9	36	Total	C	N	O	S	0	0	0
			299	183	67	46	3			

- Molecule 59 is a RNA chain called RNA (77-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
59	CX	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
CX	46	G	A	CONFLICT	GB CP001637.1

- Molecule 60 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	BA	334	Total	Mg	0	0
			334	334		
60	CA	102	Total	Mg	0	0
			102	102		
60	DF	1	Total	Mg	0	0
			1	1		
60	CV	1	Total	Mg	0	0
			1	1		
60	BE	3	Total	Mg	0	0
			3	3		
60	AW	4	Total	Mg	0	0
			4	4		
60	BP	2	Total	Mg	0	0
			2	2		
60	AX	9	Total	Mg	0	0
			9	9		
60	B5	1	Total	Mg	0	0
			1	1		
60	BB	5	Total	Mg	0	0
			5	5		
60	DO	1	Total	Mg	0	0
			1	1		

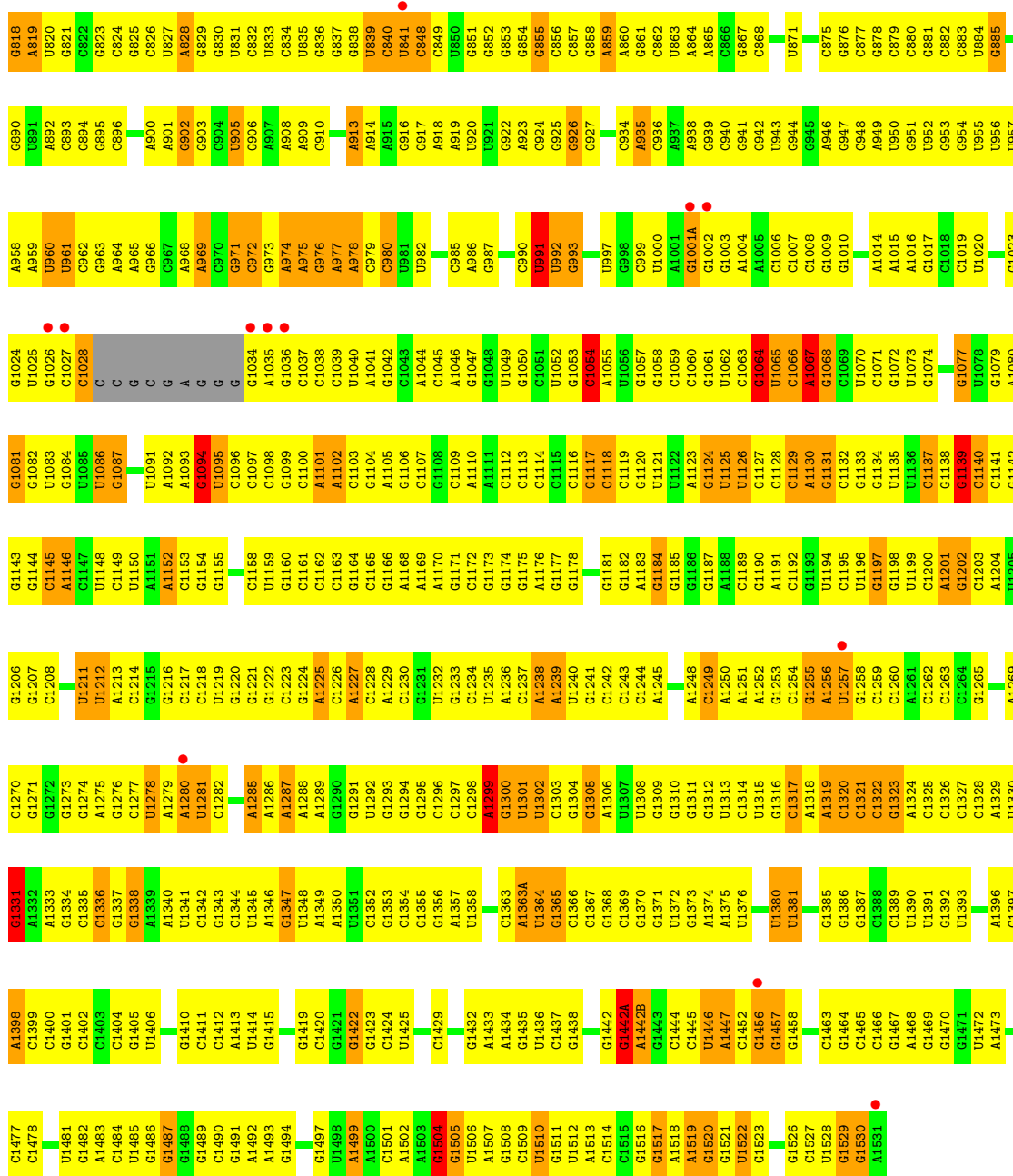
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	BF	1	Total 1	Mg 1	0	0
60	BX	1	Total 1	Mg 1	0	0
60	CK	1	Total 1	Mg 1	0	0
60	D7	1	Total 1	Mg 1	0	0
60	BU	2	Total 2	Mg 2	0	0
60	AA	114	Total 114	Mg 114	0	0
60	DD	2	Total 2	Mg 2	0	0
60	D0	1	Total 1	Mg 1	0	0
60	BG	1	Total 1	Mg 1	0	0
60	BR	1	Total 1	Mg 1	0	0
60	DA	239	Total 239	Mg 239	0	0
60	AG	1	Total 1	Mg 1	0	0
60	DE	1	Total 1	Mg 1	0	0
60	CW	4	Total 4	Mg 4	0	0
60	D5	1	Total 1	Mg 1	0	0
60	BD	1	Total 1	Mg 1	0	0
60	B0	3	Total 3	Mg 3	0	0
60	CE	1	Total 1	Mg 1	0	0
60	DB	3	Total 3	Mg 3	0	0

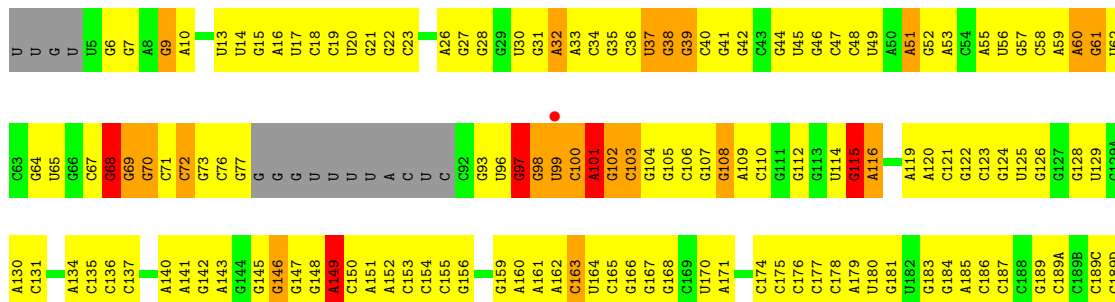
- Molecule 61 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	B5	1	Total 1	Zn 1	0	0
61	B4	1	Total 1	Zn 1	0	0
61	AD	1	Total 1	Zn 1	0	0
61	B9	1	Total 1	Zn 1	0	0
61	D9	1	Total 1	Zn 1	0	0
61	D5	1	Total 1	Zn 1	0	0
61	D4	1	Total 1	Zn 1	0	0
61	CD	1	Total 1	Zn 1	0	0

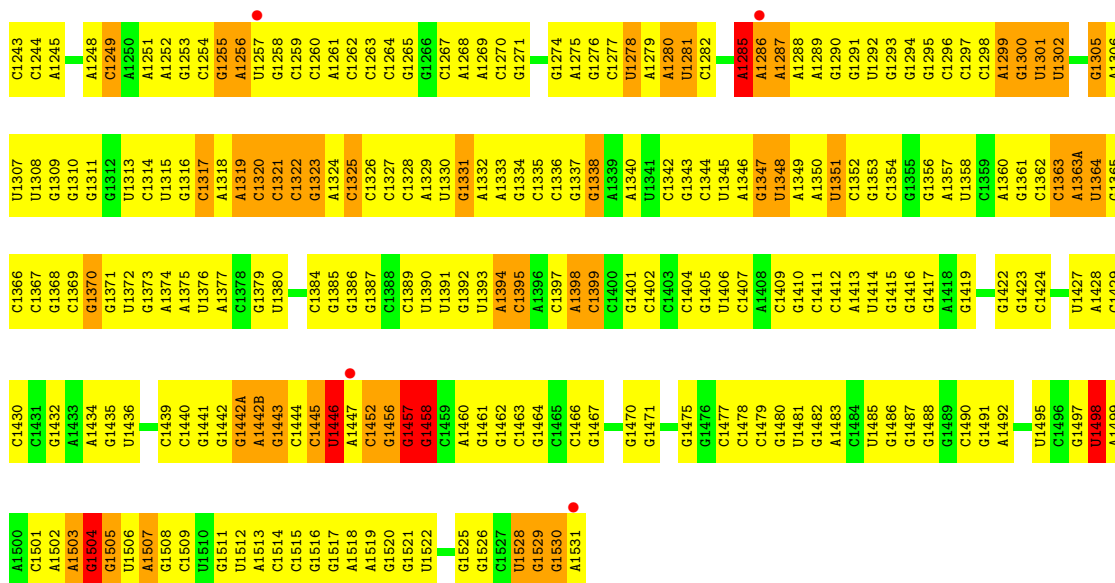


- Molecule 1: 16S ribosomal RNA

Chain CA:

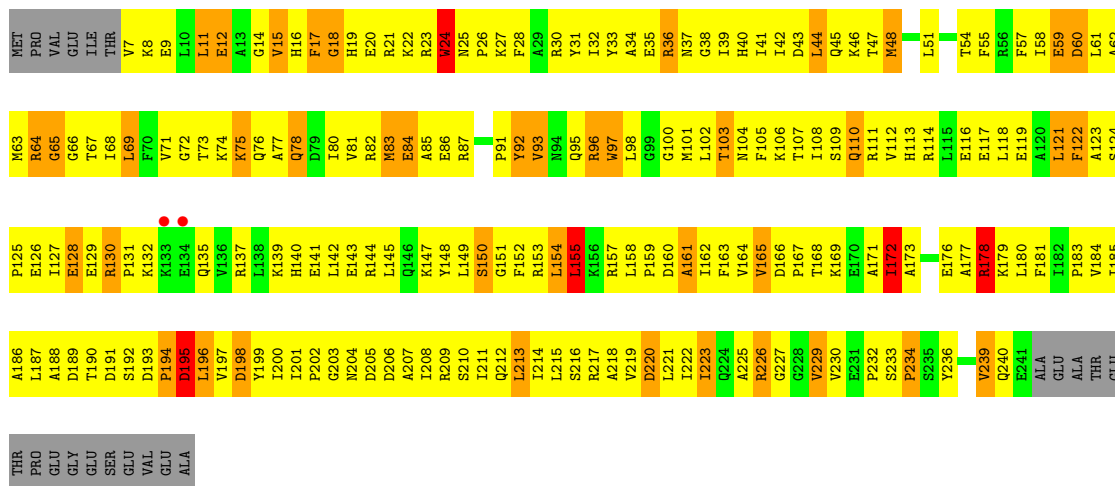


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U1120	U1121	U1122	U1123	U1124	U1125	U1126	U1127	U1128	U1129	U1130	U1131	U1132	U1133	U1134	U1135	U1136	U1137	U1138	U1139	U1140	U1141	U1142	U1143	U1144	U1145	U1146	U1147	U1148	U1149	U1150	U1151	U1152	U1153	U1154	U1155	U1156	U1157	U1158	U1159	U1160	U1161	U1162	U1163	U1164	U1165	U1166	U1167	U1168	U1169	U1170	U1171	U1172	U1173	U1174	U1175	U1176	U1177	U1178	U1179	U1180	U1181																																																																																																																																																																																																																																																																																																																																							
C1054	A1055	U1056	G1057	G1058	G1059	G1060	G1061	G1062	G1063	G1064	G1065	G1066	A1067	G1068	G1069	G1070	G1071	G1072	G1073	G1074	G1075	G1076	G1077	G1078	G1079	A1080	G1081	G1082	G1083	G1084	G1085	U1086	G1087	U1088	G1089	G1090	G1091	G1092	G1093	G1094	G1095	G1096	G1097	G1098	G1099	G1100	A1101	A1102	G1103	G1104	G1105	G1106	G1107	G1108	G1109	A1110	G1111	G1112	G1113	G1114	G1115	G1116	G1117	G1118	G1119	G1120																																																																																																																																																																																																																																																																																																																																		
G998	C999	U1000	A1001	G1001A	G1002	G1003	A1004	A1005	C1006	C1007	G1008	G1009	G1010	U1011	G1012	G1013	A1014	A1015	A1016	G1017	C1018	C1019	U1020	G1021	G1022	G1023	G1024	U1025	G1026	G1027	G1028	G1029	C1030	C1030A	C1030B	G1030C	A1030D	G1031	G1032	G1033	G1034	A1035	G1036	C1037	C1038	C1039	U1040	A1041	G1042	C1043	A1044	C1045	A1046	G1047	U1048	G1049	G1050	G1051	G1052																																																																																																																																																																																																																																																																																																																																									
A935	C936	A937	A938	G939	G940	G941	G942	U943	G944	G945	A946	G947	C948	A949	U950	G951	U952	G953	G954	U955	C956	U957	A958	G959	U960	U961	G962	G963	A964	A965	G966	G967	A968	A969	C970	G971	C972	G973	A974	G975	G976	A977	A978	C979	G980	U981	U982	G983	A984	G985	A986	A987	A988	A989	A990	A991	A992	A993	A994	A995	A996	U997																																																																																																																																																																																																																																																																																																																																						
C968	G969	U970	U971	G974	G975	G976	G977	G978	G979	G980	G981	G982	G983	G984	G985	G986	G987	G988	G989	G990	G991	G992	G993	G994	G995	G996	G997	G998	G999	G1000	G1001	G1002	G1003	G1004	G1005	G1006	G1007	G1008	G1009	G1010	G1011	G1012	G1013	G1014	G1015	G1016	G1017	G1018	G1019	G1020	G1021	G1022	G1023	G1024	G1025	G1026	G1027	G1028	G1029	G1030	G1031	G1032	G1033	G1034	G1035	G1036	G1037	G1038	G1039	G1040	G1041	G1042	G1043	G1044	G1045	G1046	G1047	G1048	G1049	G1050	G1051	G1052	G1053																																																																																																																																																																																																																																																																																																																	
A794	C795	C796	C797	C798	U801	A802	G803	U804	C805	C806	C810	C811	A814	A815	A816	A817	G818	A819	U820	G821	C824	G825	C826	U827	A828	G829	C832	U833	C834	U835	G836	G837	G838	U839	U840	C841	C842	C843	C844	U845	U846	U847	U848	U849	U850	G851	G852	G853	G854	G855	C856	C857	G858	G859	A860	G861	C862	C863	C864	C865	C866	C867	C868	C869	C870	C871	C872	C873	C874	C875	C876	C877	C878	C879	C880	C881	C882	C883	C884	C885	C886	C887	C888	C889	C890	C891	C892	C893	C894	C895	C896	C897	C898	C899	C900	C901	C902	C903	C904	C905	C906	C907	C908	C909	C910	C911	C912	C913	C914	C915	C916	C917	C918	C919	C920	C921	C922	C923	C924	C925	C926	C927	C928	C929	C930	C931	C932	C933	C934	C935	C936	C937	C938	C939	C940	C941	C942	C943	C944	C945	C946	C947	C948	C949	C950	C951	C952	C953	C954	C955	C956	C957	C958	C959	C960	C961	C962	C963	C964	C965	C966	C967	C968	C969	C970	C971	C972	C973	C974	C975	C976	C977	C978	C979	C980	C981	C982	C983	C984	C985	C986	C987	C988	C989	C990	C991	C992	C993	C994	C995	C996	C997	C998	C999	G1000	G1001	G1002	G1003	G1004	G1005	G1006	G1007	G1008	G1009	G1010	G1011	G1012	G1013	G1014	G1015	G1016	G1017	G1018	G1019	G1020	G1021	G1022	G1023	G1024	G1025	G1026	G1027	G1028	G1029	G1030	G1031	G1032	G1033	G1034	G1035	G1036	G1037	G1038	G1039	G1040	G1041	G1042	G1043	G1044	G1045	G1046	G1047	G1048	G1049	G1050	G1051	G1052	G1053																																																																																																																																												
G662	A663	G664	A665	G666	G667	G668	U669	G673	G674	A675	A676	U677	U678	U679	G680	G681	G682	G683	A684	G685	U686	A687	G688	C689	G690	G691	U692	U693	U694	U695	U696	U697	U698	U699	U700	U701	U702	U703	U704	U705	U706	U707	U708	U709	U710	U711	U712	U713	U714	U715	U716	U717	U718	U719	U720	U721	U722	U723	U724	U725	U726	U727	U728	U729	U730	U731	U732	U733	U734	U735	U736	U737	U738	U739	U740	U741	U742	U743	U744	U745	U746	U747	U748	U749	U750	U751	U752	U753	U754	U755	U756	U757	U758	U759	U760	U761	U762	U763	U764	U765	U766	U767	U768	U769	U770	U771	U772	U773	U774	U775	U776	U777	U778	U779	U780	U781	U782	U783	U784	U785	U786	U787	U788	U789	U790	U791	U792	U793	U794	U795	U796	U797	U798	U799	U800	U801	U802	U803	U804	U805	U806	U807	U808	U809	U810	U811	U812	U813	U814	U815	U816	U817	U818	U819	U820	U821	U822	U823	U824	U825	U826	U827	U828	U829	U830	U831	U832	U833	U834	U835	U836	U837	U838	U839	U840	U841	U842	U843	U844	U845	U846	U847	U848	U849	U850	U851	U852	U853	U854	U855	U856	U857	U858	U859	U860	U861	U862	U863	U864	U865	U866	U867	U868	U869	U870	U871	U872	U873	U874	U875	U876	U877	U878	U879	U880	U881	U882	U883	U884	U885	U886	U887	U888	U889	U890	U891	U892	U893	U894	U895	U896	U897	U898	U899	U900	U901	U902	U903	U904	U905	U906	U907	U908	U909	U910	U911	U912	U913	U914	U915	U916	U917	U918	U919	U920	U921	U922	U923	U924	U925	U926	U927	U928	U929	U930	U931	U932	U933	U934	U935	U936	U937	U938	U939	U940	U941	U942	U943	U944	U945	U946	U947	U948	U949	U950	U951	U952	U953	U954	U955	U956	U957	U958	U959	U960	U961	U962	U963	U964	U965	U966	U967	U968	U969	U970	U971	U972	U973	U974	U975	U976	U977	U978	U979	U980	U981	U982	U983	U984	U985	U986	U987	U988	U989	U990	U991	U992	U993	U994	U995	U996	U997	U998	U999	G1000	G1001	G1002	G1003	G1004	G1005	G1006	G1007	G1008	G1009	G1010	G1011	G1012	G1013	G1014	G1015	G1016	G1017	G1018	G1019	G1020	G1021	G1022	G1023	G1024	G1025	G1026	G1027	G1028	G1029	G1030	G1031	G1032	G1033	G1034	G1035	G1036	G1037	G1038	G1039	G1040	G1041	G1042	G1043	G1044	G1045	G1046	G1047	G1048	G1049	G1050	G1051	G1052	G1053
G326	A327	C328	A329	C330	G331	G332	G333	G334	C335	C336	C337	A338	C339	U340	U341	A342	U343	U344	C345	G346	G347	G348	A349	G350	G351	C352	A353	U354	C355	U356	A357	U358	A359	U360	U361	G362	A363	C364	C365	C366	U367	U368	C369	C370	G371	C372	C373	A374	U375	U376	G377	G378	C379	G380	C381	A382	U383	A384	U385	C386	C387	C388	C389	C390	C391	C392	C393	C394	C395	C396	C397	C398	C399	C400	C401	C402	C403	C404	C405	C406	C407	C408	C409	C410	C411	C412	C413	C414	C415	C416	C417	C418	C419	C420	C421	C422	C423	C424	C425	C426	C427	C428	C429	C430	C431	C432	C433	C434	C435	C436	C437	C438	C439	C440	C441	C442	C443	C444	C445	C446	C447	C448	C449	C450	C451	C452	C453	C454	C455	C456	C457	C458	C459	C460	C461	C462	C463	C464	C465	C466	C467	C468	C469	C470	C471	C472	C473	C474	C475	C476	C477	C478	C479	C480	C481	C482	C483	C484	C485	C486	C487	C488	C489	C490	C491	C492	C493	C494	C495	C496	C497	C498	C499	C500	C501	C502	C503	C504	C505	C506	C507	C508	C509	C510	C511	C512	C513	C514	C515	C516	C517	C518	C519	C520	C521	C522	C523	C524	C525	C526	C527	C528	C529	C530	C531	C532	C533	C534	C535	C536	C537	C538	C539	C540	C541	C542	C543	C544	C545	C546	C547	C548	C549	C550	C551	C552	C553	C554	C555	C556	C557	C558	C559	C560	C561	C562	C563	C564	C565	C566	C567	C568	C569	C570	C571	C572	C573	C574	C575	C576	C577	C578	C579	C580	C581	C582	C583	C584	C585	C586	C587	C588	C589	C590	C591	C592	C593	C594	C595	C596	C597	C598	C599	C600	C601	C602	C603	C604	C605	C606	C607	C608	C609	C610	C611	C612	C613	C614	C615	C616	C617	C618	C619	C620	C621	C622	C623	C624	C625	C626	C627	C628	C629	C630	C631	C632	C633	C634	C635	C636	C637	C638	C639	C640	C641	C642	C643	C644	C645	C646	C647	C648	C649	C650	C651	C652	C653	C654	C655	C656	C657	C658	C659	C660	C661	C662	C663	C664	C665	C666	C667	C668	C669	C670	C671	C672	C673	C674	C675	C676	C677	C678	C679	C680	C681	C682	C683	C684	C685	C686	C687	C688	C689	C690	C691	C692	C693	C694	C695	C696	C697	C698	C699	C700	C701	C702	C703	C704	C705	C706	C707	C708	C709	C710	C711	C712		



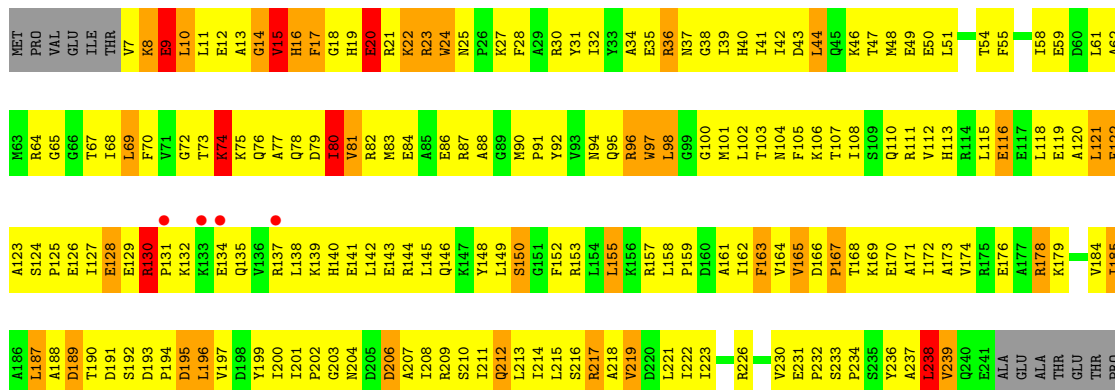
- Molecule 2: 30S ribosomal protein S2

Chain AB:



- Molecule 2: 30S ribosomal protein S2

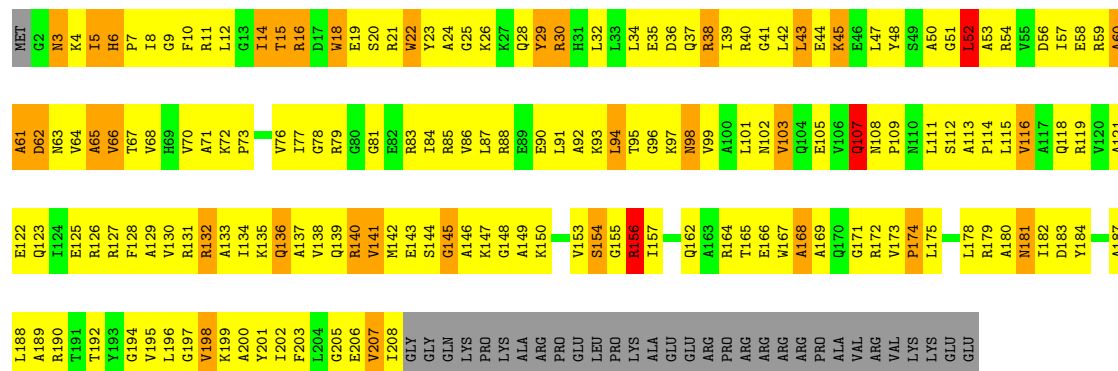
Chain CB:



GLU
GLY
SER
GLU
VAL
GLU
ALA

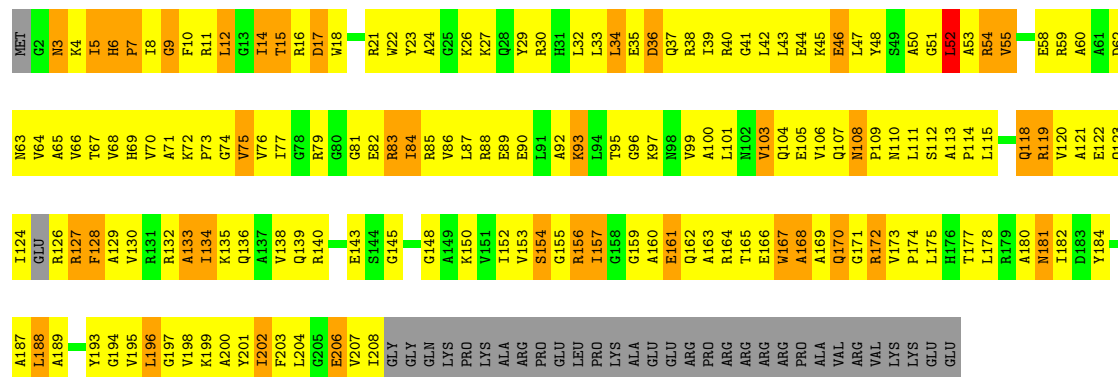
• Molecule 3: 30S ribosomal protein S3

Chain AC:



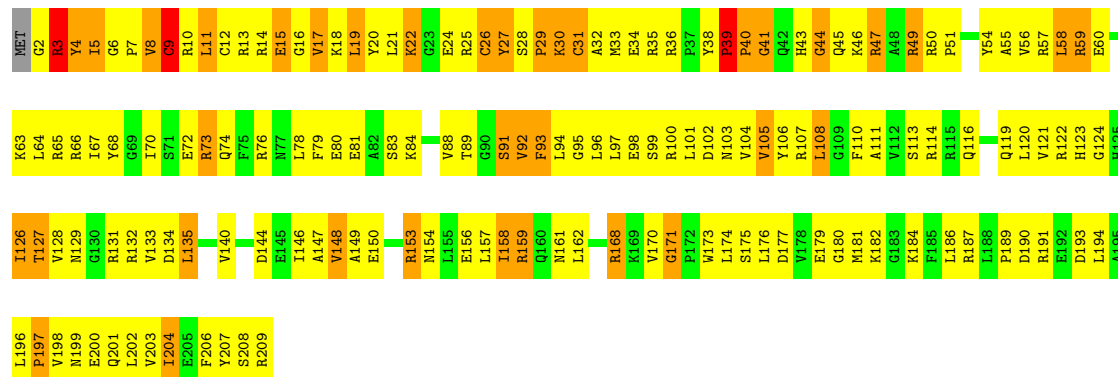
• Molecule 3: 30S ribosomal protein S3

Chain CC:



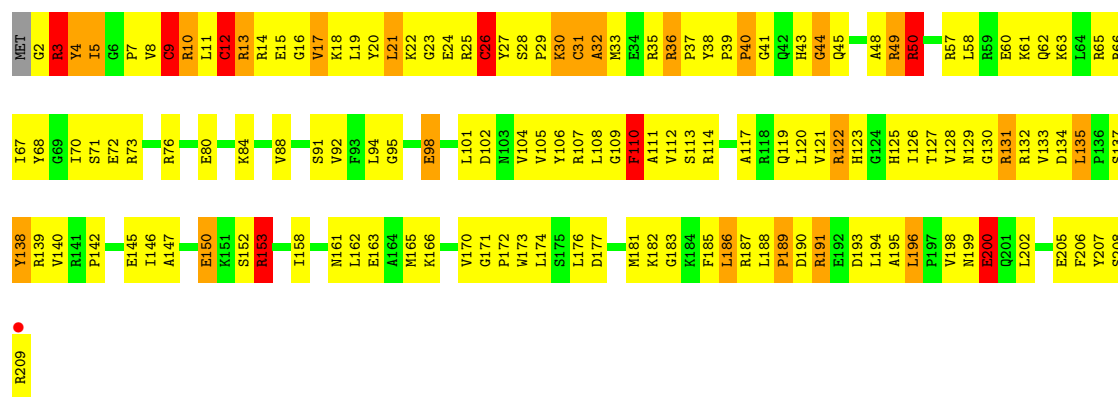
• Molecule 4: 30S ribosomal protein S4

Chain AD:



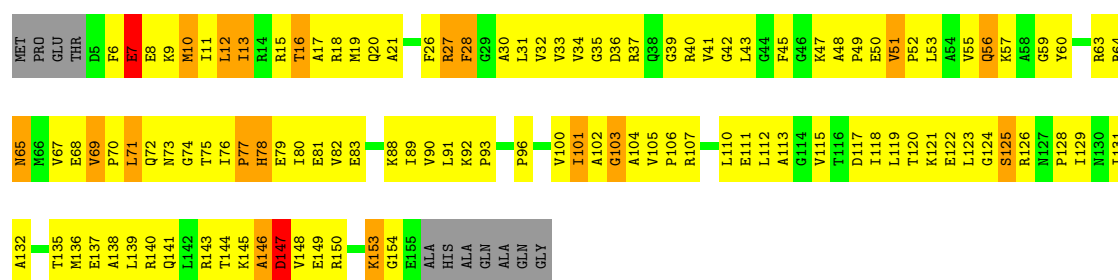
• Molecule 4: 30S ribosomal protein S4

Chain CD:



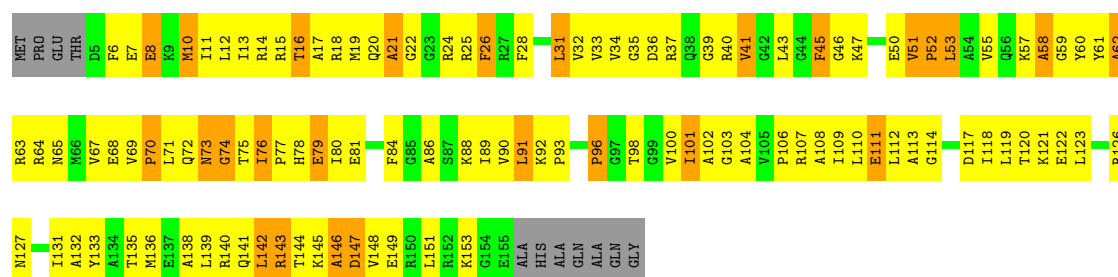
• Molecule 5: 30S ribosomal protein S5

Chain AE:



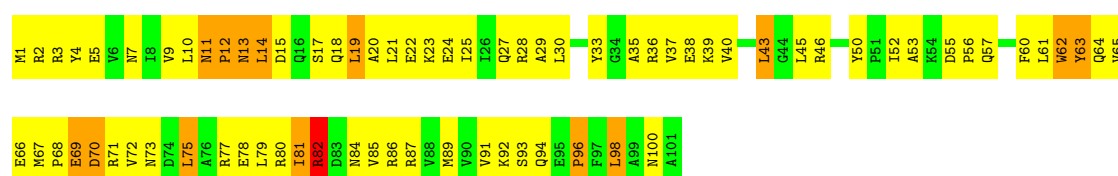
• Molecule 5: 30S ribosomal protein S5

Chain CE:



• Molecule 6: 30S ribosomal protein S6

Chain AF:



• Molecule 6: 30S ribosomal protein S6

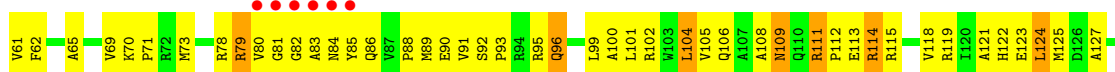
Chain CF:





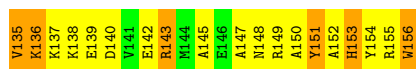
- Molecule 7: 30S ribosomal protein S7

Chain AG: 



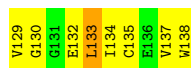
- Molecule 7: 30S ribosomal protein S7

Chain CG:



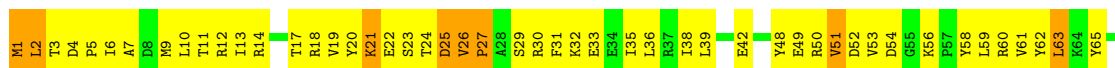
- Molecule 8: 30S ribosomal protein S8

Chain AH:



- Molecule 8: 30S ribosomal protein S8

Chain CH:





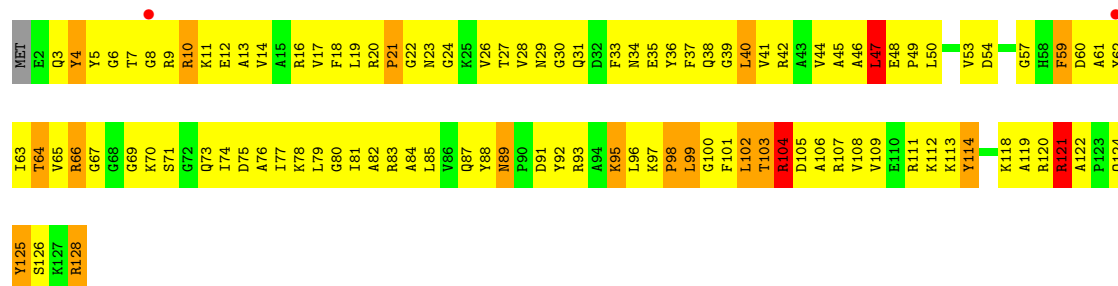
• Molecule 9: 30S ribosomal protein S9

Chain AI:



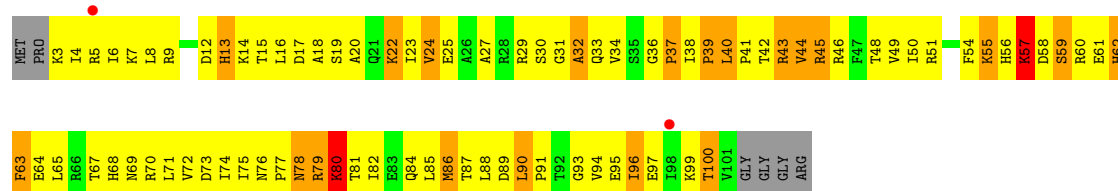
• Molecule 9: 30S ribosomal protein S9

Chain CI:



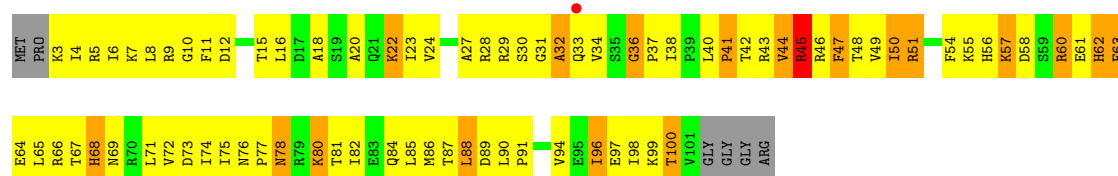
• Molecule 10: 30S ribosomal protein S10

Chain AJ:



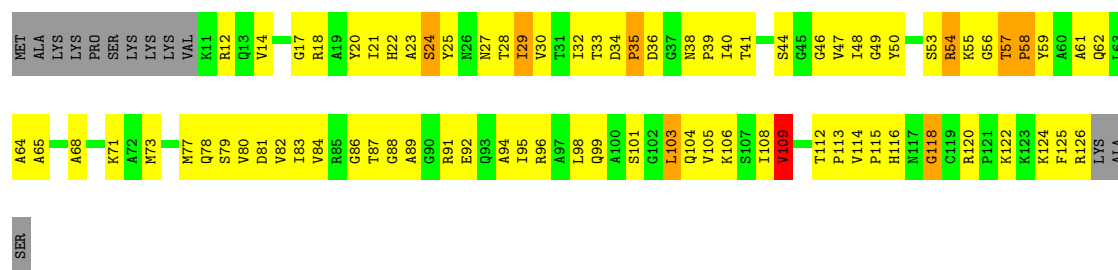
• Molecule 10: 30S ribosomal protein S10

Chain CJ:



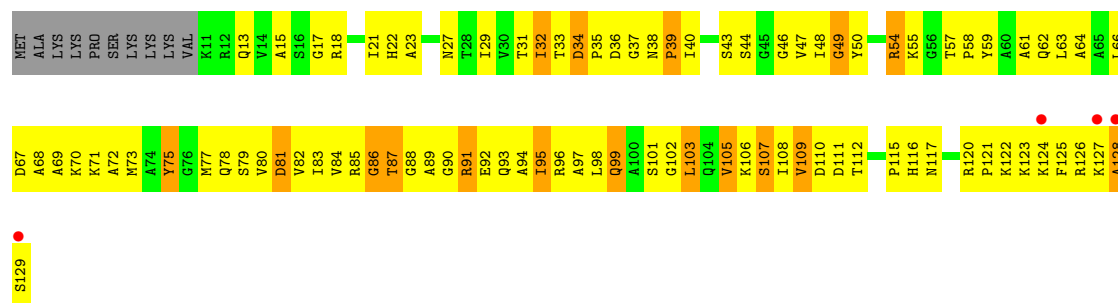
• Molecule 11: 30S ribosomal protein S11

Chain AK:



- Molecule 11: 30S ribosomal protein S11

Chain CK:



- Molecule 12: 30S ribosomal protein S12

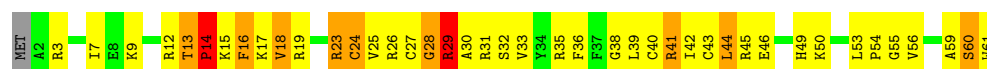
Chain AL:



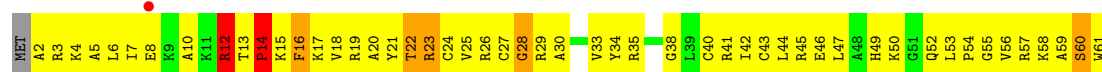
- Molecule 13: 30S ribosomal protein S13

Chain CM: 

- Molecule 14: 30S ribosomal protein S14

Chain AN: 

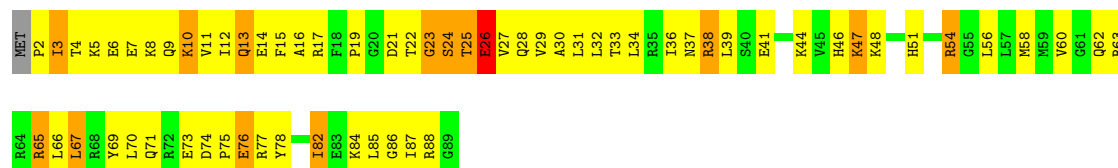
- Molecule 14: 30S ribosomal protein S14

Chain CN: 

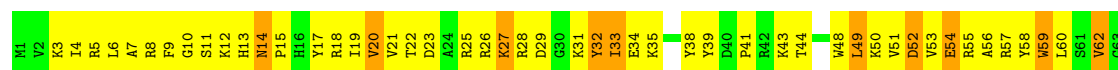
- Molecule 15: 30S ribosomal protein S15

Chain AO: 

- Molecule 15: 30S ribosomal protein S15

Chain CO: 

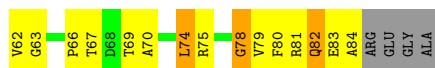
- Molecule 16: 30S ribosomal protein S16

Chain AP: 



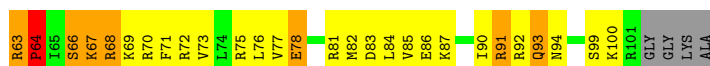
- Molecule 16: 30S ribosomal protein S16

Chain CP:



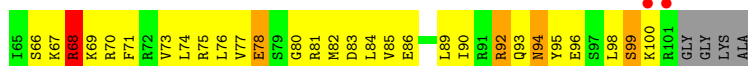
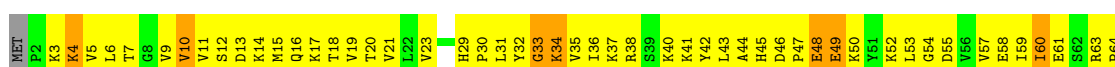
- Molecule 17: 30S ribosomal protein S17

Chain AQ:



- Molecule 17: 30S ribosomal protein S17

Chain CQ:



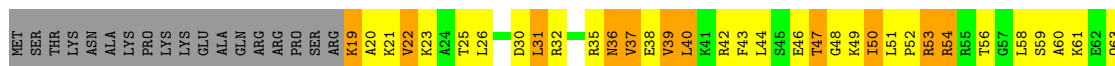
- Molecule 18: 30S ribosomal protein S18

Chain AR:



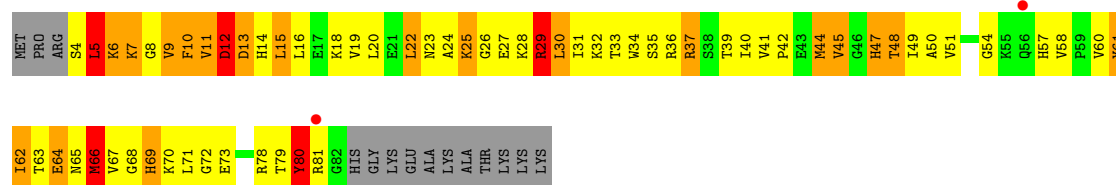
- Molecule 18: 30S ribosomal protein S18

Chain CR:



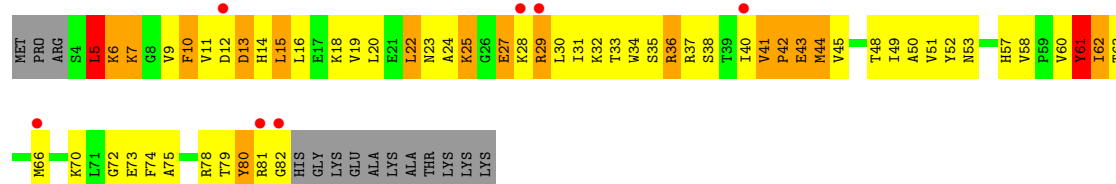
- Molecule 19: 30S ribosomal protein S19

Chain AS: 



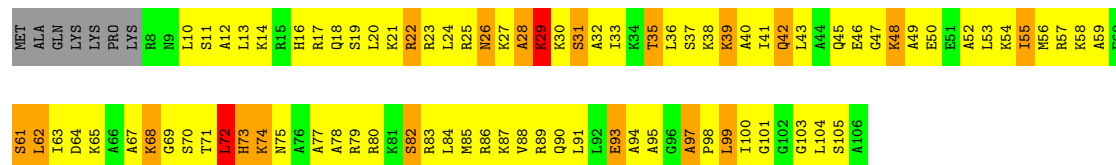
- Molecule 19: 30S ribosomal protein S19

Chain CS: 



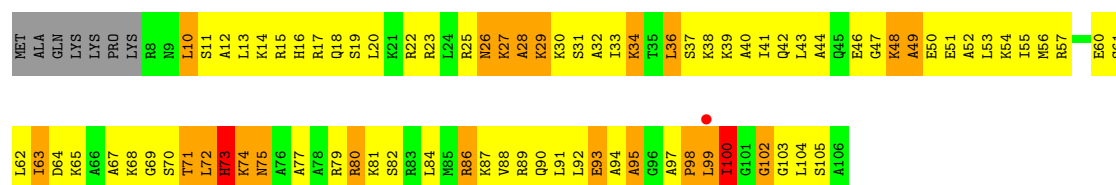
- Molecule 20: 30S ribosomal protein S20

Chain AT: 



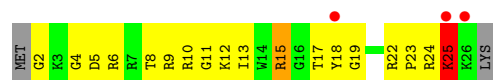
- Molecule 20: 30S ribosomal protein S20

Chain CT: 



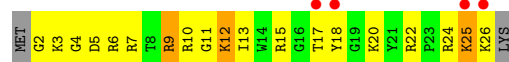
- Molecule 21: 30S ribosomal protein Thx

Chain AU: 



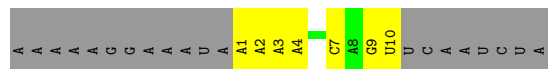
- Molecule 21: 30S ribosomal protein Thx

Chain CU: 



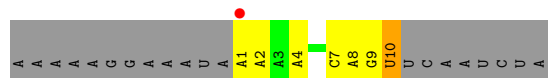
- Molecule 22: RNA (5'-R(*AP*AP*AP*AP*AP*GP*GP*AP*AP*AP*UP*A*AP*AP*AP*AP*UP*GP*CP*AP*GP*UP*UP*CP*AP*AP*UP*CP*UP*A)-3')

Chain AV:



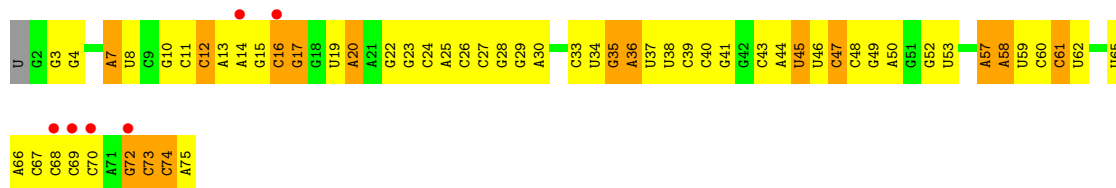
- Molecule 22: RNA (5'-R(*AP*AP*AP*AP*AP*GP*GP*AP*AP*AP*UP*A*AP*AP*AP*AP*UP*GP*CP*AP*GP*UP*UP*CP*AP*AP*UP*CP*UP*A)-3')

Chain CV:



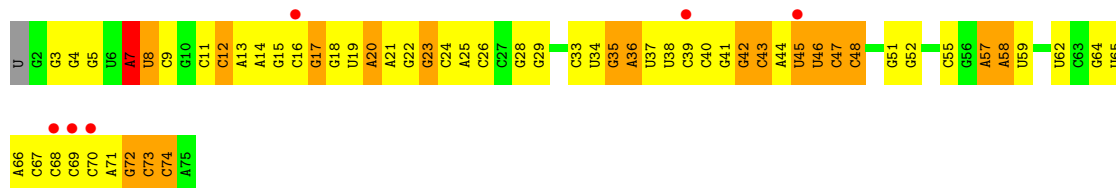
- Molecule 23: tRNA-Gln

Chain AW:



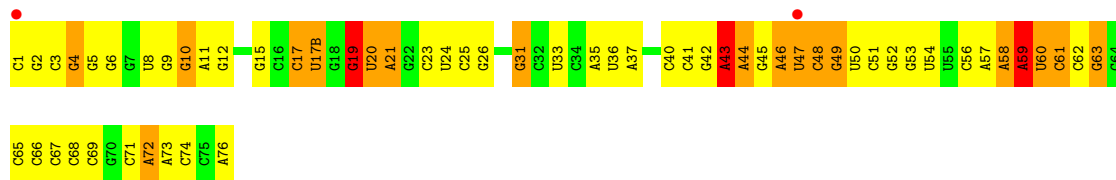
- Molecule 23: tRNA-Gln

Chain CW:



- Molecule 24: tRNA-Met

Chain AX:



- Molecule 25: tRNA-Gln

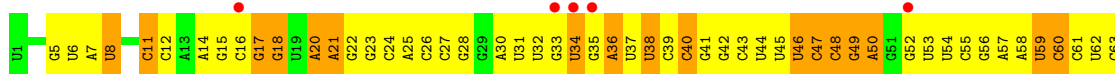
Chain AY:





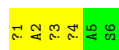
- Molecule 25: tRNA-Gln

Chain CY:



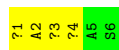
- Molecule 26: capreomycin IA

Chain AZ:



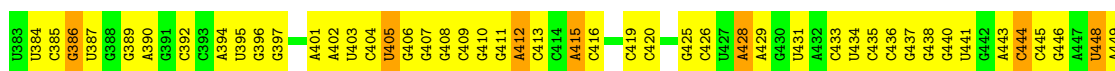
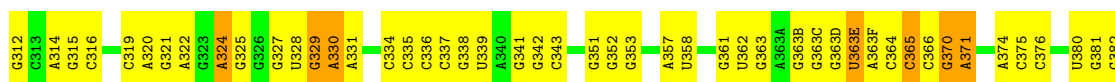
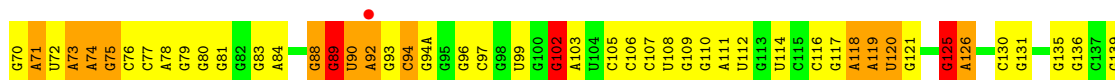
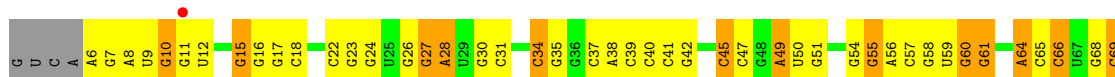
- Molecule 26: capreomycin IA

Chain CZ:

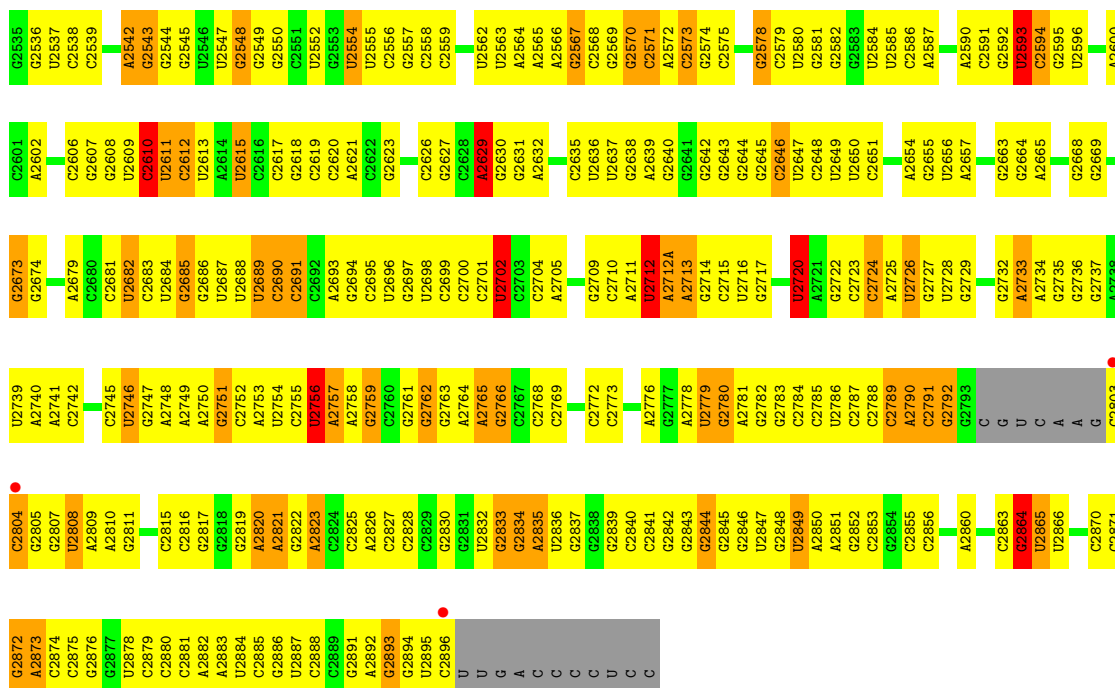


- Molecule 27: 23S ribosomal RNA

Chain BA:

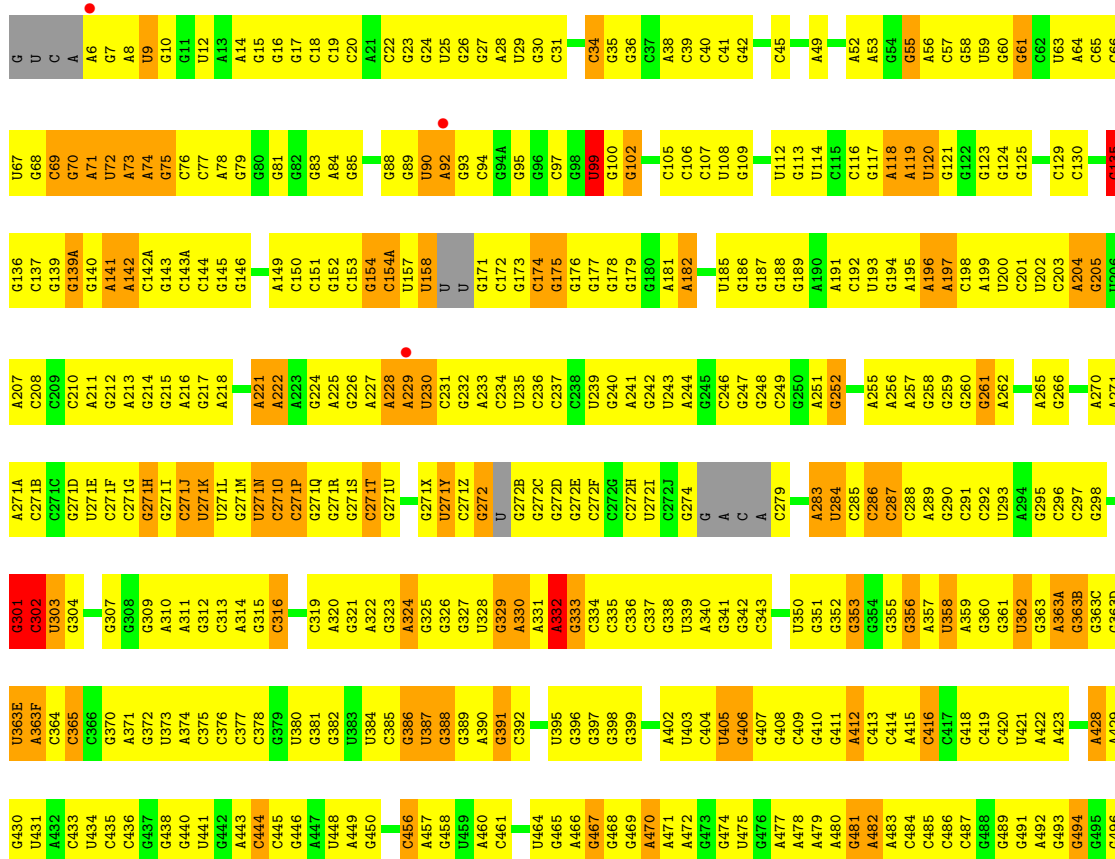




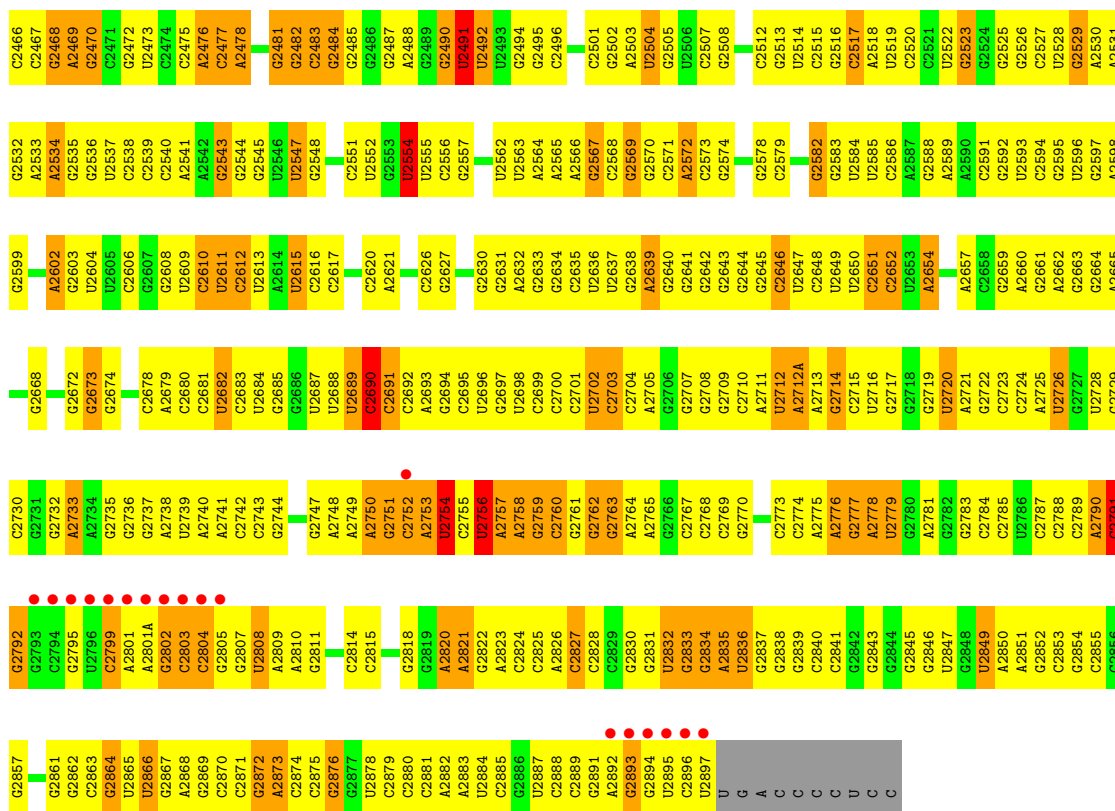


• Molecule 27: 23S ribosomal RNA

Chain DA:

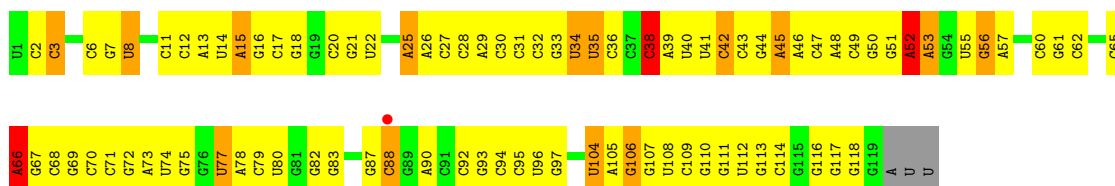


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G1385	G1319	G1257	U1188	A1126	U	C1003	G939	G873	U807	G739	G871	A631	G560	U999
G1386	C1320	G1258	A1189	A1127	U	C1004	G940	G874	G808	G740	C872	A632	G564	G500
G1387	A1321	G1259	G1190	U1130	G	C1005	A941	G875	G809	G741	C873	C634	C564	A501
G1388	C1322	G1260	G1191	G1131	A	C1006	G942	G876	C312	G742	G874	C635	G570	A502
G1389	U1323	G1261	G1192	G1132	A	C1007	U943	C876	G312	G743	A875	G636	A571	A503
	G1324	C1262	G1195	A1132	C	C1008	G944		U913	G744	A876	A637	A572	U504
	G1325	A1262	G1196	U1133	C	A1009	A945	G880	C314	G745		G638	G573	A505
A1393	C1326	G1263	C1196	C1135	G	A1010	G946	G881	C315	A746	C879	U639	A574	G506
	G1327	U1264	G1197	A1136	G	G1011	G947	G882	C316	U747	G880	C640	A575	A507
U1396	C1328	A1265	U1198	G1137	C	C1012	G948	G883	C317	G748	G881	G641	U576	G508
	U1329	G1266	U1199	G1138	C	C1013		G884	G318		G882	G642	G509	C508
C1399	C1330	U1267	C1200	G1139	A	U1014	C951	C885	A819	A751	C883	A643	G579	C510
G1400	A1331	A1268	C1201	C1140	U	G1015	G952	C886	A820	A752	C884	A644	C580	U511
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C1402	C1333	G1270	G1203	U1142	C	G1017	G954	C888	G822	C754	G886	A646	G582	A513
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C1407	A1338	A1275	C1208	C1146	A	G1022	A960	C894	U828	G759	C893	G651	U588	G518
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C1411		G1279	G1212	C1150	G	U1026	C964	C898	G832	A764	C897	G	G592	G522
A1412	G1344	G1280	A1213	G1151	U	A1027	C965	A899	U833	G765	C898	C	G593	C523
G1413	G1345	G1281	G1215	C1152	U	A1028	G966	A900	C334		A699	G	U594	U524
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G1417	A1348	G1285	C1217	A1156	A	G1035	C970	C903	C837	G770	C526	C	G600	C827
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A1419	C1350	A1287	A1220	G1157	U	G1037	G972	U905	C939	G772	A705	G	G602	A529
U1420	C1351	U1288	C1221	C1158	U	G1038	A973	G906	C940	U773	A706	C	A603	G530
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C1430	G1361		G1233	G1168	G	G	A981	G916	U851	A784	G717	G	G613	C541
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G1441	G1374	G1311	G1246	C1179	G	G	C995		G862	G795	G729	G662	G622	U554
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G1443	G1377	C1314	G1248	A1182	U	G	C998	G934	C865		A734	C665	U626	U557
A1444	U1378	C1315	U1249	G1183	U	U	C999	C935	G866	U803	G736	G666	A627	G558
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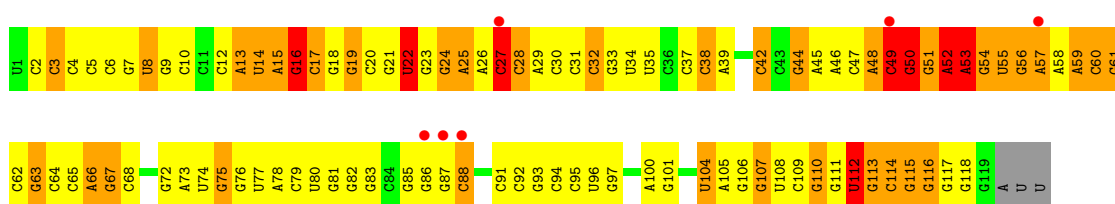
• Molecule 28: 5S ribosomal RNA

Chain BB:



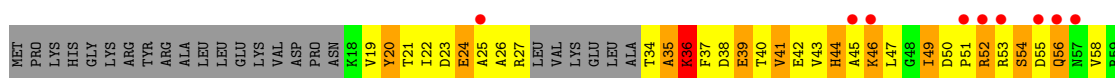
• Molecule 28: 5S ribosomal RNA

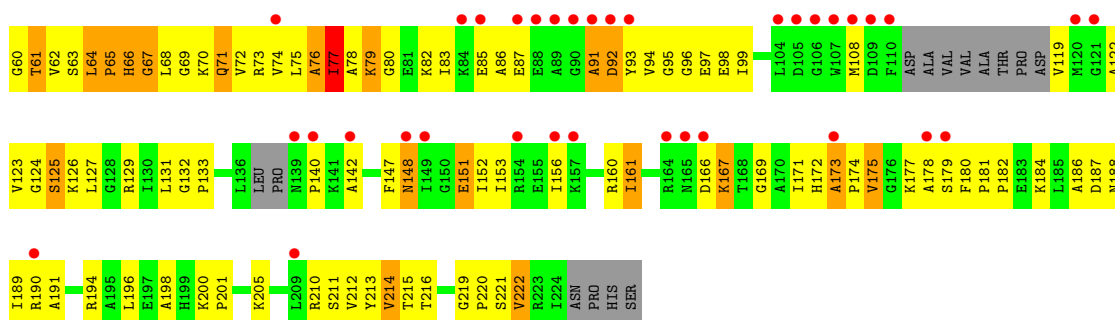
Chain DB:



• Molecule 29: 50S ribosomal protein L1

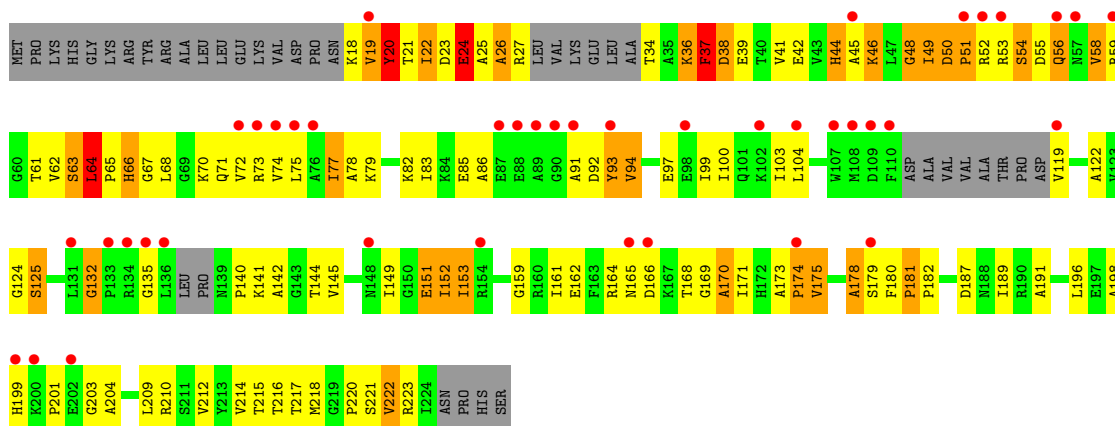
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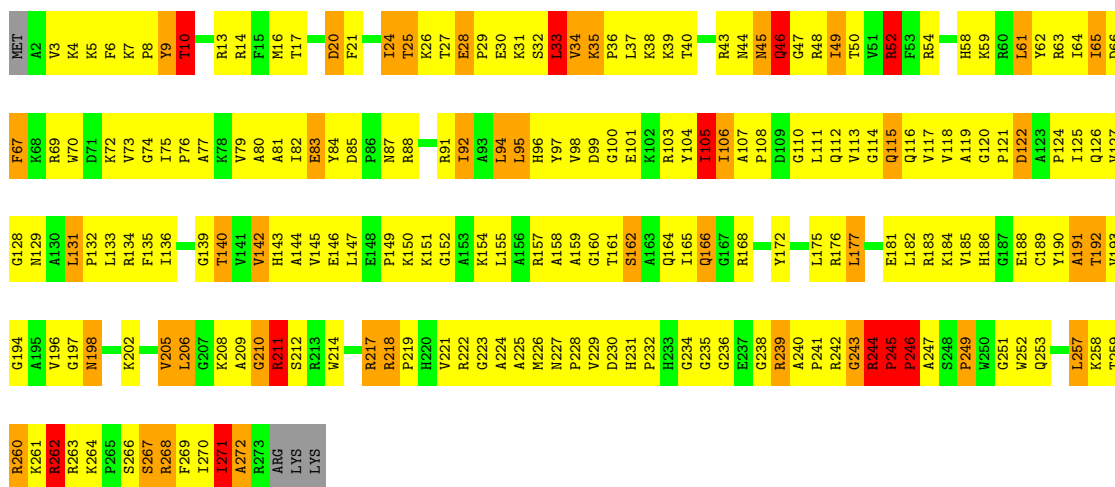
• Molecule 29: 50S ribosomal protein L1

Chain DC:



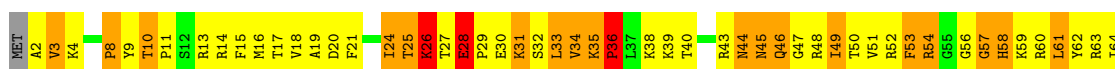
• Molecule 30: 50S ribosomal protein L2

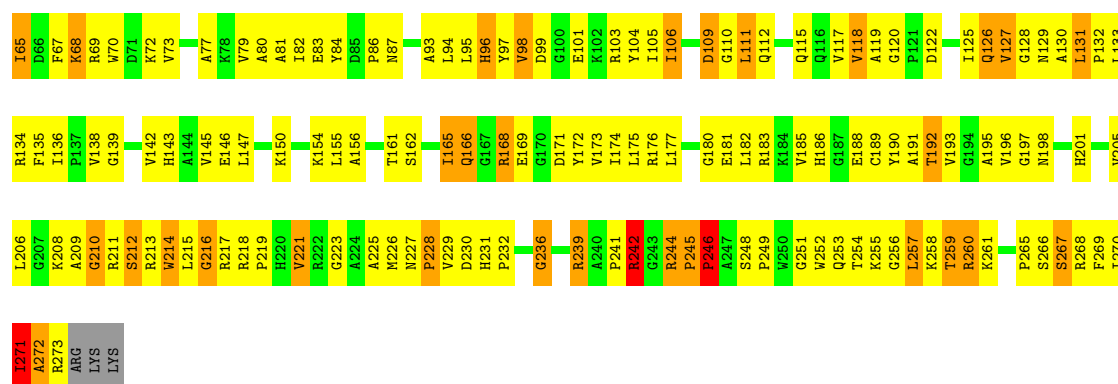
Chain DD:



• Molecule 30: 50S ribosomal protein L2

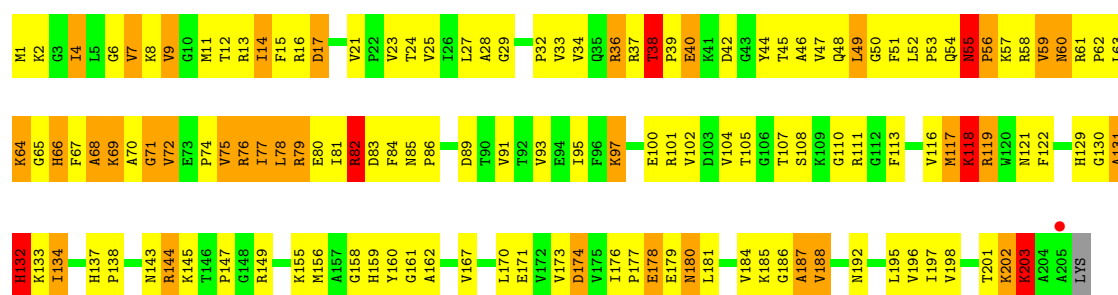
Chain DD:





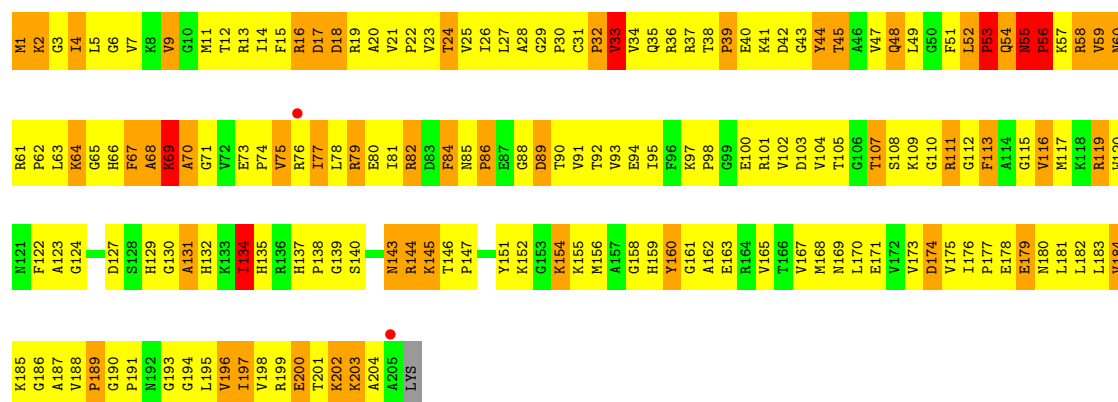
• Molecule 31: 50S ribosomal protein L3

Chain BE:



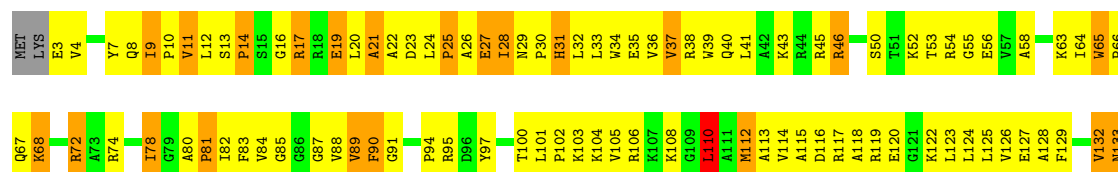
• Molecule 31: 50S ribosomal protein L3

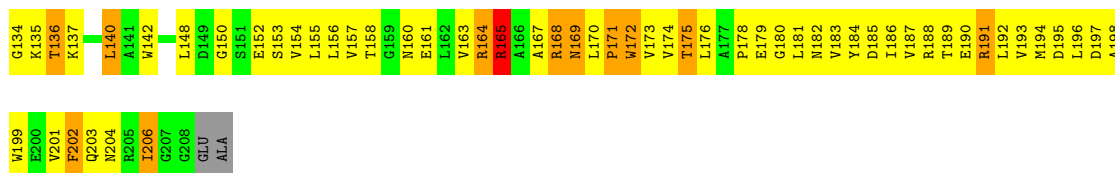
Chain DE:



• Molecule 32: 50S ribosomal protein L4

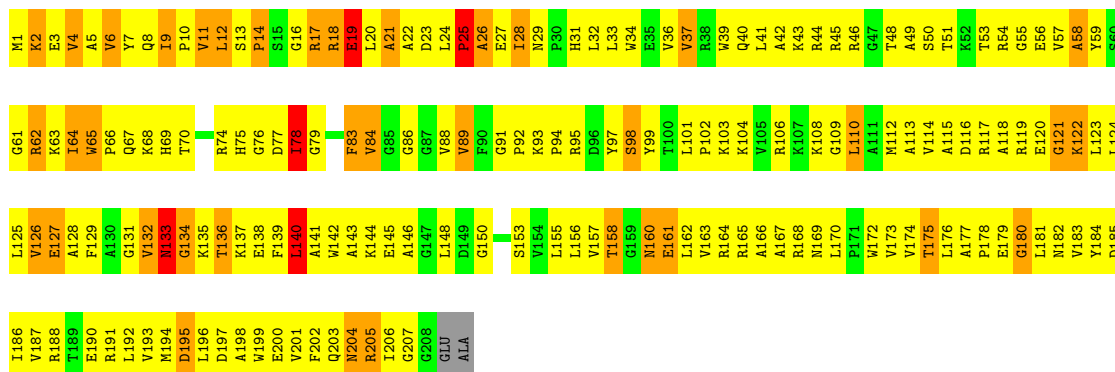
Chain BF:





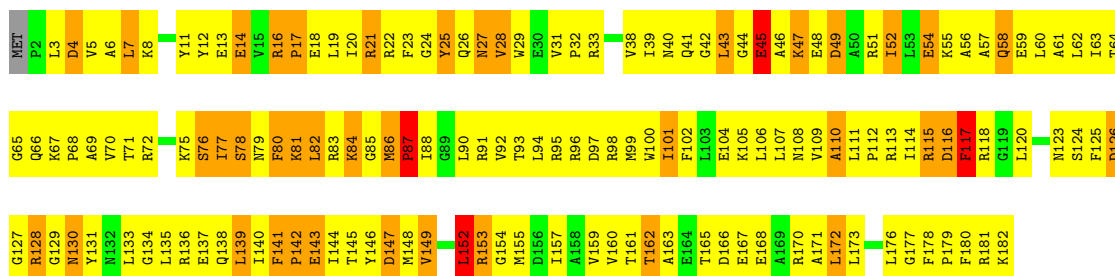
- Molecule 32: 50S ribosomal protein L4

Chain DF:



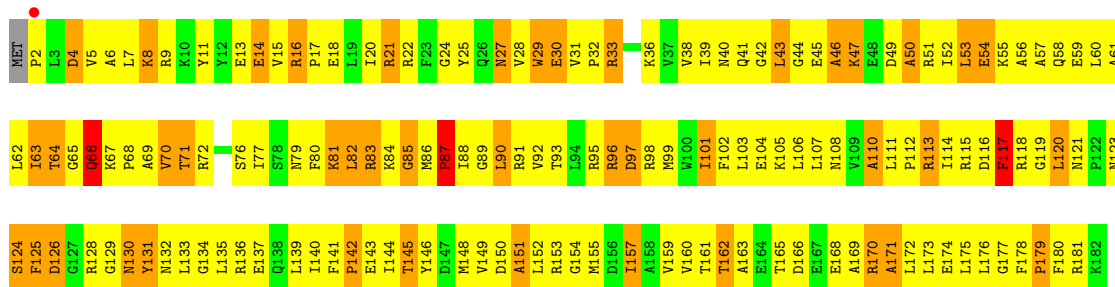
- Molecule 33: 50S ribosomal protein L5

Chain BG:



- Molecule 33: 50S ribosomal protein L5

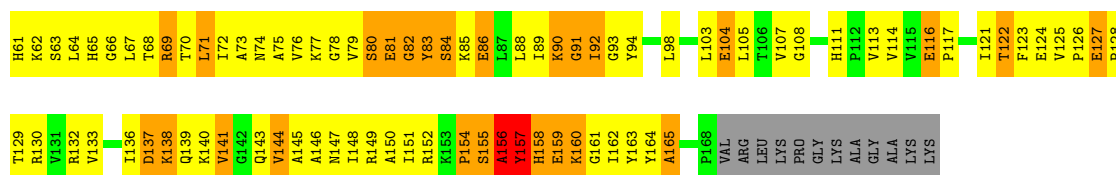
Chain DG:



- Molecule 34: 50S ribosomal protein L6

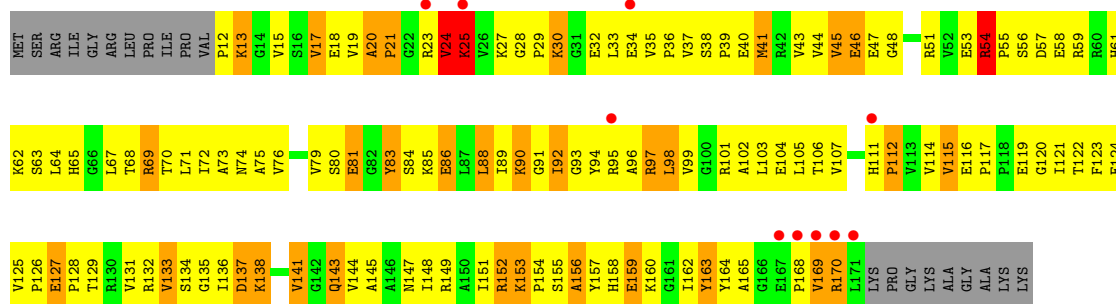
Chain BH:





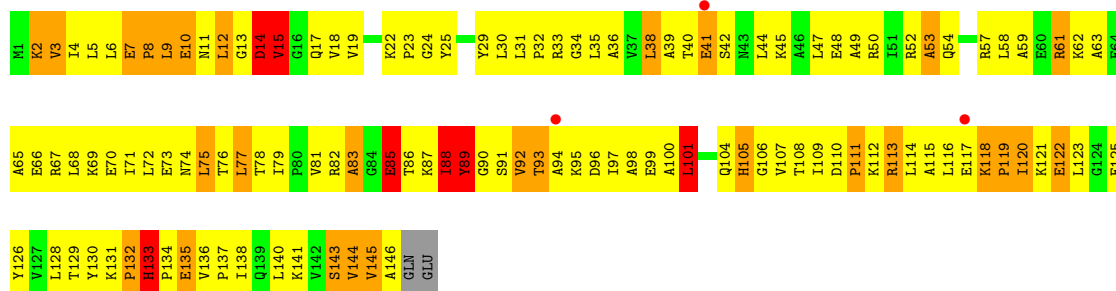
• Molecule 34: 50S ribosomal protein L6

Chain DH:



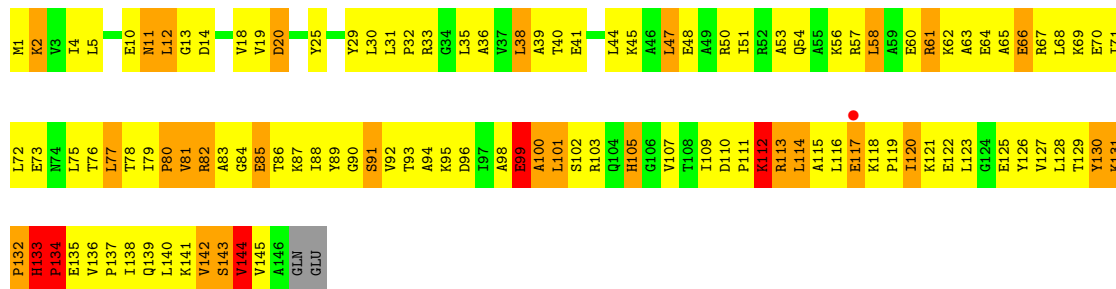
• Molecule 35: 50S ribosomal protein L9

Chain BI:



• Molecule 35: 50S ribosomal protein L9

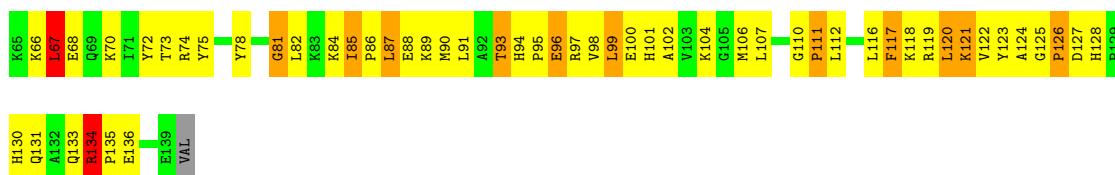
Chain DI:



• Molecule 36: 50S ribosomal protein L13

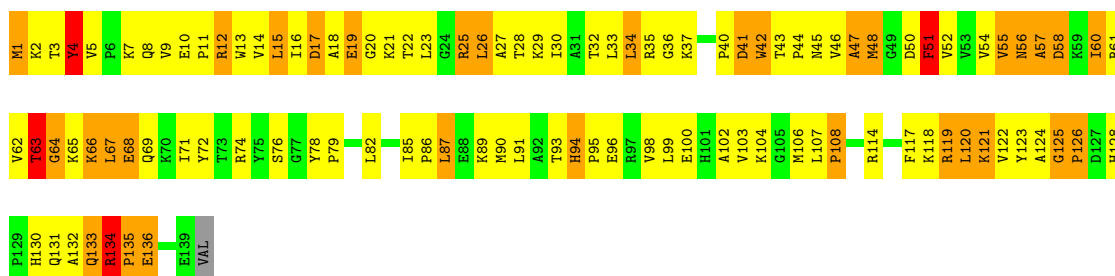
Chain BN:





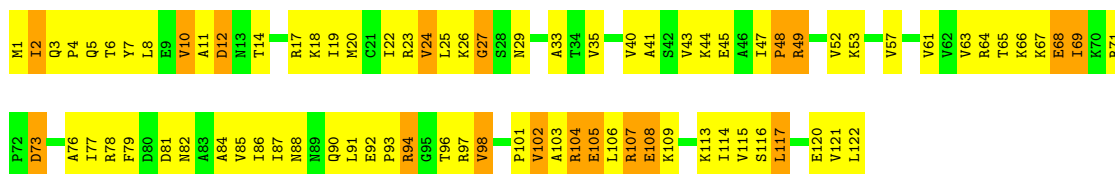
- Molecule 36: 50S ribosomal protein L13

Chain DN:



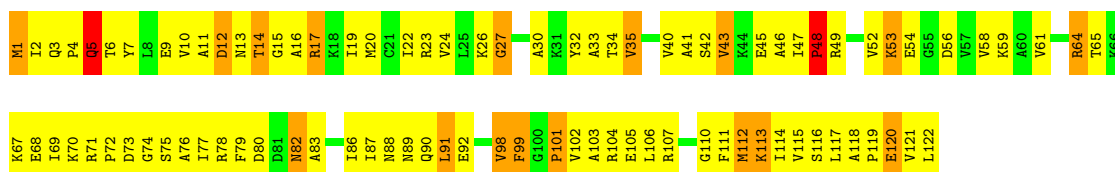
- Molecule 37: 50S ribosomal protein L14

Chain BO:



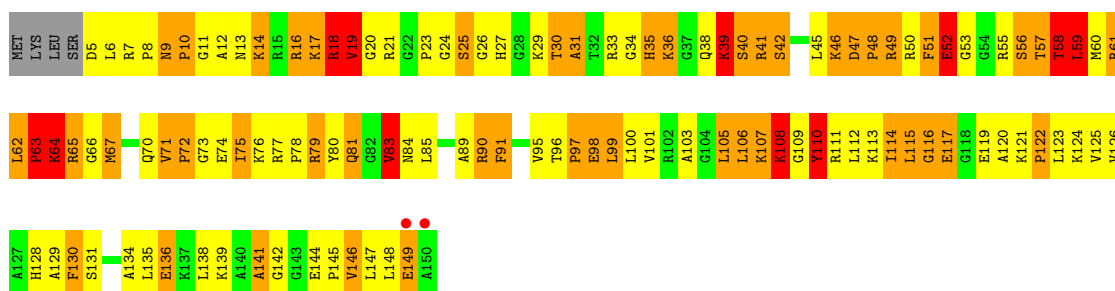
- Molecule 37: 50S ribosomal protein L14

Chain DO:



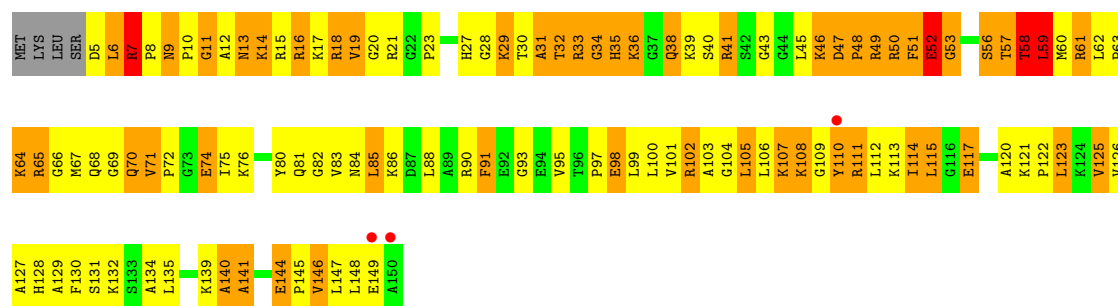
- Molecule 38: 50S ribosomal protein L15

Chain BP:



- Molecule 38: 50S ribosomal protein L15

Chain DP:



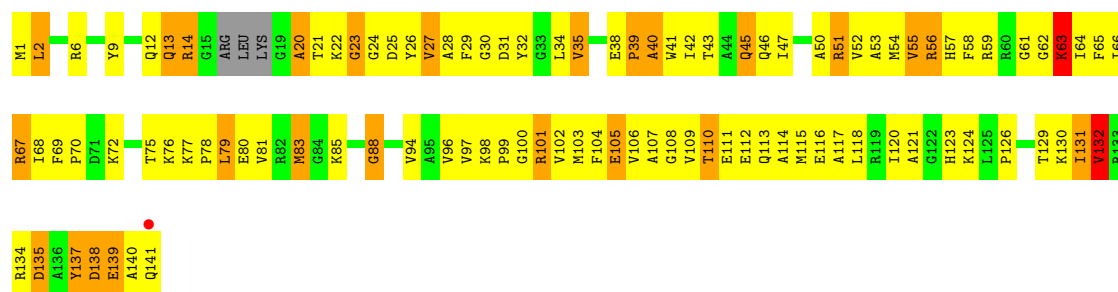
- Molecule 39: 50S ribosomal protein L16

Chain BQ:



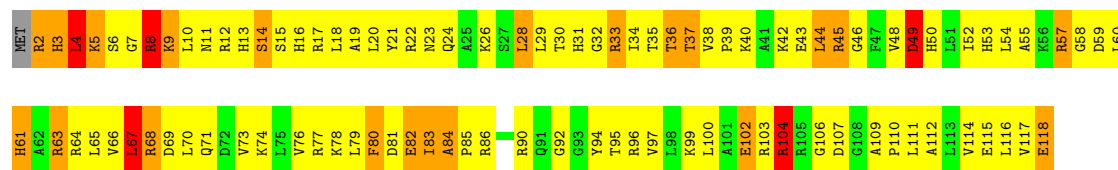
- Molecule 39: 50S ribosomal protein L16

Chain DQ:



- Molecule 40: 50S ribosomal protein L17

Chain BR:



- Molecule 40: 50S ribosomal protein L17

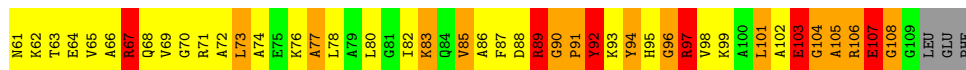
Chain DR:





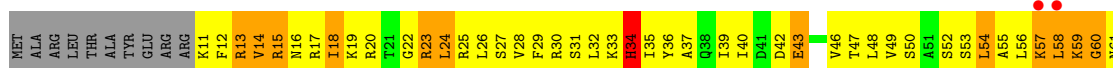
- Molecule 41: 50S ribosomal protein L18

Chain BS:



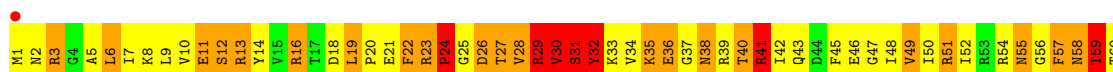
- Molecule 41: 50S ribosomal protein L18

Chain DS:



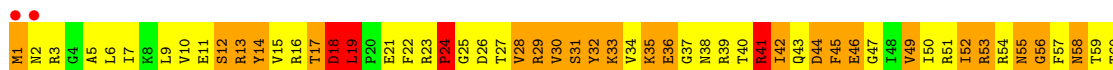
- Molecule 42: 50S ribosomal protein L19

Chain BT:



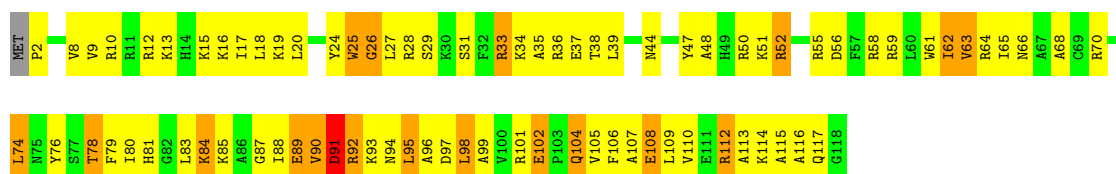
- Molecule 42: 50S ribosomal protein L19

Chain DT:



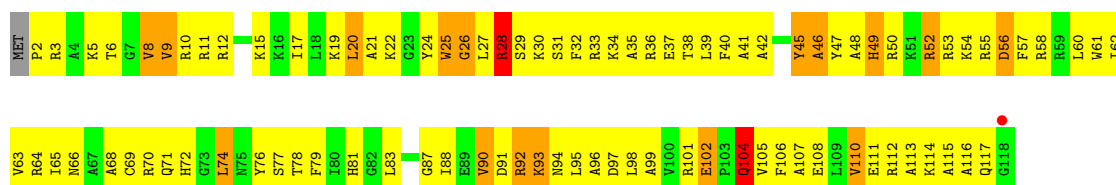
- Molecule 43: 50S ribosomal protein L20

Chain BU:



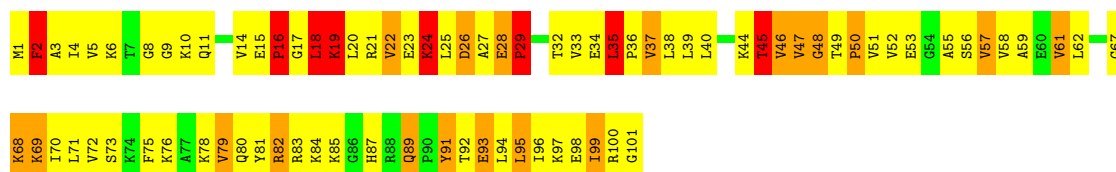
- Molecule 43: 50S ribosomal protein L20

Chain DU: 



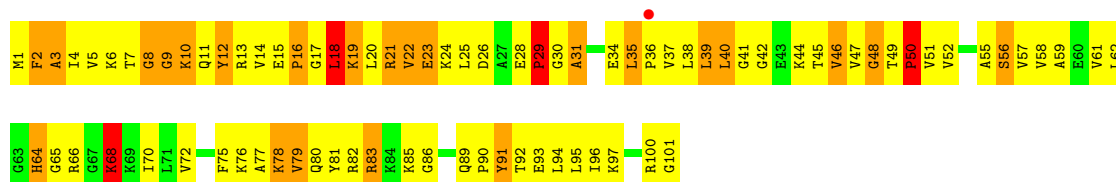
- Molecule 44: 50S ribosomal protein L21

Chain BV:



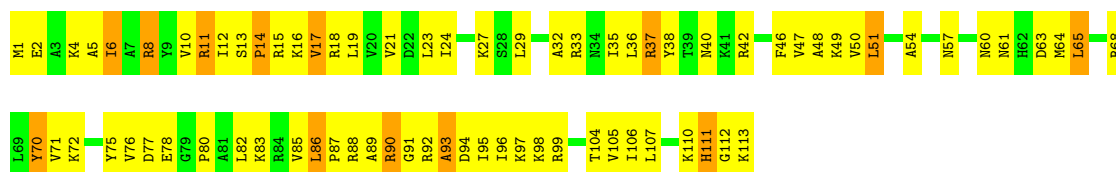
- Molecule 44: 50S ribosomal protein L21

Chain DV: 



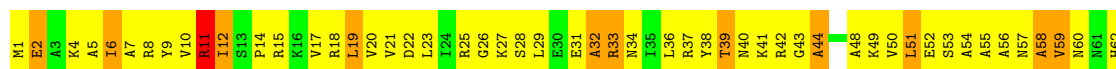
- Molecule 45: 50S ribosomal protein L22

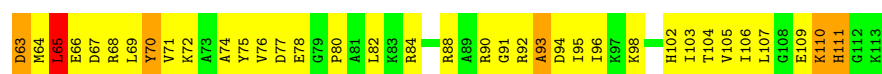
Chain BW:



- Molecule 45: 50S ribosomal protein L22

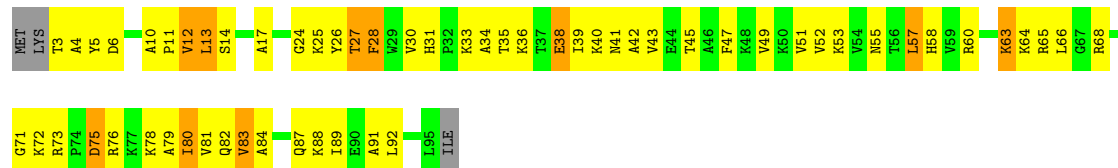
Chain DW:





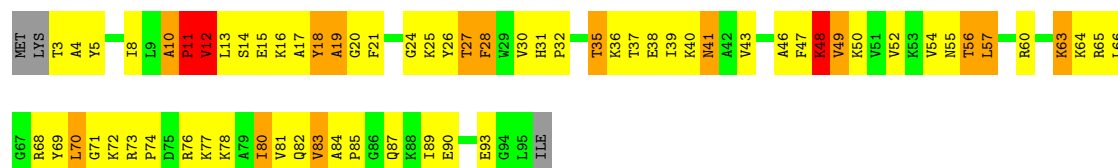
- Molecule 46: 50S ribosomal protein L23

Chain BX:



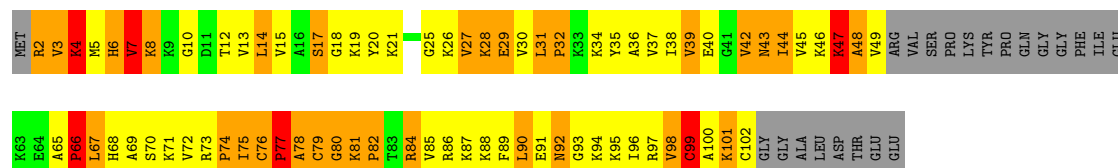
- Molecule 46: 50S ribosomal protein L23

Chain DX:



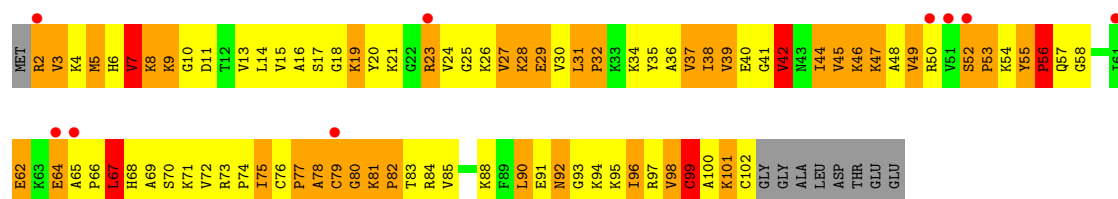
- Molecule 47: 50S ribosomal protein L24

Chain BY:



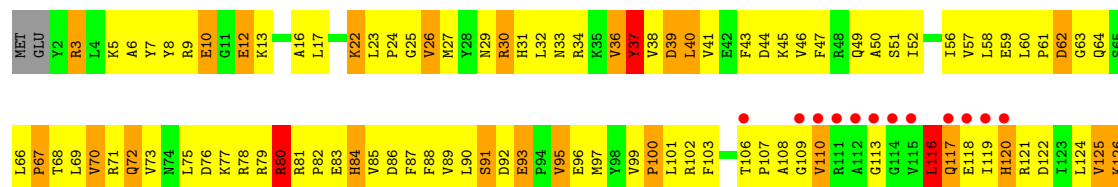
- Molecule 47: 50S ribosomal protein L24

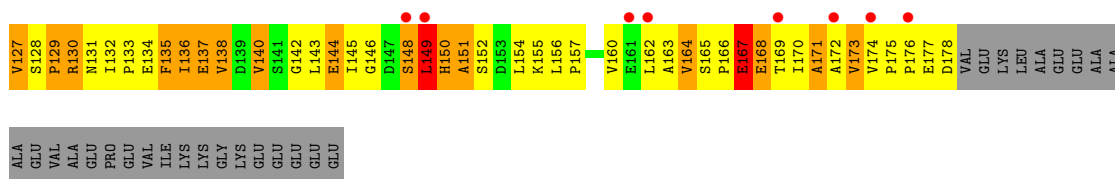
Chain DY:



- Molecule 48: 50S ribosomal protein L25

Chain BZ:





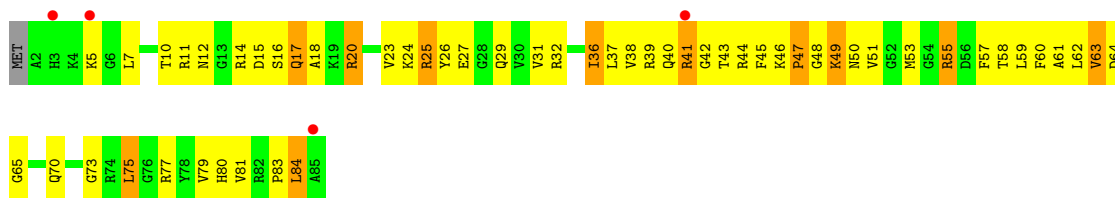
- Molecule 48: 50S ribosomal protein L25

Chain DZ:



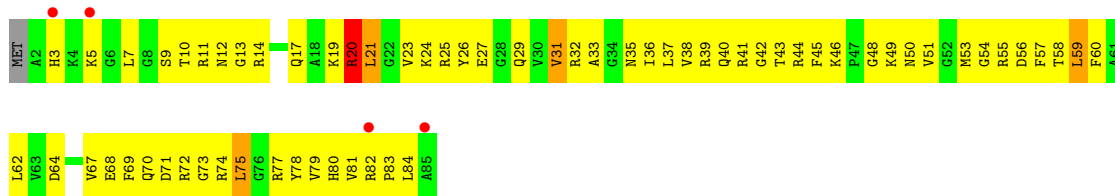
- Molecule 49: 50S ribosomal protein L27

Chain B0:



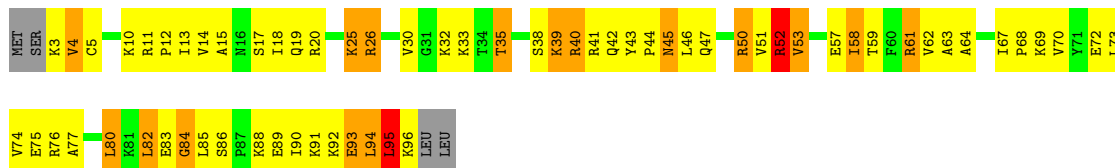
- Molecule 49: 50S ribosomal protein L27

Chain D0: 



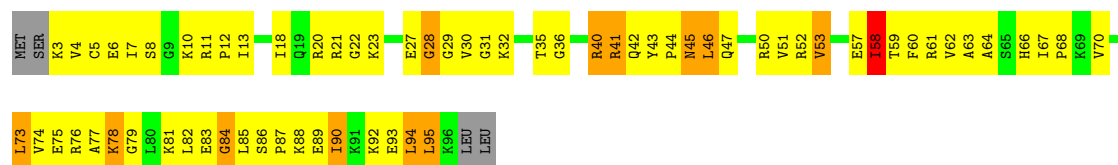
- Molecule 50: 50S ribosomal protein L28

Chain B1: 



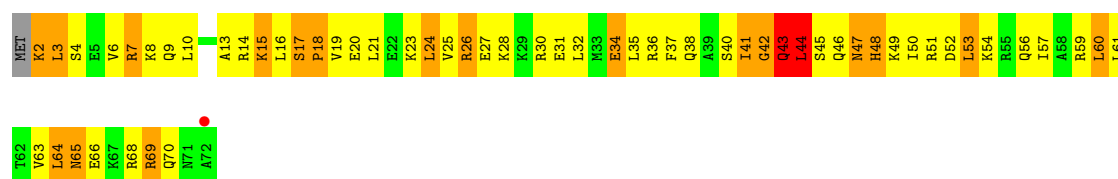
- Molecule 50: 50S ribosomal protein L28

Chain D1:



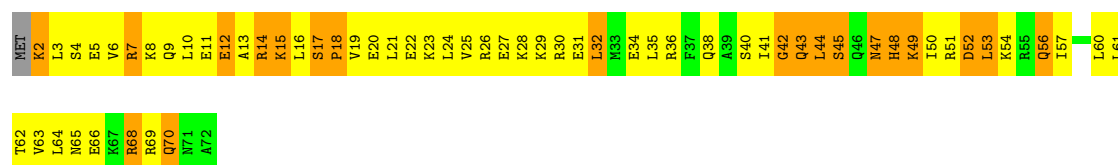
- Molecule 51: 50S ribosomal protein L29

Chain B2:



- Molecule 51: 50S ribosomal protein L29

Chain D2:



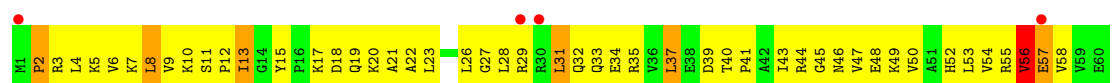
- Molecule 52: 50S ribosomal protein L30

Chain B3:



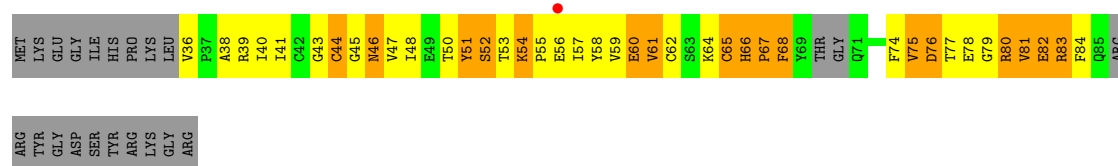
- Molecule 52: 50S ribosomal protein L30

Chain D3:



- Molecule 53: 50S ribosomal protein L31

Chain B4:



- Molecule 53: 50S ribosomal protein L31

Chain D4:



- Molecule 54: 50S ribosomal protein L32

Chain B5:



- Molecule 54: 50S ribosomal protein L32

Chain D5:



- Molecule 55: 50S ribosomal protein L33

Chain B6:



- Molecule 55: 50S ribosomal protein L33

Chain D6:



- Molecule 56: 50S ribosomal protein L34

Chain B7:



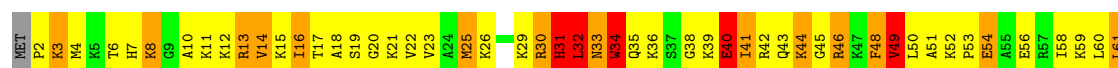
- Molecule 56: 50S ribosomal protein L34

Chain D7:



- Molecule 57: 50S ribosomal protein L35

Chain B8:





- Molecule 57: 50S ribosomal protein L35

Chain D8:



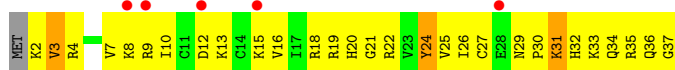
- Molecule 58: 50S ribosomal protein L36

Chain B9:



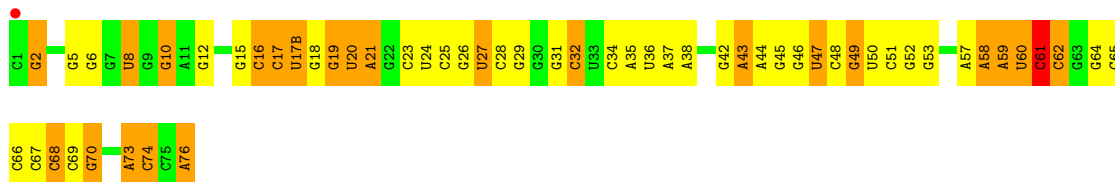
- Molecule 58: 50S ribosomal protein L36

Chain D9:



- Molecule 59: RNA (77-MER)

Chain CX:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.35Å 448.24Å 631.16Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 3.45 49.75 – 3.40	Depositor EDS
% Data completeness (in resolution range)	(Not available) (50.00-3.45) 82.2 (49.75-3.40)	Depositor EDS
R_{merge}	0.20	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.24 (at 3.40Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.218 , 0.268 0.254 , 0.254	Depositor DCC
R_{free} test set	33507 reflections (5.28%)	DCC
Wilson B-factor (Å ²)	74.9	Xtriage
Anisotropy	0.240	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.24 , 15.7	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.28$	Xtriage
Outliers	2 of 667587 reflections (0.000%)	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	293848	wwPDB-VP
Average B, all atoms (Å ²)	77.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.86% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality

5.1 Standard geometry

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

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	0.48	0/35968	0.74	23/56136 (0.0%)
1	CA	0.50	9/35932 (0.0%)	0.75	27/56082 (0.0%)
2	AB	0.39	0/1936	0.68	0/2611
2	CB	0.37	0/1936	0.66	0/2611
3	AC	0.38	0/1637	0.65	0/2207
3	CC	0.37	0/1627	0.67	0/2192
4	AD	0.42	0/1733	0.71	0/2318
4	CD	0.44	0/1733	0.72	1/2318 (0.0%)
5	AE	0.41	0/1163	0.68	0/1566
5	CE	0.42	0/1163	0.68	0/1566
6	AF	0.44	0/856	0.75	1/1154 (0.1%)
6	CF	0.43	0/856	0.71	0/1154
7	AG	0.38	0/1276	0.61	0/1709
7	CG	0.39	0/1267	0.62	0/1696
8	AH	0.40	0/1136	0.72	0/1527
8	CH	0.38	0/1136	0.70	0/1527
9	AI	0.38	0/1024	0.68	0/1372
9	CI	0.36	0/1024	0.67	0/1372
10	AJ	0.36	0/808	0.66	0/1087
10	CJ	0.36	0/808	0.67	0/1087
11	AK	0.41	0/879	0.75	0/1187
11	CK	0.39	0/900	0.68	0/1213
12	AL	0.44	0/987	0.80	0/1322
12	CL	0.44	0/987	0.74	0/1322
13	AM	0.37	0/975	0.75	2/1305 (0.2%)
13	CM	0.36	0/947	0.72	0/1270
14	AN	0.41	0/501	0.69	0/664
14	CN	0.45	0/501	0.67	0/664
15	AO	0.39	0/745	0.64	0/992
15	CO	0.37	0/745	0.64	0/992
16	AP	0.40	0/717	0.70	0/965
16	CP	0.43	0/717	0.74	0/965

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.43	0/837	0.67	0/1119
17	CQ	0.40	0/837	0.68	0/1119
18	AR	0.48	0/579	0.75	0/768
18	CR	0.41	0/579	0.72	0/768
19	AS	0.40	0/643	0.70	1/867 (0.1%)
19	CS	0.37	0/643	0.66	0/867
20	AT	0.38	0/765	0.72	1/1007 (0.1%)
20	CT	0.37	0/765	0.70	0/1007
21	AU	0.42	0/213	0.60	0/279
21	CU	0.34	0/213	0.62	0/279
22	AV	0.48	0/230	0.65	0/357
22	CV	0.45	0/239	0.69	0/371
23	AW	0.47	0/1756	0.78	0/2734
23	CW	0.46	0/1756	0.75	2/2734 (0.1%)
24	AX	0.58	2/1831 (0.1%)	0.87	6/2853 (0.2%)
25	AY	0.37	0/1776	0.71	0/2766
25	CY	0.36	0/1776	0.71	0/2766
26	AZ	0.91	0/5	0.51	0/5
26	CZ	0.51	0/5	0.85	0/5
27	BA	0.61	3/67273 (0.0%)	0.79	62/105005 (0.1%)
27	DA	0.51	1/66930 (0.0%)	0.77	45/104469 (0.0%)
28	BB	0.57	0/2853	0.81	6/4451 (0.1%)
28	DB	0.79	6/2853 (0.2%)	0.95	13/4451 (0.3%)
29	BC	0.31	0/1145	0.60	0/1556
29	DC	0.30	0/1145	0.61	0/1556
30	BD	0.54	0/2155	0.86	3/2907 (0.1%)
30	DD	0.51	0/2155	0.82	2/2907 (0.1%)
31	BE	0.56	0/1597	0.87	2/2155 (0.1%)
31	DE	0.42	0/1597	0.75	0/2155
32	BF	0.50	0/1642	0.82	1/2225 (0.0%)
32	DF	0.42	0/1659	0.75	1/2246 (0.0%)
33	BG	0.44	0/1499	0.78	0/2016
33	DG	0.40	0/1499	0.72	0/2016
34	BH	0.59	0/1258	0.91	2/1703 (0.1%)
34	DH	0.33	0/1246	0.67	0/1684
35	BI	0.39	0/1147	0.74	0/1553
35	DI	0.37	0/1147	0.75	0/1553
36	BN	0.54	0/1132	0.91	2/1527 (0.1%)
36	DN	0.41	0/1132	0.77	1/1527 (0.1%)
37	BO	0.54	0/943	0.80	0/1269
37	DO	0.44	0/943	0.69	0/1269
38	BP	0.59	0/1131	1.16	5/1504 (0.3%)
38	DP	0.48	0/1131	1.00	5/1504 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	BQ	0.53	0/1128	0.77	0/1508
39	DQ	0.42	0/1114	0.68	0/1488
40	BR	0.55	0/974	0.92	2/1302 (0.2%)
40	DR	0.43	0/974	0.81	0/1302
41	BS	0.55	0/779	0.97	2/1038 (0.2%)
41	DS	0.43	0/779	0.75	0/1038
42	BT	0.57	0/1156	0.96	5/1544 (0.3%)
42	DT	0.46	0/1156	0.83	1/1544 (0.1%)
43	BU	0.57	0/975	0.85	0/1297
43	DU	0.38	0/975	0.69	0/1297
44	BV	0.58	0/790	0.95	2/1057 (0.2%)
44	DV	0.41	0/790	0.72	0/1057
45	BW	0.53	0/907	0.77	0/1216
45	DW	0.41	0/907	0.72	0/1216
46	BX	0.51	0/740	0.78	0/995
46	DX	0.48	0/740	0.73	0/995
47	BY	0.61	0/680	0.93	1/904 (0.1%)
47	DY	0.46	0/789	0.82	1/1053 (0.1%)
48	BZ	0.41	0/1436	0.72	0/1951
48	DZ	0.36	0/1436	0.70	0/1951
49	B0	0.47	0/671	0.74	0/892
49	D0	0.41	0/671	0.67	0/892
50	B1	0.49	0/739	0.76	1/983 (0.1%)
50	D1	0.43	0/739	0.76	0/983
51	B2	0.45	0/600	0.74	0/793
51	D2	0.39	0/600	0.67	0/793
52	B3	0.48	0/473	0.76	0/636
52	D3	0.34	0/473	0.63	0/636
53	B4	0.43	0/349	0.71	0/474
53	D4	0.39	0/349	0.64	0/474
54	B5	0.62	0/473	1.04	2/639 (0.3%)
54	D5	0.50	0/473	0.82	0/639
55	B6	0.72	0/409	1.07	0/548
55	D6	0.70	0/397	1.12	4/531 (0.8%)
56	B7	0.55	0/427	0.80	0/563
56	D7	0.48	0/427	0.73	0/563
57	B8	0.63	0/516	1.02	2/681 (0.3%)
57	D8	0.51	0/516	0.87	1/681 (0.1%)
58	B9	0.53	0/302	0.80	0/397
58	D9	0.39	0/302	0.70	0/397
59	CX	0.47	0/1832	0.75	1/2855 (0.0%)
All	All	0.51	21/318243 (0.0%)	0.77	239/475835 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	0	35
1	CA	1	31
19	AS	0	1
23	AW	0	1
23	CW	0	1
24	AX	0	1
27	BA	4	96
27	DA	0	63
28	BB	0	3
28	DB	0	6
42	BT	0	1
59	CX	0	2
All	All	5	241

All (21) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	AX	46	A	C6-N6	-11.79	1.24	1.33
1	CA	101	A	C6-N6	-8.09	1.27	1.33
1	CA	1458	G	C5-C6	-7.73	1.34	1.42
1	CA	70	G	C5-C6	-7.36	1.34	1.42
1	CA	1446	U	N1-C2	-7.30	1.31	1.38
1	CA	1446	U	C4-C5	-6.90	1.37	1.43
1	CA	97	G	C5-C6	6.59	1.49	1.42
1	CA	68	G	C2-N2	-6.47	1.28	1.34
28	DB	52	A	C5-C6	-6.13	1.35	1.41
28	DB	27	C	N1-C2	6.07	1.46	1.40
24	AX	46	A	C6-N1	6.04	1.39	1.35
27	BA	2593	U	C4-O4	5.77	1.28	1.23
27	DA	2192	G	C8-N7	5.60	1.34	1.30
27	BA	2573	C	N1-C2	5.45	1.45	1.40
28	DB	49	C	C2-N3	5.36	1.40	1.35
28	DB	53	A	P-OP2	5.25	1.57	1.49
1	CA	1457	G	C2-N2	5.24	1.39	1.34
27	BA	783	A	C5-C6	-5.24	1.36	1.41
28	DB	51	G	C5-C6	5.22	1.47	1.42
1	CA	101	A	N9-C4	5.08	1.40	1.37
28	DB	50	G	O3'-P	5.04	1.67	1.61

All (239) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AX	46	A	C5-C6-N1	-12.54	111.43	117.70
28	DB	53	A	O5'-P-OP2	11.96	125.06	110.70
24	AX	46	A	C6-N1-C2	10.83	125.10	118.60
24	AX	46	A	N1-C2-N3	-10.72	123.94	129.30
27	BA	1992	G	C2'-C3'-O3'	10.30	132.16	109.50
27	DA	1992	G	C2'-C3'-O3'	9.78	131.01	109.50
38	BP	52	GLU	N-CA-C	9.52	136.69	111.00
28	DB	53	A	O5'-P-OP1	-9.50	97.15	105.70
27	BA	2497	A	C2'-C3'-O3'	9.36	130.09	109.50
27	BA	1799	G	C2'-C3'-O3'	9.11	129.54	109.50
27	BA	1653	G	C2'-C3'-O3'	8.99	129.27	109.50
1	CA	533	A	C2'-C3'-O3'	8.75	128.74	109.50
1	CA	68	G	N3-C2-N2	-8.55	113.91	119.90
1	CA	913	A	C2'-C3'-O3'	8.28	127.72	109.50
27	DA	302	C	N1-C1'-C2'	-8.24	102.94	112.00
1	AA	1067	A	C2'-C3'-O3'	8.23	127.61	109.50
27	BA	790	C	C2'-C3'-O3'	8.22	127.58	109.50
1	AA	913	A	C2'-C3'-O3'	8.20	127.55	109.50
1	AA	115	G	C2'-C3'-O3'	8.17	127.48	109.50
27	BA	1378	A	C2'-C3'-O3'	8.14	127.41	109.50
30	BD	244	ARG	C-N-CD	-8.09	102.81	120.60
38	BP	53	GLY	N-CA-C	-8.09	92.89	113.10
1	CA	68	G	N9-C1'-C2'	-8.07	103.12	112.00
38	DP	52	GLU	N-CA-C	8.04	132.71	111.00
27	BA	1786	A	N9-C1'-C2'	8.00	124.40	114.00
1	AA	243	A	C2'-C3'-O3'	7.93	126.94	109.50
27	BA	89	G	C5'-C4'-O4'	-7.86	99.67	109.10
1	CA	1064	G	C2'-C3'-O3'	7.80	126.67	109.50
1	CA	748	C	C2'-C3'-O3'	7.76	126.58	109.50
38	BP	59	LEU	N-CA-C	-7.74	90.10	111.00
54	B5	33	CYS	CA-CB-SG	-7.71	100.12	114.00
59	CX	61	C	N1-C1'-C2'	-7.56	103.68	112.00
57	B8	32	LEU	CA-CB-CG	7.51	132.58	115.30
1	AA	366	C	C2'-C3'-O3'	7.48	125.97	109.50
1	AA	498	U	N1-C1'-C2'	-7.45	103.81	112.00
27	DA	332	A	C2'-C3'-O3'	7.43	125.85	109.50
27	DA	1786	A	N9-C1'-C2'	7.42	123.64	114.00
27	DA	1300	U	N1-C1'-C2'	7.32	123.52	114.00
27	DA	1819	A	C2'-C3'-O3'	7.30	125.57	109.50
1	AA	428	G	C2'-C3'-O3'	7.27	125.50	109.50
1	CA	198	G	N9-C1'-C2'	-7.23	104.04	112.00
1	AA	509	A	C2'-C3'-O3'	7.23	125.40	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	DA	1558	A	C2'-C3'-O3'	7.19	125.32	109.50
27	BA	856	C	C2'-C3'-O3'	7.10	125.11	109.50
27	BA	2477	C	N1-C1'-C2'	7.08	123.21	114.00
28	DB	50	G	C5'-C4'-C3'	-7.08	104.67	116.00
1	AA	266	G	C2'-C3'-O3'	7.07	125.06	109.50
55	D6	9	LEU	CA-CB-CG	-7.03	99.13	115.30
40	BR	8	ARG	N-CA-C	6.95	129.77	111.00
1	AA	748	C	C2'-C3'-O3'	6.94	124.81	113.70
41	BS	16	ASN	N-CA-C	-6.87	92.46	111.00
38	DP	53	GLY	N-CA-C	-6.87	95.93	113.10
1	CA	428	G	C2'-C3'-O3'	6.86	124.68	113.70
27	BA	1698	A	O4'-C1'-N9	6.86	113.69	108.20
30	BD	245	PRO	N-CA-C	-6.86	94.28	112.10
34	BH	156	ALA	N-CA-C	-6.83	92.56	111.00
44	BV	35	LEU	CA-CB-CG	6.69	130.68	115.30
23	CW	7	A	N9-C1'-C2'	6.67	122.67	114.00
38	BP	58	THR	N-CA-C	-6.65	93.05	111.00
1	AA	1201	A	C2'-C3'-O3'	6.64	124.32	113.70
27	BA	585	G	OP2-P-O3'	6.63	119.79	105.20
55	D6	44	ARG	N-CA-C	6.63	128.90	111.00
27	BA	1286	A	C1'-O4'-C4'	-6.61	104.61	109.90
42	BT	30	VAL	N-CA-C	6.60	128.83	111.00
27	DA	1504	C	N1-C1'-C2'	-6.59	104.75	112.00
1	CA	266	G	C2'-C3'-O3'	6.59	124.24	113.70
27	BA	1419	A	N9-C1'-C2'	6.56	122.53	114.00
27	DA	2225	A	C2'-C3'-O3'	6.54	124.16	113.70
57	D8	32	LEU	CA-CB-CG	6.53	130.32	115.30
27	BA	1427	A	C2'-C3'-O3'	6.50	124.10	113.70
27	DA	2610	C	C2'-C3'-O3'	6.48	124.07	113.70
1	AA	533	A	C2'-C3'-O3'	6.48	124.07	113.70
42	BT	80	SER	N-CA-C	6.44	128.39	111.00
27	DA	1427	A	C2'-C3'-O3'	6.42	123.97	113.70
38	DP	41	ARG	N-CA-C	-6.39	93.73	111.00
24	AX	43	A	C2'-C3'-O3'	6.36	123.87	113.70
27	BA	1558	A	C2'-C3'-O3'	6.35	123.87	113.70
1	AA	1285	A	C2'-C3'-O3'	6.29	123.77	113.70
24	AX	59	A	N9-C1'-C2'	-6.29	105.08	112.00
27	DA	2193	G	C5'-C4'-O4'	-6.27	101.58	109.10
27	DA	1493	C	N1-C1'-C2'	6.25	122.12	114.00
1	AA	1054	C	N1-C1'-C2'	6.23	122.10	114.00
24	AX	46	A	C5-C6-N6	6.21	128.67	123.70
20	AT	39	LYS	CD-CE-NZ	-6.16	97.53	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	DA	2346	A	N9-C1'-C2'	6.12	121.96	114.00
1	CA	1158	C	N1-C1'-C2'	6.10	121.93	114.00
27	BA	1799	G	C4'-C3'-O3'	6.09	125.19	113.00
31	BE	118	LYS	N-CA-C	-6.05	94.67	111.00
28	DB	53	A	C5'-C4'-O4'	6.05	116.36	109.10
30	BD	210	GLY	N-CA-C	-6.05	97.99	113.10
1	AA	687	A	C2'-C3'-O3'	6.04	123.37	113.70
1	CA	1285	A	C2'-C3'-O3'	5.98	123.27	113.70
1	CA	687	A	C2'-C3'-O3'	5.96	123.24	113.70
1	CA	388	G	N9-C1'-C2'	5.96	121.74	114.00
27	BA	1616	A	N9-C1'-C2'	5.95	121.73	114.00
27	DA	301	G	N9-C1'-C2'	5.92	121.70	114.00
27	BA	212	G	N9-C1'-C2'	-5.92	105.49	112.00
27	BA	945	A	O4'-C1'-N9	5.91	112.93	108.20
28	DB	49	C	N1-C1'-C2'	5.90	121.67	114.00
1	AA	1331	G	N9-C1'-C2'	5.88	121.65	114.00
28	DB	49	C	OP2-P-O3'	5.88	118.13	105.20
27	BA	1819	A	C2'-C3'-O3'	5.86	123.07	113.70
27	BA	1698	A	N9-C1'-C2'	5.85	121.61	114.00
42	BT	59	THR	N-CA-C	-5.85	95.21	111.00
27	BA	2346	A	O4'-C1'-N9	5.85	112.88	108.20
27	BA	1286	A	O4'-C1'-N9	5.84	112.87	108.20
27	DA	1530	C	N1-C1'-C2'	5.83	121.58	114.00
27	DA	1141	U	N1-C1'-C2'	5.83	121.58	114.00
47	DY	7	VAL	N-CA-C	5.82	126.72	111.00
55	D6	46	HIS	N-CA-C	5.82	126.71	111.00
27	BA	1379	A	N9-C1'-C2'	5.82	121.56	114.00
27	DA	2035	G	N9-C1'-C2'	5.81	121.55	114.00
1	CA	509	A	C2'-C3'-O3'	5.80	122.98	113.70
28	DB	35	U	N1-C1'-C2'	5.80	121.54	114.00
27	BA	265	A	N9-C1'-C2'	5.77	121.50	114.00
36	BN	124	ALA	N-CA-C	-5.76	95.43	111.00
31	BE	50	GLY	N-CA-C	-5.76	98.69	113.10
27	DA	1039	G	OP1-P-O3'	5.74	117.82	105.20
27	BA	2346	A	N9-C1'-C2'	5.73	121.44	114.00
27	DA	2093	G	N9-C1'-C2'	-5.70	105.73	112.00
27	BA	1443	G	C5'-C4'-C3'	-5.69	106.89	116.00
1	AA	1504	G	C2'-C3'-O3'	5.68	122.79	113.70
1	AA	686	U	N1-C1'-C2'	5.65	121.34	114.00
27	DA	2192	G	N9-C1'-C2'	5.64	121.33	114.00
27	BA	102	G	N9-C1'-C2'	5.62	121.30	114.00
1	CA	1067	A	C2'-C3'-O3'	5.61	122.67	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	DD	210	GLY	N-CA-C	-5.59	99.13	113.10
1	AA	484	G	N9-C1'-C2'	5.59	121.26	114.00
30	DD	212	SER	N-CA-C	-5.58	95.93	111.00
27	BA	316	C	C5'-C4'-C3'	-5.57	107.08	116.00
27	DA	1698	A	O4'-C1'-N9	5.56	112.65	108.20
42	BT	29	ARG	N-CA-C	5.55	125.99	111.00
28	DB	49	C	OP1-P-O3'	-5.55	92.99	105.20
28	BB	52	A	N9-C1'-C2'	5.54	121.20	114.00
38	DP	59	LEU	CA-CB-CG	5.53	128.02	115.30
41	BS	58	LEU	N-CA-C	5.52	125.91	111.00
23	CW	46	U	N1-C1'-C2'	5.52	121.18	114.00
27	DA	729	G	N9-C1'-C2'	5.51	121.16	114.00
1	AA	108	G	O4'-C1'-N9	5.50	112.60	108.20
27	BA	1378	A	C4'-C3'-O3'	5.50	124.00	113.00
28	BB	38	C	N1-C1'-C2'	-5.50	105.95	112.00
27	BA	1947	C	C5'-C4'-C3'	-5.49	107.22	116.00
28	DB	52	A	N1-C6-N6	5.47	121.88	118.60
27	BA	1208	C	C5'-C4'-C3'	-5.46	107.27	116.00
27	DA	1698	A	N9-C1'-C2'	5.46	121.10	114.00
27	BA	1052	C	N1-C1'-C2'	5.46	121.09	114.00
38	BP	41	ARG	N-CA-C	-5.45	96.28	111.00
1	AA	1422	G	N9-C1'-C2'	-5.44	106.01	112.00
27	BA	178	G	N9-C1'-C2'	-5.44	106.01	112.00
28	DB	16	G	N9-C1'-C2'	5.43	121.06	114.00
27	BA	140	G	C4'-C3'-O3'	-5.43	98.00	109.40
27	BA	748	G	N9-C1'-C2'	5.42	121.05	114.00
1	CA	1504	G	C2'-C3'-O3'	5.42	122.37	113.70
27	DA	845	G	N9-C1'-C2'	5.41	121.04	114.00
27	DA	1653	G	C2'-C3'-O3'	5.40	122.35	113.70
13	AM	70	LEU	N-CA-C	-5.40	96.41	111.00
27	BA	1015	G	C5'-C4'-C3'	-5.40	107.36	116.00
1	AA	92	C	C2'-C3'-O3'	5.39	122.32	113.70
27	BA	1781	C	N1-C1'-C2'	5.38	121.00	114.00
27	BA	1987	G	C5'-C4'-O4'	-5.36	102.66	109.10
27	BA	944	G	N9-C1'-C2'	5.35	120.96	114.00
27	DA	945	A	N9-C1'-C2'	5.35	120.96	114.00
27	BA	906	G	C5'-C4'-C3'	-5.35	107.44	116.00
27	DA	1505	C	N1-C1'-C2'	5.34	120.95	114.00
27	BA	955	C	C5'-C4'-C3'	-5.34	107.46	116.00
38	DP	58	THR	N-CA-C	-5.33	96.61	111.00
42	BT	29	ARG	C-N-CA	5.33	135.02	121.70
47	BY	4	LYS	N-CA-C	-5.32	96.63	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	BA	2610	C	OP1-P-O3'	5.32	116.90	105.20
28	DB	16	G	OP1-P-O3'	-5.32	93.50	105.20
36	BN	43	THR	N-CA-C	-5.31	96.66	111.00
55	D6	10	LEU	CA-CB-CG	5.31	127.51	115.30
27	BA	2285	C	C5'-C4'-C3'	-5.30	107.52	116.00
27	BA	2429	G	OP2-P-O3'	5.30	116.85	105.20
1	CA	226	G	N9-C1'-C2'	-5.29	106.18	112.00
27	DA	140	G	C4'-C3'-O3'	-5.26	98.36	109.40
27	DA	944	G	N9-C1'-C2'	5.26	120.83	114.00
1	CA	108	G	O4'-C1'-N9	5.24	112.39	108.20
27	BA	1912	A	N9-C1'-C2'	5.24	120.81	114.00
57	B8	38	GLY	N-CA-C	-5.23	100.02	113.10
27	BA	474	G	C2'-C3'-O3'	5.23	122.06	113.70
1	CA	532	A	N9-C1'-C2'	-5.22	106.25	112.00
27	BA	614(C)	A	N9-C1'-C2'	5.22	120.78	114.00
1	CA	530	G	N9-C1'-C2'	5.21	120.78	114.00
27	DA	1653	G	N9-C1'-C2'	5.21	120.78	114.00
34	BH	50	VAL	N-CA-C	5.21	125.07	111.00
27	BA	676	A	O4'-C1'-N9	5.21	112.37	108.20
27	BA	805	G	OP1-P-O3'	5.21	116.66	105.20
27	DA	135	G	N9-C1'-C2'	-5.20	106.28	112.00
27	BA	2497	A	C4'-C3'-C2'	5.20	107.80	102.60
27	BA	193	U	C5'-C4'-C3'	-5.19	107.69	116.00
44	BV	18	LEU	CA-CB-CG	5.19	127.23	115.30
1	CA	115	G	N9-C1'-C2'	5.18	120.74	114.00
1	CA	1086	U	N1-C1'-C2'	5.17	120.72	114.00
6	AF	14	LEU	CA-CB-CG	5.16	127.18	115.30
1	CA	115	G	C2'-C3'-O3'	5.16	121.95	113.70
28	DB	17	C	O5'-P-OP1	5.16	116.89	110.70
28	BB	66	A	N9-C1'-C2'	5.16	120.70	114.00
27	BA	603	A	N9-C1'-C2'	5.15	120.70	114.00
40	BR	3	HIS	N-CA-C	-5.15	97.10	111.00
27	DA	856	C	C2'-C3'-O3'	5.14	121.93	113.70
1	AA	1064	G	N9-C1'-C2'	5.14	120.68	114.00
28	BB	117	G	N9-C1'-C2'	-5.14	106.35	112.00
27	BA	2720	U	C5'-C4'-C3'	-5.12	107.80	116.00
4	CD	12	CYS	N-CA-C	-5.12	97.17	111.00
27	BA	2405	G	N9-C1'-C2'	5.12	120.65	114.00
27	BA	2864	G	C5'-C4'-O4'	-5.11	102.97	109.10
27	BA	1113	U	N1-C1'-C2'	5.11	120.64	114.00
27	BA	783	A	N9-C1'-C2'	-5.10	106.39	112.00
27	DA	932	G	N9-C1'-C2'	5.10	120.62	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	DA	2118	U	N1-C1'-C2'	5.09	120.62	114.00
1	CA	533	A	C4'-C3'-O3'	5.09	123.18	113.00
27	DA	1686	C	C5'-C4'-O4'	-5.09	102.99	109.10
28	BB	106	G	N9-C1'-C2'	-5.09	106.40	112.00
28	DB	52	A	C6-C5-N7	-5.09	128.74	132.30
50	B1	95	LEU	CA-CB-CG	5.09	127.00	115.30
27	BA	1427	A	C4'-C3'-C2'	5.08	107.68	102.60
27	BA	1499	C	C5'-C4'-C3'	-5.08	107.87	116.00
32	BF	58	ALA	N-CA-C	5.07	124.69	111.00
19	AS	5	LEU	CA-CB-CG	5.06	126.94	115.30
27	DA	1528(A)	A	N9-C1'-C2'	5.06	120.58	114.00
27	DA	1963	U	N1-C1'-C2'	5.06	120.58	114.00
32	DF	58	ALA	N-CA-C	5.06	124.65	111.00
27	BA	857	C	C5'-C4'-C3'	-5.05	107.91	116.00
27	DA	2000	G	N9-C1'-C2'	-5.05	106.45	112.00
54	B5	4	HIS	C-N-CD	5.04	138.99	128.40
27	DA	527	C	C5'-C4'-O4'	5.03	115.13	109.10
1	CA	1397	C	N1-C1'-C2'	5.03	120.53	114.00
13	AM	85	GLY	N-CA-C	5.02	125.66	113.10
27	DA	193	U	C5'-C4'-C3'	-5.02	107.96	116.00
36	DN	67	LEU	N-CA-C	-5.02	97.45	111.00
1	CA	149	A	N9-C1'-C2'	5.02	120.52	114.00
27	DA	1458	C	N1-C1'-C2'	5.01	120.51	114.00
28	BB	77	U	C5'-C4'-C3'	-5.01	107.99	116.00
27	DA	1118	C	N1-C1'-C2'	5.01	120.51	114.00
27	DA	2791	C	O4'-C1'-N1	5.01	112.20	108.20
27	DA	2491	U	C5'-C4'-O4'	-5.00	103.09	109.10
1	CA	1124	G	N9-C1'-C2'	5.00	120.50	114.00
42	DT	82	LEU	CA-CB-CG	5.00	126.80	115.30

All (5) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
27	BA	1378	A	C3'
27	BA	1799	G	C3'
27	BA	1992	G	C3'
27	BA	2497	A	C3'
1	CA	533	A	C3'

All (241) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1064	G	Sidechain
1	AA	1077	G	Sidechain
1	AA	1081	G	Sidechain
1	AA	1094	G	Sidechain
1	AA	1139	G	Sidechain
1	AA	1299	A	Sidechain
1	AA	1331	G	Sidechain
1	AA	1345	U	Sidechain
1	AA	1442(A)	G	Sidechain
1	AA	1510	U	Sidechain
1	AA	1522	U	Sidechain
1	AA	181	G	Sidechain
1	AA	298	A	Sidechain
1	AA	37	U	Sidechain
1	AA	388	G	Sidechain
1	AA	490	G	Sidechain
1	AA	498	U	Sidechain
1	AA	518	C	Sidechain
1	AA	528	C	Sidechain
1	AA	529	G	Sidechain
1	AA	575	G	Sidechain
1	AA	621	A	Sidechain
1	AA	638	G	Sidechain
1	AA	688	G	Sidechain
1	AA	697	U	Sidechain
1	AA	727	G	Sidechain
1	AA	741	G	Sidechain
1	AA	760	G	Sidechain
1	AA	773	G	Sidechain
1	AA	803	G	Sidechain
1	AA	813	U	Sidechain
1	AA	855	G	Sidechain
1	AA	905	U	Sidechain
1	AA	991	U	Sidechain
1	AA	997	U	Sidechain
19	AS	80	TYR	Sidechain
23	AW	35	G	Sidechain
24	AX	19	G	Sidechain
27	BA	1000	A	Sidechain
27	BA	102	G	Sidechain
27	BA	1048	A	Sidechain
27	BA	1113	U	Sidechain
27	BA	1151	G	Sidechain

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Mol	Chain	Res	Type	Group
27	BA	1188	U	Sidechain
27	BA	1191	G	Sidechain
27	BA	1225	G	Sidechain
27	BA	125	G	Sidechain
27	BA	1297	C	Sidechain
27	BA	1312	U	Sidechain
27	BA	1324	G	Sidechain
27	BA	1379	A	Sidechain
27	BA	1385	G	Sidechain
27	BA	1391	U	Sidechain
27	BA	1419	A	Sidechain
27	BA	1455	G	Sidechain
27	BA	15	G	Sidechain
27	BA	1526	G	Sidechain
27	BA	1578	U	Sidechain
27	BA	1597	A	Sidechain
27	BA	1649	G	Sidechain
27	BA	1666	G	Sidechain
27	BA	1681	G	Sidechain
27	BA	171	G	Sidechain
27	BA	1779	U	Sidechain
27	BA	1801	G	Sidechain
27	BA	1833	U	Sidechain
27	BA	1835	G	Sidechain
27	BA	1855	G	Sidechain
27	BA	1910	G	Sidechain
27	BA	1939	U	Sidechain
27	BA	1940	U	Sidechain
27	BA	1992	G	Sidechain
27	BA	2000	G	Sidechain
27	BA	2041	U	Sidechain
27	BA	2086	U	Sidechain
27	BA	2229	C	Sidechain
27	BA	2238	G	Sidechain
27	BA	2249	U	Sidechain
27	BA	2263	C	Sidechain
27	BA	2280	G	Sidechain
27	BA	2375	G	Sidechain
27	BA	2390	U	Sidechain
27	BA	2441	C	Sidechain
27	BA	247	G	Sidechain
27	BA	2475	C	Sidechain

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Mol	Chain	Res	Type	Group
27	BA	2477	C	Sidechain
27	BA	249	C	Sidechain
27	BA	2500	U	Sidechain
27	BA	2517	C	Sidechain
27	BA	2529	G	Sidechain
27	BA	2542	A	Sidechain
27	BA	2548	G	Sidechain
27	BA	2571	C	Sidechain
27	BA	2585	U	Sidechain
27	BA	259	G	Sidechain
27	BA	2593	U	Sidechain
27	BA	2594	C	Sidechain
27	BA	2595	G	Sidechain
27	BA	2596	U	Sidechain
27	BA	2629	A	Sidechain
27	BA	2685	G	Sidechain
27	BA	2702	U	Sidechain
27	BA	2712	U	Sidechain
27	BA	272(B)	G	Sidechain
27	BA	2720	U	Sidechain
27	BA	2724	C	Sidechain
27	BA	2746	U	Sidechain
27	BA	2756	U	Sidechain
27	BA	2873	A	Sidechain
27	BA	308	G	Sidechain
27	BA	395	U	Sidechain
27	BA	431	U	Sidechain
27	BA	463	G	Sidechain
27	BA	467	G	Sidechain
27	BA	50	U	Sidechain
27	BA	597	U	Sidechain
27	BA	625	G	Sidechain
27	BA	637	A	Sidechain
27	BA	638	G	Sidechain
27	BA	648	G	Sidechain
27	BA	651	G	Sidechain
27	BA	657	U	Sidechain
27	BA	66	C	Sidechain
27	BA	670	A	Sidechain
27	BA	704	G	Sidechain
27	BA	726	G	Sidechain
27	BA	727	A	Sidechain

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Mol	Chain	Res	Type	Group
27	BA	780	G	Sidechain
27	BA	842	G	Sidechain
27	BA	856	C	Sidechain
27	BA	858	U	Sidechain
27	BA	89	G	Sidechain
27	BA	956	G	Sidechain
27	BA	987	G	Sidechain
28	BB	104	U	Sidechain
28	BB	38	C	Sidechain
28	BB	66	A	Sidechain
42	BT	32	TYR	Sidechain
1	CA	101	A	Sidechain
1	CA	102	G	Sidechain
1	CA	103	C	Sidechain
1	CA	1048	G	Sidechain
1	CA	1077	G	Sidechain
1	CA	1094	G	Sidechain
1	CA	112	G	Sidechain
1	CA	1200	C	Sidechain
1	CA	1345	U	Sidechain
1	CA	1348	U	Sidechain
1	CA	1351	U	Sidechain
1	CA	1394	A	Sidechain
1	CA	1445	C	Sidechain
1	CA	1458	G	Sidechain
1	CA	1485	U	Sidechain
1	CA	149	A	Sidechain
1	CA	1498	U	Sidechain
1	CA	198	G	Sidechain
1	CA	222	U	Sidechain
1	CA	254	G	Sidechain
1	CA	37	U	Sidechain
1	CA	38	G	Sidechain
1	CA	388	G	Sidechain
1	CA	516	U	Sidechain
1	CA	586	C	Sidechain
1	CA	68	G	Sidechain
1	CA	69	G	Sidechain
1	CA	760	G	Sidechain
1	CA	773	G	Sidechain
1	CA	884	U	Sidechain
1	CA	983	A	Sidechain

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Mol	Chain	Res	Type	Group
23	CW	35	G	Sidechain
59	CX	27	U	Sidechain
59	CX	61	C	Sidechain
27	DA	1039	G	Sidechain
27	DA	1041	C	Sidechain
27	DA	1215	G	Sidechain
27	DA	1248	G	Sidechain
27	DA	1273	U	Sidechain
27	DA	1301	A	Sidechain
27	DA	1341	U	Sidechain
27	DA	135	G	Sidechain
27	DA	1491	G	Sidechain
27	DA	1518	U	Sidechain
27	DA	1613	G	Sidechain
27	DA	1626	G	Sidechain
27	DA	1633	G	Sidechain
27	DA	1649	G	Sidechain
27	DA	1673	U	Sidechain
27	DA	1807	G	Sidechain
27	DA	1955	U	Sidechain
27	DA	1992	G	Sidechain
27	DA	200	U	Sidechain
27	DA	2012	G	Sidechain
27	DA	2053	G	Sidechain
27	DA	2067	G	Sidechain
27	DA	2086	U	Sidechain
27	DA	2090	G	Sidechain
27	DA	2093	G	Sidechain
27	DA	2112	G	Sidechain
27	DA	2202	C	Sidechain
27	DA	2221	G	Sidechain
27	DA	2280	G	Sidechain
27	DA	2286	A	Sidechain
27	DA	230	U	Sidechain
27	DA	2390	U	Sidechain
27	DA	2393	A	Sidechain
27	DA	2405	G	Sidechain
27	DA	2411	A	Sidechain
27	DA	2504	U	Sidechain
27	DA	2517	C	Sidechain
27	DA	2547	U	Sidechain
27	DA	2554	U	Sidechain

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Mol	Chain	Res	Type	Group
27	DA	2569	G	Sidechain
27	DA	2595	G	Sidechain
27	DA	2690	C	Sidechain
27	DA	2754	U	Sidechain
27	DA	2756	U	Sidechain
27	DA	2857	G	Sidechain
27	DA	302	C	Sidechain
27	DA	395	U	Sidechain
27	DA	434	U	Sidechain
27	DA	467	G	Sidechain
27	DA	528	A	Sidechain
27	DA	555	U	Sidechain
27	DA	599	G	Sidechain
27	DA	642	G	Sidechain
27	DA	70	G	Sidechain
27	DA	700	G	Sidechain
27	DA	72	U	Sidechain
27	DA	729	G	Sidechain
27	DA	775	G	Sidechain
27	DA	845	G	Sidechain
27	DA	9	U	Sidechain
27	DA	977	G	Sidechain
27	DA	987	G	Sidechain
27	DA	99	U	Sidechain
28	DB	104	U	Sidechain
28	DB	112	U	Sidechain
28	DB	16	G	Sidechain
28	DB	17	C	Sidechain
28	DB	22	U	Sidechain
28	DB	54	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	32132	0	16219	1429	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	CA	32098	0	16199	1614	0
2	AB	1901	0	1951	312	0
2	CB	1901	0	1951	269	0
3	AC	1613	0	1677	278	0
3	CC	1604	0	1670	270	0
4	AD	1703	0	1763	264	0
4	CD	1703	0	1763	197	0
5	AE	1147	0	1207	160	0
5	CE	1147	0	1207	172	0
6	AF	843	0	857	91	0
6	CF	843	0	857	99	0
7	AG	1257	0	1296	161	0
7	CG	1249	0	1286	155	0
8	AH	1116	0	1177	165	0
8	CH	1116	0	1177	143	0
9	AI	1006	0	1034	176	0
9	CI	1006	0	1034	201	0
10	AJ	795	0	840	159	0
10	CJ	795	0	840	175	0
11	AK	864	0	881	94	0
11	CK	885	0	904	117	0
12	AL	971	0	1057	122	0
12	CL	971	0	1057	128	0
13	AM	965	0	1034	166	0
13	CM	937	0	995	162	0
14	AN	492	0	533	77	0
14	CN	492	0	533	108	0
15	AO	734	0	771	94	0
15	CO	734	0	771	99	0
16	AP	701	0	720	107	0
16	CP	701	0	720	96	0
17	AQ	824	0	891	114	0
17	CQ	824	0	891	125	0
18	AR	574	0	644	87	0
18	CR	574	0	644	83	0
19	AS	630	0	652	126	0
19	CS	630	0	652	110	0
20	AT	763	0	861	134	0
20	CT	763	0	861	131	0
21	AU	209	0	221	26	0
21	CU	209	0	221	24	0
22	AV	205	0	106	7	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
22	CV	213	0	110	11	0
23	AW	1573	0	800	86	0
23	CW	1573	0	800	72	0
24	AX	1639	0	835	72	0
25	AY	1591	0	810	72	0
25	CY	1591	0	810	81	0
26	AZ	47	0	40	11	0
26	CZ	47	0	40	14	0
27	BA	60072	0	30294	2481	0
27	DA	59767	0	30140	2934	0
28	BB	2551	0	1295	107	0
28	DB	2551	0	1295	201	0
29	BC	1142	0	865	119	0
29	DC	1142	0	865	116	0
30	BD	2105	0	2182	345	0
30	DD	2105	0	2182	317	0
31	BE	1564	0	1629	250	0
31	DE	1564	0	1629	346	0
32	BF	1607	0	1652	226	0
32	DF	1624	0	1677	293	0
33	BG	1474	0	1535	250	0
33	DG	1474	0	1535	310	0
34	BH	1233	0	1294	217	0
34	DH	1223	0	1282	184	0
35	BI	1132	0	1218	207	0
35	DI	1132	0	1218	223	0
36	BN	1105	0	1180	153	0
36	DN	1105	0	1180	195	0
37	BO	933	0	996	114	0
37	DO	933	0	996	145	0
38	BP	1114	0	1187	303	0
38	DP	1114	0	1187	329	0
39	BQ	1107	0	1166	179	0
39	DQ	1094	0	1141	150	0
40	BR	960	0	1021	148	0
40	DR	960	0	1021	182	0
41	BS	771	0	832	185	0
41	DS	771	0	832	188	0
42	BT	1142	0	1202	236	0
42	DT	1142	0	1202	303	0
43	BU	958	0	1014	151	0
43	DU	958	0	1015	187	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	BV	779	0	852	162	0
44	DV	779	0	852	141	0
45	BW	896	0	953	108	0
45	DW	896	0	953	135	0
46	BX	726	0	778	75	0
46	DX	726	0	778	87	0
47	BY	672	0	766	190	0
47	DY	776	0	870	211	0
48	BZ	1404	0	1432	215	0
48	DZ	1404	0	1432	266	0
49	B0	662	0	688	83	0
49	D0	662	0	688	92	0
50	B1	732	0	808	97	0
50	D1	732	0	808	98	0
51	B2	598	0	653	75	0
51	D2	598	0	653	95	0
52	B3	468	0	523	46	0
52	D3	468	0	523	71	0
53	B4	344	0	305	69	0
53	D4	344	0	305	62	0
54	B5	459	0	476	80	0
54	D5	459	0	477	62	0
55	B6	402	0	413	109	0
55	D6	390	0	404	135	0
56	B7	419	0	467	46	0
56	D7	419	0	467	41	0
57	B8	508	0	576	130	0
57	D8	508	0	576	138	0
58	B9	299	0	323	34	0
58	D9	299	0	323	57	0
59	CX	1640	0	837	62	0
60	AA	114	0	0	0	0
60	AG	1	0	0	0	0
60	AW	4	0	0	0	0
60	AX	9	0	0	0	0
60	B0	3	0	0	0	0
60	B5	1	0	0	0	0
60	BA	334	0	0	0	0
60	BB	5	0	0	0	0
60	BD	1	0	0	0	0
60	BE	3	0	0	0	0
60	BF	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	BG	1	0	0	0	0
60	BP	2	0	0	0	0
60	BR	1	0	0	0	0
60	BU	2	0	0	0	0
60	BX	1	0	0	0	0
60	CA	102	0	0	0	0
60	CE	1	0	0	0	0
60	CK	1	0	0	0	0
60	CV	1	0	0	0	0
60	CW	4	0	0	0	0
60	D0	1	0	0	0	0
60	D5	1	0	0	0	0
60	D7	1	0	0	0	0
60	DA	239	0	0	0	0
60	DB	3	0	0	0	0
60	DD	2	0	0	0	0
60	DE	1	0	0	0	0
60	DF	1	0	0	0	0
60	DO	1	0	0	0	0
61	AD	1	0	0	0	0
61	B4	1	0	0	0	0
61	B5	1	0	0	0	0
61	B9	1	0	0	0	0
61	CD	1	0	0	0	0
61	D4	1	0	0	0	0
61	D5	1	0	0	0	0
61	D9	1	0	0	0	0
All	All	293848	0	198788	22560	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 46.

All (22560) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B6:15:GLU:CD	55:B6:18:ARG:HE	1.41	1.22
4:AD:19:LEU:HD11	4:AD:67:ILE:HG13	1.24	1.19
1:CA:1321:C:H3'	1:CA:1322:C:H5''	1.21	1.19
13:AM:90:LEU:HD23	13:AM:93:ARG:HG2	1.23	1.18
2:AB:166:ASP:HB3	2:AB:169:LYS:HB2	1.24	1.18
2:AB:21:ARG:HB3	2:AB:39:ILE:HA	1.23	1.18
35:DI:81:VAL:HG21	35:DI:142:VAL:HG12	1.23	1.18
42:BT:88:ILE:HG22	42:BT:89:VAL:H	1.05	1.17

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B6:20:ASN:ND2	55:B6:21:TYR:H	1.39	1.17
41:BS:97:ARG:NH2	41:BS:98:VAL:HA	1.59	1.17
27:BA:2758:A:H2'	27:BA:2759:G:H5''	1.26	1.17
27:DA:1879:C:H2'	27:DA:1880:C:H5''	1.21	1.17
47:BY:76:CYS:SG	47:BY:77:PRO:HD2	1.85	1.16
42:BT:27:THR:HG23	42:BT:28:VAL:H	1.08	1.16
40:BR:33:ARG:HD3	54:B5:55:ARG:HG2	1.18	1.15
27:BA:1403:C:H5''	27:BA:1471:A:H1'	1.27	1.15
47:BY:10:GLY:HA2	47:BY:27:VAL:HG13	1.26	1.15
49:B0:23:VAL:HA	49:B0:38:VAL:HG22	1.29	1.15
44:DV:64:HIS:HB3	44:DV:92:THR:HA	1.22	1.15
35:BI:133:HIS:HB2	35:BI:134:PRO:HD3	1.22	1.15
1:CA:721:G:H4'	1:CA:722:A:O5'	1.46	1.14
45:BW:19:LEU:HB3	54:B5:25:LEU:HD11	1.15	1.14
27:DA:1590:U:H2'	27:DA:1591:G:H5''	1.24	1.14
27:DA:2875:C:H4'	42:DT:5:ALA:HB2	1.22	1.14
27:BA:1879:C:H2'	27:BA:1880:C:H5''	1.23	1.14
27:BA:2701:C:H3'	27:BA:2702:U:H5''	1.17	1.14
27:DA:2801(A):A:H4'	27:DA:2802:G:H5'	1.27	1.14
27:BA:271(S):G:H2'	27:BA:271(T):C:H5''	1.16	1.13
27:DA:888:C:H2'	27:DA:889:C:H5'	1.30	1.13
2:CB:34:ALA:HB1	2:CB:36:ARG:HE	1.05	1.13
33:BG:76:SER:HB2	33:BG:83:ARG:HB2	1.29	1.13
27:DA:2348:U:H2'	27:DA:2349:G:H5''	1.19	1.13
1:CA:979:C:H3'	1:CA:980:C:H5''	1.24	1.13
27:DA:1114:G:H2'	27:DA:1115:G:H5''	1.26	1.13
46:DX:12:VAL:HB	46:DX:17:ALA:HB1	1.25	1.13
1:AA:1445:C:H2'	1:AA:1446:U:H5''	1.29	1.13
27:BA:271(S):G:C2'	27:BA:271(T):C:H5''	1.79	1.12
51:D2:65:ASN:HB3	51:D2:69:ARG:HH12	1.04	1.13
38:DP:58:THR:HG22	38:DP:61:ARG:HE	1.08	1.12
24:AX:19:G:H3'	24:AX:20:U:H5''	1.20	1.12
41:BS:85:VAL:H	41:BS:106:ARG:HB2	1.07	1.12
27:DA:925:C:H2'	27:DA:926:A:H5''	1.17	1.12
12:CL:38:ARG:HG2	12:CL:39:THR:H	1.13	1.12
4:AD:49:ARG:HH11	4:AD:49:ARG:HA	1.08	1.11
27:BA:2227:A:H5'	30:BD:263:ARG:HH12	1.08	1.11
34:BH:8:PRO:HB3	34:BH:69:ARG:HG3	1.29	1.11
10:CJ:7:LYS:HB2	10:CJ:97:GLU:HB2	1.23	1.11
30:DD:24:ILE:HG23	30:DD:25:THR:H	1.15	1.11
39:BQ:79:LEU:HD23	39:BQ:80:GLU:HG3	1.30	1.11
27:BA:1141:U:H2'	36:BN:63:THR:HG21	1.33	1.11

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:91:ARG:HB3	42:DT:116:ALA:HA	1.32	1.11
42:DT:89:VAL:HG11	42:DT:91:ARG:HE	1.12	1.10
27:BA:2476:A:H2'	27:BA:2477:C:H5''	1.30	1.10
27:DA:1899:G:N2	27:DA:1902:C:H41	1.47	1.10
27:BA:242:G:H5''	57:B8:62:LEU:HD13	1.20	1.10
27:BA:2312:U:H2'	27:BA:2313:C:H5''	1.26	1.10
27:DA:925:C:C2'	27:DA:926:A:H5''	1.80	1.10
42:DT:29:ARG:HE	42:DT:86:ILE:HG23	1.17	1.10
27:DA:2701:C:H3'	27:DA:2702:U:H5''	1.18	1.10
42:DT:13:ARG:CZ	42:DT:13:ARG:HA	1.82	1.10
27:BA:89:G:H3'	27:BA:90:U:H5''	1.13	1.10
27:BA:89:G:H3'	27:BA:90:U:C5'	1.79	1.10
38:DP:126:VAL:HA	38:DP:145:PRO:HB2	1.25	1.10
53:D4:66:HIS:HB3	53:D4:67:PRO:HD3	1.30	1.10
30:DD:44:ASN:HB3	30:DD:49:ILE:HA	1.32	1.10
41:BS:106:ARG:NH1	41:BS:108:GLY:HA3	1.67	1.10
27:DA:2579:C:O2'	31:DE:131:ALA:HB2	1.47	1.09
41:DS:89:ARG:HB3	41:DS:92:TYR:CB	1.81	1.09
46:BX:63:LYS:HE3	46:BX:72:LYS:HE3	1.33	1.09
32:BF:101:LEU:HD12	32:BF:102:PRO:HD2	1.23	1.09
27:DA:612:C:H2'	27:DA:613:G:H5''	1.19	1.09
43:DU:65:ILE:HD11	43:DU:93:LYS:HA	1.34	1.09
27:BA:2645:G:H3'	27:BA:2646:C:H5'	1.31	1.09
33:BG:60:LEU:HD22	33:BG:63:ILE:HD11	1.35	1.09
36:DN:2:LYS:HG2	43:DU:101:ARG:HH22	1.07	1.09
27:BA:1685:C:H2'	27:BA:1686:C:H5''	1.32	1.09
41:DS:89:ARG:HB3	41:DS:92:TYR:HB3	1.10	1.09
35:DI:81:VAL:H	35:DI:143:SER:HB2	1.16	1.08
27:BA:1590:U:H2'	27:BA:1591:G:H5''	1.17	1.08
27:BA:612:C:H2'	27:BA:613:G:H5''	1.25	1.08
38:DP:23:PRO:HB2	38:DP:33:ARG:CD	1.83	1.08
33:DG:16:ARG:HE	33:DG:31:VAL:HG11	1.17	1.08
41:DS:74:ALA:HB1	41:DS:103:GLU:HG3	1.29	1.08
38:BP:23:PRO:HB2	38:BP:33:ARG:HD2	1.28	1.08
27:DA:2312:U:H2'	27:DA:2313:C:H5''	1.36	1.08
38:DP:30:THR:HG22	38:DP:31:ALA:H	1.15	1.07
35:BI:82:ARG:HH22	1:CA:56:U:H4'	1.10	1.07
20:CT:100:ILE:H	20:CT:100:ILE:HD12	1.07	1.07
39:DQ:12:GLN:HE21	39:DQ:72:LYS:HG3	1.12	1.07
38:BP:75:ILE:H	38:BP:75:ILE:HD12	1.11	1.07
35:DI:82:ARG:HH11	35:DI:82:ARG:HB2	1.18	1.07
27:DA:1884:A:H2'	27:DA:1885:A:H5''	1.33	1.07

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:AW:16:C:H4'	23:AW:17:G:H5''	1.36	1.07
30:BD:79:VAL:HG21	30:BD:111:LEU:HD11	1.35	1.07
38:BP:23:PRO:HB2	38:BP:33:ARG:CD	1.85	1.07
36:DN:19:GLU:HG3	36:DN:20:GLY:H	1.15	1.07
12:CL:44:LYS:HB3	12:CL:45:PRO:HD2	1.34	1.07
39:BQ:30:GLY:HA2	39:BQ:107:ALA:HB2	1.32	1.07
13:AM:49:THR:HB	13:AM:52:GLU:HG3	1.36	1.06
48:DZ:75:LEU:H	48:DZ:75:LEU:HD22	1.16	1.06
49:B0:10:THR:HG22	49:B0:12:ASN:H	1.15	1.06
32:BF:31:HIS:HB2	38:BP:13:ASN:ND2	1.69	1.06
41:BS:97:ARG:HH21	41:BS:98:VAL:HA	0.91	1.06
44:DV:25:LEU:H	44:DV:92:THR:HG21	1.18	1.06
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HG13	1.33	1.06
27:BA:612:C:C2'	27:BA:613:G:H5''	1.84	1.06
55:B6:22:ALA:O	55:B6:23:THR:HG23	1.55	1.06
33:DG:76:SER:HB2	33:DG:83:ARG:HB2	1.33	1.06
18:CR:36:ASN:HD22	18:CR:39:VAL:HG21	1.19	1.06
13:CM:3:ARG:HB2	53:D4:60:GLU:HG2	1.34	1.05
27:BA:1190:G:H5''	38:BP:35:HIS:HA	1.33	1.05
33:DG:72:ARG:HD3	33:DG:86:MET:HA	1.36	1.05
11:CK:32:ILE:HD12	11:CK:72:ALA:HB2	1.33	1.05
13:AM:102:ARG:HB3	13:AM:102:ARG:HH11	1.13	1.05
1:AA:376:G:H5''	16:AP:5:ARG:HD2	1.33	1.05
1:AA:255:G:H1'	17:AQ:16:GLN:NE2	1.71	1.05
42:DT:83:ILE:HG13	42:DT:84:GLN:H	1.22	1.05
27:DA:1697:G:H3'	27:DA:1698:A:H5''	1.35	1.05
56:D7:41:ARG:HH11	56:D7:41:ARG:HB2	1.05	1.05
44:BV:62:LEU:HD21	44:BV:95:LEU:HB2	1.32	1.05
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.35	1.05
1:AA:979:C:H3'	1:AA:980:C:H5''	1.37	1.05
55:B6:15:GLU:CG	55:B6:18:ARG:HE	1.69	1.05
42:BT:89:VAL:HG11	42:BT:91:ARG:NE	1.71	1.05
41:DS:67:ARG:HH12	41:DS:100:ALA:HB3	1.20	1.05
9:CI:95:LYS:HD3	9:CI:96:LEU:N	1.72	1.05
41:DS:24:LEU:HB3	41:DS:85:VAL:HG12	1.39	1.04
30:DD:133:LEU:HB3	30:DD:173:VAL:HG11	1.36	1.04
30:BD:70:TRP:CH2	30:BD:150:LYS:HA	1.90	1.04
36:BN:40:PRO:HB3	43:BU:68:ALA:HB2	1.40	1.04
39:BQ:43:THR:HB	39:BQ:45:GLN:HE21	1.11	1.04
27:DA:2491:U:H5'	27:DA:2491:U:H6	1.23	1.04
39:DQ:81:VAL:HB	49:D0:7:LEU:HD21	1.38	1.04
48:DZ:96:GLU:HB3	48:DZ:124:LEU:HD11	1.39	1.04

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1657:C:H4'	31:BE:133:LYS:HB3	1.40	1.04
37:DO:86:ILE:H	37:DO:86:ILE:HD12	1.21	1.04
27:BA:1590:U:C2'	27:BA:1591:G:H5''	1.87	1.04
44:DV:51:VAL:HG12	44:DV:52:VAL:H	1.22	1.04
41:DS:89:ARG:HD3	41:DS:92:TYR:HA	1.34	1.04
31:DE:24:THR:HG23	31:DE:184:VAL:HG23	1.38	1.04
49:D0:23:VAL:HA	49:D0:38:VAL:HG22	1.38	1.04
1:CA:1445:C:H2'	1:CA:1446:U:H5''	1.39	1.03
27:DA:2758:A:H2'	27:DA:2759:G:H5''	1.08	1.03
41:BS:97:ARG:HH21	41:BS:98:VAL:CA	1.71	1.03
38:DP:63:PRO:HB3	57:D8:13:ARG:HB3	1.38	1.03
4:AD:9:CYS:HA	4:AD:12:CYS:HB2	1.39	1.03
35:DI:81:VAL:HG12	35:DI:82:ARG:H	1.15	1.03
31:DE:59:VAL:HG21	31:DE:63:LEU:HA	1.40	1.03
12:AL:38:ARG:HH11	12:AL:38:ARG:HB3	1.19	1.03
27:DA:2833:G:H3'	27:DA:2834:G:H5''	1.38	1.03
48:BZ:73:VAL:HG22	48:BZ:85:VAL:HG12	1.39	1.03
55:D6:20:ASN:ND2	55:D6:21:TYR:H	1.54	1.03
1:CA:975:A:H4'	1:CA:976:G:H5''	1.40	1.03
3:CC:188:LEU:HD13	3:CC:189:ALA:H	1.19	1.03
41:DS:30:ARG:HH22	41:DS:62:LYS:HB3	1.24	1.03
14:CN:26:ARG:HH22	14:CN:47:LEU:HD21	1.18	1.03
38:DP:23:PRO:HB2	38:DP:33:ARG:HD2	1.39	1.03
27:BA:812:C:H5'	38:BP:25:SER:HB2	1.36	1.03
55:B6:33:LYS:HA	55:B6:33:LYS:HE2	1.36	1.03
3:AC:189:ALA:HB2	3:AC:196:LEU:HB2	1.39	1.02
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.41	1.02
45:DW:40:ASN:O	45:DW:41:LYS:HG2	1.59	1.02
48:DZ:118:GLU:HB2	48:DZ:121:ARG:HD2	1.40	1.02
27:DA:2748:A:O2'	34:DH:63:SER:HA	1.59	1.02
20:AT:50:GLU:HB2	20:AT:100:ILE:HG12	1.41	1.02
27:DA:2348:U:C2'	27:DA:2349:G:H5''	1.88	1.02
47:DY:50:ARG:HD3	47:DY:53:PRO:HA	1.04	1.02
4:AD:49:ARG:HA	4:AD:49:ARG:NH1	1.75	1.02
1:CA:1128:C:H4'	9:CI:16:ARG:HH12	1.24	1.02
32:DF:158:THR:HG23	32:DF:160:ASN:H	1.21	1.02
42:DT:88:ILE:HG22	42:DT:89:VAL:HG23	1.39	1.01
28:DB:48:A:H2'	28:DB:49:C:O4'	1.59	1.01
43:BU:52:ARG:HH11	43:BU:52:ARG:HB3	1.23	1.01
30:BD:43:ARG:HD2	30:BD:44:ASN:OD1	1.56	1.01
27:BA:1411:C:H2'	27:BA:1412:A:H8	1.23	1.01
35:BI:133:HIS:HB2	35:BI:134:PRO:CD	1.90	1.01

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:149:LEU:HD21	48:DZ:171:ALA:HB3	1.37	1.01
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.42	1.01
30:DD:70:TRP:CH2	30:DD:150:LYS:HA	1.95	1.01
27:DA:1685:C:H2'	27:DA:1686:C:H5''	1.38	1.01
1:CA:1101:A:H4'	1:CA:1102:A:O5'	1.54	1.01
2:AB:18:GLY:H	2:AB:42:ILE:HG22	1.19	1.01
35:BI:111:PRO:HA	35:BI:114:LEU:HD11	1.42	1.01
33:BG:39:ILE:HD11	33:BG:155:MET:HB2	1.42	1.01
55:B6:15:GLU:CD	55:B6:18:ARG:NE	2.14	1.01
1:AA:1054:C:H42	23:AW:33:C:H1'	1.23	1.01
30:BD:49:ILE:HD11	30:BD:52:ARG:HA	1.42	1.01
32:DF:78:ILE:H	32:DF:78:ILE:HD13	1.25	1.01
38:BP:30:THR:HG22	38:BP:31:ALA:H	1.26	1.01
27:DA:271(S):G:H2'	27:DA:271(T):C:H5'	1.42	1.01
10:AJ:78:ASN:HD21	10:AJ:80:LYS:HB2	1.21	1.01
42:DT:42:ILE:H	42:DT:42:ILE:HD12	1.23	1.00
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.42	1.00
27:DA:2189:U:H3'	27:DA:2190:G:H5''	1.43	1.00
54:D5:4:HIS:HB3	54:D5:5:PRO:HD3	1.38	1.00
27:BA:1179:C:H2'	27:BA:1180:C:H5''	1.42	1.00
27:BA:2876:G:H4'	42:BT:3:ARG:HE	1.21	1.00
33:DG:82:LEU:HD22	33:DG:87:PRO:HG3	1.43	1.00
27:DA:1685:C:C2'	27:DA:1686:C:H5''	1.91	1.00
27:BA:2864:G:H5'	27:BA:2864:G:H8	1.25	1.00
32:BF:160:ASN:HD22	32:BF:163:VAL:H	1.09	1.00
27:DA:2245:U:H5'	27:DA:2246:G:H5'	1.42	1.00
31:BE:77:ILE:HG22	31:BE:78:LEU:H	1.19	1.00
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.59	1.00
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.40	1.00
47:BY:8:LYS:H	47:BY:8:LYS:HD2	1.22	1.00
43:DU:92:ARG:HD2	44:DV:11:GLN:NE2	1.77	1.00
27:BA:1365:A:H5''	50:B1:41:ARG:HH22	1.20	1.00
29:DC:68:LEU:HB2	29:DC:70:LYS:HE2	1.44	1.00
5:AE:126:ARG:HG3	5:AE:126:ARG:HH11	1.27	1.00
17:AQ:22:LEU:HD11	17:AQ:39:SER:HB2	1.41	1.00
42:DT:118:ARG:HH11	42:DT:118:ARG:HB3	1.27	1.00
38:DP:7:ARG:H	38:DP:8:PRO:HD2	1.26	1.00
27:DA:1654:A:OP2	40:DR:3:HIS:HB2	1.59	1.00
38:BP:62:LEU:HD11	57:B8:25:MET:HB3	1.43	0.99
31:DE:179:GLU:HB3	31:DE:181:LEU:HD13	1.40	0.99
35:BI:2:LYS:HG2	35:BI:39:ALA:HB3	1.44	0.99
2:CB:34:ALA:HB1	2:CB:36:ARG:NE	1.76	0.99

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:44:GLY:H	33:BG:88:ILE:HD11	1.24	0.99
17:AQ:7:THR:HG22	17:AQ:58:GLU:HG2	1.41	0.99
27:BA:1697:G:H3'	27:BA:1698:A:H5''	1.38	0.99
48:DZ:124:LEU:HD12	48:DZ:125:VAL:H	1.28	0.99
47:DY:28:LYS:HD2	47:DY:39:VAL:HG22	1.43	0.99
40:DR:33:ARG:HG3	40:DR:115:GLU:HB3	1.42	0.99
27:BA:2068:U:H3	27:BA:2430:A:H2	1.03	0.99
36:BN:3:THR:O	36:BN:5:VAL:N	1.94	0.99
28:DB:106:G:H2'	28:DB:107:G:H8	1.25	0.99
38:BP:23:PRO:HD2	38:BP:33:ARG:CZ	1.92	0.99
4:AD:9:CYS:HB2	4:AD:22:LYS:HD2	1.45	0.99
15:CO:70:LEU:HD11	15:CO:77:ARG:HD2	1.42	0.99
32:DF:123:LEU:HD12	32:DF:124:LEU:H	1.25	0.99
50:D1:76:ARG:NH2	50:D1:95:LEU:HD13	1.77	0.99
27:DA:1170:G:H1	27:DA:1179:C:H42	1.00	0.99
30:BD:24:ILE:HD12	30:BD:84:TYR:HB2	1.44	0.99
32:BF:7:TYR:HB3	32:BF:16:GLY:H	1.22	0.99
48:BZ:9:ARG:NH2	48:BZ:25:GLY:H	1.60	0.99
2:CB:165:VAL:HG23	2:CB:166:ASP:H	1.26	0.99
45:BW:92:ARG:HH11	45:BW:92:ARG:HG2	1.26	0.99
27:DA:1114:G:C2'	27:DA:1115:G:H5''	1.93	0.98
31:DE:109:LYS:HG2	31:DE:191:PRO:HG3	1.45	0.98
32:BF:9:ILE:HG23	32:BF:11:VAL:O	1.62	0.98
32:DF:20:LEU:HG	32:DF:21:ALA:H	1.24	0.98
5:CE:101:ILE:HD11	5:CE:119:LEU:HD23	1.45	0.98
54:B5:4:HIS:HB3	54:B5:5:PRO:HD3	1.46	0.98
1:AA:76:C:H42	1:AA:93:G:H1	1.11	0.98
48:BZ:140:VAL:HG23	48:BZ:143:LEU:HD23	1.43	0.98
27:BA:2758:A:C2'	27:BA:2759:G:H5''	1.93	0.98
27:BA:1685:C:C2'	27:BA:1686:C:H5''	1.92	0.98
19:CS:19:VAL:HG13	19:CS:44:MET:HE1	1.45	0.98
3:CC:71:ALA:HB2	3:CC:106:VAL:HB	1.42	0.98
54:B5:25:LEU:HD12	54:B5:25:LEU:H	1.28	0.98
3:CC:14:ILE:HG12	3:CC:15:THR:H	1.28	0.98
18:CR:40:LEU:HD12	18:CR:40:LEU:H	1.24	0.98
17:AQ:18:THR:HG23	17:AQ:69:LYS:HE3	1.45	0.98
30:DD:112:GLN:H	30:DD:115:GLN:NE2	1.61	0.98
1:AA:93:G:C2'	1:AA:96:U:H5'	1.93	0.98
33:BG:47:LYS:HE3	33:BG:81:LYS:HB2	1.46	0.98
30:BD:24:ILE:HG23	30:BD:25:THR:H	1.28	0.98
30:DD:49:ILE:HD11	30:DD:52:ARG:HA	1.44	0.98
9:CI:112:LYS:HA	9:CI:119:ALA:HB2	1.46	0.98

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1531:C:H6	27:BA:1531:C:H5''	1.25	0.98
31:DE:65:GLY:HA2	31:DE:70:ALA:HB1	1.43	0.98
16:AP:4:ILE:HB	16:AP:66:PRO:HB3	1.42	0.98
47:BY:68:HIS:H	47:BY:71:LYS:HZ3	1.03	0.98
42:DT:55:ASN:H	42:DT:59:THR:HG22	1.26	0.98
27:BA:27:G:H22	27:BA:512:G:H2'	1.29	0.97
28:DB:5:C:H2'	28:DB:6:C:H6	1.29	0.97
10:CJ:44:VAL:HA	10:CJ:66:ARG:HA	1.45	0.97
30:BD:26:LYS:NZ	30:BD:26:LYS:HB3	1.76	0.97
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.27	0.97
27:BA:1482:G:H22	27:BA:1507:A:H1'	1.27	0.97
35:DI:88:ILE:HG22	35:DI:89:TYR:H	1.29	0.97
49:B0:41:ARG:H	49:B0:41:ARG:HD2	1.28	0.97
27:BA:2206:G:H21	27:BA:2207:G:H5'	1.29	0.97
27:BA:1879:C:C2'	27:BA:1880:C:H5''	1.95	0.97
42:DT:28:VAL:HG21	42:DT:46:GLU:HG3	1.44	0.97
29:DC:100:ILE:HG23	29:DC:132:GLY:HA3	1.46	0.97
42:BT:88:ILE:HG22	42:BT:89:VAL:N	1.80	0.97
27:DA:1039:G:C6	27:DA:1117:G:C5	2.52	0.97
47:BY:17:SER:HB2	47:BY:71:LYS:HB3	1.46	0.97
15:AO:87:ILE:HG22	15:AO:88:ARG:H	1.28	0.97
1:CA:539:A:H2'	1:CA:540:G:C8	1.99	0.97
27:BA:2287:A:H62	27:BA:2344:U:H3	1.12	0.97
20:CT:50:GLU:HA	20:CT:100:ILE:HG21	1.46	0.97
27:DA:2758:A:C2'	27:DA:2759:G:H5''	1.94	0.97
31:DE:59:VAL:HG11	31:DE:63:LEU:HG	1.47	0.97
27:BA:1411:C:H2'	27:BA:1412:A:C8	1.98	0.97
18:AR:58:LEU:HD12	18:AR:58:LEU:H	1.28	0.97
20:CT:89:ARG:HD2	20:CT:104:LEU:HD11	1.45	0.97
7:CG:23:VAL:HG12	7:CG:27:ILE:HD11	1.45	0.97
4:AD:7:PRO:HB2	4:AD:10:ARG:HD2	1.45	0.97
53:B4:40:ILE:HG13	53:B4:57:ILE:HG21	1.47	0.97
46:DX:12:VAL:HG13	46:DX:27:THR:O	1.64	0.97
44:BV:51:VAL:HG12	44:BV:52:VAL:N	1.80	0.97
27:DA:39:C:H2'	27:DA:40:C:H6	1.27	0.97
42:BT:28:VAL:HG22	42:BT:47:GLY:N	1.78	0.96
42:DT:29:ARG:HB3	42:DT:85:LYS:HA	1.46	0.96
13:CM:10:PRO:HB2	13:CM:18:ALA:HB1	1.46	0.96
1:CA:1116:C:H2'	1:CA:1117:G:H5''	1.45	0.96
37:DO:47:ILE:HG13	37:DO:48:PRO:HD2	1.46	0.96
29:DC:49:ILE:HD12	29:DC:49:ILE:H	1.30	0.96
37:BO:104:ARG:HE	42:BT:33:LYS:HE3	1.29	0.96

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DB:62:C:H2'	28:DB:63:G:O4'	1.64	0.96
10:CJ:44:VAL:HG13	10:CJ:66:ARG:HG2	1.44	0.96
1:CA:1342:C:H1'	9:CI:124:GLN:HE22	1.28	0.96
31:DE:154:LYS:HA	31:DE:154:LYS:HE3	1.48	0.96
30:BD:26:LYS:HZ2	30:BD:26:LYS:HB3	1.24	0.96
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	1.47	0.96
27:BA:1607:C:H4'	27:BA:1608:A:O5'	1.61	0.96
55:D6:19:ARG:HG2	55:D6:20:ASN:H	1.27	0.96
45:DW:15:ARG:HD2	54:D5:20:ARG:HH12	1.28	0.96
2:AB:102:LEU:HB2	2:AB:176:GLU:HG2	1.48	0.96
5:CE:15:ARG:HG3	5:CE:28:PHE:HE2	1.29	0.96
38:BP:146:VAL:HG22	38:BP:147:LEU:H	1.27	0.96
42:BT:28:VAL:HG12	42:BT:29:ARG:HD3	1.47	0.96
44:DV:64:HIS:ND1	44:DV:92:THR:HG22	1.79	0.96
14:CN:26:ARG:NH2	14:CN:47:LEU:HD21	1.80	0.96
24:AX:19:G:H3'	24:AX:20:U:C5'	1.96	0.96
35:BI:17:GLN:HG2	35:BI:18:VAL:H	1.28	0.96
56:B7:46:VAL:HG12	56:B7:47:ARG:H	1.27	0.96
35:DI:115:ALA:HB2	35:DI:129:THR:HG22	1.44	0.96
41:BS:85:VAL:N	41:BS:106:ARG:HB2	1.80	0.96
10:AJ:29:ARG:HH22	10:AJ:84:GLN:HG2	1.29	0.96
13:AM:66:LEU:HA	13:AM:70:LEU:HD12	1.46	0.96
31:BE:51:PHE:O	31:BE:74:PRO:HB2	1.64	0.96
27:DA:2068:U:H3	27:DA:2430:A:H2	1.12	0.96
13:AM:9:ILE:HG21	13:AM:11:ARG:HH21	1.28	0.95
42:DT:50:ILE:HD11	42:DT:100:TYR:HA	1.45	0.95
37:DO:2:ILE:HD12	37:DO:6:THR:HG21	1.48	0.95
46:DX:50:LYS:HD3	46:DX:84:ALA:HB2	1.48	0.95
57:B8:32:LEU:HB2	57:B8:36:LYS:NZ	1.80	0.95
27:BA:910:A:H62	39:BQ:12:GLN:HA	1.30	0.95
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.46	0.95
47:DY:98:VAL:HG12	47:DY:99:CYS:SG	2.06	0.95
54:D5:40:LYS:HB2	54:D5:41:PRO:HD2	1.44	0.95
27:DA:1378:A:O2'	27:DA:1379:A:H5'	1.66	0.95
39:DQ:108:GLY:HA3	48:DZ:115:VAL:HG11	1.48	0.95
27:DA:1879:C:C2'	27:DA:1880:C:H5''	1.95	0.95
27:BA:2701:C:H3'	27:BA:2702:U:C5'	1.94	0.95
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.47	0.95
1:AA:92:C:H2'	1:AA:93:G:C8	2.00	0.95
26:AZ:2:DPP:O	26:AZ:3:UAL:N1	1.99	0.95
27:BA:593:G:H4'	57:B8:61:LEU:HD22	1.47	0.95
27:BA:2645:G:H3'	27:BA:2646:C:C5'	1.95	0.95

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1128:C:H5'	9:CI:16:ARG:HH22	1.31	0.95
35:BI:82:ARG:NH2	1:CA:56:U:H4'	1.80	0.95
49:B0:53:MET:HB3	49:B0:59:LEU:HD23	1.45	0.95
48:DZ:138:VAL:HG12	48:DZ:139:ASP:H	1.29	0.95
28:DB:2:C:H2'	28:DB:3:C:C6	2.02	0.95
54:D5:3:LYS:HA	54:D5:3:LYS:HE3	1.49	0.95
54:D5:3:LYS:HG3	54:D5:4:HIS:H	1.25	0.95
47:DY:14:LEU:HD12	47:DY:15:VAL:H	1.29	0.95
2:CB:96:ARG:H	2:CB:96:ARG:HD2	1.31	0.95
29:BC:75:LEU:HD12	29:BC:119:VAL:N	1.82	0.95
12:AL:43:LYS:HG2	12:AL:44:LYS:H	1.30	0.95
42:DT:55:ASN:N	42:DT:59:THR:HG22	1.82	0.95
35:BI:66:GLU:HA	35:BI:69:LYS:HB3	1.48	0.95
13:CM:65:LYS:HD2	13:CM:69:GLU:HG3	1.48	0.95
5:CE:12:LEU:HD22	5:CE:13:ILE:H	1.30	0.95
1:AA:1239:A:H62	1:AA:1299:A:H62	1.04	0.95
11:CK:88:GLY:O	11:CK:91:ARG:HB2	1.64	0.95
47:DY:28:LYS:HB3	47:DY:39:VAL:N	1.80	0.95
11:CK:27:ASN:HD21	11:CK:55:LYS:HD2	1.32	0.95
20:AT:35:THR:HG22	20:AT:36:LEU:HD22	1.45	0.95
55:D6:33:LYS:HA	55:D6:33:LYS:HE2	1.48	0.95
27:DA:674:G:H1'	32:DF:74:ARG:HD2	1.46	0.95
1:CA:1057:G:H5''	3:CC:154:SER:HB2	1.47	0.95
43:BU:90:VAL:HG22	44:BV:39:LEU:HD23	1.46	0.95
37:BO:18:LYS:HB2	37:BO:45:GLU:HG2	1.47	0.95
3:AC:9:GLY:HA2	3:AC:12:LEU:HD23	1.48	0.94
31:BE:59:VAL:HG11	31:BE:63:LEU:HD12	1.46	0.94
27:DA:330:A:H2	27:DA:1210:A:H2'	1.28	0.94
15:CO:87:ILE:HG22	15:CO:88:ARG:H	1.31	0.94
1:CA:1239:A:H62	1:CA:1299:A:N6	1.65	0.94
43:DU:92:ARG:HH22	43:DU:94:ASN:HD22	1.14	0.94
2:CB:158:LEU:HD12	2:CB:158:LEU:H	1.32	0.94
27:DA:2756:U:H1'	27:DA:2757:A:H5''	1.47	0.94
27:DA:1899:G:H22	27:DA:1902:C:N4	1.65	0.94
38:DP:23:PRO:HD2	38:DP:33:ARG:CZ	1.96	0.94
27:DA:2199:A:H3'	27:DA:2200:C:H6	1.32	0.94
12:CL:29:PHE:HB3	12:CL:81:LEU:HD21	1.46	0.94
27:BA:1884:A:H2'	27:BA:1885:A:H5''	1.48	0.94
28:DB:114:C:H2'	28:DB:115:G:H8	1.29	0.94
27:DA:2833:G:H3'	27:DA:2834:G:C5'	1.97	0.94
3:AC:50:ALA:HB1	3:AC:70:VAL:HG11	1.49	0.94
24:AX:20:U:O2'	24:AX:21:A:H5'	1.67	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.50	0.94
27:DA:1240:U:O2'	27:DA:1241:A:H5'	1.68	0.94
28:DB:106:G:H2'	28:DB:107:G:C8	2.01	0.94
52:D3:10:LYS:HG3	52:D3:11:SER:H	1.31	0.94
59:CX:5:G:H1	59:CX:68:C:H42	1.15	0.94
12:CL:43:LYS:HG2	12:CL:44:LYS:H	1.30	0.94
1:CA:1347:G:N2	1:CA:1373:G:H2'	1.82	0.94
27:DA:1169:G:H1	27:DA:1180:C:H42	1.14	0.94
27:BA:1482:G:N2	27:BA:1507:A:H1'	1.82	0.94
37:DO:98:VAL:HG12	37:DO:117:LEU:HD22	1.50	0.94
33:BG:113:ARG:HH22	53:B4:66:HIS:HB2	1.30	0.94
59:CX:19:G:H3'	59:CX:20:U:C5'	1.97	0.94
1:AA:473:G:H2'	1:AA:474:G:H8	1.31	0.94
27:BA:1902:C:H1'	30:BD:244:ARG:HG3	1.47	0.94
1:CA:1456:G:H2'	20:CT:39:LYS:HZ3	1.31	0.94
27:DA:2476:A:H2'	27:DA:2477:C:H5''	1.47	0.94
59:CX:19:G:H3'	59:CX:20:U:H5''	1.50	0.94
27:DA:61:G:H1	27:DA:94:C:N4	1.64	0.94
37:BO:107:ARG:NH1	42:BT:35:LYS:HB2	1.83	0.94
27:DA:1590:U:C2'	27:DA:1591:G:H5''	1.97	0.94
43:DU:90:VAL:HG12	43:DU:91:ASP:H	1.31	0.94
27:DA:39:C:H2'	27:DA:40:C:C6	2.02	0.94
32:DF:50:SER:HB2	32:DF:94:PRO:HD3	1.49	0.94
27:DA:847:U:H2'	27:DA:848:G:H5''	1.50	0.94
4:CD:173:TRP:CD1	4:CD:174:LEU:HG	2.02	0.94
27:BA:2808:U:H5'	27:BA:2891:G:O6	1.67	0.94
33:BG:101:ILE:HD13	33:BG:102:PHE:H	1.30	0.94
1:AA:1445:C:C2'	1:AA:1446:U:H5''	1.98	0.94
12:CL:44:LYS:CB	12:CL:45:PRO:HD2	1.93	0.94
1:CA:1116:C:C2'	1:CA:1117:G:H5''	1.97	0.94
31:BE:59:VAL:HG22	31:BE:60:ASN:H	1.31	0.94
12:CL:22:PRO:O	12:CL:24:LEU:HD13	1.68	0.94
1:AA:389:A:H2'	1:AA:390:C:H5'	1.48	0.94
48:DZ:138:VAL:HG22	48:DZ:154:LEU:HD21	1.49	0.93
48:DZ:56:ILE:HG22	48:DZ:57:VAL:H	1.34	0.93
24:AX:3:C:H2'	24:AX:4:G:H5''	1.50	0.93
1:CA:1445:C:C4	1:CA:1446:U:C5	2.55	0.93
40:BR:2:ARG:HH21	40:BR:5:LYS:NZ	1.65	0.93
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.33	0.93
5:AE:31:LEU:HD23	5:AE:45:PHE:HB2	1.50	0.93
13:CM:15:VAL:O	13:CM:19:LEU:HD23	1.68	0.93
47:DY:76:CYS:SG	47:DY:77:PRO:HD2	2.09	0.93

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:84:ARG:O	8:CH:135:CYS:HB2	1.68	0.93
48:DZ:17:LEU:HD22	48:DZ:24:PRO:HG3	1.51	0.93
57:D8:51:ALA:HA	57:D8:54:GLU:OE1	1.67	0.93
12:AL:38:ARG:NH1	12:AL:38:ARG:HB3	1.82	0.93
48:BZ:119:ILE:O	48:BZ:170:ILE:HA	1.68	0.93
33:BG:161:THR:HG22	33:BG:163:ALA:H	1.33	0.93
10:CJ:51:ARG:HE	10:CJ:61:GLU:HB2	1.34	0.93
4:AD:49:ARG:CA	4:AD:49:ARG:HH11	1.79	0.93
27:DA:2787:C:H1'	31:DE:61:ARG:HG3	1.48	0.93
27:BA:2810:A:H2'	31:BE:61:ARG:NH2	1.84	0.93
1:CA:1151:A:HO2'	1:CA:1152:A:H8	0.94	0.93
31:DE:77:ILE:HG22	31:DE:78:LEU:H	1.31	0.93
47:DY:28:LYS:HG3	47:DY:37:VAL:HB	1.50	0.93
27:DA:1158:C:C2'	27:DA:1159:U:H5''	1.98	0.93
27:BA:571:A:H5'	27:BA:2030:A:H62	1.32	0.93
28:DB:114:C:H2'	28:DB:115:G:C8	2.03	0.93
1:AA:1053:G:HO2'	1:AA:1199:U:H5	1.03	0.93
1:AA:1363(A):A:H4'	1:AA:1364:U:H5''	1.49	0.93
27:DA:2741:A:H5''	58:D9:22:ARG:HH12	1.34	0.93
27:BA:1494:A:C2'	27:BA:1495:A:H5''	1.99	0.93
27:BA:958:U:O2	28:BB:90:A:H4'	1.68	0.93
27:DA:1665:A:H1'	37:DO:1:MET:HE3	1.50	0.93
27:BA:1359:A:H2'	27:BA:1360:A:H5'	1.51	0.93
41:BS:57:LYS:HD2	41:BS:58:LEU:H	1.31	0.93
15:AO:75:PRO:O	15:AO:78:TYR:HB3	1.68	0.93
38:DP:83:VAL:CG1	38:DP:112:LEU:HD21	1.99	0.93
46:BX:63:LYS:HB3	46:BX:72:LYS:HG3	1.48	0.93
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.51	0.93
30:BD:44:ASN:HB3	30:BD:49:ILE:HA	1.51	0.93
53:B4:66:HIS:HB3	53:B4:67:PRO:HD3	1.50	0.92
3:CC:11:ARG:HE	3:CC:180:ALA:HB3	1.34	0.92
13:AM:102:ARG:CB	13:AM:102:ARG:HH11	1.81	0.92
1:AA:93:G:H2'	1:AA:96:U:H5'	1.51	0.92
24:AX:6:G:H1	24:AX:67:C:H42	1.02	0.92
27:DA:1899:G:H22	27:DA:1902:C:H41	0.96	0.92
27:DA:626:U:H3	38:DP:105:LEU:HB3	1.32	0.92
9:CI:85:LEU:HD13	9:CI:92:TYR:HD2	1.34	0.92
27:DA:1482:G:H22	27:DA:1507:A:H1'	1.35	0.92
27:BA:1846:G:H5'	27:BA:1847:A:OP2	1.69	0.92
43:BU:112:ARG:HG2	43:BU:112:ARG:HH11	1.34	0.92
4:AD:111:ALA:HA	4:AD:161:ASN:HD22	1.33	0.92
31:BE:76:ARG:HG3	31:BE:195:LEU:HD22	1.47	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BE:77:ILE:CG2	31:BE:78:LEU:HD23	2.00	0.92
10:CJ:44:VAL:HG12	10:CJ:45:ARG:H	1.31	0.92
18:AR:43:PHE:HE2	18:AR:58:LEU:HD11	1.33	0.92
34:BH:12:PRO:HD2	34:BH:49:VAL:HG12	1.51	0.92
1:CA:69:G:C6	1:CA:101:A:N6	2.37	0.92
19:AS:16:LEU:HD12	19:AS:20:LEU:HD11	1.52	0.92
33:BG:6:ALA:HB3	33:BG:104:GLU:OE1	1.67	0.92
36:DN:56:ASN:H	36:DN:126:PRO:HA	1.34	0.92
26:CZ:2:DPP:O	26:CZ:3:UAL:N1	2.02	0.92
27:BA:2227:A:H5'	30:BD:263:ARG:NH1	1.84	0.92
34:BH:42:ARG:C	34:BH:53:GLU:HG3	1.90	0.92
28:DB:112:U:H2'	28:DB:113:G:H8	1.35	0.92
33:DG:130:ASN:HB3	33:DG:160:VAL:HA	1.49	0.92
1:CA:539:A:H2'	1:CA:540:G:H8	1.33	0.92
5:CE:53:LEU:HD12	5:CE:53:LEU:H	1.33	0.92
27:DA:2199:A:H3'	27:DA:2200:C:C6	2.03	0.92
27:DA:1403:C:H5''	27:DA:1471:A:H1'	1.50	0.92
33:DG:119:GLY:HA3	33:DG:181:ARG:HB2	1.48	0.92
1:AA:255:G:H1'	17:AQ:16:GLN:HE21	1.33	0.92
27:DA:774:A:H2	27:DA:787:U:HO2'	0.99	0.92
47:DY:27:VAL:C	47:DY:28:LYS:HD3	1.90	0.92
8:AH:116:LYS:HD3	8:AH:127:LEU:HD11	1.52	0.92
23:CW:20:A:N6	23:CW:44:A:H2'	1.85	0.92
42:BT:28:VAL:HG22	42:BT:47:GLY:H	1.34	0.92
27:BA:613:G:H5'	27:BA:613:G:H8	1.33	0.92
37:DO:111:PHE:HB3	37:DO:114:ILE:HD12	1.50	0.92
27:DA:612:C:C2'	27:DA:613:G:H5''	1.99	0.92
47:DY:7:VAL:HG21	47:DY:8:LYS:NZ	1.85	0.92
3:AC:15:THR:HG22	3:AC:16:ARG:N	1.85	0.92
27:DA:2080:G:O5'	50:D1:35:THR:HG21	1.69	0.92
27:DA:947:G:H2'	27:DA:948:G:C8	2.04	0.92
9:CI:13:ALA:HA	9:CI:67:GLY:O	1.70	0.91
23:AW:57:A:H4'	23:AW:58:A:OP1	1.71	0.91
16:AP:72:ARG:HH21	16:AP:73:LEU:HD21	1.34	0.91
23:CW:57:A:H4'	23:CW:58:A:OP1	1.69	0.91
31:BE:134:ILE:H	31:BE:134:ILE:HD13	1.34	0.91
8:AH:34:GLU:HB3	8:AH:118:VAL:HG21	1.52	0.91
44:DV:19:LYS:HE2	44:DV:20:LEU:H	1.34	0.91
33:BG:60:LEU:O	33:BG:64:THR:HG22	1.69	0.91
43:DU:92:ARG:HD2	44:DV:11:GLN:CD	1.90	0.91
27:BA:911:A:H2'	39:BQ:9:TYR:OH	1.69	0.91
2:AB:223:ILE:HA	2:AB:226:ARG:HB3	1.50	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:255:G:H1'	17:CQ:16:GLN:HE21	1.33	0.91
8:AH:60:ARG:HG3	8:AH:60:ARG:HH11	1.34	0.91
43:DU:95:LEU:HD13	44:DV:4:ILE:HG21	1.52	0.91
7:AG:70:LYS:HB3	7:AG:96:GLN:HG2	1.52	0.91
13:CM:91:ARG:HD3	19:CS:81:ARG:NH2	1.84	0.91
11:AK:99:GLN:HA	11:AK:105:VAL:HG11	1.49	0.91
38:BP:101:VAL:HB	38:BP:107:LYS:HA	1.51	0.91
13:AM:39:ILE:HD12	13:AM:56:LEU:HD23	1.50	0.91
56:D7:41:ARG:NH1	56:D7:41:ARG:HB2	1.86	0.91
2:AB:204:ASN:HD21	2:AB:207:ALA:H	0.98	0.91
1:AA:76:C:N4	1:AA:93:G:H1	1.67	0.91
27:DA:1378:A:H4'	27:DA:1379:A:OP1	1.67	0.91
1:CA:1239:A:H62	1:CA:1299:A:H62	0.92	0.91
2:AB:30:ARG:HH21	2:AB:194:PRO:CG	1.83	0.91
2:AB:44:LEU:HD12	2:AB:44:LEU:H	1.35	0.91
1:CA:1445:C:C2'	1:CA:1446:U:H5''	1.99	0.91
12:AL:3:THR:HG23	12:AL:6:GLN:HG3	1.51	0.91
33:BG:57:ALA:HA	33:BG:90:LEU:HD11	1.52	0.91
27:DA:1039:G:C6	27:DA:1117:G:C6	2.59	0.91
27:DA:1884:A:C2'	27:DA:1885:A:H5''	2.00	0.91
3:CC:70:VAL:HG12	3:CC:72:LYS:H	1.35	0.91
24:AX:49:G:H1	24:AX:65:C:H42	1.15	0.91
27:DA:271(A):A:H5'	27:DA:271(B):C:OP2	1.71	0.91
1:AA:405:U:H3'	1:AA:406:G:H5'	1.53	0.91
2:CB:172:ILE:H	2:CB:172:ILE:HD12	1.34	0.91
38:BP:125:VAL:HG11	38:BP:138:LEU:HD21	1.52	0.91
47:DY:8:LYS:HE2	47:DY:72:VAL:HG23	1.52	0.91
3:AC:14:ILE:HG12	3:AC:15:THR:H	1.34	0.91
1:AA:1071:C:H5''	5:AE:49:PRO:HG2	1.50	0.91
4:CD:196:LEU:HD12	4:CD:196:LEU:H	1.34	0.91
35:DI:114:LEU:HG	35:DI:130:TYR:HB2	1.53	0.91
43:DU:92:ARG:HH21	43:DU:95:LEU:HG	1.35	0.91
27:BA:612:C:H2'	27:BA:613:G:C5'	2.01	0.91
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.34	0.91
32:DF:7:TYR:HB3	32:DF:16:GLY:H	1.36	0.91
19:CS:48:THR:HG22	19:CS:61:TYR:HA	1.50	0.91
48:DZ:157:PRO:HG2	48:DZ:160:VAL:HG21	1.51	0.90
51:D2:65:ASN:HB3	51:D2:69:ARG:NH1	1.85	0.90
1:CA:1320:C:H5''	19:CS:70:LYS:HG3	1.52	0.90
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.50	0.90
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.06	0.90
10:AJ:46:ARG:HG2	10:AJ:64:GLU:HB3	1.53	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:30:ARG:HH21	14:AN:35:ARG:HA	1.32	0.90
31:DE:26:ILE:HG22	31:DE:27:LEU:H	1.35	0.90
27:DA:285:C:H2'	27:DA:286:C:H5''	1.51	0.90
15:CO:36:ILE:HG23	15:CO:56:LEU:HD11	1.51	0.90
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.34	0.90
1:CA:959:A:H3'	1:CA:960:U:H5''	1.53	0.90
39:BQ:29:PHE:HB3	39:BQ:65:PHE:CE1	2.06	0.90
27:DA:2528:U:H5''	58:D9:31:LYS:NZ	1.86	0.90
3:CC:107:GLN:O	3:CC:108:ASN:HB2	1.70	0.90
45:BW:110:LYS:HG3	45:BW:111:HIS:ND1	1.85	0.90
27:DA:873:G:H1	27:DA:904:C:H42	1.17	0.90
27:BA:365:C:H6	27:BA:365:C:H5'	1.35	0.90
38:BP:59:LEU:HA	38:BP:61:ARG:CZ	2.00	0.90
27:DA:2866:U:H6	27:DA:2868:A:H1'	1.36	0.90
28:DB:112:U:H2'	28:DB:113:G:C8	2.05	0.90
30:BD:108:PRO:HG2	30:BD:111:LEU:HB2	1.51	0.90
43:BU:92:ARG:HH11	43:BU:92:ARG:HG2	1.36	0.90
27:DA:671:C:OP1	38:DP:43:GLY:HA2	1.70	0.90
2:CB:61:LEU:HD23	2:CB:68:ILE:HD11	1.49	0.90
4:CD:150:GLU:HA	4:CD:153:ARG:HB2	1.53	0.90
48:BZ:125:VAL:HG23	48:BZ:126:LYS:H	1.35	0.90
41:DS:31:SER:HB3	41:DS:34:HIS:HD1	1.36	0.90
47:DY:50:ARG:HD3	47:DY:53:PRO:CA	1.98	0.90
27:DA:2189:U:C3'	27:DA:2190:G:H5''	2.01	0.90
57:B8:61:LEU:HD12	57:B8:61:LEU:H	1.34	0.90
52:D3:4:LEU:HD21	52:D3:56:VAL:HG12	1.54	0.90
13:CM:91:ARG:HD3	19:CS:81:ARG:HH22	1.37	0.90
1:CA:1054:C:O2	1:CA:1054:C:H2'	1.70	0.90
42:BT:28:VAL:HG13	42:BT:46:GLU:HA	1.52	0.90
4:AD:111:ALA:HA	4:AD:161:ASN:ND2	1.87	0.90
12:CL:90:LEU:H	12:CL:90:LEU:HD23	1.36	0.90
27:DA:1328:G:H2'	27:DA:1330:C:C5	2.06	0.90
27:DA:2365:G:H4'	49:D0:60:PHE:CE2	2.06	0.90
33:BG:43:LEU:HB2	33:BG:88:ILE:HD11	1.54	0.90
32:BF:28:ILE:HG21	32:BF:116:ASP:HB2	1.54	0.90
33:DG:76:SER:CB	33:DG:83:ARG:HB2	2.01	0.90
1:AA:1239:A:H62	1:AA:1299:A:N6	1.70	0.90
27:BA:2015:A:H1'	54:B5:2:ALA:HA	1.53	0.90
19:AS:41:VAL:HG13	19:AS:42:PRO:HD2	1.54	0.90
56:B7:8:ASN:HD22	56:B7:11:LYS:HB2	1.36	0.90
27:DA:2290:G:H8	27:DA:2290:G:H5'	1.37	0.90
34:BH:138:LYS:O	34:BH:141:VAL:HG23	1.72	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BP:96:THR:HG22	38:BP:126:VAL:HB	1.54	0.90
27:BA:271(T):C:H5'	27:BA:271(T):C:H6	1.35	0.90
9:CI:27:THR:HG23	9:CI:31:GLN:H	1.35	0.90
1:AA:1054:C:H42	23:AW:33:C:C1'	1.84	0.90
40:DR:8:ARG:NE	40:DR:9:LYS:H	1.70	0.90
27:BA:2052:G:H5'	27:BA:2052:G:H8	1.37	0.90
38:BP:62:LEU:HD23	38:BP:62:LEU:N	1.85	0.89
33:BG:51:ARG:NE	33:BG:51:ARG:HA	1.85	0.89
10:CJ:24:VAL:HG21	10:CJ:37:PRO:HG3	1.53	0.89
28:DB:14:U:HO2'	28:DB:108:U:HO2'	1.04	0.89
27:BA:479:A:H4'	27:BA:480:A:OP1	1.72	0.89
27:BA:2348:U:C2'	27:BA:2349:G:H5''	2.01	0.89
30:DD:186:HIS:HD2	30:DD:188:GLU:H	1.20	0.89
27:DA:2579:C:H4'	31:DE:134:ILE:HG21	1.53	0.89
20:CT:49:ALA:HB1	20:CT:100:ILE:HD11	1.54	0.89
32:DF:25:PRO:HG3	32:DF:119:ARG:HB2	1.54	0.89
1:AA:92:C:O2'	1:AA:93:G:H5'	1.72	0.89
34:DH:25:LYS:HD3	34:DH:25:LYS:H	1.35	0.89
33:BG:72:ARG:NH1	33:BG:86:MET:HG2	1.87	0.89
47:DY:27:VAL:HA	47:DY:28:LYS:NZ	1.88	0.89
1:CA:274:A:HO2'	1:CA:275:G:H8	0.92	0.89
27:BA:271(M):G:H2'	27:BA:271(N):U:H5''	1.55	0.89
29:BC:83:ILE:HG23	29:BC:94:VAL:HG23	1.52	0.89
27:BA:1884:A:C2'	27:BA:1885:A:H5''	2.02	0.89
32:DF:108:LYS:O	32:DF:112:MET:HB2	1.72	0.89
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.55	0.89
28:DB:7:G:H3'	28:DB:8:U:H5''	1.54	0.89
1:AA:975:A:H4'	1:AA:976:G:H5''	1.53	0.89
2:AB:80:ILE:HD11	2:AB:212:GLN:HA	1.55	0.89
47:DY:8:LYS:HD2	47:DY:8:LYS:N	1.88	0.89
45:BW:88:ARG:HB2	45:BW:92:ARG:HB3	1.52	0.89
48:BZ:151:ALA:HB2	48:BZ:167:GLU:HA	1.54	0.89
1:CA:190:U:H2'	1:CA:191:G:C8	2.08	0.89
27:DA:2090:G:H21	50:D1:45:ASN:HD21	1.11	0.89
3:AC:61:ALA:H	3:AC:63:ASN:HD21	1.14	0.89
27:DA:1035:U:H5'	34:DH:59:ARG:HD3	1.53	0.89
32:DF:161:GLU:O	32:DF:165:ARG:HG2	1.72	0.89
27:DA:2199:A:H5''	27:DA:2200:C:H5	1.36	0.89
27:DA:947:G:H2'	27:DA:948:G:H8	1.38	0.89
31:BE:75:VAL:O	31:BE:77:ILE:N	2.05	0.89
43:BU:92:ARG:NH2	43:BU:95:LEU:HD12	1.88	0.89
23:AW:11:C:H2'	23:AW:12:C:C6	2.07	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BY:88:LYS:HZ3	47:BY:93:GLY:N	1.70	0.89
36:DN:10:GLU:HG3	36:DN:11:PRO:HD2	1.55	0.89
6:CF:14:LEU:HD13	6:CF:18:GLN:HE21	1.38	0.89
41:BS:95:HIS:O	41:BS:98:VAL:HG23	1.73	0.89
28:DB:105:A:H3'	28:DB:106:G:H8	1.38	0.89
39:DQ:131:ILE:O	39:DQ:132:VAL:HG13	1.72	0.89
30:DD:133:LEU:HD23	30:DD:189:CYS:O	1.70	0.89
10:AJ:78:ASN:ND2	10:AJ:80:LYS:HB2	1.87	0.89
48:BZ:9:ARG:HH21	48:BZ:25:GLY:H	1.12	0.89
48:BZ:164:VAL:HG12	48:BZ:165:SER:H	1.37	0.89
27:BA:1899:G:N2	27:BA:1902:C:H41	1.70	0.89
47:BY:88:LYS:HZ3	47:BY:93:GLY:H	0.94	0.89
8:AH:6:ILE:H	8:AH:6:ILE:HD12	1.35	0.89
1:AA:1456:G:C2'	20:AT:39:LYS:HZ1	1.85	0.89
27:BA:285:C:H2'	27:BA:286:C:H5''	1.54	0.89
41:DS:15:ARG:C	41:DS:17:ARG:H	1.73	0.89
27:BA:227:A:H5''	38:BP:76:LYS:HE2	1.55	0.89
27:BA:1179:C:C2'	27:BA:1180:C:H5''	2.01	0.89
27:DA:1158:C:H2'	27:DA:1159:U:H5''	1.54	0.89
1:CA:17:U:H2'	1:CA:18:C:C6	2.08	0.89
27:BA:1986:A:C2'	27:BA:1987:G:H5''	2.03	0.89
3:AC:64:VAL:HG22	3:AC:98:ASN:O	1.72	0.88
2:CB:178:ARG:HH22	2:CB:196:LEU:HA	1.36	0.88
11:AK:108:ILE:O	11:AK:109:VAL:HG13	1.73	0.88
21:AU:15:ARG:HB2	21:AU:15:ARG:HH11	1.36	0.88
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	2.08	0.88
3:AC:129:ALA:HB3	3:AC:132:ARG:HD2	1.56	0.88
35:DI:66:GLU:HB3	35:DI:70:GLU:HG3	1.54	0.88
27:DA:2758:A:H2'	27:DA:2759:G:C5'	2.01	0.88
43:BU:55:ARG:HA	43:BU:58:ARG:HG3	1.54	0.88
27:BA:2593:U:H2'	27:BA:2594:C:C6	2.07	0.88
3:CC:58:GLU:H	3:CC:65:ALA:HB3	1.38	0.88
1:CA:972:C:O3'	10:CJ:57:LYS:HG3	1.73	0.88
1:AA:942:G:H21	9:AI:124:GLN:NE2	1.71	0.88
32:DF:164:ARG:HD2	32:DF:175:THR:HG23	1.54	0.88
27:DA:1846:G:H5'	27:DA:1847:A:OP2	1.73	0.88
19:AS:63:THR:HG22	19:AS:66:MET:SD	2.13	0.88
27:DA:271(M):G:H2'	27:DA:271(N):U:H5''	1.52	0.88
1:CA:1149:C:H2'	1:CA:1150:U:H6	1.38	0.88
38:DP:6:LEU:HG	38:DP:9:ASN:ND2	1.87	0.88
3:AC:61:ALA:H	3:AC:63:ASN:ND2	1.71	0.88
51:B2:3:LEU:HD22	51:B2:7:ARG:HH12	1.36	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:21:PHE:O	30:DD:24:ILE:HG22	1.74	0.88
33:DG:72:ARG:NH1	33:DG:86:MET:HG3	1.88	0.88
27:DA:1019:U:H3	27:DA:1142(A):A:H62	1.17	0.88
52:D3:6:VAL:HB	52:D3:54:VAL:HG11	1.56	0.88
5:CE:127:ASN:O	5:CE:131:ILE:HG12	1.73	0.88
34:DH:102:ALA:HB2	34:DH:117:PRO:HD3	1.56	0.88
27:DA:2681:C:H5	27:DA:2725:A:H62	1.13	0.88
27:BA:806:C:OP2	38:BP:39:LYS:HB3	1.71	0.88
31:DE:101:ARG:HH22	31:DE:171:GLU:HB2	1.36	0.88
27:BA:27:G:N2	27:BA:512:G:H2'	1.89	0.88
20:CT:27:LYS:HZ1	20:CT:31:SER:HB3	1.37	0.88
39:BQ:63:LYS:HB3	39:BQ:65:PHE:HE2	1.38	0.88
40:DR:38:VAL:HB	40:DR:39:PRO:HD3	1.53	0.88
6:CF:74:ASP:HA	6:CF:77:ARG:HH12	1.38	0.88
32:BF:20:LEU:HB3	32:BF:23:ASP:OD2	1.73	0.88
27:DA:1024:G:H3'	27:DA:1025:G:H5''	1.56	0.88
48:BZ:107:PRO:HB3	48:BZ:116:LEU:HD13	1.56	0.88
3:AC:175:LEU:HD21	3:AC:201:TYR:HE2	1.36	0.88
34:DH:19:VAL:HA	34:DH:24:VAL:HG12	1.55	0.88
28:DB:20:C:H2'	28:DB:21:G:H5'	1.53	0.88
17:AQ:5:VAL:HG22	17:AQ:60:ILE:HA	1.54	0.88
44:BV:18:LEU:HD13	44:BV:19:LYS:H	1.39	0.88
53:D4:38:ALA:HB1	53:D4:55:PRO:HA	1.56	0.88
36:DN:99:LEU:HD12	36:DN:122:VAL:HG21	1.55	0.88
35:DI:82:ARG:HB2	35:DI:82:ARG:NH1	1.88	0.88
42:BT:27:THR:CG2	42:BT:28:VAL:H	1.86	0.88
55:D6:10:LEU:H	55:D6:10:LEU:HD22	1.38	0.88
33:DG:137:GLU:HG2	33:DG:152:LEU:HD11	1.56	0.88
27:BA:2875:C:H4'	42:BT:5:ALA:HB2	1.56	0.88
27:DA:1170:G:H1	27:DA:1179:C:N4	1.72	0.88
27:BA:1484:G:H3'	27:BA:1485:G:H5''	1.55	0.88
34:BH:44:VAL:HB	34:BH:46:GLU:OE1	1.74	0.88
39:BQ:137:TYR:OH	48:BZ:80:ARG:HD3	1.74	0.88
30:BD:4:LYS:HE3	30:BD:20:ASP:HA	1.55	0.88
47:BY:7:VAL:HB	47:BY:8:LYS:HD2	1.53	0.88
42:BT:27:THR:HG23	42:BT:28:VAL:N	1.88	0.88
35:BI:101:LEU:HG	35:BI:109:ILE:HD11	1.54	0.88
30:BD:26:LYS:NZ	30:BD:82:ILE:H	1.71	0.88
40:DR:53:HIS:HA	40:DR:56:LYS:HD3	1.52	0.88
27:BA:286:C:H2'	27:BA:287:C:H5'	1.54	0.88
27:BA:1042:G:H1'	27:BA:1114:G:H22	1.38	0.88
44:BV:18:LEU:HD22	44:BV:19:LYS:N	1.88	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DE:59:VAL:HG22	31:DE:60:ASN:H	1.38	0.87
27:BA:2334:G:H21	41:BS:18:ILE:HD11	1.39	0.87
44:BV:25:LEU:H	44:BV:92:THR:HG21	1.37	0.87
6:CF:37:VAL:HG12	6:CF:38:GLU:H	1.37	0.87
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.08	0.87
55:B6:20:ASN:ND2	55:B6:21:TYR:N	2.20	0.87
47:BY:26:LYS:HG2	47:BY:27:VAL:H	1.40	0.87
34:BH:53:GLU:O	34:BH:54:ARG:HB3	1.75	0.87
30:DD:72:LYS:HE3	30:DD:99:ASP:OD1	1.74	0.87
27:DA:2050:C:H1'	31:DE:156:MET:HE1	1.56	0.87
32:BF:123:LEU:HD12	32:BF:124:LEU:H	1.39	0.87
38:BP:97:PRO:O	38:BP:99:LEU:N	2.06	0.87
41:DS:66:ALA:HA	41:DS:69:VAL:HG12	1.55	0.87
28:DB:55:U:H2'	28:DB:56:G:C8	2.09	0.87
3:CC:118:GLN:O	3:CC:122:GLU:HG3	1.74	0.87
36:BN:15:LEU:HD12	36:BN:136:GLU:HG3	1.56	0.87
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.56	0.87
1:CA:165:C:H2'	1:CA:166:G:C8	2.09	0.87
37:DO:1:MET:HE2	37:DO:67:LYS:HG2	1.55	0.87
1:CA:255:G:H1'	17:CQ:16:GLN:NE2	1.89	0.87
27:DA:1159:U:H6	27:DA:1159:U:H5'	1.37	0.87
46:DX:60:ARG:HH12	56:D7:47:ARG:NH2	1.72	0.87
38:BP:58:THR:O	38:BP:61:ARG:NE	2.08	0.87
38:DP:144:GLU:N	38:DP:145:PRO:HD3	1.90	0.87
28:DB:55:U:O2'	33:DG:27:ASN:HB3	1.73	0.87
40:DR:2:ARG:CZ	40:DR:5:LYS:HE3	2.04	0.87
32:DF:20:LEU:HD22	32:DF:203:GLN:HE22	1.37	0.87
41:DS:17:ARG:HA	41:DS:20:ARG:NH2	1.89	0.87
48:DZ:119:ILE:O	48:DZ:170:ILE:HA	1.75	0.87
12:CL:38:ARG:HG2	12:CL:39:THR:N	1.89	0.87
42:DT:89:VAL:CG1	42:DT:91:ARG:HE	1.87	0.87
1:AA:473:G:H2'	1:AA:474:G:C8	2.09	0.87
1:CA:93:G:H2'	1:CA:96:U:H5'	1.56	0.87
27:DA:2807:G:H3'	27:DA:2808:U:H5''	1.54	0.87
41:BS:52:SER:HB2	41:BS:55:ALA:HB3	1.57	0.87
27:DA:2022:U:O2'	27:DA:2617:C:H5'	1.73	0.87
2:CB:112:VAL:HG22	2:CB:149:LEU:HD22	1.57	0.87
55:B6:18:ARG:HB3	55:B6:18:ARG:NH1	1.89	0.87
36:DN:1:MET:HG2	36:DN:2:LYS:N	1.87	0.87
9:CI:17:VAL:HG11	9:CI:81:ILE:HD13	1.54	0.87
27:BA:141:A:H8	27:BA:1408:C:O2'	1.57	0.87
27:BA:1434:A:H61	27:BA:1558:A:H62	1.14	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:90:VAL:HG12	43:BU:91:ASP:H	1.40	0.87
34:BH:85:LYS:HZ3	34:BH:145:ALA:HA	1.39	0.87
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.74	0.87
2:AB:165:VAL:HG23	2:AB:166:ASP:H	1.39	0.87
35:BI:92:VAL:O	35:BI:96:ASP:HB2	1.75	0.87
27:DA:2377:A:H4'	41:DS:107:GLU:HB3	1.57	0.87
27:DA:2312:U:C2'	27:DA:2313:C:H5''	2.05	0.87
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.39	0.87
42:DT:33:LYS:HZ2	42:DT:74:ARG:HH21	1.21	0.87
3:CC:43:LEU:O	3:CC:47:LEU:HB2	1.75	0.87
27:DA:2815:C:O2'	54:D5:43:HIS:HD2	1.58	0.87
27:DA:271(F):C:H2'	27:DA:271(G):C:H6	1.40	0.87
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.56	0.87
27:BA:1673:U:H2'	27:BA:1674:G:H5'	1.55	0.87
29:DC:41:VAL:HG23	29:DC:178:ALA:HB3	1.56	0.87
50:B1:52:ARG:HD2	50:B1:53:VAL:H	1.39	0.87
47:BY:7:VAL:HG21	47:BY:8:LYS:NZ	1.89	0.87
27:DA:2394:C:OP1	38:DP:63:PRO:HD2	1.75	0.87
27:DA:1902:C:H1'	30:DD:244:ARG:HG3	1.55	0.87
44:BV:35:LEU:HB3	44:BV:37:VAL:HG23	1.56	0.87
27:BA:784:A:N7	30:BD:229:VAL:HG21	1.90	0.87
19:AS:49:ILE:HD12	19:AS:49:ILE:H	1.37	0.87
36:DN:19:GLU:HG3	36:DN:20:GLY:N	1.90	0.86
5:CE:51:VAL:HG23	5:CE:52:PRO:HD3	1.55	0.86
35:BI:8:PRO:HG3	35:BI:14:ASP:N	1.90	0.86
27:DA:27:G:HO2'	27:DA:28:A:H8	1.16	0.86
27:DA:203:C:H3'	27:DA:204:A:H5''	1.55	0.86
13:AM:97:PRO:HA	13:AM:110:ARG:HD3	1.57	0.86
47:BY:95:LYS:HG3	47:BY:100:ALA:HA	1.56	0.86
27:BA:1403:C:H5''	27:BA:1471:A:C1'	2.03	0.86
1:AA:1141:C:H2'	1:AA:1142:G:C8	2.09	0.86
48:BZ:107:PRO:HG3	48:BZ:116:LEU:HB2	1.55	0.86
3:AC:76:VAL:HG21	3:AC:103:VAL:HG11	1.57	0.86
27:BA:1987:G:H8	27:BA:1987:G:H5'	1.40	0.86
38:DP:50:ARG:HB3	57:D8:59:LYS:HE2	1.57	0.86
32:BF:31:HIS:HB2	38:BP:13:ASN:HD21	1.41	0.86
1:AA:1116:C:H2'	1:AA:1117:G:H5''	1.56	0.86
29:BC:72:VAL:HG12	29:BC:74:VAL:HG23	1.55	0.86
38:DP:16:ARG:NE	38:DP:18:ARG:HD3	1.91	0.86
30:BD:10:THR:HG23	30:BD:13:ARG:HB2	1.58	0.86
27:BA:2415:G:O3'	38:BP:66:GLY:HA3	1.74	0.86
30:DD:25:THR:HG22	30:DD:26:LYS:H	1.40	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BN:63:THR:HG22	36:BN:64:GLY:H	1.39	0.86
9:CI:96:LEU:HD21	9:CI:102:LEU:HD23	1.57	0.86
31:BE:54:GLN:HG3	31:BE:55:ASN:N	1.89	0.86
1:AA:92:C:H2'	1:AA:93:G:H8	1.31	0.86
27:BA:1531:C:H5''	27:BA:1531:C:C6	2.11	0.86
10:AJ:6:ILE:HG12	10:AJ:72:VAL:O	1.76	0.86
42:DT:80:SER:HB3	42:DT:81:PRO:HD3	1.55	0.86
31:DE:11:MET:HB2	31:DE:23:VAL:O	1.76	0.86
43:BU:92:ARG:HH21	43:BU:95:LEU:HD12	1.41	0.86
11:CK:27:ASN:ND2	11:CK:55:LYS:HD2	1.91	0.86
1:CA:644:G:H4'	8:CH:92:ARG:HH12	1.41	0.86
27:DA:272(D):G:H2'	27:DA:272(E):G:H8	1.39	0.86
27:BA:740:U:H6	27:BA:740:U:H5'	1.39	0.86
48:DZ:97:MET:H	48:DZ:124:LEU:CD1	1.88	0.86
38:DP:85:LEU:HD23	38:DP:86:LYS:H	1.40	0.86
9:CI:16:ARG:HB2	9:CI:64:THR:HG23	1.58	0.86
31:BE:77:ILE:HG22	31:BE:78:LEU:HD23	1.57	0.86
19:CS:41:VAL:HB	19:CS:44:MET:SD	2.15	0.86
41:BS:17:ARG:HA	41:BS:20:ARG:NH1	1.91	0.86
1:AA:1305:G:H5'	21:AU:4:GLY:HA3	1.58	0.86
5:AE:78:HIS:HB3	8:AH:107:LEU:HD12	1.58	0.86
27:DA:1504:C:O2'	27:DA:1505:C:H5'	1.75	0.86
48:DZ:164:VAL:HG12	48:DZ:165:SER:H	1.41	0.86
2:AB:91:PRO:HG2	2:AB:155:LEU:HB2	1.58	0.86
27:BA:2443:C:O2'	27:BA:2444:G:H5'	1.76	0.86
47:BY:74:PRO:O	47:BY:75:ILE:HB	1.73	0.86
1:CA:979:C:H3'	1:CA:980:C:C5'	2.04	0.86
38:DP:59:LEU:HA	38:DP:61:ARG:CZ	2.06	0.86
10:CJ:4:ILE:HD11	10:CJ:77:PRO:HB3	1.56	0.86
38:DP:23:PRO:HD2	38:DP:33:ARG:NH2	1.91	0.86
40:BR:117:VAL:O	40:BR:118:GLU:HB2	1.75	0.86
30:DD:118:VAL:HG22	30:DD:119:ALA:H	1.38	0.86
35:BI:75:LEU:HD12	35:BI:76:THR:H	1.40	0.86
27:BA:1416:G:HO2'	27:BA:1417:C:H6	1.21	0.86
4:CD:30:LYS:HA	4:CD:35:ARG:HD2	1.56	0.86
13:CM:49:THR:HG22	13:CM:50:GLU:H	1.39	0.86
28:BB:48:A:H4'	41:BS:95:HIS:HD2	1.38	0.86
42:DT:30:VAL:HG21	42:DT:83:ILE:HG13	1.58	0.86
45:DW:19:LEU:HB3	54:D5:25:LEU:HD12	1.57	0.86
27:DA:2262:U:C2'	27:DA:2263:C:H5'	2.06	0.86
10:CJ:3:LYS:HD2	10:CJ:77:PRO:HG2	1.56	0.86
31:BE:33:VAL:HG12	31:BE:89:ASP:O	1.74	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:13:ARG:O	41:BS:15:ARG:HG2	1.75	0.86
27:BA:1441:G:H2'	27:BA:1442:G:H8	1.40	0.86
42:BT:106:SER:HA	42:BT:110:ILE:HG13	1.57	0.86
12:AL:5:ASN:HD22	17:AQ:34:LYS:HE2	1.39	0.86
59:CX:31:G:H2'	59:CX:32:C:H5''	1.56	0.86
50:D1:60:PHE:HZ	50:D1:94:LEU:HD12	1.41	0.86
57:B8:32:LEU:HB2	57:B8:36:LYS:HZ1	1.40	0.86
35:BI:131:LYS:HG3	35:BI:132:PRO:HD2	1.57	0.86
41:DS:74:ALA:HB1	41:DS:103:GLU:CG	2.06	0.86
1:CA:1296:C:H5'	1:CA:1297:C:OP2	1.76	0.86
27:DA:709:U:H2'	27:DA:710:G:C8	2.11	0.86
1:CA:965:A:H4'	1:CA:966:G:OP1	1.73	0.86
35:DI:79:ILE:HG12	35:DI:140:LEU:HD11	1.56	0.85
19:CS:15:LEU:H	19:CS:15:LEU:HD22	1.39	0.85
34:BH:17:VAL:HG11	34:BH:50:VAL:HG21	1.58	0.85
1:CA:1190:G:OP1	3:CC:5:ILE:HG13	1.75	0.85
31:DE:47:VAL:HG21	31:DE:86:PRO:HD3	1.58	0.85
5:AE:148:VAL:HG21	8:AH:107:LEU:HD22	1.57	0.85
32:BF:63:LYS:HZ1	32:BF:67:GLN:HB2	1.41	0.85
45:DW:75:TYR:CZ	45:DW:104:THR:HG21	2.11	0.85
32:BF:152:GLU:OE1	32:BF:191:ARG:HD2	1.76	0.85
31:BE:119:ARG:HD3	31:BE:160:TYR:HB2	1.58	0.85
57:B8:43:GLN:C	57:B8:44:LYS:HD2	1.96	0.85
41:DS:89:ARG:CB	41:DS:92:TYR:HB3	2.00	0.85
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.05	0.85
27:BA:2327:A:H2'	27:BA:2328:A:C8	2.11	0.85
27:BA:1779:U:H5	27:BA:1784:A:N7	1.74	0.85
50:D1:3:LYS:HG3	50:D1:4:VAL:H	1.37	0.85
27:DA:1593:G:C3'	27:DA:1594:G:H5''	2.04	0.85
27:DA:888:C:C2'	27:DA:889:C:H5'	2.06	0.85
27:BA:92:A:H2'	27:BA:93:G:C8	2.12	0.85
38:DP:83:VAL:HG12	38:DP:112:LEU:HD21	1.55	0.85
28:DB:114:C:O2'	41:DS:46:VAL:HG13	1.76	0.85
30:BD:44:ASN:CB	30:BD:49:ILE:HA	2.06	0.85
27:DA:580:C:H2'	27:DA:581:C:H6	1.40	0.85
39:DQ:35:VAL:HG23	39:DQ:100:GLY:O	1.77	0.85
1:CA:472:A:H1'	16:CP:82:GLN:OE1	1.77	0.85
55:B6:16:CYS:O	55:B6:17:LYS:HB2	1.75	0.85
27:BA:1021:A:H62	27:BA:1141:U:H3	1.21	0.85
27:DA:1490:A:H5'	27:DA:1491:G:OP2	1.77	0.85
10:AJ:5:ARG:HB3	10:AJ:99:LYS:HB2	1.56	0.85
1:CA:1037:C:H2'	1:CA:1038:C:C6	2.11	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:D8:33:ASN:HA	57:D8:36:LYS:HD3	1.58	0.85
30:BD:33:LEU:O	30:BD:35:LYS:N	2.10	0.85
30:BD:26:LYS:HZ1	30:BD:82:ILE:H	1.20	0.85
27:DA:2199:A:H5'	27:DA:2200:C:OP2	1.75	0.85
27:DA:2262:U:H2'	27:DA:2263:C:H5'	1.58	0.85
27:BA:2562:U:H1'	37:BO:23:ARG:HH11	1.42	0.85
14:AN:53:LEU:HB3	14:AN:56:VAL:HG21	1.58	0.85
1:CA:1445:C:N3	1:CA:1446:U:C6	2.45	0.85
27:BA:2864:G:H5'	27:BA:2864:G:C8	2.11	0.85
27:DA:328:U:O2'	47:DY:71:LYS:HD3	1.76	0.85
36:BN:4:TYR:HB2	43:BU:64:ARG:HH22	1.41	0.85
27:BA:1505:C:H2'	27:BA:1506:C:H6	1.41	0.85
42:BT:100:TYR:HD2	42:BT:103:ARG:HH21	1.24	0.85
40:BR:54:LEU:HD23	40:BR:66:VAL:HG23	1.57	0.85
17:CQ:59:ILE:CG2	17:CQ:71:PHE:HB3	2.06	0.85
1:CA:751:U:H4'	15:CO:24:SER:HB2	1.58	0.85
1:AA:1321:C:H5''	1:AA:1322:C:C5'	2.07	0.85
49:D0:25:ARG:HD2	49:D0:29:GLN:NE2	1.91	0.85
7:CG:24:THR:HA	7:CG:27:ILE:HD12	1.58	0.85
27:BA:2348:U:H2'	27:BA:2349:G:C5'	2.06	0.85
38:DP:16:ARG:O	38:DP:16:ARG:HD3	1.76	0.85
31:DE:105:THR:HB	31:DE:197:ILE:HG23	1.58	0.85
38:BP:47:ASP:HB2	38:BP:51:PHE:CD2	2.12	0.85
27:BA:1678:G:N2	27:BA:1989:G:H22	1.75	0.85
48:DZ:107:PRO:HG3	48:DZ:116:LEU:HB2	1.57	0.85
38:DP:121:LYS:HE3	38:DP:123:LEU:HD21	1.56	0.85
27:BA:588:U:H2'	27:BA:589:C:C6	2.10	0.85
35:DI:88:ILE:HG22	35:DI:89:TYR:N	1.89	0.85
55:D6:20:ASN:ND2	55:D6:21:TYR:N	2.24	0.85
33:DG:161:THR:HG22	33:DG:163:ALA:H	1.41	0.85
10:AJ:51:ARG:HD3	14:AN:45:ARG:HH12	1.41	0.85
31:BE:61:ARG:HG2	31:BE:62:PRO:HD3	1.59	0.85
3:CC:135:LYS:NZ	5:CE:53:LEU:HD11	1.90	0.85
28:BB:7:G:H3'	28:BB:8:U:H5''	1.56	0.85
27:BA:203:C:H3'	27:BA:204:A:H5''	1.57	0.85
33:DG:22:ARG:HH11	33:DG:22:ARG:HB3	1.42	0.85
14:CN:45:ARG:HH11	14:CN:45:ARG:HG3	1.42	0.85
55:D6:16:CYS:O	55:D6:17:LYS:HB2	1.75	0.85
27:DA:2870:C:H5''	40:DR:65:LEU:HD21	1.59	0.85
14:CN:3:ARG:HG2	14:CN:3:ARG:O	1.75	0.85
32:DF:170:LEU:HD23	32:DF:172:TRP:CZ2	2.12	0.85
27:BA:2206:G:N2	27:BA:2207:G:H5'	1.92	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:51:VAL:O	5:CE:55:VAL:HG23	1.75	0.85
27:DA:2830:G:H5'	31:DE:58:ARG:HH22	1.41	0.85
27:DA:999:U:H2'	27:DA:1000:A:H5''	1.58	0.85
55:B6:20:ASN:HD22	55:B6:21:TYR:H	1.25	0.84
20:AT:50:GLU:HG3	20:AT:100:ILE:HG21	1.56	0.84
47:DY:37:VAL:HG23	47:DY:38:ILE:H	1.41	0.84
47:DY:98:VAL:O	47:DY:99:CYS:SG	2.35	0.84
23:CW:20:A:H2'	23:CW:44:A:H62	1.41	0.84
1:CA:460:G:O6	1:CA:470:C:H5''	1.76	0.84
37:DO:53:LYS:H	37:DO:53:LYS:HD2	1.40	0.84
6:AF:37:VAL:HA	6:AF:65:VAL:HG12	1.58	0.84
27:BA:271(S):G:H2'	27:BA:271(T):C:C5'	2.06	0.84
27:DA:1796:U:H2'	27:DA:1797:C:C6	2.12	0.84
38:BP:18:ARG:HB3	38:BP:18:ARG:NH1	1.91	0.84
12:CL:44:LYS:HB3	12:CL:45:PRO:CD	2.06	0.84
1:CA:1342:C:H1'	9:CI:124:GLN:NE2	1.92	0.84
45:DW:50:VAL:HG22	45:DW:105:VAL:HG23	1.55	0.84
27:BA:2701:C:C3'	27:BA:2702:U:H5''	2.05	0.84
27:DA:2830:G:H5'	31:DE:58:ARG:NH2	1.92	0.84
39:DQ:63:LYS:HD2	48:DZ:174:VAL:HG11	1.58	0.84
15:AO:10:LYS:HG3	15:AO:11:VAL:N	1.91	0.84
47:BY:84:ARG:HG3	47:BY:84:ARG:HH11	1.42	0.84
46:DX:65:ARG:HD3	46:DX:70:LEU:HG	1.57	0.84
36:BN:62:VAL:HG22	36:BN:66:LYS:CD	2.07	0.84
1:CA:982:U:H5''	14:CN:6:LEU:HD13	1.59	0.84
27:BA:242:G:H5''	57:B8:62:LEU:CD1	2.07	0.84
48:BZ:152:SER:HB3	48:BZ:166:PRO:HB3	1.59	0.84
27:DA:2756:U:C1'	27:DA:2757:A:H5''	2.06	0.84
19:AS:10:PHE:HZ	19:AS:70:LYS:HZ3	1.25	0.84
47:BY:28:LYS:O	47:BY:38:ILE:HG12	1.76	0.84
27:BA:1021:A:C8	27:BA:1021:A:H3'	2.12	0.84
40:DR:62:ALA:HA	40:DR:65:LEU:HB2	1.58	0.84
38:DP:83:VAL:HG23	38:DP:105:LEU:HD12	1.60	0.84
9:AI:17:VAL:HG21	9:AI:80:GLY:HA3	1.59	0.84
47:DY:28:LYS:O	47:DY:38:ILE:HB	1.76	0.84
9:AI:70:LYS:O	9:AI:74:ILE:HG13	1.76	0.84
27:BA:676:A:H8	27:BA:2069:G:H21	1.24	0.84
27:BA:926:A:H5'	27:BA:926:A:H8	1.42	0.84
29:DC:73:ARG:HA	29:DC:92:ASP:OD1	1.77	0.84
27:BA:111:A:H5''	51:B2:69:ARG:HH12	1.42	0.84
4:CD:19:LEU:HD11	4:CD:67:ILE:HG12	1.57	0.84
36:DN:1:MET:HG2	36:DN:2:LYS:H	1.42	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:100:ILE:HD12	20:CT:100:ILE:N	1.89	0.84
12:CL:43:LYS:HG2	12:CL:44:LYS:N	1.92	0.84
47:DY:75:ILE:HG13	47:DY:78:ALA:O	1.75	0.84
4:AD:148:VAL:HG12	4:AD:149:ALA:H	1.43	0.84
1:CA:625:G:H4'	16:CP:16:HIS:CD2	2.12	0.84
23:CW:52:G:H5''	39:DQ:56:ARG:HH12	1.42	0.84
47:DY:7:VAL:HG21	47:DY:8:LYS:HZ3	1.42	0.84
32:DF:9:ILE:HG12	32:DF:12:LEU:O	1.78	0.84
27:DA:2681:C:H5	27:DA:2725:A:N6	1.75	0.84
27:BA:2103:C:C3'	27:BA:2104:G:H5''	2.08	0.84
30:BD:139:GLY:H	30:BD:165:ILE:HB	1.43	0.84
27:DA:1438:U:H2'	27:DA:1439:A:H8	1.41	0.84
27:BA:2172:U:H1'	27:BA:2173:A:OP1	1.78	0.84
6:AF:46:ARG:HH22	18:AR:37:VAL:HG21	1.42	0.84
42:DT:115:ARG:HA	42:DT:115:ARG:HE	1.43	0.84
55:B6:18:ARG:HH11	55:B6:18:ARG:HB3	1.40	0.84
32:BF:11:VAL:HG12	32:BF:12:LEU:H	1.43	0.84
27:BA:1505:C:H2'	27:BA:1506:C:C6	2.12	0.84
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.13	0.84
3:AC:30:ARG:NH2	14:AN:35:ARG:HA	1.93	0.84
30:BD:147:LEU:HD13	30:BD:155:LEU:HD11	1.58	0.84
41:BS:34:HIS:CG	41:BS:54:LEU:HB2	2.12	0.84
1:CA:1321:C:C3'	1:CA:1322:C:H5''	2.06	0.84
40:BR:97:VAL:HG22	40:BR:114:VAL:HG22	1.58	0.84
55:D6:51:GLU:O	55:D6:52:VAL:HG23	1.78	0.84
41:BS:83:LYS:HG2	41:BS:105:ALA:HB3	1.60	0.84
53:D4:66:HIS:HB3	53:D4:67:PRO:CD	2.08	0.84
32:BF:24:LEU:O	32:BF:26:ALA:N	2.09	0.84
1:CA:1148:U:H2'	1:CA:1149:C:O4'	1.77	0.84
28:DB:32:C:H2'	28:DB:33:G:C8	2.13	0.84
47:DY:95:LYS:HG3	47:DY:99:CYS:O	1.78	0.84
45:BW:92:ARG:HG2	45:BW:92:ARG:NH1	1.88	0.84
47:BY:68:HIS:H	47:BY:71:LYS:NZ	1.74	0.84
1:CA:250:A:H4'	1:CA:251:G:O5'	1.78	0.84
27:DA:1242:A:H5'	27:DA:1243:G:OP2	1.78	0.84
35:DI:78:THR:OG1	35:DI:141:LYS:HB2	1.77	0.83
38:DP:147:LEU:HG	38:DP:148:LEU:H	1.43	0.83
29:DC:68:LEU:HD22	29:DC:180:PHE:H	1.43	0.83
47:DY:10:GLY:HA2	47:DY:27:VAL:HG13	1.60	0.83
59:CX:60:U:H5''	59:CX:61:C:C5	2.13	0.83
27:DA:71:A:H5''	27:DA:73:A:C8	2.13	0.83
38:BP:62:LEU:HD23	38:BP:62:LEU:H	1.39	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BY:95:LYS:HE3	47:BY:99:CYS:O	1.78	0.83
32:BF:22:ALA:O	32:BF:26:ALA:HB2	1.79	0.83
1:AA:1321:C:H5''	1:AA:1322:C:H5''	1.59	0.83
2:AB:163:PHE:HA	2:AB:185:ILE:HG13	1.60	0.83
1:AA:79:G:H4'	1:AA:80:G:OP1	1.77	0.83
44:BV:51:VAL:CG1	44:BV:52:VAL:H	1.91	0.83
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.41	0.83
1:AA:1456:G:H2'	20:AT:39:LYS:NZ	1.93	0.83
27:DA:1341:U:O4	46:DX:16:LYS:HE2	1.77	0.83
27:DA:2158:A:H4'	27:DA:2159:G:O5'	1.78	0.83
41:DS:82:ILE:HG22	41:DS:83:LYS:H	1.43	0.83
42:BT:31:SER:HB2	42:BT:32:TYR:CE1	2.13	0.83
33:BG:64:THR:HG23	33:BG:66:GLN:H	1.41	0.83
33:BG:76:SER:HB2	33:BG:83:ARG:CB	2.08	0.83
33:DG:51:ARG:NE	33:DG:51:ARG:HA	1.93	0.83
30:BD:36:PRO:HA	30:BD:62:TYR:O	1.78	0.83
18:CR:36:ASN:HD22	18:CR:39:VAL:CG2	1.90	0.83
10:AJ:79:ARG:NH1	10:AJ:82:ILE:HG13	1.94	0.83
36:BN:3:THR:C	36:BN:4:TYR:CD1	2.52	0.83
19:AS:62:ILE:HD12	19:AS:66:MET:HG3	1.59	0.83
27:BA:2571:C:H5'	27:BA:2572:A:H5''	1.60	0.83
20:AT:89:ARG:HD2	20:AT:104:LEU:HD11	1.58	0.83
54:D5:36:CYS:SG	54:D5:37:LYS:N	2.50	0.83
27:BA:554:U:O2'	27:BA:555:U:H5'	1.79	0.83
57:D8:33:ASN:H	57:D8:33:ASN:ND2	1.76	0.83
1:CA:1117:G:N2	1:CA:1180:A:H1'	1.92	0.83
7:AG:15:ASP:HB3	7:AG:20:ASP:H	1.44	0.83
1:AA:1456:G:C2'	20:AT:39:LYS:NZ	2.41	0.83
38:DP:16:ARG:NH1	38:DP:16:ARG:HB2	1.92	0.83
30:DD:215:LEU:O	30:DD:217:ARG:N	2.10	0.83
39:DQ:43:THR:HB	39:DQ:45:GLN:HG2	1.58	0.83
27:BA:2312:U:C2'	27:BA:2313:C:H5''	2.07	0.83
27:DA:925:C:H2'	27:DA:926:A:C5'	2.07	0.83
37:DO:80:ASP:HB2	42:DT:71:GLY:O	1.78	0.83
38:DP:144:GLU:H	38:DP:145:PRO:HD3	1.43	0.83
39:DQ:132:VAL:HB	48:DZ:80:ARG:HH22	1.44	0.83
9:CI:65:VAL:HG21	9:CI:73:GLN:HB3	1.57	0.83
28:DB:29:A:H2'	28:DB:30:C:C6	2.12	0.83
29:BC:95:GLY:HA3	29:BC:99:ILE:HD11	1.58	0.83
38:BP:48:PRO:HG2	38:BP:49:ARG:H	1.41	0.83
32:BF:132:VAL:HG22	32:BF:133:ASN:H	1.43	0.83
11:CK:123:LYS:HA	11:CK:126:ARG:HG3	1.57	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2555:U:H2'	27:BA:2556:C:H5'	1.61	0.83
57:B8:50:LEU:HD12	57:B8:51:ALA:H	1.42	0.83
2:AB:18:GLY:N	2:AB:42:ILE:HG22	1.92	0.83
42:BT:85:LYS:HB3	42:BT:85:LYS:NZ	1.92	0.83
54:D5:4:HIS:HB3	54:D5:5:PRO:CD	2.08	0.83
32:BF:8:GLN:HB3	32:BF:126:VAL:HA	1.59	0.83
27:BA:2111:C:H42	27:BA:2147:G:H22	1.27	0.83
9:CI:70:LYS:O	9:CI:74:ILE:HG13	1.79	0.83
39:DQ:32:TYR:HE2	39:DQ:111:GLU:HG3	1.44	0.83
11:AK:17:GLY:HA3	11:AK:77:MET:SD	2.19	0.83
41:DS:49:VAL:HG21	41:DS:77:ALA:HA	1.59	0.83
35:DI:143:SER:O	35:DI:144:VAL:HG13	1.77	0.83
31:DE:181:LEU:HD21	42:DT:7:ILE:CG2	2.09	0.83
28:DB:117:G:H5'	41:DS:55:ALA:HB1	1.61	0.83
7:AG:15:ASP:O	7:AG:19:GLY:HA2	1.78	0.83
5:AE:11:ILE:HG21	5:AE:105:VAL:HG22	1.61	0.83
10:AJ:7:LYS:H	10:AJ:97:GLU:HB2	1.44	0.83
30:DD:30:GLU:HG3	30:DD:63:ARG:CZ	2.09	0.83
27:BA:34:C:O2'	27:BA:35:G:H5'	1.77	0.83
27:DA:1779:U:H5	27:DA:1784:A:N7	1.77	0.83
31:BE:167:VAL:HG22	31:BE:170:LEU:HD11	1.60	0.83
23:CW:24:C:H2'	23:CW:25:A:H5'	1.61	0.83
27:BA:614(C):A:O2'	27:BA:615:G:O4'	1.97	0.83
12:AL:21:VAL:HG23	12:AL:95:TYR:CE2	2.14	0.83
10:CJ:47:PHE:HB2	14:CN:34:TYR:HE2	1.44	0.83
9:AI:95:LYS:NZ	9:AI:96:LEU:HB2	1.92	0.83
27:BA:958:U:H5''	39:BQ:14:ARG:HD3	1.57	0.83
27:BA:674:G:H1'	32:BF:74:ARG:HD3	1.59	0.83
27:BA:2223:G:H2'	27:BA:2224:G:H5'	1.59	0.83
27:DA:586:A:H5'	32:DF:89:VAL:HG21	1.61	0.83
4:CD:33:MET:CE	4:CD:37:PRO:HA	2.09	0.83
42:BT:33:LYS:HE2	42:BT:43:GLN:NE2	1.94	0.83
27:DA:1593:G:C2'	27:DA:1594:G:H5''	2.08	0.83
33:BG:72:ARG:HD3	33:BG:86:MET:HA	1.59	0.83
38:DP:58:THR:HG22	38:DP:61:ARG:NE	1.91	0.83
32:BF:101:LEU:HD12	32:BF:102:PRO:CD	2.08	0.83
1:AA:376:G:C5'	16:AP:5:ARG:HD2	2.07	0.83
19:CS:60:VAL:HG21	19:CS:74:PHE:HB3	1.59	0.83
9:CI:46:ALA:O	9:CI:49:PRO:HD2	1.78	0.83
8:AH:10:LEU:HD23	8:AH:83:ILE:HD11	1.59	0.83
1:CA:1326:C:OP1	21:CU:12:LYS:HD2	1.78	0.83
7:AG:4:ARG:HB3	7:AG:5:ARG:HH11	1.42	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:21:ARG:HG2	44:DV:91:TYR:CD2	2.13	0.83
31:DE:55:ASN:O	31:DE:57:LYS:N	2.12	0.83
32:DF:78:ILE:HA	32:DF:83:PHE:CD1	2.13	0.83
4:CD:173:TRP:NE1	4:CD:174:LEU:HG	1.93	0.83
27:DA:286:C:H2'	27:DA:287:C:C5'	2.09	0.83
48:BZ:52:ILE:HG22	48:BZ:70:VAL:O	1.79	0.83
1:AA:532:A:H3'	1:AA:533:A:C5'	2.08	0.83
57:B8:33:ASN:N	57:B8:36:LYS:HZ3	1.76	0.82
31:DE:101:ARG:NH2	31:DE:171:GLU:HB2	1.93	0.82
40:DR:103:ARG:HD2	45:DW:40:ASN:HD21	1.44	0.82
34:BH:10:PRO:HG3	34:BH:50:VAL:O	1.78	0.82
13:CM:104:ARG:HG2	13:CM:105:THR:H	1.42	0.82
6:CF:23:LYS:O	6:CF:27:GLN:HG2	1.80	0.82
27:BA:1986:A:H2'	27:BA:1987:G:H5''	1.61	0.82
18:CR:37:VAL:HG23	18:CR:38:GLU:H	1.42	0.82
48:BZ:60:LEU:HB3	48:BZ:61:PRO:HD2	1.61	0.82
1:AA:1313:U:P	19:AS:6:LYS:HG3	2.18	0.82
27:DA:1484:G:H2'	27:DA:1485:G:H5''	1.60	0.82
27:DA:1805:U:O2	30:DD:50:THR:HB	1.79	0.82
3:CC:17:ASP:HB3	3:CC:21:ARG:HH12	1.44	0.82
27:BA:2161:C:H2'	27:BA:2162:G:C8	2.14	0.82
11:CK:127:LYS:HE2	11:CK:127:LYS:HA	1.61	0.82
9:CI:53:VAL:HG11	9:CI:85:LEU:HD22	1.61	0.82
46:DX:24:GLY:O	46:DX:83:VAL:HG23	1.78	0.82
12:CL:22:PRO:C	12:CL:24:LEU:H	1.81	0.82
27:DA:580:C:H2'	27:DA:581:C:C6	2.14	0.82
34:BH:91:GLY:HA2	34:BH:160:LYS:HB3	1.61	0.82
35:DI:81:VAL:N	35:DI:143:SER:HB2	1.93	0.82
37:BO:104:ARG:HH22	42:BT:35:LYS:HZ2	1.25	0.82
27:BA:1021:A:H8	27:BA:1021:A:H3'	1.43	0.82
28:DB:5:C:H2'	28:DB:6:C:C6	2.15	0.82
9:CI:79:LEU:HD21	9:CI:102:LEU:HA	1.60	0.82
11:CK:86:GLY:HA2	11:CK:112:THR:HG23	1.61	0.82
1:CA:102:G:N2	1:CA:103:C:C2	2.47	0.82
38:DP:49:ARG:HD2	57:D8:58:ILE:HG21	1.62	0.82
1:AA:677:U:H3	1:AA:713:G:H22	1.26	0.82
28:BB:30:C:H1'	28:BB:57:A:H61	1.44	0.82
23:CW:11:C:H2'	23:CW:12:C:C6	2.14	0.82
27:DA:2875:C:H4'	42:DT:5:ALA:CB	2.08	0.82
55:D6:14:THR:O	55:D6:16:CYS:N	2.12	0.82
42:DT:29:ARG:CB	42:DT:85:LYS:HA	2.09	0.82
42:DT:65:LYS:HZ2	42:DT:66:VAL:H	1.24	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:20:LEU:HG	32:BF:21:ALA:H	1.44	0.82
27:DA:2787:C:H1'	31:DE:61:ARG:CG	2.08	0.82
30:DD:79:VAL:HG21	30:DD:111:LEU:HD21	1.62	0.82
31:BE:104:VAL:HG22	31:BE:198:VAL:HG22	1.61	0.82
12:CL:86:ARG:HA	12:CL:94:ARG:HA	1.61	0.82
27:BA:1952:A:C2	37:BO:22:ILE:HG23	2.14	0.82
29:DC:58:VAL:HG21	29:DC:166:ASP:H	1.43	0.82
1:CA:1145:C:H4'	1:CA:1146:A:H5'	1.60	0.82
27:DA:1411:C:H2'	27:DA:1412:A:C8	2.13	0.82
10:CJ:78:ASN:ND2	10:CJ:80:LYS:H	1.78	0.82
31:DE:76:ARG:HG2	31:DE:195:LEU:HD13	1.62	0.82
3:CC:150:LYS:HE2	3:CC:152:ILE:HD11	1.61	0.82
11:AK:79:SER:HB2	11:AK:106:LYS:HD2	1.62	0.82
12:CL:41:THR:HG21	26:CZ:4:MYN:H21A	1.60	0.82
27:BA:237:C:O2'	27:BA:238:C:H5'	1.80	0.82
24:AX:60:U:H5''	24:AX:61:C:H5	1.44	0.82
57:B8:43:GLN:O	57:B8:44:LYS:HD2	1.80	0.82
42:DT:65:LYS:HA	42:DT:65:LYS:NZ	1.93	0.82
1:CA:346:G:H5''	42:DT:41:ARG:NH2	1.94	0.82
37:DO:107:ARG:NH2	42:DT:35:LYS:HD2	1.93	0.82
1:CA:1445:C:C3'	1:CA:1446:U:H5''	2.09	0.82
1:CA:98:G:H2'	1:CA:99:U:H5'	1.61	0.82
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.62	0.82
27:DA:2080:G:P	50:D1:35:THR:HG21	2.20	0.82
30:DD:183:ARG:HG2	30:DD:183:ARG:HH11	1.44	0.82
25:CY:17:G:H22	25:CY:54:U:H6	1.27	0.82
27:BA:951:C:O2'	27:BA:952:G:H5'	1.79	0.82
40:DR:101:ALA:O	40:DR:102:GLU:HB2	1.77	0.82
27:BA:96:G:H4'	51:B2:48:HIS:CD2	2.14	0.82
3:CC:123:GLN:O	3:CC:128:PHE:HB2	1.79	0.82
38:BP:101:VAL:HG12	38:BP:106:LEU:HD23	1.61	0.82
32:DF:20:LEU:HG	32:DF:21:ALA:N	1.95	0.82
1:AA:92:C:C2'	1:AA:93:G:H8	1.92	0.82
52:D3:6:VAL:HG22	52:D3:37:LEU:HD21	1.62	0.82
41:BS:57:LYS:HD2	41:BS:58:LEU:N	1.94	0.82
50:B1:53:VAL:HG22	50:B1:74:VAL:HG13	1.61	0.82
4:AD:70:ILE:HD11	4:AD:74:GLN:HB3	1.62	0.82
3:CC:44:GLU:HA	3:CC:52:LEU:HD11	1.61	0.82
47:DY:47:LYS:HD2	47:DY:47:LYS:H	1.44	0.82
45:DW:10:VAL:O	45:DW:11:ARG:HB2	1.77	0.82
1:AA:1502:A:H2	1:AA:1505:G:H1	1.26	0.82
24:AX:51:C:H2'	24:AX:52:G:H8	1.45	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DB:111:G:H3'	28:DB:112:U:H5''	1.62	0.82
40:BR:2:ARG:HH21	40:BR:5:LYS:HZ3	1.25	0.82
27:BA:1494:A:H2'	27:BA:1495:A:H5''	1.61	0.82
39:BQ:55:VAL:HG23	39:BQ:56:ARG:H	1.44	0.82
53:D4:40:ILE:HB	53:D4:48:ILE:HD12	1.61	0.82
27:DA:2532:G:H4'	27:DA:2657:A:H2	1.44	0.82
46:BX:55:ASN:HB2	46:BX:80:ILE:HG23	1.60	0.82
27:BA:2467:C:H4'	39:BQ:123:HIS:ND1	1.95	0.82
57:B8:33:ASN:HB3	57:B8:36:LYS:HD2	1.62	0.82
42:BT:35:LYS:HG3	42:BT:36:GLU:H	1.44	0.82
27:BA:1490:A:H5'	27:BA:1491:G:OP2	1.79	0.82
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.62	0.82
27:DA:1503:U:H2'	27:DA:1504:C:C6	2.15	0.82
1:AA:673:G:H2'	1:AA:674:G:C8	2.15	0.82
4:CD:138:TYR:HD2	4:CD:139:ARG:N	1.77	0.82
34:BH:89:ILE:HD11	34:BH:129:THR:HB	1.60	0.82
28:BB:65:C:H41	28:BB:109:C:H2'	1.44	0.82
27:BA:1050:A:H2'	27:BA:1051:G:H8	1.44	0.82
16:AP:51:VAL:O	16:AP:51:VAL:HG12	1.79	0.82
27:BA:662:G:OP1	38:BP:18:ARG:NE	2.13	0.82
1:AA:1116:C:C2'	1:AA:1117:G:H5''	2.10	0.82
1:CA:1457:G:N2	1:CA:1458:G:C4	2.48	0.82
41:DS:19:LYS:C	41:DS:20:ARG:HH11	1.84	0.82
11:CK:57:THR:HG22	11:CK:59:TYR:H	1.45	0.82
34:BH:30:LYS:NZ	34:BH:81:GLU:HA	1.94	0.82
27:DA:2593:U:H2'	27:DA:2594:C:C6	2.14	0.82
27:BA:2415:G:H4'	38:BP:67:MET:H	1.45	0.81
3:CC:181:ASN:ND2	3:CC:204:LEU:HB2	1.94	0.81
44:DV:39:LEU:HD12	44:DV:47:VAL:HG11	1.61	0.81
39:DQ:12:GLN:NE2	39:DQ:72:LYS:HG3	1.93	0.81
15:AO:87:ILE:HG22	15:AO:88:ARG:N	1.95	0.81
52:D3:10:LYS:HB3	52:D3:53:LEU:HD23	1.61	0.81
27:BA:2348:U:O2'	27:BA:2349:G:H5''	1.79	0.81
6:CF:14:LEU:HD13	6:CF:18:GLN:NE2	1.94	0.81
34:DH:98:LEU:HD22	34:DH:125:VAL:HB	1.62	0.81
27:DA:29:U:H2'	27:DA:30:G:C8	2.14	0.81
4:CD:30:LYS:C	4:CD:32:ALA:H	1.80	0.81
27:DA:1484:G:C3'	27:DA:1485:G:H5''	2.10	0.81
48:BZ:3:ARG:HG2	48:BZ:59:GLU:OE2	1.80	0.81
1:AA:57:G:H2'	1:AA:58:C:C6	2.15	0.81
46:BX:84:ALA:HB3	46:BX:87:GLN:NE2	1.95	0.81
27:DA:2555:U:H2'	27:DA:2556:C:H5'	1.61	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:71:A:H2	46:BX:31:HIS:HE1	1.24	0.81
42:DT:52:ILE:HG23	42:DT:61:PHE:HB3	1.62	0.81
55:B6:17:LYS:O	55:B6:18:ARG:HB3	1.78	0.81
55:D6:11:LEU:HD13	55:D6:11:LEU:O	1.79	0.81
55:D6:15:GLU:CD	55:D6:18:ARG:NH2	2.32	0.81
42:DT:80:SER:CB	42:DT:81:PRO:HD3	2.08	0.81
44:BV:51:VAL:CG1	44:BV:52:VAL:N	2.43	0.81
27:BA:2593:U:H2'	27:BA:2594:C:H6	1.43	0.81
3:AC:173:VAL:O	3:AC:175:LEU:HD12	1.80	0.81
27:DA:2352:A:H2	49:D0:33:ALA:HB1	1.45	0.81
25:CY:5:G:H1	25:CY:67:C:H42	1.27	0.81
27:DA:1717:G:C3'	27:DA:1718:G:H5''	2.09	0.81
51:D2:13:ALA:HA	51:D2:16:LEU:HD12	1.62	0.81
55:D6:41:PRO:CD	55:D6:46:HIS:H	1.92	0.81
4:AD:49:ARG:NH1	4:AD:50:ARG:H	1.77	0.81
42:DT:28:VAL:HG13	42:DT:46:GLU:HA	1.60	0.81
43:DU:90:VAL:HG13	44:DV:11:GLN:NE2	1.96	0.81
32:DF:9:ILE:HG23	32:DF:12:LEU:CA	2.11	0.81
44:BV:51:VAL:HG12	44:BV:52:VAL:H	1.45	0.81
1:AA:460:G:O6	1:AA:470:C:H5''	1.78	0.81
47:BY:88:LYS:NZ	47:BY:93:GLY:H	1.77	0.81
12:AL:22:PRO:C	12:AL:24:LEU:H	1.83	0.81
47:DY:46:LYS:HG3	47:DY:47:LYS:HD2	1.63	0.81
15:AO:54:ARG:HG2	15:AO:54:ARG:HH11	1.45	0.81
52:B3:8:LEU:HD13	52:B3:31:LEU:HD23	1.61	0.81
6:AF:43:LEU:H	6:AF:43:LEU:HD12	1.44	0.81
4:CD:111:ALA:HB2	4:CD:120:LEU:HD12	1.60	0.81
47:BY:96:ILE:HB	47:BY:99:CYS:HB2	1.62	0.81
14:CN:24:CYS:HG	14:CN:27:CYS:HG	1.27	0.81
10:CJ:6:ILE:HD11	10:CJ:72:VAL:HB	1.60	0.81
48:BZ:165:SER:HB2	48:BZ:167:GLU:N	1.95	0.81
7:CG:20:ASP:HB3	7:CG:23:VAL:HG23	1.61	0.81
20:CT:71:THR:HG22	20:CT:72:LEU:H	1.44	0.81
36:BN:133:GLN:HG2	36:BN:134:ARG:N	1.93	0.81
1:AA:1123:A:H4'	10:AJ:36:GLY:HA3	1.62	0.81
1:CA:1340:A:OP1	25:CY:34:U:H5''	1.80	0.81
48:DZ:94:PRO:HA	48:DZ:128:SER:HA	1.62	0.81
33:DG:5:VAL:H	33:DG:8:LYS:HG3	1.45	0.81
27:BA:1747(A):G:O2'	27:BA:1748:G:H5'	1.81	0.81
39:BQ:21:THR:HG21	39:BQ:101:ARG:HD3	1.62	0.81
11:AK:30:VAL:HG21	11:AK:65:ALA:HA	1.63	0.81
28:DB:18:G:H2'	28:DB:19:G:O4'	1.79	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DE:1:MET:H3	31:DE:84:PHE:HB2	1.46	0.81
27:DA:2833:G:C3'	27:DA:2834:G:H5''	2.10	0.81
2:AB:11:LEU:HD11	2:AB:217:ARG:HH22	1.45	0.81
54:B5:4:HIS:HB3	54:B5:5:PRO:CD	2.10	0.81
7:CG:26:PHE:O	7:CG:30:ILE:HG12	1.80	0.81
42:BT:80:SER:HB3	42:BT:81:PRO:HD3	1.63	0.81
48:DZ:28:TYR:OH	48:DZ:86:ASP:HB3	1.80	0.81
55:D6:19:ARG:HG2	55:D6:20:ASN:N	1.94	0.81
37:DO:77:ILE:HD13	42:DT:74:ARG:HG2	1.62	0.81
42:DT:83:ILE:HG13	42:DT:84:GLN:N	1.96	0.81
2:AB:9:GLU:HA	2:AB:12:GLU:CD	2.00	0.81
18:AR:37:VAL:HG12	18:AR:78:LEU:HB3	1.60	0.81
48:BZ:68:THR:HG22	48:BZ:89:VAL:HA	1.62	0.81
1:CA:882:C:O2'	1:CA:883:C:H5'	1.81	0.81
27:DA:2046:G:H5'	54:D5:19:ARG:HG3	1.61	0.81
43:BU:52:ARG:HB3	43:BU:52:ARG:NH1	1.94	0.81
30:DD:70:TRP:HA	30:DD:73:VAL:HG23	1.62	0.81
31:BE:54:GLN:HG3	31:BE:55:ASN:H	1.44	0.81
35:BI:17:GLN:HG2	35:BI:18:VAL:N	1.96	0.81
17:CQ:45:HIS:NE2	17:CQ:47:PRO:HB3	1.96	0.81
37:DO:17:ARG:HE	37:DO:47:ILE:HD13	1.45	0.81
11:CK:87:THR:HG22	11:CK:88:GLY:H	1.43	0.81
5:AE:101:ILE:H	5:AE:101:ILE:HD13	1.45	0.81
45:BW:68:ARG:NH2	45:BW:112:GLY:HA2	1.95	0.81
27:BA:1012:U:O4	36:BN:28:THR:HG21	1.80	0.81
32:DF:132:VAL:HG22	32:DF:133:ASN:H	1.45	0.81
18:CR:87:ARG:HG2	18:CR:87:ARG:HH11	1.46	0.81
27:BA:1798:U:H5'	30:BD:259:THR:HG23	1.63	0.81
28:DB:53:A:C2	28:DB:54:G:C8	2.68	0.81
25:CY:27:C:H2'	25:CY:28:G:H8	1.46	0.81
55:D6:44:ARG:HA	55:D6:44:ARG:NH1	1.95	0.81
40:DR:4:LEU:O	40:DR:5:LYS:HD2	1.81	0.81
1:CA:266:G:H5''	1:CA:267:C:H5	1.46	0.81
27:BA:2290:G:H5'	27:BA:2290:G:H8	1.44	0.81
2:CB:84:GLU:HB3	2:CB:219:VAL:CG2	2.11	0.81
15:CO:5:LYS:O	15:CO:9:GLN:HG2	1.79	0.81
27:BA:2387:U:H5'	27:BA:2388:A:OP2	1.80	0.81
27:BA:271(U):G:O2'	27:BA:271(V):G:H5'	1.81	0.81
48:DZ:149:LEU:HD21	48:DZ:171:ALA:CB	2.11	0.81
48:BZ:106:THR:HB	48:BZ:107:PRO:HD2	1.62	0.81
48:BZ:150:HIS:CB	48:BZ:169:THR:HA	2.11	0.81
30:BD:105:ILE:HD12	30:BD:106:ILE:HG22	1.62	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BH:103:LEU:HD23	34:BH:148:ILE:HD12	1.63	0.81
44:DV:15:GLU:HB3	44:DV:16:PRO:HD2	1.61	0.81
35:DI:114:LEU:CG	35:DI:130:TYR:HB2	2.11	0.81
10:CJ:63:PHE:HA	14:CN:59:ALA:HB2	1.59	0.81
48:DZ:41:VAL:HG22	48:DZ:45:LYS:HE2	1.63	0.81
53:D4:66:HIS:CB	53:D4:67:PRO:HD3	2.11	0.81
27:BA:807:U:OP2	38:BP:39:LYS:HG3	1.81	0.81
30:BD:70:TRP:HZ3	30:BD:146:GLU:OE2	1.64	0.81
19:AS:20:LEU:HA	19:AS:23:ASN:HD22	1.46	0.81
1:CA:1207:G:H2'	1:CA:1208:C:C6	2.15	0.81
32:DF:182:ASN:O	32:DF:186:ILE:HG12	1.81	0.81
8:CH:2:LEU:HD11	8:CH:5:PRO:HA	1.63	0.81
55:D6:41:PRO:HD3	55:D6:46:HIS:HA	1.60	0.80
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.16	0.80
1:AA:742:G:H5''	15:AO:58:MET:HE1	1.63	0.80
27:DA:1525:G:H2'	27:DA:1526:G:H8	1.46	0.80
27:BA:1722:A:O2'	27:BA:1739:U:H5''	1.82	0.80
2:AB:75:LYS:HA	2:AB:78:GLN:HB2	1.64	0.80
27:DA:2150:U:H2'	27:DA:2151:G:C8	2.16	0.80
27:BA:2415:G:H4'	38:BP:67:MET:N	1.97	0.80
47:BY:81:LYS:NZ	47:BY:97:ARG:HG3	1.96	0.80
54:B5:54:GLY:H	54:B5:56:LYS:NZ	1.79	0.80
57:D8:33:ASN:H	57:D8:33:ASN:HD22	1.29	0.80
10:CJ:32:ALA:HB1	10:CJ:75:ILE:HD11	1.63	0.80
42:DT:27:THR:HG23	42:DT:28:VAL:H	1.46	0.80
43:DU:98:LEU:HD11	44:DV:4:ILE:HD11	1.61	0.80
18:CR:53:ARG:HH21	18:CR:60:ALA:N	1.79	0.80
53:D4:64:LYS:O	53:D4:65:CYS:HB2	1.82	0.80
12:AL:43:LYS:HG2	12:AL:44:LYS:N	1.96	0.80
27:DA:873:G:H2'	27:DA:874:G:H5'	1.61	0.80
19:AS:40:ILE:HD13	19:AS:62:ILE:HD11	1.63	0.80
27:BA:2059:A:H5'	27:BA:2060:A:OP2	1.81	0.80
7:CG:108:ALA:O	7:CG:111:ARG:HB2	1.82	0.80
31:DE:203:LYS:HE2	31:DE:204:ALA:HB2	1.60	0.80
27:DA:754:C:H2'	27:DA:755:C:H6	1.46	0.80
7:CG:66:VAL:HG12	7:CG:70:LYS:HE3	1.62	0.80
24:AX:10:G:H8	24:AX:10:G:H5'	1.46	0.80
16:AP:53:VAL:HG13	16:AP:79:VAL:HG22	1.63	0.80
53:B4:65:CYS:O	53:B4:66:HIS:HB3	1.80	0.80
27:DA:2866:U:C6	27:DA:2868:A:H1'	2.16	0.80
27:DA:620:G:H5'	27:DA:621:A:OP1	1.80	0.80
9:CI:5:TYR:HE2	9:CI:16:ARG:HG2	1.45	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:55:ASN:H	42:DT:59:THR:CG2	1.93	0.80
4:CD:108:LEU:HD12	4:CD:174:LEU:HD13	1.62	0.80
1:CA:963:G:H21	10:CJ:55:LYS:HZ3	1.27	0.80
30:DD:35:LYS:H	30:DD:36:PRO:CD	1.94	0.80
42:BT:89:VAL:HG11	42:BT:91:ARG:CZ	2.11	0.80
41:BS:96:GLY:O	41:BS:98:VAL:N	2.14	0.80
33:BG:44:GLY:H	33:BG:88:ILE:CD1	1.94	0.80
14:CN:21:TYR:HE2	14:CN:23:ARG:HH21	1.30	0.80
30:BD:33:LEU:HD12	30:BD:33:LEU:H	1.46	0.80
17:AQ:5:VAL:HG13	17:AQ:59:ILE:O	1.80	0.80
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.81	0.80
32:DF:6:VAL:HG12	32:DF:7:TYR:H	1.47	0.80
27:BA:1504:C:C2'	27:BA:1505:C:H5''	2.10	0.80
1:CA:190:U:H2'	1:CA:191:G:H8	1.46	0.80
3:AC:77:ILE:O	3:AC:83:ARG:HB3	1.81	0.80
33:BG:129:GLY:O	33:BG:161:THR:HB	1.80	0.80
7:AG:93:PRO:HA	7:AG:96:GLN:HE21	1.46	0.80
27:BA:747:U:C2	54:B5:2:ALA:HB3	2.16	0.80
53:D4:38:ALA:O	53:D4:49:GLU:HG3	1.80	0.80
39:BQ:137:TYR:HE1	48:BZ:80:ARG:NH1	1.78	0.80
27:BA:925:C:H2'	27:BA:926:A:H5''	1.62	0.80
4:CD:112:VAL:HG13	4:CD:161:ASN:HD21	1.46	0.80
2:AB:33:TYR:HB3	2:AB:41:ILE:HG22	1.63	0.80
27:DA:528:A:N1	27:DA:2042:A:H2'	1.96	0.80
2:CB:55:PHE:HA	2:CB:58:ILE:HG12	1.63	0.80
27:BA:2158:A:H4'	27:BA:2159:G:O5'	1.82	0.80
27:DA:953:A:O2'	27:DA:954:G:H5'	1.82	0.80
27:DA:1858:G:H2'	27:DA:1883:G:H22	1.46	0.80
27:BA:2787:C:O2'	31:BE:61:ARG:HB2	1.81	0.80
47:DY:38:ILE:HG22	47:DY:39:VAL:N	1.95	0.80
27:BA:1042:G:H1'	27:BA:1114:G:N2	1.96	0.80
27:DA:28:A:N6	27:DA:512:G:H1'	1.97	0.80
27:DA:2532:G:H4'	27:DA:2657:A:C2	2.17	0.80
1:AA:848:C:H2'	1:AA:849:C:H6	1.46	0.80
54:B5:16:ARG:HG2	54:B5:16:ARG:HH11	1.45	0.80
34:DH:47:GLU:HG2	34:DH:48:GLY:H	1.47	0.80
51:B2:28:LYS:HD2	51:B2:53:LEU:HD21	1.63	0.80
8:AH:12:ARG:NH1	8:AH:27:PRO:HD3	1.96	0.80
3:CC:180:ALA:O	3:CC:181:ASN:HB3	1.82	0.80
34:BH:8:PRO:O	34:BH:9:ILE:HG13	1.82	0.80
36:DN:2:LYS:HG2	43:DU:101:ARG:NH2	1.92	0.80
27:DA:614(C):A:O2'	27:DA:615:G:O4'	1.98	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:66:ALA:O	41:BS:69:VAL:HG12	1.81	0.80
27:BA:1956:U:H2'	27:BA:1957:C:H5'	1.63	0.80
50:B1:73:LEU:O	50:B1:77:ALA:HB2	1.81	0.80
20:CT:64:ASP:OD1	20:CT:81:LYS:HD2	1.81	0.80
38:BP:62:LEU:CD2	38:BP:62:LEU:H	1.94	0.80
47:BY:15:VAL:HG22	47:BY:72:VAL:HG12	1.63	0.80
38:DP:85:LEU:HD23	38:DP:86:LYS:N	1.96	0.80
44:DV:38:LEU:O	44:DV:39:LEU:HD13	1.82	0.80
3:CC:50:ALA:HB1	3:CC:70:VAL:HG11	1.61	0.80
33:DG:2:PRO:HG2	53:D4:51:TYR:CE2	2.17	0.80
14:CN:13:THR:N	14:CN:14:PRO:HD2	1.95	0.80
29:DC:83:ILE:HG23	29:DC:94:VAL:HB	1.62	0.80
3:AC:108:ASN:HD22	3:AC:111:LEU:HD12	1.46	0.80
4:AD:119:GLN:HG3	4:AD:123:HIS:CD2	2.17	0.80
1:AA:153:C:H2'	1:AA:154:C:C6	2.16	0.80
20:AT:84:LEU:HD13	20:AT:88:VAL:HG21	1.64	0.80
30:DD:44:ASN:HB2	30:DD:48:ARG:O	1.80	0.80
31:DE:134:ILE:HA	31:DE:137:HIS:HD2	1.44	0.80
27:DA:271(S):G:C2'	27:DA:271(T):C:H5'	2.11	0.80
15:CO:75:PRO:O	15:CO:78:TYR:HB3	1.81	0.80
5:CE:100:VAL:HG22	5:CE:118:ILE:HG22	1.64	0.80
3:CC:85:ARG:HD2	3:CC:88:ARG:HD2	1.64	0.80
27:BA:676:A:H2	27:BA:802:A:H61	1.28	0.80
27:BA:2161:C:H2'	27:BA:2162:G:H8	1.45	0.80
12:AL:52:VAL:HG12	12:AL:53:ALA:H	1.44	0.80
27:BA:1594:G:H5'	27:BA:1594:G:H8	1.46	0.80
20:AT:72:LEU:O	20:AT:72:LEU:HD23	1.82	0.80
4:AD:49:ARG:CZ	4:AD:50:ARG:H	1.93	0.80
30:BD:30:GLU:HG3	30:BD:63:ARG:CZ	2.12	0.80
4:AD:147:ALA:HB1	4:AD:181:MET:O	1.82	0.80
27:BA:1673:U:C2'	27:BA:1674:G:H5'	2.11	0.80
16:CP:20:VAL:HG21	16:CP:32:TYR:HB2	1.64	0.80
38:BP:71:VAL:O	38:BP:73:GLY:N	2.14	0.80
49:B0:49:LYS:HB2	49:B0:80:HIS:HB3	1.61	0.80
1:CA:685:G:O2'	1:CA:686:U:H5'	1.81	0.80
59:CX:10:G:H8	59:CX:10:G:H5'	1.47	0.80
31:BE:97:LYS:HA	31:BE:97:LYS:NZ	1.96	0.80
2:AB:42:ILE:HD13	2:AB:203:GLY:HA2	1.64	0.80
35:DI:115:ALA:CB	35:DI:129:THR:HG22	2.12	0.80
47:BY:27:VAL:C	47:BY:28:LYS:HE3	2.03	0.80
23:AW:16:C:C4'	23:AW:17:G:H5''	2.12	0.80
1:AA:386:C:O2'	1:AA:387:U:H5'	1.81	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:43:THR:HB	39:BQ:45:GLN:NE2	1.95	0.80
3:CC:188:LEU:CD1	3:CC:189:ALA:H	1.94	0.80
1:CA:98:G:C2'	1:CA:99:U:H5'	2.11	0.80
8:AH:82:HIS:HB3	8:AH:138:TRP:NE1	1.97	0.80
39:DQ:31:ASP:HB3	39:DQ:134:ARG:NH1	1.97	0.80
50:B1:82:LEU:H	50:B1:82:LEU:HD22	1.45	0.80
27:BA:1718:G:H8	27:BA:1718:G:H5'	1.44	0.80
43:BU:26:GLY:C	43:BU:28:ARG:H	1.85	0.80
1:CA:555:C:H2'	1:CA:556:C:C6	2.17	0.80
1:AA:1152:A:H5''	10:AJ:13:HIS:CD2	2.17	0.80
45:BW:19:LEU:CB	54:B5:25:LEU:HD11	2.07	0.79
38:BP:23:PRO:HD2	38:BP:33:ARG:NE	1.97	0.79
3:CC:154:SER:OG	3:CC:196:LEU:HD13	1.81	0.79
54:D5:3:LYS:HG3	54:D5:4:HIS:N	1.98	0.79
1:CA:266:G:H5''	1:CA:267:C:C5	2.16	0.79
50:B1:52:ARG:CD	50:B1:53:VAL:H	1.95	0.79
27:DA:27:G:O2'	27:DA:28:A:H8	1.63	0.79
8:AH:12:ARG:HH12	8:AH:27:PRO:HD3	1.46	0.79
27:BA:1620:G:O2'	56:B7:2:LYS:HG2	1.81	0.79
27:BA:382:G:H1	27:BA:392:C:H42	1.30	0.79
11:CK:22:HIS:HB3	11:CK:29:ILE:HG23	1.63	0.79
3:AC:52:LEU:HD23	3:AC:52:LEU:H	1.46	0.79
33:BG:124:SER:HB3	33:BG:131:TYR:CE1	2.16	0.79
1:CA:106:C:H2'	1:CA:107:G:H8	1.47	0.79
30:BD:118:VAL:HG22	30:BD:119:ALA:H	1.47	0.79
42:BT:28:VAL:HG21	42:BT:46:GLU:HG3	1.61	0.79
48:DZ:95:VAL:HG12	48:DZ:96:GLU:H	1.46	0.79
43:DU:92:ARG:NH2	43:DU:94:ASN:HB3	1.98	0.79
33:DG:173:LEU:HB3	33:DG:178:PHE:CD2	2.18	0.79
20:CT:49:ALA:HB1	20:CT:100:ILE:CD1	2.12	0.79
30:DD:68:LYS:O	30:DD:70:TRP:N	2.14	0.79
7:AG:15:ASP:HB3	7:AG:20:ASP:N	1.96	0.79
7:CG:15:ASP:HB3	7:CG:19:GLY:H	1.48	0.79
11:CK:96:ARG:HA	11:CK:99:GLN:CG	2.12	0.79
1:AA:192:U:H2'	1:AA:193:C:H6	1.47	0.79
31:BE:47:VAL:HG21	31:BE:86:PRO:HD2	1.63	0.79
27:DA:1573:G:H2'	27:DA:1574:C:H5'	1.63	0.79
29:DC:21:THR:HG21	29:DC:191:ALA:HB1	1.64	0.79
27:DA:588:U:H2'	27:DA:589:C:C6	2.17	0.79
1:AA:1330:U:H4'	13:AM:23:TYR:HE2	1.46	0.79
1:AA:90:U:OP1	1:AA:91:C:H5''	1.82	0.79
27:DA:2197:U:O2'	27:DA:2198:A:H2'	1.81	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2741:A:C5'	58:D9:22:ARG:HH12	1.94	0.79
34:DH:33:LEU:HD11	34:DH:136:ILE:HG22	1.65	0.79
34:DH:25:LYS:HD3	34:DH:25:LYS:N	1.96	0.79
27:DA:30:G:H2'	27:DA:31:C:C6	2.16	0.79
42:BT:56:GLY:O	42:BT:59:THR:HG22	1.82	0.79
25:CY:35:G:H2'	25:CY:36:A:C8	2.18	0.79
27:BA:2262:U:H2'	27:BA:2263:C:H6	1.46	0.79
35:BI:38:LEU:HD12	35:BI:38:LEU:H	1.47	0.79
1:AA:1296:C:H5'	1:AA:1297:C:OP2	1.83	0.79
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	1.81	0.79
52:B3:54:VAL:HG12	52:B3:55:ARG:N	1.97	0.79
23:AW:16:C:H4'	23:AW:17:G:C5'	2.11	0.79
14:AN:23:ARG:HD2	14:AN:28:GLY:O	1.82	0.79
2:AB:30:ARG:HG3	2:AB:31:TYR:CD2	2.18	0.79
7:AG:73:MET:HG2	7:AG:90:GLU:HA	1.64	0.79
27:BA:174:C:H3'	27:BA:175:G:H5''	1.65	0.79
27:DA:883:G:C2'	27:DA:884:C:H5'	2.12	0.79
27:DA:335:C:H2'	27:DA:336:C:C6	2.16	0.79
6:CF:8:ILE:HG22	6:CF:10:LEU:HD13	1.64	0.79
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.65	0.79
1:CA:1139:G:H5'	1:CA:1140:C:OP1	1.81	0.79
28:BB:48:A:H4'	41:BS:95:HIS:CD2	2.18	0.79
47:BY:96:ILE:HG22	47:BY:97:ARG:N	1.98	0.79
27:DA:1039:G:C5	27:DA:1117:G:C6	2.71	0.79
55:D6:19:ARG:CG	55:D6:20:ASN:H	1.90	0.79
3:AC:164:ARG:HB2	3:AC:164:ARG:NH1	1.98	0.79
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.01	0.79
1:CA:1457:G:C2	1:CA:1458:G:C8	2.71	0.79
42:BT:108:ARG:HA	42:BT:111:ARG:NH1	1.98	0.79
6:AF:61:LEU:O	6:AF:62:TRP:HB2	1.82	0.79
1:AA:191:G:C4	20:AT:105:SER:HB3	2.18	0.79
2:CB:91:PRO:HG2	2:CB:155:LEU:HD23	1.65	0.79
5:CE:91:LEU:HD12	5:CE:120:THR:HG22	1.62	0.79
27:BA:848:G:H2'	27:BA:849:A:C8	2.17	0.79
31:BE:176:ILE:HG22	31:BE:179:GLU:H	1.48	0.79
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.17	0.79
35:DI:115:ALA:HB2	35:DI:129:THR:CG2	2.11	0.79
30:DD:26:LYS:CE	30:DD:82:ILE:H	1.95	0.79
38:BP:16:ARG:HD3	38:BP:18:ARG:H	1.47	0.79
41:DS:106:ARG:HD2	41:DS:107:GLU:O	1.81	0.79
44:BV:95:LEU:HD22	44:BV:96:ILE:N	1.96	0.79
27:DA:857:C:HO2'	49:D0:26:TYR:HE2	1.31	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DY:31:LEU:HB2	47:DY:32:PRO:HA	1.63	0.79
15:CO:63:ARG:O	15:CO:67:LEU:HB2	1.81	0.79
5:CE:101:ILE:HD11	5:CE:119:LEU:HA	1.64	0.79
1:AA:390:C:H2'	1:AA:391:G:H8	1.48	0.79
27:BA:922:U:H2'	27:BA:923:C:C6	2.17	0.79
19:AS:6:LYS:HD2	19:AS:6:LYS:H	1.48	0.79
1:CA:636:U:H2'	1:CA:637:G:C8	2.18	0.79
27:BA:2230:G:H1'	50:B1:45:ASN:HB2	1.64	0.79
52:B3:52:HIS:CD2	52:B3:52:HIS:H	1.99	0.79
17:CQ:10:VAL:HG23	17:CQ:54:GLY:H	1.46	0.79
27:DA:914:C:H2'	27:DA:915:C:H5'	1.63	0.79
42:BT:30:VAL:O	42:BT:31:SER:HB3	1.81	0.79
33:BG:113:ARG:HH22	53:B4:66:HIS:CB	1.95	0.79
33:BG:114:ILE:O	33:BG:116:ASP:N	2.16	0.79
27:BA:90:U:H3'	27:BA:92:A:H5''	1.65	0.79
28:DB:60:C:H2'	28:DB:61:G:H5'	1.64	0.79
33:DG:88:ILE:HD12	33:DG:89:GLY:H	1.48	0.79
9:CI:50:LEU:HA	9:CI:53:VAL:HG22	1.65	0.79
37:DO:86:ILE:N	37:DO:86:ILE:HD12	1.97	0.79
17:CQ:45:HIS:HE2	17:CQ:47:PRO:HB3	1.45	0.79
1:CA:192:U:H4'	20:CT:103:GLY:HA2	1.64	0.79
3:AC:47:LEU:HD21	3:AC:68:VAL:HG11	1.64	0.79
34:DH:102:ALA:CB	34:DH:117:PRO:HD3	2.12	0.79
17:CQ:59:ILE:HG21	17:CQ:71:PHE:HB3	1.62	0.79
27:DA:229:A:H3'	27:DA:230:U:H5'	1.64	0.79
27:BA:2317:C:C2'	27:BA:2318:G:H5'	2.13	0.79
47:BY:35:TYR:CE2	47:BY:69:ALA:HB3	2.17	0.79
27:DA:1899:G:N2	27:DA:1902:C:N4	2.23	0.79
1:CA:1445:C:C2	1:CA:1446:U:C6	2.70	0.79
27:BA:1170:G:H1	27:BA:1179:C:H42	1.31	0.79
32:DF:101:LEU:HD12	32:DF:102:PRO:HD2	1.63	0.79
32:DF:20:LEU:HD22	32:DF:203:GLN:NE2	1.97	0.79
40:BR:67:LEU:HD12	40:BR:76:VAL:HG21	1.65	0.79
38:BP:50:ARG:O	38:BP:57:THR:HG22	1.81	0.79
27:BA:2569:G:C2'	27:BA:2570:G:H5'	2.13	0.79
19:AS:6:LYS:CD	19:AS:6:LYS:H	1.96	0.79
31:BE:117:MET:O	31:BE:117:MET:HG3	1.81	0.79
46:BX:24:GLY:O	46:BX:82:GLN:HA	1.81	0.79
25:AY:17:G:H22	25:AY:54:U:H6	1.30	0.79
48:DZ:9:ARG:HH21	48:DZ:24:PRO:HB3	1.47	0.79
27:DA:2700:C:O2'	27:DA:2701:C:H5'	1.83	0.79
27:BA:613:G:H5'	27:BA:613:G:C8	2.17	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:57:ALA:H	36:DN:124:ALA:HA	1.47	0.79
1:AA:961:U:OP2	1:AA:1223:C:H4'	1.83	0.79
27:DA:2822:G:H2'	27:DA:2823:A:H5''	1.65	0.79
47:DY:97:ARG:O	47:DY:97:ARG:HG3	1.81	0.79
27:BA:1114:G:C3'	27:BA:1115:G:H5''	2.13	0.79
27:DA:27:G:N2	27:DA:512:G:H2'	1.98	0.79
1:AA:585:G:H4'	12:AL:5:ASN:HD21	1.48	0.79
27:BA:925:C:C2'	27:BA:926:A:H5''	2.12	0.79
27:BA:2134:A:N6	27:BA:2157:G:H1'	1.97	0.79
34:DH:37:VAL:HG21	34:DH:72:ILE:HD11	1.65	0.79
3:AC:130:VAL:HG21	3:AC:157:ILE:HG23	1.64	0.79
31:BE:179:GLU:HB3	31:BE:181:LEU:CD2	2.12	0.79
15:CO:3:ILE:HA	15:CO:38:ARG:HH21	1.46	0.79
27:DA:2647:U:H2'	27:DA:2648:C:H6	1.47	0.79
50:B1:3:LYS:HG3	50:B1:4:VAL:H	1.48	0.79
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.18	0.79
17:AQ:25:ARG:HG2	17:AQ:26:GLN:N	1.96	0.79
1:CA:1149:C:H2'	1:CA:1150:U:C6	2.16	0.79
27:DA:1257:C:H4'	32:DF:83:PHE:CE2	2.18	0.79
47:DY:23:ARG:HH22	47:DY:40:GLU:HB2	1.47	0.79
40:DR:99:LYS:HB2	40:DR:99:LYS:NZ	1.98	0.79
34:DH:121:ILE:HG12	34:DH:135:GLY:HA2	1.63	0.79
1:CA:532:A:H2	1:CA:1207:G:H4'	1.45	0.79
2:CB:112:VAL:HG11	2:CB:153:ARG:HA	1.63	0.79
4:CD:28:SER:HB3	4:CD:30:LYS:HE2	1.65	0.79
38:BP:47:ASP:HB3	38:BP:48:PRO:O	1.83	0.79
33:DG:96:ARG:O	33:DG:99:MET:HB3	1.83	0.79
1:CA:130:A:C8	17:CQ:63:ARG:HG3	2.18	0.79
49:D0:53:MET:HB3	49:D0:59:LEU:HD23	1.66	0.79
43:DU:102:GLU:HG3	44:DV:2:PHE:CZ	2.18	0.78
30:DD:70:TRP:HH2	30:DD:150:LYS:HA	1.47	0.78
9:AI:43:ALA:HA	9:AI:74:ILE:HD13	1.64	0.78
32:DF:3:GLU:HB3	32:DF:24:LEU:HG	1.65	0.78
27:DA:2741:A:H5''	58:D9:22:ARG:NH1	1.97	0.78
27:BA:855:G:H2'	27:BA:856:C:C6	2.18	0.78
29:DC:83:ILE:HD12	29:DC:94:VAL:HB	1.64	0.78
48:BZ:127:VAL:HG22	48:BZ:128:SER:N	1.97	0.78
34:DH:54:ARG:HH11	34:DH:54:ARG:HB2	1.48	0.78
33:BG:45:GLU:OE1	33:BG:45:GLU:HA	1.83	0.78
38:DP:62:LEU:HD23	38:DP:63:PRO:N	1.98	0.78
31:DE:168:MET:O	31:DE:170:LEU:HD12	1.83	0.78
9:AI:17:VAL:HG11	9:AI:81:ILE:HD13	1.65	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:81:GLU:HG2	5:CE:90:VAL:HG12	1.65	0.78
29:DC:19:VAL:HG11	29:DC:22:ILE:HD11	1.66	0.78
47:BY:35:TYR:HE2	47:BY:69:ALA:HB3	1.48	0.78
7:AG:62:PHE:HA	7:AG:124:LEU:CD2	2.12	0.78
28:BB:41:U:C5	33:BG:69:ALA:HB1	2.18	0.78
48:BZ:157:PRO:HG2	48:BZ:160:VAL:HG21	1.64	0.78
3:CC:130:VAL:HG11	3:CC:157:ILE:HG23	1.64	0.78
27:DA:2103:C:H3'	27:DA:2104:G:H5''	1.64	0.78
50:D1:70:VAL:O	50:D1:74:VAL:HG23	1.84	0.78
1:CA:499:A:H4'	1:CA:500:G:OP1	1.82	0.78
42:DT:29:ARG:NE	42:DT:86:ILE:HG23	1.96	0.78
27:DA:2701:C:H3'	27:DA:2702:U:C5'	2.08	0.78
31:BE:14:ILE:HG12	31:BE:15:PHE:N	1.98	0.78
42:DT:100:TYR:HD2	42:DT:103:ARG:HH21	1.31	0.78
27:DA:1482:G:N2	27:DA:1507:A:H1'	1.98	0.78
49:D0:50:ASN:O	49:D0:62:LEU:HB2	1.84	0.78
38:DP:16:ARG:CZ	38:DP:18:ARG:HD3	2.12	0.78
27:DA:2654:A:N1	27:DA:2665:A:H5''	1.97	0.78
27:BA:1286:A:O2'	27:BA:1288:U:OP2	2.00	0.78
19:CS:29:ARG:C	19:CS:31:ILE:H	1.86	0.78
49:B0:25:ARG:HG2	49:B0:25:ARG:HH11	1.46	0.78
9:AI:125:TYR:HD2	9:AI:126:SER:H	1.29	0.78
40:BR:63:ARG:HA	40:BR:80:PHE:CE2	2.18	0.78
11:AK:80:VAL:HG13	11:AK:103:LEU:HD11	1.65	0.78
27:DA:7:G:H2'	27:DA:8:A:C8	2.17	0.78
35:BI:120:ILE:HG22	35:BI:122:GLU:H	1.48	0.78
27:BA:2476:A:C2'	27:BA:2477:C:H5''	2.10	0.78
2:AB:14:GLY:O	2:AB:15:VAL:HG13	1.83	0.78
32:BF:9:ILE:HA	32:BF:13:SER:O	1.83	0.78
13:CM:23:TYR:HE1	13:CM:70:LEU:HD22	1.49	0.78
20:CT:27:LYS:NZ	20:CT:31:SER:HB3	1.99	0.78
15:CO:23:GLY:O	15:CO:24:SER:HB3	1.83	0.78
27:DA:1409:C:H2'	27:DA:1410:G:C8	2.19	0.78
30:DD:242:ARG:H	30:DD:242:ARG:HH11	1.31	0.78
9:CI:24:GLY:HA2	9:CI:59:PHE:O	1.84	0.78
27:BA:272(J):C:H3'	27:BA:274:G:H21	1.47	0.78
2:AB:141:GLU:O	2:AB:145:LEU:HD23	1.84	0.78
27:DA:2641:G:P	36:DN:74:ARG:HH21	2.06	0.78
4:CD:22:LYS:HB2	4:CD:26:CYS:SG	2.24	0.78
1:AA:1148:U:H2'	1:AA:1149:C:O4'	1.82	0.78
41:BS:96:GLY:C	41:BS:98:VAL:H	1.85	0.78
38:DP:107:LYS:O	38:DP:109:GLY:N	2.16	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DF:158:THR:HG23	32:DF:160:ASN:N	1.98	0.78
27:BA:141:A:H8	27:BA:1408:C:HO2'	0.79	0.78
31:BE:78:LEU:C	31:BE:79:ARG:HD2	2.04	0.78
3:CC:71:ALA:CB	3:CC:106:VAL:HB	2.13	0.78
3:AC:15:THR:HG22	3:AC:16:ARG:H	1.48	0.78
38:DP:49:ARG:HD2	57:D8:58:ILE:CG2	2.13	0.78
33:DG:101:ILE:HD11	53:D4:51:TYR:O	1.83	0.78
2:AB:95:GLN:HG3	2:AB:148:TYR:HD1	1.47	0.78
41:DS:97:ARG:NH2	41:DS:98:VAL:HA	1.97	0.78
27:DA:153:C:OP1	50:D1:92:LYS:HE2	1.83	0.78
42:DT:9:LEU:HA	42:DT:12:SER:HB2	1.63	0.78
27:DA:392:C:H5''	27:DA:409:C:H5''	1.66	0.78
27:DA:1593:G:H2'	27:DA:1594:G:H5''	1.65	0.78
10:CJ:48:THR:HG23	10:CJ:62:HIS:HB3	1.64	0.78
10:CJ:6:ILE:HG12	10:CJ:72:VAL:O	1.83	0.78
4:AD:9:CYS:HA	4:AD:12:CYS:CB	2.14	0.78
10:AJ:54:PHE:CG	10:AJ:55:LYS:HE3	2.19	0.78
27:BA:1365:A:H5''	50:B1:41:ARG:NH2	1.98	0.78
47:DY:95:LYS:HG3	47:DY:100:ALA:HA	1.66	0.78
27:BA:2068:U:N3	27:BA:2430:A:H2	1.80	0.78
27:BA:1654:A:OP2	40:BR:3:HIS:HB2	1.83	0.78
6:AF:63:TYR:O	6:AF:65:VAL:HG13	1.84	0.78
15:AO:9:GLN:HB3	15:AO:13:GLN:NE2	1.97	0.78
27:DA:2556:C:H2'	27:DA:2557:G:O4'	1.83	0.78
2:AB:92:TYR:HE1	2:AB:150:SER:HB2	1.48	0.78
27:BA:528:A:N1	27:BA:2042:A:H2'	1.97	0.78
42:BT:34:VAL:HG13	42:BT:39:ARG:HA	1.63	0.78
28:DB:111:G:C3'	28:DB:112:U:H5''	2.13	0.78
32:DF:24:LEU:O	32:DF:26:ALA:N	2.17	0.78
59:CX:60:U:H5''	59:CX:61:C:H5	1.46	0.78
38:DP:50:ARG:HB3	57:D8:59:LYS:CE	2.13	0.78
41:BS:34:HIS:ND1	41:BS:54:LEU:HB2	1.99	0.78
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.66	0.78
50:D1:86:SER:HB2	50:D1:89:GLU:HB2	1.64	0.78
45:BW:75:TYR:CE2	45:BW:104:THR:HB	2.19	0.78
27:DA:784:A:H5'	27:DA:785:G:OP1	1.83	0.78
33:BG:78:SER:O	33:BG:80:PHE:N	2.17	0.78
47:DY:55:TYR:HB2	47:DY:56:PRO:HD2	1.65	0.78
50:B1:12:PRO:HB3	50:B1:43:TYR:HD2	1.49	0.78
27:DA:2123:G:H2'	27:DA:2124:G:C8	2.19	0.78
27:DA:889:C:H1'	27:DA:890:A:O4'	1.83	0.78
1:CA:979:C:C3'	1:CA:980:C:H5''	2.11	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:16:ARG:HB2	9:CI:64:THR:CG2	2.14	0.78
27:BA:560:C:H4'	43:BU:52:ARG:NH2	1.98	0.78
27:BA:560:C:H4'	43:BU:52:ARG:HH21	1.47	0.78
27:BA:197:A:H5'	27:BA:197:A:H8	1.48	0.78
10:AJ:46:ARG:HA	10:AJ:64:GLU:HA	1.65	0.78
29:BC:74:VAL:O	29:BC:94:VAL:HG12	1.83	0.78
59:CX:31:G:C2'	59:CX:32:C:H5''	2.13	0.78
27:DA:999:U:C2'	27:DA:1000:A:H5''	2.12	0.78
27:DA:1484:G:C2'	27:DA:1485:G:H5''	2.14	0.78
35:DI:93:THR:H	35:DI:96:ASP:HB2	1.48	0.78
27:BA:1639:U:C2'	27:BA:1640:C:H5''	2.13	0.78
8:CH:11:THR:HA	8:CH:14:ARG:NH1	1.99	0.78
35:DI:81:VAL:HG21	35:DI:142:VAL:CG1	2.10	0.78
42:BT:16:ARG:HB3	42:BT:16:ARG:HH11	1.49	0.78
44:BV:15:GLU:HB3	44:BV:16:PRO:HD2	1.65	0.78
31:DE:4:ILE:HD12	31:DE:31:CYS:SG	2.24	0.78
38:DP:7:ARG:H	38:DP:8:PRO:CD	1.95	0.78
7:CG:15:ASP:HB3	7:CG:19:GLY:N	1.99	0.78
10:AJ:6:ILE:HD11	10:AJ:72:VAL:HB	1.64	0.78
10:AJ:7:LYS:HB2	10:AJ:97:GLU:HG3	1.63	0.78
45:DW:82:LEU:HD22	45:DW:84:ARG:HH12	1.48	0.78
27:BA:1593:G:C3'	27:BA:1594:G:H5''	2.13	0.78
25:CY:8:U:H4'	25:CY:47:C:H4'	1.66	0.78
1:CA:405:U:H3'	1:CA:406:G:H5'	1.66	0.78
44:BV:71:LEU:HD22	44:BV:84:LYS:HE3	1.66	0.78
42:DT:28:VAL:HG22	42:DT:46:GLU:HA	1.66	0.78
31:DE:65:GLY:HA2	31:DE:70:ALA:CB	2.12	0.78
47:DY:75:ILE:HA	47:DY:80:GLY:HA2	1.66	0.78
19:CS:44:MET:HA	19:CS:44:MET:CE	2.14	0.78
27:DA:582:G:H2'	27:DA:583:G:C8	2.18	0.78
42:BT:98:LYS:HB3	42:BT:100:TYR:CE1	2.18	0.78
27:DA:2645:G:H3'	27:DA:2646:C:H5'	1.66	0.78
27:DA:1348:G:H2'	27:DA:1349:A:H5''	1.66	0.78
27:BA:1165:U:H2'	27:BA:1166:C:C6	2.19	0.78
27:DA:1987:G:H5'	27:DA:1987:G:H8	1.47	0.78
27:DA:1713:U:O2'	27:DA:1714:G:H5'	1.83	0.78
27:BA:322:A:H3'	32:BF:169:ASN:ND2	1.99	0.78
27:BA:1843:C:H5'	30:BD:253:GLN:NE2	1.98	0.78
10:AJ:89:ASP:C	10:AJ:90:LEU:HD12	2.05	0.78
36:BN:91:LEU:HG	36:BN:98:VAL:HG21	1.66	0.78
27:BA:883:G:H2'	27:BA:884:C:H5'	1.65	0.78
55:B6:14:THR:O	55:B6:49:HIS:HA	1.83	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BP:79:ARG:HH21	38:BP:109:GLY:HA3	1.47	0.77
42:DT:13:ARG:NH1	42:DT:13:ARG:HA	1.97	0.77
1:AA:1330:U:H4'	13:AM:23:TYR:CE2	2.19	0.77
44:BV:62:LEU:HD21	44:BV:95:LEU:CB	2.13	0.77
19:CS:10:PHE:HZ	19:CS:70:LYS:HZ3	1.31	0.77
28:DB:32:C:H2'	28:DB:33:G:H8	1.49	0.77
2:AB:60:ASP:O	2:AB:64:ARG:HG2	1.84	0.77
47:DY:8:LYS:HE3	47:DY:74:PRO:HD3	1.66	0.77
32:DF:7:TYR:HB3	32:DF:16:GLY:N	1.97	0.77
49:B0:43:THR:O	49:B0:43:THR:HG23	1.84	0.77
1:AA:1298:C:H2'	7:AG:114:ARG:HH12	1.49	0.77
52:D3:6:VAL:HB	52:D3:54:VAL:CG1	2.13	0.77
2:CB:48:MET:HA	2:CB:51:LEU:HD12	1.67	0.77
35:BI:8:PRO:O	35:BI:9:LEU:HB2	1.82	0.77
41:BS:53:SER:OG	41:BS:54:LEU:HD22	1.83	0.77
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.03	0.77
27:BA:2712:U:H1'	27:BA:2712(A):A:C8	2.19	0.77
27:BA:2128:C:OP1	29:BC:35:ALA:HB1	1.84	0.77
27:DA:174:C:H3'	27:DA:175:G:H5''	1.66	0.77
27:BA:1108:U:H2'	27:BA:1109:C:H5'	1.67	0.77
27:DA:2310:A:O2'	27:DA:2311:A:H5''	1.84	0.77
52:B3:5:LYS:HG3	52:B3:36:VAL:HG12	1.65	0.77
54:B5:54:GLY:H	54:B5:56:LYS:HZ2	1.32	0.77
27:DA:322:A:H5'	27:DA:340:A:H1'	1.66	0.77
27:BA:1179:C:C3'	27:BA:1180:C:H5''	2.13	0.77
30:BD:25:THR:HG22	30:BD:26:LYS:H	1.47	0.77
1:CA:68:G:N2	1:CA:102:G:C2	2.52	0.77
27:DA:26:G:H1'	27:DA:515:A:H61	1.49	0.77
27:BA:1416:G:O2'	27:BA:1417:C:H6	1.67	0.77
38:BP:40:SER:O	38:BP:41:ARG:HD3	1.85	0.77
36:BN:87:LEU:HD22	36:BN:91:LEU:HD11	1.64	0.77
7:AG:56:GLN:HB3	7:AG:61:VAL:HG22	1.66	0.77
38:BP:111:ARG:NH1	38:BP:149:GLU:HG3	2.00	0.77
1:AA:1442(A):G:H5'	1:AA:1442(B):A:OP2	1.83	0.77
42:BT:83:ILE:HG13	42:BT:84:GLN:HG3	1.65	0.77
33:BG:106:LEU:HA	33:BG:110:ALA:HB3	1.66	0.77
42:DT:19:LEU:HD12	42:DT:19:LEU:N	2.00	0.77
36:DN:19:GLU:O	36:DN:60:ILE:HA	1.84	0.77
18:CR:70:ILE:O	18:CR:74:ARG:HG3	1.84	0.77
42:DT:33:LYS:NZ	42:DT:74:ARG:HH21	1.81	0.77
44:BV:46:VAL:HG22	44:BV:47:VAL:H	1.48	0.77
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	1.86	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:4:ILE:HD12	10:AJ:74:ILE:HD11	1.67	0.77
27:DA:907:U:H2'	27:DA:908:C:H5''	1.66	0.77
27:BA:1717:G:H2'	27:BA:1718:G:H5''	1.65	0.77
31:BE:44:TYR:O	31:BE:45:THR:HB	1.83	0.77
48:DZ:124:LEU:HD12	48:DZ:125:VAL:N	1.98	0.77
7:CG:16:LEU:CD1	9:CI:42:ARG:HA	2.14	0.77
1:CA:975:A:C4'	1:CA:976:G:H5''	2.15	0.77
7:AG:15:ASP:CB	7:AG:20:ASP:H	1.97	0.77
42:DT:118:ARG:HH11	42:DT:118:ARG:CB	1.98	0.77
47:DY:3:VAL:H	47:DY:5:MET:HE2	1.48	0.77
2:CB:210:SER:O	2:CB:214:ILE:HG12	1.83	0.77
36:BN:15:LEU:HD13	36:BN:16:ILE:N	2.00	0.77
2:AB:69:LEU:HD13	2:AB:91:PRO:HB2	1.65	0.77
5:CE:80:ILE:HG22	8:CH:104:ARG:CZ	2.15	0.77
1:AA:1154:G:H2'	1:AA:1155:G:H8	1.49	0.77
14:CN:25:VAL:HG23	14:CN:38:GLY:O	1.83	0.77
39:DQ:58:PHE:CD1	39:DQ:61:GLY:HA3	2.20	0.77
38:BP:65:ARG:HD2	57:B8:46:ARG:NH2	1.99	0.77
35:DI:129:THR:HG23	35:DI:130:TYR:N	1.99	0.77
35:DI:83:ALA:HA	35:DI:89:TYR:HE1	1.49	0.77
35:BI:113:ARG:HH21	35:BI:132:PRO:HG3	1.50	0.77
1:CA:1368:G:H4'	10:CJ:46:ARG:HH12	1.48	0.77
48:DZ:88:PHE:HE1	48:DZ:95:VAL:HG11	1.49	0.77
38:DP:95:VAL:HG22	38:DP:125:VAL:HG12	1.66	0.77
32:BF:4:VAL:HA	32:BF:19:GLU:HB3	1.67	0.77
38:BP:35:HIS:O	38:BP:36:LYS:HB2	1.84	0.77
1:AA:979:C:C3'	1:AA:980:C:H5''	2.14	0.77
27:DA:330:A:C2	27:DA:1210:A:H2'	2.17	0.77
27:DA:2092:U:H4'	27:DA:2093:G:O5'	1.82	0.77
34:BH:85:LYS:HD3	34:BH:133:VAL:HB	1.66	0.77
45:DW:6:ILE:HG12	45:DW:104:THR:HA	1.67	0.77
32:BF:191:ARG:HH11	32:BF:191:ARG:HB3	1.49	0.77
16:CP:20:VAL:CG2	16:CP:32:TYR:HB2	2.14	0.77
27:DA:1419:A:H2'	27:DA:1421:G:N7	2.00	0.77
33:BG:72:ARG:HH11	33:BG:86:MET:HG2	1.49	0.77
38:DP:6:LEU:HG	38:DP:9:ASN:HD22	1.47	0.77
5:CE:147:ASP:O	5:CE:151:LEU:HG	1.85	0.77
39:DQ:108:GLY:CA	48:DZ:115:VAL:HG11	2.14	0.77
1:AA:390:C:H2'	1:AA:391:G:C8	2.20	0.77
2:CB:218:ALA:O	2:CB:222:ILE:HG13	1.85	0.77
1:CA:1502:A:H2	1:CA:1505:G:H22	1.30	0.77
27:DA:2327:A:H2'	27:DA:2328:A:C8	2.19	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:111:ARG:HB3	7:AG:113:GLU:OE2	1.85	0.77
27:DA:270:A:O2'	27:DA:271:A:H5'	1.83	0.77
10:CJ:6:ILE:HG22	10:CJ:98:ILE:CG1	2.13	0.77
48:DZ:75:LEU:N	48:DZ:75:LEU:HD22	1.97	0.77
27:BA:1251:C:OP1	43:BU:10:ARG:HG3	1.84	0.77
27:BA:2285:C:H5	55:B6:27:LYS:HE3	1.50	0.77
43:BU:65:ILE:HD11	43:BU:93:LYS:HA	1.65	0.77
23:AW:24:C:O2'	23:AW:25:A:H5'	1.84	0.77
27:DA:2742:C:OP1	58:D9:35:ARG:HD3	1.85	0.77
27:DA:272(B):G:H2'	27:DA:272(C):G:H8	1.50	0.77
39:BQ:29:PHE:HB3	39:BQ:65:PHE:HE1	1.48	0.77
27:BA:2571:C:C5'	27:BA:2572:A:H5''	2.15	0.77
12:AL:24:LEU:HG	12:AL:59:SER:OG	1.84	0.77
27:DA:1693:U:O2'	30:DD:14:ARG:NH2	2.18	0.77
27:BA:2663:G:H2'	27:BA:2664:G:H8	1.50	0.77
30:BD:270:ILE:C	30:BD:271:ILE:HG12	2.04	0.77
27:DA:1645:G:H5''	27:DA:1646:C:H5'	1.66	0.77
33:DG:54:GLU:HA	33:DG:54:GLU:OE1	1.84	0.77
35:BI:2:LYS:HG2	35:BI:39:ALA:CB	2.14	0.77
40:DR:92:GLY:HA2	40:DR:94:TYR:CE1	2.19	0.77
1:CA:1105:A:H2'	1:CA:1106:G:H8	1.50	0.77
27:BA:1620:G:O3'	56:B7:2:LYS:HE2	1.85	0.77
27:DA:315:G:H2'	27:DA:316:C:C6	2.20	0.77
35:BI:79:ILE:HG12	35:BI:141:LYS:O	1.85	0.77
18:AR:31:LEU:H	18:AR:31:LEU:HD23	1.49	0.77
19:AS:18:LYS:HD2	19:AS:22:LEU:HD23	1.65	0.77
1:AA:447:G:H2'	1:AA:485:G:N2	2.00	0.77
33:BG:142:PRO:HG2	33:BG:143:GLU:OE2	1.84	0.77
27:DA:1796:U:H2'	27:DA:1797:C:H6	1.49	0.77
31:DE:92:THR:O	31:DE:95:ILE:HD13	1.83	0.77
41:BS:89:ARG:HB3	41:BS:92:TYR:CB	2.15	0.77
18:AR:51:LEU:HD22	18:AR:52:PRO:HD2	1.67	0.77
27:DA:2199:A:H5''	27:DA:2200:C:C5	2.19	0.77
2:AB:30:ARG:HG3	2:AB:31:TYR:CE2	2.19	0.77
34:DH:23:ARG:O	34:DH:24:VAL:HG13	1.85	0.77
27:BA:2103:C:H3'	27:BA:2104:G:H5''	1.67	0.77
42:DT:61:PHE:CE2	42:DT:76:PHE:HB2	2.19	0.77
32:DF:66:PRO:HD2	32:DF:70:THR:HG21	1.66	0.77
23:AW:46:U:HO2'	23:AW:47:C:H6	1.32	0.77
1:AA:250:A:H4'	1:AA:251:G:O5'	1.82	0.77
27:DA:994:C:H3'	43:DU:54:LYS:HE3	1.67	0.77
27:DA:686:G:H5''	56:D7:11:LYS:HE2	1.65	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2394:C:OP1	38:BP:63:PRO:HG3	1.84	0.77
47:BY:29:GLU:N	47:BY:29:GLU:OE1	2.17	0.77
33:BG:137:GLU:HG2	33:BG:152:LEU:HD12	1.66	0.77
10:CJ:63:PHE:HA	14:CN:59:ALA:CB	2.14	0.77
27:BA:1141:U:C2'	36:BN:63:THR:HG21	2.13	0.77
43:DU:92:ARG:NH2	43:DU:94:ASN:HD22	1.83	0.77
13:AM:24:GLY:C	13:AM:25:ILE:HD12	2.05	0.77
17:AQ:59:ILE:HG22	17:AQ:73:VAL:HA	1.65	0.77
41:DS:34:HIS:HB3	41:DS:54:LEU:HD23	1.65	0.77
27:BA:1170:G:H1	27:BA:1179:C:N4	1.83	0.77
32:DF:2:LYS:HE2	32:DF:119:ARG:HG3	1.67	0.77
47:BY:66:PRO:O	47:BY:67:LEU:HB2	1.82	0.77
34:DH:98:LEU:HD13	34:DH:125:VAL:HG23	1.67	0.77
30:BD:10:THR:HG23	30:BD:13:ARG:CB	2.15	0.77
1:AA:501:C:H2'	1:AA:502:G:H8	1.50	0.77
31:BE:101:ARG:HB2	31:BE:201:THR:HG21	1.67	0.77
55:D6:41:PRO:HD2	55:D6:46:HIS:H	1.50	0.76
38:DP:146:VAL:HG22	38:DP:147:LEU:H	1.50	0.76
27:BA:1590:U:H2'	27:BA:1591:G:C5'	2.07	0.76
37:DO:104:ARG:HH12	42:DT:35:LYS:HD3	1.49	0.76
27:DA:919:G:H5'	28:DB:81:G:H1'	1.65	0.76
7:AG:15:ASP:H	7:AG:20:ASP:H	1.29	0.76
47:DY:8:LYS:H	47:DY:8:LYS:HD2	1.48	0.76
1:AA:93:G:H2'	1:AA:96:U:C5'	2.15	0.76
27:BA:2287:A:N1	27:BA:2346:A:H2	1.83	0.76
1:CA:1452:C:H4'	1:CA:1456:G:OP2	1.85	0.76
48:BZ:96:GLU:HA	48:BZ:126:LYS:HA	1.65	0.76
30:DD:186:HIS:CD2	30:DD:188:GLU:H	2.03	0.76
39:DQ:65:PHE:HB2	39:DQ:105:GLU:HG3	1.67	0.76
39:DQ:32:TYR:CE2	39:DQ:111:GLU:HG3	2.18	0.76
30:DD:36:PRO:HA	30:DD:62:TYR:O	1.85	0.76
27:DA:528:A:H2	27:DA:2043:C:H5'	1.47	0.76
38:BP:146:VAL:HG22	38:BP:147:LEU:N	1.99	0.76
10:CJ:49:VAL:HG23	14:CN:41:ARG:HB2	1.67	0.76
17:AQ:59:ILE:H	17:AQ:59:ILE:HD13	1.50	0.76
1:AA:1373:G:H5''	7:AG:36:LYS:HB2	1.67	0.76
31:BE:32:PRO:HB3	31:BE:69:LYS:HE2	1.65	0.76
27:BA:2787:C:H1'	31:BE:61:ARG:HD3	1.67	0.76
27:BA:197:A:C8	27:BA:197:A:H5'	2.19	0.76
1:CA:1239:A:N6	1:CA:1299:A:H62	1.77	0.76
26:CZ:1:KBE:O	26:CZ:2:DPP:HA	1.85	0.76
49:D0:51:VAL:HG21	49:D0:79:VAL:O	1.84	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:92:ALA:HB2	3:AC:99:VAL:HG21	1.66	0.76
54:B5:57:VAL:O	54:B5:58:LEU:HG	1.84	0.76
43:DU:105:VAL:O	43:DU:108:GLU:HB2	1.84	0.76
37:DO:35:VAL:HG11	37:DO:103:ALA:HB3	1.67	0.76
27:DA:1233:C:H2'	27:DA:1234:U:H6	1.50	0.76
35:DI:10:GLU:O	35:DI:11:ASN:HB3	1.85	0.76
16:AP:59:TRP:O	16:AP:64:ALA:HB3	1.85	0.76
37:BO:104:ARG:HH22	42:BT:35:LYS:NZ	1.84	0.76
42:DT:33:LYS:HZ3	42:DT:43:GLN:NE2	1.83	0.76
1:CA:1116:C:H2'	1:CA:1117:G:C5'	2.15	0.76
27:BA:2876:G:H4'	42:BT:3:ARG:NE	2.00	0.76
27:BA:2810:A:H2'	31:BE:61:ARG:HH21	1.48	0.76
36:BN:62:VAL:HG22	36:BN:66:LYS:HD2	1.67	0.76
3:CC:17:ASP:HB3	3:CC:21:ARG:NH1	1.99	0.76
1:AA:848:C:H2'	1:AA:849:C:C6	2.20	0.76
10:AJ:16:LEU:HD11	10:AJ:70:ARG:HB2	1.67	0.76
31:BE:2:LYS:HA	31:BE:84:PHE:CD2	2.19	0.76
1:CA:186:C:O3'	20:CT:82:SER:HB3	1.84	0.76
27:DA:1719:G:O2'	27:DA:1720:U:H5'	1.85	0.76
1:CA:194:C:H2'	1:CA:195:A:H5''	1.66	0.76
48:BZ:40:LEU:HD11	48:BZ:81:ARG:HH11	1.51	0.76
27:DA:2571:C:H5'	27:DA:2572:A:H5'	1.67	0.76
27:DA:1639:U:C2'	27:DA:1640:C:H5''	2.14	0.76
34:BH:156:ALA:O	34:BH:157:TYR:C	2.23	0.76
31:DE:176:ILE:HD12	31:DE:176:ILE:N	2.01	0.76
50:D1:29:GLY:O	50:D1:30:VAL:HG22	1.85	0.76
37:BO:104:ARG:HH12	42:BT:35:LYS:HD3	1.49	0.76
40:BR:33:ARG:CD	54:B5:55:ARG:HG2	2.10	0.76
48:DZ:4:LEU:HD22	48:DZ:46:VAL:HG21	1.66	0.76
39:BQ:80:GLU:O	49:B0:5:LYS:HG3	1.83	0.76
27:BA:1019:U:H3	27:BA:1142(A):A:H62	1.33	0.76
49:B0:10:THR:HG22	49:B0:12:ASN:N	1.98	0.76
32:BF:160:ASN:ND2	32:BF:163:VAL:H	1.83	0.76
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	1.66	0.76
53:D4:39:ARG:HG2	53:D4:49:GLU:OE1	1.85	0.76
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.00	0.76
10:AJ:6:ILE:HA	10:AJ:97:GLU:O	1.86	0.76
27:DA:1935:G:H1	27:DA:1962:C:H2'	1.51	0.76
27:DA:2098:U:H2'	27:DA:2099:U:C6	2.19	0.76
11:CK:36:ASP:HB2	11:CK:38:ASN:HD22	1.49	0.76
24:AX:71:C:H2'	24:AX:72:A:H5''	1.67	0.76
27:BA:2283:C:H2'	27:BA:2284:C:H5'	1.68	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BI:87:LYS:C	35:BI:88:ILE:HD13	2.06	0.76
30:DD:244:ARG:HG2	30:DD:245:PRO:HG3	1.67	0.76
1:AA:1316:G:H4'	14:AN:18:VAL:CG1	2.16	0.76
2:AB:63:MET:HB3	2:AB:225:ALA:HB1	1.66	0.76
1:AA:460:G:C6	1:AA:470:C:H5''	2.20	0.76
2:CB:17:PHE:HB2	2:CB:42:ILE:CG2	2.15	0.76
40:BR:67:LEU:O	40:BR:69:ASP:N	2.17	0.76
1:AA:353:A:H5'	1:AA:353:A:H8	1.50	0.76
14:AN:12:ARG:C	14:AN:14:PRO:HD2	2.06	0.76
1:CA:918:A:H2'	1:CA:919:A:H8	1.51	0.76
27:DA:1368:G:O2'	27:DA:1369:G:H5'	1.86	0.76
51:D2:14:ARG:HG3	51:D2:14:ARG:HH11	1.50	0.76
42:DT:89:VAL:HG11	42:DT:91:ARG:NE	1.95	0.76
27:DA:2721:A:H1'	27:DA:2873:A:O2'	1.85	0.76
34:DH:120:GLY:O	34:DH:121:ILE:HG13	1.86	0.76
27:DA:2807:G:C3'	27:DA:2808:U:H5''	2.16	0.76
1:CA:1038:C:H2'	1:CA:1039:C:C6	2.20	0.76
37:BO:65:THR:HA	37:BO:82:ASN:HD22	1.51	0.76
10:AJ:65:LEU:HD12	14:AN:56:VAL:HG22	1.68	0.76
50:D1:52:ARG:NH1	50:D1:78:LYS:HD3	2.00	0.76
1:CA:1066:C:O2'	1:CA:1067:A:H5'	1.86	0.76
18:AR:32:ARG:HA	18:AR:69:THR:HG21	1.66	0.76
3:CC:26:LYS:HG3	3:CC:27:LYS:N	2.01	0.76
37:BO:63:VAL:HB	37:BO:102:VAL:HG12	1.67	0.76
35:BI:110:ASP:N	35:BI:130:TYR:OH	2.17	0.76
38:DP:126:VAL:HA	38:DP:145:PRO:CB	2.12	0.76
38:DP:84:ASN:O	38:DP:88:LEU:HD13	1.86	0.76
41:DS:42:ASP:O	41:DS:43:GLU:HB2	1.85	0.76
49:D0:25:ARG:HD2	49:D0:29:GLN:HE22	1.50	0.76
31:BE:48:GLN:HE22	31:BE:64:LYS:NZ	1.84	0.76
31:BE:75:VAL:C	31:BE:77:ILE:H	1.88	0.76
32:DF:9:ILE:HG23	32:DF:12:LEU:N	2.00	0.76
36:BN:57:ALA:O	36:BN:58:ASP:O	2.03	0.76
28:BB:7:G:C3'	28:BB:8:U:H5''	2.15	0.76
27:BA:2111:C:H42	27:BA:2147:G:N2	1.83	0.76
1:AA:130:A:C8	17:AQ:63:ARG:HG3	2.21	0.76
1:CA:1080:A:H5'	5:CE:14:ARG:NH2	2.00	0.76
34:BH:104:GLU:HG3	34:BH:114:VAL:HG22	1.66	0.76
27:DA:1434:A:H61	27:DA:1558:A:H62	1.30	0.76
46:DX:10:ALA:O	46:DX:28:PHE:HB3	1.85	0.76
2:CB:134:GLU:O	2:CB:138:LEU:HG	1.85	0.76
35:DI:114:LEU:HG	35:DI:130:TYR:CB	2.15	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1468:C:H2'	27:BA:1469:A:H8	1.50	0.76
41:BS:78:LEU:HD11	41:BS:103:GLU:HB3	1.67	0.76
37:DO:71:ARG:HH12	42:DT:74:ARG:NH2	1.83	0.76
31:DE:68:ALA:HB3	31:DE:69:LYS:NZ	2.01	0.76
27:DA:674:G:H2'	27:DA:804:A:H61	1.51	0.76
40:BR:38:VAL:HA	40:BR:112:ALA:HB2	1.67	0.76
44:DV:30:GLY:HA2	44:DV:61:VAL:O	1.86	0.76
27:DA:1313:U:H4'	27:DA:1332:G:H4'	1.66	0.76
1:AA:434:U:H2'	1:AA:435:C:C6	2.21	0.76
38:BP:79:ARG:NH2	38:BP:109:GLY:HA3	2.00	0.76
47:BY:26:LYS:CG	47:BY:27:VAL:H	1.99	0.76
47:BY:27:VAL:HG12	47:BY:29:GLU:OE1	1.86	0.76
55:D6:20:ASN:HD22	55:D6:21:TYR:H	1.30	0.76
38:DP:30:THR:CG2	38:DP:31:ALA:H	1.96	0.76
28:DB:56:G:H21	28:DB:59:A:N6	1.83	0.76
27:DA:1686:C:C6	27:DA:1686:C:H5'	2.21	0.76
41:BS:17:ARG:HA	41:BS:20:ARG:HH12	1.50	0.76
23:CW:20:A:H62	23:CW:44:A:H2'	1.48	0.76
1:CA:10:A:OP2	5:CE:126:ARG:HD3	1.85	0.76
50:B1:18:ILE:HG21	50:B1:20:ARG:CZ	2.15	0.76
29:BC:45:ALA:HA	29:BC:210:ARG:HA	1.67	0.76
30:DD:28:GLU:H	30:DD:29:PRO:HD2	1.50	0.76
1:CA:664:G:H22	1:CA:741:G:H1	1.34	0.76
27:DA:1569:A:O2'	30:DD:38:LYS:HG3	1.85	0.76
30:DD:45:ASN:CG	30:DD:46:GLN:H	1.89	0.76
27:BA:631:A:OP1	38:BP:64:LYS:HE2	1.86	0.76
35:DI:114:LEU:HG	35:DI:130:TYR:CG	2.21	0.76
41:DS:28:VAL:HB	41:DS:89:ARG:HG2	1.68	0.76
32:BF:3:GLU:HB2	32:BF:24:LEU:HG	1.67	0.76
5:CE:101:ILE:CD1	5:CE:119:LEU:HD23	2.15	0.76
48:DZ:56:ILE:HG22	48:DZ:57:VAL:N	2.00	0.76
27:DA:863:A:O2'	27:DA:864:G:H5'	1.86	0.76
40:BR:63:ARG:HA	40:BR:80:PHE:HE2	1.51	0.76
27:DA:409:C:O2'	27:DA:410:G:H5'	1.86	0.76
30:BD:181:GLU:HA	30:BD:272:ALA:HB3	1.68	0.76
27:BA:1801:G:OP2	30:BD:154:LYS:HE2	1.86	0.76
27:DA:2716:U:H2'	27:DA:2717:G:C8	2.21	0.76
27:BA:1854:A:H3'	27:BA:1855:G:H8	1.51	0.76
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.51	0.76
16:CP:25:ARG:HG3	16:CP:25:ARG:HH11	1.51	0.76
33:DG:72:ARG:CD	33:DG:86:MET:HA	2.16	0.75
10:AJ:49:VAL:CG2	14:AN:41:ARG:HB2	2.16	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:92:ARG:C	43:BU:94:ASN:H	1.87	0.75
39:BQ:59:ARG:HG3	39:BQ:59:ARG:HH11	1.50	0.75
39:BQ:63:LYS:HB3	39:BQ:65:PHE:CE2	2.21	0.75
3:CC:124:ILE:C	3:CC:126:ARG:N	2.39	0.75
59:CX:47:U:C2	59:CX:50:U:H5'	2.22	0.75
27:DA:2694:G:O2'	27:DA:2695:C:H5'	1.85	0.75
27:DA:708:C:H42	27:DA:723:G:H1	1.34	0.75
27:BA:2271:G:OP1	49:B0:18:ALA:HB1	1.85	0.75
14:CN:29:ARG:HB3	14:CN:40:CYS:HB3	1.68	0.75
41:DS:87:PHE:O	41:DS:88:ASP:HB2	1.87	0.75
36:DN:133:GLN:HG2	36:DN:134:ARG:H	1.51	0.75
1:CA:1445:C:H2'	1:CA:1446:U:C5'	2.15	0.75
48:BZ:116:LEU:HA	48:BZ:173:VAL:HA	1.67	0.75
34:BH:91:GLY:CA	34:BH:160:LYS:HB3	2.16	0.75
46:BX:12:VAL:HG22	46:BX:27:THR:O	1.86	0.75
27:DA:2647:U:H2'	27:DA:2648:C:C6	2.20	0.75
1:AA:544:G:H2'	1:AA:545:C:H6	1.51	0.75
1:CA:606:G:H2'	1:CA:631:G:N2	2.01	0.75
33:BG:13:GLU:O	33:BG:14:GLU:HB2	1.86	0.75
38:BP:17:LYS:HG2	38:BP:17:LYS:O	1.85	0.75
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.21	0.75
40:BR:28:LEU:HD12	40:BR:48:VAL:HG21	1.67	0.75
27:DA:892:G:H2'	27:DA:893:C:C6	2.20	0.75
27:BA:2475:C:H42	27:BA:2529:G:H22	1.31	0.75
33:DG:133:LEU:HD11	33:DG:157:ILE:HD12	1.69	0.75
1:AA:979:C:H3'	1:AA:980:C:C5'	2.16	0.75
48:DZ:118:GLU:CB	48:DZ:121:ARG:HD2	2.16	0.75
27:BA:1479:G:H5'	27:BA:1558:A:H2	1.51	0.75
8:CH:86:ILE:HG21	8:CH:133:LEU:HD13	1.68	0.75
3:AC:61:ALA:N	3:AC:63:ASN:HD21	1.82	0.75
5:CE:126:ARG:HA	5:CE:131:ILE:HD11	1.68	0.75
53:D4:40:ILE:HA	53:D4:57:ILE:HB	1.68	0.75
27:BA:1721:G:C6	27:BA:1739:U:H5'	2.20	0.75
27:DA:2650:U:H2'	27:DA:2651:C:H6	1.51	0.75
27:BA:7:G:H2'	27:BA:8:A:C8	2.21	0.75
1:CA:552:U:H4'	12:CL:83:ARG:HG2	1.68	0.75
12:CL:7:LEU:HB3	17:CQ:32:TYR:CE2	2.21	0.75
27:DA:2791:C:H1'	27:DA:2792:G:N7	2.01	0.75
47:BY:81:LYS:HD3	47:BY:97:ARG:HB3	1.67	0.75
14:CN:22:THR:HB	14:CN:33:VAL:HG21	1.68	0.75
14:CN:40:CYS:HG	14:CN:43:CYS:HG	1.33	0.75
48:DZ:169:THR:HG22	48:DZ:170:ILE:H	1.51	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:D6:8:LYS:O	55:D6:9:LEU:HB2	1.86	0.75
38:DP:64:LYS:HD3	38:DP:65:ARG:N	2.00	0.75
31:DE:1:MET:N	31:DE:84:PHE:HB2	2.00	0.75
15:CO:25:THR:HG21	15:CO:70:LEU:HB2	1.66	0.75
34:BH:30:LYS:HZ1	34:BH:81:GLU:HA	1.51	0.75
27:BA:71:A:C2	46:BX:31:HIS:HE1	2.04	0.75
7:CG:133:GLY:O	7:CG:136:LYS:HB2	1.87	0.75
27:DA:303:U:H2'	27:DA:304:G:C8	2.21	0.75
27:BA:2873:A:C2	40:BR:6:SER:HB2	2.22	0.75
1:CA:818:G:C3'	1:CA:819:A:H5''	2.17	0.75
35:DI:65:ALA:HB2	35:DI:131:LYS:HE2	1.67	0.75
47:BY:95:LYS:HA	47:BY:101:LYS:H	1.51	0.75
55:D6:11:LEU:HD21	55:D6:51:GLU:HA	1.66	0.75
30:DD:24:ILE:HG23	30:DD:25:THR:N	1.97	0.75
21:CU:9:ARG:NH1	21:CU:22:ARG:HG3	2.01	0.75
1:AA:1128:C:H5'	9:AI:16:ARG:HH22	1.50	0.75
17:CQ:9:VAL:HG21	17:CQ:84:LEU:HD12	1.68	0.75
1:CA:985:C:H2'	1:CA:986:A:C8	2.22	0.75
31:DE:9:VAL:HG22	31:DE:25:VAL:HB	1.67	0.75
1:AA:939:G:H5''	7:AG:102:ARG:NH2	2.02	0.75
27:DA:538:G:H2'	27:DA:539:G:C8	2.22	0.75
58:B9:13:LYS:HD3	58:B9:28:GLU:OE2	1.87	0.75
27:DA:1844:C:H5''	30:DD:258:LYS:HG3	1.68	0.75
12:AL:123:LYS:HZ2	12:AL:124:GLU:HG2	1.50	0.75
1:AA:723:U:H2'	1:AA:723:U:O2	1.85	0.75
35:DI:113:ARG:O	35:DI:130:TYR:HA	1.86	0.75
53:B4:41:ILE:O	53:B4:58:TYR:HA	1.85	0.75
31:BE:59:VAL:HG22	31:BE:60:ASN:N	2.01	0.75
40:DR:2:ARG:NH2	40:DR:5:LYS:HE3	2.01	0.75
44:BV:47:VAL:HB	44:BV:50:PRO:O	1.87	0.75
1:CA:102:G:N2	1:CA:103:C:N1	2.34	0.75
35:BI:5:LEU:HD12	35:BI:5:LEU:H	1.51	0.75
27:DA:2591:C:OP2	30:DD:239:ARG:HB3	1.86	0.75
34:DH:15:VAL:HG12	34:DH:79:VAL:HG21	1.66	0.75
58:B9:26:ILE:HD12	58:B9:26:ILE:N	2.01	0.75
59:CX:27:U:H3	59:CX:43:A:H61	1.33	0.75
27:BA:642:G:H21	27:BA:646:A:H2	1.35	0.75
11:CK:67:ASP:OD2	11:CK:71:LYS:HE3	1.87	0.75
40:DR:11:ASN:O	40:DR:12:ARG:HG3	1.86	0.75
7:CG:80:VAL:HG21	7:CG:85:TYR:CD1	2.21	0.75
53:B4:62:CYS:SG	53:B4:64:LYS:HB3	2.27	0.75
28:DB:65:C:H3'	28:DB:109:C:H42	1.51	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DO:42:SER:HA	37:DO:56:ASP:O	1.86	0.75
1:AA:973:G:H1'	10:AJ:55:LYS:HZ3	1.50	0.75
9:AI:37:PHE:CE1	9:AI:74:ILE:HG12	2.22	0.75
2:AB:208:ILE:HA	2:AB:211:ILE:HD12	1.69	0.75
37:DO:1:MET:HB2	37:DO:32:TYR:HB3	1.67	0.75
36:BN:4:TYR:HB2	43:BU:64:ARG:NH2	2.02	0.75
32:DF:6:VAL:HG12	32:DF:7:TYR:N	2.02	0.75
14:AN:27:CYS:O	14:AN:27:CYS:SG	2.44	0.75
1:CA:72:C:H2'	1:CA:73:G:C8	2.22	0.75
27:DA:1411:C:H2'	27:DA:1412:A:H8	1.52	0.75
32:DF:155:LEU:HD12	32:DF:174:VAL:O	1.87	0.75
27:DA:1525:G:H2'	27:DA:1526:G:C8	2.22	0.75
2:AB:114:ARG:NH1	2:AB:118:LEU:HD21	2.02	0.75
17:CQ:31:LEU:HD23	17:CQ:32:TYR:HE1	1.51	0.75
39:BQ:130:LYS:HZ2	48:BZ:79:ARG:HD3	1.51	0.75
3:CC:64:VAL:HG13	3:CC:97:LYS:NZ	2.02	0.75
43:BU:88:ILE:HG13	43:BU:88:ILE:O	1.86	0.75
43:DU:53:ARG:HA	43:DU:56:ASP:HB2	1.68	0.75
42:BT:85:LYS:HB3	42:BT:85:LYS:HZ1	1.52	0.75
33:DG:177:GLY:O	33:DG:179:PRO:HD3	1.87	0.75
20:CT:100:ILE:CD1	20:CT:100:ILE:H	1.84	0.75
1:CA:346:G:H5''	42:DT:41:ARG:HH21	1.48	0.75
1:AA:1190:G:OP1	3:AC:5:ILE:HG13	1.86	0.75
1:CA:21:G:H2'	1:CA:22:G:C8	2.21	0.75
3:CC:172:ARG:NH1	3:CC:172:ARG:HB3	2.02	0.75
27:DA:582:G:H2'	27:DA:583:G:H8	1.51	0.75
35:BI:68:LEU:HD23	35:BI:68:LEU:O	1.87	0.75
1:AA:523:A:H61	12:AL:89:ASP:HB2	1.52	0.75
48:BZ:127:VAL:HG21	48:BZ:131:ASN:O	1.86	0.75
7:AG:62:PHE:HA	7:AG:124:LEU:HD22	1.66	0.75
10:AJ:33:GLN:HB2	10:AJ:75:ILE:HD11	1.68	0.75
55:B6:20:ASN:O	55:B6:21:TYR:CG	2.40	0.75
27:BA:271(T):C:H5'	27:BA:271(T):C:C6	2.22	0.75
48:DZ:52:ILE:CG2	48:DZ:70:VAL:HB	2.16	0.75
1:AA:386:C:C2'	1:AA:387:U:H5'	2.17	0.75
17:AQ:70:ARG:O	17:AQ:71:PHE:HD2	1.70	0.75
48:BZ:109:GLY:HA3	48:BZ:144:GLU:CG	2.17	0.75
3:CC:70:VAL:O	3:CC:105:GLU:HA	1.86	0.75
1:CA:72:C:N4	1:CA:97:G:O6	2.19	0.75
56:B7:8:ASN:HD22	56:B7:11:LYS:CB	2.00	0.75
17:CQ:5:VAL:C	17:CQ:6:LEU:HD12	2.06	0.75
42:DT:112:ARG:HA	42:DT:115:ARG:NH2	2.02	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AX:62:C:H2'	24:AX:63:G:C8	2.22	0.75
1:AA:56:U:H2'	1:AA:57:G:H8	1.51	0.75
30:DD:35:LYS:H	30:DD:36:PRO:HD2	1.51	0.75
27:BA:1717:G:C2'	27:BA:1718:G:H5''	2.17	0.75
27:BA:2698:U:H2'	27:BA:2699:C:C6	2.21	0.75
36:BN:99:LEU:O	36:BN:102:ALA:HB3	1.86	0.75
4:AD:132:ARG:HG3	4:AD:132:ARG:O	1.85	0.75
44:DV:25:LEU:H	44:DV:92:THR:CG2	1.98	0.74
27:DA:2866:U:H2'	27:DA:2866:U:O2	1.86	0.74
36:DN:133:GLN:HG2	36:DN:135:PRO:HD3	1.69	0.74
30:BD:43:ARG:HB3	30:BD:54:ARG:HB3	1.69	0.74
1:CA:235:C:H5'	17:CQ:70:ARG:HG2	1.66	0.74
27:BA:2348:U:H2'	27:BA:2349:G:H5''	1.65	0.74
2:AB:158:LEU:H	2:AB:158:LEU:HD12	1.51	0.74
47:DY:46:LYS:HD3	47:DY:62:GLU:HG2	1.68	0.74
48:BZ:162:LEU:HD12	48:BZ:162:LEU:H	1.52	0.74
46:DX:35:THR:HB	46:DX:38:GLU:HB2	1.66	0.74
27:DA:301:G:H1	27:DA:316:C:H42	1.32	0.74
2:CB:19:HIS:ND1	2:CB:20:GLU:HG2	2.01	0.74
57:B8:32:LEU:CB	57:B8:36:LYS:HZ1	1.99	0.74
42:DT:28:VAL:O	42:DT:29:ARG:HB2	1.87	0.74
27:BA:2469:A:H5'	27:BA:2470:G:OP2	1.87	0.74
27:BA:2645:G:C3'	27:BA:2646:C:H5'	2.13	0.74
1:AA:1321:C:C3'	1:AA:1322:C:H5''	2.16	0.74
39:BQ:45:GLN:H	39:BQ:45:GLN:NE2	1.85	0.74
45:DW:15:ARG:HD2	54:D5:20:ARG:NH1	2.02	0.74
42:BT:3:ARG:HB3	42:BT:6:LEU:H	1.51	0.74
27:BA:2285:C:C5	55:B6:27:LYS:HE3	2.20	0.74
1:AA:404:U:H2'	1:AA:405:U:H6	1.51	0.74
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.68	0.74
15:AO:10:LYS:HG3	15:AO:11:VAL:H	1.52	0.74
41:BS:35:ILE:HG23	41:BS:53:SER:HB2	1.67	0.74
1:AA:1313:U:OP1	19:AS:6:LYS:HG3	1.87	0.74
27:DA:1722:A:O2'	27:DA:1739:U:H5''	1.85	0.74
27:BA:2834:G:H5'	27:BA:2835:A:OP2	1.88	0.74
39:BQ:68:ILE:HG23	39:BQ:103:MET:HA	1.69	0.74
15:AO:36:ILE:HD13	15:AO:60:VAL:HG22	1.69	0.74
33:BG:109:VAL:HG21	53:B4:40:ILE:HG21	1.69	0.74
3:CC:111:LEU:HD12	3:CC:204:LEU:HD22	1.68	0.74
1:CA:1060:C:H4'	10:CJ:51:ARG:HB3	1.69	0.74
27:DA:2701:C:C3'	27:DA:2702:U:H5''	2.11	0.74
2:AB:204:ASN:HD21	2:AB:207:ALA:N	1.80	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DY:96:ILE:HG22	47:DY:97:ARG:H	1.50	0.74
40:DR:99:LYS:HZ3	40:DR:99:LYS:HB2	1.51	0.74
27:DA:661:C:H4'	38:DP:16:ARG:HH12	1.52	0.74
27:DA:2388:A:H5'	27:DA:2389:G:OP2	1.87	0.74
36:DN:40:PRO:HB3	43:DU:68:ALA:HB2	1.68	0.74
27:BA:8:A:H2'	27:BA:9:U:C6	2.22	0.74
12:AL:123:LYS:NZ	12:AL:124:GLU:HG2	2.01	0.74
1:CA:180:U:H2'	1:CA:181:G:H5''	1.68	0.74
27:DA:1384:A:N3	27:DA:1405:U:H1'	2.01	0.74
35:DI:19:VAL:HG22	35:DI:20:ASP:H	1.51	0.74
27:BA:314:A:O2'	27:BA:315:G:H5'	1.85	0.74
55:D6:11:LEU:HD22	55:D6:12:GLU:N	2.01	0.74
38:DP:105:LEU:N	38:DP:105:LEU:HD23	2.01	0.74
31:DE:59:VAL:HG22	31:DE:60:ASN:N	2.02	0.74
31:BE:78:LEU:O	31:BE:79:ARG:HD2	1.88	0.74
2:AB:204:ASN:ND2	2:AB:207:ALA:H	1.80	0.74
47:DY:27:VAL:HA	47:DY:28:LYS:HZ2	1.51	0.74
44:BV:39:LEU:O	44:BV:40:LEU:HG	1.86	0.74
27:BA:1899:G:N2	27:BA:1902:C:N4	2.34	0.74
24:AX:3:C:C2'	24:AX:4:G:H5''	2.15	0.74
1:CA:102:G:N2	1:CA:103:C:C1'	2.50	0.74
3:AC:30:ARG:HH21	14:AN:35:ARG:CA	2.00	0.74
27:BA:2845:G:O2'	27:BA:2846:G:H5'	1.86	0.74
27:DA:2134:A:H62	27:DA:2157:G:H1'	1.52	0.74
27:DA:796:C:H2'	27:DA:797:C:C6	2.21	0.74
27:DA:361:G:H2'	27:DA:362:U:H5''	1.68	0.74
19:CS:42:PRO:HG3	53:D4:80:ARG:HH21	1.50	0.74
13:CM:2:ALA:HB3	13:CM:9:ILE:HG23	1.68	0.74
6:AF:72:VAL:HG13	6:AF:73:ASN:N	2.03	0.74
13:AM:94:ARG:NH2	27:BA:887:A:H3'	2.02	0.74
27:DA:2349:G:H4'	55:D6:42:TRP:CZ2	2.22	0.74
3:CC:181:ASN:HD21	3:CC:204:LEU:HD12	1.51	0.74
48:DZ:169:THR:HG22	48:DZ:170:ILE:N	2.02	0.74
55:D6:11:LEU:HD12	55:D6:26:ASN:HD21	1.51	0.74
42:DT:11:GLU:O	42:DT:13:ARG:N	2.20	0.74
20:CT:50:GLU:N	20:CT:100:ILE:HG12	2.01	0.74
27:DA:1021:A:H3'	27:DA:1021:A:H8	1.53	0.74
4:AD:9:CYS:CB	4:AD:22:LYS:HD2	2.16	0.74
27:BA:1484:G:C3'	27:BA:1485:G:H5''	2.18	0.74
27:BA:1504:C:H2'	27:BA:1505:C:H5''	1.68	0.74
27:BA:1434:A:H61	27:BA:1558:A:N6	1.83	0.74
14:AN:25:VAL:HG23	14:AN:38:GLY:O	1.87	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:118:VAL:HG22	30:DD:119:ALA:N	2.01	0.74
27:DA:2134:A:C2	27:DA:2159:G:H1'	2.22	0.74
24:AX:51:C:H2'	24:AX:52:G:C8	2.21	0.74
48:BZ:127:VAL:HG22	48:BZ:128:SER:H	1.52	0.74
35:BI:79:ILE:O	35:BI:143:SER:HB3	1.87	0.74
37:BO:64:ARG:HD2	37:BO:81:ASP:OD2	1.86	0.74
8:AH:63:LEU:HB2	8:AH:65:TYR:HE1	1.52	0.74
27:DA:645:C:O2	27:DA:645:C:H2'	1.86	0.74
47:BY:76:CYS:HB3	47:BY:96:ILE:HD11	1.69	0.74
3:CC:14:ILE:HG12	3:CC:15:THR:N	2.03	0.74
12:CL:38:ARG:CG	12:CL:39:THR:H	1.97	0.74
13:AM:8:GLU:OE1	13:AM:22:ILE:HG23	1.87	0.74
9:CI:27:THR:HG23	9:CI:31:GLN:N	2.03	0.74
41:BS:89:ARG:HB3	41:BS:92:TYR:HB3	1.69	0.74
43:BU:104:GLN:NE2	43:BU:104:GLN:H	1.86	0.74
29:BC:75:LEU:HD21	29:BC:99:ILE:HD12	1.69	0.74
27:BA:2808:U:O2'	27:BA:2809:A:H5'	1.87	0.74
5:AE:102:ALA:HA	5:AE:120:THR:OG1	1.88	0.74
27:DA:2537:U:H2'	27:DA:2538:C:C6	2.22	0.74
40:DR:8:ARG:CZ	40:DR:9:LYS:H	2.00	0.74
1:AA:1456:G:H2'	20:AT:39:LYS:HZ2	1.49	0.74
27:BA:2443:C:H2'	27:BA:2444:G:H8	1.50	0.74
27:BA:554:U:C2'	27:BA:555:U:H5'	2.18	0.74
34:DH:43:VAL:HG12	34:DH:53:GLU:HG3	1.68	0.74
50:D1:82:LEU:HD11	50:D1:93:GLU:HG3	1.68	0.74
36:BN:67:LEU:HA	36:BN:87:LEU:HB3	1.68	0.74
32:DF:63:LYS:HZ1	32:DF:67:GLN:HB2	1.53	0.74
1:AA:433:C:H2'	1:AA:434:U:C6	2.22	0.74
16:AP:48:TRP:O	16:AP:49:LEU:HB2	1.87	0.74
23:CW:39:C:H2'	23:CW:40:C:C6	2.23	0.74
27:DA:2061:G:H5''	27:DA:2503:A:C2	2.23	0.74
43:DU:62:ILE:HD13	43:DU:93:LYS:HG2	1.69	0.74
33:DG:47:LYS:N	33:DG:51:ARG:HG3	2.03	0.74
36:DN:56:ASN:HA	36:DN:125:GLY:H	1.51	0.74
36:DN:67:LEU:O	36:DN:68:GLU:HB2	1.85	0.74
1:CA:1313:U:OP1	19:CS:6:LYS:HG3	1.87	0.74
1:CA:192:U:C4'	20:CT:103:GLY:HA2	2.18	0.74
5:AE:31:LEU:HD11	5:AE:43:LEU:HD11	1.70	0.74
27:BA:71:A:H8	27:BA:71:A:H5'	1.52	0.74
1:CA:1490:C:O2'	1:CA:1491:G:H5'	1.87	0.74
27:DA:2527:C:H5'	58:D9:30:PRO:HB2	1.70	0.74
38:BP:144:GLU:N	38:BP:145:PRO:HD3	2.03	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:19:LYS:CE	44:DV:20:LEU:H	2.00	0.74
35:BI:109:ILE:O	35:BI:111:PRO:HD3	1.87	0.74
27:DA:779:U:OP1	30:DD:49:ILE:HG22	1.86	0.74
3:AC:59:ARG:HG2	3:AC:63:ASN:O	1.88	0.74
25:AY:18:G:H22	25:AY:55:C:H42	1.36	0.74
18:AR:66:LEU:HD11	18:AR:70:ILE:HD11	1.68	0.74
1:CA:620:C:H2'	1:CA:621:A:O4'	1.88	0.74
1:CA:1305:G:H5'	21:CU:4:GLY:HA3	1.69	0.74
48:BZ:10:GLU:HB2	48:BZ:12:GLU:OE1	1.86	0.74
1:CA:563:A:N3	1:CA:563:A:H2'	2.03	0.74
30:BD:31:LYS:O	30:BD:35:LYS:HB2	1.87	0.74
47:DY:50:ARG:HB2	47:DY:53:PRO:HG3	1.70	0.74
43:BU:92:ARG:HD2	44:BV:11:GLN:CD	2.08	0.74
27:DA:2539:C:H2'	27:DA:2540:C:H6	1.52	0.74
1:CA:1226:C:OP2	13:CM:103:THR:HG21	1.86	0.74
2:CB:47:THR:O	2:CB:51:LEU:HG	1.88	0.74
1:CA:1145:C:H1'	1:CA:1146:A:N7	2.03	0.74
3:CC:169:ALA:O	3:CC:170:GLN:HB2	1.87	0.74
27:BA:2020:A:OP1	43:BU:26:GLY:HA3	1.88	0.74
16:AP:7:ALA:HB2	16:AP:20:VAL:HG11	1.70	0.74
45:DW:4:LYS:HG2	45:DW:106:ILE:HG12	1.70	0.74
27:BA:1292:U:H2'	27:BA:1293:C:H6	1.53	0.74
1:CA:59:A:H1'	1:CA:354:G:N2	2.02	0.74
1:AA:1270:C:O2'	1:AA:1271:G:H5'	1.87	0.74
27:DA:676:A:H8	27:DA:2069:G:H21	1.32	0.74
33:DG:47:LYS:HE3	33:DG:81:LYS:HB2	1.68	0.74
30:BD:30:GLU:HG3	30:BD:63:ARG:NH2	2.03	0.74
12:AL:44:LYS:HB2	12:AL:45:PRO:HD3	1.70	0.74
48:BZ:101:LEU:HB2	48:BZ:121:ARG:O	1.87	0.74
27:DA:907:U:C2'	27:DA:908:C:H5''	2.18	0.74
24:AX:17:C:H2'	24:AX:17(B):U:C5	2.22	0.74
27:BA:2134:A:H62	27:BA:2157:G:H1'	1.53	0.74
1:AA:1120:G:H2'	1:AA:1121:U:H6	1.53	0.74
35:DI:111:PRO:O	35:DI:112:LYS:HG3	1.88	0.74
27:DA:575:A:O2'	27:DA:576:U:H5'	1.86	0.74
31:DE:13:ARG:HA	31:DE:22:PRO:HA	1.69	0.74
35:DI:68:LEU:O	35:DI:68:LEU:HD23	1.87	0.74
16:AP:8:ARG:O	16:AP:9:PHE:HD2	1.70	0.74
24:AX:19:G:C3'	24:AX:20:U:H5''	2.11	0.73
39:BQ:79:LEU:HD23	39:BQ:80:GLU:CG	2.15	0.73
43:DU:58:ARG:O	43:DU:62:ILE:HG12	1.88	0.73
13:AM:19:LEU:HB3	13:AM:25:ILE:HG21	1.70	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:7:TYR:HB3	32:BF:16:GLY:N	2.02	0.73
4:AD:4:TYR:O	4:AD:5:ILE:HB	1.87	0.73
10:CJ:65:LEU:HD13	14:CN:56:VAL:HG22	1.68	0.73
27:DA:1503:U:H2'	27:DA:1504:C:H6	1.52	0.73
38:BP:47:ASP:HB3	38:BP:48:PRO:C	2.07	0.73
33:DG:22:ARG:NH1	33:DG:22:ARG:HB3	2.01	0.73
27:BA:922:U:H2'	27:BA:923:C:H6	1.51	0.73
27:DA:481:G:O5'	47:DY:47:LYS:HE3	1.86	0.73
1:AA:1072:G:H2'	1:AA:1073:U:H6	1.51	0.73
3:CC:92:ALA:HB2	3:CC:99:VAL:CG2	2.17	0.73
2:CB:83:MET:SD	2:CB:234:PRO:HG2	2.28	0.73
47:DY:101:LYS:HG2	47:DY:102:CYS:N	2.03	0.73
12:AL:7:LEU:HB3	17:AQ:32:TYR:CE1	2.23	0.73
38:DP:122:PRO:HA	38:DP:141:ALA:O	1.88	0.73
29:BC:78:ALA:CB	29:BC:82:LYS:HB2	2.18	0.73
1:AA:538:G:H5''	12:AL:111:LYS:HB2	1.69	0.73
10:CJ:50:ILE:HA	10:CJ:60:ARG:HB3	1.71	0.73
41:BS:83:LYS:CG	41:BS:105:ALA:HB3	2.18	0.73
27:DA:587:C:C5	38:DP:33:ARG:HD3	2.23	0.73
38:BP:75:ILE:N	38:BP:75:ILE:HD12	1.97	0.73
37:DO:71:ARG:HH12	42:DT:74:ARG:HH22	1.34	0.73
28:DB:28:C:H2'	28:DB:29:A:C8	2.22	0.73
14:AN:44:LEU:C	14:AN:44:LEU:HD12	2.08	0.73
27:BA:1169:G:H1	27:BA:1180:C:H42	1.35	0.73
48:BZ:103:PHE:HB3	48:BZ:140:VAL:HG12	1.68	0.73
48:BZ:149:LEU:HD21	48:BZ:171:ALA:HB3	1.68	0.73
5:CE:12:LEU:HD13	5:CE:13:ILE:N	2.03	0.73
1:CA:1457:G:N1	1:CA:1458:G:C5	2.56	0.73
14:CN:7:ILE:O	14:CN:10:ALA:HB3	1.87	0.73
1:CA:637:G:H2'	1:CA:638:G:H8	1.53	0.73
1:CA:818:G:C2'	1:CA:819:A:H5''	2.18	0.73
27:DA:1163:G:O2'	27:DA:1164:G:H5'	1.88	0.73
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.23	0.73
36:BN:120:LEU:CD2	36:BN:122:VAL:HG23	2.18	0.73
27:BA:2406:U:O4	38:BP:70:GLN:HB3	1.88	0.73
11:AK:27:ASN:ND2	11:AK:55:LYS:HE3	2.03	0.73
27:DA:297:C:H2'	27:DA:298:G:O4'	1.87	0.73
27:BA:1300:U:H1'	27:BA:1626:G:C2	2.23	0.73
33:BG:51:ARG:CA	33:BG:51:ARG:NE	2.51	0.73
27:DA:1117:G:C4	27:DA:1118:C:H1'	2.23	0.73
27:BA:64:A:H61	27:BA:90:U:H3	1.33	0.73
43:DU:92:ARG:NH2	43:DU:95:LEU:HG	2.01	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:61:TRP:HB3	43:DU:93:LYS:O	1.87	0.73
27:DA:2490:G:H4'	27:DA:2491:U:OP1	1.85	0.73
48:BZ:164:VAL:HG12	48:BZ:165:SER:N	2.02	0.73
43:BU:92:ARG:HD2	44:BV:11:GLN:NE2	2.02	0.73
52:D3:43:ILE:O	52:D3:47:VAL:HG23	1.88	0.73
27:BA:1494:A:O2'	27:BA:1495:A:H5''	1.88	0.73
27:DA:2018:G:H21	43:DU:34:LYS:NZ	1.87	0.73
32:DF:177:ALA:HB1	32:DF:178:PRO:HD2	1.69	0.73
27:BA:634:C:H2'	27:BA:635:C:C6	2.23	0.73
44:BV:76:LYS:HB2	44:BV:81:TYR:HB3	1.70	0.73
45:DW:25:ARG:HB2	45:DW:25:ARG:NH1	2.03	0.73
27:DA:1590:U:H2'	27:DA:1591:G:C5'	2.12	0.73
28:DB:74:U:H2'	28:DB:75:G:O4'	1.87	0.73
55:D6:32:ASN:O	55:D6:33:LYS:HG2	1.88	0.73
10:CJ:4:ILE:HB	10:CJ:74:ILE:HG13	1.70	0.73
27:DA:1456:G:H2'	27:DA:1457:A:H8	1.53	0.73
36:DN:2:LYS:CG	43:DU:101:ARG:HH22	1.93	0.73
9:CI:5:TYR:HD2	9:CI:18:PHE:CE2	2.06	0.73
1:CA:1457:G:C2	1:CA:1458:G:C4	2.75	0.73
1:AA:1305:G:N2	1:AA:1331:G:H2'	2.03	0.73
34:DH:27:LYS:HG2	34:DH:32:GLU:HB2	1.70	0.73
19:AS:29:ARG:CD	19:AS:30:LEU:H	2.00	0.73
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.52	0.73
43:DU:31:SER:CB	43:DU:34:LYS:HB2	2.18	0.73
48:DZ:165:SER:HB2	48:DZ:166:PRO:C	2.09	0.73
1:AA:579:G:H5'	1:AA:728:A:H1'	1.68	0.73
29:BC:46:LYS:NZ	29:BC:172:HIS:HA	2.02	0.73
1:CA:179:A:H2'	1:CA:180:U:H6	1.53	0.73
21:AU:24:ARG:O	21:AU:25:LYS:HB2	1.88	0.73
27:BA:2012:G:O3'	45:BW:96:ILE:HD11	1.88	0.73
8:CH:42:GLU:HG3	8:CH:109:ILE:HD12	1.70	0.73
30:DD:161:THR:O	30:DD:196:VAL:HG23	1.89	0.73
42:BT:89:VAL:CG1	42:BT:91:ARG:NE	2.50	0.73
42:BT:89:VAL:HG11	42:BT:91:ARG:HE	1.51	0.73
3:AC:150:LYS:HB3	3:AC:201:TYR:HB2	1.70	0.73
27:DA:2808:U:O2'	27:DA:2809:A:H5'	1.88	0.73
27:BA:1639:U:O2'	27:BA:1640:C:H5''	1.89	0.73
27:BA:1292:U:H2'	27:BA:1293:C:C6	2.23	0.73
27:DA:2025:C:H2'	27:DA:2026:C:C6	2.22	0.73
3:AC:206:GLU:O	3:AC:208:ILE:N	2.22	0.73
27:DA:2028:U:H2'	27:DA:2029:G:C8	2.22	0.73
2:CB:80:ILE:HD12	2:CB:212:GLN:HG2	1.70	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DI:81:VAL:HG12	35:DI:82:ARG:N	1.96	0.73
51:D2:18:PRO:HG2	51:D2:19:VAL:H	1.54	0.73
55:D6:36:LEU:HD13	55:D6:50:ARG:NH2	2.03	0.73
27:BA:2475:C:H5'	27:BA:2476:A:OP2	1.88	0.73
42:DT:33:LYS:HE2	42:DT:43:GLN:OE1	1.89	0.73
44:BV:16:PRO:O	44:BV:96:ILE:HG22	1.88	0.73
9:CI:4:TYR:CD2	9:CI:19:LEU:HD12	2.24	0.73
1:AA:1278:U:H5''	1:AA:1279:A:O4'	1.89	0.73
1:AA:93:G:O2'	1:AA:96:U:H5'	1.88	0.73
17:CQ:17:LYS:HG2	17:CQ:47:PRO:HA	1.69	0.73
20:CT:26:ASN:O	20:CT:30:LYS:HB2	1.89	0.73
35:BI:7:GLU:OE2	35:BI:8:PRO:HD2	1.88	0.73
3:CC:53:ALA:O	3:CC:54:ARG:HB2	1.86	0.73
30:DD:35:LYS:O	30:DD:64:ILE:HG22	1.86	0.73
3:AC:130:VAL:O	3:AC:134:ILE:HG12	1.89	0.73
6:CF:78:GLU:O	6:CF:81:ILE:HG12	1.89	0.73
18:AR:53:ARG:HH21	18:AR:60:ALA:N	1.87	0.73
1:CA:407:G:H1	1:CA:435:C:H42	1.33	0.73
1:CA:1095:U:H2'	1:CA:1096:C:C6	2.24	0.73
27:BA:2266:A:H4'	27:BA:2267:A:C2	2.23	0.73
8:AH:41:ARG:CB	8:AH:41:ARG:HH11	2.02	0.73
33:BG:98:ARG:O	33:BG:101:ILE:HD11	1.88	0.73
3:CC:9:GLY:HA3	14:CN:49:HIS:HA	1.70	0.73
55:D6:15:GLU:OE1	55:D6:18:ARG:CZ	2.37	0.73
38:DP:64:LYS:O	38:DP:65:ARG:C	2.27	0.73
38:DP:112:LEU:H	38:DP:128:HIS:HD2	1.34	0.73
1:CA:57:G:H2'	1:CA:58:C:C6	2.23	0.73
30:BD:80:ALA:HB3	30:BD:94:LEU:HD13	1.69	0.73
31:DE:32:PRO:HB3	31:DE:69:LYS:HB3	1.69	0.73
30:BD:218:ARG:HG3	30:BD:218:ARG:HH11	1.54	0.73
47:DY:74:PRO:O	47:DY:80:GLY:HA3	1.88	0.73
27:BA:1987:G:H5'	27:BA:1987:G:C8	2.24	0.73
39:BQ:133:ARG:HG2	39:BQ:134:ARG:N	2.02	0.73
27:BA:556:G:H2'	27:BA:557:U:C6	2.23	0.73
20:AT:22:ARG:HH11	20:AT:22:ARG:HB2	1.54	0.73
50:D1:86:SER:O	50:D1:90:ILE:HG12	1.88	0.73
27:BA:320:A:H2'	32:BF:136:THR:HG21	1.70	0.73
27:DA:1138:G:H2'	27:DA:1139:G:O4'	1.88	0.73
27:DA:991:C:H5'	27:DA:991:C:H6	1.53	0.73
1:CA:1026:G:N3	1:CA:1026:G:H2'	2.01	0.73
38:BP:79:ARG:O	38:BP:111:ARG:HB2	1.89	0.73
33:BG:133:LEU:HD11	33:BG:157:ILE:HD12	1.71	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2348:U:H2'	27:DA:2349:G:C5'	2.11	0.73
28:DB:105:A:H3'	28:DB:106:G:C8	2.22	0.73
28:DB:76:G:H5''	48:DZ:14:PRO:HB3	1.70	0.73
1:AA:267:C:OP2	17:AQ:67:LYS:HD2	1.88	0.73
48:DZ:118:GLU:HB2	48:DZ:121:ARG:CD	2.17	0.73
42:BT:11:GLU:N	42:BT:13:ARG:HH21	1.86	0.73
2:AB:187:LEU:HD23	2:AB:201:ILE:HG22	1.70	0.73
1:CA:102:G:N2	1:CA:103:C:H1'	2.02	0.73
13:CM:86:CYS:HA	19:CS:73:GLU:O	1.88	0.73
27:DA:285:C:C2'	27:DA:286:C:H5''	2.19	0.73
34:BH:85:LYS:HZ3	34:BH:145:ALA:CA	2.01	0.73
27:DA:2090:G:H21	50:D1:45:ASN:ND2	1.85	0.73
27:DA:2749:A:O2'	34:DH:59:ARG:HG3	1.89	0.73
27:BA:1114:G:H2'	27:BA:1115:G:H5''	1.71	0.73
1:AA:751:U:H4'	15:AO:24:SER:HA	1.69	0.73
37:BO:2:ILE:N	37:BO:2:ILE:HD13	2.03	0.73
38:DP:121:LYS:HE3	38:DP:123:LEU:CD2	2.19	0.73
27:DA:2012:G:O3'	45:DW:96:ILE:HD11	1.87	0.73
25:CY:46:U:O4	25:CY:49:G:H3'	1.89	0.73
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.24	0.73
27:DA:1286:A:H2'	27:DA:1288:U:OP2	1.88	0.73
1:AA:443:C:H2'	1:AA:444:C:C6	2.24	0.73
30:DD:43:ARG:NH1	30:DD:44:ASN:ND2	2.37	0.73
41:DS:31:SER:HB3	41:DS:34:HIS:ND1	2.03	0.73
27:BA:674:G:H1'	32:BF:74:ARG:CD	2.19	0.73
35:BI:68:LEU:HA	35:BI:71:ILE:HD11	1.70	0.73
1:AA:57:G:H2'	1:AA:58:C:H6	1.52	0.73
35:DI:93:THR:HG22	35:DI:119:PRO:HA	1.71	0.73
3:CC:34:LEU:HD21	3:CC:38:ARG:CZ	2.18	0.73
1:CA:918:A:H2'	1:CA:919:A:C8	2.22	0.73
23:CW:28:G:H2'	23:CW:29:G:O4'	1.89	0.73
27:DA:969:U:OP1	52:D3:17:LYS:HG2	1.89	0.73
37:BO:19:ILE:HG22	37:BO:43:VAL:HA	1.71	0.73
3:AC:154:SER:O	3:AC:165:THR:HA	1.89	0.73
55:B6:18:ARG:HG3	55:B6:19:ARG:N	2.04	0.73
35:DI:78:THR:HG23	35:DI:141:LYS:O	1.88	0.73
31:DE:179:GLU:O	31:DE:180:ASN:HB2	1.88	0.73
40:DR:51:LEU:HD23	40:DR:66:VAL:HG23	1.70	0.73
27:DA:997:G:OP1	43:DU:93:LYS:HD3	1.89	0.73
38:BP:75:ILE:CD1	38:BP:75:ILE:H	1.87	0.73
31:BE:55:ASN:O	31:BE:57:LYS:N	2.21	0.73
27:BA:1495:A:N3	27:BA:1496:A:C2	2.56	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:90:LEU:H	12:CL:90:LEU:CD2	1.96	0.73
27:BA:747:U:C4	54:B5:2:ALA:N	2.57	0.73
2:CB:14:GLY:O	2:CB:15:VAL:HG13	1.88	0.73
27:DA:2020:A:O2'	27:DA:2021:C:H5'	1.88	0.73
32:DF:132:VAL:HG12	32:DF:138:GLU:OE1	1.88	0.73
27:BA:1594:G:H5'	27:BA:1594:G:C8	2.24	0.73
31:BE:179:GLU:O	31:BE:180:ASN:HB2	1.89	0.73
17:CQ:36:ILE:HD11	17:CQ:38:ARG:NH2	2.03	0.73
1:CA:1030:C:H2'	1:CA:1030(A):G:H5'	1.70	0.73
1:CA:650:G:O2'	1:CA:651:C:H5'	1.89	0.73
31:DE:200:GLU:HG2	31:DE:201:THR:N	2.04	0.72
3:CC:132:ARG:HD3	3:CC:136:GLN:HE22	1.54	0.72
27:DA:1257:C:H4'	32:DF:83:PHE:CD2	2.24	0.72
2:AB:220:ASP:O	2:AB:223:ILE:HG13	1.88	0.72
32:DF:116:ASP:OD2	38:DP:5:ASP:HB2	1.89	0.72
5:CE:53:LEU:CD1	5:CE:53:LEU:H	2.01	0.72
13:CM:47:ASP:O	13:CM:48:LEU:HB3	1.89	0.72
34:BH:47:GLU:HB2	34:BH:49:VAL:O	1.89	0.72
15:CO:39:LEU:HD12	15:CO:56:LEU:HD13	1.71	0.72
27:DA:2090:G:N2	50:D1:45:ASN:HD21	1.85	0.72
1:AA:585:G:H4'	12:AL:5:ASN:ND2	2.03	0.72
36:BN:87:LEU:HD22	36:BN:91:LEU:CD1	2.19	0.72
32:DF:63:LYS:NZ	32:DF:67:GLN:HB2	2.04	0.72
18:AR:82:THR:HG22	18:AR:83:GLU:N	2.04	0.72
16:AP:8:ARG:C	16:AP:9:PHE:HD2	1.92	0.72
43:DU:50:ARG:NH1	44:DV:72:VAL:HG12	2.04	0.72
27:DA:363(C):G:H2'	27:DA:363(D):G:H8	1.54	0.72
34:BH:16:SER:HB2	34:BH:27:LYS:HB2	1.71	0.72
55:B6:15:GLU:OE2	55:B6:18:ARG:NE	2.22	0.72
1:CA:973:G:H3'	1:CA:974:A:H5''	1.70	0.72
38:DP:63:PRO:CB	57:D8:13:ARG:HB3	2.18	0.72
43:DU:62:ILE:CD1	43:DU:93:LYS:HG2	2.18	0.72
30:BD:112:GLN:H	30:BD:115:GLN:NE2	1.87	0.72
36:DN:56:ASN:N	36:DN:126:PRO:HA	2.03	0.72
37:DO:86:ILE:H	37:DO:86:ILE:CD1	1.98	0.72
32:DF:150:GLY:HA2	32:DF:172:TRP:CE3	2.23	0.72
30:BD:48:ARG:NH1	30:BD:48:ARG:HG3	2.04	0.72
2:AB:65:GLY:HA2	2:AB:226:ARG:NH2	2.04	0.72
10:CJ:44:VAL:HG12	10:CJ:45:ARG:N	2.04	0.72
52:D3:23:LEU:HD12	52:D3:50:VAL:HG11	1.71	0.72
49:D0:17:GLN:O	49:D0:19:LYS:HD3	1.89	0.72
27:DA:65:C:H2'	27:DA:66:C:C6	2.24	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:82:ILE:HG22	41:DS:83:LYS:N	2.03	0.72
31:BE:97:LYS:HZ2	31:BE:97:LYS:HA	1.53	0.72
27:DA:883:G:H2'	27:DA:884:C:H5'	1.69	0.72
48:BZ:156:LEU:HD12	48:BZ:156:LEU:H	1.54	0.72
27:DA:969:U:P	52:D3:17:LYS:HZ2	2.12	0.72
1:AA:1002:G:N2	1:AA:1003:G:H1'	2.03	0.72
1:AA:1028:C:H42	1:AA:1034:G:N2	1.86	0.72
1:AA:1228:C:H2'	1:AA:1229:A:H8	1.54	0.72
16:AP:25:ARG:HH11	16:AP:25:ARG:HG3	1.53	0.72
27:DA:2776:A:H4'	27:DA:2777:G:O5'	1.88	0.72
1:AA:619:U:C2	4:AD:135:LEU:HD21	2.24	0.72
8:CH:97:VAL:O	8:CH:100:ILE:HG13	1.89	0.72
27:BA:2305:A:H5''	33:BG:134:GLY:HA3	1.70	0.72
1:CA:1112:C:N3	3:CC:178:LEU:HD23	2.04	0.72
28:DB:106:G:C2'	28:DB:107:G:H8	2.01	0.72
31:DE:35:GLN:HG2	31:DE:36:ARG:H	1.54	0.72
3:AC:73:PRO:O	3:AC:76:VAL:HG22	1.88	0.72
27:BA:1494:A:H2'	27:BA:1495:A:C5'	2.18	0.72
1:CA:963:G:N2	10:CJ:55:LYS:HZ3	1.87	0.72
41:DS:15:ARG:C	41:DS:17:ARG:N	2.40	0.72
4:AD:119:GLN:HG3	4:AD:123:HIS:HD2	1.55	0.72
1:AA:192:U:H2'	1:AA:193:C:C6	2.24	0.72
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.24	0.72
7:CG:153:HIS:HA	7:CG:155:ARG:HH12	1.55	0.72
27:DA:1231:G:H2'	27:DA:1232:G:H8	1.53	0.72
27:DA:1523:U:H2'	27:DA:1524:G:C8	2.24	0.72
27:DA:1375:C:H2'	27:DA:1376:C:H6	1.54	0.72
1:AA:1328:C:O2'	1:AA:1329:A:H5'	1.89	0.72
33:BG:22:ARG:HB3	33:BG:22:ARG:HH11	1.54	0.72
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.54	0.72
56:B7:24:THR:HG23	56:B7:27:GLY:HA3	1.70	0.72
47:BY:27:VAL:HA	47:BY:28:LYS:HZ2	1.54	0.72
57:B8:6:THR:HG22	57:B8:63:PRO:HD3	1.70	0.72
53:D4:59:VAL:HG11	53:D4:62:CYS:HB3	1.69	0.72
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.69	0.72
27:BA:365:C:C6	27:BA:365:C:H5'	2.23	0.72
34:DH:85:LYS:HG3	34:DH:145:ALA:HB2	1.71	0.72
1:AA:188:C:H2'	1:AA:189:G:H8	1.52	0.72
34:DH:20:ALA:HB1	34:DH:21:PRO:CD	2.19	0.72
34:BH:113:VAL:HG11	34:BH:151:ILE:HD12	1.71	0.72
27:BA:1290:C:H2'	27:BA:1291:C:H6	1.54	0.72
33:BG:33:ARG:O	33:BG:162:THR:HG23	1.88	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1086:U:O2'	1:AA:1087:G:H5'	1.87	0.72
27:BA:2734:A:H5'	27:BA:2735:G:OP2	1.89	0.72
38:BP:114:ILE:HD12	38:BP:115:LEU:N	2.04	0.72
47:BY:77:PRO:O	47:BY:99:CYS:SG	2.43	0.72
44:DV:24:LYS:HA	44:DV:92:THR:HG23	1.70	0.72
27:BA:2308:G:N7	27:BA:2310:A:H5'	2.04	0.72
28:DB:105:A:O2'	48:DZ:29:ASN:HA	1.89	0.72
46:DX:27:THR:HB	46:DX:80:ILE:HB	1.72	0.72
24:AX:21:A:H61	24:AX:46:A:H2'	1.54	0.72
34:BH:43:VAL:HB	34:BH:51:ARG:O	1.89	0.72
44:DV:1:MET:HB3	44:DV:42:GLY:H	1.54	0.72
16:AP:72:ARG:NH2	16:AP:73:LEU:HD21	2.04	0.72
42:DT:62:THR:HG22	42:DT:75:ILE:HG12	1.70	0.72
27:DA:2632:A:C2	31:DE:61:ARG:HD3	2.23	0.72
1:AA:1145:C:H5'	1:AA:1146:A:OP1	1.90	0.72
52:D3:4:LEU:HD21	52:D3:57:GLU:H	1.54	0.72
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.71	0.72
36:BN:22:THR:HB	36:BN:25:ARG:HB2	1.72	0.72
27:DA:538:G:H2'	27:DA:539:G:H8	1.51	0.72
1:AA:923:A:OP1	5:AE:21:ALA:HB2	1.89	0.72
30:BD:58:HIS:HD2	30:BD:59:LYS:N	1.87	0.72
40:BR:32:GLY:HA2	40:BR:116:LEU:HD13	1.72	0.72
27:DA:886:C:O2'	27:DA:887:A:H5'	1.89	0.72
27:DA:2398:U:H5'	27:DA:2399:G:OP2	1.90	0.72
33:DG:41:GLN:HE22	33:DG:153:ARG:HG2	1.54	0.72
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.05	0.72
44:BV:38:LEU:C	44:BV:39:LEU:HD12	2.09	0.72
52:D3:8:LEU:HD12	52:D3:31:LEU:HA	1.72	0.72
41:BS:57:LYS:HD2	41:BS:58:LEU:HD12	1.72	0.72
2:CB:201:ILE:HG21	2:CB:214:ILE:HG21	1.71	0.72
32:BF:157:VAL:HB	32:BF:194:MET:HB3	1.70	0.72
3:CC:171:GLY:O	3:CC:172:ARG:HG2	1.90	0.72
57:D8:4:MET:O	57:D8:62:LEU:HD12	1.90	0.72
4:CD:199:ASN:HD22	4:CD:202:LEU:HG	1.55	0.72
4:CD:63:LYS:HD2	4:CD:198:VAL:HG22	1.72	0.72
41:DS:95:HIS:CG	41:DS:96:GLY:H	2.06	0.72
1:AA:130:A:H5'	17:AQ:63:ARG:HH21	1.54	0.72
1:AA:939:G:H5''	7:AG:102:ARG:HH22	1.55	0.72
3:CC:95:THR:O	3:CC:97:LYS:N	2.23	0.72
36:DN:3:THR:HG22	36:DN:5:VAL:HG12	1.72	0.72
12:CL:74:LEU:HD21	12:CL:104:ALA:HA	1.71	0.72
20:CT:16:HIS:O	20:CT:19:SER:HB3	1.88	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CY:75:A:H1'	27:DA:2421:G:N2	2.03	0.72
9:CI:125:TYR:HD2	9:CI:126:SER:H	1.35	0.72
27:BA:2365:G:O6	57:B8:39:LYS:HE3	1.89	0.72
38:BP:64:LYS:HD3	38:BP:65:ARG:H	1.53	0.72
13:AM:93:ARG:HA	13:AM:93:ARG:HE	1.55	0.72
2:AB:166:ASP:CB	2:AB:169:LYS:HB2	2.11	0.72
47:BY:10:GLY:CA	47:BY:27:VAL:HG13	2.14	0.72
54:B5:25:LEU:HD12	54:B5:25:LEU:N	2.03	0.72
44:DV:51:VAL:HG12	44:DV:52:VAL:N	2.02	0.72
28:DB:51:G:O6	41:DS:32:LEU:HB3	1.89	0.72
1:CA:1100:C:O2'	1:CA:1101:A:H5'	1.88	0.72
27:DA:1169:G:H1	27:DA:1180:C:N4	1.88	0.72
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.04	0.72
54:D5:40:LYS:HB2	54:D5:41:PRO:CD	2.18	0.72
1:CA:1457:G:N3	1:CA:1458:G:C8	2.57	0.72
34:BH:11:VAL:HG13	34:BH:11:VAL:O	1.89	0.72
45:BW:68:ARG:HD2	45:BW:110:LYS:HB3	1.72	0.72
27:BA:2569:G:H2'	27:BA:2570:G:H5'	1.71	0.72
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.23	0.72
5:AE:150:ARG:O	5:AE:153:LYS:HG2	1.88	0.72
1:CA:648:A:H2'	1:CA:649:G:H8	1.54	0.72
27:BA:1666:G:C2'	27:BA:1667:G:H5'	2.19	0.72
3:AC:142:MET:HA	3:AC:146:ALA:HB3	1.70	0.72
25:AY:37:U:C3'	25:AY:38:U:H5''	2.20	0.72
35:DI:72:LEU:HD13	35:DI:72:LEU:O	1.90	0.72
33:BG:101:ILE:HD13	33:BG:102:PHE:N	2.02	0.72
38:BP:16:ARG:CZ	38:BP:18:ARG:HG2	2.19	0.72
28:DB:7:G:H1	28:DB:114:C:N4	1.87	0.72
33:DG:53:LEU:H	33:DG:53:LEU:HD22	1.53	0.72
30:BD:85:ASP:HB2	30:BD:92:ILE:HD12	1.69	0.72
38:DP:7:ARG:N	38:DP:8:PRO:HD2	2.03	0.72
2:AB:102:LEU:HB2	2:AB:176:GLU:CG	2.19	0.72
8:AH:116:LYS:CD	8:AH:127:LEU:HD11	2.18	0.72
1:CA:532:A:H3'	1:CA:533:A:C5'	2.19	0.72
50:B1:52:ARG:HD2	50:B1:53:VAL:N	2.03	0.72
27:BA:926:A:C8	27:BA:926:A:H5'	2.24	0.72
27:BA:71:A:C8	27:BA:71:A:H5'	2.25	0.72
30:DD:242:ARG:HH11	30:DD:242:ARG:N	1.86	0.72
1:CA:1030:C:C2'	1:CA:1030(A):G:H5'	2.20	0.72
1:AA:924:C:H2'	1:AA:925:G:C8	2.25	0.72
1:CA:337:C:H2'	1:CA:338:A:C8	2.24	0.72
27:DA:1614:A:H62	45:DW:93:ALA:HB2	1.53	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CY:14:A:H1'	25:CY:21:A:C6	2.24	0.72
23:CW:22:G:H2'	23:CW:23:G:C8	2.25	0.72
1:CA:310:G:H4'	16:CP:31:LYS:HD2	1.72	0.72
46:DX:18:TYR:O	46:DX:20:GLY:N	2.23	0.72
38:BP:59:LEU:HA	38:BP:61:ARG:NH1	2.05	0.72
14:CN:47:LEU:HD23	14:CN:50:LYS:HD3	1.72	0.72
28:DB:56:G:H5'	33:DG:27:ASN:OD1	1.89	0.72
33:DG:120:LEU:HB2	33:DG:179:PRO:O	1.89	0.72
42:BT:10:VAL:O	42:BT:10:VAL:HG12	1.89	0.72
31:BE:77:ILE:HG22	31:BE:78:LEU:N	2.00	0.72
27:BA:1210:A:H4'	27:BA:1211:U:O5'	1.90	0.72
34:BH:19:VAL:HG23	34:BH:45:VAL:HG23	1.71	0.72
27:DA:2233:U:H2'	27:DA:2234:G:C8	2.25	0.72
27:BA:881:G:C2'	27:BA:882:G:H5'	2.19	0.72
43:DU:79:PHE:O	43:DU:83:LEU:HB2	1.88	0.72
1:CA:591:U:H2'	1:CA:592:G:H8	1.55	0.72
27:BA:370:G:H4'	27:BA:371:A:OP2	1.88	0.72
33:BG:128:ARG:HB2	33:BG:130:ASN:ND2	2.05	0.72
6:AF:50:TYR:CE1	18:AR:77:GLY:HA2	2.25	0.72
43:DU:15:LYS:HE2	43:DU:19:LYS:HE3	1.71	0.72
5:CE:45:PHE:HD1	5:CE:46:GLY:N	1.87	0.72
35:DI:83:ALA:HA	35:DI:89:TYR:CE1	2.24	0.72
31:DE:7:VAL:HG21	42:DT:1:MET:CE	2.20	0.72
38:DP:64:LYS:HD2	57:D8:25:MET:SD	2.30	0.72
33:DG:40:ASN:HD22	33:DG:91:ARG:HB2	1.53	0.72
18:CR:56:THR:HB	18:CR:58:LEU:HD13	1.72	0.72
9:CI:96:LEU:HG	9:CI:102:LEU:HB2	1.71	0.72
4:CD:108:LEU:CD1	4:CD:174:LEU:HD13	2.19	0.72
1:CA:102:G:C2	1:CA:103:C:C6	2.78	0.72
27:DA:286:C:H2'	27:DA:287:C:H5''	1.71	0.72
27:BA:784:A:C5	30:BD:229:VAL:HG21	2.25	0.72
38:DP:50:ARG:HB3	57:D8:59:LYS:CD	2.20	0.72
28:BB:65:C:N4	28:BB:109:C:H2'	2.05	0.72
34:BH:80:SER:O	34:BH:81:GLU:HB2	1.89	0.72
30:DD:39:LYS:HB2	30:DD:62:TYR:HB2	1.69	0.72
5:CE:43:LEU:HD21	5:CE:132:ALA:HB1	1.72	0.72
31:BE:95:ILE:N	31:BE:95:ILE:HD12	2.05	0.72
7:CG:32:ARG:O	7:CG:33:ASP:HB2	1.90	0.72
39:DQ:66:ILE:HG22	39:DQ:104:PHE:CE2	2.25	0.72
27:BA:2425:A:H5''	27:BA:2427:C:O4'	1.90	0.72
4:AD:196:LEU:O	4:AD:198:VAL:N	2.22	0.71
42:BT:38:ASN:O	42:BT:38:ASN:ND2	2.23	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:91:ARG:HD2	33:BG:92:VAL:N	2.05	0.71
57:D8:52:LYS:N	57:D8:53:PRO:HD2	2.04	0.71
44:BV:19:LYS:HB2	44:BV:96:ILE:HG12	1.71	0.71
1:CA:1265:G:H22	1:CA:1271:G:H1'	1.53	0.71
1:CA:1313:U:P	19:CS:6:LYS:HG3	2.29	0.71
9:CI:17:VAL:CG1	9:CI:81:ILE:HD13	2.19	0.71
30:DD:112:GLN:N	30:DD:115:GLN:NE2	2.38	0.71
27:BA:2328:A:H2'	27:BA:2329:G:C8	2.24	0.71
18:AR:43:PHE:CE2	18:AR:58:LEU:HD11	2.23	0.71
1:CA:102:G:H21	1:CA:103:C:H1'	1.54	0.71
27:DA:272(C):G:H2'	27:DA:272(D):G:H8	1.55	0.71
27:DA:286:C:H2'	27:DA:287:C:H5'	1.70	0.71
27:DA:2815:C:H5'	54:D5:29:THR:HG21	1.70	0.71
42:DT:102:ILE:O	42:DT:106:SER:HB3	1.89	0.71
1:CA:984:C:H2'	1:CA:985:C:C6	2.24	0.71
27:BA:1301:A:O2'	27:BA:1302:A:H3'	1.89	0.71
27:BA:1444:G:H2'	27:BA:1445(A):C:C5	2.25	0.71
27:DA:1509(A):A:H2'	27:DA:1509(B):A:C8	2.23	0.71
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.24	0.71
27:DA:2286:A:H3'	55:D6:31:PRO:HB3	1.72	0.71
27:DA:1708:C:O2'	27:DA:1709:U:H5'	1.90	0.71
1:AA:598:U:H2'	1:AA:599:C:C6	2.25	0.71
27:DA:541:C:H2'	27:DA:542:C:C6	2.25	0.71
27:DA:554:U:O2'	27:DA:555:U:H5'	1.90	0.71
2:CB:124:SER:OG	2:CB:125:PRO:HD2	1.90	0.71
27:DA:951:C:O2'	27:DA:952:G:H5'	1.90	0.71
4:AD:94:LEU:HA	4:AD:97:LEU:HD12	1.72	0.71
47:BY:8:LYS:H	47:BY:8:LYS:CD	1.98	0.71
20:AT:29:LYS:O	20:AT:33:ILE:HG12	1.90	0.71
38:BP:23:PRO:O	38:BP:33:ARG:HD2	1.90	0.71
30:BD:131:LEU:HA	30:BD:190:TYR:HE2	1.55	0.71
1:CA:1203:C:OP1	14:CN:3:ARG:HD3	1.90	0.71
42:DT:100:TYR:HD1	42:DT:100:TYR:H	1.33	0.71
37:DO:111:PHE:O	37:DO:115:VAL:HG23	1.90	0.71
1:CA:957:U:H4'	19:CS:79:THR:HB	1.72	0.71
11:AK:105:VAL:HG23	11:AK:105:VAL:O	1.90	0.71
38:BP:46:LYS:HG3	38:BP:51:PHE:CD2	2.25	0.71
27:DA:528:A:C2	27:DA:2043:C:H5'	2.25	0.71
27:BA:2019:A:O3'	43:BU:27:LEU:HD12	1.90	0.71
27:BA:2512:C:H4'	31:BE:122:PHE:CE2	2.24	0.71
1:CA:1346:A:H5''	9:CI:120:ARG:HH12	1.53	0.71
48:BZ:10:GLU:OE2	48:BZ:12:GLU:HB2	1.90	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DH:89:ILE:HD12	34:DH:90:LYS:N	2.04	0.71
48:BZ:47:PHE:HA	48:BZ:50:ALA:HB3	1.70	0.71
48:DZ:47:PHE:O	48:DZ:50:ALA:N	2.23	0.71
6:AF:100:ASN:HB2	18:AR:28:GLU:HA	1.71	0.71
4:CD:57:ARG:HG3	4:CD:57:ARG:HH11	1.55	0.71
57:B8:52:LYS:N	57:B8:53:PRO:HD2	2.05	0.71
42:DT:28:VAL:CG2	42:DT:46:GLU:HG3	2.19	0.71
55:B6:33:LYS:HA	55:B6:33:LYS:CE	2.19	0.71
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.72	0.71
40:BR:2:ARG:NH2	40:BR:5:LYS:NZ	2.38	0.71
19:AS:16:LEU:O	19:AS:20:LEU:HG	1.89	0.71
20:AT:89:ARG:CZ	20:AT:104:LEU:HD21	2.19	0.71
1:CA:1325:C:H4'	21:CU:17:THR:HG21	1.72	0.71
27:DA:2533:A:H3'	27:DA:2534:A:H5''	1.73	0.71
1:AA:741:G:H2'	1:AA:742:G:H8	1.54	0.71
30:BD:118:VAL:HG22	30:BD:119:ALA:N	2.05	0.71
1:AA:1228:C:OP1	13:AM:115:LYS:HD3	1.89	0.71
27:DA:288:C:H42	27:DA:353:G:H1	1.35	0.71
27:BA:863:A:O2'	27:BA:864:G:H5'	1.91	0.71
2:CB:130:ARG:HE	2:CB:130:ARG:HA	1.53	0.71
38:BP:61:ARG:HH11	57:B8:13:ARG:HD2	1.55	0.71
27:DA:2876:G:H4'	42:DT:3:ARG:HD2	1.72	0.71
3:CC:11:ARG:NE	3:CC:180:ALA:HB3	2.05	0.71
27:DA:2415:G:H4'	38:DP:67:MET:N	2.05	0.71
27:BA:942:G:H5'	38:BP:35:HIS:CB	2.20	0.71
33:DG:72:ARG:HD3	33:DG:86:MET:CA	2.19	0.71
1:AA:256:U:H2'	1:AA:257:G:C8	2.25	0.71
27:BA:330:A:H2	27:BA:1210:A:H2'	1.55	0.71
1:CA:256:U:P	17:CQ:17:LYS:HZ2	2.14	0.71
27:BA:2334:G:N2	41:BS:18:ILE:HD11	2.05	0.71
1:CA:1457:G:C4	1:CA:1458:G:C8	2.79	0.71
27:BA:1494:A:N3	27:BA:1494:A:H3'	2.04	0.71
23:CW:37:U:OP1	26:CZ:1:KBE:HDA	1.90	0.71
38:BP:45:LEU:C	38:BP:45:LEU:HD23	2.11	0.71
27:BA:528:A:H2	27:BA:2043:C:H5'	1.56	0.71
27:DA:360:G:H2'	27:DA:361:G:H8	1.53	0.71
1:CA:591:U:H2'	1:CA:592:G:C8	2.25	0.71
32:BF:153:SER:HB2	32:BF:189:THR:HG22	1.71	0.71
23:AW:60:C:H2'	23:AW:61:C:H5'	1.70	0.71
27:DA:1386:C:H2'	27:DA:1387:C:H6	1.54	0.71
15:AO:70:LEU:HD11	15:AO:77:ARG:HG3	1.72	0.71
27:BA:2400:G:H4'	55:B6:19:ARG:HB3	1.71	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1321:C:H3'	1:CA:1322:C:C5'	2.11	0.71
42:BT:27:THR:O	42:BT:28:VAL:HB	1.90	0.71
27:BA:271(T):C:H6	27:BA:271(T):C:C5'	2.03	0.71
14:CN:57:ARG:HG2	14:CN:58:LYS:H	1.54	0.71
51:D2:12:GLU:O	51:D2:16:LEU:HG	1.90	0.71
36:DN:62:VAL:HG22	36:DN:66:LYS:HE3	1.70	0.71
10:AJ:63:PHE:HA	14:AN:59:ALA:HB2	1.71	0.71
27:DA:2621:A:O2'	31:DE:159:HIS:HB2	1.89	0.71
48:BZ:100:PRO:O	48:BZ:101:LEU:HD12	1.90	0.71
27:DA:709:U:H2'	27:DA:710:G:H8	1.56	0.71
51:B2:68:ARG:O	51:B2:69:ARG:HG3	1.91	0.71
25:CY:67:C:H2'	25:CY:68:C:O4'	1.91	0.71
27:BA:528:A:C2	27:BA:2042:A:H2'	2.26	0.71
27:DA:2562:U:H1'	37:DO:23:ARG:NH1	2.04	0.71
27:DA:1430:C:H2'	27:DA:1431:U:C6	2.24	0.71
36:BN:36:GLY:O	36:BN:42:TRP:HE3	1.74	0.71
32:BF:179:GLU:CD	32:BF:179:GLU:H	1.94	0.71
1:AA:359:U:H2'	1:AA:360:A:C8	2.25	0.71
8:AH:4:ASP:OD1	8:AH:7:ALA:HB2	1.90	0.71
35:DI:79:ILE:HD12	35:DI:100:ALA:HB3	1.73	0.71
32:BF:32:LEU:HD22	32:BF:112:MET:HE2	1.70	0.71
44:DV:46:VAL:HG22	44:DV:47:VAL:H	1.56	0.71
28:DB:16:G:O6	28:DB:109:C:H1'	1.89	0.71
27:DA:910:A:N7	39:DQ:13:GLN:HG3	2.04	0.71
4:AD:22:LYS:HG3	4:AD:26:CYS:SG	2.31	0.71
48:BZ:143:LEU:HG	48:BZ:149:LEU:HD12	1.71	0.71
1:CA:67:C:O2'	1:CA:171:A:H1'	1.91	0.71
27:DA:2528:U:H5''	58:D9:31:LYS:HZ3	1.53	0.71
33:DG:5:VAL:HG12	53:D4:51:TYR:HE1	1.53	0.71
51:B2:53:LEU:HA	51:B2:56:GLN:HG3	1.71	0.71
38:BP:71:VAL:CG1	38:BP:72:PRO:HD3	2.20	0.71
27:BA:1718:G:C8	27:BA:1718:G:H5'	2.25	0.71
48:BZ:127:VAL:HG13	48:BZ:128:SER:H	1.54	0.71
2:CB:132:LYS:HA	2:CB:135:GLN:HB2	1.72	0.71
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.25	0.71
3:CC:15:THR:HG21	3:CC:181:ASN:HA	1.71	0.71
28:DB:105:A:H2'	28:DB:106:G:O4'	1.91	0.71
46:DX:12:VAL:CB	46:DX:17:ALA:HB1	2.13	0.71
27:BA:2475:C:H42	27:BA:2529:G:N2	1.89	0.71
27:DA:1024:G:OP2	27:DA:1025:G:H3'	1.90	0.71
27:DA:469:G:O6	56:D7:37:LYS:HE2	1.91	0.71
31:DE:111:ARG:HD2	31:DE:160:TYR:HE1	1.56	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DF:9:ILE:HA	32:DF:13:SER:O	1.90	0.71
41:BS:27:SER:HA	41:BS:88:ASP:HB3	1.72	0.71
52:D3:6:VAL:HG12	52:D3:56:VAL:HA	1.70	0.71
27:DA:2839:G:H1	27:DA:2878:U:H3	1.39	0.71
27:DA:754:C:H2'	27:DA:755:C:C6	2.24	0.71
31:BE:2:LYS:HA	31:BE:84:PHE:CE2	2.26	0.71
1:CA:60:A:H4'	1:CA:61:G:O5'	1.91	0.71
1:CA:1162:C:H2'	1:CA:1163:C:C6	2.26	0.71
5:CE:73:ASN:O	5:CE:75:THR:N	2.22	0.71
54:B5:20:ARG:HA	54:B5:23:HIS:ND1	2.05	0.71
2:AB:57:PHE:O	2:AB:61:LEU:HB2	1.90	0.71
1:CA:284:G:H2'	1:CA:285:G:H8	1.55	0.71
27:DA:769:G:O2'	27:DA:770:G:H5'	1.89	0.71
53:B4:65:CYS:O	53:B4:66:HIS:CB	2.39	0.71
31:DE:116:VAL:HG21	31:DE:122:PHE:CD2	2.25	0.71
1:CA:1128:C:H4'	9:CI:16:ARG:NH1	2.04	0.71
3:AC:83:ARG:O	3:AC:86:VAL:HG22	1.90	0.71
1:CA:170:U:O2'	1:CA:171:A:H5'	1.91	0.71
1:CA:963:G:H21	10:CJ:55:LYS:NZ	1.89	0.71
27:BA:2348:U:H2'	27:BA:2349:G:H5'	1.71	0.71
27:DA:2050:C:H1'	31:DE:156:MET:CE	2.21	0.71
57:D8:64:TYR:HD1	57:D8:64:TYR:H	1.37	0.71
38:DP:18:ARG:O	38:DP:20:GLY:N	2.24	0.71
48:DZ:164:VAL:HG12	48:DZ:165:SER:N	2.06	0.71
1:AA:1152:A:H5''	10:AJ:13:HIS:HD2	1.53	0.71
4:CD:114:ARG:O	4:CD:117:ALA:HB3	1.90	0.71
1:CA:27:G:H5'	4:CD:209:ARG:HG2	1.71	0.71
4:AD:114:ARG:HG3	4:AD:114:ARG:HH11	1.55	0.71
27:DA:492:A:H2'	27:DA:493:G:O4'	1.90	0.71
40:BR:11:ASN:O	40:BR:12:ARG:HG3	1.90	0.71
38:BP:125:VAL:O	38:BP:145:PRO:HD2	1.89	0.71
27:DA:1038:C:H4'	27:DA:1039:G:OP1	1.90	0.71
10:CJ:5:ARG:O	10:CJ:98:ILE:HA	1.91	0.71
30:BD:92:ILE:HG13	30:BD:104:TYR:CD2	2.26	0.71
48:DZ:78:ARG:O	48:DZ:79:ARG:HB2	1.90	0.71
1:AA:80:G:N7	1:AA:81:U:H5	1.88	0.71
13:CM:67:GLU:O	13:CM:69:GLU:N	2.23	0.71
48:BZ:80:ARG:HB3	48:BZ:80:ARG:NH1	2.06	0.71
1:AA:1432:G:OP1	42:BT:107:ASP:HB2	1.91	0.71
27:DA:2134:A:N6	27:DA:2157:G:H1'	2.06	0.71
19:AS:6:LYS:CE	19:AS:6:LYS:H	2.03	0.71
32:DF:178:PRO:HB2	32:DF:201:VAL:HG11	1.71	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:126:ASP:HA	33:BG:166:ASP:OD1	1.91	0.71
57:B8:17:THR:HG23	57:B8:21:LYS:HB2	1.70	0.71
40:DR:58:GLY:HA2	40:DR:80:PHE:CE1	2.26	0.71
27:DA:2303:G:H1'	33:DG:132:ASN:HD22	1.56	0.71
18:CR:56:THR:HB	18:CR:58:LEU:CD1	2.20	0.71
11:CK:32:ILE:CD1	11:CK:72:ALA:HB2	2.18	0.71
9:AI:46:ALA:HB2	9:AI:74:ILE:HG23	1.73	0.71
17:CQ:16:GLN:O	17:CQ:17:LYS:HB2	1.91	0.71
15:AO:76:GLU:HA	15:AO:79:ARG:HH11	1.55	0.71
1:CA:68:G:N2	1:CA:102:G:N2	2.39	0.71
41:BS:33:LYS:HB3	41:BS:34:HIS:CD2	2.25	0.71
27:DA:2645:G:H3'	27:DA:2646:C:C5'	2.20	0.71
31:BE:101:ARG:CZ	31:BE:171:GLU:HB2	2.21	0.71
27:DA:634:C:H2'	27:DA:635:C:C6	2.25	0.71
35:BI:85:GLU:O	35:BI:123:LEU:HD11	1.90	0.71
27:BA:2065:C:O2'	27:BA:2066:C:H5'	1.91	0.71
25:AY:24:C:H2'	25:AY:25:A:H8	1.56	0.71
32:DF:28:ILE:O	32:DF:28:ILE:HD12	1.90	0.71
47:BY:96:ILE:HG21	47:BY:99:CYS:SG	2.31	0.70
33:BG:144:ILE:O	33:BG:144:ILE:HG23	1.90	0.70
30:DD:44:ASN:CB	30:DD:48:ARG:O	2.38	0.70
33:DG:128:ARG:HB3	33:DG:130:ASN:ND2	2.06	0.70
27:DA:1884:A:H2'	27:DA:1885:A:C5'	2.17	0.70
9:CI:77:ILE:O	9:CI:81:ILE:HG12	1.91	0.70
1:AA:1316:G:H4'	14:AN:18:VAL:HG11	1.73	0.70
42:BT:9:LEU:O	42:BT:13:ARG:NH2	2.23	0.70
47:DY:28:LYS:HB2	47:DY:37:VAL:C	2.11	0.70
47:BY:68:HIS:O	47:BY:71:LYS:HE2	1.90	0.70
4:CD:173:TRP:O	4:CD:186:LEU:HB2	1.91	0.70
50:B1:53:VAL:CG2	50:B1:74:VAL:HG13	2.21	0.70
27:BA:17:G:H4'	43:BU:25:TRP:CH2	2.26	0.70
27:DA:230:U:H2'	27:DA:230:U:O2	1.90	0.70
2:AB:92:TYR:CE1	2:AB:150:SER:HB2	2.27	0.70
8:AH:63:LEU:HB2	8:AH:65:TYR:CE1	2.25	0.70
38:DP:122:PRO:HG3	38:DP:141:ALA:HB3	1.72	0.70
27:DA:969:U:H2'	27:DA:970:C:C6	2.26	0.70
4:AD:154:ASN:HA	4:AD:159:ARG:NH2	2.05	0.70
1:AA:1065:U:H4'	1:AA:1066:C:O5'	1.91	0.70
38:DP:36:LYS:HA	38:DP:41:ARG:HD3	1.72	0.70
31:DE:16:ARG:O	31:DE:17:ASP:HB2	1.90	0.70
27:BA:412:A:H2'	27:BA:413:C:H5'	1.73	0.70
27:BA:1305:C:O2'	27:BA:1306:C:H5'	1.90	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:46:GLN:OE1	30:BD:46:GLN:N	2.24	0.70
27:BA:1887:C:H3'	27:BA:1888:G:H5''	1.72	0.70
13:AM:90:LEU:CD2	13:AM:93:ARG:HG2	2.12	0.70
44:DV:25:LEU:N	44:DV:92:THR:HG21	2.01	0.70
42:DT:66:VAL:HA	42:DT:71:GLY:HA2	1.73	0.70
38:BP:18:ARG:HH11	38:BP:18:ARG:CG	2.04	0.70
36:DN:21:LYS:O	36:DN:60:ILE:HG23	1.90	0.70
1:AA:1137:C:H4'	1:AA:1138:G:N2	2.06	0.70
27:BA:1884:A:H2'	27:BA:1885:A:C5'	2.21	0.70
27:DA:874:G:H5'	27:DA:874:G:H8	1.56	0.70
6:CF:74:ASP:HA	6:CF:77:ARG:NH1	2.06	0.70
23:CW:24:C:C2'	23:CW:25:A:H5'	2.20	0.70
1:AA:628:G:O2'	1:AA:629:G:H5'	1.90	0.70
27:DA:1286:A:C2'	27:DA:1288:U:OP2	2.39	0.70
27:BA:1887:C:C3'	27:BA:1888:G:H5''	2.21	0.70
23:CW:65:U:H2'	23:CW:66:A:C8	2.26	0.70
1:AA:838:G:H2'	1:AA:839:U:H5''	1.73	0.70
1:CA:627:G:O2'	1:CA:628:G:H5'	1.91	0.70
27:BA:49:A:H5''	27:BA:51:G:O4'	1.92	0.70
27:BA:755:C:H2'	27:BA:756:C:H6	1.56	0.70
27:DA:2712:U:H1'	27:DA:2712(A):A:C8	2.25	0.70
37:BO:17:ARG:HD3	37:BO:47:ILE:HD13	1.73	0.70
42:BT:28:VAL:CG1	42:BT:46:GLU:HA	2.21	0.70
27:DA:2801(A):A:C4'	27:DA:2802:G:H5'	2.15	0.70
48:DZ:119:ILE:O	48:DZ:120:HIS:HB2	1.90	0.70
48:DZ:120:HIS:O	48:DZ:170:ILE:HG22	1.90	0.70
41:DS:89:ARG:HD3	41:DS:92:TYR:CA	2.19	0.70
44:BV:18:LEU:HD22	44:BV:19:LYS:HA	1.74	0.70
27:BA:1689:A:H62	27:BA:1698:A:H2	1.37	0.70
2:CB:168:THR:HG23	2:CB:192:SER:HB3	1.72	0.70
48:BZ:116:LEU:HB2	48:BZ:173:VAL:HG22	1.73	0.70
27:DA:848:G:H5'	27:DA:848:G:H8	1.56	0.70
27:BA:958:U:H5''	39:BQ:14:ARG:CD	2.20	0.70
3:AC:30:ARG:NH1	14:AN:38:GLY:HA2	2.06	0.70
27:BA:902:C:O2'	27:BA:903:C:H5'	1.92	0.70
39:BQ:55:VAL:HG23	39:BQ:56:ARG:N	2.06	0.70
30:DD:61:LEU:HB3	30:DD:63:ARG:NH1	2.06	0.70
51:B2:31:GLU:HB2	51:B2:53:LEU:HD11	1.72	0.70
27:BA:2041:U:O2'	27:BA:2042:A:H5'	1.89	0.70
7:AG:102:ARG:HG2	7:AG:106:GLN:NE2	2.06	0.70
27:BA:1568:G:H21	30:BD:58:HIS:HE1	1.39	0.70
27:BA:1666:G:O2'	27:BA:1667:G:H5'	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:73:ASN:HD22	5:CE:73:ASN:C	1.94	0.70
42:DT:60:THR:HG22	42:DT:77:PRO:HA	1.74	0.70
27:BA:536:A:H2'	27:BA:537:C:C6	2.27	0.70
1:AA:1109:C:H2'	1:AA:1110:A:O4'	1.91	0.70
3:CC:155:GLY:O	3:CC:156:ARG:HB2	1.92	0.70
28:BB:3:C:H42	28:BB:118:G:H1	1.40	0.70
16:AP:11:SER:H	16:AP:14:ASN:HD22	1.36	0.70
1:AA:222:U:H2'	1:AA:223:U:C6	2.25	0.70
3:AC:90:GLU:O	3:AC:93:LYS:HB3	1.90	0.70
16:CP:13:HIS:C	16:CP:15:PRO:HD3	2.11	0.70
47:BY:28:LYS:CB	47:BY:37:VAL:HB	2.21	0.70
35:BI:108:THR:C	35:BI:109:ILE:HD12	2.11	0.70
20:AT:55:ILE:HG22	20:AT:56:MET:N	2.05	0.70
57:B8:61:LEU:CD1	57:B8:61:LEU:H	1.95	0.70
31:DE:34:VAL:HG23	31:DE:48:GLN:HE21	1.55	0.70
43:BU:90:VAL:HG12	43:BU:91:ASP:N	2.05	0.70
5:AE:101:ILE:HD11	5:AE:119:LEU:HD23	1.73	0.70
34:BH:44:VAL:C	34:BH:46:GLU:H	1.92	0.70
32:DF:29:ASN:HB2	32:DF:112:MET:HE3	1.73	0.70
3:AC:175:LEU:HD21	3:AC:201:TYR:CE2	2.24	0.70
19:AS:6:LYS:O	19:AS:7:LYS:HD3	1.91	0.70
1:CA:1095:U:H2'	1:CA:1096:C:H6	1.55	0.70
1:CA:390:C:H2'	1:CA:391:G:C8	2.26	0.70
1:CA:495:A:H4'	1:CA:496:A:OP1	1.90	0.70
27:BA:2283:C:C2'	27:BA:2284:C:H5'	2.21	0.70
13:AM:91:ARG:NH1	13:AM:96:LEU:HD13	2.06	0.70
48:DZ:27:MET:HA	48:DZ:87:PHE:O	1.91	0.70
48:DZ:93:GLU:O	48:DZ:95:VAL:HG23	1.91	0.70
27:BA:89:G:C3'	27:BA:90:U:C5'	2.66	0.70
33:DG:129:GLY:O	33:DG:161:THR:HB	1.92	0.70
42:DT:80:SER:HB3	42:DT:81:PRO:CD	2.21	0.70
9:CI:5:TYR:CE2	9:CI:16:ARG:HG2	2.26	0.70
29:DC:68:LEU:HD22	29:DC:180:PHE:N	2.06	0.70
31:DE:112:GLY:HA3	40:DR:2:ARG:HG2	1.74	0.70
32:DF:6:VAL:HG11	32:DF:124:LEU:HD13	1.73	0.70
1:CA:644:G:H5'	8:CH:92:ARG:HH22	1.57	0.70
1:CA:472:A:H4'	16:CP:80:PHE:O	1.91	0.70
42:BT:55:ASN:H	42:BT:59:THR:HB	1.55	0.70
27:DA:1717:G:C2'	27:DA:1718:G:H5''	2.22	0.70
27:DA:752:A:O2'	27:DA:753:C:OP2	2.07	0.70
48:DZ:47:PHE:CE1	48:DZ:51:SER:HA	2.27	0.70
44:BV:21:ARG:HD3	44:BV:21:ARG:N	2.06	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2189:U:C3'	27:BA:2190:G:H5''	2.21	0.70
32:DF:157:VAL:HB	32:DF:194:MET:HB3	1.72	0.70
2:AB:178:ARG:HD2	8:AH:71:GLY:O	1.90	0.70
37:DO:113:LYS:HA	37:DO:116:SER:OG	1.91	0.70
50:B1:5:CYS:SG	50:B1:62:VAL:HG23	2.31	0.70
42:BT:23:ARG:HB2	42:BT:24:PRO:HD2	1.73	0.70
33:BG:85:GLY:C	33:BG:87:PRO:HD2	2.12	0.70
38:DP:59:LEU:CA	38:DP:61:ARG:CZ	2.69	0.70
41:DS:88:ASP:OD2	41:DS:89:ARG:N	2.24	0.70
27:DA:319:C:H2'	27:DA:320:A:C8	2.26	0.70
7:AG:15:ASP:OD2	7:AG:16:LEU:N	2.24	0.70
27:DA:1998:G:H4'	27:DA:2724:C:O2'	1.90	0.70
47:DY:84:ARG:HH12	47:DY:97:ARG:HB3	1.56	0.70
32:DF:123:LEU:HD12	32:DF:124:LEU:N	2.04	0.70
3:AC:63:ASN:H	3:AC:97:LYS:HZ3	1.39	0.70
1:CA:1207:G:H2'	1:CA:1208:C:H6	1.54	0.70
27:DA:30:G:H2'	27:DA:31:C:H6	1.55	0.70
27:DA:592:G:O2'	57:D8:4:MET:HB2	1.91	0.70
16:AP:50:LYS:NZ	16:AP:52:ASP:HB2	2.07	0.70
11:AK:21:ILE:HB	11:AK:84:VAL:HG12	1.72	0.70
27:DA:2523:G:H8	27:DA:2523:G:H5'	1.55	0.70
36:BN:67:LEU:H	36:BN:67:LEU:HD12	1.55	0.70
44:DV:72:VAL:HG23	44:DV:85:LYS:HB3	1.74	0.70
27:BA:2261:C:OP1	49:B0:17:GLN:NE2	2.24	0.70
16:CP:67:THR:HB	16:CP:70:ALA:HB2	1.73	0.70
28:DB:24:G:H4'	28:DB:25:A:C8	2.26	0.70
38:DP:71:VAL:H	38:DP:72:PRO:HD3	1.56	0.70
1:AA:693:G:H1'	7:AG:82:GLY:HA3	1.73	0.70
57:B8:51:ALA:HA	57:B8:54:GLU:OE2	1.91	0.70
4:AD:199:ASN:HD22	4:AD:202:LEU:HG	1.57	0.70
4:AD:7:PRO:CB	4:AD:10:ARG:HD2	2.19	0.70
35:DI:114:LEU:HG	35:DI:130:TYR:CD1	2.26	0.70
14:CN:47:LEU:HA	14:CN:50:LYS:HD3	1.74	0.70
57:B8:61:LEU:HD12	57:B8:61:LEU:N	2.05	0.70
33:DG:43:LEU:H	33:DG:43:LEU:HD22	1.57	0.70
27:DA:1141:U:C5	36:DN:64:GLY:HA3	2.27	0.70
9:AI:89:ASN:HB3	9:AI:92:TYR:HB2	1.72	0.70
47:DY:28:LYS:HB3	47:DY:39:VAL:H	1.55	0.70
1:AA:96:U:H2'	1:AA:97:G:C8	2.26	0.70
27:BA:27:G:N2	27:BA:512:G:C2'	2.54	0.70
20:CT:26:ASN:HB2	20:CT:71:THR:HG23	1.74	0.70
3:AC:148:GLY:HA3	3:AC:172:ARG:O	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:123:LEU:HD12	32:BF:124:LEU:N	2.07	0.70
36:BN:16:ILE:HD11	36:BN:26:LEU:HD11	1.74	0.70
27:BA:2023:G:H5'	27:BA:2617:C:H4'	1.73	0.70
27:DA:338:G:H2'	27:DA:339:U:C6	2.27	0.70
33:BG:22:ARG:NH1	33:BG:22:ARG:HB3	2.06	0.70
1:CA:376:G:H5''	16:CP:5:ARG:HD2	1.73	0.70
27:BA:2298:A:H2'	27:BA:2299:G:O4'	1.92	0.70
27:DA:2178:C:H4'	29:DC:46:LYS:NZ	2.06	0.70
27:BA:1636:C:H2'	27:BA:1637:A:C8	2.25	0.70
1:AA:650:G:O2'	1:AA:651:C:H5'	1.91	0.70
59:CX:49:G:H1	59:CX:65:C:H42	1.35	0.70
27:DA:1528(A):A:H3'	27:DA:1529:G:H5''	1.73	0.70
7:AG:140:ASP:HA	7:AG:143:ARG:NH1	2.07	0.70
56:D7:8:ASN:C	56:D7:8:ASN:HD22	1.94	0.70
27:BA:598:G:H5''	38:BP:14:LYS:HD3	1.73	0.70
11:AK:12:ARG:HH21	11:AK:14:VAL:HG11	1.57	0.70
5:CE:6:PHE:HB2	5:CE:34:VAL:HG12	1.73	0.70
48:DZ:95:VAL:HG12	48:DZ:96:GLU:N	2.06	0.70
31:DE:134:ILE:HA	31:DE:137:HIS:CD2	2.26	0.70
33:DG:128:ARG:C	33:DG:130:ASN:H	1.94	0.70
27:DA:1021:A:C8	27:DA:1021:A:H3'	2.27	0.70
9:CI:20:ARG:HB2	9:CI:60:ASP:HB2	1.71	0.70
38:BP:30:THR:CG2	38:BP:31:ALA:H	2.05	0.70
27:BA:779:U:OP1	30:BD:49:ILE:HG22	1.92	0.70
52:D3:8:LEU:CD1	52:D3:31:LEU:HA	2.21	0.70
27:DA:2334:G:H21	41:DS:18:ILE:HD11	1.57	0.70
3:AC:135:LYS:HZ1	5:AE:50:GLU:HG2	1.55	0.70
3:CC:47:LEU:HD23	3:CC:68:VAL:HG11	1.72	0.70
57:D8:6:THR:CG2	57:D8:63:PRO:HD3	2.22	0.70
4:CD:30:LYS:CA	4:CD:35:ARG:HD2	2.20	0.70
27:BA:2134:A:C2	27:BA:2159:G:H1'	2.27	0.70
34:DH:28:GLY:HA3	34:DH:79:VAL:HB	1.74	0.70
27:BA:15:G:O2'	27:BA:16:G:H5'	1.91	0.70
27:DA:2331:G:H4'	49:D0:43:THR:H	1.56	0.70
6:AF:100:ASN:O	18:AR:28:GLU:HB2	1.92	0.70
30:DD:65:ILE:HD11	30:DD:67:PHE:CE1	2.26	0.70
27:DA:435:C:O2'	27:DA:436:C:H5'	1.91	0.70
27:DA:2672:G:H2'	27:DA:2673:G:H5''	1.74	0.70
1:CA:784:C:H4'	27:DA:1837:C:OP1	1.91	0.70
27:DA:1416:G:H21	27:DA:1586:A:N6	1.88	0.70
1:AA:1444:C:H2'	1:AA:1445:C:C6	2.26	0.70
55:D6:41:PRO:CD	55:D6:46:HIS:N	2.55	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:631:A:OP1	38:DP:64:LYS:HE2	1.91	0.70
38:DP:80:TYR:CE1	38:DP:111:ARG:HD3	2.27	0.70
28:DB:20:C:H2'	28:DB:21:G:C5'	2.22	0.70
38:BP:29:LYS:HD2	38:BP:29:LYS:N	2.07	0.70
38:BP:23:PRO:HB2	38:BP:33:ARG:CG	2.21	0.70
33:DG:60:LEU:HD12	33:DG:68:PRO:HG2	1.72	0.70
1:CA:1291:G:H4'	9:CI:39:GLY:HA3	1.74	0.70
30:BD:168:ARG:HG3	30:BD:168:ARG:HH11	1.56	0.70
20:AT:97:ALA:O	20:AT:99:LEU:N	2.22	0.70
18:AR:56:THR:HB	18:AR:58:LEU:CD1	2.22	0.70
33:BG:161:THR:HG22	33:BG:163:ALA:N	2.06	0.70
23:CW:35:G:HO2'	23:CW:36:A:H8	1.39	0.70
30:DD:134:ARG:HG3	30:DD:135:PHE:CD1	2.27	0.70
4:CD:199:ASN:ND2	4:CD:202:LEU:HG	2.07	0.70
42:DT:25:GLY:O	42:DT:49:VAL:HG12	1.92	0.70
49:B0:51:VAL:HG22	49:B0:81:VAL:HG23	1.72	0.70
1:CA:1068:G:N7	1:CA:1094:G:H2'	2.07	0.70
18:AR:66:LEU:CD1	18:AR:70:ILE:HD11	2.21	0.70
7:AG:102:ARG:HG2	7:AG:106:GLN:HE21	1.56	0.70
54:B5:20:ARG:HA	54:B5:23:HIS:CE1	2.26	0.70
2:CB:236:TYR:HA	2:CB:239:VAL:HG23	1.73	0.70
35:DI:30:LEU:HD23	35:DI:35:LEU:HD12	1.73	0.70
50:B1:40:ARG:HD3	50:B1:40:ARG:C	2.12	0.70
45:BW:36:LEU:HD13	45:BW:48:ALA:HA	1.73	0.70
31:DE:37:ARG:HA	31:DE:42:ASP:OD2	1.91	0.70
27:DA:2223:G:H2'	27:DA:2224:G:H5'	1.72	0.70
55:B6:15:GLU:OE1	55:B6:43:CYS:HB3	1.91	0.70
4:AD:8:VAL:O	4:AD:10:ARG:N	2.23	0.70
55:D6:11:LEU:C	55:D6:11:LEU:HD22	2.11	0.70
4:AD:49:ARG:HD3	4:AD:49:ARG:C	2.11	0.70
1:CA:1117:G:O3'	9:CI:104:ARG:HG3	1.92	0.70
49:D0:27:GLU:HA	49:D0:67:VAL:HG12	1.73	0.70
10:AJ:79:ARG:HH11	10:AJ:79:ARG:HA	1.56	0.70
17:CQ:17:LYS:HA	17:CQ:46:ASP:O	1.91	0.70
27:BA:2330:G:H4'	49:B0:44:ARG:HH12	1.56	0.70
2:AB:30:ARG:HH21	2:AB:194:PRO:HG3	1.56	0.70
1:CA:1054:C:C2'	1:CA:1054:C:O2	2.40	0.70
3:AC:63:ASN:H	3:AC:97:LYS:NZ	1.89	0.70
27:BA:285:C:C2'	27:BA:286:C:H5''	2.22	0.70
6:CF:77:ARG:HB3	6:CF:77:ARG:NH1	2.07	0.70
27:DA:2892:A:H3'	27:DA:2893:G:H5''	1.73	0.70
50:B1:90:ILE:O	50:B1:94:LEU:HD12	1.92	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.73	0.70
12:AL:5:ASN:ND2	17:AQ:34:LYS:HE2	2.05	0.70
49:B0:36:ILE:HD12	49:B0:36:ILE:C	2.11	0.70
35:DI:2:LYS:HA	35:DI:20:ASP:CB	2.22	0.70
27:DA:389:G:H22	38:DP:72:PRO:CG	2.04	0.70
27:DA:2672:G:C3'	27:DA:2673:G:H5''	2.22	0.70
42:BT:125:ARG:O	42:BT:128:GLU:HG3	1.92	0.70
43:BU:8:VAL:HG12	43:BU:12:ARG:HG3	1.72	0.70
27:DA:1444:G:H2'	27:DA:1445(A):C:C5	2.27	0.70
45:BW:29:LEU:HD21	45:BW:33:ARG:HH21	1.56	0.70
27:BA:2036:C:H5'	27:BA:2036:C:H6	1.57	0.70
1:AA:1026:G:N3	1:AA:1026:G:H2'	2.06	0.70
4:CD:3:ARG:NE	4:CD:5:ILE:HG13	2.06	0.70
4:AD:129:ASN:HD21	4:AD:144:ASP:HA	1.57	0.70
38:BP:63:PRO:HA	57:B8:13:ARG:HB2	1.74	0.69
57:B8:48:PHE:O	57:B8:49:VAL:HG13	1.92	0.69
38:BP:64:LYS:O	38:BP:65:ARG:C	2.31	0.69
13:AM:91:ARG:HB3	13:AM:98:VAL:HG22	1.73	0.69
47:BY:28:LYS:HB2	47:BY:37:VAL:HB	1.74	0.69
42:DT:88:ILE:HG22	42:DT:89:VAL:N	2.07	0.69
27:DA:1902:C:O2'	30:DD:244:ARG:HB2	1.92	0.69
30:BD:35:LYS:NZ	30:BD:103:ARG:HA	2.07	0.69
18:CR:43:PHE:HE2	18:CR:58:LEU:HD11	1.57	0.69
31:DE:47:VAL:HG21	31:DE:86:PRO:CD	2.22	0.69
40:DR:103:ARG:HD2	45:DW:40:ASN:ND2	2.06	0.69
2:CB:167:PRO:HD3	2:CB:188:ALA:HA	1.74	0.69
41:BS:92:TYR:CD1	41:BS:93:LYS:N	2.59	0.69
27:DA:272(D):G:H2'	27:DA:272(E):G:C8	2.27	0.69
40:DR:24:GLN:NE2	40:DR:36:THR:HG21	2.07	0.69
27:BA:1114:G:C2'	27:BA:1115:G:H5''	2.22	0.69
50:B1:18:ILE:HG21	50:B1:20:ARG:NH2	2.06	0.69
31:BE:16:ARG:HH12	31:BE:171:GLU:CD	1.95	0.69
2:CB:131:PRO:HG2	2:CB:134:GLU:HB2	1.73	0.69
8:CH:10:LEU:HD22	8:CH:83:ILE:HD11	1.73	0.69
37:BO:14:THR:HG22	37:BO:52:VAL:CG1	2.22	0.69
2:CB:209:ARG:HH11	2:CB:239:VAL:HG11	1.57	0.69
47:BY:2:ARG:O	47:BY:5:MET:HG2	1.91	0.69
7:CG:52:GLU:O	7:CG:54:THR:N	2.25	0.69
27:DA:1335:U:H2'	27:DA:1336:A:H8	1.55	0.69
30:DD:210:GLY:O	30:DD:211:ARG:HB3	1.90	0.69
1:CA:736:C:H2'	1:CA:737:A:C8	2.27	0.69
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.07	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:D3:26:LEU:HD21	52:D3:46:ASN:HB2	1.74	0.69
17:CQ:94:ASN:O	17:CQ:98:LEU:HG	1.92	0.69
47:BY:12:THR:O	47:BY:75:ILE:HG22	1.92	0.69
47:BY:28:LYS:HA	47:BY:39:VAL:H	1.55	0.69
42:BT:16:ARG:NH2	42:BT:82:LEU:O	2.25	0.69
33:BG:63:ILE:HB	33:BG:141:PHE:CD1	2.26	0.69
55:D6:33:LYS:O	55:D6:34:LEU:HB2	1.91	0.69
57:D8:50:LEU:HD12	57:D8:51:ALA:H	1.57	0.69
42:DT:13:ARG:NE	42:DT:13:ARG:HA	2.08	0.69
38:DP:33:ARG:O	38:DP:34:GLY:C	2.31	0.69
27:DA:1019:U:H3	27:DA:1142(A):A:N6	1.90	0.69
36:DN:23:LEU:HB3	36:DN:60:ILE:HG21	1.74	0.69
18:CR:36:ASN:ND2	18:CR:39:VAL:HG21	2.03	0.69
40:DR:2:ARG:NH2	40:DR:5:LYS:CE	2.55	0.69
41:BS:28:VAL:HB	41:BS:89:ARG:CG	2.22	0.69
20:CT:23:ARG:O	20:CT:27:LYS:HB2	1.92	0.69
27:DA:848:G:C2	27:DA:933:A:H1'	2.27	0.69
1:AA:389:A:C2'	1:AA:390:C:H5'	2.22	0.69
26:CZ:1:KBE:HEA	26:CZ:1:KBE:O	1.91	0.69
29:BC:72:VAL:CG1	29:BC:74:VAL:HG23	2.21	0.69
36:BN:56:ASN:HA	36:BN:125:GLY:H	1.55	0.69
5:AE:50:GLU:OE2	5:AE:51:VAL:HG23	1.91	0.69
36:BN:62:VAL:HG22	36:BN:66:LYS:HD3	1.71	0.69
9:CI:45:ALA:HB3	9:CI:74:ILE:HG21	1.73	0.69
19:AS:6:LYS:C	19:AS:7:LYS:HD3	2.13	0.69
1:AA:56:U:H2'	1:AA:57:G:C8	2.25	0.69
33:DG:5:VAL:N	33:DG:8:LYS:HG3	2.07	0.69
1:AA:153:C:H2'	1:AA:154:C:H6	1.57	0.69
32:DF:66:PRO:O	32:DF:67:GLN:HB3	1.91	0.69
1:CA:817:C:H4'	1:CA:818:G:OP1	1.91	0.69
37:BO:35:VAL:HG11	37:BO:103:ALA:HB3	1.73	0.69
48:DZ:175:PRO:HB3	48:DZ:176:PRO:HD2	1.74	0.69
27:DA:34:C:O2'	27:DA:35:G:H5'	1.92	0.69
38:BP:64:LYS:HD2	57:B8:25:MET:SD	2.32	0.69
14:CN:46:GLU:O	14:CN:50:LYS:HG3	1.92	0.69
31:BE:68:ALA:O	31:BE:70:ALA:N	2.24	0.69
2:AB:222:ILE:O	2:AB:226:ARG:HB2	1.91	0.69
30:BD:24:ILE:HG23	30:BD:25:THR:N	2.06	0.69
27:BA:1000:A:H8	27:BA:1000:A:H5'	1.57	0.69
43:BU:104:GLN:HB2	44:BV:44:LYS:NZ	2.07	0.69
29:BC:95:GLY:HA3	29:BC:99:ILE:CD1	2.22	0.69
37:BO:18:LYS:CB	37:BO:45:GLU:HG2	2.21	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:85:ARG:HD3	8:CH:86:ILE:N	2.07	0.69
1:CA:99:U:H5''	1:CA:100:C:OP1	1.91	0.69
32:BF:63:LYS:NZ	32:BF:67:GLN:HB2	2.07	0.69
19:AS:5:LEU:H	19:AS:6:LYS:HZ1	1.40	0.69
39:BQ:21:THR:HG21	39:BQ:101:ARG:CD	2.21	0.69
1:AA:1169:A:H2'	1:AA:1170:A:H8	1.56	0.69
43:DU:74:LEU:HD12	43:DU:78:THR:HB	1.73	0.69
35:DI:10:GLU:CD	35:DI:11:ASN:N	2.45	0.69
23:CW:73:C:H2'	23:CW:74:C:H5'	1.74	0.69
31:BE:143:ASN:HB2	31:BE:147:PRO:HD2	1.74	0.69
27:BA:476:G:H4'	27:BA:502:A:N1	2.07	0.69
27:BA:845:G:HO2'	27:BA:846:C:H5	1.36	0.69
27:DA:1365:A:H5''	50:D1:41:ARG:HH12	1.57	0.69
1:CA:382:A:H2'	1:CA:383:A:H8	1.56	0.69
1:AA:1499:A:H1'	1:AA:1520:G:H5'	1.74	0.69
25:AY:7:A:O2'	25:AY:8:U:H5'	1.91	0.69
40:BR:32:GLY:O	40:BR:115:GLU:HA	1.92	0.69
33:BG:82:LEU:HD22	33:BG:87:PRO:HG3	1.75	0.69
48:DZ:14:PRO:O	48:DZ:18:ARG:HG3	1.92	0.69
38:DP:111:ARG:HA	38:DP:128:HIS:CD2	2.27	0.69
41:DS:67:ARG:NH1	41:DS:100:ALA:HB3	2.02	0.69
32:BF:183:VAL:O	32:BF:187:VAL:HG23	1.92	0.69
42:DT:63:VAL:O	42:DT:73:GLU:HA	1.92	0.69
9:CI:10:ARG:HD3	9:CI:75:ASP:HB3	1.73	0.69
27:DA:2491:U:H5'	27:DA:2491:U:C6	2.15	0.69
1:CA:1363(A):A:H4'	1:CA:1364:U:H5''	1.73	0.69
3:AC:5:ILE:HD13	3:AC:6:HIS:H	1.57	0.69
31:BE:63:LEU:O	31:BE:63:LEU:HD23	1.92	0.69
27:BA:2334:G:H5'	41:BS:13:ARG:HG2	1.74	0.69
27:BA:1902:C:C1'	30:BD:244:ARG:HG3	2.22	0.69
10:CJ:40:LEU:HD23	10:CJ:40:LEU:H	1.56	0.69
11:CK:61:ALA:HB3	11:CK:90:GLY:HA3	1.74	0.69
42:DT:23:ARG:O	42:DT:25:GLY:N	2.25	0.69
1:CA:1513:A:H2'	1:CA:1514:C:H6	1.58	0.69
8:CH:112:LEU:O	8:CH:112:LEU:HD12	1.93	0.69
31:BE:95:ILE:HD12	31:BE:95:ILE:H	1.56	0.69
1:CA:710:G:H2'	1:CA:711:G:H8	1.58	0.69
27:DA:1754:C:OP1	42:DT:96:ARG:NH1	2.26	0.69
27:DA:896:A:H1'	48:DZ:145:ILE:HD11	1.75	0.69
27:BA:2552:U:H2'	27:BA:2554:U:H5''	1.74	0.69
20:AT:86:ARG:HH11	20:AT:86:ARG:HG3	1.57	0.69
55:D6:15:GLU:O	55:D6:15:GLU:HG2	1.92	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:38:ILE:HG12	10:CJ:71:LEU:O	1.91	0.69
10:CJ:34:VAL:HG13	10:CJ:73:ASP:O	1.92	0.69
43:DU:92:ARG:C	43:DU:94:ASN:H	1.95	0.69
27:DA:1689:A:H62	27:DA:1698:A:H2	1.39	0.69
44:BV:19:LYS:NZ	44:BV:20:LEU:HB2	2.07	0.69
31:BE:12:THR:HG23	42:BT:8:LYS:HE2	1.73	0.69
50:B1:14:VAL:HG22	50:B1:41:ARG:HG2	1.75	0.69
47:DY:7:VAL:CG2	47:DY:8:LYS:NZ	2.55	0.69
2:CB:166:ASP:HB3	2:CB:169:LYS:CB	2.23	0.69
48:BZ:116:LEU:HD12	48:BZ:173:VAL:CG2	2.23	0.69
19:CS:61:TYR:HD2	19:CS:62:ILE:N	1.91	0.69
1:CA:1457:G:C6	1:CA:1458:G:N7	2.61	0.69
1:CA:1409:C:H4'	27:DA:1915:U:O4	1.91	0.69
2:AB:27:LYS:HE2	2:AB:195:ASP:HB2	1.73	0.69
3:CC:84:ILE:O	3:CC:88:ARG:HG3	1.93	0.69
12:AL:23:ALA:C	12:AL:24:LEU:HD22	2.13	0.69
35:DI:10:GLU:O	35:DI:11:ASN:CB	2.40	0.69
27:DA:2098:U:H2'	27:DA:2099:U:H6	1.56	0.69
31:DE:25:VAL:HG13	31:DE:183:LEU:HD12	1.75	0.69
1:AA:731:G:OP1	1:AA:766:A:H1'	1.92	0.69
27:DA:1268:A:H2'	27:DA:1269:A:O4'	1.92	0.69
48:DZ:62:ASP:C	48:DZ:64:GLN:H	1.95	0.69
1:AA:1174:G:H2'	1:AA:1175:G:C8	2.27	0.69
1:AA:542:G:H5'	4:AD:41:GLY:HA3	1.75	0.69
47:BY:7:VAL:HG21	47:BY:8:LYS:HZ1	1.56	0.69
42:BT:60:THR:HG22	42:BT:77:PRO:HA	1.75	0.69
53:B4:40:ILE:HG23	53:B4:57:ILE:HG22	1.74	0.69
10:CJ:37:PRO:HA	10:CJ:72:VAL:HG22	1.73	0.69
27:DA:626:U:N3	38:DP:105:LEU:HB3	2.04	0.69
33:DG:171:ALA:O	33:DG:175:LEU:HD13	1.90	0.69
33:DG:76:SER:CA	33:DG:83:ARG:HB2	2.21	0.69
27:BA:910:A:C5	39:BQ:13:GLN:HG3	2.27	0.69
4:AD:30:LYS:C	4:AD:32:ALA:H	1.95	0.69
12:AL:38:ARG:HG2	12:AL:39:THR:H	1.58	0.69
45:DW:15:ARG:O	45:DW:19:LEU:HD13	1.92	0.69
32:DF:78:ILE:CD1	32:DF:78:ILE:H	2.04	0.69
3:AC:16:ARG:HH11	3:AC:16:ARG:HA	1.57	0.69
27:DA:355:G:H2'	27:DA:356:G:H5'	1.74	0.69
40:DR:8:ARG:HE	40:DR:8:ARG:HA	1.56	0.69
3:AC:64:VAL:HG22	3:AC:99:VAL:HA	1.73	0.69
36:DN:10:GLU:CG	36:DN:11:PRO:HD2	2.23	0.69
27:DA:27:G:H22	27:DA:512:G:H2'	1.54	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:54:VAL:O	13:CM:58:GLU:HG2	1.92	0.69
27:DA:65:C:H2'	27:DA:66:C:H6	1.58	0.69
27:BA:1798:U:H5'	30:BD:259:THR:CG2	2.21	0.69
31:DE:203:LYS:HG3	31:DE:204:ALA:H	1.56	0.69
27:BA:16:G:H2'	27:BA:17:G:H8	1.57	0.69
15:CO:15:PHE:CE2	15:CO:84:LYS:HD3	2.28	0.69
2:AB:122:PHE:HA	2:AB:139:LYS:NZ	2.06	0.69
27:BA:8:A:H2'	27:BA:9:U:C5	2.27	0.69
1:CA:179:A:H2'	1:CA:180:U:C6	2.27	0.69
27:DA:500:G:N2	27:DA:502:A:H3'	2.08	0.69
1:AA:194:C:H2'	1:AA:195:A:H5''	1.75	0.69
1:AA:1038:C:H2'	1:AA:1039:C:C6	2.27	0.69
2:CB:28:PHE:CE1	2:CB:31:TYR:HB2	2.28	0.69
55:B6:12:GLU:O	55:B6:51:GLU:O	2.09	0.69
38:BP:65:ARG:HH11	38:BP:65:ARG:HG2	1.57	0.69
35:DI:115:ALA:HB3	35:DI:129:THR:N	2.07	0.69
27:DA:2875:C:H2'	27:DA:2876:G:O4'	1.93	0.69
33:BG:82:LEU:HD22	33:BG:87:PRO:CG	2.23	0.69
27:DA:2863:C:C2'	27:DA:2864:G:H5''	2.23	0.69
27:BA:66:C:C2	27:BA:89:G:C2	2.81	0.69
30:DD:43:ARG:HH11	30:DD:44:ASN:ND2	1.90	0.69
28:DB:19:G:H2'	28:DB:20:C:O4'	1.93	0.69
48:DZ:79:ARG:O	48:DZ:81:ARG:N	2.21	0.69
41:DS:34:HIS:HB3	41:DS:54:LEU:CD2	2.22	0.69
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.23	0.69
1:AA:1279:A:H5''	1:AA:1280:A:OP1	1.92	0.69
19:CS:45:VAL:HA	19:CS:62:ILE:HG23	1.75	0.69
43:BU:92:ARG:CZ	44:BV:11:GLN:HB2	2.23	0.69
27:BA:2807:G:H3'	27:BA:2808:U:H5''	1.75	0.69
1:CA:532:A:H3'	1:CA:533:A:H5'	1.73	0.69
27:DA:2815:C:O2'	54:D5:43:HIS:CD2	2.44	0.69
35:BI:8:PRO:HA	35:BI:13:GLY:CA	2.23	0.69
1:AA:532:A:H2	1:AA:1207:G:H4'	1.57	0.69
30:DD:35:LYS:HZ3	30:DD:103:ARG:HA	1.58	0.69
29:DC:18:LYS:HD3	29:DC:19:VAL:N	2.08	0.69
27:BA:845:G:O2'	27:BA:846:C:H5	1.75	0.69
46:DX:36:LYS:HE3	46:DX:56:THR:HG22	1.72	0.69
27:BA:2123:G:H2'	27:BA:2124:G:C8	2.27	0.69
30:BD:28:GLU:HB2	30:BD:29:PRO:CD	2.23	0.69
1:CA:1479:C:H2'	1:CA:1480:G:H8	1.56	0.69
17:CQ:82:MET:O	17:CQ:85:VAL:HB	1.91	0.69
1:CA:198:G:HO2'	1:CA:199:G:H8	1.39	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:222:U:H2'	1:CA:223:U:C6	2.27	0.69
27:BA:1430:C:H2'	27:BA:1431:U:C6	2.28	0.69
38:BP:115:LEU:HA	38:BP:134:ALA:HB2	1.72	0.69
57:B8:52:LYS:N	57:B8:53:PRO:CD	2.55	0.69
35:DI:72:LEU:CD2	35:DI:75:LEU:HD23	2.22	0.69
42:BT:51:ARG:HG2	42:BT:52:ILE:N	2.07	0.69
27:BA:1880:C:H6	27:BA:1880:C:H5'	1.58	0.69
27:BA:593:G:H4'	57:B8:61:LEU:CD2	2.20	0.69
38:DP:99:LEU:HG	38:DP:102:ARG:HH11	1.57	0.69
27:DA:1882:C:H5'	27:DA:1883:G:OP2	1.92	0.69
42:DT:30:VAL:HG21	42:DT:83:ILE:CG1	2.21	0.69
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.27	0.69
55:B6:32:ASN:CG	55:B6:33:LYS:N	2.44	0.69
3:AC:155:GLY:HA2	3:AC:164:ARG:O	1.92	0.69
30:BD:48:ARG:HH11	30:BD:48:ARG:HG3	1.57	0.69
27:DA:2881:C:H4'	40:DR:117:VAL:HG21	1.74	0.69
32:DF:3:GLU:HB3	32:DF:19:GLU:HB2	1.74	0.69
2:CB:73:THR:HG23	2:CB:170:GLU:HG2	1.75	0.69
2:CB:98:LEU:HB2	2:CB:101:MET:CG	2.23	0.69
42:DT:100:TYR:O	42:DT:103:ARG:HG3	1.93	0.69
37:DO:47:ILE:CG1	37:DO:48:PRO:HD2	2.20	0.69
5:CE:52:PRO:HB2	5:CE:53:LEU:HD12	1.72	0.69
27:DA:2475:C:H5'	27:DA:2476:A:OP2	1.92	0.69
4:CD:196:LEU:H	4:CD:196:LEU:CD1	2.05	0.69
39:BQ:66:ILE:HG22	39:BQ:104:PHE:HD2	1.58	0.69
48:BZ:125:VAL:HG23	48:BZ:126:LYS:N	2.07	0.69
49:D0:36:ILE:O	49:D0:36:ILE:HG13	1.92	0.69
2:CB:194:PRO:HA	2:CB:200:ILE:HD11	1.73	0.69
36:BN:55:VAL:HG22	36:BN:126:PRO:HA	1.74	0.69
27:DA:661:C:H4'	38:DP:16:ARG:NH1	2.07	0.69
10:AJ:4:ILE:HB	10:AJ:74:ILE:CG1	2.23	0.69
27:BA:856:C:H1'	49:B0:27:GLU:HB3	1.72	0.69
1:AA:676:A:H1'	11:AK:115:PRO:HB3	1.74	0.69
27:DA:2662:A:H3'	27:DA:2663:G:H8	1.58	0.69
3:AC:139:GLN:O	3:AC:143:GLU:HG3	1.93	0.69
27:BA:2271:G:H5''	49:B0:20:ARG:NH1	2.08	0.69
27:DA:1386:C:H2'	27:DA:1387:C:C6	2.27	0.69
1:AA:173:U:H5''	1:AA:197:A:O4'	1.93	0.69
37:BO:71:ARG:NH2	37:BO:77:ILE:HG21	2.08	0.69
48:DZ:108:ALA:HB3	48:DZ:144:GLU:HA	1.74	0.69
35:DI:38:LEU:H	35:DI:38:LEU:HD12	1.58	0.69
27:BA:1203:G:H3'	27:BA:1204:A:H5''	1.74	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1385:G:O2'	1:CA:1386:G:H5'	1.93	0.69
1:AA:695:A:H2'	1:AA:696:A:C8	2.28	0.69
2:CB:121:LEU:O	2:CB:127:ILE:HD11	1.93	0.69
6:CF:46:ARG:O	6:CF:57:GLN:HG2	1.93	0.69
32:BF:65:TRP:HB3	32:BF:66:PRO:CD	2.23	0.69
1:AA:595:G:H2'	1:AA:641:U:O4	1.93	0.69
27:BA:1614:A:N1	45:BW:91:GLY:HA2	2.08	0.69
1:CA:1302:U:C5	13:CM:17:VAL:HG21	2.26	0.69
32:BF:39:TRP:O	32:BF:43:LYS:HG2	1.92	0.69
12:AL:41:THR:HG21	26:AZ:4:MYN:H22	1.74	0.69
1:CA:137:C:H42	1:CA:226:G:H1	1.38	0.69
27:DA:2880:C:O2'	40:DR:90:ARG:HD3	1.92	0.69
48:DZ:161:GLU:HG2	48:DZ:162:LEU:H	1.57	0.69
28:DB:117:G:H5'	41:DS:55:ALA:CB	2.23	0.69
55:B6:32:ASN:ND2	55:B6:33:LYS:H	1.90	0.69
3:AC:5:ILE:CD1	3:AC:6:HIS:H	2.06	0.69
10:AJ:51:ARG:HG3	10:AJ:60:ARG:HA	1.75	0.69
31:BE:60:ASN:O	31:BE:63:LEU:HB2	1.93	0.69
31:BE:77:ILE:HG23	31:BE:78:LEU:HD23	1.73	0.69
47:DY:13:VAL:O	47:DY:24:VAL:HG13	1.93	0.69
47:DY:14:LEU:CD1	47:DY:15:VAL:H	2.05	0.69
2:CB:96:ARG:N	2:CB:96:ARG:HD2	2.06	0.69
27:DA:674:G:C1'	32:DF:74:ARG:HD2	2.23	0.69
13:CM:104:ARG:HG2	13:CM:105:THR:N	2.08	0.69
27:DA:1329:U:H5''	27:DA:1330:C:H5	1.58	0.69
20:AT:38:LYS:O	20:AT:41:ILE:HG13	1.93	0.69
41:DS:17:ARG:HA	41:DS:20:ARG:CZ	2.22	0.69
45:DW:54:ALA:HB1	45:DW:107:LEU:HD13	1.74	0.69
47:DY:46:LYS:CG	47:DY:47:LYS:H	2.05	0.69
8:AH:12:ARG:NH1	8:AH:26:VAL:HA	2.08	0.69
27:DA:338:G:H2'	27:DA:339:U:H6	1.57	0.69
27:DA:2103:C:C3'	27:DA:2104:G:H5''	2.21	0.69
27:DA:2191:G:H3'	27:DA:2192:G:O4'	1.93	0.69
1:AA:737:A:H2'	1:AA:738:C:C6	2.28	0.69
27:DA:19:C:H2'	27:DA:20:C:H6	1.58	0.69
27:DA:2567:G:H2'	27:DA:2568:C:C6	2.28	0.69
29:BC:36:LYS:NZ	29:BC:36:LYS:HB2	2.07	0.69
16:AP:39:TYR:CE2	16:AP:41:PRO:HB3	2.28	0.69
1:AA:9:G:H5'	5:AE:122:GLU:OE2	1.93	0.69
55:B6:15:GLU:HG2	55:B6:18:ARG:HH21	1.58	0.69
1:CA:1190:G:OP2	3:CC:5:ILE:HG23	1.92	0.69
33:DG:76:SER:HB2	33:DG:83:ARG:CB	2.17	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1817:G:C2'	27:BA:1818:U:H5'	2.23	0.69
12:CL:44:LYS:O	12:CL:46:ASN:N	2.26	0.69
44:BV:14:VAL:HB	44:BV:96:ILE:HG13	1.75	0.69
28:DB:47:C:C3'	28:DB:48:A:H5''	2.23	0.69
9:AI:95:LYS:HZ2	9:AI:96:LEU:HB2	1.57	0.69
27:DA:2752:C:H2'	27:DA:2753:A:C8	2.28	0.69
27:DA:2084:C:H2'	27:DA:2085:C:C6	2.27	0.69
34:DH:121:ILE:HG23	34:DH:134:SER:O	1.93	0.69
53:D4:38:ALA:CB	53:D4:55:PRO:HA	2.22	0.69
44:BV:24:LYS:HA	44:BV:92:THR:HG23	1.73	0.69
50:D1:60:PHE:CZ	50:D1:94:LEU:HD12	2.27	0.69
21:CU:12:LYS:HG3	21:CU:17:THR:O	1.92	0.69
7:CG:26:PHE:HB2	7:CG:101:LEU:HD22	1.75	0.69
18:CR:86:VAL:O	18:CR:87:ARG:HD3	1.93	0.69
43:BU:26:GLY:C	43:BU:28:ARG:N	2.44	0.69
8:CH:11:THR:HA	8:CH:14:ARG:HH12	1.57	0.69
31:BE:101:ARG:HB2	31:BE:201:THR:CG2	2.23	0.69
3:CC:26:LYS:HG3	3:CC:27:LYS:H	1.55	0.69
32:BF:114:VAL:HG21	32:BF:202:PHE:CZ	2.28	0.69
1:AA:557:G:H2'	1:AA:558:G:C8	2.28	0.69
27:BA:2245:U:H5''	27:BA:2246:G:H5'	1.72	0.69
27:DA:1853:A:H2'	27:DA:1854:A:C8	2.28	0.69
13:AM:98:VAL:O	13:AM:99:ARG:HG3	1.93	0.68
47:BY:7:VAL:HG21	47:BY:8:LYS:HZ2	1.58	0.68
42:BT:28:VAL:HG22	42:BT:46:GLU:HA	1.75	0.68
55:D6:40:CYS:HA	55:D6:46:HIS:HB3	1.74	0.68
28:DB:62:C:O5'	28:DB:62:C:H6	1.74	0.68
30:BD:39:LYS:HB2	30:BD:62:TYR:HB2	1.73	0.68
1:AA:1054:C:N4	23:AW:33:C:H1'	2.03	0.68
27:DA:2246:G:H2'	27:DA:2247:A:H8	1.57	0.68
5:AE:126:ARG:CG	5:AE:126:ARG:HH11	2.04	0.68
27:BA:1257:C:H4'	32:BF:83:PHE:CE2	2.29	0.68
3:CC:135:LYS:HZ1	5:CE:53:LEU:HD11	1.58	0.68
52:D3:10:LYS:HG3	52:D3:11:SER:N	2.06	0.68
3:AC:7:PRO:O	3:AC:11:ARG:HG2	1.93	0.68
8:AH:60:ARG:NH1	8:AH:60:ARG:HG3	2.06	0.68
53:D4:41:ILE:HA	53:D4:47:VAL:HG22	1.75	0.68
57:D8:59:LYS:HB2	57:D8:59:LYS:NZ	2.06	0.68
1:CA:1003:G:H2'	1:CA:1004:A:C4'	2.23	0.68
31:BE:117:MET:O	31:BE:117:MET:CG	2.40	0.68
27:DA:1721:G:O6	27:DA:1739:U:H5'	1.93	0.68
53:D4:81:VAL:O	53:D4:82:GLU:HB2	1.92	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:155:ARG:HG3	7:CG:155:ARG:HH11	1.58	0.68
27:DA:2406:U:O4	38:DP:70:GLN:HB3	1.93	0.68
7:CG:113:GLU:CG	7:CG:119:ARG:HG2	2.23	0.68
2:CB:127:ILE:O	2:CB:127:ILE:HG22	1.91	0.68
25:AY:67:C:H2'	25:AY:68:C:C6	2.28	0.68
27:BA:1026:U:O2'	27:BA:1027:A:H5'	1.92	0.68
1:AA:1389:C:H2'	1:AA:1390:U:O4'	1.92	0.68
36:DN:119:ARG:CB	36:DN:119:ARG:HH11	2.06	0.68
27:DA:523:C:O2'	27:DA:524:U:H5'	1.93	0.68
27:DA:1801:G:OP2	30:DD:154:LYS:HE2	1.92	0.68
29:BC:68:LEU:HD11	29:BC:180:PHE:N	2.08	0.68
37:DO:14:THR:O	37:DO:14:THR:HG22	1.92	0.68
29:BC:79:LYS:HA	29:BC:97:GLU:HG3	1.72	0.68
38:BP:101:VAL:HB	38:BP:107:LYS:CA	2.23	0.68
1:AA:542:G:H5'	4:AD:41:GLY:CA	2.23	0.68
55:D6:44:ARG:HA	55:D6:44:ARG:CZ	2.23	0.68
41:DS:101:LEU:HD22	41:DS:102:ALA:O	1.93	0.68
27:DA:910:A:C5	39:DQ:13:GLN:HG3	2.29	0.68
44:BV:17:GLY:HA2	44:BV:96:ILE:O	1.93	0.68
45:DW:20:VAL:HG21	45:DW:43:GLY:HA3	1.74	0.68
27:DA:2529:G:H5''	27:DA:2530:A:H5''	1.75	0.68
58:D9:22:ARG:HB2	58:D9:24:TYR:HE1	1.58	0.68
27:BA:792:G:H5''	27:BA:793:A:H5'	1.75	0.68
27:BA:2491:U:H4'	27:BA:2570:G:OP1	1.93	0.68
11:CK:62:GLN:HB2	11:CK:93:GLN:HB3	1.75	0.68
27:BA:1286:A:C2'	27:BA:1288:U:OP2	2.40	0.68
1:AA:544:G:H2'	1:AA:545:C:C6	2.28	0.68
39:BQ:35:VAL:HG13	39:BQ:130:LYS:HB3	1.76	0.68
19:CS:42:PRO:HG3	53:D4:80:ARG:NH2	2.06	0.68
27:DA:1582:C:O2'	27:DA:1586:A:C8	2.46	0.68
1:AA:1499:A:H5'	1:AA:1499:A:H8	1.57	0.68
18:CR:46:GLU:HB2	18:CR:85:LEU:HD13	1.75	0.68
27:DA:365:C:H6	27:DA:365:C:H5'	1.57	0.68
1:CA:570:G:H1'	1:CA:820:U:C4	2.29	0.68
57:B8:50:LEU:HD12	57:B8:51:ALA:N	2.07	0.68
33:BG:54:GLU:HA	33:BG:57:ALA:HB3	1.74	0.68
48:DZ:22:LYS:HE2	48:DZ:39:ASP:HB2	1.74	0.68
42:DT:28:VAL:HG11	42:DT:46:GLU:OE1	1.94	0.68
38:DP:108:LYS:C	38:DP:110:TYR:H	1.95	0.68
43:DU:58:ARG:HA	43:DU:61:TRP:CE3	2.27	0.68
30:BD:33:LEU:CD1	30:BD:33:LEU:H	2.06	0.68
1:CA:1445:C:N3	1:CA:1446:U:C5	2.59	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1256:A:N6	1:AA:1278:U:H1'	2.08	0.68
47:DY:28:LYS:CG	47:DY:37:VAL:HB	2.24	0.68
30:DD:79:VAL:HG11	30:DD:111:LEU:HD11	1.76	0.68
27:BA:1885:A:H5'	27:BA:1885:A:H8	1.59	0.68
19:AS:31:ILE:HG23	19:AS:49:ILE:HA	1.74	0.68
40:BR:54:LEU:HD21	40:BR:65:LEU:HB3	1.74	0.68
27:BA:202:U:O2'	27:BA:203:C:H5'	1.93	0.68
20:CT:12:ALA:O	20:CT:15:ARG:HB2	1.92	0.68
7:AG:143:ARG:HH11	7:AG:143:ARG:HB2	1.57	0.68
28:DB:82:G:H2'	28:DB:83:G:H8	1.57	0.68
1:AA:659:U:O2'	1:AA:660:G:H5'	1.93	0.68
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.28	0.68
34:BH:26:VAL:HG11	34:BH:76:VAL:HA	1.73	0.68
1:AA:349:A:O2'	1:AA:350:G:H5'	1.93	0.68
36:BN:46:VAL:O	36:BN:47:ALA:HB3	1.91	0.68
11:AK:98:LEU:HA	11:AK:101:SER:HB3	1.74	0.68
4:AD:8:VAL:HG12	4:AD:21:LEU:CD1	2.23	0.68
57:D8:8:LYS:O	57:D8:12:LYS:HG3	1.93	0.68
38:BP:9:ASN:O	38:BP:11:GLY:N	2.26	0.68
18:CR:44:LEU:HD22	18:CR:48:GLY:O	1.94	0.68
1:CA:344:A:H3'	1:CA:346:G:O6	1.92	0.68
31:DE:48:GLN:NE2	31:DE:78:LEU:HD13	2.08	0.68
47:DY:13:VAL:HG12	47:DY:74:PRO:HA	1.74	0.68
27:BA:310:A:OP1	47:BY:17:SER:O	2.11	0.68
13:CM:8:GLU:OE1	13:CM:22:ILE:HA	1.93	0.68
27:BA:2348:U:C2'	27:BA:2349:G:C5'	2.66	0.68
35:BI:5:LEU:HD11	35:BI:19:VAL:HG12	1.75	0.68
57:D8:57:ARG:O	57:D8:59:LYS:N	2.27	0.68
30:DD:131:LEU:N	30:DD:131:LEU:HD12	2.08	0.68
45:DW:84:ARG:O	45:DW:96:ILE:HG22	1.93	0.68
11:CK:96:ARG:HA	11:CK:99:GLN:HG3	1.73	0.68
27:DA:1826:G:H2'	27:DA:1827:C:H6	1.56	0.68
34:BH:104:GLU:CG	34:BH:114:VAL:HG22	2.23	0.68
23:CW:73:C:H2'	23:CW:74:C:C5'	2.24	0.68
32:DF:64:ILE:HD11	32:DF:65:TRP:CZ3	2.28	0.68
13:CM:12:ASN:OD1	13:CM:46:LYS:HE3	1.93	0.68
48:BZ:30:ARG:HH21	48:BZ:93:GLU:HG3	1.57	0.68
38:BP:130:PHE:HB2	38:BP:135:LEU:CD2	2.23	0.68
38:BP:65:ARG:HD2	57:B8:46:ARG:HH22	1.58	0.68
1:CA:1112:C:C4	3:CC:178:LEU:HD23	2.28	0.68
9:CI:114:TYR:HD1	10:CJ:60:ARG:HG3	1.57	0.68
55:D6:40:CYS:N	55:D6:46:HIS:HB3	2.08	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DR:54:LEU:HG	40:DR:62:ALA:HB1	1.75	0.68
38:BP:7:ARG:C	38:BP:9:ASN:H	1.97	0.68
42:DT:33:LYS:HZ2	42:DT:74:ARG:NH2	1.90	0.68
49:D0:27:GLU:HG3	49:D0:68:GLU:HA	1.75	0.68
31:DE:67:PHE:HD2	31:DE:69:LYS:HE3	1.59	0.68
27:DA:2822:G:O6	40:DR:4:LEU:HD12	1.94	0.68
52:D3:40:THR:CA	52:D3:44:ARG:HH21	2.06	0.68
27:DA:2739:U:O2'	27:DA:2740:A:H5'	1.93	0.68
31:BE:130:GLY:O	31:BE:131:ALA:HB3	1.92	0.68
27:DA:1252:G:O4'	43:DU:33:ARG:HD2	1.94	0.68
35:BI:7:GLU:CD	35:BI:8:PRO:HD2	2.13	0.68
35:BI:8:PRO:HA	35:BI:13:GLY:HA3	1.74	0.68
27:DA:1718:G:H5'	27:DA:1718:G:C8	2.29	0.68
27:BA:1956:U:C2'	27:BA:1957:C:H5'	2.23	0.68
3:AC:107:GLN:O	3:AC:109:PRO:HD3	1.94	0.68
49:B0:36:ILE:HD12	49:B0:37:LEU:N	2.07	0.68
27:DA:174:C:C3'	27:DA:175:G:H5''	2.24	0.68
7:AG:18:TYR:CE2	7:AG:59:LEU:HB2	2.29	0.68
1:CA:662:G:H2'	1:CA:663:A:C8	2.29	0.68
1:AA:1265:G:N2	1:AA:1271:G:H1'	2.09	0.68
1:AA:625:G:H2'	1:AA:626:U:C6	2.29	0.68
8:CH:103:VAL:HG21	8:CH:109:ILE:CA	2.24	0.68
1:AA:965:A:C2	1:AA:969:A:C2	2.82	0.68
8:CH:9:MET:HB2	8:CH:32:LYS:HE3	1.76	0.68
27:BA:1652:A:C2'	27:BA:1653:G:H5'	2.23	0.68
1:CA:377:G:OP1	16:CP:3:LYS:HD2	1.92	0.68
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.59	0.68
36:BN:32:THR:HG22	36:BN:37:LYS:HB3	1.75	0.68
1:CA:35:G:H2'	1:CA:36:C:C6	2.27	0.68
1:CA:491:G:H2'	1:CA:492:G:H8	1.58	0.68
4:CD:132:ARG:HH11	4:CD:132:ARG:HG2	1.59	0.68
27:BA:2182:G:H2'	27:BA:2183:C:C6	2.28	0.68
27:BA:2186:G:C3'	27:BA:2187:G:H5''	2.24	0.68
10:CJ:50:ILE:N	10:CJ:50:ILE:HD13	2.09	0.68
14:CN:27:CYS:SG	14:CN:29:ARG:HB2	2.33	0.68
41:DS:85:VAL:HG23	41:DS:106:ARG:HB2	1.74	0.68
27:BA:2732:G:O2'	27:BA:2733:A:H5'	1.93	0.68
42:DT:35:LYS:O	42:DT:37:GLY:N	2.26	0.68
44:BV:19:LYS:HZ1	44:BV:20:LEU:HB2	1.58	0.68
1:AA:1363(A):A:H1'	1:AA:1365:G:N7	2.09	0.68
1:AA:88:A:OP1	1:AA:90:U:H1'	1.93	0.68
27:BA:2346:A:H5'	27:BA:2383:G:H1'	1.74	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BX:60:ARG:HA	46:BX:75:ASP:OD2	1.93	0.68
3:AC:50:ALA:HB1	3:AC:70:VAL:CG1	2.23	0.68
27:BA:1495:A:OP1	27:BA:1495:A:C8	2.46	0.68
3:AC:63:ASN:N	3:AC:97:LYS:HZ3	1.92	0.68
27:DA:1503:U:O2'	27:DA:1504:C:H5'	1.94	0.68
41:BS:35:ILE:HD11	41:BS:99:LYS:HD3	1.75	0.68
27:DA:1717:G:H2'	27:DA:1718:G:H5''	1.75	0.68
32:DF:132:VAL:HG22	32:DF:133:ASN:N	2.08	0.68
27:DA:2150:U:H2'	27:DA:2151:G:H8	1.55	0.68
24:AX:10:G:N2	24:AX:26:G:H1'	2.08	0.68
27:BA:2018:G:O2'	43:BU:34:LYS:HE3	1.93	0.68
31:BE:47:VAL:HG21	31:BE:86:PRO:CD	2.23	0.68
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.28	0.68
3:AC:187:ALA:H	3:AC:198:VAL:HG23	1.58	0.68
9:AI:56:LEU:HD23	9:AI:56:LEU:O	1.93	0.68
27:BA:2729:G:H1'	31:BE:187:ALA:HB2	1.75	0.68
12:CL:114:ARG:NH2	12:CL:121:LYS:HB2	2.08	0.68
47:BY:77:PRO:HB2	47:BY:99:CYS:HB3	1.75	0.68
33:BG:64:THR:HG23	33:BG:65:GLY:N	2.09	0.68
55:D6:19:ARG:O	55:D6:20:ASN:O	2.11	0.68
27:DA:2579:C:HO2'	31:DE:131:ALA:HB2	1.57	0.68
31:DE:59:VAL:HG13	31:DE:60:ASN:N	2.08	0.68
28:DB:47:C:H2'	28:DB:48:A:H5''	1.74	0.68
27:BA:1409:C:H2'	27:BA:1410:G:C8	2.28	0.68
36:BN:133:GLN:HG2	36:BN:134:ARG:H	1.56	0.68
36:BN:58:ASP:O	36:BN:60:ILE:N	2.24	0.68
43:DU:31:SER:HB3	43:DU:34:LYS:HB2	1.74	0.68
57:D8:61:LEU:CD1	57:D8:62:LEU:H	2.07	0.68
32:BF:132:VAL:O	32:BF:133:ASN:C	2.32	0.68
41:DS:49:VAL:CG2	41:DS:77:ALA:HA	2.23	0.68
58:D9:7:VAL:HG13	58:D9:34:GLN:NE2	2.09	0.68
12:CL:72:HIS:CD2	12:CL:74:LEU:H	2.12	0.68
36:DN:7:LYS:O	36:DN:9:VAL:N	2.26	0.68
38:DP:114:ILE:HD12	38:DP:115:LEU:N	2.09	0.68
27:BA:2650:U:O2'	27:BA:2651:C:H5'	1.93	0.68
33:DG:85:GLY:C	33:DG:87:PRO:HD2	2.14	0.68
53:D4:60:GLU:O	53:D4:61:VAL:HB	1.94	0.68
39:BQ:45:GLN:H	39:BQ:45:GLN:CD	1.97	0.68
31:DE:60:ASN:OD1	31:DE:62:PRO:HD2	1.93	0.68
27:DA:1686:C:H5'	27:DA:1686:C:H6	1.57	0.68
32:DF:57:VAL:HG13	32:DF:57:VAL:O	1.93	0.68
32:DF:6:VAL:HG12	32:DF:7:TYR:O	1.94	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:82:GLN:O	16:AP:83:GLU:HB2	1.94	0.68
1:CA:1457:G:C2	1:CA:1458:G:C5	2.82	0.68
27:DA:2762:G:H2'	27:DA:2763:G:H5''	1.76	0.68
37:DO:87:ILE:CG2	37:DO:88:ASN:N	2.57	0.68
1:CA:922:G:N3	1:CA:1398:A:H2	1.91	0.68
12:AL:22:PRO:O	12:AL:24:LEU:HD13	1.93	0.68
27:BA:94:C:H5'	27:BA:94(A):G:OP2	1.93	0.68
27:DA:2555:U:C2'	27:DA:2556:C:H5'	2.24	0.68
1:AA:724:G:O2'	1:AA:725:G:H5'	1.94	0.68
28:DB:52:A:HO2'	28:DB:53:A:H8	1.41	0.68
3:AC:109:PRO:HB3	3:AC:115:LEU:HD13	1.74	0.68
27:DA:1790:C:H5''	27:DA:1791:A:OP1	1.93	0.68
27:DA:560:C:H4'	43:DU:52:ARG:NH1	2.08	0.68
20:CT:13:LEU:HD12	20:CT:14:LYS:N	2.09	0.68
3:CC:160:ALA:O	3:CC:162:GLN:N	2.27	0.68
27:DA:149:A:H2'	27:DA:150:C:O4'	1.94	0.68
1:CA:1157:A:H4'	1:CA:1158:C:O5'	1.94	0.68
57:D8:29:LYS:O	57:D8:29:LYS:HG3	1.94	0.68
7:AG:105:VAL:O	7:AG:109:ASN:HB2	1.94	0.68
39:BQ:10:ARG:HH11	39:BQ:10:ARG:HG2	1.58	0.68
2:CB:119:GLU:O	2:CB:122:PHE:HB3	1.93	0.68
27:BA:1146:C:O2'	27:BA:1147:C:H5'	1.93	0.68
1:AA:617:G:H4'	16:AP:44:THR:HB	1.76	0.68
43:BU:66:ASN:O	43:BU:70:ARG:HB2	1.93	0.68
48:DZ:157:PRO:HG2	48:DZ:160:VAL:CG2	2.23	0.68
48:DZ:26:VAL:HG23	48:DZ:35:LYS:HA	1.76	0.68
55:D6:41:PRO:HD3	55:D6:46:HIS:N	2.08	0.68
33:DG:76:SER:HB2	33:DG:83:ARG:HD2	1.76	0.68
27:DA:2821:A:OP2	40:DR:2:ARG:NH2	2.26	0.68
58:D9:29:ASN:HD21	58:D9:31:LYS:HB2	1.58	0.68
3:AC:63:ASN:HA	3:AC:98:ASN:CG	2.14	0.68
36:BN:133:GLN:O	36:BN:134:ARG:HG3	1.94	0.68
27:BA:1441:G:H2'	27:BA:1442:G:C8	2.28	0.68
9:CI:45:ALA:HB3	9:CI:74:ILE:CG2	2.22	0.68
34:BH:159:GLU:HG3	34:BH:160:LYS:H	1.59	0.68
24:AX:52:G:O2'	24:AX:53:G:H5'	1.93	0.68
46:BX:84:ALA:O	46:BX:87:GLN:HG2	1.94	0.68
49:D0:53:MET:HB3	49:D0:59:LEU:CD2	2.23	0.68
34:DH:41:MET:HB3	34:DH:53:GLU:HB2	1.76	0.68
2:AB:112:VAL:HG11	2:AB:153:ARG:HA	1.75	0.68
8:AH:41:ARG:HH11	8:AH:41:ARG:HB2	1.58	0.68
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.29	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:146:ILE:N	4:CD:146:ILE:HD12	2.08	0.68
1:CA:824:C:H2'	1:CA:825:G:H8	1.57	0.68
2:AB:32:ILE:HD11	2:AB:40:HIS:HB3	1.76	0.68
42:BT:28:VAL:HG11	42:BT:46:GLU:HG3	1.74	0.68
42:BT:31:SER:HB2	42:BT:32:TYR:CZ	2.29	0.68
36:DN:58:ASP:C	36:DN:60:ILE:H	1.95	0.68
9:CI:18:PHE:O	9:CI:19:LEU:HD23	1.94	0.68
2:CB:94:ASN:HB3	2:CB:95:GLN:NE2	2.09	0.68
42:DT:98:LYS:N	42:DT:98:LYS:HD2	2.09	0.68
1:CA:72:C:N3	1:CA:97:G:N1	2.37	0.68
30:DD:182:LEU:H	30:DD:272:ALA:HB3	1.57	0.68
45:DW:5:ALA:O	45:DW:6:ILE:HB	1.93	0.68
27:DA:1484:G:H3'	27:DA:1485:G:H5''	1.76	0.68
27:BA:2617:C:O2'	27:BA:2618:G:H5'	1.94	0.68
20:CT:10:LEU:HD23	20:CT:11:SER:N	2.08	0.68
16:AP:21:VAL:HG12	16:AP:34:GLU:O	1.93	0.68
27:DA:2648:C:H2'	27:DA:2649:U:C6	2.29	0.68
27:DA:2571:C:H5''	27:DA:2572:A:H5''	1.76	0.68
27:DA:1639:U:H2'	27:DA:1640:C:H5''	1.76	0.68
1:CA:1305:G:C5'	21:CU:4:GLY:HA3	2.24	0.68
2:CB:233:SER:OG	2:CB:234:PRO:HD2	1.94	0.68
27:BA:2013:A:H4'	45:BW:96:ILE:HD12	1.76	0.68
7:CG:109:ASN:HA	7:CG:119:ARG:NH1	2.08	0.68
46:DX:56:THR:OG1	46:DX:77:LYS:HE2	1.93	0.68
48:BZ:30:ARG:HD2	48:BZ:31:HIS:CE1	2.29	0.68
29:DC:75:LEU:HB3	29:DC:119:VAL:CB	2.24	0.68
1:CA:1466:C:H2'	1:CA:1467:G:O4'	1.93	0.68
27:BA:1670:C:O2	31:BE:129:HIS:HE1	1.77	0.68
38:BP:63:PRO:O	38:BP:64:LYS:C	2.32	0.67
47:BY:96:ILE:HD12	47:BY:99:CYS:HB2	1.76	0.67
44:DV:24:LYS:NZ	44:DV:26:ASP:HA	2.09	0.67
27:BA:2308:G:O6	27:BA:2310:A:H2'	1.94	0.67
55:D6:10:LEU:H	55:D6:10:LEU:CD2	2.07	0.67
9:CI:63:ILE:HD13	9:CI:77:ILE:HG23	1.76	0.67
55:B6:33:LYS:O	55:B6:34:LEU:C	2.32	0.67
23:AW:35:G:O2'	23:AW:36:A:H8	1.77	0.67
9:AI:50:LEU:HA	9:AI:53:VAL:HG22	1.76	0.67
31:BE:69:LYS:C	31:BE:71:GLY:N	2.42	0.67
39:BQ:63:LYS:HD2	48:BZ:174:VAL:CG2	2.24	0.67
21:AU:15:ARG:HB2	21:AU:15:ARG:NH1	2.08	0.67
27:DA:563:G:H2'	27:DA:564:C:H6	1.58	0.67
39:DQ:27:VAL:HG23	39:DQ:137:TYR:CE1	2.29	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1145:C:H4'	1:CA:1146:A:C5'	2.24	0.67
48:DZ:130:ARG:O	48:DZ:132:ILE:HG13	1.94	0.67
27:BA:389:G:H1	38:BP:71:VAL:HG12	1.58	0.67
38:BP:71:VAL:HG12	38:BP:72:PRO:HD3	1.74	0.67
1:AA:1120:G:H2'	1:AA:1121:U:C6	2.29	0.67
27:BA:2317:C:O2'	27:BA:2318:G:H5'	1.93	0.67
50:D1:90:ILE:O	50:D1:93:GLU:HB2	1.94	0.67
40:BR:38:VAL:HB	40:BR:39:PRO:HD3	1.74	0.67
4:AD:92:VAL:O	4:AD:96:LEU:HD13	1.94	0.67
7:AG:140:ASP:HA	7:AG:143:ARG:HH12	1.58	0.67
1:AA:33:A:H2'	1:AA:34:C:C6	2.29	0.67
1:CA:646:U:H2'	1:CA:647:C:C6	2.28	0.67
15:AO:29:VAL:HG21	15:AO:81:LEU:HD21	1.75	0.67
27:BA:481:G:H1'	27:BA:506:G:N2	2.09	0.67
56:B7:28:ARG:HG3	56:B7:28:ARG:HH11	1.59	0.67
4:AD:14:ARG:HA	4:AD:39:PRO:HA	1.77	0.67
38:BP:23:PRO:HD2	38:BP:33:ARG:NH2	2.09	0.67
37:DO:107:ARG:HH22	42:DT:35:LYS:HD2	1.59	0.67
17:CQ:67:LYS:HA	17:CQ:70:ARG:NH1	2.07	0.67
27:BA:999:U:C2'	27:BA:1000:A:H5''	2.24	0.67
34:BH:12:PRO:HB2	34:BH:15:VAL:CG2	2.24	0.67
27:DA:2292:C:O2'	27:DA:2293:C:H5'	1.95	0.67
30:DD:267:SER:C	30:DD:269:PHE:H	1.96	0.67
34:DH:54:ARG:CB	34:DH:54:ARG:HH11	2.07	0.67
9:AI:125:TYR:CD2	9:AI:126:SER:N	2.62	0.67
3:CC:99:VAL:HG23	3:CC:99:VAL:O	1.93	0.67
1:CA:1030(A):G:H1'	1:CA:1031:G:H22	1.58	0.67
1:CA:1423:G:H5'	37:DO:49:ARG:HH22	1.59	0.67
27:BA:2219:G:O2'	27:BA:2220:G:H5'	1.94	0.67
27:BA:1925:C:O2'	27:BA:1926:U:H5'	1.94	0.67
19:CS:9:VAL:O	19:CS:11:VAL:N	2.27	0.67
27:BA:1130:U:O2	27:BA:2025:C:H5''	1.94	0.67
27:BA:2759:G:C8	27:BA:2759:G:H5'	2.30	0.67
1:AA:1445:C:H2'	1:AA:1446:U:C5'	2.17	0.67
55:D6:9:LEU:CD1	55:D6:28:ARG:HG3	2.25	0.67
38:DP:105:LEU:O	38:DP:106:LEU:HB3	1.94	0.67
43:DU:90:VAL:CG2	44:DV:39:LEU:HG	2.24	0.67
38:BP:21:ARG:O	38:BP:23:PRO:HD3	1.93	0.67
33:DG:125:PHE:O	33:DG:128:ARG:HG2	1.93	0.67
33:DG:118:ARG:HB2	33:DG:181:ARG:NH2	2.10	0.67
23:AW:16:C:O2'	23:AW:17:G:OP2	2.08	0.67
27:DA:1140:C:H5''	36:DN:66:LYS:NZ	2.09	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:20:ARG:HH11	9:CI:20:ARG:HG3	1.59	0.67
31:DE:59:VAL:CG2	31:DE:63:LEU:HA	2.21	0.67
27:BA:1813:G:H1'	30:BD:50:THR:OG1	1.94	0.67
2:AB:54:THR:O	2:AB:58:ILE:HG12	1.94	0.67
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.60	0.67
43:BU:92:ARG:O	43:BU:94:ASN:N	2.26	0.67
13:CM:23:TYR:CE2	13:CM:71:ARG:HD3	2.30	0.67
34:BH:10:PRO:CG	34:BH:50:VAL:O	2.41	0.67
1:CA:954:G:H2'	1:CA:955:U:C6	2.30	0.67
27:BA:464:U:H2'	27:BA:465:G:O4'	1.95	0.67
29:BC:72:VAL:HG21	29:BC:161:ILE:CB	2.24	0.67
30:BD:206:LEU:HD23	30:BD:211:ARG:HG2	1.75	0.67
27:DA:1799:G:H4'	27:DA:1800:C:O5'	1.93	0.67
27:DA:589:C:H2'	27:DA:590:A:C8	2.29	0.67
1:AA:1168:A:H2'	1:AA:1169:A:C8	2.29	0.67
50:B1:11:ARG:HB2	50:B1:12:PRO:HD2	1.76	0.67
27:BA:402:A:O2'	27:BA:403:U:H5'	1.95	0.67
27:BA:1396:U:H2'	27:BA:1396:U:O2	1.94	0.67
1:AA:1355:G:H2'	1:AA:1356:G:C8	2.29	0.67
57:B8:51:ALA:N	57:B8:53:PRO:HD2	2.09	0.67
42:DT:65:LYS:HZ3	42:DT:65:LYS:HA	1.58	0.67
18:CR:58:LEU:H	18:CR:58:LEU:HD12	1.59	0.67
13:CM:3:ARG:HH22	33:DG:113:ARG:HB3	1.58	0.67
1:AA:973:G:H1'	10:AJ:55:LYS:HE2	1.76	0.67
9:AI:119:ALA:O	9:AI:120:ARG:HB2	1.94	0.67
27:BA:1178:C:H2'	27:BA:1179:C:H6	1.59	0.67
27:BA:2863:C:C2'	27:BA:2864:G:H5''	2.24	0.67
27:DA:2845:G:O2'	27:DA:2846:G:H5'	1.93	0.67
27:DA:2018:G:H21	43:DU:34:LYS:HZ2	1.43	0.67
27:BA:784:A:C8	30:BD:229:VAL:HG21	2.29	0.67
48:BZ:52:ILE:HA	48:BZ:70:VAL:HG23	1.74	0.67
46:BX:80:ILE:O	46:BX:80:ILE:HD13	1.94	0.67
11:CK:79:SER:HB2	11:CK:106:LYS:HB2	1.75	0.67
29:DC:78:ALA:HB3	29:DC:83:ILE:HD11	1.75	0.67
27:BA:176:G:O2'	27:BA:177:G:H5'	1.93	0.67
12:CL:7:LEU:HB3	17:CQ:32:TYR:HE2	1.56	0.67
1:CA:984:C:H2'	1:CA:985:C:H6	1.58	0.67
27:DA:1523:U:H2'	27:DA:1524:G:H8	1.59	0.67
27:BA:2189:U:H3'	27:BA:2190:G:H5''	1.76	0.67
27:BA:1711:C:O2'	27:BA:1712:C:H5'	1.94	0.67
27:DA:2172:U:H1'	27:DA:2173:A:OP1	1.94	0.67
27:BA:271(E):U:H2'	27:BA:271(F):C:C6	2.30	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BB:35:U:O2'	28:BB:36:C:H5'	1.94	0.67
4:CD:162:LEU:HD12	4:CD:181:MET:SD	2.33	0.67
27:DA:2330:G:H1'	49:D0:41:ARG:HB3	1.76	0.67
27:DA:380:U:H5'	50:D1:18:ILE:HD13	1.76	0.67
1:CA:828:A:H5''	1:CA:859:A:C2	2.29	0.67
1:AA:1294:G:O2'	1:AA:1295:G:H5'	1.94	0.67
41:BS:95:HIS:CG	41:BS:96:GLY:N	2.63	0.67
35:BI:92:VAL:O	35:BI:93:THR:O	2.11	0.67
13:AM:3:ARG:HB2	53:B4:60:GLU:OE1	1.94	0.67
14:CN:24:CYS:HB3	14:CN:29:ARG:H	1.58	0.67
55:D6:17:LYS:HD3	55:D6:17:LYS:O	1.95	0.67
38:DP:101:VAL:HG11	38:DP:108:LYS:H	1.59	0.67
30:BD:131:LEU:HA	30:BD:190:TYR:CE2	2.29	0.67
14:AN:60:SER:O	14:AN:61:TRP:HB3	1.94	0.67
30:BD:231:HIS:CG	30:BD:232:PRO:HD2	2.29	0.67
1:AA:1133:G:N2	1:AA:1143:G:H1'	2.10	0.67
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.09	0.67
9:AI:95:LYS:HD3	9:AI:96:LEU:N	2.10	0.67
2:AB:215:LEU:O	2:AB:219:VAL:HG23	1.94	0.67
42:DT:98:LYS:HB3	42:DT:100:TYR:CE1	2.30	0.67
1:CA:537:G:H2'	1:CA:538:G:H8	1.60	0.67
4:AD:147:ALA:HB2	4:AD:182:LYS:HB3	1.76	0.67
56:B7:48:LYS:HD3	56:B7:48:LYS:N	2.08	0.67
27:DA:29:U:H2'	27:DA:30:G:H8	1.56	0.67
57:D8:6:THR:HG22	57:D8:63:PRO:HD3	1.77	0.67
10:AJ:3:LYS:O	10:AJ:100:THR:HA	1.94	0.67
27:BA:1784:A:H4'	27:BA:1785:A:C5'	2.25	0.67
39:DQ:22:LYS:HG2	39:DQ:23:GLY:H	1.58	0.67
38:BP:47:ASP:HB3	38:BP:48:PRO:CA	2.23	0.67
19:AS:10:PHE:HZ	19:AS:70:LYS:NZ	1.93	0.67
5:CE:11:ILE:HG13	5:CE:33:VAL:HG23	1.76	0.67
1:CA:601:C:H2'	1:CA:602:A:H8	1.58	0.67
27:DA:1986:A:C3'	27:DA:1987:G:H5''	2.25	0.67
7:AG:18:TYR:CD2	7:AG:59:LEU:HB2	2.29	0.67
43:DU:15:LYS:HE2	43:DU:19:LYS:CE	2.24	0.67
27:DA:2543:G:H2'	27:DA:2544:G:C8	2.29	0.67
40:DR:10:LEU:HB3	40:DR:17:ARG:NE	2.10	0.67
27:BA:1844:C:O2'	27:BA:1845:G:H5'	1.95	0.67
1:AA:950:U:H2'	1:AA:951:G:C8	2.30	0.67
13:AM:40:ASN:HD21	13:AM:42:ALA:HB3	1.60	0.67
50:B1:50:ARG:HG3	50:B1:59:THR:HG22	1.76	0.67
12:AL:76:GLU:O	12:AL:77:HIS:HB2	1.94	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:AW:73:C:H2'	23:AW:74:C:C5'	2.24	0.67
1:AA:1077:G:N2	1:AA:1079:G:H3'	2.10	0.67
1:AA:1091:U:H2'	1:AA:1093:A:OP2	1.94	0.67
10:CJ:78:ASN:ND2	10:CJ:80:LYS:HB2	2.10	0.67
38:DP:30:THR:HG22	38:DP:31:ALA:N	1.99	0.67
1:CA:344:A:H5''	1:CA:345:C:OP2	1.95	0.67
27:DA:2491:U:O2'	27:DA:2492:U:H5'	1.95	0.67
9:AI:86:VAL:HG23	9:AI:92:TYR:O	1.94	0.67
47:DY:98:VAL:C	47:DY:99:CYS:SG	2.73	0.67
30:DD:172:TYR:HD1	30:DD:186:HIS:HA	1.60	0.67
30:DD:142:VAL:HG22	30:DD:143:HIS:N	2.08	0.67
27:DA:1718:G:H5'	27:DA:1718:G:H8	1.59	0.67
32:DF:178:PRO:HG2	32:DF:179:GLU:CD	2.14	0.67
16:AP:57:ARG:HD3	16:AP:79:VAL:HG13	1.76	0.67
29:DC:83:ILE:HG22	29:DC:83:ILE:O	1.94	0.67
49:B0:51:VAL:N	49:B0:62:LEU:HD12	2.09	0.67
27:BA:1109:C:H5''	27:BA:1110:G:OP2	1.94	0.67
43:DU:112:ARG:HG2	43:DU:112:ARG:HH11	1.60	0.67
1:CA:1346:A:N6	1:CA:1374:A:H3'	2.09	0.67
58:D9:7:VAL:HG13	58:D9:34:GLN:CD	2.15	0.67
34:DH:20:ALA:HB1	34:DH:21:PRO:HD2	1.77	0.67
50:D1:41:ARG:HD3	50:D1:43:TYR:CE2	2.30	0.67
27:BA:620:G:H4'	27:BA:621:A:C5'	2.24	0.67
27:BA:1200:C:H2'	27:BA:1201:C:H6	1.59	0.67
27:DA:1887:C:H3'	27:DA:1888:G:H5''	1.75	0.67
1:AA:681:C:H2'	1:AA:682:G:H8	1.58	0.67
7:CG:72:ARG:O	7:CG:73:MET:HG3	1.94	0.67
49:D0:10:THR:HG22	49:D0:11:ARG:H	1.60	0.67
31:DE:97:LYS:H	31:DE:100:GLU:CD	1.97	0.67
27:DA:833:U:H2'	27:DA:834:C:C6	2.29	0.67
40:DR:81:ASP:O	40:DR:82:GLU:HB2	1.94	0.67
27:BA:651:G:OP1	57:B8:19:SER:OG	2.13	0.67
41:BS:95:HIS:CG	41:BS:96:GLY:H	2.13	0.67
47:BY:8:LYS:HD2	47:BY:8:LYS:N	2.03	0.67
3:CC:14:ILE:HG23	3:CC:15:THR:N	2.10	0.67
55:D6:26:ASN:HB3	55:D6:32:ASN:CG	2.15	0.67
27:BA:1022:G:H4'	27:BA:1023:U:H5'	1.76	0.67
44:DV:2:PHE:HB2	44:DV:42:GLY:HA2	1.77	0.67
13:CM:11:ARG:HH22	33:DG:146:TYR:HD2	1.43	0.67
33:DG:58:GLN:O	33:DG:62:LEU:HD13	1.93	0.67
13:AM:49:THR:HG22	13:AM:51:ALA:N	2.10	0.67
39:BQ:12:GLN:HG2	39:BQ:73:PRO:HD2	1.75	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:51:ARG:NE	10:AJ:61:GLU:HB2	2.10	0.67
37:DO:1:MET:HG3	37:DO:32:TYR:CD1	2.30	0.67
47:DY:4:LYS:HD2	47:DY:32:PRO:CG	2.24	0.67
44:BV:49:THR:CG2	44:BV:50:PRO:HD2	2.25	0.67
27:DA:2068:U:N3	27:DA:2430:A:H2	1.88	0.67
27:BA:2349:G:H5'	27:BA:2349:G:H8	1.60	0.67
47:BY:90:LEU:HD12	47:BY:91:GLU:HG2	1.77	0.67
15:AO:3:ILE:H	15:AO:3:ILE:HD13	1.59	0.67
47:DY:46:LYS:HG2	47:DY:47:LYS:H	1.58	0.67
16:AP:21:VAL:CG1	16:AP:34:GLU:HB3	2.25	0.67
36:BN:120:LEU:HD23	36:BN:121:LYS:N	2.09	0.67
1:CA:590:C:OP1	8:CH:29:SER:HA	1.95	0.67
35:DI:45:LYS:O	35:DI:48:GLU:HB2	1.93	0.67
27:BA:2126:A:H5'	29:BC:36:LYS:HE2	1.75	0.67
16:AP:6:LEU:HB3	16:AP:17:TYR:HD2	1.59	0.67
39:DQ:69:PHE:CD1	39:DQ:70:PRO:HD2	2.30	0.67
1:CA:999:C:O2'	1:CA:1000:U:H5'	1.95	0.67
1:CA:763:G:H2'	1:CA:764:C:H6	1.58	0.67
42:BT:38:ASN:C	42:BT:38:ASN:HD22	1.99	0.67
48:DZ:41:VAL:O	48:DZ:45:LYS:HG2	1.94	0.67
51:D2:8:LYS:O	51:D2:12:GLU:HB2	1.94	0.67
42:DT:121:ILE:HG22	42:DT:122:ASP:OD1	1.94	0.67
27:BA:2468:G:O2'	27:BA:2476:A:C8	2.47	0.67
38:BP:18:ARG:HH11	38:BP:18:ARG:HG3	1.60	0.67
33:DG:51:ARG:HE	33:DG:51:ARG:HA	1.58	0.67
39:DQ:81:VAL:CB	49:D0:7:LEU:HD21	2.21	0.67
30:BD:49:ILE:HD11	30:BD:52:ARG:CA	2.20	0.67
31:BE:79:ARG:HH11	31:BE:79:ARG:HG2	1.60	0.67
48:BZ:116:LEU:HG	48:BZ:171:ALA:O	1.94	0.67
27:DA:1403:C:H5''	27:DA:1471:A:C1'	2.22	0.67
3:AC:36:ASP:O	3:AC:39:ILE:HB	1.94	0.67
35:BI:75:LEU:HD21	35:BI:105:HIS:CD2	2.30	0.67
14:AN:53:LEU:HB3	14:AN:56:VAL:CG2	2.25	0.67
27:BA:951:C:C2'	27:BA:952:G:H5'	2.24	0.67
11:CK:108:ILE:O	18:CR:87:ARG:N	2.28	0.67
50:D1:53:VAL:HG11	50:D1:90:ILE:CG2	2.25	0.67
27:DA:1826:G:H2'	27:DA:1827:C:C6	2.29	0.67
27:DA:1934:C:O2'	27:DA:1935:G:H5'	1.95	0.67
27:DA:2030:A:H4'	27:DA:2031:A:H8	1.58	0.67
31:BE:27:LEU:HD22	42:BT:1:MET:N	2.09	0.67
27:BA:1598:C:H5'	46:BX:36:LYS:HB2	1.75	0.67
35:BI:33:ARG:HG2	35:BI:33:ARG:HH11	1.60	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:363(E):U:H2'	27:DA:363(E):U:O2	1.93	0.67
27:DA:1760:A:H2'	27:DA:1761:C:H5'	1.76	0.67
3:CC:206:GLU:O	3:CC:208:ILE:N	2.28	0.67
25:AY:65:U:H2'	25:AY:66:A:C8	2.30	0.67
53:B4:44:CYS:SG	53:B4:64:LYS:O	2.53	0.67
33:DG:124:SER:HB3	33:DG:132:ASN:O	1.95	0.67
27:DA:2290:G:H2'	27:DA:2291:U:O4'	1.95	0.67
3:AC:92:ALA:HB2	3:AC:99:VAL:HG11	1.77	0.67
27:DA:1812:A:H2'	27:DA:1813:G:H8	1.59	0.67
24:AX:60:U:H5''	24:AX:61:C:C5	2.30	0.67
33:DG:105:LYS:HB2	33:DG:105:LYS:NZ	2.10	0.67
1:CA:107:G:C2'	1:CA:108:G:H5'	2.25	0.67
27:BA:2663:G:H2'	27:BA:2664:G:C8	2.29	0.67
2:CB:211:ILE:O	2:CB:215:LEU:HB2	1.95	0.67
1:AA:1398:A:H8	1:AA:1398:A:C5'	2.08	0.67
45:BW:38:TYR:OH	54:B5:47:PRO:HG3	1.95	0.67
4:AD:29:PRO:HA	4:AD:34:GLU:HG2	1.75	0.67
52:B3:59:VAL:HG12	52:B3:60:GLU:N	2.10	0.67
32:DF:68:LYS:HG3	32:DF:69:HIS:CD2	2.29	0.67
27:BA:888:C:C2'	27:BA:889:C:H5'	2.24	0.67
27:BA:2700:C:O2'	27:BA:2701:C:H5'	1.95	0.67
41:BS:85:VAL:C	41:BS:106:ARG:HG3	2.15	0.67
10:CJ:87:THR:O	10:CJ:89:ASP:N	2.27	0.67
40:DR:79:LEU:HD23	40:DR:79:LEU:O	1.95	0.67
38:BP:23:PRO:CB	38:BP:33:ARG:HD2	2.17	0.67
36:DN:12:ARG:HA	36:DN:12:ARG:HE	1.60	0.67
37:DO:104:ARG:NH1	42:DT:35:LYS:HD3	2.10	0.67
9:CI:26:VAL:HG22	9:CI:61:ALA:HB3	1.76	0.67
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.10	0.67
7:AG:15:ASP:H	7:AG:20:ASP:N	1.93	0.67
2:AB:55:PHE:HE1	2:AB:218:ALA:HA	1.60	0.67
44:BV:49:THR:HG22	44:BV:50:PRO:HD2	1.77	0.67
27:DA:61:G:H5'	51:D2:50:ILE:HG21	1.76	0.67
27:DA:2839:G:H5'	40:DR:46:GLY:HA2	1.75	0.67
27:BA:953:A:O2'	27:BA:954:G:H5'	1.95	0.67
33:DG:104:GLU:OE2	53:D4:50:THR:HB	1.95	0.67
11:CK:82:VAL:HB	11:CK:108:ILE:HG12	1.77	0.67
32:DF:40:GLN:NE2	32:DF:182:ASN:HB2	2.10	0.67
2:CB:55:PHE:HA	2:CB:58:ILE:CG1	2.24	0.67
7:AG:71:PRO:HA	7:AG:138:LYS:HG3	1.77	0.67
8:AH:103:VAL:HG21	8:AH:110:ALA:HB2	1.77	0.67
8:AH:63:LEU:N	8:AH:63:LEU:HD22	2.10	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
59:CX:8:U:H5'	59:CX:49:G:H5'	1.76	0.67
44:DV:59:ALA:HA	44:DV:95:LEU:O	1.94	0.67
27:DA:1423:G:H2'	27:DA:1424:G:H8	1.59	0.67
27:DA:1198:U:H2'	27:DA:1199:U:C6	2.30	0.67
4:AD:189:PRO:HB2	4:AD:194:LEU:CD2	2.21	0.66
35:DI:85:GLU:O	35:DI:123:LEU:HD12	1.95	0.66
42:BT:36:GLU:HB3	42:BT:38:ASN:OD1	1.95	0.66
19:CS:10:PHE:HZ	19:CS:70:LYS:NZ	1.93	0.66
1:AA:1319:A:H2'	1:AA:1323:G:N7	2.10	0.66
20:AT:98:PRO:C	20:AT:100:ILE:H	1.98	0.66
32:BF:126:VAL:O	32:BF:196:LEU:HG	1.95	0.66
18:AR:58:LEU:CD1	18:AR:58:LEU:H	2.04	0.66
13:CM:66:LEU:HD12	13:CM:66:LEU:N	2.09	0.66
27:BA:1654:A:P	40:BR:3:HIS:HB2	2.34	0.66
58:D9:22:ARG:HB2	58:D9:24:TYR:CE1	2.31	0.66
8:AH:127:LEU:HD12	8:AH:129:VAL:HG13	1.77	0.66
27:BA:284:U:H2'	27:BA:285:C:C6	2.31	0.66
16:CP:74:LEU:HD23	16:CP:79:VAL:HG21	1.76	0.66
41:BS:35:ILE:C	41:BS:36:TYR:HD1	1.99	0.66
27:BA:2571:C:H5'	27:BA:2572:A:C5'	2.25	0.66
11:CK:92:GLU:HB3	11:CK:93:GLN:NE2	2.10	0.66
15:CO:4:THR:HG23	15:CO:7:GLU:OE1	1.96	0.66
27:BA:1049:C:N4	27:BA:1111:A:C2	2.63	0.66
1:AA:627:G:O2'	1:AA:628:G:H5'	1.94	0.66
1:CA:337:C:H2'	1:CA:338:A:H8	1.59	0.66
34:DH:89:ILE:HD11	34:DH:129:THR:HG22	1.77	0.66
16:AP:6:LEU:HB3	16:AP:17:TYR:CD2	2.29	0.66
27:DA:962:G:O2'	27:DA:963:U:H5'	1.95	0.66
32:DF:122:LYS:O	32:DF:191:ARG:HG2	1.95	0.66
1:CA:838:G:H2'	1:CA:839:U:H5''	1.76	0.66
27:BA:2093:G:O5'	35:BI:24:GLY:HA3	1.94	0.66
38:BP:63:PRO:HA	57:B8:13:ARG:CB	2.25	0.66
57:B8:30:ARG:O	57:B8:31:HIS:HB3	1.95	0.66
27:BA:2756:U:H4'	27:BA:2757:A:OP1	1.94	0.66
35:BI:130:TYR:HB3	35:BI:136:VAL:CG1	2.25	0.66
33:BG:39:ILE:HD13	33:BG:157:ILE:HG12	1.77	0.66
27:DA:2376:A:H2'	27:DA:2377:A:O4'	1.94	0.66
30:DD:175:LEU:HD12	30:DD:185:VAL:HG21	1.76	0.66
1:AA:1371:G:O3'	9:AI:69:GLY:HA3	1.95	0.66
32:DF:123:LEU:CD1	32:DF:124:LEU:H	2.06	0.66
1:AA:96:U:H2'	1:AA:97:G:H8	1.58	0.66
1:CA:265:G:H2'	1:CA:266:G:H5''	1.77	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:999:U:H2'	27:BA:1000:A:H5''	1.77	0.66
27:DA:2230:G:H1'	50:D1:45:ASN:HB2	1.75	0.66
36:DN:34:LEU:HD21	36:DN:120:LEU:HB2	1.76	0.66
19:AS:49:ILE:HD12	19:AS:49:ILE:N	2.10	0.66
1:CA:1003:G:C2'	1:CA:1004:A:H4'	2.24	0.66
27:BA:848:G:H2'	27:BA:849:A:H8	1.60	0.66
15:CO:3:ILE:HA	15:CO:38:ARG:NH2	2.10	0.66
37:BO:64:ARG:HG2	37:BO:79:PHE:CG	2.30	0.66
8:AH:44:PHE:HE2	8:AH:109:ILE:HG21	1.60	0.66
27:DA:1337:G:H2'	27:DA:1338:G:H8	1.60	0.66
1:AA:1037:C:H2'	1:AA:1038:C:C6	2.31	0.66
36:BN:47:ALA:HB2	36:BN:112:LEU:HD11	1.76	0.66
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.29	0.66
1:AA:234:C:H2'	1:AA:235:C:H6	1.60	0.66
27:BA:2784:C:H1'	31:BE:37:ARG:HH12	1.58	0.66
27:BA:2282:G:H5''	27:BA:2283:C:O4'	1.95	0.66
4:AD:11:LEU:HD13	4:AD:66:ARG:HD3	1.78	0.66
4:AD:98:GLU:HA	4:AD:103:ASN:ND2	2.10	0.66
42:BT:88:ILE:CG2	42:BT:89:VAL:N	2.55	0.66
47:BY:94:LYS:O	47:BY:101:LYS:HA	1.94	0.66
42:BT:20:PRO:HD2	42:BT:85:LYS:HB2	1.76	0.66
33:BG:81:LYS:O	33:BG:82:LEU:O	2.14	0.66
48:DZ:149:LEU:HD13	48:DZ:149:LEU:H	1.60	0.66
10:CJ:75:ILE:O	10:CJ:77:PRO:HD3	1.95	0.66
38:DP:101:VAL:C	38:DP:103:ALA:H	1.95	0.66
33:DG:39:ILE:HD13	33:DG:157:ILE:HG12	1.77	0.66
32:DF:160:ASN:HD22	32:DF:161:GLU:N	1.93	0.66
10:AJ:29:ARG:NH2	10:AJ:84:GLN:HG2	2.09	0.66
5:AE:6:PHE:HB3	5:AE:35:GLY:O	1.94	0.66
39:BQ:28:ALA:O	39:BQ:29:PHE:HB2	1.95	0.66
4:CD:30:LYS:C	4:CD:32:ALA:N	2.49	0.66
27:BA:1441:G:O2'	27:BA:1442:G:H5'	1.95	0.66
27:DA:999:U:H2'	27:DA:1000:A:C5'	2.24	0.66
16:CP:21:VAL:HG12	16:CP:34:GLU:HB3	1.77	0.66
32:BF:132:VAL:HG13	32:BF:133:ASN:N	2.09	0.66
9:CI:45:ALA:O	9:CI:48:GLU:HB2	1.95	0.66
20:AT:27:LYS:O	20:AT:30:LYS:HB2	1.94	0.66
29:DC:18:LYS:HD2	29:DC:19:VAL:HG23	1.77	0.66
31:BE:116:VAL:O	31:BE:117:MET:HG2	1.95	0.66
7:AG:44:TYR:HA	7:AG:47:CYS:SG	2.35	0.66
32:DF:63:LYS:HE3	32:DF:67:GLN:HB2	1.77	0.66
27:BA:1300:U:O2'	27:BA:1301:A:OP2	2.12	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1336:A:H2'	27:DA:1337:G:C8	2.30	0.66
27:BA:2126:A:H4'	27:BA:2127:G:O5'	1.95	0.66
25:AY:67:C:H2'	25:AY:68:C:H6	1.59	0.66
42:DT:129:ARG:HH22	42:DT:133:GLU:HB2	1.61	0.66
27:DA:1512:U:H2'	27:DA:1513:C:C6	2.30	0.66
8:AH:120:THR:HG23	8:AH:123:GLU:OE2	1.94	0.66
27:DA:2732:G:C3'	27:DA:2733:A:H5'	2.25	0.66
27:BA:2815:C:H5'	54:B5:29:THR:HG21	1.76	0.66
27:BA:2815:C:O2'	54:B5:43:HIS:HD2	1.77	0.66
1:AA:828:A:H2'	1:AA:829:G:O4'	1.94	0.66
27:BA:212:G:O2'	27:BA:213:A:H5'	1.95	0.66
1:CA:723:U:O2	1:CA:723:U:H2'	1.94	0.66
45:BW:1:MET:CE	45:BW:2:GLU:H	2.09	0.66
10:CJ:84:GLN:H	10:CJ:84:GLN:CD	1.99	0.66
27:BA:2827:C:H5'	27:BA:2828:C:OP2	1.94	0.66
54:B5:54:GLY:O	54:B5:56:LYS:HD2	1.96	0.66
48:DZ:68:THR:HA	48:DZ:88:PHE:O	1.95	0.66
27:DA:2371:G:H4'	55:D6:45:LYS:HG3	1.78	0.66
27:BA:1019:U:HO2'	27:BA:1021:A:H2	1.43	0.66
27:DA:2863:C:H2'	27:DA:2864:G:H5''	1.78	0.66
32:BF:20:LEU:HD22	32:BF:203:GLN:HE22	1.60	0.66
43:DU:65:ILE:HD11	43:DU:93:LYS:CA	2.20	0.66
27:DA:2303:G:H1	27:DA:2313:C:N4	1.93	0.66
1:CA:165:C:H2'	1:CA:166:G:H8	1.59	0.66
44:BV:35:LEU:HB3	44:BV:37:VAL:CG2	2.26	0.66
7:CG:16:LEU:HD13	9:CI:44:VAL:HG22	1.77	0.66
31:DE:4:ILE:HG12	31:DE:28:ALA:HB1	1.77	0.66
7:AG:23:VAL:HG12	7:AG:27:ILE:HD11	1.77	0.66
47:DY:31:LEU:HD22	47:DY:31:LEU:H	1.60	0.66
27:BA:330:A:O2'	27:BA:331:A:H8	1.79	0.66
1:CA:256:U:H2'	1:CA:257:G:C8	2.31	0.66
4:AD:126:ILE:N	4:AD:126:ILE:HD13	2.10	0.66
5:AE:91:LEU:HB3	5:AE:118:ILE:HD11	1.77	0.66
27:DA:2537:U:H2'	27:DA:2538:C:H6	1.61	0.66
27:BA:729:G:O2'	27:BA:763:G:H4'	1.96	0.66
10:AJ:3:LYS:HD2	10:AJ:77:PRO:CG	2.25	0.66
27:BA:1678:G:H22	27:BA:1989:G:H22	1.41	0.66
1:CA:625:G:H2'	1:CA:626:U:H6	1.59	0.66
24:AX:10:G:C2	24:AX:26:G:H1'	2.31	0.66
27:BA:380:U:H2'	27:BA:381:G:H8	1.60	0.66
27:DA:336:C:O2'	27:DA:337:C:H5'	1.95	0.66
50:B1:46:LEU:HA	50:B1:63:ALA:HA	1.76	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:134:A:H61	16:CP:25:ARG:NH1	1.93	0.66
27:BA:2271:G:H5''	49:B0:20:ARG:HH11	1.60	0.66
1:CA:1096:C:O2'	1:CA:1097:C:H5'	1.95	0.66
1:AA:1397:C:H42	22:AV:10:U:H2'	1.60	0.66
23:AW:60:C:C2'	23:AW:61:C:H5'	2.25	0.66
45:BW:70:TYR:CE1	45:BW:72:LYS:HA	2.30	0.66
44:BV:99:ILE:H	44:BV:99:ILE:HD13	1.59	0.66
46:BX:64:LYS:HZ1	46:BX:73:ARG:HH21	1.43	0.66
1:AA:1007:C:H2'	1:AA:1008:C:C6	2.30	0.66
27:DA:1751:C:H2'	27:DA:1752:C:H6	1.59	0.66
19:AS:9:VAL:O	19:AS:11:VAL:N	2.28	0.66
27:DA:1300:U:O2	27:DA:1626:G:H2'	1.95	0.66
27:BA:2074:U:H2'	27:BA:2075:U:C6	2.30	0.66
11:AK:48:ILE:HG22	11:AK:49:GLY:H	1.61	0.66
27:DA:1040:C:O2'	27:DA:1041:C:C6	2.47	0.66
27:DA:2415:G:H4'	38:DP:67:MET:H	1.60	0.66
38:DP:59:LEU:HA	38:DP:61:ARG:NH1	2.10	0.66
32:BF:3:GLU:O	32:BF:19:GLU:CB	2.43	0.66
1:CA:1117:G:H21	1:CA:1180:A:H1'	1.59	0.66
27:DA:1686:C:C5'	27:DA:1686:C:H6	2.08	0.66
1:AA:1139:G:H1'	1:AA:1141:C:H41	1.60	0.66
9:AI:4:TYR:CD1	9:AI:4:TYR:N	2.62	0.66
27:BA:956:G:OP2	39:BQ:14:ARG:NH2	2.29	0.66
37:DO:87:ILE:HG22	37:DO:88:ASN:N	2.09	0.66
30:DD:145:VAL:HG22	30:DD:191:ALA:HB1	1.78	0.66
37:BO:66:LYS:H	37:BO:82:ASN:HD21	1.43	0.66
27:BA:925:C:H2'	27:BA:926:A:C5'	2.26	0.66
51:B2:26:ARG:HH11	51:B2:26:ARG:HG3	1.60	0.66
27:BA:2491:U:O2'	27:BA:2492:U:H5'	1.95	0.66
30:DD:218:ARG:HB3	30:DD:219:PRO:HD2	1.77	0.66
16:AP:14:ASN:N	16:AP:15:PRO:HD3	2.10	0.66
1:AA:1038:C:H2'	1:AA:1039:C:C5	2.31	0.66
27:DA:2184:G:H2'	27:DA:2185:C:C6	2.31	0.66
2:AB:236:TYR:HA	2:AB:239:VAL:CG2	2.26	0.66
27:DA:1355:G:O2'	27:DA:1356:G:H5'	1.96	0.66
27:DA:1782:C:H1'	27:DA:2609:U:H5''	1.77	0.66
7:AG:100:ALA:O	7:AG:104:LEU:HD23	1.96	0.66
27:DA:2126:A:H4'	27:DA:2127:G:O5'	1.96	0.66
38:DP:68:GLN:OE1	57:D8:12:LYS:HB3	1.95	0.66
38:BP:16:ARG:NE	38:BP:18:ARG:HG2	2.10	0.66
33:DG:60:LEU:HD13	33:DG:60:LEU:O	1.95	0.66
44:BV:59:ALA:HB2	44:BV:96:ILE:HD13	1.78	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1323:G:H4'	1:CA:1363:C:N3	2.11	0.66
10:AJ:76:ASN:OD1	10:AJ:78:ASN:HB3	1.96	0.66
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.77	0.66
36:BN:3:THR:O	36:BN:4:TYR:HD1	1.79	0.66
50:D1:76:ARG:HH22	50:D1:95:LEU:HD13	1.60	0.66
47:BY:17:SER:OG	47:BY:71:LYS:HD2	1.96	0.66
1:CA:191:G:C4	20:CT:105:SER:HB3	2.31	0.66
5:AE:10:MET:HB2	5:AE:32:VAL:HG22	1.78	0.66
34:BH:13:LYS:HD3	34:BH:13:LYS:C	2.16	0.66
13:CM:90:LEU:O	13:CM:91:ARG:HB2	1.95	0.66
41:DS:13:ARG:O	41:DS:15:ARG:HG2	1.95	0.66
46:DX:60:ARG:HH12	56:D7:47:ARG:HH22	1.41	0.66
37:DO:53:LYS:N	37:DO:53:LYS:HD2	2.11	0.66
29:DC:58:VAL:HG21	29:DC:166:ASP:N	2.10	0.66
28:BB:66:A:H61	28:BB:108:U:H2'	1.60	0.66
11:CK:61:ALA:CB	11:CK:90:GLY:HA3	2.26	0.66
50:D1:50:ARG:HA	50:D1:59:THR:HG22	1.78	0.66
7:AG:50:ILE:O	7:AG:54:THR:HG22	1.96	0.66
27:DA:302:C:O2'	27:DA:303:U:H6	1.78	0.66
11:CK:36:ASP:HB2	11:CK:38:ASN:ND2	2.10	0.66
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.60	0.66
59:CX:49:G:H1	59:CX:65:C:N4	1.94	0.66
1:AA:288:A:H2'	1:AA:289:G:H4'	1.77	0.66
27:BA:185:U:H4'	27:BA:218:A:H4'	1.76	0.66
1:AA:394:G:H2'	1:AA:395:C:H6	1.59	0.66
47:DY:88:LYS:NZ	47:DY:93:GLY:HA3	2.11	0.66
1:CA:1317:C:OP1	14:CN:17:LYS:HG2	1.95	0.66
27:DA:2790:A:N3	27:DA:2790:A:H2'	2.10	0.66
27:BA:11:G:O2'	27:BA:12:U:H5'	1.96	0.66
27:BA:889:C:H1'	27:BA:890:A:O4'	1.95	0.66
42:BT:32:TYR:HD2	42:BT:81:PRO:HB2	1.61	0.66
44:DV:18:LEU:HD13	44:DV:19:LYS:N	2.11	0.66
28:DB:56:G:H4'	28:DB:57:A:O5'	1.95	0.66
33:DG:125:PHE:CD2	33:DG:131:TYR:HD1	2.14	0.66
48:DZ:75:LEU:HB3	48:DZ:80:ARG:O	1.96	0.66
27:DA:2787:C:O2	31:DE:61:ARG:NH1	2.29	0.66
10:AJ:49:VAL:O	10:AJ:60:ARG:HB2	1.96	0.66
48:BZ:116:LEU:HD12	48:BZ:173:VAL:HG22	1.78	0.66
27:DA:2747:G:O6	27:DA:2755:C:H5''	1.95	0.66
23:CW:20:A:H62	23:CW:46:U:H1'	1.60	0.66
1:CA:1054:C:H5	1:CA:1196:U:C6	2.13	0.66
30:BD:206:LEU:HD23	30:BD:211:ARG:CG	2.26	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:625:G:H2'	1:CA:626:U:C6	2.30	0.66
29:DC:58:VAL:HG22	29:DC:166:ASP:O	1.95	0.66
14:CN:12:ARG:C	14:CN:14:PRO:HD2	2.16	0.66
17:CQ:81:ARG:NH1	17:CQ:84:LEU:HD21	2.11	0.66
15:CO:3:ILE:HG21	15:CO:34:LEU:HD21	1.78	0.66
1:AA:1163:C:H2'	1:AA:1164:G:C8	2.30	0.66
37:BO:120:GLU:HG2	37:BO:122:LEU:HD21	1.78	0.66
29:BC:76:ALA:C	29:BC:78:ALA:H	1.98	0.66
1:CA:434:U:H2'	1:CA:435:C:C6	2.30	0.66
37:BO:17:ARG:HD3	37:BO:47:ILE:CD1	2.26	0.66
46:DX:57:LEU:HD12	46:DX:78:LYS:O	1.96	0.66
27:BA:2208:A:H1'	27:BA:2219:G:C4	2.31	0.66
34:DH:65:HIS:CE1	34:DH:69:ARG:HD3	2.31	0.66
27:DA:740:U:H6	27:DA:740:U:H5'	1.61	0.66
42:BT:42:ILE:H	42:BT:42:ILE:HD12	1.61	0.66
27:BA:158:U:H2'	27:BA:158:U:O2	1.95	0.66
25:CY:24:C:H2'	25:CY:25:A:H8	1.61	0.66
38:BP:58:THR:O	38:BP:61:ARG:CZ	2.44	0.66
35:DI:77:LEU:HD13	35:DI:105:HIS:NE2	2.10	0.66
48:DZ:26:VAL:HG12	48:DZ:84:HIS:HE1	1.60	0.66
57:D8:33:ASN:CA	57:D8:36:LYS:HD3	2.26	0.66
4:AD:49:ARG:CZ	4:AD:50:ARG:N	2.58	0.66
38:DP:101:VAL:HG23	38:DP:102:ARG:N	2.10	0.66
33:DG:161:THR:HG22	33:DG:162:THR:N	2.10	0.66
27:DA:2315:G:H2'	27:DA:2316:C:C6	2.31	0.66
31:DE:59:VAL:CG2	31:DE:60:ASN:H	2.06	0.66
27:DA:2057:A:C2	54:D5:4:HIS:HA	2.30	0.66
38:DP:7:ARG:O	38:DP:10:PRO:HD2	1.96	0.66
15:CO:65:ARG:HH11	15:CO:65:ARG:HG2	1.60	0.66
1:AA:1239:A:N6	1:AA:1299:A:H62	1.87	0.66
33:BG:129:GLY:HA3	33:BG:163:ALA:O	1.96	0.66
15:AO:75:PRO:HB2	15:AO:79:ARG:NH2	2.11	0.66
38:DP:16:ARG:HB2	38:DP:16:ARG:HH11	1.59	0.66
5:AE:144:THR:O	5:AE:148:VAL:HG23	1.94	0.66
4:CD:19:LEU:HD11	4:CD:67:ILE:CG1	2.23	0.66
11:CK:21:ILE:HB	11:CK:84:VAL:HG12	1.77	0.66
14:CN:13:THR:O	14:CN:15:LYS:N	2.29	0.66
1:AA:1096:C:O2'	1:AA:1097:C:H5'	1.96	0.66
43:DU:52:ARG:NH2	43:DU:55:ARG:HH21	1.94	0.66
8:CH:100:ILE:HG23	8:CH:112:LEU:HD21	1.77	0.66
25:AY:37:U:H3'	25:AY:38:U:H5''	1.78	0.66
7:AG:144:MET:O	7:AG:146:GLU:N	2.26	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1854:A:H5'	27:DA:1855:G:OP2	1.95	0.66
43:BU:66:ASN:HD21	43:BU:70:ARG:HH21	1.42	0.66
52:B3:3:ARG:HB3	52:B3:60:GLU:N	2.11	0.66
1:AA:393:A:O2'	1:AA:394:G:H5'	1.95	0.66
36:DN:46:VAL:O	36:DN:47:ALA:HB3	1.95	0.66
27:DA:271(K):U:H3	35:DI:50:ARG:NH1	1.93	0.66
27:DA:2853:C:H2'	27:DA:2854:G:H8	1.60	0.66
46:BX:47:PHE:O	46:BX:49:VAL:HG13	1.96	0.66
27:DA:1028:A:N6	27:DA:1125:G:H2'	2.11	0.66
55:B6:18:ARG:CG	55:B6:19:ARG:N	2.56	0.66
38:BP:130:PHE:HB2	38:BP:135:LEU:HD22	1.78	0.66
38:BP:97:PRO:O	38:BP:98:GLU:HG2	1.96	0.66
53:B4:46:ASN:HD22	53:B4:47:VAL:N	1.94	0.66
10:CJ:47:PHE:HB2	14:CN:34:TYR:CE2	2.31	0.66
33:DG:118:ARG:HB2	33:DG:181:ARG:CZ	2.25	0.66
23:AW:57:A:O2'	23:AW:58:A:H3'	1.95	0.66
30:BD:75:ILE:HG21	30:BD:99:ASP:HB2	1.77	0.66
13:AM:54:VAL:O	13:AM:58:GLU:HB2	1.96	0.66
1:AA:1189:C:H5''	3:AC:5:ILE:HG21	1.78	0.66
45:DW:18:ARG:HG2	45:DW:18:ARG:HH11	1.61	0.66
1:AA:1117:G:H2'	1:AA:1118:C:H5'	1.78	0.66
54:D5:4:HIS:CB	54:D5:5:PRO:HD3	2.19	0.66
27:BA:2875:C:O2'	42:BT:5:ALA:HB3	1.95	0.66
5:AE:126:ARG:NH1	5:AE:126:ARG:HG3	2.03	0.66
27:BA:1688:U:H1'	27:BA:1701:A:C6	2.30	0.66
41:BS:28:VAL:HB	41:BS:89:ARG:HG3	1.77	0.66
13:CM:94:ARG:N	13:CM:94:ARG:HD2	2.10	0.66
34:DH:85:LYS:HD3	34:DH:133:VAL:O	1.95	0.66
13:CM:49:THR:HG22	13:CM:50:GLU:N	2.11	0.66
27:DA:2389:G:H5''	27:DA:2390:U:O4'	1.96	0.66
1:CA:554:C:H2'	1:CA:555:C:C6	2.30	0.66
27:BA:174:C:C3'	27:BA:175:G:H5''	2.26	0.66
1:AA:188:C:H2'	1:AA:189:G:C8	2.30	0.66
27:DA:1710:C:O2'	27:DA:1711:C:H5'	1.95	0.66
27:DA:2853:C:H2'	27:DA:2854:G:C8	2.31	0.66
27:BA:2396:G:C2'	27:BA:2397:G:H5'	2.26	0.66
1:AA:477:A:O2'	1:AA:479:C:H5'	1.96	0.66
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.77	0.66
5:CE:18:ARG:NH2	5:CE:25:ARG:HD2	2.11	0.66
32:BF:53:THR:HG22	32:BF:56:GLU:CD	2.17	0.66
55:B6:40:CYS:SG	55:B6:45:LYS:NZ	2.66	0.66
55:D6:15:GLU:CD	55:D6:18:ARG:CZ	2.64	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2416:C:H5''	38:DP:64:LYS:HE3	1.78	0.66
27:BA:89:G:H5'	27:BA:89:G:H8	1.61	0.66
33:DG:111:LEU:HB2	33:DG:112:PRO:HD3	1.78	0.66
27:DA:1697:G:H3'	27:DA:1698:A:C5'	2.21	0.66
9:CI:9:ARG:HB3	9:CI:104:ARG:HD3	1.78	0.66
9:AI:13:ALA:HA	9:AI:67:GLY:O	1.93	0.66
32:DF:10:PRO:CD	32:DF:13:SER:HB2	2.26	0.66
48:BZ:150:HIS:CG	48:BZ:151:ALA:H	2.14	0.66
14:AN:27:CYS:O	14:AN:29:ARG:N	2.29	0.66
27:BA:1209:G:H21	27:BA:1210:A:H62	1.43	0.66
12:CL:25:LYS:HE3	12:CL:30:ARG:HH22	1.61	0.66
3:AC:83:ARG:HE	3:AC:87:LEU:HD21	1.61	0.66
4:CD:107:ARG:HD2	4:CD:173:TRP:HZ2	1.60	0.66
33:BG:165:THR:OG1	33:BG:168:GLU:HG3	1.95	0.66
22:CV:10:U:O2	22:CV:10:U:H2'	1.94	0.66
30:DD:57:GLY:HA3	30:DD:216:GLY:H	1.61	0.66
42:DT:24:PRO:HA	42:DT:49:VAL:HG13	1.77	0.66
34:DH:76:VAL:O	34:DH:79:VAL:HG22	1.96	0.66
27:BA:2230:G:H1'	50:B1:45:ASN:CB	2.25	0.66
30:DD:10:THR:HG23	30:DD:13:ARG:CB	2.26	0.66
3:CC:92:ALA:HB2	3:CC:99:VAL:HG21	1.77	0.66
1:CA:651:C:H2'	1:CA:652:U:C6	2.30	0.66
4:AD:135:LEU:H	4:AD:135:LEU:HD22	1.59	0.66
42:DT:96:ARG:HB3	42:DT:96:ARG:CZ	2.25	0.66
27:DA:651:G:H5''	57:D8:18:ALA:HB3	1.78	0.66
27:DA:1658:C:OP1	31:DE:132:HIS:O	2.14	0.66
36:DN:43:THR:HB	36:DN:46:VAL:HG12	1.77	0.66
27:BA:712:G:H2'	27:BA:713:G:H5'	1.78	0.66
44:DV:49:THR:HB	44:DV:50:PRO:HD2	1.76	0.66
4:AD:17:VAL:HG11	4:AD:197:PRO:CB	2.26	0.66
35:DI:13:GLY:O	35:DI:14:ASP:HB2	1.94	0.66
19:CS:24:ALA:O	19:CS:25:LYS:HB2	1.96	0.66
1:CA:971:G:O2'	1:CA:1365:G:O2'	2.12	0.66
33:BG:26:GLN:O	33:BG:28:VAL:N	2.25	0.66
1:AA:854:G:H3'	1:AA:871:U:O4	1.95	0.66
12:AL:73:ASN:O	12:AL:74:LEU:HD23	1.96	0.66
41:DS:61:ASN:O	41:DS:63:THR:N	2.29	0.66
27:DA:212:G:O2'	27:DA:213:A:H5'	1.95	0.66
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.30	0.66
38:BP:80:TYR:CE1	38:BP:111:ARG:HD3	2.30	0.65
35:DI:125:GLU:OE2	35:DI:141:LYS:HG2	1.96	0.65
35:DI:78:THR:CG2	35:DI:79:ILE:N	2.59	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2758:A:C5	34:BH:67:LEU:HD21	2.30	0.65
47:BY:28:LYS:N	47:BY:28:LYS:HE3	2.11	0.65
27:DA:893:C:H2'	27:DA:894:C:O4'	1.96	0.65
55:D6:12:GLU:HG3	55:D6:21:TYR:HB3	1.77	0.65
32:BF:32:LEU:HD11	32:BF:105:VAL:HG13	1.78	0.65
43:DU:90:VAL:HA	44:DV:11:GLN:HE22	1.60	0.65
27:BA:2732:G:C2'	27:BA:2733:A:H5'	2.26	0.65
35:BI:82:ARG:HH22	1:CA:56:U:C4'	2.00	0.65
30:BD:35:LYS:HD2	30:BD:104:TYR:HD1	1.61	0.65
30:BD:31:LYS:HG3	30:BD:33:LEU:HD13	1.77	0.65
31:DE:104:VAL:HG11	31:DE:188:VAL:HG23	1.77	0.65
28:DB:48:A:H8	28:DB:48:A:H5'	1.61	0.65
2:CB:166:ASP:HB3	2:CB:169:LYS:HB3	1.76	0.65
1:CA:192:U:H2'	1:CA:193:C:H6	1.61	0.65
11:AK:108:ILE:HB	18:AR:87:ARG:HA	1.77	0.65
34:DH:102:ALA:HB2	34:DH:117:PRO:CD	2.26	0.65
2:CB:112:VAL:O	2:CB:115:LEU:HB3	1.96	0.65
35:BI:13:GLY:O	35:BI:14:ASP:HB2	1.94	0.65
27:BA:2060:A:OP1	32:BF:68:LYS:O	2.14	0.65
49:D0:19:LYS:HB2	49:D0:21:LEU:HD21	1.76	0.65
27:BA:1778:U:H2'	27:BA:1784:A:N6	2.12	0.65
44:DV:15:GLU:HB3	44:DV:16:PRO:CD	2.26	0.65
34:DH:70:THR:HA	34:DH:73:ALA:HB3	1.78	0.65
17:CQ:81:ARG:HD3	17:CQ:83:ASP:OD1	1.96	0.65
27:DA:1721:G:H8	27:DA:1741:A:H62	1.43	0.65
4:CD:101:LEU:O	4:CD:105:VAL:HG23	1.96	0.65
1:CA:284:G:H2'	1:CA:285:G:C8	2.31	0.65
27:DA:2223:G:C2'	27:DA:2224:G:H5'	2.26	0.65
36:DN:7:LYS:N	36:DN:7:LYS:HD2	2.11	0.65
27:BA:1916:A:H2'	27:BA:1917:U:O4'	1.96	0.65
12:AL:31:ARG:HG3	12:AL:102:TYR:CE1	2.32	0.65
44:DV:28:GLU:HB3	44:DV:29:PRO:HD2	1.78	0.65
10:AJ:96:ILE:HD13	10:AJ:96:ILE:H	1.60	0.65
1:AA:601:C:H2'	1:AA:602:A:C8	2.31	0.65
35:DI:127:VAL:O	35:DI:128:LEU:HD23	1.94	0.65
35:DI:129:THR:O	35:DI:130:TYR:HB2	1.95	0.65
31:DE:6:GLY:O	31:DE:196:VAL:HG22	1.96	0.65
33:BG:141:PHE:HD2	33:BG:141:PHE:N	1.94	0.65
48:DZ:156:LEU:HD21	48:DZ:162:LEU:HD11	1.76	0.65
27:DA:2869:G:H2'	27:DA:2870:C:C6	2.31	0.65
32:BF:20:LEU:HD22	32:BF:203:GLN:NE2	2.11	0.65
32:BF:20:LEU:C	32:BF:24:LEU:HD23	2.16	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:25:ILE:HD11	13:AM:66:LEU:HD23	1.78	0.65
9:CI:95:LYS:HD3	9:CI:96:LEU:H	1.61	0.65
30:BD:44:ASN:HB2	30:BD:48:ARG:O	1.95	0.65
9:AI:4:TYR:HD1	9:AI:4:TYR:N	1.94	0.65
27:BA:1688:U:H5'	27:BA:1689:A:OP1	1.96	0.65
48:BZ:142:GLY:C	48:BZ:143:LEU:HD22	2.16	0.65
43:BU:90:VAL:O	43:BU:92:ARG:N	2.27	0.65
5:CE:53:LEU:HD12	5:CE:53:LEU:N	2.10	0.65
27:BA:1902:C:H4'	30:BD:244:ARG:HA	1.77	0.65
1:CA:1457:G:OP1	20:CT:39:LYS:NZ	2.21	0.65
27:BA:2030:A:H4'	27:BA:2031:A:C8	2.32	0.65
34:BH:12:PRO:HD2	34:BH:49:VAL:CG1	2.26	0.65
1:AA:404:U:H2'	1:AA:405:U:C6	2.30	0.65
4:AD:3:ARG:HH21	4:AD:5:ILE:HD11	1.60	0.65
39:BQ:67:ARG:HD2	39:BQ:105:GLU:OE1	1.97	0.65
41:DS:17:ARG:C	41:DS:19:LYS:H	1.97	0.65
1:CA:558:G:H2'	1:CA:559:A:H2	1.60	0.65
27:DA:2133:G:H2'	27:DA:2157:G:N2	2.12	0.65
12:AL:80:VAL:HG12	12:AL:81:LEU:H	1.59	0.65
47:DY:46:LYS:CG	47:DY:47:LYS:HD2	2.26	0.65
42:DT:23:ARG:HG2	42:DT:120:ARG:NH1	2.11	0.65
27:DA:2650:U:H2'	27:DA:2651:C:C6	2.29	0.65
35:BI:79:ILE:O	35:BI:81:VAL:HG23	1.96	0.65
27:DA:2191:G:H5''	27:DA:2192:G:OP2	1.96	0.65
43:DU:45:TYR:O	43:DU:46:ALA:C	2.35	0.65
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	1.78	0.65
29:DC:36:LYS:HB2	29:DC:36:LYS:NZ	2.11	0.65
27:BA:185:U:H2'	27:BA:186:G:H8	1.59	0.65
1:AA:601:C:H2'	1:AA:602:A:H8	1.59	0.65
35:BI:52:ARG:C	35:BI:54:GLN:H	1.98	0.65
27:DA:352:G:N2	27:DA:429:A:H4'	2.11	0.65
30:BD:186:HIS:CD2	30:BD:188:GLU:H	2.14	0.65
38:BP:83:VAL:HG11	38:BP:112:LEU:HD21	1.79	0.65
27:BA:2756:U:H1'	27:BA:2757:A:H5''	1.78	0.65
42:BT:28:VAL:HG13	42:BT:46:GLU:CA	2.25	0.65
3:CC:181:ASN:ND2	3:CC:204:LEU:HD12	2.11	0.65
38:DP:83:VAL:HG23	38:DP:105:LEU:CD1	2.26	0.65
41:DS:85:VAL:CG2	41:DS:106:ARG:HB2	2.26	0.65
38:BP:23:PRO:CD	38:BP:33:ARG:CZ	2.71	0.65
33:DG:57:ALA:HB2	33:DG:90:LEU:HD11	1.78	0.65
14:AN:39:LEU:HD13	14:AN:44:LEU:HA	1.78	0.65
10:AJ:40:LEU:HG	10:AJ:69:ASN:HB3	1.78	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BE:61:ARG:C	31:BE:63:LEU:H	1.99	0.65
27:DA:1165:U:H2'	27:DA:1166:C:C6	2.31	0.65
7:CG:15:ASP:O	7:CG:19:GLY:HA2	1.96	0.65
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.31	0.65
1:AA:1305:G:H22	1:AA:1331:G:C2'	2.08	0.65
39:BQ:29:PHE:HB3	39:BQ:65:PHE:CD1	2.30	0.65
1:CA:558:G:H2'	1:CA:559:A:C2	2.31	0.65
40:BR:83:ILE:O	40:BR:86:ARG:HG2	1.97	0.65
45:DW:51:LEU:O	45:DW:54:ALA:HB3	1.96	0.65
16:CP:21:VAL:CG1	16:CP:34:GLU:HB3	2.26	0.65
30:DD:30:GLU:HG3	30:DD:63:ARG:NE	2.11	0.65
6:AF:9:VAL:HB	6:AF:87:ARG:HB2	1.77	0.65
43:DU:66:ASN:HB2	43:DU:76:TYR:HB2	1.79	0.65
7:CG:113:GLU:HB2	7:CG:119:ARG:HD3	1.78	0.65
27:DA:271(J):C:H3'	27:DA:271(K):U:H5''	1.77	0.65
27:DA:234:C:H2'	27:DA:235:U:H6	1.61	0.65
30:DD:231:HIS:CG	30:DD:232:PRO:HD2	2.31	0.65
30:DD:248:SER:HB2	30:DD:249:PRO:HD2	1.79	0.65
8:CH:20:TYR:O	8:CH:21:LYS:HB2	1.95	0.65
33:BG:21:ARG:HD3	33:BG:21:ARG:C	2.17	0.65
44:BV:29:PRO:O	44:BV:61:VAL:HG22	1.96	0.65
13:AM:84:ILE:O	13:AM:84:ILE:HG22	1.96	0.65
1:CA:797:C:OP1	11:CK:124:LYS:HE2	1.97	0.65
18:AR:36:ASN:HB2	18:AR:39:VAL:HG23	1.77	0.65
27:BA:2643:G:O2'	27:BA:2644:G:H5'	1.96	0.65
27:BA:2199:A:H5'	27:BA:2200:C:OP2	1.97	0.65
27:BA:2391:G:OP1	57:B8:32:LEU:HD12	1.96	0.65
57:B8:32:LEU:HB2	57:B8:36:LYS:CE	2.26	0.65
55:D6:11:LEU:HD21	55:D6:51:GLU:CA	2.25	0.65
41:BS:106:ARG:HH12	41:BS:108:GLY:HA3	1.56	0.65
36:DN:22:THR:HA	36:DN:61:ARG:O	1.96	0.65
4:AD:31:CYS:O	4:AD:31:CYS:SG	2.54	0.65
1:CA:1056:U:C5'	3:CC:163:ALA:HB2	2.26	0.65
3:CC:134:ILE:HG21	3:CC:168:ALA:HB3	1.79	0.65
28:DB:50:G:OP2	41:DS:62:LYS:NZ	2.28	0.65
1:AA:976:G:H5'	1:AA:1358:U:O2'	1.96	0.65
27:DA:2821:A:P	40:DR:2:ARG:HH22	2.19	0.65
12:CL:29:PHE:O	12:CL:30:ARG:HB2	1.96	0.65
3:AC:63:ASN:HA	3:AC:98:ASN:HB3	1.78	0.65
3:CC:113:ALA:HA	3:CC:202:ILE:HD11	1.78	0.65
36:BN:133:GLN:C	36:BN:134:ARG:HG3	2.17	0.65
41:BS:35:ILE:CG2	41:BS:53:SER:HB2	2.25	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:AW:46:U:O2'	23:AW:47:C:H6	1.79	0.65
8:AH:103:VAL:CG2	8:AH:110:ALA:HB2	2.26	0.65
1:CA:1097:C:O2'	1:CA:1098:C:H5'	1.96	0.65
6:AF:98:LEU:HD22	18:AR:28:GLU:OE1	1.96	0.65
1:CA:1479:C:H2'	1:CA:1480:G:C8	2.32	0.65
27:DA:651:G:H5''	57:D8:18:ALA:CB	2.27	0.65
29:DC:212:VAL:O	29:DC:218:MET:HA	1.97	0.65
16:AP:31:LYS:HG2	16:AP:32:TYR:H	1.61	0.65
24:AX:35:A:O2'	24:AX:36:U:H5'	1.97	0.65
2:CB:11:LEU:HB3	2:CB:213:LEU:HD11	1.79	0.65
2:AB:19:HIS:CE1	2:AB:191:ASP:HB2	2.32	0.65
11:AK:18:ARG:HB3	11:AK:33:THR:OG1	1.95	0.65
38:BP:97:PRO:HD3	38:BP:126:VAL:O	1.95	0.65
1:CA:1223:C:P	1:CA:1224:G:H2'	2.37	0.65
14:CN:57:ARG:HG2	14:CN:58:LYS:N	2.12	0.65
55:D6:8:LYS:N	55:D6:27:LYS:HZ3	1.95	0.65
27:BA:1022:G:H4'	27:BA:1023:U:C5'	2.26	0.65
27:DA:627:A:H4'	27:DA:628:G:OP1	1.97	0.65
38:BP:33:ARG:O	38:BP:35:HIS:O	2.15	0.65
27:BA:1412:A:H2'	27:BA:1413:G:C8	2.31	0.65
31:BE:60:ASN:CG	31:BE:62:PRO:HD2	2.17	0.65
14:AN:26:ARG:HG3	14:AN:27:CYS:H	1.59	0.65
27:DA:1328:G:H2'	27:DA:1330:C:C4	2.31	0.65
2:AB:36:ARG:H	2:AB:41:ILE:HD13	1.62	0.65
1:CA:555:C:H2'	1:CA:556:C:H6	1.61	0.65
52:B3:54:VAL:CG1	52:B3:55:ARG:N	2.59	0.65
27:DA:861:A:C2	27:DA:862:G:H1'	2.30	0.65
27:DA:2123:G:H2'	27:DA:2124:G:H8	1.62	0.65
27:DA:1719:G:C2'	27:DA:1720:U:H5'	2.27	0.65
40:BR:37:THR:HG23	40:BR:40:LYS:HB2	1.77	0.65
27:DA:539:G:H2'	27:DA:540:C:H6	1.61	0.65
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.60	0.65
1:CA:27:G:C5'	4:CD:209:ARG:HG2	2.26	0.65
38:DP:71:VAL:H	38:DP:72:PRO:CD	2.09	0.65
48:DZ:62:ASP:C	48:DZ:64:GLN:N	2.48	0.65
27:DA:1647:G:H3'	27:DA:1647:G:OP2	1.96	0.65
1:CA:135:C:H2'	1:CA:136:C:H5'	1.78	0.65
43:DU:90:VAL:HG12	43:DU:91:ASP:N	2.09	0.65
27:DA:2303:G:O2'	33:DG:132:ASN:HB2	1.96	0.65
33:DG:111:LEU:HB3	33:DG:117:PHE:CE2	2.31	0.65
33:DG:91:ARG:HD2	33:DG:92:VAL:N	2.12	0.65
39:BQ:30:GLY:CA	39:BQ:107:ALA:HB2	2.20	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
56:D7:41:ARG:HH11	56:D7:41:ARG:CB	1.96	0.65
55:B6:32:ASN:ND2	55:B6:33:LYS:N	2.45	0.65
1:AA:1054:C:O2'	1:AA:1055:A:H5''	1.95	0.65
1:AA:1323:G:H4'	1:AA:1363:C:N3	2.12	0.65
27:BA:1824:G:OP1	30:BD:52:ARG:HD3	1.97	0.65
9:AI:28:VAL:HA	9:AI:63:ILE:O	1.96	0.65
30:BD:25:THR:O	30:BD:26:LYS:HB3	1.96	0.65
30:BD:26:LYS:HD2	30:BD:81:ALA:HA	1.77	0.65
46:BX:60:ARG:HH22	56:B7:47:ARG:NH2	1.95	0.65
26:AZ:2:DPP:C	26:AZ:3:UAL:H6	2.07	0.65
27:DA:2476:A:C2'	27:DA:2477:C:H5''	2.23	0.65
5:AE:11:ILE:HD11	5:AE:33:VAL:CG2	2.27	0.65
27:DA:774:A:H2	27:DA:787:U:O2'	1.77	0.65
39:BQ:59:ARG:NH1	39:BQ:59:ARG:HG3	2.11	0.65
39:BQ:63:LYS:HD2	48:BZ:174:VAL:HG23	1.77	0.65
50:B1:86:SER:HB2	50:B1:89:GLU:HB2	1.78	0.65
10:AJ:65:LEU:O	10:AJ:65:LEU:HD23	1.96	0.65
27:DA:644:A:H4'	27:DA:645:C:C5	2.31	0.65
27:BA:1666:G:O3'	37:BO:6:THR:HG23	1.96	0.65
33:BG:128:ARG:HB3	33:BG:128:ARG:NH1	2.11	0.65
33:BG:128:ARG:HG3	33:BG:130:ASN:CB	2.27	0.65
27:BA:1192:G:O2'	27:BA:1193:G:H5'	1.96	0.65
1:CA:1278:U:H5''	1:CA:1279:A:O4'	1.96	0.65
27:DA:2298:A:H2'	27:DA:2299:G:O4'	1.96	0.65
27:DA:2147:G:H2'	27:DA:2148:G:O4'	1.97	0.65
7:AG:60:LYS:NZ	7:AG:60:LYS:HA	2.11	0.65
38:BP:64:LYS:O	38:BP:66:GLY:N	2.30	0.65
35:DI:128:LEU:O	35:DI:137:PRO:HA	1.97	0.65
27:BA:2702:U:H6	27:BA:2702:U:OP1	1.80	0.65
33:BG:47:LYS:HD3	33:BG:82:LEU:HG	1.78	0.65
38:DP:101:VAL:HG12	38:DP:107:LYS:N	2.11	0.65
41:DS:106:ARG:HD2	41:DS:106:ARG:O	1.97	0.65
36:DN:15:LEU:HB3	36:DN:136:GLU:HG2	1.78	0.65
18:CR:43:PHE:HA	18:CR:51:LEU:HD12	1.79	0.65
1:AA:1199:U:H4'	10:AJ:54:PHE:CZ	2.31	0.65
32:DF:1:MET:SD	32:DF:26:ALA:HA	2.36	0.65
48:BZ:107:PRO:CG	48:BZ:116:LEU:HB2	2.27	0.65
19:CS:41:VAL:HG23	19:CS:44:MET:HG2	1.78	0.65
1:AA:1298:C:H4'	1:AA:1299:A:C4	2.32	0.65
40:BR:2:ARG:NH2	40:BR:5:LYS:HZ3	1.92	0.65
27:BA:1495:A:OP1	27:BA:1495:A:H8	1.78	0.65
1:CA:1105:A:H2'	1:CA:1106:G:C8	2.32	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:D8:61:LEU:HD13	57:D8:62:LEU:H	1.60	0.65
1:AA:729:A:H2'	1:AA:730:G:H8	1.61	0.65
27:DA:528:A:C2	27:DA:2043:C:C5'	2.79	0.65
27:BA:1594:G:C5'	27:BA:1594:G:H8	2.10	0.65
30:BD:124:PRO:O	30:BD:126:GLN:HG2	1.97	0.65
34:DH:53:GLU:O	34:DH:54:ARG:HB3	1.97	0.65
27:BA:2779:U:H4'	27:BA:2780:G:H5'	1.78	0.65
58:D9:2:LYS:N	58:D9:4:ARG:HH21	1.95	0.65
34:BH:27:LYS:HE3	34:BH:32:GLU:HB2	1.77	0.65
38:DP:38:GLN:CG	38:DP:41:ARG:HD2	2.26	0.65
25:AY:34:U:O2'	25:AY:35:G:H5'	1.97	0.65
56:D7:9:ARG:HG3	56:D7:9:ARG:HH11	1.61	0.65
27:DA:15:G:O2'	27:DA:16:G:H5'	1.96	0.65
8:CH:23:SER:HA	8:CH:63:LEU:HD22	1.79	0.65
13:AM:10:PRO:HG2	13:AM:18:ALA:HB1	1.78	0.65
27:BA:1819:A:OP1	30:BD:161:THR:HG21	1.97	0.65
27:BA:1833:U:H2'	27:BA:1834:U:H6	1.60	0.65
1:AA:60:A:H4'	1:AA:61:G:O5'	1.96	0.65
27:DA:2850:A:H2'	27:DA:2851:A:C8	2.31	0.65
6:CF:4:TYR:HD1	6:CF:92:LYS:HA	1.61	0.65
27:BA:991:C:H6	27:BA:991:C:H5'	1.62	0.65
38:BP:89:ALA:HA	38:BP:121:LYS:HD3	1.77	0.65
47:BY:81:LYS:HZ3	47:BY:97:ARG:HG3	1.58	0.65
27:BA:1880:C:C5'	27:BA:1880:C:H6	2.09	0.65
48:DZ:22:LYS:O	48:DZ:24:PRO:HD3	1.96	0.65
41:BS:85:VAL:H	41:BS:106:ARG:CB	1.96	0.65
36:DN:91:LEU:HG	36:DN:98:VAL:HG21	1.78	0.65
48:DZ:78:ARG:N	48:DZ:78:ARG:HD2	2.12	0.65
42:DT:80:SER:CB	42:DT:81:PRO:CD	2.75	0.65
1:AA:1251:A:H1'	1:AA:1369:C:HO2'	1.62	0.65
7:AG:15:ASP:N	7:AG:20:ASP:H	1.94	0.65
1:CA:250:A:H1'	1:CA:252:U:C5	2.31	0.65
27:BA:2287:A:N6	27:BA:2344:U:H3	1.89	0.65
20:CT:104:LEU:HD23	20:CT:105:SER:N	2.12	0.65
1:AA:1305:G:OP1	21:AU:2:GLY:HA3	1.96	0.65
19:AS:40:ILE:HG21	19:AS:66:MET:O	1.97	0.65
16:CP:32:TYR:HE2	16:CP:35:LYS:HB2	1.61	0.65
32:DF:132:VAL:HG13	32:DF:133:ASN:N	2.11	0.65
32:DF:40:GLN:HE22	32:DF:182:ASN:HB2	1.60	0.65
1:CA:302:G:N3	1:CA:556:C:H4'	2.12	0.65
10:AJ:12:ASP:HB3	10:AJ:15:THR:OG1	1.97	0.65
27:DA:883:G:H5'	27:DA:883:G:H8	1.61	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:AY:18:G:C4'	25:AY:56:G:H22	2.10	0.65
9:AI:125:TYR:HD2	9:AI:126:SER:N	1.95	0.65
27:DA:539:G:H2'	27:DA:540:C:C6	2.31	0.65
27:DA:2030:A:H4'	27:DA:2031:A:C8	2.32	0.65
2:CB:209:ARG:HH11	2:CB:239:VAL:CG1	2.09	0.65
42:BT:128:GLU:O	42:BT:130:ALA:N	2.30	0.65
31:BE:187:ALA:O	31:BE:188:VAL:HB	1.96	0.65
37:DO:68:GLU:HB3	37:DO:78:ARG:HB2	1.79	0.65
1:CA:770:C:O2'	1:CA:771:G:H5'	1.96	0.65
11:CK:85:ARG:HG2	11:CK:111:ASP:O	1.97	0.65
27:DA:1497:U:H2'	27:DA:1497:U:O2	1.97	0.65
24:AX:43:A:H2'	24:AX:44:A:C8	2.31	0.65
39:DQ:21:THR:HG23	39:DQ:99:PRO:O	1.96	0.65
10:AJ:19:SER:HA	10:AJ:22:LYS:HB2	1.78	0.65
31:DE:33:VAL:HG22	31:DE:33:VAL:O	1.97	0.65
1:AA:818:G:C3'	1:AA:819:A:H5''	2.27	0.65
38:BP:64:LYS:HB3	57:B8:25:MET:HG3	1.77	0.65
42:BT:83:ILE:HG13	42:BT:84:GLN:H	1.61	0.65
31:DE:53:PRO:O	31:DE:74:PRO:HA	1.97	0.65
27:DA:2875:C:O2'	42:DT:5:ALA:HB3	1.97	0.65
27:BA:2310:A:O2'	27:BA:2311:A:H5'	1.97	0.65
48:DZ:32:LEU:HD23	48:DZ:89:VAL:HG21	1.77	0.65
57:D8:13:ARG:O	57:D8:14:VAL:HG23	1.96	0.65
41:BS:74:ALA:HB1	41:BS:103:GLU:HB2	1.77	0.65
43:DU:92:ARG:HG2	43:DU:92:ARG:HH11	1.61	0.65
33:DG:40:ASN:ND2	33:DG:91:ARG:HB2	2.11	0.65
7:CG:37:ASN:HD21	9:CI:41:VAL:H	1.45	0.65
41:DS:34:HIS:HB3	41:DS:54:LEU:CG	2.26	0.65
3:AC:121:ALA:O	3:AC:125:GLU:HG3	1.96	0.65
2:AB:200:ILE:HG22	2:AB:201:ILE:N	2.12	0.65
32:BF:9:ILE:HG22	32:BF:128:ALA:HB2	1.79	0.65
48:BZ:149:LEU:HD23	48:BZ:170:ILE:HG13	1.78	0.65
14:AN:24:CYS:HB2	14:AN:40:CYS:HB3	1.78	0.65
1:CA:274:A:O2'	1:CA:275:G:H8	1.71	0.65
27:DA:1033:U:H2'	27:DA:2750:A:N6	2.12	0.65
1:CA:93:G:C2'	1:CA:96:U:H5'	2.27	0.65
27:DA:2528:U:H5''	58:D9:31:LYS:HZ1	1.59	0.65
49:D0:51:VAL:HG22	49:D0:81:VAL:HG23	1.79	0.65
2:CB:13:ALA:O	2:CB:15:VAL:N	2.30	0.65
35:BI:8:PRO:HG3	35:BI:14:ASP:CA	2.27	0.65
27:BA:191:A:O2'	27:BA:192:C:H5'	1.97	0.65
30:BD:155:LEU:HD23	30:BD:177:LEU:CD2	2.27	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:22:PRO:HD2	12:AL:95:TYR:OH	1.97	0.65
34:BH:89:ILE:HD12	34:BH:90:LYS:N	2.11	0.65
7:CG:26:PHE:CE2	7:CG:30:ILE:HD11	2.31	0.65
15:CO:3:ILE:H	15:CO:3:ILE:CD1	2.09	0.65
33:BG:126:ASP:O	33:BG:128:ARG:NE	2.29	0.65
27:DA:2672:G:C2'	27:DA:2673:G:H5''	2.27	0.65
27:DA:271(J):C:C3'	27:DA:271(K):U:H5''	2.27	0.65
27:BA:1262:A:C2	54:B5:10:LYS:HD2	2.31	0.65
13:CM:76:ALA:HA	13:CM:79:LYS:HB2	1.78	0.65
27:DA:2884:U:H1'	54:D5:52:TYR:HH	1.61	0.65
13:AM:112:GLY:O	13:AM:113:PRO:O	2.15	0.65
45:BW:105:VAL:O	45:BW:105:VAL:HG12	1.96	0.65
46:BX:41:ASN:O	46:BX:45:THR:HG23	1.97	0.65
1:CA:505:G:H2'	1:CA:506:G:H8	1.61	0.65
35:DI:88:ILE:CG2	35:DI:89:TYR:H	2.05	0.65
44:DV:91:TYR:O	44:DV:92:THR:HG23	1.96	0.65
55:D6:32:ASN:O	55:D6:33:LYS:CG	2.43	0.65
41:DS:106:ARG:NH1	41:DS:107:GLU:O	2.31	0.65
33:DG:131:TYR:HB3	33:DG:159:VAL:HG22	1.79	0.65
39:DQ:132:VAL:CB	48:DZ:80:ARG:HH22	2.09	0.65
27:DA:2833:G:C3'	27:DA:2834:G:C5'	2.72	0.65
1:CA:1056:U:H5'	3:CC:163:ALA:CB	2.27	0.65
31:DE:112:GLY:HA3	40:DR:2:ARG:CG	2.26	0.65
27:DA:2882:A:H5'	40:DR:96:ARG:HG3	1.79	0.65
32:DF:25:PRO:HB3	32:DF:119:ARG:HD3	1.79	0.65
32:DF:22:ALA:O	32:DF:26:ALA:HB2	1.96	0.65
27:BA:1479:G:H5'	27:BA:1558:A:C2	2.32	0.65
12:CL:80:VAL:HG12	12:CL:81:LEU:N	2.12	0.65
52:D3:4:LEU:HD12	52:D3:39:ASP:OD1	1.97	0.65
41:BS:59:LYS:HE3	41:BS:68:GLN:HE22	1.62	0.65
1:CA:102:G:C2	1:CA:103:C:N1	2.65	0.65
1:CA:72:C:H2'	1:CA:73:G:H8	1.60	0.65
2:CB:88:ALA:HB2	2:CB:219:VAL:CG1	2.26	0.65
41:DS:12:PHE:CE1	41:DS:14:VAL:HG22	2.32	0.65
36:DN:30:ILE:HG23	36:DN:52:VAL:HG11	1.79	0.65
42:BT:54:ARG:HA	42:BT:59:THR:OG1	1.97	0.65
11:CK:120:ARG:NH1	11:CK:126:ARG:HD2	2.12	0.65
24:AX:10:G:C8	24:AX:10:G:H5'	2.30	0.65
27:BA:1593:G:C2'	27:BA:1594:G:H5''	2.27	0.65
43:DU:79:PHE:O	43:DU:83:LEU:HD13	1.97	0.65
9:CI:125:TYR:CD2	9:CI:126:SER:N	2.65	0.65
56:D7:8:ASN:HD22	56:D7:9:ARG:N	1.94	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:736:C:H2'	1:AA:737:A:C8	2.32	0.65
1:AA:738:C:H5''	6:AF:69:GLU:HB2	1.78	0.65
34:DH:65:HIS:HE1	34:DH:69:ARG:HD3	1.61	0.65
37:BO:113:LYS:O	37:BO:117:LEU:HB2	1.96	0.65
31:BE:137:HIS:HB3	31:BE:138:PRO:HD2	1.78	0.65
27:BA:2772:C:H2'	27:BA:2773:C:H6	1.61	0.65
48:DZ:101:LEU:O	48:DZ:102:ARG:HB2	1.97	0.65
27:DA:2494:G:H2'	27:DA:2495:G:H8	1.62	0.65
4:AD:15:GLU:HG2	4:AD:63:LYS:CG	2.27	0.64
35:DI:76:THR:HB	35:DI:139:GLN:NE2	2.12	0.64
14:CN:41:ARG:HG3	14:CN:42:ILE:N	2.12	0.64
1:AA:1445:C:C3'	1:AA:1446:U:H5''	2.26	0.64
43:DU:90:VAL:HG21	44:DV:39:LEU:HG	1.79	0.64
33:DG:178:PHE:HB3	33:DG:180:PHE:CZ	2.32	0.64
33:DG:46:ALA:O	33:DG:82:LEU:HD11	1.97	0.64
33:DG:51:ARG:NE	33:DG:51:ARG:CA	2.60	0.64
33:DG:91:ARG:C	33:DG:91:ARG:HD2	2.17	0.64
44:BV:5:VAL:HG21	44:BV:35:LEU:HG	1.78	0.64
3:CC:132:ARG:HD3	3:CC:136:GLN:NE2	2.12	0.64
32:DF:134:GLY:N	32:DF:162:LEU:HB3	2.12	0.64
48:BZ:150:HIS:HB3	48:BZ:169:THR:HA	1.79	0.64
19:CS:61:TYR:CD2	19:CS:62:ILE:N	2.64	0.64
41:BS:14:VAL:HG12	41:BS:15:ARG:N	2.11	0.64
27:BA:2206:G:H21	27:BA:2207:G:C5'	2.06	0.64
3:CC:135:LYS:HZ3	5:CE:53:LEU:HD11	1.60	0.64
3:AC:70:VAL:HG21	3:AC:76:VAL:HG11	1.80	0.64
27:BA:54:G:O2'	56:B7:35:ARG:HD3	1.95	0.64
27:BA:286:C:C2'	27:BA:287:C:H5'	2.26	0.64
3:CC:79:ARG:HG3	3:CC:82:GLU:OE2	1.97	0.64
33:DG:63:ILE:HA	33:DG:143:GLU:HG3	1.80	0.64
16:AP:53:VAL:O	16:AP:57:ARG:HG2	1.96	0.64
17:AQ:83:ASP:O	17:AQ:86:GLU:HB2	1.98	0.64
27:DA:335:C:H5''	47:DY:73:ARG:NH2	2.11	0.64
32:DF:63:LYS:CE	32:DF:67:GLN:HB2	2.26	0.64
31:DE:9:VAL:CG2	31:DE:25:VAL:HB	2.27	0.64
58:B9:25:VAL:HB	58:B9:34:GLN:HB2	1.77	0.64
27:DA:2527:C:C5'	58:D9:30:PRO:HB2	2.27	0.64
1:AA:599:C:H5''	8:AH:95:VAL:O	1.97	0.64
1:CA:1170:A:H2'	1:CA:1171:G:H5'	1.78	0.64
27:DA:2059:A:H5'	27:DA:2060:A:OP2	1.96	0.64
27:DA:2443:C:O2'	27:DA:2444:G:H5'	1.97	0.64
11:AK:46:GLY:HA2	11:AK:50:TYR:O	1.98	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:85:ARG:HA	11:CK:111:ASP:O	1.96	0.64
30:DD:93:ALA:HB3	30:DD:105:ILE:HG23	1.78	0.64
27:BA:1420:U:O2'	27:BA:1421:G:H5'	1.97	0.64
40:BR:9:LYS:O	40:BR:10:LEU:HG	1.96	0.64
55:B6:41:PRO:HG2	55:B6:42:TRP:H	1.62	0.64
57:B8:17:THR:CG2	57:B8:21:LYS:HB2	2.26	0.64
1:CA:1321:C:C5	1:CA:1322:C:H2'	2.33	0.64
42:BT:28:VAL:CG2	42:BT:46:GLU:HG3	2.26	0.64
33:BG:97:ASP:O	33:BG:101:ILE:HD12	1.97	0.64
55:D6:15:GLU:OE2	55:D6:18:ARG:NH2	2.30	0.64
57:D8:9:GLY:O	57:D8:13:ARG:HG2	1.98	0.64
30:DD:26:LYS:HE2	30:DD:82:ILE:H	1.60	0.64
40:DR:79:LEU:C	40:DR:79:LEU:HD23	2.18	0.64
32:BF:29:ASN:HB3	32:BF:112:MET:HE1	1.78	0.64
42:DT:32:TYR:CD2	42:DT:32:TYR:N	2.65	0.64
31:DE:199:ARG:HH22	31:DE:202:LYS:HE2	1.62	0.64
27:DA:321:G:H5'	32:DF:134:GLY:O	1.98	0.64
9:AI:53:VAL:HB	9:AI:92:TYR:HE2	1.60	0.64
9:AI:92:TYR:C	9:AI:95:LYS:HD2	2.18	0.64
17:AQ:58:GLU:HG3	17:AQ:77:VAL:CG2	2.27	0.64
32:BF:9:ILE:CG1	32:BF:14:PRO:HA	2.28	0.64
27:BA:903:C:H2'	27:BA:904:C:C6	2.32	0.64
45:BW:111:HIS:CD2	45:BW:113:LYS:H	2.15	0.64
3:CC:35:GLU:O	3:CC:39:ILE:HG13	1.97	0.64
27:DA:907:U:OP1	39:DQ:24:GLY:N	2.23	0.64
1:CA:1003:G:H2'	1:CA:1004:A:H4'	1.79	0.64
27:BA:524:U:H2'	27:BA:525:U:C6	2.32	0.64
1:AA:1314:C:OP2	19:AS:6:LYS:HD3	1.97	0.64
34:BH:89:ILE:HD12	34:BH:90:LYS:H	1.62	0.64
27:BA:1797:C:O2'	30:BD:259:THR:HG21	1.96	0.64
32:DF:181:LEU:HD11	32:DF:186:ILE:HD11	1.79	0.64
32:DF:155:LEU:HD23	32:DF:186:ILE:HD13	1.77	0.64
35:DI:19:VAL:HG22	35:DI:20:ASP:N	2.12	0.64
6:AF:72:VAL:HG13	6:AF:73:ASN:H	1.62	0.64
4:AD:135:LEU:N	4:AD:135:LEU:HD22	2.13	0.64
27:DA:1374:G:H2'	27:DA:1375:C:C6	2.32	0.64
1:CA:392:G:H2'	1:CA:393:A:H8	1.62	0.64
29:DC:45:ALA:O	29:DC:46:LYS:HB2	1.96	0.64
29:BC:36:LYS:HD3	29:BC:37:PHE:N	2.11	0.64
1:CA:34:C:O2'	1:CA:35:G:H5'	1.96	0.64
6:AF:24:GLU:OE1	4:CD:172:PRO:HG2	1.96	0.64
48:BZ:102:ARG:HD3	48:BZ:135:PHE:CD2	2.32	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1157:G:C8	27:DA:1157:G:H5'	2.32	0.64
15:AO:37:ASN:HD22	15:AO:37:ASN:N	1.94	0.64
30:DD:166:GLN:HE21	30:DD:166:GLN:N	1.94	0.64
27:BA:1501:C:H1'	30:BD:100:GLY:HA2	1.79	0.64
55:B6:17:LYS:O	55:B6:18:ARG:NH1	2.29	0.64
4:AD:15:GLU:HG2	4:AD:63:LYS:HG3	1.77	0.64
35:DI:57:ARG:NH2	35:DI:60:GLU:HG2	2.12	0.64
2:CB:35:GLU:H	2:CB:36:ARG:HH21	1.43	0.64
33:BG:44:GLY:N	33:BG:88:ILE:HD11	2.07	0.64
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.79	0.64
48:DZ:30:ARG:HD2	48:DZ:31:HIS:CE1	2.32	0.64
38:DP:144:GLU:H	38:DP:145:PRO:CD	2.10	0.64
33:DG:76:SER:HB2	33:DG:83:ARG:CD	2.27	0.64
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.31	0.64
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	2.12	0.64
20:AT:99:LEU:C	20:AT:100:ILE:HD12	2.17	0.64
47:DY:14:LEU:HD12	47:DY:15:VAL:N	2.09	0.64
40:DR:32:GLY:O	40:DR:115:GLU:HA	1.97	0.64
15:CO:33:THR:HG23	15:CO:63:ARG:NH1	2.12	0.64
32:DF:9:ILE:HG23	32:DF:12:LEU:HA	1.77	0.64
19:CS:40:ILE:HD11	19:CS:74:PHE:CE2	2.32	0.64
17:CQ:14:LYS:HB2	17:CQ:14:LYS:NZ	2.12	0.64
13:CM:104:ARG:HG2	13:CM:105:THR:HG23	1.78	0.64
4:AD:3:ARG:O	4:AD:5:ILE:HG13	1.96	0.64
27:BA:364:C:H2'	27:BA:365:C:H5''	1.78	0.64
27:BA:2052:G:C8	27:BA:2052:G:H5'	2.25	0.64
27:BA:1114:G:H3'	27:BA:1115:G:H5''	1.79	0.64
31:BE:4:ILE:HD13	31:BE:91:VAL:HG12	1.80	0.64
18:CR:87:ARG:NH1	18:CR:87:ARG:HG2	2.12	0.64
29:DC:18:LYS:HD3	29:DC:19:VAL:H	1.61	0.64
5:CE:79:GLU:OE1	8:CH:104:ARG:HA	1.98	0.64
30:DD:16:MET:HG3	30:DD:206:LEU:O	1.98	0.64
1:CA:1348:U:H4'	9:CI:120:ARG:HH11	1.63	0.64
1:AA:1003:G:H2'	1:AA:1004:A:C4'	2.28	0.64
31:DE:16:ARG:HG3	31:DE:16:ARG:HH11	1.62	0.64
35:DI:38:LEU:HB2	35:DI:40:THR:HG23	1.80	0.64
16:AP:26:ARG:NH1	16:AP:31:LYS:HB3	2.12	0.64
1:AA:299:G:H2'	1:AA:300:A:C8	2.31	0.64
52:B3:11:SER:OG	52:B3:13:ILE:HD13	1.97	0.64
40:BR:84:ALA:HB3	40:BR:85:PRO:HD3	1.79	0.64
27:BA:645:C:H2'	27:BA:645:C:O2	1.96	0.64
44:BV:69:LYS:HG3	44:BV:70:ILE:N	2.12	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:690:G:H2'	27:BA:691:C:C6	2.32	0.64
53:B4:53:THR:O	53:B4:54:LYS:HG2	1.98	0.64
55:B6:48:VAL:O	55:B6:49:HIS:HB2	1.97	0.64
35:BI:111:PRO:CA	35:BI:114:LEU:HD11	2.25	0.64
31:DE:181:LEU:HD21	42:DT:7:ILE:HG23	1.78	0.64
27:BA:2313:C:H4'	33:BG:40:ASN:ND2	2.13	0.64
33:BG:68:PRO:HB2	33:BG:90:LEU:HD21	1.78	0.64
48:DZ:149:LEU:HD23	48:DZ:170:ILE:HG13	1.78	0.64
41:BS:101:LEU:HD13	41:BS:101:LEU:O	1.98	0.64
30:DD:48:ARG:HG3	30:DD:48:ARG:HH11	1.62	0.64
32:BF:103:LYS:HA	32:BF:106:ARG:HG3	1.80	0.64
12:CL:43:LYS:CG	12:CL:44:LYS:H	2.02	0.64
1:AA:1321:C:H5''	1:AA:1322:C:H5'	1.79	0.64
31:DE:59:VAL:CG1	31:DE:63:LEU:HG	2.26	0.64
27:BA:140:G:N2	27:BA:1596:A:H4'	2.13	0.64
27:BA:2850:A:OP2	27:BA:2866:U:H5	1.81	0.64
2:AB:76:GLN:O	2:AB:208:ILE:HG12	1.96	0.64
48:BZ:164:VAL:HG11	48:BZ:168:GLU:HB2	1.79	0.64
52:D3:15:TYR:HD2	52:D3:19:GLN:HE22	1.45	0.64
39:BQ:17:LEU:HD21	39:BQ:41:TRP:NE1	2.13	0.64
27:DA:2365:G:H4'	49:D0:60:PHE:CZ	2.33	0.64
3:CC:172:ARG:HH11	3:CC:172:ARG:HB3	1.61	0.64
10:AJ:4:ILE:HB	10:AJ:74:ILE:HG12	1.78	0.64
27:BA:1417:C:H42	27:BA:1581:G:H1	1.43	0.64
16:CP:20:VAL:HG21	16:CP:32:TYR:CB	2.26	0.64
27:BA:2103:C:C2'	27:BA:2104:G:H5''	2.28	0.64
34:BH:159:GLU:HG3	34:BH:160:LYS:N	2.11	0.64
27:DA:2591:C:H2'	27:DA:2592:G:C8	2.32	0.64
4:CD:112:VAL:HG13	4:CD:161:ASN:ND2	2.11	0.64
14:CN:15:LYS:HD2	14:CN:16:PHE:CE2	2.33	0.64
20:CT:10:LEU:HD23	20:CT:11:SER:H	1.62	0.64
27:DA:176:G:O2'	27:DA:177:G:H5'	1.97	0.64
27:DA:314:A:O2'	27:DA:315:G:H5'	1.98	0.64
35:DI:2:LYS:HA	35:DI:20:ASP:HB2	1.79	0.64
1:CA:1032:G:H2'	1:CA:1033:G:C8	2.33	0.64
27:BA:2364:C:O2'	27:BA:2365:G:H5'	1.97	0.64
25:AY:37:U:H2'	25:AY:38:U:H5''	1.79	0.64
1:AA:838:G:C2'	1:AA:839:U:H5''	2.27	0.64
30:BD:172:TYR:CD1	30:BD:186:HIS:HA	2.33	0.64
2:AB:19:HIS:ND1	2:AB:20:GLU:HG2	2.11	0.64
6:AF:23:LYS:O	6:AF:27:GLN:HG2	1.97	0.64
1:AA:298:A:H2'	1:AA:299:G:O4'	1.97	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:82:ARG:HB2	6:AF:85:VAL:HG23	1.79	0.64
27:DA:649:G:H2'	27:DA:650:C:C6	2.33	0.64
27:DA:78:A:H2'	27:DA:79:G:H8	1.61	0.64
4:AD:60:GLU:OE1	4:AD:198:VAL:HA	1.97	0.64
33:BG:51:ARG:CA	33:BG:51:ARG:HE	2.09	0.64
51:D2:18:PRO:HA	51:D2:21:LEU:HD12	1.79	0.64
55:D6:26:ASN:HD22	55:D6:26:ASN:N	1.95	0.64
10:CJ:33:GLN:O	10:CJ:75:ILE:HG12	1.97	0.64
42:DT:28:VAL:CG1	42:DT:46:GLU:HA	2.26	0.64
30:DD:54:ARG:HH11	30:DD:54:ARG:HB3	1.63	0.64
31:DE:28:ALA:HB3	31:DE:93:VAL:HG22	1.80	0.64
45:DW:15:ARG:CD	54:D5:20:ARG:HH12	2.09	0.64
43:BU:48:ALA:O	43:BU:52:ARG:HG2	1.97	0.64
35:BI:2:LYS:H	35:BI:2:LYS:HE2	1.63	0.64
1:AA:92:C:C2'	1:AA:93:G:C8	2.73	0.64
27:BA:310:A:OP1	47:BY:18:GLY:HA2	1.97	0.64
44:BV:39:LEU:HA	44:BV:47:VAL:CG1	2.27	0.64
5:AE:105:VAL:N	5:AE:106:PRO:HD2	2.12	0.64
27:DA:1159:U:H6	27:DA:1159:U:C5'	2.08	0.64
34:BH:44:VAL:HB	34:BH:46:GLU:CD	2.17	0.64
35:BI:8:PRO:HG3	35:BI:14:ASP:HA	1.80	0.64
10:AJ:34:VAL:CG2	10:AJ:74:ILE:HG22	2.27	0.64
4:CD:8:VAL:CG1	4:CD:21:LEU:HD22	2.26	0.64
27:BA:558:G:OP1	36:BN:111:PRO:HD2	1.98	0.64
27:BA:2555:U:C2'	27:BA:2556:C:H5'	2.26	0.64
3:AC:116:VAL:O	3:AC:119:ARG:HB3	1.98	0.64
27:BA:2090:G:H21	50:B1:45:ASN:ND2	1.96	0.64
35:BI:145:VAL:HG12	35:BI:146:ALA:N	2.12	0.64
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.32	0.64
50:D1:62:VAL:HG22	50:D1:63:ALA:N	2.12	0.64
27:BA:1006:C:O2	36:BN:106:MET:HG2	1.98	0.64
54:D5:51:TYR:O	54:D5:54:GLY:N	2.30	0.64
27:DA:236:C:H2'	27:DA:237:C:H6	1.62	0.64
27:BA:270:A:O2'	27:BA:271:A:H5'	1.98	0.64
27:DA:2827:C:H5'	27:DA:2828:C:OP2	1.98	0.64
27:BA:2716:U:O2'	27:BA:2717:G:H5'	1.98	0.64
37:DO:3:GLN:HB2	37:DO:4:PRO:HD2	1.80	0.64
27:DA:1655:A:H4'	31:DE:115:GLY:H	1.63	0.64
27:BA:2685:G:H5'	37:BO:68:GLU:OE2	1.98	0.64
43:DU:8:VAL:HG11	43:DU:12:ARG:CZ	2.27	0.64
1:CA:1389:C:H2'	1:CA:1390:U:O4'	1.98	0.64
29:BC:58:VAL:HG21	29:BC:166:ASP:N	2.11	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B6:15:GLU:HB3	55:B6:18:ARG:HG2	1.80	0.64
24:AX:20:U:C2'	24:AX:21:A:H5'	2.27	0.64
42:DT:27:THR:OG1	42:DT:28:VAL:N	2.28	0.64
27:DA:1019:U:H2'	27:DA:1020:A:C8	2.32	0.64
18:CR:50:ILE:HG12	18:CR:74:ARG:HH12	1.63	0.64
44:BV:18:LEU:HD22	44:BV:19:LYS:CA	2.27	0.64
27:DA:1654:A:OP2	40:DR:3:HIS:CB	2.40	0.64
32:BF:9:ILE:HG22	32:BF:9:ILE:O	1.96	0.64
19:CS:20:LEU:O	19:CS:23:ASN:HB3	1.98	0.64
48:DZ:138:VAL:HG12	48:DZ:139:ASP:N	2.07	0.64
27:DA:61:G:H1	27:DA:94:C:H42	0.79	0.64
27:DA:2539:C:C5'	58:D9:3:VAL:HG11	2.27	0.64
27:DA:2740:A:H2'	27:DA:2741:A:C8	2.32	0.64
15:AO:39:LEU:HD12	15:AO:59:MET:HE1	1.80	0.64
30:BD:210:GLY:O	30:BD:211:ARG:HB3	1.97	0.64
27:DA:1505:C:H2'	27:DA:1506:C:O4'	1.98	0.64
1:AA:165:C:H2'	1:AA:166:G:C8	2.32	0.64
49:B0:20:ARG:HG2	49:B0:20:ARG:HH11	1.62	0.64
1:CA:145:G:H5'	1:CA:146:G:OP2	1.98	0.64
25:CY:75:A:H1'	27:DA:2421:G:H22	1.62	0.64
16:AP:39:TYR:HE2	16:AP:41:PRO:HB3	1.61	0.64
8:AH:96:GLY:O	8:AH:98:LYS:N	2.30	0.64
27:DA:2784:C:H4'	31:DE:41:LYS:O	1.97	0.64
3:AC:19:GLU:O	3:AC:19:GLU:HG2	1.98	0.64
1:CA:1528:U:H4'	1:CA:1529:G:O5'	1.98	0.64
1:CA:677:U:H3	1:CA:713:G:H22	1.45	0.64
32:BF:150:GLY:HA2	32:BF:172:TRP:CD2	2.32	0.64
35:DI:4:ILE:HG12	35:DI:18:VAL:HG22	1.80	0.64
16:AP:28:ARG:HG2	16:AP:29:ASP:OD2	1.98	0.64
27:BA:1782:C:H1'	27:BA:2609:U:H5''	1.80	0.64
48:DZ:74:ASN:O	48:DZ:83:GLU:HB2	1.97	0.64
27:BA:972:G:OP2	27:BA:974:G:H5''	1.97	0.64
11:CK:128:ALA:O	11:CK:129:SER:HB2	1.97	0.64
55:B6:13:CYS:O	55:B6:21:TYR:HA	1.98	0.64
57:B8:51:ALA:C	57:B8:53:PRO:HD2	2.18	0.64
13:AM:90:LEU:O	13:AM:91:ARG:HB2	1.98	0.64
13:AM:94:ARG:CZ	27:BA:887:A:H3'	2.28	0.64
47:BY:7:VAL:HB	47:BY:8:LYS:CD	2.27	0.64
33:BG:141:PHE:CD2	33:BG:141:PHE:N	2.66	0.64
33:BG:57:ALA:CA	33:BG:90:LEU:HD11	2.27	0.64
14:CN:24:CYS:N	14:CN:33:VAL:HG11	2.12	0.64
51:D2:7:ARG:O	51:D2:11:GLU:HG2	1.96	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:92:A:H2'	27:BA:93:G:H8	1.62	0.64
43:DU:90:VAL:HG13	44:DV:11:GLN:HE22	1.59	0.64
33:DG:125:PHE:HD1	33:DG:126:ASP:H	1.42	0.64
36:DN:133:GLN:HG2	36:DN:134:ARG:N	2.12	0.64
13:AM:4:ILE:HG22	13:AM:5:ALA:N	2.12	0.64
1:AA:973:G:H1'	10:AJ:55:LYS:NZ	2.12	0.64
9:AI:95:LYS:HZ3	9:AI:96:LEU:HB2	1.62	0.64
32:DF:34:TRP:CE2	38:DP:12:ALA:HB2	2.33	0.64
47:DY:27:VAL:HG12	47:DY:29:GLU:H	1.62	0.64
47:DY:7:VAL:HB	47:DY:8:LYS:HD2	1.79	0.64
32:DF:25:PRO:HG3	32:DF:119:ARG:CB	2.26	0.64
47:BY:68:HIS:N	47:BY:71:LYS:HZ3	1.87	0.64
43:BU:104:GLN:HB2	44:BV:44:LYS:HZ3	1.62	0.64
40:DR:38:VAL:CB	40:DR:39:PRO:HD3	2.27	0.64
32:BF:67:GLN:O	32:BF:68:LYS:HB2	1.96	0.64
40:BR:67:LEU:CD1	40:BR:76:VAL:HG21	2.28	0.64
27:BA:1677:A:H2'	27:BA:1678:G:C8	2.32	0.64
27:BA:962:G:O2'	27:BA:963:U:H5'	1.97	0.64
27:BA:528:A:C2	27:BA:2043:C:H5'	2.32	0.64
14:AN:14:PRO:O	14:AN:15:LYS:HB2	1.97	0.64
1:CA:1181:G:H2'	1:CA:1182:G:C4	2.33	0.64
45:BW:1:MET:HE2	45:BW:2:GLU:H	1.62	0.64
39:BQ:110:THR:OG1	39:BQ:112:GLU:HB3	1.98	0.64
29:BC:49:ILE:HG22	29:BC:50:ASP:OD1	1.97	0.64
1:AA:159:G:N2	1:AA:161:A:H3'	2.12	0.64
27:DA:1762:A:H5''	27:DA:1763:G:OP2	1.98	0.64
55:B6:16:CYS:O	55:B6:17:LYS:CB	2.46	0.64
2:AB:165:VAL:HG23	2:AB:166:ASP:N	2.11	0.64
42:DT:11:GLU:OE2	42:DT:11:GLU:N	2.31	0.64
27:BA:607:U:OP1	32:BF:102:PRO:HA	1.97	0.64
33:DG:47:LYS:CE	33:DG:81:LYS:HB2	2.28	0.64
9:CI:4:TYR:O	9:CI:18:PHE:HA	1.98	0.64
1:AA:973:G:C1'	10:AJ:55:LYS:HE2	2.28	0.64
27:BA:782:A:H5'	27:BA:783:A:C2	2.33	0.64
47:DY:78:ALA:O	47:DY:80:GLY:N	2.27	0.64
47:DY:7:VAL:CG2	47:DY:8:LYS:HZ3	2.10	0.64
18:AR:51:LEU:CD2	18:AR:52:PRO:HD2	2.28	0.64
44:BV:47:VAL:O	44:BV:48:GLY:C	2.36	0.64
23:AW:26:C:OP1	26:AZ:1:KBE:HGA	1.97	0.64
52:D3:31:LEU:HD23	52:D3:32:GLN:H	1.62	0.64
5:CE:126:ARG:HH11	5:CE:126:ARG:HG3	1.63	0.64
53:D4:41:ILE:HB	53:D4:58:TYR:CD2	2.33	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:145:VAL:HG12	30:DD:146:GLU:N	2.11	0.64
27:BA:1416:G:O2'	27:BA:1417:C:C6	2.40	0.64
12:AL:5:ASN:O	12:AL:9:ARG:HG3	1.96	0.64
38:BP:48:PRO:O	38:BP:50:ARG:N	2.30	0.64
47:BY:84:ARG:HG3	47:BY:84:ARG:NH1	2.12	0.64
25:CY:65:U:H2'	25:CY:66:A:C8	2.33	0.64
27:DA:1572:A:O2'	27:DA:1573:G:H5'	1.98	0.64
31:BE:176:ILE:N	31:BE:176:ILE:HD12	2.12	0.64
48:BZ:127:VAL:HG13	48:BZ:128:SER:N	2.13	0.64
28:BB:41:U:O4	33:BG:71:THR:HA	1.98	0.64
3:CC:157:ILE:HD11	3:CC:166:GLU:HB2	1.79	0.64
27:DA:143(A):C:H4'	46:DX:38:GLU:OE1	1.98	0.64
1:AA:264:U:O2'	17:AQ:64:PRO:HB2	1.98	0.64
11:AK:53:SER:C	11:AK:55:LYS:H	2.02	0.64
1:AA:1310:G:O2'	1:AA:1311:G:H5'	1.98	0.64
36:BN:36:GLY:O	36:BN:42:TRP:CE3	2.51	0.64
1:CA:1163:C:H2'	1:CA:1164:G:C8	2.33	0.64
16:CP:67:THR:HG22	16:CP:69:THR:H	1.63	0.64
4:CD:2:GLY:O	4:CD:3:ARG:O	2.16	0.64
29:BC:36:LYS:HZ2	29:BC:36:LYS:HB2	1.63	0.64
48:BZ:30:ARG:HH21	48:BZ:93:GLU:CG	2.10	0.64
1:CA:1256:A:H61	1:CA:1278:U:H1'	1.61	0.64
39:BQ:11:LYS:HE2	39:BQ:88:GLY:O	1.97	0.64
27:DA:189:G:H2'	27:DA:205:G:N2	2.13	0.64
27:BA:765:G:H2'	27:BA:766:C:C6	2.32	0.64
1:CA:939:G:H2'	1:CA:940:C:C6	2.33	0.64
27:BA:2619:C:O2'	27:BA:2620:C:H5'	1.97	0.64
13:AM:97:PRO:HA	13:AM:110:ARG:CD	2.28	0.64
35:DI:130:TYR:CG	35:DI:131:LYS:N	2.66	0.64
27:BA:2305:A:C2	27:BA:2306:C:H1'	2.33	0.64
33:BG:113:ARG:O	33:BG:140:ILE:HG23	1.98	0.64
33:BG:133:LEU:CD1	33:BG:157:ILE:HB	2.28	0.64
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.33	0.64
37:DO:71:ARG:NH1	42:DT:74:ARG:HH22	1.96	0.64
1:CA:1445:C:H3'	1:CA:1446:U:H5''	1.79	0.64
3:CC:187:ALA:O	3:CC:197:GLY:HA2	1.97	0.64
42:DT:118:ARG:HB3	42:DT:118:ARG:NH1	2.08	0.64
47:DY:31:LEU:HB2	47:DY:32:PRO:CA	2.28	0.64
41:BS:88:ASP:OD2	41:BS:89:ARG:N	2.31	0.64
5:AE:6:PHE:O	5:AE:8:GLU:N	2.31	0.64
39:BQ:54:MET:HB3	39:BQ:64:ILE:HD13	1.78	0.64
27:BA:1986:A:H2'	27:BA:1987:G:C5'	2.28	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DP:18:ARG:HH11	38:DP:18:ARG:CB	2.11	0.64
10:AJ:6:ILE:O	10:AJ:71:LEU:HD12	1.98	0.64
30:DD:145:VAL:HG12	30:DD:146:GLU:O	1.96	0.64
35:BI:71:ILE:HG13	35:BI:72:LEU:CD2	2.27	0.64
4:CD:10:ARG:HG2	4:CD:11:LEU:HG	1.79	0.64
27:DA:1438:U:H2'	27:DA:1439:A:C8	2.30	0.64
19:AS:6:LYS:CE	19:AS:6:LYS:N	2.61	0.64
1:AA:741:G:H2'	1:AA:742:G:C8	2.32	0.64
34:DH:70:THR:C	34:DH:72:ILE:H	2.01	0.64
27:BA:2022:U:O2'	27:BA:2617:C:H5'	1.98	0.64
27:DA:1721:G:H2'	27:DA:1741:A:H61	1.63	0.64
1:CA:818:G:H3'	1:CA:819:A:C5'	2.26	0.64
27:BA:1637:A:H4'	27:BA:2711:A:O2'	1.98	0.64
8:CH:23:SER:HA	8:CH:63:LEU:CD2	2.27	0.64
27:BA:1827:C:C2'	27:BA:1828:G:H5'	2.28	0.64
5:CE:64:ARG:HH11	5:CE:64:ARG:HG3	1.62	0.64
16:AP:75:ARG:C	16:AP:77:ALA:H	2.00	0.64
27:BA:1278:A:OP1	40:BR:36:THR:HG22	1.98	0.64
6:CF:69:GLU:O	6:CF:72:VAL:HG12	1.97	0.64
27:BA:826:U:H2'	27:BA:828:U:O4'	1.97	0.64
27:DA:373:U:H2'	27:DA:374:A:H8	1.63	0.64
1:CA:1486:G:H2'	1:CA:1487:G:O4'	1.96	0.64
43:BU:89:GLU:HG3	43:BU:89:GLU:O	1.97	0.64
44:DV:19:LYS:HB2	44:DV:96:ILE:HG12	1.80	0.64
32:BF:117:ARG:HD2	32:BF:190:GLU:O	1.98	0.64
37:DO:104:ARG:CZ	42:DT:33:LYS:HD2	2.27	0.64
1:CA:1265:G:N2	1:CA:1271:G:H1'	2.11	0.64
30:BD:70:TRP:CZ3	30:BD:146:GLU:OE2	2.47	0.64
32:DF:83:PHE:O	32:DF:84:VAL:HB	1.99	0.64
2:AB:200:ILE:HG22	2:AB:201:ILE:H	1.60	0.64
27:DA:105:C:H2'	47:DY:2:ARG:HG3	1.79	0.64
32:DF:18:ARG:HD2	32:DF:19:GLU:H	1.62	0.64
32:BF:8:GLN:HG2	32:BF:126:VAL:HG12	1.80	0.64
35:BI:66:GLU:HA	35:BI:69:LYS:CB	2.25	0.64
13:CM:48:LEU:HG	13:CM:53:VAL:HG23	1.79	0.64
2:CB:158:LEU:CD1	2:CB:158:LEU:H	2.09	0.64
27:DA:2468:G:H22	27:DA:2481:G:H2'	1.63	0.64
19:AS:42:PRO:HD3	53:B4:80:ARG:NH2	2.13	0.64
23:AW:13:A:H1'	23:AW:22:G:H1	1.61	0.64
19:AS:29:ARG:HD3	19:AS:30:LEU:H	1.62	0.64
27:DA:2023:G:H5'	27:DA:2617:C:H4'	1.79	0.64
57:D8:4:MET:HE3	57:D8:61:LEU:HD22	1.80	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:181:GLU:HA	30:DD:272:ALA:HB3	1.78	0.64
27:BA:1784:A:H4'	27:BA:1785:A:H5''	1.81	0.64
39:DQ:24:GLY:HA3	39:DQ:101:ARG:HH11	1.62	0.64
51:B2:64:LEU:HD21	51:B2:68:ARG:NH1	2.13	0.64
12:AL:65:ALA:HB1	12:AL:97:ILE:HG13	1.80	0.64
18:CR:86:VAL:C	18:CR:87:ARG:HD3	2.17	0.64
7:CG:135:VAL:O	7:CG:136:LYS:C	2.35	0.64
27:DA:708:C:N4	27:DA:723:G:H1	1.96	0.64
43:DU:47:TYR:HA	43:DU:50:ARG:NH2	2.13	0.64
6:AF:100:ASN:HD21	18:AR:23:LYS:HE3	1.63	0.64
1:CA:939:G:H5''	7:CG:102:ARG:NH2	2.13	0.64
1:AA:877:C:O2'	1:AA:878:G:H5'	1.98	0.64
59:CX:73:A:H5'	59:CX:74:C:H5'	1.79	0.64
37:DO:64:ARG:NH1	37:DO:83:ALA:HB3	2.13	0.64
35:BI:118:LYS:HD2	35:BI:119:PRO:HD2	1.80	0.64
30:BD:262:ARG:HH11	30:BD:262:ARG:HG2	1.63	0.64
1:CA:826:C:H5'	8:CH:12:ARG:HH21	1.63	0.64
34:BH:35:VAL:O	34:BH:37:VAL:HG23	1.98	0.64
38:BP:122:PRO:HA	38:BP:141:ALA:O	1.97	0.63
35:BI:133:HIS:CB	35:BI:134:PRO:CD	2.71	0.63
38:DP:101:VAL:CG1	38:DP:106:LEU:HG	2.29	0.63
13:AM:47:ASP:O	13:AM:48:LEU:HB3	1.98	0.63
1:AA:1053:G:N7	1:AA:1200:C:H5''	2.12	0.63
31:BE:21:VAL:O	31:BE:23:VAL:HG13	1.97	0.63
31:BE:78:LEU:HD23	31:BE:78:LEU:N	2.13	0.63
32:BF:17:ARG:HG3	32:BF:17:ARG:HH11	1.63	0.63
1:AA:91:C:C5	1:AA:92:C:H1'	2.33	0.63
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.62	0.63
27:DA:2535:G:H2'	27:DA:2536:G:H8	1.62	0.63
2:AB:24:TRP:HD1	2:AB:24:TRP:H	1.45	0.63
27:BA:2014:A:H2'	27:BA:2015:A:C8	2.33	0.63
34:BH:85:LYS:CD	34:BH:141:VAL:HG12	2.28	0.63
35:BI:75:LEU:CD1	35:BI:76:THR:H	2.11	0.63
27:DA:1717:G:H3'	27:DA:1718:G:H5''	1.80	0.63
7:CG:140:ASP:HA	7:CG:143:ARG:NH1	2.13	0.63
30:DD:33:LEU:O	30:DD:35:LYS:N	2.31	0.63
3:AC:140:ARG:HG3	3:AC:140:ARG:HH11	1.63	0.63
1:AA:1057:G:H5''	3:AC:154:SER:HB2	1.79	0.63
7:CG:153:HIS:HA	7:CG:155:ARG:NH1	2.13	0.63
57:D8:43:GLN:C	57:D8:44:LYS:HD2	2.18	0.63
1:AA:636:U:H2'	1:AA:637:G:C8	2.33	0.63
8:CH:63:LEU:H	8:CH:63:LEU:HD22	1.63	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2729:G:H1'	31:DE:187:ALA:HB2	1.79	0.63
28:DB:92:C:H2'	28:DB:93:G:C8	2.33	0.63
38:BP:116:GLY:O	38:BP:117:GLU:HB2	1.97	0.63
30:BD:241:PRO:O	30:BD:242:ARG:HB2	1.97	0.63
34:BH:98:LEU:HD22	34:BH:125:VAL:HG23	1.78	0.63
27:DA:2687:U:O2'	27:DA:2688:U:H5'	1.98	0.63
15:CO:37:ASN:N	15:CO:37:ASN:HD22	1.96	0.63
48:DZ:97:MET:N	48:DZ:124:LEU:CD1	2.61	0.63
57:D8:33:ASN:HD22	57:D8:36:LYS:HD3	1.62	0.63
43:DU:102:GLU:HB3	43:DU:104:GLN:HE22	1.62	0.63
27:DA:664:C:H4'	27:DA:941:A:OP1	1.98	0.63
28:DB:111:G:N1	28:DB:112:U:C2	2.66	0.63
28:DB:111:G:C6	28:DB:112:U:C2	2.86	0.63
36:DN:57:ALA:N	36:DN:124:ALA:HA	2.13	0.63
1:CA:160:A:C2	1:CA:343:U:H1'	2.32	0.63
9:CI:85:LEU:HD13	9:CI:92:TYR:CD2	2.26	0.63
30:BD:131:LEU:N	30:BD:131:LEU:HD12	2.13	0.63
9:AI:5:TYR:CG	9:AI:6:GLY:N	2.66	0.63
13:CM:48:LEU:HG	13:CM:53:VAL:CG2	2.28	0.63
27:DA:95:G:H1'	51:D2:47:ASN:HD22	1.63	0.63
1:CA:102:G:N1	1:CA:103:C:C4	2.67	0.63
34:DH:44:VAL:HG12	34:DH:45:VAL:H	1.63	0.63
5:AE:72:GLN:HE21	5:AE:144:THR:HG22	1.64	0.63
11:CK:96:ARG:O	11:CK:99:GLN:HB2	1.98	0.63
59:CX:10:G:N2	59:CX:26:G:H1'	2.12	0.63
35:DI:93:THR:H	35:DI:96:ASP:CB	2.11	0.63
17:CQ:31:LEU:O	17:CQ:31:LEU:HG	1.98	0.63
1:AA:443:C:H2'	1:AA:444:C:H6	1.63	0.63
1:CA:392:G:H2'	1:CA:393:A:C8	2.33	0.63
1:AA:1499:A:C1'	1:AA:1520:G:H5'	2.28	0.63
27:BA:712:G:C2'	27:BA:713:G:H5'	2.28	0.63
28:DB:92:C:H2'	28:DB:93:G:H8	1.62	0.63
1:CA:348:G:O2'	1:CA:349:A:H5'	1.98	0.63
27:BA:1451:C:N3	27:BA:1459:G:O6	2.31	0.63
34:DH:96:ALA:HB2	34:DH:105:LEU:HD13	1.79	0.63
28:BB:78:A:H2'	28:BB:79:C:O4'	1.98	0.63
52:B3:32:GLN:HA	52:B3:32:GLN:NE2	2.13	0.63
27:DA:2062:A:O2'	27:DA:2063:C:H5'	1.98	0.63
2:CB:223:ILE:HA	2:CB:226:ARG:HG2	1.80	0.63
35:BI:110:ASP:C	35:BI:112:LYS:H	2.02	0.63
33:BG:51:ARG:N	33:BG:51:ARG:HE	1.97	0.63
36:DN:131:GLN:NE2	36:DN:133:GLN:H	1.95	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:32:TYR:CD2	42:DT:81:PRO:HB2	2.33	0.63
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.79	0.63
1:AA:1206:G:H4'	3:AC:192:THR:O	1.99	0.63
1:AA:1254:C:H2'	1:AA:1255:G:C8	2.33	0.63
47:DY:26:LYS:HG2	47:DY:27:VAL:H	1.64	0.63
43:BU:112:ARG:NE	44:BV:46:VAL:HG11	2.12	0.63
3:AC:83:ARG:C	3:AC:85:ARG:H	2.01	0.63
4:CD:108:LEU:O	4:CD:176:LEU:HD22	1.98	0.63
52:D3:4:LEU:HB2	52:D3:39:ASP:OD1	1.97	0.63
40:DR:21:TYR:HB3	40:DR:47:PHE:CD2	2.33	0.63
34:DH:83:TYR:HA	34:DH:135:GLY:H	1.62	0.63
28:BB:65:C:C2'	28:BB:66:A:H5'	2.29	0.63
2:CB:185:ILE:CG2	2:CB:199:TYR:HB2	2.28	0.63
54:B5:16:ARG:NH1	54:B5:17:ASP:OD1	2.27	0.63
49:B0:24:LYS:CG	49:B0:36:ILE:HD11	2.29	0.63
9:AI:126:SER:O	9:AI:127:LYS:HB2	1.98	0.63
27:DA:1348:G:C2'	27:DA:1349:A:H5''	2.29	0.63
7:AG:95:ARG:HG2	7:AG:99:LEU:HD11	1.81	0.63
36:BN:120:LEU:HD21	36:BN:122:VAL:HG23	1.80	0.63
42:BT:42:ILE:HD12	42:BT:42:ILE:N	2.13	0.63
5:AE:145:LYS:O	5:AE:149:GLU:HG2	1.97	0.63
27:BA:1378:A:O2'	27:BA:1379:A:H5'	1.98	0.63
27:BA:1935:G:H1'	27:BA:1964:G:N2	2.13	0.63
20:AT:13:LEU:C	20:AT:13:LEU:HD12	2.18	0.63
12:CL:76:GLU:O	12:CL:77:HIS:HB2	1.98	0.63
38:BP:98:GLU:O	38:BP:101:VAL:HG22	1.97	0.63
45:BW:12:ILE:HD13	45:BW:17:VAL:HG12	1.79	0.63
48:DZ:88:PHE:CE1	48:DZ:95:VAL:HG11	2.31	0.63
36:BN:63:THR:HG22	36:BN:64:GLY:N	2.11	0.63
36:DN:4:TYR:CD1	36:DN:4:TYR:N	2.67	0.63
27:DA:910:A:C8	39:DQ:13:GLN:HG3	2.33	0.63
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.34	0.63
7:AG:23:VAL:O	7:AG:27:ILE:HG13	1.97	0.63
29:DC:68:LEU:HD13	29:DC:179:SER:HA	1.79	0.63
1:CA:1442(A):G:H5'	1:CA:1442(B):A:OP2	1.98	0.63
47:DY:4:LYS:HD2	47:DY:32:PRO:HG2	1.81	0.63
2:CB:167:PRO:CD	2:CB:188:ALA:HA	2.28	0.63
44:BV:39:LEU:CB	44:BV:47:VAL:HG11	2.28	0.63
5:CE:55:VAL:O	5:CE:58:ALA:HB3	1.97	0.63
27:DA:2741:A:N6	27:DA:2763:G:H1'	2.13	0.63
23:CW:20:A:H2'	23:CW:44:A:N6	2.12	0.63
27:BA:2014:A:O2'	54:B5:2:ALA:HB2	1.99	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:86:ILE:HG12	8:AH:135:CYS:HA	1.80	0.63
16:AP:51:VAL:O	16:AP:52:ASP:C	2.37	0.63
50:B1:82:LEU:HD22	50:B1:82:LEU:N	2.13	0.63
1:CA:1305:G:OP1	21:CU:2:GLY:HA3	1.99	0.63
1:CA:1307:U:H2'	1:CA:1308:U:C6	2.34	0.63
44:DV:72:VAL:CG2	44:DV:85:LYS:HB3	2.28	0.63
25:AY:37:U:H2'	25:AY:38:U:O4'	1.98	0.63
27:DA:389:G:H1	38:DP:71:VAL:HG12	1.63	0.63
1:CA:198:G:O2'	1:CA:199:G:H8	1.81	0.63
15:CO:54:ARG:HG2	15:CO:54:ARG:HH11	1.63	0.63
27:BA:814:C:H41	38:BP:27:HIS:CD2	2.16	0.63
27:DA:1150:C:O2'	27:DA:1151:G:H5'	1.99	0.63
27:BA:1375:C:H2'	27:BA:1376:C:H6	1.64	0.63
30:BD:5:LYS:HG3	30:BD:17:THR:HG22	1.81	0.63
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.79	0.63
11:AK:58:PRO:HG2	11:AK:59:TYR:H	1.62	0.63
47:BY:49:VAL:HG12	47:BY:49:VAL:O	1.97	0.63
42:DT:93:ARG:HG2	42:DT:93:ARG:HH11	1.64	0.63
35:DI:65:ALA:HB2	35:DI:131:LYS:CE	2.29	0.63
27:BA:1403:C:C5'	27:BA:1471:A:H1'	2.18	0.63
35:BI:131:LYS:CG	35:BI:132:PRO:HD2	2.28	0.63
33:BG:59:GLU:HA	33:BG:62:LEU:HD13	1.80	0.63
55:D6:25:LYS:C	55:D6:26:ASN:HD22	2.01	0.63
13:AM:15:VAL:O	13:AM:19:LEU:HD23	1.98	0.63
13:AM:102:ARG:CB	13:AM:102:ARG:NH1	2.60	0.63
13:AM:102:ARG:HB3	13:AM:102:ARG:NH1	1.99	0.63
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.63	0.63
1:CA:167:G:O2'	1:CA:168:G:H5'	1.99	0.63
27:BA:1657:C:O2'	27:BA:1658:C:H5'	1.99	0.63
1:AA:1255:G:H5'	3:AC:26:LYS:HZ2	1.64	0.63
2:AB:223:ILE:HA	2:AB:226:ARG:CB	2.27	0.63
47:DY:37:VAL:O	47:DY:38:ILE:HG12	1.98	0.63
15:CO:17:ARG:HD3	15:CO:26:GLU:HG3	1.79	0.63
50:D1:76:ARG:HH21	50:D1:95:LEU:HD13	1.60	0.63
1:AA:80:G:H3'	1:AA:81:U:C5'	2.28	0.63
27:BA:1257:C:H4'	32:BF:83:PHE:CD2	2.33	0.63
41:BS:20:ARG:HG2	41:BS:20:ARG:HH11	1.64	0.63
29:DC:49:ILE:HG22	29:DC:50:ASP:OD1	1.99	0.63
52:D3:37:LEU:H	52:D3:37:LEU:HD23	1.62	0.63
1:CA:69:G:C5	1:CA:101:A:N6	2.67	0.63
27:DA:873:G:H1	27:DA:904:C:N4	1.91	0.63
27:DA:2837:G:H2'	27:DA:2838:G:H8	1.63	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BN:13:TRP:O	36:BN:134:ARG:HA	1.97	0.63
29:DC:41:VAL:HA	29:DC:214:VAL:H	1.64	0.63
15:CO:28:GLN:CB	15:CO:66:LEU:HD21	2.28	0.63
42:DT:115:ARG:NE	42:DT:115:ARG:HA	2.12	0.63
27:BA:2223:G:C2'	27:BA:2224:G:H5'	2.29	0.63
1:AA:323:U:O3'	20:AT:22:ARG:HD2	1.97	0.63
25:CY:47:C:OP2	25:CY:47:C:H2'	1.98	0.63
1:AA:1154:G:H2'	1:AA:1155:G:C8	2.33	0.63
31:BE:101:ARG:NH1	31:BE:171:GLU:HB2	2.13	0.63
17:AQ:63:ARG:HG2	17:AQ:64:PRO:HD2	1.79	0.63
1:CA:838:G:C2'	1:CA:839:U:H5''	2.29	0.63
27:DA:2126:A:H5''	29:DC:36:LYS:HE2	1.81	0.63
27:DA:2467:C:H4'	39:DQ:123:HIS:CD2	2.33	0.63
27:DA:756:C:O2'	27:DA:757:U:H5'	1.99	0.63
52:B3:26:LEU:O	52:B3:35:ARG:HD3	1.98	0.63
6:AF:45:LEU:HD11	6:AF:57:GLN:OE1	1.98	0.63
30:BD:65:ILE:HD11	30:BD:67:PHE:CE1	2.33	0.63
1:CA:411:A:O2'	1:CA:413:G:H5'	1.99	0.63
38:BP:83:VAL:HG11	38:BP:112:LEU:CD2	2.29	0.63
27:DA:1040:C:H5''	48:DZ:41:VAL:HG21	1.80	0.63
20:AT:84:LEU:HD13	20:AT:88:VAL:CG2	2.28	0.63
27:BA:1019:U:O2'	27:BA:1021:A:H2	1.80	0.63
38:DP:147:LEU:O	38:DP:148:LEU:HB2	1.97	0.63
33:DG:131:TYR:HB3	33:DG:159:VAL:CG2	2.29	0.63
33:DG:76:SER:HB2	33:DG:84:LYS:H	1.63	0.63
42:DT:82:LEU:O	42:DT:83:ILE:C	2.37	0.63
9:CI:11:LYS:H	9:CI:104:ARG:NH2	1.96	0.63
32:DF:150:GLY:HA2	32:DF:172:TRP:CD2	2.34	0.63
1:AA:1131:G:H2'	1:AA:1132:C:C5	2.34	0.63
1:AA:1133:G:H22	1:AA:1143:G:H1'	1.64	0.63
9:AI:97:LYS:C	9:AI:99:LEU:H	2.02	0.63
27:BA:1697:G:C3'	27:BA:1698:A:H5''	2.21	0.63
30:BD:24:ILE:HG12	30:BD:25:THR:N	2.12	0.63
1:CA:265:G:H4'	17:CQ:66:SER:HA	1.80	0.63
41:BS:17:ARG:CA	41:BS:20:ARG:HH12	2.12	0.63
27:BA:996:A:OP2	43:BU:94:ASN:ND2	2.31	0.63
6:CF:15:ASP:OD1	6:CF:17:SER:N	2.32	0.63
3:CC:29:TYR:OH	14:CN:54:PRO:HD2	1.99	0.63
1:AA:658:G:OP1	15:AO:31:LEU:HD21	1.98	0.63
27:DA:195:A:H61	27:DA:198:C:H3'	1.63	0.63
27:BA:963:U:H2'	27:BA:964:C:H6	1.64	0.63
27:DA:2662:A:H2'	27:DA:2663:G:O4'	1.98	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BI:47:LEU:HD23	35:BI:47:LEU:C	2.19	0.63
5:CE:102:ALA:HB2	5:CE:120:THR:OG1	1.99	0.63
1:CA:404:U:H2'	1:CA:405:U:C6	2.33	0.63
27:DA:1693:U:H4'	27:DA:1694:C:OP2	1.97	0.63
1:AA:1003:G:C2'	1:AA:1004:A:H4'	2.28	0.63
30:BD:58:HIS:CD2	30:BD:59:LYS:N	2.67	0.63
1:AA:1062:U:H2'	1:AA:1063:C:C5	2.34	0.63
27:BA:753:C:H6	27:BA:753:C:O5'	1.80	0.63
5:CE:8:GLU:HG3	5:CE:34:VAL:HG22	1.80	0.63
34:BH:70:THR:O	34:BH:72:ILE:N	2.32	0.63
34:BH:70:THR:HB	34:BH:74:ASN:ND2	2.14	0.63
36:DN:48:MET:H	36:DN:48:MET:CE	2.11	0.63
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.64	0.63
40:BR:30:THR:HG22	40:BR:31:HIS:CD2	2.33	0.63
27:BA:271(J):C:C3'	27:BA:271(K):U:H5''	2.28	0.63
32:DF:114:VAL:HG11	32:DF:202:PHE:CE2	2.33	0.63
6:CF:43:LEU:H	6:CF:43:LEU:HD12	1.62	0.63
27:DA:1772:G:N2	27:DA:1774:C:H5''	2.14	0.63
47:BY:76:CYS:HB3	47:BY:96:ILE:CD1	2.27	0.63
42:BT:35:LYS:O	42:BT:37:GLY:N	2.23	0.63
42:BT:36:GLU:C	42:BT:38:ASN:H	2.02	0.63
27:DA:1902:C:C1'	30:DD:244:ARG:HG3	2.27	0.63
38:DP:107:LYS:C	38:DP:109:GLY:H	2.02	0.63
33:DG:31:VAL:HG22	33:DG:32:PRO:HD2	1.80	0.63
33:DG:51:ARG:NH1	33:DG:53:LEU:HD21	2.14	0.63
36:DN:13:TRP:O	36:DN:135:PRO:HD2	1.99	0.63
37:DO:19:ILE:HB	37:DO:41:ALA:HB1	1.81	0.63
1:AA:1317:C:OP1	14:AN:17:LYS:HG2	1.99	0.63
1:AA:1234:C:H4'	1:AA:1364:U:H1'	1.80	0.63
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.13	0.63
1:AA:80:G:H22	1:AA:90:U:H4'	1.63	0.63
43:BU:95:LEU:HD13	44:BV:4:ILE:HG23	1.80	0.63
29:DC:49:ILE:HG22	29:DC:50:ASP:H	1.62	0.63
12:AL:44:LYS:CB	12:AL:45:PRO:HD3	2.29	0.63
27:DA:2093:G:H1'	27:DA:2198:A:C2	2.34	0.63
12:CL:23:ALA:C	12:CL:24:LEU:HD22	2.18	0.63
20:CT:71:THR:HG22	20:CT:72:LEU:N	2.14	0.63
5:AE:31:LEU:CD1	5:AE:43:LEU:HD11	2.28	0.63
1:CA:1151:A:OP1	10:CJ:41:PRO:HA	1.98	0.63
27:BA:2029:G:H2'	27:BA:2031:A:OP1	1.98	0.63
27:BA:747:U:N1	54:B5:2:ALA:HB3	2.14	0.63
34:BH:85:LYS:NZ	34:BH:133:VAL:HG21	2.13	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1278:A:H5''	40:DR:36:THR:HG22	1.79	0.63
6:CF:17:SER:C	6:CF:21:LEU:HD23	2.19	0.63
57:D8:58:ILE:O	57:D8:61:LEU:HG	1.99	0.63
38:DP:50:ARG:NH2	38:DP:50:ARG:HG2	2.12	0.63
10:AJ:4:ILE:HD12	10:AJ:74:ILE:CD1	2.28	0.63
35:BI:71:ILE:C	35:BI:72:LEU:HD22	2.18	0.63
1:CA:624:C:O3'	16:CP:10:GLY:HA2	1.98	0.63
12:AL:82:ILE:CG2	12:AL:95:TYR:HB3	2.29	0.63
1:CA:1325:C:OP1	21:CU:15:ARG:HD2	1.99	0.63
37:BO:102:VAL:HB	37:BO:106:LEU:HD12	1.80	0.63
27:DA:1434:A:H61	27:DA:1558:A:N6	1.96	0.63
27:DA:2024:G:H2'	27:DA:2025:C:C6	2.32	0.63
1:CA:824:C:H2'	1:CA:825:G:C8	2.34	0.63
27:DA:225:A:O2'	27:DA:257:A:H4'	1.98	0.63
27:DA:271(X):G:H2'	27:DA:271(Y):U:C6	2.34	0.63
30:BD:183:ARG:HG3	30:BD:183:ARG:HH11	1.64	0.63
45:BW:5:ALA:HB1	45:BW:50:VAL:CG2	2.29	0.63
27:BA:1704:G:O2'	27:BA:1705:G:H5'	1.99	0.63
35:BI:115:ALA:CB	35:BI:129:THR:H	2.10	0.63
31:DE:178:GLU:HG3	31:DE:179:GLU:OE1	1.98	0.63
27:DA:2876:G:H4'	42:DT:3:ARG:CD	2.28	0.63
55:D6:15:GLU:HG2	55:D6:18:ARG:NH1	2.14	0.63
55:D6:40:CYS:CA	55:D6:46:HIS:HB3	2.27	0.63
10:CJ:7:LYS:CB	10:CJ:97:GLU:HB2	2.15	0.63
33:DG:32:PRO:O	33:DG:172:LEU:HD22	1.99	0.63
31:DE:61:ARG:HB3	31:DE:62:PRO:HD3	1.81	0.63
28:DB:47:C:C2'	28:DB:48:A:H5''	2.29	0.63
31:BE:62:PRO:C	31:BE:64:LYS:H	2.03	0.63
27:BA:330:A:HO2'	27:BA:331:A:H8	1.47	0.63
27:BA:2331:G:O3'	49:B0:43:THR:HG22	1.98	0.63
43:BU:102:GLU:HG3	44:BV:2:PHE:CZ	2.33	0.63
3:AC:73:PRO:HG3	3:AC:105:GLU:HG3	1.81	0.63
27:DA:2230:G:H1'	50:D1:45:ASN:CB	2.29	0.63
39:BQ:133:ARG:HB2	39:BQ:133:ARG:HH11	1.64	0.63
38:DP:16:ARG:HD3	38:DP:16:ARG:C	2.19	0.63
37:BO:23:ARG:HG3	37:BO:24:VAL:N	2.13	0.63
27:DA:2485:G:H5''	39:DQ:46:GLN:HE21	1.64	0.63
41:DS:37:ALA:CB	41:DS:73:LEU:HD12	2.28	0.63
12:CL:86:ARG:HB2	12:CL:86:ARG:HH11	1.63	0.63
27:DA:2591:C:P	30:DD:239:ARG:HB3	2.38	0.63
5:CE:33:VAL:HG11	5:CE:109:ILE:HA	1.81	0.63
27:DA:686:G:C5'	56:D7:11:LYS:HE2	2.29	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:576:U:H6	27:DA:576:U:O5'	1.81	0.63
44:BV:21:ARG:O	44:BV:22:VAL:HG13	1.99	0.63
8:AH:11:THR:HA	8:AH:14:ARG:HH12	1.64	0.63
27:BA:2123:G:H2'	27:BA:2124:G:H8	1.64	0.63
1:CA:859:A:H2'	1:CA:860:A:O4'	1.97	0.63
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.34	0.63
27:BA:620:G:H4'	27:BA:621:A:H5'	1.78	0.63
27:DA:1866:C:H2'	27:DA:1876:A:O4'	1.99	0.63
30:DD:125:ILE:O	30:DD:126:GLN:HB3	1.99	0.63
40:BR:26:LYS:HE2	40:BR:71:GLN:H	1.64	0.63
1:CA:932:C:H5'	7:CG:4:ARG:HG2	1.81	0.63
1:AA:792:A:H4'	1:AA:793:U:O5'	1.99	0.63
27:DA:402:A:O2'	27:DA:403:U:H5'	1.97	0.63
1:CA:724:G:O2'	1:CA:725:G:H5'	1.99	0.63
51:D2:4:SER:O	51:D2:7:ARG:HG2	1.98	0.63
55:D6:10:LEU:HD13	57:D8:34:TRP:CD1	2.34	0.63
27:DA:2402:C:H6	27:DA:2402:C:H3'	1.64	0.63
41:BS:39:ILE:HD12	41:BS:85:VAL:HG11	1.79	0.63
27:DA:2864:G:H8	27:DA:2864:G:H5'	1.64	0.63
33:DG:41:GLN:NE2	33:DG:153:ARG:HG2	2.12	0.63
33:DG:51:ARG:HE	33:DG:51:ARG:CA	2.12	0.63
13:CM:7:VAL:HG22	33:DG:113:ARG:HD2	1.81	0.63
44:BV:95:LEU:HD22	44:BV:95:LEU:C	2.19	0.63
2:AB:15:VAL:H	2:AB:16:HIS:CE1	2.15	0.63
38:DP:6:LEU:CG	38:DP:9:ASN:HD22	2.11	0.63
47:DY:27:VAL:HG12	47:DY:28:LYS:H	1.64	0.63
47:DY:96:ILE:HD12	47:DY:99:CYS:SG	2.39	0.63
32:DF:10:PRO:HD2	32:DF:13:SER:HB2	1.81	0.63
2:CB:97:TRP:CZ2	2:CB:102:LEU:HD13	2.34	0.63
32:BF:8:GLN:CB	32:BF:126:VAL:HA	2.28	0.63
43:BU:92:ARG:HH11	43:BU:92:ARG:CG	2.12	0.63
4:AD:170:VAL:HG21	4:AD:176:LEU:HB2	1.81	0.63
3:AC:78:GLY:HA3	3:AC:83:ARG:HB3	1.81	0.63
59:CX:21:A:H2'	59:CX:46:G:O6	1.99	0.63
19:AS:41:VAL:CG1	19:AS:42:PRO:HD2	2.26	0.63
34:BH:85:LYS:HE2	34:BH:145:ALA:HB2	1.81	0.63
19:AS:15:LEU:HD13	19:AS:31:ILE:HD11	1.81	0.63
30:DD:182:LEU:N	30:DD:272:ALA:HB3	2.13	0.63
38:BP:46:LYS:HG2	38:BP:52:GLU:HG2	1.79	0.63
16:CP:52:ASP:OD1	16:CP:55:ARG:HG2	1.99	0.63
27:DA:1340:U:H4'	27:DA:1341:U:OP2	1.98	0.63
47:DY:46:LYS:CD	47:DY:62:GLU:HG2	2.28	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:26:PHE:CZ	7:CG:30:ILE:HD11	2.34	0.63
27:BA:380:U:H5'	50:B1:18:ILE:HD13	1.79	0.63
1:CA:194:C:C2'	1:CA:195:A:H5''	2.29	0.63
1:CA:818:G:H3'	1:CA:819:A:H5''	1.81	0.63
1:CA:1330:U:H5'	1:CA:1331:G:OP2	1.99	0.63
2:CB:207:ALA:O	2:CB:211:ILE:HG13	1.99	0.63
31:DE:44:TYR:O	31:DE:45:THR:HB	1.99	0.63
4:CD:162:LEU:HD12	4:CD:181:MET:CE	2.28	0.63
27:DA:1887:C:C3'	27:DA:1888:G:H5''	2.29	0.63
27:DA:2184:G:H2'	27:DA:2185:C:H6	1.63	0.63
27:DA:614(A):U:H4'	27:DA:614(B):G:O5'	1.98	0.63
1:CA:19:C:H5''	5:CE:86:ALA:HB3	1.81	0.63
17:AQ:91:ARG:HA	17:AQ:94:ASN:ND2	2.14	0.63
1:AA:203:U:H1'	1:AA:216:G:C6	2.34	0.63
31:BE:9:VAL:HG22	31:BE:25:VAL:HB	1.80	0.63
27:DA:2768:C:O2'	27:DA:2769:C:H5'	1.98	0.63
47:BY:6:HIS:NE2	47:BY:32:PRO:HB3	2.14	0.63
38:BP:148:LEU:O	38:BP:149:GLU:HB2	1.97	0.62
35:DI:80:PRO:HA	35:DI:143:SER:OG	1.98	0.62
38:DP:147:LEU:HG	38:DP:148:LEU:N	2.14	0.62
9:CI:37:PHE:HD2	9:CI:40:LEU:HD12	1.64	0.62
43:BU:52:ARG:HH11	43:BU:52:ARG:CB	2.07	0.62
42:BT:3:ARG:O	42:BT:7:ILE:HG13	1.99	0.62
17:AQ:81:ARG:HH11	17:AQ:81:ARG:HG3	1.64	0.62
47:DY:36:ALA:HA	47:DY:69:ALA:HB2	1.81	0.62
2:CB:98:LEU:HB2	2:CB:101:MET:HG2	1.79	0.62
27:BA:2290:G:C8	27:BA:2290:G:H5'	2.32	0.62
5:AE:11:ILE:CG2	5:AE:105:VAL:HG22	2.29	0.62
39:BQ:17:LEU:HD21	39:BQ:41:TRP:HE1	1.64	0.62
34:BH:17:VAL:CG1	34:BH:50:VAL:HG21	2.27	0.62
1:CA:959:A:H3'	1:CA:960:U:C5'	2.27	0.62
53:B4:81:VAL:HG12	53:B4:82:GLU:H	1.63	0.62
27:BA:286:C:H2'	27:BA:287:C:C5'	2.27	0.62
57:D8:61:LEU:C	57:D8:63:PRO:HD2	2.19	0.62
38:DP:50:ARG:HH21	38:DP:50:ARG:HG2	1.62	0.62
27:DA:2469:A:C2	27:DA:2470:G:H1'	2.34	0.62
1:AA:151:A:H2'	1:AA:152:A:O4'	1.98	0.62
27:DA:174:C:H5'	27:DA:175:G:OP2	1.98	0.62
27:DA:302:C:O2'	27:DA:303:U:O5'	2.17	0.62
3:CC:64:VAL:O	3:CC:100:ALA:HB3	1.98	0.62
1:AA:626:U:H2'	1:AA:627:G:H8	1.64	0.62
43:DU:50:ARG:HH12	44:DV:72:VAL:HG12	1.62	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1511:G:H2'	1:CA:1512:U:O4'	1.99	0.62
8:CH:109:ILE:CG2	8:CH:137:VAL:HB	2.29	0.62
27:BA:1652:A:H2'	27:BA:1653:G:H5'	1.81	0.62
1:CA:35:G:H2'	1:CA:36:C:H6	1.61	0.62
27:BA:708:C:H5'	27:BA:709:U:OP2	1.98	0.62
31:BE:81:ILE:O	31:BE:82:ARG:HB2	1.98	0.62
58:B9:22:ARG:HB2	58:B9:24:TYR:HE1	1.64	0.62
27:BA:375:C:H2'	27:BA:376:C:C6	2.34	0.62
37:DO:70:LYS:HA	37:DO:76:ALA:CB	2.28	0.62
1:AA:683:G:H2'	1:AA:684:A:C8	2.34	0.62
27:DA:816:C:O2'	27:DA:817:C:H5'	1.98	0.62
20:AT:70:SER:HA	20:AT:73:HIS:HD2	1.63	0.62
50:B1:26:ARG:HG3	50:B1:26:ARG:HH11	1.64	0.62
27:DA:1119:C:H2'	27:DA:1120:G:H8	1.63	0.62
8:CH:95:VAL:HB	8:CH:99:GLU:HB2	1.81	0.62
1:CA:328:C:H2'	1:CA:328:C:O2	1.98	0.62
27:DA:2287:A:H62	27:DA:2344:U:H3	1.44	0.62
14:CN:2:ALA:O	14:CN:6:LEU:HB2	1.98	0.62
35:BI:130:TYR:HD1	35:BI:131:LYS:N	1.96	0.62
28:BB:40:U:H1'	28:BB:45:A:N6	2.14	0.62
33:BG:63:ILE:HG22	33:BG:144:ILE:HB	1.81	0.62
14:CN:22:THR:HB	14:CN:33:VAL:CG2	2.28	0.62
51:D2:5:GLU:O	51:D2:8:LYS:HB2	1.99	0.62
42:DT:28:VAL:HG22	42:DT:46:GLU:CA	2.28	0.62
38:DP:146:VAL:HG22	38:DP:147:LEU:N	2.14	0.62
28:DB:110:G:H2'	28:DB:111:G:C8	2.34	0.62
27:BA:807:U:O2'	27:BA:808:G:H5'	1.98	0.62
42:DT:33:LYS:NZ	42:DT:43:GLN:HE22	1.97	0.62
27:BA:1657:C:H2'	27:BA:1658:C:C6	2.33	0.62
31:DE:101:ARG:HB2	31:DE:201:THR:HG21	1.81	0.62
31:DE:59:VAL:O	31:DE:60:ASN:HB3	1.98	0.62
30:BD:223:GLY:O	30:BD:226:MET:HG3	1.98	0.62
27:BA:1178:C:H2'	27:BA:1179:C:C6	2.34	0.62
2:AB:11:LEU:HD11	2:AB:217:ARG:NH2	2.11	0.62
47:DY:2:ARG:CZ	47:DY:3:VAL:HG23	2.29	0.62
3:AC:84:ILE:O	3:AC:84:ILE:HG12	1.98	0.62
4:CD:173:TRP:HA	4:CD:187:ARG:NH1	2.13	0.62
1:CA:69:G:N1	1:CA:101:A:N6	2.46	0.62
48:BZ:172:ALA:O	48:BZ:174:VAL:HG13	1.99	0.62
1:CA:532:A:C2	1:CA:1207:G:H4'	2.32	0.62
36:BN:13:TRP:O	36:BN:135:PRO:HD2	1.99	0.62
27:DA:271(E):U:H2'	27:DA:271(F):C:C6	2.34	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:D8:6:THR:HB	57:D8:63:PRO:HG3	1.81	0.62
1:CA:751:U:C4'	15:CO:24:SER:HB2	2.29	0.62
27:BA:74:A:H4'	27:BA:75:G:O5'	1.98	0.62
12:AL:19:SER:C	12:AL:21:VAL:H	2.02	0.62
32:DF:155:LEU:HD11	32:DF:176:LEU:HD22	1.81	0.62
29:DC:83:ILE:HG23	29:DC:94:VAL:CB	2.29	0.62
20:AT:23:ARG:O	20:AT:27:LYS:HB2	1.99	0.62
27:BA:2712:U:O2'	27:BA:2713:A:H5'	1.99	0.62
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.15	0.62
1:AA:1003:G:H2'	1:AA:1004:A:H4'	1.79	0.62
27:DA:1336:A:H2'	27:DA:1337:G:H8	1.63	0.62
1:AA:1007:C:H2'	1:AA:1008:C:H6	1.64	0.62
27:BA:185:U:H2'	27:BA:186:G:C8	2.34	0.62
37:BO:98:VAL:HG12	37:BO:117:LEU:HD22	1.80	0.62
32:BF:150:GLY:HA2	32:BF:172:TRP:CE3	2.34	0.62
1:CA:932:C:O2	1:CA:932:C:H2'	1.99	0.62
1:AA:580:U:H2'	1:AA:581:G:O4'	1.99	0.62
58:B9:29:ASN:HD21	58:B9:31:LYS:HB2	1.62	0.62
34:DH:71:LEU:H	34:DH:74:ASN:ND2	1.97	0.62
1:CA:353:A:H5'	1:CA:353:A:H8	1.65	0.62
34:BH:147:ASN:HD22	34:BH:147:ASN:N	1.96	0.62
35:DI:92:VAL:CG1	35:DI:120:ILE:HB	2.30	0.62
35:DI:92:VAL:HG13	35:DI:120:ILE:HD12	1.81	0.62
55:B6:15:GLU:HA	55:B6:49:HIS:CE1	2.33	0.62
57:B8:22:VAL:HG21	57:B8:53:PRO:HB2	1.81	0.62
42:BT:23:ARG:O	42:BT:25:GLY:N	2.30	0.62
48:DZ:96:GLU:CB	48:DZ:124:LEU:HD11	2.24	0.62
42:DT:65:LYS:HZ2	42:DT:66:VAL:N	1.96	0.62
38:BP:35:HIS:O	38:BP:36:LYS:CB	2.47	0.62
38:BP:39:LYS:NZ	38:BP:42:SER:OG	2.33	0.62
36:DN:91:LEU:CD2	36:DN:98:VAL:HG21	2.29	0.62
13:AM:4:ILE:HG23	13:AM:57:ARG:HG3	1.81	0.62
27:DA:271(T):C:O2'	27:DA:271(U):G:H5'	2.00	0.62
42:BT:12:SER:N	42:BT:13:ARG:NH2	2.47	0.62
27:BA:582:G:H2'	27:BA:583:G:C8	2.34	0.62
15:AO:87:ILE:CG2	15:AO:88:ARG:H	2.07	0.62
27:BA:2286:A:H4'	27:BA:2287:A:O4'	1.99	0.62
20:CT:26:ASN:HD22	20:CT:27:LYS:N	1.98	0.62
20:CT:30:LYS:HZ1	20:CT:80:ARG:HH22	1.47	0.62
30:BD:4:LYS:CE	30:BD:20:ASP:HA	2.28	0.62
3:CC:114:PRO:O	3:CC:118:GLN:CD	2.38	0.62
36:BN:58:ASP:C	36:BN:60:ILE:H	2.02	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:76:VAL:HG21	3:CC:103:VAL:HG11	1.80	0.62
49:D0:19:LYS:HB2	49:D0:21:LEU:CD2	2.29	0.62
37:BO:2:ILE:HG12	37:BO:33:ALA:HB3	1.80	0.62
48:DZ:173:VAL:HG12	48:DZ:174:VAL:H	1.64	0.62
27:DA:782:A:H5'	27:DA:783:A:C2	2.34	0.62
16:AP:57:ARG:HE	16:AP:79:VAL:HA	1.64	0.62
50:B1:61:ARG:HB3	50:B1:61:ARG:HH11	1.64	0.62
36:BN:67:LEU:O	36:BN:88:GLU:HG3	1.97	0.62
29:BC:46:LYS:HZ2	29:BC:172:HIS:HA	1.63	0.62
27:DA:570:G:H2'	27:DA:2030:A:C5	2.35	0.62
1:AA:640:A:C2'	1:AA:641:U:H5'	2.30	0.62
27:BA:2564:A:C2	27:BA:2647:U:H4'	2.34	0.62
2:CB:9:GLU:OE2	2:CB:10:LEU:N	2.33	0.62
1:CA:505:G:H2'	1:CA:506:G:C8	2.34	0.62
27:DA:139:G:H3'	27:DA:139(A):G:H5''	1.80	0.62
16:AP:68:ASP:C	16:AP:70:ALA:H	2.03	0.62
1:CA:437:U:O2'	1:CA:438:G:H5'	1.99	0.62
42:BT:21:GLU:O	42:BT:22:PHE:HB3	1.98	0.62
11:AK:34:ASP:HB2	11:AK:35:PRO:HD2	1.81	0.62
27:DA:1259:G:H2'	27:DA:1260:G:H8	1.65	0.62
7:CG:91:VAL:HG12	7:CG:96:GLN:HB2	1.81	0.62
7:CG:95:ARG:O	7:CG:99:LEU:HG	2.00	0.62
31:DE:19:ARG:O	31:DE:19:ARG:HG3	1.99	0.62
39:BQ:19:GLY:HA2	39:BQ:99:PRO:HD2	1.79	0.62
42:BT:78:LEU:O	42:BT:79:HIS:CD2	2.52	0.62
27:BA:852:G:O2'	27:BA:853:G:H5'	2.00	0.62
39:DQ:50:ALA:HB1	39:DQ:121:ALA:HB1	1.81	0.62
4:AD:19:LEU:HD11	4:AD:67:ILE:CG1	2.14	0.62
13:AM:94:ARG:HE	27:BA:887:A:H5''	1.63	0.62
40:BR:48:VAL:HG13	40:BR:52:ILE:HD11	1.81	0.62
55:D6:13:CYS:O	55:D6:21:TYR:HA	1.99	0.62
55:D6:43:CYS:O	55:D6:44:ARG:HB2	1.98	0.62
57:D8:28:GLY:HA2	57:D8:32:LEU:HD21	1.81	0.62
1:CA:522:C:H41	12:CL:50:ARG:HH22	1.47	0.62
42:DT:11:GLU:H	42:DT:11:GLU:CD	2.02	0.62
43:DU:92:ARG:NE	43:DU:95:LEU:HD12	2.14	0.62
30:BD:80:ALA:HB3	30:BD:94:LEU:CD1	2.28	0.62
31:DE:36:ARG:HD3	31:DE:85:ASN:HD21	1.64	0.62
9:AI:112:LYS:HG3	9:AI:118:LYS:HA	1.82	0.62
31:BE:48:GLN:NE2	31:BE:78:LEU:HD12	2.14	0.62
38:DP:7:ARG:HA	38:DP:7:ARG:NE	2.14	0.62
27:DA:1654:A:OP2	40:DR:3:HIS:CD2	2.52	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1255:G:OP1	10:CJ:45:ARG:NH2	2.31	0.62
1:CA:255:G:H2'	1:CA:256:U:C6	2.35	0.62
1:CA:76:C:N4	1:CA:93:G:N1	2.46	0.62
3:CC:32:LEU:HD22	3:CC:59:ARG:NH1	2.14	0.62
35:BI:5:LEU:HD12	35:BI:5:LEU:N	2.14	0.62
35:BI:5:LEU:O	35:BI:6:LEU:HD23	1.98	0.62
35:BI:71:ILE:HG13	35:BI:72:LEU:HD22	1.80	0.62
27:DA:1786:A:C2	27:DA:2606:C:H1'	2.33	0.62
25:CY:65:U:H2'	25:CY:66:A:H8	1.64	0.62
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.33	0.62
29:DC:19:VAL:HG12	29:DC:20:TYR:HD1	1.64	0.62
52:B3:19:GLN:HE22	52:B3:52:HIS:CE1	2.17	0.62
30:BD:271:ILE:O	30:BD:272:ALA:CB	2.47	0.62
37:BO:102:VAL:HG23	37:BO:121:VAL:HG22	1.80	0.62
12:CL:5:ASN:ND2	17:CQ:34:LYS:HE2	2.14	0.62
27:DA:1139:G:O2'	27:DA:1143:A:N1	2.29	0.62
1:CA:1194:U:H2'	1:CA:1195:C:H6	1.62	0.62
1:CA:333:G:O2'	1:CA:334:C:H5'	1.99	0.62
1:AA:221:C:O2'	1:AA:222:U:H5'	2.00	0.62
27:BA:2260:C:O2'	27:BA:2261:C:H5'	2.00	0.62
27:DA:1658:C:OP1	31:DE:132:HIS:ND1	2.32	0.62
29:BC:58:VAL:HG21	29:BC:166:ASP:H	1.64	0.62
52:B3:32:GLN:HA	52:B3:32:GLN:HE21	1.64	0.62
9:CI:87:GLN:O	9:CI:87:GLN:HG2	1.99	0.62
27:DA:83:G:C2	27:DA:102:G:H2'	2.35	0.62
50:D1:77:ALA:C	50:D1:79:GLY:H	2.01	0.62
25:CY:20:A:H62	25:CY:45:U:H2'	1.63	0.62
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.35	0.62
43:BU:13:LYS:O	43:BU:16:LYS:HB2	1.99	0.62
1:AA:1481:U:H2'	1:AA:1482:G:H8	1.64	0.62
43:DU:99:ALA:HB2	43:DU:106:PHE:CE1	2.34	0.62
44:DV:81:TYR:CE2	44:DV:83:ARG:HG2	2.35	0.62
1:CA:936:C:H2'	1:CA:937:A:C8	2.34	0.62
27:DA:1001:A:H2'	27:DA:1002:G:O4'	2.00	0.62
41:DS:58:LEU:HD23	41:DS:65:VAL:CG1	2.30	0.62
27:BA:135:G:O2'	27:BA:136:G:H5'	1.99	0.62
1:CA:1504:G:OP1	1:CA:1507:A:H4'	1.99	0.62
1:AA:824:C:H1'	8:AH:1:MET:HE1	1.80	0.62
55:B6:10:LEU:HD11	57:B8:34:TRP:CE2	2.34	0.62
4:AD:13:ARG:O	4:AD:14:ARG:HB3	1.99	0.62
47:BY:74:PRO:O	47:BY:80:GLY:HA2	1.98	0.62
1:CA:981:U:H5'	14:CN:21:TYR:CZ	2.34	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DG:49:ASP:O	33:DG:50:ALA:HB3	2.00	0.62
44:BV:18:LEU:CD1	44:BV:19:LYS:H	2.12	0.62
30:BD:142:VAL:HG23	30:BD:192:THR:O	2.00	0.62
49:D0:31:VAL:HG22	49:D0:67:VAL:HG23	1.81	0.62
32:DF:187:VAL:HG12	38:DP:7:ARG:NH2	2.14	0.62
31:DE:111:ARG:H	31:DE:161:GLY:HA3	1.64	0.62
32:BF:83:PHE:O	32:BF:84:VAL:HB	1.99	0.62
46:DX:47:PHE:O	46:DX:49:VAL:HG13	1.99	0.62
27:DA:2762:G:H3'	27:DA:2763:G:H5'	1.81	0.62
31:BE:134:ILE:H	31:BE:134:ILE:CD1	2.09	0.62
12:CL:90:LEU:HD23	12:CL:90:LEU:N	2.12	0.62
34:DH:98:LEU:HD13	34:DH:125:VAL:CG2	2.30	0.62
1:AA:751:U:C4'	15:AO:24:SER:HA	2.29	0.62
32:BF:89:VAL:HG12	32:BF:90:PHE:H	1.65	0.62
51:B2:50:ILE:HG23	51:B2:51:ARG:N	2.13	0.62
27:BA:1797:C:O3'	30:BD:259:THR:HG22	1.99	0.62
31:DE:203:LYS:HG3	31:DE:204:ALA:N	2.15	0.62
5:CE:107:ARG:O	5:CE:109:ILE:N	2.32	0.62
7:AG:51:GLN:HG2	7:AG:58:PRO:CD	2.30	0.62
27:DA:2527:C:H5'	58:D9:30:PRO:CB	2.28	0.62
27:BA:1653:G:O6	40:BR:11:ASN:HB2	1.99	0.62
27:BA:2186:G:H3'	27:BA:2187:G:H5''	1.81	0.62
27:DA:2162:G:H2'	27:DA:2163:C:C6	2.34	0.62
31:BE:137:HIS:HB3	31:BE:138:PRO:CD	2.29	0.62
6:AF:22:GLU:OE1	6:AF:84:ASN:HB2	2.00	0.62
30:BD:76:PRO:O	30:BD:98:VAL:HG23	2.00	0.62
47:DY:16:ALA:HA	47:DY:21:LYS:HD2	1.80	0.62
27:DA:1145:C:H2'	27:DA:1146:C:C6	2.35	0.62
27:DA:108:U:H2'	27:DA:109:G:H8	1.64	0.62
6:CF:94:GLN:NE2	18:CR:32:ARG:HD2	2.13	0.62
1:AA:489:C:H2'	1:AA:490:G:H8	1.62	0.62
1:CA:1121:U:H2'	1:CA:1122:U:H6	1.63	0.62
20:CT:69:GLY:O	20:CT:73:HIS:CD2	2.52	0.62
34:DH:114:VAL:HG12	34:DH:114:VAL:O	1.99	0.62
27:DA:836:G:H2'	27:DA:837:C:C6	2.34	0.62
2:AB:172:ILE:HD12	2:AB:172:ILE:H	1.64	0.62
20:AT:25:ARG:HG3	20:AT:25:ARG:HH11	1.64	0.62
38:BP:101:VAL:HG12	38:BP:106:LEU:CD2	2.29	0.62
4:AD:13:ARG:O	4:AD:15:GLU:N	2.32	0.62
1:CA:1321:C:C6	1:CA:1322:C:H2'	2.34	0.62
13:AM:110:ARG:HH11	13:AM:110:ARG:HG2	1.61	0.62
34:BH:67:LEU:O	34:BH:71:LEU:HB2	2.00	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2010:G:H5''	45:BW:42:ARG:HB2	1.81	0.62
31:DE:137:HIS:HB3	31:DE:138:PRO:HD2	1.82	0.62
27:BA:1590:U:C3'	27:BA:1591:G:H5''	2.28	0.62
13:CM:11:ARG:O	13:CM:13:LYS:N	2.31	0.62
1:CA:1444:C:N4	1:CA:1445:C:N4	2.47	0.62
1:AA:1319:A:H5'	1:AA:1320:C:OP1	1.98	0.62
1:AA:973:G:H1'	10:AJ:55:LYS:CE	2.30	0.62
1:AA:1141:C:H2'	1:AA:1142:G:N7	2.14	0.62
32:DF:3:GLU:HA	32:DF:24:LEU:HD12	1.82	0.62
32:DF:7:TYR:OH	32:DF:10:PRO:HB3	1.99	0.62
20:CT:53:LEU:O	20:CT:56:MET:HB3	2.00	0.62
29:DC:52:ARG:O	29:DC:53:ARG:HG3	2.00	0.62
5:CE:59:GLY:O	5:CE:62:ALA:HB3	1.99	0.62
19:AS:20:LEU:HA	19:AS:23:ASN:ND2	2.13	0.62
27:DA:2290:G:C8	27:DA:2290:G:H5'	2.28	0.62
3:AC:129:ALA:HB3	3:AC:132:ARG:CD	2.29	0.62
19:AS:40:ILE:HD13	19:AS:62:ILE:CD1	2.29	0.62
3:CC:46:GLU:HB3	3:CC:83:ARG:NH2	2.14	0.62
30:BD:8:PRO:O	30:BD:10:THR:N	2.30	0.62
51:B2:19:VAL:O	51:B2:23:LYS:HG3	1.99	0.62
42:DT:109:GLU:HG2	42:DT:112:ARG:HH12	1.62	0.62
27:DA:528:A:C2	27:DA:2043:C:H4'	2.34	0.62
34:DH:70:THR:O	34:DH:72:ILE:N	2.24	0.62
1:AA:333:G:H4'	20:AT:16:HIS:CE1	2.35	0.62
52:B3:24:LYS:HE3	52:B3:24:LYS:HA	1.80	0.62
48:BZ:23:LEU:HD11	48:BZ:84:HIS:HA	1.82	0.62
35:DI:2:LYS:HB2	35:DI:39:ALA:HB3	1.82	0.62
27:DA:795:C:H2'	27:DA:796:C:C6	2.34	0.62
1:CA:629:G:H2'	1:CA:630:G:O4'	2.00	0.62
1:CA:1249:C:H6	1:CA:1249:C:H5'	1.64	0.62
27:DA:935:C:H2'	27:DA:936:C:C6	2.34	0.62
27:BA:228:A:H2'	27:BA:230:U:O4'	1.98	0.62
27:DA:2064:C:H2'	27:DA:2065:C:C6	2.35	0.62
47:BY:96:ILE:CG2	47:BY:97:ARG:N	2.63	0.62
27:DA:2392:A:H2	27:DA:2424:C:H42	1.47	0.62
38:DP:64:LYS:HB3	57:D8:25:MET:HG3	1.82	0.62
27:DA:1840:G:H1	27:DA:1902:C:H42	1.46	0.62
27:BA:2646:C:OP2	27:BA:2732:G:O2'	2.18	0.62
20:CT:50:GLU:CA	20:CT:100:ILE:HG12	2.30	0.62
20:CT:43:LEU:HD13	20:CT:51:GLU:HG3	1.82	0.62
13:CM:3:ARG:HD3	53:D4:60:GLU:HB2	1.82	0.62
31:DE:77:ILE:HG22	31:DE:78:LEU:N	2.09	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:320:A:H3'	32:DF:136:THR:CG2	2.30	0.62
49:B0:41:ARG:N	49:B0:41:ARG:HD2	2.08	0.62
58:D9:13:LYS:O	58:D9:27:CYS:HA	2.00	0.62
3:AC:47:LEU:CD2	3:AC:68:VAL:HG11	2.28	0.62
5:AE:11:ILE:HD11	5:AE:33:VAL:HG23	1.81	0.62
1:CA:64:G:N2	1:CA:68:G:O6	2.31	0.62
34:DH:85:LYS:HD3	34:DH:133:VAL:HB	1.81	0.62
30:BD:8:PRO:C	30:BD:10:THR:H	2.03	0.62
19:AS:6:LYS:CD	19:AS:7:LYS:HE2	2.29	0.62
47:DY:45:VAL:O	47:DY:46:LYS:HB2	2.00	0.62
10:AJ:9:ARG:O	10:AJ:16:LEU:HD23	2.00	0.62
27:BA:2317:C:H2'	27:BA:2318:G:H5'	1.81	0.62
25:AY:17:G:N2	25:AY:54:U:H6	1.97	0.62
8:CH:111:ILE:HG22	8:CH:112:LEU:N	2.14	0.62
1:AA:1172:C:H2'	1:AA:1173:G:C8	2.35	0.62
25:AY:32:U:H2'	25:AY:34:U:OP2	2.00	0.62
27:DA:851:U:OP1	52:D3:49:LYS:NZ	2.31	0.62
29:DC:79:LYS:HA	29:DC:97:GLU:CD	2.20	0.62
1:CA:763:G:H2'	1:CA:764:C:C6	2.35	0.62
16:AP:31:LYS:HG2	16:AP:32:TYR:N	2.15	0.62
27:DA:92:A:H2'	27:DA:93:G:C8	2.34	0.62
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.33	0.62
29:BC:44:HIS:CD2	29:BC:175:VAL:HA	2.35	0.62
29:BC:41:VAL:HG23	29:BC:178:ALA:HB3	1.81	0.62
27:BA:2235:G:H2'	27:BA:2236:C:C6	2.33	0.62
24:AX:58:A:H4'	24:AX:59:A:OP1	1.99	0.62
6:AF:39:LYS:HG2	6:AF:40:VAL:H	1.65	0.62
32:BF:201:VAL:HA	32:BF:204:ASN:HB3	1.82	0.62
27:DA:2259:G:H1'	27:DA:2427:C:C2	2.35	0.62
35:DI:56:LYS:HG3	35:DI:57:ARG:HD2	1.82	0.62
44:DV:12:TYR:N	44:DV:12:TYR:CD2	2.68	0.62
35:BI:115:ALA:HB3	35:BI:129:THR:H	1.63	0.62
27:DA:2700:C:HO2'	27:DA:2701:C:H5'	1.64	0.62
40:DR:84:ALA:N	40:DR:85:PRO:CD	2.62	0.62
42:DT:13:ARG:NH1	42:DT:15:VAL:HG12	2.14	0.62
30:DD:43:ARG:HG2	30:DD:54:ARG:O	1.99	0.62
28:DB:62:C:H2'	28:DB:63:G:C4'	2.30	0.62
39:BQ:12:GLN:HE21	39:BQ:73:PRO:CD	2.11	0.62
1:CA:1288:A:H1'	1:CA:1352:C:O2'	2.00	0.62
31:DE:11:MET:HB3	31:DE:24:THR:HA	1.82	0.62
31:DE:35:GLN:HB3	31:DE:48:GLN:HB3	1.80	0.62
31:DE:57:LYS:C	31:DE:59:VAL:H	2.01	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:115:GLY:HA2	10:AJ:58:ASP:OD1	1.99	0.62
31:BE:61:ARG:HG2	31:BE:62:PRO:CD	2.29	0.62
5:CE:146:ALA:O	5:CE:149:GLU:N	2.29	0.62
2:AB:27:LYS:O	2:AB:194:PRO:HD2	1.99	0.62
19:AS:63:THR:H	19:AS:66:MET:CG	2.12	0.62
1:CA:1206:G:O4'	3:CC:194:GLY:HA2	2.00	0.62
3:CC:32:LEU:O	3:CC:36:ASP:HB2	1.99	0.62
8:AH:26:VAL:HG13	8:AH:59:LEU:HB2	1.81	0.62
50:B1:77:ALA:O	50:B1:82:LEU:HD21	1.99	0.62
30:BD:129:ASN:O	30:BD:193:VAL:HG12	1.98	0.62
29:DC:20:TYR:HE1	29:DC:22:ILE:HD13	1.65	0.62
2:AB:144:ARG:HB2	2:AB:148:TYR:CE2	2.35	0.62
29:BC:27:ARG:C	29:BC:34:THR:N	2.53	0.62
4:AD:58:LEU:HD13	4:AD:59:ARG:N	2.15	0.62
43:DU:83:LEU:HD12	43:DU:113:ALA:HB2	1.82	0.62
31:DE:175:VAL:HG12	31:DE:182:LEU:HD13	1.81	0.62
39:BQ:68:ILE:HD13	39:BQ:103:MET:HG2	1.82	0.62
27:DA:851:U:O2'	52:D3:45:GLY:HA3	1.98	0.62
27:BA:443:A:H1'	27:BA:1201:C:O4'	1.99	0.62
1:AA:375:U:OP1	16:AP:69:THR:HG21	2.00	0.62
39:DQ:41:TRP:HB3	39:DQ:94:VAL:HB	1.81	0.62
39:BQ:6:ARG:O	39:BQ:7:MET:HG3	2.00	0.62
56:D7:26:GLY:O	56:D7:30:VAL:HG23	2.00	0.62
27:DA:1666:G:C2'	27:DA:1667:G:H5'	2.29	0.62
1:CA:832:C:O2'	1:CA:833:U:H5'	1.99	0.62
22:CV:1:A:N3	22:CV:1:A:H2'	2.15	0.62
36:DN:96:GLU:H	36:DN:96:GLU:CD	2.03	0.62
27:BA:1865:G:H8	27:BA:1865:G:H5''	1.65	0.62
55:B6:42:TRP:CE3	55:B6:42:TRP:HA	2.35	0.62
38:BP:146:VAL:HG13	38:BP:147:LEU:N	2.15	0.62
38:BP:58:THR:O	38:BP:61:ARG:NH2	2.33	0.62
20:AT:32:ALA:O	20:AT:36:LEU:HD23	1.99	0.62
20:AT:84:LEU:O	20:AT:88:VAL:HG23	2.00	0.62
42:DT:27:THR:CG2	42:DT:28:VAL:H	2.04	0.62
27:BA:2481:G:HO2'	27:BA:2482:G:P	2.22	0.62
27:BA:2475:C:N4	27:BA:2529:G:H22	1.97	0.62
38:DP:23:PRO:HB2	38:DP:33:ARG:CG	2.30	0.62
18:CR:40:LEU:CD1	18:CR:40:LEU:H	1.98	0.62
42:DT:62:THR:CG2	42:DT:75:ILE:HG12	2.29	0.62
3:AC:5:ILE:CD1	3:AC:6:HIS:N	2.63	0.62
1:AA:1139:G:N2	1:AA:1143:G:N1	2.48	0.62
2:AB:8:LYS:O	2:AB:12:GLU:HG3	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1210:A:H5'	27:DA:1212:G:H5'	1.82	0.62
19:CS:44:MET:O	19:CS:62:ILE:HG21	1.99	0.62
1:CA:1226:C:N4	13:CM:104:ARG:HD2	2.15	0.62
1:AA:495:A:H4'	1:AA:496:A:OP1	1.99	0.62
27:DA:2334:G:H5'	41:DS:13:ARG:HG2	1.80	0.62
41:DS:19:LYS:C	41:DS:20:ARG:NH1	2.54	0.62
1:CA:20:U:H2'	1:CA:21:G:O4'	2.00	0.62
51:B2:4:SER:HA	51:B2:7:ARG:HH11	1.65	0.62
30:DD:182:LEU:HB2	30:DD:271:ILE:O	1.99	0.62
27:DA:2389:G:H5''	27:DA:2390:U:H5'	1.81	0.62
15:AO:6:GLU:O	15:AO:8:LYS:N	2.32	0.62
51:B2:28:LYS:HD2	51:B2:53:LEU:CD2	2.30	0.62
35:DI:94:ALA:CB	35:DI:116:LEU:HD21	2.30	0.62
27:BA:1991:U:H2'	27:BA:1992:G:H5''	1.81	0.62
25:CY:14:A:H1'	25:CY:21:A:N6	2.13	0.62
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.35	0.62
7:CG:113:GLU:HB2	7:CG:119:ARG:CG	2.28	0.62
27:BA:402:A:C2'	27:BA:403:U:H5'	2.30	0.62
27:DA:1751:C:H2'	27:DA:1752:C:C6	2.35	0.62
27:BA:2537:U:H2'	27:BA:2538:C:C6	2.35	0.62
27:DA:1259:G:H2'	27:DA:1260:G:C8	2.35	0.62
27:DA:90:U:O2'	27:DA:92:A:H5''	2.00	0.62
39:BQ:48:GLU:HG3	39:BQ:52:VAL:CG2	2.29	0.62
1:AA:382:A:H2'	1:AA:383:A:C8	2.35	0.62
44:BV:98:GLU:OE1	44:BV:100:ARG:HD3	1.99	0.62
27:DA:2795:G:C2	27:DA:2799:C:H5'	2.35	0.62
33:BG:38:VAL:HG22	33:BG:93:THR:HG23	1.80	0.62
30:DD:197:GLY:O	30:DD:198:ASN:HB3	2.00	0.62
13:AM:90:LEU:HA	13:AM:93:ARG:HB2	1.82	0.62
3:CC:5:ILE:CD1	3:CC:6:HIS:H	2.13	0.62
48:DZ:43:PHE:CE2	48:DZ:85:VAL:HG11	2.34	0.62
38:DP:101:VAL:HG23	38:DP:102:ARG:H	1.64	0.62
41:DS:67:ARG:HG2	41:DS:67:ARG:HH11	1.64	0.62
43:DU:65:ILE:HG12	43:DU:96:ALA:CB	2.30	0.62
1:AA:1225:A:OP1	13:AM:102:ARG:HA	1.99	0.62
32:DF:187:VAL:HG12	38:DP:7:ARG:HH21	1.64	0.62
48:BZ:9:ARG:NH2	48:BZ:25:GLY:O	2.33	0.62
12:CL:22:PRO:C	12:CL:24:LEU:N	2.53	0.62
12:CL:22:PRO:O	12:CL:24:LEU:N	2.32	0.62
26:CZ:1:KBE:HEA	26:CZ:1:KBE:N	2.14	0.62
34:DH:30:LYS:NZ	34:DH:83:TYR:OH	2.33	0.62
27:DA:1505:C:H3'	27:DA:1506:C:C6	2.35	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DG:5:VAL:HG12	53:D4:51:TYR:CE1	2.35	0.62
27:DA:614(C):A:O2'	27:DA:615:G:O5'	2.16	0.62
27:DA:528:A:C2	27:DA:2042:A:H2'	2.35	0.62
3:AC:108:ASN:HD22	3:AC:111:LEU:CD1	2.13	0.62
30:BD:267:SER:O	30:BD:269:PHE:N	2.33	0.62
27:DA:1721:G:C6	27:DA:1739:U:H5'	2.35	0.62
8:AH:20:TYR:HA	8:AH:65:TYR:HE2	1.64	0.62
36:BN:34:LEU:O	36:BN:49:GLY:HA3	2.00	0.62
37:BO:43:VAL:HG21	37:BO:52:VAL:CG2	2.30	0.62
1:AA:1068:G:OP2	1:AA:1094:G:H5'	1.98	0.62
7:CG:113:GLU:CB	7:CG:119:ARG:HG2	2.30	0.62
27:BA:1459:G:H2'	27:BA:1459:G:N3	2.15	0.62
44:DV:77:ALA:O	44:DV:79:VAL:HG12	2.00	0.62
4:AD:51:PRO:HB3	4:AD:55:ALA:CB	2.30	0.62
1:AA:1434:A:H2'	1:AA:1435:G:H5'	1.81	0.62
1:CA:541:G:H2'	1:CA:542:G:H8	1.64	0.62
4:AD:14:ARG:HG3	4:AD:15:GLU:N	2.15	0.61
33:BG:56:ALA:HB2	33:BG:153:ARG:CZ	2.30	0.61
42:DT:88:ILE:HG22	42:DT:89:VAL:CG2	2.23	0.61
27:DA:2513:G:N2	31:DE:143:ASN:HD21	1.97	0.61
36:DN:1:MET:C	36:DN:1:MET:HE2	2.20	0.61
33:DG:114:ILE:HG22	33:DG:115:ARG:N	2.15	0.61
36:DN:55:VAL:HG22	36:DN:126:PRO:CA	2.30	0.61
17:AQ:59:ILE:N	17:AQ:59:ILE:HD13	2.14	0.61
31:DE:77:ILE:CG2	31:DE:78:LEU:H	2.11	0.61
28:DB:28:C:H2'	28:DB:29:A:H8	1.63	0.61
27:DA:320:A:H3'	32:DF:136:THR:HG21	1.82	0.61
1:AA:1117:G:O3'	9:AI:104:ARG:NH1	2.33	0.61
1:AA:1128:C:H4'	9:AI:16:ARG:HH12	1.65	0.61
27:DA:747:U:C5	54:D5:3:LYS:HB2	2.35	0.61
31:BE:54:GLN:CG	31:BE:55:ASN:N	2.60	0.61
1:AA:92:C:C3'	1:AA:93:G:H8	2.14	0.61
27:BA:1503:U:H2'	27:BA:1504:C:C6	2.35	0.61
39:DQ:110:THR:HG23	39:DQ:113:GLN:HB2	1.80	0.61
20:CT:31:SER:HA	20:CT:34:LYS:HD2	1.82	0.61
27:BA:2015:A:N3	54:B5:2:ALA:HA	2.14	0.61
34:BH:85:LYS:HD3	34:BH:141:VAL:HG12	1.81	0.61
3:AC:41:GLY:O	3:AC:45:LYS:HG3	2.00	0.61
1:CA:15:G:H4'	5:CE:24:ARG:HH22	1.65	0.61
19:AS:49:ILE:H	19:AS:49:ILE:CD1	2.11	0.61
1:CA:1145:C:H5'	1:CA:1146:A:OP1	2.00	0.61
30:BD:106:ILE:O	30:BD:106:ILE:HG23	2.00	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:35:LYS:NZ	30:DD:103:ARG:HA	2.15	0.61
50:D1:64:ALA:O	50:D1:67:ILE:HG13	2.00	0.61
27:BA:1045:A:H2'	27:BA:1045:A:N3	2.15	0.61
27:DA:1493:C:H4'	27:DA:1494:A:OP1	2.00	0.61
7:AG:108:ALA:HA	7:AG:111:ARG:HD2	1.80	0.61
27:BA:1034:G:H5'	58:B9:18:ARG:HD2	1.82	0.61
27:DA:533:G:H5'	43:DU:24:TYR:CE2	2.35	0.61
36:BN:120:LEU:HD22	36:BN:122:VAL:HG23	1.82	0.61
1:CA:600:C:OP1	8:CH:97:VAL:HG12	2.00	0.61
39:DQ:135:ASP:HB2	48:DZ:48:ARG:NH1	2.15	0.61
27:DA:639:U:H2'	27:DA:640:C:C6	2.34	0.61
31:BE:7:VAL:HG13	31:BE:27:LEU:HB3	1.82	0.61
1:AA:600:C:OP1	8:AH:97:VAL:HG12	2.00	0.61
27:DA:2884:U:H1'	54:D5:52:TYR:OH	2.00	0.61
39:DQ:80:GLU:HB2	49:D0:5:LYS:HE3	1.82	0.61
45:BW:32:ALA:HB1	45:BW:51:LEU:HD11	1.82	0.61
19:AS:33:THR:OG1	19:AS:34:TRP:N	2.32	0.61
27:DA:519:U:H2'	27:DA:520:G:H8	1.64	0.61
27:BA:2037:G:H2'	27:BA:2038:G:C8	2.35	0.61
1:CA:579:G:H5'	1:CA:728:A:H1'	1.82	0.61
27:DA:1620:G:O4'	56:D7:1:MET:HA	2.00	0.61
25:AY:21:A:H2'	25:AY:22:G:O4'	2.00	0.61
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.35	0.61
55:B6:19:ARG:O	55:B6:20:ASN:O	2.17	0.61
1:CA:983:A:HO2'	1:CA:1049:U:HO2'	1.46	0.61
13:AM:94:ARG:O	13:AM:96:LEU:N	2.23	0.61
42:BT:32:TYR:O	42:BT:33:LYS:HB2	2.00	0.61
33:BG:138:GLN:NE2	33:BG:153:ARG:HB2	2.15	0.61
27:DA:1039:G:N1	27:DA:1117:G:C5	2.68	0.61
27:DA:1039:G:N1	27:DA:1117:G:N7	2.47	0.61
42:DT:28:VAL:CG2	42:DT:46:GLU:HA	2.30	0.61
27:BA:2476:A:C2	27:BA:2477:C:C6	2.87	0.61
27:DA:2870:C:C5'	40:DR:65:LEU:HD21	2.28	0.61
43:DU:102:GLU:CA	43:DU:104:GLN:HE22	2.13	0.61
36:DN:65:LYS:O	36:DN:67:LEU:N	2.33	0.61
12:CL:44:LYS:CB	12:CL:45:PRO:CD	2.73	0.61
1:CA:1118:C:H5''	9:CI:104:ARG:HG2	1.81	0.61
37:DO:58:VAL:HG23	37:DO:59:LYS:N	2.14	0.61
7:AG:13:GLN:O	7:AG:24:THR:HG21	2.00	0.61
1:CA:538:G:O2'	1:CA:539:A:H5'	2.00	0.61
27:DA:2093:G:H1'	27:DA:2198:A:H2	1.65	0.61
27:DA:1158:C:H4'	52:D3:32:GLN:HB2	1.82	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1914:C:H2'	27:DA:1915:U:O4'	1.99	0.61
2:AB:30:ARG:HH21	2:AB:194:PRO:HG2	1.64	0.61
6:CF:39:LYS:HB3	6:CF:62:TRP:HZ3	1.65	0.61
2:AB:155:LEU:O	2:AB:155:LEU:HD13	2.00	0.61
39:DQ:22:LYS:HG2	39:DQ:23:GLY:N	2.15	0.61
15:CO:24:SER:N	15:CO:28:GLN:HE21	1.98	0.61
41:BS:37:ALA:CB	41:BS:99:LYS:NZ	2.63	0.61
19:AS:6:LYS:HD3	19:AS:7:LYS:HE2	1.81	0.61
4:CD:133:VAL:HG11	4:CD:138:TYR:HD1	1.66	0.61
14:CN:4:LYS:O	14:CN:7:ILE:HG12	2.00	0.61
27:DA:1986:A:C2'	27:DA:1987:G:H5''	2.30	0.61
27:BA:883:G:C2'	27:BA:884:C:H5'	2.30	0.61
43:DU:108:GLU:CG	44:DV:44:LYS:HZ2	2.13	0.61
27:BA:699:A:H4'	27:BA:1634:A:N7	2.15	0.61
27:BA:860:U:O2'	27:BA:861:A:H5'	2.00	0.61
32:BF:72:ARG:HB3	32:BF:72:ARG:NH1	2.13	0.61
27:DA:2330:G:O2'	49:D0:41:ARG:HB2	1.99	0.61
1:AA:681:C:H2'	1:AA:682:G:C8	2.35	0.61
39:DQ:41:TRP:C	39:DQ:42:ILE:HD12	2.21	0.61
27:BA:1713:U:O2'	27:BA:1714:G:H5'	2.00	0.61
9:AI:122:ALA:HB1	9:AI:123:PRO:HD2	1.81	0.61
1:CA:743:U:H2'	1:CA:744:C:H6	1.65	0.61
34:DH:106:THR:HG22	34:DH:112:PRO:HB3	1.82	0.61
55:B6:11:LEU:HD22	55:B6:11:LEU:C	2.21	0.61
35:DI:81:VAL:CG1	35:DI:82:ARG:H	1.99	0.61
44:DV:24:LYS:HZ3	44:DV:26:ASP:HA	1.63	0.61
53:B4:40:ILE:HG23	53:B4:57:ILE:CG2	2.30	0.61
4:AD:49:ARG:NH1	4:AD:50:ARG:N	2.48	0.61
42:DT:27:THR:HG23	42:DT:28:VAL:N	2.14	0.61
57:B8:62:LEU:N	57:B8:63:PRO:HD2	2.14	0.61
27:BA:89:G:C3'	27:BA:90:U:H5''	2.08	0.61
38:DP:144:GLU:N	38:DP:145:PRO:CD	2.60	0.61
32:BF:3:GLU:O	32:BF:19:GLU:HB2	2.00	0.61
39:DQ:114:ALA:O	39:DQ:118:LEU:HG	1.99	0.61
1:AA:267:C:P	17:AQ:67:LYS:HB2	2.40	0.61
42:DT:31:SER:HB2	42:DT:32:TYR:CD2	2.35	0.61
44:BV:19:LYS:HE2	44:BV:19:LYS:HA	1.82	0.61
9:CI:106:ALA:O	9:CI:108:VAL:HG13	2.00	0.61
9:CI:99:LEU:O	9:CI:99:LEU:HD13	2.01	0.61
30:DD:133:LEU:CB	30:DD:173:VAL:HG11	2.22	0.61
31:DE:199:ARG:CZ	31:DE:199:ARG:HB2	2.31	0.61
1:CA:1324:A:O4'	1:CA:1362:C:H4'	2.01	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B6:34:LEU:O	55:B6:35:GLU:HB2	1.99	0.61
43:BU:112:ARG:NH1	43:BU:112:ARG:HG2	2.07	0.61
2:AB:97:TRP:CZ2	2:AB:102:LEU:HD13	2.31	0.61
11:CK:87:THR:HG22	11:CK:88:GLY:N	2.15	0.61
5:AE:71:LEU:HD11	5:AE:113:ALA:O	2.00	0.61
27:DA:2539:C:H2'	27:DA:2540:C:C6	2.34	0.61
24:AX:6:G:H1	24:AX:67:C:N4	1.87	0.61
1:CA:962:C:H2'	1:CA:963:G:H8	1.65	0.61
2:CB:178:ARG:NH2	2:CB:196:LEU:HA	2.11	0.61
21:AU:6:ARG:HG3	21:AU:15:ARG:NH2	2.15	0.61
34:DH:144:VAL:O	34:DH:148:ILE:HG12	2.00	0.61
38:DP:93:GLY:O	38:DP:123:LEU:HB2	1.99	0.61
12:AL:80:VAL:HG11	12:AL:97:ILE:CG2	2.31	0.61
11:CK:127:LYS:HE2	11:CK:127:LYS:CA	2.30	0.61
28:BB:65:C:H2'	28:BB:66:A:H5'	1.83	0.61
27:BA:71:A:H2	46:BX:31:HIS:CE1	2.13	0.61
1:AA:663:A:O2'	1:AA:664:G:H5'	2.00	0.61
27:BA:848:G:H8	27:BA:848:G:H5'	1.66	0.61
7:AG:124:LEU:O	7:AG:127:ALA:HB3	2.00	0.61
1:CA:606:G:N2	1:CA:631:G:H2'	2.14	0.61
27:DA:1223:G:H5'	27:DA:1224:C:OP2	2.01	0.61
27:DA:1509(B):A:H2'	27:DA:1510:G:C8	2.35	0.61
50:D1:11:ARG:HA	50:D1:44:PRO:HG2	1.82	0.61
27:DA:2329:G:H2'	27:DA:2330:G:C8	2.35	0.61
39:BQ:109:VAL:HG12	39:BQ:110:THR:N	2.13	0.61
5:AE:59:GLY:O	5:AE:63:ARG:HG3	2.00	0.61
51:B2:2:LYS:HE3	51:B2:2:LYS:HA	1.82	0.61
1:CA:125:U:H2'	1:CA:126:G:C8	2.34	0.61
42:BT:50:ILE:HD12	42:BT:99:LEU:CD1	2.30	0.61
40:BR:78:LYS:O	40:BR:82:GLU:HB3	2.00	0.61
1:CA:409:G:P	4:CD:24:GLU:HB2	2.40	0.61
27:BA:2473:U:O2	27:BA:2473:U:H2'	1.99	0.61
27:DA:2319:G:O2'	27:DA:2320:A:O5'	2.14	0.61
27:BA:601:C:O2'	27:BA:605:C:OP1	2.18	0.61
27:BA:1345:C:O2'	27:BA:1346:G:H5'	2.01	0.61
47:BY:46:LYS:HG2	47:BY:47:LYS:H	1.64	0.61
40:BR:28:LEU:HD22	40:BR:116:LEU:HD11	1.81	0.61
27:DA:1594:G:H5'	27:DA:1594:G:H8	1.65	0.61
3:CC:5:ILE:HD13	3:CC:6:HIS:H	1.65	0.61
48:DZ:18:ARG:HH11	48:DZ:18:ARG:HG2	1.65	0.61
27:BA:2481:G:O2'	27:BA:2482:G:P	2.58	0.61
36:DN:57:ALA:HB2	36:DN:123:TYR:O	1.99	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:58:ASP:O	36:DN:60:ILE:N	2.28	0.61
9:CI:96:LEU:CG	9:CI:102:LEU:HB2	2.30	0.61
10:AJ:31:GLY:HA2	10:AJ:76:ASN:ND2	2.15	0.61
1:CA:265:G:H2'	1:CA:267:C:H5	1.64	0.61
41:BS:90:GLY:O	41:BS:92:TYR:N	2.32	0.61
1:CA:192:U:H2'	1:CA:193:C:C6	2.35	0.61
4:CD:110:PHE:HD1	4:CD:110:PHE:H	1.48	0.61
13:CM:90:LEU:HA	13:CM:93:ARG:CB	2.31	0.61
3:AC:63:ASN:HA	3:AC:98:ASN:CB	2.30	0.61
3:CC:46:GLU:HB3	3:CC:83:ARG:HH22	1.65	0.61
10:AJ:7:LYS:HB2	10:AJ:97:GLU:CG	2.30	0.61
5:AE:78:HIS:CD2	8:AH:104:ARG:HE	2.18	0.61
27:DA:2262:U:H4'	27:DA:2328:A:H2	1.65	0.61
45:DW:50:VAL:HG22	45:DW:105:VAL:CG2	2.27	0.61
39:DQ:27:VAL:HG21	39:DQ:134:ARG:HG2	1.83	0.61
46:DX:63:LYS:HA	46:DX:72:LYS:HA	1.82	0.61
27:BA:2103:C:H2'	27:BA:2104:G:H5''	1.82	0.61
4:CD:31:CYS:C	4:CD:33:MET:H	2.02	0.61
4:CD:138:TYR:CD2	4:CD:139:ARG:N	2.66	0.61
27:BA:1050:A:C2	27:BA:2751:G:C4	2.88	0.61
27:BA:2724:C:OP1	31:BE:118:LYS:HE3	2.00	0.61
35:DI:11:ASN:ND2	35:DI:12:LEU:HD22	2.15	0.61
1:AA:197:A:N6	1:AA:221:C:H5'	2.15	0.61
7:CG:105:VAL:HG12	7:CG:109:ASN:ND2	2.15	0.61
6:AF:22:GLU:HA	6:AF:22:GLU:OE2	2.00	0.61
27:BA:228:A:H5'	27:BA:229:A:OP2	1.99	0.61
39:BQ:51:ARG:NH1	39:BQ:52:VAL:HG22	2.15	0.61
28:DB:85:G:H2'	28:DB:86:G:C8	2.35	0.61
27:DA:971:C:H2'	27:DA:972:G:O4'	2.00	0.61
30:BD:245:PRO:O	30:BD:246:PRO:C	2.38	0.61
28:BB:114:C:O2'	41:BS:46:VAL:HG13	2.00	0.61
27:BA:121:G:H4'	27:BA:149:A:H5'	1.82	0.61
6:AF:71:ARG:HG3	6:AF:71:ARG:HH11	1.66	0.61
12:CL:109:ASP:O	12:CL:111:LYS:HG3	2.01	0.61
38:BP:105:LEU:O	38:BP:106:LEU:HB3	1.99	0.61
38:BP:114:ILE:HD12	38:BP:115:LEU:H	1.63	0.61
27:DA:890:A:H2'	27:DA:892:G:O4'	2.00	0.61
33:BG:47:LYS:HG2	33:BG:82:LEU:HD12	1.82	0.61
33:BG:64:THR:OG1	33:BG:94:LEU:HD21	2.00	0.61
48:DZ:9:ARG:HD2	48:DZ:35:LYS:HD2	1.81	0.61
10:CJ:5:ARG:NH2	10:CJ:99:LYS:HD2	2.16	0.61
42:DT:28:VAL:HG22	42:DT:46:GLU:C	2.21	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:661:C:O3'	38:BP:18:ARG:HD2	1.99	0.61
38:DP:146:VAL:HG13	38:DP:147:LEU:N	2.15	0.61
38:BP:23:PRO:HB3	38:BP:29:LYS:O	2.00	0.61
30:BD:35:LYS:HD2	30:BD:104:TYR:CD1	2.35	0.61
13:AM:23:TYR:HE1	13:AM:71:ARG:HB2	1.66	0.61
1:AA:453:A:H4'	16:AP:72:ARG:HG3	1.81	0.61
42:DT:42:ILE:HG21	42:DT:83:ILE:HD11	1.83	0.61
9:CI:28:VAL:HA	9:CI:63:ILE:O	2.01	0.61
27:DA:1491:G:H5'	30:DD:99:ASP:OD1	2.01	0.61
1:AA:1256:A:H61	1:AA:1278:U:H1'	1.64	0.61
27:DA:2056:G:N2	54:D5:4:HIS:O	2.34	0.61
27:BA:2863:C:H2'	27:BA:2864:G:H5''	1.82	0.61
31:BE:59:VAL:CG1	31:BE:63:LEU:HD12	2.24	0.61
47:DY:7:VAL:HG21	47:DY:8:LYS:HZ2	1.63	0.61
49:B0:41:ARG:H	49:B0:41:ARG:CD	2.09	0.61
27:BA:996:A:O3'	43:BU:92:ARG:HB3	2.00	0.61
34:BH:85:LYS:CD	34:BH:133:VAL:HB	2.30	0.61
40:DR:24:GLN:HE22	40:DR:36:THR:HG21	1.65	0.61
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.81	0.61
6:CF:74:ASP:CA	6:CF:77:ARG:HH12	2.11	0.61
35:BI:75:LEU:HD11	35:BI:105:HIS:NE2	2.16	0.61
27:DA:1340:U:H1'	27:DA:1603:A:H5''	1.81	0.61
39:BQ:21:THR:HG21	39:BQ:101:ARG:HB2	1.82	0.61
36:BN:67:LEU:N	36:BN:67:LEU:HD12	2.15	0.61
37:BO:69:ILE:HD12	37:BO:77:ILE:HG23	1.82	0.61
27:DA:1854:A:H3'	27:DA:1855:G:H8	1.64	0.61
31:BE:8:LYS:HE2	31:BE:192:ASN:ND2	2.16	0.61
1:AA:59:A:H5'	1:AA:60:A:C5'	2.30	0.61
1:AA:382:A:H2'	1:AA:383:A:H8	1.66	0.61
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.64	0.61
27:DA:418:G:O2'	27:DA:419:C:H5'	2.01	0.61
27:BA:2201:C:O2'	27:BA:2202:C:H5'	1.99	0.61
18:CR:22:VAL:O	18:CR:25:THR:HB	2.00	0.61
27:BA:1509(A):A:H2'	27:BA:1509(B):A:C8	2.35	0.61
25:AY:27:C:H42	25:AY:41:G:H1	1.47	0.61
41:BS:49:VAL:HG22	41:BS:80:LEU:HD22	1.80	0.61
1:AA:707:C:O2'	1:AA:708:C:H5'	2.00	0.61
9:CI:91:ASP:C	9:CI:93:ARG:H	2.02	0.61
35:BI:10:GLU:HG2	35:BI:11:ASN:N	2.15	0.61
27:DA:2703:C:H2'	27:DA:2704:C:H6	1.64	0.61
55:B6:15:GLU:OE1	55:B6:41:PRO:HB2	2.01	0.61
35:BI:91:SER:HA	35:BI:121:LYS:HG3	1.83	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BI:131:LYS:HG3	35:BI:132:PRO:CD	2.27	0.61
14:CN:23:ARG:NH1	14:CN:30:ALA:HB2	2.16	0.61
55:D6:41:PRO:HD3	55:D6:46:HIS:CA	2.29	0.61
10:CJ:16:LEU:O	10:CJ:20:ALA:HB2	2.00	0.61
30:DD:246:PRO:HB2	30:DD:255:LYS:HG2	1.83	0.61
28:DB:20:C:C2'	28:DB:21:G:H5'	2.27	0.61
33:DG:135:LEU:O	33:DG:154:GLY:HA2	2.00	0.61
33:DG:76:SER:CB	33:DG:84:LYS:H	2.12	0.61
48:DZ:75:LEU:H	48:DZ:75:LEU:CD2	1.89	0.61
40:DR:33:ARG:HG3	40:DR:115:GLU:CB	2.23	0.61
2:CB:171:ALA:HA	2:CB:174:VAL:HG23	1.83	0.61
48:BZ:143:LEU:HD12	48:BZ:148:SER:O	2.01	0.61
47:BY:68:HIS:N	47:BY:71:LYS:NZ	2.48	0.61
42:DT:100:TYR:HB3	42:DT:103:ARG:HE	1.65	0.61
1:CA:266:G:C5'	1:CA:267:C:C5	2.83	0.61
13:CM:69:GLU:OE1	13:CM:72:ALA:HB3	2.01	0.61
13:CM:91:ARG:CD	19:CS:81:ARG:HH22	2.12	0.61
2:AB:47:THR:HG23	2:AB:202:PRO:HG2	1.81	0.61
27:BA:589:C:H2'	27:BA:590:A:C8	2.35	0.61
27:DA:1266:G:P	54:D5:19:ARG:HH12	2.22	0.61
43:BU:17:ILE:HG23	43:BU:39:LEU:HD12	1.82	0.61
30:BD:184:LYS:HB2	30:BD:269:PHE:HB3	1.82	0.61
1:AA:636:U:H5'	17:AQ:2:PRO:HG2	1.82	0.61
28:DB:87:G:H2'	28:DB:88:C:H5''	1.82	0.61
19:CS:58:VAL:HG23	19:CS:58:VAL:O	1.99	0.61
32:DF:114:VAL:HG21	32:DF:202:PHE:CZ	2.35	0.61
37:DO:70:LYS:HA	37:DO:76:ALA:HB2	1.82	0.61
36:DN:35:ARG:HE	36:DN:42:TRP:HH2	1.48	0.61
53:D4:36:VAL:HB	53:D4:37:PRO:HD2	1.81	0.61
32:DF:153:SER:OG	32:DF:190:GLU:HG3	2.00	0.61
29:DC:38:ASP:HB2	29:DC:181:PRO:CB	2.31	0.61
27:DA:1677:A:H2'	27:DA:1678:G:C8	2.35	0.61
7:AG:32:ARG:HH11	7:AG:32:ARG:HG2	1.66	0.61
27:BA:1820:U:C4	30:BD:160:GLY:HA3	2.35	0.61
29:BC:187:ASP:O	29:BC:189:ILE:N	2.33	0.61
3:AC:28:GLN:HA	3:AC:28:GLN:NE2	2.15	0.61
6:AF:30:LEU:HB3	6:AF:35:ALA:HB3	1.81	0.61
57:B8:35:GLN:O	57:B8:35:GLN:HG3	2.00	0.61
27:DA:363(F):A:H4'	27:DA:363(F):A:OP1	2.00	0.61
27:DA:2236:C:H2'	27:DA:2237:G:H5'	1.82	0.61
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.34	0.61
28:DB:75:G:H2'	48:DZ:84:HIS:CD2	2.35	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DR:62:ALA:HA	40:DR:65:LEU:CB	2.28	0.61
41:DS:88:ASP:CG	41:DS:89:ARG:H	2.04	0.61
32:BF:24:LEU:HB3	32:BF:25:PRO:HD2	1.83	0.61
33:DG:103:LEU:HA	33:DG:106:LEU:HB3	1.83	0.61
33:DG:43:LEU:HB2	33:DG:88:ILE:HG12	1.82	0.61
27:DA:1883:G:HO2'	27:DA:1884:A:H8	1.47	0.61
27:DA:1140:C:O3'	36:DN:25:ARG:NH1	2.33	0.61
44:BV:15:GLU:HB3	44:BV:16:PRO:CD	2.28	0.61
7:CG:16:LEU:HD11	9:CI:42:ARG:HG3	1.81	0.61
3:CC:121:ALA:HB1	3:CC:188:LEU:O	2.01	0.61
32:DF:136:THR:HG23	32:DF:137:LYS:H	1.66	0.61
31:BE:14:ILE:HD13	31:BE:21:VAL:CG2	2.30	0.61
27:BA:2863:C:H2'	27:BA:2864:G:C5'	2.31	0.61
31:BE:57:LYS:HZ3	31:BE:59:VAL:CG1	2.13	0.61
11:CK:91:ARG:C	11:CK:91:ARG:HD2	2.21	0.61
48:DZ:56:ILE:CG2	48:DZ:57:VAL:H	2.11	0.61
27:BA:2579:C:O2'	27:BA:2580:U:H5'	2.00	0.61
27:BA:747:U:C2	54:B5:2:ALA:CB	2.83	0.61
41:DS:17:ARG:HG3	41:DS:18:ILE:N	2.16	0.61
27:BA:1581:G:H3'	27:BA:1582:C:C6	2.35	0.61
42:DT:49:VAL:O	42:DT:49:VAL:HG13	2.00	0.61
27:DA:686:G:N2	27:DA:788:A:H61	1.98	0.61
8:AH:41:ARG:HD3	8:AH:42:GLU:OE2	2.00	0.61
45:BW:29:LEU:O	45:BW:33:ARG:HG3	2.00	0.61
1:CA:707:C:O2'	1:CA:708:C:H5'	2.01	0.61
23:AW:73:C:H2'	23:AW:74:C:H5'	1.82	0.61
27:BA:184:C:H2'	27:BA:185:U:C6	2.35	0.61
2:CB:104:ASN:OD1	2:CB:107:THR:HB	1.98	0.61
42:BT:62:THR:HB	42:BT:75:ILE:HG12	1.82	0.61
37:BO:87:ILE:HG22	37:BO:88:ASN:N	2.14	0.61
27:DA:1360:A:H5'	27:DA:1361:G:OP2	2.00	0.61
27:DA:2897:U:O2	27:DA:2897:U:H2'	2.00	0.61
4:AD:146:ILE:N	4:AD:146:ILE:HD12	2.16	0.61
12:CL:55:VAL:O	12:CL:62:GLU:HA	2.00	0.61
1:AA:1081:G:O2'	1:AA:1082:G:H5'	2.00	0.61
35:DI:102:SER:HA	35:DI:107:VAL:H	1.66	0.61
35:DI:129:THR:HG23	35:DI:130:TYR:H	1.63	0.61
35:BI:120:ILE:HG22	35:BI:121:LYS:N	2.15	0.61
33:BG:111:LEU:CD1	33:BG:120:LEU:HD11	2.31	0.61
33:DG:42:GLY:O	33:DG:44:GLY:N	2.34	0.61
30:BD:36:PRO:HB3	30:BD:61:LEU:HD12	1.82	0.61
17:AQ:50:LYS:HE3	17:AQ:51:TYR:HE1	1.65	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1128:C:H5'	9:CI:16:ARG:NH2	2.11	0.61
37:DO:42:SER:O	37:DO:43:VAL:C	2.39	0.61
27:DA:919:G:C5'	28:DB:81:G:H1'	2.31	0.61
1:AA:1134:G:H2'	1:AA:1135:U:H5'	1.81	0.61
1:AA:1254:C:H2'	1:AA:1255:G:H8	1.64	0.61
2:AB:211:ILE:O	2:AB:215:LEU:HB2	2.01	0.61
1:CA:1074:G:O3'	2:CB:103:THR:HG21	2.01	0.61
45:BW:87:PRO:HA	45:BW:93:ALA:HA	1.83	0.61
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.00	0.61
1:CA:275:G:H5'	17:CQ:14:LYS:HZ2	1.64	0.61
17:CQ:40:LYS:HD3	17:CQ:42:TYR:CZ	2.36	0.61
43:BU:90:VAL:C	43:BU:92:ARG:HD3	2.21	0.61
1:CA:1199:U:H4'	10:CJ:54:PHE:CE2	2.34	0.61
19:AS:66:MET:HE2	19:AS:66:MET:N	2.15	0.61
57:D8:59:LYS:CB	57:D8:59:LYS:NZ	2.63	0.61
30:BD:210:GLY:O	30:BD:211:ARG:CB	2.47	0.61
38:BP:47:ASP:HB2	38:BP:51:PHE:HB2	1.82	0.61
27:DA:1339:G:H21	27:DA:1603:A:H1'	1.66	0.61
20:AT:104:LEU:HD23	20:AT:105:SER:N	2.16	0.61
27:BA:34:C:C2'	27:BA:35:G:H5'	2.30	0.61
12:AL:65:ALA:HA	12:AL:95:TYR:O	2.01	0.61
34:DH:12:PRO:HG2	34:DH:48:GLY:O	2.00	0.61
1:CA:107:G:H2'	1:CA:108:G:H5'	1.82	0.61
1:CA:1141:C:H2'	1:CA:1142:G:C8	2.36	0.61
15:CO:3:ILE:H	15:CO:3:ILE:HD13	1.65	0.61
35:DI:110:ASP:CG	35:DI:112:LYS:HE3	2.21	0.61
8:AH:13:ILE:O	8:AH:17:THR:HG23	2.01	0.61
36:BN:34:LEU:HD23	36:BN:107:LEU:HD11	1.82	0.61
37:BO:6:THR:HG22	37:BO:7:TYR:N	2.13	0.61
7:CG:43:PHE:HE1	7:CG:47:CYS:SG	2.23	0.61
6:AF:21:LEU:O	6:AF:24:GLU:HG3	2.00	0.61
37:DO:4:PRO:O	37:DO:5:GLN:HB2	2.00	0.61
27:DA:2687:U:C2'	27:DA:2688:U:H5'	2.30	0.61
27:DA:486:C:H4'	45:DW:60:ASN:ND2	2.16	0.61
27:BA:1655:A:H1'	31:BE:113:PHE:CD2	2.36	0.61
27:BA:639:U:H2'	27:BA:640:C:C6	2.35	0.61
43:BU:47:TYR:O	43:BU:51:LYS:HG2	2.00	0.61
49:B0:32:ARG:HA	49:B0:64:ASP:OD1	2.01	0.61
29:DC:59:ARG:HH21	29:DC:199:HIS:CB	2.14	0.61
27:BA:435:C:H2'	27:BA:436:C:H5'	1.83	0.61
55:B6:15:GLU:CG	55:B6:18:ARG:NE	2.53	0.61
13:AM:93:ARG:NE	13:AM:93:ARG:HA	2.16	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DI:80:PRO:HA	35:DI:143:SER:CB	2.30	0.61
47:BY:37:VAL:HG21	47:BY:72:VAL:HG21	1.83	0.61
34:BH:43:VAL:HG12	34:BH:52:VAL:HA	1.83	0.61
42:DT:46:GLU:O	42:DT:65:LYS:HD2	2.00	0.61
41:DS:104:GLY:C	41:DS:106:ARG:H	2.04	0.61
33:DG:25:TYR:CZ	33:DG:32:PRO:HD3	2.36	0.61
33:DG:159:VAL:O	33:DG:159:VAL:HG23	1.99	0.61
27:DA:920:G:H2'	27:DA:921:G:C8	2.36	0.61
28:DB:27:C:O3'	41:DS:34:HIS:CE1	2.54	0.61
32:DF:162:LEU:N	32:DF:162:LEU:HD12	2.16	0.61
27:DA:2246:G:H2'	27:DA:2247:A:C8	2.35	0.61
27:DA:1168:G:O2'	27:DA:1169:G:H5'	2.01	0.61
47:BY:68:HIS:HB3	47:BY:71:LYS:HE2	1.81	0.61
55:B6:27:LYS:O	55:B6:29:ASN:N	2.33	0.61
43:BU:90:VAL:CG1	43:BU:91:ASP:H	2.03	0.61
5:AE:91:LEU:HD12	5:AE:120:THR:HG22	1.83	0.61
5:AE:91:LEU:N	5:AE:91:LEU:HD22	2.15	0.61
3:AC:14:ILE:HG12	3:AC:15:THR:N	2.13	0.61
3:AC:15:THR:CG2	3:AC:16:ARG:N	2.57	0.61
27:BA:271(A):A:H5'	27:BA:271(B):C:OP2	2.01	0.61
34:DH:148:ILE:O	34:DH:151:ILE:HB	2.00	0.61
27:DA:66:C:C2	27:DA:89:G:C2	2.89	0.61
19:AS:5:LEU:HA	19:AS:6:LYS:HZ2	1.65	0.61
42:DT:23:ARG:H	42:DT:120:ARG:HH12	1.49	0.61
1:AA:322:C:H4'	20:AT:23:ARG:HD2	1.83	0.61
35:BI:40:THR:O	35:BI:42:SER:N	2.32	0.61
5:CE:78:HIS:O	5:CE:93:PRO:HD3	2.00	0.61
27:DA:2564:A:C2	27:DA:2647:U:H4'	2.36	0.61
49:B0:25:ARG:HD2	49:B0:29:GLN:NE2	2.16	0.61
2:AB:119:GLU:O	2:AB:122:PHE:HB3	2.00	0.61
27:DA:2641:G:O3'	36:DN:76:SER:HB3	2.00	0.61
27:DA:1986:A:H2'	27:DA:1987:G:H5''	1.82	0.61
27:BA:884:C:C2'	27:BA:885:C:H5'	2.31	0.61
13:AM:27:LYS:HE3	13:AM:31:LYS:HE3	1.81	0.61
1:CA:648:A:H2'	1:CA:649:G:C8	2.36	0.61
1:CA:32:A:H2'	1:CA:33:A:C8	2.35	0.61
13:AM:79:LYS:O	13:AM:82:MET:HB3	2.01	0.61
1:CA:1274:G:N2	1:CA:1275:A:H62	1.99	0.61
59:CX:16:C:H5''	59:CX:17:C:OP2	2.01	0.61
27:DA:444:C:H4'	32:DF:49:ALA:HB2	1.83	0.61
27:DA:2250:G:C8	27:DA:2496:C:H5''	2.36	0.61
27:DA:467:G:OP1	56:D7:33:ARG:NH1	2.33	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DB:37:C:H2'	28:DB:38:C:O4'	2.01	0.61
36:DN:78:TYR:H	36:DN:78:TYR:HD1	1.45	0.61
47:DY:79:CYS:O	47:DY:81:LYS:N	2.33	0.61
27:DA:1473:G:O2'	27:DA:1474:C:H5'	2.01	0.61
29:BC:73:ARG:NH1	29:BC:93:TYR:HB2	2.16	0.61
16:AP:76:GLN:HG2	16:AP:76:GLN:O	2.01	0.61
27:BA:879:G:N2	27:BA:899:A:H1'	2.16	0.61
33:BG:141:PHE:H	33:BG:141:PHE:HD2	1.49	0.61
41:DS:66:ALA:HA	41:DS:69:VAL:CG1	2.30	0.61
28:DB:2:C:H2'	28:DB:3:C:C5	2.36	0.61
33:DG:60:LEU:O	33:DG:64:THR:HG22	2.01	0.61
30:BD:30:GLU:CD	30:BD:63:ARG:HE	2.04	0.61
36:DN:94:HIS:N	36:DN:95:PRO:CD	2.64	0.61
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.36	0.61
31:BE:54:GLN:HA	31:BE:72:VAL:HG11	1.83	0.61
1:AA:78:G:N2	1:AA:79:G:O6	2.31	0.61
41:BS:26:LEU:HD13	41:BS:87:PHE:HD1	1.66	0.61
20:CT:56:MET:SD	20:CT:88:VAL:HG11	2.41	0.61
43:BU:91:ASP:C	43:BU:93:LYS:N	2.54	0.61
29:DC:49:ILE:HG22	29:DC:50:ASP:N	2.16	0.61
4:AD:148:VAL:HG12	4:AD:149:ALA:N	2.14	0.61
43:DU:31:SER:OG	43:DU:34:LYS:HB2	2.01	0.61
2:AB:91:PRO:CG	2:AB:155:LEU:HB2	2.29	0.61
1:CA:128:G:H4'	17:CQ:3:LYS:HG2	1.83	0.61
27:BA:524:U:H2'	27:BA:525:U:H6	1.66	0.61
27:BA:1747(A):G:C2'	27:BA:1748:G:H5'	2.31	0.61
20:AT:71:THR:O	20:AT:72:LEU:C	2.38	0.61
27:DA:158:U:H2'	27:DA:158:U:O2	2.00	0.61
1:CA:985:C:H2'	1:CA:986:A:H8	1.66	0.61
1:CA:180:U:H2'	1:CA:181:G:C5'	2.30	0.61
1:CA:1170:A:C2'	1:CA:1171:G:H5'	2.31	0.61
49:D0:10:THR:HG22	49:D0:12:ASN:H	1.64	0.61
35:BI:48:GLU:C	35:BI:50:ARG:H	2.03	0.61
54:D5:52:TYR:O	54:D5:53:ALA:HB3	2.01	0.61
27:DA:2236:C:C2'	27:DA:2237:G:H5'	2.31	0.61
16:CP:19:ILE:N	16:CP:37:GLY:O	2.32	0.61
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.66	0.61
7:CG:124:LEU:C	7:CG:126:ASP:N	2.54	0.61
7:CG:122:HIS:O	7:CG:124:LEU:N	2.33	0.61
19:AS:79:THR:O	19:AS:80:TYR:HB3	2.00	0.61
27:DA:2091:U:O2'	50:D1:47:GLN:HG3	2.01	0.61
27:BA:244:A:C2	27:BA:255:A:C4	2.88	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:199:ASN:ND2	4:AD:202:LEU:HG	2.15	0.60
47:BY:97:ARG:O	47:BY:98:VAL:HB	2.00	0.60
45:BW:19:LEU:HB3	54:B5:25:LEU:CD1	2.10	0.60
13:AM:11:ARG:HH22	33:BG:146:TYR:HD2	1.47	0.60
41:BS:85:VAL:HG22	41:BS:106:ARG:HB3	1.82	0.60
30:DD:24:ILE:HD12	30:DD:84:TYR:HB2	1.83	0.60
27:DA:601:C:O2'	27:DA:605:C:H5''	2.01	0.60
38:DP:81:GLN:NE2	38:DP:109:GLY:HA3	2.16	0.60
43:DU:98:LEU:CD1	44:DV:4:ILE:HD11	2.29	0.60
31:DE:68:ALA:HB3	31:DE:69:LYS:HZ3	1.66	0.60
30:BD:49:ILE:CD1	30:BD:52:ARG:HA	2.24	0.60
31:DE:110:GLY:HA2	31:DE:161:GLY:HA3	1.83	0.60
4:CD:108:LEU:HB3	4:CD:110:PHE:CE1	2.36	0.60
23:CW:37:U:H2'	23:CW:38:U:O4'	2.00	0.60
27:BA:287:C:H2'	27:BA:288:C:O4'	2.00	0.60
37:BO:1:MET:CE	37:BO:67:LYS:HG2	2.30	0.60
16:AP:54:GLU:OE2	16:AP:54:GLU:HA	1.99	0.60
1:AA:68:G:H2'	1:AA:69:G:O4'	1.99	0.60
27:BA:1593:G:H2'	27:BA:1594:G:H5''	1.83	0.60
1:CA:636:U:H2'	1:CA:637:G:H8	1.65	0.60
2:AB:111:ARG:HD3	2:AB:145:LEU:HD11	1.83	0.60
27:DA:1495:A:H3'	27:DA:1496:A:C2	2.36	0.60
1:CA:1027:C:H2'	1:CA:1028:C:C5	2.36	0.60
1:AA:1398:A:C5'	1:AA:1398:A:C8	2.84	0.60
27:DA:435:C:C2'	27:DA:436:C:H5'	2.31	0.60
27:DA:1497:U:H5'	27:DA:1498:C:C5	2.35	0.60
52:D3:18:ASP:O	52:D3:21:ALA:N	2.34	0.60
17:AQ:41:LYS:NZ	17:AQ:92:ARG:HH12	1.98	0.60
2:AB:229:VAL:HG12	2:AB:230:VAL:N	2.16	0.60
27:DA:292:C:O2'	27:DA:293:U:H5'	2.00	0.60
35:BI:138:ILE:HG13	35:BI:138:ILE:O	1.99	0.60
8:CH:87:SER:HA	8:CH:93:VAL:CG2	2.31	0.60
51:D2:43:GLN:O	51:D2:44:LEU:HB2	2.01	0.60
30:DD:132:PRO:HG3	30:DD:190:TYR:CE1	2.36	0.60
1:CA:1417:G:N2	1:CA:1482:G:H2'	2.16	0.60
3:CC:198:VAL:HG12	3:CC:199:LYS:N	2.15	0.60
57:B8:22:VAL:CG2	57:B8:53:PRO:HB2	2.31	0.60
27:BA:2394:C:OP1	38:BP:63:PRO:CG	2.49	0.60
35:DI:79:ILE:HD12	35:DI:100:ALA:CB	2.31	0.60
35:DI:81:VAL:HG11	35:DI:88:ILE:HD12	1.82	0.60
27:DA:1039:G:O6	27:DA:1116:C:N3	2.34	0.60
27:DA:1039:G:N1	27:DA:1117:G:C8	2.69	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1116:C:H2'	27:DA:1117:G:H5'	1.83	0.60
55:D6:10:LEU:CD1	57:D8:34:TRP:CD1	2.84	0.60
55:D6:12:GLU:HB3	55:D6:23:THR:HA	1.83	0.60
30:DD:94:LEU:HD11	30:DD:96:HIS:CE1	2.36	0.60
42:DT:28:VAL:O	42:DT:29:ARG:CB	2.49	0.60
27:BA:66:C:C2	27:BA:89:G:N1	2.70	0.60
27:BA:64:A:C4	46:BX:66:LEU:HD13	2.36	0.60
38:DP:126:VAL:CA	38:DP:145:PRO:HB2	2.17	0.60
41:DS:85:VAL:HG23	41:DS:106:ARG:CB	2.31	0.60
41:DS:71:ARG:O	41:DS:74:ALA:HB3	2.01	0.60
30:BD:72:LYS:HG3	30:BD:103:ARG:HH11	1.67	0.60
30:BD:85:ASP:HB2	30:BD:92:ILE:CD1	2.30	0.60
1:CA:163:C:H2'	1:CA:164:U:H6	1.65	0.60
10:AJ:54:PHE:CD1	10:AJ:55:LYS:HE3	2.36	0.60
27:DA:319:C:H2'	27:DA:320:A:H8	1.66	0.60
31:BE:51:PHE:C	31:BE:74:PRO:HB2	2.21	0.60
43:BU:110:VAL:HG12	43:BU:114:LYS:HD2	1.82	0.60
4:AD:153:ARG:HH22	4:AD:180:GLY:HA2	1.66	0.60
46:DX:47:PHE:N	46:DX:47:PHE:CD1	2.69	0.60
41:BS:56:LEU:O	41:BS:56:LEU:HD23	2.01	0.60
34:BH:10:PRO:CD	34:BH:50:VAL:O	2.50	0.60
32:DF:32:LEU:C	32:DF:32:LEU:HD23	2.21	0.60
27:DA:1035:U:H2'	27:DA:1036:G:C8	2.36	0.60
8:AH:86:ILE:HG21	8:AH:133:LEU:HD22	1.82	0.60
8:AH:84:ARG:HG2	8:AH:84:ARG:HH11	1.65	0.60
53:D4:41:ILE:HB	53:D4:58:TYR:HD2	1.65	0.60
36:DN:27:ALA:HB1	36:DN:103:VAL:HG22	1.82	0.60
18:CR:37:VAL:HG23	18:CR:38:GLU:N	2.13	0.60
46:DX:72:LYS:HD2	46:DX:72:LYS:N	2.15	0.60
23:CW:52:G:H5''	39:DQ:56:ARG:NH1	2.15	0.60
6:AF:86:ARG:O	6:AF:87:ARG:HG2	2.00	0.60
7:CG:135:VAL:O	7:CG:138:LYS:N	2.34	0.60
27:BA:1719:G:O2'	27:BA:1720:U:H5'	2.01	0.60
35:BI:40:THR:O	35:BI:44:LEU:HB2	2.01	0.60
50:D1:67:ILE:N	50:D1:68:PRO:HD2	2.15	0.60
2:AB:144:ARG:HE	2:AB:148:TYR:HE2	1.47	0.60
30:DD:13:ARG:HD2	30:DD:16:MET:HE3	1.83	0.60
1:CA:631:G:H5''	1:CA:632:A:OP1	2.01	0.60
27:DA:2178:C:H4'	29:DC:46:LYS:HZ3	1.64	0.60
27:DA:1335:U:H2'	27:DA:1336:A:C8	2.34	0.60
13:AM:14:ARG:NH1	13:AM:42:ALA:HA	2.17	0.60
27:DA:2273:A:O2'	27:DA:2274:A:H5'	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1267:C:O2	21:CU:20:LYS:HD2	2.01	0.60
20:CT:18:GLN:O	20:CT:22:ARG:HG3	2.01	0.60
34:BH:132:ARG:HG3	34:BH:132:ARG:HH11	1.66	0.60
27:DA:274:G:H1'	27:DA:363:G:C2	2.37	0.60
27:DA:2596:U:H2'	27:DA:2597:G:O4'	2.01	0.60
49:B0:73:GLY:C	49:B0:75:LEU:H	2.05	0.60
50:B1:93:GLU:O	50:B1:95:LEU:N	2.27	0.60
13:AM:95:GLY:O	13:AM:110:ARG:HB3	2.01	0.60
28:BB:51:G:H5'	28:BB:52:A:OP2	2.01	0.60
47:BY:26:LYS:HG2	47:BY:27:VAL:N	2.13	0.60
42:BT:27:THR:HA	42:BT:87:ASP:HB2	1.83	0.60
27:BA:1880:C:C6	27:BA:1880:C:H5'	2.36	0.60
53:B4:46:ASN:HD22	53:B4:47:VAL:H	1.47	0.60
41:BS:106:ARG:HD2	41:BS:107:GLU:O	2.02	0.60
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HA	1.83	0.60
30:DD:26:LYS:NZ	30:DD:82:ILE:H	2.00	0.60
27:BA:1202:C:O2'	38:BP:7:ARG:NH1	2.34	0.60
9:CI:5:TYR:HD2	9:CI:18:PHE:HE2	1.47	0.60
28:DB:49:C:H2'	28:DB:50:G:C8	2.37	0.60
9:AI:112:LYS:CA	9:AI:119:ALA:HB2	2.26	0.60
32:BF:160:ASN:HD22	32:BF:163:VAL:N	1.91	0.60
2:AB:60:ASP:HA	2:AB:63:MET:HG2	1.82	0.60
30:BD:24:ILE:HA	30:BD:82:ILE:HG22	1.83	0.60
48:BZ:117:GLN:O	48:BZ:171:ALA:HA	2.01	0.60
56:B7:46:VAL:HG12	56:B7:47:ARG:N	2.08	0.60
5:CE:12:LEU:HD22	5:CE:13:ILE:N	2.10	0.60
2:AB:196:LEU:CD1	2:AB:197:VAL:HG23	2.32	0.60
15:CO:36:ILE:HG23	15:CO:56:LEU:CD1	2.30	0.60
34:DH:98:LEU:HD22	34:DH:125:VAL:CB	2.31	0.60
41:DS:37:ALA:HB1	41:DS:73:LEU:HD12	1.82	0.60
42:DT:24:PRO:HD3	42:DT:52:ILE:CD1	2.31	0.60
25:CY:67:C:O2'	25:CY:68:C:H5'	2.02	0.60
7:CG:70:LYS:N	7:CG:138:LYS:HG3	2.16	0.60
30:DD:35:LYS:HZ3	30:DD:104:TYR:N	2.00	0.60
27:BA:2262:U:H2'	27:BA:2263:C:C6	2.34	0.60
8:AH:20:TYR:HD1	8:AH:65:TYR:CE2	2.19	0.60
8:CH:103:VAL:HG21	8:CH:109:ILE:C	2.21	0.60
8:CH:83:ILE:HG13	8:CH:137:VAL:HG22	1.82	0.60
27:DA:1760:A:C2'	27:DA:1761:C:H5'	2.31	0.60
27:DA:1760:A:C6	27:DA:1761:C:N4	2.70	0.60
1:CA:1256:A:N6	1:CA:1278:U:H1'	2.15	0.60
29:BC:49:ILE:HG22	29:BC:50:ASP:N	2.16	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:691:C:O2'	27:DA:692:C:H5'	2.01	0.60
1:AA:863:U:H2'	1:AA:865:A:OP2	2.01	0.60
46:DX:8:ILE:HA	46:DX:30:VAL:HG12	1.82	0.60
38:BP:108:LYS:N	38:BP:108:LYS:HD2	2.17	0.60
27:DA:751:A:H5'	45:DW:90:ARG:HA	1.81	0.60
27:BA:1755:A:H2'	27:BA:1756:G:H5'	1.82	0.60
27:BA:2539:C:H5'	58:B9:3:VAL:HG11	1.83	0.60
1:AA:1219:U:P	14:AN:19:ARG:HH22	2.23	0.60
58:D9:9:ARG:NH1	58:D9:9:ARG:HB3	2.16	0.60
37:DO:13:ASN:C	37:DO:15:GLY:H	2.04	0.60
38:BP:79:ARG:HG2	38:BP:109:GLY:O	2.01	0.60
33:BG:39:ILE:HD11	33:BG:155:MET:CB	2.24	0.60
55:D6:45:LYS:HD2	55:D6:45:LYS:N	2.16	0.60
55:D6:41:PRO:HD3	55:D6:46:HIS:H	1.62	0.60
10:CJ:22:LYS:NZ	10:CJ:23:ILE:HG12	2.16	0.60
32:BF:20:LEU:O	32:BF:24:LEU:HD23	2.01	0.60
44:BV:19:LYS:NZ	44:BV:20:LEU:H	2.00	0.60
27:BA:812:C:H5'	38:BP:25:SER:CB	2.22	0.60
9:AI:10:ARG:HD3	9:AI:75:ASP:HB3	1.82	0.60
10:CJ:40:LEU:HB2	10:CJ:41:PRO:HD2	1.83	0.60
1:CA:71:C:H2'	1:CA:72:C:H5'	1.83	0.60
2:AB:25:ASN:OD1	2:AB:27:LYS:HB3	2.01	0.60
1:CA:530:G:O6	22:CV:9:G:H1'	2.01	0.60
27:DA:1277:G:O2'	27:DA:1278:A:H5'	2.02	0.60
27:BA:1986:A:O2'	27:BA:1987:G:H5''	2.00	0.60
3:AC:175:LEU:H	3:AC:175:LEU:HD12	1.67	0.60
53:D4:45:GLY:O	53:D4:47:VAL:HG23	2.00	0.60
27:DA:26:G:H1'	27:DA:515:A:N6	2.17	0.60
27:DA:1504:C:O2'	27:DA:1505:C:C5'	2.47	0.60
4:CD:28:SER:O	4:CD:30:LYS:HG2	2.01	0.60
4:CD:8:VAL:O	4:CD:10:ARG:N	2.34	0.60
39:DQ:54:MET:C	39:DQ:56:ARG:H	2.03	0.60
31:BE:117:MET:HA	31:BE:122:PHE:H	1.65	0.60
27:DA:7:G:H1	27:DA:2896:C:H42	1.46	0.60
29:BC:78:ALA:O	29:BC:80:GLY:N	2.34	0.60
34:BH:32:GLU:O	34:BH:33:LEU:HD23	2.00	0.60
1:AA:17:U:H2'	1:AA:18:C:C6	2.36	0.60
29:DC:45:ALA:H	29:DC:174:PRO:CB	2.14	0.60
1:CA:197:A:N6	1:CA:221:C:H5'	2.17	0.60
27:DA:2443:C:H2'	27:DA:2444:G:H8	1.65	0.60
2:AB:19:HIS:HB3	2:AB:190:THR:OG1	2.01	0.60
1:AA:818:G:C2'	1:AA:819:A:H5''	2.31	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1262:A:H2	54:B5:10:LYS:HD2	1.64	0.60
27:DA:323:G:H1'	27:DA:1205:U:O2	2.01	0.60
1:CA:1318:A:O2'	19:CS:37:ARG:HB2	2.02	0.60
27:DA:458:G:H3'	56:D7:38:GLY:O	2.00	0.60
1:AA:1226:C:H2'	13:AM:103:THR:HB	1.82	0.60
27:DA:852:G:O2'	27:DA:853:G:H5'	2.02	0.60
27:DA:2317:C:O2'	27:DA:2318:G:H5'	2.01	0.60
27:DA:893:C:H2'	27:DA:894:C:H6	1.65	0.60
33:BG:115:ARG:HD2	33:BG:137:GLU:OE1	2.01	0.60
1:CA:1060:C:O2'	1:CA:1061:G:H5'	2.01	0.60
41:BS:105:ALA:C	41:BS:107:GLU:H	2.03	0.60
13:AM:68:GLY:O	13:AM:70:LEU:N	2.34	0.60
31:DE:60:ASN:CG	31:DE:62:PRO:HD2	2.21	0.60
27:BA:1169:G:H1	27:BA:1180:C:N4	1.99	0.60
2:CB:168:THR:HA	2:CB:171:ALA:HB2	1.84	0.60
1:CA:270:A:H2'	1:CA:271:C:C6	2.37	0.60
17:CQ:45:HIS:CD2	17:CQ:47:PRO:HD3	2.37	0.60
3:AC:76:VAL:HG21	3:AC:103:VAL:CG1	2.30	0.60
20:CT:63:ILE:HD13	20:CT:80:ARG:HB2	1.81	0.60
27:DA:2741:A:H61	27:DA:2763:G:H1'	1.66	0.60
23:CW:20:A:N6	23:CW:46:U:H1'	2.16	0.60
56:B7:35:ARG:HG3	56:B7:42:LEU:HD11	1.84	0.60
15:AO:39:LEU:HD12	15:AO:59:MET:CE	2.31	0.60
24:AX:17:C:H2'	24:AX:17(B):U:C6	2.36	0.60
33:DG:102:PHE:HA	33:DG:105:LYS:NZ	2.17	0.60
1:AA:321:A:H2'	1:AA:322:C:H6	1.66	0.60
27:BA:174:C:H5'	27:BA:175:G:OP2	2.01	0.60
16:AP:18:ARG:O	16:AP:20:VAL:HG12	2.01	0.60
46:BX:25:LYS:HA	46:BX:81:VAL:O	2.01	0.60
40:BR:38:VAL:HG23	40:BR:110:PRO:O	2.02	0.60
16:CP:25:ARG:HG3	16:CP:25:ARG:NH1	2.17	0.60
1:CA:407:G:H1	1:CA:435:C:N4	2.00	0.60
27:DA:363(A):A:H3'	27:DA:363(B):G:H5''	1.84	0.60
15:AO:17:ARG:HD3	15:AO:26:GLU:HG3	1.83	0.60
5:CE:6:PHE:CB	5:CE:34:VAL:HG12	2.32	0.60
38:DP:115:LEU:C	38:DP:134:ALA:HB2	2.22	0.60
27:DA:213:A:H2'	27:DA:214:G:O4'	2.02	0.60
7:AG:60:LYS:HA	7:AG:60:LYS:HZ1	1.66	0.60
4:CD:170:VAL:HG12	4:CD:171:GLY:N	2.17	0.60
34:DH:35:VAL:HG11	34:DH:71:LEU:O	2.01	0.60
1:CA:427:U:OP1	4:CD:40:PRO:HA	2.02	0.60
42:DT:126:ALA:C	42:DT:128:GLU:H	2.05	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BN:90:MET:O	36:BN:93:THR:O	2.19	0.60
1:AA:687:A:N3	1:AA:688:G:H1'	2.16	0.60
27:BA:671:C:O2'	27:BA:672:C:H5'	2.00	0.60
27:BA:404:C:H4'	27:BA:405:U:H5'	1.82	0.60
31:BE:203:LYS:HD2	31:BE:203:LYS:O	2.02	0.60
1:AA:178:C:O2'	1:AA:179:A:H5'	2.01	0.60
42:BT:117:ASP:O	42:BT:121:ILE:HB	2.01	0.60
27:BA:1387:C:H5'	27:BA:1469:A:H4'	1.82	0.60
1:CA:1060:C:H4'	10:CJ:51:ARG:CB	2.31	0.60
27:DA:1041:C:H2'	27:DA:1042:G:C8	2.35	0.60
28:DB:75:G:H21	48:DZ:84:HIS:CE1	2.20	0.60
27:BA:2495:G:H5''	39:BQ:82:ARG:HB3	1.83	0.60
41:DS:85:VAL:HG23	41:DS:106:ARG:HG3	1.83	0.60
30:BD:35:LYS:HZ2	30:BD:103:ARG:HA	1.65	0.60
1:CA:1270:C:O2'	1:CA:1271:G:H5'	2.02	0.60
27:DA:2008:C:H2'	27:DA:2009:G:H8	1.67	0.60
20:AT:97:ALA:O	20:AT:99:LEU:HG	2.01	0.60
30:BD:218:ARG:HG3	30:BD:218:ARG:NH1	2.17	0.60
38:DP:6:LEU:H	38:DP:6:LEU:HD23	1.67	0.60
27:DA:307:G:N2	27:DA:309:G:H3'	2.17	0.60
20:CT:27:LYS:O	20:CT:27:LYS:HE2	2.02	0.60
31:BE:134:ILE:N	31:BE:134:ILE:HD13	2.10	0.60
27:DA:1035:U:H5''	34:DH:59:ARG:NH1	2.17	0.60
1:AA:592:G:H2'	1:AA:593:G:H8	1.67	0.60
1:AA:67:C:O2'	1:AA:171:A:H1'	2.01	0.60
15:CO:7:GLU:O	15:CO:11:VAL:HG23	2.02	0.60
27:DA:154:G:C6	27:DA:154(A):C:N4	2.69	0.60
27:DA:2716:U:H2'	27:DA:2717:G:H8	1.65	0.60
27:DA:1844:C:O2'	27:DA:1845:G:H5'	2.02	0.60
13:AM:115:LYS:O	13:AM:117:VAL:HG23	2.00	0.60
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.36	0.60
20:CT:73:HIS:O	20:CT:74:LYS:O	2.18	0.60
1:AA:1411:C:H2'	1:AA:1412:C:H6	1.65	0.60
27:DA:2704:C:H2'	27:DA:2705:A:O4'	2.01	0.60
40:DR:22:ARG:O	40:DR:26:LYS:HG3	2.01	0.60
27:BA:2080:G:OP1	50:B1:35:THR:HG21	2.01	0.60
12:AL:112:LYS:O	12:AL:114:ARG:N	2.34	0.60
28:DB:78:A:H2'	28:DB:79:C:O4'	2.00	0.60
38:BP:64:LYS:CD	38:BP:65:ARG:H	2.14	0.60
33:BG:107:LEU:HD11	33:BG:178:PHE:CE1	2.37	0.60
14:CN:23:ARG:HD2	14:CN:28:GLY:O	2.01	0.60
40:DR:76:VAL:O	40:DR:79:LEU:HB3	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:74:ALA:CB	41:DS:103:GLU:HG3	2.19	0.60
33:DG:82:LEU:HD22	33:DG:87:PRO:CG	2.27	0.60
1:AA:376:G:OP2	16:AP:67:THR:HG21	2.01	0.60
37:DO:104:ARG:HH21	42:DT:33:LYS:CE	2.14	0.60
42:DT:62:THR:HA	42:DT:74:ARG:O	2.01	0.60
14:AN:59:ALA:O	14:AN:60:SER:HB2	2.00	0.60
42:BT:10:VAL:C	42:BT:13:ARG:HH21	2.03	0.60
31:BE:54:GLN:HA	31:BE:72:VAL:CG1	2.31	0.60
34:BH:44:VAL:O	34:BH:50:VAL:HG13	2.02	0.60
2:CB:16:HIS:HD2	2:CB:210:SER:HA	1.65	0.60
3:CC:148:GLY:HA3	3:CC:172:ARG:O	2.00	0.60
27:BA:729:G:C5	30:BD:208:LYS:HB2	2.36	0.60
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.84	0.60
40:BR:86:ARG:HB2	40:BR:118:GLU:OE2	2.01	0.60
37:BO:78:ARG:HG3	37:BO:78:ARG:O	1.99	0.60
32:BF:89:VAL:O	32:BF:91:GLY:N	2.33	0.60
34:BH:89:ILE:HD11	34:BH:129:THR:CB	2.30	0.60
25:CY:66:A:H2'	25:CY:67:C:C6	2.36	0.60
33:DG:6:ALA:HB3	33:DG:104:GLU:OE1	2.01	0.60
1:AA:321:A:C2	1:AA:333:G:C2	2.90	0.60
27:DA:1712:C:O2'	27:DA:1713:U:H5'	2.02	0.60
27:DA:2571:C:C5'	27:DA:2572:A:H5'	2.32	0.60
1:CA:1065:U:H4'	1:CA:1066:C:O5'	2.02	0.60
8:AH:103:VAL:HG11	8:AH:109:ILE:O	2.01	0.60
27:DA:1224:C:O2'	27:DA:1225:G:H5'	2.01	0.60
27:DA:1286:A:O2'	27:DA:1288:U:OP2	2.20	0.60
27:DA:363(C):G:H2'	27:DA:363(D):G:C8	2.37	0.60
1:AA:29:G:O2'	1:AA:30:U:H5'	2.02	0.60
38:DP:82:GLY:HA3	38:DP:115:LEU:HD21	1.82	0.60
40:DR:78:LYS:O	40:DR:83:ILE:HG12	2.02	0.60
31:BE:37:ARG:HA	31:BE:42:ASP:OD2	2.01	0.60
27:DA:814:C:H5	38:DP:27:HIS:CE1	2.19	0.60
1:AA:918:A:H2'	1:AA:919:A:C8	2.37	0.60
1:AA:1243:C:OP2	21:AU:10:ARG:NH2	2.35	0.60
1:AA:1517:G:H1'	27:BA:1919:A:O3'	2.02	0.60
27:BA:1474:C:H2'	27:BA:1475:G:H8	1.66	0.60
1:AA:1006:C:H42	1:AA:1024:G:H21	1.49	0.60
50:B1:72:GLU:O	50:B1:76:ARG:HG2	2.00	0.60
27:DA:2689:U:H5''	27:DA:2690:C:H5'	1.82	0.60
4:AD:80:GLU:O	4:AD:84:LYS:HG2	2.01	0.60
57:B8:30:ARG:HA	57:B8:30:ARG:HE	1.65	0.60
13:AM:87:TYR:N	19:AS:73:GLU:O	2.34	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:64:THR:HG23	33:BG:65:GLY:H	1.66	0.60
48:DZ:52:ILE:HG22	48:DZ:70:VAL:HB	1.84	0.60
27:BA:65:C:H2'	27:BA:66:C:H6	1.67	0.60
38:DP:97:PRO:O	38:DP:98:GLU:HB3	2.02	0.60
42:DT:35:LYS:HG3	42:DT:36:GLU:N	2.17	0.60
31:DE:24:THR:OG1	31:DE:188:VAL:HG11	2.02	0.60
10:AJ:32:ALA:HB3	10:AJ:76:ASN:HB2	1.83	0.60
31:BE:69:LYS:HE3	31:BE:89:ASP:O	2.01	0.60
3:CC:112:SER:HB3	3:CC:115:LEU:HD12	1.83	0.60
41:BS:19:LYS:O	41:BS:20:ARG:HD3	2.01	0.60
29:DC:100:ILE:CG2	29:DC:132:GLY:HA3	2.28	0.60
27:DA:2753:A:O2'	27:DA:2754:U:C6	2.52	0.60
1:CA:320:C:H2'	1:CA:321:A:C8	2.37	0.60
19:AS:29:ARG:HD2	19:AS:29:ARG:N	2.16	0.60
36:BN:57:ALA:C	36:BN:58:ASP:O	2.37	0.60
2:CB:141:GLU:O	2:CB:145:LEU:HD23	2.02	0.60
38:DP:48:PRO:O	38:DP:50:ARG:N	2.34	0.60
27:DA:1505:C:H3'	27:DA:1506:C:H6	1.67	0.60
40:BR:118:GLU:HA	40:BR:118:GLU:OE1	2.02	0.60
1:AA:1466:C:H2'	1:AA:1467:G:O4'	2.01	0.60
50:D1:73:LEU:HD22	50:D1:94:LEU:HB3	1.82	0.60
15:CO:28:GLN:HB3	15:CO:66:LEU:HD21	1.82	0.60
27:BA:111:A:H4'	51:B2:69:ARG:HH22	1.66	0.60
11:CK:92:GLU:HG3	11:CK:96:ARG:HD3	1.84	0.60
1:AA:324:G:OP1	20:AT:22:ARG:CD	2.49	0.60
25:AY:18:G:H4'	25:AY:56:G:H22	1.67	0.60
7:AG:113:GLU:HG2	7:AG:119:ARG:HG2	1.84	0.60
27:DA:303:U:H2'	27:DA:304:G:H8	1.64	0.60
1:AA:433:C:H2'	1:AA:434:U:H6	1.62	0.60
30:DD:45:ASN:ND2	30:DD:46:GLN:H	1.99	0.60
27:DA:360:G:H2'	27:DA:361:G:C8	2.36	0.60
1:CA:59:A:H5'	1:CA:60:A:C5'	2.32	0.60
1:CA:1031:G:H2'	1:CA:1032:G:C8	2.36	0.60
1:CA:285:G:H2'	1:CA:286:G:H8	1.66	0.60
3:CC:156:ARG:NH2	3:CC:159:GLY:O	2.35	0.60
46:DX:36:LYS:CE	46:DX:56:THR:HG22	2.31	0.60
1:AA:556:C:O2'	1:AA:557:G:H5'	2.02	0.60
57:D8:39:LYS:HA	57:D8:42:ARG:HH12	1.67	0.60
27:DA:2732:G:O2'	27:DA:2733:A:H5'	2.01	0.60
5:CE:18:ARG:HE	5:CE:25:ARG:HB2	1.66	0.60
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.37	0.60
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.35	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:852:G:H5'	52:B3:45:GLY:HA3	1.83	0.60
47:DY:16:ALA:HA	47:DY:21:LYS:CD	2.32	0.60
27:DA:92:A:H2'	27:DA:93:G:H8	1.64	0.60
29:BC:22:ILE:CG2	29:BC:24:GLU:HB2	2.31	0.60
6:CF:12:PRO:HD2	6:CF:86:ARG:NH1	2.17	0.60
6:AF:7:ASN:ND2	18:AR:34:TYR:OH	2.34	0.60
27:BA:2062:A:HO2'	27:BA:2063:C:C5'	2.15	0.60
25:CY:11:C:H2'	25:CY:12:C:C6	2.36	0.60
1:CA:1231:G:O2'	1:CA:1232:U:H5'	2.02	0.60
55:B6:12:GLU:HB2	55:B6:23:THR:N	2.17	0.60
35:BI:92:VAL:O	35:BI:96:ASP:CB	2.49	0.60
33:BG:63:ILE:HB	33:BG:141:PHE:HD1	1.64	0.60
14:CN:45:ARG:NH1	14:CN:45:ARG:HG3	2.14	0.60
57:D8:22:VAL:HG23	57:D8:53:PRO:HB2	1.83	0.60
41:BS:85:VAL:HG23	41:BS:86:ALA:N	2.17	0.60
34:BH:65:HIS:CE1	34:BH:69:ARG:HD2	2.37	0.60
27:DA:2869:G:H2'	27:DA:2870:C:H6	1.67	0.60
36:DN:57:ALA:HB3	36:DN:124:ALA:HB2	1.84	0.60
13:CM:3:ARG:HB2	53:D4:60:GLU:CG	2.21	0.60
37:DO:77:ILE:CD1	42:DT:74:ARG:HG2	2.31	0.60
27:DA:271(Q):G:H2'	27:DA:271(R):G:H8	1.65	0.60
9:AI:78:LYS:HE3	9:AI:101:PHE:CE2	2.37	0.60
27:DA:330:A:O2'	27:DA:331:A:H8	1.85	0.60
2:CB:72:GLY:HA2	2:CB:165:VAL:HG22	1.82	0.60
51:D2:31:GLU:O	51:D2:34:GLU:HB3	2.01	0.60
11:CK:86:GLY:CA	11:CK:112:THR:HG23	2.30	0.60
1:CA:1456:G:C2'	20:CT:39:LYS:HZ3	2.10	0.60
5:AE:32:VAL:O	5:AE:43:LEU:HD12	2.02	0.60
4:AD:111:ALA:CA	4:AD:161:ASN:HD22	2.10	0.60
27:DA:356:G:O2'	27:DA:357:A:H5'	2.01	0.60
40:DR:98:LEU:HD12	40:DR:113:LEU:HD23	1.83	0.60
19:AS:65:ASN:HB2	19:AS:66:MET:CE	2.32	0.60
53:D4:39:ARG:C	53:D4:40:ILE:HD12	2.22	0.60
14:CN:53:LEU:HB3	14:CN:56:VAL:HG21	1.84	0.60
38:DP:47:ASP:HB3	38:DP:48:PRO:HA	1.84	0.60
27:BA:558:G:P	36:BN:111:PRO:HD2	2.42	0.60
45:DW:84:ARG:HB2	45:DW:96:ILE:CG2	2.32	0.60
34:BH:31:GLY:N	34:BH:79:VAL:HG13	2.17	0.60
33:DG:101:ILE:HD13	33:DG:101:ILE:O	2.00	0.60
8:AH:28:ALA:HA	8:AH:59:LEU:HG	1.84	0.60
2:AB:144:ARG:NE	2:AB:148:TYR:HE2	1.99	0.60
3:CC:64:VAL:HG13	3:CC:97:LYS:HZ2	1.67	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DW:72:LYS:HB3	45:DW:106:ILE:HG22	1.84	0.60
31:BE:8:LYS:NZ	31:BE:188:VAL:HG13	2.17	0.60
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.36	0.60
15:AO:37:ASN:ND2	15:AO:37:ASN:N	2.50	0.60
2:CB:223:ILE:HA	2:CB:226:ARG:CD	2.32	0.60
1:CA:175:C:H4'	20:CT:25:ARG:HD3	1.84	0.60
7:CG:79:ARG:HG3	7:CG:83:ALA:O	2.02	0.60
1:AA:1281:U:H5'	1:AA:1282:C:H5	1.66	0.60
6:CF:97:PHE:O	18:CR:31:LEU:HD23	2.01	0.60
1:CA:840:C:H4'	1:CA:841:U:OP1	2.01	0.60
1:AA:232:G:H1'	1:AA:262:A:N1	2.17	0.60
27:BA:2392:A:OP1	57:B8:32:LEU:HD13	2.01	0.60
41:BS:95:HIS:C	41:BS:98:VAL:HG23	2.21	0.60
1:AA:345:C:H5'	42:BT:36:GLU:HG3	1.83	0.60
44:DV:17:GLY:HA2	44:DV:96:ILE:O	2.01	0.60
33:BG:46:ALA:CA	33:BG:51:ARG:HD3	2.32	0.60
48:DZ:169:THR:CG2	48:DZ:170:ILE:H	2.15	0.60
51:D2:5:GLU:HA	51:D2:8:LYS:HG3	1.84	0.60
42:DT:88:ILE:CG2	42:DT:89:VAL:HG23	2.24	0.60
38:BP:16:ARG:HD3	38:BP:16:ARG:C	2.22	0.60
38:DP:99:LEU:HD23	38:DP:99:LEU:O	2.00	0.60
38:BP:7:ARG:O	38:BP:9:ASN:N	2.34	0.60
44:DV:39:LEU:HD22	44:DV:39:LEU:N	2.16	0.60
33:DG:46:ALA:C	33:DG:51:ARG:HG3	2.22	0.60
33:DG:60:LEU:HD12	33:DG:68:PRO:CG	2.31	0.60
7:CG:16:LEU:HD13	9:CI:44:VAL:CG2	2.31	0.60
30:BD:121:PRO:HB3	30:BD:135:PHE:CE1	2.36	0.60
27:DA:2759:G:H2'	27:DA:2760:C:H5'	1.84	0.60
31:DE:91:VAL:HG13	31:DE:95:ILE:HG12	1.84	0.60
10:AJ:84:GLN:O	10:AJ:88:LEU:HB3	2.02	0.60
15:CO:25:THR:O	15:CO:27:VAL:N	2.35	0.60
48:BZ:109:GLY:HA3	48:BZ:144:GLU:CD	2.22	0.60
13:CM:91:ARG:HH12	13:CM:103:THR:HG21	1.67	0.60
27:BA:284:U:H2'	27:BA:285:C:H6	1.66	0.60
19:AS:62:ILE:HG23	19:AS:62:ILE:O	2.02	0.60
8:AH:137:VAL:O	8:AH:138:TRP:HB3	2.01	0.60
30:DD:130:ALA:C	30:DD:131:LEU:HD12	2.22	0.60
33:DG:22:ARG:HH11	33:DG:22:ARG:CB	2.12	0.60
27:DA:70:G:H21	27:DA:71:A:H62	1.49	0.60
42:DT:24:PRO:HD3	42:DT:52:ILE:HD11	1.84	0.60
2:AB:75:LYS:HA	2:AB:78:GLN:CB	2.31	0.60
3:AC:139:GLN:HG3	3:AC:143:GLU:OE2	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:637:G:H2'	1:CA:638:G:C8	2.35	0.60
19:CS:29:ARG:C	19:CS:31:ILE:N	2.56	0.60
11:CK:34:ASP:HB2	11:CK:35:PRO:CD	2.32	0.60
1:AA:1036:G:H5'	1:AA:1037:C:OP2	2.02	0.60
3:AC:187:ALA:HB3	3:AC:198:VAL:CG2	2.32	0.60
4:CD:145:GLU:C	4:CD:146:ILE:HD12	2.23	0.60
1:CA:936:C:H2'	1:CA:937:A:H8	1.65	0.60
1:AA:155:C:H2'	1:AA:156:G:C8	2.37	0.60
6:CF:87:ARG:HG2	6:CF:87:ARG:HH11	1.67	0.60
27:DA:2082:A:H2'	27:DA:2083:G:O4'	2.01	0.60
27:BA:748:G:C8	45:BW:89:ALA:HB1	2.36	0.60
27:BA:2709:G:O2'	27:BA:2710:C:H5'	2.02	0.60
6:AF:12:PRO:O	6:AF:14:LEU:N	2.35	0.60
27:DA:265:A:C8	27:DA:266:G:H1'	2.37	0.60
25:CY:71:A:O2'	25:CY:72:G:H5'	2.02	0.60
27:BA:1497:U:H3	27:BA:1578:U:P	2.24	0.60
30:DD:174:ILE:HD12	30:DD:174:ILE:N	2.17	0.60
36:BN:104:LYS:HB2	36:BN:117:PHE:CE1	2.37	0.60
57:B8:19:SER:HB2	57:B8:21:LYS:HG3	1.83	0.59
54:B5:50:GLY:HA3	54:B5:56:LYS:CB	2.32	0.59
45:BW:16:LYS:O	45:BW:19:LEU:HD12	2.02	0.59
10:CJ:63:PHE:CD2	10:CJ:63:PHE:N	2.65	0.59
48:DZ:43:PHE:CD1	48:DZ:43:PHE:C	2.75	0.59
55:D6:15:GLU:HG2	55:D6:18:ARG:HH12	1.67	0.59
57:D8:22:VAL:HB	57:D8:53:PRO:HB3	1.84	0.59
10:CJ:6:ILE:O	10:CJ:71:LEU:HD12	2.02	0.59
27:DA:1455:G:C8	40:DR:60:LEU:HD11	2.36	0.59
28:DB:111:G:H2'	28:DB:112:U:H5''	1.84	0.59
33:DG:111:LEU:HD22	33:DG:117:PHE:HE2	1.66	0.59
39:BQ:1:MET:HG2	39:BQ:1:MET:O	2.02	0.59
1:CA:1320:C:H5''	19:CS:70:LYS:CG	2.28	0.59
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.37	0.59
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.83	0.59
27:DA:2820:A:O2'	31:DE:191:PRO:HG2	2.02	0.59
3:CC:71:ALA:CB	3:CC:109:PRO:HG3	2.32	0.59
5:CE:51:VAL:CG2	5:CE:52:PRO:HD3	2.30	0.59
12:CL:22:PRO:O	12:CL:24:LEU:CD1	2.48	0.59
1:CA:1229:A:N6	13:CM:105:THR:HG22	2.17	0.59
1:CA:960:U:O2	1:CA:960:U:H2'	2.01	0.59
45:BW:68:ARG:CZ	45:BW:112:GLY:HA2	2.32	0.59
27:BA:466:A:H2'	27:BA:467:G:H5'	1.83	0.59
29:BC:70:LYS:O	29:BC:72:VAL:HG23	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:16:A:O2'	1:CA:17:U:H5'	2.02	0.59
3:CC:73:PRO:O	3:CC:76:VAL:HG22	2.01	0.59
13:CM:50:GLU:O	13:CM:54:VAL:HG23	2.01	0.59
37:BO:2:ILE:HG21	37:BO:8:LEU:HD11	1.84	0.59
38:BP:50:ARG:NH2	38:BP:50:ARG:HG2	2.17	0.59
32:BF:89:VAL:HG12	32:BF:90:PHE:N	2.16	0.59
16:CP:51:VAL:HG12	16:CP:52:ASP:N	2.17	0.59
27:DA:2469:A:H5'	27:DA:2470:G:OP2	2.02	0.59
48:BZ:60:LEU:N	48:BZ:60:LEU:HD22	2.16	0.59
27:DA:141:A:H8	27:DA:1408:C:HO2'	1.46	0.59
48:DZ:128:SER:OG	48:DZ:129:PRO:HD2	2.02	0.59
2:AB:73:THR:O	2:AB:78:GLN:HG2	2.02	0.59
49:B0:70:GLN:NE2	49:B0:80:HIS:NE2	2.50	0.59
17:CQ:54:GLY:O	17:CQ:81:ARG:HB2	2.02	0.59
27:DA:914:C:C2'	27:DA:915:C:H5'	2.31	0.59
1:AA:501:C:O2'	1:AA:502:G:H5'	2.02	0.59
7:AG:95:ARG:HG2	7:AG:99:LEU:CD1	2.32	0.59
59:CX:27:U:H3	59:CX:43:A:N6	1.99	0.59
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.37	0.59
27:DA:2527:C:H4'	58:D9:30:PRO:HB2	1.84	0.59
1:AA:619:U:C4	4:AD:135:LEU:HD11	2.37	0.59
5:CE:6:PHE:HB2	5:CE:34:VAL:CG1	2.31	0.59
4:CD:2:GLY:O	4:CD:3:ARG:HD3	2.02	0.59
27:DA:1363:C:H2'	27:DA:1364:G:H8	1.67	0.59
2:CB:8:LYS:HD3	2:CB:8:LYS:N	2.17	0.59
28:DB:92:C:O2'	28:DB:93:G:H5'	2.02	0.59
1:CA:1521:G:H2'	1:CA:1522:U:H6	1.65	0.59
15:AO:20:GLY:O	15:AO:22:THR:HG23	2.02	0.59
4:AD:8:VAL:HG12	4:AD:21:LEU:HD13	1.83	0.59
35:DI:84:GLY:O	35:DI:85:GLU:HB2	2.02	0.59
33:BG:137:GLU:HG2	33:BG:152:LEU:CD1	2.32	0.59
14:CN:24:CYS:HB2	14:CN:29:ARG:HB3	1.82	0.59
46:BX:63:LYS:HE3	46:BX:72:LYS:CE	2.22	0.59
38:DP:21:ARG:C	38:DP:23:PRO:HD3	2.22	0.59
28:DB:111:G:C2'	28:DB:112:U:H5''	2.32	0.59
28:DB:56:G:H21	28:DB:59:A:H61	1.49	0.59
33:DG:64:THR:HG23	33:DG:65:GLY:N	2.16	0.59
17:AQ:67:LYS:O	17:AQ:68:ARG:CB	2.49	0.59
1:AA:1372:U:OP1	9:AI:71:SER:HB3	2.03	0.59
42:BT:10:VAL:O	42:BT:10:VAL:CG1	2.49	0.59
27:BA:2334:G:H21	41:BS:18:ILE:CD1	2.13	0.59
44:BV:52:VAL:HG23	44:BV:55:ALA:HB3	1.84	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1298:C:H2'	7:CG:114:ARG:HH12	1.67	0.59
27:BA:2808:U:C2'	27:BA:2809:A:H5'	2.33	0.59
1:CA:597:G:H2'	1:CA:598:U:H5'	1.85	0.59
24:AX:49:G:H1	24:AX:65:C:N4	1.95	0.59
27:DA:66:C:O2'	27:DA:67:U:H5'	2.02	0.59
27:BA:1952:A:C6	27:BA:1953:A:N1	2.70	0.59
28:BB:106:G:O2'	28:BB:107:G:H5'	2.02	0.59
1:AA:1152:A:H5'	10:AJ:70:ARG:HH12	1.67	0.59
31:BE:47:VAL:HG12	31:BE:49:LEU:HD13	1.84	0.59
41:DS:95:HIS:CD2	41:DS:96:GLY:H	2.19	0.59
1:AA:1028:C:H42	1:AA:1034:G:H21	1.50	0.59
33:BG:17:PRO:HA	33:BG:20:ILE:HD12	1.84	0.59
1:AA:923:A:H2'	1:AA:924:C:C6	2.37	0.59
27:BA:1204:A:N1	27:BA:1241:A:H2	2.00	0.59
40:BR:10:LEU:CD2	40:BR:17:ARG:HD2	2.31	0.59
27:DA:1666:G:O2'	27:DA:1667:G:H5'	2.02	0.59
27:DA:291:C:H2'	27:DA:292:C:H6	1.65	0.59
1:AA:262:A:H2'	1:AA:263:A:C8	2.38	0.59
27:BA:1464:C:O2'	27:BA:1528:A:C8	2.54	0.59
27:DA:413:C:H42	27:DA:2410:G:H1	1.50	0.59
32:DF:53:THR:HG22	32:DF:56:GLU:CD	2.22	0.59
1:AA:857:C:H2'	1:AA:858:G:O4'	2.01	0.59
28:DB:9:G:C2	28:DB:10:C:C2	2.90	0.59
27:BA:680:G:H2'	27:BA:681:G:C8	2.37	0.59
1:AA:948:C:O2'	1:AA:949:A:H5'	2.02	0.59
27:DA:207:A:H2'	27:DA:208:C:O4'	2.01	0.59
56:B7:17:GLY:O	56:B7:21:ARG:HG2	2.03	0.59
35:DI:115:ALA:CA	35:DI:129:THR:HG22	2.31	0.59
35:DI:133:HIS:HB2	35:DI:134:PRO:HD2	1.84	0.59
35:DI:98:ALA:O	35:DI:101:LEU:HB3	2.01	0.59
47:BY:95:LYS:CG	47:BY:100:ALA:HA	2.31	0.59
55:D6:28:ARG:HA	55:D6:32:ASN:HD22	1.67	0.59
27:DA:631:A:O2'	38:DP:67:MET:HB3	2.03	0.59
10:CJ:75:ILE:HG13	10:CJ:76:ASN:N	2.16	0.59
30:DD:44:ASN:HB3	30:DD:49:ILE:CA	2.21	0.59
32:BF:40:GLN:NE2	32:BF:184:TYR:HB2	2.17	0.59
27:BA:942:G:O2'	27:BA:943:U:H5'	2.02	0.59
33:DG:56:ALA:HB2	33:DG:153:ARG:NE	2.17	0.59
13:AM:66:LEU:O	13:AM:70:LEU:HB2	2.02	0.59
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.35	0.59
9:AI:111:ARG:NH2	10:AJ:62:HIS:NE2	2.50	0.59
31:BE:59:VAL:HG13	31:BE:60:ASN:N	2.16	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DF:18:ARG:CD	32:DF:19:GLU:H	2.15	0.59
4:AD:153:ARG:NH2	4:AD:180:GLY:HA2	2.18	0.59
1:CA:1226:C:H2'	13:CM:103:THR:OG1	2.02	0.59
1:CA:20:U:O2'	1:CA:21:G:H5'	2.03	0.59
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.84	0.59
39:BQ:130:LYS:NZ	48:BZ:79:ARG:HD3	2.17	0.59
1:AA:1065:U:O2'	1:AA:1066:C:OP2	2.17	0.59
27:BA:534:U:H2'	27:BA:535:C:C6	2.37	0.59
2:CB:209:ARG:NH1	2:CB:239:VAL:HG11	2.17	0.59
27:DA:637:A:N1	27:DA:651:G:H1'	2.17	0.59
27:BA:2396:G:H2'	27:BA:2397:G:H5'	1.84	0.59
27:DA:1866:C:H6	27:DA:1866:C:O5'	1.85	0.59
1:AA:1481:U:H2'	1:AA:1482:G:C8	2.37	0.59
51:D2:43:GLN:O	51:D2:44:LEU:CB	2.49	0.59
32:DF:184:TYR:O	32:DF:188:ARG:HB2	2.03	0.59
10:CJ:15:THR:O	10:CJ:94:VAL:HG21	2.02	0.59
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.03	0.59
1:AA:935:A:H2'	1:AA:936:C:C6	2.37	0.59
53:B4:43:GLY:C	53:B4:45:GLY:H	2.04	0.59
4:AD:60:GLU:HG2	4:AD:202:LEU:HD12	1.84	0.59
10:CJ:4:ILE:HB	10:CJ:74:ILE:CG1	2.31	0.59
27:DA:2862:G:H2'	27:DA:2863:C:H6	1.67	0.59
41:DS:66:ALA:CA	41:DS:69:VAL:HG12	2.31	0.59
44:DV:6:LYS:HG2	44:DV:10:LYS:O	2.03	0.59
28:DB:62:C:O2	28:DB:63:G:H1'	2.03	0.59
33:DG:81:LYS:O	33:DG:82:LEU:O	2.21	0.59
36:DN:16:ILE:HG12	36:DN:17:ASP:N	2.17	0.59
13:CM:3:ARG:HE	13:CM:7:VAL:HG13	1.66	0.59
31:DE:48:GLN:HE22	31:DE:64:LYS:HE3	1.67	0.59
9:AI:16:ARG:O	9:AI:63:ILE:HG23	2.02	0.59
38:DP:7:ARG:HB2	38:DP:7:ARG:CZ	2.32	0.59
47:DY:23:ARG:NH2	47:DY:40:GLU:HB2	2.18	0.59
47:BY:20:TYR:CZ	47:BY:42:VAL:HA	2.38	0.59
42:DT:100:TYR:CD1	42:DT:100:TYR:N	2.69	0.59
20:CT:89:ARG:HB2	20:CT:104:LEU:HD11	1.83	0.59
44:BV:38:LEU:O	44:BV:51:VAL:HG13	2.03	0.59
5:CE:50:GLU:HB3	5:CE:53:LEU:HD13	1.84	0.59
59:CX:61:C:HO2'	59:CX:62:C:H6	1.47	0.59
5:AE:41:VAL:CG1	5:AE:113:ALA:HA	2.33	0.59
27:BA:2030:A:H4'	27:BA:2031:A:H8	1.67	0.59
34:DH:80:SER:O	34:DH:81:GLU:HB2	2.02	0.59
2:CB:112:VAL:CG1	2:CB:153:ARG:HA	2.32	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DP:46:LYS:HG2	38:DP:52:GLU:CD	2.22	0.59
27:BA:741:G:O2'	27:BA:742:G:H5'	2.02	0.59
30:DD:213:ARG:NH2	30:DD:218:ARG:HD2	2.17	0.59
36:DN:3:THR:HG22	36:DN:3:THR:O	2.02	0.59
29:BC:36:LYS:HD3	29:BC:37:PHE:H	1.65	0.59
27:DA:121:G:H4'	27:DA:149:A:H5'	1.83	0.59
27:BA:184:C:H2'	27:BA:185:U:H6	1.65	0.59
46:BX:41:ASN:N	46:BX:41:ASN:HD22	2.00	0.59
9:CI:84:ALA:O	9:CI:87:GLN:HB3	2.01	0.59
1:CA:936:C:O2'	1:CA:937:A:H5'	2.03	0.59
1:CA:729:A:H2'	1:CA:730:G:H8	1.68	0.59
37:BO:87:ILE:HG22	37:BO:88:ASN:O	2.02	0.59
25:CY:52:G:H2'	25:CY:53:U:C6	2.37	0.59
27:BA:1745(A):C:H5'	27:BA:1746:G:OP2	2.02	0.59
17:CQ:7:THR:HG22	17:CQ:58:GLU:HG2	1.84	0.59
9:CI:47:LEU:HD13	9:CI:47:LEU:H	1.67	0.59
1:CA:41:G:H2'	1:CA:42:G:H8	1.67	0.59
1:CA:1126:U:O2'	1:CA:1127:G:H5'	2.02	0.59
27:BA:397:G:OP2	50:B1:10:LYS:HE2	2.02	0.59
27:BA:2355:C:H2'	27:BA:2356:C:O4'	2.01	0.59
27:DA:2779:U:OP1	27:DA:2779:U:H3'	2.02	0.59
27:DA:76:C:O2'	27:DA:77:C:H5'	2.01	0.59
34:DH:152:ARG:NH1	34:DH:153:LYS:HE3	2.16	0.59
42:BT:28:VAL:O	42:BT:29:ARG:CB	2.50	0.59
42:BT:30:VAL:HG11	42:BT:84:GLN:NE2	2.16	0.59
57:D8:47:LYS:HE3	57:D8:49:VAL:HG13	1.84	0.59
10:CJ:30:SER:O	10:CJ:80:LYS:HB3	2.02	0.59
57:B8:62:LEU:N	57:B8:63:PRO:CD	2.65	0.59
38:BP:18:ARG:HH11	38:BP:18:ARG:HB3	1.67	0.59
46:BX:63:LYS:HA	46:BX:72:LYS:HA	1.84	0.59
42:DT:33:LYS:NZ	42:DT:43:GLN:NE2	2.50	0.59
44:BV:5:VAL:HG23	44:BV:37:VAL:HG23	1.83	0.59
44:BV:58:VAL:O	44:BV:97:LYS:HB2	2.01	0.59
9:CI:79:LEU:HD13	9:CI:79:LEU:O	2.03	0.59
39:BQ:2:LEU:HD12	39:BQ:69:PHE:HE1	1.68	0.59
31:DE:188:VAL:HG13	31:DE:188:VAL:O	2.03	0.59
20:AT:50:GLU:CB	20:AT:100:ILE:HG12	2.24	0.59
27:DA:271(Q):G:H2'	27:DA:271(R):G:C8	2.36	0.59
7:AG:16:LEU:CD1	9:AI:42:ARG:HA	2.32	0.59
27:BA:2330:G:H1'	49:B0:41:ARG:HB3	1.84	0.59
1:CA:101:A:H2'	1:CA:102:G:H8	1.68	0.59
13:CM:90:LEU:HA	13:CM:93:ARG:HB2	1.85	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BZ:174:VAL:HB	48:BZ:175:PRO:HD2	1.85	0.59
1:CA:15:G:H4'	5:CE:24:ARG:NH2	2.16	0.59
19:AS:66:MET:HE2	19:AS:66:MET:H	1.66	0.59
27:DA:2387:U:H5'	27:DA:2388:A:OP2	2.03	0.59
1:CA:624:C:H2'	1:CA:625:G:H8	1.67	0.59
42:DT:106:SER:O	42:DT:107:ASP:CB	2.50	0.59
42:DT:106:SER:O	42:DT:107:ASP:HB3	2.02	0.59
27:DA:1779:U:C5	27:DA:1784:A:N7	2.67	0.59
12:AL:22:PRO:C	12:AL:24:LEU:N	2.56	0.59
27:DA:1812:A:H2'	27:DA:1813:G:C8	2.37	0.59
51:B2:50:ILE:CG2	51:B2:51:ARG:N	2.65	0.59
46:BX:84:ALA:HB3	46:BX:87:GLN:HE21	1.66	0.59
1:AA:170:U:O2'	1:AA:171:A:H5'	2.02	0.59
27:DA:335:C:H2'	27:DA:336:C:H6	1.67	0.59
27:DA:863:A:H2'	27:DA:864:G:H8	1.67	0.59
2:CB:19:HIS:NE2	2:CB:206:ASP:OD1	2.35	0.59
27:DA:2776:A:H4'	27:DA:2777:G:C5'	2.33	0.59
38:DP:38:GLN:OE1	38:DP:41:ARG:HD2	2.03	0.59
30:DD:211:ARG:HA	30:DD:214:TRP:CG	2.38	0.59
46:DX:36:LYS:HD2	46:DX:54:VAL:HB	1.85	0.59
18:CR:46:GLU:CD	18:CR:46:GLU:H	2.04	0.59
29:DC:37:PHE:CD2	29:DC:39:GLU:HG3	2.37	0.59
30:BD:161:THR:OG1	30:BD:196:VAL:HG21	2.02	0.59
1:CA:1528:U:O2'	1:CA:1529:G:H3'	2.03	0.59
27:BA:2746:U:H5'	34:BH:139:GLN:HA	1.84	0.59
27:DA:696:G:O2'	27:DA:697:C:H5'	2.02	0.59
1:CA:189(D):C:H1'	1:CA:189(H):G:N2	2.18	0.59
27:DA:2015:A:H1'	54:D5:2:ALA:HA	1.83	0.59
27:BA:245:G:N7	57:B8:8:LYS:NZ	2.50	0.59
27:DA:1400:G:H2'	27:DA:1401:G:C8	2.38	0.59
7:AG:21:VAL:HG23	7:AG:22:LEU:H	1.68	0.59
1:AA:1404:C:H2'	1:AA:1405:G:C8	2.37	0.59
27:BA:629:G:H5''	57:B8:15:LYS:NZ	2.18	0.59
27:BA:2394:C:O5'	27:BA:2394:C:H6	1.85	0.59
35:DI:86:THR:HB	35:DI:122:GLU:OE2	2.03	0.59
27:BA:2756:U:H5''	58:B9:19:ARG:HB2	1.84	0.59
47:BY:76:CYS:HG	47:BY:77:PRO:HD2	1.65	0.59
27:DA:1594:G:H5'	27:DA:1594:G:C8	2.38	0.59
53:B4:40:ILE:HB	53:B4:48:ILE:HB	1.83	0.59
33:BG:142:PRO:HB2	53:B4:57:ILE:HD12	1.84	0.59
33:BG:47:LYS:HE3	33:BG:81:LYS:HE3	1.84	0.59
27:DA:2349:G:H8	27:DA:2349:G:H5'	1.66	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1453:U:OP1	40:DR:77:ARG:HD3	2.03	0.59
36:DN:23:LEU:HD13	36:DN:98:VAL:HG12	1.84	0.59
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.02	0.59
17:AQ:6:LEU:HB3	17:AQ:23:VAL:HG11	1.85	0.59
42:DT:42:ILE:HD12	42:DT:42:ILE:N	2.07	0.59
27:DA:857:C:O2'	49:D0:26:TYR:HE2	1.85	0.59
31:DE:111:ARG:HB3	31:DE:160:TYR:HD1	1.67	0.59
1:AA:91:C:C6	1:AA:92:C:H1'	2.36	0.59
13:CM:20:THR:C	13:CM:22:ILE:H	2.06	0.59
12:CL:25:LYS:HB2	12:CL:30:ARG:HH12	1.67	0.59
4:CD:176:LEU:HD12	4:CD:177:ASP:N	2.18	0.59
52:D3:8:LEU:HD13	52:D3:31:LEU:HD23	1.84	0.59
27:DA:2535:G:H2'	27:DA:2536:G:C8	2.37	0.59
4:CD:25:ARG:C	4:CD:27:TYR:H	2.06	0.59
59:CX:31:G:H2'	59:CX:32:C:C5'	2.31	0.59
27:BA:1665:A:H5''	37:BO:66:LYS:HG3	1.83	0.59
12:AL:29:PHE:HB3	12:AL:81:LEU:CD2	2.32	0.59
7:CG:108:ALA:HA	7:CG:111:ARG:HD2	1.85	0.59
27:BA:271(Q):G:H2'	27:BA:271(R):G:H8	1.68	0.59
27:BA:2354:G:O2'	49:B0:36:ILE:HG23	2.03	0.59
16:AP:65:GLN:N	16:AP:65:GLN:OE1	2.36	0.59
2:CB:132:LYS:HA	2:CB:135:GLN:CB	2.32	0.59
1:AA:954:G:H21	1:AA:1227:A:H62	1.50	0.59
27:DA:364:C:O5'	27:DA:364:C:H6	1.85	0.59
1:CA:1262:C:H2'	1:CA:1263:C:H6	1.64	0.59
32:BF:195:ASP:HB2	32:BF:198:ALA:CB	2.33	0.59
12:AL:15:VAL:HG23	12:AL:16:ARG:H	1.65	0.59
1:CA:431:A:O2'	1:CA:432:A:H5'	2.02	0.59
27:DA:1599:C:H2'	27:DA:1600:C:H6	1.67	0.59
25:CY:63:C:H2'	25:CY:64:G:H8	1.68	0.59
27:BA:384:U:H2'	27:BA:385:C:H6	1.68	0.59
27:DA:247:G:H4'	27:DA:386:G:C5	2.37	0.59
47:BY:26:LYS:HG2	47:BY:27:VAL:HG23	1.85	0.59
42:BT:38:ASN:ND2	42:BT:38:ASN:C	2.56	0.59
27:DA:1039:G:C6	27:DA:1117:G:N7	2.70	0.59
27:DA:1041:C:H2'	27:DA:1042:G:H8	1.67	0.59
27:DA:2394:C:P	38:DP:62:LEU:HG	2.42	0.59
10:CJ:31:GLY:HA3	10:CJ:76:ASN:HD22	1.66	0.59
30:BD:92:ILE:HG13	30:BD:104:TYR:HD2	1.67	0.59
31:DE:15:PHE:CD1	31:DE:20:ALA:HB2	2.37	0.59
9:CI:53:VAL:HG11	9:CI:85:LEU:CD2	2.32	0.59
28:DB:32:C:N3	28:DB:51:G:N2	2.50	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:30:ARG:HD3	41:DS:31:SER:N	2.18	0.59
27:DA:2720:U:O2	27:DA:2720:U:H2'	2.03	0.59
47:DY:31:LEU:HD22	47:DY:31:LEU:N	2.16	0.59
47:DY:68:HIS:ND1	47:DY:70:SER:HB3	2.17	0.59
32:DF:121:GLY:C	32:DF:123:LEU:H	2.06	0.59
19:CS:19:VAL:O	19:CS:23:ASN:HB2	2.03	0.59
43:BU:62:ILE:HD13	43:BU:93:LYS:HG2	1.85	0.59
46:BX:60:ARG:HH22	56:B7:47:ARG:CZ	2.16	0.59
1:CA:878:G:H5'	8:CH:89:PRO:HG2	1.85	0.59
1:CA:72:C:O2	1:CA:97:G:N2	2.33	0.59
6:CF:3:ARG:HB3	6:CF:93:SER:HB3	1.84	0.59
15:AO:35:ARG:O	15:AO:38:ARG:HB2	2.02	0.59
27:DA:66:C:C2	27:DA:89:G:N1	2.71	0.59
27:DA:1784:A:H4'	27:DA:1785:A:O5'	2.03	0.59
1:AA:1207:G:O2'	1:AA:1208:C:H5'	2.02	0.59
15:AO:54:ARG:HG2	15:AO:54:ARG:NH1	2.17	0.59
4:CD:111:ALA:HB2	4:CD:120:LEU:CD1	2.32	0.59
2:CB:69:LEU:HD13	2:CB:91:PRO:HB2	1.84	0.59
1:CA:403:C:H2'	1:CA:404:U:H6	1.68	0.59
1:AA:1171:G:H2'	1:AA:1172:C:C6	2.38	0.59
12:CL:72:HIS:HD2	12:CL:74:LEU:H	1.49	0.59
27:BA:862:G:H2'	27:BA:863:A:O4'	2.01	0.59
27:DA:2162:G:H2'	27:DA:2163:C:H6	1.68	0.59
35:DI:92:VAL:HG13	35:DI:120:ILE:HB	1.84	0.59
1:CA:833:U:H2'	1:CA:834:C:H6	1.67	0.59
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.38	0.59
7:AG:32:ARG:O	7:AG:34:GLY:N	2.36	0.59
28:BB:17:C:H2'	28:BB:18:G:O4'	2.03	0.59
1:CA:262:A:C6	1:CA:263:A:C6	2.91	0.59
51:B2:10:LEU:HD21	51:B2:59:ARG:HG2	1.84	0.59
27:DA:1441:G:H2'	27:DA:1442:G:H8	1.65	0.59
51:B2:38:GLN:HB3	51:B2:44:LEU:HB3	1.84	0.59
1:CA:794:A:H2'	1:CA:795:C:C6	2.37	0.59
55:B6:17:LYS:O	55:B6:18:ARG:CB	2.51	0.59
4:AD:11:LEU:HD11	4:AD:21:LEU:HD11	1.83	0.59
40:BR:32:GLY:HA2	40:BR:116:LEU:CD1	2.33	0.59
35:BI:129:THR:O	35:BI:130:TYR:HB2	2.02	0.59
53:B4:66:HIS:CB	53:B4:67:PRO:HD3	2.31	0.59
27:BA:1021:A:C3'	27:BA:1021:A:C8	2.76	0.59
57:B8:4:MET:SD	57:B8:61:LEU:HD21	2.42	0.59
38:BP:21:ARG:C	38:BP:23:PRO:HD3	2.23	0.59
39:BQ:12:GLN:HE21	39:BQ:73:PRO:HD2	1.67	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:50:ILE:HG12	18:CR:74:ARG:NH1	2.17	0.59
1:AA:1064:G:H21	1:AA:1190:G:H2'	1.68	0.59
42:BT:12:SER:C	42:BT:14:TYR:H	2.04	0.59
27:DA:1997:G:O2'	27:DA:1998:G:H5'	2.03	0.59
1:AA:80:G:H3'	1:AA:81:U:H5'	1.84	0.59
49:B0:45:PHE:O	49:B0:59:LEU:HD11	2.02	0.59
1:AA:1298:C:H2'	7:AG:114:ARG:NH1	2.16	0.59
5:AE:104:ALA:H	5:AE:106:PRO:HD2	1.68	0.59
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.75	0.59
27:BA:874:G:O2'	27:BA:875:G:H5'	2.01	0.59
45:BW:68:ARG:O	45:BW:110:LYS:HB2	2.02	0.59
50:B1:86:SER:O	50:B1:90:ILE:HG12	2.02	0.59
27:BA:1784:A:H4'	27:BA:1785:A:O5'	2.03	0.59
15:AO:14:GLU:O	15:AO:14:GLU:OE1	2.20	0.59
41:BS:33:LYS:C	41:BS:34:HIS:HD2	2.06	0.59
19:AS:6:LYS:N	19:AS:6:LYS:HE3	2.17	0.59
34:BH:31:GLY:H	34:BH:79:VAL:HG13	1.67	0.59
1:AA:840:C:H5'	1:AA:848:C:O2	2.02	0.59
12:AL:52:VAL:HG12	12:AL:53:ALA:N	2.16	0.59
35:BI:42:SER:O	35:BI:45:LYS:HG2	2.03	0.59
27:BA:2681:C:H5	27:BA:2725:A:H62	1.47	0.59
4:AD:59:ARG:HA	4:AD:59:ARG:NE	2.18	0.59
1:CA:1346:A:C5'	9:CI:120:ARG:HH12	2.15	0.59
28:BB:92:C:H2'	28:BB:93:G:H8	1.68	0.59
4:AD:132:ARG:CG	4:AD:132:ARG:O	2.51	0.59
1:AA:1086:U:H5	1:AA:1099:G:H22	1.51	0.59
25:CY:22:G:H2'	25:CY:23:G:H8	1.67	0.59
27:BA:754:C:H2'	27:BA:755:C:C6	2.36	0.59
27:DA:1448:G:H21	27:DA:1528(A):A:H2	1.49	0.59
42:BT:122:ASP:C	42:BT:124:ASP:H	2.06	0.59
36:BN:116:LEU:O	36:BN:119:ARG:N	2.26	0.59
8:AH:119:LEU:HA	8:AH:123:GLU:OE1	2.03	0.59
27:DA:2161:C:H2'	27:DA:2162:G:C8	2.38	0.59
30:DD:129:ASN:O	30:DD:193:VAL:HG12	2.03	0.59
1:AA:488:C:O2'	1:AA:489:C:H5'	2.02	0.59
1:CA:1121:U:H2'	1:CA:1122:U:C6	2.38	0.59
1:AA:1218:C:H2'	1:AA:1219:U:C6	2.37	0.59
27:DA:967:C:O2'	27:DA:968:G:H5'	2.02	0.59
27:BA:816:C:O2'	27:BA:817:C:H5'	2.03	0.59
27:BA:363(C):G:H2'	27:BA:363(D):G:H8	1.66	0.59
2:AB:66:GLY:O	2:AB:67:THR:HG23	2.03	0.59
8:CH:73:ASP:OD2	8:CH:75:ARG:HD3	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:CW:14:A:H2'	23:CW:15:G:O4'	2.03	0.59
42:DT:14:TYR:N	42:DT:14:TYR:CD1	2.69	0.59
4:AD:60:GLU:OE1	4:AD:199:ASN:N	2.35	0.59
35:DI:109:ILE:HD11	35:DI:114:LEU:CD2	2.33	0.59
42:BT:40:THR:O	42:BT:41:ARG:HB2	2.03	0.59
3:CC:178:LEU:C	3:CC:180:ALA:H	2.06	0.59
10:CJ:80:LYS:HE3	10:CJ:80:LYS:O	2.02	0.59
32:BF:32:LEU:CD1	32:BF:105:VAL:HG13	2.33	0.59
38:BP:33:ARG:O	38:BP:34:GLY:C	2.40	0.59
30:DD:133:LEU:HA	30:DD:136:ILE:HD12	1.85	0.59
23:AW:38:U:H2'	23:AW:39:C:C6	2.38	0.59
50:D1:76:ARG:HG3	50:D1:76:ARG:O	2.02	0.59
3:CC:71:ALA:HB1	3:CC:109:PRO:HG3	1.83	0.59
14:AN:24:CYS:H	14:AN:33:VAL:HG11	1.67	0.59
43:BU:55:ARG:HA	43:BU:58:ARG:CG	2.30	0.59
40:BR:2:ARG:NH2	40:BR:5:LYS:HE2	2.18	0.59
1:AA:403:C:O2'	1:AA:404:U:H5'	2.02	0.59
30:DD:186:HIS:HD2	30:DD:188:GLU:N	1.96	0.59
27:DA:2022:U:HO2'	27:DA:2617:C:H5'	1.68	0.59
5:AE:70:PRO:O	5:AE:72:GLN:N	2.35	0.59
27:BA:1582:C:O2'	27:BA:1586:A:C8	2.56	0.59
42:DT:115:ARG:CA	42:DT:115:ARG:HE	2.14	0.59
15:CO:3:ILE:N	15:CO:3:ILE:HD13	2.18	0.59
50:D1:50:ARG:HG3	50:D1:50:ARG:HH11	1.68	0.59
27:DA:1349:A:N6	27:DA:1598:C:N4	2.51	0.59
1:CA:606:G:H21	1:CA:631:G:H2'	1.67	0.59
27:DA:575:A:HO2'	27:DA:576:U:H5'	1.66	0.59
29:BC:78:ALA:HB1	29:BC:82:LYS:HB2	1.83	0.59
1:CA:407:G:H2'	1:CA:408:A:H8	1.67	0.59
27:DA:541:C:H2'	27:DA:542:C:C5	2.37	0.59
16:CP:12:LYS:O	16:CP:13:HIS:HB2	2.02	0.59
1:CA:709:G:H2'	1:CA:710:G:H8	1.68	0.59
27:DA:108:U:H2'	27:DA:109:G:C8	2.38	0.59
1:AA:1405:G:O2'	1:AA:1406:U:H5'	2.03	0.59
51:B2:10:LEU:HB3	51:B2:14:ARG:NH1	2.18	0.59
31:DE:120:TRP:CE2	31:DE:155:LYS:HB3	2.37	0.59
27:DA:2345:G:N3	27:DA:2381:C:H2'	2.18	0.59
27:DA:2295:C:O2'	27:DA:2296:U:H5'	2.02	0.59
7:CG:75:VAL:O	7:CG:75:VAL:HG23	2.02	0.59
45:DW:95:ILE:O	45:DW:95:ILE:HG13	2.02	0.59
42:BT:133:GLU:HG3	42:BT:133:GLU:O	2.03	0.59
2:AB:71:VAL:HG22	2:AB:93:VAL:HG21	1.85	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1783:A:H5'	27:DA:2608:G:H4'	1.83	0.59
1:AA:1291:G:H5''	9:AI:39:GLY:O	2.03	0.59
55:B6:15:GLU:O	55:B6:18:ARG:NH2	2.36	0.59
47:BY:28:LYS:O	47:BY:38:ILE:CG1	2.49	0.59
47:BY:75:ILE:O	47:BY:76:CYS:HB2	2.03	0.59
54:B5:25:LEU:CD1	54:B5:25:LEU:H	2.11	0.59
51:D2:4:SER:HA	51:D2:7:ARG:HH11	1.68	0.59
10:CJ:9:ARG:HG2	10:CJ:69:ASN:OD1	2.03	0.59
36:DN:58:ASP:O	36:DN:60:ILE:HG13	2.03	0.59
31:DE:30:PRO:O	31:DE:32:PRO:HD3	2.02	0.59
1:CA:1056:U:H5'	3:CC:163:ALA:HB2	1.83	0.59
27:BA:1168:G:O2'	27:BA:1169:G:H5'	2.03	0.59
32:DF:34:TRP:HB2	38:DP:10:PRO:O	2.03	0.59
37:DO:1:MET:CE	37:DO:1:MET:H1	2.16	0.59
27:DA:1654:A:P	40:DR:3:HIS:HB2	2.42	0.59
48:BZ:120:HIS:HB3	48:BZ:170:ILE:HG22	1.83	0.59
27:BA:1479:G:H2'	27:BA:1480:G:O4'	2.03	0.59
3:AC:70:VAL:HG12	3:AC:71:ALA:N	2.17	0.59
1:CA:323:U:H5'	20:CT:23:ARG:HB2	1.83	0.59
8:AH:51:VAL:HG11	8:AH:60:ARG:HG3	1.85	0.59
2:CB:61:LEU:CD2	2:CB:68:ILE:HD11	2.28	0.59
27:DA:2839:G:H2'	27:DA:2840:C:C6	2.38	0.59
1:AA:797:C:OP1	11:AK:124:LYS:HE2	2.02	0.59
3:CC:44:GLU:HG2	3:CC:52:LEU:HD11	1.84	0.59
34:BH:30:LYS:HB2	34:BH:79:VAL:HA	1.85	0.59
33:DG:142:PRO:HG2	33:DG:143:GLU:H	1.67	0.59
34:DH:47:GLU:HG2	34:DH:48:GLY:N	2.18	0.59
52:B3:52:HIS:H	52:B3:52:HIS:HD2	1.50	0.59
50:D1:51:VAL:O	50:D1:57:GLU:O	2.21	0.59
27:BA:1055:G:C2	27:BA:1108:U:H1'	2.38	0.59
1:AA:501:C:H2'	1:AA:502:G:C8	2.36	0.59
27:DA:2571:C:C5'	27:DA:2572:A:C5'	2.81	0.59
34:BH:155:SER:OG	34:BH:156:ALA:N	2.34	0.59
1:AA:940:C:O2'	1:AA:941:G:H5'	2.03	0.59
13:CM:98:VAL:C	13:CM:100:GLY:H	2.07	0.59
27:DA:2029:G:H2'	27:DA:2031:A:OP1	2.03	0.59
25:AY:37:U:C2'	25:AY:38:U:H5''	2.33	0.59
1:CA:592:G:H2'	1:CA:593:G:H8	1.67	0.59
27:DA:2330:G:H1'	49:D0:41:ARG:CB	2.33	0.59
27:DA:2126:A:C6	27:DA:2163:C:H4'	2.38	0.59
1:CA:673:G:H2'	1:CA:674:G:C8	2.38	0.59
31:BE:155:LYS:O	31:BE:156:MET:HG3	2.03	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:115:G:H1'	1:CA:116:A:N7	2.17	0.59
46:BX:52:VAL:O	46:BX:52:VAL:HG12	2.02	0.59
27:DA:2036:C:H5'	27:DA:2036:C:H6	1.68	0.59
27:BA:2450:A:C2	27:BA:2451:A:C4	2.90	0.59
1:AA:1422:G:O2'	1:AA:1423:G:H5'	2.03	0.59
6:AF:36:ARG:NH2	6:AF:66:GLU:HG2	2.18	0.59
13:CM:33:ALA:HA	13:CM:59:TYR:CE2	2.37	0.59
5:AE:82:VAL:HG21	5:AE:138:ALA:HA	1.85	0.59
38:BP:126:VAL:HA	38:BP:145:PRO:HB2	1.84	0.58
4:AD:67:ILE:CG2	4:AD:68:TYR:N	2.65	0.58
1:CA:722:A:H2'	1:CA:724:G:C8	2.38	0.58
42:DT:3:ARG:C	42:DT:5:ALA:N	2.55	0.58
33:BG:152:LEU:HD23	33:BG:152:LEU:C	2.23	0.58
48:DZ:156:LEU:N	48:DZ:156:LEU:HD12	2.18	0.58
38:DP:83:VAL:HG11	38:DP:112:LEU:HD21	1.84	0.58
33:DG:39:ILE:HD11	33:DG:155:MET:HB2	1.85	0.58
30:BD:79:VAL:CG2	30:BD:111:LEU:HD11	2.24	0.58
36:DN:128:HIS:O	36:DN:128:HIS:CG	2.55	0.58
13:AM:45:VAL:O	13:AM:48:LEU:HD22	2.03	0.58
42:DT:41:ARG:HH11	42:DT:43:GLN:HA	1.66	0.58
27:DA:858:U:O2	27:DA:2268:A:H2'	2.03	0.58
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.38	0.58
2:AB:187:LEU:HD13	2:AB:187:LEU:O	2.03	0.58
47:DY:28:LYS:O	47:DY:37:VAL:O	2.21	0.58
45:BW:86:LEU:C	45:BW:86:LEU:HD12	2.22	0.58
19:CS:15:LEU:O	19:CS:19:VAL:HG23	2.03	0.58
19:CS:48:THR:CG2	19:CS:61:TYR:HA	2.29	0.58
17:CQ:20:THR:HA	17:CQ:43:LEU:HD23	1.84	0.58
41:BS:19:LYS:HG2	41:BS:19:LYS:O	2.02	0.58
41:BS:20:ARG:HG2	41:BS:20:ARG:NH1	2.18	0.58
5:CE:15:ARG:HG3	5:CE:28:PHE:CE2	2.21	0.58
27:DA:2197:U:O2'	27:DA:2198:A:O5'	2.21	0.58
15:CO:56:LEU:O	15:CO:60:VAL:HG23	2.02	0.58
2:CB:200:ILE:HG22	2:CB:202:PRO:N	2.18	0.58
35:BI:12:LEU:HB2	35:BI:19:VAL:HG11	1.85	0.58
5:AE:69:VAL:HG13	5:AE:139:LEU:HD22	1.83	0.58
15:AO:6:GLU:O	15:AO:9:GLN:N	2.36	0.58
1:AA:532:A:H3'	1:AA:533:A:H5''	1.84	0.58
27:DA:2533:A:C3'	27:DA:2534:A:H5''	2.33	0.58
3:AC:115:LEU:O	3:AC:119:ARG:HB2	2.03	0.58
31:BE:47:VAL:HG12	31:BE:49:LEU:CD1	2.33	0.58
27:DA:2309:A:C2	27:DA:2310:A:H2	2.21	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:111:ARG:HE	7:AG:123:GLU:HB2	1.68	0.58
7:AG:111:ARG:NE	7:AG:123:GLU:HB2	2.18	0.58
34:BH:154:PRO:O	34:BH:155:SER:O	2.20	0.58
1:CA:407:G:H2'	1:CA:408:A:C8	2.37	0.58
1:AA:358:U:H2'	1:AA:359:U:C6	2.38	0.58
1:CA:710:G:H2'	1:CA:711:G:C8	2.38	0.58
2:CB:28:PHE:HD1	2:CB:32:ILE:HD11	1.67	0.58
40:DR:10:LEU:HB3	40:DR:17:ARG:CZ	2.33	0.58
27:DA:2183:C:H2'	27:DA:2184:G:H8	1.67	0.58
27:BA:11:G:C2'	27:BA:12:U:H5'	2.33	0.58
28:DB:94:C:H2'	28:DB:95:C:C6	2.38	0.58
1:AA:179:A:H2'	1:AA:180:U:C6	2.38	0.58
27:BA:438:G:O2'	27:BA:440:G:H5'	2.04	0.58
27:BA:1036:G:OP1	34:BH:59:ARG:HB2	2.02	0.58
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.68	0.58
27:BA:1946:U:H2'	27:BA:1947:C:H6	1.68	0.58
49:B0:65:GLY:HA3	49:B0:83:PRO:HA	1.85	0.58
45:BW:90:ARG:HG3	45:BW:90:ARG:HH11	1.68	0.58
1:CA:1497:G:C2'	1:CA:1498:U:H5'	2.33	0.58
35:DI:64:GLU:OE2	35:DI:67:ARG:HD2	2.03	0.58
38:BP:107:LYS:O	38:BP:109:GLY:N	2.36	0.58
38:BP:65:ARG:NH1	57:B8:46:ARG:NH2	2.51	0.58
53:B4:40:ILE:HG13	53:B4:57:ILE:CG2	2.28	0.58
3:CC:8:ILE:HB	14:CN:49:HIS:O	2.03	0.58
1:CA:521:G:O2'	1:CA:522:C:H5'	2.03	0.58
27:BA:661:C:H4'	38:BP:16:ARG:HH12	1.67	0.58
43:DU:95:LEU:CD1	44:DV:4:ILE:HG21	2.28	0.58
33:DG:169:ALA:O	33:DG:171:ALA:N	2.36	0.58
33:DG:107:LEU:HD13	33:DG:177:GLY:O	2.03	0.58
14:AN:41:ARG:HG2	14:AN:41:ARG:HH11	1.68	0.58
9:AI:82:ALA:HB1	9:AI:96:LEU:HD13	1.84	0.58
38:DP:6:LEU:HB2	38:DP:8:PRO:HD2	1.85	0.58
31:DE:110:GLY:HA2	31:DE:162:ALA:N	2.18	0.58
27:BA:1209:G:N2	27:BA:1210:A:H62	2.01	0.58
4:AD:147:ALA:HB2	4:AD:182:LYS:CB	2.33	0.58
27:DA:2755:C:C2	58:D9:19:ARG:HD3	2.37	0.58
1:AA:373:A:O2'	1:AA:374:A:H5'	2.04	0.58
19:AS:65:ASN:HB2	19:AS:66:MET:HE3	1.84	0.58
27:DA:2680:C:O2'	27:DA:2681:C:H5'	2.03	0.58
36:DN:120:LEU:C	36:DN:121:LYS:HD2	2.23	0.58
27:BA:855:G:H1	27:BA:922:U:H3	1.51	0.58
4:CD:21:LEU:H	4:CD:21:LEU:HD12	1.68	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:155:LEU:HD23	30:BD:177:LEU:HD22	1.86	0.58
30:DD:61:LEU:O	30:DD:63:ARG:NH1	2.36	0.58
27:DA:271(H):G:H5'	50:D1:81:LYS:HD3	1.85	0.58
27:BA:882:G:H2'	27:BA:883:G:O4'	2.03	0.58
27:DA:176:G:C2'	27:DA:177:G:H5'	2.33	0.58
1:CA:187:C:H5''	20:CT:86:ARG:HD2	1.84	0.58
27:DA:1479:G:H5'	27:DA:1558:A:H2	1.68	0.58
1:CA:851:G:H2'	1:CA:852:G:H8	1.68	0.58
1:CA:551:U:H2'	1:CA:552:U:H6	1.68	0.58
27:BA:2013:A:C4'	45:BW:96:ILE:HD12	2.33	0.58
27:DA:1423:G:H2'	27:DA:1424:G:C8	2.38	0.58
11:AK:38:ASN:HD22	11:AK:38:ASN:N	2.00	0.58
27:DA:2359:C:H2'	27:DA:2360:A:O4'	2.04	0.58
52:D3:13:ILE:H	52:D3:13:ILE:HD12	1.67	0.58
29:BC:56:GLN:NE2	29:BC:173:ALA:HB1	2.17	0.58
27:BA:1906:G:O2'	27:BA:1907:G:H5'	2.03	0.58
27:BA:1932:A:H2'	27:BA:1933:G:O4'	2.03	0.58
27:BA:1681:G:OP2	27:BA:1681:G:H8	1.85	0.58
34:DH:86:GLU:OE1	34:DH:86:GLU:N	2.35	0.58
1:AA:226:G:O2'	1:AA:227:G:H5'	2.03	0.58
10:AJ:45:ARG:HH11	10:AJ:45:ARG:HG3	1.68	0.58
1:CA:758:G:C5'	1:CA:880:C:H1'	2.33	0.58
27:DA:407:G:H2'	27:DA:408:G:H8	1.68	0.58
48:DZ:149:LEU:HB2	48:DZ:170:ILE:HG13	1.84	0.58
38:DP:64:LYS:O	38:DP:66:GLY:N	2.36	0.58
38:BP:18:ARG:CB	38:BP:18:ARG:NH1	2.66	0.58
44:BV:34:GLU:O	44:BV:36:PRO:HD3	2.02	0.58
41:DS:30:ARG:NH2	41:DS:62:LYS:HB3	2.07	0.58
1:AA:973:G:H3'	1:AA:974:A:H5''	1.85	0.58
23:AW:39:C:H2'	23:AW:40:C:C6	2.38	0.58
27:BA:1368:G:O2'	27:BA:1369:G:H5'	2.04	0.58
1:AA:1275:A:H2'	1:AA:1276:G:O4'	2.03	0.58
47:DY:15:VAL:HG23	47:DY:23:ARG:O	2.03	0.58
47:DY:77:PRO:O	47:DY:78:ALA:HB2	2.03	0.58
32:DF:5:ALA:N	32:DF:18:ARG:O	2.28	0.58
3:CC:70:VAL:HG12	3:CC:71:ALA:N	2.18	0.58
17:CQ:43:LEU:O	17:CQ:69:LYS:HG3	2.02	0.58
41:BS:18:ILE:HG22	41:BS:19:LYS:N	2.18	0.58
27:BA:1607:C:C4'	27:BA:1608:A:O5'	2.46	0.58
5:AE:101:ILE:CD1	5:AE:119:LEU:HD23	2.33	0.58
34:BH:46:GLU:HB2	34:BH:47:GLU:OE2	2.03	0.58
34:DH:121:ILE:CG1	34:DH:135:GLY:HA2	2.33	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DH:85:LYS:CE	34:DH:144:VAL:HB	2.34	0.58
41:BS:52:SER:CB	41:BS:55:ALA:HB3	2.31	0.58
45:DW:6:ILE:HG12	45:DW:104:THR:CA	2.32	0.58
37:BO:1:MET:HE2	37:BO:67:LYS:HG2	1.84	0.58
37:BO:2:ILE:CG2	37:BO:8:LEU:HD11	2.34	0.58
24:AX:62:C:H2'	24:AX:63:G:H8	1.68	0.58
2:CB:162:ILE:O	2:CB:185:ILE:HG13	2.03	0.58
20:CT:82:SER:O	20:CT:86:ARG:HB2	2.02	0.58
24:AX:71:C:C2'	24:AX:72:A:H5''	2.33	0.58
3:CC:92:ALA:HB2	3:CC:99:VAL:HG22	1.83	0.58
12:CL:66:TYR:O	12:CL:68:PRO:HD3	2.03	0.58
36:BN:39:ARG:C	36:BN:41:ASP:H	2.06	0.58
30:DD:231:HIS:CD2	30:DD:249:PRO:HB3	2.38	0.58
30:BD:161:THR:O	30:BD:196:VAL:HG23	2.03	0.58
27:DA:2065:C:H2'	27:DA:2066:C:C6	2.38	0.58
1:AA:1258:G:O2'	1:AA:1259:C:H5'	2.04	0.58
29:BC:56:GLN:HE22	29:BC:167:LYS:C	2.07	0.58
1:AA:1381:U:C4	7:AG:156:TRP:HZ3	2.21	0.58
18:AR:19:LYS:O	18:AR:20:ALA:HB3	2.04	0.58
51:B2:13:ALA:HA	51:B2:16:LEU:HD12	1.84	0.58
23:AW:29:G:H2'	23:AW:30:A:H8	1.66	0.58
48:BZ:13:LYS:HB3	48:BZ:16:ALA:HB3	1.85	0.58
6:AF:67:MET:CE	6:AF:75:LEU:HD12	2.33	0.58
38:BP:64:LYS:CG	38:BP:65:ARG:N	2.65	0.58
27:BA:2758:A:C3'	27:BA:2759:G:H5''	2.33	0.58
35:BI:110:ASP:H	35:BI:130:TYR:HH	1.51	0.58
35:BI:129:THR:HG22	35:BI:137:PRO:HG3	1.84	0.58
53:B4:44:CYS:SG	53:B4:65:CYS:HB2	2.43	0.58
10:CJ:31:GLY:CA	10:CJ:76:ASN:HD22	2.14	0.58
27:DA:2376:A:O2'	41:DS:108:GLY:HA2	2.02	0.58
33:DG:25:TYR:CD2	33:DG:31:VAL:HG23	2.39	0.58
33:DG:111:LEU:HB3	33:DG:117:PHE:HE2	1.67	0.58
27:BA:870:A:H2'	27:BA:871:U:O4'	2.03	0.58
45:DW:20:VAL:HG11	45:DW:44:ALA:HA	1.85	0.58
32:BF:156:LEU:HD21	32:BF:163:VAL:HG12	1.85	0.58
1:CA:192:U:H4'	20:CT:102:GLY:O	2.02	0.58
15:CO:87:ILE:O	15:CO:88:ARG:HB2	2.04	0.58
1:CA:1457:G:C2	1:CA:1458:G:N7	2.72	0.58
2:CB:42:ILE:CD1	2:CB:203:GLY:HA2	2.33	0.58
1:CA:532:A:H2	1:CA:1207:G:C4'	2.15	0.58
27:DA:252:G:OP2	38:DP:50:ARG:NH1	2.35	0.58
16:CP:82:GLN:NE2	16:CP:82:GLN:N	2.51	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:107:ASP:CG	42:DT:108:ARG:H	2.06	0.58
27:DA:2485:G:OP1	39:DQ:46:GLN:NE2	2.36	0.58
1:AA:851:G:H2'	1:AA:852:G:H8	1.67	0.58
27:DA:614(C):A:O2'	27:DA:615:G:P	2.62	0.58
3:AC:130:VAL:CG2	3:AC:157:ILE:HG23	2.34	0.58
2:AB:114:ARG:HH12	2:AB:118:LEU:HD21	1.66	0.58
27:DA:2097:C:O2'	27:DA:2098:U:H5'	2.03	0.58
32:DF:167:ALA:HB1	32:DF:173:VAL:HG11	1.85	0.58
27:DA:445:C:O2'	27:DA:446:G:H5'	2.04	0.58
5:AE:83:GLU:HG2	5:AE:88:LYS:HB2	1.84	0.58
32:BF:113:ALA:HB1	32:BF:186:ILE:HG21	1.86	0.58
1:CA:491:G:H2'	1:CA:492:G:C8	2.38	0.58
40:DR:10:LEU:HA	40:DR:17:ARG:HD3	1.84	0.58
27:DA:430:G:H5''	27:DA:431:U:OP2	2.04	0.58
1:CA:309:G:H1'	1:CA:608:A:C2	2.38	0.58
27:BA:272(B):G:O2'	27:BA:272(C):G:OP2	2.19	0.58
27:DA:2552:U:H2'	27:DA:2554:U:OP2	2.03	0.58
1:CA:288:A:H2'	1:CA:289:G:H4'	1.84	0.58
1:AA:589:C:O2'	1:AA:590:C:H5'	2.02	0.58
27:BA:116:C:O2'	27:BA:117:G:H5'	2.04	0.58
31:BE:177:PRO:HG2	31:BE:178:GLU:H	1.68	0.58
27:BA:125:G:H5''	56:B7:19:ARG:HD3	1.84	0.58
9:AI:24:GLY:HA2	9:AI:59:PHE:O	2.03	0.58
38:BP:96:THR:O	38:BP:100:LEU:HB2	2.03	0.58
35:BI:130:TYR:CD1	35:BI:131:LYS:N	2.71	0.58
24:AX:19:G:C3'	24:AX:20:U:C5'	2.78	0.58
41:BS:25:ARG:O	41:BS:39:ILE:HA	2.04	0.58
32:BF:32:LEU:HD22	32:BF:112:MET:CE	2.34	0.58
43:DU:92:ARG:N	43:DU:92:ARG:HD3	2.17	0.58
28:DB:111:G:H2'	28:DB:112:U:C4'	2.33	0.58
27:BA:1817:G:H2'	27:BA:1818:U:H5'	1.84	0.58
38:BP:30:THR:HG22	38:BP:31:ALA:N	2.08	0.58
3:AC:155:GLY:O	3:AC:156:ARG:HB2	2.02	0.58
30:BD:231:HIS:HD2	30:BD:249:PRO:HB3	1.68	0.58
27:BA:1180:C:C2'	27:BA:1181:C:H5'	2.33	0.58
1:CA:1442(B):A:H2'	1:CA:1442(B):A:N3	2.19	0.58
27:DA:1996:C:H5	37:DO:32:TYR:HH	1.51	0.58
14:AN:27:CYS:C	14:AN:29:ARG:H	2.06	0.58
27:BA:307:G:H21	27:BA:330:A:H62	1.51	0.58
27:BA:581:C:OP1	43:BU:31:SER:HB2	2.03	0.58
4:AD:110:PHE:HE2	4:AD:147:ALA:HA	1.68	0.58
27:BA:1858:G:H1'	27:BA:1884:A:N6	2.17	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:643:C:H5'	8:CH:31:PHE:CD1	2.38	0.58
41:BS:56:LEU:HD22	41:BS:58:LEU:HD13	1.85	0.58
34:DH:25:LYS:HD2	34:DH:34:GLU:OE1	2.03	0.58
3:AC:92:ALA:HB2	3:AC:99:VAL:CG2	2.33	0.58
39:BQ:133:ARG:HB2	39:BQ:133:ARG:NH1	2.19	0.58
27:DA:2019:A:O4'	43:DU:34:LYS:HE3	2.03	0.58
2:CB:115:LEU:HD13	2:CB:145:LEU:HB3	1.86	0.58
2:CB:140:HIS:O	2:CB:143:GLU:HB2	2.04	0.58
27:BA:856:C:C6	27:BA:856:C:H5''	2.38	0.58
27:BA:110:G:O2'	27:BA:111:A:H5'	2.04	0.58
47:DY:46:LYS:HE3	47:DY:47:LYS:HZ3	1.68	0.58
1:AA:664:G:H22	1:AA:741:G:H1	1.50	0.58
1:AA:742:G:H5''	15:AO:58:MET:CE	2.33	0.58
28:DB:53:A:N3	28:DB:54:G:C8	2.71	0.58
17:AQ:25:ARG:HG2	17:AQ:26:GLN:H	1.64	0.58
18:AR:74:ARG:HB3	18:AR:81:PHE:CE1	2.39	0.58
46:DX:28:PHE:CD1	46:DX:28:PHE:N	2.72	0.58
27:DA:1608:A:H1'	27:DA:1610:A:OP2	2.03	0.58
1:CA:44:G:OP2	16:CP:12:LYS:HE3	2.03	0.58
1:AA:876:G:H1'	8:AH:11:THR:HG21	1.86	0.58
4:CD:132:ARG:NH1	4:CD:132:ARG:HG2	2.18	0.58
27:BA:271(F):C:H2'	27:BA:271(G):C:O4'	2.03	0.58
37:BO:96:THR:O	37:BO:117:LEU:HD11	2.04	0.58
27:DA:225:A:H2'	27:DA:226:G:H5'	1.85	0.58
34:DH:158:HIS:NE2	34:DH:170:ARG:HA	2.19	0.58
1:CA:991:U:O2	1:CA:993:G:H8	1.85	0.58
56:D7:24:THR:HG23	56:D7:27:GLY:HA3	1.84	0.58
40:BR:104:ARG:NH1	40:BR:107:ASP:OD1	2.36	0.58
27:BA:934:G:H2'	27:BA:935:C:H6	1.68	0.58
28:BB:60:C:H2'	28:BB:61:G:H8	1.67	0.58
40:DR:44:LEU:O	40:DR:44:LEU:HD13	2.03	0.58
27:DA:1644:C:O2	27:DA:1644:C:H2'	2.01	0.58
54:B5:40:LYS:HB2	54:B5:41:PRO:HD2	1.85	0.58
38:BP:62:LEU:HD11	57:B8:25:MET:CB	2.25	0.58
27:DA:2305:A:H5''	33:DG:134:GLY:HA3	1.84	0.58
1:AA:386:C:H2'	1:AA:387:U:H5'	1.86	0.58
31:DE:15:PHE:CE2	42:DT:80:SER:HB2	2.39	0.58
31:BE:12:THR:HG23	42:BT:8:LYS:CE	2.33	0.58
47:DY:10:GLY:HA2	47:DY:27:VAL:CG1	2.32	0.58
32:BF:9:ILE:HG12	32:BF:14:PRO:HA	1.86	0.58
27:BA:514:A:H1'	27:BA:581:C:O2'	2.03	0.58
17:CQ:17:LYS:CG	17:CQ:47:PRO:HA	2.32	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:999:U:H2'	27:BA:1000:A:C5'	2.33	0.58
43:BU:92:ARG:HE	43:BU:95:LEU:HB2	1.69	0.58
23:AW:24:C:C2'	23:AW:25:A:H5'	2.33	0.58
13:CM:48:LEU:O	13:CM:48:LEU:HD23	2.04	0.58
15:CO:87:ILE:HG22	15:CO:88:ARG:N	2.12	0.58
53:B4:81:VAL:O	53:B4:82:GLU:HB2	2.04	0.58
3:AC:60:ALA:HB3	3:AC:63:ASN:HD21	1.69	0.58
8:AH:85:ARG:NE	8:AH:87:SER:O	2.37	0.58
34:DH:19:VAL:HG23	34:DH:45:VAL:CG2	2.34	0.58
53:D4:40:ILE:HG23	53:D4:57:ILE:HG21	1.86	0.58
3:CC:113:ALA:HB2	3:CC:202:ILE:HG12	1.86	0.58
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	1.86	0.58
57:D8:59:LYS:HZ1	57:D8:59:LYS:HB2	1.67	0.58
1:CA:1037:C:H2'	1:CA:1038:C:H6	1.66	0.58
1:CA:750:G:H1'	15:CO:22:THR:OG1	2.04	0.58
4:CD:33:MET:HE2	4:CD:37:PRO:HA	1.82	0.58
43:BU:24:TYR:HB2	43:BU:29:SER:HB3	1.84	0.58
27:DA:2331:G:O2'	49:D0:43:THR:HG22	2.03	0.58
7:AG:69:VAL:HG12	7:AG:69:VAL:O	2.03	0.58
4:CD:22:LYS:HB2	4:CD:26:CYS:CB	2.33	0.58
1:AA:693:G:N2	25:AY:36:A:H2	2.02	0.58
27:DA:2177:C:H1'	29:DC:44:HIS:HD2	1.68	0.58
45:BW:37:ARG:NH1	45:BW:38:TYR:CZ	2.72	0.58
37:DO:49:ARG:HH11	37:DO:49:ARG:HG2	1.67	0.58
44:DV:62:LEU:CD2	44:DV:95:LEU:HB2	2.34	0.58
35:BI:48:GLU:O	35:BI:52:ARG:HG2	2.04	0.58
43:DU:8:VAL:HG12	43:DU:12:ARG:HG3	1.84	0.58
34:BH:23:ARG:HD3	34:BH:34:GLU:OE1	2.04	0.58
27:BA:1550:C:H2'	27:BA:1551:C:H6	1.68	0.58
46:BX:91:ALA:O	46:BX:92:LEU:HD23	2.02	0.58
1:AA:1260:C:H6	1:AA:1260:C:H3'	1.69	0.58
5:AE:28:PHE:CD1	5:AE:28:PHE:N	2.72	0.58
45:BW:4:LYS:HG2	45:BW:106:ILE:HD12	1.85	0.58
27:BA:1707:G:H2'	27:BA:1708:C:C6	2.39	0.58
4:AD:63:LYS:HE3	4:AD:198:VAL:HG22	1.85	0.58
27:BA:1519:G:H5'	27:BA:1520:G:OP1	2.03	0.58
3:CC:11:ARG:HH11	3:CC:11:ARG:HG2	1.69	0.58
38:BP:16:ARG:CZ	38:BP:16:ARG:HB2	2.34	0.58
38:DP:104:GLY:C	38:DP:105:LEU:HD23	2.24	0.58
41:DS:88:ASP:CG	41:DS:89:ARG:N	2.57	0.58
41:DS:28:VAL:HG22	41:DS:99:LYS:NZ	2.19	0.58
32:BF:28:ILE:HG22	32:BF:112:MET:HG3	1.86	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DP:23:PRO:HD2	38:DP:33:ARG:NE	2.19	0.58
1:AA:385:C:O2'	1:AA:386:C:H5'	2.03	0.58
1:CA:1475:G:OP1	27:DA:1689:A:H1'	2.03	0.58
31:DE:69:LYS:O	31:DE:71:GLY:O	2.22	0.58
32:DF:78:ILE:HA	32:DF:83:PHE:HD1	1.66	0.58
47:DY:20:TYR:CZ	47:DY:42:VAL:HA	2.39	0.58
2:CB:97:TRP:CZ3	2:CB:173:ALA:HA	2.38	0.58
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.38	0.58
52:D3:35:ARG:O	52:D3:37:LEU:HD23	2.04	0.58
27:BA:1495:A:C2	27:BA:1496:A:C2	2.92	0.58
41:DS:17:ARG:HA	41:DS:20:ARG:HH22	1.68	0.58
27:DA:2788:C:O2'	27:DA:2809:A:N3	2.36	0.58
30:DD:213:ARG:C	30:DD:215:LEU:N	2.57	0.58
27:BA:2147:G:H2'	27:BA:2148:G:O4'	2.03	0.58
27:BA:61:G:H5'	51:B2:50:ILE:HG21	1.84	0.58
42:DT:124:ASP:HA	42:DT:127:ALA:HB3	1.85	0.58
53:D4:50:THR:OG1	53:D4:51:TYR:N	2.35	0.58
27:DA:614(C):A:C4	32:DF:180:GLY:HA2	2.39	0.58
2:AB:75:LYS:HA	2:AB:78:GLN:CG	2.33	0.58
1:CA:1048:G:OP1	14:CN:4:LYS:HB2	2.04	0.58
1:AA:321:A:H2'	1:AA:322:C:C6	2.39	0.58
27:DA:1373:A:H2'	27:DA:1374:G:O4'	2.04	0.58
2:AB:181:PHE:CE1	8:AH:70:GLN:HB3	2.38	0.58
27:BA:2552:U:C2	27:BA:2554:U:H5'	2.38	0.58
16:AP:26:ARG:HG2	16:AP:27:LYS:N	2.19	0.58
27:DA:817:C:O2'	27:DA:839:U:H5''	2.04	0.58
27:DA:2287:A:C2	27:DA:2346:A:H2	2.21	0.58
59:CX:17:C:C5'	59:CX:17(B):U:H2'	2.34	0.58
27:DA:407:G:H2'	27:DA:408:G:C8	2.38	0.58
56:B7:19:ARG:HH11	56:B7:19:ARG:HG2	1.69	0.58
1:AA:646:U:H2'	1:AA:647:C:C6	2.39	0.58
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.72	0.58
50:D1:87:PRO:HG2	50:D1:88:LYS:H	1.69	0.58
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.38	0.58
27:BA:1766:U:O2'	27:BA:1767:C:H5'	2.04	0.58
27:BA:1205:U:C5	32:BF:171:PRO:HA	2.39	0.58
1:CA:761:G:O5'	1:CA:761:G:H8	1.85	0.58
27:BA:2816:C:O3'	40:BR:99:LYS:HE2	2.03	0.58
27:DA:1012:U:C5	36:DN:28:THR:HG21	2.39	0.58
35:DI:125:GLU:HA	35:DI:125:GLU:OE2	2.03	0.58
42:BT:92:GLY:O	42:BT:93:ARG:C	2.41	0.58
45:BW:10:VAL:HG12	45:BW:12:ILE:HG22	1.86	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:75:LYS:O	33:BG:84:LYS:HA	2.03	0.58
46:DX:80:ILE:O	46:DX:80:ILE:HD13	2.03	0.58
55:D6:36:LEU:HD13	55:D6:50:ARG:CZ	2.32	0.58
31:DE:130:GLY:O	31:DE:131:ALA:C	2.42	0.58
38:BP:38:GLN:HG3	38:BP:39:LYS:H	1.68	0.58
33:DG:124:SER:HB2	33:DG:131:TYR:CE1	2.39	0.58
21:CU:18:TYR:HE2	21:CU:22:ARG:CZ	2.17	0.58
27:DA:2759:G:C2'	27:DA:2760:C:H5'	2.34	0.58
1:AA:971:G:N2	1:AA:1363(A):A:OP2	2.35	0.58
45:DW:40:ASN:O	45:DW:41:LYS:CG	2.44	0.58
1:AA:1274:G:N2	1:AA:1275:A:H62	2.00	0.58
9:AI:105:ASP:OD2	9:AI:107:ARG:HD3	2.02	0.58
27:BA:1180:C:H2'	27:BA:1181:C:H5'	1.86	0.58
32:DF:126:VAL:HG11	32:DF:142:TRP:HH2	1.69	0.58
32:BF:7:TYR:HB2	32:BF:17:ARG:N	2.19	0.58
1:CA:1054:C:O2	23:CW:33:C:O4'	2.21	0.58
6:CF:19:LEU:O	6:CF:22:GLU:HB2	2.04	0.58
8:AH:84:ARG:O	8:AH:135:CYS:HB2	2.04	0.58
2:CB:14:GLY:O	2:CB:15:VAL:HG22	2.04	0.58
27:DA:530:G:N1	27:DA:2022:U:OP1	2.37	0.58
10:AJ:7:LYS:N	10:AJ:97:GLU:HB2	2.18	0.58
35:BI:71:ILE:O	35:BI:72:LEU:HD13	2.03	0.58
39:DQ:25:ASP:HA	39:DQ:102:VAL:HG23	1.86	0.58
27:BA:1798:U:C5'	30:BD:259:THR:HG23	2.33	0.58
27:BA:2131:G:OP1	27:BA:2132:U:H3'	2.03	0.58
1:AA:324:G:OP1	20:AT:22:ARG:HD3	2.04	0.58
27:DA:391:G:H2'	27:DA:392:C:O4'	2.04	0.58
18:AR:53:ARG:NH2	18:AR:60:ALA:N	2.51	0.58
18:AR:82:THR:CG2	18:AR:83:GLU:N	2.66	0.58
9:CI:118:LYS:CB	9:CI:118:LYS:HZ2	2.17	0.58
39:BQ:103:MET:HE1	39:BQ:125:LEU:HD13	1.86	0.58
27:BA:319:C:O2'	27:BA:320:A:H5'	2.04	0.58
1:AA:1002:G:H21	1:AA:1003:G:H1'	1.68	0.58
27:DA:1231:G:H2'	27:DA:1232:G:C8	2.38	0.58
27:DA:1308:A:H2'	27:DA:1309:G:O4'	2.04	0.58
27:DA:151:C:O2'	27:DA:152:G:H5'	2.03	0.58
30:BD:161:THR:O	30:BD:162:SER:HB3	2.04	0.58
1:CA:1528:U:O2'	1:CA:1530:G:H5'	2.03	0.58
47:BY:46:LYS:HG2	47:BY:47:LYS:N	2.17	0.58
36:BN:72:TYR:HD1	36:BN:90:MET:HG3	1.68	0.58
34:DH:158:HIS:O	34:DH:159:GLU:CB	2.52	0.58
54:D5:32:PRO:HA	54:D5:38:ALA:O	2.02	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:42:THR:HG23	10:AJ:68:HIS:HA	1.86	0.58
27:BA:1569:A:H2'	27:BA:1570:A:O4'	2.04	0.58
5:AE:42:GLY:HA3	5:AE:65:ASN:O	2.04	0.58
1:CA:386:C:O2'	1:CA:387:U:H5'	2.03	0.58
1:CA:52:G:O2'	1:CA:53:A:H5'	2.04	0.58
14:AN:3:ARG:O	14:AN:7:ILE:HG23	2.04	0.58
36:BN:1:MET:O	36:BN:2:LYS:CG	2.52	0.58
17:CQ:89:LEU:O	17:CQ:92:ARG:HB3	2.04	0.58
1:AA:174:C:H2'	1:AA:175:C:C6	2.39	0.58
38:BP:107:LYS:C	38:BP:109:GLY:H	2.03	0.58
38:BP:135:LEU:HD11	38:BP:144:GLU:HG3	1.85	0.58
42:BT:16:ARG:HB3	42:BT:18:ASP:OD1	2.04	0.58
1:CA:1112:C:C2	3:CC:178:LEU:HB2	2.39	0.58
51:D2:5:GLU:HA	51:D2:8:LYS:CG	2.34	0.58
10:CJ:24:VAL:HG22	10:CJ:72:VAL:HG11	1.85	0.58
38:DP:110:TYR:CE2	38:DP:111:ARG:NH2	2.72	0.58
38:DP:80:TYR:CE1	38:DP:111:ARG:HB3	2.39	0.58
43:DU:102:GLU:CB	43:DU:104:GLN:HE22	2.17	0.58
43:DU:90:VAL:C	43:DU:92:ARG:HD3	2.24	0.58
43:DU:96:ALA:C	43:DU:98:LEU:H	2.05	0.58
28:DB:65:C:H3'	28:DB:109:C:N4	2.16	0.58
27:BA:943:U:OP2	38:BP:38:GLN:CD	2.42	0.58
13:AM:56:LEU:O	13:AM:60:VAL:HG23	2.04	0.58
1:AA:376:G:C4'	16:AP:5:ARG:HD2	2.34	0.58
17:AQ:3:LYS:CD	17:AQ:60:ILE:HD11	2.33	0.58
9:CI:3:GLN:C	9:CI:4:TYR:HD1	2.07	0.58
27:BA:1657:C:H4'	31:BE:133:LYS:CB	2.24	0.58
41:DS:33:LYS:O	41:DS:54:LEU:HG	2.03	0.58
10:AJ:49:VAL:HG22	10:AJ:50:ILE:N	2.18	0.58
27:DA:321:G:OP2	32:DF:136:THR:HG22	2.04	0.58
38:DP:6:LEU:HD12	38:DP:9:ASN:HB3	1.86	0.58
27:DA:2823:A:O5'	27:DA:2823:A:H8	1.87	0.58
47:DY:32:PRO:O	47:DY:35:TYR:N	2.37	0.58
32:DF:20:LEU:HD23	32:DF:23:ASP:CG	2.24	0.58
1:CA:253:U:H2'	1:CA:254:G:H8	1.69	0.58
1:CA:191:G:N3	20:CT:105:SER:HB3	2.19	0.58
5:AE:7:GLU:OE1	5:AE:37:ARG:NE	2.37	0.58
8:CH:86:ILE:HG12	8:CH:135:CYS:HA	1.84	0.58
34:BH:46:GLU:O	34:BH:47:GLU:O	2.22	0.58
27:BA:271(M):G:H5'	35:BI:53:ALA:HB1	1.85	0.58
53:D4:40:ILE:HG23	53:D4:57:ILE:CG2	2.34	0.58
37:BO:66:LYS:H	37:BO:82:ASN:ND2	2.01	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:832:G:OP1	38:BP:40:SER:HB3	2.04	0.58
15:AO:5:LYS:O	15:AO:9:GLN:HG2	2.04	0.58
28:DB:53:A:H2'	28:DB:53:A:N3	2.19	0.58
27:DA:1573:G:C2'	27:DA:1574:C:H5'	2.33	0.58
27:BA:271(Q):G:H2'	27:BA:271(R):G:C8	2.39	0.58
52:B3:54:VAL:CG1	52:B3:55:ARG:H	2.17	0.58
11:AK:24:SER:HB3	11:AK:27:ASN:O	2.04	0.58
37:BO:14:THR:HG22	37:BO:52:VAL:HG12	1.86	0.58
27:BA:754:C:H2'	27:BA:755:C:H6	1.68	0.58
2:AB:178:ARG:HD2	8:AH:72:PRO:HA	1.85	0.58
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.34	0.58
27:BA:271(F):C:H2'	27:BA:271(G):C:H6	1.68	0.58
10:CJ:43:ARG:O	10:CJ:67:THR:HG22	2.03	0.58
6:AF:21:LEU:O	6:AF:25:ILE:HG12	2.04	0.58
29:BC:71:GLN:HE21	29:BC:73:ARG:HG2	1.68	0.58
27:BA:673:C:H5'	32:BF:54:ARG:HH12	1.69	0.58
27:BA:1465:G:O4'	27:BA:1528:A:H8	1.87	0.58
1:CA:1176:A:H2'	1:CA:1177:G:C8	2.39	0.58
1:AA:499:A:H4'	1:AA:500:G:OP1	2.04	0.58
5:AE:12:LEU:HD23	5:AE:13:ILE:H	1.69	0.58
13:AM:106:ASN:O	13:AM:107:ALA:HB3	2.04	0.58
5:CE:16:THR:OG1	5:CE:17:ALA:N	2.37	0.58
46:DX:90:GLU:HA	46:DX:93:GLU:HG2	1.86	0.58
27:BA:992:C:O2'	27:BA:993:G:H5'	2.03	0.58
35:DI:115:ALA:N	35:DI:129:THR:HG22	2.18	0.58
55:D6:41:PRO:HD2	55:D6:46:HIS:N	2.17	0.58
10:CJ:78:ASN:HD21	10:CJ:80:LYS:CB	2.17	0.58
27:DA:1902:C:H4'	30:DD:244:ARG:HA	1.85	0.58
32:BF:101:LEU:O	32:BF:106:ARG:NH1	2.33	0.58
27:BA:2732:G:C3'	27:BA:2733:A:H5'	2.34	0.58
36:DN:18:ALA:O	36:DN:20:GLY:N	2.37	0.58
9:CI:18:PHE:O	9:CI:61:ALA:HA	2.03	0.58
19:CS:6:LYS:HD2	19:CS:6:LYS:H	1.69	0.58
31:DE:32:PRO:O	31:DE:34:VAL:HG13	2.03	0.58
1:CA:1205:U:O2'	3:CC:195:VAL:HG23	2.04	0.58
1:AA:1060:C:H5''	10:AJ:51:ARG:HB3	1.86	0.58
10:AJ:54:PHE:CD2	10:AJ:55:LYS:HE3	2.39	0.58
27:BA:330:A:O2'	27:BA:331:A:C8	2.55	0.58
27:BA:448:U:H1'	32:BF:84:VAL:HG13	1.85	0.58
43:BU:91:ASP:CG	43:BU:96:ALA:HB2	2.25	0.58
12:CL:21:VAL:HG12	12:CL:23:ALA:HB2	1.85	0.58
3:AC:83:ARG:HG2	3:AC:83:ARG:HH11	1.69	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2762:G:H3'	27:DA:2763:G:C5'	2.34	0.58
1:CA:69:G:N2	1:CA:102:G:C4	2.67	0.58
26:CZ:2:DPP:C	26:CZ:3:UAL:H6	2.10	0.58
37:DO:61:VAL:HG21	37:DO:111:PHE:CD1	2.39	0.58
27:DA:286:C:C2'	27:DA:287:C:C5'	2.82	0.58
27:BA:1779:U:C5	27:BA:1784:A:N7	2.66	0.58
27:DA:1264:G:OP1	54:D5:19:ARG:NH2	2.37	0.58
7:CG:69:VAL:O	7:CG:69:VAL:HG12	2.02	0.58
1:CA:994:A:O2'	14:CN:8:GLU:HG2	2.04	0.58
1:CA:554:C:H2'	1:CA:555:C:H6	1.69	0.58
27:DA:2649:U:O5'	27:DA:2649:U:H6	1.87	0.58
33:DG:96:ARG:O	33:DG:99:MET:N	2.36	0.58
18:AR:69:THR:O	18:AR:72:ARG:HB2	2.03	0.58
1:CA:818:G:O2'	1:CA:819:A:H5''	2.04	0.58
28:BB:96:U:H2'	28:BB:97:G:C8	2.39	0.58
37:BO:14:THR:HG22	37:BO:52:VAL:HG11	1.85	0.58
1:AA:1398:A:C8	1:AA:1398:A:H5'	2.39	0.58
27:DA:1508:A:H4'	27:DA:1509(A):A:C5	2.38	0.58
7:AG:143:ARG:O	7:AG:146:GLU:HB2	2.03	0.58
50:D1:12:PRO:HA	50:D1:42:GLN:O	2.04	0.58
10:AJ:96:ILE:HD13	10:AJ:96:ILE:N	2.19	0.58
6:AF:11:ASN:OD1	6:AF:14:LEU:HB2	2.04	0.58
27:DA:221:A:H4'	27:DA:222:A:O5'	2.04	0.58
1:AA:498:U:O2'	1:AA:499:A:H8	1.85	0.58
11:CK:97:ALA:O	11:CK:101:SER:HB3	2.04	0.58
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.39	0.58
27:BA:444:C:OP2	43:BU:2:PRO:HD3	2.04	0.58
39:DQ:39:PRO:HA	39:DQ:98:LYS:HA	1.85	0.58
23:AW:69:C:C2'	23:AW:70:C:H5'	2.34	0.58
1:CA:77:G:H2'	1:CA:77:G:N3	2.17	0.58
47:BY:79:CYS:O	47:BY:80:GLY:C	2.43	0.57
35:BI:136:VAL:O	35:BI:136:VAL:HG13	2.04	0.57
48:DZ:149:LEU:HB2	48:DZ:170:ILE:CD1	2.33	0.57
48:DZ:26:VAL:HG22	48:DZ:27:MET:N	2.18	0.57
48:DZ:9:ARG:NH1	48:DZ:36:VAL:O	2.37	0.57
10:CJ:30:SER:OG	10:CJ:81:THR:HG22	2.04	0.57
27:BA:2494:G:H2'	27:BA:2495:G:H8	1.69	0.57
57:B8:6:THR:CG2	57:B8:63:PRO:HD3	2.33	0.57
27:DA:239:U:H2'	27:DA:240:G:O4'	2.04	0.57
27:DA:604:G:O2'	27:DA:605:C:H5'	2.03	0.57
32:BF:24:LEU:HB3	32:BF:25:PRO:CD	2.33	0.57
30:BD:77:ALA:CB	30:BD:97:TYR:HA	2.34	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1142(A):A:H4'	36:DN:25:ARG:NH2	2.20	0.57
13:AM:39:ILE:O	13:AM:41:PRO:HD3	2.04	0.57
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.86	0.57
30:BD:121:PRO:HB3	30:BD:135:PHE:HE1	1.68	0.57
45:DW:14:PRO:HG2	45:DW:78:GLU:HG3	1.86	0.57
20:AT:49:ALA:HB3	20:AT:100:ILE:HD13	1.86	0.57
27:DA:1685:C:H2'	27:DA:1686:C:C5'	2.26	0.57
27:DA:271(S):G:C2'	27:DA:271(T):C:C5'	2.81	0.57
31:BE:68:ALA:C	31:BE:70:ALA:H	2.08	0.57
29:DC:68:LEU:CB	29:DC:70:LYS:HE2	2.27	0.57
27:DA:2872:G:C2	27:DA:2873:A:N6	2.72	0.57
27:DA:85:G:O5'	47:DY:30:VAL:HB	2.05	0.57
3:CC:51:GLY:O	3:CC:115:LEU:HD21	2.04	0.57
27:DA:1240:U:HO2'	27:DA:1241:A:H5'	1.69	0.57
34:BH:48:GLY:O	34:BH:49:VAL:HG13	2.04	0.57
27:DA:2080:G:H2'	27:DA:2081:C:H6	1.69	0.57
39:BQ:65:PHE:N	39:BQ:65:PHE:CD2	2.72	0.57
49:D0:37:LEU:H	49:D0:60:PHE:HA	1.68	0.57
1:AA:798:G:P	11:AK:122:LYS:HZ1	2.27	0.57
34:DH:44:VAL:HG12	34:DH:45:VAL:N	2.18	0.57
38:DP:18:ARG:HH11	38:DP:18:ARG:HB3	1.70	0.57
30:DD:117:VAL:HG22	30:DD:118:VAL:N	2.19	0.57
37:BO:24:VAL:HG23	37:BO:33:ALA:HB2	1.86	0.57
27:DA:1410:G:H2'	27:DA:1411:C:C6	2.38	0.57
3:AC:153:VAL:HB	3:AC:166:GLU:HB3	1.86	0.57
1:AA:165:C:H2'	1:AA:166:G:H8	1.67	0.57
27:BA:1639:U:H2'	27:BA:1640:C:H5''	1.86	0.57
7:AG:50:ILE:HG21	7:AG:61:VAL:HG21	1.85	0.57
30:DD:14:ARG:HG2	30:DD:15:PHE:N	2.18	0.57
35:BI:143:SER:OG	35:BI:144:VAL:N	2.37	0.57
16:CP:67:THR:HG22	16:CP:69:THR:N	2.18	0.57
25:AY:69:C:H5'	25:AY:69:C:H6	1.68	0.57
27:BA:1259:G:O2'	27:BA:1260:G:H5'	2.04	0.57
48:BZ:135:PHE:HD1	48:BZ:137:GLU:H	1.51	0.57
28:DB:87:G:C3'	28:DB:88:C:H5''	2.34	0.57
27:BA:384:U:H2'	27:BA:385:C:C6	2.39	0.57
1:CA:331:G:OP1	1:CA:332:G:H5'	2.04	0.57
50:B1:64:ALA:O	50:B1:67:ILE:HG13	2.04	0.57
17:AQ:48:GLU:O	17:AQ:49:GLU:C	2.43	0.57
27:BA:1188:U:H4'	44:BV:79:VAL:HG22	1.87	0.57
1:AA:22:G:H2'	1:AA:23:C:H6	1.69	0.57
27:BA:1438:U:O2'	27:BA:1439:A:H5'	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:46:HIS:O	15:CO:48:LYS:N	2.36	0.57
55:B6:15:GLU:CD	55:B6:43:CYS:HB3	2.25	0.57
38:BP:64:LYS:CG	38:BP:65:ARG:H	2.16	0.57
35:DI:69:LYS:HE2	35:DI:73:GLU:OE1	2.04	0.57
42:BT:84:GLN:OE1	42:BT:86:ILE:HD12	2.04	0.57
35:BI:92:VAL:HG11	35:BI:120:ILE:HB	1.85	0.57
51:D2:69:ARG:O	51:D2:70:GLN:HG2	2.04	0.57
55:D6:8:LYS:O	55:D6:9:LEU:CB	2.53	0.57
12:CL:51:LYS:HB3	12:CL:67:ILE:HD12	1.86	0.57
33:DG:72:ARG:NH1	33:DG:86:MET:CG	2.64	0.57
1:CA:1444:C:H2'	1:CA:1445:C:C6	2.39	0.57
30:BD:209:ALA:O	30:BD:212:SER:HB3	2.04	0.57
32:DF:59:TYR:CD2	32:DF:78:ILE:HG12	2.39	0.57
30:BD:21:PHE:HB3	30:BD:24:ILE:CG2	2.34	0.57
4:AD:127:THR:CG2	4:AD:149:ALA:HB2	2.34	0.57
1:AA:475:G:H2'	1:AA:476:G:H8	1.68	0.57
1:CA:322:C:H4'	20:CT:23:ARG:HD2	1.85	0.57
1:CA:152:A:N6	1:CA:170:U:C2	2.72	0.57
1:CA:954:G:H2'	1:CA:955:U:H6	1.70	0.57
47:BY:88:LYS:NZ	47:BY:93:GLY:CA	2.67	0.57
6:CF:14:LEU:CD1	6:CF:18:GLN:HB3	2.33	0.57
13:CM:55:ARG:O	13:CM:58:GLU:HB2	2.04	0.57
14:CN:13:THR:N	14:CN:14:PRO:CD	2.66	0.57
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.69	0.57
27:BA:881:G:O2'	27:BA:882:G:H5'	2.04	0.57
2:CB:21:ARG:HB3	2:CB:39:ILE:HA	1.85	0.57
39:BQ:103:MET:CE	39:BQ:125:LEU:HD13	2.34	0.57
8:CH:103:VAL:HG11	8:CH:109:ILE:O	2.04	0.57
3:AC:205:GLY:O	3:AC:206:GLU:HG3	2.05	0.57
1:CA:382:A:H2'	1:CA:383:A:C8	2.39	0.57
44:BV:99:ILE:N	44:BV:99:ILE:HD13	2.18	0.57
27:DA:233:A:C2'	27:DA:234:C:H5'	2.34	0.57
39:DQ:38:GLU:HA	39:DQ:99:PRO:HG3	1.86	0.57
41:BS:22:GLY:O	41:BS:23:ARG:O	2.21	0.57
27:BA:10:G:C6	27:BA:2629:A:C8	2.93	0.57
41:BS:61:ASN:OD1	41:BS:64:GLU:HB2	2.04	0.57
27:BA:321:G:C2	27:BA:341:G:H4'	2.39	0.57
1:AA:603:U:H2'	1:AA:604:G:H8	1.68	0.57
59:CX:35:A:O2'	59:CX:36:U:H5'	2.03	0.57
1:AA:1429:C:H4'	27:BA:1703:G:O2'	2.04	0.57
38:BP:139:LYS:C	38:BP:141:ALA:H	2.08	0.57
1:CA:1223:C:P	19:CS:78:ARG:HH21	2.27	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:86:CYS:HA	19:AS:73:GLU:O	2.04	0.57
28:BB:48:A:H2'	28:BB:49:C:C6	2.39	0.57
47:BY:39:VAL:HG12	47:BY:40:GLU:H	1.69	0.57
47:BY:96:ILE:CB	47:BY:99:CYS:HB2	2.33	0.57
33:BG:45:GLU:C	33:BG:47:LYS:H	2.07	0.57
30:DD:21:PHE:O	30:DD:24:ILE:CG2	2.49	0.57
30:DD:25:THR:O	30:DD:27:THR:N	2.35	0.57
30:BD:110:GLY:O	30:BD:112:GLN:HG3	2.04	0.57
27:DA:2491:U:C5'	27:DA:2491:U:H6	2.07	0.57
9:AI:114:TYR:HD1	10:AJ:60:ARG:HG2	1.68	0.57
1:AA:1373:G:C5'	7:AG:36:LYS:HB2	2.33	0.57
31:BE:51:PHE:CE1	31:BE:52:LEU:HD13	2.39	0.57
32:DF:6:VAL:CG1	32:DF:7:TYR:H	2.16	0.57
27:BA:310:A:P	47:BY:18:GLY:HA2	2.44	0.57
11:AK:99:GLN:HA	11:AK:105:VAL:CG1	2.28	0.57
1:AA:401:C:H2'	1:AA:402:G:H8	1.69	0.57
11:CK:123:LYS:O	11:CK:126:ARG:HB2	2.04	0.57
1:AA:166:G:O2'	1:AA:167:G:H5'	2.03	0.57
20:CT:10:LEU:HD22	20:CT:12:ALA:HB2	1.87	0.57
27:BA:271(P):C:H2'	27:BA:271(Q):G:C8	2.39	0.57
6:CF:82:ARG:HB2	6:CF:85:VAL:CG2	2.34	0.57
1:AA:1073:U:OP2	5:AE:57:LYS:HE2	2.04	0.57
27:BA:892:G:H2'	27:BA:893:C:C6	2.39	0.57
27:BA:2712:U:H1'	27:BA:2712(A):A:H8	1.69	0.57
32:DF:66:PRO:HD2	32:DF:70:THR:CG2	2.34	0.57
4:AD:58:LEU:O	4:AD:58:LEU:HD22	2.04	0.57
23:CW:40:C:O2'	23:CW:41:G:H5'	2.05	0.57
8:CH:103:VAL:HG13	8:CH:110:ALA:HB2	1.86	0.57
36:DN:3:THR:O	36:DN:5:VAL:HG12	2.05	0.57
27:DA:1509(A):A:H2'	27:DA:1509(B):A:H8	1.65	0.57
27:DA:1309:G:H3'	56:D7:9:ARG:HH12	1.69	0.57
2:CB:107:THR:HG22	2:CB:107:THR:O	2.04	0.57
37:BO:88:ASN:OD1	37:BO:92:GLU:N	2.38	0.57
27:BA:1708:C:O2'	27:BA:1709:U:H5'	2.04	0.57
44:BV:87:HIS:NE2	44:BV:89:GLN:HG2	2.18	0.57
51:D2:54:LYS:O	51:D2:57:ILE:HB	2.03	0.57
1:AA:1248:A:H2'	1:AA:1249:C:H5'	1.85	0.57
4:CD:128:VAL:HG12	4:CD:129:ASN:ND2	2.19	0.57
1:CA:1086:U:H2'	1:CA:1087:G:H8	1.70	0.57
21:CU:25:LYS:NZ	21:CU:25:LYS:HB2	2.19	0.57
12:CL:58:THR:C	12:CL:60:GLY:H	2.08	0.57
34:DH:169:VAL:O	34:DH:169:VAL:HG13	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1221:C:OP1	44:BV:68:LYS:HE2	2.04	0.57
16:CP:8:ARG:HB2	16:CP:17:TYR:CE2	2.40	0.57
27:BA:957:A:N1	27:BA:2458:G:H4'	2.19	0.57
27:BA:335:C:H2'	27:BA:336:C:H6	1.70	0.57
48:BZ:6:ALA:HA	48:BZ:38:VAL:HG12	1.86	0.57
20:AT:93:GLU:OE1	20:AT:94:ALA:N	2.38	0.57
27:BA:631:A:O2'	38:BP:67:MET:HB3	2.04	0.57
27:BA:2759:G:H8	27:BA:2759:G:H5'	1.68	0.57
47:BY:26:LYS:CG	47:BY:27:VAL:N	2.68	0.57
1:CA:1060:C:C5'	10:CJ:51:ARG:HB3	2.33	0.57
42:DT:65:LYS:HA	42:DT:65:LYS:HZ2	1.67	0.57
40:DR:77:ARG:O	40:DR:79:LEU:N	2.37	0.57
32:BF:20:LEU:HB3	32:BF:23:ASP:CG	2.25	0.57
43:DU:60:LEU:HD13	43:DU:60:LEU:C	2.24	0.57
16:AP:72:ARG:O	16:AP:72:ARG:HG2	2.05	0.57
1:CA:346:G:H5''	42:DT:41:ARG:CZ	2.33	0.57
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.39	0.57
1:CA:1316:G:N1	1:CA:1319:A:OP2	2.37	0.57
28:DB:47:C:H3'	28:DB:48:A:C5'	2.35	0.57
7:AG:20:ASP:O	7:AG:24:THR:HG23	2.03	0.57
31:BE:48:GLN:HE22	31:BE:64:LYS:HZ3	1.52	0.57
47:DY:2:ARG:HH11	47:DY:2:ARG:HG2	1.70	0.57
5:CE:92:LYS:O	5:CE:118:ILE:HD12	2.05	0.57
27:DA:2067:G:H4'	27:DA:2068:U:OP2	2.03	0.57
3:AC:14:ILE:CG1	3:AC:15:THR:H	2.09	0.57
23:AW:52:G:O2'	23:AW:53:U:H5'	2.05	0.57
2:CB:51:LEU:HD23	2:CB:201:ILE:HD12	1.87	0.57
34:DH:85:LYS:O	34:DH:132:ARG:HA	2.03	0.57
27:BA:1043:C:HO2'	27:BA:1044:G:H8	1.53	0.57
3:CC:47:LEU:CD2	3:CC:68:VAL:HG11	2.34	0.57
5:AE:72:GLN:HE21	5:AE:144:THR:CG2	2.17	0.57
27:DA:2533:A:H2'	27:DA:2534:A:O4'	2.05	0.57
1:AA:332:G:O2'	1:AA:333:G:H5'	2.05	0.57
15:CO:7:GLU:O	15:CO:10:LYS:HG3	2.04	0.57
2:AB:112:VAL:CG1	2:AB:153:ARG:HA	2.34	0.57
27:DA:2223:G:H2'	27:DA:2224:G:C5'	2.33	0.57
47:DY:88:LYS:HZ1	47:DY:93:GLY:HA3	1.69	0.57
41:DS:58:LEU:HD23	41:DS:65:VAL:HG13	1.86	0.57
1:AA:862:C:O2'	1:AA:863:U:H5'	2.05	0.57
7:AG:79:ARG:HG2	7:AG:84:ASN:OD1	2.04	0.57
6:CF:100:ASN:H	18:CR:23:LYS:HZ2	1.52	0.57
27:DA:517:C:OP1	54:D5:16:ARG:NH2	2.38	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:46:GLU:OE1	20:CT:48:LYS:HE2	2.04	0.57
27:BA:1120:G:H2'	27:BA:1121:C:H6	1.69	0.57
1:AA:1324:A:H2'	1:AA:1325:C:H6	1.70	0.57
13:CM:116:THR:HG22	13:CM:117:VAL:N	2.19	0.57
45:DW:26:GLY:HA2	45:DW:71:VAL:O	2.03	0.57
27:BA:1980:G:O2'	27:BA:1982:C:OP2	2.21	0.57
27:BA:1693:U:H4'	27:BA:1694:C:OP2	2.04	0.57
49:D0:75:LEU:O	49:D0:75:LEU:HD22	2.03	0.57
34:BH:41:MET:O	34:BH:42:ARG:HB2	2.04	0.57
57:B8:4:MET:O	57:B8:62:LEU:HD11	2.03	0.57
41:DS:74:ALA:HB2	41:DS:101:LEU:HD23	1.86	0.57
47:DY:95:LYS:CG	47:DY:100:ALA:HA	2.33	0.57
15:CO:65:ARG:NH1	15:CO:65:ARG:HG2	2.18	0.57
32:DF:3:GLU:CB	32:DF:19:GLU:HB2	2.34	0.57
29:DC:77:ILE:HD11	29:DC:100:ILE:HD11	1.87	0.57
13:CM:65:LYS:HG3	13:CM:69:GLU:O	2.04	0.57
3:AC:77:ILE:HA	3:AC:84:ILE:HB	1.86	0.57
1:CA:959:A:H2'	1:CA:960:U:H4'	1.86	0.57
19:AS:62:ILE:HA	19:AS:66:MET:HG3	1.86	0.57
39:DQ:31:ASP:OD2	39:DQ:107:ALA:HA	2.04	0.57
38:BP:47:ASP:HB2	38:BP:51:PHE:CG	2.40	0.57
41:BS:34:HIS:CB	41:BS:54:LEU:HD23	2.35	0.57
32:BF:133:ASN:O	32:BF:135:LYS:N	2.38	0.57
27:BA:1721:G:C2	27:BA:1739:U:OP2	2.58	0.57
29:DC:93:TYR:O	29:DC:94:VAL:HG13	2.04	0.57
3:AC:116:VAL:HG21	3:AC:202:ILE:HD11	1.86	0.57
27:DA:589:C:H2'	27:DA:590:A:H8	1.67	0.57
27:DA:325:G:O2'	27:DA:326:G:H5'	2.04	0.57
47:BY:35:TYR:O	47:BY:35:TYR:HD2	1.87	0.57
7:AG:65:ALA:HB1	7:AG:127:ALA:HB3	1.84	0.57
7:AG:132:GLY:O	7:AG:135:VAL:HG23	2.04	0.57
48:BZ:78:ARG:O	48:BZ:79:ARG:HB2	2.04	0.57
1:CA:1305:G:O2'	1:CA:1306:A:H8	1.85	0.57
1:CA:59:A:H5'	1:CA:60:A:H5''	1.86	0.57
5:CE:73:ASN:HD22	5:CE:74:GLY:N	2.02	0.57
1:CA:376:G:OP2	16:CP:67:THR:HG21	2.05	0.57
7:CG:43:PHE:C	7:CG:43:PHE:CD1	2.78	0.57
7:AG:26:PHE:O	7:AG:30:ILE:HG12	2.04	0.57
27:BA:713:G:H2'	27:BA:714:U:C6	2.40	0.57
1:AA:817:C:H1'	1:AA:819:A:H5'	1.86	0.57
1:AA:818:G:O2'	1:AA:819:A:H5''	2.04	0.57
27:DA:1682:G:H5'	27:DA:1762:A:H2'	1.85	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:765:G:H2'	27:BA:766:C:H6	1.70	0.57
27:BA:1934:C:O2'	27:BA:1935:G:H5'	2.04	0.57
27:DA:2795:G:N2	27:DA:2799:C:H5'	2.20	0.57
37:BO:86:ILE:HG22	37:BO:94:ARG:HG3	1.85	0.57
36:DN:78:TYR:CD1	36:DN:78:TYR:N	2.68	0.57
27:BA:1448:G:N3	27:BA:1528(A):A:H2	2.02	0.57
1:CA:260:G:H2'	1:CA:261:U:C6	2.40	0.57
46:BX:26:TYR:OH	46:BX:88:LYS:HB2	2.04	0.57
20:CT:90:GLN:HA	20:CT:93:GLU:OE2	2.04	0.57
27:BA:454:A:H4'	27:BA:455:C:OP2	2.04	0.57
27:BA:303:U:H2'	27:BA:304:G:C8	2.39	0.57
28:DB:72:G:N2	28:DB:104:U:C5	2.72	0.57
27:BA:2195:C:O2'	27:BA:2196:C:H5'	2.03	0.57
55:B6:15:GLU:OE2	55:B6:43:CYS:HB3	2.03	0.57
42:BT:27:THR:O	42:BT:28:VAL:CB	2.53	0.57
27:BA:271(T):C:H2'	27:BA:271(U):G:H8	1.69	0.57
33:BG:72:ARG:CD	33:BG:86:MET:HA	2.33	0.57
27:DA:2419:U:O4	57:D8:30:ARG:CZ	2.53	0.57
41:BS:103:GLU:O	41:BS:104:GLY:C	2.42	0.57
43:DU:65:ILE:HG12	43:DU:96:ALA:HB1	1.86	0.57
28:DB:60:C:C2'	28:DB:61:G:H5'	2.31	0.57
33:DG:166:ASP:O	33:DG:169:ALA:HB3	2.04	0.57
20:AT:50:GLU:CG	20:AT:100:ILE:HG21	2.34	0.57
32:DF:136:THR:HG23	32:DF:137:LYS:N	2.19	0.57
32:DF:160:ASN:ND2	32:DF:162:LEU:H	2.01	0.57
47:DY:10:GLY:C	47:DY:27:VAL:HG22	2.24	0.57
27:BA:995:C:O2	36:BN:4:TYR:OH	2.22	0.57
32:DF:2:LYS:HE2	32:DF:25:PRO:HB3	1.87	0.57
2:CB:97:TRP:CH2	2:CB:173:ALA:HA	2.40	0.57
1:AA:97:G:O2'	1:AA:98:G:O5'	2.22	0.57
48:BZ:107:PRO:HB3	48:BZ:116:LEU:CD1	2.33	0.57
48:BZ:116:LEU:CB	48:BZ:173:VAL:HG22	2.34	0.57
27:BA:28:A:N6	27:BA:512:G:H1'	2.20	0.57
44:BV:44:LYS:O	44:BV:45:THR:HG23	2.05	0.57
34:BH:44:VAL:C	34:BH:46:GLU:N	2.57	0.57
23:CW:35:G:O2'	23:CW:36:A:H8	1.87	0.57
37:DO:88:ASN:HD21	37:DO:90:GLN:HB2	1.68	0.57
1:CA:1226:C:C4	13:CM:104:ARG:HB2	2.40	0.57
2:CB:30:ARG:HH21	2:CB:194:PRO:CB	2.18	0.57
27:BA:1417:C:N4	27:BA:1581:G:H1	2.02	0.57
1:CA:967:C:H2'	1:CA:968:A:C8	2.39	0.57
1:CA:1002:G:N2	1:CA:1003:G:H1'	2.20	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:586:A:H5'	32:BF:89:VAL:HG21	1.87	0.57
30:BD:165:ILE:HD13	30:BD:175:LEU:HD21	1.86	0.57
27:DA:1980:G:O2'	27:DA:1982:C:OP2	2.20	0.57
1:AA:1502:A:H2	1:AA:1505:G:N1	2.00	0.57
46:BX:12:VAL:HG23	46:BX:17:ALA:HB1	1.86	0.57
42:DT:52:ILE:HG23	42:DT:61:PHE:CB	2.34	0.57
16:AP:21:VAL:HG11	16:AP:34:GLU:HB3	1.86	0.57
27:BA:2779:U:H4'	27:BA:2780:G:C5'	2.34	0.57
27:BA:881:G:H2'	27:BA:882:G:H5'	1.85	0.57
1:AA:353:A:H5'	1:AA:353:A:C8	2.38	0.57
48:BZ:76:ASP:HB2	48:BZ:83:GLU:HG3	1.87	0.57
3:CC:62:ASP:HA	3:CC:97:LYS:HE2	1.87	0.57
27:DA:559:G:H22	43:DU:49:HIS:CD2	2.22	0.57
1:CA:433:C:H2'	1:CA:434:U:C6	2.39	0.57
1:CA:1097:C:H2'	1:CA:1098:C:H6	1.67	0.57
12:CL:68:PRO:O	12:CL:99:ARG:HD3	2.04	0.57
33:BG:128:ARG:HG3	33:BG:130:ASN:HB2	1.87	0.57
1:AA:66:G:H4'	1:AA:173:U:C5	2.40	0.57
27:DA:1310:G:OP2	56:D7:9:ARG:NH1	2.38	0.57
38:DP:113:LYS:HA	38:DP:129:ALA:O	2.04	0.57
25:CY:20:A:N6	25:CY:45:U:H2'	2.18	0.57
27:DA:935:C:H2'	27:DA:936:C:H6	1.69	0.57
1:CA:542:G:H5'	4:CD:41:GLY:CA	2.35	0.57
1:CA:848:C:H2'	1:CA:849:C:H6	1.69	0.57
1:CA:674:G:O2'	1:CA:675:A:H5'	2.03	0.57
1:AA:553:A:H2'	1:AA:554:C:C6	2.40	0.57
3:AC:8:ILE:HG12	3:AC:184:TYR:HB3	1.85	0.57
27:BA:470:A:H2'	27:BA:471:A:O4'	2.04	0.57
1:AA:956:U:O2'	1:AA:957:U:H5'	2.05	0.57
28:BB:68:C:H2'	28:BB:69:G:H8	1.70	0.57
27:DA:397:G:H2'	27:DA:398:G:H8	1.69	0.57
5:CE:10:MET:CB	5:CE:32:VAL:HG22	2.34	0.57
1:AA:308:C:H2'	1:AA:309:G:H8	1.68	0.57
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	2.05	0.57
27:BA:2273:A:H2'	27:BA:2274:A:C8	2.38	0.57
27:BA:251:A:H2'	27:BA:252:G:O4'	2.04	0.57
14:CN:2:ALA:O	14:CN:6:LEU:HD12	2.04	0.57
55:D6:37:ARG:O	55:D6:48:VAL:O	2.22	0.57
27:DA:2393:A:H5'	38:DP:62:LEU:HB2	1.87	0.57
27:DA:1453:U:H5'	40:DR:63:ARG:HE	1.69	0.57
27:BA:89:G:H3'	27:BA:90:U:C4'	2.34	0.57
13:AM:57:ARG:HH11	13:AM:57:ARG:HB3	1.68	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:166:G:O2'	1:CA:167:G:H5'	2.05	0.57
37:DO:71:ARG:HH12	42:DT:74:ARG:CZ	2.17	0.57
28:DB:34:U:N3	28:DB:48:A:C2	2.72	0.57
1:AA:1199:U:H4'	10:AJ:54:PHE:CE1	2.40	0.57
32:DF:162:LEU:HD12	32:DF:162:LEU:H	1.69	0.57
9:AI:83:ARG:O	9:AI:86:VAL:HG12	2.04	0.57
32:DF:101:LEU:HD12	32:DF:102:PRO:CD	2.34	0.57
31:DE:110:GLY:O	40:DR:2:ARG:CZ	2.53	0.57
47:DY:2:ARG:HD3	47:DY:3:VAL:HG23	1.87	0.57
37:DO:117:LEU:HD23	37:DO:117:LEU:O	2.05	0.57
4:CD:190:ASP:HB3	4:CD:193:ASP:OD2	2.04	0.57
5:AE:6:PHE:O	5:AE:7:GLU:C	2.43	0.57
26:CZ:2:DPP:O	27:DA:1914:C:OP2	2.22	0.57
1:CA:1227:A:O2'	13:CM:115:LYS:HB3	2.05	0.57
13:CM:90:LEU:HD13	19:CS:82:GLY:N	2.20	0.57
3:AC:64:VAL:CG2	3:AC:99:VAL:HA	2.33	0.57
19:AS:45:VAL:HA	19:AS:62:ILE:HG23	1.87	0.57
19:AS:61:TYR:O	19:AS:62:ILE:HB	2.03	0.57
32:BF:67:GLN:HG3	32:BF:74:ARG:HB2	1.87	0.57
45:DW:50:VAL:CG2	45:DW:105:VAL:HG23	2.33	0.57
27:BA:2847:U:OP1	42:BT:98:LYS:HD3	2.03	0.57
27:BA:856:C:C1'	49:B0:27:GLU:HB3	2.35	0.57
32:BF:132:VAL:HG22	32:BF:133:ASN:N	2.18	0.57
27:DA:142:A:C8	27:DA:1408:C:H1'	2.40	0.57
4:AD:70:ILE:HD11	4:AD:74:GLN:CB	2.34	0.57
27:DA:884:C:H2'	27:DA:885:C:H5'	1.86	0.57
4:CD:22:LYS:HB2	4:CD:26:CYS:HB2	1.84	0.57
27:BA:1108:U:C2'	27:BA:1109:C:H5'	2.33	0.57
43:DU:112:ARG:HG2	43:DU:112:ARG:NH1	2.20	0.57
36:BN:36:GLY:O	36:BN:42:TRP:HB2	2.04	0.57
36:BN:27:ALA:HB1	36:BN:106:MET:HE3	1.86	0.57
27:DA:2172:U:H1'	27:DA:2173:A:P	2.45	0.57
50:D1:18:ILE:N	50:D1:18:ILE:HD12	2.20	0.57
27:DA:1678:G:N2	27:DA:1989:G:H22	2.03	0.57
27:DA:1678:G:H22	27:DA:1989:G:H22	1.51	0.57
1:AA:309:G:H1'	1:AA:608:A:C2	2.38	0.57
27:DA:870:A:H5''	39:DQ:6:ARG:HB2	1.87	0.57
25:CY:37:U:H2'	25:CY:38:U:O4'	2.05	0.57
1:AA:228:A:H2'	1:AA:229:U:O4'	2.05	0.57
57:B8:33:ASN:CB	57:B8:36:LYS:HD2	2.34	0.57
31:DE:7:VAL:HG21	42:DT:1:MET:HE2	1.87	0.57
55:D6:22:ALA:C	55:D6:23:THR:HG23	2.25	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:50:ARG:C	12:CL:51:LYS:HD2	2.25	0.57
27:DA:1899:G:H21	27:DA:1902:C:H5	1.53	0.57
30:DD:48:ARG:NH1	30:DD:48:ARG:HG3	2.19	0.57
41:DS:27:SER:HA	41:DS:88:ASP:HB3	1.85	0.57
43:DU:92:ARG:O	43:DU:94:ASN:N	2.38	0.57
31:DE:35:GLN:HG2	31:DE:36:ARG:N	2.19	0.57
9:AI:5:TYR:O	9:AI:84:ALA:HA	2.05	0.57
27:BA:2875:C:C4'	42:BT:5:ALA:HB2	2.32	0.57
2:AB:217:ARG:O	2:AB:221:LEU:HD23	2.05	0.57
32:DF:34:TRP:CZ2	38:DP:12:ALA:HB2	2.40	0.57
31:DE:111:ARG:N	31:DE:161:GLY:HA3	2.19	0.57
47:DY:2:ARG:HD3	47:DY:2:ARG:C	2.25	0.57
47:DY:96:ILE:HD12	47:DY:98:VAL:O	2.05	0.57
48:BZ:109:GLY:HA3	48:BZ:144:GLU:HG2	1.85	0.57
3:CC:72:LYS:O	3:CC:75:VAL:HG23	2.04	0.57
5:CE:53:LEU:O	5:CE:57:LYS:HB2	2.05	0.57
16:AP:82:GLN:O	16:AP:83:GLU:CB	2.52	0.57
50:D1:35:THR:HG22	50:D1:36:GLY:N	2.20	0.57
34:DH:85:LYS:CD	34:DH:133:VAL:HB	2.35	0.57
48:BZ:118:GLU:O	48:BZ:121:ARG:HG3	2.04	0.57
1:CA:624:C:H2'	1:CA:625:G:C8	2.39	0.57
41:DS:82:ILE:CG2	41:DS:83:LYS:H	2.16	0.57
20:AT:89:ARG:NH2	20:AT:104:LEU:HD11	2.19	0.57
27:DA:1409:C:H2'	27:DA:1410:G:H8	1.67	0.57
25:CY:57:A:H2'	25:CY:60:C:H41	1.68	0.57
27:DA:479:A:H4'	27:DA:480:A:OP1	2.04	0.57
34:DH:47:GLU:CG	34:DH:48:GLY:H	2.16	0.57
29:DC:83:ILE:HG23	29:DC:94:VAL:CG2	2.35	0.57
38:BP:71:VAL:C	38:BP:73:GLY:N	2.58	0.57
27:BA:380:U:H2'	27:BA:381:G:C8	2.38	0.57
50:D1:52:ARG:HH12	50:D1:78:LYS:HD3	1.70	0.57
2:AB:95:GLN:NE2	2:AB:147:LYS:HE2	2.20	0.57
1:CA:403:C:H2'	1:CA:404:U:C6	2.40	0.57
27:DA:2192:G:N2	27:DA:2193:G:C8	2.73	0.57
27:DA:1479:G:H5'	27:DA:1558:A:C2	2.40	0.57
12:CL:4:ILE:HG21	17:CQ:34:LYS:HB2	1.87	0.57
23:CW:65:U:H2'	23:CW:66:A:H8	1.68	0.57
27:DA:2161:C:H2'	27:DA:2162:G:H8	1.68	0.57
40:BR:17:ARG:HG2	40:BR:17:ARG:HH11	1.68	0.57
27:BA:541:C:H2'	27:BA:542:C:C6	2.40	0.57
27:BA:814:C:O2'	27:BA:815:C:H5'	2.04	0.57
3:AC:65:ALA:O	3:AC:66:VAL:HB	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:452:A:O2'	1:CA:453:A:H8	1.88	0.57
32:BF:164:ARG:HH11	32:BF:164:ARG:HG2	1.70	0.57
38:BP:105:LEU:N	38:BP:105:LEU:HD23	2.20	0.57
38:BP:120:ALA:HB1	38:BP:138:LEU:CD1	2.34	0.57
1:CA:1321:C:H5''	1:CA:1322:C:C5'	2.35	0.57
42:BT:16:ARG:CB	42:BT:16:ARG:HH11	2.17	0.57
45:BW:13:SER:HB3	45:BW:16:LYS:HG3	1.86	0.57
33:BG:59:GLU:O	33:BG:63:ILE:HG23	2.05	0.57
10:CJ:50:ILE:HG12	14:CN:41:ARG:CD	2.35	0.57
55:D6:17:LYS:O	55:D6:18:ARG:HB3	2.05	0.57
55:D6:15:GLU:OE2	55:D6:41:PRO:CG	2.53	0.57
10:CJ:7:LYS:HD3	10:CJ:71:LEU:HD13	1.87	0.57
40:DR:74:LYS:CE	40:DR:77:ARG:HH21	2.18	0.57
32:BF:28:ILE:HG12	32:BF:119:ARG:HH21	1.70	0.57
38:DP:23:PRO:HB3	38:DP:29:LYS:HB3	1.87	0.57
36:DN:133:GLN:C	36:DN:134:ARG:HG3	2.24	0.57
42:DT:34:VAL:O	42:DT:35:LYS:HB3	2.05	0.57
44:BV:14:VAL:HG23	44:BV:14:VAL:O	2.05	0.57
7:CG:16:LEU:HD22	9:CI:44:VAL:HG23	1.87	0.57
3:AC:189:ALA:HB3	3:AC:196:LEU:H	1.69	0.57
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.68	0.57
2:AB:187:LEU:HD23	2:AB:201:ILE:CG2	2.35	0.57
17:AQ:78:GLU:OE1	17:AQ:81:ARG:HD3	2.05	0.57
32:BF:126:VAL:HG21	32:BF:129:PHE:CZ	2.40	0.57
43:BU:90:VAL:O	43:BU:92:ARG:HD3	2.05	0.57
59:CX:61:C:O2'	59:CX:62:C:H6	1.86	0.57
49:D0:48:GLY:HA3	49:D0:80:HIS:HD1	1.68	0.57
53:B4:79:GLY:O	53:B4:80:ARG:HB3	2.04	0.57
40:DR:100:LEU:CD2	40:DR:113:LEU:HB2	2.35	0.57
27:BA:729:G:OP2	30:BD:13:ARG:NH1	2.37	0.57
27:BA:203:C:C3'	27:BA:204:A:H5''	2.33	0.57
1:AA:1313:U:OP2	19:AS:6:LYS:HB3	2.04	0.57
27:BA:2162:G:H2'	27:BA:2163:C:C6	2.40	0.57
17:AQ:86:GLU:OE1	17:AQ:86:GLU:HA	2.04	0.57
12:CL:3:THR:HG23	12:CL:6:GLN:OE1	2.04	0.57
7:CG:85:TYR:HD1	7:CG:154:TYR:HE1	1.50	0.57
9:CI:126:SER:O	9:CI:128:ARG:HD3	2.04	0.57
27:BA:755:C:H2'	27:BA:756:C:C6	2.37	0.57
32:DF:64:ILE:HD11	32:DF:65:TRP:CE3	2.40	0.57
1:AA:189(K):U:H2'	1:AA:189(L):G:H8	1.70	0.57
43:DU:99:ALA:HB2	43:DU:106:PHE:CD1	2.40	0.57
27:BA:1509(B):A:H2'	27:BA:1510:G:C8	2.40	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:137:C:H42	1:AA:226:G:H1	1.51	0.57
27:BA:1247:A:OP1	32:BF:95:ARG:NH2	2.37	0.57
27:DA:1747(A):G:H2'	27:DA:1748:G:H5'	1.87	0.57
38:BP:111:ARG:HH11	38:BP:149:GLU:HG3	1.70	0.57
4:AD:200:GLU:HG2	4:AD:201:GLN:N	2.18	0.57
4:AD:8:VAL:HG12	4:AD:21:LEU:HD12	1.86	0.57
35:BI:89:TYR:C	35:BI:91:SER:H	2.08	0.57
33:BG:55:LYS:HZ1	33:BG:148:MET:C	2.08	0.57
27:DA:2347:C:H2'	27:DA:2348:U:H6	1.69	0.57
39:DQ:141:GLN:HG2	48:DZ:98:TYR:CE2	2.38	0.57
51:D2:14:ARG:HG3	51:D2:14:ARG:NH1	2.20	0.57
34:BH:8:PRO:HB3	34:BH:69:ARG:CG	2.18	0.57
33:DG:43:LEU:HB2	33:DG:88:ILE:CG1	2.35	0.57
13:AM:25:ILE:HD11	13:AM:66:LEU:CD2	2.34	0.57
17:AQ:67:LYS:CA	17:AQ:70:ARG:HH12	2.17	0.57
55:B6:34:LEU:O	55:B6:35:GLU:CB	2.53	0.57
1:AA:1052:U:H2'	1:AA:1055:A:OP1	2.05	0.57
9:AI:110:GLU:OE2	9:AI:113:LYS:NZ	2.38	0.57
32:DF:127:GLU:HB2	32:DF:196:LEU:HG	1.87	0.57
27:BA:142:A:H5'	27:BA:142(A):C:OP2	2.05	0.57
2:AB:163:PHE:CA	2:AB:185:ILE:HG13	2.33	0.57
2:CB:168:THR:HG23	2:CB:192:SER:CB	2.34	0.57
1:AA:79:G:H1'	1:AA:80:G:O4'	2.05	0.57
41:BS:92:TYR:HD1	41:BS:93:LYS:H	1.51	0.57
31:DE:154:LYS:HE3	31:DE:154:LYS:CA	2.30	0.57
27:DA:2756:U:O5'	27:DA:2756:U:H6	1.87	0.57
27:BA:2822:G:H2'	27:BA:2823:A:H5''	1.86	0.57
27:DA:563:G:H2'	27:DA:564:C:C6	2.40	0.57
5:AE:146:ALA:C	5:AE:148:VAL:H	2.08	0.57
30:DD:271:ILE:O	30:DD:272:ALA:HB2	2.05	0.57
45:DW:6:ILE:HD11	45:DW:104:THR:HG23	1.87	0.57
39:DQ:27:VAL:HG23	39:DQ:137:TYR:HE1	1.70	0.57
17:CQ:57:VAL:HB	17:CQ:73:VAL:HG13	1.86	0.57
39:DQ:43:THR:OG1	39:DQ:46:GLN:HG3	2.05	0.57
8:AH:83:ILE:O	8:AH:83:ILE:HG12	2.04	0.57
7:AG:5:ARG:N	7:AG:5:ARG:HD2	2.20	0.57
33:DG:97:ASP:O	33:DG:101:ILE:HG22	2.05	0.57
3:AC:112:SER:HB3	3:AC:115:LEU:HD12	1.86	0.57
27:BA:884:C:H2'	27:BA:885:C:H5'	1.87	0.57
6:AF:72:VAL:CG1	6:AF:73:ASN:N	2.68	0.57
1:CA:433:C:H6	1:CA:433:C:O5'	1.87	0.57
43:DU:15:LYS:O	43:DU:19:LYS:HG3	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:41:VAL:O	5:CE:67:VAL:HG12	2.04	0.57
7:CG:113:GLU:HG3	7:CG:119:ARG:HG2	1.87	0.57
27:DA:2351:G:O6	57:D8:39:LYS:HG3	2.04	0.57
29:DC:79:LYS:HG2	29:DC:97:GLU:OE2	2.05	0.57
13:AM:40:ASN:ND2	13:AM:42:ALA:HB3	2.19	0.57
27:DA:1028:A:H61	27:DA:1125:G:H2'	1.70	0.57
1:CA:1365:G:H2'	1:CA:1366:C:H6	1.68	0.57
5:CE:96:PRO:HA	5:CE:117:ASP:OD2	2.05	0.57
27:DA:792:G:H2'	27:DA:2440:C:O2	2.05	0.57
27:DA:979:G:H3'	27:DA:980:A:H5''	1.87	0.57
49:B0:46:LYS:HB3	49:B0:47:PRO:HD2	1.86	0.57
27:DA:387:U:H4'	27:DA:388:G:OP1	2.04	0.57
27:DA:669:G:N3	27:DA:669:G:H2'	2.20	0.57
41:BS:48:LEU:N	41:BS:48:LEU:HD12	2.19	0.57
27:DA:116:C:H2'	27:DA:117:G:C8	2.40	0.57
27:DA:2514:U:H2'	27:DA:2515:C:H6	1.70	0.57
38:BP:99:LEU:HD23	38:BP:99:LEU:C	2.25	0.56
4:AD:14:ARG:HA	4:AD:39:PRO:HG3	1.85	0.56
35:BI:77:LEU:HD11	35:BI:100:ALA:O	2.05	0.56
35:BI:110:ASP:O	35:BI:114:LEU:HD21	2.05	0.56
27:DA:893:C:H2'	27:DA:894:C:C6	2.40	0.56
53:B4:50:THR:C	53:B4:51:TYR:CD1	2.78	0.56
33:BG:46:ALA:C	33:BG:51:ARG:HD3	2.25	0.56
55:D6:20:ASN:C	55:D6:21:TYR:CG	2.79	0.56
27:DA:1455:G:H8	40:DR:60:LEU:HD11	1.70	0.56
38:DP:95:VAL:CG2	38:DP:125:VAL:HG12	2.35	0.56
33:DG:161:THR:HG21	33:DG:172:LEU:HD23	1.87	0.56
33:DG:82:LEU:HD13	33:DG:87:PRO:HB3	1.87	0.56
1:CA:1353:G:C2	1:CA:1370:G:C2	2.93	0.56
31:DE:199:ARG:CB	31:DE:199:ARG:NH1	2.68	0.56
49:D0:68:GLU:O	49:D0:68:GLU:HG3	2.04	0.56
27:DA:2759:G:H8	27:DA:2759:G:H5'	1.70	0.56
1:CA:975:A:H4'	1:CA:976:G:C5'	2.26	0.56
3:AC:195:VAL:HG12	3:AC:196:LEU:H	1.68	0.56
27:DA:2009:G:H1'	40:DR:107:ASP:O	2.04	0.56
9:AI:4:TYR:HA	9:AI:88:TYR:CE1	2.40	0.56
31:BE:57:LYS:HB3	31:BE:57:LYS:HZ3	1.69	0.56
40:DR:2:ARG:O	40:DR:3:HIS:O	2.23	0.56
32:DF:23:ASP:CG	32:DF:24:LEU:H	2.09	0.56
41:BS:26:LEU:HD13	41:BS:87:PHE:CD1	2.40	0.56
5:CE:57:LYS:HG2	5:CE:61:TYR:CE2	2.40	0.56
27:DA:2197:U:O2'	27:DA:2198:A:C8	2.58	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:21:VAL:HG12	12:CL:21:VAL:O	2.05	0.56
37:DO:87:ILE:CG2	37:DO:88:ASN:H	2.18	0.56
2:CB:82:ARG:HG2	2:CB:82:ARG:HH11	1.70	0.56
47:BY:87:LYS:O	47:BY:88:LYS:HB2	2.05	0.56
47:BY:88:LYS:NZ	47:BY:93:GLY:N	2.43	0.56
42:BT:106:SER:O	42:BT:107:ASP:CB	2.53	0.56
1:AA:1318:A:O3'	19:AS:10:PHE:CD2	2.58	0.56
1:AA:46:G:O2'	1:AA:365:U:H1'	2.04	0.56
16:AP:51:VAL:O	16:AP:51:VAL:CG1	2.51	0.56
16:AP:50:LYS:HZ3	16:AP:52:ASP:HB2	1.70	0.56
30:DD:31:LYS:HB3	30:DD:33:LEU:HD13	1.86	0.56
1:CA:1142:G:H2'	1:CA:1143:G:O4'	2.05	0.56
35:DI:112:LYS:O	35:DI:116:LEU:HB3	2.05	0.56
7:AG:51:GLN:HG2	7:AG:58:PRO:HD3	1.85	0.56
18:AR:53:ARG:NH1	18:AR:53:ARG:HG2	2.19	0.56
39:BQ:68:ILE:HD13	39:BQ:103:MET:HB3	1.87	0.56
38:DP:139:LYS:C	38:DP:141:ALA:H	2.08	0.56
1:CA:1511:G:H8	1:CA:1511:G:O5'	1.88	0.56
27:DA:1614:A:N1	45:DW:91:GLY:HA2	2.20	0.56
27:DA:1309:G:O2'	27:DA:1310:G:H5'	2.04	0.56
5:CE:6:PHE:HB3	5:CE:35:GLY:O	2.04	0.56
7:CG:115:ARG:O	7:CG:118:VAL:HG22	2.03	0.56
27:BA:154(A):C:N4	27:BA:171:G:C6	2.73	0.56
11:AK:58:PRO:O	11:AK:61:ALA:HB3	2.05	0.56
29:BC:20:TYR:CE1	29:BC:22:ILE:HD13	2.40	0.56
27:BA:1497:U:N3	27:BA:1578:U:OP1	2.21	0.56
5:AE:13:ILE:CD1	5:AE:30:ALA:HB2	2.35	0.56
1:AA:1477:C:H2'	1:AA:1478:C:C6	2.41	0.56
28:BB:20:C:C2'	28:BB:21:G:H5'	2.35	0.56
27:BA:2114:A:H2'	27:BA:2115:G:O4'	2.04	0.56
6:CF:30:LEU:O	6:CF:35:ALA:HB3	2.05	0.56
27:BA:2590:A:O2'	27:BA:2591:C:H5'	2.03	0.56
19:CS:51:VAL:HG12	19:CS:52:TYR:N	2.19	0.56
32:DF:144:LYS:C	32:DF:146:ALA:H	2.08	0.56
27:BA:2558:C:H2'	27:BA:2559:C:H6	1.70	0.56
4:CD:14:ARG:HA	4:CD:39:PRO:HG3	1.86	0.56
54:B5:50:GLY:O	54:B5:51:TYR:O	2.23	0.56
27:BA:1518:U:H2'	27:BA:1519:G:C8	2.40	0.56
44:DV:21:ARG:HB3	44:DV:91:TYR:HB2	1.86	0.56
3:CC:8:ILE:C	3:CC:10:PHE:H	2.09	0.56
27:DA:1114:G:C3'	27:DA:1115:G:H5''	2.36	0.56
27:DA:2392:A:OP1	57:D8:32:LEU:HD22	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:25:THR:C	30:DD:27:THR:H	2.07	0.56
42:DT:18:ASP:OD1	42:DT:18:ASP:N	2.34	0.56
40:DR:77:ARG:C	40:DR:79:LEU:H	2.09	0.56
43:DU:102:GLU:HG3	44:DV:2:PHE:HZ	1.68	0.56
27:DA:910:A:H62	39:DQ:12:GLN:HA	1.69	0.56
18:CR:53:ARG:HH21	18:CR:59:SER:C	2.08	0.56
42:DT:41:ARG:NH1	42:DT:43:GLN:HA	2.20	0.56
30:BD:131:LEU:HD13	30:BD:136:ILE:HD11	1.86	0.56
27:BA:1688:U:O2	27:BA:1700:A:H5'	2.06	0.56
14:AN:29:ARG:HG3	14:AN:30:ALA:N	2.20	0.56
27:BA:571:A:O2'	44:BV:78:LYS:HE2	2.05	0.56
41:BS:57:LYS:CD	41:BS:58:LEU:N	2.68	0.56
53:B4:80:ARG:HG3	53:B4:81:VAL:N	2.21	0.56
27:DA:2836:U:H2'	27:DA:2837:G:C8	2.41	0.56
47:BY:87:LYS:C	47:BY:89:PHE:H	2.06	0.56
11:AK:108:ILE:HG22	11:AK:109:VAL:N	2.20	0.56
51:B2:63:VAL:O	51:B2:66:GLU:HG2	2.06	0.56
27:DA:1412:A:H2'	27:DA:1413:G:C8	2.41	0.56
27:DA:480:A:H1'	47:DY:44:ILE:HG21	1.87	0.56
1:CA:1216:G:H2'	1:CA:1217:C:C6	2.40	0.56
35:DI:111:PRO:HG2	35:DI:112:LYS:HE2	1.86	0.56
38:BP:17:LYS:C	38:BP:19:VAL:H	2.09	0.56
1:CA:1137:C:H4'	1:CA:1138:G:N2	2.20	0.56
31:DE:175:VAL:O	31:DE:175:VAL:HG23	2.05	0.56
13:CM:97:PRO:HB3	13:CM:101:GLN:OE1	2.04	0.56
2:CB:77:ALA:HB2	2:CB:211:ILE:HD13	1.87	0.56
32:DF:192:LEU:HD23	32:DF:193:VAL:N	2.20	0.56
7:CG:43:PHE:HE1	7:CG:47:CYS:HG	1.50	0.56
1:AA:555:C:H2'	1:AA:556:C:C6	2.40	0.56
48:DZ:101:LEU:O	48:DZ:102:ARG:CB	2.53	0.56
7:CG:106:GLN:O	7:CG:110:GLN:HB2	2.05	0.56
40:BR:24:GLN:HE22	40:BR:36:THR:HG21	1.70	0.56
8:CH:12:ARG:HH11	8:CH:26:VAL:HA	1.70	0.56
34:DH:71:LEU:H	34:DH:74:ASN:HD22	1.51	0.56
1:CA:542:G:H5'	4:CD:41:GLY:HA3	1.86	0.56
28:DB:38:C:C4	28:DB:39:A:N7	2.73	0.56
1:AA:1292:U:H5'	9:AI:38:GLN:OE1	2.04	0.56
50:B1:17:SER:HB3	50:B1:38:SER:HB3	1.87	0.56
41:DS:22:GLY:O	41:DS:23:ARG:O	2.22	0.56
27:BA:2233:U:H2'	27:BA:2234:G:C8	2.40	0.56
9:AI:128:ARG:OXT	9:AI:128:ARG:HG2	2.04	0.56
48:DZ:104:VAL:HG13	48:DZ:104:VAL:O	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:210:C:H2'	27:DA:211:A:C8	2.40	0.56
55:B6:41:PRO:HG2	55:B6:42:TRP:N	2.20	0.56
57:B8:50:LEU:C	57:B8:53:PRO:HD2	2.25	0.56
38:BP:106:LEU:HD22	38:BP:112:LEU:HD23	1.87	0.56
38:BP:96:THR:HG22	38:BP:126:VAL:CB	2.32	0.56
4:AD:103:ASN:O	4:AD:106:TYR:HB3	2.05	0.56
27:BA:888:C:O2'	27:BA:889:C:H5'	2.05	0.56
35:DI:125:GLU:OE1	35:DI:141:LYS:HE2	2.05	0.56
35:DI:99:GLU:O	35:DI:101:LEU:N	2.31	0.56
35:BI:83:ALA:CB	35:BI:88:ILE:HG23	2.36	0.56
35:BI:128:LEU:O	35:BI:137:PRO:HA	2.05	0.56
53:B4:46:ASN:ND2	53:B4:47:VAL:N	2.53	0.56
28:BB:40:U:H1'	28:BB:45:A:H61	1.70	0.56
33:BG:51:ARG:HA	33:BG:51:ARG:HE	1.67	0.56
14:CN:59:ALA:HB1	14:CN:61:TRP:HZ3	1.70	0.56
57:D8:33:ASN:HD22	57:D8:36:LYS:CD	2.18	0.56
27:DA:1824:G:N3	30:DD:254:THR:OG1	2.38	0.56
41:DS:16:ASN:HD22	41:DS:92:TYR:HE1	1.53	0.56
32:BF:29:ASN:HB3	32:BF:112:MET:CE	2.35	0.56
38:DP:21:ARG:HD3	38:DP:29:LYS:HE3	1.86	0.56
1:CA:56:U:H2'	1:CA:57:G:C8	2.41	0.56
18:CR:40:LEU:HB3	18:CR:70:ILE:CD1	2.35	0.56
1:AA:256:U:H2'	1:AA:257:G:H8	1.69	0.56
17:AQ:45:HIS:NE2	17:AQ:47:PRO:HB3	2.20	0.56
17:AQ:3:LYS:O	17:AQ:5:VAL:HG23	2.06	0.56
27:DA:1688:U:H1'	27:DA:1701:A:C6	2.40	0.56
49:D0:31:VAL:CG2	49:D0:67:VAL:HG23	2.35	0.56
31:DE:68:ALA:HB3	31:DE:69:LYS:HZ1	1.69	0.56
3:CC:153:VAL:HG12	3:CC:196:LEU:HD12	1.87	0.56
28:DB:48:A:H2'	28:DB:49:C:C4'	2.35	0.56
1:CA:1319:A:H2'	1:CA:1323:G:N7	2.19	0.56
38:BP:25:SER:O	38:BP:30:THR:HG23	2.04	0.56
3:AC:195:VAL:HG12	3:AC:196:LEU:N	2.20	0.56
27:DA:322:A:H5'	27:DA:340:A:C1'	2.35	0.56
27:BA:140:G:H21	27:BA:1596:A:H4'	1.71	0.56
27:BA:1810:A:H2'	27:BA:1811:G:O4'	2.04	0.56
27:DA:2821:A:OP2	31:DE:110:GLY:HA3	2.04	0.56
38:DP:6:LEU:CD1	38:DP:9:ASN:HB3	2.35	0.56
31:DE:111:ARG:CD	31:DE:160:TYR:HE1	2.16	0.56
14:AN:42:ILE:O	14:AN:46:GLU:HG3	2.05	0.56
1:CA:1187:G:OP1	9:CI:113:LYS:HE2	2.05	0.56
41:BS:89:ARG:HB3	41:BS:92:TYR:HB2	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:987:G:O2'	27:BA:1000:A:H1'	2.05	0.56
43:BU:87:GLY:O	44:BV:50:PRO:HD3	2.04	0.56
4:AD:170:VAL:HG12	4:AD:174:LEU:HB2	1.87	0.56
52:D3:23:LEU:CD1	52:D3:50:VAL:HG11	2.35	0.56
51:D2:48:HIS:HA	51:D2:51:ARG:HG2	1.87	0.56
27:BA:2788:C:O2'	27:BA:2809:A:N3	2.35	0.56
40:BR:4:LEU:O	40:BR:5:LYS:CG	2.52	0.56
52:D3:40:THR:HA	52:D3:44:ARG:HH21	1.68	0.56
8:AH:48:TYR:HA	8:AH:60:ARG:O	2.05	0.56
39:BQ:56:ARG:HG2	39:BQ:56:ARG:HH11	1.70	0.56
8:AH:86:ILE:HG13	8:AH:133:LEU:HD22	1.88	0.56
5:CE:81:GLU:CG	5:CE:90:VAL:HG12	2.33	0.56
38:DP:47:ASP:HB3	38:DP:48:PRO:CA	2.35	0.56
45:DW:51:LEU:C	45:DW:51:LEU:HD13	2.25	0.56
1:CA:1003:G:H2'	1:CA:1004:A:O4'	2.06	0.56
17:CQ:4:LYS:HG3	17:CQ:6:LEU:HD11	1.86	0.56
33:DG:18:GLU:O	33:DG:22:ARG:HG3	2.06	0.56
15:AO:3:ILE:H	15:AO:3:ILE:CD1	2.18	0.56
15:AO:3:ILE:HD13	15:AO:3:ILE:N	2.20	0.56
27:BA:857:C:H1'	49:B0:26:TYR:CE2	2.40	0.56
27:DA:2469:A:H4'	39:DQ:56:ARG:HD2	1.86	0.56
16:CP:9:PHE:HE2	16:CP:18:ARG:NE	2.02	0.56
27:DA:57:C:O2'	27:DA:58:G:H5'	2.06	0.56
27:BA:2556:C:H2'	27:BA:2557:G:O4'	2.04	0.56
27:BA:2148:G:O2'	27:BA:2149:G:H5'	2.05	0.56
12:AL:19:SER:O	12:AL:21:VAL:N	2.38	0.56
25:CY:18:G:H1'	25:CY:56:G:H22	1.70	0.56
34:BH:89:ILE:CD1	34:BH:129:THR:HB	2.35	0.56
42:DT:23:ARG:HB2	42:DT:24:PRO:HD2	1.88	0.56
33:DG:5:VAL:H	33:DG:8:LYS:CG	2.17	0.56
39:BQ:21:THR:CG2	39:BQ:101:ARG:HD3	2.34	0.56
27:DA:528:A:H2	27:DA:2043:C:C5'	2.13	0.56
3:AC:108:ASN:HB3	3:AC:111:LEU:HD12	1.86	0.56
29:DC:20:TYR:CG	29:DC:21:THR:N	2.72	0.56
5:CE:11:ILE:HB	5:CE:31:LEU:HB3	1.87	0.56
28:BB:82:G:O2'	28:BB:83:G:H5'	2.06	0.56
27:BA:528:A:C2	27:BA:2043:C:C5'	2.88	0.56
36:DN:41:ASP:O	43:DU:64:ARG:NE	2.38	0.56
1:CA:551:U:H2'	1:CA:552:U:C6	2.39	0.56
2:CB:20:GLU:O	2:CB:39:ILE:HG23	2.05	0.56
4:CD:135:LEU:CD1	4:CD:135:LEU:N	2.68	0.56
13:AM:108:ARG:N	13:AM:108:ARG:HD2	2.20	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:97:VAL:HG13	8:CH:98:LYS:N	2.20	0.56
31:BE:95:ILE:CD1	31:BE:95:ILE:H	2.18	0.56
3:CC:159:GLY:HA2	3:CC:193:TYR:CD1	2.40	0.56
47:BY:2:ARG:HD3	47:BY:3:VAL:H	1.70	0.56
27:DA:365:C:C6	27:DA:365:C:H5'	2.39	0.56
31:BE:188:VAL:O	31:BE:188:VAL:HG13	2.05	0.56
12:CL:116:LYS:O	12:CL:117:TYR:HB2	2.06	0.56
40:BR:9:LYS:C	40:BR:10:LEU:HG	2.25	0.56
6:AF:20:ALA:HA	6:AF:23:LYS:HD3	1.88	0.56
27:BA:1827:C:O2'	27:BA:1828:G:H5'	2.06	0.56
1:AA:878:G:C5'	8:AH:89:PRO:HG2	2.35	0.56
28:DB:91:C:O2'	28:DB:92:C:H5'	2.04	0.56
28:DB:87:G:C2'	28:DB:88:C:H5''	2.35	0.56
1:AA:580:U:O2'	15:AO:57:LEU:HD22	2.05	0.56
32:BF:198:ALA:O	32:BF:201:VAL:HG12	2.05	0.56
1:AA:1434:A:C2'	1:AA:1435:G:H5'	2.35	0.56
1:CA:409:G:OP1	4:CD:24:GLU:HB2	2.05	0.56
27:BA:2351:G:HO2'	27:BA:2352:A:H8	1.52	0.56
27:DA:690:G:H2'	27:DA:691:C:C6	2.40	0.56
41:BS:61:ASN:HB3	41:BS:64:GLU:HB3	1.87	0.56
1:CA:1084:G:OP1	1:CA:1086:U:C4	2.58	0.56
27:DA:2803:C:H5'	27:DA:2804:C:OP1	2.06	0.56
27:BA:1816:G:H1	30:BD:37:LEU:HD12	1.69	0.56
4:CD:130:GLY:O	4:CD:131:ARG:O	2.23	0.56
27:DA:2282:G:H5''	27:DA:2283:C:O4'	2.05	0.56
27:BA:210:C:OP2	56:B7:29:LYS:HE2	2.04	0.56
25:AY:28:G:H2'	25:AY:29:G:H8	1.70	0.56
27:DA:923:C:O2'	27:DA:924:C:H5'	2.06	0.56
27:BA:2463:C:O2'	27:BA:2464:C:H5'	2.05	0.56
19:AS:35:SER:C	19:AS:37:ARG:H	2.07	0.56
25:CY:41:G:N2	25:CY:42:G:H1'	2.20	0.56
27:DA:2457:U:C2'	27:DA:2458:G:H5'	2.35	0.56
27:DA:807:U:OP2	38:DP:39:LYS:HG3	2.05	0.56
1:CA:1021:G:N2	1:CA:1022:G:H1'	2.20	0.56
27:BA:1428:C:O2'	27:BA:1429:G:H5'	2.05	0.56
34:BH:67:LEU:O	34:BH:67:LEU:HD12	2.05	0.56
48:DZ:149:LEU:CD2	48:DZ:171:ALA:HB3	2.24	0.56
57:D8:49:VAL:O	57:D8:53:PRO:HG3	2.06	0.56
38:DP:108:LYS:C	38:DP:110:TYR:N	2.58	0.56
38:BP:11:GLY:O	38:BP:12:ALA:C	2.43	0.56
36:DN:12:ARG:NH2	36:DN:133:GLN:HE22	2.03	0.56
13:AM:57:ARG:NH1	13:AM:57:ARG:HB3	2.20	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:45:PHE:CE1	42:DT:74:ARG:HG3	2.41	0.56
1:CA:1269:A:H2'	1:CA:1270:C:O4'	2.04	0.56
27:DA:2632:A:H2	31:DE:61:ARG:HD3	1.69	0.56
10:AJ:49:VAL:HG21	14:AN:41:ARG:O	2.05	0.56
30:DD:97:TYR:O	30:DD:99:ASP:N	2.38	0.56
9:AI:5:TYR:CD2	9:AI:6:GLY:N	2.69	0.56
27:DA:747:U:O2	27:DA:2014:A:H1'	2.05	0.56
32:DF:101:LEU:O	32:DF:106:ARG:NH1	2.37	0.56
17:AQ:76:LEU:HD11	17:AQ:78:GLU:O	2.05	0.56
47:DY:28:LYS:HB2	47:DY:38:ILE:N	2.21	0.56
1:AA:90:U:H5''	1:AA:91:C:C5'	2.36	0.56
48:BZ:143:LEU:O	48:BZ:173:VAL:HG21	2.06	0.56
14:AN:46:GLU:O	14:AN:50:LYS:HG3	2.06	0.56
10:CJ:44:VAL:HG13	10:CJ:66:ARG:CG	2.28	0.56
27:BA:2285:C:H5	55:B6:27:LYS:CE	2.18	0.56
59:CX:15:G:H2'	59:CX:59:A:N1	2.20	0.56
40:BR:2:ARG:NH2	40:BR:5:LYS:CE	2.68	0.56
13:CM:90:LEU:C	13:CM:92:HIS:H	2.09	0.56
27:DA:286:C:C2'	27:DA:287:C:H5''	2.35	0.56
27:BA:903:C:H2'	27:BA:904:C:H6	1.70	0.56
3:AC:35:GLU:O	3:AC:39:ILE:HG13	2.04	0.56
2:CB:17:PHE:HB2	2:CB:42:ILE:HG22	1.88	0.56
5:AE:67:VAL:HG13	5:AE:69:VAL:CG2	2.35	0.56
40:BR:53:HIS:CD2	40:BR:94:TYR:OH	2.58	0.56
39:DQ:22:LYS:O	39:DQ:23:GLY:O	2.22	0.56
48:DZ:107:PRO:C	48:DZ:109:GLY:H	2.08	0.56
4:CD:13:ARG:O	4:CD:15:GLU:N	2.33	0.56
6:AF:46:ARG:HH22	18:AR:37:VAL:CG2	2.14	0.56
41:BS:34:HIS:HA	41:BS:54:LEU:HD23	1.86	0.56
4:CD:138:TYR:HD2	4:CD:139:ARG:H	1.51	0.56
19:CS:31:ILE:O	19:CS:49:ILE:HG23	2.05	0.56
27:DA:1224:C:O2'	44:DV:85:LYS:HD3	2.05	0.56
27:DA:554:U:C2'	27:DA:555:U:H5'	2.35	0.56
27:DA:2177:C:H2'	27:DA:2178:C:O4'	2.05	0.56
56:D7:8:ASN:C	56:D7:8:ASN:ND2	2.57	0.56
48:DZ:62:ASP:HB2	48:DZ:64:GLN:CG	2.36	0.56
32:BF:72:ARG:HB3	32:BF:72:ARG:HH11	1.70	0.56
25:AY:69:C:H2'	25:AY:70:C:H6	1.70	0.56
27:BA:2609:U:OP1	27:BA:2609:U:H4'	2.05	0.56
1:CA:939:G:H5''	7:CG:102:ARG:HH22	1.68	0.56
7:CG:103:TRP:HD1	7:CG:106:GLN:NE2	2.02	0.56
8:CH:96:GLY:N	8:CH:99:GLU:OE2	2.38	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:814:C:OP1	44:DV:83:ARG:HA	2.05	0.56
27:DA:224:G:N7	27:DA:420:C:H4'	2.20	0.56
39:DQ:39:PRO:O	39:DQ:40:ALA:CB	2.53	0.56
30:DD:2:ALA:HB3	30:DD:20:ASP:HB2	1.86	0.56
7:AG:86:GLN:NE2	25:AY:30:A:H2	2.04	0.56
19:AS:51:VAL:HG11	19:AS:71:LEU:O	2.05	0.56
1:CA:1328:C:O2'	1:CA:1329:A:H5'	2.05	0.56
27:BA:119:A:H5'	27:BA:120:U:OP1	2.05	0.56
27:DA:191:A:O2'	27:DA:192:C:H5'	2.06	0.56
17:AQ:27:PHE:H	17:AQ:27:PHE:HD2	1.53	0.56
14:CN:44:LEU:HD12	14:CN:44:LEU:O	2.05	0.56
30:BD:268:ARG:HB3	30:BD:268:ARG:NH1	2.20	0.56
37:DO:99:PHE:CD2	37:DO:99:PHE:N	2.73	0.56
20:CT:75:ASN:O	20:CT:79:ARG:N	2.38	0.56
27:DA:1311:G:HO2'	27:DA:1312:U:H5	1.54	0.56
55:B6:15:GLU:O	55:B6:15:GLU:HG2	2.05	0.56
42:BT:61:PHE:CE1	42:BT:76:PHE:HD1	2.23	0.56
31:DE:26:ILE:HG22	31:DE:27:LEU:N	2.12	0.56
28:DB:75:G:H5''	28:DB:76:G:OP2	2.05	0.56
48:DZ:32:LEU:HD12	48:DZ:33:ASN:H	1.71	0.56
28:DB:75:G:H2'	48:DZ:84:HIS:NE2	2.20	0.56
55:D6:15:GLU:OE2	55:D6:43:CYS:O	2.23	0.56
43:DU:102:GLU:HG3	44:DV:2:PHE:CE1	2.40	0.56
33:DG:33:ARG:H	33:DG:162:THR:CG2	2.19	0.56
31:DE:167:VAL:HG13	31:DE:170:LEU:HD11	1.87	0.56
27:DA:2759:G:H5'	27:DA:2759:G:C8	2.40	0.56
14:AN:43:CYS:O	14:AN:46:GLU:HB2	2.06	0.56
12:AL:43:LYS:CG	12:AL:44:LYS:H	2.12	0.56
1:CA:962:C:H2'	1:CA:963:G:C8	2.41	0.56
27:BA:286:C:C2'	27:BA:287:C:C5'	2.84	0.56
1:CA:9:G:OP2	5:CE:121:LYS:HD2	2.06	0.56
36:DN:27:ALA:HB3	36:DN:106:MET:HE1	1.86	0.56
27:BA:2562:U:C2'	27:BA:2563:U:H5'	2.35	0.56
51:B2:23:LYS:O	51:B2:26:ARG:HB2	2.06	0.56
27:DA:2134:A:N3	27:DA:2159:G:H1'	2.21	0.56
30:DD:267:SER:C	30:DD:269:PHE:N	2.59	0.56
25:CY:18:G:N2	25:CY:55:C:H42	2.03	0.56
47:DY:45:VAL:O	47:DY:46:LYS:CB	2.54	0.56
49:B0:51:VAL:HG21	49:B0:80:HIS:HA	1.87	0.56
27:BA:847:U:H2'	27:BA:848:G:H5''	1.88	0.56
1:CA:606:G:H2'	1:CA:631:G:H22	1.69	0.56
1:CA:818:G:C3'	1:CA:819:A:C5'	2.81	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:676:A:H8	27:DA:2069:G:N2	2.01	0.56
1:CA:593:G:O2'	1:CA:594:G:H5'	2.06	0.56
27:DA:1362:C:O2'	27:DA:1363:C:H5'	2.06	0.56
1:AA:1355:G:H2'	1:AA:1356:G:H8	1.68	0.56
27:DA:92:A:O2'	27:DA:93:G:H5'	2.05	0.56
27:BA:1655:A:H1'	31:BE:113:PHE:HD2	1.71	0.56
27:BA:648:G:O2'	27:BA:649:G:H5'	2.06	0.56
27:BA:1946:U:H2'	27:BA:1947:C:C6	2.40	0.56
27:BA:1642:G:O2'	27:BA:1643:G:H5'	2.05	0.56
6:CF:76:ALA:HB1	6:CF:80:ARG:HH21	1.70	0.56
1:CA:977:A:H1'	1:CA:982:U:O4	2.05	0.56
54:B5:56:LYS:HE2	54:B5:59:GLU:HG3	1.86	0.56
33:BG:57:ALA:HA	33:BG:90:LEU:CD1	2.30	0.56
9:CI:114:TYR:CD1	10:CJ:60:ARG:HG3	2.40	0.56
39:DQ:140:ALA:O	48:DZ:52:ILE:HD13	2.06	0.56
55:D6:32:ASN:O	55:D6:33:LYS:CB	2.54	0.56
27:DA:925:C:C3'	27:DA:926:A:H5''	2.35	0.56
10:CJ:32:ALA:H	10:CJ:76:ASN:HB3	1.70	0.56
10:CJ:78:ASN:ND2	10:CJ:80:LYS:N	2.50	0.56
27:DA:2862:G:H2'	27:DA:2863:C:C6	2.41	0.56
13:AM:34:LEU:HB3	13:AM:41:PRO:HG3	1.86	0.56
44:DV:55:ALA:HA	44:DV:101:GLY:HA2	1.88	0.56
1:AA:942:G:H21	9:AI:124:GLN:HE21	1.49	0.56
27:BA:2810:A:C2'	31:BE:61:ARG:NH2	2.66	0.56
5:CE:144:THR:O	5:CE:148:VAL:HG23	2.05	0.56
48:BZ:149:LEU:HD11	48:BZ:171:ALA:O	2.06	0.56
48:BZ:150:HIS:ND1	48:BZ:151:ALA:N	2.37	0.56
52:D3:10:LYS:CB	52:D3:53:LEU:HD23	2.35	0.56
27:BA:2809:A:C2	27:BA:2892:A:N3	2.74	0.56
5:AE:101:ILE:O	5:AE:101:ILE:HG12	2.06	0.56
48:BZ:125:VAL:O	48:BZ:126:LYS:HB2	2.06	0.56
40:DR:20:LEU:HD23	40:DR:21:TYR:CE2	2.41	0.56
27:BA:271(M):G:C2'	27:BA:271(N):U:H5''	2.32	0.56
27:DA:2680:C:H2'	27:DA:2681:C:O2	2.06	0.56
50:B1:84:GLY:O	50:B1:86:SER:N	2.33	0.56
2:AB:154:LEU:O	2:AB:155:LEU:C	2.44	0.56
38:BP:50:ARG:HG2	38:BP:50:ARG:HH21	1.70	0.56
16:CP:49:LEU:O	16:CP:51:VAL:HG23	2.04	0.56
1:AA:522:C:H41	12:AL:50:ARG:NH2	2.03	0.56
34:BH:126:PRO:O	34:BH:127:GLU:HB2	2.06	0.56
3:AC:44:GLU:HA	3:AC:52:LEU:HD11	1.87	0.56
25:AY:56:G:H2'	25:AY:57:A:H5'	1.86	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1286:A:H2'	27:BA:1288:U:OP2	2.05	0.56
27:DA:557:U:H2'	27:DA:558:G:H8	1.71	0.56
38:DP:140:ALA:O	38:DP:141:ALA:HB3	2.05	0.56
2:CB:81:VAL:HG22	2:CB:215:LEU:CD1	2.34	0.56
1:AA:1228:C:H2'	1:AA:1229:A:C8	2.39	0.56
45:DW:88:ARG:HB2	45:DW:92:ARG:HB3	1.86	0.56
25:AY:68:C:H2'	25:AY:69:C:H5'	1.88	0.56
27:BA:2240:C:O2'	27:BA:2241:A:H5'	2.05	0.56
8:CH:19:VAL:O	8:CH:20:TYR:HB2	2.06	0.56
13:AM:83:ASP:CG	13:AM:84:ILE:H	2.08	0.56
27:DA:236:C:H2'	27:DA:237:C:C6	2.40	0.56
35:BI:118:LYS:HD2	35:BI:119:PRO:CD	2.35	0.56
27:BA:605:C:O2'	27:BA:606:U:H5'	2.04	0.56
27:BA:1474:C:H2'	27:BA:1475:G:C8	2.40	0.56
19:CS:51:VAL:HG12	19:CS:52:TYR:H	1.71	0.56
27:BA:1363:C:H2'	27:BA:1364:G:H8	1.71	0.56
30:BD:264:LYS:HG2	30:BD:266:SER:HB3	1.86	0.56
27:BA:1336:A:O2'	27:BA:1337:G:H5'	2.04	0.56
1:AA:1288:A:O2'	1:AA:1289:A:H5'	2.04	0.56
27:DA:2152:G:H2'	27:DA:2153:G:C8	2.39	0.56
57:B8:21:LYS:HD3	57:B8:48:PHE:CZ	2.40	0.56
4:AD:60:GLU:CG	4:AD:202:LEU:HD12	2.36	0.56
27:DA:1862:G:O2'	27:DA:1863:G:H5'	2.05	0.56
47:BY:7:VAL:CB	47:BY:8:LYS:HD2	2.31	0.56
47:BY:81:LYS:CE	47:BY:97:ARG:HG3	2.35	0.56
44:DV:20:LEU:HD12	44:DV:20:LEU:N	2.21	0.56
44:DV:64:HIS:ND1	44:DV:92:THR:CG2	2.62	0.56
35:BI:110:ASP:O	35:BI:112:LYS:N	2.38	0.56
3:CC:6:HIS:ND1	14:CN:49:HIS:HB2	2.20	0.56
48:DZ:98:TYR:CD2	48:DZ:124:LEU:HB2	2.41	0.56
38:DP:63:PRO:O	38:DP:64:LYS:C	2.44	0.56
27:BA:2476:A:C2	27:BA:2477:C:C5	2.94	0.56
38:BP:18:ARG:HH11	38:BP:18:ARG:CB	2.18	0.56
41:DS:52:SER:HB3	41:DS:55:ALA:HB3	1.87	0.56
33:DG:111:LEU:HD22	33:DG:117:PHE:CE2	2.41	0.56
33:DG:71:THR:O	33:DG:89:GLY:HA3	2.06	0.56
30:BD:77:ALA:HB2	30:BD:97:TYR:HA	1.88	0.56
49:B0:10:THR:HG22	49:B0:11:ARG:N	2.19	0.56
13:CM:57:ARG:NH2	53:D4:60:GLU:HG3	2.20	0.56
9:CI:75:ASP:O	9:CI:78:LYS:HB3	2.06	0.56
31:DE:79:ARG:HG2	31:DE:79:ARG:HH11	1.69	0.56
1:AA:1234:C:H2'	1:AA:1235:U:H6	1.70	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:118:GLU:HG2	48:DZ:118:GLU:O	2.06	0.56
9:AI:49:PRO:HG2	9:AI:81:ILE:HG21	1.88	0.56
31:BE:57:LYS:HB3	31:BE:57:LYS:NZ	2.20	0.56
27:BA:514:A:O2'	27:BA:515:A:H5'	2.06	0.56
43:BU:91:ASP:OD2	43:BU:96:ALA:HA	2.06	0.56
8:AH:127:LEU:O	8:AH:127:LEU:HD13	2.06	0.56
1:CA:959:A:C2'	1:CA:960:U:H4'	2.36	0.56
27:BA:747:U:C4	27:BA:2613:U:C5	2.94	0.56
1:AA:1207:G:H2'	1:AA:1208:C:H6	1.69	0.56
3:AC:108:ASN:HD21	3:AC:144:SER:CB	2.18	0.56
20:AT:22:ARG:NH1	20:AT:22:ARG:HB2	2.19	0.56
3:AC:52:LEU:CD2	3:AC:52:LEU:H	2.14	0.56
17:CQ:31:LEU:HD23	17:CQ:32:TYR:CE1	2.37	0.56
27:DA:2791:C:O5'	27:DA:2792:G:OP1	2.24	0.56
28:BB:92:C:H5'	48:BZ:78:ARG:HH22	1.69	0.56
8:CH:97:VAL:HG13	8:CH:98:LYS:H	1.70	0.56
27:DA:1614:A:H2'	27:DA:1615:C:H5'	1.86	0.56
27:DA:2672:G:H3'	27:DA:2673:G:H5''	1.88	0.56
43:BU:8:VAL:HG11	43:BU:12:ARG:NE	2.20	0.56
7:CG:43:PHE:O	7:CG:46:ALA:HB3	2.06	0.56
1:CA:739:C:O2'	1:CA:740:U:H5'	2.05	0.56
1:CA:737:A:H1'	6:CF:73:ASN:ND2	2.21	0.56
1:CA:221:C:O2'	1:CA:222:U:H5'	2.06	0.56
27:BA:481:G:HO2'	27:BA:482:A:P	2.28	0.56
12:AL:31:ARG:HG3	12:AL:102:TYR:HE1	1.70	0.56
27:BA:2772:C:H2'	27:BA:2773:C:C6	2.40	0.56
30:BD:98:VAL:C	30:BD:100:GLY:H	2.08	0.56
27:BA:1278:A:H2'	27:BA:1279:G:H8	1.70	0.56
1:AA:706:A:H1'	11:AK:29:ILE:HD11	1.86	0.56
29:DC:65:PRO:O	29:DC:66:HIS:HB2	2.06	0.56
28:BB:14:U:OP2	28:BB:70:C:O2'	2.20	0.56
16:CP:48:TRP:CE3	16:CP:48:TRP:O	2.59	0.56
27:BA:573:G:O2'	27:BA:574:C:H3'	2.06	0.56
34:DH:46:GLU:HG3	34:DH:51:ARG:HE	1.71	0.56
27:BA:2340:G:O2'	27:BA:2341:G:H5'	2.06	0.56
4:AD:156:GLU:OE1	4:AD:156:GLU:N	2.38	0.56
55:B6:41:PRO:O	55:B6:42:TRP:HB2	2.04	0.56
55:B6:21:TYR:HE2	55:B6:52:VAL:HG21	1.71	0.56
42:BT:28:VAL:HG12	42:BT:29:ARG:CD	2.30	0.56
27:BA:1468:C:H2'	27:BA:1469:A:C8	2.36	0.56
33:BG:133:LEU:HD11	33:BG:157:ILE:HB	1.88	0.56
48:DZ:169:THR:CG2	48:DZ:170:ILE:N	2.69	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:65:C:H2'	27:BA:66:C:C6	2.41	0.56
38:DP:95:VAL:HG22	38:DP:125:VAL:HA	1.87	0.56
36:DN:1:MET:CG	36:DN:2:LYS:N	2.64	0.56
43:DU:57:PHE:O	43:DU:60:LEU:N	2.39	0.56
28:DB:111:G:H2'	28:DB:112:U:O4'	2.05	0.56
28:DB:3:C:O2'	28:DB:4:C:H5'	2.06	0.56
27:BA:1190:G:H5''	38:BP:35:HIS:CA	2.22	0.56
30:BD:33:LEU:O	30:BD:34:VAL:C	2.44	0.56
13:AM:20:THR:C	13:AM:22:ILE:H	2.10	0.56
1:AA:376:G:O2'	1:AA:377:G:H5'	2.05	0.56
31:DE:76:ARG:O	31:DE:77:ILE:O	2.22	0.56
28:DB:28:C:O2'	28:DB:29:A:H5'	2.06	0.56
27:DA:1491:G:O2'	30:DD:101:GLU:HB2	2.06	0.56
41:BS:18:ILE:O	41:BS:20:ARG:N	2.37	0.56
4:AD:147:ALA:CB	4:AD:182:LYS:HB3	2.35	0.56
8:CH:134:ILE:O	8:CH:135:CYS:HB3	2.06	0.56
3:CC:108:ASN:C	3:CC:110:ASN:H	2.09	0.56
27:DA:197:A:H5'	27:DA:197:A:C8	2.41	0.56
8:AH:91:ARG:HD3	8:AH:91:ARG:O	2.05	0.56
33:DG:4:ASP:HA	33:DG:8:LYS:HD3	1.88	0.56
2:AB:111:ARG:HB3	2:AB:149:LEU:HD11	1.88	0.56
27:DA:298:G:O5'	27:DA:298:G:H8	1.88	0.56
44:BV:81:TYR:C	44:BV:82:ARG:HD2	2.26	0.56
27:DA:2177:C:O2'	27:DA:2178:C:H5'	2.06	0.56
7:CG:118:VAL:HG23	7:CG:119:ARG:N	2.21	0.56
1:CA:1422:G:O2'	1:CA:1423:G:H5'	2.05	0.56
27:BA:1396:U:O2	27:BA:1396:U:C2'	2.54	0.56
23:AW:74:C:H2'	23:AW:75:A:C8	2.41	0.56
11:AK:18:ARG:HG2	11:AK:20:TYR:CE1	2.41	0.56
7:AG:57:GLU:HG3	7:AG:60:LYS:CB	2.35	0.56
40:BR:10:LEU:HB3	40:BR:17:ARG:NE	2.21	0.56
27:DA:1441:G:O2'	27:DA:1442:G:H5'	2.06	0.56
39:DQ:39:PRO:O	39:DQ:40:ALA:HB3	2.06	0.56
6:CF:1:MET:HB2	6:CF:66:GLU:HG2	1.87	0.56
27:BA:1373:A:H2'	27:BA:1374:G:O4'	2.05	0.56
7:AG:89:MET:HB3	7:AG:155:ARG:HG2	1.88	0.56
34:DH:88:LEU:N	34:DH:88:LEU:HD22	2.21	0.56
27:BA:2790:A:H2'	27:BA:2790:A:N3	2.21	0.56
49:D0:46:LYS:HB2	49:D0:78:TYR:CE2	2.41	0.56
55:B6:47:THR:OG1	55:B6:48:VAL:N	2.37	0.56
35:DI:114:LEU:HA	35:DI:130:TYR:CA	2.36	0.56
1:CA:1186:G:N2	14:CN:61:TRP:O	2.36	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:149:LEU:HD21	48:DZ:171:ALA:CA	2.35	0.56
57:B8:61:LEU:HD12	57:B8:62:LEU:H	1.70	0.56
40:DR:59:ASP:O	40:DR:60:LEU:C	2.44	0.56
31:DE:117:MET:HA	31:DE:122:PHE:H	1.71	0.56
37:DO:104:ARG:HE	42:DT:33:LYS:HE3	1.71	0.56
44:DV:52:VAL:HG11	44:DV:55:ALA:CB	2.36	0.56
27:DA:857:C:H4'	49:D0:23:VAL:HG21	1.87	0.56
1:CA:1460:A:H2'	1:CA:1461:G:O4'	2.05	0.56
7:AG:16:LEU:HD11	9:AI:42:ARG:HA	1.87	0.56
47:DY:96:ILE:CD1	47:DY:99:CYS:HB2	2.36	0.56
45:BW:92:ARG:CG	45:BW:92:ARG:NH1	2.65	0.56
43:BU:92:ARG:HH21	43:BU:95:LEU:CD1	2.16	0.56
27:DA:38:A:H2'	27:DA:39:C:C6	2.41	0.56
4:AD:127:THR:HG21	4:AD:149:ALA:HB2	1.87	0.56
1:CA:1228:C:OP2	13:CM:108:ARG:NH2	2.39	0.56
32:DF:33:LEU:O	32:DF:37:VAL:HG22	2.05	0.56
6:CF:19:LEU:HD11	6:CF:59:TYR:CE2	2.41	0.56
2:CB:200:ILE:HG22	2:CB:202:PRO:HD3	1.87	0.56
53:D4:40:ILE:N	53:D4:40:ILE:HD12	2.20	0.56
50:B1:94:LEU:O	50:B1:96:LYS:N	2.39	0.56
10:AJ:99:LYS:O	10:AJ:100:THR:HG23	2.06	0.56
10:AJ:38:ILE:HG12	10:AJ:71:LEU:O	2.05	0.56
30:DD:270:ILE:O	30:DD:270:ILE:HD12	2.05	0.56
1:CA:749:C:O2'	1:CA:750:G:H5'	2.05	0.56
27:BA:109:G:O2'	27:BA:110:G:H5'	2.06	0.56
12:AL:80:VAL:HG11	12:AL:97:ILE:HG21	1.88	0.56
11:AK:79:SER:CB	11:AK:106:LYS:HD2	2.35	0.56
25:CY:69:C:H6	25:CY:69:C:H5'	1.71	0.56
8:CH:1:MET:HE3	8:CH:3:THR:H	1.70	0.56
49:B0:25:ARG:NH1	49:B0:25:ARG:HG2	2.20	0.56
31:DE:176:ILE:CD1	31:DE:176:ILE:N	2.68	0.56
27:DA:2191:G:H2'	27:DA:2192:G:H1'	1.87	0.56
14:AN:9:LYS:HG3	14:AN:12:ARG:NH2	2.21	0.56
9:CI:118:LYS:CB	9:CI:118:LYS:NZ	2.69	0.56
8:AH:109:ILE:HG12	8:AH:110:ALA:N	2.20	0.56
36:BN:120:LEU:C	36:BN:121:LYS:HD2	2.25	0.56
27:DA:1289:C:H2'	27:DA:1290:C:H6	1.70	0.56
25:AY:5:G:O2'	25:AY:6:U:H5'	2.06	0.56
27:DA:523:C:C2'	27:DA:524:U:H5'	2.35	0.56
28:DB:83:G:H5'	52:D3:52:HIS:CD2	2.41	0.56
49:D0:11:ARG:O	49:D0:14:ARG:NH2	2.39	0.56
4:AD:16:GLY:O	4:AD:17:VAL:C	2.45	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:9:GLU:O	2:CB:11:LEU:N	2.39	0.56
27:DA:78:A:H2'	27:DA:79:G:C8	2.41	0.56
1:CA:940:C:H2'	1:CA:941:G:H8	1.69	0.56
27:DA:1666:G:H2'	27:DA:1667:G:H5'	1.87	0.56
7:CG:82:GLY:HA2	22:CV:1:A:H8	1.70	0.56
1:AA:1082:G:O2'	1:AA:1083:U:H5'	2.06	0.56
27:DA:1399:C:H2'	27:DA:1400:G:H8	1.71	0.56
5:AE:13:ILE:HD11	5:AE:30:ALA:HB2	1.88	0.56
1:CA:425:G:O2'	1:CA:426:G:H5'	2.06	0.56
42:DT:134:GLU:O	42:DT:135:ALA:HB3	2.06	0.56
27:BA:836:G:H2'	27:BA:837:C:C6	2.41	0.56
27:DA:1963:U:O2	27:DA:1963:U:H2'	2.06	0.56
29:DC:71:GLN:O	29:DC:71:GLN:HG3	2.06	0.56
55:B6:15:GLU:CB	55:B6:18:ARG:HE	2.18	0.56
27:BA:627:A:C5	27:BA:637:A:N7	2.74	0.56
38:BP:61:ARG:HD3	57:B8:13:ARG:HD2	1.88	0.56
42:BT:28:VAL:CG1	42:BT:46:GLU:HG3	2.36	0.56
13:AM:9:ILE:HG22	13:AM:11:ARG:HE	1.69	0.56
33:BG:101:ILE:CD1	33:BG:102:PHE:H	2.13	0.56
48:DZ:18:ARG:HG2	48:DZ:18:ARG:NH1	2.21	0.56
38:DP:59:LEU:HA	38:DP:61:ARG:NE	2.20	0.56
10:CJ:22:LYS:C	10:CJ:22:LYS:HD2	2.25	0.56
10:CJ:78:ASN:ND2	10:CJ:80:LYS:CB	2.68	0.56
38:DP:112:LEU:N	38:DP:128:HIS:HD2	2.04	0.56
38:DP:126:VAL:CG1	38:DP:148:LEU:HD11	2.36	0.56
38:DP:85:LEU:CD2	38:DP:85:LEU:H	2.18	0.56
38:DP:23:PRO:HB2	38:DP:33:ARG:NE	2.21	0.56
28:DB:22:U:C2	28:DB:61:G:N1	2.74	0.56
1:AA:254:G:H21	17:AQ:16:GLN:CD	2.09	0.56
9:CI:82:ALA:HA	9:CI:85:LEU:HG	1.88	0.56
9:CI:9:ARG:HG3	9:CI:14:VAL:HG22	1.87	0.56
27:BA:908:C:OP1	39:BQ:22:LYS:HB3	2.06	0.56
31:DE:36:ARG:HD3	31:DE:85:ASN:ND2	2.21	0.56
3:AC:164:ARG:HB2	3:AC:164:ARG:CZ	2.36	0.56
27:DA:1686:C:C5'	27:DA:1686:C:C6	2.86	0.56
32:BF:7:TYR:OH	32:BF:10:PRO:HG3	2.04	0.56
5:AE:35:GLY:HA3	5:AE:41:VAL:HG12	1.87	0.56
34:BH:85:LYS:HZ1	34:BH:133:VAL:HG21	1.68	0.56
50:B1:94:LEU:C	50:B1:96:LYS:N	2.59	0.56
30:DD:270:ILE:O	30:DD:271:ILE:HG23	2.06	0.56
27:DA:57:C:H2'	27:DA:58:G:O4'	2.05	0.56
12:AL:24:LEU:HD11	12:AL:61:TYR:CG	2.41	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:52:LEU:CD2	3:CC:52:LEU:H	2.19	0.56
59:CX:10:G:C2	59:CX:26:G:H1'	2.41	0.56
27:DA:863:A:H2'	27:DA:864:G:C8	2.41	0.56
19:CS:29:ARG:O	19:CS:31:ILE:N	2.38	0.56
27:BA:274:G:H1'	27:BA:363:G:N2	2.21	0.56
27:DA:171:G:H2'	27:DA:172:C:C6	2.41	0.56
1:CA:693:G:H2'	1:CA:694:A:C8	2.41	0.56
27:BA:2835:A:H61	27:BA:2878:U:H2'	1.71	0.56
27:DA:2061:G:N7	27:DA:2501:C:H4'	2.21	0.56
58:D9:32:HIS:O	58:D9:34:GLN:N	2.38	0.56
38:DP:131:SER:O	38:DP:134:ALA:N	2.38	0.56
57:D8:39:LYS:HA	57:D8:42:ARG:NH1	2.20	0.56
27:BA:1278:A:O2'	27:BA:1279:G:H5'	2.06	0.56
34:DH:158:HIS:O	34:DH:159:GLU:HB3	2.05	0.56
27:DA:1747:G:H2'	27:DA:1747(A):G:H8	1.71	0.56
27:BA:1462:C:H2'	27:BA:1463:C:O4'	2.06	0.56
32:DF:51:THR:HG23	32:DF:92:PRO:HG2	1.87	0.56
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.06	0.56
39:DQ:59:ARG:O	48:DZ:178:ASP:N	2.39	0.56
1:CA:586:C:O2'	1:CA:587:G:H5'	2.06	0.56
27:BA:2253:G:H2'	27:BA:2254:C:H6	1.71	0.56
27:DA:1396:U:H2'	27:DA:1396:U:O2	2.05	0.56
27:BA:2453:A:H61	27:BA:2500:U:H3	1.54	0.56
17:AQ:15:MET:CE	17:AQ:43:LEU:HD22	2.36	0.56
46:BX:57:LEU:CD1	46:BX:78:LYS:HG3	2.35	0.56
2:AB:17:PHE:HA	2:AB:42:ILE:CG2	2.36	0.55
42:BT:33:LYS:HG3	42:BT:43:GLN:HB3	1.88	0.55
27:BA:2314:C:H2'	27:BA:2315:G:C8	2.41	0.55
57:D8:52:LYS:N	57:D8:53:PRO:CD	2.68	0.55
42:DT:29:ARG:HG2	42:DT:85:LYS:C	2.26	0.55
57:B8:61:LEU:N	57:B8:63:PRO:HD2	2.20	0.55
13:CM:16:ASP:HA	13:CM:34:LEU:HD11	1.88	0.55
30:BD:79:VAL:O	30:BD:79:VAL:HG12	2.05	0.55
27:DA:1021:A:C3'	27:DA:1021:A:C8	2.88	0.55
36:DN:125:GLY:HA3	36:DN:126:PRO:O	2.07	0.55
4:AD:9:CYS:SG	4:AD:31:CYS:O	2.64	0.55
10:AJ:48:THR:HA	10:AJ:62:HIS:HB2	1.84	0.55
45:DW:15:ARG:CD	54:D5:20:ARG:NH1	2.69	0.55
27:BA:1824:G:O2'	27:BA:1825:A:H5'	2.06	0.55
27:DA:2821:A:OP2	31:DE:110:GLY:CA	2.54	0.55
2:CB:96:ARG:O	2:CB:98:LEU:N	2.39	0.55
27:DA:2846:G:H2'	27:DA:2847:U:C6	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:AR:52:PRO:O	18:AR:56:THR:HG23	2.05	0.55
4:AD:127:THR:HG23	4:AD:147:ALA:O	2.06	0.55
4:CD:108:LEU:HD21	4:CD:183:GLY:HA3	1.87	0.55
5:AE:33:VAL:HG12	5:AE:112:LEU:HD12	1.88	0.55
52:D3:4:LEU:CD2	52:D3:56:VAL:HG12	2.34	0.55
22:CV:7:C:C2	23:CW:36:A:C2	2.94	0.55
19:AS:42:PRO:O	19:AS:44:MET:SD	2.63	0.55
27:DA:271(M):G:C2'	27:DA:271(N):U:H5''	2.31	0.55
27:DA:581:C:H2'	27:DA:582:G:C8	2.41	0.55
45:DW:75:TYR:CE1	45:DW:104:THR:HG21	2.41	0.55
38:BP:48:PRO:HG2	38:BP:49:ARG:N	2.17	0.55
1:AA:363:A:N7	12:AL:27:ALA:HB1	2.21	0.55
49:B0:51:VAL:HG21	49:B0:79:VAL:O	2.07	0.55
27:DA:1570:A:H2'	27:DA:1571:A:C8	2.41	0.55
1:AA:1163:C:H2'	1:AA:1164:G:H8	1.69	0.55
50:D1:51:VAL:CG2	50:D1:53:VAL:HG23	2.36	0.55
27:DA:1971:A:C2	30:DD:241:PRO:HD3	2.41	0.55
1:CA:404:U:H2'	1:CA:405:U:H6	1.70	0.55
6:AF:89:MET:SD	18:AR:76:LEU:HD21	2.46	0.55
1:CA:734:G:H2'	1:CA:735:C:H6	1.70	0.55
1:AA:1522:U:O2'	1:AA:1523:G:H5'	2.06	0.55
48:DZ:143:LEU:H	48:DZ:143:LEU:HD22	1.71	0.55
43:BU:74:LEU:O	43:BU:74:LEU:HD12	2.06	0.55
27:DA:2543:G:H2'	27:DA:2544:G:H8	1.71	0.55
36:DN:46:VAL:O	36:DN:47:ALA:CB	2.54	0.55
1:AA:601:C:O2'	1:AA:602:A:H5'	2.06	0.55
6:AF:18:GLN:HA	6:AF:21:LEU:HD23	1.89	0.55
40:BR:18:LEU:C	40:BR:18:LEU:HD13	2.26	0.55
35:DI:92:VAL:CG1	35:DI:120:ILE:HD12	2.34	0.55
20:CT:67:ALA:O	20:CT:73:HIS:CE1	2.59	0.55
19:CS:36:ARG:HH12	19:CS:75:ALA:HB3	1.71	0.55
27:DA:2282:G:O2'	27:DA:2283:C:OP2	2.21	0.55
1:CA:421:U:OP2	1:CA:422:C:H5	1.89	0.55
1:AA:41:G:O2'	1:AA:42:G:H5'	2.06	0.55
7:AG:122:HIS:CD2	7:AG:122:HIS:H	2.24	0.55
27:DA:483:A:N7	27:DA:497:A:H2	2.03	0.55
17:CQ:48:GLU:O	17:CQ:49:GLU:C	2.44	0.55
27:DA:716:A:C2	27:DA:717:G:H1'	2.41	0.55
27:DA:449:A:H1'	43:DU:3:ARG:NH1	2.21	0.55
27:DA:1925:C:O2'	27:DA:1926:U:H5'	2.06	0.55
7:CG:18:TYR:HE2	7:CG:59:LEU:HB2	1.71	0.55
38:DP:13:ASN:O	38:DP:15:ARG:N	2.39	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DI:54:GLN:O	35:DI:58:LEU:HB3	2.05	0.55
28:BB:39:A:H2'	28:BB:39:A:N3	2.21	0.55
47:BY:27:VAL:HA	47:BY:28:LYS:NZ	2.20	0.55
42:BT:28:VAL:HG22	42:BT:46:GLU:CA	2.36	0.55
27:DA:2404:C:H2'	27:DA:2405:G:O4'	2.06	0.55
38:DP:107:LYS:C	38:DP:109:GLY:N	2.56	0.55
30:BD:35:LYS:HE3	30:BD:103:ARG:HA	1.88	0.55
13:CM:3:ARG:NH2	33:DG:113:ARG:HB3	2.21	0.55
44:BV:34:GLU:C	44:BV:36:PRO:HD3	2.26	0.55
9:AI:114:TYR:HD1	10:AJ:60:ARG:CG	2.19	0.55
32:DF:137:LYS:O	32:DF:140:LEU:HB2	2.07	0.55
1:AA:1251:A:H1'	1:AA:1369:C:O2'	2.06	0.55
31:BE:57:LYS:HZ3	31:BE:59:VAL:HG12	1.72	0.55
31:BE:59:VAL:CG2	31:BE:60:ASN:H	2.06	0.55
47:DY:8:LYS:CD	47:DY:8:LYS:N	2.66	0.55
2:CB:74:LYS:HE3	2:CB:166:ASP:HB2	1.87	0.55
2:CB:167:PRO:HG3	2:CB:188:ALA:HA	1.88	0.55
27:DA:272(C):G:H2'	27:DA:272(D):G:C8	2.38	0.55
2:CB:172:ILE:CD1	2:CB:172:ILE:H	2.11	0.55
23:AW:22:G:O2'	23:AW:23:G:H5'	2.06	0.55
34:DH:101:ARG:CG	34:DH:122:THR:HG23	2.36	0.55
3:CC:82:GLU:O	3:CC:84:ILE:N	2.39	0.55
27:BA:1777:U:O2'	27:BA:1778:U:H5'	2.06	0.55
42:DT:102:ILE:C	42:DT:104:ASN:H	2.10	0.55
39:DQ:65:PHE:HB2	39:DQ:105:GLU:CG	2.36	0.55
47:DY:47:LYS:HD2	47:DY:47:LYS:N	2.16	0.55
2:CB:163:PHE:HA	2:CB:185:ILE:O	2.07	0.55
20:AT:27:LYS:O	20:AT:27:LYS:HD3	2.06	0.55
1:AA:1120:G:O2'	1:AA:1121:U:H5'	2.06	0.55
41:DS:95:HIS:CG	41:DS:96:GLY:N	2.73	0.55
27:DA:1791:A:N6	27:DA:1828:G:O2'	2.38	0.55
30:BD:182:LEU:HB2	30:BD:271:ILE:O	2.07	0.55
27:BA:634:C:H2'	27:BA:635:C:H6	1.69	0.55
45:DW:25:ARG:HB2	45:DW:25:ARG:CZ	2.36	0.55
23:CW:13:A:H1'	23:CW:22:G:H22	1.71	0.55
27:DA:549:G:H2'	27:DA:551:G:O4'	2.06	0.55
28:DB:24:G:H4'	28:DB:25:A:H8	1.70	0.55
27:DA:2880:C:O2	40:DR:93:GLY:HA3	2.06	0.55
43:DU:25:TRP:CD1	43:DU:26:GLY:N	2.74	0.55
34:BH:70:THR:HB	34:BH:74:ASN:HD21	1.71	0.55
46:BX:64:LYS:HZ1	46:BX:73:ARG:NH2	2.03	0.55
27:DA:271(K):U:N3	35:DI:50:ARG:NH1	2.53	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2145:C:H4'	27:DA:2146:C:OP2	2.06	0.55
27:DA:815:C:O2'	27:DA:816:C:H5'	2.06	0.55
27:DA:1119:C:H2'	27:DA:1120:G:C8	2.41	0.55
50:D1:77:ALA:O	50:D1:79:GLY:N	2.39	0.55
2:AB:71:VAL:HA	2:AB:93:VAL:HG23	1.87	0.55
5:CE:10:MET:HG2	5:CE:10:MET:O	2.05	0.55
1:AA:407:G:O2'	4:AD:116:GLN:HG3	2.05	0.55
8:CH:48:TYR:C	8:CH:48:TYR:CD1	2.80	0.55
48:BZ:75:LEU:N	48:BZ:75:LEU:HD22	2.22	0.55
35:BI:63:ALA:O	35:BI:67:ARG:HB2	2.06	0.55
25:AY:74:C:H5''	50:B1:30:VAL:HG21	1.88	0.55
7:CG:36:LYS:C	7:CG:38:LEU:H	2.09	0.55
11:AK:23:ALA:HB1	11:AK:88:GLY:HA3	1.88	0.55
16:CP:26:ARG:HH11	16:CP:26:ARG:HG2	1.71	0.55
27:BA:1763:G:H4'	27:BA:1763:G:OP1	2.07	0.55
37:BO:101:PRO:HG3	42:BT:67:SER:HB3	1.88	0.55
57:B8:30:ARG:HA	57:B8:30:ARG:NE	2.22	0.55
4:AD:67:ILE:HG22	4:AD:68:TYR:N	2.22	0.55
37:BO:104:ARG:HE	42:BT:33:LYS:CE	2.09	0.55
42:BT:52:ILE:HG12	42:BT:61:PHE:CB	2.36	0.55
27:DA:1591:G:O2'	27:DA:1592:C:H5'	2.07	0.55
27:DA:1593:G:C3'	27:DA:1594:G:C5'	2.81	0.55
42:DT:3:ARG:C	42:DT:5:ALA:H	2.08	0.55
27:DA:894:C:O2'	27:DA:895:U:H5'	2.07	0.55
3:CC:15:THR:HG21	3:CC:181:ASN:CA	2.36	0.55
55:D6:22:ALA:O	55:D6:23:THR:OG1	2.24	0.55
57:D8:32:LEU:O	57:D8:33:ASN:O	2.24	0.55
34:BH:43:VAL:HG12	34:BH:53:GLU:H	1.71	0.55
27:BA:2476:A:N1	27:BA:2477:C:C5	2.74	0.55
38:DP:101:VAL:HG13	38:DP:106:LEU:HD23	1.88	0.55
20:CT:50:GLU:HA	20:CT:100:ILE:CG2	2.31	0.55
27:DA:1021:A:OP2	36:DN:65:LYS:NZ	2.38	0.55
1:AA:271:C:H2'	1:AA:272:C:C6	2.42	0.55
37:DO:102:VAL:HB	37:DO:106:LEU:HD12	1.88	0.55
4:AD:22:LYS:HB2	4:AD:26:CYS:SG	2.46	0.55
1:CA:1057:G:H5''	3:CC:154:SER:CB	2.30	0.55
1:AA:975:A:H5'	1:AA:975:A:H8	1.72	0.55
1:AA:963:G:H21	10:AJ:55:LYS:HD3	1.69	0.55
2:AB:77:ALA:O	2:AB:81:VAL:HG23	2.06	0.55
14:AN:23:ARG:HD3	14:AN:29:ARG:O	2.06	0.55
18:AR:56:THR:HB	18:AR:58:LEU:HD13	1.88	0.55
1:CA:1457:G:C2	1:CA:1458:G:N9	2.74	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1457:G:C5	1:CA:1458:G:N7	2.75	0.55
8:AH:6:ILE:HB	8:AH:85:ARG:HH12	1.71	0.55
32:BF:192:LEU:HD23	32:BF:193:VAL:N	2.22	0.55
27:DA:271(D):G:H2'	27:DA:271(E):U:C6	2.40	0.55
27:BA:675:A:N6	27:BA:676:A:N6	2.55	0.55
27:BA:192:C:O2'	27:BA:802:A:N3	2.37	0.55
1:CA:474:G:H2'	1:CA:475:G:H8	1.71	0.55
42:BT:56:GLY:C	42:BT:57:PHE:O	2.38	0.55
41:BS:34:HIS:HB2	41:BS:36:TYR:HE1	1.70	0.55
30:DD:183:ARG:HG2	30:DD:183:ARG:NH1	2.16	0.55
48:DZ:94:PRO:HG3	48:DZ:128:SER:HB2	1.88	0.55
32:DF:155:LEU:CD2	32:DF:186:ILE:HD13	2.36	0.55
2:AB:41:ILE:O	2:AB:41:ILE:HG22	2.05	0.55
41:BS:66:ALA:O	41:BS:67:ARG:C	2.44	0.55
50:B1:80:LEU:HD12	50:B1:80:LEU:N	2.20	0.55
27:BA:2021:C:H4'	27:BA:2022:U:OP2	2.06	0.55
27:BA:151:C:O2'	27:BA:152:G:H5'	2.07	0.55
28:BB:83:G:H5''	52:B3:52:HIS:CE1	2.42	0.55
27:BA:2697:G:H2'	27:BA:2698:U:O4'	2.06	0.55
7:AG:43:PHE:O	7:AG:46:ALA:HB3	2.06	0.55
27:BA:1187:G:H5''	44:BV:81:TYR:CE2	2.42	0.55
40:BR:14:SER:OG	40:BR:15:SER:N	2.38	0.55
31:DE:17:ASP:O	31:DE:18:ASP:HB2	2.06	0.55
27:DA:1416:G:O2'	27:DA:1417:C:C6	2.57	0.55
1:AA:736:C:H2'	1:AA:737:A:H8	1.69	0.55
38:DP:113:LYS:HG3	38:DP:129:ALA:C	2.26	0.55
27:BA:2783:G:H2'	27:BA:2784:C:C6	2.41	0.55
27:BA:1528:A:O2'	27:BA:1528(A):A:H5'	2.06	0.55
46:BX:26:TYR:CG	46:BX:89:ILE:HD12	2.42	0.55
27:BA:2816:C:O2	27:BA:2883:A:O2'	2.24	0.55
1:AA:1324:A:H2'	1:AA:1325:C:C6	2.42	0.55
13:CM:116:THR:HG22	13:CM:117:VAL:H	1.71	0.55
13:CM:117:VAL:HG12	13:CM:118:ALA:N	2.21	0.55
34:DH:88:LEU:HD22	34:DH:88:LEU:H	1.71	0.55
1:AA:560:U:H5'	1:AA:566:G:N2	2.21	0.55
34:BH:107:VAL:O	34:BH:107:VAL:HG23	2.05	0.55
4:CD:147:ALA:HB2	4:CD:182:LYS:HB3	1.88	0.55
2:AB:160:ASP:O	2:AB:161:ALA:HB2	2.06	0.55
1:AA:425:G:O2'	1:AA:426:G:H5'	2.06	0.55
23:CW:55:C:N4	27:DA:898:C:H5'	2.21	0.55
42:BT:32:TYR:CD2	42:BT:81:PRO:HG2	2.41	0.55
48:DZ:38:VAL:HG21	48:DZ:43:PHE:CD2	2.42	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:D6:40:CYS:SG	55:D6:45:LYS:NZ	2.73	0.55
30:DD:26:LYS:NZ	30:DD:27:THR:HG22	2.22	0.55
42:DT:70:VAL:HG12	42:DT:71:GLY:N	2.20	0.55
38:BP:16:ARG:HB2	38:BP:16:ARG:NH1	2.20	0.55
33:DG:150:ASP:O	33:DG:151:ALA:HB2	2.06	0.55
27:DA:1885:A:H2'	27:DA:1886:C:O4'	2.07	0.55
27:BA:1490:A:H2'	30:BD:99:ASP:OD2	2.05	0.55
1:CA:346:G:C5'	42:DT:41:ARG:NE	2.70	0.55
9:CI:79:LEU:HD21	9:CI:102:LEU:HD22	1.88	0.55
31:DE:104:VAL:HG11	31:DE:188:VAL:CG2	2.36	0.55
4:AD:9:CYS:SG	4:AD:22:LYS:HD2	2.46	0.55
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.87	0.55
1:AA:1371:G:H2'	1:AA:1372:U:H6	1.70	0.55
48:BZ:142:GLY:O	48:BZ:143:LEU:HD22	2.06	0.55
48:BZ:149:LEU:O	48:BZ:170:ILE:CG1	2.54	0.55
43:BU:102:GLU:HG3	44:BV:2:PHE:CE1	2.41	0.55
3:AC:43:LEU:HD22	3:AC:68:VAL:HG21	1.87	0.55
4:CD:187:ARG:NH2	4:CD:193:ASP:OD2	2.40	0.55
8:CH:92:ARG:HD2	8:CH:92:ARG:N	2.21	0.55
7:AG:93:PRO:HA	7:AG:96:GLN:NE2	2.18	0.55
1:CA:955:U:H1'	1:CA:1227:A:N6	2.21	0.55
8:AH:86:ILE:HG22	8:AH:87:SER:N	2.21	0.55
34:DH:119:GLU:HG2	34:DH:120:GLY:N	2.20	0.55
48:BZ:99:VAL:O	48:BZ:122:ASP:HB2	2.05	0.55
38:DP:50:ARG:HD3	57:D8:7:HIS:CD2	2.42	0.55
48:DZ:165:SER:HB2	48:DZ:166:PRO:CA	2.36	0.55
40:BR:94:TYR:C	40:BR:117:VAL:HG23	2.27	0.55
37:BO:2:ILE:H	37:BO:2:ILE:HD13	1.71	0.55
38:BP:45:LEU:HD23	38:BP:46:LYS:N	2.21	0.55
16:CP:56:ALA:HB1	16:CP:74:LEU:HD21	1.88	0.55
27:DA:1786:A:H2	27:DA:2606:C:H1'	1.71	0.55
1:AA:552:U:H4'	12:AL:83:ARG:HG2	1.89	0.55
28:BB:55:U:H2'	28:BB:56:G:C8	2.42	0.55
34:BH:30:LYS:HZ2	34:BH:81:GLU:HA	1.71	0.55
27:BA:70:G:H21	27:BA:71:A:H62	1.55	0.55
1:AA:726:C:O2'	1:AA:727:G:H5'	2.06	0.55
8:AH:8:ASP:O	8:AH:12:ARG:N	2.38	0.55
33:BG:159:VAL:HG13	33:BG:159:VAL:O	2.06	0.55
27:DA:1351:C:O2'	27:DA:1571:A:H1'	2.06	0.55
29:DC:22:ILE:HG22	29:DC:22:ILE:O	2.04	0.55
27:DA:2522:U:H1'	27:DA:2647:U:H5''	1.89	0.55
11:AK:78:GLN:O	11:AK:103:LEU:HD13	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:18:TYR:OH	7:AG:58:PRO:HB2	2.06	0.55
43:DU:115:ALA:C	43:DU:117:GLN:H	2.08	0.55
6:AF:91:VAL:CG1	18:AR:72:ARG:NH2	2.70	0.55
27:BA:535:C:O2'	27:BA:536:A:H5'	2.06	0.55
32:DF:192:LEU:HD11	32:DF:194:MET:HE3	1.87	0.55
1:CA:708:C:H2'	1:CA:709:G:H8	1.71	0.55
27:BA:1431:U:O2'	27:BA:1432:C:H5'	2.06	0.55
1:CA:227:G:O2'	1:CA:228:A:H5'	2.05	0.55
8:AH:119:LEU:HB3	8:AH:123:GLU:HB3	1.88	0.55
27:BA:2396:G:H5'	50:B1:25:LYS:HD2	1.87	0.55
27:BA:2396:G:O5'	50:B1:25:LYS:HE3	2.07	0.55
8:CH:61:VAL:O	8:CH:63:LEU:HD22	2.06	0.55
2:CB:213:LEU:O	2:CB:213:LEU:HD23	2.05	0.55
27:DA:2850:A:H2'	27:DA:2851:A:O4'	2.06	0.55
27:BA:270:A:C2'	27:BA:271:A:H5'	2.36	0.55
39:BQ:18:LYS:O	39:BQ:19:GLY:O	2.25	0.55
27:BA:118:A:H5'	27:BA:119:A:H8	1.71	0.55
18:AR:73:ALA:HB3	18:AR:79:LEU:HD12	1.88	0.55
27:DA:572:A:H5''	27:DA:573:G:OP2	2.06	0.55
48:BZ:91:SER:O	48:BZ:129:PRO:HG2	2.06	0.55
27:BA:2175:C:H1'	29:BC:215:THR:HA	1.87	0.55
8:CH:126:LYS:O	8:CH:126:LYS:HG2	2.06	0.55
8:AH:36:LEU:HA	8:AH:39:LEU:HD23	1.89	0.55
38:BP:114:ILE:O	38:BP:130:PHE:HA	2.06	0.55
27:BA:886:C:C2'	27:BA:889:C:H42	2.20	0.55
33:BG:152:LEU:HD23	33:BG:153:ARG:N	2.21	0.55
33:BG:75:LYS:NZ	33:BG:77:ILE:HD11	2.22	0.55
27:DA:1118:C:O2	27:DA:1118:C:H2'	2.04	0.55
51:D2:9:GLN:O	51:D2:13:ALA:N	2.38	0.55
55:D6:8:LYS:HG3	55:D6:8:LYS:O	2.06	0.55
38:DP:58:THR:C	38:DP:60:MET:H	2.09	0.55
33:DG:129:GLY:HA3	33:DG:163:ALA:O	2.07	0.55
30:BD:35:LYS:CE	30:BD:103:ARG:HA	2.36	0.55
36:DN:91:LEU:CG	36:DN:98:VAL:HG21	2.36	0.55
37:DO:104:ARG:NH2	42:DT:33:LYS:HD2	2.22	0.55
9:CI:95:LYS:HD3	9:CI:96:LEU:CA	2.36	0.55
1:CA:1445:C:N4	1:CA:1446:U:C5	2.75	0.55
40:DR:2:ARG:NH2	40:DR:5:LYS:NZ	2.54	0.55
47:DY:27:VAL:HG12	47:DY:28:LYS:N	2.21	0.55
32:DF:128:ALA:O	32:DF:142:TRP:NE1	2.39	0.55
5:CE:76:ILE:CG2	5:CE:118:ILE:HD13	2.37	0.55
27:DA:848:G:H2'	27:DA:849:A:C8	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:98:G:C3'	1:CA:99:U:H5'	2.35	0.55
27:BA:686:G:O6	56:B7:12:ARG:HG3	2.07	0.55
32:DF:32:LEU:HD13	32:DF:112:MET:HE1	1.87	0.55
8:AH:6:ILE:HG12	8:AH:31:PHE:HE2	1.71	0.55
2:CB:200:ILE:HG22	2:CB:202:PRO:CD	2.37	0.55
15:AO:3:ILE:HA	15:AO:7:GLU:OE2	2.06	0.55
30:DD:213:ARG:C	30:DD:215:LEU:H	2.10	0.55
27:BA:2657:A:O2'	34:BH:160:LYS:HE3	2.07	0.55
25:CY:5:G:H1	25:CY:67:C:N4	2.00	0.55
1:AA:836:G:C6	1:AA:851:G:C6	2.95	0.55
3:AC:137:ALA:O	3:AC:141:VAL:HG23	2.06	0.55
5:CE:78:HIS:HE1	5:CE:143:ARG:H	1.54	0.55
30:DD:28:GLU:CD	30:DD:28:GLU:N	2.60	0.55
33:BG:128:ARG:CG	33:BG:130:ASN:H	2.19	0.55
48:BZ:71:ARG:O	48:BZ:72:GLN:HB3	2.07	0.55
11:AK:18:ARG:HG2	11:AK:20:TYR:HE1	1.71	0.55
27:BA:1192:G:C2'	27:BA:1193:G:H5'	2.36	0.55
29:BC:52:ARG:O	29:BC:53:ARG:HG3	2.06	0.55
50:D1:77:ALA:C	50:D1:79:GLY:N	2.57	0.55
32:BF:171:PRO:O	32:BF:173:VAL:N	2.39	0.55
37:DO:99:PHE:N	37:DO:99:PHE:HD2	2.05	0.55
1:CA:417:C:O2'	1:CA:418:C:H5'	2.06	0.55
20:CT:94:ALA:O	20:CT:95:ALA:HB3	2.06	0.55
27:BA:2762:G:H5'	27:BA:2763:G:OP2	2.07	0.55
27:BA:2689:U:H5''	27:BA:2690:C:H5'	1.88	0.55
1:CA:37:U:O2'	1:CA:38:G:H5'	2.07	0.55
27:BA:2320:A:C2	27:BA:2333:A:C8	2.95	0.55
27:BA:214:G:H1'	27:BA:216:A:O2'	2.06	0.55
1:CA:1043:C:H2'	1:CA:1044:A:C8	2.40	0.55
55:B6:48:VAL:O	55:B6:49:HIS:CB	2.54	0.55
27:BA:2282:G:O2'	27:BA:2283:C:OP2	2.22	0.55
47:BY:26:LYS:O	47:BY:27:VAL:O	2.24	0.55
54:B5:54:GLY:O	54:B5:55:ARG:C	2.44	0.55
13:AM:3:ARG:HG2	13:AM:9:ILE:HG12	1.88	0.55
33:BG:114:ILE:C	33:BG:116:ASP:H	2.10	0.55
48:DZ:26:VAL:HG12	48:DZ:84:HIS:CE1	2.40	0.55
51:D2:17:SER:O	51:D2:21:LEU:HG	2.06	0.55
42:DT:16:ARG:HH11	42:DT:19:LEU:HD11	1.71	0.55
27:DA:657:U:O2'	27:DA:658:C:H5'	2.05	0.55
27:DA:2579:C:O2'	31:DE:131:ALA:CB	2.38	0.55
33:DG:161:THR:HG22	33:DG:163:ALA:N	2.16	0.55
30:BD:95:LEU:HD12	30:BD:103:ARG:O	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:15:LEU:HD13	36:DN:16:ILE:H	1.72	0.55
17:AQ:45:HIS:HB2	17:AQ:69:LYS:HE2	1.87	0.55
44:BV:35:LEU:O	44:BV:37:VAL:O	2.24	0.55
9:CI:26:VAL:HG13	9:CI:61:ALA:HB3	1.89	0.55
9:CI:95:LYS:CD	9:CI:96:LEU:N	2.60	0.55
37:DO:58:VAL:HG21	37:DO:86:ILE:HG23	1.88	0.55
31:DE:2:LYS:HE2	31:DE:95:ILE:HG22	1.89	0.55
30:BD:45:ASN:O	30:BD:47:GLY:N	2.40	0.55
27:DA:2189:U:C2'	27:DA:2190:G:H5''	2.37	0.55
27:DA:105:C:C2'	47:DY:2:ARG:HG3	2.36	0.55
32:BF:9:ILE:CG2	32:BF:128:ALA:HB2	2.36	0.55
13:CM:25:ILE:HD11	13:CM:66:LEU:HD23	1.88	0.55
11:CK:89:ALA:C	11:CK:91:ARG:H	2.09	0.55
27:BA:1859:A:N6	27:BA:1883:G:O2'	2.40	0.55
4:AD:5:ILE:O	4:AD:5:ILE:HG22	2.05	0.55
3:AC:35:GLU:O	3:AC:38:ARG:HG3	2.06	0.55
27:BA:784:A:N7	30:BD:229:VAL:CG2	2.69	0.55
4:CD:30:LYS:O	4:CD:32:ALA:N	2.39	0.55
8:AH:91:ARG:HH12	17:AQ:33:GLY:HA3	1.70	0.55
4:CD:11:LEU:O	4:CD:13:ARG:O	2.25	0.55
27:BA:963:U:H2'	27:BA:964:C:C6	2.41	0.55
51:B2:46:GLN:HE21	51:B2:49:LYS:HD2	1.71	0.55
36:BN:91:LEU:HA	36:BN:95:PRO:HB3	1.87	0.55
1:AA:1240:U:C4'	7:AG:38:LEU:HD21	2.36	0.55
27:DA:493:G:O2'	45:DW:7:ALA:HA	2.07	0.55
27:BA:412:A:C2'	27:BA:413:C:H5'	2.36	0.55
50:D1:44:PRO:O	50:D1:46:LEU:N	2.38	0.55
50:D1:46:LEU:HG	50:D1:61:ARG:HD3	1.89	0.55
32:BF:113:ALA:HB1	32:BF:186:ILE:CG2	2.37	0.55
36:BN:46:VAL:O	36:BN:47:ALA:CB	2.54	0.55
27:BA:154:G:C6	27:BA:154(A):C:N4	2.75	0.55
36:BN:72:TYR:O	36:BN:85:ILE:HG13	2.07	0.55
10:CJ:10:GLY:O	10:CJ:11:PHE:CD2	2.60	0.55
27:DA:2457:U:O2'	27:DA:2458:G:H5'	2.06	0.55
1:AA:184:G:O2'	1:AA:185:A:H5'	2.05	0.55
36:BN:75:TYR:HA	36:BN:81:GLY:O	2.06	0.55
1:CA:1525:G:H2'	1:CA:1526:G:C8	2.41	0.55
39:BQ:26:TYR:HD1	39:BQ:26:TYR:O	1.89	0.55
27:BA:2203:U:O4'	30:BD:151:LYS:HE2	2.07	0.55
27:DA:2825:C:H2'	27:DA:2826:A:O4'	2.05	0.55
25:CY:73:C:H4'	50:D1:23:LYS:HB2	1.89	0.55
47:DY:66:PRO:O	47:DY:67:LEU:O	2.25	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BC:43:VAL:HG11	29:BC:194:ARG:CB	2.36	0.55
27:BA:1154:G:H8	27:BA:1154:G:O5'	1.90	0.55
16:AP:58:TYR:O	16:AP:62:VAL:HG22	2.06	0.55
2:AB:168:THR:HG23	2:AB:192:SER:CB	2.36	0.55
42:BT:28:VAL:O	42:BT:29:ARG:CG	2.55	0.55
33:BG:43:LEU:HD13	33:BG:153:ARG:HG2	1.88	0.55
33:BG:52:ILE:HG22	33:BG:54:GLU:CD	2.27	0.55
38:DP:56:SER:HB3	38:DP:60:MET:HG2	1.89	0.55
27:BA:1021:A:H2'	27:BA:1023:U:H5'	1.89	0.55
38:DP:80:TYR:CZ	38:DP:111:ARG:HD3	2.42	0.55
27:DA:1824:G:OP1	30:DD:52:ARG:HD3	2.06	0.55
31:DE:116:VAL:HG22	31:DE:117:MET:N	2.21	0.55
32:BF:116:ASP:OD2	38:BP:5:ASP:HB3	2.07	0.55
43:DU:96:ALA:C	43:DU:98:LEU:N	2.59	0.55
33:DG:45:GLU:O	33:DG:46:ALA:HB2	2.06	0.55
30:BD:32:SER:O	30:BD:33:LEU:O	2.24	0.55
16:AP:71:ARG:O	16:AP:73:LEU:N	2.39	0.55
4:AD:30:LYS:O	4:AD:32:ALA:N	2.39	0.55
3:CC:71:ALA:HA	3:CC:106:VAL:H	1.71	0.55
27:DA:2753:A:HO2'	27:DA:2754:U:H6	1.49	0.55
37:DO:98:VAL:HG13	37:DO:119:PRO:HD3	1.88	0.55
1:AA:1305:G:H5''	21:AU:5:ASP:N	2.22	0.55
8:CH:4:ASP:OD2	8:CH:85:ARG:NH1	2.39	0.55
4:CD:150:GLU:CA	4:CD:153:ARG:HB2	2.33	0.55
34:DH:27:LYS:HE3	34:DH:32:GLU:HB2	1.89	0.55
2:CB:216:SER:C	2:CB:218:ALA:H	2.09	0.55
1:AA:1456:G:C1'	20:AT:39:LYS:HZ1	2.17	0.55
32:BF:63:LYS:CE	32:BF:67:GLN:HB2	2.37	0.55
39:DQ:31:ASP:HB3	39:DQ:134:ARG:HH12	1.68	0.55
42:DT:107:ASP:OD2	42:DT:109:GLU:N	2.27	0.55
12:AL:21:VAL:HG23	12:AL:95:TYR:HE2	1.68	0.55
34:DH:12:PRO:O	34:DH:13:LYS:HB2	2.06	0.55
10:AJ:12:ASP:OD2	10:AJ:14:LYS:HD2	2.07	0.55
35:BI:144:VAL:HG23	35:BI:145:VAL:HG23	1.89	0.55
27:DA:1313:U:O3'	27:DA:1332:G:H5'	2.07	0.55
58:B9:17:ILE:HG22	58:B9:18:ARG:N	2.22	0.55
1:AA:1227:A:OP2	13:AM:111:LYS:HE3	2.07	0.55
33:BG:22:ARG:CB	33:BG:22:ARG:HH11	2.18	0.55
8:CH:29:SER:OG	8:CH:32:LYS:HB2	2.06	0.55
3:CC:160:ALA:O	3:CC:161:GLU:C	2.45	0.55
27:DA:2183:C:H2'	27:DA:2184:G:C8	2.42	0.55
27:DA:2148:G:O2'	27:DA:2149:G:H5'	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:818:G:H3'	1:AA:819:A:C5'	2.36	0.55
39:DQ:50:ALA:HB1	39:DQ:121:ALA:CB	2.37	0.55
25:AY:14:A:H1'	25:AY:21:A:C6	2.41	0.55
51:D2:41:ILE:O	51:D2:43:GLN:N	2.39	0.55
7:AG:21:VAL:HG23	7:AG:22:LEU:N	2.21	0.55
6:CF:100:ASN:H	18:CR:23:LYS:NZ	2.05	0.55
27:DA:2283:C:C2'	27:DA:2284:C:H5'	2.36	0.55
30:DD:2:ALA:N	30:DD:20:ASP:HB3	2.22	0.55
1:AA:685:G:O2'	1:AA:686:U:H5'	2.06	0.55
1:CA:1007:C:H2'	1:CA:1008:C:H6	1.70	0.55
2:CB:59:GLU:O	2:CB:62:ALA:HB3	2.06	0.55
3:CC:42:LEU:HD12	3:CC:45:LYS:NZ	2.21	0.55
48:BZ:155:LYS:O	48:BZ:155:LYS:HG2	2.06	0.55
27:DA:404:C:H4'	27:DA:405:U:H5'	1.88	0.55
55:B6:42:TRP:HA	55:B6:42:TRP:HE3	1.70	0.55
35:DI:114:LEU:CD2	35:DI:130:TYR:HB2	2.36	0.55
47:BY:79:CYS:O	47:BY:81:LYS:N	2.40	0.55
35:BI:130:TYR:HD1	35:BI:131:LYS:H	1.49	0.55
36:BN:63:THR:CG2	36:BN:64:GLY:H	2.07	0.55
38:BP:16:ARG:HH11	38:BP:16:ARG:C	2.09	0.55
1:AA:376:G:H2'	1:AA:377:G:H8	1.72	0.55
9:CI:99:LEU:HD12	9:CI:101:PHE:HE1	1.71	0.55
31:DE:47:VAL:HG12	31:DE:49:LEU:HD12	1.88	0.55
45:DW:18:ARG:HG2	45:DW:18:ARG:NH1	2.20	0.55
9:AI:5:TYR:OH	9:AI:7:THR:HG23	2.06	0.55
9:AI:83:ARG:HH21	9:AI:102:LEU:CD1	2.19	0.55
32:BF:160:ASN:ND2	32:BF:163:VAL:N	2.54	0.55
40:DR:3:HIS:O	40:DR:4:LEU:O	2.25	0.55
47:DY:28:LYS:N	47:DY:28:LYS:HD3	2.21	0.55
32:DF:125:LEU:HD11	32:DF:199:TRP:CD1	2.42	0.55
1:AA:80:G:N7	1:AA:81:U:C5	2.72	0.55
43:BU:105:VAL:O	43:BU:109:LEU:HG	2.07	0.55
43:BU:91:ASP:OD2	43:BU:96:ALA:CB	2.55	0.55
37:DO:11:ALA:O	37:DO:98:VAL:HG23	2.07	0.55
27:DA:1329:U:H5''	27:DA:1330:C:C5	2.41	0.55
3:AC:22:TRP:CE2	14:AN:54:PRO:HG2	2.42	0.55
23:AW:12:C:H2'	23:AW:13:A:H5'	1.87	0.55
19:AS:40:ILE:HG21	19:AS:62:ILE:HD11	1.88	0.55
5:CE:126:ARG:CA	5:CE:131:ILE:HD11	2.36	0.55
34:DH:124:GLU:OE1	34:DH:132:ARG:HD2	2.07	0.55
2:CB:141:GLU:C	2:CB:143:GLU:H	2.08	0.55
2:CB:139:LYS:O	2:CB:143:GLU:HG2	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:117:VAL:HG21	30:DD:128:GLY:O	2.07	0.55
42:BT:106:SER:HA	42:BT:110:ILE:CG1	2.31	0.55
42:BT:107:ASP:CG	42:BT:108:ARG:H	2.08	0.55
11:CK:81:ASP:OD2	11:CK:107:SER:HB3	2.07	0.55
27:BA:389:G:N1	38:BP:71:VAL:HG12	2.22	0.55
25:AY:18:G:H22	25:AY:55:C:N4	2.03	0.55
15:CO:34:LEU:O	15:CO:38:ARG:HB2	2.06	0.55
27:DA:1827:C:H2'	27:DA:1828:G:O4'	2.06	0.55
27:DA:2697:G:H2'	27:DA:2698:U:O4'	2.07	0.55
11:CK:67:ASP:O	11:CK:71:LYS:HG3	2.06	0.55
6:AF:72:VAL:CG1	6:AF:73:ASN:H	2.20	0.55
8:CH:10:LEU:O	8:CH:13:ILE:HB	2.06	0.55
1:AA:1002:G:N3	1:AA:1002:G:H2'	2.22	0.55
1:AA:922:G:N3	1:AA:1398:A:H2	2.05	0.55
25:CY:22:G:H2'	25:CY:23:G:C8	2.42	0.55
27:DA:1637:A:H4'	27:DA:2711:A:O2'	2.07	0.55
2:CB:28:PHE:HD1	2:CB:32:ILE:CD1	2.20	0.55
1:AA:26:A:N6	1:AA:558:G:H1'	2.22	0.55
1:AA:189(J):G:O2'	1:AA:189(K):U:H5'	2.06	0.55
27:DA:2319:G:HO2'	27:DA:2320:A:C5'	2.20	0.55
19:CS:35:SER:C	19:CS:37:ARG:H	2.10	0.55
27:BA:1762:A:O5'	27:BA:1762:A:H8	1.89	0.55
27:BA:1120:G:H2'	27:BA:1121:C:C6	2.42	0.55
27:DA:806:C:OP2	38:DP:39:LYS:HB3	2.07	0.55
1:AA:35:G:C6	1:AA:36:C:N4	2.74	0.55
5:CE:69:VAL:O	5:CE:71:LEU:HG	2.07	0.55
27:BA:1914:C:H2'	27:BA:1915:U:O4'	2.07	0.55
1:CA:1211:U:H5'	1:CA:1212:U:OP2	2.07	0.55
48:DZ:110:VAL:HG22	48:DZ:110:VAL:O	2.06	0.55
47:BY:14:LEU:O	47:BY:14:LEU:HG	2.07	0.55
27:DA:2141:G:H2'	27:DA:2142:C:C6	2.42	0.55
27:BA:2419:U:O2'	27:BA:2420:C:H5'	2.06	0.55
2:AB:166:ASP:HB3	2:AB:169:LYS:CB	2.16	0.55
2:AB:17:PHE:HD2	2:AB:17:PHE:O	1.90	0.55
33:BG:111:LEU:HD11	33:BG:120:LEU:HD11	1.89	0.55
48:DZ:39:ASP:OD1	48:DZ:41:VAL:HG13	2.07	0.55
28:DB:116:G:H2'	28:DB:116:G:N3	2.22	0.55
43:DU:101:ARG:C	43:DU:102:GLU:HG2	2.27	0.55
13:CM:16:ASP:HB2	13:CM:31:LYS:HE2	1.89	0.55
30:BD:110:GLY:O	30:BD:111:LEU:C	2.44	0.55
30:BD:35:LYS:HB2	30:BD:36:PRO:HD3	1.89	0.55
27:DA:1142(A):A:H4'	36:DN:25:ARG:HH22	1.72	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DE:48:GLN:NE2	31:DE:78:LEU:CD1	2.70	0.55
31:DE:2:LYS:HE2	31:DE:95:ILE:CG2	2.37	0.55
32:DF:195:ASP:OD1	32:DF:196:LEU:N	2.32	0.55
10:AJ:79:ARG:HH11	10:AJ:79:ARG:CA	2.19	0.55
27:BA:2632:A:H1'	31:BE:61:ARG:HH12	1.71	0.55
27:DA:2820:A:O2'	31:DE:191:PRO:CG	2.55	0.55
32:DF:8:GLN:HB3	32:DF:126:VAL:HA	1.89	0.55
47:BY:65:ALA:O	47:BY:66:PRO:O	2.24	0.55
44:BV:46:VAL:HG22	44:BV:47:VAL:N	2.21	0.55
12:CL:52:VAL:HG12	12:CL:53:ALA:N	2.22	0.55
1:CA:319:G:O2'	1:CA:320:C:H5'	2.07	0.55
27:DA:2085:C:O2'	27:DA:2086:U:H5'	2.06	0.55
27:DA:2892:A:H2'	27:DA:2893:G:H4'	1.89	0.55
3:CC:103:VAL:O	3:CC:103:VAL:HG12	2.07	0.55
3:CC:83:ARG:HA	3:CC:86:VAL:HG22	1.88	0.55
40:BR:64:ARG:O	40:BR:67:LEU:HB2	2.07	0.55
30:DD:143:HIS:CE1	30:DD:192:THR:HG23	2.42	0.55
42:BT:106:SER:O	42:BT:107:ASP:OD1	2.25	0.55
1:CA:750:G:H21	15:CO:24:SER:H	1.54	0.55
38:BP:45:LEU:C	38:BP:45:LEU:CD2	2.75	0.55
1:CA:230:G:OP1	16:CP:33:ILE:HD11	2.07	0.55
27:DA:1568:G:H4'	30:DD:59:LYS:HG3	1.89	0.55
27:BA:1717:G:C3'	27:BA:1718:G:H5''	2.37	0.55
27:DA:228:A:H5'	27:DA:229:A:OP2	2.06	0.55
7:AG:102:ARG:O	7:AG:106:GLN:HG3	2.07	0.55
34:BH:33:LEU:HD21	34:BH:136:ILE:CG2	2.37	0.55
27:BA:1290:C:H2'	27:BA:1291:C:C6	2.39	0.55
48:BZ:50:ALA:HB1	48:BZ:56:ILE:HD11	1.87	0.55
1:AA:1174:G:H2'	1:AA:1175:G:H8	1.67	0.55
34:BH:68:THR:C	34:BH:70:THR:N	2.60	0.55
38:DP:82:GLY:HA2	38:DP:113:LYS:O	2.06	0.55
27:DA:2350:C:C2'	27:DA:2351:G:H5'	2.37	0.55
18:CR:26:LEU:HD21	18:CR:42:ARG:CZ	2.37	0.55
27:DA:2408:U:H2'	27:DA:2409:G:H8	1.72	0.55
1:AA:189(H):G:H2'	1:AA:189(I):G:H8	1.70	0.55
29:DC:48:GLY:HA3	29:DC:204:ALA:HB1	1.87	0.55
48:BZ:62:ASP:O	48:BZ:64:GLN:N	2.37	0.55
7:CG:60:LYS:NZ	7:CG:63:LYS:HB3	2.22	0.55
1:AA:529:G:O6	12:AL:46:ASN:ND2	2.39	0.55
46:BX:30:VAL:HG21	46:BX:39:ILE:HD11	1.89	0.55
1:AA:778:G:O2'	1:AA:779:C:H5'	2.06	0.55
27:BA:796:C:H2'	27:BA:797:C:C6	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2257:U:H2'	27:DA:2258:C:C6	2.42	0.55
57:B8:17:THR:O	57:B8:20:GLY:N	2.40	0.55
27:BA:2415:G:O2'	27:BA:2416:C:H5'	2.07	0.55
31:DE:27:LEU:HD12	31:DE:180:ASN:O	2.07	0.55
31:DE:52:LEU:HD23	31:DE:75:VAL:HB	1.89	0.55
10:CJ:48:THR:CG2	10:CJ:62:HIS:HB3	2.36	0.55
48:DZ:26:VAL:HG22	48:DZ:27:MET:H	1.72	0.55
48:DZ:43:PHE:HE2	48:DZ:85:VAL:HG11	1.71	0.55
55:D6:44:ARG:HH12	55:D6:45:LYS:HD3	1.71	0.55
38:DP:68:GLN:CD	57:D8:12:LYS:HB3	2.27	0.55
40:DR:54:LEU:HD21	40:DR:65:LEU:HB3	1.87	0.55
41:DS:101:LEU:O	41:DS:101:LEU:HD13	2.07	0.55
27:DA:995:C:O2	36:DN:4:TYR:OH	2.25	0.55
54:D5:3:LYS:CG	54:D5:4:HIS:H	2.07	0.55
2:AB:220:ASP:C	2:AB:222:ILE:H	2.09	0.55
30:BD:26:LYS:HD2	30:BD:81:ALA:CB	2.37	0.55
54:D5:41:PRO:HG2	54:D5:44:THR:OG1	2.07	0.55
27:DA:2200:C:C2	27:DA:2201:C:C5	2.95	0.55
1:CA:99:U:O2'	1:CA:100:C:C6	2.58	0.55
27:DA:873:G:C2'	27:DA:874:G:H5'	2.33	0.55
3:AC:22:TRP:CH2	3:AC:32:LEU:HB2	2.42	0.55
1:AA:798:G:OP1	11:AK:122:LYS:NZ	2.40	0.55
27:DA:1847:A:H2'	27:DA:1847:A:N3	2.22	0.55
27:BA:2441:C:O2'	27:BA:2442:C:H5'	2.07	0.55
1:CA:128:G:O2'	1:CA:129:U:H5'	2.06	0.55
48:DZ:107:PRO:CG	48:DZ:116:LEU:HB2	2.35	0.55
16:CP:51:VAL:CG1	16:CP:52:ASP:N	2.70	0.55
27:BA:2555:U:H2'	27:BA:2556:C:C5'	2.36	0.55
1:AA:533:A:O2'	1:AA:534:U:H5''	2.07	0.55
11:CK:92:GLU:HG2	11:CK:96:ARG:HH11	1.71	0.55
30:DD:35:LYS:C	30:DD:64:ILE:HG22	2.28	0.55
20:AT:26:ASN:HB3	20:AT:71:THR:OG1	2.07	0.55
27:DA:883:G:H5'	27:DA:883:G:C8	2.40	0.55
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.88	0.55
15:CO:15:PHE:HE2	15:CO:84:LYS:HD3	1.72	0.55
27:DA:2522:U:H2'	27:DA:2523:G:H5''	1.89	0.55
34:DH:43:VAL:CG1	34:DH:53:GLU:H	2.20	0.55
27:DA:384:U:H2'	27:DA:385:C:H6	1.72	0.55
27:DA:130:C:O3'	27:DA:1349:A:H1'	2.07	0.55
18:AR:30:ASP:C	18:AR:32:ARG:H	2.10	0.55
30:DD:28:GLU:H	30:DD:29:PRO:CD	2.19	0.55
1:CA:817:C:H1'	1:CA:819:A:H5'	1.89	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:110:ALA:HB3	8:AH:121:ASP:HB3	1.89	0.55
1:CA:622:A:C8	1:CA:623:C:C6	2.95	0.55
27:DA:1836:C:O2'	27:DA:1837:C:H5'	2.06	0.55
1:AA:1520:G:O2'	1:AA:1521:G:H5'	2.07	0.55
27:BA:2126:A:H1'	27:BA:2127:G:O4'	2.06	0.55
36:DN:119:ARG:HB3	36:DN:119:ARG:HH11	1.72	0.55
27:DA:638:G:C6	27:DA:651:G:N7	2.75	0.55
19:CS:9:VAL:C	19:CS:11:VAL:H	2.10	0.55
27:DA:1625:C:H2'	27:DA:1626:G:O4'	2.07	0.55
27:BA:971:C:H2'	27:BA:972:G:H5'	1.89	0.55
3:AC:28:GLN:HE21	3:AC:28:GLN:HA	1.71	0.55
49:B0:31:VAL:O	49:B0:64:ASP:HA	2.07	0.55
6:CF:68:PRO:HB2	6:CF:70:ASP:OD1	2.07	0.55
17:CQ:74:LEU:HD12	17:CQ:75:ARG:HG2	1.89	0.55
36:DN:85:ILE:CG2	36:DN:90:MET:HG2	2.36	0.55
37:BO:53:LYS:N	37:BO:53:LYS:HD2	2.22	0.55
27:DA:1596:A:O2'	27:DA:1597:A:H5'	2.07	0.55
33:BG:107:LEU:HD23	33:BG:111:LEU:HD12	1.89	0.54
51:D2:65:ASN:CB	51:D2:69:ARG:HH12	1.97	0.54
57:D8:50:LEU:HD12	57:D8:51:ALA:N	2.20	0.54
38:DP:57:THR:HB	38:DP:59:LEU:H	1.71	0.54
31:DE:134:ILE:C	31:DE:134:ILE:HD13	2.28	0.54
41:DS:28:VAL:HG12	41:DS:29:PHE:N	2.22	0.54
33:DG:31:VAL:HG22	33:DG:32:PRO:CD	2.37	0.54
33:DG:117:PHE:CD1	33:DG:118:ARG:N	2.75	0.54
33:DG:46:ALA:C	33:DG:82:LEU:HD11	2.28	0.54
18:CR:70:ILE:HG23	18:CR:79:LEU:CD1	2.37	0.54
1:CA:163:C:O2'	1:CA:164:U:H5'	2.06	0.54
44:BV:19:LYS:HG3	44:BV:20:LEU:O	2.07	0.54
30:BD:131:LEU:CA	30:BD:190:TYR:CE2	2.90	0.54
31:DE:101:ARG:O	31:DE:201:THR:HG22	2.07	0.54
4:AD:22:LYS:HB2	4:AD:26:CYS:HB2	1.88	0.54
27:DA:319:C:H2'	27:DA:320:A:O4'	2.07	0.54
30:DD:70:TRP:CD1	30:DD:70:TRP:C	2.80	0.54
9:AI:83:ARG:HH21	9:AI:102:LEU:HD11	1.72	0.54
1:AA:10:A:OP2	5:AE:126:ARG:HD3	2.07	0.54
27:DA:1210:A:H4'	27:DA:1211:U:O5'	2.07	0.54
32:DF:24:LEU:HB3	32:DF:25:PRO:HD2	1.89	0.54
41:BS:17:ARG:O	41:BS:18:ILE:HB	2.07	0.54
43:BU:91:ASP:C	43:BU:93:LYS:H	2.09	0.54
52:D3:4:LEU:HD23	52:D3:5:LYS:N	2.22	0.54
13:CM:78:ILE:O	13:CM:81:LEU:HB2	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:62:ILE:CG2	19:AS:62:ILE:O	2.55	0.54
6:CF:3:ARG:HA	6:CF:65:VAL:O	2.07	0.54
10:AJ:34:VAL:HG13	10:AJ:74:ILE:HG22	1.89	0.54
10:AJ:5:ARG:CG	10:AJ:71:LEU:HD11	2.37	0.54
40:BR:92:GLY:HA2	40:BR:94:TYR:CE1	2.43	0.54
27:BA:2870:C:H5''	40:BR:65:LEU:HD21	1.88	0.54
27:DA:65:C:H5'	46:DX:71:GLY:HA3	1.90	0.54
39:DQ:111:GLU:O	39:DQ:115:MET:HG2	2.07	0.54
48:BZ:51:SER:OG	48:BZ:52:ILE:N	2.40	0.54
3:CC:126:ARG:O	3:CC:127:ARG:HG3	2.07	0.54
39:BQ:21:THR:CG2	39:BQ:101:ARG:HB2	2.38	0.54
32:DF:132:VAL:HG13	32:DF:133:ASN:H	1.71	0.54
46:BX:53:LYS:HB3	46:BX:82:GLN:HB3	1.89	0.54
15:CO:14:GLU:HG3	15:CO:15:PHE:CE1	2.41	0.54
7:AG:65:ALA:CB	7:AG:124:LEU:HD23	2.36	0.54
19:CS:29:ARG:O	19:CS:31:ILE:HG22	2.08	0.54
27:DA:2069:G:C2'	27:DA:2070:G:H5'	2.37	0.54
27:BA:819:A:OP2	27:BA:1187:G:N2	2.29	0.54
1:CA:1351:U:H5'	7:CG:33:ASP:OD1	2.06	0.54
23:AW:61:C:H2'	23:AW:62:U:H6	1.72	0.54
27:BA:2260:C:H2'	27:BA:2261:C:H6	1.72	0.54
16:CP:67:THR:HB	16:CP:70:ALA:CB	2.37	0.54
1:AA:640:A:O2'	1:AA:641:U:H5'	2.07	0.54
27:DA:19:C:H2'	27:DA:20:C:C6	2.40	0.54
34:BH:70:THR:O	34:BH:73:ALA:N	2.40	0.54
31:BE:37:ARG:O	31:BE:38:THR:O	2.25	0.54
27:BA:2075:U:H2'	27:BA:2238:G:N2	2.20	0.54
27:BA:2238:G:N3	27:BA:2238:G:H2'	2.21	0.54
32:BF:53:THR:HG22	32:BF:56:GLU:OE2	2.07	0.54
15:CO:54:ARG:O	15:CO:58:MET:HG3	2.06	0.54
36:BN:72:TYR:CD1	36:BN:90:MET:HG3	2.41	0.54
27:BA:1473:G:O2'	27:BA:1474:C:H5'	2.08	0.54
27:BA:678:C:H2'	27:BA:679:C:C6	2.41	0.54
40:BR:111:LEU:HD22	40:BR:111:LEU:N	2.22	0.54
43:DU:39:LEU:O	43:DU:42:ALA:HB3	2.07	0.54
57:B8:59:LYS:HZ2	57:B8:59:LYS:HB3	1.72	0.54
27:BA:1750:G:O2'	27:BA:1751:C:H5'	2.08	0.54
27:BA:205:G:O2'	27:BA:206:U:P	2.65	0.54
28:BB:87:G:H2'	28:BB:88:C:H5''	1.88	0.54
27:DA:1445:A:H2'	27:DA:1445:A:N3	2.22	0.54
33:BG:167:GLU:O	33:BG:170:ARG:HB3	2.08	0.54
5:AE:124:GLY:O	5:AE:125:SER:C	2.45	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2615:U:H2'	27:DA:2616:C:H6	1.70	0.54
5:AE:137:GLU:O	5:AE:141:GLN:HG3	2.06	0.54
1:AA:274:A:H4'	1:AA:275:G:OP1	2.07	0.54
47:BY:81:LYS:NZ	47:BY:98:VAL:HG23	2.23	0.54
37:BO:104:ARG:NE	42:BT:33:LYS:HE3	2.12	0.54
31:DE:51:PHE:O	31:DE:74:PRO:HB2	2.07	0.54
53:B4:64:LYS:O	53:B4:65:CYS:HB2	2.07	0.54
33:BG:178:PHE:HB3	33:BG:180:PHE:CE1	2.42	0.54
27:BA:1022:G:O2'	27:BA:1023:U:OP2	2.23	0.54
32:BF:185:ASP:HA	32:BF:188:ARG:HB3	1.89	0.54
28:DB:111:G:N1	28:DB:112:U:O2	2.40	0.54
33:DG:174:GLU:HA	33:DG:178:PHE:HB2	1.89	0.54
33:DG:41:GLN:HG2	33:DG:155:MET:HB3	1.89	0.54
33:DG:45:GLU:O	33:DG:88:ILE:HB	2.08	0.54
31:DE:170:LEU:HD12	31:DE:170:LEU:N	2.22	0.54
9:AI:46:ALA:O	9:AI:49:PRO:HD2	2.08	0.54
9:AI:17:VAL:CG2	9:AI:80:GLY:HA3	2.33	0.54
47:DY:38:ILE:C	47:DY:39:VAL:HG23	2.28	0.54
2:CB:72:GLY:HA2	2:CB:165:VAL:CG2	2.37	0.54
27:BA:329:G:O6	47:BY:19:LYS:HB2	2.07	0.54
12:CL:80:VAL:CG1	12:CL:81:LEU:N	2.69	0.54
27:BA:1899:G:H22	27:BA:1902:C:N4	2.05	0.54
27:DA:847:U:C2'	27:DA:848:G:H5''	2.32	0.54
53:B4:80:ARG:HG3	53:B4:81:VAL:H	1.72	0.54
3:AC:22:TRP:CB	3:AC:59:ARG:HB2	2.36	0.54
3:AC:22:TRP:CZ2	14:AN:54:PRO:HG2	2.42	0.54
34:DH:115:VAL:HG11	34:DH:148:ILE:HD12	1.88	0.54
15:CO:24:SER:CA	15:CO:28:GLN:HE21	2.20	0.54
46:DX:65:ARG:CD	46:DX:70:LEU:HG	2.34	0.54
46:DX:71:GLY:C	46:DX:72:LYS:HD2	2.28	0.54
27:DA:1438:U:O2'	27:DA:1439:A:H5'	2.07	0.54
1:AA:729:A:H2'	1:AA:730:G:C8	2.40	0.54
25:CY:32:U:H2'	25:CY:34:U:OP2	2.07	0.54
27:BA:1797:C:O2'	30:BD:259:THR:CG2	2.55	0.54
52:B3:54:VAL:HG12	52:B3:55:ARG:H	1.71	0.54
4:CD:22:LYS:HG3	4:CD:26:CYS:SG	2.47	0.54
27:BA:894:C:O2'	27:BA:895:U:H5'	2.08	0.54
27:DA:536:A:H5'	43:DU:53:ARG:HD3	1.89	0.54
1:AA:693:G:H22	25:AY:36:A:H2	1.55	0.54
47:BY:2:ARG:CD	47:BY:3:VAL:H	2.21	0.54
34:BH:73:ALA:O	34:BH:76:VAL:HB	2.06	0.54
12:CL:117:TYR:HD1	12:CL:117:TYR:N	2.05	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:40:ASN:C	13:AM:42:ALA:H	2.11	0.54
27:DA:233:A:H2'	27:DA:234:C:H5'	1.89	0.54
6:CF:91:VAL:HG11	18:CR:72:ARG:NH1	2.22	0.54
20:AT:13:LEU:HD12	20:AT:14:LYS:N	2.23	0.54
27:DA:2287:A:C2	27:DA:2346:A:C2	2.95	0.54
1:AA:807:A:H2'	1:AA:808:C:C6	2.43	0.54
1:AA:1219:U:H2'	1:AA:1220:G:H8	1.72	0.54
27:DA:2408:U:O2'	27:DA:2409:G:H5'	2.06	0.54
8:CH:24:THR:HG22	8:CH:25:ASP:N	2.22	0.54
1:CA:1525:G:H2'	1:CA:1526:G:H8	1.71	0.54
1:AA:243:A:C2	1:AA:246:A:C8	2.95	0.54
1:AA:63:C:H5'	1:AA:64:G:OP2	2.07	0.54
1:CA:1439:C:H42	1:CA:1462:G:H1	1.53	0.54
27:DA:552:G:H1'	27:DA:1220:A:C2	2.41	0.54
8:AH:19:VAL:O	8:AH:19:VAL:HG23	2.07	0.54
27:BA:2319:G:OP2	27:BA:2319:G:H4'	2.06	0.54
11:CK:15:ALA:HB1	11:CK:78:GLN:CG	2.37	0.54
1:AA:620:C:H2'	1:AA:621:A:O4'	2.07	0.54
55:B6:11:LEU:O	55:B6:24:GLU:N	2.38	0.54
35:BI:109:ILE:HA	35:BI:130:TYR:OH	2.07	0.54
55:D6:42:TRP:HA	55:D6:42:TRP:CE3	2.42	0.54
27:BA:1022:G:H4'	27:BA:1023:U:O5'	2.07	0.54
41:DS:101:LEU:HD22	41:DS:101:LEU:C	2.28	0.54
46:BX:63:LYS:CB	46:BX:72:LYS:HG3	2.30	0.54
36:DN:65:LYS:C	36:DN:67:LEU:H	2.11	0.54
39:DQ:34:LEU:HD11	39:DQ:129:THR:HB	1.88	0.54
37:DO:77:ILE:HD11	42:DT:72:VAL:HG12	1.89	0.54
44:BV:5:VAL:HG21	44:BV:35:LEU:CG	2.38	0.54
9:CI:96:LEU:HD21	9:CI:102:LEU:CD2	2.33	0.54
27:BA:811:U:C2	27:BA:1251:C:C5	2.95	0.54
27:DA:271(P):C:H2'	27:DA:271(Q):G:H8	1.72	0.54
1:AA:1119:C:OP1	9:AI:83:ARG:NH1	2.40	0.54
54:D5:3:LYS:CA	54:D5:3:LYS:HE3	2.31	0.54
17:AQ:58:GLU:HG3	17:AQ:77:VAL:HG21	1.90	0.54
47:DY:97:ARG:O	47:DY:98:VAL:HB	2.07	0.54
36:BN:4:TYR:CD1	36:BN:4:TYR:N	2.75	0.54
2:CB:171:ALA:HA	2:CB:174:VAL:CG2	2.37	0.54
1:AA:92:C:H3'	1:AA:93:G:C8	2.43	0.54
10:CJ:44:VAL:O	10:CJ:45:ARG:HB2	2.07	0.54
41:BS:13:ARG:O	41:BS:15:ARG:N	2.40	0.54
27:BA:2206:G:C2	27:BA:2207:G:H5'	2.42	0.54
18:AR:58:LEU:HD12	18:AR:58:LEU:N	2.09	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:92:ARG:NH1	43:BU:92:ARG:HG2	2.11	0.54
43:BU:95:LEU:HD13	44:BV:4:ILE:CG2	2.37	0.54
58:D9:35:ARG:HH21	58:D9:37:GLY:HA3	1.71	0.54
27:BA:364:C:C2'	27:BA:365:C:H5''	2.37	0.54
49:D0:49:LYS:H	49:D0:80:HIS:HD1	1.56	0.54
40:DR:28:LEU:HD21	40:DR:114:VAL:HG12	1.88	0.54
23:AW:11:C:H2'	23:AW:12:C:H6	1.69	0.54
34:DH:19:VAL:HG23	34:DH:45:VAL:HG22	1.89	0.54
53:D4:43:GLY:C	53:D4:45:GLY:H	2.11	0.54
29:DC:41:VAL:O	29:DC:41:VAL:HG23	2.07	0.54
42:DT:104:ASN:O	42:DT:106:SER:N	2.33	0.54
41:BS:33:LYS:C	41:BS:34:HIS:CD2	2.81	0.54
27:DA:2661:G:H2'	27:DA:2662:A:C8	2.43	0.54
1:AA:674:G:H2'	1:AA:675:A:H8	1.73	0.54
42:DT:52:ILE:CG2	42:DT:61:PHE:HB3	2.37	0.54
30:BD:106:ILE:HD11	30:BD:157:ARG:O	2.07	0.54
30:DD:33:LEU:HD12	30:DD:33:LEU:H	1.72	0.54
49:B0:50:ASN:C	49:B0:62:LEU:HD12	2.28	0.54
43:BU:25:TRP:CD1	43:BU:26:GLY:N	2.75	0.54
31:BE:47:VAL:CG2	31:BE:84:PHE:O	2.55	0.54
35:DI:110:ASP:OD1	35:DI:112:LYS:HB2	2.07	0.54
40:BR:37:THR:OG1	40:BR:39:PRO:HD2	2.06	0.54
1:AA:1265:G:H22	1:AA:1271:G:H1'	1.72	0.54
27:BA:1887:C:H2'	27:BA:1888:G:H5''	1.90	0.54
27:DA:1309:G:C2'	27:DA:1310:G:H5'	2.37	0.54
29:BC:67:GLY:O	29:BC:68:LEU:HB2	2.08	0.54
27:BA:271(D):G:O2'	27:BA:271(E):U:H5'	2.07	0.54
31:BE:27:LEU:HD22	42:BT:1:MET:H1	1.73	0.54
27:DA:2732:G:C2'	27:DA:2733:A:H5'	2.37	0.54
1:AA:393:A:OP2	16:AP:12:LYS:HD3	2.07	0.54
36:DN:46:VAL:HG13	36:DN:48:MET:HG3	1.89	0.54
1:AA:636:U:C5'	17:AQ:2:PRO:HG2	2.37	0.54
1:AA:59:A:H5'	1:AA:60:A:H5''	1.89	0.54
1:CA:1501:C:OP2	1:CA:1504:G:H2'	2.08	0.54
18:AR:21:LYS:NZ	18:AR:54:ARG:O	2.33	0.54
2:AB:233:SER:OG	2:AB:234:PRO:HD2	2.07	0.54
27:BA:39:C:H2'	27:BA:40:C:C6	2.43	0.54
27:BA:42:G:H1'	27:BA:437:G:N2	2.23	0.54
27:DA:1345:C:H2'	27:DA:1346:G:H8	1.72	0.54
27:DA:1775:U:H2'	27:DA:1776:G:H5'	1.90	0.54
1:CA:778:G:O2'	1:CA:779:C:H5'	2.07	0.54
1:CA:781:A:H5'	1:CA:782:A:OP2	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:433:C:O2'	27:BA:434:U:H5'	2.07	0.54
1:AA:890:G:N2	1:AA:906:G:H2'	2.22	0.54
33:DG:9:ARG:O	33:DG:13:GLU:HG2	2.07	0.54
42:BT:28:VAL:CG2	42:BT:46:GLU:HA	2.37	0.54
33:BG:7:LEU:HD12	33:BG:104:GLU:HA	1.89	0.54
3:CC:16:ARG:HH11	3:CC:16:ARG:HA	1.72	0.54
57:D8:33:ASN:ND2	57:D8:36:LYS:HE2	2.22	0.54
33:DG:16:ARG:O	33:DG:20:ILE:HG13	2.06	0.54
27:DA:1858:G:HO2'	27:DA:1859:A:H8	1.51	0.54
3:CC:134:ILE:CG2	3:CC:168:ALA:HB3	2.37	0.54
32:DF:101:LEU:CD1	32:DF:102:PRO:HD2	2.35	0.54
27:DA:2820:A:H1'	40:DR:5:LYS:HE2	1.89	0.54
47:DY:96:ILE:HD12	47:DY:99:CYS:HB2	1.89	0.54
2:CB:167:PRO:HG2	2:CB:192:SER:OG	2.06	0.54
48:BZ:116:LEU:HA	48:BZ:173:VAL:CA	2.37	0.54
43:BU:95:LEU:O	43:BU:98:LEU:HG	2.08	0.54
13:CM:67:GLU:OE2	13:CM:71:ARG:NH2	2.40	0.54
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.42	0.54
27:BA:1885:A:H2'	27:BA:1886:C:O4'	2.07	0.54
1:AA:1305:G:O2'	1:AA:1306:A:H8	1.89	0.54
1:CA:67:C:O2	1:CA:171:A:H2	1.89	0.54
37:DO:88:ASN:O	37:DO:90:GLN:N	2.40	0.54
2:AB:24:TRP:N	2:AB:24:TRP:CD1	2.73	0.54
2:CB:42:ILE:HD12	2:CB:203:GLY:HA2	1.89	0.54
19:AS:29:ARG:HD2	19:AS:30:LEU:H	1.72	0.54
32:BF:124:LEU:HD12	32:BF:125:LEU:N	2.21	0.54
10:AJ:3:LYS:N	10:AJ:74:ILE:O	2.40	0.54
19:AS:6:LYS:HG2	19:AS:7:LYS:HD3	1.90	0.54
34:BH:159:GLU:HG3	34:BH:160:LYS:HG2	1.90	0.54
27:DA:329:G:OP1	27:DA:329:G:H3'	2.07	0.54
8:CH:2:LEU:CD1	8:CH:5:PRO:HA	2.37	0.54
8:AH:12:ARG:HH11	8:AH:26:VAL:HA	1.72	0.54
15:CO:8:LYS:O	15:CO:12:ILE:HG13	2.08	0.54
38:BP:17:LYS:O	38:BP:19:VAL:N	2.40	0.54
27:DA:1709:U:H2'	27:DA:1710:C:H6	1.71	0.54
2:AB:178:ARG:HB2	2:AB:178:ARG:HH11	1.73	0.54
42:BT:122:ASP:C	42:BT:124:ASP:N	2.61	0.54
46:DX:57:LEU:HD11	46:DX:78:LYS:HG3	1.88	0.54
27:DA:2567:G:H2'	27:DA:2568:C:H6	1.71	0.54
30:BD:262:ARG:HG2	30:BD:262:ARG:NH1	2.20	0.54
1:CA:115:G:O2'	1:CA:116:A:OP2	2.24	0.54
47:DY:66:PRO:O	47:DY:67:LEU:HD12	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:995:C:O2'	1:CA:996:A:H5'	2.07	0.54
2:AB:45:GLN:O	2:AB:48:MET:HB3	2.07	0.54
58:B9:2:LYS:HE2	58:B9:33:LYS:O	2.07	0.54
1:CA:639:G:O2'	1:CA:640:A:H5'	2.07	0.54
55:B6:40:CYS:HA	55:B6:46:HIS:HA	1.90	0.54
27:BA:2394:C:OP1	38:BP:63:PRO:CD	2.55	0.54
35:DI:54:GLN:HA	35:DI:57:ARG:HB2	1.89	0.54
35:DI:78:THR:HG23	35:DI:79:ILE:N	2.22	0.54
47:BY:15:VAL:HG22	47:BY:72:VAL:CG1	2.34	0.54
47:BY:25:GLY:HA3	47:BY:39:VAL:CG1	2.37	0.54
33:BG:82:LEU:HD13	33:BG:87:PRO:HB3	1.89	0.54
38:DP:59:LEU:N	38:DP:61:ARG:CZ	2.70	0.54
41:BS:103:GLU:OE1	41:BS:103:GLU:N	2.40	0.54
27:DA:779:U:P	30:DD:49:ILE:HG22	2.48	0.54
27:BA:2645:G:C3'	27:BA:2646:C:C5'	2.77	0.54
28:DB:3:C:H42	28:DB:118:G:H1	1.55	0.54
33:DG:43:LEU:HB2	33:DG:88:ILE:HD11	1.89	0.54
33:DG:54:GLU:O	33:DG:57:ALA:HB3	2.07	0.54
33:DG:86:MET:N	33:DG:87:PRO:HD2	2.22	0.54
30:BD:108:PRO:HB3	30:BD:143:HIS:CE1	2.43	0.54
42:DT:64:ARG:HD2	42:DT:73:GLU:CD	2.28	0.54
42:DT:80:SER:OG	42:DT:81:PRO:HD3	2.05	0.54
1:CA:1363:C:H5'	1:CA:1363(A):A:O5'	2.07	0.54
3:AC:9:GLY:HA3	14:AN:49:HIS:HA	1.88	0.54
27:BA:782:A:O2'	27:BA:1788:C:H4'	2.08	0.54
10:AJ:30:SER:O	10:AJ:81:THR:HG23	2.07	0.54
27:DA:2189:U:H2'	27:DA:2190:G:O4'	2.06	0.54
2:AB:223:ILE:O	2:AB:227:GLY:N	2.41	0.54
47:DY:96:ILE:HB	47:DY:98:VAL:O	2.06	0.54
14:AN:24:CYS:HB3	14:AN:27:CYS:O	2.06	0.54
27:DA:1033:U:C2'	27:DA:2750:A:N6	2.71	0.54
20:CT:33:ILE:HD12	20:CT:63:ILE:CG1	2.37	0.54
27:BA:2031:A:C6	27:BA:2498:C:H1'	2.43	0.54
15:AO:76:GLU:HA	15:AO:79:ARG:NH1	2.21	0.54
3:AC:16:ARG:HH11	3:AC:16:ARG:CA	2.20	0.54
58:D9:29:ASN:ND2	58:D9:31:LYS:HB2	2.22	0.54
40:DR:27:SER:HA	40:DR:30:THR:HB	1.89	0.54
27:DA:2086:U:H2'	27:DA:2087:G:C8	2.43	0.54
16:CP:21:VAL:O	16:CP:33:ILE:HB	2.07	0.54
1:AA:46:G:H2'	1:AA:366:C:C5	2.43	0.54
47:DY:46:LYS:CG	47:DY:47:LYS:N	2.70	0.54
11:CK:58:PRO:HA	11:CK:90:GLY:CA	2.38	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:93:GLN:NE2	11:CK:93:GLN:H	2.06	0.54
4:CD:111:ALA:HA	4:CD:161:ASN:HD22	1.72	0.54
1:AA:1097:C:O2'	1:AA:1098:C:H5'	2.08	0.54
27:DA:686:G:H21	27:DA:788:A:H61	1.56	0.54
2:CB:132:LYS:HG3	2:CB:135:GLN:HB2	1.90	0.54
27:BA:1123:C:H1'	58:B9:18:ARG:HH22	1.72	0.54
27:DA:2527:C:C4'	58:D9:30:PRO:HB2	2.38	0.54
1:CA:1030(D):A:H2'	1:CA:1031:G:H5'	1.90	0.54
1:AA:924:C:H2'	1:AA:925:G:H8	1.69	0.54
1:AA:1397:C:H42	22:AV:10:U:C2'	2.20	0.54
45:BW:38:TYR:O	54:B5:28:PRO:HB3	2.06	0.54
7:CG:43:PHE:CE1	7:CG:47:CYS:SG	3.01	0.54
27:BA:1240:U:O2'	27:BA:1241:A:H5'	2.08	0.54
1:AA:295:C:H2'	1:AA:296:U:C6	2.42	0.54
37:DO:14:THR:O	37:DO:52:VAL:HG12	2.07	0.54
36:BN:32:THR:CG2	36:BN:37:LYS:HB3	2.37	0.54
49:D0:10:THR:HG22	49:D0:11:ARG:N	2.22	0.54
25:AY:62:U:O2'	25:AY:63:C:H5'	2.07	0.54
16:AP:26:ARG:HG2	16:AP:27:LYS:H	1.72	0.54
37:DO:68:GLU:HB3	37:DO:78:ARG:HH11	1.73	0.54
6:CF:43:LEU:H	6:CF:43:LEU:CD1	2.19	0.54
27:DA:139:G:C3'	27:DA:139(A):G:H5''	2.38	0.54
47:DY:16:ALA:HB1	47:DY:21:LYS:NZ	2.23	0.54
41:BS:40:ILE:CG2	41:BS:41:ASP:N	2.69	0.54
36:DN:35:ARG:HG3	36:DN:37:LYS:HB2	1.88	0.54
6:AF:12:PRO:HG2	6:AF:13:ASN:H	1.72	0.54
23:AW:68:C:H2'	23:AW:69:C:H6	1.73	0.54
19:CS:36:ARG:HB3	19:CS:36:ARG:HH11	1.73	0.54
29:DC:61:THR:HA	29:DC:164:ARG:HA	1.89	0.54
27:DA:1326:U:O2'	27:DA:1327:C:H5'	2.08	0.54
1:CA:366:C:O2'	1:CA:394:G:N2	2.37	0.54
52:B3:6:VAL:HG12	52:B3:56:VAL:HG22	1.89	0.54
20:AT:10:LEU:CD2	20:AT:12:ALA:HB3	2.37	0.54
48:DZ:22:LYS:HG3	48:DZ:38:VAL:O	2.08	0.54
1:AA:1446:U:O2'	1:AA:1447:A:H5''	2.08	0.54
57:B8:2:PRO:O	57:B8:3:LYS:C	2.46	0.54
38:DP:144:GLU:HG2	38:DP:144:GLU:O	2.07	0.54
27:DA:1010:A:H5'	43:DU:62:ILE:CG2	2.37	0.54
13:AM:68:GLY:O	13:AM:71:ARG:N	2.34	0.54
19:CS:6:LYS:O	19:CS:7:LYS:HD3	2.07	0.54
27:BA:869:G:O2'	27:BA:870:A:H5'	2.08	0.54
31:DE:63:LEU:O	31:DE:65:GLY:N	2.40	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DE:36:ARG:NH2	31:DE:88:GLY:O	2.40	0.54
1:AA:942:G:H21	9:AI:124:GLN:HE22	1.52	0.54
20:AT:97:ALA:HB3	20:AT:99:LEU:HG	1.90	0.54
1:AA:1132:C:O2'	1:AA:1133:G:H5'	2.07	0.54
2:CB:95:GLN:O	2:CB:96:ARG:C	2.45	0.54
42:DT:98:LYS:N	42:DT:98:LYS:CD	2.70	0.54
1:CA:275:G:H5'	17:CQ:14:LYS:NZ	2.23	0.54
43:BU:112:ARG:CG	43:BU:112:ARG:HH11	2.13	0.54
44:BV:46:VAL:HG13	44:BV:47:VAL:N	2.22	0.54
1:AA:460:G:H1'	1:AA:472:A:H61	1.71	0.54
15:AO:75:PRO:HB2	15:AO:79:ARG:CZ	2.38	0.54
27:DA:873:G:H2'	27:DA:874:G:C5'	2.35	0.54
19:AS:19:VAL:O	19:AS:19:VAL:HG12	2.08	0.54
27:BA:287:C:H2'	27:BA:288:C:H6	1.73	0.54
41:DS:19:LYS:HB3	41:DS:20:ARG:HH12	1.72	0.54
1:CA:923:A:OP1	5:CE:21:ALA:HB2	2.08	0.54
2:CB:14:GLY:C	2:CB:15:VAL:HG22	2.28	0.54
19:AS:63:THR:O	19:AS:66:MET:HG2	2.07	0.54
32:BF:125:LEU:HD11	32:BF:199:TRP:CG	2.43	0.54
36:BN:56:ASN:HA	36:BN:125:GLY:N	2.21	0.54
27:DA:581:C:OP1	43:DU:33:ARG:HG3	2.08	0.54
30:DD:130:ALA:HB2	30:DD:192:THR:HB	1.88	0.54
27:BA:2172:U:H1'	27:BA:2173:A:P	2.47	0.54
27:BA:176:G:C2'	27:BA:177:G:H5'	2.38	0.54
1:AA:1164:G:O2'	1:AA:1165:C:H5'	2.08	0.54
27:DA:1767:C:O2'	27:DA:1768:U:H5'	2.07	0.54
27:DA:1987:G:C8	27:DA:1987:G:H5'	2.36	0.54
30:DD:10:THR:O	30:DD:13:ARG:HB3	2.07	0.54
27:BA:2654:A:N1	27:BA:2665:A:H5''	2.23	0.54
2:CB:131:PRO:O	2:CB:134:GLU:N	2.41	0.54
12:CL:3:THR:HG23	12:CL:6:GLN:CD	2.28	0.54
11:AK:24:SER:OG	11:AK:25:TYR:N	2.41	0.54
33:BG:32:PRO:O	33:BG:33:ARG:HG3	2.08	0.54
38:DP:71:VAL:N	38:DP:72:PRO:CD	2.71	0.54
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	2.22	0.54
37:BO:71:ARG:HH11	37:BO:71:ARG:HG3	1.73	0.54
46:DX:56:THR:OG1	46:DX:57:LEU:N	2.38	0.54
25:AY:68:C:O2'	25:AY:69:C:H5''	2.07	0.54
27:DA:271(J):C:H5'	27:DA:271(K):U:OP2	2.08	0.54
34:DH:107:VAL:HG23	34:DH:107:VAL:O	2.07	0.54
17:AQ:91:ARG:HB3	17:AQ:91:ARG:HH11	1.71	0.54
27:DA:1146:C:O2'	27:DA:1147:C:H5'	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BN:74:ARG:NH1	36:BN:85:ILE:HD11	2.23	0.54
10:AJ:45:ARG:NH1	10:AJ:45:ARG:HG3	2.21	0.54
52:D3:2:PRO:HG2	52:D3:3:ARG:H	1.73	0.54
7:CG:100:ALA:O	7:CG:104:LEU:HD23	2.07	0.54
10:CJ:42:THR:HG23	10:CJ:68:HIS:HA	1.90	0.54
1:AA:786:G:C2	1:AA:787:A:H1'	2.43	0.54
27:BA:829:A:N7	27:BA:2248:C:H5'	2.21	0.54
27:BA:2789:C:N3	27:BA:2894:G:O6	2.40	0.54
1:CA:767:A:H2'	1:CA:768:A:O4'	2.08	0.54
7:CG:57:GLU:O	7:CG:57:GLU:HG3	2.08	0.54
37:DO:105:GLU:N	37:DO:105:GLU:OE1	2.40	0.54
55:B6:15:GLU:HB3	55:B6:18:ARG:NE	2.22	0.54
42:BT:118:ARG:HH11	42:BT:118:ARG:HG3	1.73	0.54
47:BY:39:VAL:HG12	47:BY:40:GLU:N	2.22	0.54
27:BA:2313:C:H2'	27:BA:2314:C:C6	2.43	0.54
33:BG:146:TYR:O	33:BG:148:MET:N	2.41	0.54
55:D6:11:LEU:HD12	55:D6:26:ASN:ND2	2.19	0.54
27:BA:1021:A:N6	27:BA:1141:U:H3	2.00	0.54
40:DR:59:ASP:O	40:DR:61:HIS:N	2.41	0.54
38:DP:101:VAL:O	38:DP:103:ALA:N	2.41	0.54
32:BF:184:TYR:CE2	32:BF:188:ARG:HD2	2.43	0.54
44:DV:6:LYS:HG3	44:DV:11:GLN:HG2	1.89	0.54
44:DV:5:VAL:HB	44:DV:38:LEU:HD12	1.88	0.54
27:BA:612:C:O2'	27:BA:613:G:H5''	2.07	0.54
33:DG:68:PRO:HB2	33:DG:90:LEU:CD2	2.38	0.54
30:BD:61:LEU:O	30:BD:63:ARG:NH1	2.41	0.54
1:AA:386:C:H2'	1:AA:387:U:C5'	2.37	0.54
42:DT:64:ARG:HH11	42:DT:64:ARG:HG2	1.73	0.54
27:DA:2759:G:H2'	27:DA:2760:C:C5'	2.37	0.54
31:DE:63:LEU:O	31:DE:64:LYS:C	2.46	0.54
2:AB:11:LEU:HB2	2:AB:213:LEU:HD11	1.90	0.54
2:AB:55:PHE:CE1	2:AB:218:ALA:HA	2.43	0.54
47:DY:28:LYS:CD	47:DY:39:VAL:HG22	2.27	0.54
27:DA:328:U:H4'	47:DY:68:HIS:CD2	2.43	0.54
5:CE:76:ILE:HG23	5:CE:118:ILE:HD13	1.88	0.54
17:CQ:17:LYS:HG2	17:CQ:47:PRO:CA	2.35	0.54
27:BA:1480:G:N2	27:BA:1481:U:H1'	2.22	0.54
37:DO:12:ASP:HA	37:DO:98:VAL:HA	1.88	0.54
1:AA:474:G:H2'	1:AA:475:G:H8	1.73	0.54
51:D2:50:ILE:HG22	51:D2:51:ARG:N	2.21	0.54
27:BA:2807:G:C3'	27:BA:2808:U:H5''	2.37	0.54
24:AX:4:G:H2'	24:AX:5:G:C8	2.43	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BH:19:VAL:HG23	34:BH:45:VAL:CG2	2.37	0.54
37:DO:90:GLN:O	37:DO:92:GLU:HG3	2.08	0.54
30:DD:172:TYR:CD1	30:DD:186:HIS:HA	2.42	0.54
39:BQ:133:ARG:O	39:BQ:134:ARG:HG2	2.08	0.54
3:CC:77:ILE:HA	3:CC:84:ILE:HB	1.89	0.54
30:DD:142:VAL:HG23	30:DD:192:THR:O	2.07	0.54
27:BA:855:G:H2'	27:BA:856:C:H6	1.71	0.54
1:AA:46:G:HO2'	1:AA:365:U:H1'	1.72	0.54
30:DD:183:ARG:HG3	30:DD:269:PHE:O	2.07	0.54
11:CK:93:GLN:CD	11:CK:93:GLN:N	2.59	0.54
52:B3:8:LEU:HG	52:B3:23:LEU:HD23	1.90	0.54
31:BE:97:LYS:HB2	31:BE:100:GLU:HG3	1.89	0.54
2:CB:69:LEU:HD22	2:CB:155:LEU:HG	1.90	0.54
52:B3:19:GLN:HE22	52:B3:52:HIS:HE1	1.54	0.54
27:DA:1344:G:H4'	27:DA:1384:A:N7	2.22	0.54
13:CM:100:GLY:O	13:CM:101:GLN:NE2	2.41	0.54
27:DA:1291:C:O2'	27:DA:1292:U:H5'	2.07	0.54
33:BG:5:VAL:HG23	33:BG:8:LYS:H	1.72	0.54
32:DF:156:LEU:HD12	32:DF:193:VAL:O	2.07	0.54
7:CG:50:ILE:O	7:CG:54:THR:HG23	2.08	0.54
35:DI:47:LEU:C	35:DI:47:LEU:HD23	2.28	0.54
27:DA:12:U:O2	27:DA:2626:C:O3'	2.26	0.54
29:BC:38:ASP:O	29:BC:39:GLU:HG3	2.08	0.54
36:DN:43:THR:HB	36:DN:46:VAL:CG1	2.38	0.54
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.07	0.54
27:BA:321:G:C2	32:BF:165:ARG:NH1	2.76	0.54
54:D5:6:VAL:HG22	54:D5:7:PRO:HD2	1.89	0.54
27:BA:696:G:O2'	27:BA:697:C:H5'	2.08	0.54
20:CT:98:PRO:O	20:CT:99:LEU:C	2.46	0.54
27:DA:981:A:H8	27:DA:982:C:C5	2.26	0.54
8:CH:50:ARG:HA	8:CH:59:LEU:HD23	1.89	0.54
1:AA:1010:G:N2	1:AA:1020:U:H1'	2.22	0.54
27:BA:2533:A:H2'	27:BA:2534:A:O4'	2.06	0.54
24:AX:1:C:H2'	24:AX:2:G:H8	1.73	0.54
29:DC:196:LEU:C	29:DC:198:ALA:H	2.09	0.54
9:AI:29:ASN:OD1	9:AI:65:VAL:HG12	2.07	0.54
45:DW:21:VAL:HG12	45:DW:22:ASP:N	2.22	0.54
27:DA:2602:A:H8	49:D0:3:HIS:HE2	1.55	0.54
27:DA:1951:U:H2'	27:DA:1953:A:OP2	2.07	0.54
1:AA:176:C:H2'	1:AA:177:C:C6	2.43	0.54
13:AM:11:ARG:O	13:AM:12:ASN:HB2	2.08	0.54
27:BA:2314:C:H2'	27:BA:2315:G:H8	1.72	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2348:U:C3'	27:DA:2349:G:H5''	2.37	0.54
3:CC:14:ILE:CG1	3:CC:15:THR:H	2.03	0.54
1:CA:974:A:OP2	14:CN:41:ARG:NH1	2.40	0.54
27:BA:662:G:P	38:BP:18:ARG:HE	2.30	0.54
30:DD:52:ARG:O	30:DD:54:ARG:HG2	2.08	0.54
43:DU:90:VAL:CG1	43:DU:91:ASP:H	2.09	0.54
33:DG:33:ARG:O	33:DG:161:THR:HG23	2.07	0.54
27:DA:2313:C:H4'	33:DG:40:ASN:ND2	2.23	0.54
18:CR:59:SER:OG	18:CR:60:ALA:N	2.41	0.54
1:AA:266:G:H5''	1:AA:268:C:H41	1.73	0.54
1:CA:1270:C:H6	1:CA:1270:C:O5'	1.91	0.54
30:BD:190:TYR:O	30:BD:191:ALA:HB2	2.08	0.54
27:DA:2759:G:O2'	27:DA:2760:C:H5'	2.08	0.54
41:DS:34:HIS:HB3	41:DS:54:LEU:HG	1.89	0.54
27:BA:780:G:OP1	30:BD:218:ARG:NH2	2.41	0.54
27:DA:2612:C:H2'	27:DA:2613:U:H5'	1.90	0.54
32:BF:9:ILE:HG13	32:BF:14:PRO:HA	1.90	0.54
5:CE:101:ILE:H	5:CE:101:ILE:HD13	1.73	0.54
12:CL:30:ARG:HG2	12:CL:57:LEU:HD12	1.88	0.54
39:BQ:28:ALA:O	39:BQ:105:GLU:OE2	2.26	0.54
27:DA:2831:G:O4'	27:DA:2883:A:C2	2.61	0.54
30:DD:142:VAL:CG2	30:DD:143:HIS:N	2.70	0.54
16:CP:21:VAL:O	16:CP:21:VAL:HG13	2.07	0.54
59:CX:10:G:C8	59:CX:10:G:H5'	2.35	0.54
27:DA:1971:A:OP2	30:DD:242:ARG:NH2	2.41	0.54
6:CF:61:LEU:N	6:CF:61:LEU:HD12	2.23	0.54
27:DA:1314:C:OP1	27:DA:1332:G:H5'	2.07	0.54
9:CI:118:LYS:HB3	9:CI:118:LYS:NZ	2.23	0.54
27:DA:536:A:OP1	43:DU:53:ARG:NH1	2.40	0.54
45:DW:1:MET:CE	45:DW:2:GLU:H	2.20	0.54
8:CH:42:GLU:HG3	8:CH:109:ILE:CD1	2.35	0.54
7:CG:32:ARG:HH11	7:CG:32:ARG:HG2	1.73	0.54
27:DA:1508:A:H4'	27:DA:1509(A):A:C4	2.42	0.54
31:DE:16:ARG:HG3	31:DE:16:ARG:NH1	2.20	0.54
1:CA:45:U:H2'	1:CA:46:G:C8	2.42	0.54
43:BU:8:VAL:HG11	43:BU:12:ARG:HE	1.72	0.54
38:DP:131:SER:O	38:DP:132:LYS:C	2.45	0.54
10:CJ:67:THR:HG23	10:CJ:67:THR:O	2.08	0.54
1:AA:7:G:H5'	1:AA:298:A:O4'	2.08	0.54
45:BW:51:LEU:O	45:BW:51:LEU:HD23	2.08	0.54
27:BA:1508:A:H4'	27:BA:1509(A):A:C4	2.42	0.54
34:DH:86:GLU:HA	34:DH:131:VAL:O	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:906:G:H5'	39:BQ:26:TYR:OH	2.08	0.54
27:DA:1131:G:HO2'	27:DA:1132:A:H8	1.56	0.54
1:AA:337:C:H2'	1:AA:338:A:C8	2.43	0.54
1:AA:106:C:H2'	1:AA:107:G:H8	1.73	0.54
37:BO:90:GLN:O	37:BO:91:LEU:HB2	2.06	0.54
33:BG:23:PHE:HB2	33:BG:25:TYR:CE2	2.43	0.54
18:CR:66:LEU:O	18:CR:67:ALA:C	2.46	0.54
36:DN:51:PHE:HD1	36:DN:51:PHE:H	1.56	0.54
51:D2:40:SER:C	51:D2:42:GLY:H	2.10	0.54
35:DI:115:ALA:HB2	35:DI:129:THR:CB	2.37	0.54
35:DI:129:THR:O	35:DI:130:TYR:CB	2.56	0.54
47:BY:27:VAL:HG12	47:BY:29:GLU:H	1.71	0.54
42:BT:30:VAL:HG22	42:BT:84:GLN:O	2.08	0.54
13:AM:9:ILE:CG2	13:AM:11:ARG:HH21	2.12	0.54
27:DA:2394:C:OP1	38:DP:63:PRO:CD	2.54	0.54
1:AA:271:C:H2'	1:AA:272:C:H6	1.73	0.54
1:CA:161:A:H2'	1:CA:162:A:C8	2.43	0.54
27:DA:2758:A:H3'	27:DA:2758:A:P	2.48	0.54
27:DA:2810:A:O2'	31:DE:61:ARG:NH1	2.40	0.54
31:BE:21:VAL:HG23	31:BE:21:VAL:O	2.08	0.54
42:BT:3:ARG:C	42:BT:5:ALA:N	2.60	0.54
31:BE:33:VAL:HG13	31:BE:33:VAL:O	2.07	0.54
31:BE:79:ARG:HH11	31:BE:79:ARG:CG	2.21	0.54
48:BZ:144:GLU:O	48:BZ:146:GLY:N	2.40	0.54
1:CA:236:G:OP1	17:CQ:40:LYS:NZ	2.38	0.54
27:BA:1503:U:H2'	27:BA:1504:C:H6	1.73	0.54
48:DZ:55:VAL:HG12	48:DZ:56:ILE:O	2.07	0.54
5:AE:101:ILE:CD1	5:AE:118:ILE:O	2.56	0.54
5:AE:104:ALA:N	5:AE:106:PRO:HD2	2.22	0.54
27:DA:2762:G:C3'	27:DA:2763:G:C5'	2.85	0.54
1:CA:956:U:O2'	1:CA:957:U:H5'	2.07	0.54
34:BH:85:LYS:HE2	34:BH:145:ALA:N	2.23	0.54
18:CR:37:VAL:HG23	18:CR:38:GLU:HG3	1.90	0.54
43:DU:22:LYS:NZ	43:DU:30:LYS:NZ	2.56	0.54
27:BA:784:A:C8	27:BA:792:G:C5	2.95	0.54
5:AE:78:HIS:CE1	5:AE:143:ARG:H	2.26	0.54
45:DW:75:TYR:O	45:DW:104:THR:HB	2.08	0.54
27:BA:923:C:H2'	27:BA:924:C:C6	2.43	0.54
12:AL:81:LEU:O	12:AL:82:ILE:HD13	2.07	0.54
16:AP:53:VAL:HG12	16:AP:53:VAL:O	2.07	0.54
8:AH:25:ASP:HA	8:AH:59:LEU:O	2.08	0.54
3:AC:111:LEU:HD21	3:AC:145:GLY:O	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:78:HIS:HE1	5:CE:143:ARG:N	2.05	0.54
3:CC:130:VAL:CG1	3:CC:157:ILE:HG23	2.35	0.54
50:D1:51:VAL:HG22	50:D1:53:VAL:HG23	1.90	0.54
27:DA:315:G:H2'	27:DA:316:C:O4'	2.08	0.54
35:DI:2:LYS:HA	35:DI:20:ASP:HB3	1.89	0.54
29:BC:96:GLY:C	29:BC:98:GLU:H	2.10	0.54
1:AA:1326:C:H2'	1:AA:1327:C:C6	2.42	0.54
33:BG:128:ARG:C	33:BG:130:ASN:H	2.11	0.54
39:DQ:66:ILE:HG22	39:DQ:104:PHE:CD2	2.43	0.54
27:DA:2711:A:OP1	27:DA:2712(A):A:P	2.66	0.54
30:DD:18:VAL:HG12	30:DD:211:ARG:HH12	1.72	0.54
1:CA:734:G:H2'	1:CA:735:C:C6	2.42	0.54
1:CA:1168:A:H2'	1:CA:1169:A:C8	2.43	0.54
27:BA:709:U:H2'	27:BA:710:G:C8	2.42	0.54
35:BI:52:ARG:C	35:BI:54:GLN:N	2.61	0.54
33:BG:21:ARG:HH11	33:BG:21:ARG:HG3	1.73	0.54
13:CM:80:ARG:C	13:CM:82:MET:H	2.11	0.54
34:DH:105:LEU:HD12	34:DH:107:VAL:HG13	1.89	0.54
27:DA:402:A:C2'	27:DA:403:U:H5'	2.38	0.54
39:BQ:48:GLU:OE1	39:BQ:51:ARG:HD3	2.07	0.54
40:DR:26:LYS:HE3	40:DR:71:GLN:N	2.23	0.54
27:DA:792:G:H5''	27:DA:793:A:H5'	1.90	0.54
30:BD:264:LYS:HG2	30:BD:266:SER:H	1.72	0.54
27:DA:729:G:OP2	30:DD:208:LYS:NZ	2.41	0.54
30:DD:227:ASN:HB3	30:DD:228:PRO:HD2	1.90	0.54
27:DA:295:G:C2'	27:DA:296:C:H5'	2.37	0.54
7:AG:78:ARG:HG2	7:AG:78:ARG:HH11	1.72	0.54
46:DX:41:ASN:N	46:DX:41:ASN:HD22	2.05	0.54
1:AA:938:A:O5'	1:AA:938:A:H8	1.91	0.54
45:BW:60:ASN:C	45:BW:61:ASN:HD22	2.11	0.54
27:DA:1317:A:H2'	27:DA:1318:C:H6	1.73	0.54
4:AD:63:LYS:HE3	4:AD:198:VAL:CG2	2.38	0.54
1:CA:1321:C:H4'	13:CM:87:TYR:CE2	2.43	0.54
42:BT:25:GLY:O	42:BT:26:ASP:HB2	2.08	0.54
40:BR:48:VAL:O	40:BR:52:ILE:HG12	2.07	0.54
33:BG:146:TYR:O	33:BG:149:VAL:HG22	2.07	0.54
14:CN:23:ARG:HG3	14:CN:28:GLY:HA2	1.90	0.54
10:CJ:33:GLN:O	10:CJ:75:ILE:HG23	2.07	0.54
27:BA:661:C:H4'	38:BP:16:ARG:NH1	2.23	0.54
27:DA:1453:U:C4	27:DA:2702:U:O4	2.61	0.54
40:DR:55:ALA:HA	40:DR:80:PHE:CE1	2.43	0.54
27:DA:2377:A:H4'	41:DS:107:GLU:CB	2.36	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DG:111:LEU:HD11	33:DG:120:LEU:HD11	1.90	0.54
27:DA:1020:A:N1	27:DA:1141:U:O2'	2.37	0.54
16:AP:71:ARG:C	16:AP:73:LEU:H	2.11	0.54
37:DO:22:ILE:N	37:DO:40:VAL:O	2.41	0.54
32:DF:134:GLY:HA3	32:DF:165:ARG:HB2	1.90	0.54
30:BD:231:HIS:CD2	30:BD:232:PRO:HD2	2.43	0.54
10:AJ:30:SER:HB2	10:AJ:80:LYS:HD3	1.89	0.54
7:AG:15:ASP:C	7:AG:19:GLY:HA2	2.28	0.54
31:BE:60:ASN:ND2	31:BE:62:PRO:HD2	2.23	0.54
31:BE:69:LYS:C	31:BE:71:GLY:H	2.09	0.54
48:BZ:149:LEU:O	48:BZ:170:ILE:HG12	2.07	0.54
3:AC:47:LEU:HD11	3:AC:76:VAL:HG12	1.89	0.54
27:BA:2498:C:O2'	27:BA:2499:C:H5'	2.08	0.54
37:DO:61:VAL:HG21	37:DO:111:PHE:CE1	2.43	0.54
27:DA:2080:G:H2'	27:DA:2081:C:C6	2.43	0.54
31:BE:134:ILE:N	31:BE:134:ILE:CD1	2.70	0.54
39:BQ:61:GLY:C	39:BQ:63:LYS:N	2.61	0.54
27:BA:365:C:H6	27:BA:365:C:C5'	2.13	0.54
2:CB:86:GLU:C	2:CB:88:ALA:H	2.11	0.54
2:CB:194:PRO:O	2:CB:196:LEU:N	2.41	0.54
4:CD:25:ARG:O	4:CD:27:TYR:N	2.40	0.54
27:DA:58:G:N3	27:DA:73:A:H2	2.06	0.54
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	2.23	0.54
35:DI:94:ALA:C	35:DI:96:ASP:H	2.12	0.54
27:DA:1766:U:O2'	27:DA:1767:C:H5'	2.08	0.54
27:DA:172:C:H2'	27:DA:173:G:H8	1.73	0.54
7:AG:111:ARG:NH1	7:AG:113:GLU:OE2	2.41	0.54
27:BA:2655:G:N2	27:BA:2664:G:H2'	2.23	0.54
27:DA:1233:C:H2'	27:DA:1234:U:C6	2.37	0.54
44:DV:61:VAL:HA	44:DV:94:LEU:HD23	1.90	0.54
7:CG:150:ALA:C	7:CG:152:ALA:H	2.11	0.54
20:CT:16:HIS:O	20:CT:20:LEU:HG	2.08	0.54
2:CB:120:ALA:O	2:CB:124:SER:HB3	2.08	0.54
37:DO:68:GLU:HG2	37:DO:68:GLU:O	2.08	0.54
27:BA:2695:C:H2'	27:BA:2696:U:C6	2.43	0.54
45:BW:5:ALA:HB1	45:BW:50:VAL:HG23	1.90	0.54
39:BQ:48:GLU:O	39:BQ:49:ALA:C	2.46	0.54
27:BA:601:C:O2	27:BA:605:C:H4'	2.08	0.54
27:DA:957:A:N1	27:DA:2458:G:H4'	2.22	0.54
27:DA:572:A:OP2	44:DV:78:LYS:NZ	2.37	0.54
1:CA:155:C:H2'	1:CA:156:G:C8	2.43	0.54
27:DA:1161:C:O2'	27:DA:1162:G:H5'	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:36:ARG:HB3	4:AD:38:TYR:CE2	2.42	0.54
27:DA:2473:U:O2	27:DA:2473:U:H2'	2.07	0.54
42:BT:70:VAL:HG12	42:BT:71:GLY:N	2.23	0.54
27:BA:2682:U:C6	27:BA:2682:U:H5'	2.43	0.54
44:DV:36:PRO:HA	44:DV:56:SER:HA	1.89	0.54
27:BA:2419:U:H5'	55:B6:23:THR:HG22	1.89	0.53
38:DP:62:LEU:HD23	38:DP:64:LYS:N	2.23	0.53
30:DD:259:THR:O	30:DD:259:THR:OG1	2.26	0.53
27:DA:620:G:H4'	27:DA:621:A:H5''	1.89	0.53
27:DA:658:C:H2'	27:DA:659:C:C6	2.43	0.53
38:DP:95:VAL:HG23	38:DP:95:VAL:O	2.08	0.53
27:DA:2512:C:H4'	31:DE:122:PHE:CE2	2.43	0.53
27:BA:942:G:H5'	38:BP:35:HIS:HB2	1.89	0.53
27:BA:942:G:H5''	38:BP:36:LYS:H	1.72	0.53
33:DG:139:LEU:CD2	33:DG:139:LEU:H	2.20	0.53
36:DN:57:ALA:O	36:DN:58:ASP:C	2.47	0.53
19:CS:6:LYS:CD	19:CS:7:LYS:HE3	2.37	0.53
30:BD:70:TRP:CH2	30:BD:150:LYS:CA	2.80	0.53
31:DE:103:ASP:OD2	31:DE:201:THR:HA	2.08	0.53
27:DA:856:C:C1'	49:D0:27:GLU:HB3	2.38	0.53
31:DE:4:ILE:HG13	31:DE:5:LEU:N	2.23	0.53
31:DE:62:PRO:C	31:DE:64:LYS:H	2.10	0.53
30:BD:223:GLY:HA2	30:BD:226:MET:HE3	1.88	0.53
2:AB:7:VAL:O	2:AB:11:LEU:HG	2.08	0.53
27:BA:2331:G:O2'	27:BA:2336:A:N1	2.35	0.53
41:BS:17:ARG:O	41:BS:19:LYS:N	2.36	0.53
43:BU:108:GLU:HG3	44:BV:44:LYS:HD3	1.90	0.53
15:CO:82:ILE:CD1	15:CO:87:ILE:HB	2.38	0.53
21:AU:5:ASP:O	21:AU:11:GLY:HA3	2.09	0.53
5:AE:43:LEU:HD21	5:AE:132:ALA:HB1	1.90	0.53
5:AE:6:PHE:HB3	5:AE:35:GLY:C	2.28	0.53
1:CA:952:U:C4	13:CM:104:ARG:NH2	2.75	0.53
34:DH:117:PRO:HB3	34:DH:123:PHE:CE1	2.44	0.53
27:DA:583:G:OP2	43:DU:10:ARG:HD2	2.08	0.53
39:DQ:24:GLY:HA2	39:DQ:67:ARG:HH22	1.73	0.53
17:CQ:4:LYS:HE3	17:CQ:6:LEU:HD11	1.90	0.53
27:DA:1339:G:N2	27:DA:1603:A:H1'	2.23	0.53
4:CD:33:MET:HE1	4:CD:37:PRO:HA	1.90	0.53
48:BZ:60:LEU:HB3	48:BZ:61:PRO:CD	2.35	0.53
25:CY:69:C:C6	25:CY:69:C:H5'	2.43	0.53
32:DF:133:ASN:O	32:DF:135:LYS:N	2.33	0.53
11:CK:82:VAL:N	11:CK:107:SER:O	2.40	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:157:ILE:HD11	3:AC:166:GLU:HB2	1.89	0.53
34:DH:40:GLU:O	34:DH:41:MET:HB2	2.08	0.53
27:BA:2698:U:H2'	27:BA:2699:C:H6	1.71	0.53
31:BE:16:ARG:O	31:BE:17:ASP:HB3	2.07	0.53
31:DE:9:VAL:HG13	31:DE:25:VAL:O	2.09	0.53
58:B9:7:VAL:HG13	58:B9:34:GLN:HB3	1.90	0.53
27:BA:1123:C:H1'	58:B9:18:ARG:NH2	2.22	0.53
27:DA:2286:A:H3'	55:D6:31:PRO:CB	2.37	0.53
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.42	0.53
48:BZ:30:ARG:NH2	48:BZ:93:GLU:HG3	2.23	0.53
1:CA:1365:G:O2'	1:CA:1366:C:H5'	2.08	0.53
2:AB:19:HIS:CE1	2:AB:20:GLU:HG2	2.43	0.53
40:BR:10:LEU:HB3	40:BR:17:ARG:CD	2.37	0.53
52:B3:35:ARG:NE	52:B3:37:LEU:HD21	2.23	0.53
43:DU:106:PHE:O	43:DU:110:VAL:HG23	2.09	0.53
1:AA:180:U:H2'	1:AA:181:G:H5''	1.89	0.53
23:AW:29:G:H2'	23:AW:30:A:C8	2.41	0.53
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.90	0.53
1:AA:957:U:H2'	1:AA:959:A:OP2	2.07	0.53
43:DU:37:GLU:HA	43:DU:40:PHE:HD1	1.71	0.53
37:DO:45:GLU:HA	37:DO:54:GLU:HG2	1.91	0.53
7:AG:88:PRO:HB2	7:AG:145:ALA:HB1	1.90	0.53
27:BA:386:G:H4'	27:BA:387:U:OP2	2.07	0.53
27:BA:409:C:O2'	27:BA:410:G:H5'	2.08	0.53
27:BA:207:A:H2'	27:BA:208:C:O4'	2.09	0.53
1:AA:999:C:O2'	1:AA:1000:U:H5'	2.09	0.53
59:CX:23:C:H2'	59:CX:24:U:C6	2.43	0.53
27:BA:2726:U:O2'	27:BA:2727:G:H5'	2.09	0.53
1:AA:1424:C:O2'	1:AA:1425:U:H5'	2.09	0.53
1:AA:716:A:H1'	11:AK:118:GLY:HA2	1.90	0.53
1:CA:977:A:H2	1:CA:1224:G:C5	2.26	0.53
35:DI:115:ALA:CB	35:DI:129:THR:N	2.71	0.53
1:CA:1251:A:H4'	9:CI:12:GLU:OE1	2.09	0.53
10:CJ:62:HIS:O	14:CN:59:ALA:HB3	2.07	0.53
48:DZ:9:ARG:NH2	48:DZ:24:PRO:HB3	2.21	0.53
48:DZ:42:GLU:O	48:DZ:46:VAL:HG23	2.08	0.53
48:DZ:96:GLU:HB3	48:DZ:124:LEU:CD1	2.25	0.53
41:DS:92:TYR:CG	41:DS:93:LYS:N	2.76	0.53
17:AQ:18:THR:CG2	17:AQ:69:LYS:HE3	2.28	0.53
1:CA:1444:C:H2'	1:CA:1445:C:H6	1.73	0.53
3:CC:188:LEU:HD13	3:CC:189:ALA:N	2.04	0.53
3:CC:195:VAL:HG12	3:CC:196:LEU:N	2.23	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1790:C:O2'	30:BD:209:ALA:HB2	2.08	0.53
9:AI:82:ALA:HB1	9:AI:96:LEU:CD1	2.38	0.53
31:BE:65:GLY:HA2	31:BE:70:ALA:CB	2.38	0.53
47:DY:17:SER:HB2	47:DY:71:LYS:NZ	2.23	0.53
2:CB:98:LEU:HB2	2:CB:101:MET:HG3	1.91	0.53
5:CE:144:THR:HG23	5:CE:147:ASP:OD2	2.09	0.53
5:CE:76:ILE:HG13	5:CE:77:PRO:HD2	1.90	0.53
48:BZ:116:LEU:N	48:BZ:173:VAL:HG13	2.23	0.53
27:BA:581:C:O2'	27:BA:582:G:H5'	2.07	0.53
17:CQ:17:LYS:CD	17:CQ:47:PRO:HA	2.39	0.53
27:DA:2750:A:HO2'	27:DA:2752:C:H5	1.56	0.53
5:AE:41:VAL:HG13	5:AE:113:ALA:HA	1.90	0.53
27:DA:2749:A:H5'	34:DH:62:LYS:O	2.08	0.53
32:BF:67:GLN:HG2	32:BF:67:GLN:O	2.07	0.53
4:CD:8:VAL:HA	4:CD:11:LEU:HD12	1.90	0.53
23:CW:51:G:O2'	27:DA:2470:G:O2'	2.26	0.53
12:AL:29:PHE:HB3	12:AL:81:LEU:HD22	1.90	0.53
34:BH:158:HIS:O	34:BH:159:GLU:CB	2.56	0.53
11:CK:98:LEU:O	11:CK:99:GLN:C	2.45	0.53
30:BD:126:GLN:O	30:BD:193:VAL:HG11	2.09	0.53
29:DC:19:VAL:HG12	29:DC:20:TYR:CD1	2.43	0.53
27:DA:2331:G:O4'	49:D0:42:GLY:HA3	2.07	0.53
39:DQ:58:PHE:HD1	39:DQ:58:PHE:O	1.89	0.53
58:D9:32:HIS:O	58:D9:34:GLN:HG2	2.08	0.53
27:DA:1224:C:H4'	44:DV:86:GLY:O	2.08	0.53
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.43	0.53
27:BA:2735:G:O2'	27:BA:2736:G:H5'	2.07	0.53
4:CD:57:ARG:NH1	4:CD:57:ARG:HG3	2.20	0.53
15:AO:25:THR:HG21	15:AO:70:LEU:HB2	1.91	0.53
27:DA:2712:U:O2'	27:DA:2712(A):A:P	2.66	0.53
27:DA:364:C:H2'	27:DA:365:C:C5'	2.38	0.53
48:BZ:29:ASN:O	48:BZ:30:ARG:HB2	2.08	0.53
27:BA:2715:C:H2'	27:BA:2716:U:C6	2.43	0.53
2:CB:223:ILE:HA	2:CB:226:ARG:CG	2.38	0.53
11:AK:56:GLY:O	11:AK:57:THR:O	2.25	0.53
1:AA:1477:C:H2'	1:AA:1478:C:H6	1.74	0.53
27:BA:1363:C:O2'	27:BA:1364:G:H5'	2.07	0.53
1:AA:1040:U:H2'	1:AA:1041:A:C8	2.44	0.53
59:CX:44:A:O2'	59:CX:45:G:H5'	2.07	0.53
27:BA:449:A:O2'	27:BA:450:G:H5'	2.08	0.53
25:CY:61:C:H2'	25:CY:62:U:C6	2.43	0.53
15:AO:18:PHE:CD1	15:AO:18:PHE:O	2.61	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B6:20:ASN:CG	55:B6:21:TYR:N	2.61	0.53
35:DI:133:HIS:CB	35:DI:134:PRO:CD	2.87	0.53
27:BA:1470:G:H22	27:BA:1519:G:H3'	1.74	0.53
35:BI:88:ILE:C	35:BI:89:TYR:CG	2.81	0.53
33:BG:83:ARG:O	33:BG:85:GLY:N	2.35	0.53
51:D2:4:SER:O	51:D2:8:LYS:HG3	2.09	0.53
57:D8:51:ALA:C	57:D8:53:PRO:HD2	2.28	0.53
10:CJ:16:LEU:O	10:CJ:16:LEU:HD13	2.08	0.53
10:CJ:4:ILE:HD11	10:CJ:77:PRO:CB	2.33	0.53
42:DT:16:ARG:NH1	42:DT:18:ASP:OD2	2.41	0.53
44:DV:5:VAL:HG12	44:DV:14:VAL:HG22	1.89	0.53
27:DA:1024:G:OP2	27:DA:1026:U:OP1	2.27	0.53
37:DO:104:ARG:HH21	42:DT:33:LYS:HE2	1.72	0.53
1:CA:1370:G:C8	9:CI:109:VAL:HG11	2.43	0.53
30:BD:70:TRP:CD1	30:BD:70:TRP:C	2.82	0.53
1:AA:1349:A:OP1	9:AI:121:ARG:HB2	2.08	0.53
10:AJ:32:ALA:CB	10:AJ:76:ASN:HB2	2.38	0.53
1:AA:1116:C:H2'	1:AA:1117:G:C5'	2.33	0.53
27:DA:2056:G:N2	27:DA:2057:A:C4	2.77	0.53
38:DP:7:ARG:CA	38:DP:7:ARG:NE	2.70	0.53
30:BD:24:ILE:O	30:BD:25:THR:O	2.25	0.53
2:CB:100:GLY:HA2	2:CB:176:GLU:OE2	2.08	0.53
2:CB:95:GLN:HB2	2:CB:148:TYR:HD1	1.72	0.53
45:BW:92:ARG:HH11	45:BW:92:ARG:CG	2.07	0.53
5:CE:144:THR:OG1	5:CE:146:ALA:HB3	2.08	0.53
1:AA:1203:C:H2'	1:AA:1204:A:C8	2.43	0.53
4:AD:162:LEU:HD13	4:AD:181:MET:HG2	1.91	0.53
20:CT:30:LYS:NZ	20:CT:80:ARG:HH22	2.05	0.53
5:AE:32:VAL:HG12	5:AE:33:VAL:N	2.21	0.53
1:CA:959:A:H2'	1:CA:960:U:C4'	2.38	0.53
45:BW:68:ARG:O	45:BW:110:LYS:N	2.38	0.53
27:DA:903:C:H2'	27:DA:904:C:C6	2.43	0.53
3:AC:60:ALA:HB3	3:AC:63:ASN:ND2	2.22	0.53
3:AC:61:ALA:H	3:AC:63:ASN:CG	2.11	0.53
11:AK:108:ILE:CG2	11:AK:109:VAL:N	2.70	0.53
1:CA:9:G:OP1	5:CE:122:GLU:HB2	2.07	0.53
34:DH:122:THR:HG22	34:DH:123:PHE:N	2.23	0.53
34:DH:17:VAL:O	34:DH:45:VAL:HG21	2.08	0.53
5:AE:48:ALA:C	5:AE:50:GLU:H	2.12	0.53
19:AS:31:ILE:CG2	19:AS:49:ILE:HG13	2.38	0.53
30:DD:181:GLU:HA	30:DD:273:ARG:N	2.24	0.53
1:CA:1004:A:C5'	1:CA:1025:U:H3	2.22	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:61:GLU:HA	17:CQ:71:PHE:CE1	2.44	0.53
27:DA:1603:A:H8	27:DA:1603:A:H5'	1.73	0.53
27:BA:523:C:O2'	27:BA:524:U:H5'	2.08	0.53
23:CW:25:A:H2'	23:CW:26:C:C6	2.43	0.53
1:AA:1269:A:C2	1:AA:1313:U:O4'	2.62	0.53
25:CY:67:C:C2'	25:CY:68:C:H5'	2.38	0.53
29:BC:76:ALA:O	29:BC:78:ALA:N	2.41	0.53
27:DA:1448:G:H5'	27:DA:1449:A:OP1	2.07	0.53
30:DD:65:ILE:H	30:DD:65:ILE:HD13	1.73	0.53
27:DA:36:G:N3	27:DA:450:G:O2'	2.41	0.53
1:AA:194:C:C2'	1:AA:195:A:H5''	2.36	0.53
27:BA:2728:U:O2'	27:BA:2729:G:H5'	2.07	0.53
27:DA:2126:A:C5'	29:DC:36:LYS:HE2	2.38	0.53
35:DI:5:LEU:HD22	35:DI:13:GLY:HA2	1.89	0.53
27:BA:2642:G:O2'	27:BA:2643:G:H5'	2.08	0.53
31:DE:40:GLU:HG2	31:DE:41:LYS:HG3	1.90	0.53
32:DF:202:PHE:CE1	32:DF:206:ILE:HD13	2.43	0.53
27:BA:375:C:H2'	27:BA:376:C:H6	1.73	0.53
27:BA:1475:G:H2'	27:BA:1475:G:N3	2.23	0.53
1:CA:848:C:H2'	1:CA:849:C:C6	2.44	0.53
1:AA:778:G:H2'	1:AA:779:C:O4'	2.07	0.53
27:DA:295:G:O2'	27:DA:296:C:H5'	2.09	0.53
27:DA:341:G:O2'	27:DA:342:G:H5'	2.08	0.53
27:BA:843:G:O2'	27:BA:844:C:H5'	2.07	0.53
57:D8:21:LYS:HD3	57:D8:48:PHE:CZ	2.43	0.53
48:BZ:110:VAL:HG22	48:BZ:110:VAL:O	2.08	0.53
30:BD:166:GLN:HA	30:BD:166:GLN:HE21	1.74	0.53
3:CC:164:ARG:HB3	3:CC:164:ARG:HH11	1.73	0.53
32:BF:46:ARG:NH1	32:BF:46:ARG:HG2	2.22	0.53
27:BA:969:U:OP1	52:B3:17:LYS:HE2	2.09	0.53
27:DA:1216:G:O2'	27:DA:1217:C:H5'	2.09	0.53
2:AB:22:LYS:HD3	2:AB:35:GLU:OE2	2.09	0.53
42:BT:26:ASP:HB3	42:BT:89:VAL:O	2.09	0.53
42:BT:28:VAL:HG22	42:BT:46:GLU:C	2.28	0.53
1:CA:1190:G:H8	3:CC:3:ASN:ND2	2.06	0.53
48:DZ:4:LEU:HD11	48:DZ:42:GLU:OE1	2.09	0.53
10:CJ:32:ALA:CB	10:CJ:76:ASN:HB2	2.38	0.53
33:DG:27:ASN:O	33:DG:29:TRP:N	2.40	0.53
33:DG:56:ALA:HB2	33:DG:153:ARG:CZ	2.39	0.53
27:BA:911:A:H5''	27:BA:912:C:H5''	1.89	0.53
9:CI:105:ASP:OD2	9:CI:107:ARG:HD3	2.08	0.53
9:CI:73:GLN:O	9:CI:77:ILE:HG13	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:70:PRO:HA	39:BQ:94:VAL:O	2.09	0.53
31:DE:167:VAL:HG22	31:DE:168:MET:H	1.74	0.53
28:DB:27:C:O3'	41:DS:34:HIS:NE2	2.42	0.53
27:DA:105:C:O2	47:DY:2:ARG:HG3	2.08	0.53
32:BF:8:GLN:CG	32:BF:126:VAL:HA	2.38	0.53
47:BY:65:ALA:HB1	47:BY:66:PRO:HD2	1.90	0.53
27:BA:1310:G:C2'	27:BA:1311:G:H5'	2.39	0.53
27:DA:2526:G:H5'	27:DA:2742:C:O2'	2.08	0.53
1:CA:71:C:C2'	1:CA:72:C:H5'	2.37	0.53
39:BQ:66:ILE:HG22	39:BQ:104:PHE:CD2	2.40	0.53
27:DA:2291:U:H2'	27:DA:2292:C:C6	2.43	0.53
1:CA:20:U:C2'	1:CA:21:G:H5'	2.37	0.53
5:CE:20:GLN:O	5:CE:21:ALA:O	2.27	0.53
36:BN:58:ASP:O	36:BN:59:LYS:HB2	2.08	0.53
2:CB:137:ARG:O	2:CB:140:HIS:HB3	2.08	0.53
1:CA:625:G:OP1	16:CP:9:PHE:HB3	2.08	0.53
1:CA:1432:G:H8	1:CA:1432:G:O5'	1.90	0.53
8:AH:83:ILE:O	8:AH:83:ILE:HG23	2.09	0.53
2:CB:185:ILE:HG22	2:CB:199:TYR:HB2	1.89	0.53
51:B2:52:ASP:O	51:B2:56:GLN:HG2	2.08	0.53
35:BI:38:LEU:HB2	35:BI:40:THR:HG23	1.88	0.53
5:CE:80:ILE:HD11	5:CE:138:ALA:CA	2.38	0.53
48:BZ:162:LEU:HD12	48:BZ:162:LEU:N	2.23	0.53
7:CG:152:ALA:C	7:CG:154:TYR:H	2.12	0.53
27:DA:2406:U:C4	38:DP:72:PRO:HD2	2.44	0.53
31:DE:37:ARG:O	31:DE:45:THR:HA	2.09	0.53
7:CG:52:GLU:C	7:CG:54:THR:H	2.12	0.53
27:BA:1130:U:C2	27:BA:2025:C:H5''	2.42	0.53
7:CG:72:ARG:HB3	7:CG:142:GLU:OE2	2.08	0.53
45:BW:6:ILE:CG2	45:BW:8:ARG:HD3	2.38	0.53
1:CA:125:U:H2'	1:CA:126:G:H8	1.74	0.53
41:BS:46:VAL:HG12	41:BS:47:THR:N	2.22	0.53
58:D9:9:ARG:CB	58:D9:9:ARG:HH11	2.21	0.53
42:DT:132:LYS:C	42:DT:134:GLU:H	2.11	0.53
27:DA:1345:C:H2'	27:DA:1346:G:C8	2.44	0.53
27:BA:449:A:C2'	27:BA:450:G:H5'	2.39	0.53
1:AA:833:U:H2'	1:AA:834:C:C6	2.43	0.53
27:BA:1297:C:O2'	27:BA:1298:C:H5'	2.07	0.53
27:DA:375:C:H2'	27:DA:376:C:C6	2.44	0.53
42:BT:112:ARG:O	42:BT:115:ARG:HG2	2.09	0.53
11:CK:63:LEU:O	11:CK:63:LEU:HD23	2.09	0.53
27:DA:1675:C:C2	31:DE:129:HIS:CD2	2.97	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:B8:33:ASN:CA	57:B8:36:LYS:HZ3	2.22	0.53
57:B8:53:PRO:HA	57:B8:56:GLU:CB	2.39	0.53
35:DI:130:TYR:O	35:DI:131:LYS:HB3	2.08	0.53
42:BT:24:PRO:HA	42:BT:49:VAL:HG13	1.89	0.53
27:BA:2839:G:H4'	40:BR:49:ASP:OD2	2.08	0.53
31:DE:27:LEU:CD2	42:DT:1:MET:HB2	2.39	0.53
13:AM:9:ILE:HG21	13:AM:11:ARG:NH2	2.10	0.53
14:CN:45:ARG:CG	14:CN:45:ARG:HH11	2.18	0.53
48:DZ:149:LEU:N	48:DZ:149:LEU:HD13	2.23	0.53
51:D2:12:GLU:OE1	51:D2:16:LEU:HD11	2.08	0.53
42:DT:85:LYS:HZ2	42:DT:85:LYS:HB3	1.73	0.53
42:DT:29:ARG:HG2	42:DT:86:ILE:O	2.08	0.53
32:BF:184:TYR:CE1	38:BP:7:ARG:NH2	2.76	0.53
27:DA:940:G:H2'	27:DA:941:A:O4'	2.09	0.53
33:DG:139:LEU:HD23	33:DG:139:LEU:H	1.73	0.53
36:DN:19:GLU:C	36:DN:21:LYS:H	2.11	0.53
37:DO:71:ARG:HH12	42:DT:74:ARG:NH1	2.07	0.53
44:BV:17:GLY:HA2	44:BV:96:ILE:HB	1.91	0.53
9:CI:82:ALA:HB1	9:CI:96:LEU:HD13	1.89	0.53
19:CS:6:LYS:HG2	19:CS:7:LYS:HE2	1.89	0.53
4:AD:28:SER:O	4:AD:30:LYS:HG2	2.09	0.53
1:AA:92:C:H3'	1:AA:93:G:H8	1.73	0.53
41:BS:93:LYS:O	41:BS:93:LYS:HG3	2.08	0.53
4:AD:105:VAL:HG13	4:AD:110:PHE:HB2	1.90	0.53
1:AA:458:C:H2'	1:AA:460:G:H8	1.73	0.53
27:DA:2539:C:H5''	58:D9:3:VAL:HG11	1.91	0.53
8:AH:51:VAL:HG11	8:AH:60:ARG:CG	2.38	0.53
4:CD:68:TYR:OH	4:CD:196:LEU:HD21	2.09	0.53
39:BQ:33:GLY:HA2	39:BQ:105:GLU:HA	1.91	0.53
27:DA:874:G:H5'	27:DA:874:G:C8	2.42	0.53
40:DR:38:VAL:O	40:DR:41:ALA:HB3	2.08	0.53
30:DD:134:ARG:HD3	30:DD:188:GLU:OE2	2.08	0.53
47:BY:89:PHE:O	47:BY:90:LEU:HB3	2.07	0.53
8:AH:85:ARG:HD3	8:AH:86:ILE:N	2.24	0.53
20:AT:41:ILE:HG13	20:AT:42:GLN:N	2.24	0.53
19:AS:61:TYR:O	19:AS:62:ILE:CB	2.56	0.53
27:DA:592:G:O3'	57:D8:62:LEU:HD21	2.09	0.53
8:AH:91:ARG:NH1	17:AQ:33:GLY:HA3	2.23	0.53
12:AL:8:VAL:HG21	17:AQ:34:LYS:HD3	1.90	0.53
24:AX:17:C:OP1	24:AX:61:C:H5'	2.09	0.53
43:BU:24:TYR:CD1	43:BU:38:THR:HG21	2.43	0.53
27:DA:1971:A:H5'	27:DA:1971:A:H8	1.74	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:8:PRO:HB3	30:DD:14:ARG:HB3	1.90	0.53
18:AR:44:LEU:HA	18:AR:49:LYS:O	2.08	0.53
27:DA:2696:U:H2'	27:DA:2697:G:C8	2.43	0.53
27:DA:389:G:N1	38:DP:71:VAL:HG12	2.23	0.53
27:DA:14:A:N6	27:DA:15:G:C2	2.77	0.53
27:DA:16:G:H1	27:DA:524:U:H3	1.56	0.53
27:BA:2219:G:O5'	27:BA:2219:G:H8	1.92	0.53
27:DA:2467:C:OP1	58:D9:8:LYS:HE3	2.09	0.53
27:DA:92:A:H2'	27:DA:93:G:O4'	2.08	0.53
24:AX:47:U:H3'	24:AX:48:C:C5'	2.38	0.53
4:AD:51:PRO:HB3	4:AD:55:ALA:HB1	1.90	0.53
2:CB:104:ASN:O	2:CB:104:ASN:OD1	2.26	0.53
37:BO:61:VAL:HG12	37:BO:87:ILE:HD11	1.90	0.53
27:DA:2001:A:H4'	27:DA:2689:U:H2'	1.90	0.53
27:BA:125:G:H4'	27:BA:126:A:OP2	2.06	0.53
27:DA:979:G:H3'	27:DA:980:A:C5'	2.39	0.53
27:BA:2253:G:H2'	27:BA:2254:C:C6	2.44	0.53
1:CA:995:C:N3	1:CA:1046:A:O2'	2.38	0.53
30:BD:166:GLN:CA	30:BD:166:GLN:HE21	2.22	0.53
27:BA:2296:U:H4'	27:BA:2297:C:OP1	2.08	0.53
55:B6:36:LEU:HD13	55:B6:50:ARG:NH2	2.23	0.53
27:BA:2291:U:H2'	27:BA:2292:C:C6	2.43	0.53
41:DS:56:LEU:O	41:DS:57:LYS:HB2	2.08	0.53
45:DW:36:LEU:HD13	45:DW:48:ALA:HA	1.91	0.53
47:BY:10:GLY:O	47:BY:27:VAL:HG22	2.09	0.53
35:BI:109:ILE:HG23	35:BI:130:TYR:CE2	2.43	0.53
27:BA:2308:G:N7	27:BA:2310:A:C5'	2.71	0.53
55:D6:41:PRO:C	55:D6:43:CYS:H	2.11	0.53
27:BA:1019:U:O2'	27:BA:1021:A:C2	2.54	0.53
38:DP:101:VAL:CG1	38:DP:108:LYS:H	2.20	0.53
38:DP:112:LEU:H	38:DP:128:HIS:CD2	2.23	0.53
28:DB:111:G:H2'	28:DB:112:U:C5'	2.39	0.53
38:BP:23:PRO:HG3	38:BP:29:LYS:HB3	1.91	0.53
18:CR:40:LEU:HD12	18:CR:40:LEU:N	2.08	0.53
1:AA:266:G:H1	1:AA:270:A:H62	1.54	0.53
1:CA:161:A:O2'	1:CA:162:A:H5'	2.09	0.53
42:DT:36:GLU:HG2	42:DT:36:GLU:O	2.08	0.53
42:DT:30:VAL:HA	42:DT:44:ASP:HA	1.90	0.53
44:BV:35:LEU:C	44:BV:37:VAL:N	2.60	0.53
9:AI:97:LYS:CB	9:AI:98:PRO:HD3	2.30	0.53
2:AB:51:LEU:HD22	2:AB:55:PHE:HE2	1.74	0.53
2:CB:103:THR:OG1	2:CB:176:GLU:HG3	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1015:A:H2'	1:CA:1016:A:H8	1.70	0.53
32:BF:83:PHE:O	32:BF:85:GLY:N	2.38	0.53
27:BA:2335:A:C8	27:BA:2337:G:C5	2.96	0.53
56:B7:47:ARG:C	56:B7:48:LYS:HD3	2.29	0.53
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.24	0.53
34:BH:10:PRO:HG3	34:BH:50:VAL:C	2.28	0.53
1:AA:797:C:O2'	1:AA:798:G:H5'	2.09	0.53
3:CC:76:VAL:CG2	3:CC:103:VAL:HG11	2.38	0.53
45:DW:5:ALA:O	45:DW:6:ILE:CB	2.57	0.53
45:DW:6:ILE:HA	45:DW:103:ILE:O	2.09	0.53
16:CP:55:ARG:O	16:CP:58:TYR:N	2.42	0.53
30:DD:267:SER:O	30:DD:269:PHE:N	2.42	0.53
25:CY:69:C:H2'	25:CY:70:C:O4'	2.07	0.53
38:BP:71:VAL:HG13	38:BP:72:PRO:N	2.23	0.53
27:DA:332:A:O2'	27:DA:333:G:H5''	2.08	0.53
27:DA:158:U:O3'	27:DA:171:G:C8	2.61	0.53
27:DA:173:G:C2	27:DA:174:C:C2	2.97	0.53
27:DA:1843:C:H2'	27:DA:1844:C:H6	1.73	0.53
2:CB:81:VAL:O	2:CB:81:VAL:HG12	2.09	0.53
1:AA:693:G:N2	25:AY:36:A:C2	2.77	0.53
1:CA:709:G:H2'	1:CA:710:G:C8	2.44	0.53
27:BA:2396:G:O2'	27:BA:2397:G:H5'	2.09	0.53
27:BA:2199:A:H3'	27:BA:2200:C:H6	1.72	0.53
27:DA:816:C:H2'	27:DA:817:C:H6	1.73	0.53
37:BO:87:ILE:CG2	37:BO:88:ASN:N	2.71	0.53
27:BA:1919:A:H2'	27:BA:1919:A:N3	2.24	0.53
27:DA:1924:C:O2'	27:DA:1925:C:H5'	2.09	0.53
27:DA:1926:U:H2'	27:DA:1928:A:OP2	2.08	0.53
1:CA:1292:U:H5'	9:CI:38:GLN:OE1	2.07	0.53
1:AA:189(D):C:H1'	1:AA:189(H):G:N2	2.24	0.53
1:CA:777:A:H2'	1:CA:778:G:C8	2.43	0.53
1:AA:1000:U:N3	1:AA:1042:G:N2	2.56	0.53
27:DA:1670:C:O2	31:DE:129:HIS:HE1	1.91	0.53
8:CH:38:ILE:HD11	8:CH:118:VAL:O	2.09	0.53
2:AB:137:ARG:HA	2:AB:140:HIS:HB3	1.90	0.53
1:CA:1360:A:H8	1:CA:1360:A:OP1	1.91	0.53
1:AA:114:U:H2'	1:AA:115:G:C8	2.43	0.53
27:BA:486:C:H2'	27:BA:487:C:C6	2.43	0.53
27:DA:113:G:H5'	27:DA:114:U:OP1	2.09	0.53
4:CD:58:LEU:HD23	4:CD:206:PHE:CE1	2.44	0.53
1:AA:633:G:H3'	1:AA:634:C:H6	1.73	0.53
35:BI:22:LYS:O	35:BI:23:PRO:C	2.46	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B6:18:ARG:HG3	55:B6:19:ARG:H	1.73	0.53
47:BY:96:ILE:CD1	47:BY:99:CYS:HB2	2.38	0.53
27:BA:271(U):G:C2'	27:BA:271(V):G:H5'	2.39	0.53
53:B4:41:ILE:HD13	53:B4:47:VAL:HG13	1.90	0.53
33:BG:104:GLU:OE2	53:B4:50:THR:HG22	2.08	0.53
33:BG:43:LEU:CB	33:BG:88:ILE:HD11	2.34	0.53
30:DD:24:ILE:HG13	30:DD:82:ILE:O	2.08	0.53
30:DD:26:LYS:HE2	30:DD:81:ALA:HA	1.91	0.53
42:DT:29:ARG:HG2	42:DT:86:ILE:N	2.23	0.53
40:DR:54:LEU:HD23	40:DR:66:VAL:HB	1.89	0.53
33:DG:128:ARG:C	33:DG:130:ASN:N	2.61	0.53
33:DG:52:ILE:O	33:DG:54:GLU:HG2	2.09	0.53
17:AQ:67:LYS:O	17:AQ:68:ARG:HB3	2.09	0.53
1:CA:1320:C:C2	19:CS:72:GLY:HA3	2.43	0.53
9:AI:119:ALA:O	9:AI:120:ARG:CB	2.57	0.53
10:AJ:58:ASP:O	10:AJ:59:SER:C	2.46	0.53
23:AW:40:C:O2'	23:AW:41:G:H5'	2.08	0.53
47:DY:76:CYS:O	47:DY:99:CYS:SG	2.66	0.53
27:BA:330:A:C2	27:BA:1210:A:H2'	2.40	0.53
27:DA:2747:G:H4'	34:DH:67:LEU:CD1	2.39	0.53
34:BH:10:PRO:HD3	34:BH:50:VAL:O	2.07	0.53
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.44	0.53
1:CA:14:U:O2	1:CA:17:U:H5	1.92	0.53
2:CB:46:LYS:HA	2:CB:49:GLU:OE1	2.08	0.53
2:CB:51:LEU:HD23	2:CB:201:ILE:CD1	2.38	0.53
27:BA:1115:G:H2'	27:BA:1116:C:C6	2.44	0.53
3:CC:182:ILE:HG23	3:CC:202:ILE:O	2.08	0.53
36:BN:133:GLN:CG	36:BN:134:ARG:H	2.21	0.53
43:DU:22:LYS:HZ3	43:DU:30:LYS:NZ	2.07	0.53
27:DA:2533:A:H5''	27:DA:2665:A:O2'	2.09	0.53
33:DG:101:ILE:CD1	33:DG:105:LYS:HE3	2.38	0.53
30:DD:34:VAL:O	30:DD:34:VAL:HG13	2.09	0.53
8:AH:25:ASP:C	8:AH:26:VAL:HG12	2.29	0.53
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	1.89	0.53
1:CA:104:G:O2'	1:CA:105:G:H5'	2.09	0.53
35:BI:41:GLU:HG2	35:BI:44:LEU:HD23	1.91	0.53
27:DA:2331:G:H4'	49:D0:43:THR:N	2.22	0.53
2:AB:95:GLN:HE21	2:AB:147:LYS:HG2	1.72	0.53
35:DI:94:ALA:HB2	35:DI:116:LEU:HD21	1.90	0.53
46:DX:35:THR:HG22	46:DX:38:GLU:N	2.24	0.53
3:CC:34:LEU:HD11	3:CC:38:ARG:NH2	2.23	0.53
27:DA:2571:C:H5'	27:DA:2572:A:C5'	2.38	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:719:C:H1'	18:AR:49:LYS:HB3	1.91	0.53
27:BA:2872:G:O2'	27:BA:2873:A:H5'	2.09	0.53
27:BA:633:A:H2'	27:BA:634:C:H5'	1.89	0.53
27:BA:2266:A:H4'	27:BA:2267:A:N3	2.23	0.53
56:B7:24:THR:HG23	56:B7:27:GLY:CA	2.37	0.53
47:BY:2:ARG:HD3	47:BY:3:VAL:N	2.23	0.53
27:BA:271(F):C:O2'	27:BA:271(G):C:H5'	2.08	0.53
2:AB:236:TYR:HA	2:AB:239:VAL:HG23	1.91	0.53
34:BH:24:VAL:CG2	34:BH:35:VAL:HB	2.39	0.53
47:DY:81:LYS:HB3	47:DY:82:PRO:HD2	1.90	0.53
5:AE:13:ILE:HG22	5:AE:13:ILE:O	2.07	0.53
23:AW:69:C:O2'	23:AW:70:C:H5'	2.09	0.53
27:BA:2116:G:O2'	27:BA:2117:A:OP1	2.24	0.53
27:BA:2086:U:H2'	27:BA:2087:G:C8	2.44	0.53
23:CW:71:A:H5'	23:CW:72:G:OP2	2.08	0.53
7:AG:85:TYR:HD1	7:AG:154:TYR:HE1	1.56	0.53
27:BA:2852:G:H2'	27:BA:2853:C:C6	2.43	0.53
27:BA:2549:G:C2'	27:BA:2550:G:H5'	2.39	0.53
1:AA:802:A:H2'	1:AA:803:G:O4'	2.08	0.53
1:CA:325:A:N6	1:CA:326:G:N1	2.57	0.53
4:AD:173:TRP:HA	4:AD:187:ARG:NH1	2.24	0.53
35:DI:129:THR:OG1	35:DI:135:GLU:HB3	2.09	0.53
27:BA:2755:C:C4	58:B9:19:ARG:NH1	2.76	0.53
44:DV:18:LEU:CD1	44:DV:19:LYS:N	2.72	0.53
27:DA:1590:U:C3'	27:DA:1591:G:H5''	2.38	0.53
51:D2:63:VAL:HG22	51:D2:66:GLU:OE2	2.08	0.53
12:CL:38:ARG:HG2	12:CL:39:THR:O	2.09	0.53
38:BP:18:ARG:O	38:BP:20:GLY:N	2.42	0.53
27:DA:603:A:H5'	27:DA:604:G:OP1	2.08	0.53
30:DD:44:ASN:OD1	30:DD:44:ASN:N	2.39	0.53
33:DG:117:PHE:HD1	33:DG:118:ARG:N	2.07	0.53
33:DG:128:ARG:HE	33:DG:128:ARG:H	1.55	0.53
44:BV:19:LYS:HG2	44:BV:94:LEU:HB2	1.89	0.53
30:BD:142:VAL:HG23	30:BD:192:THR:C	2.29	0.53
20:AT:98:PRO:O	20:AT:100:ILE:N	2.39	0.53
27:DA:271(P):C:H2'	27:DA:271(Q):G:C8	2.43	0.53
1:AA:1255:G:H5'	3:AC:26:LYS:NZ	2.24	0.53
31:BE:57:LYS:C	31:BE:59:VAL:H	2.12	0.53
2:AB:11:LEU:N	2:AB:11:LEU:HD23	2.24	0.53
41:BS:90:GLY:C	41:BS:92:TYR:H	2.11	0.53
27:BA:1000:A:C8	27:BA:1000:A:H5'	2.41	0.53
4:AD:149:ALA:O	4:AD:153:ARG:N	2.38	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:96:ARG:O	2:AB:98:LEU:N	2.42	0.53
13:CM:56:LEU:C	13:CM:56:LEU:HD13	2.29	0.53
1:CA:68:G:N2	1:CA:102:G:N1	2.55	0.53
1:CA:1226:C:C5	13:CM:104:ARG:HB2	2.44	0.53
1:CA:1053:G:N7	1:CA:1200:C:H5'	2.24	0.53
1:CA:963:G:N2	10:CJ:55:LYS:NZ	2.54	0.53
27:DA:1278:A:OP1	40:DR:36:THR:HG22	2.09	0.53
27:BA:2347:C:H2'	27:BA:2348:U:C6	2.44	0.53
29:BC:83:ILE:CG2	29:BC:94:VAL:HG23	2.32	0.53
46:DX:60:ARG:NH1	56:D7:47:ARG:NH2	2.51	0.53
4:CD:28:SER:O	4:CD:30:LYS:N	2.42	0.53
38:BP:48:PRO:O	38:BP:49:ARG:C	2.46	0.53
27:BA:1677:A:H2'	27:BA:1678:G:H8	1.73	0.53
6:AF:62:TRP:CD1	18:AR:35:ARG:CZ	2.92	0.53
27:BA:2570:G:H2'	27:BA:2571:C:O4'	2.09	0.53
30:DD:213:ARG:O	30:DD:215:LEU:N	2.42	0.53
27:DA:141:A:H8	27:DA:1408:C:O2'	1.92	0.53
27:DA:479:A:OP1	47:DY:34:LYS:NZ	2.42	0.53
27:DA:2531:A:H61	27:DA:2662:A:H61	1.56	0.53
50:B1:80:LEU:H	50:B1:80:LEU:HD12	1.73	0.53
1:AA:324:G:P	20:AT:22:ARG:HD2	2.49	0.53
1:CA:106:C:H2'	1:CA:107:G:C8	2.36	0.53
1:CA:1132:C:O2'	1:CA:1133:G:H5'	2.09	0.53
49:B0:24:LYS:HB2	49:B0:36:ILE:HD11	1.91	0.53
7:AG:50:ILE:HB	7:AG:58:PRO:HG3	1.91	0.53
30:BD:270:ILE:O	30:BD:271:ILE:HG23	2.08	0.53
29:BC:169:GLY:HA3	29:BC:172:HIS:O	2.08	0.53
1:CA:1348:U:H2'	1:CA:1349:A:H8	1.72	0.53
3:CC:64:VAL:HG22	3:CC:99:VAL:HA	1.90	0.53
27:DA:185:U:H2'	27:DA:186:G:H8	1.74	0.53
25:AY:69:C:H2'	25:AY:70:C:C6	2.44	0.53
19:CS:24:ALA:O	19:CS:25:LYS:CB	2.56	0.53
1:CA:797:C:O2'	1:CA:798:G:H5'	2.08	0.53
7:AG:57:GLU:HG3	7:AG:60:LYS:HB3	1.89	0.53
1:CA:940:C:O2'	1:CA:941:G:H5'	2.08	0.53
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.43	0.53
27:BA:1655:A:H3'	27:BA:1656:C:C6	2.44	0.53
42:DT:128:GLU:O	42:DT:130:ALA:N	2.40	0.53
27:BA:363(C):G:H2'	27:BA:363(D):G:C8	2.44	0.53
1:CA:386:C:C2'	1:CA:387:U:H5'	2.38	0.53
27:DA:2283:C:H2'	27:DA:2284:C:H5'	1.90	0.53
17:AQ:15:MET:HE3	17:AQ:43:LEU:HD22	1.91	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:895:G:H2'	1:CA:896:C:C6	2.44	0.53
1:AA:291:C:O2'	1:AA:292:G:H5'	2.08	0.53
45:DW:110:LYS:HG3	45:DW:111:HIS:ND1	2.24	0.53
51:B2:32:LEU:HD11	51:B2:54:LYS:HD3	1.91	0.53
2:AB:132:LYS:HA	2:AB:135:GLN:HB2	1.89	0.53
42:DT:26:ASP:C	42:DT:26:ASP:OD2	2.47	0.53
35:BI:29:TYR:HD2	35:BI:30:LEU:HD23	1.74	0.53
38:BP:120:ALA:HB1	38:BP:138:LEU:HD13	1.89	0.53
38:BP:56:SER:O	38:BP:58:THR:N	2.42	0.53
35:DI:81:VAL:HG23	35:DI:143:SER:N	2.24	0.53
35:BI:83:ALA:HB2	35:BI:88:ILE:HG23	1.91	0.53
27:BA:2313:C:C4'	33:BG:40:ASN:ND2	2.71	0.53
33:BG:56:ALA:HA	33:BG:59:GLU:HG2	1.90	0.53
10:CJ:50:ILE:HD12	10:CJ:60:ARG:NH1	2.24	0.53
27:DA:1041:C:H5'	27:DA:1042:G:OP2	2.09	0.53
48:DZ:98:TYR:CE2	48:DZ:124:LEU:HB2	2.44	0.53
48:DZ:70:VAL:HA	48:DZ:86:ASP:O	2.07	0.53
20:AT:31:SER:O	20:AT:35:THR:HB	2.09	0.53
55:D6:48:VAL:O	55:D6:49:HIS:HB2	2.09	0.53
38:DP:64:LYS:CB	57:D8:25:MET:HG3	2.38	0.53
27:DA:625:G:O6	38:DP:107:LYS:HD2	2.08	0.53
28:DB:55:U:H2'	28:DB:56:G:H8	1.67	0.53
33:DG:43:LEU:HD22	33:DG:43:LEU:N	2.21	0.53
13:AM:49:THR:HB	13:AM:52:GLU:CG	2.25	0.53
30:BD:136:ILE:O	30:BD:168:ARG:NH2	2.42	0.53
27:BA:1657:C:H2'	27:BA:1658:C:H6	1.73	0.53
1:CA:1445:C:C4	1:CA:1446:U:H5	2.23	0.53
1:AA:1053:G:C4'	1:AA:1054:C:H5'	2.39	0.53
3:AC:12:LEU:HD12	3:AC:18:TRP:CD1	2.44	0.53
32:DF:78:ILE:N	32:DF:78:ILE:HD13	2.09	0.53
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.44	0.53
47:DY:28:LYS:CB	47:DY:39:VAL:H	2.21	0.53
30:DD:110:GLY:O	30:DD:112:GLN:HG3	2.09	0.53
1:CA:253:U:H2'	1:CA:254:G:C8	2.43	0.53
41:BS:91:PRO:O	41:BS:93:LYS:N	2.42	0.53
1:AA:1305:G:O2'	1:AA:1306:A:C8	2.62	0.53
8:CH:132:GLU:O	8:CH:134:ILE:N	2.41	0.53
27:BA:1495:A:N3	27:BA:1496:A:H2	2.04	0.53
39:BQ:16:ARG:C	39:BQ:17:LEU:HD23	2.28	0.53
4:CD:150:GLU:CD	4:CD:150:GLU:N	2.62	0.53
27:BA:686:G:H5''	56:B7:11:LYS:HE2	1.91	0.53
40:DR:28:LEU:HA	40:DR:34:ILE:HG12	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2839:G:C5'	40:DR:46:GLY:HA2	2.38	0.53
30:DD:145:VAL:CG1	30:DD:146:GLU:N	2.72	0.53
42:BT:107:ASP:CG	42:BT:108:ARG:N	2.62	0.53
42:BT:106:SER:O	42:BT:107:ASP:HB3	2.09	0.53
1:CA:472:A:H2'	1:CA:473:G:O4'	2.09	0.53
3:AC:109:PRO:C	3:AC:111:LEU:H	2.12	0.53
3:AC:118:GLN:O	3:AC:122:GLU:HG3	2.08	0.53
1:AA:152:A:N7	1:AA:169:C:N4	2.56	0.53
27:DA:335:C:H2'	27:DA:336:C:C5	2.44	0.53
17:CQ:10:VAL:HG12	17:CQ:19:VAL:HB	1.91	0.53
15:CO:12:ILE:C	15:CO:14:GLU:H	2.12	0.53
35:DI:111:PRO:C	35:DI:112:LYS:HE2	2.28	0.53
7:AG:111:ARG:HD2	7:AG:123:GLU:HB2	1.90	0.53
30:DD:10:THR:HG23	30:DD:13:ARG:HB2	1.90	0.53
27:DA:1638:C:OP1	27:DA:2710:C:O2'	2.27	0.53
17:AQ:63:ARG:HG2	17:AQ:64:PRO:CD	2.39	0.53
27:BA:8:A:H2	27:BA:2896:C:N3	2.07	0.53
2:CB:39:ILE:HG22	2:CB:40:HIS:N	2.24	0.53
15:AO:17:ARG:NH1	15:AO:17:ARG:HG3	2.24	0.53
27:DA:769:G:H2'	27:DA:770:G:H8	1.73	0.53
1:CA:223:U:O2'	1:CA:224:C:H5'	2.08	0.53
57:D8:37:SER:C	57:D8:39:LYS:N	2.60	0.53
27:DA:1300:U:H1'	27:DA:1626:G:C2	2.43	0.53
1:AA:637:G:H2'	1:AA:638:G:H8	1.73	0.53
35:DI:4:ILE:HG12	35:DI:18:VAL:CG2	2.39	0.53
1:AA:161:A:O2'	1:AA:162:A:H5'	2.09	0.53
27:DA:1149:G:H2'	27:DA:1150:C:C6	2.44	0.53
45:BW:6:ILE:HG22	45:BW:8:ARG:HD3	1.91	0.53
27:DA:2736:G:O2'	27:DA:2737:G:H5'	2.09	0.53
27:DA:814:C:C5	38:DP:27:HIS:CE1	2.97	0.53
47:DY:81:LYS:HB3	47:DY:82:PRO:CD	2.39	0.53
8:CH:60:ARG:HH11	8:CH:60:ARG:HG3	1.74	0.53
27:BA:2803:C:H2'	27:BA:2804:C:C2	2.44	0.53
38:BP:77:ARG:HB2	38:BP:78:PRO:HD2	1.91	0.53
27:BA:946:G:O2'	27:BA:947:G:H5'	2.09	0.53
17:CQ:77:VAL:O	17:CQ:78:GLU:HB3	2.08	0.53
51:D2:3:LEU:O	51:D2:3:LEU:HD23	2.09	0.53
27:BA:1171:G:N3	27:BA:1171:G:H2'	2.23	0.53
2:CB:44:LEU:H	2:CB:44:LEU:HD12	1.73	0.53
42:DT:67:SER:O	42:DT:68:TYR:HB2	2.09	0.53
57:B8:53:PRO:HA	57:B8:56:GLU:HB2	1.90	0.53
38:BP:65:ARG:CD	57:B8:46:ARG:HH22	2.22	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:67:ILE:HG22	4:AD:68:TYR:H	1.72	0.53
10:CJ:61:GLU:OE1	14:CN:58:LYS:HE2	2.09	0.53
48:DZ:156:LEU:HB3	48:DZ:160:VAL:O	2.08	0.53
48:DZ:67:PRO:O	48:DZ:89:VAL:HA	2.09	0.53
27:DA:239:U:H1'	27:DA:259:G:N2	2.23	0.53
32:BF:34:TRP:CZ2	38:BP:12:ALA:HB2	2.44	0.53
27:DA:996:A:OP1	44:DV:10:LYS:HG2	2.09	0.53
38:DP:29:LYS:N	38:DP:29:LYS:HD2	2.23	0.53
28:DB:21:G:C4	28:DB:22:U:C6	2.97	0.53
13:AM:50:GLU:O	13:AM:54:VAL:HG23	2.09	0.53
31:DE:69:LYS:O	31:DE:70:ALA:C	2.46	0.53
27:BA:141:A:C8	27:BA:1408:C:O2'	2.44	0.53
9:AI:50:LEU:C	9:AI:53:VAL:HG22	2.30	0.53
2:AB:77:ALA:HB1	2:AB:211:ILE:HG21	1.91	0.53
27:DA:2823:A:OP1	31:DE:113:PHE:HB2	2.08	0.53
47:DY:27:VAL:HA	47:DY:28:LYS:HZ1	1.71	0.53
2:CB:208:ILE:O	2:CB:208:ILE:HG22	2.09	0.53
27:BA:2335:A:O2'	27:BA:2336:A:H5''	2.09	0.53
27:BA:2207:G:H2'	27:BA:2207:G:N3	2.24	0.53
43:BU:92:ARG:NH1	43:BU:92:ARG:CG	2.69	0.53
4:AD:105:VAL:HG21	4:AD:126:ILE:HG21	1.89	0.53
27:DA:2756:U:O5'	27:DA:2756:U:C6	2.61	0.53
12:AL:3:THR:CG2	12:AL:6:GLN:HG3	2.33	0.53
32:DF:29:ASN:HB2	32:DF:112:MET:CE	2.38	0.53
3:AC:97:LYS:HG2	3:AC:98:ASN:H	1.74	0.53
1:CA:13:U:O2'	1:CA:14:U:H5'	2.09	0.53
27:DA:195:A:OP1	38:DP:46:LYS:HE2	2.09	0.53
30:BD:7:LYS:HB3	30:BD:8:PRO:HD2	1.91	0.53
8:AH:137:VAL:HG12	8:AH:138:TRP:N	2.23	0.53
45:DW:10:VAL:O	45:DW:11:ARG:CB	2.52	0.53
34:BH:89:ILE:O	34:BH:161:GLY:O	2.27	0.53
33:DG:104:GLU:HG2	53:D4:50:THR:HG21	1.90	0.53
7:CG:69:VAL:HG22	7:CG:135:VAL:HA	1.91	0.53
20:AT:26:ASN:ND2	20:AT:26:ASN:H	2.06	0.53
29:DC:18:LYS:CD	29:DC:19:VAL:HG23	2.37	0.53
1:AA:1098:C:O4'	1:AA:1168:A:H2	1.91	0.53
31:BE:44:TYR:O	31:BE:45:THR:CB	2.56	0.53
1:CA:631:G:O2'	1:CA:632:A:C8	2.58	0.53
27:DA:559:G:O2'	27:DA:560:C:H5'	2.09	0.53
1:AA:1396:A:H4'	1:AA:1397:C:H5''	1.91	0.53
25:AY:23:G:H2'	25:AY:24:C:O4'	2.09	0.53
1:CA:736:C:H2'	1:CA:737:A:H8	1.74	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:62:ASP:HB2	48:DZ:64:GLN:HB2	1.90	0.53
32:BF:114:VAL:HG11	32:BF:202:PHE:CE2	2.44	0.53
4:CD:146:ILE:N	4:CD:146:ILE:CD1	2.72	0.53
35:BI:52:ARG:O	35:BI:54:GLN:N	2.42	0.53
13:AM:82:MET:O	13:AM:83:ASP:C	2.46	0.53
58:B9:22:ARG:HB2	58:B9:24:TYR:CE1	2.42	0.53
16:AP:74:LEU:N	16:AP:74:LEU:HD12	2.25	0.53
20:CT:73:HIS:O	20:CT:74:LYS:C	2.47	0.53
27:BA:1345:C:C2'	27:BA:1346:G:H5'	2.39	0.53
41:BS:41:ASP:OD2	41:BS:44:LYS:HB3	2.09	0.53
36:BN:1:MET:HE2	36:BN:2:LYS:N	2.24	0.53
27:BA:41:C:H2'	27:BA:42:G:O4'	2.09	0.53
20:CT:97:ALA:C	20:CT:99:LEU:H	2.12	0.53
17:CQ:77:VAL:O	17:CQ:78:GLU:CB	2.57	0.53
5:CE:7:GLU:HB3	5:CE:112:LEU:HD13	1.91	0.53
8:CH:53:VAL:O	8:CH:56:LYS:HB2	2.09	0.53
27:DA:1357:U:H2'	27:DA:1358:G:C8	2.44	0.53
27:DA:377:C:H2'	27:DA:378:C:C6	2.44	0.53
27:BA:1326:U:H2'	27:BA:1327:C:C6	2.44	0.53
25:AY:20:A:N6	25:AY:45:U:H1'	2.24	0.53
1:CA:853:G:O2'	1:CA:854:G:H5'	2.09	0.53
39:DQ:57:HIS:ND1	39:DQ:57:HIS:O	2.40	0.53
27:DA:1221:C:O2'	27:DA:1221(A):C:H5'	2.09	0.53
38:BP:61:ARG:HH11	57:B8:13:ARG:CD	2.22	0.52
44:DV:21:ARG:HG2	44:DV:91:TYR:CE2	2.44	0.52
35:BI:130:TYR:HB3	35:BI:136:VAL:HG12	1.90	0.52
1:CA:1190:G:H3'	3:CC:3:ASN:HD21	1.73	0.52
42:DT:16:ARG:O	42:DT:17:THR:HB	2.08	0.52
43:DU:90:VAL:CG1	44:DV:11:GLN:HE22	2.21	0.52
33:DG:72:ARG:CZ	33:DG:86:MET:HG3	2.39	0.52
17:AQ:66:SER:O	17:AQ:67:LYS:C	2.48	0.52
9:CI:4:TYR:HB2	9:CI:19:LEU:HG	1.90	0.52
27:BA:908:C:O2'	27:BA:909:A:H5'	2.09	0.52
45:DW:15:ARG:HA	45:DW:18:ARG:HD2	1.90	0.52
9:AI:10:ARG:HG2	9:AI:104:ARG:O	2.08	0.52
42:BT:8:LYS:O	42:BT:11:GLU:HB2	2.09	0.52
27:DA:1653:G:O2'	27:DA:1654:A:OP2	2.21	0.52
40:DR:2:ARG:HH21	40:DR:5:LYS:NZ	2.07	0.52
30:BD:26:LYS:HD2	30:BD:81:ALA:CA	2.39	0.52
18:AR:56:THR:CB	18:AR:58:LEU:HD13	2.39	0.52
7:CG:20:ASP:HB3	7:CG:23:VAL:CG2	2.36	0.52
27:DA:2750:A:O2'	27:DA:2752:C:H5	1.90	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:46:LYS:O	2:CB:50:GLU:HG2	2.09	0.52
10:AJ:5:ARG:HA	10:AJ:73:ASP:OD1	2.08	0.52
42:DT:104:ASN:C	42:DT:106:SER:H	2.10	0.52
39:DQ:43:THR:CB	39:DQ:45:GLN:HG2	2.36	0.52
12:AL:21:VAL:CG2	12:AL:23:ALA:HB2	2.39	0.52
45:DW:82:LEU:HD22	45:DW:84:ARG:NH1	2.22	0.52
34:BH:126:PRO:O	34:BH:127:GLU:CB	2.57	0.52
27:DA:914:C:H2'	27:DA:915:C:C5'	2.37	0.52
27:DA:2523:G:H5'	27:DA:2523:G:C8	2.41	0.52
48:BZ:156:LEU:H	48:BZ:156:LEU:CD1	2.20	0.52
35:DI:116:LEU:HD12	35:DI:117:GLU:N	2.24	0.52
30:DD:13:ARG:HD2	30:DD:16:MET:CE	2.39	0.52
27:DA:1709:U:H2'	27:DA:1710:C:C6	2.44	0.52
1:CA:628:G:O2'	1:CA:629:G:H5'	2.08	0.52
7:CG:113:GLU:HB2	7:CG:119:ARG:CD	2.38	0.52
27:DA:186:G:O2'	27:DA:187:G:H5'	2.08	0.52
1:CA:137:C:N4	1:CA:226:G:H1	2.07	0.52
12:CL:117:TYR:CD1	12:CL:117:TYR:N	2.76	0.52
38:DP:115:LEU:HD23	38:DP:115:LEU:N	2.24	0.52
39:DQ:42:ILE:HG22	39:DQ:47:ILE:HG13	1.91	0.52
37:DO:64:ARG:HD3	37:DO:79:PHE:CD2	2.44	0.52
4:CD:119:GLN:CG	4:CD:123:HIS:CD2	2.92	0.52
27:DA:2317:C:C2'	27:DA:2318:G:H5'	2.39	0.52
27:DA:1441:G:H2'	27:DA:1442:G:C8	2.43	0.52
27:BA:1816:G:N1	30:BD:37:LEU:HD12	2.25	0.52
25:CY:41:G:C2	25:CY:42:G:H1'	2.45	0.52
7:CG:60:LYS:HZ3	7:CG:63:LYS:HB3	1.74	0.52
43:DU:17:ILE:HG23	43:DU:39:LEU:CD1	2.39	0.52
27:BA:843:G:C2'	27:BA:844:C:H5'	2.39	0.52
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.44	0.52
1:AA:370:C:O2'	1:AA:371:G:H5'	2.09	0.52
11:AK:41:THR:HG21	11:AK:71:LYS:CB	2.38	0.52
1:CA:678:U:H2'	1:CA:679:C:C6	2.44	0.52
27:DA:818:G:N1	27:DA:1188:U:OP2	2.38	0.52
30:BD:198:ASN:ND2	30:BD:198:ASN:O	2.42	0.52
30:BD:69:ARG:NH1	30:BD:128:GLY:O	2.38	0.52
1:CA:142:G:H2'	1:CA:143:A:H8	1.73	0.52
27:BA:2359:C:H2'	27:BA:2360:A:O4'	2.09	0.52
3:CC:181:ASN:HD22	3:CC:204:LEU:HB2	1.71	0.52
39:DQ:141:GLN:OXT	48:DZ:98:TYR:N	2.33	0.52
55:D6:26:ASN:O	55:D6:27:LYS:HD3	2.09	0.52
27:BA:1142(A):A:H8	27:BA:1142(A):A:H5'	1.75	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DE:134:ILE:HG12	31:DE:134:ILE:O	2.09	0.52
41:DS:101:LEU:HD22	41:DS:102:ALA:C	2.29	0.52
38:BP:9:ASN:O	38:BP:10:PRO:C	2.44	0.52
28:DB:21:G:H1	28:DB:62:C:H42	1.57	0.52
33:DG:161:THR:CG2	33:DG:162:THR:N	2.71	0.52
48:DZ:75:LEU:N	48:DZ:75:LEU:HD13	2.23	0.52
18:CR:53:ARG:NH2	18:CR:60:ALA:N	2.54	0.52
17:AQ:3:LYS:HD3	17:AQ:60:ILE:HD11	1.91	0.52
3:AC:164:ARG:CB	3:AC:164:ARG:NH1	2.71	0.52
32:DF:160:ASN:OD1	32:DF:163:VAL:HG23	2.09	0.52
27:BA:1408:C:H2'	27:BA:1409:C:C6	2.44	0.52
5:CE:101:ILE:HD13	5:CE:118:ILE:O	2.08	0.52
11:CK:48:ILE:HG22	11:CK:49:GLY:H	1.74	0.52
12:CL:24:LEU:HD22	12:CL:24:LEU:N	2.24	0.52
27:DA:272(B):G:H2'	27:DA:272(C):G:C8	2.37	0.52
27:DA:355:G:H2'	27:DA:356:G:C5'	2.36	0.52
40:DR:28:LEU:CD2	40:DR:114:VAL:HG12	2.40	0.52
3:AC:36:ASP:HA	3:AC:39:ILE:HD12	1.90	0.52
2:CB:194:PRO:O	2:CB:195:ASP:C	2.48	0.52
36:BN:55:VAL:CG2	36:BN:126:PRO:HA	2.38	0.52
1:AA:1508:G:O2'	1:AA:1509:C:H5'	2.08	0.52
2:AB:155:LEU:HD21	2:AB:157:ARG:O	2.09	0.52
1:AA:584:G:H2'	1:AA:585:G:C8	2.45	0.52
12:AL:83:ARG:HH21	12:AL:96:HIS:CB	2.22	0.52
46:BX:12:VAL:CG2	46:BX:17:ALA:HB1	2.39	0.52
11:CK:80:VAL:HG22	11:CK:103:LEU:HD12	1.91	0.52
11:CK:106:LYS:O	11:CK:107:SER:CB	2.57	0.52
3:AC:113:ALA:HB3	3:AC:183:ASP:OD2	2.09	0.52
1:AA:152:A:H3'	1:AA:153:C:C6	2.45	0.52
41:DS:96:GLY:O	41:DS:98:VAL:N	2.39	0.52
36:BN:87:LEU:O	36:BN:91:LEU:HD12	2.08	0.52
1:AA:538:G:OP1	12:AL:110:ARG:HD2	2.09	0.52
43:DU:45:TYR:O	43:DU:47:TYR:N	2.42	0.52
1:AA:1309:G:O2'	1:AA:1310:G:H5'	2.09	0.52
36:DN:3:THR:O	36:DN:5:VAL:N	2.42	0.52
43:DU:15:LYS:HG2	43:DU:19:LYS:HE2	1.90	0.52
27:BA:859:G:H5'	27:BA:2268:A:O2'	2.09	0.52
5:CE:72:GLN:O	5:CE:73:ASN:HB3	2.09	0.52
34:BH:68:THR:O	34:BH:70:THR:N	2.42	0.52
57:D8:37:SER:OG	57:D8:39:LYS:HB3	2.09	0.52
11:AK:48:ILE:HD13	11:AK:48:ILE:N	2.24	0.52
27:DA:2165:G:H2'	27:DA:2166:G:C8	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:429:U:H1'	1:CA:430:A:H5''	1.91	0.52
36:DN:32:THR:HG23	36:DN:37:LYS:HD3	1.92	0.52
27:DA:1388:G:O2'	27:DA:1389:G:H5'	2.08	0.52
16:CP:26:ARG:NH1	16:CP:26:ARG:HG2	2.24	0.52
8:CH:53:VAL:O	8:CH:54:ASP:HB2	2.09	0.52
1:CA:245:C:H2'	1:CA:246:A:H5'	1.90	0.52
2:CB:92:TYR:OH	2:CB:150:SER:HB3	2.09	0.52
1:AA:582:U:H2'	1:AA:583:A:H8	1.75	0.52
31:BE:173:VAL:O	31:BE:174:ASP:O	2.26	0.52
27:DA:2111:C:O4'	27:DA:2118:U:H1'	2.09	0.52
27:DA:828:U:H4'	27:DA:831:G:N1	2.24	0.52
27:BA:1773:A:H2'	27:BA:1774:C:O4'	2.10	0.52
27:DA:1833:U:O2'	27:DA:1969:A:N1	2.33	0.52
23:AW:3:G:O2'	23:AW:4:G:H5'	2.10	0.52
48:BZ:7:TYR:HB2	48:BZ:37:TYR:CE2	2.44	0.52
55:B6:20:ASN:HD22	55:B6:21:TYR:N	1.98	0.52
57:B8:17:THR:O	57:B8:19:SER:N	2.42	0.52
38:BP:105:LEU:H	38:BP:105:LEU:HD23	1.74	0.52
35:DI:57:ARG:O	35:DI:61:ARG:HD2	2.09	0.52
47:BY:15:VAL:CG2	47:BY:72:VAL:HG12	2.36	0.52
47:BY:97:ARG:NE	47:BY:98:VAL:HG23	2.25	0.52
44:DV:21:ARG:O	44:DV:22:VAL:HG13	2.09	0.52
27:BA:2308:G:H2'	27:BA:2309:A:C8	2.44	0.52
20:AT:84:LEU:C	20:AT:86:ARG:H	2.13	0.52
51:D2:63:VAL:HA	51:D2:66:GLU:OE2	2.08	0.52
55:D6:12:GLU:CB	55:D6:23:THR:HA	2.39	0.52
41:BS:105:ALA:C	41:BS:107:GLU:N	2.60	0.52
1:CA:522:C:H2'	1:CA:523:A:O4'	2.09	0.52
34:BH:41:MET:CE	34:BH:54:ARG:HA	2.38	0.52
40:DR:48:VAL:HA	40:DR:51:LEU:HD12	1.91	0.52
40:DR:77:ARG:C	40:DR:79:LEU:N	2.62	0.52
27:BA:66:C:N3	27:BA:89:G:C6	2.77	0.52
33:DG:152:LEU:HG	33:DG:153:ARG:H	1.74	0.52
36:DN:55:VAL:HG13	36:DN:126:PRO:HB3	1.90	0.52
42:DT:82:LEU:O	42:DT:83:ILE:O	2.27	0.52
31:DE:201:THR:OG1	31:DE:202:LYS:N	2.42	0.52
27:DA:2758:A:H3'	27:DA:2758:A:OP2	2.10	0.52
31:DE:61:ARG:HB3	31:DE:62:PRO:CD	2.39	0.52
3:AC:5:ILE:HD13	3:AC:6:HIS:N	2.24	0.52
47:DY:18:GLY:O	47:DY:20:TYR:N	2.42	0.52
48:BZ:103:PHE:HB3	48:BZ:140:VAL:CG1	2.37	0.52
24:AX:3:C:C3'	24:AX:4:G:H5''	2.39	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BR:2:ARG:O	40:BR:3:HIS:C	2.47	0.52
5:AE:71:LEU:HD21	5:AE:115:VAL:HG22	1.91	0.52
41:BS:57:LYS:CD	41:BS:58:LEU:H	2.14	0.52
1:CA:64:G:C2	1:CA:68:G:O6	2.62	0.52
19:AS:24:ALA:O	19:AS:25:LYS:HB2	2.10	0.52
27:DA:251:A:H2'	27:DA:252:G:O4'	2.09	0.52
30:DD:145:VAL:HG22	30:DD:191:ALA:CB	2.38	0.52
35:BI:75:LEU:HD11	35:BI:105:HIS:CE1	2.44	0.52
45:DW:51:LEU:O	45:DW:51:LEU:HD13	2.10	0.52
39:DQ:31:ASP:HB3	39:DQ:134:ARG:HH11	1.73	0.52
1:CA:1005:A:H61	1:CA:1025:U:H5'	1.75	0.52
1:AA:1207:G:H2'	1:AA:1208:C:C6	2.44	0.52
25:CY:56:G:H2'	25:CY:57:A:H5'	1.91	0.52
47:DY:46:LYS:HD3	47:DY:62:GLU:CG	2.37	0.52
11:CK:92:GLU:HB3	11:CK:93:GLN:HE22	1.73	0.52
27:BA:1594:G:C5'	27:BA:1594:G:C8	2.90	0.52
30:BD:118:VAL:O	30:BD:129:ASN:HA	2.10	0.52
16:AP:21:VAL:O	16:AP:33:ILE:HG12	2.10	0.52
17:CQ:83:ASP:CG	17:CQ:84:LEU:H	2.13	0.52
2:AB:109:SER:C	2:AB:111:ARG:H	2.12	0.52
29:BC:27:ARG:O	29:BC:27:ARG:HG3	2.08	0.52
39:DQ:58:PHE:O	39:DQ:61:GLY:N	2.43	0.52
27:BA:1854:A:H5'	27:BA:1855:G:OP2	2.09	0.52
1:CA:1349:A:H2'	1:CA:1350:A:C8	2.44	0.52
27:BA:2012:G:O2'	45:BW:96:ILE:HD11	2.09	0.52
27:DA:570:G:H2'	27:DA:2030:A:C6	2.44	0.52
1:AA:1398:A:H8	1:AA:1398:A:H5'	1.75	0.52
1:CA:44:G:H2'	1:CA:45:U:O4'	2.08	0.52
52:D3:46:ASN:O	52:D3:49:LYS:N	2.42	0.52
27:BA:2648:C:H2'	27:BA:2649:U:C6	2.44	0.52
34:BH:18:GLU:O	34:BH:24:VAL:HA	2.09	0.52
46:BX:57:LEU:HD12	46:BX:57:LEU:N	2.25	0.52
27:DA:1161:C:H2'	27:DA:1162:G:C8	2.45	0.52
27:BA:2373:G:H2'	27:BA:2374:C:C6	2.43	0.52
1:CA:1161:C:H42	1:CA:1175:G:H1	1.56	0.52
27:DA:1817:G:H2'	27:DA:1818:U:H5'	1.91	0.52
36:BN:19:GLU:HG3	36:BN:20:GLY:N	2.24	0.52
2:AB:83:MET:O	2:AB:86:GLU:N	2.42	0.52
27:DA:1656:C:H42	27:DA:2004:G:H1	1.55	0.52
8:CH:6:ILE:HD12	8:CH:6:ILE:N	2.23	0.52
35:BI:73:GLU:HG2	35:BI:73:GLU:O	2.10	0.52
42:DT:7:ILE:O	42:DT:10:VAL:HB	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:45:GLU:HG3	33:BG:51:ARG:HH12	1.74	0.52
27:DA:2420:C:O5'	27:DA:2420:C:H6	1.92	0.52
33:DG:56:ALA:O	33:DG:60:LEU:HB2	2.08	0.52
36:DN:57:ALA:O	36:DN:58:ASP:O	2.27	0.52
39:DQ:130:LYS:HZ2	48:DZ:79:ARG:HD3	1.74	0.52
27:BA:2276:G:C2	27:BA:2277:G:N7	2.78	0.52
53:D4:61:VAL:O	53:D4:61:VAL:HG12	2.09	0.52
17:AQ:18:THR:HG22	17:AQ:19:VAL:N	2.24	0.52
31:DE:199:ARG:HH11	31:DE:199:ARG:HB3	1.75	0.52
31:DE:48:GLN:HE21	31:DE:78:LEU:HD13	1.74	0.52
1:AA:1139:G:N2	1:AA:1143:G:C2	2.78	0.52
2:AB:84:GLU:OE1	2:AB:216:SER:HA	2.10	0.52
32:DF:17:ARG:O	32:DF:18:ARG:HB2	2.08	0.52
32:DF:23:ASP:CG	32:DF:24:LEU:N	2.62	0.52
32:BF:17:ARG:HG3	32:BF:17:ARG:NH1	2.23	0.52
12:CL:57:LEU:HD21	12:CL:63:VAL:HG22	1.91	0.52
3:AC:103:VAL:HG12	3:AC:103:VAL:O	2.08	0.52
24:AX:65:C:C2'	24:AX:66:C:H5'	2.40	0.52
1:CA:1227:A:H2'	1:CA:1228:C:O5'	2.09	0.52
1:AA:574:A:H1'	1:AA:883:C:H1'	1.91	0.52
27:DA:873:G:C2'	27:DA:874:G:C5'	2.88	0.52
19:AS:41:VAL:O	19:AS:44:MET:HB2	2.10	0.52
19:AS:42:PRO:HD3	53:B4:80:ARG:HH22	1.74	0.52
1:CA:15:G:H2'	1:CA:16:A:C8	2.45	0.52
36:BN:133:GLN:CG	36:BN:134:ARG:N	2.67	0.52
2:CB:141:GLU:O	2:CB:143:GLU:N	2.42	0.52
27:BA:2491:U:H5'	27:BA:2570:G:H5''	1.92	0.52
27:BA:524:U:H4'	27:BA:555:U:H4'	1.91	0.52
12:AL:65:ALA:CB	12:AL:97:ILE:HG13	2.39	0.52
1:AA:741:G:H2'	1:AA:742:G:O4'	2.10	0.52
3:AC:157:ILE:CD1	3:AC:166:GLU:HB2	2.40	0.52
1:CA:502:G:H2'	1:CA:503:C:O4'	2.10	0.52
30:DD:13:ARG:HA	30:DD:16:MET:HE3	1.90	0.52
18:AR:76:LEU:HD22	18:AR:76:LEU:N	2.25	0.52
18:AR:82:THR:HG22	18:AR:83:GLU:H	1.75	0.52
44:DV:89:GLN:OE1	44:DV:90:PRO:HD2	2.09	0.52
27:DA:2776:A:O2'	27:DA:2777:G:OP2	2.23	0.52
44:BV:21:ARG:HB3	44:BV:91:TYR:HB2	1.91	0.52
35:DI:47:LEU:HD23	35:DI:48:GLU:N	2.24	0.52
8:CH:12:ARG:NH1	8:CH:26:VAL:HA	2.23	0.52
27:BA:97:C:H5''	51:B2:2:LYS:CB	2.39	0.52
41:BS:49:VAL:CG2	41:BS:80:LEU:HD22	2.40	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DX:8:ILE:HD11	46:DX:43:VAL:HA	1.91	0.52
27:DA:869:G:O2'	27:DA:870:A:H5'	2.09	0.52
1:AA:832:C:O2'	1:AA:833:U:H5'	2.08	0.52
1:CA:1360:A:H2'	1:CA:1361:G:O4'	2.09	0.52
27:DA:231:C:O2'	27:DA:232:G:H5'	2.10	0.52
43:DU:72:HIS:CE1	43:DU:107:ALA:HB2	2.45	0.52
1:AA:753:A:H4'	1:AA:754:C:C5'	2.39	0.52
1:AA:132:C:O2'	1:AA:133:U:H5'	2.09	0.52
15:AO:46:HIS:O	15:AO:48:LYS:N	2.42	0.52
15:AO:65:ARG:HB2	15:AO:65:ARG:HH11	1.73	0.52
27:BA:2584:U:O5'	27:BA:2584:U:H6	1.92	0.52
4:CD:65:ARG:NH1	4:CD:72:GLU:N	2.57	0.52
1:AA:721:G:H4'	1:AA:722:A:O5'	2.10	0.52
55:B6:20:ASN:O	55:B6:21:TYR:CD1	2.61	0.52
47:BY:81:LYS:NZ	47:BY:98:VAL:CG2	2.72	0.52
40:BR:33:ARG:NE	40:BR:115:GLU:OE2	2.41	0.52
10:CJ:20:ALA:C	10:CJ:22:LYS:H	2.13	0.52
27:DA:1794:U:H2'	27:DA:1795:C:H6	1.74	0.52
27:DA:1797:C:O2'	30:DD:259:THR:HG23	2.09	0.52
41:DS:99:LYS:O	41:DS:101:LEU:HD12	2.10	0.52
13:CM:41:PRO:O	13:CM:43:THR:N	2.43	0.52
23:AW:14:A:H2'	23:AW:15:G:O4'	2.10	0.52
36:DN:66:LYS:O	36:DN:87:LEU:HD12	2.08	0.52
13:AM:4:ILE:HA	13:AM:57:ARG:HG3	1.90	0.52
44:BV:5:VAL:HG22	44:BV:6:LYS:N	2.24	0.52
9:AI:84:ALA:O	9:AI:87:GLN:N	2.39	0.52
31:BE:60:ASN:O	31:BE:63:LEU:CB	2.57	0.52
27:DA:2821:A:O2'	27:DA:2822:G:H5'	2.09	0.52
27:DA:2872:G:C4	27:DA:2873:A:N7	2.78	0.52
27:BA:1698:A:C8	27:BA:1700:A:H5''	2.45	0.52
27:BA:1505:C:C2'	27:BA:1506:C:H6	2.17	0.52
34:BH:44:VAL:N	34:BH:46:GLU:OE2	2.39	0.52
3:AC:149:ALA:HA	3:AC:201:TYR:O	2.10	0.52
39:BQ:137:TYR:HH	48:BZ:80:ARG:HD3	1.70	0.52
32:BF:124:LEU:O	32:BF:193:VAL:HA	2.09	0.52
50:B1:91:LYS:HA	50:B1:94:LEU:HD12	1.92	0.52
2:AB:69:LEU:HD13	2:AB:91:PRO:CB	2.39	0.52
27:BA:2071:A:C2	27:BA:2441:C:N3	2.78	0.52
35:BI:75:LEU:HD21	35:BI:105:HIS:NE2	2.25	0.52
39:DQ:62:GLY:HA3	39:DQ:107:ALA:O	2.10	0.52
4:CD:7:PRO:HB2	4:CD:10:ARG:HD2	1.91	0.52
1:CA:1326:C:H2'	1:CA:1327:C:C6	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:AR:53:ARG:HA	18:AR:63:GLN:NE2	2.25	0.52
27:DA:796:C:H2'	27:DA:797:C:H6	1.70	0.52
27:DA:363(B):G:H2'	27:DA:363(C):G:C8	2.45	0.52
5:AE:150:ARG:HG3	5:AE:150:ARG:HH11	1.74	0.52
7:AG:143:ARG:HH11	7:AG:143:ARG:CB	2.21	0.52
27:DA:2221:G:H2'	27:DA:2222:G:H5''	1.90	0.52
39:DQ:42:ILE:CG2	39:DQ:47:ILE:HG13	2.40	0.52
27:DA:744:G:OP1	31:DE:132:HIS:HB3	2.10	0.52
27:BA:710:G:O2'	27:BA:711:G:H5'	2.09	0.52
24:AX:47:U:H3'	24:AX:48:C:H5''	1.92	0.52
36:DN:42:TRP:HA	36:DN:42:TRP:CE3	2.45	0.52
27:BA:1448:G:H1'	27:BA:1528:A:N6	2.24	0.52
1:AA:1392:G:O2'	1:AA:1393:U:H5'	2.09	0.52
1:CA:1211:U:H4'	1:CA:1212:U:OP1	2.10	0.52
29:BC:147:PHE:O	29:BC:148:ASN:CB	2.58	0.52
1:CA:702:A:H3'	1:CA:703:G:H5'	1.90	0.52
27:BA:78:A:H2'	27:BA:79:G:H8	1.74	0.52
27:DA:370:G:H4'	27:DA:371:A:OP2	2.10	0.52
27:BA:1230:C:H2'	27:BA:1231:G:C8	2.45	0.52
1:CA:665:A:H1'	1:CA:733:A:O4'	2.09	0.52
27:BA:2523:G:H5'	27:BA:2523:G:H8	1.74	0.52
48:DZ:95:VAL:CG1	48:DZ:96:GLU:H	2.20	0.52
48:DZ:9:ARG:HB3	48:DZ:9:ARG:HH11	1.74	0.52
20:AT:53:LEU:O	20:AT:54:LYS:C	2.48	0.52
42:DT:28:VAL:HG22	42:DT:47:GLY:N	2.24	0.52
27:DA:995:C:C4	36:DN:1:MET:HG3	2.45	0.52
33:DG:125:PHE:HA	33:DG:131:TYR:HA	1.92	0.52
33:DG:59:GLU:OE2	33:DG:149:VAL:HG12	2.09	0.52
33:DG:72:ARG:HB3	33:DG:85:GLY:O	2.09	0.52
13:CM:3:ARG:CB	53:D4:60:GLU:HG2	2.23	0.52
3:AC:164:ARG:CB	3:AC:164:ARG:HH11	2.22	0.52
9:AI:114:TYR:CD1	10:AJ:60:ARG:HG2	2.45	0.52
1:AA:973:G:C1'	10:AJ:55:LYS:HZ3	2.21	0.52
23:AW:40:C:H2'	23:AW:41:G:H8	1.75	0.52
27:DA:320:A:H4'	27:DA:322:A:C8	2.44	0.52
2:AB:217:ARG:HA	2:AB:220:ASP:OD2	2.09	0.52
29:DC:68:LEU:CD1	29:DC:179:SER:HA	2.39	0.52
5:AE:126:ARG:NH1	5:AE:126:ARG:CG	2.66	0.52
27:DA:2873:A:H5''	27:DA:2874:C:OP2	2.09	0.52
44:BV:39:LEU:CA	44:BV:47:VAL:CG1	2.87	0.52
8:CH:7:ALA:HB2	8:CH:85:ARG:HH11	1.75	0.52
34:BH:85:LYS:HD3	34:BH:133:VAL:CB	2.37	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:137:TYR:OH	48:BZ:80:ARG:CD	2.52	0.52
27:DA:514:A:O2'	27:DA:515:A:H5'	2.09	0.52
38:DP:16:ARG:CB	38:DP:16:ARG:HH11	2.23	0.52
40:BR:64:ARG:HA	40:BR:67:LEU:HD22	1.91	0.52
31:BE:119:ARG:CD	31:BE:160:TYR:HB2	2.34	0.52
27:BA:111:A:H5''	51:B2:69:ARG:NH1	2.18	0.52
4:CD:9:CYS:HA	4:CD:12:CYS:HB2	1.92	0.52
27:BA:1952:A:C5	37:BO:22:ILE:HD12	2.44	0.52
27:BA:2466:C:O2'	27:BA:2467:C:H5'	2.09	0.52
27:BA:70:G:N2	27:BA:114:U:N3	2.58	0.52
27:BA:1743:C:H2'	27:BA:1744:C:O4'	2.10	0.52
35:DI:94:ALA:O	35:DI:96:ASP:N	2.43	0.52
27:DA:2309:A:H2	27:DA:2310:A:H2	1.56	0.52
27:DA:1494:A:C2'	27:DA:1495:A:H5''	2.40	0.52
1:AA:484:G:H4'	1:AA:485:G:O5'	2.10	0.52
37:BO:115:VAL:HG13	37:BO:121:VAL:HG21	1.90	0.52
29:BC:47:LEU:HD23	29:BC:47:LEU:N	2.24	0.52
27:DA:1629:U:O2	27:DA:2698:U:H5''	2.10	0.52
27:DA:1756:G:H4'	27:DA:1758:G:O4'	2.08	0.52
58:B9:25:VAL:C	58:B9:26:ILE:HD12	2.29	0.52
8:AH:63:LEU:H	8:AH:63:LEU:HD22	1.75	0.52
1:CA:334:C:O2'	1:CA:335:C:H5'	2.09	0.52
2:AB:178:ARG:CB	2:AB:178:ARG:HH11	2.22	0.52
48:DZ:175:PRO:CB	48:DZ:176:PRO:HD2	2.39	0.52
32:BF:202:PHE:CE1	32:BF:206:ILE:HD11	2.45	0.52
29:BC:39:GLU:HG2	29:BC:180:PHE:CB	2.39	0.52
10:CJ:84:GLN:O	10:CJ:88:LEU:HB3	2.09	0.52
1:AA:59:A:N3	1:AA:59:A:H2'	2.23	0.52
1:AA:59:A:C5'	1:AA:60:A:H5''	2.40	0.52
27:BA:2536:G:C6	27:BA:2537:U:C4	2.97	0.52
16:AP:68:ASP:C	16:AP:70:ALA:N	2.63	0.52
27:DA:107:C:H2'	27:DA:108:U:C6	2.44	0.52
3:AC:25:GLY:O	3:AC:28:GLN:O	2.28	0.52
32:DF:53:THR:HG22	32:DF:56:GLU:OE2	2.09	0.52
3:CC:23:TYR:CB	10:CJ:10:GLY:HA2	2.40	0.52
34:DH:158:HIS:CD2	34:DH:170:ARG:HA	2.45	0.52
15:CO:46:HIS:C	15:CO:48:LYS:H	2.13	0.52
32:BF:164:ARG:HG3	32:BF:175:THR:HG23	1.92	0.52
6:CF:1:MET:HB3	6:CF:67:MET:O	2.10	0.52
20:CT:44:ALA:HA	20:CT:92:LEU:HD21	1.92	0.52
57:D8:2:PRO:O	57:D8:3:LYS:C	2.48	0.52
5:CE:145:LYS:HA	8:CH:107:LEU:CD2	2.40	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:9:VAL:O	7:AG:10:ARG:C	2.48	0.52
27:BA:69:C:H2'	27:BA:73:A:O2'	2.09	0.52
39:DQ:139:GLU:HA	39:DQ:139:GLU:OE2	2.08	0.52
27:DA:2519:U:OP1	27:DA:2519:U:H3'	2.10	0.52
27:DA:2852:G:O5'	27:DA:2852:G:H8	1.92	0.52
3:AC:79:ARG:O	3:AC:79:ARG:HG3	2.10	0.52
31:DE:173:VAL:O	31:DE:174:ASP:C	2.48	0.52
29:BC:87:GLU:O	29:BC:92:ASP:HA	2.09	0.52
37:BO:3:GLN:O	37:BO:4:PRO:C	2.48	0.52
27:BA:990:A:N6	27:BA:1186:G:H1'	2.24	0.52
38:BP:89:ALA:O	38:BP:91:PHE:N	2.43	0.52
47:BY:95:LYS:CE	47:BY:99:CYS:O	2.54	0.52
42:BT:28:VAL:O	42:BT:29:ARG:HB2	2.10	0.52
35:BI:114:LEU:O	35:BI:115:ALA:HB3	2.09	0.52
31:DE:27:LEU:HD21	42:DT:1:MET:HB2	1.91	0.52
34:BH:54:ARG:NH2	34:BH:62:LYS:HG2	2.24	0.52
10:CJ:8:LEU:HB3	10:CJ:16:LEU:HD21	1.91	0.52
41:DS:67:ARG:HH12	41:DS:100:ALA:CB	2.07	0.52
27:BA:659:C:H1'	32:BF:102:PRO:HD3	1.92	0.52
27:BA:1499:C:C2'	27:BA:1500:G:H5'	2.40	0.52
27:BA:2277:G:C2'	27:BA:2278:A:H5'	2.40	0.52
17:AQ:67:LYS:HA	17:AQ:70:ARG:NH1	2.25	0.52
37:DO:104:ARG:CZ	37:DO:104:ARG:HB3	2.40	0.52
9:CI:27:THR:CG2	9:CI:30:GLY:HA2	2.40	0.52
19:CS:6:LYS:HG2	19:CS:7:LYS:CE	2.40	0.52
30:BD:132:PRO:HD3	30:BD:190:TYR:CE2	2.45	0.52
48:BZ:43:PHE:C	48:BZ:43:PHE:CD1	2.83	0.52
1:AA:973:G:O4'	10:AJ:55:LYS:HB3	2.10	0.52
31:BE:79:ARG:N	31:BE:79:ARG:HD2	2.21	0.52
37:DO:67:LYS:O	37:DO:69:ILE:HD12	2.09	0.52
47:DY:75:ILE:HA	47:DY:80:GLY:CA	2.38	0.52
47:DY:77:PRO:O	47:DY:78:ALA:CB	2.58	0.52
3:CC:70:VAL:C	3:CC:106:VAL:HG23	2.30	0.52
20:CT:89:ARG:HB2	20:CT:104:LEU:CD1	2.39	0.52
43:BU:92:ARG:C	43:BU:94:ASN:N	2.53	0.52
49:B0:40:GLN:HG3	49:B0:42:GLY:O	2.10	0.52
1:CA:68:G:H3'	1:CA:68:G:C8	2.45	0.52
1:CA:69:G:H2'	1:CA:70:G:C8	2.44	0.52
8:AH:60:ARG:CG	8:AH:60:ARG:NH1	2.70	0.52
36:DN:104:LYS:C	36:DN:106:MET:H	2.12	0.52
3:CC:182:ILE:HG23	3:CC:202:ILE:C	2.30	0.52
5:AE:67:VAL:HG13	5:AE:69:VAL:HG22	1.92	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:158:LEU:HD23	2:AB:180:LEU:HD13	1.91	0.52
50:D1:3:LYS:HG3	50:D1:4:VAL:N	2.17	0.52
27:BA:2844:G:C6	27:BA:2845:G:C4	2.98	0.52
15:CO:24:SER:H	15:CO:28:GLN:HE21	1.56	0.52
41:DS:80:LEU:HD12	41:DS:80:LEU:H	1.75	0.52
12:AL:24:LEU:HB2	12:AL:30:ARG:HD2	1.92	0.52
12:AL:88:LYS:HG3	12:AL:89:ASP:N	2.25	0.52
1:AA:516:U:O4	1:AA:533:A:OP2	2.28	0.52
3:CC:52:LEU:HD23	3:CC:52:LEU:N	2.25	0.52
52:B3:8:LEU:HG	52:B3:23:LEU:CD2	2.40	0.52
20:AT:18:GLN:O	20:AT:19:SER:C	2.47	0.52
27:BA:2681:C:H5	27:BA:2725:A:N6	2.07	0.52
50:D1:66:HIS:C	50:D1:68:PRO:HD2	2.30	0.52
27:BA:1047:G:C8	27:BA:1110:G:C6	2.98	0.52
30:BD:267:SER:C	30:BD:269:PHE:H	2.12	0.52
29:BC:76:ALA:C	29:BC:78:ALA:N	2.63	0.52
27:DA:1566:A:OP1	30:DD:211:ARG:NH1	2.42	0.52
1:CA:1182:G:H4'	1:CA:1183:A:H5''	1.92	0.52
57:D8:43:GLN:O	57:D8:44:LYS:HD2	2.10	0.52
1:AA:818:G:H3'	1:AA:819:A:H5''	1.90	0.52
6:AF:24:GLU:HB2	6:AF:28:ARG:NH1	2.25	0.52
6:AF:81:ILE:HG22	6:AF:82:ARG:N	2.25	0.52
6:AF:82:ARG:HB2	6:AF:85:VAL:CG2	2.40	0.52
1:AA:770:C:O4'	1:AA:900:A:H2	1.92	0.52
27:DA:2319:G:H4'	27:DA:2320:A:OP1	2.10	0.52
27:DA:485:C:O2'	27:DA:486:C:H5'	2.10	0.52
42:DT:14:TYR:H	42:DT:14:TYR:HD1	1.55	0.52
5:CE:10:MET:HA	5:CE:32:VAL:HA	1.90	0.52
27:DA:713:G:H2'	27:DA:714:U:C6	2.44	0.52
27:DA:2110:G:H8	27:DA:2110:G:OP2	1.91	0.52
53:B4:75:VAL:O	53:B4:76:ASP:CB	2.58	0.52
27:DA:1352:U:O2'	27:DA:1353:A:H5'	2.10	0.52
27:DA:472:A:O3'	27:DA:508:G:N2	2.40	0.52
27:DA:820:A:H1'	27:DA:943:U:H1'	1.92	0.52
24:AX:68:C:H2'	24:AX:69:C:C6	2.45	0.52
27:BA:1613:G:C6	27:BA:1619:G:O6	2.63	0.52
57:B8:23:VAL:CG1	57:B8:46:ARG:HB3	2.39	0.52
38:BP:105:LEU:N	38:BP:105:LEU:CD2	2.73	0.52
2:AB:18:GLY:HA2	2:AB:40:HIS:O	2.10	0.52
55:D6:29:ASN:O	55:D6:30:THR:C	2.48	0.52
32:BF:27:GLU:O	32:BF:27:GLU:HG3	2.08	0.52
44:DV:47:VAL:O	44:DV:48:GLY:C	2.47	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2312:U:O2	33:DG:42:GLY:HA3	2.10	0.52
33:DG:47:LYS:HD2	33:DG:81:LYS:HD3	1.92	0.52
36:DN:58:ASP:C	36:DN:60:ILE:N	2.63	0.52
1:AA:376:G:OP1	16:AP:5:ARG:HB2	2.10	0.52
1:CA:160:A:H2	1:CA:343:U:H1'	1.74	0.52
39:BQ:45:GLN:N	39:BQ:45:GLN:CD	2.63	0.52
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.44	0.52
40:DR:103:ARG:HB2	40:DR:109:ALA:O	2.10	0.52
47:DY:50:ARG:NH1	47:DY:54:LYS:H	2.08	0.52
1:AA:1280:A:H5''	10:AJ:40:LEU:HD13	1.91	0.52
9:AI:11:LYS:C	9:AI:13:ALA:H	2.13	0.52
1:AA:97:G:HO2'	1:AA:98:G:C5'	2.23	0.52
27:BA:26:G:OP1	45:BW:80:PRO:HB3	2.10	0.52
27:BA:2327:A:H2'	27:BA:2328:A:H8	1.68	0.52
1:CA:1456:G:H2'	20:CT:39:LYS:NZ	2.15	0.52
52:D3:56:VAL:O	52:D3:57:GLU:HB2	2.09	0.52
1:CA:955:U:O2'	1:CA:956:U:H5'	2.09	0.52
40:DR:56:LYS:HE2	40:DR:94:TYR:OH	2.09	0.52
34:DH:18:GLU:HB2	34:DH:25:LYS:NZ	2.25	0.52
36:BN:55:VAL:HG22	36:BN:56:ASN:N	2.25	0.52
38:DP:18:ARG:HH11	38:DP:18:ARG:CA	2.22	0.52
34:BH:81:GLU:O	34:BH:82:GLY:O	2.27	0.52
48:BZ:68:THR:HA	48:BZ:90:LEU:HD13	1.91	0.52
4:AD:119:GLN:O	4:AD:123:HIS:HB2	2.09	0.52
20:AT:72:LEU:HD11	20:AT:80:ARG:HG3	1.92	0.52
29:DC:22:ILE:CG2	29:DC:24:GLU:HB2	2.40	0.52
5:CE:79:GLU:HA	5:CE:91:LEU:O	2.10	0.52
5:CE:80:ILE:HD11	5:CE:138:ALA:HB1	1.92	0.52
27:DA:2336:A:H61	49:D0:43:THR:CG2	2.23	0.52
58:D9:30:PRO:O	58:D9:32:HIS:N	2.42	0.52
1:CA:620:C:N1	4:CD:135:LEU:HD23	2.25	0.52
56:B7:28:ARG:HG3	56:B7:28:ARG:NH1	2.24	0.52
13:AM:10:PRO:CG	13:AM:18:ALA:HB1	2.38	0.52
1:AA:59:A:H1'	1:AA:354:G:N2	2.25	0.52
24:AX:43:A:H2'	24:AX:44:A:H8	1.74	0.52
1:AA:820:U:H4'	1:AA:821:G:OP2	2.10	0.52
27:BA:1278:A:H2'	27:BA:1279:G:C8	2.44	0.52
27:DA:2287:A:N6	27:DA:2344:U:H3	2.08	0.52
1:CA:578:C:H2'	1:CA:579:G:O4'	2.10	0.52
27:BA:97:C:H5''	51:B2:2:LYS:HB3	1.90	0.52
12:AL:112:LYS:O	12:AL:113:SER:C	2.47	0.52
28:DB:100:A:C4	28:DB:101:G:C8	2.98	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BZ:36:VAL:O	48:BZ:37:TYR:HB3	2.09	0.52
29:DC:124:GLY:O	29:DC:125:SER:CB	2.58	0.52
27:DA:937:U:H2'	27:DA:938:G:C8	2.45	0.52
15:AO:63:ARG:O	15:AO:67:LEU:HG	2.09	0.52
11:CK:116:HIS:O	11:CK:117:ASN:HB2	2.09	0.52
49:D0:54:GLY:O	49:D0:56:ASP:N	2.43	0.52
38:BP:61:ARG:H	38:BP:61:ARG:HD2	1.75	0.52
4:AD:15:GLU:CG	4:AD:63:LYS:HG3	2.39	0.52
42:BT:26:ASP:OD2	42:BT:26:ASP:C	2.47	0.52
28:BB:50:G:OP1	41:BS:63:THR:HG23	2.10	0.52
1:CA:1251:A:O2'	1:CA:1252:A:H5'	2.09	0.52
32:BF:25:PRO:HG3	32:BF:119:ARG:HB2	1.92	0.52
27:DA:997:G:C2'	27:DA:998:C:H5'	2.40	0.52
38:DP:34:GLY:O	38:DP:35:HIS:HB2	2.10	0.52
28:DB:15:A:H1'	28:DB:110:G:C5	2.45	0.52
33:DG:131:TYR:HE2	33:DG:133:LEU:HD23	1.75	0.52
33:DG:58:GLN:NE2	33:DG:59:GLU:N	2.57	0.52
27:DA:1022:G:O2'	27:DA:1023:U:OP2	2.24	0.52
27:DA:1024:G:C3'	27:DA:1025:G:H5''	2.31	0.52
48:DZ:80:ARG:O	48:DZ:81:ARG:C	2.49	0.52
48:DZ:118:GLU:CG	48:DZ:121:ARG:HD2	2.40	0.52
30:BD:44:ASN:ND2	30:BD:47:GLY:O	2.43	0.52
32:DF:119:ARG:HH11	32:DF:119:ARG:HG2	1.75	0.52
32:DF:10:PRO:CG	32:DF:13:SER:HB2	2.40	0.52
4:AD:108:LEU:CD1	4:AD:108:LEU:N	2.73	0.52
1:AA:1238:A:N7	1:AA:1303:C:H1'	2.25	0.52
1:CA:1243:C:OP2	21:CU:10:ARG:NH2	2.42	0.52
35:BI:13:GLY:O	35:BI:14:ASP:CB	2.58	0.52
45:DW:82:LEU:HB2	45:DW:98:LYS:O	2.10	0.52
20:AT:16:HIS:NE2	20:AT:20:LEU:HD21	2.25	0.52
1:AA:324:G:OP1	20:AT:22:ARG:HD2	2.10	0.52
20:AT:23:ARG:HA	20:AT:26:ASN:HD21	1.74	0.52
38:BP:71:VAL:C	38:BP:73:GLY:H	2.13	0.52
1:AA:1168:A:C6	1:AA:1169:A:C6	2.98	0.52
27:DA:2640:G:O3'	36:DN:74:ARG:NE	2.42	0.52
35:DI:110:ASP:O	35:DI:112:LYS:N	2.41	0.52
27:DA:1495:A:N3	27:DA:1496:A:C2	2.78	0.52
27:DA:1790:C:O2'	30:DD:209:ALA:HB2	2.09	0.52
27:DA:2691:C:H2'	27:DA:2692:C:H6	1.74	0.52
31:DE:25:VAL:HG13	31:DE:183:LEU:CD1	2.39	0.52
39:BQ:130:LYS:HD3	48:BZ:79:ARG:HE	1.74	0.52
27:DA:797:C:P	32:DF:62:ARG:HG3	2.50	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BW:37:ARG:NH1	45:BW:38:TYR:OH	2.43	0.52
35:DI:5:LEU:CD2	35:DI:13:GLY:HA2	2.40	0.52
37:DO:68:GLU:HB3	37:DO:78:ARG:NH1	2.25	0.52
27:BA:971:C:C2'	27:BA:972:G:H5'	2.40	0.52
51:D2:44:LEU:O	51:D2:45:SER:HB2	2.08	0.52
1:CA:149:A:H2'	1:CA:150:C:C6	2.45	0.52
32:DF:185:ASP:OD1	32:DF:188:ARG:NH1	2.43	0.52
1:CA:575:G:H4'	1:CA:576:G:H5'	1.92	0.52
27:BA:1816:G:H1	30:BD:37:LEU:CD1	2.23	0.52
1:CA:1007:C:H2'	1:CA:1008:C:C6	2.45	0.52
27:DA:377:C:H2'	27:DA:378:C:H6	1.75	0.52
1:AA:753:A:H4'	1:AA:754:C:H5''	1.92	0.52
38:DP:74:GLU:HG3	38:DP:75:ILE:N	2.24	0.52
27:BA:2785:C:H2'	27:BA:2786:U:H6	1.75	0.52
45:BW:21:VAL:HG21	45:BW:76:VAL:HG23	1.90	0.52
52:D3:29:ARG:HG3	52:D3:29:ARG:NH1	2.24	0.52
27:BA:153:C:H5''	27:BA:153:C:H6	1.74	0.52
27:DA:1206:G:C2	27:DA:1207:C:C2	2.98	0.52
11:AK:91:ARG:O	11:AK:94:ALA:HB3	2.10	0.52
55:B6:30:THR:O	55:B6:31:PRO:C	2.47	0.52
1:AA:812:C:OP1	1:AA:903:G:H1'	2.10	0.52
42:BT:118:ARG:O	42:BT:121:ILE:N	2.43	0.52
47:BY:76:CYS:CB	47:BY:96:ILE:HD11	2.40	0.52
35:BI:89:TYR:N	35:BI:89:TYR:CD1	2.78	0.52
27:BA:24:G:O2'	45:BW:78:GLU:O	2.25	0.52
53:B4:41:ILE:N	53:B4:57:ILE:O	2.42	0.52
53:B4:59:VAL:HG12	53:B4:61:VAL:O	2.10	0.52
1:CA:980:C:HO2'	14:CN:21:TYR:HE1	1.58	0.52
20:AT:84:LEU:CD1	20:AT:88:VAL:HG21	2.38	0.52
38:DP:62:LEU:CD1	57:D8:30:ARG:HG3	2.40	0.52
34:BH:42:ARG:O	34:BH:53:GLU:HG3	2.09	0.52
30:DD:245:PRO:O	30:DD:246:PRO:C	2.46	0.52
38:DP:101:VAL:C	38:DP:103:ALA:N	2.62	0.52
27:BA:807:U:H2'	27:BA:808:G:H8	1.75	0.52
27:BA:911:A:H2	27:BA:2277:G:N3	2.08	0.52
18:CR:43:PHE:CE2	18:CR:58:LEU:HD11	2.40	0.52
42:DT:43:GLN:HG2	42:DT:44:ASP:O	2.10	0.52
28:DB:47:C:C3'	28:DB:48:A:C5'	2.88	0.52
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.10	0.52
27:BA:779:U:P	30:BD:49:ILE:HG22	2.49	0.52
31:DE:113:PHE:CD2	31:DE:113:PHE:C	2.81	0.52
47:DY:29:GLU:N	47:DY:29:GLU:CD	2.63	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DY:2:ARG:HG2	47:DY:2:ARG:NH1	2.25	0.52
19:CS:15:LEU:HD22	19:CS:15:LEU:N	2.17	0.52
27:BA:27:G:O2'	27:BA:28:A:P	2.67	0.52
29:DC:100:ILE:HG23	29:DC:132:GLY:CA	2.32	0.52
1:CA:537:G:H2'	1:CA:538:G:C8	2.43	0.52
7:CG:24:THR:CA	7:CG:27:ILE:HD12	2.36	0.52
2:AB:98:LEU:HB2	2:AB:101:MET:HG3	1.92	0.52
58:D9:15:LYS:N	58:D9:26:ILE:O	2.37	0.52
8:CH:84:ARG:HG3	8:CH:85:ARG:N	2.24	0.52
1:CA:1409:C:H5'	27:DA:1916:A:N1	2.25	0.52
1:CA:1229:A:H2'	1:CA:1230:C:C6	2.45	0.52
8:AH:6:ILE:H	8:AH:6:ILE:CD1	2.14	0.52
34:DH:103:LEU:HD22	34:DH:123:PHE:CD2	2.45	0.52
27:DA:242:G:H5''	57:D8:62:LEU:HD13	1.92	0.52
30:DD:270:ILE:C	30:DD:271:ILE:HG12	2.29	0.52
1:CA:965:A:C4'	1:CA:966:G:OP1	2.52	0.52
31:DE:197:ILE:O	31:DE:197:ILE:HG12	2.09	0.52
30:BD:155:LEU:HD23	30:BD:177:LEU:HD21	1.91	0.52
41:BS:35:ILE:CD1	41:BS:99:LYS:HD3	2.40	0.52
3:AC:138:VAL:O	3:AC:141:VAL:HB	2.10	0.52
27:BA:2019:A:H2'	27:BA:2020:A:O5'	2.09	0.52
50:B1:3:LYS:HG3	50:B1:4:VAL:N	2.21	0.52
27:BA:1639:U:H4'	27:BA:2699:C:H4'	1.91	0.52
18:AR:82:THR:CG2	18:AR:83:GLU:H	2.23	0.52
29:BC:169:GLY:O	29:BC:171:ILE:N	2.38	0.52
1:CA:1349:A:P	9:CI:118:LYS:NZ	2.83	0.52
27:DA:2698:U:H2'	27:DA:2699:C:C6	2.44	0.52
45:DW:25:ARG:NH2	45:DW:74:ALA:O	2.42	0.52
1:AA:1230:C:H4'	24:AX:31:G:OP1	2.09	0.52
13:AM:26:GLY:O	13:AM:28:ALA:N	2.43	0.52
7:CG:46:ALA:O	7:CG:50:ILE:HG12	2.09	0.52
1:AA:681:C:O2'	1:AA:682:G:H5'	2.10	0.52
27:DA:1198:U:H2'	27:DA:1199:U:H6	1.73	0.52
27:DA:1579:A:H2'	27:DA:1580:A:O4'	2.10	0.52
27:BA:1508:A:H2'	27:BA:1508:A:N3	2.25	0.52
41:BS:76:LYS:O	41:BS:80:LEU:HD13	2.10	0.52
27:DA:1472:A:H2'	27:DA:1473:G:C8	2.45	0.52
6:CF:9:VAL:HB	6:CF:87:ARG:HB2	1.90	0.52
27:BA:1497:U:H3'	27:BA:1497:U:O2	2.10	0.52
1:AA:1249:C:H5'	1:AA:1249:C:H6	1.75	0.52
27:DA:1747:G:H2'	27:DA:1747(A):G:C8	2.45	0.52
1:CA:1221:G:H4'	19:CS:53:ASN:O	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:905:U:H2'	1:AA:906:G:H5'	1.92	0.52
1:AA:198:G:H2'	1:AA:199:G:H8	1.74	0.52
9:AI:22:GLY:HA3	9:AI:60:ASP:OD2	2.10	0.52
19:CS:33:THR:OG1	19:CS:34:TRP:N	2.43	0.52
1:AA:301:G:H2'	1:AA:302:G:O4'	2.09	0.52
27:BA:1488:G:C6	27:BA:1489:U:N3	2.78	0.52
1:CA:6:G:H4'	1:CA:298:A:H4'	1.92	0.52
22:AV:1:A:H2'	22:AV:2:A:H5'	1.91	0.52
41:BS:51:ALA:HB3	41:BS:73:LEU:HG	1.91	0.52
27:BA:407:G:H2'	27:BA:408:G:H8	1.75	0.52
1:CA:507:C:H2'	1:CA:508:C:C5	2.44	0.52
27:DA:1042:G:H1'	27:DA:1114:G:N2	2.25	0.51
28:DB:75:G:C5'	28:DB:76:G:OP2	2.58	0.51
55:D6:10:LEU:HD12	57:D8:34:TRP:CG	2.45	0.51
24:AX:19:G:C2	24:AX:57:A:N3	2.79	0.51
42:DT:27:THR:O	42:DT:28:VAL:HG23	2.11	0.51
41:DS:67:ARG:HG2	41:DS:67:ARG:NH1	2.24	0.51
38:DP:28:GLY:C	38:DP:29:LYS:HD2	2.30	0.51
28:DB:20:C:C2'	28:DB:21:G:C5'	2.88	0.51
33:DG:55:LYS:C	33:DG:57:ALA:H	2.12	0.51
33:DG:43:LEU:HB2	33:DG:88:ILE:CD1	2.39	0.51
17:AQ:51:TYR:CD2	17:AQ:73:VAL:HG11	2.46	0.51
42:DT:81:PRO:C	42:DT:82:LEU:HD12	2.30	0.51
44:BV:18:LEU:CD2	44:BV:19:LYS:N	2.68	0.51
1:CA:1324:A:C4'	1:CA:1362:C:H4'	2.40	0.51
27:BA:560:C:C4'	43:BU:52:ARG:NH2	2.72	0.51
1:AA:1138:G:C2	1:AA:1140:C:C4	2.98	0.51
1:AA:1256:A:H5'	1:AA:1257:U:OP1	2.09	0.51
1:CA:1441:G:H4'	1:CA:1442:G:C4	2.45	0.51
5:CE:77:PRO:HG2	5:CE:142:LEU:HD22	1.92	0.51
44:BV:47:VAL:O	44:BV:49:THR:O	2.29	0.51
29:DC:49:ILE:CD1	29:DC:49:ILE:H	2.08	0.51
27:BA:1858:G:O2'	27:BA:1884:A:N6	2.43	0.51
1:CA:1457:G:N1	1:CA:1458:G:N7	2.57	0.51
5:AE:92:LYS:HB2	5:AE:119:LEU:HB2	1.90	0.51
52:D3:7:LYS:HA	52:D3:33:GLN:O	2.09	0.51
15:CO:39:LEU:HD13	15:CO:39:LEU:O	2.09	0.51
45:BW:111:HIS:CD2	45:BW:112:GLY:H	2.28	0.51
27:DA:902:C:O2'	27:DA:903:C:H5'	2.10	0.51
30:DD:118:VAL:CG2	30:DD:119:ALA:N	2.73	0.51
39:DQ:27:VAL:HG23	39:DQ:137:TYR:CD1	2.45	0.51
42:BT:100:TYR:O	42:BT:102:ILE:N	2.42	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BP:50:ARG:HG3	38:BP:51:PHE:N	2.24	0.51
46:DX:65:ARG:HD3	46:DX:70:LEU:CG	2.36	0.51
41:BS:37:ALA:HB2	41:BS:99:LYS:HZ3	1.75	0.51
12:AL:50:ARG:HH11	12:AL:90:LEU:HD21	1.75	0.51
29:DC:58:VAL:HG23	29:DC:165:ASN:CB	2.40	0.51
27:DA:1408:C:O2'	27:DA:1409:C:H5'	2.10	0.51
27:BA:953:A:C2'	27:BA:954:G:H5'	2.40	0.51
27:BA:2466:C:H5''	58:B9:6:SER:HB2	1.92	0.51
5:CE:141:GLN:C	5:CE:143:ARG:HH21	2.13	0.51
27:DA:1843:C:H2'	27:DA:1844:C:C6	2.46	0.51
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.10	0.51
1:AA:15:G:H8	1:AA:1396:A:HO2'	1.54	0.51
27:BA:2364:C:C2'	27:BA:2365:G:H5'	2.40	0.51
27:BA:2259:G:H1'	27:BA:2427:C:C2	2.44	0.51
4:AD:93:PHE:O	4:AD:94:LEU:C	2.49	0.51
2:AB:178:ARG:HD2	8:AH:71:GLY:C	2.30	0.51
7:CG:43:PHE:HD1	7:CG:44:TYR:N	2.07	0.51
36:DN:117:PHE:C	36:DN:119:ARG:H	2.14	0.51
27:DA:364:C:C2'	27:DA:365:C:H5''	2.40	0.51
48:BZ:30:ARG:HH21	48:BZ:93:GLU:CD	2.13	0.51
27:BA:1670:C:O2	31:BE:129:HIS:CE1	2.61	0.51
1:CA:1423:G:H2'	1:CA:1424:C:H6	1.75	0.51
27:DA:2146:C:H4'	27:DA:2147:G:C8	2.45	0.51
27:DA:2735:G:H2'	27:DA:2736:G:H8	1.75	0.51
27:DA:2287:A:N6	27:DA:2344:U:N3	2.58	0.51
1:CA:1507:A:C2	1:CA:1508:G:C4	2.98	0.51
28:DB:85:G:H2'	28:DB:86:G:H8	1.72	0.51
27:BA:817:C:H4'	27:BA:932:G:C5	2.45	0.51
1:AA:226:G:H2'	1:AA:227:G:H8	1.75	0.51
27:DA:1012:U:O4	36:DN:28:THR:HG21	2.10	0.51
32:BF:165:ARG:HG3	32:BF:165:ARG:HH11	1.75	0.51
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.92	0.51
38:DP:13:ASN:C	38:DP:13:ASN:HD22	2.13	0.51
2:AB:129:GLU:O	2:AB:130:ARG:C	2.48	0.51
54:D5:49:CYS:O	54:D5:56:LYS:HB3	2.10	0.51
30:DD:139:GLY:H	30:DD:165:ILE:HB	1.75	0.51
28:BB:42:C:H4'	33:BG:67:LYS:O	2.10	0.51
1:AA:413:G:N2	1:AA:428:G:H1'	2.25	0.51
45:BW:71:VAL:HG12	45:BW:71:VAL:O	2.09	0.51
27:DA:2094:G:N3	27:DA:2094:G:H2'	2.24	0.51
27:DA:1301:A:H4'	27:DA:1302:A:OP1	2.10	0.51
57:B8:33:ASN:N	57:B8:36:LYS:NZ	2.53	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BP:65:ARG:CD	57:B8:46:ARG:NH2	2.71	0.51
1:CA:977:A:O2'	1:CA:978:A:H5'	2.11	0.51
47:BY:100:ALA:O	47:BY:101:LYS:HB3	2.11	0.51
27:BA:1520:G:H2'	27:BA:1523:U:O4'	2.09	0.51
35:BI:114:LEU:C	35:BI:116:LEU:H	2.12	0.51
33:BG:149:VAL:O	33:BG:149:VAL:HG23	2.09	0.51
1:CA:1188:A:O3'	14:CN:58:LYS:NZ	2.40	0.51
3:CC:11:ARG:HH21	3:CC:180:ALA:CB	2.23	0.51
48:DZ:149:LEU:HD22	48:DZ:149:LEU:N	2.26	0.51
46:DX:14:SER:O	46:DX:17:ALA:HB3	2.10	0.51
55:D6:51:GLU:O	55:D6:52:VAL:CG2	2.55	0.51
10:CJ:5:ARG:CG	10:CJ:71:LEU:HD11	2.40	0.51
42:DT:65:LYS:NZ	42:DT:66:VAL:H	2.02	0.51
42:DT:27:THR:O	42:DT:88:ILE:HG13	2.10	0.51
27:BA:1246:A:OP2	38:BP:18:ARG:HG3	2.10	0.51
38:DP:99:LEU:HG	38:DP:102:ARG:NH1	2.23	0.51
38:DP:112:LEU:HD13	38:DP:112:LEU:C	2.30	0.51
38:DP:21:ARG:HD2	38:DP:29:LYS:HG2	1.92	0.51
13:AM:4:ILE:HG22	13:AM:5:ALA:H	1.74	0.51
1:AA:1321:C:C5'	1:AA:1322:C:H5''	2.36	0.51
37:DO:104:ARG:NE	42:DT:33:LYS:HD2	2.25	0.51
44:DV:51:VAL:CG1	44:DV:52:VAL:H	2.06	0.51
31:DE:11:MET:O	31:DE:12:THR:HG23	2.10	0.51
1:AA:942:G:O2'	1:AA:943:U:H5'	2.09	0.51
32:DF:160:ASN:C	32:DF:160:ASN:HD22	2.11	0.51
31:BE:6:GLY:O	31:BE:195:LEU:HD12	2.09	0.51
47:DY:8:LYS:CD	47:DY:8:LYS:H	2.22	0.51
32:DF:4:VAL:N	32:DF:19:GLU:HB3	2.25	0.51
19:CS:16:LEU:HA	19:CS:19:VAL:CG2	2.40	0.51
5:AE:90:VAL:O	5:AE:91:LEU:HD13	2.10	0.51
1:AA:401:C:H2'	1:AA:402:G:C8	2.46	0.51
27:BA:2347:C:H2'	27:BA:2348:U:H6	1.75	0.51
30:DD:134:ARG:HG3	30:DD:135:PHE:CE1	2.45	0.51
39:BQ:133:ARG:CB	39:BQ:133:ARG:HH11	2.23	0.51
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.45	0.51
42:BT:102:ILE:O	42:BT:103:ARG:C	2.49	0.51
16:CP:21:VAL:HG21	16:CP:59:TRP:CG	2.45	0.51
28:BB:66:A:O4'	28:BB:109:C:N4	2.43	0.51
27:BA:70:G:H5''	27:BA:112:U:O2	2.10	0.51
42:DT:61:PHE:N	42:DT:61:PHE:CD2	2.78	0.51
1:CA:994:A:O2'	14:CN:12:ARG:NH1	2.44	0.51
5:CE:106:PRO:O	5:CE:110:LEU:HG	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:11:VAL:O	15:CO:14:GLU:HB3	2.09	0.51
50:D1:57:GLU:O	50:D1:58:ILE:O	2.28	0.51
27:BA:893:C:H2'	27:BA:894:C:C6	2.44	0.51
7:AG:111:ARG:CD	7:AG:123:GLU:HB2	2.41	0.51
43:DU:108:GLU:HG3	44:DV:44:LYS:HZ2	1.75	0.51
44:DV:30:GLY:O	44:DV:31:ALA:O	2.27	0.51
1:CA:631:G:C2'	1:CA:632:A:C8	2.94	0.51
23:CW:40:C:H2'	23:CW:41:G:H8	1.74	0.51
1:AA:953:G:C5'	1:AA:965:A:H61	2.23	0.51
12:CL:37:VAL:HG11	12:CL:74:LEU:O	2.10	0.51
25:CY:14:A:H62	25:CY:15:G:H21	1.57	0.51
46:DX:18:TYR:O	46:DX:21:PHE:N	2.42	0.51
32:BF:110:LEU:HD12	32:BF:202:PHE:CE1	2.45	0.51
27:BA:1925:C:C2'	27:BA:1926:U:H5'	2.40	0.51
19:AS:11:VAL:O	19:AS:11:VAL:HG13	2.10	0.51
32:BF:53:THR:HG23	32:BF:55:GLY:H	1.74	0.51
37:DO:4:PRO:O	37:DO:5:GLN:CB	2.58	0.51
1:CA:437:U:O2'	4:CD:123:HIS:CD2	2.63	0.51
27:DA:83:G:N2	27:DA:102:G:H2'	2.25	0.51
6:CF:96:PRO:O	6:CF:98:LEU:HD12	2.10	0.51
27:DA:291:C:H2'	27:DA:292:C:C6	2.44	0.51
34:BH:86:GLU:O	34:BH:86:GLU:HG2	2.10	0.51
1:AA:1006:C:N4	1:AA:1023:G:H1	2.08	0.51
51:B2:14:ARG:O	51:B2:15:LYS:HB3	2.10	0.51
19:AS:35:SER:C	19:AS:37:ARG:N	2.64	0.51
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.45	0.51
27:BA:2295:C:O2'	27:BA:2296:U:H5'	2.11	0.51
1:CA:803:G:O2'	1:CA:804:U:H5'	2.10	0.51
1:AA:1484:C:O2'	1:AA:1485:U:H5'	2.11	0.51
27:BA:1920:C:O2'	27:BA:1921:G:H5'	2.10	0.51
27:BA:818:G:H4'	27:BA:838:C:O3'	2.11	0.51
12:CL:15:VAL:O	12:CL:16:ARG:CB	2.59	0.51
1:AA:312:C:H2'	1:AA:313:A:C8	2.45	0.51
27:DA:289:A:H3'	27:DA:290:G:H8	1.76	0.51
27:BA:374:A:C2	27:BA:401:A:C4	2.98	0.51
48:BZ:67:PRO:HG2	48:BZ:67:PRO:O	2.09	0.51
23:AW:10:G:N3	23:AW:10:G:H2'	2.25	0.51
27:BA:495:G:O2'	45:BW:57:ASN:HB3	2.11	0.51
1:AA:805:C:O2'	1:AA:806:C:H5'	2.09	0.51
1:CA:140:A:O2'	1:CA:141:A:H5'	2.10	0.51
27:BA:256:A:H2'	27:BA:257:A:C8	2.46	0.51
50:D1:21:ARG:O	50:D1:32:LYS:HE2	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B6:11:LEU:CD1	55:B6:25:LYS:HA	2.39	0.51
27:BA:2283:C:H2'	27:BA:2284:C:C5'	2.38	0.51
28:BB:51:G:H2'	28:BB:52:A:C1'	2.40	0.51
47:BY:37:VAL:C	47:BY:38:ILE:HD13	2.31	0.51
54:B5:50:GLY:HA3	54:B5:56:LYS:HB2	1.93	0.51
55:D6:10:LEU:HD12	57:D8:34:TRP:HB2	1.92	0.51
34:BH:54:ARG:HH11	34:BH:65:HIS:CD2	2.28	0.51
1:CA:1294:G:O2'	1:CA:1295:G:H5'	2.11	0.51
33:DG:131:TYR:CE2	33:DG:133:LEU:HD23	2.46	0.51
33:DG:137:GLU:HG2	33:DG:152:LEU:CD1	2.35	0.51
31:DE:76:ARG:HG2	31:DE:195:LEU:HD22	1.91	0.51
31:DE:49:LEU:HD22	31:DE:81:ILE:HD11	1.91	0.51
31:DE:67:PHE:O	31:DE:70:ALA:HB3	2.10	0.51
31:DE:28:ALA:O	31:DE:93:VAL:HG22	2.10	0.51
28:DB:33:G:C2	28:DB:50:G:C2	2.98	0.51
1:AA:973:G:OP1	10:AJ:57:LYS:NZ	2.42	0.51
23:AW:33:C:H2'	23:AW:34:U:C6	2.46	0.51
27:BA:1411:C:O5'	27:BA:1411:C:H6	1.93	0.51
27:DA:1491:G:H2'	27:DA:1492:G:H8	1.76	0.51
27:BA:1179:C:H3'	27:BA:1180:C:H5''	1.91	0.51
27:DA:2881:C:H4'	40:DR:117:VAL:CG2	2.40	0.51
27:BA:827:U:H2'	27:BA:2068:U:C2	2.45	0.51
30:BD:24:ILE:HD12	30:BD:84:TYR:CB	2.28	0.51
30:BD:21:PHE:HB3	30:BD:24:ILE:HG21	1.92	0.51
48:BZ:107:PRO:C	48:BZ:109:GLY:H	2.14	0.51
27:BA:1485:G:N2	27:BA:1505:C:C2	2.76	0.51
20:CT:39:LYS:HA	20:CT:42:GLN:HB3	1.91	0.51
52:D3:44:ARG:O	52:D3:48:GLU:N	2.41	0.51
27:DA:2762:G:C2'	27:DA:2763:G:H5''	2.38	0.51
1:CA:1054:C:H5	1:CA:1196:U:C5	2.28	0.51
34:DH:25:LYS:H	34:DH:25:LYS:CD	2.18	0.51
29:BC:86:ALA:CB	29:BC:94:VAL:HG11	2.41	0.51
19:AS:48:THR:HG22	19:AS:61:TYR:HA	1.91	0.51
19:AS:63:THR:HG23	19:AS:65:ASN:H	1.74	0.51
51:B2:7:ARG:HH11	51:B2:7:ARG:HG2	1.74	0.51
39:BQ:31:ASP:OD1	39:BQ:134:ARG:NH1	2.44	0.51
27:BA:1042:G:H3'	27:BA:1043:C:O4'	2.09	0.51
57:D8:62:LEU:N	57:D8:63:PRO:HD2	2.25	0.51
27:DA:198:C:H5'	27:DA:2244:U:OP1	2.11	0.51
10:AJ:34:VAL:CG1	10:AJ:74:ILE:HG22	2.40	0.51
27:DA:1506:C:H2'	27:DA:1506:C:O2	2.10	0.51
27:DA:2262:U:H4'	27:DA:2328:A:C2	2.44	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:473:G:H4'	16:CP:81:ARG:NH2	2.24	0.51
39:DQ:52:VAL:HA	39:DQ:55:VAL:HG12	1.92	0.51
41:BS:34:HIS:CA	41:BS:54:LEU:HD23	2.41	0.51
20:AT:89:ARG:NH2	20:AT:104:LEU:HD21	2.24	0.51
27:DA:481:G:P	47:DY:47:LYS:HE3	2.50	0.51
27:DA:2011:U:C2'	27:DA:2012:G:H5'	2.41	0.51
27:DA:1264:G:H5'	54:D5:11:THR:OG1	2.10	0.51
54:B5:13:LYS:O	54:B5:17:ASP:HB2	2.09	0.51
14:CN:8:GLU:HB3	14:CN:12:ARG:NH1	2.25	0.51
31:BE:97:LYS:HA	31:BE:97:LYS:HZ3	1.74	0.51
17:CQ:63:ARG:HG2	17:CQ:64:PRO:HD2	1.91	0.51
19:CS:49:ILE:HD12	19:CS:49:ILE:H	1.76	0.51
27:DA:1431:U:O2'	27:DA:1432:C:H5'	2.10	0.51
5:CE:35:GLY:HA2	5:CE:40:ARG:O	2.11	0.51
1:CA:35:G:C2	1:CA:550:G:C2	2.98	0.51
29:DC:97:GLU:C	29:DC:99:ILE:H	2.13	0.51
27:DA:2182:G:H2'	27:DA:2183:C:C6	2.45	0.51
44:BV:69:LYS:HG3	44:BV:70:ILE:H	1.75	0.51
27:DA:1655:A:O2'	31:DE:115:GLY:HA3	2.09	0.51
1:CA:676:A:H1'	11:CK:115:PRO:HB3	1.93	0.51
59:CX:17:C:H5'	59:CX:17(B):U:H2'	1.92	0.51
52:D3:12:PRO:O	52:D3:13:ILE:C	2.48	0.51
27:BA:2836:U:C4	27:BA:2883:A:N6	2.78	0.51
16:AP:58:TYR:C	16:AP:60:LEU:H	2.13	0.51
27:DA:2615:U:H2'	27:DA:2616:C:C6	2.45	0.51
27:DA:506:G:O3'	27:DA:507:A:H8	1.92	0.51
27:BA:1548:C:H2'	27:BA:1549:C:H6	1.74	0.51
27:DA:1663:C:O2'	27:DA:1664:A:H8	1.93	0.51
27:BA:1564:C:H2'	27:BA:1565:C:C6	2.46	0.51
27:DA:832:G:H21	38:DP:53:GLY:HA3	1.76	0.51
1:CA:861:G:O2'	1:CA:862:C:H5'	2.10	0.51
1:CA:1235:U:H2'	1:CA:1236:A:O5'	2.10	0.51
38:BP:121:LYS:O	38:BP:123:LEU:N	2.42	0.51
42:BT:28:VAL:C	42:BT:29:ARG:HD3	2.30	0.51
42:BT:39:ARG:O	42:BT:40:THR:C	2.48	0.51
42:BT:32:TYR:HD2	42:BT:81:PRO:HG2	1.75	0.51
53:B4:40:ILE:N	53:B4:40:ILE:HD12	2.26	0.51
28:BB:46:A:H2'	28:BB:47:C:H6	1.75	0.51
33:BG:90:LEU:C	33:BG:90:LEU:HD23	2.31	0.51
55:D6:20:ASN:O	55:D6:21:TYR:CD2	2.64	0.51
55:D6:25:LYS:HG2	57:D8:34:TRP:HE1	1.75	0.51
38:DP:62:LEU:CD2	38:DP:64:LYS:N	2.73	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:27:THR:O	42:DT:28:VAL:HB	2.10	0.51
40:DR:66:VAL:CG1	40:DR:67:LEU:N	2.73	0.51
38:DP:80:TYR:CD1	38:DP:111:ARG:HB3	2.45	0.51
33:DG:25:TYR:CD1	33:DG:30:GLU:HG2	2.45	0.51
33:DG:49:ASP:O	33:DG:50:ALA:CB	2.59	0.51
36:DN:15:LEU:HD13	36:DN:16:ILE:N	2.25	0.51
18:CR:70:ILE:HG22	18:CR:74:ARG:HD2	1.91	0.51
9:CI:9:ARG:HE	9:CI:14:VAL:HG13	1.74	0.51
41:DS:62:LYS:HB2	41:DS:62:LYS:NZ	2.26	0.51
32:DF:134:GLY:H	32:DF:162:LEU:HB3	1.75	0.51
3:CC:70:VAL:HG12	3:CC:72:LYS:N	2.15	0.51
2:AB:101:MET:C	2:AB:102:LEU:HD12	2.30	0.51
37:DO:98:VAL:O	37:DO:98:VAL:HG13	2.10	0.51
27:DA:2481:G:H4'	27:DA:2482:G:H5'	1.91	0.51
1:CA:643:C:H5'	8:CH:31:PHE:CE1	2.46	0.51
37:DO:88:ASN:O	37:DO:91:LEU:N	2.44	0.51
56:B7:8:ASN:ND2	56:B7:11:LYS:H	2.09	0.51
3:AC:35:GLU:CD	3:AC:95:THR:HG21	2.31	0.51
5:AE:148:VAL:HG21	8:AH:107:LEU:CD2	2.36	0.51
38:BP:46:LYS:HG2	38:BP:52:GLU:CG	2.39	0.51
27:BA:857:C:H5'	49:B0:77:ARG:HH22	1.76	0.51
51:B2:21:LEU:O	51:B2:24:LEU:HB3	2.10	0.51
27:BA:556:G:H2'	27:BA:557:U:H6	1.73	0.51
27:BA:1594:G:H2'	27:BA:1595:G:O4'	2.11	0.51
10:AJ:16:LEU:HD13	10:AJ:17:ASP:N	2.25	0.51
42:DT:9:LEU:CA	42:DT:12:SER:HB2	2.38	0.51
27:DA:1313:U:O3'	27:DA:1332:G:C5'	2.58	0.51
8:AH:17:THR:HB	8:AH:78:GLN:OE1	2.11	0.51
27:DA:2070:G:C2	27:DA:2442:C:C2	2.99	0.51
1:AA:16:A:O2'	1:AA:17:U:H5'	2.10	0.51
27:DA:2286:A:O5'	55:D6:31:PRO:HB2	2.09	0.51
15:AO:74:ASP:OD1	15:AO:77:ARG:HG2	2.11	0.51
27:BA:1887:C:C2'	27:BA:1888:G:H5''	2.40	0.51
45:BW:29:LEU:HD11	45:BW:33:ARG:HE	1.76	0.51
1:CA:226:G:O2'	1:CA:227:G:H5'	2.10	0.51
27:DA:16:G:H2'	27:DA:17:G:H8	1.75	0.51
12:AL:76:GLU:O	12:AL:77:HIS:CB	2.59	0.51
44:DV:62:LEU:HD21	44:DV:95:LEU:HB2	1.92	0.51
40:BR:22:ARG:C	40:BR:24:GLN:H	2.12	0.51
1:AA:1220:G:O3'	19:AS:36:ARG:HD3	2.09	0.51
52:D3:13:ILE:H	52:D3:13:ILE:CD1	2.23	0.51
27:BA:934:G:H2'	27:BA:935:C:C6	2.44	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.45	0.51
1:CA:142:G:H2'	1:CA:143:A:C8	2.44	0.51
1:AA:1472:U:O2'	1:AA:1473:A:H5'	2.11	0.51
27:BA:2507:C:O2'	27:BA:2508:G:H5'	2.11	0.51
27:DA:466:A:N3	27:DA:683:C:H1'	2.25	0.51
27:DA:2849:U:H5''	27:DA:2867:G:N2	2.25	0.51
35:DI:90:GLY:O	35:DI:91:SER:O	2.29	0.51
27:DA:2483:C:N3	39:DQ:124:LYS:NZ	2.58	0.51
4:AD:14:ARG:HA	4:AD:39:PRO:CA	2.39	0.51
4:AD:64:LEU:O	4:AD:67:ILE:HG22	2.10	0.51
2:AB:164:VAL:HB	2:AB:186:ALA:HB2	1.93	0.51
33:BG:39:ILE:HG23	33:BG:92:VAL:HG12	1.92	0.51
1:CA:1112:C:O2	3:CC:178:LEU:HB2	2.10	0.51
20:AT:40:ALA:HB2	20:AT:55:ILE:HG22	1.91	0.51
30:DD:94:LEU:HD11	30:DD:96:HIS:HE1	1.74	0.51
27:DA:1456:G:H2'	27:DA:1457:A:C8	2.39	0.51
40:DR:57:ARG:O	40:DR:57:ARG:HG3	2.10	0.51
41:DS:89:ARG:O	41:DS:92:TYR:HB3	2.10	0.51
27:DA:1190:G:H5''	38:DP:35:HIS:HA	1.92	0.51
27:DA:942:G:OP1	38:DP:35:HIS:HB3	2.10	0.51
33:DG:114:ILE:HG22	33:DG:115:ARG:H	1.74	0.51
33:DG:123:ASN:O	33:DG:126:ASP:OD2	2.29	0.51
36:DN:23:LEU:CD1	36:DN:98:VAL:HG12	2.39	0.51
1:CA:1290:G:H3'	1:CA:1291:G:H8	1.75	0.51
27:DA:2759:G:H8	27:DA:2759:G:C5'	2.23	0.51
1:AA:1060:C:O2'	1:AA:1061:G:H5'	2.10	0.51
27:BA:139:G:H2'	27:BA:140:G:N7	2.25	0.51
10:AJ:27:ALA:O	10:AJ:31:GLY:N	2.44	0.51
1:AA:1373:G:H5''	7:AG:36:LYS:HD2	1.93	0.51
9:AI:4:TYR:HA	9:AI:88:TYR:HE1	1.74	0.51
31:DE:111:ARG:HB3	31:DE:160:TYR:O	2.10	0.51
47:DY:11:ASP:O	47:DY:26:LYS:HG3	2.10	0.51
45:BW:88:ARG:HB2	45:BW:92:ARG:CB	2.34	0.51
1:CA:272:C:H2'	1:CA:273:A:C8	2.46	0.51
1:AA:475:G:H2'	1:AA:476:G:C8	2.45	0.51
4:CD:176:LEU:HD12	4:CD:177:ASP:H	1.74	0.51
27:BA:2822:G:O6	40:BR:4:LEU:HG	2.11	0.51
1:CA:1225:A:H2'	1:CA:1226:C:C6	2.45	0.51
13:CM:103:THR:O	13:CM:104:ARG:O	2.29	0.51
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.75	0.51
19:AS:42:PRO:CD	53:B4:80:ARG:NH2	2.74	0.51
3:AC:199:LYS:HB3	3:AC:201:TYR:HE1	1.75	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BN:21:LYS:HD3	36:BN:26:LEU:HD13	1.93	0.51
36:BN:58:ASP:C	36:BN:60:ILE:N	2.64	0.51
40:BR:74:LYS:HD2	40:BR:77:ARG:HH21	1.75	0.51
13:CM:49:THR:HB	13:CM:52:GLU:HG3	1.93	0.51
1:CA:969:A:O2'	1:CA:970:C:H5'	2.11	0.51
45:DW:6:ILE:HG12	45:DW:104:THR:CB	2.41	0.51
10:AJ:65:LEU:HG	14:AN:55:GLY:O	2.11	0.51
27:DA:2484:G:C2	27:DA:2485:G:C8	2.99	0.51
27:DA:1813:G:H1'	30:DD:50:THR:OG1	2.11	0.51
27:BA:960:A:C8	27:BA:962:G:C8	2.98	0.51
34:BH:127:GLU:C	34:BH:129:THR:H	2.14	0.51
3:AC:109:PRO:HA	3:AC:115:LEU:HD12	1.92	0.51
27:DA:337:C:H2'	27:DA:338:G:O4'	2.11	0.51
1:CA:1132:C:N4	1:CA:1133:G:C6	2.78	0.51
2:CB:155:LEU:HD21	2:CB:159:PRO:HG3	1.91	0.51
5:CE:103:GLY:O	5:CE:104:ALA:C	2.49	0.51
50:D1:82:LEU:HD12	50:D1:90:ILE:HD13	1.93	0.51
49:B0:24:LYS:HG3	49:B0:36:ILE:HD11	1.93	0.51
10:AJ:89:ASP:HB3	10:AJ:91:PRO:HD3	1.93	0.51
27:DA:301:G:C4	27:DA:302:C:C5	2.98	0.51
18:AR:65:ILE:O	18:AR:69:THR:HG23	2.10	0.51
33:BG:16:ARG:N	33:BG:17:PRO:HD2	2.26	0.51
27:BA:859:G:N2	27:BA:917:A:OP2	2.41	0.51
27:DA:185:U:H2'	27:DA:186:G:C8	2.46	0.51
7:AG:30:ILE:HD13	7:AG:105:VAL:HG13	1.92	0.51
27:DA:234:C:H2'	27:DA:235:U:C6	2.43	0.51
13:AM:82:MET:O	13:AM:83:ASP:O	2.29	0.51
27:DA:2850:A:H2'	27:DA:2851:A:H8	1.73	0.51
1:AA:817:C:H4'	1:AA:818:G:OP1	2.11	0.51
54:D5:52:TYR:O	54:D5:53:ALA:CB	2.58	0.51
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.92	0.51
27:DA:964:C:O2'	27:DA:2273:A:N3	2.33	0.51
6:CF:50:TYR:CE1	18:CR:77:GLY:HA2	2.46	0.51
28:DB:9:G:H2'	28:DB:10:C:C6	2.45	0.51
3:AC:58:GLU:H	3:AC:65:ALA:CB	2.23	0.51
1:CA:756:C:H2'	1:CA:757:U:O4'	2.11	0.51
48:BZ:13:LYS:HD3	48:BZ:16:ALA:HB2	1.92	0.51
44:BV:67:GLY:O	44:BV:68:LYS:C	2.49	0.51
13:CM:116:THR:O	13:CM:117:VAL:HB	2.10	0.51
59:CX:28:C:H2'	59:CX:29:G:H8	1.73	0.51
1:AA:959:A:H2'	1:AA:960:U:C4'	2.40	0.51
20:CT:92:LEU:C	20:CT:94:ALA:H	2.13	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:CW:70:C:H2'	23:CW:71:A:O4'	2.10	0.51
1:AA:311:C:O2'	1:AA:312:C:H5'	2.11	0.51
30:BD:228:PRO:HD3	30:BD:235:GLY:HA2	1.92	0.51
27:BA:1030:G:OP2	39:BQ:128:LYS:HE2	2.10	0.51
39:BQ:34:LEU:HD11	39:BQ:129:THR:HB	1.91	0.51
6:CF:89:MET:SD	18:CR:76:LEU:HD22	2.51	0.51
1:AA:260:G:H2'	1:AA:261:U:C6	2.46	0.51
28:BB:38:C:O5'	28:BB:38:C:H6	1.92	0.51
42:BT:83:ILE:HG13	42:BT:84:GLN:N	2.24	0.51
27:BA:1385:G:H4'	27:BA:1386:C:OP1	2.10	0.51
33:BG:47:LYS:HA	33:BG:82:LEU:HD11	1.93	0.51
55:D6:42:TRP:HA	55:D6:42:TRP:HE3	1.75	0.51
10:CJ:49:VAL:HG23	14:CN:41:ARG:HD2	1.92	0.51
55:D6:39:TYR:C	55:D6:46:HIS:HB3	2.31	0.51
10:CJ:38:ILE:HD11	10:CJ:71:LEU:HB3	1.93	0.51
57:B8:4:MET:O	57:B8:62:LEU:CD1	2.59	0.51
27:BA:90:U:C3'	27:BA:92:A:H5''	2.37	0.51
27:DA:620:G:H4'	27:DA:621:A:C5'	2.41	0.51
44:DV:38:LEU:C	44:DV:39:LEU:HD13	2.30	0.51
27:DA:2312:U:C3'	27:DA:2313:C:H5''	2.40	0.51
33:DG:120:LEU:O	33:DG:121:ASN:C	2.48	0.51
33:DG:68:PRO:HB2	33:DG:90:LEU:HD23	1.93	0.51
13:AM:25:ILE:N	13:AM:25:ILE:HD12	2.25	0.51
1:CA:1288:A:H2'	1:CA:1289:A:H8	1.76	0.51
31:DE:59:VAL:HG13	31:DE:60:ASN:H	1.72	0.51
28:DB:47:C:H3'	28:DB:48:A:H5''	1.93	0.51
27:BA:142:A:C8	27:BA:1408:C:H1'	2.44	0.51
31:BE:14:ILE:HD13	31:BE:21:VAL:HG22	1.92	0.51
35:BI:2:LYS:CE	35:BI:2:LYS:H	2.24	0.51
27:BA:1689:A:O2'	27:BA:1690:A:H5'	2.11	0.51
47:DY:97:ARG:O	47:DY:98:VAL:CB	2.58	0.51
1:CA:255:G:H4'	17:CQ:17:LYS:HE3	1.93	0.51
49:B0:43:THR:CG2	49:B0:43:THR:O	2.56	0.51
27:BA:999:U:O2'	27:BA:1000:A:H5''	2.11	0.51
12:CL:80:VAL:HG11	12:CL:97:ILE:HD13	1.91	0.51
27:BA:2822:G:OP2	40:BR:2:ARG:HD3	2.10	0.51
1:CA:644:G:H4'	8:CH:92:ARG:NH1	2.19	0.51
1:CA:99:U:O2	1:CA:100:C:N4	2.44	0.51
27:BA:873:G:C2	27:BA:905:U:O2	2.64	0.51
27:BA:686:G:N2	27:BA:788:A:H61	2.08	0.51
34:BH:85:LYS:HZ2	34:BH:133:VAL:CG2	2.23	0.51
34:DH:27:LYS:HG2	34:DH:32:GLU:HG3	1.92	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:17:SER:O	6:CF:18:GLN:C	2.47	0.51
6:CF:22:GLU:OE1	6:CF:84:ASN:ND2	2.44	0.51
1:CA:15:G:H2'	1:CA:16:A:H8	1.75	0.51
36:BN:29:LYS:O	36:BN:33:LEU:HD13	2.10	0.51
35:BI:9:LEU:O	35:BI:12:LEU:O	2.29	0.51
38:DP:48:PRO:CD	38:DP:49:ARG:H	2.23	0.51
27:DA:2262:U:O2'	27:DA:2263:C:H5'	2.10	0.51
39:DQ:51:ARG:HA	39:DQ:54:MET:CE	2.41	0.51
31:BE:102:VAL:HG22	31:BE:170:LEU:O	2.11	0.51
12:AL:19:SER:C	12:AL:21:VAL:N	2.64	0.51
48:BZ:8:TYR:CE1	48:BZ:60:LEU:HD12	2.45	0.51
2:AB:33:TYR:HB2	2:AB:43:ASP:HB2	1.92	0.51
38:BP:17:LYS:C	38:BP:19:VAL:N	2.63	0.51
7:CG:78:ARG:HH11	7:CG:78:ARG:HG2	1.75	0.51
8:AH:20:TYR:HD1	8:AH:65:TYR:CD2	2.29	0.51
27:BA:1301:A:C8	27:BA:1303:G:C8	2.98	0.51
27:DA:1292:U:H2'	27:DA:1293:C:C6	2.45	0.51
17:CQ:36:ILE:HD11	17:CQ:38:ARG:HH21	1.74	0.51
8:CH:100:ILE:HB	8:CH:125:ARG:NH1	2.26	0.51
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.11	0.51
1:CA:376:G:OP1	16:CP:5:ARG:HB2	2.11	0.51
25:AY:31:U:C2'	25:AY:32:U:H5'	2.40	0.51
1:AA:1080:A:H5''	5:AE:16:THR:HG21	1.92	0.51
29:DC:37:PHE:C	29:DC:39:GLU:H	2.13	0.51
30:DD:231:HIS:ND1	30:DD:232:PRO:HD2	2.26	0.51
3:AC:19:GLU:O	3:AC:40:ARG:NH2	2.44	0.51
1:CA:927:G:OP2	1:CA:1503:A:C5	2.63	0.51
50:B1:69:LYS:O	50:B1:72:GLU:HB2	2.11	0.51
34:DH:155:SER:OG	34:DH:156:ALA:N	2.44	0.51
48:BZ:13:LYS:HD3	48:BZ:16:ALA:CB	2.41	0.51
1:CA:363:A:OP2	12:CL:58:THR:HG21	2.11	0.51
1:AA:890:G:H22	1:AA:906:G:H2'	1.76	0.51
1:AA:412:A:C6	4:AD:35:ARG:HB3	2.45	0.51
27:BA:2682:U:H6	27:BA:2682:U:H5'	1.75	0.51
1:CA:246:A:O3'	1:CA:247:G:H4'	2.11	0.51
21:AU:9:ARG:O	21:AU:13:ILE:HG13	2.10	0.51
27:DA:1798:U:H5''	30:DD:260:ARG:HB3	1.91	0.51
45:DW:28:SER:OG	45:DW:31:GLU:HB2	2.11	0.51
1:AA:135:C:H2'	1:AA:136:C:H5'	1.92	0.51
4:CD:43:HIS:O	4:CD:45:GLN:N	2.44	0.51
27:BA:1783:A:H5'	27:BA:2608:G:H4'	1.93	0.51
27:DA:1284:A:H2'	27:DA:1285:G:O4'	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2165:G:C6	27:BA:2166:G:C6	2.98	0.51
27:DA:1804:C:O5'	27:DA:1804:C:H6	1.93	0.51
1:AA:328:C:H2'	1:AA:328:C:O2	2.10	0.51
27:BA:2460:U:H2'	27:BA:2461:C:H5'	1.92	0.51
27:BA:998:C:OP1	43:BU:84:LYS:HE3	2.11	0.51
4:AD:100:ARG:O	4:AD:103:ASN:HB3	2.11	0.51
4:AD:198:VAL:HG12	4:AD:198:VAL:O	2.09	0.51
2:AB:42:ILE:HD13	2:AB:203:GLY:CA	2.39	0.51
53:B4:40:ILE:CG1	53:B4:57:ILE:HG21	2.31	0.51
53:B4:62:CYS:C	53:B4:64:LYS:H	2.13	0.51
10:CJ:50:ILE:HG23	10:CJ:60:ARG:HD3	1.92	0.51
48:DZ:169:THR:O	48:DZ:170:ILE:HG23	2.11	0.51
55:D6:15:GLU:OE1	55:D6:18:ARG:NH2	2.42	0.51
55:D6:44:ARG:HA	55:D6:44:ARG:HH11	1.74	0.51
41:BS:106:ARG:HD2	41:BS:106:ARG:C	2.31	0.51
42:DT:28:VAL:HB	42:DT:88:ILE:HG13	1.92	0.51
41:DS:101:LEU:O	41:DS:102:ALA:O	2.29	0.51
28:DB:61:G:H5'	28:DB:61:G:H8	1.74	0.51
30:BD:75:ILE:HD13	30:BD:99:ASP:OD1	2.11	0.51
36:DN:17:ASP:OD2	36:DN:19:GLU:HB3	2.11	0.51
36:DN:62:VAL:HG22	36:DN:66:LYS:HB2	1.93	0.51
36:DN:87:LEU:HD22	36:DN:91:LEU:HD12	1.92	0.51
1:CA:1148:U:O3'	9:CI:14:VAL:HG11	2.10	0.51
27:BA:871:U:H4'	39:BQ:69:PHE:CE2	2.45	0.51
14:AN:32:SER:HB3	14:AN:41:ARG:HB3	1.93	0.51
1:AA:1273:G:H3'	1:AA:1274:G:H8	1.76	0.51
9:AI:50:LEU:CA	9:AI:53:VAL:HG22	2.41	0.51
10:AJ:40:LEU:HG	10:AJ:69:ASN:CB	2.41	0.51
27:DA:2189:U:H3'	27:DA:2190:G:C5'	2.29	0.51
31:BE:11:MET:CB	31:BE:24:THR:HA	2.40	0.51
27:DA:2843:G:H1	27:DA:2874:C:H42	1.59	0.51
47:DY:39:VAL:HG12	47:DY:40:GLU:HG2	1.92	0.51
41:BS:90:GLY:C	41:BS:92:TYR:N	2.63	0.51
43:BU:92:ARG:CD	44:BV:11:GLN:NE2	2.73	0.51
44:BV:55:ALA:CB	44:BV:101:GLY:HA3	2.40	0.51
29:BC:75:LEU:HB2	29:BC:119:VAL:CB	2.41	0.51
34:BH:19:VAL:HG21	34:BH:44:VAL:HA	1.92	0.51
13:CM:91:ARG:CD	19:CS:81:ARG:NH2	2.66	0.51
2:CB:30:ARG:HH21	2:CB:194:PRO:HB2	1.75	0.51
19:AS:29:ARG:HG2	19:AS:48:THR:OG1	2.10	0.51
35:BI:8:PRO:CA	35:BI:13:GLY:HA3	2.39	0.51
27:DA:29:U:O2'	27:DA:30:G:H5'	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:D8:4:MET:CE	57:D8:61:LEU:HD22	2.40	0.51
39:DQ:27:VAL:HG11	39:DQ:134:ARG:HG2	1.92	0.51
1:CA:457:C:O2'	1:CA:458:C:H5'	2.10	0.51
1:AA:1318:A:H4'	19:AS:10:PHE:HB2	1.93	0.51
23:CW:52:G:C5'	39:DQ:56:ARG:HH12	2.18	0.51
12:AL:89:ASP:O	12:AL:91:PRO:HD3	2.11	0.51
19:AS:4:SER:O	19:AS:5:LEU:CB	2.59	0.51
3:AC:108:ASN:ND2	3:AC:144:SER:OG	2.41	0.51
2:AB:122:PHE:HA	2:AB:139:LYS:HZ1	1.74	0.51
35:DI:110:ASP:OD1	35:DI:112:LYS:HE3	2.11	0.51
27:DA:2308:G:N7	27:DA:2310:A:H5'	2.25	0.51
43:DU:108:GLU:CD	44:DV:44:LYS:HD3	2.31	0.51
58:D9:10:ILE:HD12	58:D9:32:HIS:CB	2.41	0.51
1:CA:1512:U:H2'	1:CA:1513:A:C8	2.46	0.51
2:CB:77:ALA:HB2	2:CB:211:ILE:HG21	1.91	0.51
1:CA:1028:C:H2'	1:CA:1033:G:H22	1.75	0.51
27:DA:542:C:H2'	27:DA:543:C:OP1	2.11	0.51
27:DA:635:C:O2'	27:DA:639:U:OP1	2.27	0.51
59:CX:64:G:H2'	59:CX:65:C:O4'	2.10	0.51
27:BA:1006:C:O2'	27:BA:1007:C:H5'	2.11	0.51
4:AD:17:VAL:HG11	4:AD:197:PRO:HB2	1.93	0.51
8:CH:63:LEU:HB2	8:CH:65:TYR:CE1	2.46	0.51
6:AF:21:LEU:HA	6:AF:24:GLU:HG2	1.93	0.51
53:B4:53:THR:O	53:B4:54:LYS:CG	2.59	0.51
31:BE:9:VAL:CG2	31:BE:25:VAL:HB	2.40	0.51
37:BO:86:ILE:O	37:BO:87:ILE:HD13	2.11	0.51
27:DA:692:C:O2'	27:DA:693:C:H5'	2.10	0.51
1:CA:840:C:H5'	1:CA:848:C:O2	2.10	0.51
27:BA:303:U:H2'	27:BA:304:G:H8	1.76	0.51
27:BA:1750:G:O2'	27:BA:2860:A:N1	2.38	0.51
9:AI:65:VAL:HG21	9:AI:73:GLN:NE2	2.25	0.51
7:AG:85:TYR:CD1	7:AG:154:TYR:HE1	2.28	0.51
27:BA:2615:U:C2	54:B5:7:PRO:HA	2.46	0.51
27:DA:2271:G:H2'	27:DA:2272:U:H6	1.75	0.51
17:AQ:82:MET:HA	17:AQ:85:VAL:HG23	1.93	0.51
1:CA:1282:C:O5'	1:CA:1282:C:H6	1.93	0.51
20:AT:87:LYS:O	20:AT:91:LEU:HG	2.11	0.51
27:BA:1223:G:H5'	27:BA:1224:C:OP2	2.11	0.51
1:CA:690:G:H2'	1:CA:691:G:O4'	2.11	0.51
16:CP:22:THR:OG1	16:CP:23:ASP:N	2.43	0.51
1:AA:908:A:H2'	1:AA:909:A:C8	2.45	0.51
4:CD:106:TYR:CE1	4:CD:113:SER:HA	2.46	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B6:40:CYS:SG	55:B6:45:LYS:CE	2.99	0.51
27:BA:637:A:H4'	27:BA:638:G:O5'	2.09	0.51
42:BT:82:LEU:N	42:BT:82:LEU:HD12	2.26	0.51
14:CN:59:ALA:O	14:CN:60:SER:HB2	2.10	0.51
48:DZ:29:ASN:O	48:DZ:31:HIS:N	2.42	0.51
20:AT:62:LEU:O	20:AT:65:LYS:HB2	2.11	0.51
57:D8:32:LEU:HG	57:D8:36:LYS:HZ1	1.76	0.51
4:AD:49:ARG:CG	4:AD:49:ARG:HH11	2.23	0.51
57:B8:16:ILE:HG23	57:B8:64:TYR:CD2	2.45	0.51
36:DN:55:VAL:HG23	36:DN:128:HIS:HB3	1.92	0.51
13:AM:15:VAL:HG12	13:AM:45:VAL:HG22	1.92	0.51
13:AM:19:LEU:HD11	13:AM:56:LEU:HD11	1.92	0.51
13:AM:70:LEU:H	13:AM:72:ALA:H	1.59	0.51
9:CI:96:LEU:O	9:CI:101:PHE:N	2.44	0.51
31:DE:4:ILE:O	31:DE:5:LEU:HD23	2.10	0.51
32:BF:160:ASN:ND2	32:BF:163:VAL:HG23	2.25	0.51
29:DC:63:SER:O	29:DC:64:LEU:HB2	2.08	0.51
27:DA:1654:A:H2	31:DE:113:PHE:CE1	2.29	0.51
2:CB:166:ASP:O	2:CB:170:GLU:OE1	2.29	0.51
2:CB:96:ARG:N	2:CB:96:ARG:CD	2.74	0.51
5:CE:100:VAL:HG13	5:CE:118:ILE:CG2	2.41	0.51
27:BA:27:G:O2'	27:BA:28:A:H8	1.94	0.51
27:BA:580:C:H2'	27:BA:581:C:C6	2.44	0.51
27:DA:38:A:O2'	27:DA:39:C:H5'	2.11	0.51
51:D2:27:GLU:O	51:D2:30:ARG:HG2	2.11	0.51
48:DZ:138:VAL:CG2	48:DZ:154:LEU:HD21	2.32	0.51
11:CK:23:ALA:O	11:CK:87:THR:O	2.28	0.51
27:DA:2540:C:H2'	27:DA:2541:A:O4'	2.10	0.51
40:DR:28:LEU:HA	40:DR:34:ILE:CG1	2.41	0.51
34:DH:97:ARG:HB2	34:DH:104:GLU:HB3	1.92	0.51
19:AS:13:ASP:C	19:AS:15:LEU:H	2.14	0.51
27:DA:26:G:OP1	45:DW:80:PRO:HB3	2.11	0.51
45:DW:6:ILE:CG1	45:DW:104:THR:HG23	2.41	0.51
27:DA:481:G:HO2'	27:DA:482:A:P	2.34	0.51
27:BA:2280:G:O2'	27:BA:2388:A:N1	2.36	0.51
2:CB:185:ILE:HG23	2:CB:199:TYR:HB2	1.92	0.51
14:CN:15:LYS:O	14:CN:16:PHE:O	2.28	0.51
27:DA:884:C:C2'	27:DA:885:C:H5'	2.41	0.51
40:BR:55:ALA:HA	40:BR:80:PHE:CE1	2.45	0.51
35:BI:78:THR:HG22	35:BI:143:SER:HB2	1.92	0.51
50:D1:29:GLY:C	50:D1:30:VAL:HG13	2.31	0.51
4:CD:114:ARG:HG3	4:CD:114:ARG:HH11	1.75	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1306:A:O2'	1:CA:1307:U:H5'	2.10	0.51
31:DE:13:ARG:CA	31:DE:22:PRO:HA	2.38	0.51
27:BA:2012:G:O3'	45:BW:96:ILE:CD1	2.57	0.51
4:AD:133:VAL:HG13	4:AD:135:LEU:CD2	2.41	0.51
23:CW:67:C:O2'	23:CW:68:C:H5'	2.10	0.51
56:D7:9:ARG:HG3	56:D7:9:ARG:NH1	2.26	0.51
1:AA:1176:A:H2'	1:AA:1177:G:H8	1.73	0.51
27:BA:402:A:H2'	27:BA:403:U:H5'	1.92	0.51
27:DA:2494:G:H2'	27:DA:2495:G:C8	2.45	0.51
30:DD:109:ASP:CG	30:DD:197:GLY:HA2	2.31	0.51
27:DA:1474:C:H2'	27:DA:1475:G:C8	2.46	0.51
27:DA:2007:C:H4'	27:DA:2824:C:H4'	1.93	0.51
27:DA:1161:C:H2'	27:DA:1162:G:H8	1.75	0.51
1:CA:603:U:H2'	1:CA:604:G:H8	1.74	0.51
37:DO:24:VAL:CG1	37:DO:33:ALA:HB2	2.41	0.51
1:CA:718:G:H21	18:CR:49:LYS:NZ	2.09	0.51
27:BA:850:C:O2'	27:BA:851:U:H5'	2.10	0.51
27:BA:491:G:H2'	27:BA:492:A:H8	1.75	0.51
1:CA:856:C:H2'	1:CA:857:C:H6	1.76	0.51
2:CB:146:GLN:O	2:CB:146:GLN:HG2	2.10	0.51
27:BA:638:G:C6	27:BA:651:G:N7	2.79	0.51
38:BP:130:PHE:CD2	38:BP:130:PHE:N	2.77	0.51
2:AB:167:PRO:HG2	2:AB:192:SER:CB	2.40	0.51
35:DI:101:LEU:HD23	35:DI:109:ILE:HG12	1.93	0.51
28:BB:51:G:H2'	28:BB:52:A:H1'	1.93	0.51
47:BY:100:ALA:O	47:BY:101:LYS:CB	2.59	0.51
33:BG:146:TYR:O	33:BG:147:ASP:C	2.49	0.51
48:DZ:4:LEU:HD22	48:DZ:46:VAL:CG2	2.40	0.51
1:AA:1457:G:H2'	1:AA:1458:G:H8	1.76	0.51
51:D2:16:LEU:O	51:D2:20:GLU:HB3	2.10	0.51
27:DA:1794:U:O2'	27:DA:1795:C:H5'	2.11	0.51
38:DP:101:VAL:HG13	38:DP:106:LEU:CD2	2.40	0.51
41:DS:25:ARG:HD3	41:DS:42:ASP:OD1	2.10	0.51
28:DB:22:U:C2	28:DB:61:G:C6	2.99	0.51
18:CR:70:ILE:HG23	18:CR:79:LEU:HD13	1.92	0.51
42:DT:82:LEU:O	42:DT:84:GLN:O	2.28	0.51
1:CA:1445:C:H2'	1:CA:1446:U:C4'	2.41	0.51
23:AW:35:G:O2'	23:AW:36:A:P	2.69	0.51
15:CO:27:VAL:C	15:CO:29:VAL:N	2.62	0.51
32:DF:199:TRP:CZ3	32:DF:203:GLN:HG3	2.46	0.51
1:AA:78:G:O2'	1:AA:79:G:N2	2.44	0.51
4:AD:110:PHE:CE2	4:AD:147:ALA:HA	2.46	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:AZ:1:KBE:HEA	26:AZ:1:KBE:N	2.26	0.51
27:DA:673:C:O2'	27:DA:674:G:H5'	2.10	0.51
37:BO:18:LYS:HB2	37:BO:45:GLU:CG	2.32	0.51
27:BA:2821:A:H2'	27:BA:2822:G:C8	2.46	0.51
4:AD:4:TYR:O	4:AD:5:ILE:CB	2.55	0.51
27:BA:675:A:C8	27:BA:804:A:C6	2.99	0.51
35:BI:72:LEU:HD12	35:BI:75:LEU:HD23	1.93	0.51
50:D1:3:LYS:CG	50:D1:4:VAL:H	2.14	0.51
42:BT:100:TYR:O	42:BT:103:ARG:HG3	2.11	0.51
21:CU:6:ARG:O	21:CU:12:LYS:HE3	2.11	0.51
28:BB:30:C:H2'	28:BB:31:C:O4'	2.11	0.51
28:BB:107:G:O2'	28:BB:108:U:H5'	2.11	0.51
30:BD:105:ILE:CD1	30:BD:106:ILE:HG22	2.37	0.51
30:DD:35:LYS:HZ3	30:DD:103:ARG:CA	2.23	0.51
2:AB:114:ARG:O	2:AB:117:GLU:HB3	2.10	0.51
1:CA:836:G:C6	1:CA:851:G:C6	2.98	0.51
12:CL:4:ILE:HG22	12:CL:5:ASN:N	2.25	0.51
17:CQ:37:LYS:O	17:CQ:38:ARG:HB2	2.10	0.51
1:AA:953:G:H5'	1:AA:965:A:H61	1.76	0.51
27:DA:445:C:OP1	43:DU:2:PRO:HA	2.11	0.51
25:AY:70:C:H2'	25:AY:71:A:H8	1.75	0.51
43:BU:66:ASN:ND2	43:BU:70:ARG:HH21	2.08	0.51
8:CH:22:GLU:O	8:CH:62:TYR:HA	2.11	0.51
29:BC:51:PRO:O	29:BC:53:ARG:N	2.44	0.51
27:DA:692:C:H2'	27:DA:693:C:H6	1.76	0.51
27:DA:483:A:H4'	47:DY:49:VAL:CG2	2.40	0.51
27:BA:797:C:H2'	27:BA:798:G:O4'	2.11	0.51
27:DA:2257:U:O2'	27:DA:2258:C:H5'	2.11	0.51
27:BA:2549:G:O2'	27:BA:2550:G:H5'	2.10	0.51
1:AA:311:C:HO2'	1:AA:312:C:H5'	1.76	0.51
1:CA:340:U:O2'	1:CA:341:C:H5'	2.11	0.51
1:AA:986:A:H1'	19:AS:54:GLY:O	2.10	0.51
36:DN:14:VAL:HG23	36:DN:50:ASP:HB3	1.93	0.51
27:BA:2768:C:O2'	27:BA:2769:C:H5'	2.11	0.51
1:AA:763:G:H2'	1:AA:764:C:H6	1.76	0.51
8:CH:123:GLU:O	8:CH:127:LEU:N	2.44	0.51
39:DQ:68:ILE:CG2	39:DQ:103:MET:HA	2.41	0.51
25:CY:33:G:N3	25:CY:33:G:H2'	2.25	0.51
55:D6:24:GLU:OE1	55:D6:24:GLU:HA	2.11	0.51
30:BD:38:LYS:O	30:BD:38:LYS:HG2	2.11	0.51
1:AA:437:U:O2'	1:AA:438:G:H5'	2.11	0.51
37:BO:104:ARG:NH2	42:BT:35:LYS:NZ	2.56	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:38:ASN:ND2	42:BT:40:THR:O	2.43	0.51
44:DV:64:HIS:N	44:DV:64:HIS:CD2	2.77	0.51
35:BI:110:ASP:C	35:BI:112:LYS:N	2.63	0.51
35:BI:96:ASP:C	35:BI:98:ALA:N	2.63	0.51
1:CA:1368:G:H4'	10:CJ:46:ARG:NH1	2.23	0.51
51:D2:63:VAL:HA	51:D2:66:GLU:HG3	1.93	0.51
27:BA:242:G:O5'	57:B8:3:LYS:HE2	2.10	0.51
41:DS:28:VAL:HG22	41:DS:99:LYS:HZ1	1.76	0.51
27:DA:1160:G:N2	44:DV:10:LYS:HE2	2.26	0.51
27:BA:942:G:C2'	27:BA:943:U:H5'	2.41	0.51
39:DQ:118:LEU:HD12	39:DQ:131:ILE:CG2	2.41	0.51
1:CA:1116:C:O2'	1:CA:1117:G:H5''	2.11	0.51
31:DE:3:GLY:O	31:DE:4:ILE:HB	2.10	0.51
27:DA:271(S):G:C6	27:DA:271(T):C:C4	2.99	0.51
47:DY:38:ILE:CG2	47:DY:39:VAL:N	2.68	0.51
42:DT:57:PHE:CG	42:DT:58:ASN:N	2.79	0.51
35:BI:66:GLU:HG2	35:BI:69:LYS:HD3	1.93	0.51
1:AA:1305:G:H5'	21:AU:4:GLY:CA	2.36	0.51
19:AS:24:ALA:O	19:AS:25:LYS:CB	2.58	0.51
2:AB:27:LYS:HD3	2:AB:193:ASP:OD1	2.10	0.51
3:AC:64:VAL:O	3:AC:64:VAL:HG23	2.09	0.51
2:CB:47:THR:HG23	2:CB:202:PRO:O	2.11	0.51
19:AS:29:ARG:O	19:AS:30:LEU:C	2.49	0.51
39:BQ:137:TYR:CE1	48:BZ:80:ARG:NH1	2.69	0.51
27:BA:1042:G:N3	27:BA:1042:G:H2'	2.26	0.51
30:BD:211:ARG:HA	30:BD:214:TRP:CD2	2.46	0.51
8:AH:137:VAL:HG12	8:AH:138:TRP:H	1.76	0.51
17:AQ:33:GLY:O	17:AQ:34:LYS:C	2.50	0.51
16:CP:20:VAL:HG23	16:CP:32:TYR:HB2	1.91	0.51
27:DA:1981:A:H5''	27:DA:1982:C:OP2	2.11	0.51
3:CC:138:VAL:HG12	3:CC:170:GLN:HE21	1.76	0.51
20:AT:18:GLN:HE21	20:AT:22:ARG:HH22	1.58	0.51
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.45	0.51
50:B1:18:ILE:O	50:B1:18:ILE:HG22	2.11	0.51
27:BA:322:A:H3'	32:BF:169:ASN:HD21	1.75	0.51
10:AJ:90:LEU:N	10:AJ:91:PRO:CD	2.74	0.51
27:BA:1799:G:H8	30:BD:181:GLU:OE1	1.94	0.51
1:AA:51:A:H4'	1:AA:52:G:C5'	2.41	0.51
6:AF:91:VAL:HG13	18:AR:72:ARG:NH2	2.26	0.51
27:DA:2694:G:C2'	27:DA:2695:C:H5'	2.41	0.51
1:CA:606:G:C2'	1:CA:631:G:N2	2.73	0.51
27:BA:6:A:O2'	27:BA:7:G:H5'	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:87:VAL:HG11	7:CG:154:TYR:C	2.32	0.51
16:AP:8:ARG:C	16:AP:9:PHE:CD2	2.80	0.51
27:DA:533:G:H5'	43:DU:24:TYR:CD2	2.46	0.51
3:AC:179:ARG:O	3:AC:206:GLU:HA	2.11	0.51
48:DZ:47:PHE:O	48:DZ:48:ARG:C	2.49	0.51
1:AA:640:A:H2'	1:AA:641:U:H5'	1.93	0.51
12:AL:41:THR:CB	26:AZ:4:MYN:H22	2.40	0.51
34:BH:73:ALA:O	34:BH:77:LYS:HG2	2.10	0.51
27:BA:1138:G:H2'	27:BA:1139:G:O4'	2.11	0.51
27:BA:2729:G:N3	31:BE:187:ALA:HB2	2.26	0.51
1:CA:1423:G:O2'	1:CA:1424:C:H5'	2.11	0.51
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.45	0.51
27:DA:1272:A:OP2	27:DA:1647:G:OP1	2.29	0.51
27:DA:443:A:H1'	27:DA:1201:C:O4'	2.11	0.51
27:DA:519:U:H2'	27:DA:520:G:C8	2.46	0.51
1:CA:743:U:H2'	1:CA:744:C:C6	2.46	0.51
3:AC:29:TYR:HD1	14:AN:36:PHE:CZ	2.28	0.51
31:DE:152:LYS:HB3	36:DN:78:TYR:HA	1.91	0.51
53:B4:43:GLY:O	53:B4:45:GLY:N	2.44	0.51
18:AR:19:LYS:O	18:AR:20:ALA:CB	2.59	0.51
27:DA:808:G:H2'	27:DA:809:G:C8	2.45	0.51
1:CA:424:G:C2	1:CA:425:G:C8	2.99	0.51
46:BX:39:ILE:HD13	46:BX:79:ALA:HB2	1.93	0.51
27:BA:407:G:H2'	27:BA:408:G:C8	2.46	0.51
36:BN:70:LYS:O	36:BN:86:PRO:HA	2.11	0.51
34:BH:88:LEU:HD22	34:BH:88:LEU:N	2.26	0.51
27:BA:2881:C:H2'	27:BA:2882:A:C8	2.46	0.51
27:DA:1917:U:H2'	27:DA:1918:A:O4'	2.11	0.51
37:BO:11:ALA:O	37:BO:12:ASP:HB3	2.11	0.51
2:AB:126:GLU:C	2:AB:128:GLU:H	2.15	0.51
27:DA:2413:G:N2	27:DA:2414:G:H1'	2.26	0.51
27:DA:2889:C:H2'	27:DA:2891:G:O4'	2.11	0.51
3:CC:18:TRP:NE1	14:CN:55:GLY:N	2.59	0.51
23:CW:17:G:H4'	23:CW:59:U:O2	2.11	0.51
13:AM:90:LEU:O	13:AM:92:HIS:N	2.41	0.50
35:DI:105:HIS:O	35:DI:107:VAL:HG23	2.11	0.50
37:BO:104:ARG:CZ	42:BT:33:LYS:HD2	2.41	0.50
42:BT:34:VAL:O	42:BT:35:LYS:HB3	2.10	0.50
45:BW:12:ILE:HG23	45:BW:17:VAL:HG11	1.92	0.50
33:BG:85:GLY:O	33:BG:87:PRO:HD2	2.10	0.50
10:CJ:30:SER:HB2	10:CJ:80:LYS:O	2.09	0.50
27:DA:2864:G:O2'	27:DA:2865:U:H5'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DR:51:LEU:HD23	40:DR:66:VAL:CG2	2.38	0.50
41:DS:16:ASN:ND2	41:DS:92:TYR:HE1	2.09	0.50
44:DV:10:LYS:HE3	44:DV:10:LYS:N	2.26	0.50
33:DG:110:ALA:O	33:DG:111:LEU:C	2.49	0.50
33:DG:119:GLY:O	33:DG:120:LEU:HG	2.10	0.50
27:BA:1817:G:O2'	27:BA:1818:U:H5'	2.10	0.50
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.29	0.50
42:DT:34:VAL:HG12	42:DT:35:LYS:N	2.26	0.50
9:CI:17:VAL:HG11	9:CI:81:ILE:HA	1.93	0.50
37:DO:20:MET:O	37:DO:41:ALA:HA	2.11	0.50
45:DW:40:ASN:C	45:DW:41:LYS:HG2	2.29	0.50
9:AI:96:LEU:HD11	9:AI:102:LEU:HB2	1.93	0.50
9:AI:9:ARG:O	9:AI:104:ARG:HD2	2.11	0.50
2:AB:80:ILE:HD11	2:AB:212:GLN:CA	2.35	0.50
27:DA:2881:C:C2	27:DA:2882:A:C8	2.99	0.50
4:AD:147:ALA:HB2	4:AD:182:LYS:HA	1.92	0.50
13:CM:69:GLU:OE1	13:CM:69:GLU:HA	2.10	0.50
12:CL:25:LYS:HB2	12:CL:30:ARG:NH1	2.25	0.50
27:DA:1204:A:N1	27:DA:1241:A:H2	2.09	0.50
39:BQ:65:PHE:O	39:BQ:104:PHE:HB3	2.09	0.50
45:BW:111:HIS:CG	45:BW:112:GLY:H	2.28	0.50
1:CA:1106:G:H5''	3:CC:172:ARG:CD	2.41	0.50
3:CC:83:ARG:C	3:CC:85:ARG:H	2.14	0.50
35:BI:6:LEU:O	35:BI:7:GLU:HB2	2.11	0.50
30:DD:147:LEU:HD13	30:DD:155:LEU:CD1	2.41	0.50
27:BA:555:U:H1'	27:BA:556:G:N7	2.26	0.50
39:DQ:32:TYR:O	39:DQ:105:GLU:HA	2.11	0.50
27:BA:2225:A:H5'	27:BA:2226:C:O4'	2.11	0.50
47:DY:46:LYS:HG2	47:DY:47:LYS:N	2.25	0.50
27:DA:614(C):A:HO2'	27:DA:615:G:C4'	2.21	0.50
50:B1:46:LEU:O	50:B1:47:GLN:NE2	2.44	0.50
19:CS:29:ARG:HD2	19:CS:29:ARG:N	2.26	0.50
27:DA:2310:A:O2'	27:DA:2311:A:C5'	2.57	0.50
11:CK:33:THR:HA	11:CK:40:ILE:HG12	1.92	0.50
18:AR:44:LEU:HD21	18:AR:70:ILE:HG21	1.93	0.50
37:BO:120:GLU:HB2	42:BT:68:TYR:HE2	1.76	0.50
2:CB:132:LYS:C	2:CB:134:GLU:H	2.13	0.50
1:AA:839:U:O2	1:AA:839:U:H2'	2.11	0.50
1:AA:1109:C:O2'	1:AA:1110:A:H5'	2.11	0.50
30:BD:28:GLU:HB2	30:BD:29:PRO:HD3	1.93	0.50
25:AY:70:C:H2'	25:AY:71:A:C8	2.46	0.50
43:DU:28:ARG:HG2	43:DU:28:ARG:HH11	1.76	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BN:51:PHE:CZ	36:BN:119:ARG:CD	2.93	0.50
27:DA:2350:C:H2'	27:DA:2351:G:O4'	2.10	0.50
27:BA:1146:C:C2'	27:BA:1147:C:H5'	2.41	0.50
27:DA:1198:U:O2	27:DA:1249:U:H1'	2.11	0.50
29:DC:37:PHE:O	29:DC:39:GLU:N	2.43	0.50
27:BA:2199:A:N3	27:BA:2199:A:H2'	2.25	0.50
5:AE:28:PHE:HD1	5:AE:28:PHE:H	1.59	0.50
1:AA:105:G:H2'	1:AA:106:C:C6	2.46	0.50
45:BW:57:ASN:ND2	45:BW:57:ASN:H	2.09	0.50
37:DO:24:VAL:HG21	37:DO:30:ALA:O	2.11	0.50
1:CA:524:G:H2'	1:CA:525:C:C6	2.46	0.50
27:BA:1274:A:N1	27:BA:1645:G:H5'	2.25	0.50
35:DI:31:LEU:HB2	35:DI:32:PRO:HD3	1.93	0.50
5:CE:26:PHE:N	5:CE:26:PHE:CD1	2.78	0.50
1:CA:1405:G:O2'	1:CA:1406:U:H5'	2.12	0.50
23:CW:4:G:N2	23:CW:69:C:C2	2.79	0.50
38:BP:131:SER:O	38:BP:134:ALA:HB3	2.12	0.50
1:CA:1049:U:H1'	1:CA:1201:A:C5	2.45	0.50
42:BT:45:PHE:CE2	42:BT:74:ARG:HB2	2.47	0.50
27:BA:1471:A:N3	27:BA:1471:A:H2'	2.27	0.50
35:BI:101:LEU:HG	35:BI:109:ILE:CD1	2.35	0.50
41:BS:82:ILE:O	41:BS:83:LYS:HB2	2.11	0.50
41:BS:82:ILE:HG22	41:BS:83:LYS:N	2.26	0.50
33:DG:175:LEU:C	33:DG:177:GLY:H	2.15	0.50
27:DA:856:C:H1'	49:D0:27:GLU:HB3	1.92	0.50
27:DA:2787:C:O2'	31:DE:61:ARG:HG3	2.10	0.50
48:BZ:43:PHE:CZ	48:BZ:85:VAL:HG11	2.45	0.50
1:CA:1205:U:H4'	3:CC:195:VAL:CG2	2.41	0.50
28:DB:34:U:C2	28:DB:44:G:O6	2.65	0.50
38:BP:26:GLY:HA2	38:BP:30:THR:HG23	1.94	0.50
1:AA:1190:G:H3'	3:AC:3:ASN:ND2	2.26	0.50
32:DF:134:GLY:HA2	32:DF:162:LEU:O	2.11	0.50
1:CA:1101:A:C4'	1:CA:1102:A:O5'	2.43	0.50
48:BZ:150:HIS:HB2	48:BZ:169:THR:HA	1.92	0.50
19:CS:61:TYR:O	19:CS:62:ILE:HB	2.11	0.50
47:BY:17:SER:HB2	47:BY:71:LYS:CB	2.30	0.50
17:CQ:20:THR:HG21	17:CQ:41:LYS:HD2	1.93	0.50
27:BA:1435:G:H2'	27:BA:1436:G:H8	1.76	0.50
44:BV:39:LEU:CA	44:BV:47:VAL:HG11	2.41	0.50
1:CA:597:G:C6	1:CA:644:G:C6	3.00	0.50
19:AS:23:ASN:O	19:AS:25:LYS:N	2.43	0.50
1:AA:692:U:OP1	11:AK:124:LYS:NZ	2.44	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2050:C:H2'	27:DA:2051:A:O4'	2.11	0.50
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.93	0.50
3:CC:83:ARG:HG2	3:CC:83:ARG:HH11	1.75	0.50
12:AL:82:ILE:HG22	12:AL:83:ARG:N	2.25	0.50
16:AP:50:LYS:HZ1	16:AP:52:ASP:HB2	1.76	0.50
10:AJ:8:LEU:O	10:AJ:16:LEU:HD21	2.10	0.50
27:BA:8:A:C2	27:BA:2896:C:N3	2.80	0.50
27:DA:993:G:OP1	43:DU:50:ARG:NH2	2.44	0.50
1:AA:1084:G:OP1	1:AA:1086:U:C4	2.64	0.50
1:AA:1036:G:H3'	1:AA:1037:C:C6	2.46	0.50
6:CF:45:LEU:O	6:CF:46:ARG:HG2	2.11	0.50
27:BA:1027:A:C2	27:BA:2488:A:H5'	2.46	0.50
7:CG:71:PRO:HG3	7:CG:103:TRP:CH2	2.47	0.50
52:B3:32:GLN:NE2	52:B3:32:GLN:CA	2.72	0.50
29:BC:41:VAL:CG2	29:BC:178:ALA:HB3	2.40	0.50
37:BO:86:ILE:CG2	37:BO:87:ILE:N	2.74	0.50
27:DA:467:G:O2'	27:DA:468:G:H5'	2.12	0.50
1:AA:1219:U:OP1	14:AN:19:ARG:NH2	2.37	0.50
27:BA:629:G:H5''	57:B8:15:LYS:HZ1	1.75	0.50
9:AI:33:PHE:C	9:AI:35:GLU:H	2.15	0.50
3:AC:21:ARG:O	3:AC:58:GLU:HA	2.10	0.50
36:BN:1:MET:C	36:BN:2:LYS:HG3	2.31	0.50
23:AW:66:A:H2'	23:AW:67:C:C6	2.47	0.50
1:CA:154:C:O2'	1:CA:155:C:H5'	2.11	0.50
1:AA:1160:G:O6	1:AA:1181:G:C6	2.65	0.50
27:BA:2401:U:O2'	27:BA:2402:C:OP1	2.29	0.50
1:CA:1030(B):C:H2'	1:CA:1030(C):G:H5'	1.93	0.50
2:AB:124:SER:OG	2:AB:125:PRO:HD2	2.10	0.50
27:BA:1308:A:H2'	27:BA:1309:G:O4'	2.11	0.50
39:DQ:53:ALA:HB1	39:DQ:120:ILE:HG21	1.92	0.50
27:BA:106:C:H2'	27:BA:107:C:C6	2.45	0.50
42:DT:125:ARG:HA	42:DT:125:ARG:HH11	1.76	0.50
42:BT:113:LYS:H	42:BT:113:LYS:HD2	1.76	0.50
1:CA:1310:G:O2'	1:CA:1311:G:H5'	2.11	0.50
37:DO:10:VAL:HG21	37:DO:16:ALA:O	2.11	0.50
1:AA:542:G:O2'	1:AA:543:C:H5'	2.12	0.50
44:DV:18:LEU:HD13	44:DV:19:LYS:H	1.74	0.50
35:BI:92:VAL:C	35:BI:96:ASP:HB2	2.32	0.50
55:D6:41:PRO:C	55:D6:43:CYS:N	2.63	0.50
42:DT:18:ASP:O	42:DT:19:LEU:C	2.49	0.50
42:DT:89:VAL:CG1	42:DT:91:ARG:NE	2.63	0.50
57:B8:60:LEU:HB3	57:B8:63:PRO:HG2	1.92	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:26:LEU:HA	41:DS:39:ILE:HD13	1.94	0.50
28:DB:22:U:H2'	28:DB:23:G:C8	2.47	0.50
12:CL:44:LYS:CG	12:CL:45:PRO:HD2	2.40	0.50
27:DA:2491:U:C2'	27:DA:2492:U:H5'	2.41	0.50
31:DE:101:ARG:HA	31:DE:170:LEU:O	2.11	0.50
31:DE:76:ARG:HG2	31:DE:195:LEU:CD1	2.38	0.50
27:DA:1257:C:H4'	32:DF:83:PHE:HE2	1.71	0.50
27:BA:2850:A:H2'	27:BA:2851:A:C8	2.46	0.50
2:CB:166:ASP:HB3	2:CB:169:LYS:HB2	1.91	0.50
45:BW:88:ARG:H	45:BW:93:ALA:H	1.59	0.50
1:AA:92:C:H2'	1:AA:93:G:O4'	2.12	0.50
27:DA:2846:G:H2'	27:DA:2847:U:O4'	2.11	0.50
1:AA:1298:C:C4	7:AG:114:ARG:HD2	2.46	0.50
27:DA:2753:A:N3	58:D9:15:LYS:NZ	2.50	0.50
27:DA:1203:G:O2'	27:DA:1242:A:N6	2.42	0.50
4:CD:188:LEU:O	4:CD:190:ASP:N	2.44	0.50
5:AE:81:GLU:HG2	5:AE:90:VAL:HG13	1.92	0.50
27:DA:2538:C:O2'	27:DA:2539:C:H5'	2.11	0.50
34:BH:44:VAL:O	34:BH:46:GLU:OE2	2.28	0.50
37:DO:111:PHE:CD2	37:DO:111:PHE:N	2.79	0.50
36:DN:121:LYS:HD2	36:DN:121:LYS:N	2.25	0.50
35:BI:8:PRO:HD3	35:BI:15:VAL:H	1.75	0.50
27:DA:196:A:OP1	38:DP:51:PHE:HZ	1.94	0.50
10:AJ:6:ILE:CD1	10:AJ:72:VAL:HB	2.39	0.50
5:AE:67:VAL:HG22	5:AE:68:GLU:N	2.26	0.50
31:BE:170:LEU:HD23	31:BE:184:VAL:HG11	1.94	0.50
27:BA:96:G:H4'	51:B2:48:HIS:NE2	2.26	0.50
35:BI:44:LEU:O	35:BI:47:LEU:HB3	2.11	0.50
4:CD:23:GLY:H	4:CD:26:CYS:HB2	1.77	0.50
27:DA:1479:G:H2'	27:DA:1480:G:O4'	2.11	0.50
27:BA:2835:A:H62	27:BA:2878:U:H3'	1.75	0.50
58:D9:7:VAL:CG2	58:D9:36:GLN:HB2	2.42	0.50
4:CD:102:ASP:O	4:CD:105:VAL:HB	2.10	0.50
38:DP:38:GLN:HG3	38:DP:41:ARG:HG3	1.92	0.50
23:CW:7:A:H4'	23:CW:8:U:OP2	2.12	0.50
36:BN:116:LEU:O	36:BN:119:ARG:HB2	2.10	0.50
1:AA:234:C:H2'	1:AA:235:C:C6	2.42	0.50
19:AS:11:VAL:O	19:AS:12:ASP:C	2.49	0.50
32:BF:53:THR:HG22	32:BF:56:GLU:CG	2.41	0.50
13:AM:80:ARG:C	13:AM:82:MET:N	2.64	0.50
1:CA:1277:C:O2'	1:CA:1279:A:H8	1.94	0.50
10:AJ:22:LYS:O	10:AJ:22:LYS:HD2	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DF:202:PHE:O	32:DF:206:ILE:HG12	2.11	0.50
45:BW:5:ALA:HB1	45:BW:50:VAL:HG22	1.92	0.50
1:CA:545:C:O2'	1:CA:546:G:H5'	2.11	0.50
27:DA:519:U:O2'	27:DA:520:G:H5'	2.12	0.50
1:CA:840:C:C4'	1:CA:841:U:OP1	2.59	0.50
51:B2:43:GLN:O	51:B2:44:LEU:HB2	2.10	0.50
1:CA:1497:G:H2'	1:CA:1498:U:H5'	1.92	0.50
32:BF:140:LEU:HD21	32:BF:170:LEU:HD11	1.92	0.50
27:BA:969:U:OP1	52:B3:17:LYS:HG2	2.10	0.50
15:AO:46:HIS:C	15:AO:48:LYS:H	2.14	0.50
4:CD:70:ILE:HG12	4:CD:71:SER:H	1.75	0.50
30:DD:260:ARG:O	30:DD:261:LYS:C	2.50	0.50
45:DW:27:LYS:HE3	45:DW:31:GLU:HG2	1.93	0.50
8:CH:39:LEU:HD22	8:CH:39:LEU:N	2.25	0.50
47:DY:90:LEU:HD12	47:DY:91:GLU:HB2	1.94	0.50
8:CH:77:GLU:HG2	8:CH:78:GLN:H	1.76	0.50
2:AB:127:ILE:O	2:AB:127:ILE:HG22	2.12	0.50
27:BA:2704:C:H2'	27:BA:2705:A:O4'	2.11	0.50
55:B6:22:ALA:O	55:B6:23:THR:CG2	2.44	0.50
38:BP:111:ARG:HH21	38:BP:111:ARG:HG3	1.76	0.50
1:CA:1222:G:O2'	1:CA:1223:C:H5'	2.10	0.50
1:CA:1223:C:OP2	1:CA:1224:G:H2'	2.11	0.50
47:BY:96:ILE:HG22	47:BY:97:ARG:H	1.76	0.50
37:BO:104:ARG:HB3	37:BO:104:ARG:NH1	2.27	0.50
40:BR:28:LEU:HA	40:BR:34:ILE:CG1	2.42	0.50
35:BI:96:ASP:O	35:BI:98:ALA:N	2.45	0.50
33:BG:142:PRO:C	33:BG:144:ILE:H	2.15	0.50
38:DP:83:VAL:HG12	38:DP:112:LEU:CD2	2.34	0.50
28:DB:21:G:C6	28:DB:63:G:C6	2.99	0.50
33:DG:55:LYS:HD2	33:DG:150:ASP:HB3	1.93	0.50
30:BD:135:PHE:N	30:BD:135:PHE:CD2	2.76	0.50
1:CA:1444:C:C4	1:CA:1445:C:N4	2.79	0.50
27:DA:2811:G:OP1	31:DE:60:ASN:HB2	2.11	0.50
41:DS:34:HIS:CB	41:DS:54:LEU:HD23	2.40	0.50
1:AA:1253:G:H5'	10:AJ:44:VAL:HG12	1.93	0.50
2:AB:212:GLN:NE2	2:AB:216:SER:HB2	2.27	0.50
27:DA:330:A:HO2'	27:DA:331:A:H8	1.60	0.50
47:DY:37:VAL:O	47:DY:38:ILE:CG1	2.59	0.50
15:CO:26:GLU:OE1	15:CO:77:ARG:HD3	2.11	0.50
2:CB:167:PRO:CG	2:CB:188:ALA:HA	2.40	0.50
1:AA:78:G:N2	1:AA:79:G:C6	2.66	0.50
48:BZ:148:SER:C	48:BZ:149:LEU:HD13	2.32	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BZ:165:SER:HB2	48:BZ:167:GLU:H	1.75	0.50
9:CI:113:LYS:H	9:CI:119:ALA:HA	1.75	0.50
18:AR:56:THR:OG1	18:AR:58:LEU:HD13	2.12	0.50
4:AD:105:VAL:CG2	4:AD:126:ILE:HG21	2.41	0.50
13:CM:69:GLU:O	13:CM:70:LEU:HB2	2.10	0.50
27:DA:673:C:C2'	27:DA:674:G:H5'	2.41	0.50
15:CO:87:ILE:CG2	15:CO:88:ARG:H	2.11	0.50
51:D2:48:HIS:O	51:D2:52:ASP:HB2	2.11	0.50
39:BQ:55:VAL:CG1	39:BQ:64:ILE:HD12	2.41	0.50
5:CE:20:GLN:O	5:CE:21:ALA:C	2.49	0.50
3:AC:172:ARG:HB3	3:AC:174:PRO:HD3	1.93	0.50
5:AE:80:ILE:HB	8:AH:104:ARG:NH2	2.25	0.50
48:DZ:165:SER:HB2	48:DZ:167:GLU:N	2.26	0.50
4:CD:30:LYS:HA	4:CD:35:ARG:CD	2.36	0.50
1:AA:1464:G:OP1	42:BT:108:ARG:HD2	2.10	0.50
50:D1:6:GLU:OE1	50:D1:60:PHE:HA	2.11	0.50
39:DQ:24:GLY:HA3	39:DQ:101:ARG:NH1	2.26	0.50
41:DS:82:ILE:CG2	41:DS:83:LYS:N	2.74	0.50
20:AT:89:ARG:CD	20:AT:104:LEU:HD11	2.35	0.50
1:AA:46:G:H2'	1:AA:366:C:H5	1.76	0.50
7:AG:5:ARG:C	7:AG:7:ALA:H	2.15	0.50
11:AK:84:VAL:CG1	11:AK:95:ILE:HD11	2.41	0.50
3:AC:137:ALA:O	3:AC:140:ARG:HB3	2.11	0.50
10:AJ:13:HIS:CE1	10:AJ:14:LYS:HG3	2.47	0.50
27:DA:2192:G:C2	27:DA:2193:G:N7	2.79	0.50
40:DR:12:ARG:HD3	40:DR:16:HIS:CG	2.46	0.50
1:CA:1097:C:H2'	1:CA:1098:C:C6	2.46	0.50
45:BW:36:LEU:HD13	45:BW:48:ALA:CA	2.39	0.50
27:BA:2564:A:OP1	27:BA:2648:C:H4'	2.10	0.50
27:BA:481:G:O2'	27:BA:482:A:P	2.69	0.50
1:CA:19:C:H5''	5:CE:86:ALA:CB	2.40	0.50
27:DA:2319:G:N3	27:DA:2319:G:H2'	2.26	0.50
29:BC:71:GLN:NE2	29:BC:73:ARG:HG2	2.26	0.50
31:BE:178:GLU:OE1	31:BE:178:GLU:O	2.29	0.50
27:BA:2830:G:H5'	31:BE:58:ARG:NH2	2.25	0.50
1:AA:22:G:H4'	1:AA:885:G:C8	2.46	0.50
30:BD:264:LYS:HG2	30:BD:266:SER:CB	2.42	0.50
45:DW:27:LYS:O	45:DW:70:TYR:HB2	2.10	0.50
27:BA:428:A:H3'	27:BA:429:A:H8	1.77	0.50
27:DA:1933:G:N2	27:DA:1968:G:H1'	2.26	0.50
27:BA:459:U:H4'	56:B7:40:TRP:CZ3	2.45	0.50
48:BZ:57:VAL:HA	48:BZ:66:LEU:O	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BI:57:ARG:O	35:BI:61:ARG:HD3	2.12	0.50
27:BA:1389:G:H2'	27:BA:1390:U:H6	1.75	0.50
1:CA:569:C:H1'	1:CA:574:A:C4	2.45	0.50
30:BD:238:GLY:O	30:BD:239:ARG:HB3	2.09	0.50
2:CB:217:ARG:HG3	2:CB:217:ARG:HH11	1.76	0.50
42:BT:96:ARG:HB3	42:BT:96:ARG:CZ	2.42	0.50
1:AA:431:A:C2'	1:AA:432:A:H5'	2.42	0.50
4:AD:14:ARG:HB2	4:AD:40:PRO:HD2	1.92	0.50
1:CA:1321:C:H5''	1:CA:1322:C:H5'	1.93	0.50
35:DI:130:TYR:HB3	35:DI:136:VAL:CG1	2.41	0.50
27:BA:2757:A:N1	34:BH:67:LEU:HD22	2.26	0.50
47:BY:28:LYS:CB	47:BY:38:ILE:H	2.24	0.50
27:DA:1038:C:H2'	27:DA:1039:G:C8	2.46	0.50
28:DB:76:G:H2'	28:DB:77:U:O5'	2.12	0.50
57:D8:33:ASN:HA	57:D8:36:LYS:CD	2.37	0.50
10:CJ:99:LYS:O	10:CJ:100:THR:HG23	2.12	0.50
10:CJ:76:ASN:ND2	10:CJ:78:ASN:OD1	2.45	0.50
30:DD:24:ILE:CG2	30:DD:25:THR:H	1.98	0.50
27:DA:1899:G:N2	27:DA:1903:G:C5	2.80	0.50
40:DR:74:LYS:HD2	40:DR:77:ARG:HH21	1.74	0.50
31:DE:143:ASN:OD1	31:DE:143:ASN:N	2.43	0.50
32:BF:25:PRO:O	32:BF:26:ALA:C	2.48	0.50
38:BP:7:ARG:C	38:BP:9:ASN:N	2.62	0.50
1:AA:978:A:H1'	1:AA:1322:C:O2	2.12	0.50
9:CI:3:GLN:O	9:CI:88:TYR:CZ	2.64	0.50
30:BD:142:VAL:HA	30:BD:194:GLY:O	2.11	0.50
39:DQ:85:LYS:HG3	49:D0:7:LEU:HD13	1.94	0.50
27:DA:857:C:O2	27:DA:857:C:H2'	2.10	0.50
27:DA:2632:A:N3	31:DE:61:ARG:HD3	2.25	0.50
19:CS:5:LEU:HG	19:CS:10:PHE:CD1	2.47	0.50
41:DS:62:LYS:CB	41:DS:62:LYS:NZ	2.74	0.50
27:BA:781:A:C8	30:BD:219:PRO:HG3	2.47	0.50
7:AG:28:ASN:O	7:AG:31:MET:HB3	2.11	0.50
9:AI:79:LEU:O	9:AI:79:LEU:HD13	2.12	0.50
2:AB:187:LEU:HD11	2:AB:204:ASN:O	2.12	0.50
47:DY:17:SER:OG	47:DY:18:GLY:N	2.43	0.50
47:DY:38:ILE:HG22	47:DY:39:VAL:H	1.74	0.50
27:DA:85:G:OP1	47:DY:9:LYS:HA	2.12	0.50
42:DT:54:ARG:HA	42:DT:59:THR:HG22	1.93	0.50
49:B0:41:ARG:HD3	49:B0:44:ARG:NH1	2.27	0.50
44:BV:38:LEU:HD23	44:BV:39:LEU:N	2.26	0.50
24:AX:66:C:H2'	24:AX:67:C:O4'	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:81:LEU:HB3	13:CM:89:GLY:HA2	1.93	0.50
2:AB:196:LEU:HD12	2:AB:197:VAL:HG23	1.94	0.50
6:CF:33:TYR:CE2	6:CF:74:ASP:HB3	2.46	0.50
57:D8:11:LYS:HG3	57:D8:64:TYR:OH	2.11	0.50
27:DA:1503:U:C4	27:DA:1504:C:N4	2.79	0.50
35:BI:75:LEU:HD12	35:BI:76:THR:N	2.18	0.50
45:DW:54:ALA:HB1	45:DW:107:LEU:CD1	2.39	0.50
39:DQ:100:GLY:O	39:DQ:101:ARG:C	2.49	0.50
39:DQ:64:ILE:HG12	39:DQ:106:VAL:HG12	1.92	0.50
42:DT:102:ILE:C	42:DT:104:ASN:N	2.63	0.50
34:BH:159:GLU:CG	34:BH:160:LYS:N	2.71	0.50
25:CY:17:G:N2	25:CY:54:U:H6	2.03	0.50
11:CK:44:SER:OG	11:CK:47:VAL:HG23	2.11	0.50
1:CA:107:G:O2'	1:CA:108:G:H5'	2.12	0.50
31:BE:47:VAL:HG21	31:BE:85:ASN:HA	1.92	0.50
6:CF:83:ASP:O	6:CF:85:VAL:N	2.45	0.50
16:AP:18:ARG:CG	16:AP:35:LYS:HE3	2.41	0.50
15:CO:6:GLU:O	15:CO:7:GLU:C	2.50	0.50
1:CA:501:C:O2'	1:CA:502:G:H5'	2.12	0.50
1:CA:186:C:H2'	1:CA:187:C:H6	1.77	0.50
27:DA:1843:C:H5'	30:DD:253:GLN:NE2	2.26	0.50
27:DA:1275:A:H4'	27:DA:1276:A:O5'	2.11	0.50
8:AH:109:ILE:CG1	8:AH:110:ALA:N	2.74	0.50
1:CA:620:C:C2	4:CD:135:LEU:HD23	2.46	0.50
13:AM:26:GLY:O	13:AM:27:LYS:C	2.49	0.50
27:BA:2364:C:H2'	27:BA:2365:G:O4'	2.12	0.50
30:BD:46:GLN:CD	30:BD:46:GLN:H	2.14	0.50
27:BA:2098:U:H2'	27:BA:2099:U:O4'	2.11	0.50
27:DA:2219:G:H2'	27:DA:2220:G:H8	1.77	0.50
46:DX:36:LYS:HE2	46:DX:55:ASN:HA	1.94	0.50
27:BA:1204:A:N1	27:BA:1241:A:C2	2.78	0.50
3:AC:187:ALA:HB3	3:AC:198:VAL:HG21	1.92	0.50
44:DV:95:LEU:HD23	44:DV:95:LEU:C	2.31	0.50
1:AA:6:G:H4'	1:AA:298:A:H4'	1.93	0.50
27:DA:189:G:H2'	27:DA:205:G:H22	1.74	0.50
7:CG:71:PRO:HD3	7:CG:103:TRP:HZ3	1.77	0.50
27:DA:139:G:H3'	27:DA:139(A):G:C5'	2.42	0.50
31:BE:203:LYS:CD	31:BE:203:LYS:O	2.59	0.50
7:AG:155:ARG:HH11	7:AG:155:ARG:HG3	1.76	0.50
32:DF:51:THR:HB	32:DF:88:VAL:HG11	1.93	0.50
20:AT:48:LYS:O	20:AT:52:ALA:HB2	2.12	0.50
31:BE:158:GLY:O	31:BE:159:HIS:C	2.50	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:913:A:H1'	1:CA:914:A:O4'	2.12	0.50
44:BV:27:ALA:O	44:BV:28:GLU:O	2.30	0.50
27:DA:1451:C:N3	27:DA:1459:G:O6	2.45	0.50
1:CA:926:G:H22	22:CV:4:A:P	2.35	0.50
1:CA:773:G:O2'	1:CA:774:G:H5'	2.10	0.50
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.93	0.50
6:CF:40:VAL:O	6:CF:40:VAL:HG22	2.11	0.50
1:AA:624:C:O3'	16:AP:10:GLY:HA2	2.12	0.50
43:BU:97:ASP:C	43:BU:99:ALA:N	2.63	0.50
57:B8:32:LEU:HB2	57:B8:36:LYS:HE2	1.92	0.50
57:B8:33:ASN:HA	57:B8:36:LYS:HZ3	1.77	0.50
4:AD:6:GLY:O	4:AD:8:VAL:HG22	2.11	0.50
14:CN:2:ALA:HB3	14:CN:6:LEU:CD1	2.40	0.50
13:AM:91:ARG:HH11	19:AS:81:ARG:HH22	1.60	0.50
47:BY:76:CYS:O	47:BY:77:PRO:C	2.49	0.50
1:AA:344:A:H5''	1:AA:345:C:OP2	2.12	0.50
13:AM:2:ALA:HB3	13:AM:9:ILE:HG22	1.93	0.50
1:CA:1064:G:N2	1:CA:1190:G:H2'	2.27	0.50
28:DB:106:G:N3	28:DB:107:G:C8	2.80	0.50
27:BA:2476:A:H2	27:BA:2477:C:C6	2.30	0.50
27:DA:2866:U:C2'	27:DA:2866:U:O2	2.57	0.50
38:DP:110:TYR:CZ	38:DP:111:ARG:NH2	2.79	0.50
38:DP:91:PHE:N	38:DP:91:PHE:CD1	2.79	0.50
41:DS:66:ALA:O	41:DS:69:VAL:HG12	2.12	0.50
43:DU:92:ARG:N	43:DU:92:ARG:CD	2.75	0.50
38:DP:23:PRO:CD	38:DP:33:ARG:CZ	2.82	0.50
33:DG:39:ILE:HD11	33:DG:155:MET:CG	2.42	0.50
33:DG:135:LEU:HD11	33:DG:157:ILE:HD11	1.94	0.50
33:DG:174:GLU:O	33:DG:177:GLY:N	2.44	0.50
30:BD:30:GLU:HA	30:BD:83:GLU:OE1	2.12	0.50
17:AQ:66:SER:O	17:AQ:69:LYS:N	2.43	0.50
7:CG:37:ASN:HD21	9:CI:41:VAL:N	2.09	0.50
30:BD:146:GLU:HG2	30:BD:152:GLY:C	2.32	0.50
49:D0:25:ARG:HH11	49:D0:25:ARG:HG2	1.75	0.50
27:DA:2267:A:H5''	27:DA:2268:A:H5'	1.92	0.50
3:AC:189:ALA:HB3	3:AC:196:LEU:N	2.25	0.50
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.46	0.50
9:AI:97:LYS:HB3	9:AI:98:PRO:CD	2.31	0.50
2:AB:11:LEU:O	2:AB:16:HIS:CE1	2.65	0.50
31:DE:110:GLY:O	40:DR:2:ARG:NH2	2.45	0.50
15:CO:25:THR:C	15:CO:27:VAL:H	2.15	0.50
15:CO:33:THR:HG23	15:CO:63:ARG:HH12	1.76	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:78:GLN:NE2	2:CB:95:GLN:HE22	2.09	0.50
3:CC:50:ALA:O	3:CC:70:VAL:HG13	2.11	0.50
1:CA:265:G:H4'	17:CQ:66:SER:CA	2.41	0.50
27:BA:1155:A:O2'	27:BA:1156:A:H2'	2.11	0.50
5:AE:102:ALA:HA	5:AE:120:THR:HG1	1.74	0.50
27:BA:1494:A:C2'	27:BA:1495:A:C5'	2.79	0.50
23:CW:37:U:C2'	23:CW:38:U:H5'	2.42	0.50
1:CA:1226:C:H4'	1:CA:1227:A:OP1	2.11	0.50
1:CA:957:U:H2'	1:CA:959:A:OP2	2.11	0.50
2:CB:194:PRO:HG2	2:CB:195:ASP:H	1.76	0.50
1:AA:1105:A:H2'	1:AA:1106:G:H8	1.77	0.50
3:CC:76:VAL:HG21	3:CC:103:VAL:CG1	2.42	0.50
27:DA:203:C:C3'	27:DA:204:A:H5''	2.33	0.50
5:AE:72:GLN:NE2	5:AE:144:THR:HG22	2.27	0.50
27:DA:908:C:OP1	39:DQ:22:LYS:HB3	2.11	0.50
33:DG:18:GLU:OE2	33:DG:21:ARG:NH1	2.45	0.50
11:AK:21:ILE:HA	11:AK:30:VAL:HG12	1.94	0.50
30:BD:259:THR:O	30:BD:260:ARG:C	2.50	0.50
54:B5:16:ARG:HG2	54:B5:16:ARG:NH1	2.21	0.50
49:B0:50:ASN:HB3	49:B0:63:VAL:CG1	2.42	0.50
35:BI:42:SER:C	35:BI:44:LEU:H	2.13	0.50
27:DA:154:G:H3'	27:DA:154(A):C:O2	2.11	0.50
7:AG:111:ARG:HE	7:AG:123:GLU:CB	2.24	0.50
8:AH:41:ARG:NH1	8:AH:41:ARG:HB2	2.25	0.50
16:AP:25:ARG:NH1	16:AP:25:ARG:HG3	2.23	0.50
27:DA:364:C:H2'	27:DA:365:C:H5'	1.94	0.50
2:CB:113:HIS:HA	2:CB:116:GLU:OE1	2.11	0.50
1:AA:617:G:H1	1:AA:623:C:H42	1.59	0.50
5:AE:26:PHE:O	5:AE:27:ARG:HB2	2.10	0.50
1:AA:828:A:H5''	1:AA:859:A:N1	2.26	0.50
1:CA:328:C:H4'	1:CA:329:A:H5'	1.92	0.50
32:BF:195:ASP:HB2	32:BF:198:ALA:HB3	1.93	0.50
47:BY:46:LYS:HE2	47:BY:47:LYS:NZ	2.27	0.50
27:DA:413:C:H2'	27:DA:414:C:C6	2.47	0.50
27:DA:1600:C:O2'	27:DA:1601:G:H5'	2.11	0.50
27:BA:2343:C:HO2'	27:BA:2373:G:HO2'	1.60	0.50
1:CA:774:G:H2'	1:CA:775:G:H8	1.77	0.50
27:BA:2740:A:H2'	27:BA:2741:A:C8	2.45	0.50
1:AA:39:G:O2'	1:AA:40:C:H5'	2.11	0.50
27:DA:510:C:O2'	27:DA:511:U:H5'	2.12	0.50
17:AQ:99:SER:C	17:AQ:100:LYS:HG3	2.32	0.50
3:AC:54:ARG:NH1	3:AC:56:ASP:OD1	2.44	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:37:GLY:O	11:CK:39:PRO:HD3	2.11	0.50
31:DE:163:GLU:O	31:DE:165:VAL:HG23	2.11	0.50
27:BA:1217:C:OP2	43:BU:15:LYS:HE3	2.11	0.50
27:BA:1794:U:H2'	27:BA:1795:C:H6	1.76	0.50
1:AA:1437:C:H2'	1:AA:1438:G:C8	2.46	0.50
27:BA:221:A:H4'	27:BA:222:A:O5'	2.12	0.50
27:BA:1602:U:H3'	27:BA:1603:A:C5'	2.41	0.50
37:DO:26:LYS:O	37:DO:27:GLY:C	2.48	0.50
27:BA:2394:C:OP1	38:BP:63:PRO:HD3	2.12	0.50
4:AD:101:LEU:O	4:AD:102:ASP:C	2.48	0.50
27:BA:889:C:O2'	27:BA:890:A:O5'	2.25	0.50
35:BI:89:TYR:O	35:BI:91:SER:N	2.45	0.50
27:DA:2347:C:H2'	27:DA:2348:U:C6	2.46	0.50
3:CC:111:LEU:CD1	3:CC:204:LEU:HD22	2.38	0.50
48:DZ:5:LYS:O	48:DZ:6:ALA:HB2	2.11	0.50
38:DP:62:LEU:HD11	57:D8:30:ARG:HG3	1.93	0.50
38:DP:147:LEU:CG	38:DP:148:LEU:H	2.11	0.50
28:DB:7:G:N1	28:DB:115:G:C6	2.80	0.50
43:DU:62:ILE:HD11	43:DU:93:LYS:HG2	1.94	0.50
28:DB:13:A:O2'	28:DB:15:A:H5''	2.12	0.50
13:CM:13:LYS:HA	13:CM:44:ARG:HH11	1.77	0.50
30:BD:30:GLU:HG3	30:BD:63:ARG:NE	2.25	0.50
53:D4:64:LYS:O	53:D4:65:CYS:CB	2.59	0.50
1:AA:1225:A:H1'	19:AS:78:ARG:HD3	1.93	0.50
42:DT:42:ILE:H	42:DT:42:ILE:CD1	1.96	0.50
1:CA:1290:G:N3	1:CA:1290:G:H2'	2.26	0.50
9:CI:100:GLY:O	9:CI:101:PHE:CD1	2.65	0.50
30:BD:134:ARG:HG3	30:BD:135:PHE:CD2	2.47	0.50
30:BD:70:TRP:O	30:BD:73:VAL:HG23	2.11	0.50
31:DE:38:THR:O	31:DE:43:GLY:N	2.38	0.50
1:CA:1319:A:OP2	19:CS:5:LEU:HD23	2.12	0.50
32:DF:140:LEU:HD13	32:DF:170:LEU:HD21	1.93	0.50
32:DF:164:ARG:HG2	32:DF:164:ARG:NH1	2.26	0.50
9:AI:16:ARG:CZ	9:AI:64:THR:HG21	2.42	0.50
2:AB:219:VAL:O	2:AB:222:ILE:HB	2.12	0.50
27:DA:2720:U:H5'	27:DA:2721:A:OP2	2.12	0.50
35:BI:2:LYS:HB2	35:BI:18:VAL:HG13	1.94	0.50
5:CE:101:ILE:CD1	5:CE:119:LEU:HA	2.38	0.50
48:BZ:119:ILE:O	48:BZ:170:ILE:CA	2.51	0.50
27:BA:2287:A:C2	27:BA:2346:A:C2	3.00	0.50
43:BU:91:ASP:OD2	43:BU:96:ALA:HB2	2.11	0.50
12:AL:43:LYS:HG2	12:AL:44:LYS:HG3	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2481:G:O2'	27:DA:2482:G:P	2.69	0.50
27:DA:2525:G:C1'	27:DA:2741:A:H2	2.25	0.50
27:DA:874:G:H2'	27:DA:875:G:O4'	2.11	0.50
27:BA:2612:C:C5	27:BA:2613:U:H5	2.30	0.50
27:BA:458:G:O2'	27:BA:469:G:O6	2.23	0.50
2:CB:17:PHE:N	2:CB:17:PHE:CD2	2.80	0.50
11:AK:108:ILE:C	11:AK:109:VAL:HG22	2.32	0.50
1:CA:9:G:OP1	5:CE:122:GLU:N	2.40	0.50
36:DN:30:ILE:HG22	36:DN:30:ILE:O	2.11	0.50
3:AC:135:LYS:NZ	5:AE:50:GLU:HG2	2.27	0.50
15:AO:31:LEU:O	15:AO:35:ARG:HG3	2.11	0.50
38:DP:48:PRO:HG2	38:DP:49:ARG:N	2.26	0.50
1:AA:1465:C:H2'	1:AA:1466:C:O4'	2.12	0.50
1:CA:477:A:O2'	1:CA:479:C:H5'	2.12	0.50
38:BP:47:ASP:CB	38:BP:51:PHE:HB2	2.41	0.50
15:AO:6:GLU:C	15:AO:8:LYS:N	2.65	0.50
3:CC:54:ARG:HH11	3:CC:54:ARG:HG2	1.77	0.50
27:DA:2662:A:H3'	27:DA:2663:G:C8	2.41	0.50
32:DF:179:GLU:O	32:DF:181:LEU:N	2.44	0.50
27:BA:2158:A:H5''	27:BA:2159:G:OP1	2.11	0.50
3:AC:113:ALA:N	3:AC:183:ASP:OD1	2.44	0.50
3:AC:116:VAL:CG2	3:AC:202:ILE:HD11	2.42	0.50
10:AJ:16:LEU:HD11	10:AJ:70:ARG:CB	2.39	0.50
27:BA:2512:C:H4'	31:BE:122:PHE:HE2	1.72	0.50
34:DH:43:VAL:HG11	34:DH:53:GLU:H	1.77	0.50
1:AA:1149:C:H2'	1:AA:1150:U:H6	1.77	0.50
2:CB:18:GLY:C	2:CB:39:ILE:HG21	2.32	0.50
8:AH:79:VAL:HG12	8:AH:79:VAL:O	2.12	0.50
29:BC:78:ALA:O	29:BC:96:GLY:HA2	2.11	0.50
27:DA:2712:U:H1'	27:DA:2712(A):A:H8	1.75	0.50
1:CA:388:G:HO2'	1:CA:389:A:P	2.34	0.50
1:CA:377:G:H2'	1:CA:378:G:C8	2.46	0.50
1:AA:1340:A:OP1	25:AY:34:U:H5''	2.12	0.50
42:BT:122:ASP:O	42:BT:124:ASP:N	2.44	0.50
12:CL:117:TYR:O	12:CL:118:GLY:O	2.29	0.50
27:DA:234:C:O2'	27:DA:235:U:H5'	2.11	0.50
11:CK:125:PHE:CD1	11:CK:125:PHE:N	2.78	0.50
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.93	0.50
44:DV:76:LYS:O	44:DV:79:VAL:HG12	2.12	0.50
1:CA:542:G:O2'	1:CA:543:C:H5'	2.11	0.50
42:BT:129:ARG:CZ	42:BT:131:ALA:O	2.60	0.50
3:AC:58:GLU:HB2	3:AC:65:ALA:HB2	1.94	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:38:LEU:O	7:CG:42:ILE:HG13	2.12	0.50
2:AB:160:ASP:O	2:AB:161:ALA:CB	2.60	0.50
36:DN:85:ILE:HG21	36:DN:90:MET:HG2	1.94	0.50
2:AB:46:LYS:C	2:AB:48:MET:N	2.65	0.50
18:CR:66:LEU:O	18:CR:69:THR:N	2.45	0.50
45:BW:61:ASN:N	45:BW:61:ASN:HD22	2.09	0.50
3:AC:178:LEU:N	3:AC:178:LEU:HD22	2.27	0.50
48:BZ:39:ASP:OD1	48:BZ:39:ASP:C	2.49	0.50
48:BZ:39:ASP:OD1	48:BZ:41:VAL:N	2.45	0.50
1:AA:379:C:O2'	1:AA:380:G:H5'	2.11	0.50
27:DA:415:A:H2'	27:DA:416:C:O4'	2.11	0.50
27:DA:1604:C:O2'	27:DA:1605:C:H5'	2.12	0.50
27:BA:102:G:OP1	27:BA:102:G:H4'	2.11	0.50
20:AT:64:ASP:O	20:AT:67:ALA:HB3	2.11	0.50
1:AA:784:C:H4'	27:BA:1837:C:OP1	2.10	0.50
27:BA:2061:G:N7	27:BA:2501:C:H4'	2.27	0.50
45:BW:95:ILE:O	45:BW:95:ILE:HG13	2.10	0.50
33:BG:70:VAL:HG23	33:BG:70:VAL:O	2.10	0.50
13:AM:65:LYS:HG3	13:AM:65:LYS:O	2.11	0.50
11:CK:73:MET:HA	11:CK:77:MET:H	1.77	0.50
27:BA:907:U:OP1	39:BQ:24:GLY:N	2.45	0.50
27:DA:2339:G:H2'	27:DA:2340:G:C8	2.47	0.50
1:AA:241:C:O2'	1:AA:242:C:H5'	2.11	0.50
1:CA:944:G:N2	1:CA:1338:G:C8	2.80	0.50
55:B6:15:GLU:O	55:B6:16:CYS:C	2.50	0.50
38:BP:97:PRO:HG3	38:BP:112:LEU:CB	2.42	0.50
38:BP:144:GLU:O	38:BP:144:GLU:HG2	2.12	0.50
38:BP:89:ALA:C	38:BP:91:PHE:H	2.15	0.50
4:AD:100:ARG:HH11	4:AD:100:ARG:HG3	1.77	0.50
13:AM:91:ARG:CB	13:AM:98:VAL:HG22	2.38	0.50
35:DI:122:GLU:CD	35:DI:123:LEU:H	2.15	0.50
35:DI:138:ILE:O	35:DI:138:ILE:HG22	2.12	0.50
1:AA:1442(A):G:N7	42:BT:118:ARG:HG3	2.27	0.50
47:BY:27:VAL:CG1	47:BY:29:GLU:OE1	2.60	0.50
42:BT:32:TYR:CD2	42:BT:81:PRO:HB2	2.44	0.50
42:BT:34:VAL:O	42:BT:35:LYS:CB	2.60	0.50
31:DE:7:VAL:HG21	42:DT:1:MET:HE1	1.92	0.50
1:CA:1251:A:H1'	1:CA:1369:C:O2'	2.11	0.50
48:DZ:162:LEU:HD12	48:DZ:162:LEU:N	2.27	0.50
46:DX:15:GLU:CD	46:DX:15:GLU:H	2.14	0.50
55:D6:8:LYS:N	55:D6:27:LYS:HD3	2.27	0.50
41:BS:106:ARG:O	41:BS:106:ARG:HD2	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:85:VAL:HG22	41:BS:106:ARG:CB	2.42	0.50
34:BH:43:VAL:HA	34:BH:53:GLU:HG2	1.94	0.50
27:DA:1794:U:H2'	27:DA:1795:C:C6	2.46	0.50
40:DR:63:ARG:O	40:DR:66:VAL:HG12	2.12	0.50
31:DE:116:VAL:O	31:DE:117:MET:HB3	2.12	0.50
32:BF:32:LEU:O	32:BF:36:VAL:HG23	2.11	0.50
28:DB:3:C:C2'	28:DB:4:C:H5'	2.42	0.50
28:DB:4:C:H2'	28:DB:5:C:C6	2.47	0.50
27:DA:2302:G:C6	27:DA:2303:G:C5	3.00	0.50
36:DN:57:ALA:HB3	36:DN:124:ALA:CB	2.41	0.50
1:AA:376:G:H4'	16:AP:5:ARG:HD2	1.94	0.50
44:BV:19:LYS:CE	44:BV:20:LEU:H	2.24	0.50
27:DA:2787:C:C1'	31:DE:61:ARG:HG3	2.32	0.50
27:DA:271(R):G:H2'	27:DA:271(S):G:H8	1.76	0.50
9:AI:17:VAL:HG21	9:AI:80:GLY:CA	2.38	0.50
35:BI:2:LYS:H	35:BI:2:LYS:CD	2.25	0.50
47:DY:37:VAL:HG23	47:DY:38:ILE:N	2.20	0.50
2:CB:168:THR:O	2:CB:169:LYS:C	2.46	0.50
1:AA:96:U:C2	1:AA:97:G:N7	2.80	0.50
27:BA:1505:C:O2'	27:BA:1506:C:O5'	2.30	0.50
41:BS:89:ARG:HD3	41:BS:92:TYR:HB3	1.93	0.50
18:AR:56:THR:OG1	18:AR:57:GLY:N	2.43	0.50
54:D5:46:CYS:SG	54:D5:48:GLU:OE2	2.69	0.50
13:CM:20:THR:C	13:CM:22:ILE:N	2.65	0.50
59:CX:58:A:H4'	59:CX:59:A:OP1	2.12	0.50
5:AE:106:PRO:O	5:AE:110:LEU:HG	2.12	0.50
13:CM:90:LEU:O	13:CM:91:ARG:CB	2.59	0.50
1:AA:880:C:O2'	1:AA:881:G:H5'	2.12	0.50
39:BQ:32:TYR:O	39:BQ:105:GLU:HB2	2.12	0.50
3:AC:92:ALA:HB2	3:AC:99:VAL:CG1	2.41	0.50
39:BQ:134:ARG:C	39:BQ:137:TYR:HD2	2.16	0.50
3:CC:82:GLU:O	3:CC:85:ARG:N	2.36	0.50
27:BA:195:A:OP1	38:BP:46:LYS:HE2	2.11	0.50
42:DT:102:ILE:HB	42:DT:110:ILE:HD12	1.94	0.50
27:BA:2571:C:H5''	27:BA:2572:A:H5''	1.91	0.50
34:BH:158:HIS:O	34:BH:159:GLU:HB2	2.11	0.50
37:BO:22:ILE:HB	37:BO:40:VAL:HG12	1.94	0.50
27:BA:237:C:C2'	27:BA:238:C:H5'	2.42	0.50
34:BH:31:GLY:H	34:BH:79:VAL:CG1	2.25	0.50
11:AK:21:ILE:N	11:AK:21:ILE:HD12	2.26	0.50
27:BA:2090:G:H21	50:B1:45:ASN:HD21	1.57	0.50
27:DA:1384:A:H1'	27:DA:1405:U:O4'	2.10	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DI:20:ASP:OD2	35:DI:20:ASP:C	2.50	0.50
11:AK:53:SER:C	11:AK:55:LYS:N	2.65	0.50
1:CA:1194:U:H4'	5:CE:22:GLY:O	2.12	0.50
27:DA:1290:C:H2'	27:DA:1291:C:C6	2.46	0.50
3:AC:154:SER:OG	3:AC:197:GLY:N	2.44	0.50
28:DB:96:U:H2'	28:DB:97:G:C8	2.47	0.50
27:DA:1750:G:O2'	27:DA:1751:C:H5'	2.12	0.50
27:DA:1782:C:O2	27:DA:2609:U:H5'	2.12	0.50
2:AB:19:HIS:HE1	2:AB:191:ASP:HB2	1.74	0.50
31:DE:33:VAL:CG1	31:DE:89:ASP:HA	2.42	0.50
35:DI:4:ILE:HD11	35:DI:44:LEU:HA	1.94	0.50
27:BA:813:U:H2'	27:BA:814:C:C6	2.46	0.50
27:DA:2737:G:H2'	27:DA:2738:A:H8	1.76	0.50
34:BH:147:ASN:N	34:BH:147:ASN:ND2	2.58	0.50
39:BQ:48:GLU:HG3	39:BQ:52:VAL:HG21	1.94	0.50
30:BD:245:PRO:O	30:BD:246:PRO:O	2.30	0.50
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.75	0.50
1:AA:155:C:O5'	1:AA:155:C:H6	1.94	0.50
46:BX:11:PRO:HD3	51:B2:37:PHE:CE2	2.47	0.50
27:BA:1982:C:O5'	27:BA:1982:C:H6	1.95	0.50
28:BB:21:G:H2'	28:BB:22:U:C6	2.47	0.50
43:DU:36:ARG:O	43:DU:39:LEU:HB2	2.12	0.50
43:DU:39:LEU:HA	43:DU:42:ALA:HB3	1.94	0.50
1:CA:366:C:H4'	1:CA:367:U:OP1	2.12	0.50
52:B3:56:VAL:HG12	52:B3:57:GLU:N	2.27	0.50
20:AT:10:LEU:HD22	20:AT:12:ALA:HB3	1.92	0.50
30:BD:197:GLY:O	30:BD:198:ASN:HB3	2.11	0.50
54:D5:56:LYS:HE3	54:D5:59:GLU:CG	2.42	0.50
45:BW:57:ASN:N	45:BW:57:ASN:HD22	2.10	0.50
27:BA:107:C:H2'	27:BA:108:U:H6	1.74	0.50
2:CB:237:ALA:C	2:CB:238:LEU:HD23	2.32	0.50
1:AA:567:G:H2'	1:AA:568:G:O4'	2.10	0.50
40:DR:13:HIS:O	40:DR:14:SER:C	2.50	0.50
27:BA:575:A:O2'	27:BA:576:U:H5'	2.12	0.50
27:DA:1465:G:O4'	27:DA:1528:A:H8	1.95	0.50
42:DT:22:PHE:O	42:DT:22:PHE:CD1	2.64	0.50
30:DD:257:LEU:C	30:DD:257:LEU:HD23	2.32	0.50
4:AD:11:LEU:HD11	4:AD:21:LEU:CD1	2.42	0.50
1:CA:1222:G:OP1	19:CS:78:ARG:NH1	2.45	0.50
2:AB:72:GLY:HA2	2:AB:165:VAL:CG2	2.42	0.50
35:DI:77:LEU:HD22	35:DI:105:HIS:CE1	2.47	0.50
40:BR:45:ARG:O	40:BR:49:ASP:HB2	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:108:ASN:O	33:BG:112:PRO:HG2	2.12	0.50
27:DA:1040:C:H5''	48:DZ:41:VAL:CG2	2.42	0.50
48:DZ:27:MET:CE	48:DZ:36:VAL:HG11	2.42	0.50
38:DP:63:PRO:HB3	57:D8:13:ARG:CB	2.27	0.50
34:BH:43:VAL:CG1	34:BH:52:VAL:HA	2.42	0.50
34:BH:66:GLY:HA2	34:BH:69:ARG:CB	2.41	0.50
27:BA:1024:G:H3'	27:BA:1025:G:H5''	1.94	0.50
40:DR:57:ARG:HH21	40:DR:62:ALA:HB2	1.76	0.50
41:DS:40:ILE:HG22	41:DS:47:THR:HA	1.94	0.50
27:DA:1141:U:H6	36:DN:63:THR:CG2	2.25	0.50
1:AA:254:G:O2'	1:AA:255:G:H5'	2.11	0.50
1:AA:255:G:C1'	17:AQ:16:GLN:HE21	2.17	0.50
9:CI:103:THR:HG22	9:CI:105:ASP:H	1.77	0.50
31:DE:79:ARG:HH11	31:DE:79:ARG:CG	2.25	0.50
31:DE:91:VAL:CG1	31:DE:95:ILE:HG12	2.42	0.50
38:BP:24:GLY:O	38:BP:25:SER:HB3	2.11	0.50
1:AA:1054:C:N4	23:AW:33:C:C1'	2.66	0.50
9:AI:88:TYR:O	9:AI:89:ASN:ND2	2.45	0.50
27:DA:2100:G:H1'	27:DA:2190:G:N2	2.27	0.50
47:DY:24:VAL:HG12	47:DY:25:GLY:N	2.27	0.50
32:DF:3:GLU:CB	32:DF:24:LEU:HG	2.37	0.50
48:BZ:107:PRO:HG3	48:BZ:116:LEU:CB	2.36	0.50
43:BU:106:PHE:O	43:BU:110:VAL:HG23	2.12	0.50
43:BU:58:ARG:O	43:BU:62:ILE:HG12	2.12	0.50
48:DZ:138:VAL:HG22	48:DZ:154:LEU:CD2	2.31	0.50
29:BC:77:ILE:O	29:BC:77:ILE:HG23	2.10	0.50
1:CA:1456:G:H3'	20:CT:39:LYS:NZ	2.27	0.50
1:CA:1452:C:C4'	1:CA:1456:G:OP2	2.60	0.50
27:DA:2468:G:N2	27:DA:2481:G:H2'	2.25	0.50
27:DA:2742:C:O5'	27:DA:2742:C:H6	1.95	0.50
2:AB:44:LEU:O	2:AB:47:THR:N	2.45	0.50
1:AA:882:C:H41	12:AL:6:GLN:HE22	1.59	0.50
2:AB:24:TRP:CE3	2:AB:26:PRO:HA	2.44	0.50
39:BQ:63:LYS:HD2	48:BZ:174:VAL:HG21	1.94	0.50
40:DR:94:TYR:CD1	40:DR:94:TYR:N	2.79	0.50
29:BC:86:ALA:HB1	29:BC:94:VAL:HG11	1.93	0.50
3:AC:39:ILE:C	3:AC:41:GLY:H	2.14	0.50
53:D4:39:ARG:O	53:D4:57:ILE:HB	2.12	0.50
27:BA:2443:C:H2'	27:BA:2444:G:C8	2.39	0.50
30:DD:118:VAL:CG2	30:DD:119:ALA:H	2.16	0.50
27:DA:2263:C:O2'	27:DA:2264:C:H5'	2.12	0.50
27:DA:2389:G:H5''	27:DA:2390:U:C5'	2.42	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:91:ARG:HG3	12:AL:4:ILE:HG13	1.93	0.50
12:AL:21:VAL:HG22	12:AL:23:ALA:HB2	1.93	0.50
27:DA:1811:G:O2'	27:DA:1812:A:H5'	2.12	0.50
16:AP:52:ASP:OD2	16:AP:54:GLU:HB2	2.12	0.50
29:DC:19:VAL:HB	29:DC:22:ILE:HG13	1.93	0.50
50:D1:53:VAL:HG11	50:D1:90:ILE:HG21	1.93	0.50
18:AR:66:LEU:CG	18:AR:70:ILE:HD11	2.42	0.50
48:BZ:83:GLU:O	48:BZ:84:HIS:HB2	2.11	0.50
23:CW:73:C:C2'	23:CW:74:C:H5'	2.41	0.50
27:BA:2109:U:H1'	27:BA:2181:G:N2	2.27	0.50
1:CA:1170:A:H2'	1:CA:1171:G:C5'	2.41	0.50
49:D0:41:ARG:HD2	49:D0:41:ARG:H	1.77	0.50
23:AW:73:C:C2'	23:AW:74:C:H5'	2.42	0.50
1:AA:860:A:H2'	1:AA:861:G:O4'	2.12	0.50
27:BA:171:G:H2'	27:BA:172:C:C6	2.45	0.50
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.42	0.50
42:BT:78:LEU:O	42:BT:78:LEU:HG	2.12	0.50
1:CA:41:G:H2'	1:CA:42:G:C8	2.46	0.50
27:DA:2296:U:H4'	27:DA:2297:C:OP1	2.12	0.50
1:AA:603:U:H2'	1:AA:604:G:C8	2.47	0.50
1:AA:1249:C:H5''	9:AI:36:TYR:HE1	1.77	0.50
1:AA:959:A:C2'	1:AA:960:U:H4'	2.42	0.50
27:DA:1161:C:O4'	44:DV:8:GLY:O	2.29	0.50
1:CA:802:A:H2'	1:CA:803:G:O4'	2.11	0.50
8:CH:123:GLU:O	8:CH:127:LEU:HB2	2.12	0.50
27:DA:1991:U:H2'	27:DA:1992:G:H5''	1.94	0.50
27:BA:921:G:H4'	27:BA:2269:A:C5	2.47	0.50
23:AW:20:A:H2'	23:AW:44:A:H62	1.76	0.50
1:CA:868:C:H2'	1:CA:869:G:O4'	2.12	0.50
27:BA:1682:G:C2	27:BA:1683:C:C2	2.99	0.50
29:BC:124:GLY:O	29:BC:125:SER:CB	2.59	0.50
27:BA:1424:G:H2'	27:BA:1425:G:O4'	2.12	0.50
29:BC:221:SER:O	29:BC:222:VAL:C	2.49	0.50
55:B6:15:GLU:CG	55:B6:47:THR:HG21	2.42	0.49
27:BA:2394:C:P	38:BP:63:PRO:HD3	2.52	0.49
4:AD:10:ARG:HG2	4:AD:11:LEU:HD23	1.92	0.49
40:BR:50:HIS:CD2	40:BR:50:HIS:C	2.84	0.49
27:BA:1518:U:H2'	27:BA:1519:G:H8	1.77	0.49
27:BA:1526:G:H2'	27:BA:1527:G:O4'	2.12	0.49
3:CC:5:ILE:O	3:CC:6:HIS:HB2	2.12	0.49
46:DX:14:SER:N	46:DX:17:ALA:HB3	2.27	0.49
20:AT:35:THR:HG22	20:AT:36:LEU:N	2.27	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:61:SER:O	20:AT:65:LYS:HG2	2.12	0.49
27:DA:2402:C:C3'	27:DA:2402:C:C6	2.95	0.49
33:DG:106:LEU:O	33:DG:110:ALA:HB3	2.11	0.49
31:DE:202:LYS:CD	31:DE:202:LYS:N	2.75	0.49
27:DA:921:G:H4'	27:DA:2269:A:C5	2.47	0.49
27:DA:2635:C:H5''	31:DE:78:LEU:O	2.12	0.49
31:DE:67:PHE:O	31:DE:70:ALA:CB	2.60	0.49
12:AL:38:ARG:HD2	12:AL:39:THR:O	2.12	0.49
32:DF:170:LEU:HD12	32:DF:170:LEU:N	2.27	0.49
30:BD:54:ARG:O	30:BD:218:ARG:NH1	2.45	0.49
38:DP:9:ASN:H	38:DP:10:PRO:CD	2.24	0.49
32:DF:125:LEU:HD22	32:DF:125:LEU:N	2.27	0.49
32:DF:7:TYR:HD2	32:DF:16:GLY:H	1.60	0.49
48:DZ:55:VAL:HG12	48:DZ:56:ILE:N	2.27	0.49
5:AE:32:VAL:CG1	5:AE:33:VAL:N	2.75	0.49
27:BA:958:U:C5'	39:BQ:14:ARG:HD3	2.36	0.49
3:AC:11:ARG:HG2	3:AC:11:ARG:HH11	1.76	0.49
1:CA:953:G:N7	13:CM:104:ARG:NH2	2.59	0.49
39:BQ:55:VAL:CG2	39:BQ:56:ARG:H	2.19	0.49
39:BQ:59:ARG:O	39:BQ:60:ARG:HB2	2.12	0.49
4:CD:150:GLU:HA	4:CD:153:ARG:CD	2.42	0.49
41:DS:17:ARG:C	41:DS:19:LYS:N	2.66	0.49
10:AJ:34:VAL:HG13	10:AJ:73:ASP:O	2.12	0.49
27:DA:1484:G:H3'	27:DA:1485:G:C5'	2.42	0.49
27:DA:482:A:H1'	27:DA:498:G:N2	2.26	0.49
45:DW:10:VAL:HG12	45:DW:12:ILE:HG22	1.93	0.49
27:BA:2133:G:H2'	27:BA:2157:G:N2	2.27	0.49
1:CA:994:A:H2	14:CN:4:LYS:HG3	1.77	0.49
14:CN:8:GLU:HG3	14:CN:12:ARG:HH11	1.77	0.49
59:CX:25:C:H2'	59:CX:26:G:C8	2.47	0.49
43:BU:25:TRP:O	43:BU:26:GLY:O	2.30	0.49
27:DA:864:G:H1'	27:DA:914:C:N4	2.26	0.49
27:DA:227:A:H5''	38:DP:76:LYS:HE2	1.93	0.49
50:B1:12:PRO:HA	50:B1:42:GLN:O	2.12	0.49
35:DI:94:ALA:C	35:DI:96:ASP:N	2.65	0.49
27:DA:154(A):C:O2	27:DA:154(A):C:O4'	2.29	0.49
1:CA:1091:U:H2'	1:CA:1093:A:OP2	2.13	0.49
27:BA:861:A:H2'	27:BA:862:G:O4'	2.12	0.49
27:BA:1276:A:H1'	40:BR:16:HIS:HE1	1.77	0.49
30:DD:65:ILE:O	30:DD:65:ILE:HD13	2.11	0.49
36:DN:117:PHE:C	36:DN:117:PHE:CD2	2.85	0.49
1:AA:1244:C:H2'	1:AA:1245:A:C8	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:833:U:H2'	27:DA:834:C:H6	1.73	0.49
27:DA:2854:G:H2'	27:DA:2855:C:C6	2.46	0.49
12:AL:37:VAL:HG12	12:AL:37:VAL:O	2.10	0.49
44:DV:28:GLU:O	44:DV:29:PRO:O	2.29	0.49
15:CO:37:ASN:N	15:CO:37:ASN:ND2	2.60	0.49
27:DA:756:C:C2'	27:DA:757:U:H5'	2.41	0.49
31:BE:81:ILE:O	31:BE:82:ARG:CB	2.57	0.49
34:DH:114:VAL:O	34:DH:116:GLU:N	2.41	0.49
29:BC:44:HIS:HD2	29:BC:175:VAL:HA	1.75	0.49
1:AA:381:C:H2'	1:AA:382:A:C8	2.46	0.49
42:BT:129:ARG:HH21	42:BT:133:GLU:HB2	1.77	0.49
27:BA:1550:C:H2'	27:BA:1551:C:C6	2.46	0.49
20:CT:47:GLY:O	20:CT:48:LYS:O	2.29	0.49
4:AD:156:GLU:O	4:AD:157:LEU:C	2.50	0.49
2:AB:82:ARG:O	2:AB:86:GLU:HG2	2.12	0.49
27:DA:2078:C:H2'	27:DA:2079:U:C6	2.46	0.49
1:CA:1334:G:H5'	1:CA:1335:C:OP2	2.12	0.49
27:DA:880:G:H2'	27:DA:881:G:C8	2.47	0.49
27:DA:975(A):G:O2'	27:DA:976:C:H5'	2.12	0.49
30:DD:120:GLY:C	30:DD:122:ASP:H	2.15	0.49
27:DA:440:G:H2'	27:DA:441:U:H6	1.77	0.49
27:BA:2691:C:H5'	27:BA:2691:C:H6	1.77	0.49
27:DA:2584:U:O2	27:DA:2585:U:C4	2.65	0.49
27:BA:2082:A:H2'	27:BA:2083:G:O4'	2.12	0.49
38:DP:135:LEU:HD13	38:DP:135:LEU:C	2.32	0.49
27:DA:2504:U:H6	27:DA:2504:U:O5'	1.95	0.49
40:BR:8:ARG:CZ	40:BR:8:ARG:HA	2.42	0.49
1:CA:397:A:H5''	1:CA:397:A:N3	2.27	0.49
1:AA:990:C:H2'	1:AA:991:U:C6	2.46	0.49
25:AY:49:G:O2'	25:AY:50:A:H5'	2.11	0.49
7:CG:21:VAL:HG23	7:CG:22:LEU:N	2.27	0.49
1:CA:1223:C:H3'	1:CA:1224:G:H5''	1.94	0.49
35:DI:71:ILE:HG13	35:DI:72:LEU:N	2.27	0.49
47:BY:26:LYS:O	47:BY:28:LYS:CE	2.60	0.49
27:BA:1525:G:H2'	27:BA:1526:G:C8	2.46	0.49
27:BA:1467:C:C2	27:BA:1526:G:N2	2.80	0.49
45:BW:12:ILE:CG2	45:BW:17:VAL:HG11	2.42	0.49
14:CN:22:THR:O	14:CN:23:ARG:HB2	2.11	0.49
14:CN:24:CYS:CB	14:CN:27:CYS:HG	2.21	0.49
28:DB:76:G:C5'	48:DZ:14:PRO:HB3	2.41	0.49
57:D8:32:LEU:HG	57:D8:36:LYS:NZ	2.26	0.49
57:D8:33:ASN:N	57:D8:33:ASN:HD22	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DR:79:LEU:CD2	40:DR:79:LEU:C	2.79	0.49
32:BF:108:LYS:O	32:BF:112:MET:HB2	2.12	0.49
30:BD:94:LEU:HD22	30:BD:95:LEU:N	2.26	0.49
12:CL:43:LYS:O	12:CL:44:LYS:O	2.30	0.49
27:BA:2277:G:H2'	27:BA:2278:A:H5'	1.93	0.49
44:BV:5:VAL:CG2	44:BV:6:LYS:N	2.75	0.49
30:BD:134:ARG:O	30:BD:168:ARG:NH2	2.46	0.49
28:DB:34:U:N3	28:DB:48:A:H2	2.11	0.49
10:AJ:50:ILE:HA	10:AJ:60:ARG:HB2	1.94	0.49
30:BD:43:ARG:HB2	30:BD:54:ARG:HB2	1.94	0.49
27:DA:106:C:H1'	47:DY:2:ARG:NH2	2.27	0.49
47:DY:2:ARG:C	47:DY:4:LYS:H	2.15	0.49
43:BU:95:LEU:HD22	44:BV:4:ILE:HD13	1.94	0.49
4:AD:149:ALA:O	4:AD:153:ARG:HB2	2.12	0.49
27:DA:1378:A:C4'	27:DA:1379:A:OP1	2.52	0.49
37:DO:101:PRO:HA	37:DO:120:GLU:O	2.12	0.49
59:CX:21:A:N6	59:CX:48:C:C6	2.80	0.49
1:CA:152:A:H2'	1:CA:153:C:O4'	2.11	0.49
19:AS:41:VAL:HG13	19:AS:42:PRO:CD	2.35	0.49
29:BC:83:ILE:HA	29:BC:94:VAL:HG21	1.94	0.49
50:D1:45:ASN:ND2	50:D1:45:ASN:O	2.44	0.49
27:DA:2019:A:H2'	27:DA:2020:A:O5'	2.11	0.49
27:DA:2018:G:N2	43:DU:34:LYS:NZ	2.59	0.49
12:AL:4:ILE:O	12:AL:8:VAL:HG23	2.12	0.49
1:CA:1003:G:N2	1:CA:1038:C:N3	2.60	0.49
51:B2:26:ARG:HG3	51:B2:26:ARG:NH1	2.27	0.49
41:BS:34:HIS:CE1	41:BS:54:LEU:HB2	2.46	0.49
25:CY:68:C:O2'	25:CY:69:C:H5''	2.11	0.49
27:DA:324:A:N6	27:DA:338:G:O2'	2.45	0.49
6:CF:10:LEU:HD12	6:CF:85:VAL:HA	1.94	0.49
3:CC:157:ILE:CD1	3:CC:166:GLU:HB2	2.42	0.49
46:DX:35:THR:O	46:DX:39:ILE:HG12	2.12	0.49
27:DA:1766:U:C2	27:DA:1987:G:C2	3.00	0.49
7:AG:113:GLU:CG	7:AG:119:ARG:HG2	2.42	0.49
35:DI:10:GLU:CD	35:DI:11:ASN:H	2.16	0.49
27:DA:1962:C:O2'	27:DA:1964:G:OP2	2.22	0.49
28:BB:93:G:O2'	28:BB:94:C:H5'	2.12	0.49
2:CB:25:ASN:OD1	2:CB:27:LYS:HB2	2.12	0.49
1:CA:619:U:N3	4:CD:135:LEU:HD11	2.27	0.49
20:CT:13:LEU:O	20:CT:16:HIS:HB3	2.12	0.49
9:CI:126:SER:C	9:CI:128:ARG:H	2.15	0.49
27:DA:2673:G:O2'	27:DA:2674:G:H5'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BN:112:LEU:O	36:BN:116:LEU:HG	2.11	0.49
31:BE:27:LEU:HD22	42:BT:1:MET:H3	1.75	0.49
27:DA:2768:C:C2'	27:DA:2769:C:H5'	2.42	0.49
32:BF:178:PRO:HB3	32:BF:201:VAL:HG11	1.94	0.49
1:CA:1521:G:H2'	1:CA:1522:U:C6	2.45	0.49
27:BA:679:C:H2'	27:BA:680:G:H8	1.76	0.49
27:DA:1905:C:O4'	27:DA:1928:A:H2	1.96	0.49
33:BG:118:ARG:O	33:BG:181:ARG:HG3	2.12	0.49
1:AA:243:A:H4'	1:AA:244:U:O5'	2.12	0.49
27:BA:2291:U:O2'	27:BA:2374:C:H1'	2.12	0.49
27:BA:2803:C:H2'	27:BA:2804:C:N1	2.27	0.49
43:DU:72:HIS:HE1	43:DU:107:ALA:HB2	1.77	0.49
27:DA:438:G:O2'	27:DA:440:G:H5'	2.12	0.49
1:CA:443:C:H2'	1:CA:444:C:C6	2.47	0.49
6:CF:6:VAL:HG13	6:CF:90:VAL:HG22	1.94	0.49
12:CL:110:ARG:HH11	12:CL:110:ARG:HG2	1.77	0.49
4:AD:83:SER:HA	4:AD:89:THR:CG2	2.42	0.49
54:B5:37:LYS:HG3	54:B5:38:ALA:H	1.77	0.49
1:AA:512:U:H2'	1:AA:513:C:C6	2.48	0.49
27:BA:130:C:O3'	27:BA:1349:A:H1'	2.12	0.49
46:DX:25:LYS:HA	46:DX:81:VAL:O	2.13	0.49
4:AD:104:VAL:HG21	4:AD:140:VAL:HG21	1.95	0.49
28:BB:49:C:H6	28:BB:49:C:O5'	1.95	0.49
1:CA:1368:G:O2'	1:CA:1369:C:H5'	2.12	0.49
27:DA:2402:C:H3'	27:DA:2402:C:C6	2.46	0.49
30:DD:26:LYS:HZ3	30:DD:27:THR:HG22	1.76	0.49
27:BA:1142(A):A:C4	27:BA:1144:G:C8	3.00	0.49
42:DT:27:THR:O	42:DT:28:VAL:CB	2.59	0.49
38:DP:125:VAL:O	38:DP:125:VAL:HG23	2.12	0.49
31:DE:134:ILE:CG1	31:DE:134:ILE:O	2.59	0.49
28:DB:56:G:O5'	28:DB:56:G:H8	1.96	0.49
1:AA:270:A:O2'	1:AA:271:C:H5'	2.12	0.49
17:AQ:60:ILE:HD13	17:AQ:61:GLU:O	2.12	0.49
1:CA:1362:C:H2'	1:CA:1363:C:H5''	1.94	0.49
32:DF:164:ARG:HG2	32:DF:164:ARG:HH11	1.77	0.49
27:DA:2189:U:C3'	27:DA:2190:G:C5'	2.84	0.49
27:DA:1996:C:H5	37:DO:32:TYR:OH	1.95	0.49
27:DA:2822:G:H5''	31:DE:159:HIS:NE2	2.27	0.49
32:DF:7:TYR:HB2	32:DF:17:ARG:N	2.27	0.49
32:DF:2:LYS:HG2	32:DF:25:PRO:HG2	1.95	0.49
1:CA:266:G:O2'	1:CA:267:C:OP2	2.22	0.49
27:BA:1436:G:H1'	27:BA:1477:A:O2'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:81:HIS:O	43:BU:85:LYS:N	2.45	0.49
1:AA:1237:C:OP1	1:AA:1238:A:H1'	2.13	0.49
12:CL:25:LYS:O	12:CL:26:GLY:C	2.50	0.49
33:BG:163:ALA:HB1	33:BG:168:GLU:HB2	1.94	0.49
27:DA:2741:A:OP1	58:D9:22:ARG:NH2	2.46	0.49
37:DO:111:PHE:N	37:DO:111:PHE:HD2	2.10	0.49
27:DA:2241:A:O2'	27:DA:2242:G:H5'	2.13	0.49
20:AT:39:LYS:HA	20:AT:42:GLN:HB3	1.94	0.49
3:CC:35:GLU:HG2	3:CC:39:ILE:HD11	1.93	0.49
50:B1:86:SER:CB	50:B1:89:GLU:HB2	2.43	0.49
57:D8:4:MET:O	57:D8:62:LEU:CD1	2.57	0.49
10:AJ:5:ARG:HG3	10:AJ:71:LEU:HD11	1.95	0.49
27:BA:1452:A:O2'	27:BA:1453:U:H2'	2.11	0.49
40:BR:94:TYR:O	40:BR:117:VAL:HG23	2.13	0.49
13:CM:55:ARG:HA	13:CM:58:GLU:HG3	1.94	0.49
1:CA:473:G:OP2	16:CP:75:ARG:NH1	2.45	0.49
42:BT:57:PHE:O	42:BT:59:THR:N	2.45	0.49
27:BA:1952:A:C5	27:BA:1953:A:C6	3.00	0.49
27:DA:329:G:O4'	27:DA:477:A:H1'	2.13	0.49
27:DA:481:G:O2'	27:DA:482:A:P	2.70	0.49
34:BH:89:ILE:HD11	34:BH:129:THR:CG2	2.43	0.49
25:CY:6:U:O2'	25:CY:7:A:H5'	2.13	0.49
4:CD:125:HIS:HA	4:CD:152:SER:OG	2.11	0.49
53:D4:51:TYR:O	53:D4:52:SER:HB3	2.11	0.49
30:DD:31:LYS:O	30:DD:35:LYS:HB2	2.12	0.49
33:BG:131:TYR:O	33:BG:159:VAL:HG12	2.13	0.49
7:AG:44:TYR:C	7:AG:46:ALA:N	2.63	0.49
27:DA:1693:U:C4'	27:DA:1694:C:OP2	2.60	0.49
35:BI:143:SER:O	35:BI:144:VAL:HG13	2.12	0.49
43:DU:76:TYR:C	43:DU:78:THR:H	2.16	0.49
27:DA:1314:C:P	27:DA:1332:G:H5'	2.52	0.49
31:DE:182:LEU:HD12	31:DE:183:LEU:N	2.28	0.49
27:DA:1276:A:H1'	40:DR:16:HIS:HE1	1.78	0.49
1:CA:178:C:O2'	1:CA:179:A:H5'	2.12	0.49
2:CB:87:ARG:HD2	2:CB:87:ARG:O	2.11	0.49
33:BG:16:ARG:O	33:BG:19:LEU:HB2	2.12	0.49
27:BA:1991:U:C2'	27:BA:1992:G:H5''	2.42	0.49
27:DA:2220:G:H2'	27:DA:2221:G:H8	1.76	0.49
23:CW:73:C:H42	27:DA:2508:G:H5'	1.76	0.49
32:BF:65:TRP:HB3	32:BF:66:PRO:HD3	1.94	0.49
38:DP:113:LYS:HG3	38:DP:129:ALA:O	2.12	0.49
27:BA:711:G:O2'	27:BA:712:G:H5'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1365:G:H2'	1:CA:1366:C:C6	2.46	0.49
45:BW:5:ALA:O	45:BW:6:ILE:CB	2.59	0.49
7:CG:82:GLY:HA2	22:CV:1:A:C8	2.48	0.49
41:BS:24:LEU:HA	41:BS:40:ILE:O	2.11	0.49
52:D3:18:ASP:O	52:D3:22:ALA:N	2.44	0.49
1:AA:1287:A:H2	1:AA:1353:G:N3	2.09	0.49
1:CA:640:A:O2'	8:CH:115:SER:O	2.27	0.49
1:CA:155:C:H2'	1:CA:156:G:H8	1.76	0.49
4:AD:35:ARG:C	4:AD:36:ARG:HG3	2.33	0.49
1:AA:582:U:H2'	1:AA:583:A:C8	2.47	0.49
27:DA:826:U:C5	27:DA:828:U:H6	2.30	0.49
27:BA:2586:C:C5	27:BA:2608:G:N2	2.80	0.49
6:AF:4:TYR:HD1	6:AF:92:LYS:HA	1.77	0.49
27:BA:189:G:OP2	50:B1:39:LYS:NZ	2.45	0.49
27:BA:59:U:H5''	27:BA:60:G:OP2	2.11	0.49
12:AL:79:VAL:HB	12:AL:103:ASP:OD2	2.12	0.49
27:BA:769:G:O2'	27:BA:770:G:H5'	2.12	0.49
7:CG:145:ALA:C	7:CG:147:ALA:H	2.16	0.49
27:DA:760:G:H2'	27:DA:761:A:O4'	2.13	0.49
38:BP:144:GLU:N	38:BP:145:PRO:CD	2.73	0.49
44:DV:19:LYS:HG3	44:DV:20:LEU:N	2.27	0.49
35:BI:121:LYS:HE3	1:CA:368:U:OP2	2.11	0.49
48:DZ:28:TYR:O	48:DZ:29:ASN:HB3	2.12	0.49
51:D2:17:SER:HB3	51:D2:20:GLU:CB	2.42	0.49
51:D2:21:LEU:HD13	51:D2:64:LEU:HA	1.94	0.49
38:DP:65:ARG:HH11	38:DP:65:ARG:HG2	1.76	0.49
24:AX:21:A:N6	24:AX:46:A:H2'	2.25	0.49
27:BA:1141:U:H5''	27:BA:1142(A):A:O4'	2.12	0.49
27:DA:2700:C:C2'	27:DA:2701:C:H5'	2.42	0.49
32:BF:117:ARG:HD3	32:BF:120:GLU:OE1	2.13	0.49
27:BA:1686:C:H6	27:BA:1686:C:C5'	2.26	0.49
33:DG:146:TYR:O	33:DG:149:VAL:HG22	2.12	0.49
30:BD:92:ILE:HA	30:BD:107:ALA:H	1.78	0.49
30:BD:34:VAL:O	30:BD:34:VAL:HG13	2.12	0.49
36:DN:55:VAL:HG22	36:DN:126:PRO:HA	1.95	0.49
12:CL:46:ASN:N	12:CL:46:ASN:HD22	2.10	0.49
39:DQ:132:VAL:HG11	48:DZ:80:ARG:NH2	2.27	0.49
56:D7:37:LYS:O	56:D7:37:LYS:HG2	2.13	0.49
37:DO:22:ILE:HB	37:DO:40:VAL:HG12	1.93	0.49
41:DS:30:ARG:NH1	41:DS:62:LYS:HD2	2.27	0.49
1:AA:1053:G:H3'	1:AA:1054:C:H5'	1.94	0.49
47:DY:14:LEU:CG	47:DY:15:VAL:N	2.75	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:100:TYR:HD2	42:DT:103:ARG:NH2	2.05	0.49
42:DT:50:ILE:HD11	42:DT:99:LEU:O	2.12	0.49
17:CQ:14:LYS:HB2	17:CQ:14:LYS:HZ2	1.77	0.49
5:CE:28:PHE:HD1	5:CE:51:VAL:N	2.09	0.49
37:DO:98:VAL:CG1	37:DO:118:ALA:HA	2.43	0.49
31:BE:110:GLY:O	40:BR:2:ARG:NE	2.45	0.49
5:AE:71:LEU:CD2	5:AE:115:VAL:HG22	2.43	0.49
22:CV:9:G:H1	23:CW:33:C:H42	1.59	0.49
34:DH:27:LYS:HG2	34:DH:32:GLU:CB	2.39	0.49
27:BA:271(M):G:C5'	35:BI:53:ALA:HB1	2.41	0.49
1:CA:1392:G:O2'	1:CA:1393:U:H5'	2.12	0.49
3:AC:132:ARG:HG3	3:AC:132:ARG:HH11	1.77	0.49
57:D8:62:LEU:N	57:D8:63:PRO:CD	2.74	0.49
2:AB:155:LEU:HG	2:AB:159:PRO:HG3	1.94	0.49
6:AF:62:TRP:O	6:AF:63:TYR:CG	2.65	0.49
27:DA:2663:G:H2'	27:DA:2664:G:C8	2.48	0.49
1:AA:1123:A:C4'	10:AJ:36:GLY:HA3	2.38	0.49
2:CB:58:ILE:HD11	2:CB:185:ILE:HG21	1.94	0.49
27:BA:1718:G:O2'	27:BA:1719:G:H5'	2.12	0.49
27:BA:528:A:O2'	27:BA:529:A:H5'	2.13	0.49
2:CB:132:LYS:HA	2:CB:135:GLN:CG	2.42	0.49
27:DA:1759:A:C8	27:DA:2696:U:H1'	2.47	0.49
1:CA:620:C:C1'	4:CD:135:LEU:HD23	2.43	0.49
1:CA:1305:G:H5''	21:CU:4:GLY:C	2.33	0.49
27:DA:2545:G:N3	27:DA:2565:A:H2	2.10	0.49
1:AA:837:G:O2'	1:AA:838:G:H5'	2.13	0.49
12:AL:41:THR:CG2	26:AZ:4:MYN:H22	2.39	0.49
36:BN:51:PHE:CZ	36:BN:119:ARG:HD3	2.48	0.49
1:CA:1256:A:H61	1:CA:1278:U:C1'	2.26	0.49
7:AG:57:GLU:HG3	7:AG:57:GLU:O	2.12	0.49
6:CF:91:VAL:CG1	6:CF:92:LYS:N	2.75	0.49
27:BA:1163:G:O2'	27:BA:1164:G:H5'	2.12	0.49
27:BA:2715:C:H2'	27:BA:2716:U:H6	1.78	0.49
34:BH:24:VAL:HG23	34:BH:35:VAL:HB	1.94	0.49
6:CF:43:LEU:N	6:CF:43:LEU:HD12	2.26	0.49
1:AA:1413:A:O2'	1:AA:1414:U:H5'	2.12	0.49
27:DA:412:A:N7	27:DA:2411:A:H2	2.09	0.49
27:DA:76:C:H6	27:DA:76:C:O5'	1.94	0.49
1:AA:1292:U:OP2	7:AG:41:ARG:NH2	2.44	0.49
27:BA:2050:C:H1'	31:BE:156:MET:HE1	1.93	0.49
46:BX:57:LEU:HD13	46:BX:78:LYS:CG	2.42	0.49
2:AB:161:ALA:HB2	2:AB:183:PRO:HB2	1.94	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:786:G:H2'	1:AA:787:A:O4'	2.12	0.49
22:AV:1:A:C2'	22:AV:2:A:H5'	2.43	0.49
27:BA:492:A:C2	27:BA:493:G:H1'	2.47	0.49
27:DA:1262:A:N3	54:D5:10:LYS:HE3	2.27	0.49
48:BZ:27:MET:HA	48:BZ:87:PHE:O	2.11	0.49
27:DA:2582:G:O2'	27:DA:2583:G:H5'	2.12	0.49
11:AK:120:ARG:NH1	11:AK:126:ARG:NE	2.61	0.49
2:AB:28:PHE:O	2:AB:28:PHE:HD1	1.95	0.49
57:B8:10:ALA:O	57:B8:13:ARG:N	2.45	0.49
35:DI:79:ILE:C	35:DI:143:SER:HG	2.15	0.49
42:BT:92:GLY:HA2	42:BT:114:LEU:HD13	1.94	0.49
27:BA:1519:G:H5'	27:BA:1520:G:P	2.53	0.49
28:BB:46:A:H2'	28:BB:47:C:C6	2.48	0.49
33:BG:47:LYS:HG2	33:BG:82:LEU:CD1	2.43	0.49
48:DZ:68:THR:HG22	48:DZ:89:VAL:HA	1.95	0.49
55:D6:15:GLU:OE2	55:D6:41:PRO:HG3	2.12	0.49
30:DD:21:PHE:HB3	30:DD:24:ILE:CG2	2.42	0.49
27:DA:1797:C:O2'	30:DD:259:THR:CG2	2.60	0.49
27:DA:626:U:H3	38:DP:105:LEU:CB	2.15	0.49
38:DP:105:LEU:CD2	38:DP:105:LEU:N	2.72	0.49
41:DS:93:LYS:O	41:DS:94:TYR:C	2.51	0.49
17:AQ:68:ARG:HG2	17:AQ:68:ARG:HH11	1.76	0.49
21:CU:9:ARG:HH11	21:CU:22:ARG:HG3	1.75	0.49
49:D0:25:ARG:CZ	49:D0:35:ASN:HD22	2.26	0.49
27:BA:585:G:H2'	27:BA:1251:C:H42	1.77	0.49
27:BA:811:U:H3'	38:BP:25:SER:HA	1.94	0.49
1:AA:1372:U:C4	1:AA:1373:G:C5	3.00	0.49
27:DA:747:U:C5	27:DA:2613:U:C5	3.01	0.49
31:BE:78:LEU:CD2	31:BE:78:LEU:N	2.76	0.49
27:DA:1654:A:OP1	40:DR:2:ARG:HB2	2.13	0.49
17:AQ:10:VAL:HG23	17:AQ:55:ASP:O	2.12	0.49
47:DY:98:VAL:O	47:DY:99:CYS:CB	2.61	0.49
32:DF:3:GLU:HA	32:DF:24:LEU:CD1	2.42	0.49
30:BD:26:LYS:HZ1	30:BD:82:ILE:N	1.97	0.49
47:BY:18:GLY:O	47:BY:19:LYS:C	2.51	0.49
1:CA:266:G:H1	1:CA:270:A:H62	1.61	0.49
20:CT:89:ARG:NH2	20:CT:104:LEU:HD21	2.27	0.49
43:BU:92:ARG:HD3	43:BU:92:ARG:N	2.28	0.49
44:BV:49:THR:HG22	44:BV:50:PRO:CD	2.41	0.49
54:D5:46:CYS:HB3	54:D5:50:GLY:H	1.77	0.49
5:CE:12:LEU:CD2	5:CE:13:ILE:H	2.15	0.49
1:AA:472:A:O2'	1:AA:473:G:H5'	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:36:LEU:HG	20:CT:62:LEU:CD1	2.43	0.49
15:AO:76:GLU:OE1	15:AO:76:GLU:HA	2.13	0.49
24:AX:65:C:H2'	24:AX:66:C:H5'	1.93	0.49
32:DF:32:LEU:HD13	32:DF:112:MET:CE	2.42	0.49
1:CA:922:G:H1'	5:CE:19:MET:HB3	1.93	0.49
3:CC:32:LEU:HD22	3:CC:59:ARG:HH12	1.77	0.49
40:BR:117:VAL:HG12	40:BR:118:GLU:N	2.27	0.49
27:BA:1582:C:H2'	27:BA:1583:A:H8	1.77	0.49
37:BO:2:ILE:CD1	37:BO:2:ILE:H	2.25	0.49
51:B2:25:VAL:O	51:B2:26:ARG:C	2.51	0.49
27:DA:1785:A:O2'	27:DA:1786:A:H2'	2.13	0.49
1:AA:532:A:H3'	1:AA:533:A:H5'	1.91	0.49
25:CY:34:U:C2'	25:CY:35:G:H5'	2.43	0.49
27:DA:588:U:H6	27:DA:588:U:O5'	1.96	0.49
27:BA:1054:A:H1'	27:BA:1055:G:C8	2.47	0.49
2:CB:132:LYS:HB2	2:CB:135:GLN:NE2	2.27	0.49
9:CI:118:LYS:HZ2	9:CI:118:LYS:HB2	1.77	0.49
27:DA:1155:A:H4'	43:DU:55:ARG:NH1	2.27	0.49
16:AP:11:SER:N	16:AP:14:ASN:HD22	2.08	0.49
54:B5:45:VAL:O	54:B5:46:CYS:C	2.50	0.49
7:CG:50:ILE:HD11	7:CG:121:ALA:HA	1.93	0.49
27:DA:1336:A:C2	27:DA:1337:G:C5	3.00	0.49
37:BO:35:VAL:HG21	37:BO:69:ILE:HD13	1.94	0.49
5:AE:122:GLU:O	5:AE:123:LEU:HD23	2.11	0.49
3:AC:187:ALA:O	3:AC:188:LEU:HD22	2.12	0.49
38:DP:114:ILE:HG23	38:DP:130:PHE:CD1	2.48	0.49
10:CJ:84:GLN:O	10:CJ:88:LEU:N	2.45	0.49
27:BA:229:A:H3'	27:BA:230:U:H5'	1.95	0.49
27:BA:935:C:H2'	27:BA:936:C:H6	1.77	0.49
27:DA:1012:U:C4	36:DN:28:THR:HG21	2.48	0.49
27:BA:2457:U:O2'	27:BA:2458:G:H5'	2.12	0.49
1:AA:958:A:C6	1:AA:959:A:C6	3.01	0.49
1:AA:308:C:H2'	1:AA:309:G:C8	2.47	0.49
27:DA:118:A:H1'	27:DA:178:G:O4'	2.12	0.49
32:BF:46:ARG:HH11	32:BF:46:ARG:CG	2.25	0.49
10:CJ:27:ALA:C	10:CJ:29:ARG:H	2.14	0.49
17:AQ:84:LEU:HA	17:AQ:87:LYS:HG2	1.95	0.49
27:BA:2136:C:N4	27:BA:2155:G:H1	2.11	0.49
1:CA:39:G:O2'	1:CA:40:C:H5'	2.13	0.49
32:DF:143:ALA:HB1	32:DF:148:LEU:O	2.12	0.49
27:DA:343:C:O2	27:DA:343:C:H2'	2.12	0.49
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:166:ASP:OD2	2:AB:168:THR:OG1	2.30	0.49
47:BY:29:GLU:N	47:BY:29:GLU:CD	2.65	0.49
42:BT:30:VAL:CG1	42:BT:84:GLN:NE2	2.76	0.49
54:B5:52:TYR:CD1	54:B5:52:TYR:O	2.66	0.49
44:DV:19:LYS:HE2	44:DV:20:LEU:N	2.16	0.49
33:BG:133:LEU:HD12	33:BG:133:LEU:O	2.12	0.49
10:CJ:63:PHE:HB2	14:CN:57:ARG:O	2.12	0.49
48:DZ:120:HIS:C	48:DZ:122:ASP:H	2.14	0.49
55:D6:39:TYR:O	55:D6:49:HIS:CE1	2.66	0.49
38:DP:64:LYS:HD2	57:D8:25:MET:CE	2.43	0.49
43:DU:91:ASP:OD2	43:DU:96:ALA:CA	2.60	0.49
30:BD:27:THR:HG21	30:BD:83:GLU:HG2	1.94	0.49
48:DZ:78:ARG:H	48:DZ:78:ARG:CD	2.24	0.49
1:AA:376:G:H2'	1:AA:377:G:C8	2.48	0.49
9:CI:4:TYR:HD1	9:CI:4:TYR:N	2.11	0.49
31:DE:2:LYS:NZ	31:DE:95:ILE:O	2.41	0.49
1:CA:1057:G:C5	1:CA:1204:A:C2	3.01	0.49
1:AA:1346:A:OP1	9:AI:120:ARG:NH1	2.39	0.49
1:AA:1363:C:H5'	1:AA:1363(A):A:O5'	2.12	0.49
40:DR:103:ARG:HD3	40:DR:108:GLY:C	2.33	0.49
9:AI:4:TYR:CB	9:AI:19:LEU:HB2	2.30	0.49
9:AI:53:VAL:HB	9:AI:92:TYR:CE2	2.46	0.49
54:D5:3:LYS:CE	54:D5:3:LYS:HA	2.34	0.49
27:BA:2631:G:N3	27:BA:2810:A:H2	2.11	0.49
2:AB:223:ILE:C	2:AB:225:ALA:H	2.14	0.49
47:DY:15:VAL:HB	47:DY:20:TYR:O	2.12	0.49
32:DF:20:LEU:CG	32:DF:21:ALA:H	2.11	0.49
48:BZ:144:GLU:OE1	48:BZ:173:VAL:HG11	2.13	0.49
27:BA:1311:G:C2	46:BX:60:ARG:NH1	2.81	0.49
29:BC:77:ILE:HG21	29:BC:122:ALA:C	2.32	0.49
27:DA:2756:U:H3'	58:D9:19:ARG:HA	1.94	0.49
3:AC:83:ARG:C	3:AC:85:ARG:N	2.64	0.49
20:CT:33:ILE:HD12	20:CT:63:ILE:HG12	1.94	0.49
27:BA:1847:A:H2'	27:BA:1847:A:N3	2.27	0.49
1:CA:1228:C:OP1	13:CM:115:LYS:HE3	2.12	0.49
12:AL:3:THR:HG23	12:AL:6:GLN:CG	2.32	0.49
39:BQ:62:GLY:O	39:BQ:63:LYS:HG3	2.13	0.49
27:DA:2364:C:H2'	27:DA:2365:G:O4'	2.13	0.49
2:CB:219:VAL:HA	2:CB:222:ILE:CD1	2.40	0.49
1:CA:1395:C:H5''	1:CA:1402:C:H4'	1.94	0.49
3:AC:173:VAL:N	3:AC:174:PRO:CD	2.76	0.49
35:BI:12:LEU:H	35:BI:12:LEU:HD23	1.77	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:144:THR:O	5:AE:148:VAL:CG2	2.61	0.49
4:CD:30:LYS:HB2	4:CD:35:ARG:HH11	1.77	0.49
48:DZ:107:PRO:O	48:DZ:109:GLY:N	2.43	0.49
27:DA:64:A:H2'	27:DA:65:C:O4'	2.12	0.49
36:BN:66:LYS:O	36:BN:68:GLU:N	2.45	0.49
1:AA:190:U:H2'	1:AA:191:G:H8	1.77	0.49
27:BA:557:U:H2'	27:BA:558:G:H8	1.77	0.49
12:AL:25:LYS:O	12:AL:26:GLY:C	2.51	0.49
27:BA:954:G:N2	27:BA:964:C:H1'	2.27	0.49
27:DA:2660:A:H2'	27:DA:2661:G:C8	2.48	0.49
11:CK:92:GLU:O	11:CK:95:ILE:N	2.46	0.49
27:BA:1005:C:H1'	27:BA:1012:U:N3	2.28	0.49
7:CG:134:ALA:O	7:CG:135:VAL:C	2.50	0.49
51:B2:31:GLU:CB	51:B2:53:LEU:HD11	2.40	0.49
27:BA:17:G:H2'	27:BA:18:C:C6	2.47	0.49
31:BE:117:MET:HA	31:BE:122:PHE:N	2.25	0.49
25:AY:52:G:H2'	25:AY:53:U:C6	2.47	0.49
6:CF:60:PHE:CD1	6:CF:60:PHE:N	2.80	0.49
19:AS:18:LYS:O	19:AS:22:LEU:HB2	2.11	0.49
27:DA:686:G:O6	56:D7:12:ARG:HA	2.12	0.49
18:AR:53:ARG:HH11	18:AR:53:ARG:HG2	1.75	0.49
30:BD:58:HIS:HD2	30:BD:59:LYS:H	1.59	0.49
5:CE:73:ASN:O	5:CE:75:THR:HG22	2.13	0.49
47:BY:2:ARG:O	47:BY:4:LYS:N	2.45	0.49
27:DA:1363:C:H2'	27:DA:1364:G:C8	2.46	0.49
48:BZ:93:GLU:O	48:BZ:95:VAL:HG23	2.13	0.49
27:DA:1514:U:H2'	27:DA:1515:G:C8	2.48	0.49
12:AL:74:LEU:HD21	12:AL:104:ALA:CB	2.43	0.49
1:AA:637:G:H2'	1:AA:638:G:C8	2.48	0.49
2:CB:8:LYS:O	2:CB:9:GLU:O	2.31	0.49
45:BW:5:ALA:O	45:BW:6:ILE:HB	2.13	0.49
39:BQ:51:ARG:NH1	39:BQ:51:ARG:HG2	2.28	0.49
39:BQ:51:ARG:HH11	39:BQ:51:ARG:HG2	1.76	0.49
27:BA:1342:A:C6	27:BA:1345:C:C2	3.01	0.49
27:BA:1528(A):A:H3'	27:BA:1529:G:H5''	1.95	0.49
1:CA:261:U:H2'	1:CA:263:A:OP2	2.12	0.49
6:AF:1:MET:HB3	6:AF:66:GLU:HG3	1.93	0.49
27:BA:1907:G:O2'	27:BA:1908:C:H5'	2.13	0.49
27:BA:125:G:C6	56:B7:10:ARG:HG3	2.48	0.49
32:BF:165:ARG:HA	32:BF:168:ARG:NE	2.28	0.49
1:AA:426:G:H2'	1:AA:427:U:C6	2.48	0.49
27:DA:1675:C:H2'	27:DA:1676:A:O4'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:28:PHE:CD1	2:AB:28:PHE:O	2.65	0.49
5:AE:75:THR:OG1	5:AE:93:PRO:HA	2.12	0.49
45:DW:57:ASN:O	45:DW:58:ALA:C	2.50	0.49
32:DF:95:ARG:NH2	32:DF:97:TYR:CE1	2.79	0.49
34:BH:60:ARG:O	34:BH:63:SER:HB2	2.12	0.49
1:CA:276:G:O2'	1:CA:277:C:H5'	2.13	0.49
27:DA:2306:C:C5	27:DA:2307:G:H1'	2.46	0.49
34:BH:152:ARG:HB2	34:BH:162:ILE:HG13	1.93	0.49
19:AS:58:VAL:O	19:AS:58:VAL:HG13	2.13	0.49
2:AB:87:ARG:HG2	2:AB:87:ARG:O	2.11	0.49
27:BA:2543:G:H2'	27:BA:2544:G:C8	2.48	0.49
55:B6:17:LYS:O	55:B6:17:LYS:HD3	2.12	0.49
1:CA:1321:C:H5''	1:CA:1322:C:H5''	1.95	0.49
2:AB:168:THR:HG23	2:AB:192:SER:OG	2.13	0.49
2:AB:167:PRO:HG3	2:AB:188:ALA:HB2	1.94	0.49
35:DI:143:SER:C	35:DI:144:VAL:HG22	2.33	0.49
27:BA:2756:U:H5''	58:B9:19:ARG:CB	2.42	0.49
35:BI:109:ILE:HG23	35:BI:130:TYR:OH	2.12	0.49
28:DB:76:G:O2'	48:DZ:18:ARG:NH2	2.45	0.49
43:DU:91:ASP:N	43:DU:92:ARG:HD3	2.28	0.49
33:DG:51:ARG:CZ	33:DG:53:LEU:HD21	2.43	0.49
20:CT:51:GLU:O	20:CT:55:ILE:HG12	2.12	0.49
30:BD:77:ALA:O	30:BD:116:GLN:HG3	2.12	0.49
27:BA:1817:G:OP1	30:BD:88:ARG:NH2	2.46	0.49
27:DA:1140:C:H5''	36:DN:66:LYS:HZ1	1.76	0.49
37:DO:75:SER:HB2	42:DT:75:ILE:O	2.13	0.49
1:CA:1353:G:N2	1:CA:1370:G:N3	2.61	0.49
9:CI:10:ARG:O	9:CI:11:LYS:HB3	2.12	0.49
27:BA:1662:C:O2'	27:BA:1663:C:H5'	2.12	0.49
1:CA:1443:G:C6	1:CA:1460:A:C2	2.99	0.49
4:AD:22:LYS:O	4:AD:113:SER:HB3	2.12	0.49
1:CA:1316:G:H4'	14:CN:18:VAL:HG11	1.95	0.49
41:DS:30:ARG:HH12	41:DS:62:LYS:HD2	1.77	0.49
1:AA:1190:G:H3'	3:AC:3:ASN:HD21	1.78	0.49
31:BE:69:LYS:CE	31:BE:89:ASP:O	2.61	0.49
2:AB:60:ASP:O	2:AB:64:ARG:CG	2.59	0.49
48:BZ:116:LEU:CD2	48:BZ:171:ALA:HB1	2.43	0.49
30:DD:111:LEU:HD22	30:DD:112:GLN:N	2.28	0.49
14:AN:26:ARG:HD2	14:AN:43:CYS:HB3	1.93	0.49
43:BU:104:GLN:CB	44:BV:44:LYS:HZ1	2.26	0.49
44:BV:55:ALA:HA	44:BV:101:GLY:HA2	1.94	0.49
45:DW:38:TYR:CZ	54:D5:41:PRO:HD3	2.48	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:61:GLY:O	39:BQ:63:LYS:N	2.46	0.49
49:D0:36:ILE:HA	49:D0:60:PHE:CB	2.43	0.49
30:BD:13:ARG:O	30:BD:14:ARG:C	2.51	0.49
5:AE:68:GLU:O	5:AE:69:VAL:C	2.51	0.49
50:D1:4:VAL:HG23	50:D1:10:LYS:O	2.13	0.49
27:BA:2562:U:H2'	27:BA:2563:U:H5'	1.95	0.49
42:BT:54:ARG:HA	42:BT:59:THR:CB	2.42	0.49
15:CO:23:GLY:O	15:CO:24:SER:CB	2.58	0.49
15:CO:28:GLN:HB2	15:CO:66:LEU:HD21	1.93	0.49
48:DZ:173:VAL:O	48:DZ:174:VAL:HG13	2.13	0.49
4:CD:60:GLU:HG2	4:CD:202:LEU:HB2	1.95	0.49
42:DT:114:LEU:O	42:DT:115:ARG:O	2.30	0.49
27:BA:61:G:H1	27:BA:94:C:H42	1.60	0.49
33:DG:143:GLU:OE2	53:D4:52:SER:HB2	2.13	0.49
33:DG:101:ILE:C	33:DG:101:ILE:HD13	2.33	0.49
27:DA:953:A:C2'	27:DA:954:G:H5'	2.42	0.49
29:DC:20:TYR:CE1	29:DC:22:ILE:HD13	2.45	0.49
16:AP:33:ILE:O	16:AP:34:GLU:HB2	2.13	0.49
50:B1:13:ILE:HD11	50:B1:42:GLN:OE1	2.12	0.49
23:AW:46:U:O2	23:AW:46:U:H2'	2.13	0.49
4:AD:58:LEU:HD22	4:AD:58:LEU:C	2.33	0.49
27:DA:1607:C:H4'	27:DA:1608:A:O5'	2.12	0.49
27:BA:1854:A:H3'	27:BA:1855:G:C8	2.38	0.49
17:CQ:31:LEU:C	17:CQ:32:TYR:HD1	2.15	0.49
27:BA:2832:U:H4'	27:BA:2833:G:H5''	1.95	0.49
38:DP:122:PRO:HG3	38:DP:141:ALA:CB	2.41	0.49
43:BU:44:ASN:HD21	44:BV:75:PHE:N	2.11	0.49
2:CB:81:VAL:HG22	2:CB:215:LEU:HD11	1.94	0.49
6:AF:100:ASN:N	6:AF:100:ASN:HD22	2.11	0.49
1:AA:1066:C:O2'	1:AA:1067:A:H5'	2.13	0.49
7:CG:118:VAL:HG23	7:CG:119:ARG:H	1.75	0.49
27:DA:1337:G:H2'	27:DA:1338:G:C8	2.45	0.49
8:CH:20:TYR:CE1	8:CH:76:PRO:HG2	2.48	0.49
27:BA:1263:U:H1'	54:B5:10:LYS:HG3	1.95	0.49
1:AA:877:C:OP1	8:AH:88:LYS:HE3	2.13	0.49
39:BQ:50:ALA:HB2	39:BQ:124:LYS:HB2	1.95	0.49
1:CA:545:C:OP1	4:CD:61:LYS:NZ	2.45	0.49
27:DA:444:C:C4'	32:DF:49:ALA:HB2	2.43	0.49
1:AA:1219:U:H2'	1:AA:1220:G:C8	2.46	0.49
1:AA:179:A:H2'	1:AA:180:U:H6	1.77	0.49
9:CI:33:PHE:C	9:CI:35:GLU:H	2.15	0.49
27:DA:1599:C:H2'	27:DA:1600:C:C6	2.48	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1380:U:H4'	1:AA:1381:U:O5'	2.13	0.49
36:BN:1:MET:O	36:BN:2:LYS:HG2	2.12	0.49
27:DA:807:U:H2'	27:DA:808:G:C8	2.48	0.49
55:B6:36:LEU:HD13	55:B6:50:ARG:CZ	2.42	0.49
1:AA:652:U:H1'	1:AA:653:A:H2	1.77	0.49
19:CS:22:LEU:HD13	19:CS:27:GLU:HB2	1.94	0.49
27:DA:2363:C:O2	49:D0:39:ARG:NH2	2.43	0.49
10:AJ:67:THR:O	10:AJ:67:THR:HG23	2.11	0.49
27:DA:1907:G:O2'	27:DA:1908:C:H5'	2.12	0.49
20:CT:41:ILE:HG22	20:CT:87:LYS:HB3	1.95	0.49
27:DA:1279:G:H2'	27:DA:1280:G:H8	1.78	0.49
1:CA:484:G:H4'	1:CA:485:G:O5'	2.13	0.49
1:CA:488:C:O2'	1:CA:489:C:H5'	2.12	0.49
27:DA:2774:C:H2'	27:DA:2775:A:C8	2.48	0.49
13:CM:28:ALA:O	13:CM:30:ALA:N	2.46	0.49
12:CL:59:SER:O	12:CL:61:TYR:HD1	1.95	0.49
3:AC:147:LYS:HB2	3:AC:203:PHE:CD2	2.48	0.49
27:BA:1897:G:H2'	27:BA:1898:U:O4'	2.13	0.49
1:CA:233:C:O2'	1:CA:234:C:H5'	2.12	0.49
38:BP:65:ARG:HH11	57:B8:46:ARG:NH2	2.10	0.49
38:BP:91:PHE:N	38:BP:91:PHE:CD1	2.80	0.49
1:AA:542:G:H5'	4:AD:41:GLY:HA2	1.95	0.49
35:DI:76:THR:O	35:DI:77:LEU:O	2.30	0.49
40:BR:96:ARG:HG2	40:BR:97:VAL:N	2.28	0.49
27:BA:271(T):C:C6	27:BA:271(T):C:C5'	2.92	0.49
53:B4:44:CYS:SG	53:B4:65:CYS:CB	3.00	0.49
48:DZ:25:GLY:HA2	48:DZ:84:HIS:CE1	2.48	0.49
48:DZ:26:VAL:HG23	48:DZ:34:ARG:O	2.13	0.49
51:D2:13:ALA:CA	51:D2:16:LEU:HD12	2.38	0.49
55:D6:26:ASN:O	55:D6:27:LYS:CD	2.61	0.49
10:CJ:33:GLN:H	10:CJ:75:ILE:HD11	1.78	0.49
27:BA:662:G:OP1	38:BP:18:ARG:CZ	2.61	0.49
27:DA:605:C:O2	27:DA:657:U:O2'	2.28	0.49
32:BF:41:LEU:HD11	32:BF:184:TYR:CE1	2.47	0.49
27:BA:2732:G:H3'	27:BA:2733:A:C5'	2.41	0.49
38:BP:23:PRO:HB2	38:BP:33:ARG:HG3	1.94	0.49
33:DG:126:ASP:O	33:DG:128:ARG:HG2	2.13	0.49
38:BP:75:ILE:N	38:BP:75:ILE:CD1	2.64	0.49
42:DT:34:VAL:O	42:DT:35:LYS:CB	2.61	0.49
9:CI:88:TYR:O	9:CI:89:ASN:ND2	2.46	0.49
1:AA:1055:A:N6	1:AA:1206:G:C5	2.80	0.49
1:AA:971:G:HO2'	1:AA:1365:G:HO2'	1.61	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:322:A:C5'	27:DA:340:A:H1'	2.40	0.49
47:DY:68:HIS:O	47:DY:71:LYS:HG2	2.13	0.49
27:BA:2056:G:N2	54:B5:4:HIS:O	2.45	0.49
1:AA:91:C:OP2	1:AA:92:C:C6	2.65	0.49
48:BZ:143:LEU:CG	48:BZ:149:LEU:HD12	2.39	0.49
27:BA:2330:G:O2'	49:B0:41:ARG:HB2	2.13	0.49
7:CG:15:ASP:CB	7:CG:20:ASP:H	2.26	0.49
12:CL:97:ILE:CG2	12:CL:98:VAL:N	2.76	0.49
40:BR:4:LEU:O	40:BR:5:LYS:HG3	2.12	0.49
31:BE:130:GLY:O	31:BE:131:ALA:CB	2.57	0.49
1:CA:1226:C:OP1	19:CS:81:ARG:NH1	2.46	0.49
2:AB:184:VAL:HG12	2:AB:197:VAL:HG13	1.95	0.49
4:CD:150:GLU:HA	4:CD:153:ARG:HD3	1.95	0.49
27:BA:774:A:H2	27:BA:787:U:HO2'	1.60	0.49
40:DR:41:ALA:HB1	40:DR:114:VAL:CG2	2.42	0.49
3:AC:34:LEU:O	3:AC:38:ARG:HG2	2.13	0.49
34:DH:125:VAL:HG12	34:DH:127:GLU:O	2.13	0.49
33:DG:18:GLU:HG3	33:DG:22:ARG:HD2	1.95	0.49
4:AD:119:GLN:CG	4:AD:123:HIS:HD2	2.22	0.49
5:CE:80:ILE:HG22	8:CH:104:ARG:NH2	2.27	0.49
17:CQ:10:VAL:HG23	17:CQ:54:GLY:N	2.23	0.49
47:BY:35:TYR:CD2	47:BY:35:TYR:O	2.66	0.49
50:B1:46:LEU:HD23	50:B1:46:LEU:H	1.78	0.49
1:CA:502:G:H2'	1:CA:503:C:H6	1.78	0.49
27:DA:158:U:H4'	27:DA:171:G:N3	2.28	0.49
27:DA:1791:A:H5'	30:DD:206:LEU:HD12	1.94	0.49
30:BD:270:ILE:O	30:BD:271:ILE:HG12	2.12	0.49
43:DU:113:ALA:C	43:DU:115:ALA:H	2.14	0.49
46:DX:10:ALA:HB1	46:DX:11:PRO:CD	2.43	0.49
29:BC:45:ALA:O	29:BC:46:LYS:HB2	2.12	0.49
1:CA:851:G:H2'	1:CA:852:G:C8	2.47	0.49
49:B0:20:ARG:CG	49:B0:20:ARG:HH11	2.25	0.49
11:AK:27:ASN:ND2	11:AK:55:LYS:CE	2.74	0.49
27:DA:969:U:OP1	52:D3:17:LYS:CG	2.60	0.49
27:BA:1667:G:H5''	37:BO:5:GLN:O	2.12	0.49
23:CW:21:A:H2'	23:CW:22:G:O4'	2.13	0.49
34:DH:89:ILE:HG12	34:DH:129:THR:HA	1.94	0.49
1:CA:285:G:H2'	1:CA:286:G:C8	2.47	0.49
27:BA:752:A:O2'	27:BA:753:C:OP2	2.28	0.49
27:BA:536:A:H2'	27:BA:537:C:H6	1.78	0.49
1:CA:224:C:H2'	1:CA:225:C:H6	1.77	0.49
57:D8:37:SER:O	57:D8:38:GLY:C	2.51	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:154(A):C:O4'	27:BA:154(A):C:O2	2.29	0.49
40:BR:18:LEU:HD11	40:BR:22:ARG:NE	2.27	0.49
27:DA:2466:C:O2'	27:DA:2467:C:H5'	2.12	0.49
32:DF:42:ALA:O	32:DF:45:ARG:HB3	2.13	0.49
29:BC:73:ARG:HH11	29:BC:93:TYR:HB2	1.78	0.49
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.95	0.49
37:DO:13:ASN:O	37:DO:15:GLY:N	2.46	0.49
7:AG:156:TRP:H	7:AG:156:TRP:HD1	1.60	0.49
16:CP:43:LYS:HG3	16:CP:48:TRP:CD2	2.48	0.49
27:DA:1904:G:N2	27:DA:1905:C:H1'	2.28	0.49
27:BA:214:G:O2'	27:BA:215:G:O4'	2.23	0.49
1:CA:1406:U:H2'	1:CA:1407:C:O4'	2.12	0.49
46:DX:25:LYS:HG3	46:DX:82:GLN:OE1	2.12	0.49
45:DW:55:ALA:O	45:DW:58:ALA:HB3	2.13	0.49
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.48	0.49
27:BA:721:C:H3'	27:BA:722:A:H8	1.78	0.49
27:DA:1983:C:O2'	27:DA:1984:G:H5'	2.12	0.49
27:BA:1911:U:H2'	27:BA:1918:A:N1	2.28	0.49
27:BA:1219:G:OP2	43:BU:19:LYS:NZ	2.40	0.49
11:CK:13:GLN:HG2	11:CK:75:TYR:HA	1.94	0.49
7:CG:92:SER:HB3	7:CG:94:ARG:HH21	1.77	0.49
34:DH:92:ILE:HG22	34:DH:93:GLY:N	2.27	0.49
1:AA:356:A:H1'	1:AA:368:U:O2'	2.12	0.49
28:DB:42:C:O2	33:DG:93:THR:HB	2.12	0.49
38:BP:85:LEU:HD13	38:BP:120:ALA:HB2	1.92	0.49
42:BT:23:ARG:HB2	42:BT:24:PRO:CD	2.42	0.49
47:BY:96:ILE:HD12	47:BY:99:CYS:CB	2.43	0.49
35:BI:120:ILE:HD13	35:BI:126:TYR:CE1	2.48	0.49
53:B4:38:ALA:CB	53:B4:55:PRO:HA	2.43	0.49
48:DZ:7:TYR:O	48:DZ:36:VAL:HB	2.13	0.49
48:DZ:9:ARG:NH1	48:DZ:35:LYS:HB2	2.28	0.49
51:D2:69:ARG:O	51:D2:70:GLN:CB	2.60	0.49
38:DP:110:TYR:OH	38:DP:111:ARG:NH2	2.46	0.49
33:DG:28:VAL:O	33:DG:31:VAL:HG12	2.13	0.49
4:AD:30:LYS:C	4:AD:32:ALA:N	2.65	0.49
45:DW:18:ARG:HG2	45:DW:76:VAL:CG1	2.43	0.49
32:DF:139:PHE:HE2	32:DF:170:LEU:HD22	1.78	0.49
10:AJ:79:ARG:HH12	10:AJ:82:ILE:HG13	1.72	0.49
2:AB:55:PHE:O	2:AB:58:ILE:HB	2.12	0.49
27:DA:2724:C:OP1	31:DE:111:ARG:HD3	2.12	0.49
32:BF:7:TYR:HD2	32:BF:16:GLY:N	2.11	0.49
19:CS:13:ASP:OD2	19:CS:13:ASP:N	2.46	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:329:G:OP2	47:BY:71:LYS:HD3	2.13	0.49
6:CF:19:LEU:HD23	6:CF:20:ALA:N	2.27	0.49
34:DH:98:LEU:HB2	34:DH:125:VAL:HG21	1.93	0.49
34:DH:126:PRO:HG3	34:DH:132:ARG:CZ	2.43	0.49
6:CF:5:GLU:HG2	6:CF:62:TRP:CZ2	2.48	0.49
13:CM:49:THR:CG2	13:CM:50:GLU:H	2.20	0.49
48:DZ:173:VAL:HG12	48:DZ:174:VAL:N	2.28	0.49
27:BA:554:U:H2'	27:BA:555:U:H5'	1.94	0.49
42:DT:61:PHE:CD2	42:DT:76:PHE:O	2.66	0.49
32:DF:181:LEU:CD1	32:DF:186:ILE:HD11	2.42	0.49
20:AT:16:HIS:O	20:AT:19:SER:HB3	2.13	0.49
5:CE:102:ALA:H	5:CE:107:ARG:NH2	2.11	0.49
2:AB:144:ARG:HG3	2:AB:145:LEU:HD22	1.94	0.49
35:DI:93:THR:N	35:DI:96:ASP:HB2	2.23	0.49
36:DN:40:PRO:O	43:DU:64:ARG:HG2	2.12	0.49
43:DU:112:ARG:O	43:DU:116:ALA:HB2	2.13	0.49
37:BO:121:VAL:C	37:BO:122:LEU:HD23	2.33	0.49
58:D9:7:VAL:HG21	58:D9:36:GLN:HB2	1.95	0.49
27:DA:992:C:O2'	27:DA:993:G:H5'	2.13	0.49
1:AA:922:G:C6	1:AA:923:A:C6	3.01	0.49
16:CP:11:SER:H	16:CP:14:ASN:HB3	1.78	0.49
27:DA:15:G:H2'	27:DA:16:G:H8	1.78	0.49
31:BE:187:ALA:O	31:BE:188:VAL:CB	2.61	0.49
1:AA:1077:G:H22	1:AA:1079:G:H3'	1.76	0.49
27:DA:2732:G:H3'	27:DA:2733:A:C5'	2.43	0.49
27:DA:2181:G:O2'	27:DA:2182:G:H5'	2.13	0.49
27:BA:2642:G:H2'	27:BA:2643:G:H8	1.77	0.49
29:BC:49:ILE:HG22	29:BC:50:ASP:H	1.78	0.49
40:BR:26:LYS:CE	40:BR:71:GLN:H	2.25	0.49
27:DA:2767:C:H2'	27:DA:2768:C:H6	1.78	0.49
1:AA:487:A:H2'	1:AA:488:C:O4'	2.13	0.49
27:BA:2235:G:H2'	27:BA:2236:C:H6	1.77	0.49
27:DA:2236:C:H2'	27:DA:2237:G:C5'	2.42	0.49
1:AA:1258:G:H2'	1:AA:1259:C:H6	1.76	0.49
27:BA:2062:A:O2'	27:BA:2063:C:C5'	2.61	0.49
6:CF:52:ILE:O	6:CF:53:ALA:HB3	2.13	0.49
56:B7:19:ARG:NH1	56:B7:19:ARG:HG2	2.26	0.49
36:DN:29:LYS:O	36:DN:33:LEU:N	2.42	0.49
17:CQ:86:GLU:HA	17:CQ:86:GLU:OE1	2.12	0.49
27:DA:118:A:H2'	27:DA:120:U:O4	2.12	0.49
6:CF:30:LEU:HD23	6:CF:75:LEU:HD11	1.95	0.49
34:DH:46:GLU:CG	34:DH:51:ARG:HE	2.25	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:729:G:H2'	27:DA:1775:U:H1'	1.95	0.49
27:BA:445:C:O2'	27:BA:446:G:H5'	2.12	0.49
1:CA:526:C:C4	1:CA:527:G:H1'	2.48	0.49
27:BA:724:U:O2'	27:BA:725:G:H5'	2.13	0.49
27:BA:1572:A:O2'	27:BA:1573:G:H5'	2.13	0.49
27:DA:272:G:O6	27:DA:421:U:H2'	2.12	0.49
27:BA:1587:A:H2'	27:BA:1588:C:C6	2.48	0.49
1:AA:926:G:H22	22:AV:4:A:P	2.36	0.49
23:CW:42:G:H4'	23:CW:43:C:OP1	2.11	0.49
27:BA:2392:A:H5'	27:BA:2392:A:N3	2.28	0.49
47:BY:26:LYS:O	47:BY:28:LYS:HE3	2.13	0.49
37:BO:107:ARG:CZ	42:BT:35:LYS:HB2	2.41	0.49
27:BA:2839:G:C5'	40:BR:46:GLY:HA2	2.42	0.49
27:BA:271(T):C:H2'	27:BA:271(U):G:C8	2.48	0.49
33:BG:41:GLN:HG2	33:BG:155:MET:HB3	1.95	0.49
33:BG:39:ILE:HD13	33:BG:157:ILE:CG1	2.42	0.49
33:BG:98:ARG:O	33:BG:101:ILE:CD1	2.58	0.49
28:DB:75:G:N2	48:DZ:86:ASP:OD1	2.46	0.49
51:D2:17:SER:HB3	51:D2:20:GLU:HB2	1.95	0.49
10:CJ:18:ALA:C	10:CJ:20:ALA:H	2.16	0.49
42:DT:119:LYS:O	42:DT:121:ILE:N	2.45	0.49
38:DP:146:VAL:HG13	38:DP:147:LEU:H	1.76	0.49
32:BF:24:LEU:HD22	32:BF:24:LEU:N	2.28	0.49
27:BA:942:G:H5'	38:BP:35:HIS:HB3	1.95	0.49
33:DG:108:ASN:O	33:DG:112:PRO:HG2	2.13	0.49
33:DG:131:TYR:HE2	33:DG:133:LEU:HB3	1.78	0.49
36:DN:132:ALA:O	36:DN:133:GLN:HB3	2.13	0.49
37:DO:77:ILE:HD11	42:DT:72:VAL:CG1	2.43	0.49
44:DV:52:VAL:CG1	44:DV:55:ALA:HB3	2.43	0.49
31:DE:59:VAL:HG11	31:DE:63:LEU:CG	2.33	0.49
1:CA:976:G:N2	1:CA:1362:C:H2'	2.28	0.49
7:AG:23:VAL:HG12	7:AG:27:ILE:CD1	2.41	0.49
9:AI:83:ARG:NH2	9:AI:102:LEU:HD11	2.28	0.49
2:AB:80:ILE:O	2:AB:80:ILE:HG12	2.11	0.49
31:DE:111:ARG:H	31:DE:161:GLY:CA	2.26	0.49
2:CB:74:LYS:HB2	2:CB:76:GLN:NE2	2.28	0.49
1:AA:90:U:H5''	1:AA:91:C:H5'	1.95	0.49
27:BA:1505:C:O2'	27:BA:1506:C:O4'	2.20	0.49
41:BS:28:VAL:HG21	41:BS:87:PHE:CZ	2.47	0.49
44:BV:39:LEU:HB3	44:BV:47:VAL:HG11	1.94	0.49
27:BA:1311:G:C4	56:B7:47:ARG:NH2	2.81	0.49
51:D2:34:GLU:HA	51:D2:34:GLU:OE1	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1203:G:H3'	27:DA:1204:A:H5''	1.94	0.49
5:AE:35:GLY:CA	5:AE:41:VAL:HG12	2.43	0.49
1:CA:1228:C:H2'	1:CA:1229:A:H8	1.78	0.49
13:CM:104:ARG:CG	13:CM:105:THR:H	2.10	0.49
4:CD:195:ALA:O	4:CD:196:LEU:C	2.51	0.49
27:DA:873:G:O2'	27:DA:874:G:H5''	2.11	0.49
27:BA:1043:C:O2'	27:BA:1044:G:H8	1.96	0.49
18:CR:37:VAL:CG2	18:CR:38:GLU:H	2.21	0.49
57:D8:60:LEU:O	57:D8:63:PRO:HG2	2.13	0.49
1:CA:476:G:H2'	1:CA:477:A:H8	1.78	0.49
30:DD:56:GLY:O	30:DD:57:GLY:O	2.31	0.49
45:DW:12:ILE:HG23	45:DW:12:ILE:O	2.12	0.49
32:DF:178:PRO:HG2	32:DF:179:GLU:H	1.77	0.49
27:BA:1742:G:N7	27:BA:1743:C:C4	2.81	0.49
31:BE:47:VAL:HG21	31:BE:84:PHE:O	2.13	0.49
50:D1:51:VAL:HG21	50:D1:74:VAL:CG2	2.43	0.49
41:DS:97:ARG:HH21	41:DS:98:VAL:HG12	1.78	0.49
27:DA:143:G:O2'	46:DX:35:THR:HG21	2.13	0.49
27:DA:1745(A):C:H5'	27:DA:1746:G:OP2	2.12	0.49
27:BA:884:C:H2'	27:BA:885:C:O4'	2.13	0.49
27:DA:1420:U:O2'	27:DA:1421:G:H5'	2.13	0.49
27:DA:1494:A:O2'	27:DA:1495:A:H5''	2.13	0.49
27:BA:2357:U:OP1	49:B0:20:ARG:NE	2.46	0.49
27:BA:646:A:H2'	27:BA:647:G:O4'	2.13	0.49
17:CQ:36:ILE:HG12	17:CQ:37:LYS:N	2.26	0.49
6:AF:50:TYR:CZ	18:AR:77:GLY:HA2	2.47	0.49
4:AD:96:LEU:CD1	4:AD:96:LEU:N	2.76	0.49
5:CE:73:ASN:C	5:CE:73:ASN:ND2	2.63	0.49
46:DX:57:LEU:CD1	46:DX:78:LYS:CG	2.91	0.49
1:AA:735:C:H2'	1:AA:736:C:H6	1.76	0.49
27:DA:1662:C:H1'	27:DA:2687:U:H5''	1.94	0.49
7:CG:95:ARG:HG3	7:CG:95:ARG:HH11	1.78	0.49
43:BU:47:TYR:HA	43:BU:50:ARG:NH2	2.27	0.49
29:BC:71:GLN:NE2	29:BC:73:ARG:NE	2.61	0.49
27:BA:1578:U:OP2	27:BA:1578:U:H6	1.95	0.49
3:AC:66:VAL:O	3:AC:66:VAL:HG12	2.12	0.49
49:D0:70:GLN:HE22	49:D0:72:ARG:HD3	1.78	0.49
27:BA:470:A:O2'	27:BA:471:A:H5'	2.12	0.49
27:DA:2678:C:O2'	27:DA:2679:A:H5'	2.13	0.49
1:AA:1437:C:H2'	1:AA:1438:G:H8	1.77	0.49
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.13	0.49
27:DA:97:C:H5''	51:D2:2:LYS:HB3	1.93	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:805:C:O2'	1:CA:806:C:H5'	2.13	0.49
1:CA:384:G:H2'	1:CA:385:C:C6	2.48	0.49
44:BV:32:THR:HG22	44:BV:33:VAL:N	2.28	0.49
24:AX:41:C:O2'	24:AX:42:G:H5'	2.13	0.49
27:DA:2887:U:H2'	27:DA:2888:C:H6	1.77	0.49
27:BA:627:A:C6	27:BA:637:A:C8	3.01	0.48
35:DI:105:HIS:HB3	35:DI:107:VAL:HG23	1.95	0.48
42:BT:74:ARG:HD2	42:BT:76:PHE:CE2	2.48	0.48
45:BW:78:GLU:OE2	45:BW:99:ARG:HD2	2.13	0.48
27:DA:2875:C:C4'	42:DT:5:ALA:HB2	2.15	0.48
27:BA:1880:C:C5'	27:BA:1880:C:C6	2.94	0.48
1:CA:1060:C:C4'	10:CJ:51:ARG:HB3	2.41	0.48
48:DZ:67:PRO:O	48:DZ:68:THR:HG23	2.13	0.48
51:D2:13:ALA:O	51:D2:16:LEU:HB2	2.13	0.48
38:DP:59:LEU:HB2	38:DP:61:ARG:NH1	2.28	0.48
1:CA:522:C:O2'	1:CA:523:A:H5'	2.13	0.48
12:CL:39:THR:HA	12:CL:50:ARG:O	2.13	0.48
10:CJ:24:VAL:HG21	10:CJ:37:PRO:CG	2.34	0.48
27:DA:1899:G:O2'	27:DA:1900:A:H5''	2.13	0.48
38:DP:97:PRO:O	38:DP:98:GLU:CB	2.61	0.48
41:DS:25:ARG:CZ	41:DS:40:ILE:HD11	2.42	0.48
38:DP:33:ARG:O	38:DP:34:GLY:O	2.31	0.48
28:DB:15:A:H5'	28:DB:16:G:C8	2.48	0.48
28:DB:16:G:O6	28:DB:66:A:C2	2.66	0.48
30:BD:27:THR:CG2	30:BD:83:GLU:HG2	2.43	0.48
30:BD:30:GLU:OE1	30:BD:63:ARG:NE	2.40	0.48
36:DN:134:ARG:O	36:DN:136:GLU:N	2.46	0.48
1:CA:1269:A:H5'	21:CU:18:TYR:O	2.12	0.48
9:CI:4:TYR:CD1	9:CI:4:TYR:N	2.81	0.48
27:BA:1659:U:O2'	27:BA:1660:C:H5'	2.13	0.48
31:BE:61:ARG:N	31:BE:62:PRO:HD2	2.28	0.48
27:DA:2822:G:OP2	40:DR:2:ARG:NH1	2.46	0.48
15:CO:65:ARG:C	15:CO:67:LEU:H	2.15	0.48
27:BA:1556:C:H2'	27:BA:1557:C:C6	2.48	0.48
56:B7:46:VAL:CG1	56:B7:47:ARG:H	2.09	0.48
27:DA:2743:C:H2'	27:DA:2744:G:O4'	2.13	0.48
3:AC:70:VAL:HG12	3:AC:72:LYS:N	2.16	0.48
27:BA:2819:G:C6	27:BA:2821:A:C2	3.01	0.48
1:CA:643:C:H2'	1:CA:644:G:H8	1.77	0.48
52:D3:44:ARG:HA	52:D3:47:VAL:HB	1.95	0.48
2:AB:31:TYR:CD2	2:AB:31:TYR:N	2.81	0.48
4:CD:150:GLU:H	4:CD:150:GLU:CD	2.16	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BH:121:ILE:HD12	34:BH:144:VAL:HG21	1.94	0.48
3:AC:35:GLU:OE2	3:AC:95:THR:HG21	2.13	0.48
34:DH:126:PRO:O	34:DH:127:GLU:HB2	2.13	0.48
36:DN:99:LEU:O	36:DN:102:ALA:N	2.46	0.48
50:D1:73:LEU:CD2	50:D1:94:LEU:HB3	2.43	0.48
27:BA:2467:C:C4'	39:BQ:123:HIS:ND1	2.71	0.48
11:CK:102:GLY:O	11:CK:103:LEU:HD22	2.12	0.48
3:AC:114:PRO:O	3:AC:118:GLN:HG3	2.13	0.48
3:AC:139:GLN:O	3:AC:141:VAL:N	2.46	0.48
27:BA:2019:A:H62	54:B5:9:LYS:HE3	1.78	0.48
27:BA:2617:C:C2'	27:BA:2618:G:H5'	2.43	0.48
1:CA:187:C:H5''	20:CT:86:ARG:CD	2.43	0.48
27:BA:2833:G:O2'	27:BA:2834:G:P	2.71	0.48
11:AK:53:SER:O	11:AK:55:LYS:N	2.46	0.48
1:AA:1014:A:H4'	19:AS:14:HIS:CD2	2.48	0.48
27:BA:2066:C:O2'	27:BA:2067:G:H5'	2.13	0.48
44:BV:91:TYR:C	44:BV:91:TYR:CD1	2.87	0.48
1:AA:875:C:H1'	8:AH:15:ASN:OD1	2.13	0.48
1:AA:737:A:H2'	1:AA:738:C:H6	1.75	0.48
43:DU:35:ALA:O	43:DU:38:THR:HB	2.13	0.48
29:BC:66:HIS:O	29:BC:68:LEU:N	2.46	0.48
32:DF:64:ILE:HG23	32:DF:76:GLY:O	2.13	0.48
1:AA:950:U:H2'	1:AA:951:G:H8	1.73	0.48
2:AB:236:TYR:HA	2:AB:239:VAL:HG21	1.94	0.48
5:CE:18:ARG:HH21	5:CE:25:ARG:HD2	1.78	0.48
33:BG:28:VAL:O	33:BG:31:VAL:HG12	2.12	0.48
37:BO:117:LEU:HD23	37:BO:117:LEU:O	2.13	0.48
41:DS:58:LEU:HB3	41:DS:65:VAL:HG13	1.95	0.48
33:BG:38:VAL:CG2	33:BG:93:THR:HG23	2.43	0.48
2:AB:229:VAL:CG1	2:AB:230:VAL:N	2.76	0.48
29:BC:22:ILE:HG22	29:BC:24:GLU:H	1.78	0.48
27:BA:77:C:O3'	51:B2:14:ARG:NH2	2.46	0.48
1:CA:1084:G:OP1	1:CA:1086:U:C5	2.66	0.48
25:CY:37:U:H2'	25:CY:38:U:C4'	2.43	0.48
20:CT:75:ASN:HD22	20:CT:75:ASN:H	1.60	0.48
7:CG:36:LYS:HB2	7:CG:36:LYS:NZ	2.28	0.48
36:DN:51:PHE:HD1	36:DN:51:PHE:N	2.10	0.48
27:BA:2785:C:H2'	27:BA:2786:U:C6	2.48	0.48
1:AA:1112:C:C4	3:AC:178:LEU:HD23	2.47	0.48
27:DA:1246:A:O2'	27:DA:1247:A:H5'	2.13	0.48
1:CA:304:U:H2'	1:CA:305:G:C8	2.47	0.48
1:AA:1490:C:H2'	1:AA:1491:G:C8	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DO:72:PRO:C	37:DO:74:GLY:H	2.17	0.48
27:BA:2178:C:H2'	27:BA:2179:C:C6	2.48	0.48
27:BA:656:G:H8	27:BA:656:G:P	2.35	0.48
8:AH:53:VAL:O	8:AH:54:ASP:C	2.51	0.48
34:DH:149:ARG:HD2	34:DH:164:TYR:HD1	1.78	0.48
1:AA:361:G:H2'	1:AA:362:G:O4'	2.13	0.48
38:BP:65:ARG:HG2	38:BP:65:ARG:NH1	2.27	0.48
42:BT:32:TYR:HD2	42:BT:81:PRO:CB	2.25	0.48
40:BR:29:LEU:HD11	40:BR:48:VAL:HG13	1.94	0.48
3:CC:177:THR:O	3:CC:180:ALA:HB2	2.12	0.48
55:D6:11:LEU:HD11	55:D6:51:GLU:HG2	1.95	0.48
40:DR:59:ASP:C	40:DR:61:HIS:N	2.66	0.48
40:DR:66:VAL:HG13	40:DR:67:LEU:N	2.28	0.48
32:BF:40:GLN:OE1	32:BF:182:ASN:HB2	2.13	0.48
27:DA:2302:G:C6	27:DA:2315:G:C6	3.01	0.48
18:CR:79:LEU:HD22	18:CR:80:PRO:HD2	1.95	0.48
53:D4:42:CYS:HA	53:D4:59:VAL:HB	1.95	0.48
1:AA:386:C:C2'	1:AA:387:U:C5'	2.89	0.48
16:AP:71:ARG:C	16:AP:73:LEU:N	2.66	0.48
1:CA:346:G:H5'	42:DT:41:ARG:NE	2.28	0.48
49:D0:68:GLU:HB3	49:D0:82:ARG:HE	1.78	0.48
23:AW:34:U:O2'	23:AW:35:G:H5'	2.13	0.48
30:BD:43:ARG:HB3	30:BD:54:ARG:CB	2.40	0.48
9:AI:40:LEU:O	9:AI:41:VAL:C	2.51	0.48
2:AB:51:LEU:HD23	2:AB:201:ILE:HD12	1.96	0.48
2:AB:77:ALA:CB	2:AB:211:ILE:HG21	2.42	0.48
27:BA:582:G:H2'	27:BA:583:G:H8	1.77	0.48
27:BA:1485:G:C8	27:BA:1486:A:N7	2.81	0.48
46:DX:49:VAL:HB	46:DX:87:GLN:NE2	2.28	0.48
4:CD:187:ARG:HH11	4:CD:187:ARG:HG2	1.77	0.48
40:BR:2:ARG:HE	40:BR:2:ARG:N	2.11	0.48
27:DA:1158:C:H2'	27:DA:1159:U:C5'	2.35	0.48
41:BS:68:GLN:C	41:BS:70:GLY:N	2.66	0.48
34:BH:45:VAL:HA	34:BH:50:VAL:HG22	1.94	0.48
2:AB:44:LEU:HD12	2:AB:44:LEU:N	2.16	0.48
22:CV:9:G:C5	22:CV:10:U:H5	2.31	0.48
27:DA:1328:G:H4'	27:DA:1329:U:H5	1.78	0.48
27:BA:2015:A:H1'	54:B5:2:ALA:CA	2.35	0.48
29:BC:83:ILE:HA	29:BC:94:VAL:CG2	2.42	0.48
2:CB:178:ARG:HH22	2:CB:196:LEU:CA	2.18	0.48
21:AU:6:ARG:CG	21:AU:15:ARG:NH2	2.76	0.48
50:B1:83:GLU:HG3	50:B1:84:GLY:H	1.78	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:143:HIS:ND1	30:DD:192:THR:O	2.46	0.48
27:BA:2110:G:H5''	27:BA:2111:C:OP2	2.13	0.48
27:BA:2225:A:H4'	27:BA:2226:C:H6	1.78	0.48
27:DA:2654:A:C2	27:DA:2665:A:H5''	2.47	0.48
27:DA:2660:A:H2'	27:DA:2661:G:O4'	2.13	0.48
28:BB:66:A:H61	28:BB:108:U:C2'	2.24	0.48
15:AO:51:HIS:O	15:AO:54:ARG:HB3	2.12	0.48
11:CK:21:ILE:HD13	11:CK:82:VAL:HG13	1.95	0.48
27:DA:753:C:H2'	27:DA:754:C:C6	2.48	0.48
27:DA:753:C:H2'	27:DA:754:C:H6	1.78	0.48
27:DA:528:A:C2	27:DA:2043:C:C4'	2.95	0.48
1:AA:152:A:N6	1:AA:170:U:C2	2.81	0.48
15:CO:3:ILE:CA	15:CO:38:ARG:HH21	2.22	0.48
15:CO:2:PRO:HB2	15:CO:3:ILE:HD13	1.94	0.48
48:BZ:156:LEU:HD12	48:BZ:156:LEU:N	2.25	0.48
50:D1:81:LYS:C	50:D1:82:LEU:HD22	2.32	0.48
27:BA:1048:A:N6	27:BA:1054:A:C5	2.81	0.48
27:DA:302:C:H42	27:DA:315:G:H1	1.60	0.48
27:DA:1935:G:N1	27:DA:1962:C:H2'	2.22	0.48
37:BO:64:ARG:CG	37:BO:79:PHE:CG	2.95	0.48
27:DA:533:G:N3	43:DU:45:TYR:CE1	2.81	0.48
29:BC:38:ASP:HB2	29:BC:181:PRO:CB	2.44	0.48
8:AH:120:THR:H	8:AH:123:GLU:HB2	1.77	0.48
8:CH:63:LEU:N	8:CH:63:LEU:HD22	2.27	0.48
1:AA:818:G:C3'	1:AA:819:A:C5'	2.91	0.48
27:BA:1827:C:H2'	27:BA:1828:G:H5'	1.95	0.48
1:CA:544:G:H5''	4:CD:62:GLN:HE21	1.77	0.48
1:CA:124:G:H2'	1:CA:125:U:C6	2.48	0.48
1:AA:959:A:H2'	1:AA:960:U:H4'	1.94	0.48
11:AK:87:THR:HG22	11:AK:88:GLY:N	2.29	0.48
1:CA:777:A:H2'	1:CA:778:G:H8	1.78	0.48
20:AT:10:LEU:O	20:AT:12:ALA:N	2.46	0.48
33:BG:24:GLY:O	33:BG:25:TYR:O	2.31	0.48
12:CL:15:VAL:HG23	12:CL:16:ARG:H	1.78	0.48
27:BA:2673:G:O2'	27:BA:2674:G:H5'	2.13	0.48
1:CA:1129:C:OP1	9:CI:62:TYR:HE2	1.96	0.48
27:DA:2441:C:OP2	27:DA:2586:C:O2'	2.31	0.48
27:BA:1958:C:O2'	27:BA:1959:G:H5'	2.13	0.48
9:CI:121:ARG:NH1	9:CI:122:ALA:O	2.47	0.48
27:DA:1274:A:N3	27:DA:1297:C:H1'	2.28	0.48
36:BN:48:MET:H	36:BN:48:MET:HE3	1.78	0.48
27:BA:1331:A:O2'	27:BA:1332:G:H8	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1890:A:H2'	27:BA:1891:G:O4'	2.13	0.48
27:DA:74:A:O2'	27:DA:75:G:OP2	2.24	0.48
27:BA:705:A:O2'	27:BA:706:A:H5'	2.12	0.48
38:BP:65:ARG:HH11	57:B8:46:ARG:HH21	1.60	0.48
35:DI:109:ILE:HD11	35:DI:114:LEU:HD21	1.95	0.48
47:BY:8:LYS:HE2	47:BY:72:VAL:O	2.13	0.48
44:DV:19:LYS:NZ	44:DV:22:VAL:HG13	2.28	0.48
35:BI:87:LYS:O	35:BI:88:ILE:HD13	2.11	0.48
35:BI:94:ALA:O	35:BI:111:PRO:HB3	2.13	0.48
2:CB:35:GLU:O	2:CB:35:GLU:HG2	2.14	0.48
48:DZ:13:LYS:O	48:DZ:17:LEU:HB2	2.13	0.48
55:D6:27:LYS:O	55:D6:29:ASN:N	2.46	0.48
27:DA:1455:G:C2	27:DA:1456:G:C8	3.01	0.48
44:DV:3:ALA:HB1	44:DV:38:LEU:HD11	1.94	0.48
33:DG:107:LEU:HD22	33:DG:177:GLY:O	2.13	0.48
33:DG:88:ILE:HD12	33:DG:89:GLY:N	2.22	0.48
18:CR:50:ILE:HD11	18:CR:70:ILE:HG21	1.95	0.48
13:CM:5:ALA:O	13:CM:7:VAL:N	2.47	0.48
1:AA:1321:C:C5'	1:AA:1322:C:C5'	2.87	0.48
17:AQ:67:LYS:N	17:AQ:70:ARG:HH12	2.11	0.48
9:CI:9:ARG:HB3	9:CI:104:ARG:CD	2.43	0.48
30:BD:131:LEU:HB2	30:BD:136:ILE:HD11	1.94	0.48
39:BQ:1:MET:O	39:BQ:2:LEU:CB	2.60	0.48
27:DA:2631:G:N3	27:DA:2810:A:H2	2.11	0.48
31:DE:59:VAL:O	31:DE:60:ASN:CB	2.59	0.48
1:AA:1349:A:H2'	1:AA:1350:A:H8	1.79	0.48
14:AN:41:ARG:HG2	14:AN:41:ARG:NH1	2.28	0.48
31:BE:48:GLN:CD	31:BE:78:LEU:HD12	2.33	0.48
2:AB:55:PHE:HE1	2:AB:218:ALA:CA	2.25	0.48
27:DA:2872:G:H2'	27:DA:2873:A:C8	2.48	0.48
27:DA:309:G:H4'	47:DY:18:GLY:HA3	1.95	0.48
3:CC:109:PRO:HA	3:CC:115:LEU:HD12	1.95	0.48
43:BU:92:ARG:CZ	43:BU:92:ARG:HB2	2.43	0.48
29:DC:52:ARG:C	29:DC:53:ARG:HG3	2.34	0.48
12:CL:21:VAL:O	12:CL:23:ALA:N	2.40	0.48
12:CL:29:PHE:HB3	12:CL:81:LEU:CD2	2.33	0.48
12:CL:97:ILE:HG22	12:CL:98:VAL:N	2.29	0.48
5:AE:105:VAL:N	5:AE:106:PRO:CD	2.74	0.48
5:AE:7:GLU:CG	5:AE:8:GLU:N	2.77	0.48
8:CH:85:ARG:HG3	8:CH:85:ARG:HH11	1.77	0.48
1:CA:1054:C:C2	23:CW:33:C:O4'	2.66	0.48
34:BH:83:TYR:O	34:BH:84:SER:O	2.31	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:42:LEU:H	3:AC:42:LEU:HD12	1.77	0.48
1:AA:1456:G:C1'	20:AT:39:LYS:NZ	2.76	0.48
41:DS:12:PHE:CD1	41:DS:12:PHE:O	2.66	0.48
16:CP:58:TYR:O	16:CP:61:SER:N	2.46	0.48
27:DA:142:A:H8	27:DA:1408:C:H1'	1.79	0.48
1:AA:1399:C:C2	1:AA:1502:A:N6	2.80	0.48
34:BH:80:SER:O	34:BH:81:GLU:CB	2.60	0.48
1:AA:664:G:N2	1:AA:741:G:H1	2.11	0.48
39:BQ:101:ARG:HG3	39:BQ:102:VAL:N	2.28	0.48
30:DD:35:LYS:HZ3	30:DD:104:TYR:H	1.61	0.48
38:BP:71:VAL:HG13	38:BP:72:PRO:CD	2.42	0.48
1:CA:1134:G:N2	1:CA:1141:C:C2	2.81	0.48
27:BA:1997:G:O2'	27:BA:1998:G:H5'	2.14	0.48
48:BZ:127:VAL:CG1	48:BZ:128:SER:H	2.17	0.48
13:AM:27:LYS:HE3	13:AM:31:LYS:CE	2.43	0.48
27:BA:2065:C:H2'	27:BA:2066:C:H6	1.79	0.48
16:AP:14:ASN:N	16:AP:15:PRO:CD	2.74	0.48
1:CA:377:G:H2'	1:CA:378:G:H8	1.79	0.48
27:DA:1754:C:H4'	42:DT:101:PHE:CD2	2.48	0.48
46:DX:57:LEU:CD1	46:DX:78:LYS:HG2	2.43	0.48
1:AA:638:G:O2'	1:AA:639:G:H5'	2.12	0.48
29:BC:49:ILE:O	29:BC:51:PRO:CD	2.61	0.48
7:CG:102:ARG:O	7:CG:106:GLN:HG3	2.13	0.48
27:DA:2687:U:H2'	27:DA:2688:U:H5'	1.94	0.48
15:CO:51:HIS:O	15:CO:54:ARG:HB3	2.13	0.48
1:AA:769:G:O2'	1:AA:770:C:H5'	2.14	0.48
29:DC:59:ARG:N	29:DC:59:ARG:HD3	2.29	0.48
17:AQ:41:LYS:HZ1	17:AQ:92:ARG:HH12	1.61	0.48
27:DA:2408:U:H2'	27:DA:2409:G:C8	2.48	0.48
1:AA:949:A:C2	1:AA:1233:G:N3	2.81	0.48
27:BA:1691:C:O2'	27:BA:1692:U:H5'	2.13	0.48
25:CY:37:U:C3'	25:CY:38:U:H5''	2.43	0.48
4:CD:14:ARG:HA	4:CD:39:PRO:CG	2.43	0.48
17:AQ:27:PHE:N	17:AQ:27:PHE:CD2	2.74	0.48
40:BR:103:ARG:HH11	45:BW:40:ASN:ND2	2.10	0.48
27:BA:2402:C:C4'	27:BA:2402:C:OP1	2.61	0.48
5:AE:96:PRO:HA	5:AE:117:ASP:OD2	2.13	0.48
27:DA:2356:C:H2'	27:DA:2357:U:O4'	2.13	0.48
27:DA:684:G:OP1	56:D7:16:HIS:ND1	2.46	0.48
1:AA:1027:C:H1'	1:AA:1035:A:C2	2.47	0.48
27:BA:499:U:O2'	27:BA:500:G:H5'	2.13	0.48
1:CA:942:G:H2'	1:CA:943:U:C6	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:221:LEU:N	2:CB:221:LEU:CD2	2.76	0.48
8:CH:68:ARG:HG2	8:CH:68:ARG:HH11	1.77	0.48
27:BA:2636:U:H4'	31:BE:80:GLU:OE1	2.13	0.48
27:BA:693:C:O2'	27:BA:694:U:H5'	2.12	0.48
27:BA:2193:G:C4	27:BA:2194:G:C8	3.01	0.48
4:CD:76:ARG:HD3	4:CD:207:TYR:CE2	2.48	0.48
57:B8:29:LYS:HE2	57:B8:44:LYS:HB3	1.96	0.48
38:BP:111:ARG:HA	38:BP:128:HIS:CD2	2.48	0.48
35:DI:114:LEU:HA	35:DI:130:TYR:HA	1.95	0.48
47:BY:26:LYS:O	47:BY:27:VAL:C	2.51	0.48
42:BT:28:VAL:HG21	42:BT:46:GLU:CG	2.36	0.48
42:BT:35:LYS:C	42:BT:37:GLY:H	2.13	0.48
27:BA:271(S):G:C3'	27:BA:271(T):C:H5''	2.43	0.48
33:BG:95:ARG:HA	33:BG:99:MET:HE2	1.95	0.48
10:CJ:48:THR:HA	10:CJ:62:HIS:CB	2.42	0.48
20:AT:29:LYS:HA	20:AT:32:ALA:HB3	1.95	0.48
20:AT:56:MET:O	20:AT:59:ALA:HB3	2.12	0.48
55:D6:8:LYS:HE2	55:D6:8:LYS:HB2	1.40	0.48
38:DP:58:THR:C	38:DP:61:ARG:NE	2.67	0.48
34:BH:41:MET:HE2	34:BH:54:ARG:HA	1.95	0.48
27:DA:775:G:O2'	27:DA:776:G:OP2	2.26	0.48
31:DE:130:GLY:O	31:DE:131:ALA:O	2.31	0.48
33:DG:111:LEU:O	33:DG:114:ILE:HG13	2.13	0.48
1:AA:267:C:OP1	17:AQ:67:LYS:HB2	2.13	0.48
9:CI:10:ARG:HG2	9:CI:105:ASP:HB3	1.95	0.48
9:CI:40:LEU:C	9:CI:42:ARG:H	2.15	0.48
44:DV:52:VAL:HG11	44:DV:55:ALA:HB2	1.95	0.48
1:CA:1443:G:H5'	1:CA:1444:C:OP2	2.14	0.48
28:DB:27:C:H5'	41:DS:33:LYS:CB	2.44	0.48
28:DB:27:C:H4'	41:DS:34:HIS:NE2	2.27	0.48
20:AT:97:ALA:C	20:AT:99:LEU:H	2.14	0.48
27:DA:1685:C:C3'	27:DA:1686:C:H5''	2.43	0.48
7:AG:36:LYS:O	7:AG:39:ALA:HB3	2.14	0.48
9:AI:85:LEU:C	9:AI:85:LEU:HD12	2.33	0.48
27:BA:1167:U:H2'	27:BA:1168:G:C8	2.48	0.48
27:BA:2863:C:O2'	27:BA:2864:G:H5''	2.12	0.48
2:AB:7:VAL:HG12	2:AB:217:ARG:HH22	1.79	0.48
32:DF:6:VAL:CG1	32:DF:7:TYR:N	2.71	0.48
17:CQ:40:LYS:HD3	17:CQ:42:TYR:OH	2.13	0.48
27:DA:2757:A:OP1	58:D9:21:GLY:HA2	2.13	0.48
27:DA:2475:C:H42	27:DA:2529:G:N2	2.12	0.48
27:BA:2820:A:OP1	40:BR:5:LYS:HA	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:100:VAL:HG13	5:AE:118:ILE:CG2	2.43	0.48
27:DA:1158:C:C3'	27:DA:1159:U:H5''	2.43	0.48
34:BH:13:LYS:H	34:BH:15:VAL:HG22	1.79	0.48
49:D0:36:ILE:HA	49:D0:60:PHE:HB3	1.94	0.48
27:BA:747:U:O2	27:BA:2014:A:H1'	2.13	0.48
40:DR:87:TYR:O	40:DR:89:ASP:N	2.46	0.48
36:BN:57:ALA:O	36:BN:58:ASP:C	2.52	0.48
27:DA:2892:A:H3'	27:DA:2893:G:C5'	2.43	0.48
3:CC:55:VAL:HG12	3:CC:55:VAL:O	2.13	0.48
1:CA:1038:C:H2'	1:CA:1039:C:C5	2.48	0.48
15:AO:9:GLN:HB3	15:AO:13:GLN:HE22	1.77	0.48
4:CD:198:VAL:HG12	4:CD:199:ASN:N	2.28	0.48
27:DA:1340:U:C4'	27:DA:1341:U:OP2	2.61	0.48
9:CI:45:ALA:O	9:CI:48:GLU:CB	2.60	0.48
31:BE:184:VAL:CG1	31:BE:185:LYS:N	2.76	0.48
12:AL:24:LEU:HD22	12:AL:24:LEU:N	2.28	0.48
34:BH:91:GLY:CA	34:BH:160:LYS:CB	2.88	0.48
24:AX:17:C:H2'	24:AX:17:C:O2	2.11	0.48
48:DZ:128:SER:C	48:DZ:130:ARG:H	2.17	0.48
29:DC:19:VAL:HB	29:DC:22:ILE:CG1	2.43	0.48
31:BE:176:ILE:HG22	31:BE:176:ILE:O	2.13	0.48
27:DA:2571:C:C5'	27:DA:2572:A:H5''	2.42	0.48
18:AR:47:THR:O	18:AR:83:GLU:N	2.46	0.48
37:BO:102:VAL:HB	37:BO:106:LEU:CD1	2.43	0.48
8:AH:17:THR:HG22	8:AH:63:LEU:HG	1.95	0.48
23:CW:39:C:H2'	23:CW:40:C:H6	1.78	0.48
4:CD:105:VAL:HG21	4:CD:121:VAL:HG22	1.96	0.48
27:DA:2563:U:O2	27:DA:2565:A:H8	1.97	0.48
27:DA:185:U:H4'	27:DA:218:A:H4'	1.96	0.48
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.45	0.48
15:AO:29:VAL:CG2	15:AO:81:LEU:HD21	2.44	0.48
36:DN:43:THR:O	36:DN:45:ASN:N	2.44	0.48
27:DA:233:A:O2'	27:DA:234:C:H5'	2.14	0.48
54:D5:51:TYR:O	54:D5:52:TYR:C	2.52	0.48
1:CA:350:G:H2'	1:CA:351:G:C8	2.48	0.48
27:BA:1865:G:H8	27:BA:1865:G:C5'	2.24	0.48
27:BA:606:U:H4'	27:BA:658:C:H4'	1.94	0.48
1:CA:674:G:H2'	1:CA:675:A:H8	1.77	0.48
1:CA:790:A:N1	1:CA:1497:G:H5''	2.28	0.48
27:BA:1363:C:H2'	27:BA:1364:G:C8	2.48	0.48
27:BA:2203:U:H1'	30:BD:151:LYS:HE3	1.95	0.48
1:CA:245:C:C2'	1:CA:246:A:H5'	2.44	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2110:G:H5''	27:DA:2111:C:OP2	2.12	0.48
48:BZ:22:LYS:HG2	48:BZ:37:TYR:CE1	2.48	0.48
27:BA:256:A:H2'	27:BA:257:A:H8	1.79	0.48
35:DI:25:TYR:HE2	35:DI:29:TYR:CD2	2.31	0.48
35:DI:29:TYR:O	35:DI:32:PRO:HD2	2.13	0.48
27:BA:81:G:H1	27:BA:105:C:H42	1.61	0.48
27:BA:264:C:H4'	27:BA:428:A:N1	2.29	0.48
15:AO:83:GLU:O	15:AO:84:LYS:C	2.51	0.48
27:BA:1195:G:C2'	27:BA:1196:C:H5'	2.44	0.48
1:AA:1211:U:H4'	1:AA:1212:U:OP1	2.13	0.48
1:CA:655:A:C2	1:CA:754:C:N4	2.81	0.48
30:BD:64:ILE:HG13	30:BD:64:ILE:O	2.13	0.48
42:DT:78:LEU:O	42:DT:78:LEU:HD23	2.13	0.48
27:DA:593:G:H2'	27:DA:594:U:H6	1.78	0.48
55:B6:20:ASN:CG	55:B6:21:TYR:H	2.09	0.48
38:BP:135:LEU:O	38:BP:139:LYS:N	2.47	0.48
38:BP:146:VAL:CG2	38:BP:147:LEU:H	2.00	0.48
4:AD:196:LEU:HD12	4:AD:196:LEU:H	1.78	0.48
47:BY:101:LYS:HG2	47:BY:102:CYS:N	2.28	0.48
44:DV:23:GLU:O	44:DV:24:LYS:C	2.52	0.48
35:BI:129:THR:HG21	35:BI:135:GLU:OE1	2.13	0.48
35:BI:77:LEU:CD1	35:BI:101:LEU:HD22	2.42	0.48
55:D6:20:ASN:CG	55:D6:21:TYR:N	2.66	0.48
41:BS:74:ALA:HB2	41:BS:101:LEU:HD23	1.95	0.48
34:BH:8:PRO:C	34:BH:9:ILE:HD12	2.34	0.48
10:CJ:32:ALA:CB	10:CJ:75:ILE:HD11	2.39	0.48
27:DA:1795:C:H2'	27:DA:1796:U:H6	1.77	0.48
32:BF:36:VAL:CG1	32:BF:183:VAL:HG21	2.42	0.48
33:DG:133:LEU:HD11	33:DG:157:ILE:CD1	2.39	0.48
36:DN:56:ASN:HD22	36:DN:56:ASN:C	2.16	0.48
13:AM:22:ILE:CG2	13:AM:25:ILE:HD13	2.43	0.48
18:CR:53:ARG:HA	18:CR:56:THR:OG1	2.13	0.48
17:AQ:45:HIS:HA	17:AQ:69:LYS:CE	2.42	0.48
31:DE:102:VAL:HG12	31:DE:199:ARG:O	2.13	0.48
31:DE:11:MET:CB	31:DE:24:THR:HA	2.42	0.48
27:DA:856:C:H2'	27:DA:857:C:H6	1.79	0.48
1:CA:1315:U:H2'	1:CA:1316:G:O4'	2.12	0.48
1:AA:976:G:OP1	14:AN:32:SER:N	2.36	0.48
1:AA:1316:G:H5''	14:AN:17:LYS:HE2	1.95	0.48
47:DY:37:VAL:HG21	47:DY:72:VAL:HG11	1.96	0.48
4:AD:176:LEU:HD12	4:AD:182:LYS:O	2.12	0.48
27:DA:2755:C:C4	58:D9:19:ARG:NH1	2.82	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2821:A:O2'	27:BA:2822:G:H5'	2.14	0.48
1:AA:1305:G:C5'	21:AU:4:GLY:HA3	2.36	0.48
52:D3:40:THR:HA	52:D3:44:ARG:NH2	2.28	0.48
23:CW:34:U:H2'	23:CW:35:G:H5'	1.95	0.48
34:DH:32:GLU:HG2	34:DH:33:LEU:N	2.28	0.48
1:CA:1502:A:H2	1:CA:1505:G:N2	2.06	0.48
32:BF:194:MET:CE	32:BF:199:TRP:HD1	2.26	0.48
27:DA:2805:G:N2	27:DA:2893:G:O6	2.46	0.48
27:DA:2022:U:O2'	27:DA:2617:C:C5'	2.54	0.48
35:BI:12:LEU:N	35:BI:12:LEU:HD23	2.28	0.48
10:AJ:4:ILE:CD1	10:AJ:74:ILE:HD11	2.40	0.48
48:DZ:164:VAL:CG1	48:DZ:165:SER:H	2.11	0.48
45:DW:69:LEU:HD13	45:DW:107:LEU:HD23	1.95	0.48
27:BA:588:U:O4	27:BA:670:A:H1'	2.13	0.48
27:DA:1000:A:H8	27:DA:1000:A:H5'	1.77	0.48
4:CD:13:ARG:NH2	4:CD:36:ARG:HH11	2.11	0.48
4:CD:8:VAL:CG1	4:CD:21:LEU:HD13	2.44	0.48
30:BD:139:GLY:O	30:BD:140:THR:C	2.51	0.48
27:BA:2171:A:O2'	27:BA:2172:U:O5'	2.17	0.48
11:CK:92:GLU:CG	11:CK:96:ARG:HH11	2.27	0.48
42:DT:61:PHE:N	42:DT:61:PHE:HD2	2.11	0.48
27:DA:1718:G:C5'	27:DA:1718:G:H8	2.25	0.48
38:BP:71:VAL:O	38:BP:72:PRO:C	2.49	0.48
1:CA:1131:G:H2'	1:CA:1132:C:C5	2.49	0.48
1:CA:601:C:H2'	1:CA:602:A:C8	2.43	0.48
19:CS:49:ILE:N	19:CS:49:ILE:HD12	2.28	0.48
9:AI:126:SER:O	9:AI:127:LYS:CB	2.62	0.48
27:DA:1971:A:H2'	27:DA:1972:A:OP1	2.14	0.48
27:BA:528:A:C2	27:BA:2043:C:H4'	2.48	0.48
14:AN:15:LYS:HD2	14:AN:16:PHE:CE2	2.47	0.48
59:CX:47:U:O2	59:CX:50:U:H5'	2.13	0.48
1:CA:1306:A:N6	1:CA:1331:G:H1'	2.28	0.48
1:CA:1305:G:H5''	21:CU:4:GLY:CA	2.43	0.48
1:AA:358:U:H2'	1:AA:359:U:H6	1.76	0.48
27:BA:2189:U:H2'	27:BA:2190:G:H5''	1.95	0.48
1:CA:1158:C:N3	1:CA:1181:G:N2	2.56	0.48
57:D8:29:LYS:HD3	57:D8:44:LYS:CB	2.44	0.48
39:BQ:10:ARG:HH11	39:BQ:10:ARG:CG	2.25	0.48
39:DQ:42:ILE:N	39:DQ:42:ILE:HD12	2.27	0.48
27:DA:2735:G:N2	27:DA:2770:G:H1'	2.28	0.48
1:CA:437:U:H2'	1:CA:438:G:C8	2.48	0.48
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1082:G:C2'	1:AA:1083:U:H5'	2.43	0.48
58:B9:3:VAL:HG13	58:B9:3:VAL:O	2.13	0.48
1:AA:985:C:H42	1:AA:1220:G:H1	1.62	0.48
27:BA:1579:A:H2'	27:BA:1580:A:O4'	2.13	0.48
3:CC:23:TYR:HB2	10:CJ:10:GLY:HA2	1.95	0.48
10:CJ:12:ASP:OD1	10:CJ:15:THR:HG23	2.13	0.48
27:BA:935:C:H2'	27:BA:936:C:C6	2.48	0.48
27:DA:869:G:H2'	27:DA:870:A:H8	1.78	0.48
1:CA:7:G:H5'	1:CA:298:A:O4'	2.14	0.48
27:DA:1663:C:HO2'	27:DA:1664:A:H8	1.56	0.48
30:BD:228:PRO:HD3	30:BD:235:GLY:CA	2.43	0.48
27:DA:2773:C:H2'	27:DA:2774:C:H6	1.78	0.48
27:DA:1814:G:H4'	30:DD:51:VAL:HG21	1.95	0.48
27:DA:987:G:H2'	27:DA:988:A:O4'	2.14	0.48
13:AM:29:ARG:HB3	13:AM:64:TRP:CZ2	2.48	0.48
1:CA:203:U:H1'	1:CA:216:G:O6	2.13	0.48
29:DC:169:GLY:O	29:DC:170:ALA:C	2.52	0.48
40:DR:118:GLU:HA	40:DR:118:GLU:OE1	2.13	0.48
27:BA:198:C:H6	27:BA:198:C:O5'	1.96	0.48
27:DA:1947:C:H42	27:DA:1959:G:H1	1.61	0.48
27:DA:2801:A:O2'	27:DA:2895:U:H4'	2.13	0.48
1:CA:415:A:H2'	1:CA:416:G:C8	2.48	0.48
55:B6:15:GLU:OE1	55:B6:43:CYS:CB	2.62	0.48
13:AM:87:TYR:C	13:AM:89:GLY:N	2.67	0.48
27:BA:887:A:H1'	27:BA:889:C:N4	2.29	0.48
54:B5:54:GLY:O	54:B5:55:ARG:O	2.31	0.48
3:CC:8:ILE:HG23	3:CC:16:ARG:HG2	1.95	0.48
27:BA:2468:G:HO2'	27:BA:2476:A:H8	1.50	0.48
27:DA:2864:G:H2'	27:DA:2865:U:O4'	2.13	0.48
38:DP:85:LEU:HA	38:DP:88:LEU:HB2	1.96	0.48
32:BF:182:ASN:ND2	32:BF:185:ASP:OD2	2.45	0.48
44:DV:9:GLY:H	44:DV:10:LYS:HE3	1.78	0.48
44:DV:7:THR:O	44:DV:9:GLY:N	2.46	0.48
33:DG:124:SER:HB2	33:DG:131:TYR:CZ	2.48	0.48
33:DG:77:ILE:O	33:DG:82:LEU:O	2.32	0.48
27:DA:1856:G:H2'	27:DA:1857:G:H5'	1.94	0.48
13:AM:20:THR:HA	13:AM:25:ILE:O	2.14	0.48
1:CA:346:G:H2'	1:CA:346:G:N3	2.29	0.48
42:DT:62:THR:HG22	42:DT:75:ILE:HA	1.96	0.48
27:DA:469:G:C6	56:D7:39:ARG:NH1	2.81	0.48
31:DE:101:ARG:CZ	31:DE:171:GLU:HB2	2.44	0.48
27:DA:920:G:H2'	27:DA:921:G:H8	1.77	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:195:VAL:HG12	3:CC:196:LEU:O	2.13	0.48
29:DC:67:GLY:C	29:DC:68:LEU:HG	2.34	0.48
38:DP:7:ARG:CB	38:DP:7:ARG:CZ	2.91	0.48
47:DY:14:LEU:CD1	47:DY:15:VAL:N	2.74	0.48
47:DY:31:LEU:HD21	47:DY:36:ALA:HB3	1.94	0.48
32:DF:7:TYR:CD2	32:DF:16:GLY:HA3	2.49	0.48
27:BA:1479:G:H8	27:BA:1479:G:O5'	1.97	0.48
41:BS:88:ASP:CG	41:BS:89:ARG:H	2.15	0.48
5:CE:62:ALA:O	5:CE:65:ASN:N	2.33	0.48
13:CM:23:TYR:CE1	13:CM:70:LEU:HD22	2.38	0.48
27:DA:848:G:H5'	27:DA:848:G:C8	2.44	0.48
19:AS:19:VAL:HG11	19:AS:44:MET:HG3	1.95	0.48
27:DA:2231:C:H2'	27:DA:2232:U:O4'	2.13	0.48
47:BY:88:LYS:HZ1	47:BY:93:GLY:CA	2.26	0.48
1:CA:1399:C:C2	1:CA:1401:G:C5	3.01	0.48
21:AU:15:ARG:HH11	21:AU:15:ARG:CB	2.17	0.48
3:CC:83:ARG:C	3:CC:85:ARG:N	2.66	0.48
30:DD:117:VAL:CG2	30:DD:118:VAL:N	2.76	0.48
28:BB:7:G:H3'	28:BB:8:U:C5'	2.37	0.48
15:AO:3:ILE:HG12	15:AO:3:ILE:O	2.14	0.48
15:AO:6:GLU:O	15:AO:7:GLU:C	2.52	0.48
4:CD:13:ARG:NH2	4:CD:36:ARG:NH1	2.61	0.48
16:CP:58:TYR:CD1	16:CP:59:TRP:N	2.81	0.48
27:DA:1408:C:H2'	27:DA:1409:C:C6	2.47	0.48
11:AK:79:SER:HB2	11:AK:106:LYS:CD	2.40	0.48
24:AX:17:C:C5'	24:AX:17(B):U:H2'	2.44	0.48
27:BA:952:G:C6	27:BA:953:A:N7	2.81	0.48
27:DA:2533:A:H2'	27:DA:2534:A:C4'	2.44	0.48
27:DA:2591:C:OP1	30:DD:239:ARG:HG2	2.14	0.48
54:D5:19:ARG:HG2	54:D5:19:ARG:HH11	1.79	0.48
3:AC:134:ILE:C	3:AC:136:GLN:N	2.66	0.48
49:B0:62:LEU:C	49:B0:63:VAL:HG12	2.33	0.48
52:B3:9:VAL:HG11	52:B3:55:ARG:HE	1.78	0.48
5:CE:103:GLY:O	5:CE:106:PRO:HD2	2.13	0.48
30:BD:182:LEU:O	30:BD:271:ILE:HG13	2.13	0.48
14:AN:13:THR:N	14:AN:14:PRO:HD2	2.28	0.48
27:DA:2683:C:H4'	31:DE:13:ARG:NH1	2.28	0.48
2:CB:87:ARG:NE	2:CB:233:SER:HB2	2.28	0.48
7:CG:155:ARG:O	7:CG:156:TRP:O	2.32	0.48
1:CA:613:C:C2	1:CA:628:G:N2	2.82	0.48
16:CP:14:ASN:N	16:CP:15:PRO:HD3	2.28	0.48
42:BT:125:ARG:O	42:BT:128:GLU:CG	2.62	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:210:GLY:C	30:DD:212:SER:H	2.17	0.48
1:AA:738:C:H2'	1:AA:739:C:C6	2.48	0.48
1:CA:859:A:O2'	1:CA:860:A:H5'	2.13	0.48
31:DE:97:LYS:O	31:DE:100:GLU:HG3	2.12	0.48
39:DQ:42:ILE:HD13	39:DQ:97:VAL:HB	1.95	0.48
52:B3:26:LEU:HD21	52:B3:47:VAL:HG23	1.96	0.48
1:CA:1092:A:H5''	7:CG:4:ARG:NH2	2.28	0.48
39:BQ:19:GLY:O	39:BQ:20:ALA:HB3	2.14	0.48
4:AD:51:PRO:HB3	4:AD:55:ALA:HB3	1.96	0.48
11:AK:29:ILE:HA	11:AK:44:SER:HA	1.95	0.48
27:DA:2642:G:H5'	36:DN:78:TYR:CD1	2.47	0.48
1:CA:1058:G:H2'	1:CA:1059:C:C6	2.49	0.48
27:BA:1351:C:O2'	27:BA:1571:A:H1'	2.13	0.48
27:DA:398:G:H2'	27:DA:399:G:H8	1.79	0.48
1:AA:560:U:O2'	1:AA:561:U:OP2	2.28	0.48
17:CQ:76:LEU:HD12	17:CQ:77:VAL:H	1.78	0.48
27:DA:2340:G:O2'	27:DA:2341:G:H5'	2.12	0.48
27:BA:825:C:O2	38:BP:55:ARG:HD3	2.13	0.48
27:DA:2789:C:N3	27:DA:2894:G:O6	2.46	0.48
17:CQ:93:GLN:O	17:CQ:95:TYR:N	2.46	0.48
1:CA:184:G:O2'	1:CA:185:A:H5'	2.12	0.48
1:CA:373:A:O2'	1:CA:374:A:H5'	2.13	0.48
4:AD:43:HIS:O	4:AD:45:GLN:N	2.47	0.48
27:DA:2569:G:O2'	27:DA:2570:G:H5'	2.13	0.48
27:DA:2202:C:H2'	27:DA:2203:U:H6	1.78	0.48
27:BA:2150:U:H2'	27:BA:2151:G:C8	2.49	0.48
1:AA:147:G:O2'	1:AA:148:G:H5'	2.13	0.48
1:CA:949:A:C2	1:CA:1233:G:N3	2.81	0.48
27:BA:1512:U:H2'	27:BA:1513:C:C6	2.49	0.48
1:AA:1184:G:H2'	1:AA:1185:G:H8	1.77	0.48
57:B8:45:GLY:O	57:B8:46:ARG:O	2.31	0.48
33:BG:39:ILE:HD12	33:BG:40:ASN:H	1.77	0.48
33:BG:60:LEU:O	33:BG:63:ILE:HG12	2.13	0.48
27:DA:1042:G:OP1	27:DA:1042:G:H4'	2.13	0.48
27:DA:1042:G:H3'	27:DA:1043:C:O4'	2.14	0.48
41:BS:106:ARG:HH11	41:BS:108:GLY:HA3	1.66	0.48
42:DT:19:LEU:HD12	42:DT:19:LEU:H	1.74	0.48
27:DA:258:G:O2'	27:DA:259:G:H5'	2.14	0.48
32:BF:31:HIS:O	32:BF:34:TRP:HB3	2.14	0.48
33:DG:135:LEU:CD1	33:DG:157:ILE:HD11	2.43	0.48
33:DG:46:ALA:HA	33:DG:51:ARG:CB	2.44	0.48
13:AM:5:ALA:O	13:AM:7:VAL:N	2.47	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:277:C:H5''	17:AQ:68:ARG:NH2	2.28	0.48
27:DA:856:C:H4'	27:DA:857:C:OP1	2.12	0.48
31:BE:33:VAL:HG11	31:BE:36:ARG:HH21	1.78	0.48
17:AQ:77:VAL:O	17:AQ:78:GLU:HB2	2.14	0.48
32:DF:9:ILE:HG22	32:DF:9:ILE:O	2.14	0.48
2:CB:173:ALA:O	2:CB:176:GLU:N	2.47	0.48
14:AN:26:ARG:HG3	14:AN:43:CYS:SG	2.54	0.48
41:BS:89:ARG:O	41:BS:92:TYR:HB3	2.13	0.48
27:BA:1493:C:O2	27:BA:1493:C:H2'	2.14	0.48
43:BU:101:ARG:C	43:BU:102:GLU:HG2	2.34	0.48
44:BV:4:ILE:O	44:BV:4:ILE:HG22	2.14	0.48
59:CX:61:C:O2'	59:CX:62:C:C6	2.62	0.48
31:BE:110:GLY:O	40:BR:2:ARG:CZ	2.62	0.48
39:BQ:66:ILE:HA	39:BQ:104:PHE:HB3	1.95	0.48
48:BZ:96:GLU:OE2	48:BZ:124:LEU:HD21	2.13	0.48
56:B7:35:ARG:HG3	56:B7:42:LEU:CD1	2.44	0.48
27:BA:271(M):G:O2'	27:BA:271(N):U:H3'	2.14	0.48
32:DF:109:GLY:HA2	32:DF:112:MET:CB	2.43	0.48
1:CA:26:A:N6	1:CA:558:G:H1'	2.29	0.48
1:CA:1206:G:H2'	1:CA:1207:G:O4'	2.12	0.48
5:AE:51:VAL:O	5:AE:55:VAL:HG23	2.14	0.48
27:DA:242:G:H5''	57:D8:62:LEU:HB3	1.96	0.48
27:BA:674:G:C1'	32:BF:74:ARG:HD3	2.38	0.48
17:CQ:59:ILE:HG22	17:CQ:60:ILE:N	2.28	0.48
1:CA:748:C:H1'	1:CA:749:C:H5	1.78	0.48
27:BA:1678:G:N2	27:BA:1989:G:N2	2.52	0.48
34:BH:92:ILE:HG22	34:BH:93:GLY:N	2.28	0.48
1:AA:1399:C:C2	1:AA:1401:G:C5	3.01	0.48
25:CY:66:A:H2'	25:CY:67:C:H6	1.77	0.48
11:AK:92:GLU:O	11:AK:96:ARG:HG3	2.13	0.48
31:DE:203:LYS:HE2	31:DE:204:ALA:CB	2.36	0.48
8:AH:28:ALA:H	8:AH:58:TYR:HA	1.78	0.48
1:AA:333:G:H4'	20:AT:16:HIS:ND1	2.27	0.48
27:BA:2019:A:C2'	27:BA:2020:A:O5'	2.61	0.48
15:CO:34:LEU:C	15:CO:34:LEU:HD23	2.33	0.48
32:DF:61:GLY:O	32:DF:62:ARG:C	2.51	0.48
19:CS:42:PRO:CG	53:D4:80:ARG:NH2	2.76	0.48
1:CA:1028:C:C2'	1:CA:1029:C:H5'	2.44	0.48
1:AA:954:G:H2'	1:AA:955:U:C6	2.49	0.48
23:CW:66:A:O2'	23:CW:67:C:H5'	2.14	0.48
27:BA:2098:U:H2'	27:BA:2099:U:C1'	2.43	0.48
25:AY:34:U:H2'	25:AY:35:G:O4'	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B1:40:ARG:HD3	50:B1:40:ARG:O	2.14	0.48
27:DA:850:C:O2'	27:DA:851:U:H5'	2.13	0.48
46:DX:57:LEU:HD12	46:DX:57:LEU:N	2.27	0.48
6:AF:2:ARG:HD2	6:AF:69:GLU:HB3	1.96	0.48
28:DB:83:G:H5'	52:D3:52:HIS:NE2	2.29	0.48
1:CA:1160:G:H2'	1:CA:1160:G:N3	2.28	0.48
27:BA:2815:C:O2'	54:B5:42:PRO:HG2	2.14	0.48
35:BI:48:GLU:OE1	35:BI:52:ARG:NH2	2.46	0.48
24:AX:36:U:H2'	24:AX:37:A:O4'	2.14	0.48
27:DA:2850:A:C2	27:DA:2851:A:C4	3.02	0.48
34:BH:23:ARG:O	34:BH:24:VAL:HG13	2.13	0.48
1:CA:349:A:O2'	1:CA:350:G:H5'	2.14	0.48
27:DA:614(B):G:H1'	32:DF:44:ARG:HD2	1.95	0.48
19:AS:79:THR:O	19:AS:80:TYR:CB	2.61	0.48
9:AI:38:GLN:NE2	9:AI:39:GLY:N	2.62	0.48
1:AA:498:U:O2'	1:AA:499:A:O5'	2.32	0.48
27:DA:398:G:H2'	27:DA:399:G:C8	2.48	0.48
51:B2:32:LEU:HD22	51:B2:36:ARG:HH11	1.78	0.48
1:CA:243:A:O2'	1:CA:244:U:OP2	2.27	0.48
1:AA:198:G:H2'	1:AA:199:G:C8	2.48	0.48
27:DA:2335:A:C8	27:DA:2337:G:C5	3.02	0.48
27:BA:1573:G:H2'	27:BA:1574:C:H5'	1.96	0.48
27:DA:703:U:C2'	27:DA:704:G:H5'	2.43	0.48
27:BA:290:G:O2'	27:BA:291:C:H5'	2.14	0.48
3:AC:48:TYR:O	3:AC:51:GLY:N	2.46	0.48
3:AC:123:GLN:HB3	3:AC:128:PHE:HD2	1.77	0.48
27:BA:234:C:O2'	27:BA:235:U:H5'	2.13	0.48
2:AB:23:ARG:HH11	2:AB:23:ARG:HG2	1.77	0.48
52:B3:48:GLU:O	52:B3:51:ALA:HB2	2.14	0.48
27:DA:1956:U:H2'	27:DA:1957:C:H5'	1.96	0.48
27:BA:1344:G:H5'	27:BA:1384:A:C6	2.48	0.48
27:BA:626:U:H5'	27:BA:627:A:H5'	1.95	0.48
37:BO:104:ARG:NE	42:BT:33:LYS:CD	2.77	0.48
33:BG:101:ILE:CD1	33:BG:102:PHE:N	2.75	0.48
48:DZ:72:GLN:O	48:DZ:86:ASP:OD1	2.32	0.48
27:BA:2481:G:C2'	27:BA:2482:G:OP2	2.62	0.48
57:B8:63:PRO:HB2	57:B8:64:TYR:HD1	1.77	0.48
40:DR:80:PHE:O	40:DR:85:PRO:HD3	2.14	0.48
38:BP:7:ARG:O	38:BP:7:ARG:HD3	2.14	0.48
43:DU:91:ASP:O	43:DU:95:LEU:N	2.42	0.48
33:DG:110:ALA:HA	33:DG:140:ILE:O	2.13	0.48
30:BD:85:ASP:OD2	30:BD:88:ARG:NH1	2.46	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:62:TYR:HA	30:BD:87:ASN:HD21	1.79	0.48
30:BD:75:ILE:HD13	30:BD:99:ASP:CG	2.34	0.48
27:DA:1022:G:O2'	27:DA:1023:U:P	2.71	0.48
27:DA:470:A:H2'	27:DA:471:A:C8	2.49	0.48
31:BE:132:HIS:HB3	31:BE:133:LYS:H	1.50	0.48
37:DO:58:VAL:CG2	37:DO:86:ILE:HG23	2.44	0.48
1:AA:1349:A:H2'	1:AA:1350:A:C8	2.48	0.48
27:BA:1789:A:OP1	30:BD:221:VAL:HA	2.14	0.48
9:AI:42:ARG:NH2	9:AI:75:ASP:OD1	2.47	0.48
27:BA:2850:A:OP2	27:BA:2866:U:C5	2.63	0.48
1:CA:1442:G:C8	1:CA:1442(B):A:C2	3.02	0.48
31:DE:110:GLY:HA2	31:DE:161:GLY:CA	2.43	0.48
15:CO:65:ARG:C	15:CO:67:LEU:N	2.66	0.48
19:CS:45:VAL:HG12	19:CS:63:THR:HA	1.95	0.48
27:DA:2847:U:OP1	42:DT:98:LYS:HD3	2.14	0.48
41:BS:15:ARG:HD3	41:BS:15:ARG:H	1.79	0.48
43:BU:102:GLU:HG3	44:BV:2:PHE:HZ	1.78	0.48
29:BC:77:ILE:HG21	29:BC:123:VAL:N	2.29	0.48
27:DA:2468:G:N2	27:DA:2481:G:O2'	2.46	0.48
5:AE:9:LYS:O	5:AE:32:VAL:HG13	2.14	0.48
40:DR:45:ARG:O	40:DR:46:GLY:C	2.52	0.48
3:AC:62:ASP:HA	3:AC:97:LYS:HE2	1.96	0.48
34:DH:23:ARG:HA	34:DH:36:PRO:HA	1.96	0.48
36:DN:102:ALA:O	36:DN:106:MET:HG3	2.14	0.48
50:B1:58:ILE:HD12	50:B1:91:LYS:HA	1.96	0.48
27:DA:2243:U:H2'	27:DA:2244:U:C6	2.48	0.48
51:B2:26:ARG:O	51:B2:27:GLU:C	2.52	0.48
27:DA:142:A:H5'	27:DA:142(A):C:OP2	2.14	0.48
53:D4:52:SER:OG	53:D4:53:THR:N	2.45	0.48
30:DD:62:TYR:HA	30:DD:87:ASN:HD21	1.79	0.48
2:AB:36:ARG:H	2:AB:41:ILE:CD1	2.27	0.48
1:CA:1141:C:H2'	1:CA:1142:G:N7	2.29	0.48
48:BZ:162:LEU:H	48:BZ:162:LEU:CD1	2.24	0.48
50:D1:52:ARG:HH11	50:D1:78:LYS:HD3	1.78	0.48
1:AA:1240:U:OP1	7:AG:119:ARG:NH2	2.47	0.48
27:BA:2663:G:O2'	27:BA:2664:G:H5'	2.14	0.48
50:D1:30:VAL:CG2	50:D1:31:GLY:N	2.76	0.48
29:BC:46:LYS:HZ3	29:BC:172:HIS:HA	1.74	0.48
29:BC:46:LYS:HD2	29:BC:47:LEU:H	1.78	0.48
1:CA:1136:U:H5''	1:CA:1137:C:C4	2.49	0.48
27:DA:279:C:N4	27:DA:361:G:H1	2.12	0.48
4:CD:122:ARG:HA	4:CD:134:ASP:HB2	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:61:G:H2'	1:CA:62:U:O4'	2.13	0.48
1:AA:626:U:H2'	1:AA:627:G:C8	2.45	0.48
27:BA:1300:U:H5	27:BA:1634:A:N3	2.11	0.48
1:CA:336:C:H2'	1:CA:337:C:C6	2.49	0.48
23:CW:13:A:H1'	23:CW:22:G:N2	2.28	0.48
1:AA:599:C:H4'	8:AH:130:GLY:C	2.34	0.48
27:BA:2065:C:H2'	27:BA:2066:C:C6	2.49	0.48
12:CL:114:ARG:O	12:CL:116:LYS:O	2.31	0.48
27:BA:1200:C:H2'	27:BA:1201:C:C6	2.42	0.48
1:CA:1275:A:H2'	1:CA:1276:G:O4'	2.13	0.48
34:BH:98:LEU:HD13	34:BH:125:VAL:CG2	2.43	0.48
1:CA:580:U:H2'	1:CA:581:G:O4'	2.13	0.48
47:BY:47:LYS:O	47:BY:48:ALA:HB3	2.14	0.48
27:DA:484:C:H2'	27:DA:485:C:C6	2.48	0.48
49:B0:73:GLY:C	49:B0:75:LEU:N	2.67	0.48
20:AT:93:GLU:C	20:AT:95:ALA:H	2.16	0.48
27:DA:1747(A):G:H2'	27:DA:1748:G:C5'	2.44	0.48
6:CF:75:LEU:HD21	6:CF:79:LEU:HD11	1.96	0.48
2:AB:161:ALA:CB	2:AB:183:PRO:HB2	2.44	0.48
27:DA:2256:G:H2'	27:DA:2257:U:H6	1.77	0.48
18:AR:54:ARG:H	18:AR:54:ARG:HG3	1.47	0.48
43:BU:97:ASP:C	43:BU:99:ALA:H	2.17	0.48
45:DW:58:ALA:O	45:DW:62:HIS:HB2	2.12	0.48
29:DC:27:ARG:C	29:DC:34:THR:N	2.67	0.48
1:AA:1113:C:H2'	1:AA:1114:C:H6	1.78	0.48
10:AJ:85:LEU:O	10:AJ:87:THR:N	2.47	0.48
27:DA:912:C:O2'	27:DA:913:U:H5'	2.14	0.48
27:DA:725:G:O5'	27:DA:725:G:H8	1.97	0.48
27:BA:2072:G:O2'	27:BA:2073:C:H5'	2.13	0.48
59:CX:37:A:H3'	59:CX:38:A:H8	1.78	0.48
17:CQ:15:MET:HB3	17:CQ:18:THR:HB	1.96	0.48
38:BP:59:LEU:CA	38:BP:61:ARG:CZ	2.86	0.48
27:BA:886:C:H2'	27:BA:889:C:H42	1.79	0.48
35:DI:72:LEU:HD23	35:DI:75:LEU:HD23	1.94	0.48
47:BY:37:VAL:O	47:BY:38:ILE:HD13	2.14	0.48
40:BR:28:LEU:HA	40:BR:34:ILE:HG12	1.96	0.48
27:BA:1468:C:C2	27:BA:1525:G:N2	2.82	0.48
53:B4:38:ALA:HB1	53:B4:55:PRO:HA	1.96	0.48
57:D8:14:VAL:CG1	57:D8:22:VAL:HG13	2.43	0.48
27:DA:249:C:O2	57:D8:12:LYS:NZ	2.44	0.48
57:B8:61:LEU:CD1	57:B8:62:LEU:H	2.27	0.48
30:DD:43:ARG:NH1	30:DD:44:ASN:HD21	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DE:134:ILE:HD13	31:DE:134:ILE:O	2.13	0.48
33:DG:115:ARG:NH1	33:DG:136:ARG:NH2	2.62	0.48
33:DG:57:ALA:CB	33:DG:90:LEU:HD11	2.44	0.48
30:BD:35:LYS:O	30:BD:63:ARG:HA	2.13	0.48
13:AM:23:TYR:HE1	13:AM:71:ARG:CB	2.26	0.48
37:DO:71:ARG:NH2	37:DO:122:LEU:OXT	2.47	0.48
31:DE:24:THR:HG23	31:DE:184:VAL:CG2	2.27	0.48
27:DA:917:A:H5'	27:DA:2268:A:N6	2.28	0.48
27:DA:857:C:C2	27:DA:921:G:N2	2.82	0.48
14:AN:44:LEU:HD12	14:AN:44:LEU:O	2.12	0.48
27:DA:271(S):G:O2'	27:DA:271(T):C:H5''	2.14	0.48
9:AI:97:LYS:C	9:AI:99:LEU:N	2.67	0.48
32:DF:36:VAL:HG11	32:DF:183:VAL:HG21	1.96	0.48
32:DF:13:SER:O	32:DF:14:PRO:O	2.32	0.48
32:DF:7:TYR:HD2	32:DF:16:GLY:N	2.11	0.48
27:DA:1165:U:H2'	27:DA:1166:C:H6	1.78	0.48
30:DD:111:LEU:C	30:DD:111:LEU:HD13	2.34	0.48
27:BA:1434:A:O2'	27:BA:1435:G:H5'	2.14	0.48
27:BA:2344:U:H4'	27:BA:2345:G:OP1	2.12	0.48
27:BA:643:A:O2'	27:BA:644:A:H5'	2.14	0.48
43:BU:80:ILE:O	43:BU:81:HIS:C	2.52	0.48
40:DR:99:LYS:CB	40:DR:99:LYS:NZ	2.73	0.48
1:AA:373:A:H61	1:AA:391:G:H1'	1.79	0.48
27:DA:1159:U:C6	27:DA:1159:U:H5'	2.29	0.48
24:AX:49:G:H8	24:AX:49:G:O5'	1.97	0.48
1:CA:68:G:C3'	1:CA:68:G:C8	2.97	0.48
11:AK:99:GLN:CA	11:AK:105:VAL:HG11	2.33	0.48
45:BW:111:HIS:HD2	45:BW:113:LYS:H	1.62	0.48
48:BZ:125:VAL:O	48:BZ:126:LYS:CB	2.61	0.48
27:DA:2840:C:H5''	40:DR:53:HIS:CD2	2.49	0.48
40:DR:45:ARG:CB	40:DR:95:THR:HG21	2.44	0.48
2:CB:216:SER:C	2:CB:218:ALA:N	2.67	0.48
20:AT:41:ILE:HG13	20:AT:42:GLN:H	1.78	0.48
41:DS:19:LYS:O	41:DS:20:ARG:NH1	2.47	0.48
21:AU:6:ARG:HG3	21:AU:15:ARG:HH22	1.78	0.48
34:DH:85:LYS:HZ1	34:DH:133:VAL:HG11	1.79	0.48
27:BA:2071:A:H2	27:BA:2441:C:N3	2.12	0.48
41:BS:34:HIS:CG	41:BS:54:LEU:HD23	2.49	0.48
37:BO:22:ILE:HG12	37:BO:41:ALA:HA	1.96	0.48
27:BA:61:G:C4	51:B2:47:ASN:OD1	2.66	0.48
24:AX:53:G:O2'	24:AX:54:U:H5'	2.13	0.48
11:CK:96:ARG:HA	11:CK:99:GLN:HB2	1.95	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:666:G:O2'	1:AA:667:G:H5'	2.14	0.48
33:DG:98:ARG:O	33:DG:101:ILE:HG22	2.13	0.48
33:DG:105:LYS:HB2	33:DG:105:LYS:HZ2	1.79	0.48
1:CA:1132:C:N4	1:CA:1133:G:N1	2.62	0.48
49:D0:40:GLN:HE22	49:D0:59:LEU:HD11	1.78	0.48
35:BI:79:ILE:HD11	35:BI:140:LEU:HD11	1.95	0.48
1:CA:1305:G:N2	1:CA:1331:G:O2'	2.37	0.48
27:DA:2683:C:O2'	27:DA:2684:U:H5'	2.14	0.48
1:AA:13:U:O2'	1:AA:14:U:H5'	2.14	0.48
27:BA:1203:G:H3'	27:BA:1204:A:C5'	2.43	0.48
36:BN:51:PHE:CE2	36:BN:119:ARG:HD3	2.49	0.48
31:BE:8:LYS:HE2	31:BE:192:ASN:HD21	1.77	0.48
27:DA:742:G:O2'	27:DA:743:G:H5'	2.13	0.48
30:BD:65:ILE:HD11	30:BD:67:PHE:CZ	2.49	0.48
32:DF:113:ALA:O	32:DF:114:VAL:C	2.52	0.48
27:DA:614(B):G:N2	32:DF:45:ARG:HA	2.28	0.48
18:CR:30:ASP:C	18:CR:32:ARG:H	2.17	0.48
27:BA:148:C:H5'	27:BA:149:A:OP2	2.14	0.48
35:BI:10:GLU:O	35:BI:11:ASN:HB3	2.14	0.48
1:AA:1226:C:H2'	13:AM:103:THR:CB	2.44	0.48
27:BA:1447:G:N2	27:BA:1464:C:O2	2.44	0.48
2:AB:71:VAL:HA	2:AB:93:VAL:CG2	2.44	0.48
27:BA:993:G:H1'	44:BV:89:GLN:HG3	1.96	0.48
27:BA:455:C:N3	27:BA:473:G:H5'	2.29	0.48
27:DA:669:G:N3	27:DA:669:G:C2'	2.76	0.48
8:CH:24:THR:CG2	8:CH:25:ASP:N	2.77	0.48
27:BA:795:C:H2'	27:BA:796:C:C6	2.49	0.48
1:CA:339:C:H2'	1:CA:340:U:C6	2.49	0.48
11:CK:70:LYS:HA	11:CK:73:MET:CE	2.44	0.48
27:DA:2341:G:H2'	27:DA:2342:C:C6	2.48	0.48
1:AA:356:A:H2'	1:AA:357:G:H8	1.79	0.48
27:DA:909:A:H2'	27:DA:912:C:C5	2.49	0.48
27:BA:2764:A:N7	27:BA:2766:G:C6	2.81	0.48
1:AA:317:G:C6	1:AA:318:G:C5	3.02	0.48
45:BW:64:MET:O	45:BW:65:LEU:HB2	2.13	0.48
1:AA:1337:G:H5''	1:AA:1338:G:OP1	2.14	0.48
6:AF:77:ARG:O	6:AF:78:GLU:C	2.52	0.48
55:B6:24:GLU:HA	55:B6:24:GLU:OE1	2.14	0.48
13:AM:89:GLY:O	13:AM:93:ARG:HD2	2.14	0.48
27:BA:887:A:H1'	27:BA:889:C:C4	2.49	0.48
2:AB:35:GLU:HG2	2:AB:35:GLU:O	2.14	0.48
35:DI:133:HIS:HB2	35:DI:134:PRO:CD	2.42	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:981:U:O5'	1:CA:981:U:H6	1.97	0.48
10:CJ:22:LYS:HD2	10:CJ:23:ILE:N	2.29	0.48
10:CJ:28:ARG:NH2	10:CJ:34:VAL:O	2.47	0.48
27:BA:591:C:H1'	57:B8:2:PRO:HA	1.95	0.48
41:DS:85:VAL:HG23	41:DS:106:ARG:CG	2.42	0.48
28:DB:21:G:C2	28:DB:63:G:C2	3.01	0.48
33:DG:51:ARG:HE	33:DG:51:ARG:N	2.12	0.48
33:DG:64:THR:CG2	33:DG:65:GLY:N	2.76	0.48
27:DA:1885:A:H8	27:DA:1885:A:H5'	1.79	0.48
37:DO:104:ARG:C	37:DO:106:LEU:N	2.66	0.48
32:DF:57:VAL:O	32:DF:59:TYR:N	2.47	0.48
1:AA:1144:G:H21	1:AA:1146:A:N6	2.12	0.48
27:DA:1999:C:H4'	27:DA:2723:C:O2	2.14	0.48
47:DY:30:VAL:HG12	47:DY:31:LEU:N	2.29	0.48
32:BF:8:GLN:NE2	32:BF:9:ILE:HB	2.28	0.48
27:BA:2206:G:N2	27:BA:2207:G:C5'	2.70	0.48
44:BV:4:ILE:HD12	44:BV:40:LEU:HD12	1.96	0.48
2:AB:105:PHE:HD1	2:AB:152:PHE:HZ	1.60	0.48
35:BI:66:GLU:HG2	35:BI:69:LYS:CD	2.44	0.48
13:CM:53:VAL:O	13:CM:56:LEU:HB3	2.14	0.48
52:D3:50:VAL:O	52:D3:53:LEU:HB2	2.14	0.48
3:AC:14:ILE:O	3:AC:15:THR:C	2.51	0.48
1:AA:574:A:H1'	1:AA:883:C:C1'	2.44	0.48
27:DA:271(Z):C:H1'	27:DA:272(C):G:H1'	1.95	0.48
1:AA:547:A:OP2	4:AD:2:GLY:HA2	2.14	0.48
27:DA:2840:C:O2'	27:DA:2841:C:H5'	2.14	0.48
11:AK:109:VAL:HA	18:AR:85:LEU:O	2.14	0.48
43:DU:29:SER:OG	43:DU:30:LYS:HE2	2.13	0.48
15:AO:23:GLY:O	15:AO:24:SER:O	2.32	0.48
29:DC:41:VAL:O	29:DC:178:ALA:HB3	2.14	0.48
35:BI:5:LEU:CD1	35:BI:5:LEU:H	2.23	0.48
2:AB:155:LEU:HD22	2:AB:157:ARG:H	1.78	0.48
37:BO:78:ARG:HH21	42:BT:103:ARG:NH1	2.12	0.48
20:AT:89:ARG:HH21	20:AT:104:LEU:HD11	1.79	0.48
27:BA:1952:A:C4	37:BO:22:ILE:HD12	2.49	0.48
7:CG:28:ASN:O	7:CG:31:MET:N	2.47	0.48
30:DD:35:LYS:N	30:DD:36:PRO:CD	2.68	0.48
14:CN:7:ILE:HG13	14:CN:8:GLU:N	2.29	0.48
38:BP:71:VAL:CG1	38:BP:72:PRO:CD	2.90	0.48
27:BA:530:G:C5	27:BA:2022:U:H5''	2.48	0.48
17:CQ:81:ARG:HH11	17:CQ:84:LEU:HD21	1.79	0.48
50:B1:3:LYS:HB3	50:B1:61:ARG:HH12	1.79	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DO:35:VAL:HG11	37:DO:103:ALA:CB	2.41	0.48
27:DA:1557:C:H5''	27:DA:1558:A:OP2	2.14	0.48
27:DA:2715:C:H2'	27:DA:2716:U:C6	2.49	0.48
27:DA:2692:C:O2'	27:DA:2693:A:H5'	2.14	0.48
58:B9:17:ILE:HG13	58:B9:26:ILE:HD13	1.96	0.48
2:CB:21:ARG:HB3	2:CB:39:ILE:N	2.28	0.48
27:DA:532:A:H2'	27:DA:532:A:N3	2.27	0.48
30:DD:106:ILE:HD11	30:DD:196:VAL:HG13	1.94	0.48
33:BG:16:ARG:HB3	33:BG:16:ARG:HH11	1.79	0.48
1:CA:1301:U:H3'	1:CA:1302:U:H5''	1.95	0.48
27:BA:481:G:HO2'	27:BA:507:A:H61	1.62	0.48
1:AA:394:G:H2'	1:AA:395:C:C6	2.45	0.48
8:AH:96:GLY:O	8:AH:97:VAL:C	2.52	0.48
1:CA:1276:G:O2'	1:CA:1277:C:H5'	2.14	0.48
1:AA:818:G:HO2'	1:AA:820:U:H6	1.59	0.48
45:BW:5:ALA:C	45:BW:6:ILE:HG13	2.34	0.48
47:DY:16:ALA:CB	47:DY:21:LYS:NZ	2.77	0.48
14:AN:36:PHE:CD1	14:AN:36:PHE:O	2.67	0.48
1:CA:1232:U:H6	1:CA:1232:U:O5'	1.97	0.48
25:CY:63:C:H2'	25:CY:64:G:C8	2.49	0.48
51:B2:37:PHE:HA	51:B2:40:SER:OG	2.14	0.48
46:BX:26:TYR:HD2	46:BX:92:LEU:HD12	1.79	0.48
27:BA:1692:U:H2'	27:BA:1694:C:C5	2.48	0.48
1:CA:1220:G:O3'	19:CS:36:ARG:HD3	2.14	0.48
52:D3:29:ARG:HG3	52:D3:29:ARG:HH11	1.78	0.48
55:B6:30:THR:HB	55:B6:31:PRO:HD2	1.96	0.48
27:DA:1967:C:H2'	27:DA:1968:G:O4'	2.13	0.48
1:CA:278:G:N2	17:CQ:95:TYR:HB3	2.29	0.48
8:AH:67:PRO:C	8:AH:68:ARG:O	2.50	0.48
28:BB:11:C:OP2	28:BB:12:C:H5	1.97	0.48
27:DA:2175:C:O2'	29:DC:215:THR:N	2.47	0.48
27:BA:298:G:H8	27:BA:298:G:O5'	1.97	0.48
27:BA:901:A:H2'	27:BA:901:A:N3	2.29	0.48
1:CA:892:A:O2'	1:CA:1415:G:H4'	2.14	0.48
1:AA:451:A:N6	1:AA:480:U:H2'	2.29	0.48
35:DI:61:ARG:HD2	35:DI:61:ARG:H	1.79	0.47
45:BW:18:ARG:HG2	45:BW:18:ARG:HH11	1.79	0.47
1:CA:1251:A:H2'	1:CA:1252:A:H8	1.79	0.47
20:AT:53:LEU:HA	20:AT:56:MET:CE	2.43	0.47
38:DP:108:LYS:O	38:DP:110:TYR:N	2.47	0.47
32:BF:120:GLU:OE2	38:BP:5:ASP:N	2.47	0.47
28:DB:20:C:H6	28:DB:20:C:O5'	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DG:118:ARG:HB2	33:DG:181:ARG:NE	2.29	0.47
33:DG:80:PHE:O	33:DG:81:LYS:O	2.32	0.47
30:BD:91:ARG:O	30:BD:107:ALA:HB3	2.14	0.47
30:BD:79:VAL:HG11	30:BD:111:LEU:CD1	2.44	0.47
39:BQ:71:ASP:O	39:BQ:73:PRO:HD3	2.14	0.47
1:AA:277:C:O2'	1:AA:278:G:H5'	2.14	0.47
27:DA:1697:G:C3'	27:DA:1698:A:H5''	2.23	0.47
19:CS:10:PHE:HZ	19:CS:70:LYS:CE	2.26	0.47
28:DB:28:C:N4	28:DB:29:A:N6	2.62	0.47
10:AJ:56:HIS:O	10:AJ:57:LYS:C	2.52	0.47
45:DW:41:LYS:HE3	54:D5:25:LEU:HD11	1.95	0.47
27:BA:1790:C:H5''	27:BA:1791:A:OP1	2.14	0.47
30:DD:97:TYR:HB2	30:DD:101:GLU:O	2.14	0.47
38:DP:6:LEU:CB	38:DP:9:ASN:HD22	2.27	0.47
17:AQ:57:VAL:HA	17:AQ:77:VAL:HG23	1.96	0.47
27:DA:1166:C:H2'	27:DA:1167:U:O4'	2.13	0.47
43:BU:81:HIS:HD2	43:BU:117:GLN:OE1	1.97	0.47
27:BA:1310:G:O2'	27:BA:1311:G:H5'	2.14	0.47
27:BA:2820:A:O4'	40:BR:5:LYS:HG2	2.14	0.47
34:BH:47:GLU:C	34:BH:49:VAL:H	2.14	0.47
26:CZ:1:KBE:N	26:CZ:1:KBE:CE	2.76	0.47
8:AH:38:ILE:HD11	8:AH:118:VAL:HG12	1.96	0.47
13:CM:90:LEU:HD22	13:CM:94:ARG:HD3	1.95	0.47
27:BA:747:U:N3	54:B5:2:ALA:N	2.62	0.47
27:BA:466:A:C2'	27:BA:467:G:H5'	2.44	0.47
41:DS:17:ARG:HG3	41:DS:18:ILE:H	1.78	0.47
36:DN:99:LEU:O	36:DN:100:GLU:C	2.52	0.47
3:CC:182:ILE:HG12	3:CC:203:PHE:HD1	1.79	0.47
3:CC:90:GLU:OE1	3:CC:93:LYS:HD2	2.14	0.47
27:DA:194:G:H2'	27:DA:195:A:O4'	2.14	0.47
27:DA:1505:C:H2'	27:DA:1506:C:H6	1.79	0.47
37:BO:65:THR:HA	37:BO:82:ASN:ND2	2.24	0.47
27:DA:59:U:H3	27:DA:68:G:H1	1.62	0.47
27:BA:2569:G:O2'	27:BA:2570:G:H5'	2.13	0.47
8:AH:10:LEU:CD2	8:AH:83:ILE:HD11	2.37	0.47
11:CK:96:ARG:HA	11:CK:99:GLN:CB	2.44	0.47
43:BU:35:ALA:O	43:BU:36:ARG:C	2.51	0.47
6:CF:83:ASP:N	6:CF:83:ASP:OD2	2.36	0.47
16:AP:21:VAL:HG13	16:AP:21:VAL:O	2.14	0.47
1:AA:501:C:H3'	1:AA:501:C:C6	2.49	0.47
1:CA:662:G:O2'	1:CA:836:G:H5'	2.14	0.47
30:DD:45:ASN:CG	30:DD:46:GLN:N	2.61	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2873:A:N3	40:BR:6:SER:HB2	2.29	0.47
7:AG:71:PRO:HG3	7:AG:99:LEU:HD13	1.95	0.47
8:AH:112:LEU:HD12	8:AH:114:THR:HG22	1.95	0.47
8:AH:121:ASP:CG	8:AH:122:ARG:H	2.18	0.47
48:BZ:10:GLU:CD	48:BZ:10:GLU:H	2.18	0.47
27:DA:533:G:N3	43:DU:45:TYR:HE1	2.12	0.47
34:BH:113:VAL:HG21	34:BH:151:ILE:CG2	2.43	0.47
33:BG:16:ARG:CG	33:BG:16:ARG:HH11	2.27	0.47
27:DA:1430:C:H2'	27:DA:1431:U:H6	1.74	0.47
40:BR:13:HIS:CE1	40:BR:16:HIS:HB2	2.49	0.47
8:AH:11:THR:HG23	8:AH:14:ARG:NH1	2.28	0.47
27:DA:501:A:H2'	27:DA:502:A:C8	2.48	0.47
43:BU:66:ASN:OD1	43:BU:76:TYR:HB2	2.14	0.47
25:AY:65:U:H2'	25:AY:66:A:H8	1.79	0.47
27:DA:2732:G:C3'	27:DA:2733:A:C5'	2.92	0.47
27:DA:2790:A:N3	27:DA:2790:A:C2'	2.75	0.47
12:AL:101:VAL:O	12:AL:102:TYR:HB2	2.14	0.47
27:DA:1498:C:H5'	27:DA:1577:C:C5'	2.44	0.47
5:CE:60:TYR:CE1	5:CE:64:ARG:HD3	2.49	0.47
27:DA:2729:G:H2'	27:DA:2730:C:C6	2.48	0.47
27:BA:2528:U:C5'	58:B9:31:LYS:HZ3	2.27	0.47
27:BA:121:G:C5'	27:BA:149:A:H5'	2.44	0.47
27:BA:121:G:H5''	27:BA:149:A:H5'	1.96	0.47
59:CX:17:C:H5''	59:CX:17(B):U:H2'	1.95	0.47
38:BP:108:LYS:C	38:BP:110:TYR:N	2.67	0.47
1:CA:148:G:H2'	1:CA:149:A:C8	2.49	0.47
59:CX:28:C:H2'	59:CX:29:G:C8	2.49	0.47
25:CY:37:U:H3'	25:CY:38:U:H5''	1.96	0.47
27:DA:2282:G:H4'	27:DA:2283:C:O5'	2.14	0.47
1:AA:1000:U:H3	1:AA:1042:G:N2	2.12	0.47
27:BA:1488:G:C2	27:BA:1489:U:O2	2.67	0.47
47:DY:90:LEU:HD12	47:DY:91:GLU:N	2.29	0.47
33:BG:3:LEU:O	33:BG:4:ASP:HB2	2.14	0.47
44:DV:35:LEU:HB2	44:DV:57:VAL:HG13	1.96	0.47
49:B0:14:ARG:O	49:B0:15:ASP:HB2	2.12	0.47
20:AT:43:LEU:O	20:AT:46:GLU:N	2.47	0.47
27:DA:705:A:O2'	27:DA:706:A:H5'	2.13	0.47
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.49	0.47
27:BA:988:A:OP1	52:B3:10:LYS:HG3	2.14	0.47
12:AL:68:PRO:O	12:AL:99:ARG:HD3	2.14	0.47
27:BA:1328:G:H2'	27:BA:1330:C:C5	2.49	0.47
1:CA:595:G:H8	1:CA:595:G:O5'	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:78:ILE:H	32:BF:78:ILE:HD13	1.79	0.47
27:DA:1333:C:H6	27:DA:1333:C:O5'	1.97	0.47
1:AA:709:G:O2'	1:AA:710:G:H5'	2.13	0.47
27:BA:2416:C:H2'	27:BA:2417:C:H6	1.79	0.47
35:DI:123:LEU:HD23	35:DI:142:VAL:HB	1.95	0.47
27:BA:2307:G:H3'	27:BA:2307:G:N3	2.29	0.47
3:CC:181:ASN:HD21	3:CC:204:LEU:CD1	2.23	0.47
10:CJ:50:ILE:HA	10:CJ:60:ARG:CB	2.42	0.47
48:DZ:133:PRO:HG2	48:DZ:160:VAL:HG21	1.95	0.47
55:D6:12:GLU:HB2	55:D6:23:THR:H	1.79	0.47
38:DP:58:THR:HB	38:DP:61:ARG:HH21	1.79	0.47
30:BD:263:ARG:CZ	30:BD:263:ARG:HB2	2.44	0.47
27:DA:603:A:O3'	38:DP:90:ARG:NH2	2.47	0.47
30:DD:44:ASN:HB3	30:DD:48:ARG:O	2.14	0.47
41:DS:39:ILE:HD12	41:DS:85:VAL:HG11	1.95	0.47
28:DB:14:U:H5''	28:DB:15:A:OP2	2.14	0.47
33:DG:20:ILE:O	33:DG:24:GLY:HA2	2.14	0.47
33:DG:148:MET:O	33:DG:149:VAL:HG13	2.14	0.47
33:DG:47:LYS:HD3	33:DG:82:LEU:HD12	1.96	0.47
20:CT:49:ALA:O	20:CT:52:ALA:HB3	2.13	0.47
30:BD:72:LYS:HG3	30:BD:103:ARG:NH1	2.29	0.47
27:DA:1022:G:N2	27:DA:1142(A):A:C2	2.82	0.47
13:AM:70:LEU:C	13:AM:72:ALA:N	2.66	0.47
18:CR:44:LEU:CD1	18:CR:79:LEU:HD22	2.44	0.47
1:AA:377:G:OP1	16:AP:3:LYS:HD2	2.14	0.47
44:BV:34:GLU:HG2	44:BV:58:VAL:HG22	1.96	0.47
9:CI:41:VAL:O	9:CI:41:VAL:HG12	2.13	0.47
9:CI:89:ASN:HB3	9:CI:92:TYR:CD1	2.48	0.47
31:DE:199:ARG:NH1	31:DE:199:ARG:HB2	2.28	0.47
1:CA:1444:C:C4	1:CA:1445:C:C4	3.02	0.47
2:CB:111:ARG:HA	2:CB:111:ARG:HE	1.78	0.47
1:AA:1129:C:O5'	1:AA:1130:A:H5'	2.14	0.47
9:AI:41:VAL:HG12	9:AI:42:ARG:N	2.29	0.47
9:AI:97:LYS:O	9:AI:100:GLY:N	2.43	0.47
27:DA:2056:G:H2'	27:DA:2056:G:N3	2.29	0.47
31:BE:11:MET:C	42:BT:8:LYS:HE3	2.33	0.47
27:BA:2635:C:H5''	31:BE:78:LEU:O	2.13	0.47
31:DE:111:ARG:HB3	31:DE:160:TYR:CD1	2.49	0.47
27:DA:310:A:OP1	47:DY:17:SER:O	2.32	0.47
32:DF:3:GLU:O	32:DF:4:VAL:C	2.51	0.47
41:BS:89:ARG:O	41:BS:92:TYR:CG	2.67	0.47
41:BS:89:ARG:C	41:BS:92:TYR:HB3	2.34	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:D2:31:GLU:O	51:D2:35:LEU:HG	2.14	0.47
52:D3:35:ARG:CG	52:D3:37:LEU:HD22	2.44	0.47
13:CM:78:ILE:HD13	13:CM:92:HIS:NE2	2.29	0.47
27:BA:874:G:N2	27:BA:904:C:C2	2.82	0.47
34:BH:121:ILE:HG23	34:BH:133:VAL:HG13	1.96	0.47
40:DR:8:ARG:NE	40:DR:9:LYS:N	2.52	0.47
40:DR:8:ARG:O	40:DR:9:LYS:O	2.32	0.47
34:DH:84:SER:O	34:DH:85:LYS:HB3	2.13	0.47
3:AC:173:VAL:HG12	3:AC:173:VAL:O	2.14	0.47
53:D4:38:ALA:C	53:D4:49:GLU:HG3	2.35	0.47
1:AA:657:G:H4'	15:AO:28:GLN:HG2	1.96	0.47
27:DA:196:A:OP1	38:DP:51:PHE:CZ	2.66	0.47
10:AJ:24:VAL:HG21	10:AJ:37:PRO:HG3	1.96	0.47
35:BI:74:ASN:OD1	35:BI:75:LEU:N	2.47	0.47
39:DQ:26:TYR:CE1	39:DQ:28:ALA:HB2	2.49	0.47
16:CP:74:LEU:O	16:CP:79:VAL:HG23	2.14	0.47
41:BS:34:HIS:CD2	41:BS:54:LEU:HG	2.49	0.47
27:BA:2225:A:H4'	27:BA:2226:C:C6	2.49	0.47
27:DA:586:A:C5'	32:DF:89:VAL:HG21	2.40	0.47
27:BA:1050:A:H2'	27:BA:1051:G:C8	2.36	0.47
32:DF:131:GLY:O	32:DF:132:VAL:O	2.32	0.47
11:CK:106:LYS:O	11:CK:107:SER:HB2	2.12	0.47
32:DF:155:LEU:HA	32:DF:174:VAL:HB	1.95	0.47
3:AC:136:GLN:HG2	3:AC:140:ARG:NH2	2.29	0.47
20:AT:26:ASN:O	20:AT:30:LYS:HG2	2.14	0.47
27:BA:381:G:H2'	27:BA:382:G:H8	1.78	0.47
17:CQ:10:VAL:HG21	17:CQ:52:LYS:O	2.14	0.47
17:CQ:83:ASP:OD2	17:CQ:84:LEU:HD23	2.14	0.47
25:AY:18:G:N2	25:AY:55:C:H42	2.08	0.47
48:BZ:127:VAL:CG2	48:BZ:128:SER:H	2.16	0.47
50:D1:83:GLU:O	50:D1:84:GLY:O	2.31	0.47
49:B0:25:ARG:CG	49:B0:25:ARG:HH11	2.21	0.47
27:DA:6:A:O2'	36:DN:130:HIS:HB3	2.14	0.47
54:B5:57:VAL:O	54:B5:58:LEU:CG	2.58	0.47
35:DI:2:LYS:HB2	35:DI:39:ALA:CB	2.43	0.47
16:AP:48:TRP:O	16:AP:49:LEU:CB	2.58	0.47
1:AA:629:G:H2'	1:AA:630:G:O4'	2.14	0.47
2:CB:80:ILE:HD11	2:CB:212:GLN:HA	1.95	0.47
27:DA:1510:G:H2'	27:DA:1511:C:C6	2.49	0.47
4:AD:94:LEU:CA	4:AD:97:LEU:HD12	2.43	0.47
1:CA:391:G:C6	1:CA:392:G:C5	3.02	0.47
27:BA:2189:U:C2'	27:BA:2190:G:H5''	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:376:G:P	16:CP:67:THR:HG21	2.54	0.47
27:DA:2178:C:H2'	27:DA:2179:C:C6	2.49	0.47
27:DA:1337:G:C4	27:DA:1338:G:C8	3.02	0.47
27:DA:1338:G:N3	27:DA:1393:A:H2	2.12	0.47
44:BV:57:VAL:HB	44:BV:99:ILE:HG22	1.96	0.47
29:DC:36:LYS:HD3	29:DC:36:LYS:C	2.34	0.47
27:BA:710:G:H2'	27:BA:711:G:H8	1.78	0.47
1:AA:706:A:C1'	11:AK:29:ILE:HD11	2.44	0.47
3:CC:198:VAL:CG1	3:CC:199:LYS:N	2.76	0.47
30:DD:174:ILE:HD12	30:DD:174:ILE:H	1.79	0.47
42:BT:133:GLU:OE2	42:BT:137:LYS:HB2	2.14	0.47
13:CM:33:ALA:HA	13:CM:59:TYR:HE2	1.77	0.47
8:CH:51:VAL:HG11	8:CH:60:ARG:HG2	1.96	0.47
2:AB:233:SER:O	2:AB:234:PRO:C	2.52	0.47
27:DA:1131:G:H4'	36:DN:82:LEU:HB2	1.96	0.47
36:DN:51:PHE:N	36:DN:51:PHE:CD1	2.80	0.47
1:AA:721:G:C6	1:AA:733:A:C2	3.02	0.47
27:DA:1664:A:C8	27:DA:1664:A:O5'	2.67	0.47
27:BA:2881:C:H2'	27:BA:2882:A:H8	1.79	0.47
4:CD:18:LYS:HE3	4:CD:20:TYR:CZ	2.49	0.47
1:CA:65:U:HO2'	1:CA:381:C:H5	1.61	0.47
12:CL:47:SER:O	12:CL:48:ALA:HB2	2.15	0.47
55:B6:41:PRO:CG	55:B6:42:TRP:H	2.23	0.47
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.47	0.47
1:CA:977:A:C2	1:CA:1224:G:C5	3.02	0.47
35:DI:133:HIS:CB	35:DI:134:PRO:HD2	2.44	0.47
47:BY:28:LYS:O	47:BY:38:ILE:CB	2.62	0.47
42:BT:31:SER:CB	42:BT:32:TYR:CE1	2.92	0.47
10:CJ:47:PHE:O	10:CJ:47:PHE:CD1	2.68	0.47
48:DZ:97:MET:H	48:DZ:124:LEU:HD11	1.76	0.47
55:D6:26:ASN:OD1	55:D6:32:ASN:OD1	2.32	0.47
46:BX:66:LEU:HD23	46:BX:66:LEU:C	2.35	0.47
36:DN:57:ALA:HB3	36:DN:124:ALA:CA	2.44	0.47
36:DN:93:THR:O	36:DN:94:HIS:HB2	2.14	0.47
1:AA:961:U:OP2	1:AA:1223:C:C4'	2.58	0.47
1:AA:255:G:C6	1:AA:256:U:C4	3.02	0.47
27:BA:1657:C:C4'	31:BE:133:LYS:HB3	2.29	0.47
28:DB:30:C:H2'	28:DB:31:C:O4'	2.13	0.47
32:DF:158:THR:OG1	32:DF:195:ASP:HB2	2.14	0.47
27:BA:142:A:H8	27:BA:1408:C:H1'	1.78	0.47
1:AA:1117:G:C2'	1:AA:1118:C:H5'	2.42	0.47
31:BE:70:ALA:O	31:BE:71:GLY:C	2.52	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BZ:149:LEU:HD21	48:BZ:171:ALA:CB	2.41	0.47
37:DO:17:ARG:NE	37:DO:47:ILE:HD13	2.22	0.47
46:DX:46:ALA:O	46:DX:48:LYS:NZ	2.48	0.47
1:CA:98:G:C6	1:CA:99:U:O2	2.66	0.47
48:BZ:97:MET:O	48:BZ:124:LEU:HA	2.14	0.47
41:DS:12:PHE:HE1	41:DS:14:VAL:HG22	1.75	0.47
34:DH:101:ARG:HG3	34:DH:122:THR:HG23	1.95	0.47
3:CC:113:ALA:HB2	3:CC:202:ILE:CG1	2.45	0.47
27:BA:784:A:C6	30:BD:229:VAL:HG11	2.49	0.47
27:DA:2327:A:C2	27:DA:2388:A:C2	3.02	0.47
1:CA:965:A:C2	1:CA:969:A:C2	3.02	0.47
4:CD:10:ARG:HA	4:CD:13:ARG:HG3	1.96	0.47
27:BA:2572:A:OP1	31:BE:144:ARG:HB2	2.15	0.47
31:BE:184:VAL:HG12	31:BE:185:LYS:N	2.29	0.47
1:AA:852:G:O2'	1:AA:853:G:H5'	2.14	0.47
27:BA:175:G:O2'	27:BA:176:G:H5'	2.15	0.47
36:BN:94:HIS:N	36:BN:95:PRO:CD	2.77	0.47
7:AG:115:ARG:O	7:AG:119:ARG:HG3	2.13	0.47
27:DA:2693:A:H2'	27:DA:2694:G:H8	1.79	0.47
27:DA:2696:U:H2'	27:DA:2697:G:H8	1.79	0.47
1:CA:605:U:H2'	1:CA:606:G:O4'	2.15	0.47
12:CL:2:PRO:O	12:CL:3:THR:C	2.52	0.47
31:DE:9:VAL:HG22	31:DE:25:VAL:O	2.14	0.47
39:BQ:36:ALA:HB1	39:BQ:127:ILE:HD12	1.96	0.47
35:DI:1:MET:C	35:DI:20:ASP:HB2	2.35	0.47
8:CH:111:ILE:CG2	8:CH:112:LEU:N	2.78	0.47
7:CG:155:ARG:CG	7:CG:155:ARG:HH11	2.26	0.47
33:BG:11:TYR:CZ	33:BG:16:ARG:HD3	2.49	0.47
59:CX:65:C:N4	59:CX:66:C:N4	2.62	0.47
45:BW:36:LEU:O	45:BW:37:ARG:C	2.51	0.47
18:CR:46:GLU:HG3	18:CR:85:LEU:HD22	1.96	0.47
35:BI:33:ARG:NH1	35:BI:33:ARG:HG2	2.27	0.47
53:B4:53:THR:C	53:B4:54:LYS:HG2	2.33	0.47
27:DA:373:U:H2'	27:DA:374:A:C8	2.45	0.47
27:DA:1151:G:H2'	27:DA:1152:C:C6	2.49	0.47
27:DA:99:U:H1'	27:DA:102:G:C2	2.49	0.47
27:DA:292:C:C2'	27:DA:293:U:H5'	2.45	0.47
27:DA:265:A:H8	27:DA:266:G:H1'	1.75	0.47
1:CA:189(D):C:H1'	1:CA:189(H):G:C2	2.49	0.47
1:CA:758:G:H5'	1:CA:880:C:H1'	1.95	0.47
44:BV:79:VAL:O	44:BV:80:GLN:HB2	2.14	0.47
1:AA:244:U:C6	1:AA:894:G:N2	2.82	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DC:196:LEU:C	29:DC:198:ALA:N	2.67	0.47
27:BA:79:G:H2'	27:BA:80:G:H8	1.78	0.47
54:B5:6:VAL:HG23	54:B5:7:PRO:N	2.28	0.47
27:BA:1389:G:H2'	27:BA:1390:U:C6	2.49	0.47
27:DA:1528:A:C6	27:DA:1544:A:C6	3.03	0.47
27:DA:2078:C:H2'	27:DA:2079:U:H6	1.79	0.47
27:BA:724:U:H2'	27:BA:725:G:O4'	2.14	0.47
27:BA:2841:C:O2'	27:BA:2842:G:H5'	2.14	0.47
1:AA:946:A:H2'	1:AA:947:G:C8	2.49	0.47
4:CD:49:ARG:O	4:CD:50:ARG:C	2.52	0.47
1:CA:1237:C:O5'	1:CA:1237:C:H6	1.97	0.47
9:AI:2:GLU:O	9:AI:2:GLU:HG2	2.15	0.47
27:BA:2578:G:H4'	27:BA:2578:G:OP2	2.13	0.47
27:BA:2520:C:O5'	27:BA:2520:C:H6	1.98	0.47
29:BC:129:ARG:C	29:BC:131:LEU:H	2.17	0.47
27:BA:2817:G:OP1	40:BR:42:LYS:NZ	2.34	0.47
3:CC:175:LEU:HD21	3:CC:201:TYR:CE2	2.49	0.47
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.13	0.47
5:AE:89:ILE:HD13	5:AE:135:THR:OG1	2.14	0.47
57:B8:29:LYS:HA	57:B8:32:LEU:HD23	1.96	0.47
4:AD:15:GLU:HG2	4:AD:63:LYS:HG2	1.95	0.47
27:BA:888:C:H2'	27:BA:889:C:H5'	1.95	0.47
54:B5:50:GLY:HA3	54:B5:56:LYS:HB3	1.96	0.47
35:BI:115:ALA:CB	35:BI:129:THR:OG1	2.62	0.47
10:CJ:50:ILE:HG21	10:CJ:57:LYS:HA	1.96	0.47
48:DZ:9:ARG:HH11	48:DZ:35:LYS:HB2	1.78	0.47
10:CJ:78:ASN:HD22	10:CJ:80:LYS:HB2	1.78	0.47
38:BP:18:ARG:CZ	38:BP:18:ARG:HB3	2.44	0.47
40:DR:74:LYS:HD2	40:DR:77:ARG:NH2	2.30	0.47
41:DS:103:GLU:O	41:DS:104:GLY:C	2.53	0.47
38:BP:23:PRO:HB3	38:BP:29:LYS:HB3	1.95	0.47
33:DG:133:LEU:HD12	33:DG:133:LEU:O	2.15	0.47
36:DN:18:ALA:CB	36:DN:21:LYS:HB2	2.44	0.47
13:AM:23:TYR:HB3	13:AM:67:GLU:HA	1.97	0.47
17:AQ:6:LEU:O	17:AQ:59:ILE:HD13	2.14	0.47
1:CA:164:U:O2'	1:CA:165:C:H5'	2.14	0.47
27:DA:1700:A:C2'	27:DA:1701:A:O5'	2.62	0.47
1:CA:1445:C:C2	1:CA:1446:U:H6	2.29	0.47
31:BE:11:MET:HB3	31:BE:24:THR:HA	1.96	0.47
31:BE:65:GLY:O	31:BE:66:HIS:O	2.33	0.47
47:DY:26:LYS:O	47:DY:28:LYS:HD3	2.13	0.47
47:DY:98:VAL:HG12	47:DY:99:CYS:HG	1.78	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DF:19:GLU:N	32:DF:19:GLU:CD	2.68	0.47
19:CS:12:ASP:HB2	19:CS:15:LEU:HD21	1.95	0.47
42:DT:57:PHE:O	42:DT:59:THR:N	2.48	0.47
27:BA:27:G:O2'	27:BA:28:A:C8	2.67	0.47
4:AD:110:PHE:HE1	4:AD:176:LEU:HD11	1.79	0.47
27:BA:1310:G:H2'	27:BA:1311:G:H5'	1.95	0.47
13:CM:66:LEU:O	13:CM:70:LEU:HB2	2.14	0.47
12:CL:52:VAL:HG13	12:CL:65:ALA:O	2.13	0.47
1:CA:321:A:O2'	1:CA:322:C:H5'	2.14	0.47
27:BA:955:C:H5'	27:BA:956:G:OP2	2.14	0.47
34:BH:12:PRO:HB2	34:BH:15:VAL:HG21	1.94	0.47
37:DO:110:GLY:HA2	37:DO:112:MET:HE3	1.95	0.47
37:DO:112:MET:O	37:DO:114:ILE:N	2.47	0.47
27:DA:2080:G:N2	27:DA:2241:A:C4	2.82	0.47
27:DA:357:A:H2'	27:DA:358:U:C6	2.49	0.47
39:BQ:65:PHE:N	39:BQ:65:PHE:HD2	2.12	0.47
45:BW:110:LYS:HG3	45:BW:111:HIS:CE1	2.48	0.47
27:BA:787:U:H5''	27:BA:788:A:H5'	1.96	0.47
2:CB:216:SER:O	2:CB:218:ALA:N	2.47	0.47
1:CA:925:G:H4'	1:CA:1502:A:C2	2.49	0.47
19:AS:47:HIS:O	19:AS:48:THR:HG23	2.14	0.47
6:CF:77:ARG:HB3	6:CF:77:ARG:CZ	2.43	0.47
3:AC:200:ALA:C	3:AC:201:TYR:HD1	2.18	0.47
57:D8:55:ALA:O	57:D8:58:ILE:HB	2.14	0.47
1:CA:474:G:H2'	1:CA:475:G:C8	2.48	0.47
27:DA:64:A:C4	46:DX:66:LEU:HD13	2.50	0.47
51:B2:27:GLU:O	51:B2:30:ARG:HG2	2.15	0.47
16:CP:55:ARG:HG3	16:CP:55:ARG:HH11	1.79	0.47
23:CW:24:C:H2'	23:CW:25:A:C5'	2.40	0.47
27:DA:2533:A:H5'	27:DA:2665:A:H1'	1.96	0.47
32:DF:132:VAL:HG13	32:DF:133:ASN:CG	2.34	0.47
7:CG:133:GLY:O	7:CG:134:ALA:C	2.53	0.47
20:AT:72:LEU:HD21	20:AT:77:ALA:HA	1.96	0.47
38:BP:71:VAL:HG13	38:BP:72:PRO:HD3	1.95	0.47
50:B1:12:PRO:HB3	50:B1:43:TYR:CD2	2.39	0.47
27:DA:136:G:O2'	27:DA:137:C:H5'	2.14	0.47
27:DA:301:G:H5'	27:DA:334:C:O2'	2.14	0.47
44:BV:75:PHE:HA	44:BV:81:TYR:O	2.14	0.47
1:CA:280:C:C2	17:CQ:38:ARG:HG3	2.49	0.47
1:CA:1029:C:H4'	1:CA:1033:G:N2	2.30	0.47
1:CA:1032:G:H2'	1:CA:1033:G:H8	1.80	0.47
27:BA:1204:A:H2	27:BA:1241:A:N1	2.12	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1242:C:H42	1:AA:1295:G:H1	1.61	0.47
27:DA:2180:U:H2'	27:DA:2181:G:C8	2.50	0.47
10:CJ:43:ARG:O	10:CJ:67:THR:CG2	2.63	0.47
13:CM:79:LYS:O	13:CM:82:MET:HB3	2.14	0.47
6:AF:18:GLN:O	6:AF:21:LEU:HB2	2.14	0.47
29:BC:53:ARG:O	29:BC:54:SER:CB	2.61	0.47
44:DV:79:VAL:O	44:DV:80:GLN:HB2	2.15	0.47
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.48	0.47
27:DA:419:C:O2'	27:DA:420:C:H5'	2.15	0.47
34:BH:124:GLU:HB2	34:BH:132:ARG:HB3	1.96	0.47
1:AA:1232:U:H2'	1:AA:1233:G:O4'	2.15	0.47
1:AA:19:C:O2'	1:AA:20:U:H5'	2.13	0.47
27:BA:1972:A:H2'	27:BA:1973:G:H8	1.79	0.47
20:AT:64:ASP:HA	20:AT:67:ALA:CB	2.44	0.47
27:DA:703:U:H2'	27:DA:704:G:H5'	1.96	0.47
56:B7:43:THR:O	56:B7:45:ALA:N	2.47	0.47
59:CX:76:A:H2'	27:DA:2451:A:O2'	2.14	0.47
9:CI:7:THR:H	9:CI:83:ARG:HD2	1.79	0.47
8:CH:114:THR:C	8:CH:116:LYS:H	2.17	0.47
53:D4:83:ARG:O	53:D4:84:PHE:O	2.32	0.47
27:DA:1642:G:O2'	27:DA:1643:G:H5'	2.13	0.47
34:DH:61:HIS:HD2	34:DH:64:LEU:HD12	1.79	0.47
29:DC:55:ASP:OD1	29:DC:56:GLN:N	2.45	0.47
45:BW:13:SER:HB3	45:BW:16:LYS:NZ	2.28	0.47
46:DX:12:VAL:CG1	46:DX:27:THR:OG1	2.62	0.47
55:D6:17:LYS:O	55:D6:18:ARG:CB	2.62	0.47
27:DA:1899:G:C2	27:DA:1903:G:C6	3.02	0.47
27:BA:663:G:C5	27:BA:664:C:C5	3.03	0.47
38:DP:128:HIS:CE1	38:DP:149:GLU:HG2	2.49	0.47
27:DA:2512:C:H2'	27:DA:2513:G:O4'	2.13	0.47
1:CA:1295:G:H4'	13:CM:14:ARG:HH12	1.79	0.47
27:DA:919:G:H2'	27:DA:920:G:C8	2.50	0.47
32:DF:161:GLU:O	32:DF:165:ARG:CG	2.56	0.47
27:BA:2632:A:H1'	31:BE:61:ARG:NH1	2.28	0.47
31:BE:75:VAL:C	31:BE:77:ILE:N	2.58	0.47
27:DA:1654:A:OP2	40:DR:3:HIS:CG	2.68	0.47
27:DA:307:G:H21	27:DA:330:A:H62	1.61	0.47
27:BA:197:A:N6	27:BA:2430:A:H2'	2.28	0.47
32:DF:2:LYS:HE2	32:DF:119:ARG:CG	2.39	0.47
48:BZ:150:HIS:HB2	48:BZ:168:GLU:C	2.35	0.47
17:CQ:67:LYS:HG2	17:CQ:68:ARG:N	2.29	0.47
43:BU:92:ARG:NH2	44:BV:11:GLN:HB2	2.30	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:90:VAL:CG2	44:BV:39:LEU:HD23	2.32	0.47
4:AD:170:VAL:O	4:AD:171:GLY:C	2.53	0.47
1:AA:1237:C:H2'	1:AA:1336:C:C5	2.49	0.47
12:CL:29:PHE:HD1	12:CL:82:ILE:O	1.96	0.47
27:BA:1858:G:HO2'	27:BA:1859:A:H8	1.61	0.47
30:BD:243:GLY:O	30:BD:244:ARG:O	2.32	0.47
5:AE:102:ALA:O	5:AE:103:GLY:O	2.33	0.47
27:BA:686:G:C5'	56:B7:11:LYS:HE2	2.45	0.47
32:DF:109:GLY:HA2	32:DF:112:MET:HB2	1.96	0.47
36:BN:16:ILE:CD1	36:BN:26:LEU:HD11	2.41	0.47
27:DA:2892:A:H2'	27:DA:2893:G:C4'	2.44	0.47
15:AO:21:ASP:OD1	15:AO:24:SER:HB3	2.15	0.47
38:DP:48:PRO:CG	38:DP:49:ARG:N	2.78	0.47
30:BD:16:MET:HE1	30:BD:208:LYS:CD	2.44	0.47
42:DT:104:ASN:C	42:DT:106:SER:N	2.67	0.47
41:BS:36:TYR:N	41:BS:36:TYR:CD1	2.83	0.47
19:AS:6:LYS:HG2	19:AS:7:LYS:CD	2.44	0.47
28:BB:105:A:H2'	28:BB:106:G:O4'	2.14	0.47
1:AA:851:G:H2'	1:AA:852:G:C8	2.48	0.47
49:B0:49:LYS:H	49:B0:80:HIS:HD1	1.61	0.47
16:AP:22:THR:OG1	16:AP:23:ASP:N	2.47	0.47
5:CE:91:LEU:HD22	5:CE:138:ALA:HB1	1.95	0.47
50:D1:50:ARG:HD3	50:D1:57:GLU:OE2	2.13	0.47
36:BN:91:LEU:HD12	36:BN:91:LEU:N	2.29	0.47
58:B9:7:VAL:HG12	58:B9:25:VAL:CG2	2.45	0.47
8:AH:103:VAL:HG21	8:AH:109:ILE:O	2.14	0.47
1:CA:59:A:H1'	1:CA:354:G:C2	2.48	0.47
33:BG:12:TYR:O	33:BG:17:PRO:HD3	2.15	0.47
4:AD:94:LEU:O	4:AD:95:GLY:C	2.52	0.47
4:AD:114:ARG:HH11	4:AD:114:ARG:CG	2.26	0.47
27:DA:1636:C:H2'	27:DA:1637:A:C8	2.49	0.47
46:DX:57:LEU:HD13	46:DX:78:LYS:HG2	1.96	0.47
27:BA:2124:G:O2'	29:BC:40:THR:HA	2.14	0.47
1:CA:224:C:H2'	1:CA:225:C:C6	2.50	0.47
48:BZ:29:ASN:O	48:BZ:30:ARG:CB	2.63	0.47
57:D8:37:SER:O	57:D8:40:GLU:N	2.42	0.47
43:BU:70:ARG:HA	43:BU:74:LEU:O	2.13	0.47
27:BA:2017:U:O2	54:B5:10:LYS:HB2	2.14	0.47
27:DA:2783:G:H2'	27:DA:2784:C:C6	2.49	0.47
28:DB:87:G:H1	28:DB:91:C:N4	2.13	0.47
1:CA:411:A:C5	1:CA:429:U:C5	3.02	0.47
1:CA:428:G:O4'	1:CA:430:A:C8	2.67	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:40:ILE:HG22	41:BS:41:ASP:N	2.28	0.47
1:AA:935:A:H2'	1:AA:936:C:H6	1.77	0.47
27:BA:2355:C:H1'	49:B0:39:ARG:HH21	1.80	0.47
1:CA:1244:C:H2'	1:CA:1245:A:H8	1.79	0.47
1:AA:22:G:H2'	1:AA:23:C:C6	2.48	0.47
51:D2:53:LEU:O	51:D2:54:LYS:C	2.53	0.47
1:CA:1043:C:H2'	1:CA:1044:A:H8	1.80	0.47
7:AG:152:ALA:C	7:AG:154:TYR:H	2.18	0.47
27:DA:1833:U:H2'	27:DA:1834:U:H6	1.79	0.47
27:BA:997:G:C2'	27:BA:998:C:H5'	2.44	0.47
18:CR:47:THR:HB	18:CR:49:LYS:HG3	1.95	0.47
27:BA:2401:U:C2'	27:BA:2402:C:OP1	2.63	0.47
27:DA:1956:U:C2'	27:DA:1957:C:H5'	2.44	0.47
43:BU:113:ALA:C	43:BU:115:ALA:H	2.18	0.47
4:AD:175:SER:OG	4:AD:184:LYS:HB2	2.14	0.47
27:BA:57:C:O2'	27:BA:58:G:H5'	2.14	0.47
27:DA:1809:A:H2'	27:DA:1810:A:C8	2.49	0.47
29:BC:196:LEU:C	29:BC:198:ALA:N	2.67	0.47
1:CA:295:C:H2'	1:CA:296:U:C6	2.49	0.47
27:BA:1860:G:H2'	27:BA:1861:G:H8	1.80	0.47
27:DA:934:G:N3	27:DA:934:G:H2'	2.30	0.47
37:BO:49:ARG:HH11	37:BO:49:ARG:HG2	1.79	0.47
48:DZ:140:VAL:O	48:DZ:140:VAL:HG13	2.14	0.47
27:BA:510:C:O5'	27:BA:510:C:H6	1.98	0.47
1:AA:335:C:H2'	1:AA:336:C:C6	2.50	0.47
55:B6:43:CYS:O	55:B6:44:ARG:HB2	2.15	0.47
2:AB:17:PHE:C	2:AB:17:PHE:CD2	2.88	0.47
35:DI:53:ALA:O	35:DI:57:ARG:HG3	2.15	0.47
47:BY:81:LYS:HD3	47:BY:97:ARG:CB	2.43	0.47
53:B4:51:TYR:N	53:B4:51:TYR:CD1	2.83	0.47
27:BA:2315:G:H2'	27:BA:2316:C:C6	2.50	0.47
27:DA:2394:C:OP1	38:DP:62:LEU:HG	2.15	0.47
42:DT:28:VAL:HG12	42:DT:29:ARG:N	2.28	0.47
27:BA:2474:C:H2'	27:BA:2474:C:O2	2.14	0.47
38:BP:16:ARG:O	38:BP:16:ARG:NH1	2.42	0.47
27:DA:626:U:C2	38:DP:105:LEU:HB3	2.50	0.47
27:BA:1686:C:H2'	27:BA:1687:G:H5'	1.95	0.47
28:DB:64:C:H6	28:DB:64:C:O5'	1.98	0.47
28:DB:68:C:H6	28:DB:68:C:O5'	1.96	0.47
33:DG:92:VAL:HG13	33:DG:92:VAL:O	2.14	0.47
27:DA:1141:U:H3'	36:DN:63:THR:HG21	1.97	0.47
13:AM:8:GLU:OE2	13:AM:22:ILE:HA	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:99:LEU:HD12	9:CI:101:PHE:CE1	2.49	0.47
30:BD:142:VAL:HG21	30:BD:191:ALA:HB1	1.97	0.47
1:AA:1367:C:H4'	10:AJ:48:THR:HG21	1.96	0.47
45:DW:15:ARG:NE	54:D5:20:ARG:NH1	2.63	0.47
45:DW:76:VAL:O	45:DW:76:VAL:HG13	2.15	0.47
27:BA:1410:G:H2'	27:BA:1411:C:C6	2.50	0.47
1:AA:1133:G:H2'	1:AA:1134:G:C8	2.50	0.47
27:BA:1493:C:C5	27:BA:2206:G:O2'	2.68	0.47
29:DC:77:ILE:HG23	29:DC:77:ILE:O	2.14	0.47
27:BA:2346:A:H5'	27:BA:2383:G:C1'	2.43	0.47
44:BV:38:LEU:O	44:BV:39:LEU:HD12	2.14	0.47
44:BV:47:VAL:CB	44:BV:50:PRO:O	2.59	0.47
37:DO:65:THR:HA	37:DO:82:ASN:ND2	2.29	0.47
40:BR:3:HIS:O	40:BR:4:LEU:HB2	2.15	0.47
8:CH:7:ALA:HB2	8:CH:85:ARG:HG3	1.97	0.47
1:CA:1054:C:N3	23:CW:33:C:O4'	2.47	0.47
3:CC:90:GLU:HA	3:CC:93:LYS:HB2	1.96	0.47
1:CA:1001(A):G:C8	1:CA:1002:G:C8	3.03	0.47
1:CA:1002:G:N3	1:CA:1002:G:H2'	2.29	0.47
6:AF:62:TRP:CD1	18:AR:35:ARG:NH2	2.83	0.47
27:DA:70:G:H5''	27:DA:112:U:O2	2.15	0.47
27:BA:61:G:H5'	51:B2:50:ILE:HD13	1.96	0.47
7:CG:111:ARG:HG2	7:CG:112:PRO:HD2	1.95	0.47
1:AA:840:C:H4'	1:AA:841:U:OP1	2.13	0.47
1:CA:994:A:C2	14:CN:4:LYS:HG3	2.49	0.47
5:CE:141:GLN:HA	5:CE:143:ARG:NH2	2.30	0.47
5:CE:80:ILE:HD11	5:CE:138:ALA:HA	1.96	0.47
27:BA:2512:C:H5''	31:BE:122:PHE:CD2	2.49	0.47
15:CO:6:GLU:N	15:CO:6:GLU:OE2	2.48	0.47
3:CC:34:LEU:HD12	14:CN:25:VAL:HG11	1.96	0.47
19:AS:18:LYS:CD	19:AS:22:LEU:HD23	2.42	0.47
27:DA:686:G:N7	56:D7:5:TRP:CH2	2.83	0.47
31:BE:101:ARG:CB	31:BE:201:THR:HG21	2.41	0.47
16:AP:64:ALA:O	16:AP:65:GLN:C	2.52	0.47
27:DA:361:G:C2'	27:DA:362:U:H5''	2.41	0.47
8:AH:65:TYR:HA	8:AH:79:VAL:HG23	1.97	0.47
1:AA:965:A:H2	1:AA:969:A:N1	2.12	0.47
1:AA:110:C:H2'	1:AA:111:G:O4'	2.14	0.47
15:AO:26:GLU:HG2	15:AO:77:ARG:HH12	1.79	0.47
27:DA:768:G:H2'	27:DA:769:G:H8	1.80	0.47
1:AA:828:A:H5''	1:AA:859:A:C2	2.49	0.47
47:DY:88:LYS:NZ	47:DY:93:GLY:CA	2.76	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:37:GLN:O	3:AC:40:ARG:N	2.48	0.47
27:DA:2062:A:O2'	27:DA:2063:C:C5'	2.62	0.47
36:DN:42:TRP:HA	36:DN:42:TRP:HE3	1.79	0.47
12:CL:32:GLY:HA3	12:CL:55:VAL:CG1	2.45	0.47
32:BF:171:PRO:C	32:BF:173:VAL:H	2.18	0.47
27:BA:1188:U:H4'	44:BV:79:VAL:CG2	2.43	0.47
27:DA:1747(A):G:O2'	27:DA:1748:G:H5''	2.14	0.47
1:CA:1220:G:O2'	1:CA:1221:G:H5'	2.15	0.47
27:BA:178:G:O2'	27:BA:179:G:H5'	2.15	0.47
49:D0:46:LYS:HB2	49:D0:78:TYR:CD2	2.50	0.47
1:AA:1009:G:O2'	1:AA:1010:G:H5'	2.14	0.47
27:DA:1215:G:O2'	27:DA:1216:G:H5'	2.14	0.47
4:CD:65:ARG:HH11	4:CD:65:ARG:HG3	1.79	0.47
27:DA:2078:C:O2'	27:DA:2079:U:H5'	2.14	0.47
10:AJ:43:ARG:O	10:AJ:67:THR:HG22	2.14	0.47
27:DA:2203:U:H2'	27:DA:2203:U:O2	2.14	0.47
8:AH:68:ARG:HG2	8:AH:69:ARG:H	1.80	0.47
1:AA:339:C:OP2	37:BO:97:ARG:NH1	2.47	0.47
30:DD:60:ARG:HG3	30:DD:86:PRO:HB2	1.96	0.47
1:CA:866:C:C5	1:CA:867:G:H1'	2.50	0.47
1:CA:930:C:O2'	1:CA:931:C:H5'	2.14	0.47
1:CA:945:G:H2'	1:CA:945:G:N3	2.29	0.47
50:D1:13:ILE:O	50:D1:13:ILE:HG13	2.15	0.47
27:BA:616:G:H2'	27:BA:618:C:O4'	2.14	0.47
49:D0:45:PHE:HA	49:D0:77:ARG:O	2.14	0.47
27:DA:1407:C:H42	27:DA:1595:G:H1	1.62	0.47
27:BA:2389:G:H5''	27:BA:2390:U:O4'	2.14	0.47
55:B6:17:LYS:HB3	55:B6:18:ARG:HH12	1.80	0.47
27:BA:2419:U:C5'	55:B6:23:THR:HG22	2.44	0.47
57:B8:12:LYS:O	57:B8:13:ARG:HB3	2.14	0.47
4:AD:10:ARG:CG	4:AD:11:LEU:N	2.77	0.47
4:AD:173:TRP:CE2	4:AD:189:PRO:HB3	2.49	0.47
4:AD:173:TRP:O	4:AD:186:LEU:HB2	2.14	0.47
35:DI:136:VAL:O	35:DI:136:VAL:HG13	2.15	0.47
2:AB:17:PHE:C	2:AB:17:PHE:HD2	2.17	0.47
42:BT:33:LYS:NZ	42:BT:74:ARG:HH21	2.13	0.47
35:BI:109:ILE:N	35:BI:109:ILE:HD12	2.29	0.47
53:B4:48:ILE:HG22	53:B4:50:THR:HG23	1.95	0.47
33:BG:90:LEU:HD23	33:BG:91:ARG:N	2.30	0.47
48:DZ:127:VAL:CG2	48:DZ:131:ASN:HB2	2.45	0.47
14:CN:29:ARG:CB	14:CN:40:CYS:HB3	2.43	0.47
38:DP:64:LYS:HB3	57:D8:25:MET:CG	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AX:20:U:C3'	24:AX:21:A:H5'	2.45	0.47
55:D6:18:ARG:HG2	55:D6:18:ARG:HH11	1.80	0.47
41:BS:78:LEU:HD23	41:BS:82:ILE:O	2.14	0.47
10:CJ:5:ARG:HA	10:CJ:73:ASP:OD1	2.15	0.47
27:BA:1019:U:H3	27:BA:1142(A):A:N6	2.09	0.47
42:DT:27:THR:C	42:DT:28:VAL:HG23	2.35	0.47
27:BA:2474:C:H5'	27:BA:2475:C:OP2	2.14	0.47
27:DA:1899:G:N2	27:DA:1902:C:C5	2.82	0.47
32:BF:40:GLN:NE2	32:BF:184:TYR:CB	2.77	0.47
13:CM:14:ARG:NE	13:CM:42:ALA:HA	2.30	0.47
33:DG:159:VAL:O	33:DG:159:VAL:CG2	2.61	0.47
30:BD:66:ASP:OD2	30:BD:103:ARG:CZ	2.63	0.47
27:DA:1023:U:H2'	27:DA:1024:G:H5'	1.95	0.47
9:CI:106:ALA:O	9:CI:108:VAL:HG22	2.15	0.47
1:CA:1288:A:O2'	1:CA:1289:A:H5'	2.15	0.47
27:BA:2687:U:H2'	27:BA:2688:U:O4'	2.15	0.47
4:AD:31:CYS:O	4:AD:32:ALA:HB3	2.15	0.47
31:DE:30:PRO:C	31:DE:32:PRO:HD3	2.35	0.47
1:AA:1365:G:O2'	1:AA:1366:C:H5'	2.14	0.47
9:AI:113:LYS:HD2	9:AI:119:ALA:CB	2.44	0.47
23:AW:37:U:H2'	23:AW:38:U:O4'	2.15	0.47
1:AA:963:G:O2'	1:AA:964:A:H5'	2.15	0.47
10:AJ:63:PHE:HA	14:AN:59:ALA:CB	2.40	0.47
54:D5:20:ARG:O	54:D5:23:HIS:HB2	2.14	0.47
47:DY:52:SER:O	47:DY:54:LYS:N	2.47	0.47
27:DA:320:A:H4'	27:DA:322:A:N7	2.29	0.47
27:BA:1825:A:OP1	30:BD:249:PRO:HD3	2.15	0.47
27:BA:139:G:H3'	27:BA:139(A):G:H5''	1.96	0.47
32:DF:57:VAL:CG1	32:DF:57:VAL:O	2.60	0.47
9:AI:50:LEU:HA	9:AI:53:VAL:CG2	2.41	0.47
9:AI:77:ILE:O	9:AI:81:ILE:HG12	2.15	0.47
9:AI:53:VAL:HG21	9:AI:85:LEU:HD22	1.96	0.47
9:AI:97:LYS:O	9:AI:99:LEU:N	2.48	0.47
9:AI:53:VAL:HG11	9:AI:85:LEU:CD2	2.44	0.47
9:AI:83:ARG:C	9:AI:86:VAL:HG12	2.35	0.47
42:BT:12:SER:C	42:BT:13:ARG:CZ	2.83	0.47
27:BA:1179:C:H2'	27:BA:1180:C:C5'	2.31	0.47
2:AB:187:LEU:CD1	2:AB:205:ASP:HA	2.44	0.47
27:BA:2787:C:H1'	31:BE:61:ARG:CD	2.42	0.47
31:BE:55:ASN:HD22	31:BE:55:ASN:HA	1.54	0.47
2:AB:208:ILE:O	2:AB:212:GLN:HB2	2.15	0.47
2:CB:164:VAL:HG12	2:CB:165:VAL:N	2.30	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:12:ASP:HB3	19:CS:14:HIS:CE1	2.50	0.47
42:DT:50:ILE:HD11	42:DT:100:TYR:CA	2.30	0.47
27:BA:1252:G:O4'	43:BU:33:ARG:HD2	2.14	0.47
2:AB:173:ALA:O	2:AB:176:GLU:N	2.48	0.47
2:AB:97:TRP:CH2	2:AB:176:GLU:CD	2.78	0.47
46:DX:5:TYR:CZ	51:D2:30:ARG:HB3	2.50	0.47
49:B0:40:GLN:NE2	49:B0:59:LEU:HG	2.29	0.47
12:AL:43:LYS:HE2	12:AL:44:LYS:HG3	1.97	0.47
11:CK:86:GLY:O	11:CK:87:THR:O	2.32	0.47
27:DA:848:G:H2'	27:DA:849:A:H8	1.77	0.47
5:AE:11:ILE:HD11	5:AE:33:VAL:HG21	1.97	0.47
1:CA:102:G:C2	1:CA:103:C:C2	3.02	0.47
13:CM:93:ARG:HE	13:CM:93:ARG:HA	1.80	0.47
13:CM:90:LEU:HA	13:CM:93:ARG:HB3	1.96	0.47
4:AD:3:ARG:HD3	4:AD:3:ARG:O	2.14	0.47
27:DA:286:C:N3	27:DA:287:C:C5	2.83	0.47
27:BA:364:C:H2'	27:BA:365:C:C5'	2.43	0.47
1:CA:963:G:H21	10:CJ:55:LYS:CE	2.27	0.47
49:D0:48:GLY:CA	49:D0:80:HIS:HD1	2.27	0.47
34:BH:85:LYS:CE	34:BH:141:VAL:O	2.62	0.47
40:DR:56:LYS:NZ	40:DR:87:TYR:O	2.48	0.47
32:DF:33:LEU:HD11	32:DF:112:MET:HG2	1.97	0.47
47:BY:88:LYS:NZ	47:BY:93:GLY:O	2.48	0.47
1:CA:15:G:C4'	5:CE:24:ARG:NH2	2.77	0.47
1:CA:923:A:N6	1:CA:1392:G:O6	2.48	0.47
2:CB:193:ASP:OD2	2:CB:196:LEU:HD11	2.14	0.47
34:DH:143:GLN:NE2	34:DH:147:ASN:HD21	2.12	0.47
27:DA:30:G:C4	27:DA:31:C:C5	3.03	0.47
5:AE:68:GLU:O	5:AE:70:PRO:N	2.48	0.47
30:DD:142:VAL:HG21	30:DD:191:ALA:HB1	1.97	0.47
27:BA:1453:U:C4	40:BR:67:LEU:HD21	2.49	0.47
27:DA:59:U:H1'	27:DA:73:A:C2	2.50	0.47
27:BA:614(C):A:O2'	27:BA:615:G:P	2.72	0.47
27:DA:1323:U:OP1	45:DW:98:LYS:NZ	2.48	0.47
25:CY:34:U:O2'	25:CY:35:G:H5'	2.15	0.47
27:DA:1525:G:O2'	27:DA:1526:G:H5'	2.15	0.47
34:DH:70:THR:C	34:DH:72:ILE:N	2.64	0.47
27:BA:173:G:C6	27:BA:174:C:C4	3.03	0.47
5:CE:11:ILE:HD11	5:CE:33:VAL:CG2	2.45	0.47
17:CQ:10:VAL:CG2	17:CQ:55:ASP:H	2.28	0.47
27:DA:860:U:O2'	27:DA:861:A:H5'	2.15	0.47
50:B1:11:ARG:CB	50:B1:12:PRO:HD2	2.45	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:301:G:H1	27:DA:316:C:N4	2.08	0.47
27:DA:2571:C:H5''	27:DA:2572:A:C5'	2.44	0.47
1:CA:186:C:H2'	1:CA:187:C:C6	2.49	0.47
6:AF:94:GLN:NE2	18:AR:32:ARG:HD2	2.30	0.47
18:AR:32:ARG:CA	18:AR:69:THR:HG21	2.38	0.47
27:DA:1569:A:HO2'	30:DD:38:LYS:HG3	1.80	0.47
27:DA:1629:U:O2	27:DA:2698:U:C5'	2.63	0.47
17:CQ:32:TYR:CD1	17:CQ:32:TYR:N	2.82	0.47
29:BC:82:LYS:HD3	29:BC:151:GLU:O	2.15	0.47
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.80	0.47
27:DA:991:C:H5'	27:DA:991:C:C6	2.42	0.47
34:BH:33:LEU:HD11	34:BH:136:ILE:O	2.14	0.47
13:AM:114:ARG:O	13:AM:115:LYS:HD2	2.14	0.47
1:AA:1329:A:P	13:AM:28:ALA:HB3	2.55	0.47
33:BG:162:THR:OG1	33:BG:162:THR:O	2.31	0.47
1:CA:336:C:H2'	1:CA:337:C:H6	1.80	0.47
36:BN:39:ARG:C	36:BN:41:ASP:N	2.68	0.47
25:AY:25:A:H2'	25:AY:26:C:O4'	2.14	0.47
27:DA:389:G:H22	38:DP:72:PRO:CD	2.27	0.47
1:AA:1340:A:C2'	1:AA:1341:U:H5'	2.45	0.47
27:DA:2221:G:C2	27:DA:2222:G:C8	3.03	0.47
42:BT:128:GLU:C	42:BT:128:GLU:OE1	2.52	0.47
27:DA:1547:C:O2'	27:DA:1548:C:H5'	2.15	0.47
27:DA:187:G:N3	27:DA:1365:A:H2	2.13	0.47
27:DA:1268:A:C2	27:DA:1269:A:H1'	2.49	0.47
1:CA:199:G:O2'	1:CA:200:G:H5'	2.15	0.47
31:BE:186:GLY:O	31:BE:187:ALA:O	2.32	0.47
57:D8:40:GLU:O	57:D8:43:GLN:N	2.32	0.47
2:CB:116:GLU:C	2:CB:118:LEU:H	2.17	0.47
1:CA:998:G:H2'	1:CA:999:C:C6	2.49	0.47
52:B3:2:PRO:O	52:B3:3:ARG:HB2	2.14	0.47
27:BA:2884:U:OP2	54:B5:43:HIS:HE1	1.97	0.47
27:DA:1300:U:H5	27:DA:1634:A:C4	2.33	0.47
1:CA:798:G:OP1	11:CK:122:LYS:NZ	2.48	0.47
2:AB:189:ASP:OD1	2:AB:189:ASP:N	2.47	0.47
1:CA:135:C:C2'	1:CA:136:C:H5'	2.44	0.47
1:CA:1279:A:C2	10:CJ:43:ARG:NH2	2.83	0.47
30:BD:98:VAL:C	30:BD:100:GLY:N	2.68	0.47
1:AA:878:G:H5''	8:AH:89:PRO:HG2	1.95	0.47
27:DA:2465:C:O2'	27:DA:2466:C:H5'	2.15	0.47
27:DA:256:A:H2'	27:DA:257:A:H8	1.79	0.47
31:BE:9:VAL:HG22	31:BE:25:VAL:O	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2795:G:N3	27:DA:2795:G:H2'	2.30	0.47
27:BA:1508:A:H4'	27:BA:1509(A):A:C5	2.49	0.47
7:AG:32:ARG:NH1	7:AG:32:ARG:HG2	2.29	0.47
7:CG:122:HIS:O	7:CG:126:ASP:OD2	2.33	0.47
1:AA:862:C:C2'	1:AA:863:U:H5'	2.45	0.47
1:CA:174:C:O2'	1:CA:175:C:H5'	2.15	0.47
9:CI:47:LEU:CD1	9:CI:47:LEU:H	2.27	0.47
1:AA:645:C:O2'	1:AA:646:U:H5'	2.15	0.47
23:AW:68:C:H2'	23:AW:69:C:C6	2.49	0.47
13:CM:116:THR:O	13:CM:117:VAL:CB	2.63	0.47
27:DA:1748:G:H5'	27:DA:1748:G:H8	1.80	0.47
27:BA:2591:C:H2'	27:BA:2592:G:C8	2.49	0.47
27:BA:1335:U:H2'	27:BA:1336:A:C8	2.49	0.47
27:BA:2790:A:C2'	27:BA:2790:A:N3	2.78	0.47
37:BO:101:PRO:CG	42:BT:67:SER:HB3	2.45	0.47
1:AA:185:A:H2'	1:AA:186:C:C6	2.50	0.47
48:BZ:62:ASP:C	48:BZ:64:GLN:H	2.17	0.47
7:AG:80:VAL:HG21	7:AG:85:TYR:CD1	2.50	0.47
17:CQ:77:VAL:O	17:CQ:77:VAL:HG12	2.15	0.47
27:DA:2117:A:O2'	27:DA:2118:U:H5''	2.15	0.47
27:DA:2117:A:O2'	27:DA:2118:U:H3'	2.15	0.47
9:AI:25:LYS:HG2	9:AI:60:ASP:OD1	2.14	0.47
45:BW:57:ASN:N	45:BW:57:ASN:ND2	2.60	0.47
1:CA:862:C:H2'	1:CA:862:C:O2	2.15	0.47
30:BD:227:ASN:HB3	30:BD:228:PRO:HD2	1.95	0.47
30:BD:227:ASN:HB3	30:BD:228:PRO:CD	2.45	0.47
1:CA:603:U:O2'	1:CA:604:G:H5'	2.15	0.47
27:BA:2768:C:C2'	27:BA:2769:C:H5'	2.45	0.47
27:DA:2679:A:H4'	31:DE:165:VAL:HG11	1.97	0.47
27:BA:2517:C:C4	27:BA:2542:A:C6	3.03	0.47
27:BA:720:C:H2'	27:BA:721:C:H6	1.80	0.47
1:AA:355:C:C4	1:AA:356:A:N7	2.82	0.47
27:DA:2356:C:O3'	49:D0:20:ARG:HD3	2.14	0.47
27:DA:2174:C:O2'	27:DA:2175:C:H5'	2.14	0.47
38:BP:124:LYS:HA	38:BP:142:GLY:O	2.14	0.47
1:AA:1046:A:H3'	1:AA:1047:G:H8	1.80	0.47
1:CA:881:G:P	12:CL:9:ARG:HH22	2.36	0.47
27:BA:2765:A:N3	27:BA:2765:A:H3'	2.29	0.47
48:BZ:130:ARG:HH11	48:BZ:130:ARG:HG2	1.80	0.47
27:BA:2611:U:H5'	27:BA:2611:U:H6	1.79	0.47
28:BB:77:U:H6	28:BB:77:U:H5''	1.79	0.47
27:BA:2637:U:C2'	27:BA:2638:G:H5'	2.45	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:238:G:O2'	1:CA:239:U:H5'	2.15	0.47
27:BA:1806:C:H2'	27:BA:1807:G:H8	1.80	0.47
1:CA:615:C:H2'	1:CA:616:G:O4'	2.14	0.47
33:DG:7:LEU:CD2	33:DG:176:LEU:HD22	2.45	0.47
32:DF:205:ARG:O	32:DF:205:ARG:HG2	2.15	0.47
27:BA:733:G:C8	27:BA:761:A:N6	2.83	0.47
1:AA:138:G:O2'	1:AA:139:G:H5'	2.15	0.47
27:DA:698:C:O2'	27:DA:734:A:N6	2.48	0.47
27:DA:1743:C:H2'	27:DA:1744:C:O4'	2.14	0.47
56:B7:37:LYS:O	56:B7:37:LYS:HG2	2.13	0.47
50:D1:20:ARG:HH11	50:D1:20:ARG:HG2	1.80	0.47
27:BA:425:G:O2'	27:BA:426:C:H5'	2.15	0.47
1:AA:423:G:N2	1:AA:424:G:C8	2.82	0.47
1:CA:1049:U:H1'	1:CA:1201:A:N7	2.30	0.47
35:DI:101:LEU:CD2	35:DI:109:ILE:HG12	2.44	0.47
42:BT:91:ARG:O	42:BT:93:ARG:N	2.44	0.47
33:BG:45:GLU:C	33:BG:47:LYS:N	2.68	0.47
27:BA:2310:A:C8	33:BG:75:LYS:HE2	2.49	0.47
33:BG:68:PRO:CB	33:BG:90:LEU:HD21	2.45	0.47
27:BA:1023:U:H2'	27:BA:1024:G:H5'	1.95	0.47
27:BA:662:G:O2'	27:BA:663:G:H5'	2.15	0.47
27:DA:2863:C:H2'	27:DA:2864:G:C5'	2.44	0.47
40:DR:63:ARG:HA	40:DR:80:PHE:CE2	2.50	0.47
27:DA:626:U:C5'	27:DA:627:A:H5'	2.45	0.47
28:DB:114:C:H1'	41:DS:46:VAL:HG22	1.97	0.47
41:DS:78:LEU:N	41:DS:78:LEU:HD23	2.30	0.47
46:BX:71:GLY:C	46:BX:72:LYS:HD2	2.35	0.47
44:DV:39:LEU:CD1	44:DV:47:VAL:HG11	2.38	0.47
42:DT:35:LYS:HG3	42:DT:36:GLU:H	1.78	0.47
44:BV:35:LEU:O	44:BV:37:VAL:N	2.48	0.47
1:CA:1288:A:H2'	1:CA:1289:A:C8	2.49	0.47
1:CA:1371:G:OP2	9:CI:11:LYS:HD2	2.15	0.47
9:CI:10:ARG:HD2	9:CI:105:ASP:OD1	2.14	0.47
22:AV:7:C:N3	23:AW:36:A:C2	2.83	0.47
27:DA:1651:G:H2'	27:DA:1652:A:O4'	2.14	0.47
47:DY:14:LEU:O	47:DY:72:VAL:HA	2.15	0.47
47:DY:42:VAL:CG2	47:DY:65:ALA:HB3	2.44	0.47
1:AA:1203:C:O5'	1:AA:1203:C:H6	1.97	0.47
41:BS:17:ARG:C	41:BS:19:LYS:N	2.68	0.47
43:BU:109:LEU:HD21	44:BV:46:VAL:HG23	1.97	0.47
20:CT:28:ALA:O	20:CT:30:LYS:N	2.47	0.47
27:DA:2468:G:H2'	27:DA:2476:A:N7	2.30	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:878:G:C5'	8:CH:89:PRO:HG2	2.43	0.47
41:BS:59:LYS:HB2	41:BS:65:VAL:CG2	2.45	0.47
1:CA:1227:A:C2'	1:CA:1228:C:O5'	2.63	0.47
2:AB:27:LYS:O	2:AB:194:PRO:CD	2.63	0.47
27:DA:271(A):A:N1	27:DA:272(D):G:O2'	2.42	0.47
39:BQ:60:ARG:O	39:BQ:61:GLY:C	2.53	0.47
27:BA:465:G:C6	27:BA:466:A:N6	2.83	0.47
40:DR:98:LEU:HB2	40:DR:113:LEU:HB3	1.96	0.47
5:CE:90:VAL:CG2	5:CE:121:LYS:HB3	2.44	0.47
34:DH:121:ILE:CD1	34:DH:135:GLY:HA2	2.45	0.47
39:DQ:52:VAL:HA	39:DQ:55:VAL:CG1	2.45	0.47
41:BS:37:ALA:CB	41:BS:99:LYS:HZ1	2.27	0.47
27:BA:614(C):A:H4'	27:BA:615:G:OP1	2.15	0.47
3:CC:150:LYS:HA	3:CC:169:ALA:HA	1.96	0.47
27:BA:2133:G:H1'	27:BA:2158:A:H61	1.80	0.47
17:AQ:26:GLN:HG3	17:AQ:26:GLN:O	2.15	0.47
27:DA:135:G:C6	27:DA:136:G:N7	2.83	0.47
27:DA:301:G:C6	27:DA:302:C:N4	2.83	0.47
24:AX:71:C:C3'	24:AX:72:A:H5''	2.45	0.47
8:AH:44:PHE:HD1	8:AH:79:VAL:O	1.98	0.47
1:CA:1033:G:C2'	1:CA:1034:G:H5'	2.45	0.47
1:AA:619:U:N3	4:AD:135:LEU:HD11	2.29	0.47
34:BH:105:LEU:N	34:BH:113:VAL:O	2.46	0.47
20:CT:17:ARG:HA	20:CT:20:LEU:HG	1.97	0.47
46:DX:18:TYR:O	46:DX:19:ALA:C	2.53	0.47
27:DA:2562:U:C2'	27:DA:2563:U:H5'	2.45	0.47
1:CA:391:G:C6	1:CA:392:G:N7	2.83	0.47
8:AH:70:GLN:O	8:AH:71:GLY:O	2.32	0.47
29:DC:45:ALA:HB3	29:DC:174:PRO:CB	2.45	0.47
48:DZ:143:LEU:N	48:DZ:143:LEU:HD22	2.28	0.47
36:BN:27:ALA:HB1	36:BN:106:MET:CE	2.45	0.47
27:DA:380:U:H5'	50:D1:18:ILE:CD1	2.43	0.47
1:CA:1041:A:H2'	1:CA:1042:G:O4'	2.15	0.47
8:CH:20:TYR:HD1	8:CH:65:TYR:CD2	2.33	0.47
46:BX:41:ASN:ND2	46:BX:41:ASN:N	2.62	0.47
1:CA:939:G:H2'	1:CA:940:C:H6	1.79	0.47
27:BA:826:U:H3'	27:BA:828:U:C6	2.50	0.47
27:DA:1201:C:H2'	27:DA:1202:C:H6	1.79	0.47
27:DA:99:U:O2	27:DA:99:U:O4'	2.31	0.47
43:DU:97:ASP:C	43:DU:99:ALA:H	2.18	0.47
45:DW:59:VAL:CG2	45:DW:65:LEU:H	2.27	0.47
27:DA:751:A:C6	27:DA:789:A:C5	3.02	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DH:158:HIS:ND1	34:DH:168:PRO:HB2	2.30	0.47
12:AL:15:VAL:O	12:AL:16:ARG:HB3	2.14	0.47
27:BA:1906:G:C8	27:BA:1929:G:H2'	2.50	0.47
20:CT:90:GLN:HA	20:CT:93:GLU:CD	2.36	0.47
27:BA:1641:A:H2'	27:BA:1642:G:O4'	2.15	0.47
2:AB:183:PRO:HA	2:AB:198:ASP:OD1	2.15	0.47
1:AA:620:C:O2'	1:AA:621:A:H5'	2.15	0.47
45:BW:21:VAL:HG21	45:BW:76:VAL:CG2	2.45	0.47
36:DN:14:VAL:CG2	36:DN:50:ASP:HB3	2.44	0.47
8:CH:36:LEU:O	8:CH:39:LEU:N	2.48	0.47
27:DA:2338:G:H2'	27:DA:2339:G:H8	1.80	0.47
11:CK:13:GLN:HG2	11:CK:75:TYR:CA	2.45	0.47
52:D3:9:VAL:HG21	52:D3:55:ARG:HG3	1.96	0.47
27:DA:1011:G:C6	27:DA:1013:C:N3	2.83	0.47
12:AL:47:SER:O	12:AL:48:ALA:HB2	2.14	0.47
31:BE:161:GLY:O	31:BE:162:ALA:HB3	2.15	0.47
27:BA:2275:C:O2	39:BQ:85:LYS:HD3	2.15	0.47
1:CA:746:A:H2'	1:CA:747:C:C6	2.50	0.47
27:BA:324:A:H2'	27:BA:325:G:O4'	2.15	0.47
27:DA:2136:C:N4	27:DA:2155:G:H1	2.13	0.47
37:BO:105:GLU:O	37:BO:108:GLU:OE2	2.32	0.47
4:AD:7:PRO:HB2	4:AD:10:ARG:CD	2.32	0.47
47:BY:38:ILE:O	47:BY:39:VAL:HB	2.14	0.47
42:BT:52:ILE:HG12	42:BT:61:PHE:HB3	1.96	0.47
27:BA:1386:C:H2'	27:BA:1387:C:C6	2.49	0.47
35:BI:107:VAL:HG12	35:BI:108:THR:N	2.30	0.47
27:DA:894:C:C2'	27:DA:895:U:H5'	2.45	0.47
27:BA:2313:C:H4'	33:BG:40:ASN:HD22	1.77	0.47
27:DA:1043:C:HO2'	27:DA:1044:G:H8	1.63	0.47
1:AA:1457:G:H2'	1:AA:1458:G:C8	2.49	0.47
20:AT:82:SER:O	20:AT:84:LEU:N	2.47	0.47
55:D6:44:ARG:O	55:D6:45:LYS:CB	2.62	0.47
27:BA:242:G:C5'	57:B8:62:LEU:HD13	2.14	0.47
38:DP:101:VAL:CG2	38:DP:102:ARG:H	2.27	0.47
31:DE:117:MET:CE	31:DE:124:GLY:HA3	2.45	0.47
32:BF:185:ASP:HA	32:BF:188:ARG:CB	2.44	0.47
33:DG:33:ARG:H	33:DG:162:THR:HG23	1.79	0.47
33:DG:33:ARG:O	33:DG:162:THR:HG22	2.14	0.47
13:CM:27:LYS:HE3	13:CM:31:LYS:NZ	2.30	0.47
13:AM:7:VAL:O	13:AM:8:GLU:O	2.33	0.47
44:BV:17:GLY:CA	44:BV:96:ILE:O	2.62	0.47
9:CI:8:GLY:HA3	9:CI:76:ALA:O	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DE:32:PRO:HB3	31:DE:69:LYS:CB	2.41	0.47
1:CA:1323:G:H4'	1:CA:1363:C:C2	2.49	0.47
1:AA:1189:C:P	10:AJ:51:ARG:HH22	2.38	0.47
40:DR:103:ARG:HA	40:DR:111:LEU:HD23	1.95	0.47
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.15	0.47
1:AA:1277:C:O2'	1:AA:1279:A:C8	2.67	0.47
31:BE:76:ARG:O	31:BE:77:ILE:C	2.53	0.47
32:DF:10:PRO:HD2	32:DF:13:SER:O	2.14	0.47
19:CS:41:VAL:CG2	19:CS:44:MET:HG2	2.45	0.47
3:CC:70:VAL:O	3:CC:106:VAL:N	2.48	0.47
1:CA:515:G:C2	1:CA:537:G:C2	3.03	0.47
4:AD:121:VAL:HA	4:AD:126:ILE:HG12	1.96	0.47
46:DX:83:VAL:O	46:DX:84:ALA:C	2.52	0.47
29:BC:75:LEU:O	29:BC:77:ILE:N	2.48	0.47
12:CL:24:LEU:HB2	12:CL:30:ARG:HD2	1.96	0.47
27:BA:1882:C:H5'	27:BA:1883:G:OP2	2.15	0.47
27:BA:1884:A:O2'	27:BA:1885:A:H5''	2.15	0.47
52:D3:15:TYR:HB3	52:D3:19:GLN:NE2	2.30	0.47
27:BA:1902:C:H2'	27:BA:1903:G:O4'	2.14	0.47
1:AA:373:A:C2	1:AA:374:A:C8	3.02	0.47
8:CH:4:ASP:OD2	8:CH:89:PRO:HD3	2.14	0.47
1:CA:644:G:C5'	8:CH:92:ARG:HH22	2.26	0.47
23:CW:36:A:O2'	27:DA:1913:A:N1	2.48	0.47
1:CA:1228:C:OP1	13:CM:115:LYS:HB2	2.15	0.47
40:DR:45:ARG:HB2	40:DR:95:THR:HG21	1.96	0.47
27:DA:2229:C:O2'	27:DA:2230:G:H5'	2.14	0.47
27:DA:25:U:H2'	27:DA:26:G:C8	2.49	0.47
27:DA:242:G:H5''	57:D8:62:LEU:CD1	2.44	0.47
27:BA:1771:C:H1'	27:BA:1786:A:C8	2.49	0.47
42:DT:107:ASP:OD2	42:DT:108:ARG:N	2.48	0.47
27:DA:2133:G:H2'	27:DA:2157:G:H22	1.80	0.47
41:DS:48:LEU:HD23	41:DS:82:ILE:HD11	1.97	0.47
27:BA:2118:U:O2'	27:BA:2119:A:H5''	2.14	0.47
12:AL:87:VAL:HG22	12:AL:96:HIS:CE1	2.50	0.47
47:DY:46:LYS:HE3	47:DY:47:LYS:NZ	2.29	0.47
33:DG:5:VAL:HG22	33:DG:8:LYS:HG3	1.97	0.47
1:AA:1296:C:C5'	1:AA:1297:C:OP2	2.60	0.47
1:CA:601:C:N3	1:CA:638:G:C2	2.82	0.47
27:BA:2317:C:H2'	27:BA:2318:G:C5'	2.43	0.47
1:AA:1095:U:H2'	1:AA:1096:C:O4'	2.15	0.47
29:BC:25:ALA:O	29:BC:27:ARG:N	2.46	0.47
27:BA:2656:U:C4	27:BA:2664:G:N2	2.82	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:18:LYS:HD2	19:AS:22:LEU:CD2	2.42	0.47
43:DU:74:LEU:HD11	43:DU:79:PHE:HA	1.97	0.47
43:BU:83:LEU:HG	43:BU:88:ILE:HD11	1.97	0.47
27:DA:1230:C:H2'	27:DA:1231:G:C8	2.50	0.47
3:AC:142:MET:HE1	3:AC:171:GLY:HA3	1.96	0.47
27:DA:951:C:C2'	27:DA:952:G:H5'	2.45	0.47
36:DN:117:PHE:C	36:DN:119:ARG:N	2.68	0.47
27:BA:2396:G:C5'	50:B1:25:LYS:HD2	2.45	0.47
44:DV:49:THR:O	44:DV:50:PRO:C	2.53	0.47
28:DB:93:G:O2'	28:DB:94:C:H5'	2.15	0.47
30:DD:126:GLN:O	30:DD:127:VAL:O	2.33	0.47
27:DA:1259:G:O2'	27:DA:1260:G:H5'	2.15	0.47
41:BS:42:ASP:O	41:BS:43:GLU:HB2	2.15	0.47
18:CR:25:THR:CG2	18:CR:42:ARG:HH11	2.28	0.47
6:CF:87:ARG:HG2	6:CF:87:ARG:NH1	2.30	0.47
1:AA:137:C:N4	1:AA:226:G:H1	2.12	0.47
27:BA:272(B):G:O2'	27:BA:272(C):G:P	2.73	0.47
27:BA:2836:U:H2'	27:BA:2837:G:C8	2.50	0.47
1:AA:607:A:H2'	1:AA:608:A:H8	1.80	0.47
32:BF:45:ARG:CZ	32:BF:97:TYR:CE1	2.98	0.47
45:BW:61:ASN:N	45:BW:61:ASN:ND2	2.63	0.47
45:DW:109:GLU:O	45:DW:110:LYS:O	2.33	0.47
21:AU:22:ARG:N	21:AU:23:PRO:HD3	2.29	0.47
27:BA:2081:C:O2'	27:BA:2082:A:H5'	2.15	0.47
27:DA:1247:A:OP1	32:DF:95:ARG:NH2	2.47	0.47
20:CT:41:ILE:CG2	20:CT:87:LYS:HB3	2.45	0.47
27:DA:97:C:H5''	51:D2:2:LYS:CB	2.45	0.47
6:AF:78:GLU:OE2	6:AF:78:GLU:HA	2.14	0.47
27:BA:669:G:C2	27:BA:801:G:C6	3.03	0.47
30:BD:257:LEU:HD22	30:BD:258:LYS:O	2.14	0.47
27:DA:2652:C:H42	27:DA:2668:G:H1	1.62	0.47
27:DA:2037:G:O2'	27:DA:2038:G:H5'	2.14	0.47
4:CD:189:PRO:HB2	4:CD:194:LEU:HD21	1.97	0.47
39:DQ:75:THR:HG23	39:DQ:88:GLY:HA3	1.97	0.47
27:BA:2284:C:H41	55:B6:25:LYS:NZ	2.13	0.47
38:BP:91:PHE:HZ	38:BP:100:LEU:HD13	1.80	0.47
4:AD:11:LEU:O	4:AD:13:ARG:O	2.33	0.47
4:AD:194:LEU:HB3	4:AD:196:LEU:HD11	1.96	0.47
13:AM:90:LEU:HD23	13:AM:93:ARG:CG	2.17	0.47
35:DI:77:LEU:O	35:DI:140:LEU:HD12	2.15	0.47
28:BB:49:C:OP1	41:BS:97:ARG:HG3	2.15	0.47
47:BY:95:LYS:HD2	47:BY:100:ALA:CB	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BO:104:ARG:CZ	37:BO:104:ARG:HB3	2.45	0.47
53:B4:60:GLU:O	53:B4:61:VAL:HB	2.15	0.47
3:CC:178:LEU:C	3:CC:180:ALA:N	2.68	0.47
9:CI:114:TYR:N	9:CI:114:TYR:CD2	2.82	0.47
48:DZ:149:LEU:HB2	48:DZ:170:ILE:CG1	2.45	0.47
55:D6:44:ARG:O	55:D6:45:LYS:HG2	2.15	0.47
27:DA:2370:G:H2'	27:DA:2371:G:O4'	2.14	0.47
34:BH:52:VAL:O	34:BH:53:GLU:O	2.33	0.47
42:DT:28:VAL:C	42:DT:29:ARG:HD3	2.35	0.47
27:DA:1899:G:C2'	27:DA:1900:A:OP2	2.63	0.47
28:DB:7:G:N1	28:DB:114:C:N4	2.58	0.47
43:DU:91:ASP:OD2	43:DU:96:ALA:HB2	2.15	0.47
43:DU:90:VAL:CG1	44:DV:11:GLN:NE2	2.74	0.47
27:BA:1685:C:C3'	27:BA:1686:C:H5''	2.44	0.47
36:DN:56:ASN:O	36:DN:57:ALA:O	2.33	0.47
39:DQ:132:VAL:HG11	48:DZ:80:ARG:CZ	2.44	0.47
27:BA:911:A:C6	39:BQ:9:TYR:CD2	3.03	0.47
53:D4:61:VAL:HG13	53:D4:65:CYS:HB3	1.97	0.47
1:AA:961:U:O2'	1:AA:962:C:H5'	2.14	0.47
9:CI:20:ARG:O	9:CI:22:GLY:N	2.48	0.47
27:BA:869:G:H1	27:BA:908:C:H42	1.63	0.47
31:DE:4:ILE:CG1	31:DE:28:ALA:HB1	2.43	0.47
20:AT:50:GLU:HA	20:AT:100:ILE:HG21	1.97	0.47
32:DF:83:PHE:O	32:DF:84:VAL:CB	2.59	0.47
7:AG:24:THR:O	7:AG:28:ASN:N	2.46	0.47
9:AI:69:GLY:O	9:AI:71:SER:N	2.48	0.47
47:DY:2:ARG:NE	47:DY:3:VAL:HG23	2.30	0.47
9:CI:112:LYS:HA	9:CI:119:ALA:CB	2.31	0.47
27:BA:2330:G:HO2'	27:BA:2331:G:H5'	1.80	0.47
41:BS:13:ARG:O	41:BS:14:VAL:C	2.51	0.47
12:CL:21:VAL:HG13	12:CL:95:TYR:CE2	2.50	0.47
5:AE:41:VAL:HG11	5:AE:113:ALA:HA	1.97	0.47
27:DA:2740:A:C6	27:DA:2764:A:C8	3.03	0.47
1:AA:404:U:C2	1:AA:405:U:C5	3.03	0.47
34:BH:83:TYR:O	34:BH:84:SER:C	2.53	0.47
2:CB:15:VAL:N	2:CB:16:HIS:ND1	2.63	0.47
2:CB:17:PHE:N	2:CB:17:PHE:HD2	2.13	0.47
34:DH:138:LYS:N	34:DH:141:VAL:HG23	2.29	0.47
27:BA:1042:G:C1'	27:BA:1114:G:N2	2.75	0.47
36:BN:16:ILE:HD11	36:BN:26:LEU:CD1	2.44	0.47
19:AS:13:ASP:C	19:AS:15:LEU:N	2.67	0.47
8:AH:91:ARG:O	8:AH:91:ARG:CD	2.63	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:969:A:C2'	1:CA:970:C:H5'	2.45	0.47
1:CA:1002:G:N2	1:CA:1039:C:O2	2.48	0.47
4:CD:21:LEU:N	4:CD:21:LEU:HD12	2.30	0.47
42:DT:106:SER:HA	42:DT:110:ILE:HB	1.96	0.47
31:BE:144:ARG:HB3	31:BE:145:LYS:H	1.42	0.47
30:DD:267:SER:O	30:DD:268:ARG:HB2	2.15	0.47
3:CC:119:ARG:O	3:CC:123:GLN:HG3	2.15	0.47
11:CK:105:VAL:HG23	11:CK:105:VAL:O	2.14	0.47
34:BH:31:GLY:O	34:BH:79:VAL:HG11	2.14	0.47
32:DF:132:VAL:CG2	32:DF:133:ASN:H	2.14	0.47
8:AH:24:THR:CG2	8:AH:25:ASP:N	2.77	0.47
3:AC:112:SER:O	3:AC:115:LEU:HB2	2.15	0.47
43:BU:24:TYR:HB3	43:BU:28:ARG:HB3	1.97	0.47
5:CE:132:ALA:O	5:CE:135:THR:HB	2.15	0.47
5:CE:139:LEU:O	5:CE:141:GLN:N	2.48	0.47
8:CH:14:ARG:O	8:CH:18:ARG:HD3	2.15	0.47
43:DU:66:ASN:O	43:DU:70:ARG:HB2	2.15	0.47
36:BN:41:ASP:O	36:BN:42:TRP:C	2.52	0.47
2:CB:31:TYR:C	2:CB:32:ILE:HD12	2.34	0.47
27:DA:526:A:N6	27:DA:2626:C:H4'	2.30	0.47
13:AM:82:MET:SD	13:AM:83:ASP:N	2.88	0.47
27:DA:1579:A:H2'	27:DA:1580:A:C8	2.50	0.47
31:BE:82:ARG:HD2	31:BE:83:ASP:OD2	2.15	0.47
1:CA:1503:A:O2'	1:CA:1504:G:O5'	2.33	0.47
27:DA:2320:A:N3	27:DA:2320:A:H2'	2.30	0.47
41:BS:42:ASP:C	41:BS:44:LYS:H	2.16	0.47
27:DA:1473:G:H2'	27:DA:1474:C:C6	2.49	0.47
1:CA:792:A:N3	1:CA:794:A:C5	2.83	0.47
9:AI:32:ASP:O	9:AI:33:PHE:C	2.53	0.47
4:CD:131:ARG:HE	4:CD:131:ARG:HB2	1.57	0.47
6:CF:1:MET:HB2	6:CF:66:GLU:CG	2.45	0.47
27:DA:1316:U:O2'	27:DA:1317:A:H5'	2.15	0.47
27:DA:1216:G:C2'	27:DA:1217:C:H5'	2.45	0.47
1:CA:243:A:H4'	1:CA:244:U:O5'	2.15	0.47
43:BU:97:ASP:O	43:BU:99:ALA:N	2.48	0.47
34:DH:149:ARG:HD2	34:DH:164:TYR:CD1	2.50	0.47
51:D2:28:LYS:HG3	51:D2:60:LEU:HD11	1.97	0.47
1:AA:102:G:H2'	1:AA:103:C:C6	2.50	0.47
1:AA:491:G:H2'	1:AA:492:G:H8	1.79	0.47
29:DC:151:GLU:C	29:DC:153:ILE:H	2.17	0.47
46:DX:73:ARG:HB3	46:DX:74:PRO:HD2	1.96	0.47
12:AL:36:VAL:HB	12:AL:54:LYS:HB2	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:668:G:O2'	1:CA:669:U:H5'	2.15	0.47
27:BA:1775:U:OP1	27:BA:1979:C:O2'	2.31	0.47
20:CT:84:LEU:HD13	20:CT:84:LEU:C	2.34	0.47
3:CC:69:HIS:CD2	3:CC:104:GLN:HB2	2.50	0.47
27:BA:627:A:H4'	27:BA:628:G:OP1	2.15	0.46
35:DI:79:ILE:O	35:DI:81:VAL:HG23	2.14	0.46
41:BS:97:ARG:HE	41:BS:98:VAL:N	2.13	0.46
35:BI:115:ALA:HB2	35:BI:129:THR:OG1	2.15	0.46
14:CN:26:ARG:HD2	14:CN:43:CYS:HB3	1.97	0.46
49:B0:5:LYS:O	49:B0:7:LEU:HD12	2.15	0.46
27:DA:664:C:O2'	27:DA:665:C:H5'	2.15	0.46
28:DB:13:A:N7	49:D0:74:ARG:NH1	2.63	0.46
27:DA:2314:C:H5'	33:DG:38:VAL:HG11	1.96	0.46
39:DQ:13:GLN:C	39:DQ:14:ARG:HG2	2.35	0.46
30:BD:95:LEU:HD13	30:BD:97:TYR:CE1	2.51	0.46
13:AM:39:ILE:CD1	13:AM:56:LEU:HD23	2.34	0.46
18:CR:50:ILE:CD1	18:CR:70:ILE:HG21	2.45	0.46
27:DA:469:G:N1	56:D7:39:ARG:NH1	2.63	0.46
30:DD:133:LEU:HD11	30:DD:175:LEU:HD11	1.97	0.46
31:DE:3:GLY:O	31:DE:4:ILE:CB	2.63	0.46
1:AA:1343:G:O2'	9:AI:121:ARG:NH1	2.48	0.46
48:DZ:118:GLU:HB2	48:DZ:121:ARG:CG	2.46	0.46
27:BA:1369:G:N2	27:BA:1370:C:H1'	2.30	0.46
9:AI:48:GLU:HA	9:AI:51:ARG:HH11	1.80	0.46
1:CA:1440:C:N4	1:CA:1441:G:C6	2.84	0.46
48:BZ:9:ARG:NH2	48:BZ:25:GLY:N	2.44	0.46
1:CA:1074:G:H4'	2:CB:103:THR:HG22	1.97	0.46
2:CB:75:LYS:HA	2:CB:78:GLN:HB2	1.96	0.46
45:BW:86:LEU:HG	45:BW:88:ARG:HD3	1.96	0.46
10:CJ:44:VAL:CG1	10:CJ:66:ARG:HG2	2.30	0.46
27:BA:2285:C:C5	55:B6:27:LYS:CE	2.92	0.46
27:BA:2380:C:O2'	27:BA:2381:C:H5'	2.15	0.46
43:BU:104:GLN:CB	44:BV:44:LYS:NZ	2.78	0.46
26:AZ:2:DPP:C	26:AZ:3:UAL:N1	2.71	0.46
15:CO:88:ARG:HG2	15:CO:88:ARG:HH11	1.80	0.46
27:BA:2822:G:OP2	40:BR:2:ARG:NH1	2.47	0.46
13:CM:81:LEU:HD22	13:CM:86:CYS:SG	2.56	0.46
27:BA:2015:A:C1'	54:B5:2:ALA:HA	2.33	0.46
40:DR:38:VAL:HB	40:DR:39:PRO:CD	2.36	0.46
48:BZ:80:ARG:HB3	48:BZ:80:ARG:CZ	2.45	0.46
36:BN:133:GLN:O	36:BN:134:ARG:CG	2.62	0.46
5:AE:53:LEU:HD12	5:AE:53:LEU:N	2.30	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:47:LEU:CD2	3:CC:68:VAL:HG21	2.45	0.46
27:DA:1505:C:C3'	27:DA:1506:C:H6	2.28	0.46
15:CO:22:THR:O	15:CO:23:GLY:O	2.32	0.46
51:B2:63:VAL:O	51:B2:66:GLU:N	2.49	0.46
41:DS:83:LYS:HG2	41:DS:83:LYS:O	2.15	0.46
27:BA:2569:G:H5''	27:BA:2569:G:H8	1.80	0.46
30:DD:30:GLU:CD	30:DD:63:ARG:HE	2.18	0.46
11:CK:108:ILE:O	18:CR:87:ARG:CA	2.63	0.46
28:DB:52:A:O2'	28:DB:53:A:C8	2.67	0.46
27:DA:882:G:O2'	27:DA:883:G:H5'	2.15	0.46
17:CQ:10:VAL:HG22	17:CQ:55:ASP:O	2.16	0.46
50:D1:67:ILE:N	50:D1:68:PRO:CD	2.77	0.46
35:BI:79:ILE:O	35:BI:81:VAL:N	2.48	0.46
50:D1:27:GLU:O	50:D1:29:GLY:N	2.48	0.46
1:AA:625:G:OP1	16:AP:9:PHE:HB3	2.15	0.46
27:BA:2266:A:H1'	27:BA:2272:U:O4	2.15	0.46
13:AM:108:ARG:HH11	13:AM:108:ARG:HA	1.79	0.46
25:CY:14:A:H62	25:CY:15:G:N2	2.13	0.46
38:DP:38:GLN:HG3	38:DP:41:ARG:HD2	1.96	0.46
1:AA:293:G:H2'	1:AA:294:U:H6	1.79	0.46
29:BC:79:LYS:HG2	29:BC:97:GLU:CD	2.35	0.46
1:AA:1079:G:N2	1:AA:1080:A:C2	2.83	0.46
1:CA:1040:U:H2'	1:CA:1041:A:C8	2.50	0.46
27:DA:1751:C:C2	27:DA:1752:C:C5	3.02	0.46
27:DA:1498:C:H4'	27:DA:1576:U:O2'	2.14	0.46
27:DA:1578:U:H2'	27:DA:1579:A:C5'	2.45	0.46
24:AX:43:A:O2'	24:AX:44:A:H5'	2.15	0.46
43:DU:110:VAL:HG12	43:DU:114:LYS:CD	2.45	0.46
41:DS:58:LEU:O	41:DS:59:LYS:O	2.33	0.46
1:CA:1508:G:O2'	1:CA:1509:C:H5'	2.14	0.46
27:DA:1144:G:H2'	27:DA:1145:C:C6	2.50	0.46
41:BS:44:LYS:O	41:BS:46:VAL:HG23	2.15	0.46
3:AC:29:TYR:CD1	14:AN:36:PHE:CZ	3.03	0.46
7:AG:40:ALA:O	7:AG:41:ARG:C	2.54	0.46
1:AA:21:G:H2'	1:AA:22:G:C8	2.50	0.46
20:CT:93:GLU:O	20:CT:93:GLU:HG2	2.14	0.46
1:CA:423:G:H2'	1:CA:424:G:H5'	1.97	0.46
38:DP:14:LYS:HG2	38:DP:15:ARG:HE	1.80	0.46
11:AK:88:GLY:O	11:AK:89:ALA:C	2.53	0.46
27:BA:247:G:H4'	27:BA:386:G:C5	2.49	0.46
38:DP:75:ILE:HD12	38:DP:75:ILE:N	2.30	0.46
1:AA:437:U:C2'	1:AA:438:G:H5'	2.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2307:G:N3	27:DA:2307:G:H3'	2.31	0.46
27:BA:1588:C:O2	27:BA:1588:C:H2'	2.15	0.46
27:BA:498:G:O2'	27:BA:499:U:H5'	2.14	0.46
27:DA:2075:U:C4	27:DA:2238:G:C5	3.03	0.46
59:CX:52:G:H2'	59:CX:53:G:O4'	2.16	0.46
27:DA:2366:A:H2'	27:DA:2367:G:O4'	2.15	0.46
27:BA:289:A:H61	27:BA:351:G:H1'	1.79	0.46
27:DA:619:G:O6	32:DF:103:LYS:HE3	2.15	0.46
5:CE:84:PHE:CZ	5:CE:133:TYR:HD2	2.33	0.46
27:BA:1830:C:H42	27:BA:1975:G:H1	1.64	0.46
28:BB:72:G:N2	28:BB:104:U:H5	2.12	0.46
27:DA:911:A:H2'	39:DQ:9:TYR:OH	2.14	0.46
4:AD:76:ARG:HD3	4:AD:207:TYR:CE2	2.50	0.46
27:DA:60:G:C8	27:DA:63:U:C5	3.03	0.46
46:BX:3:THR:HA	46:BX:6:ASP:OD2	2.15	0.46
27:BA:2283:C:C5	27:BA:2389:G:H2'	2.51	0.46
13:AM:88:ARG:HG3	13:AM:98:VAL:HG12	1.98	0.46
35:DI:75:LEU:CD2	35:DI:77:LEU:HD11	2.44	0.46
42:DT:3:ARG:O	42:DT:5:ALA:N	2.48	0.46
53:B4:56:GLU:O	53:B4:57:ILE:HG12	2.14	0.46
28:DB:75:G:N2	48:DZ:84:HIS:ND1	2.62	0.46
36:BN:63:THR:O	36:BN:64:GLY:C	2.53	0.46
16:AP:4:ILE:HB	16:AP:66:PRO:CB	2.31	0.46
1:CA:346:G:H5''	42:DT:41:ARG:NE	2.30	0.46
31:DE:15:PHE:CD2	42:DT:80:SER:HB2	2.50	0.46
4:AD:25:ARG:C	4:AD:27:TYR:H	2.18	0.46
3:AC:195:VAL:O	3:AC:196:LEU:HD22	2.15	0.46
23:AW:35:G:HO2'	23:AW:36:A:P	2.38	0.46
27:DA:320:A:C3'	32:DF:136:THR:HG21	2.46	0.46
27:BA:1368:G:C2	27:BA:1369:G:C8	3.03	0.46
27:BA:1412:A:C2	27:BA:1413:G:C4	3.03	0.46
38:DP:7:ARG:HB2	38:DP:7:ARG:NH1	2.30	0.46
27:DA:2821:A:C2	27:DA:2822:G:C4	3.03	0.46
5:CE:146:ALA:O	5:CE:147:ASP:C	2.53	0.46
42:DT:54:ARG:HG2	42:DT:54:ARG:HH11	1.80	0.46
1:CA:254:G:C2	1:CA:273:A:C2	3.04	0.46
27:BA:2287:A:C2	27:BA:2289:G:C8	3.04	0.46
27:BA:2287:A:N6	27:BA:2344:U:N3	2.58	0.46
13:CM:20:THR:O	13:CM:22:ILE:N	2.48	0.46
27:DA:932:G:H4'	27:DA:933:A:O5'	2.15	0.46
34:BH:10:PRO:O	34:BH:11:VAL:HB	2.15	0.46
1:CA:959:A:C3'	1:CA:960:U:C5'	2.93	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:64:ILE:C	39:BQ:65:PHE:HD2	2.19	0.46
27:BA:271(A):A:H1'	27:BA:365:C:O4'	2.15	0.46
27:DA:2838:G:H2'	27:DA:2839:G:H8	1.79	0.46
2:CB:193:ASP:O	2:CB:193:ASP:OD2	2.33	0.46
2:CB:16:HIS:HA	2:CB:210:SER:OG	2.16	0.46
6:CF:3:ARG:HD3	6:CF:64:GLN:OE1	2.15	0.46
3:CC:113:ALA:O	3:CC:114:PRO:C	2.52	0.46
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.96	0.46
27:DA:530:G:H21	27:DA:2021:C:H1'	1.79	0.46
27:DA:29:U:O5'	27:DA:29:U:H6	1.97	0.46
5:AE:146:ALA:O	5:AE:148:VAL:N	2.48	0.46
5:AE:78:HIS:HD2	8:AH:104:ARG:CG	2.27	0.46
27:BA:802:A:C6	27:BA:803:U:N3	2.84	0.46
27:DA:2389:G:C5'	27:DA:2390:U:H5'	2.44	0.46
16:CP:82:GLN:HE21	16:CP:82:GLN:N	2.12	0.46
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.36	0.46
1:CA:1325:C:O2'	1:CA:1326:C:H5'	2.16	0.46
27:DA:141:A:O2'	27:DA:142:A:O4'	2.33	0.46
3:CC:52:LEU:C	3:CC:54:ARG:H	2.19	0.46
11:CK:99:GLN:NE2	11:CK:105:VAL:HG21	2.30	0.46
1:AA:667:G:H2'	1:AA:668:G:H8	1.81	0.46
27:BA:1796:U:H2'	27:BA:1797:C:C6	2.50	0.46
3:AC:113:ALA:HB3	3:AC:114:PRO:CD	2.43	0.46
27:BA:381:G:C6	27:BA:394:A:C6	3.04	0.46
27:BA:271(P):C:H2'	27:BA:271(Q):G:H8	1.80	0.46
6:CF:8:ILE:CD1	6:CF:26:ILE:HD13	2.45	0.46
5:CE:78:HIS:CE1	5:CE:143:ARG:H	2.33	0.46
5:CE:79:GLU:HG3	8:CH:105:ARG:HG2	1.96	0.46
50:B1:3:LYS:CG	50:B1:4:VAL:H	2.24	0.46
49:B0:24:LYS:CB	49:B0:36:ILE:HD11	2.44	0.46
46:DX:37:THR:HG22	46:DX:37:THR:O	2.15	0.46
27:BA:881:G:H1	27:BA:895:U:H3	1.63	0.46
27:DA:171:G:C8	27:DA:172:C:C5	3.03	0.46
27:BA:1048:A:O2'	27:BA:1049:C:P	2.72	0.46
27:DA:1829:A:O2'	30:DD:15:PHE:CE1	2.62	0.46
1:CA:1349:A:OP2	9:CI:118:LYS:NZ	2.48	0.46
1:CA:633:G:H3'	1:CA:634:C:H6	1.80	0.46
58:B9:17:ILE:CG1	58:B9:26:ILE:HD13	2.45	0.46
1:CA:1096:C:O2'	1:CA:1097:C:C5'	2.62	0.46
1:CA:1030:C:C3'	1:CA:1030(A):G:H5'	2.45	0.46
1:AA:1001(A):G:C8	1:AA:1002:G:H8	2.33	0.46
1:AA:1228:C:P	13:AM:108:ARG:HH22	2.38	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:15:LYS:HE2	43:DU:19:LYS:HE2	1.97	0.46
1:CA:45:U:H2'	1:CA:46:G:H8	1.80	0.46
1:AA:876:G:C1'	8:AH:11:THR:HG21	2.44	0.46
50:D1:11:ARG:CB	50:D1:12:PRO:HD2	2.45	0.46
1:CA:1386:G:H2'	1:CA:1387:G:H8	1.80	0.46
1:AA:297:G:H4'	1:AA:557:G:H4'	1.97	0.46
43:DU:28:ARG:HG2	43:DU:38:THR:OG1	2.14	0.46
27:DA:637:A:H4'	27:DA:638:G:O5'	2.15	0.46
2:CB:113:HIS:O	2:CB:116:GLU:HG2	2.15	0.46
27:DA:741:G:H2'	27:DA:742:G:C8	2.50	0.46
12:AL:74:LEU:HD21	12:AL:104:ALA:HB2	1.96	0.46
8:AH:97:VAL:HA	8:AH:100:ILE:HD11	1.97	0.46
27:BA:1758:G:H4'	27:BA:1759:A:OP2	2.16	0.46
27:BA:2695:C:H2'	27:BA:2696:U:H6	1.80	0.46
32:BF:178:PRO:HB3	32:BF:201:VAL:CG1	2.46	0.46
27:BA:149:A:H2'	27:BA:150:C:O4'	2.15	0.46
46:BX:11:PRO:HD3	51:B2:37:PHE:CD2	2.50	0.46
1:AA:1292:U:H2'	1:AA:1293:G:H8	1.79	0.46
1:CA:575:G:H4'	1:CA:576:G:C5'	2.45	0.46
27:BA:1800:C:OP1	30:BD:266:SER:OG	2.33	0.46
27:DA:1345:C:O2'	27:DA:1346:G:H5'	2.15	0.46
27:BA:83:G:C2	27:BA:102:G:H2'	2.50	0.46
42:DT:21:GLU:HG2	42:DT:22:PHE:N	2.29	0.46
27:BA:721:C:H2'	27:BA:722:A:C8	2.50	0.46
43:BU:19:LYS:HB2	43:BU:19:LYS:HE3	1.67	0.46
9:CI:6:GLY:HA2	9:CI:83:ARG:HG2	1.96	0.46
1:CA:656:C:H4'	15:CO:62:GLN:NE2	2.29	0.46
31:DE:144:ARG:O	31:DE:146:THR:N	2.48	0.46
51:B2:8:LYS:HE2	51:B2:8:LYS:HB3	1.78	0.46
30:DD:176:ARG:HG2	30:DD:176:ARG:HH11	1.80	0.46
50:D1:40:ARG:HH11	50:D1:40:ARG:HG2	1.80	0.46
5:AE:47:LYS:HD2	5:AE:47:LYS:N	2.29	0.46
27:BA:2524:G:H5''	27:BA:2524:G:C8	2.50	0.46
1:AA:605:U:O2'	1:AA:606:G:H5'	2.15	0.46
27:DA:1939:U:OP1	27:DA:2604:U:O2'	2.27	0.46
27:DA:681:G:H2'	27:DA:682:G:H8	1.80	0.46
45:DW:32:ALA:O	45:DW:34:ASN:N	2.48	0.46
55:B6:22:ALA:HA	55:B6:39:TYR:HE2	1.80	0.46
57:B8:41:ILE:O	57:B8:42:ARG:C	2.52	0.46
4:AD:8:VAL:C	4:AD:10:ARG:N	2.69	0.46
13:AM:110:ARG:HG2	13:AM:110:ARG:NH1	2.29	0.46
35:DI:57:ARG:HA	35:DI:60:GLU:HB2	1.96	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DI:78:THR:HG23	35:DI:79:ILE:H	1.79	0.46
35:BI:92:VAL:CG2	35:BI:97:ILE:HG13	2.45	0.46
33:BG:109:VAL:CG2	53:B4:40:ILE:HG21	2.43	0.46
27:DA:1114:G:H2'	27:DA:1115:G:C5'	2.19	0.46
51:D2:4:SER:HA	51:D2:7:ARG:NH1	2.30	0.46
55:D6:10:LEU:HD22	55:D6:10:LEU:N	2.20	0.46
55:D6:16:CYS:O	55:D6:17:LYS:CB	2.54	0.46
57:D8:23:VAL:HG13	57:D8:47:LYS:O	2.15	0.46
1:CA:522:C:H1'	1:CA:536:C:H5''	1.98	0.46
10:CJ:6:ILE:CD1	10:CJ:72:VAL:HB	2.38	0.46
30:DD:54:ARG:HH11	30:DD:54:ARG:CB	2.28	0.46
43:DU:91:ASP:HA	43:DU:95:LEU:HB2	1.97	0.46
13:CM:10:PRO:O	13:CM:11:ARG:HG3	2.14	0.46
36:DN:91:LEU:HD21	36:DN:98:VAL:HG21	1.96	0.46
13:AM:56:LEU:HD13	13:AM:56:LEU:C	2.36	0.46
9:CI:17:VAL:HG22	9:CI:63:ILE:CD1	2.45	0.46
9:CI:37:PHE:CD2	9:CI:40:LEU:HD12	2.49	0.46
27:BA:1662:C:H1'	27:BA:2687:U:H5''	1.96	0.46
3:CC:132:ARG:O	3:CC:134:ILE:N	2.48	0.46
28:DB:27:C:HO2'	28:DB:28:C:H6	1.60	0.46
41:DS:33:LYS:HD3	41:DS:33:LYS:HA	1.70	0.46
1:AA:1316:G:N1	1:AA:1319:A:OP2	2.43	0.46
45:DW:17:VAL:HG21	45:DW:76:VAL:HG21	1.98	0.46
27:DA:320:A:H2'	32:DF:136:THR:HG21	1.97	0.46
27:BA:1792:G:H5''	30:BD:205:VAL:HG22	1.96	0.46
27:DA:271(R):G:H2'	27:DA:271(S):G:C8	2.50	0.46
31:BE:60:ASN:ND2	31:BE:62:PRO:CD	2.79	0.46
42:DT:118:ARG:HD2	42:DT:118:ARG:HA	1.63	0.46
32:DF:23:ASP:OD2	32:DF:24:LEU:HD22	2.15	0.46
3:CC:70:VAL:O	3:CC:106:VAL:HG23	2.14	0.46
27:BA:307:G:H22	27:BA:310:A:C5'	2.27	0.46
1:CA:235:C:H2'	1:CA:236:G:H8	1.80	0.46
43:BU:61:TRP:O	43:BU:62:ILE:C	2.54	0.46
29:DC:51:PRO:HD2	29:DC:54:SER:OG	2.15	0.46
49:B0:42:GLY:HA2	49:B0:57:PHE:CD2	2.50	0.46
13:CM:47:ASP:O	13:CM:48:LEU:CB	2.60	0.46
1:AA:1300:G:O2'	1:AA:1301:U:P	2.73	0.46
1:CA:1241:G:C6	1:CA:1242:C:N4	2.84	0.46
58:D9:19:ARG:C	58:D9:21:GLY:N	2.69	0.46
27:DA:2199:A:N3	27:DA:2199:A:H2'	2.31	0.46
59:CX:19:G:C2	59:CX:57:A:N3	2.84	0.46
1:CA:323:U:H5'	20:CT:23:ARG:CA	2.44	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:29:LYS:O	20:CT:32:ALA:HB3	2.15	0.46
27:BA:1495:A:C4	27:BA:1496:A:H2	2.32	0.46
1:CA:151:A:C2	1:CA:152:A:H1'	2.51	0.46
37:DO:91:LEU:N	37:DO:91:LEU:CD1	2.78	0.46
40:DR:45:ARG:HD3	40:DR:97:VAL:CG2	2.46	0.46
29:BC:83:ILE:O	29:BC:83:ILE:HG22	2.16	0.46
19:AS:63:THR:HG22	19:AS:66:MET:CE	2.44	0.46
5:CE:90:VAL:HG21	5:CE:121:LYS:HB3	1.96	0.46
27:DA:530:G:C5	27:DA:2022:U:H5''	2.50	0.46
3:CC:37:GLN:O	3:CC:40:ARG:N	2.49	0.46
4:CD:13:ARG:HD2	4:CD:38:TYR:O	2.15	0.46
41:DS:37:ALA:HB1	41:DS:73:LEU:CD1	2.45	0.46
12:AL:29:PHE:HB3	12:AL:81:LEU:HD21	1.98	0.46
27:DA:615:G:OP2	32:DF:40:GLN:HG2	2.15	0.46
27:BA:1741:A:H2'	27:BA:1742:G:O4'	2.15	0.46
7:CG:108:ALA:HB2	7:CG:123:GLU:HG2	1.98	0.46
2:CB:162:ILE:O	2:CB:162:ILE:HG13	2.15	0.46
30:BD:118:VAL:CG2	30:BD:119:ALA:H	2.23	0.46
31:BE:116:VAL:CG2	31:BE:122:PHE:CG	2.98	0.46
7:AG:44:TYR:O	7:AG:46:ALA:N	2.48	0.46
27:DA:302:C:O2'	27:DA:303:U:C6	2.61	0.46
27:DA:1722:A:C2	27:DA:1740:G:H2'	2.50	0.46
1:CA:1307:U:H2'	1:CA:1308:U:H6	1.80	0.46
1:AA:1398:A:H8	1:AA:1398:A:H5''	1.78	0.46
33:BG:130:ASN:HB3	33:BG:160:VAL:HA	1.95	0.46
39:DQ:135:ASP:HB2	48:DZ:48:ARG:HH12	1.80	0.46
32:BF:179:GLU:N	32:BF:179:GLU:CD	2.67	0.46
3:CC:160:ALA:C	3:CC:162:GLN:N	2.68	0.46
32:DF:156:LEU:HD23	32:DF:167:ALA:HB2	1.98	0.46
7:CG:44:TYR:O	7:CG:47:CYS:N	2.47	0.46
36:BN:35:ARG:O	36:BN:37:LYS:N	2.48	0.46
27:DA:1887:C:H2'	27:DA:1888:G:H5''	1.96	0.46
27:DA:614(B):G:H21	32:DF:45:ARG:HA	1.80	0.46
1:CA:438:G:H4'	1:CA:439:A:OP1	2.14	0.46
1:CA:833:U:H2'	1:CA:834:C:C6	2.47	0.46
1:CA:541:G:O2'	1:CA:542:G:H5'	2.16	0.46
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.81	0.46
3:AC:28:GLN:CA	3:AC:28:GLN:HE21	2.28	0.46
2:CB:107:THR:HG23	2:CB:110:GLN:CD	2.36	0.46
1:AA:864:A:H2'	1:AA:865:A:C8	2.51	0.46
27:DA:807:U:H2'	27:DA:808:G:H8	1.80	0.46
2:CB:44:LEU:HD12	2:CB:44:LEU:N	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:591:C:H1'	57:D8:2:PRO:HA	1.97	0.46
6:CF:7:ASN:HB2	6:CF:89:MET:O	2.15	0.46
1:CA:690:G:H2'	1:CA:691:G:C8	2.51	0.46
27:BA:491:G:H2'	27:BA:492:A:C8	2.49	0.46
27:DA:977:G:O2'	27:DA:978:G:H5'	2.16	0.46
27:DA:2637:U:OP1	31:DE:82:ARG:NE	2.38	0.46
27:BA:1804:C:H2'	27:BA:1805:U:H6	1.79	0.46
27:BA:22:C:H2'	27:BA:23:G:O4'	2.15	0.46
1:AA:1375:A:H2'	1:AA:1376:U:C6	2.51	0.46
27:DA:505:A:HO2'	27:DA:509:C:HO2'	1.64	0.46
27:DA:844:C:N4	27:DA:845:G:C2	2.83	0.46
8:AH:124:ALA:O	8:AH:128:GLY:N	2.46	0.46
1:AA:855:G:C6	1:AA:856:C:C4	3.02	0.46
27:BA:224:G:N7	27:BA:420:C:H4'	2.31	0.46
27:BA:419:C:H2'	27:BA:420:C:H6	1.80	0.46
1:AA:27:G:H2'	1:AA:28:G:O4'	2.15	0.46
55:B6:51:GLU:O	55:B6:52:VAL:O	2.34	0.46
4:AD:14:ARG:HB2	4:AD:40:PRO:CD	2.45	0.46
28:BB:44:G:H1'	28:BB:47:C:N4	2.30	0.46
33:BG:58:GLN:O	33:BG:61:ALA:HB3	2.15	0.46
3:CC:7:PRO:O	3:CC:11:ARG:HG2	2.15	0.46
28:DB:75:G:H3'	28:DB:76:G:C8	2.51	0.46
55:D6:40:CYS:SG	55:D6:45:LYS:HE3	2.55	0.46
10:CJ:8:LEU:HD23	10:CJ:96:ILE:CG2	2.44	0.46
30:DD:24:ILE:HG13	30:DD:83:GLU:HA	1.98	0.46
38:DP:91:PHE:CE2	38:DP:95:VAL:HG12	2.50	0.46
41:DS:24:LEU:O	41:DS:86:ALA:N	2.47	0.46
33:DG:31:VAL:O	33:DG:33:ARG:HD3	2.15	0.46
33:DG:107:LEU:HD11	33:DG:178:PHE:CD1	2.51	0.46
27:BA:911:A:H5''	27:BA:912:C:C5'	2.45	0.46
27:BA:910:A:C6	39:BQ:13:GLN:HG3	2.50	0.46
9:CI:4:TYR:HB2	9:CI:19:LEU:CG	2.46	0.46
31:DE:64:LYS:O	31:DE:70:ALA:HB1	2.16	0.46
31:DE:36:ARG:NH1	31:DE:85:ASN:OD1	2.48	0.46
31:DE:2:LYS:HB3	31:DE:95:ILE:CG2	2.46	0.46
10:AJ:48:THR:HG22	10:AJ:49:VAL:N	2.31	0.46
1:AA:1493:A:N1	23:AW:36:A:H5'	2.31	0.46
27:BA:1369:G:N3	27:BA:1810:A:H2	2.13	0.46
27:BA:2863:C:H2'	27:BA:2864:G:H5'	1.98	0.46
31:BE:65:GLY:HA2	31:BE:70:ALA:HB1	1.97	0.46
32:DF:20:LEU:HD22	32:DF:203:GLN:CD	2.36	0.46
19:CS:63:THR:HG22	19:CS:66:MET:HE3	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:312:G:H5'	27:BA:331:A:O2'	2.14	0.46
1:CA:256:U:O5'	1:CA:256:U:H6	1.98	0.46
13:CM:69:GLU:CD	13:CM:69:GLU:C	2.74	0.46
12:CL:19:SER:C	12:CL:21:VAL:H	2.19	0.46
12:CL:25:LYS:O	12:CL:27:ALA:N	2.49	0.46
3:AC:47:LEU:CD1	3:AC:76:VAL:HG12	2.45	0.46
27:BA:2791:C:P	27:BA:2792:G:OP1	2.74	0.46
1:AA:1305:G:H5''	21:AU:4:GLY:C	2.36	0.46
8:CH:31:PHE:O	8:CH:35:ILE:HG13	2.15	0.46
52:D3:31:LEU:CD2	52:D3:32:GLN:H	2.26	0.46
1:AA:495:A:C4'	1:AA:496:A:OP1	2.62	0.46
27:BA:467:G:O2'	27:BA:468:G:H5'	2.16	0.46
3:AC:92:ALA:CB	3:AC:99:VAL:HG11	2.44	0.46
1:CA:1399:C:C2	1:CA:1502:A:N6	2.84	0.46
34:DH:148:ILE:HA	34:DH:151:ILE:HG12	1.97	0.46
34:DH:81:GLU:HG3	34:DH:83:TYR:CE1	2.50	0.46
43:DU:31:SER:C	43:DU:33:ARG:H	2.19	0.46
27:BA:764:A:OP1	30:BD:208:LYS:HE2	2.16	0.46
27:BA:802:A:C2	27:BA:803:U:C2	3.03	0.46
16:CP:18:ARG:O	16:CP:20:VAL:HG12	2.16	0.46
30:DD:213:ARG:HA	30:DD:213:ARG:HD2	1.71	0.46
1:AA:516:U:C4	1:AA:517:G:C6	3.04	0.46
27:BA:1951:U:H2'	27:BA:1953:A:OP2	2.15	0.46
27:BA:71:A:C2	46:BX:31:HIS:CE1	2.94	0.46
42:DT:120:ARG:O	42:DT:124:ASP:OD1	2.33	0.46
20:AT:63:ILE:HD13	20:AT:80:ARG:HB2	1.96	0.46
27:BA:2020:A:O2'	27:BA:2021:C:H5'	2.16	0.46
10:AJ:39:PRO:HB3	10:AJ:70:ARG:NE	2.31	0.46
1:CA:1139:G:C5'	1:CA:1140:C:OP1	2.61	0.46
27:BA:2512:C:C5'	31:BE:122:PHE:CD2	2.99	0.46
41:DS:97:ARG:CZ	41:DS:98:VAL:HA	2.44	0.46
27:BA:2043:C:H1'	27:BA:2779:U:O4	2.16	0.46
27:DA:173:G:N3	27:DA:173:G:H2'	2.29	0.46
7:AG:56:GLN:O	7:AG:58:PRO:HD3	2.16	0.46
7:AG:111:ARG:HE	7:AG:123:GLU:CA	2.27	0.46
27:BA:1799:G:O2'	30:BD:181:GLU:OE2	2.30	0.46
45:DW:1:MET:HG3	45:DW:2:GLU:N	2.30	0.46
27:DA:1130:U:C2	27:DA:2025:C:H5''	2.50	0.46
27:DA:2025:C:H2'	27:DA:2026:C:H6	1.74	0.46
27:DA:1710:C:C2	27:DA:1749:A:C2	3.04	0.46
4:AD:159:ARG:HD3	4:AD:159:ARG:HA	1.61	0.46
23:CW:7:A:C2	23:CW:66:A:C2	3.03	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:389:G:H22	38:DP:72:PRO:HG3	1.81	0.46
27:BA:2298:A:C2	27:BA:2299:G:H1'	2.51	0.46
1:AA:618:C:N3	1:AA:622:A:N6	2.64	0.46
1:AA:679:C:O2'	1:AA:680:C:H5'	2.15	0.46
27:DA:1513:C:H2'	27:DA:1514:U:C6	2.50	0.46
39:DQ:20:ALA:O	39:DQ:99:PRO:HD2	2.15	0.46
27:BA:1261:C:C2'	27:BA:1262:A:O5'	2.63	0.46
6:AF:17:SER:O	6:AF:20:ALA:HB3	2.15	0.46
1:CA:1119:C:H2'	1:CA:1120:G:C8	2.50	0.46
6:CF:52:ILE:HG23	6:CF:87:ARG:HH12	1.80	0.46
34:DH:159:GLU:O	34:DH:163:TYR:OH	2.33	0.46
3:AC:65:ALA:O	3:AC:66:VAL:CB	2.63	0.46
27:BA:1766:U:H2'	27:BA:1767:C:H6	1.81	0.46
27:DA:2152:G:H2'	27:DA:2153:G:H8	1.81	0.46
1:AA:778:G:C2'	1:AA:779:C:H5'	2.45	0.46
28:BB:87:G:C3'	28:BB:88:C:H5''	2.45	0.46
27:DA:494:G:N2	45:DW:57:ASN:ND2	2.63	0.46
27:DA:2357:U:OP1	49:D0:20:ARG:NH1	2.48	0.46
34:DH:61:HIS:CD2	34:DH:64:LEU:HD12	2.50	0.46
1:CA:904:C:O2'	1:CA:905:U:H5'	2.14	0.46
27:BA:2404:C:H2'	27:BA:2405:G:O4'	2.15	0.46
6:AF:52:ILE:O	6:AF:53:ALA:HB3	2.15	0.46
18:CR:61:LYS:O	18:CR:65:ILE:HG13	2.15	0.46
27:DA:41:C:H2'	27:DA:42:G:H8	1.81	0.46
27:DA:2682:U:H5'	27:DA:2682:U:C6	2.51	0.46
4:AD:193:ASP:C	4:AD:194:LEU:HD22	2.35	0.46
2:AB:168:THR:HG23	2:AB:192:SER:HB3	1.97	0.46
40:BR:48:VAL:O	40:BR:49:ASP:C	2.54	0.46
27:BA:1469:A:O2'	27:BA:1470:G:H5'	2.15	0.46
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.39	0.46
48:DZ:93:GLU:O	48:DZ:95:VAL:N	2.49	0.46
10:CJ:32:ALA:HB3	10:CJ:76:ASN:HB2	1.98	0.46
31:DE:116:VAL:O	31:DE:117:MET:CB	2.63	0.46
32:BF:30:PRO:O	32:BF:31:HIS:C	2.54	0.46
44:DV:6:LYS:HE3	44:DV:7:THR:N	2.31	0.46
28:DB:14:U:O2'	28:DB:108:U:O2'	1.95	0.46
36:DN:15:LEU:HB2	36:DN:134:ARG:HB2	1.96	0.46
18:CR:44:LEU:HD11	18:CR:79:LEU:HD22	1.97	0.46
1:CA:1286:A:H2'	1:CA:1287:A:C4'	2.45	0.46
27:BA:870:A:C2	27:BA:871:U:H1'	2.50	0.46
27:DA:857:C:H1'	49:D0:26:TYR:CE2	2.50	0.46
9:AI:82:ALA:O	9:AI:86:VAL:HB	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:85:LEU:HD13	9:AI:92:TYR:HD2	1.81	0.46
31:BE:62:PRO:C	31:BE:64:LYS:N	2.69	0.46
40:DR:3:HIS:O	40:DR:4:LEU:C	2.53	0.46
32:BF:11:VAL:HG12	32:BF:12:LEU:N	2.20	0.46
48:BZ:150:HIS:HB2	48:BZ:168:GLU:O	2.16	0.46
27:BA:1531:C:C6	27:BA:1531:C:C5'	2.93	0.46
27:BA:581:C:OP1	43:BU:33:ARG:HG3	2.15	0.46
1:CA:253:U:O2	1:CA:275:G:H1'	2.16	0.46
27:BA:1479:G:C4	27:BA:1480:G:C8	3.03	0.46
43:BU:104:GLN:O	43:BU:107:ALA:N	2.38	0.46
27:DA:2199:A:C5'	27:DA:2200:C:OP2	2.56	0.46
5:AE:113:ALA:HB3	5:AE:115:VAL:HG23	1.97	0.46
52:D3:37:LEU:HD12	52:D3:43:ILE:CG2	2.45	0.46
52:D3:7:LYS:C	52:D3:54:VAL:HG13	2.35	0.46
27:DA:2741:A:H2'	27:DA:2742:C:O4'	2.16	0.46
3:AC:63:ASN:CA	3:AC:98:ASN:HB3	2.46	0.46
27:BA:285:C:C3'	27:BA:286:C:H5''	2.45	0.46
19:AS:63:THR:CG2	19:AS:66:MET:HE3	2.45	0.46
3:CC:113:ALA:CA	3:CC:202:ILE:HD11	2.44	0.46
3:CC:39:ILE:HG22	3:CC:43:LEU:HD12	1.97	0.46
19:AS:31:ILE:HG21	19:AS:49:ILE:HG13	1.96	0.46
38:DP:18:ARG:HD2	38:DP:18:ARG:HA	1.67	0.46
27:BA:763:G:O2'	27:BA:764:A:H3'	2.16	0.46
1:CA:1001(A):G:O2'	1:CA:1002:G:H5'	2.15	0.46
16:CP:20:VAL:CG2	16:CP:21:VAL:N	2.79	0.46
27:BA:2224:G:O2'	27:BA:2225:A:O4'	2.31	0.46
27:DA:481:G:C2'	27:DA:482:A:OP2	2.64	0.46
11:CK:93:GLN:H	11:CK:93:GLN:CD	2.18	0.46
46:BX:31:HIS:CD2	46:BX:33:LYS:H	2.32	0.46
42:DT:24:PRO:CD	42:DT:52:ILE:HD11	2.46	0.46
11:AK:21:ILE:HD13	11:AK:82:VAL:HG13	1.96	0.46
3:AC:119:ARG:HG3	3:AC:119:ARG:HH11	1.81	0.46
20:AT:26:ASN:HD22	20:AT:27:LYS:N	2.13	0.46
49:B0:51:VAL:CG2	49:B0:80:HIS:HA	2.45	0.46
3:AC:52:LEU:HD23	3:AC:52:LEU:N	2.23	0.46
27:DA:2564:A:OP1	27:DA:2648:C:H4'	2.15	0.46
2:AB:95:GLN:CG	2:AB:148:TYR:HD1	2.25	0.46
27:DA:313:C:H2'	27:DA:314:A:C8	2.50	0.46
27:DA:2098:U:O2	27:DA:2192:G:N2	2.48	0.46
58:B9:26:ILE:HG22	58:B9:27:CYS:N	2.31	0.46
39:BQ:68:ILE:HD13	39:BQ:103:MET:CB	2.45	0.46
1:CA:1091:U:C2	1:CA:1095:U:C4	3.03	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:128:ARG:CZ	33:BG:128:ARG:HB3	2.46	0.46
1:AA:359:U:H2'	1:AA:360:A:H8	1.78	0.46
29:DC:44:HIS:HA	29:DC:175:VAL:H	1.80	0.46
27:DA:2221:G:C2'	27:DA:2222:G:H5''	2.46	0.46
47:BY:2:ARG:HA	47:BY:2:ARG:HH11	1.80	0.46
48:DZ:60:LEU:HD22	48:DZ:60:LEU:H	1.81	0.46
27:BA:2122:U:H2'	27:BA:2123:G:C8	2.51	0.46
43:DU:26:GLY:C	43:DU:28:ARG:N	2.68	0.46
16:AP:12:LYS:O	16:AP:13:HIS:HB2	2.15	0.46
30:DD:226:MET:SD	30:DD:231:HIS:HB2	2.56	0.46
1:CA:786:G:C2	1:CA:797:C:C2	3.04	0.46
2:AB:19:HIS:CG	2:AB:20:GLU:N	2.83	0.46
1:CA:826:C:H5'	8:CH:12:ARG:NH2	2.28	0.46
27:BA:271(J):C:H2'	27:BA:271(K):U:H5''	1.98	0.46
27:DA:2767:C:H2'	27:DA:2768:C:C6	2.50	0.46
1:AA:684:A:H1'	11:AK:38:ASN:HB3	1.96	0.46
1:AA:1469:G:H2'	1:AA:1470:G:C8	2.51	0.46
50:B1:64:ALA:HA	50:B1:67:ILE:CD1	2.45	0.46
5:CE:98:THR:HB	5:CE:117:ASP:HB3	1.98	0.46
27:DA:2824:C:H2'	27:DA:2825:C:H5'	1.98	0.46
11:AK:41:THR:HG21	11:AK:71:LYS:HB2	1.97	0.46
3:AC:54:ARG:HG2	3:AC:54:ARG:HH11	1.80	0.46
27:BA:83:G:N2	27:BA:102:G:H2'	2.31	0.46
13:CM:73:GLU:O	13:CM:77:ASN:HB2	2.16	0.46
27:DA:2278:A:H2'	27:DA:2279:G:O5'	2.15	0.46
56:D7:17:GLY:O	56:D7:21:ARG:HG2	2.14	0.46
27:DA:182:A:H2	27:DA:433:C:O2	1.99	0.46
2:CB:231:GLU:N	2:CB:231:GLU:OE1	2.49	0.46
1:AA:1192:C:H6	1:AA:1192:C:O5'	1.97	0.46
1:AA:1092:A:O4'	1:AA:1183:A:N6	2.48	0.46
38:BP:128:HIS:O	38:BP:129:ALA:HB2	2.16	0.46
35:DI:79:ILE:O	35:DI:143:SER:OG	2.33	0.46
42:BT:19:LEU:HA	42:BT:20:PRO:HD3	1.71	0.46
54:B5:54:GLY:O	54:B5:56:LYS:CD	2.63	0.46
35:BI:77:LEU:HD12	35:BI:101:LEU:HD22	1.97	0.46
3:CC:6:HIS:CD2	3:CC:8:ILE:HG12	2.50	0.46
10:CJ:48:THR:CA	10:CJ:62:HIS:HB3	2.45	0.46
3:CC:9:GLY:CA	14:CN:49:HIS:HA	2.42	0.46
27:DA:1040:C:O2'	27:DA:1041:C:OP2	2.32	0.46
48:DZ:6:ALA:C	48:DZ:7:TYR:CD1	2.89	0.46
27:DA:2369:A:O2'	27:DA:2370:G:H5'	2.15	0.46
10:CJ:5:ARG:HG2	10:CJ:71:LEU:HD11	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:96:ILE:N	10:CJ:96:ILE:HD13	2.30	0.46
27:BA:1017:G:N2	27:BA:1018:C:H1'	2.30	0.46
27:DA:1795:C:O2	30:DD:255:LYS:NZ	2.47	0.46
43:DU:92:ARG:HH11	43:DU:92:ARG:CG	2.27	0.46
33:DG:137:GLU:HB3	33:DG:139:LEU:CD2	2.45	0.46
33:DG:55:LYS:C	33:DG:57:ALA:N	2.69	0.46
33:DG:61:ALA:HA	33:DG:64:THR:CG2	2.46	0.46
33:DG:83:ARG:O	33:DG:87:PRO:HG2	2.14	0.46
20:CT:50:GLU:HG3	20:CT:51:GLU:H	1.80	0.46
30:BD:36:PRO:CB	30:BD:61:LEU:HD12	2.45	0.46
17:AQ:3:LYS:HD2	17:AQ:60:ILE:HD11	1.97	0.46
42:DT:42:ILE:HG21	42:DT:83:ILE:CD1	2.45	0.46
14:AN:44:LEU:C	14:AN:44:LEU:CD1	2.80	0.46
45:DW:14:PRO:O	45:DW:17:VAL:HG22	2.16	0.46
45:DW:20:VAL:HG11	45:DW:44:ALA:CA	2.46	0.46
9:AI:49:PRO:HB3	9:AI:101:PHE:CD2	2.50	0.46
9:AI:51:ARG:O	9:AI:54:ASP:N	2.47	0.46
27:DA:2056:G:H4'	54:D5:8:LYS:NZ	2.31	0.46
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.96	0.46
47:DY:37:VAL:O	47:DY:38:ILE:CB	2.64	0.46
32:DF:117:ARG:NH2	38:DP:5:ASP:N	2.63	0.46
1:CA:270:A:H2'	1:CA:271:C:H6	1.78	0.46
17:CQ:45:HIS:HB2	17:CQ:69:LYS:HE2	1.97	0.46
41:BS:16:ASN:O	41:BS:20:ARG:NH1	2.45	0.46
41:BS:89:ARG:CB	41:BS:92:TYR:HB3	2.43	0.46
39:DQ:110:THR:HG23	39:DQ:113:GLN:CB	2.45	0.46
27:DA:2468:G:N2	27:DA:2481:G:C2'	2.79	0.46
34:BH:44:VAL:HG12	34:BH:45:VAL:N	2.31	0.46
1:CA:957:U:O2	1:CA:960:U:H5''	2.16	0.46
27:BA:480:A:H1'	47:BY:44:ILE:HG21	1.97	0.46
27:DA:2231:C:C4	27:DA:2232:U:C5	3.04	0.46
3:AC:22:TRP:HB2	3:AC:59:ARG:HB2	1.97	0.46
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.30	0.46
34:DH:85:LYS:HE3	34:DH:144:VAL:HB	1.98	0.46
36:BN:128:HIS:NE2	36:BN:134:ARG:HG2	2.31	0.46
27:BA:1771:C:C1'	27:BA:1786:A:C8	2.98	0.46
27:BA:2845:G:H5''	42:BT:55:ASN:HA	1.97	0.46
4:CD:19:LEU:HD23	4:CD:21:LEU:HD21	1.96	0.46
4:CD:63:LYS:O	4:CD:67:ILE:HG13	2.16	0.46
27:DA:71:A:C8	27:DA:71:A:H5'	2.51	0.46
41:DS:73:LEU:O	41:DS:77:ALA:HB2	2.16	0.46
3:CC:138:VAL:HG12	3:CC:170:GLN:NE2	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DG:98:ARG:O	33:DG:101:ILE:CG2	2.63	0.46
34:DH:12:PRO:HA	34:DH:15:VAL:HG21	1.97	0.46
5:CE:11:ILE:CG1	5:CE:33:VAL:HG23	2.45	0.46
50:B1:46:LEU:HD11	50:B1:61:ARG:HH12	1.79	0.46
27:DA:6:A:O2'	36:DN:130:HIS:CB	2.64	0.46
18:AR:72:ARG:O	18:AR:76:LEU:HD23	2.15	0.46
27:BA:699:A:H2'	27:BA:700:G:O4'	2.15	0.46
8:CH:103:VAL:HG21	8:CH:109:ILE:HA	1.94	0.46
52:D3:17:LYS:O	52:D3:20:LYS:HB2	2.15	0.46
1:AA:1003:G:H2'	1:AA:1004:A:O4'	2.16	0.46
1:AA:1066:C:H6	1:AA:1066:C:H5''	1.81	0.46
32:DF:192:LEU:HD21	32:DF:194:MET:CE	2.46	0.46
27:BA:1006:C:C2	27:BA:1138:G:N2	2.84	0.46
19:CS:11:VAL:HG23	19:CS:38:SER:HB2	1.98	0.46
11:AK:50:TYR:HE2	11:AK:54:ARG:NH1	2.13	0.46
35:BI:48:GLU:C	35:BI:50:ARG:N	2.68	0.46
27:DA:1825:A:OP1	30:DD:249:PRO:HD3	2.16	0.46
30:BD:222:ARG:NH2	30:BD:225:ALA:HB2	2.31	0.46
1:CA:1120:G:O5'	1:CA:1120:G:H8	1.99	0.46
37:BO:86:ILE:CG2	37:BO:94:ARG:HG3	2.44	0.46
5:AE:12:LEU:HD23	5:AE:13:ILE:N	2.29	0.46
27:DA:178:G:H2'	27:DA:179:G:H8	1.80	0.46
8:CH:24:THR:HG22	8:CH:25:ASP:O	2.15	0.46
27:BA:2320:A:H2'	27:BA:2320:A:N3	2.31	0.46
20:AT:10:LEU:HD23	20:AT:12:ALA:H	1.80	0.46
27:DA:1817:G:C2'	27:DA:1818:U:H5'	2.44	0.46
27:DA:820:A:N3	27:DA:943:U:H4'	2.31	0.46
35:DI:25:TYR:CE2	35:DI:29:TYR:CD2	3.04	0.46
27:DA:2337:G:H2'	27:DA:2338:G:H8	1.81	0.46
1:CA:1337:G:H5''	1:CA:1338:G:OP1	2.16	0.46
27:DA:2074:U:H2'	27:DA:2075:U:C6	2.51	0.46
31:DE:193:GLY:O	31:DE:194:GLY:C	2.53	0.46
1:CA:1253:G:O2'	1:CA:1254:C:H5'	2.15	0.46
1:CA:370:C:O2'	1:CA:371:G:H5'	2.15	0.46
46:BX:40:LYS:HG3	46:BX:51:VAL:HB	1.96	0.46
27:BA:1612:C:O3'	56:B7:5:TRP:HD1	1.98	0.46
35:DI:114:LEU:HA	35:DI:129:THR:O	2.16	0.46
35:DI:81:VAL:HG23	35:DI:143:SER:H	1.80	0.46
35:DI:75:LEU:HG	35:DI:77:LEU:CG	2.46	0.46
27:DA:893:C:O2'	27:DA:894:C:H5'	2.15	0.46
1:CA:1188:A:H2'	1:CA:1189:C:H5'	1.97	0.46
46:DX:12:VAL:HG12	46:DX:27:THR:OG1	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AX:19:G:H4'	24:AX:20:U:OP2	2.16	0.46
1:CA:522:C:H41	12:CL:50:ARG:NH2	2.13	0.46
38:DP:111:ARG:HA	38:DP:128:HIS:HD2	1.77	0.46
41:DS:74:ALA:HB2	41:DS:101:LEU:CD2	2.45	0.46
41:DS:27:SER:HA	41:DS:88:ASP:CB	2.45	0.46
44:DV:40:LEU:N	44:DV:40:LEU:CD2	2.79	0.46
33:DG:27:ASN:O	33:DG:28:VAL:HB	2.15	0.46
33:DG:91:ARG:C	33:DG:91:ARG:CD	2.84	0.46
20:CT:50:GLU:HA	20:CT:100:ILE:HG12	1.98	0.46
36:DN:55:VAL:O	36:DN:56:ASN:C	2.53	0.46
13:AM:25:ILE:CG2	13:AM:30:ALA:HB2	2.46	0.46
1:CA:1178:G:N2	1:CA:1180:A:H3'	2.30	0.46
30:BD:145:VAL:HG12	30:BD:146:GLU:O	2.16	0.46
39:DQ:78:PRO:O	39:DQ:79:LEU:C	2.53	0.46
37:DO:19:ILE:HG22	37:DO:43:VAL:HA	1.98	0.46
37:DO:43:VAL:HG11	37:DO:46:ALA:HB2	1.96	0.46
31:DE:57:LYS:C	31:DE:59:VAL:N	2.69	0.46
1:AA:971:G:H5''	1:AA:972:C:H5''	1.98	0.46
1:AA:943:U:H1'	9:AI:124:GLN:HE22	1.79	0.46
45:DW:41:LYS:C	45:DW:43:GLY:N	2.67	0.46
1:AA:1128:C:C4	1:AA:1139:G:C4	3.04	0.46
31:DE:119:ARG:HH11	31:DE:160:TYR:HB2	1.80	0.46
40:DR:33:ARG:HE	40:DR:115:GLU:CD	2.19	0.46
1:AA:93:G:C2'	1:AA:96:U:C5'	2.77	0.46
3:CC:70:VAL:HG12	3:CC:71:ALA:H	1.81	0.46
30:DD:111:LEU:HA	30:DD:115:GLN:HE22	1.79	0.46
17:CQ:21:VAL:O	17:CQ:41:LYS:HA	2.15	0.46
23:AW:26:C:H2'	23:AW:27:C:C6	2.50	0.46
49:B0:42:GLY:HA2	49:B0:57:PHE:HD2	1.79	0.46
13:CM:66:LEU:HA	13:CM:70:LEU:HD12	1.98	0.46
45:BW:68:ARG:CD	45:BW:110:LYS:HB3	2.43	0.46
27:BA:227:A:H5''	38:BP:76:LYS:CE	2.36	0.46
34:DH:123:PHE:HA	34:DH:133:VAL:HA	1.96	0.46
34:DH:84:SER:O	34:DH:85:LYS:CB	2.63	0.46
36:DN:103:VAL:O	36:DN:106:MET:N	2.49	0.46
1:CA:1106:G:H5''	3:CC:172:ARG:HD3	1.96	0.46
5:AE:53:LEU:H	5:AE:53:LEU:HD12	1.81	0.46
27:DA:2808:U:C2'	27:DA:2809:A:H5'	2.44	0.46
27:BA:784:A:H5'	27:BA:785:G:OP1	2.16	0.46
38:DP:48:PRO:O	38:DP:51:PHE:N	2.48	0.46
1:CA:624:C:H4'	16:CP:10:GLY:HA2	1.97	0.46
12:AL:87:VAL:O	12:AL:88:LYS:C	2.54	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:52:LEU:CD2	3:CC:52:LEU:N	2.78	0.46
1:AA:1401:G:H2'	1:AA:1402:C:O4'	2.15	0.46
42:DT:61:PHE:H	42:DT:61:PHE:HD2	1.64	0.46
3:AC:107:GLN:HB3	3:AC:108:ASN:H	1.51	0.46
31:BE:176:ILE:N	31:BE:176:ILE:CD1	2.78	0.46
1:AA:1074:G:O4'	2:AB:104:ASN:ND2	2.48	0.46
27:BA:2300:G:O2'	27:BA:2301:C:H5'	2.16	0.46
27:DA:1971:A:C8	30:DD:241:PRO:HB3	2.51	0.46
4:CD:22:LYS:CB	4:CD:26:CYS:SG	3.02	0.46
31:BE:201:THR:OG1	31:BE:202:LYS:N	2.49	0.46
43:DU:113:ALA:C	43:DU:115:ALA:N	2.68	0.46
27:DA:1719:G:H2'	27:DA:1720:U:H5'	1.97	0.46
48:BZ:23:LEU:HA	48:BZ:24:PRO:HD3	1.81	0.46
8:AH:64:LYS:C	8:AH:65:TYR:CD1	2.88	0.46
4:AD:91:SER:O	4:AD:93:PHE:N	2.49	0.46
1:CA:286:G:H2'	1:CA:287:U:O4'	2.16	0.46
27:BA:2100:G:H1	27:BA:2189:U:H3	1.63	0.46
27:DA:2406:U:O4	38:DP:70:GLN:CB	2.62	0.46
27:DA:1581:G:H2'	27:DA:1582:C:O4'	2.16	0.46
7:CG:52:GLU:C	7:CG:54:THR:N	2.69	0.46
48:DZ:143:LEU:HD12	48:DZ:147:ASP:CB	2.46	0.46
48:BZ:93:GLU:C	48:BZ:95:VAL:H	2.19	0.46
38:DP:114:ILE:HD12	38:DP:115:LEU:H	1.78	0.46
27:BA:481:G:C4	27:BA:507:A:C2	3.04	0.46
27:DA:2543:G:O2'	27:DA:2544:G:H5'	2.16	0.46
27:BA:619:G:P	27:BA:620:G:H22	2.39	0.46
1:CA:1000:U:N3	1:CA:1042:G:N2	2.62	0.46
32:DF:118:ALA:C	32:DF:120:GLU:N	2.69	0.46
27:BA:2784:C:H1'	31:BE:37:ARG:NH1	2.27	0.46
1:CA:940:C:H2'	1:CA:941:G:C8	2.50	0.46
27:DA:614(A):U:H5''	27:DA:614(B):G:OP1	2.15	0.46
1:AA:448:A:C5	1:AA:487:A:C2	3.04	0.46
1:AA:1512:U:H2'	1:AA:1513:A:C8	2.50	0.46
1:CA:744:C:O2'	1:CA:745:C:H5'	2.15	0.46
1:AA:1413:A:C2	1:AA:1414:U:C2	3.04	0.46
2:CB:104:ASN:O	2:CB:106:LYS:N	2.49	0.46
27:BA:672:C:H2'	27:BA:673:C:H6	1.80	0.46
27:BA:1448:G:H5'	27:BA:1449:A:OP1	2.15	0.46
10:CJ:12:ASP:CG	10:CJ:15:THR:HG23	2.36	0.46
27:DA:1399:C:O2'	27:DA:1400:G:H5'	2.15	0.46
27:DA:1599:C:C2	27:DA:1600:C:C5	3.03	0.46
51:B2:6:VAL:O	51:B2:9:GLN:N	2.49	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:B5:41:PRO:HG2	54:B5:44:THR:OG1	2.16	0.46
49:D0:72:ARG:HE	49:D0:75:LEU:HD13	1.81	0.46
25:AY:28:G:H2'	25:AY:29:G:C8	2.50	0.46
2:CB:44:LEU:H	2:CB:44:LEU:CD1	2.28	0.46
27:BA:81:G:C2	27:BA:106:C:N3	2.84	0.46
1:AA:411:A:H2	1:AA:431:A:N6	2.14	0.46
27:BA:2741:A:H2'	27:BA:2742:C:O4'	2.15	0.46
34:DH:95:ARG:HB2	34:DH:128:PRO:O	2.16	0.46
27:BA:1808:U:H2'	27:BA:1809:A:O4'	2.16	0.46
11:AK:32:ILE:HD12	11:AK:68:ALA:O	2.15	0.46
9:CI:23:ASN:O	9:CI:57:GLY:O	2.33	0.46
3:CC:139:GLN:O	3:CC:143:GLU:HB2	2.14	0.46
27:DA:1848:A:C4	27:DA:1849:G:C8	3.04	0.46
1:AA:757:U:H2'	1:AA:758:G:O4'	2.14	0.46
27:BA:2623:G:H5'	27:BA:2826:A:O2'	2.16	0.46
27:BA:2683:C:H2'	27:BA:2684:U:C6	2.51	0.46
3:AC:67:THR:HG23	3:AC:102:ASN:HB2	1.96	0.46
1:CA:1109:C:H2'	1:CA:1110:A:O4'	2.15	0.46
1:AA:699:C:C4	1:AA:700:G:N7	2.84	0.46
40:DR:6:SER:O	40:DR:7:GLY:O	2.33	0.46
27:DA:2239:G:H5'	30:DD:251:GLY:HA3	1.97	0.46
3:AC:162:GLN:NE2	3:AC:162:GLN:HA	2.30	0.46
48:DZ:10:GLU:CD	48:DZ:10:GLU:H	2.18	0.46
30:BD:176:ARG:HG2	30:BD:176:ARG:HH11	1.80	0.46
41:DS:36:TYR:CD1	41:DS:36:TYR:N	2.81	0.46
29:BC:211:SER:HA	29:BC:219:GLY:O	2.15	0.46
35:DI:131:LYS:HE3	35:DI:133:HIS:CE1	2.51	0.46
27:BA:2849:U:O4	42:BT:23:ARG:NH2	2.48	0.46
47:BY:10:GLY:C	47:BY:27:VAL:HG22	2.36	0.46
35:BI:110:ASP:O	35:BI:114:LEU:CD2	2.63	0.46
3:CC:5:ILE:CD1	3:CC:6:HIS:N	2.76	0.46
38:DP:101:VAL:CG2	38:DP:102:ARG:N	2.77	0.46
41:DS:74:ALA:HB1	41:DS:103:GLU:CB	2.46	0.46
27:BA:659:C:H1'	32:BF:102:PRO:CD	2.46	0.46
32:BF:36:VAL:O	32:BF:40:GLN:HG3	2.15	0.46
27:DA:2305:A:C4	33:DG:154:GLY:HA3	2.50	0.46
17:AQ:4:LYS:HE3	17:AQ:6:LEU:HD21	1.97	0.46
9:AI:46:ALA:HB2	9:AI:74:ILE:CG2	2.45	0.46
27:DA:748:G:OP1	27:DA:2612:C:N4	2.49	0.46
2:CB:98:LEU:O	2:CB:101:MET:HG3	2.16	0.46
20:CT:57:ARG:NH1	20:CT:57:ARG:HB2	2.29	0.46
29:DC:53:ARG:O	29:DC:54:SER:HB3	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DX:50:LYS:HD3	46:DX:84:ALA:CB	2.31	0.46
29:BC:99:ILE:HG22	29:BC:99:ILE:O	2.15	0.46
59:CX:61:C:O2'	59:CX:62:C:O5'	2.34	0.46
1:CA:323:U:H5'	20:CT:23:ARG:HA	1.98	0.46
40:BR:3:HIS:O	40:BR:4:LEU:CB	2.64	0.46
52:D3:8:LEU:HB2	52:D3:28:LEU:CD1	2.46	0.46
52:D3:32:GLN:OE1	52:D3:32:GLN:HA	2.16	0.46
1:CA:102:G:N1	1:CA:103:C:C5	2.84	0.46
1:CA:67:C:O2	1:CA:171:A:C2	2.68	0.46
27:DA:1402:C:O2'	27:DA:1403:C:H5'	2.16	0.46
34:BH:85:LYS:HZ2	34:BH:133:VAL:HB	1.81	0.46
3:AC:64:VAL:CG2	3:AC:64:VAL:O	2.63	0.46
1:CA:923:A:H2	1:CA:1395:C:N3	2.14	0.46
1:CA:1398:A:H5''	1:CA:1398:A:H8	1.80	0.46
1:CA:15:G:C4'	5:CE:24:ARG:HH22	2.28	0.46
27:BA:1042:G:C1'	27:BA:1114:G:H22	2.20	0.46
27:DA:252:G:P	38:DP:50:ARG:HH11	2.38	0.46
38:DP:48:PRO:HG2	38:DP:49:ARG:H	1.81	0.46
30:DD:131:LEU:CD1	30:DD:131:LEU:N	2.79	0.46
1:AA:1464:G:O2'	1:AA:1465:C:H5'	2.16	0.46
45:DW:50:VAL:HG11	45:DW:103:ILE:HG21	1.97	0.46
27:BA:1786:A:C2	27:BA:2606:C:H1'	2.51	0.46
47:BY:84:ARG:NH1	47:BY:84:ARG:CG	2.77	0.46
1:AA:191:G:H1'	20:AT:105:SER:HA	1.98	0.46
1:AA:676:A:C5	1:AA:677:U:C5	3.04	0.46
31:BE:4:ILE:O	31:BE:4:ILE:HG23	2.15	0.46
24:AX:61:C:O2'	24:AX:62:C:H5'	2.16	0.46
27:DA:479:A:HO2'	27:DA:481:G:H8	1.63	0.46
27:DA:481:G:O2'	27:DA:482:A:OP2	2.29	0.46
48:BZ:69:LEU:HB2	48:BZ:90:LEU:HD11	1.97	0.46
50:B1:77:ALA:HA	50:B1:80:LEU:CD1	2.45	0.46
6:CF:81:ILE:HG13	6:CF:82:ARG:N	2.31	0.46
27:BA:848:G:H5'	27:BA:848:G:C8	2.47	0.46
17:CQ:13:ASP:HA	17:CQ:19:VAL:HG12	1.97	0.46
7:AG:132:GLY:O	7:AG:135:VAL:N	2.45	0.46
27:DA:1495:A:C8	27:DA:1495:A:OP1	2.69	0.46
23:AW:45:U:H4'	23:AW:46:U:C6	2.51	0.46
1:CA:1375:A:H4'	7:CG:29:LYS:NZ	2.31	0.46
27:DA:359:A:H2'	27:DA:360:G:C5'	2.46	0.46
25:AY:37:U:H2'	25:AY:38:U:C4'	2.45	0.46
25:AY:37:U:H2'	25:AY:38:U:C5'	2.44	0.46
29:DC:45:ALA:HA	29:DC:210:ARG:CB	2.46	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:D1:62:VAL:CG2	50:D1:63:ALA:N	2.78	0.46
1:CA:828:A:H2'	1:CA:829:G:O4'	2.15	0.46
27:DA:1658:C:H2'	27:DA:1659:U:C6	2.51	0.46
35:DI:4:ILE:HD11	35:DI:44:LEU:HD12	1.96	0.46
16:AP:75:ARG:C	16:AP:77:ALA:N	2.67	0.46
1:AA:823:G:C6	1:AA:878:G:C6	3.04	0.46
30:BD:240:ALA:HB1	30:BD:241:PRO:HD2	1.96	0.46
27:BA:1376:C:C2'	27:BA:1377:G:H5'	2.45	0.46
34:DH:106:THR:CG2	34:DH:112:PRO:HB3	2.44	0.46
11:AK:44:SER:H	11:AK:47:VAL:HB	1.81	0.46
27:DA:265:A:H1'	27:DA:266:G:O4'	2.16	0.46
27:DA:2409:G:O2'	27:DA:2410:G:H5'	2.16	0.46
50:B1:64:ALA:HA	50:B1:67:ILE:HG13	1.96	0.46
1:AA:957:U:O2	1:AA:960:U:H5''	2.16	0.46
1:CA:1292:U:OP1	7:CG:41:ARG:NH2	2.49	0.46
48:BZ:62:ASP:OD2	48:BZ:64:GLN:NE2	2.49	0.46
35:BI:25:TYR:O	35:BI:29:TYR:HB3	2.15	0.46
27:DA:977:G:C6	27:DA:987:G:C6	3.04	0.46
27:DA:2038:G:H2'	27:DA:2039:C:O4'	2.16	0.46
2:AB:177:ALA:C	2:AB:179:LYS:N	2.69	0.46
29:DC:221:SER:O	29:DC:222:VAL:O	2.34	0.46
58:B9:4:ARG:O	58:B9:36:GLN:HA	2.16	0.46
39:DQ:2:LEU:HD12	39:DQ:2:LEU:HA	1.83	0.46
27:BA:2243:U:O2	27:BA:2434:A:C2	2.69	0.46
27:BA:1028:A:N6	27:BA:1125:G:H2'	2.30	0.46
43:BU:59:ARG:O	43:BU:63:VAL:HG23	2.15	0.46
28:BB:6:C:C2	28:BB:116:G:N2	2.84	0.46
57:B8:32:LEU:CD2	57:B8:32:LEU:H	2.28	0.46
57:B8:29:LYS:HB2	57:B8:33:ASN:ND2	2.31	0.46
38:BP:65:ARG:NH1	57:B8:46:ARG:HH21	2.13	0.46
35:DI:98:ALA:HA	35:DI:109:ILE:HG21	1.98	0.46
41:BS:97:ARG:C	41:BS:97:ARG:NE	2.69	0.46
47:BY:97:ARG:HE	47:BY:98:VAL:HG23	1.81	0.46
34:BH:54:ARG:CB	34:BH:65:HIS:HD2	2.28	0.46
10:CJ:3:LYS:HZ2	10:CJ:77:PRO:HD3	1.81	0.46
27:BA:89:G:H5'	27:BA:89:G:C8	2.47	0.46
27:DA:2574:G:O2'	31:DE:143:ASN:HB3	2.16	0.46
27:BA:1591:G:O2'	27:BA:1592:C:H5'	2.16	0.46
28:DB:113:G:N3	28:DB:113:G:H2'	2.30	0.46
28:DB:3:C:C4	28:DB:4:C:C4	3.03	0.46
33:DG:20:ILE:O	33:DG:24:GLY:N	2.48	0.46
33:DG:107:LEU:HD11	33:DG:178:PHE:CE1	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:72:LYS:HD3	30:BD:75:ILE:HD12	1.97	0.46
18:CR:36:ASN:HD22	18:CR:39:VAL:CB	2.27	0.46
44:BV:62:LEU:N	44:BV:62:LEU:HD22	2.30	0.46
1:CA:1288:A:N6	1:CA:1289:A:N6	2.64	0.46
1:CA:1371:G:O3'	9:CI:69:GLY:HA3	2.16	0.46
1:CA:1445:C:H2'	1:CA:1446:U:O4'	2.16	0.46
1:AA:1060:C:C5'	10:AJ:51:ARG:HB3	2.46	0.46
30:DD:97:TYR:C	30:DD:99:ASP:N	2.68	0.46
1:AA:1139:G:H5'	1:AA:1140:C:OP1	2.16	0.46
9:AI:79:LEU:HD13	9:AI:79:LEU:C	2.36	0.46
31:DE:113:PHE:HD2	31:DE:113:PHE:C	2.19	0.46
31:DE:110:GLY:O	40:DR:2:ARG:NE	2.49	0.46
47:DY:30:VAL:HG22	47:DY:37:VAL:HG12	1.98	0.46
27:BA:1484:G:H3'	27:BA:1485:G:C5'	2.36	0.46
27:DA:2092:U:C4'	27:DA:2093:G:O5'	2.58	0.46
27:DA:2468:G:H22	27:DA:2481:G:C2'	2.27	0.46
58:D9:18:ARG:HA	58:D9:22:ARG:O	2.15	0.46
23:CW:34:U:C2'	23:CW:35:G:H5'	2.45	0.46
1:CA:959:A:C3'	1:CA:960:U:H4'	2.46	0.46
39:BQ:60:ARG:H	48:BZ:178:ASP:N	2.14	0.46
11:AK:124:LYS:O	11:AK:124:LYS:HG2	2.15	0.46
1:CA:559:A:OP1	5:CE:126:ARG:NH2	2.49	0.46
53:D4:41:ILE:N	53:D4:57:ILE:O	2.43	0.46
32:BF:157:VAL:HA	32:BF:176:LEU:O	2.16	0.46
27:DA:563:G:C4	27:DA:564:C:C5	3.04	0.46
10:AJ:6:ILE:HD11	10:AJ:72:VAL:CB	2.43	0.46
1:CA:968:A:H4'	1:CA:969:A:OP2	2.16	0.46
16:CP:74:LEU:HD23	16:CP:79:VAL:CG2	2.44	0.46
27:DA:2532:G:H2'	27:DA:2533:A:C8	2.51	0.46
27:DA:2352:A:C2	49:D0:33:ALA:HB1	2.36	0.46
33:DG:101:ILE:HD13	33:DG:105:LYS:HE3	1.96	0.46
1:AA:67:C:H2'	1:AA:68:G:C8	2.51	0.46
49:B0:49:LYS:O	49:B0:50:ASN:HB2	2.16	0.46
27:BA:382:G:H1	27:BA:392:C:N4	2.05	0.46
27:BA:1999:C:H2'	27:BA:2000:G:O4'	2.16	0.46
46:BX:25:LYS:NZ	46:BX:82:GLN:NE2	2.64	0.46
7:AG:132:GLY:O	7:AG:133:GLY:C	2.53	0.46
27:DA:2308:G:H22	33:DG:79:ASN:CG	2.19	0.46
54:B5:57:VAL:C	54:B5:58:LEU:HG	2.35	0.46
28:BB:96:U:H2'	28:BB:97:G:H8	1.80	0.46
1:CA:1308:U:H5'	13:CM:110:ARG:HD2	1.97	0.46
27:DA:993:G:O2'	44:DV:89:GLN:HG3	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:207:VAL:HG12	3:AC:207:VAL:O	2.15	0.46
12:CL:66:TYR:HE2	12:CL:68:PRO:HA	1.81	0.46
1:CA:590:C:O2'	1:CA:591:U:H5'	2.16	0.46
48:BZ:56:ILE:HG22	48:BZ:58:LEU:HD23	1.98	0.46
6:AF:98:LEU:O	6:AF:98:LEU:HD12	2.15	0.46
43:DU:26:GLY:C	43:DU:28:ARG:H	2.18	0.46
37:DO:49:ARG:NH1	37:DO:49:ARG:HG2	2.31	0.46
40:DR:78:LYS:O	40:DR:82:GLU:HB3	2.16	0.46
27:DA:1497:U:O2	27:DA:1497:U:C2'	2.64	0.46
27:DA:2884:U:H2'	27:DA:2885:C:H5'	1.98	0.46
30:DD:125:ILE:O	30:DD:126:GLN:CB	2.62	0.46
30:DD:109:ASP:OD1	30:DD:197:GLY:HA2	2.15	0.46
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.15	0.46
11:AK:29:ILE:HG13	11:AK:29:ILE:O	2.14	0.46
27:BA:244:A:O3'	38:BP:74:GLU:HB3	2.16	0.46
51:B2:15:LYS:O	51:B2:15:LYS:HG3	2.15	0.46
43:DU:20:LEU:O	43:DU:20:LEU:HD13	2.16	0.46
51:D2:40:SER:C	51:D2:42:GLY:N	2.68	0.46
27:DA:593:G:H2'	27:DA:594:U:C6	2.50	0.46
27:BA:2567:G:H2'	27:BA:2568:C:C6	2.51	0.46
35:BI:31:LEU:HB2	35:BI:32:PRO:HD3	1.98	0.46
45:DW:9:TYR:H	45:DW:102:HIS:CD2	2.34	0.46
27:BA:280:C:C5	27:BA:281:G:N7	2.84	0.46
36:DN:114:ARG:O	36:DN:118:LYS:HG3	2.16	0.46
1:CA:908:A:H2'	1:CA:909:A:H8	1.81	0.46
33:DG:36:LYS:HB3	33:DG:95:ARG:NH1	2.31	0.46
46:BX:65:ARG:HH11	46:BX:65:ARG:HG2	1.81	0.46
1:AA:341:C:H2'	1:AA:342:C:C6	2.51	0.46
1:AA:342:C:N3	1:AA:348:G:C2	2.84	0.46
55:B6:15:GLU:OE1	55:B6:41:PRO:CB	2.63	0.46
55:B6:41:PRO:HD2	55:B6:45:LYS:HA	1.98	0.46
47:BY:96:ILE:CG2	47:BY:97:ARG:H	2.29	0.46
42:BT:76:PHE:HA	42:BT:77:PRO:HD3	1.76	0.46
54:B5:53:ALA:HA	54:B5:56:LYS:NZ	2.31	0.46
53:B4:67:PRO:O	53:B4:68:PHE:CG	2.69	0.46
27:BA:2305:A:C4	33:BG:154:GLY:HA3	2.51	0.46
33:BG:52:ILE:HG22	33:BG:54:GLU:CG	2.46	0.46
33:BG:64:THR:CG2	33:BG:65:GLY:N	2.76	0.46
3:CC:8:ILE:C	3:CC:10:PHE:N	2.69	0.46
10:CJ:50:ILE:HD13	10:CJ:50:ILE:H	1.80	0.46
14:CN:24:CYS:H	14:CN:33:VAL:HG11	1.81	0.46
57:D8:32:LEU:HB3	57:D8:36:LYS:HD2	1.96	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2418:A:C2	27:DA:2419:U:C2	3.04	0.46
27:BA:2482:G:C2	27:BA:2483:C:H1'	2.50	0.46
27:BA:2732:G:C3'	27:BA:2733:A:C5'	2.94	0.46
13:CM:14:ARG:HG3	13:CM:16:ASP:OD2	2.16	0.46
33:DG:117:PHE:CZ	33:DG:119:GLY:O	2.68	0.46
36:DN:22:THR:OG1	36:DN:25:ARG:HB2	2.15	0.46
48:DZ:78:ARG:H	48:DZ:78:ARG:HD2	1.78	0.46
42:DT:32:TYR:HB3	42:DT:81:PRO:HB3	1.97	0.46
1:CA:1320:C:H6	1:CA:1320:C:H5'	1.80	0.46
1:AA:942:G:N2	9:AI:124:GLN:NE2	2.51	0.46
31:BE:78:LEU:H	31:BE:78:LEU:HD23	1.80	0.46
2:AB:163:PHE:CE1	2:AB:215:LEU:HD23	2.51	0.46
32:DF:117:ARG:CZ	38:DP:5:ASP:N	2.78	0.46
19:CS:20:LEU:HA	19:CS:23:ASN:HB3	1.97	0.46
27:BA:26:G:C6	27:BA:27:G:N1	2.84	0.46
27:BA:643:A:C2	27:BA:644:A:C4	3.03	0.46
43:BU:112:ARG:CZ	44:BV:46:VAL:HG11	2.46	0.46
35:BI:65:ALA:O	35:BI:69:LYS:HB2	2.16	0.46
11:CK:46:GLY:CA	11:CK:55:LYS:HD3	2.46	0.46
59:CX:19:G:C3'	59:CX:20:U:C5'	2.83	0.46
4:CD:108:LEU:HB3	4:CD:110:PHE:CD1	2.51	0.46
52:D3:7:LYS:HB2	52:D3:34:GLU:HG2	1.98	0.46
1:CA:1226:C:H6	13:CM:103:THR:OG1	1.99	0.46
39:BQ:60:ARG:HB3	39:BQ:60:ARG:NH1	2.31	0.46
27:DA:904:C:H2'	27:DA:905:U:H5'	1.97	0.46
19:AS:41:VAL:CG1	19:AS:42:PRO:CD	2.92	0.46
40:DR:9:LYS:HE3	40:DR:43:GLU:OE2	2.16	0.46
34:DH:121:ILE:CG2	34:DH:133:VAL:HG12	2.46	0.46
27:DA:1006:C:O2'	36:DN:106:MET:O	2.34	0.46
18:CR:35:ARG:C	18:CR:37:VAL:H	2.17	0.46
1:AA:657:G:O2'	1:AA:658:G:H5'	2.16	0.46
30:BD:8:PRO:C	30:BD:10:THR:N	2.70	0.46
10:AJ:24:VAL:HG22	10:AJ:72:VAL:HG11	1.97	0.46
27:DA:2262:U:O2'	27:DA:2263:C:C5'	2.64	0.46
30:BD:139:GLY:O	30:BD:164:GLN:HG3	2.16	0.46
27:DA:2131:G:H5'	27:DA:2133:G:O5'	2.15	0.46
27:DA:1568:G:P	30:DD:63:ARG:HH22	2.39	0.46
12:AL:22:PRO:O	12:AL:24:LEU:N	2.48	0.46
12:AL:42:PRO:HB3	12:AL:50:ARG:NH1	2.31	0.46
1:AA:1314:C:N4	19:AS:4:SER:N	2.64	0.46
27:DA:2011:U:H2'	27:DA:2012:G:H5'	1.97	0.46
4:CD:137:SER:O	4:CD:138:TYR:C	2.54	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:95:ILE:HG22	11:CK:96:ARG:N	2.30	0.46
1:AA:667:G:H4'	15:AO:51:HIS:CE1	2.51	0.46
2:AB:75:LYS:HA	2:AB:78:GLN:HG3	1.96	0.46
30:DD:32:SER:O	30:DD:33:LEU:C	2.55	0.46
1:AA:324:G:N2	1:AA:327:A:C8	2.84	0.46
20:AT:28:ALA:O	20:AT:30:LYS:N	2.49	0.46
1:CA:302:G:H21	1:CA:556:C:C4'	2.29	0.46
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.50	0.46
50:D1:82:LEU:C	50:D1:83:GLU:CD	2.75	0.46
2:AB:108:ILE:O	2:AB:111:ARG:HB2	2.15	0.46
7:AG:58:PRO:O	7:AG:59:LEU:C	2.55	0.46
27:DA:1494:A:H3'	27:DA:1494:A:N3	2.31	0.46
35:BI:125:GLU:OE2	35:BI:141:LYS:HG2	2.16	0.46
4:AD:58:LEU:HD13	4:AD:58:LEU:C	2.36	0.46
27:DA:2097:C:C2'	27:DA:2098:U:H5'	2.46	0.46
7:CG:87:VAL:HG11	7:CG:154:TYR:O	2.17	0.46
28:BB:93:G:C8	28:BB:93:G:O5'	2.69	0.46
1:AA:538:G:O2'	1:AA:539:A:H5'	2.16	0.46
1:CA:1028:C:H2'	1:CA:1029:C:H5'	1.98	0.46
7:AG:142:GLU:O	7:AG:143:ARG:C	2.53	0.46
50:B1:15:ALA:HB3	50:B1:40:ARG:HD2	1.98	0.46
28:DB:96:U:H2'	28:DB:97:G:H8	1.81	0.46
32:DF:65:TRP:CZ3	32:DF:75:HIS:HD2	2.34	0.46
48:BZ:71:ARG:HG2	48:BZ:88:PHE:HB2	1.97	0.46
2:CB:122:PHE:CG	2:CB:123:ALA:N	2.83	0.46
12:AL:76:GLU:HG2	12:AL:77:HIS:CD2	2.51	0.46
27:DA:1751:C:O2'	27:DA:1752:C:H5'	2.16	0.46
19:AS:8:GLY:O	19:AS:9:VAL:CG2	2.64	0.46
30:DD:226:MET:HB3	30:DD:230:ASP:HB2	1.98	0.46
6:CF:4:TYR:CD1	6:CF:92:LYS:HA	2.47	0.46
40:BR:10:LEU:HD23	40:BR:17:ARG:HD2	1.98	0.46
40:BR:10:LEU:HB3	40:BR:17:ARG:HD2	1.98	0.46
30:DD:166:GLN:CA	30:DD:166:GLN:NE2	2.77	0.46
27:DA:188:G:C6	27:DA:189:G:C4	3.04	0.46
27:DA:189:G:O6	27:DA:205:G:O2'	2.28	0.46
27:BA:1375:C:H2'	27:BA:1376:C:C6	2.47	0.46
39:BQ:48:GLU:O	39:BQ:50:ALA:N	2.49	0.46
41:BS:42:ASP:C	41:BS:44:LYS:N	2.69	0.46
36:BN:90:MET:HE1	36:BN:97:ARG:HD2	1.98	0.46
1:CA:149:A:C2	1:CA:150:C:N3	2.84	0.46
6:AF:14:LEU:HD23	6:AF:15:ASP:O	2.16	0.46
53:B4:43:GLY:C	53:B4:45:GLY:N	2.69	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:B2:40:SER:C	51:B2:42:GLY:H	2.18	0.46
8:CH:73:ASP:OD2	8:CH:75:ARG:CG	2.64	0.46
27:BA:1767:C:H2'	27:BA:1768:U:O4'	2.15	0.46
3:CC:42:LEU:HD12	3:CC:45:LYS:HZ3	1.81	0.46
46:BX:39:ILE:O	46:BX:42:ALA:HB3	2.16	0.46
27:BA:969:U:O3'	52:B3:14:GLY:HA2	2.15	0.46
1:CA:444:C:H2'	1:CA:445:G:H8	1.80	0.46
27:BA:56:A:H2'	27:BA:57:C:C6	2.50	0.46
37:BO:105:GLU:O	37:BO:109:LYS:HB2	2.15	0.46
27:DA:487:C:H1'	45:DW:53:SER:HA	1.97	0.46
27:DA:487:C:O4'	45:DW:56:ALA:CB	2.64	0.46
27:DA:1517:G:H2'	27:DA:1518:U:O4'	2.16	0.46
7:AG:91:VAL:HG12	7:AG:92:SER:O	2.16	0.46
27:DA:718:A:H2'	27:DA:719:C:H5'	1.97	0.46
32:DF:77:ASP:C	32:DF:79:GLY:H	2.19	0.46
1:CA:933:G:N2	1:CA:1384:C:O2	2.47	0.46
32:DF:98:SER:OG	32:DF:99:TYR:N	2.47	0.46
42:DT:53:ARG:HG2	42:DT:53:ARG:HH11	1.79	0.46
15:CO:31:LEU:HD22	15:CO:31:LEU:H	1.80	0.46
36:DN:72:TYR:CD1	36:DN:72:TYR:N	2.84	0.46
35:BI:62:LYS:O	35:BI:62:LYS:HD3	2.15	0.46
2:AB:37:ASN:C	2:AB:39:ILE:H	2.19	0.45
33:BG:52:ILE:HG22	33:BG:54:GLU:HG2	1.98	0.45
20:AT:86:ARG:HH11	20:AT:86:ARG:CG	2.27	0.45
55:D6:9:LEU:O	55:D6:10:LEU:C	2.54	0.45
27:DA:621:A:H2'	27:DA:622:G:H5'	1.97	0.45
27:DA:775:G:C2	27:DA:777:A:N6	2.83	0.45
27:DA:2314:C:H2'	27:DA:2315:G:H8	1.81	0.45
39:DQ:130:LYS:NZ	48:DZ:79:ARG:HD3	2.31	0.45
42:DT:36:GLU:C	42:DT:38:ASN:H	2.20	0.45
39:BQ:2:LEU:O	39:BQ:3:MET:HB3	2.16	0.45
39:BQ:47:ILE:CD1	39:BQ:70:PRO:HD3	2.45	0.45
1:AA:1234:C:H2'	1:AA:1235:U:C6	2.49	0.45
1:AA:943:U:H2'	1:AA:944:G:H5'	1.98	0.45
9:AI:96:LEU:O	9:AI:100:GLY:N	2.49	0.45
7:AG:37:ASN:ND2	9:AI:41:VAL:HG23	2.31	0.45
2:AB:16:HIS:HA	2:AB:210:SER:OG	2.17	0.45
31:DE:110:GLY:HA2	31:DE:161:GLY:C	2.37	0.45
32:DF:126:VAL:HG21	32:DF:129:PHE:CZ	2.51	0.45
19:CS:16:LEU:O	19:CS:19:VAL:HB	2.16	0.45
14:AN:26:ARG:O	14:AN:28:GLY:N	2.49	0.45
43:BU:33:ARG:O	43:BU:37:GLU:HG3	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2287:A:N1	27:BA:2346:A:C2	2.74	0.45
27:BA:1156:A:P	43:BU:55:ARG:HH11	2.39	0.45
13:CM:24:GLY:C	13:CM:25:ILE:HD12	2.36	0.45
1:AA:1300:G:HO2'	1:AA:1301:U:P	2.39	0.45
27:BA:955:C:C5'	27:BA:956:G:OP2	2.64	0.45
41:BS:57:LYS:CG	41:BS:58:LEU:N	2.78	0.45
34:BH:13:LYS:CG	34:BH:14:GLY:N	2.78	0.45
19:AS:16:LEU:HB3	19:AS:20:LEU:CD1	2.46	0.45
37:DO:87:ILE:HD11	37:DO:114:ILE:HD11	1.98	0.45
27:BA:2015:A:C4	54:B5:2:ALA:HA	2.50	0.45
34:BH:85:LYS:CE	34:BH:145:ALA:N	2.79	0.45
8:AH:6:ILE:N	8:AH:6:ILE:HD12	2.17	0.45
38:DP:16:ARG:CZ	38:DP:16:ARG:HB2	2.46	0.45
5:AE:146:ALA:C	5:AE:148:VAL:N	2.68	0.45
27:BA:1786:A:H2	27:BA:2606:C:H1'	1.80	0.45
17:CQ:6:LEU:N	17:CQ:6:LEU:HD12	2.31	0.45
15:AO:9:GLN:O	15:AO:10:LYS:C	2.54	0.45
41:DS:70:GLY:O	41:DS:73:LEU:N	2.49	0.45
27:BA:34:C:H5''	27:BA:34:C:H6	1.80	0.45
27:DA:759:G:O4'	27:DA:1981:A:C2	2.70	0.45
1:AA:662:G:H2'	1:AA:663:A:C8	2.51	0.45
11:AK:84:VAL:HG11	11:AK:95:ILE:HD11	1.97	0.45
27:DA:882:G:H2'	27:DA:883:G:C8	2.52	0.45
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.51	0.45
5:CE:11:ILE:HD12	5:CE:31:LEU:HD12	1.97	0.45
30:DD:241:PRO:O	30:DD:242:ARG:C	2.54	0.45
27:DA:2641:G:P	36:DN:74:ARG:HE	2.38	0.45
41:DS:98:VAL:O	41:DS:98:VAL:HG23	2.16	0.45
14:AN:12:ARG:C	14:AN:14:PRO:CD	2.81	0.45
27:DA:644:A:H4'	27:DA:645:C:C4	2.50	0.45
27:DA:2070:G:H2'	27:DA:2071:A:O4'	2.16	0.45
1:AA:1227:A:O2'	13:AM:115:LYS:CB	2.64	0.45
37:BO:7:TYR:CZ	37:BO:44:LYS:HG3	2.51	0.45
5:CE:35:GLY:HA3	5:CE:41:VAL:HG12	1.97	0.45
1:AA:112:G:H21	1:AA:354:G:C4'	2.29	0.45
1:CA:676:A:O2'	1:CA:677:U:H5'	2.16	0.45
30:BD:65:ILE:HD13	30:BD:65:ILE:O	2.16	0.45
30:BD:183:ARG:NH1	30:BD:183:ARG:HG3	2.31	0.45
16:AP:70:ALA:O	16:AP:74:LEU:HD13	2.16	0.45
6:AF:39:LYS:CG	6:AF:40:VAL:H	2.29	0.45
1:AA:770:C:H1'	1:AA:900:A:C2	2.51	0.45
38:BP:108:LYS:C	38:BP:110:TYR:H	2.19	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DB:79:C:H2'	28:DB:80:U:O4'	2.16	0.45
27:BA:1465:G:N3	27:BA:1545:A:H2	2.14	0.45
27:BA:679:C:H2'	27:BA:680:G:C8	2.50	0.45
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.51	0.45
27:BA:1681:G:O2'	27:BA:1762:A:H2'	2.16	0.45
23:AW:67:C:O2'	23:AW:68:C:H5'	2.16	0.45
23:AW:69:C:H2'	23:AW:70:C:H5'	1.97	0.45
27:DA:397:G:H2'	27:DA:398:G:C8	2.49	0.45
27:BA:118:A:H1'	27:BA:178:G:O4'	2.16	0.45
27:BA:1337:G:H2'	27:BA:1338:G:H8	1.81	0.45
16:CP:43:LYS:CG	16:CP:48:TRP:CE2	2.99	0.45
27:DA:714:U:H2'	27:DA:716:A:OP2	2.16	0.45
8:CH:6:ILE:H	8:CH:6:ILE:HD12	1.81	0.45
27:BA:2586:C:O2'	27:BA:2587:A:H5'	2.15	0.45
1:AA:511:C:C2	1:AA:512:U:C5	3.04	0.45
36:BN:123:TYR:OH	36:BN:130:HIS:CE1	2.69	0.45
27:DA:2636:U:H4'	31:DE:80:GLU:OE2	2.16	0.45
39:BQ:42:ILE:HD13	39:BQ:97:VAL:CG2	2.46	0.45
27:DA:737:C:H2'	27:DA:738:G:O5'	2.16	0.45
27:BA:777:A:H2'	27:BA:778:G:H8	1.81	0.45
27:DA:1563:G:H2'	27:DA:1564:C:H6	1.80	0.45
1:CA:899:C:H6	1:CA:899:C:O5'	1.98	0.45
27:BA:1839:G:H5'	27:BA:1839:G:H8	1.80	0.45
38:BP:81:GLN:HE21	38:BP:81:GLN:HB2	1.53	0.45
33:DG:11:TYR:O	33:DG:15:VAL:HB	2.17	0.45
38:BP:61:ARG:N	38:BP:61:ARG:HD2	2.31	0.45
1:AA:542:G:C5'	4:AD:41:GLY:CA	2.94	0.45
4:AD:67:ILE:HG22	4:AD:68:TYR:CD1	2.51	0.45
40:BR:48:VAL:O	40:BR:50:HIS:N	2.49	0.45
35:BI:92:VAL:HG23	35:BI:97:ILE:HG13	1.97	0.45
14:CN:50:LYS:HE3	14:CN:52:GLN:NE2	2.31	0.45
46:DX:12:VAL:HG13	46:DX:27:THR:C	2.32	0.45
55:D6:20:ASN:O	55:D6:21:TYR:CG	2.70	0.45
55:D6:22:ALA:O	55:D6:23:THR:HG23	2.15	0.45
27:DA:2391:G:OP1	57:D8:32:LEU:HD12	2.16	0.45
34:BH:66:GLY:HA2	34:BH:69:ARG:HB2	1.97	0.45
27:BA:1020:A:N1	27:BA:1141:U:H1'	2.32	0.45
32:BF:26:ALA:O	32:BF:27:GLU:HG2	2.15	0.45
44:DV:2:PHE:O	44:DV:3:ALA:O	2.34	0.45
27:DA:941:A:H2'	27:DA:942:G:C8	2.51	0.45
44:BV:15:GLU:O	44:BV:16:PRO:C	2.55	0.45
44:BV:35:LEU:O	44:BV:36:PRO:C	2.54	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B6:33:LYS:CA	55:B6:33:LYS:HE2	2.26	0.45
1:AA:1344:C:H5'	9:AI:120:ARG:O	2.16	0.45
10:AJ:61:GLU:OE2	14:AN:45:ARG:NH1	2.48	0.45
20:AT:47:GLY:O	20:AT:49:ALA:N	2.49	0.45
20:AT:97:ALA:C	20:AT:99:LEU:N	2.69	0.45
27:DA:1996:C:H4'	27:DA:1997:G:OP1	2.16	0.45
27:DA:2721:A:H2'	27:DA:2722:G:O4'	2.17	0.45
5:CE:70:PRO:HB3	5:CE:144:THR:HG22	1.98	0.45
41:BS:20:ARG:HA	41:BS:20:ARG:HD3	1.29	0.45
11:CK:91:ARG:HD2	11:CK:91:ARG:O	2.15	0.45
27:DA:2743:C:O5'	27:DA:2743:C:H6	1.99	0.45
27:DA:2753:A:O2'	27:DA:2754:U:H6	1.93	0.45
27:BA:2579:C:C2'	27:BA:2580:U:H5'	2.47	0.45
49:D0:51:VAL:HG13	49:D0:60:PHE:O	2.16	0.45
56:B7:31:LEU:HD22	56:B7:42:LEU:HD12	1.98	0.45
27:DA:1889:A:C6	27:DA:1890:A:C6	3.04	0.45
8:AH:84:ARG:HH12	8:AH:86:ILE:CD1	2.30	0.45
2:CB:47:THR:HA	2:CB:202:PRO:HG2	1.98	0.45
3:AC:129:ALA:CB	3:AC:132:ARG:HD2	2.36	0.45
27:BA:2593:U:H3	27:BA:2600:A:H61	1.64	0.45
34:DH:137:ASP:OD1	34:DH:138:LYS:N	2.49	0.45
27:DA:2050:C:C1'	31:DE:156:MET:HE1	2.37	0.45
16:CP:58:TYR:O	16:CP:61:SER:OG	2.16	0.45
27:DA:68:G:H3'	27:DA:69:C:H6	1.81	0.45
12:AL:86:ARG:HD3	12:AL:88:LYS:N	2.31	0.45
7:AG:5:ARG:O	7:AG:7:ALA:N	2.49	0.45
48:BZ:60:LEU:N	48:BZ:60:LEU:CD2	2.79	0.45
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.97	0.45
24:AX:62:C:C2	24:AX:63:G:C8	3.04	0.45
11:CK:59:TYR:O	11:CK:62:GLN:HB3	2.15	0.45
5:CE:138:ALA:O	5:CE:139:LEU:C	2.53	0.45
27:DA:154:G:C3'	27:DA:154(A):C:O2	2.63	0.45
27:DA:315:G:H2'	27:DA:316:C:C1'	2.46	0.45
27:DA:1314:C:H6	27:DA:1314:C:H5'	1.80	0.45
27:DA:2691:C:H2'	27:DA:2692:C:C6	2.51	0.45
2:CB:22:LYS:O	2:CB:24:TRP:N	2.48	0.45
4:CD:122:ARG:HD3	4:CD:122:ARG:O	2.15	0.45
1:CA:1308:U:OP1	13:CM:98:VAL:N	2.44	0.45
27:DA:2024:G:H2'	27:DA:2025:C:H6	1.77	0.45
1:AA:444:C:C2	1:AA:445:G:C8	3.04	0.45
1:CA:335:C:H2'	1:CA:336:C:C6	2.50	0.45
27:BA:861:A:C2	27:BA:917:A:C4	3.04	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.82	0.45
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.52	0.45
27:BA:753:C:H2'	27:BA:754:C:H6	1.80	0.45
42:DT:96:ARG:HB3	42:DT:96:ARG:NH1	2.31	0.45
27:BA:1710:C:O2'	27:BA:1711:C:H5'	2.15	0.45
40:DR:81:ASP:OD2	40:DR:81:ASP:N	2.36	0.45
13:AM:83:ASP:OD2	13:AM:85:GLY:N	2.49	0.45
2:CB:8:LYS:H	2:CB:8:LYS:CD	2.30	0.45
1:AA:448:A:O2'	1:AA:449:C:H5'	2.17	0.45
12:CL:55:VAL:HG12	12:CL:56:ARG:N	2.29	0.45
46:DX:8:ILE:O	51:D2:36:ARG:NH2	2.50	0.45
46:BX:52:VAL:CG1	46:BX:52:VAL:O	2.64	0.45
49:D0:72:ARG:O	49:D0:75:LEU:HB3	2.16	0.45
27:DA:2803:C:H2'	27:DA:2804:C:C6	2.52	0.45
28:BB:87:G:C2'	28:BB:88:C:H5''	2.46	0.45
27:BA:1326:U:H2'	27:BA:1327:C:H6	1.81	0.45
1:AA:431:A:H2'	1:AA:432:A:H5'	1.97	0.45
27:BA:1603:A:H5'	27:BA:1603:A:H8	1.81	0.45
45:DW:32:ALA:O	45:DW:33:ARG:C	2.55	0.45
27:BA:358:U:H6	27:BA:358:U:OP2	1.99	0.45
45:BW:83:LYS:HZ3	45:BW:97:LYS:HE2	1.81	0.45
34:BH:116:GLU:HG2	34:BH:117:PRO:N	2.31	0.45
2:CB:128:GLU:HB3	2:CB:129:GLU:H	1.62	0.45
27:BA:1161:C:O2'	44:BV:8:GLY:HA2	2.17	0.45
27:DA:1880:C:H6	27:DA:1880:C:H5'	1.81	0.45
27:BA:1470:G:N2	27:BA:1519:G:H3'	2.30	0.45
35:BI:109:ILE:HG23	35:BI:130:TYR:HE2	1.79	0.45
31:DE:6:GLY:HA2	31:DE:51:PHE:CZ	2.52	0.45
33:BG:114:ILE:C	33:BG:116:ASP:N	2.68	0.45
33:BG:7:LEU:CD2	33:BG:176:LEU:HD23	2.46	0.45
27:DA:1117:G:H2'	27:DA:1118:C:O2'	2.16	0.45
48:DZ:98:TYR:HA	48:DZ:124:LEU:HA	1.98	0.45
48:DZ:8:TYR:HE2	48:DZ:34:ARG:NH1	2.15	0.45
48:DZ:6:ALA:HB2	48:DZ:58:LEU:HD22	1.99	0.45
27:DA:2398:U:H2'	27:DA:2399:G:C8	2.51	0.45
38:DP:66:GLY:O	38:DP:67:MET:HB3	2.16	0.45
4:AD:49:ARG:HD3	4:AD:50:ARG:N	2.31	0.45
1:CA:1125:U:O4	10:CJ:5:ARG:HD3	2.17	0.45
27:BA:593:G:C4'	57:B8:61:LEU:HD22	2.33	0.45
27:BA:662:G:H2'	27:BA:663:G:H8	1.80	0.45
38:DP:107:LYS:HG3	38:DP:107:LYS:O	2.16	0.45
38:DP:126:VAL:HG12	38:DP:148:LEU:HD11	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:40:LEU:HD22	44:DV:46:VAL:HA	1.98	0.45
28:DB:63:G:H2'	28:DB:64:C:C6	2.51	0.45
33:DG:14:GLU:H	33:DG:17:PRO:CD	2.30	0.45
33:DG:139:LEU:C	33:DG:141:PHE:H	2.19	0.45
27:DA:1141:U:H5	36:DN:64:GLY:HA3	1.74	0.45
53:D4:42:CYS:HB2	53:D4:59:VAL:HB	1.97	0.45
37:DO:104:ARG:C	37:DO:106:LEU:H	2.19	0.45
37:DO:77:ILE:HD13	42:DT:74:ARG:CG	2.41	0.45
42:DT:83:ILE:CG1	42:DT:84:GLN:H	2.05	0.45
27:DA:1698:A:C1'	27:DA:1700:A:H5''	2.46	0.45
9:CI:26:VAL:HG12	9:CI:27:THR:N	2.31	0.45
31:DE:171:GLU:HB3	31:DE:185:LYS:HG2	1.98	0.45
31:DE:199:ARG:HB3	31:DE:199:ARG:NH1	2.31	0.45
27:DA:2758:A:C2'	27:DA:2759:G:C5'	2.79	0.45
1:CA:1205:U:H4'	3:CC:195:VAL:HG21	1.97	0.45
23:AW:34:U:C2'	23:AW:35:G:H5'	2.46	0.45
20:AT:98:PRO:C	20:AT:100:ILE:N	2.67	0.45
27:BA:780:G:H21	27:BA:783:A:H62	1.63	0.45
1:AA:1117:G:H5'	1:AA:1117:G:H8	1.80	0.45
31:BE:77:ILE:CG2	31:BE:78:LEU:H	2.00	0.45
47:DY:2:ARG:CD	47:DY:3:VAL:HG23	2.45	0.45
15:CO:26:GLU:H	15:CO:26:GLU:HG2	1.52	0.45
32:DF:11:VAL:O	32:DF:12:LEU:HG	2.16	0.45
2:CB:74:LYS:CE	2:CB:166:ASP:HB2	2.46	0.45
27:BA:2330:G:H2'	27:BA:2331:G:O4'	2.16	0.45
27:BA:2344:U:H3'	55:B6:38:LYS:O	2.16	0.45
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	1.97	0.45
27:DA:1033:U:H5	58:D9:16:VAL:O	1.98	0.45
12:CL:19:SER:C	12:CL:21:VAL:N	2.70	0.45
27:DA:848:G:N2	27:DA:933:A:H1'	2.31	0.45
1:AA:1305:G:N2	1:AA:1331:G:C2'	2.72	0.45
15:AO:76:GLU:C	15:AO:78:TYR:N	2.69	0.45
37:DO:87:ILE:HG23	37:DO:88:ASN:H	1.80	0.45
8:AH:38:ILE:CD1	8:AH:118:VAL:HG12	2.47	0.45
34:BH:138:LYS:C	34:BH:141:VAL:HG23	2.34	0.45
47:BY:87:LYS:HG3	47:BY:88:LYS:N	2.31	0.45
3:CC:47:LEU:HD23	3:CC:68:VAL:CG1	2.44	0.45
3:CC:82:GLU:O	3:CC:83:ARG:C	2.55	0.45
50:B1:91:LYS:HA	50:B1:94:LEU:CD1	2.46	0.45
40:BR:79:LEU:HD23	40:BR:79:LEU:C	2.37	0.45
17:CQ:4:LYS:HG3	17:CQ:6:LEU:CD1	2.46	0.45
27:BA:2171:A:HO2'	27:BA:2172:U:C5'	2.24	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2485:G:H5''	39:DQ:46:GLN:NE2	2.31	0.45
42:DT:87:ASP:OD2	42:DT:90:GLN:HG3	2.17	0.45
27:DA:1718:G:C5'	27:DA:1718:G:C8	2.99	0.45
1:CA:633:G:H3'	1:CA:634:C:C6	2.51	0.45
4:CD:117:ALA:O	4:CD:121:VAL:HG23	2.15	0.45
4:CD:134:ASP:OD2	4:CD:134:ASP:N	2.49	0.45
45:DW:2:GLU:OE2	45:DW:72:LYS:HG2	2.17	0.45
43:DU:48:ALA:O	43:DU:52:ARG:HB2	2.17	0.45
25:CY:75:A:N6	27:DA:2422:A:O4'	2.49	0.45
3:CC:155:GLY:O	3:CC:156:ARG:CB	2.59	0.45
1:CA:369:C:OP2	1:CA:388:G:N2	2.44	0.45
1:CA:389:A:H2'	1:CA:390:C:H5'	1.97	0.45
1:CA:198:G:O2'	1:CA:199:G:O4'	2.35	0.45
27:BA:2208:A:H1'	27:BA:2219:G:C5	2.50	0.45
27:BA:620:G:H4'	27:BA:621:A:H5''	1.98	0.45
27:DA:1887:C:C2'	27:DA:1888:G:H5''	2.47	0.45
1:AA:859:A:O2'	1:AA:860:A:H5'	2.16	0.45
36:DN:43:THR:C	36:DN:45:ASN:H	2.19	0.45
2:CB:9:GLU:O	2:CB:10:LEU:C	2.54	0.45
11:CK:110:ASP:O	18:CR:84:LYS:HB3	2.17	0.45
1:AA:159:G:H21	1:AA:161:A:H3'	1.78	0.45
34:BH:24:VAL:HG23	34:BH:24:VAL:O	2.17	0.45
45:BW:5:ALA:HB2	45:BW:54:ALA:HB2	1.97	0.45
17:AQ:91:ARG:CB	17:AQ:91:ARG:HH11	2.29	0.45
1:CA:728:A:H2'	1:CA:729:A:C8	2.51	0.45
27:DA:1988:C:O2'	27:DA:1989:G:H5'	2.17	0.45
40:DR:26:LYS:NZ	40:DR:71:GLN:HB3	2.32	0.45
1:CA:840:C:H5''	1:CA:841:U:OP1	2.17	0.45
6:AF:14:LEU:HD21	6:AF:19:LEU:N	2.31	0.45
1:CA:792:A:H4'	1:CA:793:U:O5'	2.16	0.45
27:DA:449:A:C1'	43:DU:3:ARG:NH1	2.80	0.45
27:BA:843:G:H2'	27:BA:844:C:H5'	1.97	0.45
27:BA:78:A:O2'	27:BA:79:G:H5'	2.16	0.45
21:AU:9:ARG:NH1	21:AU:22:ARG:HG2	2.31	0.45
27:BA:428:A:H3'	27:BA:429:A:C8	2.52	0.45
1:CA:1332:A:O2'	1:CA:1333:A:H5'	2.15	0.45
27:BA:234:C:H2'	27:BA:235:U:C6	2.51	0.45
27:DA:1014:U:H2'	27:DA:1015:G:H8	1.82	0.45
1:AA:789:U:O2	1:AA:791:G:C8	2.69	0.45
7:CG:151:TYR:CE2	11:CK:54:ARG:HD2	2.51	0.45
27:DA:1879:C:C3'	27:DA:1880:C:H5''	2.45	0.45
54:B5:53:ALA:HA	54:B5:56:LYS:HZ1	1.82	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:19:LYS:HZ3	44:DV:22:VAL:HG13	1.79	0.45
53:B4:41:ILE:CD1	53:B4:47:VAL:HG22	2.46	0.45
33:BG:154:GLY:O	33:BG:155:MET:HB3	2.16	0.45
1:CA:1251:A:H1'	1:CA:1369:C:HO2'	1.81	0.45
34:BH:8:PRO:HG2	34:BH:65:HIS:CE1	2.51	0.45
39:BQ:81:VAL:HG22	39:BQ:82:ARG:N	2.31	0.45
27:BA:1022:G:C6	27:BA:1141:U:C5	3.04	0.45
42:DT:65:LYS:HE3	42:DT:66:VAL:N	2.31	0.45
27:DA:603:A:H4'	27:DA:604:G:O5'	2.17	0.45
44:DV:5:VAL:HG12	44:DV:14:VAL:CG2	2.46	0.45
27:BA:612:C:C2'	27:BA:613:G:C5'	2.71	0.45
27:DA:1859:A:N6	27:DA:1883:G:O2'	2.49	0.45
39:DQ:131:ILE:C	39:DQ:132:VAL:HG22	2.37	0.45
27:BA:2277:G:O2'	27:BA:2278:A:H5'	2.15	0.45
1:CA:159:G:N1	1:CA:163:C:N4	2.65	0.45
44:BV:19:LYS:HG3	44:BV:20:LEU:N	2.31	0.45
9:CI:8:GLY:HA2	9:CI:79:LEU:HB3	1.97	0.45
31:DE:24:THR:HG23	31:DE:24:THR:O	2.17	0.45
10:AJ:51:ARG:HG3	10:AJ:60:ARG:CA	2.46	0.45
27:BA:1790:C:H4'	30:BD:209:ALA:HB1	1.97	0.45
35:BI:18:VAL:HG12	35:BI:18:VAL:O	2.14	0.45
47:DY:8:LYS:O	47:DY:9:LYS:HB3	2.17	0.45
47:DY:97:ARG:O	47:DY:98:VAL:HG23	2.17	0.45
27:DA:2882:A:H5'	40:DR:96:ARG:CG	2.46	0.45
48:BZ:116:LEU:CD1	48:BZ:173:VAL:HG22	2.46	0.45
27:BA:1493:C:C2'	27:BA:1493:C:O2	2.63	0.45
11:CK:48:ILE:HG22	11:CK:49:GLY:N	2.31	0.45
27:DA:671:C:H2'	27:DA:672:C:H6	1.81	0.45
3:AC:78:GLY:HA3	3:AC:83:ARG:CB	2.46	0.45
32:DF:93:LYS:O	32:DF:94:PRO:C	2.54	0.45
23:CW:37:U:P	26:CZ:1:KBE:HDA	2.57	0.45
8:AH:49:GLU:O	8:AH:51:VAL:HG13	2.15	0.45
45:BW:110:LYS:HE3	45:BW:111:HIS:CE1	2.51	0.45
22:CV:9:G:C6	22:CV:10:U:O4	2.70	0.45
34:BH:137:ASP:O	34:BH:138:LYS:HB2	2.17	0.45
2:CB:82:ARG:O	2:CB:86:GLU:OE1	2.34	0.45
27:BA:286:C:O2'	27:BA:287:C:H5''	2.16	0.45
27:DA:2334:G:H21	41:DS:18:ILE:CD1	2.27	0.45
1:CA:22:G:H2'	1:CA:23:C:H6	1.80	0.45
5:CE:88:LYS:HB3	5:CE:123:LEU:O	2.16	0.45
34:DH:19:VAL:HG21	34:DH:44:VAL:HA	1.99	0.45
1:CA:625:G:O2'	1:CA:626:U:H5'	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:83:LYS:HG2	41:DS:105:ALA:HB3	1.97	0.45
3:CC:52:LEU:HD23	3:CC:52:LEU:H	1.82	0.45
1:AA:725:G:H2'	1:AA:726:C:H6	1.81	0.45
4:CD:111:ALA:HA	4:CD:161:ASN:ND2	2.31	0.45
41:BS:66:ALA:O	41:BS:69:VAL:CG1	2.59	0.45
1:AA:166:G:H2'	1:AA:167:G:H8	1.82	0.45
50:D1:51:VAL:HG22	50:D1:52:ARG:N	2.30	0.45
1:CA:405:U:H5''	1:CA:406:G:O4'	2.16	0.45
1:AA:51:A:C6	1:AA:353:A:C2	3.04	0.45
30:DD:28:GLU:OE1	30:DD:29:PRO:HD3	2.17	0.45
58:D9:30:PRO:C	58:D9:32:HIS:H	2.20	0.45
36:BN:121:LYS:HD2	36:BN:121:LYS:N	2.30	0.45
1:CA:1029:C:C4'	1:CA:1033:G:H22	2.30	0.45
1:AA:1084:G:OP1	1:AA:1086:U:N3	2.49	0.45
1:AA:1066:C:H5''	1:AA:1066:C:C6	2.51	0.45
1:AA:1067:A:H1'	1:AA:1068:G:O4'	2.17	0.45
27:DA:2178:C:H2'	27:DA:2179:C:H6	1.82	0.45
36:BN:46:VAL:HG13	36:BN:47:ALA:N	2.31	0.45
27:DA:431:U:H2'	27:DA:431:U:O2	2.15	0.45
27:BA:2643:G:C2'	27:BA:2644:G:H5'	2.46	0.45
48:BZ:134:GLU:HG2	48:BZ:134:GLU:O	2.15	0.45
41:BS:46:VAL:CG1	41:BS:47:THR:N	2.79	0.45
1:AA:689:C:O2'	1:AA:690:G:H5'	2.16	0.45
27:BA:1448:G:H1'	27:BA:1528:A:H62	1.81	0.45
28:DB:9:G:C5	28:DB:10:C:C4	3.04	0.45
1:CA:791:G:C6	1:CA:792:A:N7	2.85	0.45
27:BA:125:G:H1'	56:B7:13:ALA:HB1	1.98	0.45
27:BA:1889:A:O2'	27:BA:2087:G:H5'	2.16	0.45
20:CT:94:ALA:O	20:CT:95:ALA:CB	2.64	0.45
57:B8:7:HIS:CB	57:B8:59:LYS:HZ2	2.29	0.45
24:AX:2:G:N3	24:AX:2:G:H2'	2.32	0.45
51:B2:35:LEU:O	51:B2:36:ARG:C	2.53	0.45
27:DA:826:U:H2'	27:DA:828:U:O4'	2.16	0.45
20:CT:87:LYS:O	20:CT:91:LEU:HG	2.17	0.45
1:CA:216:G:C2	1:CA:217:C:C2	3.04	0.45
8:CH:114:THR:C	8:CH:116:LYS:N	2.69	0.45
1:CA:667:G:O2'	1:CA:668:G:H5'	2.16	0.45
1:AA:825:G:C6	1:AA:826:C:C4	3.05	0.45
27:BA:1198:U:H2'	27:BA:1199:U:C6	2.51	0.45
27:BA:1001:A:H2'	27:BA:1002:G:O4'	2.16	0.45
20:AT:75:ASN:O	20:AT:78:ALA:HB3	2.15	0.45
34:BH:20:ALA:HB1	34:BH:21:PRO:HD2	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1010:A:N3	27:BA:1153:C:H1'	2.31	0.45
57:B8:14:VAL:HG21	57:B8:22:VAL:CG1	2.46	0.45
13:AM:94:ARG:NE	27:BA:887:A:H5''	2.29	0.45
42:BT:92:GLY:C	42:BT:94:ALA:N	2.66	0.45
28:BB:50:G:OP2	41:BS:62:LYS:HB2	2.17	0.45
47:BY:95:LYS:HD2	47:BY:100:ALA:HB2	1.98	0.45
47:BY:96:ILE:HG22	47:BY:97:ARG:O	2.17	0.45
13:AM:2:ALA:C	13:AM:9:ILE:HG23	2.37	0.45
33:BG:94:LEU:HB3	33:BG:99:MET:HA	1.99	0.45
10:CJ:56:HIS:C	10:CJ:58:ASP:H	2.20	0.45
27:DA:1039:G:N7	27:DA:1117:G:C6	2.83	0.45
51:D2:7:ARG:HH11	51:D2:7:ARG:HG2	1.81	0.45
10:CJ:22:LYS:C	10:CJ:24:VAL:H	2.20	0.45
27:DA:1567:A:H5'	30:DD:58:HIS:CD2	2.51	0.45
42:DT:89:VAL:HG12	42:DT:121:ILE:HD11	1.99	0.45
32:BF:20:LEU:N	32:BF:24:LEU:HD21	2.32	0.45
23:AW:16:C:H5'	23:AW:59:U:O2	2.16	0.45
36:DN:18:ALA:HB3	36:DN:21:LYS:HB2	1.97	0.45
1:CA:346:G:C5'	42:DT:41:ARG:CZ	2.95	0.45
1:CA:346:G:C5'	42:DT:41:ARG:HE	2.29	0.45
49:D0:27:GLU:HA	49:D0:67:VAL:CG1	2.44	0.45
47:DY:50:ARG:HD2	47:DY:57:GLN:O	2.17	0.45
1:AA:1369:C:H2'	1:AA:1370:G:O4'	2.17	0.45
27:DA:2612:C:C5	27:DA:2613:U:H5	2.34	0.45
1:AA:1102:A:H2'	1:AA:1103:C:C6	2.51	0.45
27:DA:1998:G:H2'	27:DA:1999:C:C6	2.52	0.45
47:DY:28:LYS:CD	47:DY:28:LYS:N	2.77	0.45
47:DY:7:VAL:CG2	47:DY:8:LYS:HZ2	2.25	0.45
32:DF:18:ARG:HD2	32:DF:19:GLU:N	2.30	0.45
27:BA:1504:C:C3'	27:BA:1505:C:H5''	2.46	0.45
41:BS:28:VAL:HG12	41:BS:29:PHE:H	1.82	0.45
27:BA:1000:A:C2	27:BA:1155:A:C4	3.05	0.45
27:BA:978:G:C2	27:BA:986:C:C2	3.05	0.45
44:BV:47:VAL:HG12	44:BV:52:VAL:HG13	1.97	0.45
13:CM:56:LEU:O	13:CM:60:VAL:HG23	2.17	0.45
1:AA:1299:A:C5	1:AA:1301:U:C2	3.05	0.45
58:D9:26:ILE:HG22	58:D9:27:CYS:N	2.30	0.45
27:DA:2744:G:C2	27:DA:2761:G:C4	3.05	0.45
27:BA:2808:U:H2'	27:BA:2809:A:C5'	2.47	0.45
8:CH:113:SER:H	8:CH:134:ILE:HG12	1.80	0.45
39:BQ:14:ARG:HG2	39:BQ:41:TRP:HH2	1.80	0.45
23:CW:20:A:C2	23:CW:47:C:C2	3.05	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DO:88:ASN:ND2	37:DO:90:GLN:HB2	2.31	0.45
34:BH:143:GLN:O	34:BH:146:ALA:HB3	2.17	0.45
40:DR:45:ARG:HD3	40:DR:97:VAL:HG21	1.98	0.45
3:AC:39:ILE:C	3:AC:41:GLY:N	2.70	0.45
6:CF:37:VAL:HG12	6:CF:38:GLU:N	2.18	0.45
1:CA:1206:G:O4'	3:CC:194:GLY:CA	2.63	0.45
36:BN:125:GLY:HA3	36:BN:126:PRO:O	2.17	0.45
41:DS:82:ILE:O	41:DS:83:LYS:HB2	2.17	0.45
27:BA:2466:C:C2	27:BA:2485:G:C2	3.04	0.45
11:CK:95:ILE:HG22	11:CK:99:GLN:HG2	1.99	0.45
40:BR:63:ARG:HA	40:BR:80:PHE:CZ	2.52	0.45
27:DA:1495:A:H2'	27:DA:1495:A:N3	2.32	0.45
40:BR:37:THR:CG2	40:BR:40:LYS:HE3	2.47	0.45
1:CA:1195:C:H2'	1:CA:1197:G:O4'	2.15	0.45
1:AA:1004:A:C5'	1:AA:1025:U:H3	2.29	0.45
31:BE:93:VAL:C	31:BE:95:ILE:H	2.19	0.45
27:DA:1385:G:H1'	27:DA:1386:C:C6	2.52	0.45
27:DA:2562:U:H2'	27:DA:2563:U:H5'	1.97	0.45
36:BN:39:ARG:NH2	36:BN:41:ASP:OD2	2.48	0.45
27:DA:635:C:H2'	27:DA:636:G:O4'	2.17	0.45
25:AY:24:C:C2	25:AY:25:A:N7	2.84	0.45
45:BW:36:LEU:HD11	45:BW:47:VAL:HG12	1.98	0.45
31:DE:44:TYR:O	31:DE:45:THR:CB	2.64	0.45
2:CB:116:GLU:C	2:CB:118:LEU:N	2.69	0.45
27:BA:2239:G:H2'	27:BA:2240:C:H6	1.82	0.45
7:AG:101:LEU:O	7:AG:104:LEU:HB2	2.16	0.45
27:DA:1659:U:C4	27:DA:1660:C:C5	3.05	0.45
12:AL:31:ARG:HG2	12:AL:32:GLY:N	2.32	0.45
27:DA:1272:A:H3'	27:DA:1273:U:H5'	1.97	0.45
19:CS:50:ALA:HA	19:CS:58:VAL:O	2.17	0.45
34:DH:111:HIS:HA	34:DH:112:PRO:HD2	1.75	0.45
1:CA:232:G:H1'	1:CA:262:A:N1	2.32	0.45
27:BA:836:G:C5	27:BA:837:C:C4	3.05	0.45
1:AA:41:G:H2'	1:AA:42:G:H8	1.80	0.45
16:AP:58:TYR:O	16:AP:60:LEU:N	2.49	0.45
1:AA:1041:A:H2'	1:AA:1042:G:C8	2.51	0.45
7:AG:152:ALA:O	7:AG:154:TYR:N	2.46	0.45
2:AB:131:PRO:O	2:AB:135:GLN:HG3	2.17	0.45
27:DA:2271:G:H2'	27:DA:2272:U:C6	2.51	0.45
8:CH:36:LEU:HA	8:CH:39:LEU:HD23	1.99	0.45
47:DY:85:VAL:HG12	47:DY:92:ASN:OD1	2.17	0.45
30:BD:238:GLY:O	30:BD:239:ARG:O	2.35	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:430:A:C2'	1:AA:431:A:H5'	2.47	0.45
1:AA:102:G:H2'	1:AA:103:C:H6	1.81	0.45
1:CA:903:G:H2'	1:CA:904:C:C6	2.51	0.45
2:AB:177:ALA:O	2:AB:179:LYS:N	2.49	0.45
4:CD:92:VAL:O	4:CD:95:GLY:N	2.49	0.45
1:CA:300:A:H2'	1:CA:301:G:O4'	2.16	0.45
27:BA:484:C:H2'	27:BA:485:C:H6	1.82	0.45
25:AY:47:C:P	25:AY:47:C:H6	2.39	0.45
27:DA:2611:U:H5'	27:DA:2611:U:H6	1.82	0.45
27:DA:1632:A:H8	27:DA:1632:A:O5'	2.00	0.45
17:CQ:11:VAL:HA	17:CQ:53:LEU:HD11	1.98	0.45
4:AD:14:ARG:CA	4:AD:39:PRO:HA	2.46	0.45
2:AB:72:GLY:HA2	2:AB:165:VAL:HG22	1.98	0.45
2:AB:21:ARG:HB2	2:AB:38:GLY:O	2.17	0.45
37:BO:104:ARG:NH1	42:BT:35:LYS:HD3	2.25	0.45
27:BA:2839:G:H5'	40:BR:46:GLY:HA2	1.98	0.45
42:DT:3:ARG:O	42:DT:7:ILE:HG12	2.16	0.45
27:DA:889:C:O2'	27:DA:890:A:O5'	2.32	0.45
33:BG:99:MET:HG2	33:BG:100:TRP:N	2.31	0.45
14:CN:29:ARG:HG2	14:CN:40:CYS:HB2	1.99	0.45
14:CN:45:ARG:CG	14:CN:45:ARG:NH1	2.76	0.45
51:D2:17:SER:OG	51:D2:18:PRO:HD2	2.16	0.45
27:DA:2399:G:C6	27:DA:2418:A:C2	3.04	0.45
27:BA:2470:G:C2	27:BA:2471:C:C6	3.04	0.45
27:BA:1246:A:OP1	38:BP:18:ARG:HD3	2.16	0.45
28:DB:115:G:N2	28:DB:116:G:C4	2.85	0.45
32:BF:112:MET:O	32:BF:115:ALA:HB3	2.16	0.45
27:DA:941:A:H4'	38:DP:35:HIS:CE1	2.51	0.45
33:DG:50:ALA:C	33:DG:51:ARG:HE	2.20	0.45
33:DG:46:ALA:HA	33:DG:51:ARG:HB3	1.98	0.45
1:CA:56:U:H2'	1:CA:57:G:H8	1.78	0.45
36:DN:63:THR:HG22	36:DN:64:GLY:H	1.81	0.45
48:DZ:78:ARG:N	48:DZ:78:ARG:CD	2.76	0.45
30:DD:133:LEU:CD1	30:DD:175:LEU:HD21	2.47	0.45
30:BD:136:ILE:HD12	30:BD:136:ILE:N	2.31	0.45
30:BD:145:VAL:HG22	30:BD:191:ALA:HB1	1.97	0.45
31:DE:168:MET:C	31:DE:170:LEU:HD12	2.36	0.45
1:AA:1190:G:OP1	3:AC:4:LYS:HA	2.17	0.45
23:AW:39:C:H2'	23:AW:40:C:H6	1.81	0.45
27:BA:1811:G:O2'	27:BA:1812:A:H5'	2.17	0.45
27:DA:2100:G:H1	27:DA:2189:U:H3	1.65	0.45
27:BA:2632:A:C2	31:BE:61:ARG:HD2	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BE:61:ARG:C	31:BE:63:LEU:N	2.68	0.45
2:AB:51:LEU:HD21	2:AB:214:ILE:HD12	1.98	0.45
27:BA:1607:C:N4	27:BA:1622:G:OP2	2.48	0.45
39:DQ:109:VAL:HG13	39:DQ:113:GLN:OE1	2.17	0.45
1:AA:1237:C:O3'	1:AA:1300:G:N2	2.50	0.45
27:DA:2476:A:N1	27:DA:2477:C:C5	2.85	0.45
5:AE:34:VAL:O	5:AE:41:VAL:HA	2.16	0.45
1:CA:102:G:O2'	1:CA:103:C:H5'	2.16	0.45
2:AB:30:ARG:NH2	2:AB:194:PRO:HG2	2.31	0.45
39:BQ:61:GLY:O	39:BQ:62:GLY:C	2.54	0.45
34:BH:146:ALA:O	34:BH:150:ALA:N	2.49	0.45
34:BH:84:SER:O	34:BH:85:LYS:HB3	2.17	0.45
40:DR:43:GLU:O	40:DR:45:ARG:N	2.50	0.45
27:DA:2231:C:H2'	27:DA:2232:U:H6	1.80	0.45
3:AC:96:GLY:O	3:AC:97:LYS:HB2	2.16	0.45
2:CB:141:GLU:C	2:CB:143:GLU:N	2.69	0.45
3:CC:59:ARG:HG2	3:CC:63:ASN:O	2.16	0.45
3:CC:85:ARG:HA	3:CC:88:ARG:HD2	1.98	0.45
50:B1:51:VAL:HG21	50:B1:74:VAL:HG21	1.99	0.45
35:BI:8:PRO:HA	35:BI:13:GLY:HA2	1.99	0.45
27:DA:662:G:OP1	38:DP:18:ARG:NH1	2.49	0.45
45:DW:50:VAL:HG11	45:DW:103:ILE:CG2	2.46	0.45
27:DA:999:U:O2'	27:DA:1000:A:H5''	2.16	0.45
6:AF:60:PHE:O	6:AF:61:LEU:HD12	2.17	0.45
46:DX:65:ARG:HG3	46:DX:69:TYR:O	2.17	0.45
41:BS:34:HIS:N	41:BS:34:HIS:CD2	2.82	0.45
1:AA:1269:A:H2	1:AA:1312:G:N3	2.15	0.45
27:DA:142:A:H1'	27:DA:1408:C:O4'	2.17	0.45
25:CY:56:G:C2'	25:CY:57:A:H5'	2.46	0.45
48:BZ:5:LYS:HG2	48:BZ:59:GLU:HB2	1.98	0.45
1:AA:1123:A:O3'	10:AJ:36:GLY:HA3	2.16	0.45
27:BA:1722:A:C2	27:BA:1740:G:H8	2.35	0.45
27:DA:754:C:O4'	27:DA:1618:A:H2	2.00	0.45
24:AX:23:C:H2'	24:AX:24:U:C6	2.52	0.45
1:AA:327:A:C2	1:AA:329:A:C4	3.05	0.45
27:BA:175:G:C5'	27:BA:175:G:C8	3.00	0.45
1:AA:1165:C:C4	1:AA:1166:G:N7	2.85	0.45
48:BZ:156:LEU:HD21	48:BZ:162:LEU:HG	1.98	0.45
50:D1:86:SER:HB2	50:D1:89:GLU:CB	2.39	0.45
27:DA:384:U:H2'	27:DA:385:C:C6	2.50	0.45
27:DA:1638:C:H4'	27:DA:2710:C:O2	2.17	0.45
1:AA:939:G:P	7:AG:95:ARG:HH22	2.39	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1512:U:H2'	1:CA:1513:A:H8	1.81	0.45
8:CH:103:VAL:HG21	8:CH:110:ALA:N	2.32	0.45
25:AY:24:C:H2'	25:AY:25:A:C8	2.44	0.45
27:DA:1416:G:O2'	27:DA:1417:C:H6	2.00	0.45
8:AH:11:THR:O	8:AH:15:ASN:ND2	2.50	0.45
48:DZ:60:LEU:O	48:DZ:62:ASP:N	2.42	0.45
27:BA:2182:G:H2'	27:BA:2183:C:H6	1.80	0.45
27:BA:2238:G:H5'	27:BA:2239:G:N7	2.31	0.45
11:AK:57:THR:CG2	11:AK:58:PRO:HD2	2.45	0.45
30:BD:65:ILE:HD11	30:BD:67:PHE:CD1	2.51	0.45
27:BA:271(J):C:C2'	27:BA:271(K):U:H5''	2.47	0.45
27:DA:815:C:O5'	27:DA:815:C:H6	1.99	0.45
6:AF:71:ARG:CG	6:AF:71:ARG:HH11	2.28	0.45
27:DA:2036:C:C6	27:DA:2036:C:H5'	2.49	0.45
23:AW:68:C:O2'	23:AW:69:C:H5'	2.16	0.45
1:CA:896:C:O2'	1:CA:897:C:H5'	2.17	0.45
27:DA:1207:C:H2'	27:DA:1208:C:H6	1.82	0.45
15:AO:82:ILE:HG22	15:AO:83:GLU:N	2.32	0.45
27:DA:2202:C:H2'	27:DA:2203:U:O4'	2.17	0.45
9:CI:7:THR:O	9:CI:83:ARG:HD2	2.16	0.45
1:AA:149:A:O2'	1:AA:150:C:H5'	2.16	0.45
48:DZ:136:ILE:HG23	48:DZ:155:LYS:O	2.17	0.45
27:BA:839:U:H2'	27:BA:840:C:C6	2.52	0.45
4:AD:131:ARG:HG3	4:AD:131:ARG:H	1.50	0.45
27:DA:527:C:O4'	27:DA:527:C:O2	2.33	0.45
1:AA:992:U:O2'	1:AA:993:G:P	2.75	0.45
27:DA:1122:G:O2'	27:DA:1123:C:H5'	2.17	0.45
27:BA:2419:U:OP1	57:B8:41:ILE:CD1	2.65	0.45
35:DI:62:LYS:HA	35:DI:131:LYS:HZ1	1.82	0.45
35:BI:93:THR:C	35:BI:95:LYS:H	2.19	0.45
28:BB:43:C:H3'	28:BB:44:G:H5'	1.98	0.45
33:BG:116:ASP:HB3	33:BG:117:PHE:H	1.57	0.45
28:DB:105:A:HO2'	48:DZ:29:ASN:HA	1.78	0.45
51:D2:14:ARG:CG	51:D2:14:ARG:NH1	2.80	0.45
57:D8:32:LEU:CB	57:D8:36:LYS:HD2	2.47	0.45
38:DP:62:LEU:HD23	38:DP:63:PRO:CD	2.47	0.45
27:DA:2394:C:P	38:DP:63:PRO:HD2	2.57	0.45
34:BH:54:ARG:HG3	34:BH:54:ARG:O	2.17	0.45
27:BA:2468:G:H22	27:BA:2481:G:H2'	1.81	0.45
27:DA:1794:U:H1'	27:DA:1900:A:N3	2.32	0.45
38:DP:97:PRO:HA	38:DP:100:LEU:HD23	1.98	0.45
43:DU:92:ARG:HB2	43:DU:92:ARG:CZ	2.45	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:65:ILE:CD1	43:DU:93:LYS:HA	2.25	0.45
33:DG:139:LEU:C	33:DG:141:PHE:N	2.69	0.45
1:AA:1221:G:N2	1:AA:1222:G:H1'	2.31	0.45
17:AQ:50:LYS:HG3	17:AQ:51:TYR:CD1	2.51	0.45
9:CI:3:GLN:HA	9:CI:19:LEU:O	2.17	0.45
1:AA:1178:G:N7	9:AI:97:LYS:HD3	2.32	0.45
7:AG:20:ASP:HB3	7:AG:23:VAL:HG23	1.98	0.45
31:BE:57:LYS:NZ	31:BE:59:VAL:CG1	2.80	0.45
2:AB:11:LEU:HD12	2:AB:213:LEU:HD21	1.98	0.45
37:DO:1:MET:HE2	37:DO:1:MET:H1	1.81	0.45
47:DY:39:VAL:O	47:DY:40:GLU:OE2	2.34	0.45
40:DR:96:ARG:NH1	40:DR:115:GLU:OE1	2.49	0.45
3:CC:72:LYS:HG2	3:CC:75:VAL:CG2	2.47	0.45
27:BA:26:G:H1'	27:BA:514:A:N6	2.32	0.45
17:CQ:67:LYS:O	17:CQ:69:LYS:N	2.50	0.45
1:AA:460:G:N2	1:AA:471:G:C8	2.85	0.45
40:BR:2:ARG:C	40:BR:3:HIS:O	2.52	0.45
27:BA:1494:A:C3'	27:BA:1494:A:N3	2.75	0.45
37:DO:88:ASN:OD1	37:DO:92:GLU:N	2.42	0.45
3:AC:14:ILE:CG1	3:AC:15:THR:N	2.74	0.45
4:AD:3:ARG:HH21	4:AD:5:ILE:CD1	2.28	0.45
5:CE:127:ASN:C	5:CE:131:ILE:HG12	2.35	0.45
36:DN:103:VAL:HA	36:DN:106:MET:HE3	1.99	0.45
35:BI:12:LEU:CD2	35:BI:12:LEU:N	2.80	0.45
1:AA:1124:G:O2'	10:AJ:38:ILE:HG21	2.16	0.45
10:AJ:6:ILE:HG13	10:AJ:6:ILE:O	2.17	0.45
46:DX:63:LYS:CB	46:DX:72:LYS:HG3	2.46	0.45
41:DS:49:VAL:HG21	41:DS:77:ALA:CA	2.40	0.45
31:BE:170:LEU:N	31:BE:170:LEU:HD12	2.32	0.45
46:BX:80:ILE:C	46:BX:80:ILE:HD13	2.37	0.45
32:DF:132:VAL:O	32:DF:133:ASN:C	2.55	0.45
51:B2:53:LEU:O	51:B2:57:ILE:HG12	2.17	0.45
33:BG:125:PHE:CD1	33:BG:131:TYR:HD1	2.34	0.45
1:CA:1140:C:C4	1:CA:1141:C:N3	2.85	0.45
15:CO:3:ILE:HA	15:CO:7:GLU:OE2	2.16	0.45
1:AA:280:C:O2	17:AQ:38:ARG:HG3	2.17	0.45
50:D1:84:GLY:O	50:D1:86:SER:N	2.50	0.45
2:AB:95:GLN:HG3	2:AB:148:TYR:CD1	2.38	0.45
27:DA:175:G:C2	27:DA:176:G:C4	3.05	0.45
39:DQ:58:PHE:CD1	39:DQ:58:PHE:O	2.69	0.45
1:AA:501:C:C3'	1:AA:501:C:C6	3.00	0.45
13:AM:32:GLU:O	13:AM:36:LYS:HG2	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1707:G:H2'	27:DA:1708:C:C6	2.52	0.45
27:DA:1429:G:H2'	27:DA:1430:C:C6	2.51	0.45
1:AA:555:C:H2'	1:AA:556:C:H6	1.79	0.45
4:AD:54:TYR:OH	4:AD:209:ARG:HD2	2.16	0.45
27:DA:16:G:H2'	27:DA:17:G:C8	2.52	0.45
27:DA:651:G:H5''	57:D8:18:ALA:HB2	1.99	0.45
19:CS:9:VAL:HG12	19:CS:9:VAL:O	2.16	0.45
8:AH:120:THR:HG23	8:AH:123:GLU:CD	2.36	0.45
27:DA:2163:C:OP1	27:DA:2165:G:O6	2.35	0.45
27:BA:1819:A:H5''	30:BD:161:THR:HG21	1.98	0.45
27:BA:1261:C:H2'	27:BA:1262:A:O5'	2.16	0.45
5:CE:64:ARG:NH1	5:CE:64:ARG:HG3	2.31	0.45
1:CA:1486:G:H2'	1:CA:1487:G:C1'	2.46	0.45
27:BA:814:C:C5	38:BP:27:HIS:NE2	2.84	0.45
1:CA:1092:A:O5'	1:CA:1092:A:H8	1.99	0.45
27:BA:1577:C:H2'	27:BA:1578:U:C1'	2.47	0.45
1:CA:189(C):C:O2'	1:CA:189(D):C:H5'	2.17	0.45
27:BA:272(B):G:HO2'	27:BA:272(C):G:P	2.37	0.45
17:CQ:77:VAL:O	17:CQ:78:GLU:HG2	2.17	0.45
8:CH:127:LEU:HD22	8:CH:127:LEU:HA	1.61	0.45
1:CA:774:G:C6	1:CA:775:G:C5	3.04	0.45
1:AA:1490:C:H2'	1:AA:1491:G:H8	1.82	0.45
8:AH:53:VAL:O	8:AH:55:GLY:N	2.49	0.45
10:AJ:23:ILE:HG23	10:AJ:85:LEU:CD2	2.46	0.45
51:D2:61:LEU:O	51:D2:62:THR:C	2.54	0.45
27:BA:2668:G:O2'	27:BA:2669:G:H5'	2.16	0.45
27:DA:1897:G:C2'	27:DA:1898:U:H5'	2.47	0.45
27:DA:2383:G:H2'	27:DA:2384:G:O4'	2.17	0.45
27:DA:632:A:H2'	27:DA:633:A:C8	2.52	0.45
28:BB:111:G:H2'	28:BB:112:U:O4'	2.15	0.45
27:BA:220:G:O2'	27:BA:233:A:N3	2.42	0.45
29:BC:60:GLY:O	29:BC:61:THR:HG23	2.17	0.45
37:BO:73:ASP:O	37:BO:73:ASP:OD1	2.34	0.45
38:BP:90:ARG:HG2	38:BP:90:ARG:O	2.17	0.45
17:AQ:13:ASP:OD1	17:AQ:13:ASP:C	2.55	0.45
46:BX:28:PHE:N	46:BX:28:PHE:CD1	2.85	0.45
27:BA:2547:U:H2'	27:BA:2548:G:C8	2.52	0.45
8:AH:9:MET:SD	8:AH:32:LYS:HD3	2.57	0.45
55:B6:15:GLU:CB	55:B6:18:ARG:NE	2.79	0.45
55:B6:51:GLU:C	55:B6:52:VAL:HG23	2.36	0.45
57:B8:29:LYS:HE2	57:B8:44:LYS:CB	2.46	0.45
38:BP:113:LYS:HA	38:BP:129:ALA:O	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BP:58:THR:HG22	38:BP:61:ARG:HG3	1.97	0.45
38:BP:96:THR:C	38:BP:97:PRO:O	2.55	0.45
4:AD:8:VAL:HA	4:AD:11:LEU:HD21	1.99	0.45
35:DI:114:LEU:CA	35:DI:129:THR:O	2.65	0.45
47:BY:27:VAL:CA	47:BY:28:LYS:HE3	2.47	0.45
44:DV:12:TYR:CE1	44:DV:22:VAL:HG12	2.52	0.45
33:BG:144:ILE:O	33:BG:144:ILE:CG2	2.63	0.45
33:BG:81:LYS:HB3	33:BG:82:LEU:H	1.46	0.45
3:CC:11:ARG:HB3	3:CC:15:THR:HB	1.98	0.45
27:DA:1042:G:N3	27:DA:1042:G:H2'	2.31	0.45
48:DZ:38:VAL:HG23	48:DZ:39:ASP:N	2.32	0.45
48:DZ:39:ASP:OD1	48:DZ:41:VAL:CG1	2.65	0.45
48:DZ:97:MET:N	48:DZ:124:LEU:HD13	2.30	0.45
51:D2:18:PRO:O	51:D2:21:LEU:HB2	2.17	0.45
51:D2:64:LEU:HD11	51:D2:68:ARG:HE	1.82	0.45
27:DA:249:C:OP2	27:DA:2394:C:O2'	2.27	0.45
42:DT:85:LYS:HZ2	42:DT:85:LYS:CB	2.30	0.45
27:DA:622:G:OP2	38:DP:108:LYS:HE3	2.17	0.45
38:DP:147:LEU:CG	38:DP:148:LEU:N	2.77	0.45
31:DE:116:VAL:CG2	31:DE:122:PHE:CG	3.00	0.45
44:DV:46:VAL:HG22	44:DV:47:VAL:N	2.29	0.45
1:AA:267:C:O2'	1:AA:268:C:H5'	2.17	0.45
9:CI:53:VAL:O	9:CI:54:ASP:HB2	2.17	0.45
31:DE:5:LEU:O	31:DE:28:ALA:HA	2.16	0.45
27:DA:2833:G:C2'	27:DA:2834:G:H5''	2.46	0.45
20:AT:97:ALA:HB3	20:AT:99:LEU:CG	2.47	0.45
42:BT:3:ARG:HB3	42:BT:6:LEU:N	2.26	0.45
27:BA:2863:C:C2'	27:BA:2864:G:C5'	2.92	0.45
27:BA:2632:A:N3	31:BE:61:ARG:NH1	2.64	0.45
47:DY:42:VAL:O	47:DY:64:GLU:HA	2.16	0.45
5:CE:76:ILE:CD1	5:CE:142:LEU:HD21	2.47	0.45
1:CA:256:U:OP1	17:CQ:17:LYS:NZ	2.48	0.45
17:CQ:40:LYS:HG2	17:CQ:41:LYS:N	2.30	0.45
27:BA:1155:A:O3'	43:BU:55:ARG:NH1	2.50	0.45
12:AL:44:LYS:CB	12:AL:45:PRO:CD	2.94	0.45
11:CK:48:ILE:O	11:CK:50:TYR:N	2.49	0.45
1:CA:955:U:H2'	1:CA:956:U:O4'	2.17	0.45
4:AD:3:ARG:NH2	4:AD:5:ILE:HG12	2.31	0.45
5:AE:67:VAL:CG2	5:AE:68:GLU:N	2.80	0.45
40:BR:77:ARG:O	40:BR:81:ASP:OD2	2.35	0.45
1:CA:460:G:C6	1:CA:470:C:H5''	2.50	0.45
4:CD:15:GLU:O	4:CD:17:VAL:N	2.50	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:229:U:O2'	1:CA:230:G:H5'	2.17	0.45
46:BX:14:SER:H	46:BX:17:ALA:HB3	1.80	0.45
34:BH:89:ILE:CD1	34:BH:90:LYS:N	2.78	0.45
28:BB:106:G:H2'	28:BB:107:G:H8	1.81	0.45
8:CH:104:ARG:O	8:CH:106:GLY:N	2.50	0.45
34:DH:53:GLU:O	34:DH:54:ARG:CB	2.65	0.45
7:AG:65:ALA:HB3	7:AG:124:LEU:HD23	1.98	0.45
41:DS:96:GLY:C	41:DS:98:VAL:H	2.20	0.45
27:BA:299:A:C5	27:BA:322:A:C2	3.05	0.45
27:BA:893:C:H2'	27:BA:894:C:H6	1.81	0.45
6:AF:91:VAL:HG11	18:AR:72:ARG:NH2	2.30	0.45
1:AA:1397:C:C3'	1:AA:1398:A:H5''	2.46	0.45
1:AA:16:A:O4'	5:AE:17:ALA:HB3	2.17	0.45
27:DA:2712:U:OP1	27:DA:2714:G:H4'	2.17	0.45
45:BW:35:ILE:HG23	54:B5:28:PRO:HD2	1.99	0.45
27:DA:1270:C:H5''	27:DA:1271:G:H5'	1.99	0.45
36:BN:31:ALA:O	36:BN:35:ARG:HG3	2.17	0.45
1:CA:398:C:H2'	1:CA:399:G:C8	2.51	0.45
8:AH:120:THR:N	8:AH:123:GLU:HB2	2.32	0.45
27:BA:710:G:H2'	27:BA:711:G:C8	2.52	0.45
27:BA:991:C:C6	27:BA:991:C:H5'	2.48	0.45
35:DI:4:ILE:O	35:DI:36:ALA:HB1	2.17	0.45
20:AT:73:HIS:HB3	20:AT:74:LYS:H	1.49	0.45
16:AP:68:ASP:O	16:AP:70:ALA:N	2.50	0.45
32:BF:178:PRO:C	32:BF:180:GLY:H	2.18	0.45
32:DF:153:SER:H	32:DF:190:GLU:CD	2.20	0.45
50:B1:67:ILE:N	50:B1:68:PRO:HD2	2.32	0.45
14:CN:44:LEU:C	14:CN:44:LEU:HD12	2.37	0.45
46:BX:57:LEU:HD13	46:BX:78:LYS:HG2	1.99	0.45
27:DA:1925:C:C2'	27:DA:1926:U:H5'	2.47	0.45
27:BA:947:G:N3	27:BA:984:A:H2	2.15	0.45
1:CA:802:A:C2'	1:CA:803:G:H5'	2.47	0.45
19:CS:18:LYS:HD2	19:CS:22:LEU:CD2	2.46	0.45
8:AH:67:PRO:O	8:AH:68:ARG:O	2.35	0.45
1:CA:1414:U:H2'	1:CA:1415:G:H8	1.82	0.45
3:CC:173:VAL:O	3:CC:175:LEU:HD12	2.16	0.45
45:BW:82:LEU:HB2	45:BW:98:LYS:HB2	1.99	0.45
59:CX:69:C:H2'	59:CX:70:G:O4'	2.16	0.45
30:BD:247:ALA:HB1	30:BD:251:GLY:O	2.17	0.45
1:CA:49:U:C2	1:CA:361:G:N2	2.84	0.45
27:BA:563:G:H2'	27:BA:563:G:N3	2.32	0.45
27:BA:2693:A:H2'	27:BA:2694:G:H8	1.81	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:775:G:O2'	1:AA:776:G:H5'	2.17	0.45
1:CA:51:A:H61	1:CA:314:C:H1'	1.82	0.45
27:DA:2300:G:H2'	27:DA:2301:C:C6	2.52	0.45
27:BA:1599:C:H5''	46:BX:35:THR:HG22	1.99	0.45
1:AA:1420:C:O5'	1:AA:1420:C:H6	2.00	0.45
5:AE:107:ARG:O	5:AE:111:GLU:HB2	2.17	0.45
5:AE:147:ASP:OD2	5:AE:147:ASP:N	2.49	0.45
1:CA:720:C:O5'	1:CA:720:C:H6	1.99	0.45
10:CJ:90:LEU:N	10:CJ:91:PRO:CD	2.80	0.45
57:B8:13:ARG:O	57:B8:14:VAL:HB	2.17	0.45
27:BA:638:G:N1	27:BA:651:G:C8	2.85	0.45
38:BP:147:LEU:HB3	38:BP:148:LEU:H	1.62	0.45
13:AM:89:GLY:C	13:AM:90:LEU:O	2.55	0.45
2:AB:22:LYS:H	2:AB:40:HIS:CE1	2.34	0.45
35:DI:129:THR:CG2	35:DI:130:TYR:N	2.71	0.45
42:BT:23:ARG:HG2	42:BT:120:ARG:NH1	2.32	0.45
54:B5:54:GLY:O	54:B5:56:LYS:CE	2.65	0.45
35:BI:96:ASP:C	35:BI:98:ALA:H	2.21	0.45
48:DZ:96:GLU:O	48:DZ:97:MET:HB3	2.17	0.45
38:DP:59:LEU:HA	38:DP:61:ARG:HD2	1.98	0.45
34:BH:8:PRO:O	34:BH:9:ILE:CG1	2.58	0.45
42:DT:19:LEU:CD1	42:DT:19:LEU:N	2.70	0.45
32:BF:36:VAL:HB	32:BF:183:VAL:HG21	1.98	0.45
44:DV:41:GLY:HA3	44:DV:45:THR:OG1	2.17	0.45
33:DG:139:LEU:HD23	33:DG:139:LEU:N	2.32	0.45
33:DG:39:ILE:HD11	33:DG:155:MET:CB	2.46	0.45
33:DG:86:MET:O	33:DG:87:PRO:C	2.55	0.45
23:AW:57:A:HO2'	23:AW:59:U:H5	1.65	0.45
1:CA:159:G:H21	1:CA:161:A:H3'	1.82	0.45
7:CG:37:ASN:ND2	9:CI:41:VAL:H	2.14	0.45
4:AD:22:LYS:HB2	4:AD:26:CYS:CB	2.47	0.45
4:AD:24:GLU:O	4:AD:27:TYR:HB2	2.17	0.45
31:DE:48:GLN:HE22	31:DE:64:LYS:CE	2.30	0.45
41:DS:30:ARG:HD3	41:DS:31:SER:H	1.82	0.45
1:AA:1348:U:H2'	1:AA:1349:A:H8	1.81	0.45
10:AJ:50:ILE:N	10:AJ:50:ILE:HD13	2.31	0.45
23:AW:36:A:H2'	23:AW:37:U:O4'	2.16	0.45
45:DW:20:VAL:HG11	45:DW:44:ALA:N	2.32	0.45
30:BD:54:ARG:HD3	30:BD:54:ARG:HA	1.65	0.45
1:AA:1371:G:H2'	1:AA:1372:U:C6	2.50	0.45
31:BE:76:ARG:CG	31:BE:195:LEU:HD22	2.34	0.45
31:BE:52:LEU:CD2	31:BE:76:ARG:HD3	2.47	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1442(A):G:H2'	42:DT:118:ARG:HH12	1.82	0.45
31:DE:111:ARG:HE	31:DE:111:ARG:HB2	1.45	0.45
31:DE:111:ARG:O	40:DR:2:ARG:HG3	2.17	0.45
4:AD:121:VAL:HG12	4:AD:134:ASP:HA	1.98	0.45
59:CX:58:A:O2'	59:CX:60:U:C6	2.69	0.45
5:AE:118:ILE:HG13	5:AE:119:LEU:N	2.31	0.45
41:BS:68:GLN:O	41:BS:70:GLY:N	2.50	0.45
39:BQ:27:VAL:O	39:BQ:67:ARG:NH1	2.50	0.45
27:DA:1328:G:C2'	27:DA:1330:C:C5	2.89	0.45
49:D0:49:LYS:O	49:D0:51:VAL:HG23	2.16	0.45
27:BA:2014:A:O2'	54:B5:2:ALA:CB	2.64	0.45
53:B4:82:GLU:O	53:B4:83:ARG:CB	2.65	0.45
34:BH:85:LYS:NZ	34:BH:145:ALA:CA	2.78	0.45
50:D1:45:ASN:CG	50:D1:45:ASN:O	2.56	0.45
2:CB:16:HIS:CD2	2:CB:210:SER:HA	2.49	0.45
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.52	0.45
1:CA:1206:G:O4'	3:CC:194:GLY:N	2.50	0.45
27:DA:2807:G:H1	27:DA:2892:A:H62	1.64	0.45
27:DA:2018:G:C2	27:DA:2019:A:C4	3.05	0.45
50:B1:51:VAL:O	50:B1:57:GLU:O	2.35	0.45
30:DD:130:ALA:HA	30:DD:192:THR:HA	1.98	0.45
37:BO:24:VAL:CG2	37:BO:33:ALA:HB2	2.47	0.45
27:BA:1668:A:N6	27:BA:1676:A:H61	2.15	0.45
27:BA:201:C:C2'	27:BA:202:U:H5'	2.47	0.45
4:CD:8:VAL:HA	4:CD:11:LEU:CD1	2.47	0.45
18:AR:37:VAL:HG23	18:AR:38:GLU:HG3	1.98	0.45
3:CC:54:ARG:NH1	3:CC:54:ARG:HG2	2.32	0.45
47:DY:47:LYS:O	47:DY:48:ALA:HB3	2.17	0.45
46:BX:27:THR:HB	46:BX:80:ILE:HB	1.99	0.45
48:DZ:128:SER:O	48:DZ:130:ARG:N	2.50	0.45
20:AT:26:ASN:HD22	20:AT:27:LYS:H	1.65	0.45
11:AK:80:VAL:HG22	11:AK:103:LEU:HD12	1.99	0.45
27:BA:883:G:H2'	27:BA:884:C:C5'	2.39	0.45
30:DD:28:GLU:N	30:DD:29:PRO:HD2	2.26	0.45
28:BB:92:C:H2'	28:BB:93:G:C8	2.51	0.45
48:BZ:23:LEU:CD1	48:BZ:84:HIS:HA	2.45	0.45
8:AH:111:ILE:O	8:AH:112:LEU:HB3	2.16	0.45
8:AH:63:LEU:N	8:AH:63:LEU:CD2	2.80	0.45
43:BU:44:ASN:OD1	44:BV:75:PHE:O	2.35	0.45
27:DA:1005:C:C2	27:DA:1143:A:C5	3.05	0.45
6:AF:100:ASN:N	6:AF:100:ASN:ND2	2.64	0.45
7:CG:44:TYR:C	7:CG:46:ALA:N	2.70	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1038:C:O5'	1:AA:1038:C:H6	2.00	0.45
27:DA:1854:A:H3'	27:DA:1855:G:C8	2.48	0.45
25:AY:68:C:H2'	25:AY:69:C:C5'	2.46	0.45
27:DA:1513:C:H2'	27:DA:1514:U:H6	1.82	0.45
27:BA:154:G:N3	27:BA:154:G:H2'	2.32	0.45
30:DD:232:PRO:HD2	30:DD:249:PRO:HA	1.99	0.45
1:CA:1277:C:HO2'	1:CA:1279:A:H8	1.61	0.45
7:AG:57:GLU:HG3	7:AG:60:LYS:HB2	1.99	0.45
1:CA:429:U:C1'	1:CA:430:A:H5''	2.47	0.45
37:BO:85:VAL:HG12	37:BO:86:ILE:O	2.16	0.45
50:B1:19:GLN:CB	50:B1:35:THR:HG22	2.46	0.45
56:D7:24:THR:HG23	56:D7:27:GLY:H	1.82	0.45
4:CD:147:ALA:HB2	4:CD:182:LYS:CB	2.47	0.45
43:DU:17:ILE:HG23	43:DU:39:LEU:HD12	1.99	0.45
27:DA:1775:U:C2'	27:DA:1776:G:H5'	2.46	0.45
46:DX:41:ASN:N	46:DX:41:ASN:ND2	2.63	0.45
1:AA:715:A:H2'	1:AA:716:A:C8	2.52	0.45
30:BD:166:GLN:HA	30:BD:166:GLN:NE2	2.32	0.45
30:BD:117:VAL:HG21	30:BD:128:GLY:HA3	1.99	0.45
1:CA:243:A:H4'	1:CA:244:U:C5'	2.46	0.45
2:AB:82:ARG:O	2:AB:86:GLU:CG	2.64	0.45
21:AU:9:ARG:HD3	21:AU:22:ARG:HG3	1.99	0.45
1:CA:1281:U:H5'	1:CA:1282:C:H5	1.82	0.45
23:CW:3:G:H2'	23:CW:4:G:O4'	2.16	0.45
27:DA:2307:G:N3	27:DA:2307:G:H5''	2.31	0.45
13:CM:75:ALA:C	13:CM:77:ASN:H	2.19	0.45
27:DA:1319:G:H1'	27:DA:1334:G:N2	2.32	0.45
27:BA:1354:A:H2'	27:BA:1355:G:O4'	2.17	0.45
51:D2:29:LYS:O	51:D2:32:LEU:CB	2.65	0.45
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.52	0.45
1:AA:44:G:N3	1:AA:399:G:C2	2.84	0.45
39:BQ:118:LEU:O	39:BQ:121:ALA:HB3	2.16	0.45
46:BX:34:ALA:HA	46:BX:38:GLU:OE1	2.17	0.45
1:CA:1495:U:O2'	27:DA:1919:A:N1	2.45	0.45
1:AA:418:C:H2'	1:AA:419:C:C6	2.52	0.45
27:BA:1406:U:H3'	27:BA:1407:C:H6	1.80	0.45
18:AR:29:PHE:HD2	18:AR:29:PHE:O	2.00	0.45
29:BC:85:GLU:HG2	29:BC:85:GLU:O	2.17	0.45
36:BN:78:TYR:N	36:BN:78:TYR:CD1	2.85	0.45
2:CB:7:VAL:HG12	2:CB:7:VAL:O	2.17	0.45
29:BC:214:VAL:C	29:BC:216:THR:N	2.69	0.45
57:B8:50:LEU:C	57:B8:53:PRO:CD	2.85	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2359:C:H6	27:BA:2359:C:O5'	2.00	0.45
4:AD:98:GLU:HG3	4:AD:103:ASN:HD21	1.81	0.45
2:AB:21:ARG:HD3	2:AB:39:ILE:HG12	1.99	0.45
42:BT:25:GLY:O	42:BT:26:ASP:CB	2.64	0.45
28:DB:77:U:P	48:DZ:18:ARG:HH21	2.40	0.45
55:D6:33:LYS:O	55:D6:34:LEU:CB	2.62	0.45
27:BA:1142(A):A:C8	27:BA:1142(A):A:H5'	2.52	0.45
42:DT:29:ARG:HE	42:DT:86:ILE:CG2	2.07	0.45
27:BA:660:G:O2'	27:BA:661:C:H5'	2.16	0.45
42:DT:13:ARG:HH11	42:DT:15:VAL:HG12	1.82	0.45
44:DV:2:PHE:CD1	44:DV:13:ARG:NH1	2.84	0.45
27:DA:2302:G:N1	27:DA:2303:G:C4	2.85	0.45
33:DG:44:GLY:H	33:DG:88:ILE:HG12	1.82	0.45
33:DG:68:PRO:HB3	33:DG:92:VAL:HB	1.99	0.45
18:CR:56:THR:O	18:CR:58:LEU:HD12	2.17	0.45
17:AQ:59:ILE:CD1	17:AQ:59:ILE:N	2.79	0.45
44:BV:15:GLU:O	44:BV:96:ILE:HG21	2.17	0.45
9:CI:79:LEU:CD2	9:CI:102:LEU:HA	2.37	0.45
30:BD:70:TRP:HZ3	30:BD:146:GLU:CD	2.20	0.45
31:DE:24:THR:O	31:DE:184:VAL:HG23	2.17	0.45
27:DA:2759:G:C5'	27:DA:2759:G:C8	3.00	0.45
3:CC:167:TRP:O	3:CC:168:ALA:HB3	2.17	0.45
31:DE:112:GLY:HA3	40:DR:2:ARG:HG3	1.98	0.45
32:BF:83:PHE:O	32:BF:84:VAL:CB	2.61	0.45
43:BU:85:LYS:C	43:BU:87:GLY:H	2.20	0.45
27:DA:2744:G:N7	27:DA:2755:C:C2	2.85	0.45
5:AE:40:ARG:O	5:AE:41:VAL:HG13	2.17	0.45
34:DH:33:LEU:HD21	34:DH:136:ILE:CG2	2.47	0.45
3:AC:92:ALA:CA	3:AC:99:VAL:HG11	2.47	0.45
6:CF:19:LEU:HD23	6:CF:19:LEU:C	2.38	0.45
6:CF:19:LEU:HD11	6:CF:59:TYR:CZ	2.51	0.45
8:AH:30:ARG:O	8:AH:31:PHE:C	2.55	0.45
15:AO:55:GLY:O	15:AO:59:MET:HB2	2.17	0.45
35:BI:71:ILE:CG1	35:BI:72:LEU:HD22	2.47	0.45
13:CM:37:THR:HB	13:CM:55:ARG:HG2	1.99	0.45
27:DA:907:U:C3'	27:DA:908:C:H5''	2.47	0.45
27:BA:2847:U:C2'	27:BA:2848:G:H5'	2.47	0.45
15:AO:2:PRO:HB2	15:AO:3:ILE:HD13	1.98	0.45
27:DA:66:C:O2	27:DA:89:G:C2	2.70	0.45
4:CD:9:CYS:O	4:CD:10:ARG:HB3	2.17	0.45
1:CA:625:G:H4'	16:CP:16:HIS:HD2	1.73	0.45
11:CK:80:VAL:O	11:CK:80:VAL:HG23	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DF:178:PRO:CB	32:DF:201:VAL:HG11	2.43	0.45
27:BA:1722:A:C2	27:BA:1740:G:H2'	2.52	0.45
20:CT:10:LEU:CD2	20:CT:11:SER:N	2.77	0.45
27:BA:1998:G:O2'	27:BA:1999:C:H5'	2.17	0.45
15:CO:6:GLU:C	15:CO:8:LYS:N	2.68	0.45
27:DA:2650:U:H6	27:DA:2650:U:O5'	2.00	0.45
27:DA:2122:U:H2'	27:DA:2123:G:C8	2.52	0.45
36:BN:87:LEU:CD2	36:BN:91:LEU:HD11	2.43	0.45
29:BC:34:THR:OG1	29:BC:35:ALA:N	2.49	0.45
18:AR:44:LEU:HD21	18:AR:70:ILE:CG2	2.47	0.45
3:CC:92:ALA:N	3:CC:99:VAL:HG21	2.31	0.45
2:CB:24:TRP:CG	2:CB:25:ASN:N	2.85	0.45
8:AH:110:ALA:O	8:AH:112:LEU:HD23	2.17	0.45
1:CA:621:A:C6	1:CA:622:A:C6	3.05	0.45
27:DA:2442:C:O5'	27:DA:2442:C:H6	2.00	0.45
43:DU:21:ALA:HB1	43:DU:24:TYR:HD1	1.82	0.45
27:BA:320:A:C2'	32:BF:136:THR:HG21	2.43	0.45
1:AA:968:A:H4'	1:AA:969:A:OP2	2.17	0.45
34:BH:113:VAL:HG21	34:BH:151:ILE:HG23	1.99	0.45
20:CT:16:HIS:CD2	20:CT:20:LEU:HD21	2.51	0.45
2:CB:236:TYR:HD2	2:CB:239:VAL:HB	1.81	0.45
4:AD:128:VAL:HG12	4:AD:129:ASN:HD22	1.81	0.45
32:BF:110:LEU:HD12	32:BF:202:PHE:HE1	1.81	0.45
27:BA:2181:G:O2'	27:BA:2182:G:H5'	2.16	0.45
31:BE:8:LYS:HZ2	31:BE:188:VAL:HG13	1.81	0.45
27:DA:1197:G:H2'	27:DA:1198:U:C6	2.51	0.45
2:AB:19:HIS:CG	2:AB:20:GLU:HG2	2.52	0.45
27:DA:2287:A:N6	27:DA:2344:U:C2	2.84	0.45
1:CA:579:G:C6	1:CA:580:U:C4	3.05	0.45
30:BD:245:PRO:HD2	30:BD:245:PRO:O	2.17	0.45
7:CG:120:ILE:O	7:CG:124:LEU:HD12	2.16	0.45
32:DF:53:THR:HG23	32:DF:55:GLY:H	1.81	0.45
25:CY:52:G:C2	25:CY:53:U:N3	2.85	0.45
9:AI:35:GLU:HA	9:AI:38:GLN:HB2	1.99	0.45
1:CA:1220:G:H2'	1:CA:1221:G:H8	1.82	0.45
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.52	0.45
27:DA:2142:C:O2'	27:DA:2143:C:H5'	2.17	0.45
35:DI:29:TYR:HE1	35:DI:33:ARG:CZ	2.30	0.45
27:DA:2338:G:H2'	27:DA:2339:G:C8	2.52	0.45
7:CG:92:SER:CB	7:CG:94:ARG:HH21	2.29	0.45
28:DB:42:C:H4'	33:DG:67:LYS:O	2.16	0.45
17:CQ:93:GLN:O	17:CQ:96:GLU:N	2.50	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2638:G:OP2	31:DE:82:ARG:NH2	2.50	0.45
4:CD:49:ARG:HD3	4:CD:50:ARG:N	2.32	0.45
1:AA:336:C:O5'	1:AA:336:C:H6	2.00	0.45
27:DA:1307:A:N6	27:DA:1606:G:O2'	2.50	0.45
27:DA:2435:A:C6	27:DA:2436:G:C5	3.05	0.45
4:CD:191:ARG:HD2	4:CD:191:ARG:O	2.17	0.45
27:DA:489:G:N7	45:DW:49:LYS:NZ	2.64	0.45
55:B6:21:TYR:OH	55:B6:52:VAL:HG11	2.17	0.44
2:AB:74:LYS:HE3	2:AB:166:ASP:HB2	1.98	0.44
35:DI:80:PRO:CA	35:DI:143:SER:OG	2.64	0.44
35:BI:91:SER:CA	35:BI:121:LYS:HG3	2.47	0.44
13:AM:2:ALA:HB3	13:AM:9:ILE:CG2	2.47	0.44
33:BG:133:LEU:HD13	33:BG:135:LEU:HD13	1.98	0.44
33:BG:45:GLU:HB3	33:BG:46:ALA:H	1.54	0.44
14:CN:23:ARG:CZ	14:CN:30:ALA:HB2	2.46	0.44
14:CN:29:ARG:O	14:CN:33:VAL:HG13	2.17	0.44
10:CJ:34:VAL:CG2	10:CJ:74:ILE:HG22	2.47	0.44
40:DR:77:ARG:O	40:DR:80:PHE:N	2.50	0.44
27:BA:66:C:O2	27:BA:89:G:C2	2.70	0.44
43:DU:61:TRP:CZ2	43:DU:94:ASN:OD1	2.70	0.44
27:BA:587:C:H3'	38:BP:33:ARG:NH2	2.32	0.44
1:AA:1222:G:O2'	1:AA:1223:C:H5'	2.17	0.44
1:CA:1372:U:OP1	9:CI:71:SER:HB3	2.17	0.44
30:BD:131:LEU:HD13	30:BD:136:ILE:CD1	2.47	0.44
44:DV:52:VAL:HG11	44:DV:55:ALA:HB3	1.98	0.44
31:DE:36:ARG:O	31:DE:38:THR:HG23	2.17	0.44
12:AL:38:ARG:HG2	12:AL:39:THR:N	2.27	0.44
1:CA:1363(A):A:C4'	1:CA:1364:U:H5''	2.46	0.44
9:AI:113:LYS:HD2	9:AI:119:ALA:HB1	1.98	0.44
40:DR:103:ARG:O	40:DR:104:ARG:C	2.56	0.44
32:DF:161:GLU:O	32:DF:164:ARG:HB3	2.16	0.44
27:BA:1369:G:N3	27:BA:1810:A:C2	2.85	0.44
1:AA:1144:G:H21	1:AA:1146:A:H62	1.64	0.44
31:BE:11:MET:HB2	31:BE:23:VAL:O	2.17	0.44
2:AB:220:ASP:HA	2:AB:223:ILE:CG1	2.48	0.44
47:DY:28:LYS:HA	47:DY:39:VAL:H	1.82	0.44
15:CO:27:VAL:O	15:CO:29:VAL:N	2.50	0.44
32:DF:125:LEU:HD12	32:DF:199:TRP:HB2	1.99	0.44
2:CB:165:VAL:CG2	2:CB:166:ASP:H	2.11	0.44
39:DQ:109:VAL:HG12	39:DQ:113:GLN:HB2	1.99	0.44
23:AW:26:C:P	26:AZ:1:KBE:HGA	2.56	0.44
26:AZ:1:KBE:O	26:AZ:2:DPP:HA	2.16	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:46:GLY:HA2	11:CK:50:TYR:O	2.17	0.44
12:CL:82:ILE:HA	12:CL:82:ILE:HD13	1.79	0.44
1:AA:457:C:N4	1:AA:458:C:N4	2.64	0.44
23:CW:47:C:C2	23:CW:58:A:H1'	2.52	0.44
13:CM:91:ARG:O	13:CM:96:LEU:O	2.34	0.44
1:AA:574:A:N3	1:AA:883:C:H1'	2.32	0.44
27:DA:356:G:H5'	27:DA:356:G:H8	1.82	0.44
34:DH:122:THR:CG2	34:DH:123:PHE:N	2.80	0.44
6:CF:5:GLU:HG2	6:CF:62:TRP:HZ2	1.81	0.44
1:CA:1055:A:N7	1:CA:1206:G:N1	2.65	0.44
46:DX:63:LYS:HE3	46:DX:72:LYS:HG3	1.99	0.44
16:CP:58:TYR:HD1	16:CP:59:TRP:N	2.15	0.44
1:AA:725:G:C4	1:AA:726:C:C5	3.05	0.44
33:DG:102:PHE:HA	33:DG:105:LYS:HZ1	1.81	0.44
3:AC:113:ALA:N	3:AC:202:ILE:HD12	2.32	0.44
20:AT:16:HIS:O	20:AT:17:ARG:C	2.55	0.44
5:CE:141:GLN:O	5:CE:143:ARG:NE	2.49	0.44
1:AA:1166:G:H2'	1:AA:1169:A:OP2	2.16	0.44
34:DH:38:SER:OG	34:DH:40:GLU:HG2	2.17	0.44
49:B0:25:ARG:NH1	49:B0:25:ARG:CG	2.80	0.44
9:CI:59:PHE:N	9:CI:59:PHE:CD1	2.85	0.44
11:CK:34:ASP:CB	11:CK:35:PRO:CD	2.96	0.44
59:CX:42:G:H2'	59:CX:43:A:O5'	2.17	0.44
44:DV:89:GLN:HA	44:DV:90:PRO:HD3	1.81	0.44
44:BV:82:ARG:C	44:BV:83:ARG:HG2	2.38	0.44
8:CH:27:PRO:O	8:CH:32:LYS:HD2	2.17	0.44
4:AD:91:SER:O	4:AD:92:VAL:C	2.55	0.44
27:DA:1416:G:H21	27:DA:1586:A:H62	1.60	0.44
50:D1:62:VAL:HG22	50:D1:63:ALA:H	1.80	0.44
27:BA:2183:C:O2'	27:BA:2184:G:H5'	2.16	0.44
27:BA:506:G:O3'	27:BA:507:A:H8	2.00	0.44
27:BA:1844:C:C2'	27:BA:1845:G:H5'	2.46	0.44
25:AY:64:G:H2'	25:AY:65:U:C6	2.52	0.44
31:BE:37:ARG:HB2	31:BE:46:ALA:HB3	1.99	0.44
27:DA:2165:G:H2'	27:DA:2166:G:O4'	2.16	0.44
27:BA:158:U:O3'	27:BA:171:G:C8	2.70	0.44
35:DI:5:LEU:N	35:DI:5:LEU:HD12	2.32	0.44
2:AB:19:HIS:ND1	2:AB:189:ASP:OD2	2.50	0.44
30:DD:166:GLN:HE21	30:DD:166:GLN:CA	2.29	0.44
43:DU:110:VAL:HG12	43:DU:114:LYS:HD2	2.00	0.44
1:CA:1058:G:OP1	3:CC:199:LYS:HE3	2.16	0.44
27:BA:385:C:O2	27:BA:390:A:C2	2.69	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:309:G:H1'	1:CA:608:A:N1	2.31	0.44
20:AT:94:ALA:O	20:AT:95:ALA:HB3	2.17	0.44
19:CS:36:ARG:HD2	19:CS:52:TYR:O	2.16	0.44
27:DA:957:A:C6	27:DA:2459:A:C8	3.05	0.44
27:BA:2001:A:H4'	27:BA:2689:U:H2'	1.99	0.44
1:CA:1430:C:O5'	1:CA:1430:C:H6	2.00	0.44
15:AO:65:ARG:CB	15:AO:65:ARG:HH11	2.30	0.44
1:CA:802:A:O2'	1:CA:803:G:H5'	2.16	0.44
27:BA:492:A:H2'	27:BA:493:G:O4'	2.17	0.44
27:BA:1348:G:H2'	27:BA:1349:A:H5''	1.99	0.44
27:DA:1906:G:O2'	27:DA:1907:G:H5'	2.16	0.44
30:BD:64:ILE:CG1	30:BD:64:ILE:O	2.65	0.44
17:CQ:15:MET:CB	17:CQ:18:THR:HB	2.47	0.44
9:CI:7:THR:H	9:CI:83:ARG:CD	2.29	0.44
1:AA:1092:A:C2	1:AA:1183:A:C2	3.05	0.44
36:BN:73:THR:HG22	36:BN:84:LYS:HA	1.99	0.44
27:DA:608:A:H3'	27:DA:609:A:H8	1.82	0.44
28:BB:28:C:H2'	28:BB:29:A:O4'	2.17	0.44
16:CP:4:ILE:HB	16:CP:66:PRO:HB3	1.99	0.44
29:BC:184:LYS:C	29:BC:186:ALA:H	2.19	0.44
27:DA:1127:A:N7	27:DA:2488:A:O2'	2.48	0.44
27:DA:2114:A:H2'	27:DA:2115:G:O4'	2.17	0.44
15:AO:43:LEU:HD11	15:AO:53:HIS:HA	1.99	0.44
14:CN:35:ARG:HH11	14:CN:35:ARG:HG2	1.81	0.44
9:AI:23:ASN:HD22	9:AI:23:ASN:N	2.15	0.44
35:DI:87:LYS:HE2	35:DI:87:LYS:HA	1.99	0.44
1:CA:352:C:O2	1:CA:352:C:H2'	2.17	0.44
48:BZ:113:GLY:O	48:BZ:176:PRO:HG3	2.17	0.44
48:BZ:26:VAL:HG23	48:BZ:34:ARG:O	2.17	0.44
56:B7:26:GLY:O	56:B7:30:VAL:HG23	2.18	0.44
57:B8:29:LYS:HG2	57:B8:44:LYS:HG2	1.99	0.44
4:AD:194:LEU:HB3	4:AD:196:LEU:CD1	2.48	0.44
4:AD:200:GLU:O	4:AD:203:VAL:N	2.51	0.44
35:DI:66:GLU:O	35:DI:70:GLU:HB2	2.17	0.44
54:B5:56:LYS:HE2	54:B5:59:GLU:CG	2.48	0.44
28:BB:34:U:C2	28:BB:44:G:N7	2.85	0.44
3:CC:174:PRO:HB2	3:CC:177:THR:OG1	2.18	0.44
1:CA:521:G:H5'	12:CL:69:GLY:O	2.17	0.44
27:BA:1022:G:N2	27:BA:1142(A):A:C2	2.85	0.44
28:DB:114:C:O2'	41:DS:46:VAL:CG1	2.57	0.44
41:DS:106:ARG:CD	41:DS:107:GLU:O	2.60	0.44
41:DS:93:LYS:HG3	41:DS:93:LYS:O	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:808:G:H2'	27:BA:809:G:C8	2.52	0.44
30:BD:34:VAL:O	30:BD:35:LYS:HG2	2.17	0.44
36:DN:57:ALA:HB3	36:DN:124:ALA:HA	1.99	0.44
53:D4:59:VAL:HG11	53:D4:62:CYS:CB	2.45	0.44
17:AQ:51:TYR:CE2	17:AQ:73:VAL:HG11	2.52	0.44
1:CA:166:G:H2'	1:CA:167:G:H8	1.81	0.44
37:DO:71:ARG:HH12	42:DT:74:ARG:HH12	1.65	0.44
9:CI:40:LEU:C	9:CI:42:ARG:N	2.71	0.44
31:DE:201:THR:C	31:DE:202:LYS:HD2	2.38	0.44
31:DE:28:ALA:HB3	31:DE:93:VAL:HG13	1.99	0.44
19:CS:10:PHE:CZ	19:CS:70:LYS:NZ	2.75	0.44
41:DS:31:SER:HB3	41:DS:34:HIS:CE1	2.51	0.44
28:DB:27:C:H5'	41:DS:33:LYS:HB3	2.00	0.44
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.17	0.44
45:DW:14:PRO:HG2	45:DW:78:GLU:CG	2.47	0.44
30:BD:43:ARG:CB	30:BD:54:ARG:CB	2.95	0.44
27:DA:271(S):G:C2	27:DA:271(T):C:C2	3.05	0.44
1:AA:1131:G:H1	1:AA:1143:G:H21	1.64	0.44
7:AG:13:GLN:HA	7:AG:14:PRO:HD3	1.88	0.44
27:DA:1654:A:OP2	40:DR:3:HIS:HD2	1.97	0.44
47:DY:29:GLU:N	47:DY:29:GLU:OE1	2.50	0.44
47:DY:30:VAL:CG1	47:DY:32:PRO:HB3	2.48	0.44
47:DY:96:ILE:HD12	47:DY:99:CYS:CB	2.47	0.44
30:BD:26:LYS:CE	30:BD:82:ILE:H	2.29	0.44
1:CA:274:A:O2'	1:CA:275:G:C8	2.56	0.44
27:BA:1436:G:N2	27:BA:1437:C:H1'	2.33	0.44
43:BU:104:GLN:NE2	43:BU:104:GLN:N	2.60	0.44
44:BV:39:LEU:HA	44:BV:47:VAL:HG12	1.97	0.44
51:D2:23:LYS:O	51:D2:27:GLU:HG3	2.17	0.44
12:AL:44:LYS:HB2	12:AL:45:PRO:CD	2.46	0.44
27:DA:672:C:O2'	27:DA:673:C:H5'	2.18	0.44
1:CA:1241:G:H2'	1:CA:1242:C:C5	2.52	0.44
58:D9:12:ASP:OD2	58:D9:13:LYS:HG3	2.17	0.44
58:D9:12:ASP:CG	58:D9:13:LYS:N	2.70	0.44
5:AE:101:ILE:HD13	5:AE:118:ILE:O	2.17	0.44
37:DO:91:LEU:N	37:DO:91:LEU:HD12	2.33	0.44
31:BE:134:ILE:O	31:BE:134:ILE:HG12	2.17	0.44
27:DA:355:G:C2'	27:DA:356:G:C5'	2.96	0.44
39:BQ:58:PHE:O	39:BQ:59:ARG:C	2.55	0.44
1:CA:1199:U:H4'	10:CJ:54:PHE:CZ	2.52	0.44
27:DA:2818:G:H4'	27:DA:2837:G:O4'	2.17	0.44
27:DA:2838:G:H2'	27:DA:2839:G:C8	2.52	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2230:G:O2'	27:DA:2231:C:H5'	2.16	0.44
2:CB:42:ILE:HG12	2:CB:43:ASP:N	2.31	0.44
18:AR:86:VAL:HG12	18:AR:87:ARG:N	2.32	0.44
53:D4:48:ILE:H	53:D4:48:ILE:HD12	1.81	0.44
5:AE:53:LEU:H	5:AE:53:LEU:CD1	2.29	0.44
3:CC:83:ARG:HD2	3:CC:86:VAL:CG2	2.47	0.44
27:DA:271(F):C:O5'	27:DA:271(F):C:H6	2.00	0.44
38:DP:48:PRO:CG	38:DP:49:ARG:H	2.30	0.44
16:CP:9:PHE:CE2	16:CP:18:ARG:NE	2.83	0.44
27:BA:614(C):A:HO2'	27:BA:615:G:C4'	2.26	0.44
27:DA:1410:G:H2'	27:DA:1411:C:H6	1.82	0.44
24:AX:17:C:H5'	24:AX:17(B):U:H2'	2.00	0.44
27:DA:614(C):A:H4'	27:DA:615:G:OP1	2.18	0.44
1:AA:840:C:C4'	1:AA:841:U:OP1	2.65	0.44
27:DA:1571:A:H2'	27:DA:1572:A:C8	2.53	0.44
1:CA:403:C:O2'	1:CA:404:U:H5'	2.16	0.44
27:BA:883:G:C2'	27:BA:884:C:C5'	2.95	0.44
27:DA:1493:C:O2	27:DA:1493:C:H2'	2.17	0.44
1:CA:1067:A:H1'	1:CA:1068:G:C8	2.52	0.44
27:DA:2695:C:H2'	27:DA:2696:U:C6	2.51	0.44
2:CB:21:ARG:O	2:CB:23:ARG:N	2.50	0.44
1:AA:619:U:O2	4:AD:133:VAL:HA	2.18	0.44
7:CG:155:ARG:HG3	7:CG:155:ARG:NH1	2.28	0.44
27:BA:2736:G:O2'	27:BA:2737:G:H5'	2.17	0.44
40:BR:12:ARG:HG3	40:BR:12:ARG:HH11	1.81	0.44
38:DP:38:GLN:HG3	38:DP:41:ARG:CD	2.47	0.44
23:CW:48:C:H42	23:CW:64:G:H1	1.64	0.44
27:DA:896:A:O2'	48:DZ:145:ILE:HD12	2.17	0.44
48:DZ:143:LEU:HD12	48:DZ:147:ASP:HB2	1.99	0.44
29:DC:75:LEU:HD21	29:DC:99:ILE:CD1	2.48	0.44
27:BA:271(F):C:H2'	27:BA:271(G):C:C6	2.51	0.44
36:DN:46:VAL:CG1	36:DN:48:MET:HG3	2.47	0.44
19:AS:32:LYS:HA	19:AS:50:ALA:HB3	2.00	0.44
32:BF:53:THR:HG23	32:BF:56:GLU:H	1.81	0.44
13:AM:83:ASP:CG	13:AM:84:ILE:N	2.71	0.44
1:AA:61:G:H2'	1:AA:62:U:O4'	2.17	0.44
27:DA:1577:C:H2'	27:DA:1578:U:C6	2.51	0.44
30:DD:93:ALA:HB3	30:DD:105:ILE:CG2	2.47	0.44
1:AA:299:G:C6	1:AA:300:A:C6	3.05	0.44
27:BA:1759:A:H4'	27:BA:2715:C:O4'	2.17	0.44
30:BD:241:PRO:O	30:BD:242:ARG:CB	2.65	0.44
27:DA:107:C:H2'	27:DA:108:U:H6	1.82	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:605:C:H1'	27:BA:657:U:O2'	2.17	0.44
47:BY:47:LYS:HD3	47:BY:48:ALA:N	2.33	0.44
1:AA:232:G:H2'	1:AA:233:C:H6	1.82	0.44
51:B2:6:VAL:HG13	51:B2:59:ARG:HD3	1.99	0.44
1:CA:758:G:H5''	1:CA:880:C:H1'	2.00	0.44
23:AW:28:G:N2	23:AW:29:G:H1'	2.32	0.44
1:AA:1260:C:C3'	1:AA:1260:C:C6	3.00	0.44
27:DA:792:G:C8	27:DA:2440:C:O2	2.70	0.44
27:DA:55:G:C2	27:DA:116:C:C2	3.05	0.44
1:CA:423:G:C2'	1:CA:424:G:H5'	2.47	0.44
7:CG:18:TYR:HD2	7:CG:59:LEU:HG	1.82	0.44
34:BH:94:TYR:CE2	34:BH:107:VAL:HB	2.52	0.44
2:CB:59:GLU:O	2:CB:62:ALA:N	2.50	0.44
27:DA:981:A:C8	27:DA:982:C:C5	3.05	0.44
21:AU:8:THR:O	21:AU:9:ARG:C	2.55	0.44
27:BA:2165:G:H2'	27:BA:2166:G:C8	2.53	0.44
27:DA:2078:C:C2	27:DA:2079:U:C6	3.05	0.44
27:BA:2135:A:H2'	27:BA:2136:C:H6	1.82	0.44
1:CA:447:G:N2	1:CA:488:C:N4	2.65	0.44
27:BA:298:G:N2	27:BA:339:U:C5	2.85	0.44
27:BA:2843:G:H1	27:BA:2874:C:H42	1.64	0.44
27:DA:1321:A:H2'	27:DA:1322:A:O4'	2.16	0.44
1:CA:1470:G:O2'	1:CA:1471:G:H5'	2.18	0.44
52:B3:20:LYS:C	52:B3:22:ALA:H	2.20	0.44
52:B3:25:ALA:C	52:B3:27:GLY:H	2.21	0.44
1:CA:1010:G:H2'	1:CA:1011:G:C8	2.52	0.44
25:CY:48:C:C6	25:CY:48:C:OP1	2.71	0.44
27:DA:2751:G:N3	27:DA:2751:G:C2'	2.80	0.44
1:AA:811:C:O2'	1:AA:901:A:N1	2.42	0.44
35:DI:60:GLU:O	35:DI:63:ALA:HB3	2.16	0.44
47:BY:77:PRO:O	47:BY:78:ALA:HB2	2.16	0.44
42:BT:45:PHE:CZ	42:BT:74:ARG:HB2	2.53	0.44
27:DA:1593:G:H3'	27:DA:1594:G:C5'	2.46	0.44
10:CJ:46:ARG:CZ	14:CN:61:TRP:CZ2	3.01	0.44
57:D8:33:ASN:N	57:D8:36:LYS:CD	2.80	0.44
42:DT:88:ILE:CG2	42:DT:89:VAL:N	2.77	0.44
27:BA:2476:A:N3	27:BA:2476:A:H2'	2.32	0.44
27:DA:1795:C:H2'	27:DA:1796:U:C6	2.52	0.44
27:DA:2865:U:C6	27:DA:2866:U:O2	2.70	0.44
30:BD:35:LYS:HD3	30:BD:35:LYS:HA	1.72	0.44
13:CM:3:ARG:HD3	53:D4:60:GLU:CB	2.44	0.44
31:DE:81:ILE:HG22	31:DE:81:ILE:O	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:952:U:H4'	1:AA:964:A:N1	2.32	0.44
30:DD:72:LYS:O	30:DD:73:VAL:C	2.56	0.44
1:AA:1145:C:H4'	1:AA:1146:A:H5'	1.98	0.44
27:DA:2189:U:H2'	27:DA:2190:G:H5''	2.00	0.44
42:BT:6:LEU:HD23	42:BT:6:LEU:O	2.17	0.44
27:BA:2864:G:H2'	27:BA:2865:U:O4'	2.16	0.44
47:DY:30:VAL:HG12	47:DY:32:PRO:HB3	1.98	0.44
32:DF:3:GLU:HB2	32:DF:19:GLU:HG3	1.98	0.44
32:BF:129:PHE:HE1	32:BF:142:TRP:CH2	2.35	0.44
44:BV:51:VAL:HG13	44:BV:52:VAL:H	1.77	0.44
3:AC:84:ILE:O	3:AC:88:ARG:HG3	2.18	0.44
37:DO:98:VAL:HG13	37:DO:118:ALA:HA	2.00	0.44
37:DO:119:PRO:O	37:DO:120:GLU:HB3	2.18	0.44
5:AE:31:LEU:CD2	5:AE:45:PHE:HB2	2.36	0.44
1:AA:406:G:H5''	4:AD:5:ILE:CG2	2.48	0.44
48:BZ:125:VAL:CG2	48:BZ:126:LYS:H	2.08	0.44
53:B4:77:THR:O	53:B4:79:GLY:N	2.50	0.44
27:BA:463:G:N1	27:BA:467:G:C6	2.85	0.44
27:DA:1278:A:H5''	40:DR:36:THR:CG2	2.44	0.44
40:DR:27:SER:O	40:DR:28:LEU:C	2.55	0.44
40:DR:35:THR:HG23	40:DR:113:LEU:CD1	2.47	0.44
1:CA:15:G:H4'	5:CE:24:ARG:NH1	2.33	0.44
27:DA:271(N):U:O5'	27:DA:271(N):U:H6	2.00	0.44
5:CE:122:GLU:OE1	5:CE:126:ARG:HG2	2.18	0.44
44:BV:24:LYS:HA	44:BV:92:THR:CG2	2.45	0.44
4:CD:32:ALA:HA	4:CD:35:ARG:CG	2.46	0.44
37:BO:1:MET:O	37:BO:1:MET:HG3	2.17	0.44
37:BO:8:LEU:HD12	37:BO:82:ASN:HB3	1.99	0.44
15:AO:10:LYS:O	15:AO:14:GLU:HB3	2.17	0.44
27:DA:66:C:H5'	27:DA:456:C:O2	2.17	0.44
51:B2:60:LEU:O	51:B2:63:VAL:N	2.50	0.44
27:BA:558:G:H2'	27:BA:559:G:H8	1.82	0.44
1:AA:532:A:H2	1:AA:1207:G:C4'	2.26	0.44
27:BA:2162:G:H2'	27:BA:2163:C:H6	1.82	0.44
51:B2:48:HIS:C	51:B2:50:ILE:N	2.71	0.44
27:BA:112:U:H5'	51:B2:65:ASN:OD1	2.17	0.44
33:DG:5:VAL:HG22	33:DG:8:LYS:CG	2.48	0.44
8:CH:1:MET:HE2	8:CH:2:LEU:H	1.83	0.44
8:AH:25:ASP:O	8:AH:26:VAL:CB	2.65	0.44
50:B1:82:LEU:H	50:B1:82:LEU:CD2	2.21	0.44
43:BU:27:LEU:C	43:BU:29:SER:N	2.70	0.44
27:DA:1714:G:C4	27:DA:1746:G:C2	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2712:U:H5''	27:BA:2712:U:O2	2.16	0.44
27:DA:1719:G:H2'	27:DA:1720:U:C5'	2.47	0.44
48:BZ:40:LEU:HD11	48:BZ:81:ARG:NH1	2.26	0.44
1:CA:1066:C:H5''	1:CA:1066:C:C6	2.53	0.44
18:AR:30:ASP:O	18:AR:32:ARG:N	2.50	0.44
2:CB:21:ARG:HB3	2:CB:39:ILE:CA	2.47	0.44
27:DA:676:A:C8	27:DA:2069:G:N2	2.71	0.44
27:BA:1625:C:H2'	27:BA:1626:G:O4'	2.17	0.44
1:CA:1029:C:H4'	1:CA:1033:G:H22	1.82	0.44
50:D1:43:TYR:HA	50:D1:44:PRO:HD3	1.80	0.44
27:DA:1363:C:O2'	27:DA:1364:G:H5'	2.17	0.44
8:CH:20:TYR:HA	8:CH:65:TYR:CZ	2.52	0.44
2:CB:223:ILE:HD11	2:CB:230:VAL:HG21	1.98	0.44
52:B3:26:LEU:HD23	52:B3:37:LEU:HD13	1.99	0.44
27:DA:225:A:C2'	27:DA:226:G:H5'	2.46	0.44
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.17	0.44
1:AA:1434:A:H2'	1:AA:1435:G:C5'	2.47	0.44
36:DN:35:ARG:C	36:DN:37:LYS:H	2.20	0.44
7:CG:122:HIS:C	7:CG:124:LEU:N	2.71	0.44
1:AA:688:G:H2'	1:AA:689:C:C6	2.53	0.44
8:CH:73:ASP:OD2	8:CH:75:ARG:HB2	2.17	0.44
1:CA:757:U:H2'	1:CA:758:G:O4'	2.17	0.44
7:AG:79:ARG:HA	7:AG:84:ASN:OD1	2.17	0.44
1:AA:309:G:O2'	1:AA:607:A:N1	2.50	0.44
28:BB:20:C:H2'	28:BB:21:G:H5'	1.99	0.44
30:DD:2:ALA:O	30:DD:3:VAL:HG23	2.17	0.44
16:CP:43:LYS:HG2	16:CP:48:TRP:CE2	2.52	0.44
46:BX:57:LEU:HD12	46:BX:57:LEU:H	1.81	0.44
17:CQ:48:GLU:OE2	17:CQ:50:LYS:NZ	2.43	0.44
27:DA:449:A:H1'	43:DU:3:ARG:HH12	1.81	0.44
27:DA:1670:C:O2	31:DE:129:HIS:CE1	2.70	0.44
1:AA:909:A:H2'	1:AA:910:C:O4'	2.18	0.44
23:CW:4:G:H2'	23:CW:5:G:H8	1.81	0.44
1:CA:373:A:C2	1:CA:482:A:C6	3.06	0.44
1:CA:28:G:O2'	1:CA:296:U:OP1	2.34	0.44
1:AA:826:C:H2'	1:AA:827:U:C6	2.53	0.44
36:DN:107:LEU:C	36:DN:108:PRO:O	2.54	0.44
4:AD:177:ASP:OD1	4:AD:179:GLU:HB2	2.17	0.44
6:AF:29:ALA:O	6:AF:33:TYR:HD1	2.01	0.44
56:D7:6:GLN:HA	56:D7:7:PRO:HD2	1.75	0.44
27:BA:308:G:N7	27:BA:501:A:H1'	2.32	0.44
30:DD:162:SER:HB3	30:DD:195:ALA:HA	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:90:MET:HA	2:CB:90:MET:CE	2.47	0.44
51:B2:34:GLU:HA	51:B2:34:GLU:OE1	2.18	0.44
57:B8:21:LYS:HD3	57:B8:48:PHE:HZ	1.81	0.44
4:AD:68:TYR:OH	4:AD:98:GLU:OE1	2.29	0.44
13:AM:93:ARG:CA	13:AM:93:ARG:NE	2.80	0.44
35:DI:115:ALA:HB3	35:DI:128:LEU:C	2.37	0.44
35:DI:114:LEU:HD23	35:DI:130:TYR:HB2	1.99	0.44
35:DI:61:ARG:C	35:DI:63:ALA:H	2.20	0.44
28:BB:38:C:C6	28:BB:38:C:C3'	3.01	0.44
42:BT:28:VAL:HG11	42:BT:46:GLU:CG	2.46	0.44
45:BW:13:SER:HA	45:BW:99:ARG:HB2	1.99	0.44
45:BW:12:ILE:CD1	45:BW:17:VAL:HG12	2.47	0.44
31:DE:51:PHE:CD1	31:DE:52:LEU:N	2.86	0.44
48:DZ:4:LEU:HG	48:DZ:5:LYS:N	2.32	0.44
55:D6:40:CYS:HA	55:D6:46:HIS:CB	2.44	0.44
27:DA:631:A:HO2'	38:DP:67:MET:HB3	1.83	0.44
33:DG:47:LYS:HE2	33:DG:81:LYS:HD2	1.99	0.44
33:DG:88:ILE:CG1	33:DG:89:GLY:N	2.80	0.44
27:DA:1025:G:C4	27:DA:1135:C:H1'	2.52	0.44
13:AM:69:GLU:O	13:AM:70:LEU:HB2	2.18	0.44
18:CR:56:THR:HG21	18:CR:63:GLN:HE22	1.81	0.44
13:CM:6:GLY:O	13:CM:7:VAL:HG23	2.17	0.44
42:DT:31:SER:HB2	42:DT:32:TYR:CE2	2.52	0.44
27:DA:1700:A:H2'	27:DA:1701:A:O5'	2.17	0.44
1:CA:1353:G:N2	1:CA:1370:G:C2	2.86	0.44
1:CA:1347:G:C8	9:CI:107:ARG:HB3	2.52	0.44
39:BQ:2:LEU:CD1	39:BQ:69:PHE:HE1	2.29	0.44
31:DE:167:VAL:CG1	31:DE:170:LEU:HD11	2.46	0.44
28:DB:27:C:H1'	28:DB:28:C:OP1	2.17	0.44
1:AA:1189:C:H5''	3:AC:5:ILE:CG2	2.47	0.44
9:AI:113:LYS:NZ	9:AI:119:ALA:HB1	2.33	0.44
10:AJ:49:VAL:CG2	10:AJ:50:ILE:N	2.80	0.44
1:AA:1256:A:H61	1:AA:1278:U:C1'	2.30	0.44
9:AI:9:ARG:HA	9:AI:13:ALA:O	2.18	0.44
32:BF:156:LEU:HD21	32:BF:163:VAL:CG1	2.47	0.44
17:AQ:7:THR:CG2	17:AQ:58:GLU:HG2	2.30	0.44
47:DY:8:LYS:CE	47:DY:72:VAL:HG23	2.37	0.44
32:DF:116:ASP:OD1	32:DF:119:ARG:NH2	2.50	0.44
2:CB:95:GLN:CB	2:CB:148:TYR:HD1	2.31	0.44
1:CA:1014:A:H5'	19:CS:14:HIS:CD2	2.52	0.44
1:CA:251:G:N2	1:CA:253:U:C5	2.86	0.44
29:DC:49:ILE:HD12	29:DC:49:ILE:N	2.13	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DQ:108:GLY:O	39:DQ:109:VAL:HG23	2.18	0.44
13:CM:66:LEU:O	13:CM:70:LEU:CB	2.65	0.44
27:DA:2199:A:N7	27:DA:2225:A:C6	2.86	0.44
1:CA:1457:G:H2'	1:CA:1458:G:H8	1.82	0.44
5:AE:40:ARG:HH11	5:AE:40:ARG:HG2	1.81	0.44
8:CH:31:PHE:HZ	8:CH:134:ILE:HD11	1.83	0.44
27:DA:2832:U:O4	27:DA:2883:A:H5''	2.18	0.44
5:CE:88:LYS:HG2	5:CE:89:ILE:N	2.32	0.44
15:AO:35:ARG:NH1	15:AO:59:MET:SD	2.90	0.44
38:DP:49:ARG:CD	57:D8:58:ILE:HG21	2.41	0.44
27:DA:666:G:OP1	38:DP:47:ASP:O	2.36	0.44
30:DD:145:VAL:HB	30:DD:155:LEU:HB2	2.00	0.44
1:CA:966:G:C2	59:CX:34:C:H5'	2.52	0.44
38:BP:47:ASP:N	38:BP:51:PHE:HD2	2.14	0.44
27:BA:742:G:H2'	27:BA:743:G:H8	1.83	0.44
20:AT:89:ARG:HB2	20:AT:104:LEU:CD1	2.48	0.44
1:AA:364:A:H2'	1:AA:365:U:O2	2.17	0.44
12:AL:24:LEU:O	12:AL:26:GLY:N	2.50	0.44
27:BA:1953:A:H2'	27:BA:1954:G:H5'	2.00	0.44
33:DG:5:VAL:O	33:DG:8:LYS:HB2	2.17	0.44
48:BZ:69:LEU:HD11	48:BZ:132:ILE:HD13	1.98	0.44
32:DF:155:LEU:HD12	32:DF:174:VAL:HB	1.99	0.44
2:CB:54:THR:HG23	2:CB:199:TYR:HB3	1.98	0.44
1:AA:840:C:H5''	1:AA:841:U:OP1	2.18	0.44
3:AC:139:GLN:HG3	3:AC:143:GLU:CD	2.37	0.44
27:BA:1593:G:H3'	27:BA:1594:G:H5''	1.96	0.44
11:CK:29:ILE:HD12	11:CK:43:SER:O	2.17	0.44
1:CA:105:G:H2'	1:CA:106:C:C6	2.53	0.44
31:BE:1:MET:O	31:BE:84:PHE:HB2	2.17	0.44
27:DA:324:A:C2	27:DA:325:G:H1'	2.53	0.44
27:DA:2336:A:N3	27:DA:2385:C:H1'	2.33	0.44
27:BA:1109:C:H5	27:BA:1110:G:C5	2.35	0.44
43:DU:81:HIS:CD2	43:DU:117:GLN:NE2	2.85	0.44
27:DA:1313:U:H2'	27:DA:1610:A:C2	2.52	0.44
3:CC:92:ALA:HA	3:CC:99:VAL:HG11	2.00	0.44
8:AH:44:PHE:CE2	8:AH:109:ILE:HG21	2.48	0.44
58:D9:2:LYS:HA	58:D9:34:GLN:HA	1.99	0.44
2:CB:87:ARG:HE	2:CB:233:SER:HB2	1.81	0.44
21:AU:24:ARG:O	21:AU:25:LYS:CB	2.62	0.44
27:DA:969:U:P	52:D3:17:LYS:NZ	2.87	0.44
27:BA:917:A:N1	28:BB:80:U:H4'	2.32	0.44
1:AA:839:U:O2	1:AA:839:U:C2'	2.65	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:28:GLU:N	30:BD:28:GLU:OE1	2.50	0.44
1:CA:222:U:N3	1:CA:223:U:C4	2.85	0.44
1:AA:296:U:O2'	1:AA:297:G:H5'	2.17	0.44
25:AY:2:G:C6	25:AY:71:A:C2	3.05	0.44
1:CA:1181:G:H2'	1:CA:1182:G:N9	2.32	0.44
7:AG:105:VAL:O	7:AG:105:VAL:HG12	2.18	0.44
25:AY:63:C:H2'	25:AY:64:G:C8	2.53	0.44
35:BI:48:GLU:O	35:BI:50:ARG:N	2.50	0.44
8:CH:17:THR:HA	8:CH:65:TYR:OH	2.17	0.44
27:DA:2884:U:C2	54:D5:51:TYR:CE1	3.05	0.44
37:BO:116:SER:OG	37:BO:117:LEU:N	2.50	0.44
1:AA:299:G:C5	1:AA:300:A:C6	3.06	0.44
40:BR:18:LEU:HD13	40:BR:19:ALA:N	2.32	0.44
15:CO:37:ASN:H	15:CO:37:ASN:ND2	2.16	0.44
27:BA:2528:U:H2'	27:BA:2530:A:O5'	2.17	0.44
34:DH:158:HIS:NE2	34:DH:170:ARG:CA	2.79	0.44
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.17	0.44
45:BW:90:ARG:CG	45:BW:90:ARG:HH11	2.31	0.44
56:D7:24:THR:HG23	56:D7:27:GLY:CA	2.45	0.44
36:DN:28:THR:HG23	36:DN:29:LYS:N	2.32	0.44
27:BA:2001:A:H2'	27:BA:2002:G:C8	2.52	0.44
27:DA:828:U:C5	27:DA:829:A:N6	2.86	0.44
27:BA:1274:A:H2	27:BA:1644:C:O2	2.00	0.44
27:BA:264:C:O2'	27:BA:265:A:H2'	2.17	0.44
40:DR:14:SER:O	40:DR:15:SER:C	2.55	0.44
27:BA:2543:G:C6	27:BA:2544:G:C6	3.06	0.44
27:BA:2151:G:H2'	27:BA:2152:G:H8	1.81	0.44
31:DE:144:ARG:HB3	31:DE:145:LYS:H	1.58	0.44
27:BA:2626:C:H2'	27:BA:2627:G:O4'	2.18	0.44
1:CA:1006:C:H42	1:CA:1024:G:H21	1.65	0.44
29:DC:25:ALA:O	29:DC:26:ALA:C	2.55	0.44
3:AC:94:LEU:HD12	3:AC:94:LEU:C	2.38	0.44
9:AI:26:VAL:HG12	9:AI:27:THR:N	2.31	0.44
27:DA:773:U:H4'	30:DD:47:GLY:HA3	1.99	0.44
1:CA:1222:G:OP2	1:CA:1322:C:N4	2.50	0.44
13:AM:88:ARG:HG3	13:AM:98:VAL:CG1	2.48	0.44
35:DI:99:GLU:O	35:DI:103:ARG:HG2	2.18	0.44
28:BB:49:C:H2'	28:BB:50:G:C8	2.51	0.44
47:BY:28:LYS:HB2	47:BY:38:ILE:H	1.82	0.44
42:BT:32:TYR:HB2	42:BT:33:LYS:H	1.50	0.44
27:BA:1879:C:C3'	27:BA:1880:C:H5''	2.44	0.44
33:BG:106:LEU:HA	33:BG:110:ALA:CB	2.43	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1038:C:H2'	27:DA:1039:G:H8	1.82	0.44
55:D6:22:ALA:HB2	55:D6:39:TYR:CE2	2.53	0.44
27:DA:2392:A:H2	27:DA:2424:C:N4	2.14	0.44
27:DA:2393:A:H4'	38:DP:60:MET:O	2.18	0.44
42:DT:46:GLU:CD	42:DT:88:ILE:HD11	2.37	0.44
27:DA:1794:U:C2	27:DA:1795:C:C5	3.06	0.44
40:DR:74:LYS:CD	40:DR:77:ARG:HH21	2.30	0.44
38:DP:86:LYS:HB2	38:DP:117:GLU:O	2.17	0.44
43:DU:98:LEU:HD11	44:DV:4:ILE:CD1	2.41	0.44
27:DA:587:C:H3'	38:DP:33:ARG:NH2	2.33	0.44
28:DB:55:U:O2'	33:DG:27:ASN:CB	2.55	0.44
27:BA:2276:G:C2	27:BA:2277:G:C8	3.06	0.44
17:AQ:50:LYS:HE3	17:AQ:51:TYR:CE1	2.49	0.44
1:CA:346:G:N3	1:CA:346:G:C2'	2.81	0.44
4:AD:25:ARG:NH1	4:AD:30:LYS:O	2.48	0.44
3:CC:195:VAL:CG1	3:CC:196:LEU:N	2.81	0.44
28:DB:29:A:H2'	28:DB:30:C:H6	1.76	0.44
45:DW:14:PRO:O	45:DW:15:ARG:C	2.56	0.44
1:AA:1370:G:O2'	1:AA:1371:G:H5'	2.17	0.44
31:BE:69:LYS:O	31:BE:70:ALA:C	2.53	0.44
38:DP:7:ARG:N	38:DP:8:PRO:CD	2.61	0.44
27:DA:2821:A:H2'	27:DA:2822:G:O4'	2.18	0.44
27:BA:1689:A:N6	27:BA:1698:A:H2	2.10	0.44
27:BA:1698:A:N9	27:BA:1700:A:H5''	2.32	0.44
47:DY:2:ARG:HA	47:DY:5:MET:CE	2.48	0.44
15:CO:29:VAL:HG12	15:CO:85:LEU:HD11	1.99	0.44
27:BA:27:G:N2	27:BA:512:G:O2'	2.50	0.44
27:BA:1477:A:H2	27:BA:1557:C:O2'	2.01	0.44
43:BU:98:LEU:O	43:BU:101:ARG:O	2.36	0.44
43:BU:92:ARG:NH1	44:BV:11:GLN:HG3	2.33	0.44
44:BV:40:LEU:HA	44:BV:40:LEU:HD23	1.67	0.44
4:AD:180:GLY:HA3	4:AD:182:LYS:HE2	1.99	0.44
46:DX:84:ALA:HB3	46:DX:87:GLN:OE1	2.18	0.44
3:AC:73:PRO:CG	3:AC:105:GLU:HG3	2.48	0.44
27:BA:958:U:OP2	39:BQ:14:ARG:NH1	2.50	0.44
1:CA:97:G:O2'	1:CA:98:G:P	2.76	0.44
19:AS:16:LEU:HB3	19:AS:20:LEU:HD12	2.00	0.44
13:CM:81:LEU:O	13:CM:89:GLY:HA3	2.17	0.44
27:DA:286:C:H1'	27:DA:356:G:N2	2.32	0.44
48:BZ:125:VAL:CG2	48:BZ:126:LYS:N	2.75	0.44
34:BH:123:PHE:CD2	34:BH:133:VAL:HG22	2.53	0.44
34:BH:137:ASP:HB3	34:BH:140:LYS:HB3	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:796:C:O2'	1:AA:797:C:H5'	2.18	0.44
36:BN:16:ILE:HG23	36:BN:54:VAL:HA	1.98	0.44
3:CC:33:LEU:O	3:CC:37:GLN:HG2	2.18	0.44
39:DQ:25:ASP:O	39:DQ:26:TYR:HB3	2.17	0.44
16:CP:82:GLN:O	16:CP:84:ALA:N	2.50	0.44
1:CA:1005:A:N6	1:CA:1025:U:H5'	2.33	0.44
1:CA:751:U:H4'	15:CO:24:SER:CB	2.40	0.44
32:DF:89:VAL:O	32:DF:91:GLY:N	2.45	0.44
28:BB:31:C:H2'	28:BB:53:A:H61	1.82	0.44
51:B2:46:GLN:NE2	51:B2:49:LYS:HD2	2.32	0.44
16:AP:18:ARG:HA	16:AP:38:TYR:HA	1.98	0.44
7:AG:65:ALA:HB1	7:AG:127:ALA:CB	2.47	0.44
27:DA:1421:G:C2	27:DA:1422:G:N7	2.86	0.44
27:DA:1645:G:H5''	27:DA:1646:C:C5'	2.41	0.44
30:DD:28:GLU:CD	30:DD:28:GLU:H	2.21	0.44
27:BA:2835:A:N6	27:BA:2878:U:H2'	2.33	0.44
1:AA:628:G:C2'	1:AA:629:G:H5'	2.48	0.44
17:CQ:36:ILE:CG1	17:CQ:37:LYS:N	2.81	0.44
44:BV:21:ARG:HG3	44:BV:93:GLU:HB2	1.99	0.44
42:BT:125:ARG:O	42:BT:126:ALA:C	2.56	0.44
1:AA:1522:U:H2'	1:AA:1523:G:H8	1.83	0.44
27:DA:12:U:O2	27:DA:2627:G:P	2.76	0.44
29:DC:37:PHE:CG	29:DC:39:GLU:HG3	2.53	0.44
28:DB:87:G:N1	28:DB:91:C:N4	2.65	0.44
27:DA:225:A:H2'	27:DA:226:G:C5'	2.46	0.44
1:CA:504:C:O2	1:CA:542:G:C2	2.70	0.44
1:CA:543:C:O2'	1:CA:544:G:H5'	2.17	0.44
4:CD:61:LYS:C	4:CD:61:LYS:HD3	2.38	0.44
16:AP:76:GLN:CG	16:AP:76:GLN:O	2.66	0.44
19:CS:35:SER:C	19:CS:37:ARG:N	2.71	0.44
27:BA:673:C:H5'	32:BF:54:ARG:NH1	2.32	0.44
50:B1:19:GLN:HB3	50:B1:35:THR:HG22	1.99	0.44
4:AD:80:GLU:O	4:AD:84:LYS:HE2	2.18	0.44
6:AF:7:ASN:ND2	18:AR:34:TYR:CE1	2.86	0.44
32:DF:53:THR:C	32:DF:55:GLY:H	2.20	0.44
9:CI:47:LEU:N	9:CI:47:LEU:CD1	2.80	0.44
34:DH:153:LYS:HG2	34:DH:155:SER:O	2.18	0.44
36:BN:1:MET:O	36:BN:2:LYS:HG3	2.17	0.44
27:BA:473:G:P	27:BA:508:G:H22	2.40	0.44
1:AA:956:U:C2'	1:AA:957:U:H5'	2.47	0.44
16:CP:48:TRP:O	16:CP:48:TRP:HE3	2.00	0.44
27:BA:835:A:N6	27:BA:836:G:C6	2.86	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BH:94:TYR:CD2	34:BH:107:VAL:HB	2.53	0.44
27:DA:832:G:OP1	38:DP:40:SER:HB3	2.18	0.44
27:DA:1279:G:H2'	27:DA:1280:G:C8	2.52	0.44
27:BA:297:C:H2'	27:BA:298:G:O4'	2.17	0.44
12:AL:72:HIS:CB	12:AL:99:ARG:HH12	2.31	0.44
27:BA:510:C:C2'	27:BA:511:U:H5'	2.48	0.44
39:DQ:75:THR:CG2	39:DQ:76:LYS:N	2.80	0.44
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.52	0.44
27:BA:2574:G:H2'	27:BA:2575:C:O4'	2.17	0.44
27:DA:2453:A:H2'	27:DA:2454:G:C8	2.52	0.44
27:DA:1993:U:H2'	27:DA:1994:C:O4'	2.18	0.44
27:DA:52:A:O2'	27:DA:53:A:H5'	2.18	0.44
27:DA:1186:G:H2'	27:DA:1187:G:O4'	2.18	0.44
41:BS:30:ARG:HG3	41:BS:30:ARG:O	2.17	0.44
35:BI:58:LEU:O	35:BI:58:LEU:HG	2.18	0.44
23:AW:43:C:O2	23:AW:43:C:H2'	2.17	0.44
1:CA:827:U:C2	1:CA:874:G:N2	2.86	0.44
27:BA:2389:G:H5''	27:BA:2390:U:H5'	1.99	0.44
4:AD:100:ARG:O	4:AD:104:VAL:HG23	2.17	0.44
35:DI:77:LEU:HD13	35:DI:105:HIS:CE1	2.52	0.44
1:AA:1442(B):A:N3	1:AA:1442(B):A:H2'	2.33	0.44
40:BR:45:ARG:HA	40:BR:95:THR:HG21	1.98	0.44
27:BA:271(S):G:O2'	27:BA:271(T):C:H5''	2.15	0.44
53:B4:65:CYS:O	53:B4:67:PRO:HD3	2.17	0.44
33:BG:173:LEU:HA	33:BG:176:LEU:HD12	2.00	0.44
33:BG:58:GLN:HG3	33:BG:59:GLU:N	2.32	0.44
27:BA:64:A:H2'	27:BA:65:C:O4'	2.18	0.44
38:DP:98:GLU:HG3	38:DP:99:LEU:N	2.32	0.44
43:DU:91:ASP:C	43:DU:92:ARG:HD3	2.38	0.44
28:DB:5:C:P	28:DB:61:G:HO2'	2.38	0.44
33:DG:61:ALA:HA	33:DG:64:THR:HG22	2.00	0.44
13:AM:15:VAL:O	13:AM:19:LEU:CD2	2.64	0.44
39:BQ:12:GLN:HE21	39:BQ:73:PRO:HD3	1.82	0.44
1:CA:160:A:H4'	1:CA:344:A:C2	2.53	0.44
31:DE:1:MET:O	31:DE:2:LYS:C	2.54	0.44
3:CC:136:GLN:O	3:CC:140:ARG:HB2	2.18	0.44
14:CN:3:ARG:CG	14:CN:3:ARG:O	2.55	0.44
28:DB:34:U:O2	28:DB:44:G:O6	2.35	0.44
1:AA:975:A:N6	1:AA:1367:C:O4'	2.50	0.44
20:AT:100:ILE:HG22	20:AT:101:GLY:N	2.33	0.44
27:DA:320:A:C2'	32:DF:136:THR:HG21	2.48	0.44
31:BE:59:VAL:CG2	31:BE:60:ASN:N	2.72	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DC:68:LEU:HD22	29:DC:179:SER:CA	2.47	0.44
27:DA:1652:A:N6	27:DA:1653:G:N2	2.65	0.44
27:DA:2721:A:H1'	27:DA:2873:A:HO2'	1.80	0.44
27:DA:2873:A:H3'	27:DA:2874:C:H6	1.82	0.44
47:DY:27:VAL:CA	47:DY:28:LYS:HD3	2.47	0.44
47:DY:3:VAL:N	47:DY:5:MET:HE2	2.26	0.44
32:DF:2:LYS:CE	32:DF:119:ARG:HG3	2.43	0.44
5:CE:76:ILE:HG13	5:CE:77:PRO:CD	2.48	0.44
48:BZ:152:SER:H	48:BZ:166:PRO:HB3	1.82	0.44
42:DT:54:ARG:HA	42:DT:59:THR:CG2	2.47	0.44
27:BA:2289:G:H2'	27:BA:2290:G:H5'	2.00	0.44
1:CA:193:C:O4'	20:CT:60:GLU:CD	2.56	0.44
4:AD:147:ALA:HB2	4:AD:182:LYS:CA	2.48	0.44
12:CL:80:VAL:HG13	12:CL:97:ILE:HG23	1.99	0.44
1:CA:1228:C:H2'	1:CA:1229:A:C8	2.53	0.44
15:CO:39:LEU:O	15:CO:39:LEU:HD22	2.18	0.44
23:AW:11:C:O5'	23:AW:11:C:H6	2.00	0.44
41:DS:17:ARG:O	41:DS:18:ILE:HB	2.18	0.44
34:DH:126:PRO:O	34:DH:127:GLU:CB	2.64	0.44
36:BN:133:GLN:O	36:BN:134:ARG:CB	2.64	0.44
27:DA:2808:U:O2	27:DA:2892:A:C6	2.71	0.44
3:CC:87:LEU:C	3:CC:89:GLU:N	2.69	0.44
27:DA:197:A:H8	27:DA:197:A:H5'	1.79	0.44
45:DW:6:ILE:HD11	45:DW:104:THR:CG2	2.47	0.44
41:BS:36:TYR:HD1	41:BS:36:TYR:N	2.14	0.44
28:BB:55:U:H2'	28:BB:56:G:H8	1.82	0.44
3:CC:123:GLN:O	3:CC:126:ARG:N	2.50	0.44
27:DA:324:A:N7	27:DA:339:U:H1'	2.32	0.44
6:CF:82:ARG:O	6:CF:85:VAL:HB	2.18	0.44
27:BA:883:G:N2	27:BA:894:C:C2	2.86	0.44
1:CA:1067:A:N3	1:CA:1068:G:H1'	2.33	0.44
30:DD:45:ASN:C	30:DD:46:GLN:OE1	2.56	0.44
11:CK:66:LEU:O	11:CK:67:ASP:C	2.56	0.44
1:CA:59:A:C5'	1:CA:60:A:H5''	2.47	0.44
1:AA:1086:U:H2'	1:AA:1087:G:H8	1.83	0.44
4:CD:57:ARG:HE	4:CD:205:GLU:HB3	1.82	0.44
15:AO:26:GLU:HG2	15:AO:77:ARG:NH1	2.33	0.44
1:AA:1499:A:H5'	1:AA:1499:A:C8	2.45	0.44
25:AY:71:A:H2'	25:AY:72:G:C8	2.53	0.44
13:AM:40:ASN:O	13:AM:42:ALA:N	2.51	0.44
29:DC:36:LYS:HB2	29:DC:36:LYS:HZ2	1.83	0.44
27:DA:743:G:O2'	27:DA:744:G:H5'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1413:A:C2	1:CA:1488:G:C2	3.06	0.44
44:DV:28:GLU:HB3	44:DV:29:PRO:CD	2.45	0.44
27:BA:2199:A:C5'	27:BA:2200:C:OP2	2.63	0.44
27:BA:1191:G:H2'	27:BA:1192:G:O4'	2.17	0.44
27:DA:271(X):G:H2'	27:DA:271(Y):U:C5	2.53	0.44
27:DA:2249:U:H5''	27:DA:2250:G:OP2	2.17	0.44
52:D3:13:ILE:N	52:D3:13:ILE:HD12	2.32	0.44
46:BX:26:TYR:CD2	46:BX:92:LEU:HD12	2.51	0.44
1:AA:644:G:O2'	1:AA:645:C:H5'	2.18	0.44
16:CP:8:ARG:HB2	16:CP:17:TYR:CD2	2.53	0.44
8:CH:58:TYR:O	8:CH:59:LEU:HD23	2.17	0.44
27:BA:487:C:H2'	27:BA:488:G:H8	1.83	0.44
1:CA:445:G:C6	1:CA:490:G:C6	3.06	0.44
10:AJ:85:LEU:C	10:AJ:87:THR:H	2.20	0.44
46:DX:64:LYS:HD3	46:DX:73:ARG:NE	2.33	0.44
27:BA:1839:G:C8	27:BA:1839:G:H5'	2.52	0.44
29:DC:82:LYS:O	29:DC:86:ALA:HB2	2.17	0.44
27:BA:2428:G:H5''	27:BA:2429:G:O5'	2.18	0.44
37:BO:26:LYS:O	37:BO:27:GLY:O	2.36	0.44
1:CA:948:C:P	13:CM:109:THR:HG1	2.39	0.44
4:AD:206:PHE:O	4:AD:206:PHE:CG	2.71	0.44
1:AA:439:A:H2'	1:AA:441:A:O4'	2.17	0.44
57:B8:22:VAL:O	57:B8:49:VAL:HG22	2.18	0.44
38:BP:85:LEU:HD22	38:BP:120:ALA:HB2	1.99	0.44
38:BP:147:LEU:O	38:BP:148:LEU:CB	2.65	0.44
38:BP:96:THR:O	38:BP:97:PRO:O	2.36	0.44
4:AD:173:TRP:HA	4:AD:187:ARG:HH12	1.83	0.44
28:BB:38:C:H3'	28:BB:38:C:C6	2.52	0.44
47:BY:8:LYS:HE2	47:BY:73:ARG:HA	1.98	0.44
47:BY:7:VAL:HG11	47:BY:8:LYS:HZ1	1.82	0.44
55:D6:10:LEU:HD12	57:D8:34:TRP:CD1	2.52	0.44
27:DA:2392:A:OP2	57:D8:31:HIS:HE1	2.01	0.44
27:DA:2392:A:H2'	27:DA:2393:A:O4'	2.16	0.44
27:DA:631:A:H2	27:DA:2403:C:O2	2.00	0.44
42:DT:28:VAL:HG21	42:DT:88:ILE:CD1	2.48	0.44
38:DP:85:LEU:H	38:DP:85:LEU:HD22	1.82	0.44
27:BA:807:U:C2	27:BA:808:G:C8	3.06	0.44
27:DA:2314:C:H2'	27:DA:2315:G:C8	2.53	0.44
33:DG:54:GLU:OE1	33:DG:57:ALA:HB2	2.17	0.44
23:AW:15:G:H2'	23:AW:58:A:N1	2.32	0.44
27:BA:1817:G:C5	27:BA:1818:U:C5	3.06	0.44
30:BD:95:LEU:HD13	30:BD:97:TYR:HE1	1.81	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:91:LEU:HD23	36:DN:95:PRO:CB	2.47	0.44
44:BV:35:LEU:C	44:BV:37:VAL:HG22	2.38	0.44
9:CI:5:TYR:CD2	9:CI:18:PHE:HE2	2.32	0.44
9:CI:20:ARG:HH11	9:CI:20:ARG:CG	2.27	0.44
1:CA:1178:G:C8	9:CI:97:LYS:HE3	2.53	0.44
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.85	0.44
10:AJ:63:PHE:N	10:AJ:63:PHE:CD2	2.85	0.44
27:BA:1789:A:O2'	27:BA:1790:C:H5'	2.17	0.44
1:AA:1129:C:H41	1:AA:1135:U:H3	1.64	0.44
1:AA:1129:C:H5''	1:AA:1139:G:O6	2.17	0.44
1:AA:1128:C:N4	1:AA:1139:G:N3	2.66	0.44
31:BE:77:ILE:HG23	31:BE:78:LEU:CD2	2.46	0.44
17:AQ:55:ASP:HB3	17:AQ:76:LEU:CD1	2.48	0.44
27:DA:81:G:N2	27:DA:106:C:C2	2.86	0.44
47:DY:4:LYS:O	47:DY:5:MET:O	2.35	0.44
47:DY:75:ILE:HG13	47:DY:80:GLY:H	1.83	0.44
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.82	0.44
2:CB:76:GLN:O	2:CB:208:ILE:HG12	2.18	0.44
19:CS:12:ASP:O	19:CS:15:LEU:HD23	2.17	0.44
47:BY:18:GLY:O	47:BY:21:LYS:N	2.40	0.44
27:BA:1257:C:H2'	27:BA:1258:C:H6	1.83	0.44
1:CA:256:U:H2'	1:CA:257:G:O4'	2.18	0.44
27:BA:1313:U:H3'	27:BA:1313:U:O2	2.18	0.44
3:AC:70:VAL:CG1	3:AC:71:ALA:N	2.81	0.44
59:CX:18:G:C2	59:CX:58:A:C4	3.06	0.44
59:CX:48:C:C4	59:CX:59:A:C8	3.06	0.44
20:CT:71:THR:C	20:CT:72:LEU:O	2.54	0.44
1:CA:93:G:N1	1:CA:96:U:C2	2.86	0.44
1:CA:1226:C:OP2	13:CM:91:ARG:NH1	2.51	0.44
2:CB:172:ILE:HD12	2:CB:172:ILE:N	2.17	0.44
39:BQ:28:ALA:O	39:BQ:29:PHE:CB	2.62	0.44
27:BA:2349:G:H5'	27:BA:2349:G:C8	2.47	0.44
20:AT:37:SER:O	20:AT:41:ILE:HG12	2.18	0.44
32:BF:194:MET:HE1	32:BF:199:TRP:HD1	1.82	0.44
36:BN:18:ALA:HB2	36:BN:54:VAL:CG1	2.48	0.44
36:BN:18:ALA:HB3	36:BN:56:ASN:O	2.17	0.44
29:DC:41:VAL:O	29:DC:178:ALA:CB	2.66	0.44
30:BD:13:ARG:NH1	30:BD:16:MET:SD	2.90	0.44
10:AJ:3:LYS:HD2	10:AJ:77:PRO:HG2	1.98	0.44
2:AB:154:LEU:HB2	2:AB:155:LEU:H	1.54	0.44
2:AB:155:LEU:C	2:AB:155:LEU:HD22	2.37	0.44
27:BA:1140:C:P	36:BN:66:LYS:HZ3	2.41	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:39:TYR:CZ	16:CP:41:PRO:HB3	2.53	0.44
27:DA:1603:A:C8	27:DA:1603:A:H5'	2.53	0.44
30:DD:63:ARG:N	30:DD:63:ARG:HD3	2.33	0.44
27:DA:2012:G:O3'	45:DW:96:ILE:CD1	2.62	0.44
27:DA:2531:A:C6	27:DA:2532:G:C5	3.06	0.44
28:DB:52:A:O2'	28:DB:53:A:H8	1.98	0.44
49:B0:48:GLY:HA3	49:B0:80:HIS:HD1	1.82	0.44
1:CA:555:C:H2'	1:CA:556:C:C5	2.51	0.44
1:CA:108:G:O6	20:CT:15:ARG:HD2	2.18	0.44
5:AE:57:LYS:O	5:AE:60:TYR:HB3	2.18	0.44
43:DU:74:LEU:HD12	43:DU:78:THR:CB	2.45	0.44
1:CA:1085:U:O4'	1:CA:1094:G:C2	2.71	0.44
1:CA:1348:U:H4'	9:CI:120:ARG:NH1	2.31	0.44
1:CA:694:A:H5''	7:CG:85:TYR:OH	2.18	0.44
2:CB:22:LYS:N	2:CB:40:HIS:NE2	2.64	0.44
1:AA:1002:G:C2	1:AA:1003:G:N3	2.85	0.44
1:AA:16:A:H1'	5:AE:17:ALA:O	2.18	0.44
9:CI:125:TYR:HD2	9:CI:126:SER:N	2.08	0.44
1:CA:1162:C:H2'	1:CA:1163:C:H6	1.79	0.44
1:CA:612:C:O2'	1:CA:613:C:H5'	2.17	0.44
30:DD:17:THR:O	30:DD:211:ARG:NH2	2.49	0.44
27:DA:500:G:C2	27:DA:502:A:H3'	2.52	0.44
27:DA:17:G:H4'	43:DU:25:TRP:CH2	2.53	0.44
29:DC:99:ILE:HA	29:DC:103:ILE:CB	2.48	0.44
11:CK:111:ASP:HA	18:CR:84:LYS:HG3	1.98	0.44
6:AF:21:LEU:O	6:AF:24:GLU:CG	2.65	0.44
16:AP:28:ARG:NH1	16:AP:29:ASP:OD2	2.50	0.44
16:AP:75:ARG:O	16:AP:77:ALA:N	2.50	0.44
27:DA:2687:U:H2'	27:DA:2688:U:C5'	2.47	0.44
30:DD:127:VAL:O	30:DD:127:VAL:HG13	2.17	0.44
30:DD:127:VAL:HA	30:DD:193:VAL:HG13	2.00	0.44
24:AX:48:C:C4	24:AX:59:A:C8	3.05	0.44
27:BA:1509(A):A:H2'	27:BA:1509(B):A:H8	1.81	0.44
2:CB:107:THR:HG23	2:CB:110:GLN:NE2	2.33	0.44
27:BA:2062:A:O2'	27:BA:2063:C:H5'	2.17	0.44
25:CY:71:A:C2'	25:CY:72:G:H5'	2.46	0.44
51:B2:13:ALA:HA	51:B2:16:LEU:CD1	2.46	0.44
23:AW:67:C:H2'	23:AW:68:C:C6	2.53	0.44
27:BA:1800:C:P	30:BD:266:SER:HG	2.40	0.44
27:BA:1336:A:H2'	27:BA:1337:G:C8	2.53	0.44
1:AA:1019:C:O2'	1:AA:1020:U:H5'	2.18	0.44
27:BA:428:A:H5'	27:BA:429:A:OP2	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:563:A:C8	1:AA:567:G:O4'	2.71	0.44
27:BA:2083:G:C5	27:BA:2084:C:C4	3.05	0.44
45:DW:62:HIS:O	45:DW:63:ASP:C	2.56	0.44
1:CA:1109:C:O2'	1:CA:1110:A:H5'	2.17	0.44
1:AA:826:C:H2'	1:AA:827:U:H6	1.82	0.44
9:AI:23:ASN:ND2	9:AI:23:ASN:N	2.66	0.44
7:AG:81:GLY:C	7:AG:83:ALA:H	2.19	0.44
18:AR:59:SER:HB3	18:AR:62:GLU:CD	2.37	0.44
1:AA:1483:A:H1'	27:BA:1948:G:H1'	2.00	0.44
1:CA:900:A:H2'	1:CA:901:A:C8	2.52	0.44
4:AD:46:LYS:O	4:AD:47:ARG:C	2.55	0.44
1:AA:503:C:O2'	1:AA:504:C:H5'	2.18	0.44
31:DE:151:TYR:HD1	36:DN:79:PRO:CG	2.30	0.44
28:BB:62:C:H6	28:BB:62:C:O5'	2.00	0.44
27:DA:2400:G:N2	27:DA:2417:C:C2	2.85	0.44
29:BC:42:GLU:H	29:BC:213:TYR:CA	2.31	0.44
27:BA:2420:C:P	57:B8:33:ASN:O	2.75	0.44
27:BA:2392:A:H8	38:BP:60:MET:HA	1.83	0.44
38:BP:64:LYS:C	38:BP:66:GLY:N	2.71	0.44
4:AD:98:GLU:CD	4:AD:107:ARG:HH21	2.21	0.44
1:CA:983:A:O2'	1:CA:1049:U:O2'	2.17	0.44
13:AM:92:HIS:CD2	13:AM:98:VAL:HG21	2.53	0.44
2:AB:167:PRO:O	2:AB:171:ALA:N	2.51	0.44
35:DI:73:GLU:OE2	35:DI:137:PRO:HD2	2.17	0.44
49:B0:23:VAL:HA	49:B0:38:VAL:CG2	2.21	0.44
35:BI:136:VAL:O	35:BI:136:VAL:HG22	2.17	0.44
27:BA:2307:G:H3'	27:BA:2308:G:C5'	2.47	0.44
28:BB:45:A:C2	28:BB:46:A:H1'	2.53	0.44
33:BG:141:PHE:HB2	33:BG:144:ILE:CG2	2.47	0.44
33:BG:43:LEU:CD1	33:BG:153:ARG:HG2	2.48	0.44
10:CJ:48:THR:CB	10:CJ:62:HIS:HB3	2.48	0.44
14:CN:40:CYS:O	14:CN:41:ARG:C	2.56	0.44
27:BA:2469:A:N6	27:BA:2481:G:H1'	2.33	0.44
28:DB:116:G:H3'	28:DB:117:G:C8	2.53	0.44
32:BF:3:GLU:O	32:BF:19:GLU:HB3	2.16	0.44
43:DU:102:GLU:HA	43:DU:104:GLN:HE22	1.79	0.44
33:DG:117:PHE:C	33:DG:117:PHE:CD1	2.92	0.44
33:DG:170:ARG:O	33:DG:171:ALA:HB2	2.18	0.44
1:CA:1147:C:O2	9:CI:16:ARG:NH1	2.50	0.44
9:CI:28:VAL:HG21	9:CI:37:PHE:HE1	1.83	0.44
21:CU:18:TYR:CE2	21:CU:22:ARG:CZ	2.99	0.44
31:DE:49:LEU:O	31:DE:78:LEU:HA	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:134:ILE:HD11	3:CC:153:VAL:HG21	2.00	0.44
3:CC:121:ALA:HB2	3:CC:187:ALA:HB1	2.00	0.44
9:AI:48:GLU:OE1	9:AI:51:ARG:HD3	2.17	0.44
9:AI:75:ASP:O	9:AI:78:LYS:HB3	2.16	0.44
32:DF:2:LYS:O	32:DF:25:PRO:HD2	2.17	0.44
2:CB:74:LYS:CD	2:CB:165:VAL:HG21	2.48	0.44
3:CC:105:GLU:HG2	3:CC:106:VAL:N	2.32	0.44
14:AN:24:CYS:SG	14:AN:27:CYS:O	2.76	0.44
27:BA:307:G:H21	27:BA:330:A:N6	2.14	0.44
1:CA:270:A:O2'	1:CA:271:C:H5'	2.18	0.44
1:CA:1241:G:H1	1:CA:1296:C:H42	1.65	0.44
4:CD:110:PHE:CD1	4:CD:110:PHE:N	2.86	0.44
27:BA:2792:G:N7	27:BA:2893:G:O6	2.51	0.44
23:CW:37:U:O2'	23:CW:38:U:H5'	2.18	0.44
27:DA:355:G:C2'	27:DA:356:G:H5'	2.44	0.44
10:CJ:55:LYS:HE2	10:CJ:55:LYS:HB3	1.70	0.44
34:BH:85:LYS:HD2	34:BH:141:VAL:HG12	1.97	0.44
6:CF:19:LEU:O	6:CF:23:LYS:HG3	2.17	0.44
8:AH:84:ARG:HG2	8:AH:84:ARG:NH1	2.31	0.44
1:CA:923:A:C2	1:CA:1395:C:N3	2.86	0.44
32:BF:157:VAL:HG11	32:BF:181:LEU:HD13	1.99	0.44
3:CC:76:VAL:HG23	3:CC:77:ILE:N	2.33	0.44
35:BI:5:LEU:C	35:BI:6:LEU:HD23	2.39	0.44
27:DA:27:G:H2'	27:DA:512:G:H22	1.82	0.44
1:AA:584:G:H2'	1:AA:585:G:H8	1.83	0.44
27:DA:1439:A:H2'	27:DA:1440:G:O4'	2.17	0.44
42:DT:114:LEU:HA	42:DT:114:LEU:HD23	1.85	0.44
30:DD:218:ARG:HG3	30:DD:218:ARG:HH11	1.82	0.44
39:DQ:29:PHE:HB2	39:DQ:105:GLU:OE2	2.18	0.44
23:CW:11:C:H2'	23:CW:12:C:H6	1.75	0.44
34:BH:28:GLY:N	34:BH:79:VAL:HG11	2.32	0.44
27:DA:2352:A:H2	49:D0:33:ALA:CB	2.22	0.44
4:CD:120:LEU:HD23	4:CD:125:HIS:HD2	1.83	0.44
18:CR:87:ARG:HG2	18:CR:87:ARG:O	2.18	0.44
27:DA:2043:C:H6	27:DA:2043:C:H5''	1.83	0.44
27:BA:2156:G:H2'	27:BA:2157:G:O4'	2.18	0.44
29:DC:93:TYR:C	29:DC:94:VAL:HG22	2.38	0.44
27:BA:175:G:H5'	27:BA:175:G:C8	2.52	0.44
2:AB:118:LEU:HD13	2:AB:142:LEU:HB2	2.00	0.44
27:DA:385:C:O2	27:DA:390:A:C2	2.71	0.44
36:BN:67:LEU:H	36:BN:67:LEU:CD1	2.26	0.44
27:DA:1296:G:OP1	27:DA:2709:G:H4'	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BZ:46:VAL:O	48:BZ:50:ALA:HB2	2.18	0.44
4:CD:4:TYR:O	4:CD:5:ILE:HB	2.18	0.44
4:CD:3:ARG:CD	4:CD:5:ILE:HG13	2.48	0.44
1:CA:735:C:H2'	1:CA:736:C:H6	1.83	0.44
27:DA:217:G:H2'	27:DA:218:A:O4'	2.17	0.44
27:BA:1204:A:C2	27:BA:1241:A:N1	2.86	0.44
1:AA:29:G:H5'	1:AA:296:U:OP1	2.18	0.44
1:CA:398:C:O2'	1:CA:399:G:H5'	2.18	0.44
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.99	0.44
27:DA:233:A:H2'	27:DA:234:C:C5'	2.48	0.44
6:AF:10:LEU:HA	6:AF:84:ASN:O	2.17	0.44
4:CD:170:VAL:CG1	4:CD:171:GLY:N	2.80	0.44
27:DA:757:U:H2'	27:DA:758:C:O4'	2.18	0.44
27:DA:2643:G:O2'	27:DA:2644:G:H5'	2.18	0.44
27:BA:2528:U:C5'	58:B9:31:LYS:NZ	2.81	0.44
39:BQ:39:PRO:HG3	39:BQ:99:PRO:HD3	2.00	0.44
47:DY:16:ALA:HA	47:DY:21:LYS:NZ	2.32	0.44
1:AA:382:A:C2	1:AA:383:A:C4	3.05	0.44
1:CA:544:G:H5''	4:CD:62:GLN:NE2	2.32	0.44
27:BA:657:U:O2'	27:BA:658:C:H5'	2.17	0.44
6:AF:30:LEU:HB3	6:AF:35:ALA:CB	2.48	0.44
27:BA:1655:A:H3'	27:BA:1656:C:H6	1.82	0.44
1:AA:245:C:O2	1:AA:283:C:N3	2.51	0.44
1:CA:716:A:N3	11:CK:117:ASN:O	2.50	0.44
27:DA:1990:C:H2'	27:DA:1991:U:O4'	2.17	0.44
1:CA:448:A:O2'	1:CA:449:C:H5'	2.18	0.44
27:DA:2775:A:O5'	27:DA:2775:A:H8	2.01	0.44
27:BA:2825:C:H2'	27:BA:2826:A:O4'	2.17	0.44
51:D2:25:VAL:O	51:D2:29:LYS:HG2	2.17	0.44
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.53	0.44
1:AA:830:G:O2'	1:AA:831:U:H5'	2.17	0.44
27:DA:2186:G:H3'	27:DA:2187:G:H5''	1.99	0.44
27:BA:2776:A:C6	27:BA:2782:G:H1'	2.52	0.44
27:BA:927:G:H3'	27:BA:928:G:H8	1.82	0.44
27:BA:2409:G:H2'	27:BA:2410:G:O4'	2.17	0.44
27:BA:931:G:H3'	27:BA:931:G:C8	2.52	0.44
30:BD:185:VAL:HG12	30:BD:189:CYS:SG	2.57	0.44
27:BA:614:U:O4'	27:BA:614:U:O2	2.36	0.44
18:AR:41:LYS:O	18:AR:41:LYS:HD2	2.18	0.44
30:DD:138:VAL:O	30:DD:138:VAL:HG13	2.17	0.44
38:BP:97:PRO:HG3	38:BP:112:LEU:HB3	1.99	0.44
4:AD:8:VAL:O	4:AD:11:LEU:HG	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:91:ARG:HH11	19:AS:81:ARG:NH2	2.14	0.44
35:DI:131:LYS:HE3	35:DI:133:HIS:ND1	2.32	0.44
35:DI:69:LYS:C	35:DI:71:ILE:N	2.70	0.44
35:DI:81:VAL:CG1	35:DI:82:ARG:N	2.68	0.44
28:BB:50:G:P	41:BS:62:LYS:HB2	2.58	0.44
35:BI:89:TYR:HH	1:CA:55:A:H2	1.66	0.44
48:DZ:32:LEU:CD2	48:DZ:89:VAL:HG21	2.44	0.44
27:DA:2415:G:C2	27:DA:2416:C:C2	3.06	0.44
10:CJ:75:ILE:CG1	10:CJ:76:ASN:N	2.81	0.44
39:BQ:81:VAL:CG2	49:B0:7:LEU:HG	2.48	0.44
42:DT:70:VAL:CG1	42:DT:71:GLY:N	2.80	0.44
40:DR:66:VAL:O	40:DR:68:ARG:N	2.51	0.44
43:DU:92:ARG:C	43:DU:94:ASN:N	2.63	0.44
27:DA:1857:G:N2	27:DA:1886:C:N4	2.65	0.44
18:CR:43:PHE:CA	18:CR:51:LEU:HD12	2.47	0.44
37:DO:77:ILE:HD12	42:DT:73:GLU:O	2.18	0.44
9:CI:76:ALA:C	9:CI:78:LYS:N	2.71	0.44
30:BD:168:ARG:HG3	30:BD:168:ARG:NH1	2.28	0.44
1:AA:1055:A:C6	1:AA:1206:G:C5	3.06	0.44
1:AA:943:U:C2'	1:AA:944:G:H5'	2.47	0.44
23:AW:35:G:O2'	23:AW:36:A:C8	2.64	0.44
45:DW:17:VAL:O	45:DW:20:VAL:N	2.47	0.44
32:DF:139:PHE:CE2	32:DF:170:LEU:HD22	2.53	0.44
27:BA:1169:G:H2'	27:BA:1170:G:O4'	2.18	0.44
31:BE:57:LYS:NZ	31:BE:59:VAL:HG11	2.32	0.44
2:AB:220:ASP:C	2:AB:222:ILE:N	2.71	0.44
30:BD:25:THR:HG22	30:BD:26:LYS:N	2.23	0.44
27:BA:2329:G:H2'	27:BA:2330:G:C8	2.52	0.44
27:BA:2379:G:H2'	27:BA:2380:C:C6	2.53	0.44
44:BV:47:VAL:O	44:BV:49:THR:N	2.51	0.44
2:AB:97:TRP:CH2	2:AB:176:GLU:OE2	2.71	0.44
58:D9:25:VAL:O	58:D9:25:VAL:HG12	2.17	0.44
40:BR:2:ARG:HH21	40:BR:5:LYS:HZ1	1.60	0.44
5:AE:11:ILE:HG21	5:AE:105:VAL:HA	1.99	0.44
1:CA:644:G:H5'	8:CH:92:ARG:NH2	2.30	0.44
27:DA:2525:G:H1'	27:DA:2741:A:H2	1.82	0.44
27:BA:1494:A:H4'	27:BA:1494:A:OP1	2.17	0.44
1:AA:574:A:O2'	1:AA:882:C:O2'	2.30	0.44
23:AW:52:G:H4'	39:BQ:56:ARG:HD2	2.00	0.44
40:DR:97:VAL:HA	40:DR:113:LEU:O	2.18	0.44
27:BA:271(L):U:H4'	27:BA:271(M):G:C5	2.53	0.44
27:DA:1890:A:H2'	27:DA:1891:G:H5'	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:134:ARG:HH22	48:BZ:118:GLU:HG3	1.83	0.44
3:CC:118:GLN:HB2	3:CC:118:GLN:HE21	1.49	0.44
27:DA:2814:C:O2'	54:D5:29:THR:CG2	2.66	0.44
50:B1:89:GLU:HA	50:B1:92:LYS:HB3	2.00	0.44
27:DA:243:U:OP1	57:D8:6:THR:HG21	2.17	0.44
40:BR:79:LEU:HA	40:BR:83:ILE:CG1	2.48	0.44
30:DD:147:LEU:HD13	30:DD:155:LEU:HD13	2.00	0.44
27:BA:1582:C:H2'	27:BA:1583:A:C8	2.51	0.44
1:CA:1001(A):G:C8	1:CA:1002:G:H8	2.36	0.44
38:BP:49:ARG:HD3	57:B8:58:ILE:HG22	2.00	0.44
27:DA:2134:A:N1	27:DA:2135:A:C6	2.86	0.44
27:BA:2485:G:O2'	27:BA:2486:G:H5'	2.18	0.44
27:DA:2592:G:H2'	27:DA:2593:U:O4'	2.18	0.44
1:AA:662:G:O2'	1:AA:836:G:H5''	2.17	0.44
27:BA:1956:U:H2'	27:BA:1957:C:C5'	2.40	0.44
33:BG:124:SER:HB3	33:BG:131:TYR:CZ	2.53	0.44
5:CE:135:THR:O	5:CE:136:MET:C	2.55	0.44
17:CQ:83:ASP:O	17:CQ:84:LEU:C	2.56	0.44
25:AY:57:A:O2'	25:AY:59:U:C6	2.70	0.44
11:AK:103:LEU:O	11:AK:104:GLN:C	2.55	0.44
1:CA:402:G:C2'	1:CA:403:C:H5'	2.48	0.44
27:DA:2308:G:C2	27:DA:2309:A:N1	2.86	0.44
1:AA:1240:U:H4'	7:AG:38:LEU:HD21	1.99	0.44
27:DA:270:A:C2'	27:DA:271:A:H5'	2.47	0.44
27:DA:1789:A:H5'	30:DD:221:VAL:HG23	1.99	0.44
27:DA:302:C:N4	27:DA:315:G:H1	2.16	0.44
44:DV:94:LEU:HA	44:DV:94:LEU:HD23	1.77	0.44
12:CL:3:THR:O	12:CL:4:ILE:C	2.56	0.44
43:BU:88:ILE:CG1	43:BU:88:ILE:O	2.57	0.44
37:BO:79:PHE:CD1	37:BO:79:PHE:N	2.86	0.44
1:CA:1306:A:C6	1:CA:1307:U:C4	3.05	0.44
45:DW:2:GLU:HG3	45:DW:2:GLU:O	2.18	0.44
27:DA:2069:G:H2'	27:DA:2070:G:H5'	1.99	0.44
27:DA:1224:C:O3'	44:DV:86:GLY:HA3	2.18	0.44
27:DA:1289:C:H2'	27:DA:1290:C:C6	2.50	0.44
1:AA:1328:C:C2'	1:AA:1329:A:H5'	2.48	0.44
1:AA:1396:A:H2	5:AE:19:MET:HG3	1.83	0.44
23:CW:66:A:C2	23:CW:67:C:C2	3.05	0.44
1:CA:706:A:C5	1:CA:707:C:C5	3.06	0.44
43:DU:28:ARG:NH1	43:DU:28:ARG:HG2	2.33	0.44
28:DB:82:G:N2	28:DB:96:U:C2	2.85	0.44
1:CA:824:C:O2'	1:CA:825:G:H5'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2183:C:O2'	27:DA:2184:G:H5'	2.17	0.44
4:AD:17:VAL:O	4:AD:18:LYS:C	2.56	0.44
43:DU:8:VAL:HG11	43:DU:12:ARG:NH2	2.33	0.44
27:BA:971:C:H2'	27:BA:972:G:C5'	2.48	0.44
27:DA:1662:C:O2'	27:DA:2687:U:OP1	2.36	0.44
34:DH:105:LEU:HD12	34:DH:107:VAL:CG1	2.48	0.44
32:DF:42:ALA:O	32:DF:45:ARG:N	2.44	0.44
27:BA:601:C:H2'	27:BA:602:G:O4'	2.17	0.44
27:DA:2703:C:C2	27:DA:2704:C:C5	3.06	0.44
51:B2:38:GLN:NE2	51:B2:44:LEU:HD12	2.32	0.44
46:BX:10:ALA:HB1	46:BX:11:PRO:HD2	1.98	0.44
31:DE:120:TRP:CD2	31:DE:155:LYS:HB3	2.53	0.44
1:CA:114:U:H2'	1:CA:115:G:C8	2.52	0.44
50:D1:87:PRO:HG2	50:D1:88:LYS:N	2.30	0.44
36:BN:1:MET:C	36:BN:2:LYS:CG	2.86	0.44
13:AM:106:ASN:O	13:AM:107:ALA:CB	2.66	0.44
27:BA:2558:C:H2'	27:BA:2559:C:C6	2.49	0.44
27:BA:2087:G:C2'	27:BA:2088:G:H5'	2.48	0.44
27:DA:2803:C:O3'	27:DA:2804:C:O4'	2.36	0.44
31:DE:173:VAL:O	31:DE:174:ASP:O	2.35	0.44
27:DA:2849:U:N3	27:DA:2867:G:N3	2.66	0.44
2:AB:121:LEU:O	2:AB:121:LEU:HD23	2.18	0.44
30:DD:120:GLY:O	30:DD:122:ASP:N	2.51	0.44
34:DH:92:ILE:O	34:DH:94:TYR:N	2.43	0.44
27:DA:2887:U:H2'	27:DA:2888:C:C6	2.52	0.44
27:BA:706:A:C2	27:BA:707:G:H1'	2.52	0.44
1:CA:1483:A:H1'	27:DA:1948:G:H1'	2.00	0.44
27:BA:2072:G:C6	27:BA:2073:C:C4	3.06	0.44
27:DA:2450:A:C2	27:DA:2451:A:C4	3.06	0.44
32:DF:110:LEU:HG	32:DF:205:ARG:NH2	2.33	0.44
27:DA:2603:G:C5	27:DA:2604:U:C5	3.06	0.44
36:BN:73:THR:HB	36:BN:82:LEU:HD11	1.99	0.44
1:AA:99:U:H2'	1:AA:100:C:O4'	2.17	0.44
15:CO:69:TYR:CZ	15:CO:73:GLU:HG3	2.52	0.44
36:DN:69:GLN:O	36:DN:71:ILE:HG13	2.17	0.44
12:AL:108:LYS:O	12:AL:109:ASP:HB2	2.18	0.44
27:DA:1294:U:O2'	40:DR:23:ASN:ND2	2.51	0.44
27:DA:9:U:O5'	27:DA:9:U:H6	2.01	0.44
27:BA:239:U:H2'	27:BA:240:G:O4'	2.18	0.44
57:B8:11:LYS:C	57:B8:13:ARG:H	2.21	0.43
57:B8:26:LYS:HB3	57:B8:44:LYS:HG3	2.00	0.43
35:DI:79:ILE:C	35:DI:143:SER:OG	2.56	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DI:69:LYS:O	35:DI:73:GLU:HB3	2.17	0.43
47:BY:81:LYS:O	47:BY:82:PRO:O	2.35	0.43
27:DA:1592:C:H2'	27:DA:1593:G:O4'	2.17	0.43
27:DA:2876:G:O2'	42:DT:3:ARG:CZ	2.65	0.43
27:BA:271(U):G:C2	27:BA:271(V):G:C8	3.06	0.43
33:BG:41:GLN:HG2	33:BG:154:GLY:O	2.17	0.43
3:CC:178:LEU:N	3:CC:178:LEU:HD22	2.32	0.43
48:DZ:156:LEU:N	48:DZ:156:LEU:CD1	2.80	0.43
48:DZ:4:LEU:HB2	48:DZ:46:VAL:HG21	2.00	0.43
31:DE:138:PRO:HG2	31:DE:139:GLY:N	2.33	0.43
27:DA:1010:A:H5'	43:DU:62:ILE:HG22	2.00	0.43
27:DA:940:G:H2'	27:DA:941:A:C4'	2.47	0.43
33:DG:60:LEU:O	33:DG:64:THR:CG2	2.66	0.43
13:AM:66:LEU:CA	13:AM:70:LEU:HD12	2.31	0.43
13:AM:69:GLU:OE1	13:AM:72:ALA:HB3	2.18	0.43
44:BV:20:LEU:N	44:BV:20:LEU:CD1	2.81	0.43
1:CA:1313:U:H2'	1:CA:1314:C:H6	1.83	0.43
9:CI:3:GLN:O	9:CI:88:TYR:CE1	2.71	0.43
31:DE:167:VAL:HG22	31:DE:170:LEU:HD11	2.00	0.43
1:CA:1203:C:O2'	1:CA:1204:A:H5'	2.18	0.43
1:AA:1349:A:P	9:AI:118:LYS:NZ	2.91	0.43
1:AA:1234:C:C4'	1:AA:1364:U:H1'	2.46	0.43
27:DA:1287:A:N7	40:DR:107:ASP:HB3	2.32	0.43
31:BE:48:GLN:O	31:BE:48:GLN:HG2	2.18	0.43
2:AB:207:ALA:O	2:AB:211:ILE:HG13	2.18	0.43
47:DY:14:LEU:HG	47:DY:15:VAL:N	2.32	0.43
47:DY:7:VAL:CB	47:DY:8:LYS:HD2	2.46	0.43
32:BF:11:VAL:O	32:BF:12:LEU:C	2.56	0.43
5:CE:70:PRO:O	5:CE:77:PRO:HD3	2.18	0.43
48:BZ:165:SER:HB2	48:BZ:166:PRO:C	2.37	0.43
3:CC:112:SER:O	3:CC:115:LEU:HB2	2.18	0.43
47:BY:36:ALA:HA	47:BY:67:LEU:O	2.18	0.43
26:CZ:1:KBE:HE	27:DA:1913:A:N3	2.33	0.43
8:AH:51:VAL:HG11	8:AH:60:ARG:NH1	2.33	0.43
4:CD:196:LEU:HD12	4:CD:196:LEU:N	2.15	0.43
49:D0:48:GLY:HA3	49:D0:80:HIS:ND1	2.33	0.43
40:DR:30:THR:HG22	40:DR:31:HIS:CD2	2.52	0.43
19:AS:63:THR:H	19:AS:66:MET:HG2	1.81	0.43
27:DA:271(F):C:O2'	27:DA:271(G):C:H5'	2.18	0.43
50:B1:57:GLU:C	50:B1:58:ILE:HG22	2.38	0.43
50:B1:91:LYS:CA	50:B1:94:LEU:HD12	2.48	0.43
5:AE:78:HIS:HE1	5:AE:143:ARG:H	1.66	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:588:U:H2'	27:BA:589:C:H6	1.76	0.43
27:BA:924:C:O5'	27:BA:924:C:H6	2.01	0.43
39:DQ:54:MET:C	39:DQ:56:ARG:N	2.68	0.43
31:BE:170:LEU:HB3	31:BE:184:VAL:CG1	2.48	0.43
19:AS:5:LEU:HA	19:AS:6:LYS:NZ	2.32	0.43
27:DA:1850:G:H2'	27:DA:1851:U:C6	2.53	0.43
48:DZ:128:SER:OG	48:DZ:129:PRO:CD	2.67	0.43
7:CG:143:ARG:NH1	25:CY:40:C:O2'	2.51	0.43
34:DH:68:THR:C	34:DH:70:THR:H	2.21	0.43
50:D1:50:ARG:CG	50:D1:50:ARG:HH11	2.27	0.43
36:BN:87:LEU:O	36:BN:88:GLU:C	2.57	0.43
27:DA:2395:C:H2'	27:DA:2396:G:O4'	2.18	0.43
1:CA:631:G:C5'	1:CA:632:A:OP1	2.66	0.43
8:AH:103:VAL:HG21	8:AH:109:ILE:C	2.37	0.43
43:DU:46:ALA:O	43:DU:49:HIS:N	2.47	0.43
27:BA:699:A:HO2'	27:BA:1634:A:H8	1.63	0.43
1:AA:1328:C:H2'	1:AA:1329:A:H8	1.82	0.43
5:AE:150:ARG:CZ	5:AE:150:ARG:HB2	2.48	0.43
27:BA:2232:U:P	50:B1:40:ARG:HH22	2.41	0.43
50:D1:11:ARG:HB2	50:D1:12:PRO:HD2	1.99	0.43
37:DO:14:THR:HG22	37:DO:52:VAL:CG1	2.48	0.43
39:BQ:10:ARG:NH1	39:BQ:10:ARG:CG	2.81	0.43
1:AA:1354:C:H2'	1:AA:1355:G:H8	1.82	0.43
1:AA:859:A:H2'	1:AA:860:A:O4'	2.18	0.43
8:CH:20:TYR:CD1	8:CH:65:TYR:CD2	3.06	0.43
13:AM:83:ASP:OD2	13:AM:84:ILE:N	2.51	0.43
24:AX:44:A:C6	24:AX:45:G:C6	3.06	0.43
27:BA:1263:U:C1'	54:B5:10:LYS:HG3	2.48	0.43
29:BC:50:ASP:HB2	29:BC:54:SER:O	2.18	0.43
27:BA:1376:C:O2'	27:BA:1377:G:H5'	2.17	0.43
47:BY:31:LEU:HA	47:BY:31:LEU:HD13	1.68	0.43
1:CA:1248:A:H2'	1:CA:1249:C:H5'	2.00	0.43
34:BH:86:GLU:HB3	34:BH:132:ARG:HG3	2.00	0.43
1:AA:918:A:O2'	1:AA:919:A:H5'	2.18	0.43
58:D9:9:ARG:CB	58:D9:9:ARG:NH1	2.79	0.43
27:BA:342:G:H2'	27:BA:343:C:H6	1.83	0.43
4:CD:130:GLY:O	4:CD:131:ARG:C	2.56	0.43
42:DT:134:GLU:HG3	42:DT:135:ALA:H	1.82	0.43
27:DA:1905:C:H4'	27:DA:1928:A:C2	2.53	0.43
1:AA:185:A:H2'	1:AA:186:C:H6	1.83	0.43
39:BQ:26:TYR:C	39:BQ:26:TYR:CD1	2.91	0.43
27:DA:2472:G:H5'	27:DA:2473:U:H5''	1.99	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:54:ASP:C	8:CH:56:LYS:H	2.21	0.43
27:DA:494:G:N2	45:DW:57:ASN:HD21	2.16	0.43
27:BA:1195:G:O2'	27:BA:1196:C:H5'	2.18	0.43
27:DA:1814:G:C4'	30:DD:51:VAL:HG21	2.48	0.43
51:D2:24:LEU:HD11	51:D2:28:LYS:HE2	1.99	0.43
29:BC:214:VAL:C	29:BC:216:THR:H	2.21	0.43
29:BC:42:GLU:O	29:BC:212:VAL:HA	2.18	0.43
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.33	0.43
27:DA:2137:C:H2'	27:DA:2138:C:C6	2.53	0.43
27:DA:1519:G:H5'	27:DA:1520:G:OP1	2.18	0.43
2:AB:107:THR:O	2:AB:110:GLN:HB2	2.18	0.43
6:AF:55:ASP:HA	6:AF:56:PRO:HD3	1.87	0.43
27:DA:1648:C:C2'	27:DA:1649:G:O5'	2.66	0.43
27:DA:1008:C:N4	27:DA:1136:G:C6	2.86	0.43
27:DA:1765:C:O5'	27:DA:1765:C:H6	2.01	0.43
17:AQ:11:VAL:HG23	17:AQ:20:THR:HB	2.00	0.43
27:BA:2419:U:O4	57:B8:30:ARG:NH1	2.50	0.43
38:BP:79:ARG:NE	38:BP:109:GLY:O	2.51	0.43
4:AD:199:ASN:OD1	4:AD:201:GLN:HB2	2.18	0.43
4:AD:63:LYS:O	4:AD:64:LEU:C	2.56	0.43
2:AB:164:VAL:HG12	2:AB:165:VAL:N	2.34	0.43
33:BG:111:LEU:HB2	33:BG:112:PRO:HD3	2.00	0.43
1:CA:1189:C:H5"	3:CC:5:ILE:HG21	2.00	0.43
14:CN:26:ARG:HG3	14:CN:27:CYS:N	2.34	0.43
3:CC:6:HIS:HD1	14:CN:49:HIS:HB2	1.83	0.43
27:DA:1039:G:N7	27:DA:1117:G:N1	2.66	0.43
27:DA:1039:G:C5	27:DA:1117:G:C5	3.03	0.43
20:AT:33:ILE:HD13	20:AT:62:LEU:HD22	1.99	0.43
51:D2:18:PRO:HG2	51:D2:19:VAL:N	2.26	0.43
51:D2:6:VAL:C	51:D2:8:LYS:N	2.71	0.43
30:DD:27:THR:CG2	30:DD:83:GLU:HG2	2.48	0.43
27:DA:1796:U:O3'	30:DD:256:GLY:HA2	2.18	0.43
27:DA:2868:A:H2'	27:DA:2869:G:C8	2.53	0.43
40:DR:55:ALA:CB	40:DR:79:LEU:HD22	2.48	0.43
40:DR:58:GLY:HA2	40:DR:80:PHE:HE1	1.82	0.43
38:DP:97:PRO:HD3	38:DP:126:VAL:O	2.18	0.43
28:DB:22:U:O2	28:DB:61:G:C6	2.71	0.43
33:DG:88:ILE:CD1	33:DG:89:GLY:H	2.24	0.43
13:AM:48:LEU:HB2	13:AM:52:GLU:OE1	2.17	0.43
1:CA:1268:A:H2'	1:CA:1269:A:C8	2.53	0.43
9:CI:79:LEU:CD2	9:CI:102:LEU:HD22	2.47	0.43
9:CI:16:ARG:NE	9:CI:64:THR:HG21	2.32	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DE:167:VAL:HG13	31:DE:170:LEU:CD1	2.48	0.43
4:AD:28:SER:O	4:AD:30:LYS:N	2.51	0.43
27:BA:2865:U:C4	27:BA:2866:U:C4	3.07	0.43
31:BE:52:LEU:HD23	31:BE:76:ARG:HD3	1.99	0.43
2:AB:200:ILE:CG2	2:AB:201:ILE:N	2.81	0.43
32:DF:129:PHE:HA	32:DF:142:TRP:NE1	2.33	0.43
1:AA:80:G:C6	1:AA:88:A:N7	2.86	0.43
1:AA:92:C:C6	1:AA:93:G:N7	2.86	0.43
48:BZ:140:VAL:O	48:BZ:140:VAL:HG13	2.18	0.43
48:BZ:150:HIS:C	48:BZ:168:GLU:O	2.57	0.43
19:CS:40:ILE:HG22	19:CS:41:VAL:N	2.32	0.43
18:AR:56:THR:CB	18:AR:58:LEU:CD1	2.91	0.43
20:CT:54:LYS:HE2	20:CT:57:ARG:HH21	1.83	0.43
44:BV:45:THR:O	44:BV:46:VAL:C	2.57	0.43
1:CA:1458:G:H5''	20:CT:31:SER:OG	2.18	0.43
27:BA:2808:U:H2'	27:BA:2809:A:H5'	1.99	0.43
48:DZ:55:VAL:HA	48:DZ:69:LEU:HD23	1.98	0.43
40:BR:4:LEU:O	40:BR:5:LYS:CB	2.65	0.43
10:CJ:40:LEU:H	10:CJ:40:LEU:CD2	2.28	0.43
41:BS:68:GLN:C	41:BS:70:GLY:H	2.19	0.43
26:CZ:1:KBE:HD	26:CZ:1:KBE:C	2.48	0.43
2:AB:193:ASP:C	2:AB:193:ASP:OD2	2.56	0.43
49:D0:51:VAL:C	49:D0:62:LEU:HD12	2.39	0.43
27:BA:466:A:OP1	56:B7:34:ARG:NH1	2.51	0.43
40:DR:46:GLY:O	40:DR:47:PHE:C	2.56	0.43
27:DA:2231:C:C5	27:DA:2232:U:C5	3.07	0.43
3:AC:22:TRP:HB3	3:AC:59:ARG:HB2	2.00	0.43
6:CF:17:SER:O	6:CF:20:ALA:N	2.51	0.43
3:AC:132:ARG:CG	3:AC:133:ALA:N	2.81	0.43
3:CC:83:ARG:O	3:CC:85:ARG:N	2.51	0.43
3:CC:86:VAL:O	3:CC:90:GLU:HG2	2.18	0.43
50:B1:52:ARG:CG	50:B1:53:VAL:H	2.30	0.43
30:BD:9:TYR:C	30:BD:10:THR:HG22	2.38	0.43
42:BT:56:GLY:O	42:BT:57:PHE:O	2.36	0.43
38:BP:47:ASP:HB2	38:BP:51:PHE:CB	2.46	0.43
28:BB:56:G:H4'	28:BB:57:A:O5'	2.18	0.43
27:BA:950:G:H2'	27:BA:951:C:C6	2.52	0.43
27:BA:951:C:H2'	27:BA:952:G:H5'	2.00	0.43
24:AX:53:G:H2'	24:AX:54:U:H6	1.83	0.43
11:CK:99:GLN:HA	11:CK:105:VAL:HG11	1.99	0.43
1:CA:1216:G:H5''	14:CN:5:ALA:HB2	1.99	0.43
27:BA:1719:G:C6	27:BA:1720:U:C4	3.06	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:271(P):C:OP1	35:BI:45:LYS:HE3	2.18	0.43
5:CE:80:ILE:HD11	5:CE:138:ALA:CB	2.48	0.43
27:DA:2649:U:H2'	27:DA:2650:U:C6	2.53	0.43
35:DI:111:PRO:CG	35:DI:112:LYS:HE2	2.47	0.43
27:BA:1843:C:H5'	30:BD:253:GLN:HE22	1.80	0.43
27:DA:1495:A:H3'	27:DA:1496:A:H2	1.80	0.43
27:DA:302:C:HO2'	27:DA:303:U:H6	1.49	0.43
1:CA:1067:A:H4'	1:CA:1068:G:O5'	2.17	0.43
27:DA:1478:G:HO2'	27:DA:1558:A:H2	1.65	0.43
17:CQ:32:TYR:HD1	17:CQ:32:TYR:N	2.16	0.43
58:B9:26:ILE:HG22	58:B9:27:CYS:H	1.82	0.43
3:AC:206:GLU:HB3	3:AC:207:VAL:H	1.59	0.43
1:CA:1091:U:N3	1:CA:1095:U:C4	2.86	0.43
27:BA:1652:A:O2'	27:BA:1653:G:H5'	2.17	0.43
1:CA:355:C:H4'	1:CA:388:G:O2'	2.18	0.43
44:BV:21:ARG:O	44:BV:22:VAL:CG1	2.64	0.43
46:DX:57:LEU:HD11	46:DX:78:LYS:CG	2.48	0.43
31:BE:37:ARG:HD3	31:BE:42:ASP:OD2	2.18	0.43
19:AS:9:VAL:C	19:AS:11:VAL:H	2.22	0.43
25:AY:39:C:H2'	25:AY:40:C:H6	1.84	0.43
31:BE:137:HIS:CB	31:BE:138:PRO:CD	2.95	0.43
1:AA:216:G:O2'	1:AA:217:C:OP2	2.27	0.43
1:CA:1258:G:H2'	1:CA:1259:C:H6	1.81	0.43
1:CA:1501:C:N4	1:CA:1504:G:C2	2.86	0.43
6:CF:98:LEU:HA	18:CR:30:ASP:HA	1.99	0.43
27:DA:843:G:N2	27:DA:936:C:C2	2.86	0.43
1:AA:1433:A:O2'	1:AA:1434:A:H5'	2.18	0.43
27:DA:363(F):A:C4'	27:DA:363(F):A:OP1	2.65	0.43
1:AA:917:G:C6	1:AA:918:A:C6	3.06	0.43
27:BA:1446:C:O2'	27:BA:1447:G:H5'	2.18	0.43
27:BA:1465:G:C4	27:BA:1466:G:C8	3.06	0.43
32:BF:161:GLU:O	32:BF:165:ARG:HB2	2.19	0.43
32:BF:167:ALA:O	32:BF:168:ARG:C	2.56	0.43
13:CM:116:THR:CG2	13:CM:117:VAL:H	2.28	0.43
4:AD:116:GLN:NE2	4:AD:157:LEU:HD11	2.33	0.43
11:AK:23:ALA:HB3	11:AK:86:GLY:O	2.17	0.43
39:BQ:26:TYR:C	39:BQ:26:TYR:HD1	2.22	0.43
27:DA:2824:C:C2'	27:DA:2825:C:H5'	2.48	0.43
1:AA:624:C:H4'	16:AP:10:GLY:HA2	2.01	0.43
27:DA:2337:G:H2'	27:DA:2338:G:C8	2.52	0.43
27:DA:1544:A:H2	27:DA:1545:A:C2	2.37	0.43
38:DP:135:LEU:HD13	38:DP:135:LEU:O	2.17	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:56:A:H2'	27:BA:57:C:H6	1.83	0.43
1:AA:992:U:H1'	1:AA:993:G:C2	2.53	0.43
58:B9:10:ILE:O	58:B9:10:ILE:HG22	2.18	0.43
31:DE:107:THR:O	31:DE:190:GLY:HA2	2.17	0.43
1:CA:189:G:C2	1:CA:189(A):C:C2	3.06	0.43
27:BA:569:U:C4	27:BA:570:G:C6	3.06	0.43
27:DA:1623:G:H2'	27:DA:1624:G:H8	1.83	0.43
27:DA:350:U:H2'	27:DA:351:G:O4'	2.17	0.43
27:DA:1822:G:O2'	27:DA:1823:G:H5'	2.18	0.43
1:AA:109:A:H2'	1:AA:326:G:N2	2.33	0.43
27:DA:1003:G:N2	27:DA:1004:C:C2	2.87	0.43
8:AH:105:ARG:HD3	8:AH:105:ARG:HA	1.89	0.43
39:BQ:57:HIS:C	39:BQ:57:HIS:ND1	2.71	0.43
27:BA:241:A:H5'	27:BA:243:U:H1'	2.00	0.43
4:AD:98:GLU:CG	4:AD:103:ASN:HD21	2.31	0.43
4:AD:13:ARG:HA	4:AD:33:MET:SD	2.58	0.43
4:AD:60:GLU:CB	4:AD:202:LEU:HD12	2.49	0.43
1:CA:983:A:OP1	14:CN:6:LEU:HD11	2.18	0.43
35:DI:75:LEU:HG	35:DI:77:LEU:HD21	2.00	0.43
27:BA:2747:G:O2'	34:BH:67:LEU:HD13	2.19	0.43
42:BT:29:ARG:HG2	42:BT:86:ILE:O	2.19	0.43
42:DT:1:MET:O	42:DT:2:ASN:C	2.56	0.43
13:AM:3:ARG:CG	13:AM:9:ILE:HG12	2.48	0.43
33:BG:111:LEU:O	33:BG:114:ILE:HG13	2.18	0.43
33:BG:48:GLU:N	33:BG:51:ARG:HD2	2.34	0.43
33:BG:86:MET:O	33:BG:87:PRO:C	2.56	0.43
33:BG:42:GLY:O	33:BG:88:ILE:HG13	2.18	0.43
48:DZ:131:ASN:C	48:DZ:133:PRO:HD3	2.38	0.43
39:DQ:140:ALA:HA	48:DZ:98:TYR:CD1	2.53	0.43
55:D6:14:THR:O	55:D6:49:HIS:HA	2.18	0.43
55:D6:23:THR:OG1	55:D6:23:THR:O	2.36	0.43
10:CJ:7:LYS:N	10:CJ:97:GLU:O	2.41	0.43
30:DD:24:ILE:CD1	30:DD:84:TYR:HB2	2.48	0.43
27:DA:1453:U:C4	40:DR:67:LEU:HD21	2.53	0.43
27:DA:777:A:H2'	27:DA:778:G:C8	2.53	0.43
27:DA:996:A:H2'	27:DA:997:G:H8	1.83	0.43
33:DG:128:ARG:H	33:DG:128:ARG:NE	2.16	0.43
33:DG:133:LEU:C	33:DG:133:LEU:HD12	2.39	0.43
12:CL:44:LYS:C	12:CL:46:ASN:H	2.20	0.43
17:AQ:18:THR:HG22	17:AQ:19:VAL:H	1.82	0.43
1:CA:1289:A:O2'	7:CG:35:LYS:HE3	2.17	0.43
9:CI:10:ARG:CG	9:CI:105:ASP:HB3	2.48	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:131:LEU:HD13	30:BD:136:ILE:CG1	2.48	0.43
3:AC:125:GLU:HG2	3:AC:189:ALA:O	2.18	0.43
14:AN:45:ARG:HG3	14:AN:49:HIS:CE1	2.54	0.43
27:DA:2009:G:H4'	45:DW:40:ASN:OD1	2.18	0.43
48:BZ:116:LEU:HD11	48:BZ:149:LEU:HD11	1.99	0.43
19:CS:16:LEU:HA	19:CS:19:VAL:HG23	2.00	0.43
47:BY:67:LEU:HA	47:BY:71:LYS:HZ1	1.83	0.43
27:DA:2846:G:OP2	42:DT:54:ARG:HB2	2.18	0.43
42:DT:50:ILE:O	42:DT:99:LEU:HD12	2.18	0.43
1:AA:1100:C:OP2	2:AB:96:ARG:CD	2.66	0.43
51:D2:30:ARG:O	51:D2:34:GLU:HB2	2.18	0.43
27:BA:1858:G:H2'	27:BA:1883:G:N2	2.33	0.43
1:AA:472:A:C4'	16:AP:82:GLN:HE22	2.31	0.43
1:AA:1305:G:C5'	21:AU:4:GLY:CA	2.95	0.43
27:DA:2525:G:C2	27:DA:2539:C:C2	3.07	0.43
3:AC:180:ALA:O	3:AC:181:ASN:HB3	2.18	0.43
2:AB:194:PRO:HG2	2:AB:195:ASP:H	1.82	0.43
34:BH:121:ILE:CG2	34:BH:122:THR:N	2.82	0.43
40:DR:100:LEU:HD21	40:DR:113:LEU:HB2	1.99	0.43
27:DA:2084:C:H2'	27:DA:2085:C:H6	1.78	0.43
27:DA:2088:G:N2	27:DA:2232:U:H1'	2.33	0.43
1:CA:20:U:H2'	1:CA:21:G:C5'	2.48	0.43
34:DH:85:LYS:HZ2	34:DH:133:VAL:HB	1.82	0.43
3:AC:173:VAL:O	3:AC:175:LEU:N	2.51	0.43
27:DA:563:G:C6	27:DA:2018:G:C5	3.06	0.43
3:CC:47:LEU:HD21	3:CC:68:VAL:HG21	2.00	0.43
12:AL:5:ASN:HA	12:AL:8:VAL:HG23	2.01	0.43
27:BA:2870:C:H2'	27:BA:2871:C:O4'	2.17	0.43
17:CQ:4:LYS:HE3	17:CQ:6:LEU:CD1	2.48	0.43
38:BP:41:ARG:HA	38:BP:41:ARG:HD2	1.73	0.43
16:CP:59:TRP:HA	16:CP:62:VAL:CG2	2.48	0.43
39:DQ:52:VAL:O	39:DQ:56:ARG:HB2	2.19	0.43
27:DA:69:C:H2'	27:DA:73:A:O2'	2.18	0.43
30:DD:30:GLU:CG	30:DD:63:ARG:NE	2.80	0.43
45:DW:10:VAL:CG1	45:DW:12:ILE:HG22	2.49	0.43
1:AA:673:G:O3'	6:AF:87:ARG:NH2	2.51	0.43
1:AA:663:A:C2'	1:AA:664:G:H5'	2.49	0.43
7:CG:28:ASN:C	7:CG:30:ILE:N	2.71	0.43
11:CK:21:ILE:HB	11:CK:84:VAL:HA	2.00	0.43
27:BA:1165:U:H2'	27:BA:1166:C:H6	1.80	0.43
29:BC:23:ASP:C	29:BC:25:ALA:H	2.20	0.43
27:DA:1422:G:H4'	27:DA:1493:C:OP1	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2654:A:O4'	27:BA:2656:U:C6	2.71	0.43
27:DA:1639:U:O2'	27:DA:1640:C:H5''	2.17	0.43
50:D1:27:GLU:O	50:D1:28:GLY:C	2.57	0.43
27:DA:2191:G:C5'	27:DA:2192:G:OP2	2.65	0.43
18:AR:66:LEU:O	18:AR:69:THR:N	2.50	0.43
27:DA:1478:G:C2	27:DA:1479:G:C8	3.07	0.43
27:BA:2873:A:N3	40:BR:7:GLY:N	2.55	0.43
12:AL:123:LYS:HG3	12:AL:124:GLU:H	1.83	0.43
58:D9:10:ILE:HD12	58:D9:32:HIS:CG	2.53	0.43
1:CA:1033:G:H2'	1:CA:1034:G:H5'	2.00	0.43
1:AA:1229:A:C2	1:AA:1230:C:C4	3.06	0.43
1:AA:953:G:H2'	1:AA:954:G:O4'	2.18	0.43
1:AA:965:A:C2	1:AA:969:A:N1	2.87	0.43
8:CH:100:ILE:O	8:CH:102:ARG:NH2	2.46	0.43
42:BT:128:GLU:OE1	42:BT:128:GLU:O	2.36	0.43
50:D1:46:LEU:HA	50:D1:63:ALA:HA	2.01	0.43
1:CA:1300:G:HO2'	1:CA:1301:U:P	2.41	0.43
5:AE:88:LYS:HD2	5:AE:123:LEU:HB2	2.00	0.43
6:AF:28:ARG:HH11	6:AF:28:ARG:HG3	1.83	0.43
52:B3:11:SER:HA	52:B3:12:PRO:HD3	1.71	0.43
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.83	0.43
16:AP:74:LEU:H	16:AP:74:LEU:HD12	1.83	0.43
47:DY:16:ALA:CB	47:DY:21:LYS:HZ2	2.32	0.43
32:BF:178:PRO:CB	32:BF:201:VAL:HG11	2.47	0.43
27:BA:1820:U:H4'	27:BA:1821:A:OP2	2.18	0.43
51:B2:42:GLY:O	51:B2:44:LEU:N	2.51	0.43
27:BA:1763:G:C4'	27:BA:1763:G:OP1	2.66	0.43
16:AP:58:TYR:CD1	16:AP:58:TYR:C	2.91	0.43
1:AA:189(H):G:H2'	1:AA:189(I):G:C8	2.52	0.43
1:AA:245:C:O2'	1:AA:246:A:H5'	2.18	0.43
27:BA:38:A:H2'	27:BA:39:C:C6	2.53	0.43
27:DA:1936:A:C8	27:DA:1940:U:O2	2.72	0.43
4:CD:65:ARG:HH11	4:CD:65:ARG:CG	2.30	0.43
27:BA:59:U:C5'	27:BA:60:G:OP2	2.66	0.43
1:CA:1129:C:OP1	9:CI:62:TYR:CE2	2.71	0.43
1:CA:929:G:C6	1:CA:930:C:C4	3.06	0.43
1:CA:909:A:H2'	1:CA:910:C:O4'	2.18	0.43
29:BC:60:GLY:O	29:BC:61:THR:OG1	2.25	0.43
1:CA:359:U:H2'	1:CA:360:A:C8	2.54	0.43
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.53	0.43
34:BH:164:TYR:O	34:BH:165:ALA:HB2	2.18	0.43
27:BA:2887:U:H2'	27:BA:2888:C:O4'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BE:40:GLU:CD	31:BE:40:GLU:H	2.20	0.43
27:DA:1669:A:H2'	27:DA:1669:A:N3	2.33	0.43
7:AG:48:LYS:O	7:AG:52:GLU:HB2	2.18	0.43
27:BA:76:C:H6	27:BA:76:C:O5'	2.01	0.43
27:BA:603:A:H5'	27:BA:604:G:OP1	2.19	0.43
55:B6:44:ARG:O	55:B6:45:LYS:HG2	2.17	0.43
57:B8:33:ASN:O	57:B8:34:TRP:HB3	2.19	0.43
1:CA:1222:G:H2'	1:CA:1223:C:O4'	2.18	0.43
1:CA:1321:C:O2'	19:CS:78:ARG:NH1	2.50	0.43
13:AM:94:ARG:NH2	27:BA:887:A:C8	2.87	0.43
47:BY:38:ILE:O	47:BY:39:VAL:CB	2.65	0.43
47:BY:81:LYS:O	47:BY:82:PRO:C	2.56	0.43
27:BA:1471:A:N7	27:BA:1520:G:C6	2.87	0.43
44:DV:21:ARG:CG	44:DV:91:TYR:CD2	2.95	0.43
31:DE:6:GLY:CA	31:DE:27:LEU:O	2.65	0.43
53:B4:38:ALA:H	53:B4:51:TYR:HA	1.84	0.43
33:BG:64:THR:CG2	33:BG:65:GLY:H	2.30	0.43
14:CN:29:ARG:HG2	14:CN:40:CYS:CB	2.48	0.43
48:DZ:9:ARG:CB	48:DZ:9:ARG:HH11	2.31	0.43
27:DA:2392:A:P	57:D8:31:HIS:HE1	2.40	0.43
27:DA:2864:G:C8	27:DA:2864:G:H5'	2.49	0.43
36:DN:1:MET:C	36:DN:2:LYS:HD2	2.38	0.43
43:DU:91:ASP:OD2	43:DU:96:ALA:N	2.51	0.43
38:DP:30:THR:O	38:DP:33:ARG:N	2.50	0.43
27:DA:1885:A:C8	27:DA:1886:C:C6	3.07	0.43
13:AM:70:LEU:O	13:AM:74:VAL:HG23	2.19	0.43
1:CA:1370:G:O2'	1:CA:1371:G:H5'	2.17	0.43
31:DE:199:ARG:CB	31:DE:199:ARG:CZ	2.95	0.43
1:AA:1276:G:C2'	1:AA:1277:C:H5'	2.49	0.43
27:DA:2247:A:H2'	27:DA:2248:C:H6	1.84	0.43
27:DA:1652:A:N6	27:DA:1653:G:C2	2.86	0.43
47:DY:7:VAL:CB	47:DY:8:LYS:HZ2	2.31	0.43
48:BZ:143:LEU:HB3	48:BZ:149:LEU:HD12	2.00	0.43
27:BA:2330:G:O2'	27:BA:2331:G:H5'	2.17	0.43
27:BA:2336:A:H61	49:B0:43:THR:HG21	1.83	0.43
43:BU:91:ASP:OD2	43:BU:96:ALA:CA	2.66	0.43
43:BU:65:ILE:HD11	43:BU:96:ALA:HB3	2.00	0.43
5:CE:15:ARG:CG	5:CE:28:PHE:HE2	2.15	0.43
1:CA:1457:G:C4	1:CA:1458:G:N7	2.86	0.43
20:CT:26:ASN:HD22	20:CT:27:LYS:H	1.67	0.43
8:CH:86:ILE:HB	8:CH:133:LEU:O	2.18	0.43
1:CA:68:G:H8	1:CA:68:G:H3'	1.82	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:30:ARG:HH21	14:AN:35:ARG:C	2.21	0.43
11:AK:124:LYS:HD2	11:AK:125:PHE:CZ	2.51	0.43
34:DH:121:ILE:HG12	34:DH:134:SER:O	2.17	0.43
34:DH:124:GLU:HB2	34:DH:132:ARG:HB2	2.00	0.43
34:DH:85:LYS:CG	34:DH:133:VAL:HB	2.48	0.43
6:CF:3:ARG:HH11	6:CF:3:ARG:HG3	1.83	0.43
36:BN:58:ASP:O	36:BN:59:LYS:CB	2.66	0.43
8:AH:91:ARG:HH12	17:AQ:33:GLY:CA	2.32	0.43
37:DO:53:LYS:N	37:DO:53:LYS:CD	2.77	0.43
39:DQ:51:ARG:HG2	39:DQ:51:ARG:HH11	1.83	0.43
32:BF:132:VAL:CG2	32:BF:133:ASN:H	2.14	0.43
27:DA:1323:U:H2'	27:DA:1324:G:H5'	2.00	0.43
15:AO:54:ARG:NH1	15:AO:54:ARG:CG	2.80	0.43
36:BN:24:GLY:O	36:BN:25:ARG:C	2.55	0.43
34:DH:68:THR:C	34:DH:70:THR:N	2.71	0.43
1:AA:167:G:O2'	1:AA:168:G:H5'	2.18	0.43
1:CA:500:G:H2'	1:CA:501:C:C6	2.54	0.43
36:BN:23:LEU:HD13	36:BN:98:VAL:HG12	2.01	0.43
27:DA:301:G:C2	27:DA:302:C:C4	3.06	0.43
20:CT:86:ARG:HG2	20:CT:86:ARG:HH11	1.83	0.43
2:CB:80:ILE:CD1	2:CB:212:GLN:HA	2.49	0.43
27:DA:1614:A:H62	45:DW:93:ALA:CB	2.27	0.43
1:AA:221:C:C2'	1:AA:222:U:H5'	2.48	0.43
27:DA:2626:C:H2'	27:DA:2627:G:O4'	2.19	0.43
34:BH:76:VAL:C	34:BH:78:GLY:N	2.70	0.43
32:DF:65:TRP:HZ3	32:DF:75:HIS:HD2	1.67	0.43
11:AK:54:ARG:NH2	25:AY:39:C:H5''	2.33	0.43
27:DA:1782:C:H1'	27:DA:2609:U:C5'	2.48	0.43
27:DA:740:U:H2'	27:DA:741:G:C8	2.52	0.43
8:CH:19:VAL:O	8:CH:20:TYR:CB	2.65	0.43
13:CM:82:MET:O	13:CM:83:ASP:C	2.57	0.43
39:BQ:109:VAL:HG12	39:BQ:110:THR:H	1.83	0.43
27:BA:2049:G:N2	27:BA:2620:C:C2	2.86	0.43
27:BA:271(J):C:HO2'	27:BA:271(K):U:H6	1.64	0.43
45:BW:5:ALA:CB	45:BW:50:VAL:HG22	2.48	0.43
1:CA:328:C:C2'	1:CA:328:C:O2	2.65	0.43
27:DA:265:A:C2	27:DA:428:A:C2	3.06	0.43
1:CA:189(D):C:H2'	1:CA:189(E):U:O4'	2.18	0.43
1:CA:583:A:H61	1:CA:758:G:H1'	1.83	0.43
27:DA:2551:C:H2'	27:DA:2552:U:C6	2.54	0.43
5:AE:42:GLY:CA	5:AE:65:ASN:O	2.66	0.43
51:D2:53:LEU:O	51:D2:56:GLN:N	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1288:A:O4'	1:AA:1353:G:H4'	2.18	0.43
7:CG:36:LYS:C	7:CG:38:LEU:N	2.70	0.43
7:CG:36:LYS:O	7:CG:38:LEU:N	2.51	0.43
48:BZ:91:SER:HB3	48:BZ:92:ASP:H	1.59	0.43
1:AA:685:G:H5'	11:AK:39:PRO:O	2.18	0.43
11:CK:15:ALA:HB1	11:CK:78:GLN:HG3	1.99	0.43
1:CA:781:A:C3'	1:CA:782:A:H5'	2.48	0.43
27:DA:2117:A:C2'	27:DA:2118:U:H5''	2.48	0.43
47:DY:91:GLU:HB3	47:DY:92:ASN:H	1.38	0.43
27:DA:1933:G:H22	27:DA:1968:G:H1'	1.83	0.43
20:AT:64:ASP:HA	20:AT:67:ALA:HB2	1.99	0.43
23:AW:20:A:H62	23:AW:44:A:C2'	2.31	0.43
13:CM:28:ALA:C	13:CM:30:ALA:N	2.71	0.43
1:CA:370:C:C2	1:CA:371:G:C8	3.06	0.43
1:CA:297:G:N2	1:CA:300:A:OP2	2.45	0.43
27:BA:531:C:N3	27:BA:563:G:C8	2.86	0.43
27:BA:563:G:H5'	27:BA:572:A:H4'	1.99	0.43
27:BA:2693:A:H2'	27:BA:2694:G:C8	2.53	0.43
27:DA:1821:A:H2'	27:DA:1822:G:H8	1.83	0.43
18:CR:81:PHE:O	18:CR:82:THR:OG1	2.32	0.43
27:DA:2040:C:H2'	27:DA:2041:U:H6	1.84	0.43
27:DA:144:C:O2'	27:DA:145:G:H5'	2.18	0.43
27:BA:37:C:H4'	27:BA:451:C:OP1	2.18	0.43
50:B1:32:LYS:C	50:B1:33:LYS:HG2	2.38	0.43
27:DA:125:G:H21	56:D7:48:LYS:NZ	2.16	0.43
1:AA:614:A:C5	1:AA:615:C:C4	3.06	0.43
27:BA:2761:G:H2'	27:BA:2761:G:N3	2.33	0.43
3:AC:126:ARG:HG2	3:AC:126:ARG:HH11	1.83	0.43
38:BP:115:LEU:CD2	38:BP:115:LEU:N	2.81	0.43
38:BP:146:VAL:O	38:BP:148:LEU:HG	2.18	0.43
35:DI:77:LEU:HD13	35:DI:105:HIS:CD2	2.53	0.43
47:BY:96:ILE:CG2	47:BY:99:CYS:SG	3.02	0.43
42:BT:84:GLN:HB2	42:BT:86:ILE:HG13	2.00	0.43
24:AX:56:C:O2'	33:BG:77:ILE:HA	2.17	0.43
27:DA:2348:U:O2'	55:D6:42:TRP:CE3	2.72	0.43
3:CC:181:ASN:HD21	3:CC:204:LEU:HB2	1.79	0.43
1:CA:1060:C:H5''	10:CJ:51:ARG:HD3	2.01	0.43
20:AT:85:MET:HA	20:AT:88:VAL:HB	2.00	0.43
57:D8:14:VAL:HG13	57:D8:22:VAL:HG13	2.01	0.43
44:DV:45:THR:O	44:DV:46:VAL:HG12	2.18	0.43
31:DE:104:VAL:O	31:DE:167:VAL:HG12	2.19	0.43
4:AD:22:LYS:O	4:AD:113:SER:CB	2.66	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:812:C:H1'	27:BA:1250:G:N2	2.32	0.43
10:AJ:55:LYS:HB3	10:AJ:55:LYS:HE2	1.74	0.43
30:BD:223:GLY:HA3	30:BD:231:HIS:CE1	2.53	0.43
30:BD:45:ASN:OD1	30:BD:50:THR:HG23	2.18	0.43
1:AA:1146:A:H8	1:AA:1146:A:H5'	1.84	0.43
1:AA:1145:C:C5'	1:AA:1146:A:OP1	2.64	0.43
31:BE:12:THR:HB	31:BE:13:ARG:H	1.53	0.43
31:BE:48:GLN:CG	31:BE:78:LEU:HD12	2.48	0.43
2:AB:65:GLY:HA2	2:AB:226:ARG:HH22	1.80	0.43
27:DA:1210:A:H5'	27:DA:1212:G:C5'	2.47	0.43
47:DY:18:GLY:C	47:DY:20:TYR:H	2.22	0.43
15:CO:76:GLU:C	15:CO:78:TYR:N	2.72	0.43
48:BZ:168:GLU:HA	48:BZ:168:GLU:OE1	2.18	0.43
4:AD:105:VAL:O	4:AD:105:VAL:HG12	2.17	0.43
2:AB:105:PHE:CD1	2:AB:152:PHE:CZ	3.06	0.43
46:DX:48:LYS:HZ3	51:D2:30:ARG:NH2	2.17	0.43
27:DA:2752:C:O2'	27:DA:2753:A:H5'	2.18	0.43
3:AC:76:VAL:CG2	3:AC:103:VAL:HG11	2.38	0.43
20:CT:62:LEU:O	20:CT:65:LYS:HB2	2.17	0.43
1:AA:389:A:C6	1:AA:390:C:H1'	2.53	0.43
8:CH:84:ARG:CG	8:CH:85:ARG:N	2.81	0.43
27:BA:1495:A:H2'	27:BA:1495:A:N3	2.34	0.43
26:CZ:1:KBE:CE	26:CZ:1:KBE:O	2.63	0.43
56:B7:34:ARG:HH21	56:B7:39:ARG:NE	2.17	0.43
8:AH:86:ILE:CB	8:AH:133:LEU:HD22	2.49	0.43
3:CC:35:GLU:O	3:CC:37:GLN:N	2.52	0.43
57:D8:61:LEU:HD12	57:D8:61:LEU:N	2.33	0.43
27:DA:662:G:OP1	38:DP:18:ARG:CZ	2.66	0.43
30:DD:142:VAL:CG2	30:DD:143:HIS:H	2.31	0.43
33:DG:21:ARG:C	33:DG:21:ARG:CD	2.87	0.43
27:DA:1000:A:C8	27:DA:1154:G:N2	2.86	0.43
27:DA:64:A:O2'	27:DA:65:C:H5'	2.19	0.43
4:CD:198:VAL:CG1	4:CD:199:ASN:N	2.82	0.43
1:AA:190:U:H2'	1:AA:191:G:C8	2.53	0.43
31:BE:167:VAL:HG13	31:BE:170:LEU:HD11	2.00	0.43
1:AA:532:A:C3'	1:AA:533:A:H5''	2.48	0.43
27:DA:477:A:C6	27:DA:478:A:C6	3.07	0.43
16:AP:54:GLU:OE2	16:AP:54:GLU:CA	2.59	0.43
27:BA:114:U:O5'	27:BA:114:U:H6	2.02	0.43
33:DG:102:PHE:C	33:DG:102:PHE:CD2	2.89	0.43
33:DG:104:GLU:OE2	53:D4:50:THR:CB	2.65	0.43
24:AX:25:C:H2'	24:AX:26:G:O4'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:34:VAL:O	30:DD:35:LYS:HD2	2.18	0.43
27:DA:529:A:C5	27:DA:2042:A:C2	3.06	0.43
2:CB:70:PHE:CE2	2:CB:163:PHE:HD1	2.36	0.43
1:CA:1133:G:N2	1:CA:1143:G:H1'	2.33	0.43
27:DA:862:G:H2'	27:DA:863:A:O4'	2.19	0.43
27:BA:2655:G:H22	27:BA:2664:G:H2'	1.81	0.43
10:AJ:33:GLN:HB2	10:AJ:75:ILE:CD1	2.43	0.43
4:CD:135:LEU:N	4:CD:135:LEU:HD12	2.33	0.43
1:AA:1309:G:C6	1:AA:1329:A:C2	3.07	0.43
27:DA:2563:U:H2'	27:DA:2565:A:OP2	2.18	0.43
27:DA:2711:A:OP2	27:DA:2712(A):A:OP2	2.36	0.43
27:DA:435:C:H2'	27:DA:436:C:C5'	2.49	0.43
46:DX:31:HIS:HA	46:DX:32:PRO:HD2	1.80	0.43
27:BA:1239:G:H2'	27:BA:1240:U:O4'	2.18	0.43
1:CA:820:U:H4'	1:CA:821:G:OP2	2.18	0.43
1:CA:1422:G:H2'	1:CA:1423:G:H8	1.83	0.43
1:CA:723:U:O2	1:CA:723:U:C2'	2.66	0.43
13:AM:80:ARG:C	13:AM:82:MET:H	2.21	0.43
27:DA:1497:U:H5'	27:DA:1498:C:H5	1.80	0.43
27:BA:2048:G:C6	27:BA:2049:G:C5	3.07	0.43
27:BA:271(J):C:H2'	27:BA:271(J):C:O2	2.18	0.43
32:DF:204:ASN:C	32:DF:206:ILE:H	2.22	0.43
47:BY:31:LEU:CB	47:BY:32:PRO:HA	2.49	0.43
47:DY:16:ALA:HB1	47:DY:21:LYS:HZ3	1.82	0.43
1:CA:147:G:H1	1:CA:175:C:H42	1.66	0.43
1:AA:263:A:P	20:AT:79:ARG:HH12	2.41	0.43
3:CC:23:TYR:CD1	3:CC:24:ALA:N	2.87	0.43
25:CY:52:G:C2	25:CY:53:U:C4	3.07	0.43
1:CA:793:U:O2	1:CA:1516:G:H4'	2.18	0.43
51:D2:53:LEU:O	51:D2:56:GLN:HB2	2.18	0.43
30:DD:2:ALA:O	30:DD:3:VAL:CB	2.66	0.43
1:AA:1288:A:C6	1:AA:1289:A:C5	3.06	0.43
27:DA:714:U:O2	27:DA:716:A:C8	2.71	0.43
1:AA:184:G:H5'	1:AA:224:C:H4'	2.00	0.43
3:CC:42:LEU:N	3:CC:42:LEU:HD12	2.33	0.43
33:BG:181:ARG:O	33:BG:182:LYS:OXT	2.36	0.43
27:DA:1833:U:H2'	27:DA:1834:U:C6	2.53	0.43
27:BA:1230:C:H2'	27:BA:1231:G:H8	1.80	0.43
15:AO:67:LEU:HA	15:AO:67:LEU:HD23	1.86	0.43
39:DQ:68:ILE:HG23	39:DQ:103:MET:HA	2.00	0.43
20:CT:37:SER:O	20:CT:40:ALA:N	2.52	0.43
4:AD:43:HIS:O	4:AD:44:GLY:C	2.57	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:292:C:H2'	27:BA:293:U:H6	1.82	0.43
27:BA:339:U:H6	27:BA:339:U:O5'	2.01	0.43
12:AL:54:LYS:HG2	12:AL:64:THR:CG2	2.48	0.43
27:BA:931:G:C2	27:BA:933:A:C5	3.06	0.43
27:DA:1418:G:OP1	27:DA:1588:C:O2'	2.34	0.43
25:CY:43:C:OP2	25:CY:44:U:C4	2.72	0.43
1:CA:1070:U:O2'	1:CA:1071:C:H5'	2.18	0.43
2:CB:108:ILE:CG2	2:CB:152:PHE:HE1	2.31	0.43
36:BN:96:GLU:O	36:BN:100:GLU:HG3	2.18	0.43
30:DD:177:LEU:O	30:DD:180:GLY:N	2.45	0.43
27:BA:1394:U:C4	27:BA:1395:A:C6	3.07	0.43
27:DA:2588:G:H2'	27:DA:2589:A:O4'	2.18	0.43
9:AI:20:ARG:HG3	9:AI:20:ARG:HH11	1.82	0.43
8:AH:125:ARG:HG3	8:AH:125:ARG:HH11	1.84	0.43
27:BA:1304:C:O2	27:BA:1304:C:H2'	2.18	0.43
27:BA:2078:C:H2'	27:BA:2079:U:C6	2.53	0.43
31:BE:105:THR:O	31:BE:196:VAL:HA	2.17	0.43
55:B6:13:CYS:HB3	55:B6:49:HIS:HB3	2.00	0.43
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	2.00	0.43
35:DI:114:LEU:HA	35:DI:129:THR:C	2.39	0.43
35:DI:133:HIS:O	35:DI:134:PRO:C	2.56	0.43
42:BT:85:LYS:O	42:BT:86:ILE:C	2.56	0.43
33:BG:86:MET:O	33:BG:87:PRO:O	2.36	0.43
1:CA:980:C:H3'	1:CA:981:U:C6	2.54	0.43
48:DZ:161:GLU:CG	48:DZ:162:LEU:H	2.27	0.43
51:D2:6:VAL:O	51:D2:9:GLN:N	2.52	0.43
55:D6:47:THR:HG22	55:D6:48:VAL:HG23	2.00	0.43
4:AD:49:ARG:CD	4:AD:49:ARG:C	2.83	0.43
34:BH:65:HIS:HE1	34:BH:69:ARG:HD2	1.83	0.43
27:BA:2481:G:O2'	27:BA:2482:G:OP2	2.36	0.43
27:DA:2870:C:O2'	27:DA:2871:C:H5'	2.19	0.43
27:DA:778:G:H5''	30:DD:48:ARG:HD2	2.01	0.43
41:DS:24:LEU:CB	41:DS:85:VAL:HG12	2.28	0.43
32:BF:32:LEU:C	32:BF:32:LEU:HD23	2.39	0.43
27:BA:1686:C:H5'	27:BA:1686:C:C6	2.54	0.43
27:BA:587:C:H2'	38:BP:33:ARG:NE	2.33	0.43
30:BD:72:LYS:CE	30:BD:101:GLU:OE2	2.66	0.43
36:DN:57:ALA:N	36:DN:123:TYR:O	2.50	0.43
13:AM:49:THR:CG2	13:AM:51:ALA:HB3	2.48	0.43
18:CR:53:ARG:O	18:CR:54:ARG:C	2.57	0.43
1:AA:1368:G:OP2	9:AI:112:LYS:HE3	2.19	0.43
23:AW:34:U:H2'	23:AW:35:G:H5'	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DW:19:LEU:N	45:DW:19:LEU:CD1	2.82	0.43
32:DF:136:THR:HA	32:DF:166:ALA:HB1	2.00	0.43
27:DA:1491:G:H1	27:DA:1499:C:H42	1.65	0.43
31:BE:32:PRO:CB	31:BE:69:LYS:HE2	2.43	0.43
15:CO:67:LEU:CD2	15:CO:78:TYR:CE1	3.02	0.43
32:DF:10:PRO:O	32:DF:11:VAL:HG23	2.17	0.43
27:BA:1313:U:H2'	27:BA:1610:A:C2	2.54	0.43
2:AB:105:PHE:HD1	2:AB:152:PHE:CZ	2.37	0.43
27:DA:2762:G:C3'	27:DA:2763:G:H5''	2.48	0.43
1:CA:72:C:H6	1:CA:72:C:H5'	1.84	0.43
1:CA:1228:C:P	13:CM:108:ARG:HH22	2.41	0.43
1:CA:1198:G:H2'	1:CA:1199:U:C6	2.53	0.43
49:D0:69:PHE:CD2	49:D0:79:VAL:HG22	2.53	0.43
27:DA:2087:G:O2'	27:DA:2088:G:H5'	2.18	0.43
34:DH:17:VAL:O	34:DH:45:VAL:CG2	2.67	0.43
15:AO:39:LEU:CD1	15:AO:59:MET:HE1	2.49	0.43
27:DA:28:A:C2	43:DU:11:ARG:NH1	2.86	0.43
38:DP:48:PRO:O	38:DP:49:ARG:C	2.57	0.43
40:BR:76:VAL:O	40:BR:79:LEU:HB3	2.18	0.43
45:DW:6:ILE:CD1	45:DW:104:THR:HG23	2.49	0.43
1:CA:473:G:H2'	1:CA:474:G:H8	1.83	0.43
31:BE:167:VAL:CG2	31:BE:170:LEU:HD11	2.38	0.43
11:CK:94:ALA:O	11:CK:98:LEU:HG	2.18	0.43
30:BD:260:ARG:HD3	30:BD:261:LYS:O	2.19	0.43
30:DD:32:SER:C	30:DD:33:LEU:O	2.52	0.43
20:AT:16:HIS:NE2	20:AT:20:LEU:HD11	2.33	0.43
27:BA:1999:C:H4'	27:BA:2723:C:O2	2.18	0.43
25:AY:18:G:N2	25:AY:55:C:N4	2.66	0.43
30:BD:267:SER:HA	30:BD:270:ILE:HG13	1.99	0.43
12:CL:4:ILE:O	12:CL:7:LEU:N	2.52	0.43
1:CA:1307:U:H2'	1:CA:1308:U:O4'	2.18	0.43
36:BN:34:LEU:HD21	36:BN:120:LEU:HB2	2.00	0.43
2:CB:204:ASN:HD21	2:CB:207:ALA:HB3	1.83	0.43
37:BO:43:VAL:HG21	37:BO:52:VAL:HG21	1.99	0.43
1:AA:110:C:O2'	16:AP:25:ARG:O	2.32	0.43
3:CC:156:ARG:NH2	3:CC:161:GLU:HA	2.33	0.43
44:BV:91:TYR:C	44:BV:91:TYR:HD1	2.21	0.43
27:DA:435:C:H2'	27:DA:436:C:H5'	2.00	0.43
27:DA:2220:G:H2'	27:DA:2221:G:C8	2.53	0.43
32:BF:64:ILE:HG23	32:BF:65:TRP:N	2.32	0.43
32:BF:113:ALA:O	32:BF:114:VAL:C	2.56	0.43
27:BA:2885:C:O2'	54:B5:34:PRO:HG3	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2126:A:N6	27:DA:2163:C:H4'	2.33	0.43
27:BA:2396:G:P	50:B1:25:LYS:HE3	2.59	0.43
33:BG:21:ARG:HG3	33:BG:21:ARG:NH1	2.32	0.43
1:AA:59:A:C5'	1:AA:60:A:C5'	2.96	0.43
27:BA:606:U:OP2	32:BF:104:LYS:HE3	2.18	0.43
27:DA:1677:A:H2'	27:DA:1678:G:H8	1.80	0.43
27:BA:1577:C:H2'	27:BA:1578:U:C6	2.54	0.43
1:AA:1232:U:O5'	1:AA:1232:U:H6	2.01	0.43
9:CI:33:PHE:CZ	9:CI:47:LEU:HD13	2.53	0.43
42:BT:129:ARG:HH21	42:BT:133:GLU:CB	2.32	0.43
41:BS:48:LEU:N	41:BS:48:LEU:CD1	2.82	0.43
30:DD:2:ALA:C	30:DD:3:VAL:HG23	2.38	0.43
27:DA:1924:C:H2'	27:DA:1925:C:C6	2.53	0.43
36:DN:85:ILE:HG22	36:DN:90:MET:HG2	2.00	0.43
43:DU:36:ARG:CG	43:DU:40:PHE:CE1	3.01	0.43
57:B8:59:LYS:CB	57:B8:59:LYS:NZ	2.80	0.43
2:AB:140:HIS:O	2:AB:143:GLU:N	2.43	0.43
1:CA:243:A:H5'	1:CA:245:C:OP1	2.18	0.43
48:BZ:22:LYS:HG2	48:BZ:37:TYR:HE1	1.83	0.43
1:CA:702:A:C3'	1:CA:703:G:H5'	2.48	0.43
27:DA:510:C:C2'	27:DA:511:U:H5'	2.48	0.43
1:AA:652:U:H1'	1:AA:653:A:C2	2.52	0.43
27:BA:1219:G:OP2	43:BU:19:LYS:HE2	2.17	0.43
27:BA:2766:G:N3	27:BA:2766:G:H2'	2.34	0.43
27:DA:2682:U:H6	27:DA:2682:U:H5'	1.83	0.43
27:BA:1629:U:H2'	27:BA:1630:G:C8	2.53	0.43
17:AQ:62:SER:OG	17:AQ:72:ARG:HB2	2.18	0.43
28:BB:15:A:H5'	28:BB:16:G:C8	2.52	0.43
12:CL:87:VAL:O	12:CL:88:LYS:C	2.56	0.43
52:B3:46:ASN:O	52:B3:49:LYS:HB3	2.19	0.43
2:CB:184:VAL:HG12	2:CB:197:VAL:HG13	1.99	0.43
27:BA:2145:C:H4'	27:BA:2146:C:OP2	2.19	0.43
27:DA:1191:G:H2'	27:DA:1192:G:O4'	2.19	0.43
1:CA:596:C:O2	1:CA:596:C:H2'	2.19	0.43
5:AE:76:ILE:HB	5:AE:77:PRO:HD2	2.01	0.43
27:BA:337:C:C2'	27:BA:338:G:O5'	2.67	0.43
1:AA:631:G:H5''	1:AA:632:A:OP1	2.18	0.43
49:D0:71:ASP:C	49:D0:73:GLY:H	2.22	0.43
27:BA:626:U:H5'	27:BA:627:A:C5'	2.49	0.43
38:BP:64:LYS:HD3	38:BP:65:ARG:HG3	2.00	0.43
4:AD:19:LEU:HD12	4:AD:20:TYR:H	1.84	0.43
13:AM:81:LEU:O	13:AM:89:GLY:CA	2.66	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:94:ARG:NH2	27:BA:887:A:C3'	2.79	0.43
35:BI:77:LEU:HD23	35:BI:77:LEU:C	2.39	0.43
33:BG:143:GLU:CD	33:BG:143:GLU:H	2.21	0.43
27:DA:642:G:H4'	55:D6:42:TRP:HZ2	1.84	0.43
51:D2:12:GLU:O	51:D2:13:ALA:C	2.57	0.43
27:DA:2419:U:O4	57:D8:30:ARG:NH1	2.52	0.43
57:D8:33:ASN:N	57:D8:33:ASN:ND2	2.48	0.43
34:BH:64:LEU:O	34:BH:65:HIS:C	2.57	0.43
30:DD:27:THR:HG23	30:DD:83:GLU:HG2	1.99	0.43
27:BA:1141:U:C5'	27:BA:1142(A):A:O4'	2.67	0.43
27:BA:1142(A):A:C4	27:BA:1144:G:N7	2.86	0.43
27:DA:620:G:C5'	27:DA:621:A:OP1	2.57	0.43
31:DE:116:VAL:HG21	31:DE:122:PHE:CE2	2.52	0.43
33:DG:17:PRO:HA	33:DG:20:ILE:CD1	2.49	0.43
30:BD:97:TYR:HB2	30:BD:101:GLU:O	2.18	0.43
36:DN:16:ILE:CG1	36:DN:17:ASP:N	2.81	0.43
1:AA:376:G:H1	1:AA:387:U:H3	1.67	0.43
16:AP:66:PRO:C	16:AP:67:THR:O	2.57	0.43
7:CG:37:ASN:ND2	9:CI:41:VAL:HG23	2.33	0.43
9:CI:64:THR:O	9:CI:64:THR:HG23	2.18	0.43
27:DA:857:C:C2	27:DA:858:U:C5	3.07	0.43
1:AA:1347:G:H3'	9:AI:108:VAL:O	2.19	0.43
27:DA:747:U:OP1	54:D5:3:LYS:HD2	2.18	0.43
27:DA:330:A:O2'	27:DA:331:A:C8	2.68	0.43
27:BA:1211:U:H3'	27:BA:1212:G:H5'	2.00	0.43
27:BA:1857:G:C2'	27:BA:1885:A:H61	2.32	0.43
1:CA:1457:G:N2	1:CA:1458:G:N9	2.67	0.43
52:D3:6:VAL:HB	52:D3:54:VAL:HG12	1.97	0.43
52:D3:8:LEU:HB2	52:D3:28:LEU:HD13	1.99	0.43
34:BH:11:VAL:CG1	34:BH:11:VAL:O	2.60	0.43
1:AA:495:A:H4'	1:AA:496:A:H5''	2.01	0.43
34:BH:85:LYS:NZ	34:BH:133:VAL:CG2	2.77	0.43
27:DA:2839:G:H4'	40:DR:49:ASP:HB2	2.00	0.43
2:CB:84:GLU:HB3	2:CB:219:VAL:HG22	1.97	0.43
41:DS:17:ARG:O	41:DS:19:LYS:N	2.50	0.43
41:DS:19:LYS:HB3	41:DS:20:ARG:NH1	2.34	0.43
5:CE:24:ARG:O	5:CE:24:ARG:HG3	2.18	0.43
5:CE:90:VAL:HG22	5:CE:121:LYS:O	2.19	0.43
36:DN:52:VAL:O	36:DN:120:LEU:HD23	2.19	0.43
3:AC:135:LYS:HZ3	5:AE:53:LEU:HD11	1.83	0.43
27:DA:27:G:C4	27:DA:512:G:N2	2.87	0.43
39:DQ:27:VAL:HG12	39:DQ:28:ALA:N	2.33	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:8:VAL:O	4:CD:9:CYS:C	2.57	0.43
41:DS:80:LEU:HD12	41:DS:80:LEU:N	2.33	0.43
1:AA:551:U:H2'	1:AA:552:U:C6	2.53	0.43
3:AC:109:PRO:C	3:AC:111:LEU:N	2.71	0.43
15:CO:12:ILE:C	15:CO:14:GLU:N	2.71	0.43
50:D1:51:VAL:HG21	50:D1:74:VAL:HG22	2.01	0.43
49:B0:24:LYS:O	49:B0:25:ARG:HD3	2.18	0.43
2:AB:92:TYR:CE1	2:AB:151:GLY:N	2.87	0.43
27:DA:143:G:H5'	27:DA:1598:C:O2'	2.19	0.43
27:BA:1054:A:C2'	27:BA:1055:G:H8	2.32	0.43
27:DA:1791:A:H3'	27:DA:1792:G:H8	1.84	0.43
37:DO:34:THR:O	37:DO:35:VAL:C	2.57	0.43
27:DA:2709:G:O2'	27:DA:2710:C:H5'	2.18	0.43
18:AR:53:ARG:HA	18:AR:63:GLN:HE22	1.83	0.43
40:BR:38:VAL:HA	40:BR:112:ALA:CB	2.44	0.43
27:DA:723:G:H2'	27:DA:724:U:C6	2.53	0.43
1:CA:145:G:C2	1:CA:178:C:C2	3.07	0.43
7:CG:155:ARG:HB2	7:CG:155:ARG:CZ	2.49	0.43
27:DA:1444:G:C2	27:DA:1548:C:C2	3.06	0.43
7:CG:43:PHE:CD1	7:CG:44:TYR:N	2.85	0.43
1:CA:738:C:H2'	1:CA:739:C:C6	2.54	0.43
8:AH:14:ARG:HD3	8:AH:18:ARG:HH12	1.82	0.43
27:DA:2507:C:H2'	27:DA:2508:G:O4'	2.19	0.43
1:AA:1521:G:H2'	1:AA:1522:U:C6	2.53	0.43
1:CA:708:C:H2'	1:CA:709:G:C8	2.52	0.43
27:DA:14:A:C6	27:DA:526:A:C2	3.06	0.43
27:BA:2186:G:H5'	27:BA:2187:G:OP2	2.18	0.43
1:CA:1530:G:H2'	1:CA:1531:A:O5'	2.18	0.43
27:DA:1682:G:H5'	27:DA:1762:A:C2'	2.48	0.43
37:DO:64:ARG:NH1	37:DO:83:ALA:CB	2.81	0.43
41:DS:58:LEU:HD23	41:DS:65:VAL:HG12	1.97	0.43
9:CI:91:ASP:C	9:CI:93:ARG:N	2.71	0.43
45:DW:59:VAL:CG1	45:DW:60:ASN:N	2.82	0.43
2:AB:71:VAL:HG22	2:AB:93:VAL:CG2	2.48	0.43
1:CA:582:U:H2'	1:CA:583:A:C8	2.54	0.43
1:AA:608:A:H2'	1:AA:609:A:O4'	2.19	0.43
1:CA:778:G:C2'	1:CA:779:C:H5'	2.49	0.43
1:CA:782:A:O3'	1:CA:1515:C:H4'	2.18	0.43
1:CA:1046:A:H3'	1:CA:1047:G:H8	1.83	0.43
42:BT:66:VAL:HA	42:BT:71:GLY:HA2	2.00	0.43
25:AY:19:U:H2'	25:AY:20:A:H4'	2.01	0.43
27:DA:244:A:O3'	38:DP:74:GLU:HB2	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:225:A:O2'	27:BA:257:A:H4'	2.18	0.43
6:CF:89:MET:HE3	18:CR:75:ILE:HB	2.01	0.43
31:DE:108:SER:HB3	31:DE:163:GLU:HG2	2.01	0.43
27:BA:1216:G:O2'	27:BA:1217:C:H5'	2.18	0.43
3:AC:10:PHE:CZ	3:AC:178:LEU:HD11	2.54	0.43
27:BA:2542:A:H5'	27:BA:2543:G:OP1	2.18	0.43
27:BA:1587:A:H3'	27:BA:1588:C:H6	1.84	0.43
13:AM:29:ARG:O	13:AM:33:ALA:HB3	2.19	0.43
1:AA:146:G:N2	1:AA:147:G:H1'	2.33	0.43
4:CD:98:GLU:HB3	4:CD:189:PRO:HG3	1.99	0.43
1:CA:810:C:H2'	1:CA:811:C:O4'	2.19	0.43
27:BA:566:U:H2'	27:BA:567:A:O4'	2.19	0.43
33:BG:177:GLY:O	33:BG:179:PRO:HD3	2.19	0.43
1:CA:1477:C:H2'	1:CA:1478:C:O4'	2.19	0.43
6:AF:3:ARG:NH1	6:AF:38:GLU:OE1	2.51	0.43
30:BD:133:LEU:HA	30:BD:133:LEU:HD23	1.82	0.43
2:CB:41:ILE:HG22	2:CB:41:ILE:O	2.19	0.43
30:BD:120:GLY:O	30:BD:122:ASP:N	2.49	0.43
57:B8:45:GLY:O	57:B8:46:ARG:C	2.57	0.43
13:AM:86:CYS:O	13:AM:89:GLY:N	2.52	0.43
35:DI:115:ALA:HB3	35:DI:128:LEU:CA	2.48	0.43
35:DI:142:VAL:O	35:DI:143:SER:O	2.37	0.43
28:BB:50:G:O5'	28:BB:50:G:H8	2.02	0.43
28:BB:49:C:OP1	41:BS:97:ARG:CG	2.67	0.43
1:CA:721:G:C4'	1:CA:722:A:O5'	2.38	0.43
33:BG:138:GLN:HE22	33:BG:153:ARG:HB2	1.83	0.43
33:BG:47:LYS:CE	33:BG:81:LYS:HB2	2.33	0.43
1:CA:981:U:H5'	14:CN:21:TYR:CE1	2.52	0.43
3:CC:14:ILE:CG1	3:CC:15:THR:N	2.73	0.43
14:CN:33:VAL:HG23	14:CN:33:VAL:O	2.19	0.43
1:AA:1457:G:O3'	20:AT:35:THR:HG21	2.19	0.43
57:D8:25:MET:HE3	57:D8:45:GLY:O	2.19	0.43
57:D8:22:VAL:CG2	57:D8:53:PRO:HB2	2.49	0.43
28:DB:115:G:H2'	28:DB:115:G:N3	2.33	0.43
32:BF:102:PRO:HB2	32:BF:105:VAL:HG23	2.01	0.43
28:DB:15:A:H1'	28:DB:110:G:C4	2.52	0.43
36:DN:132:ALA:O	36:DN:133:GLN:CB	2.66	0.43
36:DN:18:ALA:HB3	36:DN:21:LYS:CB	2.49	0.43
18:CR:39:VAL:HB	18:CR:40:LEU:HD12	2.01	0.43
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.42	0.43
44:BV:20:LEU:N	44:BV:20:LEU:HD12	2.34	0.43
1:CA:1286:A:H2	21:CU:22:ARG:HH22	1.67	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:132:PRO:HD3	30:BD:190:TYR:CZ	2.53	0.43
49:D0:26:TYR:O	49:D0:29:GLN:HG3	2.19	0.43
31:DE:93:VAL:C	31:DE:95:ILE:H	2.21	0.43
1:AA:1053:G:N7	1:AA:1199:U:H2'	2.33	0.43
9:AI:113:LYS:H	9:AI:113:LYS:HD2	1.83	0.43
30:DD:77:ALA:HB2	30:DD:97:TYR:CG	2.53	0.43
1:AA:1276:G:H2'	1:AA:1277:C:H5'	2.01	0.43
31:BE:63:LEU:O	31:BE:65:GLY:N	2.52	0.43
31:BE:69:LYS:HD3	31:BE:89:ASP:OD1	2.19	0.43
2:AB:51:LEU:O	2:AB:55:PHE:HD2	2.01	0.43
32:DF:24:LEU:HD12	32:DF:25:PRO:HD2	2.00	0.43
1:CA:1013:G:HO2'	1:CA:1014:A:H8	1.65	0.43
19:CS:13:ASP:O	19:CS:16:LEU:N	2.52	0.43
27:BA:1482:G:H2'	27:BA:1484:G:C8	2.54	0.43
27:BA:1481:U:H5'	27:BA:1482:G:OP2	2.18	0.43
49:B0:41:ARG:HD3	49:B0:44:ARG:HD2	2.01	0.43
27:BA:2369:A:H2'	27:BA:2370:G:H8	1.84	0.43
49:B0:53:MET:HA	49:B0:58:THR:O	2.19	0.43
1:CA:1239:A:N6	1:CA:1299:A:N6	2.48	0.43
59:CX:67:C:H5'	59:CX:68:C:P	2.59	0.43
20:CT:63:ILE:C	20:CT:65:LYS:N	2.71	0.43
48:DZ:57:VAL:HA	48:DZ:66:LEU:O	2.19	0.43
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	2.01	0.43
27:DA:2536:G:C6	27:DA:2537:U:C4	3.06	0.43
27:DA:2525:G:O4'	27:DA:2741:A:H2	2.00	0.43
23:CW:46:U:O2	23:CW:46:U:H2'	2.18	0.43
4:AD:2:GLY:C	4:AD:3:ARG:HG3	2.39	0.43
27:BA:2015:A:N3	54:B5:2:ALA:CA	2.80	0.43
27:DA:2839:G:H2'	27:DA:2840:C:H6	1.83	0.43
1:CA:18:C:H4'	1:CA:1078:U:O2	2.19	0.43
34:DH:98:LEU:HD12	34:DH:102:ALA:O	2.19	0.43
15:AO:24:SER:O	15:AO:28:GLN:NE2	2.52	0.43
8:AH:104:ARG:CZ	8:AH:138:TRP:CZ2	3.02	0.43
35:BI:71:ILE:HG13	35:BI:72:LEU:HD23	2.00	0.43
31:DE:56:PRO:C	31:DE:58:ARG:N	2.72	0.43
6:AF:61:LEU:HD23	6:AF:63:TYR:CE2	2.54	0.43
19:AS:70:LYS:C	19:AS:72:GLY:H	2.21	0.43
39:DQ:54:MET:O	39:DQ:56:ARG:N	2.41	0.43
1:AA:728:A:C8	15:AO:54:ARG:NH1	2.86	0.43
36:BN:24:GLY:O	36:BN:28:THR:CG2	2.67	0.43
51:B2:53:LEU:HD23	51:B2:56:GLN:HG3	2.01	0.43
14:CN:8:GLU:HB3	14:CN:12:ARG:HH12	1.84	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:22:ARG:O	20:AT:26:ASN:ND2	2.52	0.43
20:AT:28:ALA:C	20:AT:30:LYS:N	2.70	0.43
17:CQ:10:VAL:CG2	17:CQ:55:ASP:N	2.82	0.43
48:BZ:156:LEU:HA	48:BZ:157:PRO:HD2	1.89	0.43
2:AB:112:VAL:HG22	2:AB:149:LEU:HD13	2.00	0.43
27:DA:246:C:H4'	27:DA:385:C:O4'	2.19	0.43
1:CA:1348:U:C4'	9:CI:120:ARG:HH11	2.29	0.43
27:DA:536:A:C2	27:DA:558:G:C6	3.07	0.43
4:CD:134:ASP:C	4:CD:135:LEU:HD12	2.39	0.43
45:DW:88:ARG:HG3	45:DW:94:ASP:OD1	2.18	0.43
1:CA:681:C:C2	1:CA:710:G:N2	2.87	0.43
1:AA:26:A:O2'	4:AD:209:ARG:HG2	2.19	0.43
27:DA:522:G:H2'	27:DA:523:C:H6	1.83	0.43
37:DO:14:THR:HG22	37:DO:52:VAL:HG12	2.00	0.43
3:AC:187:ALA:C	3:AC:188:LEU:HD22	2.38	0.43
27:DA:2060:A:OP1	32:DF:68:LYS:O	2.37	0.43
44:DV:58:VAL:HG12	44:DV:59:ALA:N	2.34	0.43
27:BA:212:G:C2'	27:BA:213:A:H5'	2.49	0.43
5:CE:18:ARG:HH21	5:CE:25:ARG:CD	2.32	0.43
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.54	0.43
30:BD:149:PRO:HB3	30:BD:188:GLU:HB2	2.01	0.43
6:AF:24:GLU:O	6:AF:28:ARG:HD2	2.19	0.43
32:BF:172:TRP:CD1	32:BF:172:TRP:N	2.87	0.43
40:BR:18:LEU:HD11	40:BR:22:ARG:CZ	2.49	0.43
27:DA:2728:U:H2'	27:DA:2729:G:C8	2.54	0.43
32:DF:41:LEU:O	32:DF:44:ARG:HG2	2.19	0.43
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.53	0.43
29:BC:19:VAL:HB	29:BC:22:ILE:HD11	2.00	0.43
6:AF:67:MET:HE1	6:AF:75:LEU:HD12	2.01	0.43
27:BA:935:C:C2	27:BA:936:C:C5	3.06	0.43
1:AA:1260:C:C6	1:AA:1260:C:H3'	2.51	0.43
1:AA:174:C:H2'	1:AA:175:C:H6	1.82	0.43
27:BA:2457:U:C2'	27:BA:2458:G:H5'	2.49	0.43
27:DA:116:C:O2'	27:DA:117:G:H5'	2.18	0.43
27:DA:210:C:H2'	27:DA:211:A:H8	1.83	0.43
32:DF:31:HIS:HB2	38:DP:13:ASN:CG	2.39	0.43
20:CT:92:LEU:C	20:CT:94:ALA:N	2.72	0.43
1:AA:184:G:C4'	1:AA:224:C:H4'	2.49	0.43
33:DG:9:ARG:NH1	33:DG:9:ARG:HG2	2.33	0.43
42:BT:65:LYS:HG3	42:BT:66:VAL:N	2.34	0.43
27:BA:2852:G:H2'	27:BA:2853:C:H6	1.83	0.43
1:CA:109:A:C6	1:CA:326:G:C6	3.06	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:33:THR:HG23	15:AO:63:ARG:NH1	2.34	0.43
34:BH:88:LEU:HD13	34:BH:130:ARG:HG2	2.01	0.43
1:CA:1405:G:O4'	1:CA:1519:A:H4'	2.17	0.43
27:BA:2739:U:O2'	27:BA:2740:A:H5'	2.18	0.43
1:CA:942:G:N2	1:CA:943:U:C2	2.87	0.43
1:CA:1414:U:H2'	1:CA:1415:G:C8	2.53	0.43
27:DA:1013:C:O2'	27:DA:1014:U:H5'	2.19	0.43
27:BA:1775:U:H2'	27:BA:1776:G:H5'	2.01	0.43
46:BX:3:THR:O	46:BX:4:ALA:HB3	2.18	0.43
1:CA:1069:C:HO2'	1:CA:1192:C:H1'	1.83	0.43
28:BB:25:A:H2'	28:BB:26:A:O4'	2.18	0.43
27:DA:616:G:H2'	27:DA:618:C:O4'	2.19	0.43
27:BA:415:A:H2'	27:BA:416:C:C6	2.52	0.43
1:AA:1058:G:H2'	1:AA:1059:C:C6	2.54	0.43
27:DA:840:C:H6	27:DA:840:C:O5'	2.02	0.43
49:B0:84:LEU:H	49:B0:84:LEU:HD12	1.84	0.43
39:BQ:25:ASP:OD1	39:BQ:25:ASP:N	2.45	0.43
1:AA:398:C:H6	1:AA:398:C:O5'	2.01	0.43
15:AO:32:LEU:HA	15:AO:32:LEU:HD23	1.82	0.43
5:CE:36:ASP:O	5:CE:37:ARG:HB2	2.18	0.43
55:B6:15:GLU:HG2	55:B6:18:ARG:NH2	2.30	0.43
4:AD:100:ARG:HG2	4:AD:102:ASP:OD1	2.18	0.43
19:AS:69:HIS:HB3	19:AS:73:GLU:OE2	2.18	0.43
47:BY:79:CYS:SG	47:BY:80:GLY:N	2.91	0.43
47:BY:81:LYS:HZ3	47:BY:98:VAL:HG23	1.82	0.43
31:DE:52:LEU:HA	31:DE:53:PRO:HD3	1.90	0.43
27:BA:2306:C:H5'	27:BA:2307:G:O5'	2.19	0.43
28:BB:45:A:C2	28:BB:46:A:C1'	3.02	0.43
33:BG:99:MET:O	33:BG:102:PHE:HB3	2.19	0.43
9:CI:114:TYR:CE1	10:CJ:60:ARG:N	2.87	0.43
27:DA:1039:G:H2'	27:DA:1040:C:H5'	2.00	0.43
27:DA:2402:C:HO2'	27:DA:2403:C:H6	1.57	0.43
30:DD:81:ALA:HB3	30:DD:94:LEU:HB3	2.01	0.43
40:DR:59:ASP:OD2	40:DR:62:ALA:HB3	2.18	0.43
38:DP:95:VAL:HG22	38:DP:125:VAL:CG1	2.45	0.43
32:BF:3:GLU:CB	32:BF:24:LEU:HG	2.42	0.43
1:CA:1324:A:H4'	1:CA:1362:C:O3'	2.18	0.43
1:AA:973:G:O4'	10:AJ:55:LYS:HE2	2.18	0.43
1:AA:1253:G:C6	1:AA:1254:C:C4	3.07	0.43
27:BA:1697:G:H3'	27:BA:1698:A:C5'	2.28	0.43
15:CO:33:THR:OG1	15:CO:85:LEU:HD13	2.19	0.43
32:DF:3:GLU:O	32:DF:4:VAL:O	2.37	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:97:TRP:CH2	2:CB:176:GLU:OE1	2.72	0.43
1:AA:88:A:OP1	1:AA:90:U:C1'	2.63	0.43
48:BZ:103:PHE:HA	48:BZ:138:VAL:O	2.18	0.43
47:BY:20:TYR:CD1	47:BY:20:TYR:N	2.87	0.43
27:BA:448:U:O4	27:BA:583:G:H1'	2.18	0.43
17:CQ:20:THR:CG2	17:CQ:41:LYS:HD2	2.49	0.43
18:AR:22:VAL:HB	18:AR:56:THR:HA	2.01	0.43
27:BA:1608:A:H1'	27:BA:1610:A:OP2	2.19	0.43
27:DA:2200:C:C6	27:DA:2201:C:H5	2.37	0.43
20:CT:33:ILE:HD11	20:CT:62:LEU:C	2.39	0.43
48:DZ:55:VAL:HG22	48:DZ:69:LEU:HG	2.01	0.43
52:D3:37:LEU:HD12	52:D3:43:ILE:HG23	2.01	0.43
1:CA:102:G:H21	1:CA:103:C:C1'	2.18	0.43
27:DA:285:C:C3'	27:DA:286:C:H5''	2.49	0.43
10:CJ:54:PHE:CG	10:CJ:55:LYS:HE3	2.53	0.43
27:DA:2835:A:H4'	27:DA:2836:U:OP1	2.18	0.43
27:DA:2836:U:C4	27:DA:2883:A:N6	2.87	0.43
40:DR:34:ILE:HG22	40:DR:35:THR:N	2.34	0.43
3:AC:95:THR:O	3:AC:96:GLY:C	2.57	0.43
23:AW:12:C:C2'	23:AW:13:A:H5'	2.49	0.43
47:BY:91:GLU:HB3	47:BY:92:ASN:H	1.56	0.43
20:AT:38:LYS:HA	20:AT:41:ILE:HD11	2.00	0.43
34:DH:85:LYS:HG2	34:DH:133:VAL:HB	2.00	0.43
36:BN:21:LYS:HG2	36:BN:26:LEU:HB2	2.00	0.43
50:B1:57:GLU:C	50:B1:58:ILE:CG2	2.87	0.43
50:B1:70:VAL:O	50:B1:74:VAL:HG23	2.18	0.43
27:DA:26:G:N1	27:DA:27:G:N2	2.67	0.43
27:DA:30:G:C6	27:DA:31:C:N4	2.87	0.43
27:DA:661:C:C4'	38:DP:16:ARG:HH12	2.28	0.43
27:DA:1800:C:H5''	30:DD:147:LEU:HD21	2.01	0.43
27:DA:1799:G:C8	30:DD:181:GLU:OE2	2.72	0.43
35:BI:68:LEU:HD23	35:BI:68:LEU:C	2.38	0.43
4:CD:25:ARG:HE	4:CD:30:LYS:HG3	1.83	0.43
39:DQ:137:TYR:O	39:DQ:138:ASP:O	2.37	0.43
37:BO:78:ARG:HH21	42:BT:103:ARG:CZ	2.31	0.43
38:BP:45:LEU:O	38:BP:46:LYS:C	2.57	0.43
27:DA:2469:A:N3	27:DA:2470:G:H1'	2.33	0.43
39:DQ:54:MET:HG2	39:DQ:117:ALA:O	2.19	0.43
27:DA:141:A:C8	27:DA:1408:C:O2'	2.65	0.43
53:D4:53:THR:O	53:D4:54:LYS:O	2.37	0.43
36:BN:25:ARG:HG2	36:BN:25:ARG:HH11	1.84	0.43
30:DD:32:SER:O	30:DD:33:LEU:O	2.36	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:140:ARG:HH11	3:AC:140:ARG:CG	2.27	0.43
43:BU:34:LYS:HA	43:BU:34:LYS:HD3	1.83	0.43
27:BA:175:G:H8	27:BA:175:G:C5'	2.31	0.43
27:DA:324:A:H2'	27:DA:325:G:O4'	2.19	0.43
27:BA:2300:G:C2	27:BA:2317:C:O2	2.71	0.43
17:AQ:25:ARG:CG	17:AQ:26:GLN:N	2.73	0.43
2:AB:106:LYS:O	2:AB:109:SER:HB2	2.19	0.43
36:BN:91:LEU:CG	36:BN:98:VAL:HG21	2.42	0.43
27:DA:2308:G:N7	27:DA:2310:A:C5'	2.82	0.43
27:DA:2309:A:H2	27:DA:2310:A:C2	2.36	0.43
39:DQ:58:PHE:HD1	39:DQ:61:GLY:HA3	1.80	0.43
1:AA:1240:U:O4'	7:AG:38:LEU:HD21	2.18	0.43
19:AS:18:LYS:HD3	19:AS:18:LYS:HA	1.95	0.43
27:DA:1721:G:C2'	27:DA:1741:A:H61	2.31	0.43
27:DA:2791:C:H1'	27:DA:2792:G:C8	2.53	0.43
8:AH:103:VAL:HG12	8:AH:108:GLY:HA3	2.01	0.43
31:DE:13:ARG:CB	31:DE:22:PRO:HA	2.48	0.43
43:BU:44:ASN:HD21	44:BV:75:PHE:H	1.67	0.43
27:DA:1286:A:OP1	40:DR:105:ARG:HD2	2.19	0.43
1:AA:968:A:H3'	1:AA:969:A:C5'	2.49	0.43
27:DA:1372:U:H2'	27:DA:1373:A:O4'	2.19	0.43
13:AM:31:LYS:O	13:AM:32:GLU:C	2.57	0.43
56:B7:24:THR:HG23	56:B7:27:GLY:H	1.83	0.43
25:CY:75:A:C1'	27:DA:2421:G:N2	2.77	0.43
27:DA:1309:G:H2'	27:DA:1310:G:H5'	2.00	0.43
1:AA:735:C:O2'	1:AA:736:C:H5'	2.18	0.43
27:DA:1854:A:C5'	27:DA:1855:G:OP2	2.65	0.43
57:D8:29:LYS:HD3	57:D8:44:LYS:HB2	2.01	0.43
27:BA:1131:G:C8	27:BA:2025:C:H4'	2.54	0.43
1:AA:680:C:H2'	1:AA:681:C:C6	2.54	0.43
41:DS:61:ASN:HB3	41:DS:64:GLU:HG2	2.00	0.43
37:DO:68:GLU:CB	37:DO:78:ARG:HB2	2.49	0.43
6:AF:22:GLU:O	6:AF:25:ILE:HB	2.18	0.43
1:CA:932:C:H5'	7:CG:4:ARG:CG	2.48	0.43
41:DS:59:LYS:HB2	41:DS:60:GLY:H	1.60	0.43
32:BF:197:ASP:OD2	32:BF:198:ALA:N	2.52	0.43
1:CA:312:C:O2'	1:CA:313:A:H5'	2.18	0.43
1:AA:865:A:C2	1:AA:918:A:H4'	2.53	0.43
1:CA:41:G:O2'	1:CA:42:G:H5'	2.19	0.43
34:DH:156:ALA:H	34:DH:158:HIS:H	1.66	0.43
1:CA:991:U:O2	1:CA:993:G:C8	2.70	0.43
27:BA:2009:G:N3	40:BR:107:ASP:HA	2.34	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CY:38:U:H3'	25:CY:39:C:H6	1.83	0.43
27:DA:2141:G:H2'	27:DA:2142:C:H6	1.83	0.43
27:BA:39:C:H2'	27:BA:40:C:H6	1.83	0.43
7:AG:78:ARG:CG	7:AG:78:ARG:HH11	2.32	0.43
23:CW:71:A:OP1	27:DA:1942:C:H4'	2.18	0.43
27:DA:1656:C:N4	27:DA:2004:G:H1	2.17	0.43
1:AA:764:C:H4'	15:AO:50:HIS:HB3	2.01	0.43
4:CD:98:GLU:HG2	4:CD:189:PRO:HG3	2.01	0.43
27:BA:1804:C:H6	27:BA:1804:C:O5'	2.01	0.43
7:AG:137:LYS:HD3	7:AG:141:VAL:HG23	2.01	0.43
27:BA:1831:G:C6	27:BA:1832:C:N4	2.87	0.43
44:BV:9:GLY:O	44:BV:10:LYS:HG3	2.19	0.43
12:AL:49:LEU:O	12:AL:51:LYS:HD2	2.19	0.43
1:CA:1379:G:C6	1:CA:1380:U:O4	2.72	0.43
25:AY:12:C:H2'	25:AY:13:A:O4'	2.18	0.43
1:CA:1019:C:H2'	1:CA:1020:U:O4'	2.18	0.43
27:BA:688:U:H5'	27:BA:1780:A:C2	2.54	0.43
13:CM:32:GLU:O	13:CM:36:LYS:HG2	2.18	0.43
59:CX:2:G:H2'	59:CX:2:G:N3	2.34	0.43
13:CM:84:ILE:HG22	13:CM:84:ILE:O	2.19	0.43
10:AJ:86:MET:O	10:AJ:86:MET:HG3	2.19	0.43
15:CO:41:GLU:O	15:CO:44:LYS:HB3	2.19	0.43
55:B6:44:ARG:O	55:B6:45:LYS:CD	2.67	0.43
38:BP:96:THR:CG2	38:BP:126:VAL:HB	2.38	0.43
38:BP:64:LYS:HG2	38:BP:65:ARG:N	2.34	0.43
2:AB:167:PRO:HG2	2:AB:192:SER:OG	2.19	0.43
1:AA:160:A:H1'	1:AA:344:A:C8	2.54	0.43
54:B5:54:GLY:C	54:B5:55:ARG:O	2.57	0.43
35:BI:92:VAL:CG1	35:BI:120:ILE:HB	2.48	0.43
33:BG:72:ARG:CG	33:BG:86:MET:HA	2.49	0.43
14:CN:42:ILE:HG13	14:CN:42:ILE:H	1.68	0.43
48:DZ:38:VAL:HG21	48:DZ:43:PHE:HD2	1.81	0.43
38:DP:64:LYS:HD3	38:DP:65:ARG:H	1.83	0.43
34:BH:57:ASP:O	34:BH:62:LYS:HE3	2.18	0.43
42:DT:16:ARG:HB3	42:DT:19:LEU:HD11	2.01	0.43
42:DT:28:VAL:HG13	42:DT:46:GLU:CA	2.41	0.43
13:CM:16:ASP:HB3	13:CM:41:PRO:HB3	2.00	0.43
33:DG:54:GLU:HA	33:DG:57:ALA:CB	2.49	0.43
30:BD:72:LYS:CG	30:BD:103:ARG:NH1	2.82	0.43
13:AM:49:THR:N	13:AM:52:GLU:OE1	2.52	0.43
1:CA:1270:C:H4'	1:CA:1313:U:O2'	2.19	0.43
31:DE:69:LYS:N	31:DE:69:LYS:HE2	2.33	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DE:79:ARG:NH1	31:DE:79:ARG:CG	2.82	0.43
31:DE:81:ILE:HG21	31:DE:84:PHE:CD1	2.53	0.43
1:CA:1203:C:H2'	1:CA:1204:A:C8	2.54	0.43
1:AA:1206:G:O4'	3:AC:194:GLY:HA2	2.18	0.43
1:AA:1130:A:C4	1:AA:1146:A:C2	3.07	0.43
1:AA:1255:G:H3'	1:AA:1279:A:N6	2.33	0.43
9:AI:79:LEU:HD21	9:AI:102:LEU:HA	2.00	0.43
42:BT:6:LEU:HA	42:BT:9:LEU:HB2	2.00	0.43
37:DO:1:MET:HG3	37:DO:32:TYR:CG	2.54	0.43
17:AQ:81:ARG:NH1	17:AQ:81:ARG:HG3	2.29	0.43
27:BA:827:U:H2'	27:BA:2068:U:O2	2.17	0.43
45:BW:85:VAL:HG12	45:BW:86:LEU:N	2.34	0.43
42:DT:50:ILE:CD1	42:DT:99:LEU:O	2.67	0.43
1:CA:192:U:O4'	20:CT:103:GLY:HA2	2.18	0.43
56:B7:46:VAL:O	56:B7:47:ARG:HB3	2.19	0.43
1:AA:1494:G:H4'	27:BA:1913:A:N7	2.34	0.43
58:D9:19:ARG:C	58:D9:21:GLY:H	2.21	0.43
27:BA:1858:G:H8	27:BA:1858:G:OP2	2.02	0.43
3:AC:14:ILE:HG23	3:AC:15:THR:N	2.33	0.43
27:DA:2240:C:O2'	27:DA:2241:A:H5'	2.18	0.43
13:CM:89:GLY:C	13:CM:90:LEU:O	2.52	0.43
1:AA:402:G:C6	1:AA:403:C:C5	3.07	0.43
27:DA:874:G:O2'	27:DA:875:G:H5'	2.18	0.43
1:CA:1054:C:C5	1:CA:1196:U:C6	3.01	0.43
40:DR:8:ARG:HE	40:DR:8:ARG:CA	2.29	0.43
27:BA:271(N):U:H6	27:BA:271(N):U:O5'	2.02	0.43
34:DH:98:LEU:HA	34:DH:103:LEU:HA	2.01	0.43
19:AS:15:LEU:HA	19:AS:15:LEU:HD22	1.78	0.43
35:BI:7:GLU:O	35:BI:8:PRO:O	2.36	0.43
27:DA:29:U:C1'	43:DU:11:ARG:HH12	2.32	0.43
57:D8:61:LEU:N	57:D8:63:PRO:HD2	2.34	0.43
30:BD:16:MET:HG3	30:BD:211:ARG:HH21	1.84	0.43
1:CA:475:G:H2'	1:CA:476:G:H8	1.84	0.43
16:CP:18:ARG:HH11	16:CP:35:LYS:HD2	1.84	0.43
20:AT:89:ARG:NH1	20:AT:104:LEU:HD21	2.34	0.43
29:DC:58:VAL:CG2	29:DC:166:ASP:N	2.78	0.43
46:BX:12:VAL:O	46:BX:13:LEU:HB2	2.19	0.43
27:BA:2485:G:OP1	39:BQ:46:GLN:NE2	2.52	0.43
33:DG:105:LYS:HB2	33:DG:105:LYS:HZ3	1.81	0.43
3:AC:119:ARG:NH1	3:AC:119:ARG:HG3	2.33	0.43
1:AA:333:G:O2'	1:AA:334:C:H5'	2.19	0.43
6:CF:8:ILE:HD13	6:CF:26:ILE:HD13	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:AY:52:G:C2	25:AY:53:U:N3	2.87	0.43
27:DA:7:G:H22	27:DA:2896:C:H42	1.66	0.43
35:DI:93:THR:H	35:DI:96:ASP:CG	2.23	0.43
27:DA:1348:G:H2'	27:DA:1349:A:C5'	2.43	0.43
27:BA:1842:G:H2'	27:BA:1843:C:C6	2.54	0.43
43:DU:111:GLU:O	43:DU:113:ALA:N	2.52	0.43
18:AR:66:LEU:HG	18:AR:70:ILE:HD11	2.01	0.43
40:BR:35:THR:HG23	40:BR:112:ALA:O	2.19	0.43
17:CQ:31:LEU:C	17:CQ:32:TYR:CD1	2.92	0.43
58:B9:26:ILE:N	58:B9:26:ILE:CD1	2.72	0.43
1:CA:1330:U:H5'	1:CA:1331:G:P	2.58	0.43
47:DY:94:LYS:O	47:DY:101:LYS:HA	2.19	0.43
27:BA:1568:G:N2	30:BD:58:HIS:HE1	2.13	0.43
40:BR:12:ARG:HB3	40:BR:16:HIS:CD2	2.54	0.43
30:DD:4:LYS:HD2	30:DD:18:VAL:CG2	2.49	0.43
27:DA:36:G:N1	27:DA:445:C:C4	2.87	0.43
27:DA:1269:A:C6	27:DA:1270:C:N4	2.87	0.43
2:CB:189:ASP:OD2	2:CB:191:ASP:HB2	2.18	0.43
31:BE:8:LYS:HG2	31:BE:192:ASN:HD22	1.83	0.43
43:BU:74:LEU:C	43:BU:74:LEU:CD1	2.88	0.43
1:CA:646:U:H2'	1:CA:647:C:H6	1.79	0.43
27:DA:381:G:O2'	27:DA:382:G:H5'	2.18	0.43
39:DQ:47:ILE:CD1	39:DQ:70:PRO:HD3	2.49	0.43
27:DA:2443:C:H2'	27:DA:2444:G:C8	2.50	0.43
44:DV:58:VAL:HG12	44:DV:97:LYS:HB2	2.01	0.43
27:BA:2815:C:O2'	54:B5:43:HIS:CD2	2.65	0.43
27:DA:1782:C:O2	27:DA:2609:U:C5'	2.66	0.43
44:DV:49:THR:HB	44:DV:50:PRO:CD	2.46	0.43
40:BR:21:TYR:CZ	40:BR:43:GLU:HG2	2.54	0.43
15:CO:54:ARG:NH1	15:CO:54:ARG:HG2	2.30	0.43
1:AA:683:G:C6	1:AA:684:A:C6	3.07	0.43
20:CT:73:HIS:HB3	20:CT:74:LYS:H	1.39	0.43
1:CA:730:G:C5	1:CA:731:G:H1'	2.54	0.43
1:AA:1385:G:O2'	1:AA:1386:G:H5'	2.19	0.43
7:CG:126:ASP:HB2	7:CG:132:GLY:HA3	2.00	0.43
51:D2:38:GLN:O	51:D2:41:ILE:HG12	2.19	0.43
1:AA:918:A:C6	1:AA:919:A:C6	3.07	0.43
1:AA:180:U:H2'	1:AA:181:G:C5'	2.49	0.43
27:BA:678:C:H2'	27:BA:679:C:H6	1.80	0.43
23:AW:65:U:C4	23:AW:66:A:N7	2.87	0.43
27:BA:210:C:H2'	27:BA:211:A:C8	2.54	0.43
27:BA:2532:G:H2'	27:BA:2533:A:C8	2.54	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:65:ARG:HH12	4:CD:71:SER:HA	1.84	0.43
1:AA:437:U:C5	1:AA:438:G:N7	2.86	0.43
1:AA:1158:C:C6	1:AA:1160:G:C8	3.07	0.43
27:BA:2544:G:O5'	27:BA:2544:G:H8	2.02	0.43
27:DA:1946:U:H2'	27:DA:1947:C:H6	1.83	0.43
27:DA:734:A:H2'	27:DA:735:A:O4'	2.18	0.43
1:CA:746:A:H2'	1:CA:747:C:H6	1.82	0.43
28:BB:71:C:C2	28:BB:72:G:C8	3.07	0.43
27:BA:219:G:H2'	27:BA:220:G:O4'	2.19	0.43
27:BA:279:C:N4	27:BA:361:G:H1	2.17	0.43
1:AA:835:U:OP1	18:AR:61:LYS:HB2	2.19	0.43
27:BA:665:C:O2'	27:BA:666:G:H5'	2.19	0.43
27:BA:775:G:C4	27:BA:794:G:C8	3.07	0.43
10:CJ:82:ILE:HG22	10:CJ:82:ILE:O	2.17	0.43
38:BP:107:LYS:C	38:BP:109:GLY:N	2.72	0.42
38:BP:115:LEU:HD23	38:BP:115:LEU:H	1.84	0.42
35:DI:75:LEU:HD11	35:DI:77:LEU:HD21	2.00	0.42
35:DI:78:THR:O	35:DI:79:ILE:HD13	2.19	0.42
42:BT:88:ILE:HG22	42:BT:89:VAL:CG2	2.49	0.42
27:BA:2759:G:C8	27:BA:2759:G:C5'	3.01	0.42
54:B5:52:TYR:O	54:B5:53:ALA:O	2.37	0.42
35:BI:132:PRO:O	35:BI:133:HIS:O	2.37	0.42
53:B4:62:CYS:SG	53:B4:64:LYS:CB	3.03	0.42
27:BA:2309:A:H2'	27:BA:2310:A:C5'	2.48	0.42
3:CC:8:ILE:O	3:CC:10:PHE:N	2.52	0.42
20:AT:36:LEU:HD12	20:AT:55:ILE:HD12	2.00	0.42
55:D6:18:ARG:NH2	55:D6:43:CYS:O	2.52	0.42
41:BS:74:ALA:O	41:BS:77:ALA:HB3	2.18	0.42
34:BH:54:ARG:HG2	34:BH:65:HIS:HD2	1.84	0.42
27:BA:662:G:O3'	38:BP:20:GLY:HA2	2.19	0.42
27:DA:604:G:C6	27:DA:625:G:C2	3.07	0.42
38:DP:101:VAL:HG13	38:DP:106:LEU:CG	2.48	0.42
38:DP:125:VAL:O	38:DP:145:PRO:HD2	2.19	0.42
27:DA:2303:G:N2	27:DA:2313:C:C2	2.79	0.42
30:BD:33:LEU:HD12	30:BD:33:LEU:N	2.24	0.42
1:AA:377:G:O2'	1:AA:378:G:H5'	2.18	0.42
1:CA:344:A:C5'	1:CA:345:C:OP2	2.66	0.42
27:DA:469:G:C2'	27:DA:470:A:H5''	2.49	0.42
39:BQ:2:LEU:CD2	39:BQ:47:ILE:HG21	2.49	0.42
31:DE:63:LEU:HD23	31:DE:63:LEU:O	2.19	0.42
3:AC:189:ALA:CB	3:AC:196:LEU:N	2.82	0.42
1:AA:1315:U:H6	1:AA:1315:U:O5'	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:118:LYS:O	9:AI:119:ALA:HB3	2.18	0.42
27:BA:140:G:N3	27:BA:142:A:N1	2.67	0.42
27:DA:271(S):G:H2'	27:DA:271(T):C:C5'	2.29	0.42
27:DA:2612:C:C2'	27:DA:2613:U:H5'	2.48	0.42
2:AB:11:LEU:O	2:AB:12:GLU:C	2.56	0.42
2:AB:212:GLN:HE22	2:AB:216:SER:HB2	1.84	0.42
27:DA:327:G:H2'	27:DA:328:U:C6	2.54	0.42
15:CO:17:ARG:N	15:CO:21:ASP:OD1	2.45	0.42
32:DF:121:GLY:C	32:DF:123:LEU:N	2.72	0.42
32:DF:9:ILE:CG2	32:DF:128:ALA:HB2	2.49	0.42
32:DF:9:ILE:HG22	32:DF:128:ALA:HB2	2.00	0.42
2:CB:78:GLN:HA	2:CB:94:ASN:OD1	2.18	0.42
27:BA:1505:C:O2	27:BA:1505:C:O4'	2.33	0.42
20:CT:53:LEU:HB3	20:CT:102:GLY:HA3	1.99	0.42
43:BU:112:ARG:NH1	43:BU:112:ARG:CG	2.71	0.42
44:BV:47:VAL:O	44:BV:49:THR:C	2.57	0.42
2:AB:103:THR:N	2:AB:176:GLU:OE1	2.49	0.42
27:DA:671:C:H2'	27:DA:672:C:C6	2.54	0.42
58:D9:16:VAL:HG13	58:D9:25:VAL:HG22	2.01	0.42
27:BA:2805:G:N2	27:BA:2893:G:O6	2.51	0.42
1:AA:495:A:H4'	1:AA:496:A:C5'	2.49	0.42
39:BQ:27:VAL:O	39:BQ:28:ALA:HB3	2.19	0.42
53:B4:77:THR:C	53:B4:79:GLY:H	2.22	0.42
3:AC:41:GLY:O	3:AC:42:LEU:C	2.55	0.42
47:BY:87:LYS:C	47:BY:89:PHE:N	2.73	0.42
48:BZ:101:LEU:HD13	48:BZ:122:ASP:HA	2.01	0.42
3:CC:182:ILE:HG12	3:CC:203:PHE:HA	2.00	0.42
45:DW:50:VAL:HG13	45:DW:105:VAL:CG2	2.49	0.42
17:CQ:59:ILE:HD13	17:CQ:73:VAL:HA	2.00	0.42
16:CP:56:ALA:O	16:CP:60:LEU:HG	2.19	0.42
42:DT:102:ILE:O	42:DT:104:ASN:N	2.52	0.42
30:DD:53:PHE:O	30:DD:218:ARG:N	2.52	0.42
1:AA:523:A:N6	12:AL:89:ASP:HB2	2.26	0.42
34:BH:159:GLU:CG	34:BH:160:LYS:H	2.24	0.42
27:DA:2555:U:H2'	27:DA:2556:C:C5'	2.43	0.42
42:DT:23:ARG:HA	42:DT:52:ILE:CD1	2.49	0.42
52:B3:23:LEU:HB3	52:B3:28:LEU:HB2	2.01	0.42
27:DA:528:A:N1	27:DA:2043:C:O5'	2.52	0.42
27:BA:15:G:C2'	27:BA:16:G:H5'	2.49	0.42
27:DA:883:G:O2'	27:DA:884:C:H5'	2.19	0.42
50:B1:45:ASN:C	50:B1:45:ASN:ND2	2.72	0.42
27:BA:2681:C:O2	27:BA:2681:C:H2'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2722:G:H2'	27:BA:2723:C:C6	2.54	0.42
15:CO:4:THR:C	15:CO:6:GLU:H	2.23	0.42
41:DS:98:VAL:CG2	41:DS:98:VAL:O	2.66	0.42
27:BA:2043:C:H2'	27:BA:2044:C:H6	1.84	0.42
30:DD:10:THR:C	30:DD:11:PRO:O	2.57	0.42
27:DA:1612:C:H4'	56:D7:5:TRP:O	2.19	0.42
1:CA:1079:G:C6	1:CA:1080:A:N6	2.87	0.42
48:BZ:17:LEU:HD23	48:BZ:24:PRO:HG3	2.01	0.42
23:CW:29:G:O6	23:CW:39:C:N3	2.52	0.42
12:AL:7:LEU:HD21	12:AL:12:ARG:NE	2.34	0.42
12:CL:72:HIS:HB3	12:CL:99:ARG:NH1	2.34	0.42
23:CW:22:G:H2'	23:CW:23:G:H8	1.82	0.42
1:CA:310:G:H5''	16:CP:31:LYS:HB2	1.99	0.42
32:DF:193:VAL:HG12	32:DF:193:VAL:O	2.19	0.42
27:BA:845:G:H8	27:BA:845:G:OP2	2.02	0.42
48:DZ:108:ALA:HB3	48:DZ:144:GLU:CA	2.47	0.42
48:DZ:62:ASP:HB2	48:DZ:64:GLN:CB	2.48	0.42
2:CB:28:PHE:CZ	2:CB:189:ASP:HA	2.54	0.42
27:DA:1853:A:H2'	27:DA:1854:A:H8	1.78	0.42
27:DA:962:G:C2'	27:DA:963:U:H5'	2.49	0.42
8:AH:120:THR:O	8:AH:123:GLU:HB2	2.19	0.42
27:DA:2126:A:H5''	29:DC:36:LYS:CE	2.46	0.42
47:DY:88:LYS:CE	47:DY:93:GLY:HA3	2.49	0.42
37:BO:98:VAL:CG1	37:BO:117:LEU:HB3	2.49	0.42
4:CD:171:GLY:HA2	4:CD:172:PRO:HD3	1.88	0.42
27:BA:1827:C:OP2	30:BD:222:ARG:NH1	2.51	0.42
27:DA:2287:A:H2	27:DA:2346:A:C2	2.37	0.42
44:DV:75:PHE:HA	44:DV:81:TYR:O	2.19	0.42
1:CA:544:G:OP2	4:CD:66:ARG:NH2	2.52	0.42
27:DA:1007:C:H5''	36:DN:35:ARG:NH1	2.34	0.42
30:DD:174:ILE:CD1	30:DD:174:ILE:N	2.82	0.42
27:BA:363(E):U:H2'	27:BA:363(E):U:O2	2.18	0.42
8:CH:72:PRO:O	8:CH:73:ASP:HB3	2.18	0.42
49:B0:65:GLY:CA	49:B0:83:PRO:HA	2.49	0.42
5:CE:10:MET:HB2	5:CE:32:VAL:HG22	2.00	0.42
27:BA:1358:G:O2'	27:BA:1373:A:N6	2.52	0.42
7:CG:60:LYS:HZ1	7:CG:63:LYS:CG	2.32	0.42
15:AO:18:PHE:O	15:AO:19:PRO:C	2.57	0.42
1:CA:326:G:H2'	1:CA:327:A:H5'	2.00	0.42
1:CA:507:C:H2'	1:CA:508:C:H5	1.83	0.42
27:BA:1547:C:H2'	27:BA:1548:C:C6	2.54	0.42
35:DI:31:LEU:CB	35:DI:32:PRO:HD3	2.48	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1972:A:H2'	27:BA:1973:G:C8	2.54	0.42
27:DA:494:G:H21	45:DW:57:ASN:ND2	2.17	0.42
20:CT:38:LYS:O	20:CT:41:ILE:HG13	2.18	0.42
27:BA:719:C:O2'	27:BA:720:C:H5'	2.19	0.42
34:DH:93:GLY:C	34:DH:94:TYR:HD1	2.23	0.42
1:AA:145:G:H5'	1:AA:146:G:OP2	2.19	0.42
27:DA:909:A:H2'	27:DA:912:C:H5	1.83	0.42
6:AF:77:ARG:O	6:AF:79:LEU:N	2.51	0.42
27:BA:510:C:H2'	27:BA:511:U:O4'	2.19	0.42
39:BQ:119:ARG:C	39:BQ:121:ALA:H	2.22	0.42
27:DA:2487:G:H2'	27:DA:2488:A:C8	2.53	0.42
27:BA:623:G:H2'	27:BA:624:C:C6	2.54	0.42
17:CQ:29:HIS:CE1	17:CQ:30:PRO:HG2	2.54	0.42
9:AI:18:PHE:HD1	9:AI:62:TYR:HD2	1.67	0.42
8:AH:74:PRO:O	8:AH:75:ARG:C	2.57	0.42
1:CA:547:A:H4'	1:CA:548:G:O5'	2.19	0.42
54:D5:57:VAL:HG23	54:D5:58:LEU:H	1.84	0.42
1:CA:1463:C:H2'	1:CA:1464:G:H8	1.84	0.42
45:BW:14:PRO:O	45:BW:15:ARG:C	2.56	0.42
6:AF:5:GLU:HG3	6:AF:93:SER:OG	2.19	0.42
27:BA:1322:A:H2'	27:BA:1323:U:H6	1.84	0.42
27:BA:2256:G:O2'	27:BA:2257:U:H5'	2.18	0.42
56:D7:2:LYS:H	56:D7:2:LYS:HG3	1.53	0.42
1:CA:1113:C:O5'	1:CA:1113:C:H6	2.02	0.42
33:BG:105:LYS:HE2	53:B4:52:SER:HB3	2.00	0.42
27:DA:1213:A:C2	27:DA:1214:A:C4	3.06	0.42
57:B8:14:VAL:CG2	57:B8:22:VAL:CG1	2.97	0.42
57:B8:29:LYS:HG3	57:B8:29:LYS:O	2.19	0.42
27:BA:626:U:C5'	27:BA:627:A:H5'	2.49	0.42
38:BP:120:ALA:HB1	38:BP:138:LEU:HD12	2.01	0.42
13:AM:93:ARG:O	13:AM:94:ARG:HD3	2.20	0.42
35:DI:122:GLU:HB3	35:DI:126:TYR:OH	2.19	0.42
42:BT:81:PRO:C	42:BT:82:LEU:HD12	2.39	0.42
35:BI:113:ARG:O	35:BI:113:ARG:HG2	2.18	0.42
33:BG:55:LYS:O	33:BG:59:GLU:HB3	2.19	0.42
33:BG:86:MET:N	33:BG:87:PRO:HD2	2.34	0.42
9:CI:12:GLU:O	9:CI:67:GLY:C	2.57	0.42
14:CN:34:TYR:CD1	14:CN:34:TYR:N	2.88	0.42
39:DQ:140:ALA:HB2	48:DZ:122:ASP:OD1	2.19	0.42
51:D2:69:ARG:HH11	51:D2:69:ARG:HG2	1.84	0.42
57:D8:30:ARG:O	57:D8:31:HIS:HB3	2.19	0.42
38:DP:68:GLN:NE2	57:D8:12:LYS:HB3	2.33	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1018:C:O2'	27:BA:1019:U:H5'	2.18	0.42
57:B8:61:LEU:HD13	57:B8:62:LEU:HG	2.01	0.42
27:DA:2578:G:C5	31:DE:140:SER:HB2	2.54	0.42
32:BF:31:HIS:O	32:BF:32:LEU:C	2.57	0.42
28:DB:21:G:C8	28:DB:22:U:C5	3.07	0.42
33:DG:144:ILE:HD11	33:DG:148:MET:O	2.20	0.42
33:DG:39:ILE:HD12	33:DG:40:ASN:H	1.83	0.42
33:DG:72:ARG:CG	33:DG:86:MET:HA	2.48	0.42
27:BA:1491:G:C5	27:BA:1500:G:N2	2.87	0.42
13:AM:20:THR:O	13:AM:22:ILE:N	2.52	0.42
17:AQ:22:LEU:CD1	17:AQ:39:SER:HB2	2.28	0.42
1:CA:1371:G:C6	1:CA:1372:U:C4	3.07	0.42
9:CI:96:LEU:CD1	9:CI:102:LEU:HB2	2.49	0.42
27:DA:2490:G:C4'	27:DA:2491:U:OP1	2.60	0.42
39:DQ:77:LYS:HA	39:DQ:78:PRO:HD3	1.92	0.42
1:CA:975:A:H5'	1:CA:975:A:H8	1.85	0.42
28:DB:46:A:C5	28:DB:47:C:C4	3.07	0.42
1:AA:530:G:O6	22:AV:9:G:H1'	2.19	0.42
23:AW:35:G:O2'	23:AW:36:A:O5'	2.34	0.42
27:BA:1789:A:O2'	30:BD:219:PRO:HB3	2.19	0.42
1:AA:1132:C:C2'	1:AA:1133:G:H5'	2.49	0.42
27:BA:1180:C:H6	27:BA:1180:C:H5'	1.84	0.42
31:BE:60:ASN:O	31:BE:63:LEU:N	2.52	0.42
2:AB:9:GLU:OE2	2:AB:12:GLU:OE1	2.37	0.42
40:DR:33:ARG:NE	40:DR:115:GLU:HB2	2.34	0.42
32:DF:8:GLN:CB	32:DF:126:VAL:HA	2.48	0.42
1:AA:1202:G:H21	14:AN:27:CYS:HB3	1.83	0.42
14:AN:26:ARG:HG3	14:AN:27:CYS:N	2.32	0.42
47:BY:68:HIS:CB	47:BY:71:LYS:HE2	2.47	0.42
1:CA:266:G:H5'	1:CA:268:C:C5	2.54	0.42
17:CQ:66:SER:O	17:CQ:70:ARG:NH1	2.52	0.42
41:BS:28:VAL:HG12	41:BS:29:PHE:N	2.34	0.42
46:DX:48:LYS:HD2	46:DX:48:LYS:N	2.33	0.42
13:CM:20:THR:HA	13:CM:25:ILE:HG22	2.01	0.42
13:CM:23:TYR:HB3	13:CM:67:GLU:HA	2.00	0.42
3:AC:84:ILE:HD12	3:AC:103:VAL:HG21	2.01	0.42
1:CA:597:G:C2'	1:CA:598:U:H5'	2.48	0.42
13:CM:91:ARG:O	13:CM:96:LEU:N	2.47	0.42
39:BQ:55:VAL:O	39:BQ:59:ARG:N	2.52	0.42
27:BA:365:C:H2'	27:BA:366:C:O4'	2.19	0.42
12:CL:89:ASP:O	12:CL:91:PRO:HD3	2.19	0.42
49:D0:48:GLY:H	49:D0:51:VAL:HB	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
56:B7:34:ARG:O	56:B7:35:ARG:C	2.57	0.42
27:DA:2291:U:H5'	27:DA:2380:C:O2	2.19	0.42
27:DA:2837:G:C5	27:DA:2838:G:N7	2.87	0.42
27:DA:1278:A:O3'	40:DR:34:ILE:HG23	2.19	0.42
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.55	0.42
3:CC:46:GLU:O	3:CC:47:LEU:HD12	2.19	0.42
57:D8:61:LEU:C	57:D8:63:PRO:CD	2.86	0.42
32:BF:67:GLN:CG	32:BF:67:GLN:O	2.61	0.42
27:DA:2262:U:OP2	49:D0:19:LYS:NZ	2.52	0.42
25:CY:36:A:H8	25:CY:36:A:OP2	2.02	0.42
50:B1:80:LEU:HB2	50:B1:82:LEU:CD2	2.49	0.42
14:CN:15:LYS:HD2	14:CN:16:PHE:HE2	1.80	0.42
14:CN:8:GLU:C	14:CN:10:ALA:N	2.71	0.42
16:AP:34:GLU:HG2	16:AP:35:LYS:N	2.34	0.42
5:CE:107:ARG:O	5:CE:110:LEU:N	2.52	0.42
43:DU:111:GLU:O	43:DU:112:ARG:C	2.58	0.42
34:BH:157:TYR:HA	34:BH:157:TYR:HD1	1.79	0.42
11:CK:33:THR:OG1	11:CK:34:ASP:N	2.49	0.42
14:AN:12:ARG:O	14:AN:14:PRO:N	2.52	0.42
1:CA:1348:U:H2'	1:CA:1349:A:C8	2.54	0.42
12:CL:2:PRO:O	12:CL:7:LEU:HG	2.19	0.42
1:CA:1305:G:O2'	1:CA:1306:A:C8	2.66	0.42
45:DW:1:MET:HE2	45:DW:2:GLU:H	1.84	0.42
27:DA:532:A:H4'	27:DA:533:G:O4'	2.18	0.42
27:DA:1374:G:C2	27:DA:1375:C:C2	3.06	0.42
42:BT:122:ASP:O	42:BT:126:ALA:N	2.52	0.42
1:CA:737:A:C2	1:CA:738:C:C2	3.07	0.42
1:CA:1300:G:O2'	1:CA:1301:U:P	2.77	0.42
36:BN:116:LEU:O	36:BN:118:LYS:N	2.52	0.42
5:AE:15:ARG:CZ	5:AE:26:PHE:CE2	3.02	0.42
12:AL:101:VAL:HG12	12:AL:102:TYR:CD2	2.54	0.42
1:AA:1529:G:H4'	1:AA:1530:G:OP2	2.19	0.42
29:BC:52:ARG:C	29:BC:53:ARG:HG3	2.38	0.42
1:CA:938:A:C6	1:CA:939:G:C5	3.07	0.42
45:BW:51:LEU:C	45:BW:51:LEU:CD2	2.87	0.42
24:AX:58:A:HO2'	24:AX:59:A:P	2.41	0.42
1:CA:123:C:O2'	1:CA:124:G:H5'	2.20	0.42
27:BA:1509(B):A:H2'	27:BA:1510:G:O4'	2.19	0.42
3:AC:28:GLN:O	3:AC:29:TYR:HB2	2.18	0.42
27:BA:1449:A:O3'	27:BA:1530:C:N4	2.52	0.42
1:CA:791:G:C5	1:CA:792:A:N7	2.87	0.42
46:BX:26:TYR:HE1	46:BX:83:VAL:HG21	1.85	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:186:C:C2	1:AA:187:C:C5	3.07	0.42
1:AA:224:C:H2'	1:AA:225:C:H6	1.83	0.42
1:AA:245:C:C2'	1:AA:246:A:H5'	2.49	0.42
27:DA:830:G:H4'	27:DA:831:G:OP2	2.19	0.42
1:CA:715:A:O2'	1:CA:716:A:H5'	2.19	0.42
49:D0:54:GLY:O	49:D0:57:PHE:N	2.52	0.42
27:BA:225:A:H2'	27:BA:226:G:H5'	2.01	0.42
27:DA:2306:C:H5	27:DA:2307:G:H1'	1.83	0.42
27:DA:1984:G:O2'	27:DA:1985:G:H5'	2.19	0.42
1:CA:216:G:C2	1:CA:217:C:N3	2.87	0.42
3:CC:173:VAL:O	3:CC:173:VAL:HG12	2.19	0.42
27:DA:1809:A:N1	27:DA:1810:A:C2	2.87	0.42
27:BA:800:A:H4'	27:BA:801:G:O5'	2.19	0.42
59:CX:51:C:H2'	59:CX:52:G:H8	1.84	0.42
28:BB:72:G:N2	28:BB:104:U:C5	2.87	0.42
27:BA:1407:C:O2	27:BA:1407:C:H2'	2.18	0.42
27:DA:2436:G:N3	27:DA:2598:A:H2	2.17	0.42
15:AO:43:LEU:HD21	15:AO:52:SER:HB2	2.01	0.42
1:CA:1192:C:C5	1:CA:1193:G:C8	3.07	0.42
33:BG:171:ALA:O	33:BG:172:LEU:C	2.57	0.42
53:D4:77:THR:O	53:D4:79:GLY:N	2.52	0.42
27:BA:2880:C:O2'	40:BR:90:ARG:HD3	2.19	0.42
27:DA:1911:U:O2'	27:DA:1912:A:H5''	2.20	0.42
27:DA:822:U:O2'	27:DA:823:G:H5'	2.20	0.42
4:AD:65:ARG:HD2	4:AD:72:GLU:HA	2.01	0.42
9:AI:66:ARG:HH11	9:AI:66:ARG:HB2	1.84	0.42
1:CA:316:G:H2'	1:CA:317:G:H8	1.84	0.42
15:AO:72:ARG:HG2	15:AO:73:GLU:N	2.34	0.42
55:B6:15:GLU:HG2	55:B6:47:THR:HG21	2.01	0.42
55:B6:18:ARG:CB	55:B6:18:ARG:HH11	2.23	0.42
35:DI:81:VAL:CG1	35:DI:88:ILE:HD12	2.49	0.42
35:BI:109:ILE:HA	35:BI:130:TYR:HH	1.82	0.42
33:BG:45:GLU:O	33:BG:46:ALA:HB3	2.20	0.42
33:BG:49:ASP:O	33:BG:51:ARG:NH2	2.52	0.42
27:DA:1039:G:O6	27:DA:1116:C:N4	2.48	0.42
48:DZ:41:VAL:HG22	48:DZ:45:LYS:CE	2.43	0.42
20:AT:56:MET:HE2	20:AT:88:VAL:HG11	2.01	0.42
51:D2:13:ALA:O	51:D2:14:ARG:C	2.56	0.42
51:D2:4:SER:O	51:D2:7:ARG:CG	2.65	0.42
55:D6:10:LEU:CD1	57:D8:34:TRP:CG	3.02	0.42
40:DR:54:LEU:HD11	40:DR:65:LEU:HD23	2.01	0.42
38:DP:97:PRO:HG2	38:DP:127:ALA:HA	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DP:34:GLY:O	38:DP:35:HIS:CB	2.67	0.42
38:BP:23:PRO:CD	38:BP:33:ARG:NE	2.77	0.42
33:DG:128:ARG:NE	33:DG:128:ARG:N	2.67	0.42
33:DG:54:GLU:CA	33:DG:57:ALA:HB3	2.49	0.42
33:DG:76:SER:CB	33:DG:84:LYS:N	2.81	0.42
39:DQ:13:GLN:O	39:DQ:14:ARG:CB	2.67	0.42
30:BD:30:GLU:CG	30:BD:63:ARG:NH2	2.80	0.42
42:DT:35:LYS:CE	42:DT:41:ARG:HG3	2.49	0.42
56:D7:35:ARG:C	56:D7:37:LYS:N	2.72	0.42
1:CA:1313:U:OP2	19:CS:6:LYS:HG3	2.20	0.42
3:CC:132:ARG:O	3:CC:133:ALA:C	2.58	0.42
27:DA:320:A:OP2	32:DF:137:LYS:HD2	2.18	0.42
27:BA:1789:A:H2'	27:BA:1790:C:O4'	2.20	0.42
30:BD:223:GLY:HA3	30:BD:231:HIS:ND1	2.34	0.42
27:DA:1491:G:O2'	27:DA:1492:G:H5'	2.19	0.42
1:CA:1102:A:H2'	1:CA:1103:C:C6	2.54	0.42
1:AA:1370:G:N7	9:AI:109:VAL:HG11	2.34	0.42
9:AI:16:ARG:HB2	9:AI:64:THR:OG1	2.19	0.42
2:AB:163:PHE:HA	2:AB:185:ILE:O	2.19	0.42
40:DR:116:LEU:O	40:DR:117:VAL:C	2.58	0.42
32:DF:7:TYR:CB	32:DF:16:GLY:H	2.20	0.42
2:CB:100:GLY:O	2:CB:101:MET:C	2.56	0.42
2:CB:173:ALA:O	2:CB:174:VAL:C	2.57	0.42
45:BW:88:ARG:NH1	45:BW:94:ASP:OD1	2.52	0.42
27:BA:2056:G:C2	27:BA:2057:A:C8	3.07	0.42
19:CS:16:LEU:O	19:CS:20:LEU:HG	2.18	0.42
27:BA:1503:U:C4	27:BA:1504:C:N4	2.87	0.42
4:AD:153:ARG:O	4:AD:181:MET:HE1	2.18	0.42
27:DA:2756:U:C3'	58:D9:19:ARG:HA	2.50	0.42
27:BA:1859:A:C6	27:BA:1884:A:C8	3.08	0.42
5:AE:103:GLY:N	5:AE:106:PRO:HG2	2.34	0.42
27:DA:1158:C:O2'	27:DA:1159:U:H5''	2.20	0.42
1:CA:952:U:H4'	1:CA:964:A:N1	2.34	0.42
34:DH:32:GLU:OE2	34:DH:34:GLU:HG2	2.19	0.42
27:BA:287:C:H2'	27:BA:288:C:C6	2.53	0.42
3:CC:37:GLN:NE2	3:CC:37:GLN:HA	2.34	0.42
35:BI:6:LEU:O	35:BI:7:GLU:CB	2.67	0.42
38:DP:50:ARG:CB	57:D8:59:LYS:HE2	2.38	0.42
38:DP:18:ARG:HB3	38:DP:18:ARG:NH1	2.31	0.42
2:AB:155:LEU:CD2	2:AB:157:ARG:O	2.68	0.42
40:BR:67:LEU:HA	40:BR:67:LEU:HD12	1.89	0.42
39:DQ:51:ARG:HG2	39:DQ:51:ARG:NH1	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2485:G:O3'	39:DQ:126:PRO:HA	2.20	0.42
41:DS:37:ALA:HB3	41:DS:73:LEU:HD12	1.98	0.42
27:DA:1771:C:HO2'	27:DA:1786:A:H8	1.67	0.42
27:DA:1785:A:OP2	27:DA:1982:C:H5'	2.19	0.42
27:BA:2223:G:H2'	27:BA:2224:G:C5'	2.41	0.42
19:AS:6:LYS:CD	19:AS:6:LYS:N	2.64	0.42
27:DA:1412:A:H2'	27:DA:1413:G:O4'	2.20	0.42
1:AA:666:G:C6	1:AA:741:G:C6	3.07	0.42
4:CD:109:GLY:O	4:CD:111:ALA:N	2.52	0.42
4:CD:120:LEU:CD2	4:CD:158:ILE:HD11	2.50	0.42
36:BN:25:ARG:HD3	36:BN:25:ARG:HA	1.94	0.42
7:CG:140:ASP:HA	7:CG:143:ARG:HH12	1.84	0.42
3:AC:130:VAL:O	3:AC:131:ARG:C	2.58	0.42
27:BA:2617:C:C4	27:BA:2618:G:N7	2.86	0.42
48:BZ:127:VAL:HG23	48:BZ:131:ASN:ND2	2.34	0.42
40:BR:60:LEU:O	40:BR:61:HIS:C	2.57	0.42
27:BA:884:C:H2'	27:BA:885:C:C5'	2.48	0.42
27:BA:1045:A:H4'	27:BA:1047:G:O4'	2.19	0.42
27:DA:1773:A:N7	27:DA:1829:A:H1'	2.34	0.42
1:CA:134:A:H61	16:CP:25:ARG:HH12	1.67	0.42
12:CL:7:LEU:O	12:CL:11:GLY:N	2.53	0.42
1:AA:723:U:C2'	1:AA:723:U:O2	2.58	0.42
27:DA:645:C:O2	27:DA:645:C:C2'	2.59	0.42
58:D9:10:ILE:HD12	58:D9:32:HIS:HB3	2.01	0.42
4:CD:105:VAL:HG21	4:CD:121:VAL:CG2	2.50	0.42
1:CA:59:A:H2'	1:CA:59:A:N3	2.32	0.42
25:CY:49:G:HO2'	25:CY:50:A:P	2.42	0.42
37:DO:23:ARG:HD2	37:DO:23:ARG:HA	1.78	0.42
1:CA:390:C:H2'	1:CA:391:G:H8	1.78	0.42
25:AY:35:G:H2'	25:AY:36:A:N9	2.35	0.42
1:AA:649:G:H2'	1:AA:650:G:H8	1.84	0.42
27:DA:34:C:C2'	27:DA:35:G:H5'	2.49	0.42
48:DZ:144:GLU:HB3	48:DZ:145:ILE:H	1.52	0.42
46:DX:36:LYS:HD2	46:DX:54:VAL:O	2.19	0.42
1:CA:1300:G:C2'	1:CA:1301:U:OP2	2.67	0.42
1:AA:294:U:H2'	1:AA:295:C:C6	2.54	0.42
27:DA:364:C:H2'	27:DA:365:C:H5''	1.99	0.42
12:CL:117:TYR:O	12:CL:118:GLY:C	2.57	0.42
27:DA:637:A:C2	27:DA:651:G:H1'	2.53	0.42
27:BA:2241:A:H2'	27:BA:2242:G:C8	2.54	0.42
8:CH:95:VAL:HA	8:CH:99:GLU:OE2	2.18	0.42
6:AF:39:LYS:HG2	6:AF:40:VAL:N	2.31	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:123:C:OP1	1:CA:312:C:H5'	2.20	0.42
27:BA:121:G:C4'	27:BA:149:A:H5'	2.49	0.42
37:DO:13:ASN:C	37:DO:15:GLY:N	2.70	0.42
1:CA:840:C:H4'	1:CA:848:C:C2	2.54	0.42
1:AA:262:A:C6	1:AA:263:A:C6	3.07	0.42
49:D0:70:GLN:NE2	49:D0:72:ARG:HD3	2.34	0.42
27:DA:1747(A):G:C2'	27:DA:1748:G:H5''	2.49	0.42
19:CS:36:ARG:NH1	19:CS:36:ARG:HB3	2.33	0.42
27:BA:2085:C:H2'	27:BA:2086:U:O4'	2.19	0.42
46:BX:57:LEU:CD1	46:BX:78:LYS:CG	2.98	0.42
27:DA:1905:C:C4'	27:DA:1928:A:C2	3.02	0.42
7:CG:41:ARG:O	7:CG:42:ILE:C	2.58	0.42
1:AA:890:G:O2'	1:AA:906:G:O6	2.32	0.42
27:BA:1186:G:H8	27:BA:1186:G:O5'	2.01	0.42
1:AA:123:C:OP1	1:AA:311:C:O2'	2.36	0.42
27:BA:1549:C:O2	27:BA:1549:C:H2'	2.19	0.42
27:BA:2460:U:C2'	27:BA:2461:C:H5'	2.49	0.42
19:CS:22:LEU:HD13	19:CS:27:GLU:CB	2.49	0.42
27:DA:2516:G:C2	27:DA:2569:G:N3	2.87	0.42
1:AA:340:U:O2'	1:AA:341:C:H5'	2.20	0.42
27:BA:777:A:H2'	27:BA:778:G:C8	2.54	0.42
7:AG:134:ALA:O	7:AG:137:LYS:N	2.53	0.42
7:AG:137:LYS:HD3	7:AG:137:LYS:C	2.39	0.42
35:BI:4:ILE:O	35:BI:36:ALA:HA	2.19	0.42
29:DC:187:ASP:C	29:DC:189:ILE:H	2.22	0.42
32:DF:198:ALA:C	32:DF:200:GLU:H	2.21	0.42
27:DA:283:A:H4'	27:DA:284:U:OP2	2.19	0.42
27:DA:1304:C:O2	27:DA:1304:C:H2'	2.19	0.42
9:AI:47:LEU:N	9:AI:47:LEU:HD12	2.34	0.42
21:AU:18:TYR:N	21:AU:18:TYR:CD1	2.87	0.42
27:DA:2034:U:O5'	27:DA:2034:U:H6	2.02	0.42
27:DA:1671:U:H2'	27:DA:1673:U:OP2	2.19	0.42
43:DU:5:LYS:O	43:DU:6:THR:C	2.57	0.42
33:DG:165:THR:HG23	33:DG:168:GLU:OE2	2.19	0.42
4:AD:191:ARG:O	4:AD:191:ARG:NH1	2.51	0.42
13:AM:90:LEU:C	13:AM:92:HIS:N	2.73	0.42
42:BT:36:GLU:C	42:BT:38:ASN:N	2.70	0.42
1:CA:721:G:H1'	1:CA:722:A:C2	2.54	0.42
28:BB:45:A:H1'	33:BG:95:ARG:CZ	2.50	0.42
33:BG:76:SER:O	33:BG:77:ILE:C	2.57	0.42
3:CC:6:HIS:O	3:CC:8:ILE:N	2.53	0.42
27:DA:1041:C:H1'	27:DA:1115:G:N1	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2468:G:N2	27:BA:2481:G:O2'	2.53	0.42
27:BA:2475:C:H2'	27:BA:2477:C:OP1	2.19	0.42
31:DE:117:MET:HE2	31:DE:123:ALA:C	2.40	0.42
44:DV:2:PHE:CE1	44:DV:13:ARG:NH1	2.86	0.42
33:DG:29:TRP:HA	33:DG:29:TRP:CE3	2.54	0.42
27:BA:807:U:H2'	27:BA:808:G:C8	2.54	0.42
27:DA:1021:A:H2'	27:DA:1023:U:H5'	2.00	0.42
18:CR:79:LEU:HD23	18:CR:79:LEU:HA	1.83	0.42
13:CM:57:ARG:O	13:CM:61:GLU:N	2.48	0.42
1:AA:277:C:H5''	17:AQ:68:ARG:HH22	1.83	0.42
56:D7:39:ARG:C	56:D7:41:ARG:N	2.71	0.42
39:BQ:1:MET:HE1	39:BQ:45:GLN:CA	2.49	0.42
31:DE:202:LYS:HD2	31:DE:202:LYS:N	2.33	0.42
31:DE:38:THR:HB	31:DE:39:PRO:HD2	2.01	0.42
28:DB:48:A:C8	28:DB:48:A:H5'	2.48	0.42
9:AI:114:TYR:CD1	10:AJ:60:ARG:CG	3.02	0.42
10:AJ:63:PHE:CE2	14:AN:44:LEU:HD11	2.54	0.42
1:AA:1273:G:H3'	1:AA:1274:G:C8	2.55	0.42
9:AI:41:VAL:O	9:AI:43:ALA:N	2.52	0.42
9:AI:50:LEU:HD23	9:AI:85:LEU:CD2	2.49	0.42
2:AB:55:PHE:HA	2:AB:58:ILE:CG1	2.49	0.42
15:CO:29:VAL:HG12	15:CO:30:ALA:N	2.33	0.42
32:DF:117:ARG:NH1	38:DP:5:ASP:N	2.67	0.42
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.55	0.42
17:CQ:14:LYS:CB	17:CQ:14:LYS:NZ	2.80	0.42
27:BA:644:A:C2	27:BA:2369:A:H1'	2.54	0.42
27:BA:2290:G:O2'	27:BA:2381:C:H1'	2.20	0.42
7:CG:23:VAL:CG1	7:CG:27:ILE:HD11	2.32	0.42
12:CL:30:ARG:H	12:CL:81:LEU:CD2	2.32	0.42
20:CT:61:SER:O	20:CT:65:LYS:HG2	2.18	0.42
27:DA:2475:C:H2'	27:DA:2477:C:OP1	2.19	0.42
34:BH:48:GLY:O	34:BH:49:VAL:CG1	2.67	0.42
12:CL:89:ASP:CB	12:CL:90:LEU:HD23	2.48	0.42
27:BA:271(M):G:C5	27:BA:271(O):C:C4	3.07	0.42
27:DA:2228:G:C6	27:DA:2229:C:N3	2.88	0.42
5:CE:126:ARG:C	5:CE:131:ILE:HD11	2.40	0.42
34:DH:141:VAL:O	34:DH:143:GLN:N	2.52	0.42
34:DH:147:ASN:O	34:DH:151:ILE:HG12	2.19	0.42
6:CF:37:VAL:HA	6:CF:65:VAL:HG12	2.01	0.42
18:CR:37:VAL:CG1	18:CR:78:LEU:HB3	2.49	0.42
27:BA:1673:U:O2'	27:BA:1674:G:H5'	2.18	0.42
27:BA:791:C:H4'	27:BA:792:G:OP1	2.18	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:5:ARG:HG2	10:AJ:71:LEU:HD11	2.00	0.42
27:DA:1503:U:C2	27:DA:1504:C:C5	3.07	0.42
37:BO:1:MET:HE3	37:BO:67:LYS:HG2	2.00	0.42
42:BT:55:ASN:O	42:BT:57:PHE:O	2.37	0.42
57:B8:58:ILE:HG22	57:B8:58:ILE:O	2.20	0.42
27:BA:195:A:H5''	27:BA:196:A:OP2	2.19	0.42
27:BA:1676:A:H2'	27:BA:1677:A:O4'	2.19	0.42
38:DP:123:LEU:HD12	38:DP:123:LEU:O	2.20	0.42
25:CY:34:U:H2'	25:CY:35:G:H5'	2.00	0.42
43:BU:35:ALA:O	43:BU:38:THR:N	2.53	0.42
5:CE:39:GLY:HA2	5:CE:113:ALA:O	2.19	0.42
17:CQ:81:ARG:HH11	17:CQ:84:LEU:CD2	2.32	0.42
2:AB:122:PHE:CG	2:AB:123:ALA:N	2.84	0.42
7:AG:44:TYR:C	7:AG:46:ALA:H	2.23	0.42
30:BD:271:ILE:O	30:BD:272:ALA:HB2	2.17	0.42
27:DA:2099:U:H2'	27:DA:2099:U:O2	2.18	0.42
27:DA:2192:G:C2	27:DA:2193:G:C8	3.08	0.42
1:CA:662:G:O2'	1:CA:836:G:C5'	2.68	0.42
17:CQ:33:GLY:O	17:CQ:34:LYS:C	2.58	0.42
1:CA:180:U:C2'	1:CA:181:G:H5''	2.45	0.42
27:DA:644:A:C2	27:DA:646:A:C4	3.07	0.42
4:CD:134:ASP:OD2	4:CD:135:LEU:CD1	2.68	0.42
33:BG:11:TYR:OH	33:BG:16:ARG:HD3	2.20	0.42
33:BG:20:ILE:H	33:BG:20:ILE:HG13	1.71	0.42
1:AA:222:U:C2	1:AA:223:U:C5	3.08	0.42
1:CA:376:G:O2'	1:CA:377:G:H5'	2.19	0.42
27:DA:2177:C:H1'	29:DC:44:HIS:CD2	2.53	0.42
48:DZ:145:ILE:HG12	48:DZ:145:ILE:H	1.65	0.42
1:AA:696:A:O2'	1:AA:697:U:H5'	2.19	0.42
23:AW:72:G:H5'	23:AW:73:C:OP1	2.20	0.42
1:AA:920:U:H1'	1:AA:1080:A:C2	2.54	0.42
27:BA:2092:U:H4'	27:BA:2093:G:H5''	2.02	0.42
1:AA:394:G:O2'	1:AA:395:C:H5'	2.19	0.42
30:DD:248:SER:HB3	30:DD:252:TRP:CZ3	2.54	0.42
27:DA:422:A:H2'	27:DA:423:A:C8	2.54	0.42
27:DA:2320:A:C2	27:DA:2333:A:C8	3.08	0.42
28:DB:78:A:C2	28:DB:100:A:C4	3.08	0.42
27:BA:1929:G:H4'	27:BA:1930:G:OP1	2.18	0.42
51:B2:16:LEU:O	51:B2:20:GLU:HB3	2.20	0.42
1:AA:498:U:HO2'	1:AA:499:A:P	2.42	0.42
49:D0:72:ARG:HB2	49:D0:75:LEU:HB3	2.01	0.42
27:BA:118:A:O2'	27:BA:178:G:H5'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:268:ARG:HB3	30:BD:268:ARG:HH11	1.84	0.42
1:AA:42:G:O2'	1:AA:43:C:H5'	2.19	0.42
1:AA:186:C:H2'	1:AA:187:C:C6	2.54	0.42
33:DG:9:ARG:HH11	33:DG:9:ARG:HG2	1.83	0.42
44:DV:34:GLU:CG	44:DV:56:SER:HB2	2.49	0.42
27:BA:441:U:C2'	32:BF:46:ARG:HH21	2.31	0.42
27:BA:1783:A:C2	27:BA:2587:A:C5	3.07	0.42
27:DA:1930:G:H22	27:DA:1968:G:H3'	1.84	0.42
6:CF:40:VAL:HG13	6:CF:40:VAL:O	2.18	0.42
1:CA:1334:G:C5'	1:CA:1335:C:OP2	2.67	0.42
5:AE:89:ILE:CD1	5:AE:135:THR:OG1	2.67	0.42
1:AA:1374:A:C4	1:AA:1375:A:C8	3.08	0.42
36:BN:123:TYR:OH	36:BN:130:HIS:HE1	2.02	0.42
27:BA:357:A:H2'	27:BA:358:U:C6	2.55	0.42
31:DE:151:TYR:CD1	36:DN:79:PRO:HG2	2.54	0.42
27:BA:1270:C:H5''	27:BA:1271:G:O5'	2.19	0.42
1:AA:119:A:O2'	1:AA:120:A:OP2	2.26	0.42
1:AA:977:A:H1'	1:AA:982:U:O4	2.19	0.42
28:BB:74:U:H2'	28:BB:75:G:O4'	2.19	0.42
27:BA:2518:A:C8	27:BA:2518:A:H5'	2.54	0.42
27:BA:1515:G:O2'	27:BA:1516:C:H5'	2.20	0.42
13:CM:106:ASN:O	13:CM:107:ALA:HB3	2.19	0.42
27:BA:1601:G:OP2	46:BX:58:HIS:HD2	2.02	0.42
27:BA:626:U:H3	38:BP:105:LEU:CB	2.32	0.42
38:BP:126:VAL:HG22	38:BP:145:PRO:CB	2.50	0.42
35:DI:88:ILE:HG12	35:DI:122:GLU:N	2.34	0.42
27:DA:1594:G:C5'	27:DA:1594:G:H8	2.31	0.42
31:DE:73:GLU:HG3	31:DE:74:PRO:HD2	2.02	0.42
27:BA:271(S):G:C6	27:BA:271(T):C:C4	3.08	0.42
33:BG:137:GLU:HB3	33:BG:139:LEU:HD22	2.02	0.42
10:CJ:50:ILE:CD1	10:CJ:50:ILE:N	2.74	0.42
48:DZ:68:THR:HG22	48:DZ:89:VAL:N	2.34	0.42
55:D6:26:ASN:N	55:D6:26:ASN:ND2	2.66	0.42
27:DA:2403:C:H2'	27:DA:2404:C:C6	2.54	0.42
4:AD:49:ARG:HG2	4:AD:49:ARG:NH1	2.34	0.42
32:BF:102:PRO:HB2	32:BF:105:VAL:CG2	2.48	0.42
32:BF:37:VAL:HG23	32:BF:184:TYR:HA	2.02	0.42
33:DG:136:ARG:O	33:DG:153:ARG:O	2.37	0.42
17:AQ:22:LEU:HD12	17:AQ:23:VAL:N	2.33	0.42
56:D7:35:ARG:C	56:D7:37:LYS:H	2.22	0.42
37:DO:22:ILE:HB	37:DO:40:VAL:CG1	2.50	0.42
31:DE:167:VAL:HG22	31:DE:168:MET:N	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:155:GLY:O	3:AC:156:ARG:CB	2.66	0.42
3:AC:189:ALA:CB	3:AC:196:LEU:H	2.33	0.42
1:AA:530:G:N2	23:AW:35:G:O4'	2.53	0.42
9:AI:10:ARG:NH1	9:AI:105:ASP:OD1	2.51	0.42
1:AA:559:A:OP1	5:AE:126:ARG:NH2	2.52	0.42
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.55	0.42
2:CB:94:ASN:HB3	2:CB:95:GLN:HE21	1.81	0.42
5:CE:101:ILE:HG12	5:CE:101:ILE:O	2.19	0.42
1:AA:1202:G:H2'	1:AA:1203:C:H5'	2.02	0.42
27:BA:2206:G:H3'	27:BA:2207:G:C5'	2.50	0.42
27:BA:986:C:C2'	27:BA:987:G:H5'	2.49	0.42
29:DC:49:ILE:O	29:DC:51:PRO:CD	2.67	0.42
3:AC:50:ALA:O	3:AC:70:VAL:HG13	2.19	0.42
27:BA:2579:C:H4'	31:BE:134:ILE:HD12	2.01	0.42
3:CC:58:GLU:N	3:CC:65:ALA:HB3	2.19	0.42
34:DH:98:LEU:HD22	34:DH:125:VAL:CG2	2.50	0.42
39:BQ:133:ARG:HG2	39:BQ:134:ARG:H	1.81	0.42
27:DA:2023:G:H4'	27:DA:2617:C:O3'	2.19	0.42
43:DU:27:LEU:O	43:DU:29:SER:N	2.52	0.42
27:DA:2261:C:OP1	49:D0:17:GLN:HG2	2.20	0.42
1:CA:458:C:H2'	1:CA:460:G:C8	2.55	0.42
27:BA:2111:C:O4'	27:BA:2118:U:H1'	2.19	0.42
27:DA:2657:A:O2'	34:DH:160:LYS:HE3	2.20	0.42
2:AB:36:ARG:N	2:AB:36:ARG:NE	2.68	0.42
2:AB:34:ALA:HB1	2:AB:36:ARG:NE	2.35	0.42
1:AA:840:C:H4'	1:AA:848:C:C2	2.55	0.42
50:B1:75:GLU:C	50:B1:77:ALA:H	2.22	0.42
3:AC:108:ASN:ND2	3:AC:111:LEU:HD12	2.24	0.42
20:AT:26:ASN:HB2	20:AT:71:THR:CG2	2.49	0.42
59:CX:25:C:H2'	59:CX:26:G:O4'	2.20	0.42
1:CA:556:C:O2'	1:CA:557:G:H5'	2.19	0.42
1:AA:1152:A:C5'	10:AJ:13:HIS:HD2	2.28	0.42
10:AJ:13:HIS:ND1	10:AJ:14:LYS:HG3	2.35	0.42
27:BA:173:G:C2	27:BA:174:C:C2	3.08	0.42
15:CO:4:THR:H	15:CO:7:GLU:CD	2.22	0.42
11:AK:73:MET:CE	11:AK:103:LEU:HD23	2.50	0.42
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.54	0.42
27:DA:154:G:H5'	27:DA:154(A):C:P	2.60	0.42
1:AA:447:G:C6	1:AA:485:G:H1'	2.55	0.42
43:DU:113:ALA:O	43:DU:116:ALA:N	2.52	0.42
27:DA:1638:C:H2'	27:DA:1639:U:O4'	2.19	0.42
1:AA:939:G:H2'	1:AA:940:C:C6	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
58:B9:27:CYS:SG	58:B9:28:GLU:N	2.92	0.42
39:BQ:130:LYS:NZ	48:BZ:79:ARG:HA	2.35	0.42
43:BU:83:LEU:HG	43:BU:88:ILE:CG1	2.49	0.42
44:DV:85:LYS:HE2	44:DV:85:LYS:HB2	1.85	0.42
25:CY:49:G:O2'	25:CY:50:A:H8	2.02	0.42
27:DA:1286:A:C6	27:DA:1289:C:C2	3.07	0.42
8:CH:100:ILE:HB	8:CH:125:ARG:HH12	1.84	0.42
13:AM:27:LYS:HE3	13:AM:31:LYS:NZ	2.33	0.42
1:AA:14:U:H2'	1:AA:16:A:OP2	2.19	0.42
5:AE:20:GLN:HG2	5:AE:21:ALA:N	2.33	0.42
1:CA:375:U:O2'	16:CP:28:ARG:HD2	2.20	0.42
31:DE:45:THR:HG22	31:DE:45:THR:O	2.18	0.42
27:DA:2219:G:H2'	27:DA:2220:G:C8	2.55	0.42
27:DA:2222:G:C2	27:DA:2223:G:C4	3.08	0.42
7:CG:44:TYR:O	7:CG:45:ASP:C	2.58	0.42
25:AY:6:U:O2'	25:AY:7:A:H5'	2.20	0.42
1:CA:222:U:C2	1:CA:223:U:C5	3.08	0.42
7:AG:30:ILE:HD13	7:AG:105:VAL:HG22	2.01	0.42
5:AE:26:PHE:CD1	5:AE:26:PHE:N	2.87	0.42
27:BA:2884:U:H2'	27:BA:2885:C:O4'	2.19	0.42
11:AK:46:GLY:O	11:AK:48:ILE:O	2.38	0.42
29:DC:36:LYS:O	29:DC:37:PHE:O	2.37	0.42
27:BA:645:C:C2'	27:BA:645:C:O2	2.67	0.42
40:BR:22:ARG:C	40:BR:24:GLN:N	2.72	0.42
40:BR:26:LYS:HE3	40:BR:70:LEU:HA	2.00	0.42
40:BR:71:GLN:OE1	40:BR:71:GLN:HA	2.20	0.42
11:AK:38:ASN:ND2	11:AK:38:ASN:N	2.67	0.42
51:B2:41:ILE:H	51:B2:41:ILE:HG12	1.64	0.42
27:BA:2050:C:H1'	31:BE:156:MET:CE	2.49	0.42
13:CM:33:ALA:HA	13:CM:59:TYR:CD2	2.55	0.42
32:BF:165:ARG:NH1	32:BF:165:ARG:HG3	2.34	0.42
27:BA:1221:C:H2'	27:BA:1221(A):C:H6	1.83	0.42
27:DA:118:A:O2'	27:DA:178:G:H5'	2.19	0.42
19:CS:36:ARG:H	19:CS:36:ARG:HG2	1.66	0.42
27:BA:1336:A:H2'	27:BA:1337:G:H8	1.84	0.42
4:AD:116:GLN:HE22	4:AD:157:LEU:HD11	1.84	0.42
2:AB:68:ILE:HD12	2:AB:161:ALA:HB3	2.02	0.42
1:AA:252:U:H2'	1:AA:275:G:N2	2.34	0.42
20:CT:97:ALA:O	20:CT:99:LEU:N	2.52	0.42
27:BA:948:G:C2	27:BA:970:C:O2	2.73	0.42
27:DA:1930:G:N2	27:DA:1968:G:H2'	2.34	0.42
1:CA:774:G:C4	1:CA:775:G:C8	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:579:G:C2	27:DA:1262:A:C5	3.07	0.42
17:CQ:18:THR:HA	17:CQ:44:ALA:O	2.19	0.42
45:BW:64:MET:O	45:BW:65:LEU:CB	2.67	0.42
58:B9:10:ILE:HB	58:B9:32:HIS:CD2	2.55	0.42
36:BN:100:GLU:O	36:BN:101:HIS:C	2.57	0.42
19:AS:64:GLU:O	19:AS:67:VAL:HG23	2.19	0.42
21:CU:5:ASP:O	21:CU:11:GLY:HA3	2.19	0.42
31:DE:14:ILE:HG13	31:DE:21:VAL:HG23	2.02	0.42
23:AW:48:C:H6	23:AW:48:C:O5'	2.02	0.42
48:DZ:90:LEU:H	48:DZ:90:LEU:HD12	1.83	0.42
39:BQ:120:ILE:O	39:BQ:120:ILE:HG22	2.20	0.42
27:BA:489:G:H8	27:BA:489:G:OP1	2.02	0.42
57:D8:41:ILE:HG13	57:D8:41:ILE:H	1.70	0.42
27:BA:2886:G:O2'	54:B5:31:VAL:HB	2.19	0.42
16:AP:55:ARG:O	16:AP:56:ALA:C	2.57	0.42
5:AE:136:MET:HB3	5:AE:140:ARG:NH2	2.34	0.42
27:DA:2072:G:C6	27:DA:2073:C:C4	3.08	0.42
38:BP:120:ALA:HB3	38:BP:138:LEU:HA	2.00	0.42
1:AA:1308:U:OP1	13:AM:98:VAL:N	2.51	0.42
28:BB:32:C:C4	28:BB:33:G:N7	2.88	0.42
47:BY:73:ARG:O	47:BY:74:PRO:O	2.38	0.42
1:CA:721:G:H4'	1:CA:722:A:C5'	2.45	0.42
33:BG:110:ALA:C	33:BG:112:PRO:HD2	2.40	0.42
33:BG:39:ILE:CG2	33:BG:92:VAL:HG12	2.49	0.42
51:D2:64:LEU:CD1	51:D2:68:ARG:HE	2.32	0.42
55:D6:9:LEU:HD12	55:D6:28:ARG:HG3	2.00	0.42
27:DA:2420:C:OP1	57:D8:34:TRP:HB2	2.19	0.42
34:BH:52:VAL:O	34:BH:52:VAL:HG12	2.20	0.42
10:CJ:32:ALA:HB3	10:CJ:76:ASN:CB	2.50	0.42
40:DR:66:VAL:C	40:DR:68:ARG:N	2.72	0.42
27:DA:2578:G:O2'	27:DA:2579:C:H5'	2.20	0.42
41:DS:78:LEU:HD11	41:DS:103:GLU:OE1	2.19	0.42
27:DA:997:G:O2'	27:DA:998:C:H5'	2.20	0.42
44:DV:6:LYS:HE3	44:DV:7:THR:CA	2.49	0.42
33:DG:66:GLN:HB3	33:DG:92:VAL:HG21	2.01	0.42
1:CA:912:C:H5''	12:CL:43:LYS:NZ	2.35	0.42
9:CI:10:ARG:HD3	9:CI:75:ASP:CB	2.46	0.42
9:CI:29:ASN:OD1	9:CI:65:VAL:HG12	2.19	0.42
1:CA:1270:C:OP2	21:CU:24:ARG:NH2	2.52	0.42
27:DA:2785:C:O2'	31:DE:64:LYS:NZ	2.52	0.42
31:DE:49:LEU:HD13	31:DE:81:ILE:HG12	2.02	0.42
3:AC:195:VAL:C	3:AC:196:LEU:HD22	2.40	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:114:TYR:C	9:AI:116:LYS:H	2.23	0.42
30:BD:212:SER:O	30:BD:217:ARG:HG3	2.20	0.42
27:DA:271(O):C:HO2'	27:DA:271(P):C:H6	1.60	0.42
31:BE:51:PHE:CG	31:BE:52:LEU:N	2.87	0.42
2:AB:223:ILE:C	2:AB:225:ALA:N	2.72	0.42
47:DY:2:ARG:NH1	47:DY:3:VAL:HG23	2.34	0.42
2:CB:190:THR:C	2:CB:192:SER:H	2.22	0.42
19:CS:15:LEU:H	19:CS:15:LEU:CD2	2.19	0.42
1:CA:255:G:C1'	17:CQ:16:GLN:HE21	2.18	0.42
18:AR:22:VAL:HG23	18:AR:55:ARG:O	2.20	0.42
7:CG:23:VAL:O	7:CG:27:ILE:HG13	2.20	0.42
5:CE:58:ALA:O	5:CE:59:GLY:C	2.58	0.42
48:DZ:103:PHE:HE1	48:DZ:138:VAL:HG21	1.84	0.42
12:CL:84:GLY:HA2	12:CL:95:TYR:HA	2.02	0.42
5:AE:6:PHE:CD1	5:AE:6:PHE:N	2.87	0.42
1:CA:97:G:C4	1:CA:98:G:C8	3.08	0.42
27:BA:874:G:H5''	48:BZ:174:VAL:CG1	2.49	0.42
27:DA:1036:G:OP1	34:DH:59:ARG:HB2	2.19	0.42
1:AA:591:U:OP2	8:AH:30:ARG:NH1	2.53	0.42
19:AS:61:TYR:O	19:AS:62:ILE:HG22	2.19	0.42
6:CF:77:ARG:HB3	6:CF:77:ARG:HH11	1.81	0.42
36:DN:54:VAL:HB	36:DN:122:VAL:HG13	2.00	0.42
32:BF:125:LEU:HD11	32:BF:199:TRP:CD1	2.54	0.42
50:B1:88:LYS:C	50:B1:88:LYS:HD3	2.40	0.42
27:BA:675:A:H4'	32:BF:67:GLN:OE1	2.19	0.42
9:CI:46:ALA:C	9:CI:48:GLU:H	2.21	0.42
34:BH:91:GLY:O	34:BH:92:ILE:O	2.37	0.42
11:CK:57:THR:HG23	11:CK:58:PRO:HD2	2.00	0.42
7:CG:139:GLU:O	7:CG:143:ARG:HG3	2.20	0.42
27:BA:2134:A:N3	27:BA:2159:G:H1'	2.34	0.42
10:AJ:12:ASP:OD1	10:AJ:14:LYS:HD2	2.20	0.42
27:BA:152:G:H1	27:BA:174:C:H42	1.67	0.42
27:DA:1789:A:H2'	27:DA:1790:C:O4'	2.20	0.42
18:AR:72:ARG:C	18:AR:74:ARG:N	2.71	0.42
12:CL:7:LEU:HB3	17:CQ:32:TYR:CD2	2.54	0.42
28:BB:94:C:O2'	28:BB:95:C:H5'	2.20	0.42
1:CA:1305:G:O2'	1:CA:1306:A:P	2.78	0.42
27:DA:363(A):A:C3'	27:DA:363(B):G:H5''	2.49	0.42
21:AU:12:LYS:NZ	21:AU:19:GLY:HA3	2.35	0.42
34:DH:20:ALA:CB	34:DH:21:PRO:CD	2.92	0.42
33:BG:11:TYR:OH	33:BG:32:PRO:O	2.37	0.42
36:DN:5:VAL:HG13	36:DN:5:VAL:O	2.18	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1666:G:H2'	27:BA:1667:G:H5'	1.98	0.42
33:BG:123:ASN:O	33:BG:126:ASP:OD2	2.37	0.42
27:DA:542:C:C2'	27:DA:543:C:OP1	2.67	0.42
27:DA:553:G:C6	27:DA:554:U:N3	2.88	0.42
27:BA:862:G:H8	27:BA:862:G:O5'	2.03	0.42
4:AD:158:ILE:HG22	4:AD:159:ARG:N	2.35	0.42
38:DP:38:GLN:CD	38:DP:41:ARG:HD2	2.39	0.42
27:DA:34:C:H5''	27:DA:34:C:H6	1.85	0.42
29:BC:68:LEU:O	29:BC:69:GLY:C	2.56	0.42
57:D8:37:SER:O	57:D8:39:LYS:N	2.53	0.42
1:AA:622:A:C8	1:AA:623:C:C6	3.08	0.42
27:DA:744:G:O2'	27:DA:745:G:H5'	2.19	0.42
11:CK:124:LYS:HB3	11:CK:125:PHE:CD1	2.53	0.42
2:AB:19:HIS:HE1	2:AB:191:ASP:CB	2.32	0.42
1:CA:771:G:C5	1:CA:772:U:C4	3.08	0.42
40:BR:9:LYS:O	40:BR:10:LEU:CG	2.67	0.42
37:DO:3:GLN:CB	37:DO:4:PRO:HD2	2.49	0.42
27:BA:2528:U:H5''	58:B9:31:LYS:NZ	2.35	0.42
57:B8:35:GLN:O	57:B8:35:GLN:CG	2.66	0.42
1:CA:174:C:H2'	1:CA:175:C:H6	1.84	0.42
1:AA:1125:U:C2'	1:AA:1126:U:OP2	2.68	0.42
9:CI:33:PHE:O	9:CI:35:GLU:N	2.49	0.42
27:DA:2779:U:H5'	27:DA:2781:A:O4'	2.20	0.42
27:BA:2830:G:H2'	27:BA:2883:A:C2	2.55	0.42
27:BA:341:G:C6	27:BA:342:G:C5	3.08	0.42
1:AA:604:G:C6	1:AA:635:G:C6	3.07	0.42
20:AT:93:GLU:C	20:AT:95:ALA:N	2.73	0.42
27:BA:2341:G:H2'	27:BA:2342:C:C6	2.55	0.42
17:CQ:48:GLU:O	17:CQ:50:LYS:N	2.53	0.42
27:DA:1936:A:C2	27:DA:1945:G:C6	3.08	0.42
35:BI:25:TYR:CE2	35:BI:29:TYR:CD2	3.07	0.42
27:BA:2607:G:H2'	27:BA:2608:G:O4'	2.19	0.42
27:BA:99:U:C6	27:BA:102:G:N2	2.87	0.42
1:CA:443:C:H2'	1:CA:444:C:H6	1.83	0.42
27:BA:768:G:C4	27:BA:769:G:C8	3.08	0.42
17:AQ:9:VAL:HG21	17:AQ:84:LEU:CD1	2.50	0.42
20:CT:38:LYS:O	20:CT:41:ILE:CG1	2.67	0.42
27:BA:720:C:H2'	27:BA:721:C:C6	2.55	0.42
27:DA:2638:G:P	31:DE:82:ARG:NH2	2.93	0.42
27:BA:2842:G:O2'	27:BA:2843:G:H5'	2.19	0.42
27:BA:289:A:N6	27:BA:351:G:H1'	2.34	0.42
27:DA:1849:G:N3	27:DA:1849:G:H2'	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:280:C:C2'	27:BA:281:G:H5'	2.49	0.42
18:AR:59:SER:HB3	18:AR:62:GLU:OE2	2.20	0.42
27:DA:1821:A:H2'	27:DA:1822:G:C8	2.54	0.42
27:BA:1322:A:O2'	27:BA:1323:U:H5'	2.19	0.42
1:AA:669:U:H2'	1:AA:670:G:C8	2.55	0.42
1:CA:814:A:H2'	1:CA:816:A:H5''	2.01	0.42
9:AI:90:PRO:HG2	9:AI:91:ASP:H	1.84	0.42
27:DA:464:U:H2'	27:DA:465:G:O4'	2.20	0.42
56:B7:32:LYS:HD3	56:B7:32:LYS:C	2.40	0.42
27:BA:143:G:H2'	27:BA:143(A):C:C6	2.55	0.42
27:DA:518:G:N3	27:DA:518:G:H2'	2.34	0.42
48:DZ:37:TYR:O	48:DZ:37:TYR:CD1	2.73	0.42
17:AQ:93:GLN:HE21	17:AQ:93:GLN:HB3	1.57	0.42
30:BD:40:THR:HG22	30:BD:40:THR:O	2.19	0.42
54:B5:33:CYS:O	54:B5:36:CYS:O	2.37	0.42
55:B6:44:ARG:O	55:B6:45:LYS:CG	2.67	0.42
27:BA:2414:G:H21	38:BP:67:MET:CE	2.32	0.42
38:BP:101:VAL:HA	38:BP:105:LEU:O	2.20	0.42
38:BP:85:LEU:CD2	38:BP:114:ILE:HD11	2.50	0.42
19:CS:78:ARG:HH11	19:CS:78:ARG:HG3	1.84	0.42
35:DI:61:ARG:O	35:DI:131:LYS:NZ	2.52	0.42
35:DI:69:LYS:HD3	35:DI:70:GLU:N	2.34	0.42
35:DI:78:THR:C	35:DI:79:ILE:HD13	2.40	0.42
35:BI:91:SER:CB	35:BI:121:LYS:HG3	2.49	0.42
35:BI:131:LYS:CG	35:BI:132:PRO:CD	2.96	0.42
45:BW:12:ILE:HG13	45:BW:42:ARG:NH1	2.35	0.42
53:B4:41:ILE:CD1	53:B4:47:VAL:HG13	2.48	0.42
33:BG:116:ASP:O	33:BG:117:PHE:CB	2.67	0.42
9:CI:13:ALA:CA	9:CI:67:GLY:O	2.55	0.42
10:CJ:51:ARG:HG3	10:CJ:60:ARG:HA	2.01	0.42
51:D2:5:GLU:HA	51:D2:8:LYS:HD2	2.02	0.42
4:AD:49:ARG:CA	4:AD:49:ARG:NH1	2.56	0.42
42:DT:65:LYS:CA	42:DT:65:LYS:NZ	2.75	0.42
42:DT:13:ARG:NH1	42:DT:15:VAL:CG1	2.81	0.42
28:DB:7:G:C2	28:DB:115:G:N1	2.88	0.42
41:DS:46:VAL:HG12	41:DS:47:THR:N	2.35	0.42
41:DS:16:ASN:HB3	41:DS:92:TYR:CE1	2.54	0.42
32:BF:37:VAL:HG22	32:BF:184:TYR:HD1	1.85	0.42
38:DP:32:THR:O	38:DP:33:ARG:HB3	2.20	0.42
28:DB:57:A:C2	33:DG:30:GLU:HA	2.54	0.42
1:CA:159:G:N2	1:CA:161:A:H3'	2.34	0.42
44:BV:5:VAL:HG12	44:BV:14:VAL:HG22	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:37:ASN:ND2	9:CI:40:LEU:HA	2.34	0.42
31:DE:55:ASN:HA	31:DE:55:ASN:HD22	1.64	0.42
31:BE:57:LYS:HZ1	31:BE:63:LEU:CD1	2.33	0.42
2:AB:217:ARG:HA	2:AB:217:ARG:HD3	1.88	0.42
2:AB:55:PHE:HA	2:AB:58:ILE:HB	2.02	0.42
27:DA:1167:U:H2'	27:DA:1168:G:C8	2.55	0.42
1:AA:91:C:H5	1:AA:92:C:O2	2.03	0.42
27:BA:328:U:H4'	47:BY:68:HIS:CD2	2.55	0.42
41:BS:16:ASN:ND2	41:BS:92:TYR:CE1	2.88	0.42
27:DA:803:U:O2'	27:DA:804:A:H5'	2.20	0.42
2:CB:157:ARG:O	2:CB:158:LEU:C	2.57	0.42
27:DA:2197:U:O4	27:DA:2225:A:N7	2.53	0.42
1:CA:1457:G:N2	1:CA:1458:G:N3	2.68	0.42
1:CA:1457:G:C6	1:CA:1458:G:C5	3.07	0.42
5:AE:35:GLY:HA3	5:AE:112:LEU:O	2.19	0.42
41:BS:58:LEU:O	41:BS:59:LYS:O	2.38	0.42
45:BW:111:HIS:CG	45:BW:112:GLY:N	2.87	0.42
34:BH:133:VAL:HG12	34:BH:141:VAL:HG12	2.01	0.42
34:BH:85:LYS:HE2	34:BH:141:VAL:O	2.20	0.42
3:AC:32:LEU:HB3	3:AC:59:ARG:NH1	2.35	0.42
6:CF:62:TRP:HB2	18:CR:35:ARG:HH12	1.84	0.42
27:DA:27:G:O2'	27:DA:28:A:C8	2.49	0.42
27:DA:242:G:H3'	57:D8:6:THR:CG2	2.50	0.42
5:AE:68:GLU:O	5:AE:70:PRO:CD	2.68	0.42
27:BA:191:A:H2'	27:BA:192:C:C6	2.55	0.42
8:AH:90:GLY:O	8:AH:91:ARG:HB2	2.18	0.42
45:DW:6:ILE:HG12	45:DW:104:THR:OG1	2.20	0.42
39:DQ:106:VAL:HB	39:DQ:107:ALA:H	1.71	0.42
42:BT:57:PHE:CG	42:BT:58:ASN:N	2.88	0.42
27:BA:1764:G:C6	27:BA:1989:G:C2	3.08	0.42
27:BA:924:C:O2'	27:BA:925:C:H5'	2.19	0.42
16:CP:58:TYR:O	16:CP:62:VAL:HG22	2.19	0.42
27:DA:2134:A:N6	27:DA:2157:G:O2'	2.53	0.42
27:DA:783:A:H4'	27:DA:1779:U:O2	2.19	0.42
19:AS:5:LEU:H	19:AS:6:LYS:NZ	2.12	0.42
45:DW:11:ARG:NH1	45:DW:98:LYS:HD2	2.34	0.42
11:CK:92:GLU:O	11:CK:95:ILE:HB	2.20	0.42
48:BZ:68:THR:HG22	48:BZ:89:VAL:CA	2.43	0.42
32:DF:178:PRO:HG2	32:DF:179:GLU:OE1	2.19	0.42
7:CG:69:VAL:HA	7:CG:138:LYS:HG3	2.02	0.42
10:AJ:9:ARG:HE	10:AJ:95:GLU:HG2	1.83	0.42
27:BA:176:G:HO2'	27:BA:177:G:H5'	1.85	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:149:LEU:O	2:AB:150:SER:C	2.58	0.42
7:AG:112:PRO:O	7:AG:113:GLU:C	2.58	0.42
48:BZ:40:LEU:CD1	48:BZ:81:ARG:HH11	2.26	0.42
27:DA:1480:G:N3	27:DA:1480:G:H2'	2.34	0.42
12:CL:4:ILE:HA	12:CL:4:ILE:HD13	1.84	0.42
8:CH:103:VAL:HG11	8:CH:109:ILE:C	2.40	0.42
27:DA:1292:U:O2'	27:DA:1293:C:H5'	2.19	0.42
1:AA:1001(A):G:O2'	1:AA:1002:G:H5'	2.19	0.42
13:AM:108:ARG:HG3	13:AM:108:ARG:NH1	2.34	0.42
4:AD:133:VAL:HG13	4:AD:135:LEU:HD22	2.00	0.42
1:AA:16:A:C2'	1:AA:17:U:H5'	2.50	0.42
1:CA:336:C:O2'	1:CA:337:C:H5'	2.19	0.42
33:BG:128:ARG:HG2	33:BG:130:ASN:H	1.82	0.42
28:BB:2:C:H2'	28:BB:3:C:C6	2.54	0.42
27:DA:1581:G:H3'	27:DA:1582:C:C6	2.54	0.42
1:CA:735:C:H2'	1:CA:736:C:C6	2.55	0.42
23:CW:73:C:C5	23:CW:74:C:C2	3.08	0.42
1:CA:1302:U:C6	13:CM:17:VAL:HG21	2.55	0.42
28:BB:35:U:HO2'	28:BB:36:C:H5'	1.85	0.42
32:DF:120:GLU:C	32:DF:122:LYS:H	2.23	0.42
2:CB:8:LYS:HB2	2:CB:9:GLU:H	1.56	0.42
30:BD:161:THR:O	30:BD:162:SER:CB	2.65	0.42
6:AF:81:ILE:O	6:AF:82:ARG:O	2.37	0.42
20:CT:74:LYS:H	20:CT:74:LYS:HD3	1.84	0.42
8:CH:87:SER:HA	8:CH:93:VAL:HG22	2.01	0.42
12:AL:112:LYS:O	12:AL:114:ARG:HG3	2.19	0.42
3:AC:57:ILE:HA	3:AC:65:ALA:HB3	2.01	0.42
1:AA:1248:A:C2'	1:AA:1249:C:H5'	2.48	0.42
27:DA:117:G:C6	27:DA:119:A:C6	3.08	0.42
1:CA:1309:G:C6	1:CA:1329:A:C2	3.08	0.42
49:D0:78:TYR:N	49:D0:78:TYR:CD1	2.87	0.42
7:AG:122:HIS:CD2	7:AG:122:HIS:N	2.84	0.42
8:CH:25:ASP:OD2	8:CH:60:ARG:NE	2.52	0.42
57:D8:17:THR:CG2	57:D8:21:LYS:HB2	2.50	0.42
27:BA:2291:U:O5'	27:BA:2291:U:H6	2.02	0.42
35:BI:25:TYR:HE2	35:BI:29:TYR:CD2	2.38	0.42
1:CA:801:U:O2'	1:CA:802:A:H5'	2.20	0.42
27:DA:1664:A:H8	27:DA:1664:A:O5'	2.02	0.42
1:CA:689:C:H2'	1:CA:690:G:O4'	2.19	0.42
8:CH:77:GLU:HG2	8:CH:78:GLN:N	2.34	0.42
19:CS:18:LYS:CE	19:CS:22:LEU:HD21	2.49	0.42
19:CS:22:LEU:N	19:CS:22:LEU:CD2	2.82	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:48:TYR:C	3:AC:51:GLY:H	2.23	0.42
27:DA:1742:G:N7	27:DA:1743:C:C4	2.87	0.42
45:BW:83:LYS:NZ	45:BW:97:LYS:HE2	2.34	0.42
8:AH:29:SER:HB3	8:AH:32:LYS:HG3	2.02	0.42
1:CA:1010:G:H2'	1:CA:1011:G:H8	1.85	0.42
45:DW:66:GLU:O	45:DW:68:ARG:N	2.52	0.42
19:AS:39:THR:HG23	19:AS:68:GLY:O	2.19	0.42
32:BF:148:LEU:HD13	32:BF:154:VAL:HG11	2.02	0.42
36:DN:89:LYS:HB3	36:DN:89:LYS:NZ	2.34	0.42
11:CK:83:ILE:HG12	11:CK:109:VAL:HG23	2.01	0.42
55:B6:11:LEU:HD22	55:B6:12:GLU:N	2.33	0.42
38:BP:145:PRO:O	38:BP:146:VAL:O	2.38	0.42
1:CA:977:A:C2'	1:CA:978:A:H5'	2.50	0.42
35:DI:89:TYR:O	35:DI:121:LYS:HE3	2.20	0.42
35:DI:72:LEU:O	35:DI:138:ILE:HD11	2.20	0.42
40:BR:33:ARG:HA	40:BR:114:VAL:O	2.20	0.42
27:BA:1385:G:H1'	27:BA:1386:C:C6	2.55	0.42
45:BW:18:ARG:O	45:BW:19:LEU:C	2.57	0.42
33:BG:75:LYS:HE3	33:BG:77:ILE:HG12	2.00	0.42
10:CJ:20:ALA:C	10:CJ:22:LYS:N	2.73	0.42
30:DD:27:THR:HG21	30:DD:81:ALA:HB1	2.01	0.42
30:DD:80:ALA:O	30:DD:81:ALA:HB2	2.20	0.42
42:DT:16:ARG:O	42:DT:17:THR:CB	2.68	0.42
27:DA:606:U:C4'	27:DA:658:C:H4'	2.49	0.42
38:DP:101:VAL:HG13	38:DP:106:LEU:HG	1.98	0.42
38:DP:83:VAL:HG22	38:DP:84:ASN:N	2.34	0.42
27:DA:613:G:H8	27:DA:613:G:H5'	1.85	0.42
27:BA:1686:C:H6	27:BA:1686:C:H5'	1.83	0.42
27:DA:2313:C:C4'	33:DG:40:ASN:ND2	2.82	0.42
33:DG:45:GLU:OE1	33:DG:45:GLU:HA	2.20	0.42
33:DG:54:GLU:HA	33:DG:57:ALA:HB3	2.00	0.42
33:DG:88:ILE:HG13	33:DG:89:GLY:N	2.34	0.42
27:BA:2277:G:OP2	49:B0:10:THR:HG21	2.20	0.42
9:CI:105:ASP:OD2	9:CI:107:ARG:CD	2.67	0.42
31:DE:104:VAL:HG23	31:DE:170:LEU:HD22	2.01	0.42
9:AI:118:LYS:NZ	9:AI:118:LYS:HB2	2.35	0.42
45:DW:18:ARG:NH1	45:DW:76:VAL:HG13	2.35	0.42
27:BA:1791:A:H3'	27:BA:1792:G:H8	1.85	0.42
1:AA:1131:G:C2	1:AA:1132:C:N4	2.88	0.42
2:AB:221:LEU:N	2:AB:221:LEU:HD22	2.35	0.42
50:B1:14:VAL:CG2	50:B1:41:ARG:HG2	2.47	0.42
27:DA:1995:U:H5	27:DA:1996:C:HO2'	1.65	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DF:2:LYS:NZ	32:DF:119:ARG:HD2	2.35	0.42
32:DF:20:LEU:CD2	32:DF:203:GLN:HE22	2.20	0.42
1:CA:265:G:H4'	17:CQ:66:SER:N	2.34	0.42
27:BA:1504:C:H2'	27:BA:1505:C:C5'	2.44	0.42
41:BS:17:ARG:C	41:BS:19:LYS:H	2.20	0.42
41:BS:90:GLY:O	41:BS:92:TYR:CD1	2.73	0.42
41:BS:93:LYS:O	41:BS:94:TYR:C	2.58	0.42
27:BA:977:G:O2'	27:BA:978:G:H5'	2.19	0.42
13:CM:60:VAL:HG12	13:CM:66:LEU:CD2	2.49	0.42
1:CA:1242:C:H2'	1:CA:1243:C:C6	2.55	0.42
12:CL:28:PRO:O	12:CL:29:PHE:CG	2.73	0.42
12:CL:65:ALA:HA	12:CL:95:TYR:O	2.20	0.42
12:CL:80:VAL:HG11	12:CL:97:ILE:CD1	2.49	0.42
15:AO:76:GLU:O	15:AO:78:TYR:N	2.53	0.42
13:CM:104:ARG:CG	13:CM:105:THR:N	2.70	0.42
48:BZ:125:VAL:O	48:BZ:163:ALA:HB2	2.20	0.42
8:AH:6:ILE:HB	8:AH:85:ARG:NH1	2.34	0.42
1:CA:15:G:H4'	5:CE:24:ARG:CZ	2.49	0.42
2:CB:16:HIS:O	2:CB:17:PHE:HB3	2.20	0.42
19:AS:63:THR:HG22	19:AS:66:MET:HE3	2.02	0.42
36:BN:56:ASN:C	36:BN:57:ALA:O	2.57	0.42
27:DA:1505:C:H2'	27:DA:1506:C:C6	2.55	0.42
35:BI:75:LEU:CG	35:BI:76:THR:N	2.83	0.42
16:CP:81:ARG:HG2	16:CP:83:GLU:OE2	2.20	0.42
37:BO:8:LEU:N	37:BO:8:LEU:HD22	2.35	0.42
17:CQ:4:LYS:HB3	17:CQ:61:GLU:OE2	2.20	0.42
38:BP:50:ARG:CG	38:BP:51:PHE:N	2.83	0.42
1:AA:363:A:O2'	1:AA:364:A:H5'	2.20	0.42
1:AA:517:G:H5'	1:AA:519:C:C2	2.55	0.42
28:BB:57:A:H5'	33:BG:27:ASN:HB2	2.02	0.42
31:BE:4:ILE:HG12	31:BE:28:ALA:HB1	2.01	0.42
25:CY:55:C:O4'	27:DA:2169:A:H1'	2.19	0.42
11:AK:92:GLU:O	11:AK:95:ILE:HB	2.20	0.42
32:DF:179:GLU:C	32:DF:181:LEU:H	2.23	0.42
27:BA:1722:A:N6	27:BA:1741:A:C2	2.87	0.42
1:CA:994:A:N7	1:CA:1216:G:H4'	2.35	0.42
1:CA:107:G:H2'	1:CA:108:G:C5'	2.50	0.42
5:CE:111:GLU:C	5:CE:113:ALA:N	2.73	0.42
5:CE:31:LEU:CD1	5:CE:43:LEU:HD11	2.49	0.42
27:BA:849:A:H2	52:B3:24:LYS:HB3	1.84	0.42
27:BA:2512:C:H2'	27:BA:2513:G:O4'	2.20	0.42
27:DA:2522:U:H2'	27:DA:2523:G:C5'	2.47	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2650:U:O2'	27:DA:2651:C:H5'	2.20	0.42
36:BN:67:LEU:HA	36:BN:87:LEU:CB	2.43	0.42
1:AA:501:C:H3'	1:AA:501:C:H6	1.85	0.42
39:BQ:130:LYS:NZ	48:BZ:79:ARG:CD	2.82	0.42
7:CG:155:ARG:NH1	7:CG:155:ARG:CG	2.81	0.42
27:DA:543:C:N3	27:DA:551:G:C2	2.87	0.42
40:BR:11:ASN:OD1	40:BR:11:ASN:C	2.58	0.42
27:DA:1416:G:O2'	27:DA:1417:C:P	2.78	0.42
54:B5:46:CYS:HA	54:B5:47:PRO:HD2	1.89	0.42
27:DA:364:C:C2'	27:DA:365:C:C5'	2.97	0.42
5:AE:15:ARG:O	5:AE:16:THR:O	2.38	0.42
31:DE:97:LYS:HE2	31:DE:97:LYS:HB3	1.85	0.42
32:DF:118:ALA:C	32:DF:120:GLU:H	2.21	0.42
19:AS:8:GLY:C	19:AS:9:VAL:HG23	2.40	0.42
27:DA:2769:C:H2'	27:DA:2770:G:O4'	2.20	0.42
27:DA:99:U:C6	27:DA:102:G:N2	2.88	0.42
1:AA:808:C:O2'	1:AA:809:G:H5'	2.20	0.42
1:AA:1216:G:O2'	1:AA:1217:C:H5'	2.20	0.42
17:CQ:7:THR:O	17:CQ:23:VAL:HG13	2.19	0.42
27:DA:406:G:C6	27:DA:407:G:C5	3.07	0.42
12:CL:31:ARG:O	12:CL:58:THR:HG23	2.20	0.42
27:BA:1335:U:O2'	27:BA:1336:A:H5'	2.20	0.42
47:BY:13:VAL:HB	47:BY:14:LEU:H	1.67	0.42
27:DA:1221:C:OP1	44:DV:68:LYS:HD2	2.20	0.42
1:AA:411:A:C6	1:AA:429:U:C4	3.08	0.42
27:DA:579:G:C2	27:DA:1262:A:C4	3.08	0.42
10:CJ:27:ALA:C	10:CJ:29:ARG:N	2.73	0.42
27:DA:2306:C:H5''	27:DA:2307:G:O4'	2.20	0.42
2:CB:221:LEU:HD22	2:CB:221:LEU:N	2.33	0.42
27:BA:1328:G:H2'	27:BA:1330:C:C4	2.55	0.42
1:AA:1334:G:H5'	1:AA:1335:C:OP2	2.20	0.42
29:DC:56:GLN:OE1	29:DC:56:GLN:O	2.38	0.42
29:BC:196:LEU:C	29:BC:198:ALA:H	2.21	0.42
27:DA:41:C:H2'	27:DA:42:G:C8	2.54	0.42
17:AQ:13:ASP:OD1	17:AQ:13:ASP:O	2.37	0.42
1:AA:418:C:H1'	1:AA:540:G:O2'	2.20	0.42
1:CA:947:G:H2'	1:CA:948:C:C6	2.55	0.42
27:BA:931:G:H8	27:BA:931:G:H3'	1.84	0.42
12:CL:87:VAL:HG22	12:CL:96:HIS:CE1	2.55	0.42
27:BA:337:C:H2'	27:BA:338:G:O5'	2.19	0.42
8:AH:73:ASP:N	8:AH:74:PRO:CD	2.82	0.42
4:CD:80:GLU:O	4:CD:84:LYS:HG2	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:158:ALA:O	30:BD:159:ALA:C	2.58	0.42
1:AA:577:G:H2'	1:AA:578:C:C6	2.55	0.42
27:DA:1488:G:C6	27:DA:1489:U:N3	2.88	0.42
1:CA:858:G:OP2	1:CA:858:G:H8	2.03	0.42
27:DA:123:G:O2'	27:DA:124:G:H5'	2.19	0.42
27:BA:749:C:C4	27:BA:1618:A:C2	3.07	0.42
57:B8:33:ASN:CA	57:B8:36:LYS:HD2	2.48	0.42
57:B8:33:ASN:HB2	57:B8:41:ILE:HD11	2.00	0.42
38:BP:84:ASN:HA	38:BP:115:LEU:HD23	2.02	0.42
33:BG:101:ILE:N	33:BG:101:ILE:HD13	2.34	0.42
48:DZ:95:VAL:CG1	48:DZ:96:GLU:N	2.77	0.42
20:AT:55:ILE:O	20:AT:58:LYS:N	2.53	0.42
51:D2:69:ARG:O	51:D2:70:GLN:HB3	2.20	0.42
27:DA:2420:C:N4	57:D8:30:ARG:O	2.48	0.42
27:DA:2419:U:H2'	27:DA:2420:C:C6	2.55	0.42
34:BH:61:HIS:O	34:BH:62:LYS:C	2.56	0.42
30:DD:19:ALA:HB3	30:DD:21:PHE:CE2	2.55	0.42
42:DT:16:ARG:HB3	42:DT:17:THR:H	1.67	0.42
42:DT:19:LEU:HD23	42:DT:85:LYS:HD3	2.01	0.42
30:DD:244:ARG:HG2	30:DD:245:PRO:CG	2.44	0.42
43:DU:57:PHE:O	43:DU:58:ARG:C	2.58	0.42
27:DA:940:G:H3'	27:DA:941:A:H5''	2.00	0.42
33:DG:117:PHE:CE1	33:DG:119:GLY:N	2.88	0.42
13:CM:11:ARG:NH2	33:DG:146:TYR:CD2	2.85	0.42
36:DN:18:ALA:O	36:DN:19:GLU:C	2.57	0.42
1:CA:1287:A:H2'	1:CA:1288:A:C8	2.55	0.42
9:CI:19:LEU:HA	9:CI:60:ASP:O	2.20	0.42
31:DE:200:GLU:HG2	31:DE:201:THR:H	1.79	0.42
31:DE:62:PRO:C	31:DE:64:LYS:N	2.73	0.42
1:CA:1056:U:O2'	1:CA:1057:G:H5'	2.20	0.42
30:BD:218:ARG:HB3	30:BD:219:PRO:HD2	2.02	0.42
27:DA:1499:C:C2'	27:DA:1500:G:H5'	2.49	0.42
27:DA:271(T):C:H2'	27:DA:271(U):G:H8	1.85	0.42
9:AI:51:ARG:C	9:AI:53:VAL:N	2.74	0.42
1:CA:1442(B):A:C4	42:DT:118:ARG:NH2	2.88	0.42
27:BA:1689:A:N7	27:BA:1698:A:N1	2.68	0.42
27:DA:1211:U:H3'	27:DA:1212:G:H5'	2.02	0.42
48:BZ:143:LEU:CB	48:BZ:149:LEU:HD12	2.49	0.42
19:CS:19:VAL:O	19:CS:23:ASN:CB	2.68	0.42
4:AD:108:LEU:HB3	4:AD:110:PHE:CE1	2.55	0.42
46:DX:47:PHE:HD1	46:DX:47:PHE:H	1.66	0.42
26:AZ:1:KBE:O	27:BA:1913:A:N3	2.53	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:138:VAL:CG1	48:DZ:139:ASP:H	2.13	0.42
52:D3:19:GLN:O	52:D3:23:LEU:HD13	2.19	0.42
26:CZ:1:KBE:N	26:CZ:1:KBE:O	2.52	0.42
1:CA:952:U:C5	13:CM:104:ARG:NH2	2.87	0.42
15:CO:32:LEU:O	15:CO:36:ILE:HG13	2.19	0.42
1:CA:1053:G:N7	1:CA:1199:U:H3'	2.35	0.42
27:BA:686:G:H21	27:BA:788:A:H61	1.67	0.42
34:DH:27:LYS:HG2	34:DH:32:GLU:CG	2.50	0.42
47:BY:86:ARG:HB3	47:BY:87:LYS:H	1.62	0.42
8:AH:86:ILE:HG13	8:AH:133:LEU:CD2	2.50	0.42
27:BA:284:U:O2'	27:BA:285:C:H5'	2.20	0.42
2:CB:145:LEU:HD22	2:CB:145:LEU:H	1.85	0.42
50:B1:86:SER:C	50:B1:88:LYS:N	2.73	0.42
48:DZ:114:GLY:HA2	48:DZ:173:VAL:HG12	2.02	0.42
15:AO:2:PRO:HB2	15:AO:3:ILE:H	1.64	0.42
19:AS:6:LYS:HD2	19:AS:6:LYS:N	2.21	0.42
31:BE:4:ILE:HG22	31:BE:198:VAL:O	2.20	0.42
30:DD:265:PRO:O	30:DD:267:SER:N	2.52	0.42
11:CK:93:GLN:NE2	11:CK:93:GLN:N	2.67	0.42
11:AK:82:VAL:HG12	11:AK:83:ILE:N	2.34	0.42
24:AX:24:U:H2'	24:AX:25:C:O4'	2.19	0.42
3:AC:113:ALA:O	3:AC:115:LEU:N	2.53	0.42
1:AA:1073:U:O2'	2:AB:104:ASN:ND2	2.53	0.42
17:CQ:83:ASP:CG	17:CQ:84:LEU:N	2.72	0.42
25:AY:54:U:C5	25:AY:56:G:H5''	2.54	0.42
27:DA:6:A:O2'	27:DA:7:G:H5'	2.20	0.42
2:AB:112:VAL:O	2:AB:116:GLU:HG2	2.20	0.42
47:DY:55:TYR:O	47:DY:56:PRO:O	2.38	0.42
27:DA:158:U:O3'	27:DA:171:G:N9	2.49	0.42
7:AG:59:LEU:HD23	7:AG:59:LEU:C	2.40	0.42
27:DA:1788:C:H2'	27:DA:1789:A:O4'	2.20	0.42
1:CA:1065:U:O2'	1:CA:1066:C:OP2	2.32	0.42
1:CA:1374:A:C4	1:CA:1375:A:C8	3.08	0.42
27:DA:1275:A:N1	27:DA:1295:C:O2'	2.50	0.42
3:CC:100:ALA:O	3:CC:101:LEU:HB2	2.19	0.42
39:BQ:36:ALA:HB2	39:BQ:103:MET:SD	2.60	0.42
27:DA:272(I):U:N3	27:DA:363(B):G:C6	2.88	0.42
27:DA:1508:A:N3	27:DA:1508:A:H2'	2.35	0.42
1:AA:1510:U:O2	1:AA:1526:G:C2	2.73	0.42
4:AD:96:LEU:N	4:AD:96:LEU:HD12	2.35	0.42
1:CA:375:U:OP1	16:CP:69:THR:HG21	2.20	0.42
27:BA:1636:C:H2'	27:BA:1637:A:H8	1.79	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1528(A):A:C3'	27:DA:1529:G:H5''	2.46	0.42
27:BA:1431:U:O5'	27:BA:1431:U:H6	2.03	0.42
1:CA:33:A:C6	1:CA:34:C:N4	2.88	0.42
1:CA:1168:A:C6	1:CA:1169:A:C6	3.08	0.42
27:BA:2647:U:O2'	27:BA:2648:C:H5'	2.19	0.42
27:BA:1131:G:OP2	27:BA:2515:C:H4'	2.20	0.42
29:DC:36:LYS:O	29:DC:37:PHE:C	2.58	0.42
27:DA:1028:A:OP2	27:DA:1126:A:N6	2.51	0.42
27:BA:690:G:H2'	27:BA:691:C:H6	1.83	0.42
39:BQ:38:GLU:HA	39:BQ:99:PRO:HG3	2.02	0.42
27:DA:467:G:OP2	56:D7:34:ARG:NH1	2.50	0.42
10:CJ:11:PHE:O	10:CJ:12:ASP:C	2.58	0.42
1:AA:1469:G:H2'	1:AA:1470:G:H8	1.85	0.42
32:BF:168:ARG:C	32:BF:170:LEU:H	2.23	0.42
1:CA:1086:U:O2'	1:CA:1087:G:H5'	2.20	0.42
13:CM:118:ALA:HB2	59:CX:28:C:H4'	2.02	0.42
1:AA:607:A:C4	1:AA:608:A:C8	3.08	0.42
15:AO:65:ARG:HH11	15:AO:65:ARG:CG	2.33	0.42
18:CR:76:LEU:HD12	18:CR:76:LEU:HA	1.79	0.42
17:AQ:99:SER:O	17:AQ:100:LYS:HG3	2.20	0.42
45:DW:62:HIS:O	45:DW:64:MET:HG3	2.20	0.42
20:CT:37:SER:O	20:CT:38:LYS:C	2.58	0.42
24:AX:40:C:H2'	24:AX:41:C:C6	2.55	0.42
29:BC:42:GLU:H	29:BC:213:TYR:HA	1.85	0.42
27:BA:1380:G:C2	27:BA:1381:G:C8	3.07	0.42
27:BA:1423:G:C2	27:BA:1576:U:O2	2.72	0.42
1:CA:560:U:H4'	1:CA:561:U:H5''	2.01	0.42
37:BO:10:VAL:HA	37:BO:84:ALA:O	2.19	0.42
49:B0:60:PHE:HD1	49:B0:61:ALA:O	2.02	0.42
59:CX:12:G:H1'	27:DA:1923:U:O2'	2.20	0.42
32:BF:155:LEU:HD13	32:BF:174:VAL:HB	2.01	0.42
43:BU:18:LEU:HD23	43:BU:18:LEU:HA	1.82	0.42
27:BA:687:C:H2'	27:BA:687:C:O2	2.18	0.42
1:AA:258:G:H2'	1:AA:259:G:H8	1.85	0.42
32:BF:50:SER:HB2	32:BF:94:PRO:HD3	2.01	0.42
55:B6:14:THR:C	55:B6:16:CYS:H	2.23	0.42
27:BA:632:A:H2	27:BA:2403:C:O4'	2.03	0.42
4:AD:104:VAL:C	4:AD:106:TYR:N	2.73	0.42
42:BT:117:ASP:CG	42:BT:120:ARG:HG3	2.40	0.42
42:BT:88:ILE:HG22	42:BT:89:VAL:HG23	2.00	0.42
42:BT:61:PHE:CZ	42:BT:76:PHE:HD1	2.37	0.42
44:DV:21:ARG:O	44:DV:22:VAL:CG1	2.67	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1042:G:O6	27:DA:1112:G:O6	2.36	0.42
48:DZ:127:VAL:HG21	48:DZ:131:ASN:O	2.19	0.42
48:DZ:13:LYS:C	48:DZ:15:SER:N	2.70	0.42
48:DZ:9:ARG:CB	48:DZ:9:ARG:NH1	2.83	0.42
27:DA:631:A:OP2	57:D8:46:ARG:NH2	2.43	0.42
10:CJ:74:ILE:O	10:CJ:74:ILE:HG13	2.20	0.42
53:D4:66:HIS:CB	53:D4:67:PRO:CD	2.85	0.42
27:DA:2512:C:H1'	31:DE:140:SER:O	2.19	0.42
38:BP:21:ARG:HD3	38:BP:29:LYS:HG2	2.02	0.42
27:BA:1499:C:H2'	27:BA:1500:G:H5'	2.02	0.42
30:BD:113:VAL:HG23	30:BD:113:VAL:H	1.57	0.42
39:DQ:34:LEU:HD12	39:DQ:130:LYS:O	2.20	0.42
13:CM:3:ARG:NH2	33:DG:113:ARG:HG3	2.35	0.42
1:CA:159:G:N2	1:CA:162:A:OP2	2.53	0.42
1:CA:1288:A:C6	1:CA:1289:A:C6	3.07	0.42
7:CG:37:ASN:HD21	9:CI:40:LEU:HA	1.84	0.42
31:DE:199:ARG:NH2	31:DE:202:LYS:HE2	2.33	0.42
27:BA:139:G:C3'	27:BA:139(A):G:H5''	2.50	0.42
1:AA:1139:G:C1'	1:AA:1141:C:H41	2.30	0.42
27:DA:327:G:H2'	27:DA:328:U:H6	1.84	0.42
36:BN:5:VAL:HG13	36:BN:5:VAL:O	2.20	0.42
30:BD:26:LYS:CD	30:BD:81:ALA:HA	2.46	0.42
19:CS:44:MET:HE2	19:CS:44:MET:HA	1.98	0.42
47:BY:19:LYS:HD3	47:BY:20:TYR:CE1	2.54	0.42
27:BA:327:G:N2	47:BY:70:SER:OG	2.53	0.42
27:BA:2287:A:C2	27:BA:2346:A:H2	2.32	0.42
1:CA:189(K):U:H2'	1:CA:189(L):G:C8	2.54	0.42
43:BU:85:LYS:HD3	43:BU:116:ALA:HB1	2.02	0.42
44:BV:49:THR:HG22	44:BV:50:PRO:HG2	2.02	0.42
27:DA:2756:U:OP2	58:D9:19:ARG:HB3	2.20	0.42
27:BA:2821:A:OP2	40:BR:2:ARG:CZ	2.68	0.42
5:AE:101:ILE:HD11	5:AE:118:ILE:O	2.19	0.42
8:CH:85:ARG:C	8:CH:85:ARG:HD3	2.40	0.42
23:CW:45:U:H4'	23:CW:46:U:C6	2.55	0.42
4:AD:3:ARG:O	4:AD:4:TYR:C	2.58	0.42
39:BQ:65:PHE:O	39:BQ:104:PHE:CB	2.67	0.42
49:D0:24:LYS:HB2	49:D0:37:LEU:O	2.20	0.42
27:DA:2364:C:O2'	27:DA:2365:G:H5'	2.20	0.42
3:CC:65:ALA:O	3:CC:67:THR:N	2.53	0.42
3:CC:182:ILE:HA	3:CC:202:ILE:O	2.19	0.42
27:DA:2018:G:N2	43:DU:34:LYS:HZ1	2.18	0.42
27:DA:583:G:H5''	43:DU:10:ARG:NH1	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1004:A:C3'	1:CA:1005:A:H5'	2.50	0.42
27:BA:2846:G:H2'	27:BA:2847:U:O4'	2.19	0.42
27:BA:742:G:H4'	27:BA:1676:A:H5'	2.02	0.42
41:BS:35:ILE:H	41:BS:53:SER:HB3	1.84	0.42
27:DA:56:A:C2	27:DA:57:C:C2	3.08	0.42
12:AL:50:ARG:HH12	12:AL:89:ASP:HB3	1.84	0.42
45:DW:84:ARG:O	45:DW:96:ILE:N	2.44	0.42
1:AA:674:G:H2'	1:AA:675:A:C8	2.53	0.42
1:AA:675:A:H1'	11:AK:116:HIS:CD2	2.55	0.42
42:DT:23:ARG:H	42:DT:120:ARG:NH1	2.17	0.42
7:CG:68:ASN:O	7:CG:138:LYS:HE3	2.20	0.42
54:B5:16:ARG:HH12	54:B5:17:ASP:CG	2.19	0.42
1:AA:163:C:O2'	1:AA:164:U:H5'	2.20	0.42
20:AT:18:GLN:O	20:AT:21:LYS:N	2.53	0.42
20:CT:10:LEU:HD22	20:CT:12:ALA:CB	2.49	0.42
27:DA:1971:A:N3	30:DD:241:PRO:HD3	2.34	0.42
27:BA:1166:C:O2	27:BA:1184:G:C2	2.72	0.42
36:BN:87:LEU:O	36:BN:91:LEU:CD1	2.68	0.42
7:AG:18:TYR:HB3	7:AG:59:LEU:HD12	2.02	0.42
3:CC:34:LEU:HD23	3:CC:34:LEU:C	2.41	0.42
27:DA:313:C:H2'	27:DA:314:A:H8	1.85	0.42
43:DU:115:ALA:C	43:DU:117:GLN:N	2.73	0.42
11:CK:34:ASP:HB2	11:CK:35:PRO:HD3	2.00	0.42
1:AA:130:A:N7	17:AQ:63:ARG:HG3	2.34	0.42
1:CA:134:A:H61	16:CP:25:ARG:CZ	2.32	0.42
12:CL:7:LEU:HD13	17:CQ:32:TYR:CE2	2.55	0.42
1:AA:16:A:C4'	5:AE:17:ALA:HB3	2.50	0.42
12:CL:72:HIS:HA	12:CL:99:ARG:HH12	1.85	0.42
37:BO:7:TYR:CE1	37:BO:20:MET:HB2	2.55	0.42
45:DW:92:ARG:O	45:DW:93:ALA:HB3	2.20	0.42
1:CA:355:C:C4	1:CA:356:A:N7	2.87	0.42
44:BV:21:ARG:HA	44:BV:93:GLU:HA	2.02	0.42
27:DA:389:G:H22	38:DP:72:PRO:HD3	1.84	0.42
7:CG:105:VAL:HG12	7:CG:109:ASN:HD21	1.84	0.42
1:CA:382:A:O2'	1:CA:383:A:H5'	2.19	0.42
1:AA:1175:G:H2'	1:AA:1176:A:C8	2.55	0.42
27:DA:364:C:O2'	27:DA:365:C:H5''	2.20	0.42
27:BA:1007:C:OP1	36:BN:37:LYS:NZ	2.52	0.42
27:BA:1139:G:N3	27:BA:1143:A:H2	2.18	0.42
39:DQ:42:ILE:HD13	39:DQ:97:VAL:CG2	2.49	0.42
27:DA:1424:G:H2'	27:DA:1425:G:O4'	2.20	0.42
30:BD:172:TYR:CE1	30:BD:186:HIS:HA	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1578:U:H2'	27:DA:1579:A:H5'	2.02	0.42
6:AF:18:GLN:O	6:AF:21:LEU:N	2.53	0.42
27:DA:1772:G:N2	27:DA:1774:C:C5'	2.82	0.42
45:BW:50:VAL:HG13	45:BW:51:LEU:N	2.34	0.42
34:DH:35:VAL:HG21	34:DH:75:ALA:HB2	2.00	0.42
27:DA:1620:G:O2'	27:DA:1621:U:H5'	2.20	0.42
27:DA:2620:C:OP1	31:DE:152:LYS:O	2.37	0.42
1:AA:1126:U:OP2	1:AA:1281:U:O2	2.38	0.42
1:CA:841:U:H3'	1:CA:848:C:C5'	2.50	0.42
27:DA:2036:C:H6	27:DA:2036:C:C5'	2.31	0.42
8:CH:48:TYR:HB2	8:CH:60:ARG:O	2.20	0.42
34:BH:94:TYR:CD2	34:BH:107:VAL:HG12	2.55	0.42
40:BR:103:ARG:HA	40:BR:111:LEU:HD23	2.02	0.42
57:B8:59:LYS:NZ	57:B8:59:LYS:HB3	2.34	0.42
5:CE:112:LEU:N	5:CE:112:LEU:HD23	2.34	0.42
8:CH:119:LEU:HB3	8:CH:123:GLU:HB2	2.01	0.42
1:AA:568:G:N3	1:AA:568:G:H2'	2.35	0.42
3:AC:182:ILE:HG23	3:AC:203:PHE:HA	2.02	0.42
34:DH:94:TYR:O	34:DH:95:ARG:HB3	2.20	0.42
27:DA:2639:A:H1'	27:DA:2778:A:C2	2.55	0.42
29:BC:127:LEU:C	29:BC:129:ARG:H	2.23	0.42
33:DG:7:LEU:HD23	33:DG:176:LEU:HD22	2.02	0.42
1:CA:901:A:C5	1:CA:902:G:H1'	2.55	0.42
48:DZ:16:ALA:HA	48:DZ:19:ARG:HB2	2.02	0.42
27:DA:1427:A:H4'	27:DA:1428:C:O4'	2.20	0.42
27:DA:2460:U:O2'	27:DA:2461:C:H5'	2.19	0.42
1:AA:867:G:O2'	1:AA:868:C:H5'	2.20	0.42
27:BA:1862:G:O2'	27:BA:1863:G:H5'	2.20	0.42
30:BD:6:PHE:CD1	30:BD:6:PHE:N	2.88	0.42
27:BA:2639:A:H2'	27:BA:2640:G:H5'	2.01	0.42
27:BA:631:A:H2'	27:BA:632:A:O4'	2.20	0.41
4:AD:13:ARG:O	4:AD:14:ARG:CB	2.64	0.41
1:CA:1223:C:H3'	1:CA:1224:G:C5'	2.50	0.41
35:DI:83:ALA:HB2	35:DI:88:ILE:HA	2.03	0.41
1:AA:1442(A):G:C8	42:BT:118:ARG:HG3	2.55	0.41
44:DV:19:LYS:HZ1	44:DV:20:LEU:HB2	1.85	0.41
28:BB:34:U:O4	28:BB:44:G:H2'	2.20	0.41
14:CN:42:ILE:O	14:CN:45:ARG:HB3	2.20	0.41
27:DA:1040:C:H6	27:DA:1040:C:O5'	2.03	0.41
48:DZ:27:MET:HB2	48:DZ:89:VAL:HG23	2.02	0.41
1:AA:1446:U:H6	1:AA:1446:U:H5'	1.85	0.41
38:DP:59:LEU:HA	38:DP:61:ARG:CD	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:32:ALA:HB2	10:CJ:76:ASN:HB2	2.02	0.41
10:CJ:23:ILE:HG23	10:CJ:85:LEU:CD2	2.50	0.41
27:BA:2494:G:H2'	27:BA:2495:G:C8	2.51	0.41
27:DA:1899:G:N2	27:DA:1902:C:C4	2.87	0.41
41:DS:46:VAL:CG1	41:DS:47:THR:N	2.83	0.41
32:BF:101:LEU:CD1	32:BF:102:PRO:HD2	2.18	0.41
32:BF:32:LEU:HD23	32:BF:33:LEU:N	2.35	0.41
27:DA:995:C:N4	36:DN:1:MET:SD	2.93	0.41
33:DG:70:VAL:O	33:DG:71:THR:C	2.58	0.41
27:DA:1023:U:H2'	27:DA:1024:G:C5'	2.50	0.41
36:DN:17:ASP:O	36:DN:17:ASP:OD1	2.38	0.41
36:DN:55:VAL:HG22	36:DN:126:PRO:C	2.41	0.41
17:AQ:44:ALA:HA	17:AQ:71:PHE:O	2.20	0.41
1:CA:162:A:O5'	1:CA:162:A:H8	2.02	0.41
9:CI:26:VAL:HG13	9:CI:61:ALA:O	2.20	0.41
27:BA:1661:G:C6	27:BA:1662:C:C4	3.08	0.41
37:DO:22:ILE:HG12	37:DO:41:ALA:HA	2.02	0.41
42:BT:3:ARG:HG3	42:BT:6:LEU:HB2	2.02	0.41
31:BE:68:ALA:C	31:BE:70:ALA:N	2.73	0.41
47:DY:19:LYS:C	47:DY:20:TYR:CD1	2.93	0.41
47:DY:28:LYS:CB	47:DY:37:VAL:HB	2.50	0.41
47:DY:38:ILE:O	47:DY:39:VAL:HG23	2.20	0.41
5:CE:101:ILE:H	5:CE:101:ILE:CD1	2.33	0.41
48:BZ:150:HIS:CG	48:BZ:151:ALA:N	2.85	0.41
1:AA:1202:G:N2	14:AN:46:GLU:OE2	2.51	0.41
41:BS:14:VAL:CG1	41:BS:15:ARG:N	2.76	0.41
1:CA:514:C:O2'	1:CA:515:G:H5'	2.20	0.41
43:BU:90:VAL:CG2	44:BV:47:VAL:HG21	2.50	0.41
37:DO:2:ILE:HD11	37:DO:82:ASN:HD21	1.85	0.41
13:CM:4:ILE:HD12	13:CM:22:ILE:HD11	2.02	0.41
13:CM:47:ASP:C	13:CM:48:LEU:HD22	2.40	0.41
13:CM:65:LYS:HD2	13:CM:69:GLU:CG	2.35	0.41
20:CT:26:ASN:H	20:CT:26:ASN:ND2	2.18	0.41
8:CH:86:ILE:O	8:CH:88:LYS:N	2.53	0.41
27:DA:2525:G:C2	27:DA:2539:C:N3	2.88	0.41
1:CA:93:G:N2	1:CA:96:U:O2	2.53	0.41
13:CM:90:LEU:C	13:CM:92:HIS:N	2.73	0.41
27:DA:357:A:H2'	27:DA:358:U:H6	1.84	0.41
27:DA:875:G:C6	27:DA:876:C:C2	3.08	0.41
4:CD:150:GLU:OE1	4:CD:150:GLU:N	2.53	0.41
27:DA:1328:G:H8	27:DA:1328:G:O5'	2.03	0.41
36:DN:26:LEU:HD11	36:DN:30:ILE:HD11	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:148:GLY:HA3	3:CC:203:PHE:HB3	2.02	0.41
5:AE:53:LEU:O	5:AE:56:GLN:HB2	2.20	0.41
27:DA:195:A:H5''	27:DA:196:A:OP2	2.20	0.41
38:DP:46:LYS:HG2	38:DP:52:GLU:CG	2.50	0.41
45:DW:51:LEU:HA	45:DW:105:VAL:HG11	2.01	0.41
50:D1:8:SER:OG	50:D1:10:LYS:HG3	2.20	0.41
6:AF:63:TYR:O	6:AF:64:GLN:C	2.58	0.41
42:DT:108:ARG:HB2	42:DT:111:ARG:NH2	2.35	0.41
45:DW:84:ARG:HB2	45:DW:96:ILE:HG23	2.01	0.41
1:AA:667:G:H4'	15:AO:51:HIS:ND1	2.35	0.41
27:DA:528:A:H2'	27:DA:529:A:H5'	2.02	0.41
15:CO:3:ILE:CG2	15:CO:34:LEU:HD21	2.47	0.41
1:AA:1161:C:H2'	1:AA:1162:C:C6	2.55	0.41
27:DA:2331:G:O3'	49:D0:43:THR:HG22	2.20	0.41
48:BZ:157:PRO:HG2	48:BZ:160:VAL:CG2	2.43	0.41
1:AA:1104:G:OP1	2:AB:111:ARG:HD2	2.19	0.41
40:BR:38:VAL:HB	40:BR:39:PRO:CD	2.48	0.41
1:CA:552:U:O2'	1:CA:553:A:H5'	2.19	0.41
27:DA:2061:G:N7	27:DA:2501:C:C4'	2.83	0.41
1:AA:1228:C:OP2	13:AM:108:ARG:NH2	2.53	0.41
7:AG:144:MET:C	7:AG:146:GLU:H	2.17	0.41
1:AA:556:C:OP2	12:AL:17:LYS:NZ	2.51	0.41
1:CA:1261:A:H2'	1:CA:1262:C:H5'	2.02	0.41
12:CL:76:GLU:O	12:CL:77:HIS:CB	2.67	0.41
20:CT:67:ALA:HB2	20:CT:77:ALA:HB2	2.01	0.41
27:BA:2038:G:C6	27:BA:2039:C:C4	3.08	0.41
36:DN:42:TRP:CD1	43:DU:63:VAL:HG11	2.55	0.41
27:BA:648:G:C4'	27:BA:2351:G:H5''	2.50	0.41
1:CA:841:U:H3'	1:CA:848:C:H5'	2.01	0.41
6:CF:52:ILE:HG23	6:CF:87:ARG:NH1	2.35	0.41
34:BH:58:GLU:O	34:BH:59:ARG:C	2.58	0.41
34:DH:86:GLU:N	34:DH:86:GLU:CD	2.73	0.41
27:BA:1334:G:C6	27:BA:1335:U:C4	3.08	0.41
8:CH:60:ARG:HG3	8:CH:60:ARG:NH1	2.35	0.41
27:DA:2615:U:C2	54:D5:7:PRO:HA	2.55	0.41
1:CA:894:G:C6	1:CA:895:G:C5	3.08	0.41
8:CH:6:ILE:H	8:CH:6:ILE:CD1	2.33	0.41
49:D0:56:ASP:OD2	49:D0:58:THR:OG1	2.37	0.41
27:DA:1301:A:C8	27:DA:1303:G:C8	3.08	0.41
1:AA:123:C:OP1	1:AA:312:C:H5'	2.19	0.41
27:DA:2078:C:H2'	27:DA:2079:U:O4'	2.20	0.41
7:CG:92:SER:CB	7:CG:94:ARG:HE	2.32	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:29:SER:HB3	8:AH:32:LYS:HB2	2.02	0.41
1:CA:811:C:O2'	1:CA:901:A:N1	2.52	0.41
52:B3:18:ASP:HB2	52:B3:49:LYS:HZ1	1.85	0.41
27:BA:1904:G:H2'	27:BA:1905:C:O4'	2.20	0.41
27:DA:1841:U:H2'	27:DA:1842:G:C8	2.55	0.41
45:BW:46:PHE:O	45:BW:49:LYS:HB2	2.19	0.41
2:AB:59:GLU:O	2:AB:62:ALA:N	2.53	0.41
12:AL:55:VAL:O	12:AL:62:GLU:HA	2.19	0.41
29:DC:159:GLY:C	29:DC:161:ILE:H	2.22	0.41
1:AA:1044:A:H2'	1:AA:1045:C:O5'	2.20	0.41
6:CF:16:GLN:N	6:CF:16:GLN:CD	2.72	0.41
4:AD:73:ARG:NH1	4:AD:73:ARG:HG2	2.35	0.41
27:BA:157:U:O4'	27:BA:157:U:P	2.78	0.41
41:BS:12:PHE:CD1	41:BS:12:PHE:O	2.73	0.41
6:CF:88:VAL:HG12	6:CF:88:VAL:O	2.20	0.41
17:AQ:29:HIS:O	17:AQ:31:LEU:N	2.52	0.41
27:BA:610:G:H2'	27:BA:611:C:C6	2.55	0.41
38:BP:106:LEU:O	38:BP:107:LYS:O	2.38	0.41
4:AD:14:ARG:HA	4:AD:39:PRO:CG	2.49	0.41
1:AA:542:G:C5'	4:AD:41:GLY:HA3	2.47	0.41
35:DI:72:LEU:CD1	35:DI:72:LEU:O	2.65	0.41
42:BT:93:ARG:HD3	42:BT:93:ARG:O	2.20	0.41
41:BS:97:ARG:C	41:BS:97:ARG:HE	2.23	0.41
54:B5:54:GLY:H	54:B5:56:LYS:HZ1	1.63	0.41
33:BG:113:ARG:NH1	53:B4:61:VAL:CG1	2.83	0.41
1:CA:1251:A:H2'	1:CA:1252:A:O4'	2.20	0.41
3:CC:11:ARG:NH2	3:CC:177:THR:O	2.53	0.41
27:DA:2392:A:H1'	38:DP:60:MET:HB3	2.02	0.41
27:DA:2418:A:C6	27:DA:2419:U:C4	3.08	0.41
10:CJ:3:LYS:NZ	10:CJ:77:PRO:HD3	2.36	0.41
27:BA:1245:G:OP1	38:BP:16:ARG:NE	2.53	0.41
41:DS:87:PHE:O	41:DS:88:ASP:CB	2.56	0.41
27:DA:995:C:N3	36:DN:1:MET:HG3	2.35	0.41
33:DG:62:LEU:C	33:DG:64:THR:H	2.23	0.41
27:DA:1018:C:O2'	27:DA:1019:U:H5'	2.20	0.41
39:DQ:118:LEU:HD12	39:DQ:131:ILE:HG22	2.00	0.41
30:BD:134:ARG:HG3	30:BD:135:PHE:CE2	2.55	0.41
27:BA:1660:C:H2'	27:BA:1661:G:H8	1.84	0.41
31:DE:61:ARG:HG3	31:DE:61:ARG:HH11	1.85	0.41
31:DE:65:GLY:O	31:DE:67:PHE:N	2.53	0.41
1:AA:942:G:C2	1:AA:1342:C:C2	3.08	0.41
10:AJ:63:PHE:HZ	14:AN:45:ARG:HA	1.84	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:14:GLY:HA3	2:AB:16:HIS:HE1	1.85	0.41
2:AB:15:VAL:N	2:AB:16:HIS:CE1	2.87	0.41
35:BI:2:LYS:HB2	35:BI:18:VAL:CG1	2.51	0.41
48:BZ:164:VAL:CG1	48:BZ:165:SER:H	2.11	0.41
17:CQ:20:THR:HA	17:CQ:43:LEU:CD2	2.48	0.41
41:BS:88:ASP:O	41:BS:92:TYR:CD2	2.73	0.41
2:AB:102:LEU:HA	2:AB:105:PHE:HB2	2.03	0.41
1:CA:323:U:H5'	20:CT:23:ARG:CB	2.49	0.41
27:DA:95:G:O2'	51:D2:48:HIS:ND1	2.49	0.41
27:DA:848:G:N3	27:DA:933:A:H1'	2.35	0.41
1:CA:1280:A:O4'	10:CJ:41:PRO:HG3	2.20	0.41
1:CA:1225:A:H5'	13:CM:103:THR:HG23	2.01	0.41
2:AB:30:ARG:C	2:AB:31:TYR:HD2	2.23	0.41
27:BA:874:G:H2'	27:BA:875:G:H8	1.85	0.41
27:BA:904:C:C2'	27:BA:905:U:H5'	2.49	0.41
39:BQ:55:VAL:HG13	39:BQ:64:ILE:HD12	2.01	0.41
27:DA:2835:A:H5'	27:DA:2836:U:OP1	2.19	0.41
36:DN:104:LYS:O	36:DN:106:MET:N	2.50	0.41
1:AA:1507:A:C2	1:AA:1508:G:C4	3.08	0.41
27:BA:792:G:H2'	27:BA:2440:C:O2	2.20	0.41
35:BI:14:ASP:O	35:BI:15:VAL:C	2.59	0.41
27:BA:191:A:H2'	27:BA:192:C:H6	1.83	0.41
27:BA:675:A:C6	27:BA:676:A:C6	3.08	0.41
40:BR:53:HIS:HD2	40:BR:94:TYR:OH	2.01	0.41
27:BA:1784:A:C4'	27:BA:1785:A:H5''	2.47	0.41
27:DA:906:G:H5'	39:DQ:26:TYR:OH	2.21	0.41
16:CP:39:TYR:CD1	16:CP:49:LEU:HD13	2.55	0.41
41:DS:83:LYS:O	41:DS:105:ALA:N	2.53	0.41
20:AT:89:ARG:HD2	20:AT:104:LEU:CD1	2.39	0.41
27:BA:557:U:O2'	27:BA:558:G:H5'	2.20	0.41
27:DA:2484:G:O3'	39:DQ:46:GLN:HG2	2.19	0.41
1:AA:676:A:C6	1:AA:677:U:C4	3.07	0.41
25:CY:57:A:O2'	25:CY:59:U:C5	2.72	0.41
25:CY:67:C:H2'	25:CY:68:C:C5'	2.50	0.41
52:B3:8:LEU:HD13	52:B3:31:LEU:CD2	2.41	0.41
11:CK:17:GLY:C	11:CK:80:VAL:HG12	2.41	0.41
11:CK:21:ILE:HD12	11:CK:21:ILE:N	2.36	0.41
16:AP:18:ARG:HD3	16:AP:35:LYS:HD2	2.01	0.41
5:CE:107:ARG:C	5:CE:109:ILE:N	2.72	0.41
5:AE:60:TYR:CE1	5:AE:64:ARG:CZ	3.04	0.41
15:CO:12:ILE:O	15:CO:14:GLU:N	2.53	0.41
50:B1:46:LEU:CA	50:B1:63:ALA:HA	2.48	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1165:C:H2'	1:AA:1166:G:H8	1.84	0.41
2:AB:139:LYS:O	2:AB:142:LEU:HB3	2.20	0.41
46:DX:35:THR:CB	46:DX:38:GLU:HB2	2.44	0.41
14:AN:15:LYS:O	14:AN:16:PHE:C	2.58	0.41
1:CA:1349:A:H2'	1:CA:1350:A:H8	1.84	0.41
27:BA:8:A:H2'	27:BA:9:U:H6	1.76	0.41
27:DA:1844:C:C2'	27:DA:1845:G:H5'	2.49	0.41
44:BV:82:ARG:HD2	44:BV:82:ARG:N	2.34	0.41
27:DA:363(D):G:H2'	27:DA:363(D):G:N3	2.35	0.41
33:BG:8:LYS:O	33:BG:11:TYR:HB3	2.20	0.41
1:AA:15:G:H2'	1:AA:16:A:H8	1.85	0.41
1:CA:376:G:C5'	16:CP:5:ARG:HD2	2.45	0.41
48:DZ:108:ALA:HB3	48:DZ:143:LEU:O	2.20	0.41
35:DI:41:GLU:O	35:DI:45:LYS:HG2	2.20	0.41
1:CA:1041:A:H2'	1:CA:1042:G:C8	2.54	0.41
25:CY:25:A:H2'	25:CY:26:C:C6	2.55	0.41
27:DA:233:A:O5'	27:DA:233:A:H8	2.03	0.41
13:AM:84:ILE:CG2	13:AM:84:ILE:O	2.66	0.41
46:BX:41:ASN:ND2	46:BX:41:ASN:H	2.18	0.41
6:AF:17:SER:O	6:AF:21:LEU:HD23	2.19	0.41
48:BZ:134:GLU:O	48:BZ:135:PHE:HB3	2.20	0.41
48:BZ:136:ILE:O	48:BZ:137:GLU:O	2.38	0.41
27:BA:1758:G:H2'	27:BA:2696:U:O4'	2.20	0.41
1:CA:411:A:C6	1:CA:429:U:C5	3.09	0.41
27:BA:1705:G:O2'	27:BA:1706:U:H5'	2.20	0.41
44:DV:82:ARG:O	44:DV:83:ARG:HD3	2.19	0.41
27:DA:852:G:H2'	27:DA:853:G:H8	1.85	0.41
27:DA:221:A:C5	27:DA:266:G:N7	2.88	0.41
34:DH:153:LYS:NZ	34:DH:156:ALA:HB2	2.35	0.41
34:DH:162:ILE:HG22	34:DH:163:TYR:N	2.34	0.41
1:AA:958:A:N6	1:AA:959:A:N6	2.68	0.41
28:BB:68:C:O2'	28:BB:69:G:H5'	2.19	0.41
27:BA:2452:C:O2'	27:BA:2453:A:H5'	2.20	0.41
46:BX:39:ILE:O	46:BX:43:VAL:HG23	2.19	0.41
27:DA:1317:A:H2'	27:DA:1318:C:C6	2.53	0.41
27:BA:969:U:H2'	27:BA:970:C:C6	2.55	0.41
1:CA:109:A:H5'	1:CA:110:C:H5	1.85	0.41
27:DA:231:C:H2'	27:DA:232:G:O4'	2.20	0.41
27:DA:591:C:O2	57:D8:2:PRO:HA	2.20	0.41
1:AA:902:G:O2'	1:AA:903:G:H5'	2.20	0.41
4:CD:106:TYR:HE1	4:CD:113:SER:HA	1.83	0.41
27:BA:2083:G:H2'	27:BA:2084:C:C6	2.55	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:579:G:N2	27:DA:1262:A:C4	2.88	0.41
45:DW:57:ASN:N	45:DW:57:ASN:ND2	2.68	0.41
12:AL:54:LYS:HG2	12:AL:64:THR:HG23	2.02	0.41
51:D2:29:LYS:O	51:D2:32:LEU:N	2.53	0.41
27:DA:1027:A:C2	27:DA:2488:A:H5'	2.55	0.41
27:DA:773:U:H4'	30:DD:47:GLY:CA	2.50	0.41
12:CL:85:GLY:O	12:CL:96:HIS:ND1	2.53	0.41
13:CM:35:GLU:HG3	13:CM:36:LYS:N	2.35	0.41
6:CF:13:ASN:ND2	6:CF:55:ASP:OD2	2.50	0.41
27:DA:2547:U:H2'	27:DA:2548:G:C8	2.55	0.41
1:AA:665:A:N3	1:AA:732:C:H2'	2.36	0.41
27:DA:2599:G:N7	30:DD:236:GLY:HA2	2.35	0.41
45:BW:24:ILE:O	45:BW:27:LYS:HG3	2.20	0.41
27:BA:300:A:H2'	27:BA:334:C:H1'	2.02	0.41
27:DA:679:C:H2'	27:DA:680:G:C8	2.55	0.41
57:B8:44:LYS:N	57:B8:44:LYS:HD2	2.29	0.41
27:BA:2400:G:N2	27:BA:2417:C:C2	2.88	0.41
38:BP:95:VAL:HG13	38:BP:123:LEU:HD13	2.02	0.41
4:AD:194:LEU:N	4:AD:194:LEU:HD22	2.35	0.41
35:DI:130:TYR:O	35:DI:131:LYS:CB	2.68	0.41
35:DI:61:ARG:C	35:DI:63:ALA:N	2.73	0.41
42:BT:24:PRO:HA	42:BT:49:VAL:O	2.20	0.41
47:BY:74:PRO:O	47:BY:75:ILE:CB	2.52	0.41
37:BO:76:ALA:O	42:BT:74:ARG:HD3	2.20	0.41
42:BT:52:ILE:HG12	42:BT:61:PHE:HB2	2.01	0.41
40:BR:116:LEU:HD12	40:BR:116:LEU:N	2.35	0.41
35:BI:89:TYR:C	35:BI:91:SER:N	2.73	0.41
33:BG:98:ARG:C	33:BG:101:ILE:CD1	2.89	0.41
1:CA:1190:G:P	3:CC:5:ILE:HG23	2.60	0.41
48:DZ:4:LEU:HD21	48:DZ:42:GLU:HB3	2.01	0.41
48:DZ:4:LEU:HD12	48:DZ:5:LYS:H	1.85	0.41
48:DZ:84:HIS:ND1	48:DZ:85:VAL:N	2.68	0.41
55:D6:13:CYS:HB3	55:D6:49:HIS:HB3	2.02	0.41
10:CJ:85:LEU:C	10:CJ:87:THR:H	2.22	0.41
27:DA:606:U:H4'	27:DA:658:C:H4'	2.01	0.41
27:DA:1815:A:OP2	30:DD:54:ARG:NH2	2.53	0.41
41:DS:46:VAL:HG12	41:DS:47:THR:O	2.20	0.41
27:BA:809:G:O2'	27:BA:810:U:H5'	2.19	0.41
27:DA:2303:G:H1'	33:DG:132:ASN:ND2	2.30	0.41
30:BD:92:ILE:CG1	30:BD:104:TYR:HD2	2.32	0.41
27:DA:1024:G:C6	27:DA:1025:G:C6	3.08	0.41
13:AM:15:VAL:HG23	13:AM:16:ASP:N	2.35	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:18:ARG:O	11:CK:32:ILE:HA	2.21	0.41
1:CA:1353:G:O2'	1:CA:1354:C:H5'	2.20	0.41
1:CA:1372:U:C4	1:CA:1373:G:C5	3.09	0.41
9:CI:106:ALA:O	9:CI:107:ARG:C	2.58	0.41
9:CI:20:ARG:NH1	9:CI:20:ARG:HG3	2.32	0.41
9:CI:5:TYR:HA	9:CI:17:VAL:O	2.20	0.41
9:CI:4:TYR:CE2	9:CI:88:TYR:CB	3.03	0.41
39:DQ:78:PRO:O	39:DQ:79:LEU:O	2.37	0.41
31:DE:78:LEU:C	31:DE:79:ARG:HD2	2.40	0.41
31:DE:3:GLY:HA3	31:DE:81:ILE:HG21	2.02	0.41
9:AI:112:LYS:HA	9:AI:119:ALA:CB	2.31	0.41
9:AI:96:LEU:HD12	9:AI:101:PHE:HB2	2.02	0.41
27:DA:1168:G:N1	27:DA:1182:A:C2	2.88	0.41
48:BZ:120:HIS:HB2	48:BZ:169:THR:O	2.20	0.41
47:BY:68:HIS:ND1	47:BY:70:SER:HB3	2.36	0.41
41:BS:88:ASP:CG	41:BS:89:ARG:N	2.72	0.41
27:BA:2370:G:H2'	27:BA:2371:G:O4'	2.19	0.41
1:CA:1239:A:C2	1:CA:1296:C:N3	2.88	0.41
48:DZ:55:VAL:HA	48:DZ:69:LEU:CD2	2.50	0.41
8:CH:86:ILE:O	8:CH:88:LYS:HG3	2.20	0.41
15:AO:76:GLU:C	15:AO:78:TYR:H	2.22	0.41
34:BH:85:LYS:HD2	34:BH:141:VAL:CB	2.50	0.41
34:BH:85:LYS:HD3	34:BH:133:VAL:CG1	2.50	0.41
34:BH:85:LYS:HE2	34:BH:145:ALA:CB	2.49	0.41
1:CA:1401:G:O2'	1:CA:1402:C:H5'	2.20	0.41
48:BZ:80:ARG:CB	48:BZ:80:ARG:HH11	2.33	0.41
27:DA:2807:G:H22	27:DA:2892:A:N6	2.19	0.41
2:CB:144:ARG:HG3	2:CB:145:LEU:N	2.34	0.41
14:CN:54:PRO:O	14:CN:56:VAL:HG23	2.19	0.41
27:DA:1505:C:O2	27:DA:1505:C:O4'	2.38	0.41
45:DW:52:GLU:C	45:DW:54:ALA:N	2.74	0.41
37:BO:1:MET:HA	37:BO:33:ALA:O	2.20	0.41
17:CQ:60:ILE:HG12	17:CQ:61:GLU:N	2.35	0.41
15:AO:4:THR:OG1	15:AO:7:GLU:HG2	2.20	0.41
1:CA:1432:G:OP1	42:DT:107:ASP:HB2	2.19	0.41
41:BS:35:ILE:O	41:BS:53:SER:CB	2.68	0.41
1:AA:191:G:N3	20:AT:105:SER:HB3	2.34	0.41
30:DD:215:LEU:O	30:DD:216:GLY:C	2.58	0.41
27:DA:1784:A:H4'	27:DA:1785:A:C5'	2.50	0.41
1:AA:1399:C:H4'	1:AA:1400:C:O5'	2.20	0.41
25:CY:28:G:H1	25:CY:40:C:H42	1.68	0.41
1:CA:1219:U:OP1	14:CN:19:ARG:NH2	2.49	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:22:ARG:CB	20:AT:22:ARG:HH11	2.26	0.41
1:AA:1166:G:H21	1:AA:1169:A:H3'	1.84	0.41
1:AA:1166:G:N2	1:AA:1169:A:O5'	2.53	0.41
2:AB:118:LEU:HB2	2:AB:142:LEU:HD13	2.02	0.41
27:DA:390:A:H4'	27:DA:391:G:H5'	2.02	0.41
46:DX:35:THR:HG22	46:DX:38:GLU:H	1.85	0.41
1:AA:939:G:H5''	7:AG:102:ARG:CZ	2.49	0.41
2:CB:39:ILE:CG2	2:CB:40:HIS:N	2.82	0.41
39:BQ:68:ILE:HD13	39:BQ:103:MET:CG	2.48	0.41
1:CA:1490:C:HO2'	1:CA:1491:G:H5'	1.84	0.41
27:DA:2776:A:H3'	27:DA:2776:A:OP1	2.20	0.41
40:BR:13:HIS:CE1	40:BR:15:SER:OG	2.73	0.41
30:DD:65:ILE:H	30:DD:65:ILE:CD1	2.32	0.41
27:BA:2232:U:OP2	50:B1:40:ARG:NH2	2.53	0.41
31:BE:147:PRO:HB2	31:BE:149:ARG:HG2	2.01	0.41
50:D1:7:ILE:HD13	50:D1:62:VAL:CG2	2.50	0.41
27:BA:2124:G:H5''	29:BC:177:LYS:CB	2.51	0.41
6:CF:44:GLY:O	6:CF:45:LEU:O	2.38	0.41
1:AA:295:C:H2'	1:AA:296:U:H6	1.83	0.41
25:AY:68:C:C2'	25:AY:69:C:C5'	2.98	0.41
1:CA:1160:G:O6	1:CA:1181:G:C6	2.73	0.41
27:DA:380:U:H2'	27:DA:381:G:C8	2.55	0.41
1:CA:932:C:C2'	1:CA:932:C:O2	2.67	0.41
47:BY:32:PRO:C	47:BY:34:LYS:N	2.73	0.41
1:CA:927:G:H4'	1:CA:927:G:OP2	2.20	0.41
18:CR:30:ASP:OD1	18:CR:32:ARG:HB3	2.20	0.41
39:BQ:48:GLU:HG3	39:BQ:52:VAL:HG23	2.01	0.41
16:CP:19:ILE:HG22	16:CP:36:ILE:HG13	2.02	0.41
51:D2:41:ILE:HD11	51:D2:44:LEU:HD12	2.01	0.41
27:DA:692:C:C2	27:DA:771:G:C2	3.09	0.41
1:AA:864:A:C2	1:AA:865:A:C2	3.08	0.41
1:CA:148:G:N2	1:CA:175:C:C2	2.88	0.41
20:AT:79:ARG:NH1	20:AT:79:ARG:HB2	2.35	0.41
9:AI:32:ASP:O	9:AI:35:GLU:N	2.53	0.41
27:BA:321:G:N3	27:BA:341:G:H4'	2.35	0.41
7:CG:36:LYS:O	7:CG:39:ALA:N	2.54	0.41
18:AR:40:LEU:CB	18:AR:79:LEU:HD11	2.50	0.41
43:DU:20:LEU:CD1	43:DU:20:LEU:O	2.68	0.41
5:AE:124:GLY:O	5:AE:125:SER:O	2.38	0.41
1:CA:716:A:C6	1:CA:717:C:C4	3.09	0.41
54:D5:56:LYS:N	54:D5:56:LYS:CD	2.84	0.41
27:DA:289:A:H5'	27:DA:290:G:OP2	2.19	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:83:G:N2	27:BA:103:A:OP2	2.50	0.41
20:AT:67:ALA:O	20:AT:68:LYS:C	2.58	0.41
1:CA:183:G:H2'	1:CA:184:G:H8	1.85	0.41
27:BA:55:G:H2'	27:BA:56:A:H8	1.84	0.41
25:CY:30:A:H2'	25:CY:31:U:H5'	2.02	0.41
1:AA:895:G:H2'	1:AA:896:C:C6	2.55	0.41
27:DA:2361:A:C2'	27:DA:2362:G:H5'	2.50	0.41
1:AA:771:G:H2'	1:AA:772:U:C6	2.55	0.41
42:BT:105:LEU:HD13	42:BT:109:GLU:OE2	2.21	0.41
2:CB:64:ARG:O	2:CB:64:ARG:HG3	2.19	0.41
15:AO:71:GLN:HE21	15:AO:71:GLN:HB3	1.56	0.41
27:DA:18:C:O5'	27:DA:18:C:H6	2.03	0.41
27:DA:201:C:C2'	27:DA:202:U:H5'	2.50	0.41
48:BZ:32:LEU:HD12	48:BZ:33:ASN:H	1.84	0.41
27:DA:2707:G:O2'	27:DA:2708:G:H5'	2.21	0.41
57:B8:17:THR:HG22	57:B8:21:LYS:O	2.20	0.41
38:BP:79:ARG:NH2	38:BP:109:GLY:CA	2.80	0.41
4:AD:190:ASP:O	4:AD:191:ARG:C	2.58	0.41
35:DI:79:ILE:HG12	35:DI:140:LEU:HD21	2.02	0.41
28:BB:32:C:H42	28:BB:50:G:H1	1.69	0.41
47:BY:28:LYS:O	47:BY:38:ILE:HB	2.20	0.41
45:BW:13:SER:O	45:BW:17:VAL:HG13	2.20	0.41
55:D6:22:ALA:O	55:D6:23:THR:CB	2.68	0.41
55:D6:40:CYS:HA	55:D6:46:HIS:H	1.85	0.41
38:BP:16:ARG:CD	38:BP:18:ARG:H	2.25	0.41
38:DP:101:VAL:HG12	38:DP:107:LYS:CA	2.49	0.41
27:DA:777:A:H2'	27:DA:778:G:H8	1.84	0.41
33:DG:125:PHE:HB3	33:DG:131:TYR:HB2	2.02	0.41
30:BD:79:VAL:HA	30:BD:95:LEU:HB3	2.01	0.41
53:D4:62:CYS:C	53:D4:64:LYS:H	2.24	0.41
1:AA:452:A:C4	1:AA:453:A:C8	3.09	0.41
42:DT:30:VAL:HG11	42:DT:84:GLN:HE21	1.85	0.41
31:DE:104:VAL:CG1	31:DE:188:VAL:HG23	2.47	0.41
31:DE:68:ALA:O	31:DE:69:LYS:C	2.59	0.41
31:DE:69:LYS:O	31:DE:71:GLY:N	2.53	0.41
1:AA:1343:G:H2'	1:AA:1344:C:H6	1.83	0.41
10:AJ:78:ASN:HD21	10:AJ:80:LYS:CB	2.09	0.41
42:BT:3:ARG:C	42:BT:5:ALA:H	2.23	0.41
27:BA:2811:G:O4'	31:BE:61:ARG:NH2	2.51	0.41
31:BE:69:LYS:O	31:BE:71:GLY:N	2.53	0.41
31:BE:34:VAL:HG21	31:BE:78:LEU:HD13	2.01	0.41
32:DF:183:VAL:O	32:DF:187:VAL:HG23	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DY:8:LYS:HE2	47:DY:72:VAL:O	2.21	0.41
42:DT:50:ILE:CD1	42:DT:100:TYR:HA	2.31	0.41
1:CA:254:G:H21	17:CQ:16:GLN:NE2	2.18	0.41
41:BS:20:ARG:C	41:BS:21:THR:HG1	2.23	0.41
43:BU:104:GLN:C	43:BU:107:ALA:H	2.22	0.41
12:CL:57:LEU:HD11	12:CL:82:ILE:HG13	2.02	0.41
52:D3:10:LYS:CG	52:D3:53:LEU:HD23	2.51	0.41
27:BA:2791:C:O5'	27:BA:2792:G:OP1	2.38	0.41
22:CV:8:A:C6	23:CW:35:G:C6	3.09	0.41
3:AC:11:ARG:HB3	3:AC:15:THR:HB	2.01	0.41
2:AB:47:THR:CG2	2:AB:202:PRO:HG2	2.49	0.41
27:DA:272(E):G:C2	27:DA:272(F):C:C2	3.08	0.41
1:AA:405:U:H5''	1:AA:495:A:H2	1.86	0.41
39:BQ:59:ARG:O	39:BQ:60:ARG:CB	2.68	0.41
3:AC:62:ASP:O	3:AC:98:ASN:HB2	2.19	0.41
34:DH:57:ASP:O	34:DH:62:LYS:HE3	2.20	0.41
47:BY:87:LYS:CG	47:BY:88:LYS:N	2.82	0.41
47:BY:90:LEU:HD12	47:BY:91:GLU:CG	2.46	0.41
8:AH:134:ILE:O	8:AH:135:CYS:HB3	2.20	0.41
2:CB:193:ASP:O	2:CB:194:PRO:C	2.58	0.41
27:DA:1847:A:C2'	27:DA:1847:A:N3	2.83	0.41
2:AB:157:ARG:O	2:AB:158:LEU:C	2.57	0.41
32:BF:63:LYS:HE3	32:BF:67:GLN:CB	2.51	0.41
13:CM:49:THR:H	13:CM:52:GLU:CD	2.24	0.41
1:AA:585:G:O2'	1:AA:879:C:H5''	2.20	0.41
27:DA:2011:U:OP1	45:DW:42:ARG:NH1	2.53	0.41
27:DA:2659:G:N2	27:DA:2662:A:OP2	2.53	0.41
34:BH:127:GLU:O	34:BH:129:THR:N	2.53	0.41
27:DA:1266:G:OP2	54:D5:19:ARG:NH1	2.52	0.41
8:CH:1:MET:HE3	8:CH:3:THR:N	2.36	0.41
27:BA:2134:A:N6	27:BA:2157:G:C1'	2.78	0.41
34:DH:72:ILE:O	34:DH:76:VAL:HG23	2.20	0.41
1:CA:686:U:C2	1:CA:687:A:N7	2.89	0.41
31:BE:47:VAL:CG2	31:BE:86:PRO:HD2	2.44	0.41
50:B1:3:LYS:HB3	50:B1:61:ARG:NH1	2.36	0.41
11:AK:73:MET:HE2	11:AK:103:LEU:HD23	2.02	0.41
27:DA:1971:A:C5'	27:DA:1971:A:H8	2.34	0.41
2:AB:92:TYR:OH	2:AB:150:SER:HB3	2.21	0.41
43:DU:66:ASN:CB	43:DU:76:TYR:HB2	2.46	0.41
35:DI:12:LEU:HD23	35:DI:12:LEU:O	2.20	0.41
1:CA:195:A:OP1	20:CT:68:LYS:NZ	2.54	0.41
31:DE:176:ILE:HD12	31:DE:176:ILE:H	1.80	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:15:G:H2'	1:AA:16:A:C8	2.55	0.41
27:BA:2126:A:C5'	29:BC:36:LYS:HE2	2.49	0.41
37:DO:14:THR:CG2	37:DO:14:THR:O	2.64	0.41
1:CA:570:G:H1'	1:CA:820:U:C5	2.55	0.41
12:CL:114:ARG:CZ	12:CL:114:ARG:CB	2.97	0.41
7:AG:30:ILE:CD1	7:AG:105:VAL:HG22	2.51	0.41
27:DA:2444:G:OP2	32:DF:68:LYS:HE2	2.19	0.41
27:BA:2784:C:H6	27:BA:2784:C:O5'	2.03	0.41
31:DE:132:HIS:HA	31:DE:135:HIS:CE1	2.56	0.41
27:BA:1260:G:H2'	27:BA:1261:C:C6	2.55	0.41
34:BH:98:LEU:HD13	34:BH:125:VAL:HG21	2.03	0.41
27:BA:271(J):C:H5'	27:BA:271(K):U:OP2	2.20	0.41
58:B9:24:TYR:CE2	58:B9:35:ARG:HG3	2.54	0.41
41:BS:41:ASP:OD2	41:BS:44:LYS:CB	2.68	0.41
36:DN:35:ARG:O	36:DN:37:LYS:N	2.48	0.41
1:AA:1258:G:O2'	1:AA:1259:C:C5'	2.68	0.41
27:BA:898:C:O2'	27:BA:899:A:H5'	2.20	0.41
29:BC:20:TYR:CG	29:BC:21:THR:N	2.86	0.41
27:DA:412:A:H2'	27:DA:413:C:H5'	2.03	0.41
1:CA:992:U:H4'	1:CA:993:G:O5'	2.20	0.41
27:DA:178:G:O2'	27:DA:179:G:H5'	2.21	0.41
27:BA:1335:U:H2'	27:BA:1336:A:H8	1.85	0.41
8:CH:48:TYR:CD1	8:CH:49:GLU:N	2.88	0.41
3:CC:42:LEU:HA	3:CC:45:LYS:HZ3	1.85	0.41
5:CE:71:LEU:HD11	5:CE:114:GLY:HA3	2.02	0.41
7:CG:60:LYS:C	7:CG:62:PHE:N	2.74	0.41
1:CA:782:A:H2'	1:CA:783:C:O4'	2.20	0.41
44:DV:34:GLU:O	44:DV:36:PRO:CD	2.69	0.41
23:AW:3:G:H2'	23:AW:4:G:O4'	2.21	0.41
31:DE:173:VAL:HG12	31:DE:174:ASP:H	1.85	0.41
4:CD:43:HIS:O	4:CD:44:GLY:C	2.59	0.41
36:BN:48:MET:CE	36:BN:48:MET:H	2.33	0.41
27:DA:912:C:C2'	27:DA:913:U:H5'	2.50	0.41
34:DH:58:GLU:O	34:DH:61:HIS:N	2.41	0.41
39:DQ:1:MET:O	39:DQ:2:LEU:CB	2.68	0.41
39:BQ:118:LEU:HD23	39:BQ:118:LEU:HA	1.82	0.41
1:AA:577:G:H2'	1:AA:578:C:H6	1.85	0.41
35:BI:34:GLY:O	35:BI:35:LEU:HD23	2.20	0.41
1:AA:1197:G:O2'	1:AA:1198:G:H5'	2.21	0.41
27:DA:24:G:H1'	45:DW:77:ASP:HB3	2.01	0.41
27:DA:260:G:C6	27:DA:261:G:C5	3.08	0.41
27:DA:22:C:H2'	27:DA:23:G:O4'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:163:GLU:O	4:CD:166:LYS:HG3	2.20	0.41
27:BA:1213:A:H1'	27:BA:1238:G:N3	2.36	0.41
27:BA:1909:C:H5''	27:BA:1909:C:C6	2.55	0.41
43:BU:78:THR:O	43:BU:79:PHE:C	2.58	0.41
55:B6:11:LEU:HD13	55:B6:24:GLU:C	2.41	0.41
55:B6:15:GLU:CD	55:B6:18:ARG:CD	2.86	0.41
27:BA:2415:G:C2	27:BA:2416:C:C2	3.08	0.41
4:AD:14:ARG:CG	4:AD:15:GLU:N	2.80	0.41
33:BG:60:LEU:O	33:BG:60:LEU:HD13	2.21	0.41
48:DZ:125:VAL:HB	48:DZ:161:GLU:O	2.20	0.41
48:DZ:149:LEU:CB	48:DZ:170:ILE:HG13	2.50	0.41
46:DX:27:THR:HB	46:DX:80:ILE:CB	2.47	0.41
55:D6:49:HIS:O	55:D6:50:ARG:HG2	2.21	0.41
10:CJ:78:ASN:HD22	10:CJ:80:LYS:H	1.60	0.41
27:DA:599:G:C6	27:DA:600:G:N7	2.89	0.41
27:DA:658:C:H2'	27:DA:659:C:H6	1.83	0.41
13:CM:34:LEU:HD13	13:CM:41:PRO:HG3	2.02	0.41
27:DA:1858:G:O2'	27:DA:1884:A:N6	2.54	0.41
23:AW:14:A:O2'	23:AW:15:G:H5'	2.20	0.41
30:BD:143:HIS:O	30:BD:144:ALA:C	2.58	0.41
39:DQ:131:ILE:O	39:DQ:132:VAL:CG1	2.56	0.41
37:DO:40:VAL:HA	37:DO:58:VAL:O	2.20	0.41
2:CB:111:ARG:HA	2:CB:111:ARG:NE	2.35	0.41
1:AA:1102:A:H2'	1:AA:1103:C:H6	1.86	0.41
27:DA:1245:G:H5''	32:DF:34:TRP:HZ2	1.85	0.41
27:DA:2722:G:O3'	40:DR:5:LYS:HG2	2.20	0.41
27:DA:1169:G:H2'	27:DA:1170:G:O4'	2.20	0.41
1:AA:720:C:H5''	18:AR:52:PRO:HA	2.02	0.41
7:CG:15:ASP:HB3	7:CG:20:ASP:H	1.86	0.41
44:BV:38:LEU:HD12	44:BV:56:SER:HA	2.02	0.41
4:AD:127:THR:HG22	4:AD:149:ALA:HB2	2.03	0.41
4:AD:170:VAL:O	4:AD:171:GLY:O	2.39	0.41
46:DX:47:PHE:O	46:DX:48:LYS:C	2.59	0.41
39:DQ:109:VAL:CG1	39:DQ:113:GLN:HB2	2.50	0.41
48:DZ:103:PHE:HD1	48:DZ:138:VAL:HB	1.86	0.41
27:BA:1858:G:H2'	27:BA:1883:G:H22	1.84	0.41
3:AC:76:VAL:HG23	3:AC:77:ILE:N	2.35	0.41
1:AA:474:G:H2'	1:AA:475:G:C8	2.54	0.41
27:BA:2892:A:H2'	27:BA:2893:G:H4'	2.03	0.41
48:DZ:55:VAL:N	48:DZ:69:LEU:HD21	2.36	0.41
41:BS:70:GLY:C	41:BS:72:ALA:N	2.73	0.41
24:AX:49:G:N2	24:AX:66:C:C2	2.88	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:96:U:C2	1:CA:97:G:N7	2.88	0.41
37:DO:112:MET:O	37:DO:115:VAL:N	2.53	0.41
13:CM:114:ARG:O	13:CM:115:LYS:HD3	2.20	0.41
2:AB:194:PRO:O	2:AB:197:VAL:N	2.49	0.41
1:AA:880:C:OP2	12:AL:3:THR:HG21	2.20	0.41
27:BA:464:U:C2	27:BA:788:A:C6	3.09	0.41
5:CE:19:MET:SD	5:CE:24:ARG:HB3	2.60	0.41
34:DH:125:VAL:O	34:DH:125:VAL:HG12	2.20	0.41
32:BF:118:ALA:HB2	32:BF:123:LEU:CD2	2.50	0.41
36:BN:15:LEU:HB2	36:BN:134:ARG:HB2	2.03	0.41
36:BN:21:LYS:HZ1	36:BN:29:LYS:HE2	1.85	0.41
3:CC:85:ARG:C	3:CC:87:LEU:N	2.74	0.41
27:DA:1502:C:H5'	27:DA:1503:U:OP2	2.20	0.41
13:CM:50:GLU:N	13:CM:50:GLU:OE1	2.53	0.41
1:AA:1463:C:O2'	1:AA:1464:G:H5'	2.21	0.41
42:BT:108:ARG:HA	42:BT:111:ARG:HH12	1.83	0.41
27:BA:1785:A:O2'	27:BA:1786:A:H2'	2.20	0.41
50:D1:3:LYS:CG	50:D1:4:VAL:N	2.80	0.41
46:DX:65:ARG:HG2	46:DX:66:LEU:N	2.34	0.41
27:BA:925:C:C2'	27:BA:926:A:C5'	2.91	0.41
34:BH:91:GLY:HA3	34:BH:160:LYS:CB	2.49	0.41
25:CY:18:G:C1'	25:CY:56:G:H22	2.34	0.41
7:CG:135:VAL:O	7:CG:137:LYS:N	2.53	0.41
27:DA:529:A:C6	27:DA:2042:A:N3	2.88	0.41
1:AA:169:C:C5	1:AA:170:U:C5	3.09	0.41
20:AT:26:ASN:ND2	20:AT:26:ASN:N	2.68	0.41
27:DA:333:G:N3	27:DA:333:G:H2'	2.35	0.41
16:AP:18:ARG:HG3	16:AP:35:LYS:HE3	2.02	0.41
27:DA:2522:U:C2'	27:DA:2523:G:H5''	2.50	0.41
35:DI:116:LEU:HD12	35:DI:117:GLU:H	1.84	0.41
27:DA:2395:C:O2'	50:D1:30:VAL:O	2.38	0.41
30:DD:28:GLU:N	30:DD:29:PRO:CD	2.82	0.41
11:CK:64:ALA:C	11:CK:66:LEU:N	2.74	0.41
7:CG:149:ARG:O	7:CG:152:ALA:HB2	2.19	0.41
7:CG:78:ARG:HB3	7:CG:87:VAL:HG23	2.03	0.41
11:AK:27:ASN:HD21	11:AK:55:LYS:HE3	1.80	0.41
27:DA:363(A):A:H2'	27:DA:363(B):G:O4'	2.20	0.41
8:CH:100:ILE:HG13	8:CH:100:ILE:H	1.52	0.41
56:B7:24:THR:HG23	56:B7:27:GLY:N	2.36	0.41
7:CG:118:VAL:O	7:CG:121:ALA:HB3	2.20	0.41
1:CA:706:A:C5	1:CA:707:C:H5	2.37	0.41
1:CA:711:G:O2'	1:CA:712:A:H5'	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:65:TRP:CZ3	32:BF:72:ARG:HB2	2.56	0.41
27:BA:2208:A:H1'	27:BA:2219:G:C2	2.55	0.41
31:DE:97:LYS:O	31:DE:100:GLU:CG	2.68	0.41
42:DT:133:GLU:HG3	42:DT:133:GLU:O	2.20	0.41
46:BX:64:LYS:HZ2	46:BX:73:ARG:HE	1.69	0.41
12:AL:74:LEU:HD21	12:AL:104:ALA:HA	2.01	0.41
2:CB:9:GLU:O	2:CB:12:GLU:HG3	2.21	0.41
59:CX:74:C:O5'	59:CX:74:C:H6	2.04	0.41
32:DF:114:VAL:HG11	32:DF:202:PHE:HE2	1.83	0.41
24:AX:47:U:H2'	24:AX:50:U:OP1	2.19	0.41
27:BA:2525:G:C2	27:BA:2539:C:C2	3.09	0.41
27:DA:412:A:N7	27:DA:2412:A:H1'	2.35	0.41
25:CY:37:U:H2'	25:CY:38:U:H5''	2.02	0.41
27:DA:1747(A):G:C2'	27:DA:1748:G:C5'	2.99	0.41
27:BA:2116:G:O2'	27:BA:2117:A:P	2.79	0.41
48:DZ:110:VAL:O	48:DZ:111:ARG:HB2	2.20	0.41
43:DU:41:ALA:O	43:DU:42:ALA:C	2.59	0.41
1:AA:905:U:C2'	1:AA:906:G:H5'	2.50	0.41
27:BA:2852:G:C2	27:BA:2853:C:C2	3.08	0.41
1:CA:716:A:C5	1:CA:717:C:C5	3.08	0.41
27:BA:257:A:C2'	27:BA:258:G:H5'	2.51	0.41
37:DO:24:VAL:HG11	37:DO:33:ALA:HB2	2.02	0.41
27:BA:1682:G:H2'	27:BA:1683:C:C6	2.56	0.41
9:AI:2:GLU:O	9:AI:2:GLU:CG	2.68	0.41
27:BA:799:G:C6	27:BA:800:A:C6	3.07	0.41
1:CA:667:G:H2'	1:CA:668:G:H8	1.86	0.41
39:BQ:95:ALA:O	39:BQ:97:VAL:HG23	2.21	0.41
8:AH:5:PRO:HB3	8:AH:32:LYS:NZ	2.35	0.41
29:DC:23:ASP:O	29:DC:25:ALA:N	2.54	0.41
27:DA:201:C:H2'	27:DA:202:U:H5'	2.03	0.41
27:BA:2545:G:N3	27:BA:2565:A:H2	2.17	0.41
27:DA:1235:G:C2	27:DA:1236:G:N2	2.88	0.41
1:CA:1075:C:OP1	2:CB:179:LYS:NZ	2.50	0.41
1:AA:760:G:C2'	1:AA:761:G:H5'	2.50	0.41
1:CA:461:A:N7	1:CA:471:G:C6	2.88	0.41
27:DA:1469:A:H2'	27:DA:1470:G:O4'	2.21	0.41
4:AD:79:PHE:HE1	4:AD:204:ILE:HD13	1.86	0.41
4:CD:200:GLU:N	4:CD:200:GLU:CD	2.74	0.41
1:AA:455:C:H6	1:AA:455:C:O5'	2.03	0.41
40:BR:44:LEU:HD23	40:BR:44:LEU:HA	1.94	0.41
11:CK:31:THR:HG23	11:CK:31:THR:O	2.20	0.41
51:D2:15:LYS:HD2	51:D2:15:LYS:O	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:B5:32:PRO:HG3	54:B5:39:MET:SD	2.61	0.41
27:BA:1150:C:O2'	27:BA:1151:G:H5'	2.20	0.41
1:CA:695:A:H2'	1:CA:696:A:C8	2.55	0.41
57:B8:33:ASN:CB	57:B8:41:ILE:HD11	2.50	0.41
27:BA:2416:C:H2'	27:BA:2417:C:C6	2.55	0.41
27:BA:638:G:O6	27:BA:651:G:N7	2.54	0.41
27:DA:1862:G:H2'	27:DA:1863:G:H8	1.85	0.41
53:B4:39:ARG:HA	53:B4:48:ILE:O	2.21	0.41
33:BG:6:ALA:CB	33:BG:104:GLU:OE1	2.54	0.41
33:BG:110:ALA:O	33:BG:111:LEU:C	2.58	0.41
33:BG:133:LEU:HD12	33:BG:157:ILE:HB	2.00	0.41
10:CJ:47:PHE:O	10:CJ:47:PHE:HD1	2.04	0.41
10:CJ:60:ARG:HB2	10:CJ:61:GLU:H	1.67	0.41
27:DA:1040:C:O2'	27:DA:1041:C:P	2.78	0.41
55:D6:15:GLU:O	55:D6:16:CYS:C	2.59	0.41
57:D8:51:ALA:HA	57:D8:54:GLU:CD	2.38	0.41
27:DA:2403:C:N3	27:DA:2415:G:C2	2.88	0.41
34:BH:8:PRO:CG	34:BH:65:HIS:HE1	2.34	0.41
41:DS:89:ARG:CB	41:DS:92:TYR:CB	2.74	0.41
43:DU:92:ARG:NH1	43:DU:92:ARG:CG	2.82	0.41
36:DN:56:ASN:HA	36:DN:125:GLY:N	2.27	0.41
1:CA:160:A:H2'	1:CA:161:A:O4'	2.19	0.41
42:DT:64:ARG:HG2	42:DT:64:ARG:NH1	2.36	0.41
1:CA:1288:A:O4'	1:CA:1353:G:H4'	2.21	0.41
21:CU:9:ARG:HG3	21:CU:13:ILE:HD11	2.03	0.41
39:BQ:69:PHE:HA	39:BQ:70:PRO:HD2	1.93	0.41
31:DE:188:VAL:HA	31:DE:189:PRO:HD2	1.77	0.41
31:DE:198:VAL:HG12	31:DE:199:ARG:N	2.35	0.41
4:AD:25:ARG:O	4:AD:27:TYR:N	2.44	0.41
31:DE:3:GLY:C	31:DE:4:ILE:HG22	2.41	0.41
28:DB:46:A:N7	28:DB:47:C:C4	2.88	0.41
30:BD:205:VAL:HG12	30:BD:205:VAL:O	2.19	0.41
10:AJ:80:LYS:O	10:AJ:84:GLN:OE1	2.38	0.41
10:AJ:40:LEU:HB2	10:AJ:41:PRO:HD2	2.02	0.41
27:DA:2055:C:OP1	54:D5:8:LYS:NZ	2.44	0.41
42:BT:14:TYR:CD1	42:BT:14:TYR:N	2.88	0.41
27:DA:2247:A:H2'	27:DA:2248:C:C6	2.56	0.41
2:AB:204:ASN:ND2	2:AB:207:ALA:HB3	2.36	0.41
27:DA:2820:A:OP2	40:DR:4:LEU:CD1	2.68	0.41
15:CO:27:VAL:C	15:CO:29:VAL:H	2.24	0.41
32:DF:7:TYR:CD2	32:DF:16:GLY:N	2.88	0.41
1:AA:78:G:HO2'	1:AA:79:G:N2	2.17	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:50:ALA:O	3:CC:70:VAL:CG1	2.68	0.41
1:AA:1202:G:C2'	1:AA:1203:C:H5'	2.50	0.41
47:BY:20:TYR:CE1	47:BY:42:VAL:HA	2.56	0.41
42:DT:56:GLY:O	42:DT:59:THR:HG23	2.21	0.41
10:CJ:45:ARG:HG3	10:CJ:45:ARG:HH11	1.85	0.41
4:AD:170:VAL:HG12	4:AD:174:LEU:CB	2.50	0.41
1:CA:102:G:C6	1:CA:103:C:C4	3.09	0.41
3:AC:16:ARG:NH1	3:AC:16:ARG:HB2	2.35	0.41
2:AB:195:ASP:C	2:AB:197:VAL:H	2.24	0.41
41:DS:20:ARG:HA	41:DS:20:ARG:HD3	1.82	0.41
41:DS:12:PHE:CE1	41:DS:91:PRO:HG3	2.56	0.41
1:CA:13:U:C4	1:CA:21:G:N2	2.89	0.41
1:CA:21:G:H2'	1:CA:22:G:H8	1.80	0.41
19:AS:63:THR:O	19:AS:65:ASN:N	2.53	0.41
5:CE:123:LEU:HA	5:CE:123:LEU:HD23	1.85	0.41
6:CF:33:TYR:HE2	6:CF:74:ASP:HB3	1.84	0.41
34:DH:23:ARG:C	34:DH:24:VAL:HG22	2.41	0.41
53:D4:43:GLY:O	53:D4:45:GLY:N	2.53	0.41
27:BA:1042:G:H5'	27:BA:1043:C:OP2	2.21	0.41
16:CP:75:ARG:O	16:CP:78:GLY:N	2.47	0.41
16:CP:39:TYR:CE2	16:CP:41:PRO:HB3	2.56	0.41
27:BA:2131:G:N7	27:BA:2158:A:N6	2.68	0.41
1:CA:554:C:C4	1:CA:555:C:N4	2.89	0.41
27:DA:882:G:O2'	27:DA:883:G:C5'	2.69	0.41
27:DA:2646:C:H2'	27:DA:2647:U:O4'	2.21	0.41
49:B0:24:LYS:HA	49:B0:24:LYS:HD3	1.89	0.41
27:BA:2780:G:H4'	27:BA:2781:A:OP2	2.21	0.41
27:BA:1047:G:H3'	27:BA:1110:G:H1	1.85	0.41
30:DD:8:PRO:C	30:DD:10:THR:H	2.23	0.41
7:AG:138:LYS:HG2	7:AG:138:LYS:O	2.20	0.41
28:BB:92:C:C5'	48:BZ:78:ARG:HH22	2.32	0.41
48:BZ:76:ASP:O	48:BZ:78:ARG:N	2.54	0.41
53:D4:80:ARG:HB2	53:D4:81:VAL:H	1.64	0.41
1:CA:623:C:O2	1:CA:623:C:H2'	2.21	0.41
27:DA:2069:G:O2'	27:DA:2070:G:H5'	2.21	0.41
16:AP:9:PHE:CD2	16:AP:9:PHE:N	2.89	0.41
27:DA:1336:A:O2'	27:DA:1337:G:H5'	2.20	0.41
27:DA:1754:C:H2'	27:DA:1755:A:O4'	2.20	0.41
5:AE:121:LYS:HE3	5:AE:122:GLU:O	2.21	0.41
27:DA:150:C:H2'	27:DA:151:C:C6	2.55	0.41
27:DA:2350:C:H2'	27:DA:2351:G:H5'	2.01	0.41
1:AA:1354:C:H2'	1:AA:1355:G:C8	2.55	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BB:35:U:C2'	28:BB:36:C:H5'	2.50	0.41
1:AA:600:C:O2'	1:AA:601:C:H5'	2.20	0.41
27:DA:429:A:C6	27:DA:430:G:C6	3.09	0.41
11:CK:110:ASP:O	18:CR:84:LYS:HG3	2.20	0.41
30:DD:95:LEU:HD11	30:DD:105:ILE:HG21	2.02	0.41
27:DA:373:U:H1'	27:DA:423:A:N3	2.36	0.41
27:DA:2427:C:OP1	27:DA:2429:G:OP1	2.39	0.41
27:BA:2063:C:C5	27:BA:2064:C:C5	3.09	0.41
27:DA:1389:G:C2	27:DA:1399:C:O2	2.74	0.41
36:BN:1:MET:HE2	36:BN:2:LYS:CA	2.50	0.41
1:AA:20:U:H2'	1:AA:21:G:O4'	2.20	0.41
13:CM:117:VAL:CG1	13:CM:118:ALA:N	2.84	0.41
1:AA:959:A:H2'	1:AA:960:U:O4'	2.20	0.41
27:DA:119:A:H5'	27:DA:120:U:OP1	2.21	0.41
1:AA:35:G:H2'	1:AA:36:C:C6	2.56	0.41
17:CQ:74:LEU:HD13	17:CQ:74:LEU:C	2.41	0.41
40:BR:109:ALA:O	40:BR:111:LEU:HD22	2.20	0.41
45:DW:110:LYS:O	45:DW:111:HIS:HB3	2.20	0.41
2:AB:130:ARG:O	2:AB:135:GLN:NE2	2.54	0.41
27:BA:2803:C:O3'	27:BA:2804:C:O4'	2.38	0.41
1:CA:1483:A:O2'	27:DA:1947:C:O2	2.38	0.41
32:DF:110:LEU:HG	32:DF:205:ARG:CZ	2.50	0.41
35:BI:31:LEU:HD12	35:BI:31:LEU:N	2.36	0.41
51:D2:25:VAL:O	51:D2:26:ARG:C	2.57	0.41
27:DA:489:G:N2	27:DA:491:G:H1'	2.35	0.41
37:BO:26:LYS:HB3	37:BO:27:GLY:H	1.55	0.41
27:DA:1623:G:N3	27:DA:1624:G:C8	2.89	0.41
27:DA:1623:G:C2	27:DA:1624:G:C8	3.08	0.41
32:DF:197:ASP:O	32:DF:200:GLU:HB3	2.20	0.41
23:AW:7:A:N6	23:AW:48:C:N4	2.69	0.41
4:CD:163:GLU:O	4:CD:163:GLU:HG3	2.19	0.41
58:B9:11:CYS:O	58:B9:14:CYS:HB2	2.21	0.41
27:BA:272(D):G:O2'	27:BA:272(E):G:H5'	2.21	0.41
1:CA:890:G:O2'	1:CA:906:G:O6	2.34	0.41
17:CQ:99:SER:O	17:CQ:100:LYS:HG3	2.19	0.41
48:DZ:53:HIS:CG	48:DZ:100:PRO:HD3	2.56	0.41
12:AL:116:LYS:O	12:AL:117:TYR:HB2	2.20	0.41
38:DP:19:VAL:HG12	38:DP:19:VAL:O	2.21	0.41
45:DW:8:ARG:HG3	45:DW:8:ARG:HH11	1.85	0.41
18:AR:84:LYS:HD3	18:AR:84:LYS:HA	1.94	0.41
1:AA:1527:C:O2'	1:AA:1528:U:H5'	2.20	0.41
7:CG:9:VAL:O	7:CG:10:ARG:O	2.39	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BP:106:LEU:HG	38:BP:107:LYS:N	2.34	0.41
38:BP:144:GLU:O	38:BP:146:VAL:N	2.49	0.41
35:DI:83:ALA:CA	35:DI:89:TYR:HE1	2.28	0.41
42:BT:117:ASP:OD2	42:BT:120:ARG:HG3	2.21	0.41
42:BT:26:ASP:OD2	42:BT:26:ASP:O	2.38	0.41
31:DE:26:ILE:CG2	31:DE:27:LEU:H	2.18	0.41
27:DA:889:C:H1'	27:DA:890:A:C1'	2.51	0.41
33:BG:45:GLU:CG	33:BG:51:ARG:HH12	2.34	0.41
3:CC:6:HIS:HA	3:CC:7:PRO:HD2	1.78	0.41
51:D2:63:VAL:O	51:D2:64:LEU:C	2.59	0.41
41:BS:103:GLU:O	41:BS:105:ALA:N	2.54	0.41
10:CJ:36:GLY:O	10:CJ:38:ILE:HG23	2.20	0.41
10:CJ:3:LYS:NZ	10:CJ:77:PRO:CD	2.83	0.41
27:BA:1018:C:C2'	27:BA:1019:U:H5'	2.51	0.41
42:DT:29:ARG:HD2	42:DT:29:ARG:HA	1.88	0.41
28:DB:115:G:H1'	41:DS:47:THR:HB	2.02	0.41
43:DU:102:GLU:CA	43:DU:104:GLN:NE2	2.82	0.41
28:DB:21:G:H1	28:DB:62:C:N4	2.17	0.41
13:CM:13:LYS:O	13:CM:14:ARG:C	2.59	0.41
27:DA:2313:C:OP1	33:DG:71:THR:HB	2.20	0.41
27:DA:1140:C:H5'	27:DA:1141:U:OP2	2.20	0.41
27:DA:1021:A:H61	27:DA:1142(A):A:H61	1.68	0.41
27:BA:910:A:C6	27:BA:911:A:C6	3.09	0.41
53:D4:62:CYS:SG	53:D4:63:SER:N	2.93	0.41
1:AA:1223:C:H3'	1:AA:1224:G:H5''	2.03	0.41
37:DO:71:ARG:NH1	42:DT:74:ARG:HH12	2.19	0.41
1:CA:1285:A:H4'	1:CA:1286:A:O5'	2.21	0.41
9:CI:65:VAL:HG13	9:CI:65:VAL:O	2.20	0.41
39:DQ:78:PRO:O	39:DQ:81:VAL:HG13	2.20	0.41
4:AD:9:CYS:SG	4:AD:22:LYS:CD	3.08	0.41
31:DE:59:VAL:CG1	31:DE:60:ASN:H	2.30	0.41
41:DS:62:LYS:CB	41:DS:62:LYS:HZ3	2.33	0.41
9:AI:118:LYS:NZ	9:AI:118:LYS:CB	2.83	0.41
27:BA:2875:C:HO2'	42:BT:5:ALA:HB3	1.84	0.41
31:BE:52:LEU:HA	31:BE:52:LEU:HD12	1.69	0.41
1:CA:1440:C:C2'	1:CA:1441:G:H5'	2.51	0.41
47:BY:71:LYS:HE3	47:BY:71:LYS:HB2	1.85	0.41
43:BU:104:GLN:C	43:BU:106:PHE:N	2.70	0.41
1:CA:1239:A:O2'	1:CA:1298:C:N4	2.54	0.41
12:CL:21:VAL:CG1	12:CL:23:ALA:HB2	2.51	0.41
12:CL:52:VAL:CG1	12:CL:53:ALA:N	2.83	0.41
59:CX:58:A:C5	59:CX:61:C:C4	3.08	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:460:G:H1'	1:AA:472:A:N6	2.36	0.41
27:DA:2475:C:H42	27:DA:2529:G:H22	1.68	0.41
51:D2:47:ASN:O	51:D2:49:LYS:N	2.53	0.41
4:CD:173:TRP:HA	4:CD:187:ARG:HH12	1.86	0.41
5:AE:101:ILE:CG1	5:AE:119:LEU:HD23	2.51	0.41
5:AE:33:VAL:HG22	5:AE:43:LEU:HD13	2.02	0.41
1:CA:99:U:O2'	1:CA:100:C:N1	2.51	0.41
1:CA:70:G:O6	1:CA:100:C:N3	2.54	0.41
27:DA:904:C:C2'	27:DA:905:U:H5'	2.51	0.41
34:BH:137:ASP:OD1	34:BH:138:LYS:N	2.54	0.41
47:BY:85:VAL:HG12	47:BY:86:ARG:N	2.35	0.41
39:BQ:134:ARG:HH21	48:BZ:121:ARG:CZ	2.33	0.41
36:BN:15:LEU:C	36:BN:15:LEU:HD13	2.41	0.41
30:BD:16:MET:HE1	30:BD:208:LYS:HD3	2.02	0.41
30:DD:147:LEU:HD13	30:DD:155:LEU:HD11	2.02	0.41
27:DA:1800:C:C5'	30:DD:147:LEU:HD21	2.50	0.41
1:CA:458:C:H2'	1:CA:460:G:H8	1.85	0.41
27:BA:856:C:H4'	27:BA:857:C:OP1	2.21	0.41
39:DQ:55:VAL:O	39:DQ:55:VAL:HG22	2.21	0.41
20:AT:104:LEU:C	20:AT:104:LEU:HD23	2.40	0.41
1:CA:1325:C:H2'	1:CA:1326:C:C6	2.55	0.41
1:AA:712:A:O2'	1:AA:713:G:H5'	2.21	0.41
25:CY:70:C:O2'	27:DA:1851:U:H5''	2.20	0.41
15:CO:9:GLN:HB3	15:CO:13:GLN:NE2	2.35	0.41
1:AA:152:A:H3'	1:AA:153:C:H6	1.85	0.41
27:DA:335:C:H5''	47:DY:73:ARG:CZ	2.51	0.41
16:AP:7:ALA:HB2	16:AP:20:VAL:CG1	2.47	0.41
46:BX:53:LYS:HB3	46:BX:82:GLN:CB	2.50	0.41
27:DA:1970:A:H4'	27:DA:1971:A:OP1	2.21	0.41
27:DA:391:G:H2'	27:DA:392:C:H6	1.85	0.41
27:DA:1719:G:C2'	27:DA:1720:U:C5'	2.98	0.41
27:DA:1720:U:H2'	27:DA:1721:G:O4'	2.19	0.41
27:DA:538:G:C2	27:DA:539:G:C5	3.09	0.41
35:DI:1:MET:O	35:DI:20:ASP:HB2	2.20	0.41
27:DA:2684:U:HO2'	27:DA:2685:G:H5'	1.85	0.41
57:B8:39:LYS:O	57:B8:40:GLU:C	2.59	0.41
15:AO:17:ARG:CD	15:AO:26:GLU:HG3	2.50	0.41
25:AY:31:U:H2'	25:AY:32:U:H5'	2.02	0.41
31:DE:42:ASP:HB3	31:DE:44:TYR:CE1	2.55	0.41
1:AA:26:A:H61	1:AA:558:G:H1'	1.83	0.41
28:DB:83:G:C5'	52:D3:52:HIS:CD2	3.04	0.41
1:CA:33:A:OP2	1:CA:398:C:H5'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1514:U:H2'	27:DA:1515:G:H8	1.86	0.41
41:DS:61:ASN:OD1	41:DS:61:ASN:O	2.38	0.41
1:AA:602:A:C2	1:AA:637:G:C2	3.08	0.41
29:BC:49:ILE:CG2	29:BC:50:ASP:N	2.84	0.41
27:BA:2620:C:C4	27:BA:2621:A:N7	2.89	0.41
40:BR:21:TYR:O	40:BR:24:GLN:HB2	2.21	0.41
11:AK:58:PRO:HG2	11:AK:59:TYR:N	2.34	0.41
42:DT:93:ARG:CG	42:DT:93:ARG:HH11	2.31	0.41
30:DD:127:VAL:HA	30:DD:193:VAL:O	2.21	0.41
18:CR:21:LYS:O	18:CR:22:VAL:C	2.59	0.41
12:CL:55:VAL:CG1	12:CL:56:ARG:N	2.83	0.41
27:DA:323:G:O2'	27:DA:1205:U:N3	2.53	0.41
6:CF:48:LEU:HD13	6:CF:52:ILE:HB	2.03	0.41
30:DD:174:ILE:H	30:DD:174:ILE:CD1	2.33	0.41
32:DF:53:THR:O	32:DF:55:GLY:N	2.54	0.41
27:BA:680:G:H2'	27:BA:681:G:H8	1.83	0.41
51:B2:41:ILE:O	51:B2:43:GLN:N	2.54	0.41
1:CA:288:A:O2'	1:CA:289:G:H5'	2.21	0.41
48:BZ:6:ALA:CB	48:BZ:38:VAL:HG12	2.51	0.41
20:CT:90:GLN:O	20:CT:93:GLU:OE1	2.38	0.41
27:DA:922:U:H2'	27:DA:923:C:C6	2.56	0.41
30:DD:2:ALA:O	30:DD:3:VAL:HB	2.21	0.41
20:CT:75:ASN:N	20:CT:75:ASN:HD22	2.19	0.41
27:BA:1914:C:O5'	27:BA:1914:C:H6	2.02	0.41
1:AA:189(D):C:H1'	1:AA:189(H):G:C2	2.56	0.41
43:DU:17:ILE:O	43:DU:20:LEU:N	2.54	0.41
1:CA:778:G:H2'	1:CA:779:C:O4'	2.21	0.41
1:AA:633:G:C5	1:AA:634:C:C5	3.09	0.41
1:AA:1472:U:H2'	1:AA:1473:A:H8	1.86	0.41
23:AW:20:A:H62	23:AW:44:A:H2'	1.86	0.41
30:DD:120:GLY:C	30:DD:122:ASP:N	2.74	0.41
27:DA:1946:U:N3	27:DA:1947:C:C5	2.89	0.41
9:CI:6:GLY:HA3	9:CI:80:GLY:O	2.21	0.41
1:CA:945:G:C2	1:CA:946:A:C8	3.09	0.41
1:CA:908:A:H2'	1:CA:909:A:C8	2.56	0.41
27:DA:609:A:H2'	27:DA:610:G:O4'	2.20	0.41
4:CD:80:GLU:HA	4:CD:80:GLU:OE2	2.19	0.41
1:CA:258:G:H2'	1:CA:259:G:C8	2.55	0.41
29:DC:74:VAL:HB	29:DC:91:ALA:HB2	2.02	0.41
1:CA:1213:A:N1	1:CA:1215:G:H1'	2.36	0.41
27:DA:2101:G:C6	27:DA:2102:U:C2	3.08	0.41
48:DZ:2:TYR:N	48:DZ:2:TYR:CD1	2.89	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BP:139:LYS:C	38:BP:141:ALA:N	2.73	0.41
4:AD:189:PRO:CB	4:AD:194:LEU:HD21	2.26	0.41
4:AD:191:ARG:NH1	4:AD:194:LEU:O	2.51	0.41
13:AM:81:LEU:O	13:AM:89:GLY:HA3	2.21	0.41
2:AB:39:ILE:HG22	2:AB:40:HIS:N	2.35	0.41
47:BY:39:VAL:CG1	47:BY:40:GLU:H	2.31	0.41
27:BA:1526:G:O2'	27:BA:1527:G:H5'	2.20	0.41
27:DA:892:G:H2'	27:DA:893:C:C5	2.56	0.41
27:BA:2308:G:C2	27:BA:2309:A:N6	2.88	0.41
27:BA:2313:C:C6	27:BA:2314:C:C5	3.09	0.41
33:BG:141:PHE:O	33:BG:144:ILE:HG22	2.21	0.41
33:BG:135:LEU:HD22	33:BG:157:ILE:HD11	2.02	0.41
33:BG:60:LEU:HA	33:BG:63:ILE:HG12	2.03	0.41
48:DZ:156:LEU:HD21	48:DZ:162:LEU:CD1	2.48	0.41
10:CJ:4:ILE:CG2	10:CJ:74:ILE:HD11	2.51	0.41
27:DA:1567:A:N6	30:DD:21:PHE:CD1	2.88	0.41
28:DB:7:G:C2	28:DB:115:G:C2	3.09	0.41
28:DB:66:A:HO2'	28:DB:67:G:P	2.44	0.41
38:BP:29:LYS:CD	38:BP:29:LYS:N	2.82	0.41
33:DG:114:ILE:CG2	33:DG:115:ARG:N	2.83	0.41
33:DG:145:THR:OG1	33:DG:148:MET:HB3	2.20	0.41
17:AQ:61:GLU:HA	17:AQ:71:PHE:CD2	2.56	0.41
44:BV:5:VAL:HG23	44:BV:35:LEU:HB3	2.03	0.41
9:CI:17:VAL:HA	9:CI:63:ILE:HG12	2.03	0.41
9:CI:39:GLY:O	9:CI:41:VAL:N	2.54	0.41
31:DE:4:ILE:C	31:DE:5:LEU:HD23	2.41	0.41
41:DS:62:LYS:HB2	41:DS:62:LYS:HZ2	1.86	0.41
1:AA:1365:G:HO2'	1:AA:1366:C:H5'	1.84	0.41
2:AB:218:ALA:O	2:AB:222:ILE:HG13	2.20	0.41
1:AA:79:G:N2	1:AA:91:C:H41	2.19	0.41
1:AA:1202:G:H2'	1:AA:1203:C:C5'	2.51	0.41
14:AN:29:ARG:CG	14:AN:30:ALA:N	2.84	0.41
14:AN:24:CYS:HB2	14:AN:33:VAL:HG12	2.02	0.41
1:CA:274:A:H1'	1:CA:275:G:C8	2.56	0.41
1:CA:189(L):G:C5	1:CA:190:U:C4	3.08	0.41
1:CA:191:G:H2'	1:CA:192:U:C6	2.55	0.41
44:BV:39:LEU:O	44:BV:47:VAL:HG13	2.21	0.41
44:BV:52:VAL:HG23	44:BV:52:VAL:O	2.20	0.41
27:DA:2747:G:O6	27:DA:2754:U:H2'	2.20	0.41
12:CL:23:ALA:HA	12:CL:95:TYR:HE2	1.85	0.41
4:CD:174:LEU:HD23	4:CD:185:PHE:HA	2.02	0.41
5:AE:10:MET:CB	5:AE:32:VAL:HG22	2.47	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:14:ARG:CG	39:BQ:41:TRP:HH2	2.33	0.41
34:BH:10:PRO:HG3	34:BH:50:VAL:CA	2.50	0.41
27:DA:1889:A:N1	27:DA:2234:G:H1'	2.35	0.41
5:CE:81:GLU:HA	5:CE:89:ILE:O	2.21	0.41
34:DH:103:LEU:HD23	34:DH:115:VAL:HB	2.02	0.41
1:CA:532:A:C3'	1:CA:533:A:C5'	2.95	0.41
1:AA:1501:C:OP2	1:AA:1504:G:H2'	2.21	0.41
3:CC:39:ILE:HG22	3:CC:43:LEU:CD1	2.50	0.41
3:CC:43:LEU:HD13	3:CC:55:VAL:CG1	2.51	0.41
1:AA:1124:G:H1'	10:AJ:38:ILE:HG22	2.02	0.41
5:AE:39:GLY:O	5:AE:69:VAL:HG23	2.21	0.41
27:BA:2443:C:OP1	32:BF:68:LYS:HG2	2.21	0.41
40:BR:67:LEU:O	40:BR:68:ARG:C	2.58	0.41
27:BA:743:G:O2'	27:BA:744:G:H5'	2.21	0.41
46:BX:12:VAL:H	46:BX:12:VAL:HG22	1.59	0.41
27:DA:2352:A:C2'	27:DA:2353:G:H5'	2.49	0.41
1:AA:728:A:N7	15:AO:54:ARG:NH1	2.69	0.41
34:DH:47:GLU:CG	34:DH:48:GLY:N	2.80	0.41
8:AH:25:ASP:O	8:AH:26:VAL:HG12	2.20	0.41
27:BA:1593:G:C3'	27:BA:1594:G:C5'	2.93	0.41
10:AJ:16:LEU:HD23	10:AJ:94:VAL:HG13	2.01	0.41
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	2.02	0.41
31:BE:117:MET:O	31:BE:118:LYS:HB2	2.21	0.41
31:BE:117:MET:HB3	31:BE:122:PHE:HB2	2.03	0.41
7:AG:65:ALA:O	7:AG:69:VAL:HG23	2.20	0.41
27:BA:1638:C:H2'	27:BA:1639:U:H6	1.85	0.41
46:DX:35:THR:O	46:DX:38:GLU:HB3	2.20	0.41
27:DA:1722:A:C2	27:DA:1740:G:H8	2.39	0.41
48:BZ:40:LEU:CD1	48:BZ:81:ARG:NH1	2.84	0.41
11:CK:34:ASP:OD1	11:CK:38:ASN:HB2	2.21	0.41
14:AN:13:THR:O	14:AN:14:PRO:O	2.39	0.41
17:AQ:63:ARG:HG2	17:AQ:64:PRO:N	2.34	0.41
27:DA:359:A:H2'	27:DA:360:G:O4'	2.20	0.41
58:D9:30:PRO:C	58:D9:32:HIS:N	2.72	0.41
27:DA:992:C:C2	27:DA:1163:G:C2	3.08	0.41
32:BF:136:THR:O	32:BF:137:LYS:C	2.59	0.41
1:AA:1326:C:OP1	21:AU:12:LYS:HE2	2.19	0.41
33:BG:16:ARG:O	33:BG:20:ILE:HG13	2.20	0.41
16:CP:27:LYS:HG2	16:CP:30:GLY:HA3	2.03	0.41
8:CH:29:SER:O	8:CH:30:ARG:C	2.58	0.41
48:DZ:50:ALA:O	48:DZ:51:SER:HB3	2.20	0.41
1:AA:1068:G:N3	1:AA:1191:A:C2	2.88	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:412:A:H2'	27:BA:413:C:C5'	2.48	0.41
27:BA:756:C:N4	27:BA:757:U:C4	2.89	0.41
50:D1:5:CYS:SG	50:D1:62:VAL:HG23	2.60	0.41
2:CB:32:ILE:N	2:CB:32:ILE:HD12	2.36	0.41
46:DX:32:PRO:HA	46:DX:77:LYS:HB2	2.02	0.41
35:DI:40:THR:O	35:DI:41:GLU:C	2.58	0.41
1:AA:694:A:H2'	1:AA:695:A:O4'	2.20	0.41
27:BA:2649:U:O2'	27:BA:2650:U:H5'	2.21	0.41
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	2.03	0.41
1:AA:1244:C:C2	1:AA:1294:G:N2	2.89	0.41
1:CA:1411:C:O2'	1:CA:1412:C:H5'	2.21	0.41
27:BA:1420:U:H2'	27:BA:1420:U:H6	1.68	0.41
48:BZ:136:ILE:HG22	48:BZ:136:ILE:O	2.21	0.41
30:BD:222:ARG:HH21	30:BD:225:ALA:HB2	1.86	0.41
40:BR:20:LEU:O	40:BR:24:GLN:HG3	2.20	0.41
40:BR:22:ARG:O	40:BR:24:GLN:N	2.54	0.41
4:CD:119:GLN:HG2	4:CD:123:HIS:CD2	2.55	0.41
27:DA:2428:G:H5''	27:DA:2429:G:O5'	2.21	0.41
39:BQ:7:MET:HE2	39:BQ:7:MET:HB2	1.90	0.41
27:DA:2703:C:O2'	27:DA:2704:C:H5'	2.21	0.41
6:CF:50:TYR:CE2	6:CF:52:ILE:HG12	2.56	0.41
10:CJ:15:THR:O	10:CJ:94:VAL:CG2	2.69	0.41
21:CU:25:LYS:HG3	21:CU:26:LYS:N	2.36	0.41
7:AG:86:GLN:HE22	25:AY:30:A:H2	1.66	0.41
1:AA:1288:A:C2	1:AA:1289:A:C4	3.09	0.41
27:BA:1751:C:H2'	27:BA:1752:C:C6	2.56	0.41
33:BG:170:ARG:NH2	33:BG:182:LYS:HB2	2.36	0.41
55:B6:36:LEU:HD22	55:B6:50:ARG:NH1	2.36	0.41
41:BS:51:ALA:CB	41:BS:73:LEU:HG	2.51	0.41
39:BQ:34:LEU:HD21	39:BQ:129:THR:HG21	2.02	0.41
8:CH:39:LEU:HD22	8:CH:39:LEU:H	1.86	0.41
27:DA:2202:C:H2'	27:DA:2203:U:C6	2.56	0.41
27:DA:1011:G:O2'	27:DA:1013:C:H5''	2.21	0.41
9:AI:26:VAL:HG13	9:AI:61:ALA:HB3	2.02	0.41
27:BA:2518:A:H8	27:BA:2518:A:H5'	1.86	0.41
31:DE:14:ILE:CG1	31:DE:21:VAL:HG23	2.50	0.41
11:AK:22:HIS:O	11:AK:28:THR:HA	2.21	0.41
3:AC:167:TRP:O	3:AC:168:ALA:HB2	2.21	0.41
1:AA:285:G:H2'	1:AA:286:G:H8	1.86	0.41
32:BF:80:ALA:O	32:BF:82:ILE:N	2.54	0.41
27:BA:45:C:O2'	27:BA:47:C:H5'	2.21	0.41
27:DA:460:A:H2'	27:DA:461:C:O4'	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DX:26:TYR:CD1	46:DX:89:ILE:HD12	2.56	0.41
38:BP:63:PRO:HA	57:B8:13:ARG:HB3	2.00	0.41
4:AD:104:VAL:O	4:AD:106:TYR:N	2.54	0.41
4:AD:7:PRO:O	4:AD:10:ARG:HD2	2.21	0.41
35:DI:75:LEU:CG	35:DI:77:LEU:HD21	2.51	0.41
42:BT:91:ARG:HA	42:BT:117:ASP:H	1.86	0.41
27:DA:1862:G:H1	27:DA:1880:C:H42	1.69	0.41
31:DE:177:PRO:HG2	31:DE:178:GLU:H	1.84	0.41
2:CB:34:ALA:HB1	2:CB:36:ARG:CD	2.47	0.41
27:BA:2309:A:C2	27:BA:2310:A:C2	3.09	0.41
33:BG:91:ARG:HD2	33:BG:92:VAL:CA	2.51	0.41
1:CA:1061:G:H1'	10:CJ:56:HIS:CE1	2.56	0.41
48:DZ:170:ILE:O	48:DZ:171:ALA:HB2	2.21	0.41
48:DZ:9:ARG:HG2	48:DZ:11:GLY:N	2.35	0.41
48:DZ:149:LEU:HD21	48:DZ:171:ALA:N	2.36	0.41
20:AT:54:LYS:HA	20:AT:57:ARG:NH2	2.36	0.41
51:D2:66:GLU:O	51:D2:70:GLN:HG2	2.21	0.41
38:DP:58:THR:O	38:DP:61:ARG:NE	2.54	0.41
10:CJ:9:ARG:O	10:CJ:16:LEU:HG	2.21	0.41
30:DD:24:ILE:O	30:DD:26:LYS:HD3	2.21	0.41
39:BQ:81:VAL:HG23	49:B0:7:LEU:HG	2.02	0.41
36:BN:63:THR:O	36:BN:64:GLY:O	2.39	0.41
42:DT:27:THR:O	42:DT:28:VAL:CG2	2.69	0.41
30:DD:244:ARG:HA	30:DD:245:PRO:HA	1.81	0.41
40:DR:84:ALA:H	40:DR:85:PRO:HD3	1.84	0.41
31:DE:116:VAL:HG21	31:DE:122:PHE:CG	2.54	0.41
31:DE:134:ILE:CD1	31:DE:134:ILE:O	2.69	0.41
41:DS:104:GLY:C	41:DS:106:ARG:N	2.73	0.41
27:DA:940:G:C3'	27:DA:941:A:H5''	2.51	0.41
38:BP:23:PRO:HG3	38:BP:29:LYS:CB	2.51	0.41
33:DG:106:LEU:HA	33:DG:110:ALA:HB3	2.02	0.41
30:BD:35:LYS:HZ2	30:BD:103:ARG:CA	2.34	0.41
27:DA:1022:G:O6	36:DN:66:LYS:HD3	2.21	0.41
13:AM:20:THR:C	13:AM:22:ILE:N	2.73	0.41
13:AM:57:ARG:O	13:AM:58:GLU:C	2.59	0.41
18:CR:50:ILE:HG22	18:CR:51:LEU:N	2.35	0.41
1:AA:1321:C:C5'	1:AA:1322:C:H5'	2.49	0.41
1:AA:1221:G:OP1	1:AA:1321:C:N3	2.54	0.41
37:DO:121:VAL:HG12	37:DO:122:LEU:N	2.36	0.41
27:DA:1698:A:H1'	27:DA:1700:A:H5''	2.03	0.41
9:CI:39:GLY:O	9:CI:40:LEU:C	2.59	0.41
9:CI:65:VAL:C	9:CI:66:ARG:HG3	2.41	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:102:LEU:HD13	9:CI:103:THR:N	2.36	0.41
9:CI:20:ARG:NH1	9:CI:20:ARG:CG	2.83	0.41
27:BA:2686:G:H3'	27:BA:2687:U:H6	1.85	0.41
31:DE:59:VAL:HG21	31:DE:63:LEU:CA	2.30	0.41
1:CA:975:A:N6	1:CA:1367:C:O4'	2.53	0.41
3:CC:129:ALA:CB	3:CC:132:ARG:NH1	2.84	0.41
28:DB:27:C:C1'	28:DB:28:C:OP1	2.69	0.41
9:AI:118:LYS:HZ2	9:AI:118:LYS:HB2	1.86	0.41
23:AW:34:U:C4	23:AW:35:G:N7	2.89	0.41
45:DW:17:VAL:HG23	45:DW:18:ARG:N	2.36	0.41
30:BD:48:ARG:HH11	30:BD:48:ARG:CG	2.22	0.41
10:AJ:78:ASN:O	10:AJ:82:ILE:HG12	2.20	0.41
1:AA:1128:C:O2'	1:AA:1146:A:N1	2.54	0.41
1:AA:1137:C:H5'	1:AA:1138:G:C2	2.56	0.41
7:AG:13:GLN:HE21	7:AG:13:GLN:HB2	1.55	0.41
1:CA:1441:G:H5''	1:CA:1442:G:O4'	2.20	0.41
38:DP:6:LEU:C	38:DP:9:ASN:ND2	2.73	0.41
27:DA:2822:G:OP2	40:DR:2:ARG:CZ	2.69	0.41
27:DA:1654:A:C2	31:DE:113:PHE:CD1	3.09	0.41
47:DY:8:LYS:O	47:DY:9:LYS:CB	2.68	0.41
1:CA:274:A:H1'	1:CA:275:G:O4'	2.21	0.41
1:CA:274:A:O2'	1:CA:275:G:O5'	2.39	0.41
27:BA:1506:C:O2	27:BA:1506:C:H2'	2.20	0.41
41:BS:20:ARG:CG	41:BS:20:ARG:HH11	2.32	0.41
1:CA:191:G:H1'	20:CT:105:SER:CB	2.50	0.41
2:AB:100:GLY:C	2:AB:102:LEU:N	2.75	0.41
40:DR:99:LYS:O	54:D5:44:THR:HA	2.21	0.41
45:DW:37:ARG:CZ	45:DW:38:TYR:CE2	3.03	0.41
1:AA:1300:G:C2'	1:AA:1301:U:OP2	2.69	0.41
1:AA:1298:C:N4	7:AG:114:ARG:HB3	2.36	0.41
11:CK:27:ASN:CG	11:CK:55:LYS:HB3	2.41	0.41
3:AC:77:ILE:C	3:AC:83:ARG:HB3	2.38	0.41
4:CD:107:ARG:HD2	4:CD:173:TRP:CZ2	2.48	0.41
52:D3:4:LEU:HD23	52:D3:5:LYS:H	1.85	0.41
27:BA:1495:A:H3'	27:BA:1496:A:C2	2.56	0.41
1:CA:99:U:C5'	1:CA:100:C:OP1	2.65	0.41
1:CA:64:G:N2	1:CA:67:C:C4	2.89	0.41
1:CA:97:G:O2'	1:CA:98:G:OP2	2.34	0.41
27:BA:2579:C:O2'	31:BE:131:ALA:HA	2.20	0.41
2:AB:25:ASN:O	2:AB:27:LYS:N	2.54	0.41
2:AB:44:LEU:O	2:AB:47:THR:HB	2.21	0.41
27:DA:358:U:H2'	27:DA:358:U:O2	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:55:VAL:HG12	39:BQ:64:ILE:HD12	2.02	0.41
39:BQ:61:GLY:N	48:BZ:178:ASP:N	2.68	0.41
34:BH:145:ALA:O	34:BH:146:ALA:C	2.58	0.41
34:BH:85:LYS:HE2	34:BH:145:ALA:H	1.86	0.41
27:DA:2835:A:C4'	27:DA:2836:U:OP1	2.69	0.41
40:DR:38:VAL:CB	40:DR:39:PRO:CD	2.94	0.41
40:DR:53:HIS:O	40:DR:56:LYS:HB2	2.21	0.41
3:AC:34:LEU:HD23	3:AC:34:LEU:O	2.20	0.41
8:AH:86:ILE:CG2	8:AH:133:LEU:HD22	2.49	0.41
41:DS:14:VAL:HG12	41:DS:15:ARG:N	2.35	0.41
41:DS:15:ARG:O	41:DS:17:ARG:N	2.53	0.41
2:CB:42:ILE:HD11	2:CB:202:PRO:O	2.21	0.41
27:DA:197:A:C5	27:DA:198:C:C5	3.09	0.41
57:D8:57:ARG:O	57:D8:58:ILE:C	2.59	0.41
30:BD:206:LEU:O	30:BD:211:ARG:NE	2.54	0.41
32:BF:67:GLN:HG3	32:BF:74:ARG:CB	2.49	0.41
27:BA:802:A:C5	27:BA:803:U:C4	3.08	0.41
40:BR:76:VAL:O	40:BR:77:ARG:C	2.57	0.41
45:DW:29:LEU:HD12	45:DW:51:LEU:HD11	2.03	0.41
27:BA:2562:U:O2'	27:BA:2563:U:H5'	2.21	0.41
27:BA:588:U:H1'	32:BF:90:PHE:HB3	2.03	0.41
32:BF:89:VAL:CG1	32:BF:90:PHE:H	2.29	0.41
51:B2:24:LEU:HG	51:B2:60:LEU:HD11	2.02	0.41
16:CP:39:TYR:HD1	16:CP:49:LEU:HD13	1.86	0.41
27:DA:2133:G:H1'	27:DA:2158:A:H61	1.86	0.41
41:DS:49:VAL:HG12	41:DS:50:SER:N	2.36	0.41
27:BA:2118:U:H5	27:BA:2148:G:O2'	2.03	0.41
12:AL:80:VAL:CG1	12:AL:97:ILE:HG23	2.51	0.41
51:B2:47:ASN:O	51:B2:49:LYS:N	2.54	0.41
4:CD:138:TYR:CD2	4:CD:138:TYR:C	2.94	0.41
18:CR:86:VAL:HG12	18:CR:87:ARG:CD	2.51	0.41
3:AC:143:GLU:C	3:AC:145:GLY:H	2.23	0.41
1:CA:1217:C:H2'	1:CA:1218:C:O4'	2.20	0.41
1:CA:686:U:O2	1:CA:687:A:N7	2.54	0.41
10:AJ:12:ASP:CG	10:AJ:14:LYS:HD2	2.41	0.41
10:AJ:8:LEU:HD13	10:AJ:20:ALA:HA	2.02	0.41
29:DC:21:THR:CG2	29:DC:191:ALA:HB1	2.44	0.41
27:BA:2262:U:OP2	49:B0:16:SER:HB3	2.20	0.41
5:CE:107:ARG:HG2	5:CE:111:GLU:OE2	2.21	0.41
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.86	0.41
52:B3:52:HIS:CD2	52:B3:52:HIS:N	2.75	0.41
27:BA:1999:C:H5''	27:BA:2723:C:O2'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:62:PHE:HD1	7:AG:124:LEU:HD11	1.86	0.41
27:DA:2641:G:O3'	36:DN:76:SER:CB	2.68	0.41
27:DA:154:G:O6	27:DA:172:C:N4	2.48	0.41
27:DA:172:C:C2	27:DA:173:G:C8	3.08	0.41
7:AG:47:CYS:HB3	7:AG:58:PRO:HB3	2.02	0.41
27:DA:1792:G:H5'	30:DD:205:VAL:HG13	2.03	0.41
1:AA:501:C:H1'	1:AA:549:C:O2'	2.21	0.41
43:DU:108:GLU:O	43:DU:112:ARG:NH1	2.54	0.41
1:CA:920:U:H1'	1:CA:1080:A:C2	2.56	0.41
40:BR:37:THR:HG23	40:BR:40:LYS:CB	2.47	0.41
27:DA:359:A:H2'	27:DA:360:G:H5'	2.02	0.41
27:DA:646:A:N6	27:DA:647:G:C2	2.89	0.41
38:DP:140:ALA:O	38:DP:141:ALA:CB	2.67	0.41
1:CA:769:G:H4'	1:CA:1513:A:H4'	2.03	0.41
27:BA:1300:U:HO2'	27:BA:1301:A:P	2.39	0.41
1:AA:1001(A):G:C8	1:AA:1002:G:C8	3.08	0.41
37:BO:5:GLN:HG3	37:BO:20:MET:HE1	2.02	0.41
27:BA:1667:G:H22	27:BA:1992:G:H5'	1.86	0.41
37:BO:6:THR:CG2	37:BO:7:TYR:N	2.81	0.41
1:CA:1173:G:H2'	1:CA:1174:G:H8	1.86	0.41
23:CW:7:A:N6	23:CW:48:C:N4	2.69	0.41
32:DF:167:ALA:HB1	32:DF:173:VAL:CG1	2.51	0.41
32:DF:192:LEU:HD21	32:DF:194:MET:HE3	2.03	0.41
1:CA:375:U:O3'	16:CP:6:LEU:HB2	2.21	0.41
42:BT:127:ALA:O	42:BT:128:GLU:CB	2.69	0.41
50:D1:11:ARG:CA	50:D1:44:PRO:HG2	2.50	0.41
1:AA:731:G:H5'	1:AA:766:A:H4'	2.03	0.41
1:AA:738:C:H2'	1:AA:739:C:H6	1.85	0.41
6:AF:2:ARG:CD	6:AF:69:GLU:HB3	2.51	0.41
32:BF:113:ALA:CB	32:BF:186:ILE:HG21	2.50	0.41
1:AA:293:G:H2'	1:AA:294:U:C6	2.56	0.41
36:DN:117:PHE:O	36:DN:119:ARG:N	2.54	0.41
49:D0:9:SER:OG	49:D0:10:THR:N	2.53	0.41
32:DF:120:GLU:O	32:DF:122:LYS:N	2.53	0.41
1:AA:859:A:C2'	1:AA:860:A:H5'	2.51	0.41
27:DA:2160:G:C2	27:DA:2161:C:C2	3.09	0.41
27:BA:2609:U:O2'	27:BA:2610:C:H5''	2.21	0.41
37:DO:64:ARG:HH12	37:DO:83:ALA:CB	2.34	0.41
19:CS:32:LYS:HG2	19:CS:57:HIS:CD2	2.56	0.41
27:BA:2528:U:H1'	27:BA:2536:G:N2	2.36	0.41
1:CA:935:A:C2	1:CA:936:C:C2	3.09	0.41
56:D7:30:VAL:O	56:D7:31:LEU:C	2.58	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:892:A:H2'	1:AA:893:C:C6	2.56	0.41
1:AA:706:A:C5	1:AA:707:C:C5	3.09	0.41
37:BO:86:ILE:HG22	37:BO:87:ILE:N	2.36	0.41
1:AA:1217:C:O2'	1:AA:1218:C:H5'	2.21	0.41
27:BA:671:C:H2'	27:BA:672:C:C6	2.56	0.41
6:CF:12:PRO:HD3	6:CF:58:GLY:HA2	2.02	0.41
1:CA:951:G:C6	1:CA:1231:G:C6	3.09	0.41
27:DA:1599:C:N4	27:DA:1600:C:H41	2.19	0.41
27:DA:2552:U:C2	27:DA:2554:U:H5''	2.56	0.41
27:DA:1644:C:O2	27:DA:1644:C:C2'	2.68	0.41
27:BA:2629:A:H5'	27:BA:2629:A:N3	2.35	0.41
48:BZ:6:ALA:CA	48:BZ:38:VAL:HG12	2.50	0.41
3:AC:8:ILE:CG1	3:AC:184:TYR:HB3	2.51	0.41
32:BF:95:ARG:HG3	32:BF:97:TYR:CE2	2.55	0.41
27:BA:2115:G:H2'	27:BA:2117:A:H62	1.85	0.41
7:AG:122:HIS:O	7:AG:125:MET:N	2.54	0.41
38:DP:13:ASN:C	38:DP:13:ASN:ND2	2.74	0.41
27:BA:2175:C:H2'	27:BA:2176:A:C8	2.56	0.41
1:AA:35:G:C2	1:AA:550:G:C2	3.09	0.41
47:BY:14:LEU:HD12	47:BY:14:LEU:C	2.40	0.41
1:AA:243:A:H4'	1:AA:244:U:C5'	2.51	0.41
27:BA:2522:U:H2'	27:BA:2523:G:H5'	2.03	0.41
1:CA:715:A:H2'	1:CA:716:A:C8	2.56	0.41
27:DA:504:U:H5''	27:DA:506:G:OP2	2.21	0.41
27:DA:1664:A:N3	27:DA:2726:U:C6	2.89	0.41
37:DO:24:VAL:O	37:DO:24:VAL:HG23	2.20	0.41
35:DI:29:TYR:CE1	35:DI:33:ARG:CZ	3.04	0.41
35:BI:57:ARG:C	35:BI:59:ALA:H	2.23	0.41
27:BA:1219:G:OP2	43:BU:19:LYS:CE	2.69	0.41
27:BA:2151:G:H2'	27:BA:2152:G:C8	2.55	0.41
52:B3:50:VAL:O	52:B3:51:ALA:C	2.58	0.41
27:BA:291:C:O2'	27:BA:292:C:H5'	2.21	0.41
4:CD:50:ARG:HB3	4:CD:50:ARG:HE	1.66	0.41
27:BA:1860:G:H2'	27:BA:1861:G:C8	2.56	0.41
27:DA:1808:U:H2'	27:DA:1809:A:O4'	2.21	0.41
39:BQ:84:GLY:C	39:BQ:85:LYS:HG2	2.40	0.41
27:DA:718:A:C2'	27:DA:719:C:H5'	2.51	0.41
2:CB:126:GLU:C	2:CB:128:GLU:H	2.24	0.41
28:BB:112:U:H2'	28:BB:113:G:H8	1.85	0.41
1:CA:360:A:H2'	1:CA:361:G:O4'	2.21	0.41
27:BA:1405:U:H2'	27:BA:1406:U:C6	2.56	0.41
1:AA:44:G:H1'	1:AA:399:G:H22	1.86	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1628:G:C2	27:BA:1629:U:C4	3.09	0.41
27:DA:261:G:C6	27:DA:262:A:N7	2.89	0.41
27:DA:1468:C:H2'	27:DA:1469:A:H8	1.85	0.41
27:DA:1467:C:O2'	27:DA:1468:C:H5'	2.21	0.41
29:BC:62:VAL:HG12	29:BC:63:SER:N	2.36	0.41
27:BA:1631(A):A:O2'	27:BA:1632:A:H5'	2.21	0.41
24:AX:11:A:H2'	24:AX:12:G:C8	2.56	0.41
1:CA:683:G:H2'	1:CA:684:A:C8	2.56	0.41
28:DB:58:A:H2'	28:DB:58:A:N3	2.36	0.41
1:CA:1260:C:H6	1:CA:1260:C:H3'	1.86	0.41
30:DD:168:ARG:N	30:DD:168:ARG:HD3	2.35	0.41
3:CC:184:TYR:HA	3:CC:200:ALA:O	2.20	0.41
29:DC:85:GLU:HB2	29:DC:152:ILE:CB	2.50	0.41
4:AD:78:LEU:O	4:AD:81:GLU:N	2.54	0.41
32:BF:35:GLU:O	32:BF:38:ARG:HB3	2.20	0.41
1:AA:116:A:H2'	1:AA:117:G:O4'	2.21	0.41
27:BA:1040:C:H2'	27:BA:1041:C:O4'	2.20	0.41
56:D7:45:ALA:O	56:D7:46:VAL:HG22	2.20	0.41
27:BA:396:G:O3'	50:B1:44:PRO:HA	2.21	0.41
17:AQ:35:VAL:HG23	17:AQ:35:VAL:O	2.20	0.41
36:BN:89:LYS:HD3	36:BN:89:LYS:HA	1.88	0.41
42:BT:48:ILE:HD12	42:BT:48:ILE:N	2.35	0.41
44:BV:72:VAL:HB	44:BV:85:LYS:HB3	2.02	0.41
4:CD:104:VAL:HG21	4:CD:140:VAL:HG21	2.03	0.41
45:DW:23:LEU:HD21	45:DW:39:THR:OG1	2.20	0.41
4:AD:10:ARG:HH11	4:AD:10:ARG:HG3	1.86	0.41
35:DI:131:LYS:HA	35:DI:132:PRO:HD3	1.92	0.41
35:DI:57:ARG:NE	35:DI:57:ARG:HA	2.36	0.41
27:BA:2748:A:C2	27:BA:2757:A:C4	3.09	0.41
42:BT:34:VAL:C	42:BT:35:LYS:HG2	2.42	0.41
35:BI:98:ALA:O	35:BI:100:ALA:N	2.54	0.41
35:BI:120:ILE:HG22	35:BI:122:GLU:N	2.27	0.41
10:CJ:47:PHE:HE1	10:CJ:63:PHE:CD2	2.39	0.41
10:CJ:50:ILE:HG23	10:CJ:60:ARG:CD	2.51	0.41
55:D6:26:ASN:O	55:D6:27:LYS:CG	2.69	0.41
24:AX:19:G:C2	24:AX:57:A:C2	3.09	0.41
27:DA:1567:A:C5'	30:DD:58:HIS:CD2	3.04	0.41
27:DA:621:A:H2'	27:DA:622:G:C5'	2.50	0.41
27:DA:626:U:H5'	27:DA:627:A:H5'	2.01	0.41
38:DP:110:TYR:O	38:DP:111:ARG:O	2.39	0.41
41:DS:67:ARG:O	41:DS:71:ARG:HG3	2.21	0.41
30:BD:61:LEU:C	30:BD:63:ARG:HH12	2.25	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2277:G:H2'	27:BA:2278:A:C5'	2.50	0.41
42:DT:81:PRO:O	42:DT:82:LEU:HG	2.22	0.41
1:AA:979:C:C5	1:AA:980:C:C6	3.09	0.41
19:CS:6:LYS:HD2	19:CS:6:LYS:N	2.34	0.41
27:BA:1658:C:H2'	27:BA:1659:U:C6	2.56	0.41
27:DA:2634:G:C6	27:DA:2635:C:C4	3.09	0.41
1:AA:971:G:O2'	1:AA:1365:G:H4'	2.20	0.41
27:BA:1812:A:O2'	27:BA:1813:G:H5'	2.21	0.41
10:AJ:76:ASN:ND2	10:AJ:78:ASN:OD1	2.51	0.41
1:AA:1132:C:N4	1:AA:1133:G:N1	2.68	0.41
1:AA:1256:A:P	3:AC:26:LYS:NZ	2.94	0.41
9:AI:7:THR:O	9:AI:83:ARG:HD2	2.20	0.41
2:AB:11:LEU:CB	2:AB:213:LEU:HD11	2.50	0.41
38:DP:9:ASN:C	38:DP:11:GLY:N	2.74	0.41
32:DF:9:ILE:HA	32:DF:10:PRO:HD2	1.99	0.41
27:BA:310:A:H1'	27:BA:311:A:H2'	2.03	0.41
47:BY:68:HIS:N	47:BY:71:LYS:CE	2.83	0.41
27:BA:579:G:H2'	27:BA:580:C:C6	2.55	0.41
43:BU:105:VAL:HG11	44:BV:40:LEU:HD13	2.02	0.41
5:CE:28:PHE:O	5:CE:47:LYS:HA	2.21	0.41
3:AC:43:LEU:O	3:AC:47:LEU:CB	2.69	0.41
59:CX:6:G:N2	59:CX:68:C:N3	2.69	0.41
1:AA:458:C:C5	1:AA:460:G:N7	2.88	0.41
1:CA:322:C:O2'	20:CT:23:ARG:HB2	2.20	0.41
20:CT:33:ILE:HD12	20:CT:63:ILE:HG13	2.03	0.41
27:DA:1159:U:C6	27:DA:1159:U:C5'	2.97	0.41
27:BA:747:U:H6	27:BA:747:U:O5'	2.03	0.41
53:B4:77:THR:C	53:B4:79:GLY:N	2.75	0.41
53:B4:80:ARG:CG	53:B4:81:VAL:H	2.32	0.41
56:B7:8:ASN:ND2	56:B7:11:LYS:N	2.68	0.41
27:BA:466:A:H2'	27:BA:467:G:C5'	2.47	0.41
27:DA:1889:A:N6	27:DA:1890:A:C6	2.89	0.41
3:AC:62:ASP:HA	3:AC:97:LYS:CE	2.51	0.41
50:B1:91:LYS:O	50:B1:92:LYS:C	2.60	0.41
19:AS:13:ASP:O	19:AS:15:LEU:N	2.54	0.41
38:DP:50:ARG:HD3	57:D8:7:HIS:NE2	2.36	0.41
4:CD:25:ARG:C	4:CD:27:TYR:N	2.72	0.41
12:AL:8:VAL:HG11	17:AQ:36:ILE:HG21	2.01	0.41
1:CA:472:A:H5''	16:CP:80:PHE:HB3	2.01	0.41
27:BA:857:C:OP2	49:B0:77:ARG:NH2	2.54	0.41
46:BX:5:TYR:CE2	51:B2:30:ARG:HB2	2.56	0.41
51:B2:63:VAL:O	51:B2:64:LEU:C	2.59	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:55:ARG:O	16:CP:56:ALA:C	2.59	0.41
31:BE:170:LEU:HB3	31:BE:184:VAL:HG13	2.03	0.41
7:AG:4:ARG:HH11	7:AG:5:ARG:HH12	1.69	0.41
27:DA:2353:G:O3'	49:D0:32:ARG:NH2	2.54	0.41
25:CY:7:A:C2	25:CY:66:A:C2	3.09	0.41
27:DA:1717:G:H3'	27:DA:1718:G:C5'	2.48	0.41
4:CD:120:LEU:HD22	4:CD:158:ILE:HD11	2.01	0.41
33:DG:102:PHE:HA	33:DG:105:LYS:HZ2	1.85	0.41
27:BA:532:A:N7	27:BA:2021:C:H2'	2.35	0.41
11:CK:29:ILE:HA	11:CK:44:SER:HB3	2.03	0.41
35:BI:3:VAL:HG12	35:BI:38:LEU:HA	2.02	0.41
6:CF:83:ASP:C	6:CF:85:VAL:N	2.74	0.41
27:DA:229:A:H3'	27:DA:230:U:C5'	2.45	0.41
17:AQ:25:ARG:HH21	17:AQ:38:ARG:HB3	1.85	0.41
34:DH:38:SER:HA	34:DH:39:PRO:HD3	1.92	0.41
2:AB:116:GLU:HA	2:AB:119:GLU:HB2	2.03	0.41
7:AG:113:GLU:HG3	7:AG:119:ARG:HA	2.03	0.41
1:AA:544:G:OP1	4:AD:59:ARG:NH2	2.54	0.41
1:CA:663:A:H2'	1:CA:664:G:C8	2.56	0.41
12:CL:4:ILE:O	12:CL:5:ASN:C	2.59	0.41
4:AD:124:GLY:O	4:AD:132:ARG:HD2	2.21	0.41
27:BA:2835:A:N6	27:BA:2878:U:H3'	2.35	0.41
1:CA:62:U:O2'	1:CA:379:C:H1'	2.21	0.41
45:DW:25:ARG:NH1	45:DW:25:ARG:CB	2.78	0.41
27:DA:2285:C:H5'	27:DA:2286:A:P	2.61	0.41
27:BA:1305:C:C2'	27:BA:1306:C:H5'	2.50	0.41
2:AB:178:ARG:CD	8:AH:71:GLY:O	2.67	0.41
1:AA:1026:G:N3	1:AA:1026:G:C2'	2.80	0.41
30:DD:211:ARG:HA	30:DD:214:TRP:CD2	2.56	0.41
27:DA:1363:C:OP1	50:D1:61:ARG:NH2	2.54	0.41
1:CA:1480:G:C6	1:CA:1481:U:C4	3.09	0.41
1:CA:198:G:C2'	1:CA:199:G:H8	2.34	0.41
27:BA:1239:G:C2	27:BA:1240:U:C2	3.09	0.41
27:DA:2880:C:HO2'	40:DR:90:ARG:HD3	1.83	0.41
6:AF:69:GLU:HG2	6:AF:70:ASP:N	2.36	0.41
27:DA:15:G:H2'	27:DA:16:G:C8	2.54	0.41
1:CA:398:C:H2'	1:CA:399:G:H8	1.86	0.41
44:DV:95:LEU:C	44:DV:95:LEU:CD2	2.89	0.41
11:AK:48:ILE:HG22	11:AK:49:GLY:N	2.33	0.41
29:DC:36:LYS:HB2	29:DC:36:LYS:HZ3	1.81	0.41
2:CB:8:LYS:O	2:CB:9:GLU:C	2.58	0.41
27:DA:649:G:H8	27:DA:649:G:O5'	2.04	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:110:THR:HG23	39:BQ:113:GLN:HB2	2.03	0.41
27:BA:1828:G:O6	30:BD:222:ARG:HD3	2.21	0.41
27:BA:271(J):C:H3'	27:BA:271(K):U:H5''	2.03	0.41
7:AG:32:ARG:C	7:AG:34:GLY:H	2.24	0.41
51:D2:43:GLN:O	51:D2:44:LEU:CG	2.69	0.41
1:CA:1416:G:C2'	1:CA:1417:G:H5'	2.51	0.41
1:AA:144:G:N2	1:AA:178:C:O2	2.52	0.41
27:DA:2689:U:P	27:DA:2719:G:H22	2.44	0.41
27:BA:1578:U:H2'	27:BA:1579:A:C5'	2.51	0.41
27:DA:2015:A:C1'	54:D5:2:ALA:HA	2.49	0.41
27:BA:1570:A:C6	27:BA:1571:A:C6	3.09	0.41
1:CA:452:A:O2'	1:CA:453:A:C8	2.71	0.41
28:BB:20:C:O2'	28:BB:21:G:H5'	2.21	0.41
27:DA:496:G:H2'	27:DA:497:A:O4'	2.19	0.41
7:CG:59:LEU:O	7:CG:59:LEU:HD23	2.21	0.41
8:AH:16:ALA:O	8:AH:19:VAL:HG22	2.21	0.41
27:DA:2116:G:O2'	27:DA:2117:A:OP1	2.32	0.41
2:AB:83:MET:O	2:AB:85:ALA:N	2.54	0.41
1:AA:986:A:H2'	1:AA:987:G:H8	1.86	0.41
39:DQ:116:GLU:O	39:DQ:120:ILE:HG12	2.21	0.41
27:DA:2040:C:H2'	27:DA:2041:U:C6	2.55	0.41
56:D7:48:LYS:HA	56:D7:48:LYS:HD3	1.91	0.41
9:AI:18:PHE:HD1	9:AI:62:TYR:CD2	2.39	0.41
41:BS:12:PHE:HD1	41:BS:12:PHE:O	2.03	0.41
18:CR:19:LYS:O	18:CR:20:ALA:HB3	2.21	0.41
1:CA:176:C:H2'	1:CA:177:C:H6	1.86	0.41
27:BA:1281:G:C5	27:BA:1282:U:C5	3.08	0.41
11:CK:68:ALA:O	11:CK:69:ALA:C	2.60	0.41
34:BH:163:TYR:CD1	34:BH:163:TYR:N	2.89	0.41
40:DR:75:LEU:HA	40:DR:75:LEU:HD22	1.85	0.41
4:AD:168:ARG:HH11	4:AD:168:ARG:HG3	1.86	0.41
38:BP:136:GLU:OE1	38:BP:136:GLU:N	2.54	0.41
11:AK:114:VAL:HG13	11:AK:114:VAL:O	2.21	0.41
1:AA:12:U:H4'	1:AA:526:C:H4'	2.04	0.41
13:AM:96:LEU:HA	13:AM:97:PRO:HD3	1.90	0.40
27:BA:2748:A:C4	27:BA:2757:A:C6	3.09	0.40
42:BT:32:TYR:HD2	42:BT:81:PRO:CG	2.33	0.40
42:BT:41:ARG:C	42:BT:41:ARG:HD2	2.41	0.40
44:DV:19:LYS:CB	44:DV:96:ILE:HG12	2.50	0.40
48:DZ:9:ARG:HH12	48:DZ:36:VAL:N	2.20	0.40
46:DX:14:SER:O	46:DX:15:GLU:C	2.58	0.40
55:D6:40:CYS:SG	55:D6:45:LYS:CE	3.10	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2861:G:C4	27:DA:2862:G:C8	3.10	0.40
40:DR:73:VAL:O	40:DR:74:LYS:C	2.60	0.40
28:DB:7:G:H5'	41:DS:29:PHE:CE1	2.55	0.40
41:DS:66:ALA:HB1	41:DS:99:LYS:HG2	2.03	0.40
30:BD:113:VAL:C	30:BD:115:GLN:H	2.24	0.40
36:DN:23:LEU:HD23	36:DN:23:LEU:H	1.86	0.40
13:AM:46:LYS:HG3	13:AM:47:ASP:CG	2.41	0.40
13:AM:57:ARG:NH1	13:AM:57:ARG:CB	2.84	0.40
13:AM:23:TYR:CE1	13:AM:71:ARG:HB2	2.51	0.40
39:DQ:132:VAL:CB	48:DZ:80:ARG:NH2	2.82	0.40
53:D4:60:GLU:O	53:D4:61:VAL:CB	2.67	0.40
17:AQ:69:LYS:O	17:AQ:70:ARG:HD2	2.21	0.40
9:CI:36:TYR:CD2	9:CI:37:PHE:CZ	3.09	0.40
9:CI:96:LEU:HD12	9:CI:101:PHE:CB	2.51	0.40
27:DA:2633:G:H2'	27:DA:2634:G:O4'	2.21	0.40
31:DE:4:ILE:HG12	31:DE:28:ALA:CB	2.50	0.40
31:DE:76:ARG:CG	31:DE:195:LEU:HD22	2.51	0.40
1:AA:1187:G:OP1	9:AI:113:LYS:HE2	2.22	0.40
1:CA:1100:C:C2'	1:CA:1101:A:H5'	2.50	0.40
10:AJ:25:GLU:C	10:AJ:27:ALA:N	2.74	0.40
1:AA:1371:G:OP1	9:AI:11:LYS:HG2	2.21	0.40
9:AI:5:TYR:OH	9:AI:16:ARG:HG2	2.20	0.40
27:BA:1180:C:O2'	27:BA:1181:C:H5'	2.22	0.40
29:DC:64:LEU:CD1	29:DC:68:LEU:HD11	2.51	0.40
32:DF:36:VAL:O	32:DF:39:TRP:HB3	2.21	0.40
31:DE:113:PHE:CE2	31:DE:158:GLY:HA2	2.57	0.40
47:DY:95:LYS:HD2	47:DY:100:ALA:HB2	2.03	0.40
15:CO:74:ASP:OD1	15:CO:77:ARG:N	2.53	0.40
30:BD:24:ILE:CG1	30:BD:25:THR:N	2.79	0.40
47:BY:17:SER:CB	47:BY:71:LYS:HD2	2.51	0.40
27:BA:581:C:H2'	27:BA:582:G:H8	1.86	0.40
27:BA:1477:A:H61	27:BA:1514:U:H3	1.68	0.40
43:BU:62:ILE:O	43:BU:65:ILE:HB	2.21	0.40
43:BU:91:ASP:O	43:BU:95:LEU:N	2.40	0.40
27:DA:1242:A:C5'	27:DA:1243:G:OP2	2.57	0.40
27:BA:1899:G:O2'	27:BA:1900:A:H5''	2.20	0.40
8:CH:133:LEU:HD23	8:CH:133:LEU:HA	1.91	0.40
52:D3:8:LEU:N	52:D3:54:VAL:HG13	2.36	0.40
1:AA:1070:U:H5'	5:AE:18:ARG:HH22	1.86	0.40
39:BQ:28:ALA:C	39:BQ:29:PHE:HD1	2.24	0.40
27:BA:468:G:H2'	27:BA:469:G:O4'	2.20	0.40
27:DA:1889:A:O2'	27:DA:2087:G:H5'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:132:GLU:O	8:AH:134:ILE:HG12	2.21	0.40
51:B2:7:ARG:NH1	51:B2:7:ARG:HG2	2.36	0.40
34:DH:85:LYS:HZ2	34:DH:133:VAL:CB	2.34	0.40
36:DN:102:ALA:O	36:DN:106:MET:CE	2.69	0.40
43:DU:31:SER:O	43:DU:33:ARG:N	2.54	0.40
3:CC:43:LEU:HD22	3:CC:68:VAL:HG21	2.02	0.40
3:CC:33:LEU:HD21	14:CN:53:LEU:CD2	2.51	0.40
38:BP:47:ASP:OD2	38:BP:50:ARG:NH2	2.54	0.40
27:BA:832:G:O2'	38:BP:52:GLU:HB3	2.20	0.40
27:DA:66:C:N3	27:DA:89:G:C6	2.90	0.40
51:B2:64:LEU:HD22	51:B2:64:LEU:O	2.21	0.40
41:BS:37:ALA:HB2	41:BS:99:LYS:NZ	2.36	0.40
27:DA:71:A:H5'	27:DA:71:A:H8	1.85	0.40
9:CI:46:ALA:C	9:CI:48:GLU:N	2.74	0.40
41:DS:49:VAL:HG22	41:DS:80:LEU:HD13	2.03	0.40
30:DD:30:GLU:OE1	30:DD:63:ARG:NE	2.49	0.40
1:AA:532:A:C3'	1:AA:533:A:C5'	2.89	0.40
1:AA:676:A:H2'	1:AA:677:U:H6	1.86	0.40
11:CK:57:THR:CG2	11:CK:58:PRO:HD2	2.50	0.40
33:DG:6:ALA:CB	33:DG:104:GLU:OE1	2.68	0.40
33:DG:5:VAL:H	33:DG:8:LYS:HB2	1.87	0.40
28:DB:52:A:C2	28:DB:54:G:O6	2.74	0.40
51:B2:53:LEU:HA	51:B2:53:LEU:HD23	1.76	0.40
3:AC:134:ILE:C	3:AC:136:GLN:H	2.23	0.40
1:AA:170:U:O2'	1:AA:171:A:C5'	2.69	0.40
20:AT:16:HIS:CD2	20:AT:20:LEU:HG	2.56	0.40
5:CE:111:GLU:C	5:CE:113:ALA:H	2.24	0.40
27:BA:2301:C:H2'	27:BA:2302:G:O5'	2.21	0.40
50:D1:68:PRO:O	50:D1:70:VAL:N	2.54	0.40
27:DA:271(H):G:HO2'	27:DA:271(I):G:C4'	2.35	0.40
40:BR:60:LEU:O	40:BR:63:ARG:HB3	2.20	0.40
27:DA:301:G:C4	27:DA:302:C:C4	3.09	0.40
14:AN:13:THR:N	14:AN:14:PRO:CD	2.84	0.40
27:DA:359:A:C2'	27:DA:360:G:H5'	2.51	0.40
58:D9:2:LYS:N	58:D9:4:ARG:NH2	2.66	0.40
1:CA:1305:G:C5'	21:CU:4:GLY:CA	2.95	0.40
27:BA:2266:A:N3	27:BA:2272:U:C5	2.89	0.40
27:BA:2258:C:H4'	27:BA:2259:G:OP2	2.21	0.40
27:DA:35:G:H2'	27:DA:36:G:O4'	2.21	0.40
1:CA:708:C:O2'	1:CA:709:G:H5'	2.21	0.40
42:DT:96:ARG:HG2	42:DT:96:ARG:HH11	1.86	0.40
48:DZ:60:LEU:HD22	48:DZ:60:LEU:N	2.36	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2124:G:HO2'	29:BC:40:THR:HG1	1.57	0.40
29:BC:65:PRO:O	29:BC:66:HIS:CG	2.74	0.40
1:CA:1170:A:H2'	1:CA:1171:G:O4'	2.21	0.40
27:BA:481:G:C2'	27:BA:482:A:OP2	2.68	0.40
1:AA:1241:G:OP1	7:AG:35:LYS:NZ	2.52	0.40
1:CA:838:G:O2'	1:CA:839:U:H5''	2.21	0.40
1:AA:234:C:C2	1:AA:235:C:C5	3.09	0.40
16:AP:26:ARG:CG	16:AP:27:LYS:N	2.84	0.40
2:AB:19:HIS:CE1	2:AB:20:GLU:CG	3.04	0.40
11:AK:61:ALA:O	11:AK:62:GLN:C	2.59	0.40
41:BS:80:LEU:HD12	41:BS:80:LEU:N	2.37	0.40
45:DW:59:VAL:HG12	45:DW:60:ASN:N	2.36	0.40
34:BH:124:GLU:OE1	34:BH:132:ARG:HD2	2.22	0.40
27:BA:2830:G:H2'	27:BA:2883:A:H2	1.86	0.40
23:AW:65:U:O2'	23:AW:66:A:H5'	2.21	0.40
1:AA:1429:C:C4'	27:BA:1703:G:O2'	2.68	0.40
1:AA:337:C:H2'	1:AA:338:A:H8	1.86	0.40
2:AB:132:LYS:HA	2:AB:135:GLN:CG	2.51	0.40
27:DA:937:U:H2'	27:DA:938:G:H8	1.86	0.40
1:CA:802:A:H2'	1:CA:803:G:C5'	2.51	0.40
1:AA:986:A:H2'	1:AA:987:G:C8	2.57	0.40
27:BA:107:C:O5'	27:BA:107:C:H6	2.04	0.40
2:CB:217:ARG:NH1	2:CB:217:ARG:HG3	2.35	0.40
27:BA:102:G:OP1	27:BA:102:G:C4'	2.68	0.40
27:DA:494:G:N3	27:DA:494:G:H2'	2.36	0.40
1:AA:652:U:O4	1:AA:752:G:O2'	2.28	0.40
34:DH:149:ARG:HE	34:DH:154:PRO:HG3	1.87	0.40
56:B7:43:THR:O	56:B7:44:PRO:C	2.59	0.40
1:CA:189:G:H2'	1:CA:189(A):C:C6	2.56	0.40
27:DA:145:G:H2'	27:DA:146:G:H8	1.86	0.40
27:DA:261:G:C2	27:DA:262:A:C8	3.09	0.40
37:BO:93:PRO:HB3	37:BO:114:ILE:CD1	2.51	0.40
27:BA:1013:C:O2'	27:BA:1014:U:H5'	2.21	0.40
27:BA:940:G:H2'	27:BA:941:A:O4'	2.22	0.40
55:B6:37:ARG:HA	55:B6:37:ARG:HD3	1.86	0.40
1:CA:1264:C:H6	1:CA:1264:C:H3'	1.85	0.40
27:BA:88:G:H2'	27:BA:88:G:N3	2.35	0.40
1:CA:1321:C:C3'	1:CA:1322:C:C5'	2.86	0.40
28:BB:38:C:C4	28:BB:39:A:N7	2.89	0.40
27:BA:2759:G:H8	27:BA:2759:G:C5'	2.33	0.40
54:B5:55:ARG:NE	54:B5:55:ARG:HA	2.36	0.40
33:BG:44:GLY:O	33:BG:45:GLU:O	2.39	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:149:LEU:O	48:DZ:149:LEU:HD23	2.22	0.40
48:DZ:68:THR:HG22	48:DZ:89:VAL:CA	2.51	0.40
55:D6:36:LEU:O	55:D6:36:LEU:HG	2.21	0.40
38:DP:56:SER:O	38:DP:58:THR:N	2.50	0.40
38:DP:58:THR:O	38:DP:61:ARG:HG3	2.22	0.40
41:BS:85:VAL:O	41:BS:106:ARG:HG3	2.21	0.40
41:BS:85:VAL:CG2	41:BS:86:ALA:N	2.82	0.40
27:BA:1024:G:O5'	27:BA:1024:G:H8	2.04	0.40
40:DR:57:ARG:NH2	40:DR:62:ALA:HB2	2.36	0.40
41:DS:106:ARG:CZ	41:DS:107:GLU:O	2.69	0.40
27:BA:1591:G:C2'	27:BA:1592:C:H5'	2.51	0.40
38:DP:23:PRO:HA	38:DP:29:LYS:O	2.21	0.40
30:BD:80:ALA:HB2	30:BD:96:HIS:CD2	2.56	0.40
3:AC:155:GLY:O	3:AC:196:LEU:HD13	2.22	0.40
1:AA:972:C:OP2	10:AJ:57:LYS:HE2	2.21	0.40
2:AB:216:SER:O	2:AB:220:ASP:OD1	2.39	0.40
2:AB:9:GLU:HA	2:AB:12:GLU:CG	2.50	0.40
32:DF:39:TRP:CZ3	32:DF:106:ARG:HD2	2.56	0.40
47:DY:18:GLY:C	47:DY:20:TYR:N	2.72	0.40
36:BN:5:VAL:HG23	36:BN:6:PRO:HD2	2.04	0.40
15:CO:75:PRO:HG2	15:CO:76:GLU:H	1.85	0.40
32:DF:141:ALA:O	32:DF:142:TRP:C	2.60	0.40
32:DF:17:ARG:HG3	32:DF:17:ARG:NH1	2.36	0.40
1:CA:1014:A:H4'	19:CS:14:HIS:CD2	2.56	0.40
19:CS:63:THR:HG22	19:CS:66:MET:CE	2.51	0.40
14:AN:23:ARG:O	14:AN:24:CYS:C	2.59	0.40
17:CQ:14:LYS:CB	17:CQ:14:LYS:HZ2	2.32	0.40
2:AB:105:PHE:CD1	2:AB:152:PHE:HZ	2.38	0.40
29:BC:75:LEU:HD12	29:BC:119:VAL:CA	2.50	0.40
20:CT:71:THR:O	20:CT:72:LEU:O	2.38	0.40
27:BA:2821:A:O5'	27:BA:2821:A:H8	2.04	0.40
27:BA:2821:A:OP2	40:BR:2:ARG:NH2	2.54	0.40
5:AE:40:ARG:NH1	5:AE:40:ARG:HG2	2.36	0.40
34:BH:46:GLU:HG3	34:BH:47:GLU:OE2	2.20	0.40
3:AC:15:THR:HG21	3:AC:181:ASN:CA	2.43	0.40
39:BQ:58:PHE:O	39:BQ:60:ARG:N	2.54	0.40
1:CA:1054:C:OP1	1:CA:1198:G:OP2	2.39	0.40
2:CB:50:GLU:HG3	2:CB:202:PRO:HG3	2.02	0.40
34:DH:121:ILE:CG2	34:DH:122:THR:N	2.85	0.40
27:DA:2021:C:OP1	54:D5:12:SER:OG	2.39	0.40
57:D8:60:LEU:C	57:D8:63:PRO:HD2	2.41	0.40
27:BA:2442:C:O2'	27:BA:2443:C:H5'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:58:GLU:O	13:CM:62:ASN:OD1	2.39	0.40
1:CA:751:U:H1'	15:CO:24:SER:HA	2.04	0.40
51:B2:24:LEU:O	51:B2:25:VAL:C	2.60	0.40
9:CI:46:ALA:O	9:CI:48:GLU:N	2.55	0.40
45:DW:82:LEU:HA	45:DW:82:LEU:HD23	1.83	0.40
1:AA:728:A:H2'	1:AA:729:A:C8	2.56	0.40
11:CK:79:SER:O	11:CK:80:VAL:HG13	2.20	0.40
34:DH:73:ALA:O	34:DH:76:VAL:HB	2.21	0.40
27:BA:381:G:H2'	27:BA:382:G:C8	2.56	0.40
27:BA:271(Q):G:O2'	27:BA:271(R):G:H5'	2.21	0.40
27:DA:882:G:C2'	27:DA:883:G:H5'	2.51	0.40
27:DA:332:A:C4	27:DA:335:C:C4	3.09	0.40
49:D0:40:GLN:HG3	49:D0:42:GLY:O	2.21	0.40
7:AG:69:VAL:HG22	7:AG:135:VAL:HG22	2.04	0.40
50:D1:51:VAL:HG12	50:D1:58:ILE:O	2.21	0.40
27:DA:2123:G:N3	29:DC:42:GLU:OE2	2.54	0.40
46:DX:35:THR:HG22	46:DX:37:THR:N	2.36	0.40
32:DF:66:PRO:O	32:DF:67:GLN:CB	2.65	0.40
1:AA:545:C:O2'	1:AA:549:C:OP1	2.39	0.40
34:BH:104:GLU:HA	34:BH:114:VAL:HA	2.03	0.40
27:DA:1758:G:H2'	27:DA:2695:C:O2'	2.21	0.40
1:CA:1135:U:HO2'	1:CA:1136:U:H5	1.66	0.40
33:BG:128:ARG:HB3	33:BG:128:ARG:HH11	1.85	0.40
2:AB:178:ARG:HD2	8:AH:72:PRO:CA	2.50	0.40
16:CP:5:ARG:HG3	16:CP:6:LEU:N	2.36	0.40
5:CE:35:GLY:CA	5:CE:40:ARG:O	2.69	0.40
46:DX:57:LEU:CD1	46:DX:78:LYS:HG3	2.50	0.40
52:D3:52:HIS:CD2	52:D3:52:HIS:H	2.39	0.40
8:AH:117:GLY:O	8:AH:119:LEU:HG	2.22	0.40
27:DA:1498:C:H5'	27:DA:1577:C:H5''	2.03	0.40
27:BA:1225:G:OP1	44:BV:69:LYS:NZ	2.40	0.40
39:BQ:110:THR:HG23	39:BQ:113:GLN:H	1.86	0.40
34:DH:96:ALA:HB2	34:DH:105:LEU:CD1	2.48	0.40
27:BA:814:C:H2'	27:BA:815:C:H6	1.85	0.40
30:DD:127:VAL:CA	30:DD:193:VAL:HG13	2.51	0.40
11:AK:29:ILE:HG22	11:AK:44:SER:HB2	2.03	0.40
27:BA:630:G:H4'	27:BA:640:C:H4'	2.03	0.40
42:BT:129:ARG:HD2	42:BT:131:ALA:H	1.85	0.40
44:DV:36:PRO:O	44:DV:37:VAL:C	2.60	0.40
11:AK:41:THR:HG21	11:AK:71:LYS:HB3	2.02	0.40
29:BC:87:GLU:O	29:BC:91:ALA:O	2.38	0.40
27:BA:2165:G:H2'	27:BA:2166:G:O4'	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2413:G:H2'	27:DA:2414:G:O5'	2.21	0.40
20:CT:41:ILE:H	20:CT:41:ILE:HG12	1.67	0.40
1:CA:448:A:P	1:CA:485:G:H22	2.44	0.40
27:BA:1897:G:O2'	27:BA:1898:U:H5'	2.21	0.40
27:DA:2516:G:C5	27:DA:2517:C:C4	3.08	0.40
8:AH:126:LYS:C	8:AH:128:GLY:N	2.73	0.40
27:DA:182:A:H8	27:DA:182:A:OP2	2.05	0.40
27:BA:280:C:H2'	27:BA:281:G:H5'	2.04	0.40
9:AI:23:ASN:ND2	9:AI:23:ASN:H	2.20	0.40
1:CA:1069:C:H4'	1:CA:1192:C:O2	2.21	0.40
15:AO:69:TYR:CZ	15:AO:73:GLU:HG3	2.56	0.40
32:BF:81:PRO:HB3	32:BF:87:GLY:O	2.21	0.40
27:BA:2855:C:H2'	27:BA:2856:C:H6	1.86	0.40
27:DA:1435:G:H2'	27:DA:1436:G:O4'	2.21	0.40
27:BA:938:G:H2'	27:BA:939:G:H8	1.86	0.40
27:DA:1184:G:O2'	27:DA:1185:C:H5'	2.21	0.40
6:CF:32:ASN:HA	6:CF:32:ASN:HD22	1.59	0.40
1:AA:542:G:H2'	1:AA:543:C:H6	1.87	0.40
27:DA:887:A:H4'	27:DA:888:C:H5	1.87	0.40
53:B4:40:ILE:HA	53:B4:57:ILE:HB	2.04	0.40
53:B4:60:GLU:O	53:B4:61:VAL:CB	2.70	0.40
28:BB:40:U:N3	28:BB:43:C:H5''	2.36	0.40
33:BG:114:ILE:HG12	33:BG:140:ILE:HD13	2.02	0.40
10:CJ:51:ARG:HH21	10:CJ:61:GLU:HG3	1.87	0.40
28:DB:75:G:N2	48:DZ:86:ASP:CG	2.75	0.40
28:DB:76:G:O4'	48:DZ:84:HIS:HD2	2.05	0.40
51:D2:10:LEU:O	51:D2:11:GLU:C	2.60	0.40
57:D8:33:ASN:N	57:D8:36:LYS:HD3	2.36	0.40
27:DA:2369:A:H2'	27:DA:2370:G:H8	1.86	0.40
34:BH:8:PRO:HG3	34:BH:69:ARG:NE	2.36	0.40
10:CJ:22:LYS:C	10:CJ:24:VAL:N	2.74	0.40
42:DT:13:ARG:CA	42:DT:13:ARG:NE	2.78	0.40
27:DA:601:C:H4'	32:DF:104:LYS:NZ	2.36	0.40
41:DS:85:VAL:HG22	41:DS:106:ARG:HB2	2.03	0.40
41:DS:28:VAL:HB	41:DS:89:ARG:CG	2.46	0.40
33:DG:52:ILE:O	33:DG:54:GLU:N	2.54	0.40
33:DG:69:ALA:O	33:DG:90:LEU:HD23	2.21	0.40
39:DQ:34:LEU:CD1	39:DQ:129:THR:HB	2.50	0.40
1:CA:344:A:H4'	1:CA:345:C:OP2	2.20	0.40
37:DO:121:VAL:O	37:DO:122:LEU:HD23	2.22	0.40
44:BV:18:LEU:HD22	44:BV:19:LYS:H	1.77	0.40
1:CA:1116:C:C2'	1:CA:1117:G:C5'	2.81	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:66:ARG:HH11	9:CI:66:ARG:HB3	1.86	0.40
31:DE:65:GLY:C	31:DE:67:PHE:H	2.25	0.40
3:AC:4:LYS:O	3:AC:5:ILE:C	2.60	0.40
27:BA:772:C:O2'	27:BA:773:U:H5'	2.22	0.40
1:CA:1104:G:H4'	2:CB:111:ARG:NH1	2.36	0.40
1:AA:1276:G:N1	1:AA:1277:C:O2	2.54	0.40
9:AI:87:GLN:C	9:AI:89:ASN:H	2.25	0.40
42:BT:13:ARG:HA	42:BT:13:ARG:HD3	1.68	0.40
2:AB:15:VAL:HG21	2:AB:209:ARG:HE	1.86	0.40
47:DY:42:VAL:HG23	47:DY:65:ALA:HB3	2.03	0.40
47:DY:36:ALA:CA	47:DY:69:ALA:HB2	2.48	0.40
32:DF:123:LEU:CD1	32:DF:124:LEU:N	2.77	0.40
30:BD:25:THR:CG2	30:BD:26:LYS:H	2.26	0.40
48:BZ:138:VAL:HG11	48:BZ:154:LEU:HD23	2.02	0.40
41:BS:17:ARG:CA	41:BS:20:ARG:NH1	2.70	0.40
20:CT:53:LEU:O	20:CT:54:LYS:C	2.59	0.40
44:BV:39:LEU:HA	44:BV:47:VAL:HG11	1.99	0.40
23:AW:25:A:H3'	23:AW:26:C:C6	2.56	0.40
59:CX:57:A:O2'	59:CX:58:A:H5'	2.21	0.40
20:CT:26:ASN:HB2	20:CT:71:THR:CG2	2.46	0.40
27:DA:932:G:H3'	27:DA:932:G:OP1	2.21	0.40
48:DZ:55:VAL:CG1	48:DZ:56:ILE:N	2.84	0.40
5:AE:101:ILE:N	5:AE:101:ILE:HD13	2.22	0.40
1:CA:99:U:O2	1:CA:100:C:C4	2.74	0.40
27:DA:1891:G:C6	27:DA:1892:C:C4	3.10	0.40
1:AA:591:U:H2'	1:AA:592:G:C8	2.56	0.40
1:AA:1107:C:OP1	3:AC:174:PRO:HD3	2.21	0.40
27:DA:2019:A:H5''	43:DU:27:LEU:HD12	2.02	0.40
38:DP:18:ARG:HH11	38:DP:18:ARG:HA	1.84	0.40
27:DA:2387:U:H6	27:DA:2387:U:H5''	1.85	0.40
50:D1:73:LEU:HD13	50:D1:94:LEU:HB3	2.04	0.40
27:BA:1771:C:C1'	27:BA:1786:A:H8	2.35	0.40
39:DQ:24:GLY:O	39:DQ:102:VAL:HG23	2.20	0.40
1:CA:1002:G:H3'	1:CA:1003:G:C8	2.56	0.40
17:CQ:3:LYS:O	17:CQ:4:LYS:C	2.59	0.40
16:CP:58:TYR:C	16:CP:58:TYR:CD1	2.94	0.40
46:BX:14:SER:O	46:BX:17:ALA:HB3	2.22	0.40
28:BB:106:G:O2'	28:BB:107:G:C5'	2.70	0.40
52:B3:8:LEU:HD23	52:B3:53:LEU:O	2.21	0.40
4:CD:112:VAL:H	4:CD:161:ASN:ND2	2.20	0.40
4:CD:109:GLY:HA3	4:CD:165:MET:CE	2.52	0.40
33:DG:101:ILE:HD11	33:DG:105:LYS:HE3	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:166:G:H2'	1:AA:167:G:C8	2.56	0.40
43:BU:36:ARG:O	43:BU:39:LEU:HB2	2.20	0.40
1:AA:1296:C:H4'	1:AA:1302:U:O4	2.22	0.40
27:DA:2336:A:H61	49:D0:43:THR:HG21	1.85	0.40
27:BA:1047:G:N3	27:BA:1111:A:N6	2.69	0.40
27:BA:1109:C:C5	27:BA:1110:G:C5	3.09	0.40
52:B3:5:LYS:HG3	52:B3:36:VAL:CG1	2.44	0.40
43:DU:68:ALA:HA	43:DU:71:GLN:HG3	2.04	0.40
49:B0:20:ARG:CG	49:B0:20:ARG:NH1	2.81	0.40
1:CA:632:A:C2	1:CA:633:G:H1'	2.57	0.40
28:BB:95:C:H2'	28:BB:96:U:C6	2.56	0.40
2:CB:19:HIS:ND1	2:CB:20:GLU:CG	2.76	0.40
16:AP:8:ARG:O	16:AP:9:PHE:CD2	2.61	0.40
30:DD:106:ILE:HG22	30:DD:106:ILE:H	1.58	0.40
33:BG:17:PRO:HG2	33:BG:18:GLU:H	1.85	0.40
1:AA:1396:A:O4'	1:AA:1398:A:H1'	2.21	0.40
7:CG:32:ARG:NH1	7:CG:32:ARG:HG2	2.35	0.40
27:DA:695:G:C2	27:DA:768:G:C5	3.10	0.40
1:AA:1065:U:HO2'	1:AA:1066:C:P	2.39	0.40
2:AB:178:ARG:NH1	2:AB:178:ARG:HB2	2.36	0.40
29:DC:44:HIS:HA	29:DC:175:VAL:HA	2.02	0.40
27:DA:637:A:OP2	38:DP:115:LEU:HB2	2.22	0.40
44:BV:99:ILE:O	44:BV:99:ILE:HG12	2.21	0.40
27:DA:271(J):C:H2'	27:DA:271(J):C:O2	2.21	0.40
8:CH:21:LYS:O	8:CH:22:GLU:C	2.60	0.40
1:CA:797:C:H2'	1:CA:798:G:H8	1.86	0.40
11:CK:125:PHE:H	11:CK:125:PHE:HD1	1.69	0.40
2:AB:189:ASP:O	2:AB:190:THR:C	2.59	0.40
2:AB:19:HIS:CD2	2:AB:206:ASP:OD2	2.74	0.40
1:CA:1120:G:O2'	1:CA:1121:U:H5'	2.21	0.40
35:BI:10:GLU:HG2	35:BI:11:ASN:H	1.86	0.40
1:CA:1416:G:C6	1:CA:1417:G:C5	3.10	0.40
34:DH:152:ARG:O	34:DH:153:LYS:C	2.60	0.40
27:DA:1400:G:H2'	27:DA:1401:G:H8	1.83	0.40
34:DH:46:GLU:HB2	34:DH:51:ARG:HH21	1.86	0.40
1:CA:422:C:H1'	1:CA:423:G:N2	2.37	0.40
27:DA:571:A:O2'	44:DV:78:LYS:HE2	2.21	0.40
27:BA:2175:C:H1'	29:BC:215:THR:CA	2.50	0.40
1:AA:528:C:H41	12:AL:46:ASN:CG	2.24	0.40
57:B8:7:HIS:CG	57:B8:59:LYS:NZ	2.89	0.40
27:DA:552:G:H1'	27:DA:1220:A:N1	2.36	0.40
27:BA:2894:G:H2'	27:BA:2894:G:N3	2.35	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:113:G:O2'	1:AA:114:U:H5'	2.21	0.40
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.56	0.40
2:AB:121:LEU:CD2	2:AB:127:ILE:HD13	2.51	0.40
27:DA:2306:C:H5'	27:DA:2307:G:O5'	2.22	0.40
51:D2:32:LEU:HA	51:D2:32:LEU:HD23	1.86	0.40
18:AR:29:PHE:C	18:AR:29:PHE:CD2	2.92	0.40
1:AA:503:C:H2'	1:AA:504:C:C6	2.56	0.40
1:CA:1463:C:H2'	1:CA:1464:G:C8	2.56	0.40
54:B5:35:GLU:O	54:B5:36:CYS:SG	2.79	0.40
27:BA:262:A:H2'	27:BA:263:C:O4'	2.22	0.40
11:AK:112:THR:HG22	11:AK:113:PRO:O	2.21	0.40
1:CA:658:G:H2'	1:CA:659:U:H6	1.87	0.40
57:D8:16:ILE:O	57:D8:16:ILE:HG23	2.22	0.40
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.21	0.40
55:B6:18:ARG:CG	55:B6:19:ARG:H	2.31	0.40
57:B8:32:LEU:N	57:B8:32:LEU:CD2	2.83	0.40
27:BA:2360:A:OP1	57:B8:49:VAL:HA	2.22	0.40
38:BP:62:LEU:HG	57:B8:25:MET:HB2	2.04	0.40
28:BB:38:C:O2	28:BB:48:A:H1'	2.22	0.40
42:BT:27:THR:CG2	42:BT:28:VAL:N	2.57	0.40
27:BA:2839:G:C2	27:BA:2840:C:C2	3.10	0.40
44:DV:24:LYS:C	44:DV:24:LYS:HD3	2.41	0.40
35:BI:131:LYS:CD	35:BI:132:PRO:HD2	2.51	0.40
45:BW:13:SER:HB3	45:BW:16:LYS:HZ1	1.85	0.40
3:CC:11:ARG:HH21	3:CC:180:ALA:HB2	1.86	0.40
48:DZ:23:LEU:HD21	48:DZ:85:VAL:CG2	2.51	0.40
48:DZ:22:LYS:HA	48:DZ:39:ASP:HA	2.02	0.40
51:D2:21:LEU:O	51:D2:22:GLU:C	2.58	0.40
38:DP:58:THR:O	38:DP:60:MET:N	2.48	0.40
4:AD:49:ARG:CB	4:AD:49:ARG:HH11	2.33	0.40
27:DA:599:G:N2	27:DA:659:C:C2	2.90	0.40
38:DP:146:VAL:CG2	38:DP:147:LEU:N	2.82	0.40
33:DG:126:ASP:HA	33:DG:166:ASP:OD1	2.20	0.40
17:AQ:51:TYR:OH	17:AQ:75:ARG:HA	2.21	0.40
1:AA:1053:G:C3'	1:AA:1054:C:C5'	2.98	0.40
32:DF:165:ARG:NH1	32:DF:165:ARG:HG3	2.36	0.40
1:CA:1103:C:H2'	1:CA:1104:G:O5'	2.20	0.40
1:AA:1251:A:O5'	1:AA:1251:A:H8	2.05	0.40
31:BE:54:GLN:O	31:BE:55:ASN:HB2	2.21	0.40
31:BE:56:PRO:O	31:BE:57:LYS:C	2.59	0.40
47:DY:17:SER:HB2	47:DY:71:LYS:HZ1	1.86	0.40
27:DA:2881:C:N3	27:DA:2882:A:N7	2.70	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:66:MET:H	19:CS:66:MET:HG2	1.73	0.40
27:BA:311:A:C6	27:BA:328:U:C4	3.10	0.40
41:BS:20:ARG:C	41:BS:21:THR:OG1	2.59	0.40
27:BA:986:C:O2'	27:BA:987:G:H5'	2.21	0.40
54:D5:40:LYS:NZ	54:D5:46:CYS:HB2	2.36	0.40
27:DA:2197:U:H3	27:DA:2225:A:H62	1.69	0.40
51:D2:48:HIS:O	51:D2:49:LYS:C	2.59	0.40
27:BA:2006:C:O2'	27:BA:2823:A:N3	2.50	0.40
5:AE:6:PHE:CD2	5:AE:36:ASP:HB3	2.57	0.40
8:CH:113:SER:O	8:CH:131:GLY:HA3	2.21	0.40
39:BQ:17:LEU:HD23	39:BQ:17:LEU:N	2.37	0.40
41:BS:68:GLN:HG2	41:BS:71:ARG:NH1	2.37	0.40
34:BH:48:GLY:C	34:BH:49:VAL:HG13	2.42	0.40
13:CM:81:LEU:HA	13:CM:81:LEU:HD23	1.88	0.40
47:BY:43:ASN:O	47:BY:44:ILE:O	2.40	0.40
41:DS:14:VAL:HG12	41:DS:15:ARG:H	1.87	0.40
34:DH:97:ARG:HB3	34:DH:98:LEU:H	1.49	0.40
32:BF:123:LEU:CD1	32:BF:124:LEU:N	2.83	0.40
27:DA:242:G:C5'	57:D8:62:LEU:HB3	2.51	0.40
57:D8:60:LEU:C	57:D8:63:PRO:HG2	2.42	0.40
27:BA:740:U:H5'	27:BA:740:U:C6	2.32	0.40
27:BA:674:G:H1'	32:BF:74:ARG:HD2	2.01	0.40
30:DD:119:ALA:HA	30:DD:130:ALA:O	2.22	0.40
48:DZ:107:PRO:C	48:DZ:109:GLY:N	2.74	0.40
27:DA:1153:C:H2'	27:DA:1154:G:O4'	2.22	0.40
39:DQ:55:VAL:O	39:DQ:55:VAL:HG13	2.21	0.40
1:AA:523:A:H61	12:AL:89:ASP:CB	2.30	0.40
34:BH:91:GLY:HA3	34:BH:160:LYS:HB3	2.00	0.40
3:CC:138:VAL:CG1	3:CC:170:GLN:HE21	2.34	0.40
30:DD:183:ARG:CG	30:DD:183:ARG:NH1	2.77	0.40
25:CY:17:G:N2	25:CY:56:G:N7	2.70	0.40
51:B2:50:ILE:CG2	51:B2:51:ARG:H	2.34	0.40
3:CC:120:VAL:O	3:CC:123:GLN:N	2.54	0.40
3:CC:53:ALA:O	3:CC:54:ARG:CB	2.61	0.40
27:DA:478:A:C6	27:DA:480:A:C6	3.09	0.40
34:BH:30:LYS:HZ2	34:BH:81:GLU:CA	2.34	0.40
42:DT:90:GLN:HG2	42:DT:120:ARG:CZ	2.52	0.40
33:DG:98:ARG:C	33:DG:101:ILE:HG22	2.42	0.40
25:CY:27:C:H2'	25:CY:28:G:C8	2.38	0.40
1:AA:164:U:H2'	1:AA:165:C:H6	1.86	0.40
27:BA:15:G:N1	27:BA:16:G:C5	2.89	0.40
27:BA:2023:G:H4'	27:BA:2617:C:O3'	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:338:G:O2'	27:DA:339:U:H5'	2.20	0.40
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.57	0.40
5:AE:60:TYR:CZ	5:AE:64:ARG:NH2	2.90	0.40
49:D0:53:MET:HA	49:D0:59:LEU:HA	2.04	0.40
27:DA:1348:G:C6	27:DA:1349:A:N1	2.90	0.40
7:AG:56:GLN:HB3	7:AG:61:VAL:CG2	2.45	0.40
43:DU:66:ASN:C	43:DU:68:ALA:H	2.24	0.40
27:DA:1368:G:C2	27:DA:1369:G:C8	3.10	0.40
1:CA:1068:G:OP2	1:CA:1094:G:H5'	2.21	0.40
18:AR:76:LEU:N	18:AR:76:LEU:CD2	2.84	0.40
37:BO:115:VAL:CG1	37:BO:121:VAL:HG21	2.52	0.40
28:BB:93:G:O5'	28:BB:93:G:H8	2.03	0.40
48:BZ:17:LEU:HA	48:BZ:17:LEU:HD12	1.95	0.40
35:DI:2:LYS:CA	35:DI:20:ASP:HB2	2.49	0.40
44:DV:65:GLY:O	44:DV:90:PRO:HA	2.22	0.40
2:CB:80:ILE:HD11	2:CB:211:ILE:O	2.22	0.40
1:CA:1164:G:C6	1:CA:1173:G:N1	2.89	0.40
7:CG:115:ARG:O	7:CG:117:ALA:N	2.54	0.40
1:CA:570:G:C4	1:CA:571:U:C5	3.09	0.40
34:BH:75:ALA:O	34:BH:78:GLY:N	2.55	0.40
27:DA:2330:G:HO2'	49:D0:41:ARG:HB2	1.85	0.40
27:BA:2397:G:H2'	27:BA:2398:U:O4'	2.21	0.40
27:BA:711:G:H2'	27:BA:712:G:H8	1.86	0.40
12:AL:37:VAL:HG11	12:AL:74:LEU:O	2.21	0.40
16:AP:31:LYS:CG	16:AP:32:TYR:N	2.83	0.40
30:BD:74:GLY:O	30:BD:76:PRO:HD3	2.22	0.40
27:DA:443:A:N7	32:DF:45:ARG:HD2	2.37	0.40
47:BY:31:LEU:HB2	47:BY:32:PRO:HA	2.03	0.40
50:B1:26:ARG:HG3	50:B1:26:ARG:NH1	2.35	0.40
1:AA:770:C:C1'	1:AA:900:A:C2	3.05	0.40
42:DT:126:ALA:C	42:DT:128:GLU:N	2.73	0.40
27:BA:1497:U:C4'	27:BA:1497:U:OP1	2.70	0.40
27:BA:2745:C:O2'	34:BH:139:GLN:O	2.40	0.40
27:BA:363(D):G:H3'	27:BA:363(E):U:H6	1.86	0.40
27:BA:455:C:H3'	27:BA:456:C:H5''	2.04	0.40
19:CS:36:ARG:NH1	19:CS:36:ARG:CB	2.84	0.40
1:CA:394:G:H2'	1:CA:395:C:H6	1.86	0.40
1:AA:1009:G:C2'	1:AA:1010:G:H5'	2.52	0.40
3:CC:164:ARG:NH1	3:CC:164:ARG:HB3	2.36	0.40
54:D5:56:LYS:HE3	54:D5:59:GLU:HG2	2.03	0.40
27:BA:1972:A:OP1	30:BD:239:ARG:NH2	2.55	0.40
4:AD:83:SER:HA	4:AD:89:THR:HG23	2.02	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:724:U:C2'	27:BA:725:G:H5'	2.52	0.40
1:AA:1489:G:O2'	1:AA:1490:C:H5'	2.22	0.40
27:BA:931:G:C3'	27:BA:931:G:C8	3.04	0.40
27:DA:727:A:C2	30:DD:9:TYR:CD2	3.09	0.40
27:BA:30:G:C5	27:BA:31:C:C4	3.09	0.40
1:CA:1518:A:O5'	1:CA:1518:A:H8	2.04	0.40
27:BA:193:U:O2	27:BA:193:U:H2'	2.20	0.40
49:B0:55:ARG:HB3	49:B0:55:ARG:HE	1.34	0.40
27:BA:1133:U:H2'	27:BA:1137:G:OP1	2.22	0.40
4:AD:104:VAL:C	4:AD:106:TYR:H	2.25	0.40
4:AD:19:LEU:HD13	4:AD:19:LEU:HA	1.83	0.40
4:AD:200:GLU:O	4:AD:203:VAL:HB	2.21	0.40
35:DI:136:VAL:HG22	35:DI:136:VAL:O	2.21	0.40
28:BB:50:G:H2'	28:BB:51:G:O4'	2.21	0.40
47:BY:81:LYS:CD	47:BY:97:ARG:HB3	2.47	0.40
28:DB:105:A:H2'	28:DB:106:G:C1'	2.52	0.40
48:DZ:149:LEU:CD2	48:DZ:170:ILE:HG13	2.50	0.40
51:D2:69:ARG:O	51:D2:70:GLN:CG	2.67	0.40
27:DA:2419:U:O4	57:D8:30:ARG:NH2	2.54	0.40
41:BS:106:ARG:O	41:BS:106:ARG:CG	2.70	0.40
27:BA:2749:A:H4'	34:BH:62:LYS:HB3	2.02	0.40
27:DA:777:A:C2	27:DA:778:G:C4	3.10	0.40
32:BF:31:HIS:O	32:BF:34:TRP:N	2.54	0.40
44:DV:5:VAL:HG22	44:DV:6:LYS:N	2.37	0.40
33:DG:140:ILE:O	33:DG:140:ILE:HG22	2.22	0.40
36:DN:55:VAL:CG1	36:DN:126:PRO:HB3	2.51	0.40
36:DN:65:LYS:C	36:DN:67:LEU:N	2.72	0.40
16:AP:66:PRO:HG2	16:AP:71:ARG:HB3	2.03	0.40
16:AP:66:PRO:O	16:AP:67:THR:O	2.39	0.40
30:DD:173:VAL:O	30:DD:173:VAL:HG13	2.21	0.40
14:CN:18:VAL:C	14:CN:20:ALA:H	2.25	0.40
9:AI:111:ARG:O	9:AI:113:LYS:HD2	2.21	0.40
27:BA:773:U:H4'	30:BD:47:GLY:CA	2.51	0.40
32:DF:84:VAL:O	32:DF:84:VAL:HG12	2.21	0.40
35:BI:2:LYS:H	35:BI:2:LYS:HD2	1.86	0.40
36:BN:3:THR:HB	36:BN:5:VAL:HG12	2.04	0.40
32:DF:199:TRP:O	32:DF:203:GLN:HB2	2.22	0.40
32:DF:20:LEU:HB3	32:DF:23:ASP:OD2	2.22	0.40
5:CE:101:ILE:CD1	5:CE:118:ILE:O	2.69	0.40
19:CS:62:ILE:O	19:CS:62:ILE:HG23	2.20	0.40
42:DT:98:LYS:HB3	42:DT:100:TYR:HE1	1.84	0.40
27:BA:580:C:H2'	27:BA:581:C:H6	1.86	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2334:G:H4'	27:BA:2335:A:OP2	2.21	0.40
27:BA:2206:G:N3	27:BA:2207:G:H5'	2.36	0.40
59:CX:61:C:O2	59:CX:62:C:C6	2.75	0.40
20:CT:32:ALA:O	20:CT:33:ILE:C	2.59	0.40
20:CT:70:SER:O	20:CT:71:THR:O	2.40	0.40
4:CD:142:PRO:HA	4:CD:185:PHE:HD2	1.87	0.40
37:DO:61:VAL:HB	37:DO:111:PHE:HE1	1.87	0.40
15:CO:39:LEU:HD13	15:CO:39:LEU:C	2.42	0.40
27:DA:2478:A:O4'	27:DA:2528:U:H4'	2.21	0.40
40:DR:28:LEU:C	40:DR:28:LEU:HD13	2.41	0.40
3:AC:22:TRP:CZ3	3:AC:32:LEU:HB2	2.56	0.40
36:DN:103:VAL:O	36:DN:104:LYS:C	2.59	0.40
36:DN:27:ALA:HA	36:DN:30:ILE:HD12	2.04	0.40
27:DA:2807:G:C2'	27:DA:2808:U:H5''	2.51	0.40
43:DU:31:SER:C	43:DU:33:ARG:N	2.74	0.40
50:B1:57:GLU:O	50:B1:58:ILE:HG23	2.22	0.40
57:D8:63:PRO:O	57:D8:64:TYR:C	2.60	0.40
38:DP:47:ASP:CB	38:DP:48:PRO:CA	2.99	0.40
40:BR:81:ASP:N	40:BR:81:ASP:OD2	2.54	0.40
27:BA:1786:A:H1'	27:BA:1938:A:N6	2.37	0.40
39:DQ:26:TYR:N	39:DQ:102:VAL:HG21	2.36	0.40
6:AF:61:LEU:HB3	6:AF:62:TRP:H	1.53	0.40
15:AO:6:GLU:OE2	15:AO:6:GLU:N	2.54	0.40
36:BN:66:LYS:C	36:BN:68:GLU:N	2.72	0.40
16:CP:32:TYR:CE2	16:CP:35:LYS:HB2	2.48	0.40
1:AA:363:A:OP1	12:AL:30:ARG:HA	2.21	0.40
1:AA:1313:U:OP1	19:AS:6:LYS:CG	2.65	0.40
27:DA:1484:G:C3'	27:DA:1485:G:C5'	2.90	0.40
1:AA:154:C:C2	1:AA:168:G:N2	2.90	0.40
27:BA:2018:G:C6	27:BA:2019:A:C6	3.09	0.40
27:BA:1620:G:O2'	27:BA:1621:U:H5'	2.20	0.40
27:DA:332:A:O2'	27:DA:333:G:C5'	2.69	0.40
27:BA:1998:G:H4'	27:BA:2724:C:H4'	2.04	0.40
27:BA:2681:C:C6	27:BA:2724:C:N4	2.89	0.40
41:DS:97:ARG:NH2	41:DS:98:VAL:CA	2.77	0.40
27:DA:1494:A:N3	27:DA:1494:A:H5'	2.36	0.40
18:AR:47:THR:HB	18:AR:49:LYS:HG3	2.03	0.40
18:AR:63:GLN:O	18:AR:66:LEU:HB3	2.22	0.40
27:DA:1556:C:H2'	27:DA:1557:C:C6	2.56	0.40
27:DA:2716:U:O2'	27:DA:2717:G:H5'	2.22	0.40
33:BG:13:GLU:O	33:BG:14:GLU:CB	2.60	0.40
12:CL:4:ILE:O	12:CL:7:LEU:HB2	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1404:C:C2'	27:DA:1405:U:H5'	2.51	0.40
8:AH:79:VAL:C	8:AH:80:ILE:HG13	2.40	0.40
27:DA:559:G:C2'	27:DA:560:C:H5'	2.52	0.40
25:CY:21:A:N6	25:CY:22:G:C2	2.90	0.40
1:CA:310:G:OP1	16:CP:27:LYS:HD3	2.22	0.40
8:CH:32:LYS:O	8:CH:33:GLU:C	2.58	0.40
27:BA:2258:C:O2'	27:BA:2426:A:H4'	2.20	0.40
1:CA:197:A:H4'	1:CA:198:G:O5'	2.20	0.40
27:BA:2126:A:O2'	27:BA:2127:G:P	2.79	0.40
25:AY:68:C:C2'	25:AY:69:C:H5''	2.52	0.40
48:BZ:29:ASN:HA	48:BZ:88:PHE:CE2	2.56	0.40
8:AH:96:GLY:C	8:AH:98:LYS:N	2.75	0.40
27:DA:2145:C:C4'	27:DA:2146:C:OP2	2.69	0.40
6:CF:91:VAL:HG12	6:CF:92:LYS:N	2.36	0.40
27:DA:2494:G:O2'	39:DQ:80:GLU:HA	2.22	0.40
40:BR:17:ARG:CG	40:BR:17:ARG:HH11	2.33	0.40
27:BA:1277:G:O2'	27:BA:1278:A:H5'	2.21	0.40
27:DA:443:A:C5	32:DF:45:ARG:HD2	2.57	0.40
1:CA:353:A:H5'	1:CA:353:A:C8	2.50	0.40
42:BT:22:PHE:CD2	42:BT:22:PHE:N	2.88	0.40
1:CA:544:G:H2'	1:CA:545:C:H6	1.86	0.40
29:BC:189:ILE:C	29:BC:191:ALA:H	2.24	0.40
27:DA:2250:G:C6	39:DQ:83:MET:HB3	2.57	0.40
49:B0:46:LYS:O	49:B0:47:PRO:O	2.40	0.40
48:BZ:75:LEU:HD12	48:BZ:82:PRO:HA	2.03	0.40
1:AA:184:G:H2'	1:AA:185:A:H8	1.87	0.40
7:CG:62:PHE:C	7:CG:64:GLN:N	2.74	0.40
27:DA:2256:G:H2'	27:DA:2257:U:C6	2.56	0.40
21:AU:17:THR:O	21:AU:22:ARG:NH1	2.46	0.40
1:CA:943:U:H6	1:CA:943:U:O5'	2.04	0.40
27:DA:2894:G:N3	27:DA:2894:G:H2'	2.37	0.40
56:B7:43:THR:HG23	56:B7:43:THR:O	2.21	0.40
27:BA:357:A:C2	27:BA:358:U:C2	3.09	0.40
51:D2:29:LYS:HB3	51:D2:29:LYS:HE3	1.96	0.40
27:DA:2435:A:C6	27:DA:2436:G:N7	2.90	0.40
27:DA:1877:A:N7	27:DA:1878:G:H1'	2.36	0.40
27:DA:241:A:N1	27:DA:255:A:H5''	2.36	0.40
4:CD:91:SER:O	4:CD:94:LEU:HB2	2.21	0.40
40:BR:57:ARG:O	40:BR:59:ASP:N	2.55	0.40
23:AW:49:G:O2'	23:AW:50:A:H5'	2.22	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%)	57 (24%)	29 (12%)	1	9
2	CB	233/256 (91%)	144 (62%)	56 (24%)	33 (14%)	0	6
3	AC	205/239 (86%)	122 (60%)	53 (26%)	30 (15%)	0	5
3	CC	202/239 (84%)	116 (57%)	48 (24%)	38 (19%)	0	2
4	AD	206/209 (99%)	138 (67%)	39 (19%)	29 (14%)	0	6
4	CD	206/209 (99%)	141 (68%)	39 (19%)	26 (13%)	0	8
5	AE	149/162 (92%)	98 (66%)	34 (23%)	17 (11%)	1	10
5	CE	149/162 (92%)	107 (72%)	27 (18%)	15 (10%)	1	13
6	AF	99/101 (98%)	74 (75%)	16 (16%)	9 (9%)	1	16
6	CF	99/101 (98%)	71 (72%)	21 (21%)	7 (7%)	2	24
7	AG	153/156 (98%)	108 (71%)	28 (18%)	17 (11%)	1	11
7	CG	150/156 (96%)	93 (62%)	39 (26%)	18 (12%)	1	9
8	AH	136/138 (99%)	87 (64%)	37 (27%)	12 (9%)	1	17
8	CH	136/138 (99%)	92 (68%)	37 (27%)	7 (5%)	3	35
9	AI	125/128 (98%)	86 (69%)	26 (21%)	13 (10%)	1	12
9	CI	125/128 (98%)	72 (58%)	43 (34%)	10 (8%)	1	20
10	AJ	97/105 (92%)	59 (61%)	27 (28%)	11 (11%)	1	10
10	CJ	97/105 (92%)	52 (54%)	34 (35%)	11 (11%)	1	10
11	AK	114/129 (88%)	82 (72%)	26 (23%)	6 (5%)	3	33
11	CK	117/129 (91%)	81 (69%)	25 (21%)	11 (9%)	1	15
12	AL	123/132 (93%)	78 (63%)	29 (24%)	16 (13%)	0	8
12	CL	123/132 (93%)	82 (67%)	19 (15%)	22 (18%)	0	3
13	AM	120/126 (95%)	69 (58%)	28 (23%)	23 (19%)	0	2
13	CM	116/126 (92%)	66 (57%)	24 (21%)	26 (22%)	0	1
14	AN	58/61 (95%)	33 (57%)	17 (29%)	8 (14%)	0	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	CN	58/61 (95%)	40 (69%)	11 (19%)	7 (12%)	1	9
15	AO	86/89 (97%)	61 (71%)	16 (19%)	9 (10%)	1	11
15	CO	86/89 (97%)	62 (72%)	15 (17%)	9 (10%)	1	11
16	AP	82/88 (93%)	54 (66%)	19 (23%)	9 (11%)	1	11
16	CP	82/88 (93%)	56 (68%)	24 (29%)	2 (2%)	9	58
17	AQ	98/105 (93%)	76 (78%)	13 (13%)	9 (9%)	1	15
17	CQ	98/105 (93%)	64 (65%)	23 (24%)	11 (11%)	1	10
18	AR	68/88 (77%)	48 (71%)	14 (21%)	6 (9%)	1	17
18	CR	68/88 (77%)	50 (74%)	11 (16%)	7 (10%)	1	12
19	AS	77/93 (83%)	46 (60%)	13 (17%)	18 (23%)	0	1
19	CS	77/93 (83%)	49 (64%)	18 (23%)	10 (13%)	0	8
20	AT	97/106 (92%)	57 (59%)	25 (26%)	15 (16%)	0	4
20	CT	97/106 (92%)	64 (66%)	18 (19%)	15 (16%)	0	4
21	AU	23/27 (85%)	15 (65%)	7 (30%)	1 (4%)	4	40
21	CU	23/27 (85%)	19 (83%)	1 (4%)	3 (13%)	0	8
29	BC	183/229 (80%)	67 (37%)	66 (36%)	50 (27%)	0	0
29	DC	183/229 (80%)	62 (34%)	69 (38%)	52 (28%)	0	0
30	BD	270/276 (98%)	175 (65%)	54 (20%)	41 (15%)	0	5
30	DD	270/276 (98%)	180 (67%)	51 (19%)	39 (14%)	0	6
31	BE	203/206 (98%)	133 (66%)	38 (19%)	32 (16%)	0	4
31	DE	203/206 (98%)	115 (57%)	49 (24%)	39 (19%)	0	2
32	BF	204/210 (97%)	141 (69%)	40 (20%)	23 (11%)	1	10
32	DF	206/210 (98%)	126 (61%)	44 (21%)	36 (18%)	0	3
33	BG	179/182 (98%)	114 (64%)	31 (17%)	34 (19%)	0	2
33	DG	179/182 (98%)	98 (55%)	53 (30%)	28 (16%)	0	4
34	BH	159/180 (88%)	92 (58%)	31 (20%)	36 (23%)	0	1
34	DH	158/180 (88%)	96 (61%)	30 (19%)	32 (20%)	0	2
35	BI	144/148 (97%)	72 (50%)	37 (26%)	35 (24%)	0	1
35	DI	144/148 (97%)	73 (51%)	48 (33%)	23 (16%)	0	4
36	BN	137/140 (98%)	98 (72%)	23 (17%)	16 (12%)	1	10
36	DN	137/140 (98%)	83 (61%)	30 (22%)	24 (18%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
37	BO	120/122 (98%)	95 (79%)	19 (16%)	6 (5%)	3	35
37	DO	120/122 (98%)	84 (70%)	23 (19%)	13 (11%)	1	11
38	BP	144/150 (96%)	68 (47%)	33 (23%)	43 (30%)	0	0
38	DP	144/150 (96%)	69 (48%)	38 (26%)	37 (26%)	0	1
39	BQ	137/141 (97%)	99 (72%)	25 (18%)	13 (10%)	1	15
39	DQ	134/141 (95%)	86 (64%)	28 (21%)	20 (15%)	0	5
40	BR	115/118 (98%)	73 (64%)	24 (21%)	18 (16%)	0	4
40	DR	115/118 (98%)	69 (60%)	29 (25%)	17 (15%)	0	5
41	BS	97/112 (87%)	46 (47%)	25 (26%)	26 (27%)	0	0
41	DS	97/112 (87%)	44 (45%)	28 (29%)	25 (26%)	0	1
42	BT	136/146 (93%)	81 (60%)	25 (18%)	30 (22%)	0	1
42	DT	136/146 (93%)	71 (52%)	28 (21%)	37 (27%)	0	0
43	BU	115/118 (98%)	79 (69%)	27 (24%)	9 (8%)	1	20
43	DU	115/118 (98%)	63 (55%)	36 (31%)	16 (14%)	0	6
44	BV	99/101 (98%)	59 (60%)	18 (18%)	22 (22%)	0	1
44	DV	99/101 (98%)	56 (57%)	25 (25%)	18 (18%)	0	3
45	BW	111/113 (98%)	86 (78%)	20 (18%)	5 (4%)	4	39
45	DW	111/113 (98%)	74 (67%)	23 (21%)	14 (13%)	0	8
46	BX	91/96 (95%)	71 (78%)	19 (21%)	1 (1%)	21	76
46	DX	91/96 (95%)	63 (69%)	16 (18%)	12 (13%)	0	7
47	BY	84/110 (76%)	30 (36%)	25 (30%)	29 (34%)	0	0
47	DY	99/110 (90%)	36 (36%)	27 (27%)	36 (36%)	0	0
48	BZ	175/206 (85%)	94 (54%)	46 (26%)	35 (20%)	0	2
48	DZ	175/206 (85%)	85 (49%)	52 (30%)	38 (22%)	0	1
49	B0	82/85 (96%)	66 (80%)	11 (13%)	5 (6%)	2	29
49	D0	82/85 (96%)	64 (78%)	14 (17%)	4 (5%)	3	36
50	B1	92/98 (94%)	72 (78%)	13 (14%)	7 (8%)	2	21
50	D1	92/98 (94%)	70 (76%)	11 (12%)	11 (12%)	1	9
51	B2	69/72 (96%)	43 (62%)	13 (19%)	13 (19%)	0	2
51	D2	69/72 (96%)	41 (59%)	16 (23%)	12 (17%)	0	3
52	B3	58/60 (97%)	49 (84%)	4 (7%)	5 (9%)	1	17

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
52	D3	58/60 (97%)	46 (79%)	6 (10%)	6 (10%)	1	12
53	B4	45/71 (63%)	18 (40%)	10 (22%)	17 (38%)	0	0
53	D4	45/71 (63%)	19 (42%)	11 (24%)	15 (33%)	0	0
54	B5	57/60 (95%)	41 (72%)	8 (14%)	8 (14%)	0	6
54	D5	57/60 (95%)	42 (74%)	8 (14%)	7 (12%)	1	9
55	B6	46/54 (85%)	18 (39%)	9 (20%)	19 (41%)	0	0
55	D6	44/54 (82%)	15 (34%)	12 (27%)	17 (39%)	0	0
56	B7	47/49 (96%)	37 (79%)	7 (15%)	3 (6%)	2	27
56	D7	47/49 (96%)	40 (85%)	5 (11%)	2 (4%)	4	40
57	B8	62/65 (95%)	30 (48%)	19 (31%)	13 (21%)	0	2
57	D8	62/65 (95%)	33 (53%)	17 (27%)	12 (19%)	0	2
58	B9	34/37 (92%)	27 (79%)	5 (15%)	2 (6%)	2	30
58	D9	34/37 (92%)	24 (71%)	7 (21%)	3 (9%)	1	17
All	All	11692/12586 (93%)	7260 (62%)	2616 (22%)	1816 (16%)	0	4

All (1816) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	24	TRP
2	AB	122	PHE
2	AB	128	GLU
2	AB	154	LEU
2	AB	161	ALA
2	AB	172	ILE
2	AB	195	ASP
2	AB	239	VAL
3	AC	3	ASN
3	AC	5	ILE
3	AC	15	THR
3	AC	65	ALA
3	AC	107	GLN
3	AC	154	SER
3	AC	156	ARG
3	AC	207	VAL
4	AD	4	TYR
4	AD	17	VAL

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Mol	Chain	Res	Type
4	AD	22	LYS
4	AD	29	PRO
4	AD	30	LYS
4	AD	40	PRO
4	AD	150	GLU
4	AD	153	ARG
4	AD	208	SER
5	AE	7	GLU
5	AE	16	THR
5	AE	71	LEU
5	AE	125	SER
6	AF	13	ASN
6	AF	62	TRP
6	AF	81	ILE
6	AF	82	ARG
7	AG	6	ARG
7	AG	7	ALA
7	AG	33	ASP
7	AG	58	PRO
7	AG	145	ALA
8	AH	26	VAL
8	AH	71	GLY
8	AH	91	ARG
8	AH	97	VAL
9	AI	41	VAL
9	AI	42	ARG
9	AI	95	LYS
9	AI	120	ARG
10	AJ	57	LYS
11	AK	57	THR
12	AL	15	VAL
12	AL	44	LYS
12	AL	113	SER
12	AL	118	GLY
12	AL	120	LYS
13	AM	8	GLU
13	AM	28	ALA
13	AM	67	GLU
13	AM	69	GLU
13	AM	70	LEU
13	AM	83	ASP
13	AM	95	GLY

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Mol	Chain	Res	Type
13	AM	99	ARG
13	AM	113	PRO
13	AM	116	THR
13	AM	117	VAL
15	AO	24	SER
16	AP	49	LEU
16	AP	67	THR
18	AR	20	ALA
18	AR	58	LEU
18	AR	87	ARG
19	AS	10	PHE
19	AS	25	LYS
19	AS	26	GLY
19	AS	28	LYS
19	AS	61	TYR
19	AS	62	ILE
19	AS	69	HIS
20	AT	48	LYS
20	AT	74	LYS
21	AU	25	LYS
29	BC	35	ALA
29	BC	54	SER
29	BC	61	THR
29	BC	67	GLY
29	BC	79	LYS
29	BC	126	LYS
29	BC	133	PRO
29	BC	140	PRO
29	BC	148	ASN
29	BC	151	GLU
29	BC	153	ILE
29	BC	156	ILE
29	BC	173	ALA
29	BC	174	PRO
29	BC	179	SER
29	BC	182	PRO
29	BC	188	ASN
29	BC	220	PRO
29	BC	222	VAL
30	BD	24	ILE
30	BD	25	THR
30	BD	33	LEU

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Mol	Chain	Res	Type
30	BD	34	VAL
30	BD	35	LYS
30	BD	46	GLN
30	BD	52	ARG
30	BD	106	ILE
30	BD	127	VAL
30	BD	245	PRO
30	BD	246	PRO
30	BD	271	ILE
30	BD	272	ALA
31	BE	38	THR
31	BE	53	PRO
31	BE	55	ASN
31	BE	59	VAL
31	BE	60	ASN
31	BE	64	LYS
31	BE	66	HIS
31	BE	68	ALA
31	BE	69	LYS
31	BE	76	ARG
31	BE	118	LYS
31	BE	132	HIS
31	BE	174	ASP
31	BE	187	ALA
31	BE	203	LYS
32	BF	14	PRO
32	BF	21	ALA
32	BF	25	PRO
32	BF	27	GLU
32	BF	89	VAL
32	BF	132	VAL
32	BF	134	GLY
32	BF	172	TRP
33	BG	14	GLU
33	BG	25	TYR
33	BG	27	ASN
33	BG	45	GLU
33	BG	77	ILE
33	BG	78	SER
33	BG	79	ASN
33	BG	81	LYS
33	BG	82	LEU

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Mol	Chain	Res	Type
33	BG	84	LYS
33	BG	86	MET
33	BG	87	PRO
33	BG	110	ALA
33	BG	115	ARG
33	BG	126	ASP
33	BG	145	THR
33	BG	147	ASP
34	BH	47	GLU
34	BH	53	GLU
34	BH	71	LEU
34	BH	84	SER
34	BH	92	ILE
34	BH	137	ASP
34	BH	138	LYS
34	BH	155	SER
34	BH	156	ALA
34	BH	158	HIS
34	BH	159	GLU
34	BH	165	ALA
35	BI	7	GLU
35	BI	8	PRO
35	BI	9	LEU
35	BI	14	ASP
35	BI	75	LEU
35	BI	86	THR
35	BI	92	VAL
35	BI	93	THR
35	BI	120	ILE
35	BI	132	PRO
35	BI	133	HIS
35	BI	135	GLU
35	BI	143	SER
36	BN	4	TYR
36	BN	42	TRP
36	BN	58	ASP
37	BO	29	ASN
37	BO	48	PRO
38	BP	17	LYS
38	BP	19	VAL
38	BP	30	THR
38	BP	31	ALA

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Mol	Chain	Res	Type
38	BP	35	HIS
38	BP	39	LYS
38	BP	40	SER
38	BP	46	LYS
38	BP	47	ASP
38	BP	48	PRO
38	BP	51	PHE
38	BP	52	GLU
38	BP	56	SER
38	BP	58	THR
38	BP	64	LYS
38	BP	98	GLU
38	BP	107	LYS
38	BP	108	LYS
38	BP	110	TYR
38	BP	146	VAL
39	BQ	19	GLY
39	BQ	60	ARG
39	BQ	135	ASP
40	BR	5	LYS
40	BR	8	ARG
40	BR	14	SER
40	BR	45	ARG
40	BR	58	GLY
40	BR	68	ARG
41	BS	15	ARG
41	BS	23	ARG
41	BS	55	ALA
41	BS	58	LEU
41	BS	59	LYS
41	BS	92	TYR
41	BS	96	GLY
41	BS	97	ARG
41	BS	102	ALA
41	BS	103	GLU
41	BS	105	ALA
42	BT	2	ASN
42	BT	24	PRO
42	BT	26	ASP
42	BT	30	VAL
42	BT	32	TYR
42	BT	35	LYS

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Mol	Chain	Res	Type
42	BT	36	GLU
42	BT	41	ARG
42	BT	58	ASN
42	BT	80	SER
42	BT	86	ILE
42	BT	107	ASP
42	BT	128	GLU
43	BU	9	VAL
43	BU	25	TRP
43	BU	26	GLY
43	BU	91	ASP
44	BV	2	PHE
44	BV	19	LYS
44	BV	28	GLU
44	BV	29	PRO
44	BV	50	PRO
44	BV	79	VAL
47	BY	7	VAL
47	BY	17	SER
47	BY	27	VAL
47	BY	42	VAL
47	BY	66	PRO
47	BY	67	LEU
47	BY	74	PRO
47	BY	75	ILE
47	BY	77	PRO
47	BY	78	ALA
47	BY	90	LEU
47	BY	99	CYS
47	BY	101	LYS
48	BZ	95	VAL
48	BZ	117	GLN
48	BZ	126	LYS
48	BZ	127	VAL
48	BZ	137	GLU
48	BZ	145	ILE
48	BZ	149	LEU
48	BZ	151	ALA
49	B0	47	PRO
50	B1	52	ARG
51	B2	15	LYS
51	B2	43	GLN

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Mol	Chain	Res	Type
51	B2	48	HIS
52	B3	2	PRO
53	B4	66	HIS
53	B4	75	VAL
53	B4	76	ASP
53	B4	80	ARG
53	B4	83	ARG
54	B5	4	HIS
54	B5	36	CYS
54	B5	38	ALA
54	B5	51	TYR
55	B6	17	LYS
55	B6	19	ARG
55	B6	20	ASN
55	B6	23	THR
55	B6	28	ARG
55	B6	33	LYS
55	B6	35	GLU
55	B6	41	PRO
55	B6	42	TRP
55	B6	49	HIS
57	B8	18	ALA
57	B8	31	HIS
57	B8	33	ASN
57	B8	34	TRP
57	B8	46	ARG
2	CB	8	LYS
2	CB	9	GLU
2	CB	10	LEU
2	CB	15	VAL
2	CB	20	GLU
2	CB	23	ARG
2	CB	122	PHE
2	CB	128	GLU
2	CB	167	PRO
2	CB	195	ASP
2	CB	238	LEU
3	CC	4	LYS
3	CC	5	ILE
3	CC	15	THR
3	CC	52	LEU
3	CC	66	VAL

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Mol	Chain	Res	Type
3	CC	83	ARG
3	CC	108	ASN
3	CC	127	ARG
3	CC	154	SER
3	CC	207	VAL
4	CD	3	ARG
4	CD	10	ARG
4	CD	29	PRO
4	CD	30	LYS
4	CD	88	VAL
4	CD	131	ARG
4	CD	208	SER
5	CE	21	ALA
5	CE	74	GLY
5	CE	108	ALA
6	CF	45	LEU
7	CG	4	ARG
7	CG	53	LYS
7	CG	123	GLU
7	CG	136	LYS
8	CH	105	ARG
8	CH	133	LEU
9	CI	21	PRO
9	CI	103	THR
10	CJ	45	ARG
10	CJ	57	LYS
10	CJ	78	ASN
10	CJ	88	LEU
11	CK	87	THR
11	CK	95	ILE
11	CK	99	GLN
11	CK	107	SER
12	CL	15	VAL
12	CL	16	ARG
12	CL	23	ALA
12	CL	24	LEU
12	CL	43	LYS
12	CL	44	LYS
12	CL	45	PRO
12	CL	88	LYS
12	CL	89	ASP
13	CM	12	ASN

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Mol	Chain	Res	Type
13	CM	42	ALA
13	CM	48	LEU
13	CM	67	GLU
13	CM	68	GLY
13	CM	70	LEU
13	CM	83	ASP
13	CM	104	ARG
13	CM	113	PRO
13	CM	117	VAL
14	CN	14	PRO
14	CN	16	PHE
15	CO	26	GLU
15	CO	47	LYS
17	CQ	12	SER
17	CQ	49	GLU
17	CQ	78	GLU
18	CR	37	VAL
18	CR	87	ARG
19	CS	10	PHE
19	CS	28	LYS
19	CS	61	TYR
19	CS	62	ILE
20	CT	28	ALA
20	CT	34	LYS
20	CT	48	LYS
20	CT	71	THR
20	CT	73	HIS
20	CT	74	LYS
29	DC	26	ALA
29	DC	37	PHE
29	DC	58	VAL
29	DC	62	VAL
29	DC	63	SER
29	DC	66	HIS
29	DC	125	SER
29	DC	153	ILE
29	DC	162	GLU
29	DC	170	ALA
29	DC	171	ILE
29	DC	173	ALA
29	DC	174	PRO
29	DC	178	ALA

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Mol	Chain	Res	Type
29	DC	181	PRO
29	DC	182	PRO
29	DC	201	PRO
29	DC	222	VAL
30	DD	26	LYS
30	DD	34	VAL
30	DD	35	LYS
30	DD	57	GLY
30	DD	58	HIS
30	DD	68	LYS
30	DD	69	ARG
30	DD	126	GLN
30	DD	127	VAL
30	DD	216	GLY
30	DD	225	ALA
30	DD	239	ARG
30	DD	245	PRO
30	DD	246	PRO
30	DD	271	ILE
30	DD	272	ALA
31	DE	4	ILE
31	DE	33	VAL
31	DE	53	PRO
31	DE	54	GLN
31	DE	55	ASN
31	DE	56	PRO
31	DE	59	VAL
31	DE	60	ASN
31	DE	64	LYS
31	DE	68	ALA
31	DE	75	VAL
31	DE	77	ILE
31	DE	145	LYS
31	DE	174	ASP
32	DF	4	VAL
32	DF	14	PRO
32	DF	21	ALA
32	DF	25	PRO
32	DF	26	ALA
32	DF	28	ILE
32	DF	48	THR
32	DF	58	ALA

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Mol	Chain	Res	Type
32	DF	84	VAL
32	DF	89	VAL
32	DF	126	VAL
32	DF	132	VAL
32	DF	168	ARG
32	DF	195	ASP
33	DG	14	GLU
33	DG	43	LEU
33	DG	46	ALA
33	DG	47	LYS
33	DG	53	LEU
33	DG	81	LYS
33	DG	82	LEU
33	DG	87	PRO
33	DG	96	ARG
33	DG	126	ASP
34	DH	21	PRO
34	DH	24	VAL
34	DH	54	ARG
34	DH	55	PRO
34	DH	83	TYR
34	DH	92	ILE
34	DH	97	ARG
34	DH	98	LEU
34	DH	137	ASP
34	DH	156	ALA
34	DH	159	GLU
35	DI	77	LEU
35	DI	91	SER
35	DI	118	LYS
35	DI	130	TYR
35	DI	133	HIS
35	DI	143	SER
35	DI	144	VAL
36	DN	4	TYR
36	DN	8	GLN
36	DN	17	ASP
36	DN	19	GLU
36	DN	42	TRP
36	DN	47	ALA
36	DN	57	ALA
36	DN	58	ASP

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Mol	Chain	Res	Type
36	DN	66	LYS
36	DN	126	PRO
37	DO	112	MET
38	DP	9	ASN
38	DP	14	LYS
38	DP	17	LYS
38	DP	19	VAL
38	DP	49	ARG
38	DP	58	THR
38	DP	59	LEU
38	DP	102	ARG
38	DP	108	LYS
38	DP	110	TYR
38	DP	111	ARG
38	DP	146	VAL
39	DQ	13	GLN
39	DQ	20	ALA
39	DQ	23	GLY
39	DQ	27	VAL
39	DQ	79	LEU
39	DQ	83	MET
39	DQ	88	GLY
39	DQ	135	ASP
39	DQ	138	ASP
40	DR	3	HIS
40	DR	4	LEU
40	DR	9	LYS
40	DR	14	SER
40	DR	57	ARG
40	DR	82	GLU
41	DS	23	ARG
41	DS	58	LEU
41	DS	59	LYS
41	DS	62	LYS
41	DS	83	LYS
41	DS	87	PHE
41	DS	88	ASP
41	DS	92	TYR
41	DS	97	ARG
41	DS	102	ALA
41	DS	103	GLU
41	DS	104	GLY

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Mol	Chain	Res	Type
42	DT	12	SER
42	DT	17	THR
42	DT	24	PRO
42	DT	28	VAL
42	DT	29	ARG
42	DT	30	VAL
42	DT	35	LYS
42	DT	36	GLU
42	DT	40	THR
42	DT	41	ARG
42	DT	55	ASN
42	DT	58	ASN
42	DT	80	SER
42	DT	83	ILE
42	DT	88	ILE
42	DT	97	ALA
42	DT	107	ASP
42	DT	115	ARG
42	DT	137	LYS
43	DU	8	VAL
43	DU	9	VAL
43	DU	25	TRP
43	DU	45	TYR
43	DU	46	ALA
43	DU	90	VAL
44	DV	3	ALA
44	DV	29	PRO
44	DV	31	ALA
44	DV	46	VAL
45	DW	11	ARG
45	DW	12	ILE
45	DW	67	ASP
45	DW	110	LYS
45	DW	111	HIS
46	DX	12	VAL
46	DX	19	ALA
47	DY	5	MET
47	DY	9	LYS
47	DY	27	VAL
47	DY	38	ILE
47	DY	44	ILE
47	DY	45	VAL

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Mol	Chain	Res	Type
47	DY	46	LYS
47	DY	53	PRO
47	DY	56	PRO
47	DY	67	LEU
47	DY	77	PRO
47	DY	78	ALA
47	DY	79	CYS
47	DY	98	VAL
48	DZ	48	ARG
48	DZ	79	ARG
48	DZ	80	ARG
48	DZ	102	ARG
48	DZ	120	HIS
48	DZ	152	SER
48	DZ	168	GLU
49	D0	55	ARG
50	D1	53	VAL
50	D1	58	ILE
51	D2	14	ARG
51	D2	44	LEU
51	D2	68	ARG
51	D2	70	GLN
52	D3	2	PRO
52	D3	13	ILE
53	D4	52	SER
53	D4	54	LYS
53	D4	65	CYS
53	D4	66	HIS
53	D4	78	GLU
53	D4	80	ARG
53	D4	81	VAL
53	D4	82	GLU
53	D4	83	ARG
53	D4	84	PHE
54	D5	4	HIS
54	D5	38	ALA
54	D5	57	VAL
55	D6	9	LEU
55	D6	15	GLU
55	D6	17	LYS
55	D6	18	ARG
55	D6	20	ASN

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Mol	Chain	Res	Type
55	D6	28	ARG
55	D6	29	ASN
55	D6	31	PRO
55	D6	33	LYS
55	D6	34	LEU
55	D6	46	HIS
55	D6	52	VAL
57	D8	21	LYS
57	D8	33	ASN
57	D8	34	TRP
57	D8	58	ILE
57	D8	63	PRO
58	D9	33	LYS
2	AB	59	GLU
2	AB	65	GLY
2	AB	75	LYS
2	AB	84	GLU
2	AB	165	VAL
2	AB	194	PRO
2	AB	198	ASP
2	AB	234	PRO
3	AC	14	ILE
3	AC	18	TRP
3	AC	29	TYR
3	AC	45	LYS
3	AC	66	VAL
3	AC	140	ARG
3	AC	145	GLY
4	AD	3	ARG
4	AD	5	ILE
4	AD	31	CYS
4	AD	41	GLY
4	AD	44	GLY
4	AD	92	VAL
4	AD	93	PHE
4	AD	171	GLY
4	AD	204	ILE
5	AE	27	ARG
5	AE	77	PRO
5	AE	103	GLY
5	AE	146	ALA
5	AE	153	LYS

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Mol	Chain	Res	Type
6	AF	12	PRO
6	AF	96	PRO
7	AG	19	GLY
7	AG	35	LYS
7	AG	121	ALA
7	AG	131	LYS
7	AG	133	GLY
7	AG	153	HIS
8	AH	54	ASP
8	AH	68	ARG
8	AH	70	GLN
10	AJ	18	ALA
10	AJ	32	ALA
10	AJ	86	MET
11	AK	54	ARG
11	AK	109	VAL
12	AL	9	ARG
12	AL	20	LYS
12	AL	24	LEU
12	AL	25	LYS
13	AM	4	ILE
13	AM	6	GLY
13	AM	21	TYR
13	AM	27	LYS
13	AM	100	GLY
13	AM	106	ASN
14	AN	14	PRO
14	AN	16	PHE
14	AN	28	GLY
14	AN	29	ARG
15	AO	7	GLU
15	AO	21	ASP
15	AO	47	LYS
16	AP	43	LYS
16	AP	59	TRP
16	AP	72	ARG
16	AP	76	GLN
17	AQ	33	GLY
17	AQ	34	LYS
17	AQ	64	PRO
17	AQ	68	ARG
19	AS	5	LEU

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Mol	Chain	Res	Type
19	AS	9	VAL
19	AS	29	ARG
19	AS	80	TYR
20	AT	11	SER
20	AT	69	GLY
20	AT	72	LEU
20	AT	82	SER
20	AT	83	ARG
20	AT	99	LEU
20	AT	103	GLY
29	BC	66	HIS
29	BC	76	ALA
29	BC	77	ILE
29	BC	91	ALA
29	BC	125	SER
29	BC	152	ILE
29	BC	167	LYS
29	BC	214	VAL
30	BD	9	TYR
30	BD	122	ASP
30	BD	162	SER
30	BD	211	ARG
30	BD	234	GLY
30	BD	244	ARG
30	BD	267	SER
31	BE	29	GLY
31	BE	71	GLY
31	BE	77	ILE
31	BE	188	VAL
32	BF	68	LYS
32	BF	81	PRO
32	BF	122	LYS
32	BF	133	ASN
32	BF	168	ARG
32	BF	169	ASN
33	BG	4	ASP
33	BG	28	VAL
33	BG	29	TRP
33	BG	47	LYS
33	BG	76	SER
33	BG	149	VAL
33	BG	172	LEU

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Mol	Chain	Res	Type
34	BH	43	VAL
34	BH	55	PRO
34	BH	69	ARG
34	BH	82	GLY
34	BH	91	GLY
34	BH	154	PRO
35	BI	15	VAL
35	BI	49	ALA
35	BI	53	ALA
35	BI	89	TYR
35	BI	90	GLY
35	BI	101	LEU
35	BI	105	HIS
35	BI	144	VAL
35	BI	145	VAL
36	BN	46	VAL
36	BN	47	ALA
36	BN	64	GLY
37	BO	27	GLY
38	BP	10	PRO
38	BP	36	LYS
38	BP	57	THR
38	BP	65	ARG
38	BP	90	ARG
38	BP	149	GLU
39	BQ	27	VAL
39	BQ	30	GLY
39	BQ	49	ALA
39	BQ	61	GLY
39	BQ	63	LYS
39	BQ	71	ASP
40	BR	9	LYS
40	BR	67	LEU
41	BS	14	VAL
41	BS	53	SER
41	BS	83	LYS
41	BS	90	GLY
41	BS	104	GLY
42	BT	28	VAL
42	BT	29	ARG
42	BT	31	SER
42	BT	57	PHE

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Mol	Chain	Res	Type
42	BT	88	ILE
42	BT	101	PHE
42	BT	129	ARG
43	BU	62	ILE
43	BU	90	VAL
44	BV	22	VAL
44	BV	23	GLU
44	BV	24	LYS
44	BV	26	ASP
44	BV	45	THR
44	BV	46	VAL
44	BV	48	GLY
44	BV	53	GLU
45	BW	6	ILE
45	BW	111	HIS
47	BY	8	LYS
47	BY	30	VAL
47	BY	39	VAL
47	BY	44	ILE
47	BY	47	LYS
47	BY	80	GLY
47	BY	92	ASN
48	BZ	30	ARG
48	BZ	63	GLY
48	BZ	77	LYS
48	BZ	80	ARG
48	BZ	116	LEU
49	B0	41	ARG
49	B0	55	ARG
50	B1	53	VAL
50	B1	58	ILE
50	B1	85	LEU
50	B1	94	LEU
50	B1	95	LEU
51	B2	42	GLY
51	B2	44	LEU
51	B2	47	ASN
52	B3	21	ALA
52	B3	51	ALA
52	B3	59	VAL
53	B4	44	CYS
53	B4	54	LYS

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Mol	Chain	Res	Type
53	B4	61	VAL
53	B4	65	CYS
53	B4	78	GLU
54	B5	3	LYS
55	B6	16	CYS
55	B6	18	ARG
55	B6	31	PRO
55	B6	34	LEU
55	B6	44	ARG
55	B6	46	HIS
55	B6	48	VAL
55	B6	52	VAL
56	B7	3	ARG
57	B8	13	ARG
57	B8	40	GLU
57	B8	49	VAL
2	CB	14	GLY
2	CB	38	GLY
2	CB	65	GLY
2	CB	96	ARG
2	CB	97	TRP
2	CB	98	LEU
2	CB	105	PHE
2	CB	142	LEU
2	CB	239	VAL
3	CC	6	HIS
3	CC	36	ASP
3	CC	54	ARG
3	CC	96	GLY
3	CC	103	VAL
3	CC	134	ILE
3	CC	156	ARG
3	CC	157	ILE
3	CC	161	GLU
3	CC	170	GLN
4	CD	4	TYR
4	CD	9	CYS
4	CD	26	CYS
4	CD	44	GLY
4	CD	110	PHE
4	CD	153	ARG
5	CE	96	PRO

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Mol	Chain	Res	Type
5	CE	140	ARG
5	CE	146	ALA
6	CF	40	VAL
6	CF	84	ASN
7	CG	10	ARG
7	CG	33	ASP
7	CG	52	GLU
8	CH	21	LYS
8	CH	91	ARG
9	CI	34	ASN
10	CJ	36	GLY
10	CJ	44	VAL
10	CJ	47	PHE
11	CK	86	GLY
12	CL	3	THR
12	CL	4	ILE
12	CL	19	SER
12	CL	118	GLY
13	CM	6	GLY
13	CM	7	VAL
13	CM	14	ARG
13	CM	29	ARG
13	CM	38	GLY
13	CM	49	THR
13	CM	95	GLY
13	CM	100	GLY
14	CN	12	ARG
14	CN	23	ARG
15	CO	23	GLY
15	CO	25	THR
15	CO	76	GLU
15	CO	86	GLY
16	CP	78	GLY
17	CQ	4	LYS
17	CQ	94	ASN
18	CR	22	VAL
19	CS	80	TYR
20	CT	49	ALA
20	CT	99	LEU
20	CT	102	GLY
21	CU	3	LYS
29	DC	22	ILE

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Mol	Chain	Res	Type
29	DC	24	GLU
29	DC	38	ASP
29	DC	44	HIS
29	DC	46	LYS
29	DC	51	PRO
29	DC	140	PRO
29	DC	144	THR
29	DC	145	VAL
29	DC	152	ILE
29	DC	168	THR
29	DC	216	THR
29	DC	217	THR
30	DD	3	VAL
30	DD	45	ASN
30	DD	53	PHE
30	DD	98	VAL
30	DD	242	ARG
30	DD	257	LEU
31	DE	29	GLY
31	DE	45	THR
31	DE	48	GLN
31	DE	70	ALA
31	DE	90	THR
31	DE	131	ALA
31	DE	134	ILE
31	DE	144	ARG
31	DE	186	GLY
32	DF	11	VAL
32	DF	78	ILE
32	DF	86	GLY
32	DF	121	GLY
32	DF	127	GLU
32	DF	134	GLY
32	DF	140	LEU
32	DF	180	GLY
32	DF	205	ARG
33	DG	50	ALA
33	DG	64	THR
33	DG	97	ASP
33	DG	110	ALA
33	DG	124	SER
33	DG	145	THR

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Mol	Chain	Res	Type
33	DG	170	ARG
33	DG	171	ALA
34	DH	13	LYS
34	DH	30	LYS
34	DH	90	LYS
34	DH	115	VAL
35	DI	11	ASN
35	DI	120	ILE
35	DI	145	VAL
36	DN	63	THR
36	DN	135	PRO
37	DO	14	THR
37	DO	27	GLY
37	DO	35	VAL
37	DO	43	VAL
37	DO	89	ASN
37	DO	113	LYS
38	DP	11	GLY
38	DP	31	ALA
38	DP	34	GLY
38	DP	46	LYS
38	DP	65	ARG
38	DP	69	GLY
38	DP	98	GLU
39	DQ	30	GLY
39	DQ	40	ALA
39	DQ	55	VAL
39	DQ	63	LYS
39	DQ	67	ARG
39	DQ	101	ARG
40	DR	7	GLY
40	DR	44	LEU
40	DR	78	LYS
40	DR	88	ARG
40	DR	117	VAL
41	DS	18	ILE
41	DS	34	HIS
41	DS	94	TYR
41	DS	96	GLY
42	DT	39	ARG
42	DT	45	PHE
42	DT	85	LYS

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Mol	Chain	Res	Type
42	DT	120	ARG
42	DT	129	ARG
42	DT	132	LYS
43	DU	26	GLY
43	DU	28	ARG
43	DU	88	ILE
44	DV	8	GLY
44	DV	22	VAL
44	DV	56	SER
44	DV	79	VAL
44	DV	100	ARG
45	DW	6	ILE
45	DW	32	ALA
45	DW	33	ARG
45	DW	44	ALA
45	DW	63	ASP
46	DX	18	TYR
46	DX	48	LYS
46	DX	49	VAL
47	DY	3	VAL
47	DY	23	ARG
47	DY	39	VAL
47	DY	41	GLY
47	DY	42	VAL
47	DY	80	GLY
47	DY	90	LEU
47	DY	96	ILE
47	DY	101	LYS
48	DZ	29	ASN
48	DZ	30	ARG
48	DZ	38	VAL
48	DZ	47	PHE
48	DZ	55	VAL
48	DZ	108	ALA
48	DZ	110	VAL
48	DZ	111	ARG
48	DZ	163	ALA
48	DZ	167	GLU
48	DZ	170	ILE
49	D0	13	GLY
50	D1	28	GLY
50	D1	45	ASN

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Mol	Chain	Res	Type
50	D1	84	GLY
50	D1	85	LEU
50	D1	95	LEU
51	D2	42	GLY
51	D2	43	GLN
51	D2	47	ASN
52	D3	27	GLY
52	D3	57	GLU
53	D4	44	CYS
53	D4	61	VAL
53	D4	76	ASP
54	D5	47	PRO
54	D5	52	TYR
54	D5	53	ALA
54	D5	54	GLY
55	D6	16	CYS
55	D6	45	LYS
57	D8	7	HIS
57	D8	31	HIS
57	D8	64	TYR
58	D9	31	LYS
2	AB	83	MET
2	AB	97	TRP
2	AB	155	LEU
2	AB	178	ARG
2	AB	229	VAL
3	AC	43	LEU
3	AC	53	ALA
3	AC	60	ALA
3	AC	81	GLY
4	AD	47	ARG
4	AD	168	ARG
5	AE	147	ASP
6	AF	63	TYR
7	AG	155	ARG
8	AH	28	ALA
8	AH	123	GLU
8	AH	133	LEU
9	AI	34	ASN
9	AI	70	LYS
10	AJ	59	SER
11	AK	24	SER

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Mol	Chain	Res	Type
12	AL	23	ALA
12	AL	88	LYS
12	AL	102	TYR
13	AM	90	LEU
15	AO	73	GLU
17	AQ	66	SER
17	AQ	67	LYS
17	AQ	78	GLU
18	AR	31	LEU
18	AR	54	ARG
19	AS	30	LEU
19	AS	47	HIS
19	AS	64	GLU
29	BC	24	GLU
29	BC	26	ALA
29	BC	36	LYS
29	BC	52	ARG
29	BC	92	ASP
29	BC	132	GLY
29	BC	142	ALA
29	BC	200	LYS
29	BC	205	LYS
30	BD	3	VAL
30	BD	10	THR
30	BD	45	ASN
30	BD	125	ILE
30	BD	191	ALA
30	BD	202	LYS
30	BD	239	ARG
30	BD	252	TRP
30	BD	262	ARG
30	BD	268	ARG
31	BE	108	SER
32	BF	127	GLU
32	BF	165	ARG
32	BF	171	PRO
33	BG	136	ARG
33	BG	152	LEU
34	BH	13	LYS
34	BH	54	ARG
34	BH	81	GLU
34	BH	90	LYS

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Mol	Chain	Res	Type
34	BH	108	GLY
34	BH	127	GLU
34	BH	157	TYR
35	BI	83	ALA
35	BI	85	GLU
36	BN	50	ASP
36	BN	57	ALA
36	BN	67	LEU
36	BN	117	PHE
36	BN	134	ARG
37	BO	12	ASP
38	BP	18	ARG
38	BP	49	ARG
38	BP	72	PRO
38	BP	97	PRO
38	BP	106	LEU
39	BQ	28	ALA
39	BQ	29	PHE
40	BR	4	LEU
40	BR	49	ASP
40	BR	82	GLU
40	BR	102	GLU
41	BS	89	ARG
41	BS	94	TYR
42	BT	22	PHE
42	BT	27	THR
42	BT	40	THR
42	BT	81	PRO
42	BT	92	GLY
42	BT	119	LYS
43	BU	89	GLU
43	BU	98	LEU
44	BV	3	ALA
44	BV	16	PRO
44	BV	68	LYS
44	BV	69	LYS
45	BW	63	ASP
45	BW	93	ALA
47	BY	3	VAL
47	BY	31	LEU
47	BY	48	ALA
47	BY	81	LYS

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Mol	Chain	Res	Type
48	BZ	37	TYR
48	BZ	44	ASP
48	BZ	108	ALA
48	BZ	135	PHE
48	BZ	148	SER
48	BZ	167	GLU
48	BZ	171	ALA
48	BZ	173	VAL
49	B0	49	LYS
51	B2	18	PRO
51	B2	61	LEU
53	B4	74	PHE
54	B5	37	LYS
54	B5	53	ALA
57	B8	3	LYS
2	CB	22	LYS
2	CB	37	ASN
2	CB	67	THR
2	CB	130	ARG
2	CB	150	SER
2	CB	217	ARG
2	CB	232	PRO
3	CC	60	ALA
3	CC	81	GLY
3	CC	133	ALA
3	CC	145	GLY
3	CC	181	ASN
4	CD	186	LEU
4	CD	189	PRO
5	CE	63	ARG
5	CE	147	ASP
6	CF	76	ALA
6	CF	100	ASN
7	CG	7	ALA
7	CG	37	ASN
7	CG	82	GLY
7	CG	94	ARG
7	CG	100	ALA
7	CG	151	TYR
9	CI	40	LEU
9	CI	98	PRO
9	CI	111	ARG

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Mol	Chain	Res	Type
10	CJ	86	MET
13	CM	4	ILE
13	CM	21	TYR
13	CM	44	ARG
13	CM	63	THR
13	CM	75	ALA
14	CN	22	THR
17	CQ	34	LYS
17	CQ	35	VAL
17	CQ	99	SER
18	CR	39	VAL
19	CS	25	LYS
19	CS	30	LEU
20	CT	29	LYS
20	CT	72	LEU
21	CU	9	ARG
29	DC	20	TYR
29	DC	54	SER
29	DC	104	LEU
29	DC	122	ALA
29	DC	135	GLY
29	DC	142	ALA
29	DC	220	PRO
29	DC	223	ARG
30	DD	36	PRO
30	DD	118	VAL
30	DD	236	GLY
30	DD	266	SER
30	DD	267	SER
31	DE	39	PRO
31	DE	44	TYR
31	DE	66	HIS
31	DE	82	ARG
31	DE	86	PRO
31	DE	94	GLU
31	DE	98	PRO
31	DE	189	PRO
32	DF	6	VAL
32	DF	12	LEU
32	DF	19	GLU
32	DF	54	ARG
32	DF	62	ARG

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Mol	Chain	Res	Type
32	DF	122	LYS
33	DG	63	ILE
33	DG	66	GLN
33	DG	71	THR
33	DG	83	ARG
33	DG	120	LEU
33	DG	151	ALA
34	DH	25	LYS
34	DH	56	SER
34	DH	138	LYS
34	DH	141	VAL
34	DH	165	ALA
34	DH	169	VAL
35	DI	85	GLU
35	DI	95	LYS
35	DI	99	GLU
35	DI	101	LEU
35	DI	132	PRO
36	DN	68	GLU
36	DN	133	GLN
37	DO	5	GLN
37	DO	120	GLU
38	DP	47	ASP
38	DP	64	LYS
39	DQ	39	PRO
39	DQ	137	TYR
40	DR	58	GLY
40	DR	60	LEU
40	DR	67	LEU
40	DR	80	PHE
40	DR	104	ARG
41	DS	15	ARG
41	DS	24	LEU
41	DS	53	SER
41	DS	57	LYS
42	DT	31	SER
42	DT	33	LYS
42	DT	82	LEU
42	DT	133	GLU
42	DT	135	ALA
42	DT	136	GLN
43	DU	110	VAL

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Mol	Chain	Res	Type
44	DV	18	LEU
44	DV	23	GLU
44	DV	48	GLY
44	DV	50	PRO
45	DW	65	LEU
46	DX	11	PRO
46	DX	13	LEU
46	DX	40	LYS
47	DY	19	LYS
47	DY	81	LYS
48	DZ	6	ALA
48	DZ	20	ALA
48	DZ	72	GLN
48	DZ	129	PRO
48	DZ	149	LEU
48	DZ	164	VAL
48	DZ	173	VAL
50	D1	78	LYS
50	D1	94	LEU
51	D2	12	GLU
51	D2	18	PRO
51	D2	48	HIS
55	D6	41	PRO
56	D7	2	LYS
57	D8	17	THR
57	D8	61	LEU
2	AB	12	GLU
2	AB	240	GLN
3	AC	61	ALA
3	AC	98	ASN
3	AC	168	ALA
3	AC	174	PRO
3	AC	181	ASN
4	AD	88	VAL
5	AE	56	GLN
5	AE	65	ASN
5	AE	74	GLY
6	AF	80	ARG
7	AG	10	ARG
7	AG	144	MET
9	AI	88	TYR
9	AI	106	ALA

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Mol	Chain	Res	Type
9	AI	127	LYS
10	AJ	93	GLY
12	AL	10	LYS
12	AL	77	HIS
14	AN	60	SER
15	AO	6	GLU
16	AP	52	ASP
18	AR	36	ASN
19	AS	12	ASP
19	AS	66	MET
20	AT	28	ALA
20	AT	29	LYS
20	AT	42	GLN
20	AT	68	LYS
20	AT	97	ALA
29	BC	39	GLU
29	BC	55	ASP
29	BC	71	GLN
29	BC	108	MET
29	BC	160	ARG
30	BD	28	GLU
30	BD	230	ASP
31	BE	39	PRO
31	BE	40	GLU
31	BE	56	PRO
31	BE	72	VAL
31	BE	117	MET
31	BE	131	ALA
31	BE	180	ASN
32	BF	31	HIS
32	BF	90	PHE
32	BF	110	LEU
33	BG	43	LEU
33	BG	116	ASP
33	BG	117	PHE
34	BH	10	PRO
34	BH	45	VAL
35	BI	10	GLU
35	BI	70	GLU
35	BI	77	LEU
35	BI	104	GLN
35	BI	117	GLU

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Mol	Chain	Res	Type
36	BN	19	GLU
36	BN	81	GLY
36	BN	127	ASP
37	BO	107	ARG
38	BP	9	ASN
38	BP	14	LYS
38	BP	25	SER
38	BP	71	VAL
38	BP	116	GLY
39	BQ	59	ARG
40	BR	23	ASN
40	BR	61	HIS
40	BR	106	GLY
41	BS	77	ALA
41	BS	107	GLU
42	BT	55	ASN
42	BT	123	GLN
44	BV	18	LEU
44	BV	93	GLU
47	BY	4	LYS
47	BY	82	PRO
48	BZ	84	HIS
48	BZ	150	HIS
51	B2	17	SER
51	B2	26	ARG
51	B2	60	LEU
52	B3	3	ARG
53	B4	52	SER
53	B4	82	GLU
54	B5	55	ARG
56	B7	2	LYS
56	B7	44	PRO
57	B8	25	MET
57	B8	64	TYR
58	B9	33	LYS
2	CB	79	ASP
2	CB	165	VAL
3	CC	7	PRO
3	CC	93	LYS
4	CD	31	CYS
4	CD	40	PRO
4	CD	48	ALA

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Mol	Chain	Res	Type
4	CD	191	ARG
4	CD	200	GLU
5	CE	58	ALA
5	CE	62	ALA
5	CE	142	LEU
5	CE	153	LYS
8	CH	87	SER
9	CI	47	LEU
9	CI	121	ARG
10	CJ	41	PRO
10	CJ	51	ARG
11	CK	34	ASP
11	CK	128	ALA
12	CL	30	ARG
12	CL	59	SER
12	CL	112	LYS
12	CL	124	GLU
14	CN	60	SER
15	CO	13	GLN
15	CO	19	PRO
15	CO	24	SER
18	CR	31	LEU
19	CS	43	GLU
21	CU	7	ARG
29	DC	151	GLU
30	DD	24	ILE
30	DD	33	LEU
30	DD	169	GLU
30	DD	201	HIS
30	DD	214	TRP
30	DD	223	GLY
30	DD	244	ARG
31	DE	2	LYS
31	DE	32	PRO
31	DE	52	LEU
31	DE	147	PRO
32	DF	18	ARG
32	DF	115	ALA
32	DF	133	ASN
32	DF	145	GLU
34	DH	29	PRO
34	DH	45	VAL

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Mol	Chain	Res	Type
34	DH	81	GLU
34	DH	112	PRO
34	DH	143	GLN
35	DI	100	ALA
35	DI	105	HIS
35	DI	112	LYS
36	DN	51	PHE
37	DO	12	ASP
37	DO	98	VAL
37	DO	101	PRO
38	DP	33	ARG
38	DP	35	HIS
38	DP	36	LYS
38	DP	48	PRO
38	DP	56	SER
38	DP	71	VAL
38	DP	117	GLU
38	DP	140	ALA
38	DP	141	ALA
38	DP	144	GLU
39	DQ	14	ARG
39	DQ	105	GLU
39	DQ	132	VAL
40	DR	12	ARG
41	DS	14	VAL
41	DS	35	ILE
41	DS	105	ALA
41	DS	107	GLU
42	DT	19	LEU
42	DT	119	LYS
43	DU	32	PHE
43	DU	74	LEU
43	DU	77	SER
43	DU	93	LYS
44	DV	68	LYS
46	DX	4	ALA
47	DY	92	ASN
47	DY	99	CYS
48	DZ	21	GLY
48	DZ	40	LEU
48	DZ	97	MET
51	D2	45	SER

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Mol	Chain	Res	Type
55	D6	44	ARG
2	AB	150	SER
3	AC	52	LEU
4	AD	27	TYR
4	AD	148	VAL
6	AF	70	ASP
8	AH	2	LEU
8	AH	103	VAL
9	AI	119	ALA
10	AJ	39	PRO
13	AM	48	LEU
14	AN	13	THR
14	AN	24	CYS
15	AO	23	GLY
16	AP	14	ASN
17	AQ	30	PRO
19	AS	45	VAL
20	AT	90	GLN
29	BC	46	LYS
29	BC	64	LEU
29	BC	65	PRO
29	BC	190	ARG
29	BC	201	PRO
30	BD	177	LEU
30	BD	236	GLY
31	BE	17	ASP
31	BE	67	PHE
31	BE	75	VAL
31	BE	82	ARG
32	BF	11	VAL
32	BF	65	TRP
33	BG	127	GLY
33	BG	142	PRO
33	BG	143	GLU
34	BH	11	VAL
34	BH	42	ARG
34	BH	46	GLU
34	BH	56	SER
35	BI	41	GLU
35	BI	99	GLU
35	BI	119	PRO
36	BN	110	GLY

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Mol	Chain	Res	Type
37	BO	98	VAL
38	BP	63	PRO
38	BP	103	ALA
38	BP	117	GLU
38	BP	141	ALA
39	BQ	2	LEU
41	BS	19	LYS
41	BS	67	ARG
46	BX	13	LEU
48	BZ	45	LYS
48	BZ	100	PRO
48	BZ	164	VAL
48	BZ	177	GLU
49	B0	20	ARG
51	B2	69	ARG
53	B4	68	PHE
53	B4	81	VAL
2	CB	74	LYS
3	CC	12	LEU
3	CC	14	ILE
3	CC	22	TRP
3	CC	168	ALA
3	CC	206	GLU
4	CD	16	GLY
4	CD	32	ALA
4	CD	50	ARG
5	CE	8	GLU
5	CE	52	PRO
5	CE	70	PRO
6	CF	51	PRO
7	CG	153	HIS
10	CJ	32	ALA
12	CL	105	ALA
12	CL	109	ASP
13	CM	41	PRO
13	CM	81	LEU
17	CQ	68	ARG
17	CQ	80	GLY
18	CR	54	ARG
19	CS	5	LEU
19	CS	42	PRO
20	CT	63	ILE

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Mol	Chain	Res	Type
20	CT	95	ALA
29	DC	48	GLY
29	DC	64	LEU
29	DC	141	LYS
29	DC	175	VAL
29	DC	209	LEU
30	DD	25	THR
30	DD	31	LYS
31	DE	58	ARG
31	DE	69	LYS
32	DF	136	THR
34	DH	99	VAL
34	DH	133	VAL
35	DI	81	VAL
36	DN	64	GLY
36	DN	86	PRO
36	DN	94	HIS
36	DN	134	ARG
38	DP	52	GLU
38	DP	70	GLN
38	DP	107	LYS
42	DT	18	ASP
42	DT	56	GLY
42	DT	86	ILE
43	DU	104	GLN
44	DV	78	LYS
45	DW	58	ALA
47	DY	8	LYS
47	DY	49	VAL
47	DY	58	GLY
47	DY	82	PRO
48	DZ	44	ASP
48	DZ	133	PRO
48	DZ	144	GLU
49	D0	20	ARG
52	D3	41	PRO
53	D4	75	VAL
55	D6	32	ASN
56	D7	32	LYS
57	D8	57	ARG
2	AB	110	GLN
2	AB	130	ARG

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Mol	Chain	Res	Type
3	AC	22	TRP
3	AC	91	LEU
3	AC	103	VAL
4	AD	9	CYS
4	AD	39	PRO
4	AD	56	VAL
4	AD	91	SER
4	AD	197	PRO
5	AE	69	VAL
5	AE	128	PRO
7	AG	9	VAL
7	AG	57	GLU
10	AJ	80	LYS
12	AL	91	PRO
13	AM	41	PRO
14	AN	23	ARG
15	AO	19	PRO
15	AO	76	GLU
17	AQ	3	LYS
19	AS	11	VAL
29	BC	20	TYR
29	BC	175	VAL
30	BD	140	THR
30	BD	224	ALA
30	BD	243	GLY
31	BE	4	ILE
32	BF	9	ILE
34	BH	12	PRO
40	BR	83	ILE
40	BR	84	ALA
40	BR	104	ARG
41	BS	91	PRO
42	BT	12	SER
44	BV	47	VAL
45	BW	11	ARG
53	B4	84	PHE
55	B6	15	GLU
57	B8	14	VAL
2	CB	161	ALA
3	CC	3	ASN
3	CC	55	VAL
3	CC	74	GLY

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Mol	Chain	Res	Type
4	CD	5	ILE
6	CF	96	PRO
7	CG	116	ALA
9	CI	89	ASN
9	CI	104	ARG
11	CK	39	PRO
12	CL	14	LYS
12	CL	77	HIS
13	CM	99	ARG
14	CN	28	GLY
17	CQ	33	GLY
29	DC	132	GLY
29	DC	203	GLY
30	DD	28	GLU
30	DD	156	ALA
31	DE	169	ASN
33	DG	85	GLY
33	DG	117	PHE
34	DH	17	VAL
35	DI	80	PRO
36	DN	44	PRO
36	DN	125	GLY
37	DO	48	PRO
38	DP	120	ALA
41	DS	60	GLY
43	DU	87	GLY
44	DV	9	GLY
44	DV	93	GLU
45	DW	2	GLU
45	DW	93	ALA
46	DX	41	ASN
48	DZ	81	ARG
52	D3	56	VAL
57	D8	41	ILE
5	AE	129	ILE
9	AI	98	PRO
9	AI	100	GLY
10	AJ	37	PRO
11	AK	118	GLY
13	AM	68	GLY
30	BD	114	GLY
30	BD	142	VAL

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Mol	Chain	Res	Type
33	BG	17	PRO
35	BI	88	ILE
35	BI	111	PRO
41	BS	22	GLY
41	BS	85	VAL
41	BS	108	GLY
42	BT	83	ILE
48	BZ	133	PRO
48	BZ	136	ILE
7	CG	42	ILE
12	CL	26	GLY
20	CT	100	ILE
29	DC	19	VAL
29	DC	50	ASP
29	DC	72	VAL
32	DF	9	ILE
32	DF	207	GLY
36	DN	60	ILE
36	DN	108	PRO
44	DV	35	LEU
47	DY	55	TYR
48	DZ	26	VAL
48	DZ	61	PRO
48	DZ	94	PRO
49	D0	83	PRO
50	D1	90	ILE
3	AC	6	HIS
13	AM	7	VAL
29	BC	49	ILE
34	BH	128	PRO
38	BP	83	VAL
47	BY	76	CYS
47	BY	98	VAL
48	BZ	125	VAL
48	BZ	129	PRO
50	B1	84	GLY
53	B4	67	PRO
4	CD	17	VAL
7	CG	23	VAL
18	CR	50	ILE
20	CT	98	PRO
31	DE	116	VAL

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Mol	Chain	Res	Type
34	DH	20	ALA
38	DP	125	VAL
47	DY	37	VAL
53	D4	55	PRO
58	D9	3	VAL
2	AB	18	GLY
9	AI	90	PRO
16	AP	19	ILE
33	BG	52	ILE
34	BH	21	PRO
34	BH	144	VAL
35	BI	106	GLY
38	BP	122	PRO
48	BZ	26	VAL
58	B9	21	GLY
2	CB	81	VAL
3	CC	41	GLY
7	CG	135	VAL
8	CH	26	VAL
11	CK	49	GLY
29	DC	49	ILE
29	DC	149	ILE
30	DD	8	PRO
33	DG	179	PRO
35	DI	51	ILE
35	DI	134	PRO
38	DP	7	ARG
42	DT	49	VAL
48	DZ	23	LEU
48	DZ	57	VAL
51	D2	17	SER
2	AB	232	PRO
5	AE	154	GLY
7	AG	17	VAL
10	AJ	24	VAL
13	AM	112	GLY
29	BC	161	ILE
30	BD	105	ILE
30	BD	249	PRO
43	BU	63	VAL
44	BV	37	VAL
48	BZ	36	VAL

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Mol	Chain	Res	Type
48	BZ	110	VAL
48	BZ	140	VAL
51	B2	41	ILE
57	B8	41	ILE
2	CB	80	ILE
3	CC	9	GLY
3	CC	84	ILE
4	CD	196	LEU
8	CH	51	VAL
11	CK	121	PRO
33	DG	142	PRO
34	DH	91	GLY
34	DH	127	GLU
36	DN	36	GLY
46	DX	10	ALA
47	DY	7	VAL
47	DY	52	SER
47	DY	75	ILE
48	DZ	140	VAL
50	D1	22	GLY
3	AC	141	VAL
4	AD	105	VAL
10	AJ	90	LEU
11	AK	58	PRO
12	AL	71	GLY
34	BH	24	VAL
38	BP	8	PRO
47	BY	45	VAL
11	CK	105	VAL
16	CP	63	GLY
35	DI	131	LYS
46	DX	85	PRO
36	BN	126	PRO

5.3.2 Protein sidechains ⓘ

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AB	202/220 (92%)	177 (88%)	25 (12%)	7	34
2	CB	202/220 (92%)	177 (88%)	25 (12%)	7	34
3	AC	160/188 (85%)	144 (90%)	16 (10%)	11	47
3	CC	159/188 (85%)	142 (89%)	17 (11%)	10	43
4	AD	180/181 (99%)	159 (88%)	21 (12%)	8	37
4	CD	180/181 (99%)	162 (90%)	18 (10%)	11	47
5	AE	115/123 (94%)	103 (90%)	12 (10%)	10	45
5	CE	115/123 (94%)	99 (86%)	16 (14%)	5	28
6	AF	90/90 (100%)	82 (91%)	8 (9%)	14	54
6	CF	90/90 (100%)	79 (88%)	11 (12%)	7	35
7	AG	126/127 (99%)	109 (86%)	17 (14%)	6	30
7	CG	125/127 (98%)	115 (92%)	10 (8%)	17	61
8	AH	119/119 (100%)	106 (89%)	13 (11%)	9	42
8	CH	119/119 (100%)	105 (88%)	14 (12%)	8	37
9	AI	97/99 (98%)	85 (88%)	12 (12%)	7	34
9	CI	97/99 (98%)	82 (84%)	15 (16%)	4	23
10	AJ	88/92 (96%)	73 (83%)	15 (17%)	3	18
10	CJ	88/92 (96%)	77 (88%)	11 (12%)	7	34
11	AK	88/99 (89%)	82 (93%)	6 (7%)	22	69
11	CK	90/99 (91%)	83 (92%)	7 (8%)	18	62
12	AL	104/109 (95%)	92 (88%)	12 (12%)	8	38
12	CL	104/109 (95%)	92 (88%)	12 (12%)	8	38
13	AM	97/101 (96%)	84 (87%)	13 (13%)	6	30
13	CM	94/101 (93%)	82 (87%)	12 (13%)	6	32
14	AN	49/50 (98%)	43 (88%)	6 (12%)	7	35
14	CN	49/50 (98%)	47 (96%)	2 (4%)	41	84
15	AO	79/80 (99%)	71 (90%)	8 (10%)	11	46
15	CO	79/80 (99%)	69 (87%)	10 (13%)	6	33
16	AP	72/74 (97%)	62 (86%)	10 (14%)	5	28
16	CP	72/74 (97%)	65 (90%)	7 (10%)	12	49
17	AQ	94/97 (97%)	86 (92%)	8 (8%)	15	57
17	CQ	94/97 (97%)	89 (95%)	5 (5%)	32	77

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
18	AR	61/77 (79%)	57 (93%)	4 (7%)	24	70
18	CR	61/77 (79%)	53 (87%)	8 (13%)	6	31
19	AS	69/80 (86%)	55 (80%)	14 (20%)	2	10
19	CS	69/80 (86%)	55 (80%)	14 (20%)	2	10
20	AT	76/82 (93%)	63 (83%)	13 (17%)	3	17
20	CT	76/82 (93%)	66 (87%)	10 (13%)	6	31
21	AU	19/22 (86%)	17 (90%)	2 (10%)	10	44
21	CU	19/22 (86%)	17 (90%)	2 (10%)	10	44
26	AZ	1/1 (100%)	1 (100%)	0	100	100
26	CZ	1/1 (100%)	1 (100%)	0	100	100
29	BC	61/181 (34%)	55 (90%)	6 (10%)	12	48
29	DC	61/181 (34%)	52 (85%)	9 (15%)	4	25
30	BD	213/218 (98%)	184 (86%)	29 (14%)	5	29
30	DD	213/218 (98%)	183 (86%)	30 (14%)	5	28
31	BE	165/166 (99%)	142 (86%)	23 (14%)	5	28
31	DE	165/166 (99%)	133 (81%)	32 (19%)	2	11
32	BF	163/166 (98%)	142 (87%)	21 (13%)	6	32
32	DF	165/166 (99%)	143 (87%)	22 (13%)	6	30
33	BG	155/156 (99%)	136 (88%)	19 (12%)	7	35
33	DG	155/156 (99%)	133 (86%)	22 (14%)	5	27
34	BH	134/148 (90%)	116 (87%)	18 (13%)	6	30
34	DH	132/148 (89%)	119 (90%)	13 (10%)	12	48
35	BI	122/124 (98%)	107 (88%)	15 (12%)	7	35
35	DI	122/124 (98%)	104 (85%)	18 (15%)	4	25
36	BN	117/119 (98%)	94 (80%)	23 (20%)	2	10
36	DN	117/119 (98%)	98 (84%)	19 (16%)	3	20
37	BO	100/100 (100%)	84 (84%)	16 (16%)	3	21
37	DO	100/100 (100%)	88 (88%)	12 (12%)	7	36
38	BP	112/116 (97%)	86 (77%)	26 (23%)	1	6
38	DP	112/116 (97%)	90 (80%)	22 (20%)	2	11
39	BQ	110/111 (99%)	89 (81%)	21 (19%)	2	12

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
39	DQ	108/111 (97%)	96 (89%)	12 (11%)	9	41
40	BR	100/101 (99%)	83 (83%)	17 (17%)	3	18
40	DR	100/101 (99%)	84 (84%)	16 (16%)	3	21
41	BS	77/88 (88%)	53 (69%)	24 (31%)	0	3
41	DS	77/88 (88%)	67 (87%)	10 (13%)	6	32
42	BT	120/127 (94%)	88 (73%)	32 (27%)	1	4
42	DT	120/127 (94%)	87 (72%)	33 (28%)	0	4
43	BU	92/94 (98%)	78 (85%)	14 (15%)	4	24
43	DU	92/94 (98%)	82 (89%)	10 (11%)	9	42
44	BV	82/82 (100%)	64 (78%)	18 (22%)	1	7
44	DV	82/82 (100%)	65 (79%)	17 (21%)	2	9
45	BW	91/92 (99%)	78 (86%)	13 (14%)	5	27
45	DW	91/92 (99%)	84 (92%)	7 (8%)	18	63
46	BX	74/78 (95%)	63 (85%)	11 (15%)	4	25
46	DX	74/78 (95%)	58 (78%)	16 (22%)	1	8
47	BY	73/91 (80%)	59 (81%)	14 (19%)	2	11
47	DY	84/91 (92%)	69 (82%)	15 (18%)	2	14
48	BZ	155/179 (87%)	131 (84%)	24 (16%)	4	23
48	DZ	155/179 (87%)	138 (89%)	17 (11%)	9	41
49	B0	66/67 (98%)	60 (91%)	6 (9%)	14	52
49	D0	66/67 (98%)	58 (88%)	8 (12%)	7	35
50	B1	78/83 (94%)	65 (83%)	13 (17%)	3	19
50	D1	78/83 (94%)	72 (92%)	6 (8%)	18	63
51	B2	66/67 (98%)	52 (79%)	14 (21%)	1	9
51	D2	66/67 (98%)	58 (88%)	8 (12%)	7	35
52	B3	51/52 (98%)	44 (86%)	7 (14%)	5	29
52	D3	51/52 (98%)	46 (90%)	5 (10%)	12	48
53	B4	34/63 (54%)	30 (88%)	4 (12%)	8	37
53	D4	34/63 (54%)	28 (82%)	6 (18%)	3	15
54	B5	51/52 (98%)	42 (82%)	9 (18%)	3	15
54	D5	51/52 (98%)	41 (80%)	10 (20%)	2	11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
55	B6	44/52 (85%)	27 (61%)	17 (39%)	0	1
55	D6	44/52 (85%)	30 (68%)	14 (32%)	0	3
56	B7	41/42 (98%)	37 (90%)	4 (10%)	12	48
56	D7	41/42 (98%)	35 (85%)	6 (15%)	5	26
57	B8	53/55 (96%)	40 (76%)	13 (24%)	1	5
57	D8	53/55 (96%)	39 (74%)	14 (26%)	1	4
58	B9	33/34 (97%)	32 (97%)	1 (3%)	53	89
58	D9	33/34 (97%)	31 (94%)	2 (6%)	26	73
All	All	9644/10430 (92%)	8280 (86%)	1364 (14%)	5	28

All (1364) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	11	LEU
2	AB	17	PHE
2	AB	24	TRP
2	AB	36	ARG
2	AB	44	LEU
2	AB	48	MET
2	AB	60	ASP
2	AB	64	ARG
2	AB	69	LEU
2	AB	78	GLN
2	AB	92	TYR
2	AB	93	VAL
2	AB	96	ARG
2	AB	103	THR
2	AB	113	HIS
2	AB	121	LEU
2	AB	155	LEU
2	AB	172	ILE
2	AB	178	ARG
2	AB	195	ASP
2	AB	196	LEU
2	AB	213	LEU
2	AB	220	ASP
2	AB	223	ILE
2	AB	226	ARG
3	AC	16	ARG

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Mol	Chain	Res	Type
3	AC	20	SER
3	AC	30	ARG
3	AC	38	ARG
3	AC	52	LEU
3	AC	62	ASP
3	AC	94	LEU
3	AC	101	LEU
3	AC	107	GLN
3	AC	116	VAL
3	AC	127	ARG
3	AC	132	ARG
3	AC	136	GLN
3	AC	156	ARG
3	AC	190	ARG
3	AC	198	VAL
4	AD	3	ARG
4	AD	8	VAL
4	AD	9	CYS
4	AD	11	LEU
4	AD	15	GLU
4	AD	19	LEU
4	AD	26	CYS
4	AD	39	PRO
4	AD	49	ARG
4	AD	57	ARG
4	AD	58	LEU
4	AD	59	ARG
4	AD	73	ARG
4	AD	99	SER
4	AD	108	LEU
4	AD	122	ARG
4	AD	126	ILE
4	AD	127	THR
4	AD	135	LEU
4	AD	158	ILE
4	AD	159	ARG
5	AE	7	GLU
5	AE	10	MET
5	AE	12	LEU
5	AE	13	ILE
5	AE	28	PHE
5	AE	51	VAL

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Mol	Chain	Res	Type
5	AE	73	ASN
5	AE	78	HIS
5	AE	79	GLU
5	AE	101	ILE
5	AE	131	ILE
5	AE	147	ASP
6	AF	11	ASN
6	AF	19	LEU
6	AF	43	LEU
6	AF	69	GLU
6	AF	75	LEU
6	AF	82	ARG
6	AF	96	PRO
6	AF	98	LEU
7	AG	11	GLN
7	AG	13	GLN
7	AG	52	GLU
7	AG	58	PRO
7	AG	60	LYS
7	AG	79	ARG
7	AG	96	GLN
7	AG	104	LEU
7	AG	109	ASN
7	AG	111	ARG
7	AG	114	ARG
7	AG	118	VAL
7	AG	124	LEU
7	AG	137	LYS
7	AG	140	ASP
7	AG	143	ARG
7	AG	156	TRP
8	AH	1	MET
8	AH	2	LEU
8	AH	25	ASP
8	AH	41	ARG
8	AH	52	ASP
8	AH	63	LEU
8	AH	85	ARG
8	AH	91	ARG
8	AH	99	GLU
8	AH	102	ARG
8	AH	114	THR

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Mol	Chain	Res	Type
8	AH	115	SER
8	AH	127	LEU
9	AI	4	TYR
9	AI	7	THR
9	AI	10	ARG
9	AI	20	ARG
9	AI	40	LEU
9	AI	64	THR
9	AI	95	LYS
9	AI	99	LEU
9	AI	102	LEU
9	AI	114	TYR
9	AI	121	ARG
9	AI	128	ARG
10	AJ	13	HIS
10	AJ	22	LYS
10	AJ	40	LEU
10	AJ	43	ARG
10	AJ	44	VAL
10	AJ	45	ARG
10	AJ	55	LYS
10	AJ	57	LYS
10	AJ	62	HIS
10	AJ	63	PHE
10	AJ	78	ASN
10	AJ	79	ARG
10	AJ	80	LYS
10	AJ	96	ILE
10	AJ	100	THR
11	AK	29	ILE
11	AK	35	PRO
11	AK	36	ASP
11	AK	81	ASP
11	AK	103	LEU
11	AK	109	VAL
12	AL	3	THR
12	AL	24	LEU
12	AL	35	THR
12	AL	38	ARG
12	AL	45	PRO
12	AL	50	ARG
12	AL	80	VAL

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Mol	Chain	Res	Type
12	AL	81	LEU
12	AL	86	ARG
12	AL	88	LYS
12	AL	89	ASP
12	AL	113	SER
13	AM	9	ILE
13	AM	48	LEU
13	AM	58	GLU
13	AM	64	TRP
13	AM	66	LEU
13	AM	70	LEU
13	AM	82	MET
13	AM	92	HIS
13	AM	93	ARG
13	AM	102	ARG
13	AM	105	THR
13	AM	108	ARG
13	AM	113	PRO
14	AN	14	PRO
14	AN	18	VAL
14	AN	29	ARG
14	AN	31	ARG
14	AN	41	ARG
14	AN	44	LEU
15	AO	3	ILE
15	AO	19	PRO
15	AO	54	ARG
15	AO	57	LEU
15	AO	65	ARG
15	AO	71	GLN
15	AO	79	ARG
15	AO	88	ARG
16	AP	20	VAL
16	AP	27	LYS
16	AP	32	TYR
16	AP	33	ILE
16	AP	54	GLU
16	AP	62	VAL
16	AP	65	GLN
16	AP	67	THR
16	AP	71	ARG
16	AP	82	GLN

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Mol	Chain	Res	Type
17	AQ	27	PHE
17	AQ	38	ARG
17	AQ	59	ILE
17	AQ	60	ILE
17	AQ	63	ARG
17	AQ	64	PRO
17	AQ	91	ARG
17	AQ	93	GLN
18	AR	29	PHE
18	AR	47	THR
18	AR	53	ARG
18	AR	87	ARG
19	AS	5	LEU
19	AS	6	LYS
19	AS	7	LYS
19	AS	12	ASP
19	AS	13	ASP
19	AS	15	LEU
19	AS	22	LEU
19	AS	27	GLU
19	AS	29	ARG
19	AS	37	ARG
19	AS	44	MET
19	AS	48	THR
19	AS	60	VAL
19	AS	66	MET
20	AT	22	ARG
20	AT	24	LEU
20	AT	26	ASN
20	AT	29	LYS
20	AT	31	SER
20	AT	35	THR
20	AT	45	GLN
20	AT	55	ILE
20	AT	61	SER
20	AT	62	LEU
20	AT	72	LEU
20	AT	73	HIS
20	AT	93	GLU
21	AU	15	ARG
21	AU	25	LYS
29	BC	36	LYS

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Mol	Chain	Res	Type
29	BC	41	VAL
29	BC	44	HIS
29	BC	56	GLN
29	BC	64	LEU
29	BC	77	ILE
30	BD	10	THR
30	BD	20	ASP
30	BD	33	LEU
30	BD	46	GLN
30	BD	49	ILE
30	BD	52	ARG
30	BD	61	LEU
30	BD	65	ILE
30	BD	67	PHE
30	BD	83	GLU
30	BD	92	ILE
30	BD	94	LEU
30	BD	95	LEU
30	BD	105	ILE
30	BD	115	GLN
30	BD	131	LEU
30	BD	166	GLN
30	BD	192	THR
30	BD	198	ASN
30	BD	205	VAL
30	BD	206	LEU
30	BD	211	ARG
30	BD	217	ARG
30	BD	218	ARG
30	BD	246	PRO
30	BD	257	LEU
30	BD	260	ARG
30	BD	262	ARG
30	BD	271	ILE
31	BE	7	VAL
31	BE	9	VAL
31	BE	14	ILE
31	BE	36	ARG
31	BE	38	THR
31	BE	49	LEU
31	BE	55	ASN
31	BE	78	LEU

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Mol	Chain	Res	Type
31	BE	79	ARG
31	BE	82	ARG
31	BE	97	LYS
31	BE	107	THR
31	BE	111	ARG
31	BE	118	LYS
31	BE	119	ARG
31	BE	121	ASN
31	BE	132	HIS
31	BE	134	ILE
31	BE	144	ARG
31	BE	178	GLU
31	BE	197	ILE
31	BE	202	LYS
31	BE	203	LYS
32	BF	17	ARG
32	BF	19	GLU
32	BF	28	ILE
32	BF	37	VAL
32	BF	46	ARG
32	BF	52	LYS
32	BF	72	ARG
32	BF	78	ILE
32	BF	88	VAL
32	BF	100	THR
32	BF	110	LEU
32	BF	112	MET
32	BF	136	THR
32	BF	140	LEU
32	BF	158	THR
32	BF	164	ARG
32	BF	165	ARG
32	BF	175	THR
32	BF	191	ARG
32	BF	202	PHE
32	BF	206	ILE
33	BG	7	LEU
33	BG	16	ARG
33	BG	21	ARG
33	BG	45	GLU
33	BG	49	ASP
33	BG	54	GLU

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Mol	Chain	Res	Type
33	BG	58	GLN
33	BG	80	PHE
33	BG	87	PRO
33	BG	96	ARG
33	BG	101	ILE
33	BG	117	PHE
33	BG	128	ARG
33	BG	130	ASN
33	BG	139	LEU
33	BG	141	PHE
33	BG	152	LEU
33	BG	153	ARG
33	BG	162	THR
34	BH	10	PRO
34	BH	23	ARG
34	BH	25	LYS
34	BH	27	LYS
34	BH	39	PRO
34	BH	41	MET
34	BH	46	GLU
34	BH	80	SER
34	BH	83	TYR
34	BH	86	GLU
34	BH	104	GLU
34	BH	111	HIS
34	BH	116	GLU
34	BH	122	THR
34	BH	141	VAL
34	BH	149	ARG
34	BH	157	TYR
34	BH	160	LYS
35	BI	2	LYS
35	BI	3	VAL
35	BI	12	LEU
35	BI	14	ASP
35	BI	15	VAL
35	BI	38	LEU
35	BI	61	ARG
35	BI	85	GLU
35	BI	88	ILE
35	BI	89	TYR
35	BI	101	LEU

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Mol	Chain	Res	Type
35	BI	113	ARG
35	BI	118	LYS
35	BI	122	GLU
35	BI	133	HIS
36	BN	3	THR
36	BN	4	TYR
36	BN	6	PRO
36	BN	8	GLN
36	BN	12	ARG
36	BN	22	THR
36	BN	25	ARG
36	BN	28	THR
36	BN	38	HIS
36	BN	48	MET
36	BN	56	ASN
36	BN	60	ILE
36	BN	67	LEU
36	BN	85	ILE
36	BN	87	LEU
36	BN	93	THR
36	BN	96	GLU
36	BN	99	LEU
36	BN	111	PRO
36	BN	120	LEU
36	BN	121	LYS
36	BN	131	GLN
36	BN	134	ARG
37	BO	2	ILE
37	BO	10	VAL
37	BO	24	VAL
37	BO	25	LEU
37	BO	48	PRO
37	BO	49	ARG
37	BO	57	VAL
37	BO	68	GLU
37	BO	69	ILE
37	BO	73	ASP
37	BO	94	ARG
37	BO	102	VAL
37	BO	104	ARG
37	BO	105	GLU
37	BO	108	GLU

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Mol	Chain	Res	Type
37	BO	117	LEU
38	BP	6	LEU
38	BP	16	ARG
38	BP	18	ARG
38	BP	19	VAL
38	BP	39	LYS
38	BP	42	SER
38	BP	59	LEU
38	BP	61	ARG
38	BP	62	LEU
38	BP	63	PRO
38	BP	64	LYS
38	BP	67	MET
38	BP	75	ILE
38	BP	79	ARG
38	BP	81	GLN
38	BP	83	VAL
38	BP	91	PHE
38	BP	99	LEU
38	BP	105	LEU
38	BP	108	LYS
38	BP	110	TYR
38	BP	114	ILE
38	BP	115	LEU
38	BP	119	GLU
38	BP	130	PHE
38	BP	136	GLU
39	BQ	14	ARG
39	BQ	16	ARG
39	BQ	17	LEU
39	BQ	21	THR
39	BQ	26	TYR
39	BQ	35	VAL
39	BQ	45	GLN
39	BQ	51	ARG
39	BQ	56	ARG
39	BQ	58	PHE
39	BQ	60	ARG
39	BQ	65	PHE
39	BQ	79	LEU
39	BQ	89	ASN
39	BQ	96	VAL

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Mol	Chain	Res	Type
39	BQ	104	PHE
39	BQ	110	THR
39	BQ	112	GLU
39	BQ	135	ASP
39	BQ	138	ASP
39	BQ	139	GLU
40	BR	2	ARG
40	BR	4	LEU
40	BR	28	LEU
40	BR	33	ARG
40	BR	36	THR
40	BR	37	THR
40	BR	44	LEU
40	BR	49	ASP
40	BR	57	ARG
40	BR	63	ARG
40	BR	67	LEU
40	BR	73	VAL
40	BR	80	PHE
40	BR	100	LEU
40	BR	102	GLU
40	BR	104	ARG
40	BR	118	GLU
41	BS	11	LYS
41	BS	13	ARG
41	BS	18	ILE
41	BS	20	ARG
41	BS	21	THR
41	BS	23	ARG
41	BS	26	LEU
41	BS	31	SER
41	BS	33	LYS
41	BS	36	TYR
41	BS	38	GLN
41	BS	42	ASP
41	BS	50	SER
41	BS	52	SER
41	BS	57	LYS
41	BS	67	ARG
41	BS	73	LEU
41	BS	89	ARG
41	BS	92	TYR

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Mol	Chain	Res	Type
41	BS	97	ARG
41	BS	101	LEU
41	BS	103	GLU
41	BS	106	ARG
41	BS	107	GLU
42	BT	3	ARG
42	BT	6	LEU
42	BT	11	GLU
42	BT	13	ARG
42	BT	16	ARG
42	BT	19	LEU
42	BT	23	ARG
42	BT	24	PRO
42	BT	29	ARG
42	BT	30	VAL
42	BT	31	SER
42	BT	32	TYR
42	BT	38	ASN
42	BT	41	ARG
42	BT	49	VAL
42	BT	51	ARG
42	BT	59	THR
42	BT	62	THR
42	BT	73	GLU
42	BT	74	ARG
42	BT	84	GLN
42	BT	89	VAL
42	BT	93	ARG
42	BT	96	ARG
42	BT	99	LEU
42	BT	101	PHE
42	BT	102	ILE
42	BT	113	LYS
42	BT	114	LEU
42	BT	115	ARG
42	BT	121	ILE
42	BT	128	GLU
43	BU	20	LEU
43	BU	33	ARG
43	BU	52	ARG
43	BU	56	ASP
43	BU	74	LEU

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Mol	Chain	Res	Type
43	BU	78	THR
43	BU	84	LYS
43	BU	91	ASP
43	BU	92	ARG
43	BU	95	LEU
43	BU	102	GLU
43	BU	104	GLN
43	BU	108	GLU
43	BU	112	ARG
44	BV	1	MET
44	BV	2	PHE
44	BV	16	PRO
44	BV	18	LEU
44	BV	19	LYS
44	BV	24	LYS
44	BV	26	ASP
44	BV	29	PRO
44	BV	35	LEU
44	BV	45	THR
44	BV	57	VAL
44	BV	61	VAL
44	BV	73	SER
44	BV	82	ARG
44	BV	89	GLN
44	BV	91	TYR
44	BV	95	LEU
44	BV	99	ILE
45	BW	8	ARG
45	BW	11	ARG
45	BW	14	PRO
45	BW	17	VAL
45	BW	23	LEU
45	BW	37	ARG
45	BW	51	LEU
45	BW	65	LEU
45	BW	70	TYR
45	BW	77	ASP
45	BW	86	LEU
45	BW	90	ARG
45	BW	107	LEU
46	BX	12	VAL
46	BX	27	THR

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Mol	Chain	Res	Type
46	BX	28	PHE
46	BX	38	GLU
46	BX	57	LEU
46	BX	63	LYS
46	BX	68	ARG
46	BX	75	ASP
46	BX	76	ARG
46	BX	80	ILE
46	BX	83	VAL
47	BY	2	ARG
47	BY	6	HIS
47	BY	7	VAL
47	BY	14	LEU
47	BY	28	LYS
47	BY	29	GLU
47	BY	32	PRO
47	BY	43	ASN
47	BY	47	LYS
47	BY	66	PRO
47	BY	77	PRO
47	BY	79	CYS
47	BY	84	ARG
47	BY	99	CYS
48	BZ	3	ARG
48	BZ	10	GLU
48	BZ	12	GLU
48	BZ	22	LYS
48	BZ	37	TYR
48	BZ	39	ASP
48	BZ	40	LEU
48	BZ	49	GLN
48	BZ	62	ASP
48	BZ	67	PRO
48	BZ	70	VAL
48	BZ	72	GLN
48	BZ	80	ARG
48	BZ	86	ASP
48	BZ	91	SER
48	BZ	93	GLU
48	BZ	116	LEU
48	BZ	120	HIS
48	BZ	130	ARG

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Mol	Chain	Res	Type
48	BZ	138	VAL
48	BZ	144	GLU
48	BZ	149	LEU
48	BZ	167	GLU
48	BZ	168	GLU
49	B0	17	GLN
49	B0	25	ARG
49	B0	36	ILE
49	B0	63	VAL
49	B0	75	LEU
49	B0	84	LEU
50	B1	4	VAL
50	B1	25	LYS
50	B1	26	ARG
50	B1	35	THR
50	B1	39	LYS
50	B1	40	ARG
50	B1	45	ASN
50	B1	50	ARG
50	B1	52	ARG
50	B1	61	ARG
50	B1	80	LEU
50	B1	82	LEU
50	B1	93	GLU
51	B2	2	LYS
51	B2	3	LEU
51	B2	7	ARG
51	B2	17	SER
51	B2	18	PRO
51	B2	24	LEU
51	B2	34	GLU
51	B2	43	GLN
51	B2	44	LEU
51	B2	45	SER
51	B2	53	LEU
51	B2	64	LEU
51	B2	65	ASN
51	B2	70	GLN
52	B3	8	LEU
52	B3	30	ARG
52	B3	40	THR
52	B3	44	ARG

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Mol	Chain	Res	Type
52	B3	46	ASN
52	B3	52	HIS
52	B3	58	VAL
53	B4	36	VAL
53	B4	46	ASN
53	B4	51	TYR
53	B4	60	GLU
54	B5	4	HIS
54	B5	11	THR
54	B5	25	LEU
54	B5	26	THR
54	B5	33	CYS
54	B5	40	LYS
54	B5	52	TYR
54	B5	55	ARG
54	B5	56	LYS
55	B6	6	ARG
55	B6	7	ILE
55	B6	10	LEU
55	B6	11	LEU
55	B6	12	GLU
55	B6	18	ARG
55	B6	19	ARG
55	B6	24	GLU
55	B6	30	THR
55	B6	31	PRO
55	B6	39	TYR
55	B6	42	TRP
55	B6	44	ARG
55	B6	46	HIS
55	B6	47	THR
55	B6	49	HIS
55	B6	52	VAL
56	B7	1	MET
56	B7	4	THR
56	B7	24	THR
56	B7	48	LYS
57	B8	8	LYS
57	B8	16	ILE
57	B8	30	ARG
57	B8	31	HIS
57	B8	32	LEU

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Mol	Chain	Res	Type
57	B8	34	TRP
57	B8	40	GLU
57	B8	44	LYS
57	B8	48	PHE
57	B8	49	VAL
57	B8	54	GLU
57	B8	61	LEU
57	B8	64	TYR
58	B9	2	LYS
2	CB	9	GLU
2	CB	15	VAL
2	CB	16	HIS
2	CB	17	PHE
2	CB	20	GLU
2	CB	24	TRP
2	CB	36	ARG
2	CB	44	LEU
2	CB	69	LEU
2	CB	74	LYS
2	CB	80	ILE
2	CB	116	GLU
2	CB	121	LEU
2	CB	130	ARG
2	CB	155	LEU
2	CB	163	PHE
2	CB	178	ARG
2	CB	185	ILE
2	CB	187	LEU
2	CB	189	ASP
2	CB	196	LEU
2	CB	206	ASP
2	CB	212	GLN
2	CB	219	VAL
2	CB	238	LEU
3	CC	12	LEU
3	CC	17	ASP
3	CC	30	ARG
3	CC	34	LEU
3	CC	46	GLU
3	CC	48	TYR
3	CC	52	LEU
3	CC	75	VAL

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Mol	Chain	Res	Type
3	CC	118	GLN
3	CC	119	ARG
3	CC	128	PHE
3	CC	165	THR
3	CC	167	TRP
3	CC	172	ARG
3	CC	188	LEU
3	CC	196	LEU
3	CC	202	ILE
4	CD	3	ARG
4	CD	9	CYS
4	CD	12	CYS
4	CD	13	ARG
4	CD	21	LEU
4	CD	26	CYS
4	CD	36	ARG
4	CD	49	ARG
4	CD	50	ARG
4	CD	73	ARG
4	CD	98	GLU
4	CD	110	PHE
4	CD	122	ARG
4	CD	135	LEU
4	CD	138	TYR
4	CD	150	GLU
4	CD	153	ARG
4	CD	200	GLU
5	CE	10	MET
5	CE	16	THR
5	CE	26	PHE
5	CE	31	LEU
5	CE	41	VAL
5	CE	45	PHE
5	CE	51	VAL
5	CE	53	LEU
5	CE	68	GLU
5	CE	73	ASN
5	CE	76	ILE
5	CE	79	GLU
5	CE	91	LEU
5	CE	101	ILE
5	CE	111	GLU

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Mol	Chain	Res	Type
5	CE	143	ARG
6	CF	10	LEU
6	CF	14	LEU
6	CF	15	ASP
6	CF	32	ASN
6	CF	37	VAL
6	CF	46	ARG
6	CF	48	LEU
6	CF	55	ASP
6	CF	69	GLU
6	CF	73	ASN
6	CF	83	ASP
7	CG	24	THR
7	CG	36	LYS
7	CG	43	PHE
7	CG	52	GLU
7	CG	54	THR
7	CG	110	GLN
7	CG	111	ARG
7	CG	143	ARG
7	CG	148	ASN
7	CG	156	TRP
8	CH	1	MET
8	CH	2	LEU
8	CH	25	ASP
8	CH	27	PRO
8	CH	52	ASP
8	CH	63	LEU
8	CH	81	HIS
8	CH	85	ARG
8	CH	91	ARG
8	CH	93	VAL
8	CH	102	ARG
8	CH	103	VAL
8	CH	127	LEU
8	CH	133	LEU
9	CI	4	TYR
9	CI	10	ARG
9	CI	21	PRO
9	CI	47	LEU
9	CI	59	PHE
9	CI	64	THR

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Mol	Chain	Res	Type
9	CI	66	ARG
9	CI	95	LYS
9	CI	99	LEU
9	CI	102	LEU
9	CI	104	ARG
9	CI	114	TYR
9	CI	121	ARG
9	CI	125	TYR
9	CI	128	ARG
10	CJ	22	LYS
10	CJ	45	ARG
10	CJ	50	ILE
10	CJ	60	ARG
10	CJ	62	HIS
10	CJ	63	PHE
10	CJ	64	GLU
10	CJ	68	HIS
10	CJ	80	LYS
10	CJ	96	ILE
10	CJ	100	THR
11	CK	32	ILE
11	CK	54	ARG
11	CK	75	TYR
11	CK	81	ASP
11	CK	91	ARG
11	CK	103	LEU
11	CK	109	VAL
12	CL	3	THR
12	CL	5	ASN
12	CL	24	LEU
12	CL	25	LYS
12	CL	30	ARG
12	CL	39	THR
12	CL	41	THR
12	CL	70	GLU
12	CL	81	LEU
12	CL	86	ARG
12	CL	90	LEU
12	CL	117	TYR
13	CM	47	ASP
13	CM	48	LEU
13	CM	50	GLU

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Mol	Chain	Res	Type
13	CM	64	TRP
13	CM	65	LYS
13	CM	66	LEU
13	CM	69	GLU
13	CM	73	GLU
13	CM	82	MET
13	CM	108	ARG
13	CM	113	PRO
13	CM	115	LYS
14	CN	12	ARG
14	CN	14	PRO
15	CO	3	ILE
15	CO	10	LYS
15	CO	26	GLU
15	CO	38	ARG
15	CO	47	LYS
15	CO	54	ARG
15	CO	65	ARG
15	CO	67	LEU
15	CO	71	GLN
15	CO	82	ILE
16	CP	1	MET
16	CP	20	VAL
16	CP	27	LYS
16	CP	45	THR
16	CP	47	ASP
16	CP	74	LEU
16	CP	82	GLN
17	CQ	10	VAL
17	CQ	48	GLU
17	CQ	60	ILE
17	CQ	68	ARG
17	CQ	92	ARG
18	CR	19	LYS
18	CR	36	ASN
18	CR	40	LEU
18	CR	47	THR
18	CR	53	ARG
18	CR	76	LEU
18	CR	83	GLU
18	CR	87	ARG
19	CS	5	LEU

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Mol	Chain	Res	Type
19	CS	6	LYS
19	CS	7	LYS
19	CS	13	ASP
19	CS	15	LEU
19	CS	22	LEU
19	CS	27	GLU
19	CS	29	ARG
19	CS	36	ARG
19	CS	41	VAL
19	CS	43	GLU
19	CS	44	MET
19	CS	61	TYR
19	CS	80	TYR
20	CT	10	LEU
20	CT	26	ASN
20	CT	27	LYS
20	CT	36	LEU
20	CT	73	HIS
20	CT	75	ASN
20	CT	80	ARG
20	CT	86	ARG
20	CT	93	GLU
20	CT	100	ILE
21	CU	12	LYS
21	CU	25	LYS
29	DC	20	TYR
29	DC	24	GLU
29	DC	36	LYS
29	DC	37	PHE
29	DC	56	GLN
29	DC	64	LEU
29	DC	77	ILE
29	DC	93	TYR
29	DC	94	VAL
30	DD	10	THR
30	DD	26	LYS
30	DD	28	GLU
30	DD	36	PRO
30	DD	40	THR
30	DD	44	ASN
30	DD	46	GLN
30	DD	49	ILE

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Mol	Chain	Res	Type
30	DD	54	ARG
30	DD	61	LEU
30	DD	65	ILE
30	DD	96	HIS
30	DD	98	VAL
30	DD	106	ILE
30	DD	109	ASP
30	DD	111	LEU
30	DD	131	LEU
30	DD	165	ILE
30	DD	166	GLN
30	DD	168	ARG
30	DD	171	ASP
30	DD	192	THR
30	DD	221	VAL
30	DD	228	PRO
30	DD	229	VAL
30	DD	242	ARG
30	DD	246	PRO
30	DD	259	THR
30	DD	260	ARG
30	DD	271	ILE
31	DE	1	MET
31	DE	9	VAL
31	DE	16	ARG
31	DE	17	ASP
31	DE	18	ASP
31	DE	24	THR
31	DE	33	VAL
31	DE	53	PRO
31	DE	54	GLN
31	DE	55	ASN
31	DE	56	PRO
31	DE	67	PHE
31	DE	69	LYS
31	DE	79	ARG
31	DE	84	PHE
31	DE	89	ASP
31	DE	107	THR
31	DE	111	ARG
31	DE	113	PHE
31	DE	119	ARG

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Mol	Chain	Res	Type
31	DE	127	ASP
31	DE	134	ILE
31	DE	143	ASN
31	DE	154	LYS
31	DE	160	TYR
31	DE	179	GLU
31	DE	184	VAL
31	DE	196	VAL
31	DE	197	ILE
31	DE	200	GLU
31	DE	202	LYS
31	DE	203	LYS
32	DF	2	LYS
32	DF	17	ARG
32	DF	19	GLU
32	DF	25	PRO
32	DF	27	GLU
32	DF	37	VAL
32	DF	43	LYS
32	DF	46	ARG
32	DF	64	ILE
32	DF	65	TRP
32	DF	78	ILE
32	DF	83	PHE
32	DF	98	SER
32	DF	110	LEU
32	DF	133	ASN
32	DF	140	LEU
32	DF	158	THR
32	DF	160	ASN
32	DF	161	GLU
32	DF	169	ASN
32	DF	175	THR
32	DF	204	ASN
33	DG	4	ASP
33	DG	8	LYS
33	DG	16	ARG
33	DG	21	ARG
33	DG	27	ASN
33	DG	29	TRP
33	DG	30	GLU
33	DG	33	ARG

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Mol	Chain	Res	Type
33	DG	54	GLU
33	DG	66	GLN
33	DG	70	VAL
33	DG	87	PRO
33	DG	90	LEU
33	DG	101	ILE
33	DG	113	ARG
33	DG	116	ASP
33	DG	117	PHE
33	DG	125	PHE
33	DG	130	ASN
33	DG	131	TYR
33	DG	157	ILE
33	DG	162	THR
34	DH	24	VAL
34	DH	25	LYS
34	DH	41	MET
34	DH	46	GLU
34	DH	54	ARG
34	DH	69	ARG
34	DH	86	GLU
34	DH	88	LEU
34	DH	152	ARG
34	DH	153	LYS
34	DH	157	TYR
34	DH	163	TYR
34	DH	170	ARG
35	DI	2	LYS
35	DI	12	LEU
35	DI	20	ASP
35	DI	38	LEU
35	DI	47	LEU
35	DI	58	LEU
35	DI	61	ARG
35	DI	66	GLU
35	DI	82	ARG
35	DI	99	GLU
35	DI	112	LYS
35	DI	113	ARG
35	DI	114	LEU
35	DI	117	GLU
35	DI	133	HIS

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Mol	Chain	Res	Type
35	DI	134	PRO
35	DI	142	VAL
35	DI	144	VAL
36	DN	1	MET
36	DN	4	TYR
36	DN	12	ARG
36	DN	15	LEU
36	DN	25	ARG
36	DN	26	LEU
36	DN	34	LEU
36	DN	41	ASP
36	DN	48	MET
36	DN	51	PHE
36	DN	55	VAL
36	DN	56	ASN
36	DN	63	THR
36	DN	87	LEU
36	DN	119	ARG
36	DN	120	LEU
36	DN	121	LYS
36	DN	134	ARG
36	DN	136	GLU
37	DO	1	MET
37	DO	5	GLN
37	DO	7	TYR
37	DO	9	GLU
37	DO	17	ARG
37	DO	48	PRO
37	DO	53	LYS
37	DO	64	ARG
37	DO	73	ASP
37	DO	82	ASN
37	DO	91	LEU
37	DO	99	PHE
38	DP	6	LEU
38	DP	7	ARG
38	DP	13	ASN
38	DP	16	ARG
38	DP	18	ARG
38	DP	29	LYS
38	DP	32	THR
38	DP	38	GLN

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Mol	Chain	Res	Type
38	DP	45	LEU
38	DP	50	ARG
38	DP	51	PHE
38	DP	57	THR
38	DP	58	THR
38	DP	59	LEU
38	DP	61	ARG
38	DP	74	GLU
38	DP	85	LEU
38	DP	91	PHE
38	DP	105	LEU
38	DP	114	ILE
38	DP	115	LEU
38	DP	123	LEU
39	DQ	2	LEU
39	DQ	35	VAL
39	DQ	45	GLN
39	DQ	51	ARG
39	DQ	56	ARG
39	DQ	63	LYS
39	DQ	96	VAL
39	DQ	110	THR
39	DQ	112	GLU
39	DQ	131	ILE
39	DQ	132	VAL
39	DQ	139	GLU
40	DR	2	ARG
40	DR	5	LYS
40	DR	8	ARG
40	DR	18	LEU
40	DR	27	SER
40	DR	30	THR
40	DR	35	THR
40	DR	37	THR
40	DR	43	GLU
40	DR	60	LEU
40	DR	71	GLN
40	DR	74	LYS
40	DR	81	ASP
40	DR	94	TYR
40	DR	104	ARG
40	DR	118	GLU

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Mol	Chain	Res	Type
41	DS	11	LYS
41	DS	13	ARG
41	DS	34	HIS
41	DS	43	GLU
41	DS	54	LEU
41	DS	73	LEU
41	DS	89	ARG
41	DS	92	TYR
41	DS	97	ARG
41	DS	101	LEU
42	DT	1	MET
42	DT	6	LEU
42	DT	13	ARG
42	DT	14	TYR
42	DT	18	ASP
42	DT	19	LEU
42	DT	24	PRO
42	DT	32	TYR
42	DT	41	ARG
42	DT	42	ILE
42	DT	44	ASP
42	DT	46	GLU
42	DT	51	ARG
42	DT	52	ILE
42	DT	53	ARG
42	DT	61	PHE
42	DT	63	VAL
42	DT	64	ARG
42	DT	65	LYS
42	DT	66	VAL
42	DT	85	LYS
42	DT	86	ILE
42	DT	89	VAL
42	DT	96	ARG
42	DT	99	LEU
42	DT	100	TYR
42	DT	108	ARG
42	DT	113	LYS
42	DT	115	ARG
42	DT	118	ARG
42	DT	124	ASP
42	DT	125	ARG

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Mol	Chain	Res	Type
42	DT	128	GLU
43	DU	9	VAL
43	DU	20	LEU
43	DU	28	ARG
43	DU	49	HIS
43	DU	52	ARG
43	DU	56	ASP
43	DU	69	CYS
43	DU	92	ARG
43	DU	102	GLU
43	DU	104	GLN
44	DV	2	PHE
44	DV	10	LYS
44	DV	12	TYR
44	DV	16	PRO
44	DV	18	LEU
44	DV	19	LYS
44	DV	21	ARG
44	DV	29	PRO
44	DV	39	LEU
44	DV	40	LEU
44	DV	50	PRO
44	DV	64	HIS
44	DV	66	ARG
44	DV	68	LYS
44	DV	70	ILE
44	DV	83	ARG
44	DV	91	TYR
45	DW	11	ARG
45	DW	19	LEU
45	DW	39	THR
45	DW	51	LEU
45	DW	59	VAL
45	DW	65	LEU
45	DW	70	TYR
46	DX	3	THR
46	DX	11	PRO
46	DX	12	VAL
46	DX	27	THR
46	DX	28	PHE
46	DX	35	THR
46	DX	48	LYS

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Mol	Chain	Res	Type
46	DX	52	VAL
46	DX	56	THR
46	DX	57	LEU
46	DX	63	LYS
46	DX	68	ARG
46	DX	70	LEU
46	DX	76	ARG
46	DX	80	ILE
46	DX	83	VAL
47	DY	2	ARG
47	DY	6	HIS
47	DY	7	VAL
47	DY	28	LYS
47	DY	29	GLU
47	DY	31	LEU
47	DY	32	PRO
47	DY	42	VAL
47	DY	47	LYS
47	DY	56	PRO
47	DY	62	GLU
47	DY	64	GLU
47	DY	67	LEU
47	DY	83	THR
47	DY	99	CYS
48	DZ	2	TYR
48	DZ	8	TYR
48	DZ	10	GLU
48	DZ	17	LEU
48	DZ	22	LYS
48	DZ	33	ASN
48	DZ	52	ILE
48	DZ	75	LEU
48	DZ	78	ARG
48	DZ	80	ARG
48	DZ	118	GLU
48	DZ	120	HIS
48	DZ	121	ARG
48	DZ	122	ASP
48	DZ	144	GLU
48	DZ	149	LEU
48	DZ	170	ILE
49	D0	20	ARG

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Mol	Chain	Res	Type
49	D0	21	LEU
49	D0	31	VAL
49	D0	44	ARG
49	D0	59	LEU
49	D0	64	ASP
49	D0	75	LEU
49	D0	84	LEU
50	D1	40	ARG
50	D1	41	ARG
50	D1	46	LEU
50	D1	58	ILE
50	D1	73	LEU
50	D1	75	GLU
51	D2	2	LYS
51	D2	7	ARG
51	D2	15	LYS
51	D2	32	LEU
51	D2	49	LYS
51	D2	52	ASP
51	D2	53	LEU
51	D2	56	GLN
52	D3	8	LEU
52	D3	31	LEU
52	D3	37	LEU
52	D3	56	VAL
52	D3	58	VAL
53	D4	46	ASN
53	D4	48	ILE
53	D4	51	TYR
53	D4	53	THR
53	D4	66	HIS
53	D4	81	VAL
54	D5	3	LYS
54	D5	4	HIS
54	D5	11	THR
54	D5	25	LEU
54	D5	34	PRO
54	D5	40	LYS
54	D5	49	CYS
54	D5	52	TYR
54	D5	56	LYS
54	D5	57	VAL

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Mol	Chain	Res	Type
55	D6	8	LYS
55	D6	10	LEU
55	D6	11	LEU
55	D6	12	GLU
55	D6	14	THR
55	D6	17	LYS
55	D6	19	ARG
55	D6	26	ASN
55	D6	31	PRO
55	D6	41	PRO
55	D6	42	TRP
55	D6	44	ARG
55	D6	46	HIS
55	D6	47	THR
56	D7	1	MET
56	D7	4	THR
56	D7	8	ASN
56	D7	41	ARG
56	D7	46	VAL
56	D7	47	ARG
57	D8	6	THR
57	D8	8	LYS
57	D8	30	ARG
57	D8	31	HIS
57	D8	32	LEU
57	D8	33	ASN
57	D8	34	TRP
57	D8	44	LYS
57	D8	47	LYS
57	D8	48	PHE
57	D8	49	VAL
57	D8	58	ILE
57	D8	61	LEU
57	D8	64	TYR
58	D9	20	HIS
58	D9	24	TYR

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (345) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	37	ASN
2	AB	94	ASN

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Mol	Chain	Res	Type
2	AB	95	GLN
2	AB	104	ASN
2	AB	110	GLN
2	AB	135	GLN
2	AB	146	GLN
2	AB	204	ASN
2	AB	212	GLN
3	AC	28	GLN
3	AC	31	HIS
3	AC	37	GLN
3	AC	69	HIS
3	AC	108	ASN
3	AC	139	GLN
3	AC	162	GLN
3	AC	170	GLN
3	AC	176	HIS
4	AD	45	GLN
4	AD	62	GLN
4	AD	74	GLN
4	AD	129	ASN
4	AD	161	ASN
5	AE	72	GLN
5	AE	73	ASN
5	AE	78	HIS
6	AF	7	ASN
6	AF	18	GLN
6	AF	27	GLN
6	AF	32	ASN
6	AF	73	ASN
6	AF	94	GLN
6	AF	100	ASN
7	AG	13	GLN
7	AG	68	ASN
7	AG	96	GLN
7	AG	106	GLN
9	AI	23	ASN
9	AI	31	GLN
9	AI	89	ASN
9	AI	117	HIS
9	AI	124	GLN
10	AJ	21	GLN
10	AJ	56	HIS

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Mol	Chain	Res	Type
11	AK	13	GLN
11	AK	38	ASN
11	AK	117	ASN
12	AL	5	ASN
12	AL	6	GLN
12	AL	72	HIS
12	AL	77	HIS
13	AM	40	ASN
13	AM	92	HIS
13	AM	101	GLN
13	AM	106	ASN
15	AO	9	GLN
15	AO	13	GLN
15	AO	37	ASN
15	AO	46	HIS
15	AO	62	GLN
15	AO	71	GLN
16	AP	14	ASN
16	AP	16	HIS
16	AP	76	GLN
17	AQ	16	GLN
17	AQ	26	GLN
17	AQ	93	GLN
17	AQ	94	ASN
18	AR	63	GLN
19	AS	14	HIS
19	AS	23	ASN
19	AS	57	HIS
20	AT	18	GLN
20	AT	26	ASN
20	AT	42	GLN
20	AT	45	GLN
20	AT	90	GLN
29	BC	44	HIS
29	BC	56	GLN
29	BC	71	GLN
30	BD	58	HIS
30	BD	115	GLN
30	BD	126	GLN
30	BD	166	GLN
30	BD	186	HIS
30	BD	198	ASN

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Mol	Chain	Res	Type
30	BD	253	GLN
31	BE	48	GLN
31	BE	55	ASN
31	BE	129	HIS
31	BE	159	HIS
31	BE	192	ASN
32	BF	69	HIS
32	BF	75	HIS
32	BF	160	ASN
32	BF	169	ASN
32	BF	203	GLN
33	BG	27	ASN
33	BG	40	ASN
33	BG	130	ASN
34	BH	65	HIS
34	BH	74	ASN
34	BH	147	ASN
35	BI	54	GLN
35	BI	139	GLN
36	BN	8	GLN
36	BN	45	ASN
36	BN	56	ASN
36	BN	130	HIS
37	BO	82	ASN
38	BP	13	ASN
38	BP	38	GLN
38	BP	68	GLN
38	BP	81	GLN
38	BP	128	HIS
39	BQ	12	GLN
39	BQ	45	GLN
39	BQ	46	GLN
40	BR	16	HIS
40	BR	23	ASN
40	BR	24	GLN
40	BR	31	HIS
40	BR	50	HIS
40	BR	53	HIS
40	BR	71	GLN
41	BS	16	ASN
41	BS	34	HIS
41	BS	68	GLN

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Mol	Chain	Res	Type
42	BT	38	ASN
42	BT	79	HIS
42	BT	90	GLN
43	BU	14	HIS
43	BU	44	ASN
43	BU	49	HIS
43	BU	81	HIS
43	BU	94	ASN
43	BU	104	GLN
44	BV	11	GLN
45	BW	34	ASN
45	BW	40	ASN
45	BW	57	ASN
45	BW	60	ASN
45	BW	62	HIS
45	BW	102	HIS
45	BW	111	HIS
46	BX	31	HIS
46	BX	41	ASN
46	BX	82	GLN
46	BX	87	GLN
48	BZ	31	HIS
48	BZ	74	ASN
48	BZ	117	GLN
49	B0	12	ASN
49	B0	17	GLN
49	B0	29	GLN
49	B0	70	GLN
50	B1	45	ASN
50	B1	47	GLN
51	B2	9	GLN
51	B2	38	GLN
51	B2	43	GLN
51	B2	46	GLN
52	B3	19	GLN
52	B3	32	GLN
52	B3	46	ASN
52	B3	52	HIS
53	B4	46	ASN
54	B5	4	HIS
54	B5	43	HIS
55	B6	20	ASN

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Mol	Chain	Res	Type
55	B6	32	ASN
55	B6	46	HIS
56	B7	8	ASN
56	B7	36	GLN
57	B8	33	ASN
58	B9	20	HIS
58	B9	29	ASN
58	B9	34	GLN
2	CB	76	GLN
2	CB	78	GLN
2	CB	95	GLN
2	CB	104	ASN
2	CB	110	GLN
2	CB	135	GLN
3	CC	3	ASN
3	CC	28	GLN
3	CC	31	HIS
3	CC	37	GLN
3	CC	69	HIS
3	CC	98	ASN
3	CC	118	GLN
3	CC	136	GLN
3	CC	170	GLN
3	CC	181	ASN
4	CD	45	GLN
4	CD	119	GLN
4	CD	123	HIS
4	CD	161	ASN
4	CD	199	ASN
5	CE	73	ASN
5	CE	78	HIS
6	CF	18	GLN
6	CF	27	GLN
6	CF	32	ASN
6	CF	57	GLN
6	CF	94	GLN
7	CG	13	GLN
7	CG	37	ASN
7	CG	96	GLN
7	CG	106	GLN
7	CG	109	ASN
7	CG	148	ASN

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Mol	Chain	Res	Type
8	CH	82	HIS
9	CI	23	ASN
9	CI	89	ASN
9	CI	117	HIS
9	CI	124	GLN
10	CJ	13	HIS
10	CJ	56	HIS
10	CJ	76	ASN
11	CK	13	GLN
11	CK	38	ASN
11	CK	93	GLN
11	CK	99	GLN
11	CK	117	ASN
12	CL	46	ASN
12	CL	72	HIS
13	CM	62	ASN
15	CO	13	GLN
15	CO	28	GLN
15	CO	37	ASN
15	CO	71	GLN
16	CP	16	HIS
16	CP	76	GLN
17	CQ	16	GLN
17	CQ	26	GLN
17	CQ	93	GLN
19	CS	14	HIS
19	CS	47	HIS
19	CS	57	HIS
20	CT	26	ASN
20	CT	73	HIS
20	CT	75	ASN
29	DC	44	HIS
30	DD	44	ASN
30	DD	58	HIS
30	DD	96	HIS
30	DD	115	GLN
30	DD	116	GLN
30	DD	126	GLN
30	DD	166	GLN
30	DD	186	HIS
30	DD	198	ASN
30	DD	253	GLN

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Mol	Chain	Res	Type
31	DE	48	GLN
31	DE	54	GLN
31	DE	55	ASN
31	DE	129	HIS
31	DE	137	HIS
31	DE	192	ASN
32	DF	8	GLN
32	DF	69	HIS
32	DF	75	HIS
32	DF	160	ASN
33	DG	40	ASN
33	DG	41	GLN
33	DG	58	GLN
33	DG	130	ASN
34	DH	61	HIS
34	DH	65	HIS
34	DH	74	ASN
34	DH	111	HIS
34	DH	139	GLN
34	DH	143	GLN
34	DH	147	ASN
35	DI	11	ASN
35	DI	43	ASN
35	DI	54	GLN
35	DI	104	GLN
35	DI	139	GLN
36	DN	45	ASN
36	DN	56	ASN
36	DN	69	GLN
36	DN	133	GLN
37	DO	3	GLN
37	DO	82	ASN
38	DP	9	ASN
38	DP	68	GLN
38	DP	81	GLN
38	DP	128	HIS
39	DQ	12	GLN
40	DR	3	HIS
40	DR	16	HIS
40	DR	23	ASN
40	DR	24	GLN
40	DR	53	HIS

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Mol	Chain	Res	Type
40	DR	71	GLN
41	DS	16	ASN
41	DS	61	ASN
42	DT	38	ASN
42	DT	43	GLN
42	DT	90	GLN
43	DU	14	HIS
43	DU	44	ASN
43	DU	49	HIS
43	DU	71	GLN
43	DU	72	HIS
43	DU	81	HIS
43	DU	94	ASN
43	DU	104	GLN
43	DU	117	GLN
44	DV	11	GLN
45	DW	34	ASN
45	DW	40	ASN
45	DW	57	ASN
45	DW	61	ASN
45	DW	62	HIS
46	DX	31	HIS
46	DX	41	ASN
46	DX	55	ASN
46	DX	87	GLN
48	DZ	31	HIS
48	DZ	117	GLN
49	D0	12	ASN
49	D0	29	GLN
49	D0	35	ASN
49	D0	70	GLN
50	D1	45	ASN
50	D1	56	GLN
51	D2	38	GLN
51	D2	43	GLN
51	D2	47	ASN
52	D3	19	GLN
52	D3	46	ASN
52	D3	52	HIS
53	D4	46	ASN
54	D5	43	HIS
55	D6	20	ASN

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Mol	Chain	Res	Type
55	D6	26	ASN
56	D7	6	GLN
56	D7	8	ASN
56	D7	36	GLN
57	D8	31	HIS
57	D8	33	ASN
58	D9	34	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1493/1508 (99%)	234 (15%)	56 (3%)
1	CA	1491/1508 (98%)	248 (16%)	61 (4%)
22	AV	9/30 (30%)	1 (11%)	0
22	CV	9/30 (30%)	2 (22%)	0
23	AW	73/75 (97%)	15 (20%)	3 (4%)
23	CW	73/75 (97%)	20 (27%)	3 (4%)
24	AX	76/77 (98%)	24 (31%)	4 (5%)
25	AY	74/75 (98%)	19 (25%)	0
25	CY	74/75 (98%)	20 (27%)	0
27	BA	2779/2915 (95%)	539 (19%)	96 (3%)
27	DA	2765/2915 (94%)	555 (20%)	114 (4%)
28	BB	118/122 (96%)	16 (13%)	3 (2%)
28	DB	118/122 (96%)	40 (33%)	5 (4%)
59	CX	76/77 (98%)	21 (27%)	2 (2%)
All	All	9228/9604 (96%)	1754 (19%)	347 (3%)

All (1754) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	28	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

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Mol	Chain	Res	Type
1	AA	81	U
1	AA	89	C
1	AA	90	U
1	AA	91	C
1	AA	92	C
1	AA	93	G
1	AA	98	G
1	AA	100	C
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	146	G
1	AA	163	C
1	AA	173	U
1	AA	189(H)	G
1	AA	195	A
1	AA	197	A
1	AA	203	U
1	AA	204	U
1	AA	216	G
1	AA	220	G
1	AA	244	U
1	AA	247	G
1	AA	251	G
1	AA	266	G
1	AA	267	C
1	AA	275	G
1	AA	289	G
1	AA	306	G
1	AA	321	A
1	AA	328	C
1	AA	332	G
1	AA	344	A
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	373	A
1	AA	384	G

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Mol	Chain	Res	Type
1	AA	389	A
1	AA	390	C
1	AA	397	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	424	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	435	C
1	AA	436	C
1	AA	439	A
1	AA	442	C
1	AA	452	A
1	AA	484	G
1	AA	485	G
1	AA	495	A
1	AA	496	A
1	AA	499	A
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	547	A
1	AA	559	A
1	AA	561	U
1	AA	562	C
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	577	G
1	AA	596	C
1	AA	632	A

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Mol	Chain	Res	Type
1	AA	653	A
1	AA	665	A
1	AA	687	A
1	AA	688	G
1	AA	701	C
1	AA	702	A
1	AA	723	U
1	AA	731	G
1	AA	733	A
1	AA	748	C
1	AA	749	C
1	AA	755	G
1	AA	777	A
1	AA	793	U
1	AA	794	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	828	A
1	AA	839	U
1	AA	841	U
1	AA	848	C
1	AA	859	A
1	AA	885	G
1	AA	902	G
1	AA	914	A
1	AA	916	G
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	960	U
1	AA	961	U
1	AA	966	G
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A

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Mol	Chain	Res	Type
1	AA	980	C
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	1001(A)	G
1	AA	1028	C
1	AA	1050	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1086	U
1	AA	1087	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1102	A
1	AA	1117	G
1	AA	1118	C
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1127	G
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1137	C
1	AA	1139	G
1	AA	1140	C
1	AA	1145	C
1	AA	1146	A
1	AA	1152	A
1	AA	1159	U
1	AA	1182	G
1	AA	1184	G
1	AA	1196	U
1	AA	1197	G
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	1227	A
1	AA	1238	A
1	AA	1239	A
1	AA	1249	C
1	AA	1255	G
1	AA	1256	A
1	AA	1257	U
1	AA	1278	U
1	AA	1280	A
1	AA	1281	U
1	AA	1285	A
1	AA	1286	A
1	AA	1287	A
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1305	G
1	AA	1317	C
1	AA	1319	A
1	AA	1320	C
1	AA	1321	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1336	C
1	AA	1338	G
1	AA	1347	G
1	AA	1363(A)	A
1	AA	1364	U
1	AA	1365	G
1	AA	1381	U
1	AA	1398	A
1	AA	1419	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1442(B)	A
1	AA	1446	U
1	AA	1447	A
1	AA	1452	C
1	AA	1456	G

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Mol	Chain	Res	Type
1	AA	1457	G
1	AA	1487	G
1	AA	1492	A
1	AA	1497	G
1	AA	1499	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G
1	AA	1529	G
1	AA	1530	G
22	AV	3	A
23	AW	7	A
23	AW	8	U
23	AW	12	C
23	AW	16	C
23	AW	17	G
23	AW	19	U
23	AW	20	A
23	AW	36	A
23	AW	45	U
23	AW	47	C
23	AW	58	A
23	AW	61	C
23	AW	72	G
23	AW	73	C
23	AW	74	C
24	AX	4	G
24	AX	8	U
24	AX	9	G
24	AX	10	G
24	AX	15	G
24	AX	17	C
24	AX	17(B)	U
24	AX	19	G
24	AX	20	U
24	AX	21	A
24	AX	31	G
24	AX	33	U
24	AX	44	A

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Mol	Chain	Res	Type
24	AX	47	U
24	AX	48	C
24	AX	49	G
24	AX	59	A
24	AX	60	U
24	AX	61	C
24	AX	63	G
24	AX	72	A
24	AX	73	A
24	AX	74	C
24	AX	76	A
25	AY	9	C
25	AY	11	C
25	AY	15	G
25	AY	16	C
25	AY	17	G
25	AY	18	G
25	AY	19	U
25	AY	20	A
25	AY	21	A
25	AY	36	A
25	AY	38	U
25	AY	42	G
25	AY	46	U
25	AY	47	C
25	AY	58	A
25	AY	60	C
25	AY	61	C
25	AY	69	C
25	AY	73	C
27	BA	10	G
27	BA	28	A
27	BA	34	C
27	BA	45	C
27	BA	49	A
27	BA	55	G
27	BA	60	G
27	BA	61	G
27	BA	64	A
27	BA	68	G
27	BA	69	C
27	BA	71	A

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Mol	Chain	Res	Type
27	BA	72	U
27	BA	73	A
27	BA	75	G
27	BA	84	A
27	BA	88	G
27	BA	89	G
27	BA	90	U
27	BA	92	A
27	BA	94	C
27	BA	102	G
27	BA	118	A
27	BA	119	A
27	BA	120	U
27	BA	126	A
27	BA	131	G
27	BA	139(A)	G
27	BA	141	A
27	BA	149	A
27	BA	154	G
27	BA	154(A)	C
27	BA	157	U
27	BA	158	U
27	BA	174	C
27	BA	175	G
27	BA	196	A
27	BA	197	A
27	BA	199	A
27	BA	200	U
27	BA	204	A
27	BA	205	G
27	BA	215	G
27	BA	216	A
27	BA	221	A
27	BA	222	A
27	BA	228	A
27	BA	229	A
27	BA	233	A
27	BA	248	G
27	BA	252	G
27	BA	261	G
27	BA	266	G
27	BA	271(J)	C

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Mol	Chain	Res	Type
27	BA	271(K)	U
27	BA	271(L)	U
27	BA	271(N)	U
27	BA	271(P)	C
27	BA	271(T)	C
27	BA	271(Y)	U
27	BA	272	G
27	BA	272(C)	G
27	BA	272(H)	C
27	BA	272(I)	U
27	BA	272(J)	C
27	BA	275	G
27	BA	286	C
27	BA	287	C
27	BA	311	A
27	BA	324	A
27	BA	329	G
27	BA	330	A
27	BA	352	G
27	BA	353	G
27	BA	362	U
27	BA	363(B)	G
27	BA	363(E)	U
27	BA	363(F)	A
27	BA	365	C
27	BA	370	G
27	BA	371	A
27	BA	386	G
27	BA	405	U
27	BA	406	G
27	BA	411	G
27	BA	412	A
27	BA	415	A
27	BA	428	A
27	BA	444	C
27	BA	448	U
27	BA	456	C
27	BA	457	A
27	BA	470	A
27	BA	475	U
27	BA	480	A
27	BA	481	G

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Mol	Chain	Res	Type
27	BA	482	A
27	BA	494	G
27	BA	505	A
27	BA	508	G
27	BA	509	C
27	BA	510	C
27	BA	528	A
27	BA	530	G
27	BA	531	C
27	BA	532	A
27	BA	533	G
27	BA	542	C
27	BA	543	C
27	BA	551	G
27	BA	556	G
27	BA	563	G
27	BA	573	G
27	BA	575	A
27	BA	588	U
27	BA	603	A
27	BA	604	G
27	BA	607	U
27	BA	613	G
27	BA	614(B)	G
27	BA	615	G
27	BA	620	G
27	BA	621	A
27	BA	627	A
27	BA	637	A
27	BA	645	C
27	BA	646	A
27	BA	659	C
27	BA	686	G
27	BA	708	C
27	BA	722	A
27	BA	730	C
27	BA	740	U
27	BA	747	U
27	BA	753	C
27	BA	764	A
27	BA	765	G
27	BA	776	G

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Mol	Chain	Res	Type
27	BA	782	A
27	BA	784	A
27	BA	785	G
27	BA	790	C
27	BA	791	C
27	BA	792	G
27	BA	805	G
27	BA	806	C
27	BA	812	C
27	BA	819	A
27	BA	827	U
27	BA	828	U
27	BA	830	G
27	BA	847	U
27	BA	848	G
27	BA	856	C
27	BA	857	C
27	BA	859	G
27	BA	866	A
27	BA	882	G
27	BA	884	C
27	BA	886	C
27	BA	887	A
27	BA	889	C
27	BA	890	A
27	BA	896	A
27	BA	897	C
27	BA	901	A
27	BA	910	A
27	BA	914	C
27	BA	915	C
27	BA	917	A
27	BA	926	A
27	BA	932	G
27	BA	934	G
27	BA	941	A
27	BA	946	G
27	BA	958	U
27	BA	959	A
27	BA	961	C
27	BA	964	C
27	BA	965	C

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Mol	Chain	Res	Type
27	BA	974	G
27	BA	975	C
27	BA	975(A)	G
27	BA	983	A
27	BA	991	C
27	BA	996	A
27	BA	997	G
27	BA	1000	A
27	BA	1005	C
27	BA	1012	U
27	BA	1013	C
27	BA	1020	A
27	BA	1022	G
27	BA	1023	U
27	BA	1025	G
27	BA	1026	U
27	BA	1027	A
27	BA	1033	U
27	BA	1039	G
27	BA	1044	G
27	BA	1045	A
27	BA	1047	G
27	BA	1049	C
27	BA	1050	A
27	BA	1052	C
27	BA	1053	C
27	BA	1054	A
27	BA	1110	G
27	BA	1111	A
27	BA	1113	U
27	BA	1115	G
27	BA	1118	C
27	BA	1126	A
27	BA	1130	U
27	BA	1135	C
27	BA	1136	G
27	BA	1143	A
27	BA	1155	A
27	BA	1180	C
27	BA	1195	G
27	BA	1205	U
27	BA	1210	A

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Mol	Chain	Res	Type
27	BA	1211	U
27	BA	1220	A
27	BA	1221	C
27	BA	1241	A
27	BA	1248	G
27	BA	1250	G
27	BA	1253	A
27	BA	1256	G
27	BA	1271	G
27	BA	1272	A
27	BA	1276	A
27	BA	1281	G
27	BA	1300	U
27	BA	1301	A
27	BA	1314	C
27	BA	1319	G
27	BA	1321	A
27	BA	1329	U
27	BA	1332	G
27	BA	1349	A
27	BA	1352	U
27	BA	1359	A
27	BA	1360	A
27	BA	1365	A
27	BA	1368	G
27	BA	1379	A
27	BA	1384	A
27	BA	1385	G
27	BA	1386	C
27	BA	1407	C
27	BA	1416	G
27	BA	1420	U
27	BA	1427	A
27	BA	1428	C
27	BA	1433	U
27	BA	1437	C
27	BA	1445	A
27	BA	1445(A)	C
27	BA	1449	A
27	BA	1450	G
27	BA	1451	C
27	BA	1452	A

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Mol	Chain	Res	Type
27	BA	1455	G
27	BA	1459	G
27	BA	1460	A
27	BA	1461	G
27	BA	1467	C
27	BA	1471	A
27	BA	1475	G
27	BA	1478	G
27	BA	1482	G
27	BA	1485	G
27	BA	1490	A
27	BA	1493	C
27	BA	1494	A
27	BA	1495	A
27	BA	1496	A
27	BA	1497	U
27	BA	1498	C
27	BA	1502	C
27	BA	1505	C
27	BA	1506	C
27	BA	1509	C
27	BA	1509(A)	A
27	BA	1520	G
27	BA	1529	G
27	BA	1531	C
27	BA	1555	G
27	BA	1558	A
27	BA	1559	G
27	BA	1569	A
27	BA	1578	U
27	BA	1579	A
27	BA	1580	A
27	BA	1584	C
27	BA	1586	A
27	BA	1588	C
27	BA	1591	G
27	BA	1594	G
27	BA	1603	A
27	BA	1608	A
27	BA	1609	A
27	BA	1616	A
27	BA	1617	C

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Mol	Chain	Res	Type
27	BA	1618	A
27	BA	1640	C
27	BA	1648	C
27	BA	1654	A
27	BA	1667	G
27	BA	1674	G
27	BA	1675	C
27	BA	1681	G
27	BA	1682	G
27	BA	1686	C
27	BA	1687	G
27	BA	1698	A
27	BA	1700	A
27	BA	1718	G
27	BA	1722	A
27	BA	1739	U
27	BA	1740	G
27	BA	1744	C
27	BA	1746	G
27	BA	1748	G
27	BA	1763	G
27	BA	1764	G
27	BA	1773	A
27	BA	1780	A
27	BA	1782	C
27	BA	1791	A
27	BA	1799	G
27	BA	1800	C
27	BA	1816	G
27	BA	1819	A
27	BA	1820	U
27	BA	1829	A
27	BA	1835	G
27	BA	1847	A
27	BA	1858	G
27	BA	1865	G
27	BA	1866	C
27	BA	1877	A
27	BA	1878	G
27	BA	1880	C
27	BA	1882	C
27	BA	1885	A

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Mol	Chain	Res	Type
27	BA	1888	G
27	BA	1889	A
27	BA	1900	A
27	BA	1906	G
27	BA	1912	A
27	BA	1914	C
27	BA	1929	G
27	BA	1930	G
27	BA	1936	A
27	BA	1937	A
27	BA	1938	A
27	BA	1955	U
27	BA	1963	U
27	BA	1964	G
27	BA	1967	C
27	BA	1969	A
27	BA	1970	A
27	BA	1971	A
27	BA	1972	A
27	BA	1982	C
27	BA	1987	G
27	BA	1993	U
27	BA	2020	A
27	BA	2023	G
27	BA	2031	A
27	BA	2032	G
27	BA	2033	A
27	BA	2036	C
27	BA	2043	C
27	BA	2052	G
27	BA	2055	C
27	BA	2056	G
27	BA	2059	A
27	BA	2060	A
27	BA	2061	G
27	BA	2062	A
27	BA	2063	C
27	BA	2069	G
27	BA	2093	G
27	BA	2099	U
27	BA	2103	C
27	BA	2104	G

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Mol	Chain	Res	Type
27	BA	2110	G
27	BA	2111	C
27	BA	2116	G
27	BA	2117	A
27	BA	2118	U
27	BA	2119	A
27	BA	2127	G
27	BA	2131	G
27	BA	2133	G
27	BA	2146	C
27	BA	2147	G
27	BA	2158	A
27	BA	2159	G
27	BA	2172	U
27	BA	2173	A
27	BA	2176	A
27	BA	2179	C
27	BA	2187	G
27	BA	2190	G
27	BA	2192	G
27	BA	2193	G
27	BA	2198	A
27	BA	2199	A
27	BA	2200	C
27	BA	2207	G
27	BA	2208	A
27	BA	2219	G
27	BA	2225	A
27	BA	2226	C
27	BA	2238	G
27	BA	2239	G
27	BA	2245	U
27	BA	2249	U
27	BA	2250	G
27	BA	2275	C
27	BA	2283	C
27	BA	2287	A
27	BA	2288	A
27	BA	2289	G
27	BA	2290	G
27	BA	2305	A
27	BA	2307	G

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Mol	Chain	Res	Type
27	BA	2308	G
27	BA	2309	A
27	BA	2311	A
27	BA	2313	C
27	BA	2316	C
27	BA	2319	G
27	BA	2320	A
27	BA	2325	G
27	BA	2334	G
27	BA	2336	A
27	BA	2345	G
27	BA	2347	C
27	BA	2349	G
27	BA	2383	G
27	BA	2385	C
27	BA	2387	U
27	BA	2388	A
27	BA	2392	A
27	BA	2402	C
27	BA	2406	U
27	BA	2423	U
27	BA	2425	A
27	BA	2427	C
27	BA	2429	G
27	BA	2430	A
27	BA	2434	A
27	BA	2435	A
27	BA	2439	A
27	BA	2441	C
27	BA	2448	A
27	BA	2470	G
27	BA	2476	A
27	BA	2477	C
27	BA	2478	A
27	BA	2482	G
27	BA	2484	G
27	BA	2491	U
27	BA	2498	C
27	BA	2502	G
27	BA	2505	G
27	BA	2518	A
27	BA	2523	G

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Mol	Chain	Res	Type
27	BA	2527	C
27	BA	2529	G
27	BA	2534	A
27	BA	2543	G
27	BA	2554	U
27	BA	2566	A
27	BA	2567	G
27	BA	2570	G
27	BA	2573	C
27	BA	2578	G
27	BA	2581	G
27	BA	2582	G
27	BA	2602	A
27	BA	2610	C
27	BA	2611	U
27	BA	2612	C
27	BA	2615	U
27	BA	2629	A
27	BA	2630	G
27	BA	2646	C
27	BA	2673	G
27	BA	2679	A
27	BA	2690	C
27	BA	2691	C
27	BA	2702	U
27	BA	2712	U
27	BA	2712(A)	A
27	BA	2713	A
27	BA	2714	G
27	BA	2720	U
27	BA	2726	U
27	BA	2733	A
27	BA	2750	A
27	BA	2751	G
27	BA	2752	C
27	BA	2753	A
27	BA	2754	U
27	BA	2757	A
27	BA	2759	G
27	BA	2762	G
27	BA	2765	A
27	BA	2766	G

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Mol	Chain	Res	Type
27	BA	2778	A
27	BA	2779	U
27	BA	2780	G
27	BA	2789	C
27	BA	2790	A
27	BA	2791	C
27	BA	2792	G
27	BA	2804	C
27	BA	2808	U
27	BA	2820	A
27	BA	2821	A
27	BA	2823	A
27	BA	2833	G
27	BA	2834	G
27	BA	2835	A
27	BA	2844	G
27	BA	2849	U
27	BA	2864	G
27	BA	2865	U
27	BA	2872	G
27	BA	2879	C
27	BA	2893	G
27	BA	2895	U
28	BB	3	C
28	BB	8	U
28	BB	13	A
28	BB	15	A
28	BB	25	A
28	BB	27	C
28	BB	34	U
28	BB	35	U
28	BB	42	C
28	BB	45	A
28	BB	52	A
28	BB	53	A
28	BB	67	G
28	BB	73	A
28	BB	88	C
28	BB	110	G
1	CA	9	G
1	CA	31	G
1	CA	32	A

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Mol	Chain	Res	Type
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	61	G
1	CA	72	C
1	CA	97	G
1	CA	98	G
1	CA	99	U
1	CA	100	C
1	CA	101	A
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	122	G
1	CA	131	C
1	CA	146	G
1	CA	163	C
1	CA	189(G)	G
1	CA	189(H)	G
1	CA	195	A
1	CA	197	A
1	CA	198	G
1	CA	199	G
1	CA	202	U
1	CA	203	U
1	CA	204	U
1	CA	216	G
1	CA	220	G
1	CA	244	U
1	CA	247	G
1	CA	251	G
1	CA	267	C
1	CA	275	G
1	CA	289	G
1	CA	301	G
1	CA	316	G
1	CA	328	C
1	CA	332	G
1	CA	344	A
1	CA	345	C
1	CA	346	G

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Mol	Chain	Res	Type
1	CA	347	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	389	A
1	CA	397	A
1	CA	398	C
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	421	U
1	CA	422	C
1	CA	423	G
1	CA	428	G
1	CA	429	U
1	CA	430	A
1	CA	435	C
1	CA	439	A
1	CA	452	A
1	CA	453	A
1	CA	461	A
1	CA	484	G
1	CA	485	G
1	CA	496	A
1	CA	498	U
1	CA	500	G
1	CA	508	C
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	518	C
1	CA	527	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	534	U
1	CA	536	C
1	CA	547	A
1	CA	559	A

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Mol	Chain	Res	Type
1	CA	561	U
1	CA	562	C
1	CA	564	C
1	CA	572	A
1	CA	573	A
1	CA	576	G
1	CA	577	G
1	CA	632	A
1	CA	646	U
1	CA	653	A
1	CA	665	A
1	CA	687	A
1	CA	688	G
1	CA	721	G
1	CA	722	A
1	CA	723	U
1	CA	731	G
1	CA	748	C
1	CA	749	C
1	CA	777	A
1	CA	793	U
1	CA	794	A
1	CA	816	A
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	821	G
1	CA	828	A
1	CA	839	U
1	CA	841	U
1	CA	848	C
1	CA	859	A
1	CA	871	U
1	CA	902	G
1	CA	914	A
1	CA	916	G
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	960	U
1	CA	961	U
1	CA	965	A

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Mol	Chain	Res	Type
1	CA	966	G
1	CA	968	A
1	CA	969	A
1	CA	971	G
1	CA	972	C
1	CA	974	A
1	CA	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	1001(A)	G
1	CA	1026	G
1	CA	1027	C
1	CA	1028	C
1	CA	1030	C
1	CA	1030(B)	C
1	CA	1050	G
1	CA	1053	G
1	CA	1054	C
1	CA	1064	G
1	CA	1065	U
1	CA	1066	C
1	CA	1067	A
1	CA	1068	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1102	A
1	CA	1113	C
1	CA	1117	G
1	CA	1118	C
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1129	C
1	CA	1130	A
1	CA	1137	C
1	CA	1139	G

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Mol	Chain	Res	Type
1	CA	1140	C
1	CA	1145	C
1	CA	1146	A
1	CA	1151	A
1	CA	1152	A
1	CA	1157	A
1	CA	1158	C
1	CA	1159	U
1	CA	1182	G
1	CA	1183	A
1	CA	1190	G
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	1225	A
1	CA	1226	C
1	CA	1227	A
1	CA	1236	A
1	CA	1238	A
1	CA	1239	A
1	CA	1249	C
1	CA	1255	G
1	CA	1256	A
1	CA	1257	U
1	CA	1278	U
1	CA	1280	A
1	CA	1281	U
1	CA	1285	A
1	CA	1286	A
1	CA	1287	A
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G
1	CA	1317	C
1	CA	1319	A
1	CA	1320	C
1	CA	1321	C

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Mol	Chain	Res	Type
1	CA	1322	C
1	CA	1323	G
1	CA	1325	C
1	CA	1331	G
1	CA	1336	C
1	CA	1338	G
1	CA	1347	G
1	CA	1363	C
1	CA	1363(A)	A
1	CA	1364	U
1	CA	1370	G
1	CA	1394	A
1	CA	1395	C
1	CA	1398	A
1	CA	1399	C
1	CA	1419	G
1	CA	1442(A)	G
1	CA	1442(B)	A
1	CA	1443	G
1	CA	1446	U
1	CA	1447	A
1	CA	1452	C
1	CA	1456	G
1	CA	1457	G
1	CA	1492	A
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	1520	G
1	CA	1529	G
1	CA	1530	G
22	CV	2	A
22	CV	10	U
23	CW	7	A
23	CW	8	U
23	CW	9	C
23	CW	12	C
23	CW	16	C

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Mol	Chain	Res	Type
23	CW	17	G
23	CW	18	G
23	CW	19	U
23	CW	20	A
23	CW	23	G
23	CW	36	A
23	CW	43	C
23	CW	45	U
23	CW	47	C
23	CW	48	C
23	CW	58	A
23	CW	62	U
23	CW	72	G
23	CW	73	C
23	CW	74	C
59	CX	2	G
59	CX	8	U
59	CX	10	G
59	CX	17	C
59	CX	17(B)	U
59	CX	19	G
59	CX	20	U
59	CX	21	A
59	CX	32	C
59	CX	43	A
59	CX	47	U
59	CX	49	G
59	CX	59	A
59	CX	60	U
59	CX	61	C
59	CX	62	C
59	CX	68	C
59	CX	70	G
59	CX	73	A
59	CX	74	C
59	CX	76	A
25	CY	8	U
25	CY	11	C
25	CY	16	C
25	CY	17	G
25	CY	18	G
25	CY	20	A

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Mol	Chain	Res	Type
25	CY	21	A
25	CY	34	U
25	CY	36	A
25	CY	38	U
25	CY	40	C
25	CY	46	U
25	CY	47	C
25	CY	48	C
25	CY	49	G
25	CY	50	A
25	CY	58	A
25	CY	59	U
25	CY	60	C
25	CY	69	C
27	DA	10	G
27	DA	34	C
27	DA	45	C
27	DA	49	A
27	DA	55	G
27	DA	61	G
27	DA	69	C
27	DA	71	A
27	DA	72	U
27	DA	73	A
27	DA	75	G
27	DA	84	A
27	DA	88	G
27	DA	90	U
27	DA	92	A
27	DA	99	U
27	DA	102	G
27	DA	118	A
27	DA	119	A
27	DA	120	U
27	DA	129	C
27	DA	139(A)	G
27	DA	141	A
27	DA	142	A
27	DA	154	G
27	DA	154(A)	C
27	DA	157	U
27	DA	158	U

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Mol	Chain	Res	Type
27	DA	174	C
27	DA	175	G
27	DA	181	A
27	DA	182	A
27	DA	196	A
27	DA	197	A
27	DA	199	A
27	DA	204	A
27	DA	205	G
27	DA	215	G
27	DA	216	A
27	DA	221	A
27	DA	222	A
27	DA	228	A
27	DA	229	A
27	DA	248	G
27	DA	252	G
27	DA	261	G
27	DA	271(H)	G
27	DA	271(J)	C
27	DA	271(K)	U
27	DA	271(L)	U
27	DA	271(N)	U
27	DA	271(O)	C
27	DA	271(P)	C
27	DA	271(T)	C
27	DA	271(Y)	U
27	DA	272	G
27	DA	272(H)	C
27	DA	283	A
27	DA	284	U
27	DA	286	C
27	DA	287	C
27	DA	301	G
27	DA	303	U
27	DA	311	A
27	DA	312	G
27	DA	316	C
27	DA	324	A
27	DA	329	G
27	DA	330	A
27	DA	333	G

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Mol	Chain	Res	Type
27	DA	353	G
27	DA	356	G
27	DA	358	U
27	DA	362	U
27	DA	363(A)	A
27	DA	363(B)	G
27	DA	363(E)	U
27	DA	363(F)	A
27	DA	365	C
27	DA	372	G
27	DA	386	G
27	DA	388	G
27	DA	391	G
27	DA	396	G
27	DA	405	U
27	DA	406	G
27	DA	411	G
27	DA	412	A
27	DA	416	C
27	DA	428	A
27	DA	444	C
27	DA	448	U
27	DA	456	C
27	DA	457	A
27	DA	470	A
27	DA	475	U
27	DA	481	G
27	DA	482	A
27	DA	494	G
27	DA	505	A
27	DA	508	G
27	DA	509	C
27	DA	527	C
27	DA	529	A
27	DA	530	G
27	DA	531	C
27	DA	532	A
27	DA	542	C
27	DA	543	C
27	DA	551	G
27	DA	556	G
27	DA	563	G

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Mol	Chain	Res	Type
27	DA	573	G
27	DA	574	C
27	DA	588	U
27	DA	604	G
27	DA	607	U
27	DA	613	G
27	DA	614(B)	G
27	DA	615	G
27	DA	620	G
27	DA	621	A
27	DA	622	G
27	DA	627	A
27	DA	637	A
27	DA	638	G
27	DA	645	C
27	DA	646	A
27	DA	669	G
27	DA	686	G
27	DA	708	C
27	DA	717	G
27	DA	722	A
27	DA	730	C
27	DA	740	U
27	DA	741	G
27	DA	753	C
27	DA	764	A
27	DA	765	G
27	DA	776	G
27	DA	782	A
27	DA	784	A
27	DA	785	G
27	DA	790	C
27	DA	791	C
27	DA	792	G
27	DA	805	G
27	DA	812	C
27	DA	819	A
27	DA	827	U
27	DA	828	U
27	DA	830	G
27	DA	848	G
27	DA	854	G

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Mol	Chain	Res	Type
27	DA	856	C
27	DA	857	C
27	DA	859	G
27	DA	866	A
27	DA	874	G
27	DA	883	G
27	DA	884	C
27	DA	888	C
27	DA	890	A
27	DA	895	U
27	DA	896	A
27	DA	897	C
27	DA	900	A
27	DA	904	C
27	DA	908	C
27	DA	910	A
27	DA	917	A
27	DA	926	A
27	DA	932	G
27	DA	933	A
27	DA	941	A
27	DA	945	A
27	DA	946	G
27	DA	958	U
27	DA	959	A
27	DA	961	C
27	DA	964	C
27	DA	965	C
27	DA	973	A
27	DA	974	G
27	DA	975	C
27	DA	975(A)	G
27	DA	983	A
27	DA	991	C
27	DA	995	C
27	DA	996	A
27	DA	997	G
27	DA	1000	A
27	DA	1005	C
27	DA	1012	U
27	DA	1013	C
27	DA	1017	G

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Mol	Chain	Res	Type
27	DA	1022	G
27	DA	1023	U
27	DA	1025	G
27	DA	1026	U
27	DA	1039	G
27	DA	1041	C
27	DA	1042	G
27	DA	1044	G
27	DA	1113	U
27	DA	1114	G
27	DA	1115	G
27	DA	1117	G
27	DA	1118	C
27	DA	1126	A
27	DA	1130	U
27	DA	1135	C
27	DA	1136	G
27	DA	1143	A
27	DA	1155	A
27	DA	1157	G
27	DA	1158	C
27	DA	1159	U
27	DA	1171	G
27	DA	1195	G
27	DA	1205	U
27	DA	1211	U
27	DA	1212	G
27	DA	1221	C
27	DA	1236	G
27	DA	1241	A
27	DA	1248	G
27	DA	1252	G
27	DA	1253	A
27	DA	1256	G
27	DA	1271	G
27	DA	1272	A
27	DA	1273	U
27	DA	1276	A
27	DA	1281	G
27	DA	1300	U
27	DA	1301	A
27	DA	1314	C

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Mol	Chain	Res	Type
27	DA	1319	G
27	DA	1329	U
27	DA	1332	G
27	DA	1341	U
27	DA	1345	C
27	DA	1349	A
27	DA	1352	U
27	DA	1359	A
27	DA	1365	A
27	DA	1368	G
27	DA	1378	A
27	DA	1379	A
27	DA	1380	G
27	DA	1384	A
27	DA	1385	G
27	DA	1386	C
27	DA	1407	C
27	DA	1416	G
27	DA	1419	A
27	DA	1420	U
27	DA	1427	A
27	DA	1428	C
27	DA	1437	C
27	DA	1445	A
27	DA	1449	A
27	DA	1450	G
27	DA	1451	C
27	DA	1452	A
27	DA	1459	G
27	DA	1461	G
27	DA	1467	C
27	DA	1471	A
27	DA	1475	G
27	DA	1478	G
27	DA	1482	G
27	DA	1485	G
27	DA	1490	A
27	DA	1493	C
27	DA	1494	A
27	DA	1495	A
27	DA	1496	A
27	DA	1497	U

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Mol	Chain	Res	Type
27	DA	1498	C
27	DA	1502	C
27	DA	1505	C
27	DA	1509	C
27	DA	1509(A)	A
27	DA	1513	C
27	DA	1520	G
27	DA	1529	G
27	DA	1545	A
27	DA	1547	C
27	DA	1554	A
27	DA	1558	A
27	DA	1559	G
27	DA	1569	A
27	DA	1578	U
27	DA	1579	A
27	DA	1581	G
27	DA	1584	C
27	DA	1586	A
27	DA	1588	C
27	DA	1591	G
27	DA	1594	G
27	DA	1603	A
27	DA	1607	C
27	DA	1608	A
27	DA	1610	A
27	DA	1616	A
27	DA	1617	C
27	DA	1618	A
27	DA	1640	C
27	DA	1648	C
27	DA	1654	A
27	DA	1674	G
27	DA	1686	C
27	DA	1687	G
27	DA	1694	C
27	DA	1696	G
27	DA	1698	A
27	DA	1700	A
27	DA	1701	A
27	DA	1718	G
27	DA	1722	A

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Mol	Chain	Res	Type
27	DA	1739	U
27	DA	1740	G
27	DA	1744	C
27	DA	1746	G
27	DA	1748	G
27	DA	1756	G
27	DA	1758	G
27	DA	1759	A
27	DA	1761	C
27	DA	1763	G
27	DA	1764	G
27	DA	1773	A
27	DA	1780	A
27	DA	1782	C
27	DA	1787	A
27	DA	1791	A
27	DA	1799	G
27	DA	1800	C
27	DA	1816	G
27	DA	1820	U
27	DA	1829	A
27	DA	1835	G
27	DA	1847	A
27	DA	1858	G
27	DA	1865	G
27	DA	1866	C
27	DA	1877	A
27	DA	1878	G
27	DA	1880	C
27	DA	1882	C
27	DA	1885	A
27	DA	1888	G
27	DA	1889	A
27	DA	1900	A
27	DA	1906	G
27	DA	1912	A
27	DA	1929	G
27	DA	1930	G
27	DA	1936	A
27	DA	1938	A
27	DA	1943	U
27	DA	1944	U

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Mol	Chain	Res	Type
27	DA	1955	U
27	DA	1963	U
27	DA	1967	C
27	DA	1969	A
27	DA	1970	A
27	DA	1971	A
27	DA	1972	A
27	DA	1982	C
27	DA	1987	G
27	DA	1991	U
27	DA	1992	G
27	DA	1993	U
27	DA	1997	G
27	DA	2020	A
27	DA	2023	G
27	DA	2031	A
27	DA	2032	G
27	DA	2034	U
27	DA	2036	C
27	DA	2043	C
27	DA	2049	G
27	DA	2055	C
27	DA	2056	G
27	DA	2059	A
27	DA	2060	A
27	DA	2061	G
27	DA	2062	A
27	DA	2069	G
27	DA	2092	U
27	DA	2093	G
27	DA	2099	U
27	DA	2103	C
27	DA	2104	G
27	DA	2110	G
27	DA	2111	C
27	DA	2112	G
27	DA	2116	G
27	DA	2117	A
27	DA	2118	U
27	DA	2119	A
27	DA	2120	G
27	DA	2126	A

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Mol	Chain	Res	Type
27	DA	2127	G
27	DA	2131	G
27	DA	2133	G
27	DA	2146	C
27	DA	2147	G
27	DA	2159	G
27	DA	2172	U
27	DA	2173	A
27	DA	2187	G
27	DA	2190	G
27	DA	2191	G
27	DA	2192	G
27	DA	2193	G
27	DA	2199	A
27	DA	2200	C
27	DA	2222	G
27	DA	2225	A
27	DA	2226	C
27	DA	2227	A
27	DA	2238	G
27	DA	2239	G
27	DA	2250	G
27	DA	2263	C
27	DA	2275	C
27	DA	2283	C
27	DA	2287	A
27	DA	2288	A
27	DA	2289	G
27	DA	2290	G
27	DA	2305	A
27	DA	2307	G
27	DA	2308	G
27	DA	2309	A
27	DA	2311	A
27	DA	2313	C
27	DA	2316	C
27	DA	2319	G
27	DA	2320	A
27	DA	2325	G
27	DA	2334	G
27	DA	2335	A
27	DA	2336	A

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Mol	Chain	Res	Type
27	DA	2345	G
27	DA	2347	C
27	DA	2349	G
27	DA	2383	G
27	DA	2384	G
27	DA	2385	C
27	DA	2387	U
27	DA	2392	A
27	DA	2399	G
27	DA	2400	G
27	DA	2402	C
27	DA	2423	U
27	DA	2425	A
27	DA	2427	C
27	DA	2429	G
27	DA	2430	A
27	DA	2435	A
27	DA	2439	A
27	DA	2441	C
27	DA	2448	A
27	DA	2452	C
27	DA	2468	G
27	DA	2469	A
27	DA	2470	G
27	DA	2476	A
27	DA	2477	C
27	DA	2478	A
27	DA	2482	G
27	DA	2483	C
27	DA	2484	G
27	DA	2490	G
27	DA	2491	U
27	DA	2492	U
27	DA	2502	G
27	DA	2505	G
27	DA	2518	A
27	DA	2520	C
27	DA	2523	G
27	DA	2529	G
27	DA	2534	A
27	DA	2543	G
27	DA	2554	U

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Mol	Chain	Res	Type
27	DA	2566	A
27	DA	2567	G
27	DA	2572	A
27	DA	2573	C
27	DA	2582	G
27	DA	2602	A
27	DA	2610	C
27	DA	2611	U
27	DA	2612	C
27	DA	2615	U
27	DA	2630	G
27	DA	2639	A
27	DA	2646	C
27	DA	2651	C
27	DA	2652	C
27	DA	2673	G
27	DA	2682	U
27	DA	2690	C
27	DA	2691	C
27	DA	2702	U
27	DA	2703	C
27	DA	2712(A)	A
27	DA	2713	A
27	DA	2714	G
27	DA	2720	U
27	DA	2726	U
27	DA	2733	A
27	DA	2750	A
27	DA	2751	G
27	DA	2752	C
27	DA	2753	A
27	DA	2754	U
27	DA	2756	U
27	DA	2757	A
27	DA	2758	A
27	DA	2759	G
27	DA	2760	C
27	DA	2762	G
27	DA	2763	G
27	DA	2765	A
27	DA	2777	G
27	DA	2778	A

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Mol	Chain	Res	Type
27	DA	2779	U
27	DA	2790	A
27	DA	2791	C
27	DA	2792	G
27	DA	2799	C
27	DA	2802	G
27	DA	2803	C
27	DA	2804	C
27	DA	2808	U
27	DA	2820	A
27	DA	2821	A
27	DA	2827	C
27	DA	2833	G
27	DA	2834	G
27	DA	2835	A
27	DA	2836	U
27	DA	2849	U
27	DA	2864	G
27	DA	2866	U
27	DA	2872	G
27	DA	2876	G
27	DA	2879	C
27	DA	2893	G
28	DB	3	C
28	DB	8	U
28	DB	12	C
28	DB	13	A
28	DB	15	A
28	DB	16	G
28	DB	19	G
28	DB	22	U
28	DB	24	G
28	DB	25	A
28	DB	26	A
28	DB	27	C
28	DB	28	C
28	DB	32	C
28	DB	38	C
28	DB	42	C
28	DB	44	G
28	DB	45	A
28	DB	48	A

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Mol	Chain	Res	Type
28	DB	49	C
28	DB	50	G
28	DB	52	A
28	DB	53	A
28	DB	55	U
28	DB	57	A
28	DB	59	A
28	DB	60	C
28	DB	61	G
28	DB	63	G
28	DB	67	G
28	DB	73	A
28	DB	75	G
28	DB	88	C
28	DB	107	G
28	DB	110	G
28	DB	112	U
28	DB	113	G
28	DB	114	C
28	DB	115	G
28	DB	116	G

All (347) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	30	U
1	AA	60	A
1	AA	79	G
1	AA	92	C
1	AA	115	G
1	AA	119	A
1	AA	203	U
1	AA	204	U
1	AA	243	A
1	AA	250	A
1	AA	266	G
1	AA	274	A
1	AA	344	A
1	AA	366	C
1	AA	412	A
1	AA	421	U
1	AA	428	G

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Mol	Chain	Res	Type
1	AA	429	U
1	AA	484	G
1	AA	495	A
1	AA	509	A
1	AA	533	A
1	AA	560	U
1	AA	595	G
1	AA	652	U
1	AA	687	A
1	AA	748	C
1	AA	817	C
1	AA	840	C
1	AA	884	U
1	AA	913	A
1	AA	971	G
1	AA	992	U
1	AA	1049	U
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1067	A
1	AA	1086	U
1	AA	1101	A
1	AA	1139	G
1	AA	1140	C
1	AA	1145	C
1	AA	1201	A
1	AA	1211	U
1	AA	1213	A
1	AA	1239	A
1	AA	1285	A
1	AA	1300	G
1	AA	1305	G
1	AA	1319	A
1	AA	1363(A)	A
1	AA	1380	U
1	AA	1398	A
1	AA	1442(A)	G
1	AA	1504	G
23	AW	7	A
23	AW	16	C
23	AW	57	A

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Mol	Chain	Res	Type
24	AX	10	G
24	AX	43	A
24	AX	58	A
24	AX	59	A
27	BA	27	G
27	BA	34	C
27	BA	60	G
27	BA	71	A
27	BA	74	A
27	BA	89	G
27	BA	119	A
27	BA	125	G
27	BA	175	G
27	BA	197	A
27	BA	199	A
27	BA	221	A
27	BA	271(T)	C
27	BA	352	G
27	BA	370	G
27	BA	474	G
27	BA	479	A
27	BA	481	G
27	BA	529	A
27	BA	587	C
27	BA	603	A
27	BA	614(C)	A
27	BA	620	G
27	BA	669	G
27	BA	740	U
27	BA	752	A
27	BA	764	A
27	BA	790	C
27	BA	805	G
27	BA	846	C
27	BA	848	G
27	BA	856	C
27	BA	859	G
27	BA	945	A
27	BA	1022	G
27	BA	1048	A
27	BA	1049	C
27	BA	1210	A

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Mol	Chain	Res	Type
27	BA	1220	A
27	BA	1275	A
27	BA	1286	A
27	BA	1300	U
27	BA	1332	G
27	BA	1378	A
27	BA	1427	A
27	BA	1445	A
27	BA	1451	C
27	BA	1459	G
27	BA	1505	C
27	BA	1530	C
27	BA	1554	A
27	BA	1558	A
27	BA	1584	C
27	BA	1607	C
27	BA	1608	A
27	BA	1653	G
27	BA	1674	G
27	BA	1681	G
27	BA	1686	C
27	BA	1718	G
27	BA	1799	G
27	BA	1819	A
27	BA	1847	A
27	BA	1936	A
27	BA	1987	G
27	BA	1992	G
27	BA	2110	G
27	BA	2116	G
27	BA	2117	A
27	BA	2126	A
27	BA	2145	C
27	BA	2158	A
27	BA	2171	A
27	BA	2172	U
27	BA	2225	A
27	BA	2238	G
27	BA	2249	U
27	BA	2282	G
27	BA	2318	G
27	BA	2401	U

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Mol	Chain	Res	Type
27	BA	2422	A
27	BA	2439	A
27	BA	2481	G
27	BA	2497	A
27	BA	2581	G
27	BA	2610	C
27	BA	2611	U
27	BA	2629	A
27	BA	2682	U
27	BA	2689	U
27	BA	2750	A
27	BA	2753	A
27	BA	2756	U
27	BA	2778	A
27	BA	2791	C
27	BA	2864	G
28	BB	34	U
28	BB	56	G
28	BB	66	A
1	CA	30	U
1	CA	60	A
1	CA	97	G
1	CA	99	U
1	CA	115	G
1	CA	119	A
1	CA	198	G
1	CA	202	U
1	CA	204	U
1	CA	243	A
1	CA	250	A
1	CA	266	G
1	CA	274	A
1	CA	344	A
1	CA	366	C
1	CA	428	G
1	CA	429	U
1	CA	484	G
1	CA	508	C
1	CA	509	A
1	CA	533	A
1	CA	560	U
1	CA	563	A

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Mol	Chain	Res	Type
1	CA	687	A
1	CA	721	G
1	CA	722	A
1	CA	748	C
1	CA	817	C
1	CA	840	C
1	CA	870	U
1	CA	913	A
1	CA	965	A
1	CA	968	A
1	CA	971	G
1	CA	992	U
1	CA	1049	U
1	CA	1053	G
1	CA	1064	G
1	CA	1065	U
1	CA	1066	C
1	CA	1067	A
1	CA	1101	A
1	CA	1129	C
1	CA	1139	G
1	CA	1145	C
1	CA	1151	A
1	CA	1157	A
1	CA	1182	G
1	CA	1201	A
1	CA	1211	U
1	CA	1225	A
1	CA	1239	A
1	CA	1285	A
1	CA	1300	G
1	CA	1305	G
1	CA	1319	A
1	CA	1394	A
1	CA	1442(A)	G
1	CA	1498	U
1	CA	1504	G
1	CA	1528	U
23	CW	7	A
23	CW	42	G
23	CW	57	A
59	CX	16	C

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Mol	Chain	Res	Type
59	CX	58	A
27	DA	71	A
27	DA	74	A
27	DA	99	U
27	DA	100	G
27	DA	119	A
27	DA	141	A
27	DA	157	U
27	DA	199	A
27	DA	221	A
27	DA	283	A
27	DA	301	G
27	DA	302	C
27	DA	332	A
27	DA	387	U
27	DA	474	G
27	DA	481	G
27	DA	527	C
27	DA	542	C
27	DA	573	G
27	DA	587	C
27	DA	603	A
27	DA	614(A)	U
27	DA	614(B)	G
27	DA	614(C)	A
27	DA	620	G
27	DA	637	A
27	DA	740	U
27	DA	746	A
27	DA	752	A
27	DA	775	G
27	DA	790	C
27	DA	856	C
27	DA	995	C
27	DA	1011	G
27	DA	1022	G
27	DA	1025	G
27	DA	1038	C
27	DA	1157	G
27	DA	1210	A
27	DA	1247	A
27	DA	1275	A

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Mol	Chain	Res	Type
27	DA	1286	A
27	DA	1300	U
27	DA	1320	C
27	DA	1332	G
27	DA	1340	U
27	DA	1378	A
27	DA	1419	A
27	DA	1427	A
27	DA	1445	A
27	DA	1451	C
27	DA	1458	C
27	DA	1504	C
27	DA	1554	A
27	DA	1558	A
27	DA	1602	U
27	DA	1603	A
27	DA	1607	C
27	DA	1653	G
27	DA	1686	C
27	DA	1693	U
27	DA	1718	G
27	DA	1758	G
27	DA	1762	A
27	DA	1799	G
27	DA	1819	A
27	DA	1943	U
27	DA	1962	C
27	DA	1992	G
27	DA	2033	A
27	DA	2092	U
27	DA	2110	G
27	DA	2111	C
27	DA	2116	G
27	DA	2118	U
27	DA	2126	A
27	DA	2145	C
27	DA	2158	A
27	DA	2171	A
27	DA	2172	U
27	DA	2225	A
27	DA	2249	U
27	DA	2282	G

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Mol	Chain	Res	Type
27	DA	2311	A
27	DA	2319	G
27	DA	2334	G
27	DA	2384	G
27	DA	2422	A
27	DA	2439	A
27	DA	2468	G
27	DA	2477	C
27	DA	2481	G
27	DA	2490	G
27	DA	2491	U
27	DA	2572	A
27	DA	2610	C
27	DA	2654	A
27	DA	2689	U
27	DA	2702	U
27	DA	2712	U
27	DA	2726	U
27	DA	2750	A
27	DA	2752	C
27	DA	2756	U
27	DA	2759	G
27	DA	2776	A
27	DA	2778	A
27	DA	2791	C
27	DA	2820	A
27	DA	2832	U
27	DA	2835	A
27	DA	2864	G
27	DA	2866	U
27	DA	2873	A
28	DB	14	U
28	DB	27	C
28	DB	52	A
28	DB	56	G
28	DB	66	A

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

10 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
26	KBE	AZ	1	26	8,8,9	7.48	1 (12%)	6,8,10	0.73	0
26	DPP	AZ	2	26	5,5,6	8.19	2 (40%)	3,5,7	1.91	1 (33%)
26	UAL	AZ	3	26	7,8,9	1.82	2 (28%)	6,9,11	0.62	0
26	MYN	AZ	4	26	11,11,12	5.93	3 (27%)	12,14,16	1.53	3 (25%)
26	DPP	AZ	5	26	5,5,6	7.99	1 (20%)	3,5,7	2.81	1 (33%)
26	KBE	CZ	1	26	8,8,9	6.08	1 (12%)	6,8,10	0.44	0
26	DPP	CZ	2	26	5,5,6	9.62	1 (20%)	3,5,7	2.42	1 (33%)
26	UAL	CZ	3	26	7,8,9	1.78	1 (14%)	6,9,11	0.67	0
26	MYN	CZ	4	26	11,11,12	6.85	3 (27%)	12,14,16	1.58	1 (8%)
26	DPP	CZ	5	26	5,5,6	8.98	1 (20%)	3,5,7	2.59	1 (33%)

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
26	KBE	AZ	1	26	-	0/6/7/8	0/0/0/0
26	DPP	AZ	2	26	-	0/2/4/6	0/0/0/0
26	UAL	AZ	3	26	-	0/3/7/9	0/0/0/0
26	MYN	AZ	4	26	-	0/2/16/18	0/1/1/1
26	DPP	AZ	5	26	-	0/2/4/6	0/0/0/0
26	KBE	CZ	1	26	-	0/6/7/8	0/0/0/0
26	DPP	CZ	2	26	-	0/2/4/6	0/0/0/0
26	UAL	CZ	3	26	-	0/3/7/9	0/0/0/0
26	MYN	CZ	4	26	-	0/2/16/18	0/1/1/1
26	DPP	CZ	5	26	-	0/2/4/6	0/0/0/0

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	CZ	4	MYN	O-C	21.98	1.26	1.11
26	CZ	2	DPP	O-C	21.47	1.26	1.11
26	AZ	1	KBE	O-C	21.02	1.25	1.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	CZ	5	DPP	O-C	20.01	1.25	1.11
26	AZ	4	MYN	O-C	18.62	1.24	1.11
26	AZ	2	DPP	O-C	18.16	1.23	1.11
26	AZ	5	DPP	O-C	17.75	1.23	1.11
26	CZ	1	KBE	O-C	17.09	1.23	1.11
26	AZ	4	MYN	CZ-NE	4.66	1.41	1.35
26	CZ	4	MYN	CZ-N1	4.20	1.41	1.30
26	AZ	3	UAL	C1-N1	-3.87	1.33	1.40
26	AZ	4	MYN	CZ-N1	3.75	1.40	1.30
26	CZ	3	UAL	C1-N1	-3.63	1.33	1.40
26	CZ	4	MYN	CZ-NE	3.39	1.39	1.35
26	AZ	3	UAL	O-C	2.47	1.24	1.18
26	AZ	2	DPP	CA-C	2.24	1.53	1.49

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	AZ	5	DPP	C-CA-N	-4.76	109.07	113.83
26	CZ	5	DPP	C-CA-N	-4.35	109.48	113.83
26	CZ	2	DPP	C-CA-N	-4.07	109.76	113.83
26	CZ	4	MYN	CG-CB-CA	-3.80	109.33	112.81
26	AZ	2	DPP	C-CA-N	-3.02	110.81	113.83
26	AZ	4	MYN	CG-CB-CA	-2.95	110.11	112.81
26	AZ	4	MYN	CA-CB-N1	-2.36	107.30	110.36
26	AZ	4	MYN	CB-CA-N	-2.28	104.01	111.00

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 850 ligands modelled in this entry, 850 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	1495/1508 (99%)	-0.32	20 (1%) 74 39	32, 72, 154, 200	0
1	CA	1493/1508 (99%)	-0.21	24 (1%) 68 33	38, 81, 158, 200	0
2	AB	235/256 (91%)	-0.04	2 (0%) 81 49	69, 98, 133, 148	0
2	CB	235/256 (91%)	-0.01	4 (1%) 67 32	74, 103, 147, 165	0
3	AC	207/239 (86%)	-0.16	0 100 100	66, 86, 109, 114	0
3	CC	206/239 (86%)	0.07	0 100 100	76, 98, 123, 136	0
4	AD	208/209 (99%)	-0.06	0 100 100	52, 73, 87, 92	0
4	CD	208/209 (99%)	-0.10	1 (0%) 88 63	47, 68, 85, 89	0
5	AE	151/162 (93%)	-0.16	0 100 100	49, 67, 94, 107	0
5	CE	151/162 (93%)	-0.07	0 100 100	53, 75, 94, 100	0
6	AF	101/101 (100%)	-0.27	0 100 100	54, 69, 84, 98	0
6	CF	101/101 (100%)	-0.15	0 100 100	49, 73, 83, 98	0
7	AG	155/156 (99%)	0.06	7 (4%) 32 13	62, 82, 107, 124	0
7	CG	154/156 (98%)	-0.01	3 (1%) 64 30	69, 92, 116, 124	0
8	AH	138/138 (100%)	-0.04	0 100 100	54, 71, 82, 96	0
8	CH	138/138 (100%)	0.08	1 (0%) 84 54	55, 75, 87, 97	0
9	AI	127/128 (99%)	0.21	0 100 100	57, 99, 123, 126	0
9	CI	127/128 (99%)	0.31	2 (1%) 68 33	72, 106, 123, 129	0
10	AJ	99/105 (94%)	0.39	2 (2%) 62 29	69, 108, 130, 130	0
10	CJ	99/105 (94%)	0.30	1 (1%) 79 46	79, 115, 136, 143	0
11	AK	116/129 (89%)	0.01	0 100 100	53, 67, 89, 107	0
11	CK	119/129 (92%)	-0.04	4 (3%) 43 18	56, 76, 99, 114	0
12	AL	125/132 (94%)	-0.00	3 (2%) 56 25	49, 63, 80, 103	0
12	CL	125/132 (94%)	0.14	4 (3%) 45 19	51, 71, 83, 99	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AM	122/126 (96%)	-0.05	1 (0%) 83 51	63, 87, 97, 102	0
13	CM	118/126 (93%)	0.13	3 (2%) 54 24	77, 100, 114, 120	0
14	AN	60/61 (98%)	0.03	0 100 100	52, 77, 91, 97	0
14	CN	60/61 (98%)	0.49	1 (1%) 67 32	75, 92, 101, 105	0
15	AO	88/89 (98%)	-0.14	0 100 100	47, 65, 82, 93	0
15	CO	88/89 (98%)	-0.23	0 100 100	50, 70, 87, 92	0
16	AP	84/88 (95%)	0.05	0 100 100	50, 68, 95, 109	0
16	CP	84/88 (95%)	0.14	0 100 100	55, 66, 85, 109	0
17	AQ	100/105 (95%)	-0.18	0 100 100	53, 69, 84, 88	0
17	CQ	100/105 (95%)	0.07	2 (2%) 62 29	59, 73, 91, 94	0
18	AR	70/88 (79%)	0.01	0 100 100	49, 68, 94, 100	0
18	CR	70/88 (79%)	-0.17	0 100 100	56, 74, 99, 104	0
19	AS	79/93 (84%)	0.40	2 (2%) 54 24	63, 90, 110, 115	0
19	CS	79/93 (84%)	0.78	7 (8%) 10 6	91, 111, 132, 138	0
20	AT	99/106 (93%)	0.29	0 100 100	54, 75, 104, 110	0
20	CT	99/106 (93%)	0.23	1 (1%) 79 46	63, 76, 111, 114	0
21	AU	25/27 (92%)	0.94	3 (12%) 5 4	74, 82, 90, 95	0
21	CU	25/27 (92%)	1.36	4 (16%) 3 2	72, 93, 105, 109	0
22	AV	10/30 (33%)	0.77	0 100 100	51, 66, 125, 128	0
22	CV	10/30 (33%)	0.52	1 (10%) 8 5	65, 81, 134, 138	0
23	AW	74/75 (98%)	0.15	6 (8%) 12 6	49, 117, 149, 154	0
23	CW	74/75 (98%)	0.73	6 (8%) 12 6	79, 129, 148, 165	0
24	AX	77/77 (100%)	-0.18	2 (2%) 53 23	35, 85, 115, 128	0
25	AY	75/75 (100%)	0.38	7 (9%) 9 5	62, 157, 189, 191	0
25	CY	75/75 (100%)	0.39	5 (6%) 17 8	76, 170, 192, 197	0
26	AZ	1/6 (16%)	-0.17	0 100 100	64, 64, 64, 64	0
26	CZ	1/6 (16%)	-0.22	0 100 100	91, 91, 91, 91	0
27	BA	2789/2915 (95%)	-0.44	31 (1%) 77 42	19, 44, 164, 200	0
27	DA	2775/2915 (95%)	-0.24	42 (1%) 70 35	30, 72, 170, 200	0
28	BB	119/122 (97%)	-0.39	1 (0%) 83 51	36, 70, 127, 168	0
28	DB	119/122 (97%)	0.45	6 (5%) 28 11	109, 142, 170, 179	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
29	BC	191/229 (83%)	1.34	44 (23%) 1 2	103, 169, 180, 186	0
29	DC	191/229 (83%)	1.31	41 (21%) 1 2	125, 170, 183, 186	0
30	BD	272/276 (98%)	-0.22	0 100 100	18, 41, 61, 73	0
30	DD	272/276 (98%)	-0.15	0 100 100	31, 52, 69, 81	0
31	BE	205/206 (99%)	-0.24	1 (0%) 88 63	16, 42, 76, 94	0
31	DE	205/206 (99%)	0.08	2 (0%) 79 46	44, 80, 112, 119	0
32	BF	206/210 (98%)	-0.28	0 100 100	17, 46, 110, 129	0
32	DF	208/210 (99%)	-0.08	0 100 100	40, 69, 120, 132	0
33	BG	181/182 (99%)	-0.03	0 100 100	49, 74, 102, 119	0
33	DG	181/182 (99%)	0.08	1 (0%) 86 58	75, 101, 117, 125	0
34	BH	161/180 (89%)	-0.01	1 (0%) 86 58	39, 65, 81, 95	0
34	DH	160/180 (88%)	0.65	10 (6%) 19 8	106, 129, 153, 161	0
35	BI	146/148 (98%)	0.26	3 (2%) 60 28	57, 134, 150, 159	0
35	DI	146/148 (98%)	0.25	1 (0%) 84 54	62, 107, 139, 150	0
36	BN	139/140 (99%)	-0.16	0 100 100	23, 43, 67, 73	0
36	DN	139/140 (99%)	0.24	0 100 100	69, 86, 106, 108	0
37	BO	122/122 (100%)	-0.28	0 100 100	22, 44, 60, 67	0
37	DO	122/122 (100%)	0.05	0 100 100	47, 72, 80, 86	0
38	BP	146/150 (97%)	0.03	2 (1%) 72 37	17, 60, 91, 121	0
38	DP	146/150 (97%)	0.32	3 (2%) 60 28	45, 82, 103, 126	0
39	BQ	139/141 (98%)	-0.19	0 100 100	29, 47, 70, 82	0
39	DQ	138/141 (97%)	0.26	1 (0%) 84 54	58, 88, 107, 136	0
40	BR	117/118 (99%)	-0.26	0 100 100	17, 37, 59, 66	0
40	DR	117/118 (99%)	-0.01	0 100 100	39, 64, 81, 88	0
41	BS	99/112 (88%)	0.09	0 100 100	40, 65, 82, 91	0
41	DS	99/112 (88%)	0.28	2 (2%) 62 29	71, 93, 106, 109	0
42	BT	138/146 (94%)	-0.09	1 (0%) 84 54	27, 53, 108, 143	0
42	DT	138/146 (94%)	0.09	2 (1%) 72 37	64, 79, 136, 142	0
43	BU	117/118 (99%)	-0.35	0 100 100	20, 37, 59, 86	0
43	DU	117/118 (99%)	-0.03	1 (0%) 81 49	48, 80, 111, 120	0
44	BV	101/101 (100%)	-0.10	0 100 100	18, 49, 68, 74	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	DV	101/101 (100%)	0.11	1 (0%) 79 46	54, 100, 114, 122	0
45	BW	113/113 (100%)	-0.28	0 100 100	21, 34, 64, 102	0
45	DW	113/113 (100%)	0.01	0 100 100	39, 61, 93, 118	0
46	BX	93/96 (96%)	-0.22	0 100 100	31, 45, 69, 76	0
46	DX	93/96 (96%)	-0.05	0 100 100	39, 66, 79, 85	0
47	BY	88/110 (80%)	0.12	0 100 100	41, 58, 79, 87	0
47	DY	101/110 (91%)	0.61	9 (8%) 10 6	62, 83, 144, 153	0
48	BZ	177/206 (85%)	0.46	20 (11%) 6 4	52, 85, 159, 164	0
48	DZ	177/206 (85%)	0.86	23 (12%) 4 3	93, 123, 178, 184	0
49	B0	84/85 (98%)	0.16	4 (4%) 29 12	27, 49, 71, 85	0
49	D0	84/85 (98%)	0.67	4 (4%) 29 12	66, 82, 96, 104	0
50	B1	94/98 (95%)	-0.11	0 100 100	28, 49, 80, 91	0
50	D1	94/98 (95%)	0.14	0 100 100	40, 62, 94, 101	0
51	B2	71/72 (98%)	-0.16	1 (1%) 72 37	37, 62, 93, 106	0
51	D2	71/72 (98%)	-0.18	0 100 100	59, 78, 98, 117	0
52	B3	60/60 (100%)	-0.01	1 (1%) 67 32	27, 44, 69, 103	0
52	D3	60/60 (100%)	0.69	4 (6%) 17 8	70, 88, 111, 119	0
53	B4	49/71 (69%)	-0.25	1 (2%) 62 29	72, 97, 116, 119	0
53	D4	49/71 (69%)	-0.14	0 100 100	100, 115, 120, 121	0
54	B5	59/60 (98%)	-0.25	2 (3%) 43 18	21, 38, 93, 115	0
54	D5	59/60 (98%)	-0.04	3 (5%) 27 11	46, 62, 116, 136	0
55	B6	48/54 (88%)	-0.05	0 100 100	29, 58, 71, 90	0
55	D6	46/54 (85%)	0.36	0 100 100	50, 81, 91, 101	0
56	B7	49/49 (100%)	-0.15	0 100 100	20, 32, 77, 90	0
56	D7	49/49 (100%)	0.10	2 (4%) 35 15	36, 47, 84, 92	0
57	B8	64/65 (98%)	0.17	2 (3%) 47 21	26, 44, 62, 99	0
57	D8	64/65 (98%)	0.45	2 (3%) 47 21	51, 66, 85, 109	0
58	B9	36/37 (97%)	0.33	0 100 100	15, 45, 57, 59	0
58	D9	36/37 (97%)	1.24	5 (13%) 4 3	79, 94, 99, 102	0
59	CX	77/77 (100%)	-0.17	1 (1%) 74 39	63, 100, 127, 140	0
All	All	21180/22202 (95%)	-0.07	410 (1%) 64 30	15, 72, 152, 200	0

All (410) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
27	DA	896	A	12.6
48	DZ	111	ARG	10.4
27	DA	2802	G	9.2
48	DZ	110	VAL	8.8
34	DH	170	ARG	8.1
27	DA	2796	U	7.9
48	DZ	112	ALA	7.9
25	CY	33	G	7.9
23	CW	16	C	7.8
34	DH	171	LEU	7.6
1	CA	1030(B)	C	7.3
59	CX	1	C	7.1
27	DA	1112	G	7.0
25	AY	16	C	7.0
29	DC	110	PHE	6.7
27	BA	2116	G	6.5
1	CA	1001(A)	G	6.5
29	DC	52	ARG	6.5
27	DA	2146	C	6.4
29	DC	53	ARG	6.4
48	BZ	111	ARG	6.2
28	DB	27	C	5.8
25	CY	16	C	5.6
27	DA	2147	G	5.6
1	CA	1030(C)	G	5.6
1	AA	89	C	5.5
1	AA	1001(A)	G	5.5
29	DC	57	ASN	5.4
29	BC	89	ALA	5.4
13	CM	84	ILE	5.3
24	AX	1	C	5.3
1	CA	1030	C	5.2
27	DA	1509	C	5.2
25	AY	33	G	5.2
47	DY	51	VAL	5.2
29	BC	179	SER	5.1
29	BC	93	TYR	5.0
48	DZ	113	GLY	5.0
48	DZ	114	GLY	4.9
27	BA	1509	C	4.9
48	DZ	106	THR	4.8
29	BC	110	PHE	4.8

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Mol	Chain	Res	Type	RSRZ
27	DA	2799	C	4.8
1	CA	1036	G	4.6
27	DA	2145	C	4.6
38	DP	150	ALA	4.5
1	CA	1257	U	4.5
25	CY	34	U	4.4
28	DB	49	C	4.4
29	DC	109	ASP	4.4
57	D8	64	TYR	4.4
21	CU	26	LYS	4.3
11	CK	127	LYS	4.3
29	BC	140	PRO	4.3
27	BA	2132	U	4.3
23	AW	16	C	4.2
48	DZ	107	PRO	4.2
1	AA	82	U	4.2
48	BZ	118	GLU	4.2
25	AY	34	U	4.2
27	BA	2141	G	4.1
48	BZ	172	ALA	4.1
29	BC	56	GLN	4.1
48	DZ	117	GLN	4.1
29	DC	87	GLU	4.1
29	DC	51	PRO	4.0
27	DA	2896	C	4.0
29	DC	148	ASN	4.0
29	BC	142	ALA	4.0
27	BA	2803	C	4.0
1	AA	204	U	3.9
48	BZ	114	GLY	3.9
48	DZ	174	VAL	3.9
48	DZ	108	ALA	3.9
27	DA	2795	G	3.9
29	DC	93	TYR	3.9
11	CK	128	ALA	3.9
27	DA	1026	U	3.8
29	BC	45	ALA	3.8
2	CB	133	LYS	3.8
48	DZ	109	GLY	3.8
29	DC	89	ALA	3.8
7	AG	83	ALA	3.8
48	BZ	117	GLN	3.8

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Mol	Chain	Res	Type	RSRZ
19	CS	28	LYS	3.7
27	DA	1113	U	3.7
27	DA	2116	G	3.7
48	DZ	175	PRO	3.7
29	DC	119	VAL	3.7
29	BC	108	MET	3.7
1	CA	1033	G	3.7
34	DH	168	PRO	3.6
52	B3	1	MET	3.6
27	DA	2801	A	3.6
1	CA	723	U	3.6
7	AG	81	GLY	3.6
47	DY	61	ILE	3.6
29	BC	148	ASN	3.5
48	BZ	120	HIS	3.5
29	BC	139	ASN	3.5
48	BZ	110	VAL	3.5
1	CA	1286	A	3.5
29	DC	90	GLY	3.5
27	BA	888	C	3.5
29	BC	25	ALA	3.5
27	BA	2115	G	3.5
48	BZ	115	VAL	3.5
27	BA	2131	G	3.5
42	BT	1	MET	3.5
2	AB	133	LYS	3.5
27	BA	275	G	3.5
54	D5	58	LEU	3.5
11	CK	129	SER	3.5
29	BC	53	ARG	3.4
7	AG	84	ASN	3.4
23	AW	69	C	3.4
2	CB	131	PRO	3.4
27	DA	2895	U	3.4
7	AG	82	GLY	3.4
29	BC	121	GLY	3.4
25	AY	35	G	3.4
27	BA	2896	C	3.4
34	DH	34	GLU	3.3
27	BA	2117	A	3.3
57	B8	65	GLU	3.3
27	DA	2897	U	3.3

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Mol	Chain	Res	Type	RSRZ
25	CY	35	G	3.3
29	BC	109	ASP	3.3
1	CA	1002	G	3.3
19	CS	81	ARG	3.2
57	D8	65	GLU	3.2
27	DA	1530	C	3.2
27	DA	2804	C	3.2
27	DA	2801(A)	A	3.2
48	DZ	176	PRO	3.2
48	DZ	149	LEU	3.2
48	BZ	161	GLU	3.1
10	AJ	5	ARG	3.1
1	AA	81	U	3.1
27	BA	2150	U	3.1
35	BI	94	ALA	3.1
1	CA	1027	C	3.1
31	BE	205	ALA	3.1
13	CM	85	GLY	3.1
29	DC	59	ARG	3.1
20	CT	99	LEU	3.1
27	DA	2892	A	3.1
38	BP	150	ALA	3.1
29	BC	52	ARG	3.1
47	DY	65	ALA	3.1
27	DA	2803	C	3.1
29	DC	174	PRO	3.1
29	BC	88	GLU	3.0
24	AX	47	U	3.0
1	CA	1030(A)	G	3.0
27	DA	2894	G	3.0
48	BZ	174	VAL	3.0
29	DC	56	GLN	3.0
27	DA	2132	U	3.0
29	BC	85	GLU	3.0
2	CB	134	GLU	3.0
35	BI	117	GLU	3.0
34	BH	42	ARG	3.0
58	D9	28	GLU	3.0
1	CA	1035	A	3.0
41	DS	57	LYS	3.0
7	AG	85	TYR	3.0
1	CA	1001	A	2.9

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Mol	Chain	Res	Type	RSRZ
27	BA	2108	C	2.9
48	DZ	172	ALA	2.9
17	CQ	101	ARG	2.9
29	DC	135	GLY	2.9
29	BC	120	MET	2.9
27	DA	2805	G	2.9
23	AW	70	C	2.9
29	DC	136	LEU	2.9
48	DZ	116	LEU	2.9
1	CA	1026	G	2.9
1	AA	841	U	2.9
57	B8	64	TYR	2.9
29	BC	55	ASP	2.9
23	CW	68	C	2.9
29	DC	104	LEU	2.9
1	AA	1257	U	2.8
23	CW	45	U	2.8
27	DA	2135	A	2.8
48	BZ	112	ALA	2.8
48	BZ	176	PRO	2.8
1	CA	99	U	2.8
27	DA	92	A	2.8
35	BI	41	GLU	2.8
42	DT	2	ASN	2.8
25	AY	54	U	2.8
29	DC	202	GLU	2.8
48	BZ	113	GLY	2.8
13	AM	123	ALA	2.8
28	DB	88	C	2.8
34	DH	169	VAL	2.8
27	BA	508	G	2.8
29	BC	46	LYS	2.8
1	AA	1027	C	2.8
27	DA	2179	C	2.8
27	DA	1044	G	2.8
29	DC	75	LEU	2.8
29	DC	74	VAL	2.8
29	BC	157	LYS	2.8
21	AU	25	LYS	2.7
34	DH	167	GLU	2.7
27	BA	2179	C	2.7
1	AA	83	U	2.7

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Mol	Chain	Res	Type	RSRZ
43	DU	118	GLY	2.7
7	CG	81	GLY	2.7
29	BC	92	ASP	2.7
27	DA	2136	C	2.7
29	BC	84	LYS	2.7
29	DC	131	LEU	2.7
2	CB	137	ARG	2.7
27	DA	229	A	2.7
38	DP	149	GLU	2.7
1	AA	1034	G	2.7
48	BZ	149	LEU	2.7
33	DG	2	PRO	2.7
29	BC	87	GLU	2.6
22	CV	1	A	2.6
29	BC	74	VAL	2.6
48	BZ	106	THR	2.6
19	CS	29	ARG	2.6
54	D5	2	ALA	2.6
27	BA	2146	C	2.6
29	BC	166	ASP	2.6
38	DP	110	TYR	2.6
54	B5	59	GLU	2.6
31	DE	205	ALA	2.6
29	DC	102	LYS	2.6
34	DH	25	LYS	2.6
49	D0	85	ALA	2.6
12	AL	126	ALA	2.6
27	BA	2140	C	2.6
49	D0	3	HIS	2.5
29	DC	179	SER	2.5
23	AW	72	G	2.5
1	AA	723	U	2.5
29	BC	106	GLY	2.5
29	DC	107	TRP	2.5
21	AU	26	LYS	2.5
21	CU	25	LYS	2.5
49	D0	82	ARG	2.5
10	CJ	33	GLN	2.5
29	DC	165	ASN	2.5
49	D0	5	LYS	2.5
48	DZ	173	VAL	2.5
1	AA	1531	A	2.5

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Mol	Chain	Res	Type	RSRZ
58	D9	15	LYS	2.5
9	CI	62	TYR	2.5
7	AG	80	VAL	2.5
1	CA	1030(D)	A	2.5
29	BC	149	ILE	2.5
1	CA	1019	C	2.5
17	CQ	100	LYS	2.5
21	CU	18	TYR	2.5
54	D5	60	VAL	2.5
39	DQ	141	GLN	2.5
41	DS	58	LEU	2.5
1	AA	1026	G	2.5
28	BB	88	C	2.5
48	DZ	105	GLY	2.5
48	BZ	162	LEU	2.5
56	D7	47	ARG	2.5
12	CL	124	GLU	2.5
58	D9	12	ASP	2.5
1	AA	1280	A	2.4
23	CW	70	C	2.4
1	AA	88	A	2.4
27	BA	1026	U	2.4
49	B0	5	LYS	2.4
1	AA	1002	G	2.4
1	AA	1456	G	2.4
13	CM	97	PRO	2.4
47	DY	2	ARG	2.4
51	B2	72	ALA	2.4
27	BA	2109	U	2.4
1	CA	1029	C	2.4
12	CL	16	ARG	2.4
8	CH	135	CYS	2.4
4	CD	209	ARG	2.4
29	BC	51	PRO	2.4
27	DA	2893	G	2.4
48	BZ	148	SER	2.4
29	BC	190	ARG	2.4
31	DE	76	ARG	2.4
29	DC	72	VAL	2.4
21	CU	17	THR	2.3
1	CA	1003	G	2.3
29	BC	57	ASN	2.3

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Mol	Chain	Res	Type	RSRZ
56	D7	48	LYS	2.3
7	AG	5	ARG	2.3
27	DA	2139	C	2.3
29	DC	73	ARG	2.3
29	DC	200	LYS	2.3
19	CS	82	GLY	2.3
27	BA	1530	C	2.3
27	DA	2794	C	2.3
29	BC	178	ALA	2.3
11	CK	124	LYS	2.3
12	AL	25	LYS	2.3
1	CA	1130	A	2.3
1	CA	204	U	2.3
25	CY	52	G	2.3
19	AS	56	GLN	2.3
29	BC	156	ILE	2.3
29	DC	199	HIS	2.3
27	BA	2145	C	2.3
27	DA	2752	C	2.3
34	DH	23	ARG	2.3
52	D3	29	ARG	2.3
58	D9	9	ARG	2.3
29	DC	88	GLU	2.3
28	DB	86	G	2.3
47	DY	52	SER	2.3
48	BZ	169	THR	2.3
27	BA	2804	C	2.3
29	BC	209	LEU	2.3
27	BA	92	A	2.2
29	DC	133	PRO	2.2
58	D9	8	LYS	2.2
48	BZ	119	ILE	2.2
34	DH	95	ARG	2.2
48	DZ	3	ARG	2.2
48	DZ	115	VAL	2.2
27	BA	2151	G	2.2
27	DA	2125	G	2.2
54	B5	60	VAL	2.2
27	BA	2119	A	2.2
27	BA	2111	C	2.2
29	DC	166	ASP	2.2
49	B0	41	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
27	DA	2117	A	2.2
52	D3	1	MET	2.2
29	BC	154	ARG	2.2
49	B0	85	ALA	2.2
27	DA	1847	A	2.2
2	AB	134	GLU	2.2
53	B4	56	GLU	2.2
23	CW	69	C	2.2
12	CL	125	ALA	2.2
27	DA	2793	G	2.2
29	BC	91	ALA	2.2
29	DC	91	ALA	2.2
48	DZ	169	THR	2.2
23	CW	39	C	2.2
42	DT	1	MET	2.2
1	AA	1036	G	2.2
29	DC	108	MET	2.2
10	AJ	98	ILE	2.2
29	DC	45	ALA	2.2
7	CG	85	TYR	2.1
29	BC	107	TRP	2.1
48	DZ	143	LEU	2.1
52	D3	57	GLU	2.1
25	AY	31	U	2.1
27	DA	6	A	2.1
29	BC	105	ASP	2.1
49	B0	3	HIS	2.1
29	BC	165	ASN	2.1
29	DC	98	GLU	2.1
29	BC	164	ARG	2.1
29	DC	19	VAL	2.1
25	AY	55	C	2.1
1	CA	1531	A	2.1
29	DC	154	ARG	2.1
21	AU	18	TYR	2.1
23	AW	68	C	2.1
29	BC	90	GLY	2.1
47	DY	64	GLU	2.1
47	DY	79	CYS	2.1
9	CI	8	GLY	2.1
29	DC	134	ARG	2.1
52	D3	30	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
29	BC	104	LEU	2.1
19	CS	12	ASP	2.1
1	CA	1447	A	2.1
14	CN	8	GLU	2.1
29	BC	173	ALA	2.1
47	DY	23	ARG	2.1
27	BA	11	G	2.1
27	DA	508	G	2.1
28	DB	87	G	2.1
48	BZ	109	GLY	2.1
27	BA	229	A	2.1
28	DB	57	A	2.1
19	AS	81	ARG	2.1
38	BP	149	GLU	2.1
48	DZ	144	GLU	2.1
19	CS	66	MET	2.0
29	DC	76	ALA	2.0
1	AA	202	U	2.0
12	CL	25	LYS	2.0
35	DI	117	GLU	2.0
1	AA	1035	A	2.0
27	DA	2169	A	2.0
44	DV	36	PRO	2.0
27	BA	2138	C	2.0
47	DY	50	ARG	2.0
27	BA	2173	A	2.0
19	CS	40	ILE	2.0
7	CG	82	GLY	2.0
23	AW	14	A	2.0
12	AL	16	ARG	2.0
27	BA	2139	C	2.0
34	DH	111	HIS	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(\AA^2)	Q<0.9
26	KBE	CZ	1	9/10	0.47	-	95,98,100,100	0
26	DPP	CZ	2	6/7	0.20	-	92,93,95,98	0
26	UAL	AZ	3	9/10	0.20	-	63,66,70,71	0
26	DPP	CZ	5	6/7	0.16	-	88,89,89,90	0
26	MYN	AZ	4	11/12	0.22	-	61,64,65,65	0
26	DPP	AZ	2	6/7	0.19	-	66,67,69,71	0
26	MYN	CZ	4	11/12	0.19	-	88,89,91,92	0
26	DPP	AZ	5	6/7	0.20	-	62,64,65,65	0
26	UAL	CZ	3	9/10	0.23	-	91,92,93,93	0
26	KBE	AZ	1	9/10	0.49	-	71,74,78,79	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(\AA^2)	Q<0.9
60	MG	AA	1602	1/1	0.07	-	1,1,1,1	0
60	MG	BA	3099	1/1	0.28	-	8,8,8,8	0
60	MG	DA	3103	1/1	0.37	-	26,26,26,26	0
60	MG	DA	3140	1/1	0.26	-	24,24,24,24	0
60	MG	BA	3033	1/1	0.44	-	1,1,1,1	0
60	MG	DA	3114	1/1	0.14	-	34,34,34,34	0
60	MG	BA	3058	1/1	0.20	-	1,1,1,1	0
61	ZN	D4	101	1/1	0.08	-	113,113,113,113	0
60	MG	DA	3235	1/1	0.45	-	61,61,61,61	0
60	MG	CA	1625	1/1	0.28	-	3,3,3,3	0
60	MG	BA	3148	1/1	0.11	-	1,1,1,1	0
60	MG	BA	3001	1/1	0.25	-	43,43,43,43	0
60	MG	DA	3013	1/1	0.27	-	30,30,30,30	0
60	MG	BA	3029	1/1	0.32	-	36,36,36,36	0
60	MG	BA	3165	1/1	0.19	-	48,48,48,48	0
60	MG	AA	1657	1/1	0.45	-	37,37,37,37	0
60	MG	AA	1627	1/1	0.29	-	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	BA	3243	1/1	0.62	-	45,45,45,45	0
60	MG	CA	1674	1/1	0.51	-	55,55,55,55	0
60	MG	CA	1657	1/1	0.49	-	23,23,23,23	0
60	MG	AA	1699	1/1	0.15	-	21,21,21,21	0
60	MG	DA	3017	1/1	0.18	-	1,1,1,1	0
60	MG	BA	3183	1/1	0.22	-	1,1,1,1	0
61	ZN	AD	301	1/1	0.26	-	46,46,46,46	0
60	MG	BA	3175	1/1	0.18	-	26,26,26,26	0
60	MG	AA	1690	1/1	0.43	-	23,23,23,23	0
60	MG	BA	3326	1/1	0.23	-	21,21,21,21	0
60	MG	BA	3195	1/1	0.64	-	49,49,49,49	0
60	MG	BA	3124	1/1	0.25	-	13,13,13,13	0
60	MG	DA	3061	1/1	0.14	-	21,21,21,21	0
60	MG	BA	3097	1/1	0.33	-	44,44,44,44	0
60	MG	DA	3207	1/1	0.12	-	1,1,1,1	0
60	MG	BA	3067	1/1	0.08	-	1,1,1,1	0
60	MG	DA	3004	1/1	0.25	-	7,7,7,7	0
60	MG	AW	101	1/1	0.36	-	48,48,48,48	0
60	MG	BA	3154	1/1	0.09	-	16,16,16,16	0
60	MG	CA	1608	1/1	0.17	-	24,24,24,24	0
60	MG	DA	3161	1/1	0.12	-	33,33,33,33	0
60	MG	BA	3143	1/1	0.33	-	32,32,32,32	0
60	MG	AA	1711	1/1	0.15	-	15,15,15,15	0
60	MG	DA	3223	1/1	0.15	-	13,13,13,13	0
60	MG	BA	3182	1/1	0.22	-	1,1,1,1	0
60	MG	BA	3107	1/1	0.49	-	65,65,65,65	0
60	MG	DA	3106	1/1	0.10	-	23,23,23,23	0
60	MG	AA	1692	1/1	0.31	-	19,19,19,19	0
60	MG	CA	1640	1/1	0.21	-	41,41,41,41	0
60	MG	AA	1678	1/1	0.15	-	29,29,29,29	0
60	MG	AA	1633	1/1	0.28	-	8,8,8,8	0
60	MG	DA	3071	1/1	0.29	-	19,19,19,19	0
60	MG	CA	1641	1/1	0.39	-	66,66,66,66	0
60	MG	DA	3129	1/1	0.16	-	20,20,20,20	0
60	MG	BA	3292	1/1	0.26	-	27,27,27,27	0
60	MG	BA	3285	1/1	0.13	-	1,1,1,1	0
60	MG	BA	3222	1/1	0.29	-	26,26,26,26	0
60	MG	AA	1604	1/1	0.26	-	14,14,14,14	0
60	MG	DA	3014	1/1	0.23	-	4,4,4,4	0
60	MG	BA	3036	1/1	0.54	-	8,8,8,8	0
60	MG	CA	1626	1/1	0.39	-	31,31,31,31	0
60	MG	BA	3219	1/1	0.14	-	15,15,15,15	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	D7	101	1/1	0.16	-	36,36,36,36	0
60	MG	CA	1630	1/1	0.23	-	57,57,57,57	0
60	MG	CA	1677	1/1	0.36	-	51,51,51,51	0
60	MG	BA	3083	1/1	0.28	-	1,1,1,1	0
60	MG	BA	3117	1/1	0.28	-	1,1,1,1	0
60	MG	BA	3098	1/1	0.42	-	1,1,1,1	0
60	MG	AA	1612	1/1	0.15	-	15,15,15,15	0
60	MG	BF	301	1/1	0.13	-	14,14,14,14	0
60	MG	BA	3258	1/1	0.23	-	32,32,32,32	0
60	MG	AA	1695	1/1	0.19	-	30,30,30,30	0
60	MG	BU	201	1/1	0.34	-	23,23,23,23	0
60	MG	BA	3130	1/1	0.40	-	1,1,1,1	0
60	MG	CA	1671	1/1	0.21	-	24,24,24,24	0
60	MG	CA	1618	1/1	0.18	-	14,14,14,14	0
60	MG	DA	3093	1/1	0.35	-	31,31,31,31	0
60	MG	CA	1699	1/1	0.08	-	30,30,30,30	0
60	MG	BA	3254	1/1	0.07	-	72,72,72,72	0
60	MG	BA	3026	1/1	0.29	-	7,7,7,7	0
60	MG	DA	3084	1/1	0.42	-	71,71,71,71	0
60	MG	BA	3109	1/1	0.22	-	58,58,58,58	0
60	MG	AA	1687	1/1	0.18	-	20,20,20,20	0
60	MG	AA	1709	1/1	0.34	-	36,36,36,36	0
60	MG	CA	1607	1/1	0.54	-	29,29,29,29	0
60	MG	AA	1643	1/1	0.36	-	29,29,29,29	0
60	MG	DA	3164	1/1	0.19	-	64,64,64,64	0
60	MG	BA	3053	1/1	0.21	-	1,1,1,1	0
60	MG	AA	1614	1/1	0.23	-	22,22,22,22	0
60	MG	DA	3045	1/1	0.10	-	11,11,11,11	0
60	MG	CK	201	1/1	0.06	-	19,19,19,19	0
60	MG	BA	3078	1/1	0.29	-	1,1,1,1	0
60	MG	DA	3082	1/1	0.27	-	15,15,15,15	0
61	ZN	CD	301	1/1	0.27	-	49,49,49,49	0
60	MG	BA	3198	1/1	0.17	-	5,5,5,5	0
60	MG	DA	3041	1/1	0.34	-	1,1,1,1	0
60	MG	BA	3055	1/1	0.19	-	1,1,1,1	0
60	MG	DA	3031	1/1	0.12	-	9,9,9,9	0
60	MG	BA	3132	1/1	0.29	-	1,1,1,1	0
60	MG	DA	3089	1/1	0.12	-	27,27,27,27	0
60	MG	BA	3122	1/1	0.37	-	12,12,12,12	0
60	MG	AA	1616	1/1	0.16	-	32,32,32,32	0
60	MG	CA	1698	1/1	0.53	-	29,29,29,29	0
60	MG	DA	3186	1/1	0.38	-	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	BA	3066	1/1	0.15	-	1,1,1,1	0
60	MG	BA	3073	1/1	0.26	-	1,1,1,1	0
60	MG	CA	1616	1/1	0.54	-	52,52,52,52	0
60	MG	BA	3318	1/1	0.17	-	20,20,20,20	0
60	MG	DA	3165	1/1	0.23	-	14,14,14,14	0
60	MG	DA	3098	1/1	0.31	-	27,27,27,27	0
60	MG	BA	3205	1/1	0.37	-	30,30,30,30	0
60	MG	CA	1697	1/1	0.18	-	27,27,27,27	0
60	MG	BA	3013	1/1	0.31	-	1,1,1,1	0
60	MG	BA	3228	1/1	0.57	-	52,52,52,52	0
60	MG	BA	3313	1/1	0.47	-	45,45,45,45	0
60	MG	BA	3233	1/1	0.10	-	1,1,1,1	0
60	MG	BA	3155	1/1	0.39	-	14,14,14,14	0
60	MG	BA	3044	1/1	0.35	-	1,1,1,1	0
60	MG	AA	1629	1/1	0.20	-	51,51,51,51	0
60	MG	DA	3108	1/1	0.20	-	18,18,18,18	0
60	MG	CA	1692	1/1	0.30	-	32,32,32,32	0
60	MG	DA	3151	1/1	0.35	-	26,26,26,26	0
60	MG	BA	3070	1/1	0.44	-	1,1,1,1	0
60	MG	BA	3271	1/1	0.16	-	28,28,28,28	0
60	MG	AA	1622	1/1	0.31	-	12,12,12,12	0
60	MG	AA	1704	1/1	0.25	-	13,13,13,13	0
60	MG	DA	3193	1/1	0.16	-	29,29,29,29	0
60	MG	DA	3128	1/1	0.33	-	24,24,24,24	0
60	MG	BA	3038	1/1	0.29	-	1,1,1,1	0
60	MG	BA	3263	1/1	0.21	-	47,47,47,47	0
60	MG	BA	3213	1/1	0.36	-	49,49,49,49	0
60	MG	CA	1653	1/1	0.17	-	36,36,36,36	0
60	MG	BA	3129	1/1	0.26	-	1,1,1,1	0
60	MG	BA	3085	1/1	0.37	-	70,70,70,70	0
60	MG	AX	109	1/1	0.09	-	16,16,16,16	0
60	MG	DA	3010	1/1	0.38	-	1,1,1,1	0
60	MG	BA	3251	1/1	0.28	-	1,1,1,1	0
60	MG	BA	3194	1/1	0.54	-	54,54,54,54	0
60	MG	CA	1602	1/1	0.28	-	26,26,26,26	0
60	MG	DA	3228	1/1	0.47	-	34,34,34,34	0
60	MG	DA	3107	1/1	0.27	-	37,37,37,37	0
60	MG	CA	1631	1/1	0.12	-	19,19,19,19	0
60	MG	BA	3320	1/1	0.14	-	23,23,23,23	0
60	MG	BA	3174	1/1	0.08	-	7,7,7,7	0
60	MG	DA	3213	1/1	0.32	-	31,31,31,31	0
60	MG	CA	1685	1/1	0.56	-	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	BA	3311	1/1	0.45	-	40,40,40,40	0
60	MG	BA	3192	1/1	0.37	-	31,31,31,31	0
60	MG	BA	3144	1/1	0.37	-	59,59,59,59	0
60	MG	BA	3284	1/1	0.22	-	21,21,21,21	0
60	MG	DA	3159	1/1	0.33	-	32,32,32,32	0
60	MG	DA	3008	1/1	0.40	-	13,13,13,13	0
60	MG	AX	101	1/1	0.16	-	41,41,41,41	0
60	MG	DA	3009	1/1	0.24	-	12,12,12,12	0
60	MG	CW	103	1/1	0.24	-	73,73,73,73	0
60	MG	BA	3236	1/1	0.38	-	11,11,11,11	0
60	MG	DA	3133	1/1	0.17	-	16,16,16,16	0
60	MG	BA	3057	1/1	0.12	-	3,3,3,3	0
60	MG	DA	3123	1/1	0.46	-	40,40,40,40	0
60	MG	BA	3193	1/1	0.29	-	22,22,22,22	0
60	MG	AA	1637	1/1	0.30	-	44,44,44,44	0
60	MG	DA	3130	1/1	0.21	-	27,27,27,27	0
60	MG	BA	3332	1/1	0.15	-	1,1,1,1	0
60	MG	AA	1628	1/1	0.15	-	10,10,10,10	0
60	MG	CA	1676	1/1	0.15	-	25,25,25,25	0
60	MG	DA	3104	1/1	0.37	-	42,42,42,42	0
60	MG	BA	3016	1/1	0.27	-	1,1,1,1	0
60	MG	DA	3125	1/1	0.18	-	49,49,49,49	0
60	MG	AA	1651	1/1	0.43	-	53,53,53,53	0
60	MG	DA	3173	1/1	0.26	-	10,10,10,10	0
60	MG	AA	1648	1/1	0.48	-	68,68,68,68	0
60	MG	AA	1603	1/1	0.14	-	32,32,32,32	0
60	MG	DA	3210	1/1	0.17	-	2,2,2,2	0
60	MG	BA	3245	1/1	0.12	-	25,25,25,25	0
60	MG	BA	3294	1/1	0.62	-	90,90,90,90	0
60	MG	DA	3192	1/1	0.23	-	10,10,10,10	0
60	MG	AA	1684	1/1	0.31	-	69,69,69,69	0
60	MG	AA	1608	1/1	0.49	-	22,22,22,22	0
60	MG	CA	1672	1/1	0.24	-	21,21,21,21	0
60	MG	DA	3167	1/1	0.26	-	36,36,36,36	0
60	MG	CA	1652	1/1	0.35	-	61,61,61,61	0
60	MG	BD	301	1/1	0.26	-	12,12,12,12	0
60	MG	BA	3094	1/1	0.22	-	11,11,11,11	0
60	MG	BA	3011	1/1	0.14	-	1,1,1,1	0
60	MG	BA	3331	1/1	0.47	-	35,35,35,35	0
60	MG	BA	3028	1/1	0.12	-	1,1,1,1	0
60	MG	DA	3003	1/1	0.25	-	17,17,17,17	0
60	MG	BA	3167	1/1	0.27	-	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	DA	3083	1/1	0.43	-	35,35,35,35	0
60	MG	BA	3141	1/1	0.27	-	17,17,17,17	0
60	MG	AA	1713	1/1	0.07	-	43,43,43,43	0
60	MG	BA	3218	1/1	0.10	-	9,9,9,9	0
60	MG	DA	3019	1/1	0.15	-	6,6,6,6	0
60	MG	CA	1655	1/1	0.29	-	29,29,29,29	0
60	MG	BA	3257	1/1	0.04	-	22,22,22,22	0
60	MG	DA	3135	1/1	0.36	-	11,11,11,11	0
60	MG	BA	3146	1/1	0.19	-	13,13,13,13	0
60	MG	BA	3153	1/1	0.53	-	16,16,16,16	0
60	MG	DA	3201	1/1	0.28	-	36,36,36,36	0
60	MG	BA	3324	1/1	0.12	-	1,1,1,1	0
60	MG	BA	3185	1/1	0.06	-	3,3,3,3	0
60	MG	CA	1664	1/1	0.20	-	83,83,83,83	0
60	MG	CA	1661	1/1	0.22	-	9,9,9,9	0
61	ZN	B5	102	1/1	0.10	-	51,51,51,51	0
60	MG	BA	3087	1/1	0.09	-	6,6,6,6	0
60	MG	AA	1660	1/1	0.47	-	49,49,49,49	0
60	MG	AA	1710	1/1	0.63	-	29,29,29,29	0
60	MG	BA	3019	1/1	0.38	-	1,1,1,1	0
60	MG	AW	104	1/1	0.27	-	31,31,31,31	0
60	MG	CA	1633	1/1	0.41	-	62,62,62,62	0
60	MG	BA	3180	1/1	0.43	-	40,40,40,40	0
60	MG	CA	1643	1/1	0.26	-	7,7,7,7	0
60	MG	BA	3030	1/1	0.30	-	7,7,7,7	0
60	MG	BA	3116	1/1	0.12	-	26,26,26,26	0
60	MG	CA	1617	1/1	0.23	-	1,1,1,1	0
60	MG	BA	3187	1/1	0.32	-	17,17,17,17	0
60	MG	DA	3172	1/1	0.40	-	6,6,6,6	0
60	MG	B5	101	1/1	0.10	-	16,16,16,16	0
60	MG	AA	1639	1/1	0.09	-	29,29,29,29	0
60	MG	BA	3291	1/1	0.27	-	14,14,14,14	0
60	MG	DA	3094	1/1	0.32	-	16,16,16,16	0
60	MG	DA	3187	1/1	0.14	-	27,27,27,27	0
60	MG	BA	3223	1/1	0.38	-	42,42,42,42	0
60	MG	DA	3198	1/1	0.19	-	32,32,32,32	0
60	MG	BA	3010	1/1	0.29	-	2,2,2,2	0
60	MG	DA	3162	1/1	0.37	-	44,44,44,44	0
60	MG	AA	1701	1/1	0.32	-	11,11,11,11	0
60	MG	DA	3212	1/1	0.10	-	4,4,4,4	0
60	MG	CA	1628	1/1	0.13	-	12,12,12,12	0
60	MG	DA	3124	1/1	0.39	-	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	BA	3037	1/1	0.44	-	33,33,33,33	0
60	MG	DA	3036	1/1	0.23	-	5,5,5,5	0
60	MG	BA	3080	1/1	0.41	-	15,15,15,15	0
60	MG	AX	104	1/1	0.14	-	57,57,57,57	0
60	MG	DA	3179	1/1	0.08	-	19,19,19,19	0
60	MG	BA	3307	1/1	0.25	-	19,19,19,19	0
60	MG	AA	1620	1/1	0.46	-	31,31,31,31	0
60	MG	BA	3217	1/1	0.11	-	1,1,1,1	0
60	MG	BA	3156	1/1	0.43	-	7,7,7,7	0
60	MG	BA	3316	1/1	0.42	-	35,35,35,35	0
60	MG	DA	3166	1/1	0.44	-	36,36,36,36	0
60	MG	BA	3092	1/1	0.41	-	3,3,3,3	0
60	MG	AA	1630	1/1	0.61	-	62,62,62,62	0
60	MG	DA	3112	1/1	0.32	-	7,7,7,7	0
60	MG	DA	3023	1/1	0.14	-	14,14,14,14	0
60	MG	AX	108	1/1	0.41	-	34,34,34,34	0
60	MG	DA	3168	1/1	0.44	-	55,55,55,55	0
60	MG	AA	1686	1/1	0.32	-	34,34,34,34	0
60	MG	CA	1648	1/1	0.33	-	24,24,24,24	0
60	MG	DA	3024	1/1	0.19	-	5,5,5,5	0
60	MG	AA	1685	1/1	0.22	-	69,69,69,69	0
60	MG	BA	3276	1/1	0.35	-	16,16,16,16	0
60	MG	BA	3138	1/1	0.14	-	1,1,1,1	0
60	MG	DA	3044	1/1	0.13	-	1,1,1,1	0
60	MG	BA	3056	1/1	0.16	-	1,1,1,1	0
60	MG	BA	3120	1/1	0.48	-	87,87,87,87	0
60	MG	DA	3054	1/1	0.16	-	21,21,21,21	0
60	MG	CA	1645	1/1	0.56	-	56,56,56,56	0
60	MG	AA	1676	1/1	0.29	-	11,11,11,11	0
60	MG	AA	1631	1/1	0.44	-	12,12,12,12	0
60	MG	AA	1661	1/1	0.25	-	21,21,21,21	0
60	MG	CA	1683	1/1	0.38	-	53,53,53,53	0
60	MG	DA	3117	1/1	0.41	-	49,49,49,49	0
60	MG	BA	3322	1/1	0.29	-	10,10,10,10	0
60	MG	DA	3127	1/1	0.21	-	20,20,20,20	0
60	MG	DA	3180	1/1	0.42	-	5,5,5,5	0
60	MG	BA	3268	1/1	0.18	-	1,1,1,1	0
60	MG	BA	3325	1/1	0.13	-	19,19,19,19	0
60	MG	BA	3275	1/1	0.28	-	7,7,7,7	0
60	MG	BA	3089	1/1	0.24	-	12,12,12,12	0
60	MG	BA	3071	1/1	0.32	-	1,1,1,1	0
60	MG	AA	1609	1/1	0.23	-	1,1,1,1	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	DA	3027	1/1	0.69	-	38,38,38,38	0
60	MG	BA	3095	1/1	0.68	-	47,47,47,47	0
60	MG	BA	3221	1/1	0.32	-	35,35,35,35	0
60	MG	DA	3131	1/1	0.81	-	63,63,63,63	0
60	MG	BA	3076	1/1	0.38	-	1,1,1,1	0
60	MG	BA	3303	1/1	0.47	-	32,32,32,32	0
60	MG	BA	3209	1/1	0.37	-	24,24,24,24	0
60	MG	DA	3034	1/1	0.19	-	1,1,1,1	0
60	MG	BA	3305	1/1	0.26	-	32,32,32,32	0
60	MG	DA	3138	1/1	0.19	-	63,63,63,63	0
60	MG	BA	3150	1/1	0.39	-	9,9,9,9	0
60	MG	DA	3102	1/1	0.25	-	1,1,1,1	0
60	MG	BA	3191	1/1	0.38	-	6,6,6,6	0
60	MG	BA	3226	1/1	0.27	-	39,39,39,39	0
60	MG	BA	3072	1/1	0.11	-	6,6,6,6	0
60	MG	BA	3283	1/1	0.48	-	38,38,38,38	0
60	MG	DA	3224	1/1	0.11	-	18,18,18,18	0
60	MG	CA	1620	1/1	0.17	-	32,32,32,32	0
60	MG	AA	1652	1/1	0.37	-	28,28,28,28	0
61	ZN	B4	101	1/1	0.05	-	89,89,89,89	0
60	MG	DA	3158	1/1	0.14	-	49,49,49,49	0
60	MG	CA	1680	1/1	0.10	-	44,44,44,44	0
60	MG	BA	3281	1/1	0.20	-	21,21,21,21	0
60	MG	AA	1626	1/1	0.23	-	51,51,51,51	0
60	MG	AA	1668	1/1	0.14	-	24,24,24,24	0
60	MG	CA	1659	1/1	0.73	-	46,46,46,46	0
60	MG	BA	3206	1/1	0.36	-	6,6,6,6	0
60	MG	BB	203	1/1	0.23	-	35,35,35,35	0
60	MG	CA	1670	1/1	0.27	-	26,26,26,26	0
60	MG	CA	1668	1/1	0.30	-	30,30,30,30	0
60	MG	DA	3147	1/1	0.08	-	26,26,26,26	0
60	MG	DA	3202	1/1	0.17	-	18,18,18,18	0
60	MG	CA	1688	1/1	0.12	-	37,37,37,37	0
60	MG	DA	3060	1/1	0.35	-	23,23,23,23	0
60	MG	BA	3238	1/1	0.39	-	29,29,29,29	0
60	MG	BA	3298	1/1	0.28	-	13,13,13,13	0
60	MG	DA	3126	1/1	0.24	-	7,7,7,7	0
60	MG	DA	3141	1/1	0.44	-	36,36,36,36	0
60	MG	BA	3049	1/1	0.33	-	1,1,1,1	0
60	MG	BA	3246	1/1	0.21	-	1,1,1,1	0
60	MG	DA	3053	1/1	0.35	-	32,32,32,32	0
60	MG	AA	1650	1/1	0.15	-	15,15,15,15	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	AA	1632	1/1	0.53	-	48,48,48,48	0
60	MG	CA	1690	1/1	0.25	-	31,31,31,31	0
60	MG	DD	301	1/1	0.06	-	21,21,21,21	0
60	MG	DA	3026	1/1	0.27	-	4,4,4,4	0
60	MG	CA	1662	1/1	0.23	-	38,38,38,38	0
60	MG	DA	3156	1/1	0.18	-	47,47,47,47	0
60	MG	BA	3152	1/1	0.38	-	6,6,6,6	0
60	MG	BA	3278	1/1	0.13	-	15,15,15,15	0
60	MG	BA	3159	1/1	0.23	-	20,20,20,20	0
60	MG	DA	3171	1/1	0.57	-	52,52,52,52	0
60	MG	AA	1677	1/1	0.19	-	30,30,30,30	0
60	MG	BR	201	1/1	0.07	-	1,1,1,1	0
60	MG	BA	3186	1/1	0.29	-	60,60,60,60	0
60	MG	DA	3058	1/1	0.14	-	1,1,1,1	0
60	MG	CA	1700	1/1	0.39	-	36,36,36,36	0
60	MG	BA	3227	1/1	0.33	-	33,33,33,33	0
60	MG	BA	3082	1/1	0.33	-	44,44,44,44	0
60	MG	BA	3074	1/1	0.17	-	4,4,4,4	0
60	MG	BA	3022	1/1	0.19	-	19,19,19,19	0
60	MG	CA	1693	1/1	0.31	-	20,20,20,20	0
60	MG	BA	3309	1/1	0.10	-	1,1,1,1	0
60	MG	CA	1654	1/1	0.17	-	44,44,44,44	0
60	MG	DA	3043	1/1	0.21	-	9,9,9,9	0
60	MG	BA	3330	1/1	0.17	-	12,12,12,12	0
60	MG	CV	601	1/1	0.36	-	16,16,16,16	0
60	MG	CA	1694	1/1	0.54	-	51,51,51,51	0
60	MG	BA	3232	1/1	0.32	-	1,1,1,1	0
60	MG	BA	3160	1/1	0.38	-	29,29,29,29	0
60	MG	CA	1610	1/1	0.30	-	48,48,48,48	0
60	MG	DA	3211	1/1	0.18	-	23,23,23,23	0
60	MG	DA	3177	1/1	0.19	-	13,13,13,13	0
60	MG	AX	103	1/1	0.20	-	51,51,51,51	0
60	MG	BA	3051	1/1	0.37	-	14,14,14,14	0
60	MG	CA	1636	1/1	0.30	-	26,26,26,26	0
60	MG	DA	3001	1/1	0.29	-	51,51,51,51	0
60	MG	BA	3197	1/1	0.22	-	24,24,24,24	0
60	MG	BB	204	1/1	0.16	-	21,21,21,21	0
60	MG	DA	3065	1/1	0.22	-	28,28,28,28	0
60	MG	CA	1649	1/1	0.33	-	54,54,54,54	0
60	MG	BA	3173	1/1	0.20	-	50,50,50,50	0
60	MG	DA	3139	1/1	0.30	-	1,1,1,1	0
60	MG	CA	1686	1/1	0.27	-	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	BA	3090	1/1	0.04	-	13,13,13,13	0
60	MG	DA	3182	1/1	0.23	-	23,23,23,23	0
60	MG	DA	3072	1/1	0.15	-	8,8,8,8	0
60	MG	AA	1666	1/1	0.13	-	9,9,9,9	0
60	MG	BA	3063	1/1	0.19	-	1,1,1,1	0
60	MG	BA	3220	1/1	0.15	-	1,1,1,1	0
60	MG	CA	1684	1/1	0.19	-	33,33,33,33	0
60	MG	BA	3059	1/1	0.48	-	25,25,25,25	0
60	MG	BA	3104	1/1	0.40	-	42,42,42,42	0
60	MG	DA	3075	1/1	0.32	-	1,1,1,1	0
60	MG	CA	1601	1/1	0.23	-	1,1,1,1	0
60	MG	BA	3009	1/1	0.35	-	1,1,1,1	0
60	MG	DA	3143	1/1	0.28	-	54,54,54,54	0
60	MG	AA	1689	1/1	0.20	-	2,2,2,2	0
60	MG	BA	3161	1/1	0.41	-	24,24,24,24	0
60	MG	BA	3134	1/1	0.33	-	12,12,12,12	0
60	MG	DA	3206	1/1	0.19	-	12,12,12,12	0
60	MG	BA	3190	1/1	0.11	-	39,39,39,39	0
60	MG	BA	3035	1/1	0.24	-	1,1,1,1	0
60	MG	BA	3047	1/1	0.15	-	1,1,1,1	0
60	MG	DA	3109	1/1	0.15	-	50,50,50,50	0
60	MG	CA	1614	1/1	0.78	-	50,50,50,50	0
60	MG	DA	3137	1/1	0.58	-	39,39,39,39	0
60	MG	DA	3236	1/1	0.15	-	39,39,39,39	0
60	MG	BA	3157	1/1	0.25	-	10,10,10,10	0
60	MG	BA	3212	1/1	0.18	-	11,11,11,11	0
60	MG	CA	1612	1/1	0.48	-	35,35,35,35	0
60	MG	AA	1671	1/1	0.34	-	49,49,49,49	0
60	MG	BA	3255	1/1	0.25	-	19,19,19,19	0
60	MG	BA	3327	1/1	0.33	-	17,17,17,17	0
60	MG	AX	105	1/1	0.06	-	12,12,12,12	0
60	MG	BA	3012	1/1	0.27	-	1,1,1,1	0
60	MG	AA	1601	1/1	0.28	-	47,47,47,47	0
60	MG	DA	3021	1/1	0.31	-	27,27,27,27	0
60	MG	DA	3095	1/1	0.12	-	61,61,61,61	0
60	MG	BA	3137	1/1	0.34	-	1,1,1,1	0
60	MG	DA	3067	1/1	0.18	-	23,23,23,23	0
60	MG	AA	1646	1/1	0.54	-	71,71,71,71	0
60	MG	BA	3075	1/1	0.29	-	2,2,2,2	0
60	MG	BA	3280	1/1	0.13	-	7,7,7,7	0
60	MG	AA	1663	1/1	0.27	-	14,14,14,14	0
60	MG	DA	3022	1/1	0.14	-	11,11,11,11	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	CW	102	1/1	0.11	-	40,40,40,40	0
60	MG	DA	3222	1/1	0.25	-	24,24,24,24	0
60	MG	CA	1613	1/1	0.38	-	36,36,36,36	0
60	MG	CA	1695	1/1	0.23	-	40,40,40,40	0
60	MG	AA	1664	1/1	0.29	-	46,46,46,46	0
60	MG	AA	1613	1/1	0.18	-	36,36,36,36	0
60	MG	DA	3064	1/1	0.21	-	12,12,12,12	0
60	MG	DA	3229	1/1	0.13	-	20,20,20,20	0
60	MG	AA	1610	1/1	0.14	-	36,36,36,36	0
60	MG	DA	3007	1/1	0.15	-	1,1,1,1	0
60	MG	BA	3312	1/1	0.23	-	22,22,22,22	0
60	MG	BA	3005	1/1	0.44	-	1,1,1,1	0
60	MG	BA	3002	1/1	0.31	-	17,17,17,17	0
60	MG	BA	3077	1/1	0.28	-	1,1,1,1	0
60	MG	AA	1712	1/1	0.51	-	36,36,36,36	0
60	MG	BA	3273	1/1	0.06	-	1,1,1,1	0
60	MG	CA	1634	1/1	0.17	-	16,16,16,16	0
60	MG	BA	3210	1/1	0.36	-	33,33,33,33	0
60	MG	BA	3253	1/1	0.35	-	39,39,39,39	0
60	MG	DA	3120	1/1	0.35	-	3,3,3,3	0
60	MG	AW	103	1/1	0.48	-	72,72,72,72	0
60	MG	BA	3302	1/1	0.13	-	11,11,11,11	0
60	MG	BA	3170	1/1	0.33	-	55,55,55,55	0
60	MG	DA	3051	1/1	0.30	-	18,18,18,18	0
60	MG	AX	107	1/1	0.13	-	8,8,8,8	0
60	MG	DA	3052	1/1	0.30	-	14,14,14,14	0
60	MG	AA	1623	1/1	0.33	-	10,10,10,10	0
60	MG	BA	3249	1/1	0.47	-	13,13,13,13	0
60	MG	DA	3157	1/1	0.19	-	58,58,58,58	0
60	MG	BA	3244	1/1	0.18	-	34,34,34,34	0
60	MG	DA	3226	1/1	0.08	-	30,30,30,30	0
60	MG	CA	1663	1/1	0.09	-	31,31,31,31	0
60	MG	DA	3132	1/1	0.20	-	6,6,6,6	0
60	MG	DA	3042	1/1	0.26	-	46,46,46,46	0
60	MG	BA	3131	1/1	0.36	-	1,1,1,1	0
60	MG	DA	3221	1/1	0.39	-	52,52,52,52	0
60	MG	BA	3297	1/1	0.12	-	42,42,42,42	0
60	MG	BA	3333	1/1	0.37	-	1,1,1,1	0
60	MG	BA	3101	1/1	0.38	-	31,31,31,31	0
60	MG	BA	3064	1/1	0.67	-	45,45,45,45	0
60	MG	CA	1651	1/1	0.21	-	35,35,35,35	0
60	MG	AA	1698	1/1	0.25	-	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	BA	3034	1/1	0.35	-	1,1,1,1	0
60	MG	AA	1708	1/1	0.23	-	41,41,41,41	0
60	MG	DA	3081	1/1	0.20	-	3,3,3,3	0
60	MG	BA	3052	1/1	0.34	-	1,1,1,1	0
60	MG	BA	3149	1/1	0.30	-	14,14,14,14	0
60	MG	DA	3028	1/1	0.18	-	1,1,1,1	0
60	MG	DA	3050	1/1	0.16	-	38,38,38,38	0
60	MG	AA	1674	1/1	0.18	-	32,32,32,32	0
60	MG	DA	3047	1/1	0.28	-	29,29,29,29	0
60	MG	CA	1638	1/1	0.43	-	31,31,31,31	0
60	MG	DF	301	1/1	0.27	-	53,53,53,53	0
60	MG	BA	3050	1/1	0.29	-	1,1,1,1	0
60	MG	BA	3091	1/1	0.28	-	1,1,1,1	0
60	MG	AA	1640	1/1	0.34	-	70,70,70,70	0
60	MG	DA	3208	1/1	0.21	-	12,12,12,12	0
60	MG	CW	104	1/1	0.17	-	57,57,57,57	0
60	MG	CA	1604	1/1	0.19	-	1,1,1,1	0
60	MG	BA	3329	1/1	0.21	-	45,45,45,45	0
60	MG	AA	1706	1/1	0.16	-	28,28,28,28	0
60	MG	DA	3002	1/1	0.22	-	9,9,9,9	0
60	MG	CA	1681	1/1	0.51	-	44,44,44,44	0
60	MG	BA	3256	1/1	0.10	-	23,23,23,23	0
60	MG	BB	202	1/1	0.18	-	9,9,9,9	0
60	MG	DA	3142	1/1	0.17	-	37,37,37,37	0
60	MG	BA	3119	1/1	0.21	-	91,91,91,91	0
60	MG	BA	3140	1/1	0.50	-	26,26,26,26	0
60	MG	CA	1609	1/1	0.42	-	50,50,50,50	0
60	MG	BA	3266	1/1	0.27	-	12,12,12,12	0
60	MG	AA	1634	1/1	0.14	-	1,1,1,1	0
60	MG	CA	1702	1/1	0.29	-	27,27,27,27	0
60	MG	AW	102	1/1	0.14	-	36,36,36,36	0
60	MG	DA	3111	1/1	0.31	-	64,64,64,64	0
60	MG	AA	1649	1/1	0.23	-	25,25,25,25	0
60	MG	BA	3239	1/1	0.22	-	2,2,2,2	0
60	MG	DA	3238	1/1	0.40	-	42,42,42,42	0
60	MG	DA	3113	1/1	0.38	-	2,2,2,2	0
60	MG	BA	3310	1/1	0.30	-	38,38,38,38	0
60	MG	BA	3163	1/1	0.06	-	12,12,12,12	0
60	MG	BA	3248	1/1	0.29	-	34,34,34,34	0
60	MG	AA	1682	1/1	0.10	-	48,48,48,48	0
60	MG	CA	1660	1/1	0.17	-	21,21,21,21	0
60	MG	BA	3039	1/1	0.24	-	1,1,1,1	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	AA	1691	1/1	0.36	-	23,23,23,23	0
60	MG	BA	3110	1/1	0.36	-	6,6,6,6	0
60	MG	DA	3092	1/1	0.14	-	17,17,17,17	0
60	MG	AA	1636	1/1	0.37	-	28,28,28,28	0
60	MG	BA	3081	1/1	0.15	-	19,19,19,19	0
60	MG	CA	1678	1/1	0.58	-	25,25,25,25	0
60	MG	BA	3041	1/1	0.30	-	1,1,1,1	0
60	MG	BA	3241	1/1	1.36	-	80,80,80,80	0
60	MG	AX	102	1/1	0.18	-	57,57,57,57	0
60	MG	CA	1679	1/1	0.16	-	43,43,43,43	0
60	MG	BA	3169	1/1	0.23	-	16,16,16,16	0
60	MG	AA	1672	1/1	0.18	-	53,53,53,53	0
60	MG	BA	3225	1/1	0.20	-	9,9,9,9	0
60	MG	DA	3184	1/1	0.60	-	35,35,35,35	0
60	MG	BX	101	1/1	0.22	-	31,31,31,31	0
60	MG	B0	102	1/1	0.49	-	40,40,40,40	0
60	MG	BG	201	1/1	0.23	-	30,30,30,30	0
60	MG	DD	302	1/1	0.23	-	6,6,6,6	0
60	MG	BA	3040	1/1	0.26	-	1,1,1,1	0
60	MG	DA	3090	1/1	0.23	-	21,21,21,21	0
60	MG	CA	1635	1/1	0.35	-	20,20,20,20	0
60	MG	BA	3062	1/1	0.21	-	1,1,1,1	0
60	MG	DA	3087	1/1	0.24	-	32,32,32,32	0
60	MG	BA	3128	1/1	0.24	-	16,16,16,16	0
60	MG	BA	3126	1/1	0.12	-	5,5,5,5	0
60	MG	DA	3015	1/1	0.13	-	1,1,1,1	0
61	ZN	B9	101	1/1	0.05	-	44,44,44,44	0
60	MG	AA	1680	1/1	0.59	-	70,70,70,70	0
60	MG	BA	3237	1/1	0.13	-	1,1,1,1	0
60	MG	DA	3134	1/1	0.26	-	59,59,59,59	0
60	MG	BA	3065	1/1	0.21	-	2,2,2,2	0
60	MG	DA	3170	1/1	0.32	-	33,33,33,33	0
60	MG	BA	3102	1/1	0.12	-	1,1,1,1	0
60	MG	BA	3287	1/1	0.14	-	7,7,7,7	0
60	MG	CW	101	1/1	0.11	-	55,55,55,55	0
60	MG	CA	1629	1/1	0.24	-	16,16,16,16	0
60	MG	CA	1632	1/1	0.31	-	6,6,6,6	0
60	MG	BA	3250	1/1	0.27	-	12,12,12,12	0
60	MG	AA	1683	1/1	0.13	-	16,16,16,16	0
60	MG	DA	3101	1/1	0.15	-	20,20,20,20	0
60	MG	CA	1615	1/1	0.39	-	28,28,28,28	0
60	MG	CA	1603	1/1	0.18	-	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	AA	1714	1/1	0.18	-	6,6,6,6	0
60	MG	DA	3199	1/1	0.22	-	35,35,35,35	0
60	MG	AA	1670	1/1	0.31	-	54,54,54,54	0
60	MG	DA	3214	1/1	0.43	-	21,21,21,21	0
60	MG	BA	3184	1/1	0.61	-	40,40,40,40	0
60	MG	AA	1700	1/1	0.28	-	74,74,74,74	0
60	MG	DA	3122	1/1	0.16	-	40,40,40,40	0
60	MG	BA	3300	1/1	0.24	-	22,22,22,22	0
60	MG	DA	3020	1/1	0.37	-	40,40,40,40	0
60	MG	DA	3063	1/1	0.30	-	24,24,24,24	0
60	MG	BA	3208	1/1	0.27	-	1,1,1,1	0
60	MG	DA	3163	1/1	0.35	-	32,32,32,32	0
60	MG	BA	3267	1/1	0.15	-	6,6,6,6	0
60	MG	AA	1618	1/1	0.38	-	22,22,22,22	0
60	MG	BA	3328	1/1	0.25	-	34,34,34,34	0
60	MG	DA	3191	1/1	0.26	-	31,31,31,31	0
60	MG	BA	3014	1/1	0.44	-	1,1,1,1	0
60	MG	DB	203	1/1	0.07	-	54,54,54,54	0
60	MG	BA	3093	1/1	0.28	-	1,1,1,1	0
60	MG	BA	3234	1/1	0.22	-	15,15,15,15	0
60	MG	DA	3185	1/1	0.31	-	10,10,10,10	0
60	MG	AA	1693	1/1	0.10	-	31,31,31,31	0
60	MG	BA	3147	1/1	0.13	-	8,8,8,8	0
60	MG	BA	3136	1/1	0.33	-	42,42,42,42	0
60	MG	DA	3215	1/1	0.26	-	23,23,23,23	0
60	MG	DA	3217	1/1	0.36	-	27,27,27,27	0
60	MG	DA	3115	1/1	0.33	-	36,36,36,36	0
60	MG	BA	3151	1/1	0.18	-	22,22,22,22	0
60	MG	DA	3074	1/1	0.62	-	48,48,48,48	0
60	MG	DA	3150	1/1	0.18	-	28,28,28,28	0
60	MG	AA	1624	1/1	0.33	-	1,1,1,1	0
60	MG	DA	3145	1/1	0.33	-	35,35,35,35	0
60	MG	AA	1615	1/1	0.22	-	18,18,18,18	0
60	MG	BA	3086	1/1	0.12	-	4,4,4,4	0
60	MG	BA	3123	1/1	0.15	-	6,6,6,6	0
60	MG	BA	3211	1/1	0.35	-	36,36,36,36	0
60	MG	BA	3043	1/1	0.25	-	1,1,1,1	0
60	MG	BA	3020	1/1	0.39	-	1,1,1,1	0
60	MG	DA	3239	1/1	0.22	-	34,34,34,34	0
60	MG	BA	3168	1/1	0.38	-	60,60,60,60	0
60	MG	BA	3282	1/1	0.31	-	20,20,20,20	0
60	MG	BE	303	1/1	0.27	-	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
60	MG	DA	3118	1/1	0.31	-	22,22,22,22	0
60	MG	DA	3038	1/1	0.26	-	8,8,8,8	0
60	MG	AA	1679	1/1	0.16	-	36,36,36,36	0
60	MG	DA	3035	1/1	0.28	-	1,1,1,1	0
60	MG	BA	3272	1/1	0.33	-	15,15,15,15	0
60	MG	DA	3037	1/1	0.23	-	24,24,24,24	0
60	MG	BA	3172	1/1	0.17	-	18,18,18,18	0
60	MG	BU	202	1/1	0.16	-	1,1,1,1	0
60	MG	CA	1701	1/1	0.22	-	53,53,53,53	0
60	MG	BA	3199	1/1	0.20	-	1,1,1,1	0
60	MG	BA	3108	1/1	0.35	-	2,2,2,2	0
60	MG	DA	3025	1/1	0.27	-	1,1,1,1	0
60	MG	DA	3066	1/1	0.35	-	40,40,40,40	0
60	MG	DA	3219	1/1	0.10	-	19,19,19,19	0
60	MG	BA	3204	1/1	0.38	-	25,25,25,25	0
60	MG	AA	1656	1/1	0.34	-	10,10,10,10	0
60	MG	BA	3321	1/1	0.38	-	1,1,1,1	0
60	MG	DA	3205	1/1	0.13	-	2,2,2,2	0
60	MG	BA	3018	1/1	0.21	-	1,1,1,1	0
60	MG	BA	3202	1/1	0.28	-	1,1,1,1	0
60	MG	BA	3008	1/1	0.18	-	4,4,4,4	0
60	MG	DA	3040	1/1	0.44	-	19,19,19,19	0
60	MG	DA	3154	1/1	0.44	-	38,38,38,38	0
60	MG	CA	1639	1/1	0.28	-	16,16,16,16	0
60	MG	BA	3032	1/1	0.20	-	1,1,1,1	0
60	MG	AA	1607	1/1	0.69	-	51,51,51,51	0
60	MG	BA	3166	1/1	0.32	-	8,8,8,8	0
60	MG	BA	3088	1/1	0.17	-	1,1,1,1	0
60	MG	AA	1675	1/1	0.23	-	4,4,4,4	0
60	MG	DA	3152	1/1	0.28	-	8,8,8,8	0
60	MG	BA	3261	1/1	0.32	-	16,16,16,16	0
60	MG	AA	1606	1/1	0.28	-	1,1,1,1	0
60	MG	DA	3119	1/1	0.24	-	5,5,5,5	0
60	MG	DA	3188	1/1	0.23	-	72,72,72,72	0
60	MG	BA	3214	1/1	0.15	-	54,54,54,54	0
60	MG	AA	1655	1/1	0.30	-	2,2,2,2	0
60	MG	DA	3220	1/1	0.45	-	30,30,30,30	0
60	MG	BA	3295	1/1	0.28	-	41,41,41,41	0
60	MG	CA	1675	1/1	0.47	-	31,31,31,31	0
60	MG	CA	1646	1/1	0.17	-	1,1,1,1	0
60	MG	DA	3046	1/1	0.25	-	28,28,28,28	0
60	MG	BA	3277	1/1	0.20	-	1,1,1,1	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	BA	3216	1/1	0.18	-	25,25,25,25	0
60	MG	DA	3030	1/1	0.14	-	8,8,8,8	0
60	MG	BA	3105	1/1	0.18	-	8,8,8,8	0
60	MG	AA	1659	1/1	0.12	-	23,23,23,23	0
60	MG	DA	3153	1/1	0.18	-	13,13,13,13	0
60	MG	BA	3125	1/1	0.17	-	1,1,1,1	0
60	MG	BA	3164	1/1	0.40	-	33,33,33,33	0
60	MG	BA	3270	1/1	0.27	-	32,32,32,32	0
60	MG	DA	3069	1/1	0.43	-	6,6,6,6	0
60	MG	DA	3085	1/1	0.35	-	1,1,1,1	0
60	MG	DA	3200	1/1	0.28	-	42,42,42,42	0
60	MG	BA	3025	1/1	0.35	-	31,31,31,31	0
60	MG	CA	1647	1/1	0.32	-	44,44,44,44	0
60	MG	DA	3099	1/1	0.14	-	14,14,14,14	0
60	MG	DA	3218	1/1	0.46	-	50,50,50,50	0
60	MG	BA	3158	1/1	0.56	-	35,35,35,35	0
60	MG	DA	3174	1/1	0.27	-	6,6,6,6	0
60	MG	DA	3033	1/1	0.32	-	4,4,4,4	0
60	MG	DA	3056	1/1	0.08	-	2,2,2,2	0
60	MG	BA	3118	1/1	0.75	-	46,46,46,46	0
60	MG	DA	3105	1/1	0.13	-	59,59,59,59	0
60	MG	DA	3178	1/1	0.22	-	22,22,22,22	0
60	MG	BA	3145	1/1	0.26	-	31,31,31,31	0
60	MG	DA	3149	1/1	0.29	-	39,39,39,39	0
60	MG	BA	3279	1/1	0.20	-	29,29,29,29	0
60	MG	DA	3068	1/1	0.19	-	9,9,9,9	0
60	MG	DA	3230	1/1	0.07	-	17,17,17,17	0
60	MG	BA	3247	1/1	0.18	-	35,35,35,35	0
60	MG	BA	3224	1/1	0.11	-	20,20,20,20	0
60	MG	BA	3054	1/1	0.11	-	6,6,6,6	0
60	MG	CA	1682	1/1	0.62	-	41,41,41,41	0
60	MG	CA	1691	1/1	0.30	-	21,21,21,21	0
60	MG	AA	1681	1/1	0.23	-	58,58,58,58	0
60	MG	BA	3188	1/1	0.14	-	30,30,30,30	0
60	MG	DA	3160	1/1	0.40	-	27,27,27,27	0
60	MG	BA	3111	1/1	0.17	-	1,1,1,1	0
60	MG	BA	3306	1/1	0.22	-	5,5,5,5	0
60	MG	DA	3234	1/1	0.44	-	40,40,40,40	0
60	MG	AA	1653	1/1	0.28	-	38,38,38,38	0
60	MG	BA	3196	1/1	0.29	-	21,21,21,21	0
60	MG	AG	201	1/1	0.20	-	42,42,42,42	0
60	MG	BA	3135	1/1	0.12	-	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	DA	3096	1/1	0.21	-	16,16,16,16	0
60	MG	CA	1658	1/1	0.37	-	30,30,30,30	0
60	MG	AA	1647	1/1	0.26	-	39,39,39,39	0
60	MG	BA	3203	1/1	0.25	-	17,17,17,17	0
60	MG	CA	1687	1/1	0.29	-	17,17,17,17	0
60	MG	DA	3231	1/1	0.51	-	49,49,49,49	0
60	MG	BA	3240	1/1	0.30	-	75,75,75,75	0
60	MG	DA	3227	1/1	0.24	-	36,36,36,36	0
60	MG	DA	3148	1/1	0.29	-	42,42,42,42	0
60	MG	DA	3146	1/1	0.35	-	17,17,17,17	0
60	MG	D0	101	1/1	0.18	-	12,12,12,12	0
60	MG	BA	3264	1/1	0.29	-	32,32,32,32	0
60	MG	AA	1707	1/1	0.37	-	52,52,52,52	0
60	MG	BB	205	1/1	0.28	-	1,1,1,1	0
60	MG	BA	3048	1/1	0.24	-	1,1,1,1	0
60	MG	DA	3225	1/1	0.32	-	39,39,39,39	0
60	MG	BA	3023	1/1	0.11	-	1,1,1,1	0
60	MG	DA	3144	1/1	0.50	-	53,53,53,53	0
60	MG	CA	1673	1/1	0.16	-	15,15,15,15	0
60	MG	BA	3296	1/1	0.23	-	26,26,26,26	0
60	MG	BA	3103	1/1	0.23	-	1,1,1,1	0
60	MG	CA	1656	1/1	0.26	-	39,39,39,39	0
60	MG	BA	3084	1/1	0.17	-	27,27,27,27	0
60	MG	BE	301	1/1	0.12	-	1,1,1,1	0
60	MG	DE	301	1/1	0.15	-	1,1,1,1	0
60	MG	BA	3252	1/1	0.11	-	4,4,4,4	0
60	MG	DA	3088	1/1	0.24	-	22,22,22,22	0
60	MG	DA	3011	1/1	0.15	-	4,4,4,4	0
60	MG	AA	1662	1/1	0.12	-	21,21,21,21	0
60	MG	BA	3017	1/1	0.38	-	1,1,1,1	0
60	MG	CA	1644	1/1	0.29	-	67,67,67,67	0
60	MG	CA	1621	1/1	0.40	-	30,30,30,30	0
60	MG	DA	3057	1/1	0.06	-	32,32,32,32	0
60	MG	BA	3027	1/1	0.29	-	1,1,1,1	0
60	MG	AA	1638	1/1	0.74	-	76,76,76,76	0
60	MG	DA	3197	1/1	0.28	-	21,21,21,21	0
60	MG	CA	1667	1/1	0.27	-	5,5,5,5	0
60	MG	AA	1694	1/1	0.26	-	5,5,5,5	0
60	MG	BA	3200	1/1	0.26	-	14,14,14,14	0
60	MG	BA	3045	1/1	0.24	-	2,2,2,2	0
60	MG	DA	3077	1/1	0.15	-	13,13,13,13	0
60	MG	BA	3046	1/1	0.25	-	10,10,10,10	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	CA	1606	1/1	0.56	-	45,45,45,45	0
60	MG	CA	1696	1/1	0.14	-	91,91,91,91	0
60	MG	DA	3189	1/1	0.14	-	57,57,57,57	0
60	MG	BA	3113	1/1	0.23	-	1,1,1,1	0
60	MG	AA	1617	1/1	0.30	-	13,13,13,13	0
60	MG	BA	3259	1/1	0.26	-	16,16,16,16	0
60	MG	BA	3289	1/1	0.32	-	42,42,42,42	0
60	MG	BA	3162	1/1	0.32	-	56,56,56,56	0
60	MG	BE	302	1/1	0.12	-	1,1,1,1	0
60	MG	DA	3216	1/1	0.18	-	24,24,24,24	0
60	MG	DA	3097	1/1	0.14	-	51,51,51,51	0
60	MG	AA	1669	1/1	0.24	-	35,35,35,35	0
60	MG	AX	106	1/1	0.29	-	25,25,25,25	0
60	MG	AA	1644	1/1	0.39	-	39,39,39,39	0
60	MG	BA	3262	1/1	0.18	-	3,3,3,3	0
60	MG	AA	1621	1/1	0.59	-	28,28,28,28	0
60	MG	BA	3114	1/1	0.23	-	14,14,14,14	0
60	MG	DA	3190	1/1	0.24	-	43,43,43,43	0
60	MG	BA	3235	1/1	0.19	-	1,1,1,1	0
60	MG	AA	1697	1/1	0.13	-	27,27,27,27	0
60	MG	DA	3116	1/1	0.24	-	47,47,47,47	0
60	MG	AA	1642	1/1	0.45	-	41,41,41,41	0
60	MG	AA	1658	1/1	0.20	-	1,1,1,1	0
60	MG	DA	3078	1/1	0.27	-	26,26,26,26	0
60	MG	DA	3049	1/1	0.24	-	36,36,36,36	0
60	MG	DA	3175	1/1	0.28	-	72,72,72,72	0
60	MG	DA	3016	1/1	0.24	-	12,12,12,12	0
60	MG	BA	3177	1/1	0.39	-	41,41,41,41	0
60	MG	DA	3076	1/1	0.17	-	25,25,25,25	0
60	MG	BA	3304	1/1	0.22	-	36,36,36,36	0
60	MG	DA	3039	1/1	0.20	-	53,53,53,53	0
60	MG	DA	3121	1/1	0.38	-	34,34,34,34	0
61	ZN	D9	101	1/1	0.04	-	93,93,93,93	0
60	MG	BA	3179	1/1	0.21	-	17,17,17,17	0
60	MG	DA	3073	1/1	0.29	-	58,58,58,58	0
60	MG	DA	3194	1/1	0.27	-	44,44,44,44	0
60	MG	BA	3106	1/1	0.28	-	3,3,3,3	0
60	MG	AA	1688	1/1	0.12	-	49,49,49,49	0
60	MG	BA	3201	1/1	0.68	-	53,53,53,53	0
60	MG	BA	3031	1/1	0.33	-	1,1,1,1	0
60	MG	BA	3334	1/1	0.18	-	1,1,1,1	0
60	MG	BA	3308	1/1	0.28	-	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	DA	3176	1/1	0.36	-	54,54,54,54	0
60	MG	BA	3323	1/1	0.19	-	2,2,2,2	0
60	MG	CA	1689	1/1	0.13	-	7,7,7,7	0
60	MG	DA	3209	1/1	0.20	-	5,5,5,5	0
60	MG	DB	201	1/1	0.35	-	51,51,51,51	0
60	MG	BA	3061	1/1	0.17	-	17,17,17,17	0
60	MG	BA	3171	1/1	0.14	-	36,36,36,36	0
60	MG	DA	3155	1/1	0.49	-	31,31,31,31	0
60	MG	DA	3006	1/1	0.32	-	4,4,4,4	0
60	MG	BA	3260	1/1	0.94	-	65,65,65,65	0
60	MG	BA	3178	1/1	0.24	-	1,1,1,1	0
60	MG	CA	1650	1/1	0.39	-	1,1,1,1	0
60	MG	CA	1627	1/1	0.09	-	9,9,9,9	0
60	MG	DA	3080	1/1	0.25	-	36,36,36,36	0
60	MG	AA	1635	1/1	0.15	-	23,23,23,23	0
60	MG	DA	3091	1/1	0.25	-	55,55,55,55	0
60	MG	CA	1611	1/1	0.41	-	66,66,66,66	0
60	MG	BA	3181	1/1	0.38	-	16,16,16,16	0
60	MG	BA	3115	1/1	0.24	-	1,1,1,1	0
60	MG	CA	1642	1/1	0.12	-	28,28,28,28	0
60	MG	BA	3042	1/1	0.24	-	1,1,1,1	0
60	MG	DB	202	1/1	0.43	-	80,80,80,80	0
60	MG	AA	1665	1/1	0.16	-	31,31,31,31	0
60	MG	CA	1624	1/1	0.47	-	40,40,40,40	0
60	MG	AA	1654	1/1	0.26	-	68,68,68,68	0
60	MG	DA	3029	1/1	0.20	-	1,1,1,1	0
60	MG	DO	201	1/1	0.35	-	65,65,65,65	0
60	MG	AA	1673	1/1	0.17	-	39,39,39,39	0
60	MG	BA	3315	1/1	0.37	-	29,29,29,29	0
60	MG	AA	1703	1/1	0.24	-	35,35,35,35	0
60	MG	DA	3232	1/1	0.14	-	3,3,3,3	0
60	MG	BA	3096	1/1	0.34	-	34,34,34,34	0
60	MG	BA	3004	1/1	0.20	-	8,8,8,8	0
60	MG	BA	3230	1/1	0.26	-	19,19,19,19	0
60	MG	BA	3100	1/1	0.10	-	10,10,10,10	0
60	MG	BA	3317	1/1	0.18	-	22,22,22,22	0
60	MG	DA	3079	1/1	0.24	-	19,19,19,19	0
60	MG	D5	101	1/1	0.11	-	10,10,10,10	0
60	MG	DA	3062	1/1	0.29	-	8,8,8,8	0
60	MG	AA	1625	1/1	0.21	-	21,21,21,21	0
60	MG	DA	3203	1/1	0.39	-	38,38,38,38	0
60	MG	BA	3269	1/1	0.35	-	12,12,12,12	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	B0	101	1/1	0.21	-	4,4,4,4	0
60	MG	DA	3100	1/1	0.16	-	18,18,18,18	0
60	MG	CA	1619	1/1	0.34	-	20,20,20,20	0
60	MG	BA	3112	1/1	0.11	-	11,11,11,11	0
60	MG	CA	1623	1/1	0.44	-	33,33,33,33	0
60	MG	CA	1622	1/1	0.27	-	12,12,12,12	0
60	MG	BA	3060	1/1	0.33	-	4,4,4,4	0
60	MG	DA	3018	1/1	0.13	-	15,15,15,15	0
60	MG	BP	202	1/1	0.22	-	1,1,1,1	0
60	MG	AA	1605	1/1	0.23	-	35,35,35,35	0
60	MG	BA	3024	1/1	0.17	-	11,11,11,11	0
60	MG	BA	3007	1/1	0.30	-	1,1,1,1	0
60	MG	BA	3290	1/1	0.44	-	24,24,24,24	0
60	MG	DA	3059	1/1	0.36	-	6,6,6,6	0
60	MG	BA	3299	1/1	0.19	-	13,13,13,13	0
60	MG	BA	3293	1/1	0.56	-	45,45,45,45	0
60	MG	DA	3169	1/1	0.38	-	16,16,16,16	0
60	MG	AA	1645	1/1	0.37	-	22,22,22,22	0
60	MG	BA	3242	1/1	0.54	-	49,49,49,49	0
60	MG	DA	3005	1/1	0.37	-	28,28,28,28	0
60	MG	BA	3015	1/1	0.10	-	5,5,5,5	0
60	MG	BA	3215	1/1	0.73	-	60,60,60,60	0
60	MG	BA	3133	1/1	0.35	-	1,1,1,1	0
60	MG	DA	3012	1/1	0.23	-	1,1,1,1	0
60	MG	DA	3032	1/1	0.04	-	1,1,1,1	0
60	MG	BA	3265	1/1	0.38	-	13,13,13,13	0
60	MG	DA	3086	1/1	0.59	-	58,58,58,58	0
60	MG	BA	3068	1/1	0.06	-	11,11,11,11	0
60	MG	BA	3319	1/1	0.20	-	31,31,31,31	0
60	MG	BA	3127	1/1	0.31	-	1,1,1,1	0
60	MG	AA	1641	1/1	0.15	-	13,13,13,13	0
60	MG	CE	201	1/1	0.08	-	56,56,56,56	0
60	MG	DA	3048	1/1	0.19	-	23,23,23,23	0
60	MG	AA	1702	1/1	0.28	-	41,41,41,41	0
60	MG	BA	3229	1/1	0.43	-	49,49,49,49	0
60	MG	CA	1669	1/1	0.23	-	16,16,16,16	0
60	MG	DA	3204	1/1	0.50	-	67,67,67,67	0
60	MG	BA	3189	1/1	0.10	-	40,40,40,40	0
60	MG	BA	3139	1/1	0.24	-	1,1,1,1	0
60	MG	DA	3136	1/1	0.40	-	31,31,31,31	0
60	MG	BA	3231	1/1	0.25	-	2,2,2,2	0
60	MG	DA	3195	1/1	0.28	-	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
60	MG	BA	3176	1/1	0.29	-	1,1,1,1	0
60	MG	BA	3274	1/1	0.13	-	21,21,21,21	0
60	MG	DA	3055	1/1	0.25	-	17,17,17,17	0
61	ZN	D5	102	1/1	0.07	-	75,75,75,75	0
60	MG	DA	3196	1/1	0.18	-	1,1,1,1	0
60	MG	CA	1665	1/1	0.28	-	33,33,33,33	0
60	MG	CA	1605	1/1	0.36	-	6,6,6,6	0
60	MG	AA	1705	1/1	0.19	-	4,4,4,4	0
60	MG	DA	3110	1/1	0.16	-	48,48,48,48	0
60	MG	BA	3069	1/1	0.20	-	1,1,1,1	0
60	MG	DA	3070	1/1	0.25	-	14,14,14,14	0
60	MG	BA	3079	1/1	0.26	-	7,7,7,7	0
60	MG	B0	103	1/1	0.22	-	22,22,22,22	0
60	MG	BA	3314	1/1	0.15	-	35,35,35,35	0
60	MG	CA	1666	1/1	0.19	-	9,9,9,9	0
60	MG	BP	201	1/1	0.25	-	11,11,11,11	0
60	MG	BA	3021	1/1	0.34	-	1,1,1,1	0
60	MG	DA	3181	1/1	0.33	-	50,50,50,50	0
60	MG	BB	201	1/1	0.27	-	46,46,46,46	0
60	MG	CA	1637	1/1	0.58	-	57,57,57,57	0
60	MG	AA	1611	1/1	0.07	-	33,33,33,33	0
60	MG	BA	3288	1/1	0.26	-	29,29,29,29	0
60	MG	BA	3003	1/1	0.29	-	64,64,64,64	0
60	MG	BA	3006	1/1	0.47	-	37,37,37,37	0
60	MG	DA	3237	1/1	0.22	-	10,10,10,10	0
60	MG	DA	3233	1/1	0.31	-	1,1,1,1	0
60	MG	BA	3121	1/1	0.50	-	23,23,23,23	0
60	MG	BA	3207	1/1	0.25	-	21,21,21,21	0
60	MG	DA	3183	1/1	0.24	-	9,9,9,9	0
60	MG	BA	3142	1/1	0.35	-	30,30,30,30	0
60	MG	BA	3286	1/1	0.38	-	18,18,18,18	0
60	MG	AA	1696	1/1	0.34	-	20,20,20,20	0
60	MG	AA	1667	1/1	0.15	-	15,15,15,15	0
60	MG	AA	1619	1/1	0.15	-	10,10,10,10	0
60	MG	BA	3301	1/1	0.21	-	16,16,16,16	0

6.5 Other polymers ⓘ

There are no such residues in this entry.